“E”

Roads and Streets Standards Exception Request Letter, Left Turn Lane Analysis, and Lodi Lane Improvements Agreement Duckhorn Vineyards Winery Major Modification P19-00097-MOD

monteverdi CONSULTING

PLANNING + PERMITTING + PROJECT MANAGEMENT

October 15, 2021

VIA DIGITAL DELIVERY

Mr. David Morrison
Director
Napa County PBES
1195 Third Street, Room 201
Napa, CA 94559

Mr. Steve Lederer
Director
Napa County DPW
1195 Third Street, Room 101
Napa, CA 94559

Re: Duckhorn Vineyards Winery Request for Exception to the Napa County Road and Street Standards, 1000 Lodi Lane, St. Helena, CA (APN 022-130-010)

Dear Messrs. Morrison and Lederer:

Duckhorn Vineyards (DV) Winery has applied for modifications to their existing winery entitlements. That modification request (P19-00097) included a Traffic Impact Study (TIS) which analyzed traffic flows at the property and on the proximate public roadway system. The TIS found that, based on the Napa County Road and Street Standards (NCRSS; Napa County Board of Supervisors Resolution 2020-133), a left-turn lane (LTL) is warranted at the existing driveway entering the DV winery property on the east side of the Napa River. As discussed below, this letter requests an exception to that requirement (NCRSS, Section 17) based on clear, demonstrable and unavoidable environmental impacts that meet the standards set forth in NCRSS, Section 3.

Section 3(d) of the NCRSS provides for exceptions to established standards when one or more of the following findings can be made and the findings in subsection (e) can also be made:

i. *The exception will preserve unique features of the natural environment which includes, but is not limited to, natural water courses, steep slopes, geological features, heritage oak trees, or other trees of least six inches in diameter at breast height and found by the decision-maker to be of significant importance, but does not include human altered environmental features such as vineyards and*

ornamental or decorative landscaping, or artificial features such as, rock walls, fences or the like;

ii. *The exception is necessary to accommodate physical site limitations such as grade differentials; and/or*

iii. *The exception is necessary to accommodate other limiting factors such as recorded historical sites or legal constraints.*

NCRSS Section 3(e) states:

The Zoning Administrator, Planning Commission, or other approving body shall not grant an exception unless it finds that grant of the exception, as conditioned by the Zoning Administrator, the Planning Commission, or other approving body provides the same overall practical effect as these Standards towards providing defensible space, and consideration towards life, safety and public welfare. Monetary hardship alone shall not be considered as a basis for an exception.

The development of an LTL at the project site would require roadway widening that would introduce significant and unavoidable environmental impacts which fall into two categories: 1) the placement of hundreds-to-thousands of cubic yards of soil in the floodway and floodplain of the Napa River, and 2) the removal of heritage oaks and other large, native trees along Lodi Lane. Granting of this exception request, therefore, would allow for the "preservation of unique features of the natural environment" based on the requirements of NCRSS, Sections 3(d).i and 3(d).ii. Furthermore, analysis prepared by W-Trans demonstrates that the findings required by NCRSS Section 3(e) can also be made.

Focused LTL Analysis

A focused LTL analysis associated with this exception request was conducted by W-Trans and is included as Exhibit A of this letter. The complete DV Winery MOD TIS (*Traffic Impact Study for the Duckhorn Vineyards Use Permit Modification*, 2021) was submitted on January 26, 2021, and can be found in the project database maintained by Napa County.

As noted in the focused analysis (Exhibit A), W-trans explored the design requirements and feasibility of constructing an LTL at the DV east driveway. This analysis included the identification of the design requirements for left-turn lanes, including the required length of the bay taper and deceleration lane so that turning vehicles have sufficient space to decelerate as they approach the turn without impacting through traffic. Existing constraints, such as the bridge over the Napa River, and the volumes and speeds observed on Lodi Lane helped to identify the LTL design criteria used in their analysis. Photos depicting the conditions in the vicinity of the Duckhorn driveway, including the Napa River bridge and other constraints, are included in Exhibit C of this exception request.

The analysis presented in the project TIS was based on a posted speed limit of 40 mph. Since that time, the speed limit has increased to 45 mph so the initial analysis for the focused LTL analysis has been revised, accordingly. Based on a design speed of 45 mph, widening along a total of 758 feet of roadway (425 feet for deceleration and storage; 333 feet for transition) would be required to accommodate an LTL, if all of the widening were to occur on one side of the roadway. If the widening were split evenly on both sides of Lodi Lane, then 605 feet would be required (425 feet for deceleration and storage; 180 feet for transition). Because the distance between the driveway and the Napa River bridge is only 407 feet, it is impossible to fit either of these options within the space available.

Based on qualitative field observations and daily usage by the applicant's staff, the actual operating speeds on Lodi Lane in the vicinity of the DV driveway are anticipated to be well below the posted speed limit of 45 mph; likely +/-25-mph. In order to examine an alternative to the 45 mph design standard, the design requirements for a speed of 25 mph were explored. For a design speed of 25 mph, and assuming that five mph of deceleration would occur in the through lane, widening along a total of 267.5 feet (205 feet of deceleration and storage; 62.5 feet of transition) would be required. This design alternative is the shortest, reasonably-constructable design that can fit within the site constraints, and is the basis for evaluating the minimum environmental impacts associated with developing an LTL at the DV property. An exhibit showing the design of the 25 mph-based LTL is included as Exhibit B of this exception request.

Placement of Fill in the Napa River Floodway and Floodplain

Lodi Lane is an elevated, east-west public roadway that sits 2-15 feet above the surface of the Napa River and lands lying to the north and south. The width of the existing roadway and shoulders between the Duckhorn driveway and the Napa River bridge ranges from 17 to 30 feet. As such, widening the roadway to +/- 49 feet to accommodate a minimal, 25 mph-based LTL would require the placement of +/-900 cubic yards of soil (an average of 7 feet deep over 267.5 feet length). Of the +/-900 cubic yards, +/-800 cubic yards would be placed in the Napa River floodway, and +/-100 cubic yards within the floodplain (Exhibit B). Any larger LTL, such as one deigned based on the 45 mph posted speed limit, would require even greater soil placement (up to +/-2,000 cubic yards), with the great majority placed in the floodway. Photos depicting the conditions in the vicinity of the Duckhorn driveway, including the grade differential between Lodi Lane and the surrounding lands, are included in Exhibit C of this exception request.

Per Federal Emergency Management Agency (FEMA) guidance and Napa County Code Section 16.04., "fill is prohibited within the floodway unless it has been demonstrated that it will not result in any increase in (base) flood levels." Based on previous analyses completed as part of the application for P19-00097, placement of fill within the floodway of the Napa River required to construct an LTL on Lodi Lane would result in an increase in the base flood elevation (BFE) in the proximity of Lodi Lane. This increase would potentially create a ripple effect that could propagate upstream and impact

structures within the floodway limits that are not designed with sufficient freeboard to accommodate the increased base flood levels. Furthermore, an increase in BFE would alter the floodway limits such that areas that are currently located outside of the defined floodway limits could be inundated during a flood event. As such, development of an LTL would seemingly increase potential flood hazards to nearby properties, as well as create an environmental condition that is contrary to both FEMA and Napa County regulatory guidance.

Removal of Heritage Oaks and Other Large Trees

As noted above, NCRSS Section 3(d). i provides the following basis for approval of an exception to the Standards: *"The exception will preserve unique features of the natural environment which includes, but is not limited to, natural water courses, steep slopes, geological features, heritage oak trees, or other trees of least six inches in diameter at breast height and found by the decision-maker to be of significant importance…" (emphasis added).*

Widening of Lodi Lane between the Napa River bridge and DV driveway would require the removal of a significant number of heritage oaks (≥12" DBH) and other large trees. For the minimal, 25 mph design discussed in the focused LTL analysis (Exhibit A) and the associated LTL design plan (Exhibit B), a total of 29 trees of greater than 6" DBH would need to be removed: 23 oak trees (7"-40" DBH); three native black walnut trees (11"-16" DBH) and three liquid amber trees (11"-13" DBH). Additional, smaller trees of various species would also be removed. Photos depicting the conditions in the vicinity of the Duckhorn driveway, including the trees that would be removed by LTL development, are included in Exhibit C.

The Napa County Municipal Code does not provide a clear definition of "heritage" trees. The City of Napa (Municipal Code Section 12.45), however, provides protection for native oaks and walnut trees of ≥12" DBH. Of the oaks that would be impacted by LTL development, 14 trees have a DBH of 12" or greater, establishing them as heritage oak trees. Furthermore, of the remaining 15 trees that would be removed, 12 are healthy, native oaks and walnut trees that meet the description of "*trees of least six inches in diameter at breast height and found by the decision-maker to be of significant importance."* As such, all 23 oak trees and all three black walnut trees satisfy the findings required under NCRSS Section 3(d).i. and supply the regulatory basis for approval of this exception request. Photos depicting the existing roadway conditions, including the slopes and trees that would be impacted by development of even the minimal, 25 mph LTL, are provided as Exhibit C of this letter.

Safety Considerations

The focused LTL analysis (Exhibit A) provides a discussion of whether the addition of new trips to the Duckhorn driveway could exacerbate any existing safety issues if an LTL were not provided. As contained in the TIS collision analysis submitted as part of the application for P19-00097, there were no collisions reported on Lodi Lane

during the five-year study period between October 1, 2014, and September 30, 2019, even though an LTL is warranted based on existing traffic volumes. Therefore, it is reasonable to conclude that there are no documented safety issues associated with motorists turning left into the driveway without an LTL. The proposed project is expected to generate five new left-turn movements over existing volumes during the peak hour on Fridays and Saturdays, resulting in a new total of 14 left turns during each hour. This equates to approximately one left-turn every 4.3 minutes, when averaged over the course of an hour. Based on an analysis using the American Association of State Highway and Transportation Officials (AASHTO's) *Policy on the Geometric Design of Highways and Streets* LTL warrant methodology, which is based on safety issues, an LTL would not be needed at the Duckhorn driveway for volumes of less than approximately 237 left turn movements (one every 15 seconds) (Exhibit A). Because the Duckhorn proposal is expected to produce one additional left-turn movement every 4.3 minutes during peak hour, it is reasonable to conclude that the modest increase in project traffic would not create any new safety issues.

Conclusion

This letter, its exhibits, and materials submitted previously in support of Use Permit Modification application P19-00097 provide a clear demonstration that the development of an LTL at the Duckhorn driveway would create unavoidable environmental impacts and would destroy unique features of the natural environment. In addition, an analysis of existing and proposed conditions using a safety-based LTL warrant methodology indicates that the absence of an LTL would not create any new traffic safety issues. As such, we request that you grant this exception request based on findings made consistent with NCRSS Section 3(d).i., Section 3(d).ii., and Section 3(e).

Duckhorn Vineyards and their project team are ready to provide any additional information you require to adequately evaluate this exception request. We would welcome the opportunity to discuss the project directly with you, should you deem such a meeting useful.

On behalf of Duckhorn Vineyards and their project team, I thank you in advance for your time and consideration. Please do not hesitate to contact me if you have any questions.

Sincerely,

MONTEVERDI CONSULTING

George H. Monteverdi, Ph.D.
Principal

Exhibits

EXHIBIT A

FOCUSED LEFT-TURN LANE ANALYSIS
PREPARED BY W-TRANS

DUCKHORN VINEYARDS WINERY NCRSS EXCEPTION REQUEST
(P19-00097)

Turn Lane Warrants

The need for a left-turn lane on Lodi Lane at the east project driveway was evaluated using the County of Napa's published guidance considering the average daily traffic (ADT) volume projected to use the driveway as a function of adjacent roadway ADT. A left-turn lane meets warrants when the corresponding value plots above the curve indicated on the Left Turn Lane Warrant Graph from the *Napa County Road and Street Standards* (NCRSS) and is unwarranted if the value plots below the curve.

Count data collected during harvest in October 2019 indicates that the east driveway has an ADT of 300 vehicles and Lodi Lane has an ADT of 1,357 vehicles. Based on these volumes, a left-turn lane would be warranted under Existing Conditions without considering new trips from the proposed project according to the County's methodology. Of the 79 new daily trips anticipated to be generated on a typical weekday, approximately two-thirds are expected to occur via the east driveway and one-third at the west driveway. Upon the addition of project trips, a left-turn lane would continue to be warranted at the east driveway. Copies of the left-turn lane warrant graphs are enclosed for both Existing and Existing plus Project conditions.

Although a left-turn lane would be warranted under the County of Napa's criteria, for informational purposes the need for a left-turn lane was also evaluated based on a more standardized and widely-use methodology founded on research by M.D. Harmelink and on thresholds presented in Caltrans' *Guidelines for the Reconstruction of Intersections* and the American Association of State Highway and Transportation Officials (AASHTO's) *Policy on the Geometric Design of Highways and Streets*. This methodology is based on equations that can be applied to expected or actual traffic volumes in order to determine the need for a left-turn pocket based on safety issues. This more detailed methodology is based on peak hour volumes and takes into consideration directionality of traffic (left or right turns) and approach travel speed, two variables that the County's standard does not consider. Under this methodology, a left-turn lane would not be warranted at the east driveway under existing conditions or with the addition of traffic from the proposed project. Under Existing plus Project volumes, 14 left turns are expected to be made into the east driveway during each of the Friday and Saturday p.m. peak hours; a sensitivity analysis indicates that approximately 237 left turns would be needed in a single hour for a turn lane to be warranted based on application of this methodology. Copies of the AASHTO turn lane warrants calculations are enclosed.

Design Requirements and Feasibility

Since a left-turn lane would be warranted at the east driveway under the NCRSS, the design requirements and feasibility of constructing a turn lane were explored. The Napa County left-turn lane design standard defaults to the Caltrans *Highway Design Manual* (HDM) for speeds other than 55 miles per hour (mph). Section 405.2 "Left-turn Channelization" of the HDM sets the design requirements for left-turn lanes, including the required length of the bay taper and deceleration lane so that turning vehicles have sufficient space to decelerate as they approach the turn without impacting through traffic. There are two separate sets of design criteria specified in the HDM, one for rural high speed, high volume facilities and another for urban facilities with constraints and low traffic volumes and speeds. Although Lodi Lane is

not in an urban setting, there are constraints such as the bridge over the Napa River approximately 410 feet west of the driveway and the intersection with Silverado Trail approximately 200 feet to the east. Further, the volumes and speeds observed on Lodi Lane indicate that the less-restrictive criteria for constrained settings are more appropriate.

It is noted that the analysis presented in the *Traffic Impact Study for the Duckhorn Vineyards Use Permit Modification* (TIS), 2021, W-Trans, was based on a posted speed limit of 40 miles per hour (mph), though in the time since the TIS was initiated the speed limit has increased to 45 mph so the analysis for this design exception request has been revised accordingly. For a design speed of 45 mph, a total of 758 feet of roadway widening (425 feet for deceleration and storage and 333 feet for transition) would be needed to accommodate a left-turn lane if all of the widening were to occur on one side of the roadway. If the widening were to be split evenly on both sides of the facility, then 605 feet would be required, including 425 feet for deceleration and storage and 180 feet for transition. Neither of these options could be accomplished within the space available between the Napa River bridge and the driveway.

Given that eastbound traffic would have already slowed down due to traversing the narrow Napa River Bridge and would also be decelerating in anticipation of stopping at Silverado Trail, actual operating speeds on this section of Lodi Lane are anticipated to be well below the posted speed limit of 45 mph and are likely in the 25-mph range so the design requirements for a speed of 25 mph were explored. For a design speed of 25 mph and assuming that five mph of deceleration would occur in the through lane, 62.5 feet of transition would be required for widening evenly to both sides of Lodi Lane along with 205 feet of deceleration and storage. This design alternative appears reasonably constructible within the constraints and is shown in the enclosed exhibit.

Design Impacts

While the alternative with a design speed of 25 mph and widening to both sides of Lodi Lane could be accommodated geometrically within the space available between the Napa River bridge and the east driveway, the improvement would require removal of approximately 29 trees with diameters greater than six inches, many of which could be considered heritage oaks. Additionally, the design would require importation of approximately 800 cubic yards of fill within the floodway and an additional 100 cubic yards of fill within the 100-year floodplain, which would be considered a significant impact. Design exceptions are allowed per the NCRSS if one of the following findings can be made:

i. *The exception will preserve unique features of the natural environment which include, but are not limited to, natural water courses, steep slopes, geological features, heritage oak trees, or other trees of least six inches in diameter at breast height and found by the decision-maker to be of significant importance, but does not include human altered environmental features such as vineyards and ornamental or decorative landscaping, or artificial features such as, rock walls, fences or the like;*
ii. *The exception is necessary to accommodate physical site limitations such as grade differentials; and/or*
iii. *The exception is necessary to accommodate other limiting factors such as recorded historical sites or legal constraints.*

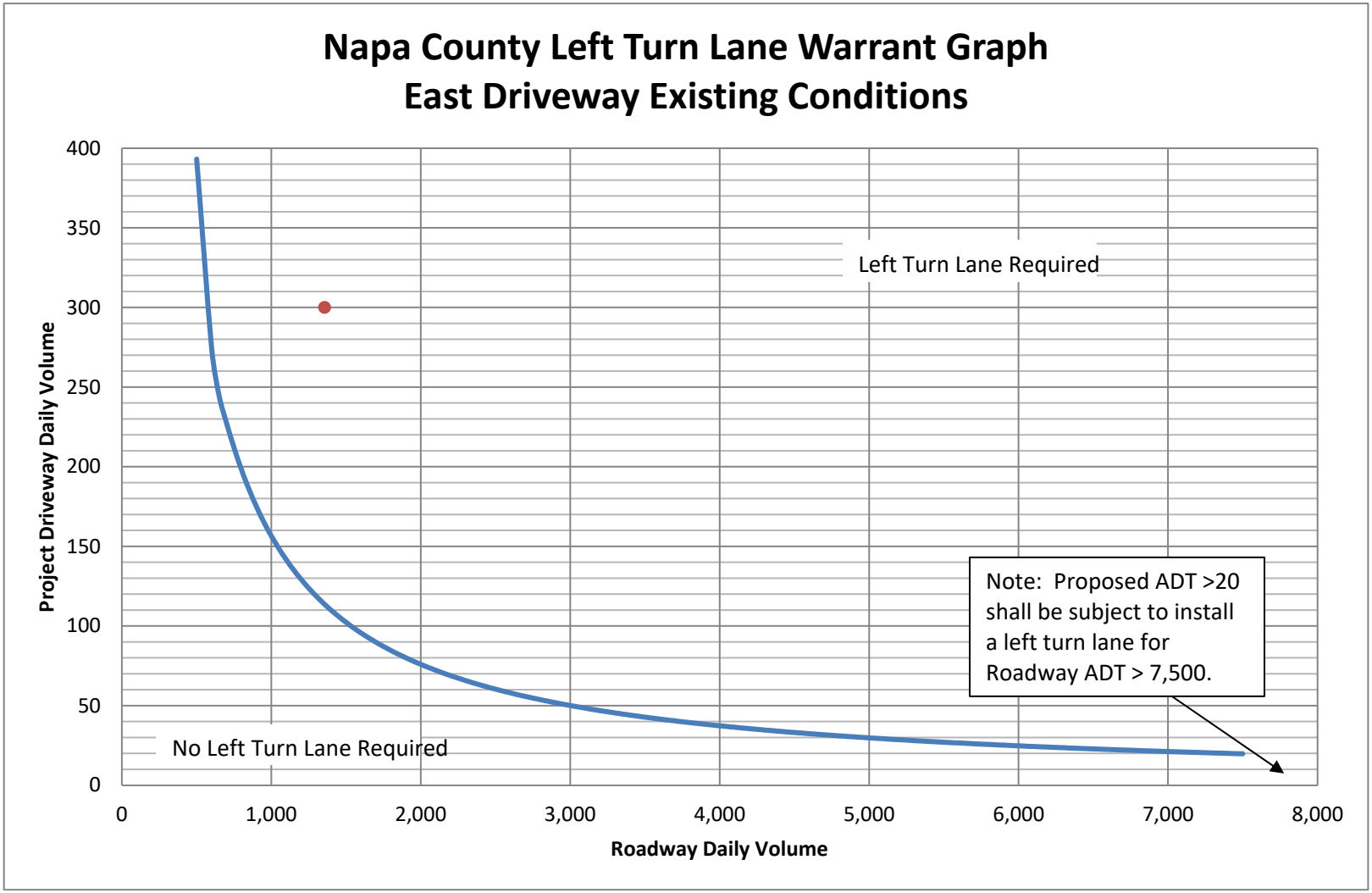
Based on the number of trees greater than six inches in diameter that would need to be removed to

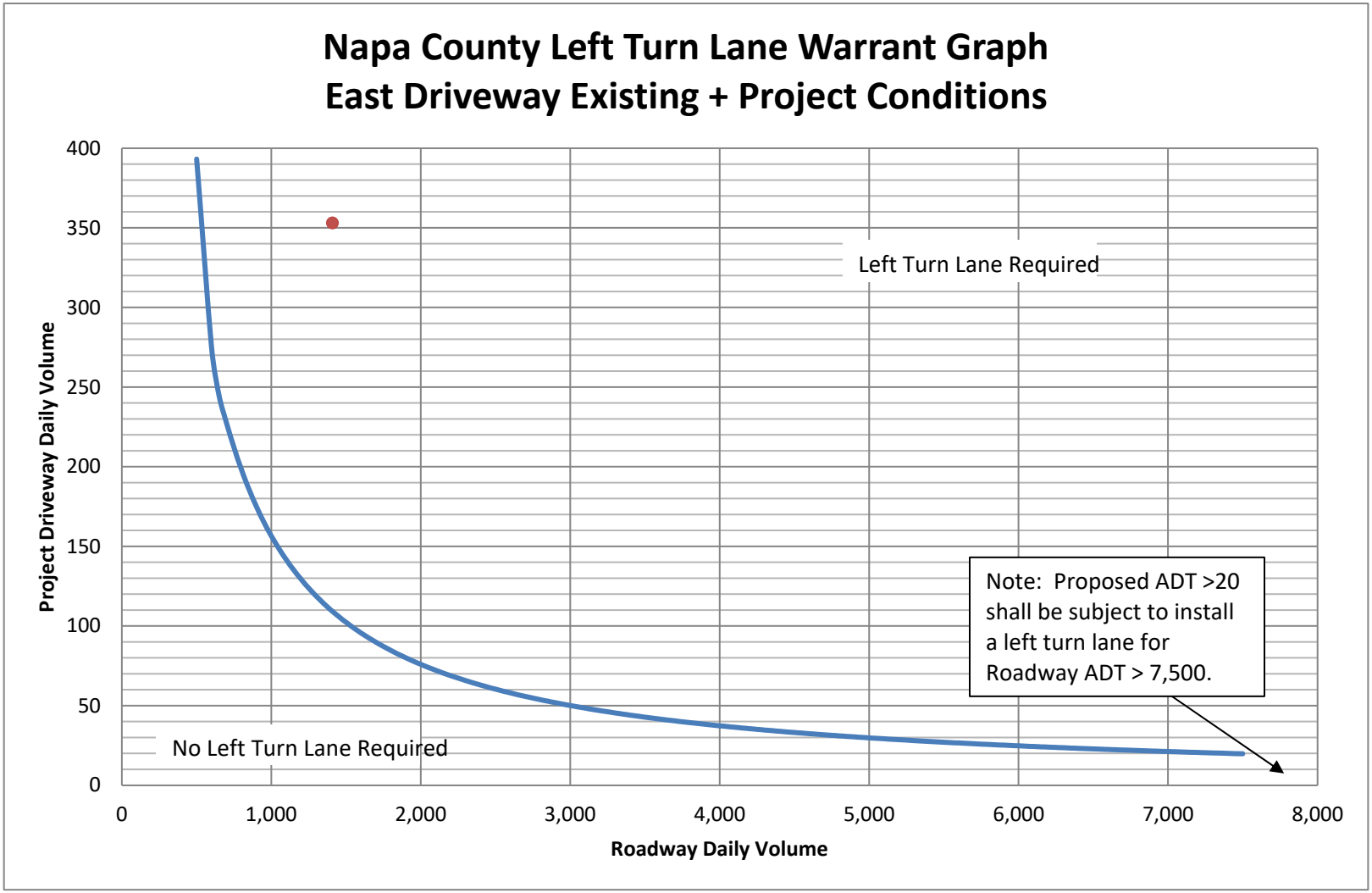
accommodate construction of a left-turn lane, including numerous heritage oak trees, and the impacts to the floodway, a design exception would be appropriate.

Safety Considerations

Consideration was given to whether the addition of new trips to the east driveway could exacerbate any existing safety issues if a left-turn lane were not provided. As contained in the collision analysis prepared for the project's TIS, there were no collisions reported on Lodi Lane during the five-year study period between October 1, 2014 and September 30, 2019 even though a left-turn lane is warranted based on existing volumes. Therefore, it is reasonable to conclude that there are no documented safety issues associated with motorists turning left into the site without a left-turn lane. The proposed project would be expected to generate five new left-turn movements over existing volumes during the peak hour on Fridays and Saturdays resulting in a new total of 14 left turns during each hour, which translates to approximately one left turn every 4.3 minutes when averaged over the course of the hour. Considering that the AASHTO left-turn lane warrant methodology, which is based on safety issues, predicts that a left-turn lane would not be needed on Lodi Lane for volumes of less than approximately 237 left turn movements, or one left turn every 15 seconds, it is reasonable to conclude that the modest increase in project traffic would not be expected to create any new safety issues.

Enclosures: Napa County Left Turn Lane Warrant Graphs
AASHTO Turn Lane Warrants
Left Turn Lane Exhibit (also provided as Exhibit B to NCRSS Exception Request letter)


Napa County Left Turn Lane Warrant Graph
East Driveway Existing Conditions
Project Driveway Daily Volume
400
350
300
250
200
150
100
50
0
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Roadway Daily Volume
Left Turn Lane Required
No Left Turn Lane Required
Note: Proposed ADT >20 shall be subject to install a left turn lane for Roadway ADT > 7,500.

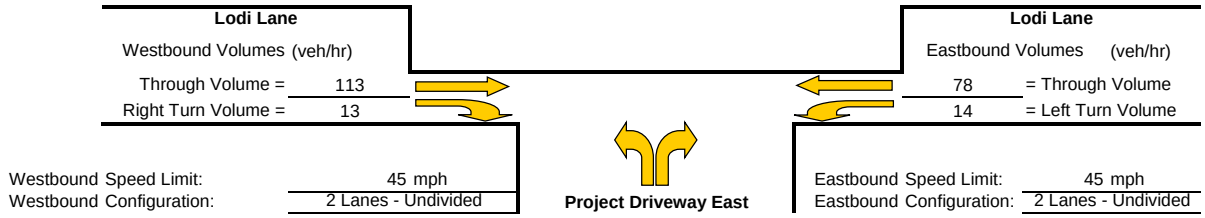

Napa County Left Turn Lane Warrant Graph
East Driveway Existing + Project Conditions
Project Driveway Daily Volume
400
350
300
250
200
150
100
50
0
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Roadway Daily Volume
Left Turn Lane Required
No Left Turn Lane Required
Note: Proposed ADT >20 shall be subject to install a left turn lane for Roadway ADT > 7,500.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Lodi Lane/Duckhorn Driveway East
Study Scenario: Friday PM Existing + Project

Direction of Analysis Street: East/West

Cross Street Intersects: From the North



Westbound Speed Limit: 45 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 45 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	126
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	126
If AV<Va then warrant is met		-

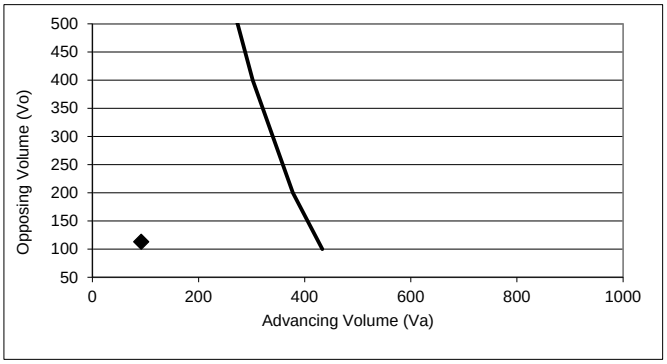
Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns %lt 15.2 %

Advancing Volume Threshold AV 426 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

Two lane roadway warrant threshold for: 45 mph

Turn lane warranted if point falls to right of warrant threshold line

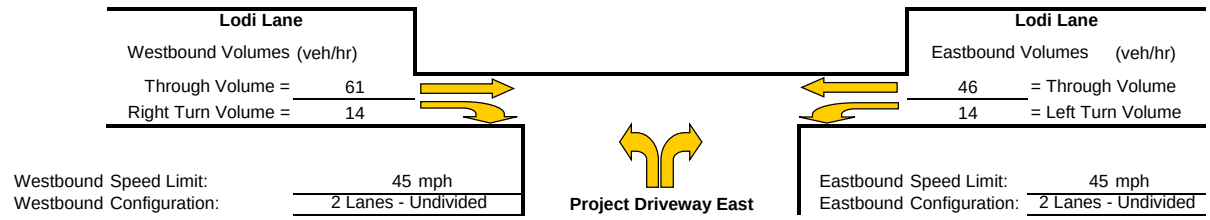
Left Turn Lane Warranted: **NO**

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis uses a regression based on work conducted by M.D. Harmelink in 1967, as presented in the California Department of Transportation's Guide of Intersections (1985) and AASHTO's Policy on Geometric Design of Highways and Streets (7th ed.).

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Lodi Lane/Duckhorn Driveway East
Study Scenario: Saturday PM Existing + Project

Direction of Analysis Street: East/West
Cross Street Intersects: From the North



Westbound Speed Limit: 45 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 45 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	75
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	75
If AV<Va then warrant is met		-

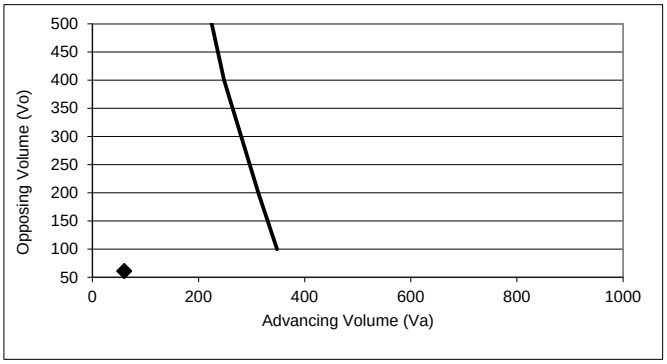
Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns %lt 23.3 %

Advancing Volume Threshold AV 348 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

Two lane roadway warrant threshold for: 45 mph

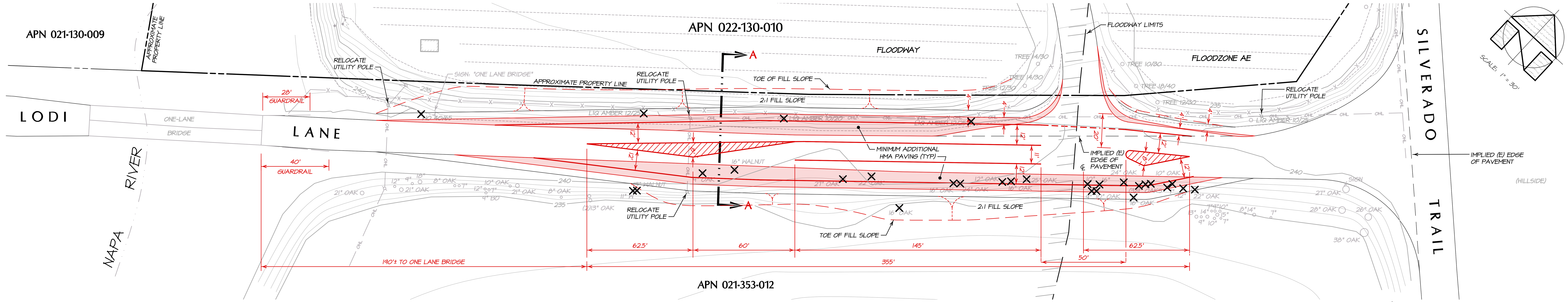
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis uses a regression based on work conducted by M.D. Harmelink in 1967, as presented in the California Department of Transportation's Guide of Intersections (1985) and AASHTO's Policy on Geometric Design of Highways and Streets (7th ed.).

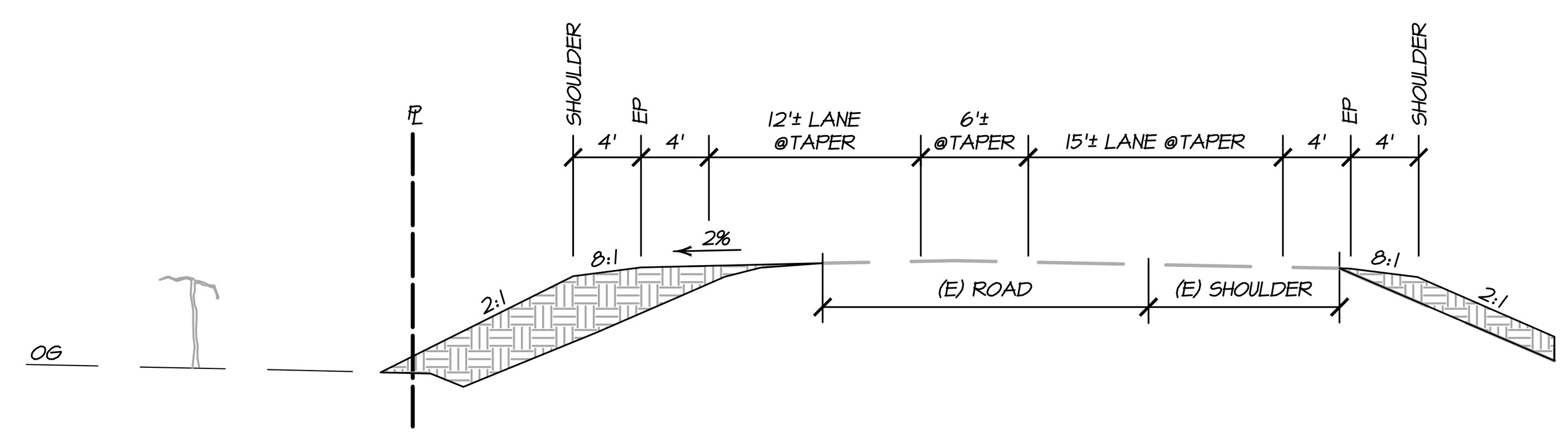
DUCKHORN VINEYARDS WINERY

LEFT TURN LANE EXHIBIT



LEFT TURN LANE AT ESTATE DRIVEWAY - PLAN VIEW

SCALE: 1" = 30'



SECTION A-A

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'

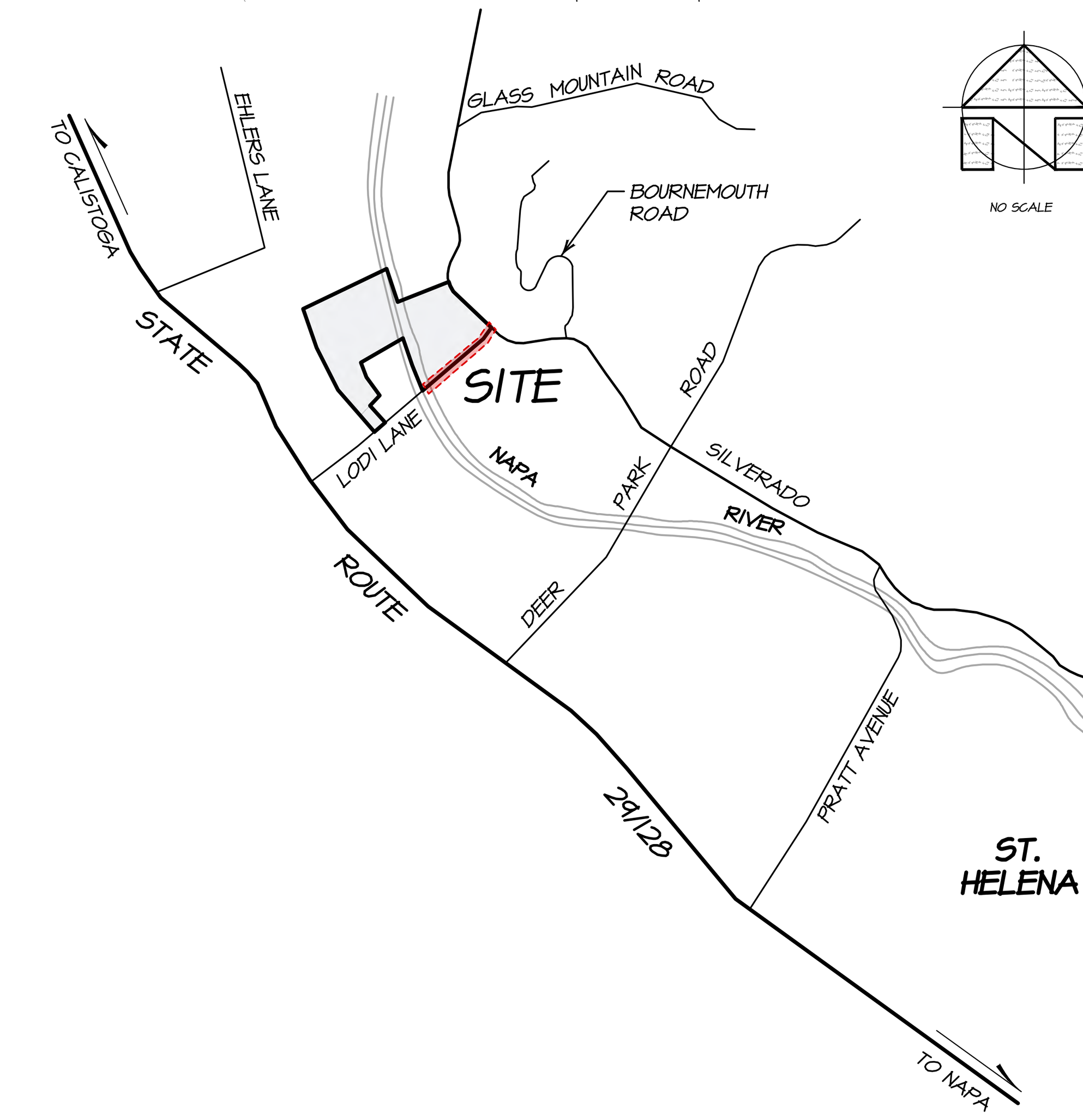
EARTHWORK SUMMARY:*

PROJECT AREA	MAX DEPTH	CUBIC YARDS (WITHIN FLOODWAY)	CUBIC YARDS (WITHIN 100 YEAR FLOODPLAIN)	CUBIC YARDS (TOTAL)
CUT	0'±	0	0	0
FILL	7'±	800±	100±	900±
BALANCE (FILL)		800±	100±	900±

*THIS EARTHWORK SUMMARY IS PROVIDED FOR PERMITTING PURPOSES ONLY AND IS BASED ON THE IMPROVEMENTS SHOWN HERE. ACTUAL EARTHWORK QUANTITIES MAY VARY. CONTRACTOR SHALL PERFORM THEIR OWN CUT/FILL QUANTITY TAKEOFF ESTIMATION PRIOR TO BIDDING THIS PROJECT. BARTELT ENGINEERING ASSUMES NO LIABILITY FOR DIFFERENCES BETWEEN ESTIMATED AND ACTUAL CUT/FILL VOLUMES.

TREE REMOVAL STATISTICS:

TREE SPECIES	SIZE	# TO BE REMOVED
LIQUID AMBER	10"	1
LIQUID AMBER	12"	2
OAK	7"	1
OAK	9"	5
OAK	10"	3
OAK	12"	2
OAK	16"	5
OAK	22"	2
OAK	24"	2
OAK	25"	1
OAK	27"	1
OAK (WHITE)	40"	1
WALNUT	11"	1
WALNUT	13"	1
WALNUT	16"	1
TOTAL TREES REMOVED:		29



LOCATION MAP

NO SCALE

PROJECT INFORMATION:

PROPERTY OWNER:
DUCKHORN WINE COMPANY
C/O MATT DEXTER
1000 LODI LANE
ST. HELENA, CA 94574
(707) 967-2025

PROJECT ADDRESSES:
1000 & 1098 LODI LANE
ST. HELENA, CA 94574

ASSESSOR'S PARCEL NUMBERS:
022-130-010 (SFAP),
022-100-033 (SFAP) & -034

PARCEL SIZES:
10.67±, 14.67± & 1.01± ACRES

PARCEL ZONING:
AP

REGISTERED PROFESSIONAL ENGINEER
PAUL NATHAN BARTELT
No. 45102
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
PAUL N. BARTELT
10-08-2021
R.C.E. 45102

DES: RP
DRWN: KP
CHKD: PNB

BARTELT ENGINEERING
CIVIL ENGINEERING · LAND PLANNING
1303 Jefferson Street, 200 B, Napa, CA 94559
www.barteltengineering.com
· Telephone: 707-258-1301 ·

DUCKHORN VINEYARDS WINERY
LEFT TURN LANE EXHIBIT
NAPA COUNTY CALIFORNIA

DATE: OCTOBER 2021
JOB NO: 13-14
SHEET NO: 1 OF 1

P19-00097, P19-00098

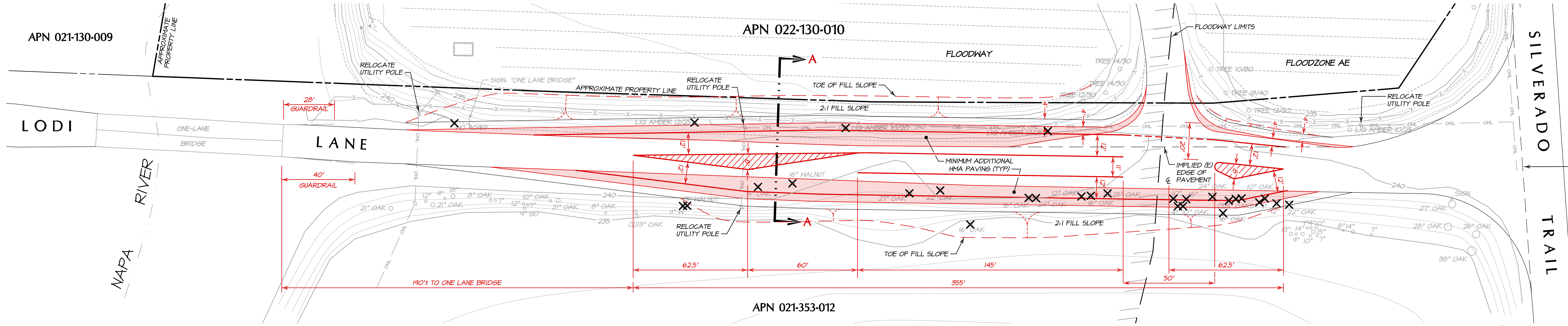
EXHIBIT B

LEFT-TURN LANE CONFIGURATION BASED ON 25-MPH DESIGN CRITERIA PREPARED BY BARTELT ENGINEERING

DUCKHORN VINEYARDS WINERY NCRSS EXCEPTION REQUEST (P19-00097)

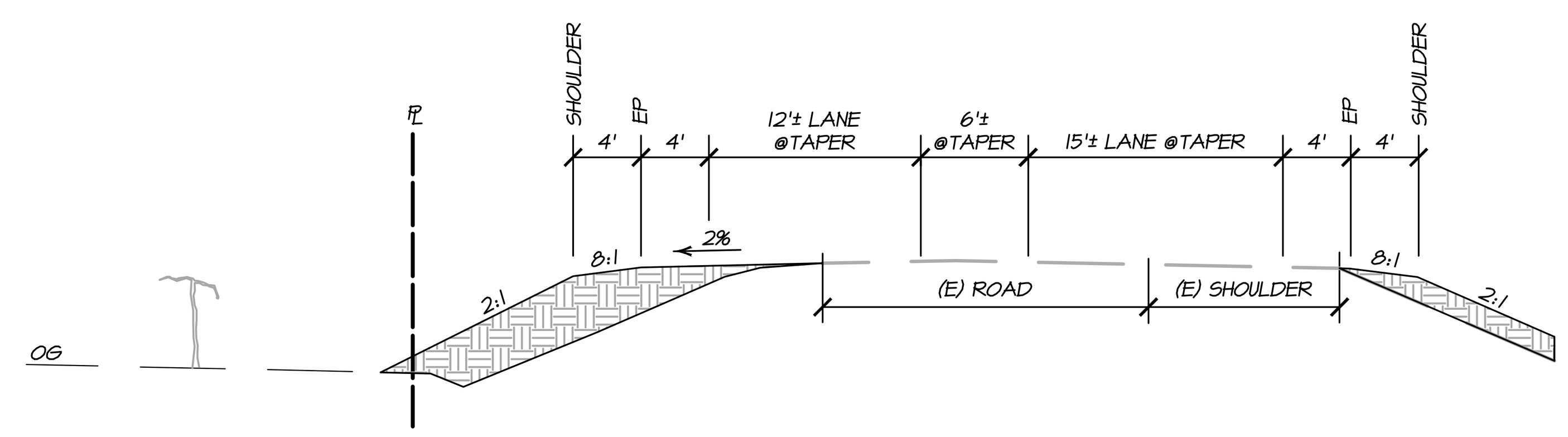
DUCKHORN VINEYARDS WINERY

LEFT TURN LANE EXHIBIT



LEFT TURN LANE AT ESTATE DRIVEWAY - PLAN VIEW

SCALE: 1" = 30'



SECTION A-A

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'

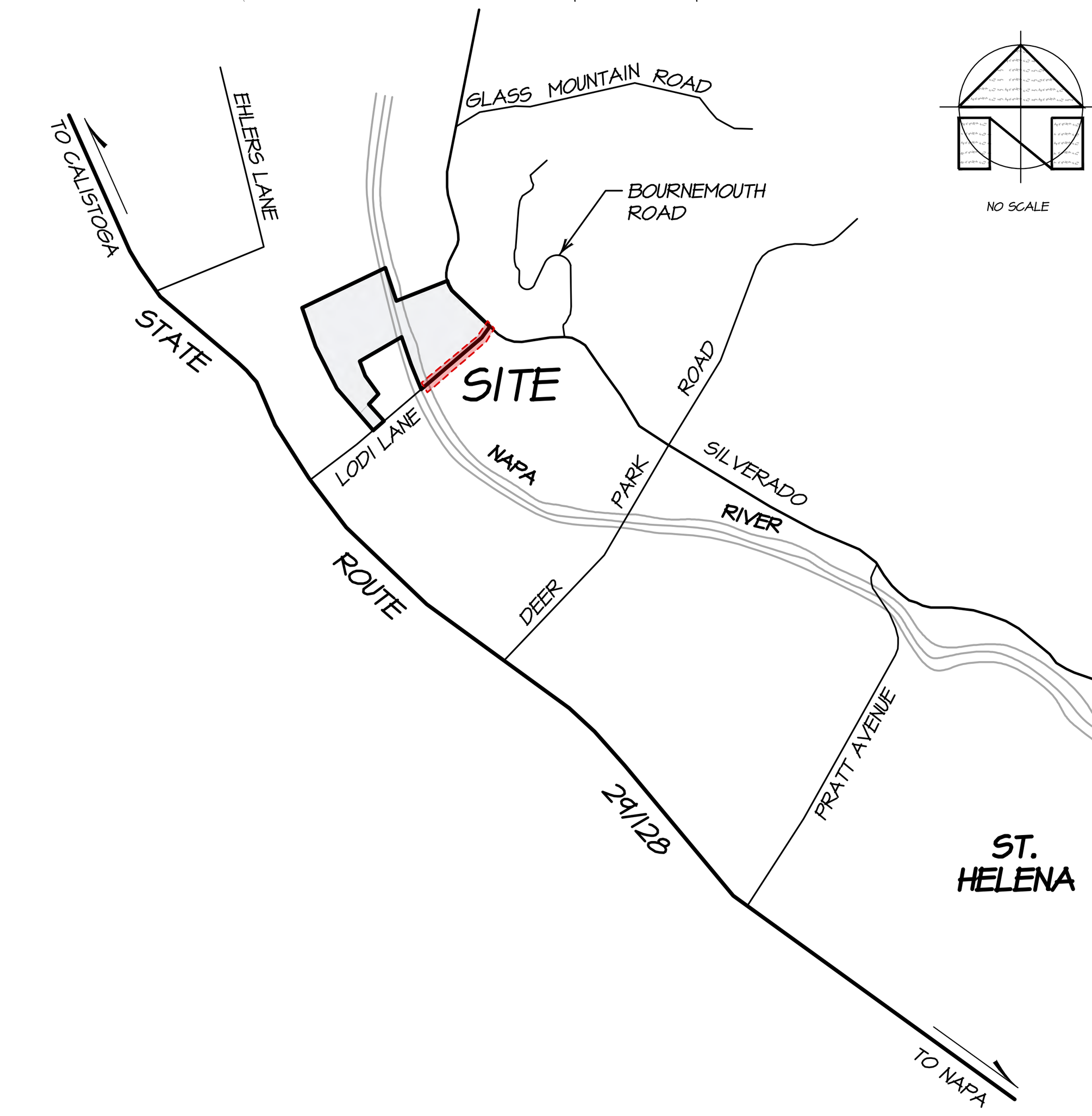
EARTHWORK SUMMARY:*

PROJECT AREA	MAX DEPTH	CUBIC YARDS (WITHIN FLOODWAY)	CUBIC YARDS (WITHIN 100 YEAR FLOODPLAIN)	CUBIC YARDS (TOTAL)
CUT	0'±	0	0	0
FILL	7'±	800±	100±	900±
BALANCE (FILL)		800±	100±	900±

* THIS EARTHWORK SUMMARY IS PROVIDED FOR PERMITTING PURPOSES ONLY AND IS BASED ON THE IMPROVEMENTS SHOWN HERE. ACTUAL EARTHWORK QUANTITIES MAY VARY. CONTRACTOR SHALL PERFORM THEIR OWN CUT/FILL QUANTITY TAKEOFF ESTIMATION PRIOR TO BIDDING THIS PROJECT. BARTELT ENGINEERING ASSUMES NO LIABILITY FOR DIFFERENCES BETWEEN ESTIMATED AND ACTUAL CUT/FILL VOLUMES.

TREE REMOVAL STATISTICS:

TREE SPECIES	SIZE	# TO BE REMOVED
LIQUID AMBER	10"	1
LIQUID AMBER	12"	2
OAK	7"	1
OAK	9"	5
OAK	10"	3
OAK	12"	2
OAK	16"	5
OAK	22"	2
OAK	24"	2
OAK	25"	1
OAK	27"	1
OAK (WHITE)	40"	1
WALNUT	11"	1
WALNUT	13"	1
WALNUT	16"	1
TOTAL TREES REMOVED:		29



LOCATION MAP

NO SCALE

PROJECT INFORMATION:

PROPERTY OWNER:
DUCKHORN WINE COMPANY
C/O MATT DEXTER
1000 LODI LANE
ST. HELENA, CA 94574
(707) 967-2025

PROJECT ADDRESSES:
1000 & 1098 LODI LANE
ST. HELENA, CA 94574

ASSESSOR'S PARCEL NUMBERS:
022-130-010 (SFAP),
022-100-033 (SFAP) & -034

PARCEL SIZES:
10.67±, 14.67± & 1.01± ACRES

PARCEL ZONING:
AP

REGISTERED PROFESSIONAL ENGINEER
PAUL NATHAN BARTELT
No. 45102
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF

PAUL N. BARTELT 10-08-2021
R.C.E. 45102

DES. RP
DRWN. KP
CHKD. PNB

BARTELT ENGINEERING
CIVIL ENGINEERING · LAND PLANNING
1303 Jefferson Street, 200 B, Napa, CA 94559
www.barteltengineering.com
· Telephone: 707-258-1301 ·

DUCKHORN VINEYARDS WINERY
LEFT TURN LANE EXHIBIT
NAPA COUNTY CALIFORNIA

DATE: OCTOBER 2021
JOB NO: 13-14
SHEET NO: 1 OF 1

P19-00097, P19-00098

EXHIBIT C

PHOTOGRAPHS OF EXISTING CONDITIONS IN THE VICINITY OF THE DUCKHORN DRIVEWAY

DUCKHORN VINEYARDS WINERY NCRSS EXCEPTION REQUEST (P19-00097)

Photo #1: View of Duckhorn driveway from south side of Lodi Lane looking north.

Photo #2: View from Silverado Trail west toward Napa River bridge. Duckhorn driveway is located on the right adjacent to the white sign. Note grade differential, heritage oak trees on the south side of Lodi Lane and the proximity of trees to edge of roadway.

Photo #3: View from Silverado Trail west toward Napa River bridge. Duckhorn driveway is located on the right adjacent to the white sign. Note grade differential, heritage oak trees on the south side of Lodi Lane and the proximity of trees to edge of roadway.

Photo #4: View of Lodi Lane looking east from approximately the Napa River bridge. Note grade differential and proximity of trees, including heritage oak to the south. Duckhorn driveway is located on the left (north) side of Lodi Lane.

Photo #5: View of Napa River bridge on Lodi Lane west of the Duckhorn Driveway. Note grade differential, road narrowing and proximity of heritage oak to the north.

Photo #6: View of the Napa River bridge on Lodi Lane, west of the Duckhorn Driveway. Note taper and narrowness of the single-lane bridge.

Photo #7: View of grade differential between Duckhorn parcel and Lodi Lane looking west from the Duckhorn driveway. Note grade differential and proximity of trees to roadway (edge of roadway indicated by yellow sign). This area is within the Napa River floodplain/floodway.

Photo #8: View of grade differential between the parcel south of the Duckhorn driveway and Lodi Lane looking north toward the Duckhorn driveway. Note grade differential and proximity of trees to roadway. This area is within the Napa River floodplain/floodway.

Photo #9: View of heritage oak trees (center of photo and near stop sign) on Lodi Lane across from (south of) the Duckhorn Driveway. Note grade differential and proximity of trees to roadway.

Photo #10: View of oak trees (including heritage oaks) on Lodi Lane across from (south of) the Duckhorn Driveway. Note grade differential and proximity of trees to roadway.

EST. 1976

DUCKHORN

WINE COMPANY

Napa County Department of Public Works
1195 Third Street, First Floor
Attn: Mr. Steve Lederer, Director
Napa, CA 94559

Dear Mr. Lederer:

The intent of this letter is to describe a proposed agreement for improvements to the public roadway in the vicinity of the Duckhorn Vineyards Winery (DVW), located at 1000 Lodi Lane, St. Helena, CA, 94574. This letter is being submitted as part of an ongoing Use Permit Modification request (P19-00097) for DVW.

As you are aware, Duckhorn Wine Company (DWC), the entity that owns DVW, is proposing modifications to the DVW Use Permit that has the potential to result in increased vehicle traffic on Lodi Lane. Based on current and projected traffic volumes on Lodi Lane, the Napa County Road and Streets Standards (NCRSS) left-turn lane analysis determined that development of a left-turn lane is warranted. It is anticipated that an exception to this requirement will be granted by Napa County based on environmental factors which satisfied the findings necessary to grant an exception, as set forth in NCRSS Section 3.

In recognition of the desire to assure that Lodi Lane remains a safe and efficient roadway in the vicinity of DVW, DWC proposes the following:

Proposed Roadway Improvements:

- Asphalt resurfacing of Lodi Lane from 20 feet east of the Napa River bridge to 20 feet west of the stop sign facing Silverado Trail.
- Improvements to the driveway access points from the DVW property onto Lodi Lane; and
- Restriping of the improvement area to meet NCRSS design standards.

Timing: Due to the uncertain nature of future development and County-initiated roadway improvements, the timing of the Proposed Improvements will likely adhere to one of the following scenarios:

- If development approved by the current P19-00097 is completed prior to the commencement of the County-initiated roadway improvements, then DWC will contract with, and pay, a licensed third-party road construction firm to complete the Proposed Improvements. The Proposed Improvements will be completed in accordance with a plan approved by Napa County prior to work initiation; or

- If the County-initiated roadway improvements are initiated prior to completion of the development work approved by P19-00097, then DWC will pay a prorated portion of the cost of the County-initiated roadway improvements, not to exceed $100,000.00 (One hundred thousand dollars).

As of this date, P19-00097 has not yet been approved by the Napa County Planning Commission. It is expected that the proposal outlined above will be included as a Condition of Approval for P19-00097. Duckhorn commits to completion of their obligations under this agreement prior to initiation of the entitlements approved under P19-00097. In the event that P19-00097 is not approved and deemed "used" by Napa County, DWC will be under no obligation to complete the Proposed Improvements, or pay for the County-initiated roadway improvements.

If these terms are agreeable to you, please let us know by returning a countersigned copy of this letter via USPS or by email indicating your agreement.

Sincerely,

Sean Sullivan
Executive Vice President, Chief Administrative Officer and General Counsel

In signing this letter agreement, I represent that I understand and agree to the terms contained herein.

By:_____ Date: 5/12/22
Steve Lederer, Director
Napa County Department of Public Works