

**Historic Resource Report
and CEQA Findings
by Juliana Inman Architect**

**New Winery Facility
Swanson Vineyards
Oakville Cross Rd., Napa County, CA**

Description, significance and evaluation:

Swanson Vineyards has submitted plans for construction of a new winery facility near the intersection of Money Road and Oakville Cross Rd. in unincorporated Napa County. The site contains two buildings over 50 years old. Construction of the project will require removal or demolition of these buildings. At the request of the project applicant, this reviewer has visited the site twice, taken site photographs, and reviewed documents prepared by Lail Design Group in 2008. Plans for the site show both existing buildings removed.

The existing house is a simple bungalow style one story wood-sided house with hipped roof and centered hipped-roof dormer facing the front over a full front set-in porch. The porch has tapered half-columns set on a solid wood sided rail. The front door is centered and flanked by double one-over-one windows. The house has a good level of integrity and is in good condition, having experienced few alterations and appearing to have been well-maintained over the years. Style of the house dates its construction to the 1920's to 1930's.

The barn on site is also a wood frame building, with gable front and rear, rough wood siding, double sliding barn doors at the front, small hay hood at the rear, and corrugated metal roofing. Style of framing, nails, wood milling and hardware indicate a construction date similar to the house – probably the 1930's. The barn is in fair to poor condition.

California Environmental Quality Act (CEQA) analysis:

According to California Environmental Quality Act (CEQA) regulation, historic resources are automatically eligible for the California Register if they have been listed in and determined eligible for the National Register of Historic Places or the California Historic Landmarks program. Historic resources included in historic resource inventories prepared according to the California State Office of Historic Preservation (SHPO) guidelines (and included in the State Inventory of Historic Resources) or designated under county or city historic landmark ordinances are presumed eligible if the designation occurred during the previous five years. Designations and surveys over five years old must be updated before their eligibility can be considered.

The California Register regulations define “integrity” as “the authenticity of an historic resource’s physical identity, evidenced by the survival of characteristics that existed

during the resource's period of significance" (State Office of Historic Preservation, 1997). These regulations specify that integrity is a quality that applies to historic resources in seven ways: **location, design, setting, materials, workmanship, feeling and association**. A property must retain **most** of these qualities to possess integrity.

The criteria for eligibility for listing in the National Register are virtually the same as for the California Register. To meet the National Register standards, a property must meet these same criteria, be associated with an important historic context, and retain the historic integrity of features that convey significance (National Park Service, 1991).

Although slightly altered at the rear, the house retains integrity of **location, design, feeling and association**. The house is not a rare or unique example of its type and style of architecture or construction. It is possibly a good candidate for relocation.

The barn retains some integrity of **location, design, feeling and association**, but is in poor condition. It does not appear to be a good candidate for relocation due to structural inadequacy of the framing system.

The house and the barn and the site containing both - do not qualify for listing on the California or National Register.

Secretary of the Interior Standards and California Environmental Quality Act (CEQA) analysis:

According to current CEQA regulation:

Title 14. California Code of Regulations, Chapter 3. Guidelines for Implementation of the California Environmental Quality Act Article 5. Preliminary Review of Projects and Conduct of Initial Study, Section 15064.5. Determining the Significance of Impacts to Archeological and Historical Resources:

(3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.

Secretary of the Interior Review:

The County of Napa generally references compliance with The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, in the design review conditions and/or negative declaration for projects. Compliance with these guidelines avoids any negative impacts on the existing building.

If either building is relocated, use of the Secretary of the Interior Standards for Rehabilitation will assure there is a *de minimus* impact under CEQA.

State Historic Building Code:

From the Division of the State Architect's web site introduction:

It is the purpose of the State Historical Building Code to provide regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction) or **relocation** as applicable to all historical buildings, structures and properties deemed of importance to the history, architecture, or culture of an area by an appropriate local or state governmental jurisdiction. Such standards and regulations are intended to **facilitate the restoration or change of occupancy so as to preserve their original or restored elements and features, to encourage energy conservation and a cost effective approach to preservation**, and to provide for reasonable safety from fire, seismic forces or other hazards for occupants and users of such "buildings, structures and properties" and to provide reasonable availability and usability by the physically disabled.

The State Historical Building Code is defined in Sections 18950 to 18961 of Division 13, Part 2.7 of Health and Safety Code (H&SC) Health and Safety Code, a part of [California Law](#).

Conclusions:

It is recommended that the State Historic Building Code be used in the event either building is relocated from this site since both buildings are over 50 years old and retain integrity that could continue to contribute to the agricultural history of Napa. This reviewer recommends offering both buildings for relocation for a period of 30 days in local newspapers and through local historic preservation groups prior to issuance of demolition permits. Since the buildings and site are not National Register eligible, relocation does not negatively impact the integrity of the buildings.

Sources:

1. 36 CFR Part 800: Protection of Historic Properties, Advisory Council on Historic Preservation, 1986.
2. California CEQA Guidelines, amended 1 February 2001.
3. California CEQA Statute, amended 1 January 2002.
4. California Governor's Office of Planning and Research, "Thresholds of Significance: Criteria for Defining Environmental Significance: CEQA Technical Advice Series," September 1994.
5. Instructions for Recording Historical Resources, California Office of Historic Preservation, March 1995.

6. National Register Bulletins 15 and 16A (National Park Service 1990b, 1991) NRHP Status Codes.
7. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, (1995), Weeks and Grimmer.
8. Division of the State Architect, SHBSB information accessed 12/07/09:
<http://www.dsa.dgs.ca.gov/SHBSB/default.htm>

Report by:

A handwritten signature in black ink, appearing to read 'Juliana Inman', with a long horizontal flourish extending to the right.

Juliana Inman Architect
California Architect, license #C14760

Exhibit A
Page 1
Swanson
7 December 2009

Front of house:



Oblique view:



Exhibit A
Page 2
Swanson
7 December 2009

East side of house:



West side of house:



Exhibit A
Page 3
Swanson
7 December 2009

Oblique view of front of barn:



Oblique view of rear of barn:



Hay hood (structural failure at ridge):



Roof edge detail:



Exhibit A
Page 5
Swanson
7 December 2009

Hardware, siding and nail detail:





NORTHWEST BIOSURVEY

Environmental & Planning Services
P.O. Box 191, Cobb CA 95426

Phone (707) 928-1985 Fax (707) 928-1986
nwbio@mchsi.com

December 7, 2010

Mr. Mark Philips
Dickenson, Peatman and Fogarty
809 Coombs Street
Napa, CA 94558

RE: Tree Survey for Swanson Vineyard Project

Dear Mr. Philips:

As per your request of December 3, 2010, we have completed a site survey of trees marked for removal on the Riechers Spence Associates "Swanson Vineyards Demolition Plan" dated October 27, 2010. We have labeled the tree species on a copy of the above mentioned plan which is included as Attachment 1. Based on our survey, 16 California black walnut trees are marked for removal. However, it is clear, based on the location and layout of these trees on the property, that these trees are landscape specimens associated with the residence and roadway. These trees are shown in attached photos 1 through 3. As shown in the photos, the trees are arranged in equally spaced rows along property boundaries and along Money Road.

Natural populations of Northern California black walnut (*Juglans californica* var. *hindsii*) are listed as California Native Plant Society (CNPS) List 1B.1 species requiring CEQA review and mitigation under CEQA Guidelines Section 15380(d). This species is typically a riparian tree and is found throughout drainages of the Napa Valley. However, Northern California black walnut has been used as root stock for English walnut orchards since the early 1900's because unlike English walnut, they are resistant to native parasitic nematode infections.

Aerial photos taken in ~1940¹ show the surrounding area planted in what appears to be walnut orchard. While producing trees consisted of English walnut grafts, Northern California black walnut was typically planted on-site from seed and raised to serve as future rootstock. Many of the black walnut trees not used as rootstock were allowed to

¹ Provided by DP&F who obtained them from Napa County GIS staff.

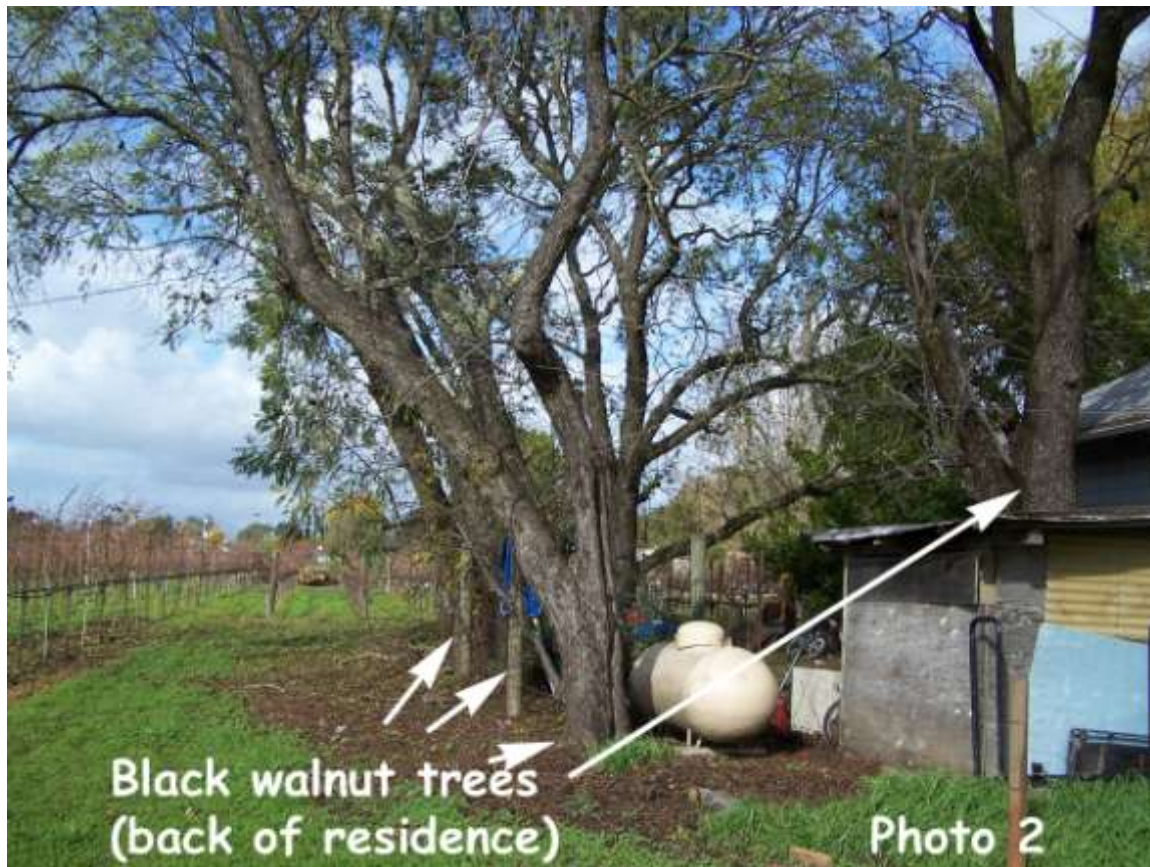
mature and were used as a source of pollen, depending on the hybrids desired, or, as is apparent along nearby roadways, were used as landscape trees². Much of Oakville Cross Road east of Money Road, and portions of Money Road itself, is lined with Northern California black walnut.

Northern California black walnut associated with orchards and landscaping does not qualify as a sensitive taxon³ subject to protection under the CEQA Guidelines.



² Rachel Elkins, U.C. Davis Agricultural Extension Lake County, personal communication 12-7-10.

³ A term used to indicate taxonomic units and used here because Northern California black walnut is a variety of a species that contains other varieties that are not rare.

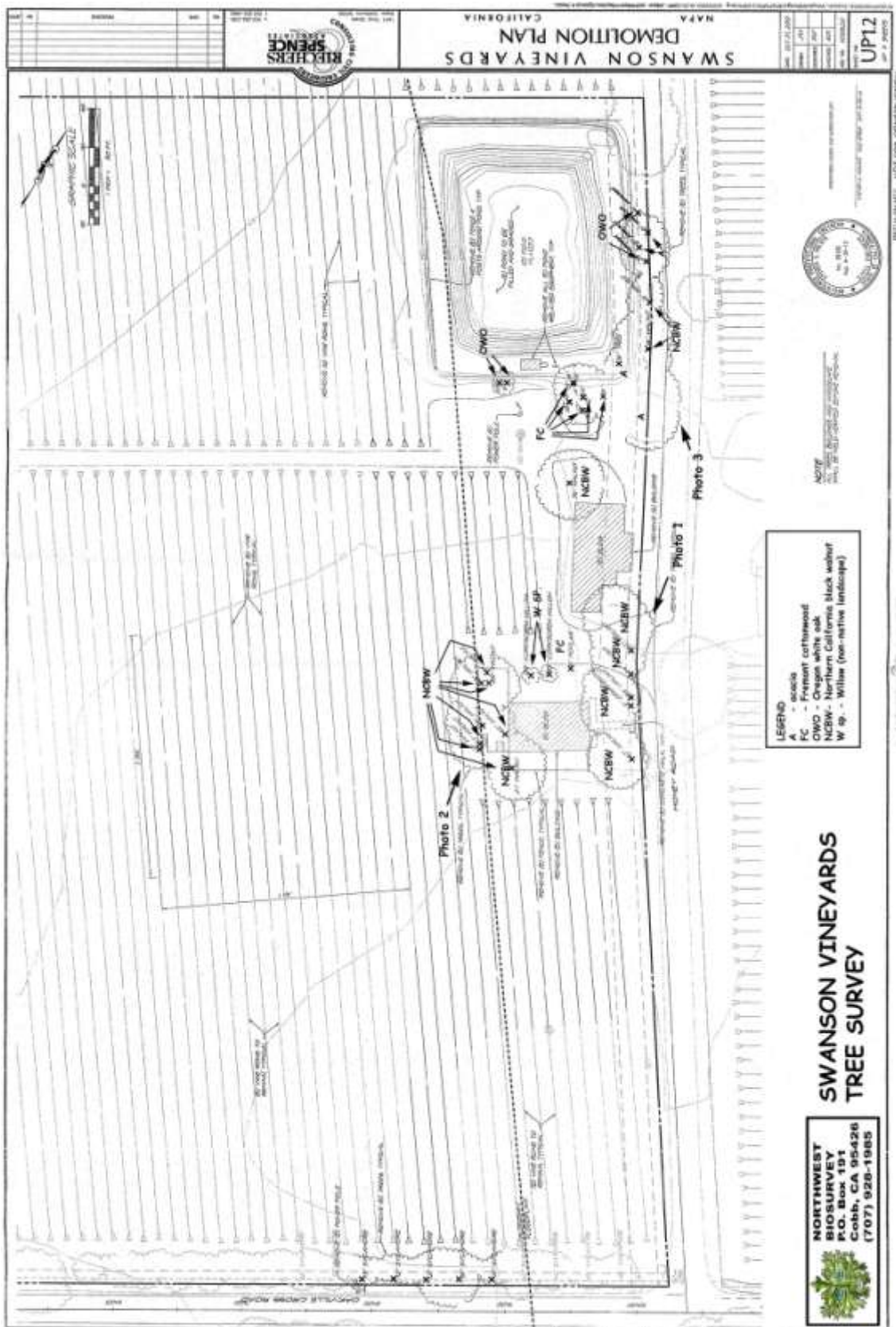




Sincerely,

ORIGINAL SIGNED

Steve Zalusky
Principal Biologist





NORTHWEST BIOSURVEY

Environmental & Planning Services
15865 Rainbow Drive, P.O. Box 191, Cobb CA 95426

Phone (707) 928-1985 Fax (707) 928-1986
nwbio@mchsi.com

December 16, 2010

Mr. Mark Philips
Dickenson, Peatman and Fogarty
809 Coombs Street
Napa, CA 94558

RE: Addendum to 12-7-10 Tree Survey Report for the Swanson Vineyard Project

Dear Mr. Philips:

Reason for Addendum: This addendum is provided in order to explain the approach used in determining sensitive status of Northern California black walnuts in our 12-7-10 tree survey report for the Swanson property. Our determination that the trees should not be considered to have sensitive status is based on whether or not they form part of a natural community or, instead, are associated with orchard or landscape planting. This is the standard protocol used by biologists in California to determine sensitive status of Northern California black walnut. We contacted the lead biologist with the Department of Fish and Game, California Natural Diversity Database section, who concurs with this approach¹. It has the advantage of being practical and implementable. This standard protects natural populations while excluding agricultural operations and landscape projects from sensitive CEQA status.

Based on this habitat standard, we determined that the trees were not part of a natural community because they are not in a riparian setting and are not part of a natural community including other native trees, shrubs, and ground cover. The trees are planted in uniform rows along Money Road and along the property fence-line and are associated with an adjacent residence.

Subsequent Research: During the past three days we have conducted a relatively extensive literature search and have discussed the genetic testing approach proposed by county staff

¹ Roxanne Bittman, Lead Botanist for the California Natural Diversity Database, personal communication 12-14-10.

with experts in the field². We also revisited the project site in an attempt to determine whether the subject trees can be determined to be pure *J. californica var. hindsii* based on morphological characters alone.

Genetic Makeup: Potential hybrids of *J. californica var. hindsii* include a number of other walnut species and varieties intentionally crossed with these trees to produce commercial rootstock for English walnut production. These include: Eastern black walnut (*J. nigra*), California black walnut (*J. californica var. californica*), and English walnut (*J. regia*).

Based on our inspection of the trees, they are morphologically consistent with *J. californica var. hindsii*. Leaf length, shape and number of leaflets are a match for the native variety. While average nut size is more consistent with California black walnut (*J. californica var. californica*) at 2.5 cm rather than 3-3.5 cm for *J. californica var. hindsii*, this alone would not justify a conclusion regarding the genetic makeup of these trees³. Consequently, we conclude that, based on morphology, the trees are native Northern California black walnut, which is consistent with our original conclusion. However, no definitive conclusion can be made regarding the genetic make-up of the trees without actual DNA testing.

I discussed the use of genetic testing on walnut trees with two experts in the field, Chuck Leslie of U.C. Davis Agriculture Department and Dan Potter, U.C. Davis Plant Sciences Department. Both have published extensively on walnut production, diseases, and genetics. Based on my discussion with these gentlemen, extensive research has been done on the genetics of walnut species in California. This work focuses on chloroplast DNA, for which there are known markers for the species and varieties used in California. However, this intensive investigation is associated with academic research and is not available as a commercial service. Dr. Potter has occasionally done testing for nurseries when the equipment is set up and a student is available. However, this would not be practical and is not available on a commercial scale.

Possible Age and Origin of Walnut Trees on the Swanson Property: During our second site visit I cored two of these trees with a 5 mm hand auger in order to estimate their age. This was at the request of the property owner and this technique causes no lasting harm to the tree. Exact ages are difficult to obtain for walnut trees because they are a semi-ring-porous hardwood typically with uniform wood color and with gradual transitions from large to small pore diameter between the early and late wood for each year (i.e. the rings are not distinct).

² Chuck Leslie, U.C. Davis Agriculture Department, personal communication 12-10-10; Dan Potter, U.C. Davis Plant Science Section, personal communication 12-13-10; Roxanne Bittman, CDFG, CNDDDB, personal communication 12-14-10.

³ Chuck Leslie, *ibid* footnote 2.

We estimated the age of these trees by measuring the number of rings within standard segment lengths in segments where the rings were most discernable. Using this approach we estimated a standard number of rings per centimeter. The radius of the tree was then divided by this number. There are obvious inaccuracies in this approach including the assumption that the tree rings are the same width around the entire circumference of the tree and that the standard we developed was characteristic of the entire core. Considering these sources of error, we estimate that the walnut trees were planted between 1870 and 1895. These dates, particularly the earlier date, are consistent with a major planting of black walnut and other fruit trees along roadways in the California.

Based on my discussion with Chuck Leslie⁴, native walnut trees were planted extensively throughout California in the late 1800's and early 1900's in response to a statewide program. Using this information I was able to find a copy of the 1872 Public Roads and Highways Fruit Tree Cultivation Act passed by the State Board of Agriculture⁵. This act authorized county boards of supervisors to designate roadways within their counties along which people owning adjacent lands were encouraged to plant fruit trees. Four years after planting, the landowners were awarded one dollar for each live tree. The Act specifically listed native walnuts as a preferred tree. It is very likely, based on the age of these trees, that they along with the walnut trees along the Oakville Cross Road and elsewhere in the Valley were planted as part of that program.

Recommendations: We strongly recommend that the County review the proposed policy of basing the sensitive status of Northern California black walnut on genetic makeup rather than on origin and habitat. Based on our literature search and on discussions with experts in the field, there is no commercially available test for the genetic purity of Northern California black walnut. Morphology (phenotype) alone cannot provide a definitive answer regarding the purity of these trees. Consequently, there is no practical means of implementing such a policy.

Sincerely,

ORIGINAL SIGNED

Steve Zalusky
Principal Biologist

⁴ ibid footnote 1.

⁵ Pacific Rural Press, Volume 4, Number 19; 9 November 1872 (<http://cdnc.ucr.edu/cdnc>).



NORTHWEST BIOSURVEY
Environmental & Planning Services
P.O. Box 191, Cobb CA 95426

Phone (707) 928-1985 Fax (707) 928-1986
nwbio@mchsi.com

April 28, 2011

Mr. Richard Mendelson
Mr. Mark Phillips
Dickenson, Peatman and Fogarty
809 Coombs Street
Napa, CA 94558

RE: Results of Western Pond Turtle (*Emys marmorata*) Survey for the Swanson Vineyard Project

Dear Messrs. Mendelson and Philips:

As per your request, we have completed a survey of the on-site pond for western pond turtle. Following are descriptions of the methods used and the results.

Survey Date and Times:

The survey was conducted on April 27, 2011. The survey began at 2:30 PM and ended at 3:00 PM.

Environmental Conditions During the Survey:

- **Air temperature:** 76°F
- **Water temperature:** 62°F
- **Wind speed:** 0 to 1 mph, with gusts up to 3.3 mph

Description of Survey Site:

The survey area is a constructed agricultural pond approximately 8 feet deep. The banks on three sides are fairly steep and contain no wetland vegetation. The western bank contains a band of tules. A small area of exposed rocks occurs at the southwest end of the pond. A pump operates nearly continuously at the south end of the pond, creating noise and local disturbance to the water.

Survey Procedure:

The survey was carried out using a standardized survey protocol. The site was viewed at a distance with binoculars in an attempt to see turtles before they could be disturbed by human presence. Banks were walked slowly in an attempt to see turtles before they could slip into the water. The entire perimeter of the pond was walked so that the pond and opposite bank could be viewed with binoculars. Close-up surveys were carried out following the period of listening and scanning. The pond was continuously viewed by one staff member throughout the 30 minute survey period in order to observe any submerged turtles surfacing to breath.

Survey Results:

Western Pond Turtle: No western pond turtles were observed during the survey. While western pond turtles range widely within the watersheds where they occur, they generally travel along riparian corridors or through wetlands. It is very unlikely that they will leave a riparian corridor to travel cross-country through commercial vineyards to a manmade upland reservoir. For this reason, it is unlikely that turtles visit the pond.

The closest riparian habitat is a small constructed drainage 460 feet to the north. This drainage extends 1,500 feet north to Conn Creek through active vineyard. Turtles accessing the small reservoir would need to know that it existed and then travel 460 feet through vineyards and cross Money Road to reach it. Even then, the pond appears to lack suitable cover and food sources for turtles. Access from the Napa River seems even less likely. The river is approximately 3,300 feet to the southwest across a continuous expanse of active vineyard.

Other Herptiles Observed: Bullfrogs (*Rana catesbeiana*) were heard in area of the tules. Crayfish are present in the pond.

Recommendations:

No further surveys for this species are recommended.

Sincerely,



Steve Zalusky
Principal Biologist

George W. Nickelson, P.E.
Traffic Engineering – Transportation Planning

August 26, 2010

RECEIVED

AUG 30 2010

NAPA CO. CONSERVATION
DEVELOPMENT & PLANNING DEPT.

Mr. Richard Mendelson
Dickenson, Pcatman & Fogarty
809 Coombs Street
Napa, CA 94576

Subject: *Updated Traffic Analysis for a Proposed Swanson Winery on Oakville Cross Road in Napa County*

Dear Mr. Mendelson:

This report summarizes an updated focused traffic analysis for the proposed Swanson Winery on Oakville Cross Road in Napa County (see Figure 1 for site location map). This updated analysis responds to our discussions regarding the winery's expected employment and visitor characteristics. The updated study also reflects the original field reviews/traffic counts at the site access.

As outlined in the report, sight distance along Oakville Cross Road would be adequate at the proposed driveway. The combination of peak summer season traffic volumes on Oakville Cross Road and peak weekday and Saturday traffic volumes in/out of the proposed winery would warrant a left-turn lane on Oakville Cross Road. Volumes would be well below the thresholds at which a right-turn lane would be needed. We also note that the site driveway width at Oakville Cross Road should accommodate inbound and outbound truck turn paths.

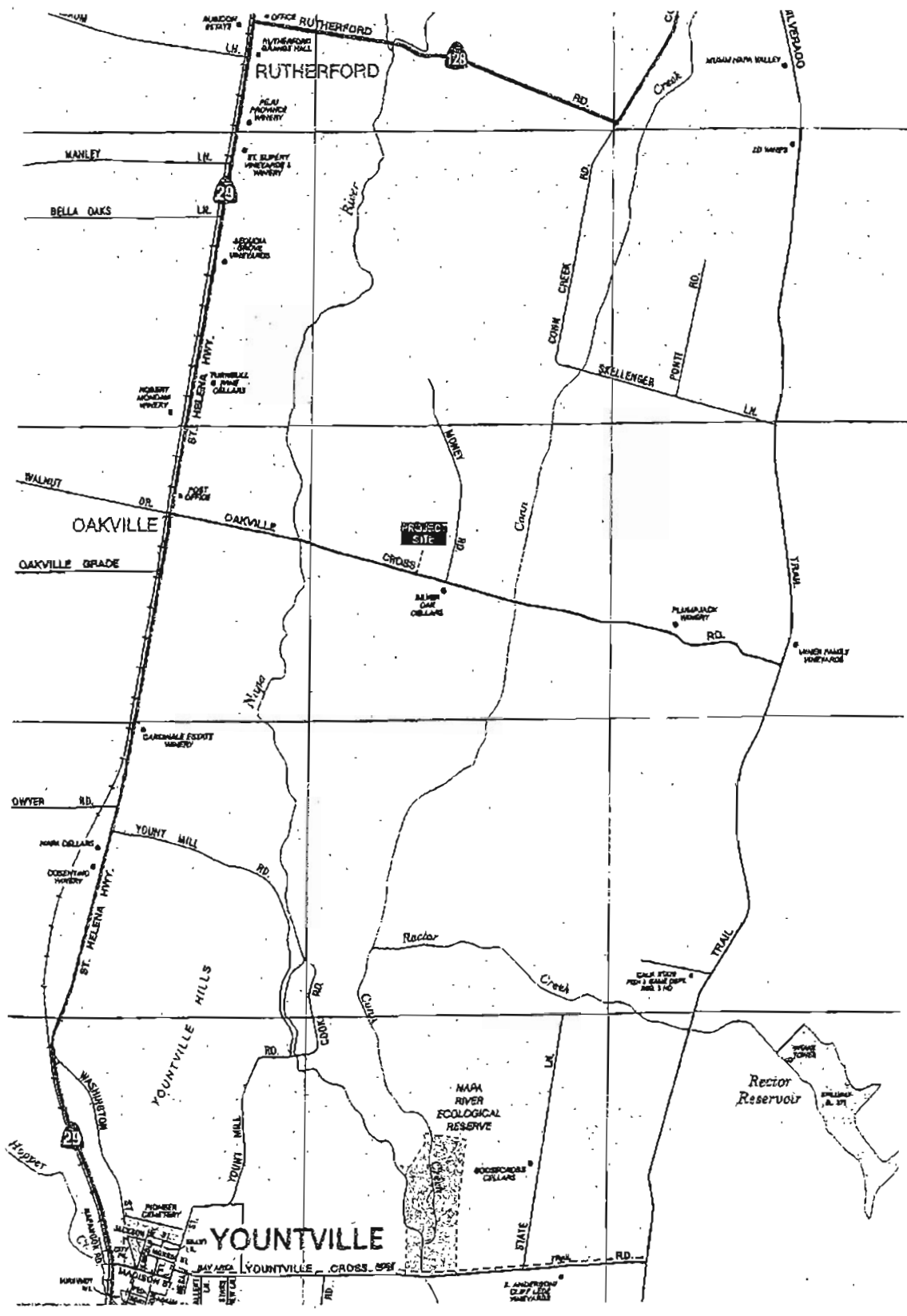
It is noted that Oakville Cross Road has recently been widened to accommodate a two-way-left-turn-lane (TWLTL) at Money Road and the Silver Oak Cellars driveway (the actual TWLTL striping had not been completed at the time of this report). The widening extends to about 300 feet west of Money Road, and as such provides additional roadway width adjacent to the proposed Swanson Winery site access. As a result, we recommend that the Swanson Winery access design be coordinated with the planned TWLTL design in Oakville Cross Road.

I trust that this report responds to your needs. Please review this information and call me with any questions or comments.

Sincerely,



George W. Nickelson, P.E.



Project Site Location Map



George W. Nickelson, P.E.

figure 1

1. Existing Traffic Conditions

a. Traffic Operations

Oakville Cross Road, a two lane road, provides an east-west connection between State Route 29 (SR 29) and Silverado Trail and is essentially a two-lane rural road in the area of the proposed winery. Based on counts conducted as a part of this study, Oakville Cross Road has daily traffic volumes (west of Money Road) of 2,015 vehicles on a peak summer Friday and 1,539 vehicles on a peak summer Saturday.⁽¹⁾

As a part of this study, turning movement traffic counts were conducted on Oakville Cross Road at Money Road (the proposed winery's access would be west of Money Road) during a weekday PM peak commute period (4-6 PM) and the Saturday afternoon peak period (1-3 PM).⁽²⁾ (Winery visitor activity is expected to be highest during a Saturday afternoon.). These counts indicate that the two-way peak hour flows are 164 vehicles during the weekday peak hour and 286 vehicles during the Saturday afternoon peak hour. At the winery site access intersection, Oakville Cross Road has recently been widened to accommodate a two-way-left-turn-lane (TWLTL) at Money Road and the Silver Oak Cellars driveway (the actual TWLTL striping had not been completed at the time of this report).

The winery site currently has one residence and an active vineyard with access via Money Road. The existing residence traffic activity is low, and typical daily employment and activity associated with the site's vineyard are also very low.

b. Vehicle Speeds and Sight Distance on Oakville Cross Road

The primary issues for access design are the vehicle visibility and operation relative to vehicles traveling on Oakville Cross Road and vehicles turning in/out of the winery access. The required vehicle visibility or "corner sight distance" is a function of the travel speeds on Oakville Cross Road. Caltrans design standards indicate that for appropriate corner sight distance, "a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the cross road and the driver of an approaching vehicle in the right lane of the main highway."⁽³⁾ Based on radar surveys conducted as a part of this study, the "critical" vehicle speed (85% of all surveyed vehicles travel at or below the critical speed) along Oakville Cross Road at the proposed winery were observed to be about 51-52 miles per hour (mph) during both the weekday PM peak period and the Saturday afternoon peak period.⁽⁴⁾ Based on Caltrans design standards, these vehicle speeds require a sight distance of about 450 feet, measured along the travel lanes on Oakville Cross Road.⁽⁵⁾

2. Traffic Effects of the Proposed Winery

a. Project Description

The proposed project would involve a new winery with a maximum annual production of 100,000 gallons.⁽⁶⁾ A substantial majority of the fruit would be harvested on-site. A total of 500 weekly visitors (by appointment only) are expected with about 40 persons on a typical weekday and up to

200 persons on a peak Saturday. On weekdays, the winery site would include those employees working in administration and production for the winery and vineyard. As a result, weekday employment (30 persons) is expected to be similar to employment on a Saturday. There would be a total of 35 persons on-site during the harvest season. Table 1 outlines the winery's expected daily traffic generation on a typical weekday, a peak Saturday and a typical day during the harvest season.

b. Changes in Traffic Operations

As outlined in Table 1, the winery would generate 83 daily trips on a typical weekday, 195 daily trips on a peak Saturday and 80 typical daily trips during the 8-week harvest season. If it were conservatively assumed that 20% of the trips occur during the peak hours, this would amount to 17 trips during the typical weekday PM peak hour and 39 trips during a peak Saturday afternoon peak hour. The typical weekday and peak Saturday peak hour volumes (with the project trips) are outlined in Figure 2. At the proposed project driveway, the outbound project traffic would operate at LOS "A" during both the typical weekday and peak Saturday peak hours (LOS definitions and calculations are attached as appendices).

c. Site Access Design Issues

Napa County warrants for left turn lanes are based on the daily traffic volumes on both the main road and the access road (warrant graph is attached as an appendix).⁽⁷⁾ Based on the peak summer season weekday and Saturday volumes and the County warrant standards, a left-turn lane would be required in Oakville Cross Road at the site access. The projected peak hour volumes in/out of the site driveway are well below minimum thresholds at which right-turn lanes (deceleration and acceleration) would be required (warrant graph is attached as an appendix).⁽⁸⁾ As shown on Figure 2, the driveway would have 2 inbound left-turns during a weekday PM peak hour and 10 inbound left turns during a Saturday afternoon peak hour.

As noted under the description of existing conditions, Oakville Cross Road has recently been widened to accommodate a two-way-left-turn-lane (TWLTL) at Money Road and the Silver Oak Cellars driveway (the actual TWLTL striping had not been completed at the time of this report). The widening extends to about 300 feet west of Money Road, and as such provides additional roadway width adjacent to the proposed Swanson Winery site access.

The winery access intersection is located on a straight section of Oakville Cross Road. Field observations indicate sight distances to the east and west are generally well in excess of the 450 feet needed for the measured vehicle speeds. However, it is recognized that a row of trees planted along the north side of Oakville Cross Road can impair visibility. Trimming of the lower branches of these trees would maximize visibility both east and west on Oakville Cross Road.

The project driveway would need to meet the Napa County standards (18 feet of pavement plus a 2-foot shoulder for two-way traffic flow). At its intersection with Oakville Cross Road, the driveway design should also accommodate turn paths for inbound and outbound right-turns by trucks.

3. Summary and Conclusions

The following conclusions reflect the traffic analysis:

- The project's driveway on Oakville Cross Road would operate at LOS "A" during both the weekday and Saturday peak hours.
- Sight distance on Oakville Cross Road would appear to be adequate at the site driveway (sight distances to be confirmed by the project's design engineer).
- The peak summer season daily volume on Oakville Cross Road and the peak Saturday site driveway volume would warrant a left-turn lane in Oakville Cross Road at the site access (typical daily volumes would be below the left turn lane warrants). It is recommended that the Swanson Winery access design be coordinated with the planned TWLTL design in Oakville Cross Road at Money Road and the Silver Oak Cellars driveway.
- Driveway volumes would be well below the thresholds at which a right-turn lane would be needed.
- The site driveway would need to meet County standards for width - the width at Oakville Cross Road should accommodate inbound and outbound truck turn paths.

References:

- (1) George W. Nickelson, P.E., traffic volumes for Oakville Cross Road based on counts conducted August 22-23, 2008.
- (2) George W. Nickelson, P.E., traffic counts, field measurements and speed surveys on Saturday July 19, 2008 and Tuesday July 22, 2008.
- (3) Caltrans, *Highway Design Manual – Fifth Edition*, July 1, 2004.
- (4) George W. Nickelson, P.E., *ibid...*
- (5) Caltrans, *ibid...*
- (6) Production, employee and visitor data provided by Dickenson, Peatman & Fogarty, project representative, January 28, 2010.
- (7) Napa County, *Adopted Road & Street Standards*, Revised August 31, 2004 (Resolution 04-150).
- (8) Transportation Research Board, *Report 279 – Intersection Channelization Design Guide*, 1985.

**TABLE 1
DAILY TRIP GENERATION FOR
THE PROPOSED SWANSON WINERY
ON OAKVILLE CROSS ROAD**

Daily Traffic During a Typical Weekday:

• 40 visitors/2.6 per vehicle x 2 one-way trips	=	31 daily trips
• 30 employees/1.2 per vehicle x 2 one-way trips ⁽¹⁾	=	50 daily trips
• 1 truck x 2 one-way trips per truck ⁽²⁾	=	<u>2 daily trips</u>
		83 daily trips

Daily Traffic During a Peak Saturday:

• 200 visitors/2.8 per vehicle x 2 one-way trips	=	143 daily trips
• 30 employees/1.2 per vehicle x 2 one-way trips ⁽¹⁾	=	50 daily trips
• 1 truck x 2 one-way trips per truck ⁽²⁾	=	<u>2 daily trips</u>
		195 daily trips

Typical Daily Traffic During Harvest Season (8 weeks):

• 40 visitors/2.6 per vehicle x 2 one-way trips	=	31 daily trips
• 35 employees/1.5 per vehicle x 2 one-way trips ⁽¹⁾	=	47 daily trips
• 1 truck x 2 one-way trips per truck ⁽³⁾	=	<u>2 daily trips</u>
		80 daily trips

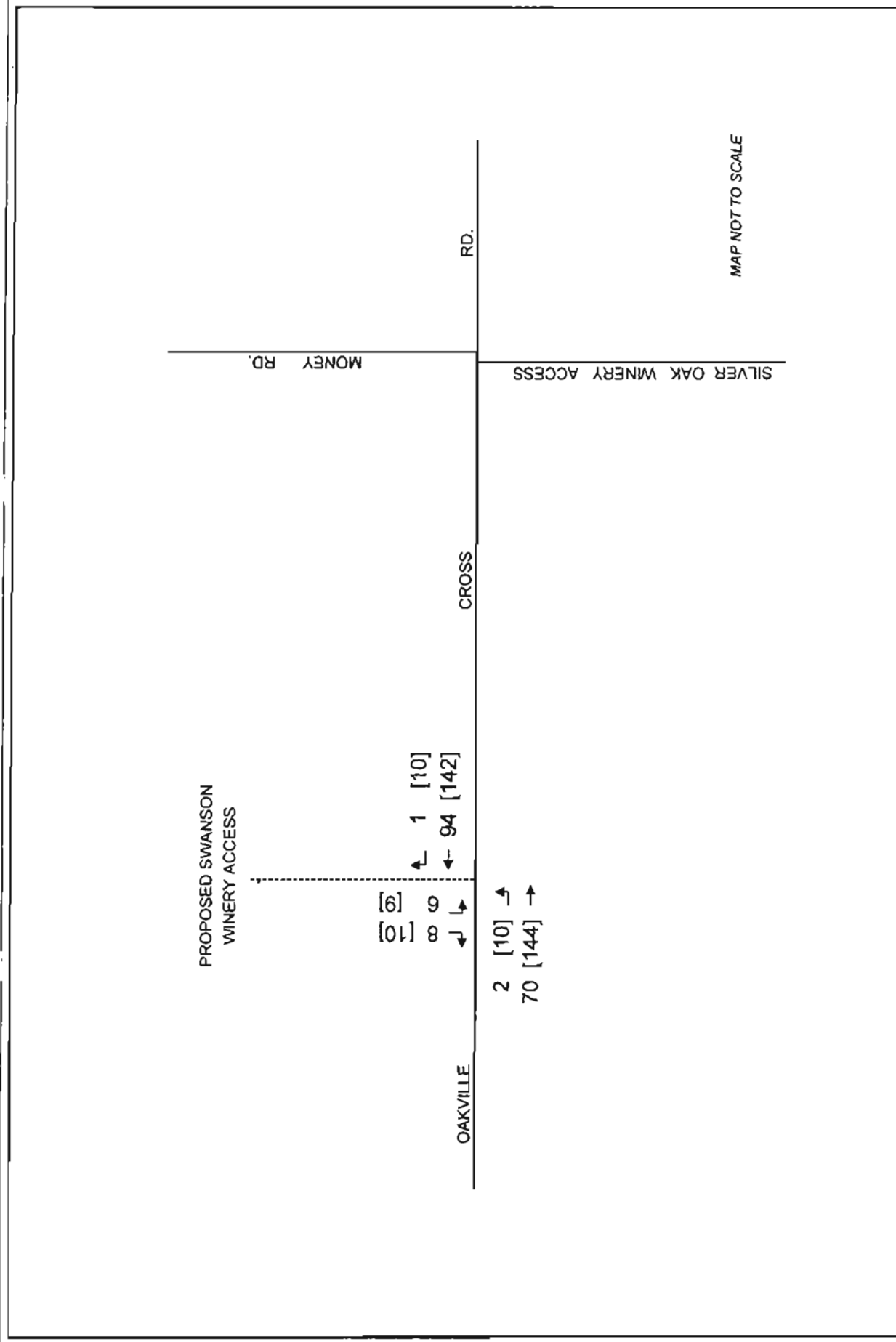
(1) The typical daily employee trip generation calculations assume minimal ridesharing. However, the harvest season employees are expected to involve a somewhat greater rideshare proportion.

(2) During the 44-week non-harvest season, a maximum of one daily truck would be generated related to routine deliveries associated with the winery production (100,000 gallons/2.38 gallons per case = 42,017 cases).

• 42,017 cases/2,310 cases per truck	=	18 glass delivery trucks
• 42,017 cases/1,232 cases per truck	=	34 wine shipment trucks
• 4 miscellaneous weekly deliveries	=	<u>176 miscellaneous trucks</u>
		228 annual trucks

228 trucks/44 weeks = 5 weekly trucks or 1 truck per day.

(3) During the 8-week harvest season, there would be no increase beyond the typical one delivery truck per day. There would actually be a slight decrease in grape delivery trucks due to the fact that about 70,000 gallons of production would be retained on site, more than offsetting the delivery of grapes for 30,000 gallons of production.



Weekday and [Peak Saturday] Peak Hour Driveway Traffic

George W. Nickelson, P.E.

figure 2