



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Initial Study – Environmental Checklist

PLN-2039
04/2019

Project Title & No. Brodiaea Inc. Major Grading Permit ED19-110 (PMT2019-00017, -00018, -00019)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Public Services
<input type="checkbox"/> Agriculture & Forestry Resources	<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Recreation
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Hydrology & Water Quality	<input type="checkbox"/> Transportation
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Land Use & Planning	<input type="checkbox"/> Tribal Cultural Resources
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities & Service Systems
<input type="checkbox"/> Energy	<input type="checkbox"/> Noise	<input type="checkbox"/> Wildfire
<input checked="" type="checkbox"/> Geology & Soils	<input type="checkbox"/> Population & Housing	<input checked="" type="checkbox"/> Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the Environmental Coordinator finds that:

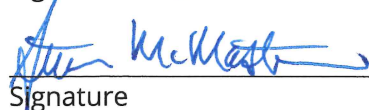
- ☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have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

Young Choi

Prepared by (Print)
Steve McMasters, Principal
Environmental Specialist

Reviewed by (Print)

Signature



Signature

08/23/2019

Date



Date



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Young Choi		08/23/2019
Prepared by (Print)	Signature	Date
Steve McMasters, Principal Environmental Specialist		
Reviewed by (Print)	Signature	Date

Initial Study – Environmental Checklist

Project Environmental Analysis

The County's environmental review process incorporates all of the requirements for completing the Initial Study as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study includes staff's on-site inspection of the project site and surroundings and a detailed review of the information in the file for the project. In addition, available background information is reviewed for each project. Relevant information regarding soil types and characteristics, geologic information, significant vegetation and/or wildlife resources, water availability, wastewater disposal services, existing land uses and surrounding land use categories and other information relevant to the environmental review process are evaluated for each project. Exhibit A includes the references used, as well as the agencies or groups that were contacted as a part of the Initial Study. The County Planning Department uses the checklist to summarize the results of the research accomplished during the initial environmental review of the project.

Persons, agencies or organizations interested in obtaining more information regarding the environmental review process for a project should contact the County of San Luis Obispo Planning Department, 976 Osos Street, Rm. 200, San Luis Obispo, CA, 93408-2040 or call (805) 781-5600.

A. Project

DESCRIPTION: A request by Brodiaea Inc. for a Major Grading Permit (PMTG2019-00017, PMTG2019-00018, PMTG2019-00019) to construct three high-density polyethylene (HDPE) lined agricultural reservoirs within the existing Truesdale Vineyard to provide frost protection and irrigation (project). The three agricultural reservoirs consist of the West Bluff Reservoir, East Bluff Reservoir, and the Foothill B Reservoir. Each reservoir will be supplied by existing polyvinyl chloride (PVC) waterlines and existing onsite wells and reservoirs located on the subject property. The project would result in the disturbance of 17 acres of a 1,541-acre site (comprised of three separate parcels, two of which are adjacent). The project is within the Agriculture land use category and is located at 3880 Shell Creek Road, approximately 5.2 miles from the community of Shandon. The site is in the Shandon-Carrizo Sub Area North of the North County Planning Area.

Background:

The Foothill B Reservoir (APN 037-311-029) is located approximately 1,700 feet to the west of Shell Creek Road and approximately 5.5 miles southeast of the community of Shandon. The reservoir would be approximately 22 feet deep with a maximum capacity of 48 acre-feet. This reservoir would encompass a total area of approximately 5.70 acres and would require approximately 46,783 cubic yards of cut. The cut material would be placed directly onto the fill surface, which means that most of the material would be moved only once before compaction; approximately 5% of the material would be moved/handled twice. The cut material would be compacted with a 30 percent shrinkage factor, which results in 32,748 cubic yards of fill, with materials balanced onsite. Existing stormwater sheet flows across the site at 2 to 9% slopes. An earthen swale would be constructed around two sides of the reservoir perimeter to keep any surface flows away from the toe of the berm slopes; no surface flows would be allowed to enter the reservoir. The existing T-5 irrigation well would be utilized to supply groundwater to the Foothill B Reservoir; the T-5 well is located approximately 0.25 miles southeast of the proposed reservoir site.

The West Bluff Reservoir (APN 037-311-025) is located approximately 4,000 feet (0.76 mile) west of Shell Creek Road and approximately 6 miles south of the community of Shandon. The reservoir would be approximately 22 feet deep with a maximum capacity of 48.87 acre-feet. This reservoir would encompass a total area of approximately 5.92 acres and would require approximately 51,234 cubic yards of cut. The cut material would be placed directly onto the fill surface, which means that most of the material would be moved only once

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before compaction; approximately 5% of the material would be moved/handled twice. The cut material would be compacted with a 30 percent shrinkage factor, which results in 35,864 cubic yards of fill, with materials balanced onsite. Existing stormwater sheet flows across the site at 4 to 13% slopes. An earthen swale would be constructed around two sides of the reservoir perimeter to keep any surface flows away from the toe of the berm slopes; no surface flows would be allowed to enter the reservoir. The existing 2013-355 irrigation well would be utilized to supply groundwater to the West Bluff Reservoir; the 2013-355 well is located approximately 0.25 miles north of the proposed reservoir site.

The third reservoir is the East Bluff Reservoir (APN 037-291-037), located approximately 2,700 feet to the east of Shell Creek Road and approximately 5.2 miles southeast of the community of Shandon. This reservoir would be approximately 26 feet deep with a maximum capacity of 49 acre-feet. This reservoir would encompass a total area of approximately 5.18 acres and would require approximately 43,989 cubic yards of cut. The cut material would be placed directly onto the fill surface, which means that most of the material would be moved only once before compaction; approximately 5% of the material would be moved/handled twice. The cut material would be compacted with a 30 percent shrinkage factor, which results in 30,792 cubic yards of fill, with materials balanced onsite. Existing stormwater sheet flows across the site at 2 to 8% slopes. An earthen swale would be constructed around two sides of the reservoir perimeter to keep any surface flows away from the toe of the berm slopes; no surface flows would be allowed to enter the reservoir. The existing 2013-351 irrigation well would be utilized to supply groundwater to the East Bluff Reservoir; the 2013-351 well is located adjacent to the proposed reservoir site.

A 6-foot-tall non-climb fence would be installed around the perimeter of each reservoir. A 12- to 15-inch pipe (stub out) would be installed on the exterior slope of each of the reservoirs to allow future connection to the existing onsite irrigation system. All three reservoirs would be served by existing electrical utilities; no utility extensions are proposed. Access to the project would be provided by existing farm roads and no new driveways or roads would be constructed.

The project is located in the Paso Robles Groundwater Basin. The project includes management strategies to reduce evaporative water losses. Water would be maintained in the reservoirs as follows:

- November 16 through February 28: the reservoir will be emptied of well-supplied water.
- March 1 through May 31: the reservoir will be maintained at a full condition for potential frost protection.
- June 1 through November 15: the reservoir will be maintained at 25% full condition for irrigation operations.

Filling of each reservoir would occur over a continuous 20-day period and would require the following supply rates:

- Foothill Reservoir – 537 gallons per minute (GPM) continuously for 20 days;
- West Bluff Reservoir – 552 GPM continuously for 20 days; and
- East Bluff Reservoir – 554 GPM continuously for 20 days.

ASSESSOR PARCEL NUMBER(S): 037-311-029 (Foothill B), 037-311-025 (West Bluff), 037-291-037 (East Bluff)

Latitude:	35°34'41" N	Longitude:	120°20'25" W Foothill B	SUPERVISORIAL DISTRICT #	1
	35°34'03" N		120°20'58" W West Bluff		
	35°35'13" N		120°19'39" W East Bluff		

Initial Study – Environmental Checklist

B. Existing Setting

Plan Area: North County **Sub:** Shandon-Carrizo (North) **Comm:** Rural

Land Use Category: Agriculture

Combining Designation: Flood Hazard (Foothill Reservoir)

Parcel Size: 229.87 (Foothill), 698.1 (West Bluff), 613.87 (East Bluff)

Topography: Nearly level to gently sloping

Vegetation: disturbed grasses

Existing Uses: Disturbed/disked, agricultural staging

Surrounding Land Use Categories and Uses:

North: Agriculture; agricultural uses

East: Agriculture; agricultural uses

South: Agriculture; agricultural uses

West: Agriculture; agricultural uses

C. Environmental Analysis

The Initial Study Checklist provides detailed information about the environmental impacts of the proposed project and mitigation measures to lessen the impacts.

Initial Study – Environmental Checklist

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Except as provided in Public Resources Code Section 21099, would the project:</i>				
(a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The proposed reservoirs are located between 1,700 and 4,000 feet from Shell Creek Road, and range between 5.31 miles and 6.55 miles from the community of Shandon. All project sites are within a productive agricultural area. The visual setting includes vast agricultural views (predominantly vineyards), open hillsides, a few scattered rural residences, and other appurtenant agricultural infrastructure and development. There are approximately 25 existing agricultural reservoirs within 5 miles of the project sites. No nearby roadways have been officially designated as scenic corridors; however, Highway 46 has been identified as an eligible state scenic highway by the California Department of Transportation's (Caltrans) California Scenic Highway Mapping System. Highway 46 runs east-west just north of Shandon, approximately 6 miles north of the reservoir sites.

Discussion

(a) Have a substantial adverse effect on a scenic vista?

The project sites are located in rural areas accessed by agricultural farm roads off of Shell Creek Road, which serves as the primary public viewing location for the project sites. For the purposes of determining significance under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public.

Initial Study – Environmental Checklist

While the project vicinity has high scenic value and an appealing rural and agricultural character, it is not officially or unofficially designated as a scenic vista. Therefore, the project would not result in a substantial adverse effect on a scenic vista, and impacts would be *less than significant*.

- (b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The most prominent scenic features of the project sites include the rolling hills and vineyards throughout the proposed development area. The project sites would not be visible from Highway 46 due to distance, the non-descript agricultural nature of the proposed developments, and intervening agricultural uses and topography, and would therefore not be visible from a designated state scenic highway or eligible state scenic highway. Therefore, the project would not result in substantial damage to scenic resources within a state scenic highway, and impacts would be *less than significant*.

- (c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The visual character of the project vicinity is dominated by agricultural land uses including vineyards, agricultural reservoirs, agricultural accessory structures, and scattered rural residences. Although Shell Creek Road has no official scenic designation, the roadway offers high-value views of rural agricultural landscapes. The proposed reservoirs would not be highly visible from Shell Creek Road due to intervening topography, active vineyards and agricultural uses, and distance. The agricultural reservoirs would also be consistent with the existing visual character and quality of the area and existing adjacent uses. Therefore, impacts to the visual character and quality of the area would be *less than significant*.

- (d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The project does not propose the installation of lighting. Sun during the day can reflect off the water and cause glare; however, due to the limited visibility of the reservoir sites and the consistency with existing adjacent uses, glare would not adversely affect public views in the area. Therefore, impacts relating to nighttime lighting and glare would be *less than significant*.

Conclusion

The project would be visually consistent with existing uses in the project vicinity and would not adversely affect scenic resources, quality, or character. Therefore, potential impacts on aesthetic resources would be less than significant and no mitigation measures are necessary.

Mitigation Measures

None needed.

Initial Study – Environmental Checklist

II. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p><i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i></p>				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The following area-specific elements relate to the property's potential for agricultural production:

Land Use Category: Agriculture

Historic/Existing Commercial Crops: Vineyard

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State Classification: Unique Farmland and Grazing Land

In Agricultural Preserve? No

Under Williamson Act contract? Yes

Based on the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) and the San Luis Obispo County Important Farmland Map (FMMP 2018), the project sites contain Unique Farmland and Grazing Land. The soil type(s) and characteristics on the subject property include:

159-Sorrento loam, 2 to 9 percent slopes. This well-drained soil has low runoff potential and moderately slow permeability. The major uses include vineyards and orchards, irrigated crops, dry-farmed crops, and livestock grazing. Management considerations consist of fencing livestock out of gullies and off streambanks to reduce the hazard of erosion. This soil is classified as Prime Farmland if Irrigated by the NRCS. This soil has a CA Storie Index Rating of Grade 1 – Excellent.

302-Arbuckle sandy loam, 9 to 15 percent slopes. This well-drained soil has medium runoff and moderately slow permeability. The major uses include vineyards and orchards, irrigated crops, dry-farmed crops, and livestock grazing. The main management consideration includes paying special attention to slope. This soil is classified as Not Prime Farmland Importance by the NRCS. This soil has a CA Storie Index Rating of Grade 1 – Excellent.

304-Arbuckle sandy loam, 30 to 50 percent slopes. This well-drained soil has high runoff and moderately slow permeability. The major use consists of livestock grazing. The main management considerations include paying special attention to slope, water erosion, and runoff. This soil is classified as Not Prime Farmland Importance by the NRCS. This soil has a CA Storie Index Rating of Grade 3 – Fair.

460-Camatta loam, 5 to 30 percent slopes. This well-drained soil has medium runoff potential and slow permeability above the duripan. The major uses include crops and livestock grazing. Management considerations include paying special attention to excessive slope, water erosion, limited available water capacity, and depth to the hardpan. This soil is classified as Not Prime Farmland by the NRCS. This soil has a CA Storie Index Rating of Grade 5 – Very Poor.

Discussion

- (a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The East Bluff Reservoir site is classified as Unique Farmland by the FMMP; the West Bluff and Foothill B Reservoir sites are both classified as Grazing Land. Therefore, the project would result in the conversion of Unique Farmland to reservoir uses at the East Bluff Reservoir site; however, the reservoir is proposed to support existing vineyards and is considered an agricultural use. Therefore, no Farmland would be converted to non-agricultural uses and potential impacts would be *less than significant*.

- (b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The subject property is within the Agriculture land use category and is currently under a Williamson Act contract. The proposed agricultural reservoirs are considered an agricultural use and would support the production of existing vineyards. Therefore, the project would support existing agriculture and would not conflict with existing zoning for agricultural use or the existing Williamson Act Contract that the property is enrolled in. Potential impacts would be *less than significant*.

Initial Study – Environmental Checklist

- (c-d) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

Result in the loss of forest land or conversion of forest land to non-forest use?

There is no forest land, timberland, or timberland zoned Timberland Production or zoning for such uses in the project vicinity; *no impact would occur.*

- (e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

The project proposes the development of agricultural support facilities and would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use. The project would be compatible with existing agricultural operations, would not adversely affect existing proximate agricultural uses, agricultural support services, or agricultural infrastructure or resources. Any increase in agricultural water demand would be required to be offset per the requirements of the Countywide Water Conservation Program and, therefore, would not adversely affect groundwater supplies for proximate agricultural uses. The proposed project would not result in the indirect conversion of existing farm or forestland to another use. Therefore, *no impacts would occur.*

Conclusion

The purpose of the proposed reservoirs is to provide onsite frost protection and irrigation for existing vineyards and offsite transfer of reservoir water and/or other uses of the reservoirs would be prohibited. The project would be required to offset any increased water demands resulting from the project, including water loss through evaporation (discussed further in Section 14, Water and Hydrology). Proof of the offset is required in Mitigation Measure HYD-1. Implementation of this mitigation measure would reduce potential indirect impacts to agricultural resources to less than significant. Therefore, potential impacts on agricultural resources would be less than significant and no mitigation is necessary.

Mitigation Measures

None needed.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| (a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The proposed reservoir sites are located in the South Central Coast Air Basin (SCCAB) under the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD). The SLOAPCD has developed and updated a CEQA Air Quality Handbook (2012) and clarification memorandum (2017) to evaluate project specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels, a Clean Air Plan has been adopted (prepared by SLOAPCD).

San Luis Obispo County Clean Air Plan

San Luis Obispo County is currently in attainment of all state and federal standards for criteria air pollutants, except state standards for ozone (O₃) and Respirable Particulate Matter (PM₁₀). The SLOAPCD's San Luis Obispo County 2001 Clean Air Plan (CAP) is a comprehensive planning document intended to evaluate long-term emissions and cumulative effects and provide guidance to the SLOAPCD and other local agencies on how to attain and maintain the state standards for ozone and PM₁₀. The CAP presents a detailed description of the sources and pollutants which impact the jurisdiction's attainment of state standards, future air quality impacts to be expected under current growth trends, and an appropriate control strategy for reducing ozone precursor emissions, thereby improving air quality.

Discussion

(a) *Conflict with or obstruct implementation of the applicable air quality plan?*

Construction Impacts

The SLOAPCD CEQA Air Quality Handbook provides thresholds of significance for construction related emissions. Table 1 lists SLOAPCD's general thresholds for determining whether a potentially significant impact could occur as a result of a project's construction activities.

Table 1. SLOAPCD Thresholds of Significance for Construction Activities

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Pollutant	Threshold ⁽¹⁾		
	Daily	Quarterly Tier 1	Quarterly Tier 2
Diesel Particulate Matter (DPM)	7 lbs	0.13 tons	0.32 tons
Reactive Organic Gases (ROG) + Oxides of Nitrogen (NO _x)	137 lbs	2.5	6.3 tons
Fugitive Particulate Matter (PM ₁₀), Dust ⁽²⁾	-	2.5 tons ⁽²⁾	-

1. Daily and quarterly emission thresholds are based on the California Health and Safety Code and the CARB Carl Moyer Guidelines.
2. Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5-ton PM₁₀ quarterly threshold.

Earthwork for the reservoirs would involve placing the cut material directly onto the fill surface, which means that most of the material would be moved only once before compaction; approximately 5% of the material would be moved/handled twice. The cut material would be compacted with a 30 percent shrinkage factor, which results in a fill amount that is less than the cut amount, with all earthwork balanced onsite. For purposes of determining air quality related impacts, only the cut quantities plus the 5% of fill that would be handled twice are included for earthwork quantities. As proposed, the project would result in the total disturbance of approximately 16.8 acres, including approximately 149,106 cubic yards of material moved:

- Foothill B Reservoir: 5.70 acres, including 46,783 cubic yards of cut and 2,340 cubic yards of fill handled twice;
- West Bluff Reservoir: 5.92 acres, including 51,234 cubic yards of cut and 2,562 cubic yards of fill handled twice; and
- East Bluff Reservoir: 5.18 acres, including 43,989 cubic yards of cut and 2,199 cubic yards of fill handled twice.

The SLOAPCD CEQA Air Quality Handbook also provides preliminary screening construction emission rates based on the proposed volume of soil to be moved and the anticipated area of disturbance. Table 2 lists the SLOAPCD's screening emission rates that would be generated based on the amount of material to be moved. The APCD's CEQA Handbook also clarifies that any project that would require grading of 4.0 acres or more can exceed the 2.5-ton PM₁₀ quarterly threshold listed above. Each of the proposed reservoirs would require grading in excess of 4.0 acres.

Table 2. Screening Emission Rates for Construction Activities

Pollutant	Grams/Cubic Yard of Material Moved	Lbs/Cubic Yard of Material Moved
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Initial Study – Environmental Checklist

Diesel Particulate Matter (DPM)	2.2	0.0049
Reactive Organic Gases (ROG)	9.2	0.0203
Oxides of Nitrogen (NO _x)	42.4	0.0935
Fugitive Particulate Matter (PM ₁₀)	0.75 tons/acre/month of construction activity (assuming 22 days of construction per month)	

Based on estimated cut and fill estimates and the construction emission rates shown in Table 2, construction-related emissions that would result from the project were calculated and are shown in Table 3 below.

Table 3. Proposed Project Estimated Construction Emissions.

Pollutant	Total Estimated Emissions	SLOAPCD Threshold		Threshold Exceeded?
		Quarterly		
		Tier 1	Tier 2	
ROG + NO _x (combined)	8.48 tons	2.5 tons	6.3 tons	Yes
Diesel Particulate Matter (DPM)	0.37 tons	0.13 tons	.32 tons	Yes
Fugitive Particulate Matter (PM ₁₀)	37.8 tons	2.5 tons	-	Yes

As shown above, the project would result exceed SLOAPCD Tier 2 thresholds for ROG + NO_x and DPM and would exceed Tier 1 thresholds for PM₁₀. By requiring phasing of the project and limiting construction to no more than two reservoirs per quarter, project emissions for ROG + NO_x and DPM would be reduced below Tier 2 thresholds, as shown below in Table 4.

Table 4. Proposed Project Estimated Construction Emissions with Phasing Mitigation Two Reservoirs per Quarter

Pollutant	Total Estimated Emissions	SLOAPCD Threshold		Threshold Exceeded?
		Quarterly		
		Tier 1	Tier 2	

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ROG + NO _x (combined)	5.65 tons	2.5 tons	6.3 tons	Yes
Diesel Particulate Matter (DPM)	0.25 tons	0.13 tons	.32 tons	Yes
Fugitive Particulate Matter (PM ₁₀)	25.2 tons	2.5 tons	-	Yes

For projects that exceed the Tier 1 ROG and NO_x threshold, the SLOAPCD requires implementation of Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. Exceedance of the 2.5 tons/quarter PM₁₀ threshold requires Fugitive PM₁₀ Mitigation Measures and for some large-scale long-term projects can require implementation of a Construction Activity Management Plan (CAMP).

Based on the volume of proposed grading, area of project site disturbance, estimated duration of the construction period, and the APCD's screening construction emission rates identified above, the project would result in the emission of criteria pollutants that would exceed construction-related thresholds established by the SLOAPCD. Implementation of Mitigation Measures AQ-1 through AQ-4 would limit construction to no more than two reservoirs per quarter and would reduce these impacts to less than significant. Therefore, impacts would be *less than significant with mitigation*.

Operational Impacts

The SLOAPCD's CEQA Air Quality Handbook provides operational screening criteria to identify projects with the potential to exceed APCD operational significance thresholds (refer to Table 1-1 of the CEQA Handbook). Based on Table 1-1 of the CEQA Handbook, the project does not propose a use that would have the potential to result in operational emissions that would exceed APCD thresholds. The project would not generate substantial new long-term traffic trips or vehicle emissions and does not propose construction of new direct (source) emissions. Besides minimal pumping for re-filling and/or use of the reservoir project and routine maintenance activities, the project would not generate substantial operational emissions or increased energy demands. Therefore, potential operational emissions would be less than significant.

With implementation of AQ-1 through AQ-4, the project would not conflict or obstruct implementation of the applicable air quality plan and the project would be generally consistent with the San Luis Obispo County CAP. Therefore, project impacts related to implementation of an air quality plan would be *less than significant with mitigation*.

- (b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

San Luis Obispo County is currently designated as non-attainment for ozone (in the eastern part of the county) and PM₁₀. Project-related construction disturbances would further contribute to existing PM₁₀ exceedances. New emissions associated with the proposed project would be almost entirely limited to temporary construction activities. As noted above, the project would result in construction-phase emissions that would exceed SLOAPCD thresholds. However, with implementation of AQ-1 through AQ-4, project emissions would be reduced to less than significant.

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Given that construction related emissions would be reduced below applicable thresholds and long-term operational emissions would be negligible, the project would have a less than cumulatively considerable effect on air quality. Therefore, cumulative project impacts would be *less than significant with mitigation*.

(c) *Expose sensitive receptors to substantial pollutant concentrations?*

The reservoir sites are generally surrounded by agricultural land uses, including vineyards, and undeveloped hills used for grazing. There are no sensitive receptors within 1,000 feet of any of the reservoir sites. There are two residences within 1 mile of the proposed East Bluff Reservoir site (approximately 0.5 to the east and 0.8 mile to the northwest) and one residence approximately 1.5 miles southeast of the proposed West Bluff Reservoir site. In addition, the project would be subject to standard mitigation measures for construction equipment and emissions. Therefore, the project would not result in substantial air pollutant concentrations within close proximity to a sensitive receptor and impacts would be *less than significant*.

(d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Construction could generate odors from heavy diesel machinery and materials used for excavation and construction of the project. The generation of odors during the construction period would be temporary, would be consistent with odors commonly associated with typical construction equipment and activities, and would dissipate within a short distance from the active work area. The project site is almost entirely surrounded by existing vineyards and undeveloped hillsides and no significant long-term operational emissions or odors would be generated by the project. Therefore, impacts related to other emissions adversely affecting a substantial number of people would be *less than significant*.

Conclusion

The project would have the potential to result in ROG, NO_x, DPM, and PM₁₀ emissions that exceed the quarterly thresholds established by SLOAPCD for construction emissions. Mitigation Measures AQ-1 through AQ-4 have been identified to reduce construction-related emissions. With implementation of these measures, potential impacts to air quality would be less than significant.

Mitigation

AQ-1

In order to reduce criteria pollutant emissions, the applicant shall construct no more than two irrigation reservoirs per quarter (three month period). **Prior to issuance of construction permits for the third reservoir**, the applicant shall demonstrate to the County Department of Planning and Building that construction permits associated with the first and/or second irrigation reservoirs have received final inspection. No more than two construction permits for irrigation reservoirs may be active in any three-month period (from date of issuance of construction permit to final inspection). In the event that the first and/or second irrigation reservoir associated with this project receives a final inspection less than three months after issuance of their respective construction permit, the construction permit for the third irrigation reservoir shall not be issued until three months have passed from the date of issuance of the first reservoir construction permit.

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- AQ-2** **Prior to issuance of construction permits**, the following measures related to ROG and NO_x shall be incorporated into the construction phase of the project and shown on all applicable construction plans:
- a) Maintain all construction equipment in proper tune according to manufacturer's specifications;
 - b) Fuel all off-road and portable diesel-powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
 - c) Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
 - d) Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
 - e) Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NO_x exempt area fleets) may be eligible by proving alternative compliance;
 - f) All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit;
 - g) Diesel idling within 1,000 feet of sensitive receptors is not permitted;
 - h) Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
 - i) Electrify equipment when feasible;
 - j) Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,
 - k) Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.
- AQ-3** **Prior to issuance of construction permits**, the following measures related to fugitive dust emissions shall be incorporated into the construction phase of the project and shown on all applicable construction plans:
- a) Reduce the amount of the disturbed area where possible;
 - b) Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
 - c) All dirt stock pile areas should be sprayed daily as needed;
 - d) Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
 - e) Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;

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- f) All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
- g) All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- h) Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- i) All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
- j) Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
- k) Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
- l) All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
- m) The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

AQ-4

Prior to issuance of any construction permits, the applicant shall incorporate Best Available Control Technology (BACT) into the construction phase of the project and shown on all applicable construction plans. The BACT measures shall be reviewed and verified by the SLOAPCD.

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IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Sensitive Resource Area Designations

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The County of San Luis Obispo Land Use Ordinance (LUO) Sensitive Resource Area (SRA) combining designation applies to areas of the county with special environmental qualities, or areas containing unique or sensitive endangered vegetation or habitat resources. The combining designation standards established in the LUO require that proposed uses be designed with consideration of the identified sensitive resources and the need for their protection.

Federal and State Endangered Species Acts

The Federal Endangered Species Act of 1973 (FESA) provides legislation to protect federally listed plant and animal species. The California Endangered Species Act of 1984 (CESA) ensures legal protection for plants listed as rare or endangered, and wildlife species formally listed as endangered or threatened, and also maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the CDFW has the authority to review projects for their potential to impact special-status species and their habitats.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the U.S. Fish and Wildlife Service (USFWS), and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies and are required to be evaluated under CEQA.

Clean Water Act and State Porter Cologne Water Quality Control Act

The U.S. Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. These waters include wetland and non-wetland water bodies that meet specific criteria. USACE jurisdiction regulates almost all work in, over, and under waters listed as “navigable waters of the U.S.” that results in a discharge of dredged or fill material within USACE regulatory jurisdiction, pursuant to Section 404 of the Clean Water Act (CWA). Under Section 404, USACE regulates traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent non-navigable tributaries that have a continuous flow at least seasonally (typically 3 months), and wetlands that directly abut relatively permanent tributaries.

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) regulate discharges of fill and dredged material in California, under Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act, through the State Water Quality Certification Program. State Water Quality Certification is necessary for all projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, the project areas do not support wetlands, riparian or deep-water habitats, though several of the onsite ephemeral drainages are classified as Riverine habitat (USFWS 2019).

Conservation and Open Space Element

The intent of the goals, policies, and implementation strategies in the COSE is to identify and protect biological resources that are a critical component of the county’s environmental, social, and economic well-being. Biological resources include major ecosystems; threatened, rare, and endangered species and their habitats; native trees and vegetation; creeks and riparian areas; wetlands; fisheries; and marine resources. Individual species, habitat areas, ecosystems and migration patterns must be considered together in order to sustain biological resources. The COSE identifies Critical Habitat areas for sensitive species including

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California condor, California red legged frog, vernal pool fairy shrimp, La Graciosa thistle, Morro Bay kangaroo rat, Morro shoulderband snail, tiger salamander, and western snowy plover. The COSE also identifies features of particular importance to wildlife for movement corridors such as riparian corridors, shorelines of the coast and bay, and ridgelines.

Site Setting

The Foothill B Reservoir would be located in an area within a vineyard that currently consists of bare soils and nonnative grasses and forbs surrounded on all sides by active agriculture (vineyards). There are no trees at the reservoir site. An unnamed ephemeral stream is located approximately 0.3 miles east of the proposed Foothill B Reservoir site. The reservoir site has been historically disked and is completely surrounded by vineyards and associated infrastructure. Other than irrigated agriculture, dominant habitat types within a 10-mile radius of the reservoir site primarily consists of annual grassland interspersed with coyote brush (*Baccharis pilularis*) and blue oak (*Quercus douglasii*), as well as willow-cottonwood riparian scrub and forest along San Juan Creek (Kevin Merk Associates, Inc. [KMA] 2019a).

The West Bluff Reservoir would be located in an area that currently consists of bare soils and nonnative grasses and forbs adjacent to active agriculture (vineyards) to the north, east, and south and open grazing lands to the west. There are no trees at the reservoir site. An unnamed ephemeral stream is located approximately 0.3 miles west of the proposed West Bluff Reservoir site. The reservoir site has been historically disked and covered with a seed crop. Other than irrigated agriculture, dominant habitat types within a 10-mile radius of the reservoir sites primarily consist of annual grassland interspersed with coyote brush (*Baccharis pilularis*) and blue oak (*Quercus douglasii*), as well as willow-cottonwood riparian scrub and forest along San Juan Creek (KMA 2019b).

The East Bluff Reservoir would be located in an area that currently consist of bare soils and nonnative grasses adjacent to active agriculture (vineyards) to the north and west, open grazing lands to the south, and annual grassland habitat to the east along the upper portion of a slope. There are no trees at the reservoir site. This reservoir site has been disked and planted with a cover crop. An unnamed ephemeral stream is located 0.07 miles northwest of the proposed East Bluff Reservoir site and the San Juan Creek is located approximately 0.72 miles north of the proposed East Bluff Reservoir site. Other than irrigated agriculture, dominant habitat types within a 10-mile radius of the reservoir sites primarily consist of annual grassland interspersed with coyote brush (*Baccharis pilularis*) and blue oak (*Quercus douglasii*), as well as willow-cottonwood riparian scrub and forest along San Juan Creek (KMA 2019c).

The California Natural Diversity Database (CNDDDB) was queried for sensitive species within 5 miles of the three reservoir sites. Two plants were identified with documented occurrences including Lemmon's jewelflower (*Caulanthus lemmonii*) and Mason's neststraw (*Stylocline masonii*). Eight wildlife species were identified with documented occurrences including American badger (*Taxidea taxus*), Swainson's hawk (*Buteo swainsoni*), San Joaquin kit fox (*Vulpes macrotis mutica*), bank swallow (*Riparia riparia*), prairie falcon (*Falco mexicanus*), Crotch bumble bee (*Bombus crotchii*), tricolored blackbird (*Agelaius tricolor*), and western spadefoot (*Spea hammondi*).

San Joaquin Kit Fox

The CNDDDB identified this area as important habitat for the San Joaquin kit fox (SJKF), a federally listed endangered species and a state-listed threatened species. The kit fox is uncommon to rare. They reside in arid regions of the southern half of the state. A usually nocturnal mammal, kit foxes live in annual grasslands or grassy open stages of vegetation dominated by scattered brush, shrubs, and scrub. Kit foxes primarily are carnivorous, subsisting on black-tailed jackrabbits and desert cottontails, rodents (especially

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kangaroo rats and ground squirrels), insects, reptiles, some birds, bird eggs, and vegetation. Their cover is provided by dens they dig in open, level areas with loose-textured, sandy, and loamy soils. Pups are born in these dens in February through April. Pups are weaned at about 4 to 5 months. Some agricultural areas may support these foxes. Potential predators are coyotes, large hawks and owls, eagles, and bobcats. Cultivation has eliminated much of the kit fox habitat in the project vicinity. Kit foxes are vulnerable to many human activities, such as hunting, use of rodenticides and other poisons, off-road vehicles, and trapping.

Discussion

- (a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

As noted above, there are eight wildlife species and two plant species with documented occurrences in the vicinity of the proposed project. The three reservoir sites consist of predominantly bare soils and non-native grasses and forbs and are regularly disturbed due to disking and agricultural practices. Because of this cycle of regular disturbance, the reservoir sites do not contain suitable habitat for Lemmon's jewelflower or Mason's neststraw. Additionally, there are no trees in close proximity to any of the reservoir areas, and therefore do not contain suitable nesting habitat for the four sensitive bird and raptor species. No trees would be removed or impacted from implementation of the project.

A site visit conducted by Kevin Merk Associates, Inc. confirmed that there is no evidence of small mammal activity, with the exception of burrows and ground squirrels in the hills near the Foothill B Reservoir site. No evidence of badger dens was identified, and due to regular agricultural disturbances, the reservoir sites are not expected to support denning habitat. Additionally, the reservoir sites are not within close proximity to water sources and do not support suitable habitat for amphibian species such as the western spadefoot.

The County of San Luis Obispo San Joaquin Kit Fox Standard Mitigation Ratio Areas map identifies the three reservoir sites as being in a 4:1 mitigation area, which requires 4 acres of mitigation for every acre of habitat impacted. Due to the size of the project parcels, San Joaquin Kit Fox Habitat Evaluation Forms were prepared by KMA to assess the quality of kit fox habitat at the three proposed reservoir sites. KMA determined that due to the lack of kit fox indicators (scat, tracks, etc.) and the ongoing agricultural operations, the three reservoir sites would equate to a 2:1 mitigation ratio rather than 4:1. The evaluations were reviewed by the California Department of Fish and Wildlife (CDFW) and CDFW determined that due to the habitat characteristics of the project area, a 3:1 mitigation ratio is more appropriate for all three reservoir sites (Brandon Sanderson, June 27, 2019). The project would result in 16.8 acres of permanent site disturbance of kit fox habitat. Mitigation Measure BIO-1 has been identified to mitigate for the permanent loss of kit fox habitat per CDFW requirements.

The County has identified standard kit fox mitigation measures that when implemented would avoid take and reduce impacts to kit fox habitat to less than significant levels. These standard mitigation measures are identified in BIO-2 through BIO-10.

Additionally, during construction of the reservoir, there is a potential for wildlife to enter and become trapped in the reservoir. Once trapped, there is a risk of mortality due to dehydration or starvation. Use of a wildlife ladder or similar feature inside the reservoir would enable wildlife to exit, which would mitigate this potential impact. The project includes the construction of a 6-foot-tall

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non-climb fence around each reservoir, which would prevent most wildlife from entering the reservoir after construction; however, small mammals and reptiles may still be able to enter the area and become trapped in the reservoir. A permanent wildlife ladder or an exclusionary feature, such as a smaller gauge mesh fencing or material around the bottom of the perimeter fence, would be installed to mitigate potential impacts of small wildlife becoming trapped in the pond area during project operation. Mitigation Measure BIO-11 has been provided to address exclusionary features.

Implementation of Mitigation Measures BIO-1 through BIO-11 would reduce impacts on listed species to *less than significant with mitigation*.

- (b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

There are no mapped blue line creeks and no riparian vegetation or other sensitive natural communities within or immediately adjacent to the proposed areas of disturbance. Therefore, the project would not result in impacts to riparian habitat or other sensitive natural communities and *no impacts would occur*.

- (c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The project site does not support state or federal wetlands or other jurisdictional areas. Therefore, the project would not result in an adverse effect on state or federally protected wetlands and *no impacts would occur*.

- (d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Based on the California Essential Habitat Connectivity Project, the project site is not located in an identified Essential Connectivity Area. The project site does not contain habitat features conducive to migratory wildlife species such as riparian corridors, shorelines, or ridgelines. As noted above, the project would have the potential to impact San Joaquin kit fox. Given the extent of surrounding agricultural uses, kit fox are not likely to use the reservoir sites as migratory corridors.

Implementation of Mitigation Measures BIO-1 through BIO-11 would reduce potential impacts to the movement of kit fox to *less than significant with mitigation*.

- (e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The project does not propose the removal of any trees, and therefore is not subject to the County's Oak Woodland Ordinance. The project is not located in a Sensitive Resource Area (SRA) and there are no applicable planning area standards related to biological resource preservation. A sedimentation and erosion control plan would be required per LUO Section 22.52.120 to minimize potential impacts related to erosion and sedimentation, and includes requirements for specific erosion control materials, setbacks from creeks, and siltation. In addition, the project would be subject to Regional Water Quality Control Board (RWQCB) requirements for preparation of a Storm Water Pollution Prevention Plan (SWPPP) (LUO Section 22.52.130) which may include the preparation of a Storm Water Control Plan to further minimize onsite sedimentation and erosion. Therefore, the

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project would not conflict with any local policies or ordinances protecting biological resources and *no impacts* would occur.

- (f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation plan, or other adopted habitat conservation plan. Therefore, there would be *no impact*.

Conclusion

The applicant would be required to mitigate the loss of 16.8 acres of San Joaquin kit fox habitat by one of the following ways:

- Deposit of funds to an approved in-lieu fee program;
- provide for the protection of kit foxes in perpetuity through acquisition of fee or conservation easement of suitable habitat in the kit fox corridor area; or
- purchase credits in an approved conservation bank.

To prevent inadvertent harm to kit fox, the applicant has agreed to retain a biologist for a pre-construction survey, a pre-construction briefing for contractors, and monitoring activities in addition to implementing cautionary construction measures. These mitigation measures are listed in detail in Exhibit B Mitigation Summary Table. Implementation of identified mitigation measures would reduce potential biological impacts to less than significant.

Mitigation

BIO-1

Prior to issuance of grading and/or construction permits, the applicant shall submit evidence to the County Department of Planning and Building that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:

- Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of 16.8 acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area, northwest of Highway 58), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Game (Department) (see contact information below) and the County.

This mitigation alternative (a.) requires that all aspects of this program must be in place before County permit issuance or initiation of any ground disturbing activities.

- Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (b.) above can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to

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preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to “The Nature Conservancy” (see contact information below), would total \$126,000 based on \$2,500 per acre (16.8 acres impacted x 3 acres mitigation per acre impacted x \$2,500 per acre). This fee is calculated based on the current cost-per-unit of \$2,500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; therefore the actual cost may increase depending on the timing of payment. This fee must be paid after the CDFW provides written notification identifying your mitigation options but prior to County permit issuance and initiation of any ground disturbing activities.

- c. Purchase 16.8 credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (c) above can be completed by purchasing credits from the Palo Prieto Conservation Bank (see contact information below). The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank, and would total \$126,000. This fee is calculated based on the current cost-per-credit of \$2,500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to County permit issuance and initiation of any ground disturbing activities.

BIO-2

Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County Department of Planning and Building. The retained biologist shall perform the following monitoring activities:

- a. **Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction**, the biologist shall conduct a pre-activity (i.e. pre-construction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- b. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, diking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BIO-3 through BIO-11. Site-disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason. When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
- c. **Prior to or during project activities**, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the

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project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact the U.S. Fish and Wildlife Service and the Department for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the U.S. Fish and Wildlife Service/Department determine it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, **before project activities commence**, the applicant must consult with the U.S. Fish and Wildlife Service and the Department (see contact information below). The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

In addition, the qualified biologist shall implement the following measures:

- d. **Within 30 days prior to initiation of site disturbance and/or construction**, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 1. Potential kit fox den: 50 feet
 2. Known or active kit fox den: 100 feet
 3. Kit fox pupping den: 150 feet
- e. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
- f. If kit foxes or known or potential kit fox dens are found on site, daily monitoring during ground disturbing activities shall be required by a qualified biologist.

BIO-3

Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate as a note on the project plans, that: *"Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox"*. Speed limit signs shall be installed on the project site **within 30 days prior to initiation of site disturbance and/or construction**.

In addition, **prior to permit issuance and initiation of any ground disturbing activities**, conditions BIO-3 through BIO-11 of the Developer's Statement/Conditions of Approval shall be clearly delineated on project plans.

BIO-4

During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.

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- BIO-5** **Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction,** all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the county, as well as any related biological report(s) prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
- BIO-6** **During the site-disturbance and/or construction phase,** to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes or trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
- BIO-7** **During the site-disturbance and/or construction phase,** any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved, or if necessary, be moved only once to remove it from the path of activity, until the kit fox has escaped.
- BIO-8** **During the site-disturbance and/or construction phase,** all food-related trash items such as wrappers, cans, bottles, and food scraps generated shall be disposed of in closed containers only and regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- BIO-9** **Prior to, during and after the site-disturbance and/or construction phase,** use of pesticides or herbicides shall be in compliance with all local, state and federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
- BIO-10** **During the site-disturbance and/or construction phase,** any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the U.S. Fish and Wildlife Service and the County by telephone. In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location

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and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to the Department for care, analysis, or disposition.

- BIO-11** **During the site-disturbance and/or construction phase**, the applicant shall install a temporary wildlife ladder or similar feature approved by the County within the reservoir that would enable wildlife species to exit the reservoir. The ladder or similar feature shall remain in place until the permanent perimeter fence is constructed and no wildlife species is present within the reservoir. Once the pond has been constructed, a permanent wildlife ladder or similar feature, or an exclusionary feature such as smaller gauge mesh material or fencing around the bottom of the perimeter fence, shall be installed to prevent small wildlife from entering and/or getting trapped in the pond area. This measure shall be shown on all applicable grading and construction plans.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project is located in an area historically occupied by the Obispeño Chumash and Salinan. These Native Americans established a sophisticated system of horticulture, using seed scattering, harrowing, selective harvesting, coppicing, and spot burning to produce crops of acorns, grass, and wildflower seeds. They also hunted wildlife and foraged for juncus, willow, redbud, and elderberry for basket making. The founding of Mission Asistencia at Santa Margarita in the 1780s and Mission San Miguel Arcángel in 1797 led to the gradual depopulation of native communities in this area. The Highway 41/46 corridor has historically served as a traveling route between the coastal areas and the Central Valley. These same routes were previously used by Native Americans for the movement of people and goods as well.

A Phase 1 Archaeological Surface Survey was prepared by Heritage Discoveries, Inc. in February 2019, which included a records search at the Central Coast Information Center (CCIC) at the University of California, Santa Barbara and a pedestrian surface survey. The survey and records search concluded that known prehistoric or historic cultural resources were not present within the proposed project area. A literature search and records search further confirmed the absence of known archaeological sites near the study area.

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Discussion

- (a) *Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?*

The CCIC records search data confirmed that the project sites do not contain, nor are located near, any historic resources identified in the National Register of Historic Places or California Register of Historic Resources. The proposed project will not cause a substantial adverse change in the significance of a historical resource. Therefore, *no impacts* will occur.

- (b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

No known archaeological resources are present on the project site. As noted above, the Cultural Resources Survey identified no known archaeological sites within vicinity of the reservoirs and the pedestrian surveys were also negative for resources. In the unlikely event resources are uncovered during grading activities, implementation of LUO Section 22.10.040 (Archaeological Resources) would be required, which states:

In the event archeological resources are unearthed or discovered during any construction activities, the following standards apply:

A. Construction activities shall cease, and the Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

B. In the event archeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the County Coroner shall be notified in addition to the Department so proper disposition may be accomplished.

Based on the low known sensitivity of the project site, and with implementation of LUO Section 22.10.040, impacts to archaeological resources would be *less than significant*.

- (c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

The nearest dedicated cemetery is the Atascadero Pine Mountain Cemetery, located approximately 18.5 miles to the southwest. The record and literature search of the project area did not identify any known burial sites within the vicinity of the reservoirs. Additionally, consultation with the Native American tribes did not result in identification of known burials. (See Section XVIII. Tribal Cultural Resources.) However, project excavations have the potential to encounter previously unidentified human remains in the form of burials or isolated bones and bone fragments. If human remains are exposed during construction, construction shall halt around the discovery of human remains, the area shall be protected, and consultation and treatment shall occur as prescribed by State law. The County's Coroner and Sheriff Department shall be notified immediately to comply with State Health and Safety Code Section 7050.5, which states that no further disturbance shall occur until the County Coroner has been notified and can make the necessary findings as to origin and disposition of the remains. If the remains are determined to be Native American, the Coroner will notify the NAHC and the remains will be treated in accordance with Public Resources Code Section 5097.98. With adherence to State Health and Safety Code Section 7050.5 and Public Resources Code Section

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5097.98, impacts related to the disturbance of human remains would be reduced to *less than significant*.

Conclusion

Based on the results of a Phase 1 Archaeological Report and pedestrian survey of the site, there are no known historic or archaeological resources within or near the project site, and the probability of discovering unknown human remains is very low. No significant impacts on cultural resources would occur. In the event of an unanticipated discovery of archaeological resources during earth-moving activities, compliance with the LUO would ensure potential impacts to cultural resources would be reduced to *less than significant*.

Mitigation

None needed.

VI. ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Pacific Gas & Electric Company (PG&E) is the primary electricity provider for urban and rural communities within the County of San Luis Obispo. Approximately 33% of electricity provided by PG&E is sourced from renewable resources and an additional 45% is sourced from greenhouse gas-free resources (PG&E 2017).

The County has adopted a Conservation and Open Space Element (COSE) that establishes goals and policies that aim to reduce vehicle miles traveled, conserve water, increase energy efficiency and the use of renewable energy, and reduce greenhouse gas emissions. This element provides the basis and direction for the development of the County's EnergyWise Plan (EWP), which outlines in greater detail the County's strategy to reduce government and community-wide greenhouse gas emissions through a number of goals, measures, and actions, including energy efficiency and development and use of renewable energy resources.

The EWP established the goal to reduce community-wide greenhouse gas emissions to 15% below 2006 baseline levels by 2020. Two of the six community-wide goals identified to accomplish this were to "[a]ddress future energy needs through increased conservation and efficiency in all sectors" and "[i]ncrease the production of renewable energy from small-scale and commercial-scale renewable energy installations

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to account for 10% of local energy use by 2020.” In addition, the County has published an EnergyWise Plan 2016 Update to summarize progress toward implementing measures established in the EWP and outline overall trends in energy use and emissions since the baseline year of the EWP inventory, 2006.

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which are referred to as the *2019 Building Energy Efficiency Standards*. These standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and non-residential lighting requirements.

The County LUO includes a Renewable Energy Area combining designation to encourage and support the development of local renewable energy resources, conserving energy resources and decreasing reliance on environmentally costly energy sources. This designation is intended to identify areas of the county where renewable energy production is favorable and establish procedures to streamline the environmental review and processing of land use permits for solar electric facilities (SEFs). The LUO establishes criteria for project eligibility, required application content for SEFs proposed within this designation, permit requirements, and development standards (LUO 22.14.100).

The project is located within the Renewable Energy Area combining designation. The project’s energy demand would be principally supplied by Pacific Gas and Electric Company (PG&E).

Discussion

- (a) *Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

A maximum total energy consumption of 123.5 kilowatt-hours (kWh) per year would be required and supplied by the local energy grid. However, this energy use is approximately the same amount of energy that is currently required to irrigate the existing vineyards. The primary difference is that with the irrigation reservoirs, water will be pumped and stored before use rather than pumped and immediately used. The project would not result in cumulatively considerable energy demand, generation of substantial new traffic, or significant intensification of land use that would generate substantial additional mobile or stationary emissions. The proposed project would be consistent with energy use of the other agricultural reservoirs in the area. The majority of energy usage would be during construction and the initial filling period of the reservoirs, at which point the pumps will be running at full capacity and filling the agricultural reservoirs at a rate of 552 gallons per minute (gpm) (West Bluff Reservoir), 537 gpm (Foothill B Reservoir), and 554 gpm (East Bluff Reservoir) over the course of 20 days. After the initial filling is completed, the pumps will continue to use electricity but at a significantly reduced rate as their long-term use would be limited to maintaining the reservoirs’ water level as opposed to running at full capacity to fill the reservoir. This energy use during operation is consistent with the historical energy use for irrigation of the vineyards and would not be out of character with this type of project or similar uses in the area. As a result, the implementation of the proposed reservoirs would cause a *less than significant* impact in relation to the consumption of energy resources.

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(b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The project would be located within the County's Renewable Energy Area combining designation, which is an area identified as favorable for renewable energy production but does not preclude the development of the site for other uses. The project's proposed use would be consistent with site's underlying land use designation and is consistent with the anticipated development for the area. As such, the project does not propose a use or activity that would otherwise conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, *no impacts would occur*.

Conclusion

The project would utilize approximately the same amount of energy as has historically been used to irrigate the existing vineyards and is consistent with the energy demand of other irrigation reservoirs. Therefore, potential impacts on energy resources would be less than significant.

Mitigation

None needed.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The Alquist-Priolo Earthquake Fault Zoning Act (Act) is a California state law that was developed to regulate development near active faults and mitigate the surface fault rupture potential and other hazards. The Act identifies active earthquake fault zones and restricts the construction of habitable structures over known active or potentially active faults. San Luis Obispo County is located in a geologically complex and seismically active region. The Safety Element of the County of San Luis Obispo General Plan identifies three active faults that traverse through the County and that are currently zoned under the State of California Alquist-Priolo Fault Zoning Act: the San Andreas, the Hosgri-San Simeon, and the Los Osos. The San Andreas Fault zone is located along the eastern border of San Luis Obispo County and has a length of over 600 miles. The Hosgri-San Simeon fault system generally consists of two fault zones: the Hosgri fault zone that is mapped off of the San Luis Obispo County coast; and the San Simeon fault zone, which appears to be associated with the Hosgri, and comes onshore near the pier at San Simeon Point. Lastly, the Los Osos Fault zone has been mapped generally in an east/west orientation along the northern flank of the Irish Hills.

The County's Safety Element also identifies 17 other faults that are considered potentially active or have uncertain fault activity in the County. The Safety Element establishes policies that require new development to be located away from active and potentially active faults. The element also requires that the County enforce applicable building codes relating to seismic design of structures and require design professionals to evaluate the potential for liquefaction or seismic settlement to impact structures in accordance with the Uniform Building Code.

Groundshaking refers to the motion that occurs in response to local and regional earthquakes. Groundshaking can endanger life and safety due to damage or collapse of structures or lifeline facilities. The

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California Building Code (CBC) currently requires structures to be designed to resist a minimum seismic force resulting from ground motion.

Liquefaction is the sudden loss of soil strength due to a rapid increase in soil pore water pressures resulting from groundshaking during an earthquake. Liquefaction potential increases with earthquake magnitude and groundshaking duration. Low-lying areas adjacent to creeks, rivers, beaches, and estuaries underlain by unconsolidated alluvial soil are most likely to be vulnerable to liquefaction. The CBC requires the assessment of liquefaction in the design of all structures. The project is located in an area with low potential for liquefaction.

Landslides and slope instability can occur as a result of wet weather, weak soils, improper grading, improper drainage, steep slopes, adverse geologic structure, earthquakes, or a combination of these factors. Despite current codes and policies that discourage development in areas of known landslide activity or high risk of landslide, there is a considerable amount of development that is being impacted by landslide activity in the County each year. The County Safety Element identifies several policies to reduce risk from landslides and slope instability. These policies include the requirement for slope stability evaluations for development in areas of moderate or high landslide risk, and restrictions on new development in areas of known landslide activity unless development plans indicate that the hazard can be reduced to a less than significant level prior to beginning development. The project is located in an area with low potential for landslides.

Shrink/swell potential is the extent to which the soil shrinks as it dries out or swells when it gets wet. Extent of shrinking and swelling is influenced by the amount and kind of clay in the soil. Shrinking and swelling of soils can cause damage to building foundations, roads and other structures. A high shrink/swell potential indicates a hazard to maintenance of structures built in, on, or with material having this rating. Moderate and low ratings lessen the hazard accordingly. According to the NRCS, Oceano sand (0 - 9 % slope) underlying the site is characterized as having a low erodibility and low shrink-swell characteristics, as well as having potential septic system constraints due to poor filtering capabilities. However, a Geotechnical Engineering Report prepared by Earth Systems Pacific (Earth Systems Pacific 2017) characterize the soils onsite as being highly erodible.

The County LUO identifies a Geologic Study Area (GSA) combining designation for areas where geologic and soil conditions could present new developments and their users with potential hazards to life and property. All land use permit applicants located within a GSA are required to include a report prepared by a certified engineering geologist and/or registered civil/soils engineer as appropriate. This report is then required to be evaluated by a geologist retained by the County. In addition, all uses within a GSA are subject to special standards regarding grading and distance from an active fault trace within an Earthquake Fault Zone (LUO 22.14.070).

The County Conservation and Open Space Element (COSE) identifies a policy for the protection of paleontological resources from the effects of development by avoiding disturbance where feasible. Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils

The reservoir sites are nearly level to gently sloping and are not located within the County's Geological Study Area. Landslide and liquefaction potential of the three sites is considered low and the soils have low shrink/swell (expansive) potential. The nearest known fault line is an unknown potentially capable fault located approximately 3.9 miles east of the East Bluff Reservoir. There are no known serpentine or ultramafic rocks/soils in the project area and no other notable geologic features.

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Discussion

(a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

(a-i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

The project sites are not located within an Alquist-Priolo Fault Hazard Zone, and there are no mapped active faults crossing or adjacent to the sites (DOC 2018). The closest known fault is approximately 3.9 miles east of the East Bluff Reservoir site. A Geotechnical Engineering Report was prepared for each reservoir site by Mid-Coast Geotechnical, Inc. (Mid-Coast Geotechnical, Inc. 2018a-c) and provided similar conclusions for the three reservoirs and provided recommendations for site preparation, grading, and foundations. In addition, the proposed project would be subject to professional engineering and construction standards to ensure the reservoirs are constructed in a stable manner. Therefore, the potential for impacts related to surface ground rupture to occur at the reservoir sites is low, and potential impacts would be *less than significant*.

(a-ii) *Strong seismic ground shaking?*

The project would be required to comply with the California Building Code (CBC) to ensure the effects of a potential seismic event would be minimized to the greatest extent feasible. The project would not be open to the public and would be unmanned except for occasional maintenance operations. Therefore impacts related to the production of strong seismic ground shaking would be *less than significant*.

(a-iii-aiv) *Seismic-related ground failure, including liquefaction?*

Landslides?

Based on the County Safety Element Liquefaction Hazards Map and the County Safety Element Landslides Hazards Map, the reservoir sites are located in areas with low potential for liquefaction and landslides. The geotechnical reports prepared for the sites determined that due to the lack of shallow groundwater and the presence of medium- to hard-density sandy material, the potential for liquefaction to occur is considered low. Additionally, since there will be no structures built at any of the reservoir sites and employees will rarely be on site, the likelihood of a landslide or liquefaction resulting in loss, injury, or death is considered low. The geotechnical reports provide recommendations for site preparation, grading, and foundations. Incorporation of the preliminary geotechnical recommendations as well as professional engineering standards and CBC requirements would ensure the project is designed to adequately address potential liquefaction and landslide related impacts. Therefore, potential *impacts would be less than significant*.

(b) *Result in substantial soil erosion or the loss of topsoil?*

The three reservoirs would result in a total disturbance of approximately 17 acres, including approximately 142,006 cubic yards of cut and 99,404 cubic yards of fill, balanced on site. (The cut material will be used as fill for the earthen berms and has a 30% shrinkage factor.) The greatest potential for onsite erosion to occur would be during the initial site preparation and grading during construction. A sedimentation and erosion control plan is required for all construction and grading

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projects (LUO Section 22.52.120) to minimize potential impacts related to erosion and sedimentation, and includes requirements for specific erosion control materials, setbacks from creeks, and siltation. In addition, the project would be subject to Regional Water Quality Control Board (RWQCB) requirements for preparation of a Storm Water Pollution Prevention Plan (SWPPP) (LUO Section 22.52.130) which may include the preparation of a Storm Water Control Plan to further minimize onsite sedimentation and erosion. The geotechnical engineering reports prepared for the project recommends that all fill slopes should be covered with a permanent erosion control blanket to reduce surficial erosion of the slopes and to allow for revegetation. Implementation of the geotechnical engineering report's recommendations has been included as Mitigation Measure GEO-1 to reduce geologic impacts. Upon implementation of the above control measures impacts related to soil erosion and loss of topsoil would be *less than significant with mitigation*.

- (c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Landslides typically occur in areas with steep slopes or in areas containing escarpments. Based on the Landslide Hazards Map provided in the County Safety Element, the project site is not located in an area with slopes susceptible to local failure or landslide.

The project would be required to comply with CBC seismic requirements to address potential seismic-related ground failure including lateral spread. Based on the County Safety Element and USGS data, the project is not located in an area of historical or current land subsidence (USGS 2019). Based on the County Safety Element Liquefaction Hazards Map, the project site is located in an area with low potential for liquefaction risk and the project is not located within the GSA combining designation. Therefore, impacts related to on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse would be *less than significant*.

- (d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Based on the Soil Survey of San Luis Obispo County and Web Soil Survey, the project site is not located within an area known to contain expansive soils as defined in the Uniform Building Code. The project sites are located on soil units with a low shrink-swell (expansive) potential and low clay content. Therefore, impacts to life or property related to expansive soils would be *less than significant*.

- (e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

The project does not propose the installation or use of septic tanks or waste water disposal systems. Therefore, there would be *no impact*.

- (f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The project area is underlain with late Pleistocene dune sand. There are no known unique paleontological resources or unique geological features located within the project sites and the area has a low potential for encountering important fossils. However, if paleontological resources are encountered during construction activities, Mitigation Measure GEO-2 shall be implemented to reduce potential impacts. Therefore, impacts would be *less than significant with mitigation*.

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Conclusion

Based on compliance with existing regulations and recommendations in the Geotechnical Engineering Report, as required by mitigation measure GEO-1, implementation of the sedimentation and erosion control measures as specified in project plans, and compliance with the measures outlined in the County's LUO and codes, impacts to geologic and soil resources would be *less than significant with mitigation*.

Mitigation

- GEO-1** Prior to issuance of construction permits, the applicant shall demonstrate compliance on the grading plans with all recommendations of the Geotechnical Engineering Report prepared by Mid-Coast Geotechnical, Inc. (2018) for the project. During project construction and prior to final inspection, the applicant shall implement and comply with all recommendations of the Geotechnical Engineering Report prepared by Mid-Coast Geotechnical, Inc. (2018) for the project.
- GEO-2** In the event paleontological resources are encountered during ground-disturbing activities, activities in the immediate area of the find shall be halted and a qualified paleontologist shall be retained to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology.

VIII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

As noted in Section 3 Air Quality, the project sites are located in the South Central Coast Air Basin (SCCAB) under the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD). The SLOAPCD has developed and updated a [CEQA Air Quality Handbook \(2012\)](#) and clarification memorandum (2017) to evaluate project specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels, a Clean Air Plan has been adopted (prepared by APCD).

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Greenhouse Gas (GHG) Emissions have been found to result in an increase in the earth's average surface temperature by exacerbating the naturally occurring "greenhouse effect" in the earth's atmosphere. The rise in global temperature is has been projected to lead to long-term changes in precipitation, sea level, temperatures, wind patterns, and other elements of the earth's climate system. This phenomenon is commonly referred to as global climate change. These changes are broadly attributed to GHG emissions, particularly those emissions that result from human production and use of fossil fuels.

The passage of AB32, the California Global Warming Solutions Act (2006), recognized the need to reduce GHG emissions and set the greenhouse gas emissions reduction goal for the State of California into law. The law required that by 2020, State emissions must be reduced to 1990 levels. This is to be accomplished by reducing greenhouse gas emissions from significant sources via regulation, market mechanisms, and other actions. Subsequent legislation (e.g., SB97-Greenhouse Gas Emissions bill) directed the California Air Resources Board (CARB) to develop statewide thresholds.

In March 2012, the San Luis Obispo County Air Pollution Control District (APCD) approved thresholds for GHG emission impacts, and these thresholds have been incorporated the APCD's CEQA Air Quality Handbook. APCD determined that a tiered process for residential / commercial land use projects was the most appropriate and effective approach for assessing the GHG emission impacts. The tiered approach includes three methods, any of which can be used for any given project:

1. Qualitative GHG Reduction Strategies (e.g. Climate Action Plans): A qualitative threshold that is consistent with AB 32 Scoping Plan measures and goals; or,
2. Bright-Line Threshold: Numerical value to determine the significance of a project's annual GHG emissions; or,
3. Efficiency-Based Threshold: Assesses the GHG impacts of a project on an emissions per capita basis.

For most projects, the Bright-Line Threshold of 1,150 metric tons of carbon dioxide per year (MT CO₂e/year) will be the most applicable threshold. In addition to the residential/commercial threshold options proposed above, a bright-line numerical value threshold of 10,000 MT CO₂e/yr was adopted for stationary source (industrial) projects.

It should be noted that projects that generate less than the above-mentioned thresholds will also participate in emission reductions because air emissions, including GHGs, are under the purview of the CARB (or other regulatory agencies) and will be "regulated" either by CARB, the federal government, or other entities. For example, new vehicles will be subject to increased fuel economy standards and emission reductions, large and small appliances will be subject to more strict emissions standards, and energy delivered to consumers will increasingly come from renewable sources. Other programs that are intended to reduce the overall GHG emissions include Low Carbon Fuel Standards, Renewable Portfolio Standards, and the Clean Car Standards. As a result, even the emissions that result from projects that produce fewer emissions than the threshold will be subject to emission reductions.

Under CEQA, an individual project's GHG emissions will generally not result in direct significant impacts. This is because the climate change issue is global in nature. However, an individual project could be found to contribute to a potentially significant cumulative impact. Projects that have GHG emissions above the noted thresholds may be considered cumulatively considerable and require mitigation.

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Discussion

- (a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Based on the size of the proposed project and the comparable general light industry land use category, the project is expected to generate less than the SLOAPCD's Bright-Line Threshold of 10,000 MT CO₂e/yr of GHG emissions due to the negligible long-term operational emissions. Therefore, the project's potential direct and cumulative GHG emissions would be less than significant and less than a cumulatively considerable contribution to GHG emissions. Section 15064(h)(2) of the CEQA Guidelines provides guidance on how to evaluate cumulative impacts. If it is shown that an incremental contribution to a cumulative impact, such as global climate change, is not "cumulatively considerable," no mitigation is required. Because this project's emissions fall under the threshold, impacts related to GHGs would be *less than significant*.

- (b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The proposed project would not generate significant additional long-term vehicle trips or mobile-source emissions. The project would not conflict with the control measures identified in the CAP or other state and local regulations related to GHG emissions and renewable energy. The project would result in *less than significant* impacts associated with conflicts with plans and policies adopted for the purpose of reducing GHG emissions.

Conclusion

No potentially significant impacts to greenhouse gases were identified and therefore no mitigation is required.

Mitigation

None needed.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project is not located in an area of known hazardous material contamination and is not on a site listed on the "Cortese List" (which is a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5) (SWRCB 2018; California Department of Toxic Substance Control [DTSC] 2018). The project is located within a high fire hazard severity zone and based on the County's response time map, it will take approximately 5 to 20 minutes to respond to a call regarding fire or life safety. The project is not located within an Airport Review Area and the closest active landing strip, Blech Ranch Airport, a private landing

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strip, located approximately 1.5 miles from West Bluff Reservoir, 0.63 miles from East Bluff Reservoir, and 0.67 miles from Foothill B Reservoir.

Discussion

- (a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The project does not propose the routine use, transport, or disposal of hazardous materials. Therefore, there would be *no impact*.

- (b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

During construction the proposed project would utilize limited quantities of hazardous substances such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. Handling of these materials has the potential to result in an accidental release. Construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws. Additionally, the construction contractor would be required to implement BMPs for the storage, use, and transportation of hazardous materials during all construction activities. Therefore, impacts would be *less than significant*.

- (c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The nearest school is Shandon High School, located over 5 miles to the north. There are no schools within a quarter mile of the proposed project. Therefore, there would be *no impact*.

- (d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The project is not located in an area of known hazardous material contamination and is not on a site listed on the "Cortese List" pursuant to Government Code Section 65962.5. Therefore, there would be *no impact*.

- (e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The project site is not located within an airport land use plan, and is not located within two miles of a public use airport. Therefore, there would be *no impact*.

- (f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project would not conflict with any regional emergency response or evacuation plan as the existing access roads would be wide enough to accommodate emergency vehicles and the project footprint is small. Construction and operation of the project would not require road closure, and the project would not physically block the onsite residents from evacuating during an emergency. No

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structures or other obstacles are proposed that would hinder evacuation or emergency response. Therefore, impacts would be *less than significant*.

- (g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

According to Cal Fire, the project site is located in a high fire hazard severity zone within a State Responsibility Area. With the exception of the construction period, the proposed project would not regularly have employees onsite. Construction would be temporary and would last approximately three to four and a half months. Once construction is completed, employees would be onsite for periodic maintenance. The project would not be accessible to the public and no structures are proposed. Therefore, impacts related to risk of loss, injury or death involving wildland fires would be *less than significant*.

Conclusion

No significant impacts related to hazards or hazardous materials would occur.

Mitigation

None needed.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The project proposes to utilize an existing well within the subject property to fill the reservoir. The project sites are within the San Juan subarea of the Paso Robles Groundwater Basin. Encompassing an area of approximately 505,000 acres (760 square miles), the basin extends from the Garden Farms area south of Atascadero to San Ardo in Monterey County, and from the Highway 101 corridor to east of Shandon. It is the primary, and in many places the only, source of water available to property owners throughout the North County.

In 2015, the state legislature approved a new groundwater management law known as the Sustainable Groundwater Management Act (SGMA). SGMA requires that high- and medium-priority basins comply with the new law. The California Department of Water Resources designated the Paso Robles Groundwater Basin as a high-priority basin and designated the basin to be in a "condition of critical overdraft."

In January 2007, the County Board of Supervisors directed the preparation of a Resource Capacity Study (RCS) for the Paso Robles Groundwater Basin in accordance with the County's Resource Management System (RMS). The RMS describes a resource in terms of its Level of Severity (LOS) based on the rate of depletion and an estimate of the remaining capacity, if any.

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Table 2. Water Resource Levels of Severity

Level of Severity	Description
LOS I	Level I is reached for a water resource when increasing water demand projected over 9 years equals or exceeds the estimated dependable supply.
LOS II	Level II for a water resource occurs when water demand projected over 7 years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply.
LOS III	A Level of Severity III exists when water demand equals the available resource; the amount of consumption has reached the dependable supply of the resource.

The RCS established a LOS III for the main basin and a separate LOS I for the Atascadero subbasin, which is hydro-geologically distinct from the main basin.

The Countywide Water Conservation Program and Water-Related General Plan and County Code Amendments

On October 27, 2015, the County Board of Supervisors adopted the Countywide Water Conservation Program to address ongoing water scarcity concerns. The objectives of the Countywide Water Conservation Program are to halt increase in groundwater extraction in areas that have been certified LOS III; provide a mechanism to allow new development and new or altered irrigated agriculture to proceed in certified Level of Severity III areas, subject to the requirements of the County General Plan and County Code, in a manner that fully offsets projected water use; and to reduce the wasteful use of water in the county. The amendments were effective on November 26, 2015, and affect the following areas:

- Paso Robles Groundwater Basin:
 - New buildings and new irrigated agriculture must offset new water use. (Building and Construction Ordinance and the County LUO)
 - New construction and new irrigated agriculture in the Paso Robles Groundwater Basin must be water neutral.
- Countywide:
 - Water waste prevention measures apply to all unincorporated areas where a similar program is not already operated by a water purveyor. (Health and Sanitation Ordinance)
 - Agricultural best management practices are encouraged in all unincorporated areas (the County LUO)

The adopted Countywide Water Conservation Program and ordinances included amendments to the County Health and Sanitation Ordinance, Building and Construction Ordinance, County LUO, and County Fee Schedule.

Drainage Characteristics

The topography of the reservoir sites is nearly level to gently sloping, with slopes ranging from 2-13%. The closest drainages from the proposed development are an unnamed ephemeral stream located approximately 0.3 miles west of the proposed West Bluff Reservoir, an unnamed ephemeral stream located approximately 0.3 miles east of the proposed Foothill B Reservoir, and an unnamed

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ephemeral stream located 0.07 miles northwest of the proposed East Bluff Reservoir. The nearest significant watercourse is San Juan Creek, located approximately 0.72 miles north of the proposed East Bluff Reservoir. The Foothill B Reservoir is located within the 100-year Flood Hazard Designation. As described in the NRCS Soil Survey, the soil is considered well-drained.

Projects involving more than 1 acre of disturbance are typically required to prepare a SWPPP to minimize onsite sedimentation and erosion; however, SWPPP requirements do not apply to agricultural reservoirs. The County's LUO requires that temporary erosion and sedimentation measures are installed during construction of all grading projects.

For areas where drainage is identified as a potential issue, the LUO (Section 22.52.110) includes a provision to prepare a drainage plan to minimize potential drainage impacts. When required, this plan would need to address measures such as constructing onsite retention or detention basins or installing surface water flow dissipaters. This plan would also need to show that the increased surface runoff would have no more impacts than that caused by historic flows. Because Foothill B Reservoir is located within a 100-year flood zone, preparation of a drainage plan would be required.

Soil type, area of disturbance, and slopes are key aspects to analyzing potential sedimentation and erosion issues. The project's soil types and descriptions are listed in the Setting discussion of Section 2, Agricultural Resources. As described in the NRCS Soil Survey, the soil erodibility of the reservoir sites is low to moderate. A sedimentation and erosion control plan is required for all construction and grading projects (LUO Section 22.52.120) to minimize these impacts. When required, the plan is prepared by a civil engineer to address both temporary and long-term sedimentation and erosion impacts.

Discussion

- (a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The three reservoirs would be constructed on nearly flat to gently sloping topography, with the Foothill B Reservoir being located within a 100-year Flood Hazard designation. The project would be located a minimum of approximately 0.72 miles from San Juan Creek, though unnamed ephemeral streams are located within closer proximity to the reservoirs. Underlying soils of the reservoir sites have low to moderate erodibility. The applicant has proposed erosion control measures to be implemented during construction, including a permanent erosion control blanket to reduce surficial erosion of the reservoir slopes and to allow for vegetation growth on the slopes.

With regards to project impacts on water quality the following conditions apply:

- Approximately 17 acres of combined site disturbance is proposed and the movement of approximately 142,006 cubic yards of cut and 99,404 cubic yards of fill, balanced on site; (the cut material will be used as fill for the earthen berms, and has a 30% shrinkage factor);
- The project will be subject to standard County requirements for drainage, sedimentation, and erosion control for construction and permanent use;
- The project is not on highly erodible soils, nor on moderate to steep slopes;
- The project is more than 100 feet from the closest creek or surface water body;
- Stockpiles will be properly managed during construction to avoid material loss due to erosion; and

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- All hazardous materials and/or wastes will be properly stored onsite, which include secondary containment should spills or leaks occur.

To provide protection from downward migration of stored water within the reservoir, the proposed earthen irrigation reservoirs would be lined with 40 mil high density polyethylene (HDPE) plastic. This HDPE liner would provide protection from leakage into the subsurface; therefore, water quality related associated with subsurface leakage to groundwater would be less than significant.

The proposed project would not result in any wastewater discharge. As noted above, the proposed reservoir sites are nearly level to gently sloping. Stormwater would be diverted around the reservoirs and implementation of the project would not substantially change the volume or velocity of runoff leaving any point of the site or result in a significant increase in impervious surface area. Therefore, potential impacts would be *less than significant*.

- (b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Water used to fill the reservoirs would be sourced from three existing wells. The applicant intends to increase water-use efficiency during the peak frost period by constructing the reservoirs and reducing the cumulative amount of water simultaneously pumped from the basins during frost events. The proposed reservoirs would therefore increase water-use efficiency by enabling better water management during frost events. However, it would also result in water loss through evaporation from the water surface to the atmosphere and increased pumping from the basins to compensate for reservoir evaporation. To reduce evaporative water losses, the applicant proposes to fill the reservoirs for frost protection purposes during the typical peak frost period (March through May). At the end of the frost season, the reservoirs would be maintained at 25% capacity for irrigation operations from June 1 through November 15. The reservoirs would remain empty between November 16 and February 28.

A hydrogeologic analysis was prepared for each of the three reservoirs (Monsoon Consultants 2019a-c) and the analyses were peer-reviewed by the County hydrogeologist (GSI Water Solutions, Inc. [GSI] 2019). The hydrogeologic analyses concluded that the proposed project will result in additional groundwater use when compared to historical usage, will result from the initial filling of the reservoirs and the net evaporative losses from the exposed water surfaces of the reservoirs (Monsoon Consultants 2019a-c).

Filling of each reservoir would occur over a continuous 20-day period each year and would require the following supply rates:

- Foothill B Reservoir – 537 gallons per minute (gpm) continuously for 20 days;
- West Bluff Reservoir – 552 gpm continuously for 20 days; and
- East Bluff Reservoir – 554 gpm continuously for 20 days.

Annual net evaporative losses from each reservoir would be as follows:

- Foothill B Reservoir – 7.95 acre-feet per year (afy);
- West Bluff Reservoir – 8.97 afy; and
- East Bluff Reservoir – 6.79 afy.

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The annual water demand above historical usage would be approximately equivalent to the net evaporative losses associated with each reservoir (23.71 afy). This is because instead of pumping directly from the well over the course of the year, the water is pumped at one time and then used as necessary.

Short-term impacts relating to neighboring well drawn down were calculated as follows, and would be expected to recovery within a few days after the initial reservoir filling period:

- Foothill B Reservoir – 0.65 to 2.59 feet;
- West Bluff Reservoir – 0.38 to 3.36 feet; and
- East Bluff Reservoir – 1.36 to 2.94 feet.

Long-term impacts (over a 5-year period) relating to neighboring well draw down were calculated as follows:

- Foothill B Reservoir – 0.057 to 0.081 feet;
- West Bluff Reservoir – 0.059 to 0.099 feet; and
- East Bluff Reservoir – 0.057 to 0.071 feet.

The long-term neighboring well impacts are determined to be less than significant; GSI validated this conclusion in their peer-review.

To offset the evaporative losses (additional water demand) that would result from the project, the applicant would be required to offset the losses at a 1:1 ratio, per the requirements of the County Land Use Ordinance. The applicant is proposing to achieve the required water offsets by electing to forfeit planting rights for new irrigated vineyards. The applicant received an Agricultural Offset Clearance from the County in 2015 which entitled them to plant an additional 104.43 acres of irrigated vineyard, despite the restrictions in place for the Paso Robles Groundwater Basin. The Agricultural Offset Clearance assigns a water duty factor of 1.25 afy of water per acre of vineyard. Therefore, the applicant would be required to forfeit planting rights for the following acreage of vineyards:

- Foothill B Reservoir – $7.95 \text{ afy} \div 1.25 \text{ afy/acre vineyard} = 6.36 \text{ acres of vineyard}$
- West Bluff Reservoir – $8.97 \text{ afy} \div 1.25 \text{ afy/acre vineyard} = 7.18 \text{ acres of vineyard}$
- East Bluff Reservoir – $6.79 \text{ afy} \div 1.25 \text{ afy/acre vineyard} = 5.43 \text{ acres of vineyard}$

Forfeiture of this planting right would be adequate to offset the new water demand that would result from implementation of this project. Mitigation Measure HYD-1 has been provided to implement this offset.

Therefore, impacts to groundwater supplies and recharge would be *less than significant with mitigation*.

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- (c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

- (c-i) *Result in substantial erosion or siltation on- or off-site?*

The three reservoirs would result in a total disturbance of approximately 17 acres, including approximately 142,006 cubic yards of cut and 99,404 cubic yards of fill, balanced on site. (The cut material will be used as fill for the earthen berms and has a 30% shrinkage factor.) The greatest potential for erosion and siltation to occur would be during the initial site preparation and grading during construction. A sedimentation and erosion control plan is required for all construction and grading projects (LUO Section 22.52.120) to minimize potential impacts related to erosion and sedimentation, and includes requirements for specific erosion control materials, setbacks from creeks, and siltation. In addition, the project would be subject to Regional Water Quality Control Board (RWQCB) requirements for preparation of a Storm Water Pollution Prevention Plan (SWPPP) (LUO Section 22.52.130) which may include the preparation of a Storm Water Control Plan to further minimize onsite sedimentation and erosion. The geotechnical engineering reports prepared for the project recommends that all fill slopes should be covered with a permanent erosion control blanket to reduce surficial erosion of the slopes and to allow for revegetation. Implementation of the geotechnical engineering report's recommendations has been included as Mitigation Measure GEO-1 to reduce impacts resulting from erosion and siltation. Therefore, impacts would be *less than significant with mitigation*.

- (c-ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

The project would not substantially increase the amount of impervious surface area or the rate and volume of surface runoff in a manner that could result in flooding on- or off-site. Based on the nature and size of the project, changes in surface hydrology would be negligible. Therefore, potential impacts related to increased surface runoff resulting in flooding would be *less than significant*.

- (c-iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

The project would not utilize a stormwater system and therefore there would be *no impact* to stormwater or drainage systems.

- (c-iv) *Impede or redirect flood flows?*

Based on the County Flood Hazard Map, the Foothill Reservoir B is located within a 100-year flood zone. The project would be subject to standard County requirements for drainage, sedimentation, and erosion control for construction and operation. Therefore, impacts would be *less than significant*.

- (d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Based on the San Luis Obispo County Tsunami Inundation Maps, the project site is not located in an area with potential for inundation by a tsunami (DOC 2019). The project site is not located within close proximity to a standing body of water with the potential for a seiche to occur. The Foothill B Reservoir is located within a flood hazard zone and would be required by the LUO (Section

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22.52.110) to prepare a drainage plan to minimize potential drainage impacts. Therefore, impacts related to flood hazards, tsunami, or seiche would be *less than significant*.

- (e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

As noted in threshold b, above, the proposed project would result in new water demand resulting from net evaporative losses, which must be offset at a 1:1 ratio as required by the County Land Use Ordinance and Water Conservation Program. This would be achieved forfeiture of planting rights that would be equivalent to 18.97 acres of irrigated vineyard. This offset is outlined in Mitigation Measure HYD-1 and would reduce impacts to groundwater management plan for the Paso Robles Groundwater Basin to *less than significant with mitigation*.

Conclusion

Compliance with existing regulations and/or required plans would adequately address the potential for surface water quality impacts during construction and permanent use of the project. No change in groundwater quality would occur.

The project would result in negligible water level drawdown at neighboring properties due to increased pumping activities. Potential impacts related to water level drawdown would be less than significant.

Increased water demand resulting from evaporative losses would be mitigated through a 1:1 offset requirement. Mitigation requiring evidence that a sufficient acre-foot per year offset has been achieved by the project applicant, subject to the approval of the County, would be required before permit issuance, reducing potential water quantity impacts to less than significant. The sufficient acre-foot per year offset would be achieved by committing to not plant a specified acreage of new vineyards on the property as outlined in Mitigation Measure HYD-1. This reduction of irrigation demand will meet the 1:1 offset requirement as required by the County.

Mitigation

HYD-1 Prior to issuance of construction or grading permits, the applicant shall submit a revised On-Site Agricultural Offset Clearance form that demonstrates a forfeiture of water use/planting rights as follows:

- Foothill B Reservoir – 7.95 afy / 6.36 acres of vineyard
- West Bluff Reservoir – 8.97 afy / 7.18 acres of vineyard
- East Bluff Reservoir – 6.79 afy / 5.43 acres of vineyard

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XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The proposed agricultural reservoirs are located in an area zoned as Agriculture by the County of San Luis Obispo. The project sites are surrounded by vineyards and seven agricultural reservoirs exist in the immediately surrounding areas. The proposed project was reviewed for consistency with policy and/or regulatory documents relating to the environment and appropriate land use (e.g., County Land Use Ordinance, North County Area Plan, etc.). Referrals were sent to outside agencies to review for policy consistencies (e.g., County Fire/CAL FIRE for Fire Code, APCD for Clean Air Plan, etc.).

Discussion

(a) Physically divide an established community?

The proposed project is located on an existing parcel and would not involve any components that would physically divide the rural community. The project would utilize the existing circulation system and onsite roads for access and would not require the construction of offsite infrastructure. Therefore, there would be *no impact*.

(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project sites are located in areas surrounded by agricultural operations (vineyards) and there are numerous other agricultural reservoirs in the area. The project sites are zoned as Agriculture by the County of San Luis Obispo and no zoning changes are proposed. Agricultural reservoirs are a compatible use for the agriculture designation since they aid in agricultural operations. The project was found to be consistent with standards and policies set forth in the County General Plan, the North County Area Plan, the SLOAPCD Clean Air Plan, and other land use policies for this area. The project would be required to be consistent with standards set forth by County Fire/CAL FIRE and the Public Works Department. Therefore, impacts related to inconsistency with land use and policies adopted to address environmental effects would be *less than significant*.

Conclusion

No significant land use or planning impacts would occur.

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Mitigation

None needed.

XII. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The County Land Use Ordinance provides regulations for development in delineated Energy and Extractive Resource Areas (EX) and Extractive Resource Areas (EX1). The proposed project is not located within an EX or EX1 designation. Based on the California Geological Survey (CGS) Information Warehouse for Mineral Land Classification, the project site is located within an Aggregate Materials study area which covers the majority of the county. The proposed project is located outside of any geologic study areas or extractive resource areas. Active mining operations are located a minimum of 10 miles from the nearest reservoir.

Discussion

(a-b) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

There are no known mineral resources on the project site. Based on the California Geological Survey (CGS) Information Warehouse for Mineral Land Classification, the project sites are not located within any study areas that have identified mineral resources and are not located in close proximity to an active mine (CGS 2015). The closest mine is located at least 10 miles to the southwest of any of the proposed reservoirs. In addition, based on Chapter 6 of the County of San Luis Obispo General Plan Conservation and Open Space Element – Mineral Resources, the project sites are not located within an extractive resource area or an energy and extractive resource area. Therefore, impacts related to preclusion of future extraction of valuable mineral resources would be *less than significant*.

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Conclusion

Due to the lack of valuable minerals in the area, and the lack of a mineral resource recovery designation, the proposed project would not significantly hinder future extraction or availability of valuable mineral resources.

Mitigation

None needed.

XIII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project result in:</i>				
(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The existing ambient noise environment is characterized by light traffic on Shell Creek Road, as well as agricultural equipment from surrounding properties. Noise-sensitive land uses typically include residences, schools, nursing homes, and parks. The nearest existing noise-sensitive offsite land use is a residence located approximately 1.03 miles southeast of the proposed West Bluff Reservoir. The project would not be located within an Airport Review Area and the closest active landing strip, Blech Ranch Airport, a private landing strip, is located 1.5 miles from West Bluff Reservoir, 0.63 miles from East Bluff Reservoir, and 0.67 miles from Foothill B Reservoir.

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Discussion

- (a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The proposed project would not introduce noise-generating equipment for operation of the proposed project and therefore would not generate a permanent increase in ambient noise levels. However, project construction activities would generate short-term construction noise. These activities would be limited to the daytime hours of 7:00 a.m. to 9:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturday or Sunday, in accordance with County construction noise standards (County Code Section 22.10.120.A) and would be located approximately 1.03 miles from any offsite receptor. Construction-related noise would not be substantially different than existing farm equipment uses and would attenuate considerably before reaching offsite receptors. Therefore, impacts related to increases in ambient noise levels would be *less than significant*.

- (b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Operation of the proposed project would not result in groundborne vibration. No construction equipment or methods are proposed that would generate substantial ground vibration (blasting, pile driving, demolition, etc.). Therefore, impacts related to temporary or permanent groundborne vibration would be *less than significant*.

- (c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project site is not located within an airport land use plan and is not located within two miles of a public use airport. Therefore, there would be *no impact*.

Conclusion

No significant long-term change in noise levels would occur. Short-term construction related noise would be limited in nature and duration and would only occur during appropriate daytime hours. Therefore, potential noise impacts would be *less than significant*.

Mitigation

None needed.

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XIV. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

In its efforts to provide for affordable housing, the County currently administers the Home Investment Partnerships Program (HOME) and the Community Development Block Grant (CDBG) Program, which provides limited financing to projects relating to affordable housing throughout the county. The County's Inclusionary Housing Ordinance requires provision of new affordable housing in conjunction with both residential and nonresidential development and subdivisions.

Discussion

(a-b) *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed project proposes construction of three agricultural reservoirs to store water to serve existing agricultural uses. The proposed project does not include any residential uses or structures for human habitation. The project would not require additional employees beyond the existing amount used for the existing agricultural operation. The project would not result in a need for new housing and would not displace existing housing. The project does not propose new roads or infrastructure to undeveloped or underdeveloped areas that would indirectly result in population growth. Therefore, there would be *no impacts*.

Conclusion

No population and housing impacts would occur.

Mitigation

None needed.

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XV. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project area is served by the following public services/facilities:

Police: County Sheriff Location: Templeton (Approximately five miles to the southwest)

Fire: Cal Fire (formerly CDF) Hazard Severity: High Response Time: 5 to 20 minutes

Location: #31 Shandon Station Approximately 5.62 to 6.76 miles to the northwest

School District: Shandon Joint Unified School District.

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Discussion

- (a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Fire protection?

Police protection?

The proposed project proposes construction of three agricultural reservoirs to serve existing agricultural uses and would not generate substantial long-term increases in demand for fire or police protection. The proposed project, along with other projects in the area, would result in a cumulative effect on police and fire protection services. The project's direct and cumulative impacts would be within the general assumptions of allowed use for the subject property that was used to estimate the public facility fees in place. Therefore, impacts would be *less than significant*.

Schools?

Parks?

The proposed project would not result in the need for new housing and would not result in population growth. Therefore, there would be *no impacts* related to school or park facilities.

Other public facilities?

The proposed project would not generate a substantial long-term increase in demand for roads, solid waste, or other public services or utilities. Electrical demands of the project would be negligible and electrical service is available immediately adjacent to the project sites. The proposed project sites would be accessed by existing local and farm roads and would not generate substantial long-term operational trips. Cut and fill material would be balanced onsite and the project would not generate substantial amounts of solid waste requiring disposal. Therefore, potential impacts on public services or utilities would be *less than significant*.

Conclusion

No significant impacts to public services or utilities would occur.

Mitigation

None needed.

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XVI. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The project would be located within privately owned operational agricultural parcels that primarily support existing vineyards.

Discussion

(a-b) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Construction and operation of the proposed reservoir would not have any adverse effects on existing or planned recreational opportunities in the county. The proposed project would not create a need for additional park, natural area, and/or recreational resources. The proposed project would be located on a private agricultural zoned parcel and would not induce population growth that would require increased recreational services and facilities. Therefore, there would be *no impacts*.

Conclusion

No significant impacts to recreational resources would occur.

Mitigation

None needed.

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XVII. TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The County has established the acceptable Level of Service on roads for this rural area as “C” or better. The existing road network in the area including the project’s access street—Shell Creek Road—are operating at acceptable levels. Based on existing road speeds and configuration (vertical and horizontal road curves), sight distance is considered acceptable.

Discussion

- (a) *Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

The proposed project includes construction of an agricultural reservoir for water storage to serve an existing agricultural operation. Short-term construction-related trips would be minimal, and area roadways are operating at acceptable levels and would be able to accommodate construction-related traffic. Long-term maintenance and operational trips would not substantially differ from existing onsite vineyard operations. As a result, the proposed project would have an insignificant long-term impact on existing road service or traffic safety levels. The project does not conflict with adopted policies, plans and programs related to transportation, would not affect air traffic patterns or policies related to public transit, bicycle, or pedestrian facilities. Therefore, impacts would be *less than significant*.

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- (b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

CEQA Guidelines section 15064.3 does not apply until July 1, 2020 and the County has not elected to be governed by the provisions of this section in the interim. Therefore, this threshold does not apply and there is *no impact*.

- (c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The project would not result in any changes to the access road or alterations to the existing driveway approach. Therefore, the project would not substantially increase hazards and would have a *less than significant impact*.

- (d) *Result in inadequate emergency access?*

The project sites access roads are currently approximately 15 feet wide on a nearly level surface which is ample room to accommodate farm equipment, construction vehicles, and emergency vehicles. The project sites would have the highest risk of emergencies occurring construction, which would be temporary. During operation the likelihood of an emergency incident occurring is low due to a lack of structures and infrequency of persons at the project. Therefore, impacts related to emergency access would be *less than significant*.

Conclusion

No significant traffic impacts would occur.

Mitigation

None needed.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Approved in 2014, Assembly Bill 52 (AB 52) added tribal cultural resources to the categories of resources that must be evaluated under CEQA. Tribal cultural resources are defined as either of the following:

- 1) Sites, features, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
 - b. Included in a local register of historical resources as defined in subdivision (k) of California Public Resources Code Section 5020.1.
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of California Public Resources Code Section 5024.1. In applying these criteria for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.

AB 52 consultation letters were sent to four tribes on June 5, 2019: Northern Chumash Tribal Council, Salinan Tribe of San Luis Obispo and Monterey Counties, Xolon Salinan Tribe, and yak tiʔu tiʔu yak tiʔhini. A response was submitted by the Xolon Salinan Tribe on July 10, 2019 requesting to be contacted in the event cultural materials are discovered during grading. No significant sensitive resources were identified.

As noted in Section V. Cultural Resources, the project is located in an area historically occupied by the Obispeño Chumash and Salinan.

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Discussion

- (a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
 - (a-i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*
 - (a-ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

As noted in Section V. Cultural Resources, the Phase I Archaeological Survey prepared by Heritage Discoveries, Inc. concluded that known prehistoric or historic cultural resources were not present within the proposed project area. A literature search and records search further confirmed the absence of known archaeological sites near the study area.

Further, per AB 52, notices regarding the opportunity for tribal consultation were sent on June 5, 2019, to four Native American tribes affiliated with the project area (Northern Salinan, Xolon Salinan, Yak Tityu Tityu Northern Chumash, and the Northern Chumash Tribal Council). A response was submitted by the Xolon Salinan Tribe on July 10, 2019 requesting to be contacted in the event cultural materials are discovered during grading. No significant sensitive resources were identified.

In the unlikely event resources are uncovered during grading activities, implementation of LUO Section 22.10.040 (Archaeological Resources) would be required:

In the event archeological resources are unearthed or discovered during any construction activities, the following standards apply:

A. Construction activities shall cease, and the Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

B. In the event archeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the County Coroner shall be notified in addition to the Department so proper disposition may be accomplished.

There are no known tribal cultural resources within the project area. Therefore, impacts would be *less than significant*.

Conclusion

No significant impacts on tribal cultural resources would occur. In the event of an unanticipated discovery of tribal resources during earth-moving activities, compliance with the LUO would ensure potential impacts would be reduced to *less than significant*.

Mitigation

None needed.

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XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

A fee program has been adopted to address impacts related to public facilities (county) and schools (State Government Code 65995 et seq.). Fees are assessed annually by the County based on the type of proposed development and proportional impact and collected at the time of building permit issuance. Fees are used for the construction as needed to finance the facilities required to serve new development.

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Discussion

- (a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The proposed project would not result in the necessity of new or expanded water, wastewater, electric, natural gas, or telecommunications connections or facilities. Power is currently provided on site through an existing PG&E connection and water would be supplied from an existing well on site. Since no expansion or relocation of facilities would be required for construction or operation of the proposed project, *no impacts* would occur.

- (b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

The proposed project would only see an increase in water usage compared to historical averages of water use on the land during initial filling of the reservoirs. After initial filling, the water usage from the reservoirs would remain unchanged when compared to the historic usage. Since water usage would be consistent with historical use, the impacts from having insufficient water supplies available to serve the project and reasonably foreseeable future development would be *less than significant*.

- (c) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The proposed project would not result in the production of any wastewater and all wastewater during construction would be collected in portable restroom facilities that would be serviced offsite. The project site is not served by a wastewater treatment provider, and the proposed project would have *no impacts* on capacity of a wastewater treatment provider's facilities.

- (d-e) *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Operation of the proposed project would not result in the production of solid waste and therefore would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste. Any waste generated from the construction of the proposed facility would be removed by the contractor and disposed of. The nearest solid waste facility is the Paso Robles Landfill, located near the community of Whitley Gardens, which has a remaining capacity of 4,216,402 cubic yards as of 2017 (CalRecycle 2019). Impacts with regards to solid waste would be *less than significant*.

Conclusion

Portable restrooms would be provided during construction and handled by the portable restroom provider. Solid waste may be generated during construction of the facility and would be removed from the site by the project contractor. No significant impacts related to utilities and service systems would occur, and therefore mitigation is not required.

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Mitigation

None needed.

XX. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The proposed project sites are located in High Fire Hazard Severity Zones and have an average annual windspeed of approximately 6.0 to 8.2 miles per hour (mph) (WeatherSpark 2019). Existing conditions that may exacerbate fire risk include the gently sloping topography in some areas and the moderate average windspeed.

The County of San Luis Obispo Safety Element establishes goals, policies, and programs to reduce the threat to life, structures, and the environment caused by fire. Policy S-13 identifies that new development should be carefully located, with special attention given to fuel management in higher fire risk areas, and that new development in fire hazard areas should be configured to minimize the potential for added danger.

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The California Fire Code provides minimum standards for many aspects of fire prevention and suppression activities. These standards include provisions for emergency vehicle access, water supply, fire protection systems, and the use of fire-resistant building materials.

Discussion

- (a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

The project would not conflict with any regional emergency response or evacuation plan as no structures or other obstacles are proposed that would hinder evacuation or emergency response. Therefore, there would be *no impacts*.

- (b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

The proposed project sites are located in an area of moderate wind, with an average annual wind speed of approximately 4.5 m/s to 5.0 m/s (Office of Energy Efficiency and Renewable Energy 2019). The project sites have abundant fuel, especially during the summer months when vegetation is drier, and has gently sloping topography in some areas, all of which exacerbate fire risk. All of these conditions have resulted in the project sites being classified in a High Fire Hazard Severity Zone. The proposed project would have the highest fire risk during construction as construction vehicles have the ability to spark wildfires when operating machinery around dry vegetation. This risk would be temporary however, and there would be no long-term fire risk from the implementation of the project. Therefore, impacts would be *less than significant*.

- (c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The proposed project sites already have access to all utilities required for their operation and therefore would not require construction of other utilities that could exacerbate fire risk. Furthermore, existing farm roads will be used for access as opposed to construction of new roads for access. Impacts would be *less than significant*.

- (d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

As stated earlier, the project would not result in the construction of structures and employees would rarely be onsite. Therefore, there would be a *less than significant* impact to people and structures in regard to flooding and landslides from post-fire slope instability.

Conclusion

No significant wildfire impacts were identified and therefore project impacts would be *less than significant*.

Mitigation

None needed.

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XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- (a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

As discussed in each resource section above, the project has the potential to impact San Joaquin kit fox and its habitat. Implementation of Mitigation Measures BIO-1 through BIO-11 would reduce impacts to San Joaquin kit fox to less than significant. Therefore, the project would not result in significant impacts to biological resources and would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California

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history or prehistory. Potential impacts to air quality, paleontological resources, and hydrology were also evaluated. Mitigation measures have been proposed to prevent or reduce all potential impacts to less than significant; therefore, impacts would be *less than significant with mitigation*. Refer to Section 3. Air Quality, Section 4. Biological Resources; Section 7. Geology and Soils; and Section 10. Hydrology & Water Quality, for additional information.

- (b) *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Potential cumulative impacts of the proposed project have been analyzed within the discussion of each environmental resource area above. Cumulative impacts associated with the proposed project would be *less than significant with mitigation*.

- (c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Environmental impacts that may have an adverse effect on human beings, either directly or indirectly, are analyzed in each environmental resource section above. In addition, implementation of mitigation measures included in Exhibit B – Mitigation Summary Table would further reduce potential adverse effects on human beings; therefore, impacts would be *less than significant with mitigation*.

Conclusion

With the implementation of the mitigation measures listed in Exhibit B – Mitigation Summary Table, impacts would be reduced to *less than significant with mitigation*.

Initial Study – Environmental Checklist

Exhibit A - Initial Study References and Agency Contacts

The County Planning Department has contacted various agencies for their comments on the proposed project. With respect to the subject application, the following have been contacted (marked with an ☒) and when a response was made, it is either attached or in the application file:

Contacted	Agency	Response
<input type="checkbox"/>	County Public Works Department	Not Applicable
<input type="checkbox"/>	County Environmental Health Services	Not Applicable
<input checked="" type="checkbox"/>	County Agricultural Commissioner's Office	In File**
<input type="checkbox"/>	County Airport Manager	Not Applicable
<input type="checkbox"/>	Airport Land Use Commission	Not Applicable
<input checked="" type="checkbox"/>	Air Pollution Control District	Attached
<input type="checkbox"/>	County Sheriff's Department	Not Applicable
<input checked="" type="checkbox"/>	Regional Water Quality Control Board	None
<input type="checkbox"/>	CA Coastal Commission	Not Applicable
<input checked="" type="checkbox"/>	CA Department of Fish and Wildlife	Attached
<input checked="" type="checkbox"/>	CA Department of Forestry (Cal Fire)	None
<input type="checkbox"/>	CA Department of Transportation	Not Applicable
<input type="checkbox"/>	Community Services District	Not Applicable
<input type="checkbox"/>	Other _____	Not Applicable
<input type="checkbox"/>	Other _____	Not Applicable

** "No comment" or "No concerns"-type responses are usually not attached

The following checked ("☒") reference materials have been used in the environmental review for the proposed project and are hereby incorporated by reference into the Initial Study. The following information is available at the County Planning and Building Department.

<input checked="" type="checkbox"/> Project File for the Subject Application	<input type="checkbox"/> Design Plan
<input checked="" type="checkbox"/> County Documents	<input type="checkbox"/> Specific Plan
<input type="checkbox"/> Coastal Plan Policies	<input checked="" type="checkbox"/> Annual Resource Summary Report
<input checked="" type="checkbox"/> Framework for Planning (Coastal/Inland)	<input type="checkbox"/> Circulation Study
<input checked="" type="checkbox"/> General Plan (Inland/Coastal), includes all maps/elements; more pertinent elements:	<input checked="" type="checkbox"/> Other Documents
<input checked="" type="checkbox"/> Agriculture Element	<input checked="" type="checkbox"/> Clean Air Plan/APCD Handbook
<input checked="" type="checkbox"/> Conservation & Open Space Element	<input type="checkbox"/> Regional Transportation Plan
<input type="checkbox"/> Economic Element	<input checked="" type="checkbox"/> Uniform Fire Code
<input type="checkbox"/> Housing Element	<input checked="" type="checkbox"/> Water Quality Control Plan (Central Coast Basin – Region 3)
<input checked="" type="checkbox"/> Noise Element	<input checked="" type="checkbox"/> Archaeological Resources Map
<input checked="" type="checkbox"/> Parks & Recreation Element/Project List	<input checked="" type="checkbox"/> Area of Critical Concerns Map
<input checked="" type="checkbox"/> Safety Element	<input checked="" type="checkbox"/> Special Biological Importance Map
<input checked="" type="checkbox"/> Land Use Ordinance (Inland)	<input checked="" type="checkbox"/> CA Natural Species Diversity Database
<input checked="" type="checkbox"/> Building and Construction Ordinance	<input checked="" type="checkbox"/> Fire Hazard Severity Map
<input type="checkbox"/> Public Facilities Fee Ordinance	<input checked="" type="checkbox"/> Flood Hazard Maps
<input type="checkbox"/> Real Property Division Ordinance	<input checked="" type="checkbox"/> Natural Resources Conservation Service Soil Survey for SLO County
<input type="checkbox"/> Affordable Housing Fund	<input checked="" type="checkbox"/> GIS mapping layers (e.g., habitat, streams, contours, etc.)
<input type="checkbox"/> Airport Land Use Plan	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Energy Wise Plan	
<input checked="" type="checkbox"/> North County Area Plan/Shandon-Carrizo SA	

Initial Study – Environmental Checklist

In addition, the following project-specific information and/or reference materials have been considered as a part of the Initial Study:

California Department of Conservation (DOC). 2015. Fault Activity Map of California (2010) Available at <<http://maps.conservation.ca.gov/cgs/fam/>> Accessed on: June 3, 2019.

California Department of Conservation (DOC). 2015. CGS Information Warehouse: Regulatory Maps. Available at <<https://maps.conservation.ca.gov/cgs/informationwarehouse/>> Accessed on: June 3, 2019.

California Department of Conservation (DOC). 2016. California Important Farmland Finder. Available at <<https://maps.conservation.ca.gov/DLRP/CIFF/>> Accessed on: June 3, 2019.

California Department of Conservation (DOC). 2016. San Luis Obispo County Important Farmland 2016. Available at <<ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/slo16.pdf>> Accessed on: June 3, 2019.

Kevin Merk Associates, LLC. 2019. San Joaquin Kit Fox Habitat Evaluation for the East Bluff Reservoir, Truesdale Vineyard, San Luis Obispo County, California. February 2019.

Kevin Merk Associates, LLC. 2019. San Joaquin Kit Fox Habitat Evaluation for the Foothill B Reservoir, Truesdale Vineyard, San Luis Obispo County, California. February 2019.

Kevin Merk Associates, LLC. 2019. San Joaquin Kit Fox Habitat Evaluation for the West Bluff Reservoir, Truesdale Vineyard, San Luis Obispo County, California. February 2019.

Monsoon Consultants. 2019. Hydrogeologic Analysis for the proposed "Foothill B" Agricultural Irrigation and Frost Protection Storage Reservoir to be Constructed at Truesdale Ranch Vineyards. January 2019.

Monsoon Consultants. 2019. Hydrogeologic Analysis for the proposed "East Bluff" Agricultural Irrigation and Frost Protection Storage Reservoir to be Constructed at Truesdale Ranch Vineyards. January 2019.

Monsoon Consultants. 2019. Hydrogeologic Analysis for the proposed "West Bluff" Agricultural Irrigation and Frost Protection Storage Reservoir to be Constructed at Truesdale Ranch Vineyards. January 2019.

Office of Energy Efficiency and Renewable Energy. 2012. California – Annual Average Wind Speed at 30m. Available at: <https://windexchange.energy.gov/files/u/visualization/pdf/ca_30m.pdf> Accessed on: June 3, 2019.

Sanderson, Brandon. 2019. RE: SUPPLEMENTAL INFO. Email. June 27, 2019.

San Luis Obispo County Air Pollution Control District (SLOAPCD). 2019. SLO APCD NOA Screening Buffers. Available at <<https://www.google.com/maps/d/viewer?mid=1YAKjBzVkw1bZ4rQ1p6b2OMyvIM&ll=35.66407615333322%2C-120.44668446503107&z=11>> Accessed on June 24, 2019.

State Water Resources Control Board (SWRCB). 2015. GeoTracker. Available at <<http://geotracker.waterboards.ca.gov/>> Accessed on: June 3, 2019.

Initial Study – Environmental Checklist

Exhibit B - Mitigation Summary

The applicant has agreed to incorporate the following measures into the project. These measures become a part of the project description and therefore become a part of the record of action upon which the environmental determination is based. All development activity must occur in strict compliance with the following mitigation measures. These measures shall be perpetual and run with the land. These measures are binding on all successors in interest of the subject property

- AQ-1** In order to reduce criteria pollutant emissions, the applicant shall construct no more than two irrigation reservoirs per quarter (three month period). **Prior to issuance of construction permits for the third reservoir**, the applicant shall demonstrate to the County Department of Planning and Building that construction permits associated with the first and/or second irrigation reservoirs have received final inspection. No more than two construction permits for irrigation reservoirs may be active in any three-month period (from date of issuance of construction permit to final inspection). In the event that the first and/or second irrigation reservoir associated with this project receives a final inspection less than three months after issuance of their respective construction permit, the construction permit for the third irrigation reservoir shall not be issued until three months have passed from the date of issuance of the first reservoir construction permit.
- AQ-2** **Prior to issuance of construction permits**, the following measures related to ROG and NO_x shall be incorporated into the construction phase of the project and shown on all applicable construction plans:
- l) Maintain all construction equipment in proper tune according to manufacturer's specifications;
 - m) Fuel all off-road and portable diesel-powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
 - n) Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
 - o) Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
 - p) Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NO_x exempt area fleets) may be eligible by proving alternative compliance;
 - q) All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit;
 - r) Diesel idling within 1,000 feet of sensitive receptors is not permitted;
 - s) Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
 - t) Electrify equipment when feasible;
 - u) Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,

Initial Study – Environmental Checklist

AQ-3

- v) Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Prior to issuance of construction permits, the following measures related to fugitive dust emissions shall be incorporated into the construction phase of the project and shown on all applicable construction plans:

- n) Reduce the amount of the disturbed area where possible;
- o) Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
- p) All dirt stock pile areas should be sprayed daily as needed;
- q) Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
- r) Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
- s) All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
- t) All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- u) Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- v) All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
- w) Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
- x) Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
- y) All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
- z) The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

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AQ-4 **Prior to issuance of any construction permits**, the applicant shall incorporate Best Available Control Technology (BACT) into the construction phase of the project and shown on all applicable construction plans. The BACT measures shall be reviewed and verified by the SLOAPCD.

BIO-1 **Prior to issuance of grading and/or construction permits**, the applicant shall submit evidence to the County Department of Planning and Building that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:

- g. Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of 16.8 acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area, northwest of Highway 58), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Game (Department) (see contact information below) and the County.

This mitigation alternative (a.) requires that all aspects of this program must be in place before County permit issuance or initiation of any ground disturbing activities.

- h. Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (b.) above can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to “The Nature Conservancy” (see contact information below), would total \$126,000 based on \$2,500 per acre (16.8 acres impacted x 3 acres mitigation per acre impacted x \$2,500 per acre). This fee is calculated based on the current cost-per-unit of \$2,500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; therefore the actual cost may increase depending on the timing of payment. This fee must be paid after the CDFW provides written notification identifying your mitigation options but prior to County permit issuance and initiation of any ground disturbing activities.

- i. Purchase 16.8 credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (c) above can be completed by purchasing credits from the Palo Prieto Conservation Bank (see contact information below). The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance

Initial Study – Environmental Checklist

with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank, and would total \$126,000. This fee is calculated based on the current cost-per-credit of \$2,500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to County permit issuance and initiation of any ground disturbing activities.

BIO-2

Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County Department of Planning and Building. The retained biologist shall perform the following monitoring activities:

- j. **Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction**, the biologist shall conduct a pre-activity (i.e. pre-construction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- k. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BIO-3 through BIO-11. Site-disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason. When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
- l. **Prior to or during project activities**, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact the U.S. Fish and Wildlife Service and the Department for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the U.S. Fish and Wildlife Service/Department determine it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, **before project activities commence**, the applicant must consult with the U.S. Fish and Wildlife Service and the Department (see contact information below). The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

In addition, the qualified biologist shall implement the following measures:

- m. **Within 30 days prior to initiation of site disturbance and/or construction**, fenced exclusion zones shall be established around all known and potential kit fox dens.

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Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:

4. Potential kit fox den: 50 feet
 5. Known or active kit fox den: 100 feet
 6. Kit fox pupping den: 150 feet
- n. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
- o. If kit foxes or known or potential kit fox dens are found on site, daily monitoring during ground disturbing activities shall be required by a qualified biologist.

BIO-3 **Prior to issuance of grading and/or construction permits**, the applicant shall clearly delineate as a note on the project plans, that: *“Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox”*. Speed limit signs shall be installed on the project site **within 30 days prior to initiation of site disturbance and/or construction**.

In addition, **prior to permit issuance and initiation of any ground disturbing activities**, conditions BIO-3 through BIO-11 of the Developer's Statement/Conditions of Approval shall be clearly delineated on project plans.

BIO-4 **During the site disturbance and/or construction phase**, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.

BIO-5 **Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction**, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the county, as well as any related biological report(s) prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.

BIO-6 **During the site-disturbance and/or construction phase**, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes or trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit

Initial Study – Environmental Checklist

fox. Any kit fox so discovered shall be allowed to escape before field activities resume or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.

- BIO-7** **During the site-disturbance and/or construction phase**, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved, or if necessary, be moved only once to remove it from the path of activity, until the kit fox has escaped.
- BIO-8** **During the site-disturbance and/or construction phase**, all food-related trash items such as wrappers, cans, bottles, and food scraps generated shall be disposed of in closed containers only and regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- BIO-9** **Prior to, during and after the site-disturbance and/or construction phase**, use of pesticides or herbicides shall be in compliance with all local, state and federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
- BIO-10** **During the site-disturbance and/or construction phase**, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the U.S. Fish and Wildlife Service and the County by telephone. In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to the Department for care, analysis, or disposition.
- BIO-11** **During the site-disturbance and/or construction phase**, the applicant shall install a temporary wildlife ladder or similar feature approved by the County within the reservoir that would enable wildlife species to exit the reservoir. The ladder or similar feature shall remain in place until the permanent perimeter fence is constructed and no wildlife species is present within the reservoir. Once the pond has been constructed, a permanent wildlife ladder or similar feature, or an exclusionary feature such as smaller gauge mesh material or fencing around the bottom of the perimeter fence, shall be installed to prevent small wildlife from entering and/or getting trapped in the pond area. This measure shall be shown on all applicable grading and construction plans.
- GEO-1** Prior to issuance of construction permits, the applicant shall demonstrate compliance on the grading plans with all recommendations of the Geotechnical Engineering Report prepared by Mid-Coast Geotechnical, Inc. (2018) for the project. During project construction and prior to final inspection, the applicant shall implement and comply with all recommendations of the Geotechnical Engineering Report prepared by Mid-Coast Geotechnical, Inc. (2018) for the project.

Initial Study – Environmental Checklist

- GEO-2** In the event paleontological resources are encountered during ground-disturbing activities, activities in the immediate area of the find shall be halted and a qualified paleontologist shall be retained to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology.
- HYD-1** Prior to issuance of construction or grading permits, the applicant shall submit a revised On-Site Agricultural Offset Clearance form that demonstrates a forfeiture of water use/planting rights as follows:
- Foothill B Reservoir – 7.95 afy / 6.36 acres of vineyard
 - West Bluff Reservoir – 8.97 afy / 7.18 acres of vineyard
 - East Bluff Reservoir – 6.79 afy / 5.43 acres of vineyard

Young L. Choi

From: Sanderson, Brandon@Wildlife <Brandon.Sanderson@wildlife.ca.gov>
Sent: Thursday, June 27, 2019 1:53 PM
To: Young L. Choi
Subject: [EXT]RE: SUPPLEMENTAL INFO: PMTG2019-00017, PMTG2019-00018, & PMTG2019-00019 BRODIAEA INC C/O Grapevine Land Mgmt LLC, North County E-Referral, Major Grading Permits (3 total), Shandon
Attachments: PMTG2019-00017 SJKF Habitat Eval for East Bluff Reservoir_rev.cdfw.6.27.19.pdf; PMTG2019-00018 SJKF Habitat Eval West Bluff Reservoir_rev.cdfw.6.27.19.pdf; PMTG2019-00019 SJKF Hab Eval Foothill B Reservoir_rev.cdfw.6.27.19.pdf; hab eval guidelines.pdf

ATTENTION: This email originated from outside the County's network. Use caution when opening attachments or links.

Young,

In review of the kit fox evaluations CDFW revised the habitat characteristics of the Project sites, as annual grassland, to reflect the preexisting condition of the site prior to habitat being cleared for Project consideration. Based on the Kit Fox Habitat Evaluation Guidelines (attached), in cases where there are questions as to land use history, the project proponent will be asked to provide proof that this land had been recently, or is currently, in cultivation (i.e. receipts from crop sales or similar documents). These revisions increase the scores and therefore the mitigation ratios for the Projects to 3:1 which reflects the standard mitigation ratio for the Project areas. Please contact me with further questions.

Than you,

-Brandon



Brandon Sanderson

Environmental Scientist
Habitat Conservation Planning
3196 S. Higuera St., Suite A
San Luis Obispo, CA 93401
805-594-6141

Brandon.Sanderson@wildlife.ca.gov
<http://www.wildlife.ca.gov/>

From: Mail for PL_Referrals Group <plreferrals@co.slo.ca.us>
Sent: Wednesday, June 5, 2019 1:24 PM
To: Sanderson, Brandon@Wildlife <Brandon.Sanderson@wildlife.ca.gov>; Moua, Linda@Wildlife <Linda.Moua@Wildlife.ca.gov>; Paulson, Sarah@Wildlife <Sarah.Paulson@wildlife.ca.gov>
Cc: Young L. Choi <ychoi@co.slo.ca.us>
Subject: SUPPLEMENTAL INFO: PMTG2019-00017, PMTG2019-00018, & PMTG2019-00019 BRODIAEA INC C/O Grapevine Land Mgmt LLC, North County E-Referral, Major Grading Permits (3 total), Shandon

COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Hilary Brown
AA III – [Current & Environmental Planning](#)
(p) 805-788-2009
hbrown@co.slo.ca.us

From: Mail for PL_Referrals Group
Sent: Tuesday, June 04, 2019 4:55 PM
To: Young L. Choi <ychoi@co.slo.ca.us>
Cc: 'brandon.sanderson@wildlife.ca.gov' <brandon.sanderson@wildlife.ca.gov>; Linda Moua CDFW <Linda.Moua@wildlife.ca.gov>; Sarah Paulson CDFW <Sarah.Paulson@wildlife.ca.gov>; Alyssa Roslan <aroslan@co.slo.ca.us>; Andrew Mutziger <amutziger@co.slo.ca.us>; Jackie Mansoor <JMansoor@co.slo.ca.us>
Subject: PMTG2019-00017, PMTG2019-00018, & PMTG2019-00019 BRODIAEA INC C/O Grapevine Land Mgmt LLC, North County E-Referral, Major Grading Permits (3 total), Shandon

County of San Luis Obispo
Department of Planning & Building

PMTG2019-00017, PMTG2019-00018, & PMTG2019-00019 BRODIAEA INC C/O Grapevine Land Mgmt LLC, North County E-Referral, Major Grading Permits (3 total), Shandon
APN(s): APN(s): 037-311-025; 037-311-029; 037-291-037

This application was recently filed with the Planning Department for review and approval. Because the proposal may be of interest or concern to your agency or community group, we are notifying you of the availability of a referral on the project.

[DIRECT LINK to Referral Package](#)

ALL PROJECT REFERRALS (Sorted By AREA – Coastal, North, South, Countywide):
www.slocounty.ca.gov/PlanningReferrals

Community Advisory Groups: You will want to contact the applicant and/or agent for the project to request a presentation to your group, or simply to answer questions about the project. The telephone number and address for the applicant/agent are provided in the link below.

Please comment on all issues associated with this project **within 14 days** of receiving this e-mail

(Community Advisory Groups: please respond within 60 days)

Direct your comments to the project manager(s):

Young Choi (805-788-2086 or ychoi@co.slo.ca.us)

Referral Response:

As part of your response to this referral, please consider the following questions:

Are there significant concerns, problems or impacts in your area of review?

If Yes, please describe the impacts along with any recommendations to reduce the impacts in your response.

If your community has a "vision" statement in the Area Plan - does the community feel this project helps to achieve that vision? If No, please describe.

What does the community like or dislike about the project or proposal?

Is the project compatible with surrounding development, does it fit in well with its surroundings? If No, are there changes in the project that would make it fit in better?

Does the community believe the road(s) that provide access to the site is(are) already overcrowded?

Does the community wish to have a trail in this location?

If the proposal is a General Plan Amendment, does the community feel the proposed change would encourage other surrounding properties to intensify, or establish intense uses that would not otherwise occur?

Please feel free to include information or questions other than those listed above. You may also choose to respond that you have no comments regarding the proposal.

For general referral questions or to update your agency/department's contact (referral recipient) information, please contact:

Hilary Brown (805-788-2009 or hbrown@co.slo.ca.us)



Air Pollution Control District San Luis Obispo County

Via Email

June 18, 2019

Young Choi
County of San Luis Obispo Department of Planning & Building
976 Osos Street, Room 300
San Luis Obispo, CA 93408
ychoi@co.slo.ca.us

SUBJECT: APCD Comments Regarding the Brodiaea Inc. C/O Grapevine Land
Management Ag Retention Ponds (PMTG2019-00017, PMTG2019-00018, &
PMTG2019-00019)

Dear Mr. Choi:

Thank you for including the San Luis Obispo County Air Pollution Control District (APCD) in the environmental review process. We have completed our initial review of the proposed project located near 3880 Shell Creek Road in Shandon.

The project proposes three Major Grading Permits for construction of three separate agricultural reservoirs that are to be used for irrigation and frost protection. These proposed reservoirs are located on three separate APNs within the Shandon-Carrizo Planning Area (037-311-025, 037-311-029, and 037-291-037). The proposed ponds are located at various sites along Shell Creek Road, one of which is 3880 Shell Creek Road. Two of the three reservoirs are approximately 48 acre-feet each, which would require a total volume of 187,166 cubic yards of cut and fill, resulting in a disturbance area of about 11.4-acres. The third proposed reservoir is 49-acre-feet in size and requires a total volume of 88,000 cubic yards of cut and fill, resulting in an additional disturbed area of 5.18-acres. In total, major grading of all three agricultural reservoirs would involve 275,166 cubic yards of cut and fill earthwork, resulting in a disturbed area of approximately 16.6-acres. Each pond's construction is estimated to last anywhere from 4-6 weeks and would be constructed one at a time, for an overall construction duration of 12-18 weeks. Additionally, access to each reservoir is by unpaved dirt roads and no construction of driveways is proposed.

The following are APCD comments that are pertinent to this project.

GENERAL COMMENTS

As a commenting agency in the California Environmental Quality Act (CEQA) review process for a project, the APCD assesses air pollution impacts from both the construction and

operational phases of a project, with separate significant thresholds for each. **Please address the action items contained in this letter that are highlighted by bold and underlined text.**

CONSTRUCTION PHASE

Construction Phase Impacts - Insufficient Information

The APCD accomplished a construction phase screening assessment using Table 2-2 in the APCD's [CEQA Air Quality Handbook](#) (April 2012). The screening evaluation failed and therefore the **APCD recommends an air quality assessment be accomplished and be sent to the APCD for review and approval. The assessment needs to quantify the project's air quality impacts and incorporate mitigation if impacts are above the APCD's thresholds** in Table 2-1 of the [CEQA Air Quality Handbook](#) (April 2012). Construction phase mitigation measures for criteria pollutant, diesel particulate matter, and fugitive dust impacts that exceed APCD thresholds can be found in Sections 2.3, 2.4, and 2.5 of the CEQA Handbook. The APCD recommends the use of the current [CalEEMod model](#) to accomplish the air quality assessment. Alternatively, the applicant could use a spreadsheet model that assesses the impacts from this kind of earth work.

At a minimum, the construction phase air quality assessment needs to document the following information/assumptions that were used in the modeling:

- Area of disturbance;
- An estimation of the number and type of construction equipment operating throughout the construction phase of the project;
- Identify sensitive receptors within 1,000 feet of construction boundary (see Section 2.1.1 in the [CEQA Air Quality Handbook](#) (April 2012);
- If the project includes cut and fill, hauling (on-site or off-site), identify fleet mix, hauling route (must minimize sensitive receptor impact) and number of trips per day;
- Timeframe for the operation of construction equipment during the project, which includes:
 - Estimated construction schedule for all phases including anticipated phase overlaps;
 - An estimation of the number of daily operating hours for the equipment; and
 - An estimation of equipment that would operate simultaneously on a given day.

Construction Permit Requirements

Based on the information provided, we are unsure of the types of equipment that may be present during the project's construction phase. Portable equipment, 50 horsepower (hp) or greater, used during construction activities may require California statewide portable equipment registration (issued by the California Air Resources Board) or an APCD permit.

The following list is provided as a guide to equipment and operations that may have permitting requirements but should not be viewed as exclusive. For a more detailed listing, refer to the Technical Appendices, page 4-4, in the [CEQA Air Quality Handbook](#) (April 2012):

- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;
- Electrical generation plants or the use of standby generators;
- Internal combustion engines;

- Rock and pavement crushing;
- Unconfined abrasive blasting operations;
- Tub grinders;
- Trommel screens; and
- Portable plants (e.g. aggregate plant, asphalt batch plant, concrete batch plant, etc).

To minimize potential delays, prior to the start of the project, please contact the APCD Engineering & Compliance Division at 805-781-5912 for specific information regarding permitting requirements.

Developmental Burning

APCD Rule 501 prohibits developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the APCD Engineering & Compliance Division at 805-781-5912.

OPERATIONAL PHASE

Operational Permit Requirements

Based on the information provided, we are unsure of the types of equipment that may be present at the site. Operational sources may require APCD permits. The following list is provided as a guide to equipment and operations that may have permitting requirements but should not be viewed as exclusive. For a more detailed listing, refer to the Technical Appendix, page 4-4, in the [CEQA Air Quality Handbook](#) (April 2012):

- Stationary or portable agricultural irrigation pump engines that are 50 hp or greater;
- Other stationary or portable internal combustion engines; and
- Electrical generation plants or the use of standby generators.

Most facilities applying for an Authority to Construct or Permit to Operate with stationary diesel engines greater than 50 hp, should be prioritized or screened for facility wide health risk impacts. A diesel engine-only facility limited to 20 non-emergency operating hours per year or that has demonstrated to have overall diesel particulate emissions less than or equal to 2 lb/yr does not need to do additional health risk assessment. **To minimize potential delays, prior to the start of the project, please contact the APCD Engineering & Compliance Division at 805-781-5912 for specific information regarding permitting requirements.**

Again, thank you for the opportunity to comment on this proposal. If you have any questions or comments, feel free to contact me at (805) 781-5912.

Sincerely,



JACKIE MANSOOR
Air Quality Specialist

JNM/NLT/jjh

cc: Matt Turrentine, Applicant
Dora Drexler, APCD

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Truesdale Vineyard Foothill B Reservoir

APN 037-311-029

Vicinity Map

Project Location

Address: Shell Creek Road, Shandon, CA 93461
APN 037-311-029
Legal Description
Lot size Acres: 229.87
Zoning AG
Project Description: Construct a 48 ac-ft Agricultural Reservoir for irrigation purposes

Kit Fox Special Requirements

- Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County Division of Environmental and Resource Management. The retained biologist shall perform the following monitoring activities:
 - Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, the biologist shall conduct a pre-activity (i.e. pre-construction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed, as applicable, to address any kit fox activity within the project limits.
 - The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, clearing, excavation, stock piling of dirt or removal of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-3 through BR-11. Site-disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-2-c3). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
 - Prior to or during project activities, if any observations are made of San Joaquin kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. horn or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact the U.S. Fish and Wildlife Service and the Department for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the U.S. Fish and Wildlife Service/Department determine it is appropriate to resume work. If incidental take of kit fox during project activities is possible, before project activities commence, the applicant must consult with the U.S. Fish and Wildlife Service and the Department (see contact information below). The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities. In addition, the qualified biologist shall implement the following measures:
 - Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey lath/s or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 - Potential kit fox den: 50 feet
 - Known or active kit fox den: 100 feet
 - Kit fox pupping den: 150 feet
 - All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
 - If kit foxes or known or potential kit fox dens are found on site, daily monitoring during ground disturbing activities shall be required by a qualified biologist.
 - Prior to issuance of grading and/or construction permits, the applicant shall delineate as a note on the project plans that "Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox." Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction. In addition, prior to permit issuance and initiation of any ground disturbing activities, conditions BR-3 through BR-11 of the Developer's Statement/Conditions of Approval shall be clearly delineated on project plans.
 - During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.
 - Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the county, as well as any related biological reports prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
 - During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes or trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
 - During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved, or if necessary, be moved only once to remove it from the path of activity, until the kit fox has escaped.
 - During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps generated shall be disposed of in closed containers only and regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
 - Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, state and federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
 - During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the U.S. Fish and Wildlife Service and the Department by telephone (see contact information below). In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to the Department for care, analysis, or disposition.
 - During the site-disturbance and/or construction phase, the applicant shall install a temporary wildlife ladder or similar feature approved by the County within the reservoir that would enable wildlife species to exit the reservoir. The ladder or similar feature shall remain in place until the permanent perimeter fence is constructed and no wildlife species is present within the reservoir. This measure shall be shown on all applicable grading and construction plans.

Table 1705.6

Required Verification and Inspection of Soils

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed
1. Verify materials below embankments are adequate to achieve the design capacity		X
2. Verify excavations are extended to proper depth and have reached proper material.	—	X
3. Perform classification and testing of controlled filled materials.	—	X
4. Verify use of proper materials, densities and lift thickness during placement and compaction of controlled fill.	X	
5. Prior to placement of controlled fill, observe subgrade		X

Mid-Coast Geotechnical shall perform all special inspections for the earthwork for this project.

Call 24 hours prior to inspection to set up an appointment.

Scope of Work

The work consists of constructing a new lined 48 acre-foot reservoir 22' deep specifically for irrigation and frost control purposes. Any off-site transfer and/or any other use of the reservoir water is prohibited. All areas to receive fill shall be excavated a minimum of three feet, the exposed surface scarified and moisture conditioned, then recompact to 90% relative compaction. The intent is to balance the earthwork with no import or export. The completed interior slopes shall be fine graded and all rocks removed. A 40 mil HDPE geomembrane liner will then be installed on the slopes. The liner will be installed per manufacturer's recommendations by a company specializing in liner installation. A 6 foot non-climb fence will be built around the reservoir perimeter. The sources of water are existing pvc waterlines from existing wells and reservoirs and no surface water shall enter the reservoir. Valving, filters and pumps will be installed after the reservoir is constructed by the Irrigation Contractor and are not part of this permit. This contract is for stubbing one 12"x0.250 wall thickness pipe through the exterior slope for future connection to the fill and transfer lines by an Irrigation Contractor. This pipe shall have concrete slurry anti-seep collars. A 15" PVC Drop Pipe Outlet Structure will serve as an emergency overflow in the event the high water limit switch fails and is sized to prevent the reservoir from overtopping. Access to the reservoir is by existing dirt farm roads. No driveways will be constructed. The existing farm field sheet flows across the location from 2% to 9%. An earthen swale will be constructed around two sides of the perimeter to keep any flow away from the toe of the fill slopes. No electrical work nor utility work is included in this permit.

Benchmark and Basis of Bearing

Benchmark is a metal Triangulation Monument on hill above reservoir

N 2402435.13

E 5865106.77

Elev = 1454.72

Basis of Bearing is line between control points 709 and 711

Pre-construction Meeting

Prior to construction a pre-construction meeting is required with the inspector to go over the special inspection reporting requirements, final and progress reports, & erosion control. Call SLO County Building Department 781-5600, North SLO County Inspector, 781-2076

Reports Required

Upon the completion of Construction the Engineer of Record shall prepare and submit to the County of SLO a Final Report stating that the work is in substantial conformance with the approved plans. Progress Reports are required by the Engineer of Record to the grading inspection as determined during the pre-construction meeting.

Special Inspections

- No special inspections will be required for this project
- Mid-Coast Geotechnical shall inspect all earthwork and normal concrete and slurry placement. Contact Dane Jensen at 461-0965
- The Engineer of Record shall inspect the installation of the pond liner. Contact Tom Howell at 925-5311

Project Information

Contacts:

Owner:

Matt Turrentine
444 Higuera St Suite 202
San Luis Obispo, CA 93401
805 312-1828

Engineer:

1812 N Vine
Santa Maria, CA 93454
805 720-1669

Geotechnical Engineer: Mid Coast Geotechnical, Inc

Dane Jensen
3124 El Camino Real
Atascadero, CA 93423-2220
805 461-0965

Engineer's Certificate

I, Tom A Howell, RCE 27037, Engineer of Record, hereby certify that these plans are in

accordance with the following codes: _____ Date: _____

2013 California Energy Codes
2016 California Building Code Vols 1 & 2
2016 California Electrical Code
2016 California Energy Code
2016 California Fire Code
2016 California Green Building Code
2016 California Mechanical Code
2016 California Plumbing Code
2016 Reference Standards Code
County Building and Construction Ordinance Title 19
County Coastal Zone Land Use Ordinance Title 23
County Fire Code Ordinance Title 16
County Land Use Ordinance Title 22

Geotechnical Engineer's Certificate

I have reviewed the plans and specifications and have found them to be in

substantial conformance with the recommendations as found in my Soil Investigation.

Date: _____

Pond Report

Top of dam elevation: 1180.85
Bottom of pond elevation: 1158.85
Top of dam width: 14.00
Cut Slope: 2.00:1
Fill Slope: 2.50:1
Interior Slope: 2.50:1

Pond Earthwork Volumes

Fill Factor: 1.30
Total cut : 46,783 C.Y.
Total Fill: 46,800 C.Y.
Area cut: 135,060 S.F.
Area Fill: 113,431 S.F.
Total Area: 248,491 S.F. 5.70 Acres

Sheet Index

Sheet 1: Front sheet, notes and title

Sheet 2: Overall Layout & Existing Contours

Sheet 3: Reservoir Grading Plan

Sheet 4: Details

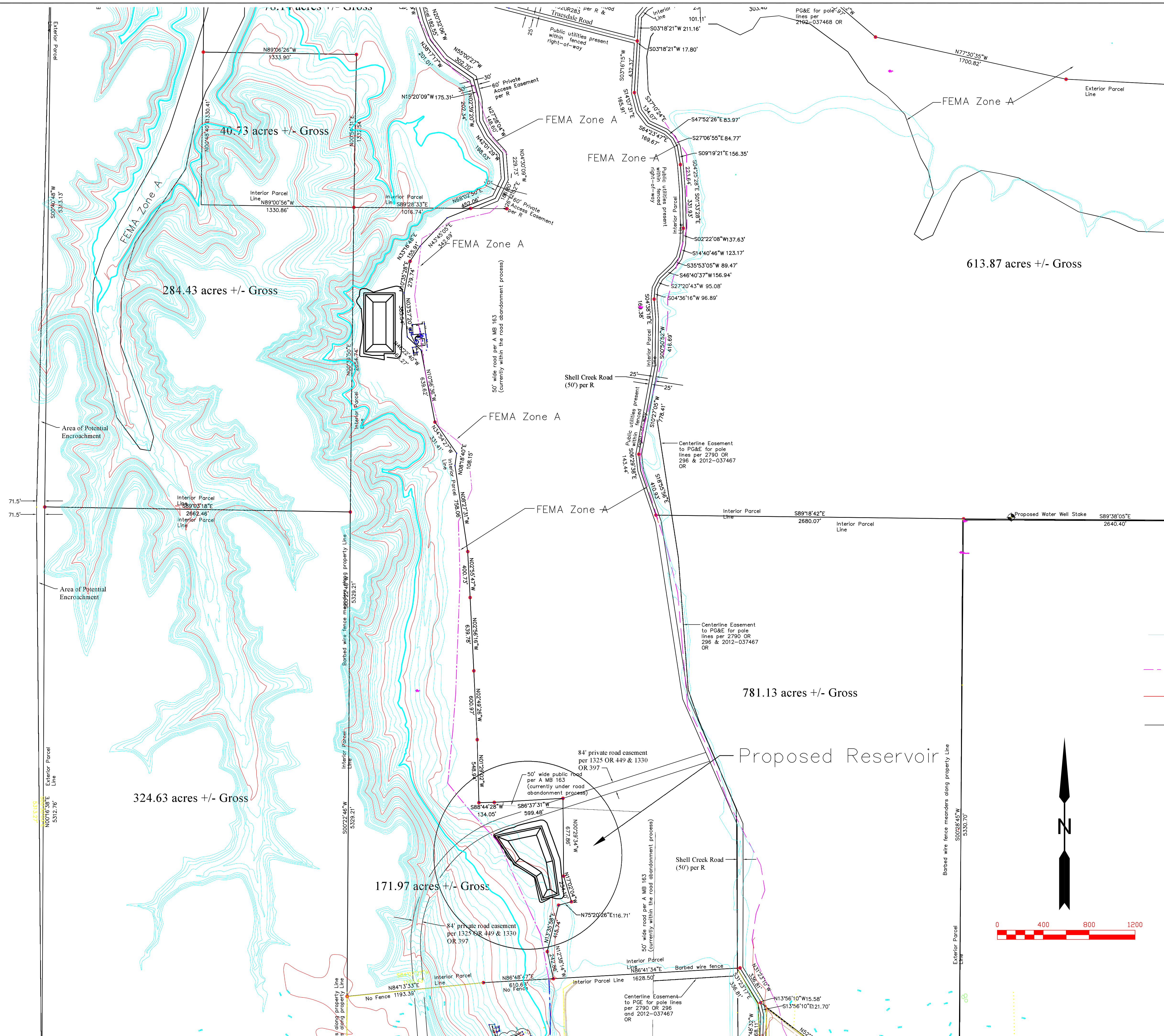
Sheet 5: Details, BMP Details

Sheet 6: Erosion & Sedimentation Plan



Foothill B Reservoir

DRAWN TH	DATE 6/27/18	Cover Sheet 48 Ac-ft
APPROVED	DATE	Shell Creek Rd Shandon
SCALE	SHEET 1 of 6	PROJECT NO.



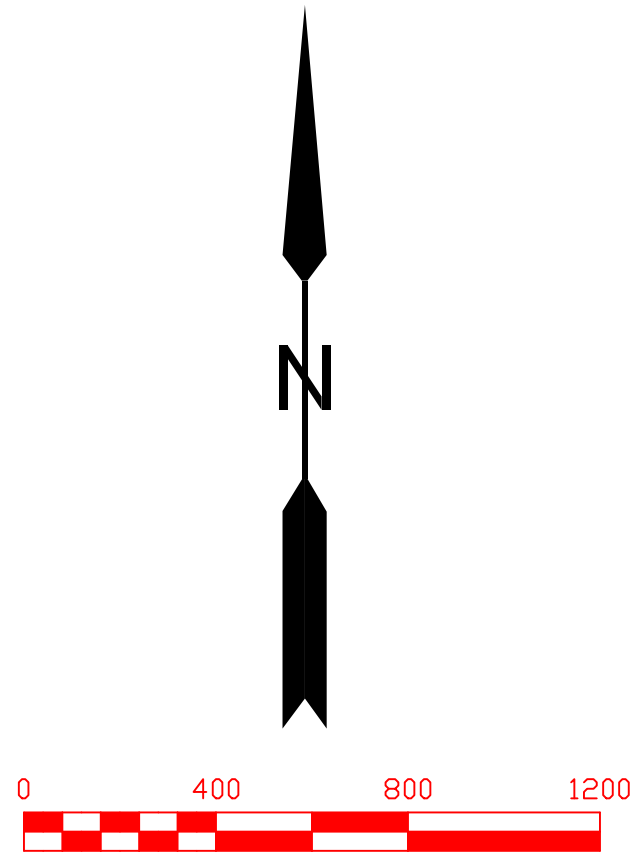
Legend

Existing Contour **988**

Flood Hazard Limit

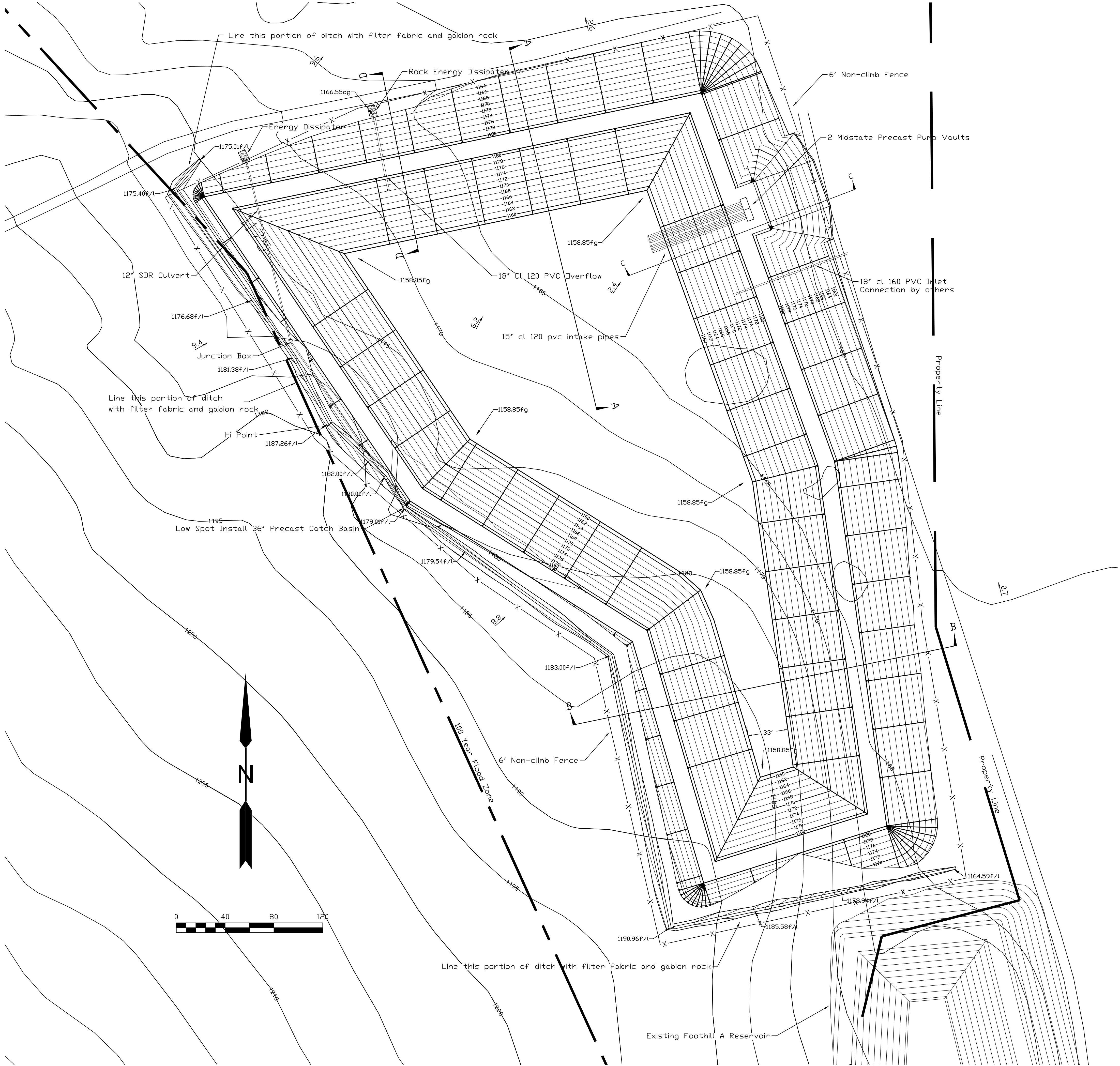
Property Line

Easement



Truesdale Vineyard

DRAWN TH	DATE 6/27/18	<i>Foothill B Reservoir Overall Map</i>
APPROVED	DATE	
SCALE 1' = 400'	SHEET 2 of 6	PROJECT NO.



Pond Report

Top of dam elevation: 1180.85
Bottom of pond elevation: 1158.85
Top of dam width: 14.0
Cut Slope: 2:00:1
Fill Slope: 2:50:1
Interior Slope: 2:50:1

Pond Earthwork Volumes

Fill Factor: 1.30
Total cut: 46,783 C.Y.
Total fill: 46,779 C.Y.
Area in Cut: 137,154 S.F.
Area in Fill: 109,246 S.F.
Total Disturbed Area: 246,400 S.F. 5.66 Acres

Pond Storage Volumes

Water Elev	Storage(AcreFt)	(Gallons)	Area(Acre)
1158.85	0.00	0.0	1.535
1160.85	3.22	1,050,261	1.690
1162.85	6.76	2,203,420	1.850
1164.85	10.62	3,462,315	2.014
1166.85	14.82	4,829,785	2.183
1168.85	19.36	6,308,667	2.356
1170.85	24.24	7,901,800	2.534
1172.85	29.49	9,612,021	2.716
1174.85	35.11	11,442,169	2.902
1176.85	41.10	13,395,082	3.092
1178.85	47.48	15,473,597	3.287
1180.85	54.25	17,680,554	3.486

Control Points

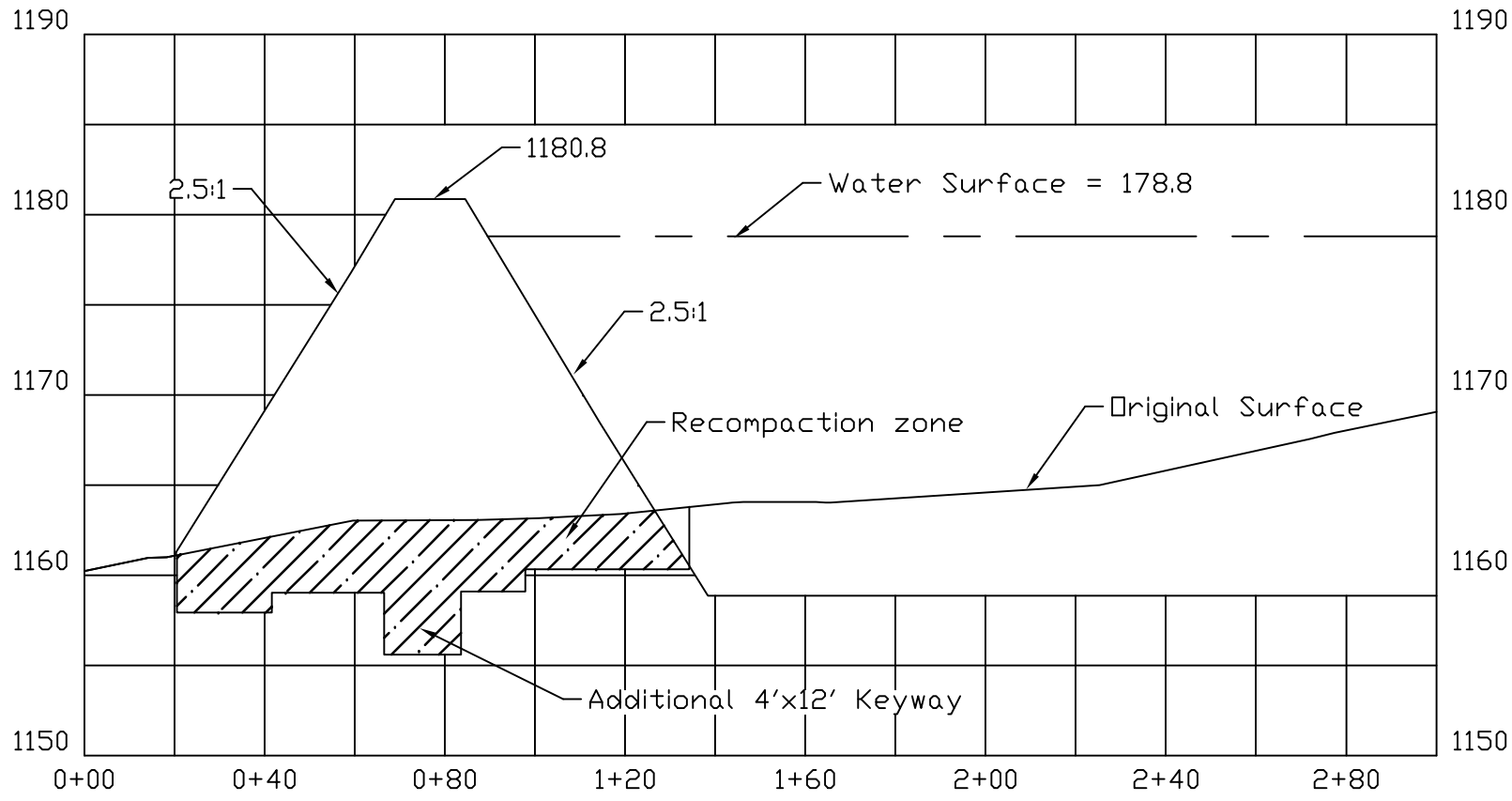
Point	Northing	Easting	Elevation	Description
700	2409672.680	5866705.170	1147.86	CP Pole
701	2413916.980	5865358.440	1120.25	CP North
702	2414354.670	5862822.310	1116.80	AT DLD
703	2414781.210	5861623.650	1116.83	AT 1
704	2411728.430	5868883.220	1129.75	AT 2
705	2409594.980	5873872.510	1146.48	AT 3
706	2414054.050	5869006.970	1162.17	AT
707	2406328.530	5864763.830	1188.08	AT 4
708	2398023.740	5863718.700	1654.30	CP
709	2402435.340	5865106.770	1454.72	CP Triangulation
710	2402579.130	5862826.780	1423.45	AT 5
711	2407534.300	5869504.050	1367.38	CP Triangulation
712	2407807.310	5869532.610	1346.21	AT 7
714	2398023.790	5863718.740	1654.13	CP Spike
715	2395882.570	5862761.920	1581.34	AT 6
716	2398100.950	5866172.700	1192.60	Monument
717	2398094.570	5866118.750	1193.97	AT 8
718	2402446.480	5869483.080	1320.37	AT 9
719	2402622.190	5872356.900	1487.86	AT 10

Notes:
1. Contours obtained from an aerial survey performed by Golden State Aerial Surveys, Inc dated May 14, 2014.

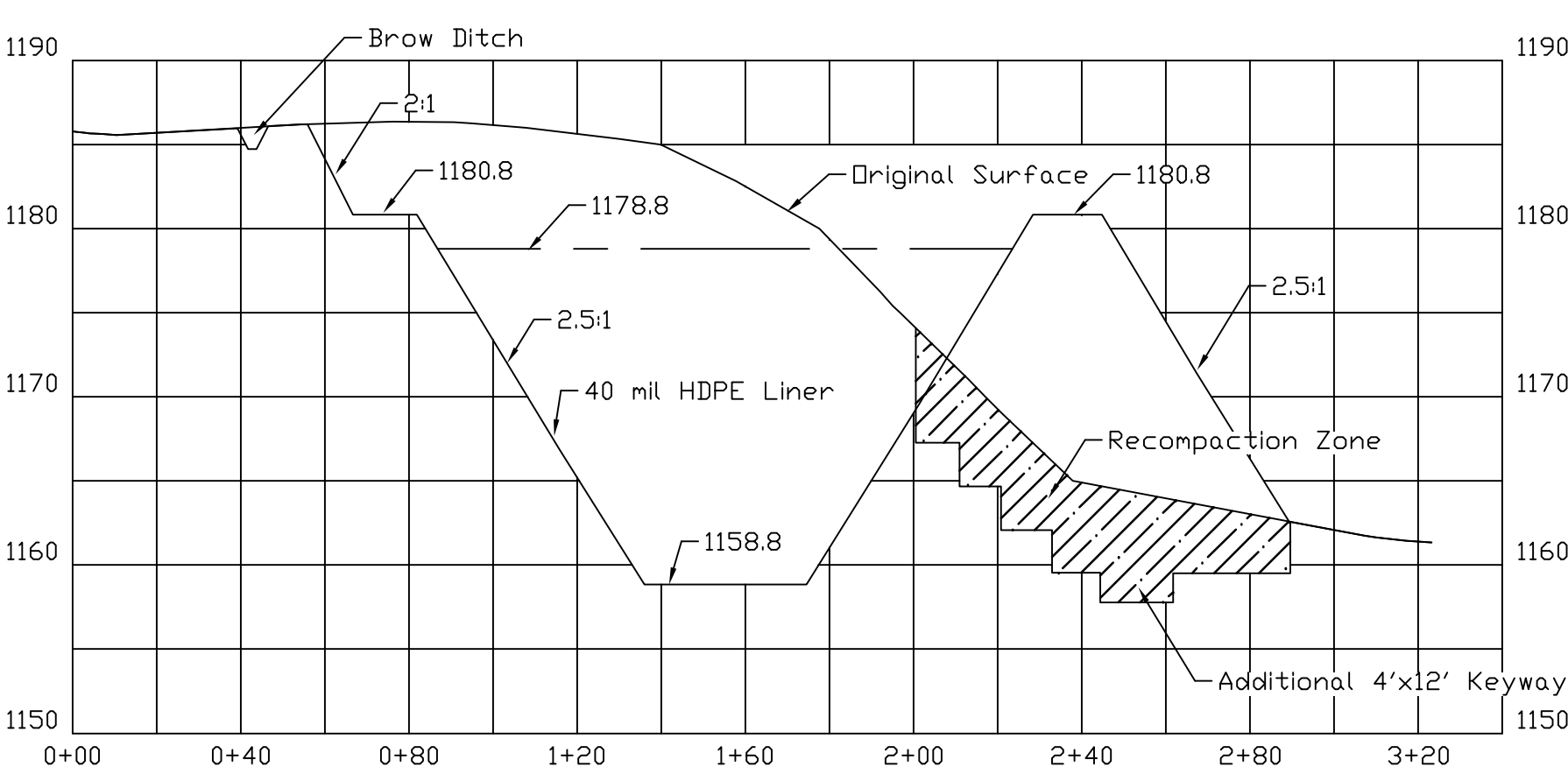


Truesdale Vineyard		
DRAWN TH	DATE 6/27/19	Foothill B Reservoir Grading Plan
APPROVED	DATE	
SCALE 1"=40'	SHEET 3 of 6	PROJECT NO.

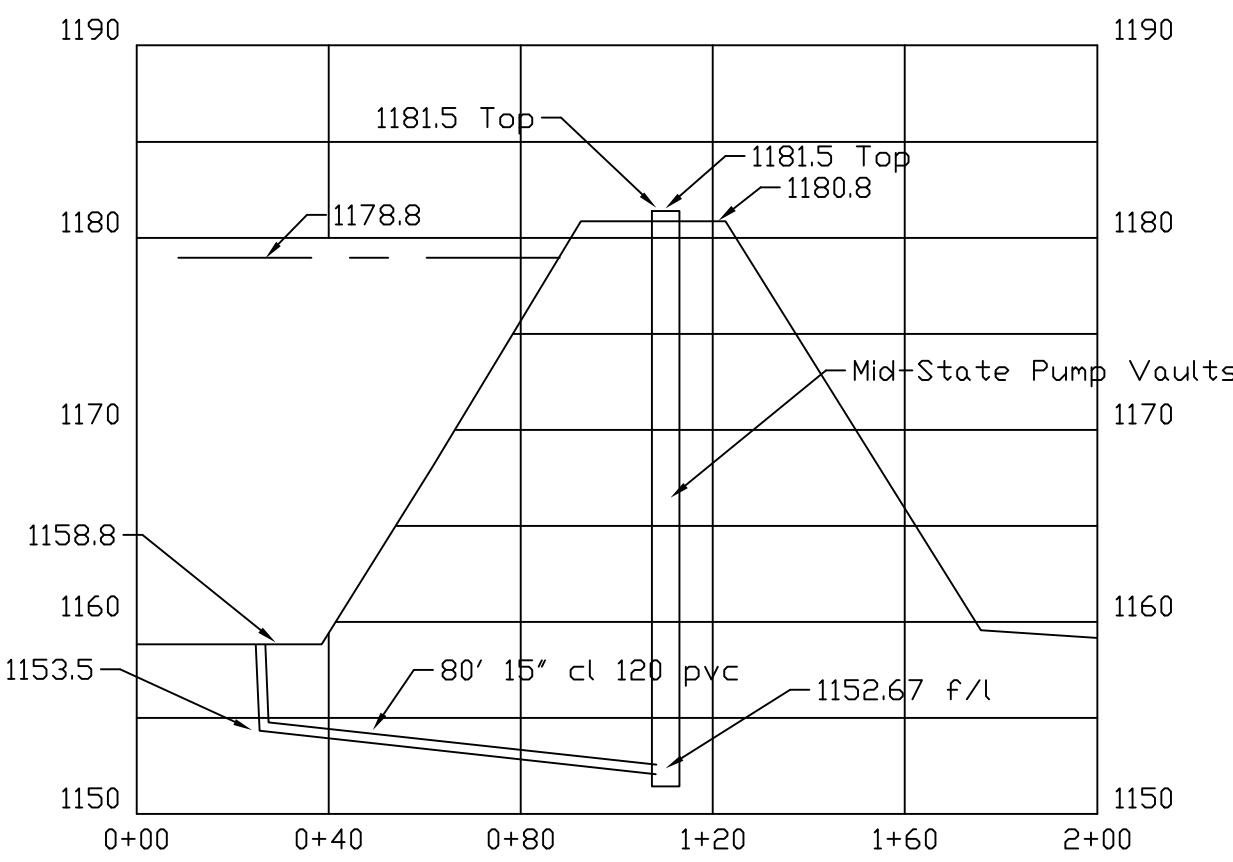
Section A-A



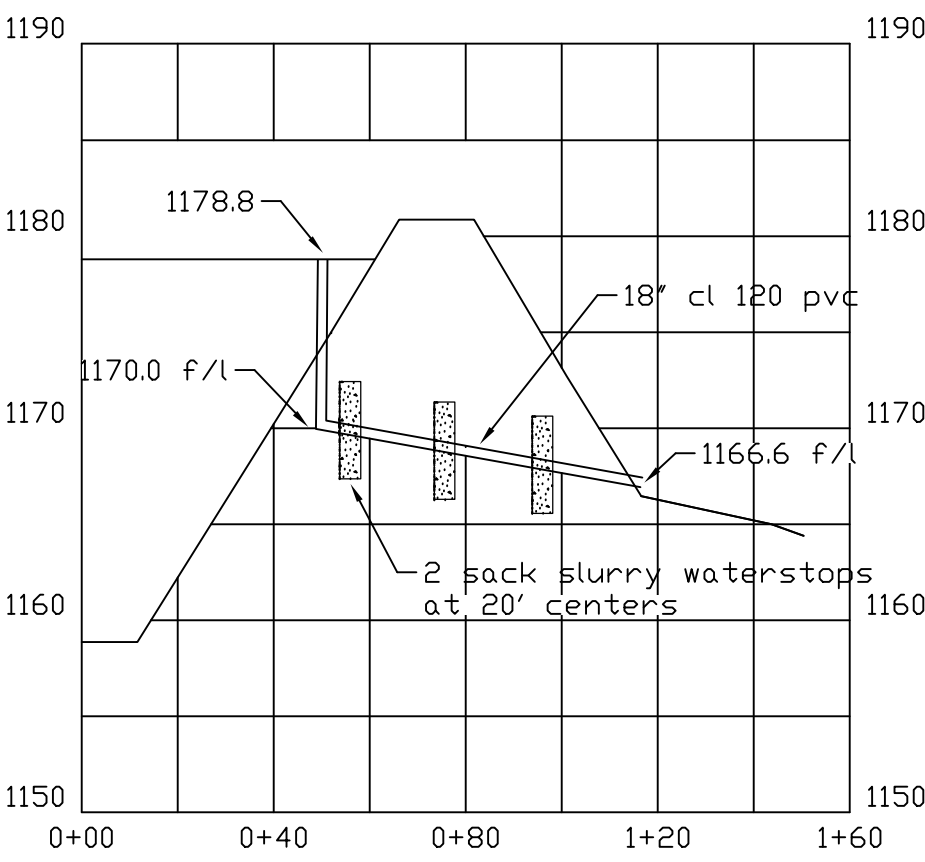
Section B-B



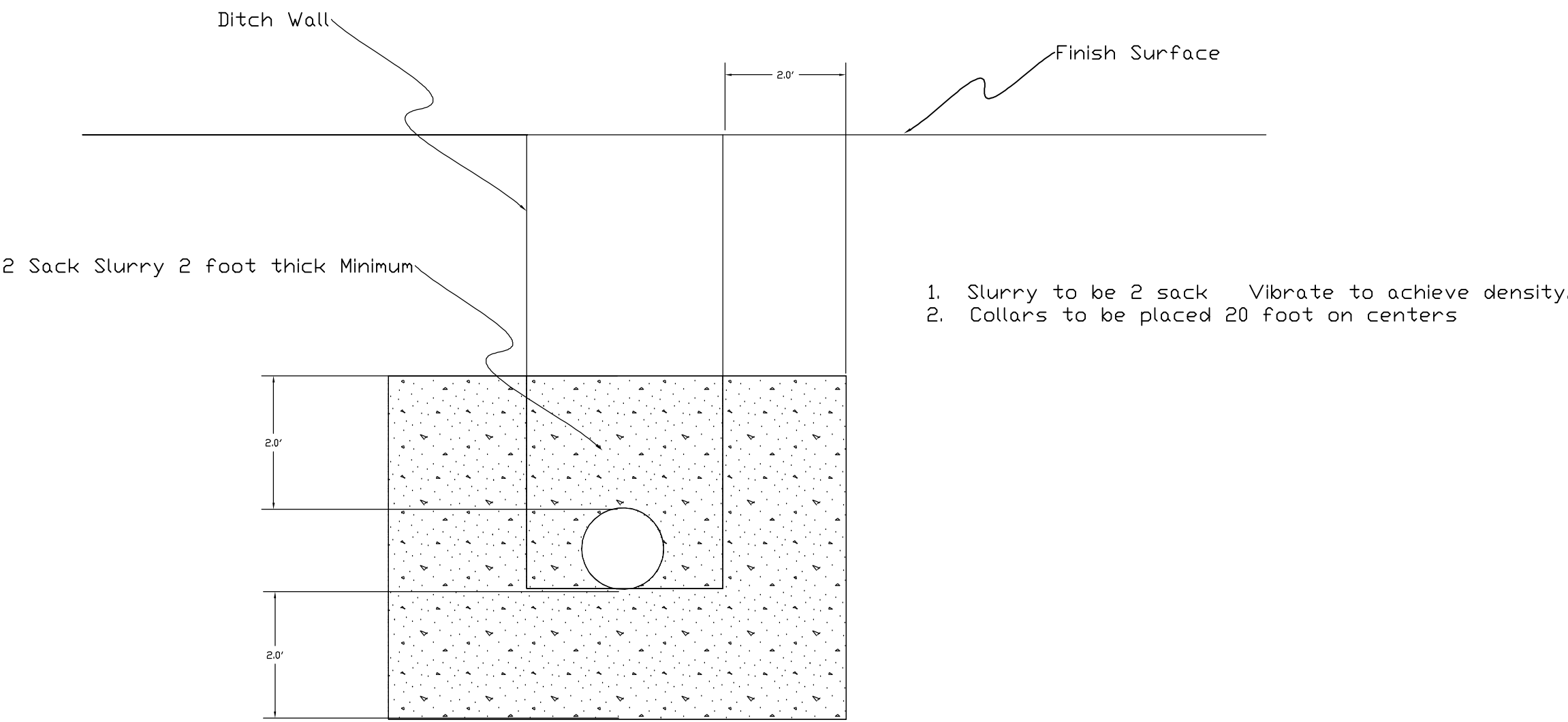
Section C-C



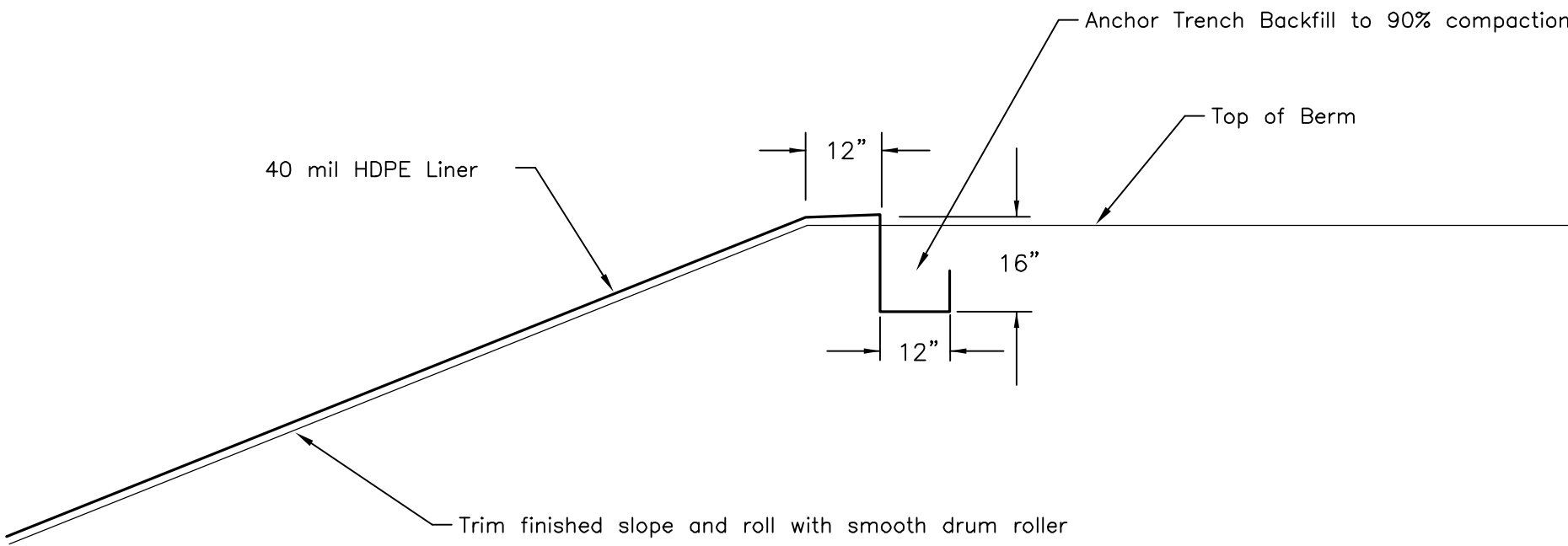
18" Overflow Detail



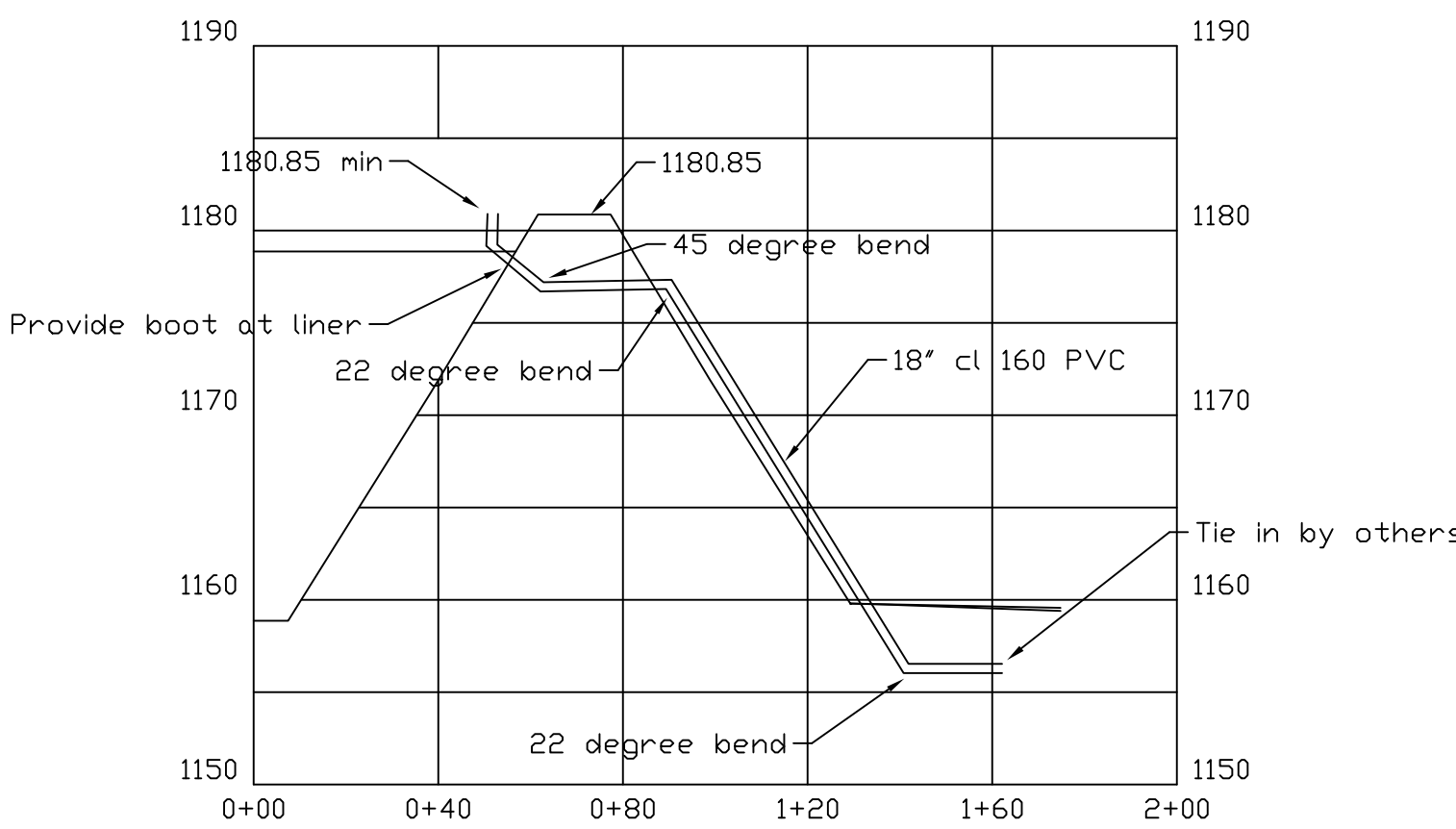
Anti-seep Collar Detail



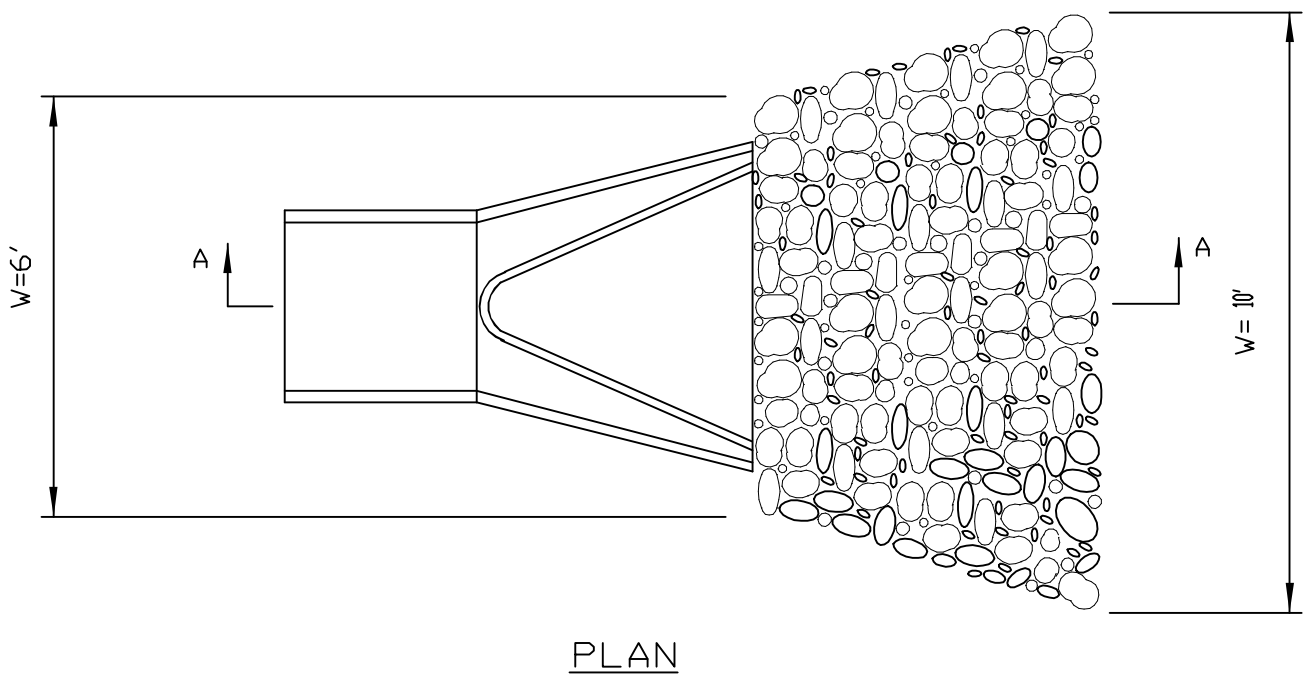
HDPE Liner Anchor Trench



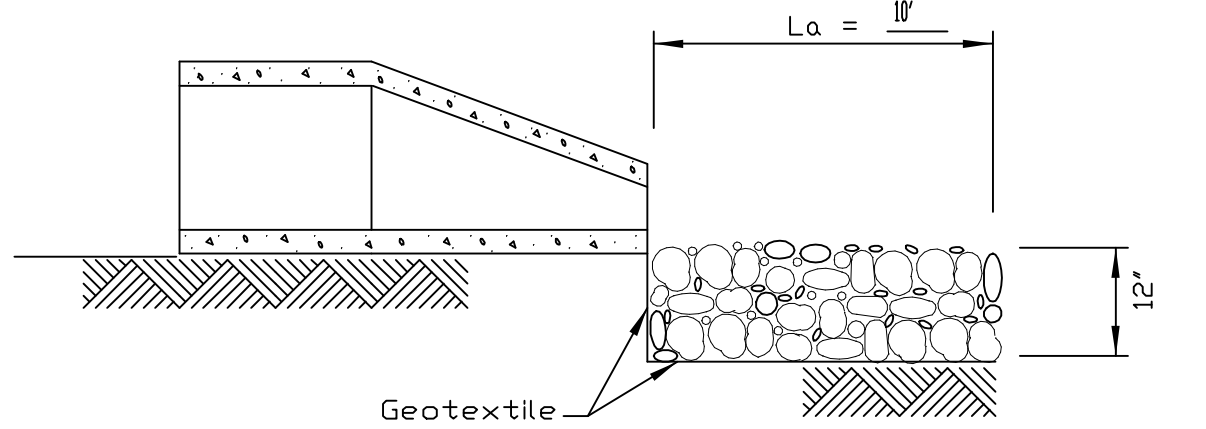
18" cl 160 PVC Inlet



Rock Energy Dissipater



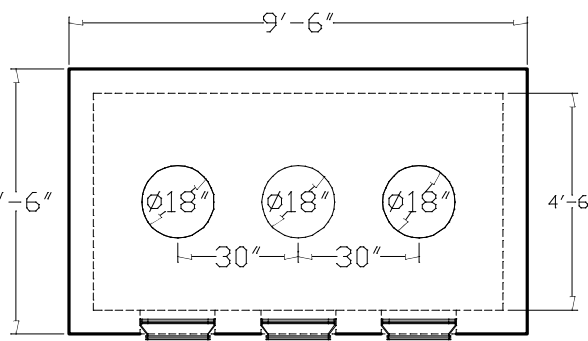
PLAN



SECTION A-A

- Notes:
1. Rock shall be 6" to 12" diameter
 2. Minimum dimension shall be 6' x 10' x 12'

Mid-State Concrete Products
Pump Housing Vault

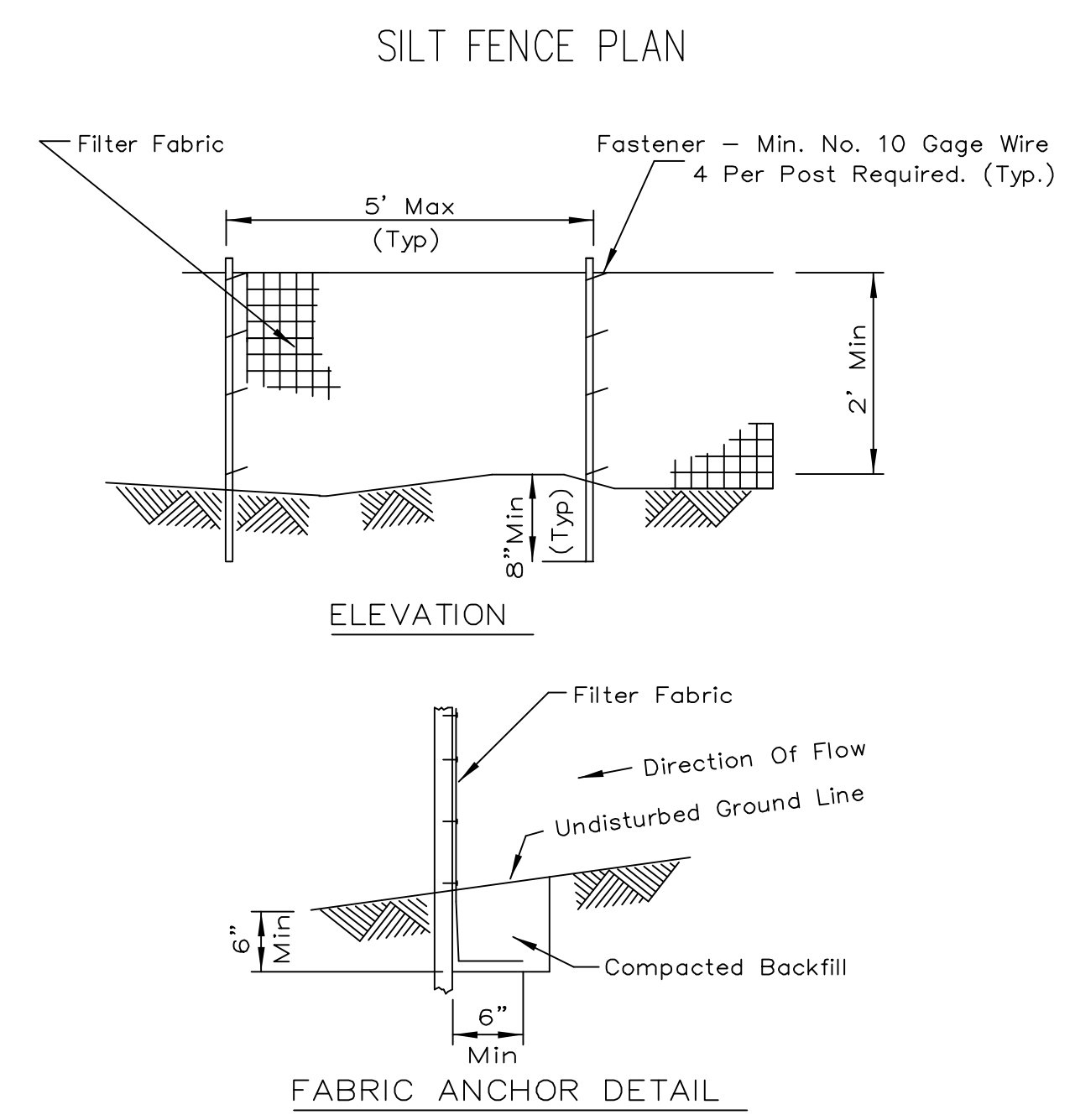
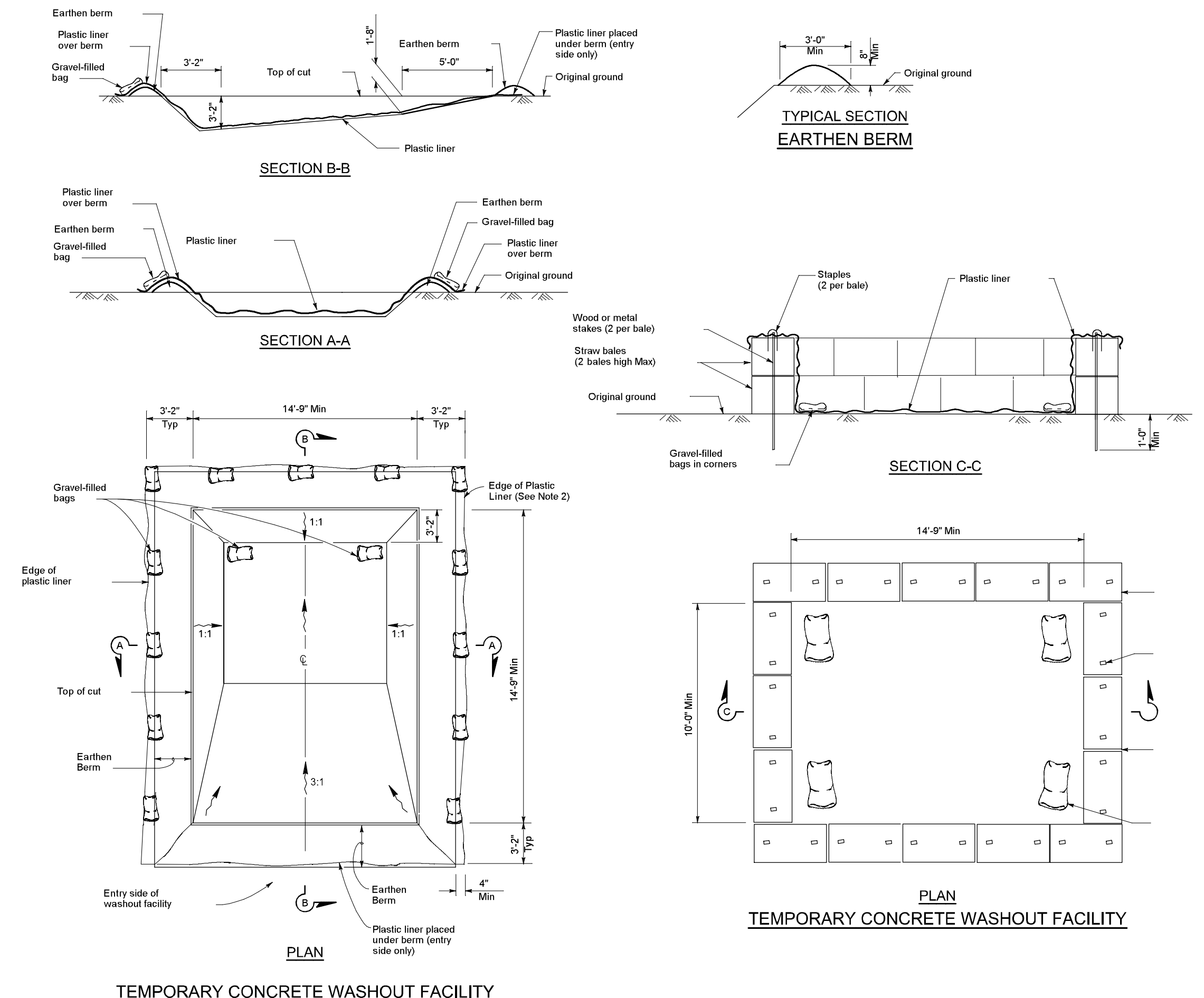
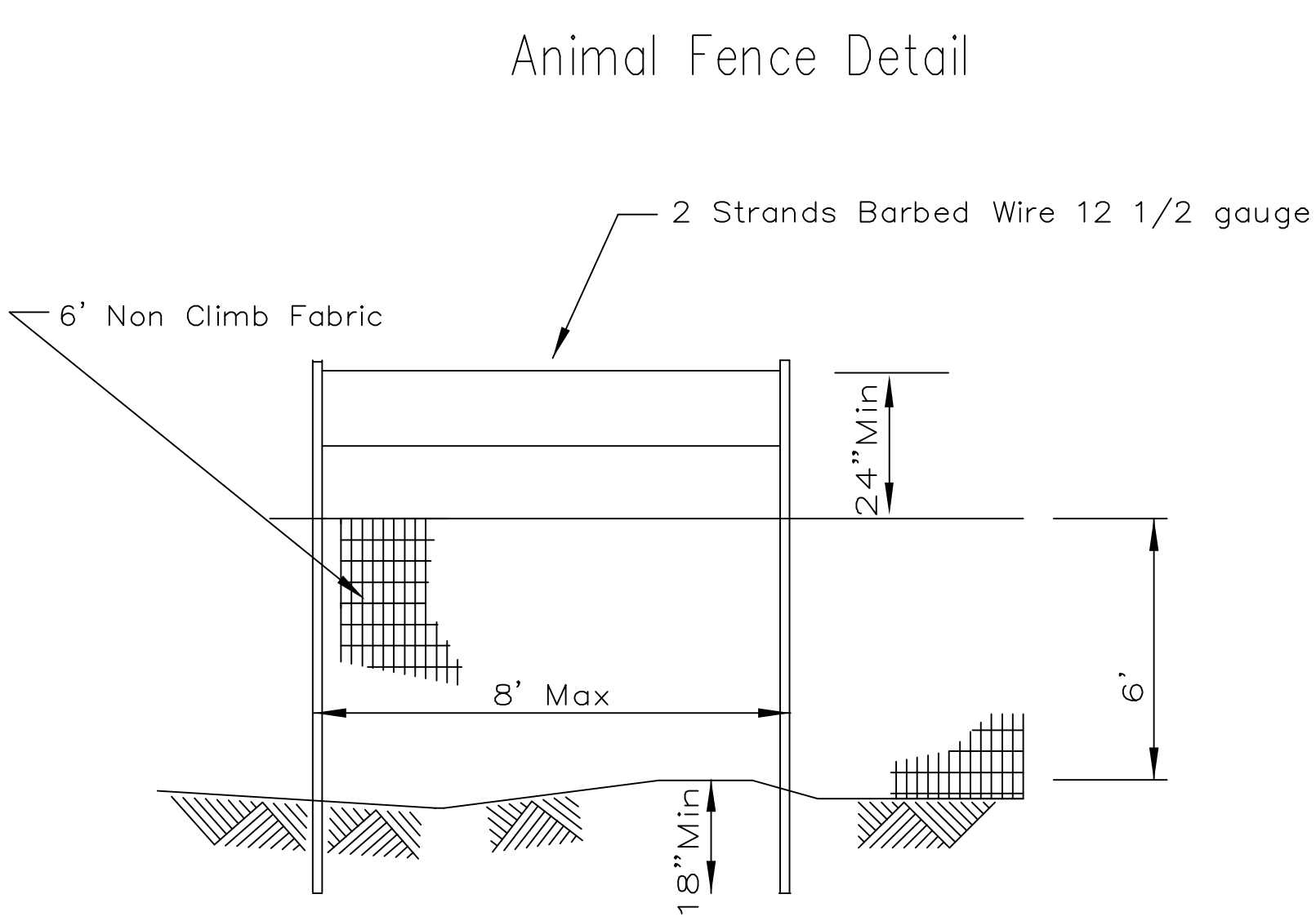
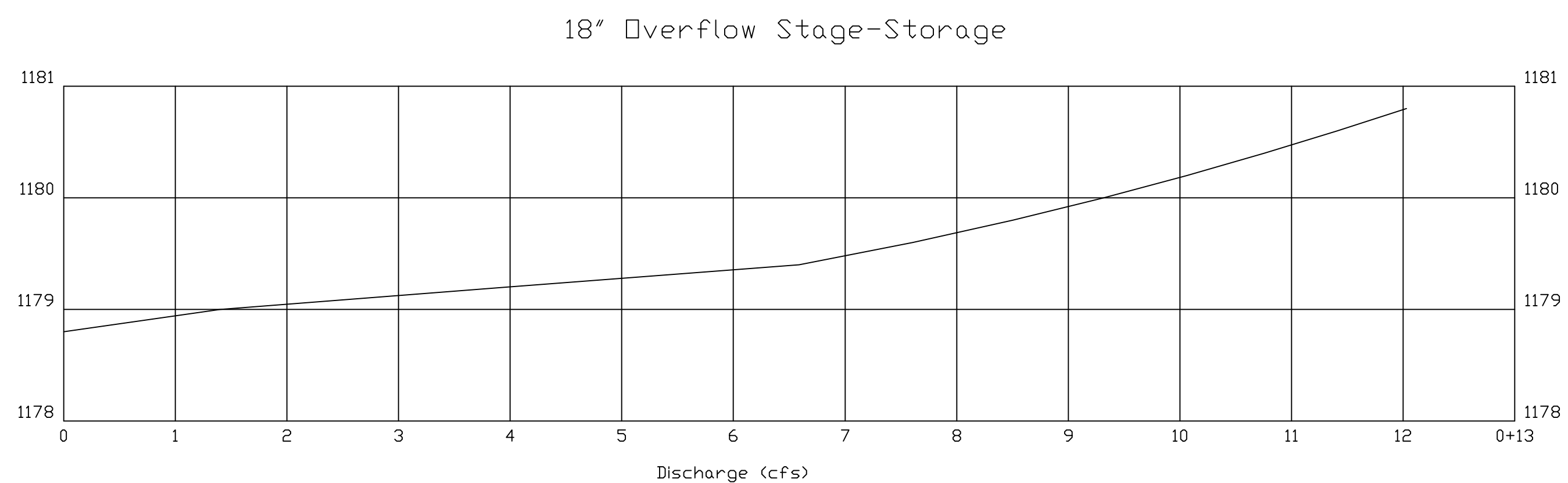
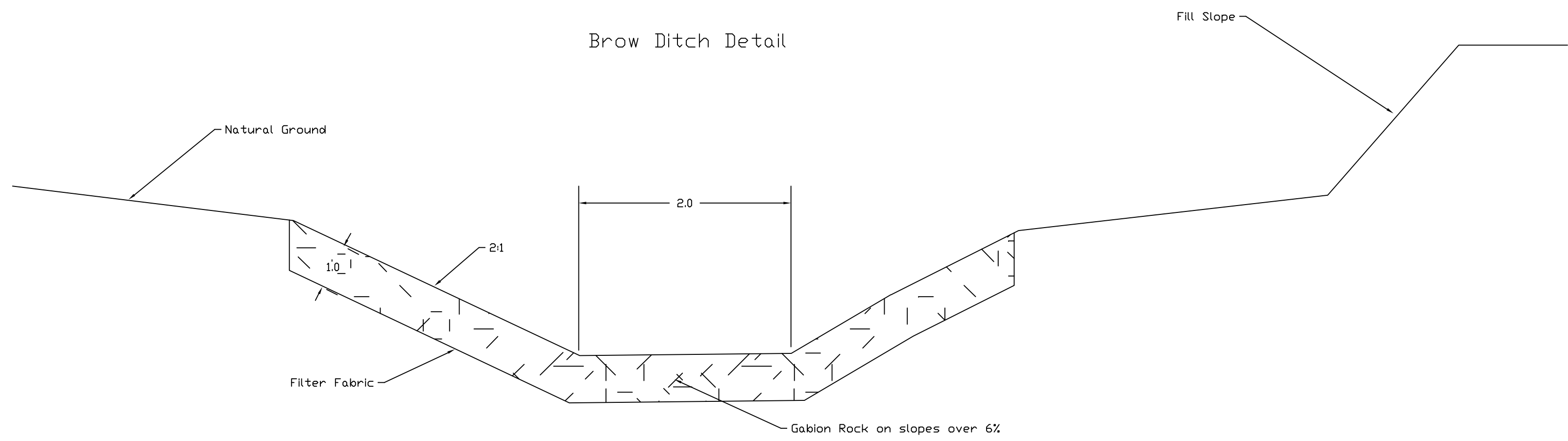


Vault Inlet View



Truesdale Vineyard

DRAWN TH	DATE 6/27/18	Foothill B Reservoir 48 Ac-ft Details
APPROVED	DATE	
SCALE Varies	SHEET 4 of 6	PROJECT NO.



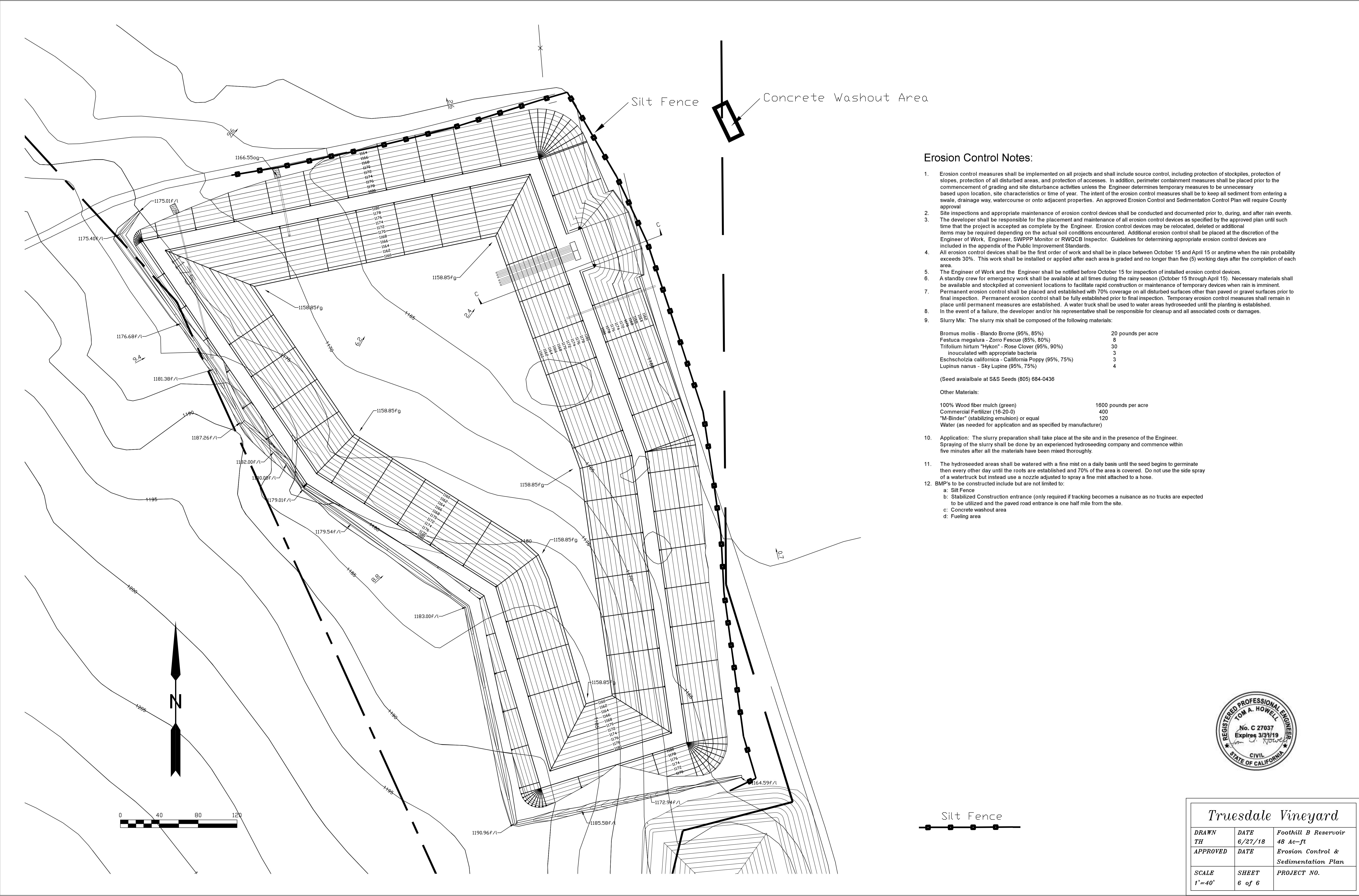
NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.

NOTES:
1. The concrete washout sign shall be installed within 32'-10" of the temporary concrete washout facility.
2. Plastic liner shall be anchored with gravel-filled bags for below grade concrete washout facility.

CONCRETE WASHOUT SIGN DETAIL



Truesdale Vineyard		
DRAWN TH	DATE 6/27/18	Foothill B Reservoir 48 Ac-ft Details BMP's
APPROVED	DATE	
SCALE varies	SHEET 5 of 6	PROJECT NO.



Grading Notes:

1. All grading construction shall conform to the applicable codes and to the Soil Report #16365 prepared by Mid Coast Geotechnical on August 19, 2015 for this project.
2. Dust control is to be maintained at all times during construction.
3. Areas of fill shall be overexcavated to a depth of three (3) feet to a limit of three feet outside the proposed fill then scarified and moisture conditioned prior to compacting to 90% of maximum density. All areas shall be observed by a Soils or Civil Engineer prior to placing fill.
4. Fill materials shall be compacted to 90% of maximum density or as specified in the soil report. Interior fill slopes must be overfilled and then cut to finish grade. Exterior slopes may be track walked upon completion to leave a firm surface capable accepting hydroseed.
5. Remove any deleterious material encountered before placing fill
6. No cut or fill slopes shall exceed two horizontal to one vertical (2:1) or as specified in the soil report.
7. All disturbed areas shall be hydro-seeded or planted with an approved erosion control material as soon as possible after construction.
8. Minimum setbacks to creeks and bluffs shall be maintained. Minimum setbacks of two feet from all property lines shall be maintained.
9. Minimum slope away from the toe of slope shall be 2% for the first five feet around the perimeter.
10. An approved erosion control plan will be required to be submitted, approved and implemented should grading occur between October 15 and April 15.
11. Soils Engineer shall determine if the soil is suitable to support the intended structure. A formal report including progress and/or compaction reports shall be submitted to the County Field Inspector prior to final inspection. When a Soils Report is obtained the County policy regarding pad certification shall be followed. When applicable the Engineer of Record shall observe the grading operations and provide the field inspector with the required compaction reports and a report stating that the grading has been observed and is in conformance with the UBC and County Ordinannaces.

Erosion Control Notes:

1. Erosion control measures shall be implemented on all projects and shall include source control, including protection of stockpiles, protection of slopes, protection of all disturbed areas, and protection of accesses. In addition, perimeter containment measures shall be placed prior to the commencement of grading and site disturbance activities unless the Public Works Department determines temporary measures to be unnecessary based upon location, site characteristics or time of year. The intent of the erosion control measures shall be to keep all sediment from entering a swale, drainage way, watercourse or onto adjacent properties.
2. Site inspections and appropriate maintenance of erosion control devices shall be conducted and documented prior to, during, and after rain events.
3. The developer shall be responsible for the placement and maintenance of all erosion control devices as specified by the approved plan until such time that the project is accepted as complete by the Public Works Department. Erosion control devices may be relocated, deleted or additional items may be required depending on the actual soil conditions encountered. Additional erosion control shall be placed at the discretion of the Engineer of Work, County Inspector, SWPPP Monitor or RWQCB Inspector. Guidelines for determining appropriate erosion control devices are included in the appendix of the Public Improvement Standards.
4. All erosion control devices shall be the first order of work and shall be in place between October 15 and April 15 or anytime when the rain probability exceeds 30%. This work shall be installed or applied after each area is graded and no longer than five (5) working days after the completion of each area.
5. The Engineer of Work and the Public Works Department shall be notified before October 15 for inspection of installed erosion control devices. A standby crew for emergency work shall be available at all times during the rainy season (October 15 through April 15). Necessary materials shall be available and stockpiled at convenient locations to facilitate rapid construction or maintenance of temporary devices when rain is imminent. Permanent erosion control shall be placed and established with 90% coverage on all disturbed surfaces other than paved or gravel surfaces prior to final inspection. Permanent erosion control shall be fully established prior to final inspection. Temporary erosion control measures shall remain in place until permanent measures are established.
6. In the event of a failure, the developer and/or his representative shall be responsible for cleanup and all associated costs or damages. In the event that damage occurs within the right of way and the County is required to perform cleanup, all work shall cease on the project until cleanup costs are fully paid.
7. If any work is not in compliance with the plans or permits approved for the project, the Department shall revoke all active permits and recommend that County Code Enforcement provide a written notice or stop work order in accordance with Section 22.52.140 (23.10) of the Land Use Ordinance. All projects involving site disturbance of one acre or greater shall comply with the requirements of the National Pollutant Discharge Elimination System (NPDES). The developer shall submit a Notice of Intent (NOI) to comply with the General Permit for Construction Activity with the Regional Water Quality Control Board (RWQCB). The Developer shall provide the County with the Waste Discharge Identification Number (WDID) or with verification that an exemption has been granted bu RWQCB.
8. WDID# _____ Exempt per RWQCB
9. Person to contact 24 hours a day in the event there is an erosion control/sedimentation problem (Storm Water Compliance Officer)
Name Fritz Heltzer
Local Phone 835-1442

Project Air Quality Control Notes:

During Construction the contractor shall designate a person or persons to monitor the Dust Control Program and to order increases measures as necessary to prevent the transport of dust off-site. Their duties shall include holiday and weekend periods when work may or may not be in progress. The name and telephone number for such persons shall be provided to the APCD prior to the commencement of construction. The measures for dust control are as follows but not limited to:

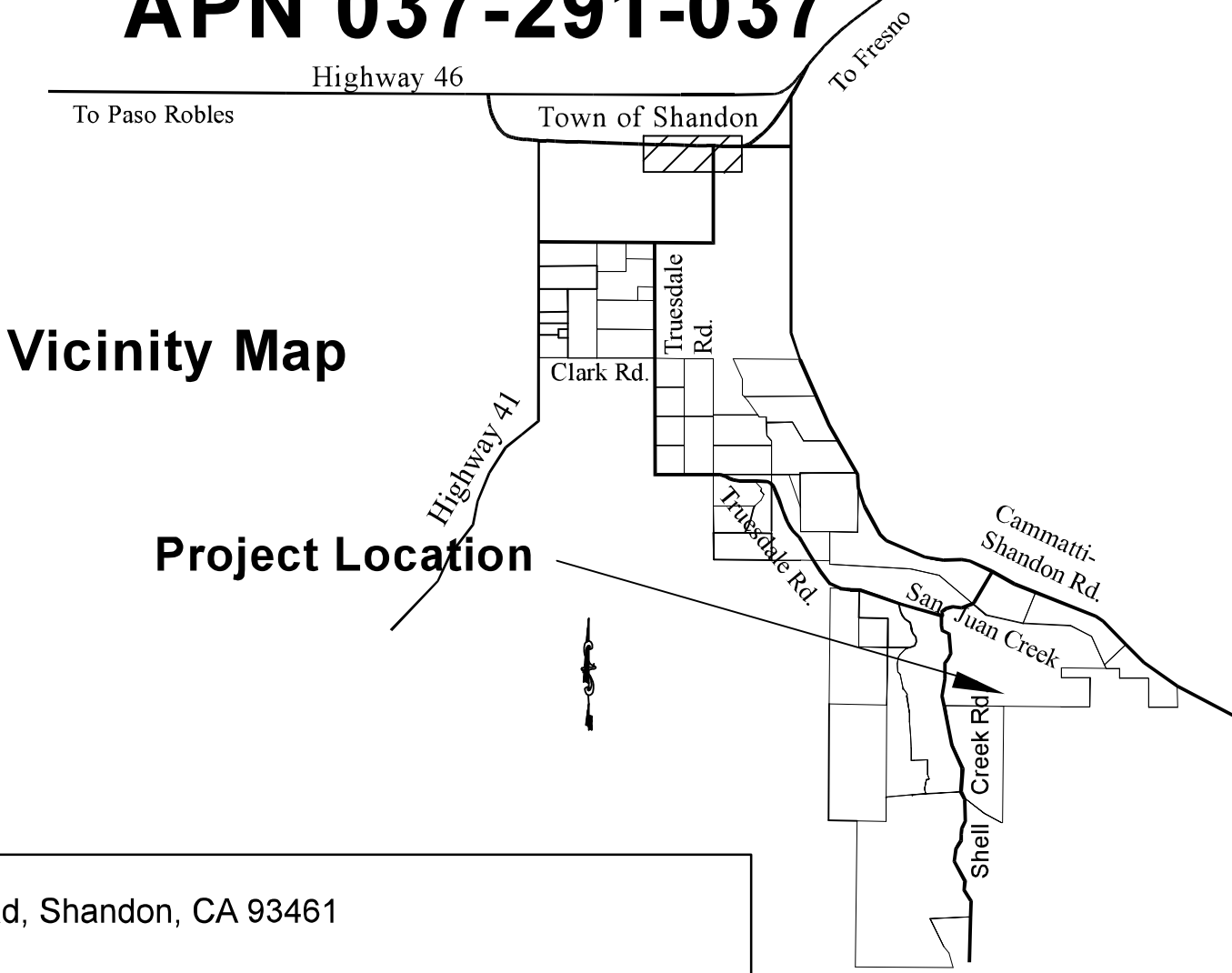
- Reduce the amount of disturbed area where possible.
1. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15mph. Reclaimed (non-potable) water should be used whenever possible.
 2. All dirt stockpile areas shall be sprayed daily as needed.
 3. Exposed ground areas that are planned to be reworked at dates later than one month after initial grading should be seeded with a fast germinating native grass seed and watered until vegetation is established.
 4. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the ACCD.
 5. All external slopes shall be hydroseeded as soon as possible upon completion.
 6. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
 7. All trucks hauling dirt, sand, soil, or other loose material are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
 8. Install wheel washers where vehicles enter and exit paved roads and streets, or wash off trucks and equipment leaving the site.
 9. Prior to final inspection all disturbed areas shall be vegetated with a fast-growing, native seed mix.

General Notes

1. No construction shall be started without plans approved by the County Planning Department. The Planning Department shall be notified at least 24 hrs prior to the start of construction and the time and location for the preconstruction conference.
2. All construction work and installations shall conform to the County Standards and Specifications.
3. Soils tests shall be done in accordance with the County Standards and Specifications Sections 11-351.1403 and Section 11.351-1404. The test results shall clearly indicate the location and source of materials.
4. Compaction tests shall be made on all embankment materials, subgrades and ditch backfill.
5. There will be no need for special concrete inspection. Concrete for the anchor pad shall be 2000 psi. The rebar shall be inspected prior to the placement of the concrete. All concrete and the two sack slurry for the anti-seep collars and ditch backfill where shown shall be properly vibrated.
6. The Design Engineer shall inspect the installation of the HDPE Liner. The liner shall be installed by a contractor specializing in lining ponds.
7. The Engineer of Record shall certify that the improvements when completed are in accordance to the plans prior to the request for Final Inspection. As-built plans are to be prepared after construction is completed. The Engineer certifying the improvements shall be present at the Final Inspection.
8. Final Reports for grading and earthwork shall be prepared in accordance with the requirements of the UBC, Chapter 33.
9. Upon completion of the work, the Geotechnical Engineer shall submit to the Engineer of Record a complete summary of all testing done during the project.
10. The Construction Contractor shall maintain a current, complete and accurate record of all changes which deviate from the approved plans. No changes shall be made without the prior approval of the Engineer of Record and the County.
11. The site shall be posted for a construction speed limit of 25 mph to protect the San Joaquin Kit Fox.

East Bluff Reservoir

APN 037-291-037



Project Location

Address: Shell Creek Road, Shandon, CA 93461
APN 037-291-037
Legal Description
Lot size Acres: 613.87
Zoning AG
Project Description: Construct a 49 ac-ft Agricultural Reservoir for irrigation purposes

Kit Fox Special Requirements

- (1) Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County Division of Environmental and Resource Management. The retained biologist shall perform the following monitoring activities:
- a. Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, the biologist shall conduct a pre-activity (i.e. pre-construction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
 - b. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, clearing, excavation, stock piling of dirt or removal of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-3 through BR-11. Site-disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-2-c3). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
 - c. Prior to or during project activities, if any observations are made of San Joaquin kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. horn or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact the U.S. Fish and Wildlife Service and the Department for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the U.S. Fish and Wildlife Service/Department determine it is appropriate to resume work. If incidental take of kit fox during project activities is possible, before project activities commence, the applicant must consult with the U.S. Fish and Wildlife Service and the Department (see contact information below). The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.
- In addition, the qualified biologist shall implement the following measures:
1. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 - a) Potential kit fox den: 50 feet
 - b) Known or active kit fox den: 100 feet
 - c) Kit fox pupping den: 150 feet
 2. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones.
 3. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
 3. If kit foxes or known or potential kit fox dens are found on site, daily monitoring during ground disturbing activities shall be required by a qualified biologist.
 - (2) Prior to issuance of grading and/or construction permits, the applicant shall delineate as a note on the project plans that "Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox." Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction. In addition, prior to permit issuance and initiation of any ground disturbing activities, conditions BR-3 through BR-11 of the Developer's Statement/Conditions of Approval shall be clearly delineated on project plans.
 - (3) During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.
 - (4) Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the county, as well as any related biological reports prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
 - (5) During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes or trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
 - (6) During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved, or if necessary, be moved only once to remove it from the path of activity, until the kit fox has escaped.
 - (7) During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps generated shall be disposed of in closed containers only and regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
 - (8) Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, state and federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
 - (9) During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the U.S. Fish and Wildlife Service and the Department by telephone (see contact information below). In additional, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to the Department for care, analysis, or disposition.
 - (10) During the site-disturbance and/or construction phase, the applicant shall install a temporary wildlife ladder or similar feature approved by the County within the reservoir that would enable wildlife species to exit the reservoir. The ladder or similar feature shall remain in place until the permanent perimeter fence is constructed and no wildlife species is present within the reservoir. This measure shall be shown on all applicable grading and construction plans.

Table 1705.6

Required Verification and Inspection of Soils

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed
1. Verify materials below embankments are adequate to achieve the design capacity		X
2. Verify excavations are extended to proper depth and have reached proper material.	—	X
3. Perform classification and testing of controlled filled materials.	—	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X	
5. Prior to placement of controlled fill, observe subgrade		X

Mid-Coast Geotechnical shall perform all special inspections for the earthwork for this project.

Call 24 hours prior to inspection to set up an appointment.

Scope of Work

The work consists of constructing a new lined 49 acre-foot reservoir 28' deep specifically for irrigation and frost control purposes. Any off-site transfer and/or any other use of the reservoir water is prohibited. All areas to receive fill shall be excavated a minimum of three feet, the exposed surface scarified and moisture conditioned, then recompact to 90% relative compaction, or as otherwise specified out in the soil report. The intent is to balance the earthwork with no import or export. The completed interior slopes shall be fine graded and all rocks removed. A 40 mil textured HDPE geomembrane liner will then be installed on the slopes. The liner will be installed per manufacturer's recommendations by a company specializing in liner installation. A 6 foot non-climb fence will be built around the exterior perimeter. The sources of water are existing pvc waterlines from existing wells and reservoirs and no surface water shall enter the reservoir. Valving, filters and pumps will be installed after the reservoir is constructed by the Irrigation Contractor and are not part of this permit. This contract is for stubbing one 12" cl 160 pipe through the exterior slope for future connection to the fill and transfer lines by an Irrigation Contractor. This pipe shall have concrete slurry anti-seep collars. A 12" PVC Drop Pipe Outlet Structure will serve as an emergency overflow in the event the high water limit switch fails and is sized to prevent the reservoir from overtopping. Access to the reservoir is by existing dirt farm roads. No driveways will be constructed. The existing farm field sheet flows across the location from 2% to 8%. No electrical work nor utility work is included in this permit.

Benchmark and Basis of Bearing

Benchmark is a metal Triangulation Monument on hill above reservoir

N 2402435.13
E 5865106.77
Elev = 1454.72

Basis of Bearing is line between control points 709 and 711

Pre-construction Meeting

Prior to construction a pre-construction meeting is required with the inspector to go over the special inspection reporting requirements, final and progress reports, & erosion control. Call SLO County Building Department 781-5600, North SLO County Inspector, 781-2076

Reports Required

Upon the completion of Construction the Engineer of Record shall prepare and submit to the County of SLO a Final Report stating that the work is in substantial conformance with the approved plans. Progress Reports are required by the Engineer of Record to the grading inspection as determined during the pre-construction meeting.

Special Inspections

1. No special inspections will be required for this project
2. Mid-Coast Geotechnical shall inspect all earthwork and normal concrete and slurry placement. Contact Dane Jensen at 461-0965
3. The Engineer of Record shall inspect the installation of the pond liner. Contact Tom Howell at 925-5311

Project Information

Contacts:

Owner:

Matt Turrentine
444 Higuera St Suite 202
San Luis Obispo, CA 93401
805 312-1828

Engineer:

1812 N Vine
Santa Maria, CA 93454
805 720-1669

Geotechnical Engineer: Mid Coast Geotechnical, Inc

Dane Jensen
3124 El Camino Real
Atascadero, CA 93423-2220
805 461-0965

Engineer's Certificate

I, Tom A Howell, RCE 27037, Engineer of Record, hereby certify that these plans are in accordance with the following codes: _____ Date: _____

2013 California Energy Codes
2016 California Building Code Vols 1 & 2
2016 California Electrical Code
2016 California Energy Code
2016 California Fire Code
2016 California Green Building Code
2016 California Mechanical Code
2016 California Plumbing Code
2016 Reference Standards Code
County Building and Construction Ordinance Title 19
County Coastal Zone Land Use Ordinance Title 23
County Fire Code Ordinance Title 16
County Land Use Ordinance Title 22

Geotechnical Engineer's Certificate

I have reviewed the plans and specifications and have found them to be in substantial conformance with the recommendations as found in my Soil Investigation.

Date: _____

Pond Report

Top of dam elevation: 1356.40
Bottom of pond elevation: 1330.15
Top of dam width: 14.00
Cut Slope: 2.00:1
Fill Slope: 2.50:1
Interior Slope: 2.50:1

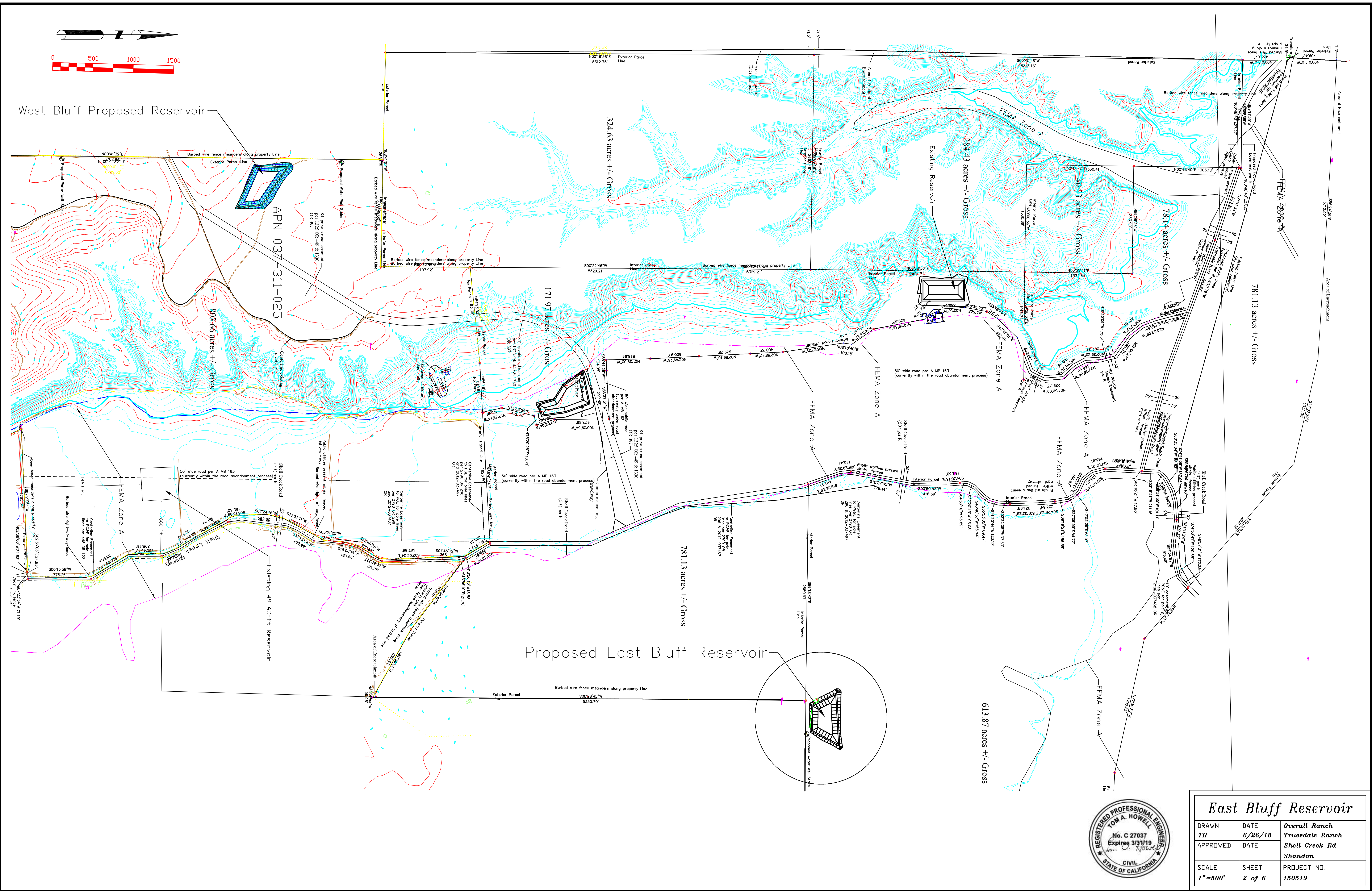
Pond Earthwork Volume

Fill Factor: 1.30
Total cut : 43,989 C.Y.
Total fill: 43,985 C.Y.
Total disturbed area: 5.18 Acres

Sheet Index



East Bluff Reservoir		
DRAWN TH	DATE 6/26/18	Cover Sheet 49 Ac-ft
APPROVED	DATE	Shell Creek Rd Shandon
SCALE	SHEET 1 of 6	PROJECT NO. 150519



East Bluff Reservoir		
DRAWN	DATE	Overall Ranch
TH	6/26/18	Truesdale Ranch
APPROVED	DATE	Shell Creek Rd
		Shandon
SCALE	SHEET	PROJECT NO.
1"=500'	2 of 6	150519

Truesdale Vineyard East Bluff Reservoir

Pond Report

Top of dam elevation: 1356.40
Bottom of pond elevation: 1330.15
Top of dam width: 14.00
Cut Slope: 2.00:1
Fill Slope: 2.50:1
Interior Slope: 2.50:1
Disturbed Area: 225706.0 sq ft, 5.18 acres

Pond Earthwork Volumes

Fill Factor: 1.30
Total cut : 43,989 C.Y.
Total fill: 43,985 C.Y.

Pond Storage Volumes

Water Elev	Storage Ac-ft	Area(Acre)
1330.15	0.000	1.235
1331.15	1.263	1.293
1332.15	2.586	1.353
1333.15	3.969	1.414
1334.15	5.413	1.476
1335.15	6.920	1.539
1336.15	8.491	1.603
1337.15	10.127	1.669
1338.15	11.829	1.735
1339.15	13.598	1.803
1340.15	15.436	1.872
1341.15	17.343	1.943
1342.15	19.321	2.014
1343.15	21.372	2.087
1344.15	23.495	2.160
1345.15	25.693	2.235
1346.15	27.966	2.311
1347.15	30.315	2.388
1348.15	32.743	2.467
1349.15	35.250	2.546
1350.15	37.836	2.627
1351.15	40.505	2.709
1352.15	43.255	2.792
1353.15	46.089	2.876
1354.15	49.008	2.962
1355.15	52.014	3.048
1356.15	55.106	3.136
1356.40	55.893	3.156

CONTROL POINTS				
Point	Northing	Easting	Elevation	Description
700	2409672.680	5866705.170	1147.86	CP Pole
701	2413916.980	5865558.440	1120.25	CP North
702	2414354.670	5862822.310	1116.80	AT OLD
703	2414781.210	5861623.650	1116.83	AT 1
704	2411728.430	5868893.220	1129.75	AT 2
705	2409594.980	5873872.510	1146.48	AT 3
706	2414054.050	5869006.970	1162.17	AT
707	2406328.530	5864763.830	1188.08	AT 4
708	2398023.740	5863718.700	1654.30	CP
709	2402435.340	5865106.770	1454.72	CP TRIANGULATION
710	2402579.130	5862826.780	1423.45	AT 5
711	2407534.300	5869504.050	1367.38	CP TRIANGULATION
712	2407807.310	5869532.610	1346.21	AT 7
713	2402435.330	5865106.810	1454.72	CP TRIANGULATION
714	2398023.790	5863718.740	1654.13	CP SPK
715	2399882.570	5862761.920	1581.34	AT 7
716	2398100.950	5866172.700	1192.60	MON
717	2398094.570	5866118.750	1193.97	AT 8
718	2402446.480	5869483.080	1320.37	AT
719	2402622.190	5872356.900	1487.86	AT

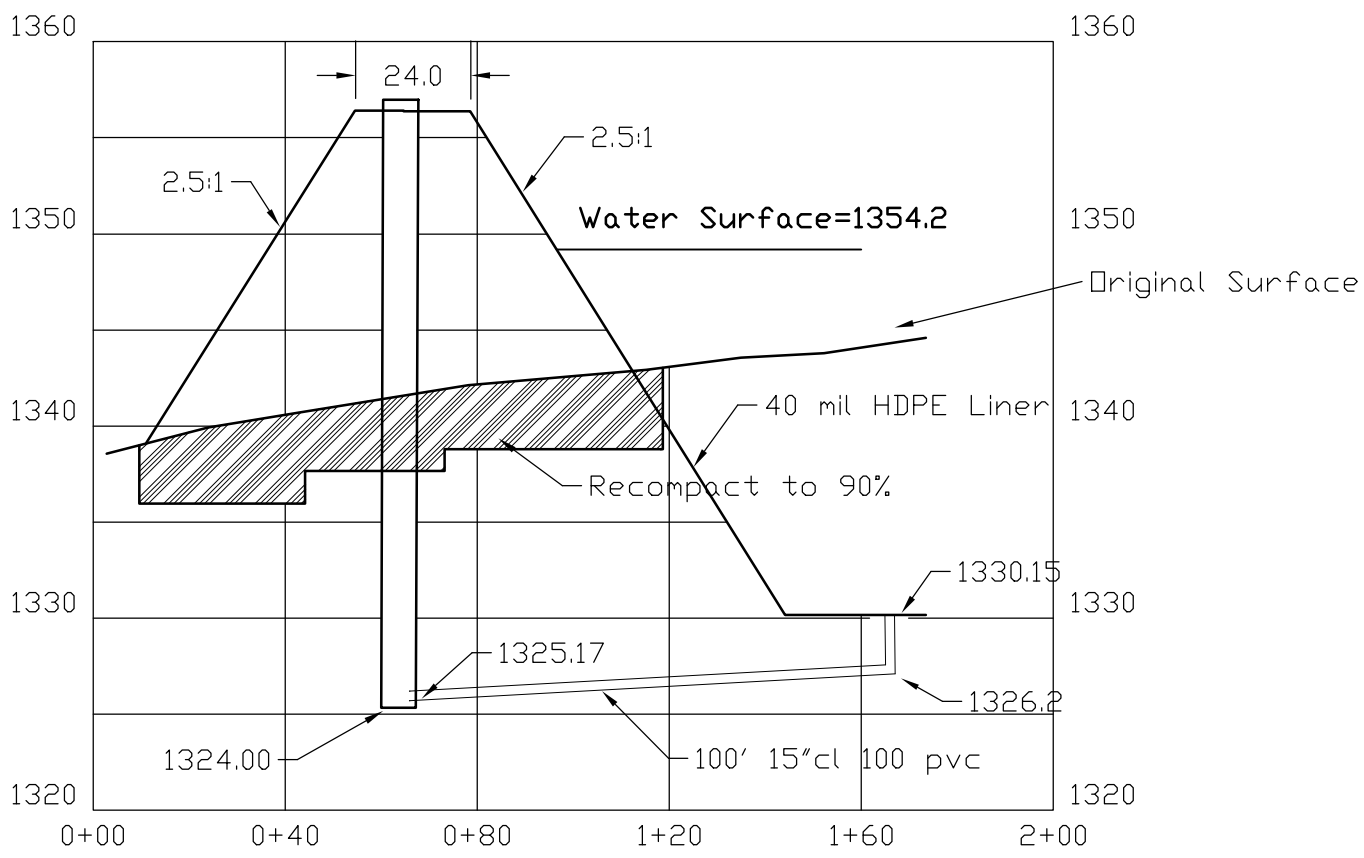


Truesdale Vineyards

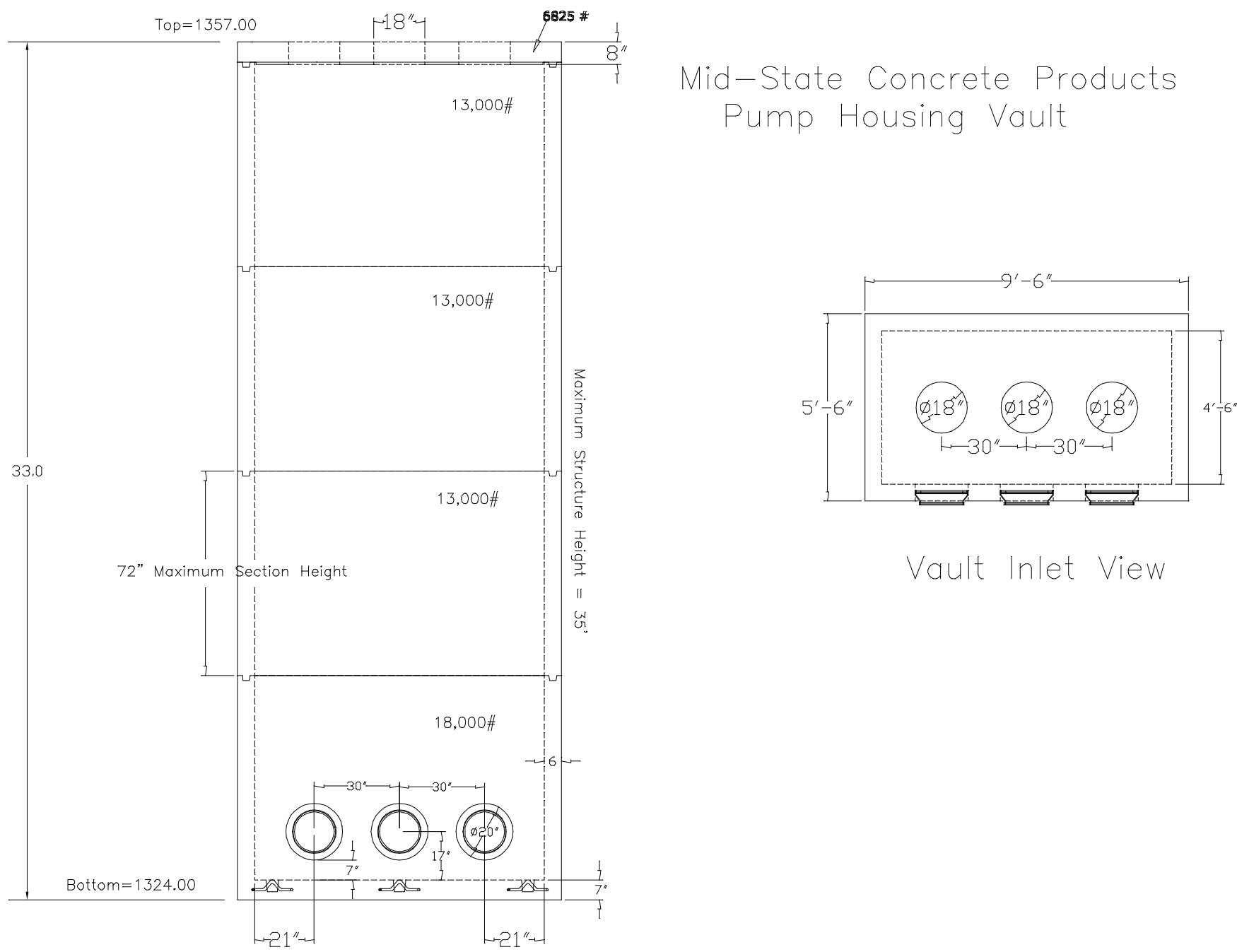
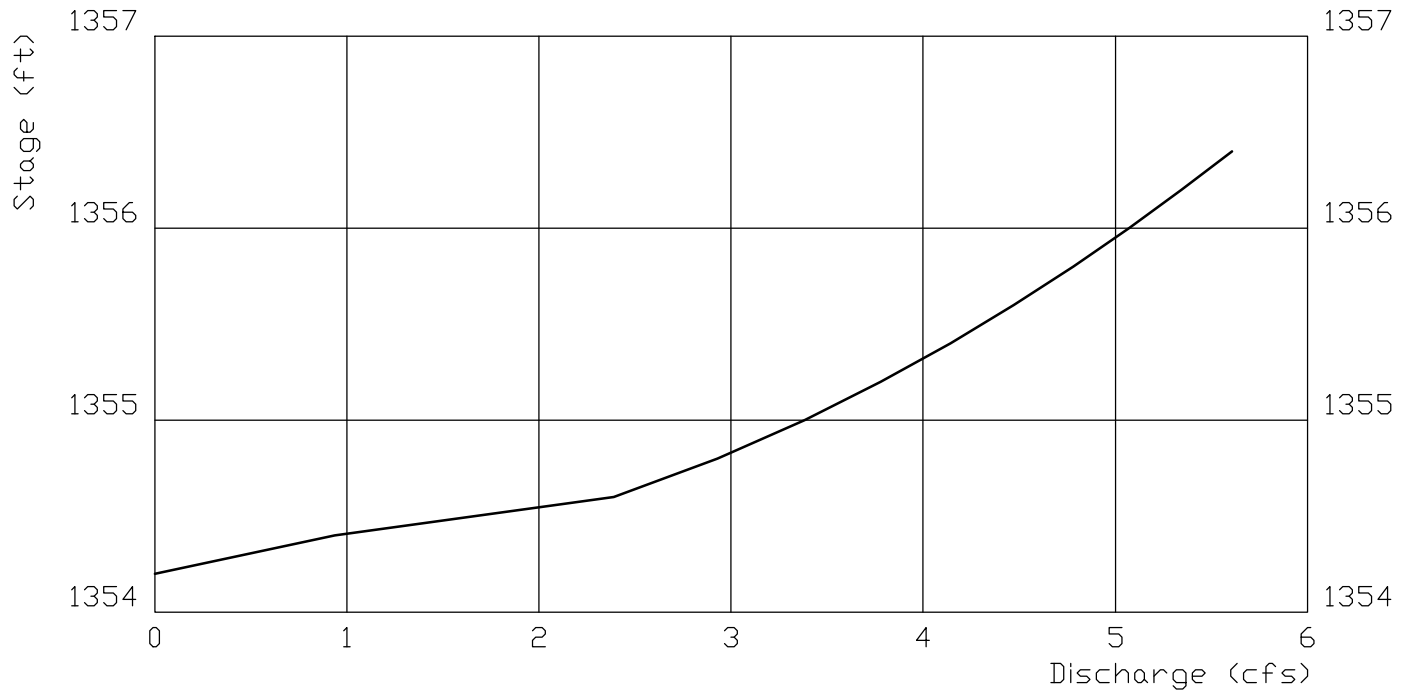
DRAWN TH	DATE 6/26/18	Bluff East Grading Plan
APPROVED	DATE	
SCALE 1"=40'	SHEET 3 of 6	PROJECT NO. 150518

Truesdale Vineyard East Bluff Reservoir

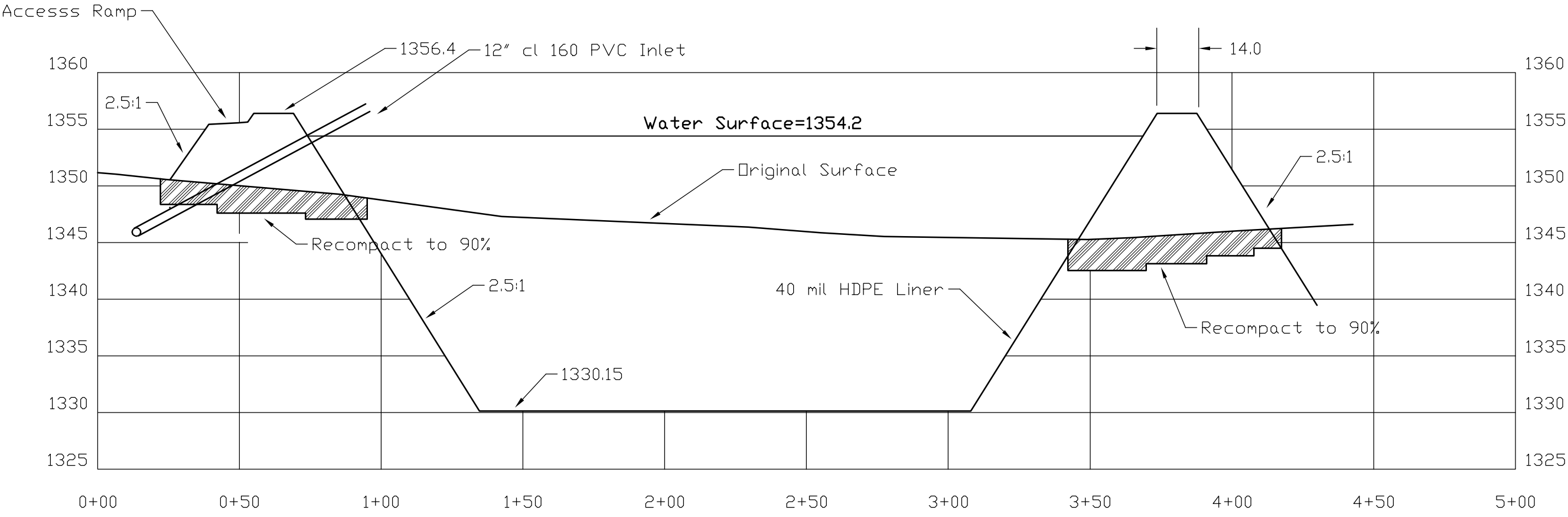
Section A-A



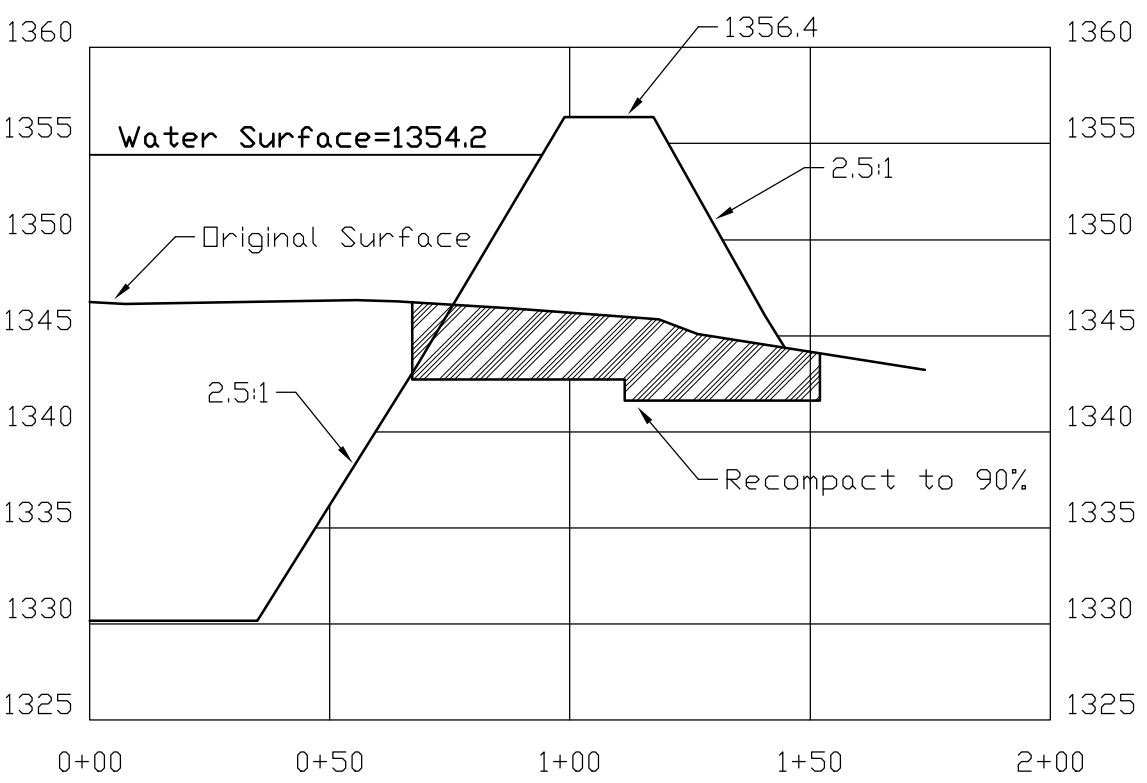
12" Overflow Stage-Storage



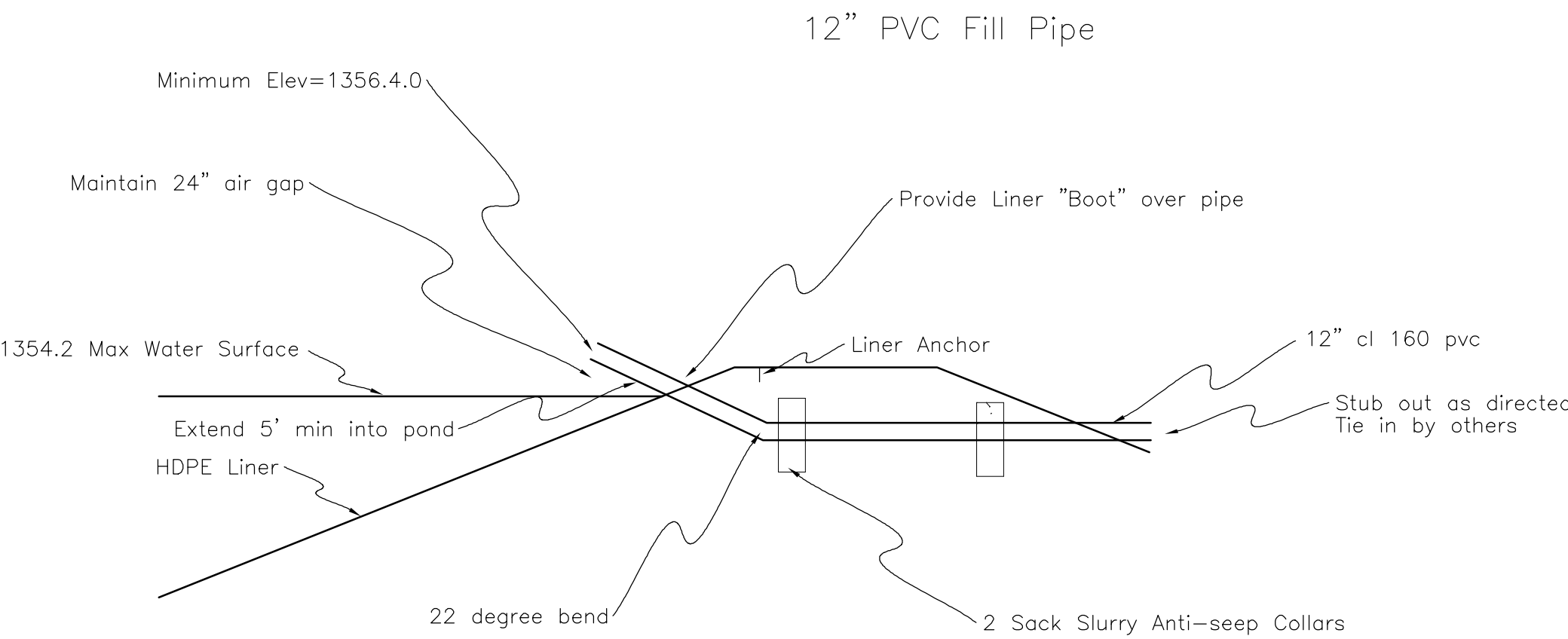
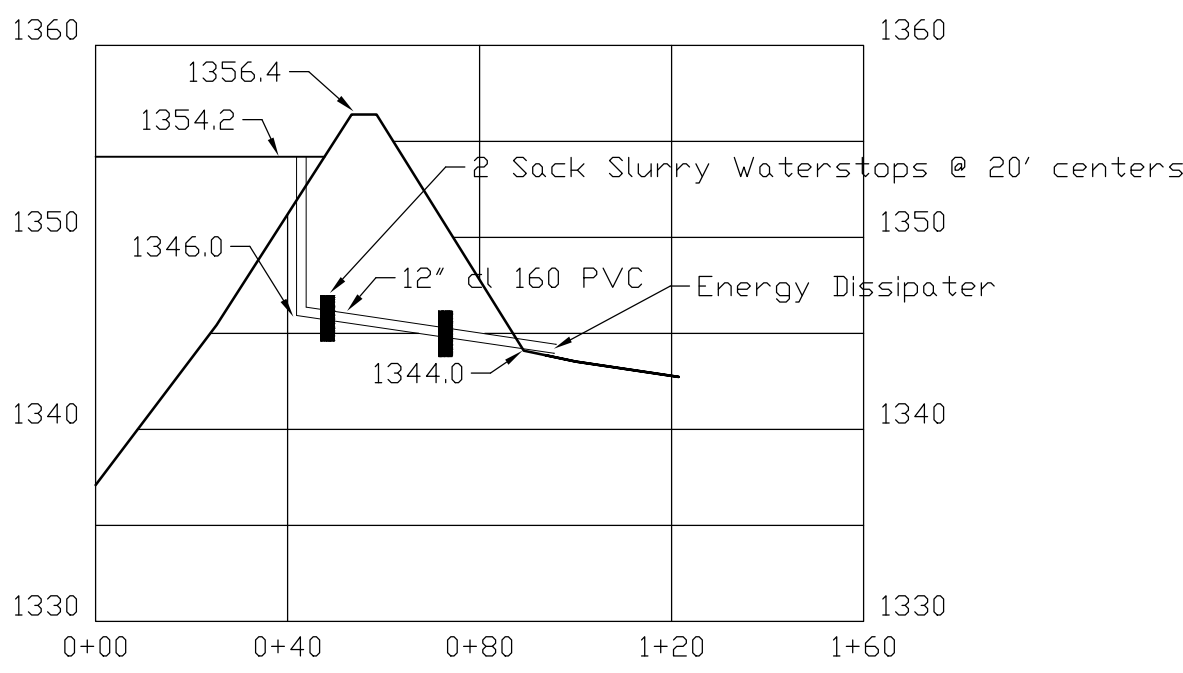
Section B-B



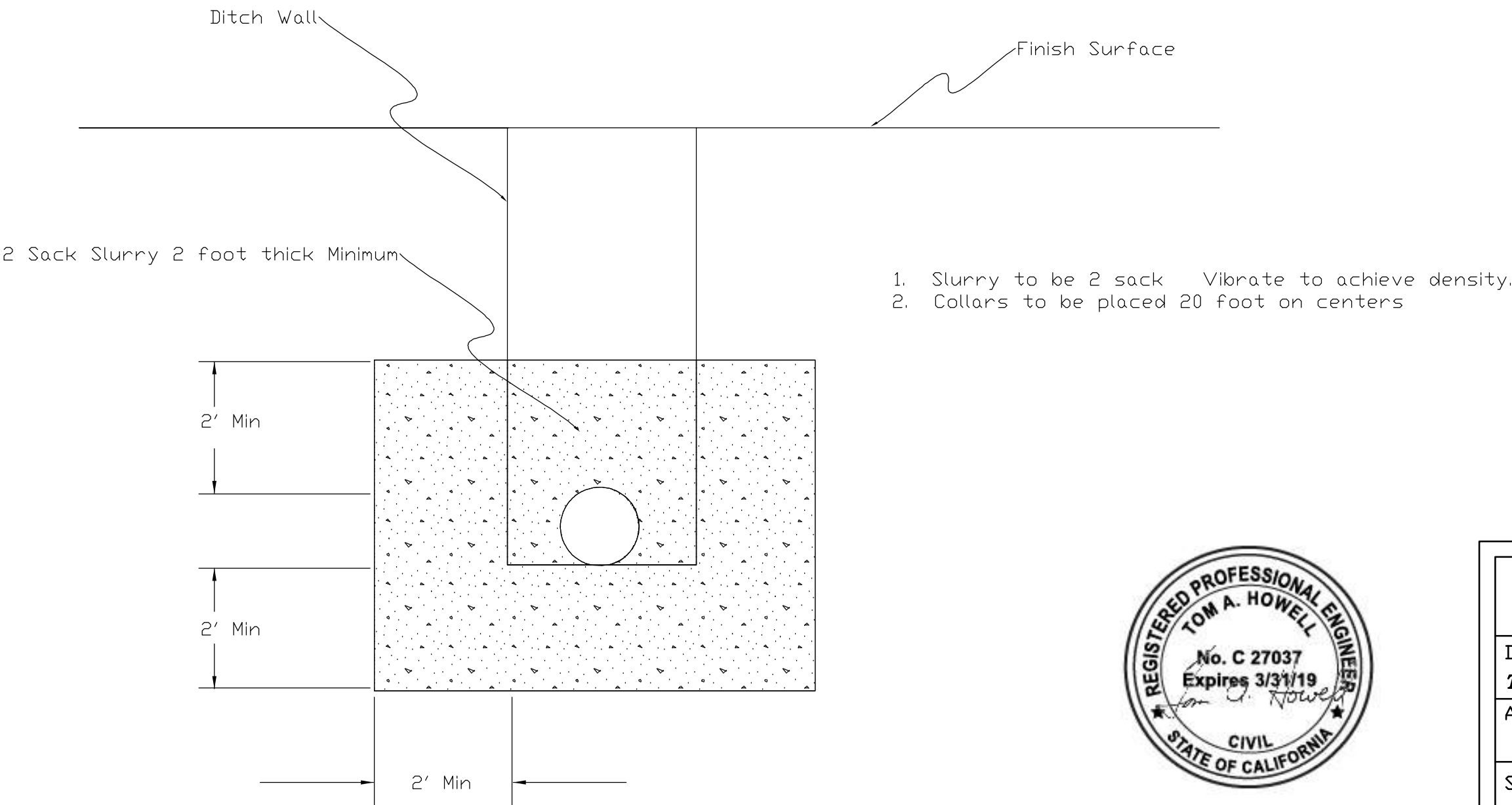
Section C-C



12" PVC Overflow

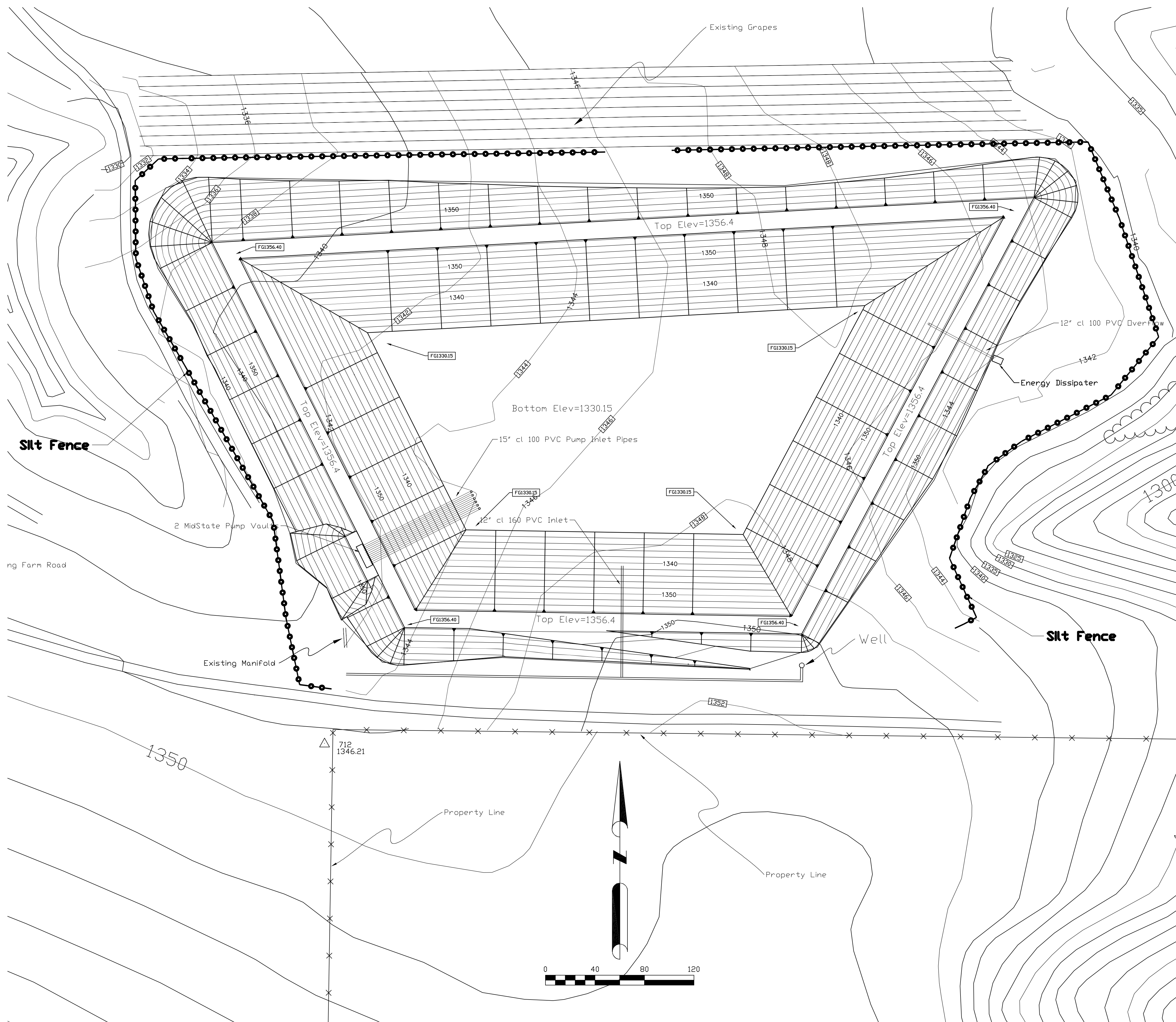


Anti-seep Collar Detail



Truesdale Vineyards		
DRAWN TH	DATE 6/26/18	49 Ac-ft Reservoir Shell Creek Road Shandon, Ca
APPROVED	DATE	Cross Sections
SCALE 1"=40'	SHEET 4 of 6	PROJECT NO. 150518

Truesdale Vineyard East Bluff Reservoir



Erosion Control Notes:

- Erosion control measures shall be implemented on all projects and shall include source control, including protection of stockpiles, protection of slopes, protection of all disturbed areas, and protection of accesses. In addition, perimeter containment measures shall be placed prior to the commencement of grading and site disturbance activities unless the Engineer determines temporary measures to be unnecessary based upon location, site characteristics or time of year. The intent of the erosion control measures shall be to keep all sediment from entering a swale, drainage way, watercourse or onto adjacent properties. An approved Erosion Control and Sedimentation Control Plan will require County approval
- Site inspections and appropriate maintenance of erosion control devices shall be conducted and documented prior to, during, and after rain events.
- The developer shall be responsible for the placement and maintenance of all erosion control devices as specified by the approved plan until such time that the project is accepted as complete by the Engineer. Erosion control devices may be relocated, deleted or additional items may be required depending on the actual soil conditions encountered. Additional erosion control shall be placed at the discretion of the Engineer of Work, Engineer, SWPPP Monitor or RWQCB Inspector. Guidelines for determining appropriate erosion control devices are included in the appendix of the Public Improvement Standards.
- All erosion control devices shall be the first order of work and shall be in place between October 15 and April 15 or anytime when the rain probability exceeds 30%. This work shall be installed or applied after each area is graded and no longer than five (5) working days after the completion of each area.
- The Engineer of Work and the Engineer shall be notified before October 15 for inspection of installed erosion control devices.
- A standby crew for emergency work shall be available at all times during the rainy season (October 15 through April 15). Necessary materials shall be available and stockpiled at convenient locations to facilitate rapid construction or maintenance of temporary devices when rain is imminent.
- Permanent erosion control shall be placed and established with 70% coverage on all disturbed surfaces other than paved or gravel surfaces prior to final inspection. Permanent erosion control shall be fully established prior to final inspection. Temporary erosion control measures shall remain in place until permanent measures are established. A water truck shall be used to water areas hydroseeded until the planting is established.
- In the event of a failure, the developer and/or his representative shall be responsible for cleanup and all associated costs or damages.
- Slurry Mix: The slurry mix shall be composed of the following materials:

Bromas carinatus (California brome)	5 pounds per acre
Vulpia microstachys (six weeks fescue)	10
Stipia pulchra (purple needlegrass)	3
Trifolium wildenovi (tomcat clover)	2

(Seed avaialbale at S&S Seeds (805) 684-0436)
- Other Materials:

100% Wood fiber mulch (green)	1600 pounds per acre
Commercial Fertilizer (16-20-0)	400
"M-Binder" (stabilizing emulsion) or equal	120
Water (as needed for application and as specified by manufacturer)	
- Application: The slurry preparation shall take place at the site and in the presence of the Engineer. Spraying of the slurry shall be done by an experienced hydroseeding company and commence within five minutes after all the materials have been mixed thoroughly.
- The hydroseeded areas shall be watered with a fine mist on a daily basis until the seed begins to germinate then every other day until the roots are established and 70% of the area is covered. Do not use the side spray of a watertruck but instead use a nozzle adjusted to spray a fine mist attached to a hose.
- BMP's to be constructed include but are not limited to:
 - Silt Fence
 - Stabilized Construction entrance
 - Concrete washout area
 - Fueling area



Truesdale Vineyards		
DRAWN TH	DATE 6/26/18	Bluff East Erosion Control
APPROVED	DATE	
SCALE 1"=40'	SHEET 6 of 6	PROJECT NO. 150518

Grading Notes:

1. All grading construction shall conform to the applicable codes and to the Soil Report #16373 prepared by Mid Coast Geotechnical on August 21, 2015 for this project.
2. Dust control is to be maintained at all times during construction.
3. Areas of fill shall be overexcavated to a depth of three (3) feet to a limit of three feet outside the proposed fill then scarified and moisture conditioned prior to compacting to 90% of maximum density. All areas shall be observed by a Soils or Civil Engineer prior to placing fill.
4. Fill materials shall be compacted to 90% of maximum density or as specified in the soil report. Interior fill slopes must be overfilled and then cut to finish grade. Exterior slopes may be track walked upon completion to leave a firm surface capable accepting hydroseed.
5. Remove any deleterious material encountered before placing fill
6. No cut or fill slopes shall exceed two horizontal to one vertical (2:1) or as specified in the soil report.
7. All disturbed areas shall be hydro-seeded or planted with an approved erosion control material as soon as possible after construction.
8. Minimum setbacks to creeks and bluffs shall be maintained. Minimum setbacks of two feet from all property lines shall be maintained.
9. Minimum slope away from the toe of slope shall be 2% for the first five feet around the perimeter.
10. An approved erosion control plan will be required to be submitted, approved and implemented should grading occur between October 15 and April 15.
11. Soils Engineer shall determine if the soil is suitable to support the intended structure. A formal report including progress and/or compaction reports shall be submitted to the County Field Inspector prior to final inspection. When a Soils Report is obtained the County policy regarding pad certification shall be followed. When applicable the Engineer of Record shall observe the grading operations and provide the field inspector with the required compaction reports and a report stating that the grading has been observed and is in conformance with the UBC and County Ordinances.

Erosion Control Notes:

1. Erosion control measures shall be implemented on all projects and shall include source control, including protection of stockpiles, protection of slopes, protection of all disturbed areas, and protection of accesses. In addition, perimeter containment measures shall be placed prior to the commencement of grading and site disturbance activities unless the Public Works Department determines temporary measures to be unnecessary based upon location, site characteristics or time of year. The intent of the erosion control measures shall be to keep all sediment from entering a swale, drainage way, watercourse or onto adjacent properties.
2. Site inspections and appropriate maintenance of erosion control devices shall be conducted and documented prior to, during, and after rain events.
3. The developer shall be responsible for the placement and maintenance of all erosion control devices as specified by the approved plan until such time that the project is accepted as complete by the Public Works Department. Erosion control devices may be relocated, deleted or additional items may be required depending on the actual soil conditions encountered. Additional erosion control shall be placed at the discretion of the Engineer of Work, County Inspector, SWPPP Monitor or RWQCB Inspector. Guidelines for determining appropriate erosion control devices are included in the appendix of the Public Improvement Standards.
4. All erosion control devices shall be the first order of work and shall be in place between October 15 and April 15 or anytime when the rain probability exceeds 30%. This work shall be installed or applied after each area is graded and no longer than five (5) working days after the completion of each area.
5. The Engineer of Work and the Public Works Department shall be notified before October 15 for inspection of installed erosion control devices. A standby crew for emergency work shall be available at all times during the rainy season (October 15 through April 15). Necessary materials shall be available and stockpiled at convenient locations to facilitate rapid construction or maintenance of temporary devices when rain is imminent.
6. Permanent erosion control shall be placed and established with 90% coverage on all disturbed surfaces other than paved or gravel surfaces prior to final inspection. Permanent erosion control shall be fully established prior to final inspection. Temporary erosion control measures shall remain in place until permanent measures are established.
7. In the event of a failure, the developer and/or his representative shall be responsible for cleanup and all associated costs or damages. In the event that damage occurs within the right of way and the County is required to perform cleanup, all work shall cease on the project until cleanup costs are fully paid.
8. If any work is not in compliance with the plans or permits approved for the project, the Department shall revoke all active permits and recommend that County Code Enforcement provide a written notice or stop work order in accordance with Section 22.52.140 (23.10) of the Land Use Ordinance. All projects involving site disturbance of one acre or greater shall comply with the requirements of the National Pollutant Discharge Elimination System (NPDES). The developer shall submit a Notice of Intent (NOI) to comply with the General Permit for Construction Activity with the Regional Water Quality Control Board (RWQCB). The Developer shall provide the County with the Waste Discharge Identification Number (WDID) or with verification that an exemption has been granted by RWQCB.
9. WDID# Exempt per RWQCB
10. Person to contact 24 hours a day in the event there is an erosion control/sedimentation problem (Storm Water Compliance Officer)
Name Fritz Heltzer
Local Phone 835-1442

Project Air Quality Control Notes:

During Construction the contractor shall designate a person or persons to monitor the Dust Control Program and to order increases measures as necessary to prevent the transport of dust off-site. Their duties shall include holiday and weekend periods when work may or may not be in progress. The name and telephone number for such persons shall be provided to the APCD prior to the commencement of construction.

The measures for dust control are as follows but not limited to:

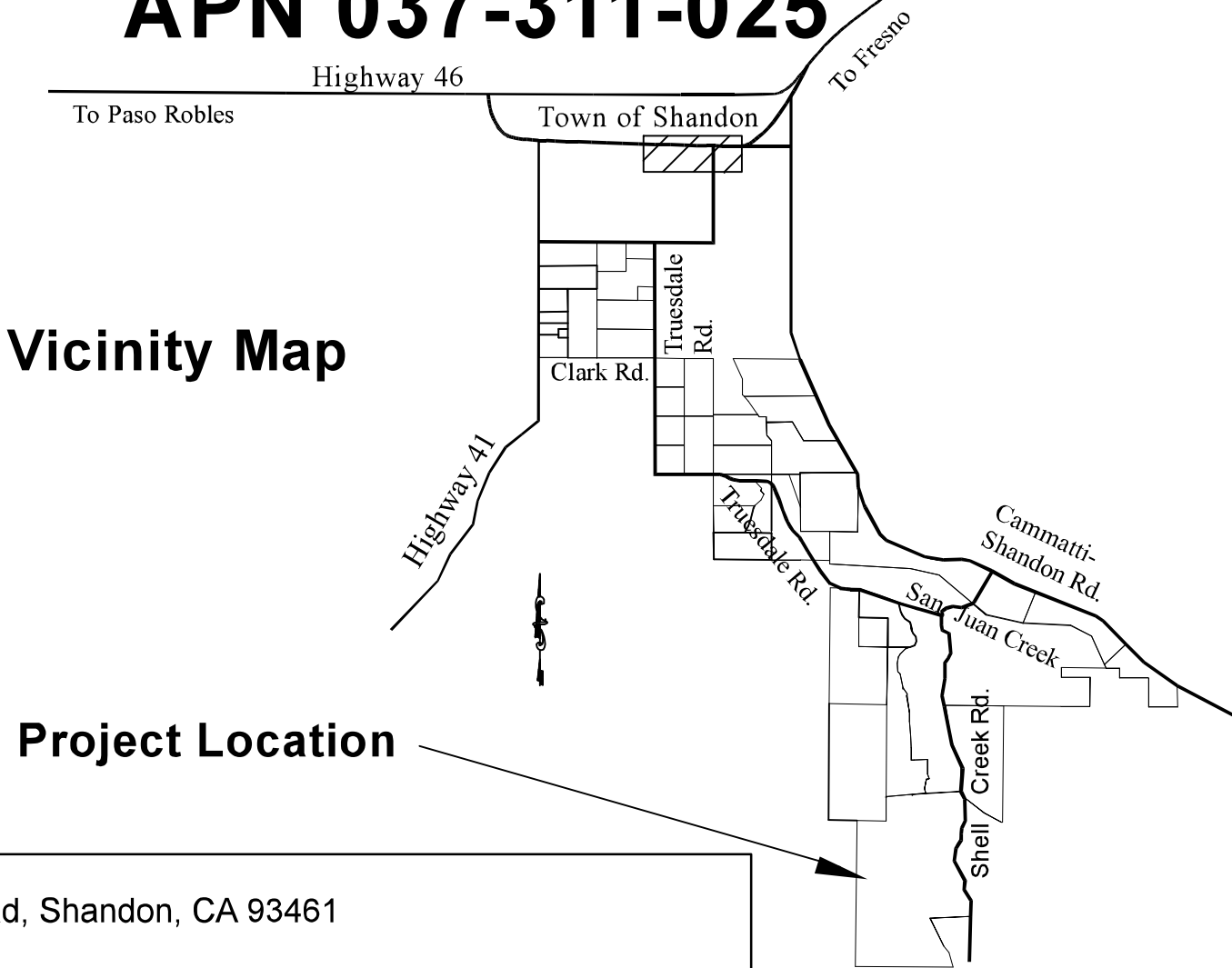
- Reduce the amount of disturbed area where possible.
1. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15mph. Reclaimed (non-potable) water should be used whenever possible.
 2. All dirt stockpile areas shall be sprayed daily as needed.
 3. Exposed ground areas that are planned to be reworked at dates later than one month after initial grading should be seeded with a fast germinating native grass seed and watered until vegetation is established.
 4. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the ACCD.
 5. All external slopes shall be hydroseeded as soon as possible upon completion.
 6. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
 7. All trucks hauling dirt, sand, soil, or other loose material are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
 8. Install wheel washers where vehicles enter and exit paved roads and streets, or wash off trucks and equipment leaving the site.
 9. Prior to final inspection all disturbed areas shall be vegetated with a fast-growing, native seed mix.

General Notes

1. No construction shall be started without plans approved by the County Planning Department. The Planning Department shall be notified at least 24 hrs prior to the start of construction and the time and location for the preconstruction conference.
2. All construction work and installations shall conform to the County Standards and Specifications.
3. Soils tests shall be done in accordance with the County Standards and Specifications Sections 11-351.1403 and Section 11.351-1404. The test results shall clearly indicate the location and source of materials.
4. Compaction tests shall be made on all embankment materials, subgrades and ditch backfill.
5. There will be no need for special concrete inspection. Concrete for the anchor pad shall be 2000 psi. The rebar shall be inspected prior to the placement of the concrete. All concrete and the two sack slurry for the anti-seep collars and ditch backfill where shown shall be properly vibrated.
6. The Design Engineer shall inspect the installation of the HDPE Liner. The liner shall be installed by a contractor specializing in lining ponds.
7. The Engineer of Record shall certify that the improvements when completed are in accordance to the plans prior to the request for Final Inspection. As-built plans are to be prepared after construction is completed. The Engineer certifying the improvements shall be present at the Final Inspection.
8. Final Reports for grading and earthwork shall be prepared in accordance with the requirements of the UBC, Chapter 33.
9. Upon completion of the work, the Geotechnical Engineer shall submit to the Engineer of Record a complete summary of all testing done during the project.
10. The Construction Contractor shall maintain a current, complete and accurate record of all changes which deviate from the approved plans. No changes shall be made without the prior approval of the Engineer of Record and the County.
11. The site shall be posted for a construction speed limit of 25 mph to protect the San Joaquin Kit Fox.

Bluff West Reservoir

APN 037-311-025



Vicinity Map

Address: Shell Creek Road, Shandon, CA 93461
APN 037-311-025
Legal Description
Lot size Acres: 698.1
Zoning AG
Project Description: Construct a 49 ac-ft Agricultural Reservoir for irrigation purposes

Kit Fox Special Requirements

- (1) Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County Division of Environmental and Resource Management. The retained biologist shall perform the following monitoring activities:
 - a. Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, the biologist shall conduct a pre-activity (i.e. pre-construction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed, as applicable, to address any kit fox activity within the project limits.
 - b. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, clearing, excavation, stock piling of dirt or removal of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-3 through BR-11. Site-disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-2-c3). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
 - c. Prior to or during project activities, if any observations are made of San Joaquin kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. horn or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact the U.S. Fish and Wildlife Service and the Department for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the U.S. Fish and Wildlife Service/Department determine it is appropriate to resume work. If incidental take of kit fox during project activities is possible, before project activities commence, the applicant must consult with the U.S. Fish and Wildlife Service and the Department (see contact information below). The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.
- (2) In addition, the qualified biologist shall implement the following measures:
 1. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 - a) Potential kit fox den: 50 feet
 - b) Known or active kit fox den: 100 feet
 - c) Kit fox pupping den: 150 feet
 2. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
 3. If kit foxes or known or potential kit fox dens are found on site, daily monitoring during ground disturbing activities shall be required by a qualified biologist.
- (3) Prior to issuance of grading and/or construction permits, the applicant shall delineate as a note on the project plans that "Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox." Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction. In addition, prior to permit issuance and initiation of any ground disturbing activities, conditions BR-3 through BR-11 of the Developer's Statement/Conditions of Approval shall be clearly delineated on project plans.
- (4) During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.
- (5) Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the county, as well as any related biological reports prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
- (6) During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes or trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
- (7) During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved, or if necessary, be moved only once to remove it from the path of activity, until the kit fox has escaped.
- (8) During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps generated shall be disposed of in closed containers only and regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- (9) Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, state and federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
- (10) During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the U.S. Fish and Wildlife Service and the Department by telephone (see contact information below). In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to the Department for care, analysis, or disposition.
- (11) During the site-disturbance and/or construction phase, the applicant shall install a temporary wildlife ladder or similar feature approved by the County within the reservoir that would enable wildlife species to exit the reservoir. The ladder or similar feature shall remain in place until the permanent perimeter fence is constructed and no wildlife species is present within the reservoir. This measure shall be shown on all applicable grading and construction plans.

Table 1705.6

Required Verification and Inspection of Soils

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed
1. Verify materials below embankments are adequate to achieve the design capacity		X
2. Verify excavations are extended to proper depth and have reached proper material.	—	X
3. Perform classification and testing of controlled filled materials.	—	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X	
5. Prior to placement of controlled fill, observe subgrade	—	X

Mid-Coast Geotechnical shall perform all special inspections for the earthwork for this project.

Call 24 hours prior to inspection to set up an appointment.

Scope of Work

The work consists of constructing a new lined 48 acre-foot reservoir 22' deep specifically for irrigation and frost control purposes. Any off-site transfer and/or any other use of the reservoir water is prohibited. All areas to receive fill shall be excavated a minimum of three feet, the exposed surface scarified and moisture conditioned, then recompact to 90% relative compaction. The intent is to balance the earthwork with no import or export. The completed interior slopes shall be fine graded and all rocks removed. A 40 mil HDPE geomembrane liner will then be installed on the slopes. The liner will be installed per manufacturer's recommendations by a company specializing in liner installation. A 6 foot non-climb fence will be built around the exterior perimeter. The sources of water are existing pvc waterlines from existing wells and reservoirs and no surface water shall enter the reservoir. Valving, filters and pumps will be installed after the reservoir is constructed by the Irrigation Contractor and are not part of this permit. This contract is for stubbing one 15" cl 160 pipe through the exterior slope for future connection to the fill and transfer lines by an Irrigation Contractor. This pipe shall have concrete slurry anti-seep collars. A 18" PVC Drop Pipe Outlet Structure will serve as an emergency overflow in the event the high water limit switch fails and is sized to prevent the reservoir from overtopping. Access to the reservoir is by existing dirt farm roads. No driveways will be constructed. The existing farm field sheet flows across the location from 4% to 13%. An earthen swale will be constructed around two sides of the perimeter to keep any flow away from the toe of the fill slopes. No electrical work nor utility work is included in this permit.

Benchmark and Basis of Bearing

Benchmark is a metal Triangulation Monument on hill above reservoir

N 2402435.13

E 5865106.77

Elev = 1454.72

Basis of Bearing is line between control points 709 and 711

Pre-construction Meeting

Prior to construction a pre-construction meeting is required with the inspector to go over the special inspection reporting requirements, final and progress reports, & erosion control. Call SLO County Building Department 781-5600, North SLO County Inspector, 781-2076

Reports Required

Upon the completion of Construction the Engineer of Record shall prepare and submit to the County of SLO a Final Report stating that the work is in substantial conformance with the approved plans. Progress Reports are required by the Engineer of Record to the grading inspection as determined during the pre-construction meeting.

Special Inspections

1. No special inspections will be required for this project
2. Mid-Coast Geotechnical shall inspect all earthwork and normal concrete and slurry placement. Contact Dane Jensen at 461-0965
3. The Engineer of Record shall inspect the installation of the pond liner. Contact Tom Howell at 925-5311

Project Information

Contacts:

Owner:

Matt Turrentine
444 Higuera St Suite 202
San Luis Obispo, CA 93401
805 312-1828

Engineer:

1812 N Vine
Santa Maria, CA 93454
805 720-1669

Geotechnical Engineer: Mid Coast Geotechnical, Inc

Dane Jensen
3124 El Camino Real
Atascadero, CA 93423-2220
805 461-0965

Engineer's Certificate

I, Tom A Howell, RCE 27037, Engineer of Record, hereby certify that these plans are in

accordance with the following codes: _____ Date: _____

2013 California Energy Codes
2016 California Building Code Vols 1 & 2
2016 California Electrical Code
2016 California Energy Code
2016 California Fire Code
2016 California Green Building Code
2016 California Mechanical Code
2016 California Plumbing Code
2016 Reference Standards Code
County Building and Construction Ordinance Title 19
County Coastal Zone Land Use Ordinance Title 23
County Fire Code Ordinance Title 16
County Land Use Ordinance Title 22

Geotechnical Engineer's Certificate

I have reviewed the plans and specifications and have found them to be in

substantial conformance with the recommendations as found in my Soil Investigation.

Date: _____

Pond Report

Top of dam elevation: 1180.85
Bottom of pond elevation: 1158.85
Top of dam width: 14.00
Cut Slope: 2.00:1
Fill Slope: 2.50:1
Interior Slope: 2.50:1

Pond Earthwork Volumes

Fill Factor: 1.30
Total cut : 46,783 C.Y.
Total Fill: 46,800 C.Y.
Area cut: 135,060 S.F.
Area Fill: 113,431 S.F.
Total Area: 248,491 S.F. 5.70 Acres

Sheet Index

Sheet 1: Front sheet, notes and title

Sheet 2: Overall Layout & Existing Contours

Sheet 3: Reservoir Grading Plan

Sheet 4: Details

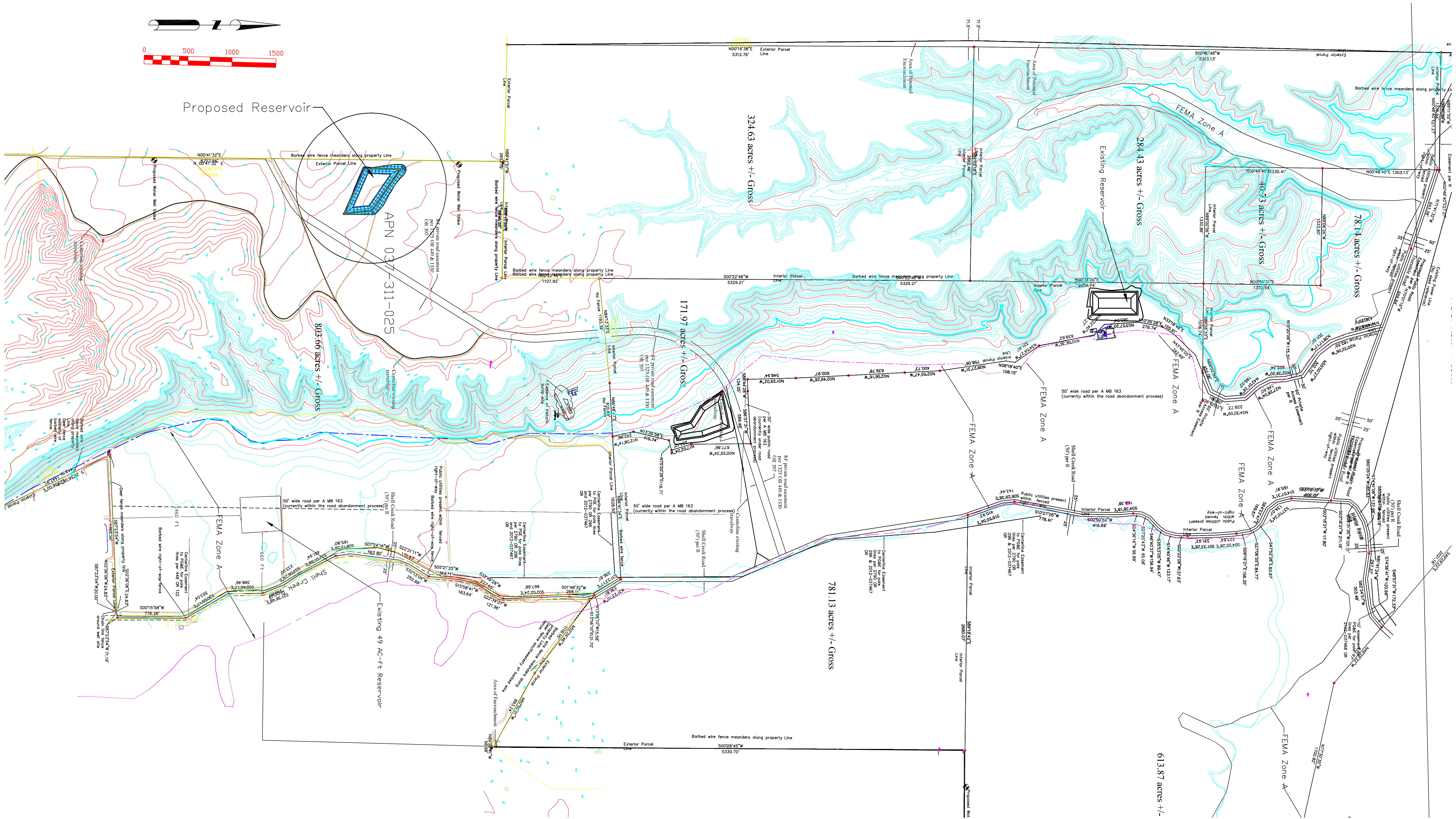
Sheet 5: Details, BMP Details

Sheet 6: Erosion & Sedimentation Plan

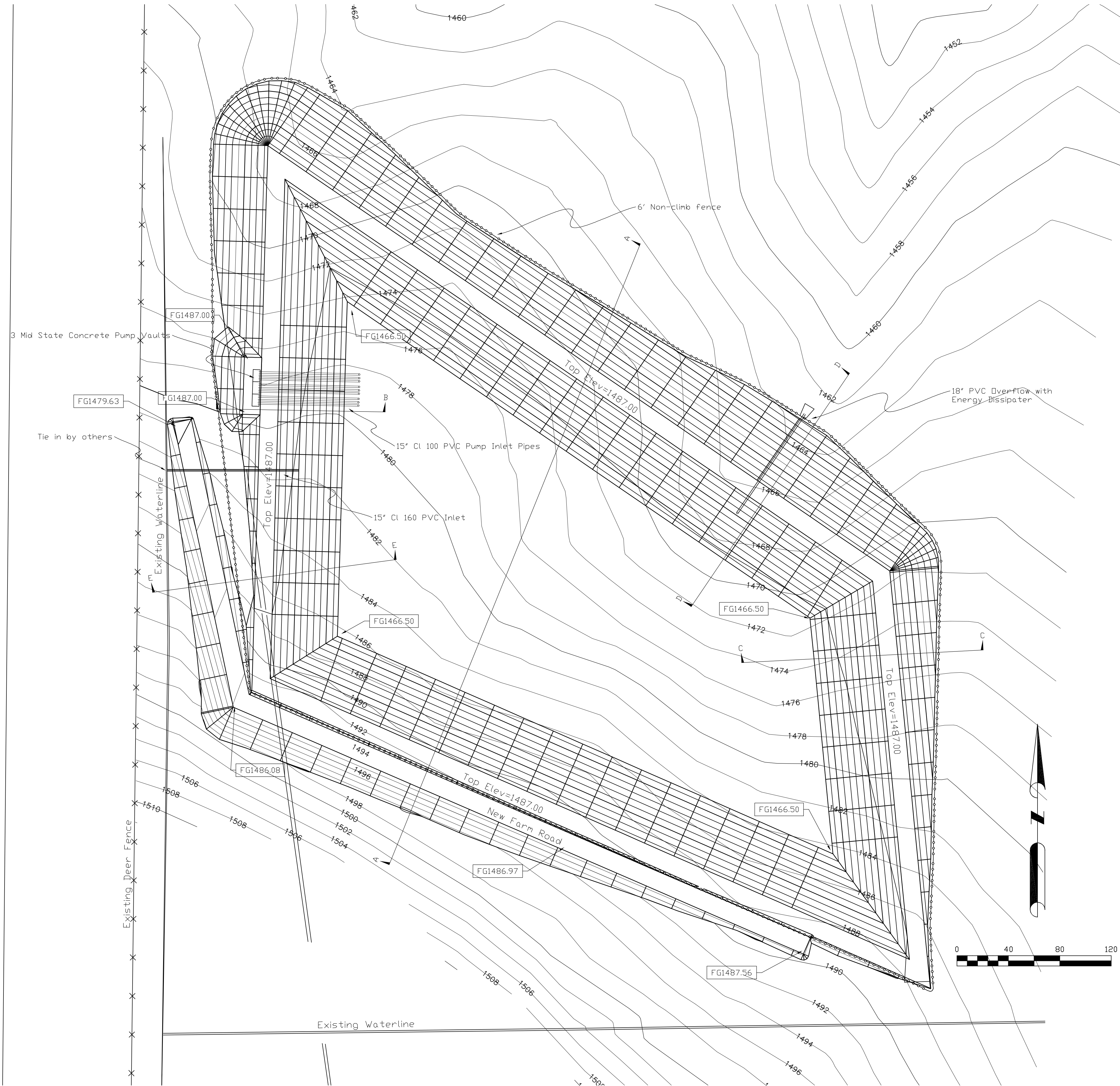


Bluff West Reservoir

DRAWN TH	DATE 6/28/18	Cover Sheet 49 Ac-ft
APPROVED	DATE	Shell Creek Rd Shandon
SCALE	SHEET 1 of 6	PROJECT NO. 150519



West Bluff Reservoir		
DRAWN	DATE	Overall Ranch
TH	6/28/18	Truesdale Ranch
APPROVED	DATE	Shell Creek Rd
		Shandon
SCALE	SHEET	PROJECT NO.
1"=500'	2 of 6	150519



Pond Report Tue Apr 17 14:58:54 2018

Top of dam elevation: 1487.00
Bottom of pond elevation: 1466.50
Top of dam width: 14.0
Cut Slope: 2.500:1
Fill Slope: 2.500:1
Interior Slope: 2.500:1 2
Existing Surface: D:\Carlson Projects\West Bluff 2017\West og 4-17-2018.tin

Pond Earthwork Volumes
Total cut: 51,234 C.Y.
Total fill: 29,884 C.Y.

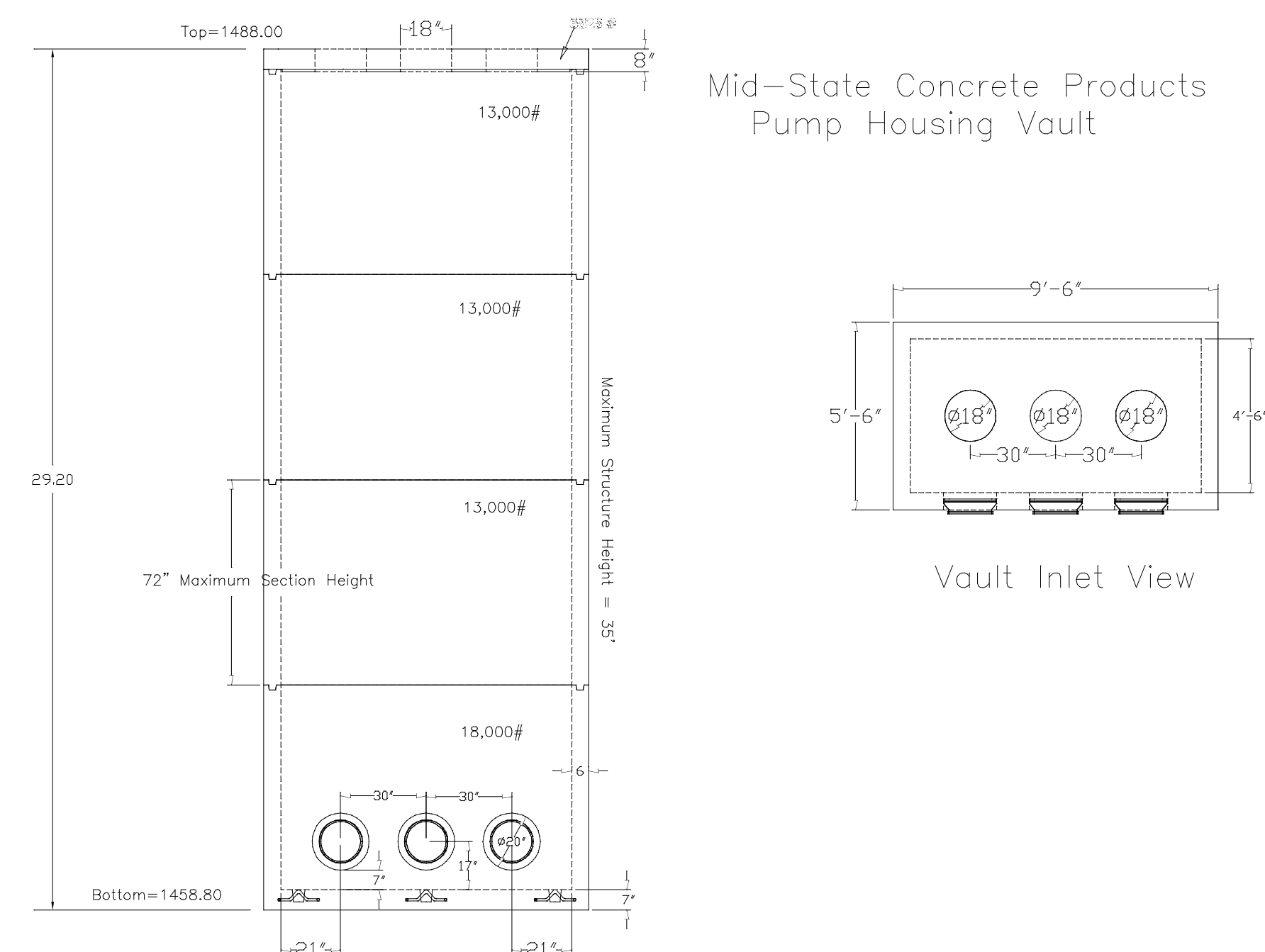
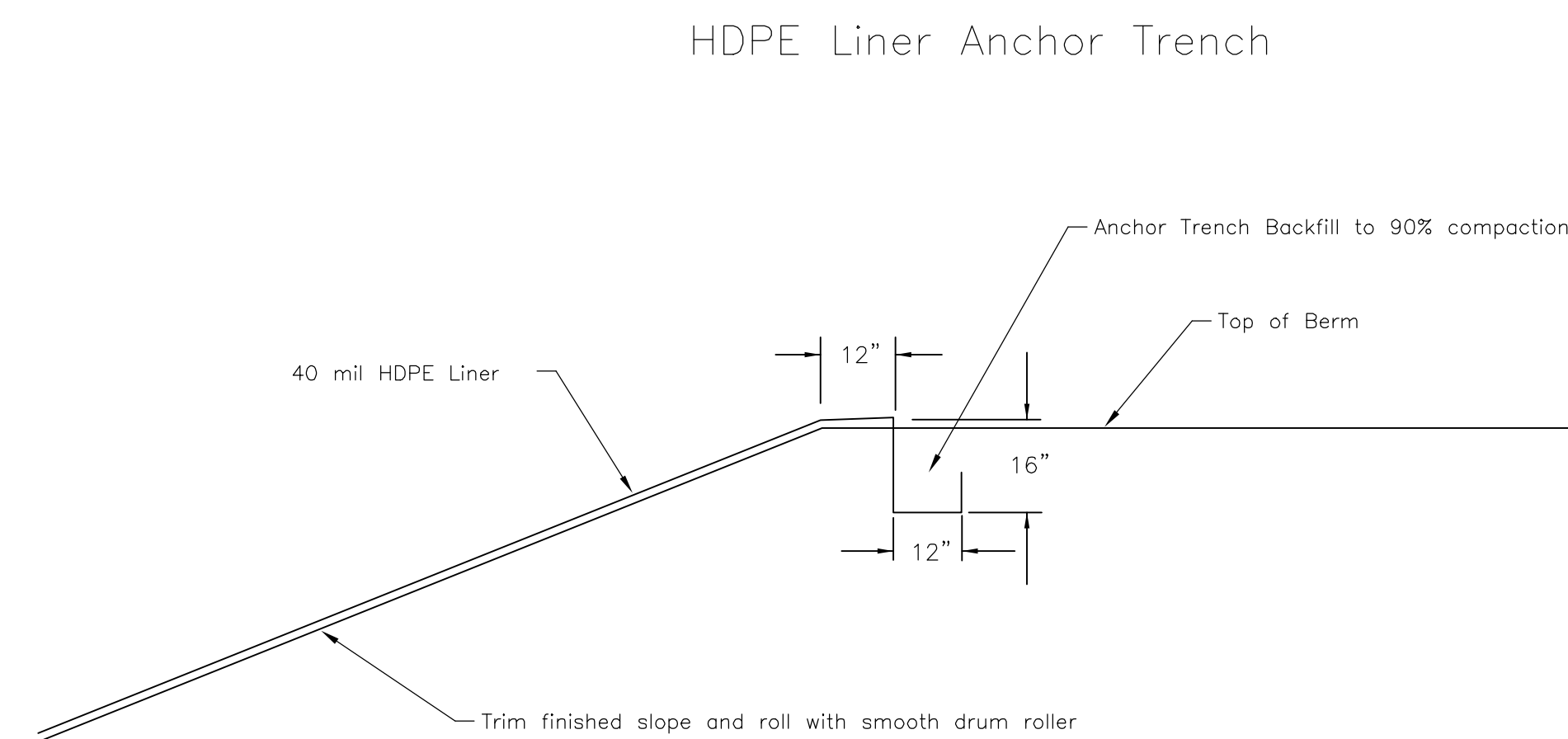
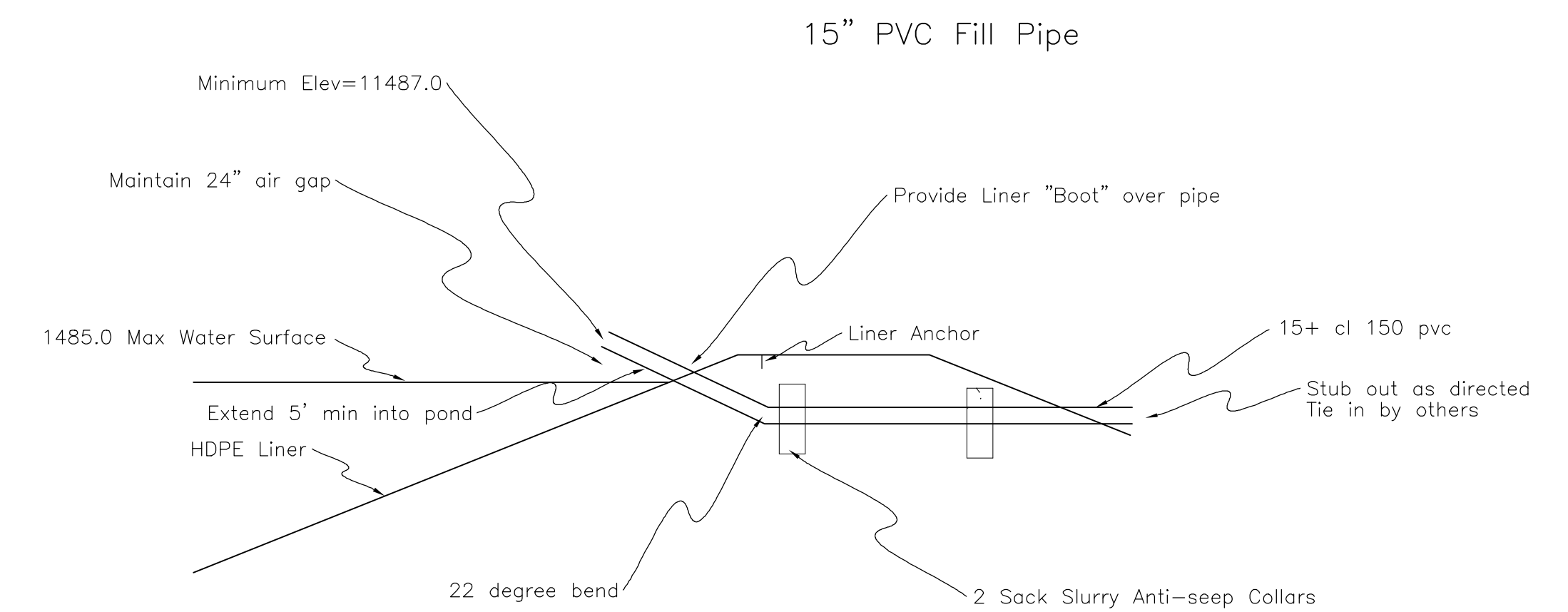
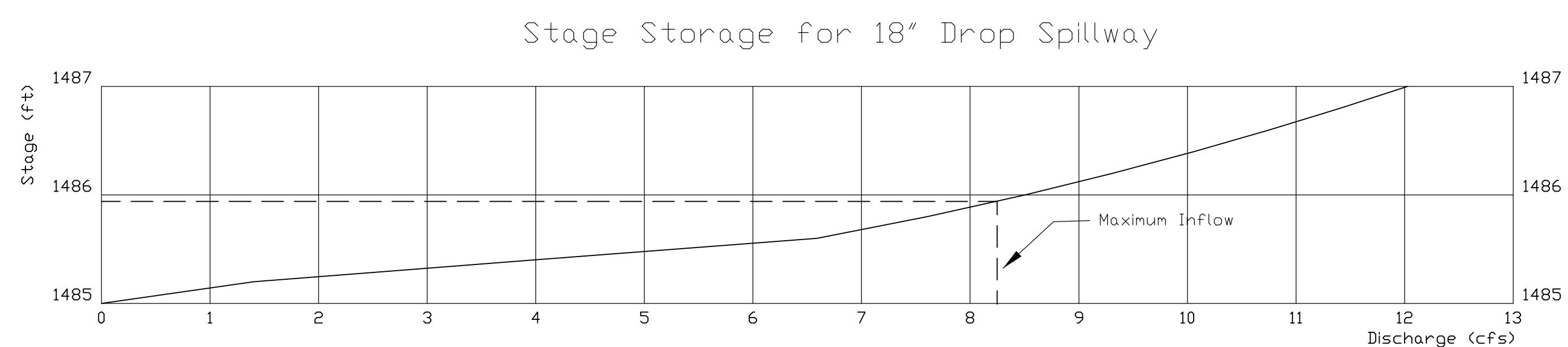
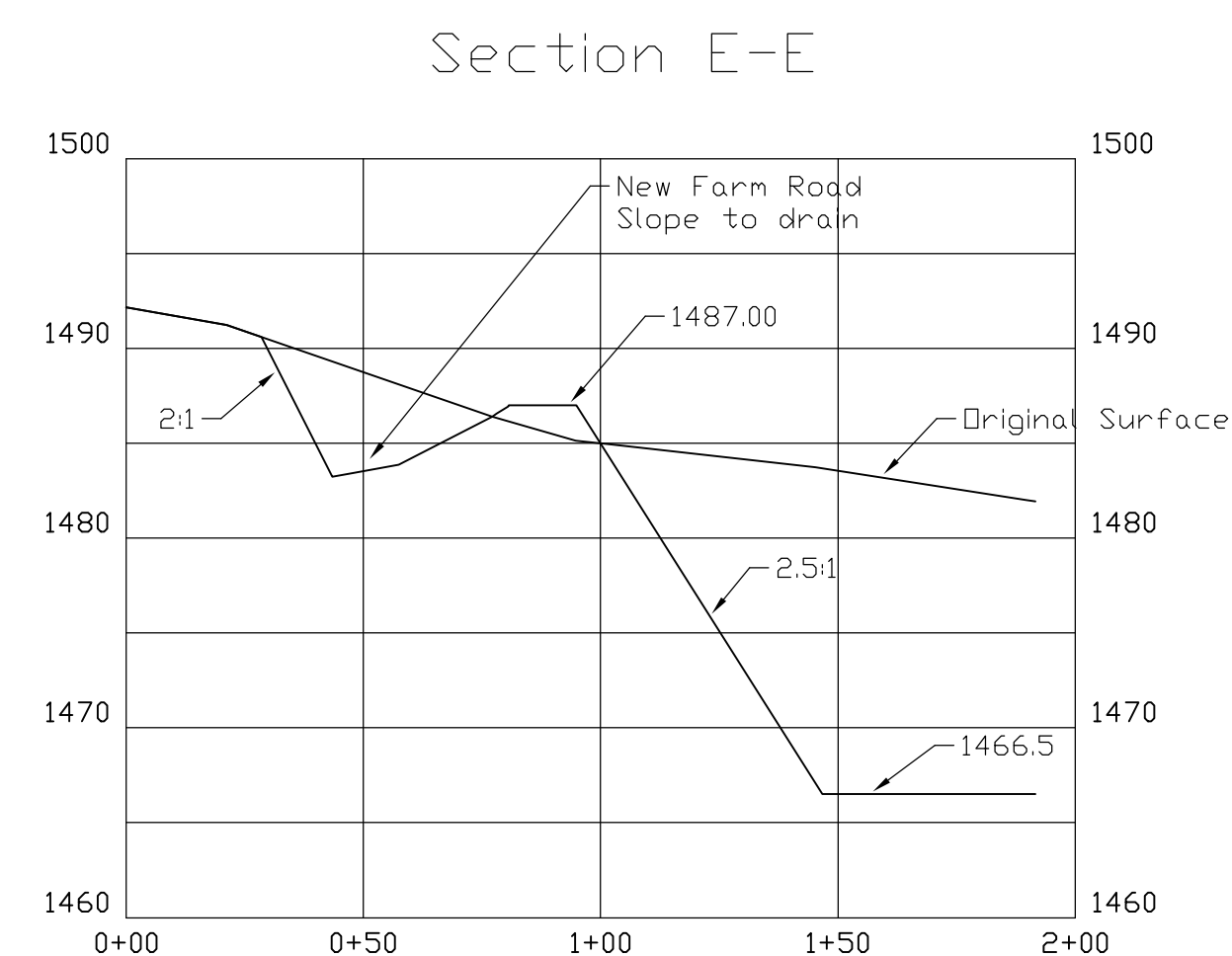
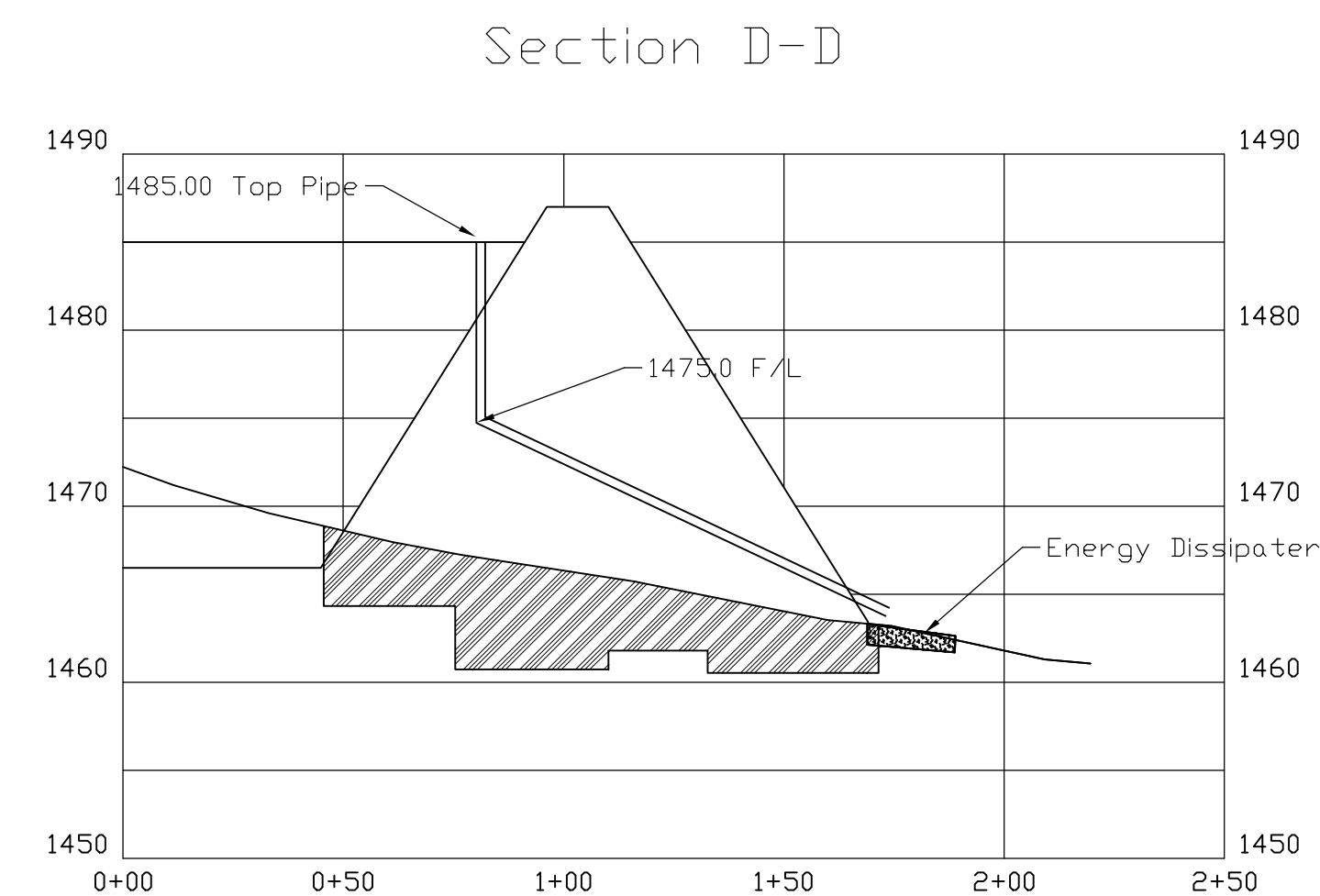
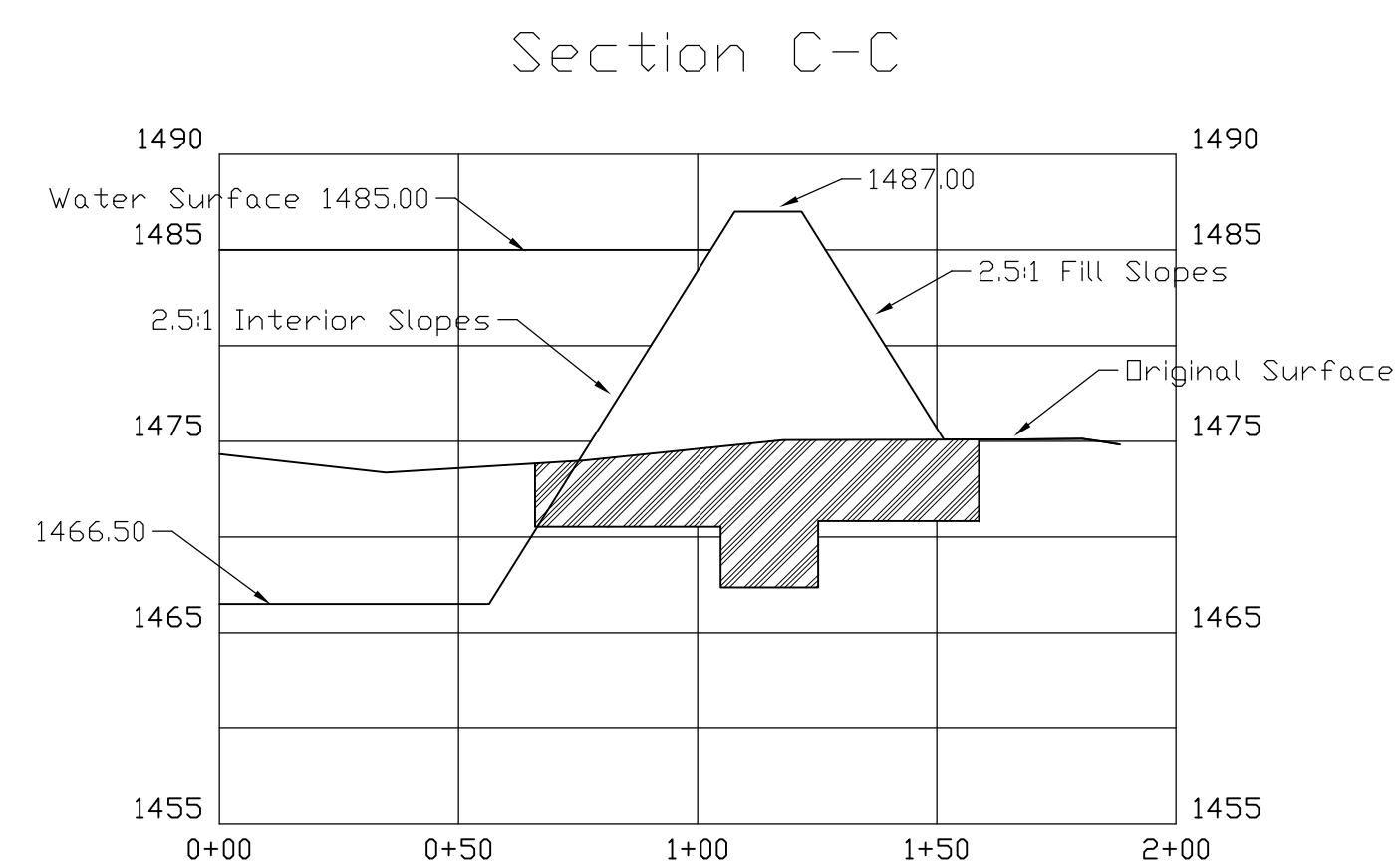
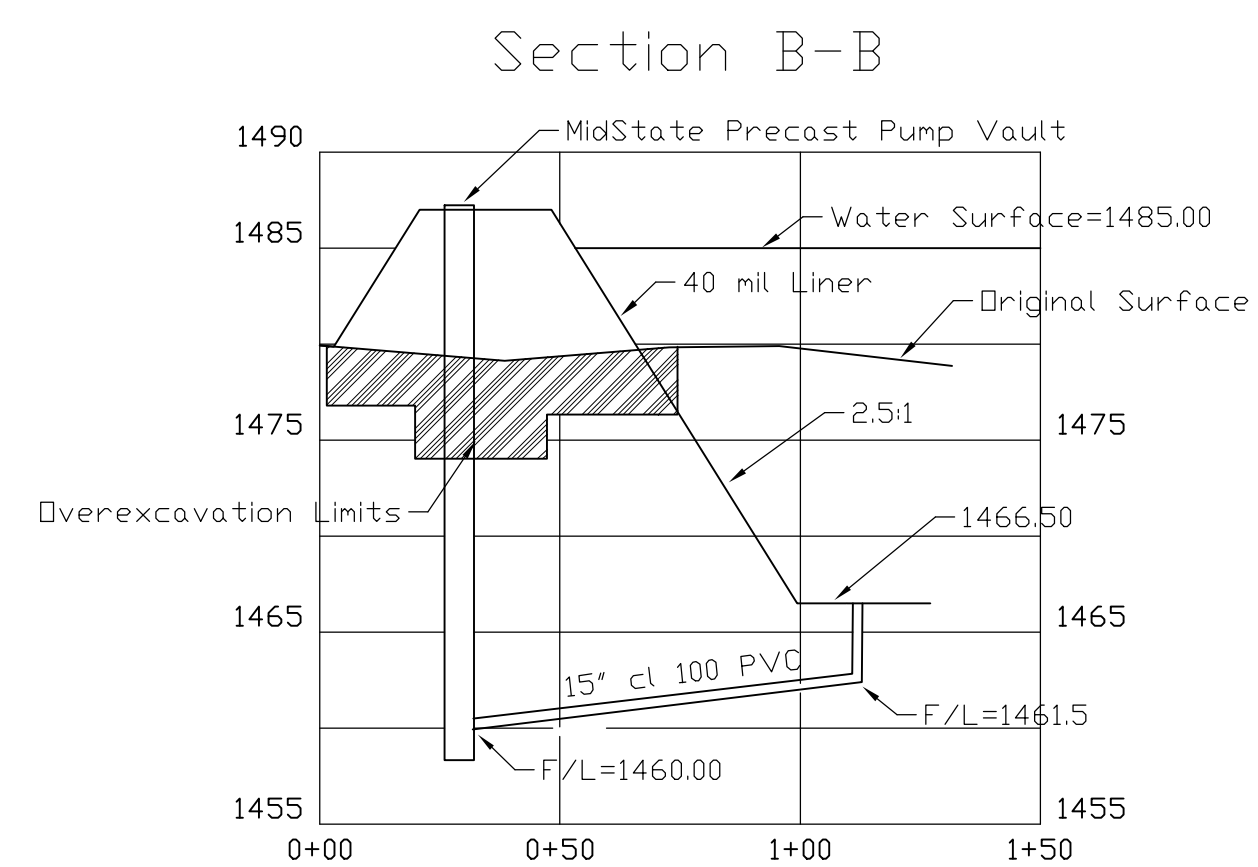
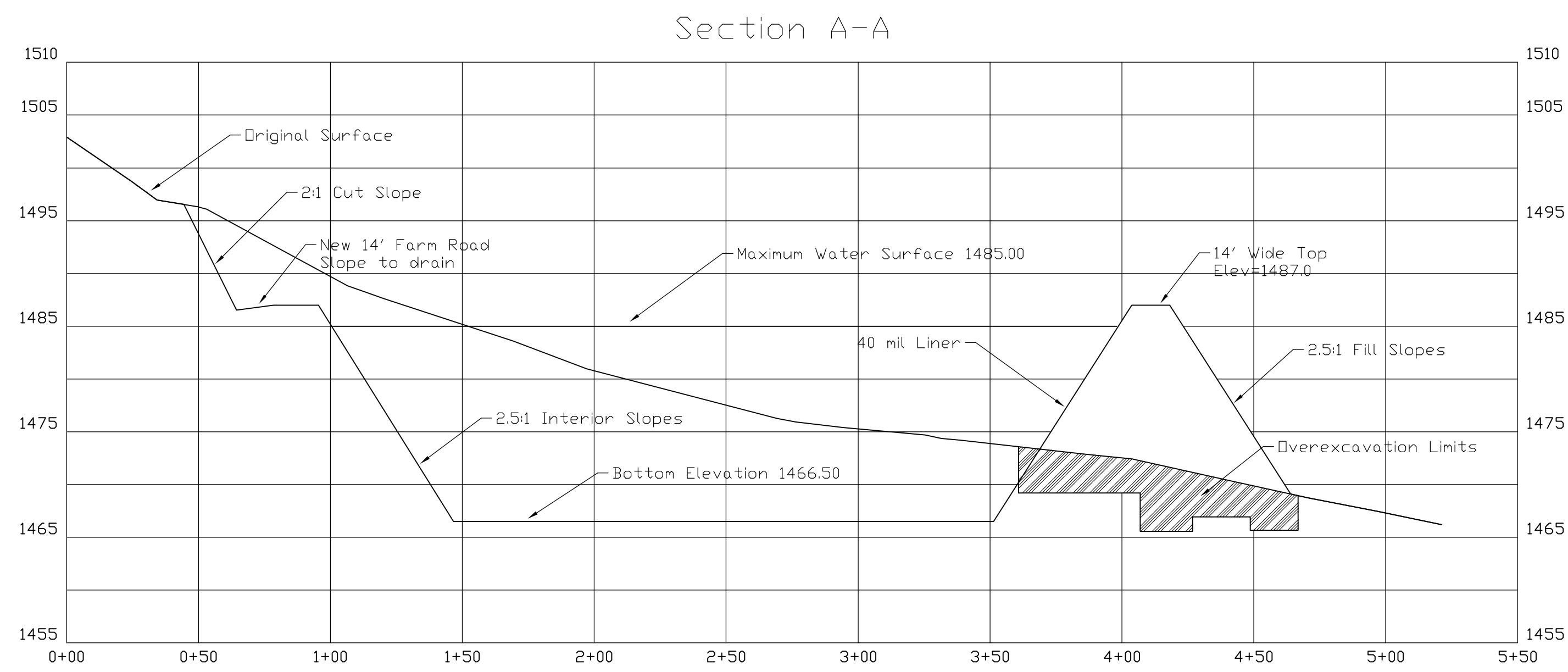
Pond Storage Volumes			
Water Elev	Storage(AcreFt)	(Gallons)	Area(Acre)
1467.00	0.946	308,336.7	1.912
1469.00	4.921	1,603,637.6	2.065
1471.00	9.208	3,000,689.7	2.224
1473.00	13.819	4,502,992.4	2.388
1475.00	18.763	6,114,045.2	2.557
1477.00	24.051	7,837,347.5	2.732
1479.00	29.695	9,676,398.9	2.913
1481.00	35.705	11,634,698.7	3.098
1483.00	42.092	13,715,746.4	3.289
1485.00	48.865	15,923,041.5	3.486
1487.00	56.038	18,260,083.4	3.687

CONTROL POINTS				
Point	Northing	Easting	Elevation	Description
700	2409672.680	5866705.170	1147.86	CP Pole
701	2413916.980	5865558.440	1120.25	CP North
702	2414354.670	5862822.310	1116.80	AT OLD
703	2414781.210	5861623.650	1116.83	AT 1
704	2411728.430	5868883.220	1129.75	AT 2
705	2409594.980	5873872.510	1146.48	AT 3
706	2414054.050	5869006.970	1162.17	AT
707	2406328.530	5864763.930	1188.08	AT 4
708	2398023.740	5863718.700	1654.30	CP
709	2402435.340	5865106.770	1454.72	CP TRIANGULATION
710	2402579.130	5862826.780	1423.45	AT 5
711	2407534.300	5869504.050	1367.38	CP TRIANGULATION
712	2407807.310	5869532.610	1346.21	AT 7
713	2402435.330	5865106.810	1454.72	CP TRIANGULATION
714	2398023.790	5863718.740	1654.13	CP SPK
715	2395882.570	5862761.920	1581.34	AT 7
716	2398100.950	5866172.700	1192.60	MON
717	2398094.570	5866118.750	1193.97	AT 8
718	2402446.480	5869483.080	1320.37	AT
719	2402622.190	5872356.900	1487.86	AT



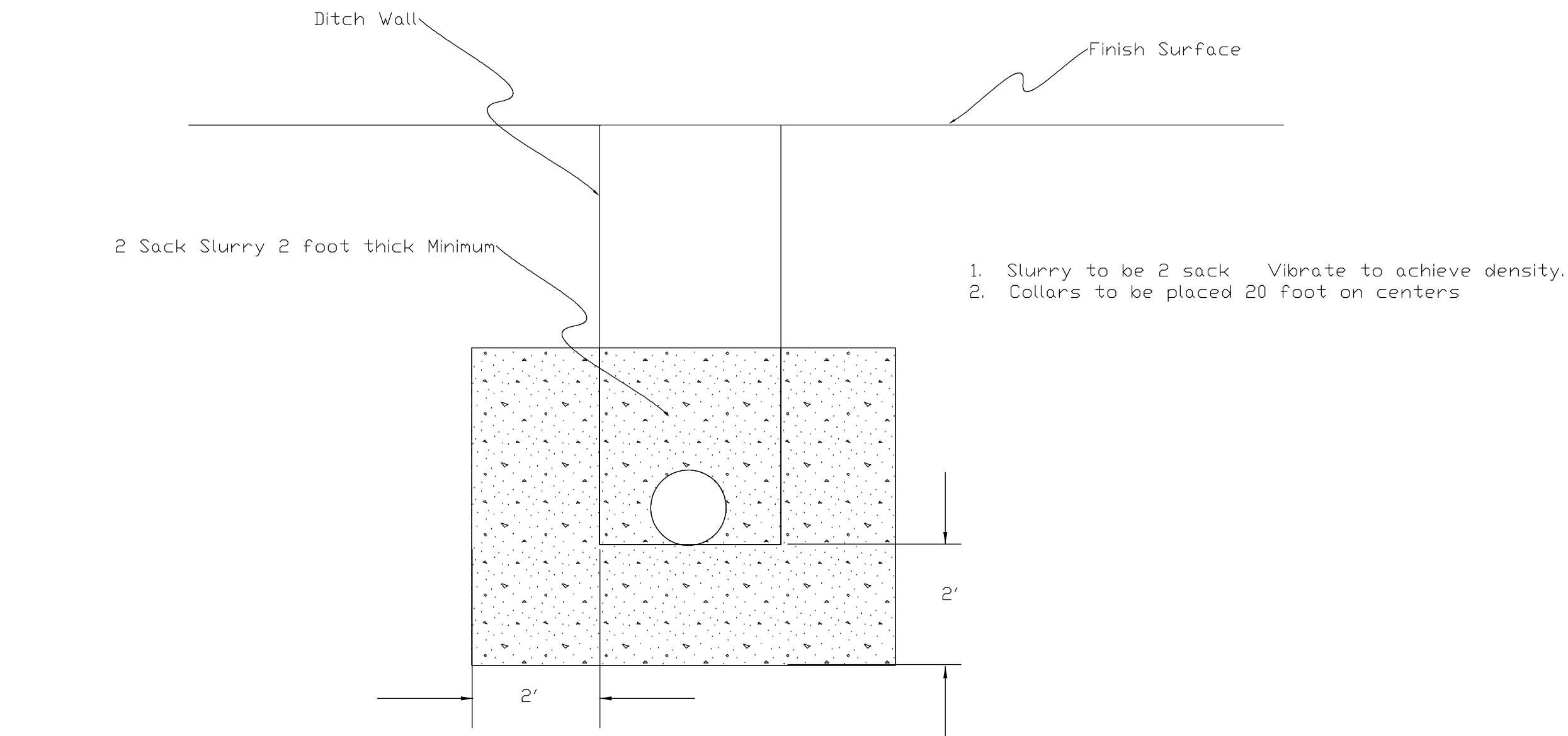
West Bluff Reservoir

DRAWN	DATE	49 Ac-ft Reservoir
TH	6/28/18	Shell Creek Road
APPROVED	DATE	Shandon, Ca
		Grading Plan
SCALE	SHEET	PROJECT NO.
1"=40'	3 of 6	150519

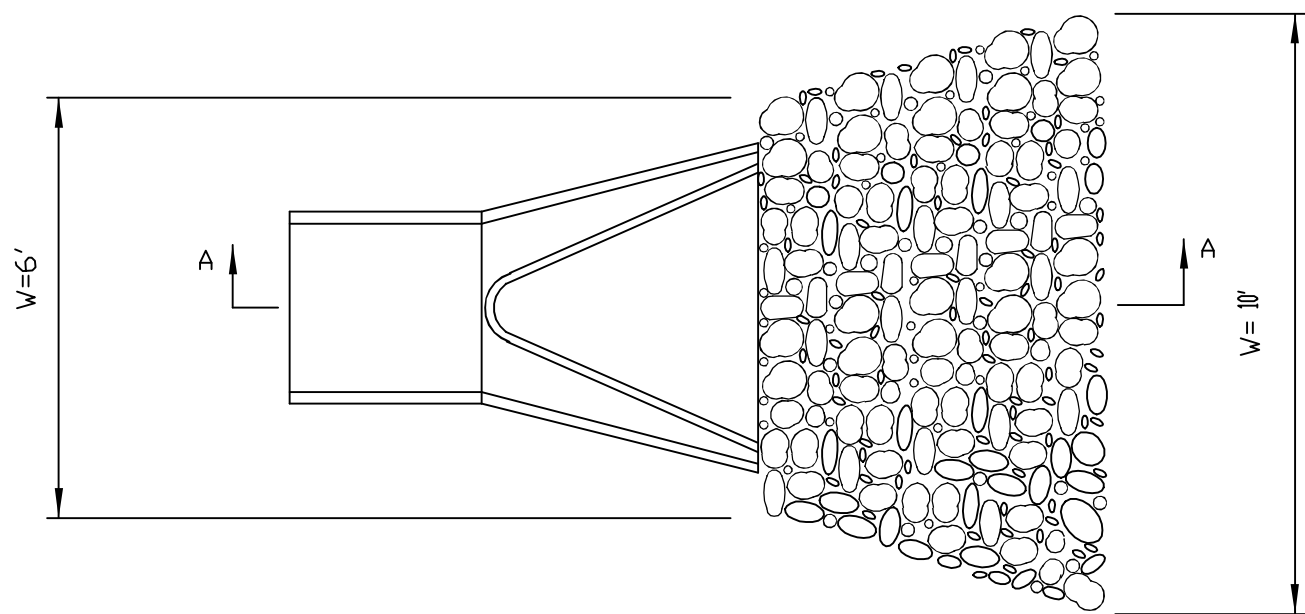


<i>West Bluff Reservoir</i>		
DRAWN <i>TH</i>	DATE <i>6/28/18</i>	<i>49 Ac-ft Reservoir Shell Creek Road Shandon, Ca Details</i>
APPROVED	DATE	
SCALE <i>As Noted</i>	SHEET <i>4 of 6</i>	PROJECT NO. <i>150519</i>

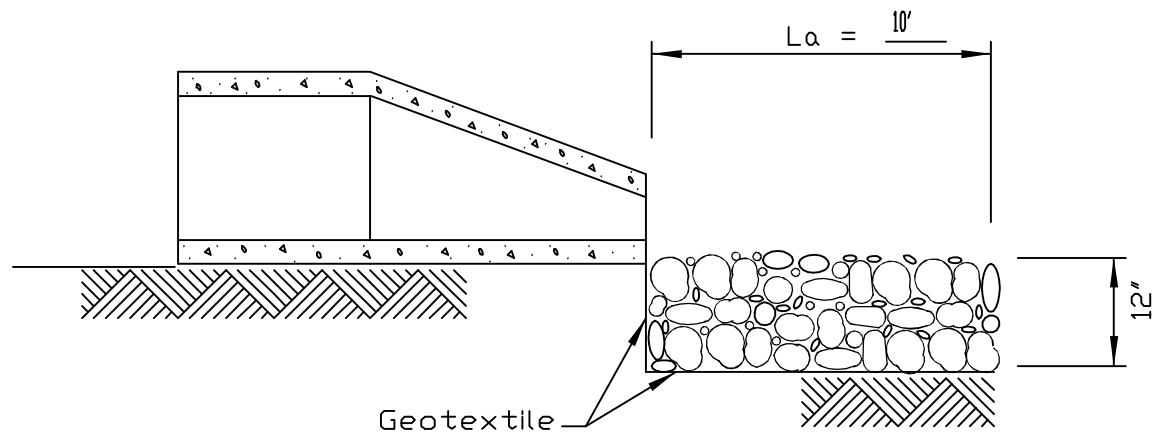
Anti-seep Collar Detail



Rock Energy Dissipater



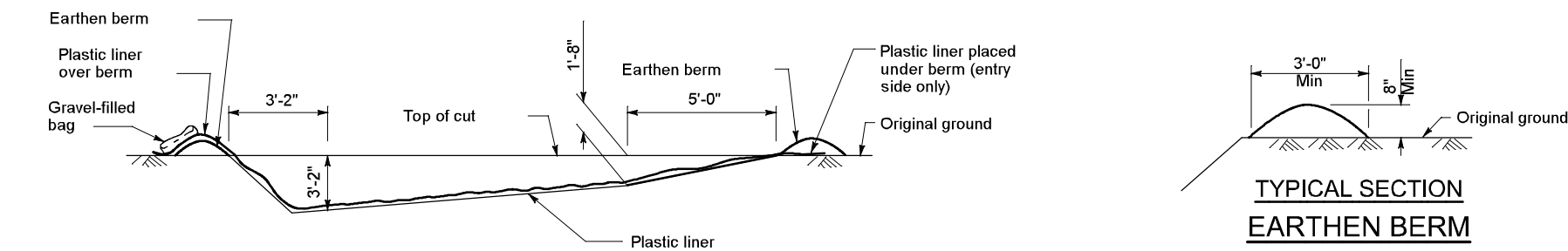
PLAN



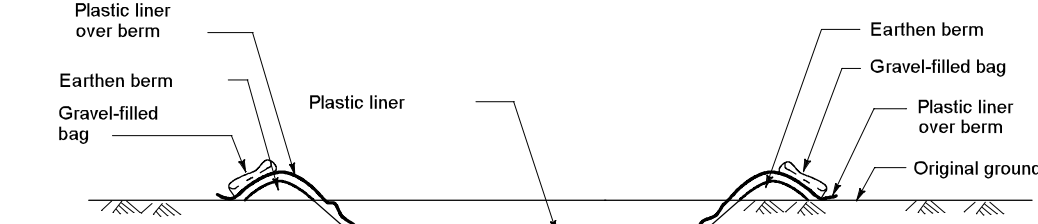
SECTION A-A

Notes:

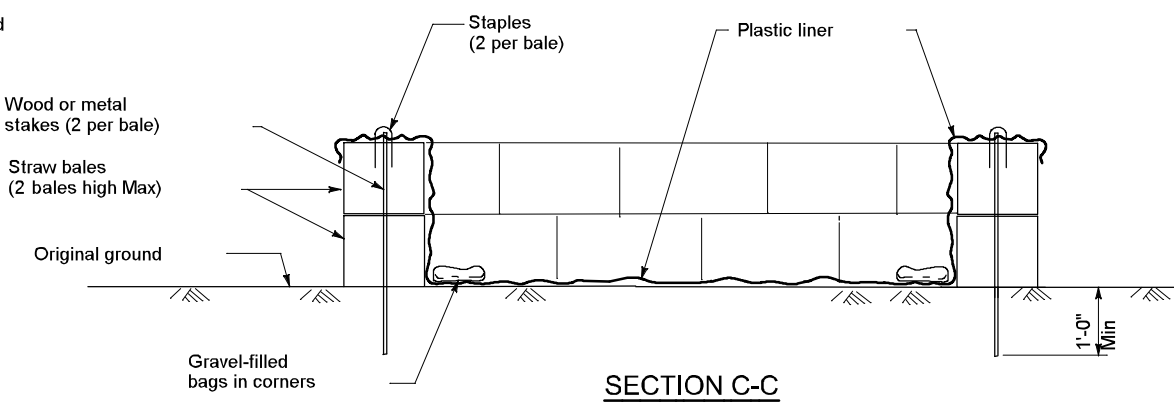
1. Rock shall be 6" to 12" diameter
2. Minimum diminsion shall be 6' x 10' x 12'



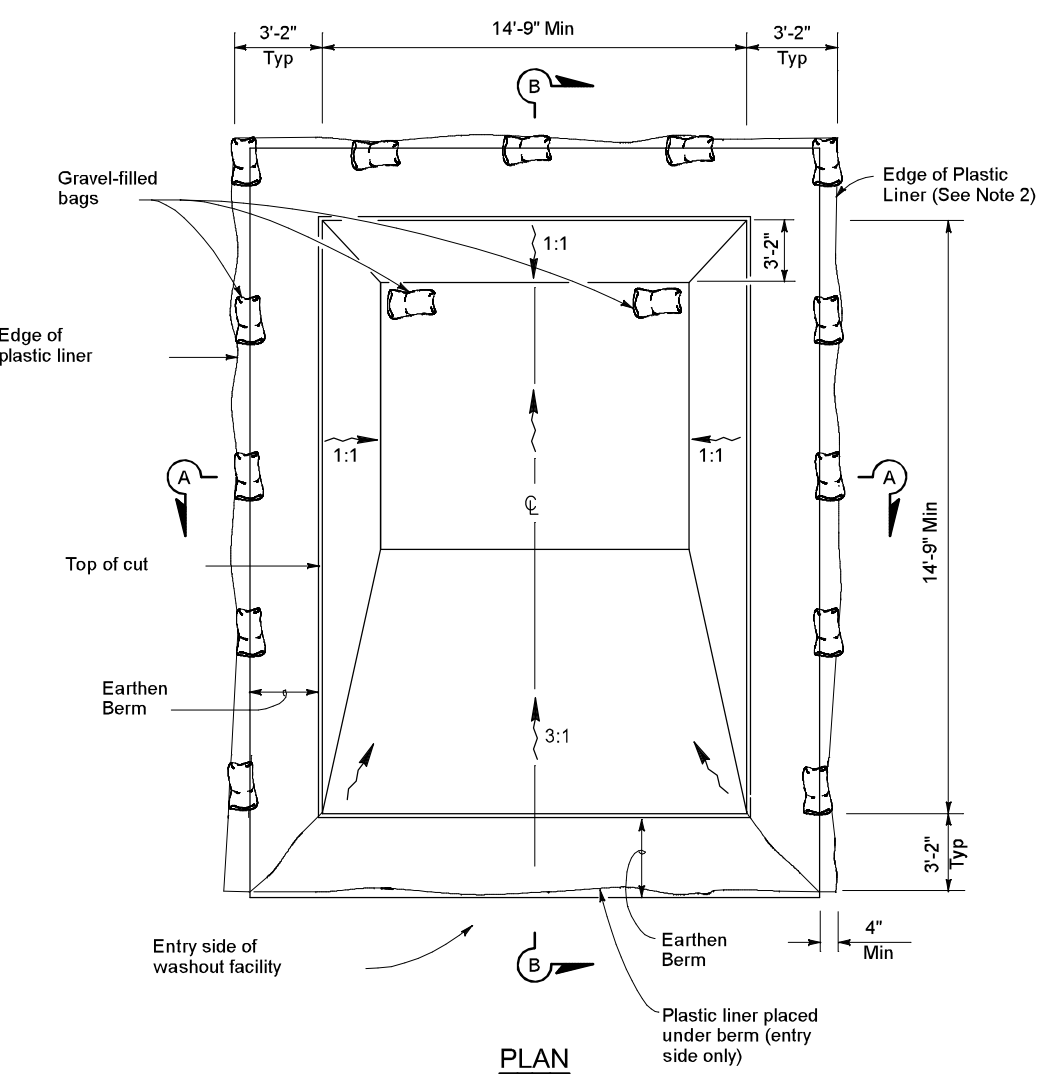
SECTION B-B



SECTION A-A

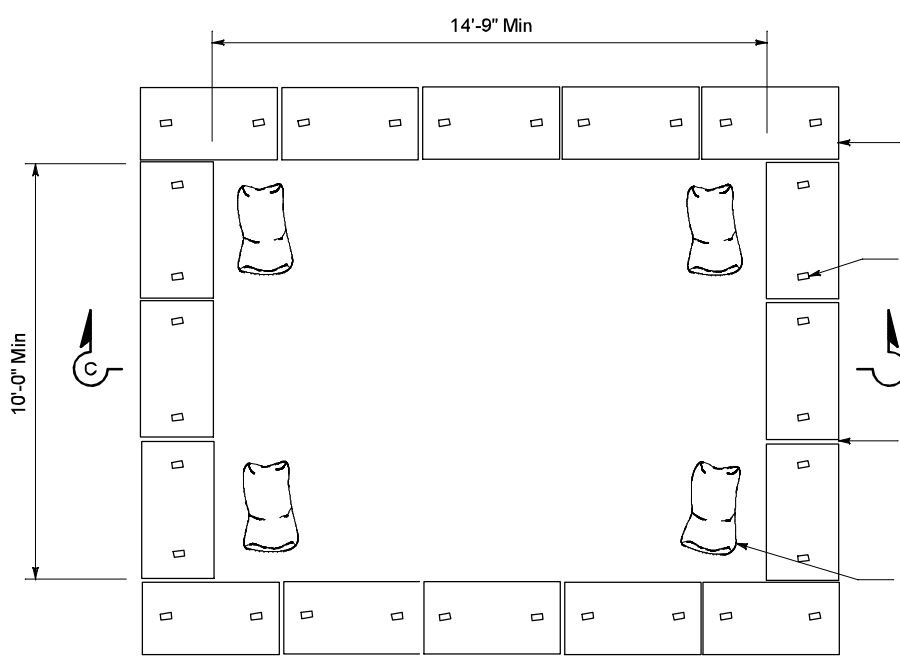


SECTION C-C



PLAN

TEMPORARY CONCRETE WASHOUT FACILITY

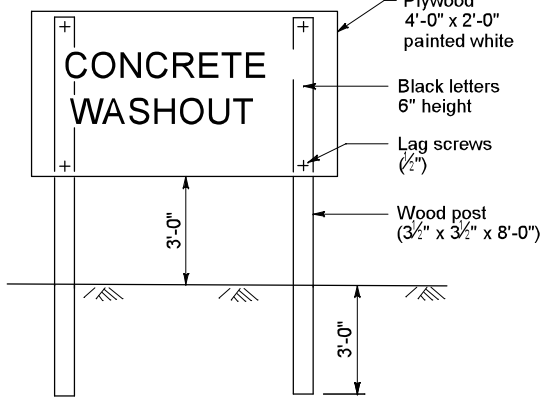


PLAN

TEMPORARY CONCRETE WASHOUT FACILITY

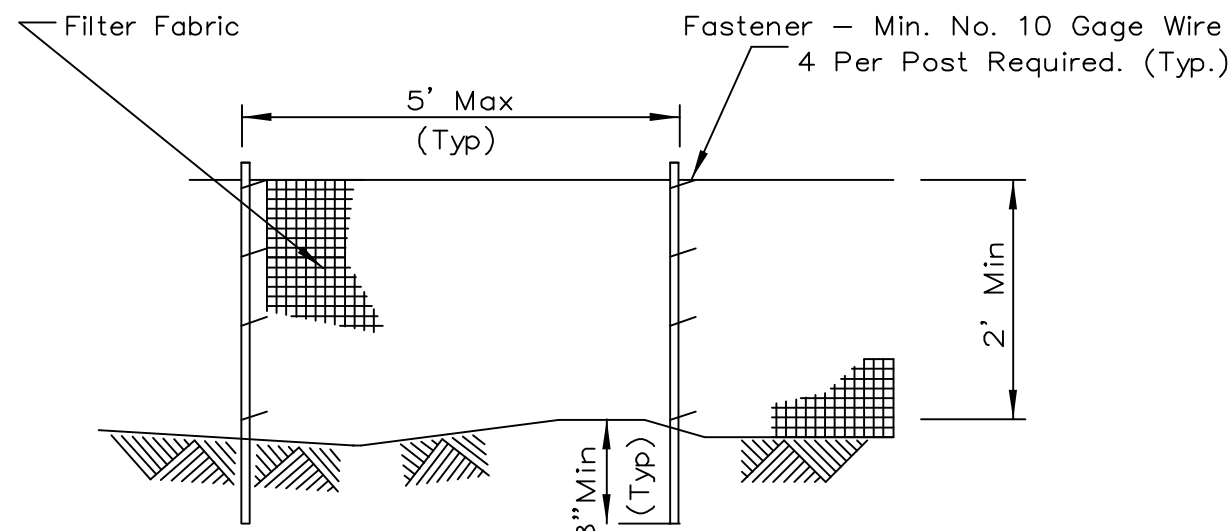
NOTES:

1. The concrete washout sign shall be installed within 32'-10" of the temporary concrete washout facility.
2. Plastic liner shall be anchored with gravel-filled bags for below grade concrete washout facility.

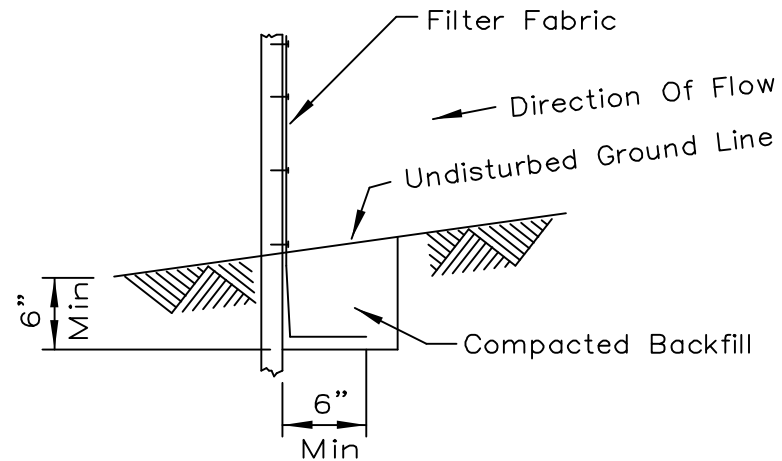


CONCRETE WASHOUT
SIGN DETAIL

SILT FENCE PLAN



ELEVATION



FABRIC ANCHOR DETAIL

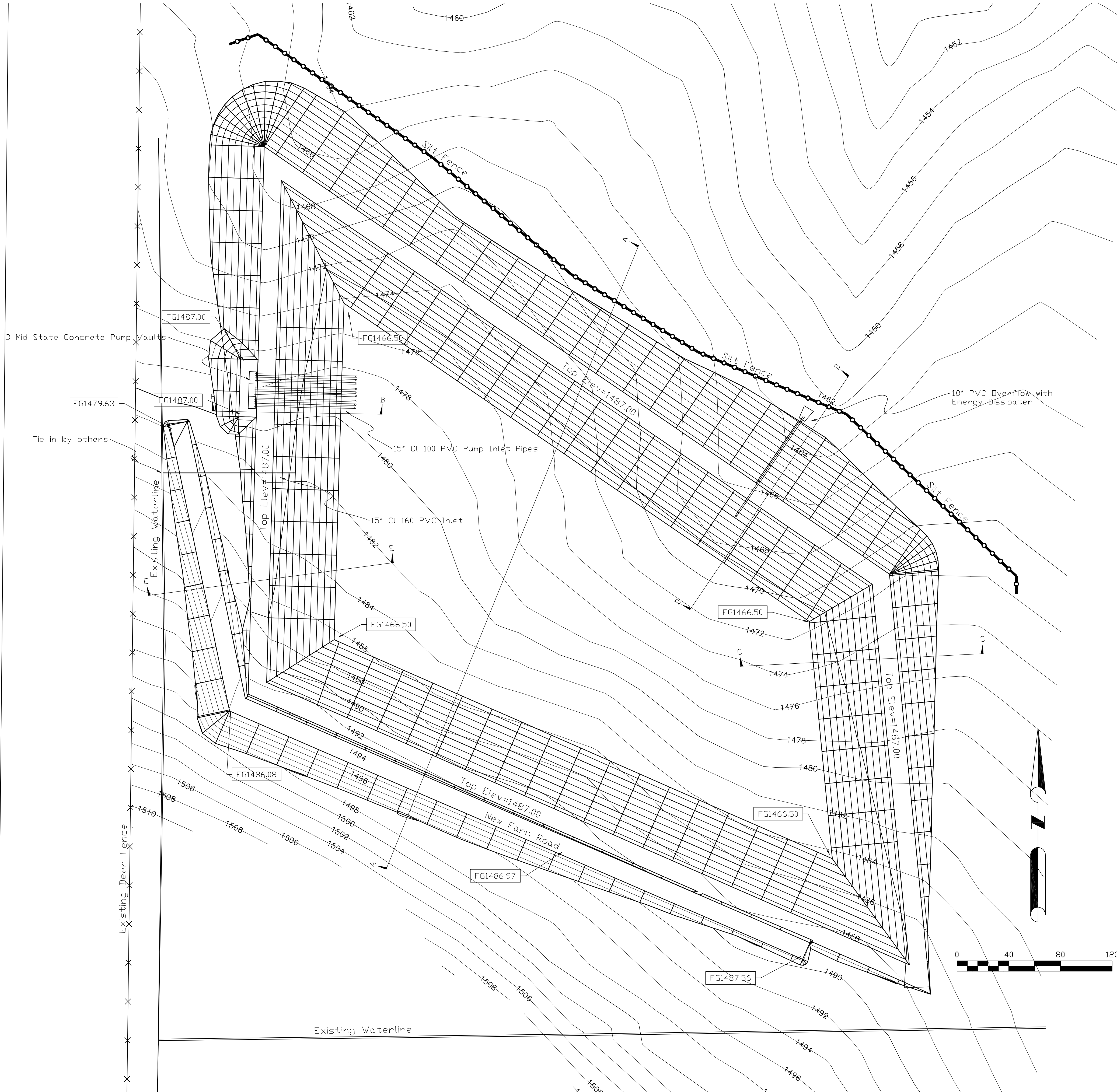
NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.



West Bluff Reservoir

DRAWN TH	DATE 6/28/18	49 Ac-ft Reservoir
APPROVED	DATE	Shell Creek Road
		Shandon, Ca
		Details
SCALE As Noted	SHEET 5 of 6	PROJECT NO. 150519



Erosion Control Notes:

- Erosion control measures shall be implemented on all projects and shall include source control, including protection of stockpiles, protection of slopes, protection of all disturbed areas, and protection of accesses. In addition, perimeter containment measures shall be placed prior to the commencement of grading and site disturbance activities unless the Engineer determines temporary measures to be unnecessary based upon location, site characteristics or time of year. The intent of the erosion control measures shall be to keep all sediment from entering a swale, drainage way, watercourse or onto adjacent properties. An approved Erosion Control and Sedimentation Control Plan will require County approval
- Site inspections and appropriate maintenance of erosion control devices shall be conducted and documented prior to, during, and after rain events.
- The developer shall be responsible for the placement and maintenance of all erosion control devices as specified by the approved plan until such time that the project is accepted as complete by the Engineer. Erosion control devices may be relocated, deleted or additional items may be required depending on the actual soil conditions encountered. Additional erosion control shall be placed at the discretion of the Engineer of Work, Engineer, SWPPP Monitor or RWQCB Inspector. Guidelines for determining appropriate erosion control devices are included in the appendix of the Public Improvement Standards.
- All erosion control devices shall be the first order of work and shall be in place between October 15 and April 15 or anytime when the rain probability exceeds 30%. This work shall be installed or applied after each area is graded and no longer than five (5) working days after the completion of each area.
- The Engineer of Work and the Engineer shall be notified before October 15 for inspection of installed erosion control devices.
- A standby crew for emergency work shall be available at all times during the rainy season (October 15 through April 15). Necessary materials shall be available and stockpiled at convenient locations to facilitate rapid construction or maintenance of temporary devices when rain is imminent.
- Permanent erosion control shall be placed and established with 70% coverage on all disturbed surfaces other than paved or gravel surfaces prior to final inspection. Permanent erosion control shall be fully established prior to final inspection. Temporary erosion control measures shall remain in place until permanent measures are established. A water truck shall be used to water areas hydroseeded until the planting is established. In the event of a failure, the developer and/or his representative shall be responsible for cleanup and all associated costs or damages.
- Slurry Mix: The slurry mix shall be composed of the following materials:

Bromus mollis - Blando Brome (95%, 85%)	20 pounds per acre
Festuca megalura - Zorro Fescue (85%, 80%)	8
Trifolium hirtum "Hykon" - Rose Clover (95%, 90%)	30
inoculated with appropriate bacteria	3
Eschscholzia californica - California Poppy (95%, 75%)	3
Lupinus nanus - Sky Lupine (95%, 75%)	4

(Seed availabale at S&S Seeds (805) 684-0436)
- Other Materials:

100% Wood fiber mulch (green)	1600 pounds per acre
Commercial Fertilizer (16-20-0)	400
"M-Binder" (stabilizing emulsion) or equal	120
Water (as needed for application and as specified by manufacturer)	
- Application: The slurry preparation shall take place at the site and in the presence of the Engineer. Spraying of the slurry shall be done by an experienced hydroseeding company and commence within five minutes after all the materials have been mixed thoroughly.
- The hydroseeded areas shall be watered with a fine mist on a daily basis until the seed begins to germinate then every other day until the roots are established and 70% of the area is covered. Do not use the side spray of a watertruck but instead use a nozzle adjusted to spray a fine mist attached to a hose.
- BMP's to be constructed include but are not limited to:
 - Silt Fence
 - Fueling area
 - Concrete washout area



West Bluff Reservoir

DRAWN	DATE	49 Ac-ft Reservoir
TH	6/28/18	Shell Creek Road
APPROVED	DATE	Shandon, Ca
		Erosion Control
SCALE	SHEET	PROJECT NO.
1"=40'	6 of 6	150519