COUNTY OF NAPA

CONSERVATION, DEVELOPMENT, AND PLANNING DEPARTMENT
1195 3rd Street, Suite 210
Napa, Calif. 94559
707.253.4417

Notice of Intent to Adopt a Mitigated Negative Declaration

1. **Project Title**: Napa 34 Holdings Commerce Center Use Permit and Variation to Development Standards Application № P09-00329-UP and Tentative Parcel Map and Lot Line Adjustment Application № P09-00330-TPM.

2. **Property Owner**: Napa 34 Holdings, LLC (Brian Kaufman, Member)

3. **Contact person and phone number**: Christopher M. Cahill, Project Planner, (707) 253.4847, ccahill@co.napa.ca.us

4. **Project location and APN**: The project is located in the Napa Airport Industrial Area on a 33.9 acre parcel located at the southwest corner of the intersection of State Route 29 and Airport Boulevard, within an IP:AC (Industrial Park: Airport Compatibility Zone D) zoning district. (Assessor's Parcel №: 057-210-056). No Current Address, the Napa-Vallejo Highway, Napa, Calif. 94558

5. **Project Sponsor's Name and Address**: Brad Shirhall, TLA Engineering and Planning, 1528 Eureka Rd., Ste. 100, Roseville, Calif. 95661, (916) 786.0685, bshirhall@tla-inc.com

6. **Hazardous Waste Sites**: This project site is not on any of the lists of hazardous waste sites enumerated under Government Code §65962.5.

7. **Project Description**:
Approval of a Use Permit to allow the construction and operation of an industrial park totaling approximately 490,500 square feet of new development in eight buildings, including: 1.) two +/- 41,700 square foot two-story office buildings; 2.) two +/- 7,600 square foot single-story office buildings with ancillary warehouse space; 3.) one +/- 8,800 square foot single-story office building with ancillary warehouse space; and 4.) +/- 152,600 square foot, +/- 148,800 square foot, and +/- 81,600 square foot single-story warehouse/distribution buildings with ancillary office space. Approximately 73% percent (or +/- 356,000 square feet) of the total development floor area would be dedicated to warehousing uses, while the remaining 27% (or +/- 134,500 square feet) would be utilized as office space. Access would be provided from three new driveways located off of an extension of Devlin Road, located south of the existing Devlin Road/Airport Boulevard intersection, and a single right-in right-out driveway off of Airport Boulevard. Roadway improvements, including road construction at Devlin Road and road widening at Airport Boulevard are also proposed. Parking for 740 vehicles is to be provided on-site, along with six loading docks. Approximately 3 acres of existing wetlands will be preserved and enhanced, partially as a component of proposed stormwater improvements. The project would connect to the City of American Canyon municipal water system and sewer service would be provided by the Napa Sanitation District, subsequent to annexation into the District. In addition, the following approvals are requested:

   - Lot Line Adjustment to transfer 1.10 acres from the subject property (currently APN 057-210-056) to the property directly to the west (currently APN 057-210-055) to relocate the shared property line to the centerline of the extension of Devlin Road.
   - Tentative Parcel Map to allow the creation of eight industrial parcels ranging in size from 0.60 to 7.18 acres and three wetland/drainage parcels ranging in size from 0.23 to 5.35 acres. Dedication of the Devlin Road right-of-way is also proposed, as is the reduction of an existing utility easement at the abandoned Aviation Way right-of-way from 60' to 15' in width.
   - Use Permit Variation to Airport Industrial Area Specific Plan standards to allow: 1.) driveway access onto Airport Boulevard where such access is generally not allowed and 2.) a substandard parking ratio at proposed parcel F (88 required, 78 proposed).

PRELIMINARY DETERMINATION:

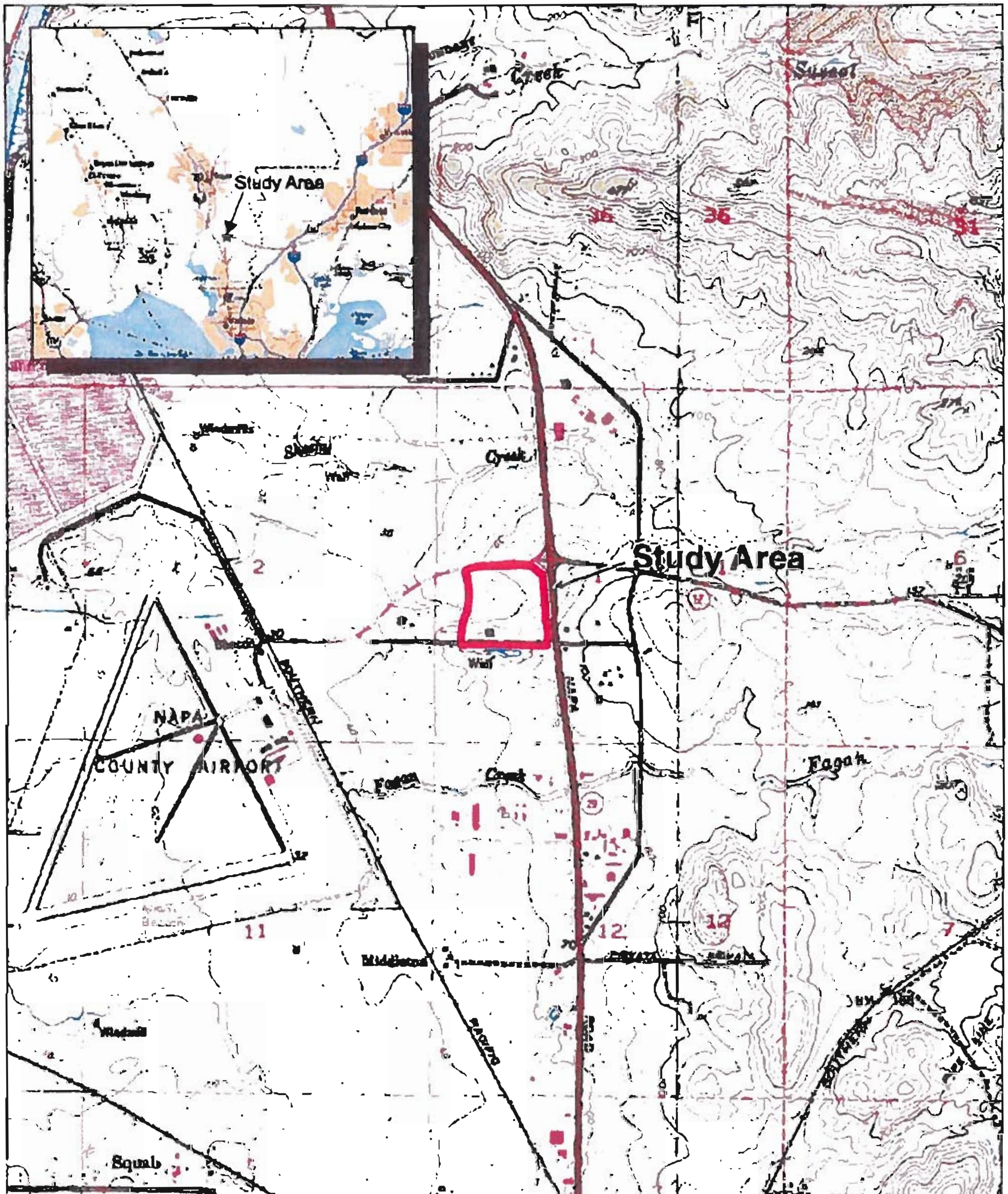
The Conservation, Development, and Planning Director of Napa County has tentatively determined that the following project would not have a significant effect on the environment as mitigated herein and the County intends to adopt a **mitigated negative declaration**. Documentation supporting this determination is contained in or referenced by the attached Initial Study Checklist and is available for inspection at the Napa County Conservation, Development, and Planning Department Office, 1195 Third St., Ste. 210, Napa, Calif. 94559, between the hours of 8:00 AM and 4:45 PM Monday through Friday (excepting holidays).

BY: Christopher M. Cahill
Planner
Napa County Conservation, Development, & Planning

March 17, 10
Date

WRITTEN COMMENT PERIOD: March 22, 2010 through April 20, 2010

Please send written comments to the attention of Chris Cahill at 1195 Third St., Suite 210, Napa, Calif. 94559, or via e-mail to chris.cahill@countyofnapa.org. A public hearing on this project is tentatively scheduled for the Napa County Conservation, Development, and Planning Commission at 9:00 AM or later on Wednesday, April 21, 2010. You may confirm the date and time of the hearing by calling (707) 253.4417.



N

0 500 1,000 2,000

Scale in Feet

NOTES
Base map: Cuttings Wharf, CA, USGS
7.5 minute topographic quadrangle
Section: 1
Township: 04N
Range: 04W

Site & Vicinity
Napa Commerce Center
Napa County, California

N

0 250 500

Scale in Feet

NOTES:
Aerial Photo Date: July 2007

Aerial Photo Map
Napa Commerce Center
Napa County, California

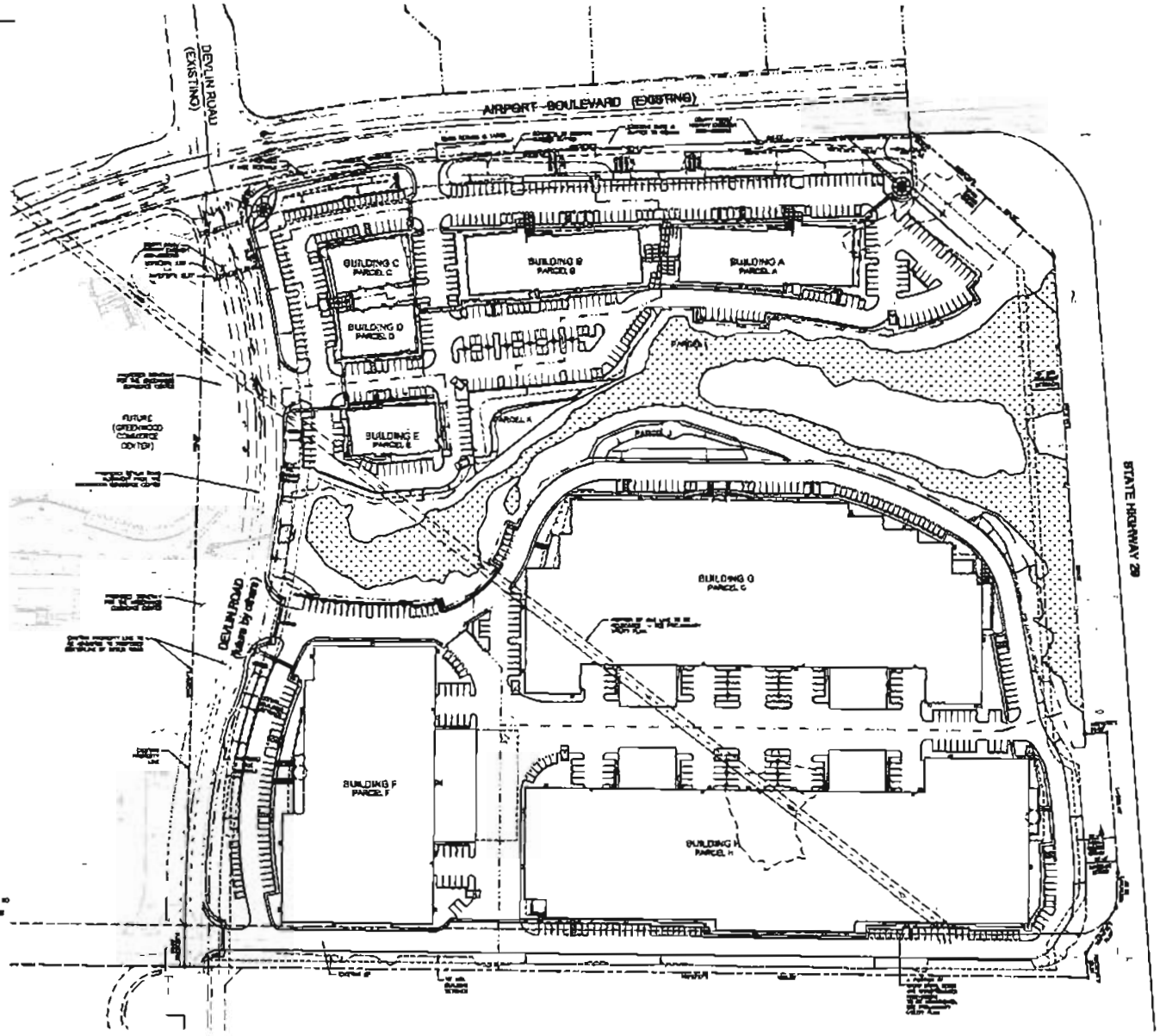
NAPA COMMERCE CENTER

NAPA COUNTY, CALIFORNIA

USE PERMIT

MARCH 2010
SHEET 1 OF 4

VICINITY MAP



SHEET INDEX

LEGEND

BUILDING SETBACKS

PROPOSED USES

PARKING SUMMARY

OWNER / DEVELOPER

ARCHITECT

ENGINEER

LANDSCAPE ARCHITECT

ENGINEERING & PLANNING

COUNTY OF NAPA

CONSERVATION, DEVELOPMENT, AND PLANNING DEPARTMENT
1195 3rd Street, Suite 210
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Initial Study Checklist

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5. **Project Sponsor's Name and Address**
   Brad Shirhall, TLA Engineering and Planning, 1528 Eureka Rd., Ste. 100, Roseville, Calif. 95661, (916) 786.0685, bshirhall@tla-inc.com

6. **General Plan Description**
   I (Industrial)

7. **Current Zoning**
   IP:AC (Industrial Park: Airport Compatibility Zone D)

8. **Project Description**
   Approval of a Use Permit to allow the construction and operation of an industrial park totaling approximately 490,500 square feet of new development in eight buildings, including: 1.) two +/- 41,700 square foot two-story office buildings; 2.) two +/- 7,600 square foot single-story office buildings with ancillary warehouse space; 3.) one +/- 8,800 square foot single-story office building with ancillary warehouse space; and 4.) +/- 152,600 square foot, +/- 148,800 square foot, and +/- 81,600 square foot single-story warehouse/distribution buildings with ancillary office space. Approximately 73% percent (or +/- 356,000 square feet) of the total development floor area would be dedicated to warehousing uses, while the remaining 27% (or +/- 134,500 square feet) would be utilized as office space. Access would be provided from three new driveways located off of an extension of Devlin Road, located south of the existing Devlin Road/Airport Boulevard intersection, and a single right-in right-out driveway off of Airport Boulevard. Roadway improvements, including road construction at Devlin Road and road widening at Airport Boulevard are also proposed. Parking for 740 vehicles is to be provided on-site, along with six loading docks. Approximately 3 acres of existing wetlands will be preserved and enhanced, partially as a component of proposed stormwater improvements. The project would connect to the City of American Canyon municipal water

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- Use Permit Variation to Airport Industrial Area Specific Plan standards to allow: 1.) driveway access onto Airport Boulevard where such access is generally not allowed and 2.) a substandard parking ratio at proposed parcel F (88 required, 78 proposed).

9. **Environmental Setting and Surrounding Land Uses:**
The 33.9 acre subject parcel is located in southern Napa County, roughly equidistant from the southern boundary of the City of Napa and the northern boundary of the City of American Canyon, in a portion of the unincorporated County which is given over primarily to industrial or transportation uses or undeveloped properties which are intended for such development in the short- to mid-range future. The property is within the boundaries of the Napa Airport Industrial Park and is additionally subject to the County's 1986 Airport Industrial Area Specific Plan and the 1991 Airport Land Use Compatibility Plan. The Napa County Airport, a three runway facility with an FAA-manned air traffic control tower, is located slightly more than ½ mile to the west. While the Airport is primarily a general aviation facility serving corporate and recreational users, it is also a significant flight training hub. According to the Airport Land Use Compatibility Plan, nearly 50% of all airport operations are generated by the large JAL pilot training center which has been located at the Airport since 1971. The project site is located within Airport Land Use Compatibility Zone D, inside the Common Traffic Pattern. This is an area of frequent aircraft overflight at low elevations.

Rail freight transportation to the area is provided by the Southern Pacific Railroad. At Napa Junction, a major rail switching point connects three existing lines. A main line serving Napa County and the Napa Valley Wine Train connects with the Airport and then runs parallel with State Route 29 (Ca-29)north to St. Helena. Sidings connect this line with existing industrial development within both the Napa County and City of Napa industrial parks and with the Napa Pipe and Syar Materials properties on the east bank of the Napa River just north of the Ca-29 "Southern Crossing." A second line crosses the Specific Plan area just south of the Airport and runs west into Sonoma County, where it connects with the Northwestern Pacific Railroad and the planned SMART (Sonoma Marin Area Rail Transit) passenger rail system. A third line runs east into Solano County. The nearest rail line to the project site is located approximately ½ mile to the west, at the eastern boundary of the Napa County Airport.

Regional roadway access to the property is provided by Ca-29, which is the main north-south arterial in Napa County. State Route 29 abuts the project site along its eastern side. East-west access, connecting to U.S. Route 101 to the west and Interstates 80 and 680 to the east, is provided by State Route 12 (Ca-12). Ca-12 is coterminous with Ca-29 to the north of the project site, but makes a 90 degree turn to the east and separates from the generally north-south running Ca-29 at the subject parcel's northeastern corner. The Ca-12/ Ca-29 intersection is currently at-grade and stoplight controlled, with uncontrolled right turn merge lanes at all corners save the right-hand turn from northbound Ca-29 onto eastbound S.R. 12 (Jameson Canyon Road). Significant roadway improvements at the 12/29 intersection are envisioned in the County's Airport Industrial Area Specific Plan and are currently being designed by the California Department of Transportation. While design details are not available at this time, it is presumed that in the medium term the intersection will be replaced with a grade-separated interchange; most likely of a "tight diamond" design.

Local roadway access to and from the site is provided by Airport Boulevard, which is currently a four-lane arterial parkway with a raised landscaped median with openings and left-turn pockets at public road intersections, connecting the 12/29 intersection with the Napa County Airport to the west. According to the Airport Industrial Area Specific Plan;

> *No direct access to local properties should be permitted from Airport Road* (sic, Boulevard). *These properties should be accessed from new collector streets which intersect with Airport Road* (sic, again Boulevard).

Additional local roadway access, and primary site access, is to be provided by Devlin Road. Devlin Road is a partially-constructed north-south road, designated as a "collector" in the Specific Plan. Devlin is in place and four lanes wide to the north of Airport Boulevard and will be extended to the south as far as the subject property's southern boundary as part of this project and/or the approved but as-of-yet unbuilt Greenwood Commerce Center project, to the west.

Historically, the subject property was part of the 437 acre Gunn/Greenwood Ranch. The 1880 vintage Italianate Gunn/Greenwood residence is located just northwest of the project site, having been relocated from its original position (to the east, on what is now the Doctors Company property) in 1990. The subject property itself would have been used as pasture or grazing land during the tenure of the Greenwoods and their heirs. Archival research indicates that a large structure, in all likelihood a barn, was constructed on the property sometime between 1927 and 1949. That building was destroyed or otherwise removed by the mid 1980's and the structural development currently existing on the site is limited to a large roadside sign advertising the Napa County Airport, which is located near Ca-29. Remnants of Aviation Way, the main Airport access road prior to the construction of Airport Boulevard, remain at the southern edge of the parcel and are proposed to be removed as part of this project.

The subject property is relatively flat, with a slight gradient running primarily east to west as the land at the lower reaches of the Vaca Mountains, to the east, rolls down to the expansive baylands at the mouth of the Napa River, to the west and southwest. Elevations on the parcel range from approximately 80 feet above mean sea level down to approximately 48 feet. An unnamed seasonal drainage runs east to west across the center of the property and ultimately drains into Sheehy Creek approximately 1 mile to the northwest of the project site. A formal wetland delineation has been undertaken on the property, and 3.19 acres of the site, including the drainage and scattered locations elsewhere on the site, have been determined to be jurisdictional wetlands by the United States Army Corps of Engineers (USACE). It has been argued, though County staff has seen no conclusive evidence one way or the other, that the seasonal drainage is at least partly the result of a leaking City of American Canyon 14" water main located at the parcel's eastern property line.

Based on Napa County environmental resource mapping (*Soil Type* layer), the *Soil Survey of Napa County, California* (G. Lambert and J. Kashiwagi, Soil Conservation Service), and the *Flatland Deposits of the San Francisco Bay Region, California- Their Geology and Engineering Properties and Their Importance to Comprehensive Planning* (E. Helley, K. Lajoie, W. Spangle, and M. Blair, U.S. Geological Survey) the subject parcel includes soil classified as Haire Loam (2 to 9 percent slopes) and Fagan Clay Loam (5 to 15 percent slopes). The geology of the site is late Pleistocene alluvium, with overlaying younger fluvial and basin deposits. Late Pleistocene alluvium is weakly consolidated, slightly weathered, poorly sorted, irregularly inbedded clay, silt, sand, and gravel. There is often a clay pan present in Haire soils of the type located on the site, which can support vernal pool development. Haire soils of the type located on the subject property are often used for grazing land; runoff is slow to medium and the chance of erosion is slight. Fagan soils are likewise generally used for range and pasture; runoff is medium and the threat of erosion is moderate.

Setting the existing Airport sign and abandoned Aviation Way to the side, the project area is currently undeveloped. According to the submitted biological survey *Biological Resources Assesment for the +/- 34 acre Napa*

Commerce Center Study Area (North Fork Associates), the study area is primarily open ruderal grassland dominated by introduced grasses and forbes. Very few native species occur in the study area, and many of those that do are adapted to disturbance and often considered weedy. A mature linear stand of Coast live oak exists along the southern property boundary, primarily running parallel to the abandoned right-of-way. There is also a cluster of mature Blue Gum Eucalyptus trees located at the property's southwest corner

There are a variety of land uses surrounding the project site. In general, the vicinity is a developing urban area focused on industrial development. To date, most of the surrounding industrial development has been related to and generally in service of the wine industry. Specifically, to the northwest of the site are existing office/light industrial buildings and the historic Gunn/Greenwood residence. North of the site is the Gateway hotel and retail complex, including a competed hotel and a number of other, yet to be constructed, facilities including a gasoline station. West of the project site is the approved, but as of yet unbuilt, Greenwood Commerce Center industrial park. Highway 29 and the 12/29 interchange are located to the east of the project area, with vacant land and the Doctors Company headquarters located on the far side of the highway. The large Franzia bottling plant is located southwest of the project area and to the south are a number of wetlands created as mitigation for wetland fill which has occurred elsewhere in the Airport Industrial Area.

10. Other agencies whose approval is required: (*e.g., permits, financing approval, or participation agreement*).
Discretionary approvals required of Napa County consist of a use permit, a tentative parcel map, and use permit variations to Airport Industrial Area Specific Plan development standards. Reduction of an existing utility easement from 60 feet in width to 15 feet is also requested. The project as analyzed herein also includes ministerial County approvals including, but not necessarily limited to, building, encroachment, and grading permits and a lot line adjustment. Permits to connect to water and sewer utilities are required from the City of American Canyon and the Napa Sanitation District. A Storm Water Pollution Prevention Plan (SWPPP) is required to meet San Francisco Bay Regional Water Quality Control Board standards and Napa County post-construction standards, both which are administered by the Napa County Department of Public Works. A permit from the U.S. Army Corps of Engineers and written notification to the California Department of Fish and Game will also be required to fill and/or alter on-site wetlands.

Responsible and Trustee Agencies:
San Francisco Bay Regional Water Quality Control Board
City of American Canyon
Napa Sanitation District
Department Fish and Game
CalTrans
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
Napa County Airport Land Use Commission

Other Agencies Contacted:
City of Napa
Napa County Sheriff
Calif. Highway Patrol

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions developed in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the Napa County Baseline Data Report, specific documents referenced herein, other sources of information included or referenced in the record file, comments received, conversations with knowledgeable individuals, the preparer's personal knowledge of the area, and visits to the site and surrounding areas. For further information, please see the permanent record file on this project, available for review at the offices of the Napa County Department of Conservation, Development, and Planning, 1195 Third Street, Napa, Calif.

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

BY: Christopher M. Cahill
Planner
Napa County Conservation, Development, & Planning

March 17 '10
Date

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I.	AESTHETICS. Would the project:				
	a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
	b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
	c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
	d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion:

a. The project is not prominently located within or near any known scenic vista. Views to the site are primarily from adjacent state highways and local roadways, though distant views also exist from ridgetop and other up-slope locations along the lower run of the Vaca Mountains and along much of the Mayacamas ridgeline. Because the proposed development is consistent with the long-planned industrial development surrounding the Napa County Airport, and with other existing industrial development in the vicinity, it would not have a substantial adverse impact on any known scenic vista.

b. The project proposes the removal of 46 mature Coast live oak trees and 4 mature Blue Gum Eucalyptus; there are no rock outcroppings and no historic buildings (in fact, there are no buildings of any description) located on-site. The site is not in or near any scenic highway and as a result, there will be no impacts associated with scenic highways.

c. The project is located within a developing portion of the Napa Airport Industrial Area, a zone of mixed industrial development controlled by the County's Airport Industrial Area Specific Plan (AIASP). The proposed development includes eight buildings. The northernmost five buildings will be a mix of one and two story office structures fronting on Airport Boulevard and an extended Devlin Road. To the south, three warehouse buildings are proposed. The warehouses would be oriented towards the center of the site with upgraded elevations facing Ca-29 and the Devlin Road extension. According to submitted materials, all buildings would primarily be constructed of site cast tilt-up concrete panels. The most publically visible or otherwise prominent portions of the buildings would incorporate design elements intended to create architectural diversity and interest; these include: stone veneer, metal siding, aluminum accent panels, tinted glass in aluminum frames, architectural light shelves, painted steel architectural elements, and exposed stain-grade architectural glu-lam beams supporting standing seam metal roofs. Perceived building heights (as measured from finished grade to the top of proposed parapet walls) would range from approximately 20 to 38 feet, and building footprints would range from approximately 8,000 to approximately 160,000 square feet. This proposed mix of heights and sizes will substantially differentiate building massing across the site and break up the monotonous development pattern which might otherwise be created by a development of this scale.

Required building setback and reserved landscape areas along street frontage generally meet or exceed the requirements of the AIASP; 35' minimum landscape setbacks are proposed along the Devlin Road extension and adjacent to Airport Boulevard. At the request of Planning staff, the applicant has proposed additional landscape and/or wetland open space areas along the Ca-29 frontage. Landscape and/or wetland area generally extend 60 or more feet from the property line adjacent to Highway 29, significantly exceeding the required 45 foot minimum.

Submitted plans initially depicted a 32 foot tall metal and plastic wine glass along with wall signage at the property's northeast corner and a 10 foot tall stack of faux wine barrels at the property's northwest corner. Planning staff has indicated to the applicant that these proposed representational elements likely constitute signage in conflict with AIASP language restricting signage height and design. In response, the applicants have agreed to label the signage as simply illustrative of potential future signage or public art installations, which will be subject to County review at a later date. As this change was incorporated into the project prior to the completion of this document, any issues related to the impact of this signage on site aesthetics or visual character is now moot until such time as a final design is presented for County review and approval.

When seen as a whole, the project's site planning and architectural design can be comfortably labeled equivalent to (or in some cases better than) other industrial projects approved and constructed within the Airport Industrial Area. Impacts related to the visual character or quality of the site and its surroundings are expected to be less than significant.

d. Given the expanse of new buildings, parking, and outdoor utility areas proposed in this application, the project will of necessity result in increased nighttime light and/or glare. The project area is routinely overflown by low flying aircraft, necessitating stringent controls on nighttime uplighting. However, standard conditions of approval designed to limit light and glare in the vicinity of the Napa County Airport will ensure that any impacts related to nighttime lighting are less than significant. In accordance with County standards, all exterior lighting must be the minimum necessary for operational and security needs. Light fixtures will be kept as low to the ground as possible and must include shielding to deflect light downwards. Standard conditions of approval require that highly reflective surfaces be minimized or avoided altogether and no light will be allowed to shine skyward. As designed, and as required by standard conditions of approval, the project will not have a significant impacts associated with light or glare.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

Discussion:

a.-c. Based on a review of Napa County environmental resource mapping (*Department of Conservation Farmlands 2006*), no portion of the subject property is located on mapped farmland of state or local importance. The project site is not subject to a Williamson Act contract, nor is it known to have ever been subject to the same or similar. The property is located within a developing industrial park and has been zoned and general plan designated for industrial development for more than 20 years. To the extent that the provision of adequate industrial space occurs within non-prime non-agriculturally designated areas such as the subject property, pressure to develop the County's valuable existing agricultural resources is reduced. No impact on prime farmland, unique farmland, farmland of statewide importance, or any other conversion of existing farmland to non-agricultural use would directly result from this project and none is foreseeable.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion:

a. The proposed project would not conflict with or obstruct the implementation of any applicable air quality plan. The project site lies at the southern end of the Napa Valley, which forms one of the climatologically distinct sub regions (Napa County Sub region) within the San Francisco Bay Area Air Basin. The topographical and

meteorological features of the Valley create a relatively high potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction emissions would have a temporary affect; consisting mainly of dust generated during grading and other construction activities, exhaust emissions from construction related equipment and vehicles, and relatively minor emissions from paints and other architectural coatings. The Bay Area Air Quality Management District (BAAQMD) recommends incorporating feasible control measures as a means of addressing those impacts in their current *CEQA Guidelines* (*CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans*, BAAQMD, December 1999). If the proposed project adheres to these measures, then BAAQMD recommends concluding that construction-related impacts will be less than significant. Relevant best practices are set forth at Table 2 of the 1999 *Guidelines* and have been incorporated below as mitigation measures. As mitigated, construction-related impacts will be less than significant.

b. Please see "a.", above, and "c.'" below. There are no projected or existing air quality violations in the area to which this proposal would contribute. The project would not result in any violations of applicable air quality standards.

c. Please see "a.", above regarding particulate and other construction-related emissions. Standard conditions of approval for all construction projects require standard dust control measures and mitigation measures addressing construction-related impacts are incorporated thereby.

Greenhouse Gasses and **Criteria Pollutants** are addressed separately below. The proposed project will not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. It will likewise not result in an individually significant or cumulatively considerable emission of climate-changing greenhouse gasses.

Criteria Pollutants

Thresholds of significance for the emission of criteria pollutants, including reactive organic gas (ROG), nitrogen oxide (NOx), and ten-micron particulate matter (PM10), are incorporated into the BAAQMD's 1999 *CEQA Guidelines*. For ongoing operations, encompassing a combination of fixed-sources (such as material off-gassing and structural climate control systems) and mobile-sources (primarily consisting of vehicle trips to and from the site), relevant thresholds of significance for criteria pollutants are established at Table 3 of the 1999 *Guidelines*. If project emissions do not exceed the established thresholds, they are deemed not to significantly impact air quality either individually or cumulatively and require no further study. The operational emissions associated with this project were modeled using URBEMIS air quality management software (*Napa 34 Commerce Center Project*, March 3, 2010, URBEMIS 2007 Version 9.2.4) and are compared to relevant air quality thresholds of significance below. Please refer to Attachment A for complete URBEMIS modeling results.

<u>ROG</u>
Threshold of significance: 82.14 pounds per day (lbs/d)
Modeled project emissions: 15.33 lbs/d

<u>NOx</u>
Threshold of significance: 82.14 lbs/d
Modeled project emissions: 16.98 lbs/d

<u>PM10</u>
Threshold of significance: 82.14 lbs/d
Modeled project emissions: 19.71 lbs/d

As analyzed above, the proposed project would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.

Greenhouse Gasses

The construction and operation of the office and warehousing industrial park proposed here will necessarily contribute to overall increases in green house gas emissions. Emissions would be generated by employee vehicle trips to and from the new and additional jobs located at the facility; from the additional employment and economic activity generated off-site as a result of those on-site jobs; from new and additional vehicle trips to and from the site undertaken by the customers of and visitors to the facility; by the commercial vehicle traffic generated by the proposed warehousing uses; by the production of building materials, their transportation to the site, and the construction process; by the heating, cooling, and lighting of the completed buildings; by the machinery and products utilized in the course of business by eventual tenants of the park; and by the machines, fertilizers, and vehicles used in the ongoing maintenance of the facility.

The project would also result in the permanent removal of more than 27 acres of and ruderal grasslands and roughly ½ acre of existing wetlands, releasing a volume of greenhouse gasses which is currently sequestered on-site. However, the significant landscaping and tree planting (for reference, please see **BIOLOGICAL RESOURCES**, below) proposed in this project should more than counterbalance the grassland, wetland, and woodland conversions incorporated into the project; resulting in no significant increase in greenhouse gas emissions through biotic conversion.

Moving on to operational characteristics, our URBEMIS air quality analysis for the project (please see Attachment A) indicates that the facility, once complete, would result in area source emissions of 128.6 metric tons per year of carbon dioxide equivalents (MT/Y CO2e) and operational (vehicle) emissions of 1,767.7 MT/Y CO2e. According to the URBEMIS analysis, the project's total ongoing carbon dioxide emissions (area source plus operational emissions) are predicted to total 1,896.3 MT/Y CO2e. The 1,896.3 MT/Y CO2e figure does not include construction-period emissions which are likely to range between 422.3 and 1,093 MT/Y CO2e.

Neither the State nor Napa County has adopted explicit thresholds of significance for GHG emissions, although State CEQA Guidelines suggest that agencies may consider the extent to which a project complies with requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The Bay Area Air Quality Management District (BAAQMD) is in the process of adopting qualitative and quantitative thresholds that are instructive in this regard (see *California Environmental Quality Act Guideline Update - Proposed Thresholds of Significance*, BAAQMD, December 7, 2009). Specifically, the BAAQMD is suggesting that development projects which will emit less than 1,100 MT/Y CO2e may be considered to have a less than significant impact relative to GHG emissions (both individually and cumulatively). Alternately, the BAAQMD proposes an efficiency-based threshold of 4.6 MT/Y CO2e per person ("persons" is arrived at by adding project employment to project residential development). However, the draft guidelines caution;

> *In applying the efficiency-based threshold of 4.6 MT/Y CO2e (per person), the lead agency might also wish to consider the project's total emissions. Where a project meets the efficiency threshold but would still have very large greenhouse gas emissions, the lead agency may wish to consider whether the project's contributions to climate change might still be cumulatively considerable...*

At a modeled operational emissions rate of 1,896.3 MT/Y CO2e, the subject project exceeds the BAAQMD's 1,100 MT/Y CO2e threshold of significance. However, the BAAQMD's alternative efficiency-based threshold would allow

the site emissions of up to 2,870.4 MT/Y CO2e (based on a proposed 624 person employment level). At 1,896.3 MT/Y CO2e, the proposed project does meet the 2,870.4 MT/Y CO2e efficiency threshold, meaning it can be assumed to be less than significant on an individual level.

Cumulative increases in greenhouse gas emissions in Napa County were assessed in the Environmental Impact Report (EIR) prepared for the Napa County General Plan Update and certified in June 2008. Despite the adoption of mitigation measures that incorporated specific policies and action items into the General Plan, cumulative impacts from greenhouse gas emissions were found to be significant and unavoidable. Industrial development of the scale and scope proposed in this application has been programmed for the subject parcel since the County adopted the Airport Industrial Area Specific Plan (AIASP) in 1986. The development levels envisioned in the AIASP further informed the 2008 General Plan revision and provided a basis for the land use, air quality, traffic, and other analyses included in the General Plan EIR. Consistent with State CEQA standards (please see *CEQA Guidelines* §15183), because the project is consistent with an adopted General Plan for which an EIR was prepared, it appropriately focuses on impacts which are "peculiar to the project," rather than those cumulative impacts which were previously assessed by the General Plan EIR. The cumulative impacts of this project are, therefore, less than considerable.

The BAAQMD has additionally suggested that development projects, plans, and plan amendments which are compliant with a qualified climate action plan, can be assumed to have less than significant impacts with regard to greenhouse gasses. Napa County is currently developing an emission reduction plan (or "qualified climate action plan" to use BAAQMD terminology), based on an initial emissions inventory and Climate Action Framework prepared by the Napa County Transportation and Planning Agency (NCTPA) in 2009. While the emission reduction plan for unincorporated Napa County is in preparation, the County requires project applicants to consider methods to reduce GHG emissions and incorporate permanent and verifiable emission offsets, consistent with Napa County General Plan Policy CON-65(e).

The current project incorporates greenhouse gas reduction methods and offsets including bicycle and pedestrian-friendly facilities and improvements, permanent preservation of extensive natural wetlands, high efficiency irrigation, recycled water use, low VOC materials, the planting of more than 300 new trees (of which nearly 100 will be native oaks), designs that take advantage of passive natural cooling and heating, and buildings which are designed to support the structural loads associated with roof-mounted solar arrays.

In light of these efforts, and of projected emissions which do not exceed the 4.6 MT/Y CO2e per person efficiency threshold suggested by BAAQMD, the project would have a less than significant impact associated with greenhouse gas emissions.

d. Emissions and dust associated with site preparation and project construction would be both minor and temporary and would have a less than significant impact on nearby receptors. Standard conditions of approval and mitigation measures adopted pursuant to our analysis at "a.," above, regarding dust suppression serve to limit any potential for impacts to a less than significant level.

e. Earthmoving and construction activities required for project construction may cause a temporary degradation in air quality from dust and heavy equipment air emissions during the construction phase. While construction on the site will generate dust particulates in the short-term, the impact would be less than significant with dust control measures as specified in Napa County standard condition of approval relating to dust;

> *Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. Outdoor construction activities shall not occur during windy periods.*

The area surrounding the subject property is largely given over to industrial and transportation uses, with no residences located within 1,000 feet of the proposed development. The project will not create objectionable odors affecting a substantial number of people.

Mitigation Measures:

1. All construction-phases of the subject project shall incorporate the following BAAQMD construction-related emissions management practices:

    - Water all active construction areas at least twice daily.
    - Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
    - Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
    - Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
    - Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
    - Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
    - Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
    - Limit traffic speeds on unpaved roads to 15 mph.
    - Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
    - Replant vegetation in disturbed areas as quickly as possible.
    - Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
    - Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
    - Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
    - Limit the area subject to excavation, grading and other construction activity at any one time.

Method of Mitigation Monitoring: Prior to the issuance of a building or grading permits, the applicant's contractor shall submit a construction-related emissions best management practices program, incorporating (without limitation) all of the above requirements for the review and approval of the Planning Division. Site inspections undertaken by the Planning Division, the Building Division, and the Department of Public Works will ensure compliance with the approved best management practices program.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, Coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:

a.-c. The project site is located within a developing industrial park and is bordered on two sides by existing or approved industrial development. Industrial development, as envisioned by the adopted AIASP, has been steadily replacing wetlands and former grazing lands of the type now seen on this site with office parks, industrial buildings, commercial uses, and vast expanses of pavement since the late 1980's. However, industrial uses in and near the Napa County Airport go as far back as World War II. Some disturbance of the subject property occurred when Airport Boulevard was constructed across the property's northern boundary to provide improved access to the Napa County Airport. The previous roadway to the airport was constructed across the property's southern boundary and has since been abandoned; a significant number of Coast live oak trees exist along the edges of this now-abandoned roadway.

The project area is primarily open ruderal grassland dominated by introduced grasses and forbes. Very few native species occur in the study area, and many of those that do are adapted to disturbance and considered weedy. A mature linear stand of 46 Coast live oak exists along the southern property boundary, running parallel to the abandoned right-of-way. There is also a cluster of four mature Blue Gum Eucalyptus trees located at the property's southwest corner. Both stands of trees provide potential suitable nesting habitat for birdlife, and in particular for protected birds of prey, however, as a result of its urbanized characteristics the site generally does not meet DFG's criteria as suitable foraging habitat. A seasonal drainage swale flows east to west across the site and there are at least two additional dispersed wetland sites located on the eastern half of the property. A November 2008 Army Corps of Engineers wetlands delineation identified 3.19 total acres of jurisdictional

wetlands on the parcel. The Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Game (DFG) will likely also exercise jurisdiction over the on-site wetlands.

The applicant has submitted a Biological Resources Assessment report, drafted by North Fork Associates and dated June 1, 2009. The report identifies biological communities on the site and discusses whether or not the site is likely to contain state or federally listed rare, threatened, or endangered plant or animal species. In addition, North Fork Associates was asked to address potential impacts to protected species (if any) and to recommend mitigation measures as needed. According to the report, nonnative grassland and ruderal habitats such as those found on the site provide limited wildlife habitat. The site is not expected to support a diversity of wildlife due to its lack of important habitat features including nesting sites, escape routes, thermal cover, and a variety of food sources. The drainage swale provides a seasonal source of water for wildlife, but does not support riparian habitat. The cluster of trees on the site is identified as an area that may provide nesting and roosting sites for birds and shelter for mammals.

Numerous listed wildlife and plant species are known to occur in the region surrounding the project site, including White-tailed kite, Burrowing Owl, Swainson's hawk, Vernal Pool fairy shrimp, Conservancy fairy shrimp, California red-legged frog, Showy Indian clover, Sebastopol meadowfoam, Hayfield tarweed, Dwarf downingia, Contra Costa goldfields, Pappose tarplant, and Big-scale balsom-root. The project biological report indicates that none of the plant species which would potentially be present on the site were identified in 2008-2009 spring site surveys. Site assessments undertaken by Monk & Associates in 2009 determined that the on-site wetlands may provide suitable habitat for Vernal Pool and Conservany fairy shrimp, however, a site assessment undertaken at the same time found that the study area has no breeding or dispersal habitat for the red-legged frog. Finally, the submitted report indicates that the subject parcel may provide suitable nesting habitat for raptors and other migratory birds, but is unlikely to provide habitat for Burrowing owls due to vegetation which is both tall and dense and a results in lack of suitable nesting habitat. The mitigation measures, below, will reduce impacts to any special-status wildlife species, including migratory birds protected under the Migratory Bird Treaty Act to a less than significant level. The Special-status plant survey found no occurrence of the plant species listed above and no other special-status plant species were observed during the field surveys.

As previously noted, the Army Corps of Engineers has determined that there are 3.19 acres of jurisdictional wetland on the project site, mostly contained within the seasonal drainage swale which bisects the property. The subject project proposes to fill two wetland areas, totaling approximately 0.48 acres, located to the north and south of the central seasonal drainage. For those wetland areas that cannot be avoided, appropriate permits will have to be acquired from the Army Corps, RWQCB, and DFG. The mitigation measures enumerated below will reduce potential impacts to wetlands to less than significant levels.

d. There are no known wildlife corridors, native wildlife nursery sites, or sensitive plants identified on the property. Because there is no fencing or other obstructive barriers proposed, the project would not have a significant impact on the movement of native resident and migratory fish and wildlife species. The seasonal drainage swale does not provide suitable habitat for any fish species known to occur in the area. Surveys will be conducted immediately prior to construction to ensure that raptors or other special status nesting birds or migratory birds, if present, are not disturbed.

e. As noted above, the subject project proposes the removal of 50 trees, of which 46 are Coast live oak and 4 are Blue gum eucalyptus. While the County does not have a tree protection ordinance, the 2008 General Plan and the AIASP speak to the preservation "oak woodlands" and of "existing vegetative stands" (respectively). In particular, the AIASP states that;

> *Preservation of existing stands of mature native and naturalized vegetation is a primary goal of the plan. Preservation of existing mature trees and shrubs should be a prime consideration in the design of all*

development plans. This applies particularly to stands of eucalyptus and native oaks that are scattered throughout the planning area. (Airport Industrial Area Specific Plan, Land Use Element. P. 71).

The submitted biological survey concludes that the linear stand of oak trees at the southern end of the property does not constitute an oak woodland because it is so closely associated with the abandoned roadway, so the 2:1 oak woodland replacement requirements found in General Plan policy **CON-24** are not applicable in this case. However, we are left with AIASP language that speaks directly to the conservation of the very "scattered" stands of oaks and eucalyptus that are proposed to be removed here. AIASP language guides us that, where existing trees are to be removed, the County should specify "suitable ***specimen*** replacement trees" (emphasis added). Submitted application materials propose replacement of existing mature oak trees in like kind and at a 2 to 1 basis, but all replacement plantings are proposed to be at the 15 gallon size, which is not "specimen sized" as required in the AIASP (specimen sized meaning anything larger than a 24" box). A mitigation measure is incorporated below which requires replacement of the 50 trees to be removed in like kind, at a 2:1 ratio, and in at least a 24" box size. Alternately, the mitigation measure would allow tree replacement in like kind at a ratio of 3:1 and in at least a 15 gallon size. As mitigated herein, impacts on native and naturalized trees will be less than significant.

f. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plans. There are no plans applicable to the subject parcel.

Mitigation Measures:

2. To avoid potential losses to nesting raptors, migratory birds protected under the Migratory Bird Treaty Act, and special status bird species, construction activities shall occur outside the critical breeding period from March through August. If construction is proposed to occur during the breeding period, the site shall be surveyed for active nests by a qualified Biologist no more than 30 days prior to commencing construction activities. If active nests are found, the nest location and a buffer area designated by the biologist in consultation with the California Department of Fish and Game shall be established, and those areas shall be avoided until the nest has been vacated. If no nests are found on or adjacent to the project site, tree removal could proceed without further survey.

   Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from the beginning of March through August. The survey results shall be provided to the Napa County Conservation, Development, and Planning Department (Planning Department). In the event that nesting sites are found, the nest location and a buffer area designated by the biologist in consultation with the California Department of Fish and Game shall be mapped, and no work shall be undertaken in buffer until the nest has been vacated.

3. To avoid potential losses to the Western Burrowing owl, a nesting survey shall be conducted by a qualified Biologist no more than 30 days prior to commencing construction activities. If active nests are found, the nest location and a buffer area designated by the biologist in consultation with the California Department of Fish and Game, shall be avoided until the nest has been vacated. If no nests are found on the project site construction activities could proceed without further surveys.

   Method of Mitigation Monitoring: The permittee shall have a nesting western Burrowing owl survey completed prior to any construction activities scheduled to occur on the site from the beginning of March through August. The survey results shall be provided to the Napa County Conservation Development and Planning Department. In the event western burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods.

4. Prior to the issuance of a building or grading permit, final protocol-level survey reports for vernal pool crustaceans and California red legged frog shall be submitted for the review and approval of the Napa County Planning Department, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. A final Swainson's hawk nesting and foraging analysis shall likewise be provided for the review and approval of the Planning Department and the California Department of Fish and Game proposing, as necessary, specific mitigations consistent with Department of Fish and Game standards.

   Method of Mitigation Monitoring: Mitigation Measure № 3 requires submission of final protocol level survey results and Swainson's hawk habitat analysis consistent with DFG policies prior to the issuance of a building or grading permit. If the mitigation measures are not complied with, no development permit will be issued.

5. Prior to issuance of a building or grading permit the project proponent shall provide documentation from the Army Corps of Engineers indicating that one or more of the following measures will, or has, occurred and is, or will, be considered mitigation to address proposed conversion of jurisdictional wetlands.

   a. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, on the project site by enhancing existing wetlands or creating new wetlands to provide for no net loss of wetlands function. The applicant's biologist indicates on site mitigation using proposed drainage facilities such as a detention basin or vegetated swales is a viable option for restoring wetlands function although the acceptability of such to the Corps and/or RWQCB cannot be guaranteed; or,

   b. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by off-site creation or enhancement of wetlands in Napa County consistent with state and federal policies providing for no net loss of wetland function; or

   c. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by purchase of wetlands creation or preservation credits in an existing or future wetlands bank that "services" Napa County, consistent with state and federal policies providing for no net loss of wetland function; or

   d. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by financial participation in an existing wetlands enhancement or creation project in Napa County sponsored by a state, federal or County agency such as the Napa County Resource Conservation District (RCD) consistent with state and federal policies providing for no net loss of wetland function. Or,

   e. a combination of the above measures, which in aggregate meets the prescribed ratio dictated by the Corps and/or RWQCB.

   Method of Mitigation Monitoring: Any required wetland mitigation shall be in place prior to the issuance of building or grading permits. The project proponent shall demonstrate to the satisfaction of the Planning Department that all wetland mitigation has been approved by the Corps and has been initiated. The terms and conditions of wetland protection, replacements and performance criteria are subject to Corps concurrence and may be modified.

6. Prior to issuance of a building or grading permit, the project proponent shall provide documentation from the California Department of Fish and Game that a 1602 permit has been issued or that said department does not deem such permitting necessary. The terms and conditions of that permitting are subject to Fish and Game concurrence and may be modified as deemed necessary by that department.

Method of Mitigation Monitoring: This Mitigation Measure requires submission of evidence of project compliance with DFG 1602 permit requirements prior to the issuance of a building or grading permit. If such evidence is not submitted, no development permit will be issued.

7. Prior to issuance of a building or grading permit, the project proponent shall submit final revised landscape plans which include in-like-kind replacement of all trees to be removed as a result of the project for the review and approval of the Planning Director. Tree replacement shall occur at a ratio of 3:1 if replacement trees are smaller than 24" box in size or at a ratio of 2:1 if replacement trees are sized at 24" box or greater. The final determination as to whether or not proposed replacement plantings are "in-like-kind" shall be made by, and solely at the discretion of, the Planning Director or her designee.

Method of Mitigation Monitoring: This Mitigation Measure requires submission of final revised landscape plans incorporating replacement tree details prior to the issuance of a building or grading permit. If such plans are not submitted, no development permit will be issued.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES. Would the project:**				
	a) **Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?**	☐	☐	☒	☐
	b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines§15064.5?**	☐	☐	☒	☐
	c) **Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?**	☐	☐	☒	☐
	d) **Disturb any human remains, including those interred outside of formal cemeteries?**	☐	☐	☒	☐

Discussion:

a.-c. The project site is vacant and does not contain any structures. Research into past uses has identified no historic resources likely to be present on the site. A previous archaeological survey, entitled *A Cultural Resource Inventory of the Napa Airport Master Environmental Assessment Area* (Archaeological Resource Service, September 1983) was conducted in the airport industrial park area (including the project site). An additional study of the remainder of the Gunn-Greenwood Ranch area was conducted by Archaeological Resource Service (ARS) in 1988. Neither study indicated the presence of historical, archaeological, or paleontological resources of any significance on the subject property. A follow-up to the two previous studies was conducted by ARS in mid 2009 with an eye to the specific development proposed in this project *(A Cultural Resources Evaluation of APN 057-210-056 Located Southwest of the Intersection at Highway 29 and Airport Boulevard, Napa County, California,* Sally Evans, Archaeological Resource Service, June 9, 2009). The recent study found no new prehistoric sites or artifacts, confirming the findings of the previous analyses. Foundational remnants of two agricultural structures, likely dating to the period between 1920 and 1950, were discovered on the property; however, the report concludes that the foundations, "are not potentially significant historic resources and do not qualify for listing on the National register of Historic Places." The report concluded that the proposed project will not adversely affect any

previously-recorded or newly-identified archaeological sites. As a result, it is not anticipated that any cultural resources are present on the site and the potential for impact is deemed to be less-than-significant. However, if resources are found during grading of the project, construction is required to cease and a qualified archaeologist will be retained to investigate the site in accordance with standard Napa County conditions of approval.

d. To our knowledge, no human remains have been encountered on the property during past grading activities (such as when nearby public improvements were constructed) and no information has been encountered that would indicate that this project would encounter human remains. The 2009 ARS study concludes that the site is unlikely to harbor human remains. However, if remains are found during grading of the project, construction is required to cease, the County Coroner must be notified, and a qualified archaeologist will be retained to investigate the site in accordance with standard conditions of approval.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VI. GEOLOGY and SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion:

ai. There are no known faults on the project site as shown on the most recent Alquist-Priolo earthquake fault map. As such, the proposed facility will have a less than significant impact with regard to fault rupture.

aii. All areas of the Bay Area are subject to strong seismic ground shaking. The proposed structures must comply with all the latest building standards and codes at the time of construction, including the California Building Code, which will function to reduce any potential impacts to a less than significant level.

aiii. No subsurface conditions have been identified on the project site that would indicate a high susceptibility to seismic-related ground failure or liquefaction. Napa County Environmental Resource Mapping (*liquefaction* layer) indicates that the project area is generally subject to a very low tendency to liquefy. The proposed structures must comply with all the latest building standards and codes at the time of construction, including the California Building Code, which would reduce any potential impacts related to liquefaction to a less than significant level.

aiv. Napa County Environmental Resource Maps (*landslide line, landslide polygon,* and *landslide geology* layers) do not indicate the presence of landslides or slope instability on this gently sloping bayland property.

b. Based on Napa County environmental resource mapping (*Soil Type* layer), the *Soil Survey of Napa County, California* (G. Lambert and J. Kashiwagi, Soil Conservation Service), and the *Flatland Deposits of the San Francisco Bay Region, California- Their Geology and Engineering Properties and Their Importance to Comprehensive Planning* (E. Helley, K. Lajoie, W. Spangle, and M. Blair, U.S. Geological Survey) the subject parcel includes soil classified as Haire Loam (2 to 9 percent slopes) and Fagan Clay Loam (5 to 15 percent slopes). The geology of the site is late Pleistocene alluvium, with overlaying younger fluvial and basin deposits. Late Pleistocene alluvium is weakly consolidated, slightly weathered, poorly sorted, irregularly inbedded clay, silt, sand, and gravel. There is often a clay pan present in Haire soils of the type located on the site, which can support vernal pool development. Haire soils of the type located on the subject property are often used for grazing land; runoff is slow to medium and the chance of erosion is slight. Fagan soils are likewise generally used for range and pasture; runoff is medium and the threat of erosion is moderate. Development on the site will be subject to the Napa County Stormwater Ordinance related to erosion control measures which would reduce any potential impacts to a less than significant level.

c.-d. According to the Napa County Environmental Resource Mapping (*surficial deposits* layer) bedrock underlays the surficial soils on the project site. Based on the Napa County Environmental Sensitivity Maps (*liquefaction* layer) the project site has very low liquefaction predilection. Construction of the facility must comply with all the latest building standards and codes at the time of construction, including the California Building Code, which will function to reduce any potential impacts to a less than significant level. In addition, a soils report, prepared by a qualified Engineer will be required as part of the building permit submittal. The report will address the soil stability, potential for liquefaction and will be used to design specific foundation systems and grading methods.

e. The project will connect to the Napa Sanitation District sewer system. A "will serve" letter has been submitted by Napa Sanitation District, indicating that they have sufficient capacity to accommodate the wastewater demand of the project.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VII.	HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f)	For a project within the vicinity of a private airstrip, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h)	Expose people or structures to a significant risk of loss, injury or death involving wild-land fires, including where wild-lands are adjacent to urbanized areas or where residences are intermixed with wild-lands?	☐	☐	☒	☐

Discussion:

a. The proposed project will not involve the transport of hazardous materials other than those small amounts normally used in construction of the facility. At this time, specific tenants are not known. It is anticipated that tenants will be a mix of warehousing, distribution, and office uses with many or most related to the wine industry. This mix of uses, primarily with a focus on support services necessary to the local and regional wine industry, is typical of the already-developed portions of the Airport Industrial Area Specific Plan zone. A Business Plan will be filed with the Department of Environmental Health should the amount of any hazardous materials reach reportable levels. However, in the event that a future use involves the use, storage, or

transportation of greater than 55 gallons or 500 pounds of hazardous materials, a use permit modification and subsequent environmental assessment would be required prior to the establishment of that use in accordance with the Napa County Zoning Ordinance. During construction of the project some hazardous materials, such as building coatings/ adhesives/ etc., will be utilized. However, given the quantities of hazardous materials and durations in question, they will result is a less-than-significant impact.

b. The project would not result in the release of hazardous materials into the environment.

c. There are no schools located within one-quarter mile of the proposed project site.

d. According to Napa County environmental resource mapping (*hazardous facilities* layer), the project is not located on or adjacent to a known hazardous facility. The project area is not on any known list of hazardous materials sites.

e. The project site is located within two miles of the Napa County Airport, and is therefore subject to the requirements of the County's Airport Compatibility Combination zoning district and the requirements of the Napa County Airport Land Use Commission's Compatibility Plan (ALUCP). The project is located within Zone D of the compatibility plan, which is an area of common overflight and moderate risk. The proposed warehousing and office uses are highly compatible with Zone D and are consistent with the requirements of the ALUCP. The buildings have been designed to comply with specific requirements regarding light and glare in order to ensure airport land use compatibility. No up-lighting will be allowed. County development regulations have been certified as meeting ALUCP compatibility requirements, and consequently the project is not subject to separate Airport Land Use Commission review as its compliance with ALUCP requirements ensures compatibility with the Napa Airport.

f. The project site is not located within the vicinity of any private airport.

g. The proposed driveways that serve the project will be improved to comply with County standards, and access throughout the site is designed to accommodate fire apparatus and large trucks. The project is located within the Napa County Fire local response area. The Asst. Fire Marshall did not identify any design issues as regards turning radii, though she has requested some alterations to proposed hydrant locations (please see PUBLIC SERVICES for further discussion of this issue). The project will not negatively impact or hinder emergency vehicle access.

h. The project would not increase exposure of people and/or structures to a significant loss, injury or death involving wild land fires because the project is located within an urbanized area.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Discussion:

a. The proposed project will not violate any known water quality standards or waste discharge requirements. The project incorporates an integrated approach to stormwater management and wetland preservation in which on-site stormwater flows are pretreated and then allowed to drain into the preserved on-site wetland in a manner which mimics natural hydrologic flows. The proposed system, which is detailed in the applicant's March 2010 *Stormwater Management Plan* and in their *Preliminary Drainage Report* of the same date, has been vetted by both the Department of Public Works and the San Francisco Bay Regional Water Quality Control Board and both agencies have voiced initial support for the proposed system's somewhat novel (at least for Napa County) combined approach to stormwater management and wetland enhancement. The project will ultimately discharge stormwater into an approved storm drainage system designed to accommodate the drainage from this site. Given

that the permittee will be required to obtain a stormwater permit from the Regional Water Quality Control Board, via a program which is in-part administered by the County Department of Public Works, ample opportunity is provided for both agencies to fine tune the details of the conceptual system as it progresses into a built reality. Impacts related to water quality and the risk that the project will violate waste discharge requirements are less than significant.

b. The project will connect to municipal water provided by the City of American Canyon. No groundwater wells are associated with this property.

c.-e. The proposed project will not substantially alter the drainage pattern on site or cause a significant increase in erosion or siltation on or off site. As analyzed at "a.," above, the stormwater management and drainage improvements proposed as part of this project have been carefully designed to preserve and/or mimic existing drainage patterns and rates via a combination of stormwater pretreatment, detention, and wetland preservation and enhancement. The project will incorporate erosion control measures to manage onsite surface drainage and erosion of onsite soils during winter periods (October to April). As noted above, the project is required to comply with County Public Works requirements, which are themselves consistent with Regional Water Quality Control Board standards. These established Best Management Practices have been successfully implemented on numerous other projects within the Airport Industrial Area. The project *will* result in an increase in the overall impervious surface resulting from the new buildings, pavement and sidewalks. However, given both the size of the larger drainage basin and the extensive wetland preservation and enhancement area which has been proposed by the applicant, the project will not significantly alter existing groundwater filtration or infiltration rates nor will surface runoff from the site be significantly affected. Project impacts related to drainage patterns and off-site flows are expected to be less than significant.

f. The function of this project's integrated stormwater pollution prevention, drainage, and wetland preservation systems will depend heavily on the care and attention that go into the ongoing maintenance of the Parcel "J," "K," and "L" wetland and detention basins and the buffer areas which surround them. A mitigation measure requiring ongoing wetland preservation and maintenance is incorporated below. As mitigated, we are unaware of any other project-related factors which would otherwise degrade water quality.

g.–i. According to Napa County environmental resource mapping (*floodplain* and *dam levee inundation* layers), the project site is not located within a flood hazard area. The project would not impede or redirect flood flows or expose structures or people to flooding. The project is not located within a dam or levee failure inundation zone.

j. In coming years, higher global temperatures are expected to raise sea level by expanding ocean water, melting mountain glaciers and small ice caps, and causing portions of Greenland and the Antarctic ice sheets to melt. The Intergovernmental Panel on Climate Change (IPCC) estimates that the global average sea level will rise between 0.6 and 2 feet over the next century (IPCC, 2007). Elevations on the property range from approximately 80 feet above mean sea level down to approximately 48 feet and there is no known history of mud flow in the vicinity. The project will not subject people or structures to a significant risk of inundation from tsunami, seiche, or mudflow.

Mitigation Measures:

8. Prior to the issuance of a building permit, a grading permit, or the recordation of a final parcel map, the permittee shall submit a binding drainage system/wetland maintenance plan for the review and approval of the Departments of Public Works and Planning. The submitted plan shall stipulate an ongoing maintenance regime (including, without limitation, financing details and implementation/enforcement measures such as CC&Rs and/or third party conservations easements) for the integrated project area wetland and drainage system. The submitted maintenance plan shall be consistent with the *Napa County Post Construction Runoff Management*

Requirements manual adopted by the Board of Supervisors on June 3, 2008, and in particular with Chapter 5 at p. 14, Implementation and Maintenance of Requirement.

Method of Mitigation Monitoring: This Mitigation Measure requires submission of an acceptable maintenance plan prior to the issuance of a building or grading permit or the recordation of a final parcel map. If such plans are not submitted or are not approvable, no parcel map may be recorded and no development permit will be issued.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX.	LAND USE AND PLANNING. Would the project:				
	a) Physically divide an established community?	☐	☐	☐	☒
	b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
	c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion:

a-c. The proposed project would not occur within an established community, nor would it result in the division of any proximate established community. The proposed project complies with the Napa County General Plan, the Napa County Code, and all other applicable regulations. As mitigated herein, and assuming County approval of the variations proposed by project proponents, the project would comply with the Airport Industrial Area Specific Plan. There are no applicable habitat conservation plans or natural community conservation plans applicable to the property.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
X.	MINERAL RESOURCES. Would the project:				
	a) 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?	☐	☐	☒	☐
	b) 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?	☐	☐	☒	☐

Discussion:

a.-b. Historically, the two most valuable mineral commodities in Napa County in economic terms have been mercury and mineral water. More recently, building stone and aggregate have become economically valuable. Mines and Mineral Deposits mapping included in the Napa County Baseline Data Report (*Mines and Mineral Deposits*, BDR Figure 2-2) indicates that there are no known mineral resources nor any locally important mineral resource recovery sites located on or near the project site The nearest known resource is the Syar quarry, located several miles to the north. The AIASP does not indicate the presence of valuable or locally important mineral resources in the project area. Neither this project, nor any directly foreseeable resulting project, will result in a loss of a known mineral resource.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI.	**NOISE. Would the project result in:**				
	a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**	☐	☐	☒	☐
	b) **Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?**	☐	☐	☒	☐
	c) **A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**	☐	☐	☒	☐
	d) **A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**	☐	☐	☒	☐
	e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**	☐	☐	☒	☐
	f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**	☐	☐	☐	☒

Discussion:

a.-b. The proposed project will result in a temporary increase in noise levels during the construction of buildings, parking areas, and associated improvements. Construction activities will be limited to daylight hours using properly-mufflered vehicles. Noise generated during this period is not anticipated to be significant. Furthermore, construction activities would generally occur during the period of 7am-7pm on weekdays- normal waking hours. All construction activities will be conducted in compliance with the Napa County Noise Ordinance (Napa County

Code Chapter 8.16). The proposed project would not result in long-term significant permanent construction noise or operational noise impacts.

c.-d. The anticipated level of ongoing operational noise associated with the proposed facility would be typical of and fully in keeping with warehousing/office uses in an existing industrial setting. The project is located within an industrial park and is not in an area where noise increases resulting from additional industrial development will impact sensitive receptors. The design of the proposed project, together with adherence to the County Noise Ordinance, will ensure the proposed project will not result in adverse noise impacts.

e. The proposed project site is located within compatibility Zone D of the Napa County Airport, an area of common aircraft overflight. As such, persons on the project site will be exposed to the noise associated with regular overhead aircraft operation. The warehousing and office uses proposed here are not considered sensitive to noise levels from aircraft of the type foreseeable on this property, and as analyzed at some length in the AIASP and the ALUCP, the development and uses proposed here are considered compatible with aircraft operations within the D zone.

f. The project is not within the vicinity of a private airstrip.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XII.	**POPULATION and HOUSING. Would the project:**				
	a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
	b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
	c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

a. Submitted application materials indicate that this project would result in the creation or relocation of approximately 600 full time equivalent jobs. Of those, 560 are predicted to be office employees and 60 are to be warehouse employees. While a number of these jobs may already exist in Napa County (and would simply relocate to the project site from existing industrial or commercial developments) the project will almost certainly add to the local job base and contribute to the 23% population increased projected for Napa County by the year 2030 (*Projections 2003*, Association of Bay Area Governments). However, the County's *Baseline Data Report* (*Napa County Baseline Data Report*, November 30, 2005) indicates that total housing units currently programmed in county and municipal housing elements exceed ABAG growth projections by approximately 15%. As a result of the county's projected low to moderate growth rate and overall adequate programmed housing supply, the

population growth resulting from this project will not create a cumulatively considerable increase in the demand for housing units within Napa County and the general vicinity.

With regard to project-specific impacts, the County has adopted a Housing Element (currently under review by the State Housing and Community Development Agency) which identifies locations for new housing, and has adopted a development impact fee to provide funding for affordable housing projects. The affordable housing impact fee is paid at the time building permits are issued for any new non-residential development and is based on the gross square footage of non-residential space multiplied by the fee established at N.C.C. Chapter 15.60.100, Table 1. The combination of countywide Housing Element programmed housing and required housing impact mitigation fees is deemed to reduce the project specific growth inducing impacts of a project of this type to a less than significant level.

b.-c. The project site is currently vacant and almost entirely undeveloped. The subject project will displace neither housing nor persons and will not necessitate the construction of replacement housing.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. **PUBLIC SERVICES. Would the project result in:**				
a) **Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**				
Fire protection?	☐	☒	☐	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion:

a. Public services are currently provided to the Airport Industrial Area, and as the subject parcel has been slated for intensive industrial development in all relevant County land use plans for more than two decades, the additional demand placed on existing services will be both marginal and entirely foreseen. County revenue resulting from any building permit fees, property tax increases, and taxes from the sale of wine will help meet the costs of providing public services to the property. As discussed and (as relevant) mitigated below, the proposed project will have a less than significant impact on public services.

Fire Protection

The Fire Marshall has advised that submitted plans do not include adequate fire hydrant details and a mitigation measure is incorporated below to address that shortcoming. Fire protection measures are required as part of the development pursuant to Napa County Fire Marshall conditions and impacts to emergency response times should be less than significant with the adoption of standard conditions of approval.

Police Protection & Other Public Facilities
The Public Works and Sheriff's Departments have reviewed the application and have not identified any substantial adverse physical impacts associated with public facilities.

School Facilities
School impact mitigation fees, which assist local school districts with capacity building measures, will be levied pursuant to building permit submittal.

Park Facilities
The proposed project will have little to no impact on public parks.

Mitigation Measures:

9. Prior to the issuance of a building or grading permit, the permittee shall submit final fire hydrant plans for the review and approval of the Fire Marshal.

   Method of Mitigation Monitoring: This Mitigation Measure requires submission of acceptable hydrant plans prior to the issuance of a building or grading permit. If such plans are not submitted or are not approvable, no development permit will be issued.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV.	**RECREATION. Would the project:**				
	a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
	b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion:

a.-b. The proposed project includes new industrial development in the midst of a developing and long-planned industrial park. The project would not significantly increase the use of existing recreational facilities nor does it include recreational facilities that would have a significant adverse effect on the environment.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV.	TRANSPORTATION/TRAFFIC. Would the project:				
a)	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e)	Result in inadequate emergency access?	☐	☐	☒	☐
f)	Result in inadequate parking capacity?	☐	☐	☒	☐
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion:

a.-b. Weekday traffic volumes within the project vicinity consist primarily of commute traffic within peak traffic periods and residential flows from nearby communities, commercial, tourist, and industrial park traffic occurring throughout the day. Southern Napa County is characterized by two distinct commute traffic patterns: a Napa to Bay Area commute, and a smaller Solano County to Napa commute. The existing traffic congestion is primarily the result of regional growth impacts. Major improvements to both Highway 29 and Highway 12 are necessary to address regional traffic congestion. As mandated by Napa County, projects within the industrial park are responsible for paying "fair share" costs for the construction of improvements to impacted roadways within the industrial park.

Since 1990, the County has imposed and collected traffic mitigation fees on all development projects within the Airport Industrial Area. A developer's "fair share" fee goes toward funding roadway improvements within the specific plan area including improvements designed to relieve traffic on State Highways. The traffic mitigation fee is further described in Board of Supervisor's Resolution 08-20. For this project, a traffic mitigation fee based on PM peak hour vehicle trips will be imposed and collected prior to issuance of each building permit as determined by the Director of Public Works and is included as a mitigation measure below. The Department of Public Works is in the process of completing an update of the Airport Industrial Area traffic mitigation fee program. That program specifically addresses, and the associated fees will mitigate, cumulative impacts at the 2008 General Plan Revision sunset date of 2030. Cumulative traffic impacts at the 2030 horizon will be addressed by that larger document and are therefore not a specific subject of this review.

The County has established that a significant traffic impact would occur if increases in traffic from a project would cause intersections or two-lane highway capacity to deteriorate to worse than Level of Service (LOS) E, or at intersections or two-lane highway where base case (without project) is LOS F, a significant impact is considered to occur if a project increases the base volumes by more than one percent. The 1% threshold has been utilized consistently throughout all recent EIRs and other CEQA documents addressing projects within the Airport Industrial Area.

The project includes construction of an industrial park totaling 490,503 square feet divided amongst eight new buildings, including two 41,706 square foot two-story office buildings, two 7,563 square foot single-story office buildings with ancillary warehouse space, one 8,850 square foot single-story office building with ancillary warehouse space, and 152,644 square foot, 148,840 square foot, and 81,631 square foot single-story warehouse/distribution buildings with ancillary office space. Approximately 73% percent (or 3456,048 square feet) of the total development floor area would be dedicated to warehousing uses, while the remaining 27% (or 134,455 square feet) would be utilized as office space. Access would be provided from three new driveways located off of an extension of Devlin Road, located south of the existing Devlin Road/Airport Boulevard intersection, and a single right-in right-out driveway off of Airport Boulevard. Roadway improvements, including road construction at Devlin Road and road widening at Airport Boulevard are also proposed.

The applicant has submitted a traffic study (*Napa Commerce Center Light-Industrial Project Traffic Impact Analysis - Final Report*, OmniMeans Engineering and Planning, February 2010) which analyzes existing and proposed traffic conditions and provides the basis for this analysis. The project is anticipated to generate 412 AM peak trips (338 inbound and 74 outbound), and 422 PM peak trips (89 inbound and 333 outbound) based on "Industrial Park" (land use code 130) trip rates as compiled at *Trip Generation, 8th Edition* (Institute of Transportation Engineers, 2008). According to the submitted study;

> *It is noted that the proposed project would have a greater portion of "office" uses in the northern half of its development area and a greater proportion of "warehouse" uses in the southern half of its development area. As such, calculated light industrial park trip generation for the proposed project was "weighted" to account for slightly more office use in the northern development area and more warehouse use in the southern portion of the site. This was accomplished by comparing "industrial park" and "general office" trip generation rates and the amount of overall project square footage in the northern and southern development areas of the site. This analysis provided a more accurate representation of total vehicle trips accessing proposed project driveways.*

At the specific request of the County's principal transportation engineer, project conditions were modeled to include buildout of Greenwood Commerce Center, an approved project located directly to the west of the subject parcel. The Greenwood project would include 378,891 square feet of Industrial Park uses. Greenwood would locate access driveways directly across from the subject project's driveways on the southerly extension of Devlin Road as well as adding vehicle trips to all project study intersections on Airport Boulevard, Devlin Road, Ca-29, and Ca-12. Based on the Greenwood traffic study (*Traffic Analysis for the Proposed Greenwood Business Park Project in the Napa Airport Industrial Area of Napa County*, George W. Nickelson P.E., July 8, 2008), that project is expected to generate 318 AM peak hour trips and 326 PM peak hour trips. Those vehicles were added to existing traffic volumes to arrive at overall project driveway operation on Devlin Road and study intersection operation throughout the Airport Industrial Area.

According to the OmniMeans study;

> *The proposed Napa Commerce Center project would add proportionately to overall project traffic volumes on Devlin Road, Airport Boulevard, Soscol Ferry Road, S.R.-29, and S.R.-12. With existing-plus- proposed*

project traffic volumes, all project study intersections would generally operate at acceptable levels (LOS D or better) during the AM and PM peak hour. The Soscol Ferry/S.R.-29 (intersection) would continue to operate at LOS E and F during the AM and PM peak hours, respectively.

The OmniMeans study goes on to recommend additional mitigation measures designed to reduce traffic-related impacts to a less than significant level. Those additional mitigations are related to internal circulation and associated awkward parking locations, the Airport Boulevard/Devlin Road intersection, the Soscol Ferry Rd./ Devlin Road intersection, Airport Boulevard, and driveway access. In addition, the California Department of Transportation commented in their letter of March 3 (Lisa Carboni, Letter to Chris Cahill, Napa County Conservation, Development, and Planning Department, March 3, 2010) that;

The project must include extending the existing northbound (NB) left turn lane at the state route (SR) 29/Airport Boulevard intersection in order to accommodate the Plus Project queue. Please be reminded that a left turn lane requires both storage and deceleration length.

Additional mitigation measures as recommended by OmniMeans and the Department of Transportation are incorporated below. As mitigated hereby, impacts related to traffic will be less than significant.

c. The project is fully compliant with the Napa Airport Compatibility Plan (please see **HAZARDS AND HAZARDOUS MATERIALS**, above) and will not have any impact on air traffic patterns.

d.-e. The project includes construction of new driveways on Airport Boulevard and Devlin Road. The new driveways have been designed to comply with all County standards and the recommendations of the OmniMeans final project traffic study. In addition, the Department of Public Works stated the following in a memo addressing driveway access to the property dated February 16, 2010;

As indicated in the project TIA project description, the parcel is divided into two development areas by an existing natural drainage way. The northern portion of the Napa Commerce Center Project (Project) is adjacent to Airport Boulevard and has approximately 450 feet of frontage on Devlin Road as it extends south from Airport Blvd. The access driveway for the northern portion is located immediately across from the access drive of the Greenwood Commerce center creating a driveway type intersection which supports left turn movements from Devlin Road. This is the only ingress/egress to the northern portion of the Project which provides approximately 380 parking spaces serving five buildings with office type uses. Inclusion of an access driveway from Airport Blvd. improves the overall access to the project area including emergency related responses to the project site.

The TIA also implies that inclusion of the access driveway on Airport Blvd. improves the function of the Devlin Road/Airport Blvd. intersection during PM peak hours and provides queuing on site. The location of the proposed driveway access on Airport Blvd is approximately 900 feet west of Highway 29/12/Airport Blvd. intersection, which is beyond the projected queuing length of 569-feet for PM peak hour traffic and provides enough distance to allow traffic to access the existing left, through and right turn lanes. Additionally, the location of the driveway is sufficient distance from Airport Blvd. to be virtually unaffected by the future improvements to Highway 29/12/Airport Blvd. intersection planned by Caltrans.

Additionally, consideration was given to addressing project circulation needs by incorporating an internal connection between the northern and southern portions of the site, such as with a bridge over the natural drainage way. The analysis showed that if such a connection were provided, it would actually encourage more of the site's traffic to use the northerly site entrance on Devlin than would be the case without it. This would actually exacerbate the adverse effect on the Devlin/Airport Blvd. intersection.

Because of these unique circumstances associated with this project, inferior alternatives and the apparent improved operation of the Devlin Road/Airport Blvd intersection, Public Works supports the inclusion of a right turn only limited access driveway on Airport Blvd.

In addition to the above Department of Public Works review, the Napa County Fire Marshal has reviewed this application and identified no significant impacts. As analyzed in the project traffic study and in the Department of Public Works opinion incorporated above, project impacts related to traffic hazards and emergency access are expected to be less than significant.

f. The project includes 740 automotive parking spaces, plus a further 80 bicycle parking spaces (of which 32 will be covered and in all likelihood comprised of bike lockers) The Airport Industrial Area Specific Plan would require 750 parking spaces, meaning that a waiver from parking requirements is technically required for this project. A shortfall of ten parking spaces, especially in a project of this scale, is not deemed a potentially significant impact. On-site parking should be more than adequate.

g. The proposed project includes significant new bike lane and bike parking facilities and does not conflict with any policies or plans supporting alternative transportation.

Mitigation Measures:

10. Prior to County authorization of a building permit, the permittee shall submit payment of Napa County's traffic mitigation fee in accordance with the Board Resolution then-operative, fees are based on the number of vehicle trips generated by the project in the PM peak traffic period as established via the project traffic study.

    Method of Mitigation Monitoring: This Mitigation Measure requires deposit of required traffic impact mitigation fees prior to the issuance of a building permit. If required fees are not submitted, no building permit will be issued.

11. As discussed in the project traffic study, the following parking spaces, situated on the curves of internal drive aisles around project buildings F and H, could create internal circulation problems and shall be reserved for "employees only," thereby limiting in/out maneuvers adjacent to impacted drive aisle curves:
    - five parking spaces at the northeast corner of Building F on the entrance curve;
    - two parking spaces at the southeast corner of Building F on the exit curve;
    - five parking spaces at the northwest corner of Building H on the entrance curve; and
    - three parking spaces at the southeast corner on Building H on the inside curve.

    Method of Mitigation Monitoring: No certificate of occupancy will be issued for the project unless the requirements of this mitigation measure have been complied with.

12. The project shall incorporate the turn lane construction, road widening, and other improvements at and adjacent to the Airport Boulevard/Devlin Road intersection outlined under "**Airport Boulevard/Devlin Road Intersection**" at page 21 of the final project traffic study.

    Method of Mitigation Monitoring: No building or grading permit shall be issued for this project until a final improvement plan implementing the requirements of this mitigation measure has been submitted for the review and approval of the Departments of Planning and Public Works, along with other relevant agencies. No certificate of occupancy will be issued for the project until the physical requirements of this mitigation measure have been complied with.

13. As discussed in the project traffic study, this project may have significant impacts at the Soscol Ferry/Devlin Road intersection. Whether through the payment of impact fees or through some other fair-share method duly adopted at the time of any such construction, the permittee and his/her successors in interest shall contribute to the cost of signalization at the Soscol Ferry/Devlin Road intersection should the County deem it necessary to install traffic signals at that intersection at some point in the future.

    Method of Mitigation Monitoring: Monitoring and implementation of this mitigation measure will have to be built in to any program, adopted at some later date, to require contributions to signalization projects then-undertaken. In the interim, traffic mitigation fees are required and if required fees are not submitted, no building permit will be issued.

14. The project shall incorporate improvements to signals at the Airport Boulevard/Devlin Road to create a "northbound right-turn overlap phase" as outlined under "**Airport Boulevard**" at page 22 of the final project traffic study.

    Method of Mitigation Monitoring: No building or grading permit shall be issued for this project until a final improvement plan implementing the requirements of this mitigation measure has been submitted for the review and approval of the Departments of Planning and Public Works (along with other relevant agencies). No certificate of occupancy will be issued for the project until the physical requirements of this mitigation measure have been complied with.

15. The project shall incorporate the turn lane construction, road widening, and other improvements at and/or adjacent to the Airport Boulevard/Ca-29 intersection as required by the Department of Transportation in their letter of March 3, 2010. To wit, "the project must include extending the existing northbound left turn lane at the state route 29/Airport Boulevard intersection in order to accommodate the Plus Project queue;" and, "please be reminded that a left turn lane requires both storage and deceleration length."

    Method of Mitigation Monitoring: No building or grading permit shall be issued for this project until a final improvement plan implementing the requirements of this mitigation measure has been submitted for the review and approval of the Departments of Planning and Public Works and the California Department of Transportation. No certificate of occupancy will be issued for the project until the physical requirements of this mitigation measure have been complied with.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI.	**UTILITIES and SERVICE SYSTEMS. Would the project:**				
	a) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**	☐	☐	☒	☐
	b) **Require or result in the construction of a new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Require or result in the construction of a new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion:

a. The project will occur within an urbanized area and connect to a publicly maintained wastewater treatment system. The wastewater provider, Napa Sanitation District, has provided a "will serve" letter incorporating a number of significant conditions including formal annexation in to the district. As conditioned, Napa Sanitation District has found the project to be in compliance with their master plans. The District's wastewater treatment plant complies with all water quality discharge requirements; the project will comply with regional water quality control standards.

b. The project will not require construction of any new water or wastewater treatment facilities that will result in a significant impact to the environment. The project site is located in an area planned for industrial development and existing water and wastewater treatment facilities have been sized to accommodate the proposed project. The proposed project would require new pipelines at the site to connect to existing supply pipelines that ultimately tie back into the City of American Canyon's water treatment plan. Additionally, an existing 14" water main, which runs on and adjacent to the eastern end of the subject property adjacent to Ca-29 is proposed to be abandoned in favor of a new alignment running underneath the Devlin Road extension and back up to S.R.29 under Airport Boulevard. The project would also install purple irrigation pipe so that reclaimed water supplied by the Napa Sanitation District could ultimately be used for landscape irrigation demand. Use of reclaimed water for irrigation will ultimately reduce the use of treated water provided by the City of American Canyon. The City's tandem water treatment plants have a maximum capacity of 5.5 million gallons per day (mgd). In addition, American Canyon has a potable water connection to the City of Vallejo water system that provides up to 1.3 mgd for a total current production capacity of 6.8 mgd.

Quoting from the *Napa Commerce Center Water Supply Report* (Michael Throne, City of American Canyon Department of Public Works, October 2009);

> *Additional treatment capacity is needed to achieve the General Plan EIR peak day demand estimate of 10.0 mgd. The membrane plant was designed to accommodate an additional 3.0 mgd expansion within the*

existing structure. This is included in the capital fee program. Expansion (of) the North Bay Aqueduct... would be needed to meet the peak day flow requirements for this additional treatment. Under this approach, the total treatment plant capacity would be 8.5 mgd. The remaining 1.5 mgd of peak treated water capacity could come from the City of Vallejo through the (existing) water supply contract... The Vallejo contract currently provides up to 1.3 mgd of peak day capacity during a peak month, which would be more than adequate to meet the treatment gap. If all of the remaining options were executed, the Vallejo contract would provide up to 3.1 mgd of peak day capacity during a peak month. An additional metering system would be needed to deliver this water to the City of American Canyon distribution system; this metering station is included in the capacity fee capital program.

The City of American Canyon also enjoys a physical connection to the City of Napa's treated water supply. Currently, the City of Napa treated water is provided on an informal basis in the absence of an agreement. On June 17, 2008, the City Council approved a one-year agreement with the City of Napa to treat and wheel water on behalf of the City of American Canyon. The City of American Canyon and the City of Napa have recently agreed to extend the agreement for another year. The agreement provides up to 1 mgd of treatment capacity in normal circumstances and up to 2.25 mgd when the North Bay Aqueduct is out of service.

As analyzed above and in the attached City of American Canyon water study, foreseeable water treatment system improvements potentially required by the cumulative results of this project would be limited to a 3.0 mgd capacity increase within one of the two existing City of American Canyon water treatment facilities. That capacity increase was designed into the facility when it was first constructed and will not necessitate the physical expansion of the treatment plant or cause any potentially significant environmental impacts. As the City of Napa and the City of Vallejo have contracted to provide excess treated water to the City of American Canyon from their existing over-ample systems, no water treatment expansions would foreseeably or cumulatively result from this project in those networks. Impacts related to water treatment will be less than significant.

c. The project incorporates an integrated approach to stormwater management and drainage in which on-site stormwater flows are pretreated and then allowed to drain into the preserved on-site wetland in a way that mimics natural flows. The proposed system, which is detailed in the applicant's March 2010 *Stormwater Management Plan* and in their *Preliminary Drainage Report* of the same date, has been vetted by both the Department of Public Works and the San Francisco Bay Regional Water Quality Control Board and both agencies have voiced initial support for the proposed system's somewhat novel (at least for Napa County) combined approach to stormwater management and wetland enhancement. The project will ultimately discharge stormwater into an approved storm drainage system designed to accommodate the drainage from this site. Given that the permittee will be required to obtain a stormwater permit from the Regional Water Quality Control Board, via a program which is in-part administered by the County Department of Public Works, ample opportunity is provided for both agencies to fine tune the details of the conceptual system as it progress into a built reality. The Department of Public Works will incorporate conditions of approval requiring that the drainage system be designed to avoid diversion or concentration of storm water runoff onto adjacent properties. Environmental impacts related to the construction of new drainage facilities will be less than significant.

d. The subject parcel is within the City of American Canyon water service area and will receive treated water from the City of American Canyon water system, managed by that City's Department of Public Works. According to the City's project *Water Supply Report*, the American Canyon *Urban Water Management Plan* estimated a water demand of 25 acre-feet per year (afy) for the subject property. As this project is estimated to use 12 afy, the project is well within the City's programmed water demand. According to the submitted *Water Supply Report*, adequate water supplies are, or can be made, available to meet this projected demand.

A summary of information contained in the City of American Canyon's *Water Supply Report* prepared for this project is included below. This report greatly assisted the County in completing this initial study and complying with *Vineyard Area Citizens for Responsible Growth* requirements, which establish guidelines for evaluating the water supply of a project under the California Environmental Quality Act. *Vineyard* requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

The City completed an Urban Water Management Plan in January 2006. The Urban Water Management Plan incorporated the project site as an industrial use. Potable water allocated to this site in the Urban Water Management Plan as an industrial use was 10,800 gallons per day. As summarized in the American Canyon Urban Water Management Plan (2006), the City's water supply is from the following sources:

- State Water Project (SWP) water;
- Permit water (raw water) from the City of Vallejo;
- Treated water from Vallejo;
- Treated water from the City of Napa; and
- Recycled water from the City of American Canyon's treatment plant.

The State Water Project (SWP) delivers the City's raw water supply in the North Bay Aqueduct (NBA). The City's entitlement of 4,700 afy in 2005 will increase annually by 50 to 100 afy, to 5,200 afy in 2015. SWP water is not proposed to increase after 2015. The City of American Canyon Water Treatment Plant treats the SWP water or it is delivered as raw water to the customers who use it for irrigation. The Urban Water Management Plan finds that, as of 2005, the City of American Canyon would experience a shortfall in water supplies in multiple dry years of up to 427 acre-feet and single-dry-years of up to 897 acre-feet. By the year 2015, the City of American Canyon would experience a shortfall in multiple dry years of up to 1,037 acre-feet and in single dry years of up to 1,557 acre-feet.

In order to mitigate these single dry years, and multiple dry year events shortages for the long term, the City of American Canyon has undertaken a comprehensive Integrated Water Management Plan (IWMP) that will identify potential additional water supply solutions and increase the flexibility of its system. Additionally, the City of American Canyon is implementing an aggressive water conservation program to reduce water demands throughout the City. The County supports the water conservation efforts being employed by the municipal water service provider, and has included conservation mitigation measures, below, necessary to reduce the project's contribution to these potentially significant water supply impacts.

As noted elsewhere, a project specific *Water Supply Report* was prepared in October 2009 by the City's Public Works Department to address a range of topics, including:

- The subject project's water service request;
- Consistency with the Urban Water Management Plan;
- Water footprint/zero water footprint;
- Project contribution to water capacity fee and improvements;
- Capital improvement program status for water supply and water treatment;
- *Vineyard* analysis;
- Recommended mitigations; and
- Opportunities to reduce the project's water footprint.

The subject project's average daily water demand, including domestic/potable and industrial water, is estimated to be 10,800 gallons per day. Total irrigation demand is proposed to be met using reclaimed water provided by Napa Sanitation District. As a result, the total annual demand based on an average of 10,800 gallons per day

would be 12 afy. The total maximum daily water demand will be 16,200 gallons per day. According to the *Water Supply Report*, these estimates are considered reasonable.

On October 23, 2007, the City Council of the City American Canyon adopted the following definition of Zero Water Footprint (ZWF);

> *No loss in water service reliability or increase in water rates to the City of American Canyon's existing customers due to the requested increased demand for water in the City's water service area.*

Appendix A of the *Water Supply Report* is a flow chart of the process for water service requests considered by the City of American Canyon as part of their policy decision on Zero Water Footprint. The project does not have a zero water footprint. It would result in a loss in water service reliability of American Canyon water service due to the increased annual water demand without an offsetting source of supply.

The Urban Water Management Plan finds that, as of 2005, the City of American Canyon would experience a shortfall in water supplies in multiple-dry-years of up to 427 acre-feet and in single-dry-years of up to 897 acre-feet. Due to increased demand, the shortfall would worsen even as additional supplies are obtained. By the year 2015, the City of American Canyon would experience a shortfall in multiple-dry-years of up to 1.037 acre-feet and in single-dry-years of up to 1,557 acre-feet. By contributing to this shortfall, the project would function to reduce the reliability of American Canyon water service.

A complete *Vineyard* analysis is included in the attached *Water Supply Report* at pages 14-16, and is incorporated herein by reference. Mitigation measures as included in the project *Water Supply Report*, which will mitigate impacts on water supplies to a less than significant level, are enumerated below.

e. See response "a." above.

f. The proposed project will be served by a landfill with sufficient capacity to meet the projects demands. No significant impact will occur from the disposal of solid waste generated by the proposed project.

g. The proposed project will comply with federal, state, and local statutes and regulations related to solid waste.

Mitigation Measures:

16. The permittee shall pay all updated water capacity and impact fees to provide funding for the City of American Canyon to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will allow for the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system, helping to reduce the impact of additional water demand to a less than significant level.

    Method of Mitigation Monitoring: Payment of fee is required prior to the issuance of a building permit.

17. The project shall contribute to City of American Canyon Short-term Water Supply Mitigation, as set forth in the City's *Water Supply Report*, pages 16 and 17, Table 2, as non-refundable payments to the water operations fund to allow the City to acquire dry year water if necessary. If the long-term mitigations are not in place prior to the 2011-2012 water year, the project shall continue to make annual non-refundable payments until the short-term impacts are mitigated by completion of long-term improvements.

    Method of Mitigation Monitoring: Payment of fee is required prior to the issuance of a building permit.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**	☐	☐	☒	☐
b) **Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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)?**	☐	☐	☒	☐
c) **Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**	☐	☐	☒	☐

Discussion:

a. The **BIOLOGICAL RESOURCES** section indicates that there is a possibility of state or federally protected species occurring in the vicinity of the site. Mitigation Measures are proposed to protect those species and no further effects are expected if all mitigation measures are implemented. No historic or prehistoric resources are anticipated to be affected by the proposed project. The project will not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

b. As mitigated herein, the subject project does not have impacts that are individually limited but cumulatively considerable. Potential impacts related to traffic and utilities are discussed in their respective sections above. The project would also increase the demands for public services to a limited extent, increase housing demand, and increase traffic and air pollution, all of which contribute to cumulative effects when future development along Highway 29 is considered. Cumulative impacts of these issues are discussed and mitigated, as necessary, in the relevant sections of this initial study (for example: **AIR QUALITY, POPULATION & HOUSING, TRANSPORTATION/TRAFFIC,** and **UTILITIES & SERVICE SYSTEMS**).

c. Having thoroughly reviewed the project and completed the above initial study, as mitigated herein, we find no environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Enclosures:

The following documents are enclosed herein.
Project Revision Statement and Mitigation Monitoring and Reporting Program
Site Location Map (USGS Base Map)
Site Plan

Attachments:
The following documents are attached as relevant.
Attachment A - URBEMIS Annual Emissions Modeling Report
Attachment B - North Fork Associates, *Biological Resources Assessment*, June 1, 2009 (sans appendices)
Attachment C - OmniMeans Engineering and Planning, *Napa Commerce Center Light-Industrial Project Traffic Impact Analysis - Final Report*, February 2010 (sans appendices)
Attachment D - Michael Throne, City of American Canyon Department of Public Works, *Napa Commerce Center Water Supply Report*, October 2009 (sans appendices)

Project Revision Statement & Mitigation Monitoring and Reporting Program

(Environmental Review)

Napa 34 Holdings Commerce Center

Use Permit and Variation to Development Standards Application № P09-00329-UP and
Tentative Parcel Map and Lot Line Adjustment Application № P09-00330-TPM
Assessor's Parcel №: 057-210-056
No Current Address, the Napa-Vallejo Highway, Napa, Calif. 94558

I hereby revise my request to include the mitigation measures specified below:

AIR QUALITY

1. All construction-phases of the subject project shall incorporate the following BAAQMD construction-related emissions management practices:

    - Water all active construction areas at least twice daily.
    - Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
    - Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
    - Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
    - Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
    - Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
    - Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
    - Limit traffic speeds on unpaved roads to 15 mph.
    - Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
    - Replant vegetation in disturbed areas as quickly as possible.
    - Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
    - Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
    - Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
    - Limit the area subject to excavation, grading and other construction activity at any one time.

    Method of Mitigation Monitoring: Prior to the issuance of a building or grading permits, the applicant's contractor shall submit a construction-related emissions best management practices program, incorporating (without limitation) all of the above requirements for the review and approval of the Planning Division. Site inspections undertaken by the Planning Division, the Building Division, and the Department of Public Works will ensure compliance with the approved best management practices program.

BIOLOGICAL RESOURCES

2. To avoid potential losses to nesting raptors, migratory birds protected under the Migratory Bird Treaty Act, and special status bird species, construction activities shall occur outside the critical breeding period from March through August. If construction is proposed to occur during the breeding period, the site shall be surveyed for active nests by a qualified Biologist no more than 30 days prior to commencing construction activities. If active nests are found, the nest location and a buffer area designated by the biologist in consultation with the California

Department of Fish and Game shall be established, and those areas shall be avoided until the nest has been vacated. If no nests are found on or adjacent to the project site, tree removal could proceed without further survey.

Method of Mitigation Monitoring: The permittee shall have a nesting bird survey completed prior to any construction activities scheduled to occur on the site from the beginning of March through August. The survey results shall be provided to the Napa County Conservation, Development, and Planning Department (Planning Department). In the event that nesting sites are found, the nest location and a buffer area designated by the biologist in consultation with the California Department of Fish and Game shall be mapped, and no work shall be undertaken in buffer until the nest has been vacated.

3. To avoid potential losses to the Western Burrowing owl, a nesting survey shall be conducted by a qualified Biologist no more than 30 days prior to commencing construction activities. If active nests are found, the nest location and a buffer area designated by the biologist in consultation with the California Department of Fish and Game, shall be avoided until the nest has been vacated. If no nests are found on the project site construction activities could proceed without further surveys.

   Method of Mitigation Monitoring: The permittee shall have a nesting western Burrowing owl survey completed prior to any construction activities scheduled to occur on the site from the beginning of March through August. The survey results shall be provided to the Napa County Conservation Development and Planning Department. In the event western burrowing owls are found to occur on-site construction activities will be scheduled to avoid nesting and breeding periods.

4. Prior to the issuance of a building or grading permit, final protocol-level survey reports for vernal pool crustaceans and California red legged frog shall be submitted for the review and approval of the Napa County Planning Department, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. A final Swainson's hawk nesting and foraging analysis shall likewise be provided for the review and approval of the Planning Department and the California Department of Fish and Game proposing, as necessary, specific mitigations consistent with Department of Fish and Game standards.

   Method of Mitigation Monitoring: Mitigation Measure № 3 requires submission of final protocol level survey results and Swainson's hawk habitat analysis consistent with DFG policies prior to the issuance of a building or grading permit. If the mitigation measures are not complied with, no development permit will be issued.

5. Prior to issuance of a building or grading permit the project proponent shall provide documentation from the Army Corps of Engineers indicating that one or more of the following measures will, or has, occurred and is, or will, be considered mitigation to address proposed conversion of jurisdictional wetlands.

   a. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, on the project site by enhancing existing wetlands or creating new wetlands to provide for no net loss of wetlands function. The applicant's biologist indicates on site mitigation using proposed drainage facilities such as a detention basin or vegetated swales is a viable option for restoring wetlands function although the acceptability of such to the Corps and/or RWQCB cannot be guaranteed; or,

   b. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by off-site creation or enhancement of wetlands in Napa County consistent with state and federal policies providing for no net loss of wetland function; or

   c. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by purchase of wetlands creation or preservation credits in an existing or future wetlands bank that "services" Napa County, consistent with state and federal policies providing for no net loss of wetland function; or

   d. Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by financial participation in an existing wetlands enhancement or creation project in Napa County sponsored by a state, federal or County

agency such as the Napa County Resource Conservation District (RCD) consistent with state and federal policies providing for no net loss of wetland function. Or,

e. a combination of the above measures, which in aggregate meets the prescribed ratio dictated by the Corps and/or RWQCB.

Method of Mitigation Monitoring: Any required wetland mitigation shall be in place prior to the issuance of building or grading permits. The project proponent shall demonstrate to the satisfaction of the Planning Department that all wetland mitigation has been approved by the Corps and has been initiated. The terms and conditions of wetland protection, replacements and performance criteria are subject to Corps concurrence and may be modified.

6. Prior to issuance of a building or grading permit, the project proponent shall provide documentation from the California Department of Fish and Game that a 1602 permit has been issued or that said department does not deem such permitting necessary. The terms and conditions of that permitting are subject to Fish and Game concurrence and may be modified as deemed necessary by that department.

Method of Mitigation Monitoring: This Mitigation Measure requires submission of evidence of project compliance with DFG 1602 permit requirements prior to the issuance of a building or grading permit. If such evidence is not submitted, no development permit will be issued.

7. Prior to issuance of a building or grading permit, the project proponent shall submit final revised landscape plans which include in-like-kind replacement of all trees to be removed as a result of the project for the review and approval of the Planning Director. Tree replacement shall occur at a ratio of 3:1 if replacement trees are smaller than 24" box in size or at a ratio of 2:1 if replacement trees are sized at 24" box or greater. The final determination as to whether or not proposed replacement plantings are "in-like-kind" shall be made by, and solely at the discretion of, the Planning Director or her designee.

Method of Mitigation Monitoring: This Mitigation Measure requires submission of final revised landscape plans incorporating replacement tree details prior to the issuance of a building or grading permit. If such plans are not submitted, no development permit will be issued.

HYDROLOGY AND WATER QUALITY

8. Prior to the issuance of a building permit, a grading permit, or the recordation of a final parcel map, the permittee shall submit a binding drainage system/wetland maintenance plan for the review and approval of the Departments of Public Works and Planning. The submitted plan shall stipulate an ongoing maintenance regime (including, without limitation, financing details and implementation/enforcement measures such as CC&Rs and/or third party conservations easements) for the integrated project area wetland and drainage system. The submitted maintenance plan shall be consistent with the *Napa County Post Construction Runoff Management Requirements* manual adopted by the Board of Supervisors on June 3, 2008, and in particular with Chapter 5 at p. 14, Implementation and Maintenance of Requirement.

Method of Mitigation Monitoring: This Mitigation Measure requires submission of an acceptable maintenance plan prior to the issuance of a building or grading permit or the recordation of a final parcel map. If such plans are not submitted or are not approvable, no parcel map may be recorded and no development permit will be issued.

PUBLIC SERVICES

9. Prior to the issuance of a building or grading permit, the permittee shall submit final fire hydrant plans for the review and approval of the Fire Marshal.

Method of Mitigation Monitoring: This Mitigation Measure requires submission of acceptable hydrant plans prior to the issuance of a building or grading permit. If such plans are not submitted or are not approvable, no development permit will be issued.

TRANSPORTATION/TRAFFIC

10. Prior to County authorization of a building permit, the permittee shall submit payment of Napa County's traffic mitigation fee in accordance with the Board Resolution then-operative, fees are based on the number of vehicle trips generated by the project in the PM peak traffic period as established via the project traffic study.

    Method of Mitigation Monitoring: This Mitigation Measure requires deposit of required traffic impact mitigation fees prior to the issuance of a building permit. If required fees are not submitted, no building permit will be issued.

11. As discussed in the project traffic study, the following parking spaces, situated on the curves of internal drive aisles around project buildings F and H, could create internal circulation problems and shall be reserved for "employees only," thereby limiting in/out maneuvers adjacent to impacted drive aisle curves:
    - five parking spaces at the northeast corner of Building F on the entrance curve;
    - two parking spaces at the southeast corner of Building F on the exit curve;
    - five parking spaces at the northwest corner of Building H on the entrance curve; and
    - three parking spaces at the southeast corner on Building H on the inside curve.

    Method of Mitigation Monitoring: No certificate of occupancy will be issued for the project unless the requirements of this mitigation measure have been complied with.

12. The project shall incorporate the turn lane construction, road widening, and other improvements at and adjacent to the Airport Boulevard/Devlin Road intersection outlined under "**Airport Boulevard/Devlin Road Intersection**" at page 21 of the final project traffic study.

    Method of Mitigation Monitoring: No building or grading permit shall be issued for this project until a final improvement plan implementing the requirements of this mitigation measure has been submitted for the review and approval of the Departments of Planning and Public Works, along with other relevant agencies. No certificate of occupancy will be issued for the project until the physical requirements of this mitigation measure have been complied with.

13. As discussed in the project traffic study, this project may have significant impacts at the Soscol Ferry/Devlin Road intersection. Whether through the payment of impact fees or through some other fair-share method duly adopted at the time of any such construction, the permittee and his/her successors in interest shall contribute to the cost of signalization at the Soscol Ferry/Devlin Road intersection should the County deem it necessary to install traffic signals at that intersection at some point in the future.

    Method of Mitigation Monitoring: Monitoring and implementation of this mitigation measure will have to be built in to any program, adopted at some later date, to require contributions to signalization projects then-undertaken. In the interim, traffic mitigation fees are required and if required fees are not submitted, no building permit will be issued.

14. The project shall incorporate improvements to signals at the Airport Boulevard/Devlin Road to create a "northbound right-turn overlap phase" as outlined under "**Airport Boulevard**" at page 22 of the final project traffic study.

    Method of Mitigation Monitoring: No building or grading permit shall be issued for this project until a final improvement plan implementing the requirements of this mitigation measure has been submitted for the review and approval of the Departments of Planning and Public Works (along with other relevant agencies). No certificate of occupancy will be issued for the project until the physical requirements of this mitigation measure have been complied with.

15. The project shall incorporate the turn lane construction, road widening, and other improvements at and/or adjacent to the Airport Boulevard/Ca-29 intersection as required by the Department of Transportation in their letter of March 3, 2010. To wit, "the project must include extending the existing northbound left turn lane at the state

route 29/Airport Boulevard intersection in order to accommodate the Plus Project queue;" and, "please be reminded that a left turn lane requires both storage and deceleration length."

Method of Mitigation Monitoring: No building or grading permit shall be issued for this project until a final improvement plan implementing the requirements of this mitigation measure has been submitted for the review and approval of the Departments of Planning and Public Works and the California Department of Transportation. No certificate of occupancy will be issued for the project until the physical requirements of this mitigation measure have been complied with.

UTILITIES and SERVICE SYSTEMS

16. The permittee shall pay all updated water capacity and impact fees to provide funding for the City of American Canyon to acquire additional long-term water resources and improve and develop its treatment and distribution system. The fees will allow for the City to exercise additional options for potable water capacity from the City of Vallejo and/or other sources, and will also provide for implementation of the recycled water system, helping to reduce the impact of additional water demand to a less than significant level.

    Method of Mitigation Monitoring: Payment of fee is required prior to the issuance of a building permit.

17. The project shall contribute to City of American Canyon Short-term Water Supply Mitigation, as set forth in the City's *Water Supply Report*, pages 16 and 17, Table 2, as non-refundable payments to the water operations fund to allow the City to acquire dry year water if necessary. If the long-term mitigations are not in place prior to the 2011-2012 water year, the project shall continue to make annual non-refundable payments until the short-term impacts are mitigated by completion of long-term improvements.

    Method of Mitigation Monitoring: Payment of fee is required prior to the issuance of a building permit.

I understand and explicitly agree that with regards to all California Environmental Quality Act, Permit Streamlining Act, and Subdivision Map Act processing deadlines, this revised application will be treated as a new project, filed on the date this project revision statement is received by the Napa County Conservation, Development and Planning Department. For purposes of §66474.2 of the Subdivision Map Act, the date of application completeness shall remain the date this project was originally found complete.

Signature of Owner | Print Name | Interest

Attachment A - URBEMIS Annual Emissions Modeling Report

3/3/2010 2:11:29 PM

Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\CCAHILL\Desktop\napa 34.urb924

Project Name: Napa 34 Commerce Center

Project Location: California State-wide

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	CO2
2010 TOTALS (tons/year unmitigated)	464.10
2010 TOTALS (tons/year mitigated)	464.10 → x.91 = 422.3 MT/Y CO_2e
Percent Reduction	0.00

2011 TOTALS (tons/year unmitigated)	1,201.42
2011 TOTALS (tons/year mitigated)	1,201.42 → x.91 = 1,093 MT/Y CO_2e
Percent Reduction	0.00

AREA SOURCE EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	176.63
TOTALS (tons/year, mitigated)	141.35 → x.91 = 128.6 MT/Y CO_2e
Percent Reduction	19.97

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OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	4,103.78
TOTALS (tons/year, mitigated)	1,942.49
Percent Reduction	52.67

1,942.49 → x.91 = 1,767.7 MT/Y CO_2e

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	4,280.41
TOTALS (tons/year, mitigated)	2,083.84
Percent Reduction	51.32

2,083.84 → x.91 = 1,896.3 MT/Y CO_2e

BAAQMD 12.7.09
DRAFT THRESHOLDS

1,100 MT/Y CO_2e

-or-

4.6 MT/Y CO_2e / PERSON*

(* "PERSON" = EMPLOYEES + RESIDENTS)

PROJECT PROPOSES 624 EMPLOYEES,
OR A THRESHOLD OF...
624 × 4.6 = 2,870.4 MT/Y CO_2e > 1,896.3 MT/Y CO_2e. ✓

1 SHORT TON/YEAR =

5.476 POUNDS/DAY

3/3/2010 6:07:28 PM

Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\CCAHILL\Desktop\napa 34.urb924

Project Name: Napa 34 Commerce Center

Project Location: California State-wide

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010 TOTALS (tons/year unmitigated)	0.40	2.94	2.92	0.00	5.44	0.15	5.59	1.14	0.14	1.28	464.10
2010 TOTALS (tons/year mitigated)	0.40	2.82	2.92	0.00	1.24	0.11	1.35	0.26	0.10	0.36	464.10
Percent Reduction	0.00	3.82	0.00	0.00	77.14	27.71	75.82	77.02	27.81	71.72	0.00
2011 TOTALS (tons/year unmitigated)	5.97	5.17	7.23	0.01	0.04	0.25	0.29	0.02	0.23	0.24	1,201.42
2011 TOTALS (tons/year mitigated)	5.44	4.90	7.23	0.01	0.04	0.15	0.20	0.02	0.14	0.15	1,201.42
Percent Reduction	8.81	5.11	0.00	0.00	0.00	38.78	32.93	0.00	39.07	36.59	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.54	0.15	0.26	0.00	0.00	0.00	176.63
TOTALS (tons/year, mitigated)	0.54	0.12	0.24	0.00	0.00	0.00	141.35
Percent Reduction	0.00	20.00	7.69	NaN	NaN	NaN	19.97

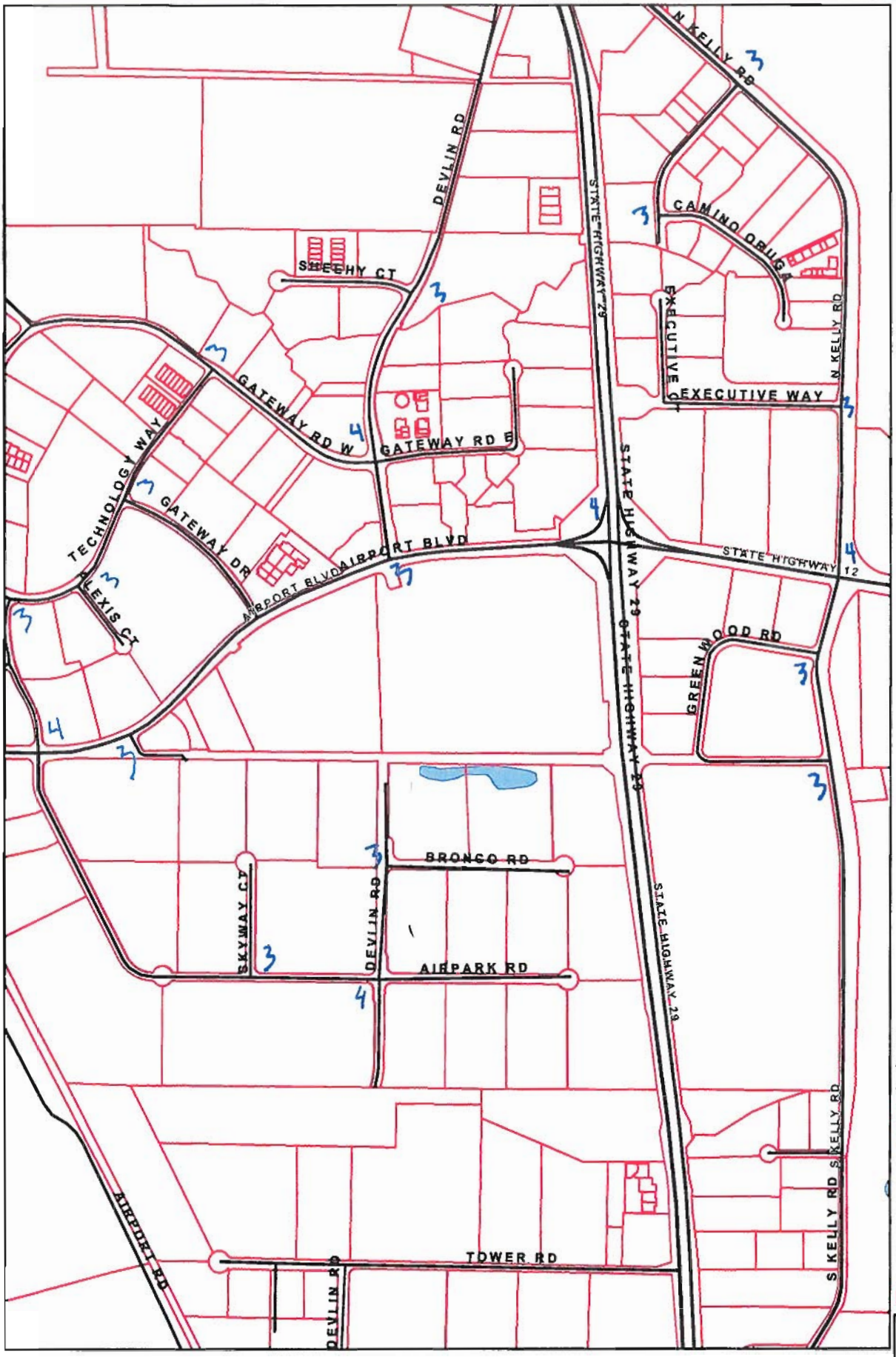
3/3/2010 6:07:28 PM

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	4.38	6.25	47.39	0.04	7.55	1.47	4,103.78
TOTALS (tons/year, mitigated)	2.32	2.96	22.43	0.02	3.57	0.70	1,942.49
Percent Reduction	47.03	52.64	52.67	50.00	52.72	52.38	52.67

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	4.92	6.40	47.65	0.04	7.55	1.47	4,280.41
TOTALS (tons/year, mitigated)	2.86	3.08	22.67	0.02	3.57	0.70	2,083.84
Percent Reduction	41.87	51.88	52.42	50.00	52.72	52.38	51.32



Legend

- Roads
- Major Roads
- Parcels
- Water Bodies
- American Canyon
- Calistoga
- County
- Napa
- St Helena
- Yountville
- County Boundary

County of Napa

Conservation, Development & Planning

Planning General

Revised Date: 10/01/2009

Horizontal Datum: NAD 83,
CA State Plane Coordinates,
Zone II feet

Disclaimer: This map was prepared for informational purpose only. No liability is assumed for the accuracy of the data delineated hereon

0 410 820 1,640 2,460 3,280 Feet

Created Date: 12/2002

Attachment B - North Fork Associates, *Biological Resources Assessment*, June 1, 2009 (sans appendices)

BIOLOGICAL RESOURCES ASSESSMENT
FOR THE

±34-ACRE NAPA COMMERCE CENTER STUDY AREA

NAPA COUNTY, CALIFORNIA

Prepared for:
NAPA 34 HOLDINGS, LLC
2617 Castro Street
Sacramento, California 95818

Prepared by:

north fork associates
110 Maple Street, Auburn, California 95603
(530) 887-8500

JUNE 1, 2009

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BIOLOGICAL RESOURCES ASSESSMENT
FOR THE
±34-ACRE NAPA COMMERCE CENTER STUDY AREA

INTRODUCTION

Project Location

North Fork Associates conducted a biological resources assessment for an approximately 34-acre study area in Napa County, California. The study area is located southwest of the corner of Highway 29 and Airport Boulevard south of the City of Napa. The location corresponds to Section 1 of Township 4 North and Range 4 West on the 7.5 minute Cuttings Wharf USGS (United States Geological Survey) quadrangle (Figure 1). The latitude and longitude of the approximate center of the study area are 38.22132° north and 122.25983° west. The Assessor Parcel Number (APN) is 057-210-056.

Setting

The study area is located at an elevation between approximately 45 and 80 feet. The study area is bounded by Airport Boulevard and commercial developments to the north, undeveloped land to the west and south, and Highway 29 to the east. Surrounding land uses include a county airport used by large overseas carriers for training, a Napa County Sheriff Department Office, salt ponds, business and industrial development, agricultural activities, a golf course, and patches of undeveloped open areas (Figure 2).

Objectives of Biological Resources Assessment

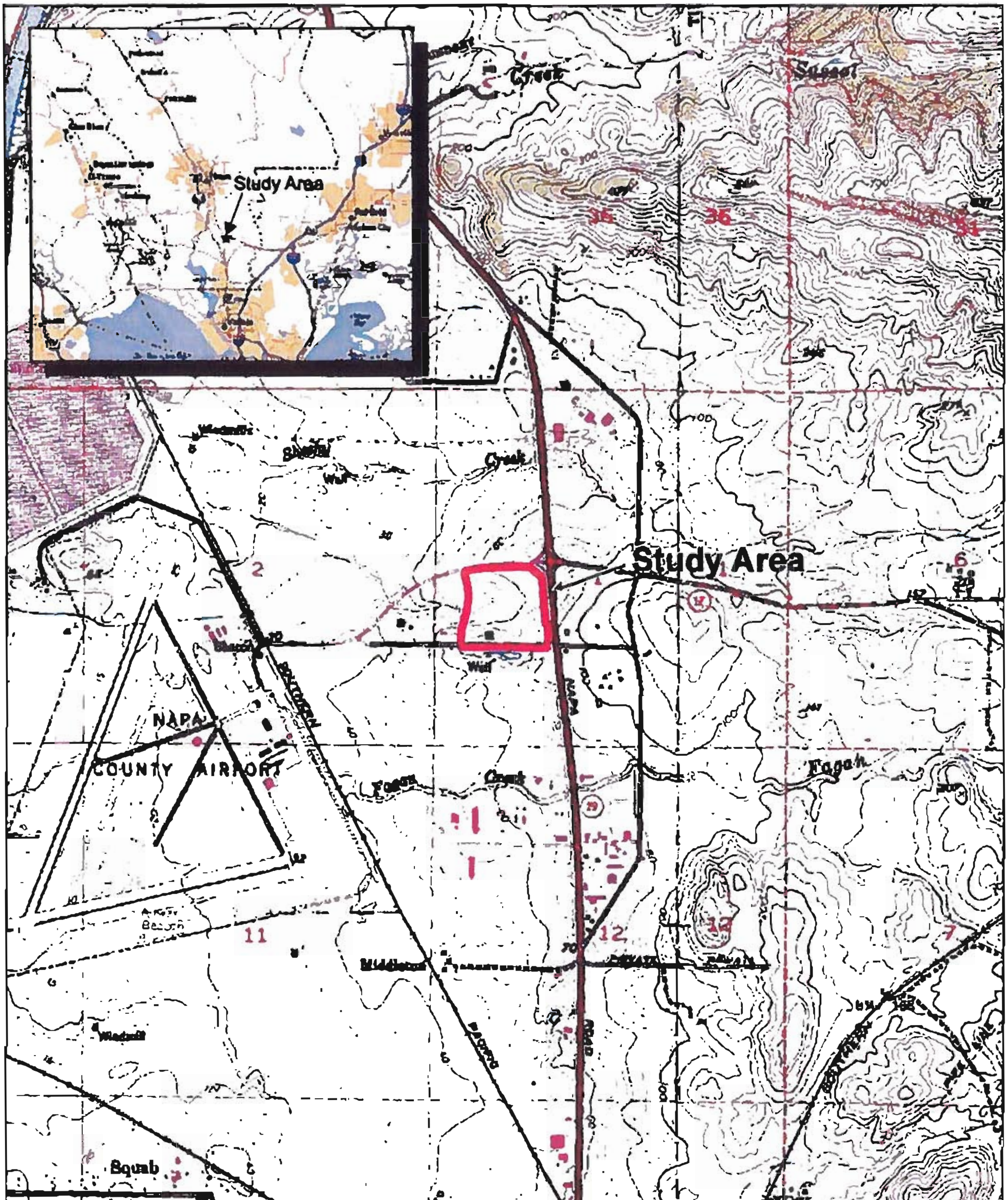
- Identify and describe the biological communities present in the study area.
- Record plant and animal species observed in the study area.
- Evaluate and identify sensitive resources and special-status plant and animal species that could be affected by project activities.
- Provide conclusions and recommendations.

METHODS

Literature Review

A variety of resources were used in this assessment. An aerial photo was obtained from 2007 (taken in July, 2007), and TLA Engineering and Planning Inc. supplied the digital base files, including a topographic map of the site. Geological information was taken from the Geologic Map of California, Santa Rosa Sheet (California Department of Conservation 1963). Information on soils was taken from the Soil Survey Geographic (SSURGO) Database for Napa County, California (USDA, NRCS 2006).

Several publications were reviewed to provide information on life history, habitat requirements, distribution, and conservation status of regionally occurring animal



N

0 500 1,000 2,000
Scale in Feet

NOTES
Base map: Cuttings Wharf, CA, USGS
7.5 minute topographic quadrangle
Section: 1
Township: 04N
Range: 04W

north fork

Figure 1

Site & Vicinity

Napa Commerce Center

Napa County, California

north fork

N

0 250 500

Scale in Feet

NOTES:
Aerial Photo Date: July 2007

Figure 2

Aerial Photo Map
Napa Commerce Center
Napa County, California

Species	Status* Federal	State	Other	Habitat	Potential for Occurrence**
Showy Indian clover *Trifolium amoenum*	FE	-	CNPS List 1B.1	Valley and foothill grasslands.	Possible. Marginal habitat is present onsite, and the species is known historically from Napa Junction. Disturbance may preclude this species.
Invertebrates					
Conservancy fairy shrimp *Branchinecta conservatio*	FT	-	-	Vernal pools.	Unlikely. Limited suitable habitat present. No individuals observed during field surveys.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	-	-	Vernal pools.	Unlikely. Limited suitable habitat present. No individuals observed during field surveys.
Amphibians					
California red-legged frog *Rana aurora draytonii*	FT	CSC	-	Lowlands and foothills in ponds, deeper pools, and slow moving streams, usually with emergent vegetation.	None. No habitat onsite for breeding or dispersal.
Birds					
White-tailed kite *Elanus leucurus*	-	CFP	-	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near grasslands.	Observed. Foraging habitat occurs onsite, and potential nesting habitat is nearby.
Burrowing owl *Athene cunicularia*	-	CSC	-	Nests in annual and perennial grasslands in burrows created by small mammals.	Possible. Marginal habitat is present, although burrows are not common. Not likely to use the site when dense vegetation is present.

Species	Status* Federal	State	Other	Habitat	Potential for Occurrence**
Swainson's hawk *Buteo swainsoni*	-	CT	-	Nests in trees located adjacent to large open areas, such as grasslands and agricultural fields.	Possible. Marginal foraging habitat is present when vegetation is removed to reduce the fire hazard. Known nesting location approximately 1.25 miles to the north.

*Status Codes:

Federal

FE	Federal Endangered
FT	Federal Threatened
FP	Federal Proposed Species

State

CE	California Endangered
CT	California Threatened
CR	California Rare (plants only)
CSC	California Species of Concern
CFP	California Fully Protected

CNPS

List 1B	Rare, Threatened, or Endangered in California
List 2	R, T, or E in California, more common elsewhere

1- Seriously threatened in California
2- Fairly threatened in California
3- Not very threatened in California

**Definitions for the Potential to Occur:

- None. Habitat does not occur.
- Unlikely. Some habitat may occur, but disturbance or other activities may restrict or eliminate the possibility of the species occurring. Habitat may be very marginal, or the study area may be outside the range of the species.
- Possible. Marginal to suitable habitat occurs, and the study area occurs within the range of the species.
- Likely. Good habitat occurs, but the species was not observed during surveys.
- Occurs: Species was observed during surveys.

Plants

The potential for occurrence for species in Appendix C and Table 2 were evaluated before the March and May 2008 surveys and again prior to the April 2009 survey. Based on the results of those surveys, these lists were revised. The high level of past and present disturbance, and the presence of very tall, dense vegetation, probably precludes the presence of species that may have had suitable habitat historically.

Big-scale balsam-root (*Balsamorhiza macrolepis* var. *macrolepis*) is an herbaceous perennial member of the sunflower family (Asteraceae). It has no state or federal status, but it is on the CNPS List 1B. This species has large yellow flowering heads and leaves that arise from the ground. It differs, in part, from other balsam-roots by having coarsely serrate leaves. Big-scale balsam-root grows in open woodlands and grasslands at widely scattered locations in northern California, and will tolerate serpentine soil. It blooms from March to June.

Historically, the study area may have provided some habitat for this species, and the Jepson Herbarium has a specimen from the hills near American Canyon (although this was on serpentine soil). The high levels of disturbance and the thick cover of non-native species may preclude the presence of big-scale balsam-root in the study area. No

members of the genus *Balsamorhiza* or the similar genus *Wyethia* were found during surveys. Big-scale balsam-root has distinctive leaves that would have been evident in the March or May 2008 surveys or in the April 2009 survey, even without blooms. This species is presumed to be absent from the study area.

Pappose tarplant (*Centromadia parryi* subsp. *parryi*) is an annual member of the sunflower family (Asteraceae). It has no state or federal status, but is on the CNPS List 1B. It differs from related species and subspecies by having dark anthers and glandular herbage. Pappose tarplant grows in a variety of wetlands that are often saline or alkaline from Butte and Glenn Counties south to Monterey County. It blooms between May and November.

Very marginal habitat for the pappose tarplant is present. However, all specimens in the Consortium of California Herbaria for Napa County are near Calistoga. Specimens from Solano County are from the area around Suisun Bay near Cordelia. The wetlands in the study area provide habitat, and this species, if present, it would have been identifiable in May 2008. This species is presumed to be absent from the study area.

Contra Costa goldfields (*Lasthenia conjugens*) is an annual member of the sunflower family (Asteraceae). It is a federal endangered species with CNPS List 1B status. It differs from other goldfields by having phyllaries fused less than ½ their length and with mostly pinnately cut leaves. Contra Costa goldfields occurs in mesic grasslands and vernal pools in a number of Bay Area counties. It blooms from March to June.

The wetlands in the study area provide marginal habitat for this species, and it apparently tolerates some level of disturbance. It is known to occur on Suscol Ridge northeast of the study area. As a genus, *Lasthenia* is recognizable without flowers, and no members of the genus were observed in the March or May 2008 surveys or in the April 2009 survey. This species is presumed to be absent from the study area.

Dwarf downingia (*Downingia pusilla*) is a small annual member of the bellflower family (Campanulaceae). It has no state or federal status. The CNPS places the dwarf downingia on their List 2, meaning that, although it is rare in California, it is more widespread elsewhere. Dwarf downingia also occurs in Chile where the type specimen was collected. Dwarf downingia is distinguished from other members of the genus by having very small flowers that are not upside down at blooming time. The species is an obligate wetland plant that occurs primarily in vernal pools. It blooms from March to May, depending on the amount and distribution of winter rains.

Marginal habitat for dwarf downingia occurs in the wetlands of the study area, and the species is known to occur at several locations near Napa. No members of the genus *Downingia* were observed during March or May 2008 surveys or in the April 2009 survey. This species is presumed to be absent from the study area.

Hayfield tarweed (*Hemizonia congesta* supsp. *congesta*) is an annual member of the sunflower family (Asteraceae). It has no state or federal status and is on the CNPS List 1B.1. The taxonomy of Hemizonia is confused, and the treatment in The Jepson Manual (Hickman 1993) is substantially different than the treatment in the Flora of North

America (FNA) by Baldwin and Strother (2006). The authors for the FNA treatment of Hemizonia are the same as for The Jepson Manual (second edition, unpublished), so there is reason to believe that the FNA treatment will be followed.

Marginal habitat for hayfields tarweed occurs in the open ruderal grassland areas for the study area. No members of the genus *Hemizonia* were observed during the March or May 2008 surveys or in the April 2009 survey. This species is presumed to be absent from the study area.

Sebastopol meadowfoam (*Limnanthes vinculans*) is an annual member of the meadowfoam family (Limnanthaceae). It has state and federal endangered status and is on the CNPS List 1B.1. Sebastopol meadowfoam has white flowers and entire leaves. It grows in vernal pools and other wet habitats in Napa and Sonoma Counties. Sebastopol meadowfoam blooms in April and May.

Marginal habitat for Sebastopol meadowfoam occurs in the wetland in the study area. No members of the genus *Limnanthes* were observed during the March and May 2008 surveys or in the April 2009 survey. This species is presumed to be absent from the study area.

Showy Indian clover (*Trifolium amoenum*) is a robust, annual member of the pea family (Fabaceae) that is listed as endangered by the USFWS. It has no state status, but it is on the CNPS List 1B. Showy Indian clover was thought to be extinct, but has recently been found in the North Bay. It is similar to the widespread *T. albopurpureum*, but it has much larger flowers. Showy Indian clover grows in moist grasslands, ditches, and other disturbed areas. It blooms from April to June.

Showy Indian clover grows in heavy, disturbed soils. Whether it tolerates long-term disturbance, such as that in the study area is unknown. Consequently, the study area may provide marginal habitat, and is known historically from Napa Junction. No unknown species of *Trifolium* were found during the March or May 2008 surveys or in the April 2009 survey. This species is presumed to be absent from the study area.

Wildlife

Numerous state and federally listed species are known to occur in the region surrounding the study area, including the **California freshwater shrimp** (*Syncaris pacifica*), **California tiger salamander** (*Ambystoma californiense*), **California clapper rail** (*Rallus longirostris obsoletus*), **California black rail** (*Laterallus jamaicensis coturniculus*), **western snowy plover** (*Charadrius alexandrinus nivosus*), and the **saltmarsh harvest mouse** (*Reithrodontomys raviventris*). Each of these species occurs in specific habitats in the Napa region and is known to occur in the region surrounding the study area. Collectively, these species occur within a range of specific environmental conditions that include vegetation characteristics, water depth, inundation duration, and water quality. None of the specific habitats for these species occur onsite and they are, therefore, not discussed further in this document.

Conservancy fairy shrimp (*Branchinecta conservatio*), a federally endangered species, is a small crustacean in the Branchinectidae family. This species inhabits somewhat large,

cool water vernal pools with moderately turbid water (USFWS 2005a). Similar to other vernal pool crustaceans, the life cycle of Conservancy fairy shrimp is closely tied to the ephemeral conditions of the pool in which they live. Vernal pools that support Conservancy fairy shrimp generally persist until June. The average age of maturity is 49 days, and individuals may live up to 154 days. The female fairy shrimp carries its eggs in a brood sac. Eggs then either drop to the bottom of the pool or remain in the brood sac until the mother dies and sinks to the pool bottom. The eggs subsequently dry out as the pool dries at the end of the rainy season. The resting eggs, known as cysts, remain in the dry pool bed until rain stimulates hatching in the following season. Hatching of the eggs can begin within the same week that the pool starts to fill with rainwater

A site assessment and surveys for vernal pool crustaceans by Monk & Associates determined that the study area may provide suitable habitat for this species. Wet season surveys conducted in 2009 determined negative findings for this species. Final survey reports are pending.

Vernal pool fairy shrimp (*Branchinecta lynchi*), a federally-listed threatened species, resides and breeds in vernal pools from Mt. Shasta south to Riverside County. The vernal pool fairy shrimp occupies a variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. The ephemeral life span of the fairy shrimp reduces the limiting factors on their population. They are unlikely to be heavily preyed upon by other vernal pool inhabitants because they use the pool before the majority of carnivorous insects have colonized the pool. Vernal pool fairy shrimp have been collected from early December to early May. Resting fairy shrimp eggs are known as cysts and are capable of withstanding heat, cold, and prolonged desiccation. When the pools refill in springtime some of the cysts may hatch, other cysts may remain in the soil. Average time to maturity is between 18 and 41 days depending on the temperature of the pool.

A site assessment and surveys for vernal pool crustaceans by Monk & Associates determined that the study area may provide suitable habitat for this species. Wet season surveys conducted in 2009 determined negative findings for this species. Final survey reports are pending.

California red-legged frog (*Rana aurora draytonii*), a federally-listed threatened species and a California Species of Special Concern, breeds in permanent and semi-permanent aquatic habitats, such as cold-water ponds, slow-moving streams, and deep pools in intermittent streams. Inhabited waters typically are at least two feet deep and contain emergent and shoreline vegetation that provides cover from predators and depositional sites for eggs. This species is associated most frequently with arroyo willow (*Salix lasiolepis*), cattail (*Typha* spp.), and bulrush (*Schoenoplectus* spp.). During dry periods, California red-legged frog will aestivate in ground-squirrel burrows, earthen cracks, and under boulders and logs. Aestivation habitat can occur up to 300 feet from aquatic habitats.

The wetland swale on site is ephemeral and does not provide suitable breeding habitat. Monk & Associates conducted a site assessment in accordance with current USFWS protocols (USFWS 1996). This assessment determined that the study area has no

breeding or dispersal habitat, and that development on the site would not affect the CRLF. The assessment report has not yet been completed, but will be submitted to the USFWS for review and concurrence upon completion.

White-tailed kite (*Elanus leucurus*), a California fully protected species, is an uncommon to locally fairly common resident and is typically found in grassy foothill slopes interspersed with oaks (including interior live oak, agricultural areas, and marshy bottomlands). They generally forage in undisturbed open grasslands, farmlands, meadows, and emergent wetlands, in areas with a high prey base. Nest trees range from single isolated trees to trees within larger stands. Nests of white-tailed kite are constructed near the top of oaks, willows, or other tall trees from 20 to 100 feet above ground. Breeding takes place from February to October, with peak activity from May to August. Incubation lasts between 28 and 30 days, and young usually fledge by October.

Burrowing owl (*Athene cunicularia*) is a California species of special concern. This species is primarily associated with open, dry grasslands, deserts, agricultural areas, and rangeland. They often occur where numerous burrowing mammals are present and frequently occupy California ground squirrel burrows (Zeiner et al. 1990). Burrowing owls may also use man-made structures such as debris piles, culverts, and cement piles for cover. Distinctive burrow characteristics for burrowing owl are not known. However, given the size of this owl, burrow entrances are expected to be at least seven centimeters in diameter. Circumstantial evidence of burrowing owl occurrence within an area typically consists of the presence of molted feathers, cast pellets, prey remains, or excrement near a burrow entrance. Breeding of burrowing owl occurs from March to late August and incubation lasts between 28 to 30 days. Young are fledged at about 44 days but remain near the burrow and join the adults to forage at dusk. Young burrowing owls often establish nest sites the following year near their natal sites.

No burrowing owls and little evidence of suitable nesting habitat was observed during field surveys. Vegetation on much of the study area was three to four feet high during the March plant surveys, and burrowing owls generally avoid tall vegetation. During the spring or summer, vegetation is often removed, and this activity may provide better nesting and denning habitat.

Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species pursuant to the California Endangered Species Act. Although it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act. Swainson's hawks, their nests, eggs, and young are also protected under provisions of the California Fish and Game Code.

The Swainson's hawk is generally a summer visitor to California. During the fall, most Swainson's hawks migrate to South America before returning to the United States to breed once again in the late spring. The nesting population of Swainson's hawks in California has declined greatly due primarily to habitat loss. This raptor inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands. It nests almost exclusively in trees and will nest in almost any tree species that is at least 10 feet tall. Nests are constructed in isolated trees that are dead or alive along drainages and in wetlands, or in windbreaks in fields and around farmsteads.

Foraging habitats include alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture. The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. Its primary prey in the Central Valley is California meadow vole. Agricultural and other disturbed areas are often preferred over more natural grassland habitats because these activities tend to allow more access to prey species. During the nesting season Swainson's hawks usually forage within two miles of the nest.

A known nesting location occurs approximately 1.25 miles north of the study area. The eucalyptus trees on the adjacent site may provide nesting habitat. During portions of the year the study area supports a dense growth of mustard and grasses that is not suitable foraging habitat. However, vegetation is often removed in the spring or summer by disking to reduce the fire hazard, and this activity may result in more suitable foraging habitat.

POTENTIAL IMPACTS FROM DEVELOPMENT

Special-status plant surveys are complete and it seems unlikely that development of the site would adversely affect any special-status species (plant or animal). The main community on the site is ruderal grassland, and this is not a habitat warranting protection. The wetland swale is highly degraded and the water source is largely from developments upstream of the site. Nevertheless, the Corps of Engineers would consider the loss of waters of the United States to be significant if left unmitigated. The use of an in-lieu fund or mitigation bank is probably the most environmentally viable method of mitigating these losses.

RECOMMENDATIONS

Waters of the United States

1. The study area has areas considered waters of the United States. Activities that affect these areas would require a permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act. The project would also need to obtain a water quality certification from the Regional Water Quality Control Board pursuant to Section 401 of the federal Clean Water Act. The Corps and the Regional Board would add conditions to the permits that would stipulate the appropriate mitigation, which could include one or more of the following: onsite creation, offsite creation, purchase of credits in a mitigation bank, or payments to an in-lieu fund. The precise mitigation and monitoring requirements would depend on the extent of impacts.

Streams and Riparian Habitat

1. The applicant intends to submit a 1602 application to CDFG to the extent that future development would impact the swale.

Other Trees

1. The site does not support oak woodland habitat, but does have several coast live oaks located along the southern study area boundary.

Special-Status Plants

1. Several special-status plants have at least some potential to occur in the study area. Rare plant surveys were conducted in March and May 2008 and in April 2009. These surveys were floristic and conducted according to guidelines issued by the CDFG and the USFWS. No rare plant species were observed during surveys and no further surveys are recommended.

Special-Status Wildlife

1. Protocol level survey reports for vernal pool crustaceans have not yet been completed. Final survey results will be submitted to the USFWS for review and concurrence.
2. A site assessment for the CRLF was completed and determined that there were no occurrences of this species in the study area, nor does the site provide suitable habitat for this species. The assessment report has not yet been completed, but will be submitted to the USFWS for review and concurrence upon completion.
3. The study area provides suitable nesting habitat for raptors (including white-tailed kite and red-tailed hawk), in the coast live oak trees onsite. If construction occurs during the typical breeding season (approximately March 1 through August 31), and is within 500 feet of the trees, potential disturbance of nesting activities could occur. Take of any active raptor nest is prohibited under Fish and Game Code Section 3503.5. To avoid take of active raptor nests, pre-construction surveys should be conducted by a qualified biologist no more than 30 days prior to initiation of proposed development activities. Survey results should then be submitted to CDFG. If active raptor nests are found on or immediately adjacent to the site, consultation should be initiated with CDFG to determine appropriate avoidance measures. If no nests are found, tree removal could proceed without further surveys.
4. Dense vegetation in the study area during the late winter and early spring may prevent burrowing owls from nesting there. In addition, the study area may lack the small mammal burrows used for nesting. A nesting survey should be conducted for western burrowing owl 30 days prior to construction of the project. Burrowing owl surveys shall be conducted according to the methodologies prescribed by CDFG in their 1995 *Staff Report on Burrowing Owl Mitigation* (CDFG 1995). If burrowing owls are found during surveys, CDFG should be contacted for the appropriate avoidance and mitigation measures.
5. The coast live oaks trees in the study area are unlikely to support nesting Swainson's hawks because of nearby human activities. Nevertheless, portions of the study area may provide foraging habitat. A nest is known to occur within 1.25 miles of the study area, and CDFG considers all suitable areas within a 10-mile radius of a nest to be foraging habitat. CDFG has produced a report titled *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California* (CDFG

1994) that describes potential mitigation for foraging habitat. The applicant should consult with CDFG to determine what, if any, mitigation might be required.

6. The study area provides suitable nesting habitat for a number of common and special status bird species. These birds, although not listed as threatened or endangered by either FESA or CESA, are protected under the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503 and 3513. Both the federal act and state code prohibit the intentional take of nests of any migratory bird species. Standard recommendations include removal of vegetation outside of the typical nesting season (April through August). If nesting habitat is to be removed during the nesting season, it is recommended that consultation should be initiated with CDFG to determine appropriate avoidance measures. If no nests are found, vegetation removal could proceed without further surveys.

Attachment C - OmniMeans Engineering and Planning, *Napa Commerce Center Light-Industrial Project Traffic Impact Analysis - Final Report*, February 2010 (sans appendices)

Napa Commerce Center Light-Industrial Project Traffic Impact Analysis

Final Report

Prepared For:
The County of Napa

At the Request of:
Napa 34 Holdings, LLC

February, 2010

Prepared By:

omni · means
ENGINEERS · PLANNERS

NAPA COMMERCE CENTER LIGHT-INDUSTRIAL PROJECT
TRAFFIC IMPACT ANALYSIS

FINAL REPORT

PREPARED FOR:
THE COUNTY OF NAPA

AT THE REQUEST OF:
NAPA 34 HOLDINGS, LLC

PREPARED BY:

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FEBRUARY 2010

35-4853-01
(R1409T1A002.DOC)

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INTRODUCTION

This report presents the results of a traffic impact analysis performed by OMNI-MEANS for the proposed Napa Commerce Center project in the Napa Airport Industrial Area (NAIA). The proposed project would consist of 490,503 square feet of light-industrial uses and would be located on the southeast quadrant of the Airport Boulevard/Devlin Road intersection just west of State Route 29 (SR-29). Figure 1 illustrates the Project Location and Vicinity Map. Based on discussions with County Transportation Engineering staff, the traffic issues for this development relate to operations at key intersections along Airport Boulevard, Devlin Road, and proposed project access. Some of the key issues evaluated in this study include the following:

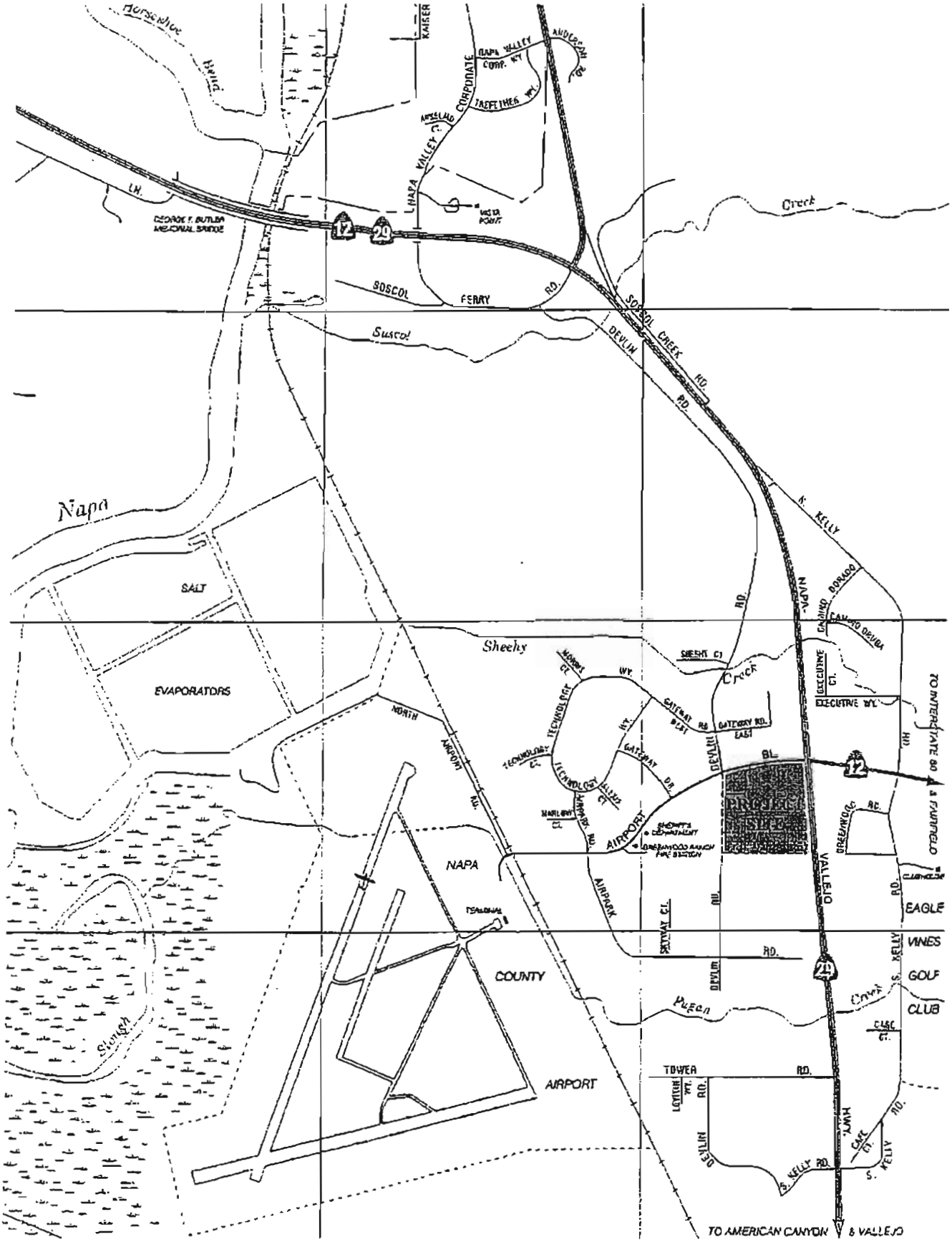
- Peak hour traffic operations along SR-29 and internal intersections within the NAIA;
- Vehicle queuing and storage capacity at key study intersections;
- Project driveways on Airport Boulevard and Devlin Road and their relationship to other nearby intersections and driveways;
- Existing plus project traffic operations;
- Consistency with the ongoing NAIA TIF Update transportation analysis (pending availability of that analysis).

Based on discussions with County Engineering staff, both Existing traffic conditions and Existing plus Proposed Project traffic conditions have been analyzed as part of a comprehensive transportation and circulation analysis. It is noted that short-term development volumes from the adjacent Greenwood Business Park project (to be located immediately west of the project site off Devlin Road [extension]) have been included in Existing plus Proposed Project traffic conditions. Both the Greenwood Business Park and Proposed Project would share common access intersections on Devlin Road and both projects would be adding traffic volumes at outlying study intersections on Soscol Ferry Road, Airport Boulevard, SR-29, and SR-12.

For the purposes of this study the following scenarios were analyzed:

- Existing Traffic Conditions: Represents existing traffic flow conditions collected through new field counts and/or previous traffic counts for the five existing study intersections. Points of congestion and vehicle delays are noted for both the AM and PM peak commute hours;

- Existing plus Project Traffic Conditions: Proposed project trips and approved Greenwood Business Park project trips added to existing traffic volumes to determine overall project impacts.



Project Location and Vicinity Map

North

omni-means

figure 1

EXISTING CONDITIONS

Existing conditions describe the existing transportation facilities serving the project site.

EXISTING ROADWAYS

Roadways that provide primary circulation in the vicinity of the project site are as follows:

Airport Boulevard is a major east-west arterial street that extends in a westerly direction from SR-29/SR-12 (Jamison Canyon Road) and provides primary vehicle access to/from the NAIA. From SR-29, Airport Boulevard has four travel lanes with raised landscaped median and left-turn pockets at major intersections within the NAIA. At North Airport Road (west of Railroad Tracks), the roadway narrows to two travel lanes. Providing access to light-industrial /warehouse uses, Airport Boulevard also provides access to the Napa County Airport located in the far western portion of the NAIA. Airport Boulevard would provide direct access to the proposed project via a limited access driveway (right-turns-only inbound/outbound).

Devlin Road extends in a north-south direction between Soscol Ferry Road and Airport Boulevard. This roadway parallels SR-29 on its west side providing access to commercial and light/industrial areas. For most of its length Devlin Road is a wide, two-lane street. Prior to its connection with Airport Boulevard, Devlin Road widens to four travel lanes with painted and raised medians. In this last 1,800 feet, Devlin Road provides access to both light-industrial and office areas. Devlin Road would provide direct access to the project site via an extension south of Airport Boulevard to the southern project boundary. Currently, Devlin Road does not extend south of Airport Boulevard. However, from the proposed project's southerly boundary there is a connection to a part-width segment of Devlin Road which continues south to Airpark Road.

Aviation Way extends in a southeast direction from Airport Boulevard a relatively short-distance (400 feet) and terminates in a cul-de-sac just east of the existing fire station. This roadway has been improved and is a wide two-lane segment adjacent to the Greenwood Ranch Fire Station (with access to both Airport Boulevard and Aviation Way).

Airpark Road extends both north and south of Airport Boulevard. South of Airport Boulevard, Airpark Road is a wide, two-lane street that provides access to warehouse/office development within the NAIA. This southern segment of Airpark Road eventually extends east-west (south of the project site) to provide access to Skyway Court and Devlin Road. North of Airport Boulevard, Airpark Road extends to Technology Way and has two travel lanes.

Gateway Drive is located west of the project site and extends north of Airport Boulevard to Technology Way and provides access to office and light-industrial areas. Gateway Drive is a wide, two-lane roadway with a two-way-left-turn lane.

Soscol Ferry Road is located in the northern portion of the NAIA. A two-lane roadway, Soscol Ferry Road extends from SR-29 in a westerly direction and provides access to light-industrial and storage areas. The roadway provides a key connection between SR-29 and Devlin Road.

Kelly Road (North and South) extends in a north-south direction and parallels SR-29 on its east side. North Kelly Road extends between SR-12 and SR-29 with two travel lanes and left-turn lanes at Camino Dorado and Executive Way. In this section, N. Kelly Road provides access to commercial and manufacturing areas. S. Kelly Road extends between SR-12 and SR-29 with two travel lanes and provides access to commercial areas east of SR-29.

Regional access to the project site is primarily provided by ***State Route 29 and State Route 12.*** A four-lane facility, SR-29 extends north through Napa County and south to American Canyon and Vallejo. State Route 12 (Jamison Canyon Road) extends east from SR-29 at Airport Boulevard to Interstate 80 and beyond to Cordelia, Fairfield, and Rio Vista. In the study area, SR-12 has two eastbound travel lanes and one westbound travel lane.

EXISTING INTERSECTIONS

Intersection operation (as compared to roadway segments) is usually considered the major factor in determining the traffic handling capacity of a local circulation system. The following list of study intersections have been chosen by County Transportation staff for both existing and proposed project operating conditions.[1] To assess vehicle traffic flows on key streets in the project study vicinity, both AM and PM peak period (7:00-9:00 a.m. and 4:00-6:00 p.m.) intersection turning movement counts were obtained for the following five intersections within the project study area as follows:[2]

1.	Soscol Ferry Road/SR-29/SR-12	Signalized
2.	Soscol Ferry Road/Devlin Road	Unsignalized (Stop control for Devlin Rd.)
3.	Airport Boulevard/Devlin Road	Signalized
4.	Airport Boulevard/SR-12/SR-29	Signalized
5.	Kelly Road/SR-12	Signalized

Existing study intersections' AM and PM peak hour traffic volumes are shown on Figure 2.

INTERSECTION LEVEL-OF-SERVICE (LOS) CONCEPT/OPERATION

Intersection LOS provides the most accurate measure of operational performance with a scale ranging from LOS A-F (see Table 1—LOS Definition Criteria). These ratings correspond to an average vehicle delay expressed in seconds. LOS A represents relatively free-flow conditions with little delay at intersections. LOS E represents unstable or unbalanced flow conditions with volumes at or near design capacity. LOS F represents a significantly congested condition where traffic flows can exceed design capacities resulting in long vehicle queues and delays from the minor-street driveway.

Signalized AM and PM peak hour intersection LOS calculations have been calculated based on the *Highway Capacity Manual 2000, Fourth Edition,* using HCM operations methodology and Synchro/Simtraffic modeling software. Unsignalized intersections have also been calculated using *HCM 2000* methodology. For stop-sign controlled intersections, intersection LOS typically refers to the minor street (stop-sign controlled approach) and yields a vehicle delay in seconds.

This traffic impact analysis provides a "planning level" evaluation of traffic condition, which is considered sufficient for CEQA/NEPA clearance purposes. The "planning level" evaluation incorporates appropriate heavy vehicle adjustment factors, peak hour factors, and signal lost-time factors. LOS operations have been analyzed using HCM-2000 methodologies for determining intersection delay, incorporating the aforementioned factors.

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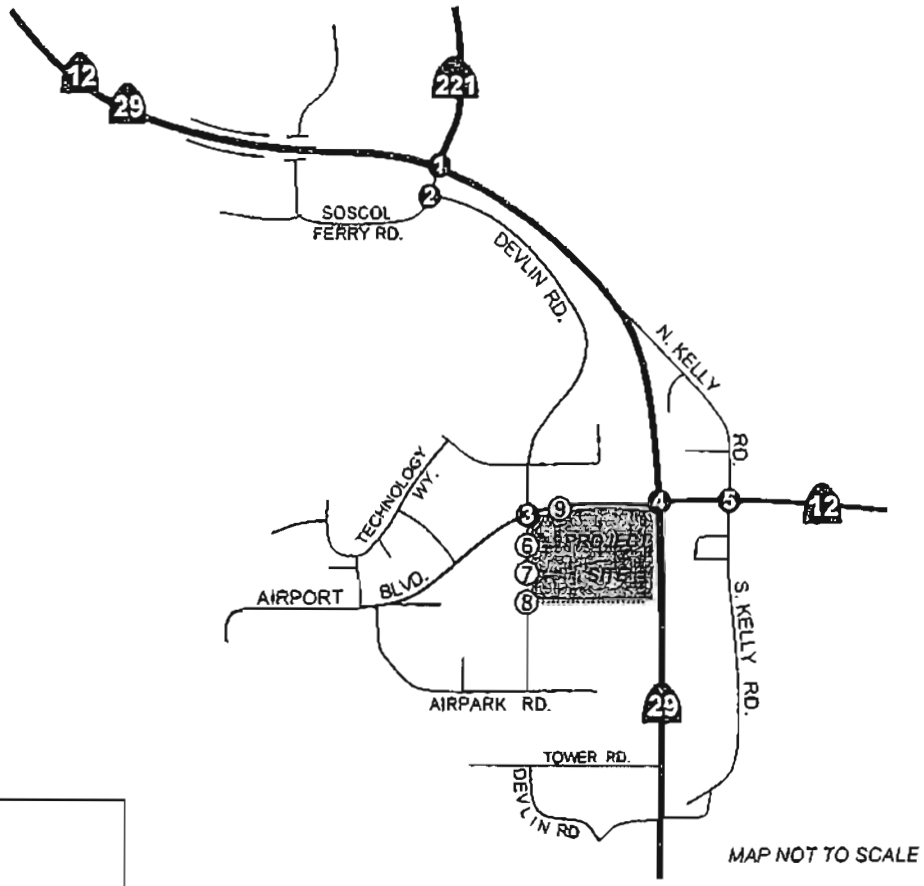
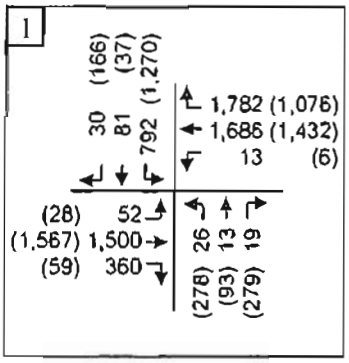
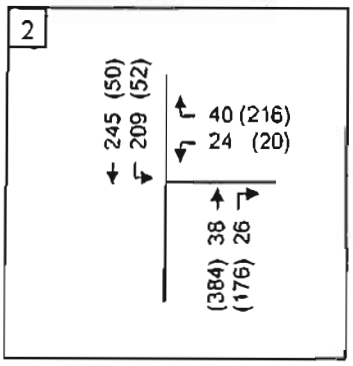
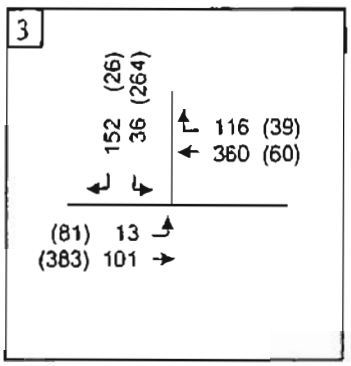
[1] *Mr. Rick Marshal, Traffic Engineer, County of Napa, Personal communication, September7, 2009.*

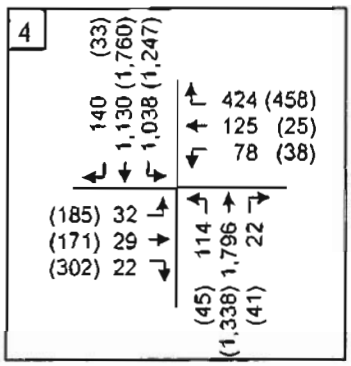
[2] *Napa County, AM and PM (7:00-9:00 a.m. & 4:00-6:00 p.m.) peak period intersection counts at Airport Boulevards, June 2-4, 2009.*

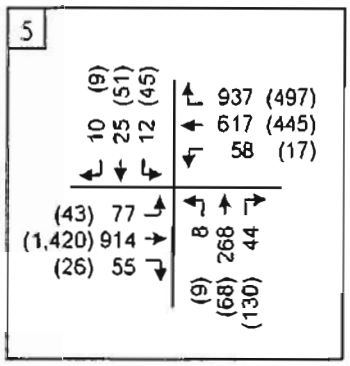












Existing Volumes
A.M. and (P.M.) Peak Hour

North

omni-means

figure 2

TABLE 1
LEVEL-OF-SERVICE CRITERIA FOR INTERSECTIONS

Level of Service	Type of Flow	Delay	Maneuverability	Control Delay (seconds/vehicle) Signalized	Unsignalized	All-Way Stop
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10.0 secs. ≤ 0.60 v/c	≤ 10.0	≤ 10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10 and ≤ 20.0 secs. 0.61 – 0.70 v/c	>10 and ≤ 15.0	>10 and ≤ 15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20 and ≤ 35.0 secs. 0.71 – 0.80 v/c	>15 and ≤ 25.0	>15 and ≤ 25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles of stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35 and ≤ 55.0 secs. 0.81 – 0.90 v/c	>25 and ≤ 35.0	>25 and ≤ 35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55 and ≤ 80.0 secs. 0.91 – 1.00 v/c	>35 and ≤ 50.0	>35 and ≤ 50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	> 80.0 secs. > 1.00 v/c	> 50.0	> 50.0

References: 1. Highway Capacity Manual, Fourth Edition, Transportation Research Board, 2000, Contra Costa Transportation Authority (CCTA), Technical Procedures Update, Final, July 9, 2006. For the purposes of this study, CCTA intersection methodology has been used for signalized intersections yielding an LOS and v/c ratio.

A standard peak hour factor (PHF) of 0.92 is typically applied to all analysis scenarios in this study (the PHF refers to progression of approach traffic through the signal). A minimum traffic signal cycle length of 90 seconds will be used at signalized intersection locations (except where field measurements differ), with 4 seconds of "lost time" per critical signal phase. Study intersection LOS calculations results/inputs have been based on the ongoing NAIA TIF Update supplied by Napa County Transportation staff.

Field observations indicate traffic volumes in the study area tend to be directional in nature reflecting an inbound flow (south to north) to the Napa Valley in the morning commute period and an outbound flow (north to south) during the evening commute period. The same conditions are true for the NAIA, with a predominantly inbound flow during the AM commute period and outbound flow during the PM commute period. Significant vehicle queuing occurs at both study intersections located along SR-29 at Soscol Ferry Road and at Airport Boulevard and SR-12. During the AM peak hour, most of these vehicle queues clear the intersection within the allotted green time for each turning movement. However, during the PM peak hour this does not always occur with some turning movements taking 2-3 cycle lengths to clear the intersections.

As shown in Table 2, the Soscol Ferry Road/SR-29 intersection is currently operating at unacceptable conditions (LOS E-F) during the AM and PM peak hours. As noted, this intersection experiences congestion and vehicle queuing during the peak commute periods. All remaining project study intersections are operating at acceptable levels (LOS D or better) during the peak hours.

TABLE 2
EXISTING CONDITIONS: INTERSECTION LEVELS-OF-SERVICE

			AM Peak Hour		PM Peak Hour	
#	Intersection	Control Type	Delay (secs.)	LOS	V/C Ratio	LOS
1	Soscol Ferry Rd./SR-29	Signal	61.1	E	> 80.0	F
2	Soscol Ferry Rd./Devlin Road	Stop	17.6	C	15.8	C
3	Airport Boulevard/Devlin Blvd.	Signal	11.3	B	10.4	B
4	Airport Boulevard/SR-29/SR-12	Signal	41.4	D	35.1	D
5	Kelly Road/SR-12	Signal	52.5	D	26.7	D

Signalized intersection calculations based on HCM 2000 operations methodology which yields an intersection LOS and vehicle delay in seconds.

TRAFFIC SIGNAL WARRANT ANALYSIS

A supplemental traffic signal warrant analysis has been completed to determine whether the Soscol Ferry Road/Devlin Road study intersection may require or benefit from the installation of a traffic signal. The term "signal warrant" refers to any of the eight established methods used by Caltrans to quantify the need for a traffic signal at an unsignalized intersection. The eight signal warrant methods are described in the latest edition of the California Manual on Uniform Traffic Control Devices (MUTCD).

The California MUTCD indicates that the installation of a traffic signal should be considered only if one or more of the eight signal warrants are met. This traffic analysis has performed the peak hour volume-based Warrant #3 on this intersection. The peak hour volume warrant refers to a combination of minor street volume (100 vehicle minimum) and major street volumes (400-1,400 vehicles) that would qualify an intersection for a signal during the peak commute hour. The results of the signal warrant analyses may indicate that a traffic signal could be beneficial to the operations of an intersection. The final decision to install a traffic signal should, however, be based upon further studies utilizing additional warrants as presented in the California MUTCD.

At this time, the Soscol Ferry Road/Devlin Road unsignalized intersection would not qualify for signalization

under MUTCD warrant #3 peak hour volume criteria due to minor street (and major street) volumes being too low.

EXISTING VEHICLE QUEUING ANLAYSIS

Vehicle queuing operations have also been quantified as part of this analysis. Vehicular queuing projections have been estimated utilizing *SimTraffic* micro-simulation software developed by *TrafficWare*. The queuing analysis has focused on intersection operation along Airport Boulevard and Devlin Road under existing and proposed project conditions. However (as noted previously), there is significant vehicle queuing on SR-29 in both the north-south directions during the AM and PM commute periods. Vehicle queuing projections are provided in terms of the 95th percentile queue lengths. The design queue is taken as the 95th percentile queue length.

The results of the Existing conditions queuing analysis are presented in Table 3. The available storage lengths are based on measurements from aerial photographs and field measurements. As calculated, vehicle queuing problems occur at the following intersections:

- Soscal Ferry Road/SR-29: The analysis indicates that the northbound approach of Soscol Ferry Road/SR-29 intersection experiences queuing problems during the PM peak hour. This would include both the northbound left-turn lane (280-foot queue) and the shared through/right-turn lane (621-foot queue). However, overall intersection operation during this time period is LOS F (>80.0 seconds). Typically, calculated vehicle queues are not accurate once an intersection's LOS exceeds F. Existing LOS not withstanding, long vehicle queues (500 + feet) were observed at all four intersection approaches during the PM peak hour.

- Airport Boulevard/SR-29/SR-12: The analysis indicates that the westbound approach of Airport Boulevard/SR-29/SR-12 intersection experiences queuing problems during the PM peak hour. Specifically, the westbound through-lane approach on SR-12 has a 219-foot queue with approximately 175-feet of storage capacity. However, these vehicle queues just extend back (east) onto SR-12 in the existing through-lane towards Kelly Road.

All other study intersection approaches within the NAIA have adequate vehicle storage. Vehicle queuing on SR-29 is extensive during the AM and PM commute periods. At times, north-south vehicle queues on SR-29 are extensive enough to prevent motorists from accessing other turning movement lanes at the Soscol Ferry Road/SR-29 and Airport Boulevard/SR-29/SR-12 intersections.

SIGNIFICANCE CRITERIA

The County of Napa's significance criteria has been based on a review of the Napa County Transportation and Planning Agency and Napa County General Plan documentation on roadway and intersection operations. Specifically, the Circulation Element of the County's General Plan outlines the following significance criteria specific to intersection operation:

Intersections

- The County shall seek to maintain a Level of Service D or better at all intersections, except where the level of service already exceeds this standard (i.e. Level of Service E or F) and where increased intersection capacity is not feasible without substantial additional right-of-way.

- No single level of service standard is appropriate for un-signalized intersections, which shall be

TABLE 3
EXISTING CONDITIONS: PM PEAK HOUR VEHICLE QUEUES

Intersection	Movement	Available Storage (ft.)	95th Percent Queue Length (ft.)
Soscal Ferry / SR-29	EBL	500	306
	EBT	n.a.	
	EBR	520	331
	WBL	350	78
	WBT	n.a.	
	NBL	200	280
	NBT/NBR	220	621
	SBL	500	330
	SBT/SBR	500	333
Soscal Ferry / Devlin Road	WBL/WBT	150	44
	NBL/NBT	100	42
Airport Blvd. / Devlin Road	EBL	320	73
	EBT	n.a.	
	WBT	n.a.	
	WBT/WBR	n.a.	
	SBL	220	68
	SBR	220	35
Airport Blvd. / SR-29 / SR-12	EBL	300	164
	EBL/EBT	300	184
	WBL	175	89
	WBT	175	219
	NBL	350	208
	NBT	n.a.	
	NBR	240	161
	SBL	1000	471
	SBT	n.a.	
Kelly Road / SR-12	EBL	210	96
	EBT	n.a.	
	EBR	250	111
	WBL	250	31
	WBT	n.a.	
	WBR	470	102
	NBL	190	27
	NBT	n.a.	
	NBR	170	74
	SBL	230	69
	SBT/SBR	215	56

Notes: 1)Queuing Projections are based upon Synchro/SimTraffic software;
2)The queue lengths reported above are presented on a per lane basis;
3)Available storage for through-lanes is to the nearest major intersections—unless otherwise noted there is adequate storage for through-traffic at all studied intersections. n.a. = Not Applicable
4)BOLD = 95th percentile volume exceeds storage, queue may be longer.
5) 25 feet equals one car length

evaluated on a case-by-case basis to determine if signal warrants are met.

Further significance criteria are based on County and CEQA guidelines and apply mainly to intersection operation, access, and parking. A significant impact occurs if project traffic would result in the following:

- Cause an increase in traffic which is substantial in relation to existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume capacity ratio on roads, or congestion at intersections);
- Exceed either individually or cumulatively, an LOS standard established by the county congestion management agency for designated roads or highways;
- Result in a change of traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);
- Result in inadequate emergency vehicle access;
- Project site or internal circulation on the site is not adequate to accommodate pedestrians and bicycles;
- The project provides inadequate parking or on-site circulation.

PROPOSED PROJECT IMPACTS

PROJECT DESCRIPTION

The proposed Napa Commerce Center project would consist of 490,503 square feet of "Industrial Park" uses. The project site would be located immediately west of SR-29 and south of Airport Boulevard. As part of overall project circulation improvements, Devlin Road would be extended south of Airport Boulevard to serve project driveways and adjacent development immediately to the west (see Figure 4-- Project Site Plan). From Airport Boulevard south on Devlin Road (extension), there would be three (full-access) driveways. In addition, there would a limited access driveway (right-turns-only in/out) off Airport Boulevard east of Devlin Road. Based on the topography and natural drainage of the site, the project parcel would be divided into two development areas. The northern development area would serve primarily office-type uses and the southern development areas would serve primarily warehouse uses.

PROJECT TRIP GENERATION

Daily and peak hour vehicle trip generation for the proposed project has been based on accepted rates found in the Institute of Transportation Engineers (ITE) trip research manual for "industrial park" uses.[3]

Vehicle trip generation for the proposed project is broken down by daily vehicle trips and "peak hour" vehicle trips. Daily trips are the total vehicle trips generated by the project over a 24-hour period. The peak hour trips are typically generated during the highest hour of the morning (7:00-9:00 a.m.) and evening (4:00-6:00 p.m.) commute periods when weekday traffic is significant. The peak hour rates reflect the amount of traffic that would be generated by the proposed project during the "peak hour of adjacent street traffic." However, it is possible the proposed project could generate a higher amount of trips during some other period during the day. Regardless, the combination of peak hour project trips combined with the peak hour of adjacent street traffic commonly yields a "worst case" scenario for measuring project impacts and vehicle congestion. Typically, the PM peak hour period yields the greatest combination of project trip generation and vehicle congestion.

Daily and peak hour proposed project trip generation has been shown in Table 4. As calculated, the proposed

[3] *Institute of Transportation Engineers (ITE), Trip Generation, 8th Edition, Industrial Park (land use #130), 2008.*

TABLE 4
PROJECT TRIP GENERATION: DAILY AND PEAK HOUR

Land Use	Daily Trips	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
490,503 sq. ft. Industrial Park							
Daily & Peak Hour Trip Rates (per ksf)	6.96	0.69	0.15	0.84	0.18	0.68	0.86
Daily & Peak Hour Trip Generation	3,414	338	74	412	89	333	422
Net New Trips	3,414	338	74	412	89	333	422

Source: Institute of Transportation Engineers (ITE), Trip Generation, 8th Edition, Industrial Park (land use #130), 2008. Based on 490,503 square feet of Industrial Park uses.

project is expected to generate 3,414 daily trips with 412 new AM peak hour trips and 422 new PM peak hour trips. It is noted that the proposed project would have a greater portion of "office" uses in the northern half of its development area and greater proportion of "warehouse" uses in the southern half of its development area. As such, calculated light industrial park trip generation for the proposed project was "weighted" to account for slightly more office use in the northern development area and more warehouse uses in the southern portion of the site. This was accomplished by comparing "industrial park" and "general office" trip generation rates and the amount of overall project square footage in the northern and southern development areas of the site. This analysis provided a more accurate representation of total vehicle trips accessing proposed project driveways.

Based on discussions with Napa County Transportation staff, this traffic analysis is evaluating Existing plus Proposed Project traffic conditions. No interim development projects have been added to existing conditions for short-term analysis. However, it was necessary to include vehicle trips from a development parcel located immediately west of the proposed project site off of Airport Boulevard and Devlin Road (southern extension). Specifically, the Greenwood Business Park project would consist of 378,891 square feet of Industrial Park uses. This project would share access driveways with the proposed Napa Commerce Center on the southerly extension of Devlin Road as well as adding vehicle trips to all project study intersections on Airport Boulevard, Devlin Road, SR-29, and SR-12. Based on a previous study conducted for the Greenwood Business Park, the project is expected to generate 318 AM peak hour trips and 326 PM peak hour trips.[4] These vehicle trips have been added to existing traffic volumes (along with proposed project trips) to accurately quantify overall project driveway operation on Devlin Road and study intersection operation in the greater NAIA.

PROJECT TRIP ASSIGNMENT

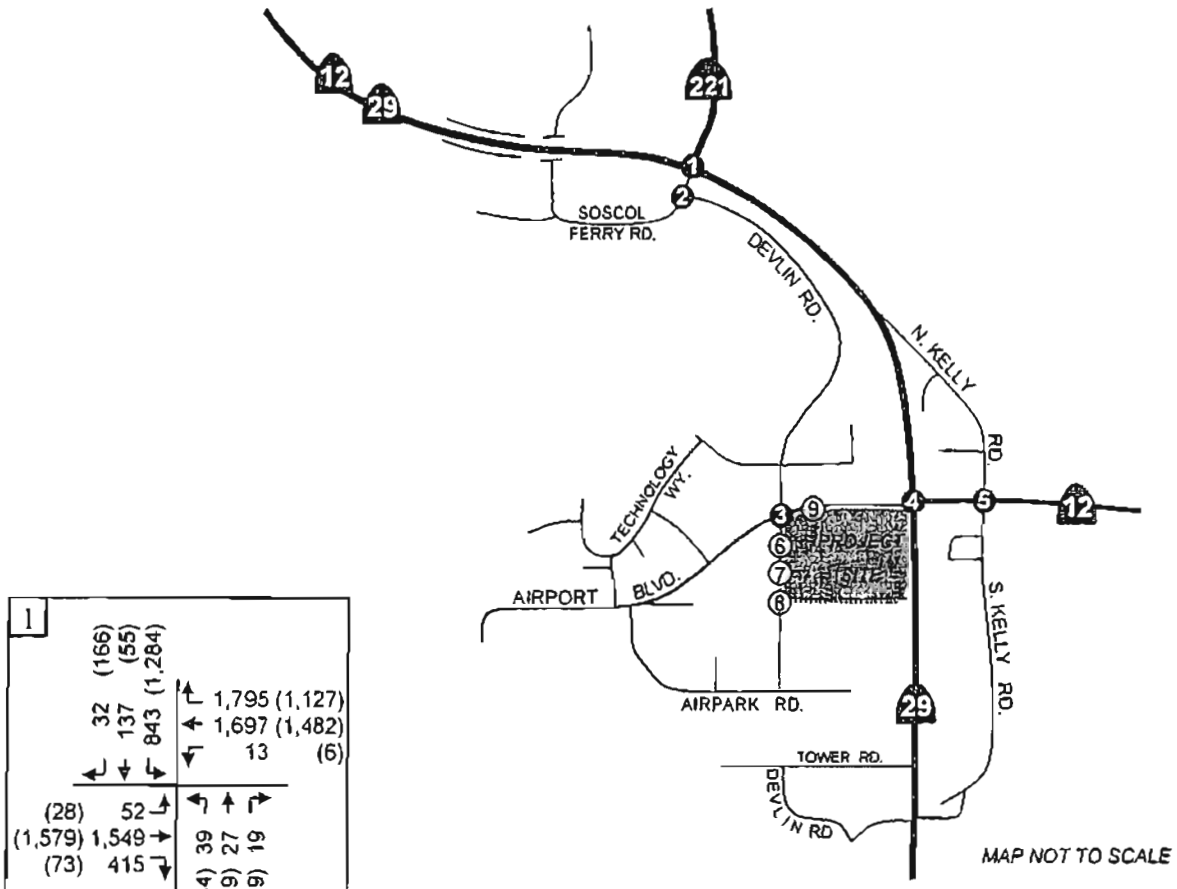
AM and PM peak hour project trips were distributed onto the street network based on a previous transportation study performed for the Greenwood Business Park on the project site (reviewed by County Engineering staff prior to inclusion in this study). Consideration was also given to freeway access and project driveway location (in/out on Devlin Road). Based on these factors, proposed project trip assignment would be as follows:

- SR-29 to/from the north: 17%
- SR-29 to/from the south: 41%
- SR-12 to/from the east: 23%
- Devlin Road to/from the north: 19%

Total: 100%

AM and PM peak hour proposed project trips have been added to existing traffic volumes (with the Greenwood Business Park project) and are shown in Figure 3. Figure 3 also provides projected peak hour volumes at all

[4] *George W. Nickelson, P.E. Traffic Analysis for the Proposed Greenwood Business Park Project in the Napa Airport Industrial Area (NAIA) of Napa County, Mr. Kris Pigman, Pigman Companies, July 8, 2008.*



1
(166) 32 (55) 137 (1,284) 843
1,795 (1,127)
1,697 (1,482)
13 (6)
(28) 52
(1,579) 1,549
(73) 415
(284) 39
(149) 27
(279) 19

2
245 (50)
320 (82)
67 (323)
24 (25)
(384) 38
(176) 26

3
165 (32)
85 (21)
49 (267)
116 (39)
417 (84)
421 (103)
(95) 19
(443) 124
(0) 0
(0) 0
(98) 21
(342) 73

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240 (59)
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1,038 (1,247)
424 (458)
261 (62)
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5
10 (9)
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753 (482)
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(26) 55
(9) 8
(68) 268
(130) 44

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33 (8)
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75 (21)
12 (49)
0 (0)
0 (0)
(32) 9
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(0) 0
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60 (17)
139 (27)
152 (41)
33 (155)
0 (0)
0 (0)
(63) 16
(0) 0
(0) 0
(0) 0
(141) 24
(0) 0

8
89 (13)
50 (14)
11 (52)
(89) 13

9
(1,039) 185
(13) 61
(77) 18

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

North

omni-means

figure 3

TABLE 5
EXISTING AND EXISTING PLUS PROJECT CONDITIONS: INTERSECTION LEVELS-OF-SERVICE

#	Intersection	Control Type	AM Peak Hour LOS/Delay		PM Peak Hour LOS/Delay	
			Existing	Exist + Project	Existing	Exist + Project
1	Soscol Ferry Rd./SR-29	Signal	E 61.1	E 67.1	F > 80.0	F > 80.0
2	Soscol Ferry Rd./Devlin Road	Stop	C 17.6	D 25.3	C 15.8	C 21.5
3	Airport Boulevard/Devlin Blvd.	Signal	B 11.3	C 22.9	B 10.4	C 25.1
4	Airport Boulevard/SR-29/SR-12	Signal	D 41.4	D 53.6	D 35.1	D 44.6
5	Kelly Road/SR-12	Signal	C 33.6	C 34.1	C 26.7	C 28.3
6	Project Drive #1/Devlin Road	Stop	----	C 15.4	----	B 12.7
7	Project Drive #2/Devlin Road	Stop	----	C 15.4	----	B 14.4
8	Project Drive #3/Devlin Road	Stop	----	A 8.4	----	A 9.0
9	Project Drive #4/Airport Boulevard	Stop	----	A 9.1	----	B 12.8

Signalized intersection calculations based on HCM 2000 operations methodology which yields an intersection LOS and vehicle delay in seconds..

proposed project driveway access intersections.

EXISTING PLUS PROJECT INTERSECTION OPERATIONS

With AM and PM peak hour project trips added to existing traffic volumes, study intersection LOS have been calculated and are shown in Table 5. With proposed project traffic, intersection LOS would change at two of the study locations; the stop-sign controlled Soscol Ferry Road/Devlin Road intersection and the signalized Airport Boulevard/Devlin Road intersection. During the AM peak hour, the Soscol Ferry Road/Devlin Road intersection would change from LOS C (17.6 seconds) to LOS D (25.3 seconds). This change in intersection LOS would apply to the northbound left and right-turn movements from Devlin Road onto Soscol Ferry Road. During the same AM peak hour, the Airport Boulevard/Devlin Road intersection would change from LOS B (11.3 seconds) to LOS C (22.9 seconds). During the PM peak hour, the same intersection would change from LOS B (10.4 seconds) to LOS C (25.2 seconds). All other project study intersections would remain unchanged from existing LOS conditions but would experience increases in overall seconds of vehicle delay due to increases from proposed project and adjacent development traffic volumes.

The unsignalized intersection of Soscol Ferry Road/Devlin Road was evaluated for peak hour (MUTCD #3) signal warrant satisfaction. With Existing plus Project traffic volumes, the intersection would just exceed the minimum volumes for signal installation during the PM peak hour.

With proposed project development, overall vehicle circulation within the NAIA would change due to planned project circulation improvements. Specifically, Devlin Road would be extended south approximately 1,100 feet south to provide access to proposed project driveways and adjacent development. These circulation changes would affect existing intersection operation at the Airport Boulevard/Devlin Road intersection as well as overall vehicle circulation on Devlin Road from other areas in the NAIA. Proposed project circulation improvements and their affects on vehicle circulation are discussed in detail in the following Proposed Project Access and Circulation and Proposed Project Vehicle Queuing Analysis sections.

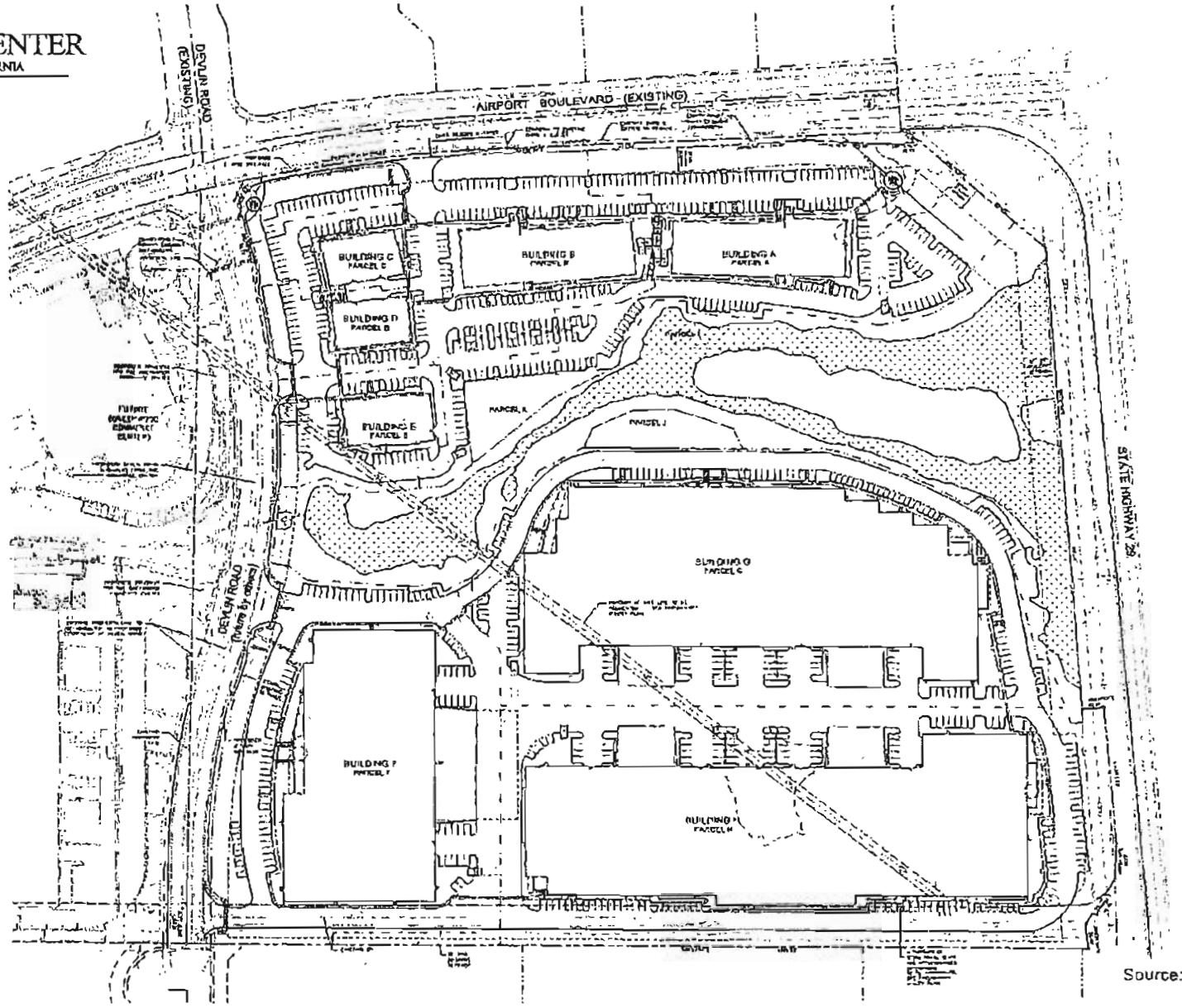
PROJECT ACCESS AND CIRCULATION

Site Access/Internal Circulation

Vehicle access to the proposed project site would be gained directly from a southerly extension of Devlin Road (at Airport Boulevard) and existing Airport Boulevard east of Devlin Road. There would be three (3) full-

NAPA
COMMERCE CENTER
NAPA COUNTY, CALIFORNIA
USE PERMIT

JULY 2009
SHEET 1 OF 4



Source: TLA ENGINEERING & PLANNING

Project Site Plan

North

omni-means

figure 4

access driveways off of the Devlin Road southern extension and one (1) limited access driveway off of Airport Boulevard (see Figure 4—Project Site Plan). As noted above, Devlin Road would be extended south 1,100 feet (approximately) to provide access to proposed full-access project driveways and adjacent development. The first project driveway would be located approximately 280-300 feet south of Airport Boulevard and would serve both the proposed project and Greenwood Business Park development. The second project driveway would be located approximately 640 feet south of Airport Boulevard and would also serve both the proposed project and Greenwood Business Park development with full vehicle access. Finally, the third project driveway would be located approximately 1,110 feet south of Airport Boulevard on the Devlin Road extension and serve proposed project access. A limited access driveway (right-turns-only inbound/outbound) would be located on Airport Boulevard approximately 260 feet east of Devlin Road.

Again, based on the topography and natural drainage of the site, the project parcel would be divided into two development areas. The northern development area would serve primarily office-type uses and the southern development areas would serve primarily warehouse uses. The northern development area of the site would be served by the limited access driveway off Airport Boulevard and the first full-access driveway off the southerly extension of Devlin Road. The southern development area of the project site would be served by the two remaining full-access driveways off the southerly extension of Devlin Road.

Internal vehicle circulation within the proposed project would be adequate. The northern development area of the site would be served by a long east-west parking/drive aisle extending along the entire Airport Boulevard frontage would be accessed primarily through the limited access driveway. Another east-west parking/drive aisle would extend east from the first project driveway off Devlin Road serving the smaller development buildings and a parking field located towards the rear of the site. A north-south parking/drive aisle would extend from the limited access driveway off Airport Boulevard and link the two access drive aisles.

The southern half of the project site would be served by the second and third remaining full-access project driveways off of the Devlin Road extension. The second full-access driveway would provide access to an east-west internal drive aisle that would essentially form a circular roadway and "loop" around the entire warehouse set of buildings. This circular drive aisle would provide access to vehicle parking along the roadway and eventually form the southern-most drive aisle connecting to the Devlin Road extension at the third and final project access driveway. Between the two main project warehouse buildings, there would be a limited parking field and this would be accessed by a north-south drive aisle connecting the circular roadway. It is noted that there are specific parking spaces situated on the curves of the internal drive aisles around project buildings F and H at the following locations of the proposed project site:

Five (5) vehicle parking spaces at the northeast corner of Building F on the entrance curve;
Two (2) vehicle parking spaces at the southeast corner of Building F on the exit curve;
Five (5) vehicle parking spaces at the northwest corner of Building H on the entrance curve;
Three (3) vehicle parking spaces at the southeast corner of Building H on the inside curve.

Since these parking spaces are located internal to the site and would not affect external driveway operation or off-site street traffic on Devlin Road, they would not need to be removed. However, it is recommended that these parking spaces be reserved for "employees only" to ensure a low turnover rate. Project volumes on the internal drive aisle and vehicle speeds would be low and by limiting these specific parking spaces for employees only there would be limited in/out maneuvers.

Devlin Road Extension

The southern extension of Devlin Road between Airport Boulevard and the southerly boundary of the project site is shown as 48-feet curb-to-curb with a 68-foot right-of-way (ROW) in project improvement plans.[5]

[5] *TLA Engineering and Planning, Napa Commerce Center Use Permit, Sheet 1 of 4, July 2009.*

Previous discussions with Napa County Transportation staff had indicated that the roadway would likely have to accommodate two (2) travel lanes and a two-way-left-turn-lane (TWLTL) in this area. The new connection of Devlin Road between Airport Boulevard and southern boundary of the project site would also attract existing traffic currently using Airpark Road to access to/from Airport Boulevard. With the new Devlin Road extension, existing vehicle and/or truck trips would not have to travel (west) to the Airport Boulevard/Airpark Road intersection but would merely travel north up the new Devlin Road extension (via the part-width segment) to access Airport Boulevard. Based on previous traffic analyses conducted for the Greenwood Business Park project, the extension of Devlin Road would likely attract 102 existing vehicle trips from the southern Airpark Road area.[6] This would equate to 89 trips inbound and 13 trips outbound during the AM peak hour and the exact opposite during the PM peak hour (13 in, 89 out). These diverted existing trips were accounted for under Existing plus Project conditions and would only affect the four project study intersections on the Devlin Road extension between the project's southern boundary and Airport Boulevard.

Airport Boulevard/Devlin Road Intersection

With development of the proposed project site (and adjacent Greenwood Business Center) and extension of Devlin Road to the south, the Airport Boulevard/Devlin Road intersection would become a four-way intersection. Vehicle queuing analyses have been conducted for all intersections with Existing plus Project AM and PM peak hour volumes to ensure adequate storage lengths and vehicle queuing (see Proposed Project Vehicle Queuing Analysis section). However, based on the projected vehicle trips through the intersection (with proposed project development) there would be a need for dual (2) westbound left-turn lanes from Airport Boulevard onto the Devlin Road extension with a storage capacity of 225 feet. This need is based on a total of 421 westbound left-turn vehicles from Airport Boulevard onto Devlin Road during the AM peak hour. This circulation improvement would require two (2) receiving lanes on the Devlin Road extension in the southbound direction. Based on measurements from aerial photographs and field measurements, Airport Boulevard at Devlin Road has an approximate curb-to-curb width of 72 feet. This includes Class II bike lanes (5 feet each), two westbound through-lanes (24-feet), one westbound left-turn lane (12-feet), two eastbound through-lanes (24-feet), and a two-foot raised median. With the installation of dual westbound left-turn lanes on Airport Boulevard at Devlin Road, Airport Boulevard would need to be widened by 12-feet to an 86-foot curb- to-curb width to include the additional westbound left-turn lane and existing Class II bike lanes.

Based on the proposed project site plan, the new extension of Devlin Road immediately south of Airport Boulevard has an approximate 72-foot curb-to-curb width. In the southbound direction, this could accommodate a one (1) 12-foot bus turn-out and two (2) 11-foot travel lanes. In the northbound direction (at Airport Boulevard) there could be one (1) 12-foot left-turn lane, one (1) 12-foot through-lane, and one (1) 14-foot right-turn lane. It is not recommended that a new northbound bus turnout be installed on the Devlin Road extension immediately south of Airport Boulevard. In this area, there would be a high-volume right-turn movement (342 vehicles) from northbound Devlin Road onto eastbound Airport Boulevard. A new bus turnout on Devlin Road (southeast corner of the Airport Blvd./Devlin Rd. intersection) would interfere with right-turn volumes and buses would have a difficult time merging back out into through-traffic to travel in a northbound direction. It is recommended that transit users/bus riders use the existing bus turnout located immediately north of the Airport Blvd./Devlin Rd. intersection on Devlin Road. This bus turnout is located a mere 50-feet north of Airport Boulevard on Devlin Road. Transit users could easily walk across Airport Boulevard from the proposed project site (or Greenwood Business Park) to access this bus stop. Further south of Airport Boulevard, the extension of Devlin Road is shown having an approximate 48-foot curb-to-curb width which could readily accommodate two (2) travel lanes, a two-way-left-turn lane, and Class II bike lanes.

Proposed Project Driveway Access

All proposed project driveways off of Devlin Road have been assumed as stop-sign controlled for the minor

6 George W. Nickelson, P.E.,.....Ibid

street (driveway) operation. Project driveway intersection LOS calculations have assumed a separate southbound (inbound) left-turn lane, and a separate westbound (outbound) right-turn lane and shared through/left-turn lane. Based on the proposed project site plan, the outbound driveway lanes on Devlin Road are approximately 21-22 feet wide. At a minimum, it is recommended that the outbound driveway widths be 24-feet to allow for two standard turn lanes. It would be preferable to allow for a 25-foot outbound driveway width to allow for a 13-foot right-turn lane to accommodate large trucks (particularly at proposed project driveway #'s 2 and 3).

The limited access driveway intersection (Project Drive #4/Airport Boulevard) off of Airport Boulevard is projected to operate at acceptable levels. However, during the PM peak hour there would be a heavy (342 vehicles) northbound right-turn movement from Devlin Road onto eastbound Airport Boulevard. With an additional 1,000+ eastbound through-vehicles on Airport Boulevard there would be some minor (on-site) vehicle queuing for outbound driveway traffic. The intersection would not meet the minimum right-turn volumes for inbound traffic to warrant a separate right-turn deceleration lane.[7] However, during both the AM and PM peak hours the driveway would meet the minimum volumes required for a taper. This finding is based on minimum right turn volumes of 61 (AM) and 13 (PM) and through-volumes of 185 (AM) and 1,039 (PM) on Airport Boulevard during the AM and PM peak hours, respectively (please refer to Appendices for traffic volume guidelines for design of right-turn lanes).

PROJECT VEHICLE QUEUING ANALYSIS

The results of the Existing plus Project conditions queuing analysis are presented in Table 6. The available storage lengths for existing intersections are based on measurements from aerial photographs and field measurements. For future intersection analyses, vehicle storage requirements have been based on project driveway turning movement volumes combined with the vehicle queuing analysis. Vehicle queuing analyses have been conducted for both the AM and PM peak hour to ensure adequate vehicle storage with proposed project traffic. As calculated, vehicle queuing problems would occur at the following locations:

- Soscal Ferry Road/SR-29: The analysis indicates that the northbound approach of Soscol Ferry Road/SR-29 intersection would continue to experience queuing problems during the PM peak hour. This would include both the northbound left-turn lane (273-foot queue) and the shared through/right-turn lane (608-foot queue). As with existing conditions, overall intersection operation during this time period is LOS F (>80.0 seconds). Calculated vehicle queues are not meaningful once an intersection's LOS exceeds F. Therefore, long vehicle queues (500 + feet) would continue to be experienced at all four intersection approaches during the PM peak hour with existing plus project traffic volumes.

- Soscal Ferry Road/Devlin Road: Vehicle queuing indicated for the northbound right-turn movement from Devlin Road onto eastbound/northbound Soscal Ferry Road is a function overall poor operations (LOS F) at the Soscal Ferry Road/SR-29 intersection. The northbound queue on Soscal Ferry Road (at SR-29) is causing northbound motorists on Devlin Road to be delayed resulting in vehicle queuing. However, calculated vehicle queues for the Soscal Ferry Road/SR-29 and Soscal Ferry Road/Devlin Road intersection are somewhat tenuous given an overall operation of LOS F at the Soscal Ferry Road/SR-29 intersection. Until operations improve at this SR-29 intersection, vehicle queuing on northbound Soscal Ferry Road will continue to occur during the PM peak hour.

- Airport Boulevard/SR-29/SR-12: The analysis indicates that the westbound approach of Airport

[7] *Transportation Research Board (TRB), Intersection Channelization Design Guideline #279, Chapter 4, Design of Right-Turn Lanes, Figure 4.23, November 1985.*

TABLE 6
EXISTING PLUS PROJECT CONDITIONS: AM AND PM PEAK HOUR VEHICLE QUEUES

Intersection	Movement	Available Storage (ft.)	95th Percent Queue Length (ft.) AM/PM
Soscal Ferry / SR-29	EBL	500	224/125
	EBT	n.a.	
	EBR	520	366/225
	WBL	350	86/36
	WBT	n.a.	
	NBL	200	66/273
	NBT/NBR	220	72/608
	SBL	500	338/335
	SBT/SBR	500	157/333
Soscal Ferry / Devlin Road	WBL/WBT	150	87/95
	NBL/NBR	100	46/1089
Airport Blvd. / Devlin Road	EBL	320	43/96
	EBT/EBR	n.a.	64/87
	WBL	225	134/94
	WBT/WBR	n.a	119/54
	SBL	220	60/212
	SBR	220	71/36
	NBL	75	50/50
	NBR	220	48/130
Airport Blvd / SR-29 / SR-12	EBL	300	60/339
	EBL/EBT	300	76/569
	WBL	175	131/76
	WBT	175	369/202
	NBL	350	429/299
	NBT	n.a.	
	NBR	240	101/190
	SBL	1000	543/488
	SBT	n.a.	
Kelly Road / SR-12	EBL	210	163/67
	EBT	n.a.	
	EBR	250	127/85
	WBL	250	82/34
	WBT	n.a.	
	WBR	470	212/82
	NBL	190	30/26
	NBT	n.a.	
	NBR	170	97/73
	SBL	230	31/60
	SBT/SBR	215	33/55
Project Driveway #1/Devlin Road	EBL	50	31/44
	WBT/WBR	50	33/50
	SBL	150	29/32
Project Driveway #2/Devlin Road	EBL	150	33/46
	WBT/WBR	120	47/65
	SBL	150	20/21
Project Driveway #3/Devlin Road	WBT/WBR	60	35/49
	SBL	150	33/45
Project Driveway #4/Devlin Road	EBT/EBR	250	30/50
	NBR	50	33/62

Notes: *1)Queuing Projections are based upon Synchro/SimTraffic software;*
2)The queue lengths reported above are presented on a per lane basis;
3)Available storage for through-lanes is to the nearest major intersections—unless otherwise noted there is adequate storage for through-traffic at all studied intersections; n.a. = not applicable.
4)BOLD = 95th percentile volume exceeds storage, queue may be longer.
5)25 feet equals one car length

Boulevard/SR-29/SR-12 intersection experiences queuing problems during the AM peak hour. Specifically, the westbound through-lane approach on SR-12 has a 369-foot queue with approximately 175-feet of storage capacity. However, these vehicle queues just extend back (east) onto SR-12 in the existing through-lane towards Kelly Road. In addition, analysis indicates that the eastbound through and left-turn movements on Airport Boulevard at SR-29/SR-12 would experience a vehicle queue of 569 feet during the PM peak hour with an overall storage length of 300 feet. Again, there is ample capacity on Airport Boulevard to store these vehicles since both the eastbound through and left-turn lanes extend back (west) into the two eastbound through-lanes. Finally, the SR-29 northbound left-turn movement onto Airport Boulevard would experience a vehicle queue of 429 feet with an overall storage capacity of 350 feet. This would exceed overall vehicle capacity for the northbound left-turn movement by three vehicle lengths on to SR-29 and would not be considered significant in nature.

All other study intersection approaches located internal to SR-29 on Airport Boulevard and Devlin Road have adequate vehicle storage. As with existing conditions, vehicle queuing on SR-29 is extensive during the AM and PM commute periods. At times, north-south through traffic vehicle queues on SR-29 are extensive enough to prevent motorists from accessing other turning movement lanes at the Soscol Ferry Road/SR-29 and Airport Boulevard/SR-29/SR-12 intersections. Vehicle queuing at the Airport Boulevard/Devlin Road intersection would be acceptable with recommended circulation improvements for westbound Airport Boulevard.

Based on the vehicle queuing analysis for Existing plus Project conditions and overall project vehicle trips in/out of the site, recommended lane geometrics and storage requirements for all project study intersections on Devlin Road and Airport Boulevard have been shown in Figure 5.

SUMMARY/FINDINGS

The proposed Napa Commerce Center project would add proportionately to overall traffic volumes on Devlin Road, Airport Boulevard, Soscol Ferry Road, SR-29, and SR-12. With existing plus proposed project traffic volumes, all project study intersections would generally operate at acceptable levels (LOS D or better) during the AM and PM peak hour. The Soscol Ferry Road/SR-29 would continue to operate at LOS E and F during the AM and PM peak hours, respectively.

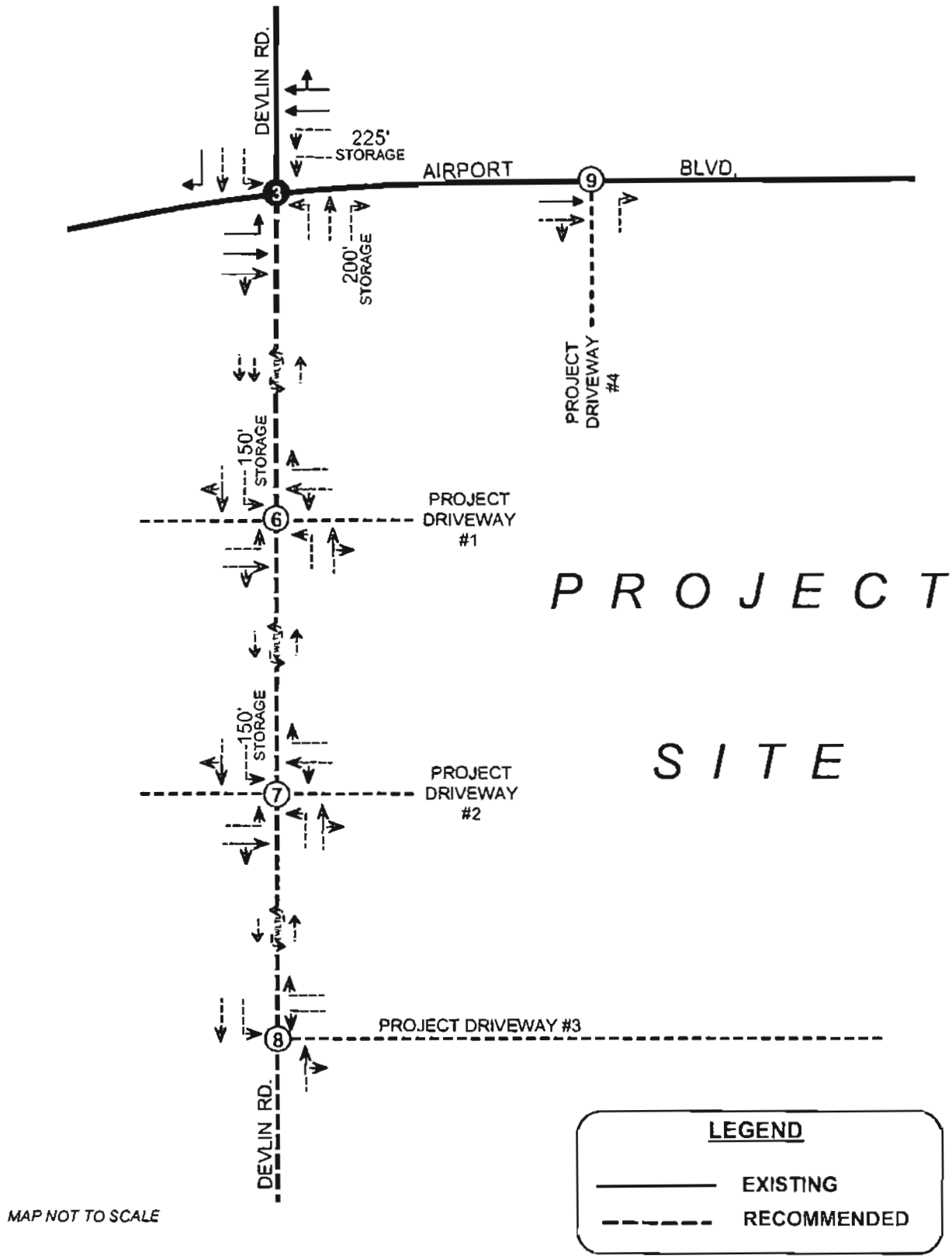
The overall Existing plus Project traffic analysis included peak hour project traffic from the adjacent Greenwood Business Center project located immediately west of the proposed project site off the planned southerly extension of Devlin Road. It was necessary to include this project to obtain accurate vehicle queuing and lane storage requirements as well as evaluating overall shared project driveway operation. Based on vehicle queuing analyses and overall proposed project trips, the following measures are recommended to ensure acceptable traffic flow throughout the NAIA:

Existing Plus Project Conditions:

Internal Circulation:

In the southern portion of the project site, there are specific parking spaces situated on the curves of the internal drive aisles around project buildings F and H at the following locations:

Five (5) vehicle parking spaces at the northeast corner of Building F on the entrance curve;
Two (2) vehicle parking spaces at the southeast corner of Building F on the exit curve;
Five (5) vehicle parking spaces at the northwest corner of Building H on the entrance curve;
Three (3) vehicle parking spaces at the southeast corner of Building H on the inside curve.



Existing and Recommended Intersection/Roadway Improvements

North

omni-means

figure 5

Since these parking spaces are located internal to the site and would not affect external driveway operation or off-site street traffic on Devlin Road, they would not need to be removed. However, it is recommended that these parking spaces be reserved for "employees only" to ensure a low turnover rate. Project volumes on the internal drive aisle and vehicle speeds would be low and by limiting these specific parking spaces for employees only there would be limited in/out maneuvers.

Airport Boulevard/Devlin Road Intersection:

Based on the proposed project vehicle trips through the Airport Boulevard/Devlin Road Intersection there would be a need for dual (2) westbound left-turn lanes from Airport Boulevard onto the southbound Devlin Road extension with a storage capacity of 225 feet. This is based on a total of 421 westbound left-turn vehicles from Airport Boulevard onto Devlin Road during the AM peak hour. This circulation improvement would require two (2) receiving lanes on the Devlin Road extension in the southbound direction. Based on measurements from aerial photographs and field measurements, Airport Boulevard at Devlin Road has an approximate curb-to-curb width of 72 feet. This includes Class II bike lanes (5 feet each), two westbound through-lanes (24-feet), one westbound left-turn lane (12-feet), two eastbound through-lanes (24-feet), and a two-foot raised median. With the installation of dual westbound left-turn lanes on Airport Boulevard at Devlin Road, Airport Boulevard would need to be widened by 12-feet to an 86-foot curb- to-curb width to include the additional westbound left-turn lane and existing Class II bike lanes.

With respect to the new southbound Devlin Road extension immediately south of Airport Boulevard, the proposed project site plan indicates an approximate 66-foot curb-to-curb width. In the southbound direction, this could accommodate one (1) 4-foot Class II bike lane, one (1) 11-foot travel lane (drop lane), and one (1) 12-foot travel lane. In the northbound direction (at Airport Boulevard), Devlin Road could be one (1) 11-foot left-turn lane, one (1) 12-foot through-lane, one (1) 12-foot right-turn lane, and one (1) 4-foot Class II bike lane. Continuing southbound travel on the Devlin Road extension, the outside through–lane could then transition or merge back down to one through-lane past the Greenwood Business Center's first driveway access. The Caltrans Highway Design Manual and the Manual on Uniform Traffic Control Devices (MUTCD) contains criteria for through-lane drops and taper transitions. The required distance for a southbound lane drop on Devlin Road is based on a distance equal to L = WS, where W equals the width of the lane to be dropped and S equals the design speed.[8] The transition merge or taper distance formula is $L = WS^2 / 60$. Assuming an 11-foot travel lane and a speed limit of 30 mph in the immediate design area, the required distances have been calculated below:

Lane Drop Distance:	11-foot travel lane x 30 mph	= 330 feet
Taper Transition Distance:	11-foot travel lane x 30^2 mph / 60	= 165 feet

As calculated above, there would be a required distance of 330 feet to drop the right (outside) southbound through-lane on Devlin Road and a distance of 165 feet to transition back to one southbound travel lane. Based on these distances, the through-lane drop would extend to the first proposed project driveway on Devlin Road and then the transition taper would begin immediately south of this driveway. Further south of Airport Boulevard, the extension of Devlin Road is shown having an approximate 48-foot curb-to-curb width which could readily accommodate two (2) travel lanes, a two-way-left-turn lane, and Class II bike lanes.

Soscol Ferry Road/Devlin Road Intersection:

The unsignalized intersection of Soscol Ferry Road/Devlin Road was evaluated for peak hour (MUTCD #3) signal warrant satisfaction. With Existing plus Project traffic volumes, the intersection would just exceed the minimum volumes for signal installation during the PM peak hour. However, overall intersection operation is

[8] *Caltrans, Highway Design Manual, Chapter 200—Geometric Design and Structure Standards, Section 206.3, Pavement Reductions, September 1, 2006.*

projected to be LOS D during the PM peak hour (most of the stop-sign controlled turning movements are northbound right-turns from Devlin Road onto Soscol Ferry Road). Should the County decide to signalize the intersection at some future date, a portion of the proposed project's traffic impact fees could contribute towards this improvement

Airport Boulevard:

Based on the existing plus project vehicle queuing analysis, the projected vehicle queue on eastbound Airport Boulevard at SR-29 would be 569 feet during the PM peak hour (combined through and left-turn movements). The distance between the Airport Boulevard/Devlin Road and Airport Boulevard/SR-29/SR-12 intersections is approximately 1,300 feet. Therefore, while eastbound vehicle queues on Airport Boulevard would extend back towards Devlin Road, these queues could be accommodated on Airport Boulevard in the existing eastbound through-lanes without significantly affecting traffic flows (or those motorists wishing to access the eastbound free right-turn lane). With the recommendation of dual westbound left-turn lanes on Airport Boulevard at Devlin Road and corresponding northbound right-turn lane on Devlin Road, it is recommended that a northbound right-turn overlap phase be included as part of the overall signal phasing operation. This overlap phase would help to facilitate the relatively heavy (342 peak hour vehicles) right-turn movement from Devlin Road onto eastbound Airport Boulevard and improve overall intersection operation. The proposed limited access project driveway (right-turns-only inbound/outbound) on Airport Boulevard would not interfere with overall operation at the Devlin Road/Airport Boulevard intersection. We would not characterize this driveway as 'mid-block" in that the limited access driveway would be located a safe distance from Devlin Road (260 feet) but still 1,000+ feet from SR-29. The driveway would not disrupt or delay vehicle turning movements from the Airport Boulevard/Devlin Road intersection (Devlin Road northbound right-turn movement or eastbound through-movements on Airport Boulevard). The eastbound right-turn lane on Airport Boulevard currently has 600+ feet of storage capacity. In addition, this is a "free" right-turn at SR-29 with its own merge lane on to southbound SR-29. Eastbound motorists on Airport Boulevard wishing to travel southbound on SR-29 are not required to stop at the intersection at SR-29 but merely have to merge into southbound traffic. With a 1,300-foot distance between the Airport Boulevard/Devlin Road and Airport Boulevard/SR-29/SR-12 intersections, it is not recommended that the existing eastbound free right-turn lane be extended back as a "weaving lane" to Devlin Road. This could actually create more weaving maneuvers on eastbound Airport Boulevard between Devlin Road and SR-29 and increase vehicle speeds. Based on existing plus project volumes, the free eastbound right-turn lane on Airport Boulevard with 600+ feet of storage capacity would be adequate for 544 right-turn vehicles during the PM peak hour. The vehicle queuing analysis for the PM peak hour indicates a vehicle queue of 332-feet for this free eastbound right-turn movement accounting for the southbound merge onto SR-29.

Driveway Access:

Based on the proposed project site plan, the driveway lane widths for outbound vehicle traffic onto Devlin Road are approximately 21-22 feet wide. At a minimum, it is recommended that the outbound driveway widths be 24-feet wide to allow for two standard turn lanes. It would be preferable to allow for a 25-foot outbound driveway width as this would allow for a 13-foot right-turn lane to accommodate large trucks (particularly at proposed project driveway #'s 2 and 3).

The limited access driveway intersection (Project Drive #4/Airport Boulevard) off of Airport Boulevard is projected to operate at acceptable levels. However, during the PM peak hour there would be a heavy northbound right-turn movement (342 vehicles) from Devlin Road onto eastbound Airport Boulevard. With an additional 1000+ eastbound through-vehicles on Airport Boulevard there would be some minor (on-site) vehicle queuing for vehicles exiting the driveway. The intersection would not meet the minimum right-turn volume for inbound traffic to warrant a separate right-turn deceleration lane. However, it would meet the warrant for installation of a taper for inbound traffic.

With regard to the proposed limited access project driveway (right-turns-only inbound/outbound) on Airport Boulevard, this driveway would be located approximately 260-feet east of Devlin Road. During the AM peak hour, inbound/outbound traffic volumes at this intersection would be relatively light with 61 vehicles inbound and 18 vehicles outbound. Eastbound through-traffic on Airport Boulevard would also be light with 185 vehicles. Overall intersection operation is projected to be LOS A. During the PM peak hour, inbound/outbound traffic volumes at the intersection would be reversed with 13 vehicles inbound and 77 vehicles outbound. Eastbound through-traffic on Airport Boulevard would increase to 1,039 vehicles. Overall intersection operation is projected to be LOS B. As a stop-sign controlled intersection, there would be very minor vehicle queuing during the PM peak hour but this would be limited to on-site (outbound) vehicles. The signalized intersection at the Airport Boulevard/Devlin Road intersection would help to provide additional "gaps" in eastbound through-traffic on Airport Boulevard for outbound traffic from the driveway. Outbound motorists wishing to access SR-29 north or SR-12 east would turn right from the driveway and either merge north one lane over or just stay in the eastbound through lane. There would not be significant weaving issues associated with this driveway Even with projected vehicle queuing on eastbound Airport Boulevard during the PM peak hour (569 feet) there would still be approximately 330 feet remaining to access these turn lanes.

Based on the proposed project description, the majority building uses along the Airport Boulevard frontage are "office" uses rather than "light-industrial" or "warehouse" type uses. Office uses tend to have a very directional peak hour flow (inbound AM, outbound PM). It has been our experience that multiple driveway access tends to benefit office-type uses by dispersing peak hour traffic flows and not limiting access to one particular driveway in/out of the site. By not providing this driveway, all office-related project trips located in the northern half of the project site would be forced to use the first proposed project driveway on Devlin Road. This would result in additional southbound left-turn movements and westbound right-turn movements at the project driveway. With respect to the southbound left-turn movement this would increase to 141 vehicles during the AM peak hour. We have assumed a storage length of 150 feet for the southbound left-turn lane at this driveway which is adequate. However, we have also assumed 125-feet of storage for the opposing northbound left-turn lane on Devlin Road at Airport Boulevard. We note this as we currently have no traffic demand for this movement based on existing plus project volumes. Should this northbound left-turn lane on Devlin Road require more storage capacity (based on future volume projections), this could affect the capacity of the southbound left-turn lane at the first project driveway on Devlin Road. Therefore, adding additional volumes to this turning movement (by eliminating the Airport Boulevard limited access driveway) could affect overall storage capacity at the Airport Boulevard/Devlin Road intersection. There would also be an increase in northbound right-turn movements at the Devlin Road intersection, particularly during the PM peak hour (342 + 77 = 419 right-turn vehicles). The 419 northbound right-turn movements from Devlin Road onto Airport Boulevard during the PM peak hour would comprise the major northbound movement from this roadway. The addition of an internal vehicular connection over the watercourse between the northern and southern portions of the project site would not significantly improve vehicle access or internal circulation to the project site. No significant internal circulation issues have been identified other than vehicle/parking conflicts and overall internal circulation would be adequate. However, if a bridge were installed over the watercourse it may encourage more project trips to use the northerly driveways to access the site rather than using the southerly Devlin Road driveways. This would likely increase project trips at the first project driveway on Devlin Road and the limited access project driveway on Airport Boulevard.

Traffic Impact Fees:

As part of the NAIA, the proposed project is subject to the "Airport Industrial Area Traffic Impact Fee," currently $3,551.00 per PM peak hour trip. However, the proposed project would be constructing a portion of Devlin Road, a key component identified within the NAIA. Should the proposed project be approved, it would be appropriate for the project applicant to receive a fee credit as a result of this roadway construction.

Attachment D - Michael Throne, City of American Canyon Department of Public Works, *Napa Commerce Center Water Supply Report*, October 2009 (sans appendices)

CITY OF AMERICAN CANYON
PUBLIC WORKS DEPARTMENT
4381 BROADWAY, SUITE 201
AMERICAN CANYON, CA 94503

WATER SUPPLY REPORT

Napa Commerce Center

Napa County Assessor's Parcel Number
057-210-056

Prepared by:

Michael Throne, P.E.

Approved

OCTOBER 14, 2009
Date

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WATER SERVICE REQUEST

DESCRIPTION OF PROJECT

Napa 34 Holdings, LLC is seeking a Use Permit for the construction of 8 buildings totaling 490,503 square feet on a 34 acre lot located west of SR 29, east of Devlin Road extension, south of Airport Boulevard and north of old Aviation Way right-of-way.

The property is located with the Napa County Airport Specific Plan Area. The anticipated use is industrial/warehouse (346,427 square feet) and office (144,076 square feet). The property zoning is Industrial Park/Airport Compatibility.

WATER SERVICE REQUEST

Average Daily Demand

Mr. Brian Kaufman of Napa 34 Holdings, LLC submitted a will-serve questionnaire on September 22, 2009. The questionnaire concluded the total average annual water demand will be 10,800 gallons per day.

Based on review of the calculations submitted by Mr. Kaufman this demand is a reasonable estimate.

Domestic demand: 10,800 gpd

Industrial demand: 0 gpd

Irrigation demand: 0 gpd

The total annual demand equals 10,800 gallons per day or 12 acre feet per year (AFY)

Peak Day Demand

Mr. Brian Kaufman of Napa 34 Holdings, LLC submitted a will-serve questionnaire on September 22, 2009. The questionnaire concluded the total maximum day demand will be 16,200 gallons per day.

Based on review of the calculations submitted by Mr. Kaufman this demand is a reasonable estimate.

Domestic demand: 16,200 gpd

Industrial demand: 0 gpd

Irrigation demand: 0 gpd

Conservation Measures Included In Project

The project includes water conservation measures, including:

- Educate employees on the importance of water conservation
- Minimize water usage and maximize water efficiency of operations

CONSISTENCY

URBAN WATER MANAGEMENT PLAN

The sites estimated total annual demand of 12 AFY, **is consistent** with the demands estimated in the Urban Water Management Plan. The Urban Water Management Plan estimated 25 AFY for the 34 acre site. The sites estimated average demand for water of 10,800 gallons per day, or 12 AFY, is **consistent with** the Urban Water Management Plan estimate.

RECYCLED WATER FACILITIES PLAN

The project site is within the Napa Sanitation District (NSD)recycle water service area. The City anticipates that NSD will require the applicant to construct a recycled water main in Devlin road along the project frontage.

WATER CONSERVATION IMPLEMENTATION GUIDELINES

The project has not yet been reviewed for consistency with the Water Conservation Guidelines adopted by the City Council on 10/23/07. This should be accomplished prior to issuance of a building permit.

CONSISTENCY WITH ORDINANCE 2000-08

Ordinance 2000-08 states that all projects within the City of American Canyon conforming to City zoning as industrial and all projects within the unincorporated area of Napa County, for which the city provides water connections pursuant to Municipal Code Section 13.10.040 are subject to a limit of 650 gallons per acre per day average annual water demand. The projects water demand is 318 gallons per acre per day for the 34 acre site. Thus, it is **consistent** with the ordinance.

WATER FOOTPRINT

ZERO WATER FOOTPRINT DEFINITION

On October 23, 2007, the City Council of the City of American Canyon adopted the following definition of Zero Water Footprint (ZWF).

> *No loss in water service reliability or increase in water rates to the City of American Canyon's existing customers due to the requested increased demand for water in the City's water service area.*

Appendix A provides the process for water service requests considered by the City Council as part of their policy decision on Zero Water Footprint.

The important ZWF policy decision followed shortly after the Napa County Local Agency Formation Commission (LAFCO) adopted Policy Resolution 07-27 on October

15, 2007, which established that water service requests outside the City of American Canyon city limits but within the Airport Industrial Area are not subject to LAFCO review. Because the City of American Canyon lacks land use jurisdiction in this area, it became necessary to implement a policy and process that protects the reliability and financial viability of the City's water enterprise while providing a predictable outcome for those seeking new or increased water service.

It is the City of American Canyon's policy that the ZWF policy and process apply equally both within the City limits and within the approved extraterritorial service area.

PROJECT'S IMPACT ON RELIABILITY

The Urban Water Management Plan finds that, as of 2005, the City of American Canyon would experience a shortfall in water supplies in multiple-dry-years of up to 427 acre feet and single-dry-years of up to 897 acre feet. Due to increased demand, the shortfall would worsen even as additional supplies are obtained. By the year 2015, the City of American Canyon would experience a shortfall in multiple-dry-years of up to 1,037 acre feet and in single-dry-years of up to 1,557 acre feet. By contributing to the shortfall, the project would reduce the reliability of American Canyon water service.

PROJECT'S IMPACT ON RATES

The project would not have an impact on rates.

PROJECT'S WATER FOOTPRINT

The project **does not have a zero water footprint.** Staff has determined that it will result in a loss in water service reliability. Therefore in accordance with Chapter 13.10 of the City Municipal Code the applicant shall pay to the City a monthly service charge in the amount of $4.25/100 cubic feet. This represents the project's costs associated with City supplying water through the City's connection to the City of Vallejo.

PROJECT'S CONTRIBUTION

CAPACITY FEE

Based on the Water and Wastewater Rate and Fee Study prepared by Bartle Wells and Associates for the City of American Canyon and the December 18, 2007 approval of the Water Capacity Fee Ordinance, the project would generate water capacity fees of **$296,946** based on the increased peak day demand of 16,200 **gpd** times $18.33 per gallon.

REIMBURSEABLE IMPROVEMENTS

None.

CAPITAL PROGRAM STATUS

SUMMARY

The City of American Canyon's Water Capital Program will address the supply shortfalls identified in the 2005 Urban Water Management Plan and will meet the treatment, storage, and distribution needs as the City implements its General Plan. Appendix B describes the program in detail.

SYSTEM PLANNING STATUS

The City of American Canyon is currently preparing an Integrated Water Management Plan, which will address all water resources – drinking water, recycled water, wastewater, groundwater, creeks and wetlands in a comprehensive way. The study was initiated in December 2006 and Phase I is complete. The work products within Phase I include a technical review of the water treatment plant, goal setting and performance criteria, a water loss audit, an analysis of existing conditions, a report on threatened and endangered species constraints, , feasibility study of a well in the Newell Open Space Preserve, a funding assistance survey, an investigation into corrosion problems in a portions of the water system, a unified hydrology analysis, and a Strengths, Weaknesses, Opportunities and Threats report.

Phase II of the Integrated Water Management Plan has been initiated. Phase II will include an estimate of anticipated resource demands, feasibility study of a high capacity well field, a wastewater source identification and local limits study, a facilities plan for wastewater improvements, and an analysis of the alternative water resource solutions, a water conservation feasibility study, assessment of a possible well at the American Canyon High School property, Geographical Information Systems (GIS) Data Entry, and pilot testing of Water Treatment Plant modifications.

A water and wastewater rate and capacity fee report was prepared. It proposed substantial increases in water and wastewater rates and in capacity fees. It was endorsed by the City's Blue Ribbon Committee on Water Resources and was approved by the City Council at a public hearing on December 18, 2007.

The Blue Ribbon Committee on Water Resources was formed in March 2007 to serve as a sounding board on all water related issues. The committee includes elected and appointed City leaders, long-term residents, newer residents, developers with interests inside and outside the City limits, vineyard owners, business owners, agency representatives, a County Supervisor and retired water professional. Water, Wastewater, Recycled Water, Finance and Creeks/Wetlands Subcommittees have been formed. The full committee has met monthly, and the subcommittees have met numerous additional times. The Blue Ribbon Committee is expected to remain active for the next two years as the Integrated Water Management Plan is completed and initial projects are implemented.

WATER SUPPLY

WATER SUPPLY IMPLEMENTATION STATUS

The status of the water supply projects in the Final Water and Wastewater Rate and Fee Study is as follows:

- Water rights - Purchase of 1,560 annual acre feet of water rights from Sacramento Valley agricultural interests. The City of American Canyon, the City of Napa and the Napa County Flood Control and Water Conservation District have met with one interested seller, who provided a letter summarizing the availability and possible terms for the water supply. They indicated that the requested amount would be available to the City of American Canyon for long-term transfer. During cutbacks north of the Delta of the Central Valley Project, the transfer would be subject to a reduction of 25%. The long-term transfer of appropriative rights would require approval by the State Water Resources Control Board. The City of American Canyon and the City of Napa are currently seeking a proposal from a water transfer consultant to assist with this purchase. About three years would be needed to complete the long-term transfer. Short-term transfers are also available on a year-to-year basis.

  Water Code Section 109 contains a declaration of state policy favoring voluntary water transfers, and directs the Department of Water Resources, the State Water Resources Control Board and all other state agencies to encourage voluntary water transfers. Water Code section 475 contains legislative findings and declarations favoring voluntary water transfers.

  The Sacramento Valley Integrated Water Management Plan promotes water transfers, both within the Sacramento Valley and outside of it, as one of its key water management strategies.

  On May 20, 2008, the City Council approved a consulting contract to evaluate three potential sellers. After the City selects a preferred seller, the consultant will describe the next steps needed to complete a transfer. The schedule for the consulting contract calls for completion in 2008 Phase 1, evaluation of three sellers is completed. Phase 2, selection of a preferred seller and other steps, to be completed in 2009.

- North Bay Aqueduct expansion - Project to expand the ability of the North Bay Aqueduct to deliver more water. An increase of 5.5 cubic feet per second (cfs) in conveyance capacity would allow the City of American Canyon to treat an additional 3.5 million gallons per day during peak months of the year. It would provide conveyance capacity for approximately 3,300 acre feet per year.

  The Department of Water Resources completed a study in 2005 which confirmed the feasibility of expanding the conveyance capacity of Reach 3a of the North Bay Aqueduct from 46 to 65 cfs. The project would replace the four existing pumps and motors, furnish and install a new air

chamber, furnish and install new check valves, furnish and install required electrical equipment, and furnish and install a parallel 36-inch steel pipeline from the surge tank to the terminal tank(s).

Currently, the County of Napa and the California Department of Transportation (Caltrans) are performing environmental review on a project to widen Jameson Canyon Road (SR 12). When it is constructed, about half of the length of the North Bay Aqueduct will need to be relocated out of the roadway at the expense of the highway project. This would be an appropriate time to expand the North Bay Aqueduct. The agenda for the November 2007 meeting of the Napa County Water Technical Advisory Committee included a discussion of this opportunity.

Solano and Napa County water agencies have contracted with CDM to evaluate future water demands and NBA capacity. Their consulting services are in progress.

- North Bay Aqueduct terminal tank replacement - Project to replace and expand the seismically deficient water tank at the end of the North Bay Aqueduct. One 7 million-gallon open air tank is being replaced with two 5-million gallon enclosed tanks. This project is under construction. The first two million-gallon tank is complete and the 7-million gallon tank is being demolished.

- Vallejo water rights purchase - Exercise remaining potable water contract options from city of Vallejo for use in times of drought. The 1996 contract between the City of American Canyon and the City of Vallejo currently provides the City of American Canyon with treated water in the following amounts:
  - A maximum of 2.15 million gallons per day on a peak day or
  - A maximum of 1.3 million gallons per day for a peak month or
  - A maximum of 1,351 acre feet per year

  The contract also provides for 500 acre feet of raw water, available through Vallejo's riparian permit. It also provides for an additional 500 acre feet of raw water per year during emergency conditions.

  The contract provides options for the City of American Canyon to purchase additional capacity in the following periods:
  - 2007-2011, 1.15 million gallons per day on a peak day
  - 2012-2016, 0.9 million gallons per day on a peak day
  - 2017-2021, 0.9 million gallons per day on a peak day

  The total water supply available under the remaining options is 1,854 AFY.

  The Integrated Water Management Plan will guide the City's decision on whether to execute the remaining potable water contract options with Vallejo or to use the capacity fees for more cost-effective supply sources.

  On June 16, 2008, the City of American Canyon received an offer from the City of Napa to evaluate purchasing water from the City of Napa as an alternative to the 2007-2011 Vallejo Water Supply option.

- Emergency groundwater bank - American Canyon's share of project to "bank" groundwater for times of emergency. The feasibility of this project

is currently being investigated as part of the Integrated Water Management Plan. It is conceived as a high-yield well field which serve as a regional facility for municipalities in Napa County. Based on initial hydrogeology investigation, Soscol Creek would be one probable location for such a high-yield well field. In 2007, the City of Napa denied a request to install a commercial well on Anselmo Court, which would have tapped this resource. The reports provided to the City of Napa indicated that wells in this vicinity have been found to produce high-quality water at rates of 1,000 to 2,000 gpm. A feasibility report on high-capacity wells at this location was approved by the Blue Ribbon Committee at their May 2008 meeting.

- Water conservation program implementation - Project to fully implement the City-approved Water Conservation Guidelines. The City's current water conservation program includes rebates for low-flow toilets, public education, leak detection, and a master irrigation controller for City parks. A Water Conservation Implementation Plan has been drafted to fully implement the Best Management Practices of the California Urban Water Conservation Council, of which the City of American Canyon is a member. It sets forth guidelines for new development and provides an implementation plan for new programs such as conservation pricing, a water conservation ordinance, enhancement of the leak detection programs, enhancements to the public awareness program, and enhancements to the rebate programs. It estimates that 744 AFY will ultimately be supplied through water conservation. Startup costs for several of these programs are included in the capacity fee, and several startups are already in progress.

  On January 1, 2008, the City initiated a clothes washer rebate program in partnership with other Bay Area water agencies and PG&E. The rebate program is partly funded through a State of California Proposition 50 grant. It provides rebates ranging from $125 - $200 depending on the washing machine efficiency.

- Recycled water Implementation – Project to implement the Recycled Water Facilities Plan approved by the City Council in 2003. Currently, the City of American Canyon recycles 100 AFY of wastewater to a vineyard directly adjacent to the Wastewater Treatment Plant. The permit for recycled water distribution was issued in 2005. Further expansion of the system will require completion of one remaining segment of pipeline and a storage tank. The 1.0 million gallon storage tank, Recycled Water Tank #1, has been designed and has received environmental approval and all necessary permits. It will be completed concurrently with East Tank #1 by December 31, 2009. The pipeline will be completed with prior to improvements to American Canyon Road West. A consulting contract has been awarded for the pipeline design. It will be completed by December 31, 2009. The City has received a $2.5 million Proposition 50 grant for constructing the recycled water distribution system, which requires that the system be completed by 2010 and achieve 1,000 AFY of distribution by 2011.

Additionally, the Napa Sanitation District is implementing a recycled water system in the City's extraterritorial service area, which includes the Airport Industrial Area. Landscape irrigation within significant portions of the Napa Valley Gateway Business Park have been converted to recycled water. Based on analysis of the water use since this conversion has taken place, potable water use has been reduced by approximately 50% for the properties served by recycled water. The Napa Sanitation District has adopted a Recycled Water Strategic Plan which calls for converting all of the landscape irrigation in the Airport Industrial Area to recycled water. Additionally, several industrial users are committed to using recycled water for their process demands. The Urban Water Management Plan estimated the ultimate yield from this source of supply to be 226 acre feet per year, which represents less than 20% of the ultimate Airport Industrial Area demand and appears to be conservative (low). The scope of the Integrated Water Management Plan includes a more comprehensive estimate of ultimate recycled water demand in this area.

The Napa Sanitation District is also pursuing a recycled water Aquifer Storage and Recovery (ASR) project. They have completed a hydrogeological investigation of five alternate sites, which concluded that two locations in Jameson Canyon were feasible. They are now performing detailed investigation of the preferred site, which is located in lower Jameson Canyon. The ASR project would benefit American Canyon's water supply by improving the reliability of the NSD recycled water supply. It could also serve as a supplemental source to the City of American Canyon during peak summer irrigation periods when the wastewater treatment plant does not generate sufficient supply.

In summary, the City's long term water supply and demand situation is as follows:

Table 1

LONG TERM WATER SUPPLY AND DEMAND			
Source	**Normal Year**	**Multiple-Dry-Year**	**Single-Dry-Year**
State Water Project	3,640	1,976	1,508
Current Vallejo Potable Water Contract	1,351	1,216	1,216
Current Vallejo Contract for Raw Permit Water	500	450	450
Current Vallejo Contract for Raw Water during Emergencies		450	450
Subtotal, Current Supplies	5,491	4,091	3,623
City of American Canyon Recycled Water	1,000	900	900
Napa Sanitation District Recycled Water	228	203	203
Water Conservation	744	744	744
Water Transfer from Sacramento Valley	1,560	1,170	1,170
Remaining Vallejo Potable Water Contract Options	1,854	1,668	1,668
Subtotal, Additional Supplies	5,384	4,685	4,685
Total Long Term Water Supply	**10,875**	**8,776**	**8,308**
(Demand)	(7,026)	(7,026)	(7,026)
Surplus/(Shortfall)	3,849	1,750	1,282

The City of American Canyon has developed a capacity fee program which, when implemented, will ensure an adequate supply of potable and recycled water to meet demands under normal years, multiple-dry-years and single-dry-years

WATER SUPPLY ALTERNATIVES

The Blue Ribbon Committee is currently evaluating alternative water supplies. One of the most promising would be to harvest the rain that currently falls on American Canyon by tapping into groundwater supplies. If groundwater wells yielding 4.5 mgd could be developed, it would not be necessary to purchase additional Vallejo options or to expand the North Bay Aqueduct. Bulletin 118 from the California Department of

Water Resources states that wells up to 300 gallons per minute are found in American Canyon's groundwater subbasin, the Napa-Sonoma Lowlands. A well reportedly yielding 400 gallons per minute is located on the American Canyon High School property. 11 wells yielding 300 gallons per minute would be required to meet the peak demand. Groundwater research was recommended by the Urban Water Management Plan and is being completed through the Integrated Water Management Plan. A 72-hour test was performed on the High School well in Summer 2008. Although the well did produce a large volume it was not sustained and upstream wells stopped producing during the test. This well water was also tested for water quality and was determined to be very high in Boron which is not desirable for drinking water. The City of American Canyon and the Napa Valley Unified School District have entered into an Memorandum of Understanding (MOU) regarding the high school project; one provision of this MOU is an agreement to cooperate on development of the well.

During 2008, the City of American Canyon experienced a 65% cutback in the State Water Project allocation. This would have resulted in a shortfall of 2,300 AFY. However, a number of alternate sources were developed, and implementation of the Water Shortage A Contingency Plan has not been necessary as of May 23, 2008. These sources include previous year carryover, Article 21 Water, Yuba Accord Dry Year Purchase Program and Turn Back Pool A & B Water from the State Water Project. :

Table A Previous Year Carryover. The City is able to carry its unused Table A water over from the previous year to the current year. This additional water is treated as if it were additional Table A water, except it is lost as soon as State Water Project (SWP) storage at the San Luis Reservoir fills and spills due to pumping from the Banks Pumping Plant.

- Other Cities in Napa County Carryover Water. When available, the City can purchase carryover SWP water from the previous year from other cities in Napa County. This additional carryover water has the same conditions as our carryover water; that is, it is treated as if it were additional Table A water, except it is lost once the San Luis Reservoir "fills and spills" because of pumping at the Banks Plant.

- Article 21 Water. Article 21 water is available after the City uses its SWP scheduled monthly allotment when unbalanced conditions exist in the Delta. The Delta is considered to be in an unbalanced condition when rain and snowmelt water is flowing out under the Golden Gate Bridge into the Pacific Ocean.

- SWP Dry-Year Program. It is possible to purchase additional water through the SWP during dry years, when Sacramento Valley farmers willingly let their land lie fallow and make their water available to State Water Contractors. In addition, there are occasional reservoir re-operation activities that some water agencies can do that make water available for sale to buyers. Approvals from DWR and/or SWRCB are often required to allow transfer and conveyance of the water from seller to buyer.

- Pool A and B Water. State Water Contractors that decide not to draw all or a portion of their entitlements in any given year may place their unused water into a pool for resale by DWR to other State Water Contractors.

- Yuba River Accord. This agreement between the Yuba County Water Agency, the Department of Fish and Game, and several other regulatory agencies and environmental groups would revise the operation to provide higher flows in the lower Yuba River and allow the Department of Water Resources to purchase and transfer this water to State Water Project and Central Valley Project contractors in dry years.

- Vallejo Water Service Addendum No. 1 This addendum would allow American Canyon to receive up to 500 acre feet per year of raw water when the City's entitlement is reduced due to environmental or other constraints.

WATER TREATMENT

WATER TREATMENT IMPLEMENTATION STATUS

The City has two water treatment facilities, side-by-side on the same site at 205 Kirkland Ranch Road: a 2.5 million gallon per day (mgd) conventional treatment plant completed in 1976, and a 3.0 mgd advanced technology treatment plant completed in 2004. The advanced technology treatment plant uses membranes manufactured by Zenon Corporation, as does the wastewater treatment plant.

Additional treatment capacity is needed to achieve the General Plan EIR peak day demand estimate of 10.0 mgd. The membrane plant was designed to accommodate an additional 3.0 mgd expansion within the existing structure. This is included in the capital fee capital program. Expansion to the North Bay Aqueduct (NBA), as discussed above, would be needed to meet the peak day flow requirements for this additional treatment. Under this approach, the total treatment plant capacity would be 8.5 mgd. The remaining 1.5 mgd of peak treated water capacity could come from the City of Vallejo through the water supply contract discussed above. The Vallejo contract currently provides up to 1.3 mgd of peak day capacity during a peak month, which would be more than adequate to meet the treatment gap. If all of the remaining options were executed, the Vallejo contract would provide up to 3.1 mgd of peak day capacity during a peak month. An additional metering station would be needed to deliver this water to the City of American Canyon distribution system; this metering station is included in the capacity fee capital program.

WATER TREATMENT ALTERNATIVES

The City of American Canyon also enjoys a physical connection to the City of Napa's treated water supply. Currently, the City of Napa treated water is provided on an informal basis in the absence of an agreement. On June 17, 2008, the City Council approved a one-year agreement with the City of Napa to treat and wheel water on behalf of the City of American Canyon. The City of American Canyon and the City of Napa have recently agreed to extend the agreement for another year. The agreement provides up to 1 mgd of treatment capacity in normal circumstances and up to 2.25 mgd when the North Bay Aqueduct is out of service.

WATER STORAGE, TRANSMISSION, AND DISTRIBUTION STATUS

Two additional storage tanks for treated water are needed to support anticipated fire flows and daily demands for the cumulative condition. East Tank #1, a 2.5 million gallon potable water tank, has been designed for a site to the east of Newell Drive. The base of the tank will be set at elevation 195 to match the existing Oat Hill #1 tank. The two tanks together will serve the main pressure zone in the City of American Canyon. Negotiation is underway for the site for East Tank #1. A mitigated negative declaration has been completed, the plans and specifications are 95% complete, and regulatory permits have been obtained. The land has been acquired and construction is to be completed by Summer 2010.

A variety of projects are included in the capacity fee capital program to expand the water distribution system, to repair existing deficiencies, or a combination of the two. Recently, Flow Control Valve (FCV) #9, which overly restricted water flow from the treatment plant to the distribution system was removed. The backbone of the distribution system is a 14"diameter transmission main which runs down SR 29; it was built in the 1950s, is badly corroded and is being replaced in segments as part of a biennial water main replacement program and by new development. As it is replaced, additional capacity will be added and water loss will be reduced. As demands grow, there is a need for additional connections across SR 29; project is planned to complete three connections. Similarly, development on the east side of SR 29 will require closing gaps in the existing water main. Ultimately, increased flows from the water plant will require transmission improvements, either a pump station or another pipeline, on the east side of SR 29.

WATER CAPITAL PROGRAM FINANCIAL STATUS

The Water Capital Program is primarily funded by capacity fees, supplemented by capital funds from the Water Operations Fund. The City of American Canyon has adopted a fiscal policy which requires new development to fully fund improvements needed to serve that development. Accordingly, the City's Blue Ribbon Committee on Water Resources recommended that the City Council approve a significant increase in the water capacity fee. The capacity fee for a single-family residence has been increased from the prior rate of $11,634 to a new rate of $12,482. The fees were approved at a public hearing on July 21, 2009.

VINEYARDS ANALYSIS

VINEYARDS DECISION

The California Supreme Court decision "Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova and Sunrise Douglas Property Owners Association et. al" sets forth guidelines for evaluating the water supply of a project under the California Environmental Quality Act (CEQA). It requires that water supplies not be illusory or intangible, that water supply over the entire length of the project be evaluated, and that environmental impacts of likely future water sources, as well as alternate sources, be summarized.

FACTS WITH RESPECT TO SOLUTIONS TO WATER SUPPLY PROBLEMS

The City of American Canyon has developed a capacity fee capital program which, when implemented, will ensure an adequate supply of potable water and recycled water to meet demands under normal years, multiple-dry-years, and single-dry-years.

WATER SUPPLY OVER THE LIFE OF THE PROJECT

The project is a single phase. Accordingly, an analysis of water supply for later phases is not required.

IMPACTS OF LIKELY FUTURE WATER SOURCES

Potential environmental impacts of purchasing a permanent transfer of 1,560 acre feet per year of water rights from Sacramento Valley agricultural interests have not yet been evaluated. However, because the water would be used to make up shortfalls in the State Water Project supplies and would be conveyed using existing State Water Project facilities, the transfer would not require the construction of any new facilities. Also, such an intra-regional transfer would be consistent with the Sacramento Valley Integrated Regional Water Management Plan, which has been subject to significant public input and environmental review. Lastly, several of the potential sellers of water rights have completed environmental review of similar permanent transfers.

The environmental review of North Bay Aqueduct expansion has not been initiated. However, the area of disturbance of the pipeline would largely be included within the area impacted by the Jameson Canyon (SR 12) widening project, which is currently being evaluated by Caltrans through a mitigated negative declaration.

No environmental review has been performed for a potential emergency groundwater bank. However, such a groundwater bank is intended to improve the reliability of water supplies and is not to serve as a primary water source. Also, it should be noted that wells in the vicinity of Soscol Creek historically served the American Canyon area as well as portions of Solano and Contra Costa counties with potable water supply. The wells have been inactive since the mid-20th century.

No additional environmental review would be needed to execute the remaining options for treated water supply from the City of Vallejo because these options are included within the 1996 contract.

Water conservation would result in no negative impacts to the physical environment.

A mitigated negative declaration was prepared for the recycled water distribution system when the Recycled Water Facilities Plan was adopted by the City Council in November 2003. Impacts were minimal because the pipelines were to be located in existing public rights of way.

POSSIBLE REPLACEMENT SOURCES AND THEIR IMPACTS

Development of groundwater as an alternative municipal supply is currently under study as part of the Integrated Water Management Plan. Potential environmental impacts have not yet been evaluated. However, 41 existing wells are included in the Department of Water Resources records for the City of American Canyon area. The average flow rate for these wells varies from approximately 5 to 20 gpm, with the total between all wells of approximately 500 gpm. This does not include the well on the high

school property. Most, if not all, of these wells will eventually go out of service as City of American water service is supplied. Thus, a minimum of 500 gpm, which would equate to 807 AFY, would be available without increasing the rate of withdrawal of groundwater.

RECOMMENDED MITIGATIONS

LONG TERM WATER MITIGATIONS

The potable water impacts of the Napa Commerce Center project will be fully mitigated by the financial contribution it will make to the water capacity fee program.

SHORT TERM WATER MITIGATIONS

The project is occupied therefore it represent 100% of the demand for the 2009/2010 water year. It is assumed that 100% of the project is occupied for the 2010/2011and 2011/12 water years.

The additional source of supply from acquiring a permanent transfer of water rights from Sacramento Valley agricultural interests will not be available until the 2011/12 water year, based on three years from the anticipated completion of the evaluation of potential sellers, which is currently underway.

The recycled water system will not be fully implemented until 2010/11 water year, based on completion of Recycled Water Tank #1 by December 21, 2009 and the remaining pipeline by December 31, 2010.

A decision will not be made as to executing the 2007-2011 option under the Vallejo water contract until after the Integrated Water Management Plan is completed in 2009. If an alternate supply is chosen, it would require a minimum of two years to implement.

Thus the project would result in potential reliability impacts during multiple-dry-year and single-dry-year conditions during the 2009/10 and 2010/11 water years. This impact can feasibly be mitigated, however, by providing funds to the City of American Canyon to purchase dry-year water, if necessary. Dry-year water is available either through the State Water Project Contractor's Association or from individual sellers. The cost of dry-year water (2008/09) is currently on the order of $275 per AF per year, and no environmental review is required on a one-year transfer. Acquisition of one-year water transfers for the 2009/10 and 2010/11water years will mitigate short term impacts, as follows:

Table 2

SHORT TERM MITIGATION					
Water Year	Percent occupied	Annual demand (AF)	Water needed (AF)	Estimated cost/AF	Short-term mitigation
2009-10	100%	12	0	$302	$0
2010-11	100%	12	6	$330	$1,980
2011-12	100%	12	12	$357	$4,284
Total					$6,264

The project will contribute the above amounts as non-refundable payments to the water operations fund to allow the City to acquire dry-year water, if necessary. If the long-term mitigations are not in place prior to the 2011-12 water year, the project will continue to make annual non-refundable payments until the short-term impacts are mitigated by completion of long-term improvements.

OPPPORTUNITIES TO REDUCE PROJECT'S WATER FOOTPRINT

On-site Conservation opportunities

The project will be reviewed for additional on-site conservation opportunities during the building permit plan review process.

OFF-SITE CONSERVATION OPPORTUNITIES

The project could reduce its water footprint by including one or more of the following off-site water conservation opportunities:

- Conversion of existing toilets to high-efficiency toilets
- Conversion of existing washing machines to high-efficiency, front-loading washing machines
- Conversion of existing urinals to waterless urinals
- Conversion of existing irrigation demands from potable water to recycled water
- Conversion of existing industrial demands from potable water to recycled water
- Completion of a landscape conversion project