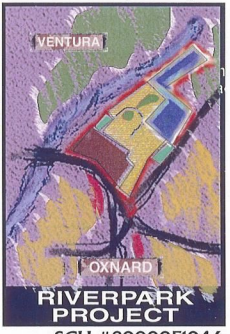
CITY OF OXNARD

Draft Environmental Impact Report

VOLUME III appendix



RIVERPARK PROJECT

SCH #2000051046

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TRAFFIC ANALYSIS FOR
OXNARD RIVERPARK SPECIFIC PLAN DEVELOPMENT

Prepared for:

CITY OF OXNARD, COUNTY OF VENTURA

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Revised October 2001

EXECUTIVE SUMMARY

The project under consideration consists of a proposed Specific Plan to regulate the use of land within an approximate 700-acre area located immediately north of the Ventura Freeway (US-101) between Vineyard Avenue (SR-232) and the Santa Clara River. Approximately 272 acres of the project site, referred to as "RiverPark Area A", are currently located within the City of Oxnard. The remaining 428 acres of the site, referred to as "RiverPark Area B", are located outside of the City of Oxnard. The City of Oxnard adopted a specific plan for the majority of the RiverPark Area A in 1986 and annexed the area addressed by that specific plan (the small portion of RiverPark Area A not annexed by the City at that time was already within City limits). That existing specific plan titled the "Oxnard Town Center Specific Plan", allows development of up to 4.4 million square feet of commercial and industrial space in the area.

As summarized in Table ES-1, the proposed Specific Plan would allow the development of a newly integrated mixed-use community containing retail commercial, residential, office, hotel, open space and public facilities uses within the 700-acre Specific Plan Area. In addition, the draft Specific Plan allows for some flexibility in the exact development configuration of land uses. Table ES-2 shows the comparative trip values for the assumed and conditional land-uses. As this table shows, the total highest peak-hour generator within each zone was selected inclusion within the traffic analysis. These uses would be linked by the proposed system of roadways and a network of open spaces. Figure ES-1 shows a conceptual land use plan of the project site.

Table ES-1
RiverPark Specific Plan
Summary of Proposed Land Uses

1,416	units	Single-Family Residential
1,324	units	Multi-Family Residential
1,345	ksf	Regional Commercial
600	rooms	Hotel
1,030	ksf	Office
257	acre	Parks
40	ksf	Neighborhood Retail
81	ksf	Light Industrial/Public Facilities
1,600	students	Elementary/Middle School

Table ES-2
Traffic Generation Comparisons
for Conditional Land-Use Scenarios

District	Scenario	Land-Use	Size	Units	Daily Trips	Peak Hour Trips AM	PM	Total
D	Allowed	*Regional Commercial	80	ksf	2,630	53	245	298
	Conditional	Stadium	5,000	Seats	5,010	17	249	266
D	Allowed	*Office	190	ksf	2,670	361	355	716
	Conditional	Multi-Family Residential	194	units	1,550	128	167	295
F	Allowed	*Office	250	ksf	3,510	475	468	943
	Conditional	Multi-Family Residential	256	units	2,050	169	220	389
G	Allowed	*Elementary/Middle School	500	students	550	140	125	265
	Conditional	Multi-Family Residential	174	units	1,390	115	150	265
J	Allowed	*Elementary/Middle School	1,100	students	1,200	308	275	583
	Conditional	Single-Family Residential	242	units	2,310	184	247	431

* Land-Use Option included in the traffic analysis

DRAFT SPECIFIC PLAN

Land Use Plan

Planning Districts

A	Office District
B	West Peripheral Commercial District
C	Convention/ Hotel District
D	Town Square Commercial District
E	East Peripheral Commercial District
F	Vineyards Neighborhood District
G	Village Square Neighborhood District
H	RiverPark Crescent Neighborhood District
I	RiverPark Loop Neighborhood District
J	RiverPark Mews Neighborhood District
K	Lakeside Neighborhood District
L	Public Facility District
M	Water Quality Basins & Storm Water Control District

Land Use Legend

- Residential: Low Medium (6-9 D.U./ Ac.)
- Residential: Medium (9-15 D.U./ Ac.)
- Residential: High (15-20 D.U./ Ac.)
- Commercial: Regional
- Commercial: Office
- Commercial: Convention/ Hotel
- Commercial: Retail/ Office
- Open Space: Park Space
- P — Open Space: Neighborhood Parks
- Open Space: Landscaped Buffer
- Open Space: Miscellaneous: Drainage Swales/ Detention Basins
- Open Space: Miscellaneous: Water Storage/ Recharge Basins
- Open Space: Miscellaneous: Water Feature
- Schools/ Community Park
- Public Facilities
- Project Boundary
- Planning District Boundary
- K — Planning District Designation

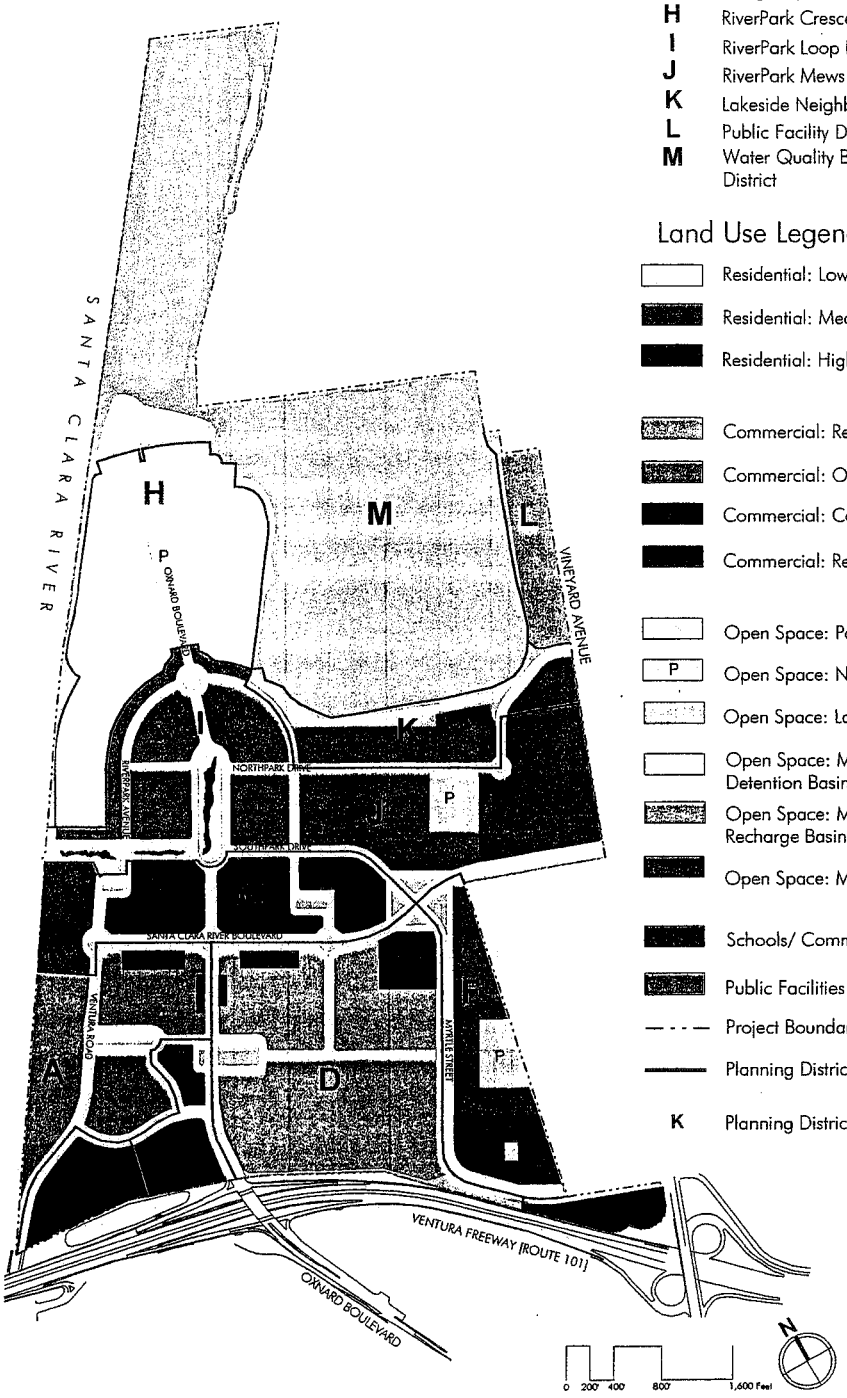

FIGURE ES-1

:FN OXNRDRPK\FIGURE-ES-1

CONCEPTUAL LAND USE PLAN

C&A

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The analysis incorporated a detailed evaluation of traffic conditions at 25 project area intersections and 8 additional remote intersections. Five regional facility study segments were also evaluated. These study locations include those roadway facilities most likely to be directly impacted by the traffic generated by the RiverPark project.

In accordance with the City of Oxnard's trip rates, the project is expected to generate approximately 94,174 net daily trips, including 5,807 trips in the morning peak hour and 9,859 trips in the afternoon peak hour. The RiverPark project will have significant impacts at seven study intersections in the City of Oxnard's or County of Ventura's control and one study intersection in the City of Ventura, prior to any mitigation measures.

In order to reduce the eight impacts to a level of insignificance, the following mitigation measures are proposed:

City of Oxnard/County of Ventura (equitable participation):

The project would pay appropriate fees and receive credit for any construction, to equitably participate in the buildout of the Master Plan of streets and Highways of the General Plan. This would include the following improvements which should be added to the City's and County's General Plans.

- Los Angeles Avenue and Vineyard Avenue -- Widen and restripe Los Angeles Avenue to provide one left-turn lane, two through lanes and one through/right shared lane in the westbound direction and one left-turn lane, two through lanes, one through/right shared lane and one right-turn lane in the eastbound direction.

- Oxnard Boulevard and Town Center Drive -- Construct this intersection to provide the following: dual left-turn lanes and one through/right shared lane in

the westbound direction, dual left-turn lanes, one through lane and two right-turn lanes in the eastbound direction, dual left-turn lanes, two through lanes and one right-turn lane in the northbound direction, and one left-turn lane, one through lane and one through/right shared lane in the southbound direction. In addition, provide a green phase for the eastbound right-turn movement concurrent with the northbound left-turn phase.

- Oxnard Boulevard and US-101 Northbound Ramps -- Improve this intersection to provide the following: one left-turn lane and one 'free' right-turn lane in the westbound direction, dual left-turn lanes and two through lanes in the northbound direction, and four through lanes and one right-turn lane in the southbound direction.

- Ventura Freeway SB On/Off-ramps and Oxnard Boulevard -- When sufficient redevelopment occurs to the Wagon Wheel Road area, a "hook" ramp along Wagon Wheel Road will be constructed. This ramp will provide direct access from Wagon Wheel Road to the southbound Ventura Freeway. The construction of this ramp will alleviate traffic that crosses to the east of the Ventura Freeway to access the southbound on-ramp from Oxnard Boulevard. In addition, a connection between southbound Oxnard Boulevard and this hook-ramp will be provided. Upon completion of the hook-ramp and connector, left-turns from southbound Oxnard Boulevard to the southbound Ventura Freeway diamond on-ramp will be prohibited. This connector will also allow access from Wagon Wheel Road to northbound Oxnard Boulevard. As part of the immediate roadway improvement project, the Oxnard Boulevard overcrossing will be constructed with sufficient length to accommodate the later installation of the hook ramp.

- Wagon Wheel Road and US-101 Southbound On-Ramp -- Restripe Wagon Wheel Road to provide one through/right shared lane and one right-turn lane in the northbound direction.

- Oxnard Boulevard and Esplanade Drive -- Improve this intersection to provide dual left-turn lanes in the westbound and eastbound directions, and one left-turn lane, two through lanes, one through/right lane and one right-turn lane in the southbound direction.

- Vineyard Avenue and Esplanade Drive -- Reconstruct the west and east legs of the Vineyard Avenue and Esplanade Drive intersection to provide two left-turn lanes, one left-through shared lane and one right-turn only lane in the eastbound direction and one left-turn lane, one left-through shared lane, one right-though shared lane and one right-turn only lane in the westbound direction. Widen Vineyard Avenue along the west and east curb and relocate the median island to provide dual left-turn lanes, four through lanes and one right-turn-only in the southbound direction and dual left-turn lanes, three through lanes and one right-through shared lane in the northbound direction. This will require additional right-of-way to be obtained from the Esplanade Mall.

- Vineyard Avenue and Ventura Road -- Restripe Ventura Road to provide one left-turn lane, three through lanes and one right-turn lane in the northbound direction and one left-turn lane, two through lanes and one through/right turn lane in the southbound direction. In addition, modify signal phasing to provide a green phase for the northbound right-turn movement during the westbound left-turn phase.

- Vineyard Avenue and Oxnard Boulevard -- Modify the median islands and restripe Oxnard Boulevard to provide dual left-turn lanes, three through lanes,

and two right-turn lanes in the northbound direction and two left-turn lanes, four through lanes and one right-turn lane in the southbound direction. In addition, flare and modify the median islands and restripe Vineyard Avenue to provide three left-turn lanes, three through lanes and one right-turn lane in the westbound direction and restripe the eastbound approach to provide one left-turn lane, three through lanes and one right-turn lane.

- Gonzales Road and Ventura Road -- Restripe and widen this intersection to provide the following: dual left turn lanes, three through lanes and one right-turn-only lane in the eastbound direction, dual left-turn lanes, three through lanes, one through/right shared lane and one right-turn-only lane in the northbound direction, and dual left-turn lanes, four through lanes and one right-turn-only lane in the westbound and southbound directions.

- Gonzales Road and Oxnard Boulevard -- The City of Oxnard General Plan calls for this intersection to either be grade separated with an urban interchange or to have other specialized treatment. The other treatments could be to require left-turn movements to be accommodated as U-turns beyond the intersection and "free right-turns" upon returning to the intersection. Other methods of removing left-turns from the critical movements at the intersection are also being considered. With this project, this intersection will continue to need one of those options to be implemented. For analysis purposes, it has been assumed that an urban interchange, including a grade separated crossing of Gonzales Road and the railroad tracks paralleling Oxnard Boulevard, would be constructed. However, other alternative improvements may be constructed which will still allow the City to achieve the General Plan performance standards.

City of Ventura Intersections (Stand-Alone Measures):

- Johnson Drive and North Bank Drive -- Flare and restripe Johnson Drive to provide one left-turn lane, two through lanes and one through/right shared lane in the southbound direction.

Residential Segments

Residential streets in the El Rio neighborhood will not be directly connected to any commercial use. Anyone who chose to use a residential street to access the project will most likely be a resident of that street. Further, speed humps have already been implemented along Stroube Street. Therefore, mitigation of impacts on residential street segments is neither considered warranted or feasible.

Project Roadway Improvements

It should be noted that the project would construct an extensive roadway network within the Specific Plan boundaries. These include:

- Oxnard Boulevard -- This roadway will be extended north of US-101. This roadway will be constructed as a six lane arterial between US-101 and Town Center Drive, a four lane arterial between Town Center Drive and Santa Clara River Boulevard, a four lane collector street between Santa Clara River Boulevard and the traffic circle located north of North Park Drive and a two lane collector street north of the traffic circle.

- Town Center Drive -- This roadway will be improved as a four lane arterial between Ventura Road and Oxnard Boulevard.

- Ventura Road -- This roadway will be extended northerly into the Specific Plan area where it bends easterly and becomes Santa Clara River Boulevard.

Ventura Road will be improved as a four lane arterial throughout the Specific Plan from US-101 to Santa Clara River Boulevard.

- Santa Clara River Boulevard -- This roadway will be constructed as a four lane arterial throughout the Specific Plan from Ventura Road to Vineyard Boulevard where it aligns with Simon Way. It is recommended that a traffic circle be constructed at the intersections of Ventura Road, Oxnard Boulevard and RiverPark Avenue east along Santa Clara River Boulevard. The traffic circle should have a minimum outside diameter of 180 feet in order to provide acceptable operations.

- South Park Drive/Myrtle Street -- This roadway will serve primarily as a four lane collector street in the Specific Plan area. It will generally extend in the northwest direction from Vineyard Avenue just north of the 101 Freeway to Ventura Road. The name will change to South Park Drive at Santa Clara River Boulevard where it will bend and extend westerly to Oxnard Boulevard. In addition, a short segment of South Park Drive will be constructed as a two lane collector street west of Oxnard Boulevard.

- North Park Drive -- This roadway will be constructed as a two lane collector street between Oxnard Boulevard and Vineyard Avenue. A short segment of this roadway will also be a two lane collector street west of Oxnard Boulevard.

Mitigation measures previously identified would reduce the eight significant traffic impacts, resulting in an area transportation system that operates at acceptable levels of service and regional impacts which are reduced to less than a level of significance.

Transit Improvements

The site for the RiverPark development is mainly empty. With the exception along Vineyard Avenue north of the US 101 Freeway to Simon Way, no transit service is provided to the project area. All trips would need to be made by walking to stops at the Esplanade Shopping Center or along Vineyard Avenue. The routes serving these stops then cover the Cities of Oxnard and Ventura as well as the County of Ventura, making the entire region accessible by transit.

Future transit routes are not yet planned for the project area. It is not appropriate to speculate on which areas may have direct transit service by the time that the project is completed. However, it is appropriate to design the roadways throughout the Specific Plan area in such a way as to accommodate transit vehicles. In addition, sufficient room should be provided to make the commercial center a transit hub.

The following mitigation measures should be incorporated into the EIR and Specific Plan:

- Oxnard Boulevard should have concrete bus pads and sheltered stops along the curbs, immediately beyond (north of) the Town Center Drive intersection.
- Additional transit stops should be provided along Oxnard Boulevard between Santa Clara River Boulevard and the US 101 Freeway and along Santa Clara River Boulevard between Oxnard Boulevard and Vineyard Avenue where the South Coast Area Transit (SCAT) is willing to commit to providing transit service and the City of Oxnard deems a stop feasible.
- Up to 5 bays in each direction should be provided to the southeast of the intersection of Oxnard Boulevard and Santa Clara River Boulevard. This hub

may be on parking or other roadways, but should provide layover and turnout space for full size (40 foot length) buses.

As discussed above, SCAT is unable to forecast its service for the next 20 years. However, the project will be constructed so that it will be able to utilize SCAT service, should it be provided.

The RiverPark project will also have a significant impact on the US-101 Freeway south of Central Avenue in the northbound direction during the morning peak hour and in the southbound direction during the afternoon peak hour. It should be noted that the substantial improvements already planned for the US-101 will in large part be responsible for the acceptable levels of service. In addition, any improvements on the US-101 Freeway south of Central Avenue (e.g. widening of this location) are addressed in the Ventura County CMP.

Per the City of Oxnard's request, an analysis of future traffic conditions with the RiverPark project was also conducted assuming the construction of a bridge located to the west of the project site. In addition, future traffic conditions assuming full buildout of the City of Oxnard's current General Plan was conducted. The analyses are discussed in detail and are found in the appendix of the report.

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INTRODUCTION

The proposed project consists of a proposed Specific Plan to regulate the use of land within an approximate 700-acre area located immediately north of the Ventura Freeway (US-101) between Vineyard Avenue (SR 232) and the Santa Clara River. Figure 4.8-1 shows the project vicinity. Various land uses are proposed within the Specific Plan Area including single and multi-family residential, retail and office commercial, hotels, public facilities and open space uses. There is also the potential to substitute a baseball stadium complex for a portion of the other land uses. The project also will develop the infrastructure within the area, including an extensive roadway network. A more detailed description of the site and proposed project are provided in the Project Description section of this report.

Impact Sciences, Incorporated retained Crain & Associates to conduct a transportation study to be included in the RiverPark Specific Plan Environmental Impact Report (EIR). Under the City's technical direction, traffic impacts were assessed for the Project on the study area transportation system. The report documents the results of that study, which analyzed existing and future traffic conditions in accordance with procedures specified by the Ventura County Transportation Commission (VCTC) and Southern California Association of Governments (SCAG) in the Ventura County Congestion Management Plan (CMP). Staff from the City, and the County participated in a series of meetings to ensure that this report (and underlying analyses) met all applicable CEQA and CMP requirements. The analysis incorporated a detailed evaluation of traffic conditions at 25 project area intersections and eight more remote intersections. Five regional facility study segments were also evaluated. These study locations include those roadway facilities most likely to be impacted by the traffic generated by the RiverPark project. Mitigation measures were identified which would reduce the

significant traffic impacts, resulting in an area transportation system that operates at acceptable levels of service and regional impacts which are reduced to less than a level of significance.

The 33 study intersections that were identified to be those most affected as a result of the proposed development are listed below. In this listing, the 14 CMP intersections are identified by "(CMP)" following the intersection descriptor.

Project Area Intersections

1. Los Angeles Avenue and Vineyard Avenue, (CMP)
2. Central Avenue and Vineyard Avenue, (CMP)
3. North Park Drive and Oxnard Boulevard
4. North Park Drive and Vineyard Avenue
5. Oxnard Boulevard and South Park Drive
6. Oxnard Boulevard and Santa Clara River Boulevard, (CMP)
7. South Park Drive and Santa Clara River Boulevard
8. Vineyard Avenue and Santa Clara River Boulevard, (CMP)
9. Vineyard Avenue and Stroube Street
10. Ventura Road and Town Center Drive
11. Oxnard Boulevard and Town Center Drive
12. Vineyard Avenue and Ventura Boulevard
13. Oxnard Boulevard and US-101 Northbound Ramps, (CMP)
14. Oxnard Boulevard and US-101 Southbound Ramps, (CMP)
15. Vineyard Avenue and US-101 Northbound Ramps, (CMP)
16. Vineyard Avenue and US-101 Southbound Ramps, (CMP)
17. Ventura Road and Wagon Wheel Road
18. Wagon Wheel Road and US-101 Southbound Off-ramp
19. Wagon Wheel Road and US-101 Southbound On-ramp
20. Oxnard Boulevard and Esplanade Drive
21. Vineyard Avenue and Esplanade Drive
22. Vineyard Avenue and Ventura Road, (CMP)

23. Vineyard Avenue and Oxnard Boulevard, (CMP)
24. Gonzales Road and Ventura Road, (CMP)
25. Gonzales Road and Oxnard Boulevard, (CMP)

City of Ventura Intersections

26. Victoria Avenue and Telephone Road, (CMP)
27. Victoria Avenue and Ralston Street
28. Victoria Avenue and U.S.-101 Northbound Ramps, (CMP)
29. U.S.-101 Southbound Ramps and Valentine Road
30. Victoria Avenue and Valentine Road
31. Ralston Street and Johnson Drive
32. Johnson Drive and Bristol Road
33. Johnson Drive and North Bank Drive

In addition, the five regional facilities that will be analyzed are listed below:

1. US-101 at the Santa Clara River Bridge
2. US-101 between Route 1 and Vineyard Avenue
3. US-101 between Vineyard Avenue and Rose Avenue
4. Oxnard Boulevard (Route 1) between Vineyard Avenue and US-101
5. US-101 South of Central Avenue

The study analyses was performed by evaluating the capacities of the 33 study intersections as compared to: (1) existing traffic; (2) estimated future "Without Project" traffic due to ambient growth and related projects only; (3) estimated future "With Project" traffic due to ambient growth, related projects and RiverPark; (4) estimated future "With Project" traffic with the implementation of project mitigation measures.

The study provides information on existing traffic volumes; an analysis of traffic impacts using the Intersection Capacity Utilization method, a determination of levels of service at the study intersections, and mitigation measures recommended for the proposed development.

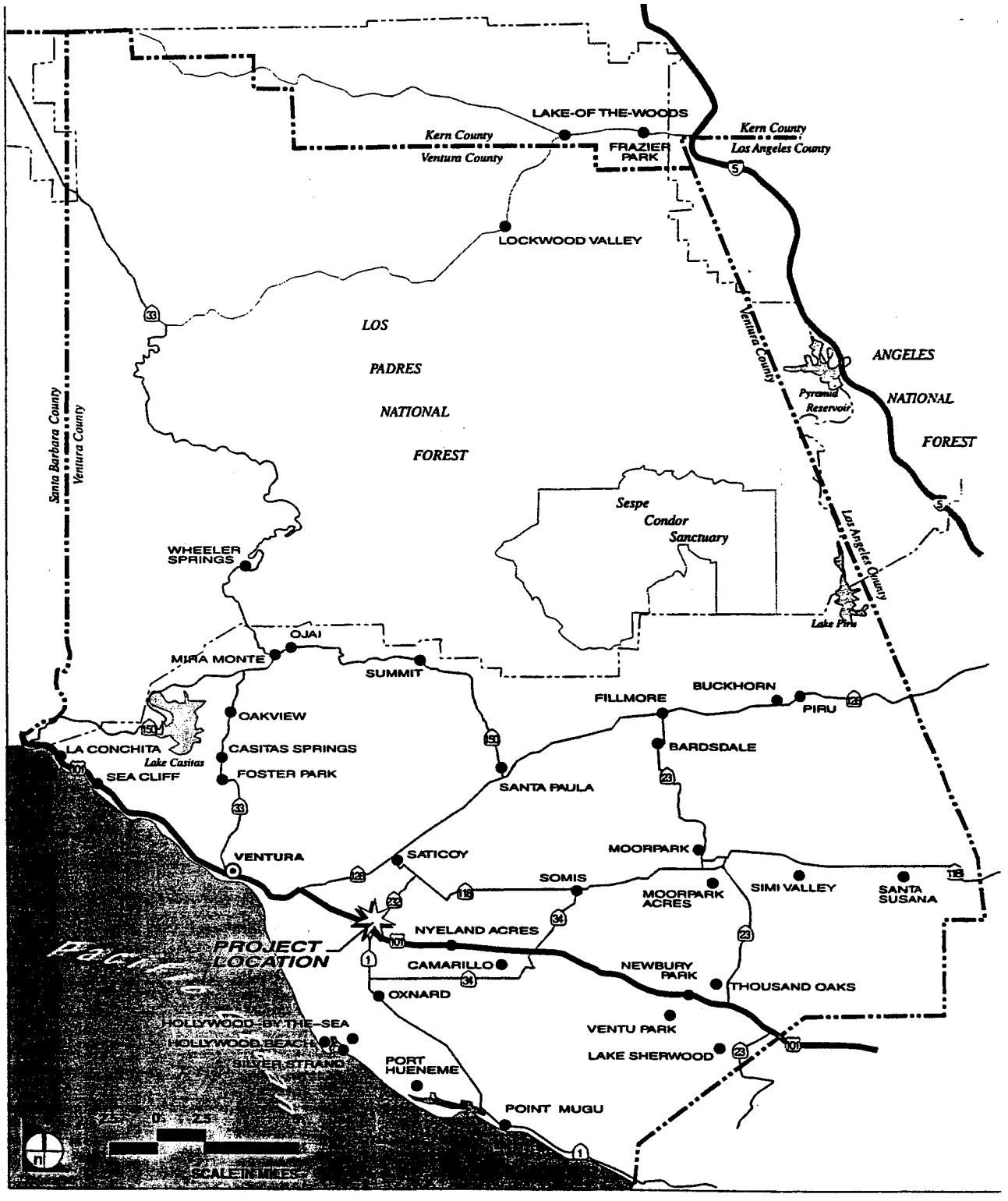

FIGURE 4.8-1

PROJECT VICINITY MAP

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2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

PROJECT DESCRIPTION

Project Location

The City of Oxnard is located in southwestern Ventura County extending from the project site to the Pacific Ocean coastline. The location of the 700-acre site for the proposed RiverPark Specific Plan ("Specific Plan") in relation to the Central area of the City of Oxnard is illustrated in Figure 4.8-1 of the previous section of this report. The Specific Plan site is generally located north of the Ventura Freeway (US-101), between Vineyard Avenue and the Santa Clara River.

Project Background

As shown in Figure 4.8-2, the entire RiverPark site is located within the existing City of Oxnard City Urban Restriction Boundary (CURB) and the Sphere of Influence line for the City of Oxnard. An ordinance establishing the CURB was approved by the voters of Oxnard in November 1998. The CURB requires that the City restrict urban services and urbanized uses of lands within the CURB line through the year 2020. The CURB is conterminous with the Sphere of Influence for the City in this area.

Currently, approximately 272 acres of the project site are located within the City of Oxnard. This portion of the project site is referred to as "RiverPark Area A." The remaining 428 acres of the site are currently located outside of the City of Oxnard. This portion of the site is referred to as "RiverPark Area B." The City of Oxnard adopted a specific plan for the majority of the RiverPark Area A in 1986 and annexed the area addressed by that specific plan (the small portion of RiverPark Area A not annexed by the City at that time was already within City limits). That existing specific plan is titled the "Oxnard Town Center Specific Plan." The adopted plan allows development of up to 4.4 million square feet of commercial and industrial space in the area addressed by that plan. RiverPark Area A includes the area addressed by the Oxnard Town Center

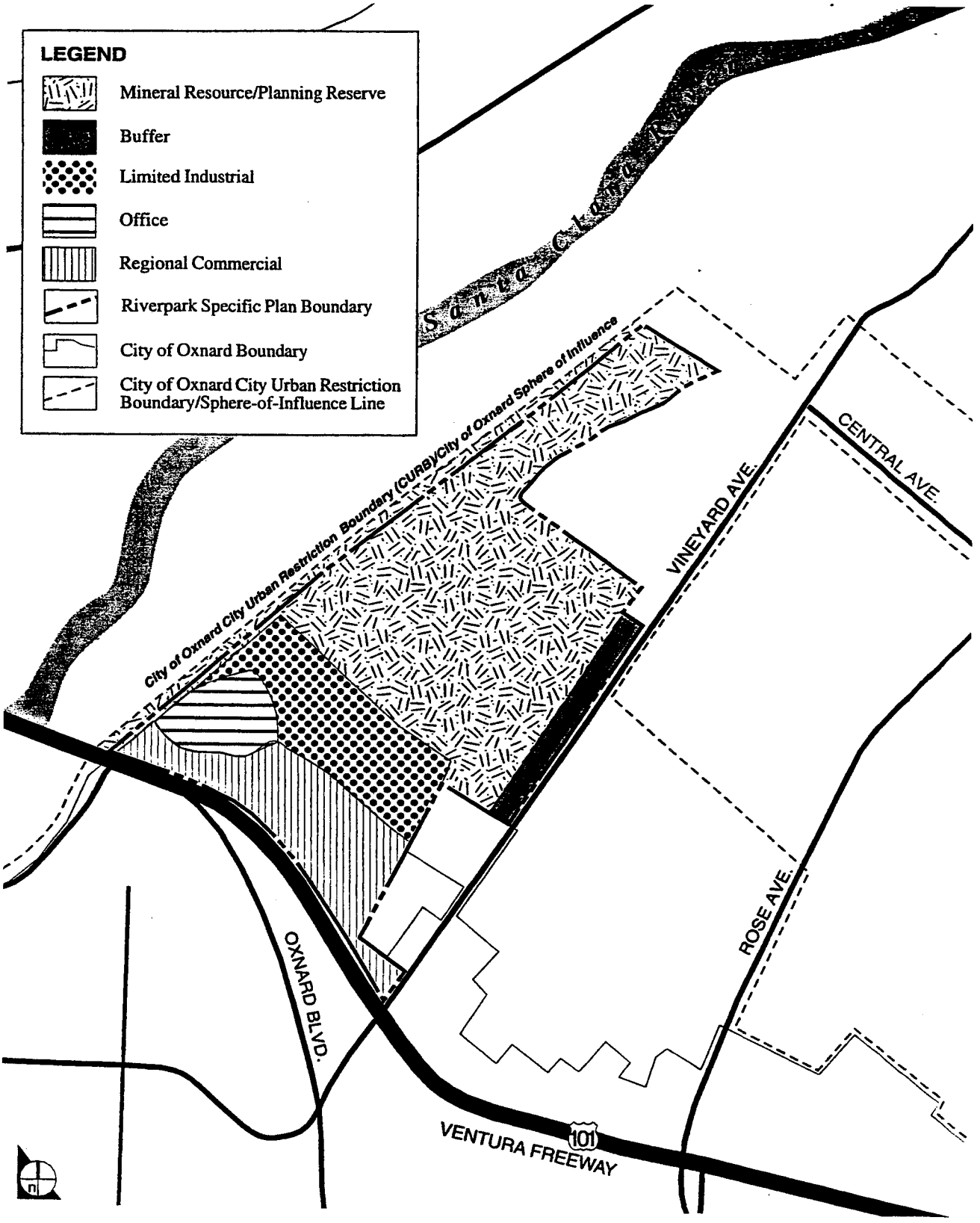

FIGURE 4.8-2

EXISTING GENERAL PLAN LAND USE

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Specific Plan and a small amount of additional land located directly north of US-101 and west of Vineyard Avenue. RiverPark Area A is also located within the Oxnard Community Development Commission's Historic Enhancement and Revitalization of Oxnard (HERO) Redevelopment Plan Area. RiverPark Area B includes an existing sand and gravel mine permitted by the County of Ventura in 1979 and detention basins operated by the Ventura County Flood Control District. All mining activities allowed by the current permit have been completed and the site is currently being reclaimed in accordance with the approved reclamation plan for this site.

RiverPark Area A is currently designated for development of Regional Commercial, Commercial Office, and Business and Research Park Uses consistent with the adopted Oxnard Town Center Specific Plan. RiverPark Area B is currently designated as Open Space-Mineral Resource and Open Space-Buffer on the Oxnard 2020 General Plan land use map, consistent with the existing mining use on this part of the site. RiverPark Area B is also designated as a Planning Reserve area as defined by the Oxnard 2020 General Plan. This Planning Reserve overlay was placed on certain open space areas contiguous to developed portions of the City to indicate that these areas may be considered for urbanization during the term of the 2020 General Plan.

Currently, the southwestern corner of RiverPark Area A has been previously developed. The existing streets, two office buildings and other infrastructure facilities built in the southwestern corner of RiverPark Area A were constructed in conformance with the adopted Oxnard Town Center Specific Plan. Immediately east of this developed area is a 14-acre area containing a complex of buildings housing various County of Ventura offices and facilities. The areas to the north and east of these developed portions of RiverPark Area A are currently in agricultural production. As discussed above, this part of the site was approved for urban use by the City of Oxnard in 1986.

The Santa Clara River, located on the western edge of the project site, is separated from the site by a levee built by the U.S. Army Corps of Engineers (ACOE). The California Department of Transportation (Caltrans) and the City of Oxnard are also currently planning improvements to US-101 in the vicinity of the project site. These improvements consist of a new bridge across the Santa Clara River, widening of the freeway immediately east and west of the new bridge and the construction of a new interchange between the freeway and Oxnard Boulevard, which would serve existing uses to the south of the interchange as well as this project site. Caltrans is the Lead Agency, as defined by the California Environmental Quality Act, for the environmental review of this freeway improvement project. The Federal Highway Administration is the Lead Agency for the environmental review of this freeway improvement project under the National Environmental Policy Act (NEPA). A Draft Supplemental EIR/EIS for this freeway improvement project is currently being prepared by Caltrans. The proposed Specific Plan will address the phasing of the project in relation to the schedule for this freeway improvement project.

Currently, there are existing residential uses in the El Rio West neighborhood, located between the project site and Vineyard Avenue. This neighborhood also contains commercial uses fronting Vineyard Avenue and some vacant parcels. Currently, portions of this neighborhood are within the City of Oxnard and portions are outside of the City limits. Existing industrial uses are located to the north of the project site. In addition, the site recently selected by the County of Ventura for development of a juvenile justice facility is located north of the project site.

Proposed Land Uses

The proposed Specific Plan would allow the development of a new integrated mixed-use community containing retail commercial, residential, office, hotel, open space and

public facilities uses within the 700-acre Specific Plan Area. These uses would be linked by the proposed system of roadways and a network of open spaces. The conceptual land use plan for the project is presented in Figure 4.8-3.

As shown in the conceptual land use plan, a variety of commercial uses are proposed for the southern portion of the Specific Plan Area. Office, several types of retail commercial uses, and hotel uses would be allowed in this portion of the Specific Plan Area along with a trade facility for food and wine products. Development of either commercial or residential uses would be allowed in three specific areas on the site. One of these areas, consisting of approximately 10 acres located in the southeastern corner of the site, could be developed with commercial uses or mixed-use commercial/residential uses. The second area, located on the western edge of the site, consists of approximately 20 acres that could be developed with office or multi-family residential uses. Mixed neighborhood oriented commercial uses and residential uses would also be allowed on a small site in the residential area. Development of some second-story residential units would also be allowed in the central retail commercial area. Finally, an option to develop an up to 5,000 seat baseball stadium in the commercial area is also being included. This stadium would be constructed in-lieu of a portion of the regional commercial uses.

Proposed residential uses include a mixture of single-family homes, patio homes (attached single family homes), town-homes and multi-family units (apartments). The single-family neighborhoods would be located on the northern portion of the property. The proposed patio homes, town-homes and apartments would be located in the central portion of the site between the commercial and proposed single family residential areas. Medium density residential uses would also be located between the proposed commercial areas and existing single family development to the east of the site. A park would also be provided on the eastern and school site edge of the Specific Plan along this existing residential neighborhood.

DRAFT SPECIFIC PLAN

Land Use Plan

Planning Districts

- **A** Office District
- **B** West Peripheral Commercial District
- **C** Convention/ Hotel District
- **D** Town Square Commercial District
- **E** East Peripheral Commercial District
- **F** Vineyards Neighborhood District
- **G** Village Square Neighborhood District
- **H** RiverPark Crescent Neighborhood District
- **I** RiverPark Loop Neighborhood District
- **J** RiverPark Mews Neighborhood District
- **K** Lakeside Neighborhood District
- **L** Public Facility District
- **M** Water Quality Basins & Storm Water Control District

Land Use Legend

- Residential: Low Medium (6-9 D.U./ Ac.)
- Residential: Medium (9-15 D.U./ Ac.)
- Residential: High (15-20 D.U./ Ac.)
- Commercial: Regional
- Commercial: Office
- Commercial: Convention/ Hotel
- Commercial: Retail/ Office
- Open Space: Park Space
- Open Space: Neighborhood Parks
- Open Space: Landscaped Buffer
- Open Space: Miscellaneous: Drainage Swales/ Detention Basins
- Open Space: Miscellaneous: Water Storage/ Recharge Basins
- Open Space: Miscellaneous: Water Feature
- Schools/ Community Park
- Public Facilities
- Project Boundary
- Planning District Boundary
- K Planning District Designation

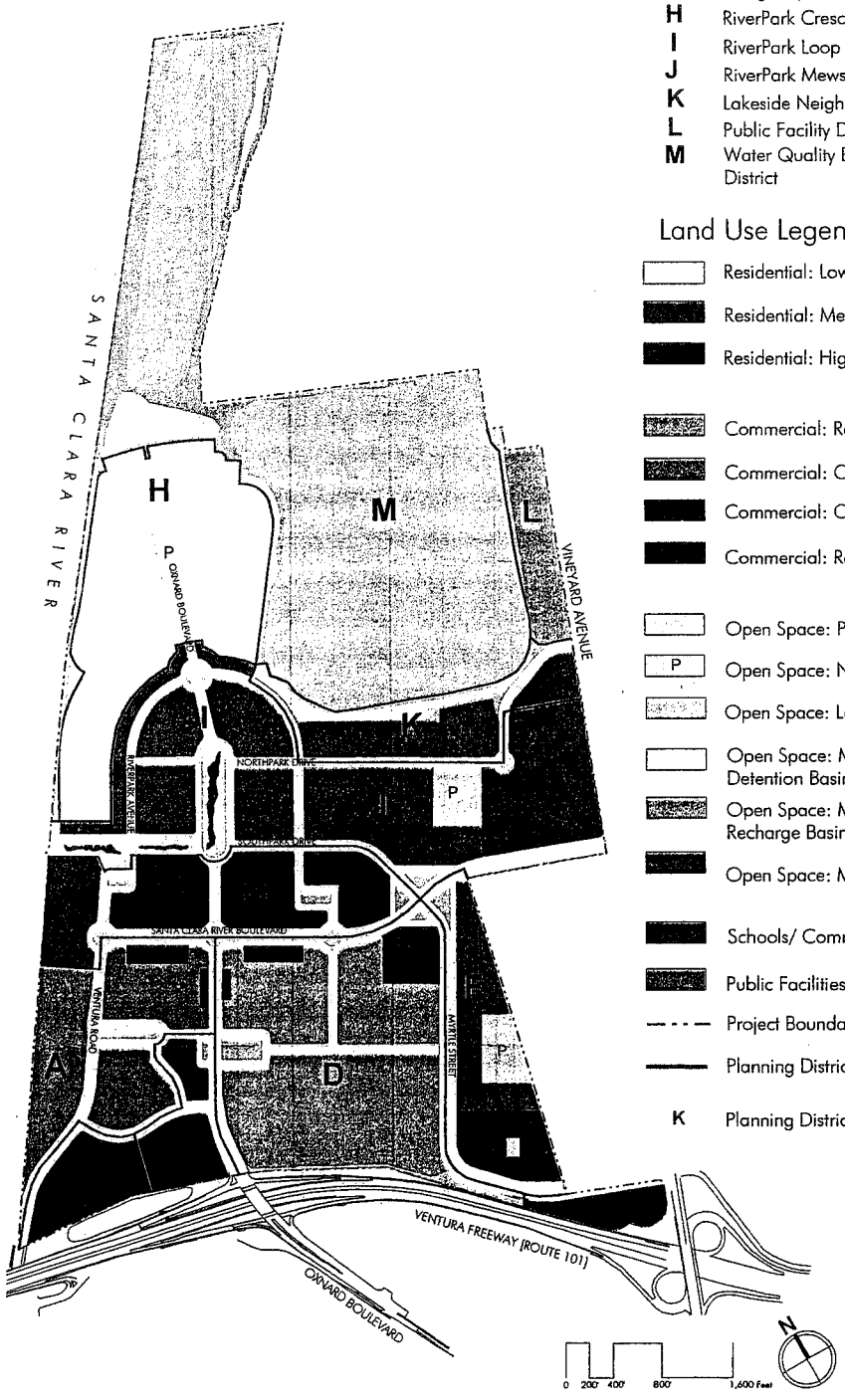

FIGURE 4.8-3

FN OXNRDRPK\SITE-LANDUSE

CONCEPTUAL LAND USE PLAN

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A variety of public open spaces and drainage basins, consisting of approximately 257 acres of small landscape greens, landscape buffers parks and drainage basins, would be located throughout the residential and commercial areas of the community. A 31-acre combination school and park site would be provided. The existing mine pits would be reclaimed and remain as open space. The currently adopted reclamation plan for the existing sand and gravel mine calls for these pits to be partially filled. The proposed concept for reclamation of these pits would involve reconfiguring the edges of the pits, stabilizing the slopes on the sides of the pits and planting the pits with wetland vegetation.

Proposed public facilities include a 12-acre site for an elementary school and approximately 37 acres site provided for the relocation of the County service center currently located along the southern edge of the site. The school site is proposed north and east of the residential areas. The site for the County service center would be located on Vineyard Avenue, immediately south of the existing drainage basin.

A summary of the proposed land uses is presented in Table 4.8-1. Note that for the purpose of this analysis, since there is some flexibility in the final mix of land uses for the project, the land uses that have the highest trip rates were used to produce a conservative trip generation estimate.

Table 4.8-1
RiverPark Specific Plan
Summary of Proposed Land Uses

1,416 units	Single-Family Residential
1,324 units	Multi-Family Residential
1,345 ksf	Regional Commercial
600 rooms	Hotel
1,030 ksf	Office
257 acre	Parks
40 ksf	Neighborhood Retail
81 ksf	Light Industrial/Public Facilities
1,600 students	Elementary/Middle School

The proposed roadway network, consisting of primary arterial, secondary arterial, and collector streets, is shown in Figure 4.8-3. Ventura Road would extend northerly to a traffic circle where it bends easterly through the community and becomes Santa Clara River Boulevard. Myrtle Street would be extended north to connect to Santa Clara River Boulevard, providing additional access from Vineyard Avenue. Oxnard Boulevard would also be extended north through the center of the community from the planned new interchange with US-101. North Park Drive, a new roadway extending along the south edge of the school site, would also provide access from Vineyard Avenue to the residential portion of the community. Other roadways proposed within the Specific Plan Area would provide direct access to the commercial and residential uses.

ENVIRONMENTAL SETTING

The project site is adjacent to Vineyard Avenue (CA-232) and the Ventura Freeway (US-101). The Ventura Freeway furnishes regional access. The Ventura Freeway, a six to eight lane facility in the vicinity of the development, has interchanges with Town Center Drive/Wagon Wheel Road, Oxnard Boulevard, Vineyard Avenue, and North Rose Avenue. A general description of the existing highway system along the Ventura Freeway, Oxnard Boulevard (Route 1) and other roadways are described below.

Streets and Highways

The Ventura Freeway extends from the Los Angeles area through Ventura County and north to Santa Barbara County where US-101 continues to the north as the 101 Freeway. The Ventura Freeway currently provides two to three lanes in the northbound direction and three to four lanes in the southbound direction from the Santa Clara River Bridge to Vineyard Avenue. At the Route 1 interchange, the Ventura Freeway provides a two-lane ramp interchange in the southbound direction to southbound Route 1 (Oxnard Boulevard). Also provided is a one-lane flyover that connects the northbound Route 1 to the northbound Ventura Freeway.

Route 1 is a discontinuous state highway. At the interchange with the Ventura Freeway, Route 1 extends southerly as Oxnard Boulevard from the Ventura Freeway to south of Wooley Road, then extends in a southeast direction to Rose Avenue where it is constructed to freeway standards. Route 1 provides two lanes in each direction south of the Ventura Freeway.

Vineyard Avenue, designated as Route 232, extends northeasterly from Oxnard Boulevard to Los Angeles Avenue (Route 118). Route 232 provides full interchange with the Ventura Freeway. Vineyard Avenue also extends west of Oxnard Boulevard as

an arterial for approximately two miles where it bends in a southerly direction and becomes Patterson Road.

Ventura Road is designated a four-lane city street in the vicinity of the project site. This roadway extends in a north-south direction from the project site east of the US-101 to Port Hueneme Road.

Wagon Wheel Road is a two-lane "loop" roadway adjacent The Esplanade. It also extends northerly to the west of and parallel to Oxnard Boulevard and Ventura Freeway where it terminates at Ventura Road. The US-101 southbound off-ramp is also connected to Wagon Wheel Road.

Town Center Drive is a short roadway located east of the US-101 Freeway. It currently provides US-101 northbound on and off-ramp access. However, these ramps will be removed as part of the reconstruction of the Route 1 (Oxnard Boulevard)/US-101 interchange.

Esplanade Drive is a short two-lane roadway that extends from Wagon Wheel Road to Vineyard Avenue. It also extends east of Vineyard Avenue for approximately 1,000 feet.

Central Avenue is designated a two-lane rural highway. This roadway extends from Vineyard Avenue to SR-101.

Los Angeles Avenue is designated a rural two-lane highway between Saticoy and Moorpark. This roadway is located northeast of the project site and generally extends easterly.

Ventura Boulevard is a short frontage road that extends east of US-101. It extends southeasterly from Vineyard Avenue for approximately one mile.

Gonzales Road is designated a rural two-lane highway between Victoria Avenue and Patterson Road. From Patterson Road to Rice Avenue, this facility is a four-lane city street.

Stroube Street is a two-lane roadway located to the east of the project site. It extends southeasterly from Detroit Drive, adjacent to the RiverPark area, to Rose Avenue.

South Park Drive extends parallel and to the east of US-101. This roadway extends southeasterly from Town Center Drive for approximately 0.8 miles and bends northerly where it becomes Colonia Avenue.

North Park Drive is a two-lane roadway located to the east of the project site. It extends from Vineyard Avenue to Rose Avenue.

Johnson Drive is an arterial that extends in a north-south direction in Ventura. Johnson Drive provides access to the Ventura Freeway southbound on and off ramps located immediately to the north of the Santa Clara River Bridge. This roadway extends north from the Ventura Freeway ramps for approximately two miles where it terminates south of SR-126. The Johnson Drive interchange is being reconstructed and the freeway ramps aligned as a full interchange as part of a separate interchange reconstruction project.

North Bank Drive is a short roadway located north of the Santa Clara River Bridge and east of the Ventura Freeway. This roadway provides access from Johnson Drive to the Ventura Freeway northbound ramps.

Victoria Avenue generally extends in a north-south direction. Victoria Avenue is a four-lane roadway between Valentine Road and Olivas Park Drive, provides five lanes between US-101 and Valentine Road and is a six-lane roadway between Webster Street and US-101.

Telephone Road is a six-lane roadway near Victoria Avenue. This roadway generally extends southwest from Wells Road past Olivas Park Drive where it becomes a local street.

Ralston Street is a two-lane roadway that extends in an east-west direction and to the north of the US-101 Freeway. This roadway extends from Portola Road to approximately 500 feet to the east of Ramelli Avenue.

Valentine Road is a local roadway that extends parallel to the US-101 Freeway on its south side. This roadway provides southbound on and off-ramp access to the US-101 Freeway near Victoria Avenue.

Existing Traffic Volumes

For the study intersections, traffic count information was provided by City of Oxnard staff. Traffic count information was collected by Crain & Associates in year 2000 for those locations where recent counts were not available. The morning and afternoon peak-hour traffic volumes at the 33 study intersections are shown in Figure 4.8-4.

Public Transit

The Southern Coast Area Transit (SCAT), with its extensive network of bus routes throughout Ventura County, is the primary service provider in the City of Oxnard and has several routes that serve the project area. In addition, Metrolink, the commuter rail service operated by the Southern California Regional Rail Authority (SCRRA), has a line which serves the Oxnard Metrolink Station. This station is located south of the project site on East Fourth Street and Meta Street. SCAT Lines 6 A/B and 15 provide service from the Oxnard Metrolink Station to the project site, as well as providing service from other portions of Oxnard and El Rio, as described below. In addition, Metrolink, the commuter train that connects Ventura with Los Angeles and other areas in Southern California, has a lay-over facility in Montalvo to serve the west county. At

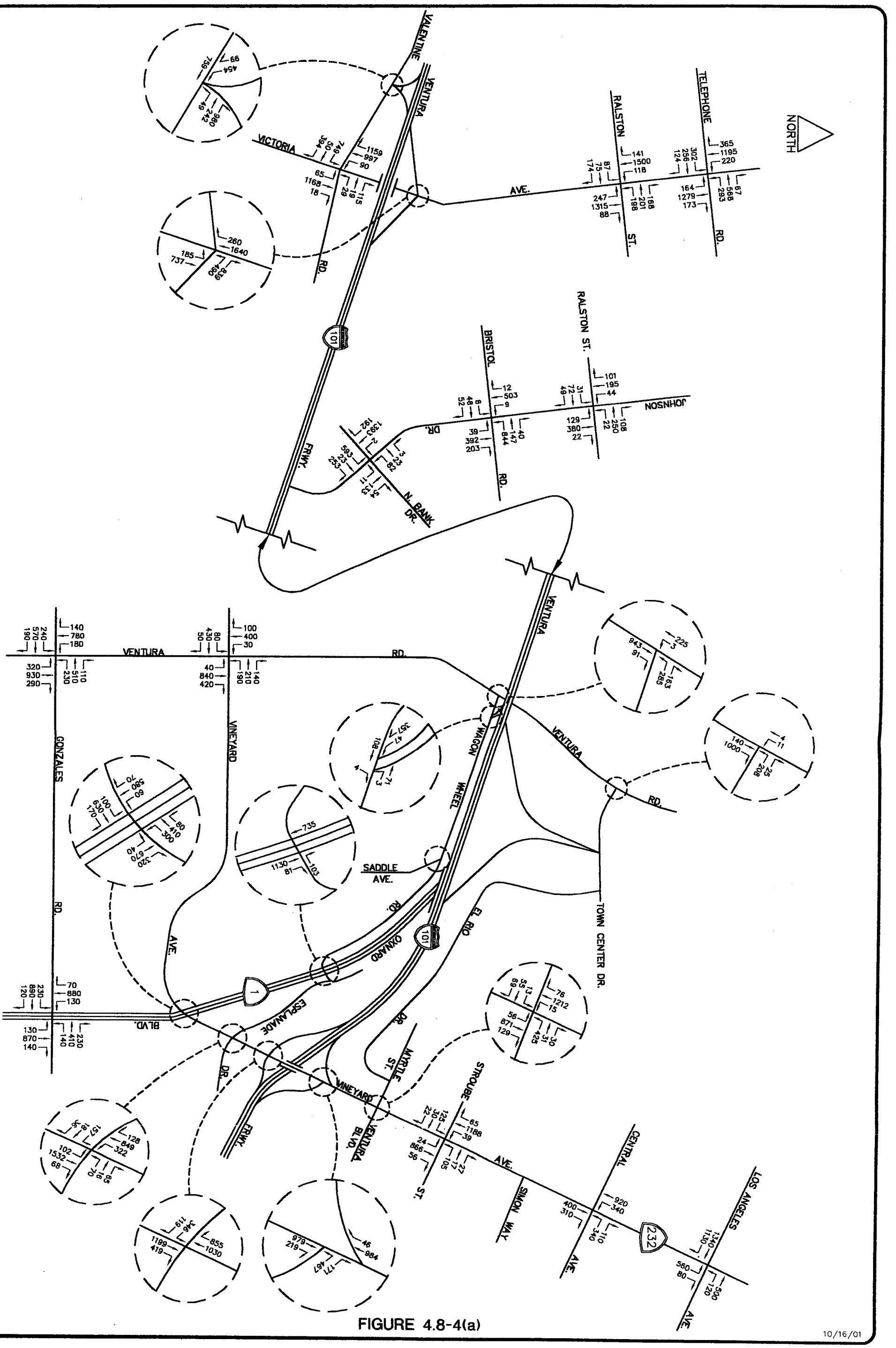

FIGURE 4.8-4(a)

10/16/01

OXNRDRPK\AMEX

EXISTSTICK

EXISTING (2000) TRAFFIC VOLUMES
AM PEAK HOUR

C&A

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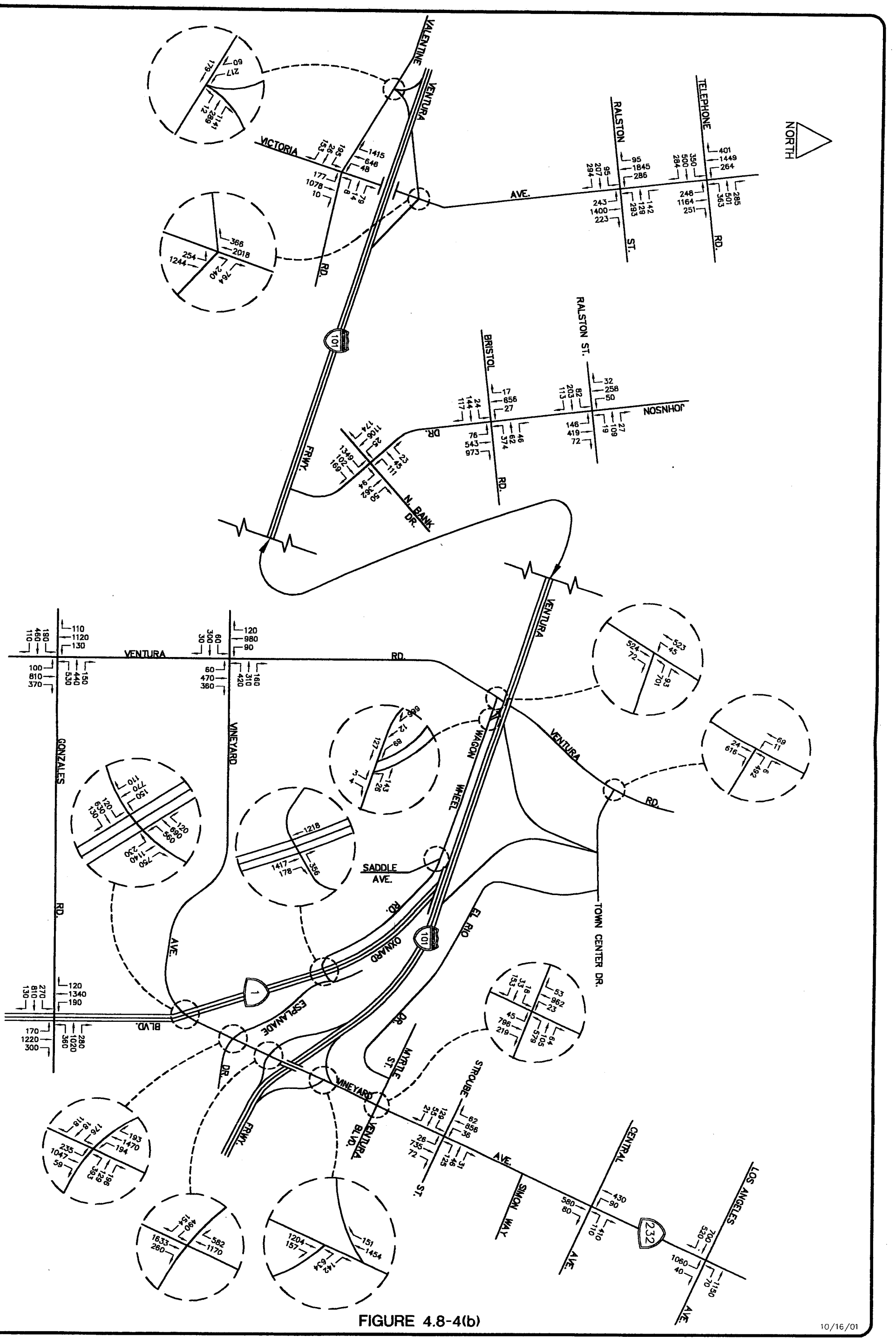

FIGURE 4.8-4(b)

10/16/01

OXNRDRPK\PMEX

EXISTSTICK

EXISTING (2000) TRAFFIC VOLUMES
PM PEAK HOUR

C&A

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present, there are two Metrolink runs daily with additional runs funded and anticipated to begin in the future. Moreover, Union Pacific runs 12 trains a day through Ventura, providing freight service out of Los Angeles.

SCAT 6A/B – Line 6A/B provide services between the Oxnard Transportation Center and City of Ventura, via Ventura College. Service in the project vicinity is along Esplanade Drive with a stop at the Esplanade Center. Weekday service for both Line 6A and 6B operate at approximately 40 minute headways between 5:00 AM and 9:30 PM. Weekend and holiday service is also provided via buses that operate at one hour headways.

SCAT 15 – Line 15 provides service between the Oxnard Transportation Center and El Rio. Service for Line 15 includes Vineyard Avenue and North Park Drive, located within walking distance from the project site. Weekday service is provided from approximately 6:00 AM to 7:00 PM, with headways ranging from approximately 40 minutes during peak commute times to one hour during off-peak times. Weekend and holiday service is also provided from approximately 7:00 AM to 7:00 PM, with headways ranging from 50 minutes to one hour.

Discussion with SCAT staff indicate that one or more lines may be re-routed to directly serve the project. The potential has been enhanced by the recommended mitigation measures.

The above bus lines provide opportunities to connect with the Metrolink commuter rail system. These services also provide key linkages to Downtown Los Angeles' Union Station, the regional bus and rail transit hub. Furthermore, the rail stations directly served are within walking distance of the bus routes described above and tend to be mini-transit hubs that provide transfers to other local bus routes. When transfer opportunities are considered, many areas within the Southern California region are linked via public transit to the project vicinity. Thus, some of the vehicle trips generated

by the project, especially by employees, could be reduced by the utilization of public transportation. However, for purposes of determining project impacts (as discussed in a later section), a "more-than-typical case" assumption was made that nearly all trips would be auto-oriented.

Analysis of Existing Traffic Conditions

The Intersection Capacity Utilization (ICU) methodology used for the analysis and evaluation of traffic conditions at the two future study intersections is based on procedures outlined in the County's Congestion Management Program. In the discussion of the ICU method for signalized intersections, procedures have been developed for grading the operational quality of an intersection in terms of the "Level of Service" (LOS) which describes different traffic flow characteristics. LOS A to C operate quite well. (The City of Oxnard has adopted LOS C as their standard). LOS D typically is the level for which a metropolitan area street system is designed. LOS E represents volumes at or near the capacity of the street which might result in stoppage of momentary duration and fairly unstable flow. LOS F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration.

A determination of the LOS at an intersection, where traffic volumes are known or have been projected, can be obtained through a summation of the critical movement volumes: the highest combination of conflicting movements which must be accommodated at that intersection.

"Capacity" represents the maximum volume of vehicles in the critical lanes which has a reasonable expectation of passing through an intersection in one hour, under prevailing roadway and traffic conditions. For planning purposes, capacity equates to the maximum value of LOS E or 1,600 vehicles per hour per lane. The ICU values used in this study were calculated by dividing the critical movement volumes in the ICU

calculations by this capacity value. The Level of Service values are defined as a range of ICU values and are shown in Table 4.8-2.

Table 4.8-2
Level of Service
As a Function of V/C Values

Level of Service	Description of Operating Characteristics	Range of V/C Values
A	Uncongested operations; all vehicles clear in a single cycle.	≤ 0.60
B	Same as above.	$>0.60 \leq 0.70$
C	Light congestion; occasional backups on critical approaches.	$>0.70 \leq 0.80$
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing lines formed.	$>0.80 \leq 0.90$
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	$>0.90 \leq 1.00$
F	Forced flow with stoppages of long duration.	> 1.00

Table 4.8-3 shows a summary of the existing traffic conditions at the 33 study intersections. As shown in this table, all existing study intersections in the project area are operating at Level of Service C or better. Similarly all study intersections in the City of Ventura are also operating at LOS C or better.

Table 4.8-3(a)
Intersection Volume/Capacity Summary
Existing (2000) Conditions, Project Area Intersections

No.	Intersection	AM Peak Hour V/C	AM Peak Hour LOS	PM Peak Hour V/C	PM Peak Hour LOS
1	Los Angeles Avenue and Vineyard Avenue	0.781	C	0.691	B
2	Central Avenue and Vineyard Avenue	0.647	B	0.491	A
3	North Park Drive and Oxnard Boulevard	--	--	--	--
4	Simon Way/North Park Drive and Vineyard Avenue	--	--	--	--
5	Oxnard Boulevard and South Park Drive	--	--	--	--
6	Oxnard Boulevard and Santa Clara River Boulevard	--	--	--	--
7	South Park Drive/Myrtle Street and Santa Clara River Boulevard	--	--	--	--
8	Vineyard Avenue and Santa Clara River Boulevard	--	--	--	--
9	Vineyard Avenue and Stroube Street	0.512	A	0.432	A
10	Ventura Road and Town Center Drive	0.122	A	0.191	A
11	Oxnard Boulevard and Town Center Drive	--	--	--	--
12	Vineyard Avenue and Ventura Boulevard	0.599	A	0.624	B
13	Oxnard Boulevard and US-101 Northbound Ramps	--	--	--	--
14	Oxnard Boulevard and US-101 Southbound Ramps	--	--	--	--
15	Vineyard Avenue and US-101 Northbound Ramps	0.468	A	0.672	B
16	Vineyard Avenue and US-101 Southbound Ramps	0.607	B	0.596	A
17	Ventura Road and Wagon Wheel Road	0.692	B	0.597	A
18	Wagon Wheel Road and US-101 Southbound Off-ramp	0.100	A	0.151	A
19	Wagon Wheel Road and US-101 Southbound On-ramp	--	--	--	--
20	Oxnard Boulevard and Esplanade Drive	0.379	A	0.499	A
21	Vineyard Avenue and Esplanade Drive	0.526	A	0.611	B
22	Vineyard Avenue and Ventura Road	0.496	A	0.591	A
23	Vineyard Avenue and Oxnard Boulevard	0.393	A	0.754	C
24	Gonzales Road and Ventura Road	0.736	C	0.687	B
25	Gonzales Road and Oxnard Boulevard	0.554	A	0.715	C

-- Intersection does not currently exist.

Table 4.8-3(b)
Intersection Volume/Capacity Summary
Existing (2000) Conditions, City of Ventura Intersections

No.	Intersection	AM Peak Hour ICU	AM Peak Hour LOS	PM Peak Hour ICU	PM Peak Hour LOS
26	Victoria Avenue and Telephone Road	0.524	A	0.593	A
27	Victoria Avenue and Ralston Street	0.591	A	0.767	C
28	Victoria Avenue and U.S.-101 Northbound Ramps	0.507	A	0.541	A
29	U.S.-101 Southbound Ramps and Valentine Road	0.410	A	0.158	A
30	Victoria Avenue and Valentine Road	0.587	A	0.345	A
31	Ralston Street and Johnson Drive	0.441	A	0.432	A
32	Johnson Drive and Bristol Road	0.699	B	0.760	C
33	Johnson Drive and North Bank Drive	0.622	B	0.748	C

Analysis Of Existing Freeway Conditions

An examination of the freeway conditions was made along the Ventura Freeway and Route 1. These five study segments are listed below:

1. Ventura Freeway (US-101) at the Santa Clara River Bridge;
2. Ventura Freeway (US-101) between Route 1 and Vineyard Avenue;
3. Ventura Freeway (US-101) between Vineyard Avenue and Rose Avenue;
4. Route 1 (Oxnard Boulevard) between Vineyard Avenue and US-101; and
5. Ventura Freeway (US-101) south of Central Avenue.

Current traffic volumes were used to determine existing traffic flow conditions on these freeway segments. Traffic counts were obtained from the most recent Caltrans publication, 1998 Traffic Volumes on California State Highways. All 1998 traffic volumes were growth factored one percent per year to establish current 2000 traffic volumes, per CMP traffic forecasting procedures.

Existing freeway geometrics (e.g., number of mainline travel lanes) for each of the segments analyzed were determined from CMP data, City plans and field surveys. Segment peak hour traffic capacities were computed for each direction using established Highway Capacity Manual (HCM) methodology. As detailed in procedures discussed in the HCM Chapter 3, each mainline travel lane was assumed to have a capacity of 2,000 vehicles per hour (VPH). The total directional capacities were then computed, and used in conjunction with the previously determined peak hour directional freeway segment volumes to calculate the existing year 2000 freeway levels of service. The Level of Service values used for freeway segment analyses are estimated by calculating the demand-to-capacity (D/C) ratio and using the LOS definitions shown in Table 4.8-4.

Table 4.8-4
Freeway Mainline Level of Service Definitions*

D/C Ratio	LOS
0.000 - 0.304	A
>0.304 - 0.487	B
>0.487 - 0.715	C
>0.715 - 0.876	D
>0.876 - 1.000	E
>1.000	F

*70 MPH design speed.

Source: Transportation Research Board, 1994.

The existing level of services for the freeway study segments were determined based on the definitions summarized in Table 4.8-4. As shown in Table 4.8-5, existing traffic conditions range from level of services A to E at most segments studied with the exception of the Ventura Freeway north of Ventura Road (i.e., on the Santa Clara River

Bridge) which is at LOS F in the northbound direction during the AM and PM peak hours and the Ventura Freeway south of Central Avenue which is operating at LOS F in the northbound direction during the PM peak hour.

Table 4.8-5
Existing (2000) Freeway Volumes and Level of Service

Freeway Segment	Direction	Peak Hour	Existing (2000) Traffic Conditions: Freeway Capacity	Daily Volume	Peak Hour Volume	D/C Ratio	LOS
US-101 at the Santa Clara River Bridge	N/B	AM	6,000	158,100	6,990	1.165	F(0)
		PM	6,000		7,110	1.185	F(0)
	S/B	AM	8,000		5,530	0.691	C
		PM	8,000		6,270	0.784	D
US-101 between Route 1 and Vineyard Avenue	N/B	AM	6,000	122,400	5,410	0.902	D
		PM	6,000		5,510	0.918	D
	S/B	AM	6,000		4,280	0.713	C
		PM	6,000		4,850	0.808	D
US-101 between Vineyard Avenue and Rose Avenue	N/B	AM	6,000	132,600	5,860	0.977	E
		PM	6,000		5,970	0.995	E
	S/B	AM	6,000		4,640	0.773	D
		PM	6,000		5,260	0.877	D
Oxnard Blvd. (Route 1) between Vineyard Ave. and US-101	N/B	AM	4,000	26,500	1,010	0.253	A
		PM	4,000		1,060	0.265	A
	S/B	AM	4,000		910	0.228	A
		PM	4,000		1,200	0.300	A
US-101 south of Central Avenue	N/B	AM	6,000	140,000	5,960	0.993	E
		PM	6,000		6,170	1.028	F(0)
	S/B	AM	6,000		4,720	0.787	D
		PM	6,000		5,430	0.905	D

PROJECT TRAFFIC

The following section contains information describing the vehicular trip generating characteristics of the RiverPark mixed-use development. It also presents the methodology used to estimate the trip generation, distribution and assignment of the traffic generated by the project.

Project Trip Generation

The site generation rates and equations were selected in accordance with City of Oxnard procedures, and were approved by City staff. The rates selected were those most appropriate for the land-uses that would be constructed on the project site under the proposed project. However, it should be noted that conservative categories were selected. The daily, AM and PM peak hour trip rates used for determining the project's trip generation are contained in Table 4.8-6.

Table 4.8-6
City of Oxnard
Vehicle Trip Generation Rates

		ITE	AM Peak Hour		PM Peak Hour		
Land Use Type	Units	LU Code	In	Out	In	Out	ADT
1 Single-Family Residential	DU	210	0.20	0.56	0.66	0.36	9.55
2 Multi-Family Residential	DU	210 & 220	0.20	0.46	0.53	0.33	8.01
7 Neighborhood Retail	TSF	820	1.28	.61	3.68	3.82	81.16
9 Regional Commercial	TSF	820	0.46	0.20	1.50	1.56	32.83
16 Hotel/Motel	Rooms	310 & 320	0.32	0.37	0.43	0.33	9.45
19 Office (100 TSF+)	TSF	710	1.69	0.21	0.32	1.55	14.03
23 Light Industrial/Industrial	TSF	110 & 130	0.81	0.11	0.23	0.74	6.97
26 Elementary/Middle School	Student	520	0.17	0.11	0.14	0.11	1.09
33 Park	Acre	411	0.00	0.00	0.00	0.00	2.23
-- Baseball Stadium*	Seat	--	0.00	0.00	0.04	0.01	0.83

* Rate is based on studies in Ventura Baseball Stadium Project Traffic Circulation and Parking Study, Associated Transportation Engineers, June 1996

Project traffic, based on the City's trip rates are shown in Table 4.8-7. As this table shows, the project is expected to generate approximately 94,174 net daily trips, including 5,807 trips in the morning peak hour and 9,859 trips in the afternoon peak hour.

Table 4.8-7
RiverPark Project
Trip Generation

Land Use Type	Units	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out	ADT
Single-Family Residential	1,416 DU	283	793	935	510	13,523
Multi-Family Residential	1,324 DU	265	609	702	437	10,605
Neighborhood Retail	40 ksf	51	24	147	153	3,246
Regional Retail	1,345 ksf	619	269	2,018	2,098	44,156
Hotel	600 rooms	192	222	258	198	5,670
Office (100 TSF+)	1,030 ksf	1,741	216	330	1,597	14,451
Light Industrial/Industrial	81 ksf	66	9	19	60	565
Elementary/Middle School	1,600 students	272	176	224	176	1,744
Park/Open Space	257 acres	0	0	0	0	213
TOTAL		3,488	2,319	4,631	5,228	94,174

The draft Specific Plan allows for some flexibility in the exact development configuration of land-uses. Some sub-areas within the plan (called flex-zones) can be developed with either of two uses. Generally, the trade-off is between multi-family residential development and employment sites (e.g. offices or industrial facilities). For those sub-areas with two options, the land use which results in the higher peak-hour generation was assumed in the traffic study. This resulted in a worst-case analysis whereby actual traffic impacts will be less than those listed in this study if the other land use option is selected when the project is developed.

One sub-area with land-use options does not include a residential option. Within the northern portion of the commercial center immediately to the east of Oxnard Boulevard, a baseball stadium of up to 5,000 seats could be substituted for an 80,000 square foot

portion of the retail commercial center. This substitution would also result in overall decrease in the total AM and PM peak hour trips from the analyzed scenario. Therefore the larger retail commercial center has been assumed in the traffic analysis.

Table 4.8-8 shows the comparative trip values for the assumed and conditional land-uses. As this table shows, within each zone the total highest peak-hour generator was selected for inclusion within the traffic analysis. With the exception of a four trip difference for the stadium verses regional commercial and 25 trip difference for the residences verses the school during the PM peak hour, the selected options would result in individually higher peak-hour generation values independently during each of the two peak hours. Therefore, the impacts listed within the traffic analysis would be anticipated to be the same or lower if the optional land-uses were developed rather than those assumed in the traffic study.

Table 4.8-8
Traffic Generation Comparisons
for Conditional Land-Use Scenarios

District	Scenario	Land-Use	Size Units	Daily Trips	Peak Hour Trips AM	PM	Total
D	Allowed	* Regional Commercial	80 ksf	2,630	53	245	298
	Conditional	Stadium	5,000 Seats	5,010	17	249	266
D	Allowed	* Office	190 ksf	2,670	361	355	716
	Conditional	Multi-Family Residential	194 units	1,550	128	167	295
F	Allowed	* Office	250 ksf	3,510	475	468	943
	Conditional	Multi-Family Residential	256 units	2,050	169	220	389
G	Allowed	* Elementary/Middle School	500 students	550	140	125	265
	Conditional	Multi-Family Residential	174 units	1,390	115	150	265
J	Allowed	* Elementary/Middle School	1,100 students	1,200	308	275	583
	Conditional	Single-Family Residential	242 units	2,310	184	247	431

* Land-Use Option included in the traffic analysis

Project Parking

Parking for the project will be distributed through out the site. The parking will conform with City code requirements. However, in some portions of the project (mainly within the Regional Commercial center) shared parking may be utilized. This allows spaces that are needed for one use during only part of the day or week to be used for other purposes when not needed. For example, very little office parking is needed outside of the normal weekday business hours. Therefore, many of these spaces are available for retail and entertainment uses (e.g. stores, restaurants, or the potential baseball stadium) during evenings and weekends. This reduces the total paved and/or parking structure area and minimizes unnecessary costs and secondary environmental impacts.

The details of the shared parking arrangements will be dependent on the uses selected and the final layout of the site. Shared parking will only be permitted where the spaces will be within convenient walking distance two or more uses with different peak usage times. Each project will be individually and cumulatively evaluated to assure that ample parking will be available at all times as the project proceeds.

Trip Distribution and Traffic Assignment

The trip distribution and assignment for the project traffic along with the non-project traffic were done via the City of Oxnard's travel demand model. The model is described in the Future Traffic Conditions of this report, which follows this section. To determine the directional distribution for the Project's traffic, a cordon was drawn around the project and the Project's daily vehicle trips that crossed the cordon were counted. Carnegie Street was on the northern Specific Plan border of the cordon. The eastern border was drawn east of Vineyard Avenue but did not include trips which traveled north or south on Vineyard Avenue. The southern border was south of the Ventura Freeway, and the Santa Clara River was the western border (no streets cross the west

border except for the 101 Freeway). Table 4.8-9 summarizes the directional distribution of Project related traffic.

Table 4.8-9
Directional Distribution of Project Traffic
Average Daily Traffic, Study Year: 2020

Direction	ADT Vehicle Trips Crossing Cordon	Percent of Total Traffic
North on surface streets	6,783	8.6%
South on surface streets	27,985	35.5%
East on surface streets	3,032	3.8%
West on surface streets	0	0.0%
East on Freeway (US-101)	18,087	23.0%
West on Freeway (US-101)	22,955	29.1%
Total	78,842	100.0%

Neighborhood Intrusion

The roadway system for the RiverPark Development has been carefully laid out. Several important factors were considered. First and foremost, connections to existing residential streets were minimized. No residential street to the north(west) of Vineyard Avenue has a direct connection. In particular, there is no continuity along Stroube Street between RiverPark and Vineyard Avenue. Any vehicle wishing to travel between the two must either travel to the south along Myrtle Road to access Vineyard Avenue near the interchange opposite Ventura Boulevard or must go around the north side of El Rio-West neighborhood utilizing Santa Clara River Boulevard or N. Park Drive (opposite Simon Way). Neither road is currently constructed or would route vehicles past any existing residents.

The proposed project will only have three access points along Vineyard Avenue to the east, two other direct access points to the south across the 101 Freeway, and access across the Santa Clara River (to the west) or the drainage basins (to the north). Thus, most access will be concentrated along Ventura Road across the 101 Freeway, Oxnard

Boulevard across and/or at the 101 Freeway and Myrtle Street leading to and from Vineyard Avenue near the 101 Freeway. Other routes leading to and from Vineyard Avenue are Santa Clara River Boulevard and North Park Drive. Except North Park Drive, which will only serve the school, recreation and residential uses within RiverPark, no roadway leads through a residential area or leads to or from a residential area. The street system of RiverPark has been carefully laid out to not route commercial traffic past single-family residences.

It should be noted that despite the careful layout of the street system and the land uses, persons destined to or from commercial uses will pass in front of single family residences. For instance, persons driving from their house to the grocery store must often drive in front of their next-door neighbors house. Other persons will choose to drive down residential streets to find the shortest time travel route. The shortest time routes were calculated and used in the model.

FUTURE TRAFFIC CONDITIONS

Future year 2020 traffic conditions in the City of Oxnard and surrounding areas were analyzed using the City of Oxnard's transportation model which is based on the Ventura County Transportation Commission (VCTC) model. The VCTC model was prepared using Southern California Association of Governments (SCAG) land use data and is updated regularly as new land-use projections are made available. Existing and future freeway traffic volumes projected by the VCTC model for freeway segments were used as it is the most accepted model for transportation planning in Ventura County. Future freeway traffic volumes for this report were determined by adding the growth between the VCTC's future model volumes and the existing model volumes to the existing traffic volumes.

The VCTC model, however, does not provide information on intersection turning movements. In order to obtain future traffic volumes at the study intersections, the City's transportation model was updated and modified. Future year 2020 land use data for the City of Oxnard was updated using the build-out condition of the City's General Plan including the land use from a proposed General Plan amendment for the RiverPark Development. In addition, the City's transportation model network was updated to include the proposed improvements to the Ventura Freeway (US-101) bridge over the Santa Clara River and the Oxnard Boulevard interchange reconstruction. Other physical improvements in the area were also assumed in the model. Major network modifications include: improvements to the Route 1/Pleasant Valley interchange, Rice Avenue/Route 101 interchange, and Del Norte Boulevard/Route 101 interchange; and Rice Avenue redesignation as Route 1 and development to expressway standards from Fifth Street to Route 101.

Planned/Programmed Highway Improvements

Several improvements in the project vicinity were assumed in the VCTC and City models. In particular, improvements to the Ventura Freeway include replacing and widening the Santa Clara River Bridge to provide six lanes in each direction. Also proposed is the widening of the Ventura Freeway to the east in order to provide four to six lanes from Vineyard Avenue (Route 232) to the Santa Clara River Bridge in the northbound and southbound directions. In addition, the northbound Route 1 (Oxnard Boulevard) connector to the northbound Ventura Freeway will be removed to eliminate a non-standard "flyover" and left-side merge section. Oxnard Boulevard will be reconstructed to extend across the Ventura freeway. In addition, the Oxnard Boulevard interchange to the Ventura Freeway will provide northbound and southbound on/off-ramp access. Oxnard Boulevard will provide four lanes in each direction at the Ventura Freeway ramps. The northbound off-ramp is proposed to include an auxiliary (exit-only) lane flaring into separate right and left-turn lanes at Oxnard Boulevard. The northbound on-ramp will consist of three lanes at Oxnard Boulevard, tapering to two lanes prior to joining the Ventura Freeway mainline at the Santa Clara River Bridge. The southbound off-ramp will include one auxiliary lane and one diverge lane, flaring to two left-turn and one free right-turn lane at Oxnard Boulevard. The southbound on-ramp will merge from two lanes at Oxnard Boulevard to a single auxiliary lane on the freeway mainline where it will extend to the Vineyard Avenue off-ramp.

In addition, when sufficient redevelopment occurs to the Wagon Wheel Road area, a "hook" ramp along Wagon Wheel Road will be constructed. This ramp will provide direct access from Wagon Wheel Road to the southbound Ventura Freeway. The construction of this ramp will alleviate traffic that crosses to the east of the Ventura Freeway to access the southbound on-ramp from Oxnard Boulevard. A connection

between southbound Oxnard Boulevard and this hook-ramp will also be provided. Upon completion of the hook-ramp and connector, left-turns from southbound Oxnard Boulevard to the southbound Ventura Freeway diamond on-ramp will be prohibited. This connector will also allow access from Wagon Wheel Road to northbound Oxnard Boulevard. As part of the immediate roadway improvement project, the Oxnard Boulevard overcrossing will be constructed with sufficient length to accommodate the later installation of the hook ramp.

As part of the development of the Specific Plan area, several new roadways will be constructed. Improvements include the extension of Oxnard Boulevard and Myrtle Avenue and the construction of Santa Clara River Boulevard, South Park and North Park Drives. In addition, a series of 2-lane collector streets will also be constructed to serve the residential neighborhood in the northern part of the project site. A detailed description of these roadway improvements are discussed in the mitigation section.

Discussion of Significant Impact Definition

The California Environmental Quality Act (CEQA) defines a significant effect as being "a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the activity." Guidelines for implementing CEQA provisions have been adopted which allow each jurisdiction the latitude to determine what is a substantial or potentially substantial adverse change (significant impact) in the environment. For intersections within the City of Oxnard's and County of Ventura's control, significant traffic impacts are defined as those intersections where the project adds 75 or more trips per hour that result in a level of service of D, E or F with the project generated traffic. At these locations, the project must participate in cumulative mitigation to restore conditions to LOS C or better.

For intersections outside of the City of Oxnard's and County of Ventura's control participation in cumulative mitigation is not available. Therefore, revisions to meet LOS C where the local jurisdiction is unwilling to commit to achieving LOS C without the project is not feasible. Instead, significant traffic impacts are defined by the City of Oxnard as those which cause the intersection V/C ratio to increase by 0.020 or more with a resulting LOS E or F. At these locations, stand alone mitigations are identified since implementation of larger, multi-project measures are beyond the City of Oxnard's and County of Ventura's control. (It should be noted that the City of Oxnard's criteria is more stringent the Congestion Management Plan only requires that LOS F intersections be addressed).

Future Conditions Without and With Project

Traffic conditions in the study area were forecast for future analysis year 2020. This future year scenario was developed by using forecasted traffic growth from the City of Oxnard Transportation Model (which utilizes the VCTC vehicle trip projection data and known related projects that were assumed to be developed by 2020). Only those transportation improvements considered "reasonably assured" were assumed for the future year projections. The resulting 2020 traffic volumes reflect the expected future "Without Project Conditions" and were used as the "baseline" conditions from which to evaluate the potential traffic impacts of the proposed project. The "Without Project" traffic volumes for future year 2020 conditions, not only provide the baseline against which the determination of the effects of incremental project traffic in the project vicinity is made, but also provide a gauge of the impact of ambient traffic growth and cumulative development in the study area. This allows for a more comprehensive evaluation of the potential project impact mitigation requirements by also considering the need for cumulative infrastructure improvements.

Future 2020 traffic volumes with the addition of the RiverPark mixed-use development was also analyzed by adding project traffic generation to the "Without Project" scenarios. The traffic growth as a result of the project is used to determine the potential project traffic impact in the surrounding area. The future year "With Project" traffic volumes were determined by adding the incremental growth determined from a comparison of the "With Project" and "Without Project" scenarios to the "Without Project" traffic volumes in the study area. Future intersection traffic volumes for the "Without Project" and "With RiverPark Project" scenarios are shown on Figures 4.8-5 and 4.8-6, respectively. Summaries of the ICU and LOS "Without Project" and "With Project" conditions at the 33 study intersections for the future year 2020 are shown in Table 4.8-10. As shown in Table 4.8-10, the RiverPark project will have significant impacts at seven study intersections in the City of Oxnard's or County of Ventura's control and one study intersection in the City of Ventura, prior to any mitigation measures.

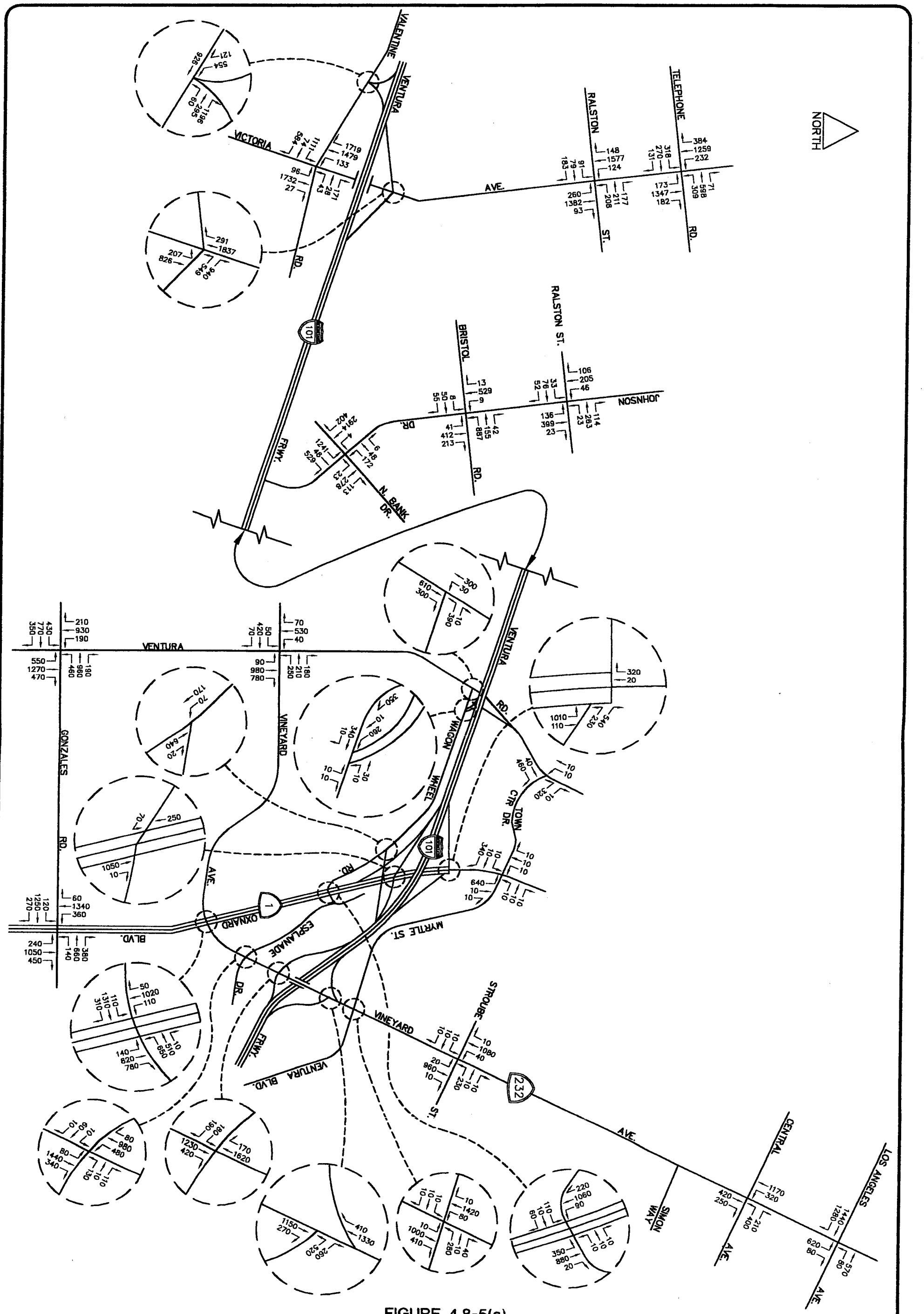

FIGURE 4.8-5(a)

10/16/01

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WOPSTICK

FUTURE (2020) TRAFFIC VOLUMES
WITHOUT PROJECT
AM PEAK HOUR

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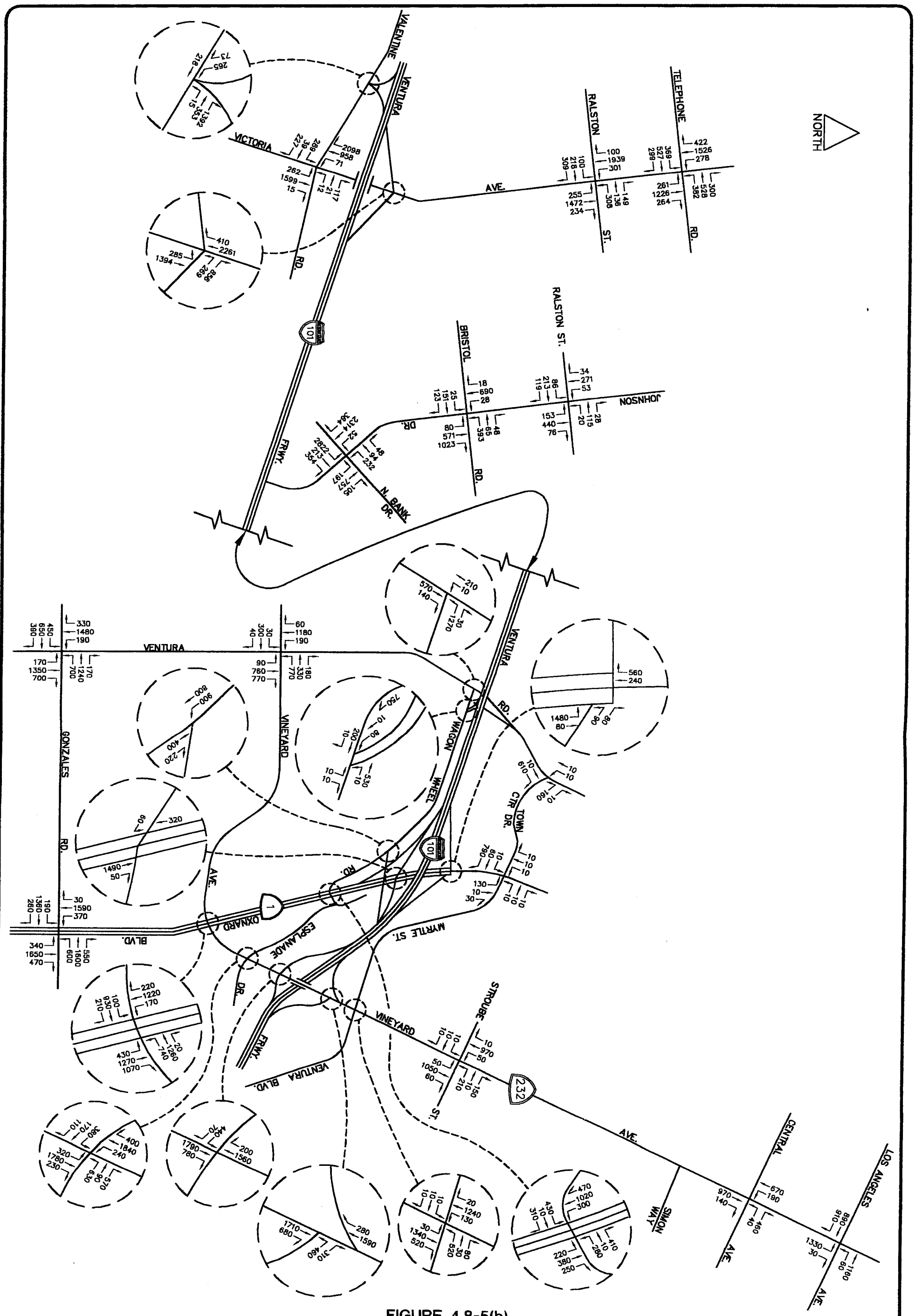

FIGURE 4.8-5(b)

10/16/01

OXNRDRPK\PM2020WO

WOPSTICK

FUTURE (2020) TRAFFIC VOLUMES WITHOUT PROJECT PM PEAK HOUR

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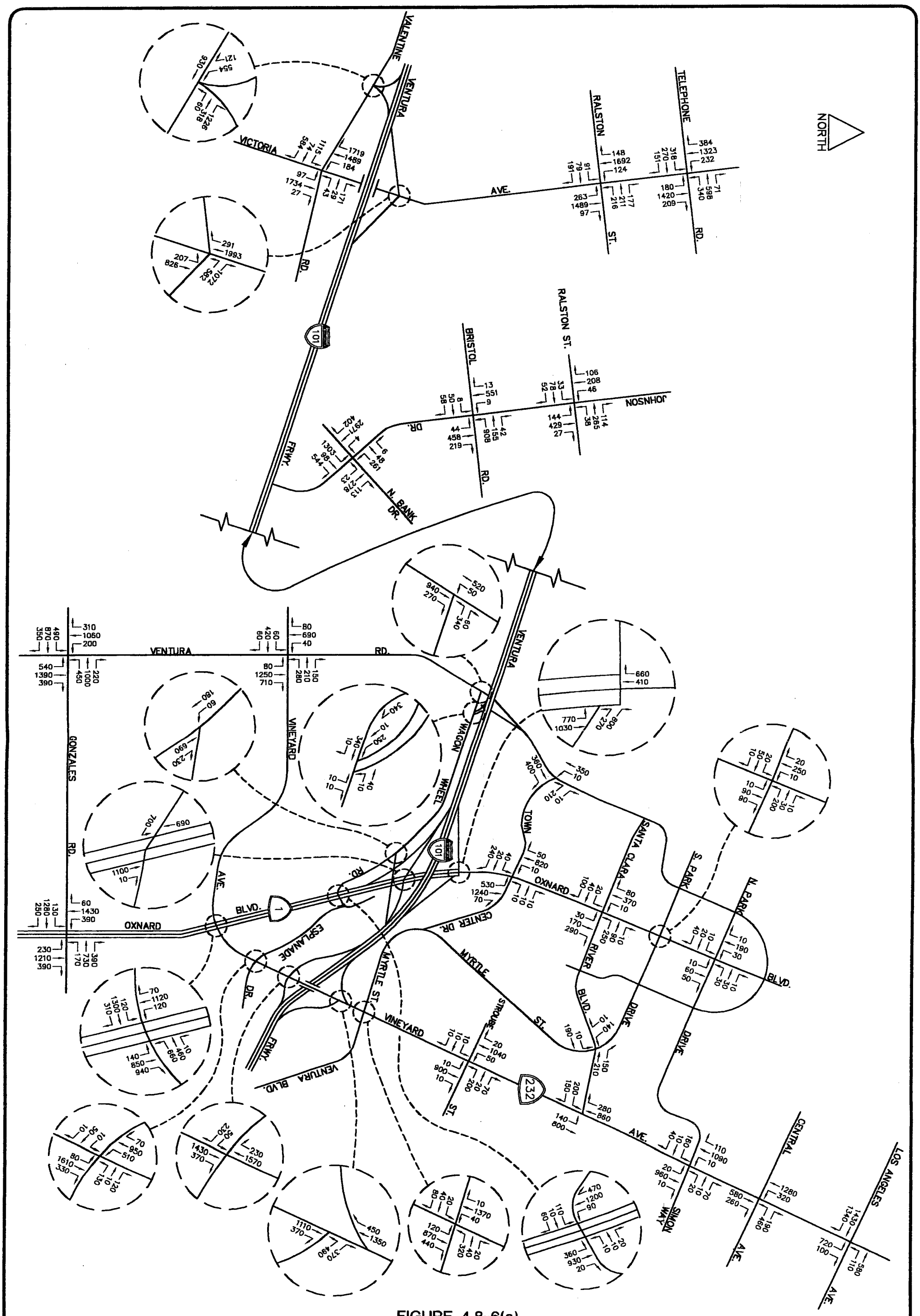

FIGURE 4.8-6(a)

10/29/01

OXNRDRPK\AM2020WP

FUTSTICK

FUTURE (2020) TRAFFIC VOLUMES WITH RIVERPARK PROJECT AM PEAK HOUR

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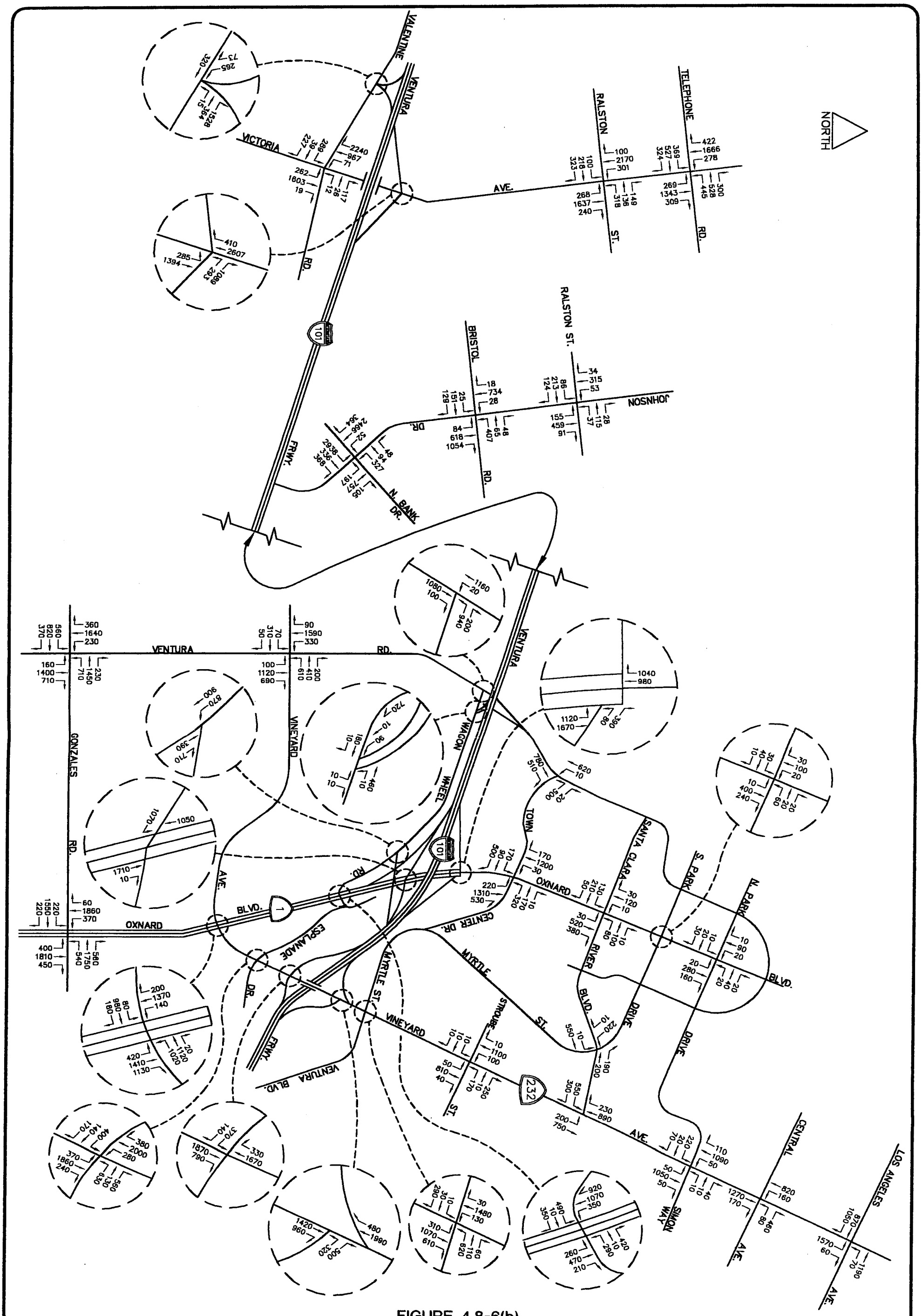

FIGURE 4.8-6(b)

10/29/01

OXNRDRPK\PM2020WP

FUTSTICK

FUTURE (2020) TRAFFIC VOLUMES WITH RIVERPARK PROJECT PM PEAK HOUR

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Table 4.8-10(a)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions, Project Area Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With Project V/C	With Project LOS
1	Los Angeles Avenue and	AM	0.850	D	0.906	E*
	Vineyard Avenue	PM	0.778	C	0.863	D*
2	Central Avenue and	AM	0.659	B	0.750	C
	Vineyard Avenue	PM	0.694	B	0.788	C
3	North Park Drive and Avenue	AM	N/A	N/A	0.188	A
	Oxnard Boulevard	PM	N/A	N/A	0.231	A
4	Simon Way/North Park Drive and	AM	N/A	N/A	0.473	A
	Vineyard Avenue	PM	N/A	N/A	0.541	A
5	Oxnard Boulevard and	AM	N/A	N/A	0.253	A
	South Park Drive	PM	N/A	N/A	0.281	A
6	Oxnard Boulevard and	AM	N/A	N/A	0.213	A
	Santa Clara River Boulevard	PM	N/A	N/A	0.428	A
7	South Park Drive/Myrtle Street and	AM	N/A	N/A	0.206	A
	Santa Clara River Boulevard	PM	N/A	N/A	0.367	A
8	Vineyard Avenue and	AM	N/A	N/A	0.336	A
	Santa Clara River Boulevard	PM	N/A	N/A	0.499	A
9	Vineyard Avenue and	AM	0.387	A	0.354	A
	Stroube Street	PM	0.387	A	0.374	A
10	Ventura Road and	AM	0.124	A	0.154	A
	Town Center Drive	PM	0.063	A	0.341	A
11	Oxnard Boulevard and	AM	0.422	A	0.480	A
	Town Center Drive	PM	0.339	A	0.694	C
12	Vineyard Avenue and	AM	0.404	A	0.468	A
	Ventura Boulevard	PM	0.546	A	0.762	C
13	Oxnard Boulevard and	AM	0.494	A	0.497	A
	US-101 Northbound Ramps	PM	0.602	B	0.588	A
14	Oxnard Boulevard and	AM	0.188	A	0.412	A
	US-101 Southbound Ramps	PM	0.253	A	0.635	B

N/A - Intersections do not exist in the "Without Project" Scenario
* Denotes a significant impact prior to mitigation.

Table 4.8-10(a) (Con't)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions, Project Area Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With Project V/C	With Project LOS
15	Vineyard Avenue and US-101 Northbound Ramps	AM	0.439	A	0.452	A
		PM	0.517	B	0.566	A
16	Vineyard Avenue and US-101 Southbound Ramps	AM	0.456	A	0.471	A
		PM	0.533	A	0.549	A
17	Ventura Road and Wagon Wheel Road	AM	0.343	A	0.442	A
		PM	0.621	B	0.673	B
18	Wagon Wheel Road and US-101 Southbound Off-Ramp	AM	0.384	A	0.378	A
		PM	0.806	D	0.744	C
19	Wagon Wheel Road and US-101 Southbound On-Ramp	AM	0.424	A	0.452	A
		PM	0.559	A	0.743	C
20	Oxnard Boulevard and Esplanade Drive	AM	0.561	A	0.648	B
		PM	0.808	D	0.932	E*
21	Vineyard Avenue and Esplanade Drive	AM	0.617	B	0.654	B
		PM	0.887	D	0.944	E*
22	Vineyard Avenue and Ventura Road	AM	0.687	B	0.648	B
		PM	0.826	D	0.866	D*
23	Vineyard Avenue and Oxnard Boulevard	AM	0.798	C	0.899	D*
		PM	0.893	D	0.940	E*
24	Gonzales Road and Ventura Road	AM	0.731	C	0.783	C
		PM	0.829	D	0.891	D*
25	Gonzales Road and Oxnard Boulevard	AM	0.690	B	0.674	B
		PM	0.874	D	0.946	E*

* Denotes a significant impact prior to mitigation.

Table 4.8-10(b)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions, City of Ventura Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With Project V/C	With Project LOS	Impact
26	Victoria Avenue and Telephone Road	AM	0.552	A	0.568	A	0.016
		PM	0.625	B	0.672	B	0.047
27	Victoria Avenue and Ralston Street	AM	0.621	B	0.641	B	0.020
		PM	0.807	D	0.858	D	0.051
28	Victoria Avenue and US-101 Northbound Ramps	AM	0.568	A	0.615	B	0.047
		PM	0.607	B	0.697	B	0.090
29	Valentine Road and US-101 Southbound Ramps	AM	0.500	A	0.501	A	0.001
		PM	0.193	A	0.196	A	0.003
30	Valentine Road and Victoria Avenue	AM	0.871	D	0.874	D	0.003
		PM	0.511	A	0.513	A	0.002
31	Ralston Street and Johnson Drive	AM	0.463	A	0.483	A	0.020
		PM	0.454	A	0.476	A	0.022
32	Johnson Drive and Bristol Road	AM	0.735	C	0.759	C	0.024
		PM	0.799	C	0.837	D	0.038
33	Johnson Drive and North Bank Drive	AM	1.302	F	1.357	F	0.055*
		PM	1.566	F	1.669	F	0.103*

* Denotes a significant impact prior to mitigation.

Analysis of Future Freeway Traffic Conditions (With and Without Project)

To address the increasing public concern that traffic congestion was impacting the quality of life and economic vitality of the State of California, the Congestion Management Program (CMP) was enacted by Proposition 111 in 1990. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program (STIP) process. A Countywide approach has been established by the Ventura County Transportation Commission, the Local CMP agency, to implement the statutory requirements of the CMP. The Countywide approach includes designating a

highway network that includes all state highways and principal arterials within the County and monitoring the network's Level of Service standards. This monitoring of the CMP network is one of the responsibilities of local jurisdictions. If level of service standards deteriorate, then local jurisdictions must prepare a deficiency plan to be in conformance with the Countywide plan.

Five segments along the Ventura Freeway and on Route 1 in the project study area were examined as the regional facility segments most likely to be impacted by the project. These are the same segments identified in the discussion of existing freeway conditions.

Traffic volumes attributable to the RiverPark project, as determined earlier, were then analyzed as an incremental increase to the "Without Project" conditions. This methodology allowed for both an assessment of overall future freeway conditions and a determination of the project impacts to these regional transportation facilities. The Level of Service values used for Freeway segment analyses are estimated by calculating the demand-to-capacity (D/C) ratio and using the LOS definitions shown in Table 4.8-4 of this report. Freeway traffic conditions in the study area were forecast for future year 2020. Using capacities calculated based on the HCM methodology as discussed previously, the level of service at the freeway segments was computed and is shown in Table 4.8-11.

As this table shows, all study freeway segments are projected to operate at level of service D and better except at the US-101 south of Central Avenue where traffic conditions will operate at LOS F in the northbound direction during the morning peak hour and in the southbound during the PM peak hour. It should be noted that the substantial improvements already planning for the Ventura Freeway will in large part be responsible for the acceptable levels of service. In addition, any improvements on the Ventura Freeway south of Central Avenue (e.g. widening of this location) are addressed in the Ventura County CMP.

Table 4.8-11
Future (2020) Freeway Volumes and Level of Service

CMP Station	Dir	Peak Hour	Freeway Capacity	Future (2020) Without Project Traffic Conditions				Future (2020) With Project Traffic Conditions				
				Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Project Impact
US-101 at the Santa Clara River Bridge	N/B	AM	12,000	199,600	8,530	0.711	C	213,200	8,833	0.736	C	0.025
		PM	12,000		9,460	0.788	D		10,072	0.839	D	0.051
	S/B	AM	12,000		8,310	0.693	C		8,828	0.736	C	0.043
		PM	12,000		6,400	0.533	B		7,188	0.599	C	0.066
US-101 between Route 1 and Vineyard Avenue	N/B	AM	10,000	169,000	6,610	0.661	C	180,000	7,143	0.714	C	0.053
		PM	10,000		8,290	0.829	D		9,077	0.908	D	0.079
	S/B	AM	10,000		6,010	0.601	C		6,156	0.616	C	0.015
		PM	10,000		6,780	0.678	C		7,122	0.712	C	0.034
US-101 between Vineyard Avenue and Rose Avenue	N/B	AM	10,000	177,600	7,050	0.705	C	187,400	7,533	0.753	C	0.048
		PM	10,000		8,350	0.835	D		8,661	0.866	D	0.031
	S/B	AM	10,000		6,510	0.651	C		6,794	0.679	C	0.028
		PM	10,000		7,190	0.719	C		7,724	0.772	D	0.053
Oxnard Boulevard (Route 1) between Vineyard Ave. and US-101	N/B	AM	4,000	32,300	1,230	0.308	A	35,100	1,296	0.324	A	0.016
		PM	4,000		1,290	0.323	A		1,374	0.344	A	0.021
	S/B	AM	4,000		1,240	0.310	A		1,413	0.353	B	0.043
		PM	4,000		1,330	0.333	A		1,443	0.361	B	0.028
US-101 south of Central Avenue	N/B	AM	8,000	182,4000	7,940	0.993	E	187,700	8,258	1.032	F(0)	0.039*
		PM	8,000		7,110	0.889	D		7,250	0.906	D	0.017
	S/B	AM	8,000		5,980	0.748	C		6,086	0.761	C	0.013
		PM	8,000		8,000	1.000	E		8,287	1.036	F(0)	0.036*

* Denotes a significant project impact.

MITIGATION MEASURES

As stated previously, eight significant impacts are anticipated at the 33 study intersections after full build-out of the project. In order to reduce the impacts to a level of insignificance, the following mitigation measures are recommended:

City/County Transportation Fees -- Pay all fees due to the City of Oxnard and County of Ventura. It is recognized that these fees will be used, in part, to provide the improvements which follow. These improvements implemented by the project will be subject to reimbursement/credit as applicable. Fees are approximately as follows:

	City of Oxnard	County of Ventura
Daily Trip Ends	94,174	94,174
Percent Using Jurisdiction Roads	100%	10%
Fee/Trip	$173.90	$139.00
Total Fee	$16,376,858	$1,309,019

These fees are approximate and will be set when the actual development is known. However, the end result for the City and County in new trip fees is anticipated to $15-20 million. These fees would address impacts on roadway/freeway segments as well as at intersections.

City of Oxnard/County of Ventura (equitable participation):

The project would pay appropriate fees and receive credit for any construction, to equitably participate in the buildout of the Master Plan of streets and Highways of the General Plan. This would include the following improvements which should be added to the City's and County's General Plans.

- Los Angeles Avenue and Vineyard Avenue -- Widen and restripe Los Angeles Avenue to provide one left-turn lane, two through lanes and one through/right

shared lane in the westbound direction and one left-turn lane, two through lanes, one through/right shared lane and one right-turn lane in the eastbound direction.

- Oxnard Boulevard and Town Center Drive -- Construct this intersection to provide the following: dual left-turn lanes and one through/right shared lane in the westbound direction, dual left-turn lanes, one through lane and two right-turn lanes in the eastbound direction, dual left-turn lanes, two through lanes and one right-turn lane in the northbound direction, and one left-turn lane, one through lane and one through/right shared lane in the southbound direction. In addition, provide a green phase for the eastbound right-turn movement concurrent with the northbound left-turn phase.

- Oxnard Boulevard and US-101 Northbound Ramps -- Improve this intersection to provide the following: one left-turn lane and one 'free' right-turn lane in the westbound direction, dual left-turn lanes and two through lanes in the northbound direction, and four through lanes and one right-turn lane in the southbound direction.

- Ventura Freeway SB On/Off-ramps and Oxnard Boulevard -- When sufficient redevelopment occurs to the Wagon Wheel Road area, a "hook" ramp along Wagon Wheel Road will be constructed. This ramp will provide direct access from Wagon Wheel Road to the southbound Ventura Freeway. The construction of this ramp will alleviate traffic that crosses to the east of the Ventura Freeway to access the southbound on-ramp from Oxnard Boulevard. In addition, a connection between southbound Oxnard Boulevard and this hook-ramp will be provided. Upon completion of the hook-ramp and connector, left-turns from southbound Oxnard Boulevard to the southbound

Ventura Freeway diamond on-ramp will be prohibited. This connector will also allow access from Wagon Wheel Road to northbound Oxnard Boulevard. As part of the immediate roadway improvement project, the Oxnard Boulevard overcrossing will be constructed with sufficient length to accommodate the later installation of the hook ramp.

- Wagon Wheel Road and US-101 Southbound On-Ramp -- Restripe Wagon Wheel Road to provide one through/right shared lane and one right-turn lane in the northbound direction.

- Oxnard Boulevard and Esplanade Drive -- Improve this intersection to provide dual left-turn lanes in the westbound and eastbound directions, and one left-turn lane, two through lanes, one through/right lane and one right-turn lane in the southbound direction.

- Vineyard Avenue and Esplanade Drive -- Reconstruct the west and east legs of the Vineyard Avenue and Esplanade Drive intersection to provide two left-turn lanes, one left-through shared lane and one right-turn only lane in the eastbound direction and one left-turn lane, one left-through shared lane, one right-though shared lane and one right-turn only lane in the westbound direction. Widen Vineyard Avenue along the west and east curb and relocate the median island to provide dual left-turn lanes, four through lanes and one right-turn-only in the southbound direction and dual left-turn lanes, three through lanes and one right-through shared lane in the northbound direction. This will require additional right-of-way to be obtained from the Esplanade Mall.

- Vineyard Avenue and Ventura Road -- Restripe Ventura Road to provide one left-turn lane, three through lanes and one right-turn lane in the northbound direction and one left-turn lane, two through lanes and one through/right turn

lane in the southbound direction. In addition, modify signal phasing to provide a green phase for the northbound right-turn movement during the westbound left-turn phase.

- Vineyard Avenue and Oxnard Boulevard -- Modify the median islands and restripe Oxnard Boulevard to provide dual left-turn lanes, three through lanes, and two right-turn lanes in the northbound direction and two left-turn lanes, four through lanes and one right-turn lane in the southbound direction. In addition, flare and modify the median islands and restripe Vineyard Avenue to provide three left-turn lanes, three through lanes and one right-turn lane in the westbound direction and restripe the eastbound approach to provide one left-turn lane, three through lanes and one right-turn lane.

- Gonzales Road and Ventura Road -- Restripe and widen this intersection to provide the following: dual left turn lanes, three through lanes and one right-turn-only lane in the eastbound direction, dual left-turn lanes, three through lanes, one through/right shared lane and one right-turn-only lane in the northbound direction, and dual left-turn lanes, four through lanes and one right-turn-only lane in the westbound and southbound directions.

- Gonzales Road and Oxnard Boulevard -- The City of Oxnard General Plan calls for this intersection to either be grade separated with an urban interchange or to have other specialized treatment. The other treatments could be to require left-turn movements to be accommodated as U-turns beyond the intersection and "free right-turns" upon returning to the intersection. Other methods of removing left-turns from the critical movements at the intersection are also being considered. With this project, this intersection will continue to need one of those options to be implemented. For analysis

purposes, it has been assumed that an urban interchange, including a grade separated crossing of Gonzales Road and the railroad tracks paralleling Oxnard Boulevard, would be constructed. However, other alternative improvements may be constructed which will still allow the City to achieve the General Plan performance standards.

City of Ventura Intersections (Stand-Alone Measures):

- Johnson Drive and North Bank Drive -- Flare and restripe Johnson Drive to provide one left-turn lane, two through lanes and one through/right shared lane in the southbound direction.

Residential Segments

Residential streets in the El Rio neighborhood will not be directly connected to any commercial use. Anyone who chose to use a residential street to access the project will most likely be a resident of that street. Further, speed humps have already been implemented along Stroube Street. Therefore, mitigation of impacts on residential street segments is neither considered warranted or feasible.

Project Roadway Improvements

It should be noted that the project would construct an extensive roadway network within the Specific Plan boundaries. These include:

- Oxnard Boulevard -- This roadway will be extended north of US-101. This roadway will be constructed as a six lane arterial between US-101 and Town Center Drive, a four lane arterial between Town Center Drive and Santa Clara River Boulevard, a four lane collector street between Santa Clara River

Boulevard and the traffic circle located north of North Park Drive and a two lane collector street north of the traffic circle.

- Town Center Drive -- This roadway will be improved as a four lane arterial between Ventura Road and Oxnard Boulevard.

- Ventura Road -- This roadway will be extended northerly into the Specific Plan area where it bends easterly and becomes Santa Clara River Boulevard. Ventura Road will be improved as a four lane arterial throughout the Specific Plan from US-101 to Santa Clara River Boulevard.

- Santa Clara River Boulevard -- This roadway will be constructed as a four lane arterial throughout the Specific Plan from Ventura Road to Vineyard Boulevard where it aligns with Simon Way. It is recommended that a traffic circle be constructed at the intersections of Ventura Road, Oxnard Boulevard and RiverPark Avenue east along Santa Clara River Boulevard. The traffic circle should have a minimum outside diameter of 180 feet in order to provide acceptable operations.

- South Park Drive/Myrtle Street -- This roadway will serve primarily as a four lane collector street in the Specific Plan area. It will generally extend in the northwest direction from Vineyard Avenue just north of the 101 Freeway to Ventura Road. The name will change to South Park Drive at Santa Clara River Boulevard where it will bend and extend westerly to Oxnard Boulevard. In addition, a short segment of South Park Drive will be constructed as a two lane collector street west of Oxnard Boulevard.

- o North Park Drive -- This roadway will be constructed as a two lane collector street between Oxnard Boulevard and Vineyard Avenue. A short segment of this roadway will also be a two lane collector street west of Oxnard Boulevard.

It should also be noted that Figure 4.8-7 is illustrative only. As the project is designed in detail and constructed, some refinement in the alignment of these roadways is anticipated and necessary.

Table 4.8-12 shows the effectiveness of the proposed mitigation. As this analysis shows, all impacts of the project with the above proposed mitigation measures will be less than significant.

Transit Improvements

The site for the RiverPark development is mainly empty. Except for along Vineyard Avenue north of the US 101 Freeway to Simon Way, no transit service is provided to the project area. All trips would need to be made by walking to stops at the Esplanade Shopping Center or along Vineyard Avenue. The routes serving these stops then cover the Cities of Oxnard and Ventura as well as the County of Ventura, making the entire region accessible by transit.

Future transit routes are not yet planned for the project area. While the shifting of a route appears to provide the most immediate option, over time more than one route will be shifted and several new routes may be formed. It is not appropriate to speculate on which areas may have direct transit service by the time that the project is completed. However, it is appropriate to design the roadways throughout the Specific Plan area in such a way as to accommodate transit vehicles. In addition, sufficient room should be provided to make the commercial center a transit hub.

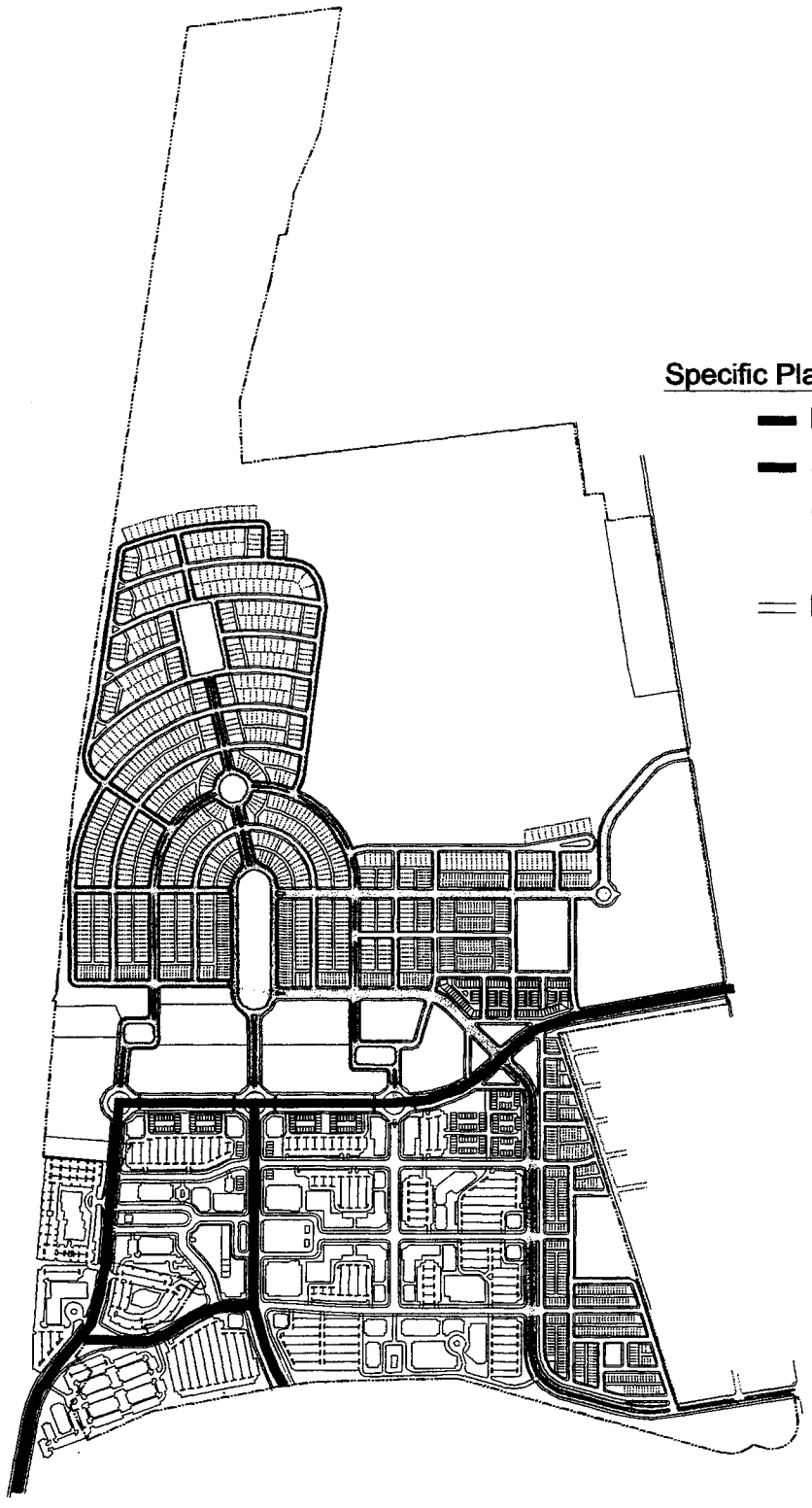

FIGURE 4.8-7

11/1/2001

:FN OXNRDRPK\ROADWAY CLASS(10-24-2001)

ROADWAY CLASSIFICATIONS

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Table 4.8-12(a)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions
With Project and Mitigation

No	Intersection	Peak Hour	W/O Project V/C	W/O Project LOS	With Project V/C	With Project LOS	With Project + Mitigation V/C	With Project + Mitigation LOS
1	Los Angeles Avenue	AM	0.850	D	0.906	E*	0.670	B
	and Vineyard Avenue	PM	0.778	C	0.863	D*	0.739	C
20	Oxnard Boulevard and	AM	0.561	A	0.648	B	0.519	A
	Esplanade Drive	PM	0.808	D	0.932	E*	0.623	B
21	Vineyard Avenue and	AM	0.617	B	0.654	B	0.550	A
	Esplanade Drive	PM	0.887	D	0.944	E*	0.786	C
22	Vineyard Avenue and	AM	0.687	B	0.648	B	0.600	B
	N. Ventura Road	PM	0.826	D	0.866	D*	0.746	C
23	Vineyard Avenue and	AM	0.798	C	0.899	D*	0.719	C
	Oxnard Boulevard	PM	0.893	D	0.940	E*	0.793	C
24	Gonzales Road and	AM	0.731	C	0.783	C	0.688	B
	Ventura Road	PM	0.829	D	0.891	D*	0.762	C
25	Gonzales Road and	AM	0.690	B	0.674	B	0.592	A
	Oxnard Boulevard	PM	0.874	D	0.946	E*	0.646	B

* Denotes a significant impact prior to mitigation.

Table 4.8-12(b)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions
With Project and Mitigation

No	Intersection	Peak Hour	W/O Project V/C	W/O Project LOS	With Project V/C	With Project LOS	With Project Impact	With Project + Mitigation V/C	With Project + Mitigation LOS	With Project + Mitigation Impact
33	Johnson Drive and	AM	1.302	F	1.357	F	0.055*	1.131	F	-0.171
	North Bank Drive	PM	1.566	F	1.669	F	0.103*	1.488	F	-0.078

* Denotes a significant impact prior to mitigation.

The project will provide sufficient density to make transit a workable and necessary at the same time a travel alternative. In particular, a transit hub will need to be incorporated near the center of the Regional Center.

The following mitigation measures should be included in the EIR and Specific Plan:

- Oxnard Boulevard should have concrete bus pads and sheltered stops along the curbs, immediately beyond (north of) the Town Center Drive intersection.
- Additional transit stops should be provided along Oxnard Boulevard between Santa Clara River Boulevard and the US 101 Freeway and along Santa Clara River Boulevard between Oxnard Boulevard and Vineyard Avenue where the South Coast Area Transit (SCAT) is willing to commit to providing transit service and the City of Oxnard deems a stop feasible.
- Up to 5 bays in each direction should be provided to the southeast of the intersection of Oxnard Boulevard and Santa Clara River Boulevard. This hub may be on parking or other roadways, but should provide layover and turnout space for full size (40 foot length) buses.

As discussed above, SCAT is unable to forecast its service for the next 20 years. However, the project will be constructed so that it will be able to utilize SCAT service, should it be provided.

APPENDIX A
TRANSPORTATION AND CIRCULATION STUDY
WITH POTENTIAL FUTURE BRIDGE

As requested by the City of Oxnard, an analysis of future traffic conditions with the RiverPark Project was also conducted assuming the construction of a Bridge located to the west of the project site. The potential bridge would extend across the Santa Clara River from Ventura Road at its bend within the Specific Plan area to the City of Ventura's street network system. The results of this analysis are shown below.

The methodology used to analyze future traffic conditions with the potential future bridge is the same methodology used in the body of the report. The future year 2020 "With Project and Potential Future Bridge" traffic volumes for the AM and PM peak hours are shown in Figures A-1(a) and (b), respectively. Based on the traffic volumes in Figures A-1(a) and (b), the level of service at the 33 study intersections were also calculated and are shown in Table A-1. According to Table A-1(a), the project would have significant impacts at seven of the 25 project intersections with the RiverPark project and with the construction of the potential future Bridge. Table A-1(b) shows that one of the eight study intersections in the City of Ventura would be impacted by the project with the construction of the bridge. In addition, Table A-2 shows that the project would significantly impact the US-101 Freeway south of Central Avenue. The RiverPark project, should this bridge be constructed by others, would result in the same number significant impacts with the construction of the bridge.

It is not proposed that this appendix be used to set conditions of approval. Rather, the appendix shows that, should the City of Ventura proceed with construction of another crossing of the Santa Clara River, nothing being constructed in the RiverPark Specific Plan would prevent that crossing. In fact, specific arrangements have been made so that the bridge would be connected as the fourth leg on the northwest most traffic circle and that traffic would be routed through the Specific Plan. While this development is not predicated on such a bridge being built, it does not prevent such a facility.

Table A-1(a)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions with Potential Future Bridge, Project Area Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With Project V/C	With Project LOS
1	Los Angeles Avenue and	AM	0.850	D	0.788	C
	Vineyard Avenue	PM	0.778	C	0.750	C
2	Central Avenue and	AM	0.659	B	0.741	C
	Vineyard Avenue	PM	0.694	B	0.688	B
3	North Park Drive and	AM	N/A	N/A	0.169	A
	Oxnard Boulevard	PM	N/A	N/A	0.225	A
4	Simon Way/North Park Drive and	AM	N/A	N/A	0.412	A
	Vineyard Avenue	PM	N/A	N/A	0.452	A
5	Oxnard Boulevard and	AM	N/A	N/A	0.237	A
	South Park Drive	PM	N/A	N/A	0.284	A
6	Oxnard Boulevard and	AM	N/A	N/A	0.223	A
	Santa Clara River Boulevard	PM	N/A	N/A	0.553	A
7	South Park Drive/Myrtle Street and	AM	N/A	N/A	0.221	A
	Santa Clara River Boulevard	PM	N/A	N/A	0.344	A
8	Vineyard Avenue and	AM	N/A	N/A	0.349	A
	Santa Clara River Boulevard	PM	N/A	N/A	0.466	A
9	Vineyard Avenue and	AM	0.387	A	0.354	A
	Stroube Street	PM	0.387	A	0.363	A
10	Ventura Road and	AM	0.124	A	0.226	A
	Town Center Drive	PM	0.663	A	0.392	A
11	Oxnard Boulevard and	AM	0.422	A	0.454	A
	Town Center Drive	PM	0.339	A	0.684	B
12	Vineyard Avenue and	AM	0.404	A	0.476	A
	Ventura Boulevard	PM	0.546	A	0.690	B
13	Oxnard Boulevard and	AM	0.494	A	0.536	A
	US-101 Northbound Ramps	PM	0.602	B	0.597	A
14	Oxnard Boulevard and	AM	0.188	A	0.352	A
	US-101 Southbound Ramps	PM	0.253	A	0.561	A
15	Vineyard Avenue and	AM	0.439	A	0.457	A
	US-101 Northbound Ramps	PM	0.517	A	0.554	A

Table A-1(a) (Con't)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions with Potential Future Bridge, Project Area Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With Project V/C	With Project LOS
16	Vineyard Avenue and US-101 Southbound Ramps	AM	0.456	A	0.456	A
		PM	0.533	A	0.526	A
17	Ventura Road and Wagon Wheel Road	AM	0.343	A	0.509	A
		PM	0.621	B	0.711	C
18	Wagon Wheel Road and US-101 Southbound Off-Ramp	AM	0.384	A	0.378	A
		PM	0.806	D	0.750	C
19	Wagon Wheel Road and US-101 Southbound On-Ramp	AM	0.424	A	0.458	A
		PM	0.559	A	0.759	D*
20	Oxnard Boulevard and Esplanade Drive	AM	0.561	A	0.629	B
		PM	0.808	D	0.816	D*
21	Vineyard Avenue and Esplanade Drive	AM	0.617	A	0.644	B
		PM	0.868	D	0.939	E*
22	Vineyard Avenue and Ventura Road	AM	0.687	B	0.677	B
		PM	0.826	D	0.887	D*
23	Vineyard Avenue and Oxnard Boulevard	AM	0.798	C	0.867	D*
		PM	0.893	D	0.954	E*
24	Gonzales Road and Ventura Road	AM	0.731	C	0.812	D*
		PM	0.829	D	0.891	D*
25	Gonzales Road and Oxnard Boulevard	AM	0.690	B	0.674	B
		PM	0.874	D	0.819	D*

N/A - Intersections do not exist in the "Without Project" Scenario.
* Denotes a significant impact prior to mitigation.

Table A-1(b)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions with Potential Future Bridge, City of Ventura Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With Project V/C	With Project LOS	Impact
26	Victoria Avenue and	AM	0.552	A	0.560	A	0.008
	Telephone Road	PM	0.625	B	0.653	B	0.028
27	Victoria Avenue and	AM	0.621	B	0.634	B	0.013
	Ralston Street	PM	0.807	D	0.837	D	0.030*
28	Victoria Avenue and	AM	0.568	B	0.596	A	0.028
	US-101 Northbound Ramps	PM	0.607	B	0.662	B	0.055
29	Valentine Road and	AM	0.500	A	0.501	A	0.001
	US-101 Southbound Ramps	PM	0.193	A	0.196	A	0.003
30	Valentine Road and	AM	0.871	D	0.872	D	0.001
	Victoria Avenue	PM	0.511	A	0.514	A	0.003
31	Ralston Street and	AM	0.463	A	0.468	A	0.005
	Johnson Drive	PM	0.454	A	0.488	A	0.034
32	Johnson Drive and	AM	0.735	C	0.757	C	0.022
	Bristol Road	PM	0.799	C	0.886	D	0.087
33	Johnson Drive and	AM	1.302	F	1.310	F	0.008
	North Bank Drive	PM	1.566	F	1.560	F	- 0.006

Table A-2
Future (2020) Freeway Volumes and Level of Service with Potential Future Bridge

CMP Station	Dir	Peak Hour	Freeway Capacity	Future (2020) Without Project Traffic Conditions: Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Future (2020) With Project Traffic Conditions: Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Project Impact
US-101 at the Santa Clara River Bridge	N/B	AM	12,000	199,600	8,530	0.711	C	193,600	8,333	0.694	C	-0.017
		PM	12,000		9,460	0.788	D		9,164	0.764	C	-0.024
	S/B	AM	12,000		8,310	0.693	C		7,998	0.667	C	-0.026
		PM	12,000		6,400	0.533	B		6,214	0.518	B	-0.015
US-101 between Route 1 and Vineyard Avenue	N/B	AM	10,000	169,000	6,610	0.661	C	175,000	6,961	0.696	C	0.035
		PM	10,000		8,290	0.829	D		8,683	0.868	D	0.039
	S/B	AM	10,000		6,010	0.601	C		6,045	0.605	C	0.004
		PM	10,000		6,780	0.678	C		6,982	0.698	C	0.020
US-101 between Vineyard Avenue and Rose Avenue	N/B	AM	10,000	177,600	7,050	0.705	C	187,300	7,507	0.751	C	0.046
		PM	10,000		8,350	0.835	D		8,687	0.869	D	0.034
	S/B	AM	10,000		6,510	0.651	C		6,770	0.677	C	0.026
		PM	10,000		7,190	0.719	C		7,732	0.773	D	0.054
Oxnard Boulevard (Route 1) between Vineyard Ave. and US-101	N/B	AM	4,000	32,300	1,230	0.308	A	37,200	1,461	0.365	B	0.057
		PM	4,000		1,290	0.323	A		1,556	0.389	B	0.066
	S/B	AM	4,000		1,240	0.310	A		1,409	0.352	B	0.042
		PM	4,000		1,330	0.333	A		1,430	0.358	B	0.025
US-101 south of Central Avenue	N/B	AM	8,000	182,4000	7,940	0.993	E	187,700	8,258	1.032	F(0)	0.039*
		PM	8,000		7,110	0.889	D		7,250	0.906	D	0.017
	S/B	AM	8,000		5,980	0.748	C		6,086	0.761	C	0.013
		PM	8,000		8,000	1.000	E		8,287	1.036	F(0)	0.036*

* Denotes a significant project impact.

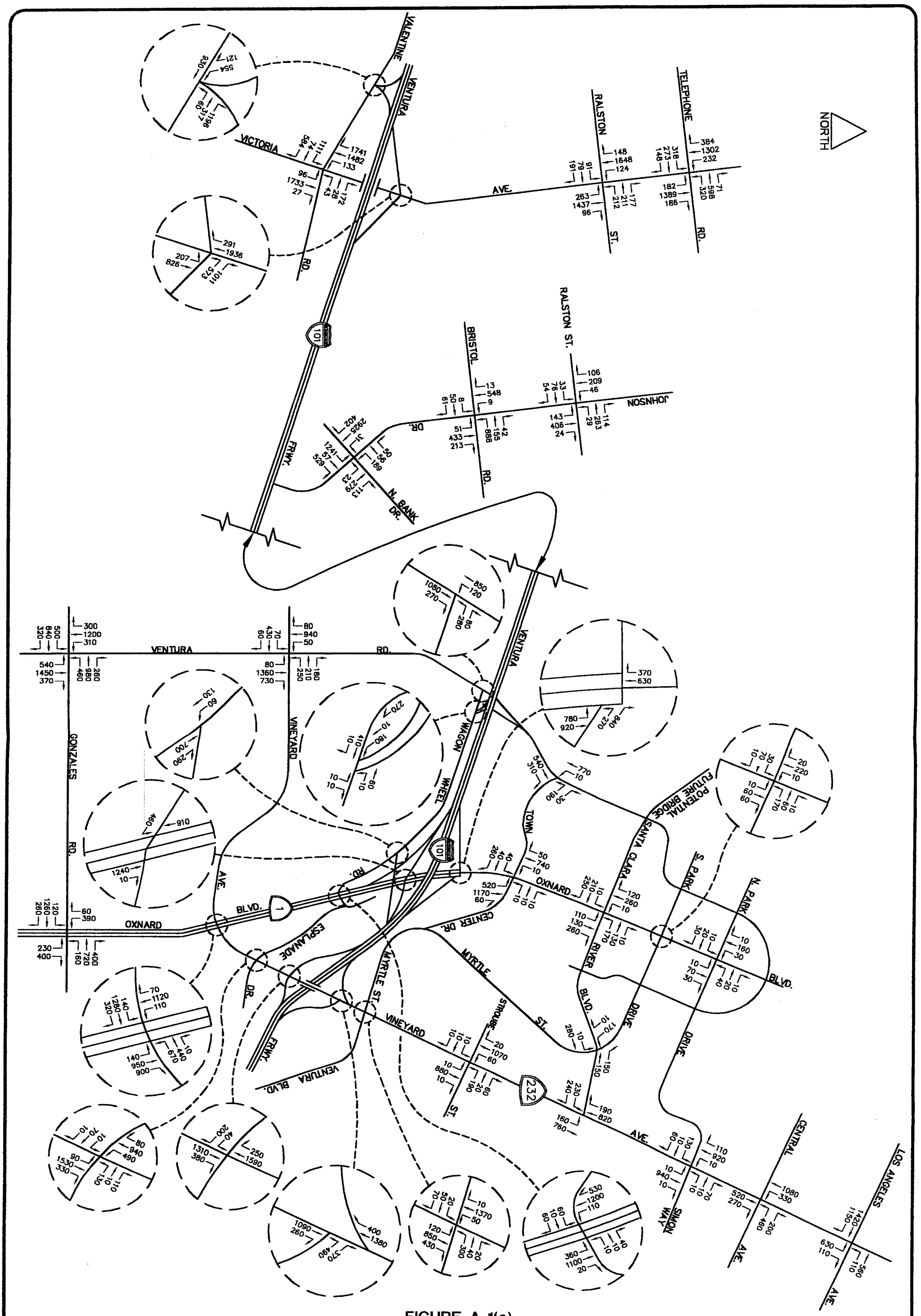

FIGURE A-1(a)

10/29/01

OXNRDRPK\AMBRDGE

FUTSTICKBRDGE

FUTURE (2020) TRAFFIC VOLUMES WITH PROJECT (WITH POTENTIAL FUTURE BRIDGE) AM PEAK HOUR

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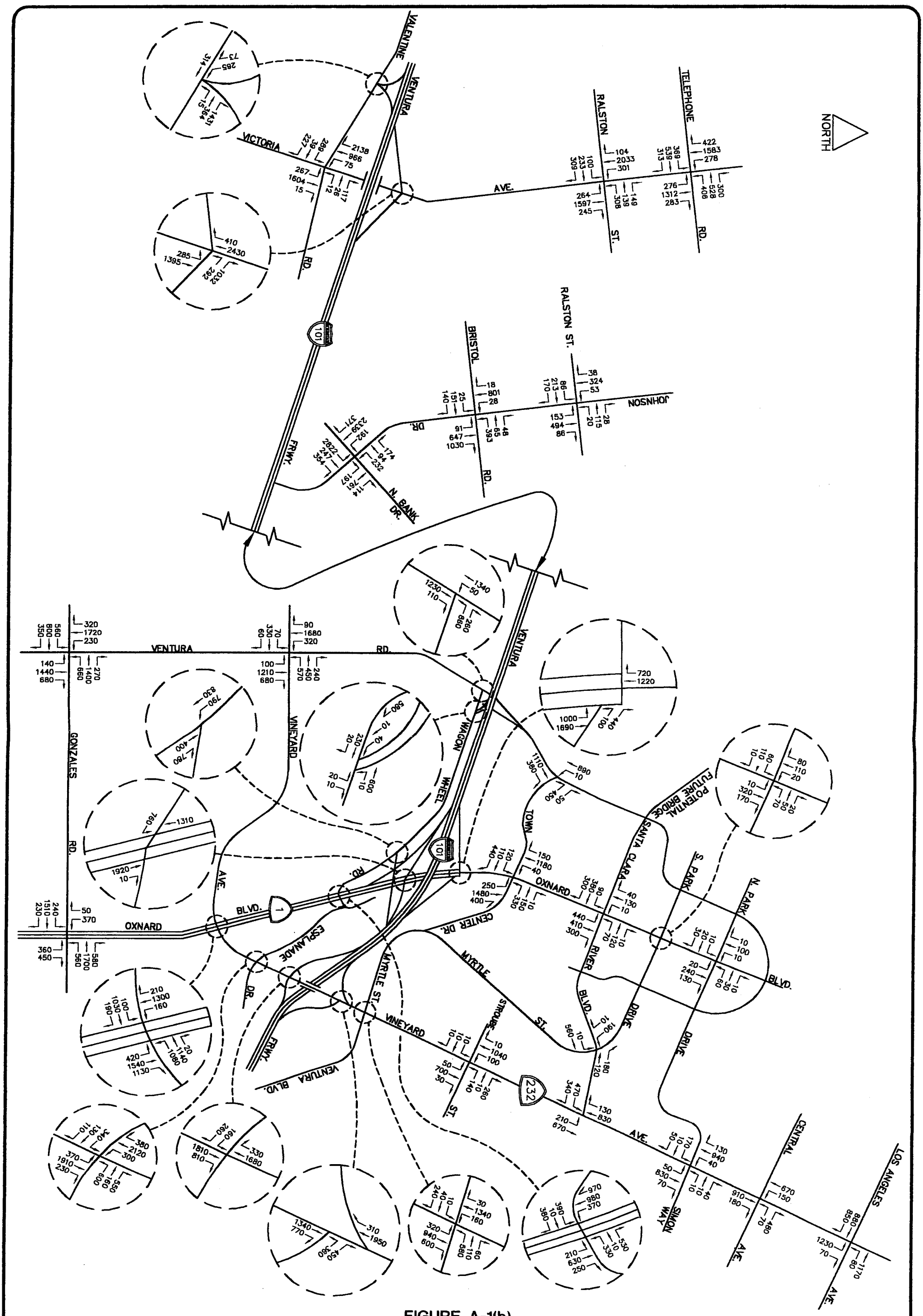

FIGURE A-1(b)

10/29/01

OXNRDRPK\PMBRDGE

FUTSTICKBRDGE

FUTURE (2020) TRAFFIC VOLUMES WITH PROJECT (WITH POTENTIAL FUTURE BRIDGE) PM PEAK HOUR

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APPENDIX B
TRANSPORTATION AND CIRCULATION STUDY
WITH CITY OF OXNARD GENERAL PLAN

An analysis assuming full buildout of the City of Oxnard's current General Plan was conducted. The General Plan now reflects land uses that would be allowed under the Oxnard Towncenter Specific Plan, but these uses would be superseded by the RiverPark Specific Plan.

The methodology used for the analysis with the General Plan is similar to the methodology used in the body of the report. The future year 2020 traffic volumes for the General Plan scenario are shown in Figures B-1(a) for the AM peak hour and B-1(b) for the PM peak hour. Based on the traffic volumes in Figures B-1(a) and (b), the level of service for the 33 study intersections was calculated. The ICU calculations for the project intersections and the City of Ventura's intersections are shown in Tables B-1(a) and B-1(b), respectively. According to Table B-1(a), the General Plan scenario would significantly impact nine of the 25 project area intersections. In addition, Table B-1(b) shows that two of the eight study intersections in the City of Ventura would be impacted by the project with the City of Oxnard General Plan. This would result in three more significant impacts at the study intersections as compared to the proposed RiverPark Specific Plan scenario. In addition, the US-101 south of Central Avenue would be significantly impacted, as shown in Table B-2.

Table B-1(a)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions with General Plan,
Project Area Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With General Plan V/C	With General Plan LOS
1	Los Angeles Avenue and	AM	0.850	D	0.919	E*
	Vineyard Avenue	PM	0.778	C	0.853	D*
2	Central Avenue and	AM	0.659	B	0.759	C
	Vineyard Avenue	PM	0.694	B	0.831	D*
3	North Park Drive and	AM	N/A	N/A	N/A	N/A
	Oxnard Boulevard	PM	N/A	N/A	N/A	N/A
4	North Park Drive and	AM	N/A	N/A	N/A	N/A
	Vineyard Avenue	PM	N/A	N/A	N/A	N/A
5	Oxnard Boulevard and	AM	N/A	N/A	N/A	N/A
	South Park Drive	PM	N/A	N/A	N/A	N/A
6	Oxnard Boulevard and	AM	N/A	N/A	N/A	N/A
	Santa Clara River Boulevard	PM	N/A	N/A	N/A	N/A
7	South Park Drive/Myrtle Street and	AM	N/A	N/A	N/A	N/A
	Santa Clara River Boulevard	PM	N/A	N/A	N/A	N/A
8	Vineyard Avenue and	AM	N/A	N/A	N/A	N/A
	Santa Clara River Boulevard	PM	N/A	N/A	N/A	N/A
9	Vineyard Avenue and	AM	0.387	A	0.477	A
	Stroube Street	PM	0.387	A	0.712	C
10	Ventura Road and	AM	0.124	A	0.111	A
	Town Center Drive	PM	0.063	A	0.346	A
11	Oxnard Boulevard and	AM	0.422	A	0.504	A
	Town Center Drive	PM	0.339	A	0.847	D*
12	Vineyard Avenue and	AM	0.404	A	0.408	A
	Ventura Boulevard	PM	0.546	A	0.618	B
13	Oxnard Boulevard and	AM	0.494	A	0.552	A
	US-101 Northbound Ramps	PM	0.602	B	0.610	B
14	Oxnard Boulevard and	AM	0.188	A	0.424	A
	US-101 Southbound Ramps	PM	0.253	A	0.629	B
15	Vineyard Avenue and	AM	0.439	A	0.498	A
	US-101 Northbound Ramps	PM	0.517	A	0.554	A

Table B-1(a) (Con't)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions with General Plan, Project Area Intersections

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With General Plan V/C	With General Plan LOS
16	Vineyard Avenue and US-101 Southbound Ramps	AM	0.456	A	0.517	A
		PM	0.533	A	0.558	A
17	Ventura Road and Wagon Wheel Road	AM	0.343	A	0.493	A
		PM	0.621	B	0.626	B
18	Wagon Wheel Road and US-101 Southbound Off-Ramp	AM	0.384	A	0.353	A
		PM	0.806	D	0.656	B
19	Wagon Wheel Road and US-101 Southbound On-Ramp	AM	0.424	A	0.517	A
		PM	0.559	A	0.774	C
20	Oxnard Boulevard and Esplanade Drive	AM	0.561	A	0.625	B
		PM	0.808	D	0.849	D*
21	Vineyard Avenue and Esplanade Drive	AM	0.617	A	0.650	B
		PM	0.887	D	0.958	E*
22	Vineyard Avenue and Ventura Road	AM	0.687	B	0.729	C
		PM	0.826	D	0.913	E*
23	Vineyard Avenue and Oxnard Boulevard	AM	0.798	C	0.881	D*
		PM	0.893	D	0.938	E*
24	Gonzales Road and Ventura Road	AM	0.731	C	0.815	D*
		PM	0.829	D	0.917	E*
25	Gonzales Road and Oxnard Boulevard	AM	0.690	B	0.792	C
		PM	0.874	D	0.991	E*

N/A - Intersections do not exist in the "Without Project" and "With General Plan" scenario.
* Denotes a significant impact prior to mitigation.

Table B-1(b)
Intersection Volume/Capacity Summary
Future (2020) Peak Hour Traffic Conditions with General Plan,
City of Ventura

No.	Intersection	Peak Hour	Without Project V/C	Without Project LOS	With General Plan V/C	With General Plan LOS	Impact
26	Victoria Avenue and	AM	0.552	A	0.559	A	0.007
	Telephone Road	PM	0.625	B	0.658	B	0.033
27	Victoria Avenue and	AM	0.621	B	0.641	B	0.020
	Ralston Street	PM	0.807	D	0.851	D	0.044
28	Victoria Avenue and	AM	0.568	A	0.600	B	0.032
	US-101 Northbound Ramps	PM	0.607	B	0.677	B	0.070
29	Valentine Road and	AM	0.500	A	0.503	A	0.003
	US-101 Southbound Ramps	PM	0.193	A	0.199	A	0.006
30	Valentine Road and	AM	0.871	D	0.927	E	0.056*
	Victoria Avenue	PM	0.511	A	0.514	A	0.003
31	Ralston Street and	AM	0.463	A	0.477	A	0.014
	Johnson Drive	PM	0.454	A	0.482	A	0.028
32	Johnson Drive and	AM	0.735	C	0.756	C	0.021
	Bristol Road	PM	0.799	C	0.844	D	0.045
33	Johnson Drive and	AM	1.302	F	1.375	F	0.073*
	North Bank Drive	PM	1.566	F	1.587	F	0.021*

* Denotes a significant impact prior to mitigation.

Table B-2
Future (2020) Freeway Volumes and Level of Service with General Plan

CMP Station	Dir	Peak Hour	Freeway Capacity	Future (2020) Without Project Traffic Conditions: Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Future (2020) With Project Traffic Conditions: Daily Volume	Peak Hour Volume	D/C Ratio	LOS	Project Impact
US-101 at the Santa Clara River Bridge	N/B	AM	12,000	199,600	8,530	0.711	C	212,000	8,629	0.719	C	0.008
		PM	12,000		9,460	0.788	D		10,200	0.850	D	0.062
	S/B	AM	12,000		8,310	0.693	C		8,882	0.740	C	0.047
		PM	12,000		6,400	0.533	B		7,025	0.585	C	0.052
US-101 between Route 1 and Vineyard Avenue	N/B	AM	10,000	169,000	6,610	0.661	C	178,000	6,952	0.695	C	0.034
		PM	10,000		8,290	0.829	D		8,944	0.894	D	0.065
	S/B	AM	10,000		6,010	0.601	C		6,130	0.613	C	0.012
		PM	10,000		6,780	0.678	C		7,144	0.714	C	0.036
US-101 between Vineyard Avenue and Rose Avenue	N/B	AM	10,000	177,600	7,050	0.705	C	186,200	7,573	0.757	C	0.052
		PM	10,000		8,350	0.835	D		8,561	0.856	D	0.021
	S/B	AM	10,000		6,510	0.651	C		6,624	0.662	C	0.011
		PM	10,000		7,190	0.719	C		7,752	0.775	D	0.056
Oxnard Boulevard (Route 1) between Vineyard Ave. and US-101	N/B	AM	4,000	32,300	1,230	0.308	A	35,100	1,426	0.357	B	0.049
		PM	4,000		1,290	0.323	A		1,344	0.336	A	0.013
	S/B	AM	4,000		1,240	0.310	A		1,334	0.334	A	0.024
		PM	4,000		1,330	0.333	A		1,424	0.356	B	0.023
US-101 south of Central Avenue	N/B	AM	8,000	182,4000	7,940	0.993	E	189,100	8,454	1.057	F(0)	0.064*
		PM	8,000		7,110	0.889	D		7,203	0.900	D	0.011
	S/B	AM	8,000		5,980	0.748	C		5,984	0.748	C	0.000
		PM	8,000		8,000	1.000	E		8,455	1.057	F(0)	0.057*

* Denotes a significant project impact.

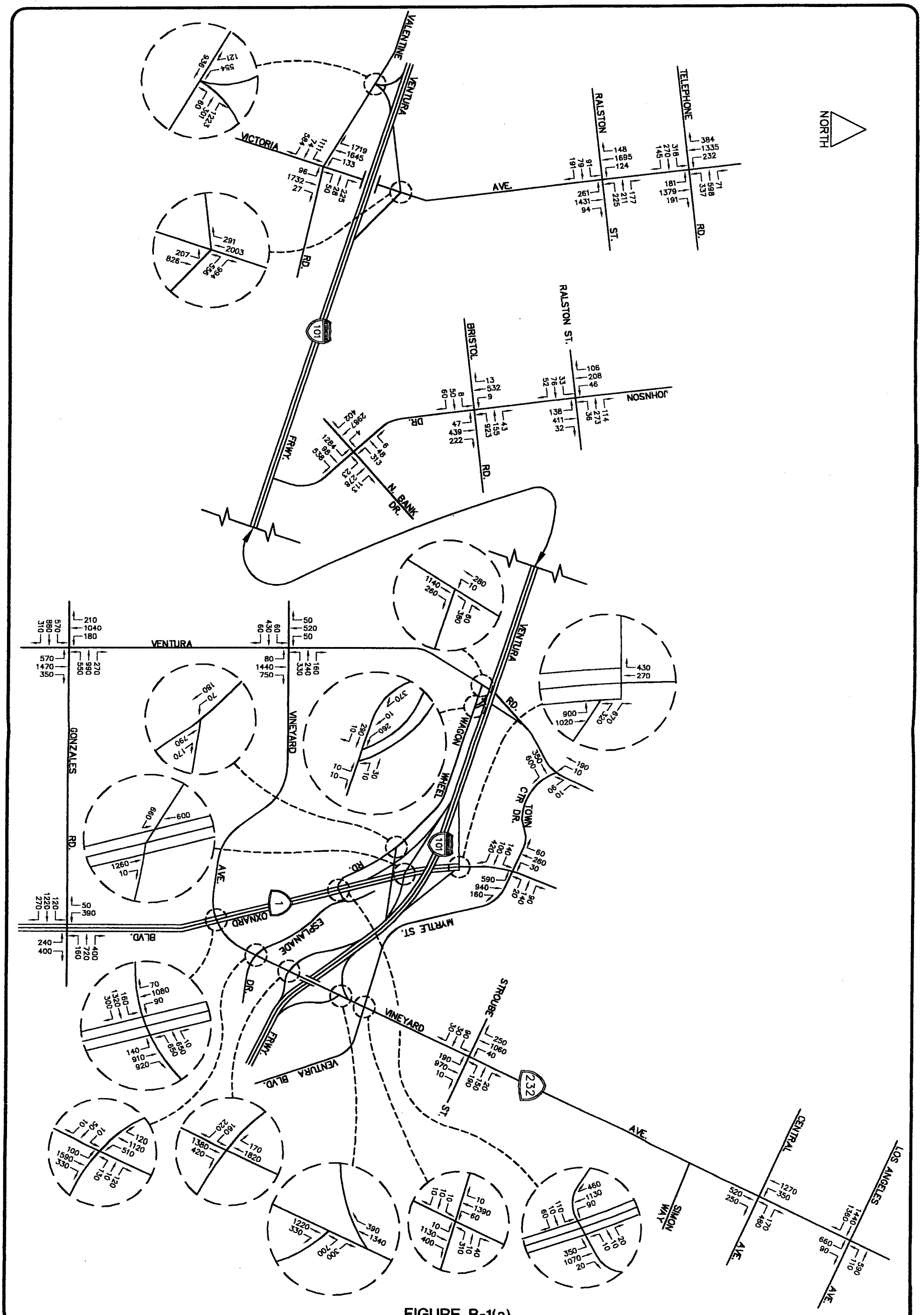

FIGURE B-1(a)

10/16/01

OXNRDRPK\AMGP

WOPSTICK

FUTURE (2020) TRAFFIC VOLUMES WITH GENERAL PLAN PROJECT AM PEAK HOUR

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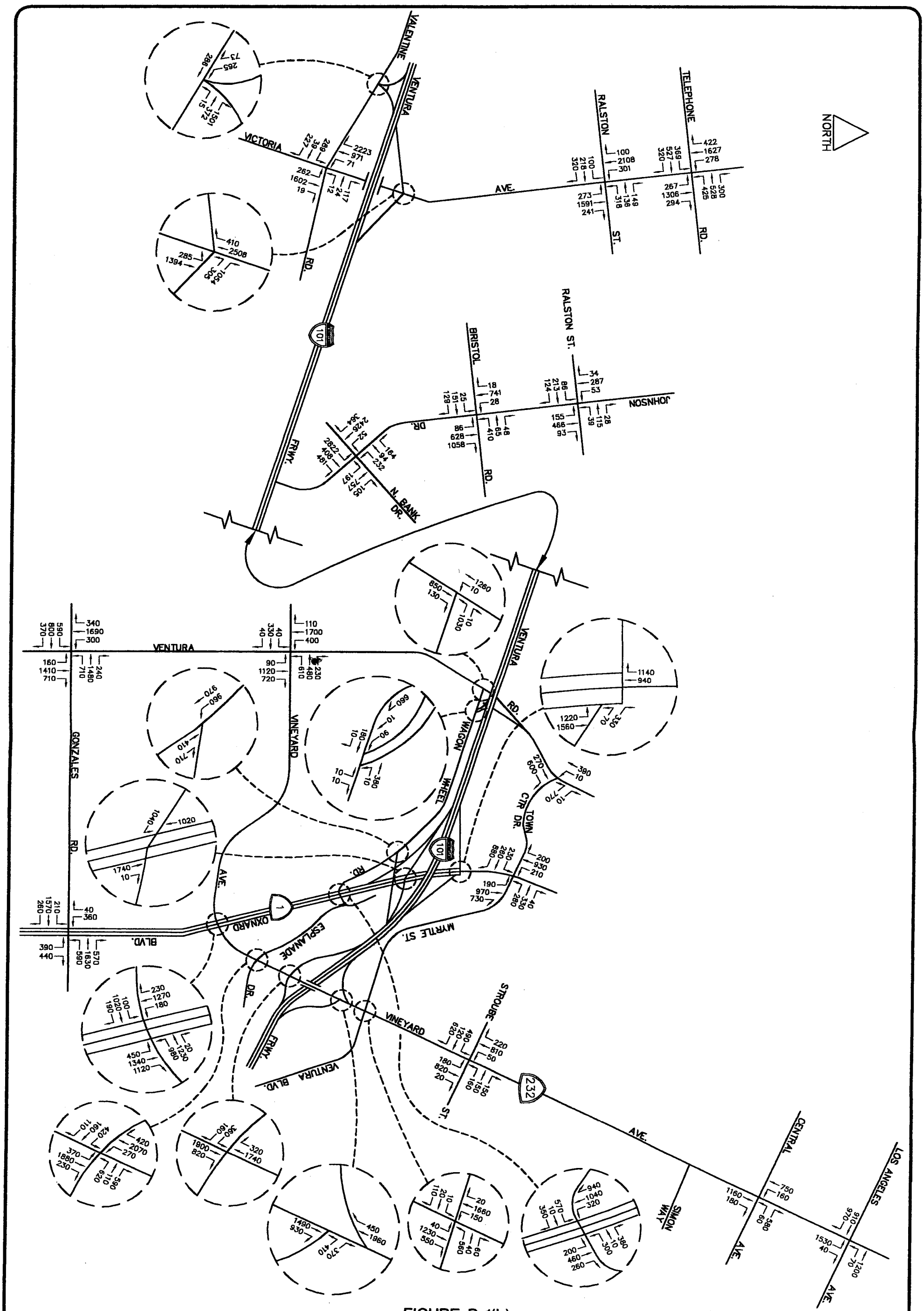

FIGURE B-1(b)

10/16/01

OXNRDRPK\PMGP

WOPSTICK

FUTURE (2020) TRAFFIC VOLUMES WITH GENERAL PLAN PROJECT PM PEAK HOUR

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TRAFFIC ANALYSIS FOR
OXNARD RIVERPARK SPECIFIC PLAN DEVELOPMENT

ICU CALCULATION WORKSHEETS

Prepared for:

CITY OF OXNARD, COUNTY OF VENTURA

Prepared by:

Crain & Associates
2007 Sawtelle Boulevard, Suite 4
Los Angeles, California 90025
(310) 473 - 6508

Revised October 2001

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	120	500	0	0
EASTBOUND	0	1340	850	280
NORTHBOUND	560	0	20	60
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	120	N/A	250	N/A	N/A	N/A
EASTBOUND	0	N/A	670	N/A	850	N/A
NORTHBOUND	280	280	N/A	N/A	20	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 970
NORTH-SOUTH CRITICAL VOLUMES 280

THE SUM OF CRITICAL VOLUMES 1250

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.781

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	80	570	0	0
EASTBOUND	0	1440	970	310
NORTHBOUND	620	0	40	40
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	80	N/A	285	N/A	N/A	N/A
EASTBOUND	0	N/A	720	N/A	970	N/A
NORTHBOUND	310	310	N/A	N/A	40	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 1050
NORTH-SOUTH CRITICAL VOLUMES 310

THE SUM OF CRITICAL VOLUMES 1360

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.850

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	110	580	0	0
EASTBOUND	0	1430	980	360
NORTHBOUND	720	0	45	55
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	110	N/A	290	N/A	N/A	N/A
EASTBOUND	0	N/A	715	N/A	980	N/A
NORTHBOUND	360	360	N/A	N/A	45	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 1090
NORTH-SOUTH CRITICAL VOLUMES 360

THE SUM OF CRITICAL VOLUMES 1450

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.906

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	110	580	0	0
EASTBOUND	0	1430	980	360
NORTHBOUND	720	0	45	55
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	1	0	0	4
EASTBOUND	1	0	2	1	1	0	5
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	110	N/A	193	193	N/A	N/A
EASTBOUND	0	N/A	602	602	602	N/A
NORTHBOUND	360	360	N/A	N/A	45	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 712
NORTH-SOUTH CRITICAL VOLUMES 360

THE SUM OF CRITICAL VOLUMES 1072

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.670

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	110	560	0	0
EASTBOUND	0	1420	835	315
NORTHBOUND	630	0	55	55
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	110	N/A	280	N/A	N/A	N/A
EASTBOUND	0	N/A	710	N/A	835	N/A
NORTHBOUND	315	315	N/A	N/A	55	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES	945
NORTH-SOUTH CRITICAL VOLUMES	315
THE SUM OF CRITICAL VOLUMES	1260
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.788
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	110	590	0	0
EASTBOUND	0	1440	1030	330
NORTHBOUND	660	0	35	55
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	110	N/A	295	N/A	N/A	N/A
EASTBOUND	0	N/A	720	N/A	1030	N/A
NORTHBOUND	330	330	N/A	N/A	35	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 1140
NORTH-SOUTH CRITICAL VOLUMES 330
THE SUM OF CRITICAL VOLUMES 1470

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.919

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	70	1150	0	0
EASTBOUND	0	700	0	520
NORTHBOUND	1060	0	0	40
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	N/A	575	N/A	N/A	N/A
EASTBOUND	0	N/A	350	N/A	0	N/A
NORTHBOUND	530	530	N/A	N/A	0	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 575
NORTH-SOUTH CRITICAL VOLUMES 530

THE SUM OF CRITICAL VOLUMES 1105

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.691

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	60	1160	0	0
EASTBOUND	0	890	245	665
NORTHBOUND	1330	0	0	30
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	60	N/A	580	N/A	N/A	N/A
EASTBOUND	0	N/A	445	N/A	245	N/A
NORTHBOUND	665	665	N/A	N/A	0	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 580
NORTH-SOUTH CRITICAL VOLUMES 665

THE SUM OF CRITICAL VOLUMES 1245

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.778

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	70	1190	0	0
EASTBOUND	0	870	265	785
NORTHBOUND	1570	0	0	60
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	N/A	595	N/A	N/A	N/A
EASTBOUND	0	N/A	435	N/A	265	N/A
NORTHBOUND	785	785	N/A	N/A	0	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 595
NORTH-SOUTH CRITICAL VOLUMES 785
THE SUM OF CRITICAL VOLUMES 1380

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.863

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	70	1190	0	0
EASTBOUND	0	870	265	785
NORTHBOUND	1570	0	6	54
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	1	0	0	4
EASTBOUND	1	0	2	1	1	0	5
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	N/A	397	397	N/A	N/A
EASTBOUND	0	N/A	290	N/A	265	N/A
NORTHBOUND	785	785	N/A	N/A	6	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 397
NORTH-SOUTH CRITICAL VOLUMES 785

THE SUM OF CRITICAL VOLUMES 1182

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.739

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	80	1170	0	0
EASTBOUND	0	880	235	615
NORTHBOUND	1230	0	0	70
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	80	N/A	585	N/A	N/A	N/A
EASTBOUND	0	N/A	440	N/A	235	N/A
NORTHBOUND	615	615	N/A	N/A	0	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 585
NORTH-SOUTH CRITICAL VOLUMES 615
THE SUM OF CRITICAL VOLUMES 1200

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.750

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 1, Los Angeles Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	70	1200	0	0
EASTBOUND	0	910	205	765
NORTHBOUND	1530	0	0	40
SOUTHBOUND	0	0	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	1	0	0	1	0	3
SOUTHBOUND	0	0	0	0	0	1	1

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	N/A	600	N/A	N/A	N/A
EASTBOUND	0	N/A	455	N/A	205	N/A
NORTHBOUND	765	765	N/A	N/A	0	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	0

EAST-WEST CRITICAL VOLUMES 600
NORTH-SOUTH CRITICAL VOLUMES 765

THE SUM OF CRITICAL VOLUMES 1365

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.853

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	340	0	0	110
EASTBOUND	0	0	0	0
NORTHBOUND	0	400	310	0
SOUTHBOUND	340	920	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	340	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	355	355	N/A	N/A
SOUTHBOUND	340	N/A	460	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 340
NORTH-SOUTH CRITICAL VOLUMES 695

THE SUM OF CRITICAL VOLUMES 1035

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.647

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	400	0	50	160
EASTBOUND	0	0	0	0
NORTHBOUND	0	420	250	0
SOUTHBOUND	320	1170	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	400	N/A	N/A	N/A	50	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	335	335	N/A	N/A
SOUTHBOUND	320	N/A	585	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 400
NORTH-SOUTH CRITICAL VOLUMES 655
THE SUM OF CRITICAL VOLUMES 1055

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.659

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	460	0	30	160
EASTBOUND	0	0	0	0
NORTHBOUND	0	580	260	0
SOUTHBOUND	320	1280	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	460	N/A	N/A	N/A	30	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	420	420	N/A	N/A
SOUTHBOUND	320	N/A	640	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 460
NORTH-SOUTH CRITICAL VOLUMES 740

THE SUM OF CRITICAL VOLUMES 1200

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.750

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	460	0	35	165
EASTBOUND	0	0	0	0
NORTHBOUND	0	520	270	0
SOUTHBOUND	330	1080	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	460	N/A	N/A	N/A	35	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	395	395	N/A	N/A
SOUTHBOUND	330	N/A	540	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 460
NORTH-SOUTH CRITICAL VOLUMES 725
THE SUM OF CRITICAL VOLUMES 1185

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.741

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	480	0	0	170
EASTBOUND	0	0	0	0
NORTHBOUND	0	520	250	0
SOUTHBOUND	350	1270	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	480	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	385	385	N/A	N/A
SOUTHBOUND	350	N/A	635	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	480
NORTH-SOUTH CRITICAL VOLUMES	735
THE SUM OF CRITICAL VOLUMES	1215
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.759
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	110	0	365	45
EASTBOUND	0	0	0	0
NORTHBOUND	0	580	80	0
SOUTHBOUND	90	430	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	110	N/A	N/A	N/A	365	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	330	330	N/A	N/A
SOUTHBOUND	90	N/A	215	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 365
NORTH-SOUTH CRITICAL VOLUMES 420

THE SUM OF CRITICAL VOLUMES 785

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.491

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	40	0	365	95
EASTBOUND	0	0	0	0
NORTHBOUND	0	970	140	0
SOUTHBOUND	190	670	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	40	N/A	N/A	N/A	365	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	555	555	N/A	N/A
SOUTHBOUND	190	N/A	335	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	365
NORTH-SOUTH CRITICAL VOLUMES	745
THE SUM OF CRITICAL VOLUMES	1110
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.694
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	80	0	380	80
EASTBOUND	0	0	0	0
NORTHBOUND	0	1270	170	0
SOUTHBOUND	160	820	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	80	N/A	N/A	N/A	380	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	720	720	N/A	N/A
SOUTHBOUND	160	N/A	410	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 380
NORTH-SOUTH CRITICAL VOLUMES 880
THE SUM OF CRITICAL VOLUMES 1260

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.788

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	70	0	405	75
EASTBOUND	0	0	0	0
NORTHBOUND	0	910	180	0
SOUTHBOUND	150	670	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	N/A	N/A	N/A	405	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	545	545	N/A	N/A
SOUTHBOUND	150	N/A	335	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 405
NORTH-SOUTH CRITICAL VOLUMES 695
THE SUM OF CRITICAL VOLUMES 1100

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.688

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 2, Central Avenue and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	60	0	500	80
EASTBOUND	0	0	0	0
NORTHBOUND	0	1160	180	0
SOUTHBOUND	160	750	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	60	N/A	N/A	N/A	500	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	670	670	N/A	N/A
SOUTHBOUND	160	N/A	375	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 500
NORTH-SOUTH CRITICAL VOLUMES 830

THE SUM OF CRITICAL VOLUMES 1330

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.831

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 3, Northpark Drive and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	30	30	0	10
EASTBOUND	10	20	40	0
NORTHBOUND	10	60	35	15
SOUTHBOUND	30	190	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	30	N/A	30	N/A	0	N/A
EASTBOUND	10	N/A	N/A	60	N/A	N/A
NORTHBOUND	10	N/A	60	N/A	35	N/A
SOUTHBOUND	30	N/A	N/A	200	N/A	N/A

EAST-WEST CRITICAL VOLUMES 90
NORTH-SOUTH CRITICAL VOLUMES 210

THE SUM OF CRITICAL VOLUMES 300

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.188

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 3, Northpark Drive and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	40	20	0	10
EASTBOUND	10	20	30	0
NORTHBOUND	10	70	10	20
SOUTHBOUND	30	160	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	40	N/A	20	N/A	0	N/A
EASTBOUND	10	N/A	N/A	50	N/A	N/A
NORTHBOUND	10	N/A	70	N/A	10	N/A
SOUTHBOUND	30	N/A	N/A	170	N/A	N/A

EAST-WEST CRITICAL VOLUMES 90
NORTH-SOUTH CRITICAL VOLUMES 180
THE SUM OF CRITICAL VOLUMES 270

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.169

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 3, Northpark Drive and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	20	40	10	10
EASTBOUND	10	20	30	0
NORTHBOUND	20	280	150	10
SOUTHBOUND	20	90	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	20	N/A	40	N/A	10	N/A
EASTBOUND	10	N/A	N/A	50	N/A	N/A
NORTHBOUND	20	N/A	280	N/A	150	N/A
SOUTHBOUND	20	N/A	N/A	100	N/A	N/A

EAST-WEST CRITICAL VOLUMES 70
NORTH-SOUTH CRITICAL VOLUMES 300

THE SUM OF CRITICAL VOLUMES 370

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.231

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 3, Northpark Drive and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	60	30	5	5
EASTBOUND	10	20	30	0
NORTHBOUND	20	240	100	30
SOUTHBOUND	10	100	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	60	N/A	30	N/A	5	N/A
EASTBOUND	10	N/A	N/A	50	N/A	N/A
NORTHBOUND	20	N/A	240	N/A	100	N/A
SOUTHBOUND	10	N/A	N/A	110	N/A	N/A

EAST-WEST CRITICAL VOLUMES 110
NORTH-SOUTH CRITICAL VOLUMES 250

THE SUM OF CRITICAL VOLUMES 360

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.225

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 4, Northpark Drive and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	20	10	40	30
EASTBOUND	160	10	30	10
NORTHBOUND	20	960	10	0
SOUTHBOUND	10	1090	30	80

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	20	N/A	N/A	25	25	N/A
EASTBOUND	160	N/A	N/A	20	20	N/A
NORTHBOUND	20	N/A	323	323	N/A	N/A
SOUTHBOUND	10	N/A	363	N/A	30	N/A

EAST-WEST CRITICAL VOLUMES 185
NORTH-SOUTH CRITICAL VOLUMES 383

THE SUM OF CRITICAL VOLUMES 568

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.473

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1200.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 4, Northpark Drive and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS	**
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	20	10	40	30
EASTBOUND	160	10	30	10
NORTHBOUND	20	960	10	0
SOUTHBOUND	10	1090	30	80

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	20	N/A	N/A	25	25	N/A
EASTBOUND	160	N/A	N/A	20	20	N/A
NORTHBOUND	20	N/A	323	323	N/A	N/A
SOUTHBOUND	10	N/A	363	N/A	30	N/A

EAST-WEST CRITICAL VOLUMES 185
NORTH-SOUTH CRITICAL VOLUMES 383

THE SUM OF CRITICAL VOLUMES 568

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.473

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1200.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 4, Northpark Drive and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	65	5
EASTBOUND	130	10	50	10
NORTHBOUND	10	940	10	0
SOUTHBOUND	10	920	45	65

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	N/A	38	38	N/A
EASTBOUND	130	N/A	N/A	30	30	N/A
NORTHBOUND	10	N/A	317	317	N/A	N/A
SOUTHBOUND	10	N/A	307	N/A	45	N/A

EAST-WEST CRITICAL VOLUMES 168
NORTH-SOUTH CRITICAL VOLUMES 327

THE SUM OF CRITICAL VOLUMES 495

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.412

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1200.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 4, Northpark Drive and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	15	25
EASTBOUND	220	20	43	27
NORTHBOUND	50	1050	50	0
SOUTHBOUND	50	1090	0	110

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	N/A	12	12	N/A
EASTBOUND	220	N/A	N/A	32	32	N/A
NORTHBOUND	50	N/A	367	367	N/A	N/A
SOUTHBOUND	50	N/A	363	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 232
NORTH-SOUTH CRITICAL VOLUMES 417

THE SUM OF CRITICAL VOLUMES 649

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.541

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1200.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 4, Northpark Drive and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	10	10	15	25
EASTBOUND	220	20	43	27
NORTHBOUND	50	1050	50	0
SOUTHBOUND	50	1090	0	110

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	N/A	12	12	N/A
EASTBOUND	220	N/A	N/A	32	32	N/A
NORTHBOUND	50	N/A	367	367	N/A	N/A
SOUTHBOUND	50	N/A	363	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 232
NORTH-SOUTH CRITICAL VOLUMES 417

THE SUM OF CRITICAL VOLUMES 649

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.541

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1200.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 4, Northpark Drive and Vineyard Avenue
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	8	32
EASTBOUND	170	10	25	25
NORTHBOUND	50	830	70	0
SOUTHBOUND	40	940	45	85

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	10	N/A	8	N/A
EASTBOUND	170	N/A	N/A	18	18	N/A
NORTHBOUND	50	N/A	300	300	N/A	N/A
SOUTHBOUND	40	N/A	313	N/A	45	N/A

EAST-WEST CRITICAL VOLUMES 180
NORTH-SOUTH CRITICAL VOLUMES 363

THE SUM OF CRITICAL VOLUMES 543

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.452

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1200.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 5, Oxnard Boulevard and Southpark Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	200	30	0	10
EASTBOUND	20	50	10	0
NORTHBOUND	10	90	90	0
SOUTHBOUND	10	250	20	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	1	0	0	3
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	200	N/A	30	N/A	0	N/A
EASTBOUND	20	N/A	N/A	60	N/A	N/A
NORTHBOUND	10	N/A	90	90	N/A	N/A
SOUTHBOUND	10	N/A	135	135	N/A	N/A

EAST-WEST CRITICAL VOLUMES 260
NORTH-SOUTH CRITICAL VOLUMES 145

THE SUM OF CRITICAL VOLUMES 405

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.253

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 5, Oxnard Boulevard and Southpark Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	170	60	0	10
EASTBOUND	30	70	10	0
NORTHBOUND	10	60	60	0
SOUTHBOUND	10	220	20	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	1	0	0	3
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	170	N/A	60	N/A	0	N/A
EASTBOUND	30	N/A	N/A	80	N/A	N/A
NORTHBOUND	10	N/A	60	60	N/A	N/A
SOUTHBOUND	10	N/A	120	120	N/A	N/A

EAST-WEST CRITICAL VOLUMES 250
NORTH-SOUTH CRITICAL VOLUMES 130

THE SUM OF CRITICAL VOLUMES 380

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.237

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 5, Oxnard Boulevard and Southpark Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	60	20	10	10
EASTBOUND	30	40	10	0
NORTHBOUND	10	400	240	0
SOUTHBOUND	20	100	30	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	1	0	0	3
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	60	N/A	20	N/A	10	N/A
EASTBOUND	30	N/A	N/A	50	N/A	N/A
NORTHBOUND	10	N/A	320	320	N/A	N/A
SOUTHBOUND	20	N/A	65	65	N/A	N/A

EAST-WEST CRITICAL VOLUMES 110
NORTH-SOUTH CRITICAL VOLUMES 340
THE SUM OF CRITICAL VOLUMES 450

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.281

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

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10-16-2001, 9:33 AM

CMA CALCULATIONS

INTERSECTION: 5, Oxnard Boulevard and Southpark Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	70	50	10	10
EASTBOUND	60	110	10	0
NORTHBOUND	10	320	170	0
SOUTHBOUND	20	110	80	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	1	0	0	3
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	N/A	50	N/A	10	N/A
EASTBOUND	60	N/A	N/A	120	N/A	N/A
NORTHBOUND	10	N/A	245	245	N/A	N/A
SOUTHBOUND	20	N/A	95	95	N/A	N/A

EAST-WEST CRITICAL VOLUMES	190
NORTH-SOUTH CRITICAL VOLUMES	265
THE SUM OF CRITICAL VOLUMES	455
NUMBER OF CRITICAL CLEARANCE INTERVALS	2*
CMA VALUE	0.284
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

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10-16-2001, 9:46 AM

Crain & Associates
10/29/01
Draft

Intersection #6
Santa Clara River Boulevard and Oxnard Boulevard
Traffic Circle Capacity Calculations

						Single-Lane Roundabout			Double-Lane Roundabout		
	LEFT	THRU	RITE	Q(e)	Q(c)	Q(e)max*	V/C	LOS	Q(e)max*	V/C	LOS
AM PEAK HOUR											
WESTBOUND	250	90	10	350	220	1092	0.321	A	2267	0.154	A
EASTBOUND	20	40	100	160	630	869	0.184	A	1973	0.081	A
NORTHBOUND	30	170	290	490	70	1174	0.417	A	2374	0.206	A
SOUTHBOUND	10	370	80	460	370	1010	0.455	A	2159	0.213	A
PM PEAK HOUR											
WESTBOUND	80	100	10	190	680	842	0.226	A	1937	0.098	A
EASTBOUND	130	210	50	390	210	1098	0.355	A	2274	0.172	A
NORTHBOUND	30	520	380	930	350	1021	0.911	E	2173	0.428	A
SOUTHBOUND	10	120	30	160	210	1098	0.146	A	2274	0.070	A

* Q(e)max based on formulas in Transportation Research Circular E-C018.

Crain & Associates
10/29/01
Draft

Intersection #6
Santa Clara River Boulevard and Oxnard Boulevard
Traffic Circle Capacity Calculations
(With Santa Clara River Bridge)

						Single-Lane Roundabout			Double-Lane Roundabout		
	LEFT	THRU	RITE	Q(e)	Q(c)	Q(e)max*	V/C	LOS	Q(e)max*	V/C	LOS
AM PEAK HOUR											
WESTBOUND	170	130	10	310	250	1076	0.288	A	2245	0.138	A
EASTBOUND	10	210	250	470	440	972	0.484	A	2109	0.223	A
NORTHBOUND	110	130	260	500	230	1087	0.460	A	2259	0.221	A
SOUTHBOUND	10	260	120	390	410	989	0.394	A	2130	0.183	A
PM PEAK HOUR											
WESTBOUND	70	120	10	200	940	700	0.286	A	1751	0.114	A
EASTBOUND	90	380	300	770	210	1098	0.701	C	2274	0.339	A
NORTHBOUND	440	410	300	1150	480	951	1.209	F	2080	0.553	A
SOUTHBOUND	10	130	40	180	630	869	0.207	A	1973	0.091	A

* Q(e)max based on formulas in Transportation Research Circular E-C018.

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 7, Southpark Dr/Myrtle St and Santa Clara River Blvd
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	60	210	150	0
EASTBOUND	10	190	80	0
NORTHBOUND	10	10	0	20
SOUTHBOUND	140	40	5	5

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	1	0	0	4
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	60	N/A	105	N/A	150	N/A
EASTBOUND	10	N/A	90	90	N/A	N/A
NORTHBOUND	10	N/A	N/A	10	N/A	N/A
SOUTHBOUND	140	N/A	N/A	45	N/A	N/A

EAST-WEST CRITICAL VOLUMES 160
NORTH-SOUTH CRITICAL VOLUMES 150

THE SUM OF CRITICAL VOLUMES 310

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.194

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 7, Southpark Dr/Myrtle St and Santa Clara River Blvd
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	50	150	150	0
EASTBOUND	10	280	90	0
NORTHBOUND	20	10	0	10
SOUTHBOUND	170	20	5	5

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	1	0	0	4
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	50	N/A	75	N/A	150	N/A
EASTBOUND	10	N/A	123	123	N/A	N/A
NORTHBOUND	20	N/A	N/A	10	N/A	N/A
SOUTHBOUND	170	N/A	N/A	25	N/A	N/A

EAST-WEST CRITICAL VOLUMES 173
NORTH-SOUTH CRITICAL VOLUMES 180

THE SUM OF CRITICAL VOLUMES 353

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.221

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 7, Southpark Dr/Myrtle St and Santa Clara River Blvd
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS	**
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	40	200	190	0
EASTBOUND	10	550	100	0
NORTHBOUND	40	20	70	20
SOUTHBOUND	220	10	5	5

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	1	0	0	4
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	40	N/A	100	N/A	190	N/A
EASTBOUND	10	N/A	217	217	N/A	N/A
NORTHBOUND	40	N/A	N/A	90	N/A	N/A
SOUTHBOUND	220	N/A	N/A	15	N/A	N/A

EAST-WEST CRITICAL VOLUMES 257
NORTH-SOUTH CRITICAL VOLUMES 310

THE SUM OF CRITICAL VOLUMES 567

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.354

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 7, Southpark Dr/Myrtle St and Santa Clara River Blvd
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	30	120	85	95
EASTBOUND	10	560	100	0
NORTHBOUND	70	30	80	0
SOUTHBOUND	190	10	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	1	0	0	4
EASTBOUND	1	0	2	1	0	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	30	N/A	60	N/A	85	N/A
EASTBOUND	10	N/A	220	220	N/A	N/A
NORTHBOUND	70	N/A	N/A	110	N/A	N/A
SOUTHBOUND	190	N/A	N/A	20	N/A	N/A

EAST-WEST CRITICAL VOLUMES 250
NORTH-SOUTH CRITICAL VOLUMES 300

THE SUM OF CRITICAL VOLUMES 550

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.344

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 8, Vineyard Avenue and Santa Clara River Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	200	0	80	70
NORTHBOUND	140	800	0	0
SOUTHBOUND	0	860	225	55

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	110	N/A	N/A	N/A	40	N/A
NORTHBOUND	140	N/A	267	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	287	N/A	225	N/A

EAST-WEST CRITICAL VOLUMES 110
NORTH-SOUTH CRITICAL VOLUMES 427

THE SUM OF CRITICAL VOLUMES 537

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.336

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

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10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 8, Vineyard Avenue and Santa Clara River Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	200	0	80	70
NORTHBOUND	140	800	0	0
SOUTHBOUND	0	860	225	55

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	110	N/A	N/A	N/A	40	N/A
NORTHBOUND	140	N/A	267	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	287	N/A	225	N/A

EAST-WEST CRITICAL VOLUMES 110
NORTH-SOUTH CRITICAL VOLUMES 427

THE SUM OF CRITICAL VOLUMES 537

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.336

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

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10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 8, Vineyard Avenue and Santa Clara River Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	230	0	160	80
NORTHBOUND	160	760	0	0
SOUTHBOUND	0	820	127	63

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	126	N/A	N/A	N/A	80	N/A
NORTHBOUND	160	N/A	253	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	273	N/A	127	N/A

EAST-WEST CRITICAL VOLUMES 126
NORTH-SOUTH CRITICAL VOLUMES 433

THE SUM OF CRITICAL VOLUMES 559

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.349

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 8, Vineyard Avenue and Santa Clara River Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	550	0	200	100
NORTHBOUND	200	750	0	0
SOUTHBOUND	0	890	79	151

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	302	N/A	N/A	N/A	100	N/A
NORTHBOUND	200	N/A	250	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	297	N/A	79	N/A

EAST-WEST CRITICAL VOLUMES 302
NORTH-SOUTH CRITICAL VOLUMES 497

THE SUM OF CRITICAL VOLUMES 799

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.499

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 8, Vineyard Avenue and Santa Clara River Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	550	0	200	100
NORTHBOUND	200	750	0	0
SOUTHBOUND	0	890	79	151

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	302	N/A	N/A	N/A	100	N/A
NORTHBOUND	200	N/A	250	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	297	N/A	79	N/A

EAST-WEST CRITICAL VOLUMES 302
NORTH-SOUTH CRITICAL VOLUMES 497

THE SUM OF CRITICAL VOLUMES 799

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.499

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 8, Vineyard Avenue and Santa Clara River Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	470	0	235	105
NORTHBOUND	210	670	0	0
SOUTHBOUND	0	830	1	129

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	1	0	3	0	0	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	258	N/A	N/A	N/A	118	N/A
NORTHBOUND	210	N/A	223	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	277	N/A	1	N/A

EAST-WEST CRITICAL VOLUMES 258
NORTH-SOUTH CRITICAL VOLUMES 487

THE SUM OF CRITICAL VOLUMES 745

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.466

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	105	17	27	0
EASTBOUND	125	30	22	0
NORTHBOUND	24	866	56	0
SOUTHBOUND	39	1188	65	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	0	0	2
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	1	0	0	3
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	105	N/A	N/A	44	N/A	N/A
EASTBOUND	125	N/A	N/A	52	N/A	N/A
NORTHBOUND	24	N/A	461	461	N/A	N/A
SOUTHBOUND	39	N/A	626	626	N/A	N/A

EAST-WEST CRITICAL VOLUMES 169
NORTH-SOUTH CRITICAL VOLUMES 650

THE SUM OF CRITICAL VOLUMES 819

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.512

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	230	10	0	10
EASTBOUND	10	10	0	10
NORTHBOUND	20	960	0	10
SOUTHBOUND	40	1080	0	10

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	230	N/A	10	N/A	0	N/A
EASTBOUND	6	N/A	10	N/A	0	N/A
NORTHBOUND	20	N/A	320	N/A	0	N/A
SOUTHBOUND	40	N/A	360	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 240
NORTH-SOUTH CRITICAL VOLUMES 380

THE SUM OF CRITICAL VOLUMES 620

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.387

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	200	20	42	28
EASTBOUND	10	10	5	5
NORTHBOUND	10	900	0	10
SOUTHBOUND	50	1040	0	20

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	200	N/A	20	N/A	42	N/A
EASTBOUND	6	N/A	10	N/A	5	N/A
NORTHBOUND	10	N/A	300	N/A	0	N/A
SOUTHBOUND	50	N/A	347	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 210
NORTH-SOUTH CRITICAL VOLUMES 357

THE SUM OF CRITICAL VOLUMES 567

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.354

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	190	20	23	37
EASTBOUND	10	10	5	5
NORTHBOUND	10	880	0	10
SOUTHBOUND	60	1070	0	20

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	190	N/A	20	N/A	23	N/A
EASTBOUND	6	N/A	10	N/A	5	N/A
NORTHBOUND	10	N/A	293	N/A	0	N/A
SOUTHBOUND	60	N/A	357	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 200
NORTH-SOUTH CRITICAL VOLUMES 367

THE SUM OF CRITICAL VOLUMES 567

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.354

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	190	150	0	20
EASTBOUND	90	30	0	30
NORTHBOUND	190	970	0	10
SOUTHBOUND	40	1060	215	35

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	190	N/A	150	N/A	0	N/A
EASTBOUND	50	N/A	30	N/A	0	N/A
NORTHBOUND	190	N/A	323	N/A	0	N/A
SOUTHBOUND	40	N/A	353	N/A	215	N/A

EAST-WEST CRITICAL VOLUMES 220
NORTH-SOUTH CRITICAL VOLUMES 543

THE SUM OF CRITICAL VOLUMES 763

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.477

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	125	46	31	0
EASTBOUND	129	55	21	0
NORTHBOUND	26	735	72	0
SOUTHBOUND	36	856	62	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	1	0	0	2
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	1	0	0	3
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	125	N/A	N/A	77	N/A	N/A
EASTBOUND	129	N/A	N/A	76	N/A	N/A
NORTHBOUND	26	N/A	404	404	N/A	N/A
SOUTHBOUND	36	N/A	459	459	N/A	N/A

EAST-WEST CRITICAL VOLUMES 206
NORTH-SOUTH CRITICAL VOLUMES 485

THE SUM OF CRITICAL VOLUMES 691

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.432

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	210	10	125	25
EASTBOUND	10	10	0	10
NORTHBOUND	50	1050	0	60
SOUTHBOUND	50	970	0	10

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	210	N/A	10	N/A	125	N/A
EASTBOUND	6	N/A	10	N/A	0	N/A
NORTHBOUND	50	N/A	350	N/A	0	N/A
SOUTHBOUND	50	N/A	323	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	220
NORTH-SOUTH CRITICAL VOLUMES	400
THE SUM OF CRITICAL VOLUMES	620
NUMBER OF CRITICAL CLEARANCE INTERVALS	2*
CMA VALUE	0.387
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	170	10	176	74
EASTBOUND	10	10	0	10
NORTHBOUND	50	810	0	40
SOUTHBOUND	100	1100	7	3

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	170	N/A	10	N/A	176	N/A
EASTBOUND	6	N/A	10	N/A	0	N/A
NORTHBOUND	50	N/A	270	N/A	0	N/A
SOUTHBOUND	100	N/A	367	N/A	7	N/A

EAST-WEST CRITICAL VOLUMES 182
NORTH-SOUTH CRITICAL VOLUMES 417

THE SUM OF CRITICAL VOLUMES 599

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.374

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	140	10	178	82
EASTBOUND	10	10	0	10
NORTHBOUND	50	700	0	30
SOUTHBOUND	100	1040	7	3

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	140	N/A	10	N/A	178	N/A
EASTBOUND	6	N/A	10	N/A	0	N/A
NORTHBOUND	50	N/A	233	N/A	0	N/A
SOUTHBOUND	100	N/A	347	N/A	7	N/A

EAST-WEST CRITICAL VOLUMES 184
NORTH-SOUTH CRITICAL VOLUMES 397
THE SUM OF CRITICAL VOLUMES 581

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.363

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 9, Vineyard Avenue and Stroube Street
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	160	150	62	88
EASTBOUND	490	120	530	90
NORTHBOUND	180	820	0	20
SOUTHBOUND	50	810	0	220

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	3	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	160	N/A	150	N/A	62	N/A
EASTBOUND	269	N/A	120	N/A	530	N/A
NORTHBOUND	180	N/A	273	N/A	0	N/A
SOUTHBOUND	50	N/A	270	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 690
NORTH-SOUTH CRITICAL VOLUMES 450

THE SUM OF CRITICAL VOLUMES 1140

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.712

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	208	0	19	6
EASTBOUND	0	0	0	0
NORTHBOUND	0	140	70	930
SOUTHBOUND	11	4	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	2	0	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	1	0	0	3
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	114	N/A	N/A	N/A	10	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	70	N/A	70	N/A
SOUTHBOUND	11	N/A	2	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 114
NORTH-SOUTH CRITICAL VOLUMES 81

THE SUM OF CRITICAL VOLUMES 195

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.122

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	320	0	5	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	40	0	460
SOUTHBOUND	10	10	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	176	N/A	N/A	N/A	5	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	13	N/A	0	N/A
SOUTHBOUND	10	N/A	3	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	176
NORTH-SOUTH CRITICAL VOLUMES	23
THE SUM OF CRITICAL VOLUMES	199
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.124
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	210	0	5	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	360	0	400
SOUTHBOUND	10	350	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	116	N/A	N/A	N/A	5	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	120	N/A	0	N/A
SOUTHBOUND	10	N/A	117	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 116
NORTH-SOUTH CRITICAL VOLUMES 130
THE SUM OF CRITICAL VOLUMES 246

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.154

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	190	0	0	30
EASTBOUND	0	0	0	0
NORTHBOUND	0	540	0	310
SOUTHBOUND	10	770	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	104	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	180	N/A	0	N/A
SOUTHBOUND	10	N/A	257	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 104
NORTH-SOUTH CRITICAL VOLUMES 257

THE SUM OF CRITICAL VOLUMES 361

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.226

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	90	0	5	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	350	0	600
SOUTHBOUND	10	190	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	50	N/A	N/A	N/A	5	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	117	N/A	0	N/A
SOUTHBOUND	10	N/A	63	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 50
NORTH-SOUTH CRITICAL VOLUMES 127
THE SUM OF CRITICAL VOLUMES 177

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.111

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	492	0	0	6
EASTBOUND	0	0	0	0
NORTHBOUND	0	24	12	604
SOUTHBOUND	11	69	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	2	0	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	1	0	0	3
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	271	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	12	N/A	12	N/A
SOUTHBOUND	11	N/A	34	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 271
NORTH-SOUTH CRITICAL VOLUMES 34
THE SUM OF CRITICAL VOLUMES 305

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.191

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	160	0	5	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	10	0	610
SOUTHBOUND	10	10	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	88	N/A	N/A	N/A	5	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	3	N/A	0	N/A
SOUTHBOUND	10	N/A	3	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 88
NORTH-SOUTH CRITICAL VOLUMES 13

THE SUM OF CRITICAL VOLUMES 101

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.063

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	500	0	15	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	780	0	510
SOUTHBOUND	10	620	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	275	N/A	N/A	N/A	15	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	260	N/A	0	N/A
SOUTHBOUND	10	N/A	207	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 275
NORTH-SOUTH CRITICAL VOLUMES 270

THE SUM OF CRITICAL VOLUMES 545

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.341

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	450	0	45	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	1110	0	380
SOUTHBOUND	10	890	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	248	N/A	N/A	N/A	45	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	370	N/A	0	N/A
SOUTHBOUND	10	N/A	297	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	248
NORTH-SOUTH CRITICAL VOLUMES	380
THE SUM OF CRITICAL VOLUMES	628
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.392
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 10, Ventura Road and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	770	0	0	10
EASTBOUND	0	0	0	0
NORTHBOUND	0	270	0	600
SOUTHBOUND	10	390	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	424	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	90	N/A	0	N/A
SOUTHBOUND	10	N/A	130	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 424
NORTH-SOUTH CRITICAL VOLUMES 130
THE SUM OF CRITICAL VOLUMES 554

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.346

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	0	10
EASTBOUND	10	10	20	320
NORTHBOUND	640	10	5	5
SOUTHBOUND	10	10	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	10	N/A	0	N/A
EASTBOUND	10	N/A	N/A	15	15	N/A
NORTHBOUND	640	N/A	5	N/A	5	N/A
SOUTHBOUND	10	N/A	10	10	N/A	N/A

EAST-WEST CRITICAL VOLUMES	25
NORTH-SOUTH CRITICAL VOLUMES	650
THE SUM OF CRITICAL VOLUMES	675
NUMBER OF CRITICAL CLEARANCE INTERVALS	2*
CMA VALUE	0.422
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	10	0
EASTBOUND	40	20	0	240
NORTHBOUND	530	1240	59	11
SOUTHBOUND	10	820	50	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	2	0	1	0	2	0	5
NORTHBOUND	2	0	2	0	1	0	5
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	6	N/A	N/A	20	N/A	N/A
EASTBOUND	22	N/A	20	N/A	0	N/A
NORTHBOUND	291	N/A	620	N/A	59	N/A
SOUTHBOUND	10	N/A	435	435	N/A	N/A

EAST-WEST CRITICAL VOLUMES 42
NORTH-SOUTH CRITICAL VOLUMES 726

THE SUM OF CRITICAL VOLUMES 768

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.480

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	10	0
EASTBOUND	40	40	0	260
NORTHBOUND	520	1170	57	3
SOUTHBOUND	10	740	50	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	2	0	1	0	2	0	5
NORTHBOUND	2	0	2	0	1	0	5
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	6	N/A	N/A	20	N/A	N/A
EASTBOUND	22	N/A	40	N/A	0	N/A
NORTHBOUND	286	N/A	585	N/A	57	N/A
SOUTHBOUND	10	N/A	395	395	N/A	N/A

EAST-WEST CRITICAL VOLUMES 46
NORTH-SOUTH CRITICAL VOLUMES 681
THE SUM OF CRITICAL VOLUMES 727

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.454

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	20	140	90	0
EASTBOUND	140	100	0	420
NORTHBOUND	590	940	56	104
SOUTHBOUND	30	260	60	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	2	0	1	0	2	0	5
NORTHBOUND	2	0	2	0	1	0	5
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	11	N/A	N/A	230	N/A	N/A
EASTBOUND	77	N/A	100	N/A	0	N/A
NORTHBOUND	324	N/A	470	N/A	56	N/A
SOUTHBOUND	30	N/A	160	160	N/A	N/A

EAST-WEST CRITICAL VOLUMES 307
NORTH-SOUTH CRITICAL VOLUMES 500

THE SUM OF CRITICAL VOLUMES 807

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.504

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	0	10
EASTBOUND	10	60	725	65
NORTHBOUND	130	10	25	5
SOUTHBOUND	10	10	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	0	1	1	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	10	N/A	0	N/A
EASTBOUND	10	N/A	N/A	392	392	N/A
NORTHBOUND	130	N/A	5	N/A	25	N/A
SOUTHBOUND	10	N/A	10	10	N/A	N/A

EAST-WEST CRITICAL VOLUMES 402
NORTH-SOUTH CRITICAL VOLUMES 140

THE SUM OF CRITICAL VOLUMES 542

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.339

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	320	170	10	0
EASTBOUND	170	90	258	242
NORTHBOUND	220	1310	442	88
SOUTHBOUND	30	1200	170	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	2	0	1	0	2	0	5
NORTHBOUND	2	0	2	0	1	0	5
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	176	N/A	N/A	180	N/A	N/A
EASTBOUND	94	N/A	90	N/A	129	N/A
NORTHBOUND	121	N/A	655	N/A	442	N/A
SOUTHBOUND	30	N/A	685	685	N/A	N/A

EAST-WEST CRITICAL VOLUMES 305
NORTH-SOUTH CRITICAL VOLUMES 806

THE SUM OF CRITICAL VOLUMES 1111

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.694

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	330	150	10	0
EASTBOUND	120	110	164	276
NORTHBOUND	250	1480	310	90
SOUTHBOUND	40	1180	150	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	2	0	1	0	2	0	5
NORTHBOUND	2	0	2	0	1	0	5
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	181	N/A	N/A	160	N/A	N/A
EASTBOUND	66	N/A	110	N/A	82	N/A
NORTHBOUND	138	N/A	740	N/A	310	N/A
SOUTHBOUND	40	N/A	665	665	N/A	N/A

EAST-WEST CRITICAL VOLUMES	291
NORTH-SOUTH CRITICAL VOLUMES	803
THE SUM OF CRITICAL VOLUMES	1094
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.684
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 11, Oxnard Boulevard and Town Center Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	280	330	40	0
EASTBOUND	230	260	670	210
NORTHBOUND	190	970	649	81
SOUTHBOUND	210	930	200	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	2	0	1	0	2	0	5
NORTHBOUND	2	0	2	0	1	0	5
SOUTHBOUND	1	0	1	1	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	154	N/A	N/A	370	N/A	N/A
EASTBOUND	127	N/A	260	N/A	335	N/A
NORTHBOUND	105	N/A	485	N/A	649	N/A
SOUTHBOUND	210	N/A	565	565	N/A	N/A

EAST-WEST CRITICAL VOLUMES	497
NORTH-SOUTH CRITICAL VOLUMES	859
THE SUM OF CRITICAL VOLUMES	1356
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.847
LEVEL OF SERVICE	D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Blvd/Myrtle
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	425	31	0	30
EASTBOUND	13	55	41	28
NORTHBOUND	56	871	15	114
SOUTHBOUND	15	1212	42	34

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	0	0	1	0	3
EASTBOUND	0	1	0	0	1	0	2
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	228	228	N/A	N/A	0	N/A
EASTBOUND	N/A	68	N/A	N/A	41	N/A
NORTHBOUND	56	N/A	436	N/A	15	N/A
SOUTHBOUND	15	N/A	606	N/A	42	N/A

EAST-WEST CRITICAL VOLUMES 296
NORTH-SOUTH CRITICAL VOLUMES 662

THE SUM OF CRITICAL VOLUMES 958

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.599

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	280	10	40	0
EASTBOUND	10	10	10	0
NORTHBOUND	10	1000	256	154
SOUTHBOUND	80	1420	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	154	N/A	N/A	50	N/A	N/A
EASTBOUND	10	N/A	10	10	N/A	N/A
NORTHBOUND	6	N/A	333	N/A	256	N/A
SOUTHBOUND	80	N/A	477	477	N/A	N/A

EAST-WEST CRITICAL VOLUMES 164
NORTH-SOUTH CRITICAL VOLUMES 483

THE SUM OF CRITICAL VOLUMES 647

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.404

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	320	40	20	0
EASTBOUND	20	40	47	33
NORTHBOUND	120	870	264	176
SOUTHBOUND	40	1370	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	176	N/A	N/A	60	N/A	N/A
EASTBOUND	20	N/A	40	N/A	47	N/A
NORTHBOUND	66	N/A	290	N/A	264	N/A
SOUTHBOUND	40	N/A	460	460	N/A	N/A

EAST-WEST CRITICAL VOLUMES 223
NORTH-SOUTH CRITICAL VOLUMES 526

THE SUM OF CRITICAL VOLUMES 749

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.468

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	300	40	0	20
EASTBOUND	20	50	70	0
NORTHBOUND	120	850	265	165
SOUTHBOUND	50	1370	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	165	N/A	N/A	40	N/A	N/A
EASTBOUND	20	N/A	50	N/A	70	N/A
NORTHBOUND	66	N/A	283	N/A	265	N/A
SOUTHBOUND	50	N/A	460	460	N/A	N/A

EAST-WEST CRITICAL VOLUMES 235
NORTH-SOUTH CRITICAL VOLUMES 526
THE SUM OF CRITICAL VOLUMES 761

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.476

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	310	10	40	0
EASTBOUND	10	10	10	0
NORTHBOUND	10	1130	230	170
SOUTHBOUND	60	1390	10	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	170	N/A	N/A	50	N/A	N/A
EASTBOUND	10	N/A	10	10	N/A	N/A
NORTHBOUND	6	N/A	377	N/A	230	N/A
SOUTHBOUND	60	N/A	467	467	N/A	N/A

EAST-WEST CRITICAL VOLUMES	180
NORTH-SOUTH CRITICAL VOLUMES	473
THE SUM OF CRITICAL VOLUMES	653
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.408
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Blvd/Myrtle
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	579	105	0	64
EASTBOUND	18	33	131	22
NORTHBOUND	45	796	48	171
SOUTHBOUND	23	962	0	53

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	0	0	1	0	3
EASTBOUND	0	1	0	0	1	0	2
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	342	342	N/A	N/A	0	N/A
EASTBOUND	N/A	51	N/A	N/A	131	N/A
NORTHBOUND	45	N/A	398	N/A	48	N/A
SOUTHBOUND	23	N/A	481	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 473
NORTH-SOUTH CRITICAL VOLUMES 526

THE SUM OF CRITICAL VOLUMES 999

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.624

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	520	30	80	0
EASTBOUND	10	10	10	0
NORTHBOUND	30	1340	234	286
SOUTHBOUND	130	1240	20	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	286	N/A	N/A	110	N/A	N/A
EASTBOUND	10	N/A	10	10	N/A	N/A
NORTHBOUND	16	N/A	447	N/A	234	N/A
SOUTHBOUND	130	N/A	420	420	N/A	N/A

EAST-WEST CRITICAL VOLUMES 296
NORTH-SOUTH CRITICAL VOLUMES 577

THE SUM OF CRITICAL VOLUMES 873

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.546

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	620	110	60	0
EASTBOUND	10	30	205	85
NORTHBOUND	310	1070	269	341
SOUTHBOUND	130	1480	30	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	341	N/A	N/A	170	N/A	N/A
EASTBOUND	10	N/A	30	N/A	205	N/A
NORTHBOUND	170	N/A	357	N/A	269	N/A
SOUTHBOUND	130	N/A	503	503	N/A	N/A

EAST-WEST CRITICAL VOLUMES 546
NORTH-SOUTH CRITICAL VOLUMES 673

THE SUM OF CRITICAL VOLUMES 1219

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.762

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	580	110	60	0
EASTBOUND	10	40	152	88
NORTHBOUND	320	940	281	319
SOUTHBOUND	160	1340	30	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	319	N/A	N/A	170	N/A	N/A
EASTBOUND	10	N/A	40	N/A	152	N/A
NORTHBOUND	176	N/A	313	N/A	281	N/A
SOUTHBOUND	160	N/A	457	457	N/A	N/A

EAST-WEST CRITICAL VOLUMES 471
NORTH-SOUTH CRITICAL VOLUMES 633

THE SUM OF CRITICAL VOLUMES 1104

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.690

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 12, Vineyard Avenue and Ventura Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	560	40	60	0
EASTBOUND	10	20	99	11
NORTHBOUND	40	1230	242	308
SOUTHBOUND	150	1660	20	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	308	N/A	N/A	100	N/A	N/A
EASTBOUND	10	N/A	20	N/A	99	N/A
NORTHBOUND	22	N/A	410	N/A	242	N/A
SOUTHBOUND	150	N/A	560	560	N/A	N/A

EAST-WEST CRITICAL VOLUMES 407
NORTH-SOUTH CRITICAL VOLUMES 582
THE SUM OF CRITICAL VOLUMES 989

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.618

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	230	0	0	540
EASTBOUND	0	0	0	0
NORTHBOUND	1010	110	0	0
SOUTHBOUND	0	20	0	320

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	230	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	556	N/A	55	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	5	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 230
NORTH-SOUTH CRITICAL VOLUMES 561
THE SUM OF CRITICAL VOLUMES 791

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.494

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	270	0	0	800
EASTBOUND	0	0	0	0
NORTHBOUND	770	1030	0	0
SOUTHBOUND	0	410	0	660

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	270	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	423	N/A	515	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	102	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 270
NORTH-SOUTH CRITICAL VOLUMES 525

THE SUM OF CRITICAL VOLUMES 795

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.497

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	270	0	0	840
EASTBOUND	0	0	0	0
NORTHBOUND	780	920	0	0
SOUTHBOUND	0	630	0	370

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	270	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	429	N/A	460	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	158	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	270
NORTH-SOUTH CRITICAL VOLUMES	587
THE SUM OF CRITICAL VOLUMES	857
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.536
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	320	0	0	670
EASTBOUND	0	0	0	0
NORTHBOUND	900	1020	0	0
SOUTHBOUND	0	270	0	430

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	320	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	495	N/A	510	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	68	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	320
NORTH-SOUTH CRITICAL VOLUMES	563
THE SUM OF CRITICAL VOLUMES	883
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.552
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	90	0	0	80
EASTBOUND	0	0	0	0
NORTHBOUND	1480	80	0	0
SOUTHBOUND	0	240	0	560

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	90	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	814	N/A	40	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	60	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 90
NORTH-SOUTH CRITICAL VOLUMES 874
THE SUM OF CRITICAL VOLUMES 964

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.602

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	80	0	0	390
EASTBOUND	0	0	0	0
NORTHBOUND	1120	1670	0	0
SOUTHBOUND	0	980	0	1040

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	80	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	616	N/A	835	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	245	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 80
NORTH-SOUTH CRITICAL VOLUMES 861
THE SUM OF CRITICAL VOLUMES 941

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.588

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	100	0	0	440
EASTBOUND	0	0	0	0
NORTHBOUND	1000	1690	0	0
SOUTHBOUND	0	1220	0	720

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	100	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	550	N/A	845	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	305	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 100
NORTH-SOUTH CRITICAL VOLUMES 855
THE SUM OF CRITICAL VOLUMES 955

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.597

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 13, Oxnard Boulevard and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	70	0	0	330
EASTBOUND	0	0	0	0
NORTHBOUND	1220	1560	0	0
SOUTHBOUND	0	940	0	1140

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	0	2
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	2	0	0	0	4
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	671	N/A	780	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	235	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	70
NORTH-SOUTH CRITICAL VOLUMES	906
THE SUM OF CRITICAL VOLUMES	976
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.610
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	70	0	0	10
NORTHBOUND	0	1050	0	10
SOUTHBOUND	0	250	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	38	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	262	N/A	0	N/A
SOUTHBOUND	N/A	N/A	62	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 38
NORTH-SOUTH CRITICAL VOLUMES 262
THE SUM OF CRITICAL VOLUMES 300

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.188

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	700	0	0	10
NORTHBOUND	0	1100	0	10
SOUTHBOUND	0	690	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	385	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	275	N/A	0	N/A
SOUTHBOUND	N/A	N/A	172	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 385
NORTH-SOUTH CRITICAL VOLUMES 275

THE SUM OF CRITICAL VOLUMES 660

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.412

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	460	0	0	10
NORTHBOUND	0	1240	0	10
SOUTHBOUND	0	910	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	253	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	310	N/A	0	N/A
SOUTHBOUND	N/A	N/A	228	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 253
NORTH-SOUTH CRITICAL VOLUMES 310

THE SUM OF CRITICAL VOLUMES 563

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.352

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	660	0	0	10
NORTHBOUND	0	1260	0	10
SOUTHBOUND	0	600	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	363	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	315	N/A	0	N/A
SOUTHBOUND	N/A	N/A	150	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 363
NORTH-SOUTH CRITICAL VOLUMES 315
THE SUM OF CRITICAL VOLUMES 678

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.424

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	60	0	0	10
NORTHBOUND	0	1490	34	16
SOUTHBOUND	0	320	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	33	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	372	N/A	34	N/A
SOUTHBOUND	N/A	N/A	80	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 33
NORTH-SOUTH CRITICAL VOLUMES 372

THE SUM OF CRITICAL VOLUMES 405

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.253

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	1070	0	0	10
NORTHBOUND	0	1710	0	10
SOUTHBOUND	0	1050	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	588	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	428	N/A	0	N/A
SOUTHBOUND	N/A	N/A	262	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 588
NORTH-SOUTH CRITICAL VOLUMES 428

THE SUM OF CRITICAL VOLUMES 1016

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.635

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	760	0	0	10
NORTHBOUND	0	1920	0	10
SOUTHBOUND	0	1310	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	418	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	480	N/A	0	N/A
SOUTHBOUND	N/A	N/A	328	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 418
NORTH-SOUTH CRITICAL VOLUMES 480

THE SUM OF CRITICAL VOLUMES 898

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.561

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 14, Oxnard Boulevard and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	1040	0	0	10
NORTHBOUND	0	1740	0	10
SOUTHBOUND	0	1020	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	2	0	0	0	2	0	4
NORTHBOUND	0	0	4	0	1	0	5
SOUTHBOUND	0	0	4	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	572	N/A	N/A	N/A	0	N/A
NORTHBOUND	N/A	N/A	435	N/A	0	N/A
SOUTHBOUND	N/A	N/A	255	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 572
NORTH-SOUTH CRITICAL VOLUMES 435
THE SUM OF CRITICAL VOLUMES 1007

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.629

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	467	0	170	1
EASTBOUND	0	0	0	0
NORTHBOUND	0	979	91	128
SOUTHBOUND	0	984	2	44

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	0	0	2	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	257	N/A	N/A	N/A	170	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	490	N/A	91	N/A
SOUTHBOUND	N/A	N/A	492	N/A	2	N/A

EAST-WEST CRITICAL VOLUMES 257
NORTH-SOUTH CRITICAL VOLUMES 492

THE SUM OF CRITICAL VOLUMES 749

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.468

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	520	0	230	30
EASTBOUND	0	0	0	0
NORTHBOUND	0	1150	0	270
SOUTHBOUND	0	1330	0	410

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	260	260	N/A	N/A	230	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	383	N/A	0	N/A
SOUTHBOUND	N/A	N/A	443	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 260
NORTH-SOUTH CRITICAL VOLUMES 443

THE SUM OF CRITICAL VOLUMES 703

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.439

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	490	0	330	40
EASTBOUND	0	0	0	0
NORTHBOUND	0	1110	0	370
SOUTHBOUND	0	1350	0	450

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	273	N/A	N/A	N/A	273	273
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	370	N/A	0	N/A
SOUTHBOUND	N/A	N/A	450	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 273
NORTH-SOUTH CRITICAL VOLUMES 450

THE SUM OF CRITICAL VOLUMES 723

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.452

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	490	0	322	48
EASTBOUND	0	0	0	0
NORTHBOUND	0	1090	0	260
SOUTHBOUND	0	1380	0	400

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	271	N/A	N/A	N/A	271	271
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	363	N/A	0	N/A
SOUTHBOUND	N/A	N/A	460	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 271
NORTH-SOUTH CRITICAL VOLUMES 460

THE SUM OF CRITICAL VOLUMES 731

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.457

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	700	0	280	20
EASTBOUND	0	0	0	0
NORTHBOUND	0	1220	0	330
SOUTHBOUND	0	1340	0	390

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	350	350	N/A	N/A	280	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	407	N/A	0	N/A
SOUTHBOUND	N/A	N/A	447	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	350
NORTH-SOUTH CRITICAL VOLUMES	447
THE SUM OF CRITICAL VOLUMES	797
NUMBER OF CRITICAL CLEARANCE INTERVALS	2*
CMA VALUE	0.498
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	634	0	80	62
EASTBOUND	0	0	0	0
NORTHBOUND	0	1204	0	157
SOUTHBOUND	0	1454	17	134

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	0	0	2	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	349	N/A	N/A	N/A	80	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	602	N/A	0	N/A
SOUTHBOUND	N/A	N/A	727	N/A	17	N/A

EAST-WEST CRITICAL VOLUMES 349
NORTH-SOUTH CRITICAL VOLUMES 727

THE SUM OF CRITICAL VOLUMES 1076

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.672

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	460	0	310	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	1710	0	680
SOUTHBOUND	0	1590	0	280

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	257	N/A	N/A	N/A	257	257
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	570	N/A	0	N/A
SOUTHBOUND	N/A	N/A	530	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 257
NORTH-SOUTH CRITICAL VOLUMES 570
THE SUM OF CRITICAL VOLUMES 827

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.517

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	320	0	405	95
EASTBOUND	0	0	0	0
NORTHBOUND	0	1420	0	960
SOUTHBOUND	0	1990	0	480

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	242	N/A	N/A	N/A	242	242
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	473	N/A	0	N/A
SOUTHBOUND	N/A	N/A	663	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 242
NORTH-SOUTH CRITICAL VOLUMES 663

THE SUM OF CRITICAL VOLUMES 905

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.566

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	360	0	348	102
EASTBOUND	0	0	0	0
NORTHBOUND	0	1340	0	770
SOUTHBOUND	0	1950	0	310

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	236	N/A	N/A	N/A	236	236
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	447	N/A	0	N/A
SOUTHBOUND	N/A	N/A	650	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 236
NORTH-SOUTH CRITICAL VOLUMES 650
THE SUM OF CRITICAL VOLUMES 886

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.554

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 15, Vineyard Avenue and US-101 Northbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	RIGHT TURNS ** MIN ON GREEN	** MAX ON RED
WESTBOUND	410	0	292	78
EASTBOUND	0	0	0	0
NORTHBOUND	0	1490	0	930
SOUTHBOUND	0	1960	0	450

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	234	N/A	N/A	N/A	234	234
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	497	N/A	0	N/A
SOUTHBOUND	N/A	N/A	653	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 234
NORTH-SOUTH CRITICAL VOLUMES 653
THE SUM OF CRITICAL VOLUMES 887

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.554

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	346	0	119	0
NORTHBOUND	0	1199	419	0
SOUTHBOUND	0	1030	739	116

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	2	1	0	0	3
SOUTHBOUND	0	0	2	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	232	N/A	N/A	N/A	N/A	232
NORTHBOUND	N/A	N/A	539	539	N/A	N/A
SOUTHBOUND	N/A	N/A	515	N/A	739	N/A

EAST-WEST CRITICAL VOLUMES 232
NORTH-SOUTH CRITICAL VOLUMES 739
THE SUM OF CRITICAL VOLUMES 971

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.607

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	180	0	190	0
NORTHBOUND	0	1230	0	420
SOUTHBOUND	0	1620	0	170

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	180	N/A	N/A	N/A	190	N/A
NORTHBOUND	N/A	N/A	410	N/A	0	N/A
SOUTHBOUND	N/A	N/A	540	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 190
NORTH-SOUTH CRITICAL VOLUMES 540
THE SUM OF CRITICAL VOLUMES 730

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.456

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	50	0	230	0
NORTHBOUND	0	1430	0	370
SOUTHBOUND	0	1570	0	230

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	50	N/A	N/A	N/A	230	N/A
NORTHBOUND	N/A	N/A	477	N/A	0	N/A
SOUTHBOUND	N/A	N/A	523	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 230
NORTH-SOUTH CRITICAL VOLUMES 523

THE SUM OF CRITICAL VOLUMES 753

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.471

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	40	0	200	0
NORTHBOUND	0	1310	0	380
SOUTHBOUND	0	1590	0	250

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	40	N/A	N/A	N/A	200	N/A
NORTHBOUND	N/A	N/A	437	N/A	0	N/A
SOUTHBOUND	N/A	N/A	530	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 200
NORTH-SOUTH CRITICAL VOLUMES 530
THE SUM OF CRITICAL VOLUMES 730

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.456

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	160	0	220	0
NORTHBOUND	0	1380	0	420
SOUTHBOUND	0	1820	0	170

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	160	N/A	N/A	N/A	220	N/A
NORTHBOUND	N/A	N/A	460	N/A	0	N/A
SOUTHBOUND	N/A	N/A	607	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 220
NORTH-SOUTH CRITICAL VOLUMES 607

THE SUM OF CRITICAL VOLUMES 827

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.517

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	490	0	154	0
NORTHBOUND	0	1633	260	0
SOUTHBOUND	0	1170	421	161

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	2	1	0	0	3
SOUTHBOUND	0	0	2	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	322	N/A	N/A	N/A	N/A	322
NORTHBOUND	N/A	N/A	631	631	N/A	N/A
SOUTHBOUND	N/A	N/A	585	N/A	421	N/A

EAST-WEST CRITICAL VOLUMES 322
NORTH-SOUTH CRITICAL VOLUMES 631
THE SUM OF CRITICAL VOLUMES 953

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.596

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	440	0	70	0
NORTHBOUND	0	1790	0	780
SOUTHBOUND	0	1560	0	200

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	255	N/A	N/A	N/A	N/A	255
NORTHBOUND	N/A	N/A	597	N/A	0	N/A
SOUTHBOUND	N/A	N/A	520	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 255
NORTH-SOUTH CRITICAL VOLUMES 597

THE SUM OF CRITICAL VOLUMES 852

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.533

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	370	0	140	0
NORTHBOUND	0	1870	0	790
SOUTHBOUND	0	1670	0	330

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	255	N/A	N/A	N/A	N/A	255
NORTHBOUND	N/A	N/A	623	N/A	0	N/A
SOUTHBOUND	N/A	N/A	557	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 255
NORTH-SOUTH CRITICAL VOLUMES 623
THE SUM OF CRITICAL VOLUMES 878

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.549

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	160	0	238	22
NORTHBOUND	0	1810	0	810
SOUTHBOUND	0	1680	0	330

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	160	N/A	N/A	N/A	238	N/A
NORTHBOUND	N/A	N/A	603	N/A	0	N/A
SOUTHBOUND	N/A	N/A	560	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 238
NORTH-SOUTH CRITICAL VOLUMES 603

THE SUM OF CRITICAL VOLUMES 841

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.526

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 16, Vineyard Avenue and US-101 Southbound Ramps
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	360	0	160	0
NORTHBOUND	0	1900	0	820
SOUTHBOUND	0	1740	0	320

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	0	0	0	0	1	2
NORTHBOUND	0	0	3	0	1	0	4
SOUTHBOUND	0	0	3	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	260	N/A	N/A	N/A	N/A	260
NORTHBOUND	N/A	N/A	633	N/A	0	N/A
SOUTHBOUND	N/A	N/A	580	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 260
NORTH-SOUTH CRITICAL VOLUMES 633
THE SUM OF CRITICAL VOLUMES 893

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.558

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	285	0	161	2
EASTBOUND	0	0	0	0
NORTHBOUND	0	943	11	80
SOUTHBOUND	3	225	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	1	0	1	0	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	157	N/A	N/A	N/A	161	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	943	N/A	11	N/A
SOUTHBOUND	3	N/A	225	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 161
NORTH-SOUTH CRITICAL VOLUMES 946

THE SUM OF CRITICAL VOLUMES 1107

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.692

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	390	0	0	10
EASTBOUND	0	0	0	0
NORTHBOUND	0	610	193	107
SOUTHBOUND	30	300	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	214	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	305	N/A	193	N/A
SOUTHBOUND	30	N/A	100	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 214
NORTH-SOUTH CRITICAL VOLUMES 335

THE SUM OF CRITICAL VOLUMES 549

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.343

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	340	0	35	25
EASTBOUND	0	0	0	0
NORTHBOUND	0	940	176	94
SOUTHBOUND	50	520	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	187	N/A	N/A	N/A	35	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	470	N/A	176	N/A
SOUTHBOUND	50	N/A	173	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	187
NORTH-SOUTH CRITICAL VOLUMES	520
THE SUM OF CRITICAL VOLUMES	707
NUMBER OF CRITICAL CLEARANCE INTERVALS	2*
CMA VALUE	0.442
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	280	0	20	60
EASTBOUND	0	0	0	0
NORTHBOUND	0	1080	193	77
SOUTHBOUND	120	850	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	154	N/A	N/A	N/A	20	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	540	N/A	193	N/A
SOUTHBOUND	120	N/A	283	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 154
NORTH-SOUTH CRITICAL VOLUMES 660

THE SUM OF CRITICAL VOLUMES 814

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.509

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	380	0	55	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	1140	156	104
SOUTHBOUND	10	280	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	209	N/A	N/A	N/A	55	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	570	N/A	156	N/A
SOUTHBOUND	10	N/A	93	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 209
NORTH-SOUTH CRITICAL VOLUMES 580

THE SUM OF CRITICAL VOLUMES 789

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.493

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	701	0	71	22
EASTBOUND	0	0	0	0
NORTHBOUND	0	524	0	72
SOUTHBOUND	45	523	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	1	0	1	0	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	386	N/A	N/A	N/A	71	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	524	N/A	0	N/A
SOUTHBOUND	45	N/A	523	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 386
NORTH-SOUTH CRITICAL VOLUMES 569

THE SUM OF CRITICAL VOLUMES 955

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.597

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	1270	0	25	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	570	0	140
SOUTHBOUND	10	210	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	698	N/A	N/A	N/A	25	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	285	N/A	0	N/A
SOUTHBOUND	10	N/A	70	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 698
NORTH-SOUTH CRITICAL VOLUMES 295

THE SUM OF CRITICAL VOLUMES 993

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.621

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	940	0	190	10
EASTBOUND	0	0	0	0
NORTHBOUND	0	1080	0	100
SOUTHBOUND	20	1160	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	517	N/A	N/A	N/A	190	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	540	N/A	0	N/A
SOUTHBOUND	20	N/A	387	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 517
NORTH-SOUTH CRITICAL VOLUMES 560

THE SUM OF CRITICAL VOLUMES 1077

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.673

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	860	0	235	25
EASTBOUND	0	0	0	0
NORTHBOUND	0	1230	0	110
SOUTHBOUND	50	1340	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	473	N/A	N/A	N/A	235	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	615	N/A	0	N/A
SOUTHBOUND	50	N/A	447	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	473
NORTH-SOUTH CRITICAL VOLUMES	665
THE SUM OF CRITICAL VOLUMES	1138
NUMBER OF CRITICAL CLEARANCE INTERVALS	2*
CMA VALUE	0.711
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 17, Ventura Road and Wagon Wheel Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	1030	0	5	5
EASTBOUND	0	0	0	0
NORTHBOUND	0	850	0	130
SOUTHBOUND	10	1260	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	0	1	0	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	2	0	1	0	3
SOUTHBOUND	1	0	3	0	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	566	N/A	N/A	N/A	5	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	425	N/A	0	N/A
SOUTHBOUND	10	N/A	420	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 566
NORTH-SOUTH CRITICAL VOLUMES 435
THE SUM OF CRITICAL VOLUMES 1001

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.626

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	3	71	0	0
EASTBOUND	0	108	0	0
NORTHBOUND	0	0	2	2
SOUTHBOUND	47	0	0	357

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	3	N/A	71	N/A	N/A	N/A
EASTBOUND	N/A	N/A	108	N/A	0	N/A
NORTHBOUND	0	N/A	N/A	N/A	2	N/A
SOUTHBOUND	47	N/A	0	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 111
NORTH-SOUTH CRITICAL VOLUMES 49

THE SUM OF CRITICAL VOLUMES 160

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.100

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	10	30	0	0
EASTBOUND	0	340	0	10
NORTHBOUND	10	0	5	5
SOUTHBOUND	260	10	190	160

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	30	N/A	N/A	N/A
EASTBOUND	N/A	N/A	340	N/A	0	N/A
NORTHBOUND	10	N/A	N/A	N/A	5	N/A
SOUTHBOUND	260	N/A	10	N/A	190	N/A

EAST-WEST CRITICAL VOLUMES 350
NORTH-SOUTH CRITICAL VOLUMES 265

THE SUM OF CRITICAL VOLUMES 615

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.384

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	40	0	0
EASTBOUND	0	340	0	10
NORTHBOUND	10	0	5	5
SOUTHBOUND	250	10	185	155

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	40	N/A	N/A	N/A
EASTBOUND	N/A	N/A	340	N/A	0	N/A
NORTHBOUND	10	N/A	N/A	N/A	5	N/A
SOUTHBOUND	250	N/A	10	N/A	185	N/A

EAST-WEST CRITICAL VOLUMES 350
NORTH-SOUTH CRITICAL VOLUMES 255

THE SUM OF CRITICAL VOLUMES 605

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.378

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	60	0	0
EASTBOUND	0	410	0	10
NORTHBOUND	10	0	5	5
SOUTHBOUND	180	10	90	180

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	60	N/A	N/A	N/A
EASTBOUND	N/A	N/A	410	N/A	0	N/A
NORTHBOUND	10	N/A	N/A	N/A	5	N/A
SOUTHBOUND	180	N/A	10	N/A	90	N/A

EAST-WEST CRITICAL VOLUMES 420
NORTH-SOUTH CRITICAL VOLUMES 185

THE SUM OF CRITICAL VOLUMES 605

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.378

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	30	0	0
EASTBOUND	0	290	0	10
NORTHBOUND	10	0	5	5
SOUTHBOUND	260	10	235	135

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	30	N/A	N/A	N/A
EASTBOUND	N/A	N/A	290	N/A	0	N/A
NORTHBOUND	10	N/A	N/A	N/A	5	N/A
SOUTHBOUND	260	N/A	10	N/A	235	N/A

EAST-WEST CRITICAL VOLUMES 300
NORTH-SOUTH CRITICAL VOLUMES 265

THE SUM OF CRITICAL VOLUMES 565

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.353

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	26	143	0	0
EASTBOUND	0	127	0	0
NORTHBOUND	3	0	0	4
SOUTHBOUND	89	12	0	666

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	26	N/A	143	N/A	N/A	N/A
EASTBOUND	N/A	N/A	127	N/A	0	N/A
NORTHBOUND	3	N/A	N/A	N/A	0	N/A
SOUTHBOUND	89	N/A	12	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 153
NORTH-SOUTH CRITICAL VOLUMES 89

THE SUM OF CRITICAL VOLUMES 242

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.151

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	530	0	0
EASTBOUND	0	200	5	5
NORTHBOUND	10	0	0	10
SOUTHBOUND	80	10	750	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	530	N/A	N/A	N/A
EASTBOUND	N/A	N/A	200	N/A	5	N/A
NORTHBOUND	10	N/A	N/A	N/A	0	N/A
SOUTHBOUND	80	N/A	10	N/A	750	N/A

EAST-WEST CRITICAL VOLUMES 530
NORTH-SOUTH CRITICAL VOLUMES 760

THE SUM OF CRITICAL VOLUMES 1290

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.806

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	10	460	0	0
EASTBOUND	0	180	5	5
NORTHBOUND	10	0	0	10
SOUTHBOUND	90	10	720	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	460	N/A	N/A	N/A
EASTBOUND	N/A	N/A	180	N/A	5	N/A
NORTHBOUND	10	N/A	N/A	N/A	0	N/A
SOUTHBOUND	90	N/A	10	N/A	720	N/A

EAST-WEST CRITICAL VOLUMES 460
NORTH-SOUTH CRITICAL VOLUMES 730
THE SUM OF CRITICAL VOLUMES 1190

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.744

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	600	0	0
EASTBOUND	0	230	10	10
NORTHBOUND	20	0	0	10
SOUTHBOUND	40	10	580	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	600	N/A	N/A	N/A
EASTBOUND	N/A	N/A	230	N/A	10	N/A
NORTHBOUND	20	N/A	N/A	N/A	0	N/A
SOUTHBOUND	40	N/A	10	N/A	580	N/A

EAST-WEST CRITICAL VOLUMES 600
NORTH-SOUTH CRITICAL VOLUMES 600
THE SUM OF CRITICAL VOLUMES 1200

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.750

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 18, Wagon Wheel Road and US-101 Southbound Off-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	380	0	0
EASTBOUND	0	180	5	5
NORTHBOUND	10	0	0	10
SOUTHBOUND	90	10	660	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	0	0	2
EASTBOUND	0	0	1	0	1	0	2
NORTHBOUND	1	0	0	0	1	0	2
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	380	N/A	N/A	N/A
EASTBOUND	N/A	N/A	180	N/A	5	N/A
NORTHBOUND	10	N/A	N/A	N/A	0	N/A
SOUTHBOUND	90	N/A	10	N/A	660	N/A

EAST-WEST CRITICAL VOLUMES 380
NORTH-SOUTH CRITICAL VOLUMES 670
THE SUM OF CRITICAL VOLUMES 1050

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.656

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	640	20	0
SOUTHBOUND	70	170	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	640	N/A	20	N/A
SOUTHBOUND	38	N/A	170	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 678

THE SUM OF CRITICAL VOLUMES 678

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.424

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	690	230	0
SOUTHBOUND	60	180	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	690	N/A	230	N/A
SOUTHBOUND	33	N/A	180	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 723

THE SUM OF CRITICAL VOLUMES 723

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.452

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	690	230	0
SOUTHBOUND	60	180	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	1	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	690	N/A	230	N/A
SOUTHBOUND	33	N/A	180	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 723

THE SUM OF CRITICAL VOLUMES 723

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.452

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	700	290	0
SOUTHBOUND	60	130	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	700	N/A	290	N/A
SOUTHBOUND	33	N/A	130	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 733

THE SUM OF CRITICAL VOLUMES 733

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.458

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	790	170	0
SOUTHBOUND	70	180	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	790	N/A	170	N/A
SOUTHBOUND	38	N/A	180	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 828

THE SUM OF CRITICAL VOLUMES 828

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.517

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	400	220	0
SOUTHBOUND	900	800	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	400	N/A	220	N/A
SOUTHBOUND	495	N/A	800	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 895
THE SUM OF CRITICAL VOLUMES 895

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.559

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	390	710	0
SOUTHBOUND	870	900	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	390	N/A	710	N/A
SOUTHBOUND	478	N/A	900	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 1188
THE SUM OF CRITICAL VOLUMES 1188

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.743

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	390	710	0
SOUTHBOUND	870	900	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	1	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	550	550	N/A
SOUTHBOUND	478	N/A	900	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 1028

THE SUM OF CRITICAL VOLUMES 1028

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.642

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	400	780	0
SOUTHBOUND	790	830	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	400	N/A	780	N/A
SOUTHBOUND	434	N/A	830	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 1214
THE SUM OF CRITICAL VOLUMES 1214

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.759

LEVEL OF SERVICE C

---

* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 19, Wagon Wheel Road and US-101 Southbound On-ramp
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	410	710	0
SOUTHBOUND	960	970	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	0	1	0	2
SOUTHBOUND	2	0	1	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	410	N/A	710	N/A
SOUTHBOUND	528	N/A	970	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 1238
THE SUM OF CRITICAL VOLUMES 1238

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.774

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	103
EASTBOUND	0	0	0	0
NORTHBOUND	0	1130	81	0
SOUTHBOUND	0	735	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	1	0	1
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	0	0	2	0	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	606	606	N/A	N/A
SOUTHBOUND	N/A	N/A	368	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 606

THE SUM OF CRITICAL VOLUMES 606

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.379

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	10	10	0	10
EASTBOUND	110	10	0	60
NORTHBOUND	350	880	20	0
SOUTHBOUND	90	1060	220	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	10	N/A	0	N/A
EASTBOUND	110	N/A	10	N/A	0	N/A
NORTHBOUND	350	N/A	300	300	N/A	N/A
SOUTHBOUND	90	N/A	427	427	N/A	N/A

EAST-WEST CRITICAL VOLUMES 120
NORTH-SOUTH CRITICAL VOLUMES 777

THE SUM OF CRITICAL VOLUMES 897

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.561

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	0	20
EASTBOUND	110	10	0	60
NORTHBOUND	360	930	20	0
SOUTHBOUND	90	1200	470	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	10	N/A	0	N/A
EASTBOUND	110	N/A	10	N/A	0	N/A
NORTHBOUND	360	N/A	317	317	N/A	N/A
SOUTHBOUND	90	N/A	557	557	N/A	N/A

EAST-WEST CRITICAL VOLUMES 120
NORTH-SOUTH CRITICAL VOLUMES 917

THE SUM OF CRITICAL VOLUMES 1037

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.648

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	0	20
EASTBOUND	110	10	0	60
NORTHBOUND	360	930	20	0
SOUTHBOUND	90	1200	0	470

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	1	0	1	0	4
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	6	N/A	10	N/A	0	N/A
EASTBOUND	60	N/A	10	N/A	0	N/A
NORTHBOUND	360	N/A	317	317	N/A	N/A
SOUTHBOUND	90	N/A	400	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 70
NORTH-SOUTH CRITICAL VOLUMES 760

THE SUM OF CRITICAL VOLUMES 830

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.519

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	0	40
EASTBOUND	60	10	0	60
NORTHBOUND	360	1100	20	0
SOUTHBOUND	110	1200	530	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	10	N/A	0	N/A
EASTBOUND	60	N/A	10	N/A	0	N/A
NORTHBOUND	360	N/A	373	373	N/A	N/A
SOUTHBOUND	110	N/A	577	577	N/A	N/A

EAST-WEST CRITICAL VOLUMES 70
NORTH-SOUTH CRITICAL VOLUMES 937
THE SUM OF CRITICAL VOLUMES 1007

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.629

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	10	10	0	20
EASTBOUND	110	10	0	60
NORTHBOUND	350	1070	20	0
SOUTHBOUND	90	1130	460	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	10	N/A	10	N/A	0	N/A
EASTBOUND	110	N/A	10	N/A	0	N/A
NORTHBOUND	350	N/A	363	363	N/A	N/A
SOUTHBOUND	90	N/A	530	530	N/A	N/A

EAST-WEST CRITICAL VOLUMES 120
NORTH-SOUTH CRITICAL VOLUMES 880
THE SUM OF CRITICAL VOLUMES 1000

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.625

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	356
EASTBOUND	0	0	0	0
NORTHBOUND	0	1417	178	0
SOUTHBOUND	0	1218	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	0	0	0	0	1	0	1
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	0	0	2	0	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	N/A	N/A	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	798	798	N/A	N/A
SOUTHBOUND	N/A	N/A	609	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 798

THE SUM OF CRITICAL VOLUMES 798

NUMBER OF CRITICAL CLEARANCE INTERVALS 0*

CMA VALUE 0.499

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	280	10	146	264
EASTBOUND	430	10	200	110
NORTHBOUND	220	380	190	60
SOUTHBOUND	300	1020	470	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	280	N/A	10	N/A	146	N/A
EASTBOUND	430	N/A	10	N/A	200	N/A
NORTHBOUND	220	N/A	190	190	N/A	N/A
SOUTHBOUND	300	N/A	497	497	N/A	N/A

EAST-WEST CRITICAL VOLUMES 576
NORTH-SOUTH CRITICAL VOLUMES 717

THE SUM OF CRITICAL VOLUMES 1293

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.808

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	290	10	66	354
EASTBOUND	490	10	220	130
NORTHBOUND	260	470	210	0
SOUTHBOUND	350	1070	675	245

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	290	N/A	10	N/A	66	N/A
EASTBOUND	490	N/A	10	N/A	220	N/A
NORTHBOUND	260	N/A	227	227	N/A	N/A
SOUTHBOUND	350	N/A	535	N/A	675	N/A

EAST-WEST CRITICAL VOLUMES 556
NORTH-SOUTH CRITICAL VOLUMES 935

THE SUM OF CRITICAL VOLUMES 1491

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.932

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	290	10	70	350
EASTBOUND	490	10	220	130
NORTHBOUND	260	470	210	0
SOUTHBOUND	350	1070	0	920

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	1	0	1	0	4
EASTBOUND	2	0	1	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	159	N/A	10	N/A	70	N/A
EASTBOUND	270	N/A	10	N/A	220	N/A
NORTHBOUND	260	N/A	227	227	N/A	N/A
SOUTHBOUND	350	N/A	357	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 379
NORTH-SOUTH CRITICAL VOLUMES 617

THE SUM OF CRITICAL VOLUMES 996

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.623

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	330	10	190	340
EASTBOUND	390	10	275	105
NORTHBOUND	210	630	250	0
SOUTHBOUND	370	980	490	480

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	330	N/A	10	N/A	190	N/A
EASTBOUND	390	N/A	10	N/A	275	N/A
NORTHBOUND	210	N/A	293	293	N/A	N/A
SOUTHBOUND	370	N/A	490	490	N/A	N/A

EAST-WEST CRITICAL VOLUMES	605
NORTH-SOUTH CRITICAL VOLUMES	700
THE SUM OF CRITICAL VOLUMES	1305
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.816
LEVEL OF SERVICE	D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 20, Oxnard Boulevard and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	300	10	68	312
EASTBOUND	570	10	250	100
NORTHBOUND	200	460	230	30
SOUTHBOUND	320	1040	520	420

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	300	N/A	10	N/A	68	N/A
EASTBOUND	570	N/A	10	N/A	250	N/A
NORTHBOUND	200	N/A	230	230	N/A	N/A
SOUTHBOUND	320	N/A	520	520	N/A	N/A

EAST-WEST CRITICAL VOLUMES 638
NORTH-SOUTH CRITICAL VOLUMES 720

THE SUM OF CRITICAL VOLUMES 1358

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.849

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	70	16	0	65
EASTBOUND	157	18	0	36
NORTHBOUND	102	1532	68	0
SOUTHBOUND	322	849	0	128

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	0	0	1	0	3
EASTBOUND	1	1	0	0	1	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	43	43	N/A	N/A	0	N/A
EASTBOUND	88	88	N/A	N/A	0	N/A
NORTHBOUND	56	N/A	533	533	N/A	N/A
SOUTHBOUND	177	N/A	283	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	131
NORTH-SOUTH CRITICAL VOLUMES	710
THE SUM OF CRITICAL VOLUMES	841
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.526
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	130	10	0	110
EASTBOUND	10	60	0	10
NORTHBOUND	80	1440	340	0
SOUTHBOUND	480	980	50	30

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	70	N/A	N/A	0	N/A
EASTBOUND	6	N/A	60	N/A	0	N/A
NORTHBOUND	44	N/A	593	593	N/A	N/A
SOUTHBOUND	264	N/A	327	N/A	50	N/A

EAST-WEST CRITICAL VOLUMES	130
NORTH-SOUTH CRITICAL VOLUMES	857
THE SUM OF CRITICAL VOLUMES	987
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.617
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	130	10	0	120
EASTBOUND	10	50	0	10
NORTHBOUND	80	1610	330	0
SOUTHBOUND	510	950	45	25

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	70	N/A	N/A	0	N/A
EASTBOUND	6	N/A	50	N/A	0	N/A
NORTHBOUND	44	N/A	647	647	N/A	N/A
SOUTHBOUND	280	N/A	317	N/A	45	N/A

EAST-WEST CRITICAL VOLUMES 120
NORTH-SOUTH CRITICAL VOLUMES 927

THE SUM OF CRITICAL VOLUMES 1047

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.654

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	130	10	0	120
EASTBOUND	10	50	0	10
NORTHBOUND	80	1610	330	0
SOUTHBOUND	510	950	0	70

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	0	1	1	0	4
EASTBOUND	2	1	0	0	1	0	4
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	65	N/A	10	N/A	0	N/A
EASTBOUND	6	N/A	50	N/A	0	N/A
NORTHBOUND	44	N/A	485	485	N/A	N/A
SOUTHBOUND	280	N/A	238	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 115
NORTH-SOUTH CRITICAL VOLUMES 765

THE SUM OF CRITICAL VOLUMES 880

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 0.550

LEVEL OF SERVICE ..... A

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	130	10	0	110
EASTBOUND	10	70	0	10
NORTHBOUND	90	1530	330	0
SOUTHBOUND	490	940	45	35

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	70	N/A	N/A	0	N/A
EASTBOUND	6	N/A	70	N/A	0	N/A
NORTHBOUND	49	N/A	620	620	N/A	N/A
SOUTHBOUND	270	N/A	313	N/A	45	N/A

EAST-WEST CRITICAL VOLUMES 140
NORTH-SOUTH CRITICAL VOLUMES 890

THE SUM OF CRITICAL VOLUMES 1030

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.644

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	130	10	0	120
EASTBOUND	10	50	0	10
NORTHBOUND	100	1590	330	0
SOUTHBOUND	510	1120	95	25

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	70	70	N/A	N/A	0	N/A
EASTBOUND	6	N/A	50	N/A	0	N/A
NORTHBOUND	55	N/A	640	640	N/A	N/A
SOUTHBOUND	280	N/A	373	N/A	95	N/A

EAST-WEST CRITICAL VOLUMES	120
NORTH-SOUTH CRITICAL VOLUMES	920
THE SUM OF CRITICAL VOLUMES	1040
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.650
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	393	129	71	125
EASTBOUND	176	18	54	64
NORTHBOUND	235	1047	59	0
SOUTHBOUND	194	1470	0	193

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	0	0	1	0	3
EASTBOUND	1	1	0	0	1	0	3
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	261	261	N/A	N/A	71	N/A
EASTBOUND	97	97	N/A	N/A	54	N/A
NORTHBOUND	129	N/A	369	369	N/A	N/A
SOUTHBOUND	107	N/A	490	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 358
NORTH-SOUTH CRITICAL VOLUMES 619

THE SUM OF CRITICAL VOLUMES 977

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.611

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	630	90	504	66
EASTBOUND	380	170	16	94
NORTHBOUND	320	1780	230	0
SOUTHBOUND	240	1840	296	104

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	408	N/A	N/A	N/A	408	408
EASTBOUND	209	N/A	170	N/A	16	N/A
NORTHBOUND	176	N/A	670	670	N/A	N/A
SOUTHBOUND	132	N/A	613	N/A	296	N/A

EAST-WEST CRITICAL VOLUMES 617
NORTH-SOUTH CRITICAL VOLUMES 802
THE SUM OF CRITICAL VOLUMES 1419

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.887

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	630	130	474	86
EASTBOUND	400	140	68	102
NORTHBOUND	370	1860	240	0
SOUTHBOUND	280	2000	270	110

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	404	N/A	N/A	N/A	420	411
EASTBOUND	220	N/A	140	N/A	68	N/A
NORTHBOUND	204	N/A	700	700	N/A	N/A
SOUTHBOUND	154	N/A	667	N/A	270	N/A

EAST-WEST CRITICAL VOLUMES	640
NORTH-SOUTH CRITICAL VOLUMES	871
THE SUM OF CRITICAL VOLUMES	1511
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.944
LEVEL OF SERVICE	E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	630	130	406	154
EASTBOUND	400	140	0	170
NORTHBOUND	370	1860	240	0
SOUTHBOUND	280	2000	0	380

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	0	1	1	0	4
EASTBOUND	2	1	0	0	1	0	4
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	315	N/A	N/A	268	268	N/A
EASTBOUND	166	239	N/A	N/A	0	N/A
NORTHBOUND	204	N/A	525	525	N/A	N/A
SOUTHBOUND	154	N/A	500	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	554
NORTH-SOUTH CRITICAL VOLUMES	704
THE SUM OF CRITICAL VOLUMES	1258
NUMBER OF CRITICAL CLEARANCE INTERVALS	9*
CMA VALUE	0.786
LEVEL OF SERVICE	C

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	600	160	451	99
EASTBOUND	340	130	8	102
NORTHBOUND	370	1910	230	0
SOUTHBOUND	300	2120	286	94

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	404	N/A	N/A	N/A	404	404
EASTBOUND	187	N/A	130	N/A	8	N/A
NORTHBOUND	204	N/A	713	713	N/A	N/A
SOUTHBOUND	165	N/A	707	N/A	286	N/A

EAST-WEST CRITICAL VOLUMES	591
NORTH-SOUTH CRITICAL VOLUMES	911
THE SUM OF CRITICAL VOLUMES	1502
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.939
LEVEL OF SERVICE	E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 21, Vineyard Avenue and Esplanade Drive
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	620	110	494	96
EASTBOUND	420	160	8	102
NORTHBOUND	370	1880	230	0
SOUTHBOUND	270	2070	304	116

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	2	0	0	1	1	0	4
NORTHBOUND	2	0	2	1	0	0	5
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	408	N/A	N/A	N/A	408	408
EASTBOUND	231	N/A	160	N/A	8	N/A
NORTHBOUND	204	N/A	703	703	N/A	N/A
SOUTHBOUND	148	N/A	690	N/A	304	N/A

EAST-WEST CRITICAL VOLUMES	639
NORTH-SOUTH CRITICAL VOLUMES	894
THE SUM OF CRITICAL VOLUMES	1533
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.958
LEVEL OF SERVICE	E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	190	210	125	15
EASTBOUND	80	430	50	0
NORTHBOUND	40	840	420	0
SOUTHBOUND	30	400	0	100

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	104	N/A	105	N/A	125	N/A
EASTBOUND	80	N/A	240	240	N/A	N/A
NORTHBOUND	40	N/A	420	420	N/A	N/A
SOUTHBOUND	30	N/A	200	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 344
NORTH-SOUTH CRITICAL VOLUMES 450

THE SUM OF CRITICAL VOLUMES 794

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.496

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	250	210	160	20
EASTBOUND	50	420	0	70
NORTHBOUND	90	980	711	69
SOUTHBOUND	40	530	0	70

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	138	N/A	105	N/A	160	N/A
EASTBOUND	50	N/A	210	N/A	0	N/A
NORTHBOUND	90	N/A	490	N/A	711	N/A
SOUTHBOUND	40	N/A	265	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 348
NORTH-SOUTH CRITICAL VOLUMES 751
THE SUM OF CRITICAL VOLUMES 1099

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.687

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	280	210	130	20
EASTBOUND	60	420	0	60
NORTHBOUND	80	1250	633	77
SOUTHBOUND	40	690	0	80

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	154	N/A	105	N/A	130	N/A
EASTBOUND	60	N/A	210	N/A	0	N/A
NORTHBOUND	80	N/A	625	N/A	633	N/A
SOUTHBOUND	40	N/A	345	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 364
NORTH-SOUTH CRITICAL VOLUMES 673
THE SUM OF CRITICAL VOLUMES 1037

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.648

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	280	210	130	20
EASTBOUND	60	420	0	60
NORTHBOUND	80	1250	556	154
SOUTHBOUND	40	690	80	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	154	N/A	105	N/A	130	N/A
EASTBOUND	60	N/A	210	N/A	0	N/A
NORTHBOUND	80	N/A	417	N/A	556	N/A
SOUTHBOUND	40	N/A	257	257	N/A	N/A

EAST-WEST CRITICAL VOLUMES 364
NORTH-SOUTH CRITICAL VOLUMES 596

THE SUM OF CRITICAL VOLUMES 960

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.600

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	250	210	155	25
EASTBOUND	70	430	0	60
NORTHBOUND	80	1360	680	50
SOUTHBOUND	50	940	0	80

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	138	N/A	105	N/A	155	N/A
EASTBOUND	70	N/A	215	N/A	0	N/A
NORTHBOUND	80	N/A	680	680	N/A	N/A
SOUTHBOUND	50	N/A	470	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 353
NORTH-SOUTH CRITICAL VOLUMES 730
THE SUM OF CRITICAL VOLUMES 1083

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.677

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	330	240	135	25
EASTBOUND	60	430	0	60
NORTHBOUND	80	1440	720	30
SOUTHBOUND	50	520	0	50

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	182	N/A	120	N/A	135	N/A
EASTBOUND	60	N/A	215	N/A	0	N/A
NORTHBOUND	80	N/A	720	720	N/A	N/A
SOUTHBOUND	50	N/A	260	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	397
NORTH-SOUTH CRITICAL VOLUMES	770
THE SUM OF CRITICAL VOLUMES	1167
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.729
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	420	310	7	153
EASTBOUND	60	300	30	0
NORTHBOUND	60	470	244	116
SOUTHBOUND	90	980	0	120

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	231	N/A	155	N/A	7	N/A
EASTBOUND	60	N/A	165	165	N/A	N/A
NORTHBOUND	60	N/A	235	N/A	244	N/A
SOUTHBOUND	90	N/A	490	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 396
NORTH-SOUTH CRITICAL VOLUMES 550
THE SUM OF CRITICAL VOLUMES 946

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.591

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	770	330	85	95
EASTBOUND	30	300	0	40
NORTHBOUND	90	760	558	212
SOUTHBOUND	190	1180	0	60

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	424	N/A	165	N/A	85	N/A
EASTBOUND	30	N/A	150	N/A	0	N/A
NORTHBOUND	90	N/A	380	N/A	558	N/A
SOUTHBOUND	190	N/A	590	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 574
NORTH-SOUTH CRITICAL VOLUMES 748

THE SUM OF CRITICAL VOLUMES 1322

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.826

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	610	410	32	168
EASTBOUND	70	310	0	50
NORTHBOUND	100	1120	560	130
SOUTHBOUND	330	1590	0	90

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	335	N/A	205	N/A	32	N/A
EASTBOUND	70	N/A	155	N/A	0	N/A
NORTHBOUND	100	N/A	560	560	N/A	N/A
SOUTHBOUND	330	N/A	795	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 490
NORTH-SOUTH CRITICAL VOLUMES 895
THE SUM OF CRITICAL VOLUMES 1385

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.866

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	610	410	35	165
EASTBOUND	70	310	0	50
NORTHBOUND	100	1120	355	335
SOUTHBOUND	330	1590	90	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	3	0	1	0	5
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	335	N/A	205	N/A	35	N/A
EASTBOUND	70	N/A	155	N/A	0	N/A
NORTHBOUND	100	N/A	373	N/A	355	N/A
SOUTHBOUND	330	N/A	560	560	N/A	N/A

EAST-WEST CRITICAL VOLUMES	490
NORTH-SOUTH CRITICAL VOLUMES	703
THE SUM OF CRITICAL VOLUMES	1193
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.746
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	570	450	72	168
EASTBOUND	70	330	10	50
NORTHBOUND	100	1210	605	75
SOUTHBOUND	320	1680	0	90

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	314	N/A	225	N/A	72	N/A
EASTBOUND	70	N/A	165	N/A	10	N/A
NORTHBOUND	100	N/A	605	605	N/A	N/A
SOUTHBOUND	320	N/A	840	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 479
NORTH-SOUTH CRITICAL VOLUMES 940

THE SUM OF CRITICAL VOLUMES 1419

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.887

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 22, Vineyard Avenue and N. Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	610	480	30	200
EASTBOUND	40	330	0	40
NORTHBOUND	90	1120	560	160
SOUTHBOUND	400	1700	0	110

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	335	N/A	240	N/A	30	N/A
EASTBOUND	40	N/A	165	N/A	0	N/A
NORTHBOUND	90	N/A	560	560	N/A	N/A
SOUTHBOUND	400	N/A	850	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 500
NORTH-SOUTH CRITICAL VOLUMES 960
THE SUM OF CRITICAL VOLUMES 1460

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.913

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	300	410	80	0
EASTBOUND	100	630	131	39
NORTHBOUND	40	670	262	58
SOUTHBOUND	60	580	70	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	3	0	1	1	0	0	5
EASTBOUND	1	1	2	0	1	0	5
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	2	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	110	N/A	245	245	N/A	N/A
EASTBOUND	89	203	219	N/A	131	N/A
NORTHBOUND	22	N/A	223	N/A	262	N/A
SOUTHBOUND	33	N/A	217	217	N/A	N/A

EAST-WEST CRITICAL VOLUMES 334
NORTH-SOUTH CRITICAL VOLUMES 295

THE SUM OF CRITICAL VOLUMES 629

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.393

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	650	510	0	10
EASTBOUND	110	1310	239	71
NORTHBOUND	140	820	422	358
SOUTHBOUND	110	1020	0	50

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	358	N/A	170	N/A	0	N/A
EASTBOUND	60	N/A	437	N/A	239	N/A
NORTHBOUND	77	N/A	273	N/A	422	N/A
SOUTHBOUND	60	N/A	340	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 795
NORTH-SOUTH CRITICAL VOLUMES 482

THE SUM OF CRITICAL VOLUMES 1277

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.798

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	660	460	0	10
EASTBOUND	120	1300	175	135
NORTHBOUND	140	850	577	363
SOUTHBOUND	120	1120	0	70

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	363	N/A	153	N/A	0	N/A
EASTBOUND	66	N/A	433	N/A	175	N/A
NORTHBOUND	77	N/A	283	N/A	577	N/A
SOUTHBOUND	66	N/A	373	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 796
NORTH-SOUTH CRITICAL VOLUMES 643

THE SUM OF CRITICAL VOLUMES 1439

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.899

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	660	460	0	10
EASTBOUND	120	1300	221	89
NORTHBOUND	140	850	819	121
SOUTHBOUND	120	1120	70	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	3	0	3	0	1	0	7
EASTBOUND	1	0	3	0	1	0	5
NORTHBOUND	2	0	3	0	2	0	7
SOUTHBOUND	2	0	3	1	0	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	242	N/A	153	N/A	0	N/A
EASTBOUND	120	N/A	433	N/A	221	N/A
NORTHBOUND	77	N/A	283	N/A	410	N/A
SOUTHBOUND	66	N/A	298	298	N/A	N/A

EAST-WEST CRITICAL VOLUMES 675
NORTH-SOUTH CRITICAL VOLUMES 476

THE SUM OF CRITICAL VOLUMES 1151

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.719

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	670	440	0	10
EASTBOUND	140	1280	210	110
NORTHBOUND	140	950	532	368
SOUTHBOUND	110	1120	0	70

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	368	N/A	147	N/A	0	N/A
EASTBOUND	77	N/A	427	N/A	210	N/A
NORTHBOUND	77	N/A	317	N/A	532	N/A
SOUTHBOUND	60	N/A	373	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 795
NORTH-SOUTH CRITICAL VOLUMES 592

THE SUM OF CRITICAL VOLUMES 1387

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.867

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	650	650	0	10
EASTBOUND	160	1320	174	126
NORTHBOUND	140	910	562	358
SOUTHBOUND	90	1080	0	70

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	358	N/A	217	N/A	0	N/A
EASTBOUND	88	N/A	440	N/A	174	N/A
NORTHBOUND	77	N/A	303	N/A	562	N/A
SOUTHBOUND	50	N/A	360	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	798
NORTH-SOUTH CRITICAL VOLUMES	612
THE SUM OF CRITICAL VOLUMES	1410
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.881
LEVEL OF SERVICE	D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	560	690	120	0
EASTBOUND	120	630	0	130
NORTHBOUND	230	1140	648	102
SOUTHBOUND	150	770	110	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	3	0	1	1	0	0	5
EASTBOUND	1	1	2	0	1	0	5
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	2	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	187	N/A	405	405	N/A	N/A
EASTBOUND	69	123	279	N/A	0	N/A
NORTHBOUND	115	N/A	380	N/A	648	N/A
SOUTHBOUND	75	N/A	293	293	N/A	N/A

EAST-WEST CRITICAL VOLUMES 484
NORTH-SOUTH CRITICAL VOLUMES 723

THE SUM OF CRITICAL VOLUMES 1207

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.754

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	740	1260	0	20
EASTBOUND	100	930	35	175
NORTHBOUND	430	1270	663	407
SOUTHBOUND	170	1220	72	148

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	370	N/A	420	N/A	0	N/A
EASTBOUND	50	N/A	310	N/A	35	N/A
NORTHBOUND	215	N/A	423	N/A	663	N/A
SOUTHBOUND	85	N/A	407	N/A	72	N/A

EAST-WEST CRITICAL VOLUMES 680
NORTH-SOUTH CRITICAL VOLUMES 748

THE SUM OF CRITICAL VOLUMES 1428

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.893

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	1020	1120	0	20
EASTBOUND	80	980	64	116
NORTHBOUND	420	1410	569	561
SOUTHBOUND	140	1370	0	200

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	510	N/A	373	N/A	0	N/A
EASTBOUND	40	N/A	327	N/A	64	N/A
NORTHBOUND	210	N/A	470	N/A	569	N/A
SOUTHBOUND	70	N/A	457	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 837
NORTH-SOUTH CRITICAL VOLUMES 667

THE SUM OF CRITICAL VOLUMES 1504

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.940

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	1020	1120	0	20
EASTBOUND	80	980	64	116
NORTHBOUND	420	1410	943	187
SOUTHBOUND	140	1370	200	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	3	0	3	0	1	0	7
EASTBOUND	1	0	3	0	1	0	5
NORTHBOUND	2	0	3	0	2	0	7
SOUTHBOUND	2	0	3	1	0	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	340	N/A	373	N/A	0	N/A
EASTBOUND	80	N/A	327	N/A	64	N/A
NORTHBOUND	210	N/A	470	N/A	472	N/A
SOUTHBOUND	70	N/A	392	392	N/A	N/A

EAST-WEST CRITICAL VOLUMES 667
NORTH-SOUTH CRITICAL VOLUMES 602
THE SUM OF CRITICAL VOLUMES 1269

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.793

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	1080	1140	0	20
EASTBOUND	100	1030	74	116
NORTHBOUND	420	1540	536	594
SOUTHBOUND	160	1300	0	210

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	540	N/A	380	N/A	0	N/A
EASTBOUND	50	N/A	343	N/A	74	N/A
NORTHBOUND	210	N/A	513	N/A	536	N/A
SOUTHBOUND	80	N/A	433	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 883
NORTH-SOUTH CRITICAL VOLUMES 643
THE SUM OF CRITICAL VOLUMES 1526

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.954

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 23, Vineyard Avenue and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	980	1230	0	20
EASTBOUND	100	1020	62	128
NORTHBOUND	450	1340	581	539
SOUTHBOUND	180	1270	0	230

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	490	N/A	410	N/A	0	N/A
EASTBOUND	50	N/A	340	N/A	62	N/A
NORTHBOUND	225	N/A	447	N/A	581	N/A
SOUTHBOUND	90	N/A	423	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 830
NORTH-SOUTH CRITICAL VOLUMES 671

THE SUM OF CRITICAL VOLUMES 1501

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.938

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	230	510	110	0
EASTBOUND	240	570	190	0
NORTHBOUND	320	930	290	0
SOUTHBOUND	180	780	140	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	1	1	0	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	126	N/A	310	310	N/A	N/A
EASTBOUND	240	N/A	380	380	N/A	N/A
NORTHBOUND	320	N/A	407	407	N/A	N/A
SOUTHBOUND	180	N/A	307	307	N/A	N/A

EAST-WEST CRITICAL VOLUMES 550
NORTH-SOUTH CRITICAL VOLUMES 627

THE SUM OF CRITICAL VOLUMES 1177

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.736

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	460	960	95	95
EASTBOUND	430	770	198	152
NORTHBOUND	550	1270	320	150
SOUTHBOUND	190	930	92	118

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	253	N/A	320	N/A	95	N/A
EASTBOUND	236	N/A	257	N/A	198	N/A
NORTHBOUND	303	N/A	423	N/A	320	N/A
SOUTHBOUND	104	N/A	310	N/A	92	N/A

EAST-WEST CRITICAL VOLUMES 556
NORTH-SOUTH CRITICAL VOLUMES 613

THE SUM OF CRITICAL VOLUMES 1169

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.731

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	450	1000	126	94
EASTBOUND	490	870	202	148
NORTHBOUND	540	1390	234	156
SOUTHBOUND	200	1060	175	135

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	248	N/A	333	N/A	126	N/A
EASTBOUND	270	N/A	290	N/A	202	N/A
NORTHBOUND	297	N/A	463	N/A	234	N/A
SOUTHBOUND	110	N/A	353	N/A	175	N/A

EAST-WEST CRITICAL VOLUMES	603
NORTH-SOUTH CRITICAL VOLUMES	650
THE SUM OF CRITICAL VOLUMES	1253
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.783
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	450	1000	113	107
EASTBOUND	490	870	202	148
NORTHBOUND	540	1390	266	124
SOUTHBOUND	200	1060	166	144

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	4	0	1	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	1	1	0	7
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	248	N/A	250	N/A	113	N/A
EASTBOUND	270	N/A	290	N/A	202	N/A
NORTHBOUND	297	N/A	348	N/A	266	N/A
SOUTHBOUND	110	N/A	265	N/A	166	N/A

EAST-WEST CRITICAL VOLUMES 538
NORTH-SOUTH CRITICAL VOLUMES 562
THE SUM OF CRITICAL VOLUMES 1100

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.688

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	460	980	153	107
EASTBOUND	500	840	172	148
NORTHBOUND	540	1450	209	161
SOUTHBOUND	310	1200	162	138

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	253	N/A	327	N/A	153	N/A
EASTBOUND	275	N/A	280	N/A	172	N/A
NORTHBOUND	297	N/A	483	N/A	209	N/A
SOUTHBOUND	170	N/A	400	N/A	162	N/A

EAST-WEST CRITICAL VOLUMES 602
NORTH-SOUTH CRITICAL VOLUMES 697

THE SUM OF CRITICAL VOLUMES 1299

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.812

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	550	990	185	85
EASTBOUND	570	880	154	156
NORTHBOUND	570	1470	174	176
SOUTHBOUND	180	1040	53	157

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	302	N/A	330	N/A	185	N/A
EASTBOUND	314	N/A	293	N/A	154	N/A
NORTHBOUND	313	N/A	490	N/A	174	N/A
SOUTHBOUND	99	N/A	347	N/A	53	N/A

EAST-WEST CRITICAL VOLUMES 644
NORTH-SOUTH CRITICAL VOLUMES 660
THE SUM OF CRITICAL VOLUMES 1304

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.815

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	530	440	150	0
EASTBOUND	190	460	110	0
NORTHBOUND	100	810	370	0
SOUTHBOUND	130	1120	110	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	1	1	0	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	291	N/A	295	295	N/A	N/A
EASTBOUND	190	N/A	285	285	N/A	N/A
NORTHBOUND	100	N/A	393	393	N/A	N/A
SOUTHBOUND	130	N/A	410	410	N/A	N/A

EAST-WEST CRITICAL VOLUMES 576
NORTH-SOUTH CRITICAL VOLUMES 523

THE SUM OF CRITICAL VOLUMES 1099

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.687

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	700	1240	118	52
EASTBOUND	450	650	330	60
NORTHBOUND	170	1350	508	192
SOUTHBOUND	190	1480	179	151

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	385	N/A	413	N/A	118	N/A
EASTBOUND	248	N/A	217	N/A	330	N/A
NORTHBOUND	94	N/A	450	N/A	508	N/A
SOUTHBOUND	104	N/A	493	N/A	179	N/A

EAST-WEST CRITICAL VOLUMES 715
NORTH-SOUTH CRITICAL VOLUMES 612

THE SUM OF CRITICAL VOLUMES 1327

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.829

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	710	1450	152	78
EASTBOUND	560	820	326	44
NORTHBOUND	160	1400	478	232
SOUTHBOUND	230	1640	206	154

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	390	N/A	483	N/A	152	N/A
EASTBOUND	308	N/A	273	N/A	326	N/A
NORTHBOUND	88	N/A	467	N/A	478	N/A
SOUTHBOUND	126	N/A	547	N/A	206	N/A

EAST-WEST CRITICAL VOLUMES	791
NORTH-SOUTH CRITICAL VOLUMES	635
THE SUM OF CRITICAL VOLUMES	1426
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.891
LEVEL OF SERVICE	D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	710	1450	167	63
EASTBOUND	560	820	320	50
NORTHBOUND	160	1400	515	195
SOUTHBOUND	230	1640	186	174

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	4	0	1	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	1	1	0	7
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	390	N/A	362	N/A	167	N/A
EASTBOUND	308	N/A	273	N/A	320	N/A
NORTHBOUND	88	N/A	383	383	383	N/A
SOUTHBOUND	126	N/A	410	N/A	186	N/A

EAST-WEST CRITICAL VOLUMES 710
NORTH-SOUTH CRITICAL VOLUMES 509

THE SUM OF CRITICAL VOLUMES 1219

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.762

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	660	1400	185	85
EASTBOUND	560	800	312	38
NORTHBOUND	140	1440	448	232
SOUTHBOUND	230	1720	166	154

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	363	N/A	467	N/A	185	N/A
EASTBOUND	308	N/A	267	N/A	312	N/A
NORTHBOUND	77	N/A	480	N/A	448	N/A
SOUTHBOUND	126	N/A	573	N/A	166	N/A

EAST-WEST CRITICAL VOLUMES	775
NORTH-SOUTH CRITICAL VOLUMES	650
THE SUM OF CRITICAL VOLUMES	1425
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.891
LEVEL OF SERVICE	D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 24, Gonzales Road and Ventura Road
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	710	1480	150	90
EASTBOUND	590	800	326	44
NORTHBOUND	160	1410	464	246
SOUTHBOUND	300	1690	178	162

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	390	N/A	493	N/A	150	N/A
EASTBOUND	324	N/A	267	N/A	326	N/A
NORTHBOUND	88	N/A	470	N/A	464	N/A
SOUTHBOUND	165	N/A	563	N/A	178	N/A

EAST-WEST CRITICAL VOLUMES 817
NORTH-SOUTH CRITICAL VOLUMES 651

THE SUM OF CRITICAL VOLUMES 1468

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.917

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	140	410	192	38
EASTBOUND	230	890	84	36
NORTHBOUND	130	870	102	38
SOUTHBOUND	130	880	0	70

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	0	1	0	5
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	77	N/A	137	N/A	192	N/A
EASTBOUND	126	N/A	445	N/A	84	N/A
NORTHBOUND	72	N/A	290	N/A	102	N/A
SOUTHBOUND	72	N/A	293	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 522
NORTH-SOUTH CRITICAL VOLUMES 365

THE SUM OF CRITICAL VOLUMES 887

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.554

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	140	660	281	99
EASTBOUND	120	1250	140	130
NORTHBOUND	240	1050	412	38
SOUTHBOUND	360	1340	60	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	2	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	4	0	1	0	7
SOUTHBOUND	2	0	3	1	0	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	77	N/A	220	N/A	140	N/A
EASTBOUND	66	N/A	417	N/A	140	N/A
NORTHBOUND	132	N/A	262	N/A	412	N/A
SOUTHBOUND	198	N/A	350	350	N/A	N/A

EAST-WEST CRITICAL VOLUMES 494
NORTH-SOUTH CRITICAL VOLUMES 610

THE SUM OF CRITICAL VOLUMES 1104

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.690

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	170	730	283	107
EASTBOUND	130	1280	158	92
NORTHBOUND	230	1210	343	47
SOUTHBOUND	390	1430	60	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	2	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	4	0	1	0	7
SOUTHBOUND	2	0	3	1	0	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	94	N/A	243	N/A	142	N/A
EASTBOUND	71	N/A	427	N/A	158	N/A
NORTHBOUND	126	N/A	302	N/A	343	N/A
SOUTHBOUND	214	N/A	372	372	N/A	N/A

EAST-WEST CRITICAL VOLUMES 521
NORTH-SOUTH CRITICAL VOLUMES 557

THE SUM OF CRITICAL VOLUMES 1078

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.674

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	170	730	283	107
EASTBOUND	130	1280	143	107
NORTHBOUND	230	0	0	390
SOUTHBOUND	390	0	0	60

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	2	0	1	0	5
EASTBOUND	2	0	2	0	1	0	5
NORTHBOUND	2	0	0	0	1	0	3
SOUTHBOUND	2	0	0	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	94	N/A	365	N/A	283	N/A
EASTBOUND	71	N/A	640	N/A	143	N/A
NORTHBOUND	126	N/A	N/A	N/A	0	N/A
SOUTHBOUND	214	N/A	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 734
NORTH-SOUTH CRITICAL VOLUMES 214

THE SUM OF CRITICAL VOLUMES 948

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.592

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	160	720	293	107
EASTBOUND	120	1260	0	260
NORTHBOUND	230	0	356	44
SOUTHBOUND	390	0	0	60

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	2	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	0	0	1	0	3
SOUTHBOUND	2	0	0	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	88	N/A	240	N/A	146	N/A
EASTBOUND	66	N/A	420	N/A	0	N/A
NORTHBOUND	126	N/A	N/A	N/A	356	N/A
SOUTHBOUND	214	N/A	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 508
NORTH-SOUTH CRITICAL VOLUMES 570
THE SUM OF CRITICAL VOLUMES 1078

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.674

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	160	720	293	107
EASTBOUND	120	1220	0	270
NORTHBOUND	240	0	356	44
SOUTHBOUND	390	0	0	50

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	0	1	0	5
NORTHBOUND	2	0	0	0	1	0	3
SOUTHBOUND	2	0	0	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	88	N/A	240	N/A	293	N/A
EASTBOUND	66	N/A	610	N/A	0	N/A
NORTHBOUND	132	N/A	N/A	N/A	356	N/A
SOUTHBOUND	214	N/A	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	698
NORTH-SOUTH CRITICAL VOLUMES	570
THE SUM OF CRITICAL VOLUMES	1268
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.792
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	360	1020	213	67
EASTBOUND	270	810	83	47
NORTHBOUND	170	1220	201	99
SOUTHBOUND	190	1340	0	120

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	0	1	0	5
NORTHBOUND	2	0	3	0	1	0	6
SOUTHBOUND	2	0	3	0	1	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	198	N/A	340	N/A	213	N/A
EASTBOUND	148	N/A	405	N/A	83	N/A
NORTHBOUND	94	N/A	407	N/A	201	N/A
SOUTHBOUND	104	N/A	447	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 603
NORTH-SOUTH CRITICAL VOLUMES 541

THE SUM OF CRITICAL VOLUMES 1144

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.715

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	600	1600	448	102
EASTBOUND	190	1360	154	106
NORTHBOUND	340	1650	305	165
SOUTHBOUND	370	1590	30	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	2	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	4	0	1	0	7
SOUTHBOUND	2	0	3	1	0	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	330	N/A	533	N/A	224	N/A
EASTBOUND	104	N/A	453	N/A	154	N/A
NORTHBOUND	187	N/A	412	N/A	305	N/A
SOUTHBOUND	204	N/A	405	405	N/A	N/A

EAST-WEST CRITICAL VOLUMES 783
NORTH-SOUTH CRITICAL VOLUMES 616

THE SUM OF CRITICAL VOLUMES 1399

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.874

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	540	1750	436	124
EASTBOUND	220	1550	110	110
NORTHBOUND	400	1810	302	148
SOUTHBOUND	370	1860	60	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	2	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	4	0	1	0	7
SOUTHBOUND	2	0	3	1	0	0	6

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	297	N/A	583	N/A	218	N/A
EASTBOUND	121	N/A	517	N/A	110	N/A
NORTHBOUND	220	N/A	452	N/A	302	N/A
SOUTHBOUND	204	N/A	480	480	N/A	N/A

EAST-WEST CRITICAL VOLUMES 814
NORTH-SOUTH CRITICAL VOLUMES 700

THE SUM OF CRITICAL VOLUMES 1514

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.946

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	540	1750	450	110
EASTBOUND	220	1550	110	110
NORTHBOUND	400	0	0	450
SOUTHBOUND	370	0	0	60

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	0	0	1	0	3
SOUTHBOUND	2	0	0	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	297	N/A	583	N/A	450	N/A
EASTBOUND	121	N/A	517	N/A	110	N/A
NORTHBOUND	220	N/A	N/A	N/A	0	N/A
SOUTHBOUND	204	N/A	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 814
NORTH-SOUTH CRITICAL VOLUMES 220

THE SUM OF CRITICAL VOLUMES 1034

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.646

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	560	1700	478	102
EASTBOUND	240	1510	0	230
NORTHBOUND	360	0	296	154
SOUTHBOUND	370	0	0	50

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	2	0	7
EASTBOUND	2	0	3	0	1	0	6
NORTHBOUND	2	0	0	0	1	0	3
SOUTHBOUND	2	0	0	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	308	N/A	567	N/A	239	N/A
EASTBOUND	132	N/A	503	N/A	0	N/A
NORTHBOUND	198	N/A	N/A	N/A	296	N/A
SOUTHBOUND	204	N/A	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 811
NORTH-SOUTH CRITICAL VOLUMES 500

THE SUM OF CRITICAL VOLUMES 1311

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.819

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 25, Gonzales Road and Oxnard Boulevard
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	590	1630	471	99
EASTBOUND	210	1570	22	238
NORTHBOUND	390	0	278	162
SOUTHBOUND	360	0	0	40

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	0	1	0	5
NORTHBOUND	2	0	0	0	1	0	3
SOUTHBOUND	2	0	0	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	324	N/A	543	N/A	471	N/A
EASTBOUND	116	N/A	785	N/A	22	N/A
NORTHBOUND	214	N/A	N/A	N/A	278	N/A
SOUTHBOUND	198	N/A	N/A	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	1109
NORTH-SOUTH CRITICAL VOLUMES	476
THE SUM OF CRITICAL VOLUMES	1585
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.991
LEVEL OF SERVICE	E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	293	568	7	60
EASTBOUND	302	256	124	0
NORTHBOUND	164	1279	173	0
SOUTHBOUND	220	1195	282	83

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	161	N/A	189	N/A	7	N/A
EASTBOUND	166	N/A	127	127	N/A	N/A
NORTHBOUND	90	N/A	363	363	N/A	N/A
SOUTHBOUND	121	N/A	299	N/A	282	N/A

EAST-WEST CRITICAL VOLUMES 355
NORTH-SOUTH CRITICAL VOLUMES 484

THE SUM OF CRITICAL VOLUMES 839

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.524

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	309	598	7	64
EASTBOUND	318	270	131	0
NORTHBOUND	173	1347	182	0
SOUTHBOUND	232	1259	296	88

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	170	N/A	199	N/A	7	N/A
EASTBOUND	175	N/A	134	134	N/A	N/A
NORTHBOUND	95	N/A	382	382	N/A	N/A
SOUTHBOUND	128	N/A	315	N/A	296	N/A

EAST-WEST CRITICAL VOLUMES 374
NORTH-SOUTH CRITICAL VOLUMES 510

THE SUM OF CRITICAL VOLUMES 884

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.552

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	340	598	7	64
EASTBOUND	318	270	135	16
NORTHBOUND	180	1420	209	0
SOUTHBOUND	232	1323	296	88

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	187	N/A	199	N/A	7	N/A
EASTBOUND	175	N/A	135	135	N/A	N/A
NORTHBOUND	99	N/A	407	407	N/A	N/A
SOUTHBOUND	128	N/A	331	N/A	296	N/A

EAST-WEST CRITICAL VOLUMES 374
NORTH-SOUTH CRITICAL VOLUMES 535

THE SUM OF CRITICAL VOLUMES 909

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.568

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	320	598	7	64
EASTBOUND	318	273	136	12
NORTHBOUND	182	1389	186	0
SOUTHBOUND	232	1302	296	88

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	176	N/A	199	N/A	7	N/A
EASTBOUND	175	N/A	136	136	N/A	N/A
NORTHBOUND	100	N/A	394	394	N/A	N/A
SOUTHBOUND	128	N/A	326	N/A	296	N/A

EAST-WEST CRITICAL VOLUMES	374
NORTH-SOUTH CRITICAL VOLUMES	522
THE SUM OF CRITICAL VOLUMES	896
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.560
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	337	598	7	64
EASTBOUND	318	270	135	10
NORTHBOUND	181	1379	191	0
SOUTHBOUND	232	1335	296	88

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	185	N/A	199	N/A	7	N/A
EASTBOUND	175	N/A	135	135	N/A	N/A
NORTHBOUND	100	N/A	392	392	N/A	N/A
SOUTHBOUND	128	N/A	334	N/A	296	N/A

EAST-WEST CRITICAL VOLUMES 374
NORTH-SOUTH CRITICAL VOLUMES 520

THE SUM OF CRITICAL VOLUMES 894

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.559

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	363	501	213	72
EASTBOUND	350	500	250	34
NORTHBOUND	248	1164	251	0
SOUTHBOUND	264	1449	283	118

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	200	N/A	167	N/A	213	N/A
EASTBOUND	192	N/A	250	250	N/A	N/A
NORTHBOUND	136	N/A	354	354	N/A	N/A
SOUTHBOUND	145	N/A	362	N/A	283	N/A

EAST-WEST CRITICAL VOLUMES 450
NORTH-SOUTH CRITICAL VOLUMES 499

THE SUM OF CRITICAL VOLUMES 949

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.593

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	382	528	223	77
EASTBOUND	369	527	264	35
NORTHBOUND	261	1226	264	0
SOUTHBOUND	278	1526	296	126

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	210	N/A	176	N/A	223	N/A
EASTBOUND	203	N/A	264	N/A	264	N/A
NORTHBOUND	144	N/A	372	372	N/A	N/A
SOUTHBOUND	153	N/A	382	N/A	296	N/A

EAST-WEST CRITICAL VOLUMES	474
NORTH-SOUTH CRITICAL VOLUMES	526
THE SUM OF CRITICAL VOLUMES	1000
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.625
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	445	528	224	76
EASTBOUND	369	527	264	60
NORTHBOUND	269	1343	309	0
SOUTHBOUND	278	1666	280	142

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	245	N/A	176	N/A	224	N/A
EASTBOUND	203	N/A	264	N/A	264	N/A
NORTHBOUND	148	N/A	413	413	N/A	N/A
SOUTHBOUND	153	N/A	416	N/A	280	N/A

EAST-WEST CRITICAL VOLUMES 509
NORTH-SOUTH CRITICAL VOLUMES 566
THE SUM OF CRITICAL VOLUMES 1075

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.672

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	406	528	224	76
EASTBOUND	369	539	270	43
NORTHBOUND	276	1312	283	0
SOUTHBOUND	278	1583	288	134

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	223	N/A	176	N/A	224	N/A
EASTBOUND	203	N/A	270	N/A	270	N/A
NORTHBOUND	152	N/A	399	399	N/A	N/A
SOUTHBOUND	153	N/A	396	N/A	288	N/A

EAST-WEST CRITICAL VOLUMES 493
NORTH-SOUTH CRITICAL VOLUMES 552
THE SUM OF CRITICAL VOLUMES 1045

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.653

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 26, VICTORIA AVENUE AND TELEPHONE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	425	528	223	77
EASTBOUND	369	527	264	56
NORTHBOUND	267	1306	294	0
SOUTHBOUND	278	1627	284	138

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	3	0	1	0	6
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	2	0	3	1	0	0	6
SOUTHBOUND	2	0	4	0	1	0	7

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	234	N/A	176	N/A	223	N/A
EASTBOUND	203	N/A	264	N/A	264	N/A
NORTHBOUND	147	N/A	400	400	N/A	N/A
SOUTHBOUND	153	N/A	407	N/A	284	N/A

EAST-WEST CRITICAL VOLUMES 498
NORTH-SOUTH CRITICAL VOLUMES 554
THE SUM OF CRITICAL VOLUMES 1052

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.658

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	198	201	15	153
EASTBOUND	87	75	50	124
NORTHBOUND	247	1315	88	0
SOUTHBOUND	118	1500	141	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	198	N/A	201	N/A	15	N/A
EASTBOUND	87	N/A	75	N/A	50	N/A
NORTHBOUND	247	N/A	351	351	N/A	N/A
SOUTHBOUND	118	N/A	410	410	N/A	N/A

EAST-WEST CRITICAL VOLUMES 288
NORTH-SOUTH CRITICAL VOLUMES 657

THE SUM OF CRITICAL VOLUMES 945

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.591

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	208	211	16	161
EASTBOUND	91	79	53	130
NORTHBOUND	260	1382	93	0
SOUTHBOUND	124	1577	148	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	208	N/A	211	N/A	16	N/A
EASTBOUND	91	N/A	79	N/A	53	N/A
NORTHBOUND	260	N/A	369	369	N/A	N/A
SOUTHBOUND	124	N/A	431	431	N/A	N/A

EAST-WEST CRITICAL VOLUMES 302
NORTH-SOUTH CRITICAL VOLUMES 691

THE SUM OF CRITICAL VOLUMES 993

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.621

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	216	211	13	164
EASTBOUND	91	79	59	132
NORTHBOUND	263	1489	97	0
SOUTHBOUND	124	1692	148	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	216	N/A	211	N/A	13	N/A
EASTBOUND	91	N/A	79	N/A	59	N/A
NORTHBOUND	263	N/A	396	396	N/A	N/A
SOUTHBOUND	124	N/A	460	460	N/A	N/A

EAST-WEST CRITICAL VOLUMES 302
NORTH-SOUTH CRITICAL VOLUMES 723

THE SUM OF CRITICAL VOLUMES 1025

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.641

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	212	211	13	164
EASTBOUND	91	79	59	132
NORTHBOUND	263	1437	96	0
SOUTHBOUND	124	1648	148	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	212	N/A	211	N/A	13	N/A
EASTBOUND	91	N/A	79	N/A	59	N/A
NORTHBOUND	263	N/A	383	383	N/A	N/A
SOUTHBOUND	124	N/A	449	449	N/A	N/A

EAST-WEST CRITICAL VOLUMES 302
NORTH-SOUTH CRITICAL VOLUMES 712
THE SUM OF CRITICAL VOLUMES 1014

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.634

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	225	211	7	170
EASTBOUND	91	79	61	130
NORTHBOUND	261	1431	94	0
SOUTHBOUND	124	1695	148	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	225	N/A	211	N/A	7	N/A
EASTBOUND	91	N/A	79	N/A	61	N/A
NORTHBOUND	261	N/A	381	381	N/A	N/A
SOUTHBOUND	124	N/A	461	461	N/A	N/A

EAST-WEST CRITICAL VOLUMES 304
NORTH-SOUTH CRITICAL VOLUMES 722

THE SUM OF CRITICAL VOLUMES 1026

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.641

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	293	129	0	142
EASTBOUND	95	207	172	122
NORTHBOUND	243	1400	223	0
SOUTHBOUND	286	1845	95	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	293	N/A	129	N/A	0	N/A
EASTBOUND	95	N/A	207	N/A	172	N/A
NORTHBOUND	243	N/A	406	406	N/A	N/A
SOUTHBOUND	286	N/A	485	485	N/A	N/A

EAST-WEST CRITICAL VOLUMES 500
NORTH-SOUTH CRITICAL VOLUMES 728

THE SUM OF CRITICAL VOLUMES 1228

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.767

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	308	136	0	149
EASTBOUND	100	218	181	128
NORTHBOUND	255	1472	234	0
SOUTHBOUND	301	1939	100	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	308	N/A	136	N/A	0	N/A
EASTBOUND	100	N/A	218	N/A	181	N/A
NORTHBOUND	255	N/A	426	426	N/A	N/A
SOUTHBOUND	301	N/A	510	510	N/A	N/A

EAST-WEST CRITICAL VOLUMES 526
NORTH-SOUTH CRITICAL VOLUMES 765

THE SUM OF CRITICAL VOLUMES 1291

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.807

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	318	136	0	149
EASTBOUND	100	218	189	134
NORTHBOUND	268	1637	240	0
SOUTHBOUND	301	2170	100	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	318	N/A	136	N/A	0	N/A
EASTBOUND	100	N/A	218	N/A	189	N/A
NORTHBOUND	268	N/A	469	469	N/A	N/A
SOUTHBOUND	301	N/A	568	568	N/A	N/A

EAST-WEST CRITICAL VOLUMES 536
NORTH-SOUTH CRITICAL VOLUMES 836

THE SUM OF CRITICAL VOLUMES 1372

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.858

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	308	139	0	149
EASTBOUND	100	233	177	132
NORTHBOUND	264	1597	245	0
SOUTHBOUND	301	2033	104	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	308	N/A	139	N/A	0	N/A
EASTBOUND	100	N/A	233	N/A	177	N/A
NORTHBOUND	264	N/A	460	460	N/A	N/A
SOUTHBOUND	301	N/A	534	534	N/A	N/A

EAST-WEST CRITICAL VOLUMES 541
NORTH-SOUTH CRITICAL VOLUMES 798

THE SUM OF CRITICAL VOLUMES 1339

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.837

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 27, VICTORIA AVENUE AND RALSTON STREET
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	318	136	0	149
EASTBOUND	100	218	184	136
NORTHBOUND	273	1591	241	0
SOUTHBOUND	301	2108	100	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	3	1	0	0	5
SOUTHBOUND	1	0	3	1	0	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	318	N/A	136	N/A	0	N/A
EASTBOUND	100	N/A	218	N/A	184	N/A
NORTHBOUND	273	N/A	458	458	N/A	N/A
SOUTHBOUND	301	N/A	552	552	N/A	N/A

EAST-WEST CRITICAL VOLUMES 536
NORTH-SOUTH CRITICAL VOLUMES 825

THE SUM OF CRITICAL VOLUMES 1361

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.851

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	490	0	706	133
EASTBOUND	0	0	0	0
NORTHBOUND	185	737	0	0
SOUTHBOUND	0	1640	0	260

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	299	N/A	N/A	N/A	299	299
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	102	N/A	246	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	410	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 299
NORTH-SOUTH CRITICAL VOLUMES 512

THE SUM OF CRITICAL VOLUMES 811

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.507

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	549	0	791	149
EASTBOUND	0	0	0	0
NORTHBOUND	207	826	0	0
SOUTHBOUND	0	1837	0	291

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	335	N/A	N/A	N/A	335	335
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	114	N/A	275	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	459	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 335
NORTH-SOUTH CRITICAL VOLUMES 573

THE SUM OF CRITICAL VOLUMES 908

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.568

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	582	0	904	168
EASTBOUND	0	0	0	0
NORTHBOUND	207	826	0	0
SOUTHBOUND	0	1993	0	291

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	372	N/A	N/A	N/A	372	372
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	114	N/A	275	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	498	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	372
NORTH-SOUTH CRITICAL VOLUMES	612
THE SUM OF CRITICAL VOLUMES	984
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.615
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	573	0	849	162
EASTBOUND	0	0	0	0
NORTHBOUND	207	826	0	0
SOUTHBOUND	0	1936	0	291

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	356	N/A	N/A	N/A	356	356
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	114	N/A	275	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	484	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 356
NORTH-SOUTH CRITICAL VOLUMES 598

THE SUM OF CRITICAL VOLUMES 954

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.596

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	556	0	824	170
EASTBOUND	0	0	0	0
NORTHBOUND	207	826	0	0
SOUTHBOUND	0	2003	0	291

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	345	N/A	N/A	N/A	345	345
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	114	N/A	275	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	501	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	345
NORTH-SOUTH CRITICAL VOLUMES	615
THE SUM OF CRITICAL VOLUMES	960
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.600
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	240	0	650	114
EASTBOUND	0	0	0	0
NORTHBOUND	254	1244	0	0
SOUTHBOUND	0	2018	0	366

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	222	N/A	N/A	N/A	222	222
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	140	N/A	415	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	504	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	222
NORTH-SOUTH CRITICAL VOLUMES	644
THE SUM OF CRITICAL VOLUMES	866
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.541
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	269	0	728	128
EASTBOUND	0	0	0	0
NORTHBOUND	285	1394	0	0
SOUTHBOUND	0	2261	0	410

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	249	N/A	N/A	N/A	249	249
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	157	N/A	465	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	565	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 249
NORTH-SOUTH CRITICAL VOLUMES 722

THE SUM OF CRITICAL VOLUMES 971

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.607

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	293	0	917	172
EASTBOUND	0	0	0	0
NORTHBOUND	285	1394	0	0
SOUTHBOUND	0	2607	0	410

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	293	N/A	N/A	306	306	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	157	N/A	465	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	652	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 306
NORTH-SOUTH CRITICAL VOLUMES 809

THE SUM OF CRITICAL VOLUMES 1115

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.697

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	292	0	882	150
EASTBOUND	0	0	0	0
NORTHBOUND	285	1395	0	0
SOUTHBOUND	0	2430	0	410

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	292	N/A	N/A	294	294	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	157	N/A	465	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	608	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES	294
NORTH-SOUTH CRITICAL VOLUMES	765
THE SUM OF CRITICAL VOLUMES	1059
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.662
LEVEL OF SERVICE	B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 28, VICTORIA AVENUE AND U.S.-101 NB RAMPS
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	305	0	894	160
EASTBOUND	0	0	0	0
NORTHBOUND	285	1394	0	0
SOUTHBOUND	0	2508	0	410

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	2	1	4
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	2	0	3	0	0	0	5
SOUTHBOUND	0	0	4	0	1	0	5

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	300	N/A	N/A	N/A	300	300
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	157	N/A	465	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	627	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 300
NORTH-SOUTH CRITICAL VOLUMES 784
THE SUM OF CRITICAL VOLUMES 1084

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.677

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	454	0	0	99
EASTBOUND	0	0	0	0
NORTHBOUND	49	242	0	980
SOUTHBOUND	0	759	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	227	227	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	49	N/A	121	N/A	0	N/A
SOUTHBOUND	0	N/A	380	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 227
NORTH-SOUTH CRITICAL VOLUMES 429

THE SUM OF CRITICAL VOLUMES 656

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.410

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	554	0	0	121
EASTBOUND	0	0	0	0
NORTHBOUND	60	295	0	1196
SOUTHBOUND	0	926	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	277	277	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	60	N/A	148	N/A	0	N/A
SOUTHBOUND	0	N/A	463	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 277
NORTH-SOUTH CRITICAL VOLUMES 523

THE SUM OF CRITICAL VOLUMES 800

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.500

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	554	0	0	121
EASTBOUND	0	0	0	0
NORTHBOUND	60	318	0	1226
SOUTHBOUND	0	930	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	277	277	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	60	N/A	159	N/A	0	N/A
SOUTHBOUND	0	N/A	465	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 277
NORTH-SOUTH CRITICAL VOLUMES 525

THE SUM OF CRITICAL VOLUMES 802

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.501

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	554	0	0	121
EASTBOUND	0	0	0	0
NORTHBOUND	60	317	0	1196
SOUTHBOUND	0	930	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	277	277	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	60	N/A	158	N/A	0	N/A
SOUTHBOUND	0	N/A	465	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 277
NORTH-SOUTH CRITICAL VOLUMES 525
THE SUM OF CRITICAL VOLUMES 802

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.501

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	554	0	0	121
EASTBOUND	0	0	0	0
NORTHBOUND	60	301	0	1223
SOUTHBOUND	0	936	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	277	277	N/A	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	60	N/A	150	N/A	0	N/A
SOUTHBOUND	0	N/A	468	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 277
NORTH-SOUTH CRITICAL VOLUMES 528
THE SUM OF CRITICAL VOLUMES 805

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.503

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	217	0	60	0
EASTBOUND	0	0	0	0
NORTHBOUND	12	289	0	1141
SOUTHBOUND	0	179	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	108	108	N/A	N/A	60	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	12	N/A	144	N/A	0	N/A
SOUTHBOUND	0	N/A	90	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 108
NORTH-SOUTH CRITICAL VOLUMES 144

THE SUM OF CRITICAL VOLUMES 252

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.158

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS	**
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	265	0	73	0
EASTBOUND	0	0	0	0
NORTHBOUND	15	353	0	1392
SOUTHBOUND	0	218	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	132	132	N/A	N/A	73	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	15	N/A	176	N/A	0	N/A
SOUTHBOUND	0	N/A	109	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 132
NORTH-SOUTH CRITICAL VOLUMES 176
THE SUM OF CRITICAL VOLUMES 308

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.193

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	265	0	73	0
EASTBOUND	0	0	0	0
NORTHBOUND	15	364	0	1528
SOUTHBOUND	0	320	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	132	132	N/A	N/A	73	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	15	N/A	182	N/A	0	N/A
SOUTHBOUND	0	N/A	160	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 132
NORTH-SOUTH CRITICAL VOLUMES 182

THE SUM OF CRITICAL VOLUMES 314

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.196

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	265	0	73	0
EASTBOUND	0	0	0	0
NORTHBOUND	15	364	0	1431
SOUTHBOUND	0	314	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	132	132	N/A	N/A	73	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	15	N/A	182	N/A	0	N/A
SOUTHBOUND	0	N/A	157	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 132
NORTH-SOUTH CRITICAL VOLUMES 182

THE SUM OF CRITICAL VOLUMES 314

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.196

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 29, U.S.-101 SB RAMPS AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	265	0	73	0
EASTBOUND	0	0	0	0
NORTHBOUND	15	372	0	1501
SOUTHBOUND	0	286	0	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	0	0	1	1	3
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	1	0	2	0	2	0	5
SOUTHBOUND	1	0	2	0	0	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	132	132	N/A	N/A	73	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	15	N/A	186	N/A	0	N/A
SOUTHBOUND	0	N/A	143	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 132
NORTH-SOUTH CRITICAL VOLUMES 186
THE SUM OF CRITICAL VOLUMES 318

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.199

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	90	997	0	1159
EASTBOUND	65	1168	18	0
NORTHBOUND	29	19	45	70
SOUTHBOUND	749	50	376	18

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	90	N/A	498	N/A	0	N/A
EASTBOUND	36	N/A	395	395	N/A	N/A
NORTHBOUND	N/A	48	N/A	N/A	45	N/A
SOUTHBOUND	293	266	N/A	N/A	376	N/A

EAST-WEST CRITICAL VOLUMES 534
NORTH-SOUTH CRITICAL VOLUMES 405

THE SUM OF CRITICAL VOLUMES 939

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.587

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	133	1479	0	1719
EASTBOUND	96	1732	27	0
NORTHBOUND	43	28	67	104
SOUTHBOUND	1111	74	558	26

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	133	N/A	740	N/A	0	N/A
EASTBOUND	53	N/A	586	586	N/A	N/A
NORTHBOUND	N/A	71	N/A	N/A	67	N/A
SOUTHBOUND	434	395	N/A	N/A	558	N/A

EAST-WEST CRITICAL VOLUMES 793
NORTH-SOUTH CRITICAL VOLUMES 601

THE SUM OF CRITICAL VOLUMES 1394

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.871

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	184	1489	0	1719
EASTBOUND	97	1734	27	0
NORTHBOUND	43	29	66	105
SOUTHBOUND	1115	74	558	26

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	184	N/A	744	N/A	0	N/A
EASTBOUND	53	N/A	587	587	N/A	N/A
NORTHBOUND	N/A	72	N/A	N/A	66	N/A
SOUTHBOUND	436	396	N/A	N/A	558	N/A

EAST-WEST CRITICAL VOLUMES 797
NORTH-SOUTH CRITICAL VOLUMES 601

THE SUM OF CRITICAL VOLUMES 1398

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.874

LEVEL OF SERVICE ..... D

---

* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	133	1482	0	1741
EASTBOUND	96	1733	27	0
NORTHBOUND	43	28	68	104
SOUTHBOUND	1111	74	558	26

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	133	N/A	741	N/A	0	N/A
EASTBOUND	53	N/A	587	587	N/A	N/A
NORTHBOUND	N/A	71	N/A	N/A	68	N/A
SOUTHBOUND	434	395	N/A	N/A	558	N/A

EAST-WEST CRITICAL VOLUMES 794
NORTH-SOUTH CRITICAL VOLUMES 601

THE SUM OF CRITICAL VOLUMES 1395

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.872

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	133	1645	0	1719
EASTBOUND	96	1732	27	0
NORTHBOUND	50	28	81	144
SOUTHBOUND	1111	74	558	26

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	133	N/A	822	N/A	0	N/A
EASTBOUND	53	N/A	586	586	N/A	N/A
NORTHBOUND	N/A	78	N/A	N/A	81	N/A
SOUTHBOUND	434	395	N/A	N/A	558	N/A

EAST-WEST CRITICAL VOLUMES 875
NORTH-SOUTH CRITICAL VOLUMES 608

THE SUM OF CRITICAL VOLUMES 1483

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.927

LEVEL OF SERVICE ..... E

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	48	646	0	1415
EASTBOUND	177	1078	10	0
NORTHBOUND	8	14	51	28
SOUTHBOUND	195	26	105	48

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	48	N/A	323	N/A	0	N/A
EASTBOUND	97	N/A	363	363	N/A	N/A
NORTHBOUND	N/A	22	N/A	N/A	51	N/A
SOUTHBOUND	81	74	N/A	N/A	105	N/A

EAST-WEST CRITICAL VOLUMES 420
NORTH-SOUTH CRITICAL VOLUMES 132

THE SUM OF CRITICAL VOLUMES 552

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.345

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	71	958	0	2098
EASTBOUND	262	1599	15	0
NORTHBOUND	12	21	75	42
SOUTHBOUND	289	39	155	72

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	71	N/A	479	N/A	0	N/A
EASTBOUND	144	N/A	538	538	N/A	N/A
NORTHBOUND	N/A	33	N/A	N/A	75	N/A
SOUTHBOUND	120	109	N/A	N/A	155	N/A

EAST-WEST CRITICAL VOLUMES	623
NORTH-SOUTH CRITICAL VOLUMES	195
THE SUM OF CRITICAL VOLUMES	818
NUMBER OF CRITICAL CLEARANCE INTERVALS	4*
CMA VALUE	0.511
LEVEL OF SERVICE	A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	71	967	0	2240
EASTBOUND	262	1603	19	0
NORTHBOUND	12	26	73	44
SOUTHBOUND	289	39	155	72

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	71	N/A	484	N/A	0	N/A
EASTBOUND	144	N/A	541	541	N/A	N/A
NORTHBOUND	N/A	38	N/A	N/A	73	N/A
SOUTHBOUND	120	109	N/A	N/A	155	N/A

EAST-WEST CRITICAL VOLUMES 628
NORTH-SOUTH CRITICAL VOLUMES 193

THE SUM OF CRITICAL VOLUMES 821

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.513

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	75	966	0	2138
EASTBOUND	267	1604	15	0
NORTHBOUND	12	26	72	45
SOUTHBOUND	289	39	153	74

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	75	N/A	483	N/A	0	N/A
EASTBOUND	147	N/A	540	540	N/A	N/A
NORTHBOUND	N/A	38	N/A	N/A	72	N/A
SOUTHBOUND	120	109	N/A	N/A	153	N/A

EAST-WEST CRITICAL VOLUMES 630
NORTH-SOUTH CRITICAL VOLUMES 192

THE SUM OF CRITICAL VOLUMES 822

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.514

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 30, VICTORIA AVENUE AND VALENTINE ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	71	971	0	2223
EASTBOUND	262	1602	19	0
NORTHBOUND	12	24	72	45
SOUTHBOUND	289	39	155	72

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	2	0	2	0	5
EASTBOUND	2	0	2	1	0	0	5
NORTHBOUND	0	1	0	0	1	0	2
SOUTHBOUND	2	1	0	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	71	N/A	486	N/A	0	N/A
EASTBOUND	144	N/A	540	540	N/A	N/A
NORTHBOUND	N/A	36	N/A	N/A	72	N/A
SOUTHBOUND	120	109	N/A	N/A	155	N/A

EAST-WEST CRITICAL VOLUMES 630
NORTH-SOUTH CRITICAL VOLUMES 192

THE SUM OF CRITICAL VOLUMES 822

NUMBER OF CRITICAL CLEARANCE INTERVALS 4*

CMA VALUE 0.514

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	22	250	86	22
EASTBOUND	31	72	0	49
NORTHBOUND	129	380	0	22
SOUTHBOUND	44	195	85	16

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	22	N/A	250	N/A	86	N/A
EASTBOUND	31	N/A	72	N/A	0	N/A
NORTHBOUND	129	N/A	380	N/A	0	N/A
SOUTHBOUND	44	N/A	195	N/A	85	N/A

EAST-WEST CRITICAL VOLUMES 281
NORTH-SOUTH CRITICAL VOLUMES 424

THE SUM OF CRITICAL VOLUMES 705

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.441

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	23	263	91	23
EASTBOUND	33	76	0	52
NORTHBOUND	136	399	0	23
SOUTHBOUND	46	205	90	16

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	23	N/A	263	N/A	91	N/A
EASTBOUND	33	N/A	76	N/A	0	N/A
NORTHBOUND	136	N/A	399	N/A	0	N/A
SOUTHBOUND	46	N/A	205	N/A	90	N/A

EAST-WEST CRITICAL VOLUMES 296
NORTH-SOUTH CRITICAL VOLUMES 445

THE SUM OF CRITICAL VOLUMES 741

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.463

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	38	265	91	23
EASTBOUND	33	78	0	52
NORTHBOUND	144	429	0	27
SOUTHBOUND	46	208	90	16

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	38	N/A	265	N/A	91	N/A
EASTBOUND	33	N/A	78	N/A	0	N/A
NORTHBOUND	144	N/A	429	N/A	0	N/A
SOUTHBOUND	46	N/A	208	N/A	90	N/A

EAST-WEST CRITICAL VOLUMES 298
NORTH-SOUTH CRITICAL VOLUMES 475

THE SUM OF CRITICAL VOLUMES 773

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.483

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	29	263	91	23
EASTBOUND	33	76	0	54
NORTHBOUND	143	406	0	24
SOUTHBOUND	46	209	90	16

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	29	N/A	263	N/A	91	N/A
EASTBOUND	33	N/A	76	N/A	0	N/A
NORTHBOUND	143	N/A	406	N/A	0	N/A
SOUTHBOUND	46	N/A	209	N/A	90	N/A

EAST-WEST CRITICAL VOLUMES 296
NORTH-SOUTH CRITICAL VOLUMES 452

THE SUM OF CRITICAL VOLUMES 748

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.468

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	36	273	91	23
EASTBOUND	33	76	0	52
NORTHBOUND	138	411	0	32
SOUTHBOUND	46	208	90	16

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	36	N/A	273	N/A	91	N/A
EASTBOUND	33	N/A	76	N/A	0	N/A
NORTHBOUND	138	N/A	411	N/A	0	N/A
SOUTHBOUND	46	N/A	208	N/A	90	N/A

EAST-WEST CRITICAL VOLUMES 306
NORTH-SOUTH CRITICAL VOLUMES 457

THE SUM OF CRITICAL VOLUMES 763

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.477

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	19	109	2	25
EASTBOUND	82	203	7	106
NORTHBOUND	146	419	62	10
SOUTHBOUND	50	258	0	32

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	19	N/A	109	N/A	2	N/A
EASTBOUND	82	N/A	203	N/A	7	N/A
NORTHBOUND	146	N/A	419	N/A	62	N/A
SOUTHBOUND	50	N/A	258	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 222
NORTH-SOUTH CRITICAL VOLUMES 469

THE SUM OF CRITICAL VOLUMES 691

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.432

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	20	115	2	26
EASTBOUND	86	213	8	111
NORTHBOUND	153	440	66	10
SOUTHBOUND	53	271	0	34

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	20	N/A	115	N/A	2	N/A
EASTBOUND	86	N/A	213	N/A	8	N/A
NORTHBOUND	153	N/A	440	N/A	66	N/A
SOUTHBOUND	53	N/A	271	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 233
NORTH-SOUTH CRITICAL VOLUMES 493

THE SUM OF CRITICAL VOLUMES 726

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.454

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	37	115	2	26
EASTBOUND	86	213	26	98
NORTHBOUND	155	459	73	18
SOUTHBOUND	53	315	0	34

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	37	N/A	115	N/A	2	N/A
EASTBOUND	86	N/A	213	N/A	26	N/A
NORTHBOUND	155	N/A	459	N/A	73	N/A
SOUTHBOUND	53	N/A	315	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 250
NORTH-SOUTH CRITICAL VOLUMES 512

THE SUM OF CRITICAL VOLUMES 762

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.476

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	20	115	2	26
EASTBOUND	86	213	58	112
NORTHBOUND	153	494	76	10
SOUTHBOUND	53	324	0	38

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	20	N/A	115	N/A	2	N/A
EASTBOUND	86	N/A	213	N/A	58	N/A
NORTHBOUND	153	N/A	494	N/A	76	N/A
SOUTHBOUND	53	N/A	324	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 233
NORTH-SOUTH CRITICAL VOLUMES 547

THE SUM OF CRITICAL VOLUMES 780

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.488

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 31, RALSTON STREET AND JOHNSON DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	39	115	2	26
EASTBOUND	86	213	8	116
NORTHBOUND	155	466	73	20
SOUTHBOUND	53	287	0	34

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	0	1	0	1	0	3
EASTBOUND	1	0	1	0	1	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	39	N/A	115	N/A	2	N/A
EASTBOUND	86	N/A	213	N/A	8	N/A
NORTHBOUND	155	N/A	466	N/A	73	N/A
SOUTHBOUND	53	N/A	287	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 252
NORTH-SOUTH CRITICAL VOLUMES 519

THE SUM OF CRITICAL VOLUMES 771

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 0.482

LEVEL OF SERVICE ..... A

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	844	147	40	0
EASTBOUND	8	48	52	0
NORTHBOUND	39	392	0	203
SOUTHBOUND	9	503	12	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	464	N/A	N/A	187	N/A	N/A
EASTBOUND	8	N/A	N/A	100	N/A	N/A
NORTHBOUND	39	N/A	392	N/A	0	N/A
SOUTHBOUND	9	N/A	N/A	515	N/A	N/A

EAST-WEST CRITICAL VOLUMES 564
NORTH-SOUTH CRITICAL VOLUMES 554

THE SUM OF CRITICAL VOLUMES 1118

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.699

LEVEL OF SERVICE ..... B

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	887	155	42	0
EASTBOUND	8	50	55	0
NORTHBOUND	41	412	0	213
SOUTHBOUND	9	529	13	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	488	N/A	N/A	197	N/A	N/A
EASTBOUND	8	N/A	N/A	105	N/A	N/A
NORTHBOUND	41	N/A	412	N/A	0	N/A
SOUTHBOUND	9	N/A	N/A	542	N/A	N/A

EAST-WEST CRITICAL VOLUMES 593
NORTH-SOUTH CRITICAL VOLUMES 583

THE SUM OF CRITICAL VOLUMES 1176

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.735

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	908	155	42	0
EASTBOUND	8	50	58	0
NORTHBOUND	44	458	0	219
SOUTHBOUND	9	551	13	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	499	N/A	N/A	197	N/A	N/A
EASTBOUND	8	N/A	N/A	108	N/A	N/A
NORTHBOUND	44	N/A	458	N/A	0	N/A
SOUTHBOUND	9	N/A	N/A	564	N/A	N/A

EAST-WEST CRITICAL VOLUMES 607
NORTH-SOUTH CRITICAL VOLUMES 608

THE SUM OF CRITICAL VOLUMES 1215

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.759

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	888	155	42	0
EASTBOUND	8	50	61	0
NORTHBOUND	51	433	0	213
SOUTHBOUND	9	548	13	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	488	N/A	N/A	197	N/A	N/A
EASTBOUND	8	N/A	N/A	111	N/A	N/A
NORTHBOUND	51	N/A	433	N/A	0	N/A
SOUTHBOUND	9	N/A	N/A	561	N/A	N/A

EAST-WEST CRITICAL VOLUMES	599
NORTH-SOUTH CRITICAL VOLUMES	612
THE SUM OF CRITICAL VOLUMES	1211
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.757
LEVEL OF SERVICE	C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	923	155	43	0
EASTBOUND	8	50	60	0
NORTHBOUND	47	439	0	222
SOUTHBOUND	9	532	13	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	508	N/A	N/A	198	N/A	N/A
EASTBOUND	8	N/A	N/A	110	N/A	N/A
NORTHBOUND	47	N/A	439	N/A	0	N/A
SOUTHBOUND	9	N/A	N/A	545	N/A	N/A

EAST-WEST CRITICAL VOLUMES 618
NORTH-SOUTH CRITICAL VOLUMES 592
THE SUM OF CRITICAL VOLUMES 1210

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.756

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	374	62	46	0
EASTBOUND	24	144	117	0
NORTHBOUND	76	543	0	973
SOUTHBOUND	27	656	17	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	206	N/A	N/A	108	N/A	N/A
EASTBOUND	24	N/A	N/A	261	N/A	N/A
NORTHBOUND	76	N/A	543	N/A	0	N/A
SOUTHBOUND	27	N/A	N/A	673	N/A	N/A

EAST-WEST CRITICAL VOLUMES 467
NORTH-SOUTH CRITICAL VOLUMES 749

THE SUM OF CRITICAL VOLUMES 1216

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.760

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	393	65	48	0
EASTBOUND	25	151	123	0
NORTHBOUND	80	571	0	1023
SOUTHBOUND	28	690	18	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	216	N/A	N/A	113	N/A	N/A
EASTBOUND	25	N/A	N/A	274	N/A	N/A
NORTHBOUND	80	N/A	571	N/A	0	N/A
SOUTHBOUND	28	N/A	N/A	708	N/A	N/A

EAST-WEST CRITICAL VOLUMES 490
NORTH-SOUTH CRITICAL VOLUMES 788

THE SUM OF CRITICAL VOLUMES 1278

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.799

LEVEL OF SERVICE C

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	407	65	48	0
EASTBOUND	25	151	129	0
NORTHBOUND	84	618	0	1054
SOUTHBOUND	28	734	18	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	224	N/A	N/A	113	N/A	N/A
EASTBOUND	25	N/A	N/A	280	N/A	N/A
NORTHBOUND	84	N/A	618	N/A	0	N/A
SOUTHBOUND	28	N/A	N/A	752	N/A	N/A

EAST-WEST CRITICAL VOLUMES	504
NORTH-SOUTH CRITICAL VOLUMES	836
THE SUM OF CRITICAL VOLUMES	1340
NUMBER OF CRITICAL CLEARANCE INTERVALS	3*
CMA VALUE	0.837
LEVEL OF SERVICE	D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	393	65	48	0
EASTBOUND	25	151	140	0
NORTHBOUND	91	647	0	1030
SOUTHBOUND	28	801	18	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	216	N/A	N/A	113	N/A	N/A
EASTBOUND	25	N/A	N/A	291	N/A	N/A
NORTHBOUND	91	N/A	647	N/A	0	N/A
SOUTHBOUND	28	N/A	N/A	819	N/A	N/A

EAST-WEST CRITICAL VOLUMES 507
NORTH-SOUTH CRITICAL VOLUMES 910
THE SUM OF CRITICAL VOLUMES 1417

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.886

LEVEL OF SERVICE ..... D

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 32, JOHNSON DRIVE AND BRISTOL ROAD
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS	**
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	410	65	48	0
EASTBOUND	25	151	129	0
NORTHBOUND	86	628	0	1058
SOUTHBOUND	28	741	18	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	2	0	0	1	0	0	3
EASTBOUND	1	0	0	1	0	0	2
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	0	1	0	0	2

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	226	N/A	N/A	113	N/A	N/A
EASTBOUND	25	N/A	N/A	280	N/A	N/A
NORTHBOUND	86	N/A	628	N/A	0	N/A
SOUTHBOUND	28	N/A	N/A	759	N/A	N/A

EAST-WEST CRITICAL VOLUMES 506
NORTH-SOUTH CRITICAL VOLUMES 845

THE SUM OF CRITICAL VOLUMES 1351

NUMBER OF CRITICAL CLEARANCE INTERVALS 3*

CMA VALUE 0.844

LEVEL OF SERVICE ..... D

---

* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	RIGHT TURNS ** MIN ON GREEN	RIGHT TURNS ** MAX ON RED
WESTBOUND	82	23	0	3
EASTBOUND	593	23	247	6
NORTHBOUND	11	133	54	0
SOUTHBOUND	2	1393	68	124

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	41	N/A	23	N/A	0	N/A
EASTBOUND	217	N/A	23	N/A	247	N/A
NORTHBOUND	11	N/A	62	62	N/A	N/A
SOUTHBOUND	2	N/A	696	N/A	68	N/A

EAST-WEST CRITICAL VOLUMES 288
NORTH-SOUTH CRITICAL VOLUMES 707

THE SUM OF CRITICAL VOLUMES 995

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 0.622

LEVEL OF SERVICE ..... B

---

* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR1
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	172	48	0	6
EASTBOUND	1241	48	517	12
NORTHBOUND	23	278	113	0
SOUTHBOUND	4	2914	144	258

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	86	N/A	48	N/A	0	N/A
EASTBOUND	455	N/A	48	N/A	517	N/A
NORTHBOUND	23	N/A	130	130	N/A	N/A
SOUTHBOUND	4	N/A	1457	N/A	144	N/A

EAST-WEST CRITICAL VOLUMES 603
NORTH-SOUTH CRITICAL VOLUMES 1480

THE SUM OF CRITICAL VOLUMES 2083

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 1.302

LEVEL OF SERVICE ..... F

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR2
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	261	48	0	6
EASTBOUND	1303	98	532	12
NORTHBOUND	23	278	113	0
SOUTHBOUND	4	2971	136	266

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	130	N/A	48	N/A	0	N/A
EASTBOUND	478	N/A	98	N/A	532	N/A
NORTHBOUND	23	N/A	130	130	N/A	N/A
SOUTHBOUND	4	N/A	1486	N/A	136	N/A

EAST-WEST CRITICAL VOLUMES 662
NORTH-SOUTH CRITICAL VOLUMES 1509

THE SUM OF CRITICAL VOLUMES 2171

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 1.357

LEVEL OF SERVICE ..... F

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR3
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	261	48	0	6
EASTBOUND	1303	98	532	12
NORTHBOUND	23	278	113	0
SOUTHBOUND	4	2971	402	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	130	N/A	48	N/A	0	N/A
EASTBOUND	478	N/A	98	N/A	532	N/A
NORTHBOUND	23	N/A	130	130	N/A	N/A
SOUTHBOUND	4	N/A	1124	1124	N/A	N/A

EAST-WEST CRITICAL VOLUMES 662
NORTH-SOUTH CRITICAL VOLUMES 1147
THE SUM OF CRITICAL VOLUMES 1809

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 1.131

LEVEL OF SERVICE ..... F

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR4
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	189	56	0	50
EASTBOUND	1241	57	517	12
NORTHBOUND	23	279	113	0
SOUTHBOUND	31	2925	124	278

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	94	N/A	56	N/A	0	N/A
EASTBOUND	455	N/A	57	N/A	517	N/A
NORTHBOUND	23	N/A	131	131	N/A	N/A
SOUTHBOUND	31	N/A	1462	N/A	124	N/A

EAST-WEST CRITICAL VOLUMES 611
NORTH-SOUTH CRITICAL VOLUMES 1485
THE SUM OF CRITICAL VOLUMES 2096

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 1.310

LEVEL OF SERVICE ..... F

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR3
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: AM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	313	48	0	6
EASTBOUND	1284	98	526	12
NORTHBOUND	23	278	113	0
SOUTHBOUND	4	2987	84	318

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	157	N/A	48	N/A	0	N/A
EASTBOUND	471	N/A	98	N/A	526	N/A
NORTHBOUND	23	N/A	130	130	N/A	N/A
SOUTHBOUND	4	N/A	1494	N/A	84	N/A

EAST-WEST CRITICAL VOLUMES 683
NORTH-SOUTH CRITICAL VOLUMES 1517

THE SUM OF CRITICAL VOLUMES 2200

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 1.375

LEVEL OF SERVICE ..... F

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* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR3
10-16-2001, 9:42 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: EXISTING (2000)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	111	45	0	23
EASTBOUND	1349	102	122	47
NORTHBOUND	94	362	50	0
SOUTHBOUND	25	1106	0	174

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	55	N/A	45	N/A	0	N/A
EASTBOUND	495	N/A	102	N/A	122	N/A
NORTHBOUND	94	N/A	137	137	N/A	N/A
SOUTHBOUND	25	N/A	553	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 550
NORTH-SOUTH CRITICAL VOLUMES 647

THE SUM OF CRITICAL VOLUMES 1197

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 0.748

LEVEL OF SERVICE C

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR5
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	232	94	0	48
EASTBOUND	2822	213	256	98
NORTHBOUND	197	757	105	0
SOUTHBOUND	52	2314	0	364

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	116	N/A	94	N/A	0	N/A
EASTBOUND	1035	N/A	213	N/A	256	N/A
NORTHBOUND	197	N/A	287	287	N/A	N/A
SOUTHBOUND	52	N/A	1157	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 1151
NORTH-SOUTH CRITICAL VOLUMES 1354
THE SUM OF CRITICAL VOLUMES 2505

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 1.566

LEVEL OF SERVICE ..... F

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR6
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	327	94	0	48
EASTBOUND	2938	336	270	98
NORTHBOUND	197	757	105	0
SOUTHBOUND	52	2466	0	364

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	164	N/A	94	N/A	0	N/A
EASTBOUND	1077	N/A	336	N/A	270	N/A
NORTHBOUND	197	N/A	287	287	N/A	N/A
SOUTHBOUND	52	N/A	1233	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 1241
NORTH-SOUTH CRITICAL VOLUMES 1430
THE SUM OF CRITICAL VOLUMES 2671

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 1.669

LEVEL OF SERVICE ..... F

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* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR7
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH RIVERPARK PROJECT+MIT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	327	94	0	48
EASTBOUND	2938	336	270	98
NORTHBOUND	197	757	105	0
SOUTHBOUND	52	2466	364	0

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	1	0	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	164	N/A	94	N/A	0	N/A
EASTBOUND	1077	N/A	336	N/A	270	N/A
NORTHBOUND	197	N/A	287	287	N/A	N/A
SOUTHBOUND	52	N/A	943	943	N/A	N/A

EAST-WEST CRITICAL VOLUMES 1241
NORTH-SOUTH CRITICAL VOLUMES 1140

THE SUM OF CRITICAL VOLUMES 2381

NUMBER OF CRITICAL CLEARANCE INTERVALS 9*

CMA VALUE 1.488

LEVEL OF SERVICE ..... F

---

* Eastbound and Westbound approaches have opposed signal phases. Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\TOT33 RR8
10-16-2001, 9:33 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH PROJECT (W/ SC BRIDGE)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	232	94	0	174
EASTBOUND	2822	247	256	98
NORTHBOUND	197	761	114	0
SOUTHBOUND	192	2339	0	371

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	116	N/A	94	N/A	0	N/A
EASTBOUND	1035	N/A	247	N/A	256	N/A
NORTHBOUND	197	N/A	292	292	N/A	N/A
SOUTHBOUND	192	N/A	1170	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 1129
NORTH-SOUTH CRITICAL VOLUMES 1367

THE SUM OF CRITICAL VOLUMES 2496

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 1.560

LEVEL OF SERVICE ..... F

---

* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-BRDGE RR7
10-16-2001, 9:46 AM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION: 33, JOHNSON DRIVE AND NORTH BANK DRIVE
DATE: 10-16-2001 INITIALS: KMY PERIOD: PM PEAK HOUR
CASE: FUTURE (2020) WITH GENERAL PLAN PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	RIGHT TURNS ** MIN ON GREEN	RIGHT TURNS ** MAX ON RED
WESTBOUND	232	94	0	164
EASTBOUND	2822	408	383	98
NORTHBOUND	197	757	105	0
SOUTHBOUND	52	2426	0	364

** NUMBER OF LANES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
WESTBOUND	1	1	1	0	1	0	4
EASTBOUND	2	1	1	0	1	0	5
NORTHBOUND	1	0	2	1	0	0	4
SOUTHBOUND	1	0	2	0	1	0	4

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	116	N/A	94	N/A	0	N/A
EASTBOUND	1035	N/A	408	N/A	383	N/A
NORTHBOUND	197	N/A	287	287	N/A	N/A
SOUTHBOUND	52	N/A	1213	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES 1129
NORTH-SOUTH CRITICAL VOLUMES 1410

THE SUM OF CRITICAL VOLUMES 2539

NUMBER OF CRITICAL CLEARANCE INTERVALS 2*

CMA VALUE 1.587

LEVEL OF SERVICE ..... F

---

* Capacity assumed = 1600.

K:\ICAP5\RIVERPRK\10-01\T-GP RR7
10-16-2001, 9:42 AM

APPENDIX 4.8
Air Quality Calculations

URBEMIS 7G For Windows 5.1.0

File Name: C:\Program Files\URBEMIS 7G For Windows\Projects\riverpark.urb
Project Name: Riverpark
Project Location: Ventura County

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	PM10	SOX
TOTALS (tpy, unmitigated)	25.13	8.90	3.69	0.02	0.00
TOTALS (tpy, mitigated)	25.09	8.39	3.46	0.02	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	PM10
TOTALS (tpy, unmitigated)	64.13	189.45	593.96	106.35
TOTALS (tpy, mitigated)	52.89	149.60	468.18	84.27

URBEMIS 7G For Windows 5.1.0

File Name: C:\Program Files\URBEMIS 7G For Windows\Projects\riverpark.urb
Project Name: Riverpark
Project Location: Ventura County

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.67	8.90	3.69	0.02	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00
Consumer Prdcts	24.46	-	-	-	-
TOTALS (tpy, unmitigated)	25.13	8.90	3.69	0.02	0.00

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10	SOX
Natural Gas	0.63	8.39	3.46	0.02	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00
Consumer Prdcts	24.46	-	-	-	-
TOTALS (tpy, mitigated)	25.09	8.39	3.46	0.02	0.00

Area Source Mitigation Measures

Central Water Heater: Rsdntl Space Heat.
Percent Reduction(ROG 9% NOx 8% CO 4% PM10 8.5% SOx 0%)
Central Water Heater: Cmrcl Space Heat.
Percent Reduction(ROG 0.5% NOx 0.5% CO 0.5% PM10 0.5% SOx 0.5%)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	13.64	46.22	139.30	27.58
Apartments low rise	11.02	36.25	109.24	21.63
Elementary school	3.29	2.82	9.37	1.53
Hotel	3.48	8.82	27.63	4.74
Park/Open Space	0.65	0.89	2.79	0.48
Neighborhood Retail	1.30	3.81	12.79	1.91
Regional Retail	20.05	58.31	188.63	30.17
General office building	10.19	30.89	99.60	17.48
General light industry	0.51	1.44	4.62	0.83
TOTAL EMISSIONS (tons/year)	64.13	189.45	593.96	106.35

Includes correction for passby trips.
Includes a double counting reduction for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 75 Season: Annual

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.55 trips / dwelling units	1,416.00	13,522.80
Apartments low rise	8.01 trips / dwelling units	1,324.00	10,605.24
Elementary school	1.09 trips / students	1,600.00	1,744.00
Hotel	9.45 trips / rooms	600.00	5,670.00
Park/Open Space	2.23 trips / Acres	257.00	573.11
Neighborhood Retail	81.16 trips / 1000 sq. ft.	40.00	3,246.40
Regional Retail	32.83 trips / 1000 sq. ft.	1,345.00	44,156.35
General office building	14.03 trips / 1000 sq. ft.	1,030.00	14,450.90
General light industry	6.97 trips / 1000 sq. ft.	81.00	564.57

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	75.00	1.16	98.58	0.26
Light Duty Trucks	10.00	0.13	99.54	0.33
Medium Duty Trucks	3.00	1.44	98.56	-
Lite-Heavy Duty Trucks	1.00	19.56	40.00	40.44
Med.-Heavy Duty Trucks	1.00	19.56	40.00	40.44
Heavy-Heavy Trucks	5.00	-	-	100.00
Urban Buses	2.00	-	-	100.00
Motorcycles	3.00	100.00% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.0	7.8	10.0	10.0	4.7	4.7
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	15.0	15.0
Trip Speeds (mph)	40.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	27.4	17.7	54.9			

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10
Single family housing	11.72	38.55	115.95	23.00
Apartments low rise	9.52	30.23	90.93	18.04
Elementary school	3.09	2.17	7.21	1.17
Hotel	2.83	6.58	20.64	3.54
Park/Open Space	0.59	0.67	2.09	0.36
Neighborhood Retail	0.98	2.82	9.49	1.42
Regional Retail	15.39	43.22	139.91	22.37
General office building	8.33	24.22	78.29	13.71
General light industry	0.43	1.15	3.69	0.66
TOTAL EMISSIONS (tons/year)	52.89	149.60	468.18	84.27

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 75 Season: Annual

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.55 trips / dwelling units	1,416.00	13,522.80
Apartments low rise	8.01 trips / dwelling units	1,324.00	10,605.24
Elementary school	1.09 trips / students	1,600.00	1,744.00
Hotel	9.45 trips / rooms	600.00	5,670.00
Park/Open Space	2.23 trips / Acres	257.00	573.11
Neighborhood Retail	81.16 trips / 1000 sq. ft.	40.00	3,246.40
Regional Retail	32.83 trips / 1000 sq. ft.	1,345.00	44,156.35
General office building	14.03 trips / 1000 sq. ft.	1,030.00	14,450.90
General light industry	6.97 trips / 1000 sq. ft.	81.00	564.57

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	75.00	1.16	98.58	0.26
Light Duty Trucks	10.00	0.13	99.54	0.33
Medium Duty Trucks	3.00	1.44	98.56	-
Lite-Heavy Duty Trucks	1.00	19.56	40.00	40.44
Med.-Heavy Duty Trucks	1.00	19.56	40.00	40.44
Heavy-Heavy Trucks	5.00	-	-	100.00
Urban Buses	2.00	-	-	100.00
Motorcycles	3.00	100.00% all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.0	7.8	10.0	10.0	4.7	4.7
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	15.0	15.0
Trip Speeds (mph)	40.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	27.4	17.7	54.9			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0

ENVIRONMENTAL FACTORS APPLICABLE TO THE PROJECT

Pedestrian Environment

3.0	Side Walks/Paths: Complete Coverage
1.0	Street Trees Provide Shade: Moderate Coverage
3.0	Pedestrian Circulation Access: Most Destinations
5.0	Visually Interesting Uses: Large Number and Variety
2.0	Street System Enhances Safety: Most Streets
2.0	Pedestrian Safety from Crime: High Degree of Safety
2.0	Visually Interesting Walking Routes: High Level

18.0 <- Pedestrian Environmental Credit
18.0 /19 = 0.9 <- Pedestrian Effectiveness Factor

Transit Service

40.0 Transit Service: <15 Minute Bus within 1/4 Mile

40.0 <- Transit Effectiveness Credit
18.0 <- Pedestrian Factor
58.0 <-Total
58.0 /110 = 0.5 <-Transit Effectiveness Factor

Bicycle Environment

5.0	Interconnected Bikeways: High Coverage
3.0	Bike Routes Provide Paved Shoulders: Most Major Destinations
1.0	Safe Vehicle Speed Limits: Some Destinations
2.0	Safe School Routes: Primary and Secondary Schools
3.0	Uses w/in Cycling Distance: Large Number and Variety
2.0	Bike Parking Ordinance: Requires Secure Bike Parking

16.0 <- Bike Environmental Credit
16.0 /20 = 0.8 <- Bike Effectiveness Factor

MITIGATION MEASURES SELECTED FOR THIS PROJECT
(All mitigation measures are printed, even if
the selected land uses do not constitute a mixed use.)

Transit Infrastructure Measures

% Trips Reduced	Measure
15.0	Credit for Existing or Planned Community Transit Service
6.0	Project Density Meets Transit Level of Service Requirements
2.0	Provide Transit Shelters Benches
0.5	Provide Street Lighting
0.5	Provide Route Signs and Displays
1.0	Provide Bus Turnouts
25.0	<- Totals

Pedestrian Enhancing Infrastructure Measures (Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
3.0	Mixed Use Project (Residential Oriented)
1.0	Provide Sidewalks and/or Pedestrian Paths
1.0	Provide Direct Pedestrian Connections
0.5	Provide Pedestrian Safety
0.5	Provide Street Furniture
0.5	Provide Street Lighting
0.5	Provide Pedestrian Signalization and Signage
9.0	<- Totals

Pedestrian Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
1.0	Provide Wide Sidewalks and Onsite Pedestrian Facilities
1.0	Project Uses Parking Structures/Small Dispersed Lots
0.5	Provide Street Lighting
0.5	Project Provides Shade Trees to Shade Sidewalks
0.5	Project Provides Street Art and/or Street Furniture
0.5	Project Uses Zero Bldg. Setback with Entrance on Street
0.5	Provide Pedestrian Safety Designs/Infrastructure at Crossings
0.3	Articulated Storefront(s) Display Windows with Visual Interest
0.3	No Long Uninterrupted Walls Along Pedestrian Walkways
7.0	<- Totals

Bicycle Enhancing Infratructure Measures (Residential)

% Trips Reduced	Measure
7.0	Credit for Surrounding Bicycle Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
9.0	<- Totals

Bike Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
5.0	Credit for Surrounding Area Bike Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
1.0	Provide Securre Bicycle Parking
8.0	<- Totals

Operational Measures (Applying to Commute Trips)

% Trips Reduced	Measure
1.0	Day Care Center Onsite or Within 1/2 Mile
1.0	<- Totals

Operational Measures (Applying to Employee Non-Commute Trips)

% Trips Reduced	Measure
5.0	Many Frequently Needed Services Provided
5.0	<- Totals

Operational Measures (Applying to Customer Trips)

% Trips Reduced	Measure
0.0	<- Totals

Measures Reducing VMT (Non-Residential)

VMT Reduced	Measure
0.0	<- Totals

Measures Reducing VMT (Residential)

VMT Reduced	Measure
0.0	<- Totals

Changes made to the default values for Area

The landscape option switch changed from on to off.
The area souce mitigation measure option switch changed from off to on.
Mitigation measure Central Water Heater: Rsdntl Space Heat.
has been changed from off to on.
Mitigation measure Central Water Heater: Cmrcl Space Heat.
has been changed from off to on.
Changes made to the default values for Operations

The road dust option switch changed from off to on.
The pass by trips option switch changed from off to on.
The double counting option switch changed from off to on.
The mitigation option switch changed from off to on.
The operational emission year changed from 2000 to 2020.
The double counting internal work trip limit changed from to 6611.08296.
The double counting shopping trip limit changed from to 3474.55525.
The double counting other trip limit changed from to 13246.29396.
The travel mode environment settings changed from both to: both
The default/nodefault travel setting changed from nodefault to: nodefault
Side Walks and Pedestrian Paths: Most Destinations Covered
changed to: Side Walks/Paths: Complete Coverage
Street Trees Provide Shade Canopy: Some Coverage
changed to:Street Trees Provide Shade: Moderate Coverage
Pedestrian Circulation Provides Direct Access: No Destinations
changed to:Pedestrian Circulation Access: Most Destinations
Mixture of Uses to Attract Pedestrians: Large Number and Variety of Uses
changed to:Visually Interesting Uses: Large Number and Variety
Street System Designed to Enhance Pedestrian Safety: Few Streets Designed This Way
changed to: Street System Enhances Safety: Most Streets
Pedestrian Routes Provide Safety from Crime: No Degree of Perceived Safety Along Routes
changed to:Pedestrian Safety from Crime: High Degree of Safety
Walking Routes Provide Visual Interest: No Visual Interest
changed to:Visually Interesting Walking Routes: High Level
Level of Transit Service: Commuter Rail within 1/2 mile (e.g. CALTRAIN)
changed to: Transit Service: <15 Minute Bus within 1/4 Mile
Area Served by Interconnected Bikeways: No Bikeway Coverage
changed to: Interconnected Bikeways: High Coverage
Bike Routes Provide Wide Paved Shoulders and Few Curb Cuts: No Routes Provide These Features
changed to:Bike Routes Provide Paved Shoulders: Most Major Destinations
Speed Limits 30 MPH or Less on Streets with Bike Routes: No Routes Provided
changed to:Safe Vehicle Speed Limits: Some Destinations
Schools with Safe Route: No Schools
changed to: Safe School Routes: Primary and Secondary Schools
Mixture of Uses to Attract Bicyclists within Easy Cycling Distance: No Uses Within Cycling Dista
changed to:Uses w/in Cycling Distance: Large Number and Variety
Community Has Bike Parking Ordinance: No Ordinance or Ordinance Has No Enforceable Provisions
changed to:Bike Parking Ordinance: Requires Secure Bike Parking
Mitigation measure Project Density Meets Transit Level of Service Requirements:6
has been changed from off to on.
Mitigation measure Provide Transit Shelters Benches:2
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Provide Route Signs and Displays:0.5
has been changed from off to on.
Mitigation measure Provide Bus Turnouts:1
has been changed from off to on.
Mitigation measure Mixed Use Project (Residential Oriented):3
has been changed from off to on.

Mitigation measure Provide Sidewalks and/or Pedestrian Paths:1
has been changed from off to on.
Mitigation measure Provide Direct Pedestrian Connections:1
has been changed from off to on.
Mitigation measure Provide Pedestrian Safety:0.5
has been changed from off to on.
Mitigation measure Provide Street Furniture:0.5
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Provide Pedestrian Signalization and Signage:0.5
has been changed from off to on.
Mitigation measure Provide Wide Sidewalks and Onsite Pedestrian Facilities:1
has been changed from off to on.
Mitigation measure Project Uses Parking Structures/Small Dispersed Lots:1
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Project Provides Shade Trees to Shade Sidewalks:0.5
has been changed from off to on.
Mitigation measure Project Provides Street Art and/or Street Furniture:0.5
has been changed from off to on.
Mitigation measure Project Uses Zero Bldg. Setback with Entrance on Street:0.5
has been changed from off to on.
Mitigation measure Provide Pedestrian Safety Designs/Infrastructure at Crossings:0.5
has been changed from off to on.
Mitigation measure Articulated Storefront(s) Display Windows with Visual Interest:0.25
has been changed from off to on.
Mitigation measure No Long Uninterrupted Walls Along Pedestrian Walkways:0.25
has been changed from off to on.
Mitigation measure Provide Bike Lanes/Paths Connecting to Bikeway System:2
has been changed from off to on.
Mitigation measure Provide Bike Lanes/Paths Connecting to Bikeway System:2
has been changed from off to on.
Mitigation measure Provide Securre Bicycle Parking:1
has been changed from off to on.
Mitigation measure Day Care Center Onsite or Within 1/2 Mile:1
has been changed from off to on.
Mitigation measure Many Frequently Needed Services Provided:5
has been changed from off to on.
Mitigation measuremitop5: Park and Ride Lots
has been changed from on to off.

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Oxnard Boulevard & Gonzales Road
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

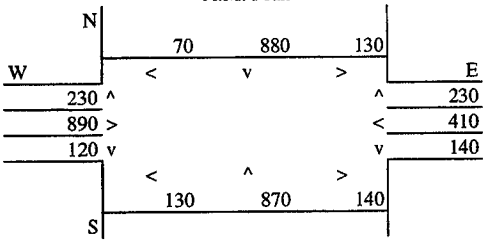
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Oxnard Boulevard	At Grade	6	20	20
East-West Roadway:	Gonzales Road	At Grade	6	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

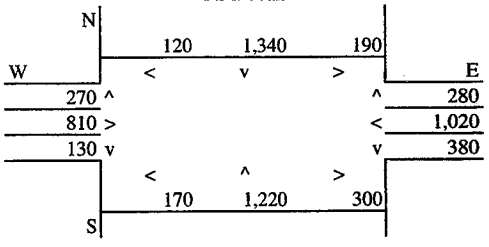
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,410	N-S Road	3,540
E-W Road	1,940	E-W Road	2,980

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	2,410	*	10.75	÷	100,000
E-W Road	2.0	1.7	1.1	*	1,940	*	10.75	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,540	*	10.75	÷	100,000
E-W Road	2.0	1.7	1.1	*	2,980	*	10.75	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.4	6.2	3.8
100 Feet from Roadway Edge	5.0	5.6	3.3
300 Feet from Roadway Edge	4.3	4.7	2.7

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Johnson Drive & Bristol Road
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

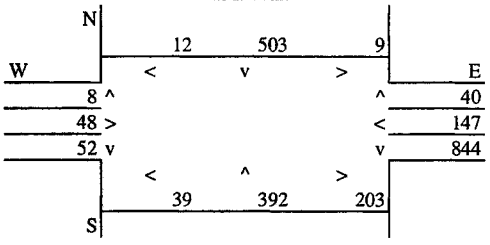
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Johnson Drive	At Grade	4	20	20
East-West Roadway:	Bristol Road	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

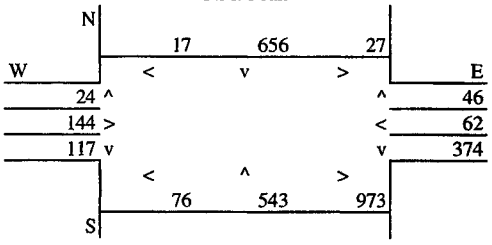
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,033	N-S Road	2,739
E-W Road	1,291	E-W Road	1,626

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,033	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,291	*	14.17	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,739	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,626	*	14.17	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.3	5.8	3.5
100 Feet from Roadway Edge	4.8	5.2	3.1
300 Feet from Roadway Edge	4.3	4.4	2.5

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Johnson Drive & North Bank Drive
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

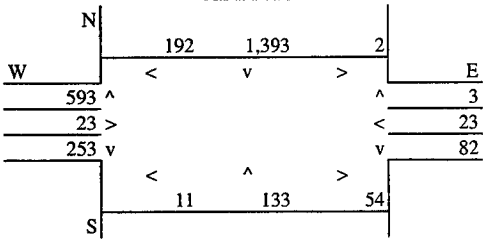
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Johnson Drive	At Grade	4	20	20
East-West Roadway:	North Bank Drive	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

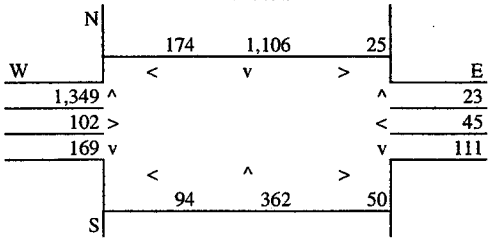
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,316	N-S Road	3,039
E-W Road	1,095	E-W Road	1,933

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,316	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,095	*	14.17	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,039	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,933	*	14.17	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.4	6.1	3.7
100 Feet from Roadway Edge	4.9	5.4	3.2
300 Feet from Roadway Edge	4.3	4.5	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Johnson Drive & Ralston Street
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Johnson Drive	At Grade	2	20	20
East-West Roadway:	Ralston Street	At Grade	2	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
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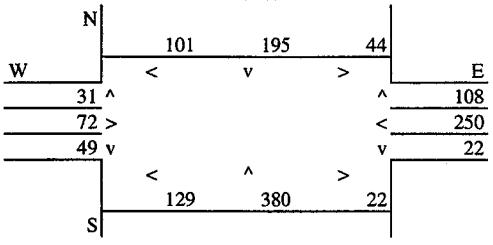
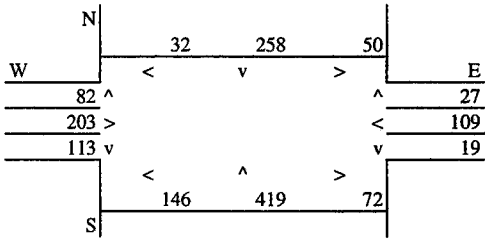
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	859	N-S Road	1,027
E-W Road	632	E-W Road	685

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.7	4.0	1.7	*	859	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.0	*	632	*	10.75	÷	100,000
P.M. Peak Hour									
N-S Road	5.7	4.0	1.7	*	1,027	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.0	*	685	*	10.75	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.4	4.5	2.6
100 Feet from Roadway Edge	4.2	4.3	2.4
300 Feet from Roadway Edge	3.9	4.0	2.2

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Victoria Avenue & Ralston Street
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

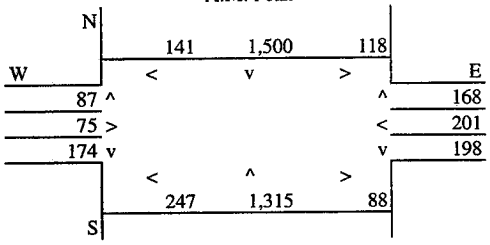
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Victoria Avenue	At Grade	6	20	20
East-West Roadway:	Ralston Street	At Grade	4	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

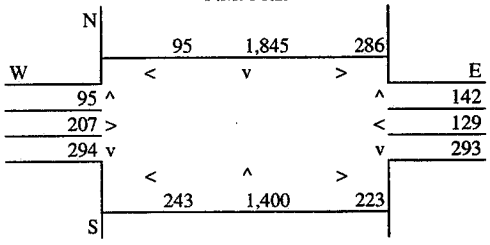
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,522	N-S Road	4,298
E-W Road	925	E-W Road	1,280

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,522	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	925	*	10.75	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	4,298	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,280	*	10.75	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.8	6.3	3.8
100 Feet from Roadway Edge	5.2	5.6	3.3
300 Feet from Roadway Edge	4.4	4.6	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Victoria Avenue & Telephone Road
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

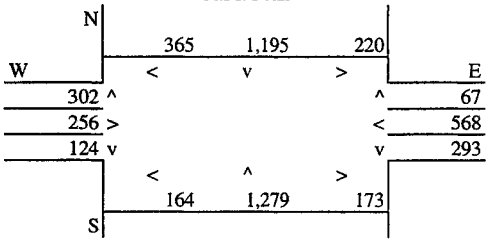
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Victoria Avenue	At Grade	8	20	20
East-West Roadway:	Telephone Road	At Grade	6	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

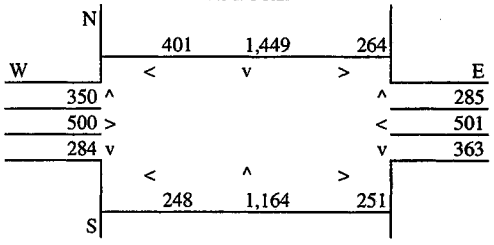
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,428	N-S Road	3,913
E-W Road	1,779	E-W Road	2,284

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.6	3.4	1.5	*	3,428	*	10.75	÷	100,000
E-W Road	2.0	1.7	1.1	*	1,779	*	10.75	÷	100,000
P.M. Peak Hour									
N-S Road	4.6	3.4	1.5	*	3,913	*	10.75	÷	100,000
E-W Road	2.0	1.7	1.1	*	2,284	*	10.75	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.8	6.1	3.7
100 Feet from Roadway Edge	5.3	5.5	3.3
300 Feet from Roadway Edge	4.5	4.6	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Valentine Road & US 101 (SB)
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	US 101 (SB)	At Grade	4	15	15
East-West Roadway:	Valentine Road	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
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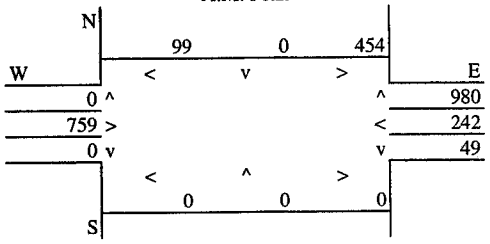
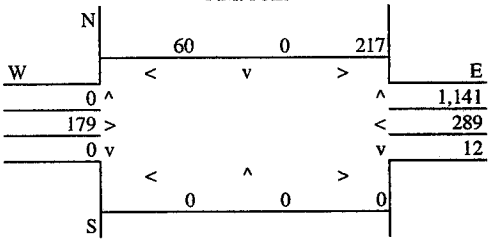
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	1,533	N-S Road	1,418
E-W Road	2,484	E-W Road	1,838

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	2.2	1.7	1.1	*	1,533	*	14.17	÷	100,000
E-W Road	5.4	3.8	1.6	*	2,484	*	14.17	÷	100,000
P.M. Peak Hour									
N-S Road	2.2	1.7	1.1	*	1,418	*	14.17	÷	100,000
E-W Road	5.4	3.8	1.6	*	1,838	*	14.17	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	6.1	5.5	3.7
100 Feet from Roadway Edge	5.4	5.0	3.2
300 Feet from Roadway Edge	4.5	4.3	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Victoria Avenue & Valentine Road
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

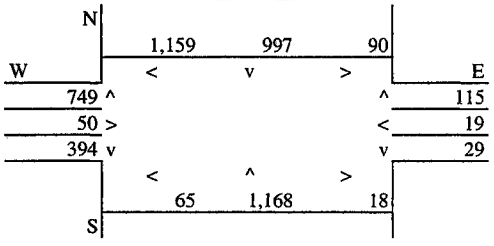
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Victoria Avenue	At Grade	4	20	20
East-West Roadway:	Valentine Road	At Grade	2	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

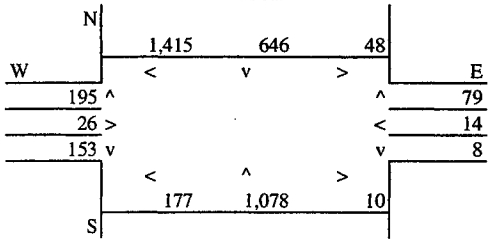
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	4,278	N-S Road	3,461
E-W Road	2,436	E-W Road	1,980

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	4,278	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.0	*	2,436	*	14.17	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,461	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.0	*	1,980	*	14.17	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	6.9	6.3	4.3
100 Feet from Roadway Edge	6.0	5.6	3.6
300 Feet from Roadway Edge	4.8	4.6	2.8

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Gonzales Road
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

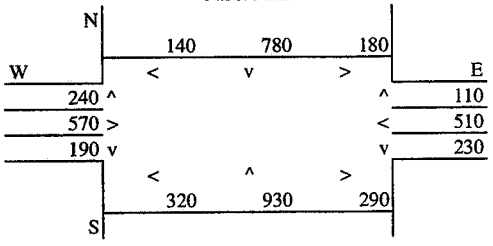
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Road	At Grade	4	20	20
East-West Roadway:	Gonzales Road	At Grade	4	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

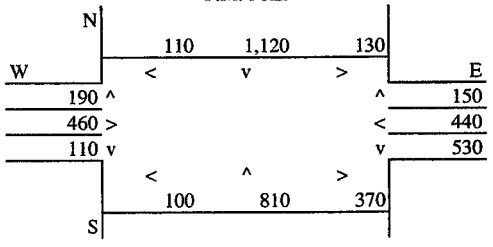
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,740	N-S Road	3,040
E-W Road	1,970	E-W Road	2,080

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,740	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,970	*	10.75	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,040	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	2,080	*	10.75	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.8	6.0	3.6
100 Feet from Roadway Edge	5.2	5.3	3.1
300 Feet from Roadway Edge	4.4	4.5	2.5

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Town Center Drive
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

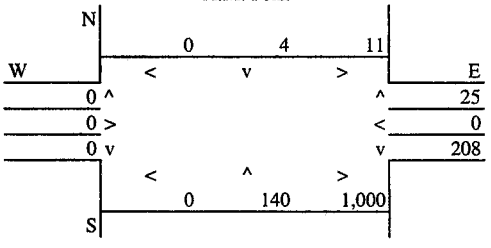
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Road	At Grade	4	15	15
East-West Roadway:	Town Center Drive	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

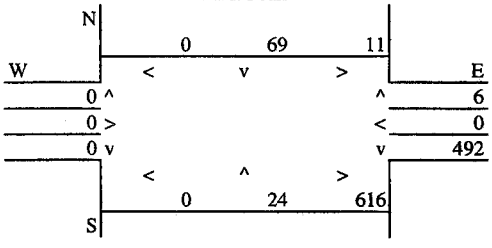
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	1,352	N-S Road	1,201
E-W Road	1,244	E-W Road	1,125

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,352	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,244	*	14.17	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,201	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,125	*	14.17	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.1	5.0	3.0
100 Feet from Roadway Edge	4.7	4.6	2.7
300 Feet from Roadway Edge	4.2	4.1	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Vineyard Avenue
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Road	At Grade	4	20	20
East-West Roadway:	Vineyard Boulevard	At Grade	4	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
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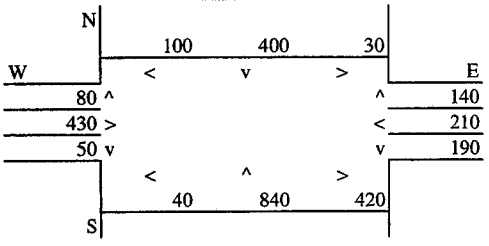
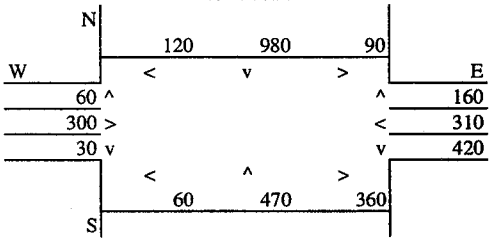
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	1,940	N-S Road	2,320
E-W Road	1,420	E-W Road	1,640

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,940	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,420	*	10.75	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,320	*	10.75	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,640	*	10.75	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.2	5.4	3.2
100 Feet from Roadway Edge	4.8	4.9	2.9
300 Feet from Roadway Edge	4.2	4.3	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Wagon Wheel Road
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Road	At Grade	4	15	15
East-West Roadway:	Wagon Wheel Road	At Grade	2	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
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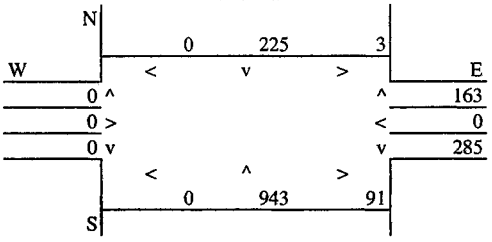
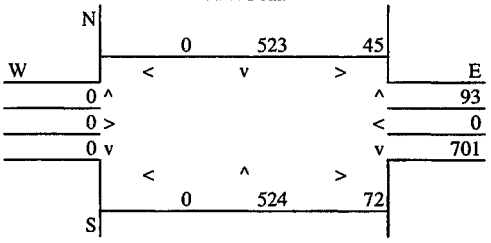
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	1,544	N-S Road	1,820
E-W Road	542	E-W Road	911

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,544	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.0	*	542	*	14.17	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,820	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.0	*	911	*	14.17	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.1	5.4	3.2
100 Feet from Roadway Edge	4.7	4.9	2.8
300 Feet from Roadway Edge	4.1	4.2	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Espanade Drive
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

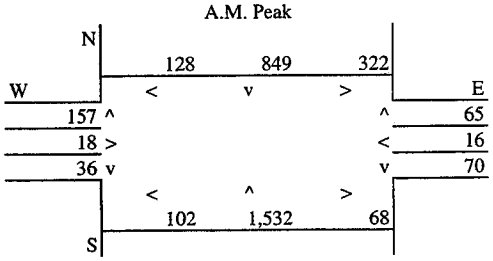
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	6	15	15
East-West Roadway:	Espanade Drive	At Grade	4	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

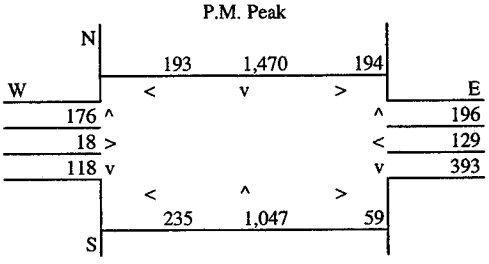
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,053	N-S Road	3,322
E-W Road	559	E-W Road	989

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,053	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.1	*	559	*	21.02	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,322	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.1	*	989	*	21.02	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	6.1	6.5	3.9
100 Feet from Roadway Edge	5.4	5.7	3.4
300 Feet from Roadway Edge	4.5	4.7	2.7

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Oxnard Boulevard
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

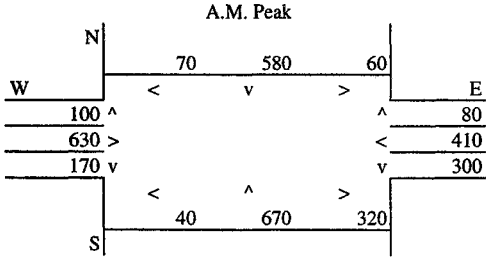
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	6	15	15
East-West Roadway:	Oxnard Boulevard	At Grade	6	25	25

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

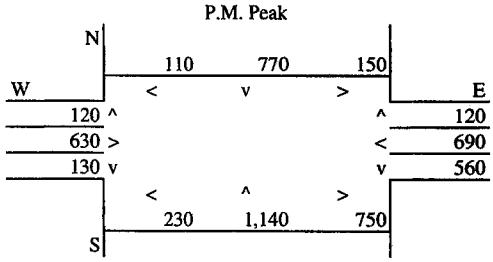
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,080	N-S Road	3,580
E-W Road	1,800	E-W Road	2,900

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	2,080	*	14.17	÷	100,000
E-W Road	2.0	1.7	1.1	*	1,800	*	8.70	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,580	*	14.17	÷	100,000
E-W Road	2.0	1.7	1.1	*	2,900	*	8.70	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.5	6.7	4.1
100 Feet from Roadway Edge	5.0	5.9	3.5
300 Feet from Roadway Edge	4.3	4.8	2.8

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Stroube Street
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

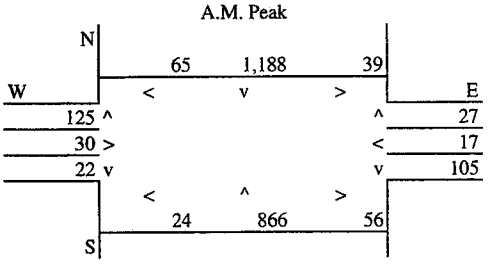
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	4	15	15
East-West Roadway:	Stroube Street	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

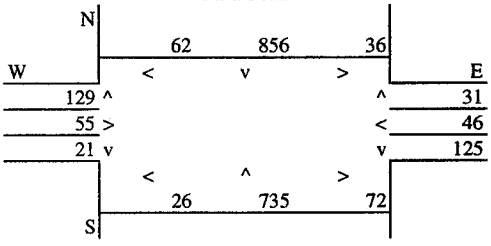
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,310	N-S Road	1,849
E-W Road	283	E-W Road	365

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,310	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.0	*	283	*	21.02	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,849	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.0	*	365	*	21.02	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.6	5.3	3.3
100 Feet from Roadway Edge	5.0	4.8	2.9
300 Feet from Roadway Edge	4.3	4.2	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Myrtle Street
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

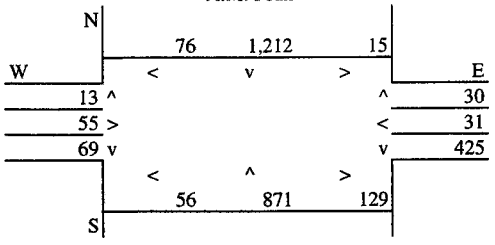
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	4	15	15
East-West Roadway:	Myrtle Street	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

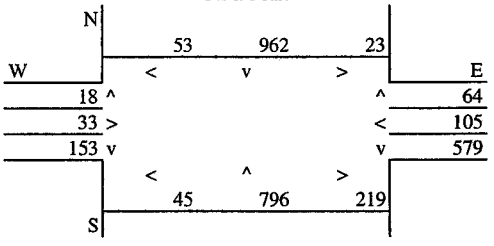
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,762	N-S Road	2,754
E-W Road	685	E-W Road	1,023

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,762	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.0	*	685	*	21.02	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,754	*	14.17	÷	100,000
E-W Road	2.2	1.7	1.0	*	1,023	*	21.02	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	6.1	6.3	3.8
100 Feet from Roadway Edge	5.4	5.5	3.3
300 Feet from Roadway Edge	4.5	4.5	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Wagon Wheel Road & Southbound 101 Exit
Analysis Condition:	Existing Traffic Volumes
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2000

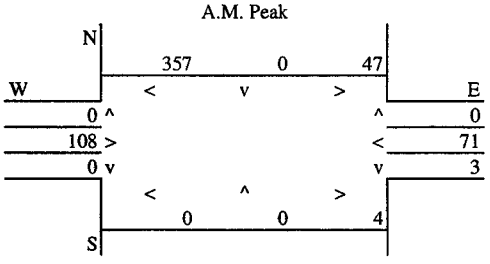
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Southbound 101 Exit	At Grade	2	15	15
East-West Roadway:	Wagon Wheel Road	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

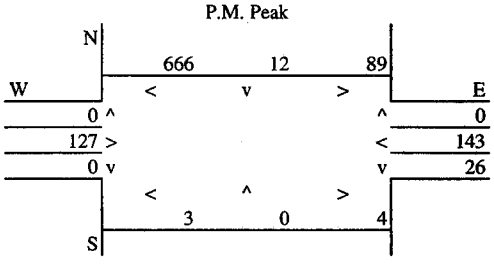
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	404	N-S Road	767
E-W Road	536	E-W Road	939

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	2.2	1.7	1.0	*	404	*	14.17	÷	100,000
E-W Road	5.7	4.0	1.7	*	536	*	21.02	÷	100,000
P.M. Peak Hour									
N-S Road	2.2	1.7	1.0	*	767	*	14.17	÷	100,000
E-W Road	5.7	4.0	1.7	*	939	*	21.02	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.5	5.1	3.0
100 Feet from Roadway Edge	4.2	4.7	2.7
300 Feet from Roadway Edge	3.9	4.1	2.3

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Oxnard Boulevard & Gonzales Road
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Oxnard Boulevard	At Grade	6	20	20
East-West Roadway:	Gonzales Road	At Grade	6	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
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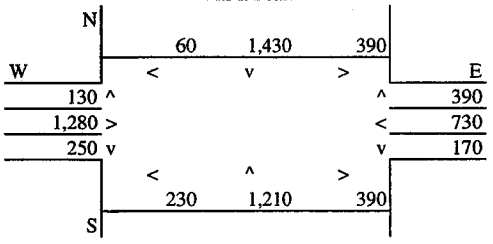
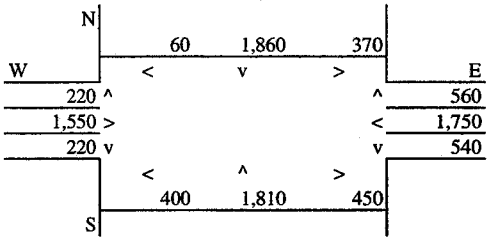
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,680	N-S Road	5,280
E-W Road	3,350	E-W Road	5,220

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,680	*	5.52	÷	100,000
E-W Road	2.0	1.7	1.1	*	3,350	*	5.52	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	5,280	*	5.52	÷	100,000
E-W Road	2.0	1.7	1.1	*	5,220	*	5.52	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.1	5.7	3.4
100 Feet from Roadway Edge	4.7	5.2	3.1
300 Feet from Roadway Edge	4.2	4.5	2.5

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Johnson Drive & Bristol Road
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

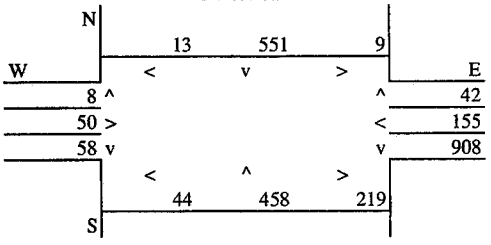
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Johnson Drive	At Grade	4	20	20
East-West Roadway:	Bristol Road	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

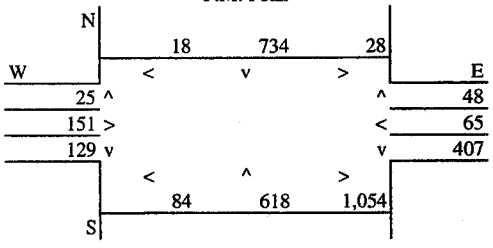
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,238	N-S Road	3,026
E-W Road	1,383	E-W Road	1,753

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,238	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,383	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,026	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,753	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.6	4.9	2.8
100 Feet from Roadway Edge	4.3	4.6	2.6
300 Feet from Roadway Edge	4.0	4.1	2.3

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Johnson Drive & North Bank Drive
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

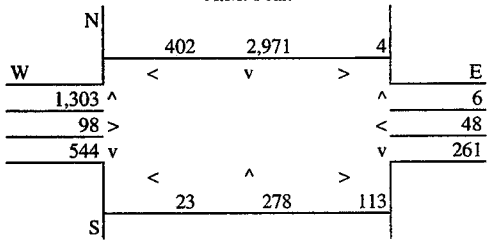
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Johnson Drive	At Grade	4	20	20
East-West Roadway:	North Bank Drive	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

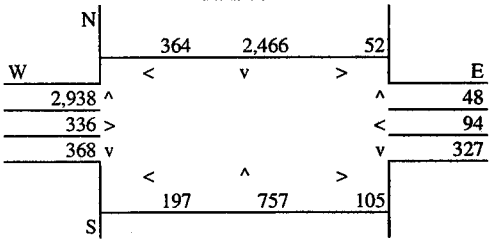
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	4,964	N-S Road	6,625
E-W Road	2,418	E-W Road	4,297

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	4,964	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	2,418	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	6,625	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	4,297	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.6	6.4	3.9
100 Feet from Roadway Edge	5.0	5.6	3.3
300 Feet from Roadway Edge	4.3	4.6	2.7

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Johnson Drive & Ralston Street
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

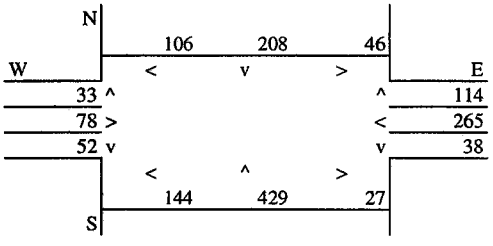
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Johnson Drive	At Grade	2	20	20
East-West Roadway:	Ralston Street	At Grade	2	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

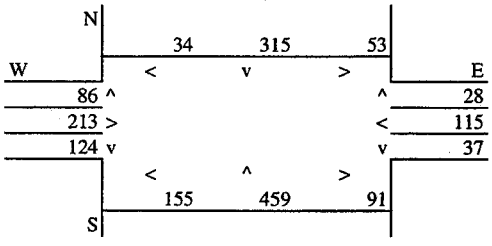
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	936	N-S Road	1,181
E-W Road	678	E-W Road	727

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.7	4.0	1.7	*	936	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.0	*	678	*	5.52	÷	100,000
P.M. Peak Hour									
N-S Road	5.7	4.0	1.7	*	1,181	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.0	*	727	*	5.52	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.1	4.2	2.3
100 Feet from Roadway Edge	4.0	4.0	2.2
300 Feet from Roadway Edge	3.8	3.9	2.1

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Victoria Avenue & Ralston Street
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

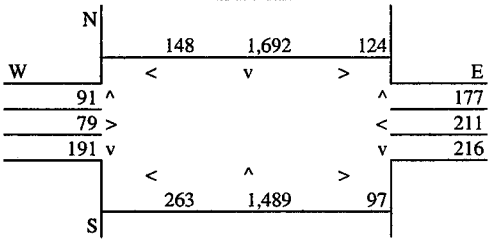
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Victoria Avenue	At Grade	6	20	20
East-West Roadway:	Ralston Street	At Grade	4	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

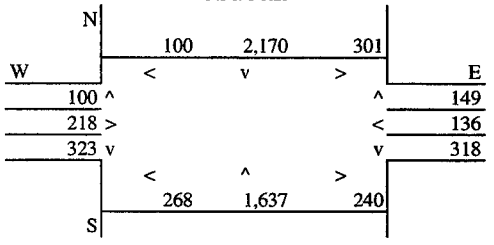
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,948	N-S Road	4,956
E-W Road	983	E-W Road	1,362

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,948	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	983	*	5.52	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	4,956	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,362	*	5.52	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.9	5.2	3.1
100 Feet from Roadway Edge	4.6	4.8	2.8
300 Feet from Roadway Edge	4.1	4.2	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Victoria Avenue & Telephone Road
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

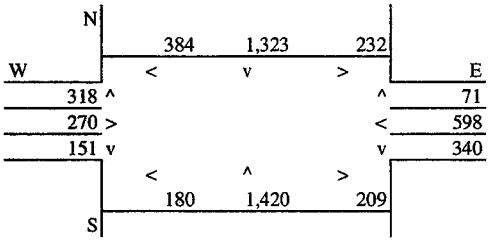
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Victoria Avenue	At Grade	8	20	20
East-West Roadway:	Telephone Road	At Grade	6	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

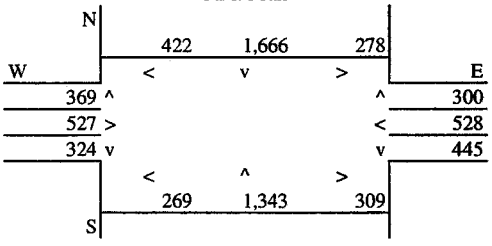
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,748	N-S Road	4,378
E-W Road	1,901	E-W Road	2,439

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.6	3.4	1.5	*	3,748	*	5.52	÷	100,000
E-W Road	2.0	1.7	1.1	*	1,901	*	5.52	÷	100,000
P.M. Peak Hour									
N-S Road	4.6	3.4	1.5	*	4,378	*	5.52	÷	100,000
E-W Road	2.0	1.7	1.1	*	2,439	*	5.52	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.9	5.1	3.0
100 Feet from Roadway Edge	4.6	4.8	2.7
300 Feet from Roadway Edge	4.1	4.2	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Valentine Road & US 101 (SB)
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

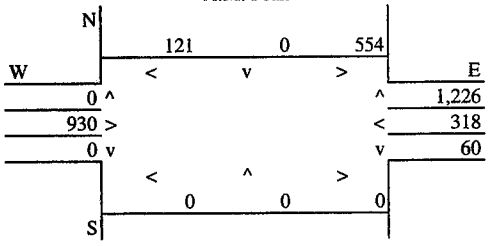
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	US 101 (SB)	At Grade	4	15	15
East-West Roadway:	Valentine Road	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

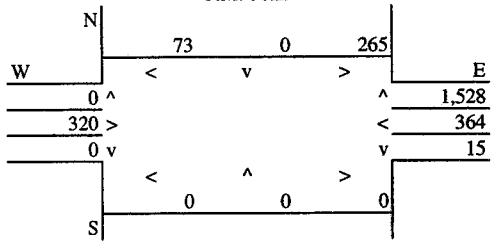
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	1,901	N-S Road	1,866
E-W Road	3,088	E-W Road	2,492

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	2.2	1.7	1.1	*	1,901	*	7.30	÷	100,000
E-W Road	5.4	3.8	1.6	*	3,088	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	2.2	1.7	1.1	*	1,866	*	7.30	÷	100,000
E-W Road	5.4	3.8	1.6	*	2,492	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.2	5.0	3.1
100 Feet from Roadway Edge	4.8	4.6	2.8
300 Feet from Roadway Edge	4.2	4.1	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Victoria Avenue & Valentine Road
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

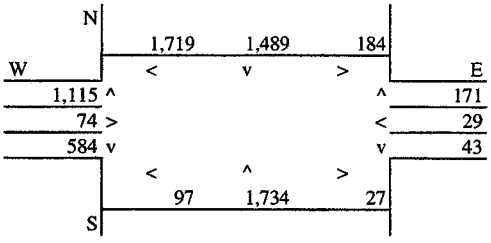
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Victoria Avenue	At Grade	4	20	20
East-West Roadway:	Valentine Road	At Grade	2	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

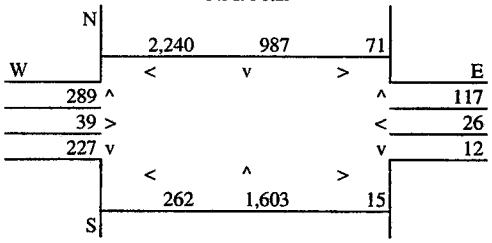
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	6,412	N-S Road	5,307
E-W Road	3,618	E-W Road	3,083

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	6,412	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.0	*	3,618	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	5,307	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.0	*	3,083	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	6.2	5.8	3.7
100 Feet from Roadway Edge	5.5	5.2	3.3
300 Feet from Roadway Edge	4.5	4.4	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Gonzales Road
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

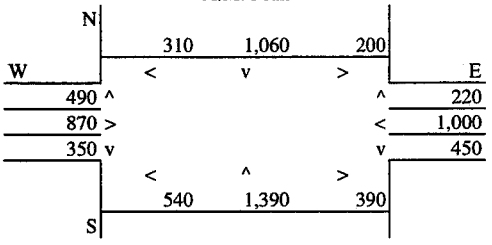
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Road	At Grade	4	20	20
East-West Roadway:	Gonzales Road	At Grade	4	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

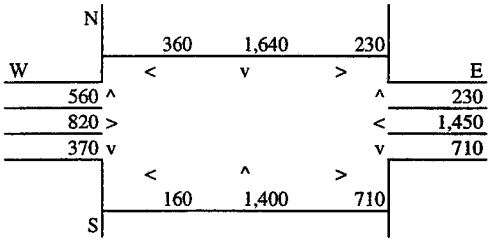
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	4,180	N-S Road	4,990
E-W Road	3,560	E-W Road	4,150

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	4,180	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	3,560	*	5.52	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	4,990	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	4,150	*	5.52	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.4	5.7	3.4
100 Feet from Roadway Edge	4.9	5.1	3.0
300 Feet from Roadway Edge	4.3	4.4	2.5

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Town Center Drive
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Road	At Grade	4	15	15
East-West Roadway:	Town Center Drive	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
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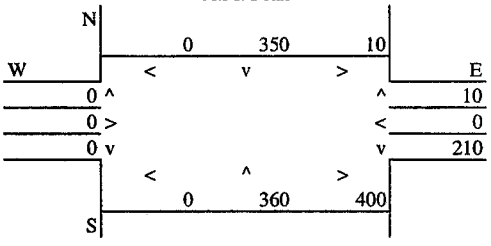
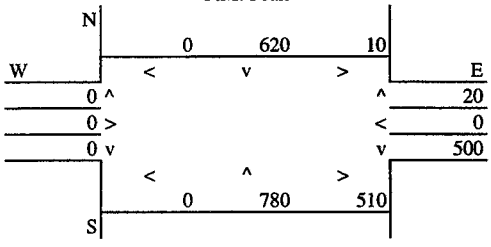
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	1,320	N-S Road	2,410
E-W Road	630	E-W Road	1,040

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,320	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	630	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,410	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,040	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.3	4.8	2.8
100 Feet from Roadway Edge	4.1	4.5	2.6
300 Feet from Roadway Edge	3.9	4.1	2.3

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Vineyard Avenue
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

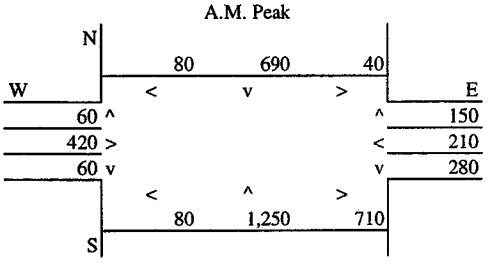
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Road	At Grade	4	20	20
East-West Roadway:	Vineyard Boulevard	At Grade	4	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

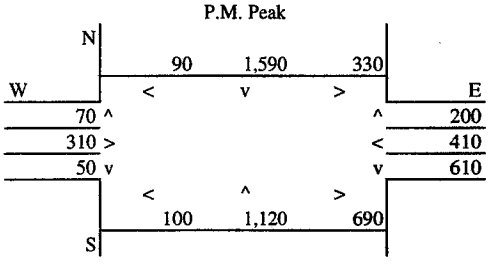
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,070	N-S Road	4,160
E-W Road	1,810	E-W Road	2,550

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,070	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,810	*	5.52	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	4,160	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	2,550	*	5.52	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.8	5.2	3.1
100 Feet from Roadway Edge	4.5	4.8	2.8
300 Feet from Roadway Edge	4.1	4.2	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Ventura Road & Wagon Wheel Road
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

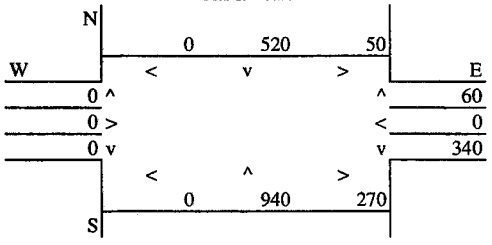
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Ventura Boluevard	At Grade	4	15	15
East-West Roadway:	Wagon Wheel Road	At Grade	2	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

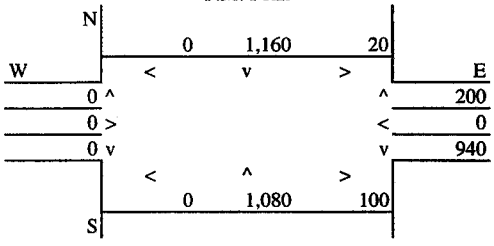
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,070	N-S Road	3,280
E-W Road	720	E-W Road	1,260

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,070	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	720	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,280	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	1,260	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.6	5.2	3.0
100 Feet from Roadway Edge	4.4	4.8	2.7
300 Feet from Roadway Edge	4.0	4.2	2.3

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Espanade Drive
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	6	15	15
East-West Roadway:	Espanade Drive	At Grade	4	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
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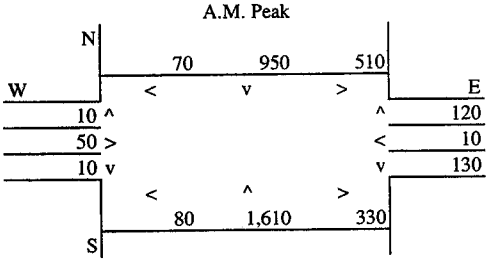
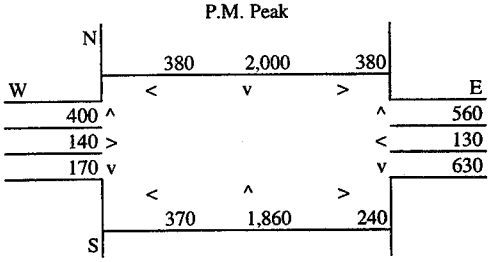
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,270	N-S Road	5,580
E-W Road	1,150	E-W Road	2,080

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	3,270	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,150	*	10.78	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	5,580	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	2,080	*	10.78	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.1	6.2	3.7
100 Feet from Roadway Edge	4.7	5.5	3.3
300 Feet from Roadway Edge	4.2	4.6	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Oxnard Boulevard
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	6	15	15
East-West Roadway:	Oxnard Boulevard	At Grade	6	25	25

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
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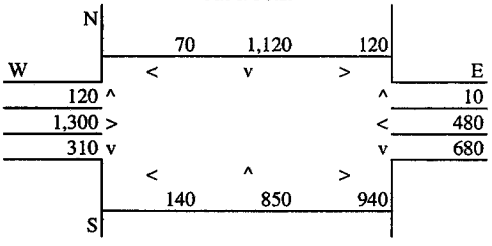
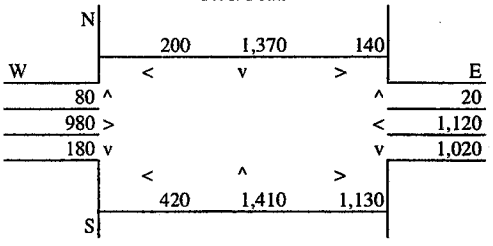
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	4,040	N-S Road	5,530
E-W Road	3,530	E-W Road	4,410

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	4,040	*	7.30	÷	100,000
E-W Road	2.0	1.7	1.1	*	3,530	*	4.46	÷	100,000
P.M. Peak Hour									
N-S Road	4.9	3.5	1.6	*	5,530	*	7.30	÷	100,000
E-W Road	2.0	1.7	1.1	*	4,410	*	4.46	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.5	6.1	3.7
100 Feet from Roadway Edge	5.0	5.4	3.2
300 Feet from Roadway Edge	4.3	4.6	2.6

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Stroube Street
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

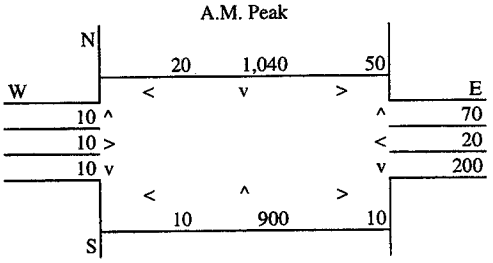
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	4	15	15
East-West Roadway:	Stroube Street	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

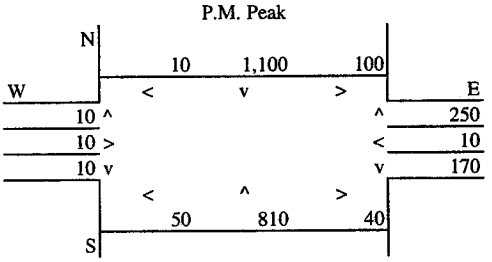
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,170	N-S Road	2,280
E-W Road	360	E-W Road	580

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,170	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	360	*	10.78	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,280	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	580	*	10.78	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.6	4.7	2.7
100 Feet from Roadway Edge	4.4	4.4	2.5
300 Feet from Roadway Edge	4.0	4.0	2.2

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Simon Way
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

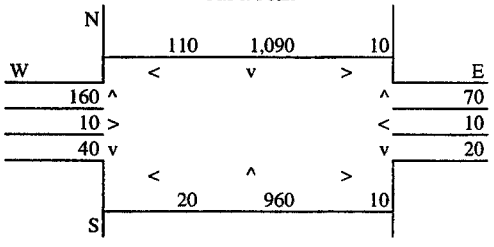
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	4	25	25
East-West Roadway:	Simon Way	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

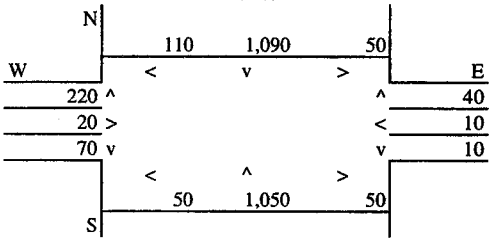
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,400	N-S Road	2,560
E-W Road	350	E-W Road	480

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,400	*	4.46	÷	100,000
E-W Road	2.2	1.7	1.0	*	350	*	10.78	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,560	*	4.46	÷	100,000
E-W Road	2.2	1.7	1.0	*	480	*	10.78	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.4	4.4	2.5
100 Feet from Roadway Edge	4.2	4.2	2.4
300 Feet from Roadway Edge	3.9	3.9	2.2

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Vineyard Avenue & Myrtle Street
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

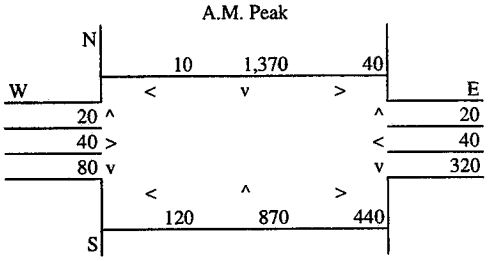
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	4	15	15
East-West Roadway:	Myrtle Street	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

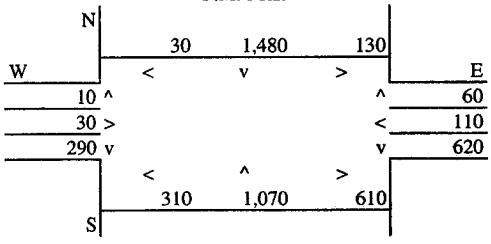
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,200	N-S Road	4,380
E-W Road	900	E-W Road	1,560

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,200	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	900	*	10.78	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	4,380	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	1,560	*	10.78	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.2	5.8	3.5
100 Feet from Roadway Edge	4.8	5.2	3.1
300 Feet from Roadway Edge	4.2	4.4	2.5

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Wagon Wheel Road & Southbound 101 Exit
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

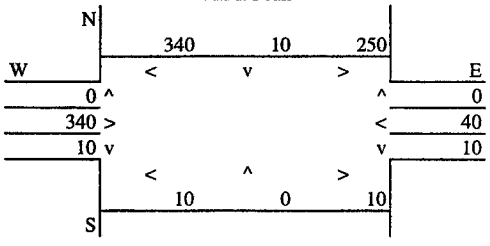
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Southbound 101 Exit	At Grade	2	15	15
East-West Roadway:	Wagon Wheel Road	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

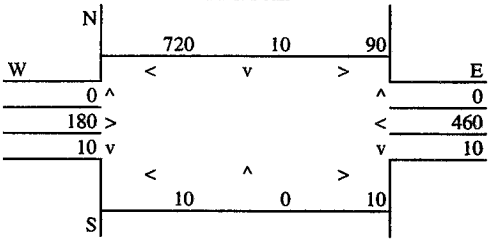
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	600	N-S Road	820
E-W Road	740	E-W Road	1,380

ROADWAY CO CONTRIBUTIONS

	Reference CO Concentrations				Traffic		Emission		
Roadway	50 Feet	100 Feet	300 Feet		Volume		Factor		
A.M. Peak Hour									
N-S Road	2.2	1.7	1.0	*	600	*	7.30	÷	100,000
E-W Road	5.7	4.0	1.7	*	740	*	10.78	÷	100,000
P.M. Peak Hour									
N-S Road	2.2	1.7	1.0	*	820	*	7.30	÷	100,000
E-W Road	5.7	4.0	1.7	*	1,380	*	10.78	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.3	4.7	2.7
100 Feet from Roadway Edge	4.1	4.4	2.5
300 Feet from Roadway Edge	3.9	4.0	2.2

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Oxnard Boulevard & Town Center Drive
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

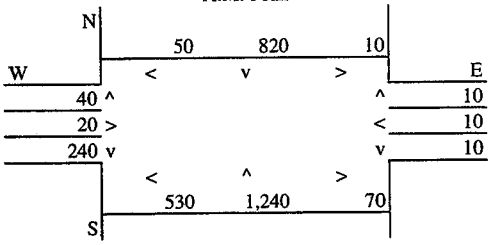
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Oxnard Boluevard	At Grade	4	15	15
East-West Roadway:	Town Center Drive	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

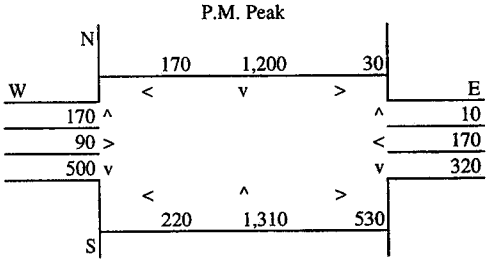
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,910	N-S Road	4,080
E-W Road	890	E-W Road	1,320

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,910	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	890	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	4,080	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,320	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	5.0	5.5	3.3
100 Feet from Roadway Edge	4.6	5.0	2.9
300 Feet from Roadway Edge	4.1	4.3	2.4

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Oxnard Boulevard & Santa Clara River Boulevard
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Oxnard Boulevard	At Grade	4	15	15
East-West Roadway:	Santa Clara River Boulevard	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
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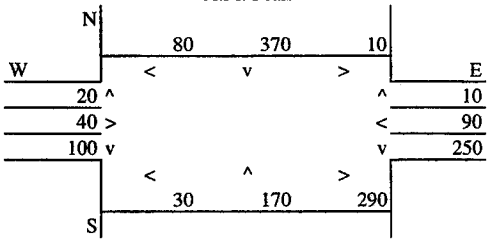
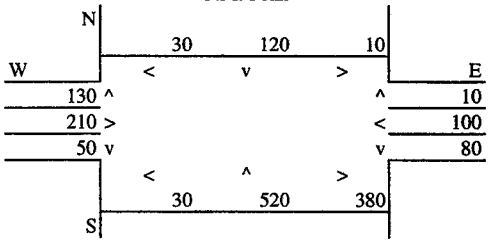
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

	A.M. Peak		P.M. Peak
N-S Road	1,210	N-S Road	1,180
E-W Road	690	E-W Road	790

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,210	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	690	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	1,180	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.1	*	790	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.3	4.3	2.4
100 Feet from Roadway Edge	4.1	4.1	2.3
300 Feet from Roadway Edge	3.9	3.9	2.1

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Oxnard Boulevard & South Park Drive
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

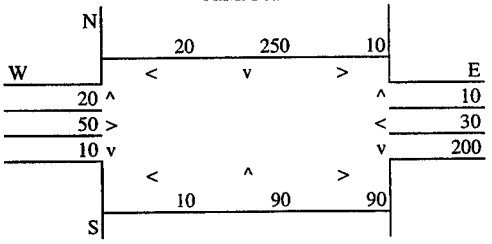
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Oxnard Boulevard	At Grade	4	15	15
East-West Roadway:	South Park Drive	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

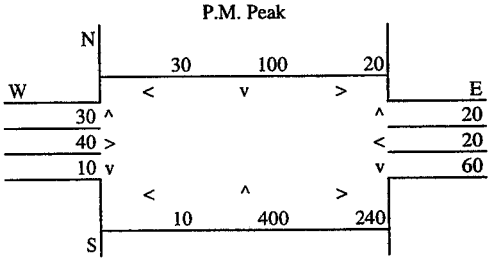
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	650	N-S Road	820
E-W Road	390	E-W Road	400

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	650	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	390	*	10.78	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	820	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	400	*	10.78	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.0	4.1	2.3
100 Feet from Roadway Edge	4.0	4.0	2.2
300 Feet from Roadway Edge	3.8	3.8	2.1

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Oxnard Boulevard & North Park Drive
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

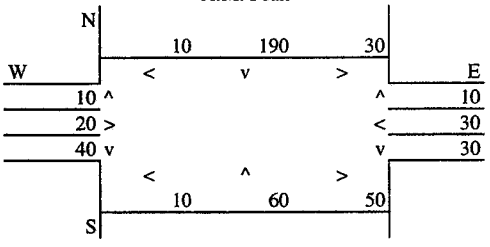
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Oxnard Boulevard	At Grade	4	15	15
East-West Roadway:	North Park Drive	At Grade	2	10	10

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

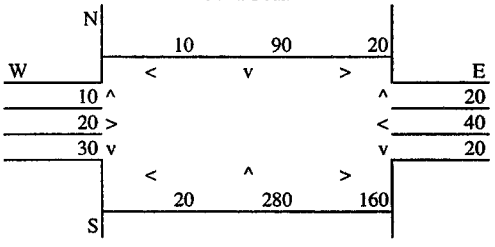
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	380	N-S Road	600
E-W Road	170	E-W Road	280

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	380	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	170	*	10.78	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	600	*	7.30	÷	100,000
E-W Road	2.2	1.7	1.0	*	280	*	10.78	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	3.9	4.0	2.2
100 Feet from Roadway Edge	3.8	3.9	2.2
300 Feet from Roadway Edge	3.8	3.8	2.1

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Santa Clara River Boulevard & South Park Drive
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

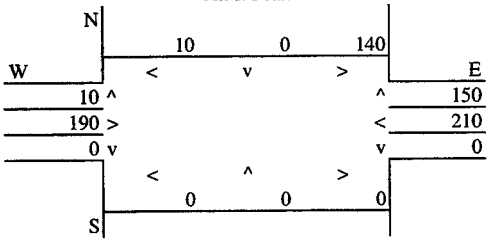
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	South Park Drive	At Grade	2	10	10
East-West Roadway:	Santa Clara River Boulevard	At Grade	4	15	15

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

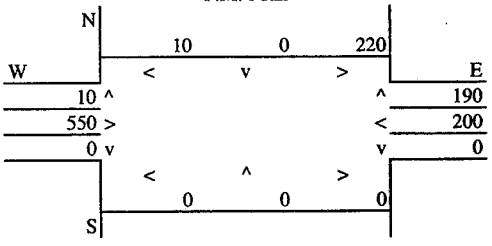
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	310	N-S Road	430
E-W Road	690	E-W Road	1,160

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	2.2	1.7	1.0	*	310	*	10.78	÷	100,000
E-W Road	5.4	3.8	1.6	*	690	*	7.30	÷	100,000
P.M. Peak Hour									
N-S Road	2.2	1.7	1.0	*	430	*	10.78	÷	100,000
E-W Road	5.4	3.8	1.6	*	1,160	*	7.30	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.0	4.3	2.4
100 Feet from Roadway Edge	3.9	4.1	2.3
300 Feet from Roadway Edge	3.8	3.9	2.1

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title:	Riverpark
Intersection:	Santa Clara River Blvd. & Vineyard Avenue
Analysis Condition:	Future (2020) With Project
Nearest Air Monitoring Station measuring CO:	None
Background 1-hour CO Concentration (ppm):	3.7
Background 8-hour CO Concentration (ppm):	2.0
Persistence Factor:	0.7
Analysis Year:	2010

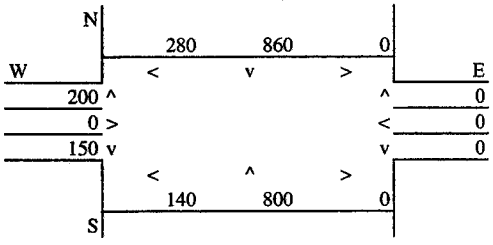
		Roadway Type	No. of Lanes	Average Cruise Speed A.M.	Average Cruise Speed P.M.
North-South Roadway:	Vineyard Avenue	At Grade	4	20	20
East-West Roadway:	Santa Clara River Boulevard	At Grade	4	20	20

EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

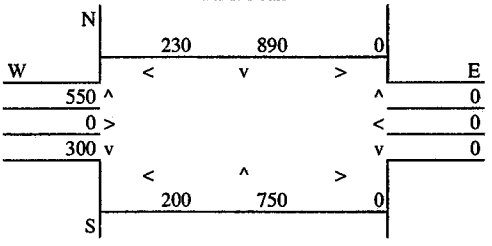
	Average Speed (miles per hour)									
Year	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

PEAK HOUR TURNING VOLUMES

A.M. Peak



P.M. Peak



Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,140	N-S Road	2,420
E-W Road	770	E-W Road	1,280

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 50 Feet	100 Feet	300 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,140	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	770	*	5.52	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,420	*	5.52	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,280	*	5.52	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	4.4	4.6	2.6
100 Feet from Roadway Edge	4.2	4.3	2.4
300 Feet from Roadway Edge	3.9	4.0	2.2

APPENDIX 4.9
Noise Calculations

Table N-1
NOISE LEVEL CONTOURS - Existing Off-Site ADT Volumes

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	 Heavy Trucks	dB(A) CNEL
VINEYARD											
Los Angeles/Central	Residential	4	15	17,900	50	75	0	0	1.8%	0.7%	67.9
Stroube/Ventura	Residential/School	4	0	20,600	35	75	0	0	1.8%	0.7%	64.7
North Park/Stroube	Residential/School	4	0	20,900	35	75	0	0	1.8%	0.7%	64.8
JOHNSON											
Telephone/Ralston	Residential/School	2	0	8,640	40	75	0	5	1.8%	0.7%	67.2
Ralston/Bristol	Residential	2	5	10,300	45	75	0	5	1.8%	0.7%	69.2
Bristol/North Bank	Residential	2	5	25,300	45	75	0	5	1.8%	0.7%	73.1
VENTURA											
Wagon Wheel/Vineyard	Residential	2	0	17,200	35	100	0	10	1.8%	0.7%	72.6
Vineyard/Gonzales	Residential	4	5	22,900	50	75	0	8	1.8%	0.7%	76.9
Wagon Wheel/Town Center	Residential	4	5	12,700	50	75	0	8	1.8%	0.7%	74.3
OXNARD											
Gonzales/Vineyard	Residential	6	5	32,000	45	150	0	12	1.8%	0.7%	78.2
GONZALES											
Ventura/Oxnard	Residential/Medical Clinic	4	5	18,800	45	75	0	8	1.8%	0.7%	74.9
VICTORIA											
East of US-101 Fwy	Residential	4	5	39,340	45	75	0	8	1.8%	0.7%	78.1
TELEPHONE											
Victoria/Johnson	School/Church	6	5	18,800	45	75	0	0	1.8%	0.7%	67.2
RALSTON											
Victoria/Johnson	Residential	2	0	10,600	40	75	0	0	1.8%	0.7%	63.0
VALENTINE											
Victoria/US 101 SB Ramps	Hotel	4	5	21,800	35	100	0	0	1.8%	0.7%	63.7
WAGON WHEEL											
Esplanade/US 101 SB Ramps	Residential/Motel	2	0	3,120	25	50	0	0	1.8%	0.7%	55.6
STROUBE											
East of Vineyard	Residential	2	0	3,200	25	50	0	0	1.8%	0.7%	55.7

(1) Distance to centerline of roadway.

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Table N-2
NOISE LEVEL CONTOURS - Existing + Project Off-Site ADT Volumes

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	 Heavy Trucks	dB(A) CNEL
VINEYARD											
Los Angeles/Central	Residential	4	15	21,000	50	75	0	0	1.8%	0.7%	68.6
Stroube/Ventura	Residential/School	4	0	19,300	35	75	0	0	1.8%	0.7%	64.4
North Park/Stroube	Residential/School	4	0	21,000	35	75	0	0	1.8%	0.7%	64.8
JOHNSON											
Telephone/Ralston	Residential/School	2	0	9,100	40	75	0	5	1.8%	0.7%	67.4
Ralston/Bristol	Residential	2	5	11,100	45	75	0	5	1.8%	0.7%	69.5
Bristol/North Bank	Residential	2	5	26,900	45	75	0	5	1.8%	0.7%	73.3
VENTURA											
Wagon Wheel/Vineyard	Residential	2	0	25,000	35	100	0	10	1.8%	0.7%	74.2
Vineyard/Gonzales	Residential	4	5	27,400	50	75	0	8	1.8%	0.7%	77.7
Wagon Wheel/Town Center	Residential	4	5	23,600	50	75	0	8	1.8%	0.7%	77.0
OXNARD											
Gonzales/Vineyard	Residential	6	5	36,000	45	150	0	12	1.8%	0.7%	78.7
GONZALES											
Ventura/Oxnard	Residential/Medical Clinic	4	5	21,300	45	75	0	8	1.8%	0.7%	75.5
VICTORIA											
East of US-101 Fwy	Residential	4	5	43,640	45	75	0	8	1.8%	0.7%	78.6
TELEPHONE											
Victoria/Johnson	School/Church	6	5	19,600	45	75	0	0	1.8%	0.7%	67.4
RALSTON											
Victoria/Johnson	Residential	2	0	10,700	40	75	0	0	1.8%	0.7%	63.1
VALENTINE											
Victoria/US 101 SB Ramps	Hotel	4	5	22,900	35	100	0	0	1.8%	0.7%	63.9
WAGON WHEEL											
Esplanade/US 101 SB Ramps	Residential/Motel	2	0	2,720	25	50	0	0	1.8%	0.7%	55.0
STROUBE											
East of Vineyard	Residential	2	0	3,900	25	50	0	0	1.8%	0.7%	56.5

(1) Distance to centerline of roadway.

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Table N-4
NOISE LEVEL CONTOURS - 2020 with Project Off-Site ADT Volumes

ROADWAY NAME Segment	Land Use	Lanes	Median Width	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	 Heavy Trucks	dB(A) CNEL
VINEYARD											
Los Angeles/Central	Residential	4	15	24,900	50	75	0	0	1.8%	0.7%	69.4
Stroube/Ventura	Residential/School	4	0	24,880	35	75	0	0	1.8%	0.7%	65.5
North Park/Stroube	Residential/School	4	0	22,350	35	75	0	0	1.8%	0.7%	65.1
JOHNSON											
Telephone/Ralston	Residential/School	2	0	9,610	40	75	0	5	1.8%	0.7%	67.6
Ralston/Bristol	Residential	2	5	11,640	45	75	0	5	1.8%	0.7%	69.7
Bristol/North Bank	Residential	2	5	42,230	45	75	0	5	1.8%	0.7%	75.3
VENTURA											
Wagon Wheel/Vineyard	Residential	2	0	28,550	35	100	0	10	1.8%	0.7%	74.8
Vineyard/Gonzales	Residential	4	5	39,830	50	75	0	8	1.8%	0.7%	79.3
Wagon Wheel/Town Center	Residential	4	5	20,800	50	75	0	8	1.8%	0.7%	76.5
OXNARD											
Gonzales/Vineyard	Residential	6	5	44,700	45	150	0	12	1.8%	0.7%	79.6
GONZALES											
Ventura/Oxnard	Residential/Medical Clinic	4	5	32,130	45	75	0	8	1.8%	0.7%	77.2
VICTORIA											
East of US-101 Fwy	Residential	4	5	48,730	45	75	0	8	1.8%	0.7%	79.1
TELEPHONE											
Victoria/Johnson	School/Church	6	5	20,600	45	75	0	0	1.8%	0.7%	67.6
RALSTON											
Victoria/Johnson	Residential	2	0	11,410	40	75	0	0	1.8%	0.7%	63.4
VALENTINE											
Victoria/US 101 SB Ramps	Hotel	4	5	31,610	35	100	0	0	1.8%	0.7%	65.3
WAGON WHEEL											
Esplanade/US 101 SB Ramps	Residential/Motel	2	0	7,200	25	50	0	0	1.8%	0.7%	59.2
STROUBE											
East of Vineyard	Residential	2	0	4,700	25	50	0	0	1.8%	0.7%	57.3

(1) Distance to centerline of roadway.

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Table N-1
ON-SITE NOISE LEVEL CONTOURS - 2020 ADT Volumes

ROADWAY NAME / Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 75 Feet[1]	Distance from Center of Roadway: DISTANCE TO CONTOUR 75 CNEL	70 CNEL	65 CNEL	60 CNEL	Calc Dist
Oxnard Boulevard													
US 101/Town Center	6	16	35,000	40	0.5	1.8%	0.7%	68.3	45	64	117	243	75
Town Center/Santa Clara River	4	16	18,600	35	0.5	1.8%	0.7%	63.6	29	38	65	132	75
Santa Clara River/South Park	4	16	7,350	35	0.5	1.8%	0.7%	59.6	27	30	41	71	75
South Park and North Park	4	16	4,950	35	0.5	1.8%	0.7%	57.9	27	29	36	57	75
North of North Park	4	16	3,700	35	0.5	1.8%	0.7%	56.6	27	28	33	50	75
South Park Drive													
Santa Clara River/Oxnard	4	6	3,950	35	0.5	1.8%	0.7%	56.8	20	24	30	49	75
West of Oxnard	2	6	1,400	25	0.5	1.8%	0.7%	49.4	>10	>10	12	18	75
Santa Clara River Road													
Vienyard/South Park	6	16	10,300	40	0.5	1.8%	0.7%	63.0	40	44	60	110	75
South Park/Oxnard	6	16	7,100	40	0.5	1.8%	0.7%	61.3	39	42	53	88	75
Town Center/Oxnard	4	16	10,800	35	0.5	1.8%	0.7%	61.3	28	32	48	90	75
Myrtle Street													
Town Center/Vineyard	4	14	5,450	35	0.5	1.8%	0.7%	58.3	>26	28	36	60	75
Town Center/Santa Clara River	4	14	2,600	35	0.5	1.8%	0.7%	55.1	>26	26	30	42	75
Town Center Drive													
Santa Clara River/Oxnard	4	6	8,350	35	0.5	1.8%	0.7%	60.0	23	27	40	75	75
Oxnard/Myrtle	4	6	6,400	35	0.5	1.8%	0.7%	58.9	22	25	35	64	75
North Park													
Oxnard/Vineyard	4	6	4,150	35	0.5	1.8%	0.7%	57.0	>22	24	30	50	75
West of Oxnard	4	6	1,250	35	0.5	1.8%	0.7%	51.8	>22	22	24	30	75

[1] Distance to centerline of roadway.

"-" = contour is located within the roadway lanes or within 75 feet of the roadway centerline.

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

APPENDIX 4.12
Cultural Resources Reports

Phase I Archaeological Survey Report

Riverpark Specific Plan EIR, Oxnard, CA
Historic Resources Section

12 November 2001
revised

Prepared for:

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1. Introduction

This report was prepared for the purpose of assisting the City of Oxnard, California, in their compliance with the California Environmental Quality Act as it relates to historic resources, in connection with the proposed redevelopment of Riverpark Specific Plan Area A and B as identified on the Project Location Map (Figure 1). This project will result in the demolition of two farm houses, one residence, the Ventura County Maintenance Facilities site and the former Southern Pacific Milling Company site.

This report was prepared by San Buenaventura Research Associates of Santa Paula CA (Judy Triem, Historian; Mitch Stone, Planner), for Impact Sciences, Inc., and is based on field investigations and research conducted in October and November, 2000.

2. Administrative Setting

The California Environmental Quality Act (CEQA) requires evaluation of project impacts on historic resources, including properties "listed in, or determined eligible for listing in, the California Register of Historic Resources [or] included in a local register of historical resources." A resource is eligible for listing on the California Register of Historical Resources if it meets any of the criteria for listing, which are:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
B. Is associated with the lives of persons important in our past;
C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
D. Has yielded, or may be likely to yield, information important in prehistory or history.

The California Register may also include properties listed in "local registers" of historic properties. A "local register of historic resources" is broadly defined in §5020.1 (k), as "a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." Local registers of historic properties come essentially in two forms: (1) surveys of historic resources conducted by a local agency in accordance with Office of Historic Preservation procedures and standards, adopted by the local agency and maintained as current, and (2) landmarks designated under local ordinances or resolutions. (Public Resources Code §§ 5024.1, 21804.1, 15064.5)

By definition, the California Register of Historic Resources also includes all "properties formally determined eligible for, or listed in, the National Register of Historic Places," and certain specified State Historical Landmarks. The majority of "formal determinations" of NRHP eligibility occur when properties are evaluated by the State Office of Historic Preservation in connection with federal environmental review procedures (Section 106 of the National Historic Preservation Act of 1966). Formal determinations of eligibility also occur when properties are nominated to the NRHP, but are not listed due to owner objection.

The criteria for determining eligibility for listing on the National Register of Historic Places (NRHP) have been developed by the National Park Service. Properties may qualify for NRHP listing if they:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or
B. are associated with the lives of persons significant in our past; or
C. embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. have yielded, or may be likely to yield, information important in prehistory or history.

According to the National Register of Historic Places guidelines, the "essential physical features" of a property must be present for it to convey its significance. Further, in order to qualify for the NRHP, a resource must retain its integrity, or "the ability of a property to convey its significance."

The seven aspects of integrity are: Location (the place where the historic property was constructed or the

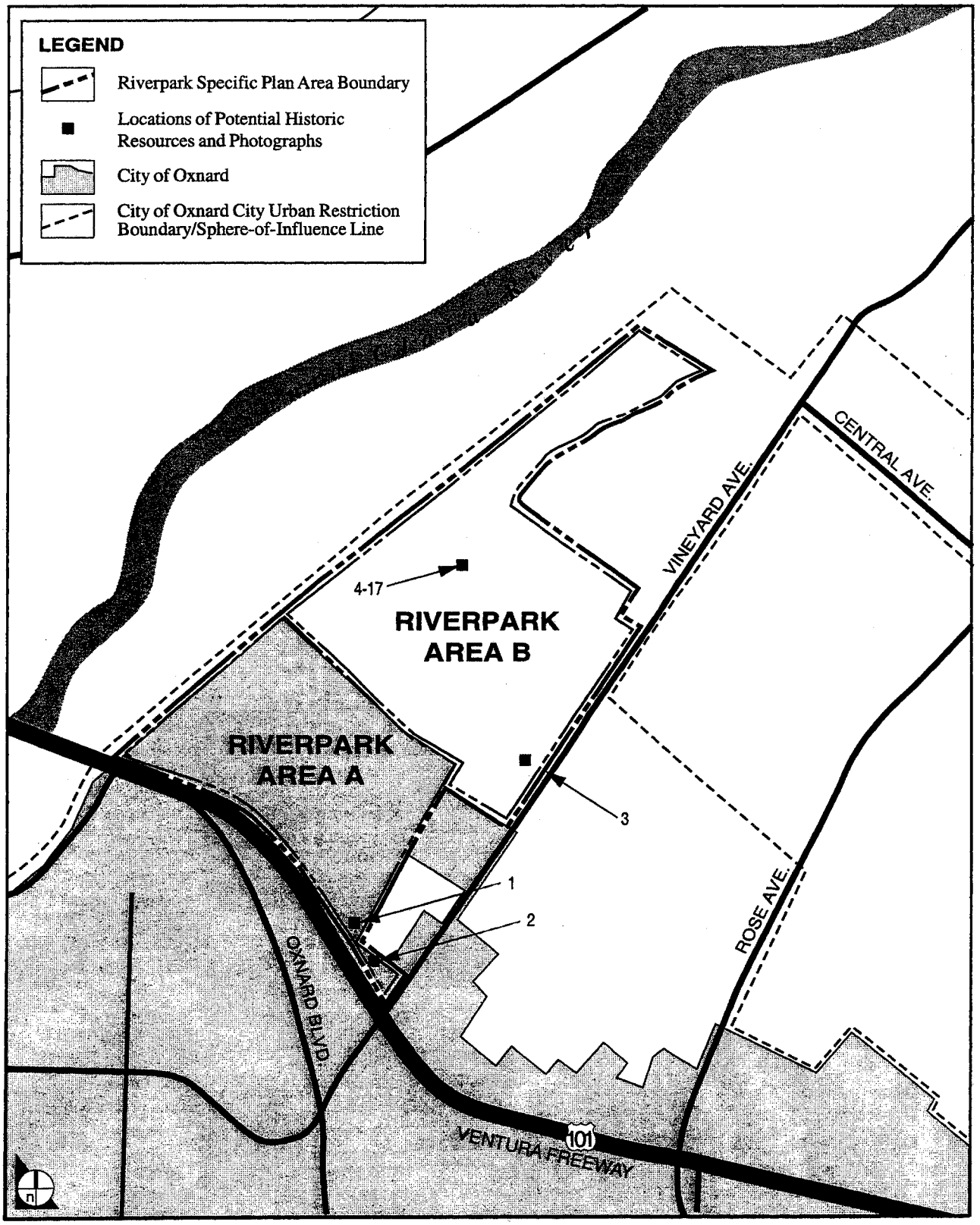

FIGURE 1

Project Location and Historic Resources

source: Impact Sciences

place where the historic event occurred); Design (the combination of elements that create the form, plan, space, structure, and style of a property); Setting (the physical environment of a historic property); Materials (the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property); Workmanship (the physical evidence of the crafts of a particular culture or people during any given period of history or prehistory); Feeling (a property's expression of the aesthetic or historic sense of a particular period of time), and; Association (the direct link between an important historic event or person and a historic property).

The relevant aspects of integrity depend upon the National Register criteria applied to a property. For example, a property nominated under Criterion A (events), would be likely to convey its significance primarily through integrity of location, setting and association. A property nominated solely under Criterion C (design) would usually rely primarily upon integrity of design, materials and workmanship. The California Register procedures include similar language with regard to integrity.

The minimum age criterion for the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR) is 50 years. Properties less than 50 years old may be eligible for listing on the NRHP if they can be regarded as "exceptional," as defined by the NRHP procedures, or in terms of the CRHR, "if it can be demonstrated that sufficient time has passed to understand its historical importance" (Chapter 11, Title 14, §4842(d)(2))

Section 1368 of the Ventura County Cultural Heritage Ordinance sets out the following criteria for designation of a Ventura County Landmark:

1. It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural or natural history;
2. It is identified with persons or events which are significant in national, state or local history;
3. It shows evidence of habitation, activity or the culture of prehistoric man;
4. It embodies elements of architectural design, detail, materials or craftsmanship which represent a significant structural or architectural achievement or innovation;
5. It is representative of the work of a master builder, designer, artist or architect;
6. It is imbued with traditional or legendary lore;
7. It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar feature associated with a neighborhood, community or the County of Ventura;
8. It is one of the few remaining examples in the County possessing distinguishing characteristics of an architectural or historical type or specimen.

3. Impact Thresholds and Mitigation

According to PRC §21084.1, "a project that may cause a substantial change in the significance of an historical resource is a project that may have a significant effect on the environment." The Public Resources Code broadly defines a threshold for determining if the impacts of a project on an historic property will be significant and adverse. By definition, a substantial adverse change means, "demolition, destruction, relocation, or alterations," such that the significance of an historical resource would be impaired (PRC §5020.1(6)). For purposes of NRHP eligibility, reductions in a resource's integrity (the ability of the property to convey its significance) should be regarded as potentially adverse impacts.

Further, according to the CEQA Guidelines, "an historical resource is materially impaired when a project... [d]emolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources [or] that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant."

The lead agency is responsible for the identification of "potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource." The specified methodology for determining if impacts are mitigated to less than significant levels are the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* and the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (1995), publications of the National Park Service. (PRC §15064.5(b)(3-4))

4. Historical Setting and Overview

The 700 acre project site is located in the unincorporated portions of El Rio and portions of the City of Oxnard north of the Ventura Freeway (US 101) between Vineyard Avenue and the Santa Clara River. The historic character of the area is defined primarily by the original Town of Colonia (El Rio West Residential Neighborhood) directly adjacent to the project site on the east. This area was primarily developed between 1900 and 1945. Additional housing north of this area and east of the project site was developed after 1950. Northeast of the project site is an industrial area whose buildings were constructed after 1950. The Santa Clara River forms the boundary to the west of the project site, with the 101 Freeway forming the southern boundary.

Area A contains a nineteenth century farmhouse, a 1950s residence, a metal barn, a 1960s former automobile showroom, Ventura County Maintenance Facilities and the recent town center highrise building. Area B contains a 1950s farm house on Ventura County Campbell Basin lands and the former Southern Pacific Milling Company property.

Historical Context

The unincorporated town of El Rio (*The River*) has had several names over its long history. It is located at the crossroads where the boundary of two ranchos (El Rio de Santa Clara o La Colonia and Rancho Santa Clara del Norte) are bisected by Vineyard Avenue (State Highway 232). El Rio's name probably came from the rancho and its location directly adjacent to the Santa Clara River. The 101 freeway, originally called the Conejo Road and later Ventura Road, separated the two ranchos.

The 44,883 acre Rancho El Rio de Santa Clara o La Colonia was granted by the Mexican Government to eight Santa Barbara soldiers in 1837. Settlers came to the area in the late 1860s as the large ranchos began to be subdivided. When the land was finally patented to the original grantees in 1872, a map was prepared by surveyor John Stow, showing subdivision and ownership of the Rancho. Many of the early settlers were German and Irish, with names such as Borchard, Maulhardt, Donlon and McGrath.

On April 11, 1876 a grant deed was recorded showing that Christian Borchard sold a seven acre parcel of land, located at the intersection of the Conejo Road (later to be called Ventura Boulevard/101 Freeway) and the Hueneme and Saticoy Road (later to be called Vineyard Avenue) to Simon Cohn, for forty dollars in gold (Grant deeds, Book 4, p. 230).

Shortly afterwards, Simon Cohn, a native of Germany, had a general merchandise store built at the intersection of Vineyard Avenue and Ventura Boulevard. Cohn had come to Ventura County to join his brother Morris Cohn, who operated a general merchandise store in Saticoy.

Simon Cohn

Born in Kaempen, Germany on April 4, 1852, Simon Cohn came to the United States at the age of twenty-one. He lived in New York for several months and a brief time in San Francisco before settling in Ventura County in 1873. He worked in his brother Morris Cohn's General Merchandise Store in Saticoy until he was able to raise the money to open his own store about 1876. Simon sold everything from sewing needles to threshing machines in his store (Sheridan, 1926: 72).

Simon married Minnie Cohn in 1885, a German native from the same town where Simon was born. Although they had the same last name, they were not related. The couple raised eight children, and two others died in infancy. The couple's seven daughters and one son all attended the local El Rio School located on Vineyard Avenue adjacent to the Colonia Tract. The family lived in a house Simon had built behind his store.

When Simon Cohn built his store, no other commercial buildings were located in the area, just scattered farmhouses along Conejo Road (Ventura Boulevard). Cohn gradually acquired land on three of the four corners at the intersection of Vineyard Avenue and Ventura Boulevard. His first woodframe store was built on the south west corner of Ventura Boulevard and Vineyard Avenue. A larger brick building was constructed on the northeastern corner of Ventura Boulevard and Vineyard Road in the late 1890s, following the purchase of two parcels of lands from Leopold Schiappapietra. The first 19.69 acre parcel surrounding the Methodist Church was purchased in 1891 for $3,796, followed by the second 17.66 acre parcel at the northeast corner of Vineyard and Ventura Boulevard for $2,649 in 1899.

Two of Cohn's brothers built stores on the other corners. The 1898 City Directory showed David Cohn as proprietor of the Silver Pitcher Saloon and the other brother Leopold Cohn as proprietor of a saloon and billiard hall. The fourth corner also held a saloon that was owned by a Mr. Herbst, who later married one of Simon Cohn's daughters.

Simon Cohn used profits from his lucrative merchandise business to purchase additional lands in the 1880s and 1890s. In 1887 he purchased a 47 acre parcel where the present Wagon Wheel Junction is located. Following the subdivision of the Town of Colonia in 1887, Cohn purchase all of Block Seven in 1889 for $500, as well as eleven individual lots in Blocks 3, 4 and 9 for $915. Simon and his brothers Morris and David also invested heavily in land throughout Ventura County including the towns of Santa Paula and Camarillo (Grant Deed books, 1876-1899).

Gertrude and Simon instilled the importance of education in their children. They followed it up by sending all of the eight children to college. Dora, the oldest daughter, attended Mills College and Cornell University. Helen, the second oldest, went to Mills College, and Esther, the third daughter, attended Occidental College. Another daughter attended USC and Hortense attended Mills College. Jacob, the only son, attended business college. The remaining daughters were named Mildred, Leona and Gertrude.

The Cohns practiced their Jewish faith in their home as well as attending meetings held by the other Jewish families at the Odd Fellows Hall in Oxnard. There was no synagogue in Ventura County until the 1960s. Hortense Cohn Zander recalls the family would have a service once a month and meet once a month for a social event (Oral History Interview, 1981).

In 1921 Simon Cohn had an arena for boxing and wrestling matches built on one of the four corner properties he owned. Prior to the arena's construction, he recalled many fist fights occurring on the site. Numerous articles about his life relate to his generosity in the community. He provided credit to farmers so that they were able to pay him back when their crops came in. He would provide goods free, when possible, to people who were unable to pay(Marina Tower & Views: 1979: 4).

When Cohn died in 1936 at the age of eighty-four, one of his children told about the boxes of bills they found owed by people who could not afford to pay. Their father had never mentioned them, so they didn't either (Smalley, 1966:25). Another story about the family's generosity related to the large cornfield behind their home. Customers were welcome to pick as much corn as they could carry home.

Simon was referred to as the "Mayor" of El Rio, although it was in name only since El Rio was never incorporated as a city. Certainly Simon Cohn can be considered the founder of New Jerusalem/El Rio, as the first merchant to establish himself in the area. Although Cohn started with little when he opened his business, he prospered over time by purchasing land at low prices. In 1910 his assessed value was $73,930, making him among the ten wealthiest landowners in the EL Rio/Oxnard area. He owned many

large parcels of land surrounding his original purchase, and upon his death, he owned the acreage that was eventually to become Wagon Wheel Junction and the Esplanade Shopping Center in later years.

Following Cohn's death, his daughter Hortense and her husband George Zander moved into the family home and Hortense helped manage the store. It is also said that Jacob Cohn, the only son, ran the store. Hortense purportedly ran the store until it was demolished following the freeway construction.

New Jerusalem to El Rio

The town was first officially referred to as New Jerusalem and is said to have been given its name by Judge J.D. Hines, the first Superior Court Judge in Ventura County, who in 1876 named it to honor the first Jewish merchants in the area, the Cohn Family (Ritter: 1940:170). Simon Cohn had the name New Jerusalem painted on his store, which at first was a small woodframe building that was replaced by 1891 with a larger brick masonry building that stood at the same location for over seventy-five years until the freeway paved over the site. In 1891 when the town of New Jerusalem was visited Yda Storke, she wrote, "The town has two large general merchandise stores, a church and other businesses." (Storke, 1891:589)

In 1882 the first post office was open in New Jerusalem, and Simon Cohn served as postmaster. In 1895, the post office shortened the name of the town to Jerusalem, and a few months later, on June 6, 1895, the name was changed to Elrio (all one word). In 1905 the post office name was finally changed to El Rio and stayed that way until the post office closed in 1911.

The Rio School District was established by the Board of Supervisors in 1885, and a school house was built on the western side of Vineyard Avenue about three-tenth of a mile east of the intersection with Ventura Boulevard. A Catholic Church was built in the 1870s on Conejo Boulevard (Ventura Boulevard) adjacent to one of Simon Cohn's properties. It is said that Simon Cohn, although he was not a Catholic, contributed to its construction. It may have been that he donated land. In later years, when the freeway was built, the church was moved to Rose Avenue. A Methodist Church was also built on Vineyard Avenue across from the Myrtle Avenue intersection.

In 1887 the Town of Colonia, a twelve block subdivision by Taylor and Jepson, was recorded by surveyor J.B. Stow. This was the first housing development in the New Jerusalem area at the time. It was located adjacent to Vineyard Avenue and the Conejo Road (Ventura Boulevard/101 freeway). Within the tract was one main road, Colonia Avenue, and bisected by three streets: Myrtle, Olive and Sycamore streets. The first school was built in this tract and faced onto Vineyard Avenue. (Figure 2)

Many modest houses have been built over time within this tract. These residences appear to date from the early 1900s through the 1920s, with a few built after 1940. Some of the small older houses have been replaced with modern residences beginning in the 1950s. The tract has been home primarily to Hispanic families since it first opened.

When the town of Oxnard was established in 1898, it is said that some of the buildings from El Rio were moved to Oxnard. The small community of El Rio retained its rural agricultural character until World War II. Farm land was used for such crops as lima beans, walnuts, grain and citrus. Following the war, there was pressure to develop in Ventura County, and El Rio was no exception. Former agricultural lands east and west of Vineyard Avenue were turned into housing tracts. A new El Rio School was built on the east side of Vineyard Avenue, and the old school was torn down to make way for commercial development.

The final blow to the original town center of New Jerusalem where Simon Cohn's store, the Catholic Church and other commercial buildings were located, came with the construction of the 101 Freeway in the mid-1950s. The widening of the old Conejo Road (Ventura Boulevard) combined with the construction of the Vineyard overpass wiped out the entire original crossroads where Simon Cohn's store and other stores, as well as farm houses, once stood.

Vineyard Avenue became the new commercial center of El Rio following World War II and the freeway

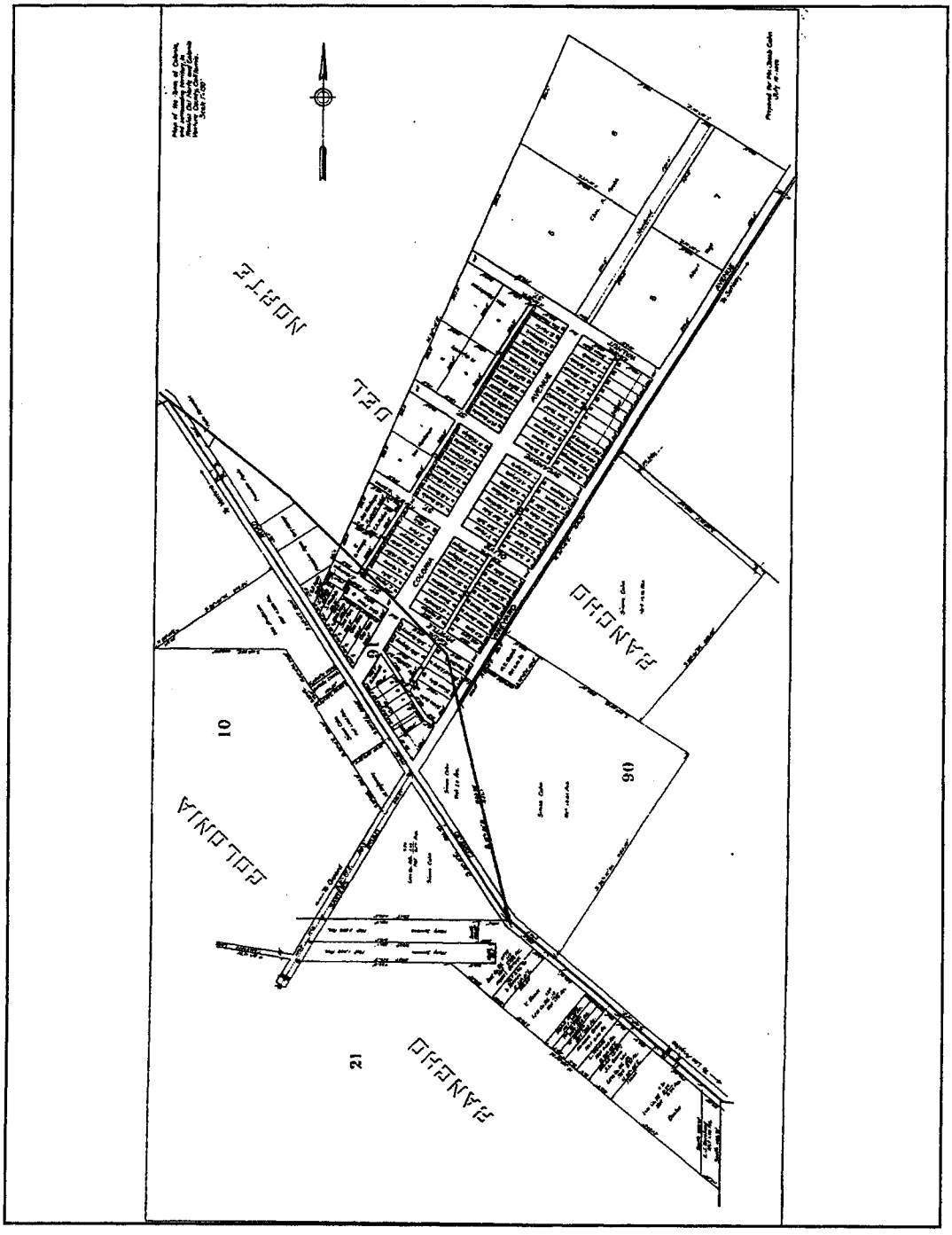

FIGURE 2

MAP OF THE TOWN OF COLONIA, AND SURROUNDING TERRITORY, IN RANCHOS DEL NORTE AND COLONIA, 1922
SOURCE: County of Ventura
SCALE: none

SAN BUENAVENTURA RESEARCH ASSOCIATES, 12/00

construction. New commercial buildings and small shopping centers continue to be built on Vineyard Avenue. During the early 1950s, the County of Ventura began to develop a Facility Yard on El Rio Drive, following the freeway's construction. This large site contained a number of buildings including the animal shelter, shelter office, weights and measures shop and storage, weights and measures garage, calibration station, truck scales, office and labs, communications building, poundmaster's residence, firemen's residences, fire station and private garages.

Santa Paula architect, Roy C. Wilson, drew up the master plan for the facility yard in 1953. The buildings were constructed between 1953 and 1959 with other buildings added in the 1960s. These new buildings included several public works buildings: office, warehouse, joint operations, and equipment repair. During the 1980s, the animal shelter buildings were removed from the site.

The land adjacent to the Santa Clara River has been used by several mining companies since the 1930s. During the 1940s, the El Rio Rock Company, specializing in excavating and grading, was located west of Vineyard Avenue and two miles north of Ventura Boulevard. The Southern Pacific Milling Company, formerly a grain storage and milling business with warehouses adjacent to the Southern Pacific Railroad depots throughout Ventura County, transitioned out of this business in the 1940s into rock, sand, ready mix concrete and asphaltic concrete production. It opened its offices at its present location at 3555 Vineyard Avenue in 1952, having acquired the lease for the property that year. The site was developed between 1952 and 1960.

5. Potential Historic Resources

The following buildings are all located within the project site. Development plans call for their demolition.

Ventura County Facility Yard (GSA Fleet Services, 630 - 644 - 680 El Rio Drive)

This large site, developed between 1953 and 1959, contained a number of buildings including the animal shelter, shelter office, weights and measures shop and storage, weights and measures garage, calibration station, truck scales, office and labs, communications building, poundmaster's residence, firemen's residences, fire station and private garages. Santa Paula architect, Roy C. Wilson, drew up the master plan for the facility yard in 1953. Other buildings were added in the 1960s. These new buildings included several public works buildings: office, warehouse, joint operations, and equipment repair. In 1975 the heavy equipment building was constructed and in 1998, the body shop was built. During the 1980s, the animal shelter buildings were removed from the site. Approximately 16 buildings remain on the site today. All of these buildings were constructed after 1953 and are not eligible as historic resources because they are not fifty years of age.

El Rio Drive residence (no present address)

Historical Background

This house was built between 1912 and 1922 by the Francisco Ayala family. Originally the land was owned by John Donlon who purchased 403 acres of land in this area about 1885. A native of Ireland, Donlon was born in 1847 and came to Ventura County in 1875 and started out raising sheep. In 1886 he married Mary Forrer, a native of Utah, and began their family of twelve children. Donlon had a house built for his wife probably in the late 1880s or 1890s. All twelve children were born in the house, and two of the children, William and Nazarene, lived in the main family house until it was sold about fifteen years ago. This house was located at the end of Strobe Street and was demolished after it was sold. Nazarene Donlon recalls that there was another house on the property when her father purchased the land. She recalls that he tore that house down. Today a modern metal barn sits on the site.

Between 1912 and 1922 the land along present El Rio Drive west of Colonia Avenue was subdivided into several lots. Over the past fifty years this house has been rented out to various families (Sheridan,1926:19; Bissell, 1985:4; Almanza, 11/21/00).

Architectural Description

The date of construction of the residence is uncertain, but it appears to date from around 1912. The gable front plan has a side gabled wing with a shed-roofed porch placed within the L formed by the two wings. At the rear of the side gable is a shed roof portion. The porch is supported by four square wood posts. The tall wood windows are one-over-one sash with plain wood moldings. A wider window was added under the shed roof rear portion. This was a later addition. The house has been covered with composition or asphalt shingles probably over the original horizontal wood siding. The roof is composition shingles. This house is similar to other older houses along Colonia Avenue built shortly after the turn-of-the-century.

300 El Rio Drive (Newport Boats Showroom)

This large one-story commercial building was constructed after 1960 and is not old enough to qualify as a historic resource under CEQA.

2423 Colonia Avenue

This one story rectangular plan residence was built between 1955 and 1958 by Aldo Fatarelli, son of Peter and Alicia. The roof is low pitched gable covered with gravel The house is covered with stucco siding and has sliding aluminum windows. An exterior brick chimney is located on the southern elevation.

Myrtle Street Residence (no present address)

Between 1936 and 1938, Pete Fatarelli moved this building, which was a pump house, onto one of five lots he and his wife Alicia owned on Myrtle Street and present day El Rio Drive, and converted it into a residence. Mr. Fatarelli operated a trucking business until World War II. The family built their own home on one of the five lots facing onto present day El Rio Drive. When the freeway was constructed in 1955, they moved the house back onto Colonia Avenue (Fatarelli, 11/27/2000).

The western side of the building was originally a pump house that was moved from the Eastwood property on Gonzales Road. It was converted into a small residence and an addition was made on the western side. It has a medium front facing gable roof with a broad overhang. The front window is a wood frame one-over-one sash with plain wood moldings. The front door is not original. The house is covered with medium clapboard siding. A large addition has been made to the north side of the house that doubled the original size. The front of the addition is covered with plywood and a small fixed window. The northern side is covered with wide horizontal siding. A map prepared in 1922 of the Town of Colonia shows that a J. Mondragon owned this property.

3091 Vineyard Avenue (Grubb/Campbell farmhouse)

This one story ranch style house has a hip roof covered with wood shingles and exposed rafters under the eaves. The porch is recessed. The house is covered with stucco siding and the wood windows have two-over-two sashes. Adjacent to the house is a garage, and a mobile home is located behind the house. The house appears to have been built by 1945. It is shown on an aerial photograph taken that year. The house was probably built for John H. Grubb and his wife Ella. The family owned a large acreage going back to 1912 along Vineyard Avenue where John Grubb owned 67 acres just north of present day Strobe Street (formerly Walnut Avenue). Walnuts were once grown on the property. The first Grubb house was located further south of this present house and was moved in later years to the east side of Vineyard to the corner of Collins Avenue and Balboa. John had two sisters who lived in the older house (Fatarelli, 11/30/2000).

Southern Pacific Milling Company (Hanson Aggregates, 3555 Vineyard Avenue)

History

This mining site was originally developed as the El Rio Rock Company in the early 1940s by C. Donald Woolsey. When the Naval base was established in Port Hueneme in 1942, Woolsey recognized the need for asphaltic concrete. His company helped pave the many roads at the base. Woolsey constructed or moved several buildings onto his El Rio site. They included: an office building, residence for bookkeeper, metal shop building and quonset huts for use as storage, an asphalt plant and a dry screening and crushing plant. In 1952 Southern Pacific Milling Company leased the property, eventually purchasing it, and began new development on the site. An administration building was constructed as well as the asphaltic plant. A site plan showing the buildings and structures at their present location was completed in 1960. This 1960 plan includes approximately 56 buildings and structures.

The El Rio Rock Company was one of three rock companies in this area of the Santa Clara River near El Rio. The earliest was located in the Ventura River near Stanley Avenue. It was moved to the Saticoy area and called Saticoy Rock Company. It remains in existence today but under a new name. The Montalvo Rock Company was established in the 1930s and was eventually taken over by the Southern Pacific Milling Company who closed it in the late 1950s when the rock deposits were depleted. The El Rio Rock Company was the third to be established in the early 1940s by Donald Woolsey, who established the Santa Paula Rock Company about the same time (Hamilton, 11/27/00).

Southern Pacific Milling Company originated in 1885 as a grain milling and warehousing company and incorporated in 1886. The company had warehouses adjacent to the railroad tracks and depots throughout Ventura County as well as other cities in California. By the late nineteenth century, the company became involved in the lumber industry and operated some 38 warehouses and 21 lumber yards between Los Angeles and San Francisco. By the 1940s, the company transitioned from milling and warehousing into mining aggregates.

The El Rio plant, where they began mining operations in 1952, became the main headquarters for supplying aggregates and related products used in modern construction. During the 1950s the company accelerated its production by introducing modern equipment and processing structures. It contributed to the industry by pioneering in the HMS (Heavy Media Separation) process that "enhanced the quality of aggregates by floating out the undesirable elements of the material. The resulting products were superior for many usages where highgrade aggregates are essential." (SP Milling Co.1985:3) The materials produced by SP Milling were used locally and in the Southern California region for highways and streets, housing projects, industrial and commercial buildings, oil refineries, schools, dams and parking structures, airports and naval bases. SP Milling had 140 employees in 1960. In addition there were 35 hauling trucks operating from the El Rio site (Marsh & McLennan-Cosgrove & Company: 1960:1). (Figure 3)

Building/Site Descriptions

Today the mining site encompasses approximately 149 acres of gravel and sand from the close proximity to the Santa Clara River as well as retention ponds and a number of buildings and structures. The buildings are clustered into several groupings. The Administration Building is surrounded by several small buildings once used as residences and offices and later for storage. Some of the buildings from the 1960 plan are no longer extant.

Another grouping of metal shop buildings are used for equipment repair, welding, paint shop, lube shop, and tire storage. Adjacent to this cluster is an older woodframe office building. Across from the office building is the Cement Batch plant with nearby cement warehouse, scales and dispatch office. East of the cement Batch Plant is the Asphaltic Plant, and north of this plant is the Sand And Gravel Plant, formerly called the Rock Plant.

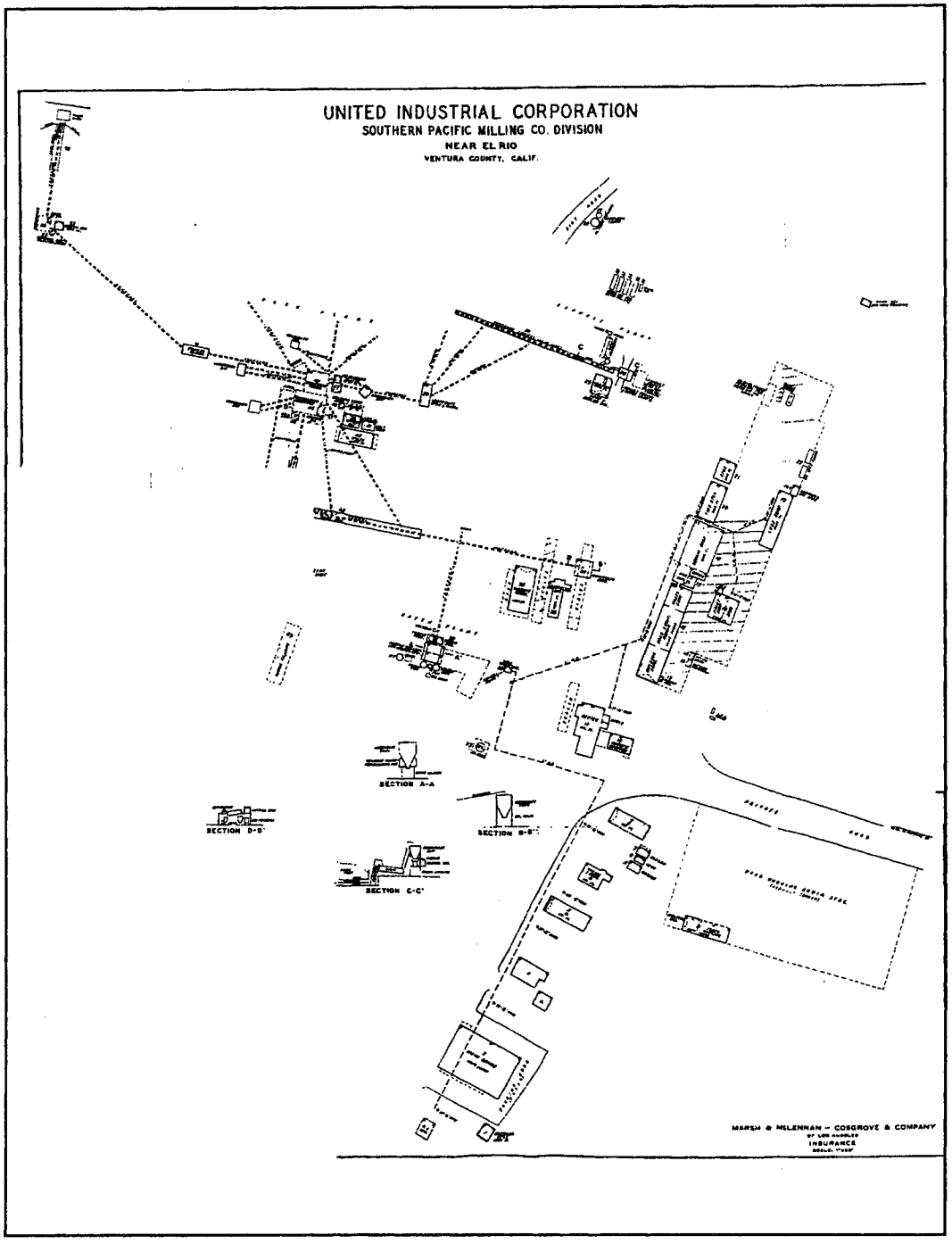

FIGURE 3

SOUTHERN PACIFIC MILLING COMPANY, 1960
SOURCE: Marsh & McLennan-Cosgrove and Co.
SCALE: none

SAN BUENAVENTURA RESEARCH ASSOCIATES, 12/00

Three extant buildings appear to have been built by the El Rio Rock Company in the early 1940s. They are a residence/storage and garage, an office and an office/residence. Several other buildings may have been on the site prior to 1952. They are the metal equipment repair sheds, and several other metal storage buildings.

Office building (circa 1942)

Irregular in plan, this one story office building has a cross gable roof covered with composition sheeting. Rafters are exposed under the broad eaves. There is a simple concrete stoop in front of the main entry with pipe railings. Windows are fixed or one-over-one wood sash with plain wood mouldings. The building is covered with medium horizontal clapboard siding and rests on a concrete foundation. A shed roof addition is located on the north elevation.

This building was used by Donald Woolsey as an office building for his new El Rio Rock Company, established in the early 1940s. The exact date of construction of this building is unknown. The style of the building indicates a 1920s date, so the building could have been moved onto the site circa 1942. The building has had some modifications over the years including the replacement of the wood windows with aluminum sliders on the rear wing (south elevation).

Residence/garage (circa 1942)

This building served as the residence for the El Rio Rock Company bookkeeper, Mr. Campbell, and his family. After his death, his widow was allowed to remain. She kept a small garden around the building. When she left, Southern Pacific converted it to a lab and conference room. It presently is being used for storage. This one story rectangular plan residence has a low pitched hip roof covered with composition shingles and exposed rafters under the eaves. The attached front porch has a shed roof supported by two square posts. The wood sash windows are two-over-two with wood moldings. The house is covered with medium horizontal clapboard siding and rests on a concrete foundation. At the rear of the house is a similar styled garage with hip roof and wood siding with a sliding wood door.

Office/residence (circa 1952)

This building is said to have been built by Mr. Woolsey after he leased the property to Southern Pacific Milling in 1952 as an office. This small rectangular plan building has a low pitched gable roof covered with composition shingles and exposed rafters under the eaves. Knee bracket details are located under the gable ends. The attached front porch has a shed roof supported by two wood posts and a wood railing with a criss-cross design. Windows have wood frames and are fixed or one-over-one wood sash. The building is covered with stucco siding and rests on a raised concrete perimeter foundation.

Metal Equipment Repair Building (circa 1942 with additions through the present)

A rectangular plan metal building was constructed around 1942 for use as a shop building by the El Rio Rock Company. It is possible that this building is located at the south end of the grouping of several shop buildings because of its type of metal siding and framing.

The lubrication building, the paint building and a portion of the equipment repair building may all date from circa 1942 based on their material and form. The 1949 Oxnard quad map and the 1951 Saticoy quad map show approximately eight buildings on the site. Since there are no permits available, all three buildings will be assessed as historic buildings (fifty years of age or older).

Lubrication Building (circa 1942)

This tall rectangular plan building has a shed roof addition. The gable roof has a low pitch with exposed rafters under the eaves. The building is covered with corrugated metal siding. A tall steel roll-up door is located on the north elevation.

Paint Shop/Storage Building (circa 1942)

Rectangular in plan, this one story building has a medium gable roof covered with corrugated metal sheets. A shed roof addition is located one one side of the bulling. Openings have been enclosed with metal siding.

Administration Building (circa 1959)

This flat roofed building is rectangular in plan and covered with stucco siding. The entrance, located on the north elevation, has a flat roof overhang supported by two walls. Decorative wood arbor extends across the west elevation over a grouping of windows. Windows are aluminum sliders.

Asphalt Plant (circa 1940 and upgraded continuously)

The Asphalt Plant was modernized and expanded by Southern Pacific Milling Company beginning in 1959. It contains tanks and numerous sized structures and equipment attached by conveyor belts. A few small corrugated metal buildings used as offices are located here as well.

Concrete Plant (after 1952)

The Concrete Plant or Batch Plant was constructed by Southern Pacific Milling and has been modernized over the past fifty years. It contains numerous tanks, conveyor belts and small office buildings used for dispatch and scales as well as aggregate storage.

Rock Plant (after 1952)

The rock plant has been partially disassembled. What remains are conveyor belts, a metal warehouse, equipment and equipment. It was built by Southern Pacific Milling.

6. Eligibility of Historic Resources

Residence, El Rio Drive (Photograph 1)

This building does not appear to be associated with any significant historic event (Criterion A) that occurred in the El Rio area, nor is it associated with a significant person (Criterion B). Architecturally it is not sufficiently distinctive to be eligible for the National Register or the California Register under Criterion C, especially since it no longer resembles its original historic appearance. Changes have been made to siding and additions have been made. It does not appear to meet the criteria for eligibility as a Ventura County landmark.

Myrtle Street residence, west of Colonia Avenue - no address (Photograph 2)

This building does not appear to be associated with any significant historic event (Criterion A) that occurred in the El Rio area, not is it associated with a significant person (Criterion B). Architecturally is is not sufficiently distinctive to be eligible for listing on the National Register or the California Register under Criterion C, especially since it no longer resembles its original historic appearance. This building was moved to the site in the mid-1930s. It was a pump house converted to a residence with an addition made on the west side. Although it has served as a residence for almost 75 years, its original use was a pump house and the building was moved from the Eastwood ranch on Gonzales Road. It does not meet the criteria for listing as a Ventura County landmark.

Grubb/Campbell Farmhouse, 3091 Vineyard Avenue (Photograph 3)

The Grubb residence is not eligible for listing on the California Register or the National Register of Historic

Places because no significant events occurred on the property (Criterion A). The property was once part of a larger walnut ranch that included two residences, but the integrity of the property has been lost with the removal of the other older residence and the walnut trees, and a portion of the original acreage. No significant individuals are associated with this property (Criterion B). The Grubb family were ranchers and owned the land from at least 1912 until circa 1970 when it was purchased by the Campbell family. There are no buildings on the property with distinctive architectural designs (Criterion C). The main house is a modest fairly unaltered example of the Ranch house style. A garage and a mobile home are also located on the property. The property does not appear to be eligible under any of the Ventura County Landmark criteria.

El Rio Rock/Southern Pacific Milling Company (Hanson Aggregates), 3555 Vineyard Avenue (Photographs 4-17)

Five buildings on the former El Rio Rock Company/Southern Pacific Milling Company site were built or moved to the site prior to 1950. The exact dates are unknown, because there are no building permits available for these buildings. The buildings include an office building, circa 1920; a residence/lab/garage, circa 1942; three metal storage buildings, circa 1942.

Eligibility Discussion

The El Rio Rock Company was established circa 1942 by Donald Woolsey primarily in response to the need for asphalt with the construction of the Naval Base at Port Hueneme that same year. These buildings were all located on site prior to the leasing of the property by the Southern Pacific Milling Company in 1952. This grouping of buildings, including the asphalt plant, which was modernized by SP Milling, was one of three industrial rock mining operations in the Ventura-Santa Clara Valley region. The other three were Saticoy Rock Company and Montalvo Rock Company. The El Rio Rock Company contributed mainly to the construction of roads and air fields.

Later, with the addition of a concrete and rock plant by SP Milling, the company supplied materials used in the construction of a large number of buildings throughout Ventura County. The materials produced by SP Milling were used locally and in the Southern California region for highways and streets, housing projects, industrial and commercial buildings, oil refineries, schools, dams and parking structures, airports and naval bases.

The five historic buildings located on the SP Milling Company site may be eligible for listing on the NRHP and California Register of Historical Resources under Criterion A (historic events), because they are associated with an industry which has made a significant contribution to the physical development of Ventura County through the construction of roads, bases, airfields and buildings.

In order to qualify for the NRHP, a resource must retain its integrity, or "the ability of a property to convey its significance."

When judging the integrity of the property, the entire site as well as it surroundings must be considered. Because the vicinity of the property no longer resembles its original historic appearance, with the encroachment of urbanization to the east, west and south, and the loss of adjacent agriculture, the **setting** (physical environment of a property) is effectively lost. The property's **location** is the same. The **design and materials** of the property is partially intact. Although only minor modifications to the buildings have occurred, the access road into the property has been moved twice, and some buildings were added to the site after 1950, while others have been removed. The **feeling and association** of the property as a rock and cement company is partially intact. The rock crushing activity continues on a portion of the property, although the mining has ceased.

Because of the significant loss of integrity in setting and design, the remaining buildings on the property do not appear to be eligible for listing on the NRHP or the CRHR.

However, they may be eligible for listing as Ventura County Landmarks, a designation which has no integrity criteria. The El Rio Rock Company/SP Milling Company site appears to qualify as a Ventura County Landmark under Criterion 1 because it reflects special elements of the County's mining engineering history. It also appears eligible under Criterion 8 as one of the few remaining examples in the County possessing distinguishing characteristics of a historical industrial type.

7. Project Impacts

Within the CEQA definitions, a project which may result in the demolition, destruction, relocation, or alteration of an historic resource is regarded as an adverse environmental impact.

Impact 1. The demolition of the El Rio Rock Company/SP Milling site and the construction of a new residential complex will result in the loss of the entire rock and concrete mining site. This should be regarded as an adverse impact.

8. Adverse Impact Mitigation

A principle of environmental impact mitigation is that some measure or combination of measures may serve to reduce adverse impacts, and that feasible measures which mitigate environmental impacts should be implemented, even where residual impacts may remain. In reference to mitigating impacts on historic resources, the CEQA Guidelines state:

> Generally, a project that follows the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource. (PRC §15064.5 (b)(3))

These standards and the supporting literature describe the principles of historic preservation as well as accepted methodologies for carrying out preservation, restoration and rehabilitation projects. The documentation of a resource in preparation for its demolition, for example, would not comply with the *Secretary of the Interior's Standards,* although documentation of a resource in connection with its relocation to another suitable site arguably may.

In direct reference to documenting historic resources as a mitigation technique, the CEQA Guidelines state:

> In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur. (PRC §15126.4 (b)(2))

Implied by this language are circumstances where documentation may mitigate impacts to less than significant levels, although the conditions under which this may be said to have occurred are not specified in the Guidelines. Taken in total, the language in the CEQA Guidelines steers the methodology for mitigation of impacts on historic properties towards conformance with the *Secretary of the Interior's Standards.* The Guidelines also appear to leave open the potential for reducing impacts to levels below significance thresholds by means other than the application of the *Standards,* under circumstances which the Guidelines do not define.

In general practice, mitigation programs for impacts on historic resources tend to fall into three broad categories: documentation, design and interpretation. Documentation techniques involve the recordation of the site according to accepted professional standards, such that the data will be available to future researchers. Design measures could potentially include direct or indirect architectural references to the historic property, e.g., the incorporation of historic artifacts, into the new development. Interpretation

measures might include commemorating a significant historic event or the property's connection to historically significant themes.

As this property derives some of its significance from the historic industrial style it represents, recordation should be regarded as an appropriate mitigation technique. Since the significance of the property is not in its architecture, design-based mitigation would not be appropriate. As the property derives its significance partially from its associations with historic themes, interpretative measures are warranted. Accordingly, the following measures should to be incorporated into the mitigation program for this project:

Impact 1. Demolition of the El Rio Rock Company/Southern Pacific Milling Company site.

A. Documentation. Prior to the issuance of a demolition permit, the applicant shall produce a documentation survey of the property in accordance with the Historic American Building Survey (HABS) standards. This documentation shall include archival quality photographs of exterior features, elevations of the seven historic buildings.The 1960 Inspection Report Map prepared by Marsh & McLennan-Gosgrove & Company shall be included as the site plan. The documentation package will be archived at an appropriate location determined by the City of Oxnard.

B. Interpretation. In consultation with a qualified historian, the applicant shall produce an oral history with the former president of SP Milling Company, Bill Hamilton, and any other employees with a knowledge of the company history. The taped history, done according to professional oral history standards, shall be indexed and copies made available to the Ventura County Museum of History and Art Oral History Archive and the Oxnard Historical Society and any other appropriate repository.

The project impacts after mitigation should be regarded as adverse and significant.

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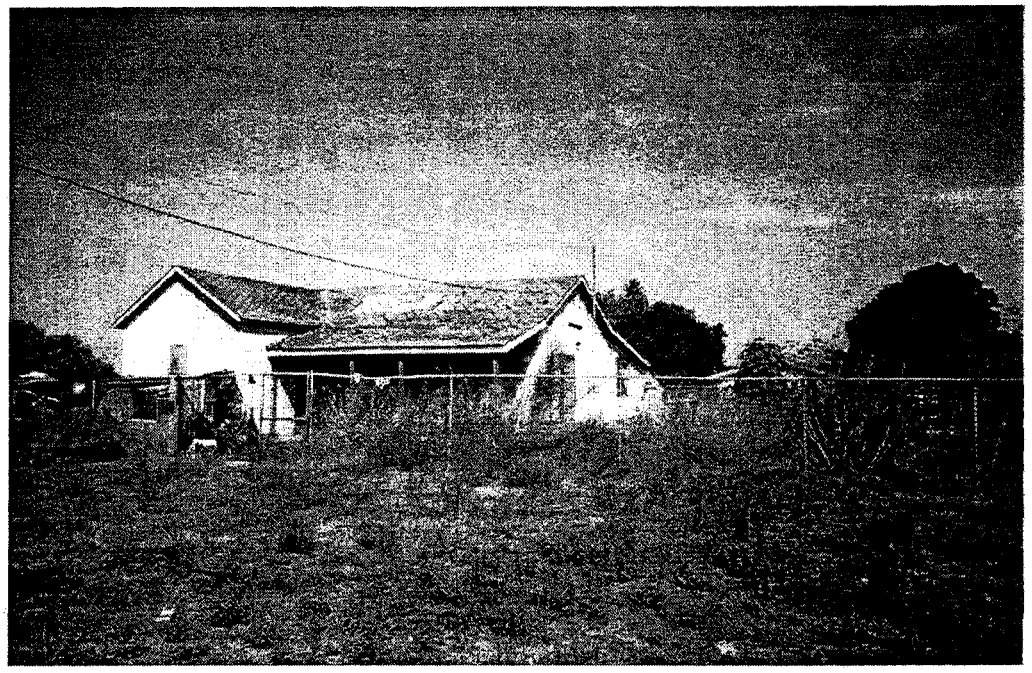

Photo 1: 300 block El Rio Drive, El Rio, facing north (San Buenaventura Research Associates, 10/17/00).

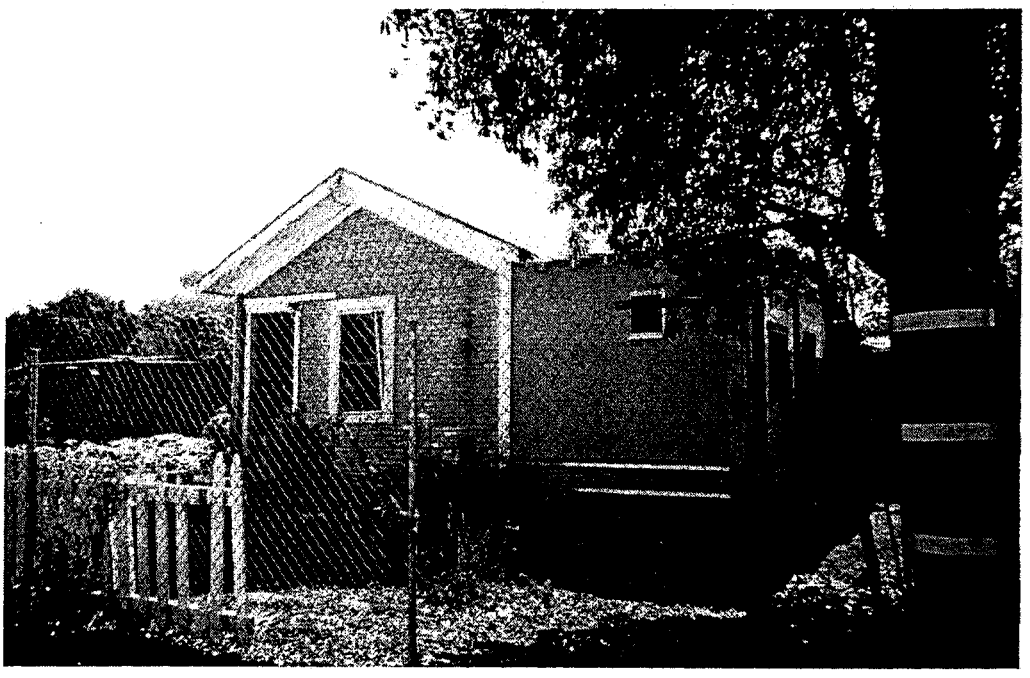

Photo 2: 200 block Myrtle Street, El Rio, facing south (San Buenaventura Research Associates, 10/17/00).

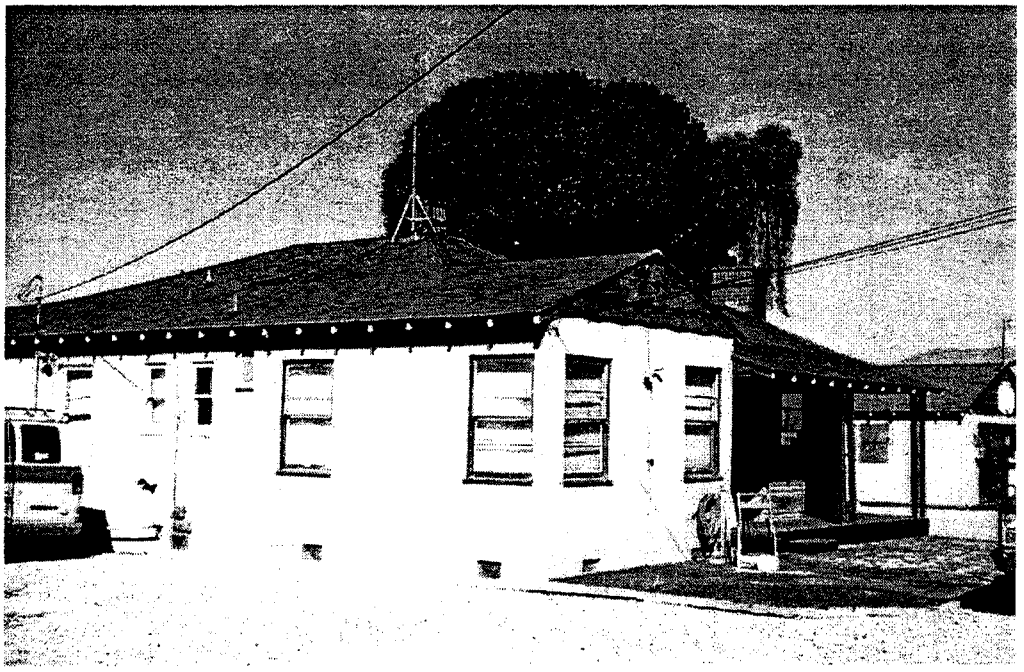

Photo 3: 3091 Vineyard Avenue, across from Walnut Avenue, facing northwest (San Buenaventura Research Associates, 10/17/00).

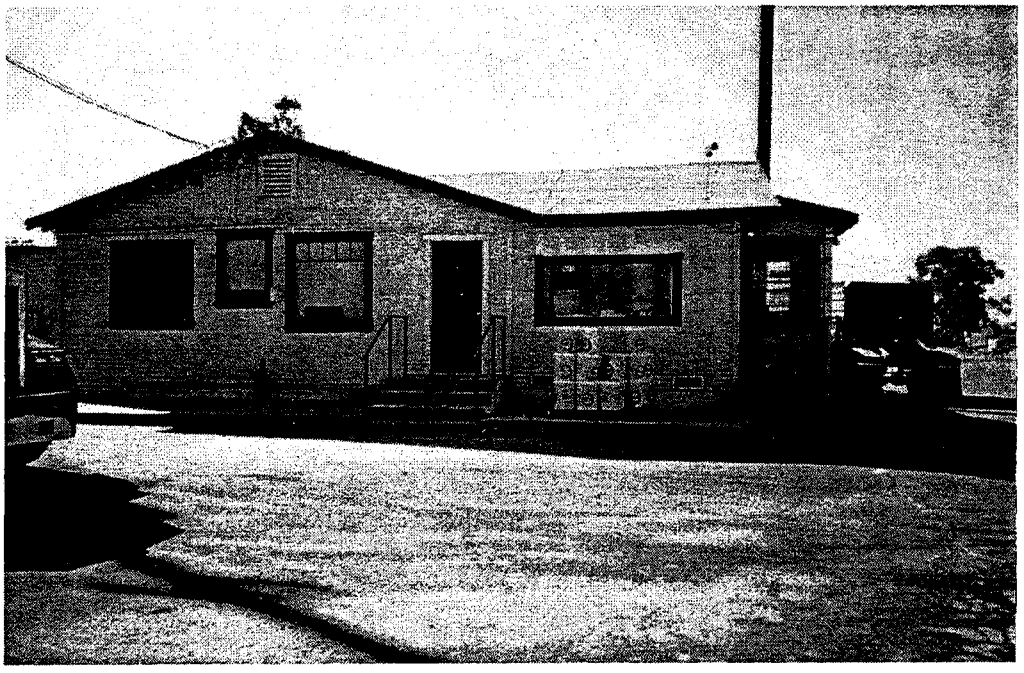

Photo 4: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co. office building, facing south (San Buenaventura Research Associates, 10/17/00).

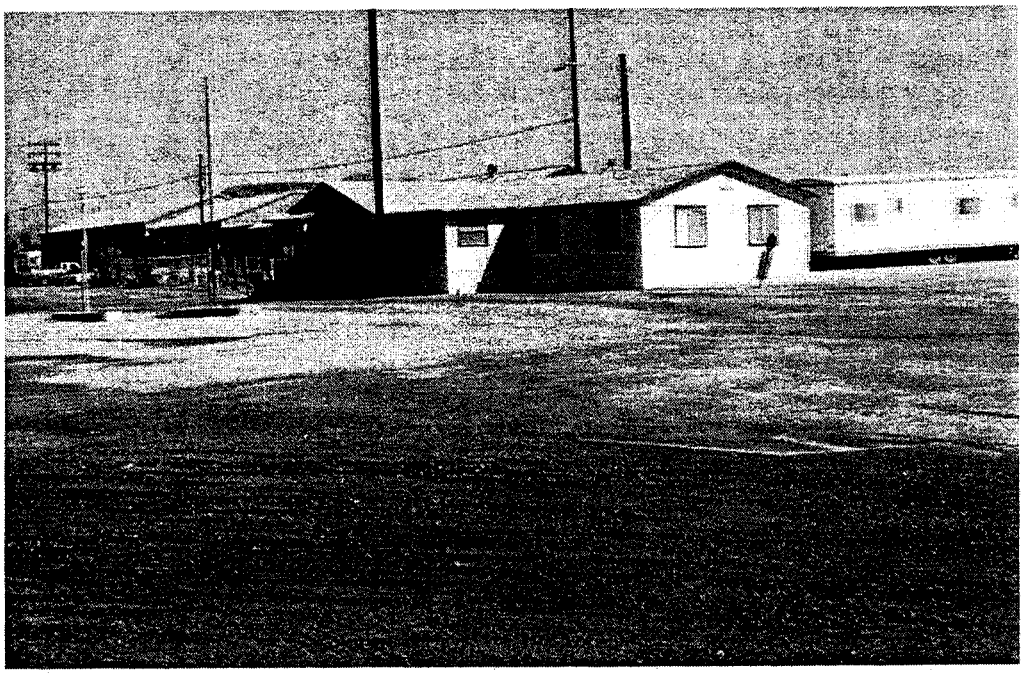

Photo 5: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co. office building, facing northeast (San Buenaventura Research Associates, 10/17/00).

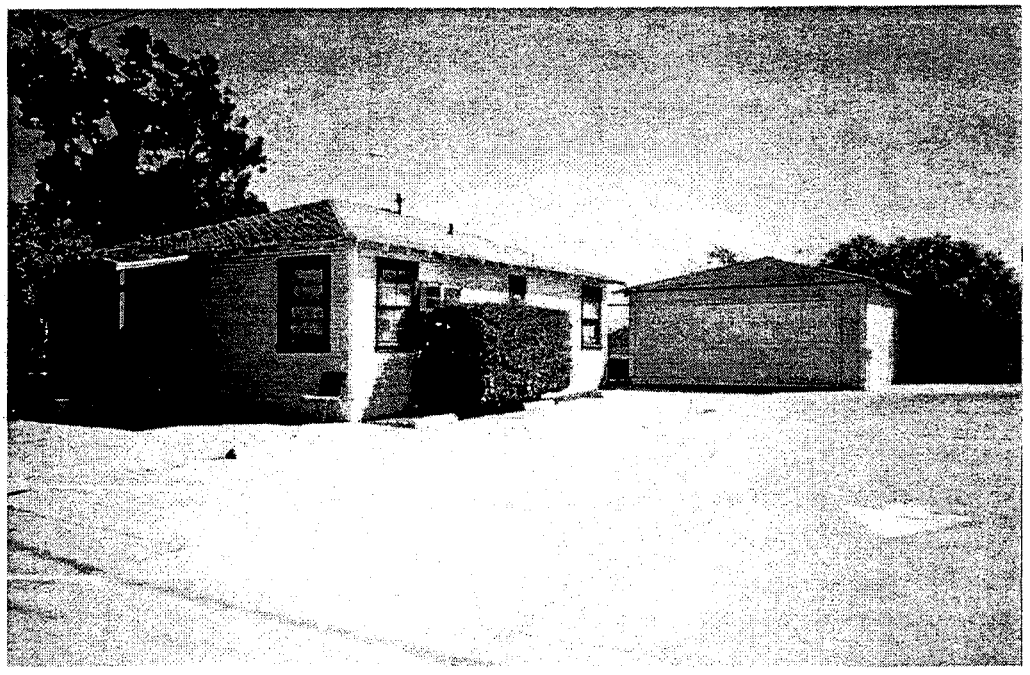

Photo 6: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co. residence/storage and garage, facing east (San Buenaventura Research Associates, 10/17/00).

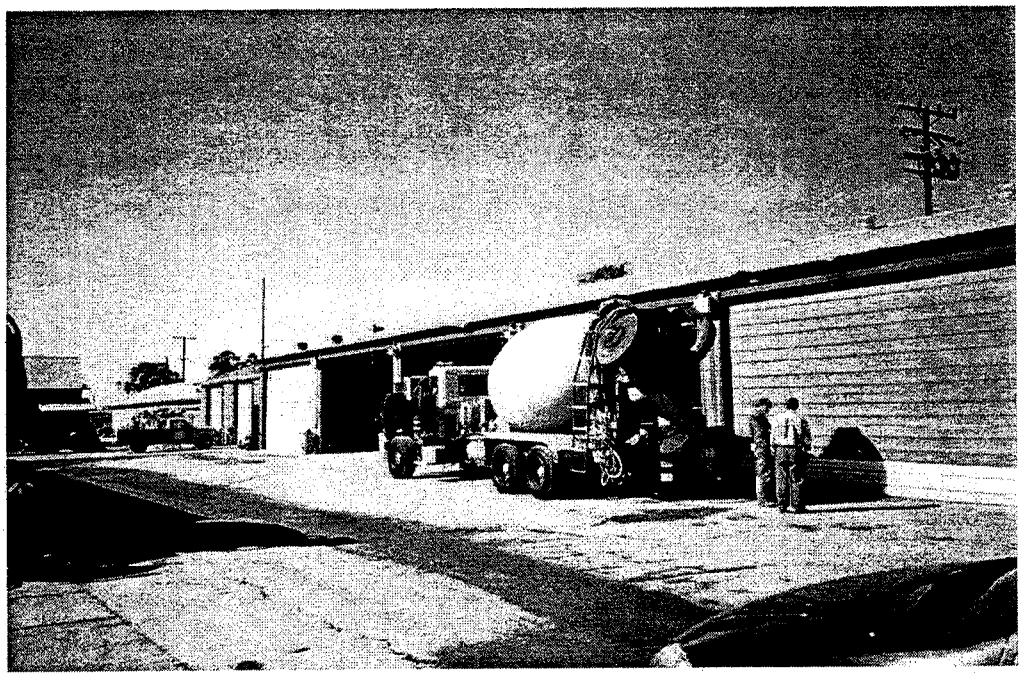

Photo 7: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., repair shop, storage, welding department, facing south (San Buenaventura Research Associates, 10/17/00).

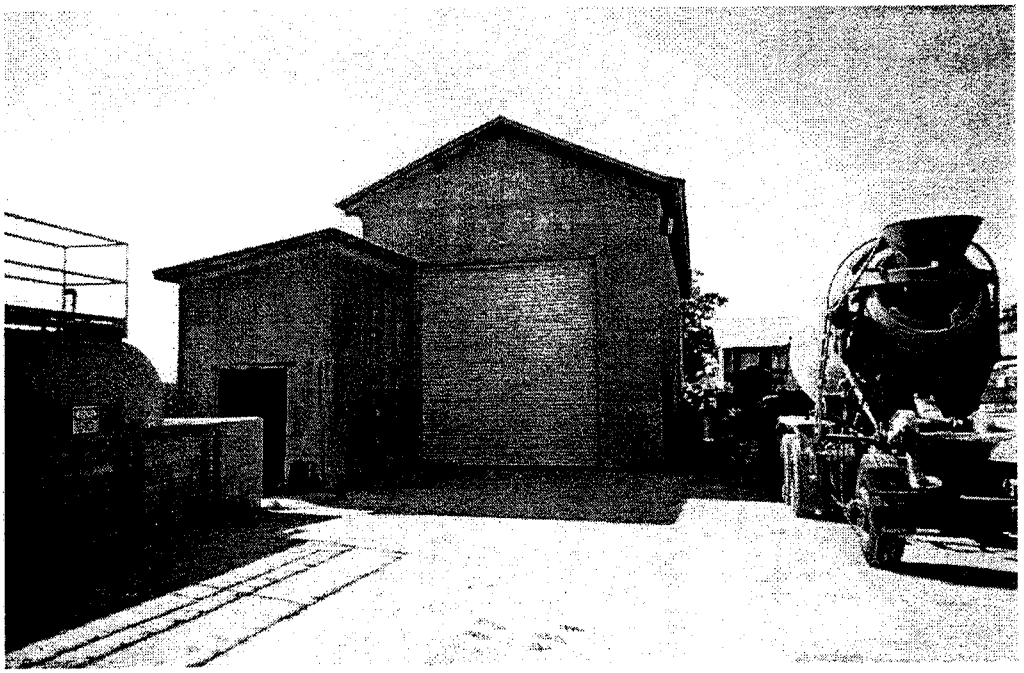

Photo 8: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., lubrication building, facing south (San Buenaventura Research Associates, 10/17/00)

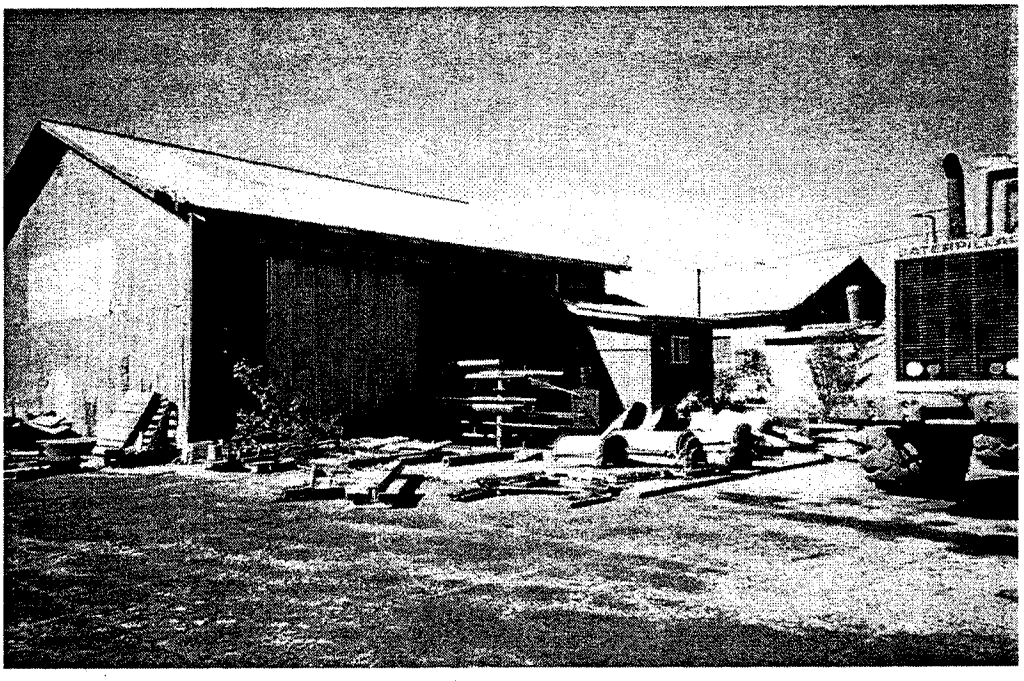

Photo 9: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., paintshop/storage, facing west (San Buenaventura Research Associates, 10/17/00)

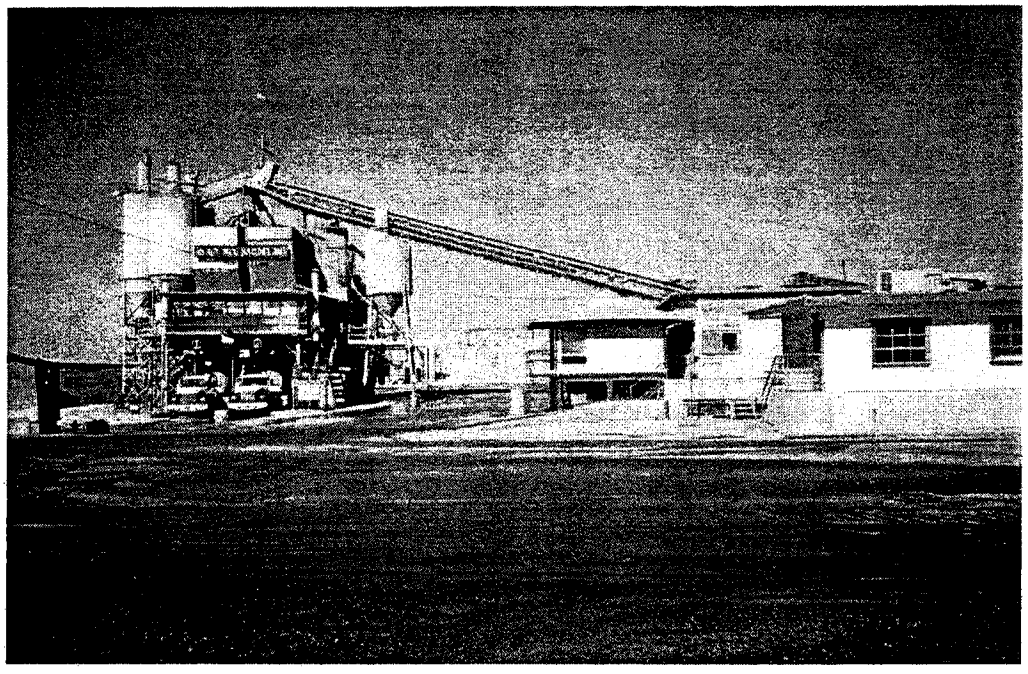

Photo 10: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., Primary Ready-mix Batch Plant, facing northwest (San Buenaventura Research Associates, 10/17/00)

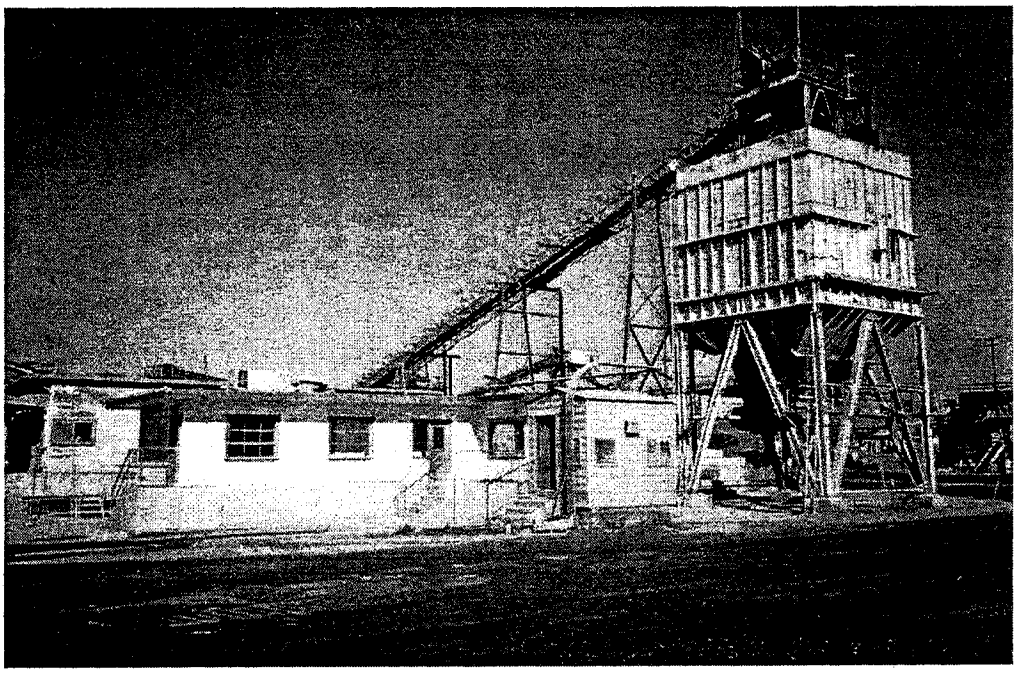

Photo 11: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., Primary Ready-mix Batch Plant, facing northwest (San Buenaventura Research Associates, 10/17/00).

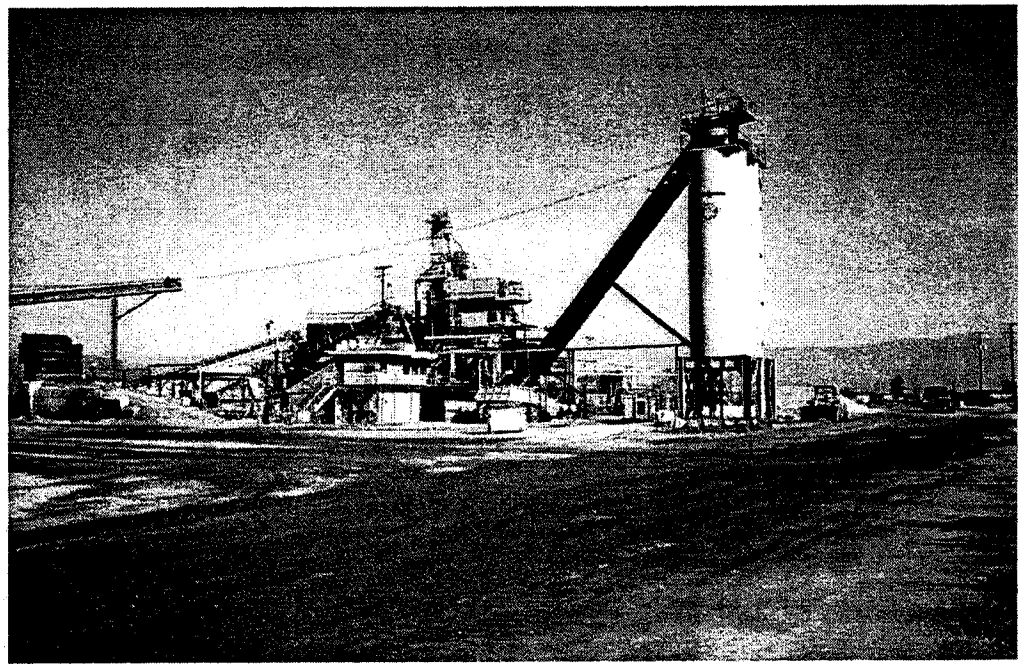

Photo 12: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., Asphalt Plant, facing north (San Buenaventura Research Associates, 10/17/00).

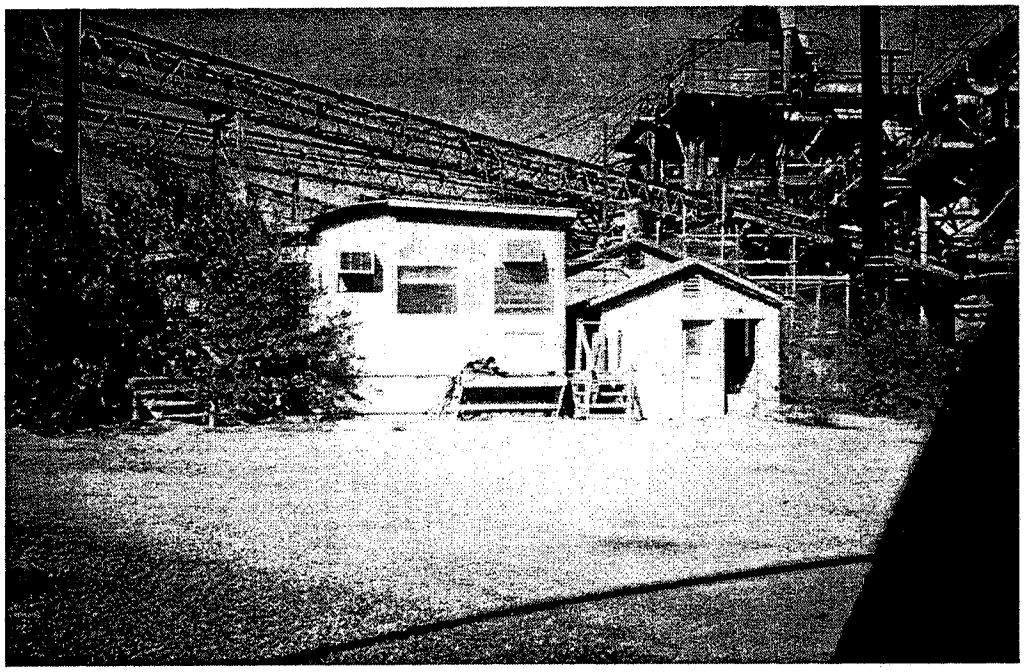

Photo 13: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., Asphalt Plant, office, facing west (San Buenaventura Research Associates, 10/17/00).

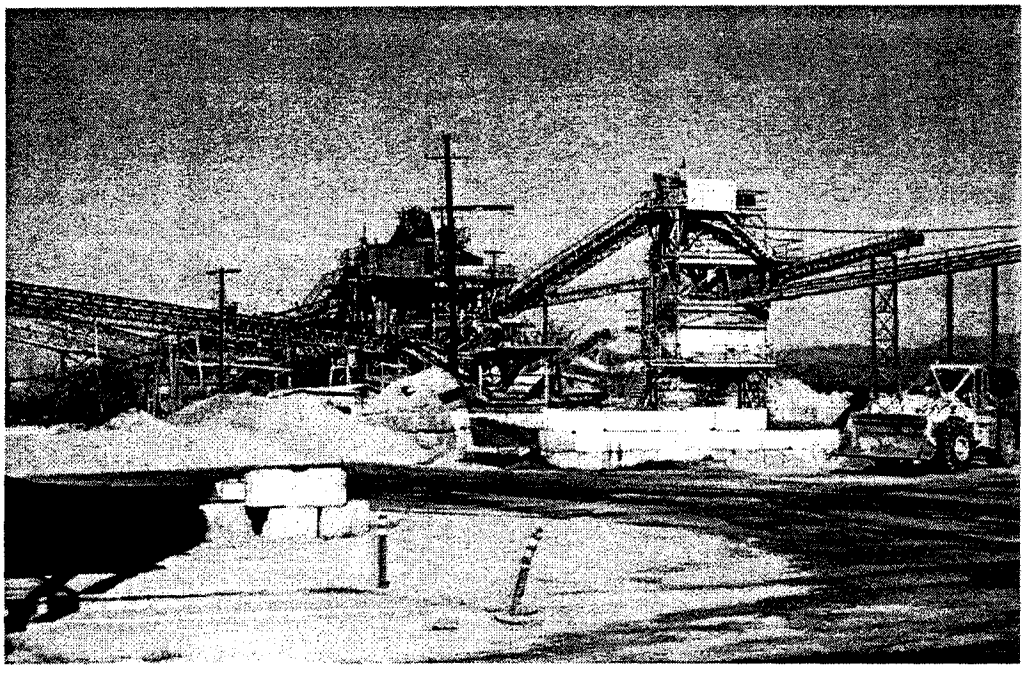

Photo 14: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., asphalt plant and conveyor system, facing northwest (San Buenaventura Research Associates, 10/17/00).

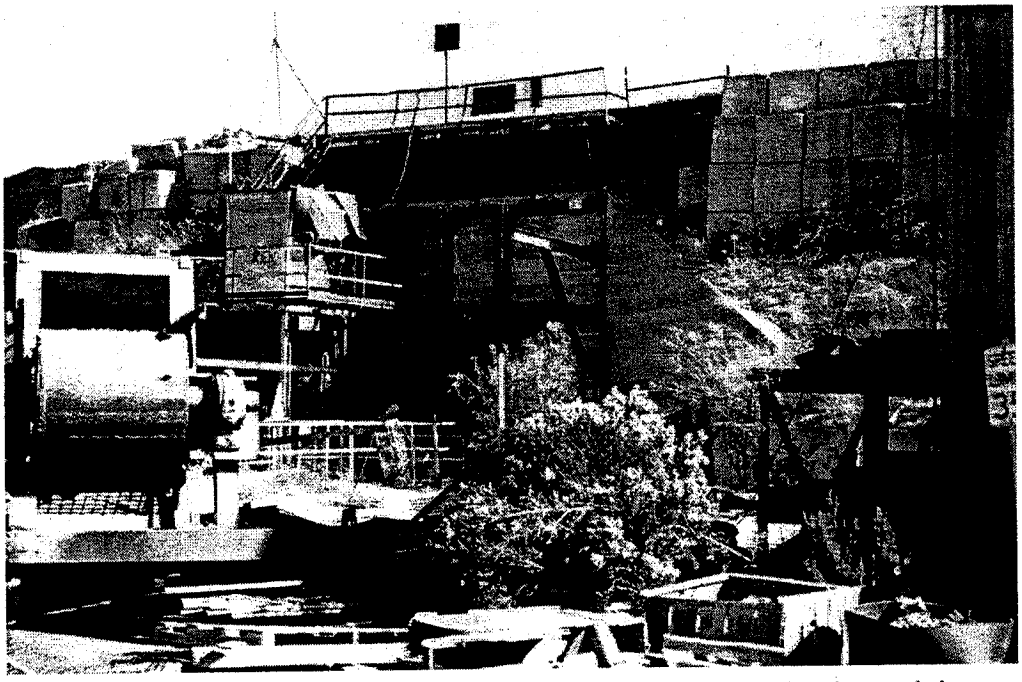

Photo 15: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., Rock Plant and equipment, being dismantled (San Buenaventura Research Associates, 10/17/00).

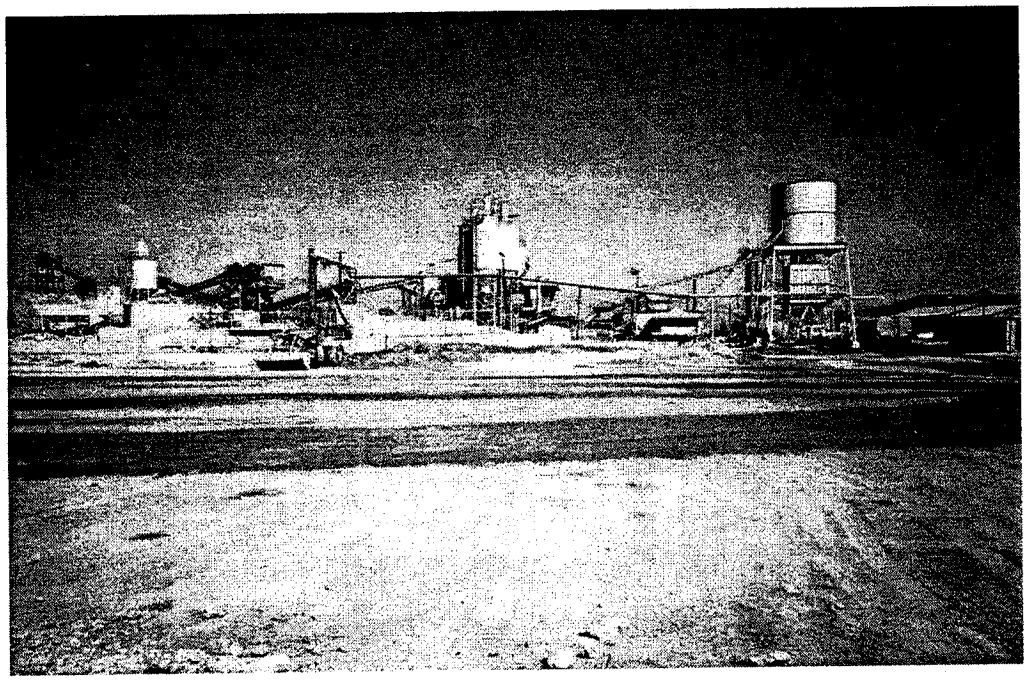

Photo 16: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., View of concrete and asphalt plants, facing north (San Buenaventura Research Associates, 10/17/00).

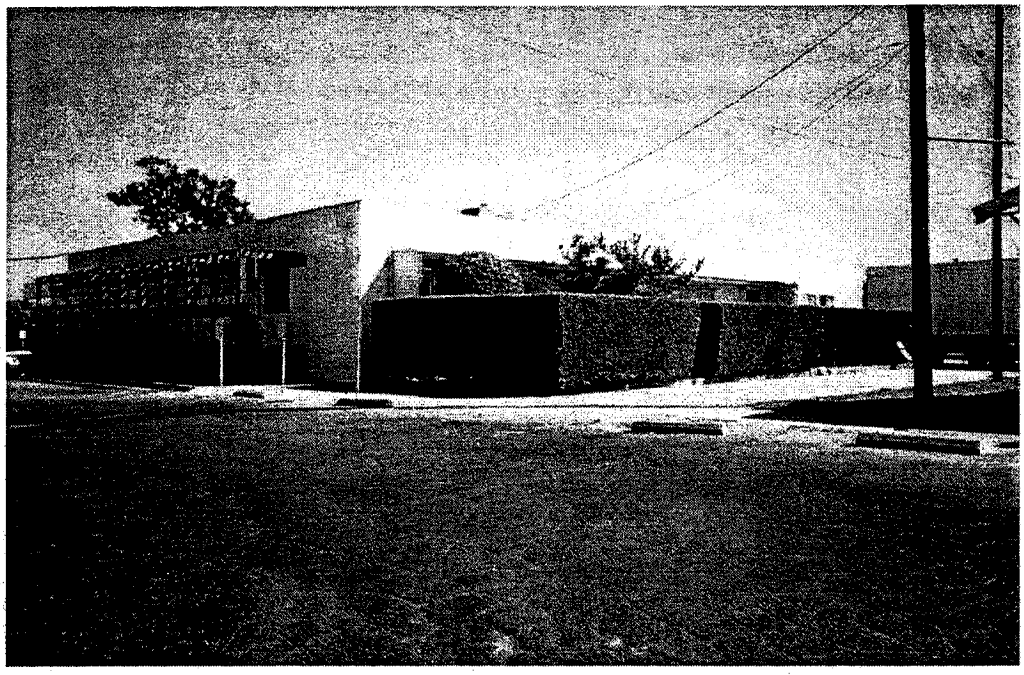

Photo 17: 3555 Vineyard Avenue, El Rio Rock Co./SP Milling Co., Administration Building, facing northeast (San Buenaventura Research Associates, 10/17/00).

PHASE I ARCHAEOLOGICAL SURVEY FOR THE RIVERPARK SPECIFIC PLAN STUDY AREA, OXNARD, VENTURA COUNTY, CALIFORNIA

Prepared For:

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14 December 2000

MANAGEMENT SUMMARY

An intensive Phase I archaeological survey was conducted for the Riverpark Specific Plan study area, Oxnard, Ventura County, California. This investigation involved an archival records search, a review of existing published and unpublished references on local prehistory and history, and an on-foot, intensive survey of the subject property. Archival records indicated that no previously recorded archaeological sites had been recorded within the study area. On-foot survey of the study area failed to result in the discovery of any previously unrecorded cultural resources. However, a low density, mixed scatter of historical artifacts were found in a disturbed context in the southeastern portion of the study area. The significance of these remains is ambiguous but it is possible that a subsurface historical deposit may be present in this general area, which corresponds to the area of earliest Euro-American settlement. It is recommended that any grading in this area be conducted with an archaeological monitor to recover and record any historical deposit that may be present.

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1.0 INTRODUCTION

At the request of Mr. Tony Locacciato, Impact Sciences, Inc., Agoura Hills, CA, an intensive Phase I archaeological survey was conducted for the Riverpark Specific Plan Area, Oxnard, Ventura County, California (Figure 1). The study area, covering approximately 700 acres, is located immediately north of the Ventura Freeway (U.S. Highway 101) with the Santa Clara River forming its western boundary. The unincorporated residential community of El Rio borders the study area to the east.

The Phase I archaeological survey was intended to provide a background review of pertinent research and an archival records search to determine if any known archaeological sites were present in the project corridor, and/or whether the area had been previously and systematically studied by archaeologists; an intensive, on-foot survey of the project area to identify unrecorded cultural resources; and a preliminary assessment of such resources, should any be found within the study area. This manuscript constitutes a report on this Phase I archaeological study. Subsequent sections provide background to the investigation, including the results of the archival record search; a summary of the field surveying techniques employed; the results of the fieldwork; and management recommendations derived therefrom.

2.0 BACKGROUND TO THE PROJECT

2.1 Study Area Description and Location

Physiographically, the Riverpark Specific Plan study area lies near the northeastern side of the Oxnard Plain, alongside the Santa Clara River. as such, it is essentially a flat, open expanse. The study area is located partly within and partly outside (immediately north) of the incorporated City of Oxnard, within a mixed residential, commercial and agricultural zone known as the unincorporated community of El Rio (Figure 1). The Ventura Freeway (U.S. Highway 101) is the effective southern boundary of the study area, with the Santa Clara River lying immediately west. The eastern boundary skirts a residential portion of El Rio and Vineyard Avenue.

The majority of the study area is currently open space in use for agriculture, row crops primarily, especially towards the southern and eastern sides; and sand and gravel operation towards the north and west. In the central eastern portion of the study area, former gravel mines have been reclaimed as agricultural fields. The southeastern extreme of the study area includes a small area of residential structures, while a few commercial and industrial buildings are present in various parts of the property.

2.2 Ethnographic Background

The study area, and Ventura County in general, lies within the territory of the Ventureño dialect of the Chumash ethnolinguistic group (Kroeber 1925). These were Hokan speaking people, who occupied the area from Topanga Canyon northwest to approximately San Luis Obispo. Because of their location in an area of early Spanish missionization, Chumash culture and lifeways were heavily disrupted prior to any modern efforts at ethnographic research, hence our knowledge of them is limited. However, based on fragmentary records and various means of inferential and analogical studies, a certain amount can be reconstructed about their way of life.

The Chumash followed a hunting-gathering-fishing subsistence pattern, which incorporated a heavy reliance on maritime resources, including

pelagic and littoral fishes, and shellfish. Indeed, the bountiful sea resources that they exploited may have been a key factor in their evolutionary success (Landberg 1965): at the time of the arrival of the Spanish the Chumash had reached levels of population density, and complexities in social organization, unequaled worldwide by other non-farming groups (Moratto 1984:118). These included permanent coastal villages along the Channel Islands area containing as many as 1000 inhabitants (Brown 1967), as well as a hierarchical sociopolitical organization consisting of at least two major chiefdoms (Whitley and Beaudry 1991). Further, based on recent reconstructions using mission registers, the Chumash appear to be have a matrilocal, and perhaps matrilineal, clan-based society (Johnson 1988).

The Oxnard Plain area was apparently a portion of a paramount Chumash capital at the village of *Muwu*, at modern Point Mugu (Whitley and Clewlow 1979; Whitley and Beaudry 1991). This served as the center of *Lulapin*, one of the two known historical chiefdoms, and was a domain whose limits stretched from the southeastern extreme of Chumash territory to just beyond modern Santa Barbara. Correspondingly, the Mugu locale has been documented, both archaeologically and ethnographically, as the center of a considerable amount of aboriginal activity (ibid.).

However, even given the proximity of the study area to Point Mugu, at the south end of the Oxnard Plain, no ethnohistoric data are available pertaining to the immediate project zone, per se. Indeed, King (1975:175; see also Kroeber 1925 and Brown 1967) indicates that the only Historic Chumash villages known for the region are specifically *muwu* and *simomo* (meaning 'beach' and 'the saltbush patch', respectively; see Applegate 1975:37, 41), both located close to Point Mugu; *ixsha* (or *'ihsha*, 'ashes'; Applegate 1975:30), at the mouth of the Santa Clara River; and *wenemu*, 'sleeping place', the origin for the modern toponymic 'Hueneme' (Applegate 1974:198, 1975:45), applied to a temporary village or campsite, used as a rest-stop in trans-channel crossings, on the coast near Hueneme. According to Kroeber's map (1925: Plate 48), *wenemu* was actually located on the coast northwest of the modern town of Hueneme proper. Based on John Peabody Harrington's ethnographic notes, other known historical place-names in the area include: *kasunalmu* ('sending place'), an unlocated village/camp 'just west of Oxnard'; *malhohshi*, an unlocated place near Oxnard; *shishlomow*, an unlocated

place 'just south of Hueneme'; and *swiniL*, another unlocated place near Oxnard (Applegate 1975). None of these latter named locales are identifiable and, with the exception of the village/camp of *kasunalmu*, it is not even known whether they refer to natural/geographical, cultural, or mythical places on the landscape.

There is no evidence to suggest that any of these placenames apply to the study area. Apparently, during the Historic Period much of the general Oxnard Plain region was essentially an unoccupied zone intermediate between large population centers at Point Mugu and the modern Ventura area.

Traditional Chumash society was altered irrevocably with the onset of the missionization and Spanish colonization of the Ventura County region. But although Juan Rodriguez Cabrillo stopped in the area in A.D. 1542 while exploring the coast, and Sebastían Vizcaíno sailed-by in 1602 (Bancroft 1963), this historical period effectively began with the passing of the Gaspar de Portolá expedition through the area in 1769 - 1770 (Bolton 1971; Boneu 1983). Portolá was followed in quick succession by a number of other explorers, such as Juan Bautista de Anza in 1775-1776 (Bolton 1931) and José Longinos Martinez in 1792 (Simpson 1938); however, it was the establishment of the Mission of San Buenaventura, at modern Ventura, in 1782 (Triem 1985) that truly spelled the end of the aboriginal period. These and subsequent historical events and uses of the study area have been recently summarized by San Buenaventura Research Associates (2000).

2.3 Archaeological Background

Regional prehistory is best viewed using a chronological scheme that has its origins in the research of D.B. Rogers (1929), working on the Channel Islands and the Santa Barbara coastline. At a later date, Rogers' scheme was modified in terminology and improved with additional and more detailed data and radiocarbon dates by W.J. Wallace (1955).

Wallace's chronology for southern coastal California includes four time periods, the earliest of which (Early Man/Big Game Hunting period) was considered speculative, and thought to correlate with the end of the Pleistocene. Although it is likely that occupation of the southern

California coastal region occurred during this early time period, to date the only evidence of such has been limited to a few discoveries of fluted projectile points, found in isolated locales. However, the characteristic geomorphological instability of the California coastline, combined with the major change in erosional/degradational regimes that occurred at the end of the Pleistocene, does not favor the preservation of remains from this period.

With the transition towards a modern environment, starting approximately 9 to 10 thousand years ago, however, an adaptation referred to as the Early Millingstone period or horizon began and is evident in the archaeological record. Most sites of this stage date between 8500 and 3500 years in age, and are dominated by assemblages containing large numbers of groundstone artifacts, along with crude choppers and other core/cobble tools. These are thought to represent an adaptation to gathered foods, especially a reliance on hard-shelled seeds.

More recently, it has been suggested that scraper planes, in particular, may have served in the processing of agave (Kowta 1969; Salls 1985); that the association of groundstone and core/cobble tools represents a generalized plant processing toolkit, rather than one emphasizing hard-seeds, per se (Whitley 1979), and one that was used in appropriate environmental settings throughout the prehistoric past; that is, that the so-called 'early millingstone toolkit' is environmentally rather than chronologically specific and reflects localized exploitation patterns, rather than a wide-ranging adaptational strategy (Leonard 1971). However, on the coastal strip, per se, there continues to be evidence that such sites date to the earlier end of the time-frame, and they are generally located on terraces and mesas, above the coastal verge.

Recent studies by Erlandson (1988; see also Erlandson and Colton 1991), finally, provide evidence of a significant, even if small, population of coastal hunters-gatherers in the region before 7000 years ago, or at the beginning of the Early Millingstone period. Erlandson has shown that these were neither Big Game hunters, nor specialized, hard-seed gatherers, but instead generalized foragers that relied on a variety of different kinds of terrestrial, coastal and marine resources, and that they were adapted to estuarine embayments that have long-since disappeared from the local environment. Further, his evidence indicates that their

primary protein sources were shellfish and other marine resources. Extending a pattern first identified by Meighan (1959) on the Channel Islands, in other words, this suggests that the adaptation to the seashore is a very ancient and long-lived tradition in local prehistory.

Following the Early Millingstone, a transitional stage, referred to as the Intermediate period, occurred. It is believed to have gotten underway about 3500 years ago, and to have lasted until about A.D. 1000. It is marked on the coast by a growing exploitation of marine resources, the appearance of the hopper mortar and stone bowl/mortar, and a diversification and an increase in the number of chipped stone tools. Projectile points, in particular, are more common at sites than previously, while artifacts such as fish hooks and bone gorges also appear. Further, there is substantial evidence that it was at the early end of this Intermediate period that inland sites, such as those found in the Conejo Corridor on the north side of the Santa Monica Mountains, were first established and occupied, suggesting the exploitation of more varied environments and perhaps an increase in population (Whitley and Beaudry 1991), as well as a movement of coastal sites down towards the beaches. In general, however, the Intermediate period can be argued to have set the stage for the accelerated changes that took place immediately following it.

With the transition to the Late Prehistoric period at A.D. 1000, which followed the introduction of the bow and arrow at about A.D. 600, and represented by a major reduction in the size of projectile points, we can correlate local prehistory with Chumash society as described (even if in abbreviated form) by early chroniclers and missionaries. However, this is not to suggest that society was in any way static, for the transition to the Late Prehistoric period was marked by the evolution and eventual dominance of a sophisticated maritime economy. Further, the rise in Chumash social complexity has been shown to have been associated with the development of craft specialization, involving the use of standardized micro-drills to mass produce shell beads on Santa Cruz Island (Arnold 1987), and to have occurred during the Late Prehistoric period.

3.0 ARCHIVAL RECORDS SEARCH

An archival record search was conducted at the California State University, Fullerton, Archaeological Information Center (AIC), by AIC staff members to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the project area; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. The complete results of this archival record search are included in this document as Appendix A.

Files and records at the CSUF AIC indicate that a large portion but not all of the Riverpark study area was systematically surveyed by archaeologists. The primary relevant study covered roughly the southern half of the specific plan area (Bissell 1985). No archaeological sites were recorded within the study area during this or other surveys of portions of the study area, and no sites were known to be present within the Specific Plan boundaries.

A historical resources survey and evaluation was conducted for the Specific Plan study area as part of the current compliance process (see San Buenaventura Research Associates 2000). The resulting document provides all details on this aspect of the cultural resources studies.

In summary, the archival record search indicated that the project area had not been adequately surveyed to ascertain whether cultural resources were present within it.

4.0 FIELD SURVEY METHODS

An intensive and systematic field survey of the Riverpark Specific Plan study area was conducted by David S. Whitley, Ph.D., and Joseph M. Simon, of the W & S Consultants staff, between December 1-10, 2000. The groundsurface was examined by walking transects across the study area spaced at approximate 15 meter intervals to identify artifacts or other archaeological indicators that might be present on the groundsurface.

In general, groundsurface visibility during the fieldwork was good. The majority of the study area currently serves as agricultural fields and sand and gravel quarries. Visibility was essentially unimpeded in these areas. A few small portions of the study area, however, have been developed, including industrial/commercial structures within the sand and gravel operations and along El Rio Drive (the southern study area boundary), and a few residential buildings in the southeastern extreme. Groundsurface visibility in these last areas was more restricted but the distribution of structures and improvements was sufficiently widespread to allow good surface examination.

5.0 SURVEY RESULTS

The intensive Phase I archaeological survey of the Riverpark Specific Plan study area, Oxnard, Ventura County, California, failed to find any clear evidence for previously unrecorded archaeological sites, either prehistoric or historical in nature.

However, a very low density and mixed scatter of trash was encountered in the southeastern study area extreme, southeast of the intersection of Myrtle Avenue and El Rio Drive. This consists of an open lot that apparently once contained one or more house structures, and had been recently disked. We noted old glass and ceramic whiteware in this area, mixed with contemporary trash and debris. One of the pieces of whiteware had a maker's mark consisting of a lion and unicorn on either side of a crowned seal, over a ribbon with "WARRANTED", over "WM. CO". This is the mark of the Willets Manufacturing Company of Trenton, N.J. This mark was in use between 1879 and 1884 (DeBolt 1988:79)

Although certain artifacts can have a "shelf-life" that results in their disposal many decades after their original manufacture, it is possible that this and a few other artifacts of similar vintage in this area may date to the early historical occupation of this location. As noted by the San Buenaventura Research Associates (2000), this included the original settlement of New Jerusalem established by the Cohn family at what is essentially now the nearby intersection of the 101 Freeway and Vineyard Avenue, and shortly thereafter the subdivision of El Rio in 1887.

We did not, however, find evidence of an intact historical deposit or site at this or any other location within the study area. As implied above, this southeastern area once contained one or more house structures, which have been demolished. Hence, it has been heavily disturbed. Although we did not find historical remains in sufficient quantity and with adequate integrity, to warrant the recording of a historical site, it is possible that a buried historical deposit may be present at this location.

6.0 RECOMMENDATIONS

An archival records search, background studies, and an intensive, on-foot surface reconnaissance of the Riverpark Specific Plan study area, Oxnard, Ventura County, California, were conducted as part of a Phase I archaeological survey. No sites of any kind had been previously recorded within the study area or adjacent properties. No new sites were discovered during the Phase I survey. However, a low density, mixed scatter of historical debris, possibly dating between 1879 and 1884, was found in the southeastern extreme of the study area, southeast of Myrtle Avenue and El Rio Drive. This is currently an open lot which has experienced recent construction demolition is therefore disturbed, and currently contains a mixture of recent and older trash. This area lacks historical remains in sufficient quantity and with adequate integrity to warrant the recording of a historical site; however, it is possible that a buried historical deposit may be present at this location.

In light of this possibility, we recommend that any surface grading that occurs southeast of Myrtle Avenue and El Rio Drive within the Riverpark Specific Plan study area be conducted with an archaeological monitor, to record and recover historical archaeological remains should they prove to be present at this location.

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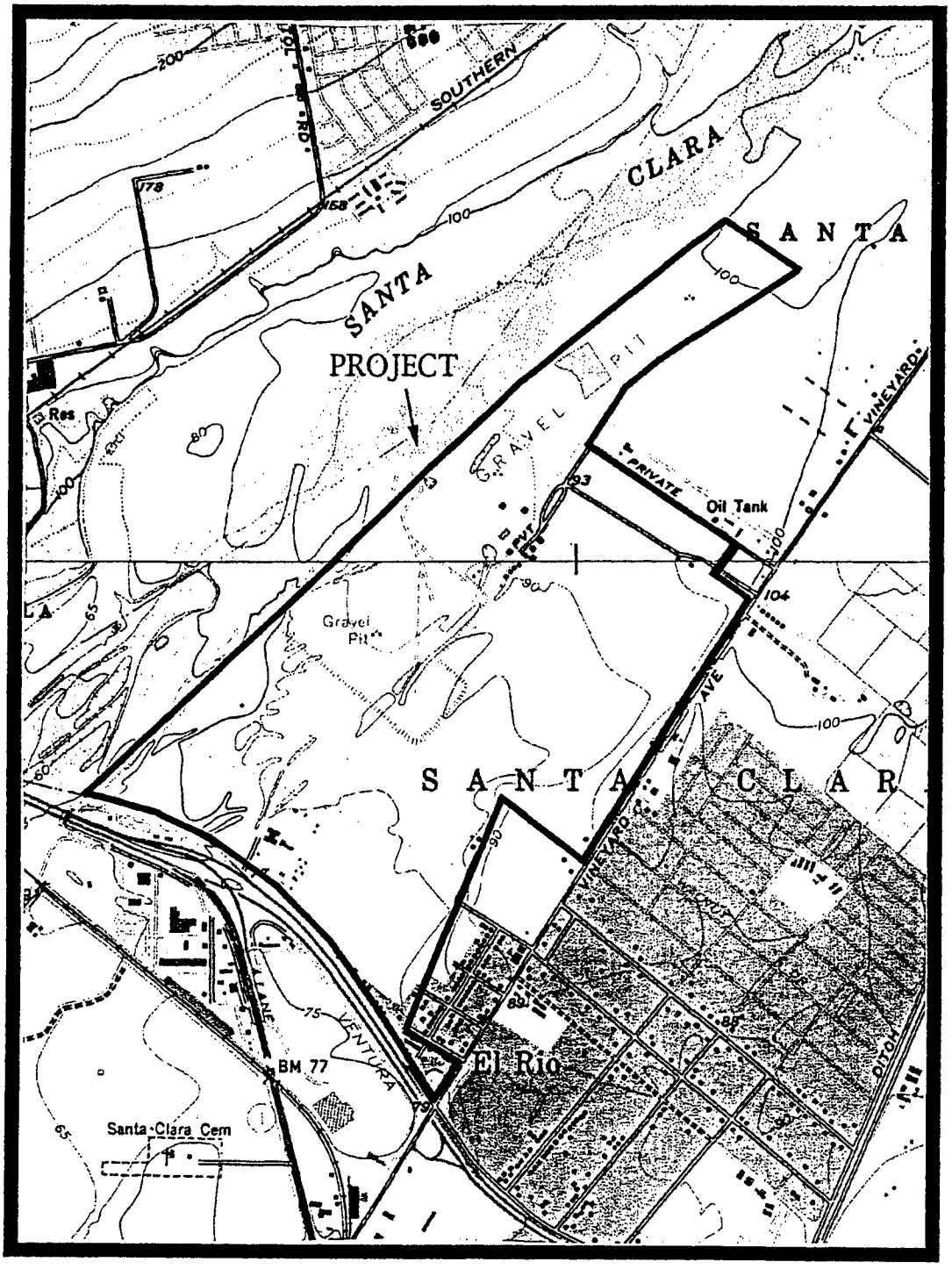


Figure 1: Project Location

Scale: 1 in. = 2000 ft.

Source: Oxnard, CA & Saticoy, CA 7.5' USGS Quads.

South Central Coastal Information Center
California Historical Resources Information System
California State University, Fullerton
Department of Anthropology
800 North State College Boulevard
Fullerton, CA 92834-6846
(714) 278-5395 / FAX (714) 278-5542
anthro.fullerton.edu / sccic.html

Los Angeles
Orange
Ventura

October 17, 2000

Joseph Simon
W and S Consultants
2242 Stinson St.
Simi Valley, CA 93065

RE: Records Search for RiverPark Specific Plan area in Ventura County

Dear Mr. Simon,

As per your request received on October 15 , we have conducted a records search for the above referenced project. This search includes a review of all recorded historic and prehistoric archaeological sites within a half-mile radius of the project area as well as a review of all known cultural resource survey and excavation reports. In addition, we have checked our file of historic maps, the National Register of Historic Places, the California State Historic Resources Inventory, the California Points of Historical Interest, and the listing of California Historical Landmarks in the region. The following is a discussion of our findings.

OXNARD QUADRANGLE

PREHISTORIC RESOURCES:

No prehistoric sites have been identified within a half-mile radius of the project area.

The village sites *Kama'Oq* and *Ponom* are in the vicinity of the project area (see enclosed map).

HISTORIC RESOURCES:

No historic archaeological sites have been identified within a half-mile radius of the project area.

Inspection of our historic maps – Huenume (1904) 15' series –indicated that there were some improved and unimproved roads, and structures in place. Also, Elrio, Montalvo, the Santa Clara River, and the Southern Pacific Railroads were in place.

The California State Historic Resources Inventory lists two properties that have been evaluated for historical significance within a few blocks of the project area (see enclosed list).

The National Register of Historic Places lists no properties within a half-mile radius of the project area.

The listings of the California Historical Landmarks (1990) of the Office of Historic Preservation, California Department of Parks and Recreation, indicate that there are no California Historical Landmarks within a half-mile radius of the project area

The California Points of Historical Interest (1992) identifies no properties within a half-mile radius of the project area

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS:

Sixteen studies have been conducted within a half-mile radius of the project area (see enclosed map and bibliography). Of these, seven are located within the project area. Eight additional investigations are located within the Oxnard quadrangle and are potentially within the project area. These investigations are not mapped due to insufficient locational information.

SATICOY QUADRANGLE

PREHISTORIC RESOURCES:

One prehistoric site (56-000545) has been identified within a half-mile radius of the project area (see enclosed list).

One non trinomial archaeological site (56-100121) has been identified within a half-mile radius of the project area (see enclosed list).

HISTORIC RESOURCES:

No historic archaeological sites have been identified within a half-mile radius of the project area.

Inspection of our historic maps – Santa Paula (1903, 1947) 15' series –indicated that in 1903, there were some improved and unimproved roads, and structures in place. Saticoy, West Saticoy, Montalvo, the Santa Clara River, and the Southern Pacific Railroads were in place. In 1947, there were some improved and unimproved roads, and structures in place. Vineyard Ave., Bristol Road, Ditch Road, and highways118, 126, and 101 were in place. The Santa Clara River was channeled, and the Southern Pacific Railroads, and Saticoy were in place. Also, orchards and other agricultural fields were in place.

The California State Historic Resources Inventory lists two properties that have been evaluated for historical significance within a few blocks of the project area (see enclosed list).

The National Register of Historic Places lists no properties within a half-mile radius of the project area.

The listings of the California Historical Landmarks (1990) of the Office of Historic Preservation, California Department of Parks and Recreation, indicate that there are no California Historical Landmarks within a half-mile radius of the project area.

The California Points of Historical Interest (1992) identifies no properties within a half-mile radius of the project area.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS:

Eight studies have been conducted within a half-mile radius of the project area (see enclosed map and bibliography). Of these, none are located within the project area. Six additional investigations are located within the Saticoy quadrangle and are potentially within the project area. These investigations are not mapped due to insufficient locational information.

Please forward a copy of any reports resulting from this project to our office as soon as possible. Due to the sensitive nature of site location data, we ask that you do not include record search maps in your report. If you have any questions regarding the results presented herein, please feel free to contact our office at (714) 278-5395.

Invoices are mailed approximately two weeks after records searches are completed. This enables your firm to request further information under the same invoice number. **Please reference the invoice number listed below when making inquires.** Requests made after invoicing will result in the preparation of a separate invoice with a $15.00 handling fee.

Sincerely,

Esther Won
Staff Archaeologist

Enclosures:

(X) Primary Number Explanation
(X) Map – Oxnard and Saticoy 7.5' USGS Quadrangle
(X) Bibliography – 6 pages
( ) Site list - ___ pages
(X) HRI - 2 pages
(X) National Register Status Codes - 4 pages
( ) Site records
( ) Survey reports
(X) Confidentiality Form
( ) Invoice # 8920

INVOICE # 8920 SATICOY QUADRANGLE

ITEMID: VN1018 **DATE:** 1980 **PAGES:** 2

AUTHOR: CALLISON, SHEILA

FIRM: VENTURA COUNTY

TITLE: Cultural ResourceS Survey of: DP-252.

AREA: 10 ac

SITES: none

QUADNAME: SATICOY

MEMO:

ITEMID: VN1072 **DATE:** 1991 **PAGES:** 4

AUTHOR: ATWOOD, JOHN E.

FIRM: C. A. SINGER AND Associates, INC.

TITLE: SUPPLEMENTAL Archaeological Survey FOR THE BRISTOL RELIEF SEWER LINE.

AREA: 1 ac

SITES: none

QUADNAME: SATICOY

MEMO:

ITEMID: VN1741 **DATE:** 1999 **PAGES:** 24

AUTHOR: Maki, Mary

FIRM: Conejo Archaeological Consultants

TITLE: Phase I Archaeological Survey and Impact Assessment of 50.2 Acres for the River Bend Ranch Project, Ventura, Ventura county, California

AREA:

SITES: none

QUADNAME: Saticoy

MEMO:

ITEMID: VN1816 **DATE:** 1999 **PAGES:** 14

AUTHOR: Maki, Mary

FIRM: Conejo Archaeological Consultants

TITLE: Phase I Archaeological Survey and Impact Assessment of 46 Acres El Rio Site-Juvenile Hall Justice Center El Rio, Ventura County, California

AREA: 46 ac

SITES: none

QUADNAME: Saticoy

MEMO:

ITEMID: VN392 **DATE:** 1977 **PAGES:** 10

AUTHOR: PENCE, R. L.

FIRM:

TITLE: Archaeological Assessment of THE RIVER VIEW PROJECT, City of VENTURA, CALIFORNIA

AREA: 17 ac

SITES: CA-VEN-545

QUADNAME: SATICOY

MEMO:

ITEMID: VN575 **DATE:** 1988 **PAGES:** 14

AUTHOR: Lopez, Robert

FIRM:

TITLE: AN Archaeological RECONNAISSANCE of THE AREAS INVOLVED IN THE PROPOSED S.W.E.P.I. WELL LOCATIONS AND PIPELINE ROUTES, OXNARDPLAIN, VENTURA COUNTY, CALIFORNIA

AREA: 17.8 ac, 34.7 li mi

SITES: 56-000631, 56-000665, 56-000666

QUADNAME: Camarillo,Moorpark,Saticoy,Santa Paula Oxnard

MEMO:

ITEMID: VN955 **DATE:** 1990 **PAGES:** 5

AUTHOR: Pence,.Robert L.

FIRM: PENCE Archaeological CONSULTING

TITLE: Archaeological RECONNAISSANCE IN THE EL RIO AREA VENTURA COUNTY

AREA: 22 ac

SITES: none

QUADNAME: SATICOY

MEMO:

ITEMID: VN982 **DATE:** 1991 **PAGES:** 22

AUTHOR: Singer, Clay A. and John E. Atwood

FIRM: SINGER & Associates, INC.

TITLE: Cultural ResourceS Survey and Impact Assessment FOR THE BRISTOL RELIEF SEWER PhaseS TWO AND THREE, IN THE CITY OF VENTURA, VENTURA COUNTY, CALIFORNIA.

AREA: 6 li mi

SITES: CA-VEN-31, VEN-815H

QUADNAME: OXNARD
SATICOY

MEMO:

INVOICE # 8920 OXNARD QUADRANGLE

ITEMID: VN1018 **DATE:** 1980 **PAGES:** 2

AUTHOR: CALLISON, SHEILA

FIRM: VENTURA COUNTY

TITLE: Cultural ResourceS Survey of: DP-252.

AREA: 10 ac

SITES: none

QUADNAME: SATICOY

MEMO:

ITEMID: VN1072 **DATE:** 1991 **PAGES:** 4

AUTHOR: ATWOOD, JOHN E.

FIRM: C. A. SINGER AND Associates, INC.

TITLE: SUPPLEMENTAL Archaeological Survey FOR THE BRISTOL RELIEF SEWER LINE.

AREA: 1 ac

SITES: none

QUADNAME: SATICOY

MEMO:

ITEMID: VN1741 **DATE:** 1999 **PAGES:** 24

AUTHOR: Maki, Mary

FIRM: Conejo Archaeological Consultants

TITLE: Phase I Archaeological Survey and Impact Assessment of 50.2 Acres for the River Bend Ranch Project, Ventura, Ventura county, California

AREA:

SITES: none

QUADNAME: Saticoy

MEMO:

ITEMID: VN1816 **DATE:** 1999 **PAGES:** 14

AUTHOR: Maki, Mary

FIRM: Conejo Archaeological Consultants

TITLE: Phase I Archaeological Survey and Impact Assessment of 46 Acres El Rio Site-Juvenile Hall Justice Center El Rio, Ventura County, California

AREA: 46 ac

SITES: none

QUADNAME: Saticoy

MEMO:

ITEMID: VN392 **DATE:** 1977 **PAGES:** 10

AUTHOR: PENCE, R. L.

FIRM:

TITLE: Archaeological Assessment of THE RIVER VIEW PROJECT, City of VENTURA, CALIFORNIA

AREA: 17 ac

SITES: CA-VEN-545

QUADNAME: SATICOY

MEMO:

ITEMID: VN575 **DATE:** 1988 **PAGES:** 14

AUTHOR: Lopez, Robert

FIRM:

TITLE: AN Archaeological RECONNAISSANCE of THE AREAS INVOLVED IN THE PROPOSED S.W.E.P.I. WELL LOCATIONS AND PIPELINE ROUTES, OXNARDPLAIN, VENTURA COUNTY, CALIFORNIA

AREA: 17.8 ac, 34.7 li mi

SITES: 56-000631, 56-000665, 56-000666

QUADNAME: Camarillo,Moorpark,Saticoy,Santa Paula Oxnard

MEMO:

ITEMID: VN955 **DATE:** 1990 **PAGES:** 5

AUTHOR: Pence, Robert L.

FIRM: PENCE Archaeological CONSULTING

TITLE: Archaeological RECONNAISSANCE IN THE EL RIO AREA VENTURA COUNTY

AREA: 22 ac

SITES: none

QUADNAME: SATICOY

MEMO:

ITEMID: VN982 **DATE:** 1991 **PAGES:** 22

AUTHOR: Singer, Clay A. and John E. Atwood

FIRM: SINGER & Associates, INC.

TITLE: Cultural ResourceS Survey and Impact Assessment FOR THE BRISTOL RELIEF SEWER PhaseS TWO AND THREE, IN THE CITY OF VENTURA, VENTURA COUNTY, CALIFORNIA.

AREA: 6 li mi

SITES: CA-VEN-31, VEN-815H

QUADNAME: OXNARD
SATICOY

MEMO:

APPENDIX 4.13

Limited Phase II Environmental Site Assessment Report

APPLIED ENVIRONMENTAL TECHNOLOGIES INC.
4840 Market St., Suite B • Ventura, CA 93003 • Phone: (805) 650-1400 Fax: (805) 650-1576

November 14, 2001
Ref. No. 1116-01A

Impact Sciences, Inc.
30343 Canwood Street, Suite 210
Agoura Hills, California 91301

Attention: Mr. Tony Locacciato

Report
Limited Phase II Environmental Site Assessment
Approximate 212-Acre Area "A" and 66-Acre Campbell Basin
Proposed RiverPark Development, Ventura County, California

Introduction

Applied Environmental Technologies, Inc. (AET) is pleased to provide this report of the results of a Limited Phase II Environmental Site Assessment (ESA) for the project referenced above. The investigation was requested by Mr. Tony Locacciato of Impact Sciences on behalf of RiverPark Development, LLC. AET understands that the Site, the majority of which is currently used for agriculture, will be developed for commercial and residential uses. Based on the past and present agricultural use, there was a low to moderate probability that agricultural chemicals such as organochlorine pesticides, chlorinated herbicides and/or heavy metals may have been present in the shallow soil at the Site.

Objective

The objective of the Limited Phase II ESA, as performed by AET, was to confirm or deny the presence of significant concentrations of agricultural chemicals in the shallow soil at the Site such as chlorinated herbicides, heavy metals and/or chlorinated pesticides, particularly those with long residency time in the soil such as DDT and is daughter products DDD and DDE, which are commonly found in the shallow soil in many agricultural areas of the Oxnard Plain.

Soil Sampling Methodology

In order to evaluate if long lived organochlorine pesticides, chlorinated herbicides and/or heavy metals were present in the shallow soil at the Site, soil samples were collected from

selected locations and submitted for analysis to American Scientific Laboratories, a State Certified analytical laboratory in Los Angeles, California.

Soil Sampling, Area A

The approximate 212-acre Area A was divided into 15 primary parcels of approximately 14 acres each. Each 14-acre parcel was divided into four quadrants of approximately 3.5 acres each (Plate 2). A geologist from AET collected one soil sample from the approximate center of each of the quadrants (60 samples total from Area A). The surface soil samples were collected using hand operated soil sampling equipment in 6 inch long brass sleeves from the interval of approximately 1 inch to 7 inches below ground surface (bgs). Each group of four samples was submitted to the laboratory. The laboratory made one composite sample from each set of four samples for analysis. One composite sample was analyzed from each primary 14-acre parcel in Area A (Samples C-1 through C-15). Sample locations and the 15 primary parcels are illustrated on Plate 2.

In addition to the 15 shallow composite samples, four discrete samples were collected from a depth of approximately 2.5-feet below ground surface from 4 of the 14-acre primary parcels to evaluate the vertical extent of any resistant chemicals detected in the shallow soil (Samples S-7, S-12, S-32 and S-40, Plate 2), and two discrete samples were collected from the fallow land in the north corner of Area A, near the Santa Clara River levee (Samples SSB-1 and SSB-2, Plate 2).

Soil Sampling, Campbell Basin

The 66.4-acre North El Rio Detention Basin No. 2 Property (also known as the Campbell Basin), was divided into two areas. The first area was the topographically lower area where a group of four shallow soil samples, collected from the four quadrants of the strawberry field, were submitted to the laboratory. The laboratory made one composite sample from the 4 samples for analysis (Sample C-16, Plate 2). The second area was the at-grade portion of the Site located between the Basin and Vineyard Avenue where three discrete samples were collected (Samples SSA-1, SSA-2 and SSA-3, Plate 2).

Soil Sampling, 0.36-Acre Parcel

The 0.36-acre Magallon Property (also known as the 0.36-acre parcel), historically used by a sandblasting business, was sampled at two surface locations where loose sand was collected (Samples SB-1 and SB-2) for chemical analyses. The Parcel is located approximately 600 feet northeast of the Campbell Basin property along a narrow strip of land between Vineyard Avenue and a large storm water retention basin.

Laboratory Analytical Methods

Laboratory Analyses, Area A

All 21 samples were analyzed for organochlorine pesticides using EPA Test Method 8080. Seven samples (C-1, C-3, C-5, C-9, C-12, C-14 and SSB-2) was also analyzed for chlorinated herbicides using EPA Test Method 8150 and five samples (C-3, C-9, C-12, C-14 and SSB-2) were analyzed for the California List of 17 heavy metals (California Code of Regulations, Title 22) using EPA Test Method 6010B/7471A series.

Laboratory Analyses, Campbell Basin Samples

All four samples were analyzed for organochlorine pesticides using EPA Test Method 8080, and one sample (SSA-2) was also analyzed for chlorinated herbicides using EPA Test Method 8150 and for the California List of 17 heavy metals (CCR, Title 22) using EPA Test Method 6010B/7471A series.

Laboratory Analysis, 0.36-Acre Parcel Samples

The two samples were analyzed for the California List of 17 heavy metals (CCR, Title 22) using EPA Test Method 6010B/7471A series.

Laboratory Results

Laboratory data sheets and Chain-of-Custody documentation are provided in Attachment A. The laboratory results for pesticides and herbicides are summarized on Table 1. Samples analyzed for heavy metals are identified on Table 1 and the laboratory results for heavy metals are provided in Attachment A.

Laboratory Results, Area A

The laboratory reported that no chlorinated herbicides were detected in any of the seven samples analyzed. No mercury, arsenic, beryllium, cadmium, selenium, silver, and thallium were detected in the five samples analyzed. Antimony, barium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium and zinc were detected in concentrations below the total threshold limit concentration (TTLC - CCR, Title 22) and below 10-times the soluble threshold limit concentration (STLC - CCR, Title 22), and are considered to be background concentrations in the soil (TTLC and STLC values are used to evaluate waste classification for disposal purposes).

The laboratory reported that concentrations of DDD, DDE, DDT were detected in all 17 surface samples analyzed. Dieldrin was detected in 15 of the samples and Endrin was detected in 6 of the samples. Other organochlorine pesticides on the Method 8080 list, including

Toxaphene, were not detected in any of the samples. The highest concentrations of DDD, DDE and DDT were reported in Sample C-11 at 161 micrograms per kilogram (µg/kg or parts per billion), 337 µg/kg and 280 µg/kg, respectively. The highest concentrations of Dieldrin were reported in Samples C-1, C-6 and C-11 at 51 µg/kg, 16 µg/kg, and 16 µg/kg, respectively. The highest concentration of Endrin was reported in Sample C-11 at 12.5 µg/kg. The laboratory reported significantly lower concentrations of the pesticides in the two discrete surface samples from the fallow land (SSB-1 and SSB-2). Two of the four discrete samples from a depth of 2.5-feet below ground surface had concentration of DDE, DDD, and DDT, only (Table 1).

Laboratory Results, Campbell Basin

The laboratory reported that no chlorinated herbicides were detected in the sample analyzed. No mercury, arsenic, beryllium, cadmium, selenium, silver, and thallium were detected in the sample analyzed. Concentrations of antimony, barium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium and zinc were below the total threshold limit concentration (TTLC) and below 10-times the soluble threshold limit concentration (STLC) and are considered to be background concentrations.

The laboratory reported that concentrations of DDD, DDE and DDT were detected in all four samples. No other organochlorine pesticides on the list were detected. The highest concentrations of DDD, DDE and DDT were reported in Sample SSA-3 at 34 µg/kg, 155 µg/kg and 62 µg/kg, respectively (Table 1).

Laboratory Results, 0.36-Acre Parcel

The laboratory reported that no mercury, arsenic, beryllium, selenium, silver, and thallium were detected in the samples. Concentrations of antimony, barium, cadmium, chromium, cobalt, copper, molybdenum, nickel, vanadium and zinc were below the total threshold limit concentration (TTLC) and below 10-times the soluble threshold limit concentration (STLC) and are considered to be background concentrations. Lead was reported at 74.8 milligram per kilogram (mg/kg or parts per million) and 111 mg/kg in the two samples. The concentrations are below the TTLC value of 1,000 mg/kg but are greater than 10-times the STLC value (50 mg/kg).

Discussion

Area A and Campbell Basin

The U.S. EPA Region 9 Preliminary Remediation Goal values (PRG - U.S.-EPA Region 9, November 22, 2000) were reviewed by AET. The residential soil PRG values for DDD, DDE, and DDT, reported for planning purposes, are: 2,400 µg/kg; 1,700 µg/kg; and 1,700 µg/kg, respectively. The residential PRG values for dieldrin and Endrin are 30 µg/kg and 18,000 µg/kg,

respectively. While a PRG is specifically not intended as a stand-alone decision-making tool, a chemical concentration exceeding a PRG suggests that further evaluation of the potential risk is appropriate. One sample (C-1) had a concentration of dieldrin that exceeded the residential PRG value, however it did not exceed the Industrial PRG value of 150 µg/kg. All other sample results for residual pesticide concentrations in the soil were below residential PRG values.

0.36-Acre Parcel

Based on the results of the heavy metals analysis, elevated lead concentrations were detected in two samples from the loose sand on the surface of the Site, however, the reported lead concentrations are below the PRG values for residential soil (450 mg/kg) and for industrial soil (750 mg/kg) and are not a present hazard. If the lead containing surface material is removed and disposed off-site, additional assessment for lead is recommended in order to properly classify the waste.

Conclusion

Based on the results of the Limited Phase II ESA presented above, it is AET's opinion that the residual concentrations of pesticides detected in the shallow soil at the Site will be further reduced during planned grading operations, and are not a significant environmental concern for the general development of the Site.

Limitations

This report has been prepared for Impact Sciences, Inc. as a Limited Phase II Soil Screening of subsurface conditions at the proposed RiverPark Area A and Campbell Basin, Ventura Country, California. Parties not designated by Impact Sciences, Inc. may not rely on the information in this report without the written consent of AET. AET has applied present engineering and scientific judgement and used a level of effort consistent with the standard of practice measured on the date of this report and in the locale of the project site for similar type studies. Applied Environmental Technologies, Inc., makes no warranty, expressed or implied, in fact or by law, whether of merchantability, fitness for any particular purpose, or otherwise, concerning any of the materials or "services" furnished by Applied Environmental Technologies, Inc. to the client.

The analyses and interpretations in this report have been developed based on the review of existing information pertaining to the project site, and a limited number of soil sample analyses from discrete locations. It should be recognized that subsurface contamination can vary laterally and with depth below a given site.

Closure

It has been a pleasure to prepare this report for the RiverPark project. Should you have any questions or comments, please call.

Very truly yours,
Applied Environmental
Technologies, Inc.

Wallace A. Jensky, II, R.G., R.E.A.
Principal Geologist

Attachments:

Table 1 - Summary of Laboratory Results

Plate 1 - Site Location Map
Plate 2 - Soil Sample Location Map

A - Laboratory Data Sheets and Chain-of-Custody Documentation

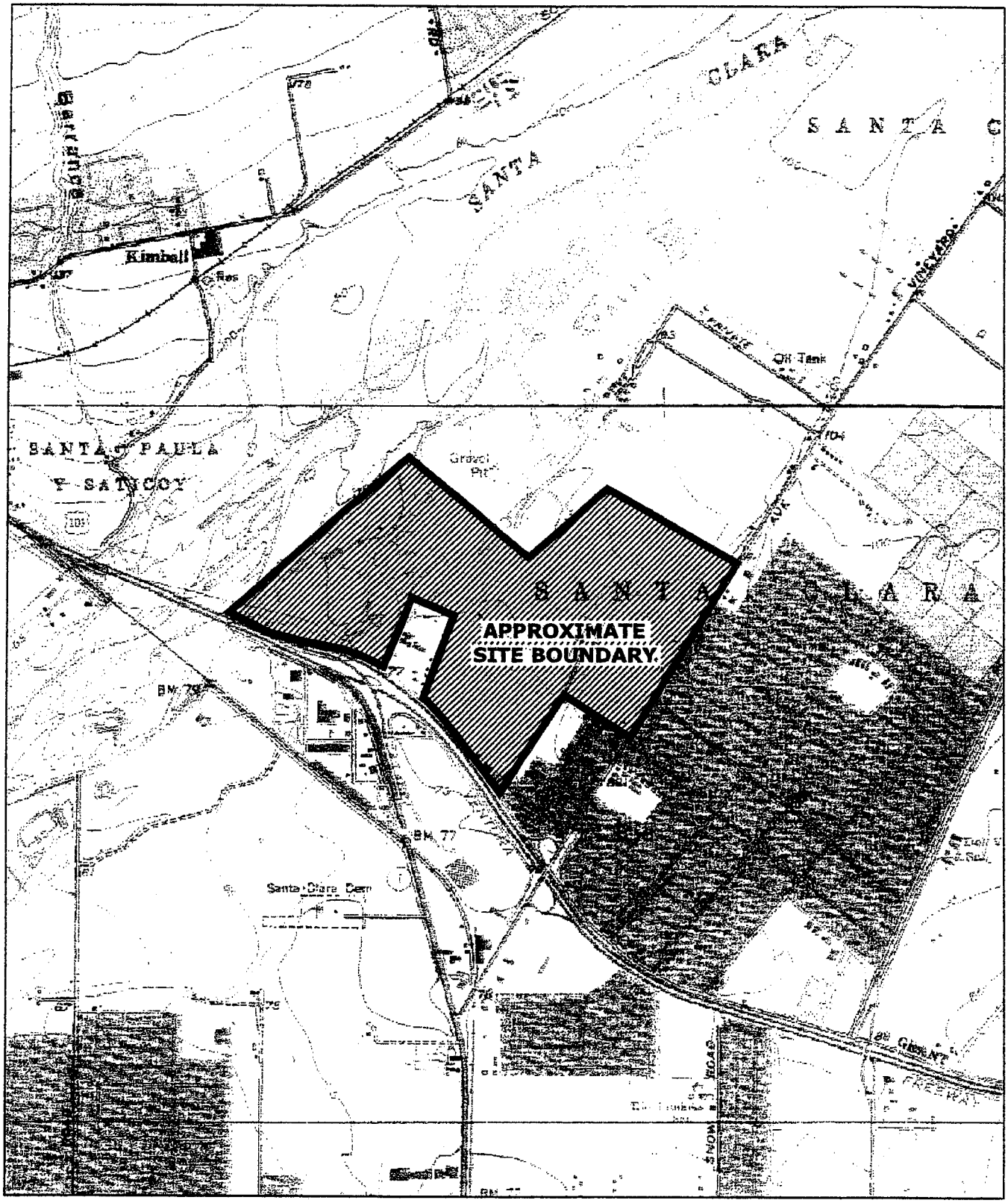
TABLE

Table 1
Pesticides
Riverpark Development, Approximate 212-Acre Area "A" and 66-Acre Campbell Basin, CA
(Results reported in micrograms per kilogram [µg/kg])

Sample	DDD	DDE	DDT	Cumulative	Dieldrin	Endrin	Herbicides	Metals
Area A								
C1	114.00	197.00	223.00	534.00	51.20	9.26	ND all	--
C2	13.00	21.40	23.60	58.00	15.00	ND	--	--
C3	21.60	46.00	50.30	117.90	7.35	ND	ND all	yes
C4	66.00	180.00	146.00	392.00	4.15	ND	--	--
C5	96.30	190.00	188.00	474.30	13.30	7.20	ND all	--
C6	70.00	137.00	114.00	321.00	16.00	ND	--	--
C7	33.00	101.00	87.00	221.00	5.47	4.54	--	--
C8	56.40	131.00	103.00	290.40	ND	ND	--	--
C9	33.00	75.00	59.20	167.20	ND	ND	ND all	yes
C10	105.00	239.00	179.00	523.00	12.70	10.80	--	--
C11	161.00	337.00	280.00	778.00	16.00	12.50	--	--
C12	85.80	190.00	141.00	416.80	7.87	ND	ND all	yes
C13	51.30	151.00	130.00	332.30	5.52	ND	--	--
C14	63.50	170.00	120.00	353.50	7.37	ND	ND all	yes
C15	86.40	223.00	153.00	462.40	10.80	4.28	--	--
SSB-1	8.73	16.40	17.80	42.93	5.65	ND	--	--
SSB-2	21.00	31.00	28.00	80.00	9.93	ND	ND all	yes
S-7-2.5'	ND	ND	ND	-	ND	ND	--	--
S-12-2.5'	ND	ND	ND	-	ND	ND	--	--
S-32-2.5'	24.00	63.00	59.50	146.50	ND	ND	--	--
S-40-2.5'	17.70	41.70	43.00	102.40	ND	ND	--	--
Campbell Basin								
C16	5.52	18.30	11.30	35.12	ND	ND	--	--
SSA-1	4.78	17.10	7.93	29.81	ND	ND	--	--
SSA-2	9.92	43.30	19.70	72.92	ND	ND	ND all	yes
SSA-3	34.00	155.00	62.20	251.20	ND	ND	--	--
Residential PRG Levels	2,400	1,700	1,700	--	30	18,000	--	--

Notes:
ND = Not detected at laboratory detection limit.
- - = Not analyzed.

PLATES



0' 2000' 1 MILE

SCALE - 1" = 2000'

Applied Environmental Technologies, Inc.
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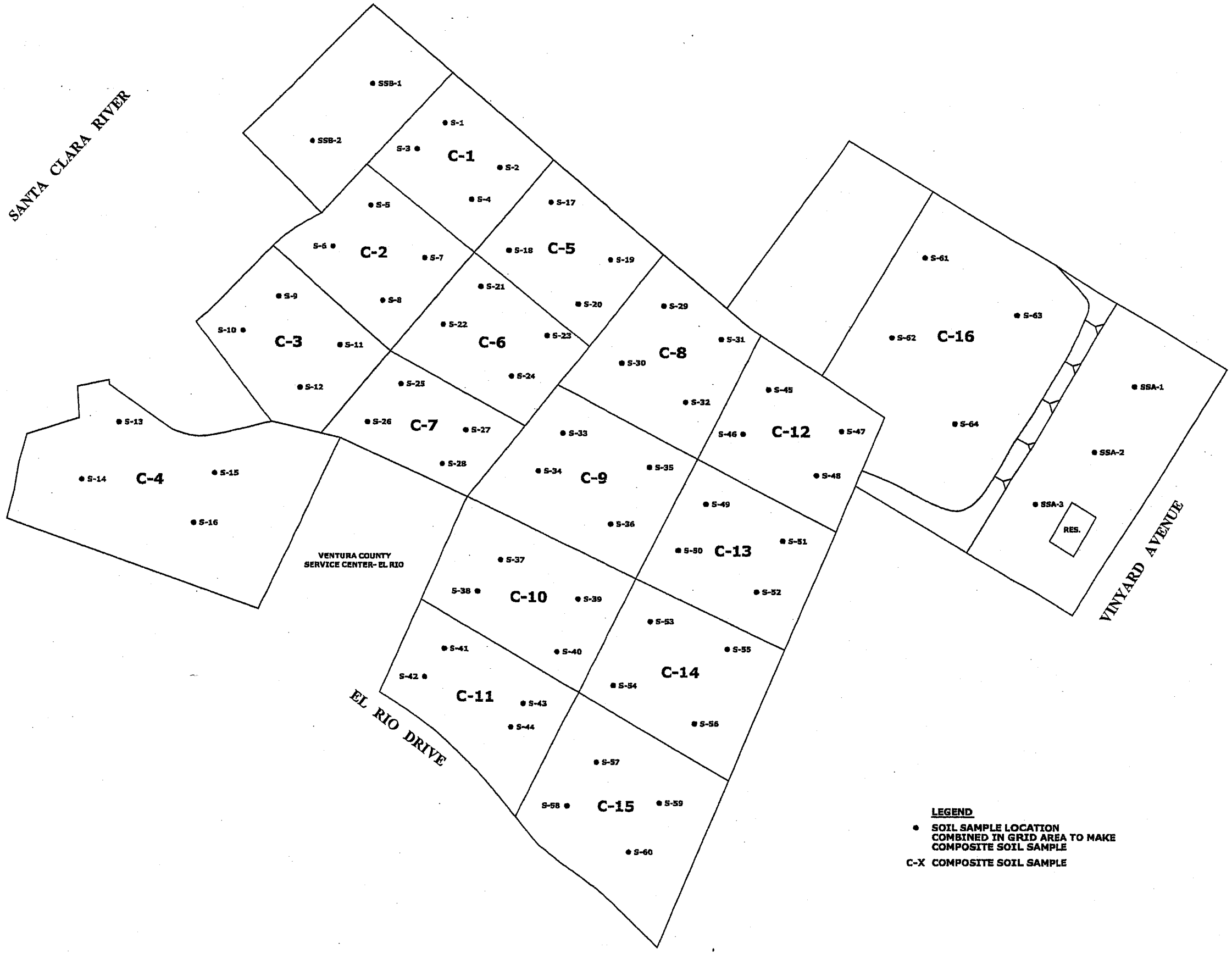
Phone (805)650-1400 Fax (805)650-1576

SITE LOCATION MAP

RIVERPARK "A" AND CAMPBELL BASIN
OXNARD, CALIFORNIA

PLATE REFERENCE 111601A1B | PROJECT NUMBER 1116-01

PLATE 1



SCALE NOT KNOWN
BASE MAP: VENTURA COUNTY
ASSESSOR'S PARCEL MAP

Applied Environmental Technologies, Inc.
4840 Market Street, Suite B •Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

SAMPLE LOCATION MAP
RIVERPARK "A" AND CAMPBELL BASIN
OXNARD, CALIFORNIA

PLATE REFERENCE 111601A1A | NOVEMBER 12, 2001 | PROJECT NUMBER 1116-01

PLATE 2

AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services
2520 N. San Fernando Rd., Los Angeles, CA 90065 Tel: (323) 223-9700 Fax: (323) 223-9500

RECEIVED NOV - 8 2001

Ordered By

Applied Enviro. Technologies, Inc.
4840 Market St. Suite B
Ventura, CA 93003

Telephone (805)650-1400
Attn Wally Jensky

Number of Pages 25
Date Received 10/18/2001
Date Reported 11/02/2001

Job Number	Ordered	Client
12164	10/18/2001	AET

22119

Project ID: 1116-01A
Project Name: River Park

Enclosed are the results of analyses on 27 samples analyzed as specified on attached chain of custody.

Arnolk MOLKY Brar
Laboratory Manager

Rojert G. Araghi
Laboratory Director

WRJ

ASL Job # 12164

Page 1 of 5

JOB NO. 1116

JOB NO.	PROJECT NAME	PROJECT MANAGER	SAMPLER	LABORATORY
1116-01A	RiverPark	WALLY SENSKE	SA	ASL

	Sample Identification	Date	Time	Sample Container (Size/Material)	Sample Type (Liquid, Soil, etc.)	Preservative	Analyses Requested A	B	C	D	E	F	Comments
C8	C1-S1	10/16/01		4oz GLASS JAR	Soil	FRIDGE							75548
C8	C1-S2												Composit C1-81484 for 8080 & 8150
C8	C1-S3						X	X					
C8	C1-S4												
C9	C2-S5												
C9	C2-S6						X						Composit C-2 75549 for 8080
C9	C2-S7												
C9	C2-S8												
C10	C3-S9												
C10	C3-S10						X	X	X				Composit C-3 75550 for 8080, 8150, & CAM17
C10	C3-S11												
C10	C3-S12												
C11	C4-S13												see page 2 75551
C11	C4-S14												

Relinquished By (Signature)	Date	Time	Received By (Signature)
	10/16/01	5:30pm	
Patricia M Hayes	10/18/01	11:20	Moses A.S.L

Analyses:
A 8080 Cl-Pesticides
B 8150 Cl-Herbicides
C Metals TTLC (CAM-17)
D
E
F

CHAIN OF CUSTODY RECORD

Applied Environmental Technologies, Inc.

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12164 19407

JOB NO.	PROJECT NAME	PROJECT MANAGER	SAMPLER	LABORATORY
11116-01A	RiverPark	WALLY JENSKY	SLA	ASL

Sample Identification	Date	Time	Sample Container (Size/Material)	Sample Type (Liquid, Soil, etc.)	Preservative	Analyses Requested A B C D E F	Comments
C11-S43	10/16/01		4oz GLASS JAR	SOIL	FRIDGE	X	Composit C-11 (S41-S44) for 8080 75558
C11-S44							
C12-S45							
C12-S46						XXX	Composit 75559 C-12 for 8080, 8150 & CAM-17
C12-S47							
C12-S48							
C13-S49							
C13-S50						X	Composit 75560 C-13 for 8080
C13-S51							
C13-S52							
C14-S53							
C14-S54						XXX	Composit 75561 C-14 8080, 8150 & CAM-17
C14-S55							
C14-S56							

Relinquished By (Signature)	Date	Time	Received By (Signature)
	10/16/01	5:30pm	
	10/18/01	11:20	Moses A.S.L

Analyses:
A
B
C
D
E
F

CHAIN OF CUSTODY RECORD

Applied Environmental Technologies, Inc.

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CHAIN OF CUSTODY RECORD

Applied Environmental Technologies, Inc.

12164

JOB NO.	PROJECT NAME	PROJECT MANAGER	SAMPLER	LABORATORY
11116-01A	Riverpark	WALLY JENSKY	SLA	ASL

Sample Identification	Date	Time	Sample Container (Size/Material)	Sample Type (Liquid, Soil, etc.)	Preservative	Analyses Requested A	B	C	D	E	F	Comments
C15-S57	10/16/01		4oz GLASS JAR	SOIL	FRIDGE							75562 Composit C-15 for 8080
C15-S58						X						
C15-S59												
C15-S60												— END OF COMPOSITS —
SSB-1						X						75563
SSB-2						X	X	X				75564
S7-2.5'						X						75565
S12-2.5'						X						75566
S32-2.5'						X						75567
S40-2.5'						X						75568

Relinquished By (Signature)	Date	Time	Received By (Signature)
	10/16/01	5:30pm	
Todd M Kopyn	10/18/01	11:20	Moses A.S.L

Analyses:
A 8080 CL-Pesticides
B 8150 CL-Herbicides
C Metals TTLC (CAM-17)
D
E
F

CHAIN OF CUSTODY RECORD

Applied Environmental Technologies, Inc.

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12164 Page 6 of 8

JOB NO.	PROJECT NAME	PROJECT MANAGER	SAMPLER	LABORATORY
1116-01A	RiverPark	WAJ	SLA	ASL

	Sample Identification	Date	Time	Sample Container (Size/Material)	Sample Type (Liquid, Soil, etc.)	Preservative	Analyses Requested A	B	C	D	E	F	Comments
2	C-16-S61	10/17/01		4oz. Cubs Jar	SOIL	FRIDGE							75569
	C-16-S62						X						Composited C-16 for 8080
	C-16-S63												
	C-16-S64												END OF COMPOSIT
3	SSA-1						X						75570
4	SSA-2						X	X	X				75571
5	SSA-3						X						75572
6	SB-1								X				75573
7	SB-2								X				75574

Relinquished By (Signature)	Date	Time	Received By (Signature)
[signature]	17 OCTOBER 2001	11:15am	
Todd M Hayn	10/18/01	11:20	Moses A.S.L

Analyses:
A 8080 OC-Pesticides
B 8150 CC-Herbicides
C Metals TLC (CAM-17)
D
E
F

CHAIN OF CUSTODY RECORD

Applied Environmental Technologies, Inc.
(805) 650-1400 • FAX (805) 650-1576 • 4840 MARKET ST., SUITE B, VENTURA, CA 93003

AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services
2520 N. San Fernando Rd., Los Angeles, CA 90065 Tel: (323) 223-9700 Fax: (323) 223-9500

ANALYTICAL RESULTS

Ordered By

Applied Enviro. Technologies, Inc.
4840 Market St. Suite B
Ventura, CA 93003

Telephone: (805)650-1400
Attn: Wally Jensky

Page: 2
Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 6010B/7471A, CCR Title 22 Metals

Our Lab I.D.		75550	75556	75559	75561	75564
Sample ID		Comp.C-3	Comp.C-9	Comp.C-12	Comp.C-14	SSB-2
Date Sampled		10/16/2001	10/16/2001	10/16/2001	10/16/2001	10/16/2001
Date Extracted		10/19/2001	10/19/2001	10/19/2001	10/19/2001	10/19/2001
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001	10/22/2001	10/22/2001	10/22/2001
Matrix		Soil	Soil	Soil	Soil	Soil
Units		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Detection Limit Multiplier		1	1	1	1	1
Analytes	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
AA Metals						
Mercury	0.20	ND	ND	ND	ND	ND
ICP Metals						
Antimony	0.50	0.69	0.58	0.59	ND	0.74
Arsenic	0.50	ND	ND	ND	ND	ND
Barium	0.50	68.1	64.4	91.1	51.8	72.3
Beryllium	0.50	ND	ND	ND	ND	ND
Cadmium	0.50	ND	ND	ND	ND	ND
Chromium	0.50	7.56	8.00	5.92	6.39	8.23
Cobalt	0.50	4.63	4.43	3.20	3.58	4.70
Copper	0.50	9.42	11.1	7.96	8.44	9.92
Lead	0.25	7.08	7.73	5.89	6.34	5.05
Molybdenum	0.50	1.03	1.09	0.80	0.88	0.95
Nickel	0.50	10.9	10.8	8.60	9.51	11.4
Selenium	0.50	ND	ND	ND	ND	ND
Silver	0.50	ND	ND	ND	ND	ND
Thallium	0.50	ND	ND	ND	ND	ND
Vanadium	0.50	15.0	14.4	10.6	12.1	15.5
Zinc	0.50	46.3	58.2	39.1	44.0	47.8

QUALITY CONTROL REPORT

Analytes	LCS % REC	LCS/LCSD % Limit								
AA Metals										
Mercury	115	80-120								

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ANALYTICAL RESULTS

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 6010B/7471A, CCR Title 22 Metals

QUALITY CONTROL REPORT

Analytes	LCS % REC	LCS/LCSD % Limit								
ICP Metals										
Antimony	100	80-120								
Arsenic	100	80-120								
Barium	88	80-120								
Beryllium	93	80-120								
Cadmium	102	80-120								
Chromium	90	80-120								
Cobalt	103	80-120								
Copper	91	80-120								
Lead	105	80-120								
Molybdenum	101	80-120								
Nickel	96	80-120								
Selenium	97	80-120								
Silver	89	80-120								
Thallium	107	80-120								
Vanadium	85	80-120								
Zinc	100	80-120								

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ANALYTICAL RESULTS

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 6010B/7471A, CCR Title 22 Metals

Our Lab I.D.		75571	75573	75574		
Sample ID		SSA-2	SB-1	SB-2		
Date Sampled		10/17/2001	10/17/2001	10/17/2001		
Date Extracted		10/19/2001	10/19/2001	10/19/2001		
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001	10/22/2001		
Matrix		Soil	Soil	Soil		
Units		mg/Kg	mg/Kg	mg/Kg		
Detection Limit Multiplier		1	1	1		
Analytes	**PQL**	**Results**	**Results**	**Results**		
AA Metals						
Mercury	0.20	ND	ND	ND		
ICP Metals						
Antimony	0.50	0.73	1.06	1.13		
Arsenic	0.50	ND	ND	ND		
Barium	0.50	92.9	54.7	20.5		
Beryllium	0.50	ND	ND	ND		
Cadmium	0.50	ND	0.52	ND		
Chromium	0.50	10.6	16.7	13.8		
Cobalt	0.50	5.98	2.64	1.24		
Copper	0.50	13.2	20.6	3.75		
Lead	0.25	13.0	74.8	111		
Molybdenum	0.50	1.64	2.29	0.91		
Nickel	0.50	15.7	10.2	3.58		
Selenium	0.50	ND	ND	ND		
Silver	0.50	ND	ND	ND		
Thallium	0.50	ND	ND	ND		
Vanadium	0.50	19.5	4.35	1.84		
Zinc	0.50	63.4	177	53.6		

QUALITY CONTROL REPORT

Analytes	LCS % REC	LCS/LCSD % Limit								
AA Metals										
Mercury	115	80-120								

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ANALYTICAL RESULTS

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 6010B/7471A, CCR Title 22 Metals

QUALITY CONTROL REPORT

Analytes	LCS % REC	LCS/LCSD % Limit								
ICP Metals										
Antimony	100	80-120								
Arsenic	100	80-120								
Barium	88	80-120								
Beryllium	93	80-120								
Cadmium	102	80-120								
Chromium	90	80-120								
Cobalt	103	80-120								
Copper	91	80-120								
Lead	105	80-120								
Molybdenum	101	80-120								
Nickel	96	80-120								
Selenium	97	80-120								
Silver	89	80-120								
Thallium	107	80-120								
Vanadium	85	80-120								
Zinc	100	80-120								

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-1

Our Lab I.D.		**75548**				
Sample ID		Comp.C-1				
Date Sampled		10/16/2001				
Date Extracted		10/21/2001				
Preparation Method						
Date Analyzed		10/22/2001				
Matrix		Soil				
Units		ug/kg				
Detection Limit Multiplier		1				
Analytes	**PQL**	**Results**				
Aldrin	2	ND				
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND				
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND				
Chlordane	17	ND				
4,4'-DDD (DDD)	40	114				
4,4'-DDE (DDE)	40	197				
4,4'-DDT (DDT)	40	223				
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND				
dieldrin	40	51.2				
Endosulfan I	2	ND				
Endosulfan II	4	ND				
Endosulfan sulfate	4	ND				
Endrin	4	9.26				
Endrin aldehyde	4	ND				
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND				
Heptachlor	2	ND				
Heptachlor epoxide	2	ND				
Methoxychlor	17	ND				
Toxaphene	170	ND				

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75548				
Surrogates	Con.Limit	% Rec.				
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	97				

QUALITY CONTROL REPORT

Batch No: 102201-1

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-2

Our Lab I.D.		75549	75563	75564	75565	75566
Sample ID		Comp.C-2	SSB-1	SSB-2	S7-2.5'	S12-2.5'
Date Sampled		10/16/2001	10/16/2001	10/16/2001	10/16/2001	10/16/2001
Date Extracted		10/21/2001	10/21/2001	10/21/2001	10/21/2001	10/21/2001
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001	10/22/2001	10/22/2001	10/22/2001
Matrix		Soil	Soil	Soil	Soil	Soil
Units		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Detection Limit Multiplier		1	1	1	1	1
Analytes	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Aldrin	2	ND	ND	ND	ND	ND
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND	ND	ND	ND	ND
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND	ND	ND	ND	ND
Chlordane	17	ND	ND	ND	ND	ND
4,4'-DDD (DDD)	4	13.0	8.73	21.0	ND	ND
4,4'-DDE (DDE)	4	21.4	16.4	31.0	ND	ND
4,4'-DDT (DDT)	4	23.6	17.8	28.0	ND	ND
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND	ND	ND	ND	ND
dieldrin	4	15.0	5.65	9.93	ND	ND
Endosulfan 1	2	ND	ND	ND	ND	ND
Endosulfan 11	4	ND	ND	ND	ND	ND
Endosulfan sulfate	4	ND	ND	ND	ND	ND
Endrin	4	ND	ND	ND	ND	ND
Endrin aldehyde	4	ND	ND	ND	ND	ND
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND	ND	ND	ND	ND
Heptachlor	2	ND	ND	ND	ND	ND
Heptachlor epoxide	2	ND	ND	ND	ND	ND
Methoxychlor	17	ND	ND	ND	ND	ND
Toxaphene	170	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75549	75563	75564	75565	75566
Surrogates	Con.Limit	% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	87	112	102	104	110

QUALITY CONTROL REPORT

Batch No: 102201-2

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-2

Our Lab I.D.		75569	75570			
Sample ID		Comp.C-16	SSA-1			
Date Sampled		10/17/2001	10/17/2001			
Date Extracted		10/21/2001	10/21/2001			
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001			
Matrix		Soil	Soil			
Units		ug/kg	ug/kg			
Detection Limit Multiplier		1	1			
Analytes	**PQL**	**Results**	**Results**			
Aldrin	2	ND	ND			
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND	ND			
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND	ND			
Chlordane	17	ND	ND			
4,4'-DDD (DDD)	4	5.52	4.78			
4,4'-DDE (DDE)	4	18.3	17.1			
4,4'-DDT (DDT)	4	11.3	7.93			
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND	ND			
dieldrin	4	ND	ND			
Endosulfan 1	2	ND	ND			
Endosulfan 11	4	ND	ND			
Endosulfan sulfate	4	ND	ND			
Endrin	4	ND	ND			
Endrin aldehyde	4	ND	ND			
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND	ND			
Heptachlor	2	ND	ND			
Heptachlor epoxide	2	ND	ND			
Methoxychlor	17	ND	ND			
Toxaphene	170	ND	ND			

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75569	75570			
Surrogates	Con.Limit	% Rec.	% Rec.			
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	113	113			

QUALITY CONTROL REPORT

Batch No: 102201-2

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-3

Our Lab I.D.		75550	75567	75568	75571	
Sample ID		Comp.C-3	S32-2.5'	S40-2.5'	SSA-2	
Date Sampled		10/16/2001	10/16/2001	10/16/2001	10/17/2001	
Date Extracted		10/21/2001	10/21/2001	10/21/2001	10/21/2001	
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001	10/22/2001	10/22/2001	
Matrix		Soil	Soil	Soil	Soil	
Units		ug/kg	ug/kg	ug/kg	ug/kg	
Detection Limit Multiplier		1	1	1	1	
Analytes	**PQL**	**Results**	**Results**	**Results**	**Results**	
Aldrin	2	ND	ND	ND	ND	
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND	ND	ND	ND	
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND	ND	ND	ND	
Chlordane	17	ND	ND	ND	ND	
4,4'-DDD (DDD)	4	21.6	24.0	17.7	9.92	
4,4'-DDE (DDE)	8.0	46.0	63.0	41.7	43.3	
4,4'-DDT (DDT)	8.0	50.3	59.5	43.0	19.7	
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND	ND	ND	ND	
dieldrin	4	7.35	ND	ND	ND	
Endosulfan 1	2	ND	ND	ND	ND	
Endosulfan 11	4	ND	ND	ND	ND	
Endosulfan sulfate	4	ND	ND	ND	ND	
Endrin	4	ND	ND	ND	ND	
Endrin aldehyde	4	ND	ND	ND	ND	
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND	ND	ND	ND	
Heptachlor	2	ND	ND	ND	ND	
Heptachlor epoxide	2	ND	ND	ND	ND	
Methoxychlor	17	ND	ND	ND	ND	
Toxaphene	170	ND	ND	ND	ND	

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75550	75567	75568	75571	
Surrogates	Con.Limit	% Rec.	% Rec.	% Rec.	% Rec.	
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	99	105	118	112	

QUALITY CONTROL REPORT

Batch No: 102201-3

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-4

Our Lab I.D.		75551	75552	75553	75555	75557
Sample ID		Comp.C-4	Comp.C-5	Comp.C-6	Comp.C-8	Comp.C-10
Date Sampled		10/16/2001	10/16/2001	10/16/2001	10/16/2001	10/16/2001
Date Extracted		10/21/2001	10/21/2001	10/21/2001	10/21/2001	10/21/2001
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001	10/22/2001	10/22/2001	10/22/2001
Matrix		Soil	Soil	Soil	Soil	Soil
Units		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Detection Limit Multiplier		1	1	1	1	1
Analytes	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Aldrin	2	ND	ND	ND	ND	ND
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND	ND	ND	ND	ND
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND	ND	ND	ND	ND
Chlordane	17	ND	ND	ND	ND	ND
4,4'-DDD (DDD)	40	66.0	96.3	70.0	56.4	105
4,4'-DDE (DDE)	40	180	190	137	131	239
4,4'-DDT (DDT)	40	146	188	114	103	179
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND	ND	ND	ND	ND
dieldrin	4	4.15	13.3	16.0	ND	12.7
Endosulfan 1	2	ND	ND	ND	ND	ND
Endosulfan 11	4	ND	ND	ND	ND	ND
Endosulfan sulfate	4	ND	ND	ND	ND	ND
Endrin	4	ND	7.20	ND	ND	10.8
Endrin aldehyde	4	ND	ND	ND	ND	ND
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND	ND	ND	ND	ND
Heptachlor	2	ND	ND	ND	ND	ND
Heptachlor epoxide	2	ND	ND	ND	ND	ND
Methoxychlor	17	ND	ND	ND	ND	ND
Toxaphene	170	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75551	75552	75553	75555	75557
Surrogates	Con.Limit	% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	94	93	95	0	0

QUALITY CONTROL REPORT

Batch No: 102201-4

Analytes	MS %REC	MS DUP %REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-4

Our Lab I.D.		75559	75560	75561	75562	
Sample ID		Comp.C-12	Comp.C-13	Comp.C-14	Comp.C-15	
Date Sampled		10/16/2001	10/16/2001	10/16/2001	10/16/2001	
Date Extracted		10/21/2001	10/21/2001	10/21/2001	10/21/2001	
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001	10/22/2001	10/22/2001	
Matrix		Soil	Soil	Soil	Soil	
Units		ug/kg	ug/kg	ug/kg	ug/kg	
Detection Limit Multiplier		1	1	1	1	
Analytes	**PQL**	**Results**	**Results**	**Results**	**Results**	
Aldrin	2	ND	ND	ND	ND	
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND	ND	ND	ND	
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND	ND	ND	ND	
Chlordane	17	ND	ND	ND	ND	
4,4'-DDD (DDD)	40	85.8	51.3	63.5	86.4	
4,4'-DDE (DDE)	40	190	151	170	223	
4,4'-DDT (DDT)	40	141	130	120	153	
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND	ND	ND	ND	
dieldrin	4	7.87	5.52	7.37	10.8	
Endosulfan 1	2	ND	ND	ND	ND	
Endosulfan 11	4	ND	ND	ND	ND	
Endosulfan sulfate	4	ND	ND	ND	ND	
Endrin	4	ND	ND	ND	4.28	
Endrin aldehyde	4	ND	ND	ND	ND	
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND	ND	ND	ND	
Heptachlor	2	ND	ND	ND	ND	
Heptachlor epoxide	2	ND	ND	ND	ND	
Methoxychlor	17	ND	ND	ND	ND	
Toxaphene	170	ND	ND	ND	ND	

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ANALYTICAL RESULTS

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75559	75560	75561	75562	
Surrogates	Con.Limit	% Rec.	% Rec.	% Rec.	% Rec.	
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	110	109	106	112	

QUALITY CONTROL REPORT

Batch No: 102201-4

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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ANALYTICAL RESULTS

Ordered By

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Telephone: (805)650-1400
Attn: Wally Jensky

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-5

Our Lab I.D.		75554	75572			
Sample ID		Comp.C-7	SSA-3			
Date Sampled		10/16/2001	10/17/2001			
Date Extracted		10/21/2001	10/21/2001			
Preparation Method						
Date Analyzed		10/22/2001	10/22/2001			
Matrix		Soil	Soil			
Units		ug/kg	ug/kg			
Detection Limit Multiplier		1	1			
Analytes	**PQL**	**Results**	**Results**			
Aldrin	2	ND	ND			
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND	ND			
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND	ND			
Chlordane	17	ND	ND			
4,4'-DDD (DDD)	20	33.0	34.0			
4,4'-DDE (DDE)	20	101	155			
4,4'-DDT (DDT)	20	87.0	62.2			
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND	ND			
dieldrin	4	5.47	ND			
Endosulfan 1	2	ND	ND			
Endosulfan 11	4	ND	ND			
Endosulfan sulfate	4	ND	ND			
Endrin	4	4.54	ND			
Endrin aldehyde	4	ND	ND			
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND	ND			
Heptachlor	2	ND	ND			
Heptachlor epoxide	2	ND	ND			
Methoxychlor	17	ND	ND			
Toxaphene	170	ND	ND			

Comment(s):

Did not meet QC limits, no corrective action taken.

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75554	75572			
Surrogates	Con.Limit	% Rec.	% Rec.			
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	0	109			

QUALITY CONTROL REPORT

Batch No: 102201-5

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-6

Our Lab I.D.		75556				
Sample ID		Comp.C-9				
Date Sampled		10/16/2001				
Date Extracted		10/21/2001				
Preparation Method						
Date Analyzed		10/22/2001				
Matrix		Soil				
Units		ug/kg				
Detection Limit Multiplier		1				
Analytes	**PQL**	**Results**				
Aldrin	2	ND				
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND				
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND				
Chlordane	17	ND				
4,4'-DDD (DDD)	16	33.0				
4,4'-DDE (DDE)	16	75.0				
4,4'-DDT (DDT)	16	59.2				
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND				
dieldrin	4	ND				
Endosulfan 1	2	ND				
Endosulfan 11	4	ND				
Endosulfan sulfate	4	ND				
Endrin	4	ND				
Endrin aldehyde	4	ND				
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND				
Heptachlor	2	ND				
Heptachlor epoxide	2	ND				
Methoxychlor	17	ND				
Toxaphene	170	ND				

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75556				
Surrogates	Con.Limit	% Rec.				
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	70				

QUALITY CONTROL REPORT

Batch No: 102201-6

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Batch No: 102201-7

Our Lab I.D.		75558				
Sample ID		Comp.C-11				
Date Sampled		10/16/2001				
Date Extracted		10/21/2001				
Preparation Method						
Date Analyzed		10/22/2001				
Matrix		Soil				
Units		ug/kg				
Detection Limit Multiplier		1				
Analytes	**PQL**	**Results**				
Aldrin	2	ND				
alpha-Hexachlorocyclohexane (Alpha-BHC)	2	ND				
Beta-Hexachlorocyclohexane (Beta-BHC)	2	ND				
Chlordane	17	ND				
4,4'-DDD (DDD)	80	161				
4,4'-DDE (DDE)	80	337				
4,4'-DDT (DDT)	80	280				
delta-Hexachlorocyclohexane (Delta-BHC)	2	ND				
dieldrin	4	16.0				
Endosulfan 1	2	ND				
Endosulfan 11	4	ND				
Endosulfan sulfate	4	ND				
Endrin	4	12.5				
Endrin aldehyde	4	ND				
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	2	ND				
Heptachlor	2	ND				
Heptachlor epoxide	2	ND				
Methoxychlor	17	ND				
Toxaphene	170	ND				

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ANALYTICAL RESULTS

Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8080, Organochlorine Pesticides

Our Lab I.D.		75558				
Surrogates	Con.Limit	% Rec.				
Surrogate Percent Recovery						
Tetrachloro-M-Xylene	43-169	105				

QUALITY CONTROL REPORT

Batch No: 102201-7

Analytes	MS % REC	MS DUP % REC	RPD %							
Aldrin	75	78	3.9							
4,4'-DDT (DDT)	99	113	13.2							
dieldrin	82	89	8.2							
Endrin	109	117	7.1							
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	80	80	<1							
Heptachlor	99	77	25.0							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8150, Chlorinated Herbicides by GC

Our Lab I.D.		75548	75550	75552	75556	75559
Sample ID		Comp.C-1	Comp.C-3	Comp.C-5	Comp.C-9	Comp.C-12
Date Sampled		10/16/2001	10/16/2001	10/16/2001	10/16/2001	10/16/2001
Date Extracted		10/22/2001	10/22/2001	10/22/2001	10/22/2001	10/22/2001
Preparation Method						
Date Analyzed		10/26/2001	10/26/2001	10/26/2001	10/26/2001	10/26/2001
Matrix		Soil	Soil	Soil	Soil	Soil
Units		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Detection Limit Multiplier		1	1	1	1	1
Analytes	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
2,4-D	1.1	ND	ND	ND	ND	ND
2,4-DB	5.0	ND	ND	ND	ND	ND
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	1.2	ND	ND	ND	ND	ND
2,4,5,-TP (Silvex)	1.2	ND	ND	ND	ND	ND
Dalapon	0.5	ND	ND	ND	ND	ND
Dicamba	0.6	ND	ND	ND	ND	ND
Dichloroprop	0.8	ND	ND	ND	ND	ND
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	1.1	ND	ND	ND	ND	ND
MCPA	200	ND	ND	ND	ND	ND
MCPP	150	ND	ND	ND	ND	ND
Pentachlorophenol	1.0	ND	ND	ND	ND	ND

Our Lab I.D.		75548	75550	75552	75556	75559
Surrogates	**Con.Limit**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Surrogate Percent Recovery						
DCAA	50-170	55	55	69	75	79

QUALITY CONTROL REPORT

Analytes	MS % REC	MS DUP % REC	RPD %							
2,4-D	75	60	22.2							
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	90	80	11.8							
2,4,5,-TP (Silvex)	112	185	49.2							

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Project ID: 1116-01A
Project Name: River Park

Job Number	Order Date	Client
12164	10/18/2001	AET

Method: 8150, Chlorinated Herbicides by GC

Our Lab I.D.		75561	75564	75571		
Sample ID		Comp.C-14	SSB-2	SSA-2		
Date Sampled		10/16/2001	10/16/2001	10/17/2001		
Date Extracted		10/22/2001	10/22/2001	10/22/2001		
Preparation Method						
Date Analyzed		10/26/2001	10/26/2001	10/26/2001		
Matrix		Soil	Soil	Soil		
Units		ug/kg	ug/kg	ug/kg		
Detection Limit Multiplier		1	1	1		
Analytes	**PQL**	**Results**	**Results**	**Results**		
2,4-D	1.1	ND	ND	ND		
2,4-DB	5.0	ND	ND	ND		
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	1.2	ND	ND	ND		
2,4,5,-TP (Silvex)	1.2	ND	ND	ND		
Dalapon	0.5	ND	ND	ND		
Dicamba	0.6	ND	ND	ND		
Dichloroprop	0.8	ND	ND	ND		
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	1.1	ND	ND	ND		
MCPA	200	ND	ND	ND		
MCPP	150	ND	ND	ND		
Pentachlorophenol	1.0	ND	ND	ND		

Our Lab I.D.		75561	75564	75571		
Surrogates	**Con.Limit**	**% Rec.**	**% Rec.**	**% Rec.**		
Surrogate Percent Recovery						
DCAA	50-170	85	95	79		

QUALITY CONTROL REPORT

Analytes	MS % REC	MS DUP % REC	RPD %							
2,4-D	75	60	22.2							
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	90	80	11.8							
2,4,5,-TP (Silvex)	112	185	49.2							

APPENDIX 5.0
Alternatives Information

Alternative Project Scenarios

		River Park A Only Alternative		25% Reduction in Density Alternative	
		Number	Percent	Number	Percent
Revenue					
	Residential	$ 59,949,420	47.13%	$ 174,322,549	77.03%
	Non-Residential	$ 67,240,005	52.87%	$ 51,967,725	22.97%
		$ 127,189,425	100.00%	$ 226,290,273	100.00%
Costs					
	Title, Environmental, & Entitlement	$ 4,619,224	3.7%	$ 9,424,303	4.3%
	Construction Documents	$ 1,301,905	1.0%	$ 2,603,809	1.2%
	Legal, Financial, & Political	$ 1,722,583	1.4%	$ 5,975,332	2.7%
	Overhead & Administration	$ 1,605,475	1.3%	$ 3,210,950	1.4%
	Taxes, Assessments, & Fees	$ 18,896,749	15.2%	$ 34,013,926	15.3%
	Acquisition & Disposition Costs	$ 34,343,263	27.6%	$ 51,383,769	23.2%
	Hard Costs (including Contingency)	$ 44,500,804	35.7%	$ 83,172,724	37.5%
	Schools	$ 17,410,140	14.0%	$ 31,654,800	14.3%
	Misc	$ 100,188	0.1%	$ 230,713	0.1%
	Total Costs	$ 124,500,331	100.0%	$ 221,670,326	100.0%
Net Profit		$ 2,689,094		$ 4,619,947	
Net Present Value		**$ (19,976,943)**		**$ (21,346,040)**	
Internal Rate of Return		**-0.48%**		**3.72%**	

Notes

1 Costs include expenditures to date and projected costs through project completion.
2 Residential Revenue assumes a 15% affordable housing component.
3 School costs represent mitigation of impact through the provision of actual schools instead of fee payment.
4 Lot sales and revenue absorption based on Keyser Marston report dated 11/9/01.
5 Net Present Value is calculated using a 20% discount rate applied to all cash flows.