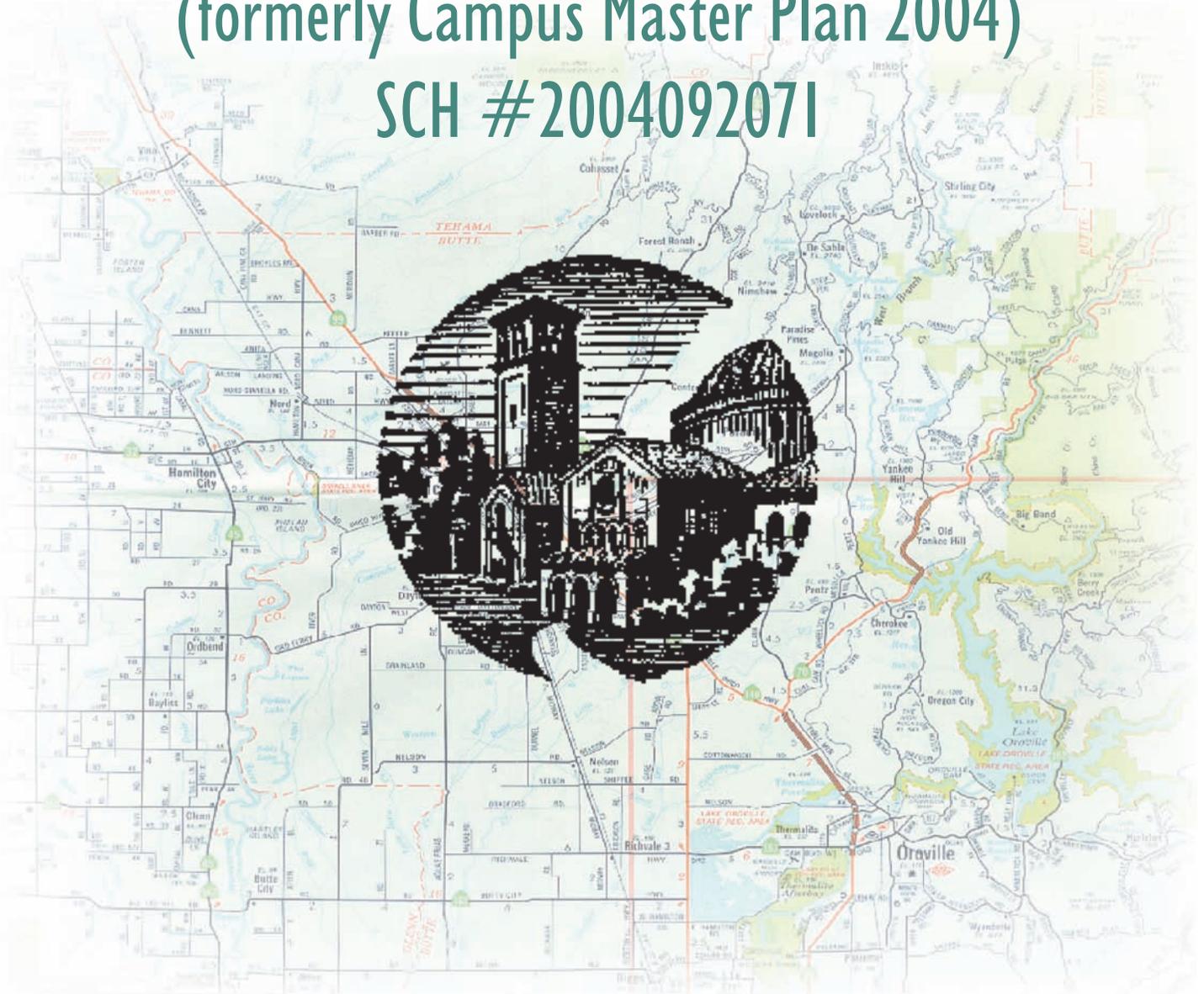


Revised Draft Environmental Impact Report

California State University, Chico Campus Master Plan 2005 (formerly Campus Master Plan 2004) SCH #2004092071



April, 2005



Submitted to:
Greg Francis, Director
Office of Facilities Planning
California State University, Chico
Chico, CA 95929-0025

Submitted by:
Quad Knopf, Inc.
One Sierragate Plaza, Suite 270C
Roseville, CA 95678
(916) 784-7823

Revised Draft Environmental Impact Report

for

California State University, Chico

Campus Master Plan 2005
(formerly Campus Master Plan 2004)
SCH #2004092071

Submitted to:

Greg Francis, Director
Office of Facilities Planning
California State University, Chico
Chico, CA 95929-0025

Submitted by:



Quad Knopf

One Sierragate Plaza, Suite 270C
Roseville, CA 95678
(916) 784-7823

April, 2005

TABLE OF CONTENTS

Executive Summary	ES-1
Chapter One – Introduction	1-1
1.1 Purpose	1-1
1.2 Background	1-1
1.3 Recirculation	1-1
1.4 Organization of the Revised EIR	1-4
Chapter Two – Project Description	2-1
Chapter Three – Environmental Setting, Impacts & Mitigation Measures	3-105
3.13 Transportation & Circulation	3-105
Chapter Four – Project Alternatives	4-1
Chapter Five – Consequences of Project Implementation (Mandatory CEQA Sections)	5-1
Appendices	
Appendix A	Traffic Impact Analysis prepared by kdAnderson Transportation Engineers, December 13, 2004, Revised March 29, 2005.

LIST OF TABLES

Table #	Description	Page #
S-1	Summary of Impacts & Mitigation Measures	ES-7
3.13-1	Existing Peak Hour Intersection Levels of Service	3-109
3.13-2	Current Daily Traffic Volumes	3-110
3.13-3	Level of Service Definitions	3-113
3.13-4	Trip Generation Rates	3-114
3.13-5	Trip Generation Estimates	3-114
3.13-6	Project Trip Distribution	3-115
3.13-7	Peak Hour Intersection Levels of Service for Existing Plus Project Scenario	3-116
3.13-8	Special Event Trip Distribution	3-120
3.13-9	Existing Plus ATRC Special Event Peak Hour Intersection Levels of Service	3-120
3.13-10	Year 2025 Daily Traffic Volumes	3-123
3.13-11	Peak Hour Intersection Levels of Service for Year 2025 Scenarios	3-124

LIST OF FIGURES

Fig. #	Description	Following Page #
3.13-1a	Existing Traffic Volumes & Lane Configurations	3-108
3.13-1b	Existing Traffic Volumes & Lane Configurations	3-108
3.13-1c	Existing Traffic Volumes & Lane Configurations	3-108
3.13-2a	Master Plan Only Traffic Volumes & Lane Configurations	3-118
3.13-2b	Master Plan Only Traffic Volumes & Lane Configurations	3-118
3.13-2c	Master Plan Only Traffic Volumes & Lane Configurations	3-118
3.13-3a	Existing Plus Master Plan Traffic Volume & Lane Configurations	3-118
3.13-3b	Existing Plus Master Plan Traffic Volume & Lane Configurations	3-118
3.13-4	Existing Plus Master Plan Traffic Volume & Lane Configurations	3-120
3.13-5	Existing Plus ATRC Special Event Traffic Volume & Lane Configurations	3-120
3.13-6a	Cumulative Base Traffic Volume & Lane Configurations	3-122
3.13-6b	Cumulative Base Traffic Volume & Lane Configurations	3-122
3.13-6c	Cumulative Base Traffic Volume & Lane Configurations	3-122
3.13-7a	Cumulative Plus Base Traffic Volume & Lane Configurations	3-126
3.13-7b	Cumulative Plus Master Plan Traffic Volume & Lane Configurations	3-126
3.13-7c	Cumulative Plus Master Plan Traffic Volume & Lane Configurations	3-126

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

PROJECT DESCRIPTION

The proposed project consists of the adoption and implementation of an updated Campus Master Plan 2005 (see Figures 2-7 and 2-8). The existing Campus Master Plan was developed in 1990 and adopted in 1991. The proposed Campus Master Plan 2005 provides for a campus building plan that includes the construction of five new major academic buildings, two recreational facilities, a natural history museum, a child care center, approximately 1,300 bed-spaces of student housing, two parking structures, and improvements to the Agricultural Teaching and Research Center (ATRC) located approximately 2 miles from the main campus (see Figure 2-9). The Plan also calls for the demolition of several outdated and obsolete buildings. Other large building and infrastructure renovation projects are also identified. Implementation of various projects will require acquisition of additional properties adjacent to the campus. The Campus Master Plan 2005 also identifies improvements to the existing landscape and hardscape to address current visual and functional weaknesses. The Campus Master Plan 2005 also includes Design Guidelines that set forth a context for ensuring that the design of new buildings contributes to a consistent architectural vocabulary for the campus. The Campus Master Plan 2005 is designed to accommodate a student enrollment of 17,900 FTES (academic year full time equivalent students), an increase of 2,900 FTES.

Proposed Campus Master Plan 2005 Projects

Project	Description
Butte Hall – Rehabilitation	48,538 ASF (88,874 GSF)
Taylor II – Demolition/Replacement	76,000 ASF (116,900 GSF)
Student Services Center (In process)	79,960 ASF (122,422 GSF)
Modoc II –Demolition/Replacement	37,980 ASF (58,400 GSF)
Siskiyou II - Demolition/Replacement	38,200 ASF (58,800 GSF)
Rio Chico Physical Education/Aquatic Center - Acquisition	46,200 ASF (71,000 GSF)
Outdoor Physical Education Facilities	5 acres
Whitney Hall - Demolition/Replacement College Park – Acquisition	1,298 new bed spaces
Whitney Hall – Food Service	23,000 GSF (6,500 meals/day, 2,200 meal plans)
Outdoor Recreation	38 acres
Wildcat Activity Center	124,658 – 133,400 square feet
Indoor Child Care Facilities	137,600 ASF (172,000 GSF)
Outdoor Child Care Areas	177,200 square feet
Automobile Parking	1,430 additional parking spaces
Bikeways & Bike Parking	Relocate and add new bike parking facilities
Northern California Natural History Museum	11,000 square feet
Utility Infrastructure	Upgrades & Expansion

Project	Description
Agriculture Teaching & Research Center	Renovated swine, beef & sheep units Demonstration & research facility (10,400 GSF) ATRC events center (45,000 GSF) Expanded commodity storage area (75,000 GSF) Expanded, ecologically updated waste ponds New dairy unit ATRC conference center (7,000 GSF) Renovated and new horticulture facilities New student housing New equipment storage facility (15,000 GSF) New pesticide seed fertilizer building (5,875 GSF) Meat laboratory upgrades

New infrastructure will be needed to serve planned new buildings and other facilities. Upgrades will be needed to meet evolving needs, such as telecommunications and classroom technology, and to achieve cost savings related to maintenance and energy savings. Specific modifications and improvements to the utility infrastructure include the following:

- Expand cooling capacity (chilled water generation and storage) by improving building efficiencies
- Expand central plant to accommodate additional chillers, towers, and a chilled water storage tank
- Extend the campus-wide underground distribution system to areas that are not adequately served and to serve planned new facilities
- Extend, upsize and repair the campus-wide underground steam distribution system to serve planned new facilities
- Extend the campus-wide 12 KV power distribution system to load centers not presently served
- Re-allocate buildings to different 12KV circuits to balance the load and make power available for areas master planned for new construction
- Provide emergency power for buildings currently without service
- Increase the capacity of existing emergency systems to support building critical functions
- Correct fuel and air pollution issues for existing generators
- Repair and upgrade the antiquated and undersized natural gas distribution system to provide additional capacity

The CSU Chico Central Plant facility located in the southwest corner of the athletic fields area of campus will be the site of new and upgraded equipment needed to serve campus growth and achieve energy efficiency and savings. An area to the north of the existing Central Plant is indicated as the logical area for Central Plant expansion.

Land Acquisition

CSU Chico is the second smallest campus by acreage to enrollment in the CSU system. In order to continue to prosper and attract qualified students, the campus must obtain additional land in order to meet a variety of student needs. These would include such things as parking, housing, green space, outdoor physical education and recreation. The Campus Master Plan 2005 revision proposes the acquisition of the College Park and Rio Chico neighborhoods, as specified in the previous Master Plan.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Section 15123(b)(1) of the Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines) provides that the summary shall identify each significant effect with proposed mitigation measures that would reduce or avoid that effect. This information is summarized in Table S-1, Summary of Impacts and Mitigation Measures.

ALTERNATIVES TO THE PROJECT

Section 15126.6 of the State CEQA Guidelines requires the EIR to describe a reasonable range of alternatives to the project or to the location of the project that could feasibly accomplish the basic objectives of the project, and to evaluate the comparative merits of the alternatives. The impacts of the proposed project that have been identified as significant after mitigation include: disturbance of archaeological or historical resources as a result of improvements identified for the main CSU Chico campus and cumulative development in the study area by the Year 2025 will generate traffic on the planned street system

The EIR evaluates the following alternatives in Chapter Four of this EIR:

- No Project Alternative
- Unmet Needs Alternative
- Housing/Parking Alternative

NO PROJECT ALTERNATIVE

In accordance with Section 15126.6(e)(3)(B) of the CEQA Guidelines, the No Project alternative consists of an analysis of the circumstance under which the project does not proceed; that is, the project site will remain guided by the existing Campus Master Plan (1990) (“No Project” alternative).

UNMET NEEDS ALTERNATIVE

This alternative would allow those projects that are required to meet the existing unmet needs of the University. Improvements to the ATRC would be limited to those considered to be essential. These projects would include all of the ATRC Phase 1 and ATRC Phase III projects as well as the renovated swine unit. Eliminated from this alternative would be the new dairy unit, the Conference Center and the Events Center. Infrastructure improvements necessary to support these projects would be included.

HOUSING/PARKING ALTERNATIVE

This alternative would analyze a project that included only those facilities designed to accommodate additional and improved housing and parking facilities. This alternative would eliminate the planned recreational facilities as well as the natural history museum.

Improvements to the ATRC would be the same as for the unmet needs alternative above.

The environmentally superior alternative would be the “no project” alternative, since there would not be an increase in enrollment, resulting in fewer students and a corresponding reduction in impacts to traffic, circulation, and parking; however, the “no project” alternative would not meet the project objectives, particularly with regard to accommodating the predicted increase in enrollment.

Among the remaining alternatives, the housing/parking alternative would be the environmentally superior alternative, since very few changes would take place to the campus buildings resulting in fewer impacts on the physical environment. The housing/parking alternative does not meet several of the stated project objectives of accommodating the increase in enrollment predicted for the campus.

The alternatives and associated impacts are summarized as follows:

- **No Project Alternative.** Under the “no project” alternative, impacts to aesthetic resources would be slightly less than the proposed project for the main campus. Aesthetic impacts related to the ATRC facility would be greater under the “no project alternative” since no improvements would be made to this facility. Impacts to air quality would be slightly reduced under the “no project” alternative. The impacts to biological resources would be similar under this alternative. The “no project” alternative would be likely to have greater impact on cultural resources, since it proposed demolition of houses in the Rio Chico area. Impacts on other cultural resources would be similar to the proposed project. Impacts to geology and soils would be similar under both the 1990 Master Plan and the Campus Master Plan 2005. The Campus Master Plan 2005 would have a greater level of soil disturbance due to the increased number of buildings on the site. The “no project” alternative would have somewhat greater impacts related to hazards and hazardous materials since the proposed improvements to the ATRC would not take place. The “no project” alternative would have similar impacts to hydrology and water quality as compared to the Campus Master Plan 2005. The Campus Master Plan 2005 would be more beneficial due to the improvements

specified for the ATRC facility that will improve conditions related to the animal confining facilities. The “no project” alternative would have greater impacts with regard to land use and planning than the Campus Master Plan 2005 since it does not provide the facilities necessary to meet the needs of the campus and the community. There would be less increase in traffic and construction noise under the “no project” alternative, since the campus would remain at current enrollment. Under the “no project” alternative, impacts related to population and housing would be reduced, as compared to the proposed project. The additional bed spaces called for in the project will allow more students to live on campus reducing related impacts to parking and circulation. Impacts to public services under the “no project” alternative would be similar to the impacts under the proposed Campus Master Plan 2005. Under the “no project” alternative, the beneficial impact of the new recreational facilities would not be realized. The “no” project alternative would have slightly less impact on traffic and circulation since it would not accommodate the greater enrollment predicted under the proposed plan and would not include a new conference and events center at the ATRC. With regard to the issue of parking, the “no project” alternative would also have less impact than the proposed Campus Master Plan since there would be no increase in enrollment. The proposed Campus Master Plan 2005 would have a similar impact related to parking as the 1990 Master Plan, since both plans include provisions for additional parking.

- **Unmet Needs Alternative.** Under this scenario, the impacts on aesthetics would be slightly reduced since some of the renovation projects would maintain the same building footprint and would be smaller in height. Impacts on aesthetics for the ATRC would be slightly increased since some of the improvements would not be undertaken. Impacts to air quality would be slightly reduced under the “unmet needs” alternative. There would be less construction activities, resulting in less exhaust emissions and fugitive particulate matter emissions and student enrollment would remain at current levels so there would be no increase in air pollutant emissions. Impacts on cultural resources would be the same under this alternative as under the proposed Campus Master Plan 2005. Impacts on hazards and hazardous materials would be the same (less than significant) under this alternative since the improvements specified for the ATRC facility would still occur. Impacts to hydrology would be reduced in this alternative. The alternative would not vary significantly from the proposed project with regards to water quality or hydrology. Impacts from incompatibilities with existing or planned land uses in the vicinity are less than significant, as they are with the proposed Campus Master Plan 2005. There would be less increase in traffic noise under the “unmet needs” alternative, since the campus would remain at current enrollment. Additionally, there would be less construction noise since fewer projects are anticipated under the proposed Master Plan. Under this alternative there would be less recreational facilities developed, although there would be sufficient recreational facilities to serve the student population. Because the additional student population is likely to occur under either scenario, the impacts to parks and recreation are greater under this alternative. Impacts to the transportation and circulation system would be greater under this scenario. The reduction in improvements would result in fewer provisions for parking and street improvements designed not only to accommodate future enrollment growth, but also to address existing transportation and parking deficiencies. The impacts to transportation and circulation are considered greater under this alternative.

- **Housing/Parking Alternative.** Under this scenario, the impacts on aesthetics would be increased since many of the projects would not be built, and older buildings that are incompatible with the campus style would not be replaced. Impacts on aesthetics for the ATRC would be slightly increased since some of the improvements that would enhance visual quality would not be undertaken. Impacts to air quality would be similar under the “housing/parking” alternative. There would be construction activities associated with creating additional housing and parking facilities, resulting in similar exhaust emissions and fugitive particulate matter emissions. Carbon monoxide and other air pollutant emissions in the basin would also be similar. Impacts on cultural resources would be reduced under this alternative as under the proposed Campus Master Plan 2005. The reduction in construction would limit the amount of disturbed lands, and reduce the potential for construction activities to impact or destroy historic or cultural resources. Impacts on hazards and hazardous materials would be the same (less than significant) under this alternative since the improvements specified for the ATRC facility would still occur. Impacts to drainage would be reduced under this alternative. Impacts to hydrology and water quality would be expected to remain the same under the alternative. Impacts from incompatibilities with existing or planned land uses in the vicinity would be reduced slightly as compared with the proposed Campus Master Plan 2005. More parking would be provided for the campus that would reduce the parking congestion downtown. More students would be housed on-campus, which would reduce the need for off-campus housing. The impacts related to noise would essentially be the same as the proposed Campus Master Plan 2005 under the “housing/parking” alternative, since new facilities would be constructed on campus and additional parking would be added resulting in increased traffic noise. Under this alternative there would be less recreational facilities developed, although there would be sufficient recreational facilities to serve the student population. Impacts to the transportation and circulation system would be greater under this scenario. The reduction in improvements would result in fewer provisions for parking and street improvements designed not only to accommodate future enrollment growth, but also to address existing transportation and parking deficiencies.

**Table S-1
Summary of Impacts and Mitigation Measures**

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
3.1 Aesthetics/Visual Resources					
3.1-1	Have a substantial adverse effect on a scenic vista.	Less than Significant		No mitigation measures are required.	
3.1-2	Substantially degrade the existing visual character or quality of the site and its surroundings?	Potentially Significant	3.1-2a	<p>Future proposals for the rehabilitation, renovation, and/or replacement of structures on the Chico campus shall adhere to the design principles and characteristics set forth in the Campus Master Plan 2005. These standards include:</p> <ul style="list-style-type: none"> • Common building materials and colors: <ul style="list-style-type: none"> • red brick walls; • potential limited use of concrete for building columns, surrounds, lintels, planter seat walls; • iron and steel railings, low fencing, trash receptacles/surrounds; • curved red tile roofs, gable and hip types in the historic core area. • Modernistic to modern with classical forms and elements as stylistic constants. • Landscaping, particularly trees, to form a soft contrast and frame to campus buildings contributing to the unification of the overall visual environment. 	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
		Potentially Significant	3.1-2b	<p>Future proposals for the rehabilitation, renovation, and/or replacement of structures in the historic core area shall complement the historic core buildings in terms of building forms, materials and colors and shall adhere to the guidelines set forth in the Campus Master Plan 2005 including:</p> <ul style="list-style-type: none"> • Principal roofs shall be of a gable design with eaves and pitch similar to the nearest neighboring historic core structure. • Roofs shall be constructed of curved tiles of a color similar to the nearest neighboring historic core structure. • Principal gable ridge line heights shall not exceed that of the nearest neighboring historic core structure. • Walls shall be constructed of brick of a type and coursing similar to that of the nearest neighboring historic core structure. 	Less than Significant
3.1-3	Introduction of new sources of light and glare as a result of implementation of the CSU Chico Campus Master Plan 2005, and impacts of increased lighting on the	Potentially Significant	3.1-3a	New lighting proposed for future projects as a result of implementation of the Campus Master Plan 2005 shall be directed downward and shall not shine onto adjacent properties. Additionally, all new lighting	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
	night sky.			<p>shall adhere to the guidelines in the Campus Master Plan 2005, including:</p> <ol style="list-style-type: none"> 1. The offsite visibility and potential glare of the lighting will be restricted by specification of non-glare fixtures, and placement of lights to direct illumination into only those areas where it is needed. 2. Appropriate fixture selection and light placement shall minimize light pollution and enhance natural color rendition. All lighting shall utilize refractive lenses and be shielded to reduce glare into buildings and neighboring areas. 3. Walkway lighting fixtures shall not be mounted higher than twenty feet unless necessary for security reasons. 	
		Potentially Significant	3.1-3b	Individual developments associated with the Campus Master Plan 2005 shall minimize lighting to areas required for safety, security, or normal operations on the main campus and at the ATRC and shield lighting from public view to the greatest extent possible. The direction and shielding of lighting shall be regulated to reduce light spillage, light pollution, and glare. Highly directional light fixtures shall be used with non-glare lighting fixtures. All lighting and light shields shall be installed and operated	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				consistent with manufacturer's specifications.	
3.2 Air Quality					
3.2-1	Construction activities such as demolition, clearing, excavation and grading operations, construction vehicle traffic and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses.	Potentially Significant	3.2-1	<p>Consistent with BCAQMD Indirect Source Review Guidelines, the following construction dust and equipment exhaust emissions measures should be required in all construction contracts:</p> <ul style="list-style-type: none"> • Watering should be used to control dust generation during demolition of structures and break-up of pavement. • Cover all trucks hauling demolition debris from the site. • Use dust-proof chutes to load debris into trucks whenever feasible. • Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil and wind exposure. • Use chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). 	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				<ul style="list-style-type: none"> • On-site vehicles limited to a speed of 15 mph on unpaved areas. • Plant vegetative ground cover in disturbed areas as soon as possible. • Cover inactive storage piles. • Paved streets adjacent to the development site should be swept or washed at the end of each day as necessary to remove excessive accumulations of silt and/or mud which may have accumulated as a result of activities on the development site. • Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours. The telephone number of the BCAQMD shall also be visible to ensure compliance with BCAQMD Rule 201 and 207 (Nuisance and Fugitive Dust Emissions). • Provide temporary traffic control as appropriate during all phases of construction to improve traffic flow (e.g. flag person). 	

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				<ul style="list-style-type: none"> Require contractors to minimize exhaust emissions by maintaining equipment engines in good condition and in proper tune according to manufacturer's specifications and by not allowing construction equipment to be left idling for long periods. 	
3.2-2	The project would change traffic volumes and congestion levels, changing carbon monoxide concentrations at land uses near the roadway.	Less than Significant		No mitigation measures are required.	
3.2-3	Vehicle trips generated by the project and area sources within the project would result in new air pollutant emissions within the air basin.	Potentially Significant	3.2-3	<p>Future development that occurs as a result of the implementation of the Master Plan shall adhere to the following standards:</p> <ul style="list-style-type: none"> Orient buildings to the north for natural cooling and the use of appropriate landscaping that maximizes the potential of solar design principles. Use of solar water heating for at least 25 percent of the building floor area. Incorporate shade trees, adequate in number and proportional to the project size, throughout the site to reduce building heating and cooling requirements. 	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				<ul style="list-style-type: none"> Provide preferential parking spaces for carpools and vanpools. 	
3.2-4	The project and cumulative development would change traffic volumes and congestion levels, changing carbon monoxide concentrations at land uses near the roadway.	Less than Significant		No mitigation measures are required.	
3.3 Biological Resources					
3.3-1	Direct or indirect effects on species, identified as a candidate, sensitive, special-status species, or migratory, including their habitat, or movement corridors (Main Campus).	Potentially Significant	3.3-1a	The individual project plans for all projects located along Big Chico Creek shall contain a permanent 100-foot, or greater, avoidance buffer to separate the individual project from Big Chico Creek. If a permanent 100-foot buffer is determined infeasible, the project proponent shall conduct protocol level surveys consistent with the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). If presence of this species is determined, a permanent 25-foot buffer shall be maintained and a qualified biologist shall coordinate with the USFWS for a determination of not likely to adversely affect. If the 25-foot avoidance buffer is determined to be infeasible, the project proponent shall obtain the appropriate take permit from the USFWS prior to any construction (Section 7 or Section 10 of the Endangered Species Act).	Less Than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
		Potentially Significant	3.3-1b	The individual project plans for all projects located along Big Chico Creek shall contain a permanent 100-foot, or greater, avoidance buffer to separate the individual project from Big Chico Creek. If a permanent 100-foot buffer is determined infeasible, the project proponent shall conduct protocol level surveys consistent with the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). If presence of this species is determined, a permanent 25-foot buffer shall be maintained and a qualified biologist shall coordinate with the USFWS for a determination of not likely to adversely affect. If the 25-foot avoidance buffer is determined to be infeasible, the project proponent shall obtain the appropriate take permit from the USFWS prior to any construction (Section 7 or Section 10 of the Endangered Species Act).	Less than Significant
3.3-2	Direct or indirect effects on species, identified as a candidate, sensitive, special-status species, or migratory, including their habitat, or movement corridors (ATRC site).	Potentially Significant		See Mitigation Measure 3.3-1b.	Less than Significant
3.3-3	Adverse effects on federally protected wetlands as defined by Section 404 of the Clean Water Act	Potentially Significant	3.3-3	Individual project plans for all projects located along Big Chico Creek shall be reviewed by a qualified biologist to	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
	(including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.			determine if the plans pose the potential for disturbance to protected wetlands and/or waterways. If it is determined that the project plans do pose a risk of disturbance to wetlands and/or waterways then the project proponent shall coordinate with the US Army Corp of Engineers and the California Department of Fish and Game to obtain the appropriate permits and/or agreements (i.e. Section 401 and 404 permit, and Streambed Alteration Agreement).	
3.4 Cultural Resources					
3.4-1	Disturbance of archaeological or historical resources as a result of improvements identified for the Agriculture Teaching and Research facility.	Potentially Significant	3.4-1a	Prior to any proposed activity that will result in the excavation of sub-surface sediment within the 800 acre ATRC, the Research Archaeology Program, a CSU Chico Foundation supported program, and the Mechoopda Indian Tribe should be consulted prior to the commencement of ground disturbing activities.	Less than Significant
		Potentially Significant	3.4-1b	During any future excavation of sub-surface sediment within the 95-acre ATRC core area, an archeological monitor should be present to observe this activity. Given the strong possibility that such undocumented resources may be related to the occupation and use of the area by the Mechoopda Indian Tribe, a representative tribal monitor should also be present to act as a liaison to the Mechoopda	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				Indian Tribe and also to act as a “most likely descendant” should Native American internments be unearthed during construction activities.	
		Potentially Significant	3.4-1c	Prior to the demolition, or alteration, of any building or structure greater than 45 years in age within the 95-acre ATRC, a qualified architectural historian and historian be retained to evaluate the potential significance of these resources.	Less than Significant
3.4-2	Disturbance of archaeological or historical resources as a result of improvements identified for the main CSU Chico campus.	Significant & Unavoidable	3.4-2a	Prior to any proposed activity that will result in the excavation of sub-surface sediment within the 119 acre CSU Chico campus area, the Research Archaeology Program, a CSU Chico Foundation supported program, and the Mechoopda Indian Tribe should be consulted prior to the commencement of ground disturbing activities.	Significant & Unavoidable
		Significant & Unavoidable	3.4-2b	During any future excavation of sub-surface sediment within the 119 acre CSU Chico campus area, an archeological monitor should be present to observe this activity. Given the strong possibility that such undocumented resources may be related to the occupation and use of the area by the Mechoopda Indian Tribe, a representative tribal monitor should also be present to act as a liaison to the Mechoopda Indian Tribe and also to act as a	Significant & Unavoidable

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				“most likely descendant” should Native American internments be unearthed during construction activities.	
		Significant & Unavoidable	3.4-2c	Prior to the demolition, or alteration, of any building or structure greater than 45 years in age within the 119 acre CSU Chico campus area or one of the land acquisition areas, a qualified architectural historian and historian should be retained to evaluate the potential significance of these resources.	Significant & Unavoidable
3.4-3	Disturbance of unique paleontological resources as a result of improvements identified for the main CSU Chico campus or the ATRC.	Less than Significant		No mitigation measures are required.	
3.5 Geology and Soils					
3.5-1	Rupture of a known earthquake fault.	Less than Significant		No mitigation measures are required.	
3.5-2	Strong seismic ground shaking resulting in seismic ground failure, including liquefaction.	Less than Significant		No mitigation measures are required.	
3.5-3	Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill.	Potentially Significant	3.5-3	Future development projects that may occur as a result of implementation of the CSU Chico Campus Master Plan 2005 shall comply with Best Management Practices. Examples of Best Management Practices include, but are not limited to the following:	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				<ul style="list-style-type: none"> • Placing fiber rolls around onsite drain inlets to prevent sediment and construction-related debris from entering inlets. • Placing fiber rolls along the perimeter of the site to reduce runoff flow velocities and prevent sediment from leaving the site. • Placing silt fences downgradient of disturbed areas to slow down runoff and retain sediment. • Specifying that all disturbed soil will be seeded, mulched, or otherwise protected by October 15th. • Stabilizing construction entrance to reduce the tracking of mud and dirt onto public roads by construction vehicles. • Applying hydraulic mulch that temporarily protects exposed soil from erosion by raindrop impact or wind. 	
3.6 Hazards & Hazardous Materials					
3.6-1	A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation).	Potentially Significant	3.6-1	Improvements to the ATRC facility related to the new pesticide and fertilizer building shall meet all the requirements of the Safe Drinking Water and Toxic Enforcement Act	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				(Proposition 65) standards and shall adhere to best practices as related to on-farm chemical use.	
3.6-2	Possible interference with an emergency response plan or emergency evacuation plan.	Potentially Significant	3.6-2	Prior to closure of any of the three street segments, a plan should be developed that will ensure that there will be no interference with an emergency response plan or emergency evacuation plan.	Less than Significant
3.6-3	Exposure of people to existing sources of potential health hazards.	Less than Significant		No mitigation measures are required.	
3.6-4	Result in a safety hazard related to a private airport available for public use for people residing or working in the project area.	Less than Significant		No mitigation measures are required.	
3.7 Hydrology and Water Quality					
3.7-1	Violation of water quality standards or degradation of water quality: [Criteria (a) and (f)].	Less than Significant		No mitigation measures are required.	
3.7-2	Depletion of groundwater supplies or substantial interference with groundwater recharge: [Criteria (b)].	Less than Significant		No mitigation measures are required.	
3.7-3	Drainage pattern alteration; runoff increase creating flooding or polluted runoff: [Criteria (c), (d), and (e)].	Less than Significant		No mitigation measures are required.	

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
3.7-4	Flood hazard impacts on housing; project impedance of or redirection of 100-year flood hazard flows: [Criteria (g) and (h)].	Less than Significant		No mitigation measures are required.	
3.7-5	Dam failure impacts: [Criteria (i)].	No impact		No mitigation measures are required.	
3.7-6	Seiche, tsunami or mudflow impacts: [Criteria (j)].	No impact		No mitigation measures are required.	
3.8 Land Use					
3.8-1	Physically divide an established community.	Less than Significant		No mitigation measures are required.	
3.8-2	Land use conflicts between the proposed project and existing and planned land uses in the vicinity of the project site.	Less than Significant		No mitigation measures are required.	
3.8-3	Conflict with any applicable habitat conservation plan or natural community conservation plan.	Less than Significant		No mitigation measures are required.	
3.9 Noise					
3.9-1	Potential for increased traffic noise as a result of the proposed Campus Master Plan 2005 - Main Campus under existing plus project conditions.	Less than Significant		No mitigation measures are required.	

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
3.9-2	Potential for increased traffic noise as a result of the proposed Campus Master Plan 2005 - Main Campus under future plus project conditions.	Less than Significant		No mitigation measures are required.	
3.9-3	Potential impact of construction noise as a result of planned improvements for the Main Campus.	Potentially Significant	3.9-3a	All heavy construction equipment and all stationary noise sources (such as diesel generators) shall be in good working order and have manufacturer installed mufflers.	Less than Significant
		Potentially Significant	3.9-3b	Equipment warm up areas, water tanks, and equipment storage areas shall be located in an area as far away from existing residences as is feasible.	Less than Significant
		Potentially Significant	3.9-3c	<p>All construction shall be between the hours of 7:00 a.m. and 9:00 p.m. daily except Sundays and holidays.</p> <p>Construction activities between the hours of 10:00 a.m. and 6:00 p.m. on Sundays and holidays shall meet at least one of the following noise limitations:</p> <ol style="list-style-type: none"> 1. No individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of twenty-five feet from the source. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to twenty- 	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				<p>five feet from the equipment as possible.</p> <p>2. The noise level at any point outside of the property plane of the project shall not exceed 86 dBA.</p>	
3.9-4	Potential for earthborn construction vibration as a result of activities associated with the Main Campus.	Less than Significant		No mitigation measures are required.	
3.9-5	Potential for increased traffic noise at as a result of the proposed Campus Master Plan 2005 - ATRC under existing plus project conditions.	Less than Significant		No mitigation measures are required.	
3.9-6	Potential for increased traffic noise at as a result of the proposed Campus Master Plan 2005 - ATRC under future plus project conditions.	Less than Significant		No mitigation measures are required.	
3.9-7	Potential for construction noise as a result of planned improvements for the ATRC.	Potentially Significant	3.9-7a	All heavy construction equipment and all stationary noise sources (such as diesel generators) shall be in good working order and have manufacturer installed mufflers.	Less than Significant
		Potentially Significant	3.9-7b	Equipment warm up areas, water tanks, and equipment storage areas shall be located in an area as far away from existing residences as is feasible.	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
		Potentially Significant	3.9-7c	<p>All construction shall be between the hours of 7:00 a.m. and 9:00 p.m. daily except Sundays and holidays. Construction activities between the hours of 10:00 a.m. and 6:00 p.m. on Sundays and holidays shall meet at least one of the following noise limitations:</p> <ol style="list-style-type: none"> 1. No individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of twenty-five feet from the source. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to twenty-five feet from the equipment as possible. 2. The noise level at any point outside of the property plane of the project shall not exceed 86 dBA. 	Less than Significant
3.9-8	Potential for earthborn construction vibration as a result of planned improvements at the ATRC.	Less than Significant		No mitigation measures are required.	
3.9-9	Potential for increased agricultural operations noise as a result of planned improvements for the ATRC.	Potentially Significant	3.9-9a	A disclosure statement should be provided to all prospective buyers of properties within the Plan Area notifying of the presence of existing and future noise-producing agricultural-related activities in the immediate Plan Area.	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
		Potentially Significant	3.9-9b	A buffer of at least 100 feet should be provided between agricultural lands and future residential developments within the ATRC Master Plan Area.	Less than Significant
3.10 Population and Housing					
3.10-1	Development of the proposed project would increase the population in the vicinity (growth-inducing impact).	Less than Significant		No mitigation measures are required.	
3.10-2	The potential of the project to displace residents currently living in College Park and Rio Chico.	Less than Significant		No mitigation measures are required.	
3.10-3	The potential impact on the City of Chico's vacancy rate as a result of the increased enrollment enabled by the proposed Campus Master Plan 2005.	Less than Significant		No mitigation measures are required.	
3.II Public Services and Facilities, Utilities					
3.11-1	Provision of adequate public protection to serve the proposed project.		3.11-1a	Currently there are several "Blue Light" emergency telephones located throughout the campus which ring directly into the Communications Center of the University Police Department. These auto-dialing phones may be used to summon emergency police, fire or medical assistance. Before construction is completed on new facilities on the main campus, new "Blue Light"	

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				<p>phones can be added to ensure safety at these locations.</p> <p>Community Service Officers (CSO) of the CSU Chico Police Department are student positions. The CSO provides support to the staff of sworn and non-sworn police personnel. Duties include parking enforcement, special event security, escort detail, bicycle licensing, property engraving, room unlocks, clerical dispatch support, and campus lot patrol. More of these positions can be created if needed to ensure proper enforcement of laws and safety concerns.</p>	
			3.11-1b	Before any new facilities are constructed, the ATRC will provide a detailed fire safety plan that will uphold all Federal and State fire codes for all facilities within the ATRC.	
3.11-2	Maintenance of public facilities, including roads.	Less than Significant		No mitigation measures are required.	
3.11-3	Need for new systems for power or natural gas.	Less than Significant		No mitigation measures are required.	
3.11-4	Need for additional solid waste disposal.	Less than Significant		No mitigation measures are required.	
3.11-5	Need for additional sewage treatment.	Less than Significant		No mitigation measures are required.	

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
3.12 Parks and Recreation					
3.12-1	Construction of the new recreational facilities could result in impacts to the physical environment.	Potentially Significant	3.12-1	<p>All buildings and activity areas shall be located at least 100 feet from the top of the stream banks. BMP's selected shall be in accordance with the California Stormwater Quality Association "Stormwater Best Management Practice Handbook," or other appropriate criteria as determined by the University in consultation with the City of Chico.</p> <p>The erosion control plan shall indicate that proper control of erosion, sedimentation, siltation and other pollutants will be implemented per NPDES permit requirements and University standards. The plan shall address storm drainage during construction and propose BMPs to reduce erosion and water quality degradation. The plan shall indicate whether grading will occur in the winter months. If grading is proposed for the winter months, mechanisms to avoid sedimentation of creeks and damage to riparian habitat shall be identified. The plan shall also specify restoration measures for graded areas including but not limited to landscaping, revegetation, the use of rice straw or other weed free vegetative material for erosion control measures.</p>	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				Drainage facilities shall be protected as necessary to prevent erosion of the onsite soils immediately following grading activities. In addition, cut slopes and drainage ways within native material shall be protected from direct exposure to water runoff immediately following grading activities.	
3.13 Transportation and Circulation					
3.13-1	Generation of vehicle trips due to increased enrollment and the development of parking structures will increase traffic on the adjacent street system.	Significant & Unavoidable		No mitigation measures are feasible.	
3.13-2	Implementation of the Master Plan will result in increased demand for on-campus parking.	Less than Significant		No mitigation measures are required.	
3.13-3	Pedestrian/Bicycle Activity near the Campus could create conflicts with automobiles.	Potentially Significant	3.13-3	Pedestrian/bicycle activity shall be addressed in the design of new parking facilities. Traffic controls devices needed to ensure crossing safety shall be provided as new facilities are developed.	Less than Significant
3.13-4	Special Events at the ATRC will generate vehicle trips and parked cars.	Potentially Significant	3.13-4a	When the Events Center is constructed, the on-site parking supply shall be calculated. If the proposed supply fails to satisfy projected demands on-site, then a parking management plan shall be created. The plan shall delineate	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				the location of and access to the on-site and off-site parking supply that will be made available when events are held at the Center. If appropriate, the plan shall link maximum ticket sales or the number of seats constructed to the number of parking spaces available near the Center. If necessary, the parking management plan shall incorporate other features to help reduce the demand for on site parking, including shuttle busses from satellite parking locations, and other measures necessary to ensure adequate parking for special events at the facility.	
		Potentially Significant	3.13-4b	An operational plan shall be developed for the Events Center which schedules travel to and from large events outside of peak commute hours. The plan shall identify the size and schedule of events that necessitate manual traffic controls at affected intersections, as well as maximum attendance for events ending during the p.m. peak hour.	Less than Significant
		Potentially Significant	3.13-4c	When the Events Center is constructed, improvements shall be made to the ATRC's Hegan Lane access intersections to provide left turn lanes on Hegan lane and to provide adequate throat depth on exiting lanes.	Less than Significant

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
3.13-5	Implementation of the Master Plan will increase the demand for CATS in the area of the Campus.	Potentially Significant	3.13-5	CSU shall continue to work with CATS to subsidize student transit ridership. Should the need for expanded service on the “Student Shuttle” routes be identified, CSU shall work with CATS to develop an equitable funding mechanism that will ensure that adequate transit services are available to serve the anticipated student population.	Less than Significant
3.13-6	Cumulative development in the study area by the Year 2025 will generate traffic on the planned street system.	Significant & Unavoidable	3.13-6a	When plans for the 2nd Street parking structure proceed, CSU shall prepare a supplemental traffic study addressing site access and local circulation impacts. The study will address the need for signalization of adjoining intersections, including 2nd Street/Normal Street. The study shall also consider the issue of bicycle access along this portion of 2nd Street, and applicable traffic control measures shall be included in the design of the project.	Significant & Unavoidable
		Significant & Unavoidable	3.13-6b	<p>Future traffic conditions at the 2nd Street/Cherry Street intersection shall be monitored by the City of Chico. A traffic signal at this location would serve to reduce impacts.</p> <p>This signal location and mitigation measure is under the jurisdiction of the City of Chico. CSU Chico cannot ensure implementation of mitigation measures that are under the</p>	Significant & Unavoidable

Impact #	Impact	Significance	Mitigation #	Mitigation Measure	Significance After Mitigation
				jurisdiction and responsibility of another agency.	
		Significant & Unavoidable	3.13-6c	<p>Widening the Midway/Park Avenue intersection to provide dual southbound left turn lanes and a separate northbound through lane would serve to reduce these potential impacts.</p> <p>The Midway/Park Avenue intersection and mitigation measure is under the jurisdiction of the City of Chico. CSU Chico cannot ensure implementation of mitigation measures that are under the jurisdiction and responsibility of another agency.</p>	Significant & Unavoidable
		Significant & Unavoidable	3.13-6d	<p>Widening the Midway/Hegan Lane intersection to accommodate dual eastbound left turn lanes would reduce impacts to this intersection.</p> <p>The Midway/Hegan Lane intersection and mitigation measure is under the jurisdiction of Butte County. CSU Chico cannot ensure implementation of mitigation measures that are under the jurisdiction and responsibility of another agency.</p>	Significant & Unavoidable

CHAPTER ONE

INTRODUCTION

CHAPTER ONE

INTRODUCTION

I.1 PURPOSE

This document is a Revised Draft Environmental Impact Report (Revised Draft EIR) prepared in accordance with Section 15088.5 of the *Guidelines for Implementation of the California Environmental Quality Act* (CEQA Guidelines). The document revises portions of the document titled *Draft Environmental Impact Report California State University Chico Campus Master Plan 2004* (Draft EIR) (SCH #2004092071) dated January 2005. The Campus Master Plan 2004 is herein referred to as the Campus Master Plan 2005. The Campus Master Plan 2005 is the same plan as analyzed previously; this is a change to the name of the plan only

I.2 BACKGROUND

The Draft EIR was circulated for public review in accordance with Sections 15087 and 15105 of the CEQA Guidelines. The public review period ran from January 31, 2005 until March 16, 2005. In response to the circulation of the Draft EIR, comments were received on a variety of subjects, including, but not limited to those related to transportation and circulation. The comments received have led to a need to recirculate the Transportation and Circulation section of the Draft EIR, in order to ensure compliance with the State of California Public Resources Code, and the CEQA Guidelines. The project description contained in the Draft EIR remains unchanged.

I.3 RECIRCULATION

Section 15088 of the CEQA Guidelines provides that recirculation of an EIR should occur if "...significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term 'information' can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project..." After review of comments received on the Draft EIR, the University has determined that certain mitigation measures related to transportation and circulation are infeasible and cannot be implemented. This new information is viewed as "significant" by the University, and necessitates recirculation.

Specific mitigation measures found to be infeasible as written include Mitigation Measures #3.13-6a through #3.13-6e appearing on pages 3-125 and 3-126 of the Draft EIR. These mitigation measures are intended to reduce the effects of cumulative development on the planned street system within the study area. It has been determined, however, that the University cannot participate as proposed due to prohibitions contained in Articles 13 and 16 of the State Constitution pertaining to the use of public funds by the University. The modification of mitigation measures, as described in this Revised Draft EIR, has no effect on the conclusions reached in the Draft EIR with regard to

cumulative impacts to the planned street system, which will remain significant and unavoidable, with or without mitigation.

In accordance with Section 15088.5(g) of the CEQA Guidelines, specific revisions that have been made to the Draft EIR Transportation and Circulation section are described as follows:

1. Revises the title of the Master Plan from Campus Master Plan 2004 to Campus Master Plan 2005. It should be noted that this is a change in title only, and that the project description and recommendations in the Campus Master Plan remain unchanged.
2. Add a paragraph to page 3-108 describing the share of project traffic using SR 99.
3. Correct the date of the traffic counts to November 4, 2004 on page 3-109. The November 18, 2004 date in the previously circulated Draft EIR was an error.
4. A discussion of trip generation and parking availability is added to page 3-115.
5. Table 3.13-7 is revised to reflect the capacity recommendations by Caltrans. Additionally, updated LOS software was used that resulted in some minor changes in the results shown in the table.
6. The text following Table 3.13-7 is revised to reflect the updated information. This results in Impact 3.13-1 being significant and unavoidable. This impact was previously identified as less than significant.
7. On page 3-120, second full paragraph, a sentence is added to describe the LOS at the Midway/Park Avenue intersection.
8. On page 3-120, third full paragraph, the last sentence is replaced with a more detailed description of what capacity reductions would be required to achieve LOS E and LOS D.
9. The description of Nord Avenue/West Sacramento intersection has been revised to reflect the updated information that indicates that the widening of Nord Avenue would not deliver LOS E.
10. In addition, the description of why this widening might not be feasible has been expanded.
11. Table 3.13-11 is revised to reflect the capacity recommendations by Caltrans. Additionally, updated LOS software was used that resulted in some minor changes in the results shown in the table.
12. The discussion of mitigation measures related to Impact 3.13-6 has been revised to clarify that the CSU Chico is unable to fund off-site improvements and cannot ensure implementation of mitigation measures that are under the jurisdiction of another agency.
13. Mitigation Measures 3.13-6c has been deleted.

14. Mitigation Measures 3.13-6b, 6d (now 6c), and 6e (now 6d) have been revised to delete the statement that CSU Chico would pay fair share fees for these improvements and describe that CSU Chico cannot ensure implementation of these mitigation measures since they are under the jurisdiction of another agency.
15. A new Appendix is also included in this document (as Appendix A) that reflects the traffic results using the revised capacity recommendations and updated LOS software.

The Draft EIR was prepared to disclose, analyze, and provide mitigation measures for all potentially significant environmental effects associated with adoption and implementation of the proposed Campus Master Plan 2005. Preparation of an EIR is a requirement of the California Environmental Quality Act (CEQA) for all discretionary projects in California that have a potential to result in significant environmental impacts. As required under CEQA, the Draft EIR was published and circulated for review and comment by responsible and trustee agencies and interested members of the public.

Section 15088.5 of the CEQA Guidelines provides that:

- (f) The lead agency shall evaluate and respond to comments as provided in Section 15088. Recirculating an EIR can result in the lead agency receiving more than one set of comments from reviewers. The following are two ways in which the lead agency may identify the set of comments to which it will respond. This dual approach avoids confusion over whether the lead agency must respond to comments which are duplicates or which are no longer pertinent due to revisions to the EIR. In no case shall the lead agency fail to respond to pertinent comments on significant environmental issues.
 - (1) When an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period. The lead agency shall advise reviewers, either in the text of the revised EIR or by an attachment to the revised EIR, that although part of the administrative record, the previous comments do not require a written response in the final EIR, and that new comments must be submitted for the revised EIR. The lead agency need only respond to those comments submitted in response to the recirculated revised EIR. The lead agency shall send directly to every agency, person, or organization that commented on the prior draft EIR a notice of the recirculation specifying that new comments must be submitted.
 - (2) When the EIR is revised only in part and the lead agency is recirculating only the revised chapters or portions of the recirculated EIR, the lead agency may request that reviewers limit their comments to the revised chapters or portions. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received

during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated. The lead agency's request that reviewers limit the scope of their comments shall be included either within the text of the revised EIR or by an attachment to the revised EIR.

- (3) As part of providing notice of recirculation as required by Public Resources Code Section 21092.1, the lead agency shall send a notice of recirculation to every agency, person, or organization that commented on the prior EIR. The notice shall indicate, at a minimum, whether new comments may be submitted only on the recirculated portions of the EIR or on the entire EIR in order to be considered by the agency.

- (g) When recirculating a revised EIR, either in whole or in part, the lead agency shall, in the revised EIR or by an attachment to the revised EIR, summarize the revisions made to the previously circulated draft EIR.

Per Section 15088.5(c) of the CEQA Guidelines, the California State University will recirculate only the portions of the Draft EIR related to transportation and circulation. In accordance with CEQA Guidelines Section 15088.5(f)(2), the University requests that reviewers limit their comments to the chapters and sections contained in the Revised Draft EIR. Procedures for recirculation of the Revised Draft EIR will be identical to those followed during circulation of the Draft EIR, including establishment of a 45-day review period. Following recirculation, all comments received on the Revised Draft EIR that pertain to transportation and circulation will be responded to in a Final EIR. In addition, all comments received during the initial Draft EIR 45-day review period will be responded to in the Final EIR.

I.4 ORGANIZATION OF THE REVISED EIR

Executive Summary. The Executive Summary contains a summary of the complete EIR, including the impacts and mitigation measures included in the previously circulated Draft EIR.

Chapter One - Introduction. Provides an introduction to the Revised Draft EIR, provides a rationale for re-circulating the Transportation Chapter of the Draft EIR, and summarizes the revisions that have been made to the Transportation Chapter.

Chapter Two – Project Description. The Project Description from the EIR has not changed and is not included in this Revised Draft EIR. Please refer to the previously circulated Draft EIR for the project description. The Executive Summary of this Revised Draft EIR contains a summary project description for reference purposes.

Chapter Three – Environmental Setting, Impacts and Mitigation Measures. This section explains that Sections 3.1 through 3.12 will be revised in response to the comments received previously and those responses will be included in the Final EIR. This Chapter includes the revised Transportation Chapter for review and comment.

Chapter Four – Project Alternatives. This chapter has not been revised and is not being re-circulated for review. Any changes necessitated by the comments previously received will be addressed in the Final EIR.

Chapter Five – Consequences of Project Implementation. This chapter has not been revised and is not being re-circulated for review. Any changes necessitated by the comments previously received will be addressed in the Final EIR.

CHAPTER TWO

PROJECT DESCRIPTION

CHAPTER TWO

PROJECT DESCRIPTION

Chapter 2 contained in the Draft EIR is not being re-circulated and is not reprinted herein. Any comments received on the previously circulated Draft EIR will be addressed in the Final EIR.

CHAPTER THREE

ENVIRONMENTAL SETTING, IMPACTS & MITIGATION MEASURES

CHAPTER THREE

ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

*Note: Sections 3.1-3.12 contained in the Draft EIR are not being re-circulated and are not reprinted herein. Any comments received on the previously circulated Draft EIR will be addressed in the Final EIR.

3.13 TRANSPORTATION AND CIRCULATION

This section analyzes the transportation and circulation impacts associated with development in accordance with the Chico Campus Master Plan 2004 (now referred to as the Campus Master Plan 2005). The Campus Master Plan 2005 plan will guide development and operation of the campus for the foreseeable future and identified key infrastructure and policies that may ultimately affect transportation and circulation in the area near CSU Chico and throughout the City of Chico as a whole.

The Campus Master Plan 2005 describes improvements that will be made to the main campus located in downtown Chico. The Master Plan also describes programs and improvements that are planned for the Agricultural Center located south of Chico on Hegan Road.

The analysis summarized herein deals with current traffic conditions in the area of the campus, with conditions occurring with immediate implementation of planned improvements, and with cumulative conditions occurring in the future with other development in Chico, continuing regional traffic growth (i.e., year 2025 conditions) and full campus occupancy at the enrollment levels anticipated under the Master Plan. The full report was contained in Appendix F of the previously circulated Draft EIR and a revised report is included as an Appendix A to this Revised Draft EIR.

For the purpose of the traffic analysis contained in this Revised Draft EIR, the project is defined as the adoption of a Master Plan allowing the construction and operation of CSU Chico with an ultimate enrollment of 20,000 students (total body count) and the development of two specific infrastructure improvements that could impact local circulation.

Enrollment

Over the last few years the total enrollment (i.e., body count) at CSU Chico has been about 16,000 students. Measured in this fashion, (i.e., head count), the current Master Plan also accommodates about 16,000 students. The new Campus Master Plan 2005 is intended to accommodate an enrollment of 20,000.

Parking

The current campus parking supply has been quantified at 2,211 spaces, or about 0.14 spaces for every enrolled student. The proposed Campus Master Plan 2005 envisions the development of new parking facilities as well as the elimination of some existing on-site parking. Major changes to parking include the development of a multi-level parking structure along 2nd Street in the area of Salem – Hazels Streets, as well as development of a multi-level parking structure in the vicinity of new student housing proposed off of Sacramento Street. Under the proposed Campus Master Plan 2005, the on-site parking supply will increase by about 1,436 spaces to 3,647 spaces, or 0.18 spaces for each enrolled student under the new plan.

Circulation System Modifications

The circulation system in the vicinity of the CSU Chico campus will be relatively unchanged under the proposed Campus Master Plan 2005, but some local changes are planned. In the area of the new parking structure, Chestnut Street is to be closed between 2nd Street and 3rd Street. Full or partial closure of First Street between Ivy Street and Orange or Cedar Street is also proposed. Rio Chico Way will likely be closed as well.

Student Housing

The Campus Master Plan 2005 includes development of new on-campus student housing in the area of Warner Avenue south of Sacramento Street. Approximately 1,300 bed spaces are planned in this area.

Agricultural Center

Additional classroom space is planned, and a special events center accommodating 3,000 persons is proposed.

3.13.1 SETTING

Study Methodology

The methodology used to prepare this traffic impact study follows an approach that is recognized by members of the traffic engineering profession and is consistent with CEQA, the California Department of Transportation (Caltrans) and City of Chico guidelines for traffic studies.

The first phase of the study included the collection of traffic data and the analysis of that data to determine existing operating conditions. Available data was reviewed and new manual traffic counts were taken during the morning and evening peak traffic hour to develop turning movements at the 16 existing study intersections in the vicinity of the project site. The *2000 Highway Capacity Manual (HCM)* was used to analyze this data for describing the operational characteristics of major intersections near the project. Standards employed by the City of Chico were used to identify the capacity and Level of Service. Current pedestrian, bicycle and transit facilities are also described.

The second phase of the analysis involved estimating trip generation for the planned project. The Institute of Transportation Engineers' publication *Trip Generation-Seventh Edition* was used as an initial basis to determine the trips to be generated by implementation of the Campus Master Plan 2005 under the identified enrollment levels.

The third phase of the study determined the distribution of trips into and out of the project and adjacent streets, based primarily on the location of anticipated parking as well as the location of student housing, employment centers, and other land uses.

The fourth phase was to assign the project trips to the street network and to add these new trips to the current background day traffic volumes and to evaluate resulting traffic operations.

The fifth study phase addresses cumulative impacts of implementing the Campus Master Plan 2005. Because the proposed Campus Master Plan 2005 replaces a previous planning document, the cumulative analysis addresses two future scenarios: 1) year 2025 conditions with enrollment under the previous master Plan (i.e., 16,000 students) and 2) year 2025 conditions with the Campus Master Plan 2005 enrollment level (i.e., 20,000 students). The current version of the Chico regional travel demand forecasting model was used to create the baseline cumulative condition, and the incremental increase in traffic associated with another 4,000 students was manually assigned to create the cumulative plus project condition.

Study Area

After a preliminary investigation of the existing traffic circulation patterns, it was determined that the traffic analysis should investigate the operational characteristics of the following intersections on the streets serving the CSU Chico campus and the ATRC:

1. Nord Avenue (SR 32)/West Sacramento Avenue
2. Sacramento Ave/Warner Avenue
3. Esplanade/East 1st Avenue
4. Esplanade/Sacramento Avenue
5. Warner Avenue/Legion Avenue
6. Walnut Street (SR 32)/West 2nd Street
7. West 2nd Street/Cherry Street
8. West 2nd Street/Ivy Street
9. West 2nd Street/Hazel Street
10. West 2nd Street/Chestnut Street
11. West 2nd Street/Normal Avenue
12. Broadway Street /2nd Street
13. Main Street /2nd Street
14. Park Avenue/Midway
15. Midway/Hegan Lane
16. Hegan Lane/East ATRC Access

The locations of these intersections along with the existing road network are shown on Figures [3.13-1a](#) – [3.13-1c](#).

Existing Conditions Analysis

This section describes the circulation facilities serving the CSU Chico campus.

Key Roadways

A brief description of the key roadways serving the campus is provided below.

Esplanade – Main Street – Broadway. Esplanade, Broadway, and Main Street are arterial streets that together provide access to the eastern side of the CSU Chico campus. The Esplanade is a four-lane street with primary access via signalized intersections. On-street parking is prohibited on the Esplanade. Main Street and Broadway form a north-south one-way couplet that traverses the downtown area. Access occurs via closely spaced signalized intersections, and on-street parking is permitted in many locations.

Nord Avenue – Walnut Street. Nord Avenue and Walnut Street are north-south arterial streets that serve the area west of the CSU Chico campus. Nord Avenue and Walnut Street are two lane facilities.

Sacramento Avenue. Sacramento Avenue is an east-west minor arterial street providing access to the north end of the CSU Chico campus and to Chico High School. Sacramento Avenue begins at an intersection on Nord Avenue and extends easterly to an intersection on The Esplanade. Sacramento Avenue is a two-lane facility with on street parking permitted.

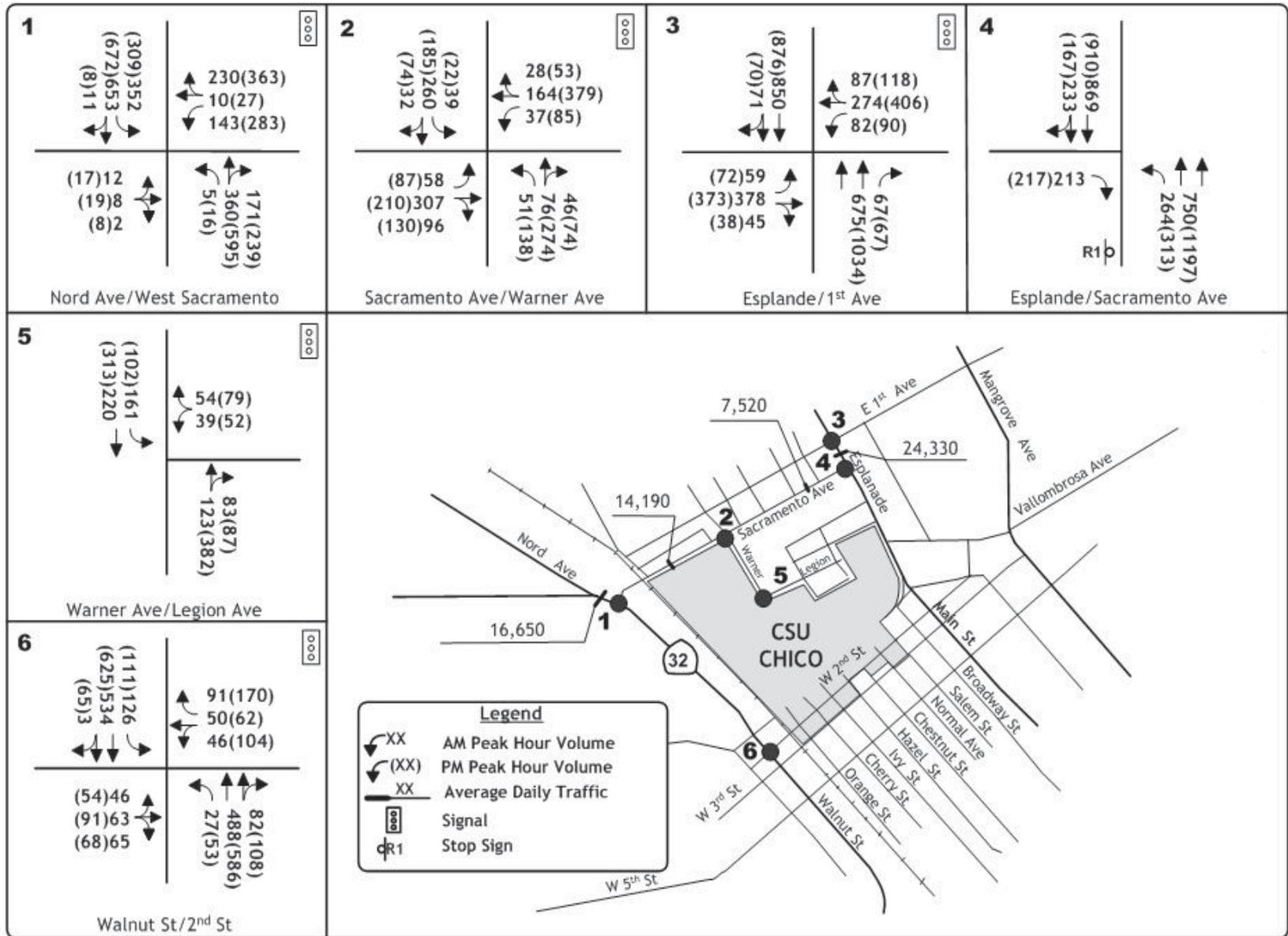
West 2nd Street is designated an arterial street in the City of Chico General Plan Circulation Element. West 2nd Street extends easterly from an intersection on Walnut Street across the south end of the CSU Chico campus to the Main Street – Broadway Couplet and continues to an intersection with Mangrove Avenue. Through the study area West 2nd Street is a four-lane facility with left turns permitted from the inside through lanes.

Warner Street is a north-south minor arterial street that traverses the center of the CSU Chico campus. Warner Street is a two-lane facility.

The Midway is a north-south minor arterial street that extends southerly from Chico to the community of Durham. This is a two-lane road.

Hegan Lane is an east-west collector road that serves the area near ATRC. This two lane rural road connects Dayton Road on the west with The Midway on the east.

While it is likely that some traffic generated under the Master Plan will find its way onto the regional circulation system and use routes such as SR 99 to reach the campus, the impact of project traffic on SR 99 was not assessed quantitatively based on the relatively small share of the project's traffic using the facility. Based on "select link" analysis using the citywide traffic model, the share of project traffic using SR 99 various locations ranges from about 1.6% north of the East 1st Street interchanges to 3.5% near the SR 32 interchange to 4.3% south of the Park Avenue interchanges. Based on the peak hour forecast presented in the trip generation section,

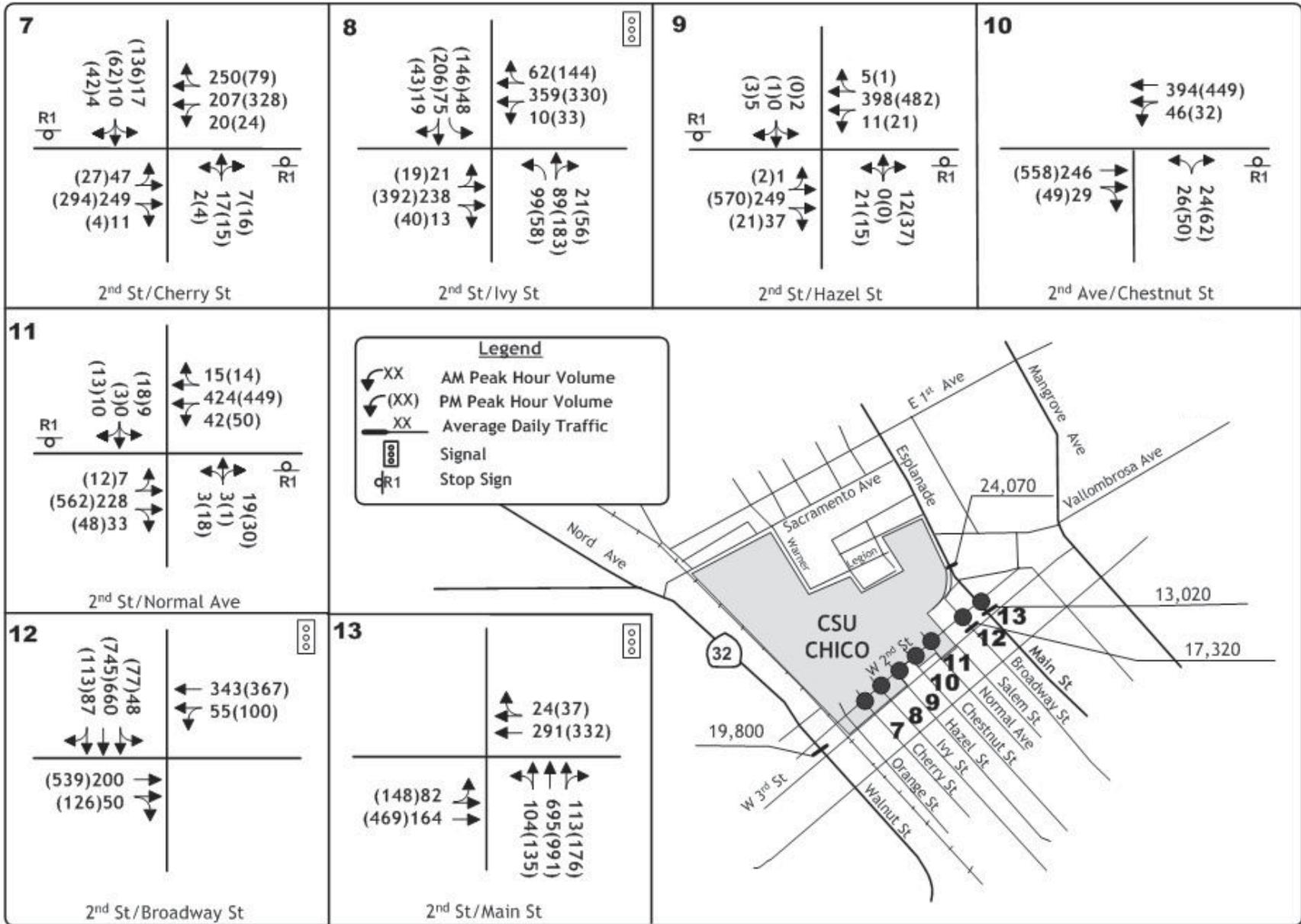


Source: KD Anderson / Quad Knopf, Inc. 2004.



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.13-1a

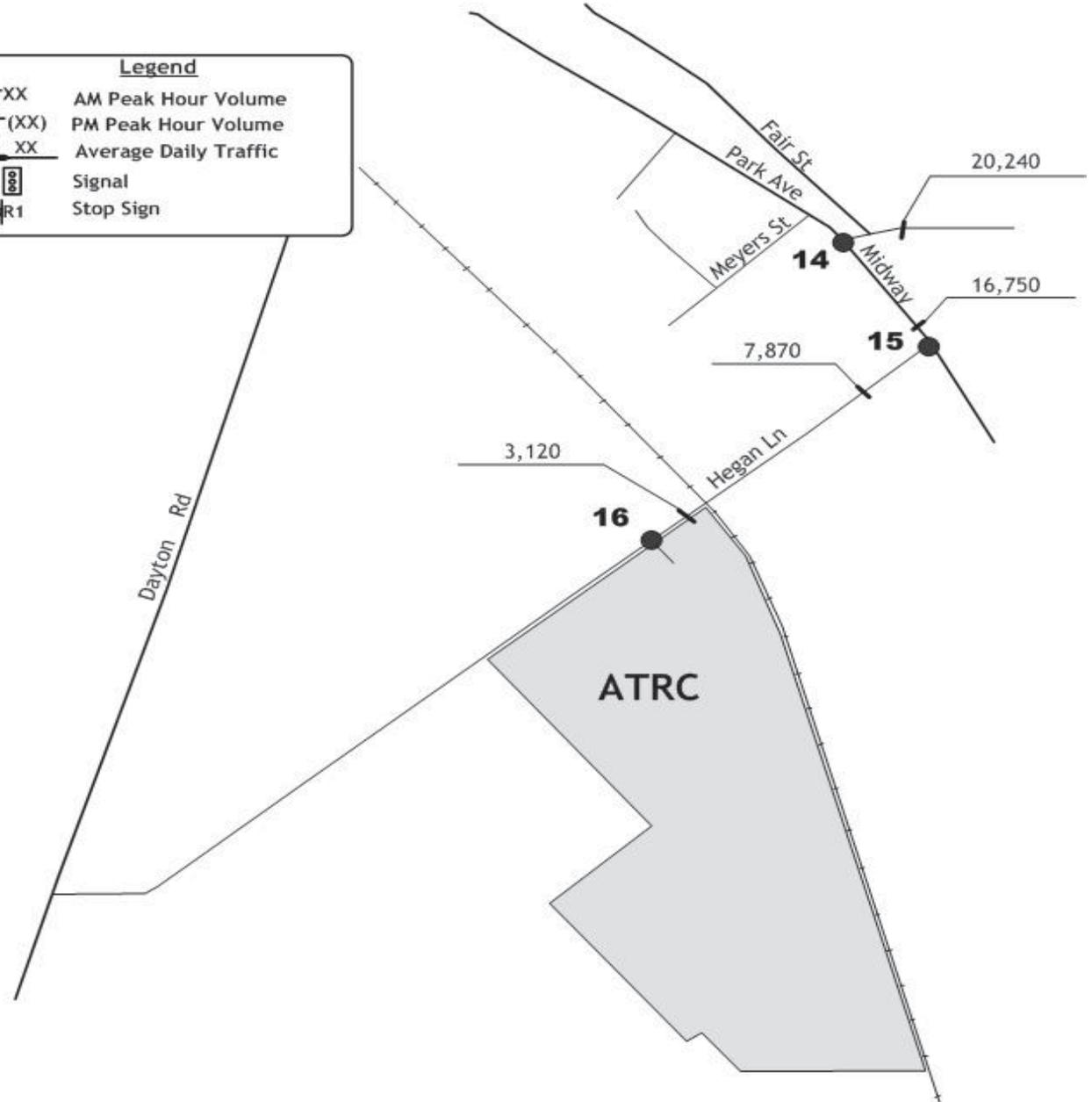
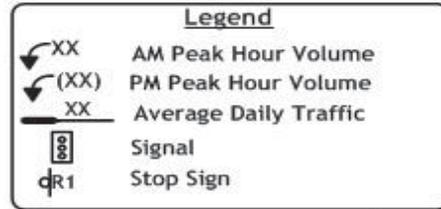
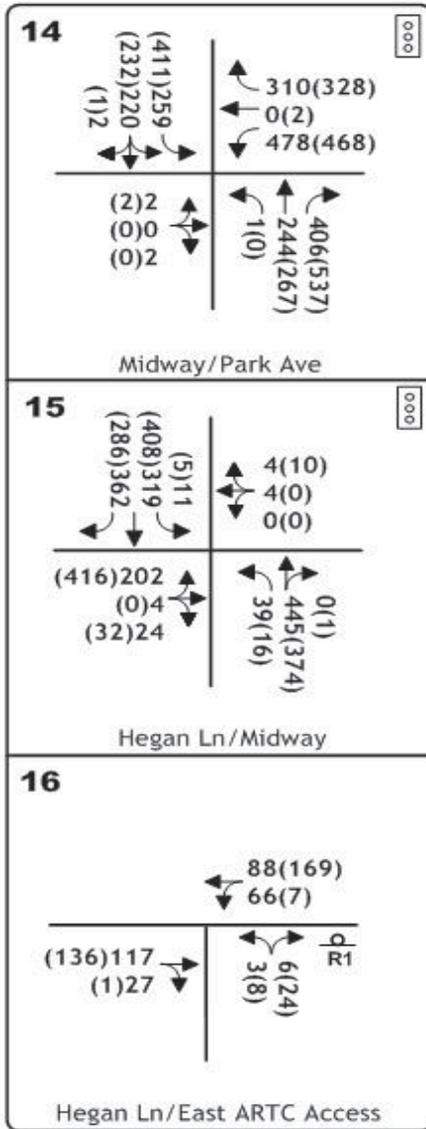


Source: KD Anderson / Quad Knopf, Inc. 2004.



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.13-1b



Source: KD Anderson / Quad Knopf, Inc. 2004.



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.13-1c

these percentages would equal 14 to 36 peak hour trips on the highway, which would not represent a significant impact to the regional circulation system.

Existing Traffic Volumes and Level of Service

New traffic volume counts were conducted on study area streets at intersections on November 4, 2004 for use in this study. Existing intersection Levels of Service at study intersections are shown on Table 3-13.1. These calculations are based on the methodologies contained in the 2000 Highway Capacity Manual and include assumptions relating to the effects of signal timing, pedestrian and bicycle traffic. Based on instruction from the City of Chico, these calculations assume general Peak Hour Factors for overall conditions during the a.m. and p.m. peak hour (i.e., PHF of 0.90 and 0.95, respectively). Because campus traffic can be concentrated into short time periods immediately before/after classes, conditions at these times may be worse than are projected for the peak hour as a whole.

As shown in Table 3.13-1, with one exception existing traffic volumes are indicative of LOS D or better conditions on arterial and collector streets. The Nord Avenue (SR 32)/Sacramento Street intersection operates at LOS F. Current Levels of Service at all other study intersections meet City and Caltrans minimum standards.

**Table 3.13-1
Existing Peak Hour Intersection Levels of Service**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Average Delay	LOS	Average Delay	LOS
1. Nord Ave (SR 32)/Sacramento Street	Signal	35.3 sec	D	85.9 sec	F
2. Sacramento Ave/ Warner Avenue	Signal	27.5 sec	C	36.4 sec	D
3. Esplanade/East 1 st Street	Signal	20.5 sec	C	22.6 sec	C
4. Esplanade/Sacramento Street (overall)	EB Stop	(4.1 sec)	(A)	(3.6 sec)	(A)
NB left		18.0 sec		18.2 sec	
EB approach		22.6 sec		20.4 sec	
5. Warner Avenue/Legion Avenue	Signal	9.5 sec	A	8.2 sec	A
6. Walnut Avenue/West 2 nd Street	Signal	17.6 sec	B	18.8 sec	B
7. West 2 nd Street/Cherry Street (overall)	NB/SB Stop	(1.8 sec)	(A)	(12.2 sec)	(B)
EB left		8.3 sec		8.3 sec	
WB left		7.9 sec		8.0 sec	
NB approach		16.9 sec		15.6 sec	
SB approach		16.8 sec		48.4 sec	
8. West 2 nd Street/Warner Street/Ivy St.	Signal	11.8 sec	B	13.7 sec	B
9. West 2 nd Street/Hazel Street (overall)	NB/SB Stop	(0.8 sec)	(A)	(0.9 sec)	(A)
EB left		8.3 sec		8.5 sec	
WB left		8.0 sec		8.9 sec	
NB approach		13.4 sec		15.7 sec	
SB approach		11.7 sec		14.3 sec	
West 2 nd Street/Chestnut Street (overall)	NB Stop	(1.3 sec)	(A)	(2.0 sec)	(A)
WB left		8.1 sec		9.0 sec	

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Average Delay	LOS	Average Delay	LOS
NB approach		13.0 sec		19.4 sec	
West 2 nd Street/Normal Avenue (overall)	NB/SB Stop	(1.2 sec)	(A)	(1.8 sec)	(A)
EB left turn		8.3 sec		8.5 sec	
WB left turn		7.9 sec		9.1 sec	
NB approach		11.3 sec		19.3 sec	
SB approach		13.6 sec		21.5 sec	
12. West 2 nd Street/Broadway	Signal	13.5 sec	B	14.7 sec	B
13. West 2 nd Street/Main Street	Signal	12.8 sec	B	15.5 sec	C
14. Midway/Park Avenue	Signal	31.4 sec	C	31.8 sec	C
15. Midway/Hegan Lane	Signal	16.5 sec	B	22.2 sec	C
16. Hegan Lane/East ATRC Access (overall)	NB Stop	(1.9 sec)	(A)	(1.0 sec)	(A)
WB left turn		7.7 sec		7.5 sec	
NB approach		9.7 sec		9.5 sec	

The volume of traffic occurring on study area roads has also been monitored. Table 3.13-2 presents the results of new daily traffic counts conducted in November 2004 for this study.

Table 3.13-2
Current Daily Traffic Volumes

Street	Location		Classification	Daily Volume
	From	To		
Nord Avenue	West Sacramento Ave	East Sacramento Ave	Arterial	16,650
Sacramento Avenue	Nord Avenue	Warner Avenue	Minor Arterial	14,190
	Warner Avenue	Esplanade	Minor Arterial	7,520
Esplanade	East 1 st Ave	Sacramento Ave	Arterial	24,330
	Vallombrosa Ave	West 1 st Street	Arterial	24,070
Walnut Street	West 1 st Street	West 2 nd Street	Arterial	19,800
Broadway	West 2 nd Street	West 3 rd Street	Arterial	17,320
Main Street	West 2 nd Street	West 3 rd Street	Arterial	13,020
Park Avenue	Midway	SR 99	Arterial	20,240
Midway	Park Avenue	Hegan Lane	Minor Arterial	16,750
Hegan Lane	Dayton Road	Railroad	Collector	3,120
	railroad	Midway	Collector	7,870

Alternative Transportation Modes

Bicycles. The bicycle is an important mode of transportation for CSU Chico students, faculty and staff. The Master Plan notes that about 30 percent of CSU Chico students use bicycles as their primary form of travel to the campus. The spring 2000 CSU Chico Bicycle Survey recorded 4,934 bicycle parking spaces on campus, which represents about 1.1 spaces per regular bicycle user.

These spaces are distributed throughout the campus and are generally associated with classroom facilities and other major student destinations.

The City of Chico General Plan notes the locations of existing and planned bicycle facilities in the area of the campus. Nord Avenue, Walnut Street, Sacramento Avenue and Warner Avenue are designated Class II facilities, while the railroad corridor adjoining SR 32 is designated a Class I facility.

Transit. Chico Area Transit System (CATS) serves the urban Chico area, and service in the vicinity of CSU Chico is readily available. The CATS Downtown Transit Center is located at 2nd Street/Salem Street. Routes 8 and 9 (Student Shuttle) traverse the campus along Warner Avenue on 30-minute headways, while Route 3 travels on Sacramento Avenue on 60-minute headways.

The Butte County Transit (BCT) system provides interregional bus service connecting various cities in Butte County. BCT Routes 1 and 2 provide service from Downtown Chico to Paradise and to Oroville, respectively.

The University, in cooperation with the Associated Student Government, the City of Chico and the County of Butte, provides free student access to all CATS and BCT buses. Based on data provided by the University, approximately 250,000 free rides per year and 1,000 free rides per day are made as part of this program.

Existing Parking Conditions

Parking

The current campus parking supply has been quantified at 2,211 spaces, or about 0.14 spaces for every enrolled student. The proposed Campus Master Plan 2005 envisions the development of new parking facilities as well as the elimination of some existing on-site parking. Major changes to parking include the development of a multi-level parking structure along 2nd Street in the area of Salem– Hazel Streets, as well as development of a multi-level parking structure in the vicinity of new student housing proposed off of Sacramento Street. Under the proposed Campus Master Plan 2005, the on-site parking supply is to increase by about 1,436 spaces to 3,647 spaces, or 0.18 spaces for each enrolled student under the new plan.

The supply of parking available to students, faculty and staff is an important issue affecting CSU Chico and its neighbors. The *Executive Summary – Draft California State University, Chico Parking Needs Study (2004)* revealed that about 2,211 parking spaces are available in on-campus parking facilities, including 2,143 automobile spaces and 68 motorcycle spaces. These spaces are distributed across a series of 34 parking facilities in various locations throughout the campus ranging in size from three to 305 spaces and one parking structure containing 654 spaces.

That report concluded that the on-campus parking supply is inadequate to accommodate campus parking demands and that students, staff and visitors also park on city streets surrounding the campus. A utilization survey associated with the study indicated that about 88 percent of the total supply was occupied during the heaviest demand hour, with ratios of over 85 percent experienced

over most of the day. These demand ratios above 85 percent are indicative of conditions that are considered to be “fully utilized,” due to the time involved in locating a vacant space among the various parking areas.

The City of Chico commissioned the *Downtown Parking Management and Implementation Study* in 2003. That report addressed conditions in the area bounded by Normal Avenue on the west, 1st Street on the north, Orient Street on the east, and 9th Street on the south. Peak occupancy ratios of over 90 percent were observed in public lots and along streets in the area between Normal Avenue and Main Street south of 1st Street. These ratios are indicative of areas that are “fully utilized.”

The extent to which the lack of on-campus parking spills over into the downtown area is difficult to quantify. The *Executive Summary – Draft California State University, Chico Parking Needs Study (2004)* suggests that about 305 downtown spaces may be used as overflow student/staff parking.

3.13.2 IMPACTS AND MITIGATION MEASURES

Impact Evaluation Criteria

Under Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the proposed project will have a significant impact if it will:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);
- Exceed, either individually or cumulatively, a Level of Service standard established by the county congestion management agency for designated roads or highways;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Result in inadequate parking capacity; or,
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

In addition to the guidance provided by the CEQA guidelines, the City of Chico has adopted policies that identify specific criteria for determining the significance of a traffic impact. Table 3.13-3 presents the characteristics of each Level of Service grade based on analysis methodologies accepted by the City of Chico.

**Table 3.13-3
Level of Service Definitions**

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. $v/c \leq 0.60$ Average Delay < 10 sec / veh	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. $0.60 < v/c \leq 0.70$ Average Delay > 10 sec / veh and ≤ 20 sec / veh	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. $0.70 < v/c \leq 0.80$ Average Delay > 20 sec / veh and ≤ 35 sec / veh	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. $0.80 < v/c \leq 0.90$ Average Delay > 35 sec / veh and ≤ 55 sec / veh	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). $0.90 < v/c \leq 1.00$ Average Delay > 50.0 sec / veh and ≤ 80.0 sec / veh	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. $v/c > 1.00$ Average Delay > 80 sec / veh	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Sources: 1980 *Interim Materials in Highway Capacity, Circular 212*, Transportation Research Board (TRB).
2000 *Highway Capacity Manual*, Transportation Research Board (TRB) Special Report 209

Policy T-G-11 and T-G-12 from the City of Chico General Plan Transportation Element identify the Level of Service (LOS) goals for the City of Chico as follows:

- T-G-11: Strive to maintain traffic LOS C on residential streets and LOS D or better on arterial and collector streets, at all intersections and on principal arterials in the CMP during peak hours.

T-G-12: Accept LOS E for built-out areas served by transit after finding that:

- There is no practical and feasible way to mitigate the lower Level of Services; and
- The uses resulting in the lower Level of Service are of clear, overall public benefit.

Impact #3.13-1: Generation of vehicle trips due to increased enrollment and the development of parking structures will increase traffic on the adjacent street system.

Discussion/Conclusion: Implementation of the Master Plan will provide the opportunity for additional students to attend CSU Chico, either at the main campus or at the ATRC. Trip generation rates published by the Institute of Transportation Engineers (ITE) were used to quantify the amount of traffic that may be associated with this increase in enrollment. While ITE rates may tend to ignore the high level of bicycle and pedestrian usage inherent to CSU Chico, these rates are assumed in the City of Chico traffic model and have been chosen to provide consistency with that forecasting tool. Applicable trip generation rates are presented in [Table 3.13-4](#), resulting in the projected trip generation estimates presented in [Table 3.13-5](#).

**Table 3.13-4
Trip Generation Rates**

Land Use (ITE Code)	Daily Rate (per unit)	Hourly Rates (per student)					
		AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
University (550)	2.38/student	0.17	0.04	0.21	0.06	0.15	0.21

**Table 3.13-5
Trip Generation Estimates**

Land Use (ITE Code)	Enrollment	Daily Trips	Peak Hour Trips					
			AM Peak			PM Peak		
			In	Out	Total	In	Out	Total
Total Campus								
Current Enrollment/ Master Plan	16,000	38,080	2,720	640	3,360	960	2,400	3,360
Proposed Master Plan	20,000	47,600	3,400	800	4,200	1,200	3,000	4,200
Difference over Existing/Current Master Plan	4,000	9,520	680	160	840	240	600	840
ATRC – Regular Operations								
Existing Enrollment	375	893	64	15	79	23	56	79
Proposed Master Plan	500	1,190	85	20	105	30	75	105

Land Use (ITE Code)	Enrollment	Daily Trips	Peak Hour Trips					
			AM Peak			PM Peak		
			In	Out	Total	In	Out	Total
Difference	125	297	21	5	26	7	19	26
ATRC – Events Center								
Worst Case Special Event						100	1,000	1,100

Trip Generation – Parking Availability. As is discussed under parking impacts the Master Plan Parking Supply is intended to provide space for parking that today “over flows” into areas surrounding the campus. While this relocated traffic will not appreciably affect current traffic volumes, additional parking spaces may become available for persons who today elect to walk, bicycle or use transit due to the unavailability of convenient parking. While difficult to quantify the availability of parking may encourage students/staff to drive to CSU Chico.

Trip Distribution. The next task in the evaluation is to determine the distribution of project trips. The regional distribution of trips generated by the increased enrollment at the campus will be primarily dependent on such factors as the location of student and faculty housing. To identify applicable distribution assumptions a “select link” analysis was performed using the City of Chico regional travel demand forecasting model. Trips generated by the campus were isolated from the balance of projected traffic volumes used to identify the percentile distribution presented in [Table 3.13-6](#).

**Table 3.13-6
Project Trip Distribution**

Route	Percent of Total Trips
North via Nord Avenue North of Sacramento Avenue	15%
North via local streets between Nord Avenue and the Esplanade	15%
North via the Esplanade	12.5%
East via East 1 st Avenue	15%
East via Vallombrosa Avenue	5%
East via local streets between Vallombrosa Avenue and Dead Horse Slough	10%
South via Main Street – Broadway	22%
South via local streets between Walnut Avenue and Broadway	4%
South via Walnut Avenue	1.5%
Total	100%

Trip Assignment. The assignment of new trips to the local street system is dependent on many factors such as the location of available student/staff parking. In this case, the Campus Master Plan 2005 anticipates the creation of new parking spaces in two parking garages to be developed in the area south of West 2nd Street between Salem Street and Hazel Street and in the area off of Warner Avenue near planned student housing. For this study, new trips generated by increased enrollment

have been assigned to the local street system to/from these two general locations. The resulting “project only” trips assignment is illustrated in [Figures 3.13-2a – 3.13-2c](#).

As suggested by the Campus Master Plan 2005, development of the 2nd Street parking structure may involve closure of Chestnut Street between 2nd Street and 3rd Street. The redistribution of existing traffic associated with this closure has been assumed in this analysis.

As shown, increasing the enrollment at CSU Chico from the current level of about 16,000 students to the planned capacity of 20,000 students may generate 9,520 daily trips, with about 840 trips occurring in the a.m. and p.m. peak hour. The assumed increase in enrollment at the ATRC would be included in that total and could result in about 297 new daily trips to that facility, with about 26 new trips in the peak hours.

Existing + Project. While implementation of the Campus Master Plan 2005 will not immediately result in increased enrollment and additional traffic, for the purpose of this analysis an “existing plus project” scenario has been created assuming that all Campus Master Plan 2005 changes were made and enrollment increased. “Existing Plus Project” traffic volumes are shown in [Figures 3.13-3a – 3.13-3b](#). The results of the Level of Service analysis for this scenario are shown in [Table 3.13-7](#) and are further described in the following text.

Regular Operations. As indicated in [Table 3.13-7](#), satisfactory traffic conditions (i.e., LOS D or better) are projected at most of the study intersections, with and without implementation of the Campus Master Plan 2005. However, conditions in excess of LOS D are projected at one location.

At the Nord Avenue (SR 32)/West Sacramento Avenue intersection, Level of Service F is projected to continue during the p.m. peak hour with implementation of the Campus Master Plan 2005. This exceeds the City’s LOS D threshold; however, the City has adopted a different threshold for areas that are already built and there is no way to make additional improvements. Given the level of existing development in this area, and the existing street geometry and configuration, the LOS E criteria for determining the level of significance is utilized.

**Table 3.13-7
Peak Hour Intersection Levels of Service for Existing Plus Project Scenario**

Intersection	Control	A.M. Peak Hour				P.M. Peak Hour			
		Existing		Ex Plus Project		Existing		Ex Plus Project	
		Average Delay	LOS						
1. Nord Avenue/Sacramento Street	Signal	35.3 sec	D	46.3 sec	D	85.9 sec	F	108.0 sec	F
2. Sacramento Ave/Warner Ave.	Signal	27.5 sec	C	37.3 sec	D	36.4 sec	D	49.1 sec	D
3. Esplanade/East 1 st Street	Signal	20.5 sec	C	23.6 sec	C	22.6 sec	C	24.2 sec	C
4. Esplanade/Sacramento Street (overall) NB left EB approach	EB Stop	(4.1 sec) 18.0 sec 22.6 sec	(A)	(9.1 sec) 40.1 sec 38.9 sec	(A)	(3.6 sec) 18.2 sec 20.4 sec	(A)	(5.9 sec) 24.0 sec 32.4 sec	(A)
5. Warner Avenue/Legion Avenue	Signal	9.5 sec	A	9.7 sec	A	8.2 sec	A	8.1 sec	A

Intersection	Control	A.M. Peak Hour				P.M. Peak Hour			
		Existing		Ex Plus Project		Existing		Ex Plus Project	
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS
6. Walnut Avenue/West 2 nd Street	Signal	17.6 sec	B	17.9 sec	B	18.8 sec	B	19.1 sec	B
7. West 2 nd Street/Cherry Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(1.8 sec) 8.3 sec 7.9 sec 16.9 sec 16.8 sec	(A)	(1.8 sec) 8.5 sec 7.9 sec 17.5 sec 17.3 sec	(A)	(12.2 sec) 8.3 sec 8.0 sec 15.6 sec 48.4 sec	(B)	(13.5 sec) 8.4 sec 8.0 sec 16.1 sec 55.6 sec	(B)
8. West 2 nd Street/Warner Street/Ivy Street	Signal	11.8 sec	B	12.2 sec	B	13.7 sec	B	14.3 sec	B
9. West 2 nd Street/Hazel Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(0.8 sec) 8.3 sec 8.0 sec 13.4 sec 11.7 sec	(A)	(2.4 sec) 8.4 sec 8.4 sec 19.4 sec 13.0 sec	(A)	(0.9 sec) 8.5 sec 8.9 sec 15.7 sec 14.3 sec	(A)	(6.1 sec) 8.5 sec 9.2 sec 43.1 sec 15.1 sec	(A)
10. West 2 nd Street/Chestnut Street (overall) WB left NB approach	NB Stop	(1.3 sec) 8.1 sec 13.0 sec	(A)	Not applicable		(2.0 sec) 9.0 sec 19.4 sec	(A)	Not applicable	
11. West 2 nd Street/Normal Avenue (overall) EB left turn WB left turn NB approach SB approach	NB/SB Stop	(1.2 sec) 8.3 sec 7.9 sec 11.3 sec 13.6 sec	(A)	(2.9 sec) 8.4 sec 8.4 sec 13.3 sec 20.7 sec	(A)	(1.8 sec) 8.5 sec 9.1 sec 19.3 sec 21.5 sec	(A)	(7.4 sec) 8.5 sec 9.7 sec 38.3 sec 37.2 sec	(A)
12. West 2 nd Street/Broadway	Signal	13.5 sec	B	14.3 sec	B	14.7 sec	B	15.3 sec	B
13. West 2 nd Street/Main Street	Signal	12.8 sec	B	12.9 sec	B	15.5 sec	B	16.9 sec	B
14. Midway/Park Avenue	Signal	31.4 sec	C	34.7 sec	C	31.8 sec	C	37.5 sec	D
15. Midway/Hegan Lane	Signal	16.5 sec	B	16.5 sec	B	22.2 sec	C	22.9 sec	C
16. Hegan Lane/East ATRC Access (overall) WB left turn NB approach	NB Stop	(1.9 sec) 7.7 sec 9.7 sec	(A)	(2.4 sec) 7.7 sec 9.6 sec	(A)	(1.0 sec) 7.5 sec 9.5 sec	(A)	(1.6 sec) 7.5 sec 9.5 sec	(A)

With one exception the street system as it exists today has the capacity to absorb the traffic generated by increased enrollment at CSU Chico. The Level of Service at the Nord Avenue (SR 32)/West Sacramento Avenue intersection is projected to continue at LOS F, and the Chico General Plan does not permit acceptance of this conditions.

The Nord Avenue (SR 32)/West Sacramento Avenue intersection is projected to operate at LOS F whether the Campus Master Plan 2005 is implemented or not. To improve conditions at this location, it would be necessary to widen the northbound Nord Avenue approach to provide a second northbound through lane. This improvement would deliver LOS E conditions during the

p.m. peak hour with implementation of the Campus Master Plan 2005. However, previous traffic studies in this area have suggested that improvements to deliver LOS E or better conditions are not likely to be feasible due to existing development in this area. This impact is *significant and unavoidable*.

Mitigation Measures

No mitigation measures are feasible.

Impact #3.I3-2: Implementation of the Master Plan will result in increased demand for on-campus parking.

Discussion/Conclusion: Implementation of the Campus Master Plan 2005 would result in an increase in the demand for on-campus parking and the corresponding increase in the number of parking spaces that will be provided.

The increase in parking demand associated with increased enrollment can be estimated based on current utilization. Assuming that the current enrollment of 16,000 students results in 1,896 occupied parking spaces (2,143 spaces at 88 percent occupancy), adding another 4,000 students will result in another 474 vehicles to be parked on the site, or a total of about 2,370 vehicles.

This simple relationship does not address spill-over parking in the downtown area. The *Executive Summary – Draft California State University, Chico Parking Needs Study (2004)* suggests that about 305 downtown spaces may be occupied by overflow parking. This would increase the demand to 2,675 spaces. Assuming that this demand is to be accommodated on-campus and that the resulting demand/supply ratio should be less than “fully utilized” (i.e., 0.80), then a total of 3,344 on-campus spaces would be needed.

The Campus Master Plan 2005 provides for on-campus parking. The net increase in on-campus parking is 1,430 spaces. This would increase the on-site total to about 3,570 spaces.

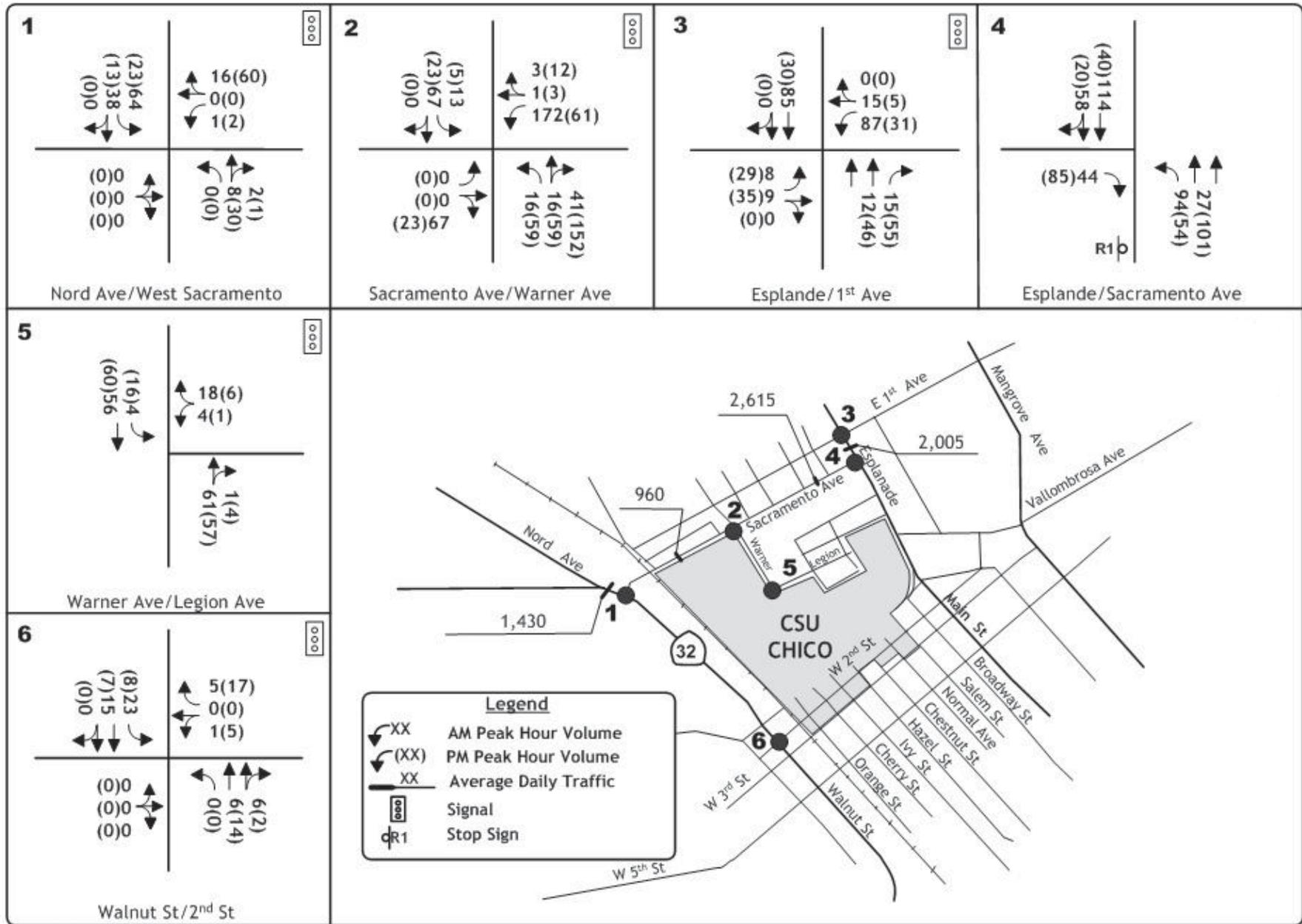
Increased enrollment associated with the Master Plan will increase the demand for on-campus parking. However, because concurrent expansion of the on-site parking supply is planned, this is a *less-than-significant* impact.

Mitigation Measures

No mitigation measures are required.

Impact #3.I3-3: Pedestrian/Bicycle Activity near the Campus could create conflicts with automobiles.

Discussion/Conclusion: Implementation of the Master Plan with a concurrent increase in enrollment would increase the number of persons walking or riding bicycles to the campus. In turn, this may result in additional automobile/pedestrian/bicycle conflicts on the streets adjoining the campus, as well as the demand for additional bicycle parking. The Campus Master Plan 2005 provides the

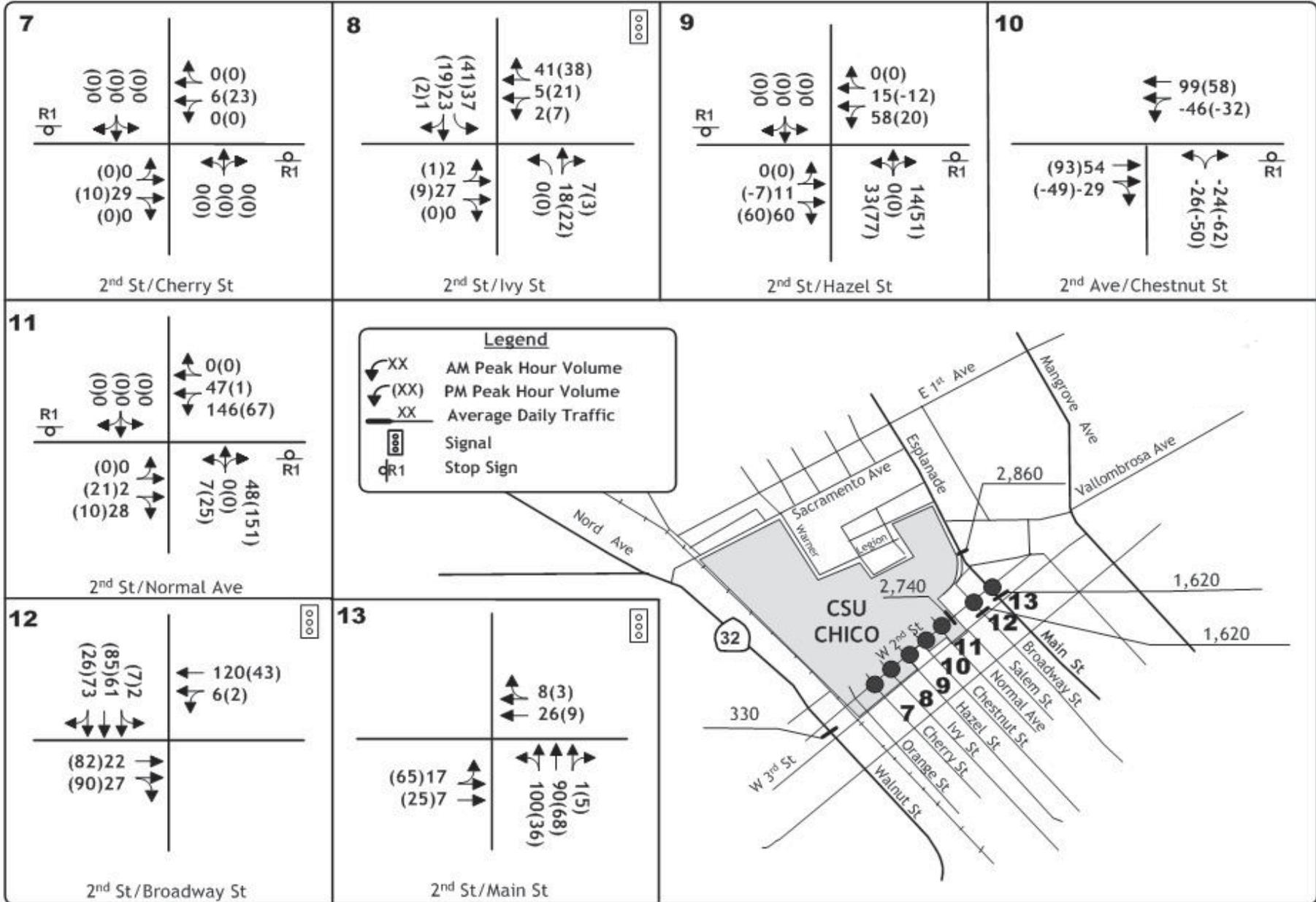


Source: KD Anderson / Quad Knopf, Inc. 2004.



MASTER PLAN ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.13-2a

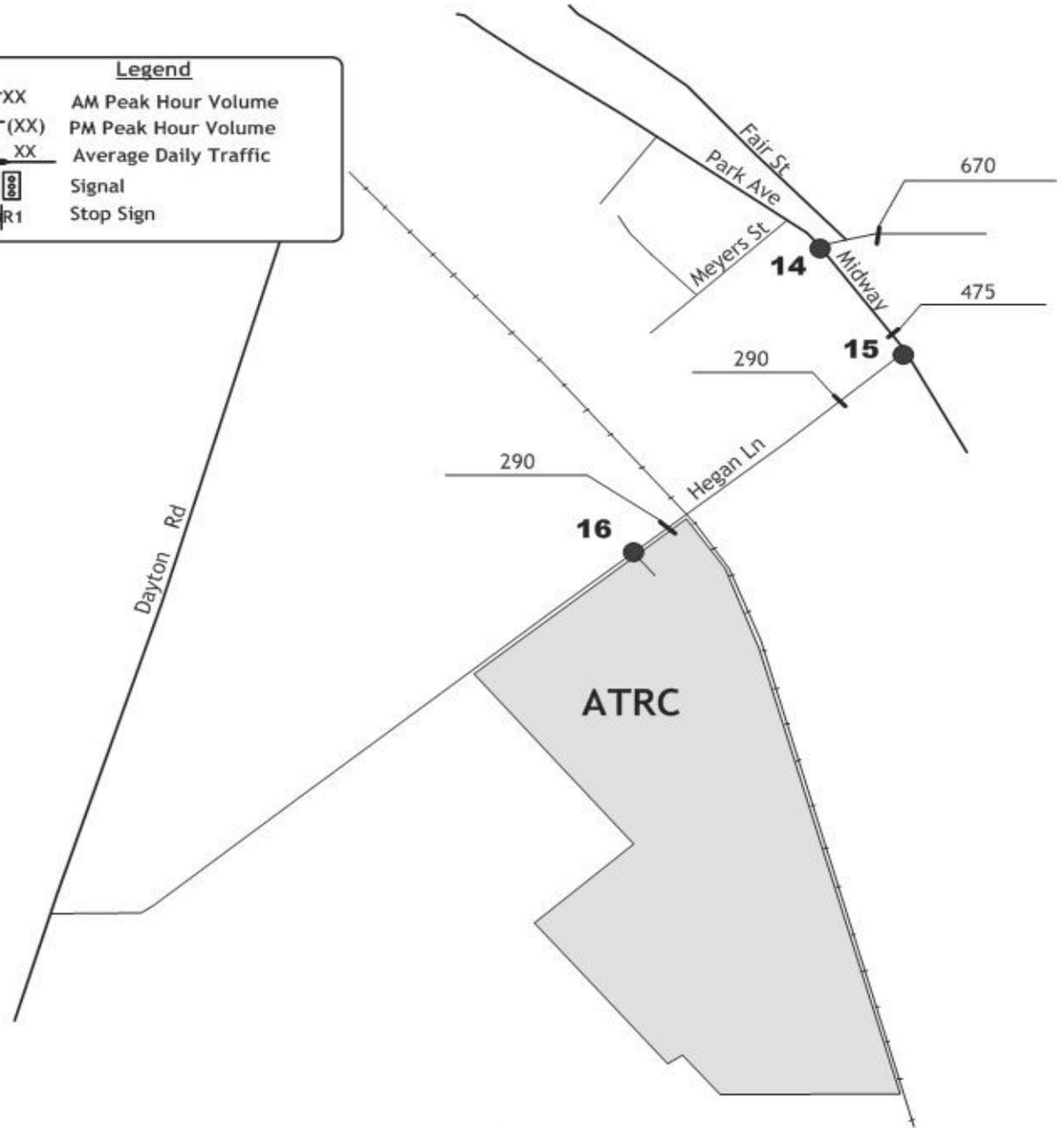
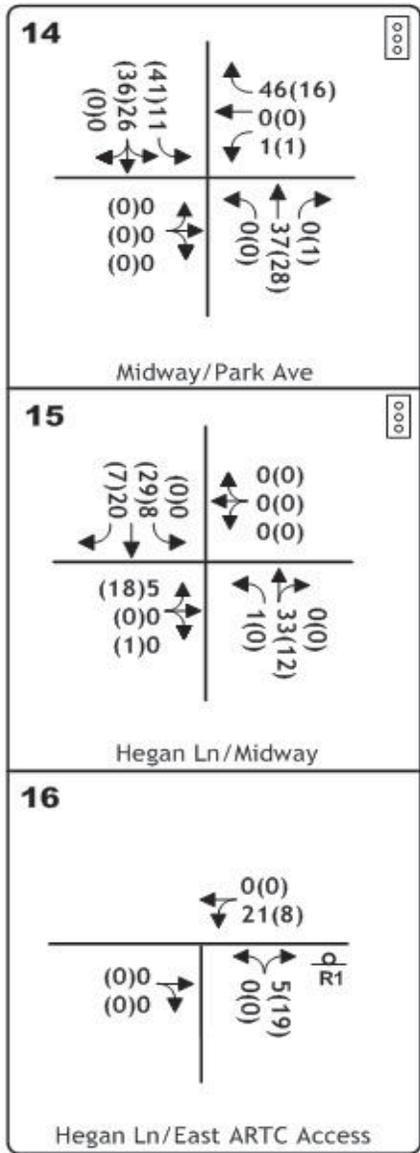


Source: KD Anderson / Quad Knopf, Inc. 2004.



MASTER PLAN ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.13-2b

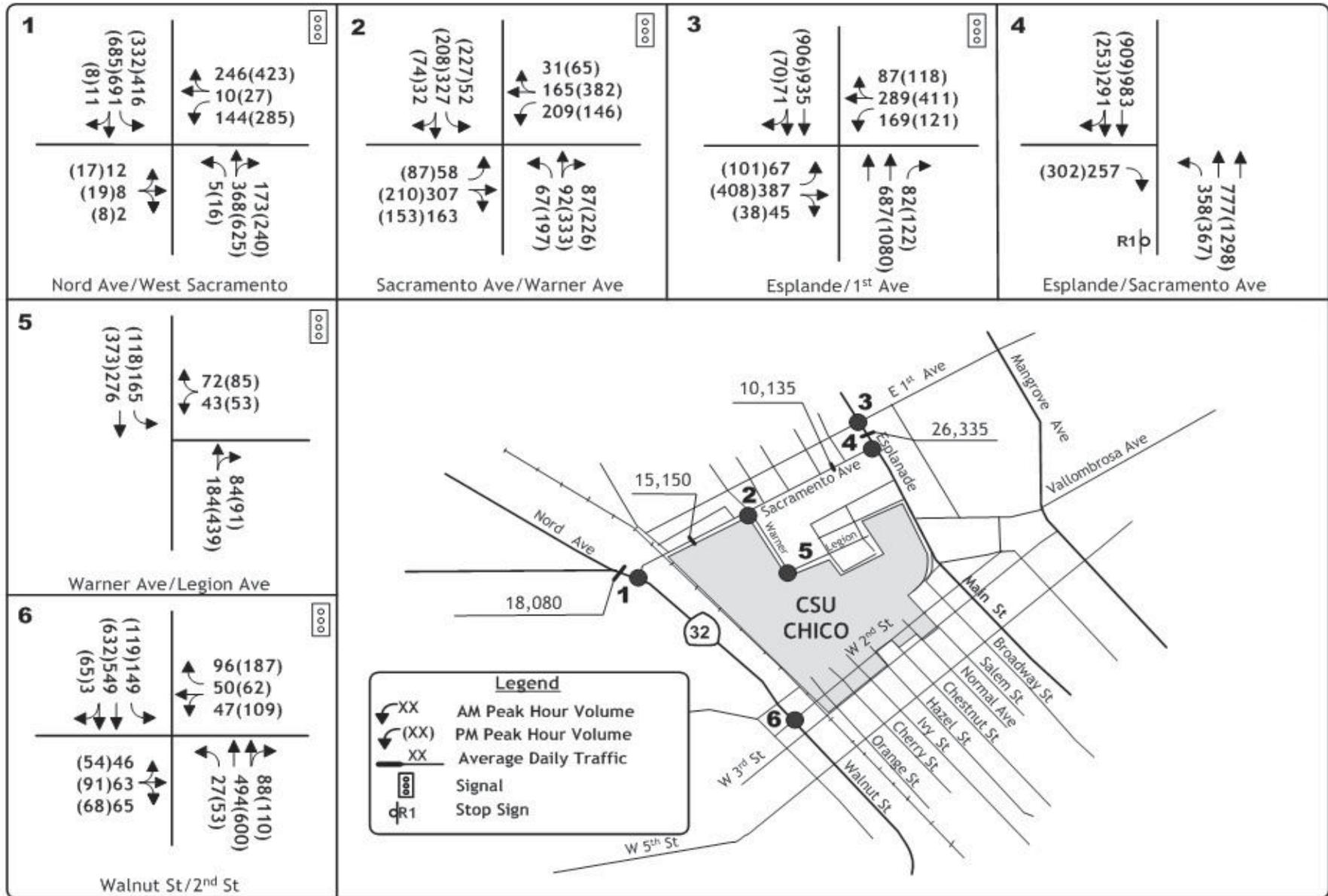


Source: KD Anderson / Quad Knopf, Inc. 2004.



MASTER PLAN ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.13-2c

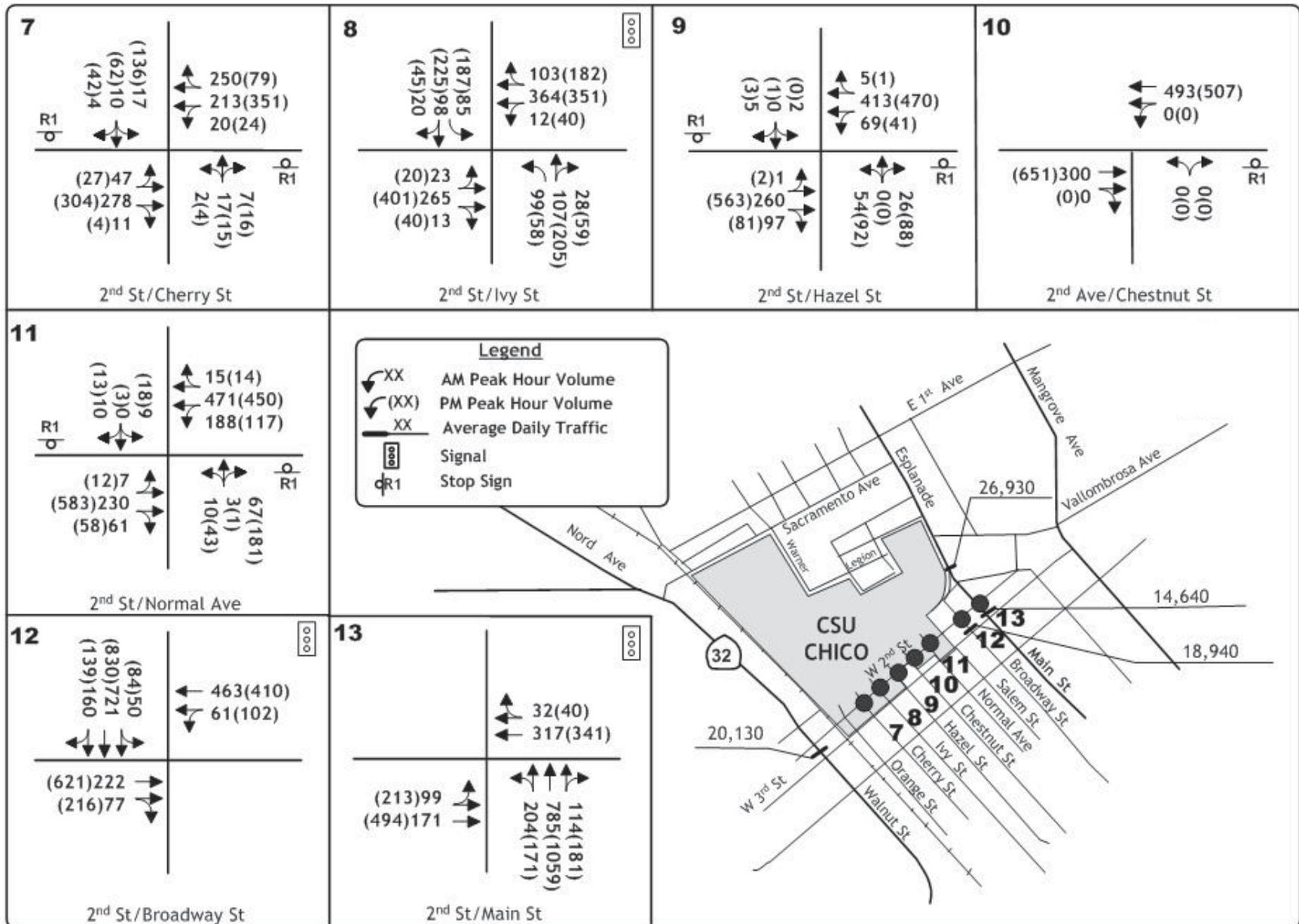


Source: KD Anderson / Quad Knopf, Inc. 2004.



EXISTING PLUS MASTER PLAN TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-3a



Source: KD Anderson / Quad Knopf, Inc. 2004.



EXISTING PLUS MASTER PLAN TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-3b

opportunity to relocate and/or reconfigure bicycle parking areas as part of the site development for new projects.

The CSU-Campus's location adjoining the downtown Chico area will result in increased pedestrian and bicycle traffic between the school, adjoining neighborhoods and the balance of the community as the master Plan is developed. For example, students/staff will need to cross 2nd Avenue when making use of the new parking structure. In those locations where the pedestrian/bicycle traffic is concentrated, safety problems could result. This is a *potentially-significant impact*.

Mitigation Measures

Implementation of the following mitigation measure will reduce this impact to a *less-than-significant* level.

Mitigation Measure #3.13-3:

Pedestrian/bicycle activity shall be addressed in the design of new parking facilities. Traffic controls devices needed to ensure crossing safety shall be provided as new facilities are developed.

Impact #3.13-4: Special Events at the ATRC will generate vehicle trips and parked cars.

Discussion/Conclusion: The Campus Master Plan 2005 envisions development of a 45,000 square-foot Events Center at the ATRC. This facility would have the capacity to seat up to 2,000 persons for a wide range of special events, including industry based farm equipment shows, equine events, 4H and Future Farmers of America activities, and other similar events. The existing + project traffic volumes are shown on Figure 3.13-4.

The trip generation associated with the use of the Events Center would vary greatly based on many factors, including the actual attendance, the operational schedule for particular events, the level of bussing provided, and average automobile occupancy. The schedule for these types of events would not necessarily result in traffic to and from the site during peak commute hours.

For this analysis a “worst case” p.m. peak hour event has been assessed. This analysis assumes that a maximum occupancy event was held with typical (i.e., 3.0 persons per vehicle) automobile occupancy that is indicative of limited bus service. This analysis assumes that 100 percent of attendees exit the site during the p.m. peak hour. Under these circumstances about 1,000 p.m. peak hour trips could be generated.

As noted earlier, the ATRC is planned to host special events. These events could be held at various times during the year and could result in traffic entering and exiting the site at various times during the day. As a worst case, an “existing plus Special Event” scenario was evaluated assuming full occupancy of the events center and traffic exiting after an event during the p.m. peak hour. This scenario assumes the trip generation presented earlier in Table 3.13-4 and the distribution pattern shown in Table 3.13-8.

**Table 3.13-8
Special Event Trip Distribution**

Route	Percent of Total Trips
North via Park Avenue	20%
East via Park Avenue	60%
South via Midway	10%
West via Hegan Road	10%
Total	100%

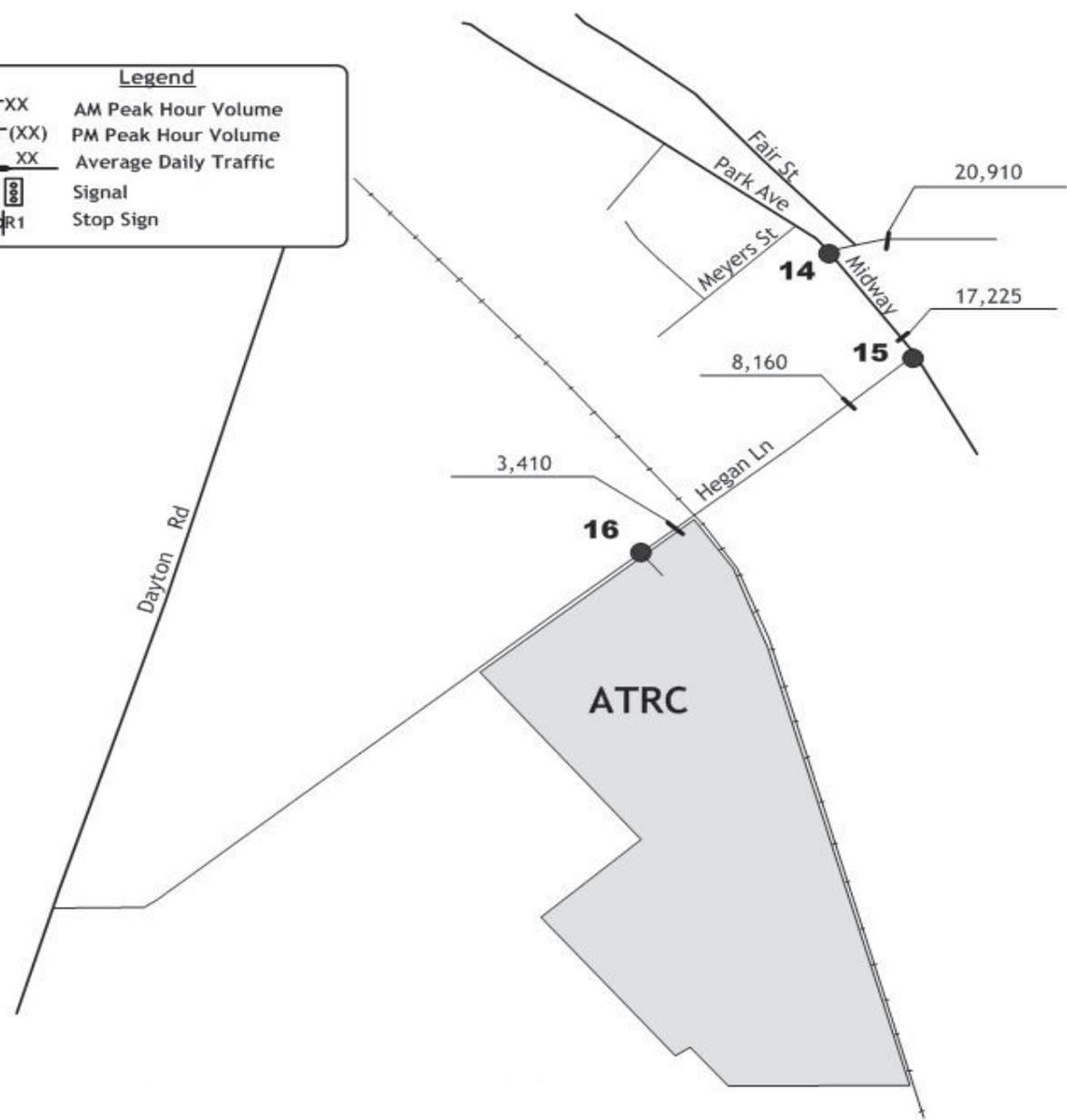
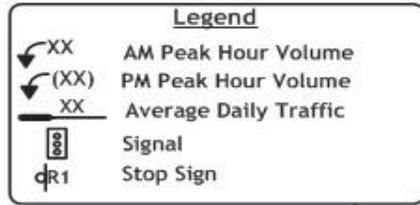
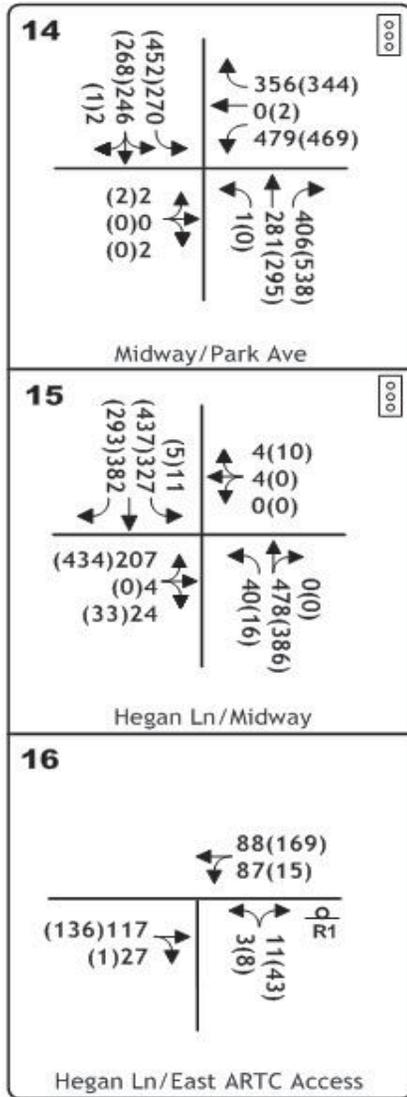
Resulting p.m. peak hour volumes are presented in Figure 3.13-5, and Table 3.13-9 presents “Existing Plus Special Event” p.m. peak hour Levels of Service at the study intersections near the ATRC. As shown, under these assumptions the Midway/Hegan Lane intersection is likely to operate at LOS F, as is the ATRC access onto Hegan Lane. The Midway/Park Avenue intersection is projected to operate at LOS E.

Measures to improve Level of Service at these locations have been considered. Temporary manual traffic controls would be needed at the ATRC access to deliver LOS D or better conditions during the p.m. peak hour with full occupancy. Widening the Hegan Lane/Midway intersection to accommodate dual eastbound left turn lanes would be needed to accomplish LOS D or better conditions at that location. Alternatively, reducing the size of an event ending during the p.m. peak hour would also improve conditions. Traffic following a 50% capacity event during the p.m. peak hour would result in LOS E and a 32% capacity event would result in LOS D. At the Midway/Park Avenue intersection a 50% capacity event would yield LOS D.

**Table 3.13-9
Existing Plus ATRC Special Event Peak Hour Intersection Levels of Service**

Intersection	Control	PM Peak Hour			
		Existing		Existing Plus Special Events	
		Average Delay	LOS	Average Delay	LOS
14. Midway/Park Avenue	Signal	29.9 sec	C	47.9 sec	D
15. Midway/Hegan Lane	Signal	22.2 sec	B	227.0 sec	F
16. Hegan Lane/East ATRC Access (overall) WB left turn NB approach	NB Stop	(1.0 sec) 7.5 sec 9.5 sec	(A)	(119.4 sec) 7.7 sec 166.4 sec	(F)

The events center included in the ATRC will generate automobile traffic before and after events. An at-capacity event ending during the p.m. peak hour has the potential to result in LOS F conditions at the Midway/Hegan Lane intersection and at the ATRC access onto Hegan Lane. Full occupancy of the Events Center may result in the need to park up to 1,000 vehicles at the site. This is a *potentially-significant impact*.

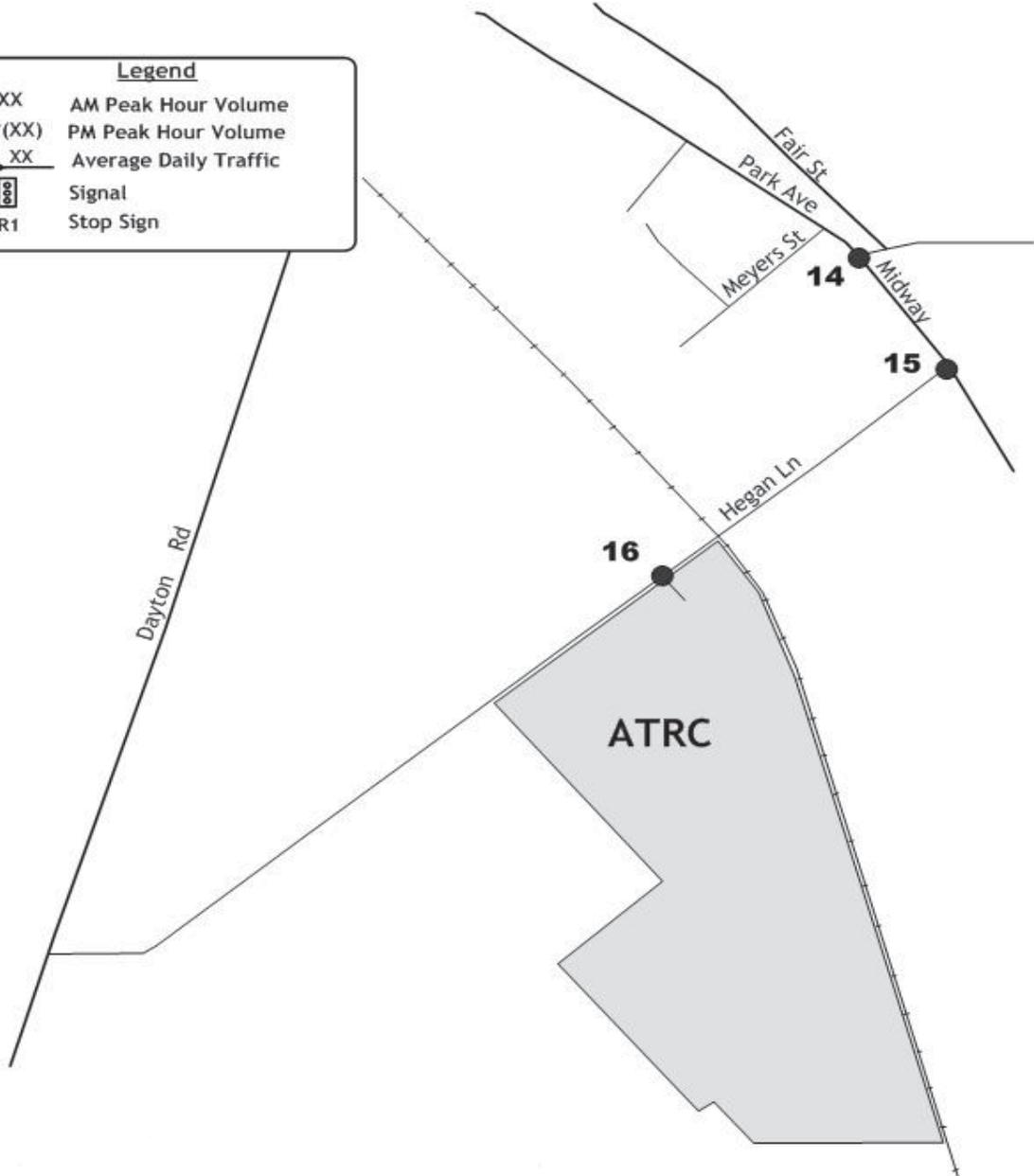
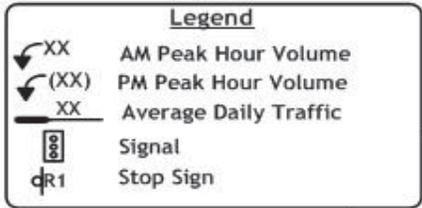
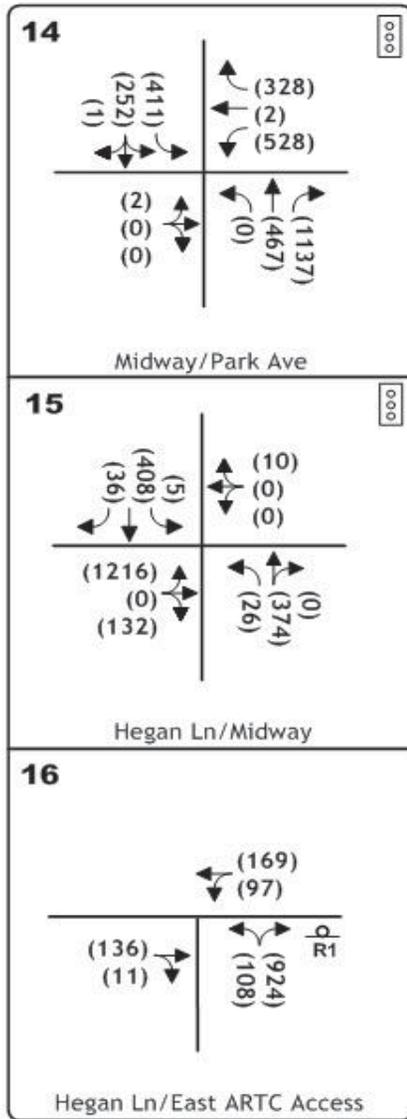


Source: KD Anderson / Quad Knopf, Inc. 2004.



EXISTING PLUS MASTER PLAN TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-4



Source: KD Anderson / Quad Knopf, Inc. 2004.



EXISTING PLUS ATRC SPECIAL EVENT TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-5

Mitigation Measures

Implementation of the following mitigation measures will reduce this impact to a *less-than-significant* level.

Mitigation Measure #3.I3-4a:

When the Events Center is constructed, the on-site parking supply shall be calculated. If the proposed supply fails to satisfy projected demands on-site, then a parking management plan shall be created. The plan shall delineate the location of and access to the on-site and off-site parking supply that will be made available when events are held at the Center. If appropriate, the plan shall link maximum ticket sales or the number of seats constructed to the number of parking spaces available near the Center. If necessary, the parking management plan shall incorporate other features to help reduce the demand for on site parking, including shuttle busses from satellite parking locations, and other measures necessary to ensure adequate parking for special events at the facility.

Mitigation Measure #3.I3-4b:

An operational plan shall be developed for the Events Center which schedules travel to and from large events outside of peak commute hours. The plan shall identify the size and schedule of events that necessitate manual traffic controls at affected intersections, as well as maximum attendance for events ending during the p.m. peak hour.

Mitigation Measure #3.I3-4c:

When the Events Center is constructed, improvements shall be made to the ATRC's Hegan Lane access intersections to provide left turn lanes on Hegan lane and to provide adequate throat depth on exiting lanes.

Impact #3.I3-5: Implementation of the Master Plan will increase the demand for CATS in the area of the Campus.

Discussion/Conclusion: Increasing the enrollment under the Master Plan would incrementally increase the demand for transit services in the area of the campus and in the Chico area as a whole. Assuming a proportionate increase in transit ridership as enrollment increases, current student ridership estimated at 250,000 annual and 1,000 daily riders could increase to 312,500 annual and 1,250 daily riders. Because the area is well served by existing transit routes, the incremental increase in ridership would not be expected to result in the need for new routes, however, increased ridership may eventually result in the need for additional capacity in terms of decreased headways during peak periods. Providing additional capacity along existing routes may require additional equipment/personnel and increased operational costs, although the extent of these additional needs is unknown.

Increased enrollment associated with implementation of the Master Plan will result in additional demands on CATS which may result in the need for expanded service along existing routes that

serve the campus (i.e., Student Shuttle). While the extent of additional service needed to accommodate increased enrollment is unknown, potential increases in CATS operational costs represent a *potentially-significant impact*.

Mitigation Measures

Implementation of the following mitigation measures will reduce this impact to a *less-than-significant* level.

Mitigation Measure #3.13-5:

CSU shall continue to work with CATS to subsidize student transit ridership. Should the need for expanded service on the “Student Shuttle” routes be identified, CSU shall work with CATS to develop an equitable funding mechanism that will ensure that adequate transit services are available to serve the anticipated student population.

3.13.3 CUMULATIVE IMPACTS AND MITIGATION MEASURES

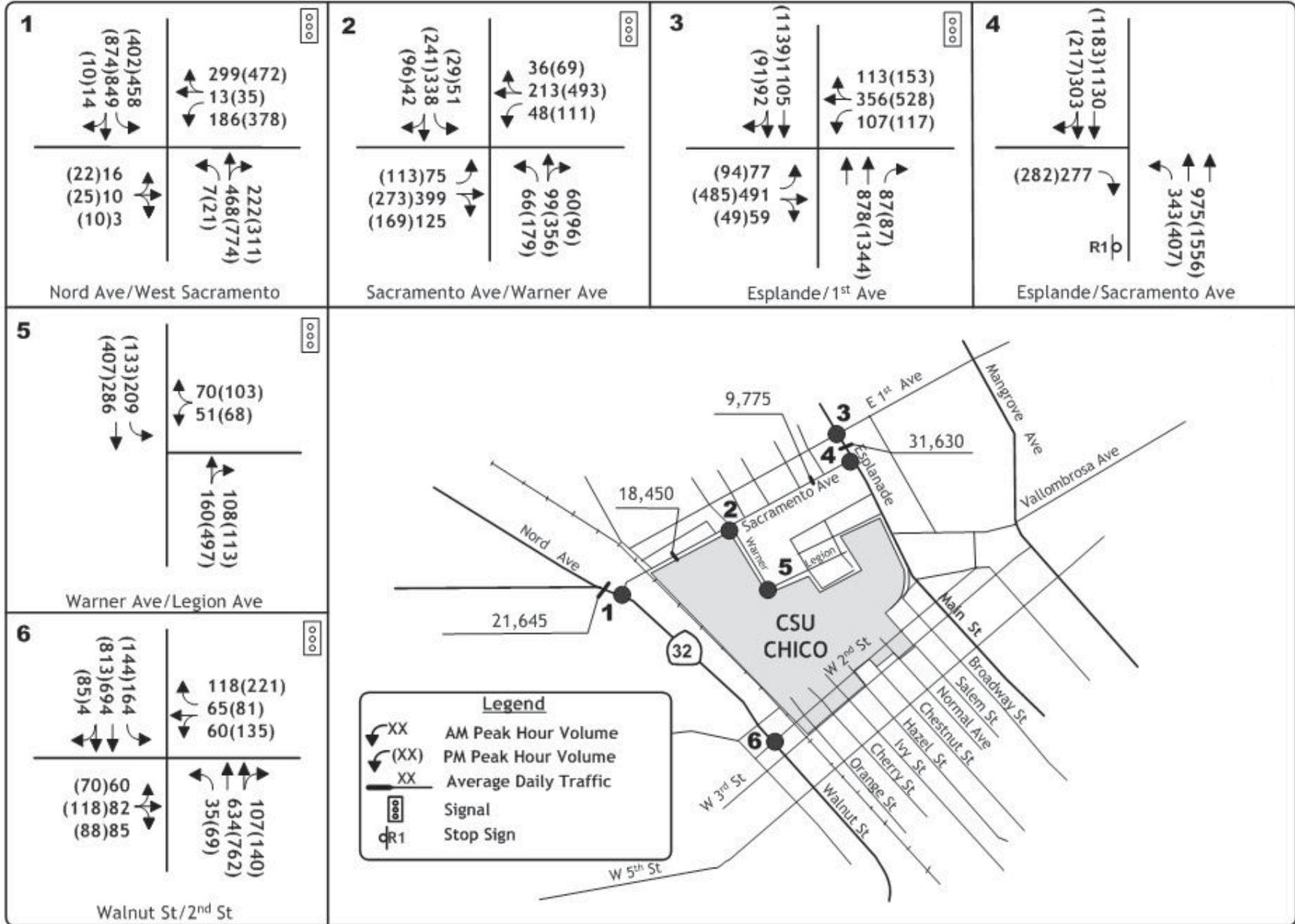
Analysis of Cumulative Scenarios

Background Traffic Volumes. To evaluate the impacts of the Campus Master Plan 2005 on traffic conditions in the project area in the future two additional scenarios were created and compared: Year 2025 With and Without Master Plan. Year 2025 Without Project conditions assume continuation of the existing Master Plan and an enrollment of 16,000. Year 2025 With Project conditions assume increased enrollment to 20,000 and the development of anticipated parking supplies.

Year 2025 Without Project traffic volume projections were developed based on information derived from the City of Chico regional travel demand forecasting model. The current model was reviewed to identify campus characteristics, and the student population/trip generation was adjusted to reflect continuation of current conditions (i.e., 16,000 students). Peak hour segment traffic volume forecasts were made for this scenario and were compared to the baseline model forecast in order to identify the amount of growth that can be anticipated.

Review of these forecasts revealed that background volumes in the areas near the CSU campus can be expected to increase by 30 percent by the year 2025. Slightly different relationships were discovered in the area of the Park Avenue/Midway intersection. At this location traffic on Park Avenue east of Midway was projected to increase by about 15 percent, while the volume on Midway south of Parkway Avenue was shown to increase by 60 percent.

These growth rates were applied to current peak hour and daily traffic volumes to create the Year 2025 Base conditions shown in Figure 3.13-5. Thus, it was again necessary to interpolate mid afternoon traffic volumes. Projected Cumulative Base traffic volumes are presented in Figure [3.13-6a – 3.13-6c](#).

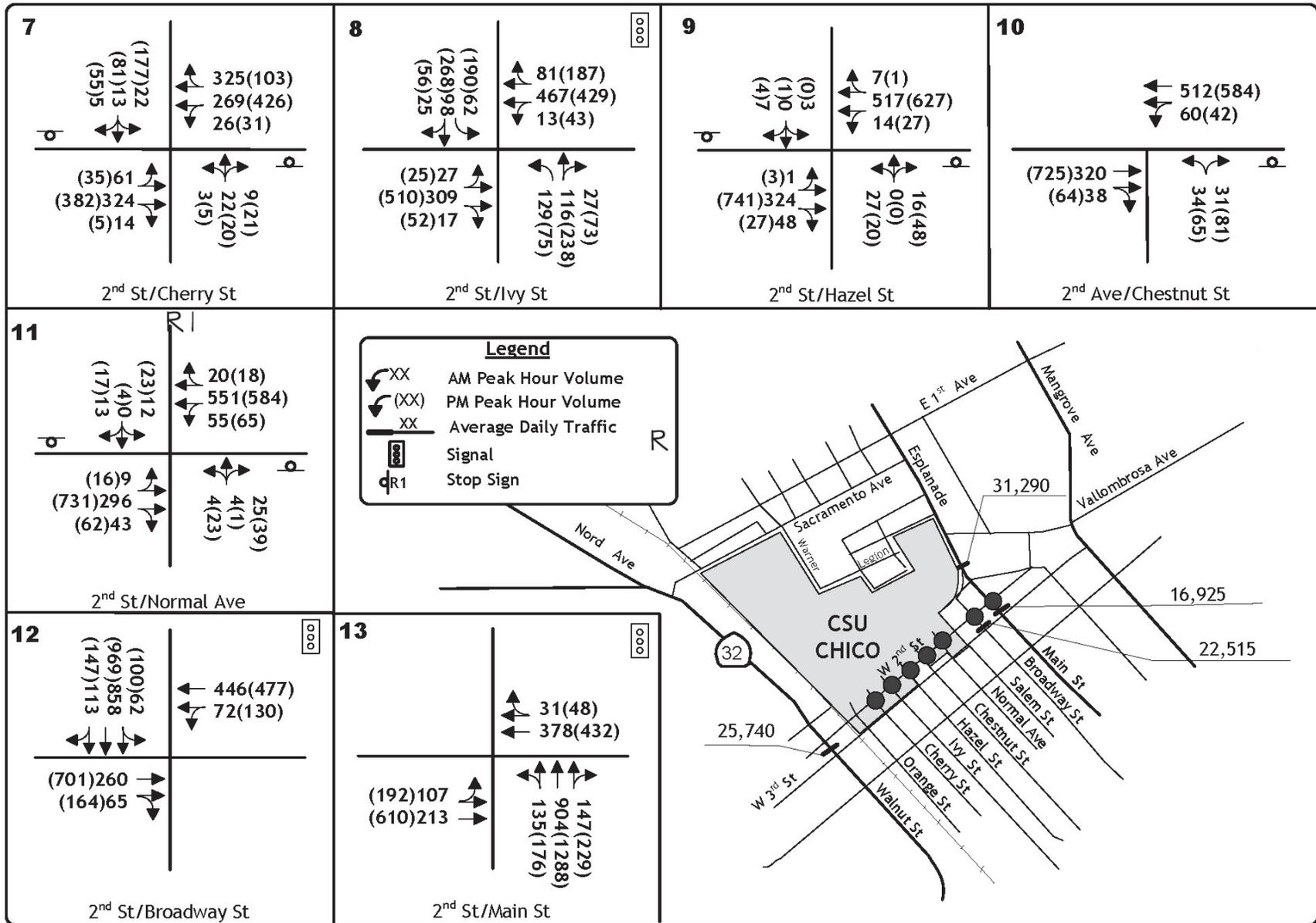


Source: KD Anderson / Quad Knopf, Inc. 2004.



CUMULATIVE BASE TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-6a

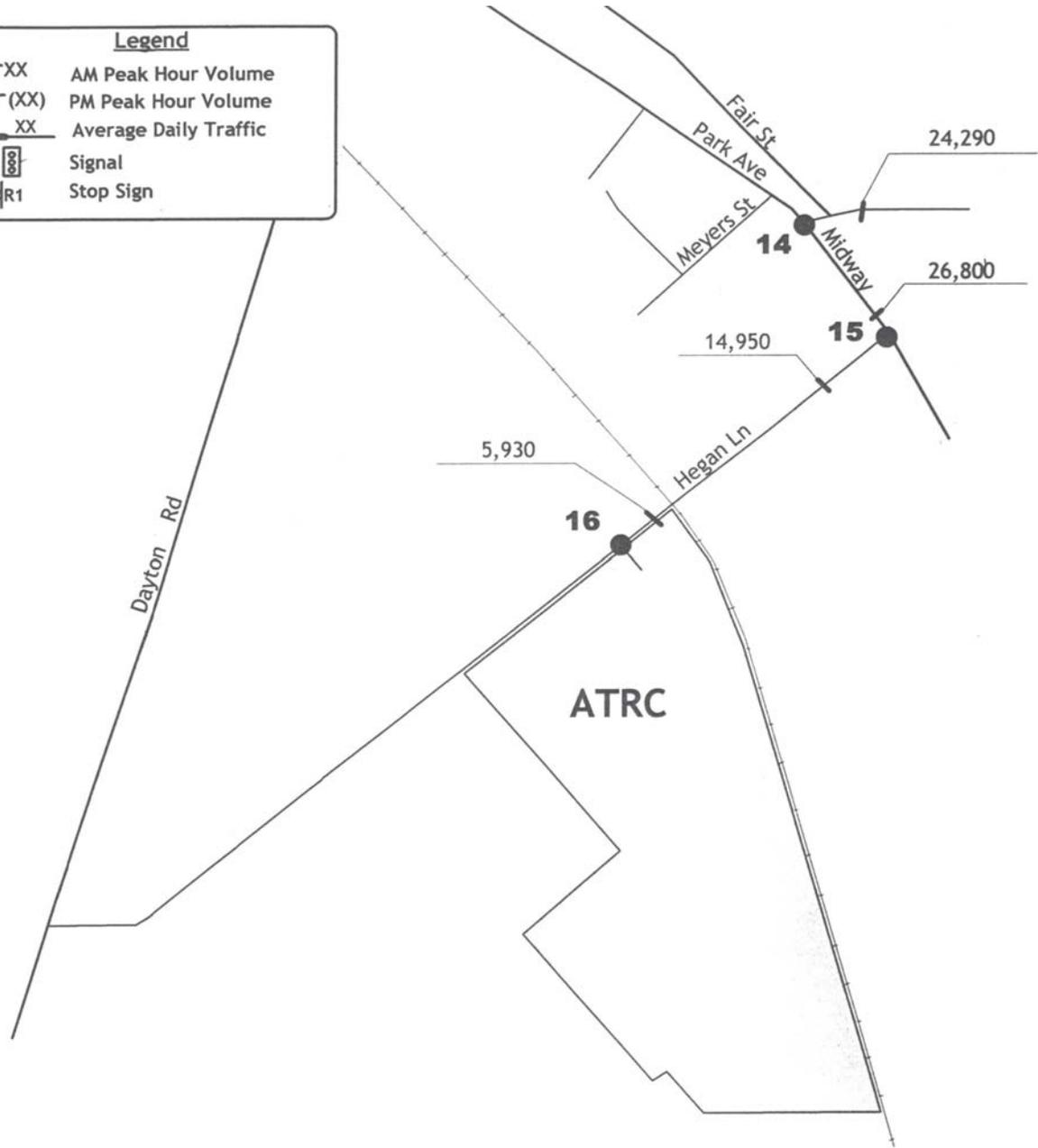
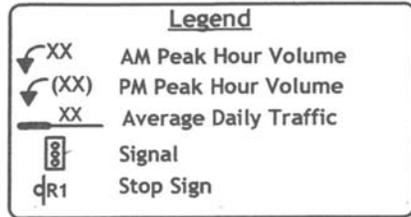
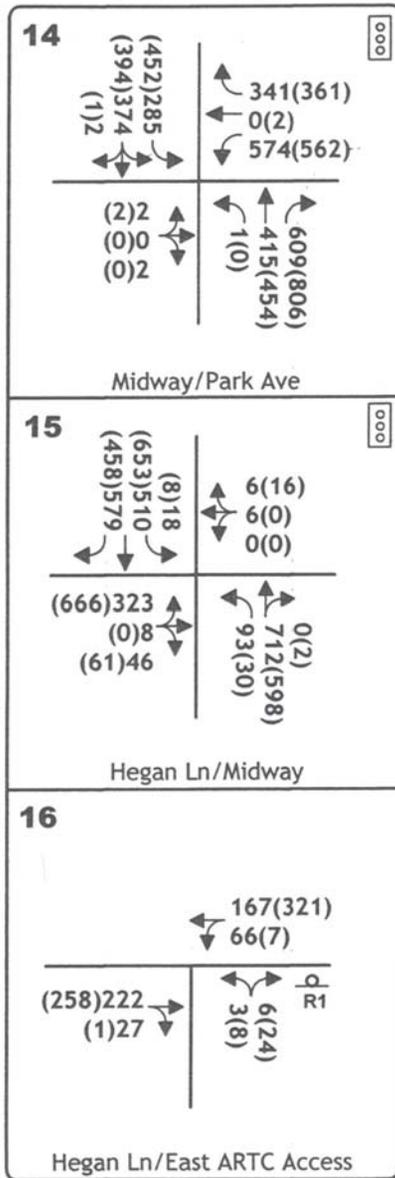


Source: KD Anderson / Quad Knopf, Inc. 2004.



CUMULATIVE BASE TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-6b



Source: KD Anderson / Quad Knopf, Inc. 2004.



CUMULATIVE BASE TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-6c

**Table 3.13-10
Year 2025 Daily Traffic Volumes**

Street	Location		Classification	Daily Volume		
	From	To		2004	2025	
					Base	Plus Master Plan
Nord Avenue	West Sacramento Ave	East Sacramento Ave	Arterial	16,650	21,645	23,075
Sacramento Avenue	Nord Avenue	Warner Avenue	Minor Arterial	14,190	18,450	19,410
	Warner Avenue	Esplanade	Minor Arterial	7,520	9,775	12,390
Esplanade	East 1 st Ave	Sacramento Ave	Arterial	24,330	31,630	33,635
	Vallombrosa Ave	West 1 st Street	Arterial	24,070	31,290	34,150
Walnut Street	West 1 st Street	West 2 nd Street	Arterial	19,800	25,740	26,070
Broadway	West 2 nd Street	West 3 rd Street	Arterial	17,320	22,515	24,135
Main Street	West 2 nd Street	West 3 rd Street	Arterial	13,020	16,925	18,545
Park Avenue	Midway	SR 99	Arterial	20,240	24,290	24,960
Midway	Park Avenue	Hegan Lane	Minor Arterial	16,750	26,800	27,275
Hegan Lane	Dayton Road	Railroad	Collector	3,120	5,930	6,220
	Railroad	Midway	Collector	7,870	14,950	15,240

Cumulative (Year 2025) Levels of Service

Year 2025 peak hour Levels of Service Without and With Master Plan are shown in Table 3.13-11. As shown, Levels of Service in excess of the City’s LOS D or LOS E standard are forecast at the following five intersections.

Nord Avenue (SR 32)/West Sacramento Avenue Intersection. The Nord Avenue (SR 32)/West Sacramento Avenue intersection is projected to operate at LOS F whether the Campus Master Plan 2005 is implemented or not. To improve conditions at this location, it would be necessary to widen the Nord Avenue to provide a second through lane. This improvement would not deliver LOS E conditions during the p.m. peak hour with implementation of the Campus Master Plan 2005 and previous traffic studies in this area have suggested that improvements to deliver LOS E or better conditions are not likely to be feasible due to existing development in this area, the high cost associated with acquiring these areas and the controversy associated with this type of road widening.

2nd Street/Cherry Street Intersection. The 2nd Street/Cherry Street intersection is projected to operate at LOS F whether the Campus Master Plan 2005 is implemented or not. A traffic signal would be required to deliver LOS D or better conditions.

2nd Street/Normal Street Intersection. The 2nd Street/Normal Street intersection is projected to operate at LOS E if the Campus Master Plan 2005 is implemented. This Level of Service is closely associated with development of a parking structure in the area of the 2nd Street/Chestnut Street intersection. While development of a traffic signal would deliver acceptable Level of Service, the need for a traffic signal is closely linked to decisions regarding the location and nature of access to the parking structure. Additional analysis of traffic conditions will be needed as the plans for the parking structure are developed.

Midway/Park Avenue. The Midway/Park Avenue intersection is projected to operate at LOS F whether the Campus Master Plan 2005 is developed or not. To deliver LOS D or better conditions it will be necessary to widen the intersection to provide dual southbound left turn lanes and a separate through+right turn lane.

Midway/Hegan Lane Intersection. The Midway/Hegan Lane intersection is projected to operate at LOS E whether the Campus Master Plan 2005 is implemented or not. To deliver LOS D or better conditions it would be necessary to widen the eastbound Hegan Lane approach to provide a second left turn lane. It would also be necessary to widen northbound Midway north of the intersection to receive the second left turn lane.

**Table 3.13-II
Peak Hour Intersection Levels of Service for Year 2025 Scenarios**

Intersection	Control	A.M. Peak Hour				P.M. Peak Hour			
		2025 Base		2025 Plus Project		2025 Base		2025 Plus Project	
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS
1. Nord Avenue/ Sacramento Street	Signal	97.6 sec	F	118.2 sec	F	195.8 sec	F	222.3 sec	F
2. Sacramento Ave/Warner Avenue	Signal	31.4 sec	C	50.3 sec	D	37.6 sec	D	50.4 sec	D
3. Esplanade/East 1 st Street	Signal	27.0 sec	C	35.6 sec	D	34.7 sec	C	40.7 sec	D
4. Esplanade/Sacramento Street (overall) NB left EB approach	EB Stop	(13.4 sec) 61.7 sec 70.0 sec	(A)	(46.8 sec) 231.6 sec 175.2 sec	(E)	(10.4 sec) 47.8 sec 60.0 sec	(B)	(24.7 sec) 115.0 sec 121.0 sec	(C)
5. Warner Avenue/Legion Avenue	Signal	10.7 sec	B	11.1 sec	B	9.6 sec	A	9.7 sec	A
6. Walnut Avenue/West 2 nd Street	Signal	19.6 sec	B	20.1 sec	C	22.8 sec	C	23.4 sec	C
7. West 2 nd Street/Cherry Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(2.6 sec) 9.3 sec 8.2 sec 27.6 sec 28.0 sec	(A)	(2.6 sec) 9.3 sec 8.3 sec 29.1 sec 29.5 sec	(A)	(66.0 sec) 8.8 sec 8.3 sec 21.6 sec 278.6 sec	(F)	(72.3 sec) 8.9 sec 8.3 sec 22.5 sec 313.3 sec	(F)
8. West 2 nd Street/Warner Street/Ivy Street	Signal	12.2 sec	B	12.6 sec	B	14.9 sec	B	15.9 sec	B
9. West 2 nd Street/Hazel Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(1.0 sec) 8.7 sec 8.3 sec 16.2 sec 13.3 sec	(A)	(3.0 sec) 8.7 sec 8.7 sec 28.3 sec 14.9 sec	(A)	(1.3 sec) 9.0 sec 9.7 sec 22.3 sec 18.4 sec	(A)	(24.6 sec) 8.9 sec 10.1 sec 194.2 sec 19.5 sec	(C)

Intersection	Control	A.M. Peak Hour				P.M. Peak Hour			
		2025 Base		2025 Plus Project		2025 Base		2025 Plus Project	
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS
10. West 2 nd Street/ Chestnut Street (overall) WB left NB approach	NB Stop	(1.6 sec) 8.4 sec 15.8 sec	(A)	Not applicable		(3.7 sec) 9.9 sec 36.7 sec	(A)	Not applicable	
11. West 2 nd Street/ Normal Avenue (overall) EB left turn WB left turn NB approach SB approach	NB/SB Stop	(1.4 sec) 8.9 sec 8.3 sec 13.6 sec 18.7 sec	(A)	(3.6 sec) 9.1 sec 9.0 sec 18.9 sec 38.7 sec	(A)	(2.9 sec) 9.0 sec 10.1 sec 33.2 sec 37.5 sec	(A)	(28.0 sec) 8.9 sec 10.8 sec 177.7 sec 104.8 sec	(D)
12. West 2 nd Street/ Broadway	Signal	14.4 sec	B	15.3 sec	B	16.9 sec	B	18.5 sec	B
13. West 2 nd Street/Main Street	Signal	13.7 sec	B	14.1 sec	B	20.9 sec	B	26.1 sec	C
14. Midway/Park Avenue	Signal	82.7 sec	F	97.6 sec	F	104.0 sec	F	121.8 sec	F
15. Midway/Hegan Lane	Signal	29.7 sec	C	31.6 sec	C	67.1 sec	E	74.8 sec	E
16.. Hegan Lane/East ATRC Access (overall) WB left turn NB approach	NB Stop	(1.3 sec) 8.0 sec 10.8 sec	(A)	(1.6 sec) 8.0 sec 10.6 sec	(A)	(0.6 sec) 7.8 sec 10.8 sec	(A)	(1.0 sec) 7.8 sec 10.7 sec	(A)

Impact #3.13-6: Cumulative development in the study area by the Year 2025 will generate traffic on the planned street system.

Discussion/Conclusion: Background growth and Campus Master Plan 2005 implementation will result in conditions in excess of City of Chico standards at five intersections. The cumulative + project traffic volumes are shown on Figures 3.13-7a – 3.13-7c. These include Nord Avenue (SR 32)/West Sacramento Avenue, 2nd Street/Cherry Avenue, 2nd Street/Normal Street, Midway/Park Avenue and Midway/Hegan Avenue.

Mitigation Measures

Implementation of the following mitigation measures will reduce potential impacts, but not to a less-than-significant level. Further, because of the inability of CSU-Chico to participate in the cost of off-site improvements and the fact that CSU Chico cannot ensure implementation of mitigation measures #3.13-6b, #3.13-6c and #3.13-6d that are under the jurisdiction and responsibility of another agency, cumulative impacts remain *significant and unavoidable*.

Mitigation Measure #3.I3-6a:

When plans for the 2nd Street parking structure proceed, CSU shall prepare a supplemental traffic study addressing site access and local circulation impacts. The study will address the need for signalization of adjoining intersections, including 2nd Street/Normal Street. The study shall also consider the issue of bicycle access along this portion of 2nd Street, and applicable traffic control measures shall be included in the design of the project.

Mitigation Measure #3.I3-6b:

Future traffic conditions at the 2nd Street/Cherry Street intersection shall be monitored by the City of Chico. A traffic signal at this location would serve to reduce impacts.

This signal location and mitigation measure is under the jurisdiction of the City of Chico. CSU Chico cannot ensure implementation of mitigation measures that are under the jurisdiction and responsibility of another agency.

Mitigation Measure #3.I3-6c:

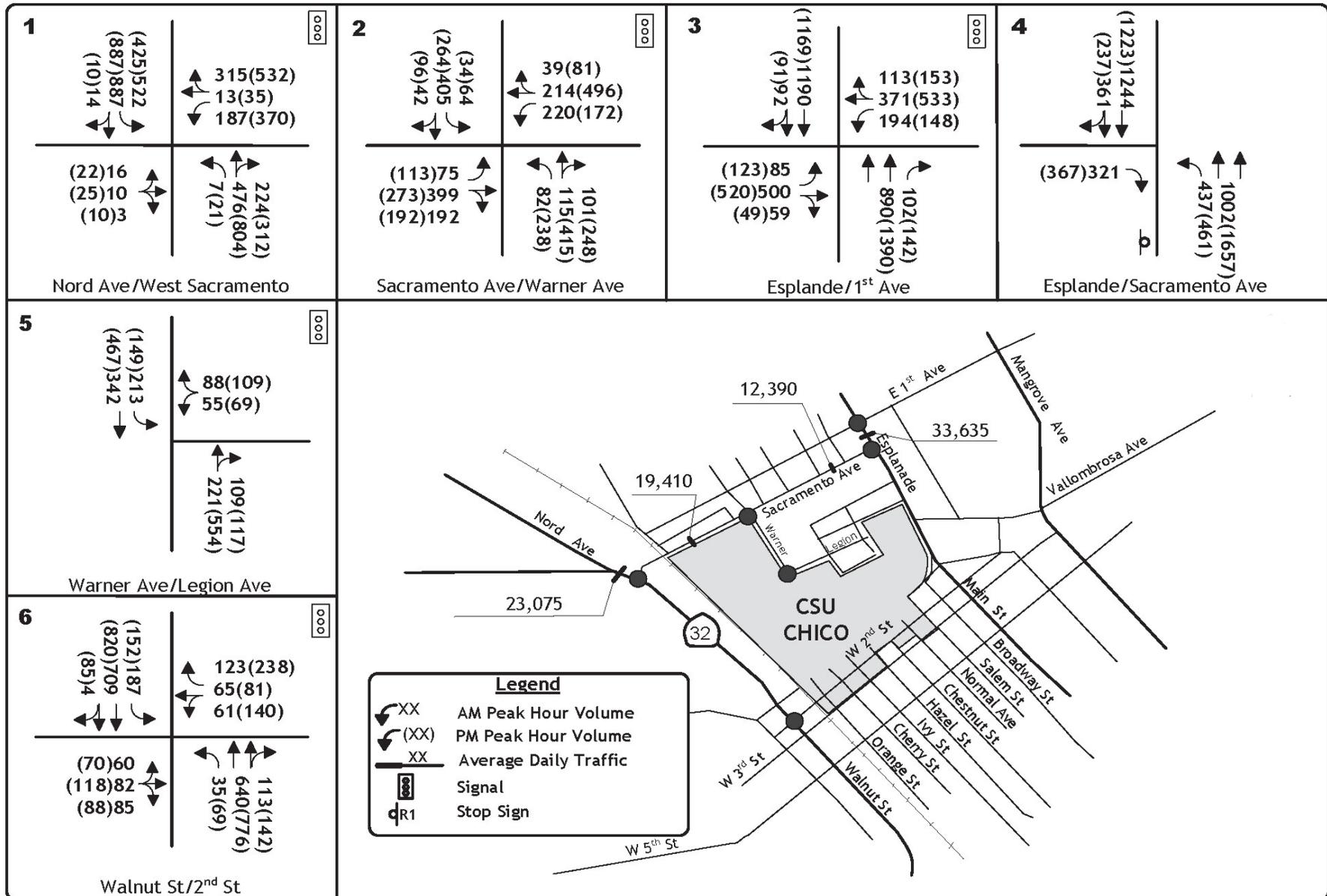
Widening the Midway/Park Avenue intersection to provide dual southbound left turn lanes and a separate northbound through lane would serve to reduce these potential impacts.

The Midway/Park Avenue intersection and mitigation measure is under the jurisdiction of the City of Chico. CSU Chico cannot ensure implementation of mitigation measures that are under the jurisdiction and responsibility of another agency.

Mitigation Measure #3.I3-6d:

Widening the Midway/Hegan Lane intersection to accommodate dual eastbound left turn lanes would reduce impacts to this intersection.

The Midway/Hegan Lane intersection and mitigation measure is under the jurisdiction of Butte County. CSU Chico cannot ensure implementation of mitigation measures that are under the jurisdiction and responsibility of another agency.

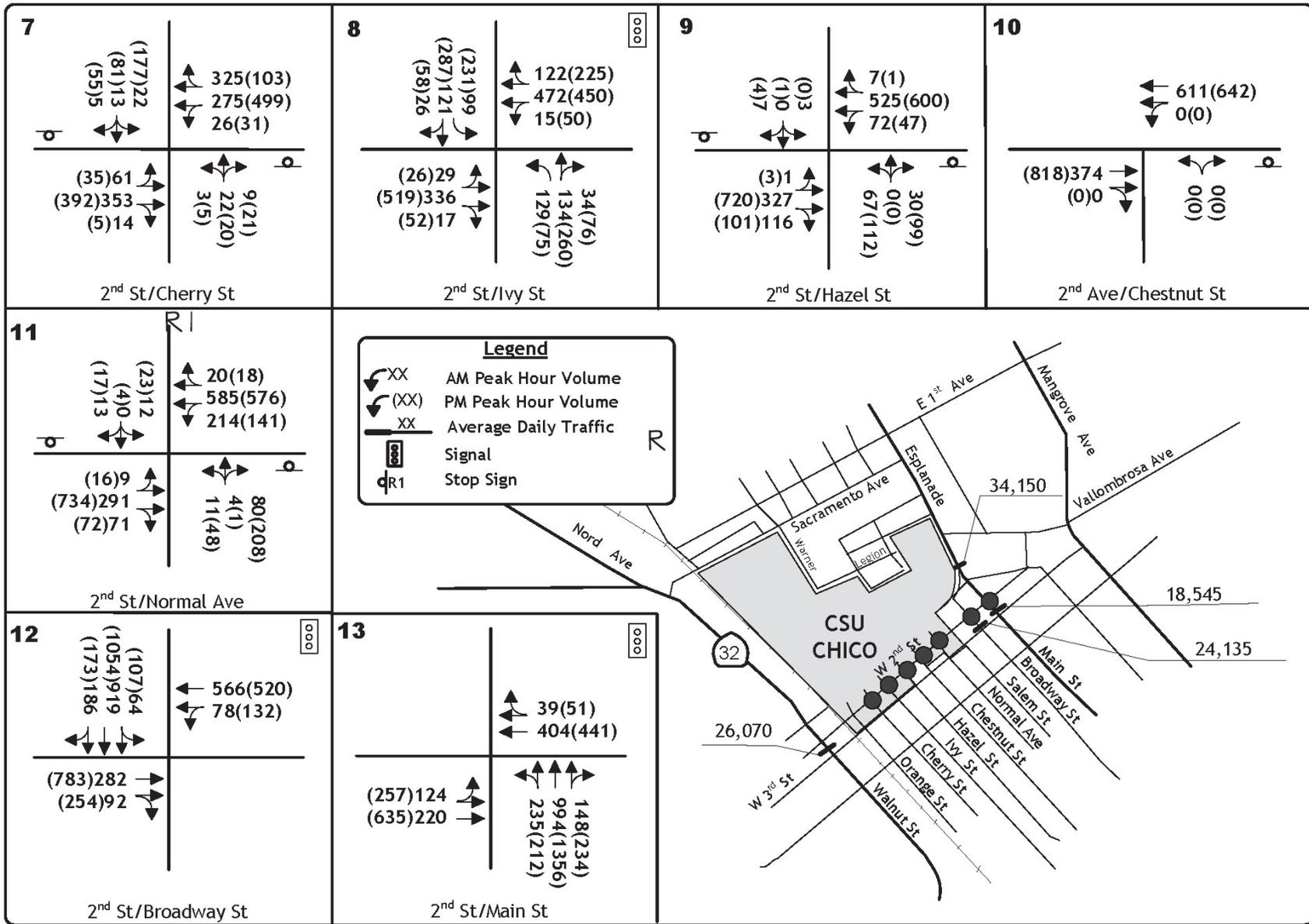


Source: KD Anderson / Quad Knopf, Inc. 2004.



CUMULATIVE PLUS BASE TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-7a

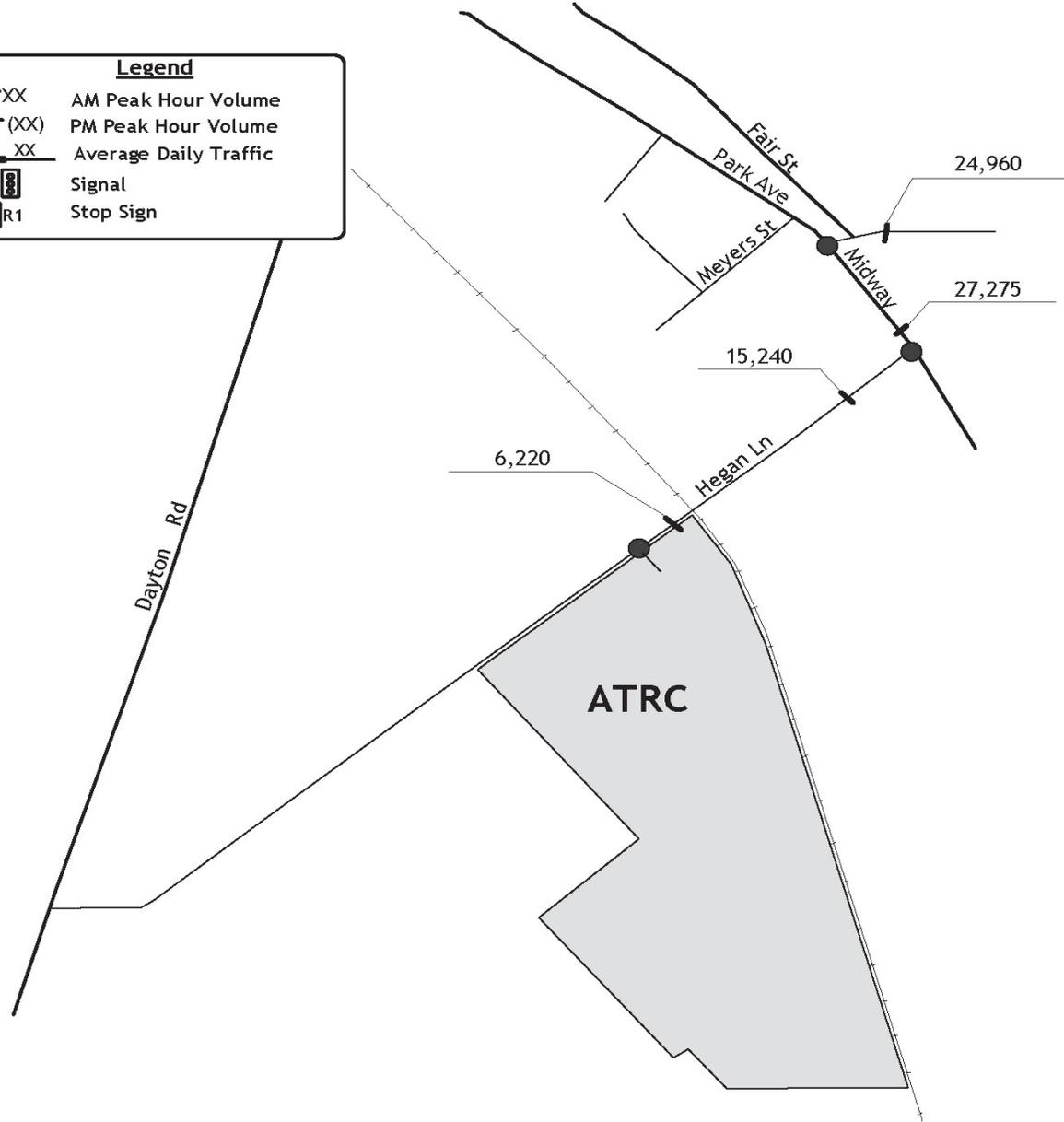
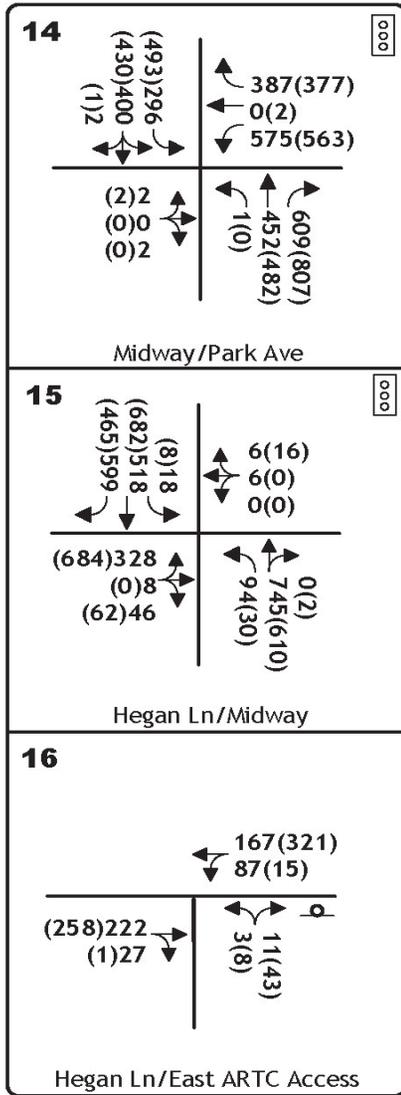


Source: KD Anderson / Quad Knopf, Inc. 2004.



CUMULATIVE PLUS MASTER PLAN TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-7b



Source: KD Anderson / Quad Knopf, Inc. 2004.



CUMULATIVE PLUS MASTER PLAN TRAFFIC VOLUME AND LANE CONFIGURATIONS

Figure 3.13-7c

CHAPTER FOUR

PROJECT ALTERNATIVES

CHAPTER FOUR

PROJECT ALTERNATIVES

Chapter 4 contained in the Draft EIR is not being re-circulated and is not reprinted herein. Any comments received on the previously circulated Draft EIR will be addressed in the Final EIR.

CHAPTER FIVE

CONSEQUENCES OF PROJECT IMPLEMENTATION (MANDATORY CEQA SECTIONS)

CHAPTER FIVE CONSEQUENCES OF PROJECT IMPLEMENTATION (MANDATORY CEQA SECTIONS)

Chapter 5 contained in the Draft EIR is not being re-circulated and is not reprinted herein. Any comments received on the previously circulated Draft EIR will be addressed in the Final EIR.

APPENDICES

APPENDIX A

TRAFFIC IMPACT ANALYSIS
FOR
CSU-CHICO MASTER PLAN UPDATE
Chico, California

Prepared For:

QUAD-KNOPF, INC
One Sierragate Plaza, Suite 270C
Roseville, CA 95678

Prepared By:

kdANDERSON Transportation Engineers
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

December 13, 2004
Revised March 29, 2005

5600-37

CSU-Chico.rpt

KD Anderson
Transportation Engineers

**TRAFFIC IMPACT ANALYSIS FOR
CSU-CHICO MASTER PLAN UPDATE**
Chico, California

TABLE OF CONTENTS

INTRODUCTION.....	1
Study Methodology	1
Project Description.....	2
EXISTING SETTING	4
Study Area.....	4
Current Traffic Volumes and Level of Significance	8
Alternative Transportation Modes.....	11
Parking.....	12
PROJECT IMPACTS.....	13
Project Characteristics.....	13
Existing Plus Project Level of Service	19
Other Impacts	27
SUMMARY OF IMPACTS AND MITIGATIONS.....	28
CUMULATIVE IMPACTS AND MITIGATION MEASURES	30
Analysis of Cumulative Scenarios.....	30
Cumulative (Year 2025) Levels of Service	38
APPENDIX.....	42

December 13, 2004
Revised March 29, 2005

KDA

**TRAFFIC IMPACT ANALYSIS FOR
CSU-CHICO MASTER PLAN UPDATE**
Chico, California

INTRODUCTION

This report summarizes **kdANDERSON Transportation Engineers'** analysis of the traffic impacts associated with implementing the **CSU-Chico 2004 Master Plan**. The 2004 plan will guide development and operation of the campus for the foreseeable future and identified key infrastructure and policies that may ultimately affect transportation and circulation in the area near CSU-Chico and throughout the City of Chico as a whole.

This report addresses the impacts of implementing plans for two separate but linked areas, as noted in Figure 1. The 2004 Master Plan describes improvements that will be made to the main campus located in downtown Chico. However, the Master Plan also describes programs and improvements that are planned for the Agricultural Center located south of CSU-Chico on Hegan Road.

The analysis which is summarized herein deals with current traffic conditions in the area of the campus, with conditions occurring with immediate implementation of planned improvements, and with cumulative conditions occurring in the future with other development in Chico, continuing regional traffic growth (i.e., year 2025 conditions) and full campus occupancy at the enrollment levels anticipated under the Master Plan.

Study Methodology

The methodology used to prepare this traffic impact study follows an approach that is recognized by members of the traffic engineering profession and is consistent with CEQA, Caltrans and City of Chico guidelines for traffic studies addressing new development.

The first phase of the study included the collection of traffic data and the analysis of that data to determine existing operating conditions. Available data was reviewed and new manual traffic counts were taken during the morning and evening peak traffic hour to develop turning movements at the 16 existing study intersections in the vicinity of the school site. The *2000 Highway Capacity Manual (HCM)* was used to analyze this data to describe the operational characteristics of major intersections near the school. Standards employed by the City of Chico were used to identify the capacity and Level of Service. Current pedestrian, bicycle and transit facilities were also described.

The second phase of the analysis involved estimating trip generation for the planned project. The Institute of Transportation Engineers' publication *Trip Generation-Seventh Edition* was used as an initial basis to determine the trips to be generated by implementation of the Master Plan under the identified enrollment levels.

The third phase of the study determined the distribution of trips into and out of the project and adjacent streets based primarily on the location of anticipated parking as well as the location of student housing, employment centers, etc.

The fourth phase was to assign the project trips to the street network and to add these new trips to the current background day traffic volumes and to evaluate resulting traffic operations.

The fifth study phase addresses cumulative impacts of implementing the master plan. Because the proposed Master Plan replaces a previous planning document, the cumulative analysis addresses two future scenarios: 1) year 2025 conditions with enrollment under the previous master Plan (i.e., 16,000 students) and 2) year 2025 conditions with the new Master Plan enrollment level (i.e., 20,000 students). The current version of the Chico regional travel demand forecasting model was used to create the baseline cumulative condition, and the incremental increase in traffic associated with another 4,000 students was manually assigned to create the cumulative plus project condition.

Project Description

For the purpose of this Traffic Impact Study, the project is defined as the operation of CSU-Chico with an ultimate enrollment of 20,000 students and the development of two specific infrastructure improvements that could impact local circulation.

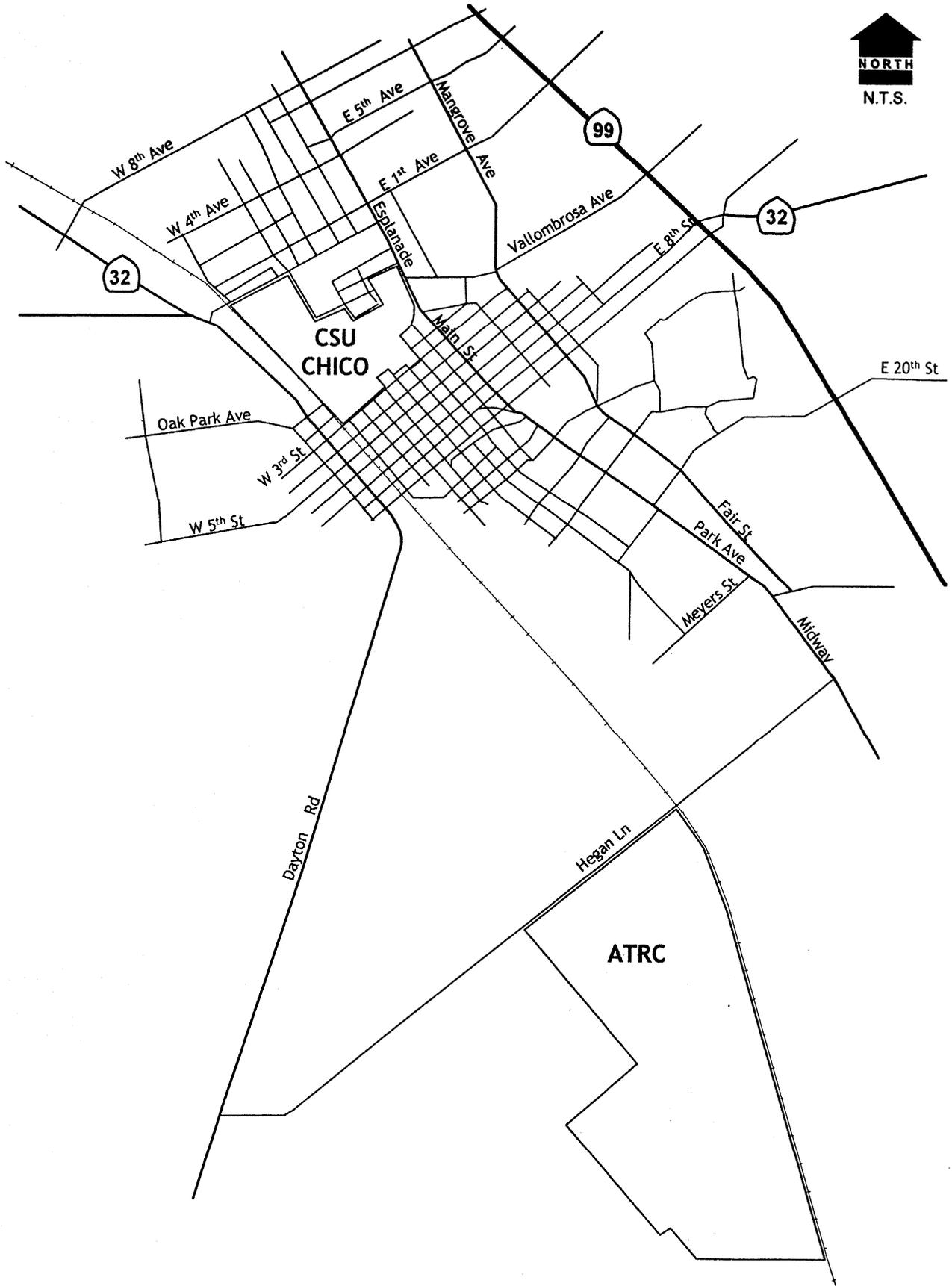
Enrollment. Over the last few years the total enrollment (i.e., body count) at CSU-Chico has been about 16,000 students. Measured in this fashion, (i.e., head count), the current Master Plan also accommodates about 16,000 students. The new Master Plan is intended to accommodate an enrollment of 20,000.

Parking. The current campus parking supply has been quantified at 2,211 spaces, or about 0.14 spaces for every enrolled student. The proposed Master Plan envisions the development of new parking facilities as well as the elimination of some existing on-site parking. Major changes to parking include the development of a multi-level parking structure along 2nd Street in the area of Ivy – Cherry Street, as well development of a multi-level parking structure in the vicinity of new student housing proposed off of Sacramento Street. Under the proposed Master Plan, the on-site parking supply is to increase by about 1,436 spaces to 3,647 spaces, or 0.18 spaces for each enrolled student under the new plan.

Circulation System Modifications. The circulation system in the vicinity of the CSU-Chico campus will be relatively unchanged under the proposed master Plan, but some local changes are planned. In the area of the new parking structure Chestnut Street is to be closed between 2nd Street and 3rd Street. Full or partial closure of First Street between Ivy Street and Orange or Cedar Street is also proposed. Rio Chico Way will likely be closed as well.

Student Housing. The Master Plan includes development of new on-campus student housing in the area of Warner Avenue south of Sacramento Street. Approximately 1,300 bed spaces are planned in this area.

Agricultural Center. Additional classroom space is planned, and a special events center accommodating 3,000 persons is proposed.



EXISTING SETTING

Automobile Circulation

Study Area. After a preliminary investigation of the existing traffic circulation patterns, and review of the routes used by campus traffic as identified through "Select Link Analysis" using the City wide traffic model it was determined that the traffic analysis should investigate the operational characteristics of the following intersections on the streets serving the CSU-Chico campus and the ATRC:

1. Nord Avenue (SR 32) / West Sacramento Avenue
2. Sacramento Ave / Warner Avenue
3. Esplanade / East 1st Avenue
4. Esplanade / Sacramento Avenue
5. Warner Avenue / Legion Avenue
6. Walnut Street (SR 32) / West 2nd Street
7. West 2nd Street / Cherry Street
8. West 2nd Street / Ivy Street
9. West 2nd Street / Hazel Street
10. West 2nd Street / Chestnut Street
11. West 2nd Street / Normal Avenue
12. Broadway Street / 2nd Street
13. Main Street / 2nd Street
14. Park Avenue / Midway
15. Midway / Hegan Lane
16. Hegan Lane / East ATRC Access

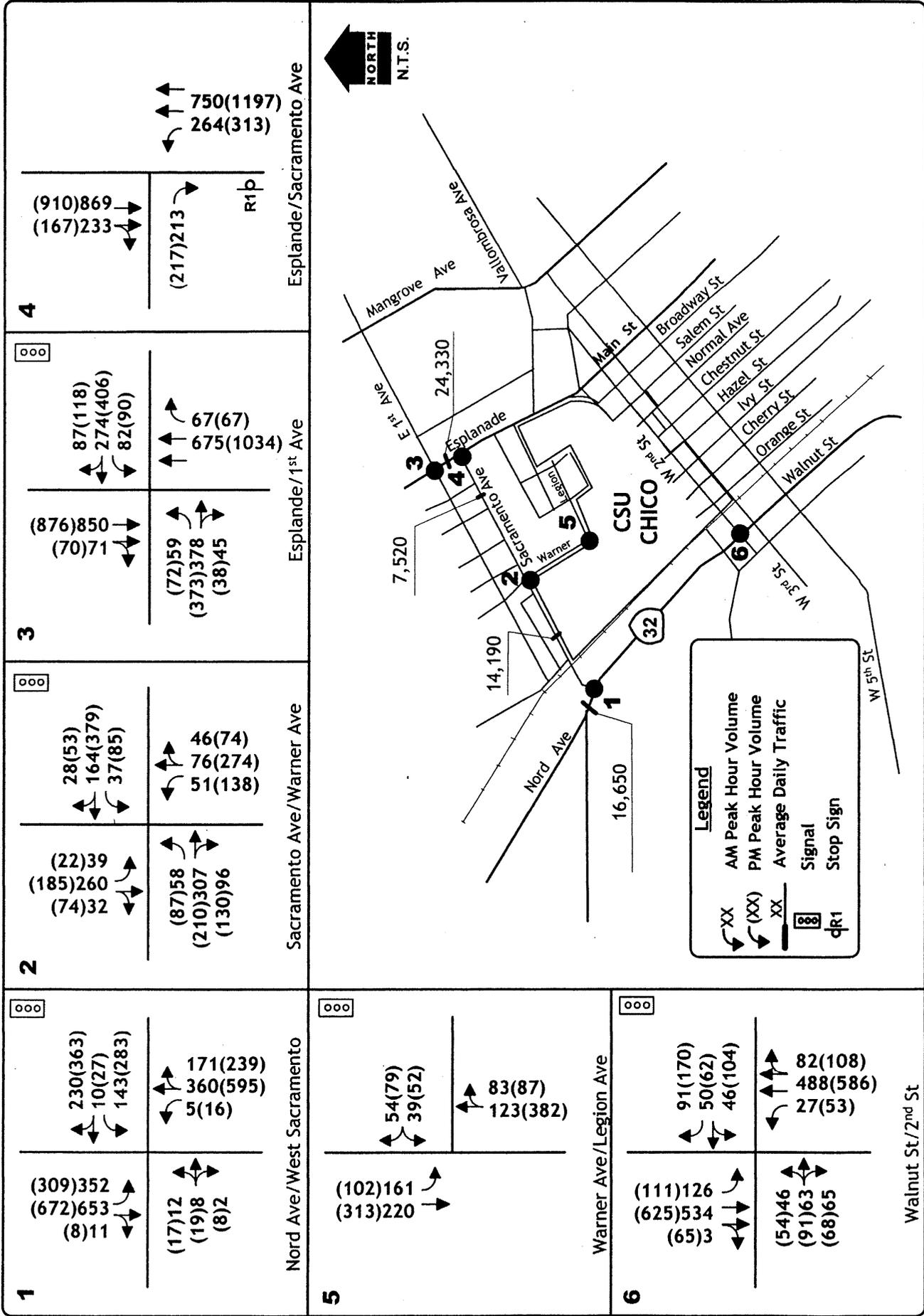
The locations of these intersections along with the existing road network are shown on Figures 2a-2c.

The text that follows describes the circulation facilities serving the CSU-Chico campus.

Esplanade – Main Street – Broadway. The Esplanade, Broadway and Main Street are arterial streets that together provide access to the eastern side of the CSU-Chico campus. The Esplanade is a four lane street with primary access via signalized intersections. On street parking is prohibited on the Esplanade. Main Street – Broadway form a north-south one-way couplet that traverses the downtown area. Access occurs via closely spaced signalized intersections, and on-street parking is permitted in many locations.

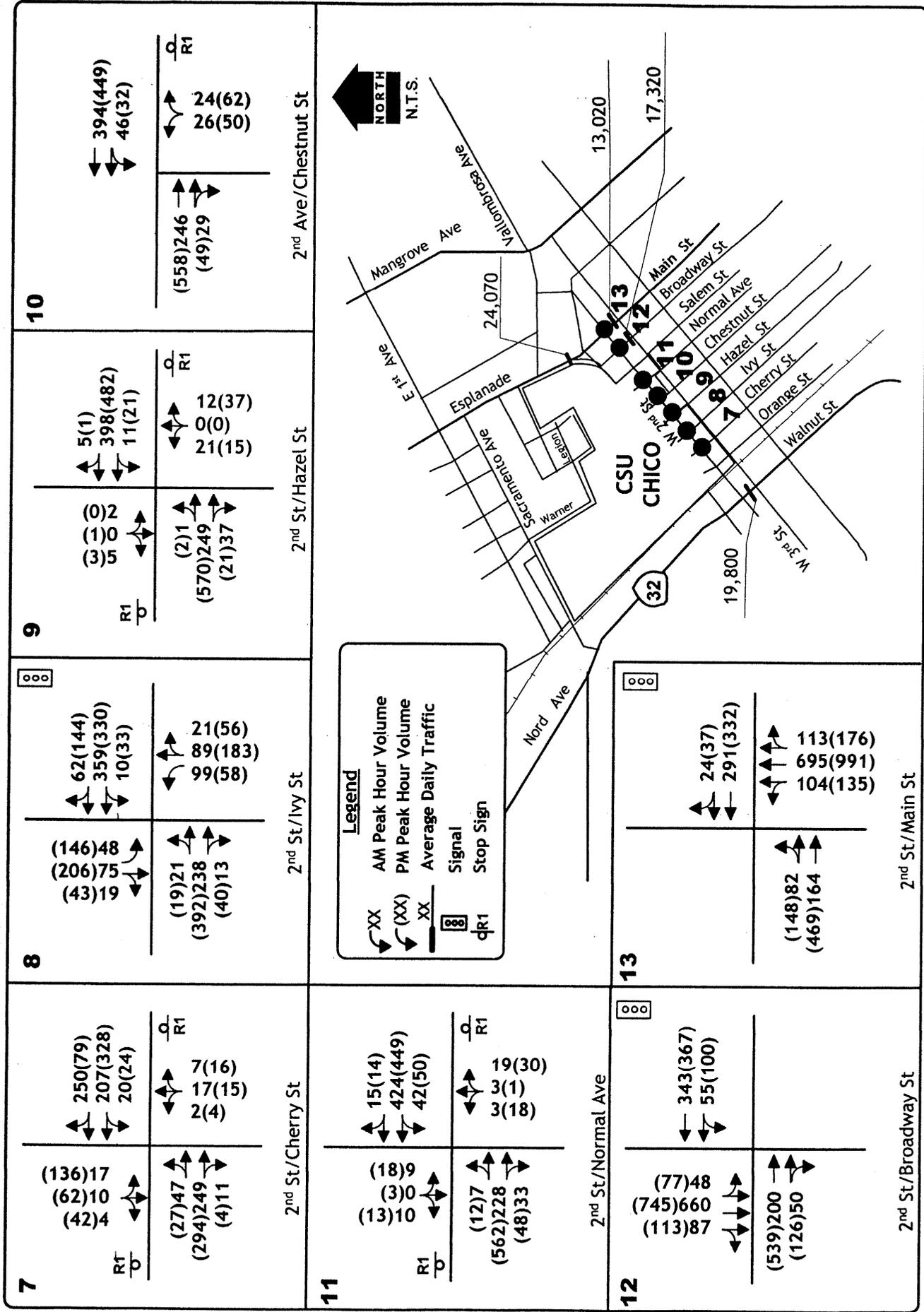
Nord Avenue – Walnut Street are north-south arterial streets that serve the area west of the CSU-Chico campus. Nord Avenue and Walnut Street are two lane facilities.

Sacramento Avenue is an east-west minor arterial street that provides access to the north end of the CSU-Chico campus and to Chico High School. Sacramento Street begins at an intersection on Nord Avenue and extends easterly to an intersection on The Esplanade. Sacramento Street is a two-lane facility with on street parking permitted.



**EXISTING TRAFFIC VOLUMES
AND LANE CONFIGURATIONS**

figure 2a

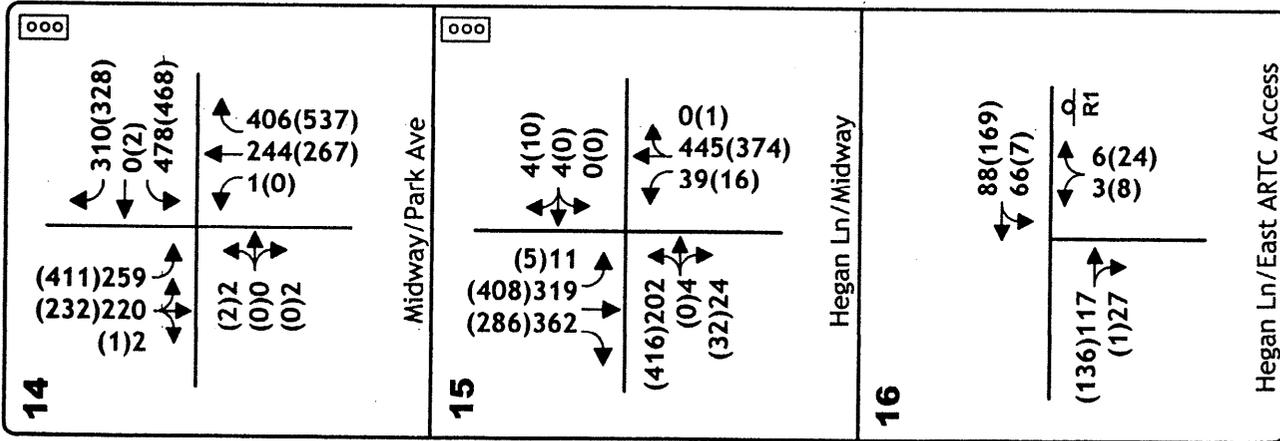


KD Anderson
 Transportation Engineers
 5600-37

**EXISTING TRAFFIC VOLUMES
 AND LANE CONFIGURATIONS**

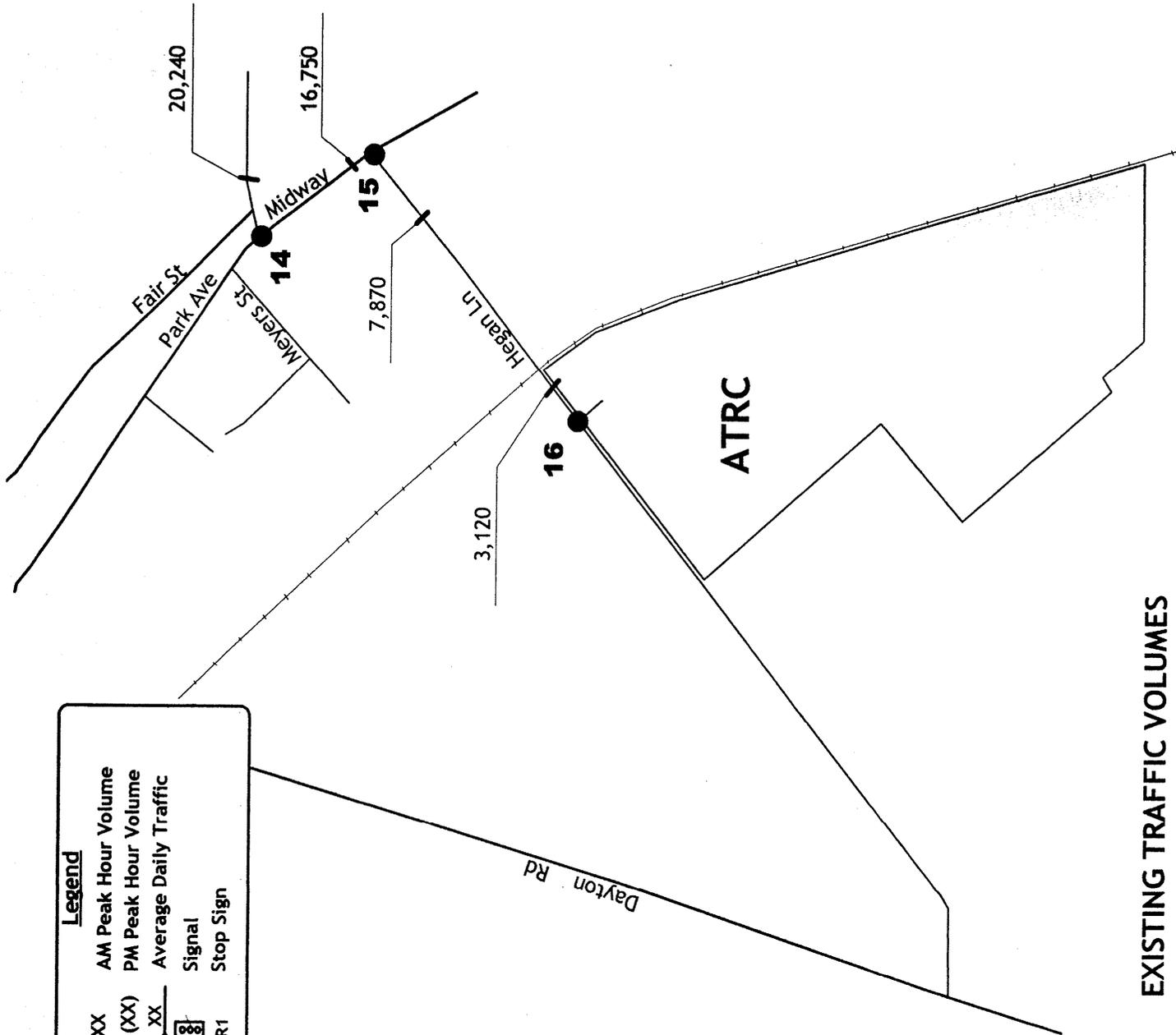
12/13/2004

figure 2b



Legend

- XX → AM Peak Hour Volume
- (XX) → PM Peak Hour Volume
- XX → Average Daily Traffic
- 8 → Signal
- qR1 → Stop Sign



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson
 Transportation Engineers

5600-37
 12/13/2004

figure 2c

West 2nd Street is designated an arterial street in the City of Chico General Plan Circulation Element. West 2nd Street extends easterly from an intersection on Walnut Street across the south end of the CSU-Chico campus to the Main Street – Broadway Couplet and continues to an intersection with Mangrove Avenue. Through the study area West 2nd Street is a four-lane facility with left turns permitted from the inside through lanes.

Warner Street is a north-south minor arterial street that traverses the center of the CSU-Chico campus. Warner Street is a two lane facility.

The Midway is a north-south minor arterial street that extends southerly from Chico to the community of Durham. This is a two lane street.

Hegan Lane is an east-west collector road that serves the area near ATRC. This two lane rural road connects Dayton Road on the west with The Midway on the east.

While it is likely that some traffic generated under the Mast Plan will find its way onto the regional circulation system and use routes such as SR 99 to reach the campus, the impact of project traffic on SR 99 was not assessed quantitatively based on the relatively small share of the project's traffic using the facility. Based on "select link" analysis using the citywide traffic model, the share of project traffic using SR 99 at various locations ranges from about 1.6% north of the East 1st Street interchange to 3.5% near the SR 32 interchange to 4.3% south of the Park Avenue interchange. Based on the peak hour forecast presented in the trip generation section, these percentages would only equal 14 to 36 peak hour trips on the highway, which would not represent a significant impact to the regional circulation system.

Level of Significance. A traffic impact is considered significant if it renders an acceptable Level of Service on a street segment or at a signalized intersection, or if it worsens already unacceptable conditions on a street segment or at a signalized intersection. Table 1 presents the characteristics of each Level of Service grade based on analysis methodologies accepted by the City of Chico.

Policy T-G-11 and T-G-12 from the City of Chico General Plan Transportation Element identify the Level of Service (LOS) goals for the City of Chico as follows:

T-G-11 Strive to maintain traffic LOS C on residential streets and LOS D or better on arterial and collector streets, at all intersections and on principal arterials in the CMP during peak hours.

T-G-12 Accept LOS E for built-out areas served by transit after finding that:

- *There is no practical and feasible way to mitigate the lower Level of Services; and*
- *The uses resulting in the lower Level of Service are of clear, overall public benefit.*

Current Traffic Volumes and Levels of Service. New traffic volumes counts were conducted on study area streets at intersections on November 4, 2004 for use in this study. Existing intersection Levels of Service at study intersections are shown on Table 2. These calculations are based on the methodologies contained in the 2000 Highway Capacity Manual and include assumptions relating to the effects of signal timing, pedestrian and bicycle traffic. Based on instruction from the City of

Chico, these calculations assume general Peak Hour Factors for overall conditions during the a.m. and p.m. peak hour (i.e., PHF of 0.90 and 0.95, respectively). Standard default values for saturation flow rates were employed, except for intersections on State Highways where a 0.90 factor was applied. Because campus traffic can be concentrated into short time periods immediately before/after classes, conditions at these times may be worse than are projected for the peak hour as a whole.

As shown in Table 2, with one exception existing traffic volumes are indicative of LOS D or better conditions on arterial and collector streets. During the p.m. peak hour the Nord Avenue (SR 32) / Sacramento Street intersection operates at LOS F. This exceeds City of Chico and Caltrans standards. Current Levels of Service at all study intersections meet City and Caltrans minimum standards.

**TABLE 1
LEVEL OF SERVICE DEFINITIONS**

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. $v/c \leq 0.60$ Average Delay < 10 sec / veh	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. $0.60 < v/c \leq 0.70$ Average Delay > 10 sec / veh and ≤ 20 sec / veh	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. $0.70 < v/c \leq 0.80$ Average Delay > 20 sec / veh and ≤ 35 sec / veh	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. $0.80 < v/c \leq 0.90$ Average Delay > 35 sec / veh and ≤ 55 sec / veh	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). $0.90 < v/c \leq 1.00$ Average Delay > 50.0 sec / veh and ≤ 80.0 sec / veh	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. $v/c > 1.00$ Average Delay > 80 sec / veh	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: 1980 <u>Interim Materials in Highway Capacity</u> , Circular 212, Transportation Research Board (TRB). 2000 <u>Highway Capacity Manual</u> , Transportation Research Board (TRB) Special Report 209.			

**TABLE 2
EXISTING PEAK HOUR INTERSECTION LEVELS OF SERVICE**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Average Delay	LOS	Average Delay	LOS
1. Nord Avenue / Sacramento Street	Signal	35.3 sec	D	85.9 sec	F
2. Sacramento Ave / Warner Avenue	Signal	27.5 sec	C	36.4 sec	D
3. Esplanade / East 1 st Street	Signal	20.5 sec	C	22.6 sec	C
4. Esplanade / Sacramento Street (overall) NB left EB approach	EB Stop	(4.1 sec) 18.0 sec 22.6 sec	(A)	(3.6 sec) 18.2 sec 20.4 sec	(A)
5. Warner Avenue / Legion Avenue	Signal	9.5 sec	A	8.2 sec	A
6. Walnut Avenue / West 2 nd Street	Signal	17.6 sec	B	18.8 sec	B
7. West 2 nd Street / Cherry Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(1.8 sec) 8.3 sec 7.9 sec 16.9 sec 16.8 sec	(A)	(12.2 sec) 8.3 sec 8.0 sec 15.6 sec 48.4 sec	(B)
8. West 2 nd Street / Warner Street / Ivy Street	Signal	11.8 sec	B	13.7 sec	B
9. West 2 nd Street / Hazel Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(0.8 sec) 8.3 sec 8.0 sec 13.4 sec 11.7 sec	(A)	(0.9 sec) 8.5 sec 8.9 sec 15.7 sec 14.3 sec	(A)
West 2 nd Street / Chestnut Street (overall) WB left NB approach	NB Stop	(1.3 sec) 8.1 sec 13.0 sec	(A)	(2.0 sec) 9.0 sec 19.4 sec	(A)
West 2 nd Street / Normal Avenue (overall) EB left turn WB left turn NB approach SB approach	NB/SB Stop	(1.2 sec) 8.3 sec 7.9 sec 11.3 sec 13.6 sec	(A)	(1.8 sec) 8.5 sec 9.1 sec 19.3 sec 21.5 sec	(A)
12. West 2 nd Street / Broadway	Signal	13.5 sec	B	14.7 sec	B
13. West 2 nd Street / Main Street	Signal	12.8 sec	B	15.5 sec	C
14. Midway / Park Avenue	Signal	31.4 sec	C	31.8 sec	C
15. Midway / Hegan Lane	Signal	16.5 sec	B	22.2 sec	C
16. Hegan Lane / East ATRC Access (overall) WB left turn NB approach	NB Stop	(1.9 sec) 7.7 sec 9.7 sec	(A)	(1.0 sec) 7.5 sec 9.5 sec	(A)

The volume of traffic occurring on study area roads has also been monitored. Table 3 presents the results of new daily traffic counts conducted in November 2004 for this study.

**TABLE 3
CURRENT DAILY TRAFFIC VOLUMES**

Street	Location		Classification	Daily Volume
	From	To		
Nord Avenue	West Sacramento Ave	East Sacramento Ave	Arterial	16,650
Sacramento Avenue	Nord Avenue	Warner Avenue	Minor Arterial	14,190
	Warner Avenue	Esplanade	Minor Arterial	7,520
Esplanade	East 1 st Ave	Sacramento Ave	Arterial	24,330
	Vallombrosa Ave	West 1 st Street	Arterial	24,070
Walnut Street	West 1 st Street	West 2 nd Street	Arterial	19,800
Broadway	West 2 nd Street	West 3 rd Street	Arterial	17,320
Main Street	West 2 nd Street	West 3 rd Street	Arterial	13,020
Park Avenue	Midway	SR 99	Arterial	20,240
Midway	Park Avenue	Hegan Lane	Minor Arterial	16,750
Hegan Lane	Dayton Road	Railroad	Collector	3,120
	railroad	Midway	Collector	7,870

Alternative Transportation Modes

Bicycles. The bicycle is an important mode of transportation for CSU-Chico students, faculty, and staff. The Master Plan notes that about 30% of CSU-Chico students use bicycles as their primary form of travel to the campus. The spring 2000 CSU-Chico Bicycle Survey recorded 4,934 bicycle parking spaces on campus, which represents about 1.1 spaces per regular bicycle user. These spaces are distributed throughout the campus and are generally associated with classroom facilities and other major student destinations.

The City of Chico General Plan notes the locations of existing and planned bicycle facilities in the area of the campus. Nord Avenue, Walnut Street, Sacramento Avenue, and Warner Avenue are designated Class II facilities, while the railroad corridor adjoining SR 32 is designated a Class I facility.

Transit. Chico Area Transit System (CATS) serves the urban Chico area, and service in the vicinity of CSU-Chico is readily available. The CATS Downtown Transit Center is located at 2nd Street / Salem Street. Routes 8 and 9 (Student Shuttle) traverse the campus along Warner Avenue on 30-minute headways, while Route 3 travels on Sacramento Avenue on 60-minute headways.

The Butte County Transit (BCT) system provides interregional bus service connecting various cities in Butte County. BCT Routes 1 and 2 provide service from Downtown Chico to Paradise and to Oroville, respectively.

The University, in cooperation with the Associated Student Government, the City of Chico, and the County of Butte, provides free student access to all CATS and BCT buses. Based on data provided by the University, approximately 250,000 free rides per year and 1,000 free rides per day are made as part of this program.

Parking

The supply of parking available to students, faculty and staff is an important issue affecting CSU-Chico and its neighbors. The *Executive Summary – Draft California State University, Chico Parking Needs Study (2004)* revealed that about 2,211 parking spaces are available in on-campus parking facilities, including 2,143 automobile spaces and 68 motorcycle spaces. These spaces are distributed across a series of 34 parking facilities in various locations throughout the campus ranging in size from three to 305 spaces and one parking structure containing 654 spaces.

That report concluded that the on-campus parking supply is not adequate to accommodate campus parking demands and that students, staff, and visitors also park on city streets surrounding the campus. A utilization survey associated with the study indicated that about 88% of the total supply was occupied during the heaviest demand hour, with ratios of over 85% experienced over most of the day. These demand ratios above 85% are indicative of conditions that are considered to be “fully utilized”, due to the time involved in locating a vacant spaces among the various parking areas.

The City of Chico commissioned the *Downtown Parking Management and Implementation Study* in 2003. That report addressed conditions in the area bounded by Normal Avenue on the west, 1st Street on the north, Orient Street on the east, and 9th Street on the south. Peak occupancy ratios of over 90% were observed in public lots and along streets in the area between Normal Avenue and Main Street south of 1st Street. These ratios are indicative of areas that are “fully utilized”.

The extent to which the lack of on-campus parking spills over into the downtown area is difficult to quantify. The *Executive Summary – Draft California State University, Chico Parking Needs Study (2004)* suggests that about 305 downtown spaces may be used as overflow student / staff parking.

PROJECT IMPACTS

To evaluate the impacts of implementing the Master Plan on traffic conditions in the project area it is necessary to first identify the characteristics of the project with regard to automobile, pedestrian, and bicycle traffic and to subsequently superimpose project traffic onto the study area circulation system. The immediate impacts of the Master Plan have been described in terms of “Existing Plus Project” conditions, and Year 2025 conditions with and without implementation of the Master Plan are addressed under cumulative impacts.

Project Characteristics

Trip Generation - Regular. Implementation of the Master Plan will provide the opportunity for additional students to attend CSU-Chico, either at the main campus or at the ATRC. Trip generation rates published by the Institute of Transportation Engineers (ITE) were used to quantify the amount of traffic that may be associated with this increase in enrollment. While ITE rates may tend to ignore the high level of bicycle and pedestrian usage inherent to CSU-Chico, these rates are assumed in the City of Chico traffic model and have been chosen to provide consistency with that forecasting tool. Applicable trip generation rates are presented in Table 4, and the trip generation estimates presented in Table 5 were the result.

As shown, increasing the enrollment at CSU-Chico from the current level of about 16,000 students to the planned capacity of 20,000 students may generate 9,520 daily trips, with about 840 trips occurring in the a.m. and p.m. peak hour. The assumed increase in enrollment at the ATRC would be included in that total and could result in about 297 new daily trips to that facility, with about 26 new trips in the peak hours.

Trip Generation – Parking Availability. As is discussed under parking impacts the Master Plan Parking Supply is intended to provide space for parking that today “over flows” into areas surrounding the campus. While this relocation traffic will not appreciably effect current traffic volumes, additional parking spaces may become available for persons who today elect to walk, bicycle or use transit due to the unavailability of convenient parking. While difficult to quantify the availability of parking may encourage students / staff to drive to CSU-Chico.

Trip Generation – ATRC Special Events. The Master Plan envisions development of a 45,000 sf Events Center at the ATRC. This facility would have the capacity to seat up to 2,000 persons for a wide range of special events, including industry based farm equipment shows, equine events, 4H and FFA activities, etc.

The trip generation associated with the use of the Events Center would vary greatly based on many factors, including the actual attendance, the operational schedule for particular events, the level of bussing provided, average automobile occupancy, etc. The schedule for these types of events would not necessarily result in traffic to and from the site during peak commute hours.

For this analysis a “worst case” p.m. peak hour event has been assessed. This analysis assumes that a maximum occupancy event was held with typical (i.e., 3.0 persons per vehicle) automobile occupancy that is indicative of limited bussing. This analysis assumes that 100% of attendees exit the site during the p.m. peak hour. Under these circumstances about 1,100 p.m. peak hour trips could be generated.

**TABLE 4
TRIP GENERATION RATES**

Land Use (ITE Code)	Daily Rate (per unit)	HOURLY RATES (per student)					
		AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
University (550)	2.38 / student	0.17	0.04	0.21	0.06	0.15	0.21

**TABLE 5
TRIP GENERATION ESTIMATES**

Land Use (ITE Code)	Enrollment	Daily Trips	Peak Hour Trips					
			AM Peak			PM Peak		
			In	Out	Total	In	Out	Total
Total Campus								
Current Enrollment / Master Plan	16,000	38,080	2,720	640	3,360	960	2,400	3,360
Proposed Master Plan	20,000	47,600	3,400	800	4,200	1,200	3,000	4,200
Difference over Existing / Current Master Plan	4,000	9,520	680	160	840	240	600	840
ATRC – Regular Operations								
Existing Enrollment	375	893	64	15	79	23	56	79
Proposed Master Plan	500	1,190	85	20	105	30	75	105
Difference	125	297	21	5	26	7	19	26
ATRC – Events Center								
Worst Case Special Event						100	1,000	1,100

KDA

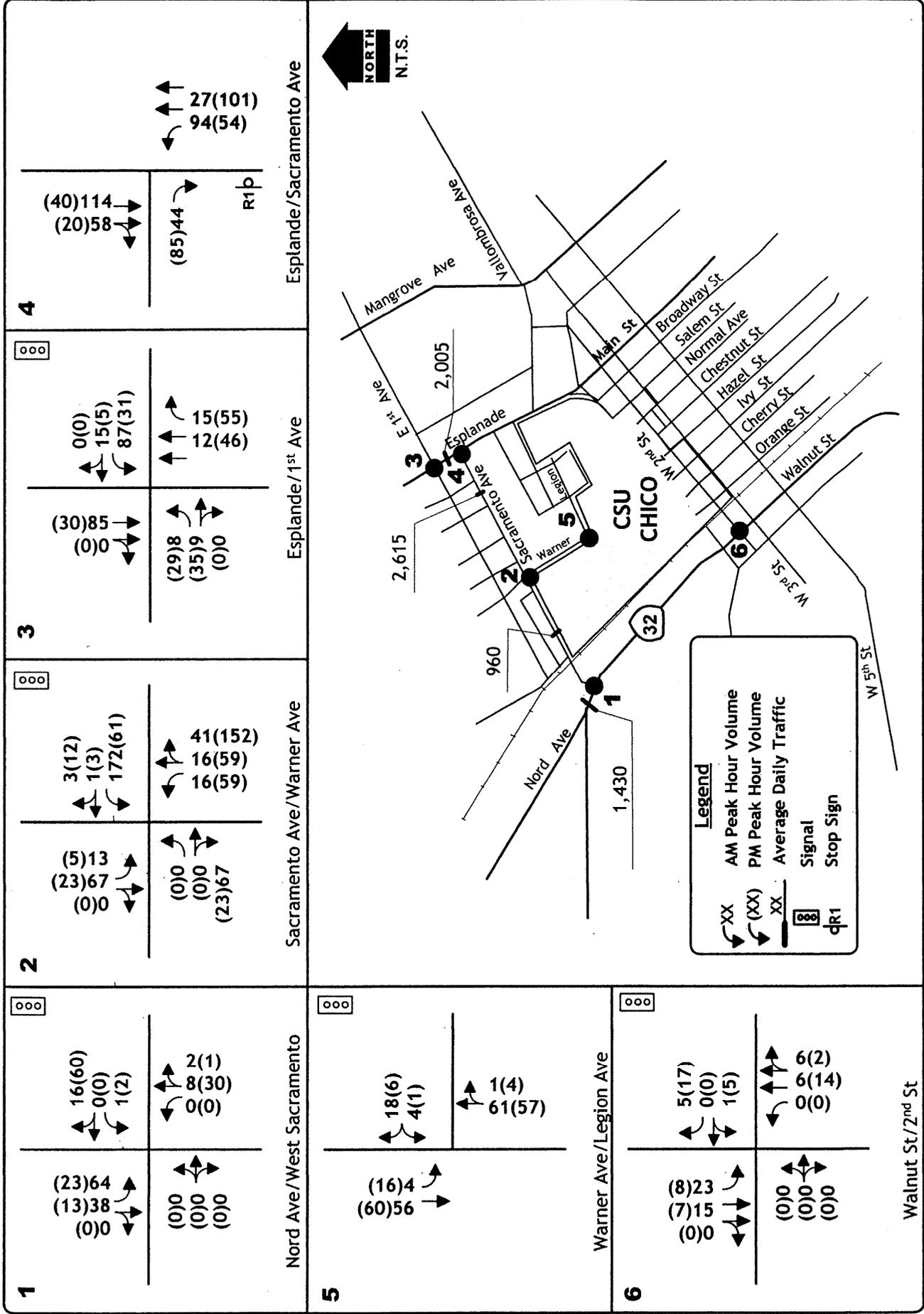
Trip Distribution. The next task in the evaluation is to determine the distribution of project trips. The regional distribution of trips generated by the increased enrollment at the campus will be primarily dependent on such factors as the location of student and faculty housing. To identify applicable distribution assumptions a “select link” analysis was performed using the City of Chico regional travel demand forecasting model. Trips generated by the campus were isolated from the balance of projected traffic volumes used to identify the percentile distribution presented in Table 6.

**TABLE 6
PROJECT TRIP DISTRIBUTION**

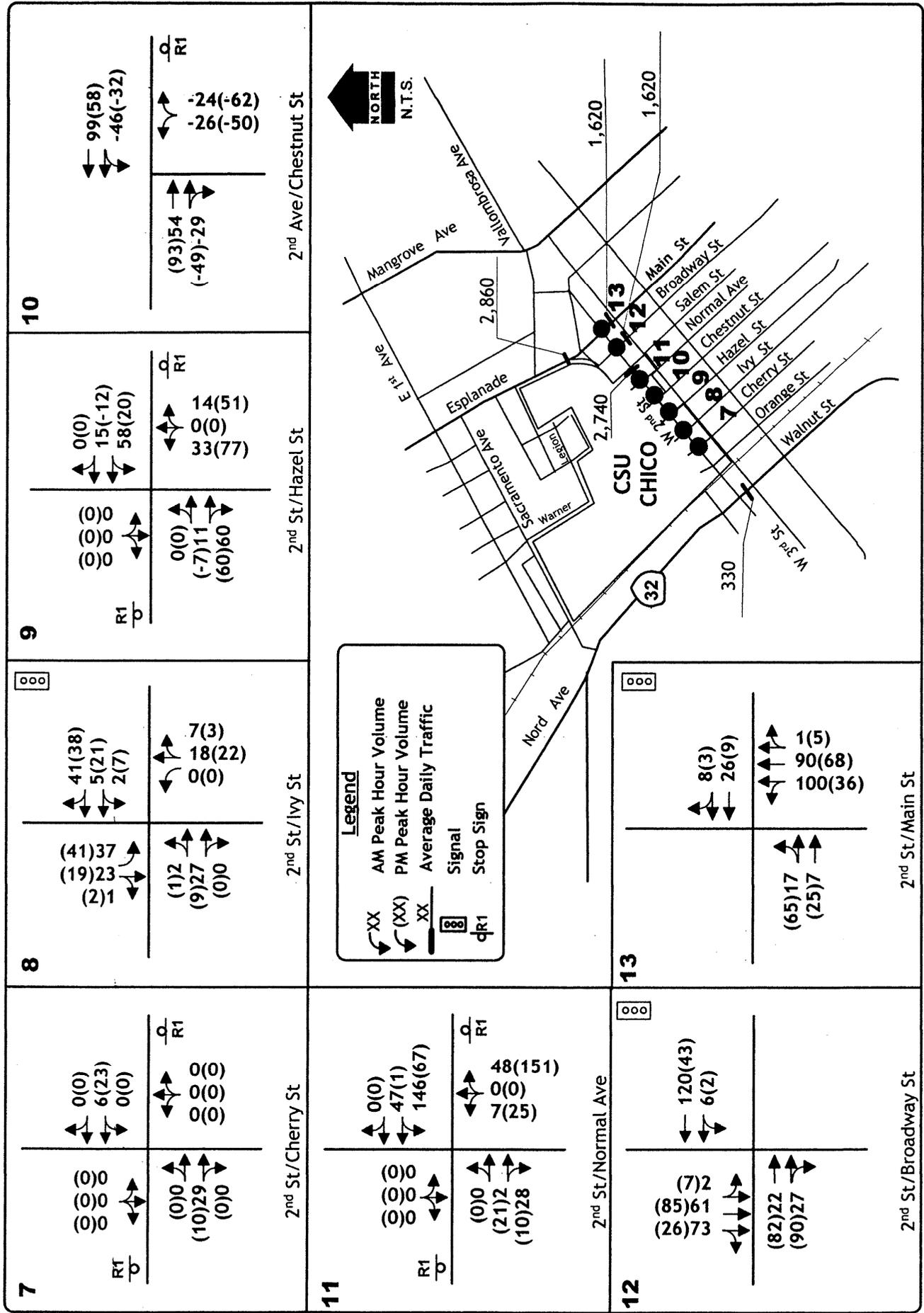
Route	Percent of Total Trips
North via Nord Avenue North of Sacramento Avenue	15%
North via local streets between Nord Avenue and the Esplanade	15%
North via the Esplanade	12.5%
East via East 1 st Avenue	15%
East via Vallombrosa Avenue	5%
East via local streets between Vallombrosa Avenue and Dead Slough	10%
South via Main Street – Broadway	22%
South via local streets between Walnut Avenue and Broadway	4%
South via Walnut Avenue	1.5%
Total	100%

Trip Assignment. The assignment of new trips to the local street system will be dependent many factors such as the location of available student / staff parking. In this case, the Master Plan anticipates the creation of two parking garages to be developed in the area south of West 2nd Street between Normal Avenue and Hazel Street and in the area off of Warner Avenue near planned student housing. For this study new trips generated by increased enrollment have been assigned to the local street system to/from these two general locations. The resulting “project only” trips assignment is illustrated in Figures 3a-3c.

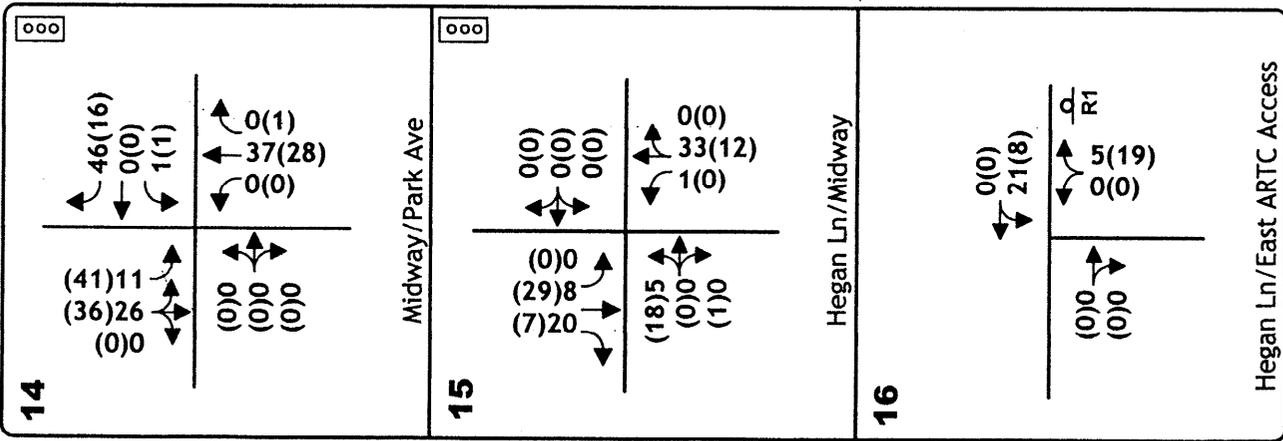
As suggested by the Master Plan, development of the 2nd Street parking structure may involve closure of Chestnut Street between 2nd Street and 3rd Street. The redistribution of existing traffic associated with this closure has been assumed in this analysis.



MASTER PLAN ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

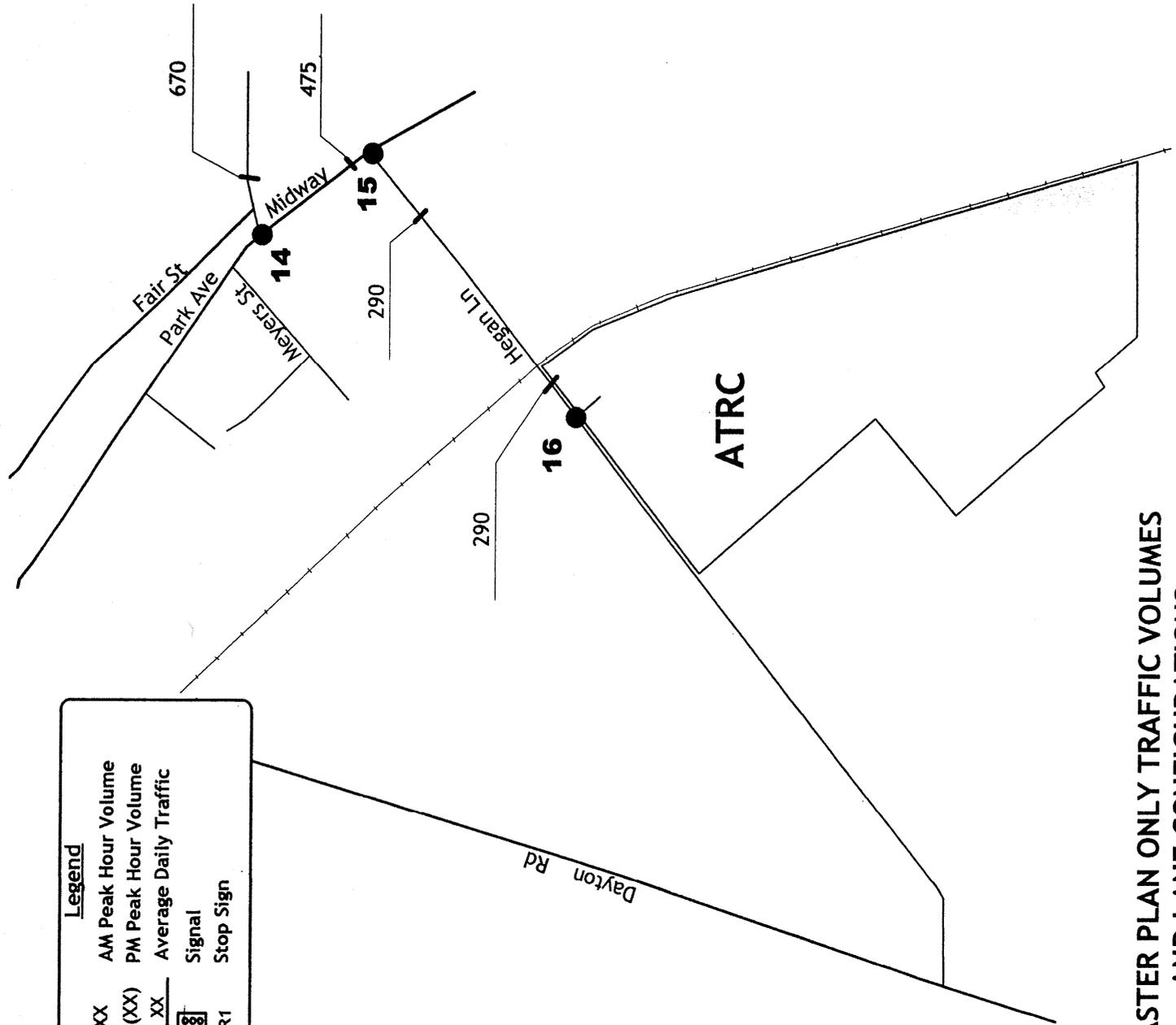


MASTER PLAN ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS



Legend

- XX → AM Peak Hour Volume
- (XX) → PM Peak Hour Volume
- XX → Average Daily Traffic
- Signal
- Stop Sign



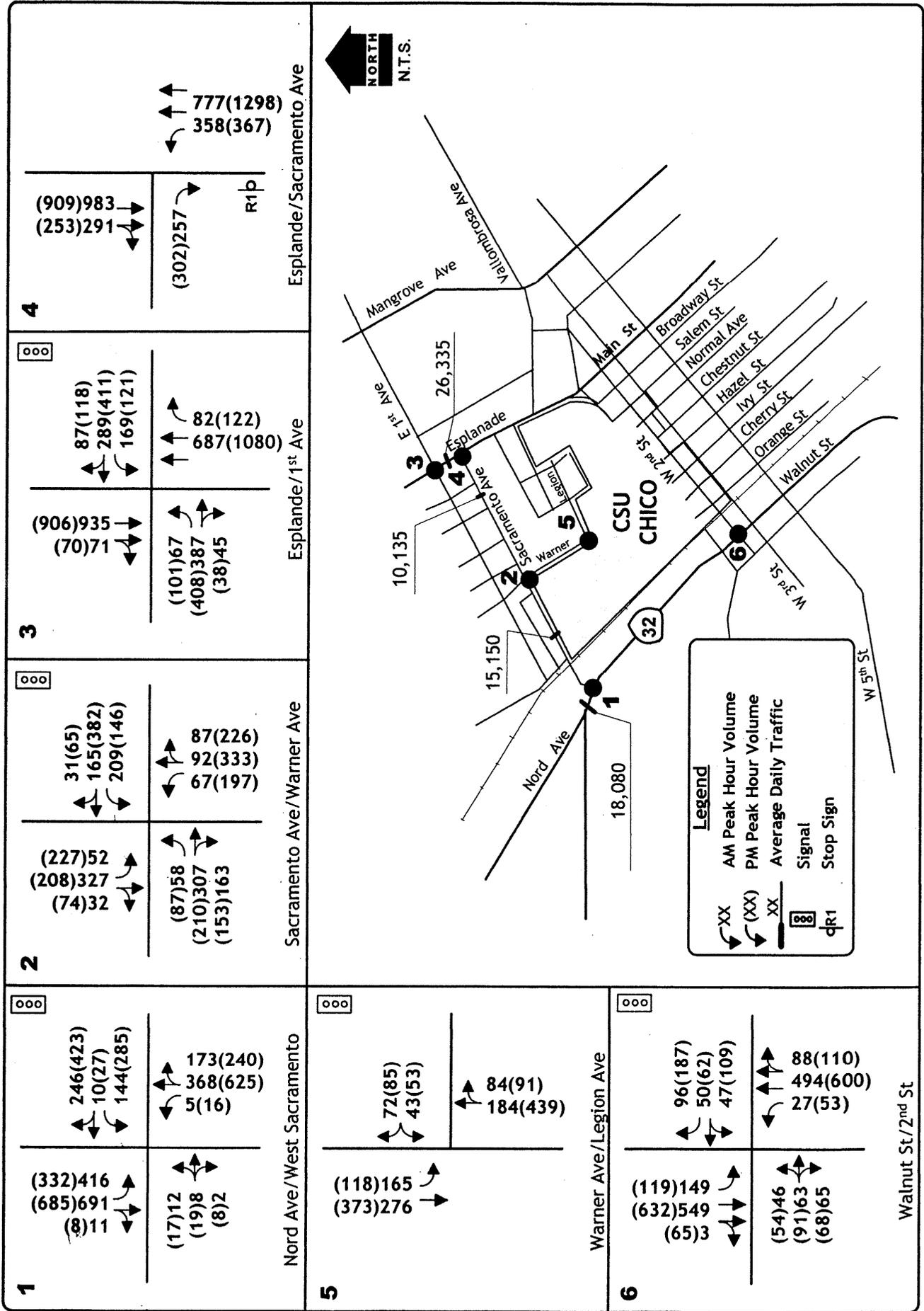
**MASTER PLAN ONLY TRAFFIC VOLUMES
AND LANE CONFIGURATIONS**

Existing Plus Project Level of Service

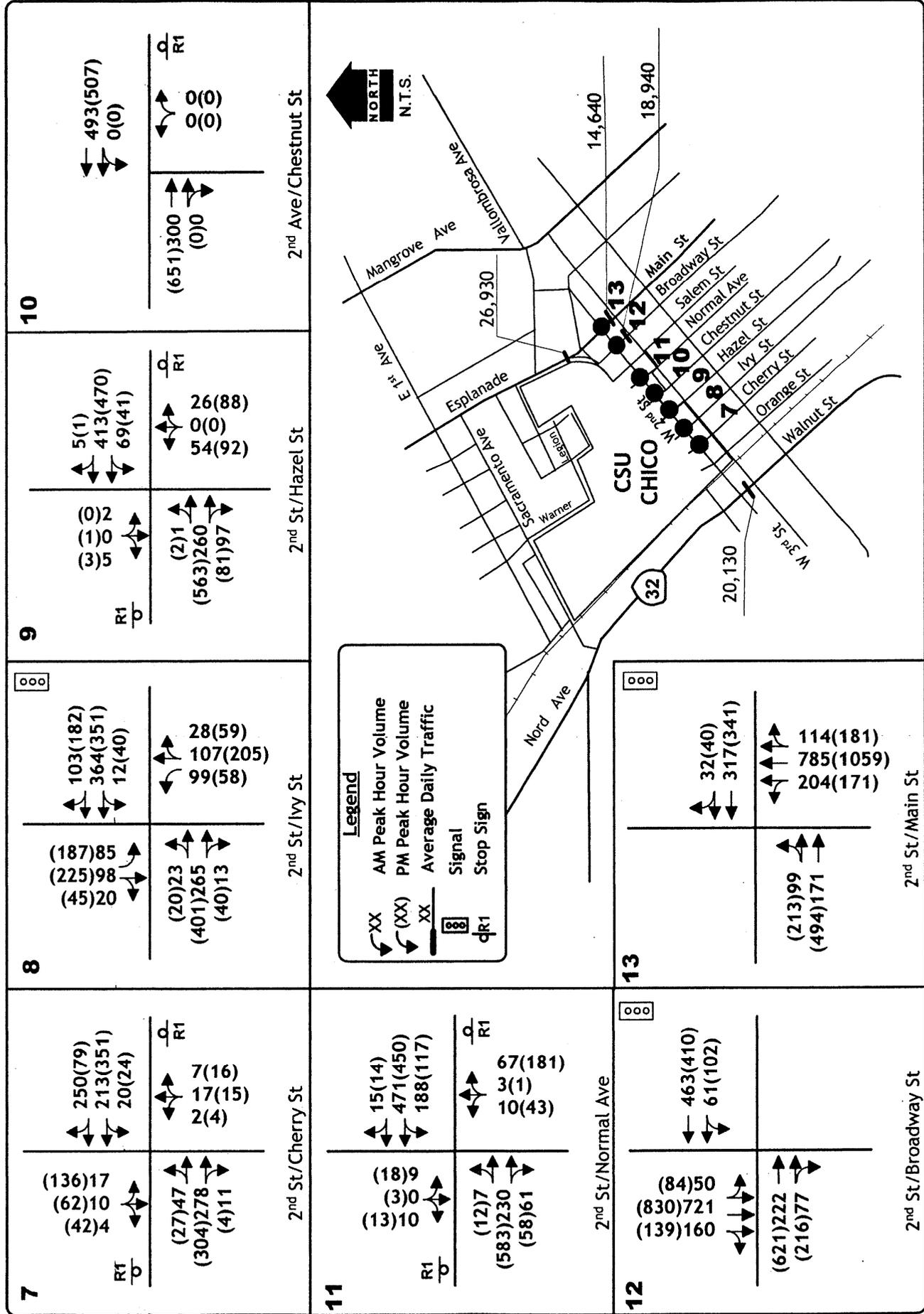
While implementation of the Master Plan will not immediately result in increased enrollment and additional traffic, for the purpose of this analysis an “existing plus project” scenario has been created assuming that all Master Plan changes were made and enrollment increased. “Existing Plus Project” traffic volumes are shown in Figures 4a-4c. The results of the Level of Service analysis for this scenario are shown in Table 7 and are further described in the following text.

Regular Operations. As indicated in Table 7, satisfactory traffic conditions (i.e., LOS D or better) are projected at most of the study intersections with and without implementation of the Master Plan. However, conditions in excess of LOS D are projected at one location.

At the **Nord Avenue (SR 32) / West Sacramento Avenue intersection** Level of Service F is projected during the p.m. peak hour with and without implementation of the Master Plan. This exceeds the City’s LOS D threshold. Review of the geometry of the intersection and of the closely spaced intersection to the north suggests that widening of SR 32 to provide a four lane section, and/or the development of dual left turn lanes would likely be needed to deliver LOS D or better conditions. Given the level of existing development in this area, such improvements may not be feasible. Although the City of Chico General Plan permits acceptance of LOS E at locations that are served by transit but no feasible mitigation exists, projected conditions at this location will be a significant impact.

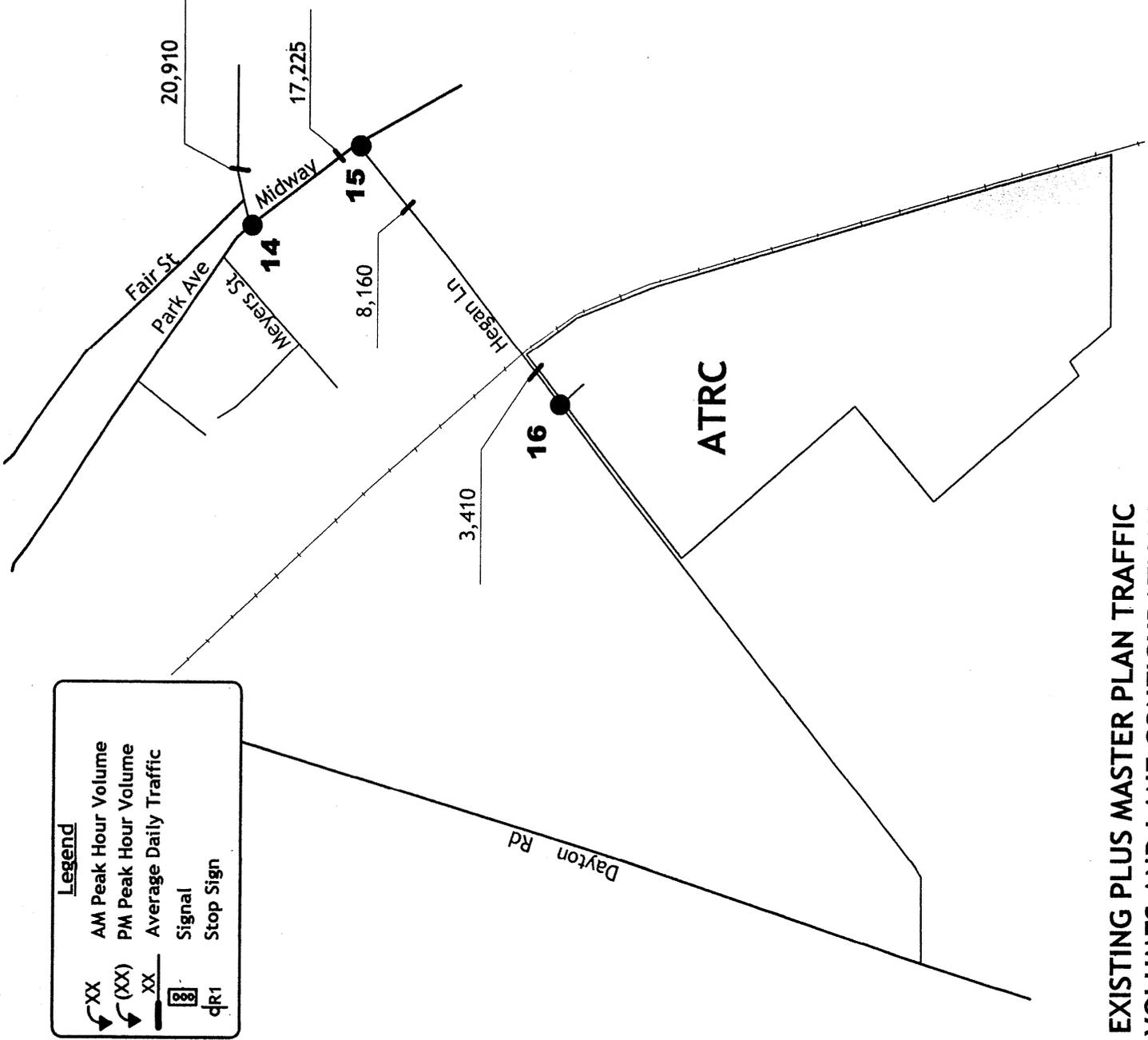


EXISTING PLUS MASTER PLAN TRAFFIC VOLUMES AND LANE CONFIGURATIONS



EXISTING PLUS MASTER PLAN TRAFFIC VOLUMES AND LANE CONFIGURATIONS

<p>14</p> <p>Legend: AM Peak Hour Volume (XX), PM Peak Hour Volume ((XX)), Average Daily Traffic (XX), Signal (oo), Stop Sign (dr1)</p> <p>Midway/Park Ave</p>	<p>15</p> <p>Hegan Ln/Midway</p>	<p>16</p> <p>Hegan Ln/East ARTC Access</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------	---------------------------------------------------



EXISTING PLUS MASTER PLAN TRAFFIC VOLUMES AND LANE CONFIGURATIONS

**TABLE 7
PEAK HOUR INTERSECTION LEVELS OF SERVICE
FOR EXISTING PLUS PROJECT SCENARIO**

Intersection	Control	A.M. Peak Hour						P.M. Peak Hour					
		Existing			Ex Plus Project			Existing			Ex Plus Project		
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS
1. Nord (SR 99) Avenue / Sacramento Street	Signal	35.3 sec	D	46.3 sec	D	85.9 sec	F	108.0 sec	F				
2. Sacramento Ave / Warner Avenue	Signal	27.5 sec	C	37.3 sec	D	36.4 sec	D	49.0 sec	D				
3. Esplanade / East 1 st Street	Signal	20.5 sec	C	23.6 sec	C	22.6 sec	C	24.2 sec	C				
4. Esplanade / Sacramento Street (overall) NB left EB approach	EB Stop	(4.1 sec) 18.0 sec 22.6 sec	(A)	(9.1 sec) 40.1 sec 38.9 sec	(A)	(3.6 sec) 18.2 sec 20.4 sec	(A)	(5.9 sec) 24.0 sec 32.4 sec	(A)				
5. Warner Avenue / Legion Avenue	Signal	9.5 sec	A	9.7 sec	A	8.2 sec	A	8.1 sec	A				
6. Walnut Avenue / West 2 nd Street	Signal	17.6 sec	B	17.9 sec	B	18.8 sec	B	19.1 sec	B				
7. West 2 nd Street / Cherry Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(1.8 sec) 8.3 sec 7.9 sec 16.9 sec 16.8 sec	(A)	(1.8 sec) 8.5 sec 7.9 sec 17.5 sec 17.3 sec	(A)	(12.2 sec) 8.3 sec 8.0 sec 15.6 sec 48.4 sec	(B)	(13.5 sec) 8.4 sec 8.0 sec 16.1 sec 55.6 sec	(B)				
8. West 2 nd Street / Warner Street / Ivy Street	Signal	11.8 sec	B	12.2 sec	B	13.7 sec	B	14.3 sec	B				
9. West 2 nd Street / Hazel Street (overall) EB left WB left NB approach SB approach	NB/SB Stop	(0.8 sec) 8.3 sec 8.0 sec 13.4 sec 11.7 sec	(A)	(2.4 sec) 8.4 sec 8.4 sec 19.4 sec 13.0 sec	(A)	(0.9 sec) 8.5 sec 8.9 sec 15.7 sec 14.3 sec	(A)	(6.1 sec) 8.5 sec 9.2 sec 43.1 sec 15.1 sec	(A)				

KDA

TABLE 7 (Cont'd)
PEAK HOUR INTERSECTION LEVELS OF SERVICE
FOR EXISTING PLUS PROJECT SCENARIO

Intersection	Control	A.M. Peak Hour				P.M. Peak Hour			
		Existing		Ex Plus Project		Existing		Ex Plus Project	
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS
10. West 2 nd Street / Chestnut Street (overall) WB left NB approach	NB Stop	(1.3 sec)	(A)	Not applicable	(A)	(2.0 sec)	(A)	Not applicable	(A)
		8.1 sec				9.0 sec			
		13.0 sec				19.4 sec			
11. West 2 nd Street / Normal Avenue (overall) EB left turn WB left turn NB approach SB approach	NB/SB Stop	(1.2 sec)	(A)	(2.9 sec)	(A)	(1.8 sec)	(A)	(7.4 sec)	(A)
		8.3 sec		8.4 sec		8.5 sec		8.5 sec	
		7.9 sec		8.4 sec		9.1 sec		9.7 sec	
		11.3 sec		13.3 sec		19.3 sec		38.3 sec	
		13.6 sec		20.7 sec		21.5 sec		37.2 sec	
12. West 2 nd Street / Broadway	Signal	13.5 sec	B	14.3 sec	B	14.7 sec	B	15.3 sec	B
13. West 2 nd Street / Main Street	Signal	12.8 sec	B	12.9 sec	B	15.5 sec	B	16.9 sec	B
14. Midway / Park Avenue	Signal	31.4 sec	C	34.7 sec	C	31.8 sec	C	35.7 sec	D
15. Midway / Hegan Lane	Signal	16.5 sec	B	16.5 sec	B	22.2 sec	C	22.9 sec	C
16. Hegan Lane / East ATRC Access (overall) WB left turn NB approach	NB Stop	(1.9 sec)	(A)	(2.4 sec)	(A)	(1.0 sec)	(A)	(1.6 sec)	(A)
		7.7 sec		7.7 sec		7.5 sec		7.5 sec	
		9.7 sec		9.6 sec		9.5 sec		9.5 sec	

KDA

Special Events at the ATRC. As noted earlier, the ATRC is planned to host special events. These events could be held at various times during the year and could result in traffic entering and exiting the site at various times during the day. As a worst case, an “Existing Plus Special Event” scenario was evaluated assuming full occupancy of the events center and traffic exiting after an event during the p.m. peak hour. This scenario assumes the trip generation presented earlier in Table 4 and the distribution pattern shown in Table 8.

**TABLE 8
SPECIAL EVENT TRIP DISTRIBUTION**

Route	Percent of Total Trips
North via Park Avenue	20%
East via Park Avenue	60%
South via Midway	10%
West via Hegan Road	10%
Total	100%

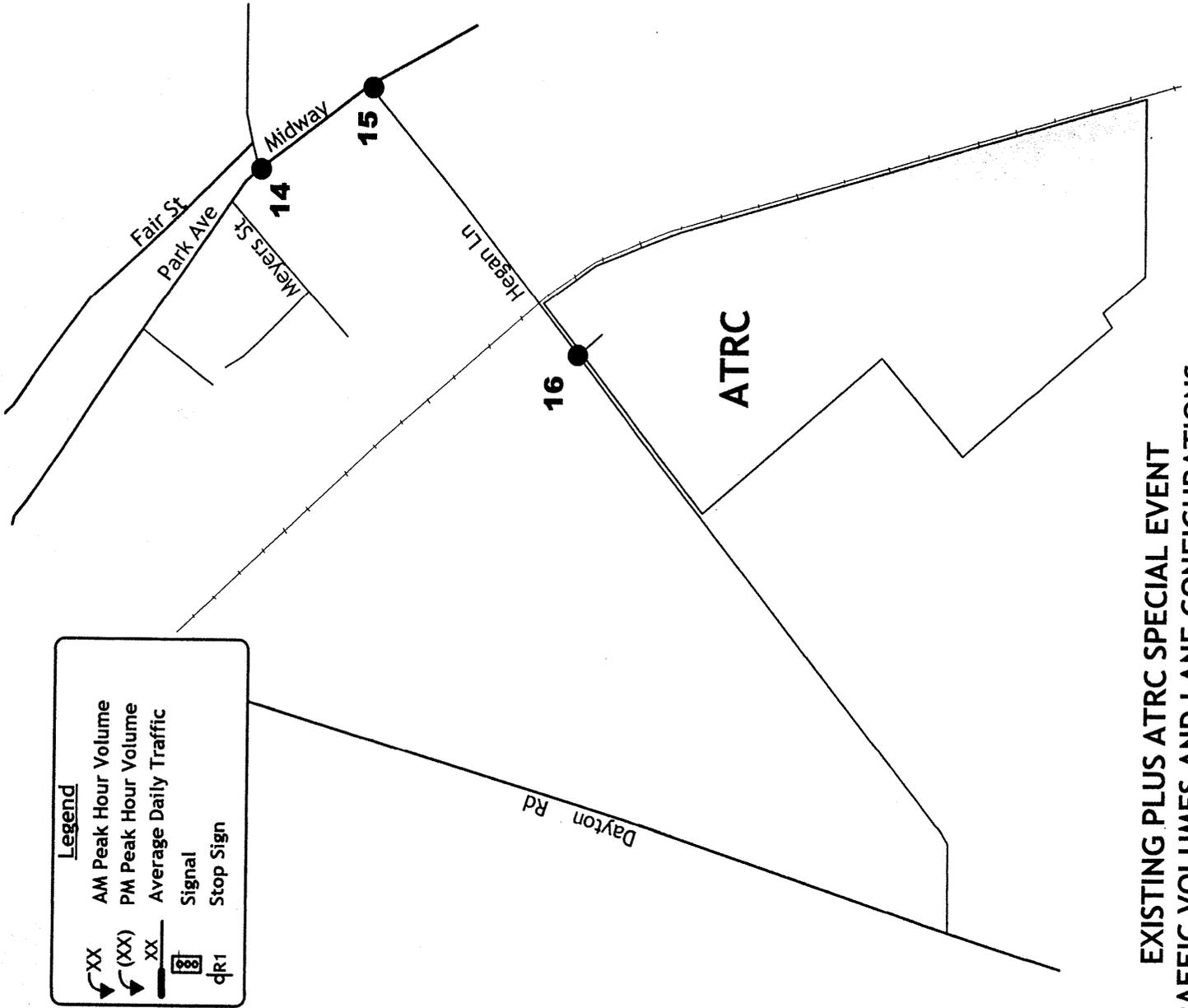
Resulting p.m. peak hour volumes are presented in Figure 5, and Table 9 presents “Existing Plus Special Event” p.m. peak hour Levels of Service at the study intersections near the ATRC. As shown, under these assumptions The Midway / Hegan Lane intersection is likely to operate at LOS F, as is the ATRC access onto Hegan Lane. The Midway / Park Avenue intersection is projected to operate at LOS E.

Measures to improve Level of Service at these locations have been considered. Temporary manual traffic controls would be needed at the ATRC access to deliver LOS D or better conditions during the p.m. peak hour with full occupancy. Widening the Hegan Lane / Midway intersection to accommodate dual eastbound left turn lanes would be needed to deliver LOS D or better conditions at that location. Alternatively, reducing the size of an event ending during the p.m. peak hour would also improve conditions. Traffic following a 50% capacity event during the p.m. peak hour would result in LOS E. While a 32% capacity event would result in LOS D. At the Midway / Park Avenue intersection a 50% capacity event would result in LOS D.

**TABLE 9
EXISTING PLUS ATRC SPECIAL EVENT
PEAK HOUR INTERSECTION LEVELS OF SERVICE**

Intersection	Control	P.M. Peak Hour			
		Existing		Existing Plus Special Events	
		Average Delay	LOS	Average Delay	LOS
14. Midway / Park Avenue	Signal	31.8 sec	C	56.6 sec	E
15. Midway / Hegan Lane	Signal	22.2 sec	B	227.0 sec	F
16. Hegan Lane / East ATRC Access (overall)	NB Stop	(1.0 sec)	(A)	(119.4 sec)	(F)
WB left turn		7.5 sec		7.7 sec	
NB approach		9.5 sec		166.4 sec	

KDA



Legend

- AM Peak Hour Volume
- PM Peak Hour Volume
- Average Daily Traffic
- Signal
- Stop Sign

<p>14</p> <p style="text-align: center;">Midway/Park Ave</p>	<p>15</p> <p style="text-align: center;">Hegon Ln/Midway</p>	<p>16</p> <p style="text-align: center;">Hegon Ln/East ARTC Access</p>

**EXISTING PLUS ATRC SPECIAL EVENT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS**

Other Impacts

Parking Impacts. Implementation of the Master Plan would result in an increase in the demand for on-campus parking and the concurrent increase in the number of parking spaces that will be provided.

The increase in parking demand associated with increased enrollment can be suggested based on current utilization. Assuming that the current enrollment of 16,000 students results in 1,896 occupied parking spaces (2,143 spaces @ 88% occupancy), then adding another 4,000 students will result in another 474 vehicles to be parked on the site, or a total of about 2,370 vehicles.

This simple relationship does not, however, address spill-over parking in the downtown area. The *Executive Summary – Draft California State University, Chico Parking Needs Study (2004)* suggests that about 305 downtown spaces may be occupied by overflow parking. This would increase the demand to 2,675 spaces. Assuming that this demand is to be accommodated on-campus and that the resulting demand / supply ration should be less than “fully utilized” (i.e., 0.80), then a total of 3,344 on-campus spaces would be needed.

The Master Plan indicates that on-campus parking will be provided. The net increase in on-campus parking is 1,430 spaces. This would increase the on-site total to about 3,570 spaces.

Parking will also be required at the ATRC to accommodate crowds associated with the Events Center. Assuming standard automobile occupancy rates, up to 1,000 parking spaces may be needed to accommodate a 2,500 person event.

Transit Impacts. Increasing the enrollment under the Master Plan would incrementally increase the demand for transit services in the area of the campus and in the Chico area as a whole. Assuming a proportionate increase in transit ridership as enrollment increases, current student ridership estimated at 250,000 annual and 1,000 daily riders could increase to 312,500 annual and 1,250 daily riders. Because the area is well served by existing transit routes, the incremental increase in ridership would not be expected to result in the need for new routes, however, increased ridership may eventually result in the need for additional capacity in terms of decreased headways during peak periods. Providing additional capacity along existing routes may require additional equipment / personnel and increased operational costs, although the extent of these additional needs is unknown.

Pedestrian / Bicycle Impacts. Implementation of the Master Plan with a concurrent increase in enrollment would increase the number of persons walking or riding bicycles to the campus. In turn, this may result in additional automobile / pedestrian / bicycle conflicts on the streets adjoining the campus, as well as the demand for additional bicycle parking. The Master Plan provides the opportunity to relocate and/or reconfigure bicycle-parking areas as part of the site development for new projects.

SUMMARY OF IMPACTS AND MITIGATIONS

Impact: Generation of vehicle trips due to increased enrollment and the development of parking structures will increase traffic on the adjacent street system

Most of the street system as it exists however today has the capacity to absorb the traffic generated by increased enrollment at CSU-Chico. The Level of Service at the Nord Avenue (SR 32) / West Sacramento Avenue intersection is projected to continue to be LOS F. While the Chico General Plan permits acceptance of LOS E if no feasible mitigation is apparent exacerbation of LOS F conditions at this location is a significant impact.

Impact: Implementation of the Master Plan will result increased demand for on-campus parking

Increased enrollment associated with the Master Plan will increase the demand for on-campus parking. However, because concurrent expansion of the on-site parking supply is planned, this is not a significant impact.

Impact: Pedestrian / Bicycle Activity near the Campus could create conflicts with Automobiles.

The CSU-Campus's location adjoining the downtown Chico area will result in increased pedestrian and bicycle traffic between the school, adjoining neighborhoods and the balance of the community as the master Plan is developed. For example, students /staff will use 2nd Avenue when making use of the new parking structure. In those locations where the pedestrian / bicycle traffic is concentrated, safety problems could result.

Mitigation Measures

1. Pedestrian / Bicycle activity shall be addressed in the design of new parking facilities. Traffic controls devices needed to ensure crossing safety shall be provided as new facilities are developed.

Level of Significance

These mitigation measures will reduce this impact to a less than significant level.

Impact: Special Events at the ATRC will generate vehicle trips and parked cars

The events center included in the ATRC will generate automobile traffic before and after events. An at-capacity event ending during the p.m. peak hour has the potential to result in LOS F conditions at The Midway / Hegan Lane intersection and at the ATRC access onto Hegan Lane. Full occupancy of the Events Center may result in the need to park up to 1,000 vehicles at the site. This is a significant impact.

Mitigation Measures

- (1) When the Events Center is constructed, the on-site parking supply should be considered and if the proposed supply fails to satisfy projected demands on-site, then a parking management plan should be created. The plan will delineate the location of and access to the on-site and off-site parking supply that will be made available when events are held at the stadium. If appropriate, the plan should link maximum ticket sales or the number of seats constructed to the number of parking spaces available near the stadium. If necessary, the parking management plan could incorporate other features to help reduce the demand for on site parking, including shuttle busses from satellite parking locations, etc.
- (2) An operational plan shall be developed for the Events Center which schedules travel to and from large events outside of peak commute hours. The plan shall identify the size and schedule of events that necessitate manual traffic controls at affected intersections, as well as maximum attendance for events ending during the p.m. peak hour.
- (3) When the Events Center is constructed, improvements shall be made to the ATRC's Hegan Lane access intersections to provide left turn lanes on Hegan lane and to provide adequate throat depth on exiting lanes.

Level of Significance

These mitigation measures will reduce this impact to a less than significant level.

Impact: Implementation of the Master Plan will Increase the Demand for CATS in the area of the Campus.

Increased enrollment associated with implementation of the Master Plan will result in additional demands on CATS which may result in the need for expanded service along existing routes that serve the campus (i.e., Student Shuttle). While the extent of additional service needed to accommodate increased enrollment is unknown, potential increases in CATS operational costs represent a significant impact.

Mitigation Measures

CSU shall continue to work with CATS to subsidize student transit ridership. Should the need for expanded service on the "Student Shuttle" routes be identified, CSU shall work with CATS to develop an equitable funding mechanism.

Level of Significance

These mitigation measures will reduce this impact to a less than significant level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Analysis of Cumulative Scenarios

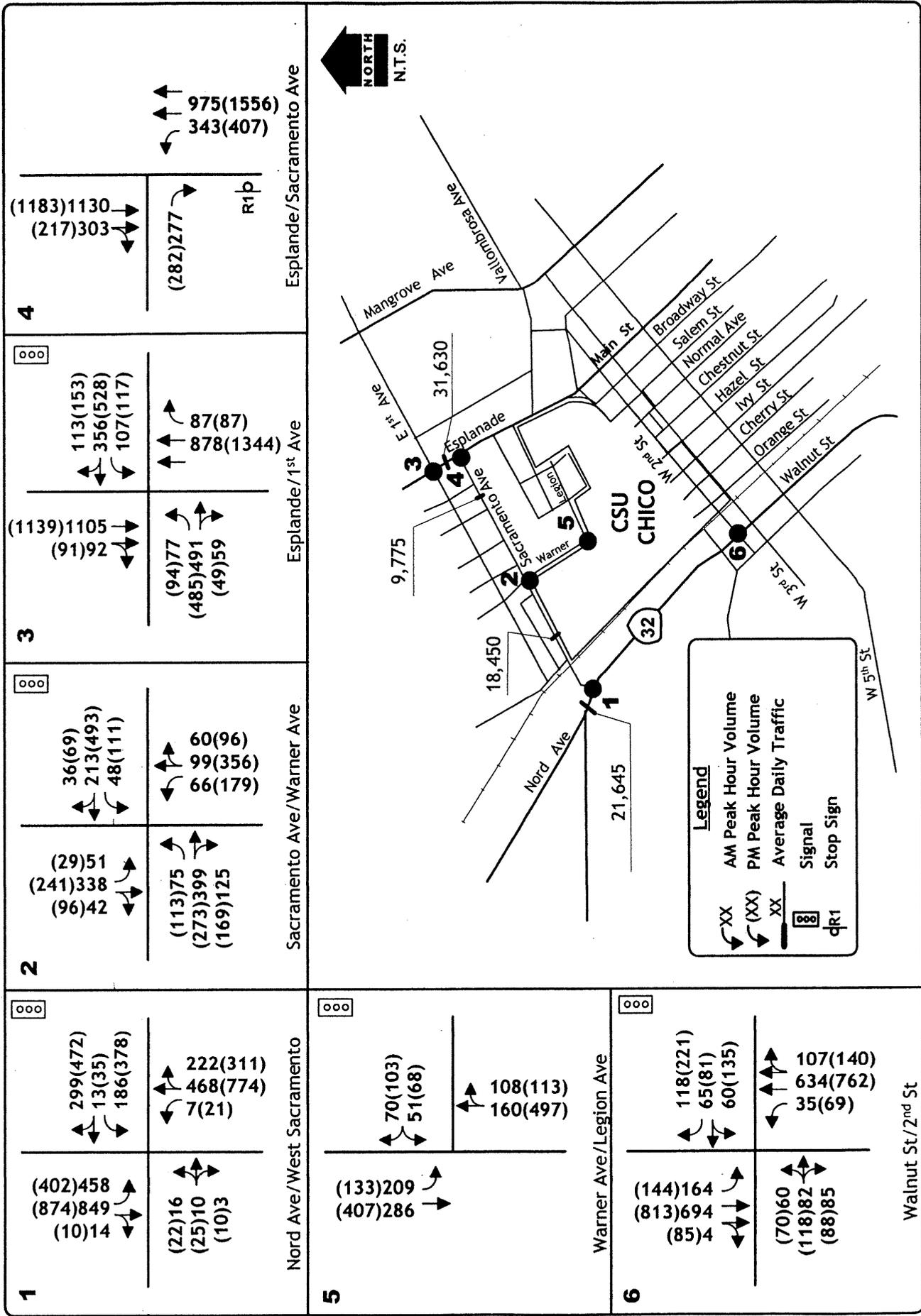
Background Traffic Volumes. To evaluate the impacts of the Master Plan on traffic conditions in the project area in the future two additional scenarios were created and compared: Year 2025 With and Without Master Plan. Year 2025 Without Project conditions assume continuation of the existing Master Plan and an enrollment of 16,000. Year 2025 With Project conditions assume increased enrollment to 20,000 and the development of anticipated parking supplies.

Year 2025 Without Project traffic volume projections were developed based on information derived from the City of Chico regional travel demand forecasting model. The current model was reviewed to identify campus characteristics and the student population / trip generation was adjusted to reflect continuation of current conditions (i.e., 16,000 students). Peak hour segment traffic volume forecasts were made for this scenario and were compared to the baseline model forecast in order to identify the amount of growth that can be anticipated.

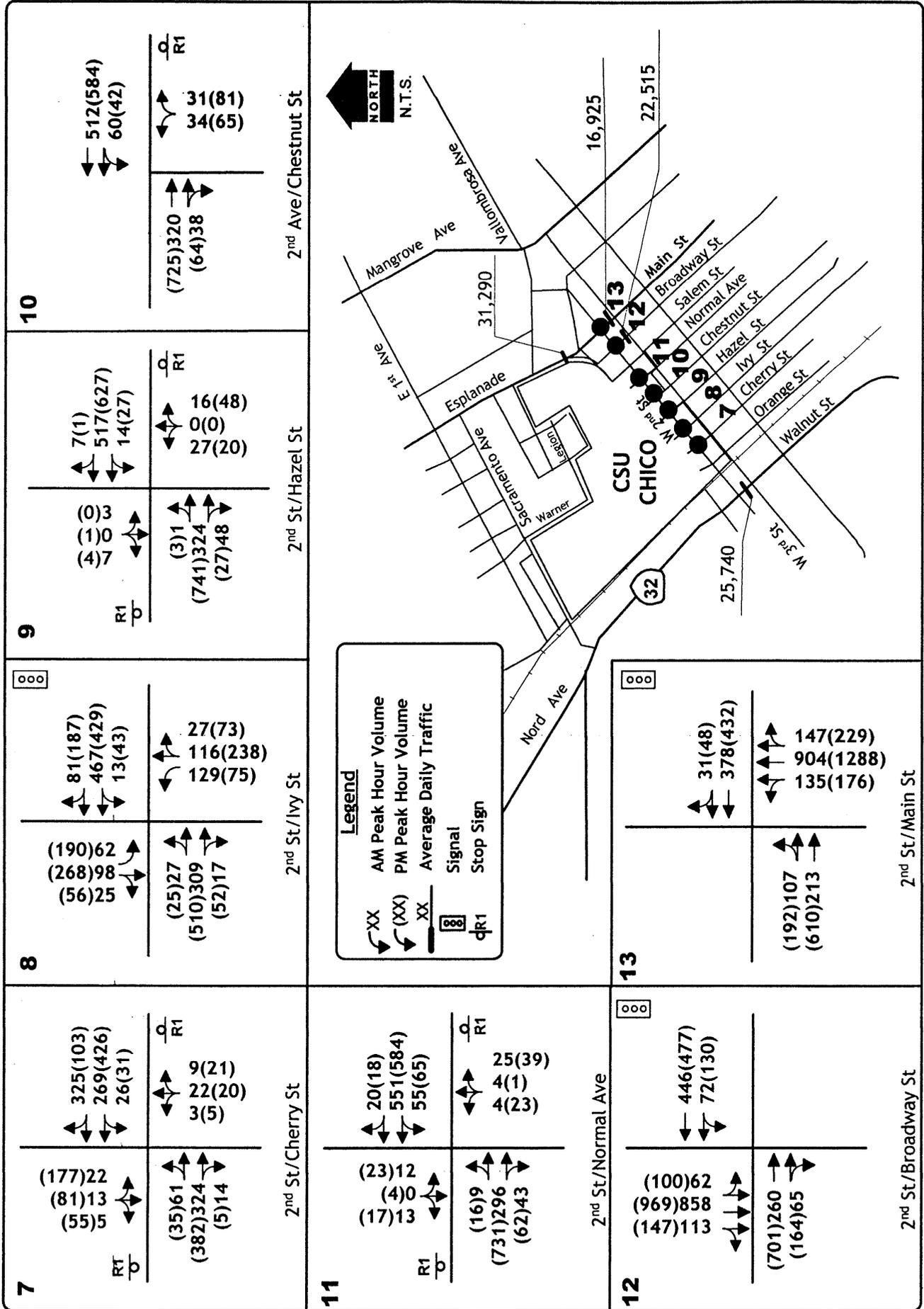
Review of these forecasts revealed that background volumes in the areas near the CSU-Chico campus can be expected to increase by 30% by the year 2025. Slightly different relationships were discovered in the area of the Park Avenue / Midway intersection. At this location traffic on Park Avenue east of Midway was projected to increase by about 15%, while the volume on Midway south of Parkway Avenue was shown to increase by 60%.

These growth rates were applied to current peak hour and daily traffic volumes to create the Year 2025 Base conditions shown in Figures 6a-6c. Thus, it was again necessary to interpolate mid afternoon traffic volumes. Projected Cumulative Base traffic volumes are presented in Figure 6a-6c.

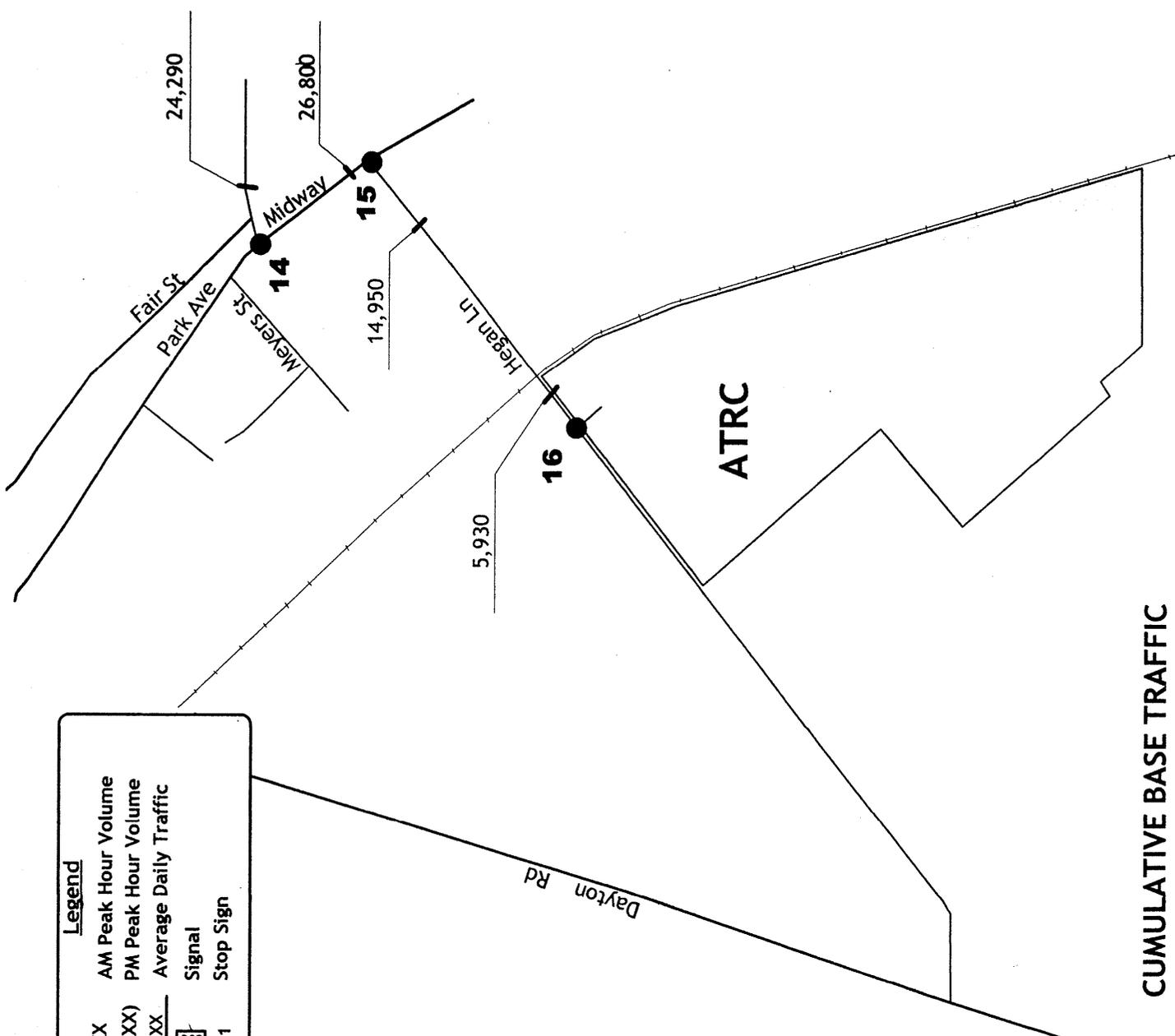
Plus Project Volumes. Project trips were superimposed onto the Year 2025 baseline to create the Year 2025 Plus Project scenarios. Resulting volumes are presented in Figure 7a-7C and in Table 10.



CUMULATIVE BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS



CUMULATIVE BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS



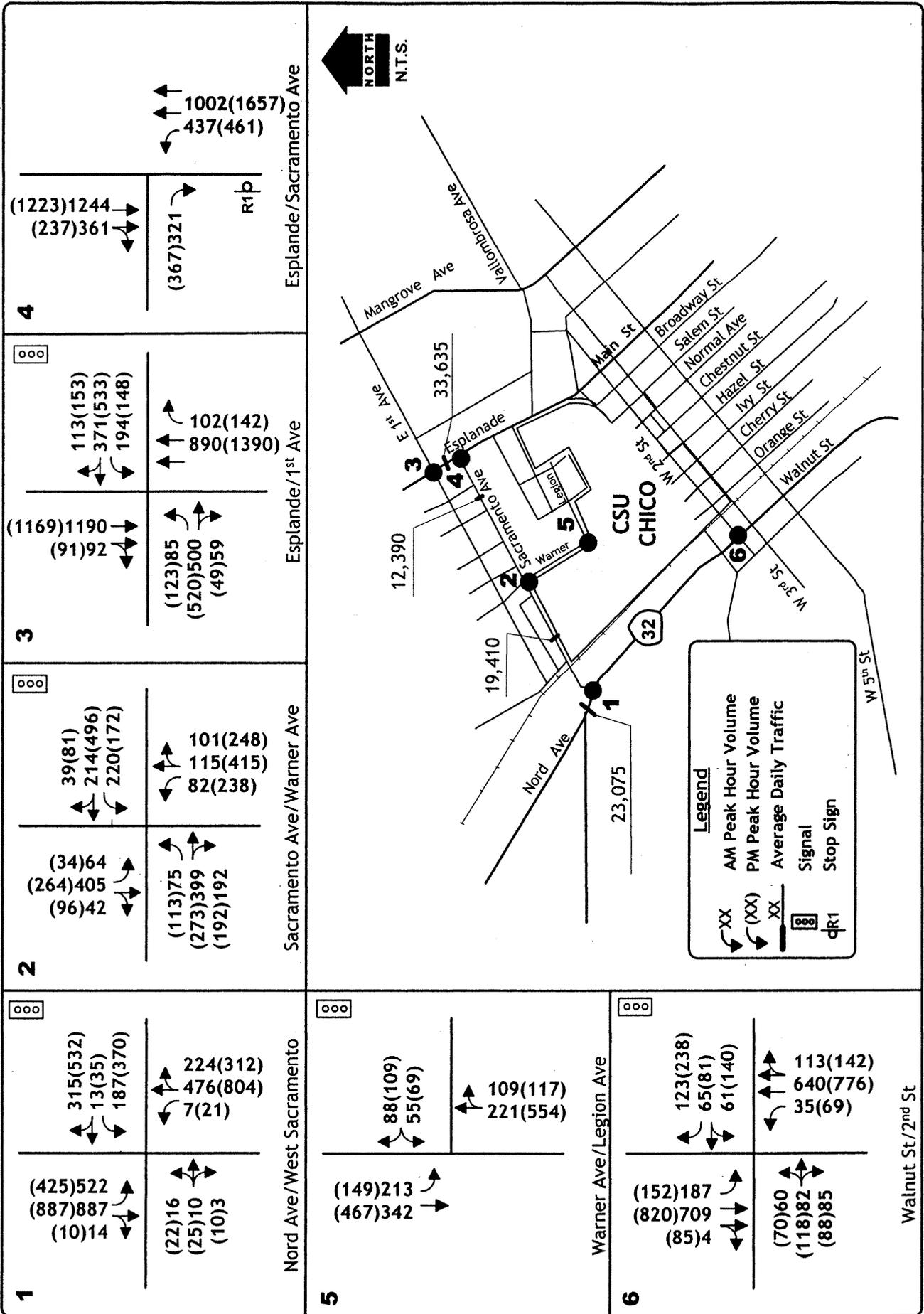
Legend

- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume
- XX Average Daily Traffic
- Signal
- Stop Sign

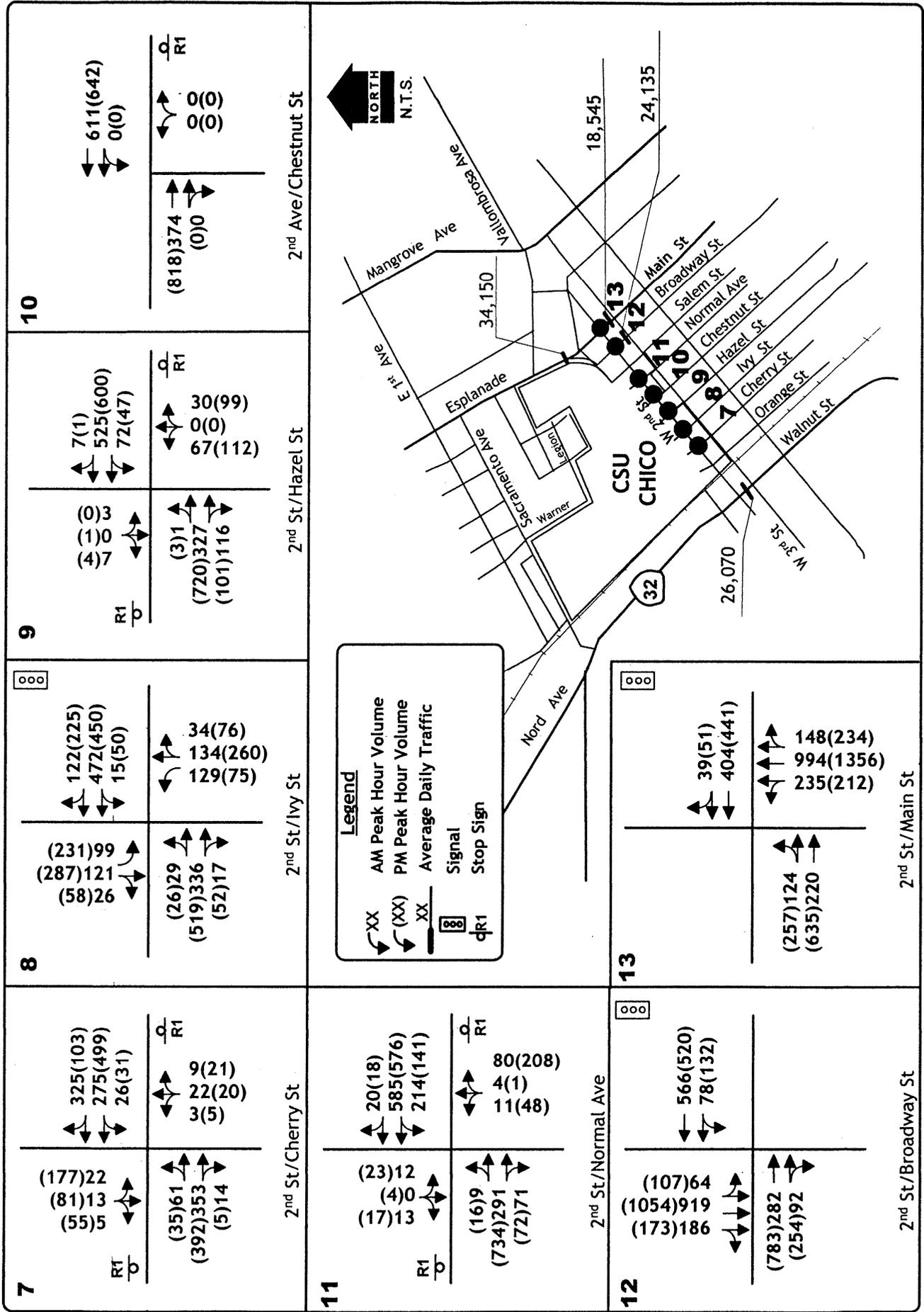
<p>14</p> <p>ooo</p> <table border="1"> <tr> <td style="text-align: center;"> <p>341(361)</p> <p>0(2)</p> <p>574(562)</p> </td> <td style="text-align: center;"> <p>609(806)</p> <p>415(454)</p> <p>1(0)</p> </td> </tr> <tr> <td style="text-align: center;"> <p>(452)285</p> <p>(394)374</p> <p>(1)2</p> </td> <td style="text-align: center;"> <p>(2)2</p> <p>(0)0</p> <p>(0)2</p> </td> </tr> </table> <p>Midway/Park Ave</p>	<p>341(361)</p> <p>0(2)</p> <p>574(562)</p>	<p>609(806)</p> <p>415(454)</p> <p>1(0)</p>	<p>(452)285</p> <p>(394)374</p> <p>(1)2</p>	<p>(2)2</p> <p>(0)0</p> <p>(0)2</p>	<p>15</p> <p>ooo</p> <table border="1"> <tr> <td style="text-align: center;"> <p>6(16)</p> <p>6(0)</p> <p>0(0)</p> </td> <td style="text-align: center;"> <p>0(2)</p> <p>712(598)</p> <p>93(30)</p> </td> </tr> <tr> <td style="text-align: center;"> <p>(8)18</p> <p>(653)510</p> <p>(458)579</p> </td> <td style="text-align: center;"> <p>(666)323</p> <p>(0)8</p> <p>(61)46</p> </td> </tr> </table> <p>Midway/Hegan Ln</p>	<p>6(16)</p> <p>6(0)</p> <p>0(0)</p>	<p>0(2)</p> <p>712(598)</p> <p>93(30)</p>	<p>(8)18</p> <p>(653)510</p> <p>(458)579</p>	<p>(666)323</p> <p>(0)8</p> <p>(61)46</p>	<p>16</p> <table border="1"> <tr> <td style="text-align: center;"> <p>167(321)</p> <p>66(7)</p> </td> <td style="text-align: center;"> <p>0 R1</p> <p>6(24)</p> <p>3(8)</p> </td> </tr> <tr> <td style="text-align: center;"> <p>(258)222</p> <p>(1)27</p> </td> <td></td> </tr> </table> <p>Hegan Ln/Midway</p> <p>Hegan Ln/East ARTC Access</p>	<p>167(321)</p> <p>66(7)</p>	<p>0 R1</p> <p>6(24)</p> <p>3(8)</p>	<p>(258)222</p> <p>(1)27</p>	
<p>341(361)</p> <p>0(2)</p> <p>574(562)</p>	<p>609(806)</p> <p>415(454)</p> <p>1(0)</p>													
<p>(452)285</p> <p>(394)374</p> <p>(1)2</p>	<p>(2)2</p> <p>(0)0</p> <p>(0)2</p>													
<p>6(16)</p> <p>6(0)</p> <p>0(0)</p>	<p>0(2)</p> <p>712(598)</p> <p>93(30)</p>													
<p>(8)18</p> <p>(653)510</p> <p>(458)579</p>	<p>(666)323</p> <p>(0)8</p> <p>(61)46</p>													
<p>167(321)</p> <p>66(7)</p>	<p>0 R1</p> <p>6(24)</p> <p>3(8)</p>													
<p>(258)222</p> <p>(1)27</p>														

KD Anderson
Transportation Engineers

CUMULATIVE BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS

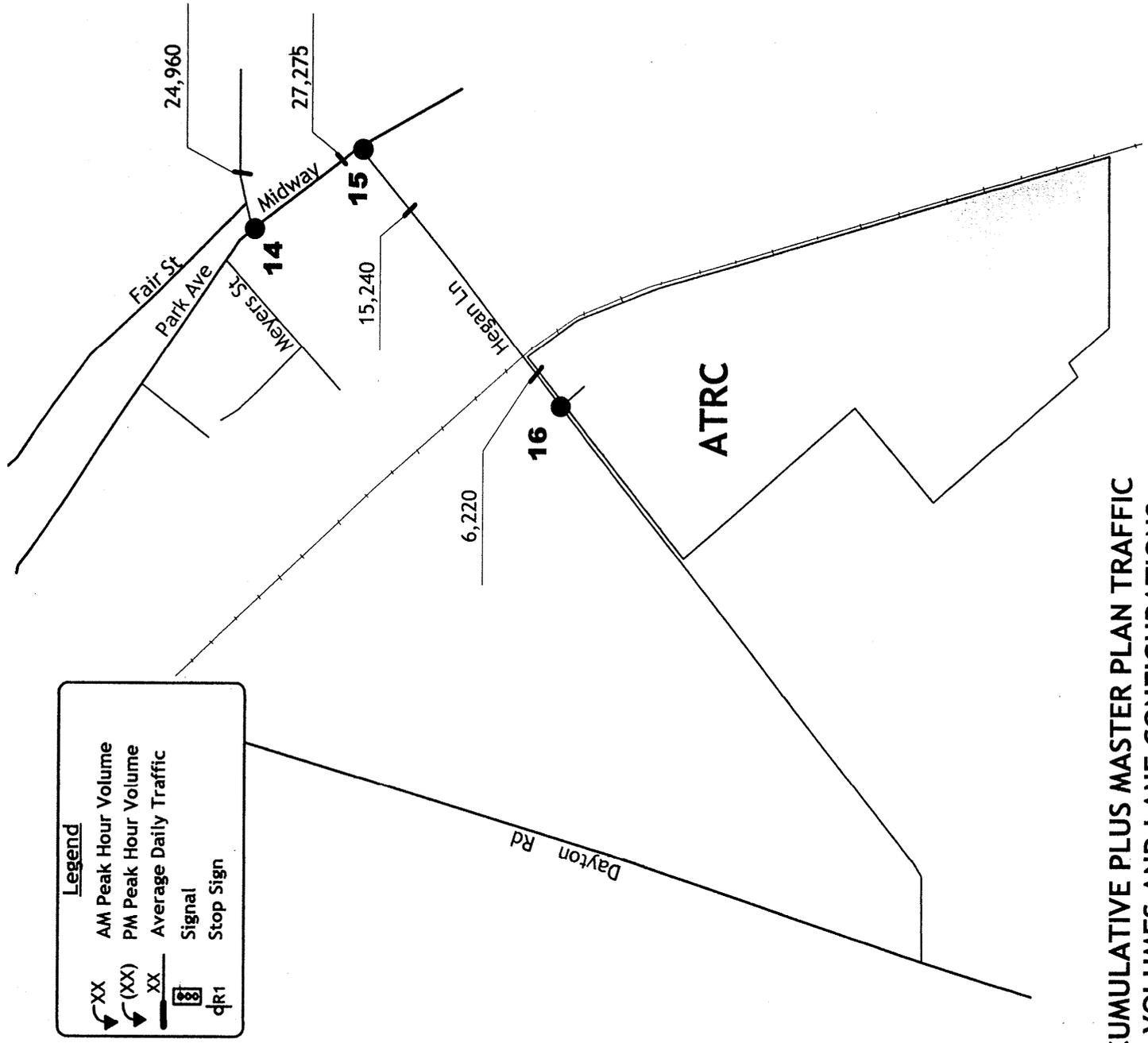


CUMULATIVE PLUS BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS



CUMULATIVE PLUS MASTER PLAN TRAFFIC VOLUMES AND LANE CONFIGURATIONS

<p>14</p> <p>Legend: AM Peak Hour Volume, PM Peak Hour Volume, Average Daily Traffic, Signal, Stop Sign</p> <p>Midway/Park Ave</p>	<p>15</p> <p>Hegan Ln/Midway</p>	<p>16</p> <p>Hegan Ln/East ARTC Access</p>
-------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------	---------------------------------------------------



CUMULATIVE PLUS MASTER PLAN TRAFFIC VOLUMES AND LANE CONFIGURATIONS

**TABLE 10
YEAR 2025 DAILY TRAFFIC VOLUMES**

Street	Location		Classification	2004	Daily Volume	
	From	To			Base	2025
						Plus Master Plan
Nord Avenue	West Sacramento Ave	East Sacramento Ave	Arterial	16,650	21,645	23,075
Sacramento Avenue	Nord Avenue	Warner Avenue	Minor Arterial	14,190	18,450	19,410
Esplanade	Warner Avenue	Esplanade	Minor Arterial	7,520	9,775	12,390
	East 1 st Ave	Sacramento Ave	Arterial	24,330	31,630	33,635
Walnut Street	Vallombrosa Ave	West 1 st Street	Arterial	24,070	31,290	34,150
	West 1 st Street	West 2 nd Street	Arterial	19,800	25,740	26,070
Broadway	West 2 nd Street	West 3 rd Street	Arterial	17,320	22,515	24,135
	West 2 nd Street	West 3 rd Street	Arterial	13,020	16,925	18,545
Park Avenue	Midway	SR 99	Arterial	20,240	24,290	24,960
Midway	Park Avenue	Hegan Lane	Minor Arterial	16,750	26,800	27,275
	Dayton Road	Railroad	Collector	3,120	5,930	6,220
Hegan Lane	Railroad	Midway	Collector	7,870	14,950	15,240

KDA

Cumulative (Year 2025) Levels of Service

Year 2025 peak hour Levels of Service Without and With the Master Plan are shown in Table 11. As shown, Levels of Service in excess of the City's LOS D standard are forecast at the following five intersections.

The **Nord Avenue (SR 32) / West Sacramento Avenue intersection** is projected to operate at LOS F whether the Master Plan is implemented or not. To reduce the length of delays at this location it would be necessary to widen the northbound Nord Avenue approach to provide a second northbound and southbound through lanes. This improvement would only deliver LOS F conditions during the p.m. peak hour with implementation of the Master Plan. Previous traffic studies in this area have suggested that improvements to deliver LOS E or better conditions are not likely to be feasible due to existing development in this area.

The **2nd Street / Cherry Street intersection** is projected to operate at LOS F whether the Master Plan is implemented or not. A traffic signal would be required to deliver LOS D or better conditions.

The **2nd Street / Normal Street intersection** is projected to operate at LOS E if the Master Plan is implemented. This Level of Service is closely associated with development of a parking structure in the area of the 2nd Street / Chestnut Street intersection. While development of a traffic signal would deliver acceptable Level of Service, the need for a traffic signal is closely linked to decisions regarding the location and nature of access to the parking structure. Additional analysis of traffic conditions will be needed as the plans for the parking structure are developed.

The **Midway / Park Avenue intersection** is projected to operate at LOS F whether the Master Plan is developed or not. To deliver LOS D or better conditions it will be necessary to widen the intersection to provide dual southbound left turn lanes and a separate through+right turn lane.

The **Midway / Hegan Lane intersection** is projected to operate at LOS E whether the Master Plan is implemented or not. To deliver LOS D or better conditions it would be necessary to widen the eastbound Hegan Lane approach to provide a second left turn lane. It would also be necessary to widen northbound Midway north of the intersection to receive the second left turn lane.

TABLE 11
PEAK HOUR INTERSECTION LEVELS OF SERVICE
FOR YEAR 2025 SCENARIOS

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour				
		2025 Base		2025 Plus Project	2025 Base		2025 Plus Project		
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS		
1. Nord Avenue / Sacramento Street	Signal	97.6 sec	F	118.2 sec	F	195.8 sec	F	222.3 sec	F
2. Sacramento Ave / Warner Avenue	Signal	31.4 sec	C	50.3 sec	D	37.6 sec	D	50.4 sec	D
3. Esplanade / East 1 st Street	Signal	27.0 sec	C	35.6 sec	D	34.7 sec	C	40.7 sec	D
4. Esplanade / Sacramento Street (overall)	EB Stop	(13.4 sec)	(A)	(46.8 sec)	(E)	(10.4 sec)	(B)	(24.7 sec)	(C)
NB left		61.7 sec		231.6 sec		47.8 sec		115.0 sec	
EB approach		70.0 sec		175.2 sec		60.0 sec		121.0 sec	
5. Warner Avenue / Legion Avenue	Signal	10.7 sec	B	11.1 sec	B	9.6 sec	A	9.7 sec	A
6. Walnut Avenue / West 2 nd Street	Signal	19.6 sec	B	20.1 sec	C	22.8 sec	C	23.4 sec	C
7. West 2 nd Street / Cherry Street (overall)	NB/SB Stop	(2.6 sec)	(A)	(2.6 sec)	(A)	(66.0 sec)	(F)	(72.3 sec)	(F)
EB left		9.3 sec		9.3 sec		8.8 sec		8.9 sec	
WB left		8.2 sec		8.3 sec		8.3 sec		8.3 sec	
NB approach		27.6 sec		29.1 sec		21.6 sec		22.5 sec	
SB approach		28.0 sec		29.5 sec		278.6 sec		313.3 sec	
8. West 2 nd Street / Warner Street / Ivy Street	Signal	12.2 sec	B	12.6 sec	B	14.9 sec	B	15.9 sec	B
9. West 2 nd Street / Hazel Street (overall)	NB/SB Stop	(1.0 sec)	(A)	(3.0 sec)	(A)	(1.3 sec)	(A)	(24.6 sec)	(C)
EB left		8.7 sec		8.7 sec		9.0 sec		8.9 sec	
WB left		8.3 sec		8.7 sec		9.7 sec		10.1 sec	
NB approach		16.2 sec		28.3 sec		22.3 sec		194.2 sec	
SB approach		13.3 sec		14.9 sec		18.4 sec		19.5 sec	

KDA

TABLE 11 (Cont'd)
PEAK HOUR INTERSECTION LEVELS OF SERVICE
FOR YEAR 2025 SCENARIOS

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour				
		2025 Base		2025 Plus Project	2025 Base		2025 Plus Project		
		Average Delay	LOS	Average Delay	LOS	Average Delay	LOS		
West 2 nd Street / Chestnut Street (overall) WB left NB approach	NB Stop	(1.6 sec)	(A)	Not applicable	(A)	(3.7 sec)	(A)	Not applicable	
		8.4 sec				9.9 sec			
		15.8 sec				36.7 sec			
West 2 nd Street / Normal Avenue (overall) EB left turn WB left turn NB approach SB approach	NB/SB Stop	(1.4 sec)	(A)	(A)	(A)	(2.9 sec)	(A)	(28.0 sec)	
		8.9 sec				9.1 sec		8.9 sec	
		8.3 sec				9.0 sec		10.8 sec	
		13.6 sec				18.9 sec		177.7 sec	
		18.7 sec				38.7 sec		104.8 sec	
12. West 2 nd Street / Broadway	Signal	14.4 sec	B	15.3 sec	B	16.9 sec	B	18.5 sec	B
13. West 2 nd Street / Main Street	Signal	13.7 sec	B	14.1 sec	B	20.9 sec	B	26.1 sec	C
14. Midway / Park Avenue	Signal	82.7 sec	F	97.6 sec	F	104.0 sec	F	121.8 sec	F
15. Midway / Hegan Lane	Signal	29.7 sec	C	31.6 sec	C	67.1 sec	E	74.8 sec	E
16. Hegan Lane / East ATRC Access (overall) WB left turn NB approach	NB Stop	(1.3 sec)	(A)	(A)	(A)	(0.6 sec)	(A)	(1.0 sec)	
		8.0 sec				8.0 sec		7.8 sec	
		10.8 sec				10.6 sec		10.7 sec	

KDA

Impact: Cumulative development in the study area by the Year 2025 will generate traffic on the planned street system

Background growth and Master Plan implementation will result in conditions in excess of City of Chico standards at five intersections. These include **Nord Avenue (SR 32) / West Sacramento Avenue, 2nd Street / Cherry Avenue, 2nd Street / Normal Street, Midway / Park Avenue, and Midway / Hegan Avenue.**

Mitigation Measures

The following mitigation measures would be needed but are not feasible.

- 1) When plans for the 2nd Street parking structure proceed, CSU-Chico shall prepare a supplemental traffic study addressing site access and local circulation impacts. The study will address the need for signalization of adjoining intersections, including **2nd Street / Normal Street**. The study shall also consider the issue of bicycle access along this portion of 2nd Street, and applicable traffic control measures shall be included in the design of the project. However, because CSU-Chico cannot participate in the cost of off-site improvements this impact is significant and unavoidable.
- 2) Future traffic conditions at the **2nd Street / Cherry Street** intersection shall be monitored by CSU-Chico and the City of Chico. However / If a traffic signal is found to be warranted, CSU-Chico cannot contribute to the cost of this improvement, and resulting impacts are significant and unavoidable.
- 3) Impact at **Nord Avenue (SR 32) / West Sacramento Avenue** is considered to be significant and unavoidable.
- 4) Widening the **Midway / Park Avenue** intersection to provide dual southbound left turn lanes and a separate northbound through lane is needed. Because CSU-Chico cannot contribute, this impact is significant and unavoidable.
- 5) Widening the **Midway / Hegan Lane** intersection to accommodate dual eastbound left turn lanes is needed. However, because CSU-Chico cannot participate, this impact remains significant.

Level of Significance

Because identified mitigation measures may not be feasible and CSU-Chico cannot participate, this impact remains significant and unavoidable.

APPENDIX

KDA

EXISTING CONDITIONS
5600-37 CSU-MASTER PLAN EIR

Scenario Report

Scenario: daily
Command: Default Command
Volume: none
Geometry: existing
Impact Fee: Default Impact Fee
Trip Generation: am peak
Trip Distribution: current
Paths: Default Paths
Routes: Default Routes
Configuration: Default Configuration

 EXISTING CONDITIONS
 5600-37 CSU-MASTER PLAN EIR

Trip Generation Report

Forecast for daily

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1940.00	students	1.19	1.19	2309	2309	4618	48.5
	Zone 1 Subtotal					2309	2309	4618	48.5
2		1935.00	students	1.19	1.19	2303	2303	4606	48.4
	Zone 2 Subtotal					2303	2303	4606	48.4
3		125.00	students	1.19	1.19	149	149	298	3.1
	Zone 3 Subtotal					149	149	298	3.1
TOTAL						4761	4761	9522	100.0

EXISTING CONDITIONS
5600-37 CSU-MASTER PLAN EIR

Trip Distribution Report

Percent Of Trips current

Zone	To Gates									
	1	2	3	4	5	6	7	8	9	10
1	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
2	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
3	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0

 EXISTING CONDITIONS
 5600-37 CSU-MASTER PLAN EIR

Link Volume Report
 daily

Volume Type	NB Link			SB Link			EB Link			WB Link			Total Volume
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
#1 Nord Ave / West Sacramento Ave													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	259	281	540	714	714	1428	0	0	0	489	467	956	2924
Total	259	281	540	714	714	1428	0	0	0	489	467	956	2924
#2 Sacramento Ave / Warner Ave													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	2140	2140	4280	558	558	1116	467	489	956	1319	1297	2616	8968
Total	2140	2140	4280	558	558	1116	467	489	956	1319	1297	2616	8968
#3 Esplanade / 1st Avenue													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	801	1205	2006	595	595	1190	508	104	612	714	714	1428	5236
Total	801	1205	2006	595	595	1190	508	104	612	714	714	1428	5236
#4 Esplanade / Sacramento Ave													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	1596	1573	3169	1205	801	2006	772	1199	1971	0	0	0	7146
Total	1596	1573	3169	1205	801	2006	772	1199	1971	0	0	0	7146
#5 Warner Ave / Legion Avenue													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	692	692	1384	790	790	1580	0	0	0	156	156	312	3276
Total	692	692	1384	790	790	1580	0	0	0	156	156	312	3276
#6 Walnut Avenue / 2nd Street													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	164	164	328	282	259	541	0	0	0	181	204	385	1254
Total	164	164	328	282	259	541	0	0	0	181	204	385	1254
#7 2nd Avenue / Cherry St													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	204	181	385	181	204	385	770
Total	0	0	0	0	0	0	204	181	385	181	204	385	770
#8 2nd Street / Ivy Street / Warner Ave													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	283	283	566	692	692	1384	203	181	384	660	682	1342	3676
Total	283	283	566	692	692	1384	203	181	384	660	682	1342	3676
#9 2nd Street / Hazel St													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	622	622	1244	0	0	0	683	660	1343	850	873	1723	4310
Total	622	622	1244	0	0	0	683	660	1343	850	873	1723	4310

 EXISTING CONDITIONS
 5600-37 CSU-MASTER PLAN EIR

Volume Type	NB Link			SB Link			EB Link			WB Link			Total Volume
	In	Out	Total										
#10 2nd Street / Chestnut St													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	872	850	1722	850	872	1722	3444
Total	0	0	0	0	0	0	872	850	1722	850	872	1722	3444
#11 2nd Street / Normal Ave													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	899	899	1798	0	0	0	873	850	1723	1357	1380	2737	6258
Total	899	899	1798	0	0	0	873	850	1723	1357	1380	2737	6258
#12 2nd Street / Broadway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	1619	1619	1418	0	1418	1380	1357	2737	887	709	1596	7370
Total	0	1619	1619	1418	0	1418	1380	1357	2737	887	709	1596	7370
#13 2nd Street / Main Street													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	1619	0	1619	0	1440	1440	708	887	1595	238	238	476	5130
Total	1619	0	1619	0	1440	1440	708	887	1595	238	238	476	5130
#14 Park Avenue / Midway													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	369	369	738	682	682	1364	0	0	0	333	333	666	2768
Total	369	369	738	682	682	1364	0	0	0	333	333	666	2768
#15 Midway / Hegan Lane													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	238	238	476	370	370	740	146	146	292	0	0	0	1508
Total	238	238	476	370	370	740	146	146	292	0	0	0	1508
#16 Hegan lane / ARTC Access													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	149	149	298	0	0	0	2	2	4	147	147	294	596
Total	149	149	298	0	0	0	2	2	4	147	147	294	596

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Scenario Report

Scenario: ex am
Command: Default Command
Volume: ex am
Geometry: existing
Impact Fee: Default Impact Fee
Trip Generation: am peak
Trip Distribution: current
Paths: Default Paths
Routes: Default Routes
Configuration: Default Configuration

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Trip Generation Report

Forecast for am peak

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1940.00	students	0.17	0.04	330	78	408	48.6
	Zone 1 Subtotal					330	78	408	48.6
2		1935.00	students	0.17	0.04	329	77	406	48.3
	Zone 2 Subtotal					329	77	406	48.3
3		125.00	students	0.17	0.04	21	5	26	3.1
	Zone 3 Subtotal					21	5	26	3.1
TOTAL						680	160	840	100.0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Trip Distribution Report

Percent Of Trips current

Zone	To Gates									
	1	2	3	4	5	6	7	8	9	10
1	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
2	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
3	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Turning Movement Report
 am peak

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Nord Ave / West Sacramento Ave													
Base	5	360	171	352	653	11	12	8	2	143	10	230	1957
Added	0	8	2	64	38	0	0	0	0	1	0	16	129
Total	5	368	173	416	691	11	12	8	2	144	10	246	2086
#2 Sacramento Ave / Warner Ave													
Base	51	76	46	39	260	32	58	307	96	37	164	28	1194
Added	16	16	41	13	67	0	0	0	67	172	1	3	396
Total	67	92	87	52	327	32	58	307	163	209	165	31	1590
#3 Esplanade / 1st Avenue													
Base	0	675	67	0	850	71	59	378	45	82	274	87	2588
Added	0	12	15	0	85	0	8	9	0	87	15	0	231
Total	0	687	82	0	935	71	67	387	45	169	289	87	2819
#4 Esplanade / Sacramento Ave													
Base	264	750	0	0	869	233	0	0	213	0	0	0	2329
Added	94	27	0	0	114	58	0	0	44	0	0	0	337
Total	358	777	0	0	983	291	0	0	257	0	0	0	2666
#5 Warner Ave / Legion Avenue													
Base	0	123	83	161	220	0	0	0	0	39	0	54	680
Added	0	61	1	4	56	0	0	0	0	4	0	18	144
Total	0	184	84	165	276	0	0	0	0	43	0	72	824
#6 Walnut Avenue / 2nd Street													
Base	27	488	82	126	534	3	46	63	65	46	50	91	1621
Added	0	6	6	23	15	0	0	0	0	1	0	5	56
Total	27	494	88	149	549	3	46	63	65	47	50	96	1677
#7 2nd Avenue / Cherry St													
Base	2	17	7	17	10	4	47	249	11	20	207	250	841
Added	0	0	0	0	0	0	0	29	0	0	6	0	35
Total	2	17	7	17	10	4	47	278	11	20	213	250	876
#8 2nd Street / Ivy Street / Warner Ave													
Base	99	89	21	48	75	19	21	238	13	10	359	62	1054
Added	0	18	7	37	23	1	2	27	0	2	5	41	163
Total	99	107	28	85	98	20	23	265	13	12	364	103	1217
#9 2nd Street / Hazel St													
Base	21	0	12	2	0	5	1	249	37	11	398	5	741
Added	7	0	14	0	0	0	0	40	31	58	41	0	191
PassBy	26	0	0	0	0	0	0	-29	29	0	-26	0	0
Total	54	0	26	2	0	5	1	260	97	69	413	5	932

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 2nd Street / Chestnut St													
Base	26	0	24	0	0	0	0	246	29	46	394	0	765
Added	0	0	0	0	0	0	0	54	0	0	99	0	153
PassBy	-26	0	-24	0	0	0	0	0	-29	-46	0	0	-125
Total	0	0	0	0	0	0	0	300	0	0	493	0	793
#11 2nd Street / Normal Ave													
Base	3	3	19	9	0	10	7	228	33	42	424	15	793
Added	7	0	24	0	0	0	0	26	28	100	93	0	278
PassBy	0	0	24	0	0	0	0	-24	0	46	-46	0	0
Total	10	3	67	9	0	10	7	230	61	188	471	15	1071
#12 2nd Street / Broadway													
Base	0	0	0	48	660	87	0	200	50	55	343	0	1443
Added	0	0	0	2	61	73	0	22	27	6	120	0	311
Total	0	0	0	50	721	160	0	222	77	61	463	0	1754
#13 2nd Street / Main Street													
Base	104	695	113	0	0	0	82	164	0	0	291	24	1473
Added	100	90	1	0	0	0	17	7	0	0	26	8	249
Total	204	785	114	0	0	0	99	171	0	0	317	32	1722
#14 Park Avenue / Midway													
Base	1	244	406	259	220	2	2	0	2	478	0	310	1924
Added	0	37	0	11	26	0	0	0	0	1	0	46	121
Total	1	281	406	270	246	2	2	0	2	479	0	356	2045
#15 Midway / Hegan Lane													
Base	39	445	0	11	319	362	202	4	24	0	4	4	1414
Added	1	33	0	0	8	20	5	0	0	0	0	0	67
Total	40	478	0	11	327	382	207	4	24	0	4	4	1481
#16 Hegan lane / ARTC Access													
Base	3	0	6	0	0	0	0	117	27	66	88	0	307
Added	0	0	5	0	0	0	0	0	0	21	0	0	26
Total	3	0	11	0	0	0	0	117	27	87	88	0	333

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 1 Nord Ave / West Sacramento Ave	D	35.3	0.923	D	46.3	0.997	+11.008 D/V
# 2 Sacramento Ave / Warner Ave	C	27.5	0.537	D	37.3	0.764	+ 9.817 D/V
# 3 Esplanade / 1st Avenue	C	20.5	0.663	C	23.6	0.759	+ 3.070 D/V
# 4 Esplanade / Sacramento Ave	C	22.6	0.000	E	40.1	0.000	+17.480 D/V
# 5 Warner Ave / Legion Avenue	A	9.5	0.219	A	9.7	0.279	+ 0.256 D/V
# 6 Walnut Avenue / 2nd Street	B	17.6	0.481	B	17.9	0.504	+ 0.338 D/V
# 7 2nd Avenue / Cherry St	C	16.9	0.000	C	17.5	0.000	+ 0.602 D/V
# 8 2nd Street / Ivy Street / Warn	B	11.8	0.259	B	12.2	0.286	+ 0.413 D/V
# 9 2nd Street / Hazel St	B	13.4	0.000	C	19.4	0.000	+ 6.075 D/V
# 10 2nd Street / Chestnut St	B	13.0	0.000	A	9.1	0.000	-3.905 D/V
# 11 2nd Street / Normal Ave	B	13.6	0.000	C	20.7	0.000	+ 7.128 D/V
# 12 2nd Street / Broadway	B	13.5	0.349	B	14.3	0.437	+ 0.763 D/V
# 13 2nd Street / Main Street	B	12.8	0.337	B	12.9	0.402	+ 0.122 D/V
# 14 Park Avenue / Midway	C	31.4	0.781	C	34.7	0.830	+ 3.301 D/V
# 15 Midway / Hegan Lane	B	16.5	0.521	B	16.5	0.549	-0.007 D/V
# 16 Hegan lane / ARTC Access	A	9.7	0.000	A	9.6	0.000	-0.119 D/V

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Nord Ave / West Sacramento Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.923
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 35.3
Optimal Cycle: 103 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for traffic volume and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:
Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 12 columns for capacity analysis and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Nord Ave / West Sacramento Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.997
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 46.3
Optimal Cycle: 162 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns representing different volume and adjustment factors.

Saturation Flow Module:
Table with 13 columns representing saturation flow and adjustment factors.

Capacity Analysis Module:
Table with 13 columns representing capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.537
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 27.5
Optimal Cycle: 43 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 51 76 46 39 260 32 58 307 96 37 164 28
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 51 76 46 39 260 32 58 307 96 37 164 28
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 57 84 51 43 289 36 64 341 107 41 182 31
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 57 84 51 43 289 36 64 341 107 41 182 31
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 57 84 51 43 289 36 64 341 107 41 182 31

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.95 0.98 0.98 0.95 0.96 0.96 0.95 0.98 0.98
Lanes: 1.00 0.62 0.38 1.00 0.89 0.11 1.00 0.76 0.24 1.00 0.85 0.15
Final Sat.: 1805 1116 676 1805 1665 205 1805 1395 436 1805 1587 271

Capacity Analysis Module:
Vol/Sat: 0.03 0.08 0.08 0.02 0.17 0.17 0.04 0.24 0.24 0.02 0.11 0.11
Crit Moves: **** **** **** ****
Green/Cycle: 0.06 0.29 0.29 0.09 0.32 0.32 0.12 0.46 0.46 0.04 0.38 0.38
Volume/Cap: 0.54 0.26 0.26 0.26 0.54 0.54 0.30 0.54 0.54 0.54 0.30 0.30
Delay/Veh: 51.1 27.5 27.5 43.1 28.6 28.6 41.1 20.3 20.3 54.2 22.0 22.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 51.1 27.5 27.5 43.1 28.6 28.6 41.1 20.3 20.3 54.2 22.0 22.0
HCM2kAvg: 3 3 3 2 8 8 2 10 10 2 5 5

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.764
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.3
Optimal Cycle: 70 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green (0 0 0), and Lanes (1 0 0 1 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns of volume data. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:
Table with 12 columns of saturation flow data. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 12 columns of capacity analysis data. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Esplanade / 1st Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.663
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 45 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 2 0 1 0 0 1 1 0 1 0 0 1 0

Volume Module:
Base Vol: 0 675 67 0 850 71 59 378 45 82 274 87
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 675 67 0 850 71 59 378 45 82 274 87
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 750 74 0 944 79 66 420 50 91 304 97
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 750 74 0 944 79 66 420 50 91 304 97
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 750 74 0 944 79 66 420 50 91 304 97

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 0.85 1.00 0.94 0.94 0.95 0.98 0.98 0.95 0.96 0.96
Lanes: 0.00 2.00 1.00 0.00 1.85 0.15 1.00 0.89 0.11 1.00 0.76 0.24
Final Sat.: 0 3610 1615 0 3292 275 1805 1671 199 1805 1390 441

Capacity Analysis Module:
Vol/Sat: 0.00 0.21 0.05 0.00 0.29 0.29 0.04 0.25 0.25 0.05 0.22 0.22
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.43 0.43 0.00 0.43 0.43 0.06 0.38 0.38 0.08 0.39 0.39
Volume/Cap: 0.00 0.48 0.11 0.00 0.66 0.66 0.56 0.66 0.66 0.66 0.56 0.56
Delay/Veh: 0.0 16.5 13.6 0.0 19.2 19.2 42.4 23.0 23.0 47.5 20.1 20.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 16.5 13.6 0.0 19.2 19.2 42.4 23.0 23.0 47.5 20.1 20.1
HCM2kAvg: 0 7 1 0 11 11 3 11 11 4 8 8

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Esplanade / 1st Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.759
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: 57 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green (0 0 0), and Lanes (0 0 2 0 1).

Volume Module: Table with 12 columns representing different volume categories. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module: Table with 12 columns. Rows include Sat/Lane (1900), Adjustment (1.00), Lanes (0.00), and Final Sat. (0 3610).

Capacity Analysis Module: Table with 12 columns. Rows include Vol/Sat (0.00), Crit Moves (****), Green/Cycle (0.00), Volume/Cap (0.00), Delay/Veh (0.0), User DelAdj (1.00), AdjDel/Veh (0.0), and HCM2kAvg (0 7 1).

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Esplanade / Sacramento Ave

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: C [22.6]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns for volume and growth factors.

Critical Gap Module: Table with 12 columns for critical gap and follow-up time.

Capacity Module: Table with 12 columns for capacity and volume/capacity ratios.

Level Of Service Module: Table with 12 columns for queue, delay, LOS, and approach delay/LOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Esplanade / Sacramento Ave

Average Delay (sec/veh): 9.1 Worst Case Level Of Service: E[40.1]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 2 0 0 0 0 1 1 0 0 0 0 0 1 0 0 0 0 0
Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 264 750 0 0 869 233 0 0 213 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 264 750 0 0 869 233 0 0 213 0 0 0
Added Vol: 94 27 0 0 114 58 0 0 44 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 358 777 0 0 983 291 0 0 257 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 398 863 0 0 1092 323 0 0 286 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 398 863 0 0 1092 323 0 0 286 0 0 0
Critical Gap Module:
Critical Gap: 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxx 6.9 xxxxxx xxxxx xxxxxx
FollowUpTim: 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxx 3.3 xxxxxx xxxxx xxxxxx
Capacity Module:
Cnflct Vol: 1416 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx 708 xxxxx xxxxx xxxxxx
Potent Cap.: 477 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx 377 xxxxx xxxxx xxxxxx
Move Cap.: 477 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx 377 xxxxx xxxxx xxxxxx
Volume/Cap: 0.83 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.76 xxxxx xxxxx xxxxx
Level Of Service Module:
Queue: 8.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx 6.1 xxxxxx xxxxx xxxxxx
Stopped Del: 40.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx 38.9 xxxxxx xxxxx xxxxxx
LOS by Move: E * * * * * * * * E * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Shrd StpDel: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shared LOS: * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx 38.9 xxxxxx
ApproachLOS: * * * * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.219
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 26 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted), Rights (Include), Min. Green (0 20 0), and Lanes (0 0 0 1 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for volume counts and adjustment factors (Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol).

Saturation Flow Module:
Table with 12 columns for saturation flow values (Sat/Lane, Adjustment, Lanes, Final Sat).

Capacity Analysis Module:
Table with 12 columns for capacity analysis metrics (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, HCM2kAvg).

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.279
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: 26 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted), Rights (Include), Min. Green (0 20 0), and Lanes (0 0 0 1 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns and 15 rows showing traffic volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:
Table with 12 columns and 4 rows showing saturation flow data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 12 columns and 8 rows showing capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.481
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 17.6
Optimal Cycle: 32 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns representing different traffic movements and 10 rows of volume-related metrics.

Saturation Flow Module:
Table with 13 columns representing different traffic movements and 5 rows of saturation flow metrics.

Capacity Analysis Module:
Table with 13 columns representing different traffic movements and 10 rows of capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.504
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 17.9
Optimal Cycle: 34 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns representing different volume categories and 13 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:
Table with 13 columns representing saturation flow values and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 13 columns representing capacity analysis metrics and 10 rows of data including Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 2nd Avenue / Cherry St

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[16.9]

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module:
Table with columns for Critical Gp, FollowUpTim.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:
Table with columns for Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 2nd Avenue / Cherry St

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[17.5]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for volume counts and 12 rows for various volume metrics like Base Vol, Growth Adj, etc.

Critical Gap Module:
Table with 12 columns for gap metrics and 3 rows for Critical Gp, FollowUpTim, etc.

Capacity Module:
Table with 12 columns for capacity metrics and 4 rows for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:
Table with 12 columns for LOS metrics and 10 rows for Queue, Stopped Del, LOS by Move, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.259
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 19 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns and 10 rows showing traffic volume and adjustment factors.

Saturation Flow Module:
Table with 12 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module:
Table with 12 columns and 8 rows showing capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.286
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 20 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted), Rights (Include), Min. Green (0), and Lanes (1 0 0 1 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:
Table with 13 columns of saturation flow data including Sat/Lane (1900), Adjustment (0.58), Lanes (1.00), and Final Sat. (1111).

Capacity Analysis Module:
Table with 13 columns of capacity analysis data including Vol/Sat (0.10), Crit Moves (****), Green/Cycle (0.35), Volume/Cap (0.29), Delay/Veh (19.4), User DelAdj (1.00), AdjDel/Veh (19.4), and HCM2kAvg (3).

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[13.4]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for volume counts and adjustment factors (Base Vol, Growth Adj, etc.).

Critical Gap Module:
Table with 12 columns for critical gap and follow-up time values.

Capacity Module:
Table with 12 columns for capacity-related metrics (Cnflct Vol, Potent Cap., etc.).

Level Of Service Module:
Table with 12 columns for LOS metrics (Queue, Stopped Del, LOS by Move, etc.).

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: C[19.4]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 21 0 12 2 0 5 1 249 37 11 398 5
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 21 0 12 2 0 5 1 249 37 11 398 5
Added Vol: 7 0 14 0 0 0 0 40 31 58 41 0
PasserByVol: 26 0 0 0 0 0 0 -29 29 0 -26 0
Initial Fut: 54 0 26 2 0 5 1 260 97 69 413 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 60 0 29 2 0 6 1 289 108 77 459 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 60 0 29 2 0 6 1 289 108 77 459 6

Critical Gap Module:
Critical Gp: 7.5 xxxx 6.9 7.5 xxxx 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 xxxx 3.3 3.5 xxxx 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 768 xxxx 238 802 xxxx 272 484 xxxx xxxxx 417 xxxx xxxxx
Potent Cap.: 295 xxxx 769 279 xxxx 732 1089 xxxx xxxxx 1153 xxxx xxxxx
Move Cap.: 267 xxxx 744 245 xxxx 707 1071 xxxx xxxxx 1134 xxxx xxxxx
Volume/Cap: 0.22 xxxx 0.04 0.01 xxxx 0.01 0.00 xxxx xxxx 0.07 xxxx xxxx

Level Of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx 0.2 xxxx xxxxx
Stopped Del: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.4 xxxx xxxxx 8.4 xxxx xxxxx
LOS by Move: * * * * * A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 338 xxxxx xxxx 459 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue: xxxxx 1.0 xxxxx xxxxx 0.1 xxxxx 0.0 xxxx xxxxx 0.2 xxxx xxxxx
Shrd StpDel: xxxxx 19.4 xxxxx xxxxx 13.0 xxxxx 8.4 xxxx xxxxx 8.4 xxxx xxxxx
Shared LOS: * C * * B * A * * A * *
ApproachDel: 19.4 13.0 xxxxxxx xxxxxxx
ApproachLOS: C B * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[13.0]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 26 0 24 0 0 0 0 0 246 29 46 394 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 26 0 24 0 0 0 0 0 246 29 46 394 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 29 0 27 0 0 0 0 0 273 32 51 438 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 29 0 27 0 0 0 0 0 273 32 51 438 0

Critical Gap Module:
Critical Gp: 6.8 xxxx 6.9 xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 651 xxxx 193 xxxx xxxx xxxxx xxxx xxxx xxxxx 326 xxxx xxxxx
Potent Cap.: 406 xxxx 822 xxxx xxxx xxxxx xxxx xxxx xxxxx 1245 xxxx xxxxx
Move Cap.: 380 xxxx 795 xxxx xxxx xxxxx xxxx xxxx xxxxx 1225 xxxx xxxxx
Volume/Cap: 0.08 xxxx 0.03 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.04 xxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.1 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.1 xxxx xxxxx
LOS by Move: * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 507 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.4 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.1 xxxx xxxxx
Shrd StpDel:xxxxx 13.0 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.1 xxxx xxxxx
Shared LOS: * B * * * * * * * * A * *
ApproachDel: 13.0 xxxxxx xxxxxx
ApproachLOS: B * * xxxxxx

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[9.1]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 26 0 24 0 0 0 0 0 246 29 46 394 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 26 0 24 0 0 0 0 0 246 29 46 394 0
Added Vol: 0 0 0 0 0 0 0 0 54 0 0 99 0
PasserByVol: -26 0 -24 0 0 0 0 0 0 -29 -46 0 0
Initial Fut: 0 0 0 0 0 0 0 0 300 0 0 493 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 0 0 0 0 0 333 0 0 548 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 0 0 0 0 0 333 0 0 548 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Level Of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 9.1 xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx
ApproachLOS: * * * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 2nd Street / Normal Ave

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: B[13.6]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for volume counts and 4 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module:
Table with 12 columns for gap values and 2 rows for Critical Gp and FollowUpTim.

Capacity Module:
Table with 12 columns for capacity values and 4 rows for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:
Table with 12 columns for LOS values and 10 rows for Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 2nd Street / Normal Ave

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: C[20.7]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 3 3 19 9 0 10 7 228 33 42 424 15
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 3 3 19 9 0 10 7 228 33 42 424 15
Added Vol: 7 0 24 0 0 0 0 26 28 100 93 0
PasserByVol: 0 0 24 0 0 0 0 -24 0 46 -46 0
Initial Fut: 10 3 67 9 0 10 7 230 61 188 471 15
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 10 3 67 9 0 10 7 230 61 188 471 15
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 10 3 67 9 0 10 7 230 61 188 471 15
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 xxxx 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 xxxx 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 926 1177 186 1025 xxxx 283 506 xxxx xxxxx 311 xxxx xxxxx
Potent Cap.: 227 193 831 192 xxxx 720 1069 xxxx xxxxx 1261 xxxx xxxxx
Move Cap.: 187 153 804 145 xxxx 696 1051 xxxx xxxxx 1240 xxxx xxxxx
Volume/Cap: 0.05 0.02 0.08 0.06 xxxx 0.01 0.01 xxxx xxxx 0.15 xxxx xxxx

Level Of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx 0.5 xxxx xxxxx
Stopped Del: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.4 xxxx xxxxx 8.4 xxxx xxxxx
LOS by Move: * * * * * A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 511 xxxxx xxxx 249 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue: xxxxx 0.6 xxxxx xxxxx 0.2 xxxxx 0.0 xxxx xxxxx 0.5 xxxx xxxxx
Shrd StpDel: xxxxx 13.3 xxxxx xxxxx 20.7 xxxxx 8.4 xxxx xxxxx 8.4 xxxx xxxxx
Shared LOS: * B * * C * A * * A * *
ApproachDel: 13.3 20.7 xxxxxxx xxxxxxx
ApproachLOS: B C * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 2nd Street / Broadway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.349
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 13.5
Optimal Cycle: 46 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 20 0 0 20 0 0 20 0
Lanes: 0 0 0 0 0 0 1 1 1 0 0 0 1 1 0 0

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 0 0 0 48 660 87 0 200 50 55 343 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 48 660 87 0 200 50 55 343 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 53 733 97 0 222 56 61 381 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 53 733 97 0 222 56 61 381 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 53 733 97 0 222 56 61 381 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.90 0.89 0.81 0.81 1.00
Lanes: 0.00 0.00 0.00 0.18 2.49 0.33 0.00 1.60 0.40 0.28 1.72 0.00
Final Sat.: 0 0 0 297 4086 539 0 2737 684 425 2651 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.18 0.18 0.18 0.00 0.08 0.08 0.14 0.14 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.51 0.51 0.51 0.00 0.41 0.41 0.41 0.41 0.00
Volume/Cap: 0.00 0.00 0.00 0.35 0.35 0.35 0.00 0.20 0.20 0.35 0.35 0.00
Delay/Veh: 0.0 0.0 0.0 11.6 11.6 11.6 0.0 15.2 15.2 16.4 16.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 11.6 11.6 11.6 0.0 15.2 15.2 16.4 16.4 0.0
HCM2kAvg: 0 0 0 4 4 4 0 2 2 4 4 0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 2nd Street / Broadway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.437
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 46 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase, Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns representing different traffic movements and 12 rows of volume-related metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:
Table with 12 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 12 columns and 8 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 2nd Street / Main Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.337
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 12.8
Optimal Cycle: 46 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase/Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module:
Table with 12 columns and 4 rows showing saturation flow rates and adjustment factors.

Capacity Analysis Module:
Table with 12 columns and 10 rows showing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 2nd Street / Main Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.402
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 46 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns representing different volume categories and 12 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:
Table with 12 columns representing saturation flow values and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 12 columns representing capacity analysis metrics and 8 rows of data including Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.781
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 31.4
Optimal Cycle: 68 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase), Rights (Ignore/Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns for volume and adjustment factors across four approaches.

Saturation Flow Module:
Table with 13 columns for saturation flow and adjustment factors across four approaches.

Capacity Analysis Module:
Table with 13 columns for capacity analysis metrics across four approaches.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.830
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 34.7
Optimal Cycle: 78 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase), Rights (Ignore/Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns representing different traffic movements and 12 rows of volume and adjustment factors.

Saturation Flow Module:
Table with 13 columns representing different traffic movements and 4 rows of saturation flow and adjustment factors.

Capacity Analysis Module:
Table with 13 columns representing different traffic movements and 10 rows of capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 0.521
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 35 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 1 0 1 0 0 0 1 0

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 39 445 0 11 319 362 202 4 24 0 4 4
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 39 445 0 11 319 362 202 4 24 0 4 4
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 43 494 0 12 354 402 224 4 27 0 4 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 43 494 0 12 354 402 224 4 27 0 4 4
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 43 494 0 12 354 402 224 4 27 0 4 4

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.98 1.00 0.93 0.98 0.83 0.71 0.71 0.71 1.00 0.91 0.91
Lanes: 1.00 1.00 0.00 1.00 1.00 1.00 0.88 0.02 0.10 0.00 0.50 0.50
Final Sat.: 1769 1862 0 1769 1862 1583 1184 23 141 0 869 869

Capacity Analysis Module:
Vol/Sat: 0.02 0.27 0.00 0.01 0.19 0.25 0.19 0.19 0.19 0.00 0.01 0.01
Crit Moves: **** **** ****
Green/Cycle: 0.05 0.51 0.00 0.01 0.48 0.48 0.36 0.36 0.36 0.00 0.36 0.36
Volume/Cap: 0.53 0.52 0.00 0.52 0.40 0.53 0.52 0.52 0.52 0.00 0.01 0.01
Delay/Veh: 44.0 13.6 0.0 58.6 13.8 15.4 21.0 21.0 21.0 0.0 16.3 16.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.0 13.6 0.0 58.6 13.8 15.4 21.0 21.0 21.0 0.0 16.3 16.3
HCM2kAvg: 2 8 0 1 6 7 7 7 7 0 0 0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 0.549
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 36 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns representing different traffic directions and 13 rows of volume-related metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:
Table with 13 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 13 columns and 8 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: A[9.7]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for volume counts and adjustment factors.

Critical Gap Module:
Table with 3 columns for gap values and follow-up times.

Capacity Module:
Table with 3 columns for capacity values and volume/capacity ratios.

Level Of Service Module:
Table with 3 columns for queue, stopped delay, and LOS values.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: A[9.6]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0 0 1! 0 0).

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 13 columns for volume components: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module:
Table with 3 columns: Critical Gp, FollowUpTim, and various status indicators (xxxx).

Capacity Module:
Table with 3 columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. and various status indicators (xxxx).

Level Of Service Module:
Table with 3 columns: Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Scenario Report

Scenario: ex plus Master Plan PM

Command: Default Command
Volume: ex pm
Geometry: existing
Impact Fee: Default Impact Fee
Trip Generation: pm peak
Trip Distribution: current
Paths: Default Paths
Routes: Default Routes
Configuration: Default Configuration

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Trip Generation Report

Forecast for pm peak

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1940.00	students	0.06	0.15	116	291	407	48.5
	Zone 1 Subtotal					116	291	407	48.5
2		1935.00	students	0.06	0.15	116	290	406	48.3
	Zone 2 Subtotal					116	290	406	48.3
3		125.00	students	0.06	0.15	8	19	27	3.2
	Zone 3 Subtotal					8	19	27	3.2
TOTAL						240	600	840	100.0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Trip Distribution Report

Percent Of Trips current

Zone	To Gates									
	1	2	3	4	5	6	7	8	9	10
1	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
2	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
3	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Turning Movement Report
 pm peak

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Nord Ave / West Sacramento Ave													
Base	16	595	239	309	672	8	17	19	8	283	27	363	2556
Added	0	30	1	23	13	0	0	0	0	2	0	60	129
Total	16	625	240	332	685	8	17	19	8	285	27	423	2685
#2 Sacramento Ave / Warner Ave													
Base	138	274	74	222	185	74	87	210	130	85	379	53	1911
Added	59	59	152	5	23	0	0	0	23	61	3	12	397
Total	197	333	226	227	208	74	87	210	153	146	382	65	2308
#3 Esplanade / 1st Avenue													
Base	0	1034	67	0	876	70	72	373	38	90	406	118	3144
Added	0	46	55	0	30	0	29	35	0	31	5	0	231
Total	0	1080	122	0	906	70	101	408	38	121	411	118	3375
#4 Esplanade / Sacramento Ave													
Base	313	1197	0	0	869	233	0	0	217	0	0	0	2829
Added	54	101	0	0	40	20	0	0	85	0	0	0	300
Total	367	1298	0	0	909	253	0	0	302	0	0	0	3129
#5 Warner Ave / Legion Avenue													
Base	0	382	87	102	313	0	0	0	0	52	0	79	1015
Added	0	57	4	16	60	0	0	0	0	1	0	6	144
Total	0	439	91	118	373	0	0	0	0	53	0	85	1159
#6 Walnut Avenue / 2nd Street													
Base	53	586	108	111	625	65	54	91	68	104	62	170	2097
Added	0	14	2	8	7	0	0	0	0	5	0	17	53
Total	53	600	110	119	632	65	54	91	68	109	62	187	2150
#7 2nd Avenue / Cherry St													
Base	4	15	16	136	62	42	27	294	4	24	328	79	1031
Added	0	0	0	0	0	0	0	10	0	0	23	0	33
Total	4	15	16	136	62	42	27	304	4	24	351	79	1064
#8 2nd Street / Ivy Street / Warner Ave													
Base	58	183	56	146	206	43	19	392	40	33	330	144	1650
Added	0	22	3	41	19	2	1	9	0	7	21	38	163
Total	58	205	59	187	225	45	20	401	40	40	351	182	1813
#9 2nd Street / Hazel St													
Base	15	0	37	0	1	3	2	570	21	21	482	1	1153
Added	27	0	51	0	0	0	0	42	11	20	38	0	189
PassBy	50	0	0	0	0	0	0	-49	49	0	-50	0	0
Total	92	0	88	0	1	3	2	563	81	41	470	1	1342

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 2nd Street / Chestnut St													
Base	50	0	62	0	0	0	0	558	49	32	449	0	1200
Added	0	0	0	0	0	0	0	93	0	0	58	0	151
PassBy	-50	0	-62	0	0	0	0	0	-49	-32	0	0	-193
Total	0	0	0	0	0	0	0	651	0	0	507	0	1158
#11 2nd Street / Normal Ave													
Base	18	1	30	18	3	13	12	562	48	50	449	14	1218
Added	25	0	89	0	0	0	0	83	10	35	33	0	275
PassBy	0	0	62	0	0	0	0	-62	0	32	-32	0	0
Total	43	1	181	18	3	13	12	583	58	117	450	14	1493
#12 2nd Street / Broadway													
Base	0	0	0	77	745	113	0	539	126	100	367	0	2067
Added	0	0	0	7	85	26	0	82	90	2	43	0	335
Total	0	0	0	84	830	139	0	621	216	102	410	0	2402
#13 2nd Street / Main Street													
Base	135	991	176	0	0	0	148	469	0	0	332	37	2288
Added	36	68	5	0	0	0	65	25	0	0	9	3	211
Total	171	1059	181	0	0	0	213	494	0	0	341	40	2499
#14 Park Avenue / Midway													
Base	0	267	537	411	232	1	2	0	0	468	2	328	2248
Added	0	28	1	41	36	0	0	0	0	1	0	16	123
Total	0	295	538	452	268	1	2	0	0	469	2	344	2371
#15 Midway / Hegan Lane													
Base	16	374	0	5	408	286	416	0	32	0	0	10	1547
Added	0	12	0	0	29	7	18	0	1	0	0	0	67
Total	16	386	0	5	437	293	434	0	33	0	0	10	1614
#16 Hegan lane / ARTC Access													
Base	8	0	24	0	0	0	0	136	1	7	169	0	345
Added	0	0	19	0	0	0	0	0	0	8	0	0	27
Total	8	0	43	0	0	0	0	136	1	15	169	0	372

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in	
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 1 Nord Ave / West Sacramento Ave	F	85.9	1.168	F 108.0	1.257	+22.074	D/V
# 2 Sacramento Ave / Warner Ave	D	36.4	0.708	D 49.0	0.866	+12.639	D/V
# 3 Esplanade / 1st Avenue	C	22.6	0.726	C 24.2	0.763	+ 1.684	D/V
# 4 Esplanade / Sacramento Ave	C	20.4	0.000	D 32.4	0.000	+11.938	D/V
# 5 Warner Ave / Legion Avenue	A	8.2	0.398	A 8.1	0.441	-0.173	D/V
# 6 Walnut Avenue / 2nd Street	B	18.8	0.529	B 19.1	0.549	+ 0.362	D/V
# 7 2nd Avenue / Cherry St	E	48.4	0.000	F 55.6	0.000	+ 7.148	D/V
# 8 2nd Street / Ivy Street / Warn	B	13.7	0.361	B 14.3	0.443	+ 0.626	D/V
# 9 2nd Street / Hazel St	C	15.7	0.000	E 43.1	0.000	+27.423	D/V
# 10 2nd Street / Chestnut St	C	19.4	0.000	A 9.1	0.000	-10.303	D/V
# 11 2nd Street / Normal Ave	C	21.5	0.000	E 38.3	0.000	+16.756	D/V
# 12 2nd Street / Broadway	B	14.7	0.437	B 15.3	0.526	+ 0.660	D/V
# 13 2nd Street / Main Street	B	15.5	0.574	B 16.9	0.658	+ 1.357	D/V
# 14 Park Avenue / Midway	C	31.8	0.808	D 35.7	0.865	+ 3.864	D/V
# 15 Midway / Hegan Lane	C	22.2	0.666	C 22.9	0.701	+ 0.699	D/V
# 16 Hegan lane / ARTC Access	A	9.5	0.000	A 9.5	0.000	-0.016	D/V

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Nord Ave / West Sacramento Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 1.168
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 85.9
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1

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

Volume Module: >> Count Date: 4 Nov 2004 <<

Base Vol:	16	595	239	309	672	8	17	19	8	283	27	363
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	595	239	309	672	8	17	19	8	283	27	363
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	17	626	252	325	707	8	18	20	8	298	28	382
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	626	252	325	707	8	18	20	8	298	28	382
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	17	626	252	325	707	8	18	20	8	298	28	382

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

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.84	0.84	0.84	0.88	0.88	0.51	0.51	0.51	0.65	0.76	0.76
Lanes:	1.00	0.71	0.29	1.00	0.99	0.01	0.39	0.43	0.18	1.00	0.07	0.93
Final Sat.:	1592	1144	460	1592	1653	20	377	421	177	1242	100	1341

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

Capacity Analysis Module:

Vol/Sat:	0.01	0.55	0.55	0.20	0.43	0.43	0.05	0.05	0.05	0.24	0.28	0.28
Crit Moves:	****			****						****		
Green/Cycle:	0.02	0.47	0.47	0.17	0.63	0.63	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.68	1.17	1.17	1.17	0.68	0.68	0.19	0.19	0.19	0.98	1.17	1.17
Delay/Veh:	96.1	111	110.9	140.3	11.5	11.5	24.4	24.4	24.4	77.2	132	132.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	96.1	111	110.9	140.3	11.5	11.5	24.4	24.4	24.4	77.2	132	132.2
HCM2kAvg:	1	41	41	18	12	12	2	2	2	16	21	21

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Nord Ave / West Sacramento Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 1.257

Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 108.0

Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1

Volume Module: >> Count Date: 4 Nov 2004 <<

Base Vol:	16	595	239	309	672	8	17	19	8	283	27	363
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	595	239	309	672	8	17	19	8	283	27	363
Added Vol:	0	30	1	23	13	0	0	0	0	2	0	60
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	625	240	332	685	8	17	19	8	285	27	423
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	17	658	253	349	721	8	18	20	8	300	28	445
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	658	253	349	721	8	18	20	8	300	28	445
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	17	658	253	349	721	8	18	20	8	300	28	445

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.84	0.84	0.84	0.88	0.88	0.46	0.46	0.46	0.65	0.76	0.76
Lanes:	1.00	0.72	0.28	1.00	0.99	0.01	0.39	0.43	0.18	1.00	0.06	0.94
Final Sat.:	1592	1160	445	1592	1653	19	338	378	159	1238	86	1353

Capacity Analysis Module:

Vol/Sat:	0.01	0.57	0.57	0.22	0.44	0.44	0.05	0.05	0.05	0.24	0.33	0.33
Crit Moves:	****			****						****		
Green/Cycle:	0.01	0.45	0.45	0.17	0.61	0.61	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.71	1.26	1.26	1.26	0.71	0.71	0.20	0.20	0.20	0.93	1.26	1.26
Delay/Veh:	108.5	149	148.8	174.6	13.2	13.2	23.5	23.5	23.5	60.2	165	165.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	108.5	149	148.8	174.6	13.2	13.2	23.5	23.5	23.5	60.2	165	165.2
HCM2kAvg:	2	48	48	21	14	14	2	2	2	14	26	26

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.708
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 36.4
Optimal Cycle: 60 Level Of Service: D

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, User Adj, PHF Adj, etc.

Saturation Flow Module:
Table with 12 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with 12 columns for capacity analysis metrics and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.866
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 49.0
Optimal Cycle: 96 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	1	0	0	1	0	0

Volume Module: >> Count Date: 4 Nov 2004 <<

Base Vol:	138	274	74	222	185	74	87	210	130	85	379	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	138	274	74	222	185	74	87	210	130	85	379	53
Added Vol:	59	59	152	5	23	0	0	0	23	61	3	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	333	226	227	208	74	87	210	153	146	382	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	207	351	238	239	219	78	92	221	161	154	402	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	351	238	239	219	78	92	221	161	154	402	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	207	351	238	239	219	78	92	221	161	154	402	68

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.96	0.96	0.95	0.94	0.94	0.95	0.98	0.98
Lanes:	1.00	0.60	0.40	1.00	0.74	0.26	1.00	0.58	0.42	1.00	0.85	0.15
Final Sat.:	1805	1063	721	1805	1347	479	1805	1030	750	1805	1588	270

Capacity Analysis Module:

Vol/Sat:	0.11	0.33	0.33	0.13	0.16	0.16	0.05	0.21	0.21	0.09	0.25	0.25
Crit Moves:	****			****			****			****		
Green/Cycle:	0.22	0.38	0.38	0.15	0.31	0.31	0.06	0.25	0.25	0.10	0.29	0.29
Volume/Cap:	0.52	0.87	0.87	0.87	0.52	0.52	0.88	0.87	0.87	0.87	0.88	0.88
Delay/Veh:	35.5	39.9	39.9	65.1	29.1	29.1	98.3	52.3	52.3	77.6	49.1	49.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.5	39.9	39.9	65.1	29.1	29.1	98.3	52.3	52.3	77.6	49.1	49.1
HCM2kAvg:	6	20	20	10	8	8	5	14	14	8	17	17

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #3 Esplanade / 1st Avenue
*****
Cycle (sec):          80          Critical Vol./Cap. (X):          0.726
Loss Time (sec):      9 (Y+R = 4 sec) Average Delay (sec/veh):          22.6
Optimal Cycle:        52          Level Of Service:          C
*****
Approach:            North Bound      South Bound      East Bound      West Bound
Movement:           L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:             Protected      Protected      Protected      Protected
Rights:              Include      Include      Include      Include
Min. Green:          0 0 0      0 0 0      0 0 0      0 0 0
Lanes:               0 0 2 0 1    0 0 1 1 0    1 0 0 1 0    1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:            0 1034    67    0 876    70    72 373    38    90 406    118
Growth Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:         0 1034    67    0 876    70    72 373    38    90 406    118
User Adj:            1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:             0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:          0 1088    71    0 922    74    76 393    40    95 427    124
Reduct Vol:          0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:         0 1088    71    0 922    74    76 393    40    95 427    124
PCE Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:             1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:          0 1088    71    0 922    74    76 393    40    95 427    124
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:            1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:          1.00 0.95 0.85 1.00 0.94 0.94 0.95 0.99 0.99 0.95 0.97 0.97
Lanes:               0.00 2.00 1.00 0.00 1.85 0.15 1.00 0.91 0.09 1.00 0.77 0.23
Final Sat.:          0 3610 1615 0 3306 264 1805 1700 173 1805 1422 413
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:             0.00 0.30 0.04 0.00 0.28 0.28 0.04 0.23 0.23 0.05 0.30 0.30
Crit Moves:          ****          ****          ****          ****
Green/Cycle:         0.00 0.42 0.42 0.00 0.42 0.42 0.06 0.38 0.38 0.09 0.41 0.41
Volume/Cap:          0.00 0.73 0.11 0.00 0.67 0.67 0.73 0.60 0.60 0.60 0.73 0.73
Delay/Veh:           0.0 21.4 14.4 0.0 20.2 20.2 59.3 21.1 21.1 41.5 23.1 23.1
User DelAdj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:          0.0 21.4 14.4 0.0 20.2 20.2 59.3 21.1 21.1 41.5 23.1 23.1
HCM2kAvg:            0 13    1    0 11    11    4 9    9    3 13    13
*****

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Esplanade / 1st Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.763
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: 58 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 13 rows of volume-related metrics.

Saturation Flow Module table with 12 columns and 4 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 10 rows of capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Esplanade / Sacramento Ave

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: C[20.4]

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Table for Volume Module: >> Count Date: 4 Nov 2004 <<. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Table for Critical Gap Module: Critical Gp, FollowUpTim. Values include 4.1, 6.9, 2.2, 3.3.

Table for Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Values include 1160, 598, 598, 0.55.

Table for Level of Service Module: Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS. Values include 3.3, 18.2, C, 2.7, 20.4, C.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

```

*****
Intersection #4 Esplanade / Sacramento Ave
*****
Average Delay (sec/veh):      5.9   Worst Case Level Of Service:      D[ 32.4]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 2 0 0      0 0 1 1 0      0 0 0 0 1      0 0 0 0 0
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol:      313 1197      0      0 869 233      0 0 217      0 0 0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  313 1197      0      0 869 233      0 0 217      0 0 0
Added Vol:    54 101      0      0 40 20      0 0 85      0 0 0
PasserByVol:  0 0      0      0 0 0      0 0 0      0 0 0
Initial Fut:  367 1298      0      0 909 253      0 0 302      0 0 0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:   386 1366      0      0 957 266      0 0 318      0 0 0
Reduct Vol:   0 0      0      0 0 0      0 0 0      0 0 0
Final Vol.:   386 1366      0      0 957 266      0 0 318      0 0 0
Critical Gap Module:
Critical Gp:   4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx  6.9 xxxxxx xxxxx xxxxxx
FollowUpTim:  2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx  3.3 xxxxxx xxxxx xxxxxx
-----|-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 1223 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx  612 xxxxx xxxxx xxxxxx
Potent Cap.: 566 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx  436 xxxxx xxxxx xxxxxx
Move Cap.:   566 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx  436 xxxxx xxxxx xxxxxx
Volume/Cap: 0.68 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx  0.73 xxxxx xxxxx xxxxx
-----|-----|-----|-----|-----|
Level Of Service Module:
Queue:      5.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx  5.8 xxxxxx xxxxx xxxxxx
Stopped Del: 24.0 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx  32.4 xxxxxx xxxxx xxxxxx
LOS by Move: C * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Movement:   LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shrd StpDel: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shared LOS:  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx      xxxxxx      32.4      xxxxxx
ApproachLOS: * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
    
```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.398
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 8.2
Optimal Cycle: 26 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L, T, R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns for different traffic movements and rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with 12 columns for different traffic movements and rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for different traffic movements and rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.441
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 8.1
Optimal Cycle: 26 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 20 0 0 20 0 0 0 0 0 20 0
Lanes: 0 0 0 1 0 1 0 1 0 0 0 0 0 0 1 0 0

Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol: 0 382 87 102 313 0 0 0 0 52 0 79
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 382 87 102 313 0 0 0 0 52 0 79
Added Vol: 0 57 4 16 60 0 0 0 0 1 0 6
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 439 91 118 373 0 0 0 0 53 0 85
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 462 96 124 393 0 0 0 0 56 0 89
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 462 96 124 393 0 0 0 0 56 0 89
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 462 96 124 393 0 0 0 0 56 0 89

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.98 0.96 0.51 1.00 1.00 1.00 1.00 1.00 0.79 1.00 0.68
Lanes: 0.00 0.83 0.17 1.00 1.00 0.00 0.00 0.00 0.00 0.35 0.00 0.65
Final Sat.: 0 1534 318 974 1900 0 0 0 0 523 0 839

Capacity Analysis Module:
Vol/Sat: 0.00 0.30 0.30 0.13 0.21 0.00 0.00 0.00 0.00 0.11 0.00 0.11
Crit Moves: ****
Green/Cycle: 0.00 0.68 0.68 0.68 0.68 0.00 0.00 0.00 0.00 0.24 0.00 0.24
Volume/Cap: 0.00 0.44 0.44 0.19 0.30 0.00 0.00 0.00 0.00 0.44 0.00 0.44
Delay/Veh: 0.0 6.0 6.0 4.7 5.2 0.0 0.0 0.0 0.0 26.7 0.0 26.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.0 6.0 4.7 5.2 0.0 0.0 0.0 0.0 26.7 0.0 26.7
HCM2kAvg: 0 6 6 2 4 0 0 0 0 4 0 4

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.529
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 18.8
Optimal Cycle: 35 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module: >> Count Date: 4 Nov 2004 <<

Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol. Rows for North, South, East, West.

Saturation Flow Module:

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows for North, South, East, West.

Capacity Analysis Module:

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, HCM2kAvg. Rows for North, South, East, West.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.549
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 19.1
 Optimal Cycle: 36 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	0	0	1	0	1	0

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

Volume Module: >> Count Date: 4 Nov 2004 <<

Base Vol:	53	586	108	111	625	65	54	91	68	104	62	170
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	586	108	111	625	65	54	91	68	104	62	170
Added Vol:	0	14	2	8	7	0	0	0	0	5	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	600	110	119	632	65	54	91	68	109	62	187
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	56	632	116	125	665	68	57	96	72	115	65	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	632	116	125	665	68	57	96	72	115	65	197
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	56	632	116	125	665	68	57	96	72	115	65	197

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

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.82	0.82	0.84	0.83	0.83	0.75	0.75	0.74	0.56	0.56	0.72
Lanes:	1.00	1.69	0.31	1.00	1.81	0.19	0.25	0.43	0.32	0.64	0.36	1.00
Final Sat.:	1592	2629	482	1592	2847	293	360	606	453	680	387	1360

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

Capacity Analysis Module:

Vol/Sat:	0.04	0.24	0.24	0.08	0.23	0.23	0.16	0.16	0.16	0.17	0.17	0.14
Crit Moves:	****			****						****		
Green/Cycle:	0.08	0.44	0.44	0.14	0.50	0.50	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.46	0.55	0.55	0.55	0.46	0.46	0.51	0.51	0.51	0.55	0.55	0.47
Delay/Veh:	38.2	17.2	17.2	34.7	13.0	13.0	23.9	23.9	23.9	25.1	25.1	23.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.2	17.2	17.2	34.7	13.0	13.0	23.9	23.9	23.9	25.1	25.1	23.3
HCM2kAvg:	2	7	7	4	6	6	6	6	6	6	6	4

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 2nd Avenue / Cherry St

Average Delay (sec/veh): 12.2 Worst Case Level Of Service: E[48.4]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 12 columns for traffic volume. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Table with 12 columns for critical gap. Rows include Critical Gap and FollowUpTim.

Table with 12 columns for capacity. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns for level of service. Rows include Queue, Stopped Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

```

*****
Intersection #7 2nd Avenue / Cherry St
*****
Average Delay (sec/veh):    13.5    Worst Case Level Of Service:    F[ 55.6]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:       Stop Sign      Stop Sign      Uncontrolled    Uncontrolled
Rights:        Include      Include      Include      Include
Lanes:         0 0 1! 0 0      0 0 1! 0 0      0 1 0 1 0      0 1 0 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol:      4 15 16 136 62 42 27 294 4 24 328 79
Growth Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   4 15 16 136 62 42 27 294 4 24 328 79
Added Vol:     0 0 0 0 0 0 0 10 0 0 23 0
PasserByVol:  0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:   4 15 16 136 62 42 27 304 4 24 351 79
User Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:    4 16 17 143 65 44 28 320 4 25 369 83
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.:   4 16 17 143 65 44 28 320 4 25 369 83
Critical Gap Module:
Critical Gp:   7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:  3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:   687 922 202 726 883 266 473 xxxx xxxxx 344 xxxx xxxxx
Potent Cap.:  337 272 811 316 287 738 1100 xxxx xxxxx 1226 xxxx xxxxx
Move Cap.:    239 250 784 274 264 714 1081 xxxx xxxxx 1206 xxxx xxxxx
Volume/Cap:   0.02 0.06 0.02 0.52 0.25 0.06 0.03 xxxx xxxxx 0.02 xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
Queue:        xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.1 xxxx xxxxx 0.1 xxxx xxxxx
Stopped Del:  xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.4 xxxx xxxxx 8.0 xxxx xxxxx
LOS by Move:  * * * * * * * A * * A * *
Movement:    LT - LTR - RT  LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.:  xxxx 361 xxxxx xxxx 304 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue: xxxxx 0.3 xxxxx xxxxx 7.0 xxxxx 0.1 xxxx xxxxx 0.1 xxxx xxxxx
Shrd StpDel: xxxxx 16.1 xxxxx xxxxx 55.6 xxxxx 8.4 xxxx xxxxx 8.0 xxxx xxxxx
Shared LOS:   * C * * F * A * * A * *
ApproachDel:  16.1 55.6 xxxxxx xxxxxx
ApproachLOS:  C F * *

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.361
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 22 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns of traffic volume data and various adjustment factors.

Saturation Flow Module. Table with 12 columns of saturation flow data and adjustment factors.

Capacity Analysis Module. Table with 12 columns of capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.443
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 24 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing different traffic movements. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: C[15.7]

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1	0	0	0	0	1	0	1	0	1	0	0	1

Volume Module: >> Count Date: 4 Nov 2004 <<

Base Vol:	15	0	37	0	1	3	2	570	21	21	482	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	0	37	0	1	3	2	570	21	21	482	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	16	0	39	0	1	3	2	600	22	22	507	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	16	0	39	0	1	3	2	600	22	22	507	1

Critical Gap Module:

Critical Gp:	7.5	xxxx	6.9	xxxxx	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	954	xxxx	351	xxxx	1218	294	528	xxxx	xxxxx	642	xxxx	xxxxx
Potent Cap.:	216	xxxx	651	xxxx	182	708	1049	xxxx	xxxxx	952	xxxx	xxxxx
Move Cap.:	203	xxxx	629	xxxx	171	685	1031	xxxx	xxxxx	936	xxxx	xxxxx
Volume/Cap:	0.08	xxxx	0.06	xxxx	0.01	0.00	0.00	xxxx	xxxx	0.02	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx			
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	8.9	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	392	xxxxx	xxxx	xxxx	392	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	0.0	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx			
Shrd StpDel:	xxxxx	15.7	xxxxx	xxxxx	xxxx	14.3	8.5	xxxx	xxxxx	8.9	xxxx	xxxxx			
Shared LOS:	*	C	*	*	*	B	A	*	*	A	*	*			
ApproachDel:	15.7			14.3			xxxxxx			xxxxxx					
ApproachLOS:	C			B			*			*					

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 6.1 Worst Case Level Of Service: E[43.1]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns for volume counts and adjustments.

Critical Gap Module: Table with 12 columns for critical gap and follow-up time values.

Capacity Module: Table with 12 columns for capacity-related metrics like Cnflct Vol, Potent Cap, etc.

Level Of Service Module: Table with 12 columns for queue, delay, LOS, and approach delay/LOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[19.4]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 13 columns: Volume Module, Count, Date, and 12 traffic volume categories. Row 1: Base Vol: 50 0 62 0 0 0 0 0 558 49 32 449 0

Table with 13 columns: Critical Gap Module, Critical Gp, FollowUpTim, and 12 traffic volume categories. Row 1: Critical Gp: 6.8 xxxxx 6.9 xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx

Table with 13 columns: Capacity Module, Cnflct Vol, Potent Cap, Move Cap, Volume/Cap, and 12 traffic volume categories. Row 1: Cnflct Vol: 957 xxxxx 359 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 659 xxxxx xxxxxx

Table with 13 columns: Level Of Service Module, Queue, Stopped Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS, and 12 traffic volume categories.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[9.1]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 13 columns for traffic volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Critical Gap Module:

Critical Gp:xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
FollowUpTim:xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx

Capacity Module:

Cnflct Vol: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx

Level Of Service Module:

Queue: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Stopped Del:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 0 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx
Shrd StpDel:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 9.1 xxxxx xxxxxx
Shared LOS: * * * * * * * * * * A * *
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx
ApproachLOS: * * * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 2nd Street / Normal Ave

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[21.5]

Table with columns: Approach, Movement, Control, Rights, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Volume Module: >> Count Date: 4 Nov 2004 <<

Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. Rows for North Bound, South Bound, East Bound, West Bound.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim. Rows for North Bound, South Bound, East Bound, West Bound.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows for North Bound, South Bound, East Bound, West Bound.

Level Of Service Module:

Table with columns: Queue, Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS. Rows for North Bound, South Bound, East Bound, West Bound.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

```

*****
Intersection #11 2nd Street / Normal Ave
*****
Average Delay (sec/veh):      7.4   Worst Case Level Of Service:      E[ 38.3]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 1! 0 0      0 0 1! 0 0      0 1 0 1 0      0 1 0 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol:      18 1 30      18 3 13      12 562 48      50 449 14
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    18 1 30      18 3 13      12 562 48      50 449 14
Added Vol:     25 0 89      0 0 0      0 83 10      35 33 0
PasserByVol:   0 0 62      0 0 0      0 -62 0      32 -32 0
Initial Fut:   43 1 181      18 3 13      12 583 58      117 450 14
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:    45 1 191      19 3 14      13 614 61      123 474 15
Reduct Vol:    0 0 0      0 0 0      0 0 0      0 0 0
Final Vol.:    45 1 191      19 3 14      13 614 61      123 474 15
Critical Gap Module:
Critical Gp:   7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:  3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:   1194 1444 377 1100 1467 284 508 xxxx xxxxx 695 xxxx xxxxx
Potent Cap.:  144 133 626 169 129 719 1067 xxxx xxxxx 910 xxxx xxxxx
Move Cap.:    117 108 605 98 105 695 1049 xxxx xxxxx 895 xxxx xxxxx
Volume/Cap:   0.39 0.01 0.31 0.19 0.03 0.02 0.01 xxxx xxxxx 0.14 xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
Queue:        xxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx 0.5 xxxx xxxxx
Stopped Del:  xxxx xxxx xxxxx xxxxx xxxxx xxxxx 8.5 xxxx xxxxx 9.7 xxxx xxxxx
LOS by Move:  * * * * * * * A * * A * *
Movement:     LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:  xxxx 334 xxxxx xxxx 147 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:  xxxx 5.1 xxxxx xxxxx 0.9 xxxxx 0.0 xxxx xxxxx 0.5 xxxx xxxxx
Shrd StpDel:  xxxx 38.3 xxxxx xxxxx 37.2 xxxxx 8.5 xxxx xxxxx 9.7 xxxx xxxxx
Shared LOS:   * E * * E * A * * A * *
ApproachDel:  38.3      37.2      xxxxxx      xxxxxx
ApproachLOS:  E      E      *      *

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 2nd Street / Broadway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.437
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 14.7
 Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	20	0	0	20	0	0	20	0
Lanes:	0	0	0	0	1	1	0	0	1	0	1	1

Volume Module: >> Count Date: 4 Nov 2004 <<

Base Vol:	0	0	0	77	745	113	0	539	126	100	367	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	77	745	113	0	539	126	100	367	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	81	784	119	0	567	133	105	386	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	81	784	119	0	567	133	105	386	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	81	784	119	0	567	133	105	386	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.90	0.90	0.64	0.64	1.00
Lanes:	0.00	0.00	0.00	0.25	2.39	0.36	0.00	1.62	0.38	0.43	1.57	0.00
Final Sat.:	0	0	0	404	3906	592	0	2783	650	520	1907	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.20	0.20	0.20	0.00	0.20	0.20	0.20	0.20	0.00
Crit Moves:				****			****					
Green/Cycle:	0.00	0.00	0.00	0.46	0.46	0.46	0.00	0.47	0.47	0.47	0.47	0.00
Volume/Cap:	0.00	0.00	0.00	0.44	0.44	0.44	0.00	0.44	0.44	0.43	0.43	0.00
Delay/Veh:	0.0	0.0	0.0	14.8	14.8	14.8	0.0	14.5	14.5	14.6	14.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.8	14.8	14.8	0.0	14.5	14.5	14.6	14.6	0.0
HCM2kAvg:	0	0	0	6	6	6	0	6	6	6	6	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #12 2nd Street / Broadway
*****
Cycle (sec):      80          Critical Vol./Cap. (X):      0.526
Loss Time (sec):  6 (Y+R = 4 sec) Average Delay (sec/veh):      15.3
Optimal Cycle:   46          Level Of Service:      B
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Split Phase      Split Phase      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:   0 0 0 0 0 0 0 20 0 0 20 0 0 0 20 0
Lanes:      0 0 0 0 0 0 0 1 1 1 0 0 0 1 1 0 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 4 Nov 2004 <<
Base Vol:      0 0 0 77 745 113 0 539 126 100 367 0
Growth Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   0 0 0 77 745 113 0 539 126 100 367 0
Added Vol:    0 0 0 7 85 26 0 82 90 2 43 0
PasserByVol:  0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:  0 0 0 84 830 139 0 621 216 102 410 0
User Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:   0 0 0 88 874 146 0 654 227 107 432 0
Reduct Vol:   0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:  0 0 0 88 874 146 0 654 227 107 432 0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0 0 0 88 874 146 0 654 227 107 432 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:   1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.89 0.88 0.60 0.60 1.00
Lanes:       0.00 0.00 0.00 0.24 2.36 0.40 0.00 1.48 0.52 0.40 1.60 0.00
Final Sat.:   0 0 0 389 3848 644 0 2515 875 455 1830 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00 0.23 0.23 0.23 0.00 0.26 0.26 0.24 0.24 0.00
Crit Moves:          ****          ****
Green/Cycle: 0.00 0.00 0.00 0.43 0.43 0.43 0.00 0.49 0.49 0.49 0.49 0.00
Volume/Cap:  0.00 0.00 0.00 0.53 0.53 0.53 0.00 0.53 0.53 0.48 0.48 0.00
Delay/Veh:   0.0 0.0 0.0 17.0 17.0 17.0 0.0 14.2 14.2 13.7 13.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  0.0 0.0 0.0 17.0 17.0 17.0 0.0 14.2 14.2 13.7 13.7 0.0
HCM2kAvg:    0 0 0 7 7 7 0 8 8 7 7 0
*****

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 2nd Street / Main Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.574
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 15.5
Optimal Cycle: 46 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 13 columns for volume and adjustment factors.

Saturation Flow Module: Table with 13 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 13 columns for capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 2nd Street / Main Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.658
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 16.9
Optimal Cycle: 46 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase, Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 13 columns for volume counts and 13 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module. Table with 13 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 13 columns for capacity analysis metrics and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.808
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.865
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 35.7
Optimal Cycle: 86 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns for volume counts and 12 rows for various adjustment factors like Growth Adj, PHF Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 8 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 0.666
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 45 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 0.701
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 49 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 13 columns for different volume categories and 13 rows of data.

Saturation Flow Module. Table with 13 columns for saturation flow and 4 rows of data.

Capacity Analysis Module. Table with 13 columns for capacity analysis and 8 rows of data.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: A[9.5]

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Table with columns for Volume Module and Date (4 Nov 2004). Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Table for Critical Gap Module with columns for Critical Gp and FollowUpTim.

Table for Capacity Module with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table for Level Of Service Module with columns for Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: A[9.5]

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control, Rights, Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Cum ~~EXISTING~~ PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Scenario: cum plus Master Plan AM

Scenario Report

Command: Default Command
Volume: cum am
Geometry: existing
Impact Fee: Default Impact Fee
Trip Generation: am peak
Trip Distribution: current
Paths: Default Paths
Routes: Default Routes
Configuration: Default Configuration

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Trip Generation Report

Forecast for am peak

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1940.00	students	0.17	0.04	330	78	408	48.6
	Zone 1 Subtotal					330	78	408	48.6
2		1935.00	students	0.17	0.04	329	77	406	48.3
	Zone 2 Subtotal					329	77	406	48.3
3		125.00	students	0.17	0.04	21	5	26	3.1
	Zone 3 Subtotal					21	5	26	3.1
TOTAL						680	160	840	100.0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Trip Distribution Report

Percent Of Trips current

Zone	To Gates									
	1	2	3	4	5	6	7	8	9	10
1	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
2	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
3	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Turning Movement Report
 am peak

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Nord Ave / West Sacramento Ave													
Base	7	468	222	458	849	14	16	10	3	186	13	299	2544
Added	0	8	2	64	38	0	0	0	0	1	0	16	129
Total	7	476	224	522	887	14	16	10	3	187	13	315	2673
#2 Sacramento Ave / Warner Ave													
Base	66	99	60	51	338	42	75	399	125	48	213	36	1552
Added	16	16	41	13	67	0	0	0	67	172	1	3	396
Total	82	115	101	64	405	42	75	399	192	220	214	39	1948
#3 Esplanade / 1st Avenue													
Base	0	878	87	0	1105	92	77	491	59	107	356	113	3364
Added	0	12	15	0	85	0	8	9	0	87	15	0	231
Total	0	890	102	0	1190	92	85	500	59	194	371	113	3595
#4 Esplanade / Sacramento Ave													
Base	343	975	0	0	1130	303	0	0	277	0	0	0	3028
Added	94	27	0	0	114	58	0	0	44	0	0	0	337
Total	437	1002	0	0	1244	361	0	0	321	0	0	0	3365
#5 Warner Ave / Legion Avenue													
Base	0	160	108	209	286	0	0	0	0	51	0	70	884
Added	0	61	1	4	56	0	0	0	0	4	0	18	144
Total	0	221	109	213	342	0	0	0	0	55	0	88	1028
#6 Walnut Avenue / 2nd Street													
Base	35	634	107	164	694	4	60	82	84	60	65	118	2107
Added	0	6	6	23	15	0	0	0	0	1	0	5	56
Total	35	640	113	187	709	4	60	82	84	61	65	123	2163
#7 2nd Avenue / Cherry St													
Base	3	22	9	22	13	5	61	324	14	26	269	325	1093
Added	0	0	0	0	0	0	0	29	0	0	6	0	35
Total	3	22	9	22	13	5	61	353	14	26	275	325	1128
#8 2nd Street / Ivy Street / Warner Ave													
Base	129	116	27	62	98	25	27	309	17	13	467	81	1370
Added	0	18	7	37	23	1	2	27	0	2	5	41	163
Total	129	134	34	99	121	26	29	336	17	15	472	122	1533
#9 2nd Street / Hazel St													
Base	27	0	16	3	0	7	1	324	48	14	517	7	963
Added	7	0	14	0	0	0	0	40	31	58	41	0	191
PassBy	33	0	0	0	0	0	0	-37	37	0	-33	0	0
Total	67	0	30	3	0	7	1	327	116	72	525	7	1154

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 2nd Street / Chestnut St													
Base	34	0	31	0	0	0	0	320	38	60	512	0	995
Added	0	0	0	0	0	0	0	54	0	0	99	0	153
PassBy	-34	0	-31	0	0	0	0	0	-37	-59	0	0	-161
Total	-0	0	0	0	0	0	0	374	1	1	611	0	987
#11 2nd Street / Normal Ave													
Base	4	4	25	12	0	13	9	296	43	55	551	20	1031
Added	7	0	24	0	0	0	0	26	28	100	93	0	278
PassBy	0	0	31	0	0	0	0	-31	0	59	-59	0	0
Total	11	4	80	12	0	13	9	291	71	214	585	20	1309
#12 2nd Street / Broadway													
Base	0	0	0	62	858	113	0	260	65	72	446	0	1876
Added	0	0	0	2	61	73	0	22	27	6	120	0	311
Total	0	0	0	64	919	186	0	282	92	78	566	0	2187
#13 2nd Street / Main Street													
Base	135	904	147	0	0	0	107	213	0	0	378	31	1915
Added	100	90	1	0	0	0	17	7	0	0	26	8	249
Total	235	994	148	0	0	0	124	220	0	0	404	39	2164
#14 Park Avenue / Midway													
Base	1	415	609	285	374	2	2	0	2	574	0	341	2604
Added	0	37	0	11	26	0	0	0	0	1	0	46	121
Total	1	452	609	296	400	2	2	0	2	575	0	387	2725
#15 Midway / Hegan Lane													
Base	93	712	0	18	510	579	323	8	46	0	6	6	2302
Added	1	33	0	0	8	20	5	0	0	0	0	0	67
Total	94	745	0	18	518	599	328	8	46	0	6	6	2369
#16 Hegan lane / ARTC Access													
Base	3	0	6	0	0	0	0	222	27	66	167	0	491
Added	0	0	5	0	0	0	0	0	0	21	0	0	26
Total	3	0	11	0	0	0	0	222	27	87	167	0	518

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in
		LOS	Veh C	LOS	Veh C	
# 1 Nord Ave / West Sacramento Ave	F	97.6	1.233	F 118.2	1.309	+20.623 D/V
# 2 Sacramento Ave / Warner Ave	C	31.4	0.698	D 50.3	0.925	+18.931 D/V
# 3 Esplanade / 1st Avenue	C	27.0	0.862	D 35.6	0.958	+ 8.597 D/V
# 4 Esplanade / Sacramento Ave	F	70.0	0.000	F 231.6	0.000	+161.609 D/V
# 5 Warner Ave / Legion Avenue	B	10.7	0.301	B 11.1	0.363	+ 0.406 D/V
# 6 Walnut Avenue / 2nd Street	B	19.6	0.630	C 20.1	0.653	+ 0.496 D/V
# 7 2nd Avenue / Cherry St	D	28.0	0.000	D 29.5	0.000	+ 1.469 D/V
# 8 2nd Street / Ivy Street / Warn	B	12.2	0.336	B 12.6	0.364	+ 0.411 D/V
# 9 2nd Street / Hazel St	C	16.2	0.000	D 28.3	0.000	+12.081 D/V
# 10 2nd Street / Chestnut St	C	15.8	0.000	A 9.9	0.000	-5.849 D/V
# 11 2nd Street / Normal Ave	C	18.7	0.000	E 38.7	0.000	+20.060 D/V
# 12 2nd Street / Broadway	B	14.4	0.460	B 15.3	0.549	+ 0.947 D/V
# 13 2nd Street / Main Street	B	13.7	0.454	B 14.1	0.523	+ 0.366 D/V
# 14 Park Avenue / Midway	F	82.7	1.090	F 97.6	1.139	+14.905 D/V
# 15 Midway / Hegan Lane	C	29.7	0.874	C 31.6	0.896	+ 1.930 D/V
# 16 Hegan lane / ARTC Access	B	10.8	0.000	B 10.6	0.000	-0.225 D/V

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Nord Ave / West Sacramento Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 1.233
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 97.6
 Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1

Volume Module:

Base Vol:	5	360	171	352	653	11	12	8	2	143	10	230
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	7	468	222	458	849	14	16	10	3	186	13	299
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	7	520	247	508	943	16	17	12	3	207	14	332
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	520	247	508	943	16	17	12	3	207	14	332
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	7	520	247	508	943	16	17	12	3	207	14	332

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.84	0.84	0.84	0.88	0.88	0.59	0.60	0.59	0.59	0.75	0.62
Lanes:	1.00	0.68	0.32	1.00	0.98	0.02	0.55	0.36	0.09	1.00	0.03	0.97
Final Sat.:	1592	1082	514	1592	1643	28	613	409	102	1119	49	1130

Capacity Analysis Module:

Vol/Sat:	0.00	0.48	0.48	0.32	0.57	0.57	0.03	0.03	0.03	0.18	0.29	0.29
Crit Moves:	****			****						****		
Green/Cycle:	0.01	0.39	0.39	0.26	0.64	0.64	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.89	1.23	1.23	1.23	0.89	0.89	0.12	0.12	0.12	0.77	1.23	1.23
Delay/Veh:	287.8	143	142.7	153.9	21.4	21.4	24.1	24.1	24.1	41.6	162	162.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	287.8	143	142.7	153.9	21.4	21.4	24.1	24.1	24.1	41.6	162	162.2
HCM2kAvg:	1	39	39	29	24	24	1	1	1	8	23	19

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Nord Ave / West Sacramento Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 1.309
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 118.2
Optimal Cycle: 180 Level Of Service: F

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 15 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 13 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.698
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 31.4
Optimal Cycle: 59 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns representing different traffic movements and 10 rows of volume-related metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 13 columns and 5 rows of saturation flow metrics like Sat/Lane, Adjustment, etc.

Capacity Analysis Module table with 13 columns and 10 rows of capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.925
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 50.3
Optimal Cycle: 123 Level Of Service: D

Approach:	North Bound					South Bound					East Bound					West Bound									
	L - T - R					L - T - R					L - T - R					L - T - R									
Movement:																									
Control:	Protected					Protected					Protected					Protected									
Rights:	Include					Include					Include					Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	51	76	46	39	260	32	58	307	96	37	164	28
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	66	99	60	51	338	42	75	399	125	48	213	36
Added Vol:	16	16	41	13	67	0	0	0	67	172	1	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	115	101	64	405	42	75	399	192	220	214	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	91	128	112	71	450	46	84	443	213	245	238	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	128	112	71	450	46	84	443	213	245	238	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	128	112	71	450	46	84	443	213	245	238	44

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.99	0.99	0.95	0.95	0.95	0.95	0.98	0.98
Lanes:	1.00	0.53	0.47	1.00	0.91	0.09	1.00	0.68	0.32	1.00	0.84	0.16
Final Sat.:	1805	941	826	1805	1699	175	1805	1220	587	1805	1568	288

Capacity Analysis Module:

Vol/Sat:	0.05	0.14	0.14	0.04	0.26	0.26	0.05	0.36	0.36	0.14	0.15	0.15
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.26	0.26	0.08	0.29	0.29	0.13	0.39	0.39	0.15	0.41	0.41
Volume/Cap:	0.93	0.51	0.51	0.51	0.93	0.93	0.37	0.93	0.93	0.93	0.37	0.37
Delay/Veh:	113.7	32.3	32.3	47.6	56.8	56.8	41.0	47.0	47.0	78.1	20.6	20.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	113.7	32.3	32.3	47.6	56.8	56.8	41.0	47.0	47.0	78.1	20.6	20.6
HCM2kAvg:	6	7	7	3	19	19	3	24	24	12	6	6

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Esplanade / 1st Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 79 Level Of Service: C

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for North Bound, South Bound, East Bound, West Bound. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with columns for North Bound, South Bound, East Bound, West Bound. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for North Bound, South Bound, East Bound, West Bound. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #3 Esplanade / 1st Avenue
*****
Cycle (sec):          80          Critical Vol./Cap. (X):          0.958
Loss Time (sec):      9 (Y+R = 4 sec) Average Delay (sec/veh):          35.6
Optimal Cycle:        124          Level Of Service:          D
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:        Protected      Protected      Protected      Protected
Rights:         Include      Include      Include      Include
Min. Green:     0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Lanes:          0 0 2 0 1      0 0 1 1 0      1 0 0 1 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:       0 675 67      0 850 71      59 378 45      82 274 87
Growth Adj:    1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse:   0 878 87      0 1105 92      77 491 59      107 356 113
Added Vol:     0 12 15      0 85 0      8 9 0      87 15 0
PasserByVol:   0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut:   0 890 102      0 1190 92      85 500 59      194 371 113
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:    0 988 113      0 1322 103      94 556 65      215 412 126
Reduct Vol:    0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:   0 988 113      0 1322 103      94 556 65      215 412 126
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    0 988 113      0 1322 103      94 556 65      215 412 126
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:    1.00 0.95 0.85 1.00 0.94 0.94 0.95 0.98 0.98 0.95 0.97 0.97
Lanes:         0.00 2.00 1.00 0.00 1.86 0.14 1.00 0.90 0.10 1.00 0.77 0.23
Final Sat.:    0 3610 1615      0 3313 257      1805 1674 196      1805 1405 428
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.00 0.27 0.07 0.00 0.40 0.40 0.05 0.33 0.33 0.12 0.29 0.29
Crit Moves:    ****          ****          ****          ****
Green/Cycle:   0.00 0.42 0.42 0.00 0.42 0.42 0.07 0.35 0.35 0.12 0.40 0.40
Volume/Cap:    0.00 0.66 0.17 0.00 0.96 0.96 0.73 0.96 0.96 0.96 0.73 0.73
Delay/Veh:     0.0 19.8 14.8 0.0 37.2 37.2 55.9 50.9 50.9 83.0 24.2 24.2
User DelAdj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:    0.0 19.8 14.8 0.0 37.2 37.2 55.9 50.9 50.9 83.0 24.2 24.2
HCM2kAvg:      0 11 2      0 23 23      4 21 21      10 13 13
*****

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Esplanade / Sacramento Ave

Average Delay (sec/veh): 13.4 Worst Case Level Of Service: F[70.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	2	0	0	1	0	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	264	750	0	0	869	233	0	0	213	0	0	0
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	343	975	0	0	1130	303	0	0	277	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	381	1083	0	0	1255	337	0	0	308	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	381	1083	0	0	1255	337	0	0	308	0	0	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	6.9	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	1592	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	796	xxxx	xxxx	xxxxxx
Potent Cap.:	408	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	330	xxxx	xxxx	xxxxxx
Move Cap.:	408	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	330	xxxx	xxxx	xxxxxx
Volume/Cap:	0.93	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.93	xxxx	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
Queue:	10.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.4	xxxxxx	xxxx	xxxxxx
Stopped Del:	61.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	70.0	xxxxxx	xxxx	xxxxxx
LOS by Move:	F	*	*	*	*	*	*	*	F	*	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	xxxx	xxxxxx									
SharedQueue:	xxxxxx	xxxx	xxxxxx									
Shrd StpDel:	xxxxxx	xxxx	xxxxxx									
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			70.0			xxxxxx		
ApproachLOS:	*			*			F			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Esplanade / Sacramento Ave

Average Delay (sec/veh): 46.8 Worst Case Level Of Service: F[231.6]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module: Table with 12 columns representing different traffic volumes and adjustments like Base Vol, Growth Adj, Initial Bse, etc.

Critical Gap Module: Table with 12 columns showing critical gap values and follow-up times.

Capacity Module: Table with 12 columns showing capacity values for different traffic scenarios.

Level Of Service Module: Table with 12 columns showing queue lengths, stopped delays, and LOS by movement.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.301
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 10.7
Optimal Cycle: 26 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	20	0	0	0	0	0	20	0
Lanes:	0	0	1	1	0	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	123	83	161	220	0	0	0	0	39	0	54
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	0	160	108	209	286	0	0	0	0	51	0	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	178	120	233	318	0	0	0	0	56	0	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	178	120	233	318	0	0	0	0	56	0	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	178	120	233	318	0	0	0	0	56	0	78

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.88	0.59	1.00	1.00	1.00	1.00	1.00	0.78	1.00	0.59
Lanes:	0.00	0.58	0.42	1.00	1.00	0.00	0.00	0.00	0.00	0.36	0.00	0.64
Final Sat.:	0	1043	704	1123	1900	0	0	0	0	523	0	724

Capacity Analysis Module:

Vol/Sat:	0.00	0.17	0.17	0.21	0.17	0.00	0.00	0.00	0.00	0.11	0.00	0.11
Crit Moves:	****									****		
Green/Cycle:	0.00	0.57	0.57	0.57	0.57	0.00	0.00	0.00	0.00	0.36	0.00	0.36
Volume/Cap:	0.00	0.30	0.30	0.37	0.30	0.00	0.00	0.00	0.00	0.30	0.00	0.30
Delay/Veh:	0.0	9.2	9.2	9.8	9.2	0.0	0.0	0.0	0.0	18.8	0.0	18.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.2	9.2	9.8	9.2	0.0	0.0	0.0	0.0	18.8	0.0	18.8
HCM2kAvg:	0	4	4	5	4	0	0	0	0	3	0	3

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.363
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 11.1
Optimal Cycle: 26 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows: North Bound, South Bound, East Bound, West Bound. Includes sub-columns L, T, R for each bound.

Volume Module: Table with columns for various volume metrics (Base Vol, Growth Adj, Initial Bse, etc.) and rows for North, South, East, West bounds.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. and rows for North, South, East, West bounds.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, HCM2kAvg. and rows for North, South, East, West bounds.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.630
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 42 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for North, South, East, West Bound (L, T, R). Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with columns for North, South, East, West Bound (L, T, R). Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for North, South, East, West Bound (L, T, R). Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.653
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.1
 Optimal Cycle: 44 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	27	488	82	126	534	3	46	63	65	46	50	91
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	35	634	107	164	694	4	60	82	84	60	65	118
Added Vol:	0	6	6	23	15	0	0	0	0	1	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	640	113	187	709	4	60	82	84	61	65	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	39	712	125	208	788	4	66	91	94	68	72	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	712	125	208	788	4	66	91	94	68	72	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	39	712	125	208	788	4	66	91	94	68	72	137

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.82	0.82	0.84	0.84	0.84	0.74	0.74	0.72	0.63	0.64	0.67
Lanes:	1.00	1.70	0.30	1.00	1.99	0.01	0.26	0.36	0.38	0.49	0.51	1.00
Final Sat.:	1592	2648	466	1592	3163	17	367	503	519	587	628	1280

Capacity Analysis Module:

Vol/Sat:	0.02	0.27	0.27	0.13	0.25	0.25	0.18	0.18	0.18	0.12	0.12	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.41	0.41	0.20	0.56	0.56	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	0.45	0.65	0.65	0.65	0.45	0.45	0.65	0.65	0.65	0.42	0.42	0.39
Delay/Veh:	40.3	20.2	20.2	34.3	10.7	10.7	29.5	29.5	29.5	24.5	24.5	24.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.3	20.2	20.2	34.3	10.7	10.7	29.5	29.5	29.5	24.5	24.5	24.1
HCM2kAvg:	2	9	9	6	6	6	7	7	7	4	4	3

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

```

*****
Intersection #7 2nd Avenue / Cherry St
*****
Average Delay (sec/veh):      2.6   Worst Case Level Of Service:      D[ 28.0]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 1! 0 0      0 0 1! 0 0      0 1 0 1 0      0 1 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      2 17 7 17 10 4 47 249 11 20 207 250
Growth Adj:  1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse:  3 22 9 22 13 5 61 324 14 26 269 325
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:   3 25 10 25 14 6 68 360 16 29 299 361
Reduct Vol:   0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.:   3 25 10 25 14 6 68 360 16 29 299 361
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:  7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxxx 4.1 xxxx xxxxxx
FollowUpTim:  3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxxx 2.2 xxxx xxxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:  758 1261 228 905 1089 370 680 xxxx xxxxxx 396 xxxx xxxxxx
Potent Cap.: 300 172 781 235 217 633 922 xxxx xxxxxx 1174 xxxx xxxxxx
Move Cap.:   248 148 755 180 187 612 906 xxxx xxxxxx 1154 xxxx xxxxxx
Volume/Cap:  0.01 0.17 0.01 0.14 0.08 0.01 0.07 xxxx xxxxxx 0.03 xxxx xxxxxx
-----|-----|-----|-----|
Level Of Service Module:
Queue:      xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.2 xxxx xxxxxx 0.1 xxxx xxxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 9.3 xxxx xxxxxx 8.2 xxxx xxxxxx
LOS by Move: * * * * * A * * A * *
Movement:   LT - LTR - RT  LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.:xxxx 197 xxxxx xxxx 201 xxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue:xxxxx 0.7 xxxxx xxxxx 0.8 xxxxx 0.2 xxxx xxxxxx 0.1 xxxx xxxxxx
Shrd StpDel:xxxxx 27.6 xxxxx xxxxx 28.0 xxxxx 9.3 xxxx xxxxxx 8.2 xxxx xxxxxx
Shared LOS:  * D * * D * A * * A * *
ApproachDel: 27.6 28.0 xxxxxx xxxxxx
ApproachLOS: D D * *

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 2nd Avenue / Cherry St

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: D[29.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	2	17	7	17	10	4	47	249	11	20	207	250
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	3	22	9	22	13	5	61	324	14	26	269	325
Added Vol:	0	0	0	0	0	0	0	29	0	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	22	9	22	13	5	61	353	14	26	275	325
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	3	25	10	25	14	6	68	392	16	29	306	361
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	3	25	10	25	14	6	68	392	16	29	306	361

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	793	1300	244	928	1128	373	687	xxxx	xxxxx	428	xxxx	xxxxx
Potent Cap.:	283	163	763	226	206	630	917	xxxx	xxxxx	1142	xxxx	xxxxx
Move Cap.:	233	140	738	171	178	609	901	xxxx	xxxxx	1123	xxxx	xxxxx
Volume/Cap:	0.01	0.18	0.01	0.14	0.08	0.01	0.08	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	186	xxxxx	xxxx	191	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	0.9	xxxxx	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd StpDel:	xxxxx	29.1	xxxxx	xxxxx	29.5	xxxxx	9.3	xxxx	xxxxx	8.3	xxxx	xxxxx
Shared LOS:	*	D	*	*	D	*	A	*	*	A	*	*
ApproachDel:	29.1			29.5			xxxxxxx			xxxxxxx		
ApproachLOS:	D			D			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.336
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 21 Level Of Service: B

Approach:	North Bound					South Bound					East Bound					West Bound								
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R						
Movement:																								
Control:	Permitted					Permitted					Permitted					Permitted								
Rights:	Include					Include					Include					Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0

Volume Module:

Base Vol:	99	89	21	48	75	19	21	238	13	10	359	62
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	129	116	27	62	98	25	27	309	17	13	467	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	143	129	30	69	108	27	30	344	19	14	519	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	129	30	69	108	27	30	344	19	14	519	90
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	143	129	30	69	108	27	30	344	19	14	519	90

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.62	0.95	0.95	0.59	0.95	0.95	0.82	0.82	0.82	0.86	0.86	0.86
Lanes:	1.00	0.81	0.19	1.00	0.80	0.20	0.15	1.75	0.10	0.05	1.66	0.29
Final Sat.:	1186	1463	345	1127	1441	365	241	2736	149	76	2721	470

Capacity Analysis Module:

Vol/Sat:	0.12	0.09	0.09	0.06	0.08	0.08	0.13	0.13	0.13	0.19	0.19	0.19
Crit Moves:	****											
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	0.34	0.25	0.25	0.17	0.21	0.21	0.22	0.22	0.22	0.34	0.34	0.34
Delay/Veh:	19.2	18.3	18.3	17.7	18.0	18.0	8.7	8.7	8.7	9.4	9.4	9.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.2	18.3	18.3	17.7	18.0	18.0	8.7	8.7	8.7	9.4	9.4	9.4
HCM2kAvg:	4	3	3	2	2	2	3	3	3	4	4	4

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.364
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 12.6
 Optimal Cycle: 22 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	99	89	21	48	75	19	21	238	13	10	359	62
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	129	116	27	62	98	25	27	309	17	13	467	81
Added Vol:	0	18	7	37	23	1	2	27	0	2	5	41
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	129	134	34	99	121	26	29	336	17	15	472	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	143	149	38	110	134	29	33	374	19	17	524	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	149	38	110	134	29	33	374	19	17	524	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	143	149	38	110	134	29	33	374	19	17	524	135

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.59	0.95	0.95	0.55	0.95	0.95	0.82	0.82	0.82	0.85	0.85	0.85
Lanes:	1.00	0.80	0.20	1.00	0.82	0.18	0.15	1.76	0.09	0.05	1.55	0.40
Final Sat.:	1115	1436	368	1052	1495	319	238	2727	137	80	2509	647

Capacity Analysis Module:

Vol/Sat:	0.13	0.10	0.10	0.10	0.09	0.09	0.14	0.14	0.14	0.21	0.21	0.21
Crit Moves:	****			****			****			****		
Green/Cycle:	0.35	0.35	0.35	0.35	0.35	0.35	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	0.36	0.29	0.29	0.30	0.25	0.25	0.24	0.24	0.24	0.36	0.36	0.36
Delay/Veh:	19.9	19.0	19.0	19.2	18.7	18.7	8.5	8.5	8.5	9.3	9.3	9.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.9	19.0	19.0	19.2	18.7	18.7	8.5	8.5	8.5	9.3	9.3	9.3
HCM2kAvg:	5	3	3	4	3	3	3	3	3	5	5	5

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C [16.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:

Base Vol:	21	0	12	2	0	5	1	249	37	11	398	5
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	27	0	16	3	0	7	1	324	48	14	517	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	30	0	17	3	0	7	1	360	53	16	575	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	30	0	17	3	0	7	1	360	53	16	575	7

Critical Gap Module:

Critical Gp:	7.5	xxxx	6.9	7.5	xxxx	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	xxxx	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	749	xxxx	247	833	xxxx	331	602	xxxx	xxxxxx	433	xxxx	xxxxxx
Potent Cap.:	304	xxxx	760	265	xxxx	671	985	xxxx	xxxxxx	1137	xxxx	xxxxxx
Move Cap.:	288	xxxx	735	247	xxxx	648	969	xxxx	xxxxxx	1118	xxxx	xxxxxx
Volume/Cap:	0.11	xxxx	0.02	0.01	xxxx	0.01	0.00	xxxx	xxxxxx	0.01	xxxx	xxxxxx

Level Of Service Module:

Queue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Stopped Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	8.7	xxxx	xxxxxx	8.3	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT									
Shared Cap.:	xxxx	369	xxxxxx	xxxx	443	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.4	xxxxxx	xxxxxx	0.1	xxxxxx	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Shrd StpDel:	xxxxxx	16.2	xxxxxx	xxxxxx	13.3	xxxxxx	8.7	xxxx	xxxxxx	8.3	xxxx	xxxxxx
Shared LOS:	*	C	*	*	B	*	A	*	*	A	*	*
ApproachDel:		16.2			13.3		xxxxxx			xxxxxx		
ApproachLOS:		C			B		*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: D[28.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:

Base Vol:	21	0	12	2	0	5	1	249	37	11	398	5
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	27	0	16	3	0	7	1	324	48	14	517	7
Added Vol:	7	0	14	0	0	0	0	40	31	58	41	0
PasserByVol:	33	0	0	0	0	0	0	-37	37	0	-33	0
Initial Fut:	67	0	30	3	0	7	1	327	116	72	525	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	75	0	33	3	0	7	1	363	129	80	584	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	75	0	33	3	0	7	1	363	129	80	584	7

Critical Gap Module:

Critical Gp:	7.5	xxxx	6.9	7.5	xxxx	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	xxxx	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	923	xxxx	286	972	xxxx	336	611	xxxx	xxxxx	512	xxxx	xxxxx
Potent Cap.:	228	xxxx	717	210	xxxx	666	978	xxxx	xxxxx	1064	xxxx	xxxxx
Move Cap.:	204	xxxx	693	181	xxxx	644	961	xxxx	xxxxx	1046	xxxx	xxxxx
Volume/Cap:	0.37	xxxx	0.05	0.02	xxxx	0.01	0.00	xxxx	xxxx	0.08	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	8.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	260	xxxxx	xxxx	372	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.9	xxxxx	xxxxx	0.1	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Shrd StpDel:	xxxxx	28.3	xxxxx	xxxxx	14.9	xxxxx	8.7	xxxx	xxxxx	8.7	xxxx	xxxxx
Shared LOS:	*	D	*	*	B	*	A	*	*	A	*	*
ApproachDel:	28.3			14.9			xxxxxx			xxxxxx		
ApproachLOS:	D			B			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: C [15.8]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 1 1 0 0 1 1 0 0

Volume Module:
Base Vol: 26 0 24 0 0 0 0 246 29 46 394 0
Growth Adj: 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse: 34 0 31 0 0 0 0 320 38 60 512 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 38 0 35 0 0 0 0 355 42 66 569 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 38 0 35 0 0 0 0 355 42 66 569 0

Critical Gap Module:
Critical Gp: 6.8 xxxx 6.9 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 4.1 xxxx xxxxxx
FollowUpTim: 3.5 xxxx 3.3 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 2.2 xxxx xxxxxx

Capacity Module:
Cnflct Vol: 834 xxxx 239 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 417 xxxx xxxxxx
Potent Cap.: 311 xxxx 769 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 1153 xxxx xxxxxx
Move Cap.: 287 xxxx 743 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 1133 xxxx xxxxxx
Volume/Cap: 0.13 xxxx 0.05 xxxxxx xxxxxx xxxxxx xxxxxx xxxx xxxxxx 0.06 xxxx xxxxxx

Level Of Service Module:
Queue: xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 0.2 xxxx xxxxxx
Stopped Del: xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 8.4 xxxx xxxxxx
LOS by Move: * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 406 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue: xxxxxx 0.6 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 0.2 xxxx xxxxxx
Shrd StpDel: xxxxxx 15.8 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 8.4 xxxx xxxxxx
Shared LOS: * C * * * * * * * * A * *
ApproachDel: 15.8 xxxxxxxx xxxxxxxx xxxxxxxx
ApproachLOS: C * * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[9.9]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 0 0 0 1 1 0 0 1 1 0 0

Volume Module:
Base Vol: 26 0 24 0 0 0 0 246 29 46 394 0
Growth Adj: 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse: 34 0 31 0 0 0 0 320 38 60 512 0
Added Vol: 0 0 0 0 0 0 0 54 0 0 99 0
PasserByVol: -34 0 -31 0 0 0 0 0 -37 -59 0 0
Initial Fut: -0 0 0 0 0 0 0 374 1 1 611 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: -0 0 0 0 0 0 0 415 1 1 679 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 0 0 0 0 415 1 1 679 0

Critical Gap Module:
Critical Gp:xxxxx xxxxx 6.9 xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx
FollowUpTim:xxxxx xxxxx 3.3 xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx

Capacity Module:
Cnflct Vol: xxxxx xxxxx 248 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 436 xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx 758 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 1134 xxxxx xxxxxx
Move Cap.: xxxxx xxxxx 733 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 1115 xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx 0.00 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.00 xxxxx xxxxx

Level Of Service Module:
Queue: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx
Stopped Del:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 8.2 xxxxx xxxxxx
LOS by Move: * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 733 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue:xxxxxx 0.0 xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx
Shrd StpDel:xxxxxx 9.9 xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 8.2 xxxxx xxxxxx
Shared LOS: * A * * * * * * * * A * *
ApproachDel: 9.9 xxxxxxxx xxxxxxxx xxxxxxxx
ApproachLOS: A * * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 2nd Street / Normal Ave

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C [18.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:

Base Vol:	3	3	19	9	0	10	7	228	33	42	424	15
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	4	4	25	12	0	13	9	296	43	55	551	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	4	4	27	13	0	14	10	329	48	61	612	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	4	4	27	13	0	14	10	329	48	61	612	22

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	xxxx	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	xxxx	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	841	1169	229	972	xxxx	357	654	xxxx	xxxxxx	397	xxxx	xxxxxx
Potent Cap.:	261	195	780	210	xxxx	645	942	xxxx	xxxxxx	1173	xxxx	xxxxxx
Move Cap.:	234	176	755	182	xxxx	624	927	xxxx	xxxxxx	1153	xxxx	xxxxxx
Volume/Cap:	0.02	0.02	0.04	0.07	xxxx	0.02	0.01	xxxx	xxxx	0.05	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Stopped Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	8.9	xxxx	xxxxxx	8.3	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	454	xxxxxx	xxxx	291	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.3	xxxxxx	xxxxxx	0.3	xxxxxx	0.0	xxxx	xxxxxx	0.2	xxxx	xxxxxx
Shrd StpDel:	xxxxxx	13.6	xxxxxx	xxxxxx	18.7	xxxxxx	8.9	xxxx	xxxxxx	8.3	xxxx	xxxxxx
Shared LOS:	*	B	*	*	C	*	A	*	*	A	*	*
ApproachDel:		13.6			18.7		xxxxxxx			xxxxxxx		
ApproachLOS:		B			C		*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 2nd Street / Normal Ave

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: E[38.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:

Base Vol:	3	3	19	9	0	10	7	228	33	42	424	15
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	4	4	25	12	0	13	9	296	43	55	551	20
Added Vol:	7	0	24	0	0	0	0	26	28	100	93	0
PasserByVol:	0	0	31	0	0	0	0	-31	0	59	-59	0
Initial Fut:	11	4	80	12	0	13	9	291	71	214	585	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	12	4	89	13	0	14	10	324	79	237	650	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	12	4	89	13	0	14	10	324	79	237	650	22

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	xxxx	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	xxxx	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1223	1570	241	1360	xxxx	376	692	xxxx	xxxxx	423	xxxx	xxxxx
Potent Cap.:	138	112	766	109	xxxx	627	913	xxxx	xxxxx	1147	xxxx	xxxxx
Move Cap.:	104	81	740	72	xxxx	607	897	xxxx	xxxxx	1128	xxxx	xxxxx
Volume/Cap:	0.12	0.05	0.12	0.18	xxxx	0.02	0.01	xxxx	xxxx	0.21	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.8	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	9.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	363	xxxxx	xxxx	134	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.2	xxxxx	xxxxx	0.7	xxxxx	0.0	xxxx	xxxxx	0.8	xxxx	xxxxx
Shrd StpDel:	xxxxx	18.9	xxxxx	xxxxx	38.7	xxxxx	9.1	xxxx	xxxxx	9.0	xxxx	xxxxx
Shared LOS:	*	C	*	*	E	*	A	*	*	A	*	*
ApproachDel:	18.9			38.7			xxxxxxx			xxxxxxx		
ApproachLOS:	C			E			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 2nd Street / Broadway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.460
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 14.4
 Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	20	0	0	20	0	0	20	0
Lanes:	0	0	0	0	1	1	0	0	1	0	1	1

Volume Module:

Base Vol:	0	0	0	48	660	87	0	200	50	55	343	0
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	0	0	0	62	858	113	0	260	65	72	446	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	69	953	126	0	289	72	79	495	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	69	953	126	0	289	72	79	495	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	69	953	126	0	289	72	79	495	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.90	0.89	0.78	0.79	1.00
Lanes:	0.00	0.00	0.00	0.18	2.49	0.33	0.00	1.60	0.40	0.28	1.72	0.00
Final Sat.:	0	0	0	297	4086	539	0	2737	684	413	2575	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.23	0.23	0.23	0.00	0.11	0.11	0.19	0.19	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.51	0.51	0.51	0.00	0.42	0.42	0.42	0.42	0.00
Volume/Cap:	0.00	0.00	0.00	0.46	0.46	0.46	0.00	0.25	0.25	0.46	0.46	0.00
Delay/Veh:	0.0	0.0	0.0	12.8	12.8	12.8	0.0	15.2	15.2	17.0	17.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	12.8	12.8	12.8	0.0	15.2	15.2	17.0	17.0	0.0
HCM2kAvg:	0	0	0	6	6	6	0	3	3	6	6	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 2nd Street / Broadway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.549
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 15.3
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	20	0	0	20	0	0	20	0
Lanes:	0	0	0	0	1	1	0	0	1	0	1	1

Volume Module:

Base Vol:	0	0	0	48	660	87	0	200	50	55	343	0
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	0	0	0	62	858	113	0	260	65	72	446	0
Added Vol:	0	0	0	2	61	73	0	22	27	6	120	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	64	919	186	0	282	92	78	566	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	72	1021	207	0	313	102	86	629	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	72	1021	207	0	313	102	86	629	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	72	1021	207	0	313	102	86	629	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.90	0.88	0.78	0.79	1.00
Lanes:	0.00	0.00	0.00	0.16	2.36	0.48	0.00	1.50	0.50	0.24	1.76	0.00
Final Sat.:	0	0	0	267	3805	771	0	2558	834	360	2626	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.27	0.27	0.27	0.00	0.12	0.12	0.24	0.24	0.00
Crit Moves:				****						****		
Green/Cycle:	0.00	0.00	0.00	0.49	0.49	0.49	0.00	0.44	0.44	0.44	0.44	0.00
Volume/Cap:	0.00	0.00	0.00	0.55	0.55	0.55	0.00	0.28	0.28	0.55	0.55	0.00
Delay/Veh:	0.0	0.0	0.0	14.6	14.6	14.6	0.0	14.6	14.6	17.2	17.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.6	14.6	14.6	0.0	14.6	14.6	17.2	17.2	0.0
HCM2kAvg:	0	0	0	8	8	8	0	3	3	8	8	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 2nd Street / Main Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.454
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 13.7
 Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	20	0	0	20	0
Lanes:	0	1	1	1	1	0	0	1	1	0	0	1

Volume Module:

Base Vol:	104	695	113	0	0	0	82	164	0	0	291	24
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	135	904	147	0	0	0	107	213	0	0	378	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	150	1004	163	0	0	0	118	237	0	0	420	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	1004	163	0	0	0	118	237	0	0	420	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	150	1004	163	0	0	0	118	237	0	0	420	35

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00	1.00	0.62	0.62	1.00	1.00	0.92	0.91
Lanes:	0.34	2.29	0.37	0.00	0.00	0.00	0.67	1.33	0.00	0.00	1.85	0.15
Final Sat.:	558	3728	606	0	0	0	785	1569	0	0	3231	266

Capacity Analysis Module:

Vol/Sat:	0.27	0.27	0.27	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.13	0.13
Crit Moves:	****											
Green/Cycle:	0.59	0.59	0.59	0.00	0.00	0.00	0.33	0.33	0.00	0.00	0.33	0.33
Volume/Cap:	0.45	0.45	0.45	0.00	0.00	0.00	0.45	0.45	0.00	0.00	0.39	0.39
Delay/Veh:	9.2	9.2	9.2	0.0	0.0	0.0	21.4	21.4	0.0	0.0	20.7	20.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.2	9.2	9.2	0.0	0.0	0.0	21.4	21.4	0.0	0.0	20.7	20.7
HCM2kAvg:	6	6	6	0	0	0	5	5	0	0	5	4

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 2nd Street / Main Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.523
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	20	0	0	20	0
Lanes:	0	1	1	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	104	695	113	0	0	0	82	164	0	0	291	24
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	135	904	147	0	0	0	107	213	0	0	378	31
Added Vol:	100	90	1	0	0	0	17	7	0	0	26	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	235	994	148	0	0	0	124	220	0	0	404	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	261	1104	164	0	0	0	137	245	0	0	449	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	261	1104	164	0	0	0	137	245	0	0	449	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	261	1104	164	0	0	0	137	245	0	0	449	44

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00	1.00	0.58	0.58	1.00	1.00	0.92	0.91
Lanes:	0.51	2.17	0.32	0.00	0.00	0.00	0.72	1.28	0.00	0.00	1.82	0.18
Final Sat.:	841	3552	529	0	0	0	794	1415	0	0	3181	308

Capacity Analysis Module:

Vol/Sat:	0.31	0.31	0.31	0.00	0.00	0.00	0.17	0.17	0.00	0.00	0.14	0.14
Crit Moves:	****											
Green/Cycle:	0.59	0.59	0.59	0.00	0.00	0.00	0.33	0.33	0.00	0.00	0.33	0.33
Volume/Cap:	0.52	0.52	0.52	0.00	0.00	0.00	0.52	0.52	0.00	0.00	0.43	0.43
Delay/Veh:	9.7	9.7	9.7	0.0	0.0	0.0	22.4	22.4	0.0	0.0	21.1	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.7	9.7	0.0	0.0	0.0	22.4	22.4	0.0	0.0	21.1	21.1
HCM2kAvg:	8	8	8	0	0	0	7	7	0	0	5	5

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 1.090
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 82.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase											
Rights:	Ignore			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	0	1	0	1	0

Volume Module:

Base Vol:	1	244	406	259	220	2	2	0	2	478	0	310
Growth Adj:	1.00	1.70	1.50	1.10	1.70	1.00	1.00	1.00	1.00	1.20	1.00	1.10
Initial Bse:	1	415	609	285	374	2	2	0	2	574	0	341
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00
PHF Volume:	1	461	0	317	416	2	2	0	2	637	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	461	0	317	416	2	2	0	2	637	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Vol.:	1	461	0	317	416	2	2	0	2	637	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.98	1.00	0.96	0.96	0.96	0.89	1.00	0.89	0.93	1.00	1.00
Lanes:	1.00	1.00	1.00	1.27	0.72	0.01	0.50	0.00	0.50	1.00	1.00	1.00
Final Sat.:	1769	1862	1900	2324	1315	7	848	0	848	1769	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.25	0.00	0.14	0.32	0.32	0.00	0.00	0.00	0.36	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.23	0.23	0.00	0.29	0.29	0.29	0.00	0.00	0.00	0.33	0.00	0.00
Volume/Cap:	0.00	1.09	0.00	0.47	1.09	1.09	1.09	0.00	1.09	1.09	0.00	0.00
Delay/Veh:	23.9	101	0.0	23.6	90.1	90.1	525.9	0.0	525.9	90.8	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.9	101	0.0	23.6	90.1	90.1	525.9	0.0	525.9	90.8	0.0	0.0
HCM2kAvg:	0	21	0	5	25	25	1	0	1	28	0	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 1.139
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 97.6
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase											
Rights:	Ignore			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	0	1	0	1	0

Volume Module:

Base Vol:	1	244	406	259	220	2	2	0	2	478	0	310
Growth Adj:	1.00	1.70	1.50	1.10	1.70	1.00	1.00	1.00	1.00	1.20	1.00	1.10
Initial Bse:	1	415	609	285	374	2	2	0	2	574	0	341
Added Vol:	0	37	0	11	26	0	0	0	0	1	0	46
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	452	609	296	400	2	2	0	2	575	0	387
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00
PHF Volume:	1	502	0	329	444	2	2	0	2	638	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	502	0	329	444	2	2	0	2	638	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Vol.:	1	502	0	329	444	2	2	0	2	638	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.98	1.00	0.96	0.96	0.96	0.89	1.00	0.89	0.93	1.00	1.00
Lanes:	1.00	1.00	1.00	1.27	0.72	0.01	0.50	0.00	0.50	1.00	1.00	1.00
Final Sat.:	1769	1862	1900	2313	1326	7	848	0	848	1769	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.27	0.00	0.14	0.34	0.34	0.00	0.00	0.00	0.36	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.24	0.24	0.00	0.29	0.29	0.29	0.00	0.00	0.00	0.32	0.00	0.00
Volume/Cap:	0.00	1.14	0.00	0.48	1.14	1.14	1.14	0.00	1.14	1.14	0.00	0.00
Delay/Veh:	23.3	117	0.0	23.5	108	107.9	558.6	0.0	558.6	109.9	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.3	117	0.0	23.5	108	107.9	558.6	0.0	558.6	109.9	0.0	0.0
HCM2kAvg:	0	24	0	6	29	29	1	0	1	31	0	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 0.874
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 83 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 0.896
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 31.6
Optimal Cycle: 91 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns representing different traffic volumes and adjustment factors.

Saturation Flow Module table with 13 columns representing saturation flow rates and adjustment factors.

Capacity Analysis Module table with 13 columns representing capacity analysis metrics.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[10.8]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 0 1 0 0 0

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

Volume Module:

Base Vol: 3 0 6 0 0 0 0 117 27 66 88 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.90 1.00 1.00 1.90 1.00

Initial Bse: 3 0 6 0 0 0 0 222 27 66 167 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90

PHF Volume: 3 0 7 0 0 0 0 247 30 73 186 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol.: 3 0 7 0 0 0 0 247 30 73 186 0

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

Critical Gap Module:

Critical Gap: 6.4 xxxx 6.2 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 4.1 xxxx xxxxxx

FollowUpTim: 3.5 xxxx 3.3 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 2.2 xxxx xxxxxx

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

Capacity Module:

Cnflict Vol: 594 xxxx 262 xxxxxx xxxxxx xxxxxx xxxxxx xxxx xxxxxx 277 xxxx xxxxxx

Potent Cap.: 471 xxxx 782 xxxxxx xxxxxx xxxxxx xxxxxx xxxx xxxxxx 1286 xxxx xxxxxx

Move Cap.: 449 xxxx 782 xxxxxx xxxxxx xxxxxx xxxxxx xxxx xxxxxx 1286 xxxx xxxxxx

Volume/Cap: 0.01 xxxx 0.01 xxxxxx xxxxxx xxxxxx xxxxxx xxxx xxxxxx 0.06 xxxx xxxxxx

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

Level Of Service Module:

Queue: xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 0.2 xxxx xxxxxx

Stopped Del: xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 8.0 xxxx xxxxxx

LOS by Move: * * * * * * * * * * A * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx 627 xxxxxx xxxx 0 xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx

SharedQueue: xxxxxx 0.0 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 0.2 xxxx xxxxxx

Shrd StpDel: xxxxxx 10.8 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 8.0 xxxx xxxxxx

Shared LOS: * B * * * * * * * * * A * *

ApproachDel: 10.8 xxxxxxxx xxxxxxxx xxxxxxxx

ApproachLOS: B * * *

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[10.6]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module:

Table with 13 columns representing different volume categories and 13 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

Critical Gap Module:

Table with 13 columns and 2 rows: Critical Gp, FollowUpTim.

Capacity Module:

Table with 13 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with 13 columns and 10 rows: Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

cum ~~EXISTING~~ PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Scenario Report

Scenario: cum plus Master Plan PM

Command: Default Command
Volume: cum pm
Geometry: existing
Impact Fee: Default Impact Fee
Trip Generation: pm peak
Trip Distribution: current
Paths: Default Paths
Routes: Default Routes
Configuration: Default Configuration

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Trip Generation Report

Forecast for pm peak

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1		1940.00	students	0.06	0.15	116	291	407	48.5
	Zone 1 Subtotal					116	291	407	48.5
2		1935.00	students	0.06	0.15	116	290	406	48.3
	Zone 2 Subtotal					116	290	406	48.3
3		125.00	students	0.06	0.15	8	19	27	3.2
	Zone 3 Subtotal					8	19	27	3.2
TOTAL						240	600	840	100.0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Trip Distribution Report

Percent Of Trips current

Zone	To Gates									
	1	2	3	4	5	6	7	8	9	10
1	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
2	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0
3	15.0	15.0	12.5	15.0	1.5	4.0	20.0	7.0	5.0	5.0

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Turning Movement Report
 pm peak

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Nord Ave / West Sacramento Ave													
Base	21	774	311	402	874	10	22	25	10	368	35	472	3323
Added	0	30	1	23	13	0	0	0	0	2	0	60	129
Total	21	804	312	425	887	10	22	25	10	370	35	532	3452
#2 Sacramento Ave / Warner Ave													
Base	179	356	96	29	240	96	113	273	169	111	493	69	2224
Added	59	59	152	5	23	0	0	0	23	61	3	12	397
Total	238	415	248	34	263	96	113	273	192	172	496	81	2621
#3 Esplanade / 1st Avenue													
Base	0	1344	87	0	1139	91	94	485	49	117	528	153	4087
Added	0	46	55	0	30	0	29	35	0	31	5	0	231
Total	0	1390	142	0	1169	91	123	520	49	148	533	153	4318
#4 Esplanade / Sacramento Ave													
Base	407	1556	0	0	1183	217	0	0	282	0	0	0	3645
Added	54	101	0	0	40	20	0	0	85	0	0	0	300
Total	461	1657	0	0	1223	237	0	0	367	0	0	0	3945
#5 Warner Ave / Legion Avenue													
Base	0	497	113	133	407	0	0	0	0	68	0	103	1319
Added	0	57	4	16	60	0	0	0	0	1	0	6	144
Total	0	554	117	149	467	0	0	0	0	69	0	109	1464
#6 Walnut Avenue / 2nd Street													
Base	69	762	140	144	813	84	70	118	88	135	81	221	2726
Added	0	14	2	8	7	0	0	0	0	5	0	17	53
Total	69	776	142	152	820	84	70	118	88	140	81	238	2779
#7 2nd Avenue / Cherry St													
Base	5	20	21	177	81	55	35	382	5	31	426	103	1340
Added	0	0	0	0	0	0	0	10	0	0	23	0	33
Total	5	20	21	177	81	55	35	392	5	31	449	103	1373
#8 2nd Street / Ivy Street / Warner Ave													
Base	75	238	73	190	268	56	25	510	52	43	429	187	2145
Added	0	22	3	41	19	2	1	9	0	7	21	38	163
Total	75	260	76	231	287	58	26	519	52	50	450	225	2308
#9 2nd Street / Hazel St													
Base	20	0	48	0	1	4	3	741	27	27	627	1	1499
Added	27	0	51	0	0	0	0	42	11	20	38	0	189
PassBy	65	0	0	0	0	0	0	-63	63	0	-65	0	0
Total	112	0	99	0	1	4	3	720	101	47	600	1	1688

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 2nd Street / Chestnut St													
Base	65	0	81	0	0	0	0	725	64	42	584	0	1560
Added	0	0	0	0	0	0	0	93	0	0	58	0	151
PassBy	-65	0	-80	0	0	0	0	0	-63	-41	0	0	-249
Total	0	0	1	0	0	0	0	818	1	1	642	0	1462
#11 2nd Street / Normal Ave													
Base	23	1	39	23	4	17	16	731	62	65	584	18	1583
Added	25	0	89	0	0	0	0	83	10	35	33	0	275
PassBy	0	0	80	0	0	0	0	-80	0	41	-41	0	0
Total	48	1	208	23	4	17	16	734	72	141	576	18	1858
#12 2nd Street / Broadway													
Base	0	0	0	100	969	147	0	701	164	130	477	0	2687
Added	0	0	0	7	85	26	0	82	90	2	43	0	335
Total	0	0	0	107	1054	173	0	783	254	132	520	0	3022
#13 2nd Street / Main Street													
Base	176	1288	229	0	0	0	192	610	0	0	432	48	2974
Added	36	68	5	0	0	0	65	25	0	0	9	3	211
Total	212	1356	234	0	0	0	257	635	0	0	441	51	3185
#14 Park Avenue / Midway													
Base	0	454	806	452	394	1	2	0	0	562	2	361	3033
Added	0	28	1	41	36	0	0	0	0	1	0	16	123
Total	0	482	807	493	430	1	2	0	0	563	2	377	3156
#15 Midway / Hegan Lane													
Base	30	598	2	8	653	458	666	0	61	0	0	16	2491
Added	0	12	0	0	29	7	18	0	1	0	0	0	67
Total	30	610	2	8	682	465	684	0	62	0	0	16	2558
#16 Hegan lane / ARTC Access													
Base	8	0	24	0	0	0	0	258	1	7	321	0	620
Added	0	0	19	0	0	0	0	0	0	8	0	0	27
Total	8	0	43	0	0	0	0	258	1	15	321	0	647

 EXISTING PLUS PROJECT
 5600-37 CSU-MASTER PLAN EIR

Impact Analysis Report
 Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Nord Ave / West Sacramento Ave	F	195.8	1.552	F 222.3	1.644	+26.539 D/V
# 2 Sacramento Ave / Warner Ave	D	37.6	0.775	D 50.4	0.910	+12.785 D/V
# 3 Esplanade / 1st Avenue	C	34.7	0.943	D 40.7	0.981	+ 5.919 D/V
# 4 Esplanade / Sacramento Ave	F	60.0	0.000	F 121.0	0.000	+61.037 D/V
# 5 Warner Ave / Legion Avenue	A	9.6	0.533	A 9.7	0.578	+ 0.157 D/V
# 6 Walnut Avenue / 2nd Street	C	22.8	0.721	C 23.4	0.743	+ 0.654 D/V
# 7 2nd Avenue / Cherry St	F	278.6	0.000	F 313.3	0.000	+34.668 D/V
# 8 2nd Street / Ivy Street / Warn	B	14.9	0.509	B 15.9	0.602	+ 0.980 D/V
# 9 2nd Street / Hazel St	C	22.3	0.000	F 194.2	0.000	+171.911 D/V
# 10 2nd Street / Chestnut St	E	36.7	0.000	B 11.8	0.000	-24.828 D/V
# 11 2nd Street / Normal Ave	E	37.5	0.000	F 177.7	0.000	+140.296 D/V
# 12 2nd Street / Broadway	B	16.9	0.650	B 18.5	0.730	+ 1.630 D/V
# 13 2nd Street / Main Street	C	20.9	0.827	C 26.1	0.914	+ 5.192 D/V
# 14 Park Avenue / Midway	F	104.0	1.183	F 121.8	1.244	+17.790 D/V
# 15 Midway / Hegan Lane	E	67.1	1.075	E 74.8	1.111	+ 7.658 D/V
# 16 Hegan lane / ARTC Access	B	10.8	0.000	B 10.7	0.000	-0.133 D/V

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Nord Ave / West Sacramento Ave

Cycle (sec):	80	Critical Vol./Cap. (X):	1.552
Loss Time (sec):	9 (Y+R = 4 sec)	Average Delay (sec/veh):	195.8
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1

Volume Module:

Base Vol:	16	595	239	309	672	8	17	19	8	283	27	363
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	21	774	311	402	874	10	22	25	10	368	35	472
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	22	814	327	423	920	11	23	26	11	387	37	497
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	814	327	423	920	11	23	26	11	387	37	497
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	22	814	327	423	920	11	23	26	11	387	37	497

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.84	0.84	0.84	0.88	0.88	0.34	0.34	0.34	0.65	0.76	0.70
Lanes:	1.00	0.71	0.29	1.00	0.99	0.01	0.39	0.43	0.18	1.00	0.06	0.94
Final Sat.:	1592	1144	460	1592	1653	20	249	278	117	1240	92	1241

Capacity Analysis Module:

Vol/Sat:	0.01	0.71	0.71	0.27	0.56	0.56	0.09	0.09	0.09	0.31	0.40	0.40
Crit Moves:	****			****						****		
Green/Cycle:	0.02	0.46	0.46	0.17	0.61	0.61	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.91	1.55	1.55	1.55	0.91	0.91	0.36	0.36	0.36	1.21	1.55	1.55
Delay/Veh:	179.9	277	276.8	298.9	24.7	24.7	25.7	25.7	25.7	150.2	292	292.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	179.9	277	276.8	298.9	24.7	24.7	25.7	25.7	25.7	150.2	292	292.0
HCM2kAvg:	2	79	79	32	24	24	3	3	3	27	41	38

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #1 Nord Ave / West Sacramento Ave
*****
Cycle (sec):          80          Critical Vol./Cap. (X):          1.644
Loss Time (sec):      9 (Y+R = 4 sec) Average Delay (sec/veh):          222.3
Optimal Cycle:        180          Level Of Service:          F
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|
Control:      Protected      Protected      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0      0 0 0      0 0 0
Lanes:      1 0 0 1 0      1 0 0 1 0      0 0 1! 0 0      1 0 0 1 0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:      16 595 239 309 672 8 17 19 8 283 27 363
Growth Adj:  1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse:  21 774 311 402 874 10 22 25 10 368 35 472
Added Vol:    0 30 1 23 13 0 0 0 0 2 0 60
PasserByVol:  0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:  21 804 312 425 887 10 22 25 10 370 35 532
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:   22 846 328 447 933 11 23 26 11 389 37 560
Reduct Vol:   0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:  22 846 328 447 933 11 23 26 11 389 37 560
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   22 846 328 447 933 11 23 26 11 389 37 560
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:   0.84 0.84 0.84 0.84 0.88 0.88 0.35 0.35 0.35 0.65 0.76 0.70
Lanes:        1.00 0.72 0.28 1.00 0.99 0.01 0.39 0.43 0.18 1.00 0.06 0.94
Final Sat.:   1592 1157 449 1592 1653 19 254 284 120 1235 83 1252
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.01 0.73 0.73 0.28 0.56 0.56 0.09 0.09 0.09 0.32 0.45 0.45
Crit Moves:      ****          ****          ****
Green/Cycle:  0.01 0.44 0.44 0.17 0.60 0.60 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap:    0.94 1.64 1.64 1.64 0.94 0.94 0.34 0.34 0.34 1.16 1.64 1.64
Delay/Veh:    198.1 318 318.4 339.0 30.5 30.5 24.5 24.5 24.5 128.8 331 331.1
User DelAdj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   198.1 318 318.4 339.0 30.5 30.5 24.5 24.5 24.5 128.8 331 331.1
HCM2kAvg:      2 86 86 36 27 27 3 3 3 26 48 45
*****

```

CUMULATIVE PLUS PRPJECT
IMPROVED
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #1 Nord Ave / West Sacramento Ave
*****
Cycle (sec):          80          Critical Vol./Cap. (X):          1.235
Loss Time (sec):      9 (Y+R = 4 sec) Average Delay (sec/veh):          99.4
Optimal Cycle:        180          Level Of Service:          F
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:        Protected      Protected      Permitted      Permitted
Rights:         Include      Include      Include      Include
Min. Green:     0 0 0      0 0 0      0 0 0      0 0 0
Lanes:          1 0 1 1 0      1 0 1 1 0      0 0 1! 0 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:       16 595 239 309 672 8 17 19 8 283 27 363
Growth Adj:    1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse:    21 774 311 402 874 10 22 25 10 368 35 472
Added Vol:      0 30 1 23 13 0 0 0 0 2 0 60
PasserByVol:    0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:    21 804 312 425 887 10 22 25 10 370 35 532
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:     22 846 328 447 933 11 23 26 11 389 37 560
Reduct Vol:     0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:    22 846 328 447 933 11 23 26 11 389 37 560
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:     22 846 328 447 933 11 23 26 11 389 37 560
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:       1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:     0.84 0.80 0.80 0.84 0.84 0.84 0.47 0.47 0.47 0.64 0.76 0.73
Lanes:          1.00 1.44 0.56 1.00 1.98 0.02 0.39 0.43 0.18 1.00 0.06 0.94
Final Sat.:     1592 2198 853 1592 3141 37 348 389 164 1222 86 1301
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:        0.01 0.38 0.38 0.28 0.30 0.30 0.07 0.07 0.07 0.32 0.43 0.43
Crit Moves:     ****          ****          ****
Green/Cycle:    0.02 0.31 0.31 0.23 0.52 0.52 0.35 0.35 0.35 0.35 0.35 0.35
Volume/Cap:     0.58 1.23 1.23 1.23 0.58 0.58 0.19 0.19 0.19 0.91 1.23 1.23
Delay/Veh:      58.7 142 142.4 158.3 13.9 13.9 18.5 18.5 18.5 49.0 149 148.6
User DelAdj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:     58.7 142 142.4 158.3 13.9 13.9 18.5 18.5 18.5 49.0 149 148.6
HCM2kAvg:       1 31 31 26 9 9 2 2 2 17 33 31
*****

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.775
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.6
 Optimal Cycle: 72 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	138	274	74	22	185	74	87	210	130	85	379	53
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	179	356	96	29	240	96	113	273	169	111	493	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	189	375	101	30	253	101	119	287	178	116	519	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	375	101	30	253	101	119	287	178	116	519	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	189	375	101	30	253	101	119	287	178	116	519	73

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.97	0.95	0.96	0.96	0.95	0.94	0.94	0.95	0.98	0.98
Lanes:	1.00	0.79	0.21	1.00	0.71	0.29	1.00	0.62	0.38	1.00	0.88	0.12
Final Sat.:	1805	1448	391	1805	1299	520	1805	1107	685	1805	1637	229

Capacity Analysis Module:

Vol/Sat:	0.10	0.26	0.26	0.02	0.19	0.19	0.07	0.26	0.26	0.06	0.32	0.32
Crit Moves:	****			****			****			****		
Green/Cycle:	0.13	0.36	0.36	0.02	0.25	0.25	0.09	0.40	0.40	0.10	0.41	0.41
Volume/Cap:	0.78	0.71	0.71	0.71	0.78	0.78	0.78	0.66	0.66	0.66	0.78	0.78
Delay/Veh:	56.2	31.0	31.0	92.7	42.9	42.9	66.3	26.9	26.9	52.1	30.6	30.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.2	31.0	31.0	92.7	42.9	42.9	66.3	26.9	26.9	52.1	30.6	30.6
HCM2kAvg:	8	14	14	2	12	12	6	12	12	5	17	17

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Sacramento Ave / Warner Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.910
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 50.4
Optimal Cycle: 115 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	138	274	74	22	185	74	87	210	130	85	379	53
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	179	356	96	29	240	96	113	273	169	111	493	69
Added Vol:	59	59	152	5	23	0	0	0	23	61	3	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	238	415	248	34	263	96	113	273	192	172	496	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	251	437	261	35	277	101	119	287	202	181	522	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	251	437	261	35	277	101	119	287	202	181	522	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	251	437	261	35	277	101	119	287	202	181	522	85

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.96	0.96	0.95	0.94	0.94	0.95	0.98	0.98
Lanes:	1.00	0.63	0.37	1.00	0.73	0.27	1.00	0.59	0.41	1.00	0.86	0.14
Final Sat.:	1805	1123	671	1805	1336	488	1805	1046	736	1805	1599	261

Capacity Analysis Module:

Vol/Sat:	0.14	0.39	0.39	0.02	0.21	0.21	0.07	0.27	0.27	0.10	0.33	0.33
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.43	0.43	0.02	0.27	0.27	0.07	0.32	0.32	0.12	0.36	0.36
Volume/Cap:	0.77	0.91	0.91	0.91	0.77	0.77	0.91	0.87	0.87	0.87	0.91	0.91
Delay/Veh:	49.9	41.7	41.7	157.8	41.1	41.1	98.3	46.0	46.0	73.7	47.2	47.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.9	41.7	41.7	157.8	41.1	41.1	98.3	46.0	46.0	73.7	47.2	47.2
HCM2kAvg:	10	24	24	3	13	13	7	17	17	9	22	22

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Esplanade / 1st Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.943
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 34.7
 Optimal Cycle: 114 Level Of Service: C

Approach:	North Bound					South Bound					East Bound					West Bound								
	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R						
Movement:																								
Control:	Protected					Protected					Protected					Protected								
Rights:	Include					Include					Include					Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	1	0	0	1	1	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	0	1034	67	0	876	70	72	373	38	90	406	118
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	0	1344	87	0	1139	91	94	485	49	117	528	153
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1415	92	0	1199	96	99	510	52	123	556	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1415	92	0	1199	96	99	510	52	123	556	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1415	92	0	1199	96	99	510	52	123	556	161

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	1.00	0.94	0.94	0.95	0.99	0.99	0.95	0.97	0.97
Lanes:	0.00	2.00	1.00	0.00	1.85	0.15	1.00	0.91	0.09	1.00	0.77	0.23
Final Sat.:	0	3610	1615	0	3306	264	1805	1700	173	1805	1422	413

Capacity Analysis Module:

Vol/Sat:	0.00	0.39	0.06	0.00	0.36	0.36	0.05	0.30	0.30	0.07	0.39	0.39
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.42	0.42	0.00	0.42	0.42	0.06	0.38	0.38	0.09	0.41	0.41
Volume/Cap:	0.00	0.94	0.14	0.00	0.87	0.87	0.94	0.78	0.78	0.78	0.94	0.94
Delay/Veh:	0.0	34.7	14.6	0.0	27.4	27.4	107.4	27.1	27.1	57.5	42.6	42.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	34.7	14.6	0.0	27.4	27.4	107.4	27.1	27.1	57.5	42.6	42.6
HCM2kAvg:	0	22	1	0	18	18	6	14	14	5	22	22

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Esplanade / 1st Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.981
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 40.7
 Optimal Cycle: 144 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	0	1	1	0	0	1	0	0

Volume Module:

Base Vol:	0	1034	67	0	876	70	72	373	38	90	406	118
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	0	1344	87	0	1139	91	94	485	49	117	528	153
Added Vol:	0	46	55	0	30	0	29	35	0	31	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1390	142	0	1169	91	123	520	49	148	533	153
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1463	150	0	1230	96	129	547	52	156	561	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1463	150	0	1230	96	129	547	52	156	561	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1463	150	0	1230	96	129	547	52	156	561	161

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	1.00	0.94	0.94	0.95	0.99	0.99	0.95	0.97	0.97
Lanes:	0.00	2.00	1.00	0.00	1.86	0.14	1.00	0.91	0.09	1.00	0.78	0.22
Final Sat.:	0	3610	1615	0	3312	258	1805	1713	163	1805	1425	410

Capacity Analysis Module:

Vol/Sat:	0.00	0.41	0.09	0.00	0.37	0.37	0.07	0.32	0.32	0.09	0.39	0.39
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.41	0.41	0.00	0.41	0.41	0.07	0.37	0.37	0.10	0.40	0.40
Volume/Cap:	0.00	0.98	0.22	0.00	0.90	0.90	0.98	0.86	0.86	0.86	0.98	0.98
Delay/Veh:	0.0	41.9	15.3	0.0	29.6	29.6	109.3	33.2	33.2	66.1	51.9	51.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	41.9	15.3	0.0	29.6	29.6	109.3	33.2	33.2	66.1	51.9	51.9
HCM2kAvg:	0	25	2	0	19	19	7	17	17	7	25	25

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Esplanade / Sacramento Ave

Average Delay (sec/veh): 10.4 Worst Case Level Of Service: F[60.0]

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol. across four approaches.

Critical Gap Module table with columns for Critical Gp and FollowUpTim across four approaches.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across four approaches.

Level Of Service Module table with columns for Queue, Stopped Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS across four approaches.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Esplanade / Sacramento Ave

Average Delay (sec/veh): 24.7 Worst Case Level Of Service: F[121.0]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: Table with 12 columns for traffic volumes and adjustments. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Critical Gap Module: Table with 12 columns for gap and follow-up times. Rows include Critical Gp and FollowUpTim.

Capacity Module: Table with 12 columns for capacity and volume/capacity. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module: Table with 12 columns for LOS metrics. Rows include Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.533
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: 28 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 13 columns representing saturation flow factors like Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors like Vol/Sat, Crit Moves, Green/Cycle, etc.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Warner Ave / Legion Avenue

Cycle (sec): 80 Critical Vol./Cap. (X): 0.578
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: 31 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	20	0	0	0	0	0	20	0
Lanes:	0	0	1	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	0	382	87	102	313	0	0	0	0	52	0	79
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	0	497	113	133	407	0	0	0	0	68	0	103
Added Vol:	0	57	4	16	60	0	0	0	0	1	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	554	117	149	467	0	0	0	0	69	0	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	583	123	156	491	0	0	0	0	72	0	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	583	123	156	491	0	0	0	0	72	0	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	583	123	156	491	0	0	0	0	72	0	114

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.98	0.95	0.49	1.00	1.00	1.00	1.00	1.00	0.81	1.00	0.57
Lanes:	0.00	0.82	0.18	1.00	1.00	0.00	0.00	0.00	0.00	0.31	0.00	0.69
Final Sat.:	0	1524	322	929	1900	0	0	0	0	475	0	752

Capacity Analysis Module:

Vol/Sat:	0.00	0.38	0.38	0.17	0.26	0.00	0.00	0.00	0.00	0.15	0.00	0.15
Crit Moves:	****									****		
Green/Cycle:	0.00	0.66	0.66	0.66	0.66	0.00	0.00	0.00	0.00	0.26	0.00	0.26
Volume/Cap:	0.00	0.58	0.58	0.25	0.39	0.00	0.00	0.00	0.00	0.58	0.00	0.58
Delay/Veh:	0.0	8.1	8.1	5.7	6.4	0.0	0.0	0.0	0.0	28.2	0.0	28.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.1	8.1	5.7	6.4	0.0	0.0	0.0	0.0	28.2	0.0	28.2
HCM2kAvg:	0	10	10	3	6	0	0	0	0	6	0	5

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.721
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	53	586	108	111	625	65	54	91	68	104	62	170
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	69	762	140	144	813	84	70	118	88	135	81	221
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	73	802	148	152	855	89	74	125	93	142	85	233
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	802	148	152	855	89	74	125	93	142	85	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	73	802	148	152	855	89	74	125	93	142	85	233

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.82	0.82	0.84	0.83	0.83	0.73	0.74	0.71	0.50	0.50	0.68
Lanes:	1.00	1.69	0.31	1.00	1.81	0.19	0.25	0.43	0.32	0.63	0.37	1.00
Final Sat.:	1592	2627	484	1592	2844	296	350	590	441	595	355	1300

Capacity Analysis Module:

Vol/Sat:	0.05	0.31	0.31	0.10	0.30	0.30	0.21	0.21	0.21	0.24	0.24	0.18
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.42	0.42	0.13	0.48	0.48	0.33	0.33	0.33	0.33	0.33	0.33
Volume/Cap:	0.62	0.72	0.72	0.72	0.62	0.62	0.64	0.64	0.64	0.72	0.72	0.54
Delay/Veh:	46.1	21.1	21.1	44.8	16.1	16.1	25.6	25.6	25.6	31.4	31.4	23.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.1	21.1	21.1	44.8	16.1	16.1	25.6	25.6	25.6	31.4	31.4	23.1
HCM2kAvg:	3	11	11	5	9	9	8	8	8	10	10	5

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Walnut Avenue / 2nd Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.743
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 55 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), Min. Green, Lanes.

Table with columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.) and values for each approach.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. and values for each approach.

Table with columns: Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, HCM2kAvg) and values for each approach.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 2nd Avenue / Cherry St

Average Delay (sec/veh): 66.0 Worst Case Level Of Service: F[278.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:

Base Vol:	4	15	16	136	62	42	27	294	4	24	328	79
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	5	20	21	177	81	55	35	382	5	31	426	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	5	21	22	186	85	57	37	402	5	33	449	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	5	21	22	186	85	57	37	402	5	33	449	108

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	851	1142	244	894	1090	318	577	xxxx	xxxxx	428	xxxx	xxxxx
Potent Cap.:	257	202	763	239	217	683	1007	xxxx	xxxxx	1142	xxxx	xxxxx
Move Cap.:	142	182	738	194	195	661	990	xxxx	xxxxx	1123	xxxx	xxxxx
Volume/Cap:	0.04	0.11	0.03	0.96	0.43	0.09	0.04	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	265	xxxxx	xxxx	222	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	0.6	xxxxx	xxxxx	19.6	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd StpDel:	xxxxx	21.6	xxxxx	xxxxx	279	xxxxx	8.8	xxxx	xxxxx	8.3	xxxx	xxxxx
Shared LOS:	*	C	*	*	F	*	A	*	*	A	*	*
ApproachDel:	21.6			278.6			xxxxxxx			xxxxxxx		
ApproachLOS:	C			F			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 2nd Avenue / Cherry St

Average Delay (sec/veh): 72.3 Worst Case Level Of Service: F[313.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:

Base Vol:	4	15	16	136	62	42	27	294	4	24	328	79
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	5	20	21	177	81	55	35	382	5	31	426	103
Added Vol:	0	0	0	0	0	0	0	10	0	0	23	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	20	21	177	81	55	35	392	5	31	449	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	5	21	22	186	85	57	37	413	5	33	473	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	5	21	22	186	85	57	37	413	5	33	473	108

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	874	1176	249	923	1125	331	601	xxxx	xxxxxx	438	xxxx	xxxxxx
Potent Cap.:	247	193	757	228	207	671	986	xxxx	xxxxxx	1132	xxxx	xxxxxx
Move Cap.:	133	173	732	184	186	649	970	xxxx	xxxxxx	1113	xxxx	xxxxxx
Volume/Cap:	0.04	0.12	0.03	1.01	0.46	0.09	0.04	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.1	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Stopped Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	8.9	xxxx	xxxxxx	8.3	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	253	xxxxxx	xxxx	211	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.7	xxxxxx	xxxxxx	20.6	xxxxxx	0.1	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Shrd StpDel:	xxxxxx	22.5	xxxxxx	xxxxxx	313	xxxxxx	8.9	xxxx	xxxxxx	8.3	xxxx	xxxxxx
Shared LOS:	*	C	*	*	F	*	A	*	*	A	*	*
ApproachDel:	22.5			313.3			xxxxxxx			xxxxxxx		
ApproachLOS:	C			F			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.509
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 14.9
 Optimal Cycle: 27 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	58	183	56	146	206	43	19	392	40	33	330	144
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	75	238	73	190	268	56	25	510	52	43	429	187
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	79	250	77	200	282	59	26	536	55	45	452	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	250	77	200	282	59	26	536	55	45	452	197
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	79	250	77	200	282	59	26	536	55	45	452	197

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.43	0.95	0.93	0.44	0.95	0.94	0.84	0.84	0.83	0.79	0.79	0.76
Lanes:	1.00	0.76	0.24	1.00	0.83	0.17	0.08	1.74	0.18	0.13	1.29	0.58
Final Sat.:	819	1371	419	842	1497	313	134	2765	282	193	1930	842

Capacity Analysis Module:

Vol/Sat:	0.10	0.18	0.18	0.24	0.19	0.19	0.19	0.19	0.19	0.23	0.23	0.23	
Crit Moves:				****							****		
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47	0.46	0.46	0.46	0.46	0.46	0.46	
Volume/Cap:	0.21	0.39	0.39	0.51	0.40	0.40	0.42	0.42	0.42	0.51	0.51	0.51	
Delay/Veh:	12.9	14.3	14.3	16.1	14.4	14.4	14.7	14.7	14.7	15.6	15.6	15.6	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	12.9	14.3	14.3	16.1	14.4	14.4	14.7	14.7	14.7	15.6	15.6	15.6	
HCM2kAvg:	3	5	5	8	6	6	6	6	6	7	7	7	

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 2nd Street / Ivy Street / Warner Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.602
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	58	183	56	146	206	43	19	392	40	33	330	144
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	75	238	73	190	268	56	25	510	52	43	429	187
Added Vol:	0	22	3	41	19	2	1	9	0	7	21	38
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	260	76	231	287	58	26	519	52	50	450	225
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	79	274	80	243	302	61	27	546	55	53	474	237
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	274	80	243	302	61	27	546	55	53	474	237
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	79	274	80	243	302	61	27	546	55	53	474	237

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.42	0.95	0.93	0.43	0.96	0.95	0.83	0.83	0.82	0.77	0.78	0.75
Lanes:	1.00	0.77	0.23	1.00	0.83	0.17	0.09	1.74	0.17	0.13	1.23	0.64
Final Sat.:	807	1388	405	824	1508	304	136	2749	276	200	1807	905

Capacity Analysis Module:

Vol/Sat:	0.10	0.20	0.20	0.29	0.20	0.20	0.20	0.20	0.20	0.26	0.26	0.26	
Crit Moves:				****							****		
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.44	0.44	0.44	0.44	0.44	0.44	
Volume/Cap:	0.20	0.40	0.40	0.60	0.41	0.41	0.46	0.46	0.46	0.60	0.60	0.60	
Delay/Veh:	11.8	13.3	13.3	17.3	13.3	13.3	16.2	16.2	16.2	18.1	18.1	18.1	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	11.8	13.3	13.3	17.3	13.3	13.3	16.2	16.2	16.2	18.1	18.1	18.1	
HCM2kAvg:	3	6	6	10	6	6	6	6	6	9	9	9	

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C [22.3]

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1	0	0	0	0	1	0	1	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	15	0	37	0	1	3	2	570	21	21	482	1
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	20	0	48	0	1	4	3	741	27	27	627	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	21	0	51	0	1	4	3	780	29	29	660	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	21	0	51	0	1	4	3	780	29	29	660	1

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	7.5	xxxx	6.9	xxxxxx	6.5	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	1228	xxxx	444	xxxx	1572	370	681	xxxx	xxxxxx	829	xxxx	xxxxxx
Potent Cap.:	136	xxxx	567	xxxx	111	633	921	xxxx	xxxxxx	812	xxxx	xxxxxx
Move Cap.:	126	xxxx	548	xxxx	103	612	906	xxxx	xxxxxx	798	xxxx	xxxxxx
Volume/Cap:	0.16	xxxx	0.09	xxxx	0.01	0.01	0.00	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
Queue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Stopped Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	9.0	xxxx	xxxxxx	9.7	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	279	xxxxxx	xxxx	xxxx	275	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	1.0	xxxxxx	xxxxxx	xxxx	0.1	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Shrd StpDel:	xxxxxx	22.3	xxxxxx	xxxxxx	xxxx	18.4	9.0	xxxx	xxxxxx	9.7	xxxx	xxxxxx
Shared LOS:	*	C	*	*	*	C	A	*	*	A	*	*
ApproachDel:	22.3			18.4			xxxxxxx			xxxxxxx		
ApproachLOS:	C			C			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 2nd Street / Hazel St

Average Delay (sec/veh): 24.6 Worst Case Level Of Service: F[194.2]

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1	0	0	0	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	15	0	37	0	1	3	2	570	21	21	482	1
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	20	0	48	0	1	4	3	741	27	27	627	1
Added Vol:	27	0	51	0	0	0	0	42	11	20	38	0
PasserByVol:	65	0	0	0	0	0	0	-63	63	0	-65	0
Initial Fut:	112	0	99	0	1	4	3	720	101	47	600	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	117	0	104	0	1	4	3	758	107	50	631	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	117	0	104	0	1	4	3	758	107	50	631	1

Critical Gap Module:

Critical Gp:	7.5	xxxx	6.9	xxxxxx	6.5	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1273	xxxx	472	xxxx	1641	356	653	xxxx	xxxxxx	885	xxxx	xxxxxx
Potent Cap.:	127	xxxx	544	xxxx	101	646	944	xxxx	xxxxxx	774	xxxx	xxxxxx
Move Cap.:	114	xxxx	526	xxxx	91	625	928	xxxx	xxxxxx	761	xxxx	xxxxxx
Volume/Cap:	1.03	xxxx	0.20	xxxx	0.02	0.01	0.00	xxxx	xxxx	0.07	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	0.2	xxxx	xxxxxx			
Stopped Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	8.9	xxxx	xxxxxx	10.1	xxxx	xxxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	180	xxxxxx	xxxx	xxxx	253	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx			
SharedQueue:	xxxxxx	12.1	xxxxxx	xxxxxx	xxxx	0.1	0.0	xxxx	xxxxxx	0.2	xxxx	xxxxxx			
Shrd StpDel:	xxxxxx	194	xxxxxx	xxxxxx	xxxx	19.5	8.9	xxxx	xxxxxx	10.1	xxxx	xxxxxx			
Shared LOS:	*	F	*	*	*	C	A	*	*	B	*	*			
ApproachDel:	194.2					19.5	xxxxxxx			xxxxxxx					
ApproachLOS:	F					C	*			*					

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: E[36.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	1	0	1	0

Volume Module:

Base Vol:	50	0	62	0	0	0	0	558	49	32	449	0
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	65	0	81	0	0	0	0	725	64	42	584	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	68	0	85	0	0	0	0	764	67	44	614	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	68	0	85	0	0	0	0	764	67	44	614	0

Critical Gap Module:

Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1232	xxxx	455	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	851	xxxx	xxxxx
Potent Cap.:	172	xxxx	558	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	796	xxxx	xxxxx
Move Cap.:	159	xxxx	539	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	783	xxxx	xxxxx
Volume/Cap:	0.43	xxxx	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	261	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared Queue:	xxxxx	3.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Shrd StpDel:	xxxxx	36.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	A	*	*
ApproachDel:	36.7		xxxxxx			xxxxxx			xxxxxx			
ApproachLOS:	E		*			*			*			

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 2nd Street / Chestnut St

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: B[11.8]

Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled												
Rights:	Include			Include			Include			Include												
Lanes:	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0

Volume Module:

Base Vol:	50	0	62	0	0	0	0	558	49	32	449	0
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	65	0	81	0	0	0	0	725	64	42	584	0
Added Vol:	0	0	0	0	0	0	0	93	0	0	58	0
PasserByVol:	-65	0	-80	0	0	0	0	0	-63	-41	0	0
Initial Fut:	0	0	1	0	0	0	0	818	1	1	642	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	1	0	0	0	0	861	1	1	675	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	1	0	0	0	0	861	1	1	675	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	471	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	882	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	545	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	775	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	527	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	762	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	527	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd StpDel:	xxxxx	11.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.7	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	11.8			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 2nd Street / Normal Ave

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: E[37.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	1	0 1 0	0	1	0 1 0

Volume Module:

Base Vol:	18	1	30	18	3	13	12	562	48	50	449	14
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	23	1	39	23	4	17	16	731	62	65	584	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	25	1	41	25	4	18	16	769	66	68	614	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	25	1	41	25	4	18	16	769	66	68	614	19

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1321	1645	457	1219	1668	357	654	xxxx	xxxxxx	855	xxxx	xxxxxx
Potent Cap.:	117	101	556	139	97	645	943	xxxx	xxxxxx	794	xxxx	xxxxxx
Move Cap.:	97	87	537	112	84	624	927	xxxx	xxxxxx	780	xxxx	xxxxxx
Volume/Cap:	0.25	0.02	0.08	0.22	0.05	0.03	0.02	xxxx	xxxx	0.09	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxxx	10.1	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT - LTR	- RT	RT	LT - LTR	- RT	RT	LT - LTR	- RT	RT	LT - LTR	- RT	RT
Shared Cap.:	xxxx	193	xxxxx	xxxx	157	xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxx	1.5	xxxxx	xxxxx	1.2	xxxxx	0.1	xxxx	xxxxxx	0.3	xxxx	xxxxxx
Shrd StpDel:	xxxxx	33.2	xxxxx	xxxxx	37.5	xxxxx	9.0	xxxx	xxxxxx	10.1	xxxx	xxxxxx
Shared LOS:	*	D	*	*	E	*	A	*	*	B	*	*
ApproachDel:	33.2			37.5			xxxxxx			xxxxxx		
ApproachLOS:	D			E			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #11 2nd Street / Normal Ave

Average Delay (sec/veh): 28.0 Worst Case Level Of Service: F[177.7]

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled						
Rights:	Include			Include			Include			Include						
Lanes:	0	0	1!0	0	0	1!0	0	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	18	1	30	18	3	13	12	562	48	50	449	14
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	23	1	39	23	4	17	16	731	62	65	584	18
Added Vol:	25	0	89	0	0	0	0	83	10	35	33	0
PasserByVol:	0	0	80	0	0	0	0	-80	0	41	-41	0
Initial Fut:	48	1	208	23	4	17	16	734	72	141	576	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	51	1	219	25	4	18	16	772	76	148	606	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	51	1	219	25	4	18	16	772	76	148	606	19

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1485	1805	464	1372	1834	353	645	xxxx	xxxxx	868	xxxx	xxxxx
Potent Cap.:	88	80	550	107	77	650	950	xxxx	xxxxx	784	xxxx	xxxxx
Move Cap.:	65	60	532	49	58	628	934	xxxx	xxxxx	771	xxxx	xxxxx
Volume/Cap:	0.79	0.02	0.41	0.50	0.07	0.03	0.02	xxxx	xxxx	0.19	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.7	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	10.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	222	xxxxx	xxxx	78	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	13.6	xxxxx	xxxxx	2.7	xxxxx	0.1	xxxx	xxxxx	0.7	xxxx	xxxxx
Shrd StpDel:	xxxxx	178	xxxxx	xxxxx	105	xxxxx	8.9	xxxx	xxxxx	10.8	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	A	*	*	B	*	*
ApproachDel:	177.7			104.8			xxxxxxx			xxxxxxx		
ApproachLOS:	F			F			*			*		

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #12 2nd Street / Broadway
*****
Cycle (sec):          80          Critical Vol./Cap. (X):          0.650
Loss Time (sec):      6 (Y+R = 4 sec) Average Delay (sec/veh):          16.9
Optimal Cycle:        46          Level Of Service:          B
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|
Control:      Split Phase      Split Phase      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0 0 0 0 0 20 0 0 0 20 0 0 0 20 0
Lanes:      0 0 0 0 0 0 0 1 1 1 0 0 0 1 1 0 0 1 1 0 0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:      0 0 0 77 745 113 0 539 126 100 367 0
Growth Adj:  1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse:  0 0 0 100 969 147 0 701 164 130 477 0
User Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:   0 0 0 111 1076 163 0 779 182 144 530 0
Reduct Vol:   0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:  0 0 0 111 1076 163 0 779 182 144 530 0
PCE Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:   0 0 0 111 1076 163 0 779 182 144 530 0
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:   1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.90 0.89 0.54 0.54 1.00
Lanes:        0.00 0.00 0.00 0.25 2.39 0.36 0.00 1.62 0.38 0.43 1.57 0.00
Final Sat.:   0 0 0 404 3906 592 0 2781 650 443 1626 0
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.00 0.00 0.00 0.28 0.28 0.28 0.00 0.28 0.28 0.33 0.33 0.00
Crit Moves:          ****          ****
Green/Cycle:  0.00 0.00 0.00 0.42 0.42 0.42 0.00 0.50 0.50 0.50 0.50 0.00
Volume/Cap:   0.00 0.00 0.00 0.65 0.65 0.65 0.00 0.56 0.56 0.65 0.65 0.00
Delay/Veh:    0.0 0.0 0.0 19.1 19.1 19.1 0.0 14.2 14.2 16.2 16.2 0.0
User DelAdj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   0.0 0.0 0.0 19.1 19.1 19.1 0.0 14.2 14.2 16.2 16.2 0.0
HCM2kAvg:     0 0 0 10 10 10 0 9 9 11 11 0
*****

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 2nd Street / Broadway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.730
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 18.5
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	20	0	0	20	0	0	20	0
Lanes:	0	0	0	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	0	0	0	77	745	113	0	539	126	100	367	0
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	0	0	0	100	969	147	0	701	164	130	477	0
Added Vol:	0	0	0	7	85	26	0	82	90	2	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	107	1054	173	0	783	254	132	520	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	119	1171	192	0	870	282	147	578	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	119	1171	192	0	870	282	147	578	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	119	1171	192	0	870	282	147	578	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.90	0.88	0.51	0.51	1.00
Lanes:	0.00	0.00	0.00	0.24	2.37	0.39	0.00	1.50	0.50	0.41	1.59	0.00
Final Sat.:	0	0	0	393	3865	634	0	2563	831	394	1552	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.30	0.30	0.30	0.00	0.34	0.34	0.37	0.37	0.00
Crit Moves:				****						****		
Green/Cycle:	0.00	0.00	0.00	0.41	0.41	0.41	0.00	0.51	0.51	0.51	0.51	0.00
Volume/Cap:	0.00	0.00	0.00	0.73	0.73	0.73	0.00	0.67	0.67	0.73	0.73	0.00
Delay/Veh:	0.0	0.0	0.0	21.0	21.0	21.0	0.0	15.5	15.5	18.1	18.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.0	21.0	21.0	0.0	15.5	15.5	18.1	18.1	0.0
HCM2kAvg:	0	0	0	12	12	12	0	11	11	14	14	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 2nd Street / Main Street

Cycle (sec): 80 Critical Vol./Cap. (X): 0.827
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 20.9
Optimal Cycle: 61 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	20	0	0	20	0
Lanes:	0	1	1	1	0	0	0	1	1	0	0	1

Volume Module:

Base Vol:	135	991	176	0	0	0	148	469	0	0	332	37
Growth Adj:	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Initial Bse:	176	1288	229	0	0	0	192	610	0	0	432	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	195	1431	254	0	0	0	214	677	0	0	480	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	195	1431	254	0	0	0	214	677	0	0	480	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	195	1431	254	0	0	0	214	677	0	0	480	53

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00	1.00	0.62	0.62	1.00	1.00	0.92	0.91
Lanes:	0.31	2.28	0.41	0.00	0.00	0.00	0.48	1.52	0.00	0.00	1.80	0.20
Final Sat.:	506	3716	660	0	0	0	563	1784	0	0	3133	349

Capacity Analysis Module:

Vol/Sat:	0.39	0.39	0.39	0.00	0.00	0.00	0.38	0.38	0.00	0.00	0.15	0.15
Crit Moves:	****						****					
Green/Cycle:	0.47	0.47	0.47	0.00	0.00	0.00	0.46	0.46	0.00	0.00	0.46	0.46
Volume/Cap:	0.83	0.83	0.83	0.00	0.00	0.00	0.83	0.83	0.00	0.00	0.33	0.33
Delay/Veh:	21.2	21.2	21.2	0.0	0.0	0.0	24.3	24.3	0.0	0.0	13.9	13.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.2	21.2	21.2	0.0	0.0	0.0	24.3	24.3	0.0	0.0	13.9	13.9
HCM2kAvg:	16	16	16	0	0	0	17	17	0	0	4	4

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #13 2nd Street / Main Street
*****
Cycle (sec):          80          Critical Vol./Cap. (X):          0.914
Loss Time (sec):      6 (Y+R = 4 sec) Average Delay (sec/veh):          26.1
Optimal Cycle:        93          Level Of Service:          C
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Split Phase      Split Phase      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 20 0      0 0 0      0 20 0      0 20 0
Lanes:      0 1 1 1 0      0 0 0 0 0      0 1 1 0 0      0 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      135 991 176      0 0 0      148 469 0      0 332 37
Growth Adj:    1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30
Initial Bse:    176 1288 229      0 0 0      192 610 0      0 432 48
Added Vol:      36 68 5      0 0 0      65 25 0      0 9 3
PasserByVol:    0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut:    212 1356 234      0 0 0      257 635 0      0 441 51
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:    235 1507 260      0 0 0      286 705 0      0 490 57
Reduct Vol:      0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:    235 1507 260      0 0 0      286 705 0      0 490 57
PCE Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:    235 1507 260      0 0 0      286 705 0      0 490 57
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:    0.86 0.86 0.86 1.00 1.00 1.00 0.60 0.60 1.00 1.00 0.92 0.91
Lanes:      0.35 2.26 0.39 0.00 0.00 0.00 0.58 1.42 0.00 0.00 1.79 0.21
Final Sat.:    574 3683 635      0 0 0      656 1617 0      0 3117 362
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.41 0.41 0.41 0.00 0.00 0.00 0.44 0.44 0.00 0.00 0.16 0.16
Crit Moves:      ****          ****
Green/Cycle:    0.45 0.45 0.45 0.00 0.00 0.00 0.48 0.48 0.00 0.00 0.48 0.48
Volume/Cap:    0.91 0.91 0.91 0.00 0.00 0.00 0.91 0.91 0.00 0.00 0.33 0.33
Delay/Veh:     27.1 27.1 27.1 0.0 0.0 0.0 31.1 31.1 0.0 0.0 13.1 13.1
User DelAdj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:    27.1 27.1 27.1 0.0 0.0 0.0 31.1 31.1 0.0 0.0 13.1 13.1
HCM2kAvg:      20 20 20      0 0 0      22 22 0      0 4 4
*****

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #14 Park Avenue / Midway
*****
Cycle (sec):          80          Critical Vol./Cap. (X):          1.183
Loss Time (sec):     12 (Y+R = 4 sec) Average Delay (sec/veh):          104.0
Optimal Cycle:       180          Level Of Service:          F
*****
Approach:           North Bound          South Bound          East Bound          West Bound
Movement:           L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:            Split Phase          Split Phase          Split Phase          Split Phase
Rights:             Ignore              Include              Include              Ignore
Min. Green:         0 0 0 0          0 0 0 0          0 0 0 0          0 0 0 0
Lanes:              1 0 1 0 1        1 0 1 0 0        1 0 0 0 0        1 0 1 0 1
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:           0 267 537 411 232 1 2 0 0 468 2 328
Growth Adj:         1.00 1.70 1.50 1.10 1.70 1.00 1.00 1.00 1.00 1.20 1.00 1.10
Initial Bse:        0 454 806 452 394 1 2 0 0 562 2 361
User Adj:           1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj:            0.90 0.90 0.00 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.00
PHF Volume:         0 504 0 502 438 1 2 0 0 624 2 0
Reduct Vol:         0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:        0 504 0 502 438 1 2 0 0 624 2 0
PCE Adj:            1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:            1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Vol.:         0 504 0 502 438 1 2 0 0 624 2 0
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:           1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:         1.00 0.98 1.00 0.95 0.95 0.95 0.93 1.00 1.00 0.93 0.98 1.00
Lanes:              1.00 1.00 1.00 1.36 0.63 0.01 1.00 0.00 0.00 1.00 1.00 1.00
Final Sat.:         1900 1862 1900 2473 1151 3 1769 0 0 1769 1862 1900
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:            0.00 0.27 0.00 0.20 0.38 0.38 0.00 0.00 0.00 0.35 0.00 0.00
Crit Moves:         ****              ****              ****
Green/Cycle:        0.00 0.23 0.00 0.32 0.32 0.32 0.00 0.00 0.00 0.30 0.30 0.00
Volume/Cap:         0.00 1.18 0.00 0.63 1.18 1.18 1.18 0.00 0.00 1.18 0.00 0.00
Delay/Veh:          0.0 135 0.0 24.0 122 122.2 796.6 0.0 0.0 128.5 19.7 0.0
User DelAdj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:         0.0 135 0.0 24.0 122 122.2 796.6 0.0 0.0 128.5 19.7 0.0
HCM2kAvg:           0 25 0 9 34 34 1 0 0 32 0 0
*****

```

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 1.244
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 121.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase											
Rights:	Ignore			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	0	267	537	411	232	1	2	0	0	468	2	328
Growth Adj:	1.00	1.70	1.50	1.10	1.70	1.00	1.00	1.00	1.00	1.20	1.00	1.10
Initial Bse:	0	454	806	452	394	1	2	0	0	562	2	361
Added Vol:	0	28	1	41	36	0	0	0	0	1	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	482	807	493	430	1	2	0	0	563	2	377
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.00
PHF Volume:	0	535	0	548	478	1	2	0	0	625	2	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	535	0	548	478	1	2	0	0	625	2	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Vol.:	0	535	0	548	478	1	2	0	0	625	2	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.98	1.00	0.95	0.95	0.95	0.93	1.00	1.00	0.93	0.98	1.00
Lanes:	1.00	1.00	1.00	1.36	0.63	0.01	1.00	0.00	0.00	1.00	1.00	1.00
Final Sat.:	1900	1862	1900	2473	1151	3	1769	0	0	1769	1862	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.29	0.00	0.22	0.42	0.42	0.00	0.00	0.00	0.35	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.23	0.00	0.33	0.33	0.33	0.00	0.00	0.00	0.28	0.28	0.00
Volume/Cap:	0.00	1.24	0.00	0.66	1.24	1.24	1.24	0.00	0.00	1.24	0.00	0.00
Delay/Veh:	0.0	159	0.0	23.9	147	146.7	848.1	0.0	0.0	154.5	20.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	159	0.0	23.9	147	146.7	848.1	0.0	0.0	154.5	20.5	0.0
HCM2kAvg:	0	29	0	10	40	40	1	0	0	35	0	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 1.075
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 67.1
 Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	16	374	1	5	408	286	416	0	32	0	0	10
Growth Adj:	1.90	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.90	1.00	1.00	1.60
Initial Bse:	30	598	2	8	653	458	666	0	61	0	0	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	630	2	8	687	482	701	0	64	0	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	630	2	8	687	482	701	0	64	0	0	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	630	2	8	687	482	701	0	64	0	0	17

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.98	0.98	0.93	0.98	0.83	0.71	1.00	0.71	1.00	1.00	0.85
Lanes:	1.00	0.99	0.01	1.00	1.00	1.00	0.92	0.00	0.08	0.00	0.00	1.00
Final Sat.:	1769	1857	5	1769	1862	1583	1235	0	113	0	0	1611

Capacity Analysis Module:

Vol/Sat:	0.02	0.34	0.34	0.00	0.37	0.30	0.57	0.00	0.57	0.00	0.00	0.01
Crit Moves:	****			****			****					
Green/Cycle:	0.02	0.36	0.36	0.00	0.34	0.34	0.53	0.00	0.53	0.00	0.00	0.53
Volume/Cap:	1.08	0.96	0.96	0.96	1.08	0.89	1.08	0.00	1.08	0.00	0.00	0.02
Delay/Veh:	228.2	49.6	49.6	315.5	83.9	41.0	74.7	0.0	74.7	0.0	0.0	9.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	228.2	49.6	49.6	315.5	83.9	41.0	74.7	0.0	74.7	0.0	0.0	9.0
HCM2kAvg:	3	21	21	1	28	15	40	0	40	0	0	0

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 1.111
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 74.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 13 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and HCM2kAvg.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[10.8]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 7 rows of volume-related metrics.

Critical Gap Module table with 12 columns and 2 rows of gap and follow-up time data.

Capacity Module table with 12 columns and 4 rows of capacity and volume/capacity data.

Level Of Service Module table with 12 columns and 10 rows of queue, delay, and LOS data.

EXISTING PLUS PROJECT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[10.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	0 1 0	0	1	0 0 0

Volume Module:

Base Vol:	8	0	24	0	0	0	0	136	1	7	169	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.90	1.00	1.00	1.90	1.00
Initial Bse:	8	0	24	0	0	0	0	258	1	7	321	0
Added Vol:	0	0	19	0	0	0	0	0	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	0	43	0	0	0	0	258	1	15	321	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	8	0	45	0	0	0	0	272	1	16	338	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	8	0	45	0	0	0	0	272	1	16	338	0

Critical Gap Module:

Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	642	xxxx	273	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	273	xxxx	xxxxx
Potent Cap.:	442	xxxx	771	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1290	xxxx	xxxxx
Move Cap.:	437	xxxx	771	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1290	xxxx	xxxxx
Volume/Cap:	0.02	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	689	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd StpDel:	xxxxx	10.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.7		xxxxxx			xxxxxx			xxxxxx			
ApproachLOS:	B		*			*			*		*	

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Scenario Report

Scenario: ex pm special

Command: Default Command

Volume: ex pm

Geometry: existing

Impact Fee: Default Impact Fee

Trip Generation: pm special

Trip Distribution: pm special

Paths: Default Paths

Routes: Default Routes

Configuration: Default Configuration

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Trip Generation Report

Forecast for pm special

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
3		125.00	students	0.80	8.00	100	1000	1100	100.0
	Zone 3 Subtotal					100	1000	1100	100.0
TOTAL						100	1000	1100	100.0

= FULL OCCUPANCY

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Trip Distribution Report

Percent Of Trips pm special

Zone	To Gates			
	5	7	8	9
1	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0
3	10.0	20.0	60.0	10.0

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 2nd Street / Chestnut St													
Base	50	0	62	0	0	0	0	558	49	32	449	0	1200
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
PassBy	-50	0	-62	0	0	0	0	0	-49	-32	0	0	-193
Total	0	0	0	0	0	0	0	558	0	0	449	0	1007
#11 2nd Street / Normal Ave													
Base	18	1	30	18	3	13	12	562	48	50	449	14	1218
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
PassBy	0	0	62	0	0	0	0	-62	0	32	-32	0	0
Total	18	1	92	18	3	13	12	500	48	82	417	14	1218
#12 2nd Street / Broadway													
Base	0	0	0	77	745	113	0	539	126	100	367	0	2067
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	77	745	113	0	539	126	100	367	0	2067
#13 2nd Street / Main Street													
Base	135	991	176	0	0	0	148	469	0	0	332	37	2288
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	135	991	176	0	0	0	148	469	0	0	332	37	2288
#14 Park Avenue / Midway													
Base	0	267	537	411	232	1	2	0	0	468	2	328	2248
Added	0	200	600	0	20	0	0	0	0	60	0	0	880
Total	0	467	1137	411	252	1	2	0	0	528	2	328	3128
#15 Midway / Hegan Lane													
Base	16	374	0	5	408	286	416	0	32	0	0	10	1547
Added	10	0	0	0	0	80	800	0	100	0	0	0	990
Total	26	374	0	5	408	366	1216	0	132	0	0	10	2537
#16 Hegan lane / ARTC Access													
Base	8	0	24	0	0	0	0	136	1	7	169	0	345
Added	100	0	900	0	0	0	0	0	10	90	0	0	1100
Total	108	0	924	0	0	0	0	136	11	97	169	0	1445

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 14 Park Avenue / Midway	C	31.8	0.808	E 56.6	0.996	+24.784 D/V
# 15 Midway / Hegan Lane	C	22.2	0.666	F 227.1	1.475	+204.945 D/V
# 16 Hegan lane / ARTC Access	A	9.5	0.000	F 166.4	0.000	+156.905 D/V

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.996
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 56.6
Optimal Cycle: 149 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<
Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module:
Table with 12 columns for saturation flow values and adjustment factors.

Capacity Analysis Module:
Table with 12 columns for capacity analysis metrics.

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 1.475
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 227.1
Optimal Cycle: 180 Level Of Service: F

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 13 columns for different traffic movements and rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with 13 columns for different traffic movements and rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 13 columns for different traffic movements and rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, HCM2kAvg.

special event ex pm
5600-37 CSU-MASTER PLAN EIR

20% PCL
200 PERSONS

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 1.079
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 78.3
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 12 columns for volume counts and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow values and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

special event ex pm
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

40% Pedestrian

Cycle (sec): 80 Critical Vol./Cap. (X): 0.984
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 52.2
Optimal Cycle: 147 Level Of Service: D

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 13 columns for volume counts and various adjustment factors like PHF, Reduct, PCE, MLF.

Saturation Flow Module: Table with 13 columns for saturation flow values and adjustment factors.

Capacity Analysis Module: Table with 13 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

EXISTING PLUS SPECIAL EVENT
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Hegan lane / ARTC Access

Average Delay (sec/veh): 119.4 Worst Case Level Of Service: F[166.4]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 0 1 0 0 0 1 0 0 0 0 0 0

Volume Module: >> Count Date: 4 Nov 2004 <<

Table with 13 columns and 13 rows of traffic volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Critical Gap Module:

Table with 2 columns and 2 rows of critical gap data including Critical Gp and FollowUpTim.

Capacity Module:

Table with 2 columns and 4 rows of capacity data including Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module:

Table with 2 columns and 10 rows of level of service data including Queue, Stopped Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

EXISTING PLUS SPECIAL EVENT
MITIGATED
5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Midway / Hegan Lane

Cycle (sec): 80 Critical Vol./Cap. (X): 0.946
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 33.5
Optimal Cycle: 116 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 4 Nov 2004 <<. Table with 13 columns for different volume categories and 13 rows of data.

Saturation Flow Module: Table with 13 columns for saturation flow and 4 rows of data.

Capacity Analysis Module: Table with 13 columns for capacity analysis and 10 rows of data.

 EXISTING PLUS SPECIAL EVENT
 MITIGATED
 5600-37 CSU-MASTER PLAN EIR

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #14 Park Avenue / Midway

Cycle (sec): 80 Critical Vol./Cap. (X): 0.850
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 38.7
 Optimal Cycle: 82 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase											
Rights:	Ignore			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	0	1	0

Volume Module: >> Count Date: 4 Nov 2004 <<
 Base Vol: 0 267 537 411 232 1 2 0 0 468 2 328
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 267 537 411 232 1 2 0 0 468 2 328
 Added Vol: 0 200 600 0 20 0 0 0 0 60 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 467 1137 411 252 1 2 0 0 528 2 328
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.00
 PHF Volume: 0 492 0 433 265 1 2 0 0 556 2 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 492 0 433 265 1 2 0 0 556 2 0
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 Final Vol.: 0 492 0 433 265 1 2 0 0 556 2 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.98 1.00 0.90 0.98 0.98 0.93 1.00 1.00 0.93 0.98 1.00
 Lanes: 1.00 1.00 1.00 2.00 0.99 0.01 1.00 0.00 0.00 1.00 1.00 1.00
 Final Sat.: 1900 1862 1900 3432 1853 7 1769 0 0 1769 1862 1900

Capacity Analysis Module:
 Vol/Sat: 0.00 0.26 0.00 0.13 0.14 0.14 0.00 0.00 0.00 0.31 0.00 0.00
 Crit Moves: **** **** ****
 Green/Cycle: 0.00 0.31 0.00 0.17 0.17 0.17 0.00 0.00 0.00 0.37 0.37 0.00
 Volume/Cap: 0.00 0.85 0.00 0.75 0.85 0.85 0.85 0.00 0.00 0.85 0.00 0.00
 Delay/Veh: 0.0 37.3 0.0 37.0 51.5 51.5 467.2 0.0 0.0 33.5 15.9 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 37.3 0.0 37.0 51.5 51.5 467.2 0.0 0.0 33.5 15.9 0.0
 HCM2kAvg: 0 14 0 7 9 9 1 0 0 16 0 0

 EXISTING PLUS SPECIAL EVENT
 MITIGATED
 5600-37 CSU-MASTER PLAN EIR

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
 2000 HCM Operations Method
 Future Volume Alternative

Intersection #14 Park Avenue / Midway

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.31	0.00	0.17	0.17	0.17	0.00	0.00	0.00	0.37	0.37	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	10.2	0.0	4.8	5.7	5.7	0.0	0.0	0.0	12.0	0.0	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Q2:	0.0	4.1	0.0	2.4	3.5	3.5	0.5	0.0	0.0	4.3	0.0	0.0
HCM2KQueue:	0.0	14.3	0.0	7.2	9.3	9.3	0.6	0.0	0.0	16.2	0.0	0.0
70th%Factor:	1.20	1.17	1.20	1.18	1.18	1.18	1.20	1.20	1.20	1.17	1.20	1.20
70th%HCM2kQ:	0.0	16.8	0.0	8.5	10.9	10.9	0.7	0.0	0.0	18.9	0.0	0.0
85th%Factor:	1.60	1.49	1.60	1.54	1.52	1.52	1.59	1.60	1.60	1.47	1.60	1.60
85th%HCM2kQ:	0.0	21.3	0.0	11.1	14.1	14.1	0.9	0.0	0.0	23.9	0.1	0.0
90th%Factor:	1.80	1.60	1.80	1.68	1.65	1.65	1.79	1.80	1.80	1.58	1.80	1.80
90th%HCM2kQ:	0.0	22.9	0.0	12.1	15.3	15.3	1.0	0.0	0.0	25.6	0.1	0.0
95th%Factor:	2.10	1.77	2.10	1.90	1.86	1.86	2.08	2.10	2.10	1.74	2.10	2.10
95th%HCM2kQ:	0.0	25.4	0.0	13.7	17.2	17.2	1.1	0.0	0.0	28.3	0.1	0.0
98th%Factor:	2.70	2.03	2.70	2.27	2.19	2.19	2.66	2.70	2.70	1.99	2.70	2.70
98th%HCM2kQ:	0.0	29.1	0.0	16.4	20.3	20.3	1.5	0.0	0.0	32.2	0.1	0.0

