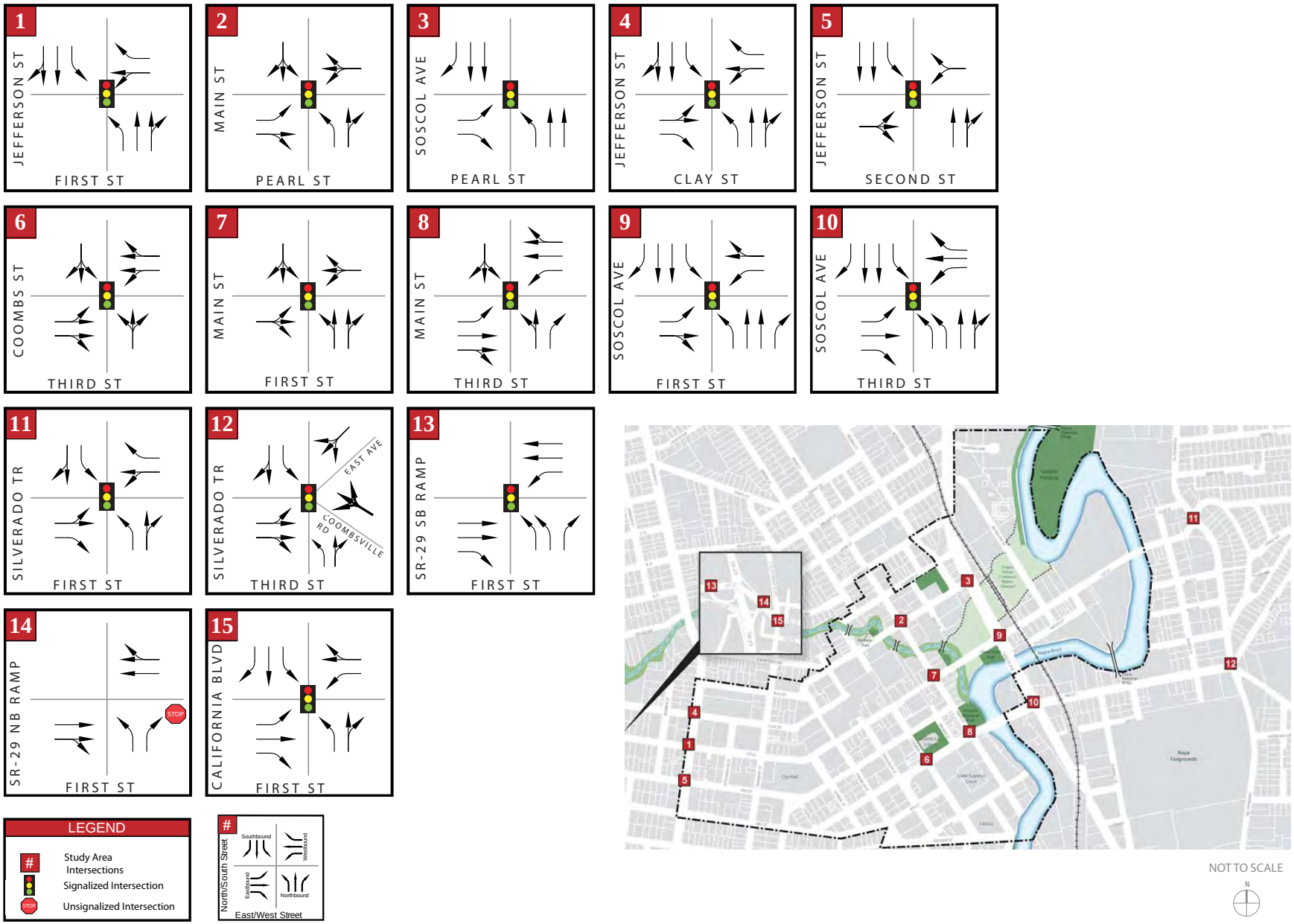
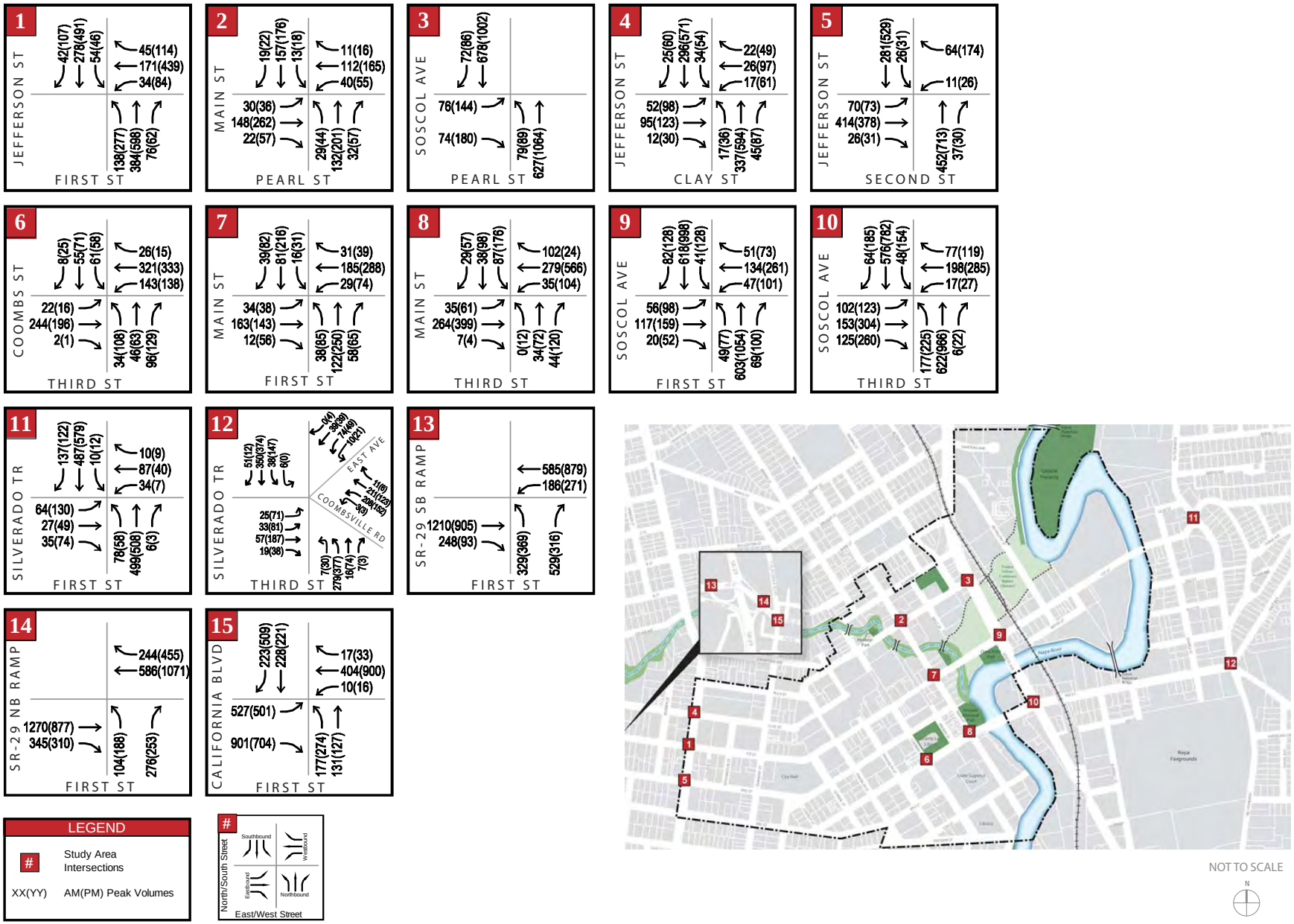


SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-9

Project Conditions – Intersection Geometry and Traffic Control



SOURCE: MIG

Figure 4.L-10

Existing Plus Project Conditions – Peak Hour Intersection Volumes

TABLE 4.L-4
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE (LOS)

No.	Intersection	Traffic Control	LOS Standard	EXISTING				EXISTING+PROJ			
				AM Peak		PM Peak		AM Peak		PM Peak	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Jefferson Street / First Street	Signal	E	14.0	B	17.6	B	20.3	C	27.7	C
2	Main Street / Pearl Street	Signal	D	11.4	B	12.2	B	11.7	B	12.4	B
3	Soscol Avenue / Pearl Street	Signal	D	9.5	A	15.2	B	11.3	B	16.9	B
4	Jefferson Street / Clay Street	Signal	D	17.6	B	19.3	B	18.0	B	19.8	B
5	Jefferson Street / Second Street	Signal	E	14.8	B	13.7	B	18.8	B	19.3	B
6	Coombs Street / Third Street	Signal	E	7.4	A	9.9	A	7.9	A	10.1	B
7	Main Street / First Street	Signal	E	8.4	A	8.9	A	8.8	A	10.4	B
8	Main Street / Third Street	Signal	E	23.4	C	27.2	C	21.7	C	26.6	C
9	Soscol Avenue / First Street	Signal	E	14.7	B	20.2	C	21.2	C	26.5	C
10	Soscol Avenue / Third Street	Signal	E	28.0	C	30.3	C	28.8	C	32.1	C
11	Silverado Trail / First Street	Signal	E	18.3	B	16.4	B	22.9	C	20.8	C
12	Silverado Tr. / Third St. / East Ave. / Coombsville Rd.	Signal	E	45.1	D	60.4	E	52.2	D	67.1	E
13	SR 29 SB Ramps / First Street	Signal	E	30.7	C	19.4	B	45.2	D	24.3	C
14	SR 29 NB Off-Ramp / First Street	OWSC	E	**128.3**	**F**	**184.4**	**F**	**180.9**	**F**	**253.3**	**F**
15	California Boulevard / First Street	Signal	E	28.6	C	34.0	C	34.4	C	40.0	D

LOS based on 2000 *Highway Capacity Manual*.
Unacceptable LOS shown in **Bold**.
OWSC – One-way Stop-controlled (LOS reported for worst-case approach)

SOURCE: Kimely-Horne Associates (2011)

Impact 4.L-1a: Traffic generated by development facilitated by the Specific Plan would cause the unsignalized intersection of SR 29 Northbound Off-ramp / First Street to continue to operate below acceptable levels of service in the AM and PM peak hours with an increase greater than the threshold of significance (50 project-generated trips).

The intersection is projected to operate at LOS F and peak hour signal warrants are met under existing conditions and Existing plus Project conditions for the AM and PM peak hours. For the intersection to operate at an acceptable level of service, the intersection should be signalized. Because the intersection operates at LOS F and meets peak hour signal warrants under existing conditions, it is considered an existing deficiency. While development under the Specific Plan would not cause the impact, it adds at least 50 peak hour trips to the intersection and exacerbates the unacceptable operation. The intersection would operate at acceptable LOS B or better if signalized; however, the City of Napa, as the lead agency, could not implement this improvement without the approval of Caltrans. Further, the intersection is in close proximity to the City's intersection of California Boulevard and First Streets, which is being considered for a roundabout. The operation of the two intersections would conflict, as stacking and queuing could intrude into the opposing

intersections. For these reasons, implementation of the Specific Plan would have a significant and unavoidable impact at the intersection of SR 29 northbound Off-ramp / First Street.

> **Mitigation Measure 4.L-1a:** The City shall continue to coordinate with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street or identify other acceptable alternatives to the signal. If the signal pursued, the City shall work closely with Caltrans to ensure that the signal timing is properly synchronized with the closely spaced intersection to the east at California Boulevard / First Street.
>
> The City can continue to work with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street, which would allow the intersection to operate at acceptable level of service. However, previous discussions with Caltrans indicate that this improvement would be difficult to approve, as installation of a traffic signal would require a design exception due to the close spacing (approximately 350 feet) to the California Boulevard / First Street intersection to the east, which is unlikely to be granted. Therefore, even with Mitigation Measure 4.L-1a, this project impact would be significant and unavoidable, because it is not likely that signalization could be implemented by the City of Napa, as Lead Agency, without the approval of Caltrans. In the event that signalization could be implemented and the signal timing could be synchronized appropriately with the adjacent intersection to the east, the impact would be less than significant.
>
> There may be an opportunity to do develop a series of roundabouts on and near the First Street overpass which could help mitigate the traffic issue in this area. However, at this time, this option is still conceptual and would necessitate further study to determine if it is achievable. Additionally, Caltrans would ultimately have to approve this option as well.

Significance: Significant and Unavoidable.

Cumulative (2030) Impacts

This scenario evaluates the impacts on traffic and circulation that would occur in 2030 with and without the proposed development of the Specific Plan. The Cumulative No Project scenario would develop baseline traffic projections to establish background conditions for the evaluation of development under the Specific Plan in the future and form the basis for determining and comparing cumulative impacts. Additional development projects are expected to be completed by 2030 and would contribute to a long-term increase in background traffic regardless of the Specific Plan development. These projects include growth anticipated by the General Plan within the City's urban growth limit such as residential, industrial, business park and commercial. This step in the analysis makes it possible to identify long-term traffic impacts, regardless of the proposed Specific Plan.

The Napa TMP Travel Demand Model is based on the existing regional travel demand model maintained by the Solano Transportation Authority (STA). This model covers the entire Napa County and has the ability to forecast future traffic volumes within the City of Napa. Using land use and socioeconomic data (population and employment) and network data (street and

intersection), the model distributes or allocates trips from each traffic analysis zone, or land use area, to other zones. It then assigns those trips to the roadway network based on least cost (time and/or distance) paths. The model output is in the form of directional AM and PM peak hour link volumes. The 2030 scenario of the Napa TMP Travel Demand Model assumes full buildout of the currently adopted City of Napa and Napa County General Plan.

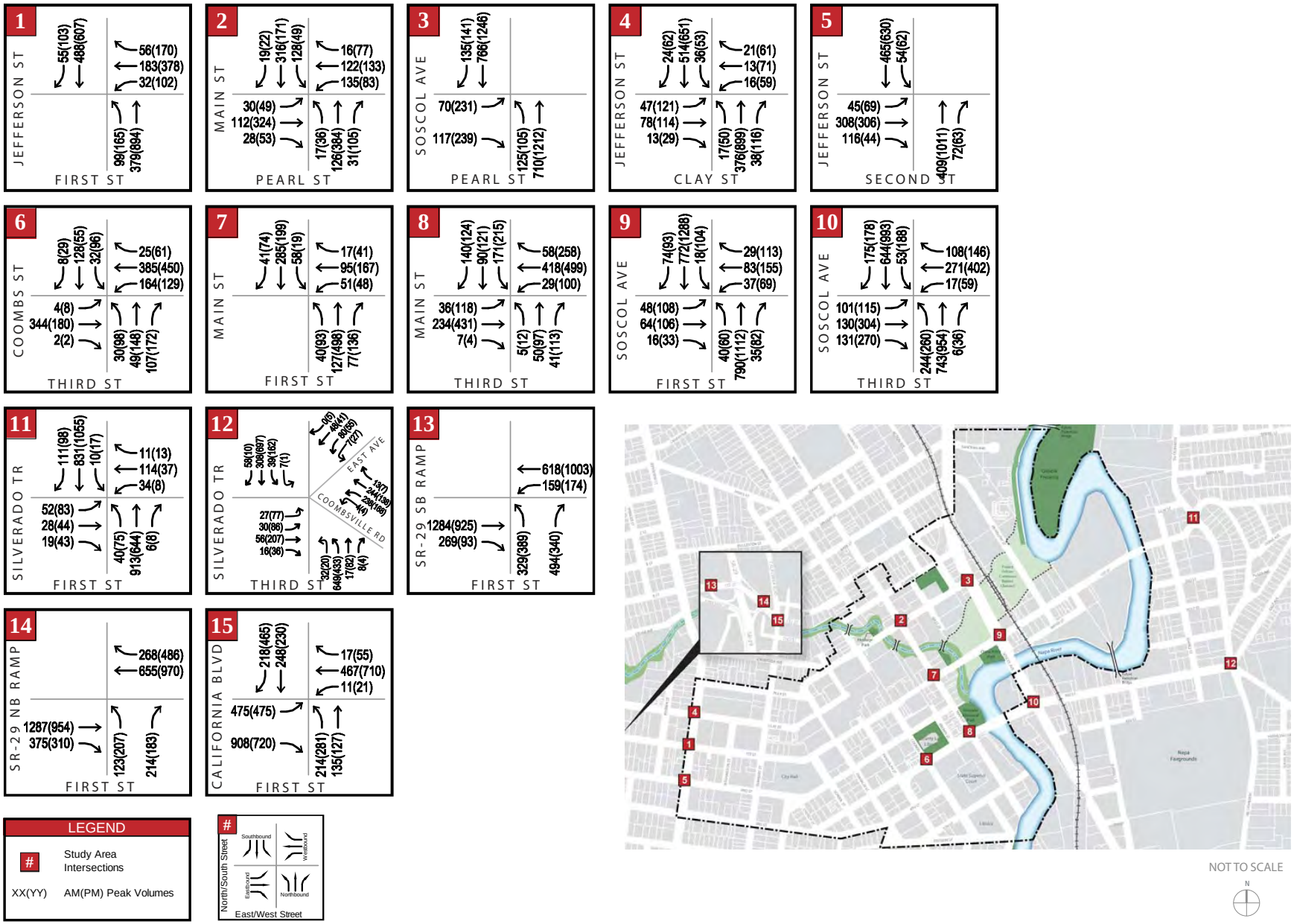
In order to derive Cumulative No Project volumes, the growth in the link volumes between the base year model (2010) and the forecast year model (2030) was used to develop annual growth rates. The growth rates were applied to existing link volumes on roadways and at intersections, resulting in Cumulative No Project forecast link volumes. The methodology used then balances the approach and departure volumes at the intersection, compares the volumes to the existing peak hour turning movement counts, then uses an iterative process known as "furnessing" to estimate the Cumulative No Project turning movement volumes.

Napa County is in the process of preparing a County Facilities Master Plan, in which they are proposing to expand their Downtown facilities. According to the *County of Napa Conceptual Site Development and Phasing Plan Through 2028* (October, 2010), and subsequent correspondence with County staff at the time this analysis was performed, the County's Downtown development plans include the following:

- Construction of new 90,000 s.f. office building at the site of the existing surface parking lot at the southwest corner of Coombs Street and Third Street;
- Construction of a new 90,000 s.f. office building with 22,000 s.f. below-grade storage/meeting space at the site of the existing Administrative Building;
- Discontinued use of the Carithers Building (to become surplus space);

While not planned as part of the County Facilities Master Plan, there are proposed plans to expand the Downtown County Jail facilities to accommodate an additional capacity of 366 to 500 beds. While the County's proposed Downtown development plans have not been approved and are not incorporated in the Travel Demand Model, to be conservative, adjustments were applied to the baseline Cumulative No Project traffic and parking conditions to account for the additional trip generation and changes to parking supply/demand. Detailed information on the trip generation and parking generation estimates for the proposed County expansion projects are included in **Appendix E**.

Improvements in the roadway circulation network, lane configurations, and traffic control reflect planned and proposed transportation projects as identified by the City of Napa. No improvement projects have been identified that would modify any of the study intersections, with the exception of the intersection of Silverado Trail / Third Street / East Avenue / Coombsville Road. The General Plan has identified future intersection improvements at this location; however, no designs have been approved at this time. For the purposes of this analysis, the existing intersection configuration has been assumed for future analysis scenarios. The Cumulative No Project traffic volumes are shown in **Figure 4.L-11**. The Cumulative No Project intersection levels of service are shown in **Table 4.L-5**.



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-11

Cumulative (2030) No Project – Peak Hour Intersection Volumes

TABLE 4.L-5
CUMULATIVE (2030) CONDITIONS – INTERSECTION LEVELS OF SERVICE (LOS)

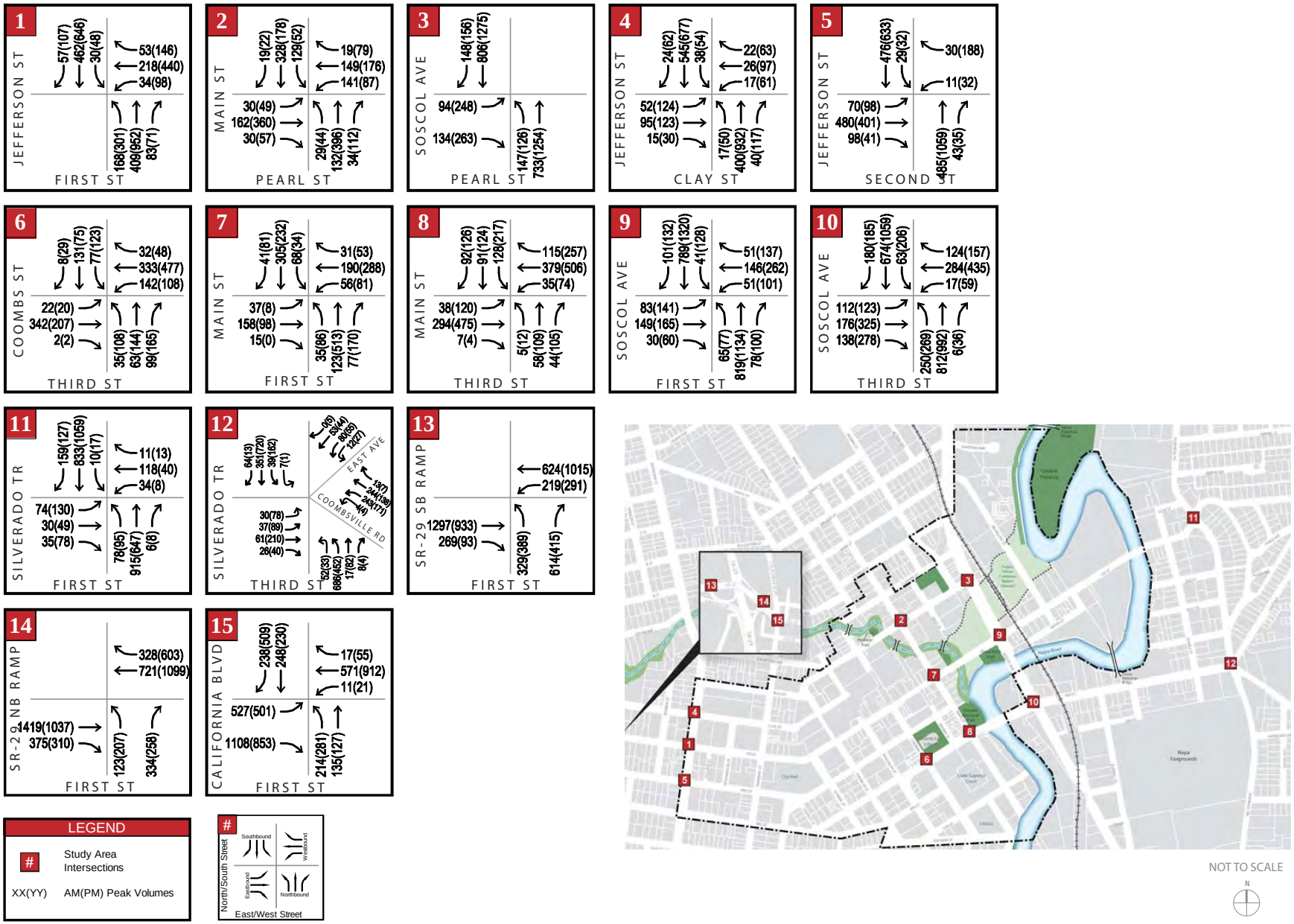
No.	Intersection	Traffic Control	LOS Standard	2030 NO PROJECT				2030 + PROJECT			
				AM Peak		PM Peak		AM Peak		PM Peak	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Jefferson Street / First Street	Signal	E	14.3	B	17.1	B	21.0	C	27.6	C
2	Main Street / Pearl Street	Signal	D	13.2	B	14.3	B	13.8	B	14.8	B
3	Soscol Avenue / Pearl Street	Signal	D	14.0	B	17.2	B	15.2	B	18.3	B
4	Jefferson Street / Clay Street	Signal	D	15.2	B	18.3	B	15.8	B	18.8	B
5	Jefferson Street / Second Street	Signal	E	16.3	B	13.5	B	19.6	B	22.0	C
6	Coombs Street / Third Street	Signal	E	8.0	A	11.1	B	8.8	A	10.9	B
7	Main Street / First Street	Signal	E	6.9	A	8.2	A	9.7	A	11.1	B
8	Main Street / Third Street	Signal	E	24.6	C	29.8	C	23.7	C	29.0	C
9	Soscol Avenue / First Street	Signal	E	14.3	B	22.6	C	19.4	B	29.6	C
10	Soscol Avenue / Third Street	Signal	E	29.1	C	35.6	D	29.4	C	37.0	D
11	Silverado Trail / First Street	Signal	E	21.8	C	28.7	C	26.5	C	37.6	D
12	Silverado Tr. / Third St. / East Ave. / Coombsville Rd.	Signal	E	**108.8**	**F**	**366.7**	**F**	**129.9**	**F**	**379.0**	**F**
13	SR 29 SB Ramps / First Street	Signal	E	31.5	C	22.9	C	46.0	D	27.0	C
14	SR 29 NB Off-Ramp / First Street	OWSC	E	**185.5**	**F**	**335.9**	**F**	**217.1**	**F**	**351.4**	**F**
15	California Boulevard / First Street	Signal	E	36.5	D	38.1	D	54.0	D	42.8	D

LOS based on 2000 *Highway Capacity Manual*.
Unacceptable LOS shown in **Bold**.
OWSC – One-way Stop-controlled (LOS reported for worst-case approach)

SOURCE: Kimely-Horne Associates (2011)

Impact 4.L-2: Traffic generated by development facilitated by the Specific Plan could potentially affect traffic levels of service at study intersections under Cumulative plus Project conditions. (Significant and Unavoidable)

The Cumulative plus Project scenario was developed by adding the trips generated by the proposed Downtown Specific Plan development to the Cumulative No Project volumes based on the distribution pattern shown in Figure 4.L-8. As with the Existing plus Project conditions, the two-way conversion of the existing one-way segments of First Street, Second Street, Third Street and Fourth Street is assumed in the Cumulative plus Project analysis scenario. Prior to adding traffic from development under the Specific Plan, the Cumulative No Project baseline volumes were first adjusted to reflect two-way circulation. All study intersection configurations for the Cumulative with Project scenario are consistent with the Existing plus Project intersection lane geometry and control, as shown in Figure 4.L-10. The Cumulative plus Project traffic volumes are shown in **Figure 4.L-12**. The Cumulative plus Project intersection levels of service are presented in Table 4.L-5.



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-12

Cumulative (2030) Plus Project – Peak Hour Intersection Volumes

Impact 4.L-2a: Traffic generated by development facilitated by the Specific Plan could potentially cause the signalized intersection of Silverado Trail / Third Street / East Avenue / Coombsville Road to continue to operate below acceptable levels of service in the AM and PM peak hours with an increase greater than the threshold of significance (50 project-generated trips).

The intersection of Silverado Trail / Third Street / East Avenue / Coombsville Road is anticipated to operate at LOS F for AM and PM peak hours under Cumulative (2030) Conditions with and without the Specific Plan. The City of Napa General Plan identifies this intersection for future traffic operation improvements; however, an ultimate design has not yet been approved and funding has not been identified at this time.

Development facilitated by the Specific Plan does not cause the intersection to operate unacceptably, but the addition of the project traffic would exacerbate the unacceptable operation. Mitigation of the unacceptable LOS would require substantial intersection modifications to provide enough capacity to achieve the City LOS standard. Further, it is likely that right-of-way acquisition would be required and utility poles would need to be relocated to modify the intersection. Federal, state and regional transportation funding is limited, and the substantial mitigation costs cannot be fully funded by the City's Traffic Impact Fees. For this reason, implementation of the Specific Plan would have a significant and unavoidable impact at the intersection of Silverado Trail / Third Street / East Avenue / Coombsville Road.

Mitigation: None Available.

As no mitigation has been identified and intersection improvement is not currently funded or planned, the intersection impact would be Significant and Unavoidable.

Significance: Significant and Unavoidable.

Impact 4.L-2b: Traffic generated by development facilitated by the Specific Plan could potentially cause the unsignalized intersection of SR 29 Northbound Off-ramp / First Street to continue to operate below acceptable levels of service in the AM and PM peak hours with an increase greater than the threshold of significance (50 project-generated trips).

The intersection is projected to operate at LOS F and peak hour signal warrants are met under Cumulative and Cumulative plus Project conditions for the AM and PM peak hours. Because the intersection operates at LOS F and meets peak hour signal warrants under Cumulative Conditions without the project, it is considered an existing deficiency. While development under the Specific Plan would not cause the impact, it adds at least 50 peak hour trips to the intersection and exacerbates the unacceptable operation. The intersection would operate at acceptable LOS B or better if signalized; however, the City of Napa, as the lead agency, could not implement this improvement without the approval of Caltrans. For this reason, implementation of the Specific Plan would have a significant and unavoidable impact at the intersection of SR 29 northbound Off-ramp / First Street. (see also discussion under Impact 4.L-1a)

Mitigation Measure 4.L-2b: The City shall continue to coordinate with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street. In this case, the City shall work closely with Caltrans to ensure that the signal timing is properly synchronized with the closely spaced intersection to the east at California Boulevard / First Street.

The City can continue to work with Caltrans to install a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street, which would allow the intersection to operate at acceptable level of service. However, previous discussions with Caltrans indicate that this improvement would be difficult to approve, as installation of a traffic signal would require a design exception due to the close spacing (approximately 350 feet) to the California Boulevard / First Street intersection to the east. Therefore, even with Mitigation Measure 4.L-2b, this project impact would be significant and unavoidable because it is not likely that signalization could be implemented by the City of Napa, as Lead Agency, without the approval of Caltrans. In the event that signalization could be implemented and the signal timing could be synchronized appropriately with the adjacent intersection to the east, the impact would be less than significant.

It is important to note that the City's General Plan calls for the widening of the First Street overcrossing over State Route 29 to be widened to four lanes. At the time this project moves forward, it would incorporate reconfiguration of the Northbound Off-ramp / First Street, which would result in mitigation of this impact.

Significance: Significant and Unavoidable.

Alternative Transportation Trips

Impact 4.L-3: Development facilitated by the Specific Plan could potentially generate additional pedestrian, bicycle and transit trips, which would use the existing and planned circulation network in the Planning Area. (Less than Significant)

As noted previously, the Specific Plan would be considered to have a significant impact if it conflicted with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) or generate pedestrian, bicycle or transit travel demand that would not be accommodated by current pedestrian facilities, bicycle development plans or long-range transit plans.

Currently, sidewalks and pedestrian paths exist along the vast majority of roadways within the Planning Area. Development under the Specific Plan would generate pedestrian demand; however, implementation of the Specific Plan would not interfere with existing or planned pedestrian facilities. Additionally, the Specific Plan contains the following policies related to pedestrian facilities and amenities which would encourage walking in the Planning Area.

Policy TR-4.1. Implement the streetscape improvements in this Specific Plan by ensuring private development enhances the public realm, as envisioned in the Streetscape Plan in Chapter 5, through careful placement and design of street trees, public art, street

furnishings, bike racks, landscaping, signage, newsstands, street lights, paving and trash receptacles.

Policy TR-4.2. Require private development to expand public streetscape and open space improvements to extend the network of pedestrian-friendly sidewalks, promenades, plazas, paseos and courtyards into and through development projects.

Currently, there are several bicycle facilities within the Planning Area. There are also several planned and proposed bicycle facilities within the Planning Area, as identified in current City and Countywide bike plans. Traffic generation or site access from development under the Specific Plan would not create any changes to the existing or planned bicycle facilities. Further, there are several additional bicycle facilities proposed as part of the Specific Plan. The Specific Plan would not interfere with any of the existing or proposed bicycle facilities, or conflict with currently adopted pedestrian goals or policies. Therefore, the Specific Plan would not result in any adverse impacts to bicyclists.

Development facilitated under the Specific Plan would generate transit ridership. Additional passengers generated by growth in the Planning Area would be accommodated by the existing service and impact to transit services would not be considered significant as current services have reserve capacity. Additionally, the Specific Plan contains the following policies related to transit which would encourage ridership in the Planning Area.

Policy TR-3.1. Emphasize the importance of streetscape improvements and pedestrian connectivity as essential strategies for increasing transit ridership.

Policy TR-3.2. Work with NCTPA to identify sources of funding for bus stop upgrades and improvement of amenities including privatization of bus stops.

Policy TR-3.3. Explore restoring the former free Downtown trolley service as implementation of the Specific Plan's development program increases the activity in the Downtown and the interaction between the Downtown core and the COPIA Focus Area. Consider alternative and multiple funding sources including a concession to a private operator, advertising revenue, business assessments, and tourism and parking taxes.

Policy TR-3.4. Coordinate with NCTPA to study Bus Rapid Transit (BRT) as a cost-effective method of commuting between the Planning Area and the rest of the region.

Implementation of the Specific Plan would not interfere with existing or planned pedestrian or bicycle facilities, transit service or transit stops. The policy provisions of the proposed Specific Plan would provide for continued and improved pedestrian and bicycle opportunities and would reduce potential impacts to bicycle and pedestrian facilities to a less than significant level.

Mitigation: None Required.

Change in Air Traffic Patterns

Impact 4.L-4: Development facilitated by the Specific Plan could potentially result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. (Less than Significant)

The Napa County Airport is located approximately eight miles south of the Planning Area. Development facilitated by the Specific Plan would increase density and increase building heights at specific locations. However, building heights are not expected to interfere with current flight patterns of Napa County Airport or other nearby airports. Therefore, development facilitated by the Specific Plan would not result in change in air traffic patterns.

Mitigation: None Required.

Traffic Safety Hazards

Impact 4.L-5: Development facilitated by the Specific Plan could potentially increase traffic volumes on area roadway segments, potentially causing conflicts among motor vehicles, bicycles, or pedestrians. (Less than Significant)

Implementation of the Specific Plan would facilitate development throughout the study area. The locations and/or specific design elements of these developments are not known at this time. Therefore, it is beyond the scope of this programmatic EIR to determine if the project would adversely affect traffic safety. However, considering that each individual development would be required to be consistent with appropriate regulations and design standards in effect at the time, such as SCA 20, *Improvements in the Public Right-of-Way (General)* and SCA 21, *Improvements in the Public Right-of-Way (Specific),* which require that public improvement plans and building plans for individual developments incorporate design requirements such as curbs, gutters, handicap access, adequate Fire Department access, and other measures to improve vehicle, bicycle, and pedestrian safety. The project would cause a less-than-significant impact on safety for motor vehicles, bicycles, and pedestrians.

The Specific Plan is expected to modify the roadway network in the Planning Area by converting existing one-way couplets to two-way traffic (Specific Plan Policy TR-1.2). The ultimate implementation of the two-way street conversion would require a detailed engineering and traffic operations assessment, including but not limited to, an evaluation of the needed improvements to intersection geometry, striping, signage and traffic control at the existing signalized and unsignalized intersections along the streets recommended for two-way conversion.

The following Specific Plan policies seek to maintain a safe and efficient roadway network in the Planning Area:

Policy TR-1.2. Convert existing one-way couplets of First and Second streets, and Third and Fourth streets to two-way travel. Establish the conversion among the first capital projects implemented.

Policy TR-1.3. Re-establish the Downtown's historic block pattern and street grid by acquiring the necessary rights-of-way and re-opening street closures when large blocks undergo redevelopment.

Policy TR-1.4. Maintain all streets within the Planning Area at their current number of lanes, or fewer. Allow minor widening of right-of-way only to facilitate pedestrian and other non-auto-oriented mobility efforts, and as necessary to facilitate the conversion to two-way streets or as necessary to safely accommodate the appropriate control vehicles on designated truck or bus routes.

Policy TR-1.5. Adopt the Specific Plan's classification of streets that accommodate large vehicles as "designed for trucks" or "accommodates trucks" and develop a toolbox of measures to mitigate pedestrian and bicyclist impacts on streets designed for trucks. Ensure that multi-modal improvements do not impede the movement of emergency response vehicles on primary response routes.

Policy TR-1.6. Maintain the economic vitality of the Downtown retail and entertainment uses by planning and implementing on-street commercial truck loading zones and appropriate time restrictions in strategic locations. Implement permanent on-street loading areas when monitoring or concentrations of delivery-reliant land uses warrant all day loading. If necessary, establish truck parking and loading areas on the fringe of the Downtown core to reduce loading interference with traffic flow or disruption of the pedestrian environment.

Policy TR-1.7. Ensure all street modification, reconstruction or rehabilitation projects, whether City led or development driven, within the Planning Area implement the vehicular, pedestrian, bicycle, streetscape or transit improvements identified in this Specific Plan.

Implementation of the policy provisions to maintain roadways and improve traffic flow in the proposed Specific Plan, in conjunction with enforcement of modern design standards in the construction of new roadway facilities, would ensure that construction or conversion of roadway facilities associated with the proposed Specific Plan would not result in unacceptable safety conflicts. Therefore, impacts are considered less than significant.

Mitigation: None Required.

Safety at At-Grade Railroad Crossings

Impact 4.L-6: Development facilitated by the Specific Plan could potentially result in additional automobile, bicycle, and/or pedestrian traffic at the existing at-grade railroad crossings and potentially contribute to safety issues along the railroad crossings. (Significant before Mitigation)

Development facilitated by the Specific Plan may result in additional vehicle, bicycle and/or pedestrian traffic at existing at-grade railroad crossings, thereby potentially contributing to safety

issues along the railroad corridor. For example, automobile traffic generated by new developments may increase vehicle queues at intersections near the railroad crossings. The additional traffic may result in queues backing up onto at-grade railroad crossings, possibly resulting in higher potential for train-related collisions. A substantial increase in traffic generated under the Specific Plan may increase hazards that occur between incompatible uses (i.e., motor vehicles and trains, or pedestrians and trains).

There are four at-grade railroad crossings in the Planning Area which serves the Napa Valley Wine Train. Considering that this EIR is a programmatic review which does not analyze impacts from specific projects at particular location, no detailed analysis, such as vehicle queuing near at-grade railroad crossings, is feasible at this time. However, the Wine Train is a commercial endeavor that has limited excursions and train cars, which would limit the frequency at which there would be potential for interaction between train traffic and other modes.

Mitigation Measure 4.L-6 presents the process for project-level review of at-grade railroad crossings. The incorporation of improvements identified in this mitigation measure would reduce the project's impact to the at-grade railroad crossing to a less-than-significant level.

> **Mitigation Measure 4.L-6:** This mitigation measure should be applied to developments under the Specific Plan that would generate substantial multi-modal trips crossing at-grade railroad crossings that could substantially increase hazards between incompatible uses (i.e., motor vehicles and trains, or pedestrians and trains):
>
> > ***Transportation Impact Studies (TIS) for At-grade Railroad Crossings*** – The TIS, otherwise required to be prepared for proposed developments under this project, in accordance with standard City policies and practices, must evaluate potential impacts to at-grade railroad crossings resulting from project-related traffic. The TIS should examine whether the proposed project would generate substantial multimodal trips crossing at-grade railroad crossings that could substantially increase hazards between incompatible uses (i.e., motor vehicles and trains, pedestrians and trains), which may include a Diagnostic Review for each railroad crossing.
> >
> > If required, the Diagnostic Review must be completed with all affected properties and Stakeholders, in coordination with the California Public Utilities Commission (CPUC). It will include: roadway and rail descriptions; collision history; traffic volumes for all modes; train volumes; vehicular speeds; train speeds; and existing rail and traffic controls. Based on the Diagnostic Review and the number of projected trips, the TIS will evaluate if the proposed project increases hazards at the crossing. For example, vehicle traffic generated by the proposed project may cause vehicle queuing at intersections resulting in traffic spilling back onto at-grade railroad crossings.
> >
> > Where the TIS identifies substantially hazardous crossing conditions caused by the proposed project, mitigations relative to the project's contribution to the crossing as necessary shall be applied through project redesign and/or incorporation of improvements to reduce potential adverse impacts. Proposed improvements must be coordinated with CPUC and affected railroads and all necessary permits/approvals obtained, including a GO 88-B Request (Authorization to Alter Highway Rail Crossings). These improvements may include:

- Installation of additional warning signage;
- Improvements to warning devices at existing rail crossings;
- Installation or improvement to automobiles and/or pedestrian control gates;
- Installation of concrete panels to provide a smooth crossing surface;
- Reduction in the flangeway gap to improve pedestrian and bicyclist safety;
- Installation of median separation to prevent vehicles from driving around railroad crossings;
- Improvements to traffic signaling at intersections adjacent to crossings (e.g., signal preemption);
- Prohibition of parking within 100 feet of the crossings to improve the visibility of warning devices and approaching trains;
- Where soundwalls, landscaping, buildings, etc. would be installed near crossings, maintain the visibility of warning devices and approaching trains;
- Elimination of driveways near crossings;
- Installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way.

This mitigation measure would be applied by the City on a development project (case-by-case) basis, as appropriate. The incorporation of improvements identified in this mitigation measure could reduce the project's impact to the at-grade railroad crossing to a less-than-significant level.

Significance after Mitigation: Less than Significant.

Emergency Vehicle Access

Impact 4.L-7: Development facilitated by the Specific Plan could potentially generate services calls from emergency vehicles. (Less than Significant)

Implementation of the Specific Plan would convert the one-way couplets in Downtown to two-way traffic, but this circulation modification would not adversely affect travel times of emergency vehicles. The City's Fire Code and Subdivision regulations contained detailed standards and mitigation requirements relating to dead-end streets and emergency vehicle access. The adequacy of emergency vehicle access will be evaluated for each individual development in the study area. Considering that each individual development is expected to be consistent with the City's Fire Code, Subdivision and other regulations in effect at the time, the project would cause a less-than-significant impact on emergency access.

Mitigation: None Required.

Consistency with Adopted Policies, Plans or Programs Supporting Alternative Transportation

Impact 4.L-8: Implementation of the Specific Plan could potentially be inconsistent with adopted polices, plans, and programs supporting alternative transportation. (Less than Significant)

The City of Napa General Plan encourages the use of alternative transportation modes, such as transit, bicycling and walking especially Downtown. Development facilitated by the Specific Plan would encourage use of alternative modes because it would provide a variety of new uses near existing and other planned uses. Proposed projects would encourage pedestrian activity by providing a variety of complementary uses within walking distance of other residential, commercial, employment and cultural uses. In addition, Downtown is well-served by transit.

The proposed Specific Plan accommodates a mix of residential densities, commercial/office uses, and pedestrian and bicycle facilities to promote options for movement beyond the use of motor vehicles and includes proposed enhancements to existing transit service. No conflicts with current transit provisions or plans (e.g., roadway design that would conflict with transit service with the city) are expected as a result of implementation of the proposed Specific Plan. The following Specific Plan policies ensure that the transportation network in Downtown is convenient and efficient, as prescribed by the General Plan:

> ***Policy TR-1.3.*** Re-establish the Downtown's historic block pattern and street grid by acquiring the necessary rights-of-way and re-opening street closures when large blocks undergo redevelopment.
>
> ***Policy TR-1.4.*** Maintain all streets within the Planning Area at their current number of lanes or fewer. Allow minor widening of right-of-way only to facilitate pedestrian and other non-auto-oriented mobility efforts, and as necessary to facilitate the conversion to two-way streets. or as necessary to safely accommodate the appropriate control vehicles on designated truck or bus routes.
>
> ***Policy TR-1.5.*** Adopt the Specific Plan's classification of streets that accommodate large vehicles as "designed for trucks" or "accommodates trucks," and develop a toolbox of measures to mitigate pedestrian and bicyclist impacts on streets designed for trucks. Ensure that multi-modal improvements do not impede the movement of emergency response vehicles on primary response routes.
>
> ***Policy TR-1.6.*** Maintain the economic vitality of the Downtown retail and entertainment uses by planning and implementing on-street commercial truck loading zones and appropriate time restrictions in strategic locations. Implement permanent on-street loading areas when monitoring or concentrations of delivery-reliant land uses warrant all day loading. If necessary, establish truck parking and loading areas on the fringe of the

Downtown core to reduce loading interference with traffic flow or disruption of the pedestrian environment.

Policy TR-1.7. Ensure all street modification, reconstruction or rehabilitation projects, whether City led or development driven, within the Planning Area implement the vehicular, pedestrian, bicycle, streetscape or transit improvements identified in this Specific Plan.

Policy TR-1.8. Require new development within the Specific Plan area to implement or contribute toward Planning Area-wide improvements including streetscape and the Class I multi-use trail system that is planned along the Downtown greenways, creeks and flood channel improvements.

Furthermore, the Specific Plan would implement Transportation Systems Management (TSM) strategies within the Planning Area to maximize the effectiveness of existing infrastructure, lessen demand for increased street system capacity and the impacts and cost of expanding streets, help maintain a multi-modal LOS standard for all users, and enhance quality of life for those who use and benefit from the transportation system.

Policy TR-2.1. Manage traffic congestion through TSM and technology applications (e.g., signal synchronization) rather than roadway widening. Implement minor modifications to Downtown streets to balance the needs of vehicles, pedestrians, bicycles, goods delivery and transit.

Policy TR-2.2. Encourage existing large employers and new development to form a Transportation Management Association (TMA) to assist in developing and managing Transportation Demand Management (TDM) programs.

Policy TR-2.3. Support car-sharing in the Downtown by encouraging new development to reserve parking spaces for car share vehicles, and reserving strategic parking spaces for car share vehicles as demand for such services increases.

Policy TR-2.4. Encourage the use of high occupancy vehicles (carpool and vanpool) through public programs for public employees and private employer-based programs, including preferential parking for high occupancy vehicles in both public and private parking facilities.

Policy TR-2.5. Develop a TDM program that encourages new commercial development with greater than 100 employees, to reduce peak hour travel and demands on the public parking supply.

Policy TR-2.6. Coordinate with VINE and the Napa County Transportation and Planning Agency (NCTPA) to enhance and promote the Commute Trip Reduction (CTR) programs for employers in the Planning Area.

Policy TR-2.7. Lead by example within the Planning Area through implementation of a comprehensive CTR program for City employees and by sharing program resources, or encouraging similar programs, for County employees.

In summary, the Specific Plan would generally be consistent with policies, plans and programs in the General Plan, and would not cause a significant impact by conflicting with adopted policies, plans, or programs supporting alternative transportation.

Mitigation: None Required.

Temporary Construction Impacts

Impact 4.L-9: Development facilitated by the Specific Plan could potentially generate temporary increases in traffic volume and temporary effects on transportation conditions. (Less than Significant)

During the construction of various project components, temporary and intermittent transportation impacts may result from truck movements as well as construction worker vehicles to and from the project site, or temporary closure of sidewalks and/or bicycle lanes. The construction-related traffic may temporarily reduce capacities of Planning Area roadways because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Truck traffic that occurs during the peak commute hours (7:00 to 9:00 AM and 4:00 to 6:00 PM) may experience temporary worse levels of service and higher delays at study intersections during the construction period. Also, if parking of construction workers' vehicles cannot be accommodated within the specific project site, it would temporarily increase parking occupancy levels in the area. Future construction could also affect the operations of transit buses as certain street segments are temporarily closed or if access is restricted on streets that constitute current bus routes.

The City of Napa requires that a Construction Traffic Management Plan be developed and implemented as part of a larger Construction Management Plan for each development project to address potentially significant impacts during the project's construction. This is a less-than-significant impact, and as a result no mitigation measures are required.

Mitigation: None Required.

Planning-Related Non-CEQA Issues

The following transportation-related topic is not considered under CEQA, but is evaluated in order to inform decision-makers and the public about these issues.

Parking-Related Impacts

This transportation analysis assesses the issue of parking as a non-CEQA impact. The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.[2] Parking supply/demand varies by time of day, day of

[2] San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Napa, in its review of development facilitated by the Specific Plan, would ensure that a future project's provision of additional parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the Planning Area are considered less than significant.

As previously stated, the specific uses, exact size and location, or the proposed parking supply of each individual development projects anticipated under the Specific Plan are not known. In addition, development projects may also displace existing parking supply. Thus, this EIR cannot determine if the project's estimated parking demand (both project-generated and project-displaced) would be satisfied by the project's proposed parking supply or by the existing parking supply available in the vicinity.

It is expected that future review of each individual development project would determine the adequacy of the proposed parking supply to meet the expected parking demand based on the parking requirements presented in the Specific Plan.

Parking Analysis

Existing Parking Conditions

Parking plays a critical role in Downtown Napa, particularly in the commercial district west of Soscol Avenue. With retail the primary economic driver in the district, the public parking supply is a particularly important factor for the area. Currently, public parking is provided at no charge to downtown visitors. Parking in the Planning Area is comprised of on-street parking, off-street parking in public surface lots and parking structures, and private off-street parking lots serving individual land uses. Most block faces within the Planning Area have on-street parking spaces.

City of Napa Parking Policy Context

- *Economic Development – ED-3.8*: The City shall support creative public and private solutions to providing parking facilities and non-automobile access to Downtown. The City shall strive to maintain an adequate inventory of parking facilities Downtown.

City of Napa Parking and Loading Requirements

The City's parking requirements are found in the Zoning Ordinance, Chapter 17.54. This section describes existing zoning ordinance standards for parking and loading.

Downtown Parking Exempt Overlay District

Similar to many larger Downtowns, the City has adopted a Parking Exempt Overlay District (PE District) which applies within the Downtown Core area. The intent of the Downtown PE District is to provide a pedestrian-friendly environment through the establishment of public parking facilities, to relieve certain properties from onsite parking requirements, and to control onsite parking on properties within the District. Within the PE District, new development projects do not have to provide onsite parking and loading except for residential uses. Non-residential projects instead pay a parking impact fee for parking demand generated by net new square footage, based on the City's parking standards. The parking impact fees collected by the City are pooled for construction of new parking facilities to serve the demand generated by new development. This mechanism provides each property an opportunity to optimize the use of land and contributes to the pedestrian-scaled environment. It also makes projects more feasible by providing cost-effective, consolidated parking facilities. The PE District is combined with a Parking Benefit zone to fund maintenance of public parking facilities. The evolution of the PE District and Benefit Zone is summarized below:

- *May 1972*: Ordinance No. 2117 established Parking and Business Improvement Area No.1 and Benefit Zone No.1

- *June 1980*: Ordinance established the original Parking Exempt District.

- *January 1987*: Ordinance No. 3066 expanded the Parking Exempt District by 25 parcels and the boundary of Benefit Zone 1 was amended to be identical to the boundary of the Parking Exempt District. The ordinance also established the parking assessment: businesses in Benefit Zone 1 pay a 70% surcharge on their business license to help pay for maintenance of public parking facilities.

- *2005*: The Parking Exempt District and Benefit Zone 1 were expanded again to their current boundaries. In addition, a parking impact fee was established and is applied to net new nonresidential development within the PE District to further contribute to the funding of new public parking structure construction in the PE District. The parking impact fee is an essential component to ensuring sufficient parking to support the demand generated by private development.

2004 Revisions to Downtown Parking Standards

As a result of the 2004 Downtown Napa Mixed-use and Residential Infill Development Strategy, the City reduced its downtown parking standards, recognizing that Downtown should be treated

differently than suburban neighborhoods. A detailed parking review was undertaken, including a residential parking demand survey of apartments in and around Downtown, a review of national and other Bay Area city downtown parking standards, review of census vehicle ownership information in the Downtown census tract, and a consultant parking supply and demand analysis was conducted. Residential standards were reduced considering observed lower parking demand in downtown area apartments, lower vehicle ownership and review of typical urban center standards. Retail and office parking standards were reduced (still staying at typical ranges) to be more consistent with how downtowns (and shopping centers) operate. That is, in urban centers, the peak parking demand for individual land uses varies throughout the day, allowing shared use parking. Additionally, the mix of uses allows people to park once and go many places on foot. Public transit in Downtown Napa allows people other options to get to Downtown. Within the Downtown Planning Area, Napa's downtown parking standards currently apply in the Downtown Commercial District only. Residential uses must meet these standards onsite even in the PE District. Downtown parking standards are not currently used in Mixed Use (including the Oxbow area) or the Residential Office zoning districts; these areas currently use the same standards that are applied throughout the remainder of the City.

City of Napa Zoning Parking Standards

The City's Zoning Ordinance specifies the number of parking spaces required for developments within the City as well as loading requirements. These parking and loading requirements are outlined in Chapter 17.54 Parking and Chapter 17.44 PE – Parking Exempt Overlay District. The information contained in these sections of the ordinance lists the parking space requirements for different types of land uses, including the PE District; loading requirements; bicycle parking; and shared parking. The City encourages shared parking and requires bicycle parking facilities in larger new developments. **Table 4.L-6** summarizes the relevant excerpts from the City Zoning Ordinance:

Survey Methodology and Background

Definitions

Study Area: The Planning Area spans from Jefferson Street to the east bank of the Napa River, and Division Street to Caymus Street. For the purposes of this evaluation, the Planning Area is divided into two zones (west of Soscol Avenue, east of Soscol Avenue), which are illustrated in **Figure 4.L-13**.

Parking Demand: The number of parked vehicles expected of a specific type and amount of land use during the peak period of a typical weekday or weekend. Parking demand is independent of parking supply.

Parking Supply: The number of parking spaces provided on a development block, on-street, or in common off-street lots or garages. Only municipally owned parking spaces are included in this survey.

TABLE 4.L-6
CITY OF NAPA PARKING REQUIREMENTS

Chapter 17.54
PARKING

17.54.040 Parking Requirements				
Residential Uses Downtown (CD and CDP Districts *(Standards apply to Soscol Gateway Mixed Use District north of Eighth Street for Mixed-Use Development)*				
Single family attached, residential condominiums and apartments of two or more attached units	Per Unit Parking Requirements			
	Studio	1		
	1 bedroom	1.25		
	2 bedrooms	1.5		
	3 bedrooms	1.75		
Guest Parking for the above uses	Not required unless within 200 feet of a residential district, in which case guest parking shall be provided at 1 space per 4 units; or 1 space per 2 units if units take access from arterials or collectors where on street parking is prohibited.			
Residential Uses Outside Downtown				
Single Family residential, detached	Two parking spaces per unit with at least one garage unit. One space for each additional bedroom beyond two. Guest parking includes one onsite space.			
Residential condominium projects and Small lot single family development including all single family attached and detached in RM Districts	1.5 spaces for studio or 1 bedroom units; plus 0.5 space for each bedroom in excess of 1 plus guest parking as described below; At least 1 space shall be in a garage			
Apartments of two or more attached units, dwelling group units and attached residential rental units in vertical mixed use projects	Per Unit Parking Requirement			
		1-3 Units	4-49 Units	50+ Units
	Studio/1 Bdrm	1.5	1.4	1.25
	2 Bdrm	1.75	1.60	1.50
	3 Bdrm	2.00	1.80	1.75
	Plus 0.5 space for each bedroom in excess of 3, plus guest parking at 1 space per 4 units; or 1 space per 2 units if units take access from arterials or collectors where on street parking is prohibited.			
Commercial and Office Uses Downtown				
All uses except Hotels and Motels, Bed and Breakfasts which shall use the citywide standard	4 spaces per 1,000 sq. ft. ground floor 3 spaces per 1,000 sq. ft. other floors			
Commercial uses Outside Downtown				
Bed and breakfast inns	See bed and breakfast standards			
Hotels and Motels	1 space per sleeping room plus 1 space for manager plus 1 space for every 2 employees (full or part time) plus *If* hotel has convention, banquet, restaurant or meeting facilities, parking shall be provided in addition to the hotel requirement, as determined by Planning Commission, based on parking study provided by applicant and acceptable to the city.			
Retail sales (non bulky items and Personal Services)	4 spaces per 1,000 sq. ft. ground floor			
Offices	4 spaces per 1,000 sq. ft, except medical/dental offices and clinics, which require 5 spaces per 1,000 ft.			
Restaurants, cocktail lounges, bars	Higher standards, except in shopping centers, where they are <25% of the total sq. ft., or if >25% a parking study sets the standard and shows how shared parking demand will be met.			
Public/Quasi Public Facilities	Standards are typically established through parking studies of the specific use			

TABLE 4.L-6 (Continued)
CITY OF NAPA PARKING REQUIREMENTS

Chapter 17.54 (cont.)
PARKING

17.54.050 Onsite Loading

All nonresidential buildings 10,000 square feet in size or greater to be occupied by retail, manufacturing, storage, warehouse, wholesale or similar use shall require onsite loading in accord with the following standards:

A. *Required Loading Spaces*.

Gross Floor Area	Loading Spaces
10,000 to 24,999	1
25,000 to 49,000	2
each additional 50,000 sq. ft.	1

B. *Size*. Each loading space shall not be less than 10 feet in width, 30 feet in length with a minimum overhead clearance of 14 feet.

C. *Location*. Such space may occupy all or part of any required yard but may not be located in the front or side setback area, or between the street and the nearest building unless screened. Loading areas shall also be located and designed to minimize noise impacts on adjacent sensitive uses to the extent feasible.

D. *Waiver*. The Planning Commission may waive the loading requirement or modify the above standards if it is demonstrated that the proposed use does not require loading, that an alternative arrangement satisfies the loading need, or if the proposed site location and design has mitigated aesthetic and noise impacts and provides the best alternative.

17.54.060 Bicycle Parking

All nonresidential uses required to provide 10 or more vehicular parking spaces shall also provide bicycle-parking facilities according to the following standards:

A. *Spaces*. 1 bicycle space for each 10 vehicular spaces is required.

B. *Modifications*. The parking requirement for any specific use listed may be modified with a Use Permit in order to provide adequate parking, which is fair, equitable, logical and consistent with the intent of this Chapter. Such modification shall be subject to review and approval by the Planning Commission.

C. *Lockers*. Bicycle lockers may be installed but are not required.

D. *Waiver*. The decision-making body may waive or reduce this requirement only if it can be demonstrated that the bicycle parking facilities are provided nearby to satisfy the proposed requirements or there is pre-existing development such that there is no feasible location for such facilities.

17.54.080 Parking Requirements for Shared Parking and Off-site Parking

A. *Multiple Standards*. When a single structure or lot contains multiple uses, more than one standard may apply, depending on the uses proposed.

B. *Shared*. Shared parking solutions are encouraged. Required parking minimums may be reduced with a Use Permit provided that the shared parking spaces are:

1. Located in a common parking lot or off-site convenient to the use(s) requiring the parking; and
2. The parking will be secured for the use(s) requiring the parking by ownership and/or agreements sufficient to guarantee the long term use of the site for such parking; and
3. The applicant is able to show through a parking analysis that peak demand for spaces from all uses will be met. A possible option for determining shared parking arrangements includes the Urban Land Institute Publication “Shared Parking”.
4. In no instance shall the total parking required be less than would be required for any one of the independent uses.

C. *Off-site*. Off-site Parking for a use may be approved with a Use Permit consistent with B.1 and B.2 above.

Chapter 17.44
PE - PARKING EXEMPT OVERLAY DISTRICT

17.44.030 Onsite Parking and Loading Regulations

A. No Onsite Parking and Loading except for Residential. No onsite parking and loading facilities shall be required for any property zoned :PE, except for a residential use or development.

B. Residential Standards. Parking for residential development in the :PE overlay district shall be provided in accord with the requirements of Chapter 17.54 with the following variations:

TABLE 4.L-6 (Continued)
CITY OF NAPA PARKING REQUIREMENTS

Chapter 17.44 (cont.) PE - PARKING EXEMPT OVERLAY DISTRICT
17.44.030 Onsite Parking and Loading Regulations (cont.)
1. Guest parking shall not be required. 2. Offsite parking or use of on-street parking for a limited number of units (typically 3 or fewer) may be authorized by the Planning Commission with approval of a Use Permit. To approve such a permit the Planning Commission shall find that the off-site parking facility is reasonably accessible and secure to the tenants and is available long term; or that adequate curb parking is available adjacent to the property; or that onsite parking for the residential units is not needed. C. Use Permit Required to Establish Onsite Parking for Commercial Uses. Onsite parking for commercial uses may only be established on properties zoned :PE through approval of a Use Permit. In granting such a permit, the decision-making body shall find that the parking has been located and designed so that it does not conflict with Downtown building concentrations and pedestrian orientation.

Parking Occupancy: The number of actual vehicles parked during the peak period of a typical weekday or weekend. Parking occupancy is summarized in terms of the percentage of parking spaces that are occupied at any given time of day. Generally, there is a single peak period on a typical weekday or weekend that contains the highest number of accumulated parked vehicles.

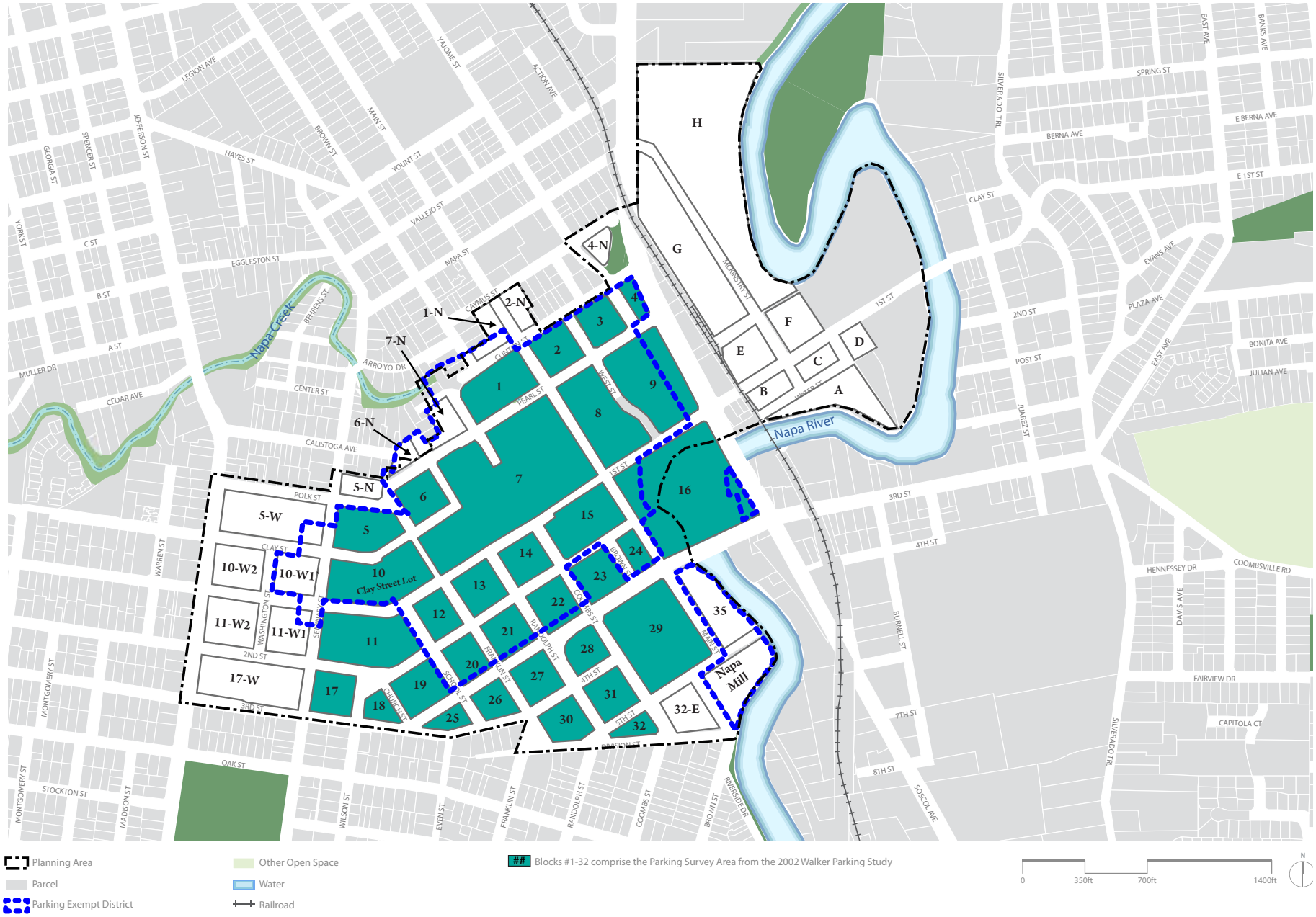
Shared Parking: The concept of using a parking space to serve two or more land uses without conflict. Conventional regulations require that each development, or land use type, provide enough parking to serve its own peak demand, leaving unused parking spaces during the off-peak periods. Shared parking allows multiple complementary land uses, whose peak parking demands do not coincide, to share the same pool of parking spaces, resulting in a more efficient use of those spaces.

Practical Capacity: The practical capacity for parking is defined at 85 to 90 percent utilization of parking spaces. Keeping about 10 to 15 percent of the spaces vacant provides a cushion in excess of necessary parking spaces to allow for the dynamics of parking (i.e., people circulating in search of a space, and moving in and out of parking space). When occupancy exceeds the practical capacity, drivers will experience delays and frustration while searching for a parking space, as well as contribute to area traffic congestion while circling the block looking for parking.

Data Collection Methodology

Existing weekday and weekend parking data was collected through occupancy surveys, which were performed in July 2009 by Kimley-Horn and Associates, Inc. and City staff. Parking data included the following:

- An inventory of on-street and off-street parking spaces by block face (north, south, east, west) and by individual parking lot/garage;
- Weekday parking occupancy survey data conducted every two hours from 9:00 AM to 9:00 PM (collected Tuesday, July 21, 2009);



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-13

Specific Plan Parking Block Numbers

- Weekend (Friday) parking occupancy survey data conducted every two hours from 9:00 AM to 11:00 PM (collected Friday, July 24, 2009); and

- Weekend (Saturday) parking occupancy survey data conducted for parking garages only every two hours from 9:00 AM to 11:00 PM (collected Saturday, July 25, 2009)

Surveys were performed on particular days of the week so that they would be representative of a high parking demand weekday and weekend day. A Tuesday was selected because the Napa Farmer's Market takes place and jury pools are called into the courts, making this one of the busiest weekdays for Downtown parking. Fridays and Saturdays are typically peak demand weekend days because local residents and out of town visitors are attracted by special events and leisure activities in Downtown. Friday was selected for the survey because it is historically busier than Saturday and special events regularly occur on Friday evening.

The following special events were observed at the time of the surveys:

- The Napa Farmer's Market was located in the Wine Train parking lot (block G) from 7:30 AM to 12:00 PM on Tuesday. Workers and visitors parked primarily on-street along McKinstry Street (blocks G and H); and

- Napa City Nights, an outdoor picnic and concert event takes place during the summer on Friday nights from 6:00 PM to 10:00 PM. During the Friday evening parking surveys, this event took place at Veteran's Memorial Park, located at the corner of Main Street and Third Street.[3]

Although the Downtown's parking demand does not exceed supply overall, there are locations and certain time periods where parking demand is quite high, resulting in localized conditions where the supply is nearly or fully utilized. The following localized parking conditions were observed during the weekday and weekend surveys:

- During the Napa Farmer's Market on Tuesday and during the peak parking period Friday, the on-street parking along blocks G and H in the Oxbow area was near-fully occupied. Since much of the on-street parking along these blocks was unmarked, vehicles were observed parking very close together.

- During the Tuesday surveys, the surface parking lot on block 28 (lot 28) appeared to be near practical capacity (85 percent occupied) for much of the day. Several vehicles were observed circling the lot in search of an available parking space. This lot serves the County Administration building and is one of the closest parking lots to the building's entrance for employees and County visitors. Since the lot is owned by the County and nearly empties immediately after 5:00 PM is evidence that it is mostly comprised of County employee parking.

- The surface parking lot on block 8 (lot X-W) appeared to be near capacity for much of the weekday (Tuesday) and weekend (Friday) survey periods. On several occasions, vehicles

[3] Weekend (Saturday) parking occupancy data was collected for the City parking garages only. The Saturday peak hour parking occupancy for the parking garages was less than half of the peak hour parking occupancy observed for the Friday peak period. For this reason, Saturday was determined to not be a critical parking period within the District, and was not included in this analysis.

were observed circling the lot in search of available parking. This lot is convenient to the Main Street retail area and is one of the few surface parking lots where all-day parking is permitted resulting in low turn-over and high usage.

Existing Parking Conditions

Existing Public Parking Supply

Existing On-Street Parking Supply. Each block within the Downtown was assigned a number consistent with the original numbering convention used in the 2002 Walker Parking Study. Each block face was labeled north (N), south (S), east (E) and west (W) for collecting on-street parking data.

Most block faces within the Downtown have on-street parking spaces. Nearly all of the on-street parking is parallel parking, with the exception of the east side of City Hall (Block 11), and on Brown Street west of the Napa Mill (Block 32-E, east side), where angled or perpendicular parking is striped. Most of the parallel parking spaces are delineated with pavement markings. Where pavement markings were not present to delineate parking spaces, the number of on-street spaces was estimated by visual observation.

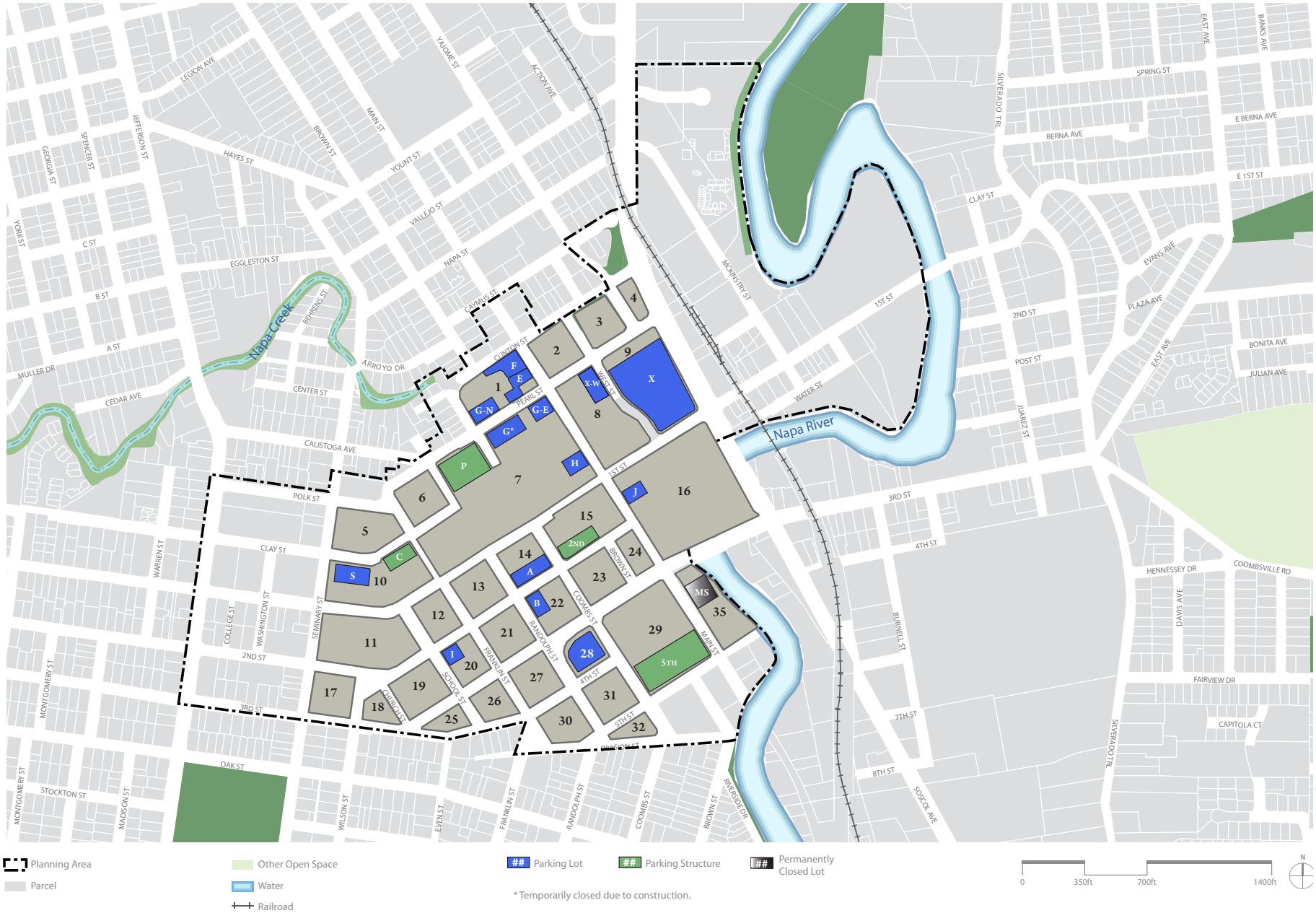
At the time of the survey, the study area contained a total of 1,255 on-street parking spaces (1,119 spaces west of Soscol Avenue, 136 spaces east of Soscol Avenue).

Existing Off-Street Parking Supply. Off-street parking consists of public surface lots and municipal parking structures/garages. Private parking lots were not included as part of this analysis.[4] Each off-street parking lot or parking structure is identified with a letter or number designation (see Figure 4.L-13). Data was recorded using this numbering system.

At the time of the survey, there were 705 total spaces[5] in 14 City-owned public surface parking lots and one 129-space County-owned lot on the Sullivan block (Block 28). There were 1,371 spaces in four public parking structures (three City-owned structures and one 485-space County-owned structure, which provides some public and private parking) for a total off-street parking supply of 2,076 spaces. Note that for the purposes of this study, the off-street parking supply excludes parking lot G, a 52-space surface lot, which was temporarily closed for construction staging at the time of the surveys. This created an effective off-street parking supply of 2,024 spaces representing conditions at the time of this analysis. It should also be mentioned that previous downtown parking studies included the Main Street lot (see **Figure 4.L-14** labeled "MS"); however, this parking lot has since been removed and is not included in the existing parking supply.

4 It is important to note that the former Copia parking lots tend to function like public parking lots where customers of surrounding businesses park. When Copia redevelops, the parking impacts to off-site parking will be impacted to a greater degree than is reflected here because private parking lots were not considered in the analysis. When development is proposed for the Copia property, these impacts will need to be addressed.

5 This number has been reduced in the lots near the Fire Museum by the Napa Creek improvements.



SOURCE: MIG

Downtown Napa Specific Plan . 208649

Figure 4.L-14

Specific Plan Parking Block Numbers

Existing Total Parking Supply. At the time of the survey, there were a total of 3,331 on- and off-street public parking spaces in the Planning Area (including lot G).[6] With the temporary closure of lot G during the survey period, the effective total parking supply for the purposes of this study is 3,279 spaces.

Error! Not a valid bookmark self-reference.**7** and **Table 4.L-8** summarize the number of on- and off-street parking spaces in the Planning Area.

Existing Public Parking Demand

Existing On-Street Parking Demand. Parking demand is summarized in terms of the percentage of parking spaces that are occupied at any given time of day. Generally, there is a single peak period that contains the highest number of accumulated parked vehicles. The peak period for the weekday (Tuesday) surveys was 11:00 AM to 1:00 PM. The peak period for the weekend (Friday) surveys was 1:00 PM to 3:00 PM. It should be noted that for both the weekday and weekend surveys, there were several on-street parking locations where the demand exceeded the supply. At these locations, vehicles were parked illegally or were very closely spaced, resulting in a greater number of parked cars than estimated available spaces.

During peak conditions, the on-street parking occupancy was at 65 percent for the weekday (Tuesday) period and 59 percent for the weekend (Friday) period.

Existing Off-Street Parking Demand. During peak conditions, the off-street parking occupancy was at 64 percent for the weekday (Tuesday) period and 60 percent for the weekend (Friday) period. Several of the off-street parking lots were observed to be near or at capacity during the peak hour; however, only the Second Street Garage at the corner of Second Street and Coombs Street had a peak hour occupancy greater than 80 percent. This is attributable to the high concentration of daytime workers and jurors who utilize the garage. During Friday evening, there were fairly high concentrations of parking demand within the vicinity of the restaurants and entertainment uses along the eastern region of the planning area; however, the peak weekend parking demand for the full Planning Area occurred during early Friday afternoon.

Existing Total Parking Demand. The peak period for weekday parking demand in the Downtown is 11:00 AM to 1:00 PM. The peak period for weekend (Friday) parking demand is 1:00 PM to 3:00 PM. During peak conditions, the total parking occupancy within the Planning Area was 64 percent for the weekday (Tuesday) period and 59 percent for the weekend (Friday) period. While there were several on- and off-street locations where the parking occupancy exceeded the practical capacity of 85 percent, in general, there is adequate parking supply within Downtown to meet the existing demand.

6 It should be noted that the Planning Area parking supply and demand presented the EIR differs from the existing parking inventory presented in the Downtown Napa Specific Plan Existing Conditions Report – Public Review Draft (June 2009). This is because the parking analysis was revised in July-August 2009 to include an expanded study area east of Soscol Avenue and to better reflect the peak-seasonal Downtown parking demand. The revised existing parking analysis was submitted to City staff in August 2009 and is included in Appendix D.

TABLE 4.L-7
EXISTING WEEKDAY PARKING OCCUPANCY

Area	Existing Off-Site Parking Supply			Existing Peak Off-Site Parking Demand			Surplus/ Deficit	% Occup.
	On-Street	Off-Street	Total	On-Street Demand	Off-Street Demand	Total Demand		
East of Soscol Ave	**136**	**0**	**136**	**73**	**0**	**73**	**+63**	**54%**
West of Soscol Ave	**1,119**	**2,024**	**3,143**	**706**	**1,299**	**2,005**	**+1,138**	**64%**
Within P.E. District	502	1,411	1,913	326	963	1,289	+624	67%
Outside of P.E. District	617	613	1,230	380	336	716	+541	58%
Total Planning Area	**1,255**	**2,024**	**3,279**	**779**	**1,299**	**2,078**	**+1,201**	**63%**

[a] P.E. District = Downtown Parking Exempt District
[b] Peak Period for All Parking = 11:00 AM - 1:00 PM
[c] See Figure 4.L-14 for the block numbering system used in the surveys.
[d] Data collected Tuesday, July 21, 2009.
[e] A 52-space parking lot (lot G) on block 7 was temporarily closed for construction; excluded from existing parking supply.

SOURCE: Kimely-Horne Associates (2011)

TABLE 4.L-8
EXISTING WEEKEND (FRIDAY) PARKING OCCUPANCY

Area	Existing Off-Site Parking Supply			Existing Peak Off-Site Parking Demand			Surplus/ Deficit	% Occup.
	On-Street	Off-Street	Total	On-Street Demand	Off-Street Demand	Total Demand		
East of Soscol Ave	**136**	**0**	**136**	**96**	**0**	**96**	**+40**	**71%**
West of Soscol Ave	**1,119**	**2,024**	**3,143**	**647**	**1,206**	**1,853**	**1,290**	**59%**
Within P.E. District	502	1,411	1,913	332	947	1,279	+634	67%
Outside of P.E. District	617	613	1,230	315	259	574	+656	47%
Total Planning Area	**1,255**	**2,024**	**3,279**	**743**	**1,206**	**1,946**	**1,333**	**59%**

[a] P.E. District = Downtown Parking Exempt District
[b] Peak Period for All Parking = 1:00 PM - 3:00 PM
[c] See Figure 4.L-14 for the block numbering system used in the surveys.
[d] Data collected Friday, July 24, 2009.
[e] A 52-space parking lot (lot G) on block 7 was temporarily closed for construction; excluded from existing parking supply.

SOURCE: Kimely-Horne Associates (2011)

Existing Total **Parking Supply.** At the time of the survey, there were a total of 3,331 on- and off-street public parking spaces in the Planning Area (including lot G). With the temporary closure of lot G during the survey period, the effective total parking supply for the purposes of this study is 3,279 spaces.

Error! Not a valid bookmark self-reference.**7** and **Table 4.L-8** summarize the number of on- and off-street parking spaces in the Planning Area.

Existing Public Parking Demand

Existing On-Street Parking Demand. Parking demand is summarized in terms of the percentage of parking spaces that are occupied at any given time of day. Generally, there is a single peak period that contains the highest number of accumulated parked vehicles. The peak period for the weekday (Tuesday) surveys was 11:00 AM to 1:00 PM. The peak period for the weekend (Friday) surveys was 1:00 PM to 3:00 PM. It should be noted that for both the weekday and weekend surveys, there were several on-street parking locations where the demand exceeded the supply. At these locations, vehicles were parked illegally or were very closely spaced, resulting in a greater number of parked cars than estimated available spaces.

During peak conditions, the on-street parking occupancy was at 65 percent for the weekday (Tuesday) period and 59 percent for the weekend (Friday) period.

Existing Off-Street Parking Demand. During peak conditions, the off-street parking occupancy was at 64 percent for the weekday (Tuesday) period and 60 percent for the weekend (Friday) period. Several of the off-street parking lots were observed to be near or at capacity during the peak hour; however, only the Second Street Garage at the corner of Second Street and Coombs Street had a peak hour occupancy greater than 80 percent. This is attributable to the high concentration of daytime workers and jurors who utilize the garage. During Friday evening, there were fairly high concentrations of parking demand within the vicinity of the restaurants and entertainment uses along the eastern region of the planning area; however, the peak weekend parking demand for the full Planning Area occurred during early Friday afternoon.

Existing Total Parking Demand. The peak period for weekday parking demand in the Downtown is 11:00 AM to 1:00 PM. The peak period for weekend (Friday) parking demand is 1:00 PM to 3:00 PM. During peak conditions, the total parking occupancy within the Planning Area was 64 percent for the weekday (Tuesday) period and 59 percent for the weekend (Friday) period. While there were several on- and off-street locations where the parking occupancy exceeded the practical capacity of 85 percent, in general, there is adequate parking supply within Downtown to meet the existing demand.

Table 4.L-7 and Table 4.L-8 present the peak hour parking demand for weekday and weekend conditions, respectively. **Figures 4.L-15**, **4.L-16**, and **4.L-17** show the on-street, off-street and total parking occupancy trends throughout the survey period.

Future Conditions

To assess the Downtown public parking conditions with full build out of the future development capacity identified in the Specific Plan, the future off-site (public) peak parking demand was estimated and compared to the current off-site parking supply. As in the existing conditions parking analysis, private parking lots are not included as part of the available off-site parking supply.

Future Public Parking Supply

The future on- and off-street public parking supply remains similar to the existing parking supply, with the exception of the following changes:

1. Loss of approximately 140 parking spaces due to the future Oxbow Bypass project (spaces primarily lost at Block 9).

2. Net loss of approximately 68 parking spaces due to the proposed expansion of Napa County's Downtown offices. Napa County's proposed downtown development plans affect the future parking supply as follows:

   - Loss of 123 surface parking spaces with the redevelopment of the existing parking lot on Block 28;
   - Addition of a new 40-space surface parking lot at site of proposed County office building on Block 28 (Sullivan block);
   - Loss of approximately 15 existing on-street parking spaces along Fourth Street with proposed closure of Fourth Street between Coombs and Randolph streets;
   - Creation of new 30 to40 space surface parking lot along closed Fourth Street right-of-way between Coombs and Randolph streets;

The future public parking supply within the Planning Area is summarized in **Table 4.L-9**.

Future Public Parking Demand

The peak future parking demand within the Planning Area was calculated by taking the existing off-site peak parking occupancy, as determined in the existing conditions parking analysis, and adding the net increase in demand added by new development with full build out of the projected Specific Plan development capacity and subtracting the peak demand from existing land uses that are to be redeveloped. The future parking demand analysis was prepared based using the following methodology:

1. *Base Parking Demand*: Estimated for each block within the Planning Area by taking existing peak parking occupancy by block and adding the estimated increase in parking demand generated by proposed development. To be conservative, the estimated increase in parking demand within the Planning Area reflects proposed development as part of the Specific Plan in addition to the development proposed as part of expansion of Napa

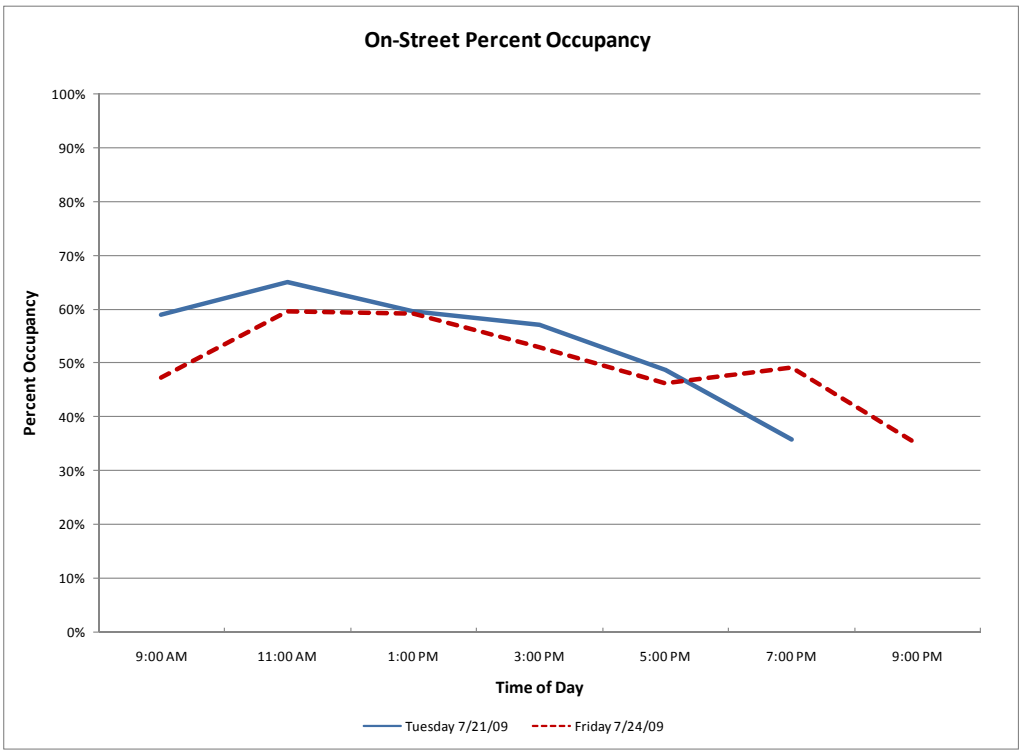


Figure 4.L-15
Existing On-Street Parking Occupancy Trends

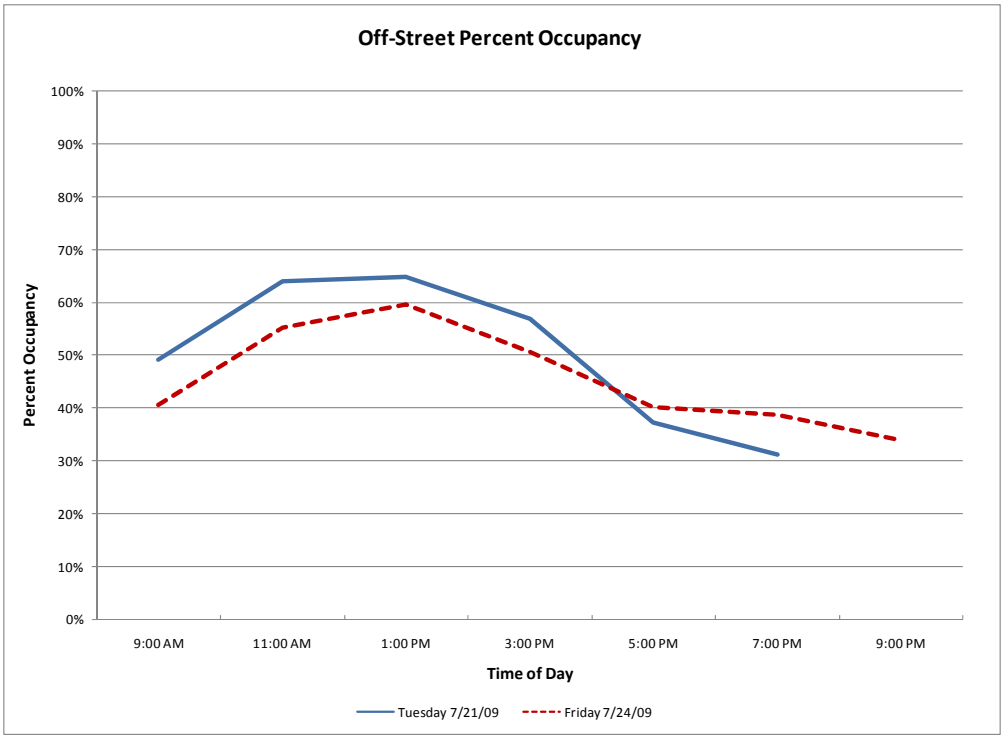


Figure 4.L-16
Existing Off-Street Parking Occupancy Trends

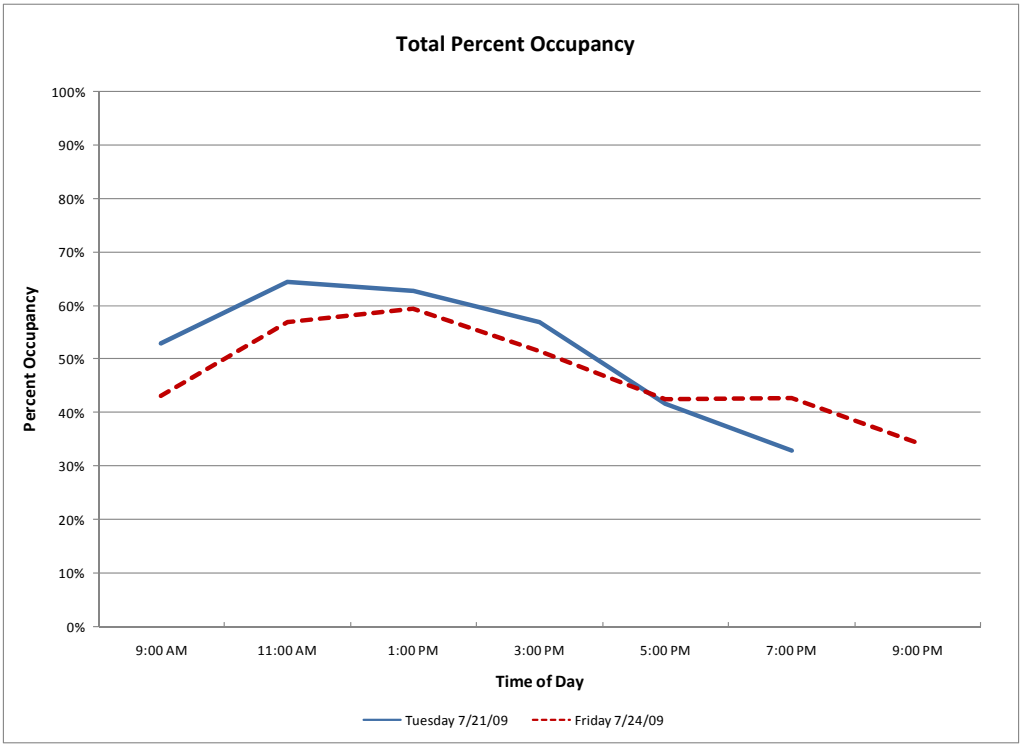


Figure 4.L-17
Existing On- & Off-Street Parking Occupancy Trends

TABLE 4.L-9
FUTURE PEAK PARKING CONDITIONS

	Future Off-Site Parking Supply			Future Peak Off-Site Parking Demand					
Area	**On-Street**	**Off-Street**	**Total**	**Existing Demand**	**Existing Demand Displaced**	**Added Off-Site Demand**	**Total Future Demand**	**Future Surplus/ Deficit**	**% Occup.**
East of Soscol Ave	**136**	**0**	**136**	**73**	**0**	**+89**	**162**	**-26**	**119%**
West of Soscol Ave	**1,086**	**1,856**	**2,942**	**1,988**	**-,1038**	**1,806**	**2,756**	**+186**	**94%**
Within P.E. District	484	1,296	1,780	1,320	-1,038	+1,607	1,889	-109	106%
Outside of P.E. District	602	560	1,162	668	0	+199	867	+295	75%
Total Planning Area	**1,222**	**1,856**	**3,078**	**2,061**	**-1,038**	**+1,895**	**2,918**	**+160**	**95%**

[a] Highlighted values indicate that the parking demand exceeds the Practical Capacity. The Practical Capacity is considered to be 85% of the total off-site parking supply (on-street and off-street).
[b] P.E. District = Downtown Parking Exempt District
[c] Period of Future Peak Parking Demand = Weekdays (Non-Friday) between 1:00PM – 3:00 PM.

SOURCE: Kimely-Horne Associates (2011)

County's Downtown facilities, as identified in the County Facilities Master Plan. While not included as part of the Facilities Master Plan, plans have been proposed to expand the Downtown County Jail facilities. To provide a conservative analysis, this expansion is also considered in the future parking analysis. The calculated increase in parking demand is determined using Parking Generation Rates from ITE's *Parking Generation* (4th Edition).

2. *Reductions*: Because the ITE trip generation rates are typically developed from isolated suburban land uses poorly served by transit, they do not represent the true parking demand generated by uses in a walkable, mixed-use setting, such as Downtown Napa. For this reason, a total reduction of 17 percent was applied to the Parking Generation Rates to account for transit, walk, bike and internal capture which would be more representative of trip generation rates in Downtown due to its mixed-use setting and alternative transportation access.

3. *Time of Day Distribution*: A shared-use analysis was performed by adjusting peak parking generation estimates by land use based on time-of-day factors from ULI's *Shared Parking* (2nd Edition).

4. *Future Parking Demand Shifted to Off-Site (Public) Supply*: For the purposes of this analysis, the future off-site (public) parking demand is defined as the demand for parking that would not be accommodated onsite. This demand would need to be accommodated by the municipal parking supply, either on-street or off-street in surface lots or garages. To determine the amount of additional parking demand that would be shifted to off-site facilities, the following assumptions were used:

   a) 100 percent of the City code-required parking (as summarized in Table 4.L-6) would be provided onsite for residential uses and all uses outside of the Parking Exempt District. The only exception is for the area east of Soscol Avenue in the Oxbow District (Block C), where several of the smaller proposed development sites will likely be unable to provide onsite parking due to small or awkwardly shaped parcels. To be conservative, it was assumed that the parking demand generated by the development sites on Block C east of Soscol Avenue will rely solely on the public parking supply.

   b) Within the Parking Exempt District, proposed non-residential development would not be required to provide onsite parking; however, it is assumed that new development projects would seek and obtain approval to provide 20% of the code-required parking onsite for customer convenience and marketability of the property. Parking demand exceeding the onsite supply would then be shifted to the off-site (public) supply.

The peak future parking demand analysis was summarized by block using the block numbers from the existing conditions parking analysis report (see Table 4.L-9). Because public parking supply and demand are shared and not isolated to each block within a downtown environment, the Downtown study area was divided into subareas east and west of Soscol Avenue. The parking demand analysis was also summarized for locations within and outside of the Parking Exempt District.

According to the shared-use parking demand analysis, the peak period of future parking demand within the Planning Area was determined to be weekdays (non-Friday) between 1:00 PM and

3:00 PM. The peak future parking demand is compared to the future parking capacity, and practical capacity in Table 4.L-9.

As shown in Table 4.L-9, full buildout of the proposed Specific Plan development and County facilities expansion results in a total increase in the peak off-site parking demand of approximately 857 spaces. The total future peak off-site parking demand of 2,918 spaces does not exceed the total parking supply of 3,078 for the Planning Area. However, the total demand does exceed the practical capacity (85 percent) of the off-site parking supply. Further, the future parking demand for the areas east of Soscol Avenue and within the Parking Exempt District west of Soscol Avenue exceeds the future parking supply, resulting in a parking deficit within these areas.

In order to accommodate the future peak parking demand and achieve practical capacity (85 percent occupancy) within the Planning Area, the following additions to the future parking supply are recommended:

1. Provide an additional **300** to **400** parking spaces within the Planning Area west of Soscol Avenue. As shown in **Table 4.L-10**, based on the size of a typical block in Downtown Napa, a prototypical 4-story parking structure occupying one half block would provide approximately 373 to 400 spaces. The general vicinity around Block 3 is optimally located to serve the parking needs of the areas where future parking demand is highest, and could serve initially as a surface lot or long-term structure.

TABLE 4.L-10
ASSUMPTIONS FOR PROTOTYPICAL PARKING STRUCTURE

Prototypical Parking Structure	
1st Floor	85-90 spaces
2nd Floor	102-110 spaces
3rd Floor	102-110 spaces
4th Floor	85-90 spaces
Total	**374 to 400 spaces**

Based on 142'x285' block.

SOURCE: Kimely-Horne Associates (2011)

2. Provide an additional **75** to **100** public parking spaces east of Soscol Avenue in the Oxbow District. City staff has indicated that one potential strategy to provide additional public parking in the Oxbow District is to explore the opportunity for a future shared public/private parking structure with the future redevelopment of the Copia property.

3. Consider redevelopment and/or expansion of the Second Street Garage. Some consider the garage structure to be challenging to maneuver vehicles through. When the County constructs new office facilities on Third Street and declares the Carither's Building as surplus, the City will have a first right to acquire the property. This could provide the opportunity to redevelop the site for a vibrant use combined with a new garage to replace

the existing structure, or the additional right-of-way could be used to expand the Second Street Garage, depending on parking needs at that time.

References – Transportation and Traffic

County of Napa, Conceptual Site Development and Phasing Plan Through 2028, October 2010.

County of Napa, Adult Correctional System Master Plan-Phase I, November 2007.

City of Napa, *Envision Napa 2020: General Plan*, 1998. Amended September 2009.

City of Napa Policy Guidelines: Traffic Impact Analysis, May 2005.

City of Napa, Zoning Code: Chapter 17.54 - Parking.

City of Napa, Gasser Master Plan EIR, 2006.

Institute of Transportation Engineers. *Trip Generation*, 8th Edition, 2008.

Institute of Transportation Engineers. *Trip Generation Handbook*, 2nd Edition.

Kimley-Horn, 2011. *Downtown Napa Specific Plan, Draft Traffic Impact and Parking Analysis*, March 15, 2011.

Napa County Transportation Planning Agency, *Napa Countywide Bicycle Plan*, November 2003.

Napa County Transportation Planning Agency, *Napa County Short Range Transit Plan FY2008-2017*, 2008.

Transportation Research Board. *Highway Capacity Manual, 2000*.

4.M Utilities and Service Systems

This section discusses existing public services (including police, fire, schools, and libraries) and utilities (including solid waste collection and disposal, water service, wastewater collection and treatment, energy and solid waste) that serve the Plan Area, as well as potential impacts of the Specific Plan to those public services and utilities.

Environmental Setting

Public Services

Police Protection

The Napa Police Department is responsible for providing police protection in the City of Napa. It has an authorized strength of 125 total full-time employees. Full-time positions include 75 sworn officers, 26 public safety dispatchers, eight community service officers, one forensic specialist, three administrative employees, nine records employees, two parking enforcement employees, and one homeless outreach specialist. The Department is organized within six bureaus: Administration, Patrol, Special Operations, Special Investigations and Central Dispatch. Each bureau has a Police Commander in charge of its overall operation.

The Patrol Bureau deploys uniformed police officers in the city with responsibility for crime prevention, crime investigation and service call response. The Patrol Bureau also staffs special events, provides homeless outreach, canine services, bike patrol and administers safety programs. The Special Operations Bureau provides staff with specialized training and skills above and beyond those provided by the Patrol Bureau, including the Detective Unit, Identification Unit, School Resource Officer Unit, Gang Violence Suppression Unit, Diversion Program, Traffic Unit, Parking Enforcement, Abandoned Vehicle Abatement Unit and the Property and Evidence Unit.

The Napa Central Dispatch is the primary answer point for all 911 emergency calls for the City of Napa, City of American Canyon, Town of Yountville and all unincorporated areas of Napa County. The center dispatches for the Napa Police Department, Napa County Sheriff's Department, the American Canyon Police Department and the Napa Fire Department. It is also responsible for emergency medical dispatching for the entire County of Napa. The center is staffed by a Lieutenant, four Supervisors, 22 full-time Dispatchers and two part-time Dispatchers. The center processes approximately 115,000 calls per year.

Fire Protection

The Napa Fire Department serves the community from four fire stations covering 18 square miles within the City limits of Napa. It also provides an Advanced Life Support (Paramedic) Engine company staffed with a minimum of three personnel. The department staffing consists of 56 suppression, five fire prevention and three administration personnel. The current annual call volume is about 7,000 responses per year, of which 70 percent are medical in nature.

The Fire Department works closely with the California Department of Forestry and Fire Protection/Napa County Fire Department and maintains a mutual aid agreement with that agency as well as with the cities of American Canyon and Vallejo. The Fire Department is also a part of the Napa-Solano California Office of Emergency Services (OES) strike team and houses OES Engine 252, which responds out of the county to large incidents several times a year.

Fire Station No. 1 is located in Downtown within the Plan Area at 930 Seminary Street and is the designated first responder for calls in Downtown. The station houses an advanced life support engine company (two firefighter/paramedics and a captain). Equipment includes a 110-foot aerial ladder truck, a medium rescue vehicle and one reserve engine.

Fire Station No. 2 is adjacent to Napa High School at 1501 Park Avenue. Fire Station No.2 also houses an advanced life support engine company as well as one reserve engine, a patrol unit and Office of Emergency Services. Station No. 3 is located at 2000 Trower Avenue, and it also provides a first line advanced life support engine company, as well as a reserve engine, hazardous materials trailer and patrol unit. Station No. 4 is located at 251 Gasser Drive, and it houses a first line advanced life support engine company, a reserve engine and a swift water rescue boat.

Schools

The Napa Valley Unified School District (NVUSD) serves the cities of Napa, American Canyon, Yountville, and unincorporated areas of Napa County. In the 2009/2010 school year, the District served approximately 18,000 students at 32 schools located on 28 sites. District-wide enrollment has gradually increased about 1.025 percent per year, from approximately 16,400 students in the 2000/2001 school year to 17,959 students in the 2009/10 school year.

In 2009, the District prepared its *Program and Facilities Master Plan 2010–2020*. Through this master planning process and due to budget constraints, NVUSD decided to consolidate enrollment in fewer schools. Capell Valley, Wooden Valley and Carneros Elementary Schools were closed at the end of the 2009/2010 school year and attendance maps were redrawn.

Also as part of the master planning process and pursuant to Senate Bill (SB) 50, in December 2009 the NVUSD completed a *School Facilities Needs Analysis*, which guides the School District in levying development fees. Through this analysis, the District determined that it had a capacity for 8,020 elementary school students, 4,248 middle school students, and 4,748 high school students, and that schools serving Kindergarten through 6th grade, as well as 9th through 12th grade, are over capacity. NVUSD estimates that the district enrollment will continue to grow over the next several years, with approximately 664 new students in the district by 2015.

District schools serving the Plan Area include: McPherson Elementary School; Shearer Charter Elementary School; Harvest and Redwood Middle Schools; and Napa and Vintage High Schools. New Technology High School is also located north of Downtown. Private schools in the area include Blue Oak School, St. John’s Catholic School and Oxbow School.

Public Utilities

Water

Supply

The City of Napa is located within the Napa-Sonoma Valley groundwater basin. The City receives water from three major surface water sources: Lake Hennessey, Milliken Reservoir, and the State Water Project. Water rights secured through the State Water Resources Control Board (SWRCB) allow the City to divert and store up to 30,500 acre feet per year (AFY) of water from Conn Creek into Lake Hennessey. The water is treated at the Hennessey Water Treatment Plant (WTP), which has a treatment capacity of 20 million gallons per day (MGD). Milliken Reservoir is used mainly during periods of high demand in the summer due to limitations of the treatment plant that cannot treat winter flows containing higher levels of turbidity. Existing water rights allow the City to draw 2,350 AFY from Milliken Creek and divert directly. Milliken Reservoir's rated storage capacity is limited to 1,390 AF due to seismic stability concerns by the State Division of Safety of Dams. Water from the Milliken Reservoir is treated at the Milliken WTP, which has a treatment capacity of 4 MGD.

The City has sub-contracted with the Napa County Flood Control and Water Conservation District (NCFCWCD) to receive State Water Project (SWP) water from the Sacramento-San Joaquin Delta. Water is conveyed via the North Bay Aqueduct to Cordelia Forebay, where it is then pumped an additional six miles to two raw water tanks where the water can be treated at the Jameson Canyon WTP. As of 2011, the WTP has a new treatment capacity of 20 MGD that treats the City's SWP water entitlements of 21,900 AFY.

Although the City of Napa does not use groundwater as a water source at this time, the City is currently exploring groundwater as well as other options to meet long-term supply needs. In addition, recycled water currently provided by the Napa Sanitation District is discussed below under "Wastewater."

Demand

Residential users make up more than 90 percent of the City's total water accounts; however, they account for only 69 percent of total demand. Commercial use makes up 15 percent of demand and institutional and landscape demands are seven and five percent of total demand, respectively. Agricultural use accounts for only one percent of demand, and miscellaneous use make up the remainder. Total water use in 2010 was 13,877 AF, and is projected by the *Urban Water Management Plan 2010 Update* (City of Napa, 2011) to be 14,303 AF in 2020. This projection includes conservation savings that will be achieved by the year 2020, as required by SBx7-7.

In the mid-1980s, per capita demand in the water system was around 180 gallons per person per day. In 2010, it reduced to approximately 138.3 gallons per person per day due to the evolution of water-efficient appliances, City-sponsored water conservation and water recycling. According to the *2050 Napa Valley Water Resources Study*, water conservation practices are expected to reduce per capita water demand by twenty percent by the year 2020. The conservation program consists of a variety of financial incentives, distribution of water saving tools, and educational programs.

Distribution Network

Downtown is served by a 5-MG storage tank on the east side of the Napa River, and is supported by several pressure reducers. The pressure reducers provide water directly from a higher pressure zone, and provide additional water flow when pressures drop below a certain level. Most of the system is fed by a 24-inch diameter transmission main from the storage tank and then reduces to a 20-inch and 16-inch diameter transmission line that feeds water to the smaller distribution mains. These smaller water mains vary from 4- to 12- inches, and are made of asbestos cement, cast iron or ductile iron. The system primarily consists of 6-inch diameter cast iron pipe, although there are some 4-inch pipes within the Downtown water system. The Downtown water system averages approximately 80 to 100 years old, which is the average life expectancy of water mains.

Water systems are primarily sized to meet fire flow requirements, with an additional allowance for localized demands. Over the years, fire flow requirements to meet fire sprinkler and fire hydrant needs have changed, as the type and size of structures Downtown has changed. Most of the water mains in Downtown were not designed to meet these larger fire flow requirements. In general, current standards require Downtown water mains to be between 8- and 12- inches in order to meet fire flow demands of existing and anticipated future development. In addition to proper sizing of the water mains, system connectivity must be considered to avoid stagnant water issues while still providing sufficient fire flows. Due to the age and small size of the typical Downtown water mains, the existing distribution system needs to be upgraded and replaced.

The static pressure in Downtown averages around 50 pounds per square inch (psi), which is within a normal operating pressure range, but it is not high enough to serve multiple story structures through gravity alone. There are no current plans to increase static pressure within Downtown, and structures whose height exceeds the limits of the distribution system must install private booster facilities to meet their on-site needs.

Wastewater

The Napa Sanitation District (NSD) currently provides wastewater collection, treatment, and disposal for a majority of the City of Napa and portions of unincorporated areas in and nearby the City. The collection system includes approximately 280 miles of pipelines, most of which were constructed within the last 60 years. Overflows from the system have generally been caused by major flood events and by structural failures in the collection system. The number of sanitary sewer overflows has declined dramatically in the past 10 years, with 122 reported occurrences between 1998 and 2005.

The collection system has adequate dry-weather capacity to support the level of growth anticipated by the City's General Plan, but has inadequate capacity to accommodate existing wet-weather peak flows caused by high infiltration and inflow in many areas of the City. The Downtown area has high infiltration and inflow, averaging five to six million gallons per day (MGD), whereas peak dry weather flows are only about 0.32 MGD. Recommended rehabilitation consists of cured-in-place liners for pipes with high infiltration and inflow values. The *2007 Collection System Master Plan* identified capital improvement priorities and rate adjustments to be applied to incrementally improve the system throughout the NSD service area.

The NSD also operates three pump stations and one treatment plant. All but one of the pump stations has recently undergone improvements, and most force mains have been replaced or rehabilitated recently. The Soscol Water Recycling Facility (SWRF) has a permitted average dry weather hydraulic capacity of 15.4 MGD.

Recycled Water

During the dry season, recycled water is provided to NSD-owned lands, local vineyards, industrial parks, and golf courses within the sewer service area. The SWRF is currently able to treat and disinfect wastewater to the tertiary level required for unrestricted irrigation and industrial process use under California Department of Health Standard Title 22 requirements. NSD distributed approximately 2,440 acre feet of recycled water in 2008.

The potential for recycled water production in the year 2020 is estimated to be 3,600 acre-feet/year if additional storage is available. There are no existing or potential users in the Downtown area and no recycled water infrastructure exists near Downtown. The *2005 NSD Recycled Water Strategic Plan* proposes a pipeline on the east side of the river, across from Downtown, to be completed between 2015 and 2020. There are no plans to extend recycled water to Downtown due to the lack of potential users.

Solid Waste

Currently, the City of Napa Materials Diversion Division is responsible for compliance with Assembly Bill (AB) 939, which required all jurisdictions to reduce their waste by 50 percent by the year 2000. The Materials Diversion Division also administers the recycling and solid waste collection contract. Residential solid waste, recycling, and yard waste is collected by the division on a weekly basis. Commercial waste and multi-unit residential waste is stored in bins and collected up to six times per week, depending on customer demand.

In October 2011, AB 341 was adopted; this new legislation requires most commercial businesses, as well as apartment complexes with five or more units, to recycle for themselves or use recycling services; the goal is to increase recycling statewide so that 75 percent of discards are diverted from landfills by the year 2020. Regulations are being finalized and the law takes effect on July 1, 2012. This has several ramifications for Downtown Napa.

In order to comply, many businesses will need to add recycling services and/or increase their volume. This is likely to increase the number of trips by collection trucks and it may cause traffic congestion if collection occurs during normal working hours.

Many downtown businesses will need to add recycling containers to the trash containers that reside in enclosures near their buildings. Some enclosures may not have space for standard containers, which will require smaller containers, compartmented containers, more frequent service, or expansion of enclosures. Some of these alternatives may cause increases in costs as recycling and refuse collection services, and their customers, make adjustments to preserve parking and reduce truck trips into congested areas. For example, to maintain efficiency, refuse and recycling services in Downtown may need to occur on an evening or graveyard shift; and

traditional dumpsters may need to be replaced by divided bins or carts; use of these special containers will in turn require modifications to the collection trucks. Ultimately, these issues are likely to result in minor cost increases and logistical challenges for collection service providers and their customers. However, they are not a direct effect of the adoption of the Downtown Specific Plan.

Waste is hauled to the Devlin Road Recycling and Transfer Station, which is operated by the Napa-Vallejo Waste Management Authority. The City of Napa disposed of 51,905 tons of solid waste in 2009, down from 99,556 tons in 2005 and 57,374 tons in 2000. The transfer station is permitted to collect up to 1,440 tons per day. In 2009, 50,396 tons of solid waste from the City of Napa was transferred from the station to the Keller Canyon Landfill in Contra Costa County. The remainder of the disposed materials was transferred to other landfills in northern and central California. As of 2004, the Keller Canyon Landfill had a total estimated permitted capacity of 75,018,280 cubic yards, and it had an estimated remaining capacity of 84.5 percent. The landfill covers 2,600 acres, of which 244 acres are permitted for disposal. It is a Class II landfill permitted to accept up to 3,500 tons of waste per day, although it currently handles approximately 2,500 tons per day. The landfill's permit was most recently renewed in 2009, and it has an estimated closure date of 2030.

The California Department of Resources Recycling and Recovery (CalRecycle) indicates that the City of Napa's diversion rate increased to 53 percent in 2006 from 27 percent in 1995. Beginning with the 2007 jurisdiction annual reports, diversion rates were no longer measured. With the passage of SB 1016 in 2006, the Per Capita Disposal Measurement System, only per capita disposal rates are measured to determine if jurisdiction's efforts are meeting the intent of AB 939. The City's per resident disposal target rate is 7.3 pounds per person per day (PPD), and its per employee disposal target rate is 18.2 PPD. In 2009, which is the most recent date for which data is available, the City's per-resident disposal rate was 3.7 PPD, and its per-employee disposal rate was 9.8 PPD, thereby exceeding the target.

Electricity

PG&E is the main energy utility provider for Napa County and the City of Napa. In 2003, total electricity consumption in Napa County was 512.5 thousand barrels of oil equivalents (BOEs), which was 40 percent higher than consumption in 1990. Per capita use increased at a rate of about 1.2 percent per year during the same time period, and was 2.89 BOEs in 2003. The overall energy consumption peak was in 2000, largely due to increases in consumption by the mining industry. The residential sector was the largest user of electricity in 2003, accounting for 44 percent of countywide consumption while commercial use was 32 percent of consumption, and the industrial sector consumed 16 percent of all electricity. The remaining users (transportation, communication and utilities; mining; and agriculture) each accounted for less than eight percent of total consumption.

Downtown Napa is served by underground, three-phase primary electric lines. Transformers are mostly subsurface and pad-mounted; however, those along the edge of Downtown tend to be overhead. Because most lines in Downtown are underground, upgrades to the system can be

costly and difficult. In some cases, it has been necessary for local businesses to allocate space to install their own pad-mounted transformers in order to obtain adequate power.

Natural Gas

There are no natural gas production wells in Napa County. Natural gas use has consistently been higher than electricity consumption; however, natural gas use has been decreasing. In 2003, total natural gas consumption was 663 BOEs, and per capita consumption was 4.04 BOEs. The residential sector was the largest consumer, accounting for 58 percent of total natural gas consumption. The commercial sector was the second largest user at 28 percent, and the industrial sector accounted for 13 percent. Transportation, communication and utilities, mining and agriculture combined accounted for less than 1 percent of total consumption.

Communications

Comcast and AT&T are the main providers of cable, phone and internet services to the City of Napa. Comcast offers high-speed internet, and digital cable and voice. AT&T also provides phone and internet service. AT&T shares most of the utility poles with PG&E. Most communication facilities were placed underground at the same time as the electric system, and neither provider expects continued growth within the Plan Area to exceed their system's existing capacity.

Regulatory Setting

State

Senate Bill (SB) 610 / Senate Bill (SB) 221

Senate Bill (SB) 610, codified as Sections 10910-10915 of the California Public Resources Code, requires local water providers to conduct a water supply assessment (WSA) for projects proposing over 500 housing units, 250,000 square feet of commercial office space (or more than 1,000 employees), a shopping center or business establishment with over 500,000 square feet (or more than 1,000 employees), or equivalent usage.

Assembly Bill (AB) 939 and SB 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans and also mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. In 2006, Senate Bill 1016 updated the requirements. The new per capita disposal and goal measurement system moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a factor, along with evaluating program implementation efforts. These two factors will help determine each jurisdiction's progress toward achieving its Integrated Waste Management Act (AB 939) diversion goals. The 50 percent diversion requirement is now measured in terms of per-capita disposal expressed as pounds per person per day.

California Code of Regulations Title 24

The State of California regulates energy consumption under Title 24 of the California Code of Regulations. The Title 24 Building Energy Efficiency Standards were developed by the California Energy Commission (CEC) and apply to energy consumed for heating, cooling, ventilation, water heating and lighting in new residential and non-residential buildings. The CEC updates these standards periodically and adopted the latest standards in October 1, 2005, which provides new standards for outdoor lighting and residential lighting. These standards establish lighting zones that differentiate the amount of outdoor lighting by geographical location, and establish new performance standards for residential lighting.

Local Plans and Policies

City of Napa General Plan

The following goal and policies within the *Community Services Element* of the City's General Plan are relevant to the proposed Specific Plan:

> **Goal CS-1:** To ensure the timely development of public facilities and the maintenance of adequate service levels for these facilities to meet the needs of existing and future city residents.
>
> > ***Policy CS-1.1*.** The City shall plan and build infrastructure improvements that will: (1) accommodate growth demands without lowering levels of service; (2) support central city revitalization efforts; and (3) provide aesthetic enhancements to the city's major gateways and scenic corridors.
> >
> > ***Policy CS-1.2*.** Where new development requires the construction of new public facilities, the new development shall fund its fair share of the construction of those facilities. The City shall require dedication of land within newly developing areas for required public facilities, as allowed by law.
> >
> > ***Policy CS-1.3*.** The City shall ensure through the development review process that adequate public facilities and services are available to serve new development.
> >
> > ***Policy CS-1.4*.** The City shall require, to the extent legally possible, that new development pays the cost of providing new public facilities and services and/or the costs for upgrading of all existing facilities that it uses, based on the demand for these facilities attributable to the new development; exceptions may be made when new development generates significant public benefits (e.g., low-income housing, significant primary wage earner employment) and when alternative sources of funding can be identified to offset foregone revenues.
> >
> > ***Policy CS-1.5*.** The City shall seek broad-based funding sources for public facilities and services that benefit both current and future residents of the city.
> >
> > ***Policy CS-1.6*.** The City shall establish a feasible five-year Capital Improvement Program (CIP) that gives high priority to projects identified as needed in the General Plan. The City shall also give high priority to project that will reduce or eliminate existing deficiencies in the city's public facilities system.

Policy CS-1.7. The City shall require that all new development meet adopted service levels for public facilities as established in the General Plan.

Goal CS-2: To ensure community order and public safety in Napa.

Policy CS-2.1. The City shall provide services and personnel necessary to maintain community order and public safety.

Policy CS-2.2. The City shall endeavor to maintain a police and fire force sufficiently staffed and deployed to sustain a five-minute maximum response time to any call involving an immediate danger of loss of life or serious injury.

Goal CS-3: To maintain an adequate police force to ensure a safe and secure community.

Goal CS-5: To provide emergency fire suppression services to protect life and property within the City.

Policy CS-5.1. The City shall maintain adequate personnel and equipment necessary to provide fire suppression services for the City of Napa.

Policy CS-5.3. The City shall maintain and upgrade equipment as needed to continue efficient mobilization of trained personnel to life safety incidents.

Policy CS-5.6. The City shall provide for an adequate fire flow system throughout the community, to meet the following fire flows: [table].

Goal CS-7: To provide emergency medical services adequate to meet the call demands within the city.

Policy CS-7.1. The City shall maintain personnel and equipment necessary to provide medical emergency response services for the City of Napa.

Policy CS-7.2. The City shall maintain personnel to sustain a maximum response time of five minutes to any call involving an immediate danger of loss of life as a result of a medical emergency.

Goal CS-8: To provide for the education needs of all Napa residents.

Policy CS-8.1. The City shall work cooperatively with the Napa Valley Unified School District in monitoring housing, population, and school enrollment trends and in planning for future school facility needs.

Goal CS-9: To ensure adequate, reliable, and safe water supplies to the community, even through drought periods of similar intensity as the 1986–1992 drought.

Policy CS-9.1. The City shall continue to implement water conservation programs that show promise of saving significant amounts of water at a reasonable cost.

Policy CS-9.2. The City shall acquire or develop additional water supplies that would be available during drought periods to offset the shortages anticipated from existing supplies.

Policy CS-9.3. The City of Napa shall determine the firm yield available from existing and future SWP water supply sources and shall monitor and, if necessary, limit growth (new water system hook-ups) in order to guarantee drought year water supplies to existing and proposed development. Growth shall be monitored and, if necessary, limited as follows:

1) The City shall not issue any building permits or similar ministerial entitlements for proposed structures that would increase net potable water consumption in the City or its service area in the absence of a letter from the Department of Public Works, stating that approval of the permit or other entitlement will not adversely affect the City's ability to adequately serve the public health and safety needs of all its water customers during drought conditions;

2) In addition, when conducting environmental review for proposed development projects requiring…specific plans…the City shall include within the environmental document, information assessing whether the City and its water suppliers are likely to have sufficient water supplies to adequately serve the proposed development and all other City water customers during drought conditions. In approving any such discretionary project, the City shall require, as a mitigation measure and condition of approval, that the applicant(s) may not receive a final subdivision map, or in the absence of the need for such a map, may not receive building permits or similar ministerial entitlements in the absence of a letter from the Department of Public Works stating that approval of the map, permit or other ministerial entitlement will not adversely affect the City's ability to adequately serve the health and safety needs of all its water customers during drought conditions and that there will be sufficient water to serve the basic health, hygiene, and fire suppression needs of the community.

Goal CS-10: To ensure adequate wastewater collection and treatment and the safe disposal of wastes.

Policy CS-10.1. The City shall promote reduced wastewater system demand through efficient water use by: a. Requiring water-conserving design and equipment in new construction; b. Encouraging retrofitting with water-conserving devices.

Policy CS-10.3. The City shall coordinate development review with the Napa Sanitation District to ensure that adequate wastewater collection, treatment, and disposal facilities can be provided by the District by requiring that all new applicants for development secure a "will-serve" letter from the NSD if the District notifies the City that a critical capacity exists….In addition, when conducting environmental review for proposed development projects requiring…specific plans…the City shall include within the environmental document, information assessing whether the NSD is likely to have sufficient capacity to serve the proposed development. In approving any such discretionary project, the City shall require, as a mitigation measure and condition of approval, that the applicant(s) shall obtain the necessary will-serve letters from NSD prior to receiving approval of a final subdivision map, or in the absence of a need for a final subdivision map, prior to receiving approval of any required building permits or similar ministerial approvals.

Goal CS-12: To provide for safe and environmentally sound municipal waste reduction and recycling programs that will allow the City to attain the requirements of AB 939.

City of Napa Municipal Code

Chapter 15.32 of the Napa Municipal Code is the City's construction and demolition debris recycling and diversion ordinance. Projects covered under this ordinance are required to submit a waste reduction and recycling plan demonstrating that 50 percent of all construction and demolition debris and 80 percent of all concrete and asphalt would be diverted from disposal in landfills. The diversion requirements for construction and demolition debris will increase to 55 percent in 2015 and 60 percent in 2020.

Impacts and Mitigation Measures

Significance Criteria

Implementation of the Specific Plan would be considered to have a significant impact on public services and utilities if it would:

a) Result in substantial adverse physical effects associated with the provision of new or physically altered police, fire, or school facilities, or the need for new or physically altered facilities; the construction of which could cause significant environmental impacts in order to maintain acceptable levels of service ratios, response times, or other performance objectives for any of the following services:

- fire and police protection;
- schools;
- other public facilities;

b) Have insufficient water supplies available to serve the project from existing entitlements;

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

d) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

e) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or

f) Not comply with federal, state, and local statutes and regulations related to solid waste.

Approach to Analysis

The increases in population and land use intensity that would be facilitated by the proposed Specific Plan were evaluated based on information regarding the various public services agencies serving Downtown and their respective service capabilities, service ratios, response times, performance objectives, capacities, etc.

Impacts and Mitigation Measures

Impact 4.M-1: Development facilitated by the Specific Plan could potentially result in substantial adverse physical effects associated with the provision of new or physically altered police, fire, or school facilities, or the need for new or physically altered facilities. (Less than Significant)

Development facilitated by the proposed Specific Plan would result in an increased demand for police and protection services in Downtown Napa. New development would increase the number of calls for service received in Downtown and the level of regulatory oversight necessary to serve the increased population and employment.

Buildout of Downtown as envisioned by the Specific Plan may require additional police and fire department staff to maintain response times and/or the construction or expansion of facilities. The increased demand for police and fire protection services would be gradual and incremental over the 20-year time frame of the Specific Plan. City review of individual development projects would reduce the potential for project-related service deficiencies. Furthermore, individual projects would be subject to project-specific environmental review to assess their potential impacts to facilities and performance objectives. If construction of new fire or police stations becomes necessary over the 20-year time period of the Specific Plan, potential impacts would be addressed in the appropriate environmental review at that time.

One of the key components of fire protection services is the capacity of the water system to provide sufficient flow for firefighting purposes. The existing water distribution system in Downtown was not designed to meet current fire flow requirements. In general, current standards require Downtown water mains to be sized between 8- and 12-inches in order to meet fire flow demands of existing and anticipated development. System connectivity must also be considered to avoid stagnant water issues while providing sufficient fire flows. The existing Downtown system primarily consists of 6-inch cast iron pipe with some 4-inch pipes. Due to the age and small size of the typical Downtown water mains, the existing distribution system needs to be upgraded and replaced. Approximately 50 percent of existing water pipes will require upgrades as a result of buildout of the Specific Plan. Water distribution system upgrades necessary to provide adequate fire protection services in Downtown would be provided by a combination of funding sources, both private and public. Infrastructure improvements required in Downtown are discussed below under Impact 4.M-2. Regarding police services, the promotion of more mixed-uses by the Specific Plan, including ground-level retail and improvements to the pedestrian infrastructure, as well as the increased residential population would assist in the deterrence of crime in Downtown by adding “eyes on the street.”

Implementation of the Specific Plan is not anticipated to result in the need for new or expanded police or fire protection facilities; therefore, the impact would be less than significant.

Projects facilitated by the Specific Plan would increase the number of residential units and employees within Downtown, thereby potentially increasing student enrollment at local schools. The proposed rezoning would accommodate an additional 627 net new housing units, which would

generate approximately 84 school-aged children at buildout.[1] These new students would be added to the district-wide enrollment incrementally over the entirety of the 20-year time frame of the Specific Plan. Additionally, new students would be distributed among the schools both within and near Downtown, thereby reducing substantial enrollment impacts at any one school. A portion of new students would also be expected to attend private schools in Downtown and other areas.

Pursuant to the Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), applicants for individual development projects facilitated by the Specific Plan would be required to pay school impact fees established to offset potential impacts from new development on school facilities. Public school districts can impose higher fees provided they meet the conditions outlined in the act. Private schools are not eligible for fees collected pursuant to SB 50. Local jurisdictions are precluded under state law (SB 50) from imposing school enrollment-related mitigation beyond the school development fees. The collection of these fees, therefore, is considered under SB 50 to fully mitigate any potential effects associated with additional development that could result from implementation of the Specific Plan, and the impact would be considered less than significant.

Mitigation: None Required.

Impact 4.M-2: Development facilitated by the Specific Plan could potentially have insufficient water supplies available to serve the development from existing entitlements. (Less than Significant)

An update to the City's Urban Water Management Plan (UWMP) was adopted by the City in 2011. The UWMP describes and evaluates the City's sources of water supply, projected population, future water demand, as well as strategies for responding to water shortages. This update to the UWMP was based in part on data collected in conjunction with the *2050 Napa Valley Water Resources Study*, of which the City was a participant. Information regarding the City's water supply, demand, and reliability are incorporated into both documents.

The UWMP analyzed the reliability of the City's water service by comparing supply and demand for future normal, single-dry, and multiple-dry year scenarios through 2035. Surpluses ranging from 52 percent to 55 percent are projected in normal years through 2035. The City would experience water shortages in single-dry years through 2025 ranging from 2 percent to 6 percent. However, many of the assumptions used in the analysis were conservative for planning purposes. More favorable numbers in a variety of inputs could almost eliminate these projected shortfalls. The implementation of long-term water conservation Best Management Practices (BMPs) and the addition of more recycled water users proposed by the NSD could reduce City demand enough to erase these deficits. In the worst-case scenario, and if no imported dry year water supplies were obtained, measures described in the City's Water Shortage Contingency Plan could be required.

[1] Student generation rates for Napa Valley Unified School District were used as listed in the *Napa Pipe Draft EIR*, County of Napa, October 23, 2009, available online at http://www.countyofnapa.org/NapaPipe/

During the multiple-dry year scenario surpluses would fall no lower than 25 percent. No shortfalls are expected at any point during multiple-dry year periods through 2035.

Although the City would have adequate water supplies to meet demand, the existing water distribution system requires improvements to adequately serve future development. In general, current standards require Downtown water mains to be between 8-inch and 12-inches in diameter to meet the fire flow demands of existing and anticipated future development. In addition to proper sizing of the water mains, system connectivity must be considered to prevent the development of stagnant conditions while still providing sufficient fire flows. As part of the Specific Plan process, the Downtown demand and distribution system was analyzed using the potential development capacity analysis under buildout conditions (2030). Required fire flows were also examined. The results of this analysis indicated that approximately 50 percent of existing water pipes will require upgrades as a result of buildout of the Specific Plan.

Development facilitated by the Specific Plan would be subject to the following General Plan policies regarding the provision of public facilities.

> ***Policy CS-1.1.*** The City shall plan and build infrastructure improvements that will: (1) accommodate growth demands without lowering levels of service; (2) support central city revitalization efforts; and (3) provide aesthetic enhancements to the city's major gateways and scenic corridors.
>
> ***Policy CS-1.2.*** Where new development requires the construction of new public facilities, the new development shall fund its fair share of the construction of those facilities. The City shall require dedication of land within newly developing areas for required public facilities, as allowed by law.
>
> ***Policy CS-1.3.*** The City shall ensure through the development review process that adequate public facilities and services are available to serve new development.
>
> ***Policy CS-1.4.*** The City shall require, to the extent legally possible, that new development pays the cost of providing new public facilities and services and/or the costs for upgrading of all existing facilities that it uses, based on the demand for these facilities attributable to the new development; exceptions may be made when new development generates significant public benefits (e.g., low-income housing, significant primary wage earner employment) and when alternative sources of funding can be identified to offset foregone revenues.
>
> ***Policy CS-1.5.*** The City shall seek broad-based funding sources for public facilities and services that benefit both current and future residents of the city.
>
> ***Policy CS-1.6.*** The City shall establish a feasible five-year Capital Improvement Program (CIP) that gives high priority to projects identified as needed in the General Plan. The City shall also give high priority to project that will reduce or eliminate existing deficiencies in the city's public facilities system.
>
> ***Policy CS-1.7.*** The City shall require that all new development meet adopted service levels for public facilities as established in the General Plan.

The following overarching infrastructure policies from Chapter 7 of the Specific Plan are also applicable to water supply and distribution.

1. Maximize the efficient usage of water resources within Downtown through conservation, demand reduction, alternative water sourcing and water recycling.

2. Ensure new development is supported by a water balance analysis prior to development activity that identifies and implements water conservation measures.

5. Coordinate future improvement projects in Downtown to maximize use of public funding for infrastructure improvements.

Costs associated with the Specific Plan include improvements needed to assure that proposed development has the infrastructure and service capacity consistent with citywide standards and policies. Chapter 8, *Implementation* of the Specific Plan describes some of the possible sources of funding for public improvements in Downtown Napa. Funding is anticipated to be provided from a variety of mechanisms and sources, including the following: developer-funded improvements and public-private negotiated improvements; existing development impact fee programs; Capital Improvement Program; impact fees imposed by other agencies such as the NSD and school district; water and sewer rate increases; and General Fund transfers.

In addition, new funding sources could include the following: Specific Plan Area Development Impact Fee adopted in accordance with the State's Mitigation Fee Act (Government Code Section 66000 et. seq.); Mello-Roos Community Facilities District (CFD); and development agreements, dedications, or exactions.

New development facilitated by the Specific Plan would be required to pay its fair share of water system improvements as required by General Plan policies. Developer-driven fees and payments in combination with other existing and proposed sources of funding for water system improvements would reduce potential impacts regarding water supply and distribution to a less than significant level.

Mitigation: None Required.

Impact 4.M-3: Development facilitated by the Specific Plan could potentially result in wastewater service demands that would result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve projected demand or result in the construction of new or expanded wastewater treatment facilities. (Less than Significant)

Development facilitated by the proposed Specific Plan would increase the amount of wastewater generated within Downtown, potentially affecting the capacity of the wastewater treatment plant (WWTP) operated by the Napa Sanitation District (NSD). The NSD has prepared a WWTP Master Plan for the Soscol Water Recycling Facility (NSD, 2011). This plan analyzes the existing

capacity of the WWTP; describes the future capacity increases and treatment process upgrades needed to accommodate growth within the service area; and complies with anticipated changes in future regulatory requirements. The plan is expected to provide a roadmap for operational and capital improvements through 2030. The draft plan was presented to the NSD Board of Directors in early 2011 and was approved in April 2011. It is expected that construction of the upgrades identified by the Master Plan will allow the treatment plant to fully serve the level of growth anticipated in the NSD service area through 2030. Although the Master Plan does not include growth anticipated by buildout of the Specific Plan, it does include a sensitivity analysis to indicate how capacity of the WWTP could be affected by a growth rate faster than that in the base projected development rate. If approximately 150 more equivalent dwelling units (EDUs)[2] were constructed each year than under the base case analysis, the WWTP would reach capacity in about 2026 as compared to 2030.

Development facilitated by the proposed Specific Plan may require investment in new or upgraded sanitary sewer infrastructure. The NSD collection system has adequate dry-weather capacity to support the level of growth anticipated by the City's General Plan, but has inadequate capacity to accommodate existing wet-weather peak flows caused by high infiltration and inflow in many areas of the City, including the Downtown area. The district's *2007 Collection System Master Plan* identified capital improvement priorities and rate adjustments to be applied to incrementally improve the system throughout the NSD service area. Recommended rehabilitation consists of cured-in-place liners for pipes with high infiltration and inflow values. Pipes in Downtown targeted for either capacity upgrade or for rehabilitation to reduce wet weather inflows have been identified during the Specific Plan process in order to accommodate development facilitated by the plan under buildout conditions (2030).

Development facilitated by the Specific Plan would be subject to the following General Plan policies regarding the provision of public facilities.

> ***Policy CS-1.1.*** The City shall plan and build infrastructure improvements that will: (1) accommodate growth demands without lowering levels of service; (2) support central city revitalization efforts; and (3) provide aesthetic enhancements to the city's major gateways and scenic corridors.
>
> ***Policy CS-1.2.*** Where new development requires the construction of new public facilities, the new development shall fund its fair share of the construction of those facilities. The City shall require dedication of land within newly developing areas for required public facilities, as allowed by law.
>
> ***Policy CS-1.3.*** The City shall ensure through the development review process that adequate public facilities and services are available to serve new development.
>
> ***Policy CS-1.4.*** The City shall require, to the extent legally possible, that new development pays the cost of providing new public facilities and services and/or the costs for upgrading of all existing facilities that it uses, based on the demand for these facilities attributable to the new development; exceptions may be made when new development generates

[2] Equivalent dwelling unit equals one single-family dwelling

significant public benefits (e.g., low-income housing, significant primary wage earner employment) and when alternative sources of funding can be identified to offset foregone revenues.

Policy CS-1.5. The City shall seek broad-based funding sources for public facilities and services that benefit both current and future residents of the city.

Policy CS-1.6. The City shall establish a feasible five-year Capital Improvement Program (CIP) that gives high priority to projects identified as needed in the General Plan. The City shall also give high priority to project that will reduce or eliminate existing deficiencies in the city's public facilities system.

Policy CS-1.7. The City shall require that all new development meet adopted service levels for public facilities as established in the General Plan.

The following policy from Chapter 7 of the Specific Plan is also applicable to wastewater collection and treatment.

5. Coordinate future improvement projects in Downtown to maximize use of public funding for infrastructure improvements.

Costs associated with the Specific Plan include improvements needed to assure that proposed development has the infrastructure and service capacity consistent with citywide standards and policies. Chapter 8, *Implementation*, of the Specific Plan describes some of the possible sources of funding for public improvements in Downtown Napa. Funding is anticipated to be provided from a variety of mechanisms and sources, including the following: developer-funded improvements and public-private negotiated improvements; existing development impact fee programs; Capital Improvement Program; impact fees imposed by other agencies such as the NSD and school district; water and sewer rate increases; and General Fund transfers.

In addition, new funding sources could include the following: Specific Plan Area Development Impact Fee adopted in accordance with the State's Mitigation Fee Act (Government Code Section 66000 et. seq.); Mello-Roos Community Facilities District (CFD); and development agreements, dedications, or exactions.

New development facilitated by the Specific Plan would be required to pay its fair share of wastewater system improvements as required by General Plan policies. Developer-driven fees and payments in combination with other existing and proposed sources of funding for water system improvements would reduce potential impacts regarding wastewater collection and distribution to a less than significant level.

Mitigation: None Required.

Impact 4.M-4: Development facilitated by the Specific Plan could potentially be served by a landfill with insufficient permitted capacity to accommodate solid waste generated by the project, and would comply with federal, state, and local statutes and regulations related to solid waste. (Less than Significant)

Population and commercial growth in Downtown would generate increased amounts of solid waste. This increase would be gradual and incremental over the 20-year time frame of the Specific Plan. Although the increased residential population and business activities resulting from implementation of the Specific Plan would incrementally increase the total waste generated by the City, the increasing rate of diversion through recycling, composting, and other methods would result in a decreasing share of total waste that would be disposed in landfills serving the City. Projects facilitated by the Specific Plan would also generate construction/demolition debris. Most projects would be required to comply with the City's construction and demolition debris ordinance (Chapter 15.32) requiring diversion of 50 percent of such waste from landfill disposal. Given this fact, and given the long-term capacity available at Keller Canyon Landfill through 2030, the Specific Plan would not result in landfills exceeding permitted capacities.

Implementation of the Specific Plan would not impede the ability of the City to meet waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. Therefore, impacts regarding landfill capacity and compliance with solid waste regulations would be less than significance.

Mitigation: None Required.

Cumulative Impacts

Impact 4.M-5: Development facilitated by the Specific Plan, in combination with other past, present, existing, approved, pending, and reasonably foreseeable future projects within and around Downtown Napa, could potentially result in an increased demand for utilities services. (Less than Significant)

The cumulative geographic context for the activities facilitated by the proposed Specific Plan consists of Downtown in addition to all areas of the city since utilities services are provided citywide as well as regionally. Projections for water and wastewater demand incorporate growth pursuant to service-area-wide growth projections. As stated above, the City's UWMP determined that it would meet citywide water demand in normal and multiple-dry years. NSD's planning for wastewater capacity similarly includes cumulative development.

Development facilitated by the Specific Plan would not result in a significant impact related to utilities or service systems. Thus, new development would not combine with, or add to, any potential adverse impacts that may be associated with other cumulative development. Based on the information in this section and for the reasons summarized above, the development facilitated by the Specific Plan would not contribute to any significant adverse cumulative impacts on

utilities or service systems when considered together with past, present, existing, approved, pending, and reasonably foreseeable development.

Mitigation: None Required.

References – Utilities and Service Systems

City of Napa, Fire and Police Departments, www.cityofnapa.org.

City of Napa, *Urban Water Management Plan, 2010 Update*, Adopted June 21, 2011.

Napa County Flood Control and Water Conservation District, *2050 Napa Valley Water Resources Study*, 2005.

Napa Sanitation District (NSD), *Wastewater Treatment Plant Master Plan*, April 2011.

CHAPTER 5
Alternatives to the Project

The purpose of this chapter is to describe and evaluate the alternatives to the proposed Napa Downtown Specific Plan. Alternatives are developed to reduce or eliminate the significant environmental effects that would result from implementation of the Specific Plan, as identified in Chapter 4.

A. CEQA Requirements

The California Environmental Quality Act (CEQA) requires an evaluation of the comparative effects of a range of reasonable alternatives to a project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project (CEQA *Guidelines* § 15126.6[a]). The EIR is to consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The discussion of alternatives is to focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly (CEQA *Guidelines* § 15126.6[b]).

Pursuant to CEQA, this chapter presents a meaningful comparative analysis of the proposed project and the alternatives (CEQA *Guidelines* § 15126.6[d]); identifies and discusses any alternatives that were considered by the lead agency but that it rejected as infeasible for detailed analysis in this EIR (CEQA *Guidelines* § 15126.6[c]); and provides comparative evaluation of the proposed project to a No Project Alternative (CEQA *Guidelines* § 15126.6[e]).

B. Factors in the Selection of Alternatives

The CEQA *Guidelines* recommend that an EIR should briefly describe the rationale for selecting the alternatives to be discussed (CEQA *Guidelines* § 15126.6[c]). The nature and scope of the reasonable range of alternatives to be discussed is governed by the “rule of reason” and consistent with the goal of the alternatives analysis considers the following factors:

- The extent to which the alternative would accomplish most of the basic goals and objectives of the project;
- The extent to which the alternative would avoid or lessen the identified significant and unavoidable environmental effect of the project;

- The feasibility of the alternative, taking into account site suitability, availability of infrastructure, general plan consistency, and consistency with other applicable plans and regulatory limitations;
- The extent to which an alternative contributes to a "reasonable range" of alternatives necessary to permit a reasoned choice; and
- The requirement of the CEQA Guidelines to consider a "No-Project" alternative and to identify an "environmentally superior" alternative in addition to the no-project alternative (CEQA *Guidelines* § 15126.6[e]).

Basic Goals and Objectives of the Specific Plan

As stated in the first factor bulleted above, under Section B, the selection of alternatives shall consider the basic goals and objectives of the project. As previously presented in Chapter 3, *Project Description*, the basic objectives of the Napa Downtown Specific Plan are as follows:

- Make Downtown Napa a wonderful, inviting and friendly place to live, work and visit. Revive Downtown as the primary job center in Napa.
- Celebrate Napa's rich history and agricultural heritage.
- Take advantage of the Napa River as a Downtown amenity and a setting for recreation, residential development, special-event venues and shopping.
- Provide a human scale, pedestrian-friendly environment that is inviting to residents and visitors.
- Encourage mixed-use development in Downtown to provide a range of housing options and densities, including housing above storefronts in the Downtown core, stand-alone housing mixed with retail uses, services and offices in areas designated for mixed use, and housing in the transition areas adjacent to existing residential neighborhoods.
- Ensure sensitive transitions between the existing adjacent residential areas and the Downtown area.
- Foster neighborhood-serving uses in the areas transitioning between the Downtown core, mixed-use areas, and residential neighborhoods adjacent to Downtown, such as corner markets, and provide for sufficient residential density to support these uses.
- Build on Napa's high quality stock of historic structures to set the tone for Downtown design.
- Promote the role of Downtown where civic buildings are concentrated and as the primary place where people come together to enjoy public art and culture, open spaces and public facilities.
- Place priority on high quality design in the Downtown orienting buildings and entrances to the street and public gathering places, and the Napa River and Napa Creek as appropriate, and developing unique structures that complement their surroundings.

- Designate the Downtown core as the location for Downtown's retail activities, supported by mixed retail, service, office and residential opportunities bordering the core in a mixed-use designation. Promote the concentration of activity-generating uses in the core area of Downtown, including retail shops, restaurants and entertainment venues.
- Create exciting, attractive and interesting new gateways to create a welcoming atmosphere to visitors to Downtown.
- Cultivate a convenient network of different modes of transportation in Downtown, including for pedestrians, bicyclists, public transportation, as well as cars.
- Create linkages to and between public gathering places, parks and the Napa River and Napa Creek for people to explore Downtown.
- Identify opportunity sites or "focus areas" where development could transform Downtown in a way that is consistent with the adopted vision for Downtown and could serve as a catalyst to other development in Downtown.
- In the Downtown Core Commercial promote commercial and retail growth over office land uses to make Downtown a destination for both residents and visitors.
- Provide opportunity for a hotel and conference center in Downtown that could serve as a catalyst to economic growth in the Downtown.
- Meet General Plan requirements for multi-family housing by providing opportunity for residential development in the Downtown.

Significant and Unavoidable Impacts Identified with the Specific Plan

As stated in the second factor bulleted under Section B, above, the selection of alternatives shall consider the ability for each alternative to avoid or lessen the significant and unavoidable environmental effect identified with the project. Development facilitated by the Specific Plan would result in the following significant and unavoidable impacts, as identified throughout Chapter 4, Environmental Setting, Impacts, and Mitigation Measures:

Impact 4.B-1: Development facilitated by the Specific Plan would result in increased long-term emissions of criteria pollutants from increased vehicle traffic and onsite area sources. (Population growth exceeds vehicle miles traveled)

Impact 4.B-4: Growth from development facilitated by the Specific Plan would be fundamentally inconsistent with the growth assumptions of the *Bay Area 2010 Clean Air Plan*. (Population growth exceeds vehicle miles traveled)

Impact 4.B-5: Development facilitated by the Specific Plan would generate greenhouse gas (GHG) emissions that may have a significant effect on the environment.

Impact 4.B-6: The Specific Plan could potentially conflict with applicable plans, policies or regulations of an agency with jurisdiction over the Specific Plan adopted for the purpose of reducing the emissions of GHGs.

Impact 4.L-1: Traffic generated by development facilitated by the Specific Plan would affect levels of service at the study intersections under Existing plus Project conditions.

- SR 29 Northbound Off-ramp / First Street

Impact 4.L-2: Traffic generated by development facilitated by the Specific Plan would affect levels of service at study intersections under Cumulative plus Project conditions.

- Silverado Trail / Third Street / East Avenue / Coombsville Road
- SR 29 Northbound Off-ramp / First Street

C. Description of Alternatives Selected for Analysis

With consideration given to the above factors for selection, the Lead Agency, the City of Napa, identified the following reasonable range of project alternatives to be addressed in this EIR:

- No Project Alternative
- Reduced Development Alternative
- Reduced Office and Residential Alternative
- Additional Hotel Alternative

The land use buildout capacity for the proposed Specific Plan and each alternative is presented in **Table 5-1** for comparison. A detailed description of each alternative is presented below, and the comparative analysis of each compared to the proposed project follows in Section D below.

The City of Napa also examined potential alternatives which were thoroughly considered but rejected as infeasible or not applicable. These alternatives are discussed in Section F below.

Alternative 1 No Project

Evaluation of a No Project Alternative is required to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The “No Project” analysis discusses what would be reasonably expected to occur in the foreseeable future if the project were not approved, in this case, continued development under the 2020 General Plan (CEQA *Guidelines* § 15126.6[e]).

Under the No Project Alternative, development in the Planning Area would occur pursuant to the existing City of Napa 2020 General Plan and zoning designations currently in place. Therefore, in Section D, the impacts of growth that would occur with buildout of the proposed Specific Plan are compared to the impacts that would occur if the existing 2020 General Plan were implemented in the Planning Area. Under 2020 General Plan buildout and zoning, the buildout development capacity potential in the Planning Area would include the continued mix of uses in all districts, whereas the proposed Specific Plan specifies the mix and location of mixed uses that could be developed in specific areas of the downtown. Specifically, compared to the Specific Plan, the 2020 General Plan would allow more overall development in Downtown, but without a land use strategy that is context sensitive (it would not concentrate development in the core and

TABLE 5-1
BUILDOUT DEVELOPMENT CAPACITY FOR THE SPECIFIC PLAN AND ALTERNATIVES

	Project	Alternative 1 (No Project)[a]	Alternative 2 (Reduced Development)	Alternative 3 (Reduced Office and Residential Development)	Alternative 4 (Additional Hotel)
Residential (dwelling units)	642	-	486	486	642
Retail (square feet)	675,470	-	648,320	675,470	675,470
Office (square feet)	601,940	-	484,290	413,700	434,940
Mixed Use (square feet)		3,259,037			
Hotel[b] (rooms)	303	0	303	303	503
Circulation Improvements[c]	Yes	No	Yes	Yes	Yes

NOTES: Buildout Development shown for the Project and the Alternatives is the proposed increase in development capacity over existing conditions. See Table 3-2 in Chapter 3, *Project Description,* for the existing uses that would be displaced under the Project (Specific Plan) and the net increase in development proposed.

[a] The No Project would continue the existing General Plan land use policy of allowing mixed-use on all parcels in the downtown. As such, the square footage of each land use is not separated and an estimated total buildout figure is presented.
[b] As a conservative estimate a residential unit was considered to be 1,500 square feet. 835 square feet per room for a hotel is assumed.
[c] Improvements include the conversion of east-west streets from one-way to two-way, opening Coombs Street Plaza to vehicular traffic, and reconnecting parts of the street grid with redevelopment of the Town Center.

reduce allowable densities to provide a transition to adjacent neighborhoods). As a result, the buildout capacity under the 2020 General Plan or the No Project Alternative is 3,259,037 square feet, or approximately 300,000 square feet greater than the buildout capacity of the proposed Specific Plan.[1]

Additionally, the No Project would not include additional hotel rooms. Existing development regulations, standards and guidelines would continue to apply to development in the Planning Area, and fewer circulation, streetscape improvements and public space facilities would be implemented, as proposed under the 2020 General Plan. As indicated in Table 5-1, the conversion of east-west streets from one-way to two-way would not occur under the No Project Alternative. Additionally, the opening Coombs Street Plaza to vehicular traffic and reconnecting parts of the street grid with the redevelopment of the Town Center would not occur with the No Project Alternative. Also, unlike the proposed Specific Plan, the 2020 General Plan does not explicitly promote live/work space in the Oxbow area, encourage conversion of residential structures used for commercial and office to convert back to residential uses or propose new specific development standards and programs to increase historic preservation in the Planning Area.

[1] Total buildout capacity of the Specific Plan is approximately 3,095,355, considering the floor area conversions for residential units and hotel rooms indicated in Table 5-1.

Alternative 2 Reduced Development

Under the Reduced Development Alternative, all land uses in the Specific Plan would be developed but would be reduced by 25 percent, with the exception of the hotel use which would remain the same as proposed by the Specific Plan. The Reduced Development Alternative would have the buildout development capacity for:

- 486 residential units;
- 648,320 square feet of commercial space;
- 484,290 square feet of office space; and
- 303 hotel rooms.

Under the Reduced Development Alternative, the proposed building regulations, standards and guidelines proposed in the Specific Plan would apply in the Planning Area. This Alternative assumes the circulation, streetscape improvements and public space facilities proposed under the Specific Plan would be implemented. This reduced amount of potential private development could likely result in less impact fee revenue and associated funding resources for certain public improvements, which could reduce the number of public improvements that could be realized. Specifically, all of the circulation changes proposed by the Specific Plan are assumed for the Reduced Development Alternative, including the conversion of east-west streets from one-way to two-way, opening Coombs Street Plaza to vehicular traffic and reconnecting parts of the grid with the redevelopment of the Town Center. The worst case environmental effects associated with implementation and operation of the proposed public improvements and facilities are considered to ensure a conservative analysis.

Although overall development with the Reduced Development Alternative would be one-quarter less than that proposed under the Specific Plan, the proposed land use program continues to promote live/work space in the Oxbow area, encourage conversion of residential structures used for commercial and office to convert back to residential uses, and propose new specific development standards and programs incentives to increase historic preservation in the Planning Area.

Overall, the Reduced Development Alternative is selected as a reasonable and feasible alternative as it maintains the overall land use mix, consistent with the project objectives, albeit to a lesser extent, as well as considers a reduced development program that may reduce and/or avoid significant impacts identified with the Specific Plan, as discussed in Section D below.

Alternative 3 Reduced Office and Housing

Under the Reduced Office and Housing Alternative, all land uses in the Specific Plan would be developed in the Planning Area, however, residential development would be reduced by 25 percent and office development would be reduced by 40 percent; commercial and hotel development would be the same as proposed in the Specific Plan. The Reduced Office and Housing Alternative would have the buildout development capacity for:

- 486 residential units;
- 675,470 square feet of commercial space;

- 413,700 square feet of office space; and
- 303 hotel rooms.

Under this alternative, the building regulations, standards and guidelines would be as proposed in the Specific Plan, as would the proposed circulation and streetscape improvements and public space facilities. As discussed under Alternative 2, while the reduced amount of potential private development could likely result in less impact fee revenue and associated funding resources for public improvements, which could reduce the number of public improvements that could be realized, the worst case environmental effects associated with implementation and operation of the proposed public improvements and facilities are considered to ensure a conservative analysis.

Although residential and office development would be reduced under the Reduced Office and Housing Alternative, like the Specific Plan, the proposed land use program continues to promote live/work space in the Oxbow area, encourage conversion of residential structures used for commercial and office to convert back to residential uses, and propose new specific development standards and program incentives for historic preservation in the Planning Area.

Overall, the Reduced Office and Housing Alternative is selected as a reasonable and feasible alternative as it also aligns with the project objectives by maintaining the overall land use mix and reflecting the City's priority land use goals to increase residential, commercial and hotel use in the Planning Area. Further, this alternative considers a viable reduced development program that may reduce and/or avoid significant impacts identified with the Specific Plan, as discussed in Section D below.

Alternative 4 Additional Hotel

Under the Additional Hotel Alternative, all land uses in the Specific Plan would be developed but an additional 200-room hotel would replace 167,000 square feet of office space envisioned in the Specific Plan buildout. With the exception of the reduced office space and additional hotel, all other uses would remain the same as proposed by the Specific Plan. The Additional Hotel Alternative would have the buildout development capacity for:

- 642 residential units;
- 675,470 square feet of commercial space;
- 434,940 square feet of office space; and
- 503 hotel rooms.

Under the Additional Hotel Alternative, the proposed building regulations, standards and guidelines proposed in the Specific Plan would apply in the Planning Area. This Alternative assumes the circulation, streetscape improvements and public space facilities proposed under the Specific Plan would be implemented. However, the reduced amount of potential private development could likely result in less impact fee revenue and associated funding resources for certain public improvements, which could reduce the number of public improvements that could be realized. Specifically, all the circulation changes proposed by the Specific Plan are assumed for the Additional Hotel Alternative, including the conversion of east-west streets from one-way

to two-way, opening Coombs Street Plaza to vehicular traffic and reconnecting parts of the grid with the redevelopment of the Town Center. The worst case environmental effects associated with implementation and operation of the proposed public improvements and facilities are considered to ensure a conservative analysis.

The overall development with the Additional Hotel Alternative would be similar to that proposed under the Specific Plan, in that the proposed land use program would promote live/work space in the Oxbow area, encourage conversion of residential structures used for commercial and office to convert back to residential uses, and propose new specific development standards and programs incentives to increase historic preservation in the Planning Area. The addition of a hotel would strengthen the visitor-serving opportunities of Downtown.

Overall, the Additional Hotel Alternative is selected as a reasonable and feasible alternative as it maintains the overall land use mix, consistent with the project objectives, including the addition of another hotel opportunity. This development program may reduce and/or avoid significant impacts identified with the Specific Plan, as discussed in Section D below, as it would alter the peak hour traffic patterns, by reducing commute traffic from office uses in the downtown.

D. Comparative Analysis of the Alternatives

This section presents the comparative discussion of the environmental effects of each alternative compared to the effects identified with the Specific Plan. This section is organized to discuss, for each alternative, the significant impacts identified with the Specific Plan first, and to then discuss for each alternative the less than significant impacts identified with the Specific Plan.

As permitted by CEQA, the significant effects of the alternatives are discussed in less detail than are the effects of the project (CEQA *Guidelines* § 15126.6[d]). However, the analysis is conducted at a sufficient level of detail to provide project decision-makers adequate information to fully evaluate the alternatives and to approve any of the alternatives without further environmental review. Unless otherwise indicated, the impacts associated with the project and each alternative are for year 2035, buildout conditions. All impacts are described after implementation of any applicable mitigation measures identified in Chapter 4. **Table 5-4**, Alternatives Impact Summary and Comparison, near the end of this chapter summarizes the comparison of impacts for the Specific Plan and the alternatives.

Comparison to Significant and Unavoidable Impacts Identified with the Specific Plan

Alternative 1 No Project

Air Quality and Climate Change

Under the No Project Alternative, anticipated development levels would exceed that of the proposed Specific Plan; consequently, operational air quality impacts would be more than those under the Specific Plan, as increased development would generate more vehicle trips. Therefore,

this alternative would also have the same significant and unavoidable impact that would result under implementation of the Specific Plan (**Impacts 4.B-1** and **4.B-4**), but the effect would be increased due to increased development.

Regarding significant **Impacts 4.B-5** (GHG Emissions) and **4.B-6** (Conflict with GHG Plans and Policies), the No Project Alternative would generate more GHG emissions and service population than the Specific Plan, as the No Project Alternative anticipates more overall development than the Specific Plan. Further, while the existing 2020 General Plan policies encourage the use of transit, bicycle facilities and pedestrian walkways citywide, the proposed Specific Plan includes policies and specific development standards to increase transit use, walking and bicycling in Downtown, which is anticipated to support the realization of these goals to a greater degree than under the No Project Alternative. As a result, the No Project Alternative would possibly not reduce emission rates of GHG per service population to the extent they would occur under the Specific Plan. **Mitigation Measure 4.B-5** (incorporation of Green Building and Development Measures in individual future projects developed under the Specific Plan) identified for the Specific Plan would not be in place for the No Project Alternative. Although the existing High Performance Building Ordinance and the Citywide Sustainability Plan currently underway would apply to future development (as well as the Specific Plan) and effectively reduce GHG emissions, the mitigation measure mandated with the Specific Plan includes specific development measures and quantified reduction requirements that would likely result in a greater degree of GHG emissions reductions than would occur otherwise.

Overall, the impact with the No Project Alternative would continue to be significant and unavoidable given the large size of the development and related substantial GHG emissions, as similarly concluded for the Specific Plan. The No Project Alternative would result in the same significant and unavoidable GHG emissions impact as the Specific Plan, although the impact with the alternative would be comparatively more adverse as development would be more.

Transportation and Traffic

The No Project Alternative would result in development consistent with the City's existing General Plan. Since the General Plan, unlike the Specific Plan, allows for equal density throughout Downtown, it would have high buildout capacity and thus would generate more traffic. The residential population and commercial trips would increase to the levels beyond those anticipated by the Specific Plan. The No Project Alternative, like the proposed Specific Plan would have significant and unavoidable impacts at two study area intersections under buildout of the General Plan. The intersection of SR 29 Northbound Ramps at First Street and the intersection of Silverado Trail / Third Street / East Avenue / Coombsville Road would, like development under the proposed Specific Plan, operate at unacceptable levels of service under the No Project Alternative.

The No Project Alternative does not propose circulation and streetscape improvements. The conversion of east-west streets from one-way to two-way would not to occur under the No Project Alternative. Additionally, the opening Coombs Street Plaza to vehicular traffic and reconnecting parts of the street grid with the redevelopment of the Town Center would not occur with the No

Project Alternative. Thus, the No Project Alternative would not create a network of streets that makes land uses in Downtown more accessible and navigable to pedestrians, cyclists and vehicles, like the proposed Specific Plan.

Alternative 2 Reduced Development

Air Quality and Climate Change

Regarding significant **Impacts 4.B-1** and **4.B-4** (population growth exceeding vehicle miles traveled (VMT)), under the Reduced Development Alternative, the rate of net population increase (compared to countywide growth and citywide growth) would be slightly less than with the proposed Specific Plan: 0.14 compared to 0.9 percent, respectively, for countywide growth; and 0.3 compared to 1.6 percent, respectively, for citywide growth. The addition of VMT for the Reduced Development Alternative to the 2035 countywide and citywide forecasts would result in total VMT increases of 1.3 percent and 6.5 percent, which still exceed the alternative's population increase. So this alternative would also have a significant and unavoidable impact with respect to Air Quality Plan consistency and net population growth compared to VMT like the Specific Plan, even though net population increase and VMT would be less than would occur with the Specific Plan. Therefore, overall the Reduced Development Alternative would have the same significant and unavoidable impact as the proposed Specific Plan, but the effect would be reduced.

Regarding significant **Impacts 4.B-5** (GHG Emissions) and **4.B-6** (Conflict with GHG Plans and Policies), under the Reduced Development Alternative total annual GHG emissions would be less than would occur with the Specific Plan, as would the total service population (17,329 CO_2e and 2,262 service population for Alternative 2, compared to 23,089 CO_2e and 3,016 service population for the Specific Plan). However, the GHG efficiency metric (per service population) would remain the same, since the reduced development and resulting reduction in emissions and population compared to the Specific Plan would occur proportionately. The Reduced Development Alternative would result 7.7 tons of CO_2e per year per service population, which is the same as would result with the Specific Plan (as shown in Table 4.B-5 in Chapter 4). The emissions would continue to exceed the BAAQMD service population threshold of 6.6 and be significant.

Mitigation Measure 4.B-5 (incorporation of Green Building and Development Measures in individual future projects developed under the Specific Plan) would apply to Alternative 2, as it would apply to the Specific Plan. The impact would continue to be considered significant and unavoidable given the inability for the City to ensure that all future projects will incorporate green building and development measures to an extent that will reduce annual GHG emissions to less than significant - a reduction of at least 2,400 CO_2e per year – particularly since approximately one-third of the total annual GHG emissions are generated from vehicle trips and not expected to be substantially reduced through green building and development measures. The Reduced Development Alternative would result in the same significant and unavoidable GHG emissions impact as the Specific Plan although the impact with the alternative would be comparatively less adverse given the less intense level of development that would occur compared to the proposed Specific Plan.

Transportation and Traffic

The Reduced Development Alternative would have a 25 percent reduction to all proposed development under the Specific Plan development program, except hotel uses, where no reduction is assumed. As presented in **Table 5-2**, the net new trip generating potential of the

TABLE 5-2
TRIP GENERATION OF THE SPECIFIC PLAN AND REDUCED DEVELOPMENT ALTERNATIVE

		AM Peak Hour			PM Peak Hour		
Alternative Scenario	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Specific Plan	9,721	720	324	1,044	413	698	1,111
Alternative 2	7,324	553	248	801	314	528	842
Difference in Trips	**-2,397**	**-167**	**-76**	**-243**	**-99**	**-170**	**-269**

SOURCE: Kimely-Horne Associates (2011)

Reduced Development Alternative would be less than that what would occur with the Specific Plan. The Reduced Development Alternative would generate 2,397 daily vehicle trips, 243 trips during the AM peak hour, and 269 trips during the PM peak hour fewer trips than the Specific Plan land uses.

Due to the less intense level of development that would occur under the Reduced Development Alternative, less traffic would be generated in the Planning Area as compared to the Specific Plan. Regarding significant **Impacts 4.L-1** and **4.L-2** (intersection impacts under Existing Plus Project and Cumulative Plus Project conditions), the Reduced Development Alternative would generate fewer net new vehicle trips, but would still contribute at least 50 AM and/or PM peak hour trips to the two study intersections that are already expected to operate at unacceptable levels of service under development of the Specific Plan. For this reason, buildout of the Reduced Development Alternative would be expected to trigger significant and unavoidable impacts at the two identified study intersections.

The reduced density, and thus fewer vehicle trips, under this alternative would have less of an adverse cumulative impact (contribute fewer vehicle trips) at the intersections impacted under the Specific Plan. Like the proposed Specific Plan, implementation of **Mitigation Measure 4.L-1** (installation of a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street) would reduce impacts at one of the study intersections to a less-than-significant level. However, it is expected that these impacts would remain significant and unavoidable due to the infeasibility of the City to act as the lead agency to construct appropriate mitigation improvements at those intersections (based on currently identified resources).

Additionally, since the Reduced Development Alternative proposes lower densities, it would provide less interaction between land uses and less opportunity than the Specific Plan for internalization of trips, walking and biking. Therefore, while the Reduced Development Alternative would result in fewer vehicle trips and less of an adverse effect on traffic operations,

it would not optimize the mixing of land uses to the same degree as the Specific Plan, which would reduce the potential for beneficial job/work/shop interfaces and internal trip capture within the Planning Area. Overall the Reduced Development Alternative would result in the same significant and unavoidable intersection impacts as the Specific Plan, although the impacts with the alternative would be comparatively less adverse given the proposed lower densities that would occur compared to the proposed Specific Plan.

Alternative 3: Reduced Office and Residential

Air Quality and Climate Change

Regarding significant **Impacts 4.B-1** and **4.B-4** (population growth exceeding VMT), under the Reduced Office and Residential Alternative the rate of net population increase (compared to countywide growth and citywide growth) would be slightly less than with the proposed Specific Plan (and the same as discussed under Alternative 2, since the reduction in the number of residential units that would occur in the Planning Area is the same for both alternatives): 0.14 compared to 0.9 percent, respectively, for countywide growth; and 0.3 compared to 1.6 percent, respectively, for citywide growth. The addition of VMT for the Reduced Office and Residential Alternative to the 2035 countywide and citywide forecasts result in total VMT increases of 1.4 percent and 6.8 percent, which still exceed this alternative's population increase. Therefore, this alternative would also have a significant and unavoidable impact with respect to Air Quality Plan consistency and net population growth compared to VMT like the Specific Plan, even though net population increase and VMT would be less than would occur with the Specific Plan. Overall, the Reduced Office and Residential Alternative would have the same significant and unavoidable impact as the proposed Specific Plan, but the effect would be reduced.

Regarding significant **Impacts 4.B-5** (GHG Emissions) and **4.B-6** (Conflict with GHG Plans and Policies), under the Reduced Office and Housing Alternative total annual GHG emissions would be less than would occur with the Specific Plan, as would the total service population (17,127 CO_2e and 1,381 service population for Alternative 3, compared to 23,089 CO_2e and 3,016 service population for the Specific Plan). The GHG efficiency metric (per service population) of 12.4 per year is slightly more compared to the proposed Specific Plan given the greater rate of reduction in population than emissions. The emissions would continue to exceed the BAAQMD service population threshold of 6.6 and be significant. **Mitigation Measure 4.B-5** (incorporation of Green Building and Development Measures in individual future projects developed under the Specific Plan) would apply to Alternative 3, as it would apply to the Specific Plan. However, as discussed above, the impact would continue to be considered significant and unavoidable given the inability for the City to ensure that all future projects will incorporate green building and development measures to an extent that will reduce annual GHG emissions to less than significant - a reduction of at least 8,012 CO_2e per year. The Reduced Office and Residential Alternative would result in the same significant and unavoidable GHG emissions impact as the Specific Plan although the impact with this alternative would be comparatively less adverse based on the GHG efficiency-based metric as compared to the proposed Specific Plan.

Transportation and Traffic

The Reduced Office and Residential Alternative include a 40 percent reduction to all proposed office development and 25 percent reduction to all residential uses proposed under the Specific Plan development program. **Table 5-3** compares the net new trip generating potential of both the Specific Plan and Alternative 3. The Specific Plan would generate an additional 2,006 daily vehicle trips, 323 trips during the AM peak hour, and 273 trips during the PM peak hour as compared to Alternative 3.

TABLE 5-3
TRIP GENERATION OF PREFERRED ALTERNATIVE AND REDUCED DEVELOPMENT ALTERNATIVE

		AM Peak Hour			PM Peak Hour		
Alternative Scenario	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Specific Plan	9,721	720	324	1,044	413	698	1,111
Alternative 3	7,715	478	243	721	348	490	838
Difference in Trips	**-2,006**	**-242**	**-81**	**-323**	**-65**	**-208**	**-273**

SOURCE: Kimely-Horne Associates (2011)

Due to the less intense level of development that would occur under Alternative 3, less traffic would be generated in the Planning Area as compared to the Specific Plan. Regarding significant **Impacts 4.L-1 and 4.L-2** (intersection impacts under Existing Plus Project and Cumulative Plus Project conditions), the traffic analysis for Alternative 3 indicates that although fewer net new trips are generated than under the Specific Plan, this alternative would still contribute at least 50 AM and/or PM peak hour trips to the two study intersections that are already expected to operate at unacceptable levels of service under the Cumulative No Project scenario. For this reason, buildout of the Reduced Office and Residential Alternative would have a significant and unavoidable impacts at the two study intersections indentified as impacted with the Specific Plan buildout.

The reduced density, and thus fewer vehicle trips, under this alternative would have less of an adverse cumulative impact (contribute fewer vehicle trips) at the intersections impacted under the Specific Plan. As with the proposed Specific Plan, implementation of **Mitigation Measure 4.L-1** (installation of a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street) would reduce impacts at one of the study intersections to a less-than-significant level. However, it is expected that these impacts would remain significant and unavoidable due to the infeasibility of the City to act as the lead agency to construct appropriate mitigation improvements at those intersections due to Caltrans' authority over the area.

Since the Reduced Office and Residential Alternative would have lower densities, it would provide less interaction between land uses and less opportunity than under the Specific Plan for internalization of trips, walking, and biking. Therefore, while the Reduced Office and Residential Alternative would result in fewer vehicle trips and less of an adverse effect on traffic operations, it would not optimize the mixing of land uses to the same degree as the Specific Plan, which

would in turn reduce the potential for beneficial job/work/shop interfaces and internal trip capture within the Planning Area. Overall the Reduced Development Alternative would result in the same significant and unavoidable intersection impacts as the Specific Plan although the impacts with the alternative would be comparatively less adverse given the proposed lower densities that would occur compared to the proposed Specific Plan. See the relative significant and unavoidable impacts compared by topic in Table 5-4.

Alternative 4: Additional Hotel

Air Quality and Climate Change

Regarding significant **Impacts 4.B-1** and **4.B-4** (population growth exceeding VMT), under the Additional Hotel Alternative the rate of net population increase (compared to countywide growth and citywide growth) would be similar to the proposed Specific Plan, since the reduction in the office space would be offset by hotel use, resulting in the same buildout square footage in the Downtown: 0.14 compared to 0.9 percent, respectively, for countywide growth; and 0.3 compared to 1.6 percent, respectively, for citywide growth. The Additional Hotel Alternative would increase daily VMT by approximately 64,663 miles per day over the long-term. This addition of VMT to the 2035 countywide and citywide forecasts result in total VMT increases of 2.0 percent and 5.0 percent, which still exceed this alternative's population increase. Therefore, this alternative would also have a significant and unavoidable impact with respect to Air Quality Plan consistency and net population growth compared to VMT like the Specific Plan. Overall, the Additional Hotel Alternative would have the same significant and unavoidable impact as the proposed Specific Plan, and the effect would be slightly increased due to greater VMT under the Additional Hotel Alternative.

Regarding significant **Impacts 4.B-5** (GHG Emissions) and **4.B-6** (Conflict with GHG Plans and Policies), under the Additional Hotel Alternative total annual GHG emissions would be less than would occur with the Specific Plan, though the total service population is assumed to be the same (21,679 CO2e and 3,016 service population for Alternative 4, compared to 23,089 CO2e and 3,016 service population for the Specific Plan). The GHG efficiency metric (per service population) of 7.2 per year is less compared to the proposed Specific Plan. The emissions would continue to exceed the BAAQMD service population threshold of 6.6 and be significant. **Mitigation Measure 4.B-5** (incorporation of Green Building and Development Measures in individual future projects developed under the Specific Plan) would apply to Alternative 4, as it would apply to the Specific Plan. However, as discussed above, the impact would continue to be considered significant and unavoidable given the inability for the City to ensure that all future projects will incorporate green building and development measures to an extent that will reduce annual GHG emissions to less than significant - a reduction of at least 1,775 CO2e per year. The Additional Hotel Alternative would result in the same significant and unavoidable GHG emissions impact as the Specific Plan although the impact with the alternative would be comparatively less adverse based on the GHG efficiency-based metric as compared to the proposed Specific Plan.

Transportation and Traffic

The Additional Hotel Alternative includes a reduction in office square foot proposed in the Specific Plan to accommodate an additional 200 room hotel (a 167,000 square foot reduction in office space as compared to the Specific Plan). **Table 5-4** compares the net new trip generating potential of both the Specific Plan and Alternative 4. Alternative 4 would generate an additional 178 daily vehicle trips; however, it would generate fewer peak hour trips (less 132 trips during the AM peak hour and less 110 trips during the PM peak hour as compared to the Specific Plan). This is attributed to the fact that the hotel use that replaced office use would generate more total vehicles trips throughout the day, but would generate fewer trips during the peak hour.

TABLE 5-4
TRIP GENERATION OF PREFERRED ALTERNATIVE AND ADDITIONAL HOTEL ALTERNATIVE

		AM Peak Hour			PM Peak Hour		
Alternative Scenario	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Specific Plan	9,721	720	324	1,044	413	698	1,111
Alternative 4	9,899	573	338	912	437	563	1,001
Difference in Trips	**178**	**-147**	**-14**	**-132**	**24**	**-135**	**-110**

SOURCE: Kimely-Horne Associates (2011)

Regarding significant **Impacts 4.L-1 and 4.L-2** (intersection impacts under Existing Plus Project and Cumulative Plus Project conditions), the traffic analysis for Alternative 4 indicates that although fewer net new trips are generated in the peak hour than under the Specific Plan, this alternative would still contribute at least 50 AM and/or PM peak hour trips to the two study intersections that are already expected to operate at unacceptable levels of service under the Cumulative No Project scenario. For this reason, buildout of the Additional Hotel Alternative would have a significant and unavoidable impacts at the two study intersections indentified as impacted with the Specific Plan buildout.

Alternative 4 would have less of an adverse cumulative impact during the peak hour (contribute fewer vehicle trips) at the intersections impacted under the Specific Plan. However, like the proposed Specific Plan, implementation of **Mitigation Measure 4.L-1** (installation of a traffic signal at the intersection of SR 29 Northbound Off-ramp / First Street) would reduce impacts at one of the study intersections to a less-than-significant level. However, it is expected that these impacts would remain significant and unavoidable due to the infeasibility of the City to act as the lead agency to construct appropriate mitigation improvements at those intersections.

The Additional Hotel Alternative would have similar interaction between land uses and the same opportunity than under the Specific Plan for internalization of trips, walking, and biking. Therefore, like the proposed Specific Plan, the Additional Hotel Alternative would result optimize the mixing of land uses to the same degree as the Specific Plan. Overall the Additional Hotel Alternative would result in the same significant and unavoidable intersection impacts as the

Specific Plan, and the impacts with the alternative would be comparative to the proposed Specific Plan. See the relative significant and unavoidable impacts compared by topic in Table 5-4.

Comparison to Less than Significant Impacts Identified with the Specific Plan

All the alternatives would allow for varying degrees of development intensity in the Planning Area, as shown in Table 5-1.

Alternative 1: No Project

Implementation of the No Project Alternative would represent the continuation of the City's existing General Plan and zoning designations to guide future growth and development within the Planning Area. The majority of the Planning Area is zoned Downtown Commercial (DC) which applies to the historic commercial area and allows for retail, office, institution, cultural, visitor serving, and public uses. Higher-density residential uses are also permitted.

For this alternative, impacts would be analyzed under a maximum buildout scenario within the Planning Area with the allowed land uses and development standards designated in the existing General Plan and zoning designations. Compared with the Specific Plan, the overall development capacity potential in the Planning Area under this alternative would be greater than that of the proposed Specific Plan by approximately 300,000 square feet of development potential. The No Project Alternative would not provide the potential incentive for future development that the Specific Plan would offer through increases in allowable building heights and intensities. The No Project Alternative would not provide context sensitive approach to development that would provide for a strategic buildout of the Downtown, as existing regulation does not specifically consider adjacent neighborhoods or concentrate densities in the core of Downtown.

The No Project Alternative has the most amount of development opportunity compared to the Specific Plan and other Alternatives. However, under this alternative the streetscape improvements, gathering places, parking structures, and residential, office and commercial/retail space development would not happen and construction activities would occur at existing levels and under the current land use controls and regulations. Strategies outlined in the Specific Plan include reducing automobile dependency by improving pedestrian and bicycle infrastructure and locating residences in Downtown closer to complementary land uses. Therefore, this alternative would have more impacts on greenhouse gases and climate change than the Specific Plan. Similarly, the No Project Alternative could result in more hydrology and water quality impacts because of the greater amount of impervious surfaces that would exist compared to the Specific Plan, which proposes porous paving materials and green roofs for new construction and introduction of new open space in the form of pocket parks.

The No Project Alternative also would not realize many of the benefits proposed by the Specific Plan that directly relate to the vision for Downtown. These improvements include the proposed facilitation of development that would result in housing opportunities, conference opportunities and an expanded tax base; by enhancing retail uses through the introduction of facilities that

would bring more residents and visitors Downtown, and providing adequate residential housing. Overall, the No Project Alternative would result in more impacts associated with land use and planning because it would not achieve many of the goals of the Specific Plan such as transit and pedestrian-friendly features, and an improved circulation in Downtown. Without the improvements proposed under the Specific Plan, the number of facilities and activities in the Planning Area would not be able to expand, public gathering spaces would be limited and the City would not be able to modernize and adjust to changing needs of the community over time.

All the less-than-significant impacts under the Specific Plan would remain less than significant under this alternative. Mitigations required for these impacts would apply to this alternative as well.

See the relative significant and unavoidable impacts compared by topic in Table 5-5.

Alternative 2 Reduced Development

The Reduced Development Alternative is similar to the Specific Plan in all respects, except that it has 25 percent less development, with the exception of hotel space which would remain as under the Specific Plan. Compared to the Specific Plan, this alternative would result in fewer residents, commercial and office space, and fewer employees in the Planning Area. Therefore, all of the less-than-significant impacts under the Specific Plan would still remain less-than-significant under this alternative, although in most cases the impact would be to a lesser degree than under the Specific Plan. None of the impacts would be more severe under this alternative such that they would be significant because this alternative would result in less total growth than would occur under the Specific Plan. Moreover, all mitigation measures identified for the Specific Plan would also apply to the impacts resulting with this alternative. See the relative less-than-significant impacts compared by topic in Table 5-5.

Alternative 3 Reduced Office and Residential

This alternative is similar to the Specific Plan in all respects, except with a 25 percent reduction in residential units and a 40 percent reduction in office space. This would result in fewer residents and employees in the Planning Area compared to the Specific Plan. Therefore, all the less-than-significant impacts under the Specific Plan would still remain less-than-significant under this alternative, and in most cases the impact will be to a lesser degree than under the Specific Plan. None of the impacts would be more severe under this alternative such that they would be significant because this alternative would result in less total growth under the Specific Plan. Moreover, all mitigation measures identified for the Specific Plan would also apply to the impacts resulting with this alternative. See the relative less-than-significant impacts compared by topic in Table 5-5.

Alternative 4 Additional Hotel

This alternative is similar to the Specific Plan in all respects, except with a reduction in office space to offset the addition of a 200 room hotel. This would result in additional guests and incrementally fewer employees in the Planning Area compared to the Specific Plan; however, the

overall development would be the same. Therefore, all the less-than-significant impacts under the Specific Plan would still remain less-than-significant under this alternative. None of the impacts would be more severe under this alternative such that they would be significant because this alternative would result in similar growth as under the Specific Plan. Moreover, all mitigation measures identified for the Specific Plan would also apply to the impacts resulting with this alternative. See the relative less-than-significant impacts compared by topic in Table 5-5.

E. Environmentally Superior Alternative

Based upon the evaluation described in this section, Alternative 2, the Reduced Development Alternative, has the most number of resource areas that would be reduced to a lesser level of intensity than the Specific Plan. Although impact determinations overall would remain at the same level as the Specific Plan, the environmental effects would be incrementally less than with the Specific Plan, as development capacity would be incrementally less.

Alternative 2, the Reduced Development Alternative, and Alternative 3, the Reduced Office and Residential Alternative, have similar reductions in impacts compared to the Specific Plan. However, Alternative 3 would have a higher GHG emissions efficiency rate compared to that of the Specific Plan given the greater reduction in service population (residents and employees) compared to the reduction in total annual GHG emissions with Alternative 3. Also, Alternative 2 is projected to generate fewer peak hour vehicle trips than Alternative 3, resulting in comparatively lower traffic-related air quality, noise and traffic impacts. While all of the significant and unavoidable impacts identified under the proposed Specific Plan would remain under Alternative 2, they, along with many of the less than significant impacts, would be reduced (see Table 5-6) compared to the Specific Plan. Also, while both Alternative 2 and Alternative 3 would also meet the core objectives of the Specific Plan, including increasing housing opportunities and providing for a hotel/conference center in the Planning Area, Alternative 2 would more fully meet the objectives supporting increased commercial use in Downtown. Additionally, both the project and Alternatives 2, 3 and 4 result in fewer impacts than the No Project alternative (Alternative 1).

In conclusion, Alternative 2 would reduce the most number of impacts of the Specific Plan, reduce those impacts to the greatest extent, and meet the objectives of the Specific Plan to a greater extent that Alternative 3. For these reasons, Alternative 2 is considered the Environmentally Superior Alternative.

F. Project Alternatives Considered but Rejected for Further Analysis in this EIR

CEQA *Guidelines* § 15126.6(c) requires an EIR to identify and briefly discuss any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process. In identifying alternatives, primary consideration was given to alternatives that would reduce significant impacts while still meeting most of the project objectives. Alternatives that

would have the same or greater impacts as the proposed project, or that would not meet most of the project objectives, were rejected from further consideration.

As the Specific Plan is designed to guide the development of Downtown, an alternative site would not be appropriate as an alternative to the proposed project. Other land uses such as all residential for all new or redevelopment would not achieve the objectives of the proposed project and could result in incompatibility with adjacent land uses. All-residential development would not attract a wide range of activities to maintain a dynamic atmosphere for Downtown or promote the image of Downtown as a good place to do business. Therefore, these alternatives were rejected from further analysis in the EIR because they do not meet the objectives of the proposed Specific Plan listed above. Finally, under the No Project Alternative analysis, there is no discussion of a no project alternative with a freezing of conditions (i.e., no development); under CEQA *Guidelines* §15126.6(a), the No Project Alternative for a land use plan analyzes the continuation of existing land use plans into the future.

G. Comparison of the Alternatives

The analysis of the alternatives is summarized and compared in two tables: **Table 5-5** provides a summary of the most severe impact level within each environmental topic area and **Table 5-6** summarizes the ability of each alternative to meet the Specific Plan objectives. These tables also summarize the same information for the Specific Plan as proposed. The tables provide a ready means for the reader to review and compare the alternatives with each other, and with the Specific Plan as proposed.

Table 5-6 indicates that the Specific Plan as proposed has the ability to meet Specific Plan objectives. Of the alternatives considered in this chapter, only the No Project Alternative would not have ability to meet, or partially meet, all of the Specific Plan objectives. The other alternatives are less able to meet the Plan's objectives. Further, the significant and unavoidable impact to the two impacted study intersections (SR 29 Northbound Ramps at First Street and the intersection of Silverado Trail / Third Street / East Avenue / Coombsville Road) would continue to operate at unacceptable levels under General Plan buildout, similar to the Specific Plan and Alternatives 2 and 3.

Finally, as presented in Table 5-6, Alternative 2 and 3 partially meet the Specific Plan objectives, unlike the No Project, which would fall short of meeting the majority of the stated objectives. Notably, the No Project Alterative would not cultivate or facilitate the desire for increases residential units in Downtown or meet General Plan Policy LU-6.5 which says the City shall provide for development of hotel and conference facilities. The Specific Plan and Alternatives 2 and 3 both meet those two key objectives.

TABLE 5-5
ALTERNATIVES IMPACT SUMMARY AND COMPARISON

Impact	Project	Alternative 1 (No Project)	Alternative 2 (Reduced Development)	Alternative 3 (Reduced Office and Residential Development)	Alternative 4 (Additional Hotel)
Aesthetics	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
Air Quality and GHG	Significant Unavoidable Impact	Significant Unavoidable Impact⇧	Significant Unavoidable Impact ⇩	Significant Unavoidable Impact⇧ [a]	Significant Unavoidable Impact
Biological Resources	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Cultural Resources	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Geology and Soils	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
Hazards and Hazardous Materials	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
Hydrology and Water Quality	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
Land Use and Planning	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
Noise	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation ⇩	Less than Significant with Mitigation ⇩	Less than Significant with Mitigation
Population and Housing	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
Recreation	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant
Transportation and Traffic	Significant Unavoidable Impact	Significant Unavoidable Impact	Significant Unavoidable Impact ⇩	Significant Unavoidable Impact ⇩	Significant Unavoidable Impact
Utilities and Service Systems	Less than Significant	Less than Significant	Less than Significant	Less than Significant	Less than Significant

NOTE: ⇧/⇩ - The impact is more/less severe than compared to the Specific Plan.

[a] Significant and unavoidable GHG emissions (Impact 4.B-5) is more severe than with the Specific Plan.

SOURCE: Environmental Science Associates

TABLE 5-6
ABILITY OF ALTERNATIVES TO MEET PROJECT OBJECTIVES

Specific Plan Objective	Project	Alternative 1 (No Project)	Alternative 2 (Reduced Development)	Alternative 3 (Reduced Office and Residential Development)	Alternative 4 (Additional Hotel)
Make Downtown Napa a wonderful, inviting and friendly place to live, work and visit. Revive Downtown as the primary job center in Napa.	Meets objective	May not meet objective	Partially meets objective	Partially meets objective	Meets objective
Celebrate Napa's rich history and agricultural heritage.	Meets objective	Partially meets objective	Meets objective	Meets objective	Meets objective
Take advantage of the Napa River as a Downtown amenity and a setting for recreation, residential development, special-event venues and shopping.	Meets objective	May not meet objective	Meets objective	Meets objective	Meets objective
Provide a human scale, pedestrian-friendly environment that is inviting to residents and visitors.	Meets objective	Partially meets objective	Meets objective	Meets objective	Meets objective
Encourage mixed-use development in Downtown to provide a range of housing options and densities, including housing above storefronts in the Downtown core, stand-alone housing mixed with retail uses, services and offices in areas designated for mixed use, and housing in the transition areas adjacent to existing residential neighborhoods.	Meets objective	Partially meets objective	Meets objective	Partially meets objective	Meets objective
Ensure sensitive transitions between the existing adjacent residential areas and the Downtown area.	Meets objective	May not meet objective	Meets objective	May not meet objective	Meets objective
Foster neighborhood-serving uses in the areas transitioning between the Downtown core and mixed-use areas and residential neighborhoods adjacent to the Downtown, such as corner markets, and provide for sufficient residential density to support these uses.	Meets objective	Does not meet objective	Meets objective	Meets objective	Meets objective
Build on Napa's high quality stock of historic structures to set the tone for Downtown design.	Meets objective	May not meet objective	Meets objective	Meets objective	Meets objective
Promote the role of Downtown where civic buildings are concentrated and as the primary place where people come together to enjoy public art and culture, open spaces and public facilities.	Meets objective	Does not meet objective	Meets objective	May not meet objective	Meets objective
Place priority on high quality design in Downtown orienting buildings and entrances to the street and public gathering places, and developing unique structures that complement their surroundings.	Meets objective	Does not meet objective	Meets objective	Meets objective	Meets objective
Designate the Downtown core as the location for Downtown's retail activities, supported by mixed retail, service, office and residential opportunities bordering the core in a mixed-use designation. Promote the concentration of activity-generating uses in the core area of Downtown, including retail shops, restaurants and entertainment venues.	Meets objective	Meets objective	Meets objective	Partially meets objective	Meets objective

TABLE 5-6 (Continued)
ABILITY OF ALTERNATIVES TO MEET PROJECT OBJECTIVES

Specific Plan Objective	Project	Alternative 1 (No Project)	Alternative 2 (Reduced Development)	Alternative 3 (Reduced Office and Residential Development)	Alternative 4 (Additional Hotel)
Create exciting, attractive and interesting new gateways to create a welcoming atmosphere to visitors to Downtown.	Meets objective	May not meet objective	Meets objective	Meets objective	Meets objective
Cultivate a convenient network of different modes of transportation in Downtown, including for pedestrians, bicyclists, public transportation, as well as cars.	Meets objective	May not meet objective	Meets objective	Meets objective	Meets objective
Create linkages to and between public gathering places, parks and the Napa River and Napa Creek for people to explore Downtown.	Meets objective	May not meet objective	Meets objective	Meets objective	Meets objective
Identify opportunity sites or “focus areas” where development could transform Downtown in a way that is consistent with the adopted vision for Downtown and could serve as a catalyst to other development in Downtown.	Meets objective	Does not meet objective	Meets objective	Meets objective	Meets objective
Promote commercial and retail growth over office land uses to make Downtown a destination for both residents and visitors.	Meets objective	Does not meet objective	Meets objective	Meets objective	Meets objective
Provide opportunity for a hotel and conference center in Downtown that could serve as a catalyst to economic growth in Downtown.	Meets objective	Does not meet objective	Meets objective	Meets objective	Meets objective
Meet General Plan requirements for multi-family house in Downtown (440 dwelling units).	Meets objective	Meets objective	Meets objective	Meets objective	Meets objective

SOURCE: Environmental Science Associates

CHAPTER 6
Growth-Inducing and Cumulative Effects

A. Significant and Unavoidable Environmental Impacts

A significant and unavoidable impact would result if a project reaches or exceeds the defined threshold of significance, and no feasible mitigation measure is available to reduce the significant impact to a less-than-significant level. The Specific Plan would result in the following significant and unavoidable environmental effects, as identified in Chapter 4 of this EIR:

Impact 4.B-1: Development facilitated by the Specific Plan would result in increased long-term emissions of criteria pollutants from increased vehicle traffic and onsite area sources.

Impact 4.B-4: Growth from development facilitated by the Specific Plan would be fundamentally inconsistent with the growth assumptions of the *Bay Area 2010 Clean Air Plan*.

Impact 4.B-5: Development facilitated by the Specific Plan would generate greenhouse gas (GHG) emissions that may have a significant effect on the environment.

Impact 4.B-6: The Specific Plan could potentially conflict with applicable plans, policies or regulations of an agency with jurisdiction over the Specific Plan adopted for the purpose of reducing the emissions of GHGs.

Impact 4.L-1: Traffic generated by development facilitated by the Specific Plan would affect levels of service at study intersections under Existing plus Project conditions.

- SR 29 Northbound Off-ramp / First Street

Impact 4.L-2: Traffic generated by development facilitated by the Specific Plan would affect levels of service at study intersections under Cumulative plus Project conditions.

- Silverado Trail / Third Street / East Avenue / Coombsville Road
- SR 29 Northbound Off-ramp / First Street

B. Cumulative Impacts

CEQA defines cumulative impacts as two or more individual impacts which, when considered together, are substantial, or which compound or increase other environmental impacts. The cumulative analysis is intended to describe the “incremental impact of the project when added to other, closely related past, present or reasonably foreseeable future projects” that can result from

"individually minor but collectively significant projects taking place over a period of time (CEQA *Guidelines* §15355). The analysis of cumulative impacts is a two-phase process that first involves the determination of whether the implementation of the Specific Plan, together with past, present or reasonably foreseeable projects, would result in a significant impact. If there would be a significant cumulative impact of all such projects, the EIR must determine whether the Specific Plan's incremental effect is cumulatively considerable, in which case, the Specific Plan itself is deemed to have a significant cumulative effect (CEQA *Guidelines* §15130).

Cumulative impacts may be discussed in terms of the proposed Specific Plan impacts, in combination with impacts anticipated for future development (including approved and planned development within the Planning Area and surrounding affected area). The geographic area for each impact varies, depending on the nature of the impact, whether it is regional, such as air quality or local, such as noise.

Quantification can be difficult for cumulative impacts, as it requires speculative estimates of impacts including, but not limited to the following: the geographic diversity of impacts (impacts of future development may affect different areas); variations in time of impacts; and data for buildout projections may change following subsequent approvals. However, every attempt has been made herein to make sound qualitative judgments of the combined effects of, and relationship between, land uses and potential impacts.

This EIR assesses the overall environmental effects of the proposed Specific Plan at a program level of detail. This EIR evaluates the overall (cumulative) effects of buildout in accordance with the land use designations, land use assumptions and all goals, policies, and implementing strategies contained in the proposed Specific Plan. The analysis of each environmental topic included in Chapter 4, *Environmental Setting, Impacts and Mitigation Measures* of this EIR evaluates possible cumulative impacts considering regional development in combination with the buildout of the proposed Specific Plan.

As noted above, in A. *Significant and Unavoidable Environmental Impacts*, implementation of the proposed Specific Plan in combination with potential development in the surrounding area would result in significant and unavoidable impacts related to air quality and transportation under cumulative conditions.

Further, as the County Seat of Napa County, Downtown hosts many County uses which were included in the cumulative analysis. The County is proposing to expand their Downtown facilities and is in the process of preparing a County Facilities Master Plan. According to the *County of Napa Conceptual Site Development and Phasing Plan Through 2028* (October, 2010), the County's Downtown development plans include the following in the Planning Area:

- Construction of new 90,000 s.f. office building at the site of the existing surface parking lot at the southwest corner of Coombs Street and Third Street;
- Construction of a new 90,000 s.f. office building with 22,000 s.f. below-grade storage/meeting space at the site of the existing Administrative Building;

- Discontinued use of the Carithers Building (to become surplus space);

While not planned as part of the County Facilities Master Plan, there are proposed plans to expand the Downtown County Jail facilities to accommodate an additional capacity of 366 to 500 beds.

Cumulative impacts that could occur as a result of the proposed Specific Plan are discussed in the appropriate sections of Chapter 4 of this report. Implementation of the proposed Specific Plan would result in significant cumulative impacts as follows:

> **Impact 4.B-4:** Growth from development facilitated by the Specific Plan would be fundamentally inconsistent with the growth assumptions of the *Bay Area 2010 Clean Air Plan*.
>
> **Impact 4.B-5:** Development facilitated by the Specific Plan would generate greenhouse gas (GHG) emissions that may have a significant effect on the environment.
>
> **Impact 4.B-6:** The Specific Plan could potentially conflict with applicable plans, policies or regulations of an agency with jurisdiction over the Specific Plan adopted for the purpose of reducing the emissions of GHGs.
>
> **Impact 4.L-2:** Traffic generated by development facilitated by the Specific Plan would affect levels of service at study intersections under Cumulative plus Project conditions.
>
> - Silverado Trail / Third Street / East Avenue / Coombsville Road
> - SR 29 Northbound Off-ramp / First Street

Section 15130 of the CEQA *Guidelines* requires that an EIR evaluate potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. These impacts can result from a combination of the proposed project together with other projects causing related impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. The list of probable projects in or adjacent to the Planning Area, are listed above.

Holistically, development pursuant to the Specific Plan would have cumulatively considerable impacts, which cannot be mitigated to less-than-significant levels to air quality, greenhouse gases, and transportation. Impacts related to traffic would occur with or without the implementation of the Specific Plan as they are part of the regional growth in the area and are specific to the physical and political constraints that exist at intersections. However, project contribution to intersection delay would be cumulatively considerable. Air quality and greenhouse gas impacts can be attributed to growth that was not anticipated in the Clean Air Plan, and because the amount of development that would occur. Development pursuant to the Specific Plan would have a less-than-significant cumulative impact (with or without mitigation) on all other environmental issue areas as described throughout Chapter 4 of this EIR.

C. Growth-Inducing Impacts

CEQA *Guidelines* § 15126.2(d) requires that an EIR should discuss "…the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through precedent-setting action.

Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped. Typically, projects on infill sites that are surrounded by existing urban uses are not considered growth-inducing because they usually do not facilitate development intensification on adjacent sites.

Based on Government Code § 65450, the proposed Specific Plan would serve as the overall plan for the physical development of Downtown (Planning Area). While the Specific Plan does not specifically propose any development projects, it does regulate future population and economic growth of Downtown that would result in direct and indirect growth inducing effects.

Implementation of the proposed Specific Plan would refine existing land use designations in Downtown, establish new policy provisions, actions and design guidelines that guide and manage future development and land uses in the Planning Area. This would also include policy direction on circulation and utilities improvements. The specific environmental effects resulting from the direct growth effects of proposed land use patterns are discussed in Chapter 4, Sections 4.A through 4.M, of this Draft EIR. The proposed Specific Plan would result in buildout of approximately 627 housing units, which would generate approximately 1,379 new residents and would create approximately 1,637 additional jobs within the Planning Area. The buildout for the Specific Plan is considered to occur by the year 2035.

The Planning Area is fully developed and served by public utilities. There are no large areas that are undeveloped adjacent to the Planning Area. Additionally, the Specific Plan would not remove any obstacles that would help facilitate growth that could significantly affect the physical environment.

Indirect population growth associated with the Specific Plan could occur in association with job creation and housing; however, this population growth could occur without the Specific Plan, as development would continue to occur in Downtown under existing land use policy and zoning designations. The economic stimulus generated by construction of the Specific Plan could result in the creation of new construction-related jobs. In addition, the increase in residential and retail square footage that could be built if the Specific Plan is adopted could generate more employees and residents. However, the jobs created during both the construction and operation phases of development facilitated by the Specific Plan would not be substantial in the context of job growth in Napa and the region over the next 25 years.

The Planning Area is located within Downtown and as such is currently fully served by urban infrastructure, services and transit options. No new infrastructure would be extended to undeveloped areas, and consequently the Specific Plan would not result in substantial indirect population growth. Furthermore, the Specific Plan would be consistent with City and County plans to concentrate growth in Downtown and reduce growth pressure in the surrounding less-developed areas. Overall, the Specific Plan is not expected to induce unanticipated growth either directly or indirectly.

D. Significant Irreversible Environmental Effects

An EIR for a project that involves adoption, amendment or enactment of a plan, policy or ordinance of a public agency, such as the proposed Specific Plan, must identify any significant irreversible environmental changes that could result from implementation of a proposed project. These may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. CEQA dictates that irretrievable commitments of resources should be evaluated to assure that such current consumption is justified (CEQA *Guidelines* §15126.2(c)).

The proposed Specific Plan would allow for the improvement of approximately 210 acres of land in Downtown. The Specific Plan, although it introduces new land use designations, is consistent in theme with the land uses designated by the City of Napa's General Plan. Because the Planning Area includes only infill sites on land within an urban area surrounded by similar or compatible uses, it would not commit future generations to a significant change in land use.

The Planning Area is located within an urban area; no agricultural land would be converted to non-agricultural uses. The Planning Area does not contain known mineral resources and does not serve as a mining reserve.

Construction facilitated by the Specific Plan would require the use of energy, including energy produced from non-renewable resources. Energy consumption would also occur during the operational period of any development constructed under the Specific Plan due to the use of automobiles, lighting and appliances. However, the Specific Plan incorporates energy-conserving features, as required by the uniform Building Code and California Energy Code Title 24 and the City's adopted High Performance Building Ordinance which provides for 15 percent higher energy efficiency than Title 24. The Specific Plan also incorporates sustainable construction policies and features where feasible or as otherwise required by law that would strive to meet the LEED Program over the long-term, resulting in a more energy efficient development and reduced consumption using local materials and labor.

E. Effects Found Not To Be Significant

A Notice of Preparation (NOP) was circulated on April 14, 2010 to solicit comments from the public and agencies about the scope of this EIR. Written comments received on the NOP were considered in the preparation of the final scope for this document and in the evaluation of the Specific Plan. An Initial Study was not prepared for the Specific Plan.

Because the Specific Plan did not include the preparation of an Initial Study, all environmental topics in the CEQA *Environmental Checklist*, with the exception of two topics listed below, have been fully analyzed in this document (Chapter 4).

The following two topics were excluded from detailed discussion in Chapter 4 of this EIR because it was determined during the EIR scoping phase that there would be no impacts associated with these topics.

Agricultural Resources

As discussed in Section 4.H, *Land Use and Planning*, the General Plan Land Use Map designates various residential and commercial land use classifications in and surrounding the Planning Area. The Planning Area, as with the majority of developed land in the City of Napa, is designated by the California Department of Conservation's Important Farmland in California Map as urban and built-up land (Department of Conservation, 2006).[1] Therefore, the Specific Plan would not convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance to non-agricultural use; would not conflict with existing zoning for agricultural use, or a Williamson Act contract; and would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use. The Specific Plan would have no impact on agricultural resources.

Likewise, the Specific Plan would not cause rezoning of forest land, timberland or timberland-zoned Timberland Production. Implementation of the Specific Plan would not result in the loss of forest land or convert forest land to non-forest use.

Mineral Resources

The Planning Area is located in a developed urban area that has no known existing mineral resources. The California Geological Survey has classified lands within the San Francisco Bay Region into Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act (SMARA) of 1974 (Stinson et al., 1982).[2] The Planning Area is mapped by the California Department of Mines and Geology as MRZ-1, an area where adequate information indicates a low likelihood of significant mineral resources (Stinson, et al., 1982). The intent of designating significant deposits

[1] California Department of Conservation, Farmland Mapping and Monitoring Program, *Important Farmland in California Map, 2006*, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2006/fmmp2006_wallsize.pdf, accessed February 15, 2010.

[2] Stinson, M. C., M. W. Manson, J. J. Plappert, and others, Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area, Part II, Classification of Aggregate Resource Areas South San Francisco Bay Production-Consumption Region, California Division of Mines and Geology Special Report 146, 1982.

is to identify areas where mineral extraction could occur prior to development. Therefore, implementation of the Specific Plan would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Implementation of the Specific Plan would have no impact on mineral resources.

CHAPTER 7
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Land Use and Planning Section:	Cory Barringhaus, AICP
Noise Section:	Ben Frese, Paul Miller
Population and Housing:	Tania Sheyner, AICP
Recreation and Open Space:	Cory Barringhaus, AICP
Transportation and Traffic:	Jack Hutchison, P.E. (Registration #T1411), Lesley Lowe, AICP, Peter Costa, AICP
Utilities and Service Systems:	Jonathan Carey, AICP, Cory Barringhaus, AICP
Alternatives Analysis:	Lesley Lowe, AICP
Growth Inducing and Cumulative:	Lesley Lowe, AICP
Graphics:	Ron Teitel
Word Processing:	Lisa Bautista, John Hart

Dave Javid, LEED AP, Project Manager, MIG, Inc

Luke Schwartz, Traffic Engineer, Kimley-Horn and Associates, Inc

APPENDIX A

Notice of Preparation

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Notice of Preparation

To: State Clearinghouse
(Agency)
1400 Tenth Street, Suite 212
(Address)
Sacramento, CA 95814

Subject: Notice of Preparation of a Draft Environmental Impact Report

Lead Agency:

Agency Name City of Napa, Community Development Department

Street Address 1600 First Street

City/State/Zip Napa, CA 94559

Contact Julianne Ward

Consulting Firm (If applicable):

Firm Name ESA

Street Address 225 Bush Street, Suite 1700

City/State/Zip San Francisco, CA 94104

Contact Lesley Lowe

The City of Napa will be Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description and location are contained in the attached materials. An Initial Study is **not** attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice.

Please send your response to Julianne Ward
at the address shown above. Please include the name of a contact person in your agency.

Project Title: Napa Downtown Specific Plan

Project Location: 55 blocks of downtown Napa (see Figure 1, attached) Napa (City (nearest)) Napa (County)

Project Description: (brief)

The Downtown Napa Specific Plan would guide all new development in the Planning Area through detailed policies, design guidelines and development standards and financing mechanisms. New development projects would be required to follow the policies, programs and guidelines set forth in the specific plan. Existing developments would not be directly affected unless the occupants or owners choose to expand or change their structures, grounds or uses.

Date _____

Signature _____

Title Associate Planner

Telephone 707-257-9345
email jward@cityofnapa.org

Project Location and Site Description:

Located in Northern California approximately 50 miles of San Francisco, the City of Napa is located at the southern end of the Napa Valley. The Napa River runs north-south through the City, starting in Mount St. Helena, flowing through San Pablo Bay and emptying into the San Francisco Bay. Located on the Napa Valley floor and surrounded by rolling hills, the City's surroundings are predominantly rural and agricultural.

Within Napa, the Downtown is located on the west bank of the Napa River, near a large meandering oxbow in the river's course. The Downtown is in the central part of the City in between Highway 121 and Highway 29. Napa is the location of the Napa County seat and is the County's largest incorporated city.

The Planning Area, as defined for the Downtown Napa Specific Plan, is bounded on the east by the eastern bank of the Napa River, on the south by Division and 3rd Streets, and Jefferson Street on the west. The northern boundary generally follows the zigzagging edge of the "Downtown Commercial" zoning area boundary adjacent to northern residential neighborhoods along Polk and Caymus Streets west of Soscol Avenue. Plan boundaries extend east to include the Oxbow Market and former Copia area east of Soscol Avenue. The Planning Area encompasses approximately 210 acres (see **Figure 1**: Specific Plan Area Boundary).

Existing Development:

There is a diverse mix of uses in the Planning Area, ranging from local to visitor-serving, as well a6s a range of retail, restaurant, office and civic uses. **Table 1** presents the number of residential units, square feet of commercial uses, and total number of hotel rooms currently within the Planning Area.

TABLE 1

DOWNTOWN NAPA EXISTING DEVELOPMENT

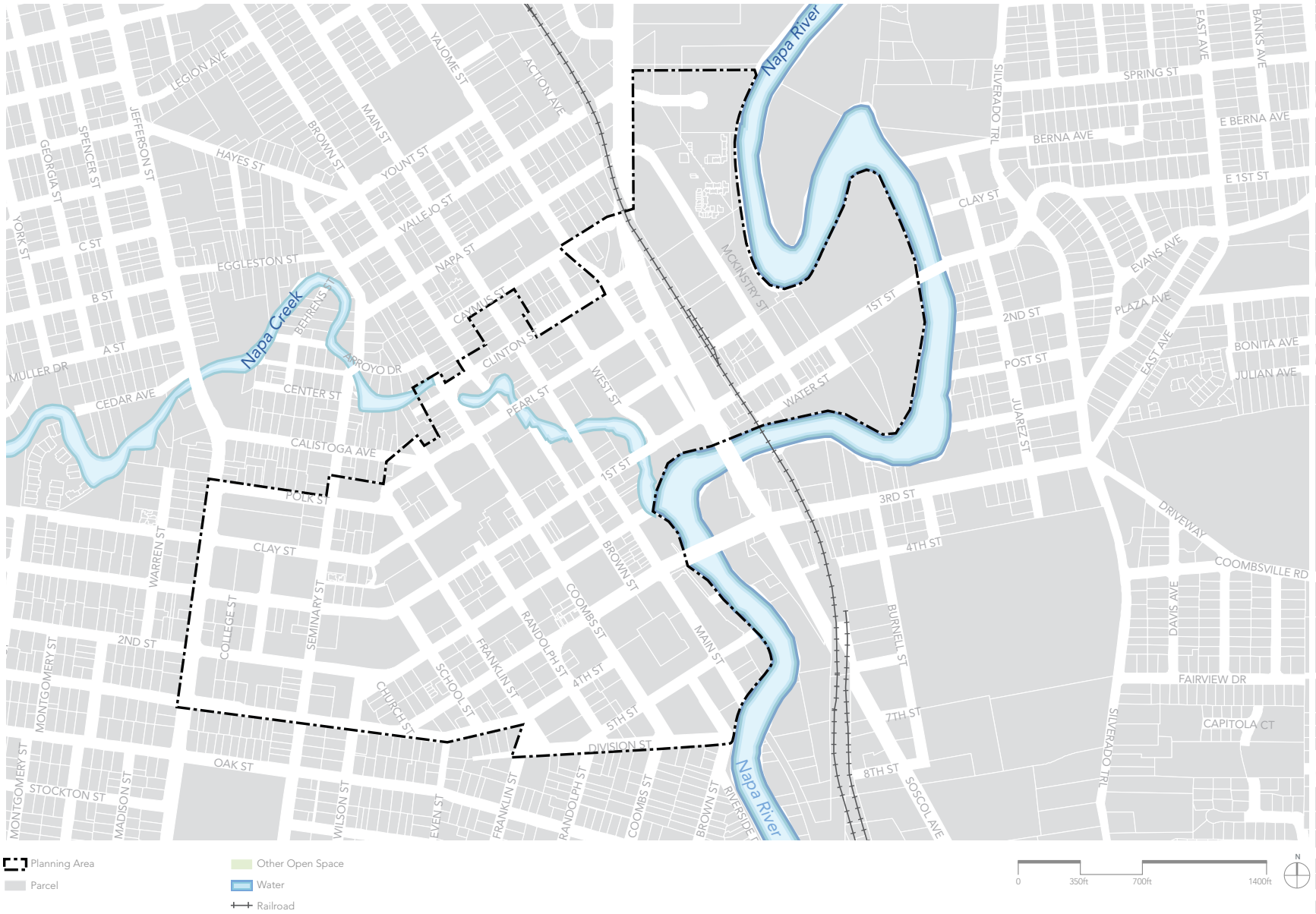
Land Use	
Residential	**units**
Single-family	31
Multi-family [1]	94
Total Residential Units	*125*
Commercial	**square feet**
Retail	1,137,524
Office	763,133
Hotels	**rooms**
Avia Hotel	141
Napa River Inn	66
River Terrace Inn	112
Westin Verasa	160
Napa Valley Travelodge	45
Total Hotel Rooms	***524***

1 Includes 44 multi-family units in bldgs of 2 to 8 units and 50 condominiums in the Riverfront

Project Characteristics:

The purpose of the Downtown Napa Specific Plan (DNSP) is to provide a comprehensive guide for future public and private investment in Downtown Napa crafted from a community-based vision. The DNSP will build from a strong base of General Plan policies focused on the Downtown area. As a "specific plan" under by California State law, the Plan will include detailed policies, design guidelines, development standards, and financing mechanisms.

Customized design guidelines and development standards collectively will shape the character and urban form of the Planning Area. Public realm design guidelines will be developed to encourage enhancement of streetscapes through improvements such as special sidewalk paving and furniture, landscaping, gateway signage and wayfinding, and intersection treatment. The quality of design and architectural character of buildings throughout the Planning Area will be regulated through private realm design guidelines that will address site planning, building articulation and form, materials and colors, and building signage.



SOURCE: MIG

Napa Downtown Specific Plan

Figure 1

Specific Plan Area Boundary

The DNSP will also cover key issues and opportunities as they relate to automobile, bicycle, and pedestrian circulation throughout the Planning Area as well as provide recommendations for upgrading existing utilities and infrastructure (e.g. stormwater, sewer, and water lines) to accommodate future demand. The circulation plan will encourage greater connectivity for all modes of transportation and examine alternatives for road realignment/rerouting to improve overall circulation throughout the Planning Area. In addition, sustainable measures will be encouraged through infrastructure improvements that will help reduce stormwater runoff and water use.

The land use strategy for the DNSP will allow greater flexibility for a mix of uses in the Planning Area to promote a variety of commercial, housing, and entertainment uses in the Downtown area. The plan will also potentially allow higher densities through increased building height limits in the core of the Downtown, that is context sensitive in relation to adjacent historic structures and lower density residential areas. In addition, the DNSP will outline development standards such as building setbacks to provide space for outdoor dining opportunities and plazas that engage the sidewalk and pedestrian realm without impeding on pedestrian activity. The DNSP will also balance the preservation of natural amenities and views that currently exist while integrating policies that encourage connecting with amenities such as the Napa River.

The implementation and financing strategies for the proposed land use changes and improvements will be outlined in an implementation action plan that will provide the anticipated prioritization and timeframe for improvements. Once adopted, the DNSP will guide all new development in the Planning Area. New development projects will be required to follow the policies, programs, and guidelines set forth in the specific plan. Existing developments will not be directly affected unless the occupants or owners choose to expand or change their structures, grounds, or uses.

Probable Environmental Affects to be Discussed in the EIR: Air Quality; Biology; Geology, Soils and Seismicity; Hazards, Hydrology and Water Quality, Land Use and Planning, Noise; Historic Resources; Public Services, Utilities, Visual Resources, and Transportation.

Public Review Period: The required 30-day public comment period shall begin on April 14, 2010 and end at 5:00 p.m. on May 13, 2010. All comments regarding the Notice of Preparation must be received by this ending date/time.

You are encouraged to submit written comments and recommendations. Comments and recommendations may be directed to Julianne Ward, City of Napa, PO Box 660, Napa, CA 94559, telephone 707-257-9345, fax 707-258-7851, or email jward@cityofnapa.org by specifying “Napa Downtown Specific Plan EIR” in the subject line.

APPENDIX B

Responses to NOP

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State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.dfg.ca.gov

ARNOLD SCHWARZENEGGER, Governor
John McCamman, Director

RECEIVED
MAY 17 2010
COMMUNITY DEVELOPMENT DEPARTMENT

May 3, 2010

Ms. Julianne Ward
City of Napa
1600 First Street
Napa, CA 94559

Dear Ms. Ward:

Subject: Napa Downtown Specific Plan, Notice of Preparation, SCH #2010042043, City and County of Napa

The Department of Fish and Game (DFG) has reviewed the documents provided for the subject project, and we have the following comments.

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the project. Rare, threatened and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf.

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to CEQA. DFG, as a responsible agency under CEQA, will consider

the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at http://www.dfg.ca.gov/habcon/1600/; or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

If you have any questions, please contact Mr. Greg Martinelli, Water Conservation Supervisor, at (707) 944-5570.

Sincerely,

Charles Armor
Regional Manager
Bay Delta Region

cc: State Clearinghouse

STATE OF CALIFORNIA

Arnold Schwarzenegger, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

May 11, 2010

RECEIVED

MAY 17 2010

COMMUNITY DEVELOPMENT DEPARTMENT

Julianne Ward
City of Napa
1600 First Street
Napa, CA 94559

Re: Notice of Preparation, Draft Environmental Impact Report (DEIR)
Napa Downtown Specific Plan
SCH# 2010042043

Dear Ms. Ward:

As the state agency responsible for rail safety within California, the California Public Utilities Commission (CPUC or Commission) recommends that development projects proposed near rail corridors be planned with the safety of these corridors in mind. New developments and improvements to existing facilities may increase vehicular traffic volumes, not only on streets and at intersections, but also at at-grade highway-rail crossings. In addition, projects may increase pedestrian traffic at crossings, and elsewhere along rail corridor rights-of-way. Working with CPUC staff early in project planning will help project proponents, agency staff, and other reviewers to identify potential project impacts and appropriate mitigation measures, and thereby improve the safety of motorists, pedestrians, railroad personnel, and railroad passengers.

The traffic impact study within the traffic/circulation section of the DEIR needs to specifically consider safety issues to at-grade railroad crossings. In addition to the potential impacts of the proposed project itself, the DEIR needs to consider cumulative rail safety-related impacts created by other projects.

In general, the major types of impacts to consider are collisions between trains and vehicles, and between trains and pedestrians. The proposed project has the potential to increase vehicular and pedestrian traffic in the vicinity.

Measures to reduce adverse impacts to rail safety need to be considered in the DEIR. General categories of such measures include:

- Installation of grade separations at crossings, i.e., physically separating roads and railroad track by constructing overpasses or underpasses
- Improvements to warning devices at existing highway-rail crossings
- Installation of additional warning signage
- Improvements to traffic signaling at intersections adjacent to crossings, e.g., traffic preemption

- Installation of median separation to prevent vehicles from driving around railroad crossing gates
- Prohibition of parking within 100 feet of crossings to improve the visibility of warning devices and approaching trains
- Installation of pedestrian-specific warning devices and channelization and sidewalks
- Construction of pull out lanes for buses and vehicles transporting hazardous materials
- Installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way
- Elimination of driveways near crossings
- Increased enforcement of traffic laws at crossings
- Rail safety awareness programs to educate the public about the hazards of highway-rail grade crossings

Commission approval is required to modify an existing highway-rail crossing or to construct a new crossing.

Thank you for your consideration of these comments. We look forward to working with the City on this project. If you have any questions in this matter, please contact me at (415) 713-0092 or email at ms2@cpuc.ca.gov.

Sincerely,

Moses Stites
Rail Corridor Safety Specialist
Consumer Protection and Safety Division
Rail Transit and Crossings Branch
180 Promenade Circle, Suite 115
Sacramento, CA 95834-2939

Department of Toxic Substances Control

Linda S. Adams
Secretary for
Environmental Protection

Maziar Movassaghi
Acting Director
700 Heinz Avenue
Berkeley, California 94710-2721

Arnold Schwarzenegger
Governor

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APR 27 2010

COMMUNITY DEVELOPMENT
DEPARTMENT

April 26, 2010

Ms. Julianne Ward
City of Napa
1600 First Street
Napa, California 94559

NOTICE OF PREPARATION, NAPA DOWNTOWN SPECIFIC PLAN DRAFT ENIVRONMENTAL IMPACT REPORT (EIR), SCH#2010042043

Dear Ms. Ward:

The Department of Toxic Substances Control (DTSC) has reviewed the Notice of Preparation (NOP) dated April 7, 2010, for the City of Napa Downtown Specific Plan Draft Environmental Impact Report (EIR). The comment period ends May 11, 2010.

DTSC oversees hazardous substance cleanup pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Responsible Agency, DTSC is submitting comments to ensure that the California Environmental Quality Act (CEQA) documentation prepared for this project adequately addresses any remediation of hazardous substance releases that might be required as part of the project.

City of Napa issued the NOP to obtain input regarding the scope and environmental analysis that is relevant to each responsible agency's statutory/regulatory responsibilities. DTSC recommends that the EIR outline the procedures for evaluating the potential for hazardous substance releases to have occurred at any sites within the Downtown Specific Plan area that are to be developed or where the land use is to be changed. These procedures should be included in the EIR to facilitate the preparation of project-specific CEQA documents for future development within the Napa Downtown Specific Plan area.

For each site where development is to occur under the Napa Downtown Specific Plan, current and historical land use records should be consulted to identify land uses that may have resulted in a hazardous substance release at the site. In particular, properties where there has been industrial or agricultural use could potentially have contamination. Sampling and analysis of soil and/or groundwater should be conducted

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for sites where current or historical operations may have caused a hazardous substance release. The results of sampling should be discussed in the project-specific CEQA documents and screening levels or any risk assessments that are used in determining whether contamination poses a potential, significant human health or environmental risk should be identified.

If remediation activities are required as part of development projects, these activities should be discussed in the project-specific CEQA documents along with the cleanup levels that will be applied and the anticipated regulatory agency oversight. Potential impacts associated with the remediation activities should also be addressed by the project-specific CEQA documents. If the remediation activities include soil excavation, the documentation should include: (1) an assessment of air impacts and health impacts associated with the excavation activities; (2) identification of any applicable local standards which may be exceeded by the excavation activities, including dust and noise levels; (3) transportation impacts from the removal or remedial activities; and (4) risk of upset should there be an accident during cleanup. DTSC can assist your agency in overseeing characterization and cleanup activities through our Voluntary Cleanup Program. If you have any questions please call me at 510-540-3975. Thank you in advance for your consideration of our comments.

Sincerely,

Wei-Wei Chui
Unit Chief
Brownfields and Environmental Restoration Program

cc: Scott Morgan
Acting Director
State Clearinghouse and Planning Unit
1400 10th Street
P. O. Box 3044
Sacramento, California 95812-3044
State.clearinghouse@opr.ca.gov

Alyssa De La Cruz
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806
ADelacr1@dtsc.ca.gov

Nancy Ritter
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806
nritter@dtsc.ca.gov

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

RECEIVED
APR 30 2010
COMMUNITY DEVELOPMENT DEPARTMENT

April 28, 2010

Julianne Ward
City of Napa
1600 First Street
Napa, CA 94559

RE: SCH#2010042043 Napa Downtown Specific Plan; Napa County.

Dear Ms. Ward:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5 minute quadrangle name, township, range and section required.**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Program Analyst
(916) 653-4040

CC: State Clearinghouse

Native American Contact List
Napa County
April ~~22~~ 28, 2010
Katy S.

The Federated Indians of Graton Rancheria
Gene Buvelot
6400 Redwood Drive, Ste
Rohnert Park, CA 94928
coastmiwok@aol.com
(415) 895-1163 Home
(415) 259-7819 Cell

Coast Miwok
Southern Pomo

The Federated Indians of Graton Rancheria
Frank Ross
100 Cielo Lane, Apt 102
Novato , CA 94949
miwokone@yahoo.com
(415) 269-6075

Coast Miwok
Southern Pomo

Ya-Ka-Ama
7465 Steve Olson Lane
Forestville , CA 95436
info@yakaama.org
(707) 887-1541

Pomo
Coast Miwok
Wappo

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
PO Box 1794
Middletown , CA 95461
scottg@mishewalwappo.
707-494-9159

Wappo

The Federated Indians of Graton Rancheria
Greg Sarris, Chairperson
6400 Redwood Drive, Ste
Rohnert Park, CA 94928
coastmiwok@aol.com
707-566-2288
707-566-2291 - fax

Coast Miwok
Southern Pomo

Suscol Intertribal Council
Charlie Toledo
PO Box 5386
Napa , CA 94581
suscol@i-cafe.net
707 256-3561
707 256-0815 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources forthe proposed SCH# 2010042043 Napa Downtown Specific Plan; Napa County.

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 622-5491
FAX (510) 286-5559
TTY 711

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APR 30 2010
COMMUNITY DEVELOPMENT DEPARTMENT

Flex your power!
Be energy efficient!

April 27, 2010

NAPGEN086
SCH#2010042043

Ms. Julianne Ward
City of Napa
P.O. BOX 660
Napa, CA 94559

Dear Ms. Julianne Ward:

City of Napa Downtown Specific Plan— Notice of Preparation (NOP)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the City of Napa Downtown Specific Plan. The following comments are based on the NOP. As lead agency, the City of Napa is responsible for all project mitigation, including any needed improvements to State highways. The project's fair share contribution, financing, scheduling, and implementation responsibilities as well as lead agency monitoring should be fully discussed for all proposed mitigation measures and the project's traffic mitigation fees should be specifically identified in the environmental document. Any required roadway improvements should be completed prior to issuance of project occupancy permits. An encroachment permit is required when the project involves work in the State's right of way (ROW). The Department will not issue an encroachment permit until our concerns are adequately addressed. Therefore, we strongly recommend that the lead agency ensure resolution of the Department's California Environmental Quality Act (CEQA) concerns prior to submittal of the encroachment permit application; see the end of this letter for more information regarding the encroachment permit process.

Community Planning

The Department encourages the City of Napa to locate any needed housing, jobs and neighborhood services near major mass transit nodes, and connect these nodes with streets configured to facilitate walking and biking, as a means of promoting mass transit use and reducing regional vehicle miles traveled and traffic impacts on the state highways.

Please consider developing and applying pedestrian, bicycling and transit performance or level/quality of service measures and modeling pedestrian, bicycle and transit trips that your project will generate. Mitigation measures resulting from the analysis could improve pedestrian and bicycle access to transit facilities, thereby reducing traffic impacts on state highways.

In addition, please analyze secondary impacts on pedestrians and bicyclists that may result from any traffic impact mitigation measures. Describe any pedestrian and bicycle mitigation measures that would in turn be needed as a means of maintaining and improving access to transit facilities and reducing traffic impacts on state highways.

Traffic Impact Study

The environmental document should include an analysis of the impacts of the proposed project on State highway facilities in the vicinity of the project site. Please ensure that a Traffic Impact Study (TIS) is prepared providing the information detailed below:

1. Information on the plan's traffic impacts in terms of trip generation, distribution, and assignment. The assumptions and methodologies used in compiling this information should be addressed. The study should clearly show the percentage of project trips assigned to State facilities.

2. Current Average Daily Traffic (ADT) and AM and PM peak hour volumes on all significantly affected streets, highway segments and intersections.

3. Schematic illustration and level of service (LOS) analysis for the following scenarios: 1) existing, 2) existing plus project, 3) cumulative and 4) cumulative plus project for the roadways and intersections in the project area.

4. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the State highway facilities being evaluated.

5. The procedures contained in the 2000 update of the Highway Capacity Manual should be used as a guide for the analysis. We also recommend using the Department's *"Guide for the Preparation of Traffic Impact Studies"*; it is available on the following web site: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf .

6. Mitigation measures should be identified where plan implementation is expected to have a significant impact. Mitigation measures proposed should be fully discussed, including financing, scheduling, implementation responsibilities, and lead agency monitoring.

We encourage the City of Napa to coordinate preparation of the study with our office, and we would appreciate the opportunity to review the scope of work.

We look forward to reviewing the TIS, including Technical Appendices, and environmental document for this project. Please send two copies to the address at the top of this letterhead, marked ATTN: Lisa Carboni, Mail Stop #10D.

Encroachment Permit

Any work or traffic control within the State ROW requires an encroachment permit that is issued by the Department. Traffic-related mitigation measures will be incorporated into the construction plans during the encroachment permit process. See the following website link for more information: http://www.dot.ca.gov/hq/traffops/developserv/permits/

To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans which clearly indicate State ROW to the address at the top of this letterhead, marked ATTN: Michael Condie, Mail Stop #5E.

Should you have any questions regarding this letter, please call me at (510) 622-5491.

Sincerely,

Lisa Carboni

LISA CARBONI
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

APPENDIX C

Air Quality and Greenhouse Gases

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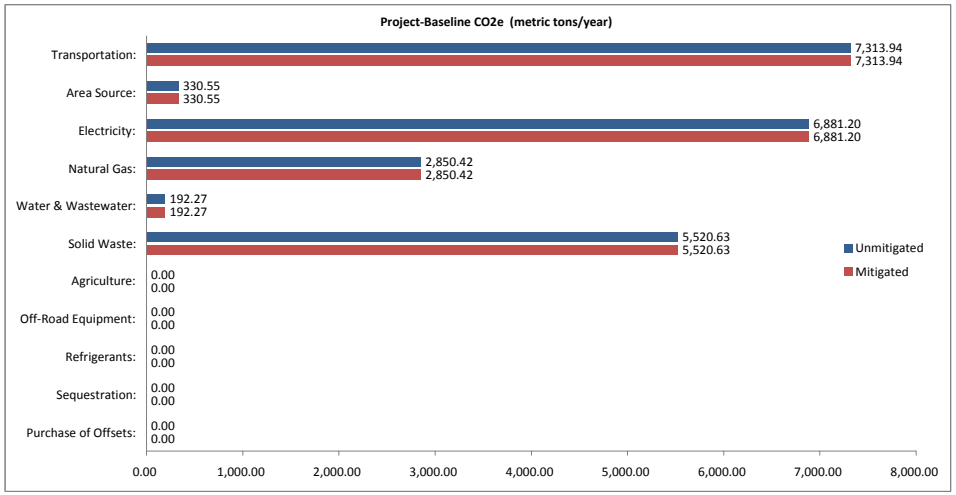
Summary Results

Project Name: Napa Specific Plan GHG Only
Project and Baseline Years: 2035 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	7,313.94	7,313.94
Area Source:	330.55	330.55
Electricity:	6,881.20	6,881.20
Natural Gas:	2,850.42	2,850.42
Water & Wastewater:	192.27	192.27
Solid Waste:	5,520.63	5,520.63
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	23,089.02	23,089.02

Baseline is currently: **OFF**
Baseline Project Name:
Go to Settings Tab to Turn On Baseline



Detailed Results

Unmitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				7,313.94	31.68%
Area Source:	306.03	1.08	0.01	330.55	1.43%
Electricity:	6,870.20	0.06	0.03	6,881.20	29.80%
Natural Gas:	2,843.13	0.27	0.01	2,850.42	12.35%
Water & Wastewater:	191.97	0.00	0.00	192.27	0.83%
Solid Waste:	38.42	261.06	N/A	5,520.63	23.91%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				23,089.02	100.00%

Baseline	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				0.00	N/A
Area Source:	0.00	0.00	0.00	0.00	N/A
Electricity:	0.00	0.00	0.00	0.00	N/A
Natural Gas:	0.00	0.00	0.00	0.00	N/A
Water & Wastewater:	0.00	0.00	0.00	0.00	N/A
Solid Waste:	0.00	0.00	N/A	0.00	N/A
Agriculture:	0.00	0.00	0.00	0.00	N/A
Off-Road Equipment:	0.00	0.00	0.00	0.00	N/A
Refrigerants:	N/A	N/A	N/A	0.00	N/A
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				0.00	0.00%

* Several adjustments were made to transportation emissions after they have been imported from URBEMIS.
After importing from URBEMIS, CO2 emissions are converted to metric tons and then adjusted to account for the "Pavley" regulation. Then, CO2 is converted to CO2e by multiplying by 100/95 to account for the contribution of other GHGs (CH4, N2O, and HFCs [from leaking air conditioners])
Finally, CO2e is adjusted to account for th low carbon fuels rule.

Mitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				7,313.94	31.68%
Area Source:	306.03	1.08	0.00	330.55	1.43%
Electricity:	6,870.20	0.06	0.03	6,881.20	29.80%
Natural Gas:	2,843.13	0.27	0.01	2,850.42	12.35%
Water & Wastewater:	191.97	0.00	0.00	192.27	0.83%
Solid Waste:	38.42	261.06	N/A	5,520.63	23.91%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	0.00	0.00%
Purchase of Offsets:	N/A	N/A	N/A	0.00	0.00%
Total:				23,089.02	100.00%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mxm\Desktop\Current Project Shortcuts\208649 - Napa Specific Plan 2011\December 2011\Napa SP 090111.urb924

Project Name: Napa Specific Plan GHG Only

Project Location: Napa County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	12.36	2.92	18.14	0.04	2.11	2.03	3,615.45

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	4.66	3.41	43.49	0.11	19.84	3.75	10,896.81

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	17.02	6.33	61.63	0.15	21.95	5.78	14,512.26

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.20	2.64	1.62	0.00	0.00	0.00	3,278.20
Hearth	3.64	0.24	13.31	0.04	2.10	2.02	331.94
Landscape	0.51	0.04	3.21	0.00	0.01	0.01	5.31
Consumer Products	5.60						
Architectural Coatings	2.41						
TOTALS (tons/year, unmitigated)	12.36	2.92	18.14	0.04	2.11	2.03	3,615.45

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	1.28	0.85	11.12	0.03	4.92	0.93	2,727.31
Quality resturant	0.21	0.18	2.20	0.01	1.02	0.19	559.02
High turnover (sit-down) rest.	0.09	0.07	0.93	0.00	0.43	0.08	236.32
Hotel	0.69	0.48	6.03	0.02	2.81	0.53	1,532.25
Regnl shop. center	0.97	0.80	9.95	0.02	4.65	0.88	2,535.20
General office building	1.42	1.03	13.26	0.03	6.01	1.14	3,306.71
TOTALS (tons/year, unmitigated)	4.66	3.41	43.49	0.11	19.84	3.75	10,896.81

Operational Settings:

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Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2035 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	209.00	3.76	dwelling units	627.00	2,357.52	15,722.06
Quality resturant		50.81	1000 sq ft	10.00	508.10	3,270.13
High turnover (sit-down) rest.		71.81	1000 sq ft	3.00	215.43	1,383.60
Hotel		4.61	rooms	303.00	1,396.83	8,971.14
Regnl shop. center		24.25	1000 sq ft	95.59	2,318.06	14,856.43
General office building		6.22	1000 sq ft	470.60	2,927.13	19,194.67
					9,723.07	63,398.03

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.9	0.0	100.0	0.0
Light Truck < 3750 lbs	17.0	0.0	99.4	0.6
Light Truck 3751-5750 lbs	19.8	0.0	100.0	0.0
Med Truck 5751-8500 lbs	8.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.9	33.3	66.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.1	0.0	90.9	9.1

Travel Conditions

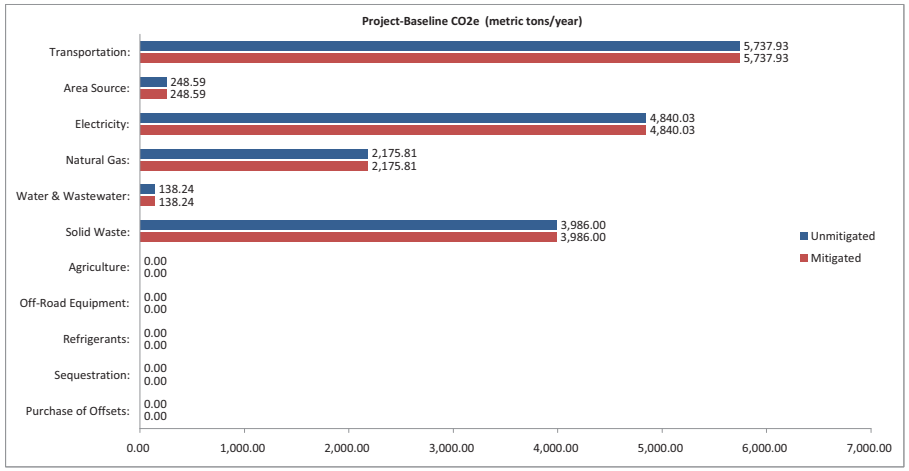
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	6.7	6.8	6.6	6.8	6.5	6.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Quality resturant				8.0	4.0	88.0
High turnover (sit-down) rest.				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5

Summary Results

Project Name: Napa Specific Plan GHG Only - Alternative 3
Project and Baseline Years: 2035 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	5,737.93	5,737.93
Area Source:	248.59	248.59
Electricity:	4,840.03	4,840.03
Natural Gas:	2,175.81	2,175.81
Water & Wastewater:	138.24	138.24
Solid Waste:	3,986.00	3,986.00
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	17,126.60	17,126.60

Baseline is currently: **OFF**
Baseline Project Name:
Go to Settings Tab to Turn On Baseline



Detailed Results

Unmitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				5,737.93	33.50%
Area Source:	230.17	0.81	0.00	248.59	1.45%
Electricity:	4,832.30	0.04	0.02	4,840.03	28.26%
Natural Gas:	2,170.25	0.20	0.00	2,175.81	12.70%
Water & Wastewater:	138.02	0.00	0.00	138.24	0.81%
Solid Waste:	27.74	188.49	N/A	3,986.00	23.27%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				17,126.60	100.00%

Baseline	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				0.00	N/A
Area Source:	0.00	0.00	0.00	0.00	N/A
Electricity:	0.00	0.00	0.00	0.00	N/A
Natural Gas:	0.00	0.00	0.00	0.00	N/A
Water & Wastewater:	0.00	0.00	0.00	0.00	N/A
Solid Waste:	0.00	0.00	N/A	0.00	N/A
Agriculture:	0.00	0.00	0.00	0.00	N/A
Off-Road Equipment:	0.00	0.00	0.00	0.00	N/A
Refrigerants:	N/A	N/A	N/A	0.00	N/A
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				0.00	0.00%

* Several adjustments were made to transportation emissions after they have been imported from URBEMIS.
After importing from URBEMIS, CO2 emissions are converted to metric tons and then adjusted to account for the "Pavley"
regulation. Then, CO2 is converted to CO2e by multiplying by 100/95 to account for the contribution of other GHGs (CH4, N2O, and HFCs [from leaking air conditioners])
Finally, CO2e is adjusted to account for th low carbon fuels rule.

Mitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				5,737.93	33.50%
Area Source:	230.17	0.81	0.00	248.59	1.45%
Electricity:	4,832.30	0.04	0.02	4,840.03	28.26%
Natural Gas:	2,170.25	0.20	0.00	2,175.81	12.70%
Water & Wastewater:	138.02	0.00	0.00	138.24	0.81%
Solid Waste:	27.74	188.49	N/A	3,986.00	23.27%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	0.00	0.00%
Purchase of Offsets:	N/A	N/A	N/A	0.00	0.00%
Total:				17,126.60	100.00%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: \\sfo-file01\PROJECTS\SFO\208xxx\D208649.00 - Napa Downtown Specific Plan EIR\04 Work Products\04.2 Working Documents\3.0 ADEIR\AQ Data\Napa SP GHG Only - Alternative 3.urb924

Project Name: Napa Specific Plan GHG Only - Alternative 3

Project Location: Napa County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	9.29	2.26	13.87	0.03	1.59	1.53	2,801.61

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	3.63	2.68	34.08	0.08	15.57	2.93	8,548.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	12.92	4.94	47.95	0.11	17.16	4.46	11,350.38

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.15	2.05	1.28	0.00	0.00	0.00	2,547.96
Hearth	2.73	0.18	10.00	0.03	1.58	1.52	249.35
Landscape	0.40	0.03	2.59	0.00	0.01	0.01	4.30
Consumer Products	4.21						
Architectural Coatings	1.80						
TOTALS (tons/year, unmitigated)	9.29	2.26	13.87	0.03	1.59	1.53	2,801.61

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	1.22	0.89	11.44	0.03	5.40	1.02	2,958.04
Quality resturant	0.17	0.14	1.80	0.00	0.81	0.15	445.29
High turnover (sit-down) rest.	0.07	0.06	0.75	0.00	0.34	0.06	185.13
Hotel	0.59	0.39	4.87	0.01	2.19	0.41	1,201.57
Regnl shop. center	0.79	0.63	7.91	0.02	3.56	0.67	1,952.65
General office building	0.79	0.57	7.31	0.02	3.27	0.62	1,806.09
TOTALS (tons/year, unmitigated)	3.63	2.68	34.08	0.08	15.57	2.93	8,548.77

Operational Settings:

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Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2035 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	157.00	3.64	dwelling units	471.00	1,714.44	17,275.73
Quality resturant		49.22	1000 sq ft	10.00	492.20	2,590.94
High turnover (sit-down) rest.		69.56	1000 sq ft	3.00	208.68	1,077.83
Hotel		4.47	rooms	303.00	1,354.41	6,995.53
Regnl shop. center		23.49	1000 sq ft	95.59	2,245.41	11,375.24
General office building		6.02	1000 sq ft	282.36	1,699.81	10,462.31
					7,714.95	49,777.58

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.9	0.0	100.0	0.0
Light Truck < 3750 lbs	17.0	0.0	99.4	0.6
Light Truck 3751-5750 lbs	19.8	0.0	100.0	0.0
Med Truck 5751-8500 lbs	8.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.9	33.3	66.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.1	0.0	90.9	9.1

Travel Conditions

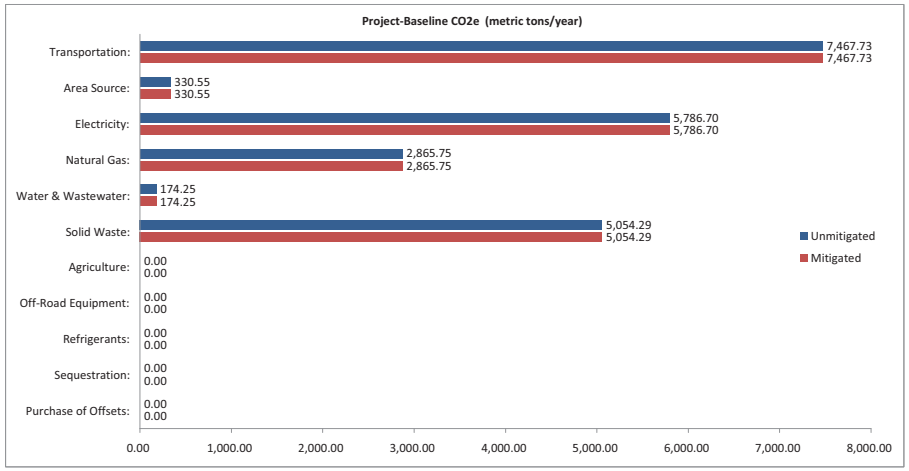
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	13.7	8.3	8.3	8.3	5.0	5.0
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Quality resturant				8.0	4.0	88.0
High turnover (sit-down) rest.				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5

Summary Results

Project Name: Napa Specific Plan GHG Only - Alternative 4
Project and Baseline Years: 2035 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	7,467.73	7,467.73
Area Source:	330.55	330.55
Electricity:	5,786.70	5,786.70
Natural Gas:	2,865.75	2,865.75
Water & Wastewater:	174.25	174.25
Solid Waste:	5,054.29	5,054.29
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	21,679.27	21,679.27

Baseline is currently: **OFF**
Baseline Project Name:
Go to Settings Tab to Turn On Baseline



Detailed Results

Unmitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				7,467.73	34.45%
Area Source:	306.03	1.08	0.01	330.55	1.52%
Electricity:	5,777.46	0.05	0.03	5,786.70	26.69%
Natural Gas:	2,858.42	0.27	0.01	2,865.75	13.22%
Water & Wastewater:	173.97	0.00	0.00	174.25	0.80%
Solid Waste:	35.17	239.01	N/A	5,054.29	23.31%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				21,679.27	100.00%

Baseline	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				0.00	N/A
Area Source:	0.00	0.00	0.00	0.00	N/A
Electricity:	0.00	0.00	0.00	0.00	N/A
Natural Gas:	0.00	0.00	0.00	0.00	N/A
Water & Wastewater:	0.00	0.00	0.00	0.00	N/A
Solid Waste:	0.00	0.00	N/A	0.00	N/A
Agriculture:	0.00	0.00	0.00	0.00	N/A
Off-Road Equipment:	0.00	0.00	0.00	0.00	N/A
Refrigerants:	N/A	N/A	N/A	0.00	N/A
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				0.00	0.00%

* Several adjustments were made to transportation emissions after they have been imported from URBEMIS.
After importing from URBEMIS, CO2 emissions are converted to metric tons and then adjusted to account for the "Pavley"
regulation. Then, CO2 is converted to CO2e by multiplying by 100/95 to account for the contribution of other GHGs (CH4, N2O, and HFCs [from leaking air conditioners])
Finally, CO2e is adjusted to account for th low carbon fuels rule.

Mitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				7,467.73	34.45%
Area Source:	306.03	1.08	0.00	330.55	1.52%
Electricity:	5,777.46	0.05	0.03	5,786.70	26.69%
Natural Gas:	2,858.42	0.27	0.01	2,865.75	13.22%
Water & Wastewater:	173.97	0.00	0.00	174.25	0.80%
Solid Waste:	35.17	239.01	N/A	5,054.29	23.31%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	0.00	0.00%
Purchase of Offsets:	N/A	N/A	N/A	0.00	0.00%
Total:				21,679.27	100.00%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mxm\Desktop\Current Project Shortcuts\208649 - Napa Specific Plan 2011\December 2011\Napa SP GHG Only - Alternative 4.urb924

Project Name: Napa Specific Plan GHG Only - Alternative 4

Project Location: Napa County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	12.29	3.01	18.22	0.04	2.12	2.04	3,722.03

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	4.75	3.48	44.51	0.11	20.23	3.84	11,125.94

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	17.04	6.49	62.73	0.15	22.35	5.88	14,847.97

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.20	2.73	1.70	0.00	0.01	0.01	3,384.78
Hearth	3.64	0.24	13.31	0.04	2.10	2.02	331.94
Landscape	0.51	0.04	3.21	0.00	0.01	0.01	5.31
Consumer Products	5.60						
Architectural Coatings	2.34						
TOTALS (tons/year, unmitigated)	12.29	3.01	18.22	0.04	2.12	2.04	3,722.03

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	1.74	1.23	16.17	0.04	7.11	1.35	3,942.95
Quality resturant	0.22	0.19	2.35	0.01	1.09	0.21	597.04
High turnover (sit-down) rest.	0.05	0.04	0.54	0.00	0.25	0.05	138.41
Hotel	1.21	0.85	10.68	0.03	4.99	0.94	2,724.62
Regnl shop. center	0.58	0.47	5.82	0.01	2.73	0.52	1,488.83
General office building	0.95	0.70	8.95	0.02	4.06	0.77	2,234.09
TOTALS (tons/year, unmitigated)	4.75	3.48	44.51	0.11	20.23	3.84	11,125.94

Operational Settings:

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Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2035 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	209.00	5.64	dwelling units	627.00	3,536.28	22,695.84
Quality resturant		52.98	1000 sq ft	10.00	529.80	3,494.56
High turnover (sit-down) rest.		40.97	1000 sq ft	3.00	122.91	810.90
Hotel		4.81	rooms	503.00	2,419.43	15,962.19
Regnl shop. center		13.84	1000 sq ft	95.59	1,322.97	8,730.25
General office building		6.49	1000 sq ft	303.60	1,970.36	12,969.92
					9,901.75	64,663.66

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.9	0.0	100.0	0.0
Light Truck < 3750 lbs	17.0	0.0	99.4	0.6
Light Truck 3751-5750 lbs	19.8	0.0	100.0	0.0
Med Truck 5751-8500 lbs	8.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	18.2	81.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.9	33.3	66.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.1	0.0	90.9	9.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	6.4	6.5	6.4	6.6	6.5	6.6
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Quality resturant				8.0	4.0	88.0
High turnover (sit-down) rest.				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5

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APPENDIX AIR-2

Green Building and Development Measures

To comply with **Measure 4.B-5**, each increment of new development within the Specific Plan requiring a discretionary approval from the City (e.g., proposed tentative subdivision map, conditional use permit), would demonstrate that GHG emissions from construction and operation would be reduced by 30 percent from business-as-usual 2006 emissions levels.

For each increment of new development, each applicant would submit to the City a proposed mitigation plan that lists the measures selected to be implemented as part of the development and/or consideration of previously implemented measures, including analysis demonstrating the associated reduction in GHG emissions. The list would reflect the then-current state of the regulation of GHG emissions and climate change, which is expected to continue to evolve under the mandate of AB 32. The City would review, in consultation with the Bay Area Air Quality Management District (BAAQMD), the mitigation report for the applicable increment of development and approve the report (with modifications, if considered necessary and feasible) prior to granting any requested discretionary approval for that increment of development. In determining what sort of measures should appropriately be imposed to attain the overall, project-wide 30 percent emissions requirement, the City would consider the following factors:

- The extent to which rates of GHG emissions generated by motor vehicles traveling to, from, and within the project site are projected to decrease over time as a result of regulations, policies, and/or plans that have already been adopted or may be adopted in the future by ARB or other public agency pursuant to AB 32, or by the EPA;
- The extent to which mobile-source GHG emissions, which at the time of writing this EIR comprise a substantial portion of the state's GHG inventory, can also be reduced through design measures that result in trip reductions and reductions in trip length;
- The extent to which GHG emissions emitted by the mix of power generation operated by PG&E, that would serve the project site, are projected to decrease pursuant to the Renewable Portfolio Standard required by SB 1078 and SB 107, as well as any future regulations, policies, and/or plans adopted by the federal and state governments that reduce GHG emissions from power generation;
- The extent to which replacement of CCR Title 24 with the California Green Building Standards Code or other similar requirements would result in new buildings being more energy efficient and consequently more GHG efficient;
- The extent to which any stationary sources of GHG emissions that would be operated on a proposed land use are already subject to regulations, policies, and/or plans that reduce GHG emissions, particularly any future regulations that would be developed as part of ARB's implementation of AB 32, or other pertinent regulations on stationary sources that have the indirect effect of reducing GHG emissions;

- The extent to which the feasibility of existing GHG reduction technologies may change in the future, and to which innovation in GHG reduction technologies would continue, affecting cost-benefit analyses that determine economic feasibility; and
- Whether the total costs of proposed mitigation for GHG emissions, together with other mitigation measures, required for the proposed development, are so great that a reasonably prudent property owner would not proceed with the development in the face of such costs.

In considering how much and what kind of mitigation is necessary in light of these factors, the applicant(s) would consider a list of options, though the list is not intended to be exhaustive, as GHG reduction strategies and their respective feasibility are likely to evolve over time. These measures are derived from multiple sources including the Mitigation Measure Summary in Appendix B of the California Air Pollution Control Officer's Association (CAPCOA) white paper, CEQA & Climate Change (CAPCOA, 2008), the California Attorney General's Office (2008) and the BAAQMD *CEQA Air Quality Guidelines* (2010).

Energy Efficiency

- Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems).
- Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use.
- Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings.
- Install Energy Star compliant highly reflective roofing materials.
- Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes.
- Facilitate cooperation between neighboring development projects to use on-site renewable energy supplies or combined heat and power co-generation facilities.

Each applicant would be encouraged to incorporate "green building" points into the construction and design of all projects for which "green building" points are available. Such points may be achieved through conformity with the checklists identified by New Home Construction Green Building Guidelines available at www.builditgreen.org (which were developed to apply to residential construction, but include measures that are also pertinent to commercial construction), or through any similar list that distinguishes specific measures targeting efficiencies in energy, resource use, or other measures that would also directly or indirectly result in GHG emission reductions. Specific efficiencies that would reduce GHG emissions would be implemented where feasible, for all project areas including site design, landscaping, foundation, structural frame and building envelope, exterior finishing, plumbing, appliance use, insulation, heating, venting and air conditioning, building performance, use of renewable energy, finishes, and flooring.

Each applicant would be encouraged to incorporate any combination of the following strategies to reduce heat gain of the non-roof impervious site landscape (including roads, sidewalks, courtyards, parking lots, and driveways) into the construction and design of all new projects:

- Shaded (within 5 years of occupancy).
- Paving materials with a Solar Reflective Index (SRI) of at least 29.
- Open grid pavement system (pavement that is less than 50% impervious and contains vegetation in the open cells).
- Parking spaces under cover (defined as underground, under deck, under roof, or under building). Any roof used to shade or cover parking should have an SRI of at least 29.
- Optional level of Leadership in Energy and Environmental Design (LEED) certification, such as silver or gold which can allow for further reductions in energy consumption and GHG emissions.

Water Conservation and Efficiency

The following should be considered:

- With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public area and commercial landscaping.
- Install the infrastructure to use recycled water for landscape irrigation.
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Design buildings and lots to be water-efficient. Install water-efficient fixtures and appliances. (e.g., Ultra low-flow toilets, no flow urinals etc.)
- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces). Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces unless required to mitigate health and safety concerns.
- Utilize permeable surfaces and green roof technologies where appropriate.
- Minimize impervious surfaces and associated urban runoff pollutants in new development and reuse projects.

Solid Waste Measures

Each applicant would be encouraged to incorporate any combination of the following strategies:

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste at all buildings.
- Provide adequate recycling containers in public areas, including parks, school grounds, paseos, and pedestrian zones in areas of mixed-use development.
- Provide education and publicity about reducing waste and available recycling services.

Transportation and Motor Vehicles

Each applicant would be encouraged to incorporate any combination of the following strategies:

- Promote ride sharing programs at employment centers (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading zones and waiting areas for ride share vehicles, and providing a web site or message board for coordinating ride sharing).
- Provide the necessary facilities and infrastructure in all land use types to encourage the use of low or zero emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- At commercial land uses, all forklifts, "yard trucks," or vehicles that are predominately used on-site at non-residential land uses should be electric-powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or use other technologies that do not rely on direct fossil fuel consumption.
- Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- Prioritized parking within new commercial and retail areas would be given to electric vehicles, hybrid vehicles, and alternative fuel vehicles.
- Incorporate bicycle lanes, routes, and intersection improvements into street systems within the Specific Plan.
- For commercial land uses, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience.
- For commercial land uses, provide "end-of-trip" facilities including showers, lockers, and changing space.
- Create Class II bicycle lanes and walking paths directed to the location of schools, parks, and other destination points.
- Construction of transit facility/amenity (bus shelters, bicycle lockers/racks, etc.) for existing public and private transit.
- Provide secure bicycle storage at public parking facilities.
- Design site and building placement to facilitate the expansion and use of alternative modes of transportation, and integrate the project site with the surrounding development and circulation pattern by creating street and pedestrian/bicycle access throughout the project site to enable trips without depending exclusively on major roads, secondary roads, or the automobile.
- Design roadways to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming features.
- Provide pedestrian pathways that are well-shaded and pleasantly landscaped to encourage use.

APPENDIX D

Traffic and Transportation

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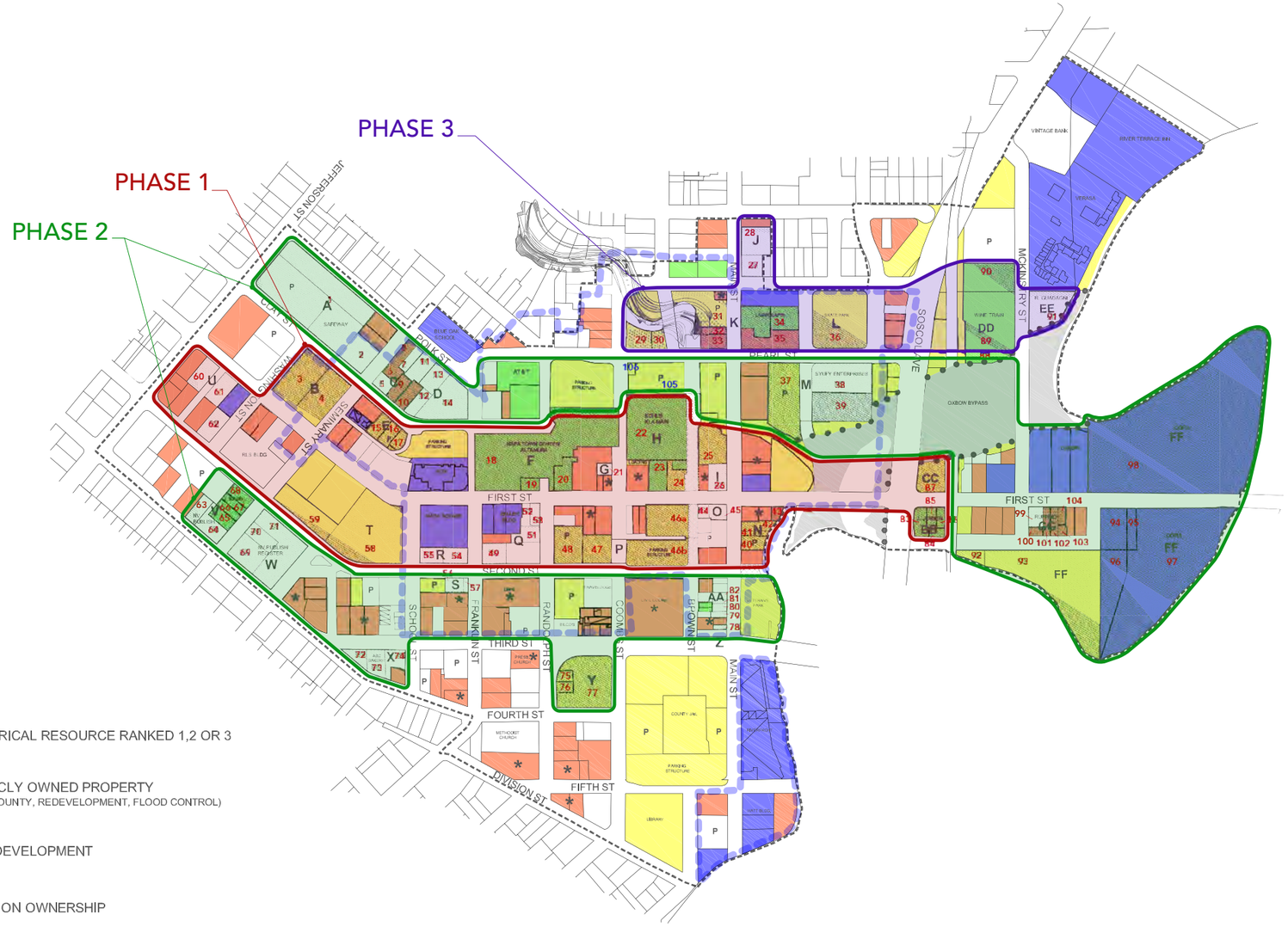
A. SPECIFIC PLAN DEVELOPMENT CAPACITY MAP



LEGEND

- HISTORICAL RESOURCE RANKED 1,2 OR 3
- PUBLICLY OWNED PROPERTY (CITY, COUNTY, REDEVELOPMENT, FLOOD CONTROL)
- NEW DEVELOPMENT
- COMMON OWNERSHIP
- NEW NAPA RIVER & CREEK LINE
- NEW OXBOW BYPASS
- DEVELOPMENT OPPORTUNITY (REFER TO COMMENTS AT RIGHT)
- * HR1 RANKING
- PARKING EXEMPT DISTRICT

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DOWNTOWN NAPA SPECIFIC PLAN

DEVELOPMENT OPPORTUNITY MAP

N

SCALE: 1" = 200'-0"

JULY 2010

B. SPECIFIC PLAN LAND USE SUMMARY

Downtown Napa Specific Plan

Project Land Use Summary

OPPORTUNITY SITES WEST OF SOSCOL AVENUE

Existing Uses Removed							Future Development Capacity						
	Commercial							Commercial					
Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Total Commercial (ksf)	Office (ksf)	Hotel (rooms)	Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Total Commercial (ksf)	Office (ksf)	Hotel (rooms)
15	343.68	36.00	26.00	405.68	94.34	0	560	441.55	46.00	29.00	516.55	404.38	0

OPPORTUNITY SITES EAST OF SOSCOL AVENUE (OXBOW DISTRICT)

Existing Uses Removed							Future Development Capacity						
	Commercial							Commercial					
Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Total Commercial (ksf)	Office (ksf)	Hotel (rooms)	Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Total Commercial (ksf)	Office (ksf)	Hotel (rooms)
0	151.20	6.00	4.00	161.20	37.00	0	82	148.92	6.00	4.00	158.92	197.57	303

TOTAL DOWNTOWN SPECIFIC PLAN AREA

Existing Uses Removed							Future Development Capacity						
	Commercial							Commercial					
Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Total Commercial (ksf)	Office (ksf)	Hotel (rooms)	Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Total Commercial (ksf)	Office (ksf)	Hotel (rooms)
15	494.88	42.00	30.00	566.88	131.34	0	642	590.47	52.00	33.00	675.47	601.94	303

Notes:

(1) Source of Land Use Plan: MIG, Inc.

(2) For the proposed Hotel on parcel #FF99 (Parking Analysis Block F/ Copia Site), the approximate s.f. is estimated at 252,569; however, the total number of rooms were needed to caculate trip generation. The number of rooms was estimated assuming 60% of building area is used for guest rooms at 500 s.f./room. (252,569 s.f. x 60% guest rooms / 500 s.f. per room = 303 rooms)

(3) For the purposes of this analysis, roughly 15% of the existing and proposed commercial retail development is assumed to be restaurant (approx. 60% Fine Dinning (Quality Restaurant) / 40% Casual Dining (High-Turnover Sit-Down) for blocks that include >15,000 s.f. total commercial retail development. Parcels near First Street within the Downtown Core were identified as likely locations for restaurant uses.

(4) Project land use summary includes potential development of Long-Term Opportunity site where the existing Napa Transit Center/parking lot exists.

Downtown Napa Specific Plan

Detailed Specific Plan Development Capacity Land Use Summary for Trip Generation Estimates

Opportunity Area	Parcel ID	Parking Analysis Block Number	Existing Land Use Removed					Future Development					
			Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Office (ksf)	Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Office (ksf)	Hotel (Rooms)
A	1 (H)	5-W	0	16.00	3.00	0.00	0.00	0	15.97	3.00	0.00	0.00	0
	2 (H)	5	0	0.00	0.00	0.00	9.60	8	0.00	0.00	0.00	11.13	0
B	3	10-W1	0	0.00	0.00	0.00	18.50	40	3.50	0.00	0.00	38.57	0
	4	10-W1	0	0.00	0.00	0.00	18.62	40	3.50	0.00	0.00	38.57	0
C	5 (H)	5	1	0.51	3.00	0.00	0.00	0	0.00	0.00	0.00	3.51	0
	6 (H)	5	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	2.44	0
	7 (H)	5	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1.71	0
	8 (H)	5	1	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	4.74	0
	9 (H)	5	1	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	5.80	0
	10 (H)	5	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1.84	0
	11 (H)	5	0	0.00	0.00	0.00	0.00	6	0.00	0.00	0.00	0.00	0
D	12 (H)	5	0	1.03	0.00	0.00	0.00	6	0.00	0.00	0.00	4.57	0
	13 (H)	5	0	0.00	0.00	0.00	9.43	7	0.00	0.00	0.00	0.00	0
	14 (H)	5	0	9.39	0.00	0.00	0.00	9	13.13	0.00	0.00	0.00	0
E	15 (H)	10	0	0.00	0.00	0.00	0.00	4	0.00	0.00	0.00	0.00	0
	16 (H)	10	0	0.00	0.00	0.00	0.00	4	0.00	0.00	0.00	0.00	0
	17 (H)	10	0	0.00	0.00	0.00	0.00	3	0.00	0.00	0.00	0.00	0
F	18,19,20 (H)	7	0	110.04	30.00	20.00	0.00	54	102.23	30.00	20.00	0.00	0
G	21	7	0	5.87	0.00	0.00	0.00	0	2.06	0.00	0.00	2.06	0
H	22	7	0	69.50	0.00	0.00	0.00	140	98.64	0.00	0.00	0.00	0
	23	7	0	10.64	0.00	0.00	0.00	0	10.64	0.00	0.00	10.64	0
	24	7	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0
I	25	7	0	20.00	0.00	0.00	0.00	17	12.21	0.00	0.00	0.00	0
	26	7	0	10.24	0.00	0.00	0.00	15	10.24	0.00	0.00	0.00	0
J	27	2-N	0	0.00	0.00	0.00	7.00	4	2.29	3.00	0.00	0.00	0
	28	2-N	0	0.00	0.00	0.00	10.00	7	10.21	0.00	0.00	0.00	0
K	29	1	0	0.00	0.00	0.00	0.00	0	3.77	0.00	0.00	3.77	0
	30	1	0	0.00	0.00	0.00	0.00	0	1.79	0.00	0.00	1.79	0
	31	1	0	0.00	0.00	0.00	0.00	0	6.27	3.00	0.00	0.00	0
	32 (H)	1	0	3.20	0.00	0.00	0.00	1	1.63	0.00	0.00	0.00	0
	33 (H)	1	0	6.00	0.00	0.00	0.00	2	2.71	0.00	0.00	0.00	0
	34	2	10	0.00	0.00	0.00	0.00	5	3.24	0.00	0.00	0.00	0
	35	2	0	12.00	0.00	3.00	0.00	6	8.87	0.00	0.00	0.00	0

Downtown Napa Specific Plan

Detailed Specific Plan Development Capacity Land Use Summary for Trip Generation Estimates

Opportunity Area	Parcel ID	Parking Analysis Block Number	Existing Land Use Removed					Future Development					
			Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Office (ksf)	Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Office (ksf)	Hotel (Rooms)
L	36	3	0	6.38	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0
M	37,38,39 (H)	9	0	0.00	0.00	0.00	0.00	32	29.49	4.00	3.00	54.73	0
N	40 (H)	16	0	0.00	0.00	0.00	0.00	5	3.36	3.00	0.00	0.00	0
	41 (H)	16	0	0.00	0.00	0.00	0.00	0	2.28	0.00	0.00	2.28	0
	42 (H)	16	0	0.00	0.00	0.00	0.00	0	5.44	0.00	0.00	5.44	0
	43	16	0	0.00	0.00	0.00	0.00	0	1.92	0.00	0.00	1.92	0
O	44,45	15	0	6.68	0.00	0.00	0.00	0	3.35	0.00	0.00	6.71	0
P	46a (H)	15	0	0.00	0.00	0.00	0.00	13	18.32	0.00	0.00	0.00	0
	46b (H)	15	0	0.00	0.00	0.00	0.00	0	-3.00	0.00	3.00	0.00	0
	47 (H)	14	0	0.00	0.00	0.00	0.00	0	3.38	0.00	0.00	0.00	0
	48 (H)	14	0	0.00	0.00	0.00	0.00	0	5.07	0.00	0.00	0.00	0
Q	49	13	0	8.61	0.00	0.00	0.00	12	8.61	0.00	0.00	0.00	0
	51,52,53	13	0	9.05	0.00	3.00	0.00	0	11.62	0.00	3.00	29.24	0
R	54,55	12	0	11.19	0.00	0.00	0.00	8	11.19	0.00	0.00	0.00	0
S	56,57	20	0	5.75	0.00	0.00	0.00	0	5.75	0.00	0.00	11.50	0
T	58	11	0	0.00	0.00	0.00	0.00	37	0.00	0.00	0.00	26.14	0
	59	11	0	0.00	0.00	0.00	0.00	16	0.00	0.00	0.00	11.20	0
U	60	11-W2	0	4.28	0.00	0.00	0.00	3	0.00	0.00	0.00	4.61	0
	61	11-W2	0	1.74	0.00	0.00	0.00	3	0.00	0.00	0.00	4.58	0
	62	11-W2	0	5.11	0.00	0.00	0.00	3	0.00	0.00	0.00	4.79	0
V	63	17-W	0	0.00	0.00	0.00	0.00	5	0.00	0.00	0.00	7.70	0
	64	17-W	0	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	3.31	0
	65	17-W	0	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	2.87	0
	66,67	17-W	0	3.33	0.00	0.00	0.00	1	0.00	0.00	0.00	1.71	0
	68	17-W	0	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	2.81	0
W	69	17	0	0.00	0.00	0.00	0.00	11	0.00	0.00	0.00	0.00	0
	70	17	0	0.00	0.00	0.00	0.00	3	0.00	0.00	0.00	0.00	0
	71	17	0	0.00	0.00	0.00	21.19	12	0.00	0.00	0.00	0.00	0
X	72,73	25	0	5.95	0.00	0.00	0.00	5	6.55	0.00	0.00	0.00	0
	74	25	0	1.20	0.00	0.00	0.00	3	3.80	0.00	0.00	0.00	0
Y	75,76,77	28	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	71.13	0
Z	78	24	0	0.00	0.00	0.00	0.00	0	2.43	0.00	0.00	2.43	0
AA	79,80,81,82	24	0	0.00	0.00	0.00	0.00	0	9.06	0.00	0.00	18.13	0

Downtown Napa Specific Plan

Detailed Specific Plan Development Capacity Land Use Summary for Trip Generation Estimates

Opportunity Area	Parcel ID	Parking Analysis Block Number	Existing Land Use Removed					Future Development					
			Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Office (ksf)	Residential (DU)	Retail (ksf)	Quality Restaurant (ksf)	High-Turnover Restaurant (ksf)	Office (ksf)	Hotel (Rooms)
BB	83,84,85,86	B	0	0.00	0.00	0.00	0.00	0	16.01	0.00	0.00	16.01	0
CC	87	E	0	0.00	0.00	0.00	0.00	0	10.64	0.00	0.00	10.64	0
DD	88,89,90	G	0	35.00	6.00	4.00	5.00	0	24.74	6.00	4.00	69.49	0
EE	91	H	0	0.00	0.00	0.00	10.00	0	16.23	0.00	0.00	16.23	0
FF	92	A	0	0.00	0.00	0.00	0.00	3	1.07	0.00	0.00	0.67	0
	93	A	0	10.00	0.00	0.00	15.00	17	18.09	0.00	0.00	11.37	0
	94	D	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0
	95	D	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0
	96	D	0	0.00	0.00	0.00	0.00	2	0.91	0.00	0.00	0.57	0
	97	D	0	0.00	0.00	0.00	0.00	28	29.47	0.00	0.00	18.53	0
	98	F	0	105.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	303
GG	99	C	0	0.00	0.00	0.00	0.00	0	1.25	0.00	0.00	1.25	0
	100,101,102,103,10	C	0	0.00	0.00	0.00	7.00	0	8.22	0.00	0.00	8.22	0
Long Term Opp	105,106	7	0	1.20	0.00	0.00	0.00	32	22.30	0.00	0.00	44.60	0
	TOTAL		**15**	**494.88**	**42.00**	**30.00**	**131.34**	**642**	**590.47**	**52.00**	**33.00**	**601.94**	**303**

East of Soscol Avenue

Notes

(1) Trip generation estimates calculated based on ITE's *Trip Generation, 8th Edition.*

(2) For existing residential uses, an assumption of 1,200 s.f. per dwelling unit was assumed.

(3) For the proposed Hotel on parcel #FF99, the total number of rooms were needed to caculate trip generation. The # of rooms was estimated assuming 60% building area for guest rooms and 500 s.f./room. (252,569 s.f. x 60% guest rooms / 500 s.f. per room = 303 rooms)

(4) For the purposes of this analysis, roughly 15% of the commercial retail development is assumed to be restaurant (approx. 60% Fine Dinning / 40% Casual Dining) for blocks that include >15,000 s.f. total commercial retail development. Parcels near First Street within the Downtown Core were identified as likely locations for restaurant uses.

Napa Downtown Specific Plan Development Capacity Summary
Source: MIG, Inc.

Opportunity Areas	Parcel Identifier	estimated total bldg (sf)	existing use	approx height (ft)	Existing Retail Floor Area	Existing Office Floor Area	Existing Residential Floor Area	Approx. existing FAR	Proposed Retail Floor Area	Proposed Office Floor Area	Proposed Residential	Proposed Flex Space	Proposed Hotel	Proposed FAR (retail and office)	Proposed Res Units	Proposed Res Density DU/Ac	Assumptions
A	1 (H)	0		0.00	19,000				18,973					0.50			one floor retail
	2 (H)	9,601	off	15.00		9,601		1		11,131	11,131			0.75	8	23	ground floor office and one floor residential above
B	3	0				18,500			3,500	38,571	56,095			0.75	40	30.86	small ground floor retail + office, two floors of residential above
	4	18,618	off/retail	15.00		18,618		0.33	3,500	38,571	56,095			0.75	40	30.86	small ground floor retail + office, two floors of residential above
C	5 (H)	7,020	res/retail	30.00	3,510		3,510	1.50		3,510				0.75			small parcel with existing two-story building. Assume no change without expansion of p
	6 (H)	0	res							2,437				0.50			expanded office opportunity - historic
	7 (H)	1,365	res	15.00			1,365			1,706				0.36			expanded office opportunity - historic
	8 (H)	1,365	res	15.00			1,365			4,744	2,372			1.00	2	15.43	expanded office/residential opportunitiy - historic
	9 (H)	1,586	res	15.00			1,586			5,798	2,899			1.00	2	15.43	expanded office opportunity- historic
	10 (H)	1,474	res	15.00			1,474			1,842				0.27			expanded office opportunity - historic
	11 (H)	0									8,018			0.00	6	26.23	two floors of residential
D	12 (H)	1,030	retail	15.00	1,030			0.16		4,568	9,137			0.70	6	43.20	ground floor office, two floors of residential above
	13 (H)	0				9,433					9,433			0.00	7		two floors of residential
	14 (H)	9,386	retail	25.00	9,386			0.36	13,128		13,128			0.50	9		ground floor retail with one floor of residential above
E	15 (H)										5,736			0.00	4	30.86	two floors of residential
	16 (H)										5,736			0.00	4	30.86	two floors of residential
	17 (H)										4,916			0.00	3	30.86	two floors of residential
F	18,19,20 (H)	160,041	retail	30.00	160,041			1.10	152,229		76,115			1.05	54	16.20	Napa Town Center redevelopment - retail on all ground floors, with potential Movie Thea
G	21	5,874	retail	30.00	5,874			2.00	2,056	2,056				1.40			Napa Town Center redevelopment - retail on all ground floors, equivalent of one story o
H	22	69,500			69,500				98,640		197,280			1.40	140	86.39	ground floor retail on first floor, two stories residential above
	23	10,639	retail	45.00	10,639			1.00	10,639	10,639				2.00			ground floor retail, with one floor of office above. Next to an historic building, also part
	24	0															plaza
I	25	0			20,000				12,210		24,420			0.50	17	30.86	ground floor retail, with two floors of residential on upper floors. Preserve open space
	26	10,241	retail	15.00	10,241			1.17	10,241		20,481			1.17	15		ground floor retail, with two floors of residential above. Next to historic.
J	27	0				7,000			5,291		5,291			0.70	4	21.60	ground floor retail, with one floor residential above
	28	0				10,000			10,208		10,208			0.70	7	21.60	ground floor retail, with one floor residential above
K	29								3,775	3,775				0.80			ground floor retail, with one floor office above, open space
	30								1,791	1,791				0.80			ground floor retail, with one floor office above, preserve open space access
	31								9,269					0.40			ground floor retail preserve open space access
	32 (H)				3,200				1,632		1,632			0.40	1		ground floor retail, with one floor residential above, preserve open space access
	33 (H)				6,000				2,712		2,712			0.40	2		ground floor retail, with one floor residential above, preserve open space access
	34						35,000		3,238		6,475			0.13	5	7.71	ground floor retail, with two floors residential above, preserve open space access
	35				15,000				8,874		8,874			0.50	6		ground floor retail, with one floor residential above, preserve open space access
L	36	6,380		30.00	6,380			0.12									skatepark - proposed 3 story parking structure with 4 floors of parking
M	37,38,39 (H)	46,995							36,487	54,730	45,608			0.75	32	11.57	Existing Parking - Redevelop with retail and office 50/50 on ground floor, 2nd floor offic
N	40 (H)	0							6,361		6,361			0.75	5		ground floor retail with one floor residential above, retain visual connection to river
	41 (H)	0							2,277	2,277				1.50			ground floor retail with one floor office above, retain visual connection to river
	42 (H)	0							5,444	5,444				1.50			ground floor retail with one floor office above, retain visual connection to river
	43								1,919	1,919				1.50			ground floor retail with one floor office above, retain visual connection to river
O	44,45	6,678	retail	15.00	6,678			1.99	3,354	6,707				3.00			ground floor retail with corner gateway element, and two floors of office above
P	46a (H)								18,323		18,323			0.70	13	21.60	ground floor retail with one floor of residential above
	46b (H)																parking to remain
	47 (H)								3,382					0.25			Remain as parking with small retail componant
	48 (H)								5,073			`		0.25			Remain as parking with small retail componant
Q	49	8,613	retail	15.00	8,613			1.00	8,613		17,226			1.00	12		ground floor retail, two floors residential above
	51,52,53	12,047	retail	25.00	12,047			0.82	14,622	29,244				3.00			ground floor retail, two floors office above
R	54,55	11,193	retail	15.00	11,193			0.86	11,193		11,193			0.86	8	26.59	ground floor retail, with one floor residential above
S	56,57	5,750	retail	15.00	5,750			1.00	5,750	11,500				3.00			ground floor retail, with two floors office above
T	58									26,144	52,288			0.40	37		one floor of office, two floors residential above, parking on site
	59									11,204	22,409			0.40	16		one floor of office, two floors residential above, parking on site
U	60	4,275	retail	15.00	4,275			0.46		4,608	4,608			0.50	3	15.43	ground floor office and one floor of residential
	61	1,745	retail	15.00	1,745			0.19		4,579	4,579			0.50	3	15.43	ground floor office and one floor of residential
	62	5,105	retail	15.00	5,105			0.53		4,795	4,795			0.50	3	15.43	ground floor office and one floor of residential
V	63									7,698	7,698			0.50	5	15.43	ground floor office and one floor of residential
	64									3,313	3,313			0.50	2	15.43	ground floor office and one floor of residential
	65	0								2,866	2,866			0.50	2	15.43	ground floor office and one floor of residential
	66,67	3,331	retail	25.00	3,331			0.97		1,711	1,711			0.50	1	15.43	ground floor office and one floor of residential
	68	0								2,813	2,813			0.50	2	15.43	ground floor office and one floor of residential
W	69	0									15,397			0.00	11	30.86	two floors of residential
	70	0									4,012			0.00	3	15.43	two floors of residential
	71	21,188	off	25.00		21,188		0.62			17,147			0.00	12	15.43	two floors of residential
X	72,73	5,947	retail	15.00	5,947			0.45	6,553		6,553			0.50	5	15.43	ground floor retail, one floor residential above
	74	1,198	retail	15.00	1,198			0.16	3,802		3,802			0.50	3	15.43	ground floor retail, one floor residential above
Y	75,76,77									71,129				1.50			County Owned - Three Story Office building with parking on site
Z	78								2,427	2,427				2.00			ground floor retail, office above
AA	79,80,81,82								9,064	18,128				3.00			ground floor retail, two floors office above
BB	83,84,85,86								16,007	16,007				2.00			Parking below grade with ground floor retail and office above
CC	87								10,637	10,637				1.40			ground floor retail, one floor office above
DD	88,89,90				45,000	5,000			34,744	69,489				1.20			ground floor retail, with two floors of office above, parking on site
EE	91					10,000			16,226	16,226				1.40			ground floor retail with one floor office above
FF	92	0							1,071	673	1,316	*3,060*		0.29	3	18.15	2.5 floors of flex space with parking on site
	93	0			10,000	15,000			18,087	11,369	22,222	*51,678*		0.29	17	7.26	2.5 floors of Iflex space with parking on site

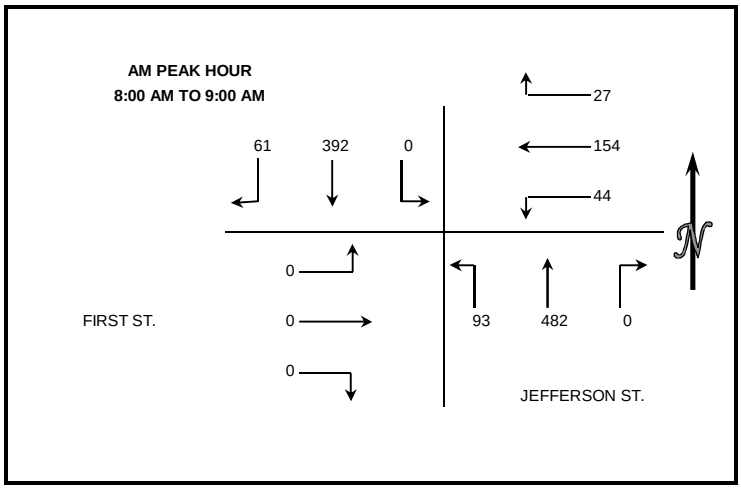
Napa Downtown Specific Plan Development Capacity Summary
Source: MIG, Inc.

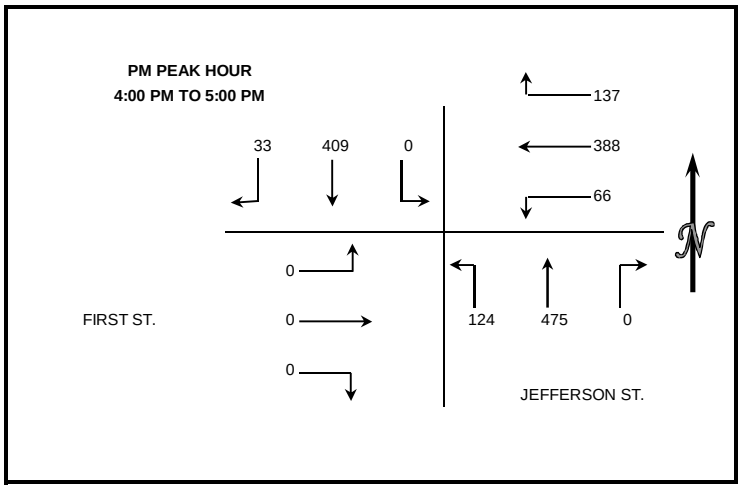
Opportunity Areas	Parcel Identifier	estimated total bldg (sf)	existing use	approx height (ft)	Existing Retail Floor Area	Existing Office Floor Area	Existing Residential Floor Area	Approx. existing FAR	Proposed Retail Floor Area	Proposed Office Floor Area	Proposed Residential	Proposed Flex Space	Proposed Hotel	Proposed FAR (retail and office)	Proposed Res Units	Proposed Res Density DU/Ac	Assumptions
	94	0															open space allocation for the area
	95	0															open space allocation for the area
	96	0							910	572	1,118	*2,600*		0.29	2	18.15	2.5 floors of flex space with parking on site
	97	0							29,475	18,527	36,212	*84,214*		0.29	28	7.26	2.5 floors of flex space with parking on site
	98	105,000			105,000								252,569				Proposed 2 to 3-story hotel with parking on site
GG	99								1,253	1,253							ground floor retail, with one floor office above
	100,101,102,103,104					7,000			8,216	8,216							ground floor retail, with one floor office above
ong Term Op	105,106	1,198	retail	15.00	1,198				22,299	44,598	44,598			2.10	32	43.20	coverage, retail on all ground floors, equivalent of two stories office and one story residential on upper floors
TOTAL Developable Land		Approx. Existing sf/use:			Retail	Office	Residential	Units	Retail	Office	Residential	Flex Space	Hotel		Units		
					565,684	131,341	44,300	15	653,171	557,344	851,749	*141,551*	252,569		610		

C. Existing Peak Hour Intersection Turning Movement Volumes

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

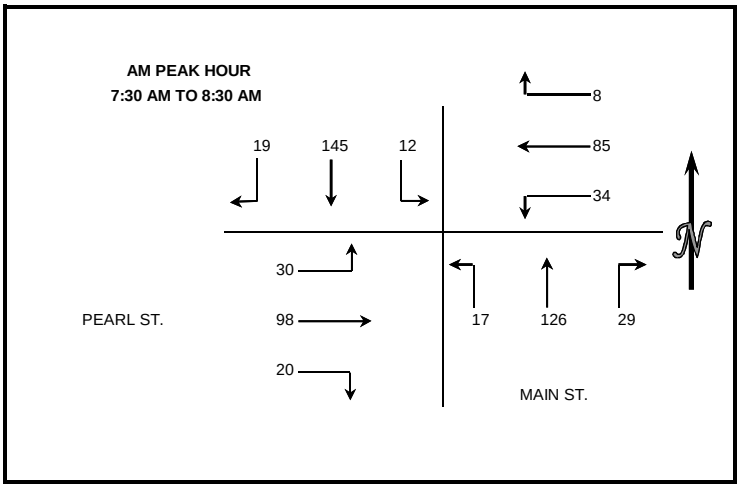
CLIENT:		CITY OF NAPA
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN
DATE:		6/24/2009-7/6/09
PERIODS:		8:00 AM TO 10:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	1 N/S	JEFFERSON ST.
	E/W	FIRST ST.
CITY:		NAPA, CA

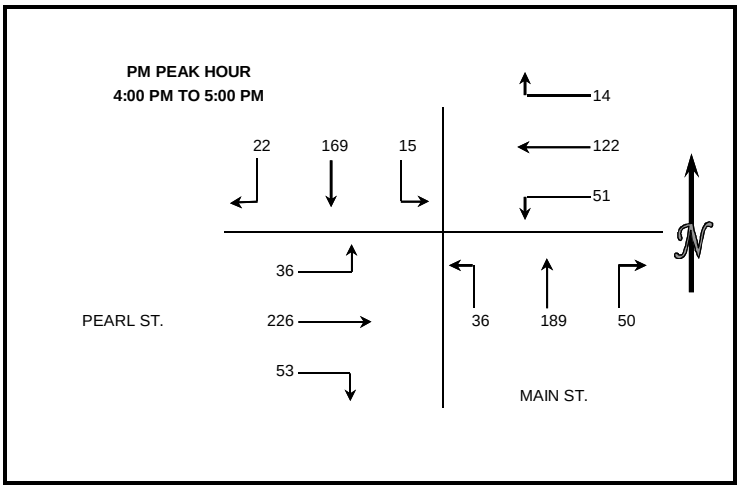




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

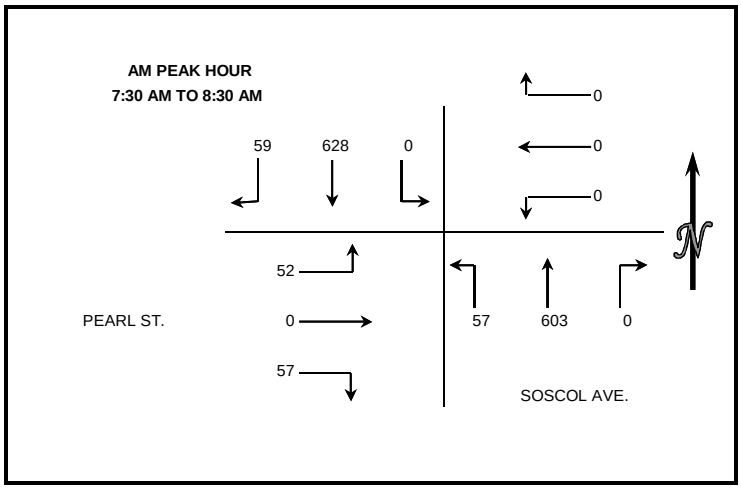
CLIENT:		CITY OF NAPA
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN
DATE:		7/27/09-8/4/09
PERIODS:		7:30 AM TO 9:30 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	2 N/S	MAIN ST.
	E/W	PEARL ST.
CITY:		NAPA, CA

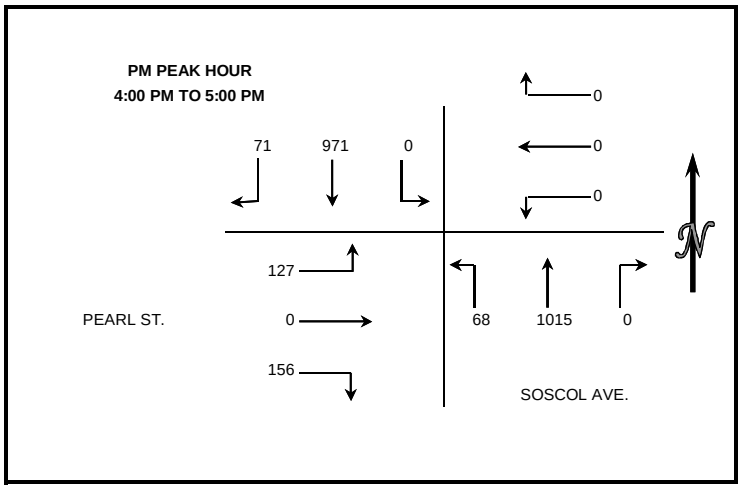




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

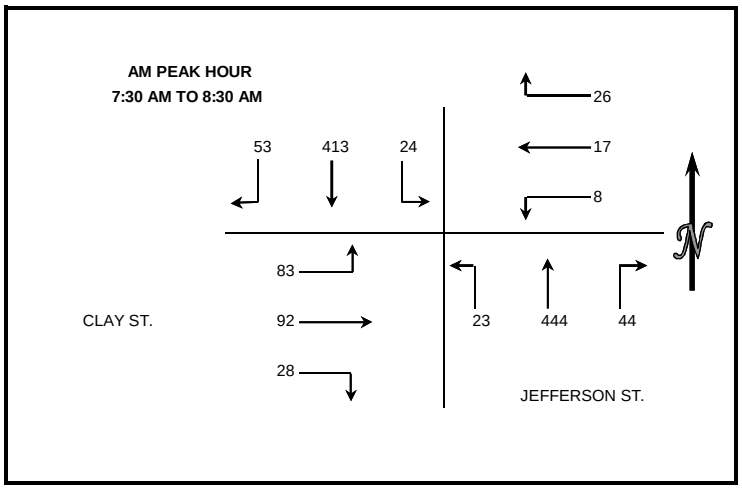
CLIENT:		CITY OF NAPA		
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN		
DATE:		6/15/09-6/23/09		
PERIODS:		7:30 AM TO 9:30 AM	AND	4:00 PM TO 6:00 PM
INTERSECTION:	3 N/S	SOSCOL AVE.		
	E/W	PEARL ST.		
CITY:		NAPA, CA		

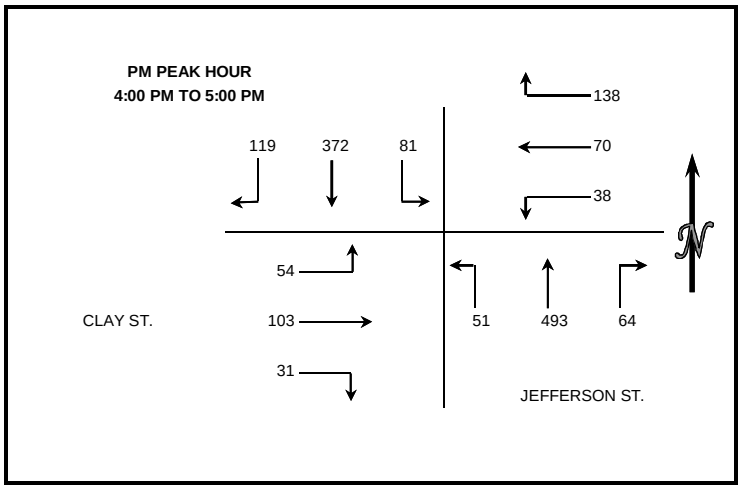




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

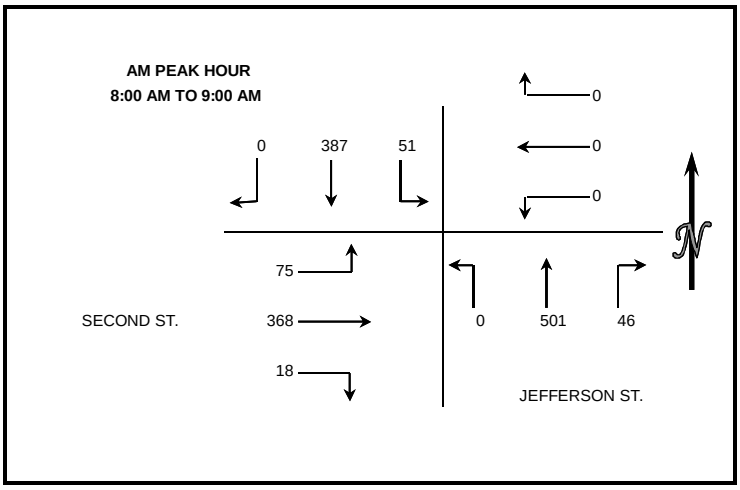
CLIENT:		CITY OF NAPA		
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN		
DATE:		6/24/09-7/6/09		
PERIODS:		7:30 AM TO 9:30 AM	AND	4:00 PM TO 6:00 PM
INTERSECTION:	4 N/S	JEFFERSON ST.		
	E/W	CLAY ST.		
CITY:		NAPA, CA		

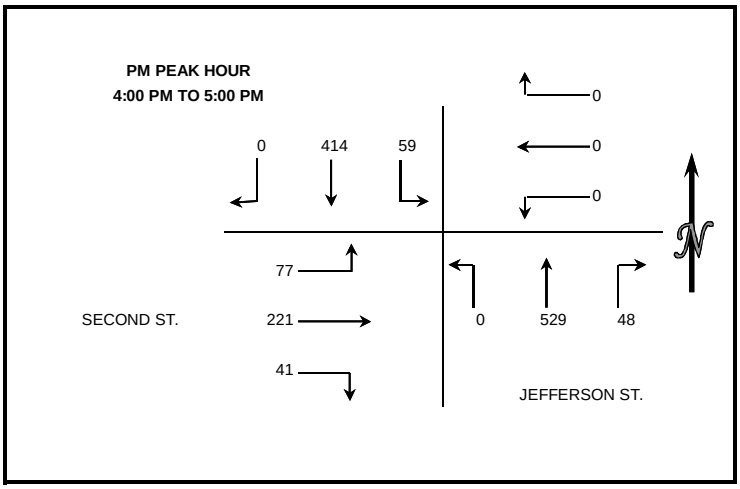




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

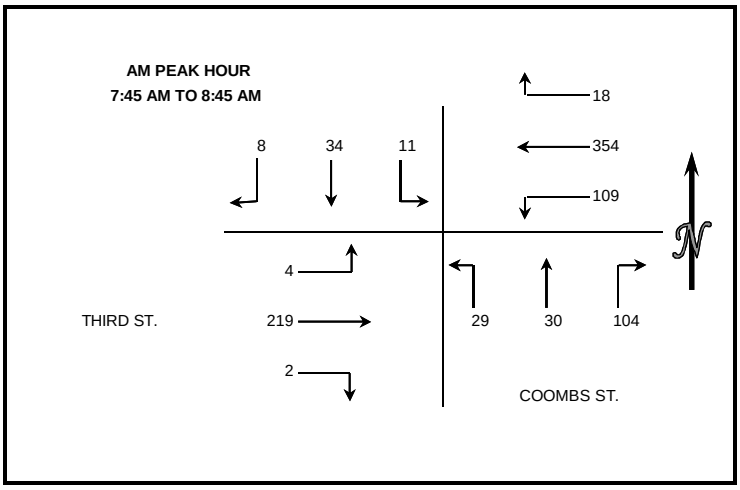
CLIENT:		CITY OF NAPA
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN
DATE:		6/24/09-7/6/09
PERIODS:		8:00 AM TO 10:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	5 N/S	JEFFERSON ST.
	E/W	SECOND ST.
CITY:		NAPA, CA

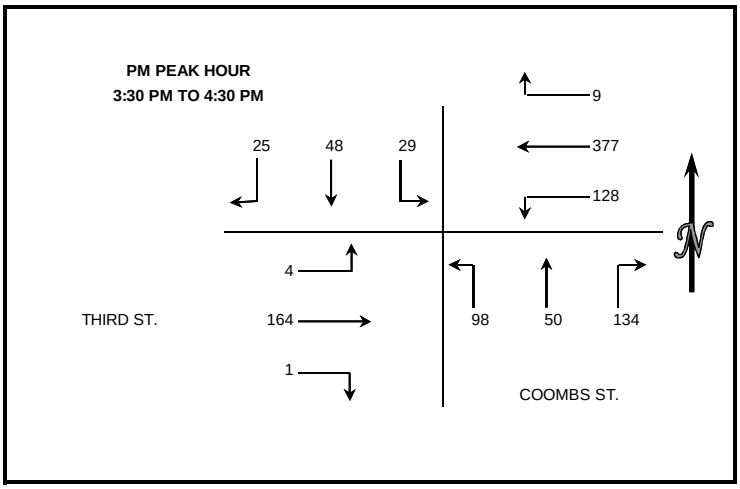




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

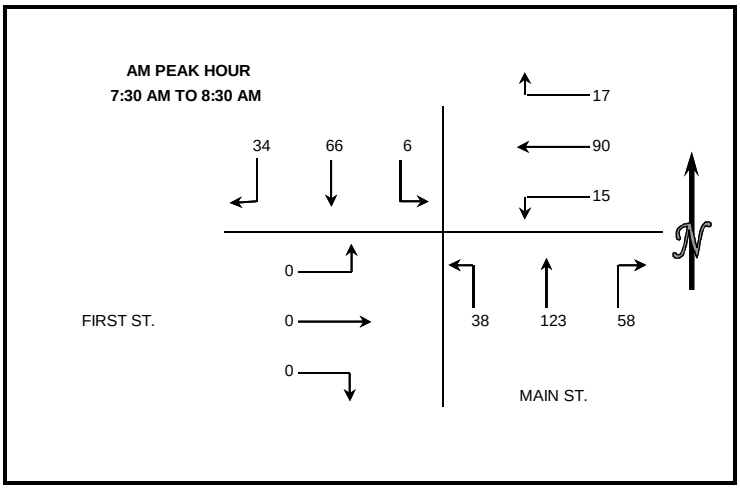
CLIENT:		CITY OF NAPA
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN
DATE:		5/28/09-6/4/09
PERIODS:		7:45 AM TO 9:45 AM AND 3:30 PM TO 5:30 PM
INTERSECTION:	6 N/S	COOMBS ST.
	E/W	THIRD ST.
CITY:		NAPA, CA

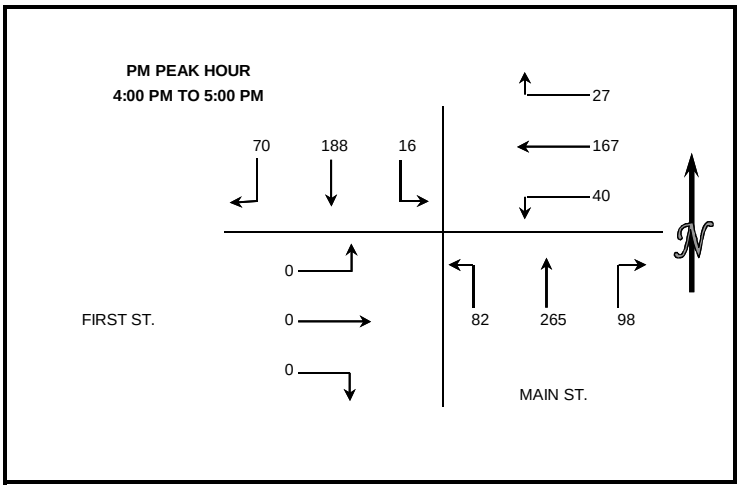




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

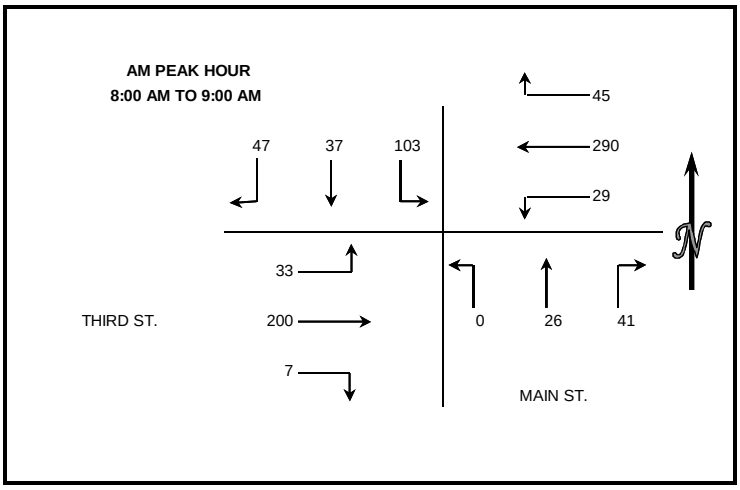
CLIENT:		CITY OF NAPA
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN
DATE:		6/16/09-6/23/09
PERIODS:		7:30 AM TO 9:30 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	7 N/S	MAIN ST.
	E/W	FIRST ST.
CITY:		NAPA, CA

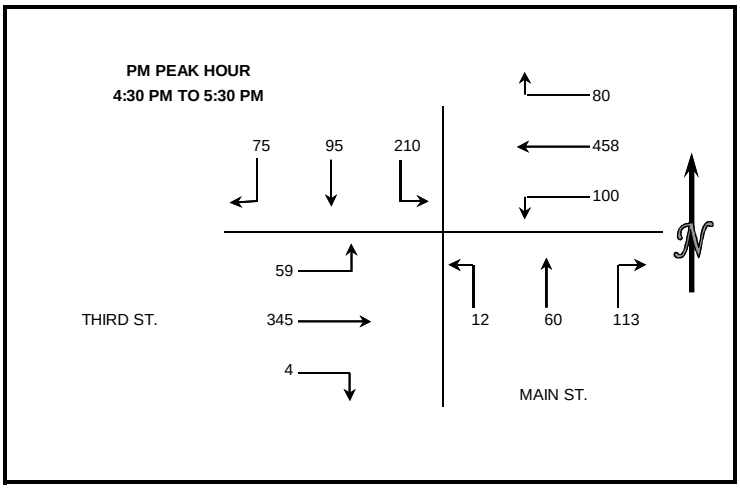




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

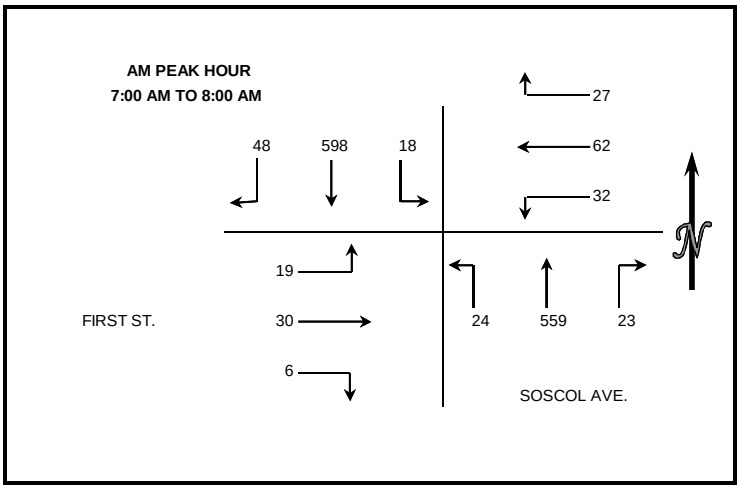
CLIENT:		CITY OF NAPA		
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN		
DATE:		7/16/09-7/24/09		
PERIODS:		8:00 AM TO 10:00 AM	AND	4:30 PM TO 6:30 PM
INTERSECTION:	8 N/S	MAIN ST.		
	E/W	THIRD ST.		
CITY:		NAPA, CA		

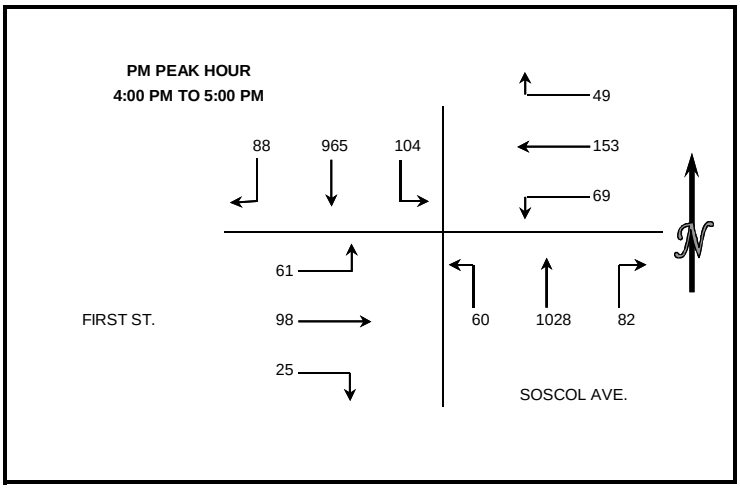




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

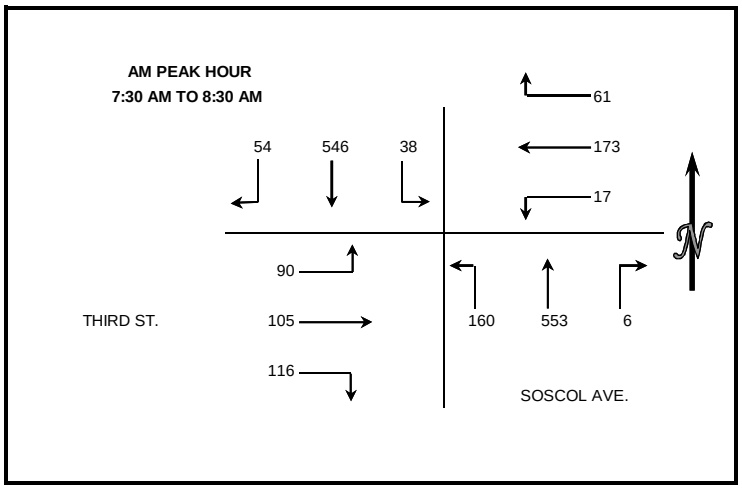
CLIENT:		CITY OF NAPA		
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN		
DATE:		7/27/09-8/4/09		
PERIODS:		7:00 AM TO 9:00 AM	AND	4:00 PM TO 6:00 PM
INTERSECTION:	9 N/S	SOSCOL AVE.		
	E/W	FIRST ST.		
CITY:		NAPA, CA		

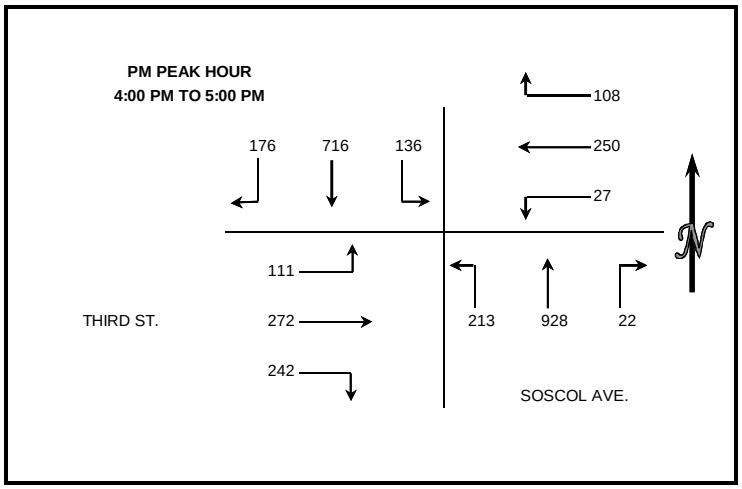




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

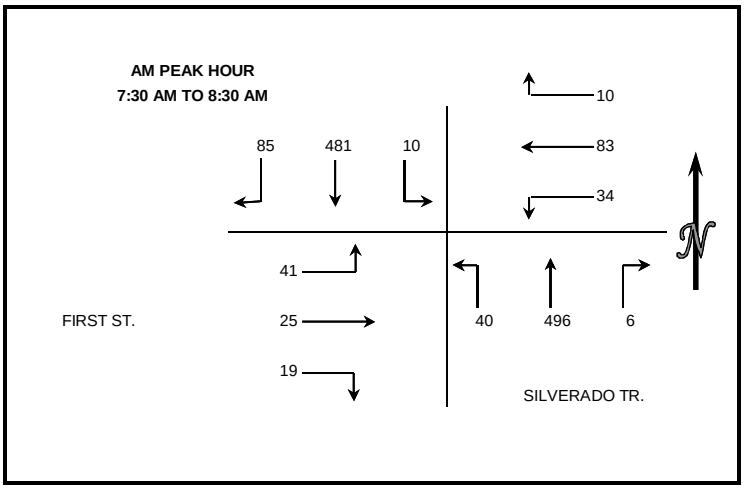
CLIENT:		CITY OF NAPA
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN
DATE:		7/7/09-7/15/09
PERIODS:		7:30 AM TO 9:30 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	10 N/S	SOSCOL AVE.
	E/W	THIRD ST.
CITY:		NAPA, CA

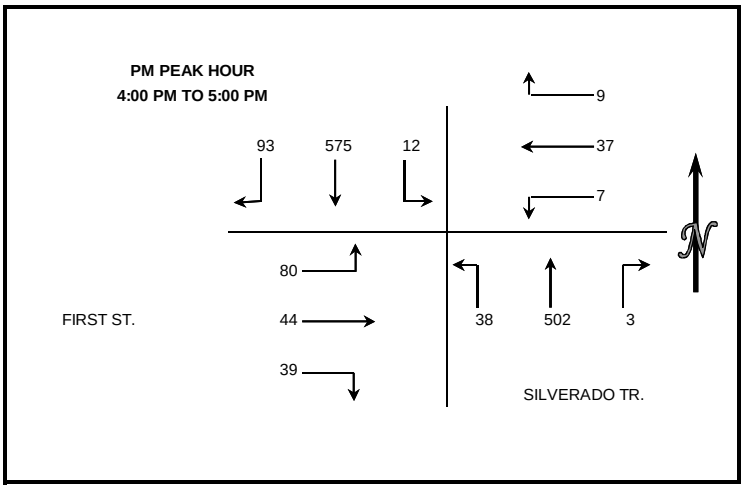




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

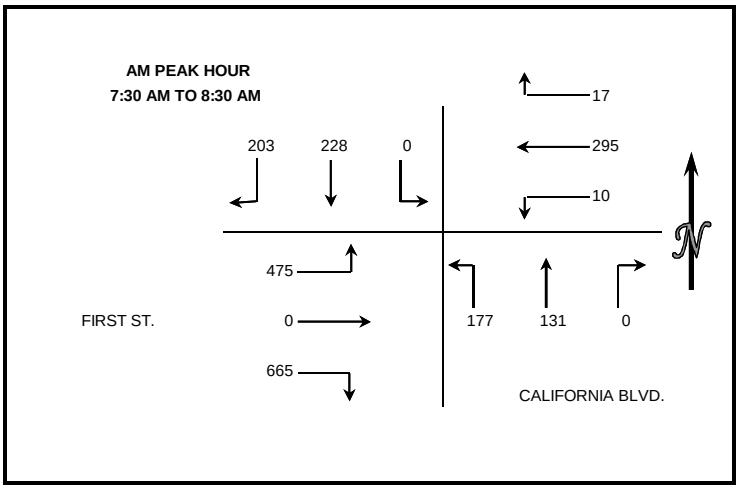
CLIENT:		CITY OF NAPA		
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN		
DATE:		8/5/2009		
PERIODS:		7:30 AM TO 9:30 AM	AND	3:30 PM TO 5:30 PM
INTERSECTION:	11 N/S	SILVERADO TR.		
	E/W	FIRST ST.		
CITY:		NAPA, CA		

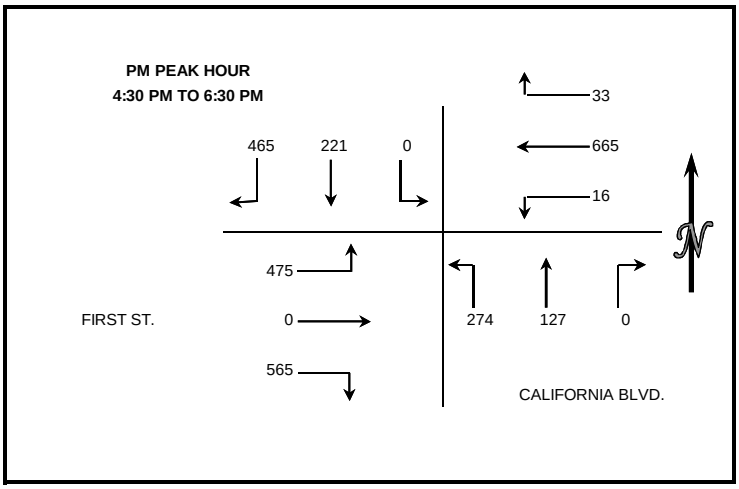




INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF NAPA		
PROJECT:		DOWNTOWN NAPA SPECIFIC PLAN		
DATE:		6/5/09-6/12/09		
PERIODS:		7:30 AM TO 9:30 AM	AND	4:30 PM TO 6:30 PM
INTERSECTION:	15 N/S	CALIFORNIA BLVD.		
	E/W	FIRST ST.		
CITY:		NAPA, CA		





D. City and State Facilities with Permitted LOS E

Exhibit D: Local Areas with Permitted LOS 'E'

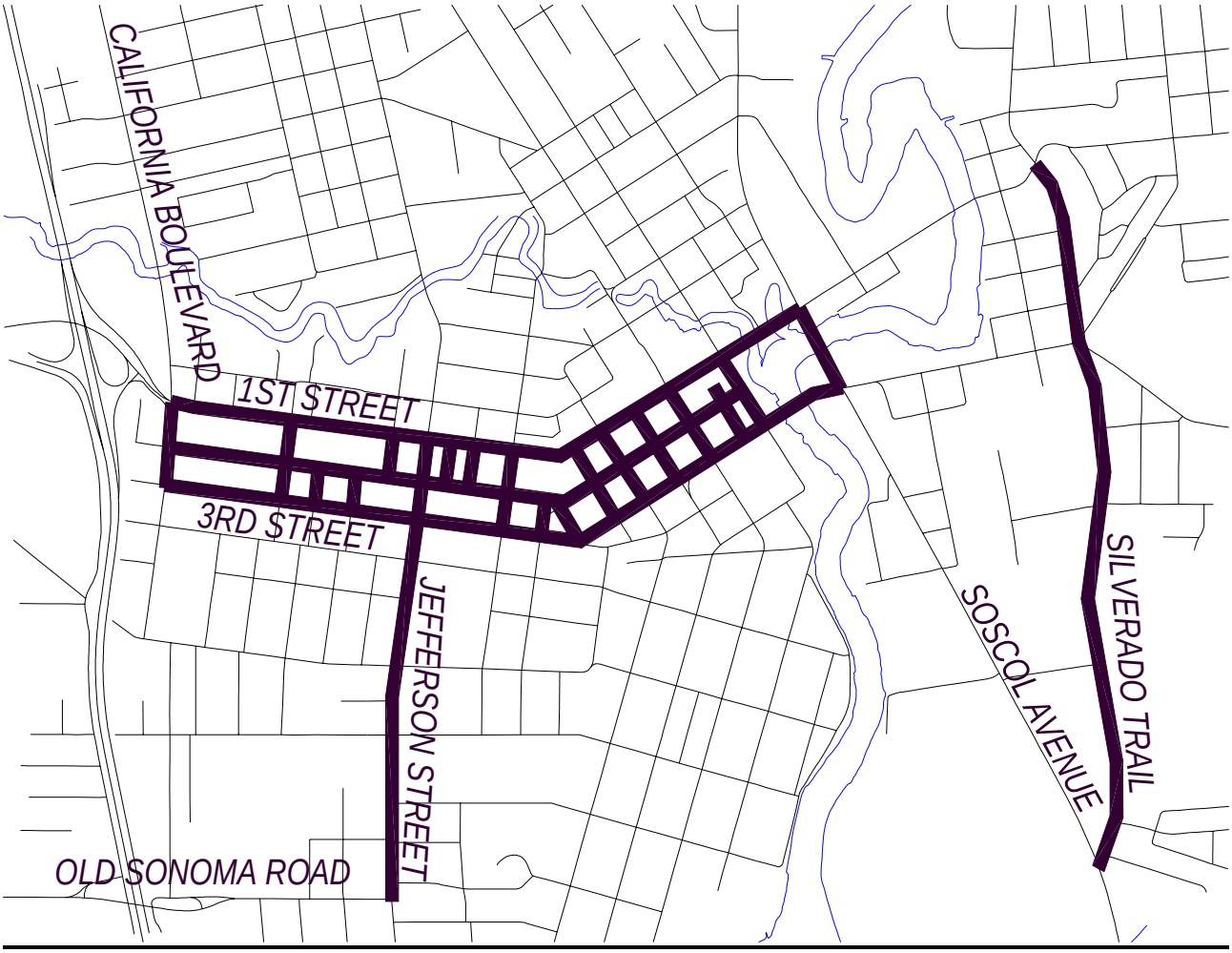


Exhibit E: State Highway Facilities with Permitted LOS 'E'

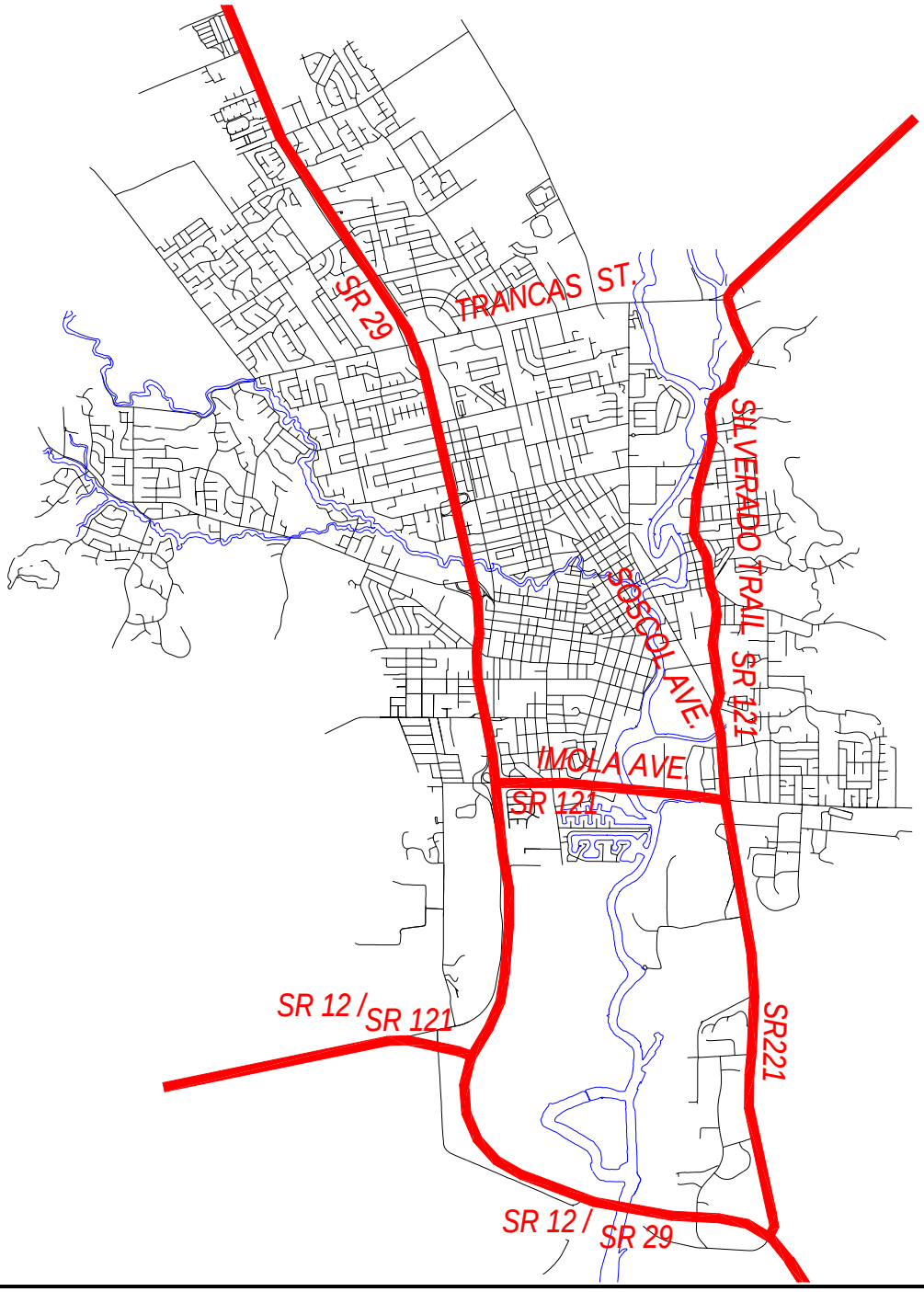


Exhibit F: State Highway Intersections with LOS 'E' & 'F'

TMP Int #	Locations/ Intersections	Yr 2000				Yr 2005			
		Intersection Control	Unsig Int'n - Crit Mvmt	LOS - HCM2000	HCM2000 Control Delay	Intersection Control	Unsig Int'n - Crit Mvmt	LOS - HCM2000	HCM2000 Control Delay
3	Hwy 29/ Redwood Rd-Trancas St	Signalized		F	143.0	Full Interchange		N/A	N/A
8	Hwy 121 (Silverado Trail-Monticello Rd)/ Trancas St	STOP ALL approaches (except NBR)	NBL	E	39.7	STOP ALL approaches (except NBR)	NBL, EB	E	48.7
9	Hwy 29 SB Ramps on Solano Ave	STOP ALL approaches	SB	D	33.9	STOP ALL approaches	SB	E	37.8
10	Hwy 29 NB Ramps on Lincoln Ave	YIELD offramps	SBR	E	35.8	YIELD offramps	SBR	F	51.8
20	Hwy 29 NB Ramps on First St	Stop (NBL) & Yield (NBR)	NB	F	376.0	Stop (NBL) & Yield (NBR)	NB	F	386.8
30	Hwy 121 (Silverado Trail)/ Third St-East Ave-Coombsville Rd	Signalized		F	108.7	Signalized		F	124.2
33	Hwy 29 SB Ramps on Imola Ave	Stop ALL approaches	WB	F	58.4	Stop ALL approaches		F	109.7
34	Hwy 29 NB Ramps on Imola Ave	Stop on NB Approach	NB	F	73.8	Stop on NB Approach	NB	F	327.3
35	Hwy 121-Imola Ave/ Jefferson St	Signalized		E	56.8	Signalized		E	67.5
36	Hwy 121-Imola Ave/ Coombs St	Signalized		E	58.0	Signalized		E	64.6
37	Hwy 121-Imola Ave/ Soscol Ave	Signalized		F	111.4	Signalized		F	112.0
38	Hwy 12-121/ Old Sonoma Rd	STOP on Old Sonoma Rd	SB	F	140.2	STOP on Old Sonoma Rd	SB	F	327.5
40	Hwy 12-121/ Golden Gate Dr/ Stanly Ln	STOP on Golden Gate-Stanly	NB/ SB	F	Very high	Signalized		F	94.7
41	Hwy 12-121/ Hwy 29	Signalized		E	75.6	Signalized		F	97.3
42	Hwy 12-29/ Napa Vallejo Hwy	Signalized		F	257.6	Signalized		F	491.1
43	Hwy 29/ Hwy 12-Aiport Blvd	Signalized		F	129.3	Signalized		F	105.6
44	Hwy 12-Airport Blvd/ Kelly Rd	Signalized		C	30.3	Signalized		F	87.6
59	Hwy 29 / Trower Ave	Signalized		F	155.1	Signalized		E	79.7

Reference: Napa TMP Traffic Model

E. Specific Plan Project Trip Generation

Downtown Napa Specific Plan

Project Trip Generation Summary

OPPORTUNITY SITES WEST OF SOSCOL AVENUE

Trip Gen	ITE Code	Units	Existing Uses Removed								Future Development Capacity							
			Quantity	Daily	AM Peak			PM Peak			Quantity	Daily	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total			In	Out	Total	In	Out	Total
Residential	220	DU	15	100	2	6	8	6	3	9	560	3,724	57	229	286	226	121	347
Retail	820	KSF	343.68	14,758	210	134	344	628	654	1,282	441.55	18,960	270	172	442	807	840	1,647
Quality Restaurant	931	KSF	36.00	3,238	24	5	29	181	89	270	46.00	4,138	30	7	37	231	114	345
High-Turnover (Sitdown) Restaurant	932	KSF	26.00	3,306	156	144	300	171	119	290	29.00	3,687	174	160	334	191	132	323
Office	710	KSF	94.34	1,039	128	18	146	24	117	141	404.38	4,452	552	75	627	103	500	603
Hotel	310	Rooms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduction for Internal Capture				*-4,862*	*-113*	*-113*	*-226*	*-161*	*-161*	*-322*		*-10,712*	*-212*	*-212*	*-424*	*-396*	*-396*	*-792*
Reduction for Transit/Walk/Bike (7%) [3]				*-1,231*	*-28*	*-14*	*-42*	*-59*	*-57*	*-117*		*-1,697*	*-61*	*-30*	*-91*	*-81*	*-92*	*-173*
Net External Trip Generation				**16,348**	**379**	**180**	**559**	**790**	**764**	**1,553**		**22,552**	**810**	**401**	**1,211**	**1,081**	**1,219**	**2,300**

OPPORTUNITY SITES EAST OF SOSCOL AVENUE (OXBOW DISTRICT)

Trip Gen	ITE Code	Units	Existing Uses Removed								Future Development Capacity							
			Quantity	Daily	AM Peak			PM Peak			Quantity	Daily	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total			In	Out	Total	In	Out	Total
Residential	220	DU	0	0	0	0	0	0	0	0	82	545	8	34	42	33	18	51
Retail	820	KSF	151.20	6,492	92	59	151	276	288	564	148.92	6,395	91	58	149	272	283	555
Quality Restaurant	931	KSF	6.00	540	4	1	5	30	15	45	6.00	540	4	1	5	30	15	45
High-Turnover (Sitdown) Restaurant	932	KSF	4.00	509	24	22	46	27	18	45	4.00	509	24	22	46	27	18	45
Office	710	KSF	37.00	407	50	7	57	9	46	55	197.57	2,175	269	37	306	50	244	294
Hotel	310	Rooms	0	0	0	0	0	0	0	0	303	2,476	104	66	170	95	84	179
Reduction for Internal Capture				*-834*	*-21*	*-21*	*-42*	*-29*	*-29*	*-58*		*-1,744*	*-40*	*-40*	*-80*	*-63*	*-63*	*-126*
Reduction for Transit/Walk/Bike (7%) [3]				*-498*	*-10*	*-5*	*-15*	*-22*	*-24*	*-46*		*-763*	*-32*	*-12*	*-45*	*-31*	*-42*	*-73*
Net External Trip Generation				**6,616**	**139**	**63**	**202**	**291**	**314**	**605**		**10,133**	**428**	**166**	**593**	**413**	**557**	**970**

TOTAL DOWNTOWN SPECIFIC PLAN AREA

Trip Gen	ITE Code	Units	Existing Uses Removed								Future Development Capacity							
			Quantity	Daily	AM Peak			PM Peak			Quantity	Daily	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total			In	Out	Total	In	Out	Total
Residential	220	DU	15	100	2	6	8	6	3	9	642	4,269	65	263	328	259	139	398
Retail	820	KSF	494.88	21,250	302	193	495	904	942	1,846	590.47	25,355	361	230	591	1,079	1,123	2,202
Quality Restaurant	931	KSF	42.00	3,778	28	6	34	211	104	315	52.00	4,678	34	8	42	261	129	390
High-Turnover (Sitdown) Restaurant	932	KSF	30.00	3,815	180	166	346	198	137	335	33.00	4,196	198	182	380	218	150	368
Office	710	KSF	131.34	1,446	178	25	203	33	163	196	601.94	6,627	821	112	933	153	744	897
Hotel	310	Rooms	0	0	0	0	0	0	0	0	303	2,476	104	66	170	95	84	179
Reduction for Internal Capture				*-5,696*	*-134*	*-134*	*-268*	*-190*	*-190*	*-380*		*-12,456*	*-252*	*-252*	*-504*	*-459*	*-459*	*-918*
Reduction for Transit/Walk/Bike (7%) [3]				*-1,729*	*-38*	*-19*	*-57*	*-81*	*-81*	*-163*		*-2,460*	*-93*	*-42*	*-136*	*-112*	*-134*	*-246*
Net External Trip Generation				**22,964**	**518**	**243**	**761**	**1,081**	**1,078**	**2,158**		**32,685**	**1,238**	**567**	**1,804**	**1,494**	**1,776**	**3,270**

NET NEW TRIPS

Trip Gen	Net New Trips (Future Development - Existing Uses Removed)						
	Daily	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
West of Soscol Avenue	6,204	431	221	652	291	455	747
East of Soscol Avenue (Oxbow)	3,517	289	103	391	122	243	365
Total Net External Trip Generation	**9,721**	**720**	**324**	**1,043**	**413**	**698**	**1,112**

Notes:

(1) Trip generation estimates calculated based on ITE's *Trip Generation, 8th Edition.*

(2) Calculations for internal capture are based on ITE *Trip Generation Handbook, 2nd Edition*. For the purposes of this exercise, the areas west of Soscol Ave and east of Soscol Ave were treated as two separate subareas based on the natural barrier effect of Soscol Avenue.

(3) Source of Transit/Walk/Bike Mode Split Data for Downtown Napa: 2000 MTC Bay Area Travel Survey (BATS).

(4) For the purposes of this exercise, no pass-by reductions were assumed for the trip generation estimate.

Downtown Napa Specific Plan

ITE Trip Generation Rates

Trip Generation Rate Details:

Apartments (8th Edition)			
Daily (ITE 220)	T = 6.65 x (number of DU's)	50% In	50% Out
AM Peak Hour (ITE 220)	T = 0.51 x (number of DU's)	20% In	80% Out
PM Peak Hour (ITE 220)	T = 0.62 x (number of DU's)	65% In	35% Out
Shopping Center (ITE 8th Edition)			
Daily (ITE 820)	T = 42.94 x (1000's of SF)	50% In	50% Out
AM Peak Hour (ITE 820)	T = 1.00 x (1000's of SF)	61% In	39% Out
PM Peak Hour (ITE 820)	T = 3.73 x (1000's of SF)	49% In	51% Out
Quality Restaurant (ITE 8th Edition)			
Daily (ITE 931)	T = 89.95 x (1000's of SF)	50% In	50% Out
AM Peak Hour (ITE 931)	T = 0.81 x (1000's of SF)	82% In	18% Out
PM Peak Hour (ITE 931)	T = 7.49 x (1000's of SF)	67% In	33% Out
High-Turnover (Sit-Down) Restaurant (ITE 8th Edition)			
Daily (ITE 932)	T = 127.15 x (1000's of SF)	50% In	50% Out
AM Peak Hour (ITE 932)	T = 11.52 x (1000's of SF)	52% In	48% Out
PM Peak Hour (ITE 932)	T = 11.15 x (1000's of SF)	59% In	41% Out
General Office (ITE 8th Edition)			
Daily (ITE 710)	T = 11.01 x (1000's of SF)	50% In	50% Out
AM Peak Hour (ITE710)	T = 1.55 x (1000's of SF)	88% In	12% Out
PM Peak Hour (ITE 710)	T = 1.49 x (1000's of SF)	17% In	83% Out
Hotel (ITE 8th Edition)			
Daily (ITE 310)	T = 8.17 x (rooms)	50% In	50% Out
AM Peak Hour (ITE 310)	T = 0.56 x (rooms)	61% In	39% Out
PM Peak Hour (ITE 310)	T = 0.59 x (rooms)	53% In	47% Out

INTERNAL CAPTURE - EXISTING EAST OF SOSCOL AVENUE

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Exist e/ of Soscol
Scenario:
Analysis Period: Daily
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 0

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%			

Enter from External: 0
Exit to External: 0

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 151

	Total	Internal	External
Enter	3246	202	3044
Exit	3246	178	3068
Total	6492	380	6112
%	100%	**5.9%**	94.1%

Enter from External: 3,044
Exit to External: 3,068

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 10

	Total	Internal	External
Enter	524.5	168	356.5
Exit	524.5	173	351.5
Total	1049	341	708
%	100%	**32.5%**	67.5%

Enter from External: 357
Exit to External: 352

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 37

	Total	Internal	External
Enter	203.5	47	156.5
Exit	203.5	66	137.5
Total	407	113	294
%	100%	**27.8%**	72.2%

Enter from External: 157
Exit to External: 138

Demand	38.0%	0	
Balanced	0		
Demand	9.0%	292	
	33.0%	0	Demand
	0	Balanced	
	11.0%	357	Demand
Demand	38.0%	0	
Balanced	0		
Demand	9.0%	47	
Demand	0.0%	0	
Balanced	0		
Demand	0.0%	0	
3.0%	0	Demand	
0	Balanced		
2.0%	4	Demand	
Demand	4.0%	130	
Balanced	45		
Demand	22.0%	45	
Demand	15.0%	31	
	31	Balanced	
	3.0%	97	Demand
	28.0%	909	Demand
	157	Balanced	
	30.0%	157	Demand
Demand	33.0%	0	
Balanced	0		
Demand	11.0%	58	Demand
Demand	22.0%	45	
Balanced	21		
Demand	4.0%	21	
Demand	30.0%	974	
Balanced	147		
Demand	28.0%	147	
15.0%	31	Demand	
16	Balanced		
3.0%	16	Demand	

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	0	3,044	357	157	3,557
Exit	0	3,068	352	138	3,557
Total	0	6,112	708	294	**7,114**
Single Use Trip Gen Estimate	0	6,492	1,049	407	**7,948**

Overall Internal Capture = 10.49%

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Exist e/ of Soscol
Scenario:
Analysis Period: AM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 0

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%			

Enter from External: 0
Exit to External: 0

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 151

	Total	Internal	External
Enter	92	9	83
Exit	59	10	49
Total	151	19	132
%	100%	**12.6%**	87.4%

Enter from External: 83
Exit to External: 49

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 10

	Total	Internal	External
Enter	28	9	19
Exit	23	8	15
Total	51	17	34
%	100%	**33.3%**	66.7%

Enter from External: 19
Exit to External: 15

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 37

	Total	Internal	External
Enter	50	3	47
Exit	7	3	4
Total	57	6	51
%	100%	**10.5%**	89.5%

Enter from External: 47
Exit to External: 4

Demand	38.0%	0	
Balanced	0		
Demand	9.0%	8	
	33.0%	0	Demand
	0		Balanced
	11.0%	6	Demand
Demand	38.0%	0	
Balanced	0		
Demand	9.0%	3	
Demand	0.0%	0	
Balanced	0		
Demand	0.0%	0	
	3.0%	0	Demand
	0		Balanced
	2.0%	0	Demand
Demand	4.0%	4	
Balanced	2		
Demand	22.0%	2	
	15.0%	8	Demand
	2		Balanced
	3.0%	2	Demand
	28.0%	26	Demand
	7		Balanced
	30.0%	7	Demand
Demand	33.0%	0	
Balanced	0		
Demand	11.0%	3	
Demand	22.0%	2	
Balanced	1		
Demand	4.0%	1	
	15.0%	8	Demand
	1		Balanced
	3.0%	1	Demand
Demand	30.0%	18	
Balanced	8		
Demand	28.0%	8	

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	0	83	19	47	149
Exit	0	49	15	4	68
Total	0	132	34	51	**217**
Single Use Trip Gen Estimate	0	151	51	57	**259**

Overall Internal Capture = **16.22%**

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Exist e/ of Soscol
Scenario:
Analysis Period: PM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 0

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%			

Enter from External: 0
Exit to External: 0

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 151

	Total	Internal	External
Enter	276	13	263
Exit	288	14	274
Total	564	27	537
%	100%	**4.8%**	95.2%

Enter from External: 263
Exit to External: 274

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 10

	Total	Internal	External
Enter	57	12	45
Exit	33	8	25
Total	90	20	70
%	100%	**22.2%**	77.8%

Enter from External: 45
Exit to External: 25

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 37

	Total	Internal	External
Enter	9	4	5
Exit	46	7	39
Total	55	11	44
%	100%	**20.0%**	80.0%

Enter from External: 5
Exit to External: 39

Demand	53.0%	0	
Balanced	0		
Demand	9.0%	25	
	31.0%	0	Demand
	0		Balanced
	12.0%	35	Demand
Demand	53.0%	0	
Balanced	0		
Demand	9.0%	5	
	2.0%	0	Demand
	0		Balanced
	2.0%	1	Demand
Demand	0.0%	0	
Balanced	0		
Demand	0.0%	0	
Demand	2.0%	6	
Balanced	6		
Demand	23.0%	11	
Demand	31.0%	3	
	3		Balanced
	3.0%	9	Demand
	20.0%	55	Demand
	7		Balanced
	20.0%	7	Demand
Demand	31.0%	0	
Balanced	0		
Demand	12.0%	4	
Demand	23.0%	11	
Balanced	1		
Demand	2.0%	1	
Demand	20.0%	58	
Balanced	11		
Demand	20.0%	11	
	31.0%	3	Demand
	1		Balanced
	3.0%	1	Demand

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	0	263	45	5	313
Exit	0	274	25	39	338
Total	0	537	70	44	**651**
Single Use Trip Gen Estimate	0	564	90	55	**709**

Overall Internal Capture = **8.18%**

INTERNAL CAPTURE - EXISTING WEST OF SOSCOL AVENUE

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Exist w/ of Soscol
Scenario:
Analysis Period: Daily
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 15

	Total	Internal	External
Enter	103	71	32
Exit	103	78	25
Total	206	149	57
%	100%	**72.3%**	27.7%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 344

	Total	Internal	External
Enter	7379	1135	6244
Exit	7379	1028	6351
Total	14758	2163	12595
%	100%	**14.7%**	85.3%

Land Use C: Retail (Restaurant)

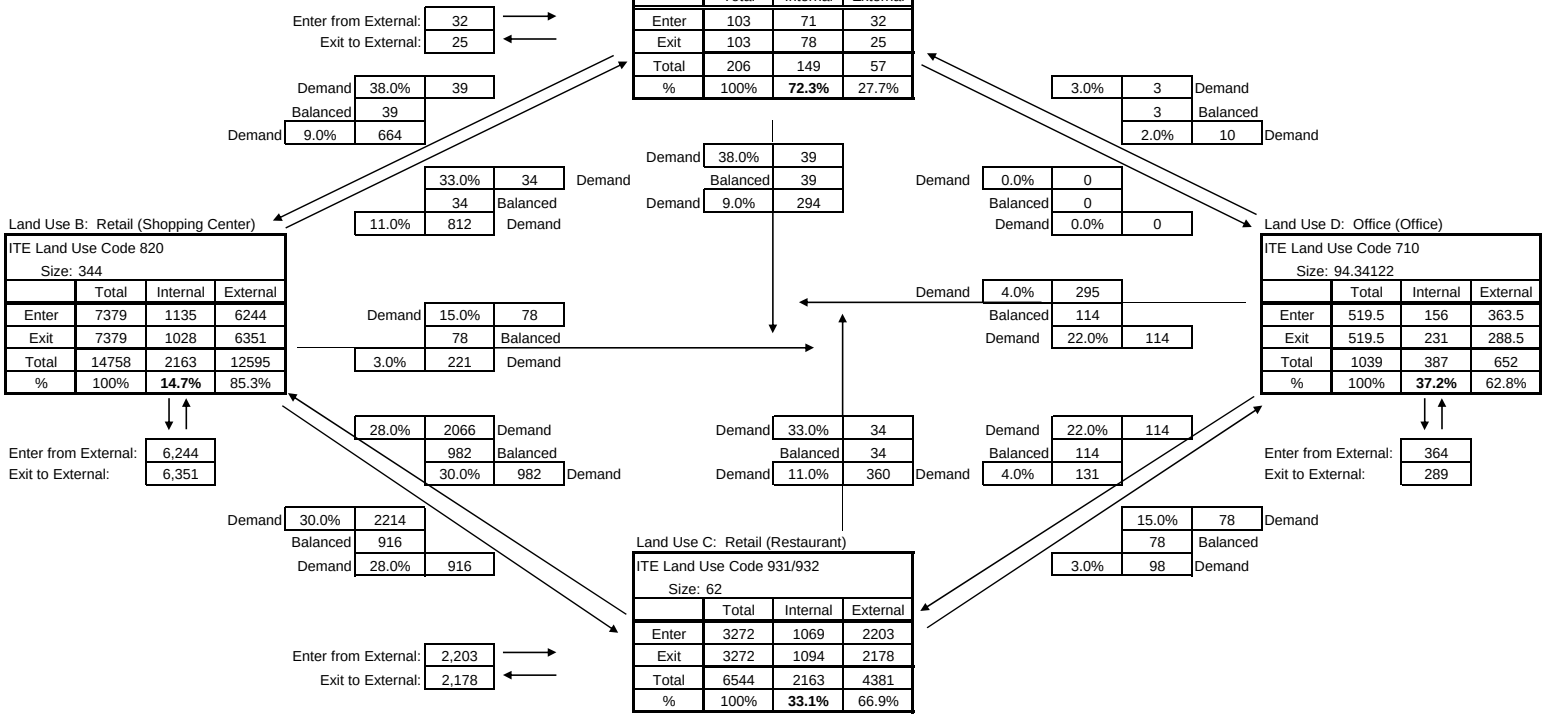
ITE Land Use Code 931/932
Size: 62

	Total	Internal	External
Enter	3272	1069	2203
Exit	3272	1094	2178
Total	6544	2163	4381
%	100%	**33.1%**	66.9%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 94.34122

	Total	Internal	External
Enter	519.5	156	363.5
Exit	519.5	231	288.5
Total	1039	387	652
%	100%	**37.2%**	62.8%



NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	32	6,244	2,203	364	8,843
Exit	25	6,351	2,178	289	8,843
Total	57	12,595	4,381	652	**17,685**
Single Use Trip Gen Estimate	206	14,758	6,544	1,039	**22,547**

Overall Internal Capture = 21.56%

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Exist w/ of Soscol
Scenario:
Analysis Period: AM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 15

	Total	Internal	External
Enter	3	2	1
Exit	13	10	3
Total	16	12	4
%	100%	**75.0%**	25.0%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 344

	Total	Internal	External
Enter	210	54	156
Exit	134	45	89
Total	344	99	245
%	100%	**28.8%**	71.2%

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 62

	Total	Internal	External
Enter	180	49	131
Exit	149	50	99
Total	329	99	230
%	100%	**30.1%**	69.9%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 94.34122

	Total	Internal	External
Enter	128	8	120
Exit	18	8	10
Total	146	16	130
%	100%	**11.0%**	89.0%

Enter from External: 1
Exit to External: 3

Demand 38.0% 5
Balanced 5
Demand 9.0% 19

33.0% 1 Demand
1 Balanced
11.0% 15 Demand

Demand 38.0% 5
Balanced 5
Demand 9.0% 16

3.0% 0 Demand
0 Balanced
2.0% 0 Demand

Demand 0.0% 0
Balanced 0
Demand 0.0% 0

Demand 4.0% 8
Balanced 4
Demand 22.0% 4

Demand 15.0% 19
Balanced 4
3.0% 4 Demand

28.0% 59 Demand
45 Balanced
30.0% 45 Demand

Demand 33.0% 1
Balanced 1
Demand 11.0% 16 Demand

Demand 22.0% 4
Balanced 4
4.0% 7 Demand

Enter from External: 156
Exit to External: 89

Enter from External: 120
Exit to External: 10

Demand 30.0% 40
Balanced 40
Demand 28.0% 50

15.0% 19 Demand
4 Balanced
3.0% 4 Demand

Enter from External: 131
Exit to External: 99

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	1	156	131	120	408
Exit	3	89	99	10	201
Total	4	245	230	130	**609**
Single Use Trip Gen Estimate	16	344	329	146	**835**

Overall Internal Capture = **27.07%**

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Exist w/ of Soscol
Scenario:
Analysis Period: PM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 15

	Total	Internal	External
Enter	12	8	4
Exit	7	8	-1
Total	19	16	3
%	100%	**84.2%**	15.8%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 344

	Total	Internal	External
Enter	628	59	569
Exit	654	81	573
Total	1282	140	1142
%	100%	**10.9%**	89.1%

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 62

	Total	Internal	External
Enter	352	81	271
Exit	208	52	156
Total	560	133	427
%	100%	**23.8%**	76.3%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 94.34122

	Total	Internal	External
Enter	24	13	11
Exit	117	20	97
Total	141	33	108
%	100%	**23.4%**	76.6%

Enter from External: 4
Exit to External: -1

Demand 53.0% 4
Balanced 4
Demand 9.0% 57

31.0% 4 Demand
4 Balanced
12.0% 78 Demand

Demand 53.0% 4
Balanced 4
Demand 9.0% 32

2.0% 0 Demand
0 Balanced
2.0% 2 Demand

Demand 0.0% 0
Balanced 0
Demand 0.0% 0

Demand 2.0% 13
Balanced 13
Demand 23.0% 27

Demand 31.0% 7
7 Balanced
3.0% 20 Demand

20.0% 126 Demand
42 Balanced
20.0% 42 Demand

Demand 31.0% 4
Balanced 4
Demand 12.0% 25 Demand

Demand 23.0% 27
Balanced 7
Demand 2.0% 7

Enter from External: 569
Exit to External: 573

Enter from External: 11
Exit to External: 97

Demand 20.0% 131
Balanced 70
Demand 20.0% 70

31.0% 7 Demand
6 Balanced
3.0% 6 Demand

Enter from External: 271
Exit to External: 156

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	4	569	271	11	855
Exit	-1	573	156	97	825
Total	3	1,142	427	108	**1,680**
Single Use Trip Gen Estimate	19	1,282	560	141	**2,002**

Overall Internal Capture = 16.08%

INTERNAL CAPTURE - FUTURE EAST OF SOSCOL AVENUE

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Future e/ of Soscol
Scenario:
Analysis Period: Daily
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 82

	Total	Internal	External
Enter	273	156	117
Exit	273	151	122
Total	545	307	238
%	100%	**56.3%**	43.7%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 149

	Total	Internal	External
Enter	3197.5	389	2808.5
Exit	3197.5	333	2864.5
Total	6395	722	5673
%	100%	**11.3%**	88.7%

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 10

	Total	Internal	External
Enter	524.5	215	309.5
Exit	524.5	231	293.5
Total	1049	446	603
%	100%	**42.5%**	57.5%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 197.566

	Total	Internal	External
Enter	1087.5	112	975.5
Exit	1087.5	157	930.5
Total	2175	269	1906
%	100%	**12.4%**	87.6%

Enter from External: 117
Exit to External: 122

Demand 38.0% 104
Balanced 104
Demand 9.0% 288

3.0% 8 Demand
8 Balanced
2.0% 22 Demand

Demand 38.0% 104
Balanced 47
Demand 9.0% 47

33.0% 90 Demand
90 Balanced
11.0% 352 Demand

Demand 0.0% 0
Balanced 0
Demand 0.0% 0

Demand 4.0% 128
Balanced 128
Demand 22.0% 239

Demand 15.0% 163
96 Balanced
3.0% 96 Demand

28.0% 895 Demand
157 Balanced
30.0% 157 Demand

Demand 33.0% 90
Balanced 58
Demand 11.0% 58

Demand 22.0% 239
Balanced 21
Demand 4.0% 21

Enter from External: 2,809
Exit to External: 2,865

Enter from External: 976
Exit to External: 931

Demand 30.0% 959
Balanced 147
Demand 28.0% 147

15.0% 163 Demand
16 Balanced
3.0% 16 Demand

Enter from External: 310
Exit to External: 294

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	117	2,809	310	976	4,210
Exit	122	2,865	294	931	4,210
Total	238	5,673	603	1,906	**8,420**
Single Use Trip Gen Estimate	545	6,395	1,049	2,175	**10,164**

Overall Internal Capture = **17.16%**

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Future e/ of Soscol
Scenario:
Analysis Period: AM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 82

	Total	Internal	External
Enter	8	6	2
Exit	34	11	23
Total	42	17	25
%	100%	**40.5%**	59.5%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 149

	Total	Internal	External
Enter	91	19	72
Exit	58	13	45
Total	149	32	117
%	100%	**21.5%**	78.5%

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 10

	Total	Internal	External
Enter	28	12	16
Exit	23	11	12
Total	51	23	28
%	100%	**45.1%**	54.9%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 197.566

	Total	Internal	External
Enter	269	3	266
Exit	37	5	32
Total	306	8	298
%	100%	**2.6%**	97.4%

Enter from External: 2
Exit to External: 23

Demand 38.0% 13
Balanced 8
Demand 9.0% 8

33.0% 3 Demand
3 Balanced
11.0% 6 Demand

Demand 38.0% 13
Balanced 3
Demand 9.0% 3

3.0% 0 Demand
0 Balanced
2.0% 1 Demand

Demand 0.0% 0
Balanced 0
Demand 0.0% 0

Demand 4.0% 4
Balanced 4
Demand 22.0% 8

Demand 15.0% 40
2 Balanced
3.0% 2 Demand

28.0% 25 Demand
7 Balanced
30.0% 7 Demand

Demand 33.0% 3
Balanced 3
Demand 11.0% 3 Demand

Demand 22.0% 8
Balanced 1
Demand 4.0% 1

Enter from External: 72
Exit to External: 45

Enter from External: 266
Exit to External: 32

Demand 30.0% 17
Balanced 8
Demand 28.0% 8

15.0% 40 Demand
1 Balanced
3.0% 1 Demand

Enter from External: 16
Exit to External: 12

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	2	72	16	266	356
Exit	23	45	12	32	112
Total	25	117	28	298	**468**
Single Use Trip Gen Estimate	42	149	51	306	**548**

Overall Internal Capture = **14.60%**

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Future e/ of Soscol
Scenario:
Analysis Period: PM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 82

	Total	Internal	External
Enter	33	15	18
Exit	18	15	3
Total	51	30	21
%	100%	**58.8%**	41.2%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 149

	Total	Internal	External
Enter	272	22	250
Exit	283	29	254
Total	555	51	504
%	100%	**9.2%**	90.8%

Land Use C: Retail (Restaurant)

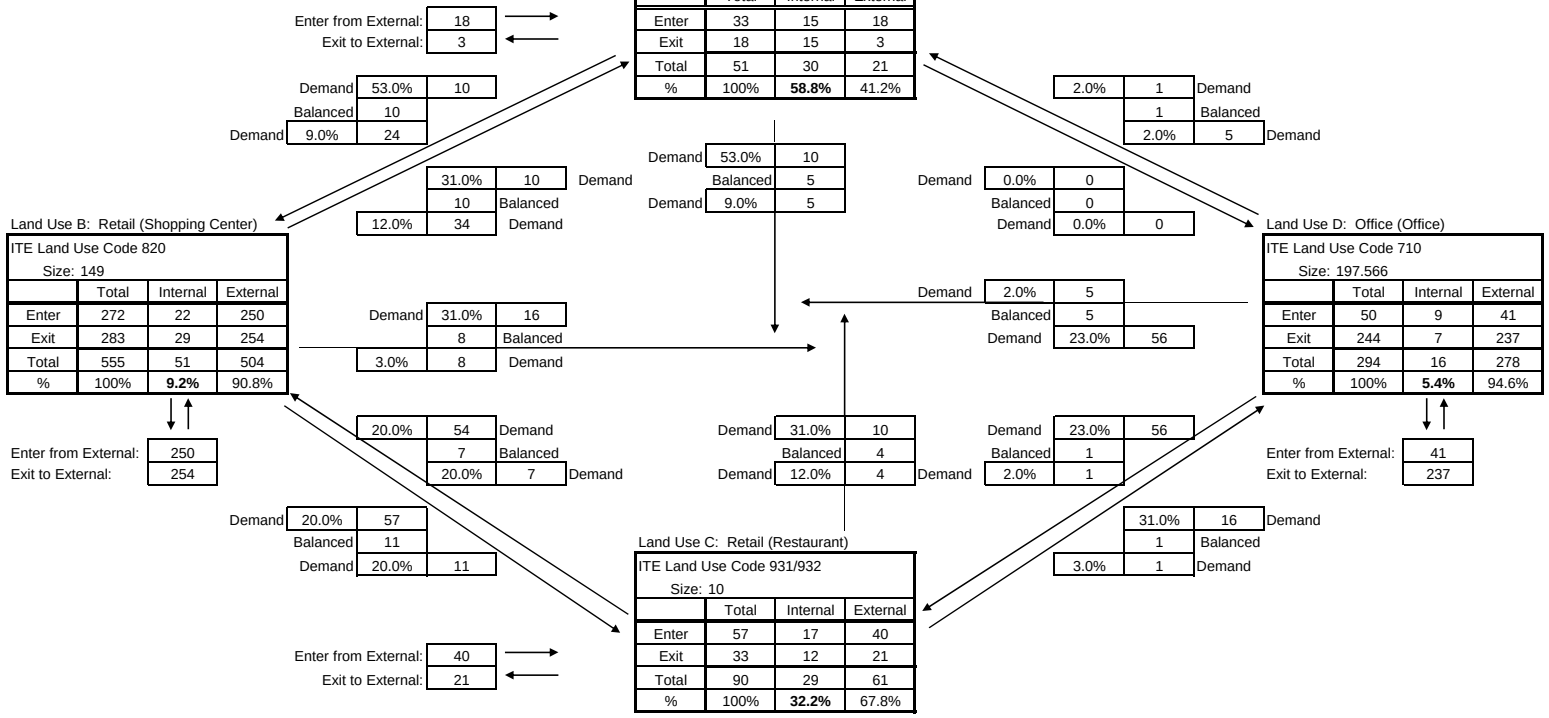
ITE Land Use Code 931/932
Size: 10

	Total	Internal	External
Enter	57	17	40
Exit	33	12	21
Total	90	29	61
%	100%	**32.2%**	67.8%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 197.566

	Total	Internal	External
Enter	50	9	41
Exit	244	7	237
Total	294	16	278
%	100%	**5.4%**	94.6%



NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	18	250	40	41	349
Exit	3	254	21	237	515
Total	21	504	61	278	**864**
Single Use Trip Gen Estimate	51	555	90	294	**990**

Overall Internal Capture = **12.73%**

INTERNAL CAPTURE - FUTURE WEST OF SOSCOL AVENUE

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Future w/ of Soscol
Scenario:
Analysis Period: Daily
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 560

	Total	Internal	External
Enter	1,862	1,089	773
Exit	1,862	1,060	802
Total	3,724	2,149	1,575
%	100%	**57.7%**	42.3%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 442

	Total	Internal	External
Enter	9480	2261	7219
Exit	9480	1994	7486
Total	18960	4255	14705
%	100%	**22.4%**	77.6%

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 75

	Total	Internal	External
Enter	3912.5	1605	2307.5
Exit	3912.5	1721	2191.5
Total	7825	3326	4499
%	100%	**42.5%**	57.5%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 404.3757

	Total	Internal	External
Enter	2226	401	1825
Exit	2226	581	1645
Total	4452	982	3470
%	100%	**22.1%**	77.9%

Enter from External: 773
Exit to External: 802

Demand 38.0% 708
Balanced 708
Demand 9.0% 853

33.0% 614 Demand
614 Balanced
11.0% 1043 Demand

Demand 38.0% 708
Balanced 352
Demand 9.0% 352

3.0% 56 Demand
45 Balanced
2.0% 45 Demand

Demand 0.0% 0
Balanced 0
Demand 0.0% 0

Demand 4.0% 379
Balanced 379
Demand 22.0% 490

Demand 15.0% 334
284 Balanced
3.0% 284 Demand

28.0% 2654 Demand
1174 Balanced
30.0% 1174 Demand

Demand 33.0% 614
Balanced 430
Demand 11.0% 430 Demand

Demand 22.0% 490
Balanced 157
Demand 4.0% 157

Enter from External: 7,219
Exit to External: 7,486

Enter from External: 1,825
Exit to External: 1,645

Demand 30.0% 2844
Balanced 1096
Demand 28.0% 1096

15.0% 334 Demand
117 Balanced
3.0% 117 Demand

Enter from External: 2,308
Exit to External: 2,192

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	773	7,219	2,308	1,825	12,125
Exit	802	7,486	2,192	1,645	12,125
Total	1,575	14,705	4,499	3,470	**24,249**
Single Use Trip Gen Estimate	3,724	18,960	7,825	4,452	**34,961**

Overall Internal Capture = 30.64%

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Future w/ of Soscol
Scenario:
Analysis Period: AM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 560

	Total	Internal	External
Enter	57	39	18
Exit	229	42	187
Total	286	81	205
%	100%	**28.3%**	71.7%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 442

	Total	Internal	External
Enter	270	85	185
Exit	172	76	96
Total	442	161	281
%	100%	**36.4%**	63.6%

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 75

	Total	Internal	External
Enter	204	78	126
Exit	167	73	94
Total	371	151	220
%	100%	**40.7%**	59.3%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 404.3757

	Total	Internal	External
Enter	552	10	542
Exit	75	21	54
Total	627	31	596
%	100%	**4.9%**	95.1%

Enter from External: 18
Exit to External: 187

Enter from External: 185
Exit to External: 96

Enter from External: 126
Exit to External: 94

Enter from External: 542
Exit to External: 54

Demand	38.0%	87	
Balanced		24	
Demand	9.0%	24	
	33.0%	19	Demand
		19	Balanced
	11.0%	19	Demand
Demand	38.0%	87	
Balanced		18	
Demand	9.0%	18	
Demand	0.0%	0	
Balanced		0	
Demand	0.0%	0	
	3.0%	2	Demand
		2	Balanced
	2.0%	2	Demand
Demand	4.0%	11	
Balanced		11	
Demand	22.0%	17	
	28.0%	76	Demand
		50	Balanced
	30.0%	50	Demand
Demand	33.0%	19	
Balanced		18	
Demand	11.0%	18	
Demand	22.0%	17	
Balanced		8	
Demand	4.0%	8	
Demand	30.0%	52	
Balanced		52	
Demand	28.0%	57	
	15.0%	83	Demand
		5	Balanced
	3.0%	5	Demand

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	18	185	126	542	871
Exit	187	96	94	54	431
Total	205	281	220	596	**1,302**
Single Use Trip Gen Estimate	286	442	371	627	**1,726**

Overall Internal Capture = 24.57%

ITE MULTI-USE PROJECT INTERNAL CAPTURE WORKSHEET

(Source: Chapter 7, ITE *Trip Generation Handbook*, June 2004)

Project Number: 097854001.3
Project Name: DT Napa SP - Future w/ of Soscol
Scenario:
Analysis Period: PM Peak
Analyst: Kimley-Horn and Associates, Inc

Land Use A: Residential (Apartment)

ITE Land Use Code 220
Size: 560

	Total	Internal	External
Enter	226	105	121
Exit	121	102	19
Total	347	207	140
%	100%	**59.7%**	40.3%

Land Use B: Retail (Shopping Center)

ITE Land Use Code 820
Size: 442

	Total	Internal	External
Enter	807	129	678
Exit	840	179	661
Total	1647	308	1339
%	100%	**18.7%**	81.3%

Land Use C: Retail (Restaurant)

ITE Land Use Code 931/932
Size: 75

	Total	Internal	External
Enter	422	130	292
Exit	246	86	160
Total	668	216	452
%	100%	**32.3%**	67.7%

Land Use D: Office (Office)

ITE Land Use Code 710
Size: 404.3757

	Total	Internal	External
Enter	103	32	71
Exit	500	29	471
Total	603	61	542
%	100%	**10.1%**	89.9%

Enter from External: 121
Exit to External: 19

Demand 53.0% 64
Balanced 64
Demand 9.0% 73

31.0% 70 Demand
70 Balanced
12.0% 101 Demand

Demand 53.0% 64
Balanced 38
Demand 9.0% 38

2.0% 5 Demand
5 Balanced
2.0% 10 Demand

Demand 0.0% 0
Balanced 0
Demand 0.0% 0

Demand 2.0% 16
Balanced 16
Demand 23.0% 115

Demand 31.0% 32
25 Balanced
3.0% 25 Demand

Enter from External: 678
Exit to External: 661

20.0% 161 Demand
49 Balanced
20.0% 49 Demand

Demand 31.0% 70
Balanced 30
Demand 12.0% 30 Demand

Demand 23.0% 115
Balanced 8
Demand 2.0% 8

Enter from External: 71
Exit to External: 471

Demand 20.0% 168
Balanced 84
Demand 20.0% 84

31.0% 32 Demand
7 Balanced
3.0% 7 Demand

Enter from External: 292
Exit to External: 160

NET EXTERNAL TRIPS FOR MULTI-USE DEVELOPMENT

Category	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	121	678	292	71	1,162
Exit	19	661	160	471	1,311
Total	140	1,339	452	542	**2,473**
Single Use Trip Gen Estimate	347	1,647	668	603	**3,265**

Overall Internal Capture = 24.26%

F. County Downtown Expansion Trip Generation

Downtown Napa Specific Plan

Estimated Trip Generation for Proposed Napa County Downtown Facilities Expansion

Land Use	ITE Code	Quantity	Units	Daily	AM Peak			PM Peak		
				Total	In	Out	Total	In	Out	Total
New County Office Building (Sullivan Site)	730	90,000	SF	6,204	445	84	529	34	75	109
New County Office Building (Admin Building)	730	90,000	SF	6,204	445	84	529	34	75	109
Demolished Existing Admin Building	730	-52,141	SF	-3,594	-258	-49	-307	-20	-43	-63
Discontinued Use of Carithers Building	730	-47,138	SF	-3,249	-233	-44	-277	-18	-39	-57
County Jail Expansion	571	500	Beds	NA	27	23	50	3	22	25
Future Office Development Already Assumed in Specific Plan (Sullivan Site)	710	-71,129	SF	-783	-97	-13	-110	-18	-88	-106
Reduction for Transit/Walk/Bike (7%) [3]				*-335*	*-23*	*-6*	*-29*	*-1*	*0*	*-1*
Net New Trip Generation				**4,447**	**306**	**80**	**386**	**14**	**2**	**16**

Notes:

(1) Trip generation estimates calculated based on ITE's *Trip Generation, 8th Edition.*

(2) Source of County Development Plans: Couny of Napa Conceptual Site Development and Phasing Plan Through 2028 (Jones Lang LaSalle/HOK Advance Strategies 10/2010); Correspondance with Napa County staff.

(3) Source of Transit/Walk/Bike Mode Split Data for Downtown Napa: 2000 MTC Bay Area Travel Survey (BATS).

(4) For the purposes of this exercise, no pass-by or internal capture reductions were assumed for the trip generation estimate.

(5) An additional 22,000 s.f. below-grade storage/meeting space is proposed below the new Admin Building; however, this is excluded from the trip generation estimate, as it is assumed that even if the space is used for staff meetings, the majority of attendees will already be on-site, or at one of the other Downtown County facilities.

ITE Trip Generation Rates

Government Office Building (ITE 8th Edition)			
Daily (ITE 730)	T = 68.93 x (1000's of SF)	50% In	50% Out
AM Peak Hour (ITE 730)	T = 5.88 x (1000's of SF)	84% In	16% Out
PM Peak Hour (ITE 730)	T = 1.21 x (1000's of SF)	31% In	69% Out
General Office (ITE 8th Edition)			
Daily (ITE 710)	T = 3.32 x (number of Employees)	50% In	50% Out
AM Peak Hour (ITE710)	T = 0.48 x (number of Employees)	88% In	12% Out
PM Peak Hour (ITE 710)	T = 0.46 x (number of Employees)	17% In	83% Out
Prison (ITE 8th Edition)			
Daily (ITE 571)	T = NA		
AM Peak Hour (ITE 571)	T = 0.10 x (Beds)	54% In	46% Out
PM Peak Hour (ITE 571)	T = 0.05 x (Beds)	10% In	90% Out

G. Peak Hour Intersection Turning Movement Volumes (Project Only)

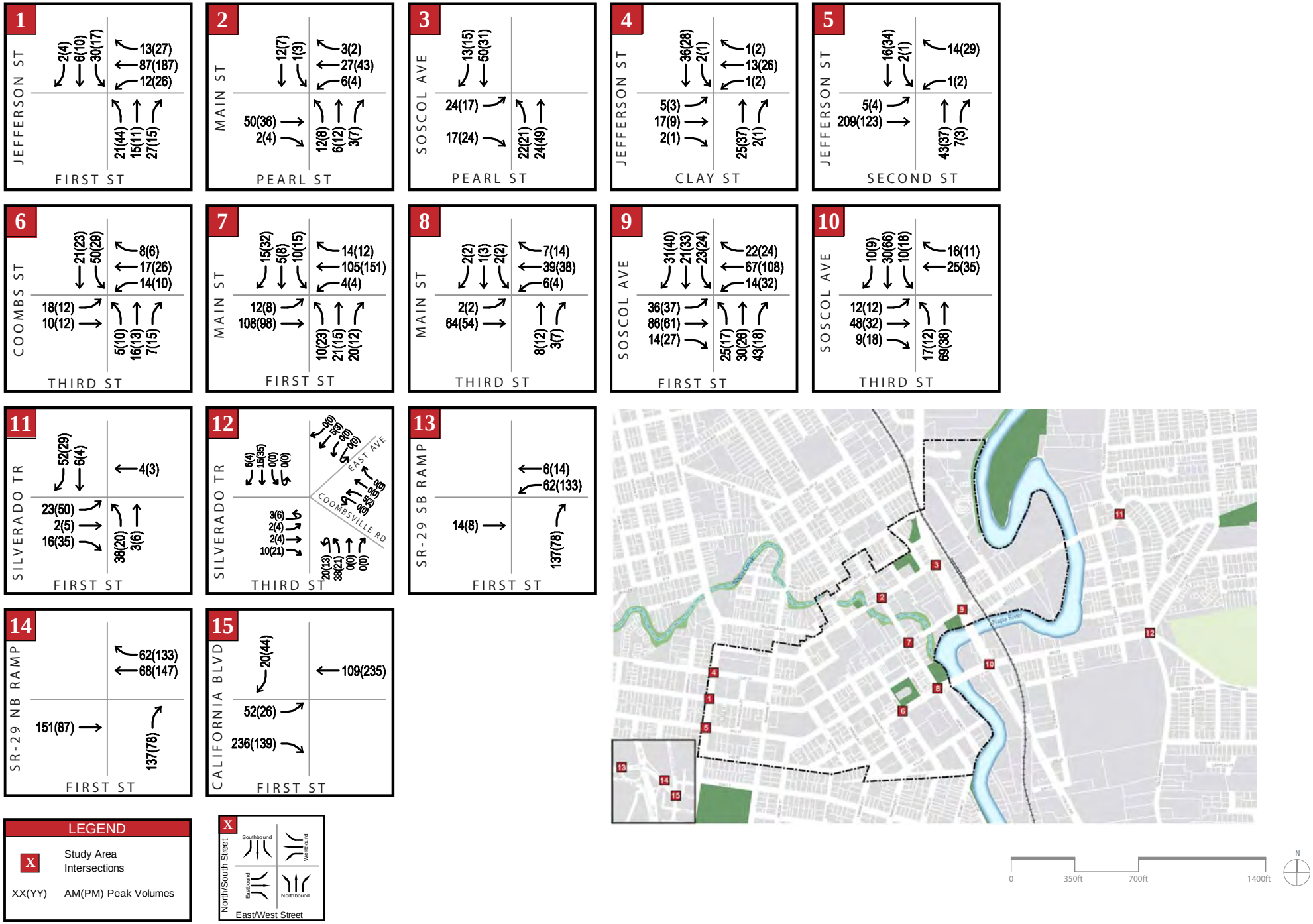


FIGURE X.X SPECIFIC PLAN PROJECT PEAK HOUR INTERSECTION VOLUMES

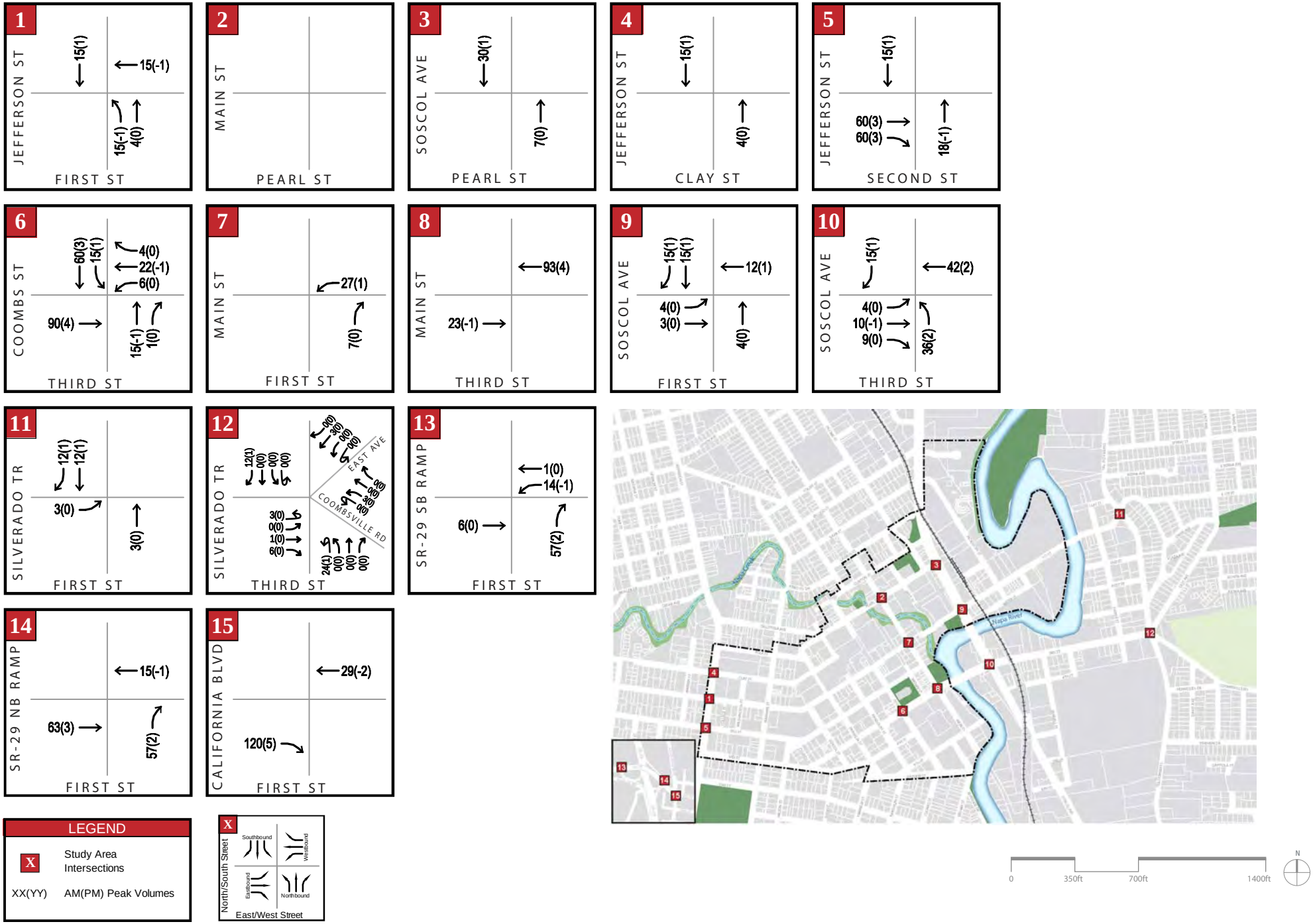


FIGURE X.X COUNTY FACILITIES EXPANSION PROJECT PEAK HOUR INTERSECTION VOLUMES

H. Existing AM Traffic Capacity Analysis

Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.235
Loss Time (sec):	9	Average Delay (sec/veh):	14.0
Optimal Cycle:	24	Level Of Service:	B

Street Name:	Jefferson Street									First Street								
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.1	4.1	4.1	0.0	0.0	0.0	4.1	4.1	4.1
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	0 1	1 0	1
Volume Module: >> Count Date: 24 Jun 2009 << 8:00 AM TO 10:00 AM												
Base Vol:	81	355	0	0	296	40	0	0	0	32	120	46
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:	81	355	0	0	296	40	0	0	0	32	120	46
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:	0.89	0.89	0.89	0.88	0.88	0.88	1.00	1.00	1.00	0.85	0.85	0.85
PHF Volume:	91	399	0	0	336	45	0	0	0	38	141	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	399	0	0	336	45	0	0	0	38	141	54
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
FinalVolume:	91	399	0	0	336	45	0	0	0	38	141	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.93	0.93	1.00	1.00	1.00	0.93	0.93	0.85
Lanes:	1.00	2.00	0.00	0.00	1.76	0.24	0.00	0.00	0.00	0.42	1.58	1.00
Final Sat.:	1805	3610	0	0	3123	422	0	0	0	742	2782	1615
Capacity Analysis Module:												
Vol/Sat:	0.05	0.11	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.05	0.05	0.03
Crit Moves:	****				****					****		
Green/Cycle:	0.21	0.67	0.00	0.00	0.46	0.46	0.00	0.00	0.00	0.22	0.22	0.22
Volume/Cap:	0.24	0.16	0.00	0.00	0.24	0.24	0.00	0.00	0.00	0.24	0.24	0.16
Delay/Veh:	26.3	4.9	0.0	0.0	13.3	13.3	0.0	0.0	0.0	26.1	26.1	25.7
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:	26.3	4.9	0.0	0.0	13.3	13.3	0.0	0.0	0.0	26.1	26.1	25.7
LOS by Move:	C	A	A	A	B	B	A	A	A	C	C	C
HCM2kAvgQ:	2	2	0	0	3	3	0	0	0	2	2	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.216
Loss Time (sec):	6	Average Delay (sec/veh):	11.4
Optimal Cycle:	18	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 27 Jul 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	17	126	29	12	145	19	30	98	20	34	85	8
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:	17	126	29	12	145	19	30	98	20	34	85	8
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:	0.91	0.91	0.91	0.90	0.90	0.90	0.70	0.70	0.70	0.84	0.84	0.84
PHF Volume:	19	138	32	13	161	21	43	140	29	40	101	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	138	32	13	161	21	43	140	29	40	101	10
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
FinalVolume:	19	138	32	13	161	21	43	140	29	40	101	10
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.97	0.97	0.97	0.97	0.97	0.77	0.98	0.98	0.89	0.89	0.89
Lanes:	1.00	0.81	0.19	0.07	0.82	0.11	1.00	0.83	0.17	0.27	0.67	0.06
Final Sat.:	1573	1501	346	125	1513	198	1465	1539	314	455	1138	107
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.11	0.11	0.11	0.03	0.09	0.09	0.09	0.09	0.09
Crit Moves:					****			****				
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.42	0.42	0.42	0.42	0.42	0.42
Volume/Cap:	0.02	0.19	0.19	0.22	0.22	0.22	0.07	0.22	0.22	0.21	0.21	0.21
Delay/Veh:	9.1	10.0	10.0	10.2	10.2	10.2	12.1	13.0	13.0	13.0	13.0	13.0
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:	9.1	10.0	10.0	10.2	10.2	10.2	12.1	13.0	13.0	13.0	13.0	13.0
LOS by Move:	A	B	B	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	0	2	2	2	2	2	1	2	2	2	2	2

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.288
Loss Time (sec):	9	Average Delay (sec/veh):	9.5
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module: >> Count Date: 15 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	57	603	0	0	628	59	52	0	57	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:	57	603	0	0	628	59	52	0	57	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:	0.91	0.91	0.91	0.93	0.93	0.93	0.88	0.88	0.88	1.00	1.00	1.00
PHF Volume:	63	663	0	0	675	63	59	0	65	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	663	0	0	675	63	59	0	65	0	0	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
FinalVolume:	63	663	0	0	675	63	59	0	65	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.00	0.00	0.19	0.04	0.03	0.00	0.04	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.12	0.77	0.00	0.00	0.65	0.65	0.14	0.00	0.14	0.00	0.00	0.00
Volume/Cap:	0.29	0.24	0.00	0.00	0.29	0.06	0.23	0.00	0.29	0.00	0.00	0.00
Delay/Veh:	40.8	3.3	0.0	0.0	7.6	6.4	38.8	0.0	39.3	0.0	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:	40.8	3.3	0.0	0.0	7.6	6.4	38.8	0.0	39.3	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	2	3	0	0	5	1	2	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.285
Loss Time (sec):	12	Average Delay (sec/veh):	17.6
Optimal Cycle:	30	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module: >> Count Date: 24 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	17	312	43	32	260	25	47	78	10	16	13	21
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:	17	312	43	32	260	25	47	78	10	16	13	21
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:	0.77	0.77	0.77	0.76	0.76	0.76	0.84	0.84	0.84	0.78	0.78	0.78
PHF Volume:	22	405	56	42	342	33	56	93	12	21	17	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	405	56	42	342	33	56	93	12	21	17	27
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
FinalVolume:	22	405	56	42	342	33	56	93	12	21	17	27
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	0.94	0.94	0.88	0.88	0.85	0.86	0.86	0.85
Lanes:	1.00	1.76	0.24	1.00	1.82	0.18	0.38	0.62	1.00	0.55	0.45	1.00
Final Sat.:	1805	3116	429	1805	3251	313	630	1046	1615	903	733	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.13	0.13	0.02	0.11	0.11	0.09	0.09	0.01	0.02	0.02	0.02
Crit Moves:		****		****				****				
Green/Cycle:	0.17	0.46	0.46	0.08	0.36	0.36	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.07	0.28	0.28	0.28	0.29	0.29	0.28	0.28	0.02	0.07	0.07	0.05
Delay/Veh:	27.8	13.7	13.7	35.6	18.2	18.2	21.1	21.1	19.1	19.5	19.5	19.3
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:	27.8	13.7	13.7	35.6	18.2	18.2	21.1	21.1	19.1	19.5	19.5	19.3
LOS by Move:	C	B	B	D	B	B	C	C	B	B	B	B
HCM2kAvgQ:	0	4	4	1	4	4	3	3	0	1	1	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.285
Loss Time (sec):	9	Average Delay (sec/veh):	14.8
Optimal Cycle:	25	Level Of Service:	B

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module: >> Count Date: 24 Jun 2009 << 8:00 AM TO 10:00 AM												
Base Vol:	0	380	59	48	265	0	45	225	26	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:	0	380	59	48	265	0	45	225	26	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:	0.92	0.92	0.92	0.90	0.90	0.90	0.96	0.96	0.96	1.00	1.00	1.00
PHF Volume:	0	413	64	53	294	0	47	234	27	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	413	64	53	294	0	47	234	27	0	0	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
FinalVolume:	0	413	64	53	294	0	47	234	27	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	0.95	0.95	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Lanes:	0.00	1.73	0.27	1.00	2.00	0.00	0.30	1.52	0.18	0.00	0.00	0.00
Final Sat.:	0	3062	475	1805	3610	0	529	2646	306	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.13	0.03	0.08	0.00	0.09	0.09	0.09	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.47	0.47	0.10	0.58	0.00	0.31	0.31	0.31	0.00	0.00	0.00
Volume/Cap:	0.00	0.29	0.29	0.29	0.14	0.00	0.29	0.29	0.29	0.00	0.00	0.00
Delay/Veh:	0.0	12.9	12.9	34.0	7.8	0.0	21.0	21.0	21.0	0.0	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:	0.0	12.9	12.9	34.0	7.8	0.0	21.0	21.0	21.0	0.0	0.0	0.0
LOS by Move:	A	B	B	C	A	A	C	C	C	A	A	A
HCM2kAvgQ:	0	4	4	1	2	0	3	3	3	0	0	0

Note: Queue reported is the number of cars per lane.

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

Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.340
Loss Time (sec):	6	Average Delay (sec/veh):	7.4
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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: 16 Jul 2009 << 7:45 AM TO 9:45 AM												
Base Vol:	29	30	104	11	34	8	4	219	2	109	354	18
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:	29	30	104	11	34	8	4	219	2	109	354	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:	0.91	0.91	0.91	0.83	0.83	0.83	0.70	0.70	0.70	0.87	0.87	0.87
PHF Volume:	32	33	114	13	41	10	6	313	3	125	407	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	33	114	13	41	10	6	313	3	125	407	21
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
FinalVolume:	32	33	114	13	41	10	6	313	3	125	407	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.76	0.76	0.76
Lanes:	0.18	0.18	0.64	0.21	0.64	0.15	0.03	1.95	0.02	0.45	1.48	0.07
Final Sat.:	293	303	1050	362	1119	263	61	3324	30	657	2134	109
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.11	0.04	0.04	0.04	0.09	0.09	0.09	0.19	0.19	0.19
Crit Moves:		****									****	
Green/Cycle:	0.32	0.32	0.32	0.32	0.32	0.32	0.56	0.56	0.56	0.56	0.56	0.56
Volume/Cap:	0.34	0.34	0.34	0.11	0.11	0.11	0.17	0.17	0.17	0.34	0.34	0.34
Delay/Veh:	13.4	13.4	13.4	12.1	12.1	12.1	5.4	5.4	5.4	6.1	6.1	6.1
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:	13.4	13.4	13.4	12.1	12.1	12.1	5.4	5.4	5.4	6.1	6.1	6.1
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	1	1	1	1	1	1	3	3	3

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.169
Loss Time (sec):	6	Average Delay (sec/veh):	8.4
Optimal Cycle:	18	Level Of Service:	A

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 16 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	38	123	58	6	66	34	0	0	0	15	90	17
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:	38	123	58	6	66	34	0	0	0	15	90	17
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:	0.93	0.93	0.93	0.95	0.95	0.95	1.00	1.00	1.00	0.91	0.91	0.91
PHF Volume:	41	132	62	6	69	36	0	0	0	16	99	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	132	62	6	69	36	0	0	0	16	99	19
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
FinalVolume:	41	132	62	6	69	36	0	0	0	16	99	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	0.82	0.82	0.94	0.94	0.94	1.00	1.00	1.00	0.96	0.96	0.96
Lanes:	0.35	1.12	0.53	0.06	0.62	0.32	0.00	0.00	0.00	0.12	0.74	0.14
Final Sat.:	543	1758	829	101	1114	574	0	0	0	225	1352	255
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.06	0.06	0.06	0.00	0.00	0.00	0.07	0.07	0.07
Crit Moves:		****									****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.00	0.43	0.43	0.43
Volume/Cap:	0.17	0.17	0.17	0.14	0.14	0.14	0.00	0.00	0.00	0.17	0.17	0.17
Delay/Veh:	8.4	8.4	8.4	8.3	8.3	8.3	0.0	0.0	0.0	8.7	8.7	8.7
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:	8.4	8.4	8.4	8.3	8.3	8.3	0.0	0.0	0.0	8.7	8.7	8.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	1	1	1	1	1	1	0	0	0	1	1	1

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.294
Loss Time (sec):	9	Average Delay (sec/veh):	23.4
Optimal Cycle:	25	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 1	0	1 0	1 1 0
Volume Module: >> Count Date: 16 Jul 2009 << 8:00 AM TO 10:00 AM												
Base Vol:	0	26	41	103	37	47	33	200	7	29	290	45
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	26	41	103	37	47	33	200	7	29	290	45
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:	0.80	0.80	0.80	0.90	0.90	0.90	0.82	0.82	0.82	0.88	0.88	0.88
PHF Volume:	0	33	51	114	41	52	40	244	9	33	330	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	33	51	114	41	52	40	244	9	33	330	51
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
FinalVolume:	0	33	51	114	41	52	40	244	9	33	330	51
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.79	0.79	0.79	0.95	0.95	0.95	0.95	0.93	0.93
Lanes:	0.00	1.00	1.00	0.55	0.20	0.25	1.00	1.93	0.07	1.00	1.73	0.27
Final Sat.:	0	1900	1615	831	299	379	1805	3470	121	1805	3063	475
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.03	0.14	0.14	0.14	0.02	0.07	0.07	0.02	0.11	0.11
Crit Moves:					****		****				****	
Green/Cycle:	0.00	0.47	0.47	0.47	0.47	0.47	0.08	0.28	0.28	0.16	0.37	0.37
Volume/Cap:	0.00	0.04	0.07	0.29	0.29	0.29	0.29	0.25	0.25	0.11	0.29	0.29
Delay/Veh:	0.0	14.4	14.6	16.6	16.6	16.6	44.9	27.9	27.9	36.1	22.7	22.7
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	14.4	14.6	16.6	16.6	16.6	44.9	27.9	27.9	36.1	22.7	22.7
LOS by Move:	A	B	B	B	B	B	D	C	C	D	C	C
HCM2kAvgQ:	0	1	1	4	4	4	1	3	3	1	4	4

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.363
Loss Time (sec):	12	Average Delay (sec/veh):	14.7
Optimal Cycle:	34	Level Of Service:	B

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module: >> Count Date: 27 Jul 2009 << 7:00 AM TO 9:00 AM												
Base Vol:	24	573	26	18	597	51	20	31	6	33	67	29
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:	24	573	26	18	597	51	20	31	6	33	67	29
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:	0.69	0.69	0.69	0.74	0.74	0.74	0.89	0.89	0.89	0.67	0.67	0.67
PHF Volume:	35	830	38	24	807	69	22	35	7	49	100	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	830	38	24	807	69	22	35	7	49	100	43
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
FinalVolume:	35	830	38	24	807	69	22	35	7	49	100	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.57	0.98	0.98	0.73	0.96	0.96
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.84	0.16	1.00	0.70	0.30
Final Sat.:	1805	3610	1615	1805	3610	1615	1085	1554	301	1395	1266	548
Capacity Analysis Module:												
Vol/Sat:	0.02	0.23	0.02	0.01	0.22	0.04	0.02	0.02	0.02	0.04	0.08	0.08
Crit Moves:	****				****						****	
Green/Cycle:	0.05	0.59	0.59	0.07	0.62	0.62	0.22	0.22	0.22	0.22	0.22	0.22
Volume/Cap:	0.36	0.39	0.04	0.18	0.36	0.07	0.10	0.10	0.10	0.16	0.36	0.36
Delay/Veh:	50.3	11.3	8.9	46.3	10.1	8.1	33.0	33.0	33.0	33.6	35.5	35.5
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:	50.3	11.3	8.9	46.3	10.1	8.1	33.0	33.0	33.0	33.6	35.5	35.5
LOS by Move:	D	B	A	D	B	A	C	C	C	C	D	D
HCM2kAvgQ:	1	7	0	1	7	1	1	1	1	1	4	4

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	12	Average Delay (sec/veh):	28.0
Optimal Cycle:	39	Level Of Service:	C

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module: >> Count Date: 7 Jul 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	160	553	6	38	546	54	90	105	116	17	173	61
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:	160	553	6	38	546	54	90	105	116	17	173	61
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	160	553	6	38	546	54	90	105	116	17	173	61
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	0.84	0.84	0.84	0.71	0.71	0.71	0.85	0.85	0.85
PHF Volume:	178	614	7	45	650	64	127	148	163	20	204	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	614	7	45	650	64	127	148	163	20	204	72
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
FinalVolume:	178	614	7	45	650	64	127	148	163	20	204	72
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.98	0.02	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3564	39	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.05	0.17	0.17	0.03	0.18	0.04	0.07	0.08	0.10	0.01	0.11	0.04
Crit Moves:	****				****		****				****	
Green/Cycle:	0.11	0.40	0.40	0.09	0.39	0.39	0.15	0.24	0.24	0.14	0.23	0.23
Volume/Cap:	0.46	0.43	0.43	0.27	0.46	0.10	0.46	0.32	0.42	0.08	0.46	0.19
Delay/Veh:	42.7	21.7	21.7	43.0	23.1	19.6	40.0	31.7	32.9	37.3	33.9	31.2
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:	42.7	21.7	21.7	43.0	23.1	19.6	40.0	31.7	32.9	37.3	33.9	31.2
LOS by Move:	D	C	C	D	C	B	D	C	C	D	C	C
HCM2kAvgQ:	3	7	7	1	8	1	3	4	4	1	6	2

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	12	Average Delay (sec/veh):	18.3
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module: >> Count Date: 5 Aug 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	40	496	6	10	481	85	41	25	19	34	83	10
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:	40	496	6	10	481	85	41	25	19	34	83	10
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:	0.92	0.92	0.92	0.79	0.79	0.79	0.71	0.71	0.71	0.86	0.86	0.86
PHF Volume:	43	539	7	13	609	108	58	35	27	40	97	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	539	7	13	609	108	58	35	27	40	97	12
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
FinalVolume:	43	539	7	13	609	108	58	35	27	40	97	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.98	0.98	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.85	0.15	0.62	0.38	1.00	0.29	0.71	1.00
Final Sat.:	1805	1874	23	1805	1579	279	1145	698	1615	544	1329	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.29	0.29	0.01	0.39	0.39	0.05	0.05	0.02	0.07	0.07	0.01
Crit Moves:	****				****			****		****		
Green/Cycle:	0.04	0.66	0.66	0.02	0.64	0.64	0.08	0.08	0.08	0.12	0.12	0.12
Volume/Cap:	0.61	0.44	0.44	0.44	0.61	0.61	0.61	0.61	0.20	0.61	0.61	0.06
Delay/Veh:	61.1	8.3	8.3	58.9	11.6	11.6	51.0	51.0	43.5	46.4	46.4	39.1
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:	61.1	8.3	8.3	58.9	11.6	11.6	51.0	51.0	43.5	46.4	46.4	39.1
LOS by Move:	E	A	A	E	B	B	D	D	D	D	D	D
HCM2kAvgQ:	1	8	8	1	13	13	4	4	1	5	5	0

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.99			0.93			1.00	0.99		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3419			1732			1770	1838		
Flt Permitted			0.69			1.00			0.95	1.00		
Satd. Flow (perm)			2401			1732			1770	1838		
Volume (vph)	22	27	51	9	3	203	211	11	7	242	16	7
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	25	30	57	10	3	228	237	12	8	272	18	8
RTOR Reduction (vph)	0	0	5	0	0	1	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	117	0	0	479	0	0	8	297	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			8.3			33.1			0.6	26.2		
Effective Green, g (s)			8.3			33.1			0.6	26.2		
Actuated g/C Ratio			0.08			0.32			0.01	0.26		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			195			561			10	471		
v/s Ratio Prot						c0.28			0.00	0.16		
v/s Ratio Perm			c0.05									
v/c Ratio			0.60			0.85			0.80	0.63		
Uniform Delay, d1			45.4			32.3			50.7	33.7		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			5.2			12.1			169.7	2.8		
Delay (s)			50.5			44.4			220.4	36.5		
Level of Service			D			D			F	D		
Approach Delay (s)			50.5			44.4				41.3		
Approach LOS			D			D				D		

Intersection Summary			
HCM Average Control Delay	45.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	102.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

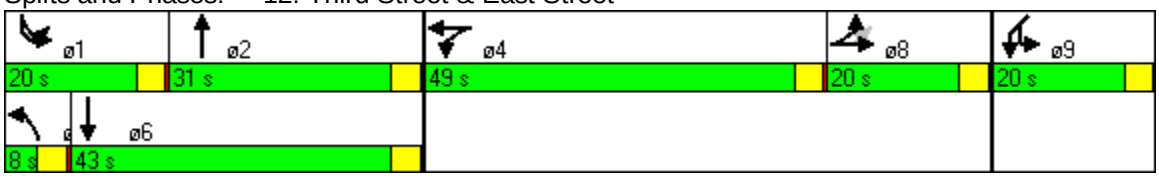
Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00			1.00	
Frt		1.00	0.98			0.96	
Flt Protected		0.95	1.00			0.97	
Satd. Flow (prot)		1770	1827			1722	
Flt Permitted		0.95	1.00			0.97	
Satd. Flow (perm)		1770	1827			1722	
Volume (vph)	6	38	307	45	10	69	39
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	7	43	345	51	11	78	44
RTOR Reduction (vph)	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	50	392	0	0	133	0
Turn Type	Prot	Prot			Split		
Protected Phases	1	1	6		9	9	
Permitted Phases							
Actuated Green, G (s)		4.9	30.5			9.7	
Effective Green, g (s)		4.9	30.5			9.7	
Actuated g/C Ratio		0.05	0.30			0.09	
Clearance Time (s)		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0			3.0	
Lane Grp Cap (vph)		85	545			163	
v/s Ratio Prot		c0.03	c0.21			c0.08	
v/s Ratio Perm							
v/c Ratio		0.59	0.72			0.82	
Uniform Delay, d1		47.7	32.0			45.4	
Progression Factor		1.00	1.00			1.00	
Incremental Delay, d2		10.0	4.7			25.9	
Delay (s)		57.7	36.7			71.3	
Level of Service		E	D			E	
Approach Delay (s)			39.0			71.3	
Approach LOS			D			E	

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	31	49	8	43	20	20
Maximum Split (%)	14.3%	22.1%	35.0%	5.7%	30.7%	14.3%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	51	0	8	100	120
End Time (s)	20	51	100	8	51	120	0
Yield/Force Off (s)	16	47	96	4	47	116	136
Yield/Force Off 170(s)	5	47	85	4	47	105	125
Local Start Time (s)	120	0	31	120	128	80	100
Local Yield (s)	136	27	76	124	27	96	116
Local Yield 170(s)	125	27	65	124	27	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	120

Splits and Phases: 12: Third Street & East Street



Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.894
Loss Time (sec):	9	Average Delay (sec/veh):	30.7
Optimal Cycle:	100	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
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	329	0	392	0	0	0	0	1196	248	124	579	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:	329	0	392	0	0	0	0	1196	248	124	579	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:	0.73	0.73	0.73	1.00	1.00	1.00	0.85	0.85	0.85	0.75	0.75	0.75
PHF Volume:	451	0	537	0	0	0	0	1407	292	165	772	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	451	0	537	0	0	0	0	1407	292	165	772	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
FinalVolume:	451	0	537	0	0	0	0	1407	292	165	772	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.13	0.00	0.33	0.00	0.00	0.00	0.00	0.39	0.18	0.09	0.21	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.37	0.00	0.37	0.00	0.00	0.00	0.00	0.44	0.44	0.10	0.54	0.00
Volume/Cap:	0.35	0.00	0.89	0.00	0.00	0.00	0.00	0.89	0.41	0.89	0.40	0.00
Delay/Veh:	22.8	0.0	45.4	0.0	0.0	0.0	0.0	33.1	19.8	82.4	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:	22.8	0.0	45.4	0.0	0.0	0.0	0.0	33.1	19.8	82.4	13.7	0.0
LOS by Move:	C	A	D	A	A	A	A	C	B	F	B	A
HCM2kAvgQ:	5	0	19	0	0	0	0	25	6	8	7	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 15.3 Worst Case Level Of Service: F[128.3]

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					Ignore					Ignore				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Volume Module:																				
Base Vol:	104		0		139	0		0		0	0		1119		345	0		518		182
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:	104		0		139	0		0		0	0		1119		345	0		518		182
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		0.00		1.00	1.00		0.00	
PHF Adj:	0.89	0.89		0.89		1.00	1.00		1.00		0.86	0.86		0.00		0.73	0.73		0.00	
PHF Volume:	117		0		156	0		0		0	0		1301		0	0		710		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	117		0		156	0		0		0	0		1301		0	0		710		0
Critical Gap Module:																				
Critical Gp:	6.8	xxxx			6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
FollowUpTim:	3.5	xxxx			3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Capacity Module:																				
Cnflict Vol:	1656	xxxx			651	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Potent Cap.:	91	xxxx			416	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Move Cap.:	91	xxxx			416	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Volume/Cap:	1.29	xxxx			0.38	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx						
Level Of Service Module:																				
2Way95thQ:	8.5	xxxx			1.7	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Control Del:	274.8	xxxx			18.8	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
LOS by Move:	F		*		C	*		*	*		*	*		*		*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*		*		*	*		*		*	*		*		*	*		*		*
ApproachDel:			128.3					xxxxxx					xxxxxx					xxxxxx		
ApproachLOS:			F					*					*					*		

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing AM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	90	Critical Vol./Cap.(X):	0.610
Loss Time (sec):	12	Average Delay (sec/veh):	28.6
Optimal Cycle:	48	Level Of Service:	C

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module: >> Count Date: 5 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	177	131	0	0	228	203	475	0	665	10	295	17
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:	177	131	0	0	228	203	475	0	665	10	295	17
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:	0.92	0.92	0.92	0.87	0.87	0.87	0.84	0.84	0.84	0.75	0.75	0.75
PHF Volume:	192	142	0	0	262	233	565	0	792	13	393	23
Reduct Vol:	0	0	4	0	0	94	0	0	348	0	0	0
Reduced Vol:	192	142	0	0	262	139	565	0	444	13	393	23
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
FinalVolume:	192	142	0	0	262	139	565	0	444	13	393	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.94	0.94
Lanes:	1.15	0.85	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.89	0.11
Final Sat.:	2123	1571	0	0	1900	1615	3502	0	1615	1805	3386	195
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.00	0.00	0.14	0.09	0.16	0.00	0.27	0.01	0.12	0.12
Crit Moves:		****			****				****		****	
Green/Cycle:	0.15	0.15	0.00	0.00	0.23	0.53	0.30	0.00	0.45	0.19	0.19	0.19
Volume/Cap:	0.61	0.61	0.00	0.00	0.61	0.16	0.54	0.00	0.61	0.04	0.61	0.61
Delay/Veh:	37.9	37.9	0.0	0.0	33.8	11.1	26.7	0.0	20.3	29.8	35.0	35.0
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:	37.9	37.9	0.0	0.0	33.8	11.1	26.7	0.0	20.3	29.8	35.0	35.0
LOS by Move:	D	D	A	A	C	B	C	A	C	C	C	C
HCM2kAvgQ:	5	5	0	0	7	2	7	0	10	0	6	6

Note: Queue reported is the number of cars per lane.

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I. Existing PM Traffic Capacity Analysis

Napa Downtown Specific Plan
Existing PM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.463
Loss Time (sec):	9	Average Delay (sec/veh):	17.6
Optimal Cycle:	32	Level Of Service:	B

Street Name:	Jefferson Street						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.1	4.1	4.1	0.0	0.0	0.0	4.1	4.1	4.1
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	0 1	1 0	1
Volume Module: >> Count Date: 24 Jun 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	125	550	0	0	510	103	0	0	0	82	360	124
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:	125	550	0	0	510	103	0	0	0	82	360	124
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	1.00	1.00	1.00	0.81	0.81	0.81
PHF Volume:	132	579	0	0	537	108	0	0	0	101	444	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	579	0	0	537	108	0	0	0	101	444	153
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
FinalVolume:	132	579	0	0	537	108	0	0	0	101	444	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.93	0.93	1.00	1.00	1.00	0.93	0.93	0.85
Lanes:	1.00	2.00	0.00	0.00	1.66	0.34	0.00	0.00	0.00	0.37	1.63	1.00
Final Sat.:	1805	3610	0	0	2928	591	0	0	0	655	2876	1615
Capacity Analysis Module:												
Vol/Sat:	0.07	0.16	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.15	0.15	0.09
Crit Moves:	****				****						****	
Green/Cycle:	0.16	0.55	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.33	0.33	0.33
Volume/Cap:	0.46	0.29	0.00	0.00	0.46	0.46	0.00	0.00	0.00	0.46	0.46	0.28
Delay/Veh:	31.8	9.6	0.0	0.0	18.1	18.1	0.0	0.0	0.0	21.3	21.3	19.9
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:	31.8	9.6	0.0	0.0	18.1	18.1	0.0	0.0	0.0	21.3	21.3	19.9
LOS by Move:	C	A	A	A	B	B	A	A	A	C	C	B
HCM2kAvgQ:	3	4	0	0	6	6	0	0	0	6	6	3

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.351
Loss Time (sec):	6	Average Delay (sec/veh):	12.2
Optimal Cycle:	21	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 27 Jul 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	36	189	50	15	169	22	36	226	53	51	122	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:	36	189	50	15	169	22	36	226	53	51	122	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:	0.86	0.86	0.86	0.92	0.92	0.92	0.89	0.89	0.89	0.82	0.82	0.82
PHF Volume:	42	220	58	16	184	24	40	254	60	62	149	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	220	58	16	184	24	40	254	60	62	149	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
FinalVolume:	42	220	58	16	184	24	40	254	60	62	149	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.75	0.97	0.97	0.96	0.96	0.96	0.75	0.97	0.97	0.85	0.85	0.85
Lanes:	1.00	0.79	0.21	0.07	0.82	0.11	1.00	0.81	0.19	0.27	0.66	0.07
Final Sat.:	1416	1456	385	133	1495	195	1429	1496	351	439	1049	120
Capacity Analysis Module:												
Vol/Sat:	0.03	0.15	0.15	0.12	0.12	0.12	0.03	0.17	0.17	0.14	0.14	0.14
Crit Moves:		****						****				
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	0.07	0.35	0.35	0.29	0.29	0.29	0.06	0.35	0.35	0.29	0.29	0.29
Delay/Veh:	11.8	13.6	13.6	13.1	13.1	13.1	9.6	11.5	11.5	11.1	11.1	11.1
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	13.6	13.6	13.1	13.1	13.1	9.6	11.5	11.5	11.1	11.1	11.1
LOS by Move:	B	B	B	B	B	B	A	B	B	B	B	B
HCM2kAvgQ:	1	4	4	3	3	3	0	4	4	3	3	3

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.515
Loss Time (sec):	9	Average Delay (sec/veh):	15.2
Optimal Cycle:	35	Level Of Service:	B

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module: >> Count Date: 15 Jun 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	68	1015	0	0	971	71	127	0	156	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:	68	1015	0	0	971	71	127	0	156	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:	0.93	0.93	0.93	0.92	0.92	0.92	0.71	0.71	0.71	1.00	1.00	1.00
PHF Volume:	73	1091	0	0	1055	77	179	0	220	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	1091	0	0	1055	77	179	0	220	0	0	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
FinalVolume:	73	1091	0	0	1055	77	179	0	220	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.30	0.00	0.00	0.29	0.05	0.10	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.08	0.65	0.00	0.00	0.57	0.57	0.26	0.00	0.26	0.00	0.00	0.00
Volume/Cap:	0.52	0.47	0.00	0.00	0.52	0.08	0.38	0.00	0.52	0.00	0.00	0.00
Delay/Veh:	47.5	9.1	0.0	0.0	13.5	9.9	30.6	0.0	32.4	0.0	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:	47.5	9.1	0.0	0.0	13.5	9.9	30.6	0.0	32.4	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	A	C	A	C	A	A	A
HCM2kAvgQ:	3	9	0	0	10	1	5	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.469
Loss Time (sec):	12	Average Delay (sec/veh):	19.3
Optimal Cycle:	38	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module: >> Count Date: 24 Jun 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	36	557	86	53	543	60	95	114	29	59	71	47
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:	36	557	86	53	543	60	95	114	29	59	71	47
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:	0.94	0.94	0.94	0.88	0.88	0.88	0.83	0.83	0.83	0.74	0.74	0.74
PHF Volume:	38	593	91	60	617	68	114	137	35	80	96	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	593	91	60	617	68	114	137	35	80	96	64
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
FinalVolume:	38	593	91	60	617	68	114	137	35	80	96	64
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	0.94	0.94	0.77	0.77	0.85	0.76	0.76	0.85
Lanes:	1.00	1.73	0.27	1.00	1.80	0.20	0.45	0.55	1.00	0.45	0.55	1.00
Final Sat.:	1805	3065	473	1805	3202	354	667	800	1615	655	789	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.19	0.19	0.03	0.19	0.19	0.17	0.17	0.02	0.12	0.12	0.04
Crit Moves:		****		****				****				
Green/Cycle:	0.10	0.41	0.41	0.07	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.21	0.47	0.47	0.47	0.50	0.50	0.47	0.47	0.06	0.33	0.33	0.11
Delay/Veh:	33.7	17.4	17.4	38.4	19.1	19.1	20.0	20.0	16.5	18.7	18.7	16.8
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:	33.7	17.4	17.4	38.4	19.1	19.1	20.0	20.0	16.5	18.7	18.7	16.8
LOS by Move:	C	B	B	D	B	B	C	C	B	B	B	B
HCM2kAvgQ:	1	6	6	2	7	7	5	5	1	3	3	1

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.409
Loss Time (sec):	9	Average Delay (sec/veh):	13.7
Optimal Cycle:	29	Level Of Service:	B

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	649	54	59	519	0	49	275	31	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:	0	649	54	59	519	0	49	275	31	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:	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.92	0.92	1.00	1.00	1.00
PHF Volume:	0	713	59	65	570	0	53	299	34	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	713	59	65	570	0	53	299	34	0	0	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
FinalVolume:	0	713	59	65	570	0	53	299	34	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.95	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Lanes:	0.00	1.85	0.15	1.00	2.00	0.00	0.28	1.55	0.17	0.00	0.00	0.00
Final Sat.:	0	3293	274	1805	3610	0	481	2702	305	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.22	0.22	0.04	0.16	0.00	0.11	0.11	0.11	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.53	0.53	0.09	0.62	0.00	0.27	0.27	0.27	0.00	0.00	0.00
Volume/Cap:	0.00	0.41	0.41	0.41	0.26	0.00	0.41	0.41	0.41	0.00	0.00	0.00
Delay/Veh:	0.0	11.5	11.5	36.2	7.0	0.0	24.2	24.2	24.2	0.0	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:	0.0	11.5	11.5	36.2	7.0	0.0	24.2	24.2	24.2	0.0	0.0	0.0
LOS by Move:	A	B	B	D	A	A	C	C	C	A	A	A
HCM2kAvgQ:	0	6	6	1	3	0	4	4	4	0	0	0

Note: Queue reported is the number of cars per lane.

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Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.452
Loss Time (sec):	6	Average Delay (sec/veh):	9.9
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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: 28 May 2009 << 3:30 PM TO 5:30 PM												
Base Vol:	98	50	134	29	48	25	4	164	1	128	377	9
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:	98	50	134	29	48	25	4	164	1	128	377	9
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:	0.88	0.88	0.88	0.80	0.80	0.80	0.85	0.85	0.85	0.92	0.92	0.92
PHF Volume:	111	57	152	36	60	31	5	193	1	139	410	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	57	152	36	60	31	5	193	1	139	410	10
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
FinalVolume:	111	57	152	36	60	31	5	193	1	139	410	10
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	0.80	0.80	0.85	0.85	0.85	0.90	0.90	0.90	0.78	0.78	0.78
Lanes:	0.35	0.18	0.47	0.28	0.47	0.25	0.05	1.94	0.01	0.50	1.47	0.03
Final Sat.:	531	271	726	457	757	394	81	3304	20	739	2178	52
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.21	0.08	0.08	0.08	0.06	0.06	0.06	0.19	0.19	0.19
Crit Moves:		****									****	
Green/Cycle:	0.46	0.46	0.46	0.46	0.46	0.46	0.42	0.42	0.42	0.42	0.42	0.42
Volume/Cap:	0.45	0.45	0.45	0.17	0.17	0.17	0.14	0.14	0.14	0.45	0.45	0.45
Delay/Veh:	9.6	9.6	9.6	7.9	7.9	7.9	9.1	9.1	9.1	10.8	10.8	10.8
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:	9.6	9.6	9.6	7.9	7.9	7.9	9.1	9.1	9.1	10.8	10.8	10.8
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
HCM2kAvgQ:	4	4	4	1	1	1	1	1	1	4	4	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.349
Loss Time (sec):	6	Average Delay (sec/veh):	8.9
Optimal Cycle:	21	Level Of Service:	A

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 16 Jun 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	82	265	98	16	188	70	0	0	0	40	167	27
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:	82	265	98	16	188	70	0	0	0	40	167	27
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	89	288	107	17	204	76	0	0	0	43	182	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	288	107	17	204	76	0	0	0	43	182	29
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
FinalVolume:	89	288	107	17	204	76	0	0	0	43	182	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.78	0.78	0.93	0.93	0.93	1.00	1.00	1.00	0.96	0.96	0.96
Lanes:	0.37	1.19	0.44	0.06	0.69	0.25	0.00	0.00	0.00	0.17	0.71	0.12
Final Sat.:	544	1759	650	104	1218	453	0	0	0	312	1304	211
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.17	0.17	0.17	0.00	0.00	0.00	0.14	0.14	0.14
Crit Moves:					****						****	
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.48	0.00	0.00	0.00	0.40	0.40	0.40
Volume/Cap:	0.34	0.34	0.34	0.35	0.35	0.35	0.00	0.00	0.00	0.35	0.35	0.35
Delay/Veh:	8.2	8.2	8.2	8.3	8.3	8.3	0.0	0.0	0.0	10.8	10.8	10.8
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:	8.2	8.2	8.2	8.3	8.3	8.3	0.0	0.0	0.0	10.8	10.8	10.8
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
HCM2kAvgQ:	3	3	3	3	3	3	0	0	0	3	3	3

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.571
Loss Time (sec):	9	Average Delay (sec/veh):	27.2
Optimal Cycle:	39	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module: >> Count Date: 16 Jul 2009 << 4:30 PM TO 6:30 PM												
Base Vol:	12	60	113	210	95	75	59	345	4	100	458	80
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:	12	60	113	210	95	75	59	345	4	100	458	80
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:	0.80	0.80	0.80	0.84	0.84	0.84	0.74	0.74	0.74	0.96	0.96	0.96
PHF Volume:	15	75	141	250	113	89	80	466	5	104	477	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	75	141	250	113	89	80	466	5	104	477	83
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
FinalVolume:	15	75	141	250	113	89	80	466	5	104	477	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.85	0.75	0.75	0.75	0.95	0.95	0.95	0.95	0.93	0.93
Lanes:	0.17	0.83	1.00	0.55	0.25	0.20	1.00	1.98	0.02	1.00	1.70	0.30
Final Sat.:	293	1465	1615	790	357	282	1805	3561	41	1805	3006	525
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.09	0.32	0.32	0.32	0.04	0.13	0.13	0.06	0.16	0.16
Crit Moves:					****		****				****	
Green/Cycle:	0.55	0.55	0.55	0.55	0.55	0.55	0.08	0.25	0.25	0.11	0.28	0.28
Volume/Cap:	0.09	0.09	0.16	0.57	0.57	0.57	0.57	0.53	0.53	0.53	0.57	0.57
Delay/Veh:	10.5	10.5	11.0	15.5	15.5	15.5	50.1	33.3	33.3	44.9	31.8	31.8
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:	10.5	10.5	11.0	15.5	15.5	15.5	50.1	33.3	33.3	44.9	31.8	31.8
LOS by Move:	B	B	B	B	B	B	D	C	C	D	C	C
HCM2kAvgQ:	1	1	2	9	9	9	3	7	7	3	7	7

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.557
Loss Time (sec):	12	Average Delay (sec/veh):	20.2
Optimal Cycle:	45	Level Of Service:	C

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module: >> Count Date: 27 Jul 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	60	1028	82	104	965	88	61	98	25	69	153	49
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:	60	1028	82	104	965	88	61	98	25	69	153	49
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:	0.94	0.94	0.94	0.90	0.90	0.90	0.79	0.79	0.79	0.87	0.87	0.87
PHF Volume:	64	1094	87	116	1072	98	77	124	32	79	176	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	1094	87	116	1072	98	77	124	32	79	176	56
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
FinalVolume:	64	1094	87	116	1072	98	77	124	32	79	176	56
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.40	0.97	0.97	0.55	0.96	0.96
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.80	0.20	1.00	0.76	0.24
Final Sat.:	1805	3610	1615	1805	3610	1615	768	1468	375	1047	1387	444
Capacity Analysis Module:												
Vol/Sat:	0.04	0.30	0.05	0.06	0.30	0.06	0.10	0.08	0.08	0.08	0.13	0.13
Crit Moves:		****		****							****	
Green/Cycle:	0.07	0.54	0.54	0.11	0.58	0.58	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.47	0.56	0.10	0.56	0.51	0.10	0.44	0.37	0.37	0.33	0.56	0.56
Delay/Veh:	49.2	16.1	11.6	47.3	13.2	9.7	36.6	34.8	34.8	34.7	37.6	37.6
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:	49.2	16.1	11.6	47.3	13.2	9.7	36.6	34.8	34.8	34.7	37.6	37.6
LOS by Move:	D	B	B	D	B	A	D	C	C	C	D	D
HCM2kAvgQ:	2	12	1	4	11	1	3	4	4	2	7	7

Note: Queue reported is the number of cars per lane.

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

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	12	Average Delay (sec/veh):	30.3
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module: >> Count Date: 7 Jul 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	213	928	22	136	716	176	111	272	242	27	250	108
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:	213	928	22	136	716	176	111	272	242	27	250	108
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	213	928	22	136	716	176	111	272	242	27	250	108
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	0.93	0.93	0.93	0.81	0.81	0.81	0.90	0.90	0.90
PHF Volume:	224	977	23	146	770	189	137	336	299	30	278	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	224	977	23	146	770	189	137	336	299	30	278	120
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
FinalVolume:	224	977	23	146	770	189	137	336	299	30	278	120
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.95	0.05	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3516	83	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.28	0.28	0.08	0.21	0.12	0.08	0.18	0.18	0.02	0.15	0.07
Crit Moves:		****		****				****		****		
Green/Cycle:	0.13	0.43	0.43	0.12	0.42	0.42	0.11	0.27	0.27	0.06	0.22	0.22
Volume/Cap:	0.50	0.65	0.65	0.65	0.50	0.28	0.67	0.65	0.68	0.28	0.67	0.34
Delay/Veh:	41.7	23.9	23.9	48.5	21.5	19.1	51.0	35.3	37.1	46.3	40.1	33.6
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:	41.7	23.9	23.9	48.5	21.5	19.1	51.0	35.3	37.1	46.3	40.1	33.6
LOS by Move:	D	C	C	D	C	B	D	D	D	D	D	C
HCM2kAvgQ:	4	13	13	4	9	4	4	9	8	1	9	3

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.571
Loss Time (sec):	12	Average Delay (sec/veh):	16.4
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module: >> Count Date: 5 Aug 2009 << 3:30 PM TO 5:30 PM												
Base Vol:	38	502	3	12	575	93	80	44	39	7	37	9
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:	38	502	3	12	575	93	80	44	39	7	37	9
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:	0.85	0.85	0.85	0.96	0.96	0.96	0.89	0.89	0.89	0.83	0.83	0.83
PHF Volume:	45	591	4	13	599	97	90	49	44	8	45	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	591	4	13	599	97	90	49	44	8	45	11
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
FinalVolume:	45	591	4	13	599	97	90	49	44	8	45	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.98	0.98	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.86	0.14	0.65	0.35	1.00	0.16	0.84	1.00
Final Sat.:	1805	1887	11	1805	1601	259	1188	653	1615	300	1585	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.31	0.31	0.01	0.37	0.37	0.08	0.08	0.03	0.03	0.03	0.01
Crit Moves:	****				****			****			****	
Green/Cycle:	0.04	0.68	0.68	0.02	0.65	0.65	0.13	0.13	0.13	0.05	0.05	0.05
Volume/Cap:	0.57	0.46	0.46	0.46	0.57	0.57	0.57	0.57	0.20	0.57	0.57	0.14
Delay/Veh:	56.7	7.6	7.6	60.5	10.2	10.2	43.9	43.9	39.2	54.8	54.8	46.3
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:	56.7	7.6	7.6	60.5	10.2	10.2	43.9	43.9	39.2	54.8	54.8	46.3
LOS by Move:	E	A	A	E	B	B	D	D	D	D	D	D
HCM2kAvgQ:	1	8	8	1	12	12	5	5	1	3	3	0

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.99			0.94			1.00	0.97		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3423			1746			1770	1813		
Flt Permitted			0.73			1.00			0.95	1.00		
Satd. Flow (perm)			2547			1746			1770	1813		
Volume (vph)	70	78	187	33	3	149	123	6	17	358	74	3
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	73	81	195	34	3	155	128	6	18	373	77	3
RTOR Reduction (vph)	0	0	5	0	0	1	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	378	0	0	291	0	0	18	453	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			21.3			23.6			1.8	37.0		
Effective Green, g (s)			21.3			23.6			1.8	37.0		
Actuated g/C Ratio			0.17			0.19			0.01	0.29		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			429			326			25	530		
v/s Ratio Prot						c0.17			0.01	c0.25		
v/s Ratio Perm			c0.15									
v/c Ratio			0.88			0.89			0.72	0.85		
Uniform Delay, d1			51.4			50.2			62.1	42.2		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			18.6			25.0			67.0	12.7		
Delay (s)			70.0			75.2			129.1	54.9		
Level of Service			E			E			F	D		
Approach Delay (s)			70.0			75.2				57.8		
Approach LOS			E			E				E		

Intersection Summary			
HCM Average Control Delay	60.4	HCM Level of Service	E
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	126.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

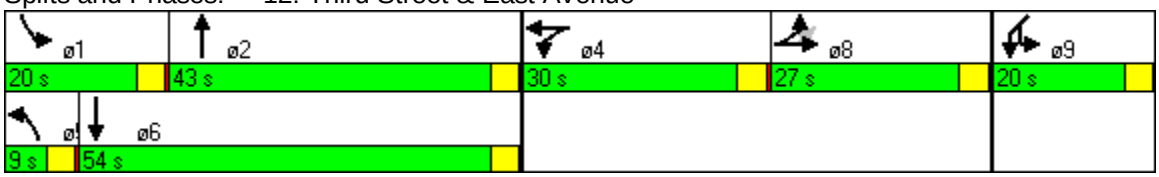
Movement	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		
Lane Util. Factor	1.00	1.00			1.00		
Frt	1.00	1.00			0.95		
Flt Protected	0.95	1.00			0.97		
Satd. Flow (prot)	1770	1857			1716		
Flt Permitted	0.95	1.00			0.97		
Satd. Flow (perm)	1770	1857			1716		
Volume (vph)	147	351	8	21	49	36	4
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	153	366	8	22	51	38	4
RTOR Reduction (vph)	0	1	0	0	1	0	0
Lane Group Flow (vph)	153	373	0	0	114	0	0
Turn Type	Prot			Split			
Protected Phases	1	6		9	9		
Permitted Phases							
Actuated Green, G (s)	14.1	49.3			10.5		
Effective Green, g (s)	14.1	49.3			10.5		
Actuated g/C Ratio	0.11	0.39			0.08		
Clearance Time (s)	4.0	4.0			4.0		
Vehicle Extension (s)	3.0	3.0			3.0		
Lane Grp Cap (vph)	197	724			142		
v/s Ratio Prot	c0.09	0.20			c0.07		
v/s Ratio Perm							
v/c Ratio	0.78	0.52			0.80		
Uniform Delay, d1	54.7	29.5			57.0		
Progression Factor	1.00	1.00			1.00		
Incremental Delay, d2	17.3	0.6			27.0		
Delay (s)	72.0	30.1			84.0		
Level of Service	E	C			F		
Approach Delay (s)		42.3			84.0		
Approach LOS		D			F		

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	43	30	9	54	27	20
Maximum Split (%)	14.3%	30.7%	21.4%	6.4%	38.6%	19.3%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	63	0	9	93	120
End Time (s)	20	63	93	9	63	120	0
Yield/Force Off (s)	16	59	89	5	59	116	136
Yield/Force Off 170(s)	5	59	78	5	59	105	125
Local Start Time (s)	120	0	43	120	129	73	100
Local Yield (s)	136	39	69	125	39	96	116
Local Yield 170(s)	125	39	58	125	39	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	120

Splits and Phases: 12: Third Street & East Avenue



Napa Downtown Specific Plan
Existing PM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.565
Loss Time (sec):	9	Average Delay (sec/veh):	19.4
Optimal Cycle:	38	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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	369	0	238	0	0	0	0	897	93	138	865	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:	369	0	238	0	0	0	0	897	93	138	865	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:	0.94	0.94	0.94	1.00	1.00	1.00	0.90	0.90	0.90	0.94	0.94	0.94
PHF Volume:	393	0	253	0	0	0	0	997	103	147	920	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	0	253	0	0	0	0	997	103	147	920	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
FinalVolume:	393	0	253	0	0	0	0	997	103	147	920	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.16	0.00	0.00	0.00	0.00	0.28	0.06	0.08	0.25	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.28	0.00	0.28	0.00	0.00	0.00	0.00	0.49	0.49	0.14	0.63	0.00
Volume/Cap:	0.40	0.00	0.57	0.00	0.00	0.00	0.00	0.57	0.13	0.57	0.40	0.00
Delay/Veh:	29.7	0.0	32.6	0.0	0.0	0.0	0.0	18.5	14.0	42.8	9.2	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:	29.7	0.0	32.6	0.0	0.0	0.0	0.0	18.5	14.0	42.8	9.2	0.0
LOS by Move:	C	A	C	A	A	A	A	B	B	D	A	A
HCM2kAvgQ:	5	0	7	0	0	0	0	12	2	5	7	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing PM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 33.1 Worst Case Level Of Service: F[184.4]

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					Ignore					Ignore				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Volume Module:																				
Base Vol:	188		0		175	0		0		0	0		790		310	0		924		322
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:	188		0		175	0		0		0	0		790		310	0		924		322
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		0.00		1.00	1.00		0.00	
PHF Adj:	0.86	0.86		0.86		1.00	1.00		1.00		0.97	0.97		0.00		0.83	0.83		0.00	
PHF Volume:	219		0		203	0		0		0	0		814		0	0		1113		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	219		0		203	0		0		0	0		814		0	0		1113		0
Critical Gap Module:																				
Critical Gp:	6.8	xxxx			6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
FollowUpTim:	3.5	xxxx			3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Capacity Module:																				
Cnflict Vol:	1371	xxxx			407	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Potent Cap.:	140	xxxx			599	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Move Cap.:	140	xxxx			599	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Volume/Cap:	1.56	xxxx			0.34	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx						
Level Of Service Module:																				
2Way95thQ:	15.2	xxxx			1.5	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Control Del:	342.9	xxxx			14.1	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
LOS by Move:	F	*			B	*	*	*	*	*	*	*	*	*						
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx			xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
SharedQueue:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shrd ConDel:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shared LOS:	*	*			*	*	*	*	*	*	*	*	*	*						
ApproachDel:	184.4					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	F					*					*					*				

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing PM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	90	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	12	Average Delay (sec/veh):	34.0
Optimal Cycle:	67	Level Of Service:	C

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module: >> Count Date: 5 Jun 2009 << 4:30 PM TO 6:30 PM												
Base Vol:	274	127	0	0	221	465	475	0	565	16	665	33
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:	274	127	0	0	221	465	475	0	565	16	665	33
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:	0.77	0.77	0.77	0.93	0.93	0.93	0.93	0.93	0.93	0.83	0.83	0.83
PHF Volume:	356	165	0	0	238	500	511	0	608	19	801	40
Reduct Vol:	0	0	4	0	0	41	0	0	368	0	0	0
Reduced Vol:	356	165	0	0	238	459	511	0	240	19	801	40
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
FinalVolume:	356	165	0	0	238	459	511	0	240	19	801	40
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.94	0.94
Lanes:	1.37	0.63	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.91	0.09
Final Sat.:	2511	1164	0	0	1900	1615	3502	0	1615	1805	3415	169
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.00	0.00	0.13	0.28	0.15	0.00	0.15	0.01	0.23	0.23
Crit Moves:	****					****	****					****
Green/Cycle:	0.19	0.19	0.00	0.00	0.18	0.37	0.19	0.00	0.38	0.31	0.31	0.31
Volume/Cap:	0.76	0.76	0.00	0.00	0.69	0.76	0.76	0.00	0.39	0.03	0.76	0.76
Delay/Veh:	39.8	39.8	0.0	0.0	40.3	30.4	39.6	0.0	20.9	21.8	31.4	31.4
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:	39.8	39.8	0.0	0.0	40.3	30.4	39.6	0.0	20.9	21.8	31.4	31.4
LOS by Move:	D	D	A	A	D	C	D	A	C	C	C	C
HCM2kAvgQ:	9	9	0	0	7	13	9	0	5	0	11	11

Note: Queue reported is the number of cars per lane.

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J. Existing + Project AM Traffic Capacity Analysis

Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.350
Loss Time (sec):	9	Average Delay (sec/veh):	20.3
Optimal Cycle:	27	Level Of Service:	C

Street Name:	Jefferson Street						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.1	4.1	4.1	0.0	0.0	0.0	4.1	4.1	4.1
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	0	0 0	0 1	0	0 1
Volume Module: >> Count Date: 24 Jun 2009 << 8:00 AM TO 10:00 AM												
Base Vol:	81	355	0	0	296	40	0	0	0	32	120	46
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:	81	355	0	0	296	40	0	0	0	32	120	46
Added Vol:	21	15	27	30	6	2	0	0	0	12	87	13
PasserByVol:	36	14	49	24	-24	0	0	0	0	-10	-36	-14
Initial Fut:	138	384	76	54	278	42	0	0	0	34	171	45
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:	0.89	0.89	0.89	0.88	0.88	0.88	1.00	1.00	1.00	0.85	0.85	0.85
PHF Volume:	155	431	85	61	316	48	0	0	0	40	201	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	431	85	61	316	48	0	0	0	40	201	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
FinalVolume:	155	431	85	61	316	48	0	0	0	40	201	53
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	0.93	0.93	1.00	1.00	1.00	0.98	0.98	0.85
Lanes:	1.00	1.67	0.33	1.00	1.74	0.26	0.00	0.00	0.00	0.17	0.83	1.00
Final Sat.:	1805	2938	582	1805	3073	464	0	0	0	309	1553	1615
Capacity Analysis Module:												
Vol/Sat:	0.09	0.15	0.15	0.03	0.10	0.10	0.00	0.00	0.00	0.13	0.13	0.03
Crit Moves:		****		****						****		
Green/Cycle:	0.24	0.42	0.42	0.10	0.28	0.28	0.00	0.00	0.00	0.37	0.37	0.37
Volume/Cap:	0.36	0.35	0.35	0.35	0.36	0.36	0.00	0.00	0.00	0.35	0.35	0.09
Delay/Veh:	26.1	15.9	15.9	35.0	23.2	23.2	0.0	0.0	0.0	18.5	18.5	16.5
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:	26.1	15.9	15.9	35.0	23.2	23.2	0.0	0.0	0.0	18.5	18.5	16.5
LOS by Move:	C	B	B	C	C	C	A	A	A	B	B	B
HCM2kAvgQ:	3	4	4	1	4	4	0	0	0	4	4	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.268
Loss Time (sec):	6	Average Delay (sec/veh):	11.7
Optimal Cycle:	19	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 27 Jul 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	17	126	29	12	145	19	30	98	20	34	85	8
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:	17	126	29	12	145	19	30	98	20	34	85	8
Added Vol:	12	6	3	1	12	0	0	50	2	6	27	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	132	32	13	157	19	30	148	22	40	112	11
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:	0.91	0.91	0.91	0.90	0.90	0.90	0.70	0.70	0.70	0.84	0.84	0.84
PHF Volume:	32	145	35	14	174	21	43	211	31	48	133	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	145	35	14	174	21	43	211	31	48	133	13
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
FinalVolume:	32	145	35	14	174	21	43	211	31	48	133	13
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.97	0.97	0.97	0.97	0.97	0.76	0.98	0.98	0.88	0.88	0.88
Lanes:	1.00	0.80	0.20	0.07	0.83	0.10	1.00	0.87	0.13	0.24	0.69	0.07
Final Sat.:	1471	1485	360	126	1525	185	1444	1623	241	412	1153	113
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.10	0.11	0.11	0.11	0.03	0.13	0.13	0.12	0.12	0.12
Crit Moves:					****			****				
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.49	0.49	0.49	0.49	0.49	0.49
Volume/Cap:	0.05	0.23	0.23	0.27	0.27	0.27	0.06	0.27	0.27	0.24	0.24	0.24
Delay/Veh:	11.8	12.9	12.9	13.1	13.1	13.1	9.5	10.8	10.8	10.6	10.6	10.6
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:	11.8	12.9	12.9	13.1	13.1	13.1	9.5	10.8	10.8	10.6	10.6	10.6
LOS by Move:	B	B	B	B	B	B	A	B	B	B	B	B
HCM2kAvgQ:	0	3	3	3	3	3	1	3	3	2	2	2

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.327
Loss Time (sec):	9	Average Delay (sec/veh):	11.3
Optimal Cycle:	26	Level Of Service:	B

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module: >> Count Date: 15 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	57	603	0	0	628	59	52	0	57	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:	57	603	0	0	628	59	52	0	57	0	0	0
Added Vol:	22	24	0	0	50	13	24	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	627	0	0	678	72	76	0	74	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:	0.91	0.91	0.91	0.93	0.93	0.93	0.88	0.88	0.88	1.00	1.00	1.00
PHF Volume:	87	689	0	0	729	77	86	0	84	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	689	0	0	729	77	86	0	84	0	0	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
FinalVolume:	87	689	0	0	729	77	86	0	84	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.00	0.00	0.20	0.05	0.05	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.15	0.76	0.00	0.00	0.62	0.62	0.15	0.00	0.15	0.00	0.00	0.00
Volume/Cap:	0.33	0.25	0.00	0.00	0.33	0.08	0.33	0.00	0.36	0.00	0.00	0.00
Delay/Veh:	39.0	3.5	0.0	0.0	9.3	7.7	39.0	0.0	39.4	0.0	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:	39.0	3.5	0.0	0.0	9.3	7.7	39.0	0.0	39.4	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	3	3	0	0	6	1	3	0	3	0	0	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.317
Loss Time (sec):	12	Average Delay (sec/veh):	18.0
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0	1 1	0	1 0	1 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module: >> Count Date: 24 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	17	312	43	32	260	25	47	78	10	16	13	21
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:	17	312	43	32	260	25	47	78	10	16	13	21
Added Vol:	0	25	2	2	36	0	5	17	2	1	13	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	337	45	34	296	25	52	95	12	17	26	22
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:	0.77	0.77	0.77	0.76	0.76	0.76	0.84	0.84	0.84	0.78	0.78	0.78
PHF Volume:	22	438	58	45	389	33	62	113	14	22	33	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	438	58	45	389	33	62	113	14	22	33	28
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
FinalVolume:	22	438	58	45	389	33	62	113	14	22	33	28
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	0.94	0.94	0.88	0.88	0.85	0.89	0.89	0.85
Lanes:	1.00	1.76	0.24	1.00	1.84	0.16	0.35	0.65	1.00	0.40	0.60	1.00
Final Sat.:	1805	3127	418	1805	3289	278	593	1083	1615	665	1017	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.14	0.02	0.12	0.12	0.10	0.10	0.01	0.03	0.03	0.02
Crit Moves:		****		****				****				
Green/Cycle:	0.15	0.44	0.44	0.08	0.37	0.37	0.33	0.33	0.33	0.33	0.33	0.33
Volume/Cap:	0.08	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.03	0.10	0.10	0.05
Delay/Veh:	29.1	14.6	14.6	36.1	18.4	18.4	20.4	20.4	18.1	18.7	18.7	18.3
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:	29.1	14.6	14.6	36.1	18.4	18.4	20.4	20.4	18.1	18.7	18.7	18.3
LOS by Move:	C	B	B	D	B	B	C	C	B	B	B	B
HCM2kAvgQ:	0	4	4	1	4	4	3	3	0	1	1	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.519
Loss Time (sec):	9	Average Delay (sec/veh):	18.8
Optimal Cycle:	34	Level Of Service:	B

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 24 Jun 2009 << 8:00 AM TO 10:00 AM												
Base Vol:	0	380	59	48	265	0	45	225	26	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:	0	380	59	48	265	0	45	225	26	0	0	0
Added Vol:	0	43	7	2	16	0	5	209	0	1	0	14
PasserByVol:	0	29	-29	-24	0	0	20	-20	0	10	0	50
Initial Fut:	0	452	37	26	281	0	70	414	26	11	0	64
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:	0.92	0.92	0.92	0.90	0.90	0.90	0.96	0.96	0.96	1.00	1.00	1.00
PHF Volume:	0	491	40	29	312	0	73	431	27	11	0	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	491	40	29	312	0	73	431	27	11	0	64
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
FinalVolume:	0	491	40	29	312	0	73	431	27	11	0	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.95	1.00	0.95	0.95	0.95	0.83	1.00	0.83
Lanes:	0.00	1.85	0.15	1.00	2.00	0.00	0.14	0.81	0.05	0.15	0.00	0.85
Final Sat.:	0	3300	270	1805	3610	0	247	1458	92	231	0	1342
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.15	0.02	0.09	0.00	0.30	0.30	0.30	0.05	0.00	0.05
Crit Moves:		****		****				****				
Green/Cycle:	0.00	0.27	0.27	0.08	0.35	0.00	0.54	0.54	0.54	0.54	0.00	0.54
Volume/Cap:	0.00	0.55	0.55	0.21	0.25	0.00	0.55	0.55	0.55	0.09	0.00	0.09
Delay/Veh:	0.0	25.6	25.6	35.6	18.8	0.0	12.7	12.7	12.7	8.9	0.0	8.9
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	25.6	25.6	35.6	18.8	0.0	12.7	12.7	12.7	8.9	0.0	8.9
LOS by Move:	A	C	C	D	B	A	B	B	B	A	A	A
HCM2kAvgQ:	0	6	6	1	3	0	9	9	9	1	0	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.373
Loss Time (sec):	6	Average Delay (sec/veh):	7.9
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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: 16 Jul 2009 << 7:45 AM TO 9:45 AM												
Base Vol:	29	30	104	11	34	8	4	219	2	109	354	18
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:	29	30	104	11	34	8	4	219	2	109	354	18
Added Vol:	5	16	7	50	21	0	18	10	0	14	17	8
PasserByVol:	0	0	-15	0	0	0	0	15	0	20	-50	0
Initial Fut:	34	46	96	61	55	8	22	244	2	143	321	26
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:	0.91	0.91	0.91	0.83	0.83	0.83	0.70	0.70	0.70	0.87	0.87	0.87
PHF Volume:	37	51	105	73	66	10	31	349	3	164	369	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	51	105	73	66	10	31	349	3	164	369	30
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
FinalVolume:	37	51	105	73	66	10	31	349	3	164	369	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	0.80	0.80	0.80	0.85	0.85	0.85	0.71	0.71	0.71
Lanes:	0.19	0.26	0.55	0.50	0.44	0.06	0.16	1.83	0.01	0.58	1.31	0.11
Final Sat.:	315	426	890	750	676	98	266	2955	24	785	1762	143
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.12	0.10	0.10	0.10	0.12	0.12	0.12	0.21	0.21	0.21
Crit Moves:		****									****	
Green/Cycle:	0.32	0.32	0.32	0.32	0.32	0.32	0.56	0.56	0.56	0.56	0.56	0.56
Volume/Cap:	0.37	0.37	0.37	0.31	0.31	0.31	0.21	0.21	0.21	0.37	0.37	0.37
Delay/Veh:	13.6	13.6	13.6	13.2	13.2	13.2	5.5	5.5	5.5	6.2	6.2	6.2
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:	13.6	13.6	13.6	13.2	13.2	13.2	5.5	5.5	5.5	6.2	6.2	6.2
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	3	3	3	2	2	2	2	2	2	3	3	3

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.264
Loss Time (sec):	6	Average Delay (sec/veh):	8.8
Optimal Cycle:	19	Level Of Service:	A

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 16 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	38	123	58	6	66	34	0	0	0	15	90	17
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:	38	123	58	6	66	34	0	0	0	15	90	17
Added Vol:	10	21	20	10	5	15	12	108	0	4	105	14
PasserByVol:	-10	-22	-20	0	10	-10	22	55	12	10	-10	0
Initial Fut:	38	122	58	16	81	39	34	163	12	29	185	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:	0.93	0.93	0.93	0.95	0.95	0.95	1.00	1.00	1.00	0.91	0.91	0.91
PHF Volume:	41	131	62	17	85	41	34	163	12	32	203	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	131	62	17	85	41	34	163	12	32	203	34
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
FinalVolume:	41	131	62	17	85	41	34	163	12	32	203	34
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.81	0.81	0.92	0.92	0.92	0.93	0.93	0.93	0.94	0.94	0.94
Lanes:	0.35	1.12	0.53	0.12	0.59	0.29	0.16	0.78	0.06	0.12	0.75	0.13
Final Sat.:	539	1732	823	205	1036	499	286	1373	101	212	1351	226
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.08	0.08	0.08	0.12	0.12	0.12	0.15	0.15	0.15
Crit Moves:					****						****	
Green/Cycle:	0.31	0.31	0.31	0.31	0.31	0.31	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	0.24	0.24	0.24	0.26	0.26	0.26	0.21	0.21	0.21	0.26	0.26	0.26
Delay/Veh:	13.0	13.0	13.0	13.2	13.2	13.2	5.4	5.4	5.4	5.6	5.6	5.6
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:	13.0	13.0	13.0	13.2	13.2	13.2	5.4	5.4	5.4	5.6	5.6	5.6
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	2	2	2	2	2	2	2	2	2

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.287
Loss Time (sec):	9	Average Delay (sec/veh):	21.7
Optimal Cycle:	25	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module: >> Count Date: 16 Jul 2009 << 8:00 AM TO 10:00 AM												
Base Vol:	0	26	41	103	37	47	33	200	7	29	290	45
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	26	41	103	37	47	33	200	7	29	290	45
Added Vol:	0	8	3	2	1	2	2	64	0	6	39	7
PasserByVol:	0	0	0	-18	0	-20	0	0	0	0	-50	50
Initial Fut:	0	34	44	87	38	29	35	264	7	35	279	102
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:	0.80	0.80	0.80	0.90	0.90	0.90	0.82	0.82	0.82	0.88	0.88	0.88
PHF Volume:	0	43	55	97	42	32	43	322	9	40	317	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	43	55	97	42	32	43	322	9	40	317	116
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
FinalVolume:	0	43	55	97	42	32	43	322	9	40	317	116
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.91	0.91
Lanes:	0.00	1.00	1.00	0.56	0.25	0.19	1.00	1.95	0.05	1.00	1.46	0.54
Final Sat.:	0	1900	1615	856	374	285	1805	3503	93	1805	2538	928
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.03	0.11	0.11	0.11	0.02	0.09	0.09	0.02	0.12	0.12
Crit Moves:					****		****				****	
Green/Cycle:	0.00	0.39	0.39	0.39	0.39	0.39	0.08	0.36	0.36	0.16	0.43	0.43
Volume/Cap:	0.00	0.06	0.09	0.29	0.29	0.29	0.29	0.26	0.26	0.14	0.29	0.29
Delay/Veh:	0.0	18.9	19.1	21.0	21.0	21.0	44.2	22.6	22.6	36.6	18.4	18.4
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:	0.0	18.9	19.1	21.0	21.0	21.0	44.2	22.6	22.6	36.6	18.4	18.4
LOS by Move:	A	B	B	C	C	C	D	C	C	D	B	B
HCM2kAvgQ:	0	1	1	4	4	4	2	4	4	1	4	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.477
Loss Time (sec):	12	Average Delay (sec/veh):	21.2
Optimal Cycle:	39	Level Of Service:	C

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module: >> Count Date: 27 Jul 2009 << 7:00 AM TO 9:00 AM												
Base Vol:	24	573	26	18	597	51	20	31	6	33	67	29
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:	24	573	26	18	597	51	20	31	6	33	67	29
Added Vol:	25	30	43	23	21	31	36	86	14	14	67	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	603	69	41	618	82	56	117	20	47	134	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:	0.69	0.69	0.69	0.74	0.74	0.74	0.89	0.89	0.89	0.67	0.67	0.67
PHF Volume:	71	874	100	55	835	111	63	131	22	70	200	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	874	100	55	835	111	63	131	22	70	200	76
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
FinalVolume:	71	874	100	55	835	111	63	131	22	70	200	76
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.43	0.98	0.98	0.60	0.96	0.96
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.85	0.15	1.00	0.72	0.28
Final Sat.:	1805	3610	1615	1805	3610	1615	811	1587	271	1140	1320	502
Capacity Analysis Module:												
Vol/Sat:	0.04	0.24	0.06	0.03	0.23	0.07	0.08	0.08	0.08	0.06	0.15	0.15
Crit Moves:	****				****						****	
Green/Cycle:	0.08	0.50	0.50	0.06	0.49	0.49	0.32	0.32	0.32	0.32	0.32	0.32
Volume/Cap:	0.48	0.48	0.12	0.48	0.48	0.14	0.24	0.26	0.26	0.19	0.48	0.48
Delay/Veh:	48.4	17.2	13.8	50.6	18.3	15.0	27.0	26.9	26.9	26.3	29.4	29.4
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:	48.4	17.2	13.8	50.6	18.3	15.0	27.0	26.9	26.9	26.3	29.4	29.4
LOS by Move:	D	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	9	2	2	9	2	2	4	4	2	7	7

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.509
Loss Time (sec):	12	Average Delay (sec/veh):	28.8
Optimal Cycle:	41	Level Of Service:	C

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module: >> Count Date: 7 Jul 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	160	553	6	38	546	54	90	105	116	17	173	61
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:	160	553	6	38	546	54	90	105	116	17	173	61
Added Vol:	17	69	0	10	30	10	12	48	9	0	25	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	177	622	6	48	576	64	102	153	125	17	198	77
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	0.84	0.84	0.84	0.71	0.71	0.71	0.85	0.85	0.85
PHF Volume:	197	691	7	57	686	76	144	215	176	20	233	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	691	7	57	686	76	144	215	176	20	233	91
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
FinalVolume:	197	691	7	57	686	76	144	215	176	20	233	91
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.98	0.02	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3572	34	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.19	0.03	0.19	0.05	0.08	0.11	0.11	0.01	0.12	0.06
Crit Moves:	****				****		****				****	
Green/Cycle:	0.11	0.40	0.40	0.08	0.37	0.37	0.16	0.26	0.26	0.14	0.24	0.24
Volume/Cap:	0.51	0.48	0.48	0.38	0.51	0.13	0.51	0.44	0.42	0.08	0.51	0.23
Delay/Veh:	43.1	22.5	22.5	45.1	24.6	20.7	40.2	31.5	31.4	37.8	33.8	30.9
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:	43.1	22.5	22.5	45.1	24.6	20.7	40.2	31.5	31.4	37.8	33.8	30.9
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	4	9	9	2	8	1	4	5	4	1	7	2

Note: Queue reported is the number of cars per lane.

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Existing + Project AM Peak

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

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.707
Loss Time (sec):	12	Average Delay (sec/veh):	22.9
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module: >> Count Date: 5 Aug 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	40	496	6	10	481	85	41	25	19	34	83	10
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:	40	496	6	10	481	85	41	25	19	34	83	10
Added Vol:	38	3	0	0	6	52	23	2	16	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	499	6	10	487	137	64	27	35	34	87	10
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:	0.92	0.92	0.92	0.79	0.79	0.79	0.71	0.71	0.71	0.86	0.86	0.86
PHF Volume:	85	542	7	13	616	173	90	38	49	40	101	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	542	7	13	616	173	90	38	49	40	101	12
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
FinalVolume:	85	542	7	13	616	173	90	38	49	40	101	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.97	0.97	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.78	0.22	0.70	0.30	1.00	0.28	0.72	1.00
Final Sat.:	1805	1874	23	1805	1434	403	1291	545	1615	526	1347	1615
Capacity Analysis Module:												
Vol/Sat:	0.05	0.29	0.29	0.01	0.43	0.43	0.07	0.07	0.03	0.08	0.08	0.01
Crit Moves:	****				****		****			****		
Green/Cycle:	0.07	0.66	0.66	0.02	0.61	0.61	0.10	0.10	0.10	0.11	0.11	0.11
Volume/Cap:	0.71	0.44	0.44	0.44	0.71	0.71	0.71	0.71	0.31	0.71	0.71	0.07
Delay/Veh:	63.2	8.4	8.4	59.1	15.5	15.5	55.7	55.7	43.0	54.2	54.2	40.4
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:	63.2	8.4	8.4	59.1	15.5	15.5	55.7	55.7	43.0	54.2	54.2	40.4
LOS by Move:	E	A	A	E	B	B	E	E	D	D	D	D
HCM2kAvgQ:	3	8	8	1	17	17	5	5	2	6	6	0

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.98			0.93			1.00	0.99		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3388			1733			1770	1841		
Flt Permitted			0.69			1.00			0.95	1.00		
Satd. Flow (perm)			2383			1733			1770	1841		
Volume (vph)	25	29	53	19	3	208	211	11	27	280	16	7
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	28	33	60	21	3	234	237	12	30	315	18	8
RTOR Reduction (vph)	0	0	10	0	0	1	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	132	0	0	485	0	0	30	340	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			9.0			35.8			1.9	29.2		
Effective Green, g (s)			9.0			35.8			1.9	29.2		
Actuated g/C Ratio			0.08			0.32			0.02	0.26		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			194			560			30	485		
v/s Ratio Prot						c0.28			c0.02	0.18		
v/s Ratio Perm			c0.06									
v/c Ratio			0.68			0.87			1.00	0.70		
Uniform Delay, d1			49.5			35.3			54.4	36.9		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			9.1			13.3			164.3	4.6		
Delay (s)			58.6			48.5			218.8	41.4		
Level of Service			E			D			F	D		
Approach Delay (s)			58.6			48.5				55.8		
Approach LOS			E			D				E		

Intersection Summary			
HCM Average Control Delay	52.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	110.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

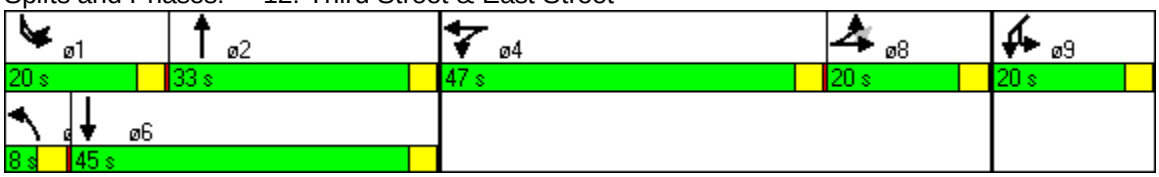
Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00			1.00	
Frt		1.00	0.98			0.96	
Flt Protected		0.95	1.00			0.97	
Satd. Flow (prot)		1770	1825			1724	
Flt Permitted		0.95	1.00			0.97	
Satd. Flow (perm)		1770	1825			1724	
Volume (vph)	6	38	323	51	10	74	39
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	7	43	363	57	11	83	44
RTOR Reduction (vph)	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	50	416	0	0	138	0
Turn Type	Prot	Prot			Split		
Protected Phases	1	1	6		9	9	
Permitted Phases							
Actuated Green, G (s)		6.6	33.9			10.2	
Effective Green, g (s)		6.6	33.9			10.2	
Actuated g/C Ratio		0.06	0.31			0.09	
Clearance Time (s)		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0			3.0	
Lane Grp Cap (vph)		105	558			159	
v/s Ratio Prot		0.03	c0.23			c0.08	
v/s Ratio Perm							
v/c Ratio		0.48	0.75			0.87	
Uniform Delay, d1		50.4	34.6			49.6	
Progression Factor		1.00	1.00			1.00	
Incremental Delay, d2		3.4	5.4			36.0	
Delay (s)		53.8	39.9			85.6	
Level of Service		D	D			F	
Approach Delay (s)			41.4			85.6	
Approach LOS			D			F	

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	33	47	8	45	20	20
Maximum Split (%)	14.3%	23.6%	33.6%	5.7%	32.1%	14.3%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	53	0	8	100	120
End Time (s)	20	53	100	8	53	120	0
Yield/Force Off (s)	16	49	96	4	49	116	136
Yield/Force Off 170(s)	5	49	85	4	49	105	125
Local Start Time (s)	120	0	33	120	128	80	100
Local Yield (s)	136	29	76	124	29	96	116
Local Yield 170(s)	125	29	65	124	29	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	120

Splits and Phases: 12: Third Street & East Street



Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.998
Loss Time (sec):	9	Average Delay (sec/veh):	45.2
Optimal Cycle:	180	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
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	329	0	392	0	0	0	0	1196	248	124	579	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:	329	0	392	0	0	0	0	1196	248	124	579	0
Added Vol:	0	0	137	0	0	0	0	14	0	62	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	329	0	529	0	0	0	0	1210	248	186	585	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:	0.85	0.85	0.85	1.00	1.00	1.00	0.85	0.85	0.85	0.80	0.80	0.80
PHF Volume:	387	0	622	0	0	0	0	1424	292	233	731	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	387	0	622	0	0	0	0	1424	292	233	731	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
FinalVolume:	387	0	622	0	0	0	0	1424	292	233	731	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.39	0.00	0.00	0.00	0.00	0.39	0.18	0.13	0.20	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.39	0.00	0.39	0.00	0.00	0.00	0.00	0.39	0.39	0.13	0.52	0.00
Volume/Cap:	0.29	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.46	1.00	0.39	0.00
Delay/Veh:	21.3	0.0	66.3	0.0	0.0	0.0	0.0	53.6	22.9	102.0	14.3	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:	21.3	0.0	66.3	0.0	0.0	0.0	0.0	53.6	22.9	102.0	14.3	0.0
LOS by Move:	C	A	E	A	A	A	A	D	C	F	B	A
HCM2kAvgQ:	4	0	26	0	0	0	0	30	7	12	7	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 28.5 Worst Case Level Of Service: F[180.9]

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			Ignore			Ignore		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			0 0 1 1 0		
Volume Module:												
Base Vol:	104	0	139	0	0	0	0	1119	345	0	518	182
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:	104	0	139	0	0	0	0	1119	345	0	518	182
Added Vol:	0	0	137	0	0	0	0	151	0	0	68	62
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	0	276	0	0	0	0	1270	345	0	586	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.89	0.89	0.89	1.00	1.00	1.00	0.86	0.86	0.00	0.73	0.73	0.00
PHF Volume:	117	0	310	0	0	0	0	1477	0	0	803	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	117	0	310	0	0	0	0	1477	0	0	803	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1878	xxxx	738	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	64	xxxx	365	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	64	xxxx	365	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	1.81	xxxx	0.85	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	10.7	xxxx	7.9	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	524.8	xxxx	51.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	F	*	F	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	180.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project AM Peak

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 14 SR 29 NB Ramps/ First Street	??? / ???	Yes / Yes

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Napa Downtown Specific Plan
Existing + Project AM Peak

Peak Hour Delay Signal Warrant Report

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			0 0 1 1 0		
Initial Vol:	104	0	276	0	0	0	0	1270	345	0	586	244
ApproachDel:	180.9			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=19.1]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=380]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2825]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Existing + Project AM Peak

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	104		0	276		0		0		0		0	1270	345		0	586	244		

Major Street Volume: 2445
Minor Approach Volume: 380
Minor Approach Volume Threshold: -10 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	90	Critical Vol./Cap.(X):	0.852
Loss Time (sec):	12	Average Delay (sec/veh):	34.4
Optimal Cycle:	87	Level Of Service:	C

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module: >> Count Date: 5 Jun 2009 << 7:30 AM TO 9:30 AM												
Base Vol:	177	131	0	0	228	203	475	0	665	10	295	17
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:	177	131	0	0	228	203	475	0	665	10	295	17
Added Vol:	0	0	0	0	0	20	52	0	236	0	109	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	177	131	0	0	228	223	527	0	901	10	404	17
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:	0.92	0.92	0.92	0.87	0.87	0.87	0.84	0.84	0.84	0.75	0.75	0.75
PHF Volume:	192	142	0	0	262	256	627	0	1073	13	539	23
Reduct Vol:	0	0	3	0	0	88	0	0	355	0	0	0
Reduced Vol:	192	142	0	0	262	168	627	0	718	13	539	23
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
FinalVolume:	192	142	0	0	262	168	627	0	718	13	539	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.94	0.94
Lanes:	1.15	0.85	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.92	0.08
Final Sat.:	2123	1571	0	0	1900	1615	3502	0	1615	1805	3443	145
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.00	0.00	0.14	0.10	0.18	0.00	0.44	0.01	0.16	0.16
Crit Moves:		****			****				****		****	
Green/Cycle:	0.11	0.11	0.00	0.00	0.16	0.58	0.41	0.00	0.52	0.18	0.18	0.18
Volume/Cap:	0.85	0.85	0.00	0.00	0.85	0.18	0.43	0.00	0.85	0.04	0.85	0.85
Delay/Veh:	55.8	55.8	0.0	0.0	56.5	9.1	19.0	0.0	26.9	30.3	46.0	46.0
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:	55.8	55.8	0.0	0.0	56.5	9.1	19.0	0.0	26.9	30.3	46.0	46.0
LOS by Move:	E	E	A	A	E	A	B	A	C	C	D	D
HCM2kAvgQ:	7	7	0	0	10	2	7	0	20	0	9	9

Note: Queue reported is the number of cars per lane.

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K. Existing + Project AM (MITIGATED) Traffic Capacity Analysis

Napa Downtown Specific Plan
Existing + Project AM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.601
Loss Time (sec):	0	Average Delay (sec/veh):	11.5
Optimal Cycle:	57	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			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	0 0	1 1	0
Volume Module:												
Base Vol:	104	0	139	0	0	0	0	1119	345	0	518	182
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:	104	0	139	0	0	0	0	1119	345	0	518	182
Added Vol:	0	0	137	0	0	0	0	151	0	0	68	62
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	0	276	0	0	0	0	1270	345	0	586	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.89	0.89	0.89	1.00	1.00	1.00	0.86	0.86	0.00	0.73	0.73	0.00
PHF Volume:	117	0	310	0	0	0	0	1477	0	0	803	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	0	310	0	0	0	0	1477	0	0	803	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	117	0	310	0	0	0	0	1477	0	0	803	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	0	0	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.19	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.22	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.32	0.00	0.32	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.68	0.00
Volume/Cap:	0.20	0.00	0.60	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.33	0.00
Delay/Veh:	24.9	0.0	30.6	0.0	0.0	0.0	0.0	9.1	0.0	0.0	6.6	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:	24.9	0.0	30.6	0.0	0.0	0.0	0.0	9.1	0.0	0.0	6.6	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	3	0	9	0	0	0	0	13	0	0	5	0

Note: Queue reported is the number of cars per lane.

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L. Existing + Project PM Traffic Capacity Analysis

Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.775
Loss Time (sec):	9	Average Delay (sec/veh):	27.7
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Jefferson Street									First Street								
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						Split Phase						Split Phase					
Rights:	Include						Include						Include						Include					
Min. Green:	4		6		6		6		6		6		0		0		0		4		4		4	
Y+R:	3.8		4.3		4.3		4.1		4.1		4.1		0.0		0.0		0.0		4.1		4.1		4.1	
Lanes:	1	0	1	1	0		1	0	1	1	0		0	0	0	0	0		0	1	0	0	1	
Volume Module: >> Count Date: 24 Jun 2009 << 4:00 PM TO 6:00 PM																								
Base Vol:	125		550		0		0		510		103		0		0		0		82		360		124	
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:	125		550		0		0		510		103		0		0		0		82		360		124	
Added Vol:	44		11		15		17		10		4		0		0		0		26		187		27	
PasserByVol:	108		37		47		29		-29		0		0		0		0		-24		-108		-37	
Initial Fut:	277		598		62		46		491		107		0		0		0		84		439		114	
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		1.00		1.00		1.00		0.81		0.81		0.81	
PHF Volume:	292		629		65		48		517		113		0		0		0		104		542		141	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	292		629		65		48		517		113		0		0		0		104		542		141	
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	
FinalVolume:	292		629		65		48		517		113		0		0		0		104		542		141	
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		0.92		0.92		1.00		1.00		1.00		0.98		0.98		0.85	
Lanes:	1.00		1.81		0.19		1.00		1.64		0.36		0.00		0.00		0.00		0.16		0.84		1.00	
Final Sat.:	1805		3225		334		1805		2884		628		0		0		0		299		1563		1615	
Capacity Analysis Module:																								
Vol/Sat:	0.16		0.20		0.20		0.03		0.18		0.18		0.00		0.00		0.00		0.35		0.35		0.09	
Crit Moves:	****								****										****					
Green/Cycle:	0.21		0.32		0.32		0.12		0.23		0.23		0.00		0.00		0.00		0.45		0.45		0.45	
Volume/Cap:	0.77		0.61		0.61		0.22		0.77		0.77		0.00		0.00		0.00		0.77		0.77		0.19	
Delay/Veh:	39.6		24.1		24.1		32.2		33.5		33.5		0.0		0.0		0.0		23.3		23.3		13.5	
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:	39.6		24.1		24.1		32.2		33.5		33.5		0.0		0.0		0.0		23.3		23.3		13.5	
LOS by Move:	D		C		C		C		C		C		A		A		A		C		C		B	
HCM2kAvgQ:	7		7		7		1		8		8		0		0		0		15		15		2	

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.391
Loss Time (sec):	6	Average Delay (sec/veh):	12.4
Optimal Cycle:	22	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 27 Jul 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	36	189	50	15	169	22	36	226	53	51	122	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:	36	189	50	15	169	22	36	226	53	51	122	14
Added Vol:	8	12	7	3	7	0	0	36	4	4	43	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	201	57	18	176	22	36	262	57	55	165	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:	0.86	0.86	0.86	0.92	0.92	0.92	0.89	0.89	0.89	0.82	0.82	0.82
PHF Volume:	51	234	66	20	191	24	40	294	64	67	201	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	234	66	20	191	24	40	294	64	67	201	20
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
FinalVolume:	51	234	66	20	191	24	40	294	64	67	201	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.72	0.97	0.97	0.95	0.95	0.95	0.73	0.97	0.97	0.85	0.85	0.85
Lanes:	1.00	0.78	0.22	0.08	0.82	0.10	1.00	0.82	0.18	0.23	0.70	0.07
Final Sat.:	1368	1431	406	151	1475	184	1393	1518	330	377	1132	110
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.13	0.13	0.13	0.03	0.19	0.19	0.18	0.18	0.18
Crit Moves:		****						****				
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.42	0.50	0.50	0.50	0.50	0.50	0.50
Volume/Cap:	0.09	0.39	0.39	0.31	0.31	0.31	0.06	0.39	0.39	0.36	0.36	0.36
Delay/Veh:	12.4	14.5	14.5	13.9	13.9	13.9	9.2	11.3	11.3	11.1	11.1	11.1
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:	12.4	14.5	14.5	13.9	13.9	13.9	9.2	11.3	11.3	11.1	11.1	11.1
LOS by Move:	B	B	B	B	B	B	A	B	B	B	B	B
HCM2kAvgQ:	1	5	5	4	4	4	0	5	5	4	4	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	9	Average Delay (sec/veh):	16.9
Optimal Cycle:	38	Level Of Service:	B

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module: >> Count Date: 15 Jun 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	68	1015	0	0	971	71	127	0	156	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:	68	1015	0	0	971	71	127	0	156	0	0	0
Added Vol:	21	49	0	0	31	15	17	0	24	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	1064	0	0	1002	86	144	0	180	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:	0.93	0.93	0.93	0.92	0.92	0.92	0.71	0.71	0.71	1.00	1.00	1.00
PHF Volume:	96	1144	0	0	1089	93	203	0	254	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	1144	0	0	1089	93	203	0	254	0	0	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
FinalVolume:	96	1144	0	0	1089	93	203	0	254	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.32	0.00	0.00	0.30	0.06	0.11	0.00	0.16	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.09	0.63	0.00	0.00	0.54	0.54	0.28	0.00	0.28	0.00	0.00	0.00
Volume/Cap:	0.56	0.50	0.00	0.00	0.56	0.11	0.40	0.00	0.56	0.00	0.00	0.00
Delay/Veh:	47.6	10.2	0.0	0.0	15.8	11.5	29.8	0.0	32.4	0.0	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:	47.6	10.2	0.0	0.0	15.8	11.5	29.8	0.0	32.4	0.0	0.0	0.0
LOS by Move:	D	B	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	4	10	0	0	12	1	5	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.506
Loss Time (sec):	12	Average Delay (sec/veh):	19.8
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module: >> Count Date: 24 Jun 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	36	557	86	53	543	60	95	114	29	59	71	47
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:	36	557	86	53	543	60	95	114	29	59	71	47
Added Vol:	0	37	1	1	28	0	3	9	1	2	26	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	594	87	54	571	60	98	123	30	61	97	49
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:	0.94	0.94	0.94	0.88	0.88	0.88	0.83	0.83	0.83	0.74	0.74	0.74
PHF Volume:	38	632	93	61	649	68	118	148	36	82	131	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	632	93	61	649	68	118	148	36	82	131	66
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
FinalVolume:	38	632	93	61	649	68	118	148	36	82	131	66
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	0.94	0.94	0.73	0.73	0.85	0.77	0.77	0.85
Lanes:	1.00	1.74	0.26	1.00	1.81	0.19	0.44	0.56	1.00	0.39	0.61	1.00
Final Sat.:	1805	3089	452	1805	3221	338	617	774	1615	563	896	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.20	0.20	0.03	0.20	0.20	0.19	0.19	0.02	0.15	0.15	0.04
Crit Moves:		****		****				****				
Green/Cycle:	0.09	0.40	0.40	0.07	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.23	0.51	0.51	0.51	0.53	0.53	0.51	0.51	0.06	0.39	0.39	0.11
Delay/Veh:	34.2	18.1	18.1	39.5	19.8	19.8	19.9	19.9	15.8	18.6	18.6	16.2
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:	34.2	18.1	18.1	39.5	19.8	19.8	19.9	19.9	15.8	18.6	18.6	16.2
LOS by Move:	C	B	B	D	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	7	7	2	8	8	6	6	1	4	4	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.616
Loss Time (sec):	9	Average Delay (sec/veh):	19.3
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	649	54	59	519	0	49	275	31	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:	0	649	54	59	519	0	49	275	31	0	0	0
Added Vol:	0	37	3	1	34	0	4	123	0	2	0	29
PasserByVol:	0	27	-27	-29	-24	0	20	-20	0	24	0	145
Initial Fut:	0	713	30	31	529	0	73	378	31	26	0	174
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:	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.92	0.92	1.00	1.00	1.00
PHF Volume:	0	784	33	34	581	0	79	411	34	26	0	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	784	33	34	581	0	79	411	34	26	0	174
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
FinalVolume:	0	784	33	34	581	0	79	411	34	26	0	174
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.95	1.00	0.92	0.92	0.92	0.81	1.00	0.81
Lanes:	0.00	1.92	0.08	1.00	2.00	0.00	0.15	0.79	0.06	0.13	0.00	0.87
Final Sat.:	0	3443	145	1805	3610	0	264	1369	112	200	0	1338
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.23	0.02	0.16	0.00	0.30	0.30	0.30	0.13	0.00	0.13
Crit Moves:		****		****				****				
Green/Cycle:	0.00	0.35	0.35	0.08	0.43	0.00	0.46	0.46	0.46	0.46	0.00	0.46
Volume/Cap:	0.00	0.65	0.65	0.25	0.38	0.00	0.65	0.65	0.65	0.28	0.00	0.28
Delay/Veh:	0.0	23.1	23.1	35.9	15.9	0.0	18.4	18.4	18.4	13.5	0.0	13.5
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	23.1	23.1	35.9	15.9	0.0	18.4	18.4	18.4	13.5	0.0	13.5
LOS by Move:	A	C	C	D	B	A	B	B	B	B	A	B
HCM2kAvgQ:	0	10	10	1	5	0	11	11	11	3	0	3

Note: Queue reported is the number of cars per lane.

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

Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.471
Loss Time (sec):	6	Average Delay (sec/veh):	10.1
Optimal Cycle:	26	Level Of Service:	B

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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: 28 May 2009 << 3:30 PM TO 5:30 PM												
Base Vol:	98	50	134	29	48	25	4	164	1	128	377	9
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:	98	50	134	29	48	25	4	164	1	128	377	9
Added Vol:	10	13	15	29	23	0	12	12	0	10	26	6
PasserByVol:	0	0	-20	0	0	0	0	20	0	0	-70	0
Initial Fut:	108	63	129	58	71	25	16	196	1	138	333	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:	0.88	0.88	0.88	0.80	0.80	0.80	0.85	0.85	0.85	0.92	0.92	0.92
PHF Volume:	123	72	147	73	89	31	19	231	1	150	362	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	72	147	73	89	31	19	231	1	150	362	16
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
FinalVolume:	123	72	147	73	89	31	19	231	1	150	362	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.78	0.78	0.79	0.79	0.79	0.86	0.86	0.86	0.75	0.75	0.75
Lanes:	0.36	0.21	0.43	0.38	0.46	0.16	0.15	1.84	0.01	0.57	1.37	0.06
Final Sat.:	537	313	641	562	688	242	247	3020	15	807	1947	88
Capacity Analysis Module:												
Vol/Sat:	0.23	0.23	0.23	0.13	0.13	0.13	0.08	0.08	0.08	0.19	0.19	0.19
Crit Moves:		****									****	
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.47	0.47	0.47	0.27	0.27	0.27	0.19	0.19	0.19	0.47	0.47	0.47
Delay/Veh:	9.1	9.1	9.1	7.8	7.8	7.8	10.0	10.0	10.0	11.6	11.6	11.6
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:	9.1	9.1	9.1	7.8	7.8	7.8	10.0	10.0	10.0	11.6	11.6	11.6
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
HCM2kAvgQ:	4	4	4	2	2	2	1	1	1	4	4	4

Note: Queue reported is the number of cars per lane.

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

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.528
Loss Time (sec):	6	Average Delay (sec/veh):	10.4
Optimal Cycle:	27	Level Of Service:	B

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 16 Jun 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	82	265	98	16	188	70	0	0	0	40	167	27
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:	82	265	98	16	188	70	0	0	0	40	167	27
Added Vol:	23	15	12	15	8	32	8	98	0	4	151	12
PasserByVol:	-20	-30	-45	0	20	-20	30	45	56	30	-30	0
Initial Fut:	85	250	65	31	216	82	38	143	56	74	288	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	92	272	71	34	235	89	41	155	61	80	313	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	272	71	34	235	89	41	155	61	80	313	42
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
FinalVolume:	92	272	71	34	235	89	41	155	61	80	313	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.75	0.75	0.75	0.91	0.91	0.91	0.87	0.87	0.87	0.89	0.89	0.89
Lanes:	0.42	1.26	0.32	0.09	0.66	0.25	0.16	0.60	0.24	0.18	0.72	0.10
Final Sat.:	607	1786	464	163	1135	431	266	1002	392	312	1215	165
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.21	0.21	0.21	0.16	0.16	0.16	0.26	0.26	0.26
Crit Moves:					****						****	
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.39	0.49	0.49	0.49	0.49	0.49	0.49
Volume/Cap:	0.39	0.39	0.39	0.53	0.53	0.53	0.32	0.32	0.32	0.53	0.53	0.53
Delay/Veh:	11.1	11.1	11.1	12.4	12.4	12.4	8.0	8.0	8.0	9.5	9.5	9.5
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:	11.1	11.1	11.1	12.4	12.4	12.4	8.0	8.0	8.0	9.5	9.5	9.5
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	3	3	3	5	5	5	3	3	3	5	5	5

Note: Queue reported is the number of cars per lane.

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

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.539
Loss Time (sec):	9	Average Delay (sec/veh):	26.6
Optimal Cycle:	37	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1	0 1	1 0	1	0 1 1 0
Volume Module: >> Count Date: 16 Jul 2009 << 4:30 PM TO 6:30 PM												
Base Vol:	12	60	113	210	95	75	59	345	4	100	458	80
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:	12	60	113	210	95	75	59	345	4	100	458	80
Added Vol:	0	12	7	2	3	2	2	54	0	4	38	14
PasserByVol:	0	0	0	-36	0	-20	0	0	0	0	70	-70
Initial Fut:	12	72	120	176	98	57	61	399	4	104	566	24
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:	0.80	0.80	0.80	0.84	0.84	0.84	0.74	0.74	0.74	0.96	0.96	0.96
PHF Volume:	15	90	150	210	117	68	82	539	5	108	590	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	90	150	210	117	68	82	539	5	108	590	25
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
FinalVolume:	15	90	150	210	117	68	82	539	5	108	590	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.85	0.76	0.76	0.76	0.95	0.95	0.95	0.95	0.94	0.94
Lanes:	0.14	0.86	1.00	0.53	0.30	0.17	1.00	1.98	0.02	1.00	1.92	0.08
Final Sat.:	255	1532	1615	765	426	248	1805	3571	36	1805	3442	146
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.09	0.27	0.27	0.27	0.05	0.15	0.15	0.06	0.17	0.17
Crit Moves:					****		****				****	
Green/Cycle:	0.51	0.51	0.51	0.51	0.51	0.51	0.08	0.29	0.29	0.11	0.32	0.32
Volume/Cap:	0.12	0.12	0.18	0.54	0.54	0.54	0.54	0.52	0.52	0.52	0.54	0.54
Delay/Veh:	12.9	12.9	13.5	17.5	17.5	17.5	47.7	30.4	30.4	44.2	28.6	28.6
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	12.9	13.5	17.5	17.5	17.5	47.7	30.4	30.4	44.2	28.6	28.6
LOS by Move:	B	B	B	B	B	B	D	C	C	D	C	C
HCM2kAvgQ:	2	2	2	9	9	9	3	8	8	3	8	8

Note: Queue reported is the number of cars per lane.

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

Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	12	Average Delay (sec/veh):	26.5
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module: >> Count Date: 27 Jul 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	60	1028	82	104	965	88	61	98	25	69	153	49
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:	60	1028	82	104	965	88	61	98	25	69	153	49
Added Vol:	17	26	18	24	33	40	37	61	27	32	108	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	1054	100	128	998	128	98	159	52	101	261	73
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:	0.94	0.94	0.94	0.90	0.90	0.90	0.79	0.79	0.79	0.87	0.87	0.87
PHF Volume:	82	1121	106	142	1109	142	124	201	66	116	300	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	1121	106	142	1109	142	124	201	66	116	300	84
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
FinalVolume:	82	1121	106	142	1109	142	124	201	66	116	300	84
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.29	0.96	0.96	0.44	0.97	0.97
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.75	0.25	1.00	0.78	0.22
Final Sat.:	1805	3610	1615	1805	3610	1615	557	1379	451	842	1436	402
Capacity Analysis Module:												
Vol/Sat:	0.05	0.31	0.07	0.08	0.31	0.09	0.22	0.15	0.15	0.14	0.21	0.21
Crit Moves:		****		****			****					
Green/Cycle:	0.07	0.45	0.45	0.11	0.49	0.49	0.32	0.32	0.32	0.32	0.32	0.32
Volume/Cap:	0.63	0.69	0.15	0.69	0.63	0.18	0.69	0.45	0.45	0.43	0.65	0.65
Delay/Veh:	56.5	24.4	17.1	54.4	20.4	15.0	42.0	28.8	28.8	29.1	33.0	33.0
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:	56.5	24.4	17.1	54.4	20.4	15.0	42.0	28.8	28.8	29.1	33.0	33.0
LOS by Move:	E	C	B	D	C	B	D	C	C	C	C	C
HCM2kAvgQ:	2	14	2	6	14	3	5	7	7	3	11	11

Note: Queue reported is the number of cars per lane.

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

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.676
Loss Time (sec):	12	Average Delay (sec/veh):	32.1
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module: >> Count Date: 7 Jul 2009 << 4:00 PM TO 6:00 PM												
Base Vol:	213	928	22	136	716	176	111	272	242	27	250	108
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:	213	928	22	136	716	176	111	272	242	27	250	108
Added Vol:	12	38	0	18	66	9	12	32	18	0	35	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	225	966	22	154	782	185	123	304	260	27	285	119
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	0.93	0.93	0.93	0.81	0.81	0.81	0.90	0.90	0.90
PHF Volume:	237	1017	23	166	841	199	152	375	321	30	317	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	1017	23	166	841	199	152	375	321	30	317	132
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
FinalVolume:	237	1017	23	166	841	199	152	375	321	30	317	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.96	0.04	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3519	80	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.07	0.29	0.29	0.09	0.23	0.12	0.08	0.20	0.20	0.02	0.17	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.41	0.41	0.13	0.42	0.42	0.11	0.28	0.28	0.06	0.23	0.23
Volume/Cap:	0.56	0.71	0.71	0.71	0.56	0.29	0.74	0.71	0.71	0.28	0.74	0.36
Delay/Veh:	43.0	26.1	26.1	51.0	22.5	19.5	55.9	36.6	37.5	46.3	42.5	33.2
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:	43.0	26.1	26.1	51.0	22.5	19.5	55.9	36.6	37.5	46.3	42.5	33.2
LOS by Move:	D	C	C	D	C	B	E	D	D	D	D	C
HCM2kAvgQ:	4	15	15	5	10	4	5	10	9	1	11	4

Note: Queue reported is the number of cars per lane.

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Existing + Project PM Peak

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

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.650
Loss Time (sec):	12	Average Delay (sec/veh):	20.8
Optimal Cycle:	53	Level Of Service:	C

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module: >> Count Date: 5 Aug 2009 << 3:30 PM TO 5:30 PM												
Base Vol:	38	502	3	12	575	93	80	44	39	7	37	9
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:	38	502	3	12	575	93	80	44	39	7	37	9
Added Vol:	20	6	0	0	4	29	50	5	35	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	508	3	12	579	122	130	49	74	7	40	9
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:	0.85	0.85	0.85	0.96	0.96	0.96	0.89	0.89	0.89	0.83	0.83	0.83
PHF Volume:	68	598	4	13	603	127	146	55	83	8	48	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	598	4	13	603	127	146	55	83	8	48	11
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
FinalVolume:	68	598	4	13	603	127	146	55	83	8	48	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.97	0.97	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.83	0.17	0.73	0.27	1.00	0.15	0.85	1.00
Final Sat.:	1805	1887	11	1805	1529	322	1332	502	1615	281	1606	1615
Capacity Analysis Module:												
Vol/Sat:	0.04	0.32	0.32	0.01	0.39	0.39	0.11	0.11	0.05	0.03	0.03	0.01
Crit Moves:	****				****			****			****	
Green/Cycle:	0.06	0.65	0.65	0.01	0.61	0.61	0.17	0.17	0.17	0.05	0.05	0.05
Volume/Cap:	0.65	0.49	0.49	0.49	0.65	0.65	0.65	0.65	0.31	0.65	0.65	0.15
Delay/Veh:	59.6	9.2	9.2	62.7	14.1	14.1	43.6	43.6	37.1	62.9	62.9	46.7
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:	59.6	9.2	9.2	62.7	14.1	14.1	43.6	43.6	37.1	62.9	62.9	46.7
LOS by Move:	E	A	A	E	B	B	D	D	D	E	E	D
HCM2kAvgQ:	2	9	9	1	15	15	7	7	2	3	3	0

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.98			0.94			1.00	0.97		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3402			1747			1770	1816		
Flt Permitted			0.73			1.00			0.95	1.00		
Satd. Flow (perm)			2534			1747			1770	1816		
Volume (vph)	76	82	191	54	3	151	123	6	30	379	74	3
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	79	85	199	56	3	157	128	6	31	395	77	3
RTOR Reduction (vph)	0	0	9	0	0	1	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	410	0	0	293	0	0	31	475	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			23.0			23.8			3.4	38.2		
Effective Green, g (s)			23.0			23.8			3.4	38.2		
Actuated g/C Ratio			0.17			0.18			0.03	0.29		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			440			314			45	524		
v/s Ratio Prot						c0.17			0.02	c0.26		
v/s Ratio Perm			c0.16									
v/c Ratio			0.93			0.93			0.69	0.91		
Uniform Delay, d1			53.9			53.5			64.0	45.4		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			26.6			33.7			35.8	19.2		
Delay (s)			80.5			87.2			99.8	64.6		
Level of Service			F			F			F	E		
Approach Delay (s)			80.5			87.2				66.7		
Approach LOS			F			F				E		

Intersection Summary			
HCM Average Control Delay	67.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	132.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

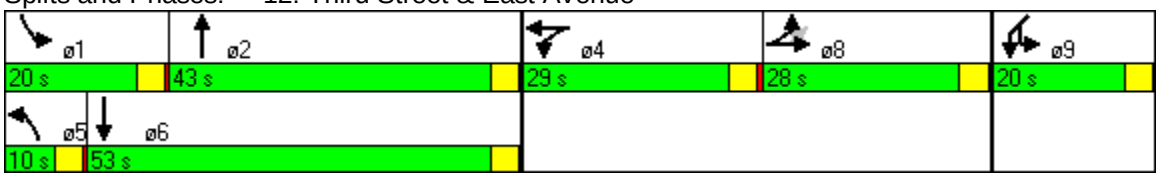
Movement	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		
Lane Util. Factor	1.00	1.00			1.00		
Frt	1.00	1.00			0.95		
Flt Protected	0.95	1.00			0.97		
Satd. Flow (prot)	1770	1855			1714		
Flt Permitted	0.95	1.00			0.97		
Satd. Flow (perm)	1770	1855			1714		
Volume (vph)	147	386	12	21	49	39	4
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	153	402	12	22	51	41	4
RTOR Reduction (vph)	0	1	0	0	1	0	0
Lane Group Flow (vph)	153	413	0	0	117	0	0
Turn Type	Prot			Split			
Protected Phases	1	6		9	9		
Permitted Phases							
Actuated Green, G (s)	14.3	49.1			13.1		
Effective Green, g (s)	14.3	49.1			13.1		
Actuated g/C Ratio	0.11	0.37			0.10		
Clearance Time (s)	4.0	4.0			4.0		
Vehicle Extension (s)	3.0	3.0			3.0		
Lane Grp Cap (vph)	191	688			170		
v/s Ratio Prot	c0.09	0.22			c0.07		
v/s Ratio Perm							
v/c Ratio	0.80	0.60			0.69		
Uniform Delay, d1	57.7	33.7			57.7		
Progression Factor	1.00	1.00			1.00		
Incremental Delay, d2	20.9	1.5			11.0		
Delay (s)	78.6	35.2			68.7		
Level of Service	E	D			E		
Approach Delay (s)		46.9			68.7		
Approach LOS		D			E		

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	43	29	10	53	28	20
Maximum Split (%)	14.3%	30.7%	20.7%	7.1%	37.9%	20.0%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	63	0	10	92	120
End Time (s)	20	63	92	10	63	120	0
Yield/Force Off (s)	16	59	88	6	59	116	136
Yield/Force Off 170(s)	5	59	77	6	59	105	125
Local Start Time (s)	120	0	43	120	130	72	100
Local Yield (s)	136	39	68	126	39	96	116
Local Yield 170(s)	125	39	57	126	39	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	120

Splits and Phases: 12: Third Street & East Avenue



Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	9	Average Delay (sec/veh):	24.3
Optimal Cycle:	53	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
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	369	0	238	0	0	0	0	897	93	138	865	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:	369	0	238	0	0	0	0	897	93	138	865	0
Added Vol:	0	0	78	0	0	0	0	8	0	133	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	369	0	316	0	0	0	0	905	93	271	879	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:	0.94	0.94	0.94	1.00	1.00	1.00	0.90	0.90	0.90	0.94	0.94	0.94
PHF Volume:	393	0	336	0	0	0	0	1006	103	288	935	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	0	336	0	0	0	0	1006	103	288	935	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
FinalVolume:	393	0	336	0	0	0	0	1006	103	288	935	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.21	0.00	0.00	0.00	0.00	0.28	0.06	0.16	0.26	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.39	0.39	0.22	0.62	0.00
Volume/Cap:	0.38	0.00	0.71	0.00	0.00	0.00	0.00	0.71	0.16	0.71	0.42	0.00
Delay/Veh:	28.4	0.0	36.5	0.0	0.0	0.0	0.0	27.3	19.9	41.5	10.0	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:	28.4	0.0	36.5	0.0	0.0	0.0	0.0	27.3	19.9	41.5	10.0	0.0
LOS by Move:	C	A	D	A	A	A	A	C	B	D	B	A
HCM2kAvgQ:	5	0	11	0	0	0	0	15	2	10	8	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 48.0 Worst Case Level Of Service: F[253.3]

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					Ignore					Ignore				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Volume Module:																				
Base Vol:	188		0		175	0		0		0	0		790		310	0		924		322
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:	188		0		175	0		0		0	0		790		310	0		924		322
Added Vol:	0		0		78	0		0		0	0		87		0	0		147		133
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	188		0		253	0		0		0	0		877		310	0		1071		455
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		0.00		1.00	1.00		0.00	
PHF Adj:	0.86	0.86		0.86		1.00	1.00		1.00		0.97	0.97		0.00		0.83	0.83		0.00	
PHF Volume:	219		0		294	0		0		0	0		904		0	0		1290		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	219		0		294	0		0		0	0		904		0	0		1290		0
Critical Gap Module:																				
Critical Gp:	6.8	xxxx			6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
FollowUpTim:	3.5	xxxx			3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Capacity Module:																				
Cnflict Vol:	1549	xxxx			452	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Potent Cap.:	107	xxxx			560	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Move Cap.:	107	xxxx			560	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Volume/Cap:	2.05	xxxx			0.53	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx						
Level Of Service Module:																				
2Way95thQ:	18.4	xxxx			3.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Control Del:	569.5	xxxx			18.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
LOS by Move:	F	*			C	*	*	*	*	*	*	*	*	*						
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx			xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
SharedQueue:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shrd ConDel:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Shared LOS:	*	*			*	*	*	*	*	*	*	*	*	*						
ApproachDel:	253.3					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	F					*					*					*				

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Existing + Project PM Peak

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 14 SR 29 NB Ramps/ First Street	??? / ???	Yes / Yes

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Napa Downtown Specific Plan
Existing + Project PM Peak

Peak Hour Delay Signal Warrant Report

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	1	1 0	0	0	1	1 0
Initial Vol:	188		0	253	0		0	0	0		877	310	0		1071	455
ApproachDel:	253.3				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=31.0]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=441]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3154]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Existing + Project PM Peak

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	188		0		253	0		0		0	0		877		310	0		1071		455

Major Street Volume: 2713
Minor Approach Volume: 441
Minor Approach Volume Threshold: -55 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.905
Loss Time (sec):	12	Average Delay (sec/veh):	40.0
Optimal Cycle:	99	Level Of Service:	D

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module: >> Count Date: 5 Jun 2009 << 4:30 PM TO 6:30 PM												
Base Vol:	274	127	0	0	221	465	475	0	565	16	665	33
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:	274	127	0	0	221	465	475	0	565	16	665	33
Added Vol:	0	0	0	0	0	44	26	0	139	0	235	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	274	127	0	0	221	509	501	0	704	16	900	33
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:	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93	0.83	0.83	0.83
PHF Volume:	322	149	0	0	238	547	539	0	757	19	1084	40
Reduct Vol:	0	0	3	0	0	18	0	0	465	0	0	0
Reduced Vol:	322	149	0	0	238	529	539	0	292	19	1084	40
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
FinalVolume:	322	149	0	0	238	529	539	0	292	19	1084	40
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.95	0.95
Lanes:	1.37	0.63	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.93	0.07
Final Sat.:	2511	1164	0	0	1900	1615	3502	0	1615	1805	3465	127
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.00	0.00	0.13	0.33	0.15	0.00	0.18	0.01	0.31	0.31
Crit Moves:	****					****	****					****
Green/Cycle:	0.14	0.14	0.00	0.00	0.19	0.36	0.17	0.00	0.31	0.35	0.35	0.35
Volume/Cap:	0.90	0.90	0.00	0.00	0.65	0.90	0.90	0.00	0.58	0.03	0.90	0.90
Delay/Veh:	53.0	53.0	0.0	0.0	34.0	41.8	49.9	0.0	24.8	17.3	34.5	34.5
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:	53.0	53.0	0.0	0.0	34.0	41.8	49.9	0.0	24.8	17.3	34.5	34.5
LOS by Move:	D	D	A	A	C	D	D	A	C	B	C	C
HCM2kAvgQ:	9	9	0	0	7	17	10	0	7	0	15	15

Note: Queue reported is the number of cars per lane.

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M. Existing + Project PM (MITIGATED) Traffic Capacity Analysis

Napa Downtown Specific Plan
Existing + Project PM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.540
Loss Time (sec):	0	Average Delay (sec/veh):	12.0
Optimal Cycle:	50	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			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	0 0	1 1	0
Volume Module:												
Base Vol:	188	0	175	0	0	0	0	790	310	0	924	322
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:	188	0	175	0	0	0	0	790	310	0	924	322
Added Vol:	0	0	78	0	0	0	0	87	0	0	147	133
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	188	0	253	0	0	0	0	877	310	0	1071	455
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.86	0.86	0.86	1.00	1.00	1.00	0.97	0.97	0.00	0.83	0.83	0.00
PHF Volume:	219	0	294	0	0	0	0	904	0	0	1290	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	0	294	0	0	0	0	904	0	0	1290	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	219	0	294	0	0	0	0	904	0	0	1290	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	0	0	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.18	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.36	0.00
Crit Moves:			****				****				****	
Green/Cycle:	0.34	0.00	0.34	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.66	0.00
Volume/Cap:	0.36	0.00	0.54	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.54	0.00
Delay/Veh:	25.3	0.0	27.9	0.0	0.0	0.0	0.0	7.7	0.0	0.0	9.1	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:	25.3	0.0	27.9	0.0	0.0	0.0	0.0	7.7	0.0	0.0	9.1	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	5	0	8	0	0	0	0	7	0	0	11	0

Note: Queue reported is the number of cars per lane.

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N. Cumulative (2030) AM Traffic Capacity Analysis

Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.328
Loss Time (sec):	9	Average Delay (sec/veh):	14.3
Optimal Cycle:	26	Level Of Service:	B

Street Name:	Jefferson Street						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.1	4.1	4.1	0.0	0.0	0.0	4.1	4.1	4.1
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	0 1	1 0	1
Volume Module:												
Base Vol:	81	374	0	0	468	55	0	0	0	32	165	56
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:	81	374	0	0	468	55	0	0	0	32	165	56
Added Vol:	18	5	0	0	20	0	0	0	0	0	18	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	99	379	0	0	488	55	0	0	0	32	183	56
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	108	412	0	0	530	60	0	0	0	35	199	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	412	0	0	530	60	0	0	0	35	199	61
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
FinalVolume:	108	412	0	0	530	60	0	0	0	35	199	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.94	0.94	1.00	1.00	1.00	0.93	0.93	0.85
Lanes:	1.00	2.00	0.00	0.00	1.80	0.20	0.00	0.00	0.00	0.30	1.70	1.00
Final Sat.:	1805	3610	0	0	3196	360	0	0	0	528	3017	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.11	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.07	0.07	0.04
Crit Moves:	****				****						****	
Green/Cycle:	0.18	0.69	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.20	0.20	0.20
Volume/Cap:	0.33	0.17	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.33	0.33	0.19
Delay/Veh:	29.1	4.5	0.0	0.0	11.8	11.8	0.0	0.0	0.0	27.6	27.6	26.8
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:	29.1	4.5	0.0	0.0	11.8	11.8	0.0	0.0	0.0	27.6	27.6	26.8
LOS by Move:	C	A	A	A	B	B	A	A	A	C	C	C
HCM2kAvgQ:	2	2	0	0	4	4	0	0	0	3	3	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.560
Loss Time (sec):	6	Average Delay (sec/veh):	13.2
Optimal Cycle:	30	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	17	126	31	128	316	19	30	112	28	135	122	16
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:	17	126	31	128	316	19	30	112	28	135	122	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	126	31	128	316	19	30	112	28	135	122	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	18	137	34	139	343	21	33	122	30	147	133	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	137	34	139	343	21	33	122	30	147	133	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
FinalVolume:	18	137	34	139	343	21	33	122	30	147	133	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.97	0.97	0.86	0.86	0.86	0.74	0.97	0.97	0.77	0.77	0.77
Lanes:	1.00	0.80	0.20	0.28	0.68	0.04	1.00	0.80	0.20	0.49	0.45	0.06
Final Sat.:	1454	1479	364	451	1112	67	1397	1474	369	722	653	86
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.31	0.31	0.31	0.02	0.08	0.08	0.20	0.20	0.20
Crit Moves:					****						****	
Green/Cycle:	0.55	0.55	0.55	0.55	0.55	0.55	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.02	0.17	0.17	0.56	0.56	0.56	0.06	0.23	0.23	0.56	0.56	0.56
Delay/Veh:	7.1	7.8	7.8	11.0	11.0	11.0	14.6	15.7	15.7	19.2	19.2	19.2
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:	7.1	7.8	7.8	11.0	11.0	11.0	14.6	15.7	15.7	19.2	19.2	19.2
LOS by Move:	A	A	A	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	0	2	2	8	8	8	0	2	2	6	6	6

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.423
Loss Time (sec):	9	Average Delay (sec/veh):	14.0
Optimal Cycle:	30	Level Of Service:	B

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	125	701	0	0	726	135	70	0	117	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:	125	701	0	0	726	135	70	0	117	0	0	0
Added Vol:	0	9	0	0	40	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	710	0	0	766	135	70	0	117	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	136	772	0	0	833	147	76	0	127	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	772	0	0	833	147	76	0	127	0	0	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
FinalVolume:	136	772	0	0	833	147	76	0	127	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.00	0.00	0.23	0.09	0.04	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.18	0.72	0.00	0.00	0.55	0.55	0.19	0.00	0.19	0.00	0.00	0.00
Volume/Cap:	0.42	0.30	0.00	0.00	0.42	0.17	0.23	0.00	0.42	0.00	0.00	0.00
Delay/Veh:	37.4	4.9	0.0	0.0	13.6	11.4	34.9	0.0	36.9	0.0	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:	37.4	4.9	0.0	0.0	13.6	11.4	34.9	0.0	36.9	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	D	A	A	A
HCM2kAvgQ:	4	4	0	0	8	2	2	0	4	0	0	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.299
Loss Time (sec):	12	Average Delay (sec/veh):	15.2
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	17	371	38	36	494	24	47	78	13	16	13	21
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:	17	371	38	36	494	24	47	78	13	16	13	21
Added Vol:	0	5	0	0	20	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	376	38	36	514	24	47	78	13	16	13	21
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	18	409	41	39	559	26	51	85	14	17	14	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	409	41	39	559	26	51	85	14	17	14	23
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
FinalVolume:	18	409	41	39	559	26	51	85	14	17	14	23
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	0.94	0.94	0.88	0.88	0.85	0.87	0.87	0.85
Lanes:	1.00	1.82	0.18	1.00	1.91	0.09	0.38	0.62	1.00	0.55	0.45	1.00
Final Sat.:	1805	3233	327	1805	3425	160	632	1048	1615	908	738	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.13	0.13	0.02	0.16	0.16	0.08	0.08	0.01	0.02	0.02	0.01
Crit Moves:	****				****			****				
Green/Cycle:	0.05	0.42	0.42	0.17	0.53	0.53	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.20	0.30	0.30	0.13	0.31	0.31	0.31	0.31	0.03	0.07	0.07	0.05
Delay/Veh:	37.6	15.6	15.6	28.7	10.4	10.4	23.9	23.9	21.8	22.1	22.1	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:	37.6	15.6	15.6	28.7	10.4	10.4	23.9	23.9	21.8	22.1	22.1	22.0
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	0	4	4	1	4	4	3	3	0	1	1	0

Note: Queue reported is the number of cars per lane.

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

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.371
Loss Time (sec):	9	Average Delay (sec/veh):	16.3
Optimal Cycle:	28	Level Of Service:	B

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	386	72	54	445	0	45	229	37	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:	0	386	72	54	445	0	45	229	37	0	0	0
Added Vol:	0	23	0	0	20	0	0	79	79	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	409	72	54	465	0	45	308	116	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	445	78	59	505	0	49	335	126	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	445	78	59	505	0	49	335	126	0	0	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
FinalVolume:	0	445	78	59	505	0	49	335	126	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	0.95	0.95	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Lanes:	0.00	1.70	0.30	1.00	2.00	0.00	0.19	1.32	0.49	0.00	0.00	0.00
Final Sat.:	0	3002	528	1805	3610	0	329	2251	848	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.15	0.03	0.14	0.00	0.15	0.15	0.15	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.40	0.40	0.09	0.49	0.00	0.40	0.40	0.40	0.00	0.00	0.00
Volume/Cap:	0.00	0.37	0.37	0.37	0.29	0.00	0.37	0.37	0.37	0.00	0.00	0.00
Delay/Veh:	0.0	17.1	17.1	35.9	12.3	0.0	17.0	17.0	17.0	0.0	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:	0.0	17.1	17.1	35.9	12.3	0.0	17.0	17.0	17.0	0.0	0.0	0.0
LOS by Move:	A	B	B	D	B	A	B	B	B	A	A	A
HCM2kAvgQ:	0	5	5	1	4	0	5	5	5	0	0	0

Note: Queue reported is the number of cars per lane.

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

Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.404
Loss Time (sec):	6	Average Delay (sec/veh):	8.0
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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:	30	31	105	12	49	8	4	225	2	156	357	20
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:	30	31	105	12	49	8	4	225	2	156	357	20
Added Vol:	0	18	2	20	79	0	0	119	0	8	28	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	49	107	32	128	8	4	344	2	164	385	25
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	33	53	116	35	139	9	4	374	2	178	418	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	53	116	35	139	9	4	374	2	178	418	27
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
FinalVolume:	33	53	116	35	139	9	4	374	2	178	418	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	0.92	0.92	0.92	0.90	0.90	0.90	0.71	0.71	0.71
Lanes:	0.16	0.26	0.58	0.19	0.76	0.05	0.02	1.97	0.01	0.57	1.34	0.09
Final Sat.:	264	431	942	331	1325	83	39	3371	20	768	1803	117
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.12	0.10	0.10	0.10	0.11	0.11	0.11	0.23	0.23	0.23
Crit Moves:		****									****	
Green/Cycle:	0.31	0.31	0.31	0.31	0.31	0.31	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	0.40	0.40	0.40	0.34	0.34	0.34	0.19	0.19	0.19	0.40	0.40	0.40
Delay/Veh:	14.3	14.3	14.3	13.9	13.9	13.9	5.1	5.1	5.1	6.1	6.1	6.1
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:	14.3	14.3	14.3	13.9	13.9	13.9	5.1	5.1	5.1	6.1	6.1	6.1
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	3	3	3	2	2	2	2	2	2	3	3	3

Note: Queue reported is the number of cars per lane.

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

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.386
Loss Time (sec):	6	Average Delay (sec/veh):	6.9
Optimal Cycle:	22	Level Of Service:	A

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	127	69	58	285	41	0	0	0	15	95	17
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:	40	127	69	58	285	41	0	0	0	15	95	17
Added Vol:	0	0	8	0	0	0	0	0	0	36	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	127	77	58	285	41	0	0	0	51	95	17
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	43	138	84	63	310	45	0	0	0	55	103	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	138	84	63	310	45	0	0	0	55	103	18
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
FinalVolume:	43	138	84	63	310	45	0	0	0	55	103	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.79	0.79	0.79	0.91	0.91	0.91	1.00	1.00	1.00	0.94	0.94	0.94
Lanes:	0.33	1.04	0.63	0.15	0.74	0.11	0.00	0.00	0.00	0.31	0.59	0.10
Final Sat.:	490	1554	942	262	1288	185	0	0	0	562	1046	187
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.24	0.24	0.24	0.00	0.00	0.00	0.10	0.10	0.10
Crit Moves:					****						****	
Green/Cycle:	0.62	0.62	0.62	0.62	0.62	0.62	0.00	0.00	0.00	0.26	0.26	0.26
Volume/Cap:	0.14	0.14	0.14	0.39	0.39	0.39	0.00	0.00	0.00	0.39	0.39	0.39
Delay/Veh:	3.9	3.9	3.9	4.9	4.9	4.9	0.0	0.0	0.0	15.9	15.9	15.9
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:	3.9	3.9	3.9	4.9	4.9	4.9	0.0	0.0	0.0	15.9	15.9	15.9
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
HCM2kAvgQ:	1	1	1	3	3	3	0	0	0	3	3	3

Note: Queue reported is the number of cars per lane.

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

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.502
Loss Time (sec):	9	Average Delay (sec/veh):	24.6
Optimal Cycle:	34	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 1	0	1 0	1 1 0
Volume Module:												
Base Vol:	5	50	41	171	90	140	36	205	7	29	295	58
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:	5	50	41	171	90	140	36	205	7	29	295	58
Added Vol:	0	0	0	0	0	0	0	29	0	0	123	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	50	41	171	90	140	36	234	7	29	418	58
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	5	54	45	186	98	152	39	254	8	32	454	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	54	45	186	98	152	39	254	8	32	454	63
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
FinalVolume:	5	54	45	186	98	152	39	254	8	32	454	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	0.85	0.79	0.79	0.79	0.95	0.95	0.95	0.95	0.93	0.93
Lanes:	0.09	0.91	1.00	0.43	0.22	0.35	1.00	1.94	0.06	1.00	1.76	0.24
Final Sat.:	168	1682	1615	642	338	526	1805	3491	104	1805	3113	432
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.29	0.29	0.29	0.02	0.07	0.07	0.02	0.15	0.15
Crit Moves:					****		****				****	
Green/Cycle:	0.58	0.58	0.58	0.58	0.58	0.58	0.04	0.22	0.22	0.12	0.29	0.29
Volume/Cap:	0.06	0.06	0.05	0.50	0.50	0.50	0.50	0.34	0.34	0.15	0.50	0.50
Delay/Veh:	9.3	9.3	9.3	13.1	13.1	13.1	51.9	33.5	33.5	39.9	29.9	29.9
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:	9.3	9.3	9.3	13.1	13.1	13.1	51.9	33.5	33.5	39.9	29.9	29.9
LOS by Move:	A	A	A	B	B	B	D	C	C	D	C	C
HCM2kAvgQ:	1	1	1	8	8	8	2	4	4	1	7	7

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
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Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.365
Loss Time (sec):	12	Average Delay (sec/veh):	14.3
Optimal Cycle:	34	Level Of Service:	B

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	40	785	35	18	752	54	43	60	16	37	67	29
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:	40	785	35	18	752	54	43	60	16	37	67	29
Added Vol:	0	5	0	0	20	20	5	4	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	790	35	18	772	74	48	64	16	37	83	29
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	43	859	38	20	839	80	52	70	17	40	90	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	859	38	20	839	80	52	70	17	40	90	32
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
FinalVolume:	43	859	38	20	839	80	52	70	17	40	90	32
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.60	0.97	0.97	0.69	0.96	0.96
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.80	0.20	1.00	0.74	0.26
Final Sat.:	1805	3610	1615	1805	3610	1615	1132	1474	369	1303	1353	473
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.02	0.01	0.23	0.05	0.05	0.05	0.05	0.03	0.07	0.07
Crit Moves:	****				****						****	
Green/Cycle:	0.07	0.63	0.63	0.08	0.64	0.64	0.18	0.18	0.18	0.18	0.18	0.18
Volume/Cap:	0.36	0.38	0.04	0.14	0.36	0.08	0.25	0.26	0.26	0.17	0.36	0.36
Delay/Veh:	48.8	9.7	7.5	45.9	9.1	7.3	37.4	37.2	37.2	36.5	38.3	38.3
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:	48.8	9.7	7.5	45.9	9.1	7.3	37.4	37.2	37.2	36.5	38.3	38.3
LOS by Move:	D	A	A	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	1	7	0	1	7	1	2	3	3	1	4	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.552
Loss Time (sec):	12	Average Delay (sec/veh):	29.1
Optimal Cycle:	44	Level Of Service:	C

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	196	743	6	53	644	155	96	117	120	17	216	108
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:	196	743	6	53	644	155	96	117	120	17	216	108
Added Vol:	48	0	0	0	0	20	5	13	11	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	244	743	6	53	644	175	101	130	131	17	271	108
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	265	808	7	58	700	190	110	141	142	18	295	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	265	808	7	58	700	190	110	141	142	18	295	117
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
FinalVolume:	265	808	7	58	700	190	110	141	142	18	295	117
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.98	0.02	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3578	29	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.23	0.03	0.19	0.12	0.06	0.07	0.09	0.01	0.16	0.07
Crit Moves:	****				****		****				****	
Green/Cycle:	0.14	0.42	0.42	0.07	0.35	0.35	0.11	0.23	0.23	0.16	0.28	0.28
Volume/Cap:	0.55	0.54	0.54	0.43	0.55	0.34	0.55	0.32	0.38	0.06	0.55	0.26
Delay/Veh:	41.6	22.5	22.5	46.6	26.6	24.2	45.5	32.2	32.9	35.9	31.8	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:	41.6	22.5	22.5	46.6	26.6	24.2	45.5	32.2	32.9	35.9	31.8	28.2
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	10	10	2	9	4	3	3	4	1	8	3

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.802
Loss Time (sec):	12	Average Delay (sec/veh):	21.8
Optimal Cycle:	77	Level Of Service:	C

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	40	909	6	10	815	95	48	28	19	34	114	11
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:	40	909	6	10	815	95	48	28	19	34	114	11
Added Vol:	0	4	0	0	16	16	4	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	913	6	10	831	111	52	28	19	34	114	11
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	43	992	7	11	903	121	57	30	21	37	124	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	992	7	11	903	121	57	30	21	37	124	12
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
FinalVolume:	43	992	7	11	903	121	57	30	21	37	124	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.98	0.98	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.88	0.12	0.65	0.35	1.00	0.23	0.77	1.00
Final Sat.:	1805	1886	12	1805	1646	220	1197	644	1615	432	1447	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.53	0.53	0.01	0.55	0.55	0.05	0.05	0.01	0.09	0.09	0.01
Crit Moves:	****				****		****				****	
Green/Cycle:	0.03	0.71	0.71	0.01	0.68	0.68	0.06	0.06	0.06	0.11	0.11	0.11
Volume/Cap:	0.80	0.75	0.75	0.75	0.80	0.80	0.80	0.80	0.22	0.80	0.80	0.07
Delay/Veh:	104.5	11.4	11.4	160.2	14.8	14.8	79.9	79.9	46.0	63.9	63.9	40.4
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:	104.5	11.4	11.4	160.2	14.8	14.8	79.9	79.9	46.0	63.9	63.9	40.4
LOS by Move:	F	B	B	F	B	B	E	E	D	E	E	D
HCM2kAvgQ:	2	20	20	1	24	24	5	5	1	7	7	0

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.98			0.93			1.00	0.99		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3398			1731			1770	1838		
Flt Permitted			0.68			1.00			0.95	1.00		
Satd. Flow (perm)			2355			1731			1770	1838		
Volume (vph)	27	30	56	16	3	214	222	12	18	613	41	18
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	28	32	59	17	3	225	234	13	19	645	43	19
RTOR Reduction (vph)	0	0	8	0	0	1	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	128	0	0	474	0	0	19	706	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			12.3			30.1			2.3	45.0		
Effective Green, g (s)			12.3			30.1			2.3	45.0		
Actuated g/C Ratio			0.09			0.22			0.02	0.33		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			215			386			30	613		
v/s Ratio Prot						c0.27			0.01	c0.38		
v/s Ratio Perm			c0.05									
v/c Ratio			0.59			1.23			0.63	1.15		
Uniform Delay, d1			58.9			52.4			65.9	45.0		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			4.4			123.7			36.3	86.2		
Delay (s)			63.3			176.1			102.2	131.1		
Level of Service			E			F			F	F		
Approach Delay (s)			63.3			176.1				130.4		
Approach LOS			E			F				F		

Intersection Summary			
HCM Average Control Delay	108.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	134.9	Sum of lost time (s)	24.0
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

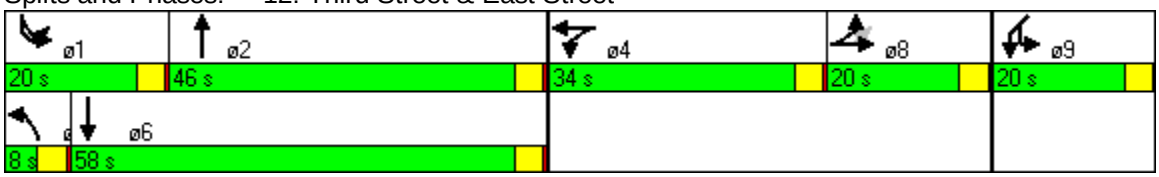
Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0		
Lane Util. Factor		1.00	1.00			1.00		
Frt		1.00	0.98			0.95		
Flt Protected		0.95	1.00			0.97		
Satd. Flow (prot)		1770	1827			1721		
Flt Permitted		0.95	1.00			0.97		
Satd. Flow (perm)		1770	1827			1721		
Volume (vph)	11	71	570	84	15	102	58	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	75	600	88	16	107	61	2
RTOR Reduction (vph)	0	0	4	0	0	0	0	0
Lane Group Flow (vph)	0	87	684	0	0	186	0	0
Turn Type	Prot	Prot			Split			
Protected Phases	1	1	6		9	9		
Permitted Phases								
Actuated Green, G (s)		11.6	54.3			15.9		
Effective Green, g (s)		11.6	54.3			15.9		
Actuated g/C Ratio		0.09	0.40			0.12		
Clearance Time (s)		4.0	4.0			4.0		
Vehicle Extension (s)		3.0	3.0			3.0		
Lane Grp Cap (vph)		152	735			203		
v/s Ratio Prot		c0.05	c0.37			c0.11		
v/s Ratio Perm								
v/c Ratio		0.57	0.93			0.92		
Uniform Delay, d1		59.3	38.5			58.8		
Progression Factor		1.00	1.00			1.00		
Incremental Delay, d2		5.1	18.4			40.2		
Delay (s)		64.4	57.0			99.0		
Level of Service		E	E			F		
Approach Delay (s)			57.8			99.0		
Approach LOS			E			F		

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	46	34	8	58	20	20
Maximum Split (%)	14.3%	32.9%	24.3%	5.7%	41.4%	14.3%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	66	0	8	100	120
End Time (s)	20	66	100	8	66	120	0
Yield/Force Off (s)	16	62	96	4	62	116	136
Yield/Force Off 170(s)	5	62	85	4	62	105	125
Local Start Time (s)	120	0	46	120	128	80	100
Local Yield (s)	136	42	76	124	42	96	116
Local Yield 170(s)	125	42	65	124	42	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	150

Splits and Phases: 12: Third Street & East Street



Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	9	Average Delay (sec/veh):	31.5
Optimal Cycle:	100	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
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	329	0	419	0	0	0	0	1276	269	142	616	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:	329	0	419	0	0	0	0	1276	269	142	616	0
Added Vol:	0	0	75	0	0	0	0	8	0	17	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	329	0	494	0	0	0	0	1284	269	159	618	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	358	0	537	0	0	0	0	1396	292	173	672	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	358	0	537	0	0	0	0	1396	292	173	672	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
FinalVolume:	358	0	537	0	0	0	0	1396	292	173	672	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.33	0.00	0.00	0.00	0.00	0.39	0.18	0.10	0.19	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.37	0.00	0.37	0.00	0.00	0.00	0.00	0.43	0.43	0.11	0.54	0.00
Volume/Cap:	0.28	0.00	0.90	0.00	0.00	0.00	0.00	0.90	0.42	0.90	0.35	0.00
Delay/Veh:	22.1	0.0	45.6	0.0	0.0	0.0	0.0	33.5	20.1	81.3	13.2	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:	22.1	0.0	45.6	0.0	0.0	0.0	0.0	33.5	20.1	81.3	13.2	0.0
LOS by Move:	C	A	D	A	A	A	A	C	C	F	B	A
HCM2kAvgQ:	4	0	19	0	0	0	0	25	6	8	6	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 27.4 Worst Case Level Of Service: F[185.5]

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			Ignore			Ignore		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			0 0 1 1 0		
Volume Module:												
Base Vol:	123	0	139	0	0	0	0	1204	375	0	636	251
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:	123	0	139	0	0	0	0	1204	375	0	636	251
Added Vol:	0	0	75	0	0	0	0	83	0	0	19	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	123	0	214	0	0	0	0	1287	375	0	655	268
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.00	0.92	0.92	0.00
PHF Volume:	134	0	233	0	0	0	0	1399	0	0	712	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	134	0	233	0	0	0	0	1399	0	0	712	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1755	xxxx	699	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	78	xxxx	387	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	78	xxxx	387	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	1.72	xxxx	0.60	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	11.4	xxxx	3.8	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	460.4	xxxx	27.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	F	*	D	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	185.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 14 SR 29 NB Ramps/ First Street	??? / ???	Yes / Yes

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

Peak Hour Delay Signal Warrant Report

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			0 0 1 1 0		
Initial Vol:	123	0	214	0	0	0	0	1287	375	0	655	268
ApproachDel:	185.5			xxxxxx			xxxxxx			xxxxxx		

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=17.4]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=337]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=2922]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			0 0 1 1 0		
Initial Vol:	123	0	214	0	0	0	0	1287	375	0	655	268

Major Street Volume: 2585
Minor Approach Volume: 337
Minor Approach Volume Threshold: -34 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) AM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	12	Average Delay (sec/veh):	36.5
Optimal Cycle:	76	Level Of Service:	D

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	214	135	0	0	248	218	475	0	750	11	430	17
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:	214	135	0	0	248	218	475	0	750	11	430	17
Added Vol:	0	0	0	0	0	0	0	0	158	0	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	214	135	0	0	248	218	475	0	908	11	467	17
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	233	147	0	0	270	237	516	0	987	12	508	18
Reduct Vol:	0	0	2	0	0	57	0	0	321	0	0	0
Reduced Vol:	233	147	0	0	270	180	516	0	666	12	508	18
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
FinalVolume:	233	147	0	0	270	180	516	0	666	12	508	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.95	0.95
Lanes:	1.23	0.77	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.93	0.07
Final Sat.:	2260	1426	0	0	1900	1615	3502	0	1615	1805	3466	126
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.00	0.00	0.14	0.11	0.15	0.00	0.41	0.01	0.15	0.15
Crit Moves:	****				****				****		****	
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.48	0.31	0.31	0.48	0.19	0.19	0.19
Volume/Cap:	0.61	0.61	0.00	0.00	0.83	0.23	0.48	0.00	0.86	0.03	0.77	0.77
Delay/Veh:	40.1	40.1	0.0	0.0	57.0	15.4	28.3	0.0	32.5	33.1	43.8	43.8
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:	40.1	40.1	0.0	0.0	57.0	15.4	28.3	0.0	32.5	33.1	43.8	43.8
LOS by Move:	D	D	A	A	E	B	C	A	C	C	D	D
HCM2kAvgQ:	6	6	0	0	11	3	7	0	21	0	8	8

Note: Queue reported is the number of cars per lane.

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O. Cumulative (2030) PM Traffic Capacity Analysis

Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.525
Loss Time (sec):	9	Average Delay (sec/veh):	17.1
Optimal Cycle:	35	Level Of Service:	B

Street Name:	Jefferson Street						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.1	4.1	4.1	0.0	0.0	0.0	4.1	4.1	4.1
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	0 1	1 0	1
Volume Module:												
Base Vol:	148	890	0	0	605	103	0	0	0	102	361	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:	148	890	0	0	605	103	0	0	0	102	361	170
Added Vol:	17	4	0	0	2	0	0	0	0	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	894	0	0	607	103	0	0	0	102	378	170
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	179	972	0	0	660	112	0	0	0	111	411	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	179	972	0	0	660	112	0	0	0	111	411	185
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
FinalVolume:	179	972	0	0	660	112	0	0	0	111	411	185
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.93	0.93	1.00	1.00	1.00	0.93	0.93	0.85
Lanes:	1.00	2.00	0.00	0.00	1.71	0.29	0.00	0.00	0.00	0.43	1.57	1.00
Final Sat.:	1805	3610	0	0	3018	512	0	0	0	749	2775	1615
Capacity Analysis Module:												
Vol/Sat:	0.10	0.27	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.15	0.15	0.11
Crit Moves:	****				****						****	
Green/Cycle:	0.19	0.61	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.28	0.28	0.28
Volume/Cap:	0.53	0.44	0.00	0.00	0.53	0.53	0.00	0.00	0.00	0.53	0.53	0.41
Delay/Veh:	30.7	8.7	0.0	0.0	17.8	17.8	0.0	0.0	0.0	24.7	24.7	23.9
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:	30.7	8.7	0.0	0.0	17.8	17.8	0.0	0.0	0.0	24.7	24.7	23.9
LOS by Move:	C	A	A	A	B	B	A	A	A	C	C	C
HCM2kAvgQ:	4	7	0	0	7	7	0	0	0	6	6	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.585
Loss Time (sec):	6	Average Delay (sec/veh):	14.3
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	36	384	105	49	171	22	49	324	53	83	133	77
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:	36	384	105	49	171	22	49	324	53	83	133	77
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	384	105	49	171	22	49	324	53	83	133	77
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	39	417	114	53	186	24	53	352	58	90	145	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	417	114	53	186	24	53	352	58	90	145	84
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
FinalVolume:	39	417	114	53	186	24	53	352	58	90	145	84
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.74	0.97	0.97	0.82	0.82	0.82	0.69	0.98	0.98	0.68	0.68	0.68
Lanes:	1.00	0.79	0.21	0.20	0.71	0.09	1.00	0.86	0.14	0.28	0.46	0.26
Final Sat.:	1414	1444	395	314	1096	141	1303	1599	261	367	588	340
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.17	0.17	0.17	0.04	0.22	0.22	0.25	0.25	0.25
Crit Moves:		****									****	
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.42	0.42	0.42	0.42	0.42	0.42
Volume/Cap:	0.06	0.59	0.59	0.34	0.34	0.34	0.10	0.52	0.52	0.59	0.59	0.59
Delay/Veh:	9.3	13.6	13.6	11.1	11.1	11.1	12.3	15.7	15.7	17.2	17.2	17.2
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:	9.3	13.6	13.6	11.1	11.1	11.1	12.3	15.7	15.7	17.2	17.2	17.2
LOS by Move:	A	B	B	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	0	9	9	4	4	4	1	7	7	6	6	6

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.659
Loss Time (sec):	9	Average Delay (sec/veh):	17.2
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	105	1204	0	0	1243	141	231	0	239	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:	105	1204	0	0	1243	141	231	0	239	0	0	0
Added Vol:	0	8	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	105	1212	0	0	1246	141	231	0	239	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	114	1317	0	0	1354	153	251	0	260	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	1317	0	0	1354	153	251	0	260	0	0	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
FinalVolume:	114	1317	0	0	1354	153	251	0	260	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.36	0.00	0.00	0.38	0.09	0.14	0.00	0.16	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.10	0.67	0.00	0.00	0.57	0.57	0.24	0.00	0.24	0.00	0.00	0.00
Volume/Cap:	0.66	0.55	0.00	0.00	0.66	0.17	0.57	0.00	0.66	0.00	0.00	0.00
Delay/Veh:	52.6	9.1	0.0	0.0	15.6	10.3	34.9	0.0	38.1	0.0	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:	52.6	9.1	0.0	0.0	15.6	10.3	34.9	0.0	38.1	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	D	A	A	A
HCM2kAvgQ:	5	11	0	0	15	2	7	0	8	0	0	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.619
Loss Time (sec):	12	Average Delay (sec/veh):	18.3
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	50	895	116	53	649	62	121	114	29	59	71	61
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:	50	895	116	53	649	62	121	114	29	59	71	61
Added Vol:	0	4	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	899	116	53	651	62	121	114	29	59	71	61
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	54	977	126	58	708	67	132	124	32	64	77	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	977	126	58	708	67	132	124	32	64	77	66
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
FinalVolume:	54	977	126	58	708	67	132	124	32	64	77	66
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	0.94	0.94	0.73	0.73	0.85	0.73	0.73	0.85
Lanes:	1.00	1.77	0.23	1.00	1.83	0.17	0.51	0.49	1.00	0.45	0.55	1.00
Final Sat.:	1805	3143	406	1805	3253	310	717	676	1615	627	754	1615
Capacity Analysis Module:												
Vol/Sat:	0.03	0.31	0.31	0.03	0.22	0.22	0.18	0.18	0.02	0.10	0.10	0.04
Crit Moves:		****		****				****				
Green/Cycle:	0.10	0.50	0.50	0.05	0.45	0.45	0.30	0.30	0.30	0.30	0.30	0.30
Volume/Cap:	0.29	0.62	0.62	0.62	0.48	0.48	0.62	0.62	0.07	0.35	0.35	0.14
Delay/Veh:	34.0	15.1	15.1	49.2	15.7	15.7	27.1	27.1	20.3	22.6	22.6	20.8
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:	34.0	15.1	15.1	49.2	15.7	15.7	27.1	27.1	20.3	22.6	22.6	20.8
LOS by Move:	C	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	1	10	10	3	7	7	6	6	1	3	3	1

Note: Queue reported is the number of cars per lane.

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

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.558
Loss Time (sec):	9	Average Delay (sec/veh):	13.5
Optimal Cycle:	37	Level Of Service:	B

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 1	0 1	0	0 0	0 0	0
Volume Module:												
Base Vol:	0	990	63	62	628	0	69	300	38	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:	0	990	63	62	628	0	69	300	38	0	0	0
Added Vol:	0	21	0	0	2	0	0	6	6	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1011	63	62	630	0	69	306	44	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	1099	68	67	685	0	75	333	48	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1099	68	67	685	0	75	333	48	0	0	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
FinalVolume:	0	1099	68	67	685	0	75	333	48	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.95	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Lanes:	0.00	1.88	0.12	1.00	2.00	0.00	0.33	1.46	0.21	0.00	0.00	0.00
Final Sat.:	0	3368	210	1805	3610	0	570	2529	364	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.33	0.04	0.19	0.00	0.13	0.13	0.13	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.58	0.58	0.08	0.65	0.00	0.23	0.23	0.23	0.00	0.00	0.00
Volume/Cap:	0.00	0.56	0.56	0.50	0.29	0.00	0.56	0.56	0.56	0.00	0.00	0.00
Delay/Veh:	0.0	10.9	10.9	38.4	6.0	0.0	28.0	28.0	28.0	0.0	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:	0.0	10.9	10.9	38.4	6.0	0.0	28.0	28.0	28.0	0.0	0.0	0.0
LOS by Move:	A	B	B	D	A	A	C	C	C	A	A	A
HCM2kAvgQ:	0	10	10	2	4	0	6	6	6	0	0	0

Note: Queue reported is the number of cars per lane.

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

Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.589
Loss Time (sec):	6	Average Delay (sec/veh):	11.1
Optimal Cycle:	30	Level Of Service:	B

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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:	98	131	170	94	49	29	8	171	2	128	425	57
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:	98	131	170	94	49	29	8	171	2	128	425	57
Added Vol:	0	17	2	2	6	0	0	9	0	1	25	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	98	148	172	96	55	29	8	180	2	129	450	61
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	107	161	187	104	60	32	9	196	2	140	489	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	161	187	104	60	32	9	196	2	140	489	66
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
FinalVolume:	107	161	187	104	60	32	9	196	2	140	489	66
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.84	0.84	0.84	0.70	0.70	0.70	0.88	0.88	0.88	0.79	0.79	0.79
Lanes:	0.23	0.35	0.42	0.53	0.31	0.16	0.08	1.90	0.02	0.40	1.41	0.19
Final Sat.:	373	564	655	709	406	214	141	3164	35	602	2100	285
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.15	0.15	0.15	0.06	0.06	0.06	0.23	0.23	0.23
Crit Moves:		****									****	
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.48	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.59	0.59	0.59	0.30	0.30	0.30	0.16	0.16	0.16	0.59	0.59	0.59
Delay/Veh:	10.5	10.5	10.5	8.1	8.1	8.1	9.8	9.8	9.8	12.7	12.7	12.7
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:	10.5	10.5	10.5	8.1	8.1	8.1	9.8	9.8	9.8	12.7	12.7	12.7
LOS by Move:	B	B	B	A	A	A	A	A	A	B	B	B
HCM2kAvgQ:	6	6	6	2	2	2	1	1	1	5	5	5

Note: Queue reported is the number of cars per lane.

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

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.470
Loss Time (sec):	6	Average Delay (sec/veh):	8.2
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 0	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	93	498	128	19	199	74	0	0	0	45	167	41
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:	93	498	128	19	199	74	0	0	0	45	167	41
Added Vol:	0	0	8	0	0	0	0	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	93	498	136	19	199	74	0	0	0	48	167	41
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	101	541	148	21	216	80	0	0	0	52	182	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	541	148	21	216	80	0	0	0	52	182	45
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
FinalVolume:	101	541	148	21	216	80	0	0	0	52	182	45
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	0.80	0.80	0.91	0.91	0.91	1.00	1.00	1.00	0.95	0.95	0.95
Lanes:	0.26	1.37	0.37	0.07	0.68	0.25	0.00	0.00	0.00	0.19	0.65	0.16
Final Sat.:	388	2079	568	112	1177	438	0	0	0	340	1182	290
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.18	0.18	0.18	0.00	0.00	0.00	0.15	0.15	0.15
Crit Moves:		****									****	
Green/Cycle:	0.55	0.55	0.55	0.55	0.55	0.55	0.00	0.00	0.00	0.33	0.33	0.33
Volume/Cap:	0.47	0.47	0.47	0.33	0.33	0.33	0.00	0.00	0.00	0.47	0.47	0.47
Delay/Veh:	6.9	6.9	6.9	6.3	6.3	6.3	0.0	0.0	0.0	14.0	14.0	14.0
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:	6.9	6.9	6.9	6.3	6.3	6.3	0.0	0.0	0.0	14.0	14.0	14.0
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
HCM2kAvgQ:	4	4	4	3	3	3	0	0	0	4	4	4

Note: Queue reported is the number of cars per lane.

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

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.729
Loss Time (sec):	9	Average Delay (sec/veh):	29.8
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 1	0	1 0	1 1 0
Volume Module:												
Base Vol:	12	97	113	215	121	124	118	405	4	100	489	258
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:	12	97	113	215	121	124	118	405	4	100	489	258
Added Vol:	0	0	0	0	0	0	0	26	0	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	97	113	215	121	124	118	431	4	100	499	258
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	13	105	123	234	132	135	128	468	4	109	542	280
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	105	123	234	132	135	128	468	4	109	542	280
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
FinalVolume:	13	105	123	234	132	135	128	468	4	109	542	280
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.75	0.75	0.75	0.95	0.95	0.95	0.95	0.90	0.90
Lanes:	0.11	0.89	1.00	0.47	0.26	0.27	1.00	1.98	0.02	1.00	1.32	0.68
Final Sat.:	198	1601	1615	664	374	383	1805	3573	33	1805	2258	1168
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.08	0.35	0.35	0.35	0.07	0.13	0.13	0.06	0.24	0.24
Crit Moves:					****		****				****	
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.48	0.10	0.29	0.29	0.13	0.33	0.33
Volume/Cap:	0.14	0.14	0.16	0.73	0.73	0.73	0.73	0.45	0.45	0.45	0.73	0.73
Delay/Veh:	14.4	14.4	14.6	24.6	24.6	24.6	58.1	29.1	29.1	41.2	32.0	32.0
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:	14.4	14.4	14.6	24.6	24.6	24.6	58.1	29.1	29.1	41.2	32.0	32.0
LOS by Move:	B	B	B	C	C	C	E	C	C	D	C	C
HCM2kAvgQ:	2	2	2	14	14	14	5	6	6	3	11	11

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
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Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	12	Average Delay (sec/veh):	22.6
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	60	1108	82	104	1286	91	104	103	33	69	154	113
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:	60	1108	82	104	1286	91	104	103	33	69	154	113
Added Vol:	0	4	0	0	2	2	4	3	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1112	82	104	1288	93	108	106	33	69	155	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	65	1209	89	113	1400	101	117	115	36	75	168	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	1209	89	113	1400	101	117	115	36	75	168	123
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
FinalVolume:	65	1209	89	113	1400	101	117	115	36	75	168	123
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.35	0.96	0.96	0.58	0.94	0.94
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.76	0.24	1.00	0.58	0.42
Final Sat.:	1805	3610	1615	1805	3610	1615	659	1397	435	1104	1030	751
Capacity Analysis Module:												
Vol/Sat:	0.04	0.33	0.06	0.06	0.39	0.06	0.18	0.08	0.08	0.07	0.16	0.16
Crit Moves:	****				****		****					
Green/Cycle:	0.05	0.53	0.53	0.10	0.57	0.57	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.68	0.64	0.11	0.64	0.68	0.11	0.68	0.31	0.31	0.26	0.62	0.62
Delay/Veh:	66.8	18.5	12.6	53.0	16.7	10.4	45.3	31.5	31.5	31.2	36.8	36.8
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:	66.8	18.5	12.6	53.0	16.7	10.4	45.3	31.5	31.5	31.2	36.8	36.8
LOS by Move:	E	B	B	D	B	B	D	C	C	C	D	D
HCM2kAvgQ:	2	14	1	5	17	1	5	4	4	2	9	9

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	12	Average Delay (sec/veh):	35.6
Optimal Cycle:	79	Level Of Service:	D

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	256	954	36	188	993	176	111	292	260	59	398	146
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:	256	954	36	188	993	176	111	292	260	59	398	146
Added Vol:	4	0	0	0	0	2	4	12	10	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	260	954	36	188	993	178	115	304	270	59	402	146
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	283	1037	39	204	1079	193	125	330	293	64	437	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	283	1037	39	204	1079	193	125	330	293	64	437	159
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
FinalVolume:	283	1037	39	204	1079	193	125	330	293	64	437	159
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.93	0.07	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3461	131	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.08	0.30	0.30	0.11	0.30	0.12	0.07	0.17	0.18	0.04	0.23	0.10
Crit Moves:		****		****			****				****	
Green/Cycle:	0.11	0.37	0.37	0.14	0.40	0.40	0.09	0.28	0.28	0.09	0.28	0.28
Volume/Cap:	0.74	0.81	0.81	0.81	0.74	0.30	0.81	0.63	0.65	0.39	0.81	0.35
Delay/Veh:	51.0	32.1	32.1	59.2	27.7	20.6	71.2	33.9	35.3	44.3	42.2	28.9
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:	51.0	32.1	32.1	59.2	27.7	20.6	71.2	33.9	35.3	44.3	42.2	28.9
LOS by Move:	D	C	C	E	C	C	E	C	D	D	D	C
HCM2kAvgQ:	6	18	18	6	15	4	4	9	8	2	15	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.926
Loss Time (sec):	12	Average Delay (sec/veh):	28.7
Optimal Cycle:	123	Level Of Service:	C

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	75	641	8	17	1054	97	80	44	43	8	37	13
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:	75	641	8	17	1054	97	80	44	43	8	37	13
Added Vol:	0	3	0	0	1	1	3	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	644	8	17	1055	98	83	44	43	8	37	13
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	82	700	9	18	1147	107	90	48	47	9	40	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	700	9	18	1147	107	90	48	47	9	40	14
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
FinalVolume:	82	700	9	18	1147	107	90	48	47	9	40	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.99	0.99	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.92	0.08	0.65	0.35	1.00	0.18	0.82	1.00
Final Sat.:	1805	1873	23	1805	1716	159	1202	637	1615	335	1548	1615
Capacity Analysis Module:												
Vol/Sat:	0.05	0.37	0.37	0.01	0.67	0.67	0.08	0.08	0.03	0.03	0.03	0.01
Crit Moves:	****				****			****			****	
Green/Cycle:	0.05	0.75	0.75	0.02	0.72	0.72	0.08	0.08	0.08	0.03	0.03	0.03
Volume/Cap:	0.93	0.50	0.50	0.50	0.93	0.93	0.93	0.93	0.36	0.93	0.93	0.31
Delay/Veh:	118.8	5.3	5.3	58.6	22.6	22.6	97.5	97.5	45.1	144.8	145	51.6
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:	118.8	5.3	5.3	58.6	22.6	22.6	97.5	97.5	45.1	144.8	145	51.6
LOS by Move:	F	A	A	E	C	C	F	F	D	F	F	D
HCM2kAvgQ:	3	9	9	1	37	37	7	7	2	4	4	1

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.99			0.94			1.00	0.98		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3422			1746			1770	1817		
Flt Permitted			0.71			1.00			0.95	1.00		
Satd. Flow (perm)			2472			1746			1770	1817		
Volume (vph)	106	118	283	50	4	179	148	7	21	483	90	4
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	112	124	298	53	4	188	156	7	22	508	95	4
RTOR Reduction (vph)	0	0	5	0	0	1	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	582	0	0	354	0	0	22	607	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			23.0			26.0			3.0	40.7		
Effective Green, g (s)			23.0			26.0			3.0	40.7		
Actuated g/C Ratio			0.17			0.19			0.02	0.29		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			409			326			38	532		
v/s Ratio Prot						c0.20			0.01	c0.33		
v/s Ratio Perm			c0.24									
v/c Ratio			1.42			1.09			0.58	1.14		
Uniform Delay, d1			58.0			56.5			67.4	49.2		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			204.1			74.9			19.6	84.1		
Delay (s)			262.2			131.5			87.0	133.3		
Level of Service			F			F			F	F		
Approach Delay (s)			262.2			131.5				131.7		
Approach LOS			F			F				F		

Intersection Summary			
HCM Average Control Delay	366.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.73		
Actuated Cycle Length (s)	139.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	105.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

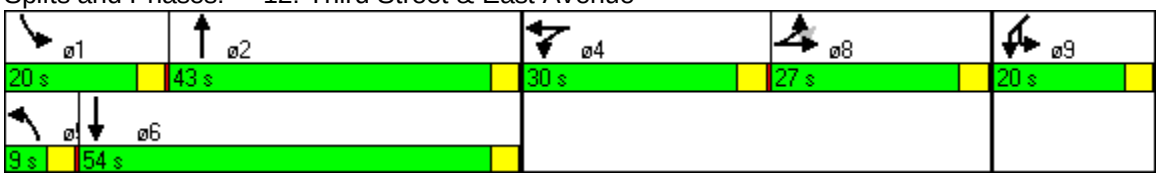
Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0		
Lane Util. Factor		1.00	1.00			1.00		
Frt		1.00	1.00			0.95		
Flt Protected		0.95	1.00			0.97		
Satd. Flow (prot)		1770	1857			1717		
Flt Permitted		0.25	1.00			0.97		
Satd. Flow (perm)		466	1857			1717		
Volume (vph)	1	284	679	15	21	49	36	4
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	299	715	16	22	52	38	4
RTOR Reduction (vph)	0	0	1	0	0	1	0	0
Lane Group Flow (vph)	0	300	730	0	0	115	0	0
Turn Type		Prot			Split			
Protected Phases		1	6		9	9		
Permitted Phases								
Actuated Green, G (s)		16.0	53.7			13.4		
Effective Green, g (s)		16.0	53.7			13.4		
Actuated g/C Ratio		0.12	0.39			0.10		
Clearance Time (s)		4.0	4.0			4.0		
Vehicle Extension (s)		3.0	3.0			3.0		
Lane Grp Cap (vph)		54	717			165		
v/s Ratio Prot			0.39			c0.07		
v/s Ratio Perm		c0.64						
v/c Ratio		5.56	1.02			0.70		
Uniform Delay, d1		61.5	42.7			60.9		
Progression Factor		1.00	1.00			1.00		
Incremental Delay, d2		2089.9	38.4			12.1		
Delay (s)		2151.4	81.1			73.0		
Level of Service		F	F			E		
Approach Delay (s)			683.5			73.0		
Approach LOS			F			E		

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	43	30	9	54	27	20
Maximum Split (%)	14.3%	30.7%	21.4%	6.4%	38.6%	19.3%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	63	0	9	93	120
End Time (s)	20	63	93	9	63	120	0
Yield/Force Off (s)	16	59	89	5	59	116	136
Yield/Force Off 170(s)	5	59	78	5	59	105	125
Local Start Time (s)	120	0	43	120	129	73	100
Local Yield (s)	136	39	69	125	39	96	116
Local Yield 170(s)	125	39	58	125	39	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	150

Splits and Phases: 12: Third Street & East Avenue



Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.673
Loss Time (sec):	9	Average Delay (sec/veh):	22.9
Optimal Cycle:	48	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
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	389	0	334	0	0	0	0	924	93	158	1001	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:	389	0	334	0	0	0	0	924	93	158	1001	0
Added Vol:	0	0	6	0	0	0	0	1	0	16	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	389	0	340	0	0	0	0	925	93	174	1003	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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	423	0	370	0	0	0	0	1005	101	189	1090	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	423	0	370	0	0	0	0	1005	101	189	1090	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
FinalVolume:	423	0	370	0	0	0	0	1005	101	189	1090	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.23	0.00	0.00	0.00	0.00	0.28	0.06	0.10	0.30	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.34	0.00	0.34	0.00	0.00	0.00	0.00	0.41	0.41	0.16	0.57	0.00
Volume/Cap:	0.35	0.00	0.67	0.00	0.00	0.00	0.00	0.67	0.15	0.67	0.53	0.00
Delay/Veh:	24.9	0.0	31.5	0.0	0.0	0.0	0.0	25.0	18.4	46.1	13.5	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:	24.9	0.0	31.5	0.0	0.0	0.0	0.0	25.0	18.4	46.1	13.5	0.0
LOS by Move:	C	A	C	A	A	A	A	C	B	D	B	A
HCM2kAvgQ:	5	0	11	0	0	0	0	14	2	7	11	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 56.6 Worst Case Level Of Service: F[335.9]

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			Ignore			Ignore		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			0 0 1 1 0		
Volume Module:												
Base Vol:	207	0	177	0	0	0	0	947	310	0	952	470
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:	207	0	177	0	0	0	0	947	310	0	952	470
Added Vol:	0	0	6	0	0	0	0	7	0	0	18	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	207	0	183	0	0	0	0	954	310	0	970	486
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.00	0.92	0.92	0.00
PHF Volume:	225	0	199	0	0	0	0	1037	0	0	1054	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	225	0	199	0	0	0	0	1037	0	0	1054	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1564	xxxx	518	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	104	xxxx	507	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	104	xxxx	507	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	2.16	xxxx	0.39	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	19.4	xxxx	1.8	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	618.2	xxxx	16.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	F	*	C	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	335.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 14 SR 29 NB Ramps/ First Street	??? / ???	Yes / Yes

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

Peak Hour Delay Signal Warrant Report

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	1	1 0	0	0	1	1 0
Initial Vol:	207		0	183	0		0	0	0		954	310	0		970	486
ApproachDel:	335.9				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=36.4]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=390]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3110]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	207		0		183	0		0		0	0		954		310	0		970		486

Major Street Volume: 2720
Minor Approach Volume: 390
Minor Approach Volume Threshold: -56 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) PM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.731
Loss Time (sec):	12	Average Delay (sec/veh):	38.1
Optimal Cycle:	64	Level Of Service:	D

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	281	127	0	0	230	465	475	0	708	21	676	55
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:	281	127	0	0	230	465	475	0	708	21	676	55
Added Vol:	0	0	0	0	0	0	0	0	12	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	281	127	0	0	230	465	475	0	720	21	710	55
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	305	138	0	0	250	505	516	0	783	23	772	60
Reduct Vol:	0	0	6	0	0	37	0	0	411	0	0	0
Reduced Vol:	305	138	0	0	250	468	516	0	372	23	772	60
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
FinalVolume:	305	138	0	0	250	468	516	0	372	23	772	60
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.94	0.94
Lanes:	1.38	0.62	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.86	0.14
Final Sat.:	2531	1144	0	0	1900	1615	3502	0	1615	1805	3314	257
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.00	0.00	0.13	0.29	0.15	0.00	0.23	0.01	0.23	0.23
Crit Moves:		****				****	****					****
Green/Cycle:	0.18	0.18	0.18	0.18	0.18	0.39	0.21	0.21	0.39	0.27	0.27	0.27
Volume/Cap:	0.67	0.67	0.00	0.00	0.73	0.74	0.70	0.00	0.59	0.05	0.86	0.86
Delay/Veh:	40.9	40.9	0.0	0.0	46.6	31.0	39.7	0.0	25.7	27.0	42.8	42.8
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:	40.9	40.9	0.0	0.0	46.6	31.0	39.7	0.0	25.7	27.0	42.8	42.8
LOS by Move:	D	D	A	A	D	C	D	A	C	C	D	D
HCM2kAvgQ:	8	8	0	0	9	14	9	0	10	0	14	14

Note: Queue reported is the number of cars per lane.

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P. Cumulative (2030) + Project AM Traffic Capacity Analysis

Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.447
Loss Time (sec):	9	Average Delay (sec/veh):	21.0
Optimal Cycle:	31	Level Of Service:	C

Street Name:	Jefferson Street						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.1	4.1	4.1	0.0	0.0	0.0	4.1	4.1	4.1
Lanes:	1 0	1 1	0	0 1	0 1	0	0 0	0 0	0	0 1	1 0	1
Volume Module:												
Base Vol:	81	374	0	0	468	55	0	0	0	32	165	56
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:	81	374	0	0	468	55	0	0	0	32	165	56
Added Vol:	37	19	27	30	21	2	0	0	0	12	103	13
PasserByVol:	50	16	56	-27	-27	0	0	0	0	-10	-50	-16
Initial Fut:	168	409	83	3	462	57	0	0	0	34	218	53
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:	186	453	92	3	512	63	0	0	0	38	242	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	453	92	3	512	63	0	0	0	38	242	59
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
FinalVolume:	186	453	92	3	512	63	0	0	0	38	242	59
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.93	0.93	0.93	1.00	1.00	1.00	0.93	0.93	0.85
Lanes:	1.00	1.66	0.34	0.01	1.77	0.22	0.00	0.00	0.00	0.27	1.73	1.00
Final Sat.:	1805	2926	594	20	3144	388	0	0	0	479	3070	1615
Capacity Analysis Module:												
Vol/Sat:	0.10	0.15	0.15	0.16	0.16	0.16	0.00	0.00	0.00	0.08	0.08	0.04
Crit Moves:		****		****						****		
Green/Cycle:	0.28	0.35	0.35	0.36	0.44	0.44	0.00	0.00	0.00	0.18	0.18	0.18
Volume/Cap:	0.37	0.45	0.45	0.45	0.37	0.37	0.00	0.00	0.00	0.45	0.45	0.21
Delay/Veh:	23.9	20.5	20.5	19.5	15.4	15.4	0.0	0.0	0.0	30.0	30.0	28.5
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	20.5	20.5	19.5	15.4	15.4	0.0	0.0	0.0	30.0	30.0	28.5
LOS by Move:	C	C	C	B	B	B	A	A	A	C	C	C
HCM2kAvgQ:	4	5	5	6	5	5	0	0	0	4	4	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.584
Loss Time (sec):	6	Average Delay (sec/veh):	13.8
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	17	126	31	128	316	19	30	112	28	135	122	16
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:	17	126	31	128	316	19	30	112	28	135	122	16
Added Vol:	12	6	3	1	12	0	0	50	2	6	27	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	132	34	129	328	19	30	162	30	141	149	19
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:	31	139	36	136	345	20	32	171	32	148	157	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	139	36	136	345	20	32	171	32	148	157	20
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
FinalVolume:	31	139	36	136	345	20	32	171	32	148	157	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.71	0.97	0.97	0.86	0.86	0.86	0.74	0.98	0.98	0.75	0.75	0.75
Lanes:	1.00	0.80	0.20	0.27	0.69	0.04	1.00	0.84	0.16	0.46	0.48	0.06
Final Sat.:	1343	1464	377	444	1128	65	1397	1566	290	651	688	88
Capacity Analysis Module:												
Vol/Sat:	0.02	0.09	0.09	0.31	0.31	0.31	0.02	0.11	0.11	0.23	0.23	0.23
Crit Moves:					****						****	
Green/Cycle:	0.52	0.52	0.52	0.52	0.52	0.52	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.04	0.18	0.18	0.58	0.58	0.58	0.06	0.28	0.28	0.58	0.58	0.58
Delay/Veh:	8.1	8.9	8.9	12.5	12.5	12.5	13.4	14.8	14.8	18.4	18.4	18.4
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:	8.1	8.9	8.9	12.5	12.5	12.5	13.4	14.8	14.8	18.4	18.4	18.4
LOS by Move:	A	A	A	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	0	2	2	8	8	8	0	3	3	6	6	6

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.448
Loss Time (sec):	9	Average Delay (sec/veh):	15.2
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	125	701	0	0	726	135	70	0	117	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:	125	701	0	0	726	135	70	0	117	0	0	0
Added Vol:	22	32	0	0	80	13	24	0	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	147	733	0	0	806	148	94	0	134	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:	155	772	0	0	848	156	99	0	141	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	772	0	0	848	156	99	0	141	0	0	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
FinalVolume:	155	772	0	0	848	156	99	0	141	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.00	0.00	0.24	0.10	0.05	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.19	0.72	0.00	0.00	0.52	0.52	0.19	0.00	0.19	0.00	0.00	0.00
Volume/Cap:	0.45	0.30	0.00	0.00	0.45	0.18	0.28	0.00	0.45	0.00	0.00	0.00
Delay/Veh:	36.7	5.2	0.0	0.0	15.0	12.6	34.7	0.0	36.5	0.0	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:	36.7	5.2	0.0	0.0	15.0	12.6	34.7	0.0	36.5	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	D	A	A	A
HCM2kAvgQ:	5	5	0	0	9	3	3	0	4	0	0	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.316
Loss Time (sec):	12	Average Delay (sec/veh):	15.8
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	17	371	38	36	494	24	47	78	13	16	13	21
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:	17	371	38	36	494	24	47	78	13	16	13	21
Added Vol:	0	29	2	2	51	0	5	17	2	1	13	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	400	40	38	545	24	52	95	15	17	26	22
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:	18	421	42	40	574	25	55	100	16	18	27	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	421	42	40	574	25	55	100	16	18	27	23
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
FinalVolume:	18	421	42	40	574	25	55	100	16	18	27	23
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	0.94	0.94	0.89	0.89	0.85	0.89	0.89	0.85
Lanes:	1.00	1.82	0.18	1.00	1.92	0.08	0.35	0.65	1.00	0.40	0.60	1.00
Final Sat.:	1805	3236	324	1805	3437	151	595	1088	1615	671	1026	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.13	0.13	0.02	0.17	0.17	0.09	0.09	0.01	0.03	0.03	0.01
Crit Moves:	****				****			****				
Green/Cycle:	0.05	0.41	0.41	0.16	0.52	0.52	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	0.20	0.32	0.32	0.14	0.32	0.32	0.32	0.32	0.03	0.09	0.09	0.05
Delay/Veh:	37.5	16.2	16.2	29.3	11.4	11.4	23.0	23.0	20.7	21.1	21.1	20.8
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:	37.5	16.2	16.2	29.3	11.4	11.4	23.0	23.0	20.7	21.1	21.1	20.8
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	0	4	4	1	5	5	3	3	0	1	1	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.442
Loss Time (sec):	9	Average Delay (sec/veh):	19.6
Optimal Cycle:	31	Level Of Service:	B

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 1	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	386	72	54	445	0	45	229	37	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:	0	386	72	54	445	0	45	229	37	0	0	0
Added Vol:	0	63	7	2	31	0	5	271	61	1	0	14
PasserByVol:	0	36	-36	-27	0	0	20	-20	0	10	0	16
Initial Fut:	0	485	43	29	476	0	70	480	98	11	0	30
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	511	45	31	501	0	74	505	103	12	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	511	45	31	501	0	74	505	103	12	0	32
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
FinalVolume:	0	511	45	31	501	0	74	505	103	12	0	32
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	0.95	0.95	1.00	0.92	0.92	0.92	0.89	1.00	0.89
Lanes:	0.00	1.84	0.16	1.00	2.00	0.00	0.22	1.48	0.30	0.27	0.00	0.73
Final Sat.:	0	3276	290	1805	3610	0	379	2600	531	453	0	1236
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.16	0.02	0.14	0.00	0.19	0.19	0.19	0.03	0.00	0.03
Crit Moves:		****		****			****					****
Green/Cycle:	0.00	0.34	0.34	0.08	0.41	0.00	0.42	0.38	0.38	0.10	0.00	0.10
Volume/Cap:	0.00	0.46	0.46	0.23	0.34	0.00	0.46	0.51	0.51	0.26	0.00	0.26
Delay/Veh:	0.0	21.1	21.1	35.7	16.2	0.0	16.9	19.5	19.5	34.3	0.0	34.3
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:	0.0	21.1	21.1	35.7	16.2	0.0	16.9	19.5	19.5	34.3	0.0	34.3
LOS by Move:	A	C	C	D	B	A	B	B	B	C	A	C
HCM2kAvgQ:	0	6	6	1	4	0	7	7	7	1	0	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.386
Loss Time (sec):	6	Average Delay (sec/veh):	8.8
Optimal Cycle:	26	Level Of Service:	A

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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:	30	31	105	12	49	8	4	225	2	156	357	20
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:	30	31	105	12	49	8	4	225	2	156	357	20
Added Vol:	5	32	9	65	82	0	18	102	0	21	41	12
PasserByVol:	0	0	-15	0	0	0	0	15	0	-35	-65	0
Initial Fut:	35	63	99	77	131	8	22	342	2	142	333	32
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:	37	66	104	81	138	8	23	360	2	149	351	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	66	104	81	138	8	23	360	2	149	351	34
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
FinalVolume:	37	66	104	81	138	8	23	360	2	149	351	34
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	0.83	0.83	0.83	0.87	0.87	0.87	0.71	0.71	0.71
Lanes:	0.18	0.32	0.50	0.35	0.61	0.04	0.12	1.87	0.01	0.56	1.31	0.13
Final Sat.:	291	523	822	565	961	59	199	3090	18	761	1783	171
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.13	0.14	0.14	0.14	0.12	0.12	0.12	0.20	0.20	0.20
Crit Moves:					****						****	
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.51	0.51	0.51	0.51	0.51	0.51
Volume/Cap:	0.34	0.34	0.34	0.39	0.39	0.39	0.23	0.23	0.23	0.39	0.39	0.39
Delay/Veh:	11.6	11.6	11.6	12.0	12.0	12.0	6.9	6.9	6.9	7.7	7.7	7.7
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:	11.6	11.6	11.6	12.0	12.0	12.0	6.9	6.9	6.9	7.7	7.7	7.7
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	3	3	3	3	3	3	2	2	2	3	3	3

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.483
Loss Time (sec):	6	Average Delay (sec/veh):	9.7
Optimal Cycle:	25	Level Of Service:	A

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	127	69	58	285	41	0	0	0	15	95	17
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:	40	127	69	58	285	41	0	0	0	15	95	17
Added Vol:	10	21	28	10	5	15	12	108	0	31	105	14
PasserByVol:	-15	-25	-20	0	15	-15	25	50	15	10	-10	0
Initial Fut:	35	123	77	68	305	41	37	158	15	56	190	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	37	129	81	72	321	43	39	166	16	59	200	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	129	81	72	321	43	39	166	16	59	200	33
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
FinalVolume:	37	129	81	72	321	43	39	166	16	59	200	33
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.79	0.79	0.79	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89
Lanes:	0.30	1.05	0.65	0.16	0.74	0.10	0.18	0.75	0.07	0.20	0.69	0.11
Final Sat.:	447	1572	984	283	1270	171	302	1289	122	342	1160	189
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.25	0.25	0.25	0.13	0.13	0.13	0.17	0.17	0.17
Crit Moves:					****						****	
Green/Cycle:	0.52	0.52	0.52	0.52	0.52	0.52	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.16	0.16	0.16	0.48	0.48	0.48	0.36	0.36	0.36	0.48	0.48	0.48
Delay/Veh:	6.2	6.2	6.2	8.0	8.0	8.0	12.2	12.2	12.2	13.1	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:	6.2	6.2	6.2	8.0	8.0	8.0	12.2	12.2	12.2	13.1	13.1	13.1
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	1	1	1	5	5	5	3	3	3	4	4	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.422
Loss Time (sec):	9	Average Delay (sec/veh):	23.7
Optimal Cycle:	30	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	5	50	41	171	90	140	36	205	7	29	295	58
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:	5	50	41	171	90	140	36	205	7	29	295	58
Added Vol:	0	8	3	2	1	2	2	89	0	6	134	7
PasserByVol:	0	0	0	-45	0	-50	0	0	0	0	-50	50
Initial Fut:	5	58	44	128	91	92	38	294	7	35	379	115
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	61	46	135	96	97	40	309	7	37	399	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	61	46	135	96	97	40	309	7	37	399	121
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
FinalVolume:	5	61	46	135	96	97	40	309	7	37	399	121
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.98	0.98	0.85	0.81	0.81	0.81	0.95	0.95	0.95	0.95	0.92	0.92
Lanes:	0.08	0.92	1.00	0.41	0.29	0.30	1.00	1.95	0.05	1.00	1.53	0.47
Final Sat.:	148	1716	1615	633	450	455	1805	3515	84	1805	2673	811
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.03	0.21	0.21	0.21	0.02	0.09	0.09	0.02	0.15	0.15
Crit Moves:					****		****				****	
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.05	0.28	0.28	0.13	0.35	0.35
Volume/Cap:	0.07	0.07	0.06	0.42	0.42	0.42	0.42	0.32	0.32	0.16	0.42	0.42
Delay/Veh:	12.8	12.8	12.7	16.0	16.0	16.0	48.9	28.7	28.7	39.2	24.8	24.8
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:	12.8	12.8	12.7	16.0	16.0	16.0	48.9	28.7	28.7	39.2	24.8	24.8
LOS by Move:	B	B	B	B	B	B	D	C	C	D	C	C
HCM2kAvgQ:	1	1	1	6	6	6	2	4	4	1	6	6

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.431
Loss Time (sec):	12	Average Delay (sec/veh):	19.4
Optimal Cycle:	37	Level Of Service:	B

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	40	785	35	18	752	54	43	60	16	37	67	29
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:	40	785	35	18	752	54	43	60	16	37	67	29
Added Vol:	25	34	43	23	37	47	40	89	14	14	79	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	819	78	41	789	101	83	149	30	51	146	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:	0.95	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	862	82	43	831	106	87	157	32	54	154	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	862	82	43	831	106	87	157	32	54	154	54
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
FinalVolume:	68	862	82	43	831	106	87	157	32	54	154	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.49	0.98	0.98	0.52	0.96	0.96
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.83	0.17	1.00	0.74	0.26
Final Sat.:	1805	3610	1615	1805	3610	1615	922	1542	310	982	1353	473
Capacity Analysis Module:												
Vol/Sat:	0.04	0.24	0.05	0.02	0.23	0.07	0.09	0.10	0.10	0.05	0.11	0.11
Crit Moves:	****				****						****	
Green/Cycle:	0.09	0.56	0.56	0.07	0.53	0.53	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.43	0.43	0.09	0.36	0.43	0.12	0.36	0.39	0.39	0.21	0.43	0.43
Delay/Veh:	47.3	13.8	11.0	48.7	15.0	12.3	32.4	32.2	32.2	30.5	32.7	32.7
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:	47.3	13.8	11.0	48.7	15.0	12.3	32.4	32.2	32.2	30.5	32.7	32.7
LOS by Move:	D	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	8	1	2	8	2	3	5	5	1	6	6

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	12	Average Delay (sec/veh):	29.4
Optimal Cycle:	45	Level Of Service:	C

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	196	743	6	53	644	155	96	117	120	17	216	108
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:	196	743	6	53	644	155	96	117	120	17	216	108
Added Vol:	54	69	0	10	30	25	16	59	18	0	68	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	812	6	63	674	180	112	176	138	17	284	124
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:	263	855	6	66	709	189	118	185	145	18	299	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	263	855	6	66	709	189	118	185	145	18	299	131
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
FinalVolume:	263	855	6	66	709	189	118	185	145	18	299	131
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.99	0.01	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3580	26	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.08	0.24	0.24	0.04	0.20	0.12	0.07	0.10	0.09	0.01	0.16	0.08
Crit Moves:	****				****		****				****	
Green/Cycle:	0.13	0.41	0.41	0.07	0.35	0.35	0.12	0.25	0.25	0.15	0.28	0.28
Volume/Cap:	0.56	0.58	0.58	0.53	0.56	0.34	0.56	0.40	0.37	0.07	0.56	0.29
Delay/Veh:	42.1	23.1	23.1	49.2	26.9	24.3	45.2	32.1	31.9	36.5	32.1	28.5
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:	42.1	23.1	23.1	49.2	26.9	24.3	45.2	32.1	31.9	36.5	32.1	28.5
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	11	11	2	9	4	3	5	4	0	8	3

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.856
Loss Time (sec):	12	Average Delay (sec/veh):	26.5
Optimal Cycle:	92	Level Of Service:	C

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	40	909	6	10	815	95	48	28	19	34	114	11
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:	40	909	6	10	815	95	48	28	19	34	114	11
Added Vol:	38	6	0	0	18	64	26	2	16	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	915	6	10	833	159	74	30	35	34	118	11
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:	82	963	6	11	877	167	78	32	37	36	124	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	963	6	11	877	167	78	32	37	36	124	12
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
FinalVolume:	82	963	6	11	877	167	78	32	37	36	124	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.98	0.98	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.84	0.16	0.71	0.29	1.00	0.22	0.78	1.00
Final Sat.:	1805	1886	12	1805	1557	297	1306	529	1615	420	1459	1615
Capacity Analysis Module:												
Vol/Sat:	0.05	0.51	0.51	0.01	0.56	0.56	0.06	0.06	0.02	0.09	0.09	0.01
Crit Moves:	****				****			****			****	
Green/Cycle:	0.05	0.70	0.70	0.01	0.66	0.66	0.07	0.07	0.07	0.10	0.10	0.10
Volume/Cap:	0.86	0.73	0.73	0.73	0.86	0.86	0.86	0.86	0.33	0.86	0.86	0.07
Delay/Veh:	95.9	11.1	11.1	153.1	19.6	19.6	85.9	85.9	46.0	74.4	74.4	41.0
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:	95.9	11.1	11.1	153.1	19.6	19.6	85.9	85.9	46.0	74.4	74.4	41.0
LOS by Move:	F	B	B	F	B	B	F	F	D	E	E	D
HCM2kAvgQ:	3	19	19	1	28	28	6	6	1	7	7	0

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.97			0.93			1.00	0.99		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3358			1734			1770	1840		
Flt Permitted			0.68			1.00			0.95	1.00		
Satd. Flow (perm)			2330			1734			1770	1840		
Volume (vph)	33	33	59	33	3	222	222	12	62	651	41	18
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	35	62	35	3	234	234	13	65	685	43	19
RTOR Reduction (vph)	0	0	17	0	0	1	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	150	0	0	483	0	0	65	746	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			13.3			30.1			4.0	44.7		
Effective Green, g (s)			13.3			30.1			4.0	44.7		
Actuated g/C Ratio			0.10			0.22			0.03	0.33		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			228			384			52	606		
v/s Ratio Prot						c0.28			c0.04	c0.41		
v/s Ratio Perm			c0.06									
v/c Ratio			0.66			1.26			1.25	1.23		
Uniform Delay, d1			59.1			52.9			65.9	45.6		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			6.7			135.8			206.7	118.1		
Delay (s)			65.7			188.7			272.6	163.7		
Level of Service			E			F			F	F		
Approach Delay (s)			65.7			188.7				172.4		
Approach LOS			E			F				F		

Intersection Summary			
HCM Average Control Delay	129.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	135.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	100.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

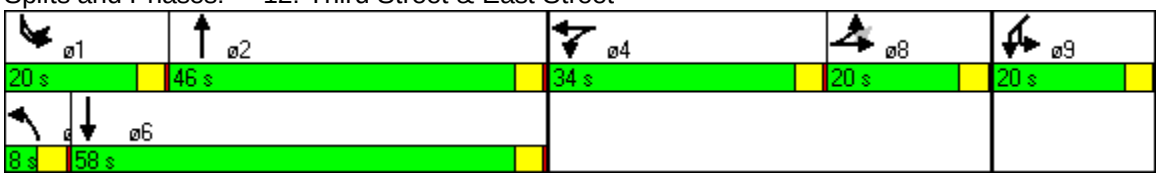
Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0		
Lane Util. Factor		1.00	1.00			1.00		
Frt		1.00	0.98			0.95		
Flt Protected		0.95	1.00			0.97		
Satd. Flow (prot)		1770	1827			1716		
Flt Permitted		0.95	1.00			0.97		
Satd. Flow (perm)		1770	1827			1716		
Volume (vph)	11	71	570	84	15	102	66	2
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	75	600	88	16	107	69	2
RTOR Reduction (vph)	0	0	4	0	0	0	0	0
Lane Group Flow (vph)	0	87	684	0	0	194	0	0
Turn Type	Prot	Prot			Split			
Protected Phases	1	1	6		9	9		
Permitted Phases								
Actuated Green, G (s)		11.7	52.4			16.0		
Effective Green, g (s)		11.7	52.4			16.0		
Actuated g/C Ratio		0.09	0.39			0.12		
Clearance Time (s)		4.0	4.0			4.0		
Vehicle Extension (s)		3.0	3.0			3.0		
Lane Grp Cap (vph)		152	705			202		
v/s Ratio Prot		0.05	c0.37			c0.11		
v/s Ratio Perm								
v/c Ratio		0.57	0.97			0.96		
Uniform Delay, d1		59.6	40.9			59.6		
Progression Factor		1.00	1.00			1.00		
Incremental Delay, d2		5.1	26.6			51.8		
Delay (s)		64.8	67.6			111.4		
Level of Service		E	E			F		
Approach Delay (s)			67.3			111.4		
Approach LOS			E			F		

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	46	34	8	58	20	20
Maximum Split (%)	14.3%	32.9%	24.3%	5.7%	41.4%	14.3%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	66	0	8	100	120
End Time (s)	20	66	100	8	66	120	0
Yield/Force Off (s)	16	62	96	4	62	116	136
Yield/Force Off 170(s)	5	62	85	4	62	105	125
Local Start Time (s)	120	0	46	120	128	80	100
Local Yield (s)	136	42	76	124	42	96	116
Local Yield 170(s)	125	42	65	124	42	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	150

Splits and Phases: 12: Third Street & East Street



Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.996
Loss Time (sec):	9	Average Delay (sec/veh):	46.0
Optimal Cycle:	180	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
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	329	0	419	0	0	0	0	1276	269	142	616	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:	329	0	419	0	0	0	0	1276	269	142	616	0
Added Vol:	0	0	195	0	0	0	0	21	0	77	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	329	0	614	0	0	0	0	1297	269	219	624	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:	346	0	646	0	0	0	0	1365	283	231	657	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	346	0	646	0	0	0	0	1365	283	231	657	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
FinalVolume:	346	0	646	0	0	0	0	1365	283	231	657	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.40	0.00	0.00	0.00	0.00	0.38	0.18	0.13	0.18	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.40	0.00	0.40	0.00	0.00	0.00	0.00	0.38	0.38	0.13	0.51	0.00
Volume/Cap:	0.25	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.46	1.00	0.36	0.00
Delay/Veh:	19.9	0.0	64.0	0.0	0.0	0.0	0.0	54.2	23.9	101.4	14.9	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:	19.9	0.0	64.0	0.0	0.0	0.0	0.0	54.2	23.9	101.4	14.9	0.0
LOS by Move:	B	A	E	A	A	A	A	D	C	F	B	A
HCM2kAvgQ:	4	0	27	0	0	0	0	29	7	12	6	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 38.2 Worst Case Level Of Service: F[217.1]

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						Ignore						Ignore					
Lanes:	1	0	0	0	1		0	0	0	0	0		0	0	1	1	0		0	0	1	1	0	
Volume Module:																								
Base Vol:	123		0		139		0		0		0		0	1204		375			0	636		251		
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	1.00		1.00		1.00
Initial Bse:	123		0		139		0		0		0		0	1204		375			0	636		251		
Added Vol:	0		0		195		0		0		0		0	215		0			0	85		77		
PasserByVol:	0		0		0		0		0		0		0	0		0			0	0		0		
Initial Fut:	123		0		334		0		0		0		0	1419		375			0	721		328		
User Adj:	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00		0.00		1.00	1.00	1.00		0.00		1.00
PHF Adj:	0.95	0.95		0.95		0.95	0.95	0.95		0.95		0.95	0.95	0.95		0.00		0.95	0.95	0.95		0.00		0.95
PHF Volume:	129		0		352		0		0		0		0	1494		0			0	759		0		
Reduct Vol:	0		0		0		0		0		0		0	0		0			0	0		0		
FinalVolume:	129		0		352		0		0		0		0	1494		0			0	759		0		
Critical Gap Module:																								
Critical Gp:	6.8	xxxx		6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx											
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx											
Capacity Module:																								
Cnflict Vol:	1873	xxxx		747	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx											
Potent Cap.:	65	xxxx		360	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx											
Move Cap.:	65	xxxx		360	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx											
Volume/Cap:	1.99	xxxx		0.98	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx											
Level Of Service Module:																								
2Way95thQ:	12.1	xxxx		11.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx											
Control Del:	599.6	xxxx		76.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx											
LOS by Move:	F	*		F	*	*	*	*	*	*	*	*	*											
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx		xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx											
Shrd ConDel:	xxxxx	xxxx		xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx											
Shared LOS:	*	*		*	*	*	*	*	*	*	*	*	*											
ApproachDel:			217.1						xxxxxx						xxxxxx						xxxxxx			
ApproachLOS:			F						*						*						*			

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 14 SR 29 NB Ramps/ First Street	??? / ???	Yes / Yes

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

Peak Hour Delay Signal Warrant Report

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	1	1 0	0	0	1	1 0
Initial Vol:	123		0	334	0		0	0	0	1419		375	0	721		328
ApproachDel:	217.1				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=27.6]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=457]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3300]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	123		0		334	0		0		0	0		0	1419	375	0		721		328

Major Street Volume: 2843
Minor Approach Volume: 457
Minor Approach Volume Threshold: -75 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.956
Loss Time (sec):	12	Average Delay (sec/veh):	54.0
Optimal Cycle:	144	Level Of Service:	D

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	214	135	0	0	248	218	475	0	750	11	430	17
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:	214	135	0	0	248	218	475	0	750	11	430	17
Added Vol:	0	0	0	0	0	20	52	0	358	0	141	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	214	135	0	0	248	238	527	0	1108	11	571	17
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:	225	142	0	0	261	251	555	0	1166	12	601	18
Reduct Vol:	0	0	2	0	0	41	0	0	307	0	0	0
Reduced Vol:	225	142	0	0	261	210	555	0	859	12	601	18
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
FinalVolume:	225	142	0	0	261	210	555	0	859	12	601	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.95	0.95
Lanes:	1.23	0.77	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.94	0.06
Final Sat.:	2260	1426	0	0	1900	1615	3502	0	1615	1805	3492	104
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.00	0.00	0.14	0.13	0.16	0.00	0.53	0.01	0.17	0.17
Crit Moves:		****			****				****			****
Green/Cycle:	0.16	0.16	0.16	0.16	0.16	0.49	0.33	0.33	0.49	0.19	0.19	0.19
Volume/Cap:	0.62	0.62	0.00	0.00	0.86	0.26	0.48	0.00	1.09	0.03	0.91	0.91
Delay/Veh:	41.3	41.3	0.0	0.0	61.9	15.1	27.0	0.0	83.4	33.1	55.4	55.4
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:	41.3	41.3	0.0	0.0	61.9	15.1	27.0	0.0	83.4	33.1	55.4	55.4
LOS by Move:	D	D	A	A	E	B	C	A	F	C	E	E
HCM2kAvgQ:	6	6	0	0	11	4	7	0	39	0	11	11

Note: Queue reported is the number of cars per lane.

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Q. Cumulative (2030) + Project AM (MITIGATED) Traffic Capacity Analysis

Napa Downtown Specific Plan
Cumulative (2030) + Project AM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	0	Average Delay (sec/veh):	12.9
Optimal Cycle:	62	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			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	0 0	1 1	0
Volume Module:												
Base Vol:	123	0	139	0	0	0	0	1204	375	0	636	251
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:	123	0	139	0	0	0	0	1204	375	0	636	251
Added Vol:	0	0	195	0	0	0	0	215	0	0	85	77
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	123	0	334	0	0	0	0	1419	375	0	721	328
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.00
PHF Volume:	129	0	352	0	0	0	0	1494	0	0	759	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	0	352	0	0	0	0	1494	0	0	759	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	129	0	352	0	0	0	0	1494	0	0	759	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	0	0	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.22	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.21	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.34	0.00	0.34	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.66	0.00
Volume/Cap:	0.21	0.00	0.63	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.32	0.00
Delay/Veh:	23.3	0.0	29.8	0.0	0.0	0.0	0.0	10.7	0.0	0.0	7.6	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:	23.3	0.0	29.8	0.0	0.0	0.0	0.0	10.7	0.0	0.0	7.6	0.0
LOS by Move:	C	A	C	A	A	A	A	B	A	A	A	A
HCM2kAvgQ:	3	0	10	0	0	0	0	15	0	0	5	0

Note: Queue reported is the number of cars per lane.

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R. Cumulative (2030) + Project PM Traffic Capacity Analysis

Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #1 Jefferson Street/First Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	9	Average Delay (sec/veh):	27.6
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Jefferson Street						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.1	4.1	4.1	0.0	0.0	0.0	4.1	4.1	4.1
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	148	890	0	0	605	103	0	0	0	102	361	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:	148	890	0	0	605	103	0	0	0	102	361	170
Added Vol:	45	11	15	17	10	4	0	0	0	26	187	27
PasserByVol:	108	51	56	31	31	0	0	0	0	-30	-108	-51
Initial Fut:	301	952	71	48	646	107	0	0	0	98	440	146
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:	317	1002	75	51	680	113	0	0	0	103	463	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	317	1002	75	51	680	113	0	0	0	103	463	154
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
FinalVolume:	317	1002	75	51	680	113	0	0	0	103	463	154
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	0.93	0.93	1.00	1.00	1.00	0.98	0.98	0.85
Lanes:	1.00	1.86	0.14	1.00	1.72	0.28	0.00	0.00	0.00	0.18	0.82	1.00
Final Sat.:	1805	3326	248	1805	3032	502	0	0	0	339	1521	1615
Capacity Analysis Module:												
Vol/Sat:	0.18	0.30	0.30	0.03	0.22	0.22	0.00	0.00	0.00	0.30	0.30	0.10
Crit Moves:	****				****					****		
Green/Cycle:	0.22	0.40	0.40	0.10	0.28	0.28	0.00	0.00	0.00	0.38	0.38	0.38
Volume/Cap:	0.79	0.75	0.75	0.28	0.79	0.79	0.00	0.00	0.00	0.79	0.79	0.25
Delay/Veh:	39.9	22.6	22.6	34.1	31.0	31.0	0.0	0.0	0.0	27.9	27.9	17.0
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:	39.9	22.6	22.6	34.1	31.0	31.0	0.0	0.0	0.0	27.9	27.9	17.0
LOS by Move:	D	C	C	C	C	C	A	A	A	C	C	B
HCM2kAvgQ:	7	12	12	1	10	10	0	0	0	14	14	3

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #2 Main Street/Pearl Street

Cycle (sec):	70	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	6	Average Delay (sec/veh):	14.8
Optimal Cycle:	33	Level Of Service:	B

Street Name:	Main Street						Pearl Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	1 0	0 1	0	0 0	1! 0	0	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	36	384	105	49	171	22	49	324	53	83	133	77
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:	36	384	105	49	171	22	49	324	53	83	133	77
Added Vol:	8	12	7	3	7	0	0	36	4	4	43	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	396	112	52	178	22	49	360	57	87	176	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:	46	417	118	55	187	23	52	379	60	92	185	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	417	118	55	187	23	52	379	60	92	185	83
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
FinalVolume:	46	417	118	55	187	23	52	379	60	92	185	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.73	0.97	0.97	0.77	0.77	0.77	0.68	0.98	0.98	0.69	0.69	0.69
Lanes:	1.00	0.78	0.22	0.20	0.71	0.09	1.00	0.86	0.14	0.25	0.52	0.23
Final Sat.:	1378	1432	405	301	1032	128	1290	1606	254	334	676	304
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.18	0.18	0.18	0.04	0.24	0.24	0.27	0.27	0.27
Crit Moves:		****									****	
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.07	0.62	0.62	0.39	0.39	0.39	0.09	0.53	0.53	0.62	0.62	0.62
Delay/Veh:	10.2	15.2	15.2	12.3	12.3	12.3	11.4	14.9	14.9	17.0	17.0	17.0
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:	10.2	15.2	15.2	12.3	12.3	12.3	11.4	14.9	14.9	17.0	17.0	17.0
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	9	9	4	4	4	1	7	7	7	7	7

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Soscol Avenue/Pearl Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.678
Loss Time (sec):	9	Average Delay (sec/veh):	18.3
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Soscol Avenue						Pearl Street					
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:	4	6	6	6	6	6	4	4	4	0	0	0
Y+R:	4.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	0.0	0.0	0.0
Lanes:	1 0	2 0	0	0 0	2 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	105	1204	0	0	1243	141	231	0	239	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:	105	1204	0	0	1243	141	231	0	239	0	0	0
Added Vol:	21	50	0	0	32	15	17	0	24	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	126	1254	0	0	1275	156	248	0	263	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:	133	1320	0	0	1342	164	261	0	277	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	1320	0	0	1342	164	261	0	277	0	0	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
FinalVolume:	133	1320	0	0	1342	164	261	0	277	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.07	0.37	0.00	0.00	0.37	0.10	0.14	0.00	0.17	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.11	0.66	0.00	0.00	0.55	0.55	0.25	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.68	0.56	0.00	0.00	0.68	0.19	0.57	0.00	0.68	0.00	0.00	0.00
Delay/Veh:	52.1	9.6	0.0	0.0	17.2	11.4	34.4	0.0	38.2	0.0	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:	52.1	9.6	0.0	0.0	17.2	11.4	34.4	0.0	38.2	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	D	A	A	A
HCM2kAvgQ:	5	12	0	0	16	3	8	0	9	0	0	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Jefferson Street/Clay Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.631
Loss Time (sec):	12	Average Delay (sec/veh):	18.8
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Jefferson Street						Clay Street					
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:	4	6	6	4	6	6	4	4	4	4	4	4
Y+R:	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	50	895	116	53	649	62	121	114	29	59	71	61
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:	50	895	116	53	649	62	121	114	29	59	71	61
Added Vol:	0	37	1	1	28	0	3	9	1	2	26	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	932	117	54	677	62	124	123	30	61	97	63
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:	53	981	123	57	713	65	131	129	32	64	102	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	981	123	57	713	65	131	129	32	64	102	66
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
FinalVolume:	53	981	123	57	713	65	131	129	32	64	102	66
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	0.94	0.94	0.71	0.71	0.85	0.76	0.76	0.85
Lanes:	1.00	1.78	0.22	1.00	1.83	0.17	0.50	0.50	1.00	0.39	0.61	1.00
Final Sat.:	1805	3153	396	1805	3264	299	672	667	1615	555	882	1615
Capacity Analysis Module:												
Vol/Sat:	0.03	0.31	0.31	0.03	0.22	0.22	0.19	0.19	0.02	0.12	0.12	0.04
Crit Moves:		****		****				****				
Green/Cycle:	0.10	0.49	0.49	0.05	0.44	0.44	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.29	0.63	0.63	0.63	0.49	0.49	0.63	0.63	0.06	0.38	0.38	0.13
Delay/Veh:	34.2	15.7	15.7	50.7	16.2	16.2	27.0	27.0	19.6	22.2	22.2	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:	34.2	15.7	15.7	50.7	16.2	16.2	27.0	27.0	19.6	22.2	22.2	20.1
LOS by Move:	C	B	B	D	B	B	C	C	B	C	C	C
HCM2kAvgQ:	1	10	10	3	7	7	7	7	1	3	3	1

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Jefferson Street/Second Street

Cycle (sec):	80	Critical Vol./Cap.(X):	0.759
Loss Time (sec):	9	Average Delay (sec/veh):	22.0
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Jefferson Street						Second Street					
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:	4	6	6	6	6	6	0	0	0	4	4	4
Y+R:	3.8	4.3	4.3	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	0	990	63	62	628	0	69	300	38	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:	0	990	63	62	628	0	69	300	38	0	0	0
Added Vol:	0	38	3	1	35	0	4	126	3	2	0	29
PasserByVol:	0	31	-31	-31	-30	0	25	-25	0	30	0	159
Initial Fut:	0	1059	35	32	633	0	98	401	41	32	0	188
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	1115	37	34	666	0	103	422	43	34	0	198
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1115	37	34	666	0	103	422	43	34	0	198
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
FinalVolume:	0	1115	37	34	666	0	103	422	43	34	0	198
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.95	0.95	0.95	1.00	0.89	0.89	0.89	0.80	1.00	0.80
Lanes:	0.00	1.94	0.06	1.00	2.00	0.00	0.18	0.74	0.08	0.15	0.00	0.85
Final Sat.:	0	3477	115	1805	3610	0	308	1261	129	221	0	1296
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.32	0.02	0.18	0.00	0.33	0.33	0.33	0.15	0.00	0.15
Crit Moves:		****		****				****				
Green/Cycle:	0.00	0.40	0.40	0.08	0.47	0.00	0.41	0.41	0.41	0.41	0.00	0.41
Volume/Cap:	0.00	0.81	0.81	0.25	0.39	0.00	0.81	0.81	0.81	0.37	0.00	0.37
Delay/Veh:	0.0	24.9	24.9	35.8	13.8	0.0	27.4	27.4	27.4	16.5	0.0	16.5
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	24.9	24.9	35.8	13.8	0.0	27.4	27.4	27.4	16.5	0.0	16.5
LOS by Move:	A	C	C	D	B	A	C	C	C	B	A	B
HCM2kAvgQ:	0	15	15	1	5	0	15	15	15	4	0	4

Note: Queue reported is the number of cars per lane.

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

Intersection #6 Coombs Street/Third Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.571
Loss Time (sec):	6	Average Delay (sec/veh):	10.9
Optimal Cycle:	29	Level Of Service:	B

Street Name:	Coombs Street						Third Street					
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:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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:	98	131	170	94	49	29	8	171	2	128	425	57
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:	98	131	170	94	49	29	8	171	2	128	425	57
Added Vol:	10	13	15	29	26	0	12	16	0	10	27	6
PasserByVol:	0	0	-20	0	0	0	0	20	0	-30	25	-15
Initial Fut:	108	144	165	123	75	29	20	207	2	108	477	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	114	152	174	129	79	31	21	218	2	114	502	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	152	174	129	79	31	21	218	2	114	502	51
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
FinalVolume:	114	152	174	129	79	31	21	218	2	114	502	51
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	0.82	0.82	0.68	0.68	0.68	0.85	0.85	0.85	0.80	0.80	0.80
Lanes:	0.26	0.34	0.40	0.54	0.33	0.13	0.17	1.81	0.02	0.34	1.51	0.15
Final Sat.:	402	536	614	704	429	166	281	2908	28	518	2290	230
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.28	0.18	0.18	0.18	0.07	0.07	0.07	0.22	0.22	0.22
Crit Moves:		****									****	
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.57	0.57	0.57	0.37	0.37	0.37	0.20	0.20	0.20	0.57	0.57	0.57
Delay/Veh:	9.9	9.9	9.9	8.1	8.1	8.1	10.3	10.3	10.3	12.8	12.8	12.8
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:	9.9	9.9	9.9	8.1	8.1	8.1	10.3	10.3	10.3	12.8	12.8	12.8
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	6	6	6	3	3	3	1	1	1	5	5	5

Note: Queue reported is the number of cars per lane.

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

Intersection #7 Main Street/First Street

Cycle (sec):	50	Critical Vol./Cap.(X):	0.594
Loss Time (sec):	6	Average Delay (sec/veh):	11.1
Optimal Cycle:	30	Level Of Service:	B

Street Name:	Main Street						First Street					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Y+R:	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lanes:	0 1	0 1	0	0 0	1! 0	0	0 1	0 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	93	498	128	19	199	74	0	0	0	45	167	41
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:	93	498	128	19	199	74	0	0	0	45	167	41
Added Vol:	23	15	12	15	8	32	8	98	0	6	151	12
PasserByVol:	-30	0	30	0	25	-25	0	0	0	30	-30	0
Initial Fut:	86	513	170	34	232	81	8	98	0	81	288	53
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:	91	540	179	36	244	85	8	103	0	85	303	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	540	179	36	244	85	8	103	0	85	303	56
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
FinalVolume:	91	540	179	36	244	85	8	103	0	85	303	56
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	0.80	0.80	0.87	0.87	0.87	0.97	0.97	1.00	0.91	0.91	0.91
Lanes:	0.22	1.34	0.44	0.10	0.67	0.23	0.08	0.92	0.00	0.19	0.68	0.13
Final Sat.:	342	2038	675	161	1102	385	139	1700	0	331	1176	217
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.22	0.22	0.22	0.06	0.06	0.00	0.26	0.26	0.26
Crit Moves:		****									****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.43	0.43	0.00	0.43	0.43	0.43
Volume/Cap:	0.59	0.59	0.59	0.50	0.50	0.50	0.14	0.14	0.00	0.59	0.59	0.59
Delay/Veh:	11.1	11.1	11.1	10.4	10.4	10.4	8.6	8.6	0.0	12.1	12.1	12.1
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:	11.1	11.1	11.1	10.4	10.4	10.4	8.6	8.6	0.0	12.1	12.1	12.1
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
HCM2kAvgQ:	6	6	6	5	5	5	1	1	0	6	6	6

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #8 Main Street/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.718
Loss Time (sec):	9	Average Delay (sec/veh):	29.0
Optimal Cycle:	54	Level Of Service:	C

Street Name:	Main Street						Third Street					
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	4	6	6	4	6	6
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	12	97	113	215	121	124	118	405	4	100	489	258
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:	12	97	113	215	121	124	118	405	4	100	489	258
Added Vol:	0	12	7	2	3	2	2	55	0	4	42	14
PasserByVol:	0	0	-15	0	0	0	0	15	0	-30	-25	-15
Initial Fut:	12	109	105	217	124	126	120	475	4	74	506	257
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:	13	115	111	228	131	133	126	500	4	78	533	271
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	115	111	228	131	133	126	500	4	78	533	271
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
FinalVolume:	13	115	111	228	131	133	126	500	4	78	533	271
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.74	0.74	0.74	0.95	0.95	0.95	0.95	0.90	0.90
Lanes:	0.10	0.90	1.00	0.46	0.27	0.27	1.00	1.98	0.02	1.00	1.33	0.67
Final Sat.:	180	1631	1615	654	374	380	1805	3576	30	1805	2272	1154
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.07	0.35	0.35	0.35	0.07	0.14	0.14	0.04	0.23	0.23
Crit Moves:					****		****				****	
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.10	0.32	0.32	0.10	0.33	0.33
Volume/Cap:	0.14	0.14	0.14	0.72	0.72	0.72	0.72	0.43	0.43	0.43	0.72	0.72
Delay/Veh:	14.3	14.3	14.3	24.0	24.0	24.0	57.1	26.8	26.8	44.0	31.9	31.9
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:	14.3	14.3	14.3	24.0	24.0	24.0	57.1	26.8	26.8	44.0	31.9	31.9
LOS by Move:	B	B	B	C	C	C	E	C	C	D	C	C
HCM2kAvgQ:	2	2	2	13	13	13	5	7	7	2	11	11

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #9 Soscol Avenue/First Street

Cycle (sec):	105	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	12	Average Delay (sec/veh):	29.6
Optimal Cycle:	78	Level Of Service:	C

Street Name:	Soscol Avenue						First Street					
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:	4	4	4	3	4	4	4	4	4	4	4	4
Y+R:	4.0	5.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	60	1108	82	104	1286	91	104	103	33	69	154	113
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:	60	1108	82	104	1286	91	104	103	33	69	154	113
Added Vol:	17	26	18	24	34	41	37	62	27	32	108	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	1134	100	128	1320	132	141	165	60	101	262	137
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:	81	1194	105	135	1389	139	148	174	63	106	276	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	1194	105	135	1389	139	148	174	63	106	276	144
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
FinalVolume:	81	1194	105	135	1389	139	148	174	63	106	276	144
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.28	0.96	0.96	0.50	0.95	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.73	0.27	1.00	0.66	0.34
Final Sat.:	1805	3610	1615	1805	3610	1615	532	1338	486	948	1184	619
Capacity Analysis Module:												
Vol/Sat:	0.04	0.33	0.07	0.07	0.38	0.09	0.28	0.13	0.13	0.11	0.23	0.23
Crit Moves:	****				****		****					
Green/Cycle:	0.06	0.44	0.44	0.10	0.48	0.48	0.35	0.35	0.35	0.35	0.35	0.35
Volume/Cap:	0.80	0.75	0.15	0.75	0.80	0.18	0.80	0.37	0.37	0.32	0.67	0.67
Delay/Veh:	83.9	26.9	17.8	62.7	25.7	15.6	52.3	26.0	26.0	25.7	31.8	31.8
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:	83.9	26.9	17.8	62.7	25.7	15.6	52.3	26.0	26.0	25.7	31.8	31.8
LOS by Move:	F	C	B	E	C	B	D	C	C	C	C	C
HCM2kAvgQ:	2	16	2	6	21	3	6	6	6	3	12	12

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #10 Soscol Avenue/Third Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.834
Loss Time (sec):	12	Average Delay (sec/veh):	37.0
Optimal Cycle:	86	Level Of Service:	D

Street Name:	Soscol Avenue						Third Street					
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:	4	6	6	4	6	6	6	6	6	6	6	6
Y+R:	4.5	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	256	954	36	188	993	176	111	292	260	59	398	146
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:	256	954	36	188	993	176	111	292	260	59	398	146
Added Vol:	13	38	0	18	66	9	12	33	18	0	37	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	269	992	36	206	1059	185	123	325	278	59	435	157
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:	283	1044	38	217	1115	195	129	342	293	62	458	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	283	1044	38	217	1115	195	129	342	293	62	458	165
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
FinalVolume:	283	1044	38	217	1115	195	129	342	293	62	458	165
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.95	0.95	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	2.00	1.93	0.07	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3502	3466	126	1805	3610	1615	1805	1900	1615	1805	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.08	0.30	0.30	0.12	0.31	0.12	0.07	0.18	0.18	0.03	0.24	0.10
Crit Moves:		****		****			****				****	
Green/Cycle:	0.10	0.36	0.36	0.14	0.40	0.40	0.09	0.28	0.28	0.09	0.29	0.29
Volume/Cap:	0.77	0.83	0.83	0.83	0.77	0.30	0.83	0.64	0.64	0.37	0.83	0.35
Delay/Veh:	53.3	34.0	34.0	61.8	28.6	20.7	75.5	34.1	34.7	43.9	43.9	28.6
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:	53.3	34.0	34.0	61.8	28.6	20.7	75.5	34.1	34.7	43.9	43.9	28.6
LOS by Move:	D	C	C	E	C	C	E	C	C	D	D	C
HCM2kAvgQ:	6	18	18	7	15	4	4	9	8	2	16	4

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #11 Silverado Trail/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.969
Loss Time (sec):	12	Average Delay (sec/veh):	37.6
Optimal Cycle:	155	Level Of Service:	D

Street Name:	Silverado Trail						First Street					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	75	641	8	17	1054	97	80	44	43	8	37	13
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:	75	641	8	17	1054	97	80	44	43	8	37	13
Added Vol:	20	6	0	0	5	30	50	5	35	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	647	8	17	1059	127	130	49	78	8	40	13
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:	100	681	8	18	1115	134	137	52	82	8	42	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	681	8	18	1115	134	137	52	82	8	42	14
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
FinalVolume:	100	681	8	18	1115	134	137	52	82	8	42	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	0.98	0.98	0.97	0.97	0.85	0.99	0.99	0.85
Lanes:	1.00	0.99	0.01	1.00	0.89	0.11	0.73	0.27	1.00	0.17	0.83	1.00
Final Sat.:	1805	1873	23	1805	1669	200	1332	502	1615	314	1571	1615
Capacity Analysis Module:												
Vol/Sat:	0.06	0.36	0.36	0.01	0.67	0.67	0.10	0.10	0.05	0.03	0.03	0.01
Crit Moves:	****				****		****			****		
Green/Cycle:	0.06	0.73	0.73	0.02	0.69	0.69	0.11	0.11	0.11	0.03	0.03	0.03
Volume/Cap:	0.97	0.50	0.50	0.50	0.97	0.97	0.97	0.97	0.48	0.97	0.97	0.31
Delay/Veh:	125.4	6.2	6.2	59.2	32.6	32.6	99.9	99.9	44.2	161.4	161	51.5
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:	125.4	6.2	6.2	59.2	32.6	32.6	99.9	99.9	44.2	161.4	161	51.5
LOS by Move:	F	A	A	E	C	C	F	F	D	F	F	D
HCM2kAvgQ:	4	9	9	1	43	43	10	10	3	4	4	1

Note: Queue reported is the number of cars per lane.

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0			4.0	4.0		
Lane Util. Factor			0.95			1.00			1.00	1.00		
Frt			0.98			0.94			1.00	0.98		
Flt Protected			0.98			1.00			0.95	1.00		
Satd. Flow (prot)			3408			1748			1770	1819		
Flt Permitted			0.71			1.00			0.95	1.00		
Satd. Flow (perm)			2465			1748			1770	1819		
Volume (vph)	112	122	288	71	4	182	148	7	36	503	90	4
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	118	128	303	75	4	192	156	7	38	529	95	4
RTOR Reduction (vph)	0	0	8	0	0	1	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	616	0	0	358	0	0	38	628	0	0
Turn Type	Split	Perm			Split				Prot			
Protected Phases	8		8		4	4			5	2		
Permitted Phases		8										
Actuated Green, G (s)			23.0			26.0			4.0	39.9		
Effective Green, g (s)			23.0			26.0			4.0	39.9		
Actuated g/C Ratio			0.17			0.19			0.03	0.29		
Clearance Time (s)			4.0			4.0			4.0	4.0		
Vehicle Extension (s)			3.0			3.0			3.0	3.0		
Lane Grp Cap (vph)			409			328			51	524		
v/s Ratio Prot						c0.20			0.02	c0.35		
v/s Ratio Perm			c0.25									
v/c Ratio			1.51			1.09			0.75	1.20		
Uniform Delay, d1			57.8			56.2			66.7	49.3		
Progression Factor			1.00			1.00			1.00	1.00		
Incremental Delay, d2			240.7			76.6			44.3	106.7		
Delay (s)			298.4			132.9			111.1	156.0		
Level of Service			F			F			F	F		
Approach Delay (s)			298.4			132.9				153.4		
Approach LOS			F			F				F		

Intersection Summary			
HCM Average Control Delay	379.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.77		
Actuated Cycle Length (s)	138.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	107.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

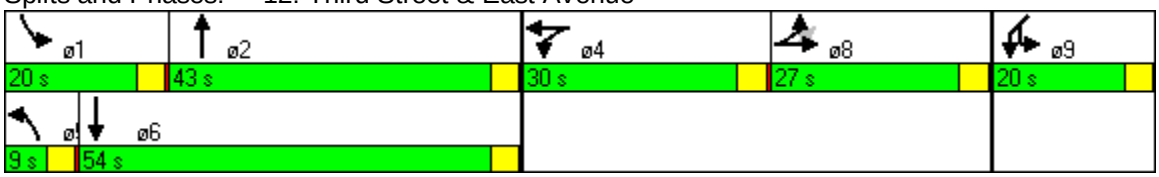
Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0		
Lane Util. Factor		1.00	1.00			1.00		
Frt		1.00	1.00			0.95		
Flt Protected		0.95	1.00			0.97		
Satd. Flow (prot)		1770	1855			1714		
Flt Permitted		0.25	1.00			0.97		
Satd. Flow (perm)		466	1855			1714		
Volume (vph)	1	284	714	20	21	49	39	4
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	299	752	21	22	52	41	4
RTOR Reduction (vph)	0	0	1	0	0	1	0	0
Lane Group Flow (vph)	0	300	772	0	0	118	0	0
Turn Type		Prot			Split			
Protected Phases		1	6		9	9		
Permitted Phases								
Actuated Green, G (s)		16.0	51.9			13.6		
Effective Green, g (s)		16.0	51.9			13.6		
Actuated g/C Ratio		0.12	0.37			0.10		
Clearance Time (s)		4.0	4.0			4.0		
Vehicle Extension (s)		3.0	3.0			3.0		
Lane Grp Cap (vph)		54	695			168		
v/s Ratio Prot			0.42			c0.07		
v/s Ratio Perm		c0.64						
v/c Ratio		5.56	1.11			0.70		
Uniform Delay, d1		61.2	43.3			60.5		
Progression Factor		1.00	1.00			1.00		
Incremental Delay, d2		2089.9	68.9			12.5		
Delay (s)		2151.1	112.2			73.0		
Level of Service		F	F			E		
Approach Delay (s)			682.3			73.0		
Approach LOS			F			E		

Intersection Summary

Phase Number	1	2	4	5	6	8	9
Movement	SBL	NBT	WBTL	NBL	SBT	EBTL	SWL
Lead/Lag	Lead	Lag		Lead	Lag		
Lead-Lag Optimize	Yes	Yes		Yes	Yes		
Recall Mode	None	Min	None	None	Min	None	None
Maximum Split (s)	20	43	30	9	54	27	20
Maximum Split (%)	14.3%	30.7%	21.4%	6.4%	38.6%	19.3%	14.3%
Minimum Split (s)	20	20	20	8	20	20	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0
Walk Time (s)	5	5	5		5	5	5
Flash Dont Walk (s)	11	11	11		11	11	11
Dual Entry	Yes	Yes	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	20	63	0	9	93	120
End Time (s)	20	63	93	9	63	120	0
Yield/Force Off (s)	16	59	89	5	59	116	136
Yield/Force Off 170(s)	5	59	78	5	59	105	125
Local Start Time (s)	120	0	43	120	129	73	100
Local Yield (s)	136	39	69	125	39	96	116
Local Yield 170(s)	125	39	58	125	39	85	105

Intersection Summary	
Cycle Length	140
Control Type	Actuated-Uncoordinated
Natural Cycle	150

Splits and Phases: 12: Third Street & East Avenue



Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #13 First Street/SR-29 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.783
Loss Time (sec):	9	Average Delay (sec/veh):	27.0
Optimal Cycle:	65	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
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 0	1	0 0	0 0	0	0 0	2 0	1	1 0	2 0	0
Volume Module:												
Base Vol:	389	0	334	0	0	0	0	924	93	158	1001	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:	389	0	334	0	0	0	0	924	93	158	1001	0
Added Vol:	0	0	81	0	0	0	0	9	0	133	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	389	0	415	0	0	0	0	933	93	291	1015	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:	409	0	437	0	0	0	0	982	98	306	1068	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	409	0	437	0	0	0	0	982	98	306	1068	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
FinalVolume:	409	0	437	0	0	0	0	982	98	306	1068	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	3502	0	1615	0	0	0	0	3610	1615	1805	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.27	0.00	0.00	0.00	0.00	0.27	0.06	0.17	0.30	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.35	0.00	0.35	0.00	0.00	0.00	0.00	0.35	0.35	0.22	0.56	0.00
Volume/Cap:	0.34	0.00	0.78	0.00	0.00	0.00	0.00	0.78	0.17	0.78	0.52	0.00
Delay/Veh:	24.4	0.0	36.5	0.0	0.0	0.0	0.0	32.5	22.8	46.8	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:	24.4	0.0	36.5	0.0	0.0	0.0	0.0	32.5	22.8	46.8	13.7	0.0
LOS by Move:	C	A	D	A	A	A	A	C	C	D	B	A
HCM2kAvgQ:	5	0	14	0	0	0	0	16	2	11	11	0

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Average Delay (sec/veh): 62.8 Worst Case Level Of Service: F[351.4]

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			Ignore			Ignore		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			0 0 1 1 0		
Volume Module:												
Base Vol:	207	0	177	0	0	0	0	947	310	0	952	470
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:	207	0	177	0	0	0	0	947	310	0	952	470
Added Vol:	0	0	81	0	0	0	0	90	0	0	147	133
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	207	0	258	0	0	0	0	1037	310	0	1099	603
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.00
PHF Volume:	218	0	272	0	0	0	0	1092	0	0	1157	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	218	0	272	0	0	0	0	1092	0	0	1157	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1670	xxxx	546	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	89	xxxx	487	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	89	xxxx	487	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	2.46	xxxx	0.56	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	20.2	xxxx	3.4	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	762.9	xxxx	21.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	F	*	C	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	351.4			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 14 SR 29 NB Ramps/ First Street	??? / ???	Yes / Yes

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

Peak Hour Delay Signal Warrant Report

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	1	1 0	0	0	1	1 0
Initial Vol:	207		0	258	0		0	0	0	1037		310	0	1099		603
ApproachDel:	351.4				xxxxxx				xxxxxx				xxxxxx			

Approach[northbound][lanes=2][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=45.4]
   SUCCEED - Vehicle-hours >= 5 for two or more lane approach.
Signal Warrant Rule #2: [approach volume=465]
   SUCCEED - Approach volume >= 150 for two or more lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=3514]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 SR 29 NB Ramps/ First Street

Future Volume Alternative: Peak Hour Warrant Met

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				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	207		0		258	0		0		0	0		0	1037	310	0		1099		603

Major Street Volume: 3049
Minor Approach Volume: 465
Minor Approach Volume Threshold: -105 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #15 California Boulevard/First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.825
Loss Time (sec):	12	Average Delay (sec/veh):	42.8
Optimal Cycle:	83	Level Of Service:	D

Street Name:	California Boulevard						First Street					
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:	Include			Ovl			Ovl			Include		
Min. Green:	3	3	3	3	3	3	3	3	3	3	3	3
Y+R:	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lanes:	1 1	0 0	0	0 0	1 0	1	2 0	0 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	281	127	0	0	230	465	475	0	708	21	676	55
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:	281	127	0	0	230	465	475	0	708	21	676	55
Added Vol:	0	0	0	0	0	44	26	0	145	0	236	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	281	127	0	0	230	509	501	0	853	21	912	55
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:	296	134	0	0	242	536	527	0	898	22	960	58
Reduct Vol:	0	0	4	0	0	29	0	0	449	0	0	0
Reduced Vol:	296	134	0	0	242	507	527	0	449	22	960	58
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
FinalVolume:	296	134	0	0	242	507	527	0	449	22	960	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	1.00	1.00	1.00	0.85	0.92	1.00	0.85	0.95	0.94	0.94
Lanes:	1.38	0.62	0.00	0.00	1.00	1.00	2.00	0.00	1.00	1.00	1.89	0.11
Final Sat.:	2531	1144	0	0	1900	1615	3502	0	1615	1805	3374	203
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.00	0.00	0.13	0.31	0.15	0.00	0.28	0.01	0.28	0.28
Crit Moves:		****				****			****		****	
Green/Cycle:	0.17	0.17	0.17	0.16	0.16	0.36	0.20	0.20	0.37	0.31	0.31	0.31
Volume/Cap:	0.69	0.69	0.00	0.00	0.80	0.87	0.75	0.00	0.75	0.04	0.92	0.92
Delay/Veh:	42.2	42.2	0.0	0.0	54.0	43.4	42.3	0.0	32.8	24.1	45.2	45.2
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:	42.2	42.2	0.0	0.0	54.0	43.4	42.3	0.0	32.8	24.1	45.2	45.2
LOS by Move:	D	D	A	A	D	D	D	A	C	C	D	D
HCM2kAvgQ:	8	8	0	0	9	18	10	0	14	0	17	17

Note: Queue reported is the number of cars per lane.

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S. Cumulative (2030) + Project PM (MITIGATED) Traffic Capacity Analysis

Napa Downtown Specific Plan
Cumulative (2030) + Project PM Peak

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

Intersection #14 SR 29 NB Ramps/ First Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.489
Loss Time (sec):	0	Average Delay (sec/veh):	11.8
Optimal Cycle:	45	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			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	1 1	0	0 0	1 1	0
Volume Module:												
Base Vol:	207	0	177	0	0	0	0	947	310	0	952	470
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:	207	0	177	0	0	0	0	947	310	0	952	470
Added Vol:	0	0	81	0	0	0	0	90	0	0	147	133
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	207	0	258	0	0	0	0	1037	310	0	1099	603
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.00
PHF Volume:	218	0	272	0	0	0	0	1092	0	0	1157	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	218	0	272	0	0	0	0	1092	0	0	1157	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	218	0	272	0	0	0	0	1092	0	0	1157	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	0	0	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.17	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.32	0.00
Crit Moves:			****				****				****	
Green/Cycle:	0.34	0.00	0.34	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.66	0.00
Volume/Cap:	0.35	0.00	0.49	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.49	0.00
Delay/Veh:	24.8	0.0	26.5	0.0	0.0	0.0	0.0	8.6	0.0	0.0	8.9	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:	24.8	0.0	26.5	0.0	0.0	0.0	0.0	8.6	0.0	0.0	8.9	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	5	0	7	0	0	0	0	9	0	0	10	0

Note: Queue reported is the number of cars per lane.

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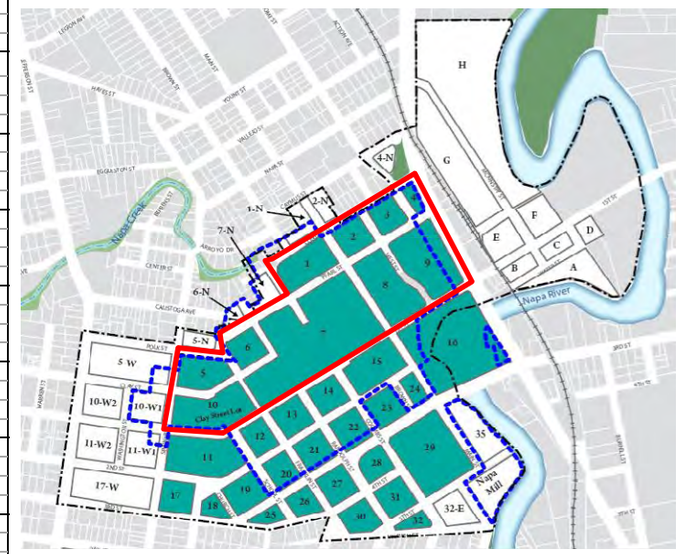
T. Existing Parking Survey Data

Weekday – Tuesday, July 21, 2009

Kimley-Horn and Associates, Inc.

BLOCK	FACE	Supply	Date: 7/21							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
1	n	10	10	10	10	10	7	7		
	w	5	1	0	0	3	4	4		
	s	4	0	0	1	1	2	4		
	e	6	3	4	6	1	2	6		
2	n	9	6	9	9	5	9	7		
	w	7	4	3	5	3	7	**8**		(A)
	s	9	3	4	7	0	7	3		
	e	5	3	3	4	3	3	**5**		
3	n	8	7	7	8	5	3	2		
	w	8	7	3	7	4	5	8		
	s	7	2	1	3	1	6	2		
	e	9	5	7	7	5	7	5		
4	n	3	2	1	2	1	2	10		
	w	7	2	2	2	4	5	3		
	s	0	0	0	0	0	0	0		
	e	4	0	0	0	0	1	0		
5	n	8	3	5	5	4	3	0		
	w	**6**	**7**	**5**	**3**	**5**	**6**	**0**		(A)
	s	3	2	2	2	2	**3**	0		
	e	0	0	0	0	0	0	0		
6	n	5	2	3	5	1	3	0		
	w	5	4	4	3	3	5	0		
	s	8	7	7	8	6	8	0		
	e	9	7	7	8	8	9	0		
7	n	0	0	0	0	0	0	0		
	w	0	0	0	0	0	0	0		
	s	8	4	8	8	3	8	0		
	e	8	4	7	7	4	7	0		
8	n	8	3	5	7	5	5	0		
	w	4	3	4	4	3	2	0		
	s	3	1	2	2	2	1	0		
	e	4	1	3	2	0	2	0		
9	n	~~6~~ 9	**9**	3	5	4	2	3		(B)
	w	14	4	6	9	6	12	7		
	s	0	0	0	0	0	0	0		
	e	12	1	0	1	0	10	3		
10	n	6	5	5	4	5	4	0		
	w	8	8	8	8	8	7	0		
	s	11	5	4	8	8	5	0		
	e	0	0	0	0	0	0	0		

ON-STREET PARKING AREA #1



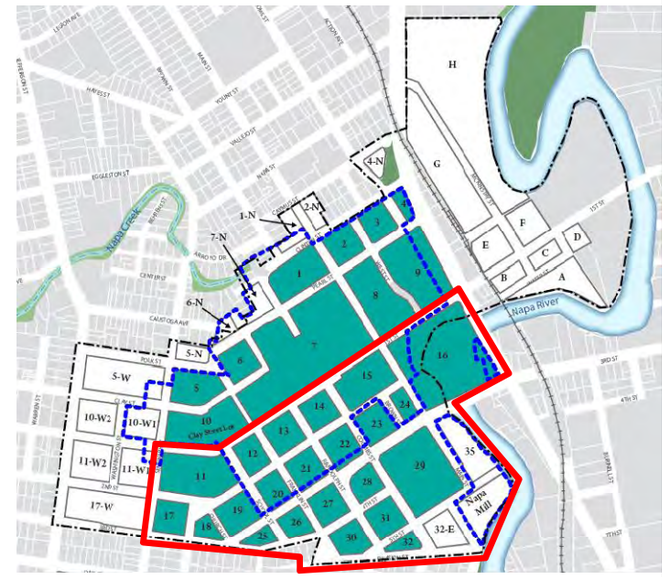
X Parking Count Exceeds Supply - See Note

Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.
(B) Aerials and Street View show that the existing supply is approximately 9 spaces.

Kimley-Horn and Associates, Inc.

BLOCK	FACE	Supply	Date: 7/21							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
11	n	8	3	5	4	7	8	7		
	w	5	0	0	0	0	0	1		
	s	20	14	14	17	16	0	3		
	e	16	2	3	4	4	4	4		
12	n	0	0	0	0	0	0	0		
	w	4	4	3	3	3	3	2		
	s	8	1	6	5	7	6	4		
	e	0	0	0	0	0	0	0		
13	n	4	3	4	4	4	2	0		
	w	8	8	7	8	7	3	2		
	s	8	3	6	6	6	1	5		
	e	6	1	3	4	4	1	4		
14	n	5	1	4	4	4	2	4		
	w	9	2	5	8	4	5	0		
	s	2	0	1	2	1	0	1		
	e	7	3	5	3	7	4	8		
15	n	0	0	0	0	0	0	0		
	w	7	5	6	6	2	5	7		
	s	4	3	2	3	3	3	0		
	e	5	5	5	5	4	3	**6**		(A)
16	n	3	2	**4**	1	3	2	3		(A)
	w	7	4	7	7	6	7	3		
	s	0	0	0	0	0	0	0		
	e	7	0	0	0	0	0	0		
17	n	7	0	1	2	6	2	1		
	w	5	1	2	1	0	0	0		
	s	4	0	0	0	0	0	0		
	e	10	2	3	3	5	5	3		
18	n	12	4	7	6	5	2	1		
	w	5	1	1	2	2	2	2		
	s	3	1	1	0	0	0	0		
	e	7	0	4	4	4	2	1		
19	n	7	3	3	4	2	3	4		
	w	0	0	0	0	0	0	0		
	s	11	8	7	7	7	5	1		
	e	10	5	6	7	3	6	1		
20	n	4	0	**5**	1	2	2	2		(A)
	w	~~7~~ **10**	**10**	**10**	**9**	**10**	7	**8**		(B)
	s	7	5	6	6	4	5	4		
	e	10	5	10	8	9	7	8		
21	n	11	3	1	2	9	6	9		
	w	5	4	2	2	5	2	1		
	s	8	5	5	4	6	2	5		
	e	7	7	2	4	2	2	1		
22	n	7	2	4	4	1	2	4		
	w	7	2	4	3	3	3	0		
	s	10	6	3	4	5	4	2		
	e	7	5	4	5	3	0	1		

ON-STREET PARKING AREA #2



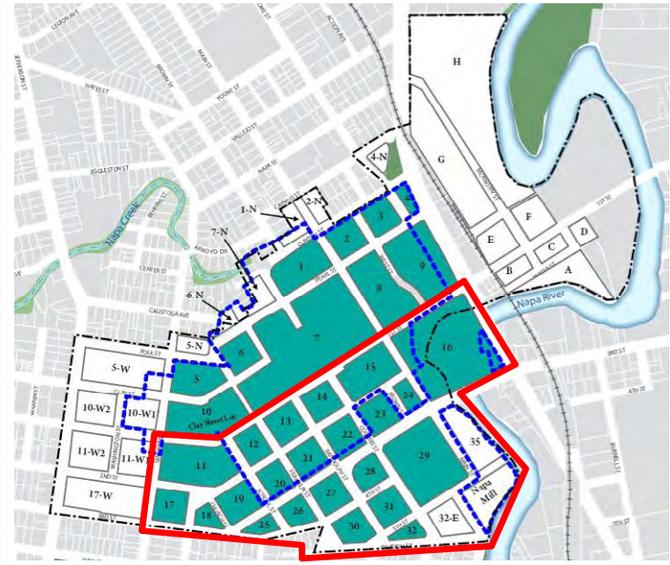
X Parking Count Exceeds Supply - See Note

Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.
(B) Aerials and Street View show that the existing supply is approximately 10 spaces.

Kimley-Horn and Associates, Inc.

BLOCK	FACE	Supply	Date: 7/21							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
23	n	8	8	6	6	3	1	4		
	w	11	8	7	10	5	2	4		
	s	8	8	6	7	5	1	0		
	e	9	**10**	7	7	7	7	1		(A)
24	n	4	4	4	3	4	2	0		
	w	10	9	7	6	8	5	7		
	s	0	0	0	0	0	0	0		
	e	10	7	10	6	7	8	4		
25	n	8	6	7	8	4	2	1		
	w	0	0	0	0	0	0	0		
	s	8	8	8	8	7	3	2		
	e	4	4	4	2	4	3	1		
26	n	7	4	5	4	4	1	1		
	w	6	6	**7**	**7**	**7**	2	1		(A)
	s	4	4	4	3	4	2	1		
	e	10	8	8	6	6	2	1		
27	n	10	7	7	6	9	6	3		
	w	8	8	8	6	4	2	2		
	s	6	6	6	5	5	2	0		
	e	10	3	4	1	5	0	1		
28	n	4	0	2	1	8	0	0		
	w	0	0	0	0	0	0	0		
	s	8	8	8	8	8	0	0		
	e	4	2	2	4	2	0	0		
29	n	9	9	8	4	7	3	4		
	w	14	14	14	14	13	2	1		
	s	0	0	0	0	0	0	0		
	e	7	6	5	7	7	0	0		
30	n	8	7	8	7	7	1	0		
	w	4	2	2	2	1	0	1		
	s	9	3	3	0	1	1	1		
	e	10	10	8	3	5	2	0		
31	n	7	7	7	7	6	2	2		
	w	8	8	**9**	6	7	0	0		(A)
	s	8	8	7	4	5	2	2		
	e	7	2	2	1	1	0	0		
32	n	8	4	4	4	5	1	0		
	w	0	0	0	0	0	0	0		
	s	11	4	5	5	3	4	2		
	e	4	1	2	1	2	0	0		
32-E	n	0	0	0	0	0	0	0		
	w	5	2	3	3	4	1	0		
	s	8	6	7	5	4	4	2		
	e	30	16	18	21	21	15	17		
35	n	0	0	0	0	0	0	0		
	w	13	13	12	11	8	4	4		
	s	0	0	0	0	0	0	0		
	e	0	0	0	0	0	0	0		

ON-STREET PARKING AREA #2



X Parking Count Exceeds Supply - See Note

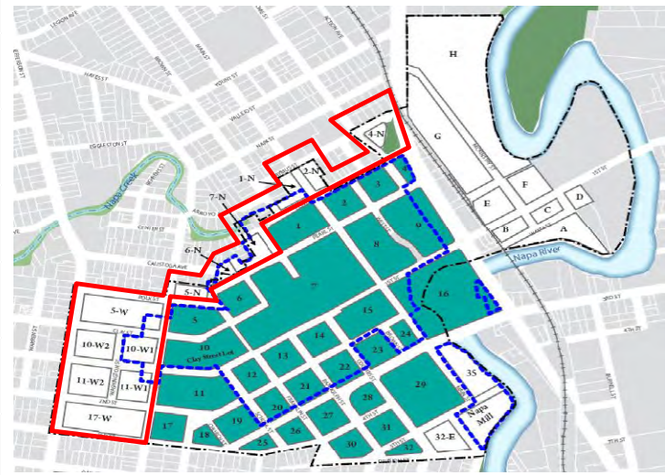
Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Kimley-Horn and Associates, Inc.

Additional Blocks in Planning Area: West of Soscol

BLOCK	FACE	2009 COUNT	Date: 7/21 9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
5-N	n	0	0	0	0	0	0	0		
	w	4	**5**	**5**	3	3	1	3		(A)
	s	8	1	7	1	0	2	4		
	e	0	0	0	0	0	0	0		
5-W	n	25	10	10	11	9	5	4		
	w	0	0	0	0	0	0	0		
	s	15	5	9	4	6	5	3		
	e	3	3	3	3	3	3	1		
6-N	n	4	3	1	3	2	2	1		
	w	0	0	0	0	3	0	0		
	s	7	1	7	5	7	5	4		
	e	1	1	1	1	1	1	1		
7-N	n	0	0	0	0	0	0	0		
	w	0	0	0	0	0	0	0		
	s	3	2	2	1	0	3	3		
	e	7	5	4	5	3	6	2		
10-W(1)	n	4	3	3	3	4	1	0		
	w	10	7	8	5	7	9	0		
	s	5	0	3	3	3	3	0		
	e	10	10	10	9	9	7	3		
10-W(2)	n	5	1	1	0	1	4	3		
	w	0	0	0	0	0	0	0		
	s	3	0	**4**	2	**4**	2	1		(A)
	e	9	2	3	6	5	6	4		
11-W(1)	n	7	5	4	3	4	1	0		
	w	0	0	0	0	0	0	0		
	s	6	2	2	1	5	5	2		
	e	5	3	4	3	3	4	1		
11-W(2)	n	7	3	2	1	0	5	4		
	w	0	0	0	0	0	0	0		
	s	8	4	5	3	3	9	7		
	e	0	0	0	0	0	0	0		
17-W	n	17	7	8	7	3	12	2		
	w	0	0	0	0	0	0	0		
	s	0	0	0	0	0	0	0		
	e	6	1	3	1	3	4	2		

ON-STREET PARKING AREA #3



X Parking Count Exceeds Supply - See Note

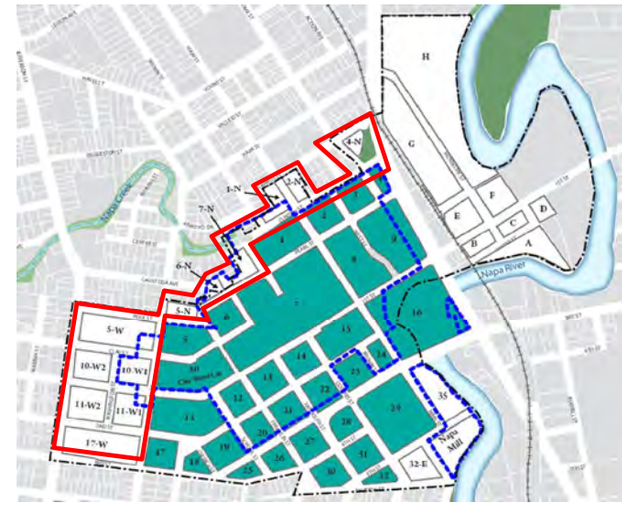
Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Kimley-Horn and Associates, Inc.

Additional Blocks in Planning Area: West of Soscol

BLOCK	FACE	2009 COUNT	Date: _____7/21_____							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
1-N	n	0	0	0	0	0	0	0		
	w	17	5	6	4	6	4	2		
	s	0	0	0	0	0	0	0		
	e	10	2	4	5	8	9	4		
2-N	n	0	0	0	0	0	0	0		
	w	9	3	5	4	6	7	3		
	s	0	0	0	0	0	0	0		
	e	0	0	0	0	0	0	0		
4N	n	12	3	6	5	4	6	3		
	w	8	1	2	2	2	1	2		
	s	0	0	0	0	0	0	0		
	e	0	0	0	0	0	0	0		

ON-STREET PARKING AREA #3



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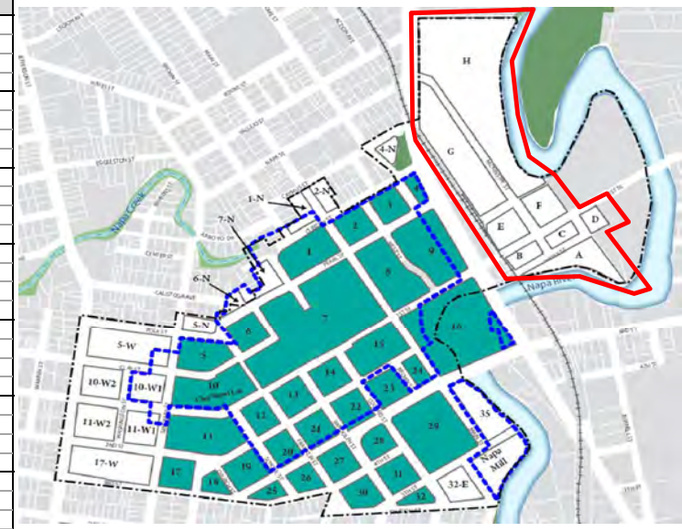
Kimley-Horn and Associates, Inc.

Additional Blocks in Planning Area: East of Soscol

BLOCK	FACE	2009 COUNT	Date: 7/21							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
A	n	5	3	3	3	3	4	5		
	w	0	0	0	0	0	0	0		
	s	0	0	0	0	0	0	0		
	e	0	0	0	0	0	0	0		
B	n	9	3	6	3	0	5	8		
	w	0	0	0	0	0	0	0		
	s	7	2	4	1	1	2	2		
	e	4	3	3	3	3	3	4		
C	n	6	1	5	2	3	6	6		
	w	5	2	3	1	2	5	5		
	s	6	1	3	2	1	3	3		
	e	5	0	2	2	2	1	4		
D	n	0	0	0	0	0	0	0		
	w	3	1	3	1	1	1	3		
	s	0	0	0	0	0	0	0		
	e	0	0	0	0	0	0	0		
E	n	0	0	0	0	0	0	0		
	w	0	0	0	0	0	0	0		
	s	8	3	4	2	4	6	4		
	e	4	4	**5**	3	1	4	4		(A)
F	n	0	0	0	0	0	0	0		
	w	6	3	5	5	5	6	6		
	s	4	0	4	1	1	4	3		
	e	0	0	0	0	0	0	0		
G	n	0	0	0	0	0	0	0		
	w	0	0	0	0	0	0	0		
	s	0	0	0	0	0	0	0		
	e	33	**45**	31	24	20	21	22		(A)
H	n	0	0	0	0	0	0	0		
	w	31	**44**	29	20	21	15	20		(A)
	s	0	0	0	0	0	0	0		
	e	0	0	0	0	0	0	0		

ON-STREET PARKING AREA #4



X Parking Count Exceeds Supply - See Note

Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Kimley-Horn and Associates, Inc.

Off-Street Lots			Date: 7/21						
Block	Lot	2009 Count	9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM
1	E	24	1	7	22	8	10	24	
	F	35	9	29	27	25	24	28	
	G-N	28	16	26	24	17	10	8	
7	G	52	20	18	20	17	3	0	
	G-E	24	4	24	18	8	10	24	
	H	37	31	37	31	31	32	34	
8	X-W	61	53	60	58	55	48	58	
9	X	115	30	78	85	84	77	79	
10	New	36	33	33	33	32	35	31	
14	A	82	40	72	78	63	37	25	
16	J	27	20	24	22	22	18	25	
20	I	10	6	8	8	6	8	1	
22	B	55	31	36	35	31	13	16	
28		119	113	111	115	99	33	10	
35*	~~MS~~	0							

Off-Street Garages			Date: 7/21						
Block	Garage	Verify	9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM
7	P	403	100	180	195	141	79	37	13
10	C	296	150	196	186	180	160	109	54
15	2nd	178	157	153	157	151	64	53	46
29	NEW	494	203	224	219	199	98	70	56

* - Does not exist anymore.

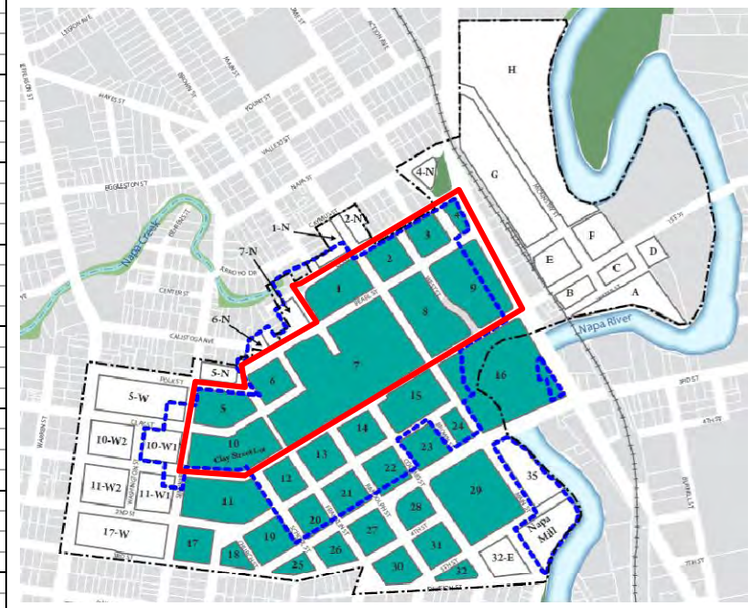
U. Existing Parking Survey Data

Weekend – Friday, July 24, 2009

Kimley-Horn and Associates, Inc.

BLOCK	FACE	Supply	Date: 7/24							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
1	n	10	9	**11**	**11**	7	5	**11**	8	(A)
	w	5	2	1	2	4	1	5	0	
	s	4	0	0	2	0	0	4	3	
	e	6	2	5	4	4	2	6	2	
2	n	9	2	8	5	5	4	9	6	
	w	7	4	5	6	4	7	7	6	
	s	9	5	9	5	8	8	9	7	
	e	5	5	5	5	5	4	5	5	
3	n	8	8	7	7	6	3	**9**	**9**	(A)
	w	8	7	7	7	4	7	8	8	
	s	7	6	7	6	7	**8**	**8**	5	(A)
	e	9	3	7	8	7	7	9	8	
4	n	3	1	0	2	1	2	3	3	
	w	7	1	2	7	2	6	**8**	4	(A)
	s	0	0	0	0	0	0	0	0	
	e	4	1	1	1	1	1	4	4	
5	n	8	4	6	6	1	4	1	2	
	w	6	5	3	6	4	2	1	1	
	s	3	2	2	2	0	1	0	0	
	e	0	0	0	0	0	0	0	0	
6	n	5	2	5	4	1	4	5	5	
	w	5	2	3	4	4	0	2	2	
	s	8	8	8	6	3	5	4	1	
	e	9	5	9	6	4	5	3	4	
7	n	0	0	0	0	0	0	0	0	
	w	0	0	0	0	0	0	0	0	
	s	8	7	6	8	5	8	7	4	
	e	8	2	8	8	5	7	8	6	
8	n	8	2	6	5	3	8	8	6	
	w	4	4	4	1	4	4	2	4	
	s	3	0	2	3	2	2	2	3	
	e	4	0	1	0	2	0	4	2	
9	n	~~6~~ 9	3	**8**	**7**	**7**	**8**	**9**	6	(B)
	w	14	2	6	12	10	12	14	6	
	s	0	0	0	0	0	0	0	0	
	e	12	0	0	3	3	1	12	8	
10	n	6	6	5	2	5	4	3	1	
	w	8	8	5	6	6	5	2	0	
	s	11	7	7	4	5	3	3	2	
	e	0	0	0	0	0	0	0	0	

ON-STREET PARKING AREA #1



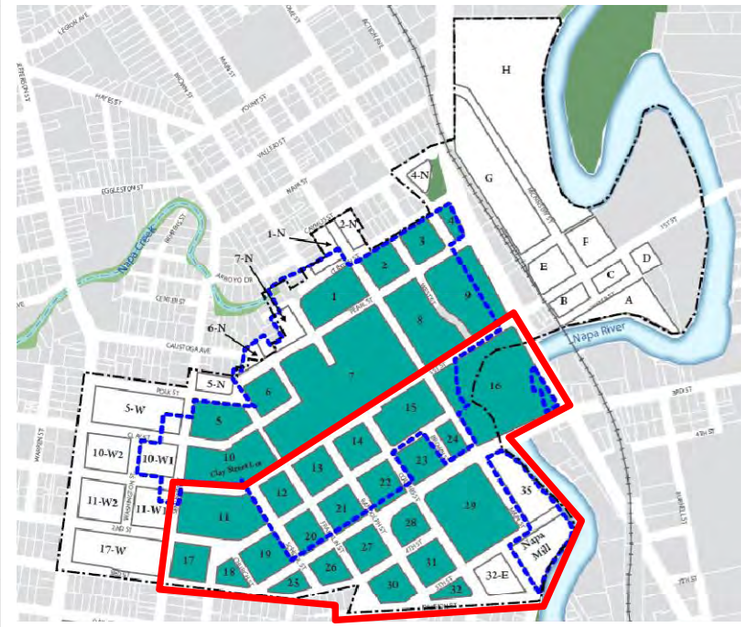
X Parking Count Exceeds Supply - See Note

Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.
(B) Aerials and Street View show that the existing supply is approximately 9 spaces.

Kimley-Horn and Associates, Inc.

BLOCK	FACE	Supply	Date: 7/24							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
11	n	8	2	6	5	3	0	0	0	
	w	5	0	0	0	0	4	2	1	
	s	20	4	5	3	8	8	3	2	
	e	16	8	2	4	6	7	4	3	
12	n	0	0	0	0	0	0	0	0	
	w	4	3	2	4	3	0	1	0	
	s	8	3	5	6	5	12	7	4	
	e	0	0	0	0	0	0	0	0	
13	n	4	4	3	4	2	4	3	2	
	w	8	5	7	7	5	2	1	0	
	s	8	5	8	6	5	2	2	0	
	e	6	2	**7**	4	5	1	3	1	(A)
14	n	5	1	3	4	4	0	2	1	
	w	9	3	9	6	5	1	2	0	
	s	2	0	1	2	1	**4**	**3**	2	(A)
	e	7	0	1	7	3	0	0	0	
15	n	0	0	0	0	0	0	0	0	
	w	7	3	6	7	6	6	5	4	
	s	4	2	4	3	3	4	4	3	
	e	5	4	4	5	5	5	4	3	
16	n	3	1	2	2	2	3	2	1	
	w	7	5	4	5	7	7	5	3	
	s	0	0	0	0	0	0	0	0	
	e	7	0	2	0	0	4	2	1	
17	n	7	1	2	0	1	0	0	0	
	w	5	1	2	3	1	0	0	0	
	s	4	0	0	2	0	0	0	0	
	e	10	2	1	2	1	2	0	0	
18	n	12	4	6	6	2	8	6	5	
	w	5	1	0	3	1	4	2	1	
	s	3	0	0	0	0	1	1	1	
	e	7	0	2	3	4	7	7	5	
19	n	7	1	5	4	3	3	2	1	
	w	0	0	0	0	0	0	0	0	
	s	11	6	6	6	3	2	0	0	
	e	10	3	4	5	3	4	2	1	
20	n	4	1	3	3	3	1	0	0	
	w	~~7~~ 10	**10**	**10**	**10**	6	7	5	2	(B)
	s	7	4	6	6	3	4	5	2	
	e	10	10	9	6	6	7	6	4	
21	n	11	3	8	4	4	4	4	2	
	w	5	4	5	4	4	4	4	1	
	s	8	3	5	3	5	5	4	1	
	e	7	2	1	4	2	1	0	0	
22	n	7	0	3	6	2	0	0	0	
	w	7	0	3	4	4	4	3	2	
	s	10	1	5	3	5	1	4	1	
	e	7	4	4	4	5	1	1	0	

ON-STREET PARKING AREA #2



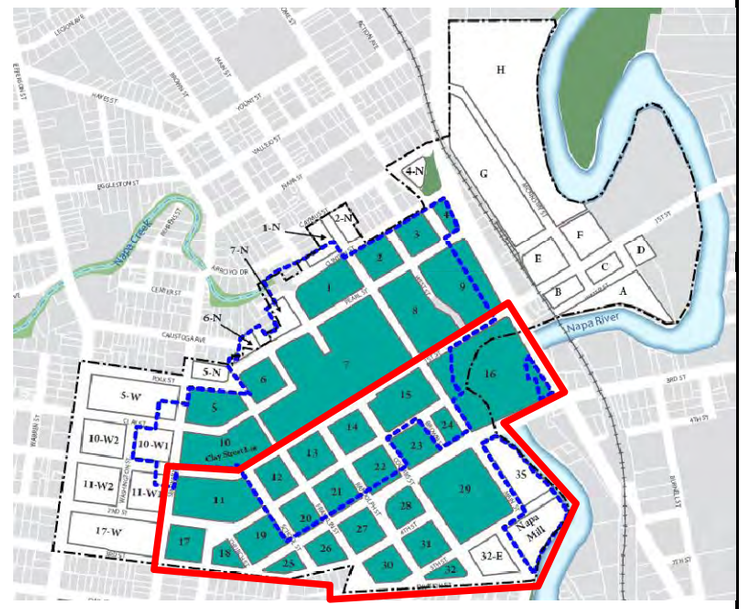
X Parking Count Exceeds Supply - See Note

Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.
(B) Aerials and Street View show that the existing supply is approximately 10 spaces.

Kimley-Horn and Associates, Inc.

BLOCK	FACE	Supply	Date: 7/24							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
23	n	8	7	5	6	5	1	4	2	
	w	11	4	4	7	4	2	10	6	
	s	8	6	7	6	3	2	6	4	
	e	9	6	8	9	6	4	8	2	
24	n	4	4	4	4	3	2	4	1	
	w	10	6	9	7	7	6	8	2	
	s	0	0	0	0	0	0	0	0	
	e	10	9	6	9	6	6	7	6	
25	n	8	6	8	7	5	4	3	1	
	w	0	0	0	0	0	0	0	0	
	s	8	6	7	6	4	2	3	1	
	e	4	0	2	3	3	2	2	2	
26	n	7	4	5	7	4	2	3	3	
	w	6	3	5	4	3	2	2	1	
	s	4	4	4	4	4	4	2	1	
	e	10	6	5	6	5	5	1	0	
27	n	10	6	5	3	6	6	4	3	
	w	8	8	**9**	7	6	5	2	1	(A)
	s	6	4	6	5	4	3	1	1	
	e	10	3	5	1	1	0	0	0	
28	n	4	1	1	0	0	0	0	0	
	w	0	0	0	0	0	0	0	0	
	s	8	7	7	8	5	1	0	0	
	e	4	3	3	2	3	1	2	1	
29	n	9	2	3	6	6	4	3	2	
	w	14	11	14	3	14	2	2	1	
	s	0	0	0	0	0	0	0	0	
	e	7	7	6	6	6	4	1	0	
30	n	8	6	4	3	6	0	2	1	
	w	4	1	2	1	1	4	3	2	
	s	9	4	4	3	2	6	7	6	
	e	10	4	6	5	4	1	6	3	
31	n	7	**8**	6	6	5	3	4	2	(A)
	w	8	4	4	4	1	1	7	6	
	s	8	7	2	2	4	0	0	0	
	e	7	4	4	3	2	1	0	0	
32	n	8	7	0	0	0	0	0	0	
	w	0	0	0	0	0	0	0	0	
	s	11	6	5	3	5	2	1	0	
	e	4	4	2	1	1	1	1	1	
32-E	n	0	0	0	0	0	0	0	0	
	w	5	0	3	2	3	2	2	3	
	s	8	5	7	5	6	8	4	5	
	e	30	20	28	30	26	19	17	10	
35	n	0	0	0	0	0	0	0	0	
	w	13	10	12	13	10	10	7	5	
	s	0	0	0	0	0	0	0	0	
	e	0	0	0	0	0	0	0	0	

ON-STREET PARKING AREA #2



X Parking Count Exceeds Supply - See Note

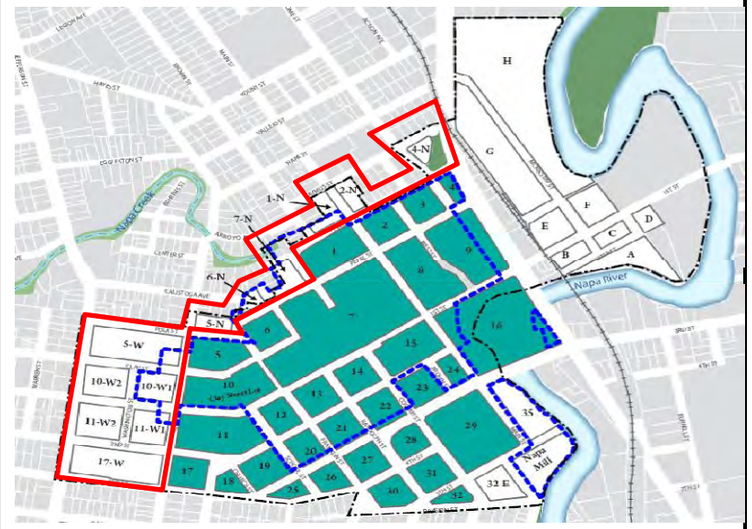
Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Kimley-Horn and Associates, Inc.

Additional Blocks in Planning Area: West of Soscol

BLOCK	FACE	2009 COUNT	Date: 7/24							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
5-N	n	0	0	0	0	0	0	0	0	
	w	4	5	5	4	3	2	3	3	
	s	8	0	3	0	0	0	0	0	
	e	0	0	0	0	0	0	0	0	
5-W	n	25	5	5	5	2	2	2	0	
	w	0	0	0	0	0	0	0	0	
	s	15	4	2	5	3	1	0	0	
	e	3	3	3	3	3	3	2	2	
6-N	n	4	1	3	2	3	2	3	1	
	w	0	0	0	0	0	0	0	0	
	s	7	7	7	7	7	7	5	5	
	e	1	1	1	1	1	1	1	1	
7-N	n	0	0	0	0	0	0	0	0	
	w	0	0	0	0	0	0	0	0	
	s	3	1	3	0	2	2	0	2	
	e	7	3	2	4	3	1	**8**	5	(A)
10-W(1)	n	4	1	2	3	3	2	0	0	
	w	10	2	2	2	1	0	0	0	
	s	5	0	1	3	0	0	0	0	
	e	10	10	9	10	5	2	1	0	
10-W(2)	n	5	2	2	0	0	1	0	0	
	w	0	0	0	0	0	0	0	0	
	s	3	0	1	2	2	3	1	0	
	e	9	2	1	2	5	2	0	0	
11-W(1)	n	7	2	1	1	2	2	1	1	
	w	0	0	0	0	0	0	0	0	
	s	6	1	3	3	2	1	3	0	
	e	5	2	0	1	0	0	0	1	
11-W(2)	n	7	2	3	2	4	3	1	0	
	w	0	0	0	0	0	0	0	0	
	s	8	2	2	3	2	1	0	0	
	e	0	0	0	0	0	0	0	0	
17-W	n	17	3	6	5	5	0	1	1	
	w	0	0	0	0	0	0	0	0	
	s	0	0	0	0	0	0	0	0	
	e	6	2	3	2	3	2	0	0	

ON-STREET PARKING AREA #3



X Parking Count Exceeds Supply - See Note

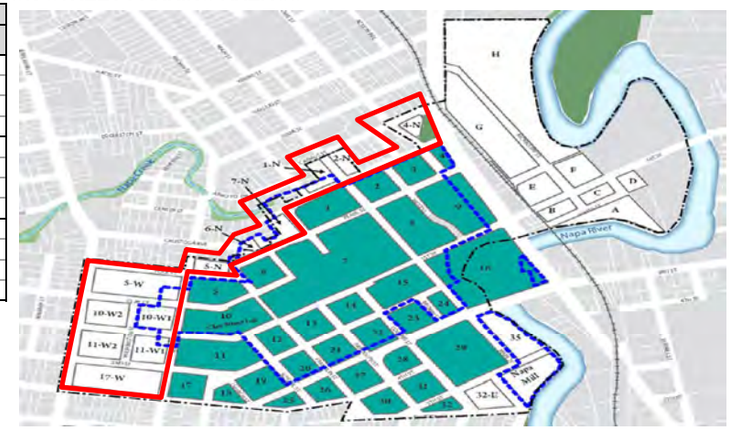
Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Kimley-Horn and Associates, Inc.

Additional Blocks in Planning Area: West of Soscol

BLOCK	FACE	2009 COUNT	Date: 7/24							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
1-N	n	0	0	0	0	0	0	0	0	
	w	17	4	7	8	8	6	9	10	
	s	0	0	0	0	0	0	0	0	
	e	10	4	7	4	4	3	8	5	
2-N	n	0	0	0	0	0	0	0	0	
	w	9	4	7	5	6	1	9	7	
	s	0	0	0	0	0	0	0	0	
	e	0	0	0	0	0	0	0	0	
4N	n	12	3	5	4	7	5	3	2	
	w	8	1	1	3	2	1	9	10	
	s	0	0	0	0	0	0	0	0	
	e	0	0	0	0	0	0	0	0	

ON-STREET PARKING AREA #3



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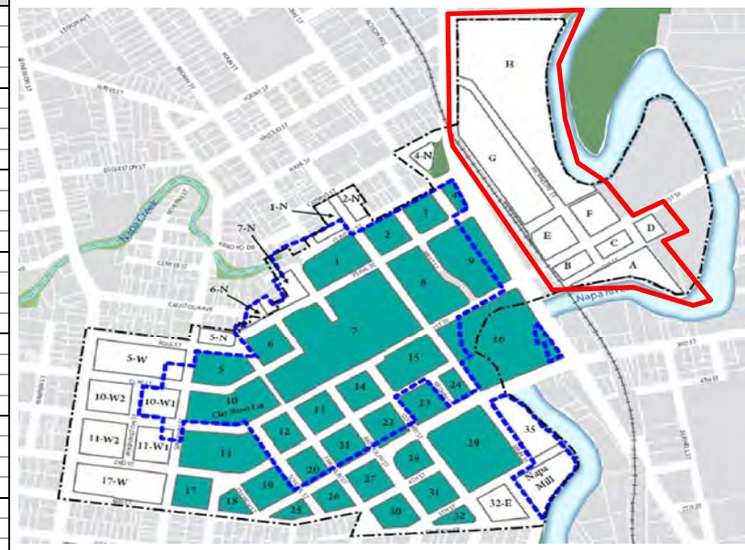
Kimley-Horn and Associates, Inc.

Additional Blocks in Planning Area: East of Soscol

BLOCK	FACE	2009 COUNT	Date: 7/24							
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
A	n	5	2	3	4	5	5	5	4	
	w	0	0	0	0	0	0	0	0	
	s	0	0	0	0	0	0	0	0	
	e	0	0	0	0	0	0	0	0	
B	n	9	0	3	3	2	4	9	7	
	w	0	0	0	0	0	0	0	0	
	s	7	1	0	2	1	2	2	3	
	e	4	0	2	1	2	4	3	4	
C	n	6	0	4	5	6	5	4	5	
	w	5	1	2	3	3	5	5	5	
	s	6	1	1	0	3	2	3	3	
	e	5	0	1	2	3	2	0	0	
D	n	0	0	0	0	0	0	0	0	
	w	3	0	0	0	0	0	0	1	
	s	0	0	0	0	0	0	0	0	
	e	0	0	0	0	0	0	0	0	
E	n	0	0	0	0	0	0	0	0	
	w	0	0	0	0	0	0	0	0	
	s	8	1	0	3	3	5	4	2	
	e	4	3	3	2	3	2	3	2	
F	n	0	0	0	0	0	0	0	0	
	w	6	3	4	4	1	3	4	4	
	s	4	0	2	3	3	4	4	2	
	e	0	0	0	0	0	0	0	0	
G	n	0	0	0	0	0	0	0	0	
	w	0	0	0	0	0	0	0	0	
	s	0	0	0	0	0	0	0	0	
	e	33	28	**35**	**35**	**34**	**38**	30	29	(A)
H	n	0	0	0	0	0	0	0	0	
	w	31	23	24	29	**33**	23	27	26	(A)
	s	0	0	0	0	0	0	0	0	
	e	0	0	0	0	0	0	0	0	

ON-STREET PARKING AREA #4



X Parking Count Exceeds Supply - See Note

Notes:
(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Kimley-Horn and Associates, Inc.

Off-Street Lots			Date: 7/24							
Block	Lot	2009 Count	9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	Notes
1	E	24	1	7	16	25	11	**31**	24	(A)
	F	35	4	24	35	9	21	35	33	
	G-N	28	17	23	25	17	13	25	16	
7	G	52	16	16	15	13	2	0	0	
	G-E	24	3	6	24	10	23	24	24	
	H	37	14	33	37	34	36	37	34	
8	X-W	61	51	61	57	61	53	61	58	
9	X	115	31	71	101	107	112	115	88	
10	New	36	37	31	33	26	29	22	6	
14	A	82	27	64	66	54	38	43	33	
16	J	27	22	23	25	24	24	27	25	
20	I	10	8	8	9	8	6	1	3	
22	B	55	26	30	31	32	17	15	11	
28		119	111	104	89	77	32	20	12	
35*	~~MS~~	0								

Off-Street Garages			Date: 7/24						
Block	Garage	Verify	9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM
7	P	403	86	159	183	117	96	51	38
10	C	296	98	174	160	151	122	66	43
15	2nd	178	123	122	145	117	83	119	143
29	NEW	494	162	179	170	155	98	92	94

* - Does not exist anymore.

X Parking Count Exceeds Supply - See Note

Notes:

(A) Parking Demand exceeds Supply; Vehicles closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

V. Existing Parking Survey Data

Weekend – Saturday, July 25, (Garages Only)

Kimley-Horn and Associates, Inc.

Off-Street Lots			Date: 7/24						
Block	Lot	2009 Count	9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM
1	E	24							
	F	35							
	G-N	28							
7	G	52							
	G-E	24							
	H	37							
8	X-W	61							
9	X	115							
10	New	36							
14	A	82							
16	J	27							
20	I	10							
22	B	55							
28		119							
35*	~~MS~~	0							

Off-Street Garages			Date: 7/25						
Block	Garage	Verify	9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM
7	P	403	31	83	111	86	55	37	16
10	C	296	73	119	79	79	106	72	78
15	2nd	178	35	40	54	48	27	55	114
29	NEW	494	56	72	73	78	78	85	109

* - Does not exist anymore.

Notes

(A)

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W. Existing Conditions Parking Analysis

Detailed On-Street Parking Analysis

Downtown Napa Specific Plan - Existing Weekday Parking Conditions

On-Street Parking - Tuesday

Block	Block Face	Supply	Parking Occupancy						Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	
Downtown Planning Area - West of Soscol Ave									
1	n	10	10	10	10	10	7	7	100%
	w	5	1	0	0	3	4	4	0%
	s	4	0	0	1	1	2	4	0%
	e	6	3	4	6	1	2	6	67%
2	n	9	6	9	9	5	9	7	100%
	w	7	4	3	5	3	7	8	43%
	s	9	3	4	7	0	7	3	44%
	e	5	3	3	4	3	3	5	60%
3	n	8	7	7	8	5	3	2	88%
	w	8	7	3	7	4	5	8	38%
	s	7	2	1	3	1	6	2	14%
	e	9	5	7	7	5	7	5	78%
4	n	3	2	1	2	1	2	10	33%
	w	7	2	2	2	4	5	3	29%
	s	0	0	0	0	0	0	0	-
	e	4	0	0	0	0	1	0	0%
5	n	8	3	5	5	4	3	0	63%
	w	6	7	5	3	5	6	0	83%
	s	3	2	2	2	2	3	0	67%
	e	0	0	0	0	0	0	0	-
6	n	5	2	3	5	1	3	0	60%
	w	5	4	4	3	3	5	0	80%
	s	8	7	7	8	6	8	0	88%
	e	9	7	7	8	8	9	0	78%
7	n	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	-
	s	8	4	8	8	3	8	0	100%
	e	8	4	7	7	4	7	0	88%
8	n	8	3	5	7	5	5	0	63%
	w	4	3	4	4	3	2	0	100%
	s	3	1	2	2	2	1	0	67%
	e	4	1	3	2	0	2	0	75%
9	n	9	9	3	5	4	2	3	33%
	w	14	4	6	9	6	12	7	43%
	s	0	0	0	0	0	0	0	-
	e	12	1	0	1	0	10	3	0%
10	n	6	5	5	4	5	4	0	83%
	w	8	8	8	8	8	7	0	100%
	s	11	5	4	8	8	5	0	36%
	e	0	0	0	0	0	0	0	-
11	n	8	3	5	4	7	8	7	63%
	w	5	0	0	0	0	0	1	0%
	s	20	14	14	17	16	0	3	70%
	e	16	2	3	4	4	4	4	19%
12	n	0	0	0	0	0	0	0	-
	w	4	4	3	3	3	3	2	75%
	s	8	1	6	5	7	6	4	75%
	e	0	0	0	0	0	0	0	-

Downtown Napa Specific Plan - Existing Weekday Parking Conditions

On-Street Parking - Tuesday

Block	Block Face	Supply	Parking Occupancy						Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	
13	n	4	3	4	4	4	2	0	100%
	w	8	8	7	8	7	3	2	88%
	s	8	3	6	6	6	1	5	75%
	e	6	1	3	4	4	1	4	50%
14	n	5	1	4	4	4	2	4	80%
	w	9	2	5	8	4	5	0	56%
	s	2	0	1	2	1	0	1	50%
	e	7	3	5	3	7	4	8	71%
15	n	0	0	0	0	0	0	0	-
	w	7	5	6	6	2	5	7	86%
	s	4	3	2	3	3	3	0	50%
	e	5	5	5	5	4	3	6	100%
16	n	3	2	4	1	3	2	3	133%
	w	7	4	7	7	6	7	3	100%
	s	0	0	0	0	0	0	0	-
	e	7	0	0	0	0	0	0	0%
17	n	7	0	1	2	6	2	1	14%
	w	5	1	2	1	0	0	0	40%
	s	4	0	0	0	0	0	0	0%
	e	10	2	3	3	5	5	3	30%
18	n	12	4	7	6	5	2	1	58%
	w	5	1	1	2	2	2	2	20%
	s	3	1	1	0	0	0	0	33%
	e	7	0	4	4	4	2	1	57%
19	n	7	3	3	4	2	3	4	43%
	w	0	0	0	0	0	0	0	-
	s	11	8	7	7	7	5	1	64%
	e	10	5	6	7	3	6	1	60%
20	n	4	0	5	1	2	2	2	125%
	w	10	10	10	9	10	7	8	100%
	s	7	5	6	6	4	5	4	86%
	e	10	5	10	8	9	7	8	100%
21	n	11	3	1	2	9	6	9	9%
	w	5	4	2	2	5	2	1	40%
	s	8	5	5	4	6	2	5	63%
	e	7	7	2	4	2	2	1	29%
22	n	7	2	4	4	1	2	4	57%
	w	7	2	4	3	3	3	0	57%
	s	10	6	3	4	5	4	2	30%
	e	7	5	4	5	3	0	1	57%
23	n	8	8	6	6	3	1	4	75%
	w	11	8	7	10	5	2	4	64%
	s	8	8	6	7	5	1	0	75%
	e	9	10	7	7	7	7	1	78%
24	n	4	4	4	3	4	2	0	100%
	w	10	9	7	6	8	5	7	70%
	s	0	0	0	0	0	0	0	-
	e	10	7	10	6	7	8	4	100%

Downtown Napa Specific Plan - Existing Weekday Parking Conditions

On-Street Parking - Tuesday

Block	Block Face	Supply	Parking Occupancy						Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	
25	n	8	6	7	8	4	2	1	88%
	w	0	0	0	0	0	0	0	-
	s	8	8	8	8	7	3	2	100%
	e	4	4	4	2	4	3	1	100%
26	n	7	4	5	4	4	1	1	71%
	w	6	6	7	7	7	2	1	117%
	s	4	4	4	3	4	2	1	100%
	e	10	8	8	6	6	2	1	80%
27	n	10	7	7	6	9	6	3	70%
	w	8	8	8	6	4	2	2	100%
	s	6	6	6	5	5	2	0	100%
	e	10	3	4	1	5	0	1	40%
28	n	4	0	2	1	8	0	0	50%
	w	0	0	0	0	0	0	0	-
	s	8	8	8	8	8	0	0	100%
	e	4	2	2	4	2	0	0	50%
29	n	9	9	8	4	7	3	4	89%
	w	14	14	14	14	13	2	1	100%
	s	0	0	0	0	0	0	0	-
	e	7	6	5	7	7	0	0	71%
30	n	8	7	8	7	7	1	0	100%
	w	4	2	2	2	1	0	1	50%
	s	9	3	3	0	1	1	1	33%
	e	10	10	8	3	5	2	0	80%
31	n	7	7	7	7	6	2	2	100%
	w	8	8	9	6	7	0	0	113%
	s	8	8	7	4	5	2	2	88%
	e	7	2	2	1	1	0	0	29%
32	n	8	4	4	4	5	1	0	50%
	w	0	0	0	0	0	0	0	-
	s	11	4	5	5	3	4	2	45%
	e	4	1	2	1	2	0	0	50%
32-E	n	0	0	0	0	0	0	0	-
	w	5	2	3	3	4	1	0	60%
	s	8	6	7	5	4	4	2	88%
	e	30	16	18	21	21	15	17	60%
35	n	0	0	0	0	0	0	0	-
	w	13	13	12	11	8	4	4	92%
	s	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	-
5-N	n	0	0	0	0	0	0	0	-
	w	4	5	5	3	3	1	3	125%
	s	8	1	7	1	0	2	4	88%
	e	0	0	0	0	0	0	0	-
5-W	n	25	10	10	11	9	5	4	40%
	w	0	0	0	0	0	0	0	-
	s	15	5	9	4	6	5	3	60%
	e	3	3	3	3	3	3	1	100%

Downtown Napa Specific Plan - Existing Weekday Parking Conditions

On-Street Parking - Tuesday

Block	Block Face	Supply	Parking Occupancy						Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	
6-N	n	4	3	1	3	2	2	1	25%
	w	0	0	0	0	3	0	0	-
	s	7	1	7	5	7	5	4	100%
	e	1	1	1	1	1	1	1	100%
7-N	n	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	-
	s	3	2	2	1	0	3	3	67%
	e	7	5	4	5	3	6	2	57%
10-W(1)	n	4	3	3	3	4	1	0	75%
	w	10	7	8	5	7	9	0	80%
	s	5	0	3	3	3	3	0	60%
	e	10	10	10	9	9	7	3	100%
10-W(2)	n	5	1	1	0	1	4	3	20%
	w	0	0	0	0	0	0	0	-
	s	3	0	4	2	4	2	1	133%
	e	9	2	3	6	5	6	4	33%
11-W(1)	n	7	5	4	3	4	1	0	57%
	w	0	0	0	0	0	0	0	-
	s	6	2	2	1	5	5	2	33%
	e	5	3	4	3	3	4	1	80%
11-W(2)	n	7	3	2	1	0	5	4	29%
	w	0	0	0	0	0	0	0	-
	s	8	4	5	3	3	9	7	63%
	e	0	0	0	0	0	0	0	-
17-W	n	17	7	8	7	3	12	2	47%
	w	0	0	0	0	0	0	0	-
	s	0	0	0	0	0	0	0	-
	e	6	1	3	1	3	4	2	50%
1-N	n	0	0	0	0	0	0	0	-
	w	17	5	6	4	6	4	2	35%
	s	0	0	0	0	0	0	0	-
	e	10	2	4	5	8	9	4	40%
2-N	n	0	0	0	0	0	0	0	-
	w	9	3	5	4	6	7	3	56%
	s	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	-
4-N	n	12	3	6	5	4	6	3	50%
	w	8	1	2	2	2	1	2	25%
	s	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	-
Subtotal West of Soscol Ave		**1,119**	**626**	**706**	**675**	**648**	**525**	**349**	**63%**
Downtown Planning Area - East of Soscol Ave									
A	n	5	3	3	3	3	4	5	60%
	w	0	0	0	0	0	0	0	-
	s	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	-
B	n	9	3	6	3	0	5	8	67%
	w	0	0	0	0	0	0	0	-
	s	7	2	4	1	1	2	2	57%
	e	4	3	3	3	3	3	4	75%

Downtown Napa Specific Plan - Existing Weekday Parking Conditions

On-Street Parking - Tuesday

Block	Block Face	Supply	Parking Occupancy						Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	
C	n	6	1	5	2	3	6	6	83%
	w	5	2	3	1	2	5	5	60%
	s	6	1	3	2	1	3	3	50%
	e	5	0	2	2	2	1	4	40%
D	n	0	0	0	0	0	0	0	-
	w	3	1	3	1	1	1	3	100%
	s	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	-
E	n	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	-
	s	8	3	4	2	4	6	4	50%
	e	4	4	5	3	1	4	4	125%
F	n	0	0	0	0	0	0	0	-
	w	6	3	5	5	5	6	6	83%
	s	4	0	4	1	1	4	3	100%
	e	0	0	0	0	0	0	0	-
G	n	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	-
	s	0	0	0	0	0	0	0	-
	e	33	45	31	24	20	21	22	94%
H	n	0	0	0	0	0	0	0	-
	w	31	44	29	20	21	15	20	94%
	s	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	-
Subtotal East of Soscol Ave		**136**	**115**	**110**	**73**	**68**	**86**	**99**	**81%**
Total		**1,255**	**741**	**816**	**748**	**716**	**611**	**448**	**65%**

- Peak Hour for on- and off-street parking is highlighted; peak hour for on-street parking is the same.

- At several locations, the parking demand exceeds the supply. This is because parked vehicles were closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Downtown Napa Specific Plan - Existing Weekend Parking Conditions

On-Street Parking - Friday

Block	Block Face	Supply	Parking Occupancy							Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	
Downtown Planning Area - West of Soscol Ave										
1	n	10	9	11	11	7	5	11	8	110%
	w	5	2	1	2	4	1	5	0	40%
	s	4	0	0	2	0	0	4	3	50%
	e	6	2	5	4	4	2	6	2	67%
2	n	9	2	8	5	5	4	9	6	56%
	w	7	4	5	6	4	7	7	6	86%
	s	9	5	9	5	8	8	9	7	56%
	e	5	5	5	5	5	4	5	5	100%
3	n	8	8	7	7	6	3	9	9	88%
	w	8	7	7	7	4	7	8	8	88%
	s	7	6	7	6	7	8	8	5	86%
	e	9	3	7	8	7	7	9	8	89%
4	n	3	1	0	2	1	2	3	3	67%
	w	7	1	2	7	2	6	8	4	100%
	s	0	0	0	0	0	0	0	0	-
	e	4	1	1	1	1	1	4	4	25%
5	n	8	4	6	6	1	4	1	2	75%
	w	6	5	3	6	4	2	1	1	100%
	s	3	2	2	2	0	1	0	0	67%
	e	0	0	0	0	0	0	0	0	-
6	n	5	2	5	4	1	4	5	5	80%
	w	5	2	3	4	4	0	2	2	80%
	s	8	8	8	6	3	5	4	1	75%
	e	9	5	9	6	4	5	3	4	67%
7	n	0	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	0	-
	s	8	7	6	8	5	8	7	4	100%
	e	8	2	8	8	5	7	8	6	100%
8	n	8	2	6	5	3	8	8	6	63%
	w	4	4	4	1	4	4	2	4	25%
	s	3	0	2	3	2	2	2	3	100%
	e	4	0	1	0	2	0	4	2	0%
9	n	9	3	8	7	7	8	9	6	78%
	w	14	2	6	12	10	12	14	6	86%
	s	0	0	0	0	0	0	0	0	-
	e	12	0	0	3	3	1	12	8	25%
10	n	6	6	5	2	5	4	3	1	33%
	w	8	8	5	6	6	5	2	0	75%
	s	11	7	7	4	5	3	3	2	36%
	e	0	0	0	0	0	0	0	0	-
11	n	8	2	6	5	3	0	0	0	63%
	w	5	0	0	0	0	4	2	1	0%
	s	20	4	5	3	8	8	3	2	15%
	e	16	8	2	4	6	7	4	3	25%
12	n	0	0	0	0	0	0	0	0	-
	w	4	3	2	4	3	0	1	0	100%
	s	8	3	5	6	5	12	7	4	75%
	e	0	0	0	0	0	0	0	0	-
13	n	4	4	3	4	2	4	3	2	100%
	w	8	5	7	7	5	2	1	0	88%
	s	8	5	8	6	5	2	2	0	75%
	e	6	2	7	4	5	1	3	1	67%

Downtown Napa Specific Plan - Existing Weekend Parking Conditions

On-Street Parking - Friday

Block	Block Face	Supply	Parking Occupancy							Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	
14	n	5	1	3	4	4	0	2	1	80%
	w	9	3	9	6	5	1	2	0	67%
	s	2	0	1	2	1	4	3	2	100%
	e	7	0	1	7	3	0	0	0	100%
15	n	0	0	0	0	0	0	0	0	-
	w	7	3	6	7	6	6	5	4	100%
	s	4	2	4	3	3	4	4	3	75%
	e	5	4	4	5	5	5	4	3	100%
16	n	3	1	2	2	2	3	2	1	67%
	w	7	5	4	5	7	7	5	3	71%
	s	0	0	0	0	0	0	0	0	-
	e	7	0	2	0	0	4	2	1	0%
17	n	7	1	2	0	1	0	0	0	0%
	w	5	1	2	3	1	0	0	0	60%
	s	4	0	0	2	0	0	0	0	50%
	e	10	2	1	2	1	2	0	0	20%
18	n	12	4	6	6	2	8	6	5	50%
	w	5	1	0	3	1	4	2	1	60%
	s	3	0	0	0	0	1	1	1	0%
	e	7	0	2	3	4	7	7	5	43%
19	n	7	1	5	4	3	3	2	1	57%
	w	0	0	0	0	0	0	0	0	-
	s	11	6	6	6	3	2	0	0	55%
	e	10	3	4	5	3	4	2	1	50%
20	n	4	1	3	3	3	1	0	0	75%
	w	10	10	10	10	6	7	5	2	100%
	s	7	4	6	6	3	4	5	2	86%
	e	10	10	9	6	6	7	6	4	60%
21	n	11	3	8	4	4	4	4	2	36%
	w	5	4	5	4	4	4	4	1	80%
	s	8	3	5	3	5	5	4	1	38%
	e	7	2	1	4	2	1	0	0	57%
22	n	7	0	3	6	2	0	0	0	86%
	w	7	0	3	4	4	4	3	2	57%
	s	10	1	5	3	5	1	4	1	30%
	e	7	4	4	4	5	1	1	0	57%
23	n	8	7	5	6	5	1	4	2	75%
	w	11	4	4	7	4	2	10	6	64%
	s	8	6	7	6	3	2	6	4	75%
	e	9	6	8	9	6	4	8	2	100%
24	n	4	4	4	4	3	2	4	1	100%
	w	10	6	9	7	7	6	8	2	70%
	s	0	0	0	0	0	0	0	0	-
	e	10	9	6	9	6	6	7	6	90%
25	n	8	6	8	7	5	4	3	1	88%
	w	0	0	0	0	0	0	0	0	-
	s	8	6	7	6	4	2	3	1	75%
	e	4	0	2	3	3	2	2	2	75%
26	n	7	4	5	7	4	2	3	3	100%
	w	6	3	5	4	3	2	2	1	67%
	s	4	4	4	4	4	4	2	1	100%
	e	10	6	5	6	5	5	1	0	60%

Downtown Napa Specific Plan - Existing Weekend Parking Conditions

On-Street Parking - Friday

Block	Block Face	Supply	Parking Occupancy							Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	
27	n	10	6	5	3	6	6	4	3	30%
	w	8	8	9	7	6	5	2	1	88%
	s	6	4	6	5	4	3	1	1	83%
	e	10	3	5	1	1	0	0	0	10%
28	n	4	1	1	0	0	0	0	0	0%
	w	0	0	0	0	0	0	0	0	-
	s	8	7	7	8	5	1	0	0	100%
	e	4	3	3	2	3	1	2	1	50%
29	n	9	2	3	6	6	4	3	2	67%
	w	14	11	14	3	14	2	2	1	21%
	s	0	0	0	0	0	0	0	0	-
	e	7	7	6	6	6	4	1	0	86%
30	n	8	6	4	3	6	0	2	1	38%
	w	4	1	2	1	1	4	3	2	25%
	s	9	4	4	3	2	6	7	6	33%
	e	10	4	6	5	4	1	6	3	50%
31	n	7	8	6	6	5	3	4	2	86%
	w	8	4	4	4	1	1	7	6	50%
	s	8	7	2	2	4	0	0	0	25%
	e	7	4	4	3	2	1	0	0	43%
32	n	8	7	0	0	0	0	0	0	0%
	w	0	0	0	0	0	0	0	0	-
	s	11	6	5	3	5	2	1	0	27%
	e	4	4	2	1	1	1	1	1	25%
32-E	n	0	0	0	0	0	0	0	0	-
	w	5	0	3	2	3	2	2	3	40%
	s	8	5	7	5	6	8	4	5	63%
	e	30	20	28	30	26	19	17	10	100%
35	n	0	0	0	0	0	0	0	0	-
	w	13	10	12	13	10	10	7	5	100%
	s	0	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	0	-
5-N	n	0	0	0	0	0	0	0	0	-
	w	4	5	5	4	3	2	3	3	100%
	s	8	0	3	0	0	0	0	0	0%
	e	0	0	0	0	0	0	0	0	-
5-W	n	25	5	5	5	2	2	2	0	20%
	w	0	0	0	0	0	0	0	0	-
	s	15	4	2	5	3	1	0	0	33%
	e	3	3	3	3	3	3	2	2	100%
6-N	n	4	1	3	2	3	2	3	1	50%
	w	0	0	0	0	0	0	0	0	-
	s	7	7	7	7	7	7	5	5	100%
	e	1	1	1	1	1	1	1	1	100%
7-N	n	0	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	0	-
	s	3	1	3	0	2	2	0	2	0%
	e	7	3	2	4	3	1	8	5	57%
10-W(1)	n	4	1	2	3	3	2	0	0	75%
	w	10	2	2	2	1	0	0	0	20%
	s	5	0	1	3	0	0	0	0	60%
	e	10	10	9	10	5	2	1	0	100%

Downtown Napa Specific Plan - Existing Weekend Parking Conditions

On-Street Parking - Friday

Block	Block Face	Supply	Parking Occupancy							Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	
10-W(2)	n	5	2	2	0	0	1	0	0	0%
	w	0	0	0	0	0	0	0	0	-
	s	3	0	1	2	2	3	1	0	67%
	e	9	2	1	2	5	2	0	0	22%
11-W(1)	n	7	2	1	1	2	2	1	1	14%
	w	0	0	0	0	0	0	0	0	-
	s	6	1	3	3	2	1	3	0	50%
	e	5	2	0	1	0	0	0	1	20%
11-W(2)	n	7	2	3	2	4	3	1	0	29%
	w	0	0	0	0	0	0	0	0	-
	s	8	2	2	3	2	1	0	0	38%
	e	0	0	0	0	0	0	0	0	-
17-W	n	17	3	6	5	5	0	1	1	29%
	w	0	0	0	0	0	0	0	0	-
	s	0	0	0	0	0	0	0	0	-
	e	6	2	3	2	3	2	0	0	33%
1-N	n	0	0	0	0	0	0	0	0	-
	w	17	4	7	8	8	6	9	10	47%
	s	0	0	0	0	0	0	0	0	-
	e	10	4	7	4	4	3	8	5	40%
2-N	n	0	0	0	0	0	0	0	0	-
	w	9	4	7	5	6	1	9	7	56%
	s	0	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	0	-
4-N	n	12	3	5	4	7	5	3	2	33%
	w	8	1	1	3	2	1	9	10	38%
	s	0	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	0	-
Subtotal West of Soscol Ave		**1,119**	**531**	**664**	**647**	**562**	**476**	**515**	**342**	**58%**
Downtown Planning Area - East of Soscol Ave										
A	n	5	2	3	4	5	5	5	4	80%
	w	0	0	0	0	0	0	0	0	-
	s	0	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	0	-
B	n	9	0	3	3	2	4	9	7	33%
	w	0	0	0	0	0	0	0	0	-
	s	7	1	0	2	1	2	2	3	29%
	e	4	0	2	1	2	4	3	4	25%
C	n	6	0	4	5	6	5	4	5	83%
	w	5	1	2	3	3	5	5	5	60%
	s	6	1	1	0	3	2	3	3	0%
	e	5	0	1	2	3	2	0	0	40%
D	n	0	0	0	0	0	0	0	0	-
	w	3	0	0	0	0	0	0	1	0%
	s	0	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	0	-
E	n	0	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	0	-
	s	8	1	0	3	3	5	4	2	38%
	e	4	3	3	2	3	2	3	2	50%

Downtown Napa Specific Plan - Existing Weekend Parking Conditions

On-Street Parking - Friday

Block	Block Face	Supply	Parking Occupancy							Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	
F	n	0	0	0	0	0	0	0	0	-
	w	6	3	4	4	1	3	4	4	67%
	s	4	0	2	3	3	4	4	2	75%
	e	0	0	0	0	0	0	0	0	-
G	n	0	0	0	0	0	0	0	0	-
	w	0	0	0	0	0	0	0	0	-
	s	0	0	0	0	0	0	0	0	-
	e	33	28	35	35	34	38	30	29	106%
H	n	0	0	0	0	0	0	0	0	-
	w	31	23	24	29	33	23	27	26	94%
	s	0	0	0	0	0	0	0	0	-
	e	0	0	0	0	0	0	0	0	-
Subtotal East of Soscol Ave		**136**	**63**	**84**	**96**	**102**	**104**	**103**	**97**	**71%**
Total		**1,255**	**594**	**748**	**743**	**664**	**580**	**618**	**439**	**59%**

- Peak Hour for on- and off-street parking is highlighted; peak hour for on-street parking 11:00 AM - 1:00 PM.

- At several locations, the parking demand exceeds the supply. This is because parked vehicles were closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

X.Existing Conditions Parking Analysis

Detailed Off-Street Parking Analysis

Downtown Napa Specific Plan - Existing Weekday Parking Conditions

Off-Street Parking - Tuesday

Block	Lot	Supply	Parking Occupancy						Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	
Parking Lots									
1	E	24	1	7	22	8	10	24	29%
	F	35	9	29	27	25	24	28	83%
	G-N	28	16	26	24	17	10	8	93%
7	G*	0	0	0	0	0	0	0	-
	G-E	24	4	24	18	8	10	24	100%
	H	37	31	37	31	31	32	34	100%
8	X-W	61	53	60	58	55	48	58	98%
9	X	115	30	78	85	84	77	79	68%
10	New	36	33	33	33	32	35	31	92%
14	A	82	40	72	78	63	37	25	88%
16	J	27	20	24	22	22	18	25	89%
20	I	10	6	8	8	6	8	1	80%
22	B	55	31	36	35	31	13	16	65%
28		119	113	111	115	99	33	10	93%
35	~~MS~~**	0	0	0	0	0	0	0	-
	Subtotal	**653**	**387**	**545**	**556**	**481**	**355**	**363**	**83%**
Parking Garages									
7	P	403	100	180	195	141	79	37	45%
10	C	296	150	196	186	180	160	109	66%
15	2nd	178	157	153	157	151	64	53	86%
29	NEW	494	203	224	219	199	98	70	45%
	Subtotal	**1,371**	**610**	**753**	**757**	**671**	**401**	**269**	**55%**
	Total	**2,024**	**997**	**1,298**	**1,313**	**1,152**	**756**	**632**	**64%**

* Lot containing 52 spaces temporarily closed for construction; exluded from existing parking supply.

** Permanently closed lot.

- Peak Hour for combined off- and on-street parking is highlighted; Peak Hour for off-street parking = 1:00 PM - 3:00 PM.

- At several locations, the parking demand exceeds the supply. This is because parked vehicles were closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Downtown Napa Specific Plan - Existing Weekend Parking Conditions

Off-Street Parking - Friday

Block	Lot	Supply	Parking Occupancy							Peak Hour % Occupancy
			9AM - 11AM	11AM - 1PM	1PM - 3PM	3PM - 5PM	5PM - 7PM	7PM - 9PM	9PM - 11PM	
Parking Lots										
1	E	24	1	7	16	25	11	31	24	67%
	F	35	4	24	35	9	21	35	33	100%
	G-N	28	17	23	25	17	13	25	16	89%
7	G*	0	0	0	0	0	0	0	0	-
	G-E	24	3	6	24	10	23	24	24	100%
	H	37	14	33	37	34	36	37	34	100%
8	X-W	61	51	61	57	61	53	61	58	93%
9	X	115	31	71	101	107	112	115	88	88%
10	New	36	37	31	33	26	29	22	6	92%
14	A	82	27	64	66	54	38	43	33	80%
16	J	27	22	23	25	24	24	27	25	93%
20	I	10	8	8	9	8	6	1	3	90%
22	B	55	26	30	31	32	17	15	11	56%
28		119	111	104	89	77	32	20	12	75%
35	~~MS~~**	0	0	0	0	0	0	0	0	-
	Subtotal	**653**	**352**	**485**	**548**	**484**	**415**	**456**	**367**	**84%**
Parking Garages										
7	P	403	86	159	183	117	96	51	38	45%
10	C	296	98	174	160	151	122	66	43	54%
15	2nd	178	123	122	145	117	83	119	143	81%
29	NEW	494	162	179	170	155	98	92	94	34%
	Subtotal	**1,371**	**469**	**634**	**658**	**540**	**399**	**328**	**318**	**48%**
	Total	**2,024**	**821**	**1,119**	**1,206**	**1,024**	**814**	**784**	**685**	**60%**

* Lot containing 52 spaces temporarily closed for construction; exluded from existing parking supply.

** Permanently closed lot.

- Peak Hour for off- and on-street parking is highlighted; peak hour for off-street parking is the same.

- At several locations, the parking demand exceeds the supply. This is because parked vehicles were closely spaced or parked illegally, resulting in a greater number of parked cars than available spaces.

Y. Future Parking Generation Analysis Assumptions

Downtown Napa Specific Plan - Shared Parking Analysis Assumptions

A. Parking Generation

Source of peak parking generation rates: ITE Parking Generation, 4th Edition

Residential (Apartments-resident): ITE Parking Generation 4rd Edition, LU code 221, Average Weekday (Non-Friday).
Residential (Apartments-visitor): Urban Land Institute Shared Parking , 2nd Edition, Table 2-2.
Hotel: ITE Parking Generation 4th Edition, LU code 310, Average Weekday (Non-Friday).
Office: ITE Parking Generation 4th Edition, LU code 710, Average Weekday (Non-Friday), Suburban
Retail: ITE Parking Generation 4th Edition, LU code 820, Average Weekday (Non-Friday)
Fine Dining: ITE Parking Generation 4th Edition, LU code 931, Average Weekday (Non-Friday)
Casual Dining: ITE Parking Generation 4th Edition, LU code 932, Average Weekday (Non-Friday), Suburban

Parking Generation Rates

Land Use	Units	Rate
Residential (Apartments)	per dwelling unit	1.23
Residential (guest/visitor)	per dwelling unit	0.15
Hotel	per room	0.89
Office	per 1,000 GFA	2.84
Retail	per 1,000 GFA	2.55
Fine Dining	per 1,000 GFA	10.60
Casual Dining	per 1,000 GFA	13.30

B. Shared Parking Demand: Time-of-Day Distribution Factors

Source: ULI *Shared Parking* , 2nd Edition

Time of Day	Residential (Apartments)	Residential (guest/visitor)	Hotel	Office	Retail	Fine Dining	Casual Dining
6:00 a.m.	100%	10%	95%	3%	1%	0%	0%
7:00 a.m.	100%	20%	90%	30%	5%	20%	20%
8:00 a.m	100%	20%	80%	75%	15%	50%	50%
9:00 a.m.	100%	20%	70%	95%	35%	75%	75%
10:00 a.m.	100%	20%	60%	100%	65%	90%	90%
11:00 a.m.	100%	20%	60%	100%	85%	90%	90%
12:00 noon	100%	20%	55%	90%	95%	90%	90%
1:00 p.m.	100%	20%	55%	90%	100%	90%	90%
2:00 p.m.	100%	20%	60%	100%	95%	90%	90%
3:00 p.m.	100%	20%	60%	100%	90%	75%	75%
4:00 p.m.	100%	20%	65%	90%	90%	75%	75%
5:00 p.m.	100%	40%	70%	50%	95%	100%	100%
6:00 p.m.	100%	60%	75%	25%	95%	100%	100%
7:00 p.m.	100%	100%	75%	10%	95%	100%	100%
8:00 p.m.	100%	100%	80%	7%	80%	100%	100%
9:00 p.m.	100%	100%	85%	3%	50%	100%	100%
10:00 p.m.	100%	100%	95%	1%	30%	100%	100%
11:00 p.m.	100%	80%	100%	0%	10%	85%	85%
12:00 mid	100%	50%	100%	0%	0%	35%	35%

C. Off-Site/Public Parking Supply and Demand

[1] Existing public parking supply and existing peak parking occupancy (demand) determined from Downtown Napa Specific Plan Existing Conditions Parking Analysis (Data collected Tuesday, July 21, 2009).

[2] Based on Shared-Use Parking Demand Analysis, the period of Peak Parking Demand with Proposed Development within Downtown was determined to be Weekdays (Non-Friday) between 1:00 PM - 3:00 PM

[3] The Peak Off-Site/Public Parking Demand for Existing Uses (to be redeveloped) and Proposed Development was determined using the following assumptions:

- For existing non-residential uses to be redeveloped, assume 20% parking demand accommodated on-site within Parking Exempt District, 100% demand accommodated on-site outside of Parking Exempt District;
- For existing residential uses to be redeveloped, assume 100% resident parking demand accommodated on-site within Parking Exempt District, 0% guest demand accommodated on-site, and 100% resident/guest demand accommodated outside of Parking Exempt District.
- For proposed non-residential development, assume 20% of City code-required parking provided on-site within Parking Exempt District, 100% City code-required parking required outside of Parking Exempt District;
- For proposed residential development, assume 100% City code-required parking provided on-site within and outside of Parking Exempt District, 0 guest parking required within Parking Exempt District, 100% City code-required guest parking provided outside of Parking Exempt District.

[4] The total Future Off-Site/Public Parking Demand was determined by subtracting the Existing Off-Site Demand Removed (for redeveloped uses) from the Proposed Off-Site Demand generated by the proposed development.

[5] Parking Surplus = Existing Supply > Future Demand
Parking Deficit = Existing Supply < Future Demand

Z. Parking Generation for County Facilities Expansion

Kimley-Horn and Associates, Inc.

Napa County Development Plans

Changes to Parking Supply

Changes to Public/Joint-use Parking Supply	Spaces
Demolition of Surface Lot at Sullivan Block (Block #28)	-123
Loss of On-Street Parking on 4th St from Randolf to Coombs	-15
New Surface Parking on Closed 4th Street ROW	40
New Surface Parking on Sullivan Block (Block #28)	30
	-68

Changes to Private (County) Parking Supply	Spaces
Demolition of Surface Lot Behind Admin Building	-53
New Parking Area Below Admin Building (for County Staff/Fleet Veh)	80
	27

Changes to Parking Demand

Land Use	ITE Code	Quantity	Units	Peak Period Parking Demand (Weekday)
New County Office Building (Sullivan Site)	730	90,000	SF	374
New County Office Building (Admin Building)	730	90,000	SF	374
Demolished Existing Admin Building	730	-52,141	SF	-216
Discontinued Use of Carithers Building	730	-47,138	SF	-196
County Jail Expansion	(3)	500	Beds	70
Future Office Development Already Assumed in Specific Plan Development (Sullivan Site)	701	-71,129	SF	-202
Net New Parking Demand				**204**

Parking Generation Rates:

Government Office Building (ITE 8th Edition)
Peak Period Weekday (ITE 730) T = 4.15 x (1000's of SF)

Office Building (ITE 8th Edition)
Peak Period Weekday (ITE 701) T = 2.84 x (1000's of SF)

County Jail (See Note #3)
Peak Period Weekday T = 0.14 x (Beds)

County Facility Parking Demand Shifted Off-Site / Fifth St Garage

Land Use	Spaces
Net Change In Demand	204
Net Change In Private/County Parking Supply	27
County Parking Demand Shifted Off-Site	**177**

Notes:

(1) Source of Napa County's Downtown Development Plans: Napa County Facilities Master Plan

(2) Source of County Development Plans: Couny of Napa Conceptual Site Development and Phasing Plan Through 2028 (Jones Lang LaSalle/HOK Advance Strategies 10/2010); Correspondance with Napa County staff.

(3) ITE Parking Generation does not provide a parking generation rate for Jail/Prison uses and Napa does not have a specific parking code requirement for jail facilities. For this reason, the Fresno County Jail Facilities Master Plan was referenced to estimate the approximate amount of additional parking needed for the Jail expansion. The average number of parking provided for the Fresno County Jail Expansion was 0.14 spaces/bed. The Napa County Jail expansion proposes 366 beds through 2025, and up to 500 beds beyond 2025. To be conservative, this analysis assumes the full 500 bed expansion, which would result in the need for 70 additional spaces (0.14 spaces/bed x 500 = 70 spaces).

AA. Detailed Future Parking Analysis Summary By Block

Kimley-Horn and Associates, Inc.

Downtown Napa Specific Plan - Future Parking Analysis Summary

Weekday (Non-Friday) Peak Future Off-Site/Public Parking Supply vs. Peak Demand (1:00 PM - 3:00 PM)

Block	Zone	Public Parking Supply			Peak Parking Demand				Future Surplus/Deficit	% Occupancy
		Existing (On-Street)	Existing (Off-Street)	Total (Off-Site)	Existing Demand (Off-Site)	Exist. Demand Removed (Off-Site)	Proposed Demand (Off-Site)	Total Future Demand (Off-Site)		
WEST OF SOSCOL AVE - WITHIN PARKING EXEMPT DISTRICT										
1	1	25	87	112	90	(16)	48	122	(10)	
2	1	30	0	30	25	(45)	15	(5)	35	
3	1	32	0	32	25	(12)	0	13	19	
4	1	14	0	14	4	0	0	4	10	
5	1	17	0	17	10	(71)	79	18	(1)	
6	1	27	0	27	24	0	0	24	3	
7	1	16	464	480	259	(735)	818	342	138	
8	1	15	61	76	73	0	0	73	3	
9	1	21	0	21	100	0	188	288	(267)	
10	1	25	332	357	239	0	0	239	118	
6-N	1	12	0	12	9	0	0	9	3	
7-N	1	10	0	10	6	0	0	6	4	106%
10-W(1)	1	29	0	29	20	(63)	145	102	(73)	
12	2	12	0	12	8	(20)	14	2	10	
13	2	26	0	26	22	(54)	102	70	(44)	
14	2	23	82	105	95	0	10	105	0	
15	2	16	178	194	171	(12)	61	220	(26)	
16	2	17	27	44	30	0	53	83	(39)	
20	2	31	10	41	32	(10)	26	48	(7)	
21	2	31	0	31	12	0	0	12	19	
22	2	31	55	86	51	0	0	51	35	
24	2	24	0	24	15	0	48	63	(39)	
Subtotal In P.E. District		484	1,296	1,780	1,320	(1,038)	1,607	1,889	(109)	
WEST OF SOSCOL AVE - OUTSIDE OF PARKING EXEMPT DISTRICT										
5-N	1	12	0	12	4	0	0	4	8	
5-W	1	43	0	43	18	0	11	29	14	
10-W(2)	1	17	0	17	8	0	0	8	9	
1-N	1	27	0	27	9	0	0	9	18	
2-N	1	9	0	9	4	0	11	15	(6)	
4-N	1	20	0	20	7	0	0	7	13	
11	2	49	0	49	25	0	0	25	24	
17	2	26	0	26	6	0	0	6	20	
18	2	27	0	27	12	0	0	12	15	
19	2	28	0	28	18	0	0	18	10	
23	2	36	0	36	30	0	0	30	6	
25	2	20	0	20	18	0	0	18	2	
26	2	27	0	27	20	0	0	20	7	75%
27	2	34	0	34	18	0	0	18	16	
28	2	8	66	74	128	0	0	128	(54)	
29	2	30	494	524	244	0	177	421	103	
30	2	31	0	31	12	0	0	12	19	
31	2	23	0	23	18	0	0	18	5	
32	2	23	0	23	10	0	0	10	13	
32-E	2	43	0	43	29	0	0	29	14	
35	2	13	0	13	11	0	0	11	2	
11-W(1)	2	18	0	18	7	0	0	7	11	
11-W(2)	2	15	0	15	4	0	0	4	11	
17-W	2	23	0	23	8	0	0	8	15	
Subtotal Outside P.E. District		602	560	1,162	668	0	199	867	295	
Subtotal West of Soscol Ave		**1,086**	**1,856**	**2,942**	**1,988**	**(1,038)**	**1,806**	**2,756**	**186**	**94%**

Kimley-Horn and Associates, Inc.

Downtown Napa Specific Plan - Future Parking Analysis Summary (cont)

Weekday (Non-Friday) Peak Future Off-Site/Public Parking Supply vs. Peak Demand (1:00 PM - 3:00 PM)

Block	Zone	Public Parking Supply			Peak Parking Demand				Future Surplus/Deficit	% Occupancy
		Existing (On-Street)	Existing (Off-Street)	Total (Off-Site)	Existing Demand (Off-Site)	Exist. Demand Removed (Off-Site)	Proposed Demand (Off-Site)	Total Future Demand (Off-Site)		
EAST OF SOSCOL AVE										
A	3	5	0	5	3	0	0	3	2	119%
B	3	20	0	20	7	0	0	7	13	
C	3	22	0	22	7	0	41	48	(26)	
D	3	3	0	3	1	0	0	1	2	
E	3	12	0	12	5	0	0	5	7	
F	3	10	0	10	6	0	0	6	4	
G	3	33	0	33	24	0	48	72	(39)	
H	3	31	0	31	20	0	0	20	11	
Subtotal East of Soscol Ave		136	0	136	73	0	89	162	(26)	
TOTAL PLAN AREA		**1,222**	**1,856**	**3,078**	**2,061**	**(1,038)**	**1,895**	**2,918**	**160**	**95%**

= Within Parking Exempt District

[a] Total Future Off-Site Demand = Existing Off-Site Demand - Existing Off-Site Demand Removed (redeveloped) + Proposed Off-Site Demand.

[b] Future parking supply adjusted to account for removal of approximately 140 spaces due to Oxbow Bypass

[c] To be conservative, all oppportunity sites in Block C west of Soscol were assumed to provide no on-site parking (due to small/irregular parcel sizes).

[d] Future parking analysis was adjusted to account for Napa County's proposed expansion of it's Downtown facilities (offices and County Jail), including the redevelopment of the surface lot on Block #28. A total reduction of 68 parking spaces was applied to account for the loss of the surface parking lot and on-street parking on Fourth St between Randolf and Coombs, as well as the construction of additional parking in a new 40-space surface lot on Block #28 and a 30-40-space surface lot in the Fourth St ROW where the street closure is proposed. The additional off-site parking demand generated by the new County Facilities was shifted to the Fifth Street Garage (Block #29).

BB. Parking Costs and Financing Strategies

A3 – PARKING

6.8.1 CURRENT FUNDING OF DOWNTOWN NAPA'S PUBLIC PARKING

The City of Napa pays for the construction, operation and maintenance of off-street public parking facilities with two funding mechanisms, 1) an assessment district on all properties within the Parking Exempt District, and 2) a parking impact fee for new development in the Parking Exempt District.

The assessment district matches the boundary of the Parking Exempt Overlay District and requires businesses to pay a 70% surcharge on their business license tax to fund acquisition, construction and maintenance of public parking facilities within the district. This mechanism generates a relatively small amount of revenue compared to the cost of constructing parking, but it is an ongoing source of funds.

The City also established a parking impact fee applied to new non-residential development within the Parking Exempt Overlay District to be used toward acquiring land and constructing public parking. Revenue generated by the fee may also be used to reimburse the City for public funds advanced to acquire land or construct public parking or to reimburse a developer who advances funds for, or constructs, public parking. New development in the district pays a per space fee equal to the number of spaces exempted from the development's on-site parking requirements. The parking impact fee ensures sufficient parking is provided either on-site or within public parking structures to support the demand generated by development.

6.8.2 COST OF NEW PARKING AND FUNDING OPTIONS

This section provides an estimate of the Specific Plan's primary recommendation to acquire land and construct a 300 to 400 space public parking structure within the Parking Exempt District and discusses funding options such as an assessment district and continuing the District's practice of requiring a parking impact fee.

6.8.2.1 Estimated Cost of Recommended Parking Structure

The cost to construct a new parking structure is based on an average cost per space of $32,000[1]. The estimated cost to construct the recommended structure with 375 spaces is $12 million. Based on an estimated present value of $56.00 per square foot for land in the Parking Exempt District, acquisition of the underlying land would add approximately $2.3 million for a total cost of $14.3 million.

6.8.2.2 Funding Options

There are two options that may be pursued to fund the recommended parking structure. These funding sources are also described in relation to implementation strategies in Chapter 7 of this Specific Plan:

1. Assess new/redeveloped non-residential properties within the Parking Exempt District to fund the exact cost of one 375-space garage serving the District. The assessment would be based on the anticipated square-footage of new/redevelopment (non-residential only) within the district. Based on the Specific Plan's development program of 735,235 square feet of non-residential development, the resulting assessment would be $19,449 per 1,000 square feet of new commercial development.

[1] The source of the parking structure cost per space is the recent construction of the County's 5th Street garage. The per space estimate includes construction and "soft" costs of planning and design, construction administration, and contingency, but does not include the cost of property acquisition.

2. Continue the current impact fee practice, but adjust the fee to match the actual cost of new parking. Impact fees could be justified as high as $32,000 to $38,000 per required space, depending on whether land is included as a factor. The impact fee funds the costs of future parking by charging net new, non-residential development within the Parking Exempt District based on the development's required amount of parking established in the zoning code or in this Specific Plan. The impact fee based on the existing parking ratios, excluding land costs, would be $32,000 per new required parking space or the equivalent of $76,800 per 1,000 square feet of new office and $102,400 per 1,000 square feet of new retail development. The resulting impact fees based on the recommended Specific Plan parking ratios would be $32,000 per new required parking space or the equivalent of $70,400 per 1,000 square feet of new office and $82,250 per 1,000 square feet of new retail development[2].

The revenue collected through the impact fee at the level presented in Option #2 would eventually exceed the cost of one garage based on the amount of development proposed in the Specific Plan. Impact fee revenue is deposited into an account to cover parking-related capital costs. The City currently charges a lower impact fee as a matter of policy as an incentive for development. This current practice results in a shortfall of funding for needed parking, requiring City funds or other sources of funding to make up the difference.

[2] The estimated impact fees assume that development within the Parking Exempt District will choose to provide 20% of the code-required parking on-site. The remaining 80% of required spaces would be provided in public parking funded with impact fees.