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# Stormwater Control Plan



# STORMWATER CONTROL PLAN REGULATED PROJECT

### FOR THE

TAPLIN CELLARS WINERY
USE PERMIT

PROJECT LOCATED AT

1677 LEWELLING LANE ST. HELENA, CA 94574

> COUNTY: NAPA APN: 027-100-005

MARCH 27, 2020

### PREPARED FOR REVIEW BY:

NAPA COUNTY PLANNING, BUILDING & ENVIRONMENTAL SERVICES 1195 THIRD STREET NAPA, CA 94559



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### I. <u>INTRODUCTION AND GENERAL REQUIREMENTS</u>

Taplin Cellars Winery is applying to the County of Napa for a Use Permit to construct and operate a new winery. The proposed winery infrastructure includes converting an existing agricultural building to a wine production and hospitality building, a new covered crush pad, new parking stalls, a new fire pump equipment building, improvements to the existing driveway within the project parcel, and improvements to the road within the Lewelling Lane private right-of-way used to access the project parcel. This report has been prepared as part of the use permit documentation to show the project will comply with the stormwater regulations described below.

On February 5, 2013, California's State Water Resources Control Board reissued the Phase II Stormwater National Pollutant Discharge Elimination System (NPDES) Permit for Small Separate Storm Sewer System (MS4s). To assist applicants in demonstrating project compliance with the NPDES permit requirements, the Bay Area Stormwater Management Agencies Association (BASMAA) created a Post Construction Manual dated July 14th, 2014, titled "Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, and Solano Counties". This original document has been updated, and the current version is dated January 2019. As noted in the current BASMAA Manual, projects can fall into one of five classifications:

- Exempt due to creation or replacement of less than 2,500 square feet (ft²) of impervious area.
- Single Family Homes which create or replace 2,500 square feet (ft²) or more of impervious surface.
- Small Projects which create or replace between 2.500 and 5.000 ft<sup>2</sup> of impervious surface.
- Regulated Projects which create or replace 5,000 ft<sup>2</sup> or more of impervious surface.
- Roads and Linear Utility Projects which create 5,000 ft<sup>2</sup> or more of newly constructed, contiguous impervious surface.

This project is concluded to be a "Regulated Project" due to the construction of impervious areas greater than 5,000 ft². This report proposes to classify improvements within the project parcel as a regulated development project and improvements within the Lewelling Lane private right-ofway as a Road project.

### II. PROJECT DATA

Project Name / Number: Taplin Cellars Winery Use Permit

Application Submittal Date: March 20, 2020

Project Location: 1677 Lewelling Lane, St. Helena CA, 94574

Project Phase Number: Not Applicable

Project Type & Description: Winery – Convert existing agricultural building to wine

production and hospitality facility, improve existing driveway, construct new parking, covered crush pad,

and fire pump equipment building.

Total Project Parcel Area: 20-Acres



Total New or Replaced Impervious Surface Area: 16,500 ft<sup>2</sup> (Project Parcel)

37,345 ft<sup>2</sup> (Lewelling Lane Right-of-Way)

Total Pre-Project Impervious Surface Area: 29,700 ft<sup>2</sup> (Project Parcel)

26,095 ft (Lewelling Lane Right-of-Way)

Total Post-Project Impervious Surface Area: 39,310 ft<sup>2</sup> (Project Parcel)

37,345 ft2 (Lewelling Lane Right-of-Way)

### III. PROJECT SITE DESCRIPTION

### A. Project Location and Description

The Taplin Cellars Winery project site is in the unincorporated area of Napa County, adjacent to the City of St. Helena's southern city limit line. The parcel number is APN: 027-100-005 and the address is 1677 Lewelling Lane, St. Helena, CA 94574. The parcel is 20-acres and in the Agricultural Preserve (AP) zoning district of Napa County. The Taplin Cellars Winery project site is accessed from Lewelling Lane, an existing gravel road located within a thirty-foot wide private right-of-way intersecting with State Highway 29. A vicinity map of the project area is provided in Appendix A.

The Taplin Cellars Winery project proposes to internally convert an existing agricultural building (approximately 5,800-square feet, two-stories) into a wine production and hospitality building. An approximately 1,036 square foot covered crush pad will be added to the existing building. Six parking stalls will be constructed near the covered crush pad and a concrete equipment pad will be constructed adjacent to the existing building. An approximately 180-square foot building will be constructed to house equipment required for the fire protection water system. The primary source of new or replaced impervious area will be from improvements to the existing driveway and Lewelling Lane access road. The existing gravel driveway on the project parcel which provides access to the proposed winery building is approximately 14-feet wide and 300-feet long. It intersects with Lewelling Lane approximately 1,625-feet from Lewelling Lane's connection to State Highway 29. The Lewelling Lane access road is also surfaced with gravel and approximately 14feet wide. Both Lewelling Lane and the driveway on the parcel must be widened to 22-feet to meet Napa County Road and Street Standards. The project proposes to surface the road and driveway improvements with gravel to maintain the rural nature of Lewelling Lane. A map of the overall project area is provided in Appendix B. Existing and proposed project site maps for improvements within the parcel are provided in Appendix C.

### B. Existing Site Features and Conditions

The project parcel is located near the southern border of the City of St. Helena, is square shaped, and 20-acres in size. The area surrounding the parcel is generally flat and rural, consisting mainly of vineyards with wineries and small residential developments. The topography of the project parcel is nearly flat with an approximate slope of one percent from the northwest to the southeast corner of the parcel. Currently, development on the parcel consists of a main residence, guest cottage, several small storage sheds, and an agricultural building. The remaining portion of the parcel is completely planted with vineyards. Runoff from the residential and agricultural development drains to the surrounding vineyards and is not piped or conveyed to any municipal drainage system. According to GIS data available from Napa County, soils on the parcel consist of



Cortina Very Gravelly Loam and Pleasanton Loam. Cortina Very Gravelly Loam is excessively drained with very low runoff and belongs to Hydrologic Group A. Pleasanton Loam is well drained and belongs to Hydrologic Group C.

Access to the project parcel is provided by Lewelling Lane, an existing gravel road located within a thirty-foot wide private right-of-way. Lewelling Lane is straight, generally bearing southwest from its intersection with State Highway 29, and flat with longitudinal slopes less than one percent on average. Lewelling Lane provides primary access to Prager Port Works and several residential parcels along its first 800-ft from the State Highway 29 intersection. Development on Lewelling Lane between this initial section of development and the project site consists of vineyards.

### C. Stormwater Control: Opportunities and Constraints

Stormwater control opportunities generally consist of large, flat vineyard areas surrounding the project site and a portion of the Lewelling Lane road improvements. The well drained vineyard soils and shallow slopes allow for infiltration of stormwater runoff from the proposed improvements.

Generally, stormwater control constraints occur where road improvements are required within the narrow thirty-foot wide Lewelling Lane right-of-way near its intersection with State Highway 29. There is limited space for the installation of stormwater control measures in the right-of-way due to the required road width of twenty-two feet. Additionally, several parcels with existing driveways and numerous existing utilities limit the potential to install sub-surface bio-retention facilities or bioswales along this length of Lewelling Lane road improvements.

### IV. LOW IMPACT DEVELOPMENT DESIGN STRATEGIES

### A. Site Layout Optimization

one Lajour opiniization	
Site Design BMP	Activity
Limit Development Envelope	The project proposes to internally convert an existing agricultural building for use as the winery production and hospitality building. Additionally, this project proposes to widen and resurface over existing driveways.
Preserve Natural Drainage Features	The project does not propose alterations to natural drainage features.
Setbacks from creeks, wetlands, and riparian habitats	There are no creeks, wetlands, or riparian habitats located near the project site.
Minimize Impervious Areas	The project proposes to minimize impervious areas by converting an existing building to winery use and improving the existing driveway.
Use of Drainage as a Design Element	Due to the simplicity of the project and flat, rural nature of the project site, opportunities to incorporate drainage as a design element are limited.

B. Use of Permeable Pavements

Permeable pavements are not proposed for this project.

C. Dispersal of Runoff to Pervious Areas

Stormwater runoff generated from improvements on the project parcel will be dispersed to the large vineyard areas surrounding the proposed project.

D. Stormwater Control Measures

Post-construction stormwater control measures will primarily consist of dispersing runoff to the large vineyard areas to remain consistent with pre-project drainage patterns. The vineyards surrounding the project site are well maintained and planted with a cover crop during the rainy season. Due to the well-drained nature of the site soils and permanently maintained vegetation, the vineyard area effectively functions as a bio-retention facility.

### V. DRAINAGE DESIGN

A. Drainage Management Areas

In order to develop the low impact design of a project, the overall project area is divided into Drainage Management Areas (DMAs). Each DMA is associated with a specific stormwater outfall location that will receive stormwater runoff from an impervious or landscaped area. For this project, the new or replaced impervious area is greater than 50% of the pre-project impervious area. Therefore, the total existing and proposed post-project impervious areas must be considered for stormwater treatment and will be included in the DMA's description below. DMA #1 is associated with the development project and DMAs #2 and #3 are associated with the road improvements project.

DMA #1 is 20-acres and consists of all areas located within the project parcel. This includes the pervious vineyard areas and remaining 39,310-square feet of impervious area from buildings, driveways, parking areas, concrete paths and pads, and water storage tanks. Runoff from the impervious site features outfalls to the surrounding vineyards. The parcel is very flat and there is no definitive outfall location for stormwater runoff. There is no storm drain pipe network or open channel conveyance system and no connection of runoff to a municipal storm drain system within the parcel or near the perimeter of the parcel. Drainage patterns across the vineyards are generally from the northwest to the southeast based on the topography of the parcel.

DMA #2 consists of the portion of road improvements in the Lewelling Lane private right-of-way that are surrounded by vineyards to the north and south. This portion of improved road will be surfaced with gravel and contains approximately 19,295-square feet of impervious area. Along the length of this portion of road, vineyards extend approximately 400-feet to the north and approximately 1,600-feet to the south. Runoff in DMA #2 generally sheet flows from the northwest to the southeast based on the topography in this area.

DMA #3 consists of the portion of road improvements in the Lewelling Lane private right-of-way near State Highway 29 that are constrained to the north and south by existing residential and commercial development. This portion of improved road will be surfaced with gravel and contains approximately 18,050-square feet of impervious area.



A map of each DMA and the surrounding drainage patterns is provided in Appendix D.

### B. Self-Treating Area Design

Self-treating areas (STA) are landscaped areas that drain directly off-site or to a storm drain system. To be considered a STA, no more than 5% of the area can be impervious and slopes must be shallow enough to ensure runoff will be absorbed in the vegetation and soil. There are three DMA's this report proposes to classify as self-treating areas.

This report proposes that DMA #1 be classified as STA #1. DMA #1 has a total area of 20-acres and an impervious area of 39,310-square feet. The impervious area is approximately 4.5% of the total area. Additionally, the slopes of DMA #1 are very shallow (less than 2%) and most of this DMA is vineyards which are maintained throughout the year. Based on the percent impervious, slopes, and maintained vegetation, DMA #1 qualifies for classification as STA #1 according to criteria set forth in the BASMAA post-construction manual.

This report proposes that DMA #2 be classified as STA #2. The DMA #2 road improvements are in Lewelling Lane, which is a narrow thirty-foot right-of-way. This narrow right of way is part of a much larger rural area. Like DMA/STA #1, the slopes in this area are less than 2% and the land primarily consists of vineyards which are maintained throughout the year. The impervious area of approximately 19,295-square feet is immediately surrounded by approximately 36-acres of vineyards on adjacent parcels outside of the private right-of-way. The impervious area is approximately 1.25% the size of the surrounding vineyards. Based on the percent impervious, slopes, and maintained vegetation, DMA #2 qualifies for classification as STA #2 according to criteria set forth in the BASMAA post-construction manual.

This report proposes that DMA #3 be classified as STA #3 because of the proposed gravel surfacing, residential landscaping or vineyards adjacent to the road, and the DMAs proposed classification as a road project.

### VI. SOURCE CONTROL MEASURES: BEST MANAGEMENT PRACTICES (BMP)

Please see below for a summary of the Source Control BMP Selection Worksheet which identifies all anticipated activities and potential pollutant sources associated with the project's use.

- On-site Storm Drain Inlets There are no on-site storm drain inlets proposed for this project.
- Interior Floor Drains All interior drains shall be plumbed to the sewer system. The owner shall inspect and maintain drain inlets to prevent blockages and overflow.
- Landscaping There is no specific landscaping proposed as part of this project. The project site is surrounded by vineyards.
- Refuse Areas Dumpsters or totes shall be covered to preclude rainwater. Any drains in refuse areas shall be plumbed to the wastewater treatment system.
- Industrial Processes All process activities will be performed indoors. No processes shall drain to the exterior or any storm drain system.
- Outdoor Storage of Equipment or Materials The need for outdoor equipment or materials storage areas will be fully determined at the construction document phase. If required, the areas will



- comply with BASMAA and CASQA fact sheets SC-31 and SC033.
- Roofs, Gutters and Downspouts Downspouts connected to roof gutters do not discharge to any storm drain system. Downspouts outfall onto splash blocks and runoff is dispersed into the surrounding landscape and vineyards.
- Parking Lot The parking lot is sloped to drain to the surrounding vineyards and will be regularly maintained to collect litter and debris.



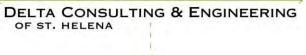
### VII. POST-CONSTRUCTION STORMWATER BMP MAINTENANCE AGREEMENT

Taplin Cellars Winery shall work directly with Napa County Planning, Building, and Environmental Services on establishing a Post-Construction Stormwater BMP Maintenance Agreement during the construction document phase of the project. Once construction has been completed, the agreement shall be recorded with the County of Napa prior to final of construction permits. The Maintenance Agreement shall contain a plan including, but not limited to, all the best management practices described in this report. Construction documents for this project shall serve as the Implementation Agreement for the installation of the best management practices described in this report.



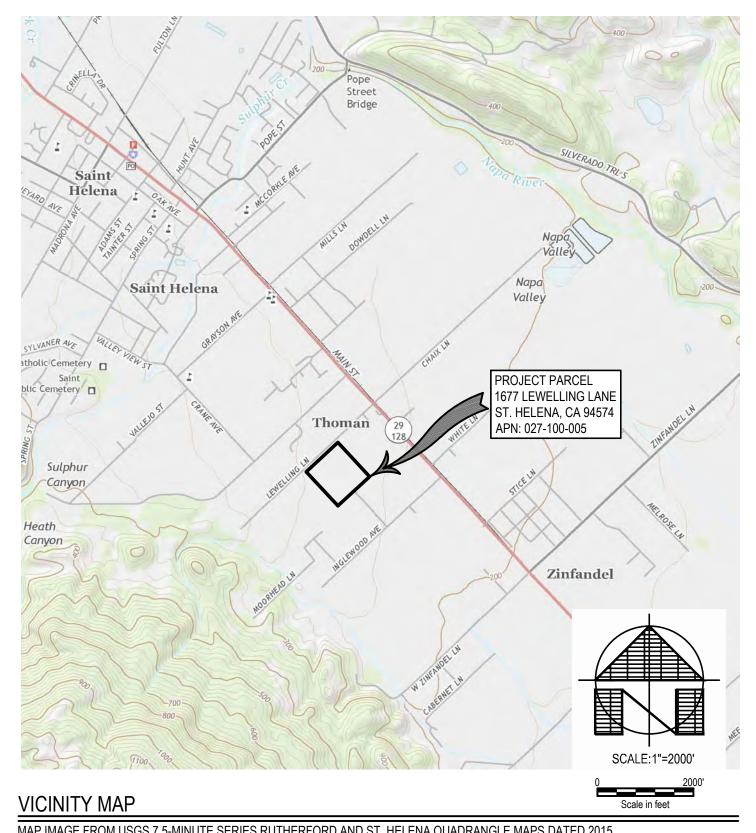
### VIII. <u>APPENDIX</u>

- A. VICINITY MAP
- B. OVERALL PROJECT AREA SITE MAP
- C. EXISTING AND PROPOSED PROJECT SITE MAPS
- D. DRAINAGE MANAGEMENT AREAS EXHIBITS





APPENDIX A: VICINITY MAP



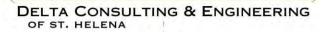
MAP IMAGE FROM USGS 7.5-MINUTE SERIES RUTHERFORD AND ST. HELENA QUADRANGLE MAPS DATED 2015

TAPLIN CELLARS WINERY USE PERMIT **VICINITY MAP** 

DELTA CONSULTING & ENGINEERING of st. helena								
1104 ADAMS STREET, SUITE 203 - ST. HELENA, CALIFORNIA 9457								
707-963-8456 + 707-963-8528 FAX								
DATE:	MARCH 27, 2020	JOB# R-101						
SCALE:	AS NOTED	APN: 027-100-005						

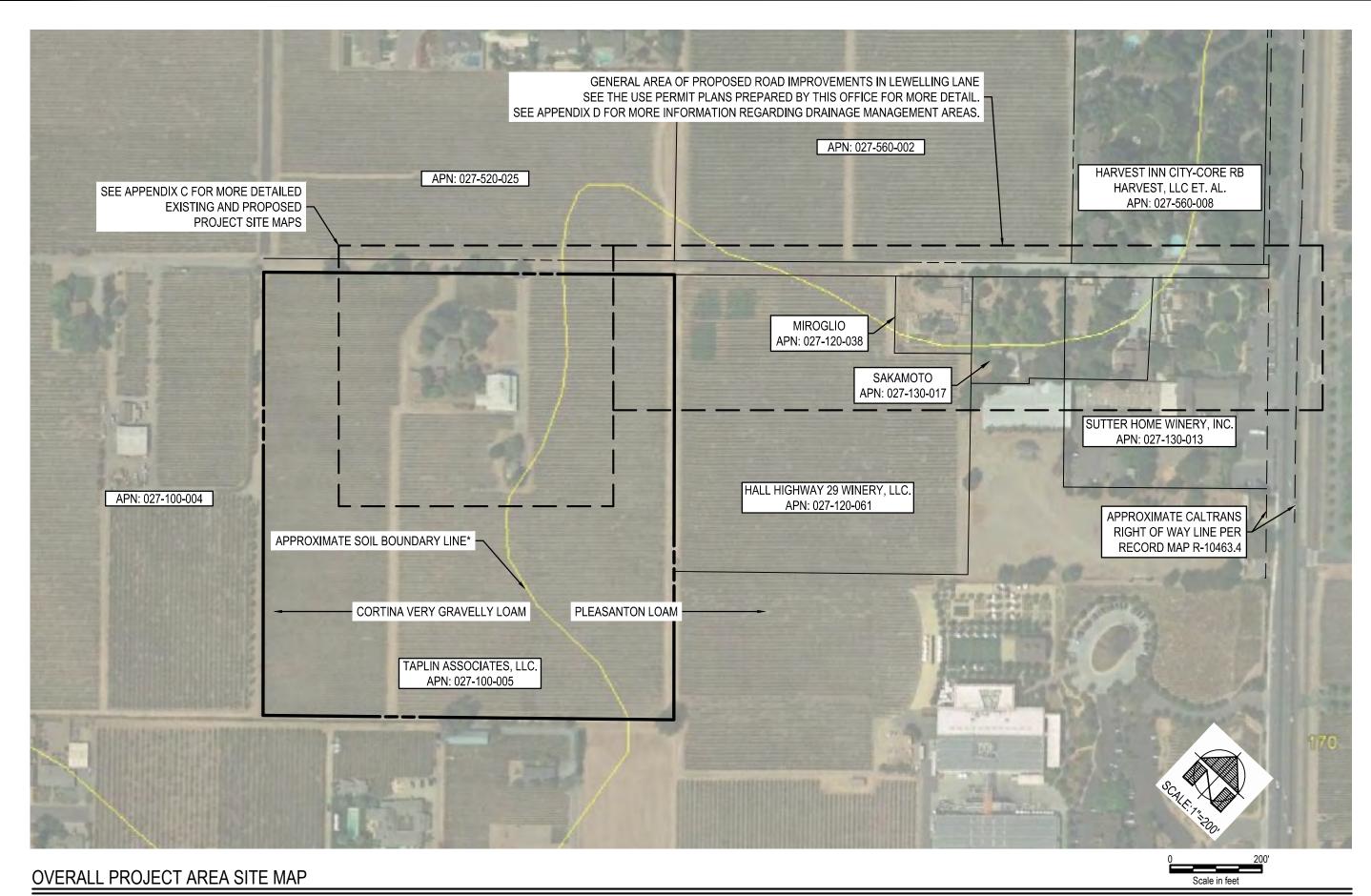
SHEET

OF



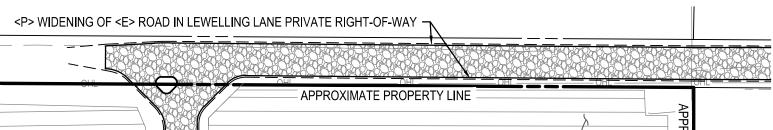


APPENDIX B: OVERALL PROJECT AREA SITE MAP

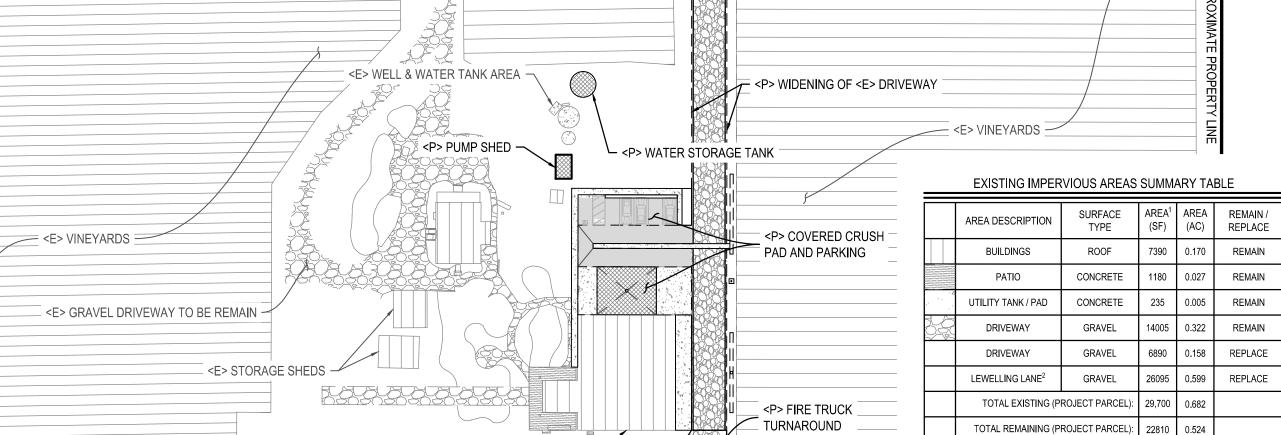




APPENDIX C: EXISTING AND PROPOSED PROJECT SITE MAPS



<E> GUEST COTTAGE



- IMPERVIOUS AREAS ARE APPROXIMATE AND ROUNDED UP TO THE NEAREST MULTIPLIER OF 5 (ie. 87 IS ROUNDED UP TO 90).
- 2. LEWELLING LANE IS A 30-FOOT WIDE PRIVATE RIGHT-OF-WAY. FOR PURPOSES OF THIS USE PERMIT APPLICATION, IT IS ASSUMED ALL EXISTING GRAVEL ROADWAY SURFACING IN LEWELLING LANE WILL BE REPLACED AS PART OF THE PROPOSED TAPLIN CELLARS PROJECT IN ORDER TO MEET NAPA COUNTY ROAD AND STREET STANDARDS FOR ROAD WIDTH.

### **NEW & RECONSTRUCTED AREAS ON PROJECT PARCEL**

AREA DESCRIPTION	SURFACE TYPE	AREA (SF)	AREA (AC)
BUILDINGS / TANKS	ROOF	1460	0.034
PADS / PATHS	CONCRETE	2800	0.064
PARKING	ASPHALT	2715	0.062
DRIVEWAY	GRAVEL	9525	0.219
	TOTAL	16,500	0.379

### PROPOSED SITE MAP

THIS SITE MAP IS INTENDED TO PROVIDE A GENERAL DEPICTION OF NEW OR RECONSTRUCTED ITEMS PROPOSED AS PART OF THIS USE PERMIT APPLICATION.

SEE THE USE PERMIT PLANS PREPARED BY THIS OFFICE FOR MORE DETAIL REGARDING THE PROPOSED SITE PLAN AND THE ROAD IMPROVEMENTS TO LEWELLING LANE.

SEE THE DRAINAGE MANAGEMENT AREAS EXHIBITS IN APPENDIX D FOR A SUMMARY OF IMPERVIOUS AREAS AND DRAINAGE ON THE PARCEL AND IN LEWELLING LANE.

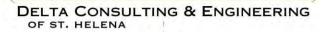
<E> VINEYARDS

<E> AGRICULTURAL BUILDING

TO BE CONVERTED TO WINERY

<E> GRAVEL ROAD TO REMAIN

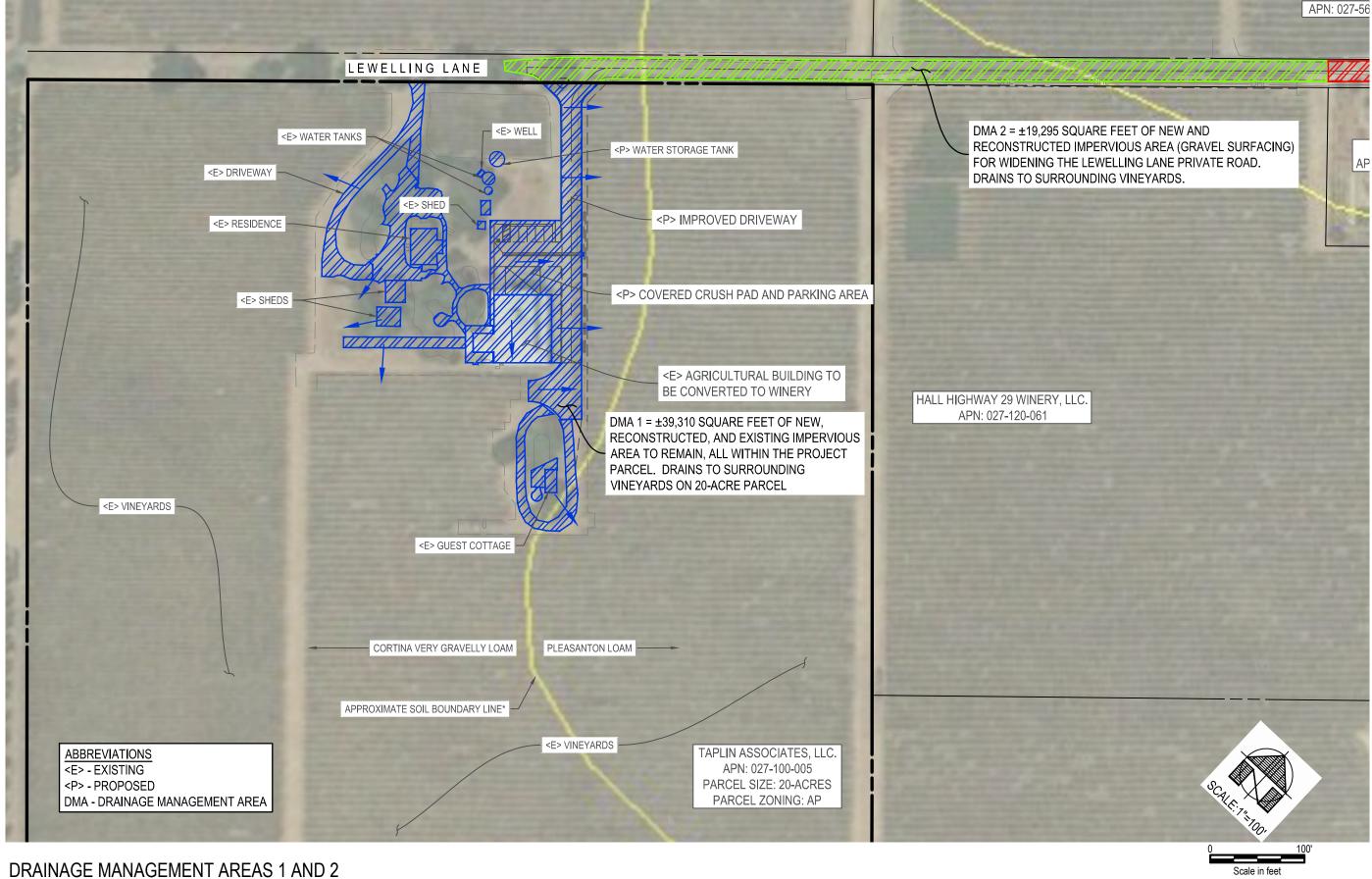
LEWELLING LANE

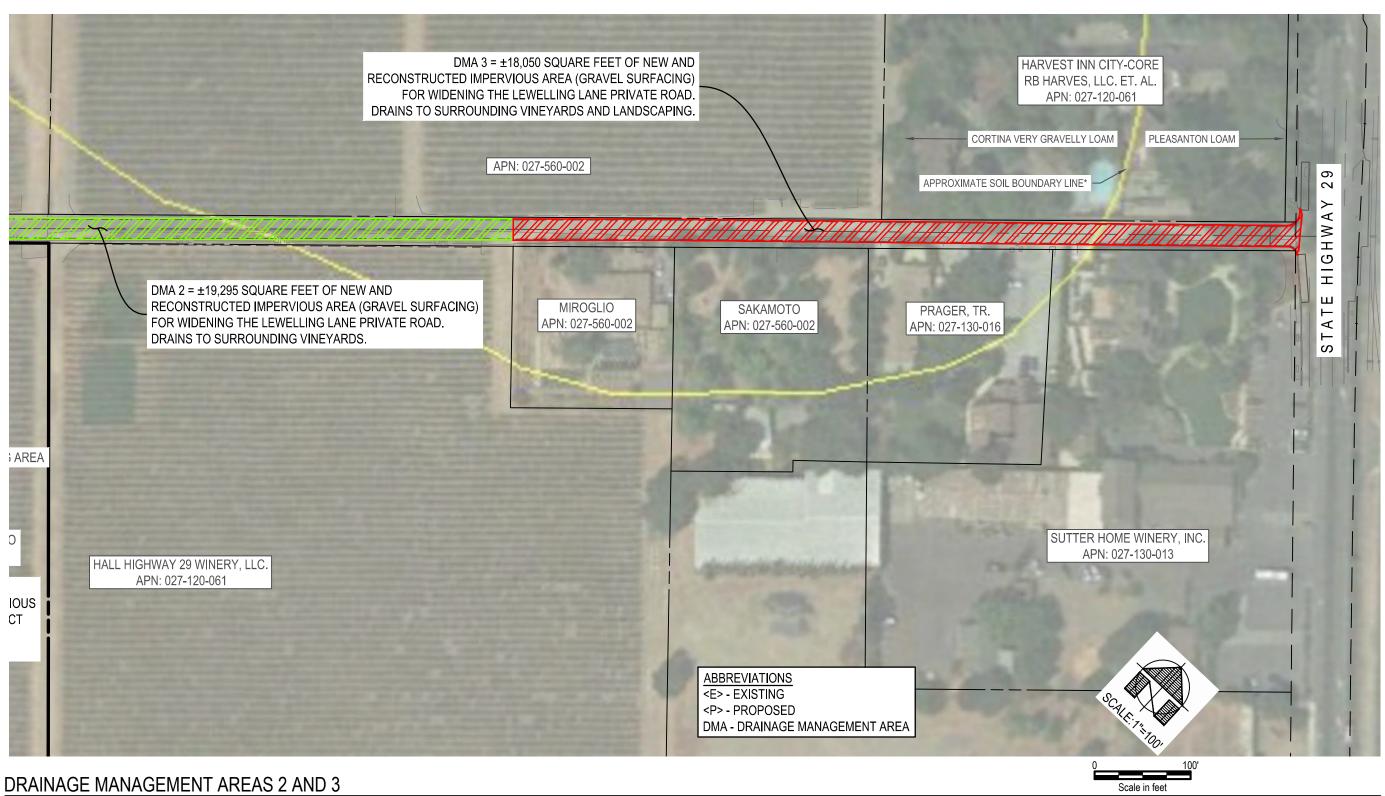




APPENDIX D: DRAINAGE MANAGEMENT AREAS EXHIBITS

AERIAL IMAGE FROM GOOGLE EARTH PRO. IMAGE DATED 09/01/2018. PARCEL LINES FROM TOPOGRAPHIC MAP BY TERRA FIRMA SURVEYS, INC.





\*SOIL TYPE BOUNDARY LINE INCLUDED IN GOOGLE EARTH AERIAL IMAGE IS PER GIS DATA PROVIDED BY SOILWEB (SOILWEB GIS LINK DESCRIBED AS A STREAMING, SEAMLESS INTERFACE TO USDA-NCSS SSURGO AND STATSGO SOIL SURVEY PRODUCTS.

AERIAL IMAGE FROM GOOGLE EARTH PRO. IMAGE DATED 09/01/2018. PARCEL LINES FROM TOPOGRAPHIC MAP BY TERRA FIRMA SURVEYS, INC.

# TAPLIN CELLARS WINERY USE PERMIT STORMWATER CONTROL PLAN ST. HELENA CA