

## **Appendix A**

---

*Negative Declaration No. 02-08  
Vintner Square Shopping Center*

NEGATIVE DECLARATION NO. 02-08

FOR

VINTNER SQUARE SHOPPING CENTER

File No.: U-02-01; GPA-LU 02-01; 02-P-0008; SP  
02-01; Z-02-01

APPLICANT: LOWES – JIM MANION

PREPARED BY:

CITY OF LODI  
Community Development Department  
P.O. BOX 3006  
LODI, CA 95241

Date AUGUST 2, 2002

TABLE OF CONTENTS

SECTION	PAGE
<i>PROJECT DESCRIPTION</i> .....	3
<i>ENVIRONMENTAL CHECKLIST FORM</i> .....	4
<i>SUMMARY OF POTENTIAL IMPACTS</i> .....	5
<i>DETERMINATION:</i> .....	11
<i>VICINITY MAP</i> .....	102
<i>DISCUSSION OF FINDINGS</i> .....	13

ENVIRONMENTAL CHECKLIST FORM

1. Project title:  
Vintner Square Shopping Center
2. Lead agency name and address:  
City of Lodi-Community Development Department  
Box 3006, Lodi, CA 95241
3. Contact person and phone number:  
J.D. Hightower, City Planner, (209) 333-6711  
(209) 333-6711
4. Project location: Northwest corner of the intersection of Lower Sacramento Road and  
Kettleman Lane (State Highway 12), APN 027-050-14, 23  
San Joaquin County, CA.;
5. Project sponsor's name and address:  
Jim Manion (760) 804-5308
6. General Plan designation: Low Density Residential and Neighborhood/Community  
Commercial to be amended to Neighborhood/Community Commercial
7. Zoning: R-2 and Commercial Shopping to Commercial Shopping
8. Description of project: See attached "Project Description"
9. Surrounding land uses and setting: The site is on the boundary of urban and rural land uses  
with the following uses: North – Planned Residential; South – Highway 12 and vacant; West –  
county agriculture; East – Commercial.
10. Other public agencies whose approval is required: None

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a (Potentially Significant Impact?) by the checklist on the following pages.

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Land Use and Planning | <input checked="" type="checkbox"/> Transportation/Circulation         | <input type="checkbox"/> Public Services               |
| <input type="checkbox"/> Population and Housing           | <input type="checkbox"/> Biological Resources                          | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Geological Problems              | <input checked="" type="checkbox"/> Energy and Mineral Resources       | <input checked="" type="checkbox"/> Aesthetics         |
| <input type="checkbox"/> Water                            | <input type="checkbox"/> Hazards                                       | <input type="checkbox"/> Cultural Resources            |
| <input checked="" type="checkbox"/> Air Quality           | <input checked="" type="checkbox"/> Noise                              | <input type="checkbox"/> Recreation                    |
|   | <input checked="" type="checkbox"/> Mandatory Findings of Significance |  |

	Potentially Significant Impact	Potentially Significant Unless mitigation Incorporated	Less than Significant Impact	No Impact
<b>IV. WATER. <i>Would the proposal result in:</i></b> <i>All "No" - Reference Source: See Project Description</i>				
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of people or property to water related hazards such as flooding?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Changes in the amount of surface water in any water body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Changes in currents, or the course or direction of water movements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Change in the quantity of ground water, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavation or through substantial loss of ground water recharge capability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Altered direction or rate of flow of groundwater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Impacts to groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I) Substantial reduction in the amount of groundwater otherwise available for public water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>V. AIR QUALITY. <i>Would the proposal:</i></b> <i>All "No" Reference Source: Appendix H, #25 &amp; Environmental Setting, Sec. 3.3:</i>				
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Expose sensitive receptors to pollutants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Alter air movement, moisture, or temperature, or cause any change in climate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create objectionable odors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>VI. TRANSPORTATION/CIRCULATION. <i>Would the proposal result in:</i></b> <i>All "No" Reference Source: See Project Description</i>				
a) Increased vehicle trips or traffic congestion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Hazards to safety from design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Inadequate emergency access or access to nearby uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Insufficient parking capacity onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Hazards or barriers for pedestrians or bicyclists?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Rail, waterborne or air traffic impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XII. UTILITIES AND SERVICE SYSTEMS.** *Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:*

	Potentially Significant Impact	Potentially Significant Unless mitigation Incorporated	Less than Significant Impact	No Impact
a) Power or natural gas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Communications systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Local or regional water treatment or distribution facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Sewer or septic tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Storm water drainage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Solid waste disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Local or regional water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**XIII. AESTHETICS.** *Would the proposal:*

a) Affect a scenic vista or scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a demonstrable negative aesthetic effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Create light or glare?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**XIV. CULTURAL RESOURCES.** *Would the proposal:*

a) Disturb paleontological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Disturb archaeological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have the potential to cause a physical change which would affect unique ethnic cultural values?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Restrict existing religious or sacred uses within the potential impact area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XV. RECREATION.** *Would the proposal:*

a) Increase the demand for neighborhood or regional parks or other recreational facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Affect recreation opportunities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DETERMINATION:

On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE** declaration will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets' if the effect is a "potentially significant impact" or "potentially significant unless mitigated."
- I find that although the proposed project could have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project

Signature: \_\_\_\_\_

Date: 9/18/02

Printed Name: J.D. Hightower

For: City of Lodi

### Discussion of Land Use and Planning Finding

#### **No Impact (a, b, c, e)**

The Project is consistent with the General Plan Designation of Neighborhood/Community Commercial, in that the project proposes the development of 297,015 square feet of retail commercial space. The proposed development complies with all applicable standards of the City of Lodi Zoning Ordinance. The proposed development plan is consistent with the Westside Facilities Plan, a master plan for the area in that the plan calls for commercial development at this site. It is important to note that the Westside Facilities Plan sets environmental goals for the area, thus the project is consistent with adopted environmental goals of Lodi. The property to the east is developed as a commercial center, Sunwest Shopping Center and the property to the west will be developed with a fully improved public street. This street will serve as a buffer to agricultural land uses to the west of the site. There are structures on the site, therefore, the project is not expected to disrupt or divide the physical arrangement of an established community.

#### **Less than Significant (d)**

Some conflicts could arise from commercial land uses between the planned residential development immediately to the north of the site and agricultural land uses to the west of the site. However, in this case this conflict will be less than significant. The foreseeable conflicts between commercial and residential land uses are related to traffic, light and glare, and noise generated by commercial land uses. The routine implementation of existing City of Lodi policies and measures included in the plan will minimize these impacts to a point beneath significance. The plan calls for the construction of a solid masonry wall on the north side of the project site. This wall will provide a noise buffer and light shield between the commercial and residential land uses. Traffic generated by the commercial center will be separated from residential traffic by the design of the circulation system. There is not a convenient direct link between the residential land uses and the commercial land uses. Access to the center will be from Lower Sacramento Road, Kettleman Lane and Road "A". This arrangement will not upset the drivers expectation for circulation while providing a means of separating neighborhood from commercial traffic.

#### **Potential Significant Impact (D)**

The type of soil on the property is Tokay Fine Sandy Loam and Tokay Fine Sandy Loam Urban. Both of these soil types are considered Prime Farmland and have a Land Compatibility Classification of type I and a Storie Index of 95. According to adopted Sate of California, Land Evaluation Site Assessment for the project, the project has a score of 71.25 (See attached). This score is indicative of the loss of farmland and is "Considered Significant unless either the LE or SA subscore is less than 20." The Land Evaluation score for the project is 48.75 and the Site Assessment for the project is 22.5, thus the project represents a significant loss of agricultural land.

- Policy B-6: The City shall encourage San Joaquin County to retain agricultural uses on lands adjacent to the City. This policy is one of the keystone premises of the discussions in regards to the 2x2x2 Committee.
- Policy C-8: The City shall identify a planned residential reserve designation for development of residential uses beyond the time frame of the GP. Until these areas are re-designated with a non-reserve GP designation, allowed uses and development standards shall be the same as those of the agricultural designation. This policy is reflected on the General Plan Land Use Diagram.
- Policy G-5: The City shall identify a planned industrial reserve designation for development of industrial uses beyond the time frame of the GP. Until these areas are re-designated with a non-reserve GP designation, allowed uses and development standards shall be the same as those of the agricultural designation. This policy is reflected on the General Plan Land Use Diagram.

An example demonstrating Lodi's commitment to these policies is the efficiency of development within the City. The 2000 census revealed that Lodi's land use efficiency is significantly greater than the average for other San Joaquin County cities. Lodi averages 1,747 housing units per square mile compared the incorporated average of 1163.26. Lodi also averages 4,657.9 people per square mile compared to the incorporated average of 3,430.22. These figures are a direct reflection on Lodi's commitment towards agricultural preservation.

Lodi's commitment towards reducing the unavoidable significant impact of loss of agricultural land is also reflected in a comprehensive strategy of growth management. The City of Lodi has a growth management system which limits new residential growth to 2% per year. Lodi has averaged a residential growth rate less of approximately 1% per year. Coupled with this managed growth is the City's Right-to-Farm Ordinance. This ordinance requires full disclosure of agricultural operations to perspective homeowners and minimizes liability on farming operations.

Also minimizing this unavoidable impact is the planned Road "A", 74 foot right-of-way, which will be built to the west of the development plan area (see attached). This roadway act as a temporary buffer area between agricultural operations and proposed commercial land uses. The development of a permanent buffer is called for under the Westside Facilities Plan (see attached). Thus the impact upon agricultural operations resulting from the project is expected to be less than significant. .

To insure sustainable agricultural interests in the area, the City of Lodi is in the process of studying the formation of a community separator program with San Joaquin County. It is anticipated that this effort will provide the necessary framework for long-term agricultural production in the Lodi area. Thus, in this particular case, the loss of Prime Farmland soil is unavoidable however, Lodi has and will continue to minimize this impact.

Despite the above policies, the loss of Prime Farmland can be considered significant.

areas within the 500 year flood; areas of 100 year flood with average depths of less than 1 foot. This reflects the distance from the Mokelumne River which is approximately 2 miles north of the project site. Thus the project is not expected to expose people or property to naturally occurring water related hazards such as flooding. A Preliminary Wetlands Assessment and data base search on the property prepared by EIP Associates, dated August 2, 2002, concluded that there are no wetland features present on the site.

The project site will, initially, drain into a basin for storm water management. Basins allow storm water to be collected and then the water is pumped and metered into Woodbridge Irrigation District canals which in turn transports the water to the San Joaquin Delta. This process aerates the water and removes turbidity without an increase in the temperature of the water. Therefore, the project is not expected to alter the surface water quality of the Delta.

Because stormwater is metered into Woodbridge Irrigation District pipelines, the project is not expected to change the amount of surface water in any water body. There is no water body present on site, therefore, the project will not result in the change of currents or the course or direction of water movement.

Because of the commercial nature of the project, the project will have an imperceptible change of the quantity of groundwater available in the area. Actual water demand created by the project will vary according to the nature of the businesses that located within the shopping center. It is expected that the payment of City of Lodi connection fees will mitigate the impact upon public potable water resources. Therefore, no impact to the quantity of ground water is expected as a result of this project.

Although cumulatively this impact may be significant, the water supply available to the City of Lodi has matched the historic growth rate of 1% over the past twenty years. The groundwater basin in the area generally flows towards the south because of the over-drafting of water in the Stockton area. This project will not alter this general movement of groundwater.

Due to the commercial character of the project, hazardous waste and quality impacts associated with storm water runoff are expected to be mitigated through the scrubbing process associated with the city's storm water collection system. Therefore, no impacts to groundwater quality are expected as a result of this project. Because of the project's consistency with the general plan, the project is not expected to result in a substantial reduction in the amount of groundwater otherwise available for public use.

**Potentially Significant Unless Mitigation is Incorporated: a, b**

The project will result in the change absorption rates, drainage patterns, or the rate and amount of surface runoff in the area. With the development of vacant land, the absorption rates will decrease while runoff increases. The area is within the Westside Facility Master Plan area. This plan area calls for the development of a linear storm water basin along the western edge of the City of Lodi General Plan area. However, this basin will not be constructed until further development west of the site undergoes urban development. The design solution to the storm water storage impact created by the project is to have the

State and federal criteria pollutant emission standards have been established for six pollutants: carbon monoxide (CO), ozone (O<sub>3</sub>), particulate matter 10 microns or less in diameter (PM<sub>10</sub>), oxides of nitrogen (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). In the SJVAB, the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) is responsible for ensuring that these emission standards are not violated. The SJVAPCD develops and enforces air quality regulations for non-vehicular sources, issues permits, participates in air quality planning, and operates a regional air quality monitoring network. There are three monitoring stations in Stockton that are representative of the project site. These three monitoring stations revealed that standards for ozone, PM<sub>10</sub>, and carbon monoxide are exceeded in the Stockton area. Levels of sulfur dioxide and oxides of nitrogen do not exceed either the state or federal standards.

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse impact on air quality if it will violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The project's potential for violating the ambient air quality standards for local pollutants or causing nuisance to neighboring properties is used to determine the significance of localized air quality impacts.

For regional pollutants, violation of air quality standards cannot be used as a "threshold of significance", since the standards are exceeded in San Joaquin County. The SJVAPCD has established interim "thresholds of significance" for ozone precursors of 10 tons/year (roughly 55 pounds per day) for Reactive Organic Gases (ROG) and oxides of nitrogen (NO<sub>x</sub>). The emissions from the project, using the URBEMIS 7G model is expected to be 357.60 pounds per day for ROG and 337.57 pounds per day for NO<sub>x</sub> or 73.24 tons and 72.85 tons per year respectively. Thus the project meets a level of significance under the URBEMIS 7G model.

However, this level significance is significantly lessened when taken in the larger regional level. Currently there is a loss of market share for the goods sold by the proposed Lowes store in the Lodi area. This is quantified in an Economic Impact Analysis for the project has been prepared for the project by Applied Development Economics, July 2002 (see attached). Page 9 of this report states that "Lowes competition will really be with other large-scale home centers such as Home Depot located along Hammer Lane in North Stockton. The market area for the Vintner Square store will not extend to North Stockton since Lowes is currently developing a 160,000 S.F. store in this area, with an opening date for Summer 2002. Additional competition will come from the Home Depot and Lowes in Elk Grove." The report goes on to state on page 11 to state that, "substantial sales leakages in the market area exist in the merchandise lines in which Lowes participates, a comparison of Lowes anticipated sales versus the market area leakages shows that Lowes will, in all likelihood, capture most, if not all, leakages." In other words there is a consumer demand for the goods sold by the major tenant that is not being met locally and that the project will meet this demand.

### **Less Than Significant Impact (D)**

Sensitive air quality receptors in the immediate vicinity of the project site include planned residential land uses adjacent to the site and generally north and east of the site. This land use is upwind from the prevailing wind direction, therefore, the project is not expected to generate objectionable odors. This leads to the conclusion that the impact to neighboring properties will be less than significant.

### **Discussion of Traffic/Circulation Finding**

#### **No Impact: c, d, f, g**

The project is approximately two miles from Fire Station #3 and 1.3 miles from Fire Station #4. The Fire Department has a response time goal of three minutes and this site is within a three minute response time from either of these two stations. The Lodi Police Department provides beat service to the area and has a service goal of 3 to 40 minutes. The routine implementation of the City of Lodi Police and Fire fee ordinances will mitigate any impact to these emergency response providers. Therefore the project will not result in inadequate emergency access or prevent emergency access to other nearby uses. The Zoning Ordinance requires requires one parking space for every 500 square feet of general commercial floor area and one space for every four seats of restaurant use. The site plan illustrated 1,428 parking spaces with an overall parking ratio of one space for every 207.9 square feet of floor area. Therefore, the project will not result in insufficient parking capacity either onsite or offsite. In fact the amount of parking, while beneficial to the general circulation may have negative air quality impacts.

The project area is directly serviced by Grapeline Routes #1, #2 and #4 as well as SMART Route #20. Thus the area is well serviced by existing transit service and complies with City of Lodi alternative transportation policies. There are no rail or waterborne transportation facilities in the area, thus no conflicts are expected with these forms of transportation. The site is not located within a noise contour or regular flight path of an airport, therefore, no impacts to air traffic is expected as a result of this project.

#### **Less than Significant Impact: b**

The proposed development plan calls for a circulation system that calls for the widening of Lower Sacramento Road and construction of Road "A" as identified in the adopted Westside Facilities Plan. The widening of Lower Sacramento Road will be consistent with the improvement plans approved in 2000. Road "A" is a two lane roadway with a median, two bicycle lanes, curb, gutter, mow strip and sidewalk taking place within a 74 foot right-of-way. Plans for Taylor Road include a two travel lanes, curb, gutter, mow strip and sidewalk taking place within a 5055 foot right-of-way. Taylor Road would act as a east/west connector between Lower Sacramento Road and Road "A".

The development plan shows a signalized intersection of a proposed Road "A" and Kettleman Lane (State Highway 4-12). The signalization of this intersection has the potential to increase hazards along

### Discussion of Energy and Mineral Resources Finding

#### **No Impact a, c**

The routine implementation of Title 24 of the California Administrative Code insure that the proposed dwelling units are consistent with energy conservation standards of the City of Lodi. There are no known mineral deposits on site, therefore, the project will not result in a loss of availability of any known mineral resource.

#### **Potentially Significant Impact: b**

The conversion of agricultural land represents a loss of a non-renewable resource, and this loss is considered significant under the State Department of Conservation Land Evaluation and Site Assessment model. However, the General Plan Environmental Impact Report for the City of Lodi General Plan stated that the loss of approximately 1,500 acres of Prime Farmland is an avoidable impact. However, the loss of a non-renewable resource is could be viewed as a short term gain at the expense of a long term goal and thus being used in a wasteful or inefficient manner. This matter is directed linked to the Land Use discussion above.

### Discussion of Hazards Finding

#### **No Impacts: a, b, c, d, e**

The proposed project is a commercial shopping center and is not expected to result in an increase of risk associated with an explosion or release of hazardous substances. The routine implementation of the Police and Fire impact fee will insure that the project will not interfere with emergency response plans in the area. Upset conditions may arise from periodic flood conditions resulting from the Mokelumne River, however this river is approximately three miles north of the site and the project is not expected to impact an identified evacuation route. Although nitrate levels and petroleum by-products are expected to increase in storm water run-off from the site, the routine implementation of the City of Lodi's Plans and Specifications for drainage facilities will reduce the potential to create a health hazard to a less than significant level.

### Discussion of Noise Finding

#### **Potentially Significant Impact: b**

The Noise Element of the General Plan identifies the area of having an ambient noise level of 65 dB to 70 dB. Figure 16-2 states that community noise exposure for commercial land uses is 70 dB. Additionally the project proposes loading areas that are directly adjacent to planned residential land uses. Air conditioning units may also have a negative impact upon the noise environment that should be further addressed. Thus the

north, and urban/agricultural towards the south. Thus, no impacts to scenic vistas are expected as a result of the project. The routine implementation of the Uniform Building Code and adopted City of Lodi policies will insure that the project will not have a demonstrable negative aesthetic effect on the area.

**Less than Significant Impact: c**

The project will create new light as related to parking, street lights and illuminated commercial sign night lighting. Routine implementation of the City of Lodi standard regarding the shielding and directing of light to prevent spill over to adjacent properties will insure that impacts to adjacent properties will be less than significant. The lighting will incrementally degrade night sky conditions. However, this impact is expected to be less than significant in that the context in which the new light will be introduced. The expected light condition will not be unlike light already produced by the existing commercial uses on the east side of Lower Sacramento Road. Therefore impacts created by new lighting will be less than significant.

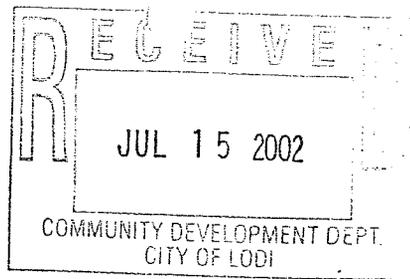
**Discussion of Cultural Resources Finding**

**No Impact: a, b, c, d**

Based on available information, it has been determined that no known paleontological or archaeological resources exist on site. There are no unique geologic conditions on site that would suggest an impact to cultural values or religious or sacred uses that may have occurred on the site. If buried resources, such as chipped or ground stone, historic debris, building foundations, or human bone, are inadvertently discovered during ground disturbing activities, the routine implementation of City of Lodi standard policy will mitigate impacts to cultural resources to a level less than significant. This standard policy requires that work stop in the immediate area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find. If necessary, the archaeologist will develop appropriate treatment measures in consultation with the City of Lodi Public Works Department, State Office of Historic Preservation, and other appropriate agencies. If human remains of Native American origin are discovered during project construction, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (NAHC) (Public Resources Code, Section 5097). If any human remains are discovered or recognized in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

*Add to  
MMRP*

1. The San Joaquin County Coroner has been informed and has determined that no investigation of the cause of death is required; and
2. If the remains are of Native American origin:
  - a. The descendents of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the



**DOWNTOWN  
ECONOMIC IMPACT ANALYSIS FOR  
PROPOSED VINTNER'S SQUARE  
SHOPPING CENTER  
CITY OF LODI**

**July 2002**

Prepared for  
**G-REM**

Prepared by  
**APPLIED DEVELOPMENT ECONOMICS**  
2029 University Avenue, Berkeley, CA 94704  
1029 J Street, Suite 310, Sacramento, CA 95814  
[www.adeusa.com](http://www.adeusa.com)



## FIGURES

Figure 1 Map of Lowe's.....	1
Sources of Revenue for a Typical Lowe's Home Center by Merchandise Type.....	10

## TABLES

Table 1 Taxable Sales in Lodi by Subarea, FY 1993/4 to 1996/97 .....	3
Table 2 FY 1996/97 to 2001 Taxable Sales Trends in Lodi and Downtown .....	4
Table 3 Retail Sales by Major Groups in Lodi and Downtown, 2001 .....	5
Table 4 Estimate of Contractor and Household Sales at Lowe's Vintner's Square Location, 2002.....	11
Table 5 Estimate of Spending Leakages and Sales Captured by Proposed Lowe's at Vintner's Square .....	14
Table 6 Sales Estimates Among Vintner's Square Support Tenants .....	15
Table 7 Market Demand for Anticipated Support Retailers at Vintner's Square .....	16
Table 8 Estimate of Lowe's Impact on Downtown Retailers.....	18
Table 9 Estimated Impacts of Vintner's Square Fast Food Tenants on Downtown .....	20

## **I. PROJECT DESCRIPTION**

---

The proposed Vintner's Square development will create 304,000 square feet (S.F.) of new retail development built on a 28-acre site. A Lowe's big box home center will occupy 166,500 S.F. and a WINCO supermarket will occupy 96,000 S.F. A total of 40,200 S.F. of new space will also be developed on seven smaller pads along Kettleman Lane and Lower Sacramento Road. The pad space will be developed as displayed in Figure 1 and described below.

**Pad 1 located on Kettleman Lane – 3,000 S.F.**

This pad will most likely be developed as either a gas station/mini mart or a fast food outlet.

**Pad 2 located on Kettleman Lane – 3,000 S.F.**

This pad will most likely be developed as a fast food outlet

**Pad 3 located on Kettleman Lane – 6,000 S.F.**

This pad will most likely be developed as one or more full service restaurants that are well know national chain outlets.

**Pad 4 located on Kettleman Lane – 3,400 S.F.**

This pad will most likely be developed as a fast food outlet. In-N-Out Burger is the likely tenant on this pad.

**Shops 1 located at the corner of Kettleman Lane and Lower Sacramento Road – 8,840 S.F.**

This pad will most likely be subdivided into a food court, smaller take out establishments such as Jamba Juice and Baja Fresh, or full service restaurants.

**Pad 5 located on Lower Sacramento Road – 9,840 S.F.**

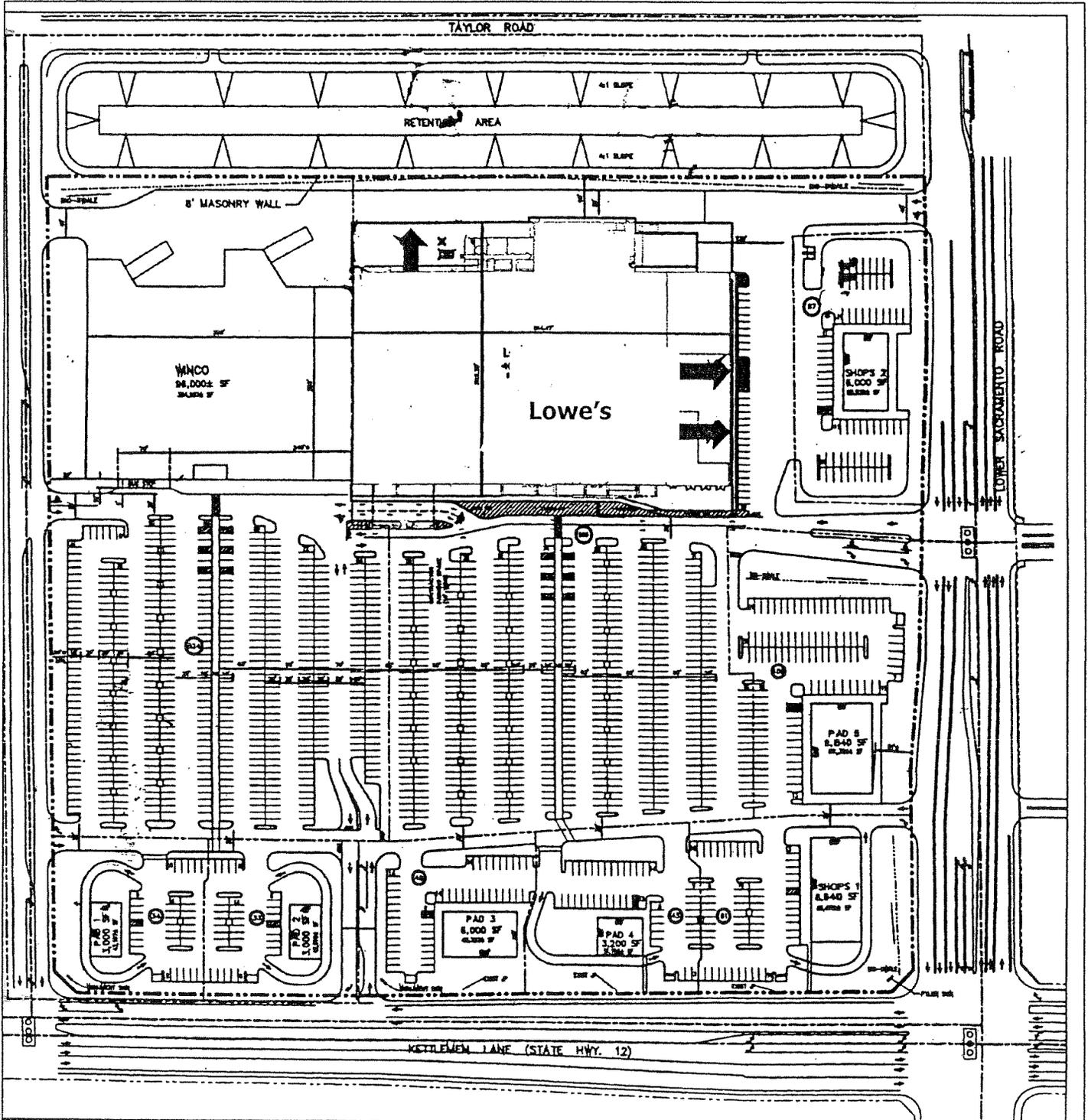
This pad will most likely be developed for a nationally known home furnishings establishment such as Pier 1.

**Shops 2 located on Lower Sacramento Road – 6,000 S.F.**

This pad will most likely be developed for a bank or financial services establishment not engaged in the sale of retail services.

[This space intentionally left blank]

**FIGURE 1**  
**Vintner's Square Site Map**



## 2. SETTING – LODI'S RETAIL SECTOR

The proposed project will take place in an economic environment where the City has invested a substantial sum of money in downtown public improvements, and where downtown sales are starting to improve relative to other parts of the city. Some key economic factors that guide the evaluation of the proposed project's impacts on downtown businesses are described below in further detail.

### 2.1 LODI RETAIL SALES TRENDS

Compared to City as whole, data shows that downtown Lodi's retail sales grew slowly during the 1990s. Table 1 shows that between 1994 and 1997, downtown retail sales grew by less than 1 percent, while West Kettleman Lane and the City as a whole grew by 34 percent and 8.5 percent, respectively. Rapid growth along Kettleman Lane is attributed to area retailers' ability to attract customers from North Stockton. While the mid-1990s was a boon for retailers along Kettleman Lane, other areas in Lodi did not fare as well. With several aging shopping centers, retail sales on Cherokee Lane declined by 10 percent.<sup>1</sup>

Lodi Subarea	FY 1993/94 Sales Tax Receipts	FY 1996/97 Sales Tax Receipts	Percent Change	FY 1996/97 Percent of Lodi Total
Downtown Lodi	\$259,857	\$261,975	0.80%	7%
West Kettleman Lane	\$685,191	\$915,408	33.6%	26%
Cherokee Lane	\$563,088	\$508,476	-9.7%	14%
Rest of Lodi	\$1,785,917	\$1,889,633	5.8%	53%
City of Lodi Total	\$3,294,053	\$3,575,492	8.5%	100%

### 2.2 DOWNTOWN LODI'S RETAIL SETTING

Downtown Lodi has benefited from a significant number of public improvements. Over the past three years, design and streetscape improvements have been completed for much of the downtown area, and the train station has been transformed into a multi-modal transportation facility. In addition, a new 12-screen movie theater has recently opened in the

<sup>1</sup> More current data on the performance of the different sub areas of Lodi is unavailable for this report. It is anticipated that the trends identified in Table 1 have continued today.

downtown, along with a parking garage for moviegoers and downtown shoppers alike.

Retail sales tax receipts have increased significantly since 1997, throughout the City and in the downtown area. As Table 2 shows, sales tax receipts from downtown retailers increased by nearly 40 percent between 1997 and 2001, a time period when sales tax receipts in Lodi as a whole expanded by 109 percent. Thus, the downtown retail environment is improving but continues to lag behind what is happening along commercial strips on the periphery of town.

<b>Table 2</b>			
<b>FY 1996/97 TO 2001 TAXABLE SALES TRENDS</b>			
<b>IN LODI and DOWNTOWN</b>			
	<b>FY 1996/97</b>	<b>2001 Tax</b>	<b>Percent</b>
<b>Lodi Subarea</b>	<b>Sales Tax Receipts</b>	<b>Receipts</b>	<b>Change</b>
Downtown Lodi	\$261,975	\$367,212	40%
City of Lodi Total	\$3,575,492	\$7,487,984	109%

Data in Table 3 indicates that the actual retail sales in Lodi are nearly \$800 million, and the total downtown retail sales is \$76.7 million, or almost 10 percent of all retail sales. Specific store type data displayed in Table 3 indicates that the downtown's business strength is in home furnishing, food and eating, and apparel retailers. Some key observations of downtown's existing conditions are summarized below.

- Home furnishing retailers downtown sold \$6.5 million in goods, which accounts for why 29 percent of all home furnishing sales in the City occur in the downtown area.
- Downtown food and eating retailers have generated \$46.6 million in 2001, which accounts for 16 percent of all food sales in Lodi.
- Downtown apparel retailers sold \$1.6 million of products, which accounts for 13 percent of all apparel sales citywide.
- Downtown general merchandise stores sold \$9.9 million of products, which accounts for 6 percent of the city's general merchandise sales.
- Downtown specialty retailers sold \$4.4 million of products, which represents 7 percent of Lodi's specialty retail sales

**Table 3**  
**RETAIL SALES BY MAJOR GROUPS IN LODI AND DOWNTOWN**  
**2001**

*(Italics Denotes Downtown Retail Sub-Groups That Will Compete With Lowe's)*

	Lodi Total Retail Sales	Downtown Retail Sales	Downtown Retail Group Sales as % of Lodi Retail Group Sales
APPAREL GROUP	\$12,541,498	\$1,644,546	13%
GENERAL MERCHANDISE GOUP	\$179,182,523	\$9,886,138	6%
SPECIALTY RETAIL GROUP	\$34,398,042	\$4,363,556	13%
FOOD, EATING, AND DRINKING GROUP	\$282,786,430	\$46,625,852	16%
Full-Service Restaurants*	<i>\$19,555,124</i>	<i>\$4,606,989</i>	24%
Other Eating Places*	<i>\$35,158,808</i>	<i>\$1,271,758</i>	4%
HOMEFURNISHING GROUP	\$22,457,065	\$6,535,775	29%
Furniture & Home Furnishings*	<i>\$7,824,718</i>	<i>\$4,621,127</i>	59%
Household Appliances & Electronics*	<i>\$14,632,348</i>	<i>\$1,829,686</i>	13%
BUILDING MATERIALS GROUP	\$41,234,281	\$2,301,324	6%
Garden Equipment & Supply Stores, and Paint & Wallpaper*	<i>\$7,716,619</i>	<i>\$2,301,324</i>	30%
AUTOMOTIVE GROUP	\$226,723,960	\$5,359,376	2%
<b>TOTAL MAJOR GROUPS</b>	<b>\$799,323,799</b>	<b>\$76,716,567</b>	<b>10%</b>

\* Note: the sum of retail sales by sub-groups within a Major Retail Group does not necessarily add up to total sales for that Major Retail Group, as data is for only those sub-groups that will compete with Lowe's is shown

[This space intentionally left blank]

### **3. DOWNTOWN ESTABLISHMENTS THAT MAY COMPETE WITH VINTNER'S SQUARE RETAILERS**

---

The proposed project will build 298,000 square feet of new commercial space and attract a range of retail tenants that will complement the Lowe's anchor. In addition to Lowe's and Winco, the development proposal includes just under 40,000 S.F. to be built on seven small pads. This section provides a discussion of the business types most likely to locate on one of the Vintner's Square pads that will amount to 40,000 S.F. of new space. Downtown retailers that could potentially compete with the Vintner Square support tenants are described below.

#### **3.1 DOWNTOWN PAINT, WALLPAPER, AND LAWN AND GARDENING STORES**

The downtown paint store, wallpaper and lawnmower dealers sell merchandise that may compete with the proposed Lowe's. Together, the downtown establishments earned approximately \$2.3 million in sales for 2001, or 30 percent of all Lodi sales in the paint, wallpaper, and lawn and garden retail groups, as shown in Table 3.

Valley Paint has competed with similar stores in the market area. Paint sold to household accounts for only 25 percent of Valley Paint sales, with specialized product sales and contractor and maintenance sales comprising the majority of sales. Valley Paint's most serious direct competition comes from Orchard Supply, Kelly-Moore, Sherwin-Williams and the Home Depot in North Stockton. The storeowners indicated that the cumulative effect of competitors coming into the Lodi market has resulted in flat sales trends over the past few years.

Wright Motors and Geinger's Floors are other downtown home improvement stores that will be less vulnerable to the establishment of a Lodi Lowe's. These stores carry specialized product lines that Lowe's does not carry. Thus, the stores are less likely to compete with the products offered by Lowe's. In addition, these stores earn income through floor installation and repair services.

#### **3.2 DOWNTOWN EATING AND DRINKING PLACES**

Downtown Lodi has at least seven restaurants and other eating establishments that could compete with new food tenants at Vintner's Square. The downtown McDonald's may, in fact, be directly competitive with new fast food establishments at Vintner's Square.

The proposed Vintner's Square shopping center will likely include several eating places, which will be located in the pads or small store spaces. The Vintner's Square food-oriented tenants will be comprised of fast food and other national chain store tenants. As shown in Table 3, eating places in downtown Lodi earn \$6.5 million in annual sales, or 12 percent of the \$54.7 million of total sales earned by eating establishments throughout Lodi.

### **3.3 DOWNTOWN APPLIANCES AND ELECTRONICS STORES**

Kundert and Bauer Appliances and Reo's Appliance Center are two downtown appliance stores that will need to compete with Lowe's in addition to their current competition with other small business competitors, such as Les' Appliance Sales and Service, FILCO Discount Center, Ben's Appliances, and Anderson Maytag.

The existing downtown appliances and electronics stores generate about \$1.8 million in sales. For the entire city of Lodi, the total appliance and electronic store sales is about \$14.6 million. Thus, 13 percent of all appliances are sold in the downtown area as shown in Table 3.

Downtown appliance stores have enjoyed robust sales in recent years. In fact, Kundert and Bauer is actively looking for a new location in Lodi as its current space is not large enough to accommodate the growing demand for its products and services. In the last three years, sales have tripled at Kundert and Bauer. Similarly, Reo's reports that 2001 was its best year in sales.

Lowe's carries a range of home appliance merchandise, which means that appliance dealers in downtown Lodi will face competition for price sensitive products. Both stores carry appliance brands that are also carried by Lowe's, namely Frigidaire and Kitchen Aid. Kundert and Bauer reports that it sells Frigidaire models not sold by Lowe's. In-depth knowledge of appliances, which allows customers to make informed purchasing decisions, and customer service are advantages that allow these downtown retailers to compete against Lowe's, both store owners report. One appliance store reports that service repair is the fastest growing source of revenues, representing 15 percent of total annual revenues.

At the same time, a long-time downtown appliance store owner notes that, more and more, customers are becoming strictly price-driven when purchasing appliances, in contrast to previous generations of shoppers who exhibited greater store loyalty and prioritized customer service. Thus, this storeowner anticipates that the Lowe's will negatively impact sales. As it is, downtown appliance store owners report difficulty in precisely quantifying the impacts of Lowe's on their respective establishments, although,

consistent with what non-downtown appliance retailers say, they believe that sales may decline anywhere between 10 and 20 percent.

### **3.4 DOWNTOWN HOME FURNISHINGS**

Home furnishings is an important retail group in the downtown area. The downtown furniture stores are Thornton House, Daniger Furniture, and Classic Living, all of which provide a full-line of home furnishing merchandise with an emphasis on interior design and high quality furnishing for bedrooms, dining rooms, home office, patios, and living rooms. These stores sell bed frames, mattresses, dining tables, sofas, recliners, coffee tables, home office furnishing, and china cabinets, among other things. Downtown home furnishing retailers generate approximately \$4.6 million in sales, over half of all home furnishing sales in the City. For the city as a whole, home furnishings retailers sold \$7.8 million in goods in 2001.

The Vintner's Square proposal includes a 10,000 S.F. home furnishings store. Competition with downtown home furnishing stores will depend on the specific tenant eventually attracted to Vintner's Square. Some possible tenants, such as Pier 1, would occupy a very distinct market niche from downtown home furnishing stores and, thus, not compete with downtown retailers.

## **4. CURRENT MARKET SUPPORT FOR PROPOSED PROJECT**

---

An analysis of the proposed project's impacts depends significantly on the market demand for its uses. Is there excess market demand that the proposed project can absorb? Or, does the market viability of the proposed project rely on taking away sales from existing stores? If so, to what extent does it rely on taking away from downtown establishments? These questions need to be answered in order to set the stage for the impact analysis.

### **4.1 MARKET SUPPORT FOR PROPOSED LOWE'S**

Lowe's competition will really be with other large-scale home centers such as Home Depot located along Hammer Lane in North Stockton. The market area for the Vintner's Square store will not extend to North Stockton since Lowe's is currently developing a 160,000 S.F. store in this area, with an opening date for Summer 2002. Additional competition will come from the Home Depot and Lowe's in Elk Grove.

Large-scale home centers such as Home Depot and Lowe's also compete with a number of smaller home improvement businesses ranging from regional chain establishments such as Orchard Supply Hardware to small, independent stores that focus on the sale of hardware, garden supplies, appliances, paint products, and building materials. So, the proposed Lowe's at Vintner's Square will be competing with some of Lodi's established small businesses.

#### **Estimate Of Product Sales At Lowe's**

The proposed Lowe's in Lodi is anticipated to generate \$30 million in sales.<sup>2</sup> This sales level appears to be achievable, based on fact that the average sales of a Lowe's store amounts to \$29.7 million. Essentially, Lowe's is very successful at earning market share throughout its hundreds of locations, and there is no reason that Lowe's will not be successful in Lodi. The real question is how much sales leakage a new Lowe's will capture, and to what extent Lowe's will take sales away from existing establishments.

The analysis below is intended to quantify the market support for a new Lowe's in Lodi. To what extent the new Lowe's will absorb spending leakages leaving Lodi, and to what extent the big box store will capture sales currently earned by existing small businesses? This analysis needs to be

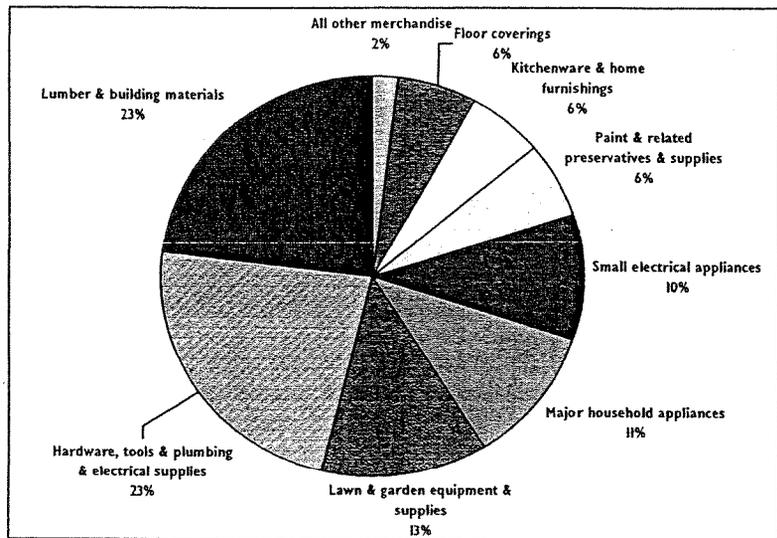
---

<sup>2</sup> Sales estimate was obtained from the project sponsor through conversations with Lowe's corporate headquarters.

completed before we can analyze the economic potential impacts that Lowe's will have on downtown Lodi.

On a national basis, 23 percent of Lowe's sales are earned through the sale of lumber and building materials. Another 23 percent of sales are earned through the sale of hardware, tools, plumbing and electrical supplies. Lawn and garden equipment and supplies comprise 13 percent of sales. The sale of household and small appliances accounts for 21 percent of total sales, as shown in Figure 2.<sup>3</sup>

**Figure 2**  
Sources of Revenue for a Typical Lowe's Home Center by Merchandise Type



Source: ADE, data from Lowe's, Inc.

The estimate of merchandise lines that will be sold at the Vintner's Square Lowe's are summarized in Table 4. It is estimated that Lowe's will sell \$3.3 million in major household appliances; \$3.0 million in small electrical appliances; and \$6.9 million in hardware, tools and plumbing supplies. At least \$3.9 million in sales would come from gardening supplies, while \$1.8 million would come from sales of paint and supplies.

In addition, it is estimated that 20 percent of Lowe's sales will be made to contractors and other businesses, not just consumer households. Thus, \$6

<sup>3</sup> As a publicly traded company, Lowe's annually issues what is known as a 10-K report submitted to the Security Exchange Commission. The Lowe's 10-K report includes information on the distribution of sales by type of merchandise.

million of Lowe's sales will be made to contractors and \$24 million of sales will be earned from households.

(1) MLNO	(2) Merchandise Line Item	(3) Lowe's Lodi	(4) Contractor Spending at Lowe's	(5) Spending Captured
	<b>TOTAL</b>	\$30,000,000	\$6,000,000	\$24,000,000
300	Major household appliances	\$3,300,000	\$0	\$3,300,000
310	Small electrical appliances	\$3,000,000	\$0	\$3,000,000
360	Floor coverings	\$1,800,000	\$493,151	\$1,306,849
380	Kitchenware & home furnishings	\$1,800,000	\$0	\$1,800,000
600	Hardware, tools, plumbing and electrical supplies	\$6,900,000	\$1,890,411	\$5,009,589
620	Lawn & garden equipment & supplies	\$3,900,000	\$1,068,493	\$2,831,507
640	Lumber & building materials	\$6,900,000	\$1,890,411	\$5,009,589
670	Paint & related preservatives & supplies	\$1,800,000	\$493,151	\$1,306,849
850	All other merchandise	\$600,000	\$164,384	\$435,616

Source: Applied Development Economics

Notes: Data in Column (3) is obtained from Lowe's Report 10-K presented to the U.S. Security Exchange Commission. Applied to the \$30 million estimate of store sales as provided by the Project Sponsor

Data in Column (4) assumes that contractors will account for 20 percent of store sales, but sale of appliances and kitchenware will be limited to households

#### **Estimate Of Sales Leakages And Capture Rates By Merchandise Line Item**

While substantial sales leakages in the market area exist in the merchandise lines in which Lowe's participates, a comparison of Lowe's anticipated sales versus the market area leakages shows that Lowe's will, in all likelihood, capture most, if not all, leakages. When actual sales equals household market area demand, there are no longer any sales leakages. Retailers who eliminate sales leakages and continue to achieve even more sales do so by taking away sales from other existing retailers, through a competitive process oftentimes referred to as "cannibalization."

Data in Table 5 estimates household spending by merchandise line item (Column 1), which amounts to \$869 million, and sales earned by all stores (Column 2), which amounts to \$74 million. Subsequently, the data estimates

sales to contractors earned by existing stores (Column 3), which amounts to \$28 million, and the leakages of household spending by merchandise line item (Column 4), which total to be \$96 million. Column 5 utilizes data from Table 4, and estimates the amount of household sales captured by a \$30 million Lowe's store at Vintner's Square. Thus, Column 6 estimates that a new Lowe's store with \$24 million of household sales will capture \$16.6 million of spending leakages currently going to the Home Depot in Stockton and other regional competitors. A total of \$7.5 million of sales earned by Lowe's will be captured from existing stores already doing business in Lodi. The sales will be captured from existing stores such as OSH, appliance stores, and other small business competitors to big box home centers.

The sales of specific merchandise line items that will be impacted by the proposed Lowe's at Vintner's Square are described below.

- Household demand for major household appliances is \$10.9 million. Actual sales of major household appliances by existing Lodi stores is \$9.9 million. Approximately \$235,000 of actual sales are made to contractors. This leaves \$1.2 million of household spending that is leaking from Lodi. It is estimated that the Vintner's Square Lowe's will capture \$3.3 million of household spending on major household appliances. Lowe's should capture all household spending leakages along with \$2.1 million of major household appliance spending away from other Lodi stores.
- Household demand for small electrical appliances amounts to \$2.5 million. Actual sales of small electrical appliances by existing Lodi stores is \$2.2 million. Approximately \$280,000 of actual sales are made to contractors. Thus \$500,000 of household spending is leaking from Lodi. It is estimated that the Vintner's Square Lowe's will capture \$3.0 million of household spending. Lowe's should capture all household spending leakages along with \$2.5 million of small electrical appliance spending away from other Lodi stores.
- Household demand for floor coverings amounts to \$10.6 million. Actual sales of floor coverings by existing Lodi stores is \$9.7 million. Approximately \$160,000 of actual sales are made to contractors. Thus, \$1.1 million of household spending is leaking from Lodi. It is estimated that the Vintner's Square Lowe's will capture \$1.3 million of household spending on floor coverings. Therefore, Lowe's should capture all household spending leakages and \$200,000 of floor covering spending away from other Lodi stores.
- Household demand for kitchenware and home furnishings is \$15.3 million. Actual sales of home furnishings by existing Lodi stores is \$14 million. Approximately \$500,000 of sales are made to contractors. Thus,

\$1.8 million of home furnishings spending by households is leaking from Lodi. It is estimated that the Vintner's Square Lowe's will capture \$1.8 million of household spending on home furnishings. Therefore, Lowe's should capture all household spending leakages and not reduce sales from other Lodi stores.

- Household demand for general home improvement items such as hardware, tools, plumbing and electrical supplies amounts to \$5.9 million. Actual hardware sales by existing Lodi stores is \$5.4 million. It is estimated that contractors purchase \$10.6 million of sales in this merchandise line item category, which means that nearly all household spending is leaving Lodi. It is estimated that the Vintner's Square Lowe's will capture \$5 million of hardware supplies spending. Therefore, Lowe's should capture all household spending leakages and not take sales away from other Lodi stores.
- Household demand for lawn and garden equipment is \$11.5 million. Actual lawn and garden equipment sales by existing Lodi stores is \$10.5 million. Approximately \$4.1 million of sales are made to contractors. Thus, household spending leakages are estimated to be \$5.1 million. It is estimated that the Vintner's Square Lowe's will capture \$2.8 million of hardware supplies spending. Lowe's should capture all household spending leakages and not take sales away from existing stores.
- Household demand for lumber and building materials amounts to \$10 million. Actual hardware sales by existing Lodi stores is \$9.2 million. It is estimated that sales to contractors amount to \$1.5 million. Thus, household spending leakages are estimated to be \$2.3 million, and the Vintner's Square Lowe's will capture \$5 million of lumber and building materials spending. This means that Lowe's should capture all household spending leakages and \$2.7 million of lumber and building materials spending away from other Lodi stores.
- Finally, household demand for paint and related products amounts to \$1.1 million. Actual paint related product sales by existing Lodi stores is \$990,000. Contractor spending for paint products is estimated to be \$5.9 million, which means that nearly all household spending is leaking to other communities. It is estimated that the Vintner's Square Lowe's will capture \$1.3 million of paint product related spending. This means that Lowe's should capture all household spending leakages and not take sales away from other Lodi stores.

**Table 5**  
**ESTIMATE OF SPENDING LEAKAGES AND SALES CAPTURED**  
**BY PROPOSED LOWE'S AT VINTNER'S SQUARE**

MI	Merchandise Line Item	(1) Market Area HH Spending	(2) Actual Sales by Lodi Merchants	(3) Adjustment for Sales to Contractors	(4) Leakages	(5) Lowe's Lodi Store Sales from Households	(6) Spending Leakage Captured	(7) Sales Captured from Existing Stores
	<b>TOTAL</b>	<b>\$869,479,228</b>	<b>\$794,129,198</b>	<b>\$26,136,122</b>	<b>\$91,350,617</b>	<b>\$24,000,000</b>	<b>\$16,322,226</b>	<b>\$7,471,095</b>
100	Groceries & other food	\$161,283,930	\$147,306,887	\$0	\$13,977,044			
120	Meals and snacks	\$69,505,528	\$63,482,102	\$0	\$6,023,426			
130	Alcoholic drinks	\$5,740,433	\$5,242,960	\$0	\$497,472			
140	Packaged alcoholic beverages	\$11,716,582	\$10,701,210	\$0	\$1,015,372			
150	Cigars, cigarettes, and tobacco	\$15,215,795	\$13,897,177	\$0	\$1,318,618			
160	Drugs, health aids & beauty aids	\$36,754,771	\$33,569,562	\$0	\$3,185,209			
180	Soaps, detergents, & household cleaners	\$7,193,460	\$6,570,067	\$0	\$623,393			
190	Paper and related products	\$9,387,272	\$8,573,760	\$0	\$813,511			
200	Men's wear	\$22,733,162	\$20,763,081	\$0	\$1,970,081			
220	Women's, juniors' and misses' wear	\$37,444,909	\$34,199,892	\$0	\$3,245,017			
240	Children's wear	\$20,327,962	\$18,566,318	\$0	\$1,761,644			
260	Footwear, except infants' & toddlers	\$18,560,907	\$16,952,398	\$0	\$1,608,509			
270	Sewing, knitting & needlework goods	\$1,546,890	\$1,412,835	\$0	\$134,055			
280	Curtains, draperies & dry goods	\$8,424,697	\$7,694,604	\$0	\$730,094			
300	Major household appliances	\$10,892,587	\$9,948,624	\$275,510	\$1,219,474	\$3,300,000	\$1,219,474	\$2,080,526
310	Small electrical appliances	\$2,453,889	\$2,241,232	\$288,148	\$500,804	\$3,000,000	\$500,804	\$2,499,196
320	Televisions, video recorders, and tapes	\$6,936,889	\$6,335,730	\$0	\$601,158			
330	Audio equipment, musical instruments & supplies	\$8,431,652	\$7,700,955	\$0	\$730,696			
340	Furniture and sleep equipment	\$25,506,526	\$23,296,103	\$0	\$2,210,424			
360	Floor coverings	\$10,574,861	\$9,658,432	\$160,582	\$1,077,011	\$1,306,849	\$1,077,011	\$229,838
370	Computer hardware, software/calculating equip., supp.	\$13,351,376	\$12,194,331	\$0	\$1,157,045			
380	Kitchenware & home furnishings	\$15,304,831	\$13,978,497	\$504,597	\$1,830,931	\$1,800,000	\$1,830,931	\$0
400	Jewelry	\$9,845,951	\$8,992,690	\$0	\$853,261			
420	Books	\$4,727,500	\$4,317,810	\$0	\$409,690			
440	Photographic equipment & supplies	\$2,421,598	\$2,211,740	\$0	\$209,858			
460	Toys, hobby goods & games	\$12,201,076	\$11,143,718	\$0	\$1,057,359			
490	Optical goods	\$3,529,678	\$3,223,792	\$0	\$305,886			
500	Sporting goods	\$9,658,950	\$8,821,895	\$0	\$837,055			
580	Recreational vehicles	\$3,323,239	\$3,035,243	\$0	\$287,996			
600	Hardware, tools & plumbing & electrical supplies	\$5,912,625	\$5,400,230	\$10,639,205	\$5,912,625	\$5,009,589	\$5,009,589	\$0
620	Lawn & garden equipment & supplies	\$11,497,411	\$10,501,032	\$4,081,442	\$5,077,821	\$2,831,507	\$2,831,507	\$0
640	Lumber & building materials	\$10,030,831	\$9,161,548	\$1,478,771	\$2,348,053	\$5,009,589	\$2,348,053	\$2,661,536
670	Paint & related preservatives & supplies	\$1,079,237	\$985,709	\$5,882,269	\$1,079,237	\$1,306,849	\$1,079,237	\$0
680	Manufactured (mobile) homes	\$0	\$0	\$0	\$0			
700	Cars, trucks & powered vehicles	\$179,010,762	\$163,497,492	\$0	\$15,513,270			
720	Automotive fuels	\$53,502,811	\$48,866,199	\$0	\$4,636,613			
730	Automotive lubricants	\$657,378	\$600,409	\$0	\$56,969			
740	Auto tires, batteries & accessories	\$8,576,963	\$7,833,674	\$0	\$743,289			
780	Household fuels	\$2,363,559	\$2,158,731	\$0	\$204,829			
800	Pets, pet foods, & supplies	\$7,465,192	\$6,818,250	\$0	\$646,942			
850	All other merchandise	\$21,120,253	\$19,289,948	\$2,825,597	\$4,655,902	\$435,616	\$435,616	\$0
890	Unclassified merchandise	\$3,265,306	\$2,982,331	\$0	\$282,975			

#### 4.2 Market Support For Other Retail Tenants At Vintner's Square

In addition to Lowe's and Winco, the Vintner's Square project will include a number of retail store types whose impacts need to be evaluated.

Approximately 15,000 S.F. of space will be developed for sit down restaurants that will most likely be well known national chain outlets.

Approximately 6,400 S.F. will be developed for fast food outlets such as Wendy's, Kentucky Fried Chicken, Del Taco, and an In-N-Out Burger.

Lastly, approximately 10,000 S.F. will be developed for a nationally known home furnishings outlet such as Pier One Imports.<sup>4</sup> Data in Table 6 suggests that the full service restaurants will earn \$3 million of annual sales. The fast food establishments will earn \$1.2 million of sales, and the home furnishings establishment will earn \$2 million in annual sales.

	Food Service S.F.	Sales S.F.	Sales
<b>Food Service Tenants</b>			
Pad 3	6,000	\$200	\$1,200,000
Shop 1	8,840	\$200	\$1,768,000
Sub Total	14,840		\$2,968,000
<b>Fast Food Establishments</b>			
Pad 2	3,000	\$200	\$600,000
Pad 4	3,200	\$200	\$640,000
Sub Total	6,200		\$1,240,000
<b>Home Furnishings Tenants</b>			
Pad 5	9,840	\$200	\$1,968,000
<b>Total</b>	<b>24,680</b>		<b>\$4,946,000</b>
Source: Applied Development Economics It is assumed that retailers located on Kettleman and Lower Sacramento Road will earn \$200/S.F			

Data in Table 7 measures the leakages in each store type category that may be attracted to Vintner's Square. The question to be answered by the analysis below quantifies Lodi's unmet market demand for sit down restaurants, fast food, and home furnishings. If there are sufficient spending leakages in each store type category, then the proposed development at Vintner's Square will

<sup>4</sup> The additional pad that will be developed for financial services will have no impact on Lodi's retail environment, and is thus not analyzed.

absorb the leakages and have no negative impact on existing retailers. If the projected sales exceed the spending leakages, then it is anticipated that sales will be captured from existing stores

**Furniture and Home Furnishings.** The data indicates that furniture and home furnishing establishments are under-supplied in the market area. Household demand for home furnishings is \$21.4 million. Home furnishings retailers doing business in Lodi sell approximately \$7.8 million of products. Thus, there is a significant unmet demand of \$13.6 million. The proposed development at Vintner's Square will easily absorb the unmet demand and have no adverse impact on existing home furnishings sales.

**Full Service Restaurants.** The data in Table 7 indicates that full service restaurants are also under-supplied in the market area. Household demand for full service restaurants is \$31.8 million. The existing full service restaurants doing business in Lodi earn approximately \$19.6 million of sales. Thus, the spending leakages of \$12.2 million are more than sufficient to support the new restaurants proposed for Vintner's Square.

**Fast Food Establishments.** Finally, the data suggests that fast food is oversupplied in the marketplace, and the establishment of new fast food outlets at Vintner's Square will capture sales from existing fast food outlets. The data indicates that household demand for fast food is \$32.2 million. The existing fast food outlets in Lodi earn approximately \$35.2 million of sales. The data suggests that there is a regional capture of spending for fast food products. In particular, fast food establishments located on Kettleman Lane capture regional traffic and associated spending.

Potential Vintner's Square Store Types	Household Demand (\$ Mil)	Existing Lodi Store Sales (\$ Mil)	Unmet Demand (\$ Mil)
<b>Furniture and Home Furnishings</b>	\$21,362,682	\$7,809,068	\$13,553,614
<b>Full-Service Restaurants</b>	\$31,782,690	\$19,555,124	\$12,227,566
<b>Fast Food and Other Eating Places</b>	\$32,229,681	\$35,158,808	\$0

Source: Applied Development Economics

## **5. PROJECT IMPACTS ON EXISTING DOWNTOWN BUSINESSES**

---

The proposed Vintner's Square project will include six types of business uses that may have negative economic impacts on downtown retail establishments. It has already been established that a few of the uses have no potential negative impacts on the downtown as described below.

- The proposed project will include 6,000 S.F. of space built for a bank or other financial services establishments. The development of this space should not create negative impact on downtown retailers.
- The proposed development will include 9,840 S.F. of space built for a home furnishings establishment. The tenant recruited to the site should be able to earn approximately \$2 million per year in annual sales, which is far below the spending leakages estimate of \$13.6 million. Thus, the development of this space should not create negative impacts on downtown retailers that sell home furnishings products.
- The proposed development should also include 14,840 S.F. of space for full service restaurants. The tenants recruited to the new restaurant space should be able to earn approximately \$3 million per year in annual sales, which is far below the spending leakages estimate of \$12.2 million. Thus, the development of this space will should not create negative impact on downtown restaurants.
- Finally, the proposed 96,000 S.F. Winco supermarket has no downtown competitors. Thus, the attraction of this tenant will have no negative economic impacts on downtown retailers.

Any negative economic impacts created by the Vintner's Square development will be limited to the impacts of Lowe's and the 6,200 S.F. of fast food space proposed along the Kettleman Lane corridor. The impacts are quantified below.

### **5.1 LOWE'S IMPACTS ON DOWNTOWN BUSINESSES**

Downtown home improvement stores can compete with Lowe's by offering specialized services, and inventories and brands that Lowe's does not carry. They compete already with existing home improvements stores along Cherokee and Kettleman Lanes, and large home centers in Stockton. However, Lowe's large-scale market presence could reduce sales for the more generic and less specialized product lines, and existing businesses may encounter difficulty relying on sales from specialized products alone.

**Table 8  
ESTIMATE OF LOWE'S IMPACT ON DOWNTOWN RETAILERS**

MLNO	Merchandise Line Item	(1) Actual Sales by Lodi Merchants	(2) Actual Sales in Downtown Lodi	(3) Lowe's Lodi Store Sales from Households	(4) Sales Captured from Existing Stores	(5) Downtown Sales Loss
	<b>TOTAL</b>	<b>\$794,129,198</b>	<b>\$76,716,567</b>	<b>\$24,000,000</b>	<b>\$8,401,614</b>	<b>\$726,046</b>
100	Groceries & other food	\$147,306,887	\$14,543,203			
120	Meals and snacks	\$63,482,102	\$5,849,703			
130	Alcoholic drinks	\$5,242,960	\$497,882			
140	Packaged alcoholic beverages	\$10,701,210	\$1,087,828			
150	Cigars, cigarettes, and tobacco	\$13,897,177	\$1,384,949			
160	Drugs, health aids & beauty aids	\$33,569,562	\$3,142,937			
180	Soaps, detergents, & household cleaners	\$6,570,067	\$656,184			
190	Paper and related products	\$8,573,760	\$865,829			
200	Men's wear	\$20,763,081	\$2,026,461			
220	Women's, juniors' and misses' wear	\$34,199,892	\$3,216,721			
240	Children's wear	\$18,566,318	\$1,838,531			
260	Footwear, except infants' & toddlers	\$16,952,398	\$1,652,150			
270	Sewing, knitting & needlework goods	\$1,412,835	\$136,272			
280	Curtains, draperies & dry goods	\$7,694,604	\$731,660			
300	Major household appliances	\$9,948,624	\$920,567	\$3,300,000	\$2,080,526	\$192,515
310	Small electrical appliances	\$2,241,232	\$214,781	\$3,000,000	\$2,499,196	\$239,502
320	Televisions, video recorders, and tapes	\$6,335,730	\$566,060			
330	Audio equipment, musical instruments & supplies	\$7,700,955	\$670,396			
340	Furniture and sleep equipment	\$23,296,103	\$2,308,670			
360	Floor coverings	\$9,658,432	\$980,830	\$1,306,849	\$229,838	\$23,340
370	Computer hardware, software/calc. equip., supp.	\$12,194,331	\$714,731			
380	Kitchenware & home furnishings	\$13,978,497	\$1,300,974	\$1,800,000	\$0	\$0
400	Jewelry	\$8,992,690	\$845,091			
420	Books	\$4,317,810	\$367,660			
440	Photographic equipment & supplies	\$2,211,740	\$217,475			
460	Toys, hobby goods & games	\$11,143,718	\$1,062,231			
490	Optical goods	\$3,223,792	\$317,395			
500	Sporting goods	\$8,821,895	\$849,204			
580	Recreational vehicles	\$3,035,243	\$305,891			
600	Hardware, tools & plumbing & electrical supplies	\$5,400,230	\$546,572	\$5,009,589	\$0	\$0
620	Lawn & garden equipment & supplies	\$10,501,032	\$1,046,381	\$2,831,507	\$0	\$0
640	Lumber & building materials	\$9,161,548	\$931,763	\$5,009,589	\$2,661,536	\$270,688
670	Paint & related preservatives & supplies	\$985,709	\$100,310	\$1,306,849	\$0	\$0
680	Manufactured (mobile) homes	\$0	\$0			
700	Cars, trucks & powered vehicles	\$163,497,492	\$16,630,775			
720	Automotive fuels	\$48,866,199	\$4,849,695			
730	Automotive lubricants	\$600,409	\$49,412			
740	Auto tires, batteries & accessories	\$7,833,674	\$760,722			
780	Household fuels	\$2,158,731	\$18,180			
800	Pets, pet foods, & supplies	\$6,818,250	\$680,387			
850	All other merchandise	\$19,289,948	\$1,583,247	\$435,616	\$0	\$0
890	Unclassified merchandise	\$2,982,331	\$246,857			

Table 8 quantifies the impacts of Lowe's by analyzing the spending leakages among merchandise line items sold at Lowe's. The analysis estimates that the new Lowe's at Vintner's Square will capture approximately \$700,000 of sales away from existing stores in the downtown area as described below.

- Column (1) identifies the actual sales earned by merchandise line item among Lodi's existing businesses. This is the same data as presented in Column (2) of Table 5, which indicates that actual sales earned by Lodi retailers amounts to \$794,000.
- Column (2) identifies the actual sales earned by merchandise line item among Lodi's downtown establishments. The \$76.7 million of actual sales earned by downtown establishments also appears in Table 3. Sales by store type were converted to merchandise line items as described in the methodology.
- Column (3) estimates the distribution of Lowe's sales to households by merchandise line item. The estimated \$24 million of sales to households is identical to the data presented in column (5) of Table 4.
- Column (4) estimates that the Lowe's will capture \$8.4 million of sales away from other stores selling the following four merchandise line items: major household appliances, small electrical appliances, floor coverings, and building materials. This is the same data presented in column (6) of Table 5.
- Column (5) estimates that the Lowe's will capture approximately \$700,000 of sales away from downtown retailers selling four merchandise line items. It is assumed that Lowe's will capture sales from all stores selling these four items on a proportional basis.

## **5.2 VINTNER'S SQUARE FAST FOOD IMPACTS ON DOWNTOWN BUSINESSES**

The proposed development of new fast food outlets at Vintner's Square may create a loss of sales at the downtown McDonalds as displayed in Table 9 and described below.

- Row (1) shows that current sales of fast food in Lodi amounts to \$35.2 million. Data presented in Table 7 indicates that there is already an oversupply of fast food in Lodi based on local demand.<sup>5</sup>
- Row (2) estimates that the new fast food establishments at Vintner's Square will earn \$1.2 million of sales. These are sales above and beyond the existing demand.

---

<sup>5</sup> Additional demand created by drive by traffic would only be a guess.

- Row (3) estimates that the downtown McDonalds earns \$1.55 million of sales based on national averages.
- Row (4) estimates that the new fast food establishments at Vintner's Square may result in the loss of approximately \$55,000 of sales at downtown establishments.

### 5.3 CUMULATIVE IMPACTS

The data analysis estimates that the proposed development at Vintner's Square may result in the loss of \$780,000 of sales among downtown merchants. Lowe's may capture \$725,000 of sales away from downtown stores selling four merchandise line items. The fast food establishments at Vintner's Square may capture \$55,000 of sales away from downtown fast food establishments.

**Table 9**

**ESTIMATED IMPACTS OF VINTNER'S SQUARE  
FAST FOOD TENANTS ON DOWNTOWN**

(1) Current Sales	\$35,158,808
(2) Vintner's Square Fast Food	\$1,240,000
(3) McDonalds	\$1,550,000
(4) Impacts	\$54,666

Source: Applied Development Economics  
McDonald's sales estimated from their 10-K Report

The analysis assumes that the citywide impacts will be evenly distributed among all fast food outlets no matter where their location is in Lodi. Of course, a downtown fast food establishment may be less impacted by a fast food establishment recruited to Vintner's Square than would other fast food establishments located along Kettleman Lane. Thus, the estimated impacts described are a worst case scenario. The actual impacts of sales loss should be less than the estimate, but there really is no way to differentiate the impacts of a downtown location from a location along Kettleman Lane.

\* \* \*

Consultant's Report On The  
Transportation Impacts  
For The Proposed

LOWE'S COMMERCIAL CENTER

Prepared For  
THE CITY OF LODI

At the Request of:  
PAUL B. SMITH, CO.

Prepared By

OMNI-MEANS, LTD.  
Engineers & Planners  
1901 Olympic Blvd., Suite 120  
Walnut Creek, CA 94596

(925) 935-2230

## INTRODUCTION

This report analyzes the potential traffic and parking impacts of a proposed project in Lodi that would be comprised of a commercial-retail shopping center development. Described as the "Lowe's Commercial Center", the project would be located on the northwest quadrant of the Kettleman Lane (State Route 12)/Lower Sacramento Road intersection (see Figure 1). Specifically, the proposed project would consist of 288,740 square feet of commercial-retail space including major tenants (Lowe's 161,700 square feet and Winco 96,000 square feet of gross leasable area [GLA]), and retail pads and shops (31,040 square feet of GLA). A previous study for the site evaluated the transportation characteristics of a Home Depot development.<sup>1</sup>

Existing conditions were first evaluated, then the Lowe's Commercial Center project trips were calculated and added to the existing volumes in order to determine any project-related impacts. The operating conditions associated with cumulative traffic growth were also considered. For this scenario, cumulative projections from the previous transportation analyses were used to proportionately increase current intersection volumes. Vehicle circulation within the project site and at access driveways was also addressed. Project parking was evaluated for City code requirements and theoretical and shared parking demand has been calculated. Where necessary, mitigation measures were recommended to achieve acceptable levels of traffic flow and circulation.

---

<sup>1</sup>Fehr and Peers Associates, Inc, Draft Report Traffic Impact Study for the Proposed Home Depot on Kettleman Lane in the City of Lodi, Home Depot, Inc., January 29, 2001.

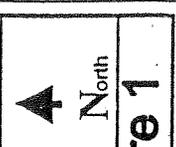
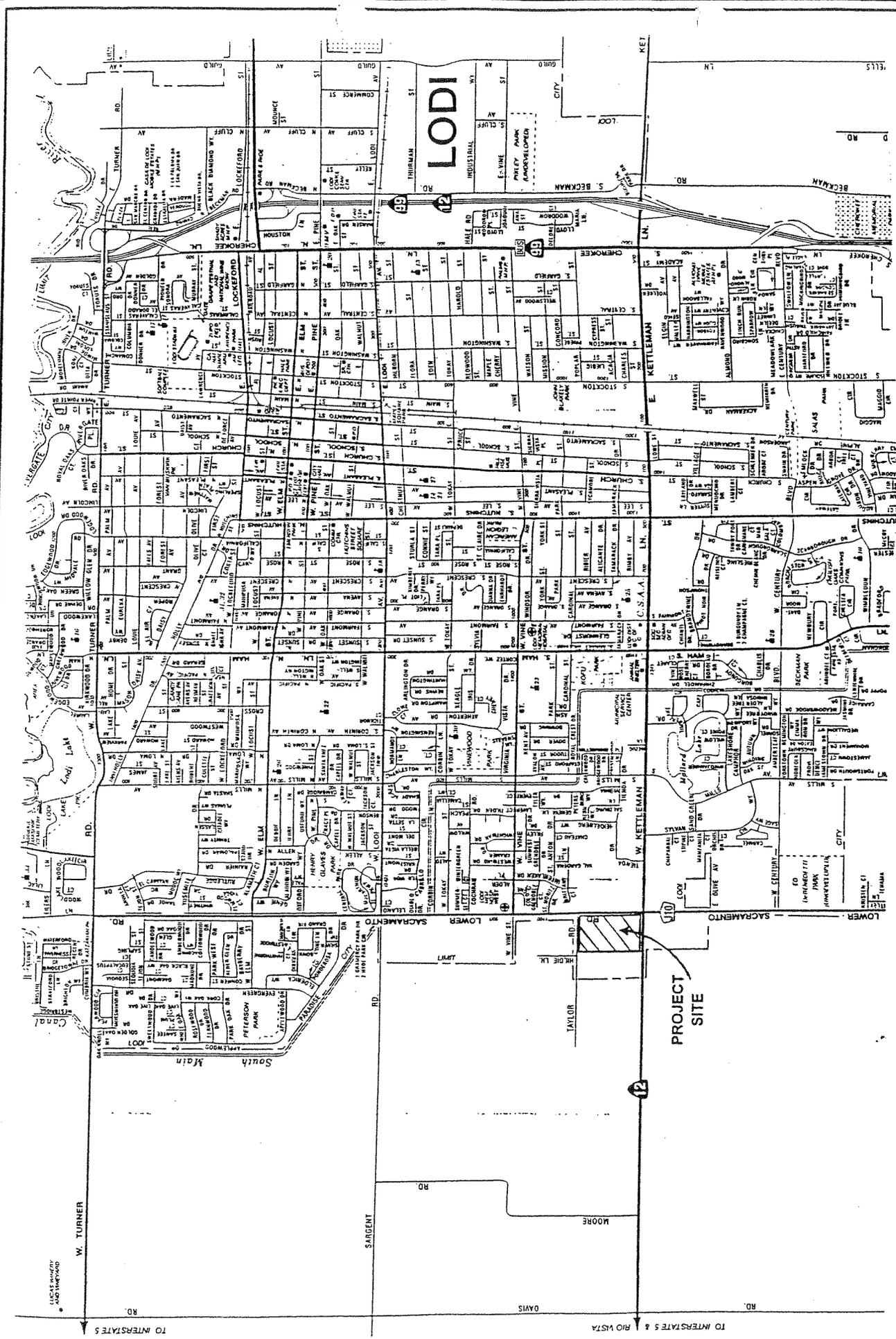


figure 1

Project Site Location Map



omni-means

## A. EXISTING CONDITIONS

### 1. 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. A brief description of each roadway follows:

**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.

### 2. 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 the Appendix.

At stop controlled intersections, the LOS definitions reflect 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, the greatest delays are experienced by vehicles attempting to turn left or travel straight across the major street from the minor streets or driveways. 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*,<sup>2</sup>

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*.

### 3. 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 would be evaluated during the AM and PM peak periods (7:00-9:00 am & 4:00-6:00 pm) in order to determine the highest peak hour volumes.

- |  |                         |
|--|-------------------------|
| 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              |

Existing AM period volumes were collected by Omni-Means Engineers and Planners during April and May, 2002.<sup>3</sup> With respect to the PM peak hour, intersection turning movement counts were

---

<sup>2</sup> Transportation Research Board (TRB), Highway Capacity Manual, Chapter 17, Unsignalized intersections, 2000.

<sup>3</sup>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,

derived from a previous transportation study conducted for the project site by Fehr and Peers Associates.<sup>4</sup> PM peak hour intersection volumes were corroborated by a recent follow-up turning movement count conducted at the Lower Sacramento Road/Kettleman Lane intersection.<sup>5</sup> From these two-hour intersection counts, the peak hours (highest four consecutive 15-minute periods) were derived.

The existing AM and PM peak hour intersection turning movement volumes are illustrated in Figure 2.

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.<sup>6</sup> In most instances, field measurements were used to reflect the most efficient use of green times and cycle lengths for actual conditions.

*send NOP to Caltrans?*

#### 4. Existing Intersection Operating Conditions

The existing level-of-service conditions are shown in Table 1. 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 53.1 seconds). This LOS is a result of significant northbound turning movements (423) exiting the retail center from the south. Future intersection/roadway improvements at this location would improve vehicle flows (see Section C 2. Cumulative Roadway Improvements).

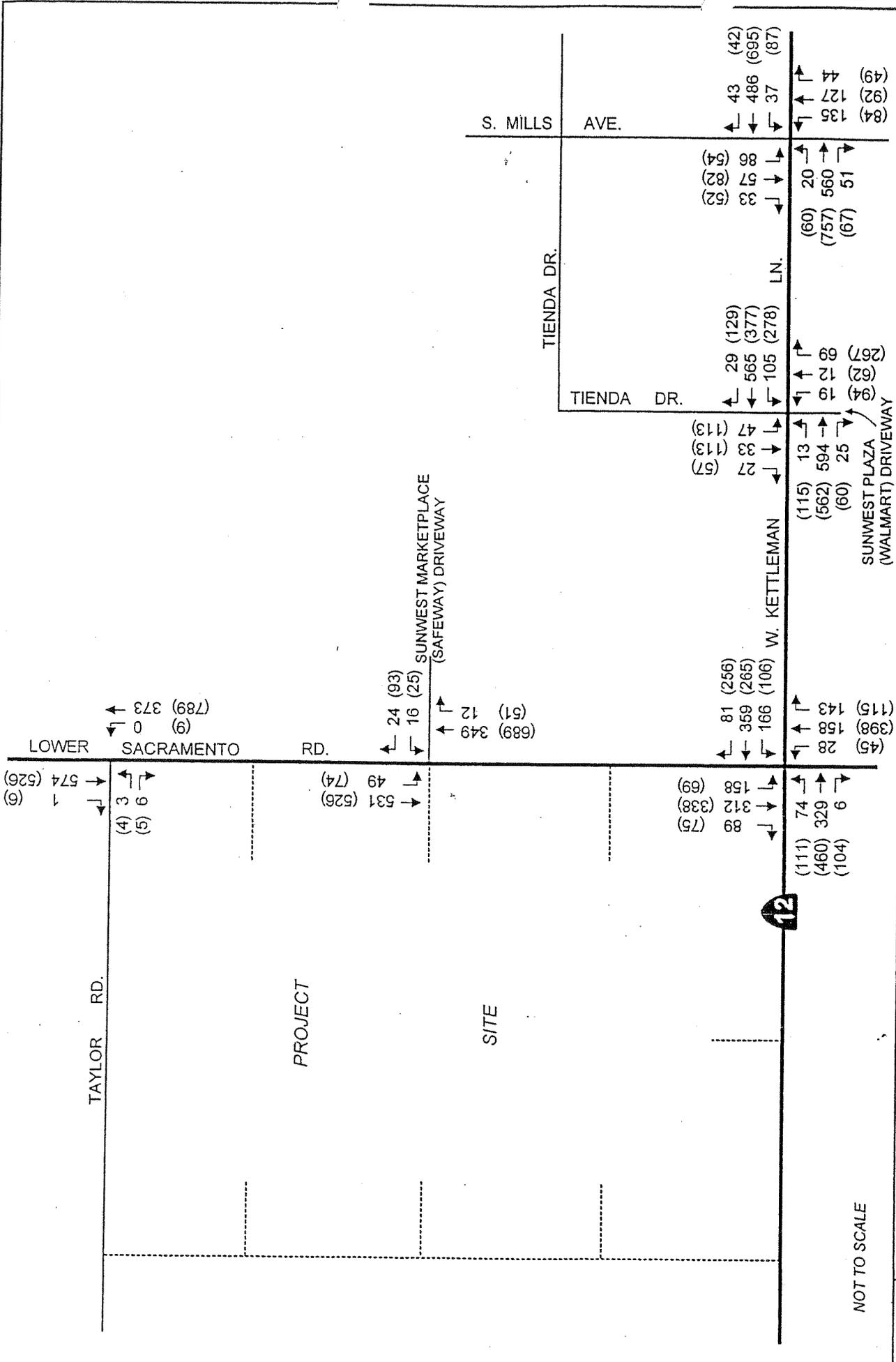
---

2002.

<sup>4</sup>Fehr and Peers Associates, Traffic Impact Study for the Proposed Home Depot on Kettleman Lane in the City of Lodi, Draft Report, January 29, 2001.

<sup>5</sup>Omni-Means Engineers and Planners, Ibid....

<sup>6</sup>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.



Existing Volumes  
A.M. and (P.M.) Peak Hour

NOT TO SCALE

12

LOWER SACRAMENTO RD.  
 → 574 (526)  
 → 1 (6)  
 ← 3 (4)  
 ← 9 (5)  
 ← 0 (9)  
 ← 789 (373)

PROJECT  
 → 531 (526)  
 → 49 (74)

SUNWEST MARKETPLACE (SAFEWAY) DRIVEWAY  
 → 24 (93)  
 → 16 (25)  
 → 349 (689)  
 → 12 (51)

TIENDA DR.  
 → 81 (256)  
 → 359 (265)  
 → 158 (69)  
 → 312 (338)  
 → 89 (75)  
 → 74 (111)  
 → 329 (460)  
 → 6 (104)

W. KETTLEMAN LN.  
 → 27 (57)  
 → 33 (113)  
 → 47 (113)  
 → 13 (115)  
 → 594 (562)  
 → 25 (60)

TIENDA DR.  
 → 29 (129)  
 → 565 (377)  
 → 105 (278)

S. MILLS AVE.  
 → 86 (54)  
 → 97 (62)  
 → 33 (52)  
 → 20 (60)  
 → 560 (757)  
 → 51 (67)

TIENDA DR.  
 → 43 (42)  
 → 486 (695)  
 → 37 (87)  
 → 135 (84)  
 → 127 (92)  
 → 44 (49)

SUNWEST PLAZA (WALMART) DRIVEWAY  
 → 18 (94)  
 → 12 (62)  
 → 69 (267)

Table 1  
Existing Intersection Level-of-Service and Delays  
AM and PM Peak Hour<sup>123</sup>

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 31.3	C 34.1
4. Kettleman Lane / Tienda Drive	C 21.0	D 48.6
5. Kettleman Lane / Mills Avenue	C 29.7	C 32.2

← why LOSD?

- <sup>(1)</sup> 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 and Peers, Associates, January, 2001.
- <sup>(2)</sup> 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.
- <sup>(3)</sup> LOS for signalized intersections based on the *2000 Highway Capacity Manual*, Chapter 16, signalized intersections, operational analyses. Average vehicle delays are expressed in seconds.

## B. EXISTING PLUS PROJECT CONDITIONS

### 1. Project Description

The proposed project would be made up of 288,740 square feet of commercial-retail uses. The main anchor tenant would be a Lowe's Home Improvement Warehouse totalling 161,700 square feet for which 27,100 would be a garden center. In addition to the Lowe's Home Improvement Warehouse, there would be 120,840 square feet of retail-commercial development and 6,200 square feet of fast-food restaurant uses. Direct access to the project site would be provided by Kettleman Lane and Lower Sacramento Road (see Figure 6, June 4, 2002 Project Site Plan).

### 2. Trip Generation

The project's daily and AM and PM peak hour trip generation has been based upon Institute of Transportation Engineers (ITE) trip generation research and a previous transportation study conducted for the site.<sup>7 8</sup> The trip generation 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 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 below) were applied. The project trip generation is shown in Table 3.

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 shopping center's area increases, their daily and peak hour trip generation rates per 1,000 square feet are proportionately smaller. For the proposed project, it would be inaccurate to calculate trips for the remaining 120,840 square feet of retail uses using the corresponding shopping center rate. For this reason, a shopping center trip generation rate was calculated for the entire amount of commercial-retail uses (282,540 square feet) and then applied to the remaining commercial retail uses. This rate would more accurately reflect the dynamics of the shopping center and account for internal trips among the site's various uses.

As shown in Table 3, the proposed project would generate 14,389 daily trips with 746 trips during the AM peak hour and 1,341 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

---

<sup>7</sup> Institute of Transportation Engineers, Trip Generation, Shopping Centers (#820) and Fast-food Restaurants with Drive-Through (#834), 6th Edition, 1997.

<sup>8</sup>Fehr and Peers Associates, Ibid.....

**Table 3  
Proposed Project Trip Generation<sup>1</sup>**

**A. Project Components:**

288,740 square foot shopping center;  
 (161,700 sq. ft. Lowe's major tenant)  
 (120,840 sq. ft. commercial-retail shops)  
 (6,200 sq. ft. fast-food restaurants)

**B. Project Trip Generation:**

Lowe's:<sup>2</sup>

Daily:	34.8 trips/1,000 sq. ft. x 161,700 sq. ft.	= 5,627 trips
AM Peak:	1.92 trips/1,000 sq. ft. x 161,700 sq. ft.	= 310 (167 in, 143 out)
PM Peak:	3.71 trips/1,000 sq. ft. x 161,700 sq. ft.	= 600 (288 in, 312 out)
Daily Pass-By:	5,627 trips x 25%	= 1,407
AM Peak Pass-By:	310 trips x 25%	= 76 (41 in, 35 out)
PM Peak Pass-By:	600 trips x 25%	= 150 (72 in, 78 out)

Commercial-Retail Shops:

Daily:	47.05 trips/1,000 sq. ft. x 120,840 sq. ft.	= 5,686 trips
AM Peak:	1.05 trips/1,000 sq. ft. x 120,840 sq. ft.	= 127 (77 in, 50 out)
PM Peak:	4.41 trips/1,000 sq. ft. x 120,840 sq. ft.	= 533 (256 in, 277 out)
Daily Pass-By:	5,686 trips x 25%	= 1,422
AM Peak Pass-By:	127 trips x 25%	= 32 (20 in, 12 out)
PM Peak Pass-By:	533 trips x 25%	= 133 (64 in, 69 out)

Fast-Food Restaurants:

Daily:	496.12 trips/1,000 sq. ft. x 6,200 sq. ft.	= 3,076 trips
AM Peak:	49.86 trips/1,000 sq. ft. x 6,200 sq. ft.	= 309 (158 in, 151 out)
PM Peak:	33.48 trips/1,000 sq. ft. x 6,200 sq. ft.	= 208 (108 in, 100 out)
Daily Pass-By:	3,076 trips x 50%	= 1,538
AM Peak Pass-By:	309 trips x 50%	= 155 (79 in, 76 out)
PM Peak Pass-By:	208 trips x 50%	= 104 (54 in, 50 out)

**Total Net New Project Trips:**

Daily Trips:	10,022
AM Trips:	483 (263 in, 220 out)
PM Trips:	954 (462 in, 492 out)

(1) Institute of Transportation Engineers (ITE), Trip Generation, 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 and Peers Associates, Traffic Impact Study for the Proposed Home Depot on Kettleman Lane in the City of Lodi, January 29, 2001.

actually represent existing traffic that is already "passing by" the project site and is diverted into the site from other primary trip purposes. ITE research for pass-by trips indicates that an average of 25% of the commercial-retail trips would be pass-by and 50% of the fast-food restaurant trips. This would result in 483 net new AM peak hour trips (263 in, 220 out) and 954 net new PM peak hour trips (462 in, 492 out). It is noted that pass-by trips would be present at all project driveways, but would not be distributed to outlying intersections.

### 3. 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.<sup>9 10</sup> 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 above distribution, AM and PM peak hour project trips have been added to existing volumes and are shown in Figure 3.

### 4. Interim Project Circulation Improvements

As part of proposed project development, specific improvements are planned for Lower Sacramento Road and Kettleman Lane and include the following:

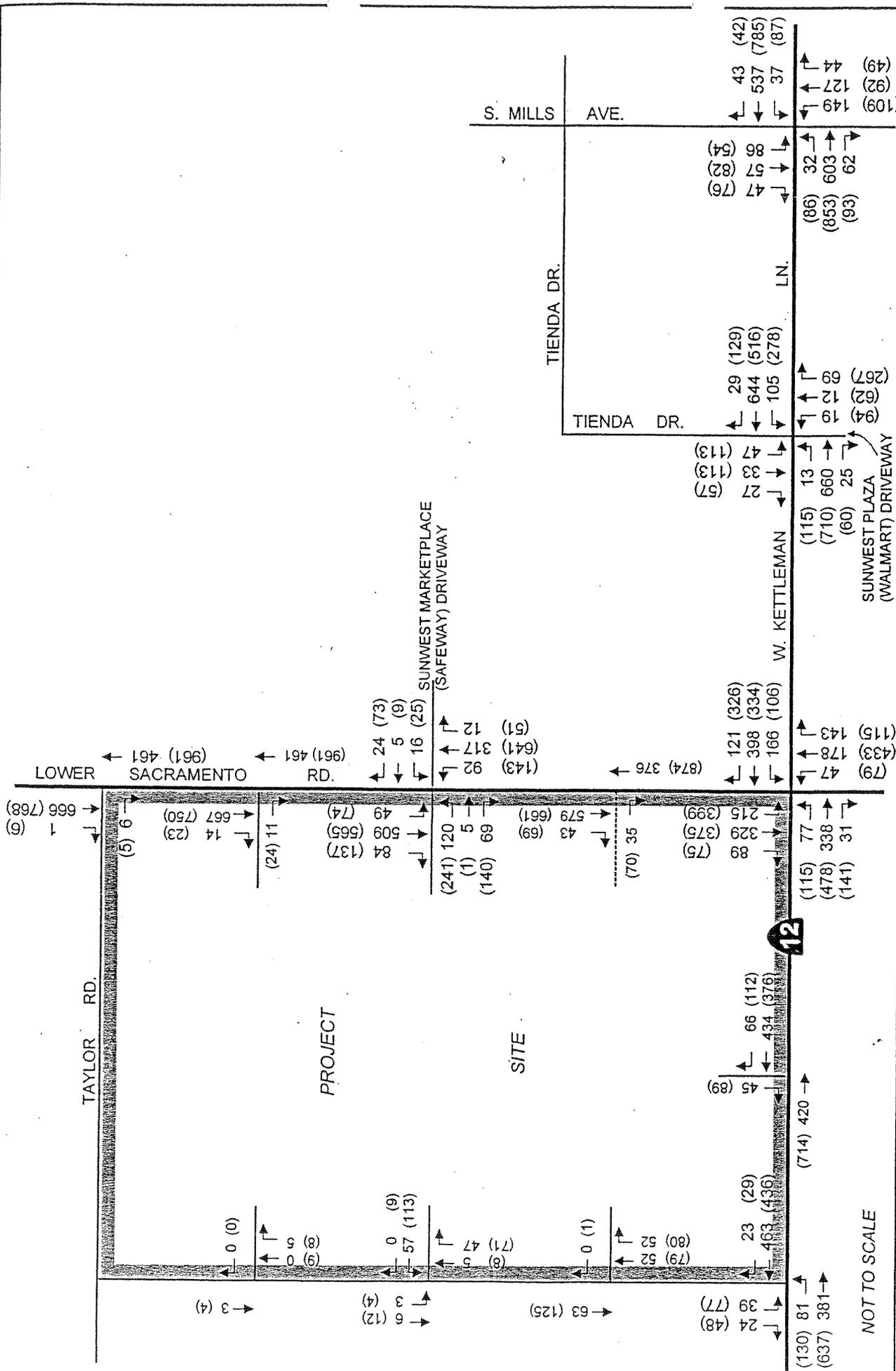
#### a. Lower Sacramento Road:

- Lower Sacramento Road would be widened to provide six (6) travel lanes from Kettleman Lane to north of the project's main access driveway at Sunset Marketplace.
- The raised median on Lower Sacramento Road would be extended through Taylor Road to

---

<sup>9</sup>Fehr and Peers Associates, Ibid.....

<sup>10</sup>KD Anderson, Access Feasibility Analysis for the Kettleman Lane and Lower Sacramento Road Intersection in Lodi, California, City of Lodi, October 23, 1997.



Existing + Project Volumes  
A.M. and (P.M.) Peak Hour

figure 3



omni-means

NOT TO SCALE

preclude left-turn access in/out from Taylor Road.

- 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 access driveways would be located off Lower Sacramento Road. A northernmost driveway (located 400 feet north of Sunset 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.

#### **b. 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 three eastbound lanes and two westbound lanes with a raised median.
- 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.

### **5. Project Effects on Intersection Operation**

With project traffic added to existing traffic volumes, four intersections would change LOS. As shown in Table 4, the unsignalized intersection of Lower Sacramento/Taylor would change from LOS A (8.7 seconds) to LOS B (10.2 seconds) during the AM peak hour. With the extension of the raised median on Lower Sacramento Road, this LOS would only apply to the outbound right-turn movement from Taylor Road onto Lower Sacramento Road. The signalized intersection of Lower Sacramento/Sunset Marketplace/Lowe's would change from LOS B (11.1 seconds and 14.3 seconds) to LOS C (21.8 seconds and 25.7 seconds) during the AM and PM peak hours, respectively. Part of the added vehicle delays at this location would be due to the new eastbound approach leg (Lowe's driveway access). The Lower Sacramento/Kettleman intersection would change from LOS C (34.1 seconds) to LOS D (44.0 seconds) during the PM peak hour. Similarly, the Kettleman/S. Mills intersection would change from LOS C (32.2 seconds) to LOS D (38.4 seconds) during the PM peak hour. The new, signalized intersection of Kettleman/Road "A" would be operating at LOS B (14-15 seconds) of delay during the AM and PM peak hour with proposed project development.

All remaining study intersections would be operating at LOS D or better with existing plus project traffic.

Table 4  
Existing, and Existing + Project Intersection Level-of-Service  
AM and PM Peak Hour<sup>1,2</sup>

Intersection	Existing		Existing + Project	
	AM LOS	PM LOS	AM LOS	PM LOS
1. L. Sacramento/Taylor	A 8.7 secs.	B 10.2 secs.	B 10.9 secs.	B 11.4 secs.
2. L. Sacramento/Sun.Safe.	B 11.1 secs.	B 14.3 secs.	C 21.8 secs.	C 25.7 secs.
3. L. Sacramento/Kettleman	C 31.3 secs.	C 34.1 secs.	C 31.0 secs.	D 44.0 secs.
4. Kettleman/Tienda	C 21.0 secs.	D 48.6 secs.	C 20.9 secs.	D 49.4 secs.
5. Kettleman/Mills	C 29.7 secs.	C 32.2 secs.	C 30.3 secs.	D 38.4 secs.
6. Kettleman/Road "A" <sup>3</sup>	-----	-----	B 14.5 secs.	B 14.7 secs.

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

<sup>(2)</sup> 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.

<sup>(3)</sup> 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.

## C. CUMULATIVE TRAFFIC GROWTH

### 1. Methodology

Cumulative traffic projections for the PM peak hours were derived from previous transportation studies performed by Fehr and Peers Associates for the project site and Lower Sacramento Road.<sup>11 12</sup> 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 volumes for the Year 2020.

AM and PM peak hour Year 2020 cumulative without the proposed project have been shown in Figure 4.

### 2. Cumulative Roadway Improvements

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

Lower Sacramento Road would be widened to four travel lanes with a raised, landscaped median north of Kettleman Lane (completed). 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.<sup>13</sup> However, for the purpose of this study six travel lanes have been assumed on Lower Sacramento Road south of Kettleman Lane.

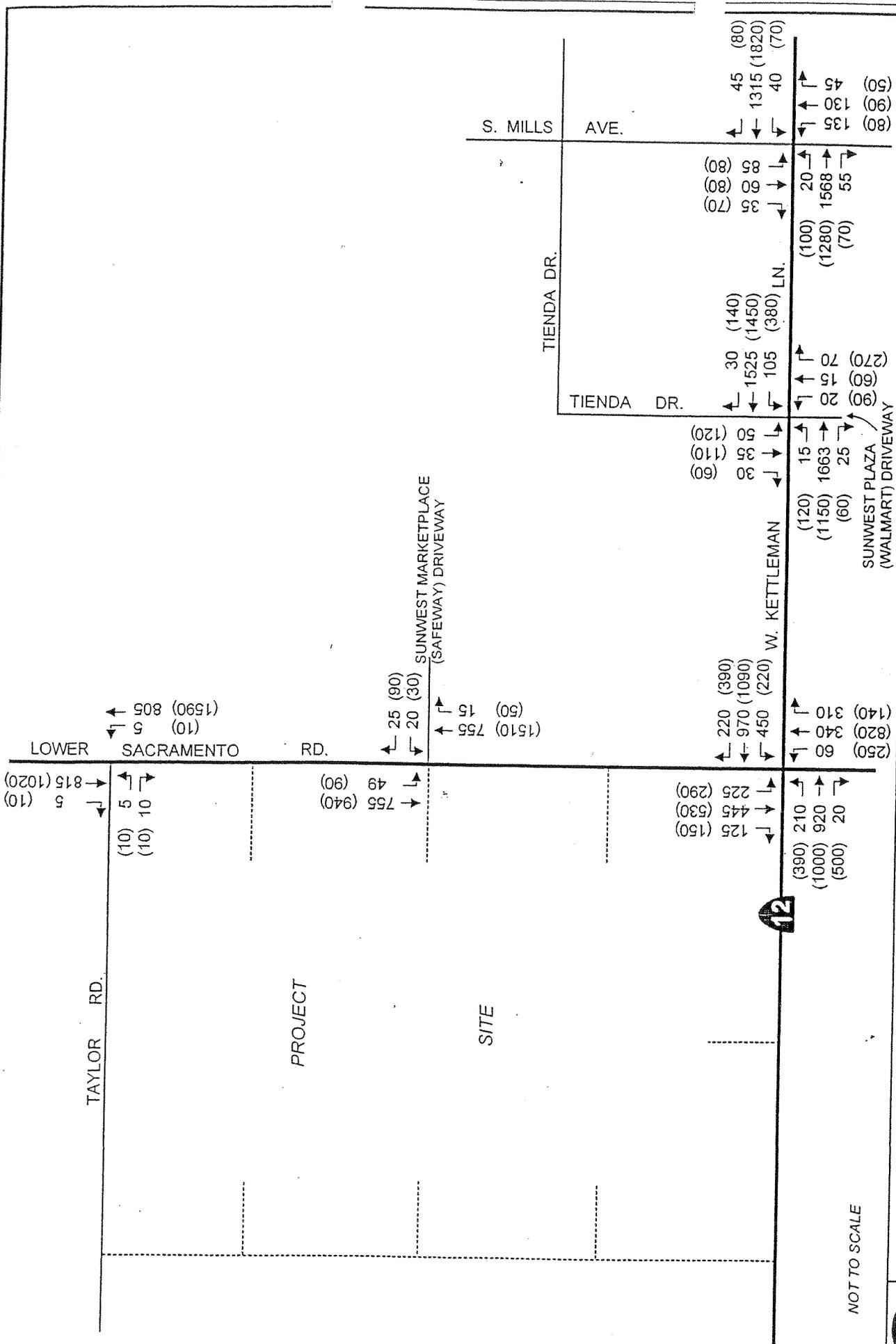
Kettleman Lane would be widened to six travel lanes between Lower Sacramento Road and

---

<sup>11</sup>Fehr and Peers Associates, Traffic Impact Study for the Proposed Home Depot on Kettleman Lane in the City of Lodi, Draft Report, January 29, 2001.

<sup>12</sup>Fehr and Peers Associates, Traffic Impact Study for the Lower Sacramento Road Widening Project, City of Lodi, Final Report, February 15, 2000.

<sup>13</sup>Paula Fernandez, Senior Traffic Engineer, City of Lodi, Personal communication on May 15, 2002.



Cumulative Volumes  
A.M. and (P.M.) Peak Hour

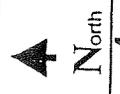


figure 4



i-means

Tienda Drive with a raised, landscaped median. East of Tienda Drive, the roadway would continue as a four-lane street. However, the third eastbound lane (from Tienda Drive) would not be dropped until just east of Sylvan Way.<sup>14</sup>

### 3. 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 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 5, all intersections would be operating at LOS D or better with cumulative no project traffic volumes.

### 4. Effects of Cumulative Traffic With Project on Intersection Operation

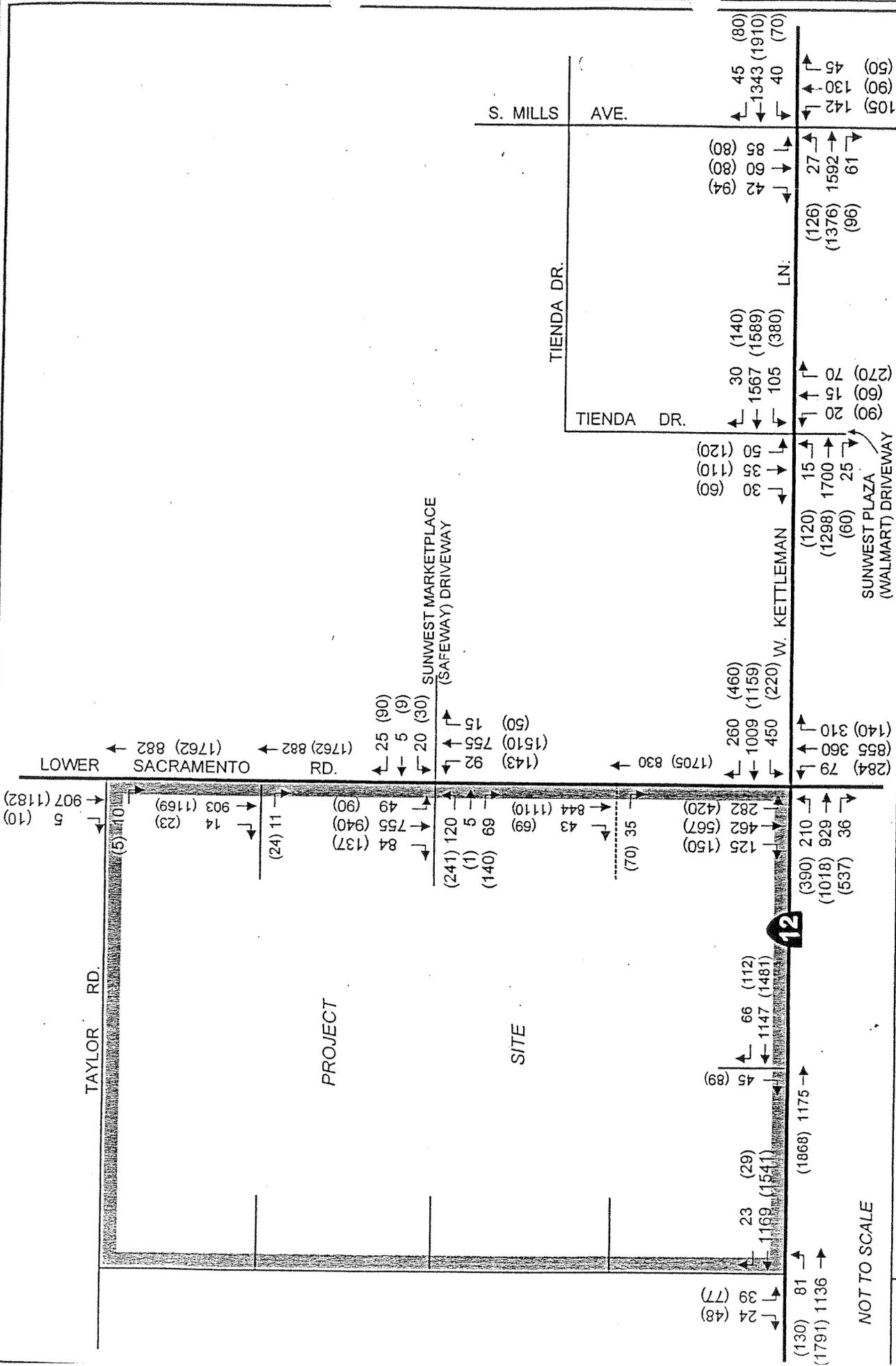
Proposed AM and PM peak hour project trips were added to cumulative no project volumes and are shown in Figure 5. With proposed project traffic, cumulative intersection operation would remain at LOS D for all five of six study intersections. As shown in Table 5, the initial five study intersections of Lower Sacramento/Taylor, Lower Sacramento/Sunwest Marketplace, Lower Sacramento/Kettleman, Kettleman/Tienda, and Kettleman/Mills would all operate at LOS D with planned cumulative roadway improvements. However, the proposed project-related intersection of Kettleman/Road "A" would be operating at LOS F during the AM and PM peak hours. Significant congestion at this location would be caused by heavy east-west through-traffic on Kettleman Lane (State Route 12). In response, the following measures are recommended reduce cumulative plus project impacts to less-than-significant levels:

- Kettleman/Road "A": The Kettleman Lane westbound approach leg should be re-striped to include one (1) through-lane and one (1) shared through/right-turn lane. For the eastbound Kettleman Lane approach leg, it is assumed that there would be one (1) left-turn lane and two (2) through-lanes. Passing through Road "A", the two eastbound lanes would then transition into the three (3) eastbound through-lanes planned as part of proposed project development as Kettleman Lane approaches Lower Sacramento Road. With these improvements, cumulative plus project intersection operation would be reduced from LOS F during the AM and PM peak hours to LOS B (11.9 seconds AM) and LOS B (15.5 seconds PM).

It is noted that cumulative plus project volume projections are likely conservative in nature. Cumulative volume projections already contain retail development on the site which may result in some double counting of development traffic for the site.

---

<sup>14</sup>Paula Fernandez, Senior Traffic Engineer, City of Lodi, Ibid.....



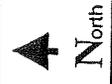
Cumulative + Project Volumes  
 A.M. and (P.M.) Peak Hour



omni-means

figure 5

NOT TO SCALE



**Table 5**  
**Cumulative, and Cumulative + Project Intersection Level-of-Service**  
**AM and PM Peak Hour<sup>1,2</sup>**

Intersection	Cumulative		Cumulative + Project	
	AM LOS	PM LOS	AM LOS	PM LOS
1. L. Sacramento/Taylor	B 11.8 secs.	B 13.2 secs.	B 12.3 secs.	B 14.3 secs.
2. L. Sacramento/Sun.Safe.	B 12.3 secs.	C 20.7 secs.	C 20.9 secs.	C 28.9 secs.
3. L. Sacramento/Kettleman	D 43.3 secs.	D 49.2 secs.	D 43.9 secs.	D 53.3 secs.
4. Kettleman/Tienda	C 22.6 secs.	D 48.3 secs.	C 23.0 secs.	D 54.8 secs.
5. Kettleman/Mills	D 38.9 secs.	D 50.6 secs.	D 41.2 secs.	D 53.4 secs.
6. Kettleman/Road "A" <sup>3</sup> (Mitigated)	-----	-----	F 130.6 secs. B 11.9 secs.	F 711.5 secs. B 15.5 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 in/out.

## D. PROJECT ACCESS AND CIRCULATION

### 1. 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 Figure 6.<sup>15</sup> 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. At this 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 field 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.

Two driveways would be located off Kettleman Lane; one right-turn-only (in/out) driveway, and one full access driveway. The closest driveway to the Lower Sacramento/Kettleman intersection would be a limited access driveway serving proposed retail shops and restaurants along the project's southern frontage (approximately 700 feet west of Lower Sacramento Road). The full access driveway (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. Three driveways located off Road "A" would provide access to different areas of the project site. The first driveway 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 existing 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 4.0 vehicles. Based on a vehicle design length of 25 feet, this would equate to 62.5 feet and 100 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

---

<sup>15</sup>Paul Smith, Paul B. Smith Company, Lowe's Home Improvement Warehouse and Retail Center Site Plan, June 4, 2002.



(between the Lowe's building and shops adjacent to Lower Sacramento Road). 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).

## 2. Internal Circulation

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. There would be a main north-south drive aisle extending between the limited access driveway from Kettleman Lane to the Winco/Lowe's buildings.

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 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.

## SUMMARY/RECOMMENDED MITIGATION MEASURES

### Existing Conditions:

No mitigation is necessary. All intersections are currently operating at acceptable levels.

### Existing + Proposed Project Conditions:

With existing plus proposed project traffic, all project study intersections would continue to operate at LOS D or better with planned project improvements. With respect to internal circulation, a projected vehicle queue of 200 feet would occur during the PM peak hour for eastbound vehicles (outbound left-through movements) at the project's main access driveway at Lower Sacramento Road. This vehicle queuing would extend back to an internal north-south drive aisle between the Lowe's building and shops on Lower Sacramento Road. Although this vehicle queuing would not cause any off-site traffic congestion, it is recommended that a "Keep Clear" legend be striped at this internal intersection to prevent potential vehicle conflicts at this location.

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 planned bus pull-out along Lower Sacramento Road 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.

### Cumulative Traffic Conditions

With cumulative Year 2020 traffic, intersection operation would continue to operate at LOS D or better with planned widening of Lower Sacramento Road and Kettleman Lane.

### Cumulative + Proposed Project Conditions

With cumulative plus project conditions, the new project intersection of Kettleman Lane/Road "A" would be operating at LOS F during the AM and PM peak hours. As part of planned project circulation improvements, Kettleman Lane would be widened to provide two (2) through-lanes between Lower Sacramento Road and Road A. In addition, a transition/merge area would also be provided west of Road A that would allow motorists to merge from two lanes back into one-lane. Based on these planned improvements, it is recommended that the Kettleman Lane westbound approach be striped to include one (1) through lane and one (1) shared through/right-turn lane. The Kettleman Lane eastbound approach would include one (1) left-turn lane and two (2) through lanes. With these improvements, the Kettleman Lane/Road "A" intersection LOS would improve to B (11.9 seconds) during the AM peak hour and LOS B (15.5 seconds) during the PM peak hours.

All remaining project study intersections would be operating at LOS D or better with cumulative plus project volumes.

Table 8. Final LESA Scoresheet

A Factor Name	B Factor Rating (0-100 points)	C Factor Weighting (Total = 1.00)	D Weighted Factor Rating
<u>Land Evaluation</u>			
1. Land Capability Classification	<Line 1> <u>100</u>	X	25
2. Storie Index Rating	<Line 2> <u>95</u>	X	23.75
<u>Site Assessment</u>			
1. Project Size	<Line 3> <u>50</u>	X	7.5
2. Water Resource Availability	<Line 4> <u>100</u>	X	15
3. Surrounding Agricultural Lands	<Line 5> <u>0</u>	X	0
4. Protected Resource Lands	<Line 6> <u>0</u>	X	0
Total LESA Score (sum of weighted factor ratings)		<Line 7> <u>71.25</u>	

Table 4. Site Assessment Worksheet 2. - Water Resources Availability

A	B	C	D	E
Project Portion	Water Source	Proportion of Project Area	Water Availability Score	Weighted Availability Score (C x D)
1	Woodbridge Irrigation	100%	100	100
2				
3				
4				
5				
6				
		(Must Sum to 1.0)	Total Water Resource Score	



URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\lowes&winco  
Project Name: lowes/winco shopping center  
Project Location: San Joaquin Valley

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (lbs/day, unmitigated)	490.28	1.40	2.14	0.23	0.00
TOTALS (lbs/day, mitigated)	490.28	1.40	2.14	0.23	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (lbs/day, unmitigated)	0.51	2.96	3.24	0.01	0.00
TOTALS (lbs/day, mitigated)	0.51	2.96	3.24	0.01	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (ppd, unmitigated)	357.60	337.57	3,712.79	13.20	2.49
TOTALS (ppd, mitigated)	357.60	337.57	3,712.79	13.20	2.49

*Variables assumed?*

## URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\lowes&winco  
 Project Name: lowes/winco shopping center  
 Project Location: San Joaquin Valley

SUMMARY REPORT  
 (Pounds/Day - Winter)

## CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (lbs/day, unmitigated)	490.28	1.40	2.14	0.23	0.00
TOTALS (lbs/day, mitigated)	490.28	1.40	2.14	0.23	0.00

## AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (lbs/day, unmitigated)	0.21	2.94	1.18	0.01	0.00
TOTALS (lbs/day, mitigated)	0.21	2.94	1.18	0.01	0.00

## OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (ppd, unmitigated)	488.73	522.44	4,518.48	13.20	2.26
TOTALS (ppd, mitigated)	488.73	522.44	4,518.48	13.20	2.26

## URBEMIS 2001 For Windows 6.2.2

File Name: C:\Program Files\URBEMIS 2001 For Windows\Projects2k\lowes&winco  
 Project Name: lowes/winco shopping center  
 Project Location: San Joaquin Valley

SUMMARY REPORT  
 (Tons/Year)

## CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (tpy, unmitigated)	5.77	0.18	0.27	0.03	0.00
TOTALS (tpy, mitigated)	5.77	0.18	0.27	0.03	0.00

## AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (tpy, unmitigated)	0.07	0.54	0.40	0.00	0.00
TOTALS (tpy, mitigated)	0.04	0.54	0.40	0.00	0.00

## OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SO2
TOTALS (tpy, unmitigated)	73.24	72.85	726.60	2.41	0.44
TOTALS (tpy, mitigated)	73.24	72.85	726.60	2.41	0.44





# VICINITY MAP

