

REPORT OF WASTE DISCHARGE
PROPOSED AUSTIN VINEYARDS
35620 GLEN OAKS ROAD, TEMECULA AREA
RIVERSIDE COUNTY, CALIFORNIA

PROJECT NO. 22014-10
JULY 5, 2022



CW SOILS
23251 Kent Court
Murrieta, CA 92562
□ 951-304-3935 □
□ cwsoils.com □



July 5, 2022

Project No. 22014-10

Mr. Ted Neugebauer
Temecula Valley Winery Management
c/o Mr. Austin Randall
AUSTIN VINEYARDS, LLC
3060 Upham Street
Wheatridge, CO 80033

Subject: Report of Waste Discharge, Proposed Austin Vineyards, Assessor's Parcel Number 942-030-011, 35620 Glen Oaks Road, Temecula Area, Riverside County, California

In accordance with your request, CW Soils is pleased to present our limited Report of Waste Discharge (ROWD) for the proposed Austin Vineyards, Assessor's Parcel Number 942-030-011, located at 35620 Glen Oaks Road in the Temecula area of Riverside County, California. The purpose of our work was to evaluate the nature, distribution, and engineering properties of the geologic formations underlying the site with respect to the proposed improvements.

CW Soils appreciates the opportunity to offer our services on this project. If we can be of further assistance, please do not hesitate to contact the undersigned at your convenience.

Respectfully submitted,

CW Soils

Chad E. Welke, PG, CEG, PE
Principal Geologist/Engineer



Distribution: (1) Addressee (email)

Attachments:

- Figure 1 – Site Location Map
- Plate 1 – Site Plan
- Sheets 1 & 2 – Utilities Plan
- Wastewater Treatment Schematic

1. BACKGROUND

1.1. Wastewater system description

- 1.1.1. Phase I of the proposed winery development includes a wine tasting building and restaurant, complete with a grease trap and typical onsite wastewater treatment.
- 1.1.2. A Figure 1 - Site Location Map and a Plate 1 - Site Plan, have been provided herein.
- 1.1.3. The wastewater treatment system components consist of a grease trap followed by an advanced sewage disposal system consisting of a Norweco[®] Singulair[®] manufacture's subsurface drip disposal system. Areas for both a primary system and a 100 percent expansion system are required. No wastewater system buildings are necessary for this project. Additionally, no surface water bodies or groundwater wells are within 100 feet of the proposed leach fields.
- 1.1.4. The site consists of Assessor's Parcel Number 942-030-011, parcel 2 of parcel map 27134 in the county of riverside state of California, as shown by map on file in book 182 of maps, pages 95 & 96, records of riverside county, state of California.
- 1.1.5. The water supply to the wine tasting building and restaurant being served by the wastewater system is Eastern Municipal Water District.

1.2. Service area description

- 1.2.1. The subject site is not located within or near an existing regional system service area. The site's proximity to the nearest existing regional collection system is approximately 4,000 feet away.
- 1.2.2. The wastewater collection system consists of 4-inch PVC SDR 35 sewer pipe with cleanouts.
 - 1.2.2.1. The collection system will be new construction.
 - 1.2.2.2. The piping construction and layout are show on the attached *Utilities Plan, Austin Winery*, Sheet Nos. 1 & 2, by Bratene Construction & Engineering, dated June 6, 2022. The piping construction will consist of 4-inch PVC SDR 35 sewer pipe with cleanouts.
 - 1.2.2.3. No lift stations and backup pumping systems are needed.
 - 1.2.2.4. No failure warning system is planned for the collection system. A failure warning system is standard for the proposed treatment system.
 - 1.2.2.5. No inflow and infiltration (I/I) are anticipated for the collection system.
 - 1.2.2.6. No maintenance of collection system and spill response are anticipated for the collection system.
- 1.2.3. The storm water collection system is separate and independent of the onsite wastewater system.
 - 1.2.3.1. The piping construction and layout is show on the attached *Utilities Plan, Austin Winery*, Sheet Nos. 1 & 2, by Bratene Construction & Engineering, dated June 6, 2022. An additional detention basin is shown in the northwesterly portion of the site on Plate 1 - Site Plan.
 - 1.2.3.2. Storm water disposal area is approximately 75 feet southwest of the wastewater disposal area. The bottom of the storm water disposal area is approximately 10 feet lower in elevation as well.

1.2.3.3. No storm water disposal permit is required.

2. WASTEWATER CHARACTERIZATION AND TREATMENT

2.1. Domestic wastewater characterization (untreated wastewater).

- 2.1.1. The generation of wastewater will primarily come from tourists visiting the winery for the restaurant and wine tasting room.
- 2.1.2. The domestic wastewater flow rate was determined by performing a fixture count. The fixture count totaled 70 units, which yielded a septic tank capacity of 2,750 gallons, based on the California Plumbing Code Appendix H Table 201.1(1) and Table 702.1.
- 2.1.3. No chemicals or other out of the ordinary discharge is anticipated. The anticipated discharge should be similar to traditional residential discharge. No additional constituents of concern are anticipated based on the proposed site activities.

2.2. Wastewater treatment system.

2.2.1. A Wastewater Treatment Schematic has been provided herein.

2.2.2. Describe wastewater pretreatment components.

2.2.2.1. The domestic wastewater pretreatment system will include a 1,500 gallon grease trap intercept prior to entering the advanced wastewater treatment system.

2.2.2.2. No pretreatment storage or treatment are planned for the proposed system, with the exception of the grease trap. Disposal of pretreatment residuals from the grease trap will be in accordance with the local, state, and federal governing agency compliance requirements, as needed.

2.2.3. Describe preliminary treatment activities (e.g., screening, comminution, grit removal).

2.2.3.1. The preliminary treatment will include a Pretreatment Chamber constructed of reinforced precast concrete to begin isolating the settleable matter. The Pretreatment Chamber will provide storage and preliminary treatment, consisting of gravity settlement and aerobic bacteria activities. Routine service inspections by a factory trained service technician are planned at six month intervals. Disposal of preliminary treatment residuals will be in accordance with the local, state, and federal governing agency compliance requirements.

2.2.4. Describe primary treatment activities (remove settleable/floatable matter).

2.2.4.1. The primary treatment will include an Aeration Chamber constructed of reinforced precast concrete to help isolate the settleable and floatable matter. The Aeration Chamber will provide the fresh air necessary for the living microorganisms to fully digest and treat the wastewater. No statistically significant primary treatment residuals are anticipated, but a quarterly monitoring program of the primary treatment residuals will be in place to ensure that only acceptable levels of residuals are released into the drip system and out into the environment. The treatment includes a Clarification Chamber and Bio-Static Sludge Return for enhanced clarification. For the removal of settleable/floatable matter, routine service inspections by a factory trained service technician are planned at six month intervals. Disposal of primary treatment residuals will be in accordance with the local,

state, and federal governing agency compliance requirements.

- 2.2.5. The treatment technology will consist of an advanced wastewater treatment system utilizing a septic tank design. The total quantity of effluent to be disposed of is 2,750 gallons per day. In order to accomplish this, a 1,500 gallon per day system, which is equivalent to 3,400 total gallons, is planned.
 - 2.2.5.1. The storage, treatment, and disposal of treatment residuals (e.g. sludge, septage, etc.), will be evaluated every six months during routine service inspections by a factory trained service technician. On the order of every 3 to 5 years, the (e.g. sludge, septage, etc.), should be pumped out of the chambers and properly disposed of in accordance with the local, state, and federal governing agency compliance requirements.
- 2.2.6. The location of the 3,400 gallon septic tank is shown on the attached *Utilities Plan, Austin Winery*, Sheet Nos. 1 & 2, by Bratene Construction & Engineering, dated June 6, 2022. A total of two fractional horsepower aerators are specified by the manufacturer of the septic system.
- 2.2.7. No disinfection system equipment is needed.
- 2.2.8. No storage facilities are needed.
 - 2.2.8.1. This section is not applicable.
- 2.2.9. Predicted wastewater effluent quality.
 - 2.2.9.1. The predicted wastewater effluent quality will meet or exceed local, state, and federal quality requirements for wastewater treatment with regard to TSS and BOD.
- 2.2.10. Treated effluent disposal method.
 - 2.2.10.1. The treated wastewater will be dispersed via leach fields utilizing drip dispersal zones. The drip dispersal zones with a roughly 10 percent slope, a minimum soil cover of 9 inches, but no greater than 12 inches, over the drip lines are planned. The maximum emitter longitudinal spacing shall be 2 feet and the maximum spacing between adjacent emitter lines, in an absorption bed configuration, shall be 2 feet.
 - 2.2.10.2. The proposed disposal area will consist of a leach field disposal system with area set aside for a 100% expansion area. The proposed leach field will be located within rows of grape vines on approximately 22 acres. The surrounding properties generally include scattered residential estates, ranches, and vineyards. Well data located less than one third of a mile northeast of the subject property was found via the National Water Information System of the United States Geologic Survey (USGS) web site. Based upon USGS Well No. 333324117015601 the depth to groundwater was measured in 1968 at 24 feet below a ground surface elevation of 1,520 feet. Putting the approximate groundwater table at an elevation of 1,496 feet. However, based on monitoring well measurements conducted by CW Soils on April 26, 2022 and June 29, 2022, no groundwater was encountered to a depth of 14 feet (approximate elevation 1,487 feet). The monitoring well is located between the proposed leach lines and the existing southern detention basin. The proposed leach field is planned at elevations greater than 1,504 feet. As a result, groundwater is estimated to be greater than 17 feet below the proposed leach

fields. The nearest natural drainage course is located approximately 18 feet southeast of the proposed leach fields. The nearest (blue line) drainage course, which is located to the northeast, is on the order of 1,300 feet away from the proposed leach fields. Surface water drainage within the project area will be collected, controlled via erosion resistant devices, and dispersed into approved locations. Additionally, it is our understanding that no wells are present at the subject property and that water is supplied to the site by the Eastern Municipal Water District.

2.2.10.2.1. Not applicable.

2.2.10.2.2. Not applicable.

2.2.10.2.3. Not applicable.

23. Recycled Water Projects.

2.3.1.1.1. Not applicable.

2.3.1.2. Not applicable.

2.3.1.3. Not applicable.

24. Operation and Maintenance.

2.4.1. The manufacturers guidelines will be followed for routine operation and maintenance procedures.

2.4.2. Routine service inspections by a factory trained service technician are planned at 6 month intervals.

2.4.3. The manufacturers guidelines will be followed for repairs/spills/treatment issues.

3. GROUNDWATER QUALITY

3.1. Groundwater quality testing is planned on a quarterly basis.

4. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

4.1. This Small Domestic System will be determined to be categorically exempt from the California Environmental Quality Act (CEQA) under Title 14, Section 15303 (new construction or conversion of small structures).

4.2. It is our understanding that the CEQA evaluation will be submitted with the ROWD.

4.2.1. Not applicable.

5. ADDITIONAL TECHNICAL REPORTS

5.1. The storage, treatment, and disposal of treatment residuals (e.g. sludge, septage, etc.), will be evaluated every six months during routine service inspections by a factory trained service technician.

5.1.1. The estimated the amount of sludge and scum that will be generated is typical for this type of disposal system, which will likely need to be pumped every 3 to 5 years, based on the manufacturers projects for similar systems.

5.1.1.1. The generated sludge, scum, and supernatant will be stored and properly disposed of to protect groundwater quality in accordance with the local, state,

and federal governing agency compliance requirements.

5.1.1.2. Not applicable.

5.1.1.3. Not applicable.

REPORT LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable soils engineers and geologists, practicing at the time and location this report was prepared. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

Groundwater and moisture conditions can vary due to natural processes or the works of man on this or adjacent properties. As a result, we do not and cannot have complete knowledge of the subsurface conditions beneath the proposed project. No practical study can completely eliminate uncertainty with regard to the anticipated geologic and soils engineering conditions in connection with a proposed project. The conclusions and recommendations within this report are based upon the findings at the points of observation and analysis.



REFERENCE: Google Earth (Version 7.1.5.1557) [Software]. Mountain View, CA: Google Inc. (2015).



SITE LOCATION MAP

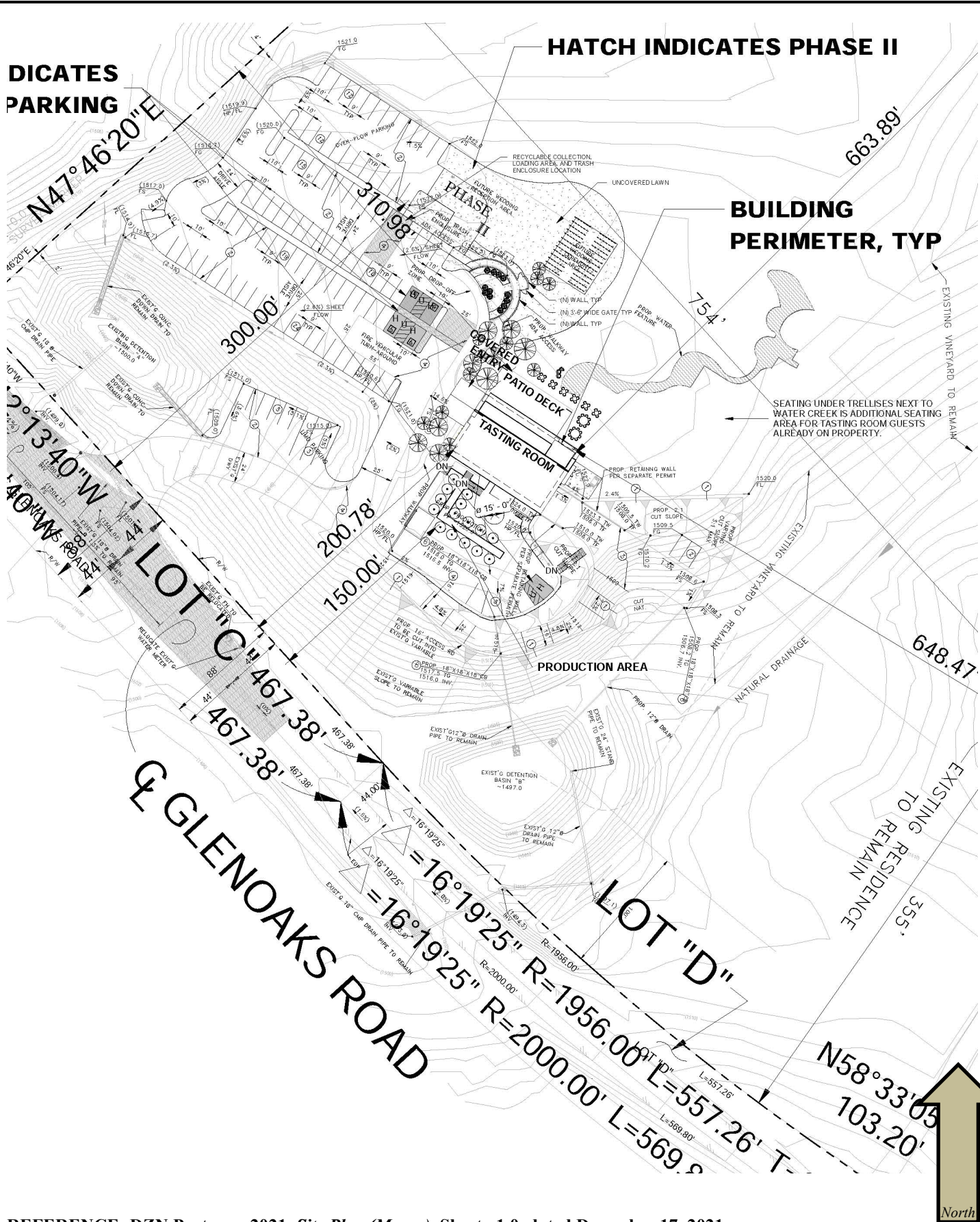
22014-10

FIGURE 1

**DICATES
PARKING**

HATCH INDICATES PHASE II

**BUILDING
PERIMETER, TYP**



REFERENCE: DZN Partners, 2021, *Site Plan (Macro)*, Sheet a1.0, dated December 17, 2021.



Proposed Austin Winery

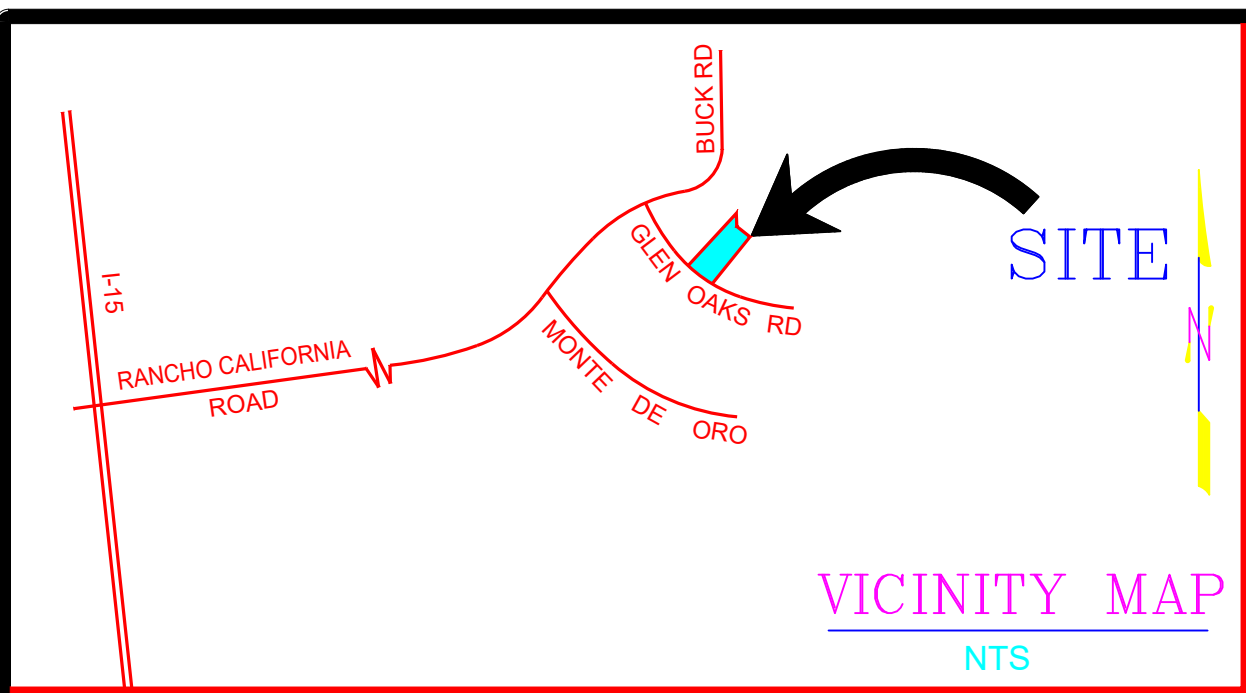
22014-10

SITE MAP

1" = 100'

2022

PLATE 1



REFERENCE THOMAS BROTHER'S MAP NO. 930, C6/D6 T7S R2W SEC. 24

EASEMENTS:
 1. AN EASEMENT FOR SLOPES AND INCIDENTS THERETO, PER INSTRUMENT NO. 121048, RECORDED DECEMBER 20, 1966, RECORDS OF RIVERSIDE IN FAVOR OF KAISER AETNA, A CALIFORNIA GENERAL PARTNERSHIP, BY ASSIGNMENT RECORDED MARCH 4, 1971 AS INSTRUMENT NO. 21825, RECORDS OF RIVERSIDE COUNTY. (SAID SLOPE EASEMENTS ARE INDETERMINATE IN NATURE)
 2. AN EASEMENT FOR ROADWAY ACCESS TOGETHER WITH SLOPE EASEMENTS ADJOINING SAID ROADWAY AT A RATIO OF 1.5:1 PER INSTRUMENT NO. 121049, RECORDS OF RIVERSIDE COUNTY, IN FAVOR OF RANCHO CALIFORNIA, A PARTNERSHIP. (SAID SLOPE EASEMENTS ARE INDETERMINATE IN NATURE)

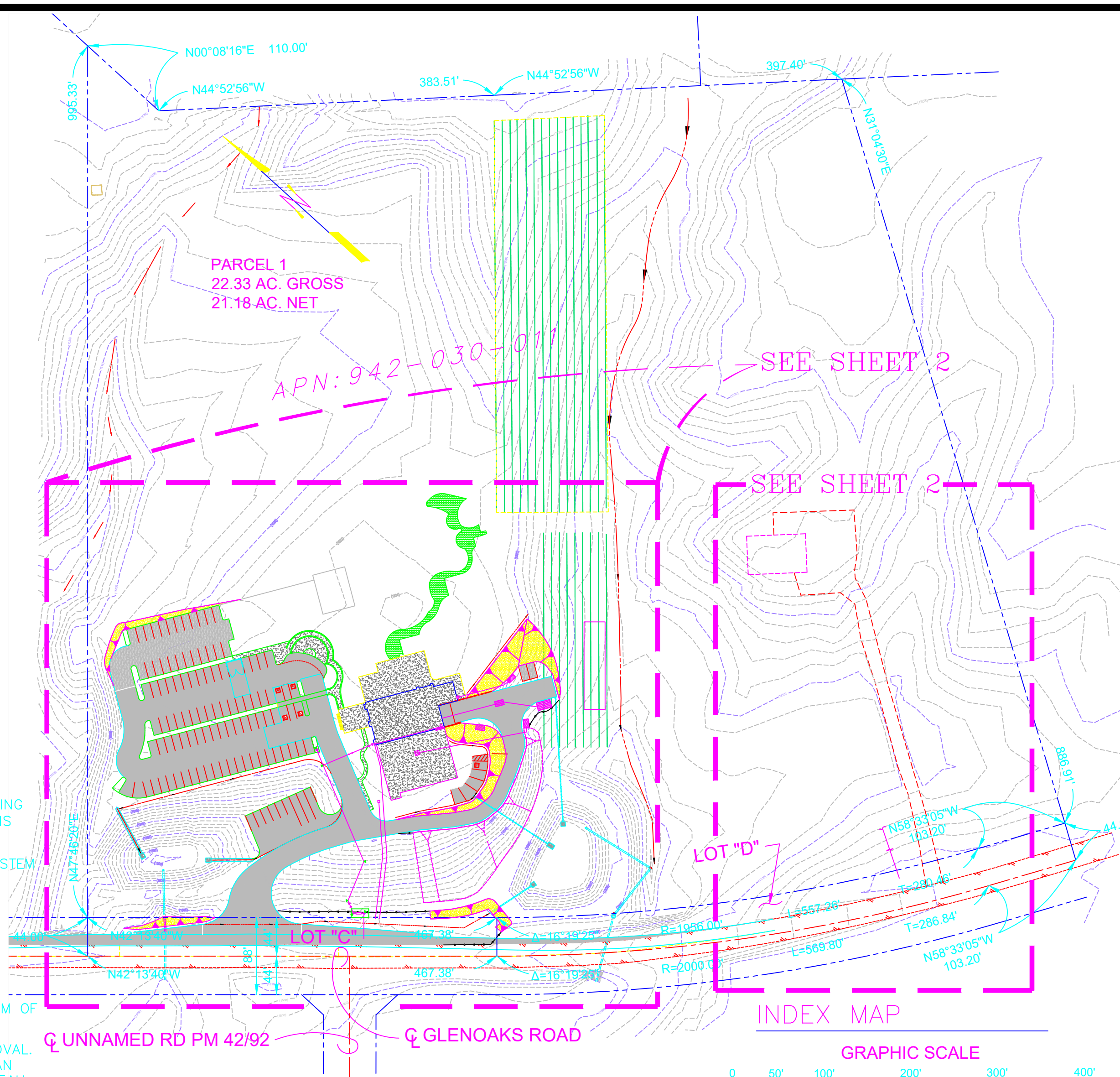
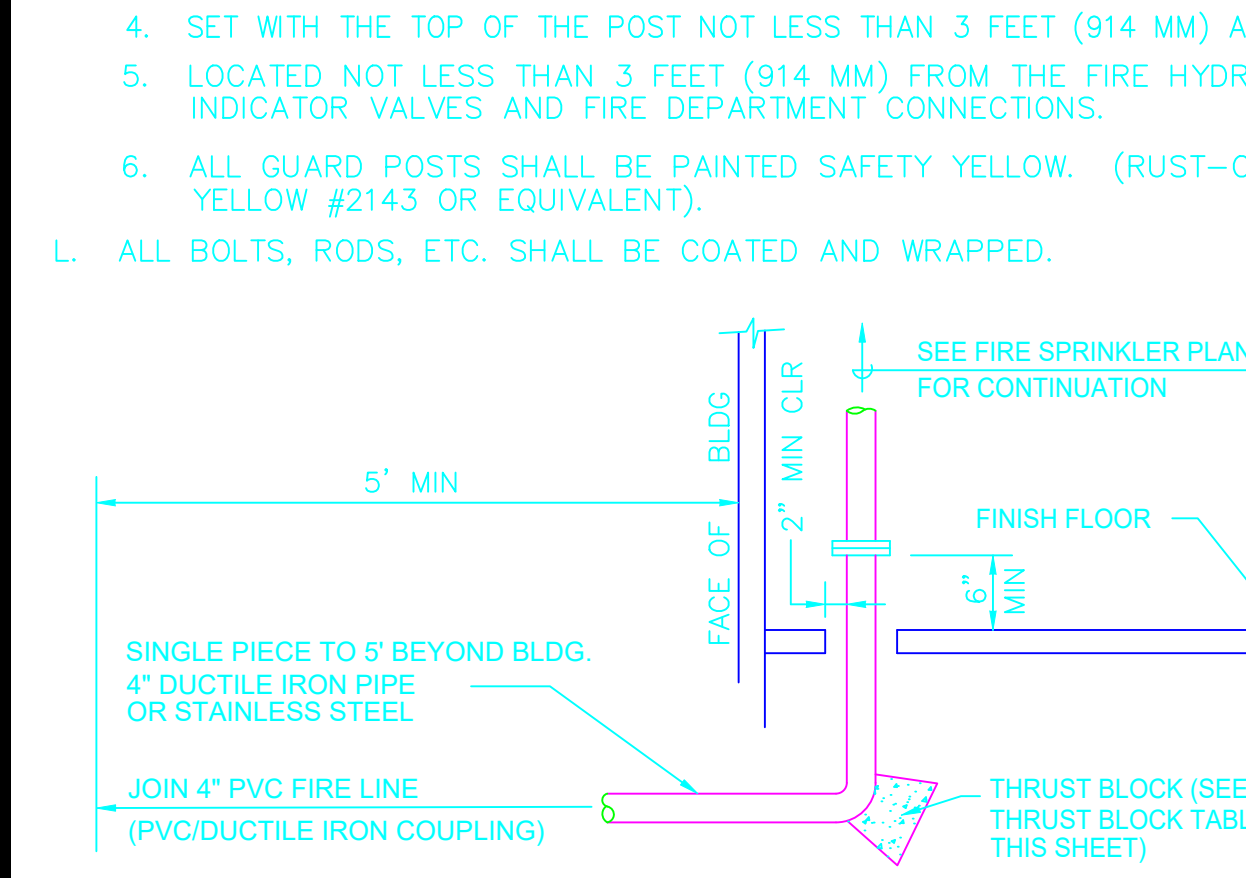
FIRE DEPARTMENT NOTE:
 I HEREBY STATE THAT THE DESIGN OF THE WATER SYSTEM WITHIN THIS PROJECT IS IN ACCORDANCE WITH THE REQUIREMENTS PRESCRIBED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT PROTECTION DISTRICT AS TO HYDRANT TYPE AND SPACING, AND WILL PROVIDE FIRE FLOW OF 1500 GPM IF SUFFICIENT WATER IS AVAILABLE AT THE POINT OF CONNECTION.

OSBJORN BRATENE RCE 21873

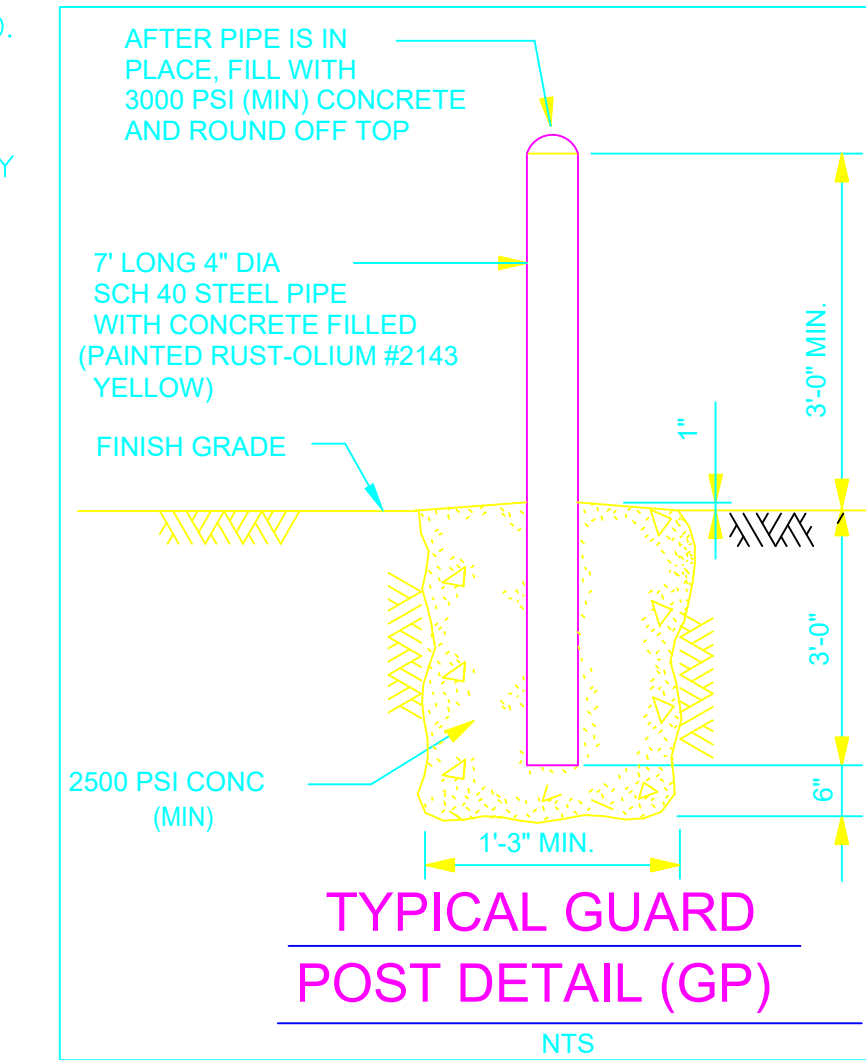
FIRE DEPARTMENT GENERAL NOTES:

- THE INSTALLATION OF THE ON SITE WATER SYSTEM SHALL COMPLY WITH ALL REQUIREMENTS OF NFPA 24 AND THE CALIFORNIA FIRE CODE.
- ALL FIRE FLOW REQUIREMENTS, HYDRANT TYPE, NUMBER OF HYDRANTS, AND SPACING OF HYDRANTS SHALL BE PROVIDED AS PER THE PLANNING APPLICATION CONDITIONS OF APPROVAL AND/OR CALIFORNIA FIRE CODE.
- NO COMBUSTIBLES SHALL BE BROUGHT ON SITE PRIOR TO THE ON SITE WATER SYSTEM BEING INSTALLED AND APPROVED BY THE TEMECULA FIRE PREVENTION BUREAU.
- THE FOLLOWING INSPECTIONS ARE REQUIRED:
 - THRUST BLOCK PRE-POUR, TRENCH AND BACKFILL INSPECTION.
 - UNDERGROUND HYDROSTATIC TEST, 200 PSI FOR TWO HOURS.
 - UNDERGROUND FLUSH.
 - UNDERGROUND FINAL.
- CONTACT THE RIVERSIDE COUNTY FIRE DEPARTMENT AT (951) 955-4777 A MINIMUM OF 48 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS.
- ANY PIPING NOT SHOWN ON THIS APPROVED PLAN IS NOT A PART OF THIS APPROVAL. ANY ADDITIONAL PIPING THAT IS TO BE INSTALLED WILL REQUIRE A SEPARATE PLAN SUBMITTAL REQUIRING THE APPROVAL FROM THE TEMECULA FIRE PREVENTION BUREAU.
- DUCTILE IRON PIPE SHALL BE INSTALLED WITHIN FIVE FEET OF THE BUILDING AND INTO THE BUILDING.
- NO JOINTS SHALL BE INSTALLED UNDER THE BUILDING.
- SUPER FIRE HYDRANTS REQUIRED (6" X 4" X 2 1/2" X 2 1/2").
- THE CIVIL ENGINEER WHO DESIGNED THE WATER SYSTEM HEREBY CERTIFIES THAT THIS WATER SYSTEM IS IN ACCORDANCE WITH THE REQUIREMENTS AS PRESCRIBED BY THE RIVERSIDE COUNTY FIRE PREVENTION BUREAU, THE CALIFORNIA FIRE CODE AND NFPA 24.
- BREAKAWAY SPOOLS OR BREAKAWAY BOLTS ARE REQUIRED.
- ON SITE FIRE HYDRANTS, POST INDICATOR VALVES AND FIRE DEPARTMENT CONNECTIONS LOCATED LESS THAN FOUR FEET BEHIND THE FACE OF CURB OR WHEN NO CURB IS PROVIDED SHALL BE PROTECTED BY GUARD POSTS SET IN CONCRETE TO THE FOLLOWING SPECIFICATIONS:
 - CONSTRUCTION OF STEEL NOT LESS THAN 4 INCHES (101.6 MM) IN DIAMETER AND CONCRETE FILLED.
 - SPACED NOT MORE THAN 3 FEET (914 MM) BETWEEN POSTS ON CENTER.
 - SET NOT LESS THAN 3 FEET (914 MM) DEEP IN CONCRETE FOOTING OF NOT LESS THAN A 15 INCH (381 MM) DIAMETER.
 - SET WITH THE TOP OF THE POST NOT LESS THAN 3 FEET (914 MM) ABOVE GROUND.
 - LOCATED NOT LESS THAN 3 FEET (914 MM) FROM THE FIRE HYDRANTS, POST INDICATOR VALVES AND FIRE DEPARTMENT CONNECTIONS.
 - ALL GUARD POSTS SHALL BE PAINTED SAFETY YELLOW. (RUST-OLEUM SAFETY YELLOW #2143 OR EQUIVALENT).
- ALL BOLTS, RODS, ETC. SHALL BE COATED AND WRAPPED.

- CONSTRUCTION OF STEEL NOT LESS THAN 4 INCHES (101.6 MM) IN DIAMETER AND CONCRETE FILLED.
- SPACED NOT MORE THAN 3 FEET (914 MM) BETWEEN POSTS ON CENTER.
- SET NOT LESS THAN 3 FEET (914 MM) DEEP IN CONCRETE FOOTING OF NOT LESS THAN A 15 INCH (381 MM) DIAMETER.
- SET WITH THE TOP OF THE POST NOT LESS THAN 3 FEET (914 MM) ABOVE GROUND.
- LOCATED NOT LESS THAN 3 FEET (914 MM) FROM THE FIRE HYDRANTS, POST INDICATOR VALVES AND FIRE DEPARTMENT CONNECTIONS.
- ALL GUARD POSTS SHALL BE PAINTED SAFETY YELLOW. (RUST-OLEUM SAFETY YELLOW #2143 OR EQUIVALENT).



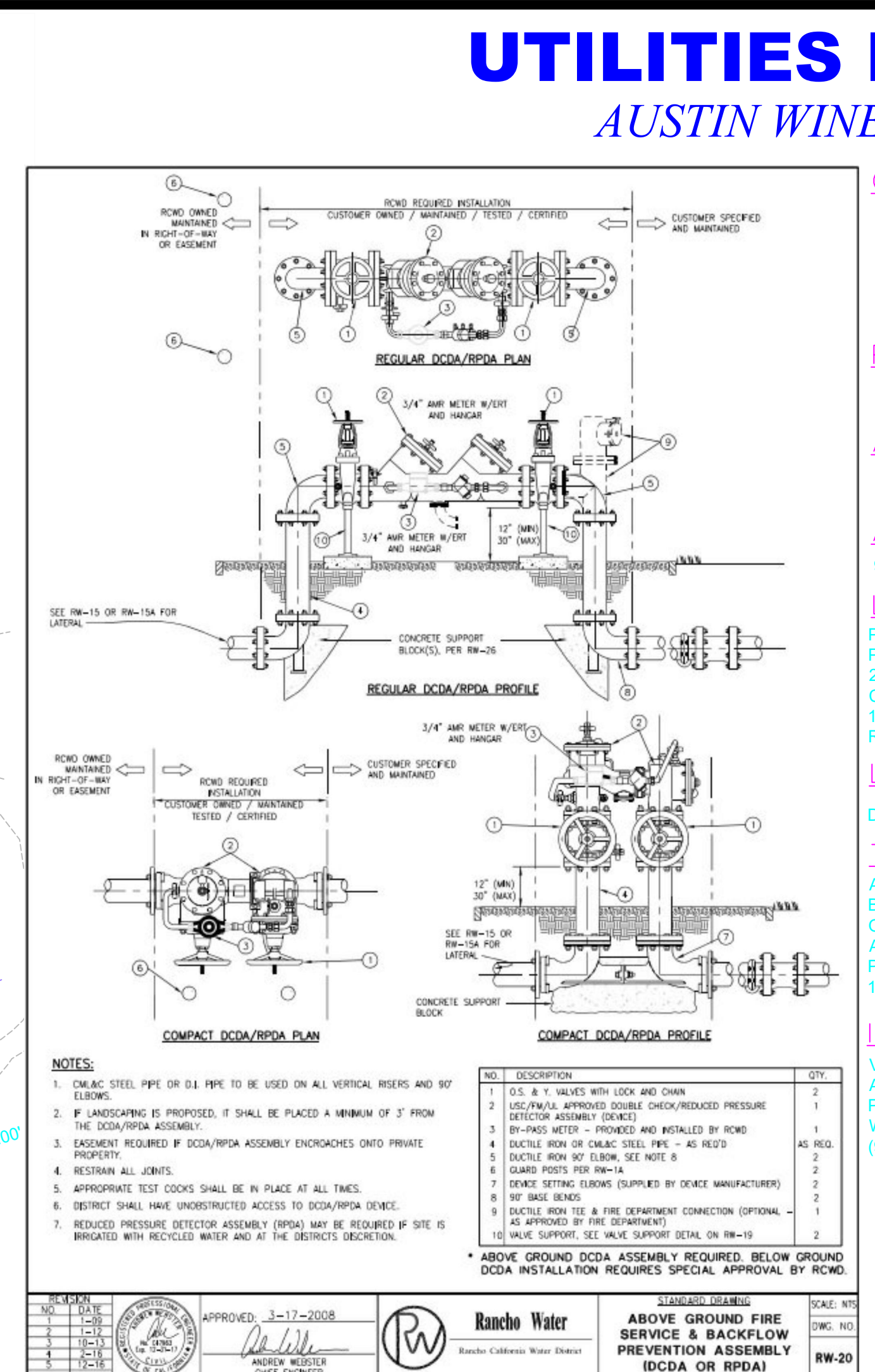
PREPARED BY:
 OSBJORN BRATENE
 RCE 21873
 DATE: 6/6/2022



- FIRE LINE PLAN NOTATIONS:**
- VALVE MONITORING SHALL BE INSTALLED ON ABOVE GROUND DETECTOR CHECKS AND PIPES.
 - DEPTH OF COVER SHALL BE AS FOLLOWS; IN LOCATIONS WHERE FROST IS NOT A FACTOR THE DEPTH OF COVER SHALL NOT BE LESS THAN 2-1/2 FT TO PREVENT MECHANICAL DAMAGE, IF PIPING IS INSTALLED UNDER DRIVEWAYS THE DEPTH SHALL BE NO LESS THAN 3 FT.
 - A NOMINAL GAP OF 4" AROUND ALL RISERS PASSING THROUGH FLOORS SHALL BE PROVIDED UNLESS OTHERWISE SPECIFIED IN NFPA 13 SECTION 9.3.4.
 - A NON-INDICATING VALVE SUCH AS AN UNDERGROUND GATE VALVE WITH APPROVED ROADWAY BOX, COMPLETE WITH T-WRENCH, AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION, SHALL BE PERMITTED.
 - THESE INSTALLATIONS WILL CONFORM TO NFPA 24, 2019 EDITION, AND THE CALIFORNIA FIRE CODE.
 - BEFORE ASKING FINAL APPROVAL OF AN INSTALLATION BY AUTHORITY HAVING JURISDICTION, THE INSTALLING CONTRACTOR SHALL FURNISH A CONTRACTORS MATERIAL AND TEST CERTIFICATE, COUNTER SIGNED BY THE OWNER OR REPRESENTATIVE.
 - JOINTS SHALL BE ASSEMBLED BY PERSONS FAMILIAR WITH THE PARTICULAR MATERIALS BEING USED AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS PER SECTION 10.3.6.1.
 - ALL BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION PER SECTION 10.3.6.2.
 - HYDRANTS SHALL BE IDENTIFIED BY THE INSTALLATION OF BLUE REFLECTIVE MARKERS PER THE RCFD "GUIDELINES FOR USE OF BLUE REFLECTIVE MARKERS," CFC 901.4.3.
 - HYDRANTS SHALL BE PROTECTED IF SUBJECT TO MECHANICAL INJURY, THE MEANS OF PROTECTION SHALL BE ARRANGE IN A MANNER THAT WILL NOT INTERFERE WITH THE CONNECTION PER SECTION 7.1.1, NFPA 24, 2019 EDITION.
 - THE CENTER OF A HOSE OUTLET SHALL NOT BE LESS THAN 18 INCHES ABOVE FINAL GRADE 7.3.3.
 - FIRE DEPARTMENT CONNECTIONS SHALL BE DESIGNATED BY HAVING A SIGN HAVING RAISED LETTERS AT LEAST 1 INCH IN SIZE CAST ON A PLATE OR FITTING, READING FOR SERVICE, DESIGNATED I.E. "AUTO SPRINKLER" OR "OPEN SPRINKLER" OR "STAND PIPE" PER SECTION 9.9.5.3 & NFPA 13 8.17.2.4.7.1 WHERE A FIRE DEPARTMENT CONNECTION ONLY SUPPLIES A PORTION OF THE BUILDING, A SIGN SHALL BE ATTACHED INDICATING THE PORTIONS OF THE BUILDING SUPPLIED PER SECTION 5.9.5.3.
 - ALL FIRE DEPARTMENT CONNECTIONS SHALL BE WITHIN 50 FEET OF A HYDRANT, POST INDICATOR VALVE AND FIRE DEPARTMENT CONNECTION SHALL BE A MINIMUM OF 40 FEET FROM THE BUILDING.
 - THERE SHALL BE NO SHUT OFF VALVE IN THE FIRE DEPARTMENT CONNECTION PER SECTION 2-6.3.

- WASTE NOTES**
- ALL WASTE TO BE SCHD 40 ABS, SLOPED AT 1/4" PER FOOT (MIN.), UNLESS NOTED OTHERWISE.
 - ALL WASTE PIPING SHALL BE BURIED AT A MINIMUM DEPTH OF 36 INCHES.
 - ALL CLEAN-OUTS TO FINISH GRADE OR SURFACE.
 - ALL WASTE PIPING SHALL BE SIZED PER TABLE 7-5, C.P.C. 2019 EDITION.
 - IF SEWER SERVICE IS NOT AVAILABLE, THE WASTE LINE SHALL BE CONNECTED TO A 5000 GALLON, MINIMUM, UNDERGROUND HOLDING TANK, TO SERVICE THE DEVELOPMENT UNTIL SEWER SERVICE IS AVAILABLE.

- WATER NOTES**
- ALL WATER MAIN PIPING SHALL BE 2" DIAMETER, SCHD 40 PVC.
 - ALL WATER MAIN PIPING SHALL BE BURIED AT A MINIMUM DEPTH OF 24 INCHES.
 - ALL WATER MAIN PIPING SHALL BE SEPARATED FROM WASTE PIPING A MINIMUM OF 12 INCHES.
 - ALL PIPING SHALL BE SIZED PER TABLE 6-6, C.P.C. 2019 EDITION.
 - ALL WATER PIPING BELOW SLAB TO HAVE NO JOINTS!



APPROVED: 3-17-2008
 OSBJORN BRATENE
 RCE 21873
 CIVIL ENGINEER

Standard Details
 Thrust Block Sizing Charts
 Figure 5

Table A.10.8.2(a) Thrust at Fittings at 100 psi (6.9 bar) Water Pressure for Ductile Iron and PVC Pipe

Nominal Pipe Diameter (in.)	Total Pounds				
	Dead End	90 Degree Bend	45 Degree Bend	22 1/2 Degree Bend	11 1/4 Degree Bend
4	1,810	2,559	1,385	706	355
6	3,739	5,288	2,862	1,459	733
8	6,433	9,097	4,923	2,510	1,261
10	9,677	13,685	7,406	3,776	1,897
12	13,685	19,353	10,474	5,340	2,683
14	18,385	26,001	14,072	7,174	3,604
16	23,779	33,628	18,199	9,278	4,661
18	29,865	42,235	22,858	11,653	5,855
20	36,644	51,822	28,046	14,298	7,183
24	52,279	73,934	40,013	20,398	10,249
30	80,425	113,738	61,554	31,380	15,766
36	115,209	162,931	88,177	44,952	22,585
42	155,528	219,950	119,036	60,684	30,489
48	202,683	286,637	155,127	79,083	39,733

Notes: (1) For SI units, 1 lb = 0.454 kg. (2) To determine thrust at pressure other than 100 psi (6.9 bar), multiply the thrust obtained in the table by the ratio of the

Table A.10.8.2(b) Horizontal Bearing Strengths

Soil	Bearing Strength (S _b)	
	lb/ft ²	kN/m ²
Muck	0	0
Soft clay	1000	47.9
Silt	1500	71.8
Sandy silt	3000	143.6
Sand	4000	191.5
Sand clay	6000	287.3
Hard clay	9000	430.9

Note: Although the bearing strength values in this table have been used successfully in the design of thrust blocks and are considered to be conservative, their accuracy is totally dependent on accurate soil identification and evaluation. The ultimate responsibility for selecting the proper bearing strength of a particular soil type must rest with the design engineer.

REF. BGR: 1800141
 THRUST BLOCK SIZING PER NFPA 24:

UTILITIES PLAN
 AUSTIN WINERY

OWNER:
 AUSTIN VINEYARD LLC
 CONTACT: AUSTIN RANDALL
 3060 UPHAM ST
 WHEATBRIDGE, CO 80033
 (303) 475-1555
 email:slabmi@aol.com

PROJECT ADDRESS:
 35598 GLENOAKS RD
 TEMECULA, CA 92592

ACREAGE:
 22.33 AC GROSS
 21.18 AC NET

ASSESSOR'S NO.:
 942-030-011

LEGAL DESCRIPTION:
 PARCEL 1 OF PARCEL MERGER 180016, BEING PORTIONS OF PARCELS 2 & 3 OF PARCEL MAP 27134 IN THE COUNTY OF RIVERSIDE STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 182 OF MAPS, PAGES 95 & 96, RECORDS OF RIVERSIDE COUNTY, STATE OF CALIFORNIA.

LENGTH OF DRIVEWAY:
 DRIVEWAY LENGTH = 270 FT

TOPOGRAPHY SOURCE:
 ALL GRADES AND TOPOGRAPHY CONTOURS ARE BASED ON RANCHO CALIFORNIA WATER DISTRICT ORTHOPHOTO MAP, FLOWN IN DECEMBER 2009 AND AMENDED BY TOPOGRAPHIC SURVEY PERFORMED BY SPIRO LAND SURVEYING ON OCT. 19, 2020.

INSTALLING CONTRACTOR:
 VON ELW BACKHOE, INC.
 A, B, 707743 C34
 P.O. BOX 693
 WINCHESTER, CA 92596
 (951) 541-8112

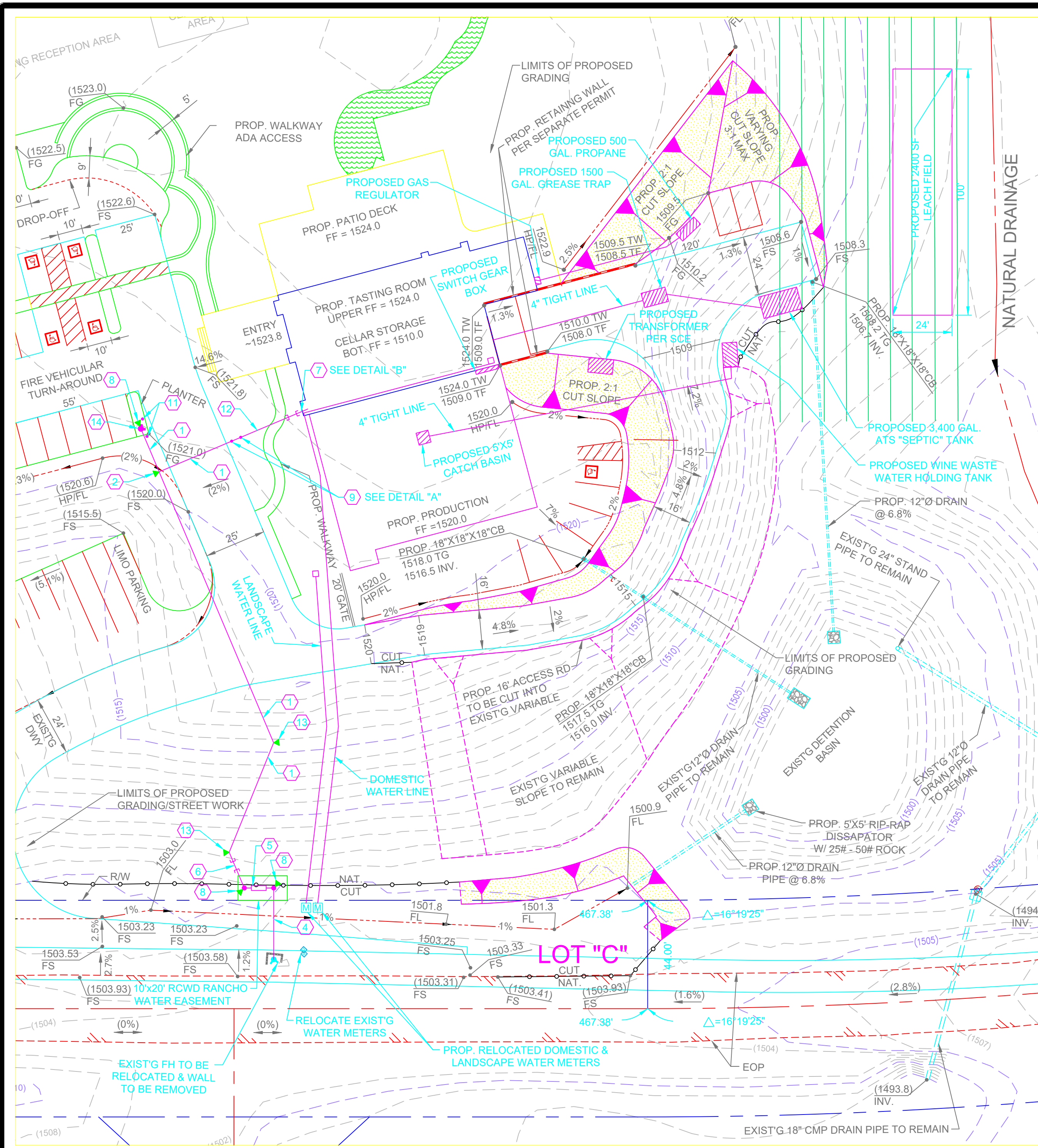
REVISIONS	BY

UTILITIES PLAN
 AUSTIN WINERY
 PARCEL 1 OF PARCEL MERGER 180016
 35598 GLENOAKS RD, TEMECULA CA 92592

Civil Engineers - RCE 21873
 General Contractors - Lic. 378242
 41625 Enterprise Circle South, #B-2
 Temecula, CA 92590
 (951) 201-2542
 bratenecns@prodigy.net

BRATENE
 CONSTRUCTION &
 ENGINEERING

DRAWN BY
 D. BRATENE
 CHECKED
 O. BRATENE
 DATE
 6/6/2022
 SCALE
 1"=100'
 JOB NO.
 18006
 SHEET
 1



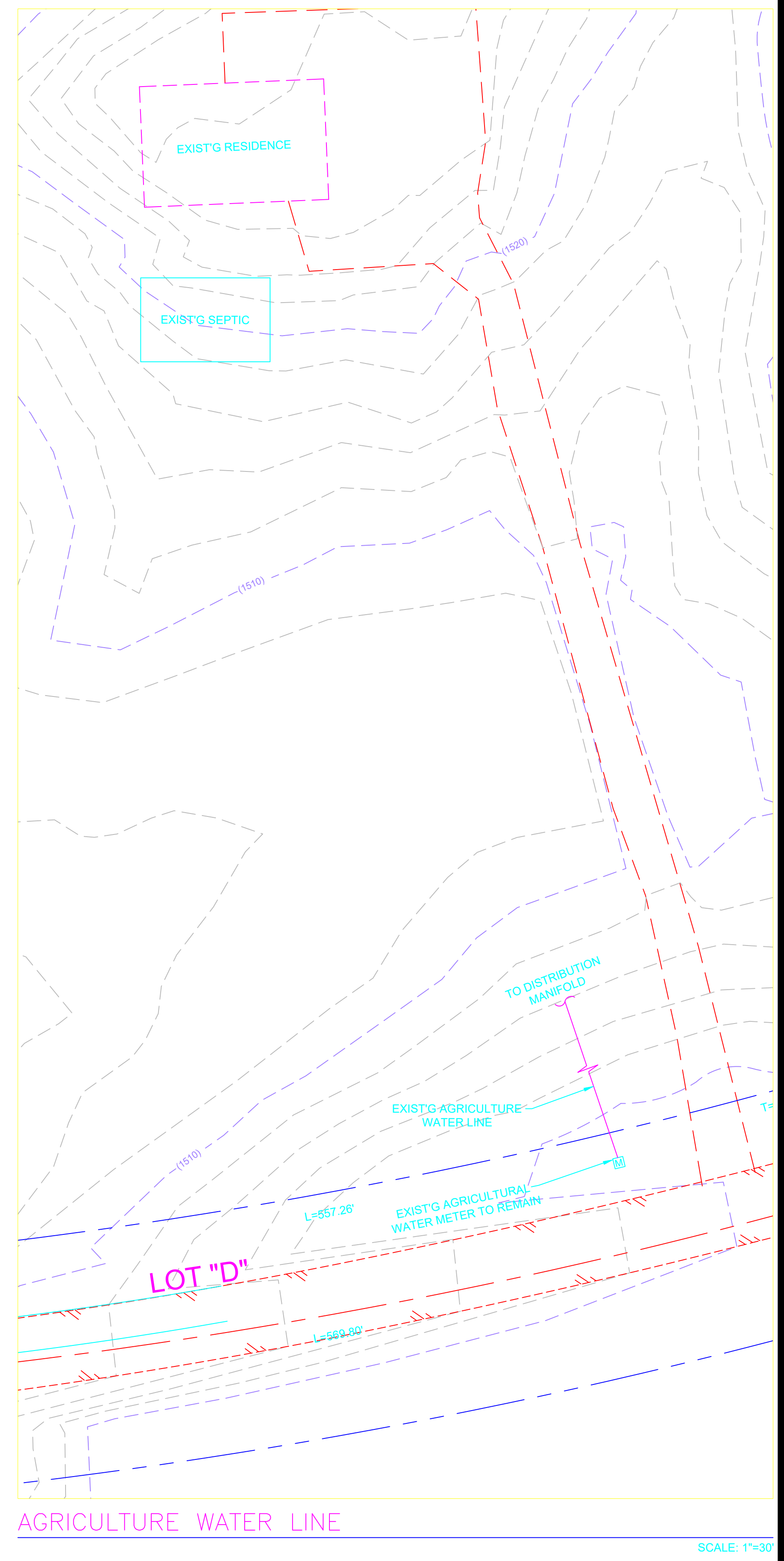
FIRE LINE CONSTRUCTION NOTES AND QUANTITY ESTIMATE

NO.	ITEMS TO BE CONSTRUCTED OR INSTALLED	QUANTITY	UNIT
1	INSTALL 6" CLASS 150 C-900 PVC FIRE LINE PER NFPA.	225	LF
2	INSTALL 6" CAST IRON HxHxH TEE AND THRUST BLOCK PER NFPA.	1	EA
3	INSTALL 6"x4" CAST IRON FxH REDUCER PER NFPA. SEE DETAIL "A" ON SHT. U-2.	1	EA
4	INSTALL 8" CLASS 150 C-900 DR-14 PVC FIRE LINE PER NFPA.	29	LF
5	INSTALL ABOVE GROUND COMPACT DOUBLE DETECTOR CHECK 8" DCSA ASSEMBLY PER RCWD DWG RW-20 PER SHEET U-1.	1	EA
6	INSTALL 8"x6" CAST IRON FxH REDUCER PER NFPA.	1	EA
7	INSTALL 4" DUCTILE IRON/ STAINLESS STEEL FIRE LINE.	5	LF
8	INSTALL THRUST BLOCKS PER NFPA 24	6	EA.
9	INSTALL PIV & FDC PER DETAIL "A" SHT. U-2	1	EA.
10	MJ X FLANGE TEE 6"x4"x6"	1	EA
11	INSTALL TYP. CONC. GUARD POST PER DETAIL ON SHT. U-1	2	EA.
12	INSTALL 4" CLASS 150 C-900 PVC FIRE LINE PER NFPA.	21	LF
13	INSTALL 6" CAST IRON HxH 22.5" ELBOW AND THRUST BLOCK PER NFPA.	2	EA
14	INSTALL SUPER FIRE HYDRANT ASSY. PER RCWD DET. RW-6 (6"x4"x2 1/2"x2 1/2"), WET BARRELL.	1	EA

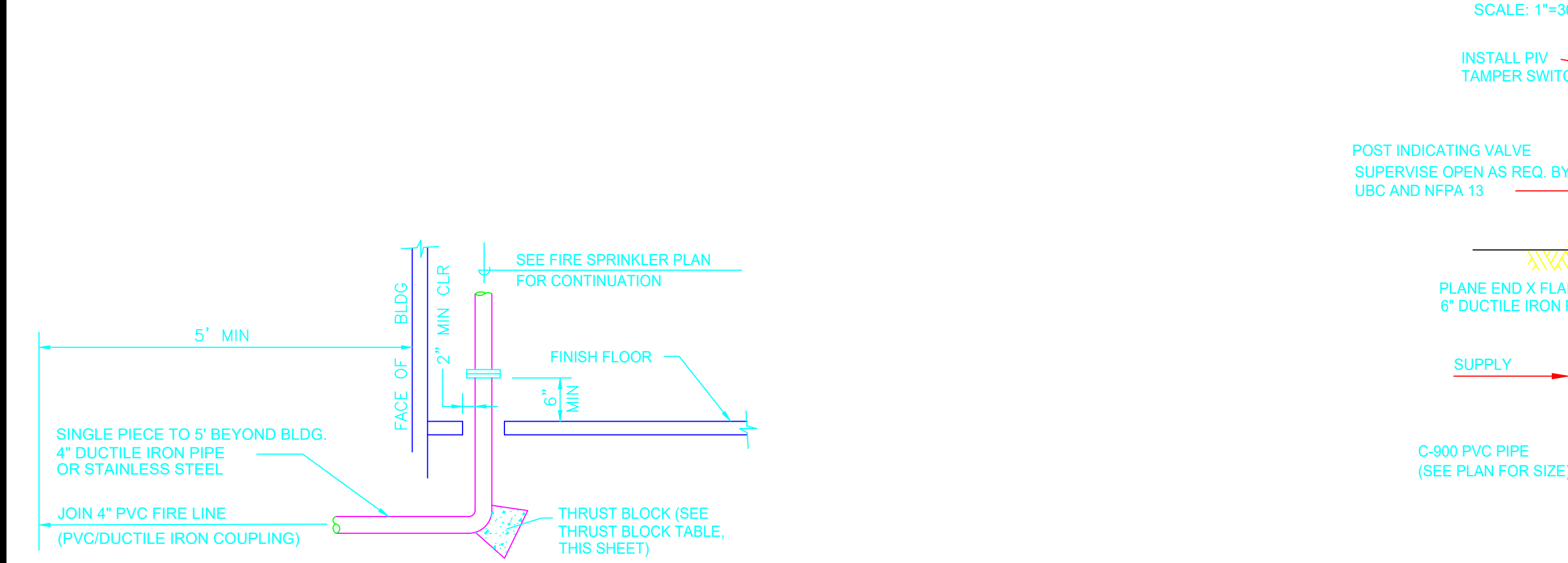
NOTE:
ALL THRUST BLOCKS TO BE 2'H X 2'W AT BEARING SURFACE.

CONSTRUCTION NOTES AND QUANTITY ESTIMATE

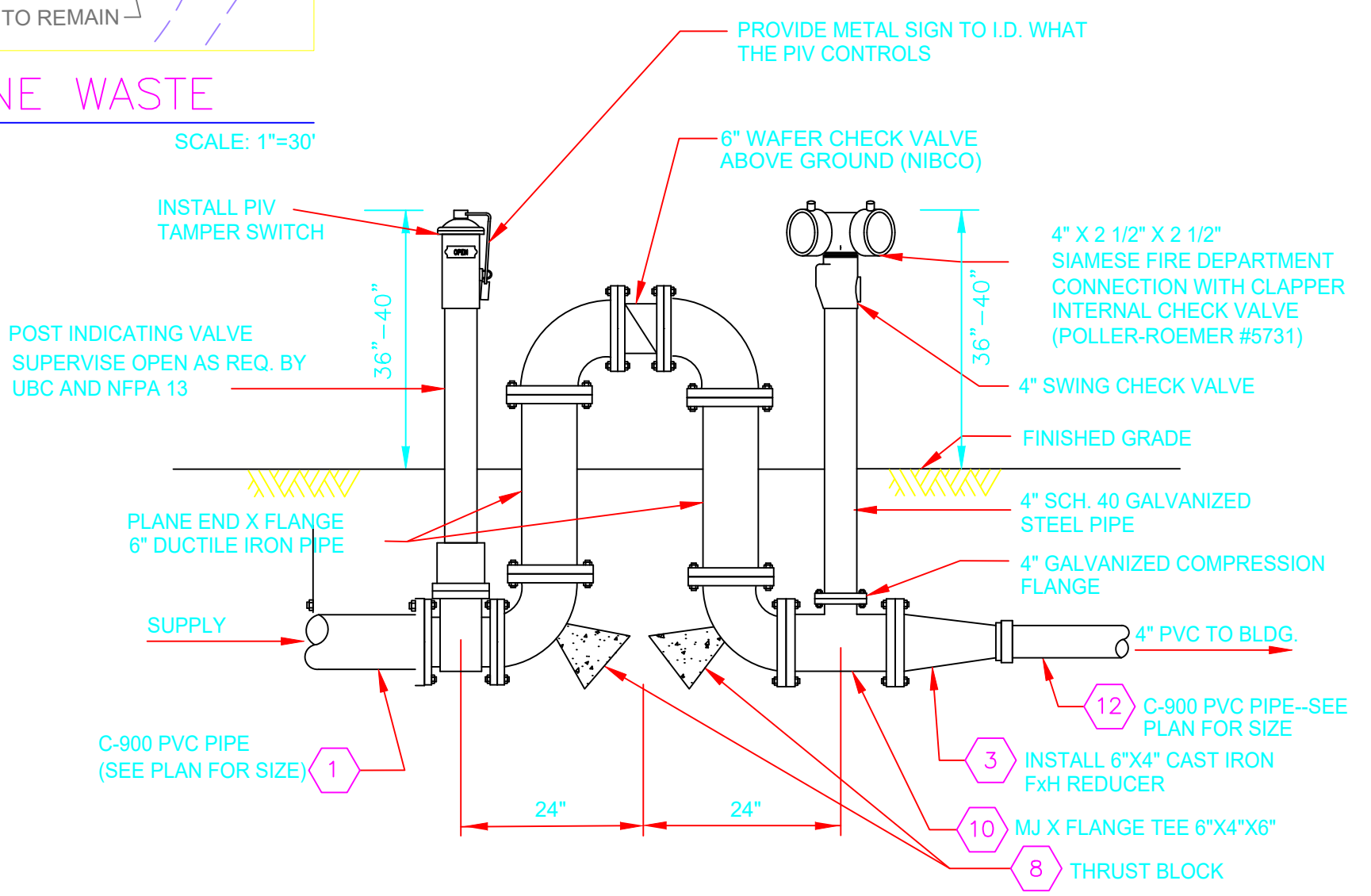
NO.	ITEMS TO BE CONSTRUCTED OR INSTALLED	QUANTITY	UNIT
1	INSTALL (TBD) DIAMETER PVC WATER LINE FOR LANDSCAPE USE.	133	LF
2	INSTALL (TBD) DIAMETER PVC WATER LINE FOR DOMESTIC USE.	278	EA
3	INSTALL PROPANE LINE & REGULATOR BY SUPPLIER.	60	EA



FIRE, LANDSCAPE, & DOMESTIC WATER LINE / ATS SEPTIC / GREASE / WINE WASTE



BUILDING RISER CONNECTION DETAIL



PIV/FIRE DEPT. CONNECTION DETAIL



PREPARED BY:
D. Bratene
OSBJORN BRATENE DATE 6/6/2022
RCE 21873

REF. BGR:1800141

REVISIONS	BY

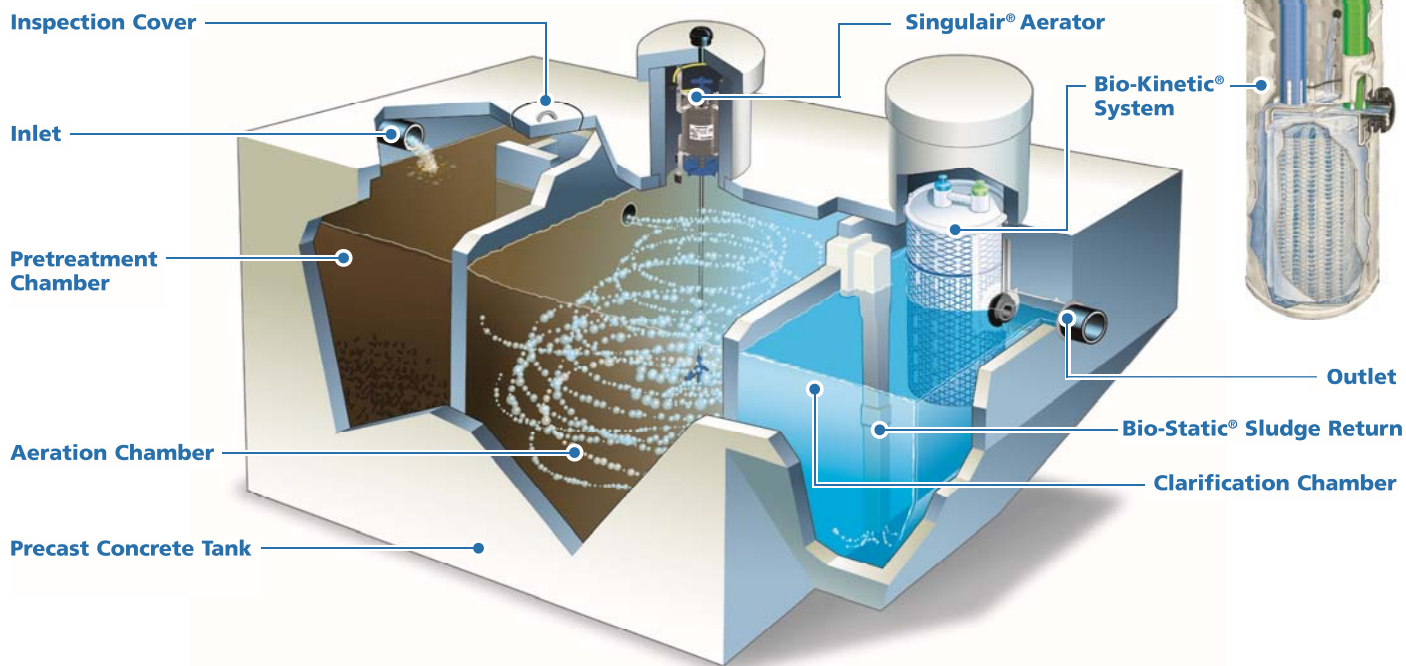
UTILITIES PLAN
AUSTIN WINERY
PARCEL 1 OF PARCEL MERGER 180016
35598 GLENOAKS, TEMECULA CA 92592

Civil Engineers - RCE 21873
General Contractors - Lic. 378242
41625 Enterprise Circle South, #B-2
Temecula, CA 92590
(951) 201-2542
bratenecon@prodigy.net



DRAWN BY	D. BRATENE
CHECKED	O. BRATENE
DATE	6/6/2022
SCALE	1"=30'
JOB NO.	180016
SHEET	2

Singularair® rivals the performance of the world's most advanced treatment equipment



Inlet

Untreated wastewater enters the system here.

Pretreatment Chamber

Wastewater enters at the Singularair inlet and is equalized here as anaerobic bacteria and gravity precondition it.

Aeration Chamber

Here, safe, living aerobic bacteria convert the wastewater into stable substances. Flow equalization maximizes this biological oxidation and assures 24-hour retention and treatment.

Aerator provides complete treatment

Our exclusive aerator infuses the fresh air that safe, living microorganisms require to fully digest and treat wastewater inside the Aeration Chamber. Powered by our 1725 RPM, 115 volt, fractional horsepower motor, our quiet, reliable aerator is inexpensive to operate, reduces heat build up and dramatically increases bearing life. Each aerator is precision engineered, tested and certified to operate only 30-minutes per hour. Only the stainless steel aspirator shaft and reinforced nylon aspirator come in contact with liquid in the Aeration Chamber.

Clarification Chamber

Flow equalization enhances the settling of biologically active substances inside the Clarification Chamber. Wastewater has now been converted into clarified liquids in this chamber.

Flow Equalization Ports

They control the flow through all upstream and downstream processes and they regulate the amount of treated effluent that can enter the Bio-Kinetic System.

Bio-Kinetic® System

Constructed entirely of plastic and rubber components that are impervious to this environment, our Bio-Kinetic System combines filtration, settling, non-mechanical flow equalization, optional disinfection, adjustable outlet weir and optional dechlorination features into a single, revolutionary package.

Precast Concrete Tank

Every Singularair System is constructed of high quality, non-corrosive materials under our rigid quality control standards. The tank, access risers and cover are reinforced precast concrete manufactured locally by your factory-trained, licensed Norweco distributor.

Inspection Cover

Access is safe and easy.

Outlet

Only a clear, safe and odorless liquid exits the system here for return to your environment.



SERVICE PRO® Control Center

EVERY SINGULAIR AERATOR IS INSTALLED WITH A SOLID STATE ELECTRICAL CONTROL CENTER. EACH IS EQUIPPED WITH RESETTABLE CURRENT SENSOR, ON/OFF SELECTOR SWITCH, RED WARNING LIGHT, TIME CLOCK, AUDIBLE ALARM, AUXILIARY INPUTS AND FCC LICENSED AUTODIALER FOR REMOTE MONITORING OF INDIVIDUAL COMPONENTS.