July 10, 2025

ATTENTION BIDDERS

Addendum No. 3

Diablo Road Trail and Drainage Improvement Project
Project No. C-055

This Addendum shall be considered as a part of the bid documents for the subject project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original documents, this Addendum shall govern and take precedence.

Contractors are hereby notified that they shall make any necessary adjustments in their proposals on account of this Addendum. It will be construed that each proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

Contractors shall acknowledge receipt of this Addendum in the appropriate space provided on the Proposal (page P-10 of the proposal section).

The following is hereby added and/or amended:

Specifications:

Replace Section 10.2.02 with attached revision to include straw wattles as part of this bid item.

Replace Section 10.7.01 first paragraph with attached revision to update specifications and bid items related to tree trimming.

Replace Section 10.9 with attached to specifically include removal of existing cattle exclusion fence in this bid item.

Replace portions of Section 10.11 with attached to provide additional clarifications for pipe bedding, and material requirements.

Replace Section 10.12 with attached to clarify bid items..

Replace Section 10.13 with attached to clarify measurement quantity.

Replace Portions of Section 10.14 with attached to clarify wall design criteria and add bid item for dewatering.

Replace Section 10.16. with attached to include check dams as part of this bid item.

Replace Section 10.19.03 with attached to clarify extent of temporary irrigation system.

Replace Section 10.27.01 with attached to clarify that the Armor-tile will be installed on a cast-in place pad.

Bid Item List:

Replace Bid Item List with attached. Several quantities have been updated by the Engineer and measurement quantity units have been modified .

Plans:

Replace Sheets 2,3,7,8, 14, 15, 16, 17, and 18. with revisions sheets with clarifications. Note that there has been some minor changes to the soldier pile wall designs. We have replotted all sheets and attached to this addendum.

REVISED SPECIFICATIONS:

10.2 Stormwater Pollution Prevention Plan (Bid Item 2)

10.2.02 Payment

Replace Section 13-3.04 "Payment" with the following:

"Stormwater Pollution Prevention Plan" will be paid for on a lump sum basis. This includes all work associated with implementing your authorized SWPPP, including preparing documents, performing inspection, competing paperwork, furnishing, constructing, maintaining, removing, and disposing of water pollution control materials, including, but not limited to, fiber rolls, polyethylene plastic sheeting, stabilized construction entrances, **straw wattles,** gravel bags, silt fencing, and inlet protection **above and beyond items contained in this contract for hydroseeding and erosion control fabric**. Payment will be made according to Section 13-3 of the Standard Specifications, with 75% of the item total paid upon authorization of the SWPPP and the final 25% of the item paid upon Contract acceptance.

10.7 Tree Removal, Trimming and Root Pruning (Bid Item 7a and 7b))

10.7.01 General

The Town has performed extensive tree removal in the area of the trail alignment in areas between Stations 3+00 to 9+75. However, some additional tree trimming and removal will need to be performed to allow access for construction equipment to access certain areas and to accommodate the final trail alignment. Tree trimming is anticipated, **but not limited to, areas** between Stations 0+00 to 5+00, 10+50 to 14+00 and 20+00 to 30+00. The contractor shall hire an Arborist certified by the Western Chapter of the International Society to provide recommendations to trim any tree over 15-feet in height. The Arborist's report shall be furnished to the Town prior to commencement of trimming activities.

Several walls (Soldier Pile Walls 1, 2 and 3) are to be placed in areas where tree removals have recently occurred. Additional root removal will be likely be required in these areas during wall construction.

It is the contractor's sole responsibility to perform tree removal, trimming and root removal to the satisfaction of the Engineer.

10.9 Cattle Exclusion Fence and Gate System (Bid Items 9a, and 9b)

10.9.01 General

The Contractor shall install a cattle exclusion fence around the perimeter of the project site prior to commencement of clearing and grubbing operations and maintain the fence for the duration of the project. The contractor should contact the ranching operation of the Magee Preserve project, Tom Magee, at 1-925-389-2264 to ensure that cattle are secured within the Preserve prior to installation of the fence. This may require that the existing fence is left in place prior to installation of the new fence. The fence shall conform to East Bay Regional Park District standard plan 801 and shall connect to existing cattle exclusion fencing at both ends of the project as approved by the Town. One additional gate system is required at an existing fire road entrance as shown on the Plans (**Bid Item 9b)** and shall include both an equestrian/pedestrian gate (East Bay Regional Park District standard plan 217) next to and to the west of a Wide Trail Gate (East Bay Regional Park District standard plan 211A) intended for the fire road access. The exact alignment of the Cattle Exclusion Fence will need to be determined in the field in several areas as shown on the Plans, to avoid existing trees and to preserve recently constructed existing trails in the Magee Preserve which will require approval by the Engineer prior to installation as indicated on the Plans. In this area, the contractor shall familiarize themselves with this area and propose an alignment that avoids conflicts and minimizes bends for approval by the Town. **The contractor shall also construct a 20-linear foot-wire gate along an existing cross-fence located at Sta. 33+00 on the plans. Contractor shall dispose of existing fence shown on the demolition plans.**

10.9.02 Measurement and Payment

The quantity for Cattle Exclusion Fence will be measured on a linear foot basis. Payment will be made at the contract linear foot price for Cattle Exclusion Fence **(Bid Item No. 9a)**. Payment will be made at the contract lump sum price for gate system **(Bid Item No. 9b)**, Both items shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved fence installation, gates **and existing fence removal** as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.11 Drainage Structures (Bid Items 12a,b, 13 a,b , 14 and 15)

10.11.01 General

Drainage improvements include installation of storm drainpipes, drainage inlets and installation of concrete V-ditches.

Storm drainpipe installation shall be in accordance with Section 64 of the Standard Specifications and these Special Provisions.

Add to Section 64-2.04: Payment for pipe includes payment for excavation; furnishing and placing pipe bedding, pipe, aggregate base, and backfill; shoring (if necessary); placing native material; and all other work to completely install pipe, excluding hot mix asphalt and concrete.

Revise the first sentence in Section 73-1.02A of Standard Specifications to read as follows: "Cementitious material content of concrete must be at least 505 lb/cu yd

10.11.02 Field Inlets and Pipes

Drain inlets shall be constructed as shown on the Plans All pipe materials, related appurtenances, pipe bedding, and trench backfill shall conform to the requirements of the American Society for Testing and Materials (ASTM) Standard Specifications and these Special Provisions**. All pre-cast inlets grates (Bid Item 12A) shall be rated for pedestrian traffic.**

Drain inlets and manholes shall meet the requirements of Caltrans Specifications Section 51, "Concrete Structures".

The initial stage of haunching shall consist of hand tamping material at the sides and under the pipe at six-inch (6") maximum lifts to the spring line in order to provide adequate support. The Contractor shall call for inspection of the haunching operation prior to placing initial backfill. Failure to call for haunching inspection shall be just cause for rejection of all pipe work.

Initial backfill shall be placed to a point at least six inches (6") above the top of pipe **using a Class 1 Aggregate Base material.** Compaction for the initial backfill shall consist of hand tamping or mechanical tamping at 1.0' maximum lifts. Extreme caution shall be taken during mechanical tamping to avoid deflection of the pipe. The type and size of mechanical equipment to be used in the initial backfill operation shall be approved by the Engineer. Both zones of haunching and initial backfill shall be compacted by hand or mechanical tamping to a 90 percent minimum relative compaction.

Neither jetting nor flooding will be allowed in haunching or initial backfill zones. The remainder of the backfill operation shall be in accordance with the plans.

The Engineer may require compaction testing. All costs associated with the initial compaction tests shall be borne by the Town; all subsequent retesting shall be paid for by the Contractor.

~~**All pipe shall be laid with bell end "upgrade", unless otherwise permitted by the Engineer.**~~

RCP shall be Class III. CMP shall be Gauge 16.

Pipe deflection shall be in accordance with the manufacturer's recommendations.

~~**Relative compaction of not less than 95 percent shall be obtained in all trenches within the paved portion of the right-of-way for a minimum depth of 2.5 feet below finished grade.**~~

At the end of each day's work all trenches outside the paved section shall be backfilled or properly covered and barricaded to the satisfaction of the Engineer. A "hot mix" patch shall be placed in all paved sections and approved by the Engineer prior to completion of the project.

Proper implements, tools, and facilities satisfactory to the Engineer shall be provided and used by the Contractor for safe, convenient, and workmanlike prosecution of the work. Under no circumstances shall the pipe or accessories be dropped or dumped into the trench. Before lowering and while suspended, the pipe shall be inspected for defects. Any defective, damaged, or unsound pipe shall be rejected and sound material furnished.

When the installation of new facilities interferes with the existing storm water flow, the Contractor shall provide a satisfactory bypass system at his expense.

Where ground water is present, the bottom of the trench shall be kept entirely free of water during pipe laying operations and pumping shall continue until backfilling has progressed to a sufficient height to prevent flotation of the pipe. Water shall be disposed of in such a manner as to cause no property damage or be a hazard to public health. Full compensation for handling any ground water intrusion shall be considered as included in the price paid for the various Contract items of work and no additional compensation will be allowed.

The assembly of all fittings and manhole connections shall be in accordance with the manufacturer's specifications and shall be approved by the Engineer. Manhole connections shall be achieved by use of manhole coupling adapters, rubber ring water stops, or other approved methods.

10.11.03 Concrete V-ditches

The Contractor shall complete installation of concrete V-ditches , as shown on the project plans and as directed by the Engineer. All work in this section shall be done in accordance with

Section 73, "Concrete Curbs and Sidewalks" of the Caltrans Standard Specifications, except as modified in these Special Provisions.

10.11.04 Measurement and Payment

The quantity for drainage structures will be measured on either a unit price or linear foot basis. Payment will be made pre-cast field inlets (**Bid Item 12a**) and cast-in-place type "J' inlets (**Bid Item 12b**) on a unit price basis and at the contract linear foot price for Reinforced Concrete Pipe, Corrugated Metal Pipe and Concrete V-ditch **(Bid Items No. 13 a,b, 14 a,b and 15),** and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in ~~**temporary fence**~~ installation as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.12 Bioretention Areas (Bid Item 16)

10.12.01 General

The Contractor shall **excavate and install** two bioretention areas on as shown on the plans. Bioretention areas shall consist of subdrains, **Organic Mulch,** Class 2 Permeable Materials, Bioretention Soil Mix consistent with 2023 Contra Costa Clean Water Program requirements. Planting of the areas is not required as part of the contract.

10.12.02 Measurement and Payment

The quantity for bioretention areas will be measured on a square foot basis. Payment will be made for bioretention areas (**Bid Item 16**) on a unit price basis and shall include full compensation for furnishing all labor, materials, tools, equipment, **excavation** and incidentals and for doing all the work involved in the installation of the bioretention areas as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed**. Note that field inlets and pipes are covered in Section 10.11. Rock energy dissipation is included in Section 10.16.**

10.13 Mechanically Stabilized Earth Walls (Bid Item 17)

10.13.02 Measurement and Payment

The quantity for MSE walls will be measured on a **square foot basis**. Payment will be made for MSE walls (**Bid Item 17**) on a linear foot price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the installation of the MSE as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed

10.10.03 Measurement and Payment

The quantity for earthwork will be measured on a **cubic yard** basis Payment will be made at a **cubic yard** price for earthwork (remove) and earthwork (remove and replace) **(Bid Item No. 10 and 11)**, and shall include full compensation for furnishing all labor, materials, tools,

equipment and incidentals and for doing all the work involved in earthwork operations as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.11 Drainage Structures (Bid Item 12a, 12 b, 13, 14 and 15)

10.11.01 General

Drainage improvements include installation of storm drainpipes, drainage inlets and installation of concrete V-ditches.

Storm drainpipe installation shall be in accordance with Section 64 of the Standard Specifications and these Special Provisions.

Add to Section 64-2.04: Payment for pipe includes payment for excavation; furnishing and placing pipe bedding, pipe, aggregate base, and backfill; shoring (if necessary); placing native material; and all other work to completely install pipe, excluding hot mix asphalt and concrete.

Revise the first sentence in Section 73-1.02A of Standard Specifications to read as follows: "Cementitious material content of concrete must be at least 505 lb/cu yd.

10.11.02 Field Inlets and Pipes

Drain inlets shall be constructed as shown on the Plans All pipe materials, related appurtenances, pipe bedding, and trench backfill shall conform to the requirements of the American Society for Testing and Materials (ASTM) Standard Specifications and these Special Provisions. **All pre-cast inlets (Bid Item 12A) shall be rated for pedestrian traffic.**

Drain inlets and manholes shall meet the requirements of Caltrans Specifications Section 51, "Concrete Structures".

The initial stage of haunching shall consist of hand tamping material at the sides and under the pipe at six-inch (6") maximum lifts to the spring line in order to provide adequate support. The Contractor shall call for inspection of the haunching operation prior to placing initial backfill. Failure to call for haunching inspection shall be just cause for rejection of all pipe work.

Initial backfill shall be placed to a point at least six inches (6") above the top of pipe. Compaction for the initial backfill shall consist of hand tamping or mechanical tamping at 1.0' maximum lifts. Extreme caution shall be taken during mechanical tamping to avoid deflection of the pipe. The type and size of mechanical equipment to be used in the initial backfill operation shall be approved by the Engineer. Both zones of haunching and initial backfill shall be compacted by hand or mechanical tamping to a 90 percent minimum relative compaction.

Neither jetting nor flooding will be allowed in haunching or initial backfill zones. The remainder of the backfill operation shall be in accordance with the plans.

The Engineer may require compaction testing. All costs associated with the initial compaction tests shall be borne by the Town; all subsequent retesting shall be paid for by the Contractor.

All pipe shall be laid with bell end "upgrade", unless otherwise permitted by the Engineer.

All storm drain laterals shall have a minimum cover of 12" from the top of the pipe the bottom of the asphalt pavement section. In cases where this does not exist, the pipe shall be encased in concrete.

RCP shall be Class I. CMP shall be Gauge 16.

Pipe deflection shall be in accordance with the manufacturer's recommendations.

Relative compaction of not less than 95 percent shall be obtained in all trenches within the paved portion of the right-of-way for a minimum depth of 2.5 feet below finished grade.

At the end of each day's work all trenches outside the paved section shall be backfilled or properly covered and barricaded to the satisfaction of the Engineer. A "hot mix" patch shall be placed in all paved sections and approved by the Engineer prior to completion of the project.

Proper implements, tools, and facilities satisfactory to the Engineer shall be provided and used by the Contractor for safe, convenient, and workmanlike prosecution of the work. Under no circumstances shall the pipe or accessories be dropped or dumped into the trench. Before lowering and while suspended, the pipe shall be inspected for defects. Any defective, damaged, or unsound pipe shall be rejected and sound material furnished.

When the installation of new facilities interferes with the existing storm water flow, the Contractor shall provide a satisfactory bypass system at his expense.

Where ground water is present, the bottom of the trench shall be kept entirely free of water during pipe laying operations and pumping shall continue until backfilling has progressed to a sufficient height to prevent flotation of the pipe. Water shall be disposed of in such a manner as to cause no property damage or be a hazard to public health. Full compensation for handling any ground water intrusion shall be considered as included in the price paid for the various Contract items of work and no additional compensation will be allowed.

The assembly of all fittings and manhole connections shall be in accordance with the manufacturer's specifications and shall be approved by the Engineer. Manhole connections shall be achieved by use of manhole coupling adapters, rubber ring water stops, or other approved methods.

10.12 Bioretention Areas (Bid Item 16)

10.12.01 General

The Contractor shall **excavate** and two bioretention areas on as shown on the plans. Bioretention areas shall consist of subdrains, **Mulch**, Class 2 Permeable Materials, Bioretention Soil Mix, and Rock Energy Dissipation consistent with 2023 Contra Costa Clean Water Program requirements. Planting of the areas is not required as part of the contract.

The quantity for bioretention areas will be measured on a square foot basis. Payment will be made for bioretention areas (**Bid Item 16**) on a unit price basis and shall include full compensation for furnishing all labor, materials, tools, equipment, **excavation** and incidentals and for doing all the work involved in the installation of the bioretention areas as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed. **Note that field inlets and pipes are covered in Section 10.11.**

10.13 Mechanically Stabilized Earth Walls (Bid Item 17)

10.13.02 Measurement and Payment

The quantity for MSE walls will be measured on a **square foot** basis. Payment will be made for MSE walls (**Bid Item 17**) on a linear foot price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the installation of the MSE as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed

10.14 Soldier Pile Walls and Debris Walls (Bid Items 18a, 18b and 19)

10.14.01 General

The Contractor shall build soldier pile walls and Debris Walls as shown on the plans. Walls consist of drilled piers, steel reinforcement and lagging materials. The project permits do not allow dewatering of creek flow during soldier pile wall installation along Green Valley Creek. The contractor shall familiarize themselves with the area prior to the start of construction and submit a plan to the satisfaction of the Town that demonstrates that construction means and methods will not impact Waters of the State to the maximum extent practicable. **Design of any temporary shoring shall be furnished by the Contractor for review by the Town. Corrosion protection is not required on steel components due to the structural design of the wall systems.**

All work in this section shall be done in accordance with Section 51, "Concrete Structures" of the Caltrans Standard Specifications, except as modified in these Special Provisions.

10.14.03 Solider Beam Installation

All soldier piles shall use a steel grade of 50 KSI.

Excavations required for soldier beam placement shall be performed to the dimensions and elevations shown on the Contract Drawings. The methods and equipment used shall

be selected by the Contractor.

The Contractor shall ensure that the sidewalls of the predrilled holes (i.e., shafts) do not collapse during drilling. Uncased shafts may be used where the sides and the bottom of the shaft are stable and may be visually inspected prior to placing the soldier beam and concrete. Casing or drilling muds shall be used where the sides of the shaft require additional support.

The Contractor shall provide equipment for checking the dimensions and alignment of each shaft excavation. The dimensions and alignment shall be determined by the Contractor but shall be observed by the Geotechnical Engineer. The Engineer will check the alignment of the drilling equipment at the beginning of shaft construction and periodically thereafter. Final shaft depth shall be measured after final cleaning by the Contractor.

Loose material shall be removed from the bottom of the shaft. No more than 2 feet of standing water shall be left in the bottom of the shaft prior to beginning soldier beam installation.

The soldier beam shall be placed in the shaft without difficulty and aligned prior to general placement of concrete. The Contractor may place up to 2 ft. of concrete at the bottom of the shaft to assist in aligning the soldier beam. The soldier beam shall be blocked or clamped in place at the ground surface, prior to placement of concrete.

For shafts constructed without casing or drilling muds, concrete (either structural or lean-mix backfill) may be placed by free-falling the concrete from the ground surface down the shaft and around the soldier beam. If casing is used, the placement of concrete shall begin prior to casing removal. Remove the casing while the concrete remains workable. For shafts constructed using slurry, concrete shall be placed using the tremie method from the bottom of the shaft. The tremie pipe shall be withdrawn slowly as the level of the concrete.

Excess water may be disposed of in the area were cofferdams have been installed at the direction of the Engineer. Discharge of water shall conform to applicable County requirements and shall not be directly placed into the creek.

10.14.09 Lagging Installation

Timber Lagging shall conform to Section 57-2.02 of the Caltrans Standard Provisions and be installed per Caltrans Detail for Timber Lagging Dated 7-12-16. Timber shall be Treated Douglas Fir or better, partially air dried with smooth finishing.

Concrete Lagging shall conform to contract drawings, **have a minimum ultimate strength of 4 KSI and a minimum yield strength of steel as 60 KSI.**

For soldier pile walls, the top course of lagging in areas where conform is required with sloping grades may be fabricated using Construction Heart Grade Redwood or Better per Caltrans Standard Provisions. Members shall be 8 x 12 and cut to conform to match top grades. The top of lagging shall be no higher than 2-inches above finished grade.

10.14.10 Measurement and Payment

The quantity for soldier pile walls will be measured on a linear foot basis. Payment will be made for Soldier Pile Wall with Concrete Lagging (**Bid Item 18**) and Debris Wall with Timber Lagging **(Bid Item 19)** on a linear foot price basis and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in the installation of the walls, and backfill and geogrid, as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed. **Dewatering (Bid Item 18b) shall be paid on a lump sum basis, as required by these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed**

10.16 Rock Riprap (Bid Item 21)

10.16.01 General

Work required under this Section consists of furnishing all necessary labor, materials, tools, equipment and services in connection with riprap installation and reasonably incidental to the loading, transporting, depositing, and installation of riprap necessary for construction of the rock aprons **and check dams** as indicated on the plans, specified here in, and as directed by the Engineer.

10.19 Hardwood Trees/Shrubs with Cages and Mulch and Drip Irrigation, and Willow or Cottonwood Poles (Bid Item 26a, 26b, 26c, 26d and 27)

10.19.03 Temporary Anti-Browse Cages / Temporary Irrigation System

Temporary anti-browse cages **and temporary irrigation** shall be installed around each hardwood tree and shrubs per project plans using poultry netting or other cage approved by the Engineer. All anti-browse cages shall be installed to the satisfaction of The Engineer. The contractor shall also install an on-grade drip installation system (**Bid Item 26d**) that can be manually attached to a typical garden hose. Drip tubing should be anchored to the ground using 6" landscape staples on approximately 10' spacing and buried at least 3-inches from finished grade. Each tree and shrub shall receive 2-2GPH drip emitters, on the uphill side of the root-ball. Tubing shall be EZ-ID 17 mm Dripline Tubing (Landscape Products) or equal connected to a Hose Swivel at an elevation higher than each of the plants on the drip tubing system.

10.27 Install Detectable Warning Material (Bid Item 36)

10.27.01 General

Two 3 foot x 8 foot pre-cast detectable warning material panels shall be installed at the trailhead at the beginning of the trail and at the sidewalk connection in item Section 10.26. The detectable warning materials shall Armor-tile **installed on a cast-in-place concrete pad** per **manufacturers recommendations** or equal as approved by the Engineer.

REVISED BID LIST:

Bid Item	Spec section	Item Description	Estimated Quantity	Unit of Measure	Unit Price	Item Total
1	10.1	Mobilization	1	LS		
2	10.2	Storm Water Pollution Prevention Plan	1	LS		
3	10.3	Temporary Traffic Control	1	LS		
4	10.4	Solid Waste Disposal and Recycling Report	1	LS		
5	10.5	Critical Path Method Schedule in addition to a Three-Week Project Look Ahead submitted bi-weekly	1	LS		
6	10.6	Clearing and Grubbing and Demolition	1	LS		
7a	10.7	Tree Removal	12	EA		
7b	10.7	Tree Trimming and Root removal	1	LS		
8	10.8	Silt Fence and Biological Exclusion Fence	1500	LF		
9a	10.9	Cattle Exclusion Fence and Gate	5100	LF		
9b	10.9	Gates (EBRPD Std. Plan 211A and 217)	1	LS		
10	10.10	Earthwork (Remove)	**500**	**CY**		
11	10.10	Earthwork (Remove and Replace)	**4500**	**CY**		
12a	10.11	24" x 24" Pre-Cast Drain Inlets (includes bioretention areas)	**9**	EA		
12b	10.11	Cast in Place 'J' inlets	2	EA		
13a	10.11	**12-inch Diameter Reinforced Concrete Pipe**	**55**	LF		
13b	10.11	**18-inch Diameter Reinforced Concrete Pipe**	**479**	**LF**		
14a	10.11	12-inchCorrugated Metal Pipe	**15**	LF		
14b	10.11	18-inch Corrugated Metal Pipe	**82**	**LF**		
15	10.11	Concrete V-Ditch	1530	LF		
16	10.12	Bioretention Areas	3450	SF		
17	10.13	Mechanically Stabilized Earth Wall	**850**	**SF**		
18a	10.14	Soldier Pile Wall with Concrete Lagging	405	LF		
18b	10.14	Dewatering	1	LS		
19	10.14	Debris Wall with Timber Lagging	**883**	LF		

20	10.15	Thrie Beam Railing System and End Treatment	940	LF		
21	10.16	200-lb Riprap **(Outfalls and Check dams)**	**12**	Tons		
22	10.17	Remove Concrete Debris	1	LS		
23	10.17	Plug Existing Culverts and provide subdrains	1	LS		
24a	10.18	3-inch Hot Mix Asphalt	700	Tons		
24b	10.18	Aggregate Base	1540	CY		
25a	10.18	Glassgrid in HMA pavement	4120	SY		
25b	10.18	Geogrid under Aggregate Base Material	**6154**	SY		
26a	10.19	5-gallon Hardwood Trees and Cages	25	EA		
26b	10.19	1- gallon Hardwood Trees and Cages	105	EA		
26c	10.19	1- gallon Shrubs with Cages	105	EA		
26d	10.19	Temporary Gravity Irrigation System	1	LS		
27	10.19	Willow and Cottonwood Stakes	**300**	EA		
28	10.20	Erosion Control Fabric	100	SY		
29	10.20	Erosion Control Seed Mix	**10000**	SF		
30	10.21	Trash Capture Catch Basin Inlet	2	EA		
31	10.22	ADA Compliant Drinking Fountain	1	EA		
32	10.23	Interpretive Signage (2 signs)	1	LS		
33	10.24	Trailhead and Caution Signs (5 signs)	1	LS		
34	10.25	ADA Compliant Railing	500	LF		
35	10.26	Sidewalk	205	SF		
36	10.27	3' x 8' Precast Detectable Surface **on Cast-in-Place Base.**	2	EA		
37	10.28	90-day Landscape Maintenance Period	1	LS		

TOTAL BID: $_____

NOTE: The contract, if it is to be awarded, will be awarded to the bidder submitting the lowest responsible "Total Bid". The Town reserves the right to reject any and all bids.

The quantities given in the Notice to Contractors, Proposal, and Contract forms are approximate only, being given as a basis for the comparison of Proposals, and the Town does not, expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Engineer. No allowance will be made for anticipated profit on work that is deleted or decreased.

QUESTIONS AND ANSWERS FOR QUESTIONS RECEIVED UP TO 7/9/2025:

Note that answers may refer to questions asked in the first addendum and therefore we are continuing the number system from Addendum 1.

46 - Plan Sheet 16, Detail 1 shows an additional 4 layers of Tensar InterAx NX 650 Geogrid to be installed in addition to the geogrid to be installed under the AB. Do these 4 additional layers get installed along the entire length of the trail, or do they only get installed adjacent to the soldier pile walls? How are these 4 additional layers of geogrid paid?

a. These additional layers of geogrid are paid for with the wall bid item and only extend behind the walls, not the entire trail

47 - Plan Sheet 16, Detail 1 shows "TEMPORARY SHORING (LAGGING) AS REQUIRED (BY OTHERS)". This note indicates this would be performed by other forces outside of this contract. Please confirm the Town's intent of this note.

a. We have removed this call out in Addendum 2 from the plans.

48- On Plan Sheet 2, the legend shows tree removals to be a yellow circle with an X. All other trees are either to be protected or to be removed by other.

a. We have provided information regarding trees that have already been removed so that the contractor is aware that recent tree removals and stumps may impact certain portions of the project.

49- There is a rectangular area denoted by a broken line, with an arrow saying, "Remove Cluster of Trees in this Area". It lists 7 trees to remove, with no symbols.

a. The contractor shall remove all 7 trees in this area.

50- Secondly, the plan sheet contains the above-mentioned yellow circles with an X, but not all of them are labeled for removal. There are others labeled for removal but marked to be removed by others per "EXPLANATION".

a. See response to item 48. Tree removals are specifically called out on Sheets 19 and 20 in Addendum 1 and other symbols have been removed from these sheets.

51- There is a bid item for removing trees, #7a @ 12 each

Looking at the plans there is only one tree marked (yellow dot with a black X) for removal at station 2+75 on plan sheet 3 and there are 7 trees shown on plan sheet 19. There appears to several other trees that need removal but are not indicated on the plans. Please provide a plan that indicates which trees and the size that need to be removed. Are the trees to be removed marked in the field?

a. See response to item 48. Tree removals are specifically called out on Sheets 19 and 20 in Addendum 1 and other symbols have been removed from these sheets. The majority of trees have been marked in the field.

52- Looking at the typical soldier pile wall detail on sheet 16.

Is it your intent to only install 24" wide strips of Miradrain 6200Xl fabric between the soldier piles yet install full length 2" perforated subdrain at the bottom of wall?
Typically, the fabric would cover the entire backfill area of the wall, and the CDF backfill would not be used. (Maybe a permeable backfill material)

a. In Addendum 1, we have removed the CDF material. The intent is to install a subdrain at the bottom of wall and have Miridrain fabric cover the backfill area.

53- On plan sheet 8 at station 34+04.72 it indicates a 3.0' high debris wall then on plan sheet 9 it indicates a 2.0' debris wall for the same wall.

What wall height should the contractor use?

a. In Addendum 2, we have made all debris walls 3-feet in height for bidding purposes.

54- There are several rock check dams shown on plan sheet 3, how do they get paid.

a. Rock check dams are paid from bid item 21 as added in Addendum 2.

55- There are several areas of corrective grading shown on the plans. The note says to remove and replace per geotechnical engineers recommendations.

The geotechnical report included with the bid documents does not mention anything regarding removal and replacements.
The bid item is lump sum, please describe in detail what this item of work includes.

a. We have previously modified earthwork quantities to cubic yard unit pricing in Addendum 1. Work is specified for remedial grading in section 10.10.20.6 of the project specifications.

56- What work takes place in the Hydrological Mitigation Area?

a. Work in the hydrological mitigation areas consists of grading, rock check dam installation and hydroseeding and/or erosion control.

57- Please confirm you want 200 lb rock rip-rap in the 3.0' X 3.0' outfall aprons. See detail 4 on plan sheet 18.

a. For bidding purposes, assume the 3' x 3' apron. The apron footprint may be slightly reduced in the field during construction.

58- Bid Item 17 – MSE Wall has a quantity of 90 LF. I am calculating a total length of MSE wall of approximately 226 LF from the 3 separate MSE walls shown on the plans. Please revise the quantity of Bid Item 17.

a. The MSE wall on sheet 8 has been modified to be a Debris Wall in Addendum 2 and the quantities of the two other walls have been converted to square feet bid quantities in Addendum 2.

59- There is no profile provided for the MSE wall on Plan Sheet 8 from Sta. 30+35.38 to Sta. 31+53.49. Please provide.

a. The MSE wall on sheet 8 has been modified to be a Debris Wall in Addendum 2 and the quantities of the two other walls have been converted to square feet bid quantities.

60- As there are no profiles provided for the various timber lagging debris walls, please confirm that all soldier piles for these walls will be embedded 10' deep only.

a. Debris walls should be bid assuming an embedment depth of 10-feet.

61- Plant Counts vs. Bid Schedule:
The plant counts currently provided do not align with those listed in the Bid Schedule. Please verify and clarify.

a. Based on this comment we have increased the amount of willow/cottonwood stakes to 300 on the bid item list. The exact location of these stakes will be determined in the field by the Town paid restoration ecologist after the walls have been constructed. Note that there may be areas along walls 2 and 3 where it is not feasible to locate some of the stakes shown on the plan.

62- Hydroseed Erosion Control Area:

The specified area sizes for hydroseed erosion control appear significantly larger than those noted in the Bid Schedule. Kindly confirm the correct quantities.

a. We have modified this quantity on the revised bid schedule in Addendum 2.

63- Temporary Gravity Irrigation System:
Could you specify which plantings the temporary gravity irrigation system is intended to support?

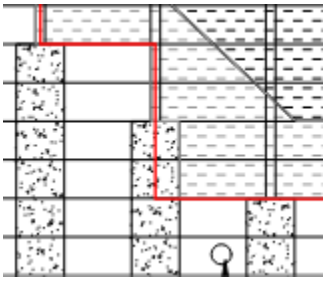
a. We have revised section 10.19.03 in Addendum 2 to be more clear. All hardwood trees and shrubs which receive cages should be served by the temporary irrigation system.

64- Maintenance Period and Irrigation System:
The documents indicate a 90-day maintenance period. Please confirm whether the temporary irrigation system is expected to remain operational beyond this period.

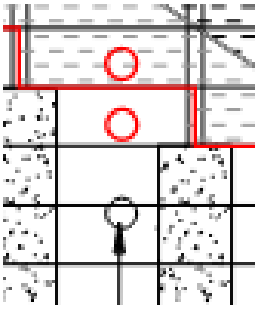
a. A separate contract will be issued for long-term maintenance after the 90-day period of this contract has expired.

65- On wall profile #3 the third beam shows lagging where the concrete toe begins. Can we eliminate the two panels? Or do we lower the beginning of the toe? If we lower the toe, will we need to extend the TIP of the pile to maintain the same embedment?

a. We have slightly modified embedment depths shown on the plans in Amendment 2 and lagging laout. Lagging may be eliminated that is founded below the top of concrete piles

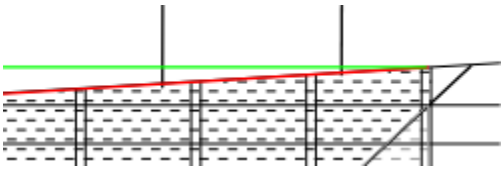


66- For the drainage, is it acceptable to raise the elevation of the outlet so that it is just under the final board, or can we have the panels cast with a hole to accommodate the PVC?



a. The subdrain outfall should not exit through a lagging member. It should be routed to an elevation and location outside of the area where lagging is installed

67- The tops of the wall slope match the contour of the roadside. With concrete panels, this will be difficult. Is it acceptable to utilize 8x12 treated lumber at the tops where the sloping occurs?



a. In addendum 2, we have added provisions to allow timber lagging at the top course of the wall where sloping gradient exist.

68- Please confirm this is a typo. This call-out shows the bottom of wall at 447.5', but the BOW wall profile stops at 460'.

a. In addendum 2, we have revised this elevation..

69- Soldier Pile Wall #2 (Plan Sheet 17) calls for W18x186 steel beams. These beams do not exist. Please confirm which steel beams are to be used in lieu of the W18x186 beams.

a. In addendum 2, we have called out a different beam sizes that should be more commercially available..

70- Section 10.11.02 states that all storm drain laterals shall have a minimum cover of 12" from top of the pipe to the bottom of the asphalt section. In cases where this does not exist, the pipe shall be encased in concrete. Does this requirement apply to this asphalt pathway?

a. This requirement has been removed from the specifications in Addendum 2.

71- On sheet 8 of 22, the plan view shows an MSE wall starting at STA 30+35.38 and ending at STA 31+53.49. However, this wall is not shown in the profile view. Can you confirm whether there is supposed to be an MSE wall at this location? If so, could you please provide profile view and other details?

a. See response to question 59.

72- Please provide cross sectional and profile views for the MSE wall shown on plan sheet 8, 30+35.38 to 31+53.49.

a. See response to question 59.

73- Please describe in detail what work takes place in the Self Retaining Area shown on plan sheets 7 & 10 and how does it get paid?

a. Self-retaining areas are slightly depressed areas that will require grading and hydroseeding ,and are paid for under the earthwork/hydroseed item. However, the self-retaining area shown on Sheet 10 only needs grades to be restored to the pre-project condition and hydroseeded if disturbed.

74- Please provide connection details for the ADA Drinking Fountain.

a. Self-retaining areas are slightly depressed areas that will require grading and hydroseeding ,and are paid for under the earthwork/hydroseed item. However, the self-retaining area shown on Sheet 10 only needs grades to be restored to the pre-project condition and hydroseeded if disturbed.

75- Your addendum #1 states to use Class I RCP? RCP is only made in Class III, Class IV or Class V

a. We have revised RCP to Class III in Addendum 2.

76- Plan Sheet 3 shows 3 each 2'x2' rock check dams to be installed. There is no bid item for this work, nor does the measurement and payment for Bid Item 21 address these check dams. Please confirm these check dams are to be measured and paid for under Bid Item 21, or please provide a bid item for this work to be performed under.

a. See response to question 54.

77- Plan Sheet 3 shows 12" RCP to be installed and Plan Sheets 5 & 7 show 12" CMP to be installed. There are no bid items for this work. Please provide a bid item for this work to be performed under.

a. We have broken out two sizes of CMP and RCP in the bid list in Addendum 2.

78- Please confirm if the rock aprons that are installed within the bioretention areas are paid under Item 21 or Bid Item 16. The measurement and payment in the Contract Specifications are somewhat contradictory as Item 21 states the rock aprons are paid for under Item 21 but Item 16 states the "Rock Energy Dissipation" in the bioretention areas is paid for under Item 16. Please confirm.

a. We have modified Section 16 to exclude energy dissipation.

79- Addendum #1 quantified Item 10 - Earthwork @ 500 CY and Item 11 - Earthwork (Remove and Replace) @ 6500 CY. I cannot verify those quantities using information on the

plans. Please provide additional information or table as to how those quantities were arrived at.

a. The quantities were based on AutoCAD takeoffs with an additional 3000 CY or remedial grading in areas indicated on the plans. The contractor shall estimate their own quantities based on the plans.

80- Item 14 description is "Corrugated Metal Pipe." What is the size?

81-

a. See response to question 77.

82- Where is the 12" RCP that is shown at the Bioretention basins paid?

a. Section 10.12.01 indicates that the RCP will be paid under the RCP bid item 13)

83- What is the purpose of the "Temporary Shoring by others" and "CDF" behind the lagging if this area will be backfilled with soil that will hold the lagging in place?

a. We have revised the detail on the wall sheet in Addendum 2.

84- What work happens in the Self Retaining Areas?

a. See response to question 73.

85- We appear to be missing a Bid Item for the following work: 12-inch Diameter Reinforced Concrete Pipe (two Runs called out on Sheet 3/22). Can the City please add a bid item for this work?

a. See response to question 77.

86- We assume that the 12-inch Diameter Corrugated Metal Pipe now falls under Bid Item 14 as it makes no distinction on size (Addendum #1 Bid Schedule)? Can the City please confirm?

a. See response to question 77.

87- Can the City please provide a typical trench Detail for Storm Drainpipes?

a. We have added a note to the plans that trenching shall conform to Danville standard Plan 114.

88- Specials call for the following: ***"All pipe shall be laid with bell end "upgrade", unless otherwise permitted by the Engineer".*** Can the City please clarify what is a bell end "Upgrade"?

a. We have removed this section from the specifications in Addendum 2.

89- Specials call for the following: ***"All storm drain laterals shall have a minimum cover of 12" from the top of the pipe the bottom of the asphalt pavement section. In cases where this does not exist, the pipe shall be encased in concrete."*** It appears that at least one run of the Storm Drain pipe will be affected by this. Can the City please provide a trench detail for this work? Will rebar be required?

a. We have removed this section from the specifications in Addendum 2..

90- It appears that all the 12" RCP and 12" CMP is not being captured in any of bid items. Can the City please revisit the Storm Drain pipe quantities?

a. See response to question 77..

91- As of January 1, 2024, Section 42704.6 of the California Public Resources Code requires local agencies that have jurisdiction over street or highway specifications to use advanced technologies and material recycling techniques that reduce the cost of maintaining and rehabilitating streets and highways and reduce levels of greenhouse gas emissions through material choice and construction methods. Specifically, local agencies shall allow Reclaimed Asphalt Pavement (RAP) in Hot Mix Asphalt (HMA) at or above the level allowed in Caltrans Standard Specifications effective October 22, 2018. Caltrans specifications allow the contractor to use up to 25 percent RAP in HMA as a contractor option. It has been shown that the use of RAP in HMA reduces cost and greenhouse gas emissions while providing pavement performance equal to or better than RAP free HMA. Will this project comply with the January 1, 2024, mandate and allow the use of up to 25 percent RAP in HMA?

a. We appreciate this comment. However, this project is a pedestrian/bicycle trail and the Town does not believe this requirement applies to a project of this type.

92- The bid schedule states Bid Item 20 - Thrie Beam Railing System & End Treatment. Plan Sheet 3 & 4 also call out to use the Standard drawings A78E1, A78B, A78C1 & A78C2 which are Thrie Beam Drawings with Steel Posts & Plastic Blocks. However, what we are connecting to on Plan Sheet 4 is old Metal Beam Guardrail with Wood Posts and not Thrie Beam. Also on Plan Sheet 18, Typical Section A states guardrail per Cal Trans Standard

A77L1 which is Midwest Guardrail with Wood Posts. Please clarify what we are to use. Thrie Beam seems to be overkill for this scenario on a 35 MPH roadway.

a. The Town replaced the Midwest guardrail system in 2023 where an emergency culvert replacement was performed on Sheet 4 with a Thrie Beam System. The funding agency for the project prefers the Thrie Beam System for new projects

93-Can we please have a typical trench detail for the water line for the Drinking Fountain?

a. See comment for 86.

94-Profiles Shown on Sheet 17 show the Profiles for Soldier Pile Walls #1 - #3. All of them show the top of wall Precast Concrete Lagging matching the contour of the new path. Cutting the concrete lagging to match would be an arduous task. Could the City please consider a different design option for the top of Soldier Pile wall(s)?

a. We have modified the top lagging section to reflect a timber lagging in Addendum 1.

95- Can we please get a Plan Detail for the "Welded ¼" Cover Plate"?

a. Typically, contractors use a minimum of 2- ¼-inch fillet welds to accomplish this.

96- During the second Pre-Bid Walk, it was mentioned that the bid items for Soldier Pile Walls and MSE Walls would be changing from linear feet (LF) to square feet (SF). Could the City please confirm whether these changes will be implemented and, if so, when the updated bid schedule or addendum will be issued?

a. The bid schedule has been updated that changes the bid unit on MSE walls to square feet.

97- Can we please get some clarifications on the Geo-Grid at Soldier Pile Walls.

1. It was mentioned during the Pre-bid walk that the Geo-Grid is there to add stability to top of walls. Does the Geo-Grid get attached to Soldier Pile Wall? If so, please provide a detail.
2. Is the excavation required for the Geo-Grid covered in the Earthwork Items?
3. Cross Sections (Sheets 12 & 13) show Geo-Grid limits at the bottom or/and below the Precast Concrete Lagging while the Typical Detail (Pink Note) States "4 Additional Courses at 1 Foot Spacing". Could the City please confirm what is the bottom limit of

the Geo-Grid? Better yet, could the City please provide the elevations at bottom limit of the Geo-Grid? (Please keep in mind that if we are required to excavate to bottom of precast panels to install the Geo-Grid our excavations may encroach onto Diablo Road requiring partial road demolition and reconstruction.)

4. Please confirm the contractor is to use the cross-sectional views of the MSE and Soldier Pile Walls(plan sheets 11-14) to calculate the height and length of the walls.
5. The profile view of the walls (plan sheet 3-10) do not appear to match the cross-sectional views.

a. The geogrid does not attach to the soldier pile wall on detail 1, Sheet 16. There are four course of geogrid that should be installed at approximately 1 foot vertical spacing below the geogrid installed for the pathway to a depth of approximately 5 feet.. Excavation for the soldier pile wall is part of the wall bid item. Sheet 11 throrugh 14 should not be used as a plan for geogrid as indicate on the revised plans. These sheets are meant to show general layout.

98- Please confirm you want 200 lb rock rip-rap in the 3.0' X 3.0' outfall aprons. See detail 4 on plan sheet 18.

a. See response to question 57.

99- On plan sheet 8 at station 34+04.72 it indicates a 3.0' high debris wall then on plan sheet 9 it indicates a 2.0' debris wall for the same wall.

What wall height should the contractor use?

a. We have modified all debris walls in Addendum 2 to reflect 3-foot wall heights for bidding purposes. As mention in the pre-bid walk, some modifications to these walls may occur after all utilities are located along the trail in areas where debris walls are proposed in a value engineering exercise.

100- We have reviewed the geotechnical boring logs (1-B1 through 1-B5) provided for the above-referenced project and noted that groundwater elevations were recorded at 15-17' (Approximate Average Ground Elevation 462 which is very close to the bottom of Creek Elevations) during drilling operations.

However, the logs do not indicate whether these readings if they are initial readings taken during or immediately after drilling or perhaps even represent the Creek Water table as the investigation was performed in March 2023 (which could be considered the "wet" season). Given the importance of accurate groundwater information for soldier pile wall considerations, particularly for drilling and possible dewatering design, please clarify:

- Were the groundwater elevations shown on the boring logs taken after allowing sufficient time for groundwater levels to stabilize in the boreholes?
- If not, was any follow-up monitoring (e.g., via piezometers or return visits) conducted to determine the stabilized water table elevation?
- If available, can the City please provide stabilized groundwater levels or the duration after drilling when the recorded levels were taken?
- Can you confirm whether the observed water levels are reflective of seasonal high or low groundwater conditions?

a. Drilling was performed in the wet season when groundwater levels were likely elevated. However, the groundwater levels shown in the boring logs were measured after they had stabilized. The Town has not installed additional piezometers to measure groundwater levels at the locations of the borings. We assume the contractor will install the walls in the summer when the groundwater elevations are likely to be approximately at the flowline of the creek.

101- The Soldier Pile walls construction will demand a large laydown areas for the 40+ steel I-beams, concrete lagging and potential dewatering tanks. Would it be acceptable to set-up temporary 24/7 one-lane closure with K-rail with a temporary one way traffic signal?

a. Unfortunately the Town cannot accommodate a 24/7 one-lane closure given the importance of Diablo Rd.

102- Can dewatering be included as a separate bid item?

a. Dewatering is now included as a separate bid item

103- Can you provide more information regarding the high voltage line shown near Wall #1.

a. The plans show a clearance of 21-feet to a telecommunications line on the same pole as the high voltage lines, which are approximately 45 feet from the ground. The lines appear to be 21KV, but P, G ,ad E is going to test them and be sure since there is an anomaly on the

pole (potentially cut transformer). We believe Wall #1 can be built with a 20 foot celar offset from this line, given the 10 foot offset from the trail.

PLEASE NOTE:

1. This addendum No. 3 consists of a total of 25 pages and attached Plan Sheets.
2. The Bid Items are presented to indicate major categories of the work for purposes of comparable bid analysis and payment breakdown for monthly progress payments. Bid items are not intended to be exclusive descriptions of work categories, and the Contractor shall be deemed to have included in its pricing all staging, materials, multiple handling, labor, and equipment to complete the entire project as shown and specified, regardless of whether a specific pay item is provided.

   Contractor is advised that where no pay item is listed in the bid schedule, the cost for the work described in these Construction Details, Plans and Specifications shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

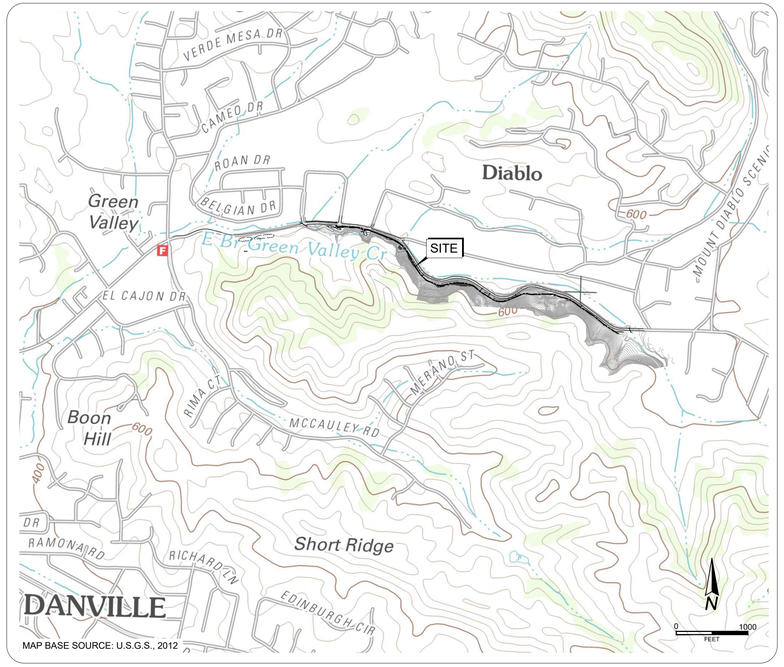
3. **Bidders are reminded that this addendum must be noted on page P-10 of the Proposal Package when they submit their bid, and in doing so the Contractor acknowledges receiving all pages of the addendum. Failure to acknowledge receipt of this addendum will result in a non-responsive bid.**

Allan Shields, Transportation Manager — June 10, 2025 Date

TOWN OF DANVILLE

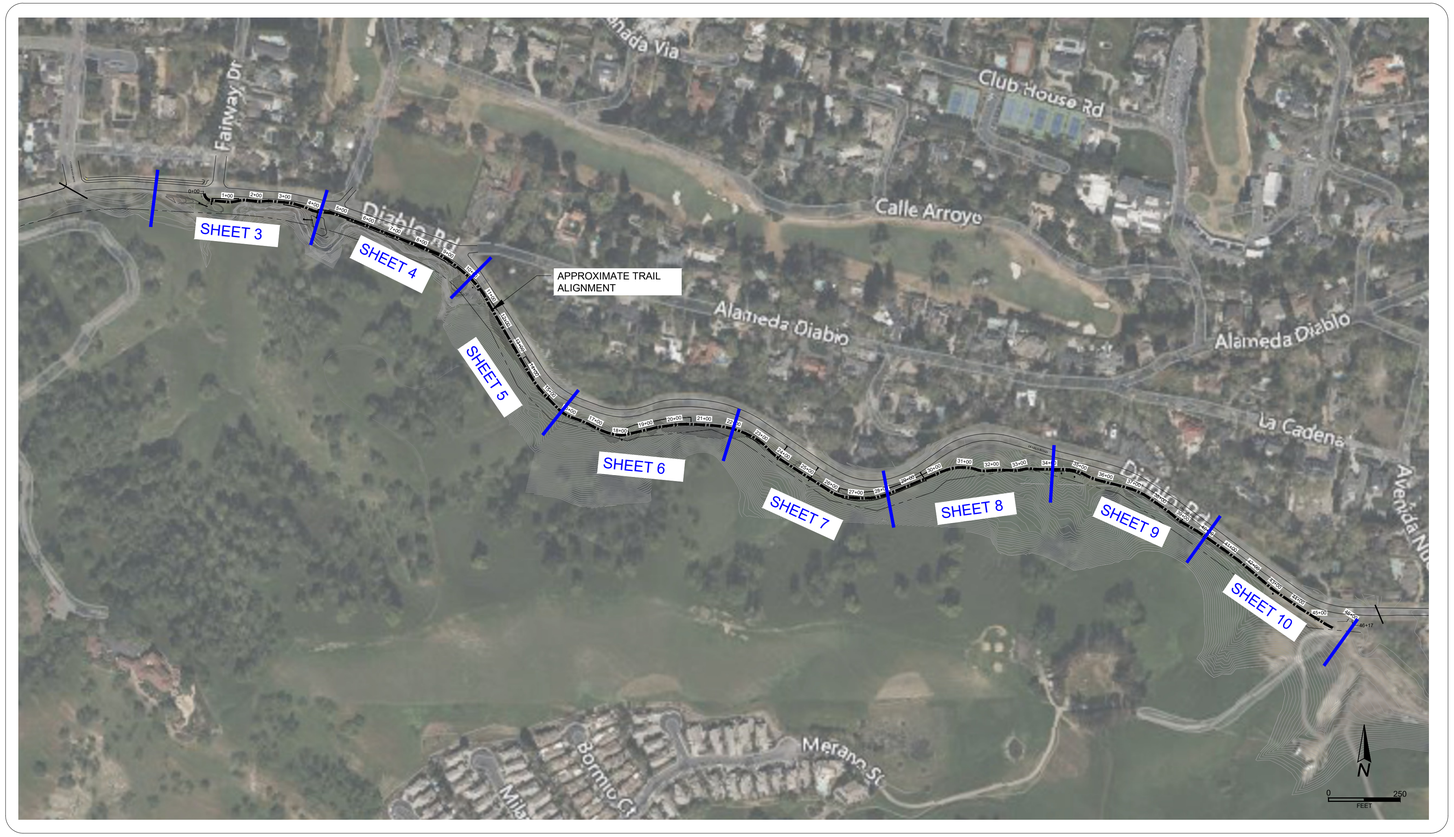
CONTRA COSTA COUNTY, CALIFORNIA

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL



MAP BASE SOURCE: U.S.G.S., 2012

VICINITY MAP



SITE PLAN

SHEET INDEX

USA NORTH 811 Call 811 Before You Dig.

TOPOGRAPHIC SURVEY NOTES

1. ALL DISTANCES SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.
2. PHYSICAL ITEMS SHOWN ON THIS SURVEY ARE LIMITED TO THOSE SURFACE ITEMS VISIBLE AS OF THE DATE OF THIS SURVEY. SUBSURFACE OBJECTS NOT SHOWN MAY INCLUDE, BUT ARE NOT LIMITED TO, CONCRETE FOOTINGS, SLABS, SHORING, STRUCTURAL PILES, UTILITY VAULTS, PIPING, UNDERGROUND TANKS, AND ANY OTHER SUBSURFACE STRUCTURES NOT REVEALED BY A SURFACE INSPECTION OR PER SITE IMPROVEMENT PLANS.
3. DIMENSIONAL TIES TO IMPROVEMENTS ARE 90° TO THE PROPERTY LINES UNLESS NOTED OTHERWISE
4. THE FIELD DATA FOR THIS SURVEY WAS COLLECTED USING A LEICA RTC 360 LASER SCANNER AND THE TRIMBLE S5 1 SECOND TOTAL STATION.
5. THE TOPOGRAPHIC POINTS AND LINE WORK SHOWN HEREON WERE MAPPED FROM THE LASER SCAN POINT CLOUD.
6. POINT ELEVATIONS ARE FOR THE FEATURE DESCRIBED AND DO NOT CORRESPOND PRECISELY TO THE ADJACENT HORIZONTAL LOCATION. PRECISE LINE WORK WAS DERIVED FROM THE LASER SCAN POINT CLOUD.

PROJECT SURVEY CONTROL

THE PROJECT CONTROL IS BASED ON THE SURVEY BY GUIDA SURVEYING INC. JOB NUMBER 0220-00386 AS SHOWN BELOW:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN POINT 10000 AND POINT 10001, BEING N33°51'53"W, AS DERIVED BY REAL TIME NETWORK MEASUREMENT BASED UPON THE CALIFORNIA COORDINATE SYSTEM 1983 (CCS83), ZONE III, NORTH AMERICAN DATUM OF 1983 (NA2011, EPOCH 2011.00)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
10000	2129890.58'	6138040.34'	482.51'	SET MAG AC ALAMEDA DIABLO & DIABLO RD
10001	2129588.56'	6138243.01'	500.01'	SET MAG AC DIABLO RD
10002	2129934.20'	6138060.40'	485.36'	SET MAG SPK ALAMEDA DIABLO RD
11000	2129924.40'	6138013.93'	482.84'	FND 1.5" OPEN IP NONE DOWN 2"

ELEVATIONS SHOWN HEREON ARE BASED ON THE PUBLISHED ELLIPSOID HEIGHTS OF THE C.O.R.S. STATIONS CALCULATING THE GEOID SEPARATION TO DERIVE ELEVATIONS FOR NAVD 88 (GEOID2012A), PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER.

BENCHMARK:

ELEVATIONS SHOWN HEREON ARE BASED ON THE PUBLISHED ELLIPSOID HEIGHTS OF THE C.O.R.S. STATIONS CALCULATING THE GEOID SEPARATION TO DERIVE ELEVATIONS FOR NAVD 88 (GEOID2012A), PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER.

APPROVED BY THE TOWN OF DANVILLE

APPROVED FOR CONSTRUCTION SUBJECT TO DATA SHOWN

STEVEN JONES **DATE**
CITY ENGINEER

PLANNING **DATE**

TRANSPORTATION **DATE**

MAINTENANCE /PARKS **DATE**

DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence
2010 CROW CANYON PLACE
SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

COVER SHEET

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 1 OF 22 SHEETS

PROJECT NO. 8870.000.011

GENERAL NOTES:

1. ALL WORK IS TO BE DONE UNDER THE OVERSIGHT OF THE ENGINEER.
2. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORK HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF PROPER SHORING OF EXCAVATIONS IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY IN, ON, OR NEAR THE CONSTRUCTION SITE.
3. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES DURING CONSTRUCTION. PROPER REPAIR SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER AND THE RESPECTIVE UTILITY COMPANY.
4. ALL PIPELINES AND OTHER UNDERGROUND UTILITIES MAY NOT BE SHOWN, AND WHERE SHOWN, ARE APPROXIMATELY LOCATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD. CALL "UNDERGROUND SERVICE ALERT" AT 800-227-2600 AT LEAST 48 HOURS BEFORE EXCAVATION OR DEMOLITION FOR IMPROVEMENTS. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATIONS, ELEVATIONS, ETC. OF EXISTING FACILITIES AND TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY FIELD CONFLICTS OR OMISSIONS.
6. ALL CONSTRUCTION MUST CONFORM TO CALTRANS STANDARD PLANS & SPECIFICATIONS DATED 2023 AND TOWN OF DANVILLE STANDARD PLANS DATED MARCH 1989. ALL CONSTRUCTION MUST BE ACCEPTED BY THE PUBLIC WORKS INSPECTOR. TYPICAL DETAILS REFERRED TO ON THESE DRAWINGS ARE DERIVED FROM THESE STANDARD PLANS (AND ANY ADDENDUM THERETO), AND ARE AVAILABLE AT THE OFFICE OF THE PUBLIC WORKS INSPECTOR.
7. CONTRACTOR IS RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR SITE INSPECTIONS AND SHALL ENSURE THAT ALL CURRENT TOWN OF DANVILLE STANDARDS ARE OBSERVED PRIOR TO BEGINNING OF ANY PHASE OF CONSTRUCTION WORK.
8. DUST CONTROL DURING ALL PHASES OF CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. WATER USED FOR DUST CONTROL AND COMPACTION MAY BE PURCHASED FROM EAST BAY MUD PRIOR TO THE START OF ANY WORK. ANY FEES OR DEPOSITS ARE THE CONTRACTOR'S RESPONSIBILITY.
10. ANY DAMAGE TO THE EXISTING FACILITIES INCLUDING, TREES, AND FENCES SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.
11. CONTRACTOR IS RESPONSIBLE TO MEET WITH TOWN OF DANVILLE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION AND PROVIDE 24 HOURS NOTICE ON ALL INSPECTIONS.
12. HAUL ROUTES SHALL BE ONLY ON STREETS AS PRE-APPROVED BY THE CITY ENGINEER.
13. TESTING AND OBSERVATION FOR THE PROJECT SHALL BE IN CONFORMANCE WITH THE TOWN OF DANVILLE QUALITY ASSURANCE PROGRAM DATED MAY 2022.
14. THE CONTRACTOR SHALL MONITOR AND MAINTAIN RECORDS OF THE NATIONAL WEATHER SERVICE 72-HOUR FORECAST ON A DAILY BASIS AND BE PREPARED TO IMPLEMENT EMERGENCY EROSION CONTROL MEASURES IN THE EVENT OF RAIN OR IF THE PREDICTION FOR RAIN EXCEEDS 20 PERCENT, ALL CONSTRUCTION ACTIVITIES SHALL CEASE AND ALL REASONABLE EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO THE ONSET OF PRECIPITATION.
15. ALL ELEVATIONS SHOWN ARE FINISHED ELEVATIONS UNLESS STATED OTHERWISE.
16. CONTRACTOR SHALL LAY OUT ALL WORK, ESTABLISH ALL NECESSARY MARKERS, BENCH MARKS, GRADING STAKES, AND OTHER STAKES AS REQUIRED TO ACHIEVE DESIGN GRADES.
17. PLAN BASED ON TOPOGRAPHIC SURVEY PROVIDED BY THE TOWN, DATED DECEMBER 2, 2020 AND CHAPELL GEOMATRIX DATED APRIL, 2024 AND AUGUST, 2024.
18. ALL TRENCH BACKFILL SHALL COMFORM TO TOWN OF DANVILLE STANDARD DETAIL 114. CLASS 1 AB SHALL BE USED AS BACKFILL MATERIAL.
19. SHEETS 3-10 AND 11-13 ARE INTENDED TO SHOW GENERAL LAYOUT OF SOLDIER PILE WALLS. SEE SHEET 17 FOR EXACT LAYOUT.
20. SHEET 11-13 ARE INTENDED TO SHOW GENERAL LAYOUT OF MECHANICALLY STABILIZED EARTH WALLS BUT ARE NOT INTENDED FOR CONSTRUCTION.
21. TRAIL LAYOUT IS APPROXIMATE AND MAY NEED TO BE SLIGHTLY ADJUSTED IN THE FIELD TO AVOID EXISTING TREES AND UTILITIES PER DIRECTION OF THE ENGINEER.

2

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHOULD BE PREPARED TO INDENTIFY HOW THE WORK BELOW TOP OF BANK IN GREEN VALLEY CREEK WILL BE PROTECTED IN THE EVENT OF AN UNREASONALBE STORM EVENT.
2. ALL CREEK IMPROVEMENTS SHOWN ON THESE PLANS WILL BE PROPERLY IN PLACE PRIOR TO THE RAINY SEASON.
3. NO EQUIPMENT SHALL BE OPERATED IN AREAS OF FLOWING OR STANDING WATER; NO FUELING, CLEANING OR MAINTENACE OF VEHICLES OR EQUIPMENT SHALL TAKE PLACE WITHIN ANY AREAS WHERE AN ACCIDENTAL DISCHARGE TO GREEN VALLEY CREEK MAY OCCUR; CONSTRUCTION MATERIALS AND HEAVY EQUIPMENT MUST BE STORED OUTSIDE THE CREEK BANKS; ALL EARTH MOVING WORK SHALL BE PERFORMED OUTSIDE OF AREAS OF FLOWING WATER.
4. PER THE PROJECT STREAMBED ALTERATION AGREEMENT, THE FOLLOWING CONSTRUCTION ACTIVITIES ARE RESTRICTED TO DATES INDICATED BELOW:
   A. TREE REMOVALS MUST BE PERFORMED IN CONJUCTION WITH TOWN PAID BIOLOGIST BETWEEN MARCH 1 THROUGH APRIL 15 AND SEPTEMBER 1 THROUGH OCTOBER 15.
   B. WORK IN CREEK CORRIDOR RESTRICTED FROM JUNE 15 TO OCTOBER 15.
   C. POURING OF CONCRETE IN CREEK CORRIDOR RESTRICTED FROM JUNE 15 THROUGH SEPTEMBER 15.

LEGEND:

Symbol	Description
	FOUND MONUMENT
	GUIDE CONTROL
ASPH	ASPHALT CONCRETE
CONC	CONCRETE
DWY	DRIVEWAY
	BARBED WIRE FENCE
	WOOD FENCE
	CONCRETE WALL
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	POST INDICATOR VALVE
	WATER METER
	WATER VALVE
	IRRIGATION CONTROL VALVE
	LIGHT
	GUY ANCHOR
	JUNCTION POLE
	POWER POLE
	TRAFFIC SIGNAL WITH ARM
	GATE POST
	GUARD POST
	SIGN
	TREE EXISTING
	TREE REMOVED IN 2025 BY THE TOWN
	TREE (E) TO BE REMOVED
	TREE PROTECTION DETAIL PER DETAIL 3 SHEET 23
	SEWER MANHOLE
	UTILITY PULL BOX
2 / 14	DETAIL # / SHEET #
A / 17	TYPICAL SECTION / SHEET #
	2 X 2 CATCH BASIN (TYPICAL); PER DETAIL 3; SHEET 18
	3 X 3 ROCK APRON (TYPICAL); PER DETAIL 4; SHEET 18

ABBREVIATIONS

AB	AGGREGATE BASE
ACP	ASBESTOS CEMENT PIPE
AS	AGGREGATE SUBBASE
BW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
C&G	CURB AND GUTTER
CB	CATCH BASIN
℄	CENTER LINE
CL	CLEARANCE
CMP	CORRUGATED METAL PIPE
DIA	DIAMETER
DET	DETAIL
DI	DROP INLET
DWG	DRAWING
E	ELECTRIC
EG	EXISTING GRADE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
EVC	END OF VERTICAL CURVE
FC	FACE OF CURB
FL	FLOW LINE
FG	FINISHED GRADE
FOW	FACE OF WALL
G	GAS LINE
GA	GAUGE
GALV	GALVANIZED
HMA	HOT MIX ASPHALT
ID	INSIDE DIAMETER
INV	INVERT GRADE ELEVATION
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER CONCRETE
PCC	PORTLAND CEMENT
PED	PEDESTRIAN ELECTRIC CO.
PG&E	PACIFIC GAS &
P/L	PROPERTY LINE
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
RT	RIGHT
R/W	RIGHT-OF-WAY
S	SLOPE
SD	STORM DRAIN
SS	SANITARY SEWER
STA	STATION
STD	STANDARD
T	TELEPHONE
TC	TOP OF CURB
TC	TOP OF WALL
TE	TIP ELEVATION
TYP	TYPICAL
W	WATER
Δ	DELTA

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DANVILLE

REV.	DATE	DESCRIPTION	BY
2	7/09/2025	ADDENDUM 2	JB

ENGEO
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SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
(888) 279-2698
CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

NOTES, LEGEND, AND ABBREVIATIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 2 OF 22 SHEETS

PROJECT NO. 8870.000.011

INSTALL OLDCASTLE FLOGARD BASIN INLET FILTER OR EQUAL MODEL FF-24D 2' X 2' DI; GRATE=467.50; FL=464.50

INSTALL SIDEWALK AND CONNECT TO EXISTING TRAIL. TOWN OF DANVILLE STD DET. 105

FUTURE SIGNALIZED (HAWK) CROSSING TREATMENT (N.I.C)

FAIRWAY DR.

DIABLO ROAD

3' x' 8' DETECTABLE SURFACE SEE SPECIFICATIONS

START BIKE PATH CONFORM TO EXISTING PAVEMENT

0+00

CONNECT TO (E) WATER

STA: 0+84 BEGIN GUARD RAIL
INSTALL SINGLE THRIE BEAM BARRIER
END ANCHOR SYSTEM AND TERMINAL
SYSTEM END TREATMENT PER CALTRANS
STD PLAN A78E1

THRIE BEAM BARRIER SYSTEM WITH STEEL POSTS AND NOTCHED PLASTIC BLOCKS. CALTRANS STANDARD PLAN A78 B, A78 C1, AND A78 C2 - EDGE OF RAIL OFFSET 8-INCHES FROM EDGE OF PAVEMENT

GRADE FRONTAGE TO DRAIN TO CATCH BASINS (TYP)

TEMPORARILY RELOCATE TRAFFIC SIGN AS NEEDED

GUY REMOVAL (BY OTHERS) 2

HYDROLOGICAL MITIGATION AREA

INSTALL ENTRANCE SIGN PER EBRPD STD. DET-301; SEE CONTRACT SPECS.

STA: 1+62.14

EXISTING PGE POLE (TYP)

FOR PROFILE VIEW SEE BELOW

3' MIN. CLR.

EDGE OF ROAD

FOG LINE

EXISTING PGE POWER LINE (TYP); CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING NEAR POWER LINES (21' MIN CLEARANCE).

INSTALL OLDCASTLE CATCH BASIN INLET FILTER OR EQUAL MODEL FF-24D WITH 2' X 2' DI GRATE=473.80; FL=470.80

18" RCP; 26 LF; S=0.03

18" RCP; L=18' LF S=0.014

INSTALL ADA DRINKING FOUNTAIN PER EBPRD STD-DET 515. SUMP TO DRAIN TO BASIN

8 LF; 2' X 2' ROCK CHECK DAM; BURY 1' MIN. (TYP)

4/18 3' X 3'ROCK APRON FL=462.00

APPROXIMATE CREEK FLOWLINE

12" RCP; L=28' LF, S=0.01

3' X 3' ROCK APRON FL=464.25

STA: 2+04.17

CUT PIPES AND INSTALL CONCRETE PLUG AND SUBDRAIN PER 2/18

4" SUBDRAIN

A/18

SOLDER PILE WALL #1 AND HANDRAIL PER 1/16

STA: 2+98.62

STA: 3+61.62

DANVILLE PUBLIC R-O-W PER DOC. 2024-0036316

3/18 2' X 2' DI (TYP) GRATE=465.00 FL=462.25

LIMITS OF GRADING (TYP)

MSE WALL#1 AND HANDRAIL TYPICAL DETAIL PER 1/14

18" RCP; 26 LF; S=0.03

2' X 2' DI (TYP) GRATE=475.00 FL=471.70

4/18 3' X 3' ROCK APRON FL=470.00

950 SF BIORETENTION AREA; FG=464.00; PER 1/18

4/18 3' X 3' ROCK APRON FL=466.00

2500 SF BIORETENTION AREA; FG=469.50; PER 1/18

12" RCP; L=27 LF; S=0.019

2' X 2' DI RISER GRATE=470.25 FL=466.50

1

GREEN VALLEY CREEK

APPROXIMATE TOP OF BANK

100-YEAR WATER SURFACE ELEVATION

APPROXIMATE LOCATION OF ADDITIONAL TOWN OF DANVILLE EASEMENT, TO BE RECORDED PRIOR TO THE START OF CONSTRUCTION

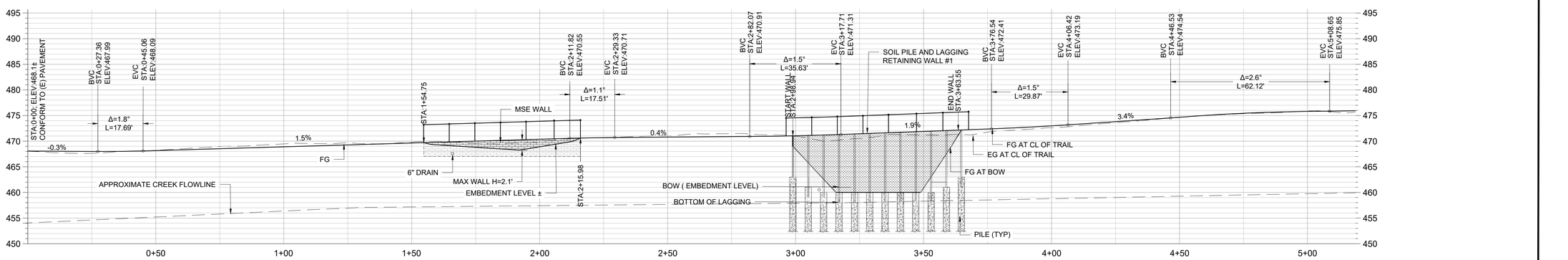
N

20 10 0 20

SCALE IN FEET

PLAN VIEW

SCALE: 1"=20'



1 NOTE: SEE SHEET 17 FOR DEPTH OF SOLDIER PILES

PROFILE VIEW

SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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DANVILLE

REV.	DATE	DESCRIPTION	BY
2	7/09/2025	ADDENDUM 2	JB
1	6/25/2025	ADDENDUM 1	JB

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCKLEY No. 67302 CIVIL STATE OF CALIFORNIA

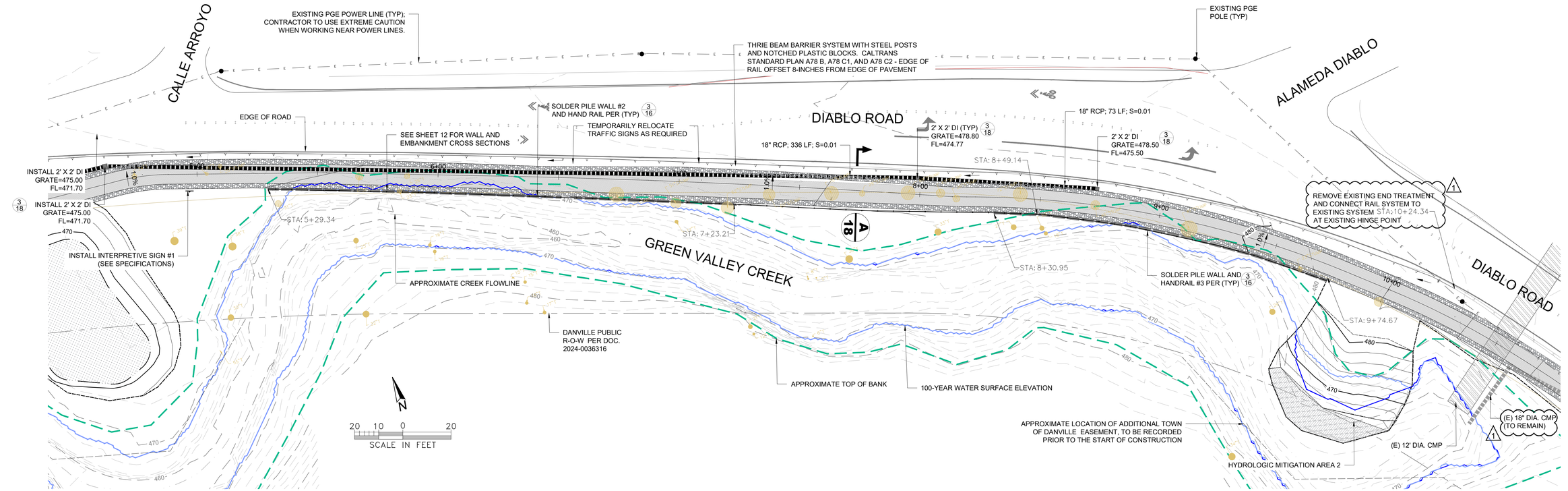
PLAN AND PROFILE STA: 0+00 - 5+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

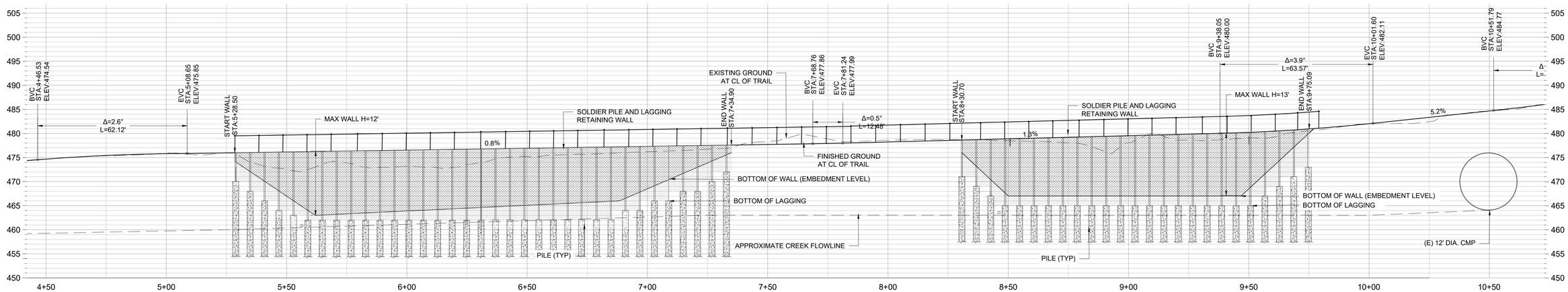
SHEET NUMBER 3 OF 22 SHEETS

PROJECT NO. 8870.000.011



PLAN VIEW

SCALE: 1"=20'



1 NOTE: SEE SHEET 17 FOR DEPTH OF SOLDIER PILES

PROFILE VIEW

SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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DANVILLE

REV.	DATE	DESCRIPTION	BY
1	6/25/2025	ADDENDUM 1	JB

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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BLACK No. 67302 CIVIL STATE OF CALIFORNIA

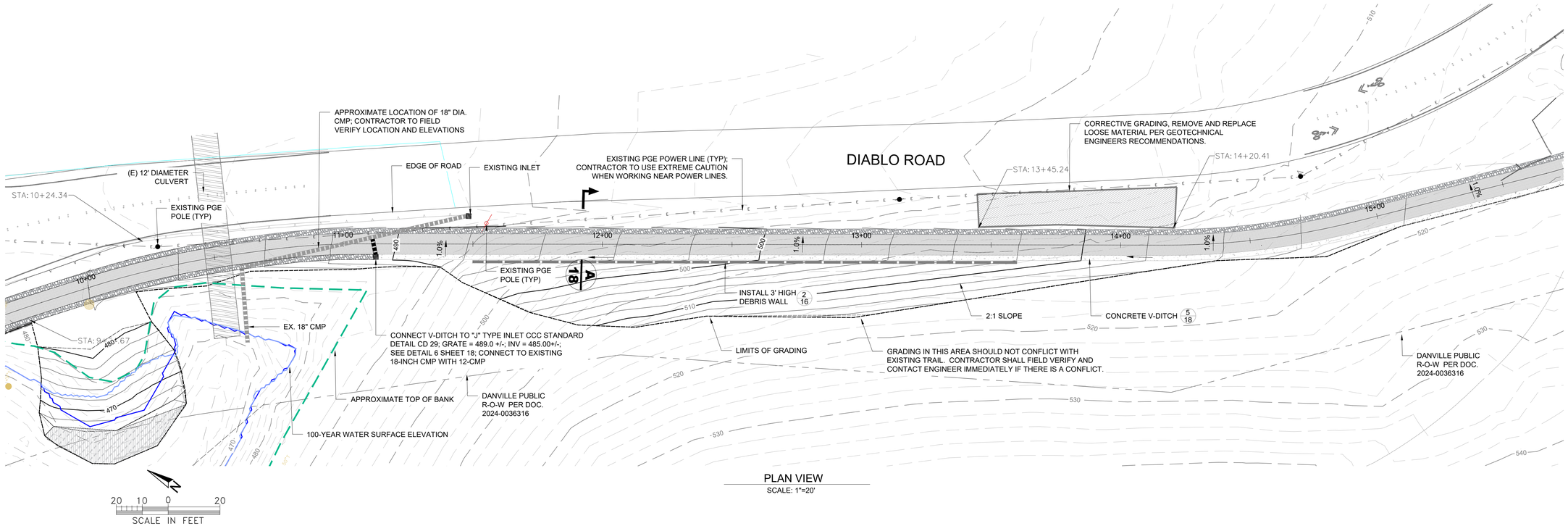
PLAN AND PROFILE STA: 5+00 - 10+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

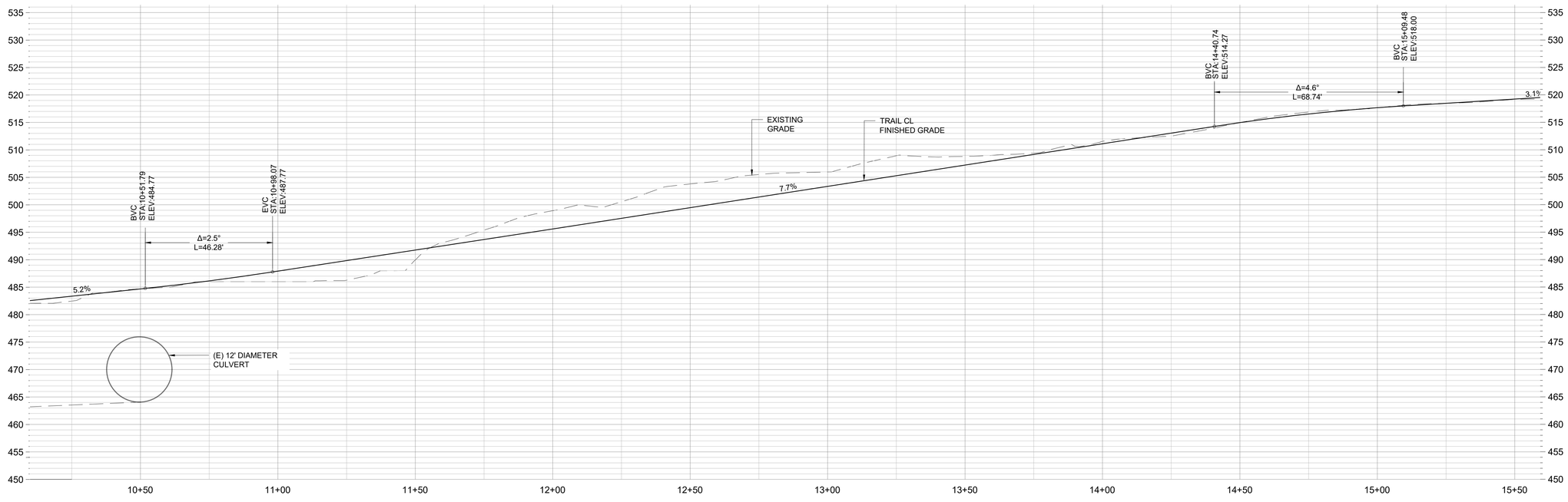
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 4 OF 22 SHEETS

PROJECT NO. 8870.000.011



PLAN VIEW
SCALE: 1"=20'



PROFILE VIEW
SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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DESIGNED BY:	SPC
DRAWN BY:	JDB
CHECKED BY:	JDB
DATE:	MAY 2025
SCALE:	AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCKLEY No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 10+50 - 15+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 5 OF 22 SHEETS

PROJECT NO. 8870.000.011

DIABLO ROAD

CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING VAULT PRIOR TO THE START OF CONSTRUCTION AND NOTIFY ENGINEER IF ANY CONFLICT EXISTS IN THIS AREA.

EXISTING 18" HDPE

CONCRETE V-DITCH 5/18

A/18

MSE WALL DETAIL AND HAND RAIL PER 1/14

4/18 3'X'3 ROCK APRON FL=526.00

(E) 15" HDPE

3' X 3' ROCK APRON FL=530.0± 4/18

2' X 2' CB GRATE=529.5 FL=526.50 3/18

CORRECTIVE GRADING, REMOVE AND REPLACE PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS.

EXISTING PGE POWER LINE (TYP); CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING NEAR POWER LINES.

HI VOLTAGE ELECTRICAL BOX

INSTALL STEEP GRADE SIGN PER EPRD STD-DET 301.

3' HIGH DEBRIS WALL PER DETAIL PER 2/16

TOW=553.00

INSTALL INTERPRETATIVE SIGN#2 (SEE SPECIFICATIONS).

END V-DITCH

CONCRETE V-DITCH 5/18

LIMITS OF GRADING

LIMITS OF GRADING (TYP)

2:1 SLOPE (TYP)

CONTRACTOR TO AVOID TREES IS IN THIS AREA

DANVILLE PUBLIC R-O-W PER DOC. 2024-0036316

APPROXIMATE LOCATION ADDITIONAL EASEMENT TO TOWN OF DANVILLE TO BE RECORDED PRIOR TO START OF CONSTUCTION

NOTE: CONTRACTOR TO LOCATE AND POTHOLE ALL UTILITIES (ELECTRICAL AND PHONE) PRIOR TO START OF EXCAVATION IN THIS AREA. IF ANY CONFLICT EXISTS WITH PLAN, NOTIFY TOWN IMMEDIATELY. STATIONS 16+00 TO 42+00.

STA:18+32.40 · STA:17+66.40 · STA:18+07.04 · STA: 20+53.77 · STA: 21+48.12

513.38 FL 18" · 520.98 FL 12"

N

20 10 0 20
SCALE IN FEET

PLAN VIEW
SCALE: 1"=20'

BVC STA:15+89.12 ELEV:520.46
Δ=8.0° L=54.11'
EVC STA:16+43.26 ELEV:524.70
11.1%
BVC STA:16+96.98 ELEV:530.64
Δ=13.5° L=49.54'
EVC STA:17+46.52 ELEV:532.49
-2.4%
BVC STA:17+56.93 ELEV:532.24
Δ=4.1° L=26.98'
EVC STA:17+83.91 ELEV:531.93
1.7%
BVC STA:18+00.98 ELEV:531.97
Δ=10.6° L=46.82'
EVC STA:18+47.80 ELEV:534.65
12.3%
BVC STA:19+78.69 ELEV:538.39
Δ=5.0° L=28.17'
EVC STA:19+04.86 ELEV:541.14
7.3%
BVC STA:19+14.61 ELEV:541.86
Δ=5.7° L=31.97'
EVC STA:19+46.58 ELEV:545.09
13.0%
BVC STA:19+97.95 ELEV:551.75
Δ=13° L=37.66'
EVC STA:20+35.60 ELEV:554.15
0.00%
BVC STA:20+44.48 ELEV:554.15
Δ=6.8° L=37.18'
EVC STA:20+81.66 ELEV:552.89
-6.8%
BVC STA:21+85.74 ELEV:545.79
Δ L=

MSE WALL
EXISTING GRADE
TRAIL CL FINISHED GRADE
MAX WALL H=4.5'
FL=528.00
EMBEDMENT LEVEL
START WALL STA:17+46.00
END WALL STA:18+34.05

PROFILE VIEW
SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

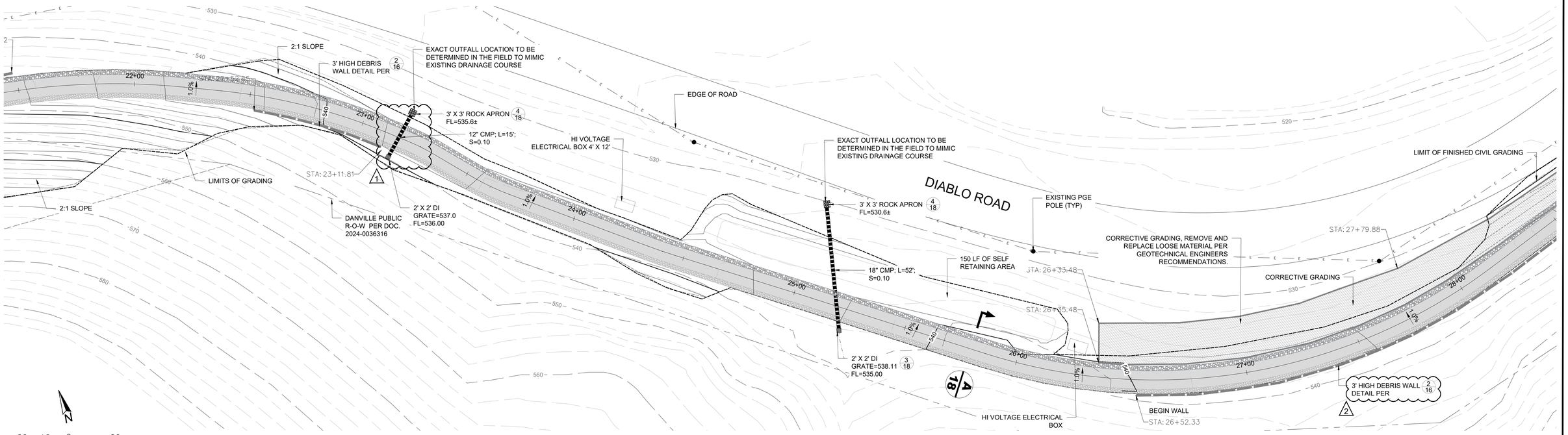
REGISTERED PROFESSIONAL ENGINEER JONATHAN BLACK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 15+50 - 22+00

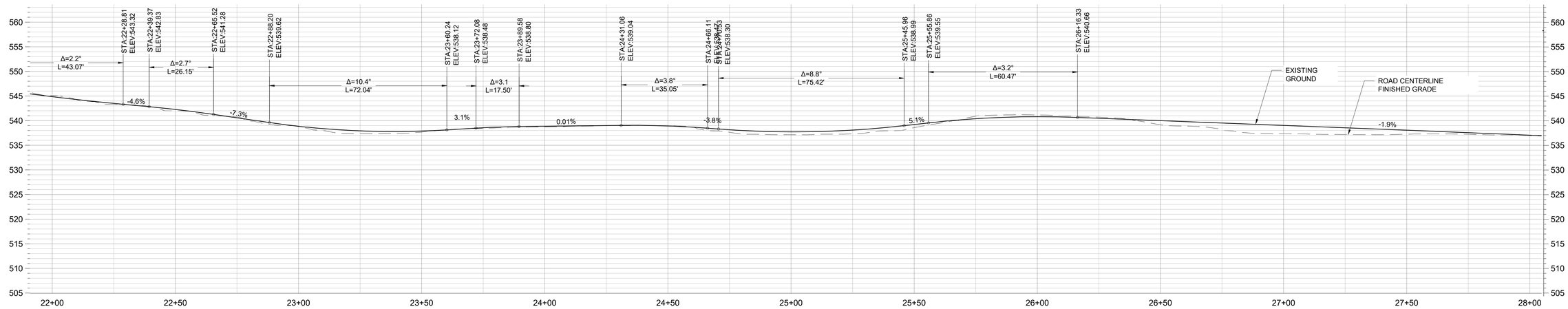
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 6 OF 22 SHEETS
PROJECT NO. 8870.000.011



PLAN VIEW
SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)



PROFILE VIEW
SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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REV.	DATE	DESCRIPTION	BY
2	7/09/2025	ADDENDUM 2	JB
1	6/25/2025	ADDENDUM 1	JB

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 22+00 - 28+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 7 OF 22 SHEETS
PROJECT NO. 8870.000.011

DIABLO ROAD

CORRECTIVE GRADING, REMOVE AND REPLACE LOOSE MATERIAL PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS.

CONNECT TO (E) DI FL=525.98

EXISTING PGE POLE (TYP)

LIMIT OF FINISHED CIVIL GRADING

18" CMP; L=30 LF; S=0.22

CONCRETE V-DITCH 5/18

STA: 29+56.31

STA: 29+53.93

CONNECT V-DITCH TO "J" TYPE INLET
CCC STANDARD DETAIL CD 29
GRATE = 535.70
INV = 532.70
SEE DETAIL 6, SHEET 18

3' HIGH DEBRIS WALL DETAIL PER 2/16

STA: 30+11.38

STA: 30+14.49

STA: 30+35.38

HI VOLTAGE ELECTRICAL BOX

INSTALL STEEP GRADE SIGN PER EPRD STD-DET 301.

3' HIGH DEBRIS WALL DETAIL PER 2/16

STA: 31+53.49

DANVILLE PUBLIC R-O-W PER DOC. 2024-0036316

INSTALL STEEP GRADE SIGN PER EPRD STD-DET 301.

STA: 31+86.91

CONCRETE V-DITCH 5/18

LIMITS OF GRADING

APPROXIMATE LOCATION ADDITIONAL EASEMENT TO TOWN OF DANVILLE TO BE RECORDED PRIOR TO START OF CONSTUCTION.

STA: 33+88.49

3' HIGH DEBRIS WALL PER 2/16

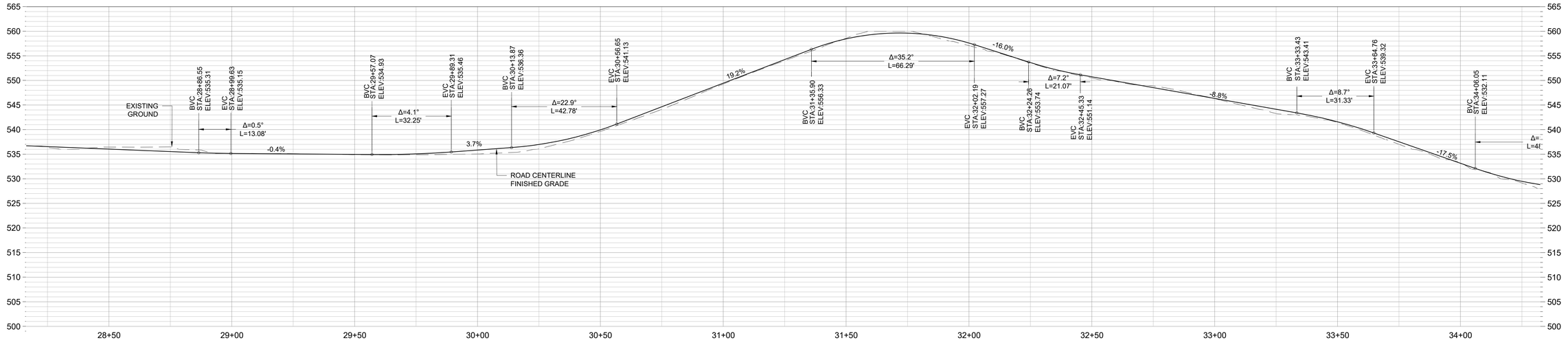
STA: 34+04.72

NOTE: CONTRACTOR TO LOCATE AND POTHOLE ALL UTILITIES (ELECTRICAL AND PHONE) PRIOR TO START OF EXCAVATION IN THIS AREA. IF ANY CONFLICT EXISTS WITH PLAN, NOTIFY TOWN IMMEDIATELY. STATIONS 16+00 TO 42+00.

N

20 10 0 20
SCALE IN FEET

PLAN VIEW
SCALE: 1"=20'



PROFILE VIEW
SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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DANVILLE

REV.	DATE	DESCRIPTION	BY
2	7/09/2025	ADDENDUM 2	JB

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN DUCHARME No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 28+00 - 34+00

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

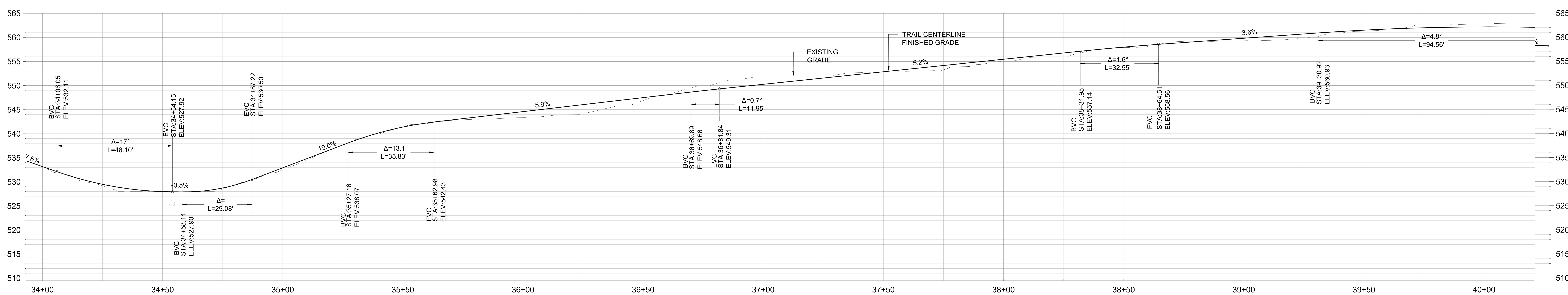
SHEET NUMBER 8 OF 22 SHEETS

PROJECT NO. 8870.000.011

PROFILE VIEW
SCALE: 1"=20'

20 10 0 20
SCALE IN FEET

NOTE: CONTRACTOR TO LOCATE AND POTHOLE ALL UTILITIES (ELECTRICAL AND PHONE) PRIOR TO START OF EXCAVATION IN THIS AREA. IF ANY CONFLICT EXISTS WITH PLAN, NOTIFY TOWN IMMEDIATELY. STATIONS 16+00 TO 42+00.



PLAN VIEW
SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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DANVILLE

REV.	DATE	DESCRIPTION	BY

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CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

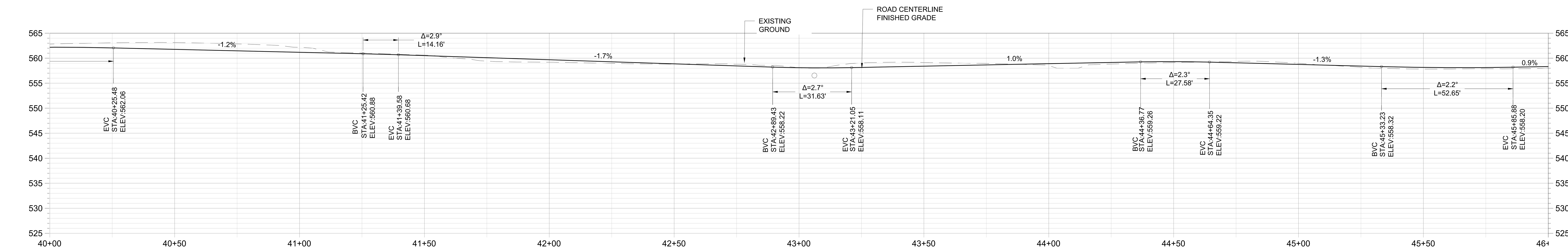
REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

PLAN AND PROFILE STA: 34+00 - 40+00
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 9 OF 22 SHEETS
PROJECT NO. 8870.000.011

PLAN VIEW

SCALE: 1"=20'



PROFILE VIEW

SCALE: 1"=20' (HORIZONTAL); 1"=10'(VERTICAL)

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DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence

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DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

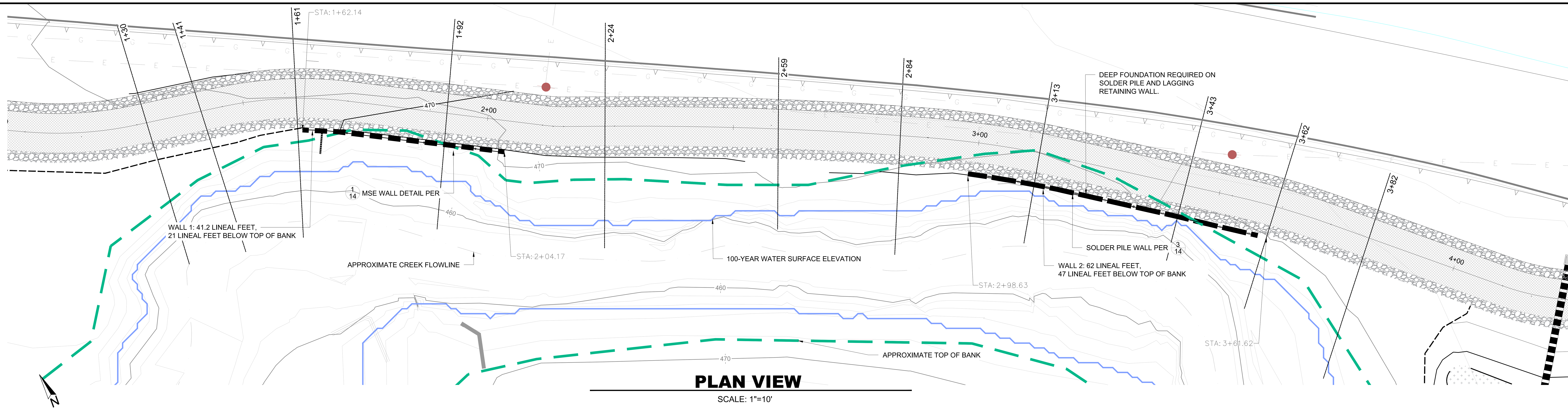
PLAN AND PROFILE STA: 40+00 - 45+50

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

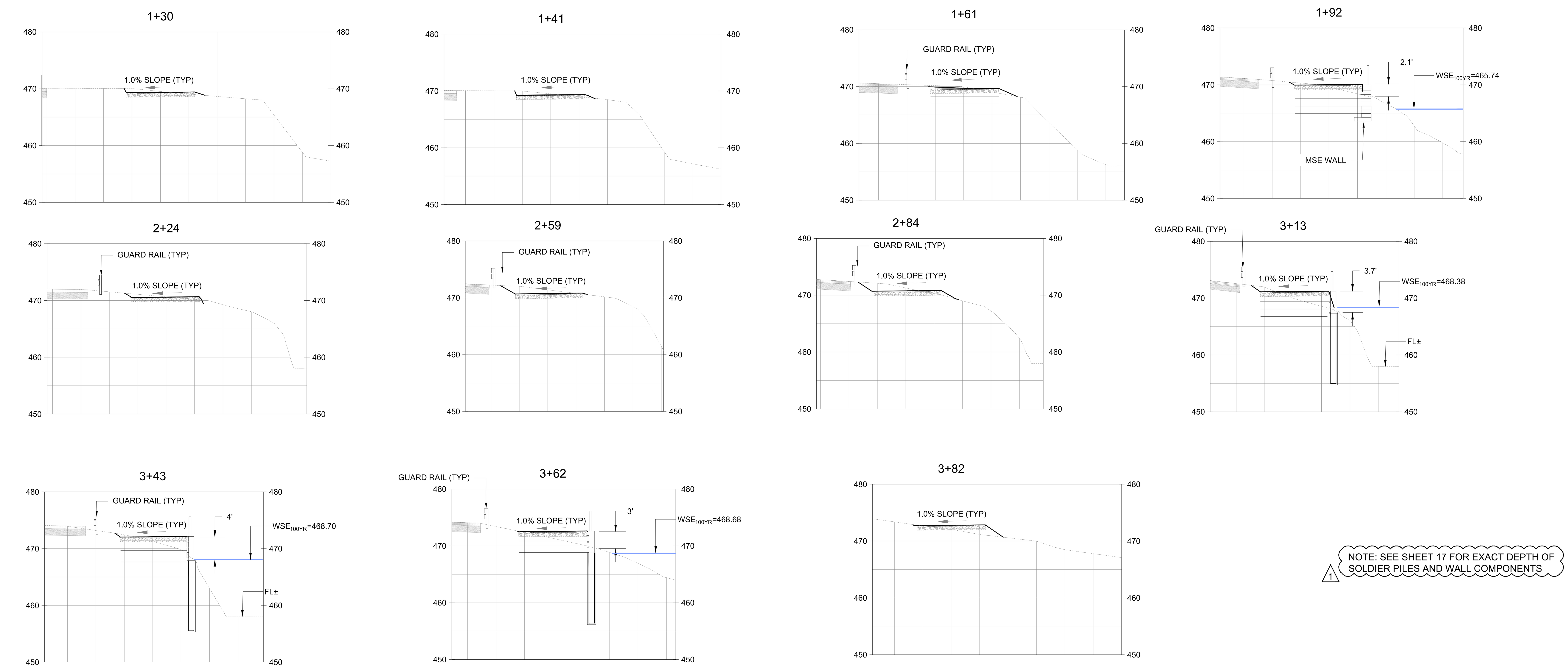
SHEET NUMBER 10 OF 22 SHEETS

PROJECT NO. 8870.000.011



PLAN VIEW

SCALE: 1"=10'



CROSS SECTIONS

SCALE: 1"=10', SCALE FACTOR 1:1 (H:V)

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REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

EMBANKMENT 1 CROSS SECTIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

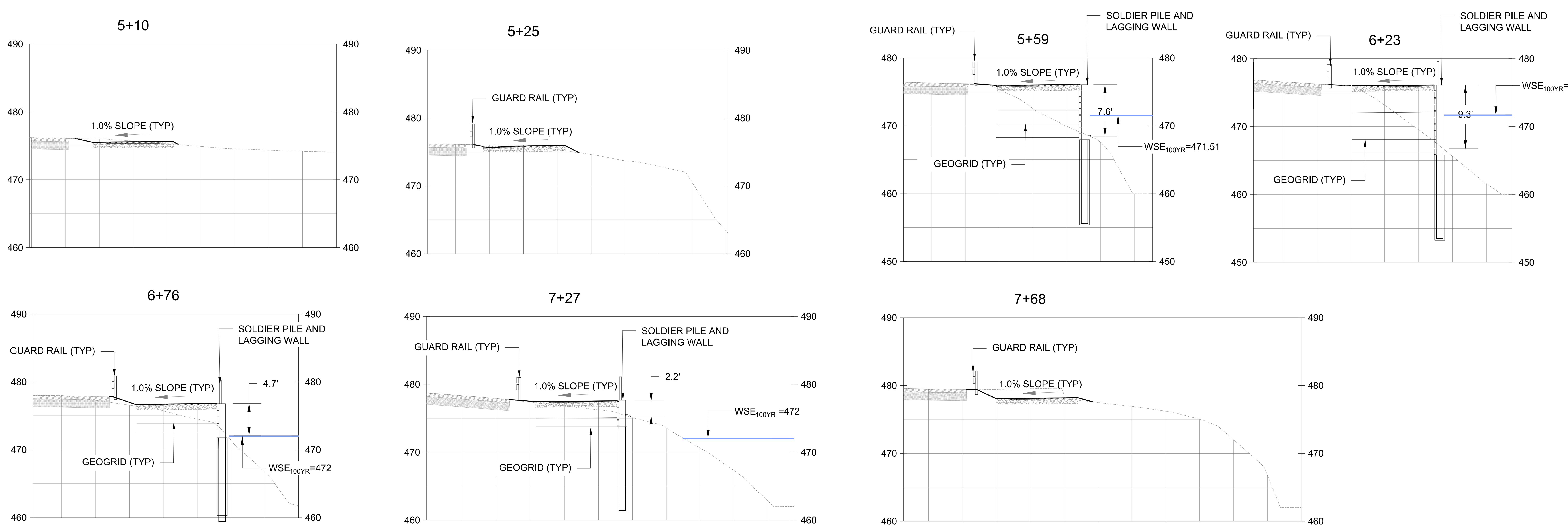
SHEET NUMBER 11
OF 22 SHEETS

PROJECT NO. 8870.000.011

PLAN VIEW

SCALE: 1"=10'

10 5 0 10
SCALE IN FEET



CROSS SECTIONS

SCALE: 1"=10', SCALE FACTOR 1:1 (H:V)

NOTE: SEE SHEET 17 FOR EXACT DEPTH OF SOLDIER PILES AND WALL COMPONENTS
1

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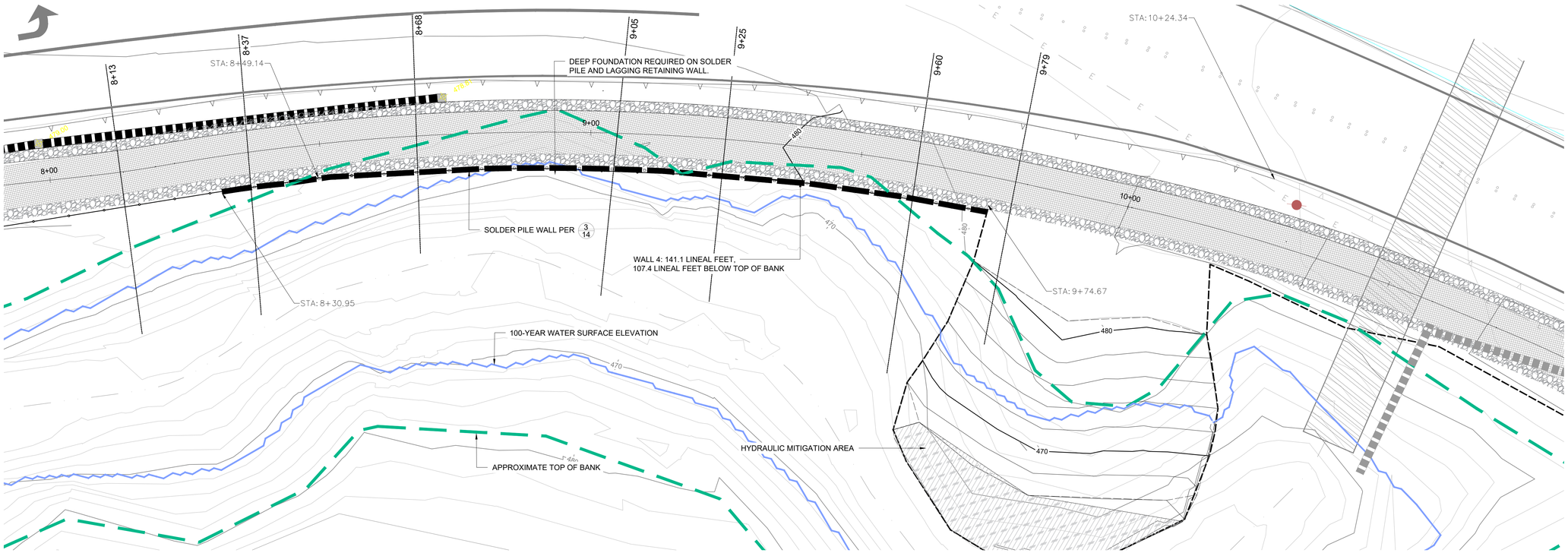
EMBANKMENT 2 CROSS SECTIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

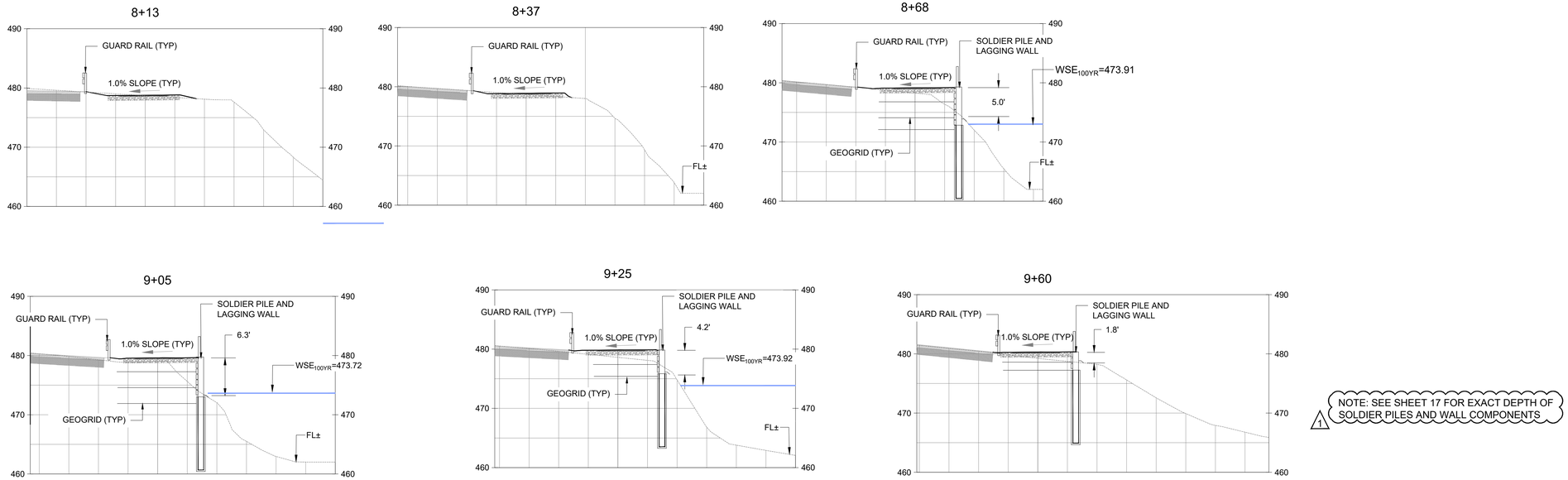
SHEET NUMBER 12 OF 22 SHEETS

PROJECT NO. 8870.000.011



PLAN VIEW

SCALE: 1"=10'



CROSS SECTIONS

SCALE: 1"=10', SCALE FACTOR 1:1 (H:V)

1 NOTE: SEE SHEET 17 FOR EXACT DEPTH OF SOLDIER PILES AND WALL COMPONENTS

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REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

EMBANKMENT 3 CROSS SECTIONS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 13 OF 22 SHEETS

PROJECT NO. 8870.000.011

GENERAL NOTES

1. BASIS OF DESIGN:
   A. 2022 CALIFORNIA BUILDING CODE.
   B. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA); DESIGN MANUAL FOR SEGMENTAL RETAINING WALL, 2012
   C. ENGEO. 2024. IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL, DANVILLE CALIFORNIA. MARCH, 2025 PROJECT NO.8870.000.011.
   D. ENGEO. 2024. GEOTECHNICAL DATA REPORT, DIABLO ROAD TRAIL, DANVILLE CALIFORNIA. 2025 PROJECT NO.8870.000.011.
2. SPECIAL INSPECTION / CONSTRUCTION OBSERVATION SHALL BE PERFORMED INCLUDING TESTING AND OBSERVATION OF FOUNDATION AND LEVELING PAD, MSE BLOCK PLACEMENT, GEOGRID PLACEMENT, ENGINEERED FILL APPROVAL AND PLACEMENT, AND DRAINAGE PLACEMENT.
3. MSE WALL CONSTRUCTION SHALL BE PERFORMED BY AN APPROVED MSE WALL CONTRACTOR, APPROVED BY THE ENGINEER.
4. EXCAVATION AND SHORING SHALL BE PERFORMED IN ACCORDANCE WITH OSHA, STATE, AND LOCAL JURISDICTIONAL REQUIREMENTS.
5. EARTHWORK SHALL BE IN CONFORMANCE WITH THE PROJECT GEOTECHNICAL REPORT.

MSE WALL MATERIALS

1. MASONRY WALL UNITS
   A. ALL MODULAR WALL UNITS SHALL CONSIST OF BASALITE GEOWALL™ MAX STANDARD PINNED UNITS (18" X 8" X 21-1/2") OR APPROVED EQUIVALENT, WHICH SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C1372 AND ASTM C-140. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 POUNDS PER SQUARE INCH (PSI) WITH A MAXIMUM MOISTURE ABSORPTION OF 8 PERCENT, AS FOR A NORMAL WEIGHT CONCRETE. SHAPE OF BLOCK AND COLOR REFER TO LANDSCAPE PLANS.
2. CONNECTING PINS
   A. THE FIBERGLASS PINS SHALL BE 1/2-INCH-DIAMETER RODS. THE FLEXURAL STRENGTH FOR THE CONNECTING PINS SHALL BE AT LEAST 128,000 PSI WITH A SHORT BEAM SHEAR OF 6,400 PSI.
3. CAP CONSTRUCTION ADHESIVE
   A. THE ADHESIVE SHALL BE APPROVED EQUIVALENT IN CONFORMANCE WITH ASTM 2339.
4. LEVELING BASE
   A. LEVELING PAD SHALL CONSIST OF COMPACTED CRUSHED STONE OR CLASS 2 AGGREGATE BASE, 6 INCHES THICK BY 33 1/2 INCHES WIDE.
5. UNIT FILL
   A. FILL FOR THE MODULAR UNITS SHALL BE CLASS 2 PERMEABLE MATERIAL OR FREE-DRAINING CRUSHED ROCK OR GRAVEL, 3/8 INCH TO 3/4 INCH, WITH NO MORE THAN 5 PERCENT PASSING THE NO. 50 SIEVE, IN ACCORDANCE WITH ASTM D448, AND IN ACCORDANCE WITH EITHER REQUIREMENTS FROM THE MANUFACTURER OR FROM NCMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS. THE GEOTECHNICAL ENGINEER SHOULD APPROVE GRADATION OF THE UNIT FILL. PEA GRAVEL IS NOT ALLOWED.
6. REINFORCED AND RETAINED WALL BACKFILL
   A. REINFORCED BACKFILL AND RETAINED WALL BACKFILL MATERIAL SHALL CONSIST OF ONSITE NATIVE ACCEPTABLE FILL IN ACCORDANCE WITH THE REFERENCED GEOTECHNICAL REPORT. ANY IMPORTED MATERIAL SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER AND SHOULD MEET THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.
7. GEOGRID
   A. WHERE REQUIRED, GEOGRID SHALL CONSIST OF MIRAGRID 7XT OR EQUIVALENT. APPROVED EQUIVALENT GEOGRID MATERIALS MAY ALSO BE SUITABLE. MAXIMUM GEOGRID SPACING IS 2' AND NO MORE THAN 2' FROM FINISHED GRADE TO UPPER LAYER OF GEOGRID.
8. DRAINAGE SYSTEM
   A. DRAINAGE SYSTEM IMMEDIATELY BEHIND THE WALLS SHOULD BE PROVIDED USING A 4"-DIAMETER PVC PERFORATED PIPE (SDR 35) EMBEDDED IN CLASS 2 PERMEABLE MATERIAL OR FREE-DRAINING GRAVEL SURROUNDED BY SYNTHETIC FILTER FABRIC. THE WIDTH OF THE DRAIN BLANKET SHOULD BE AT LEAST 12". THE DRAIN BLANKET SHOULD EXTEND TO ABOUT 1' BELOW THE FINISHED GRADES. THE PIPE SHALL OUTFALL THROUGH THE FACE OF WALL PER DETAILS ON SHEET AS DETERMINED DURING CONSTRUCTION. A SECONDARY DRAINAGE BLANKET AND SUBDRAIN AT THE BACK OF THE REINFORCED SOIL ZONE MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER.
9. COMPACTION
   THE LEVELING BASE SHALL BE COMPACTED WITH A VIBRATORY PLATE OR EQUIVALENT AS APPROVED BY THE ENGINEER OR GEOTECHNICAL ENGINEER. DURING PLACEMENT OF THE INITIAL BLOCKS, THE BACKFILL ON BOTH SIDES (IF ANY) OF THE BLOCKS SHOULD BE COMPACTED SIMULTANEOUSLY TO REDUCE THE POTENTIAL FOR MOVEMENT OF INITIAL BLOCK COURSE(S). ENGINEERED FILL SHALL CONFORM TO THE COMPACTION REQUIREMENTS PROVIDED IN THE PROJECT GEOTECHNICAL INVESTIGATION REPORT.

DESIGN PARAMETERS

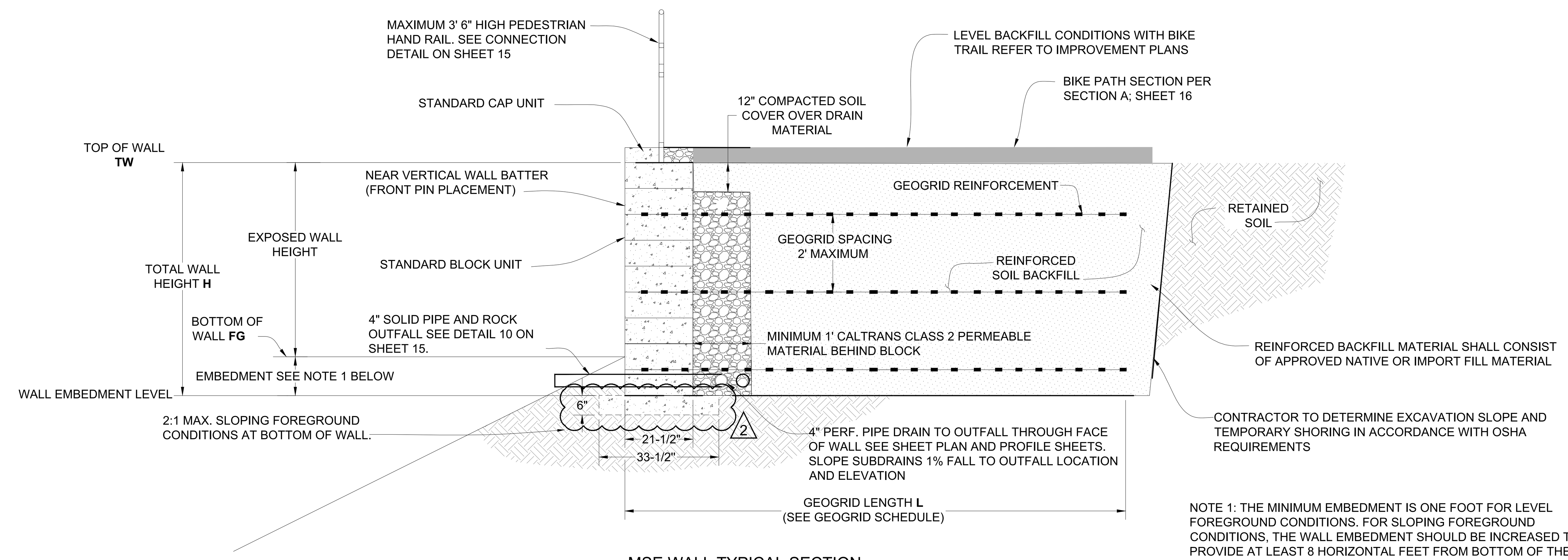
1. DESIGN LOADINGS
   A. GEOTECHNICAL DESIGN PARAMETERS

MSE Wall Soil Material Parameters			
CONDITION	COHESION (c') (pcf)	FRICTION ANGLE (Æ') (degrees)	UNIT WEIGHT (g) (pcf)
Reinforced Fill (On-site Soil Material)	0	28	125
Retained Soil	0	28	125
Foundation Fill	0	28	125

   B. WIND LOADING
   7.4 PSF (SERVICE LOAD) ON EXPOSED WOOD FENCE

INSTALLATION PROCEDURES:

1. EXCAVATE TO THE GRADES AS REQUIRED.
2. PREPARE BASE FOR LEVELING PAD. PLACE LEVELING PAD MATERIAL. STEP LEVELING PAD IN 8-INCH INCREMENTS WHEN FOUNDATION ELEVATION CHANGES.
3. INSTALL BASE COURSE OVER LEVELING PAD.
4. PLACE DRAINAGE PIPE AND DRAINAGE MATERIAL BACK OF WALL.
5. INSERT FIBERGLASS PINS AND PLACE DRAINAGE MATERIAL.
6. PLACE WALL BACKFILL AND COMPACT TO PROJECT REQUIREMENTS. USE ONLY HAND OPERATED EQUIPMENT WITHIN 3 FEET OF WALL.
7. PLACE GEOGRID OVER THE FIBERGLASS PINS AND EXTEND OVER LEVEL BACKFILL BEHIND FACING UNITS.
8. PLACE NEXT UNIT.
9. PULL GEOGRID TAUGHT AND BACKFILL (STAKE AS REQUIRED TO MAINTAIN GEOGRID TENSION). FOR GEOGRID PLACEMENT REFER TO MANUFACTURER'S RECOMMENDATIONS FOR PROPER PLACEMENT.



NOTE 1: THE MINIMUM EMBEDMENT IS ONE FOOT FOR LEVEL FOREGROUND CONDITIONS. FOR SLOPING FOREGROUND CONDITIONS, THE WALL EMBEDMENT SHOULD BE INCREASED TO PROVIDE AT LEAST 8 HORIZONTAL FEET FROM BOTTOM OF THE WALL BLOCKS TO THE NEAREST FREE FACE. FOR 2:1 SLOPING FOREGROUND CONDITIONS, THIS EQUATES TO A MINIMUM WALL EMBEDMENT OF 4 FEET.

MSE WALL TYPICAL SECTION
NO SCALE

MSE RETAINING WALL - GEOGRID SCHEDULE

TOTAL WALL HEIGHT INCLUDING EMBEDMENT **H**	MIRAFI GEOGRID TYPE	GEOGRID LENGTH **L**	GEOGRID ELEVATIONS MEASURED FROM BOTTOM OF WALL
4'	7XT	6'	2'
6'	7XT	8.5'	2'/4'
8'	7XT	10.5'	2'/4'/6'
10'	7XT	13'	2'/4'/6'/8'

1 TYPICAL MSE WALL DETAIL
NO SCALE

DANVILLE

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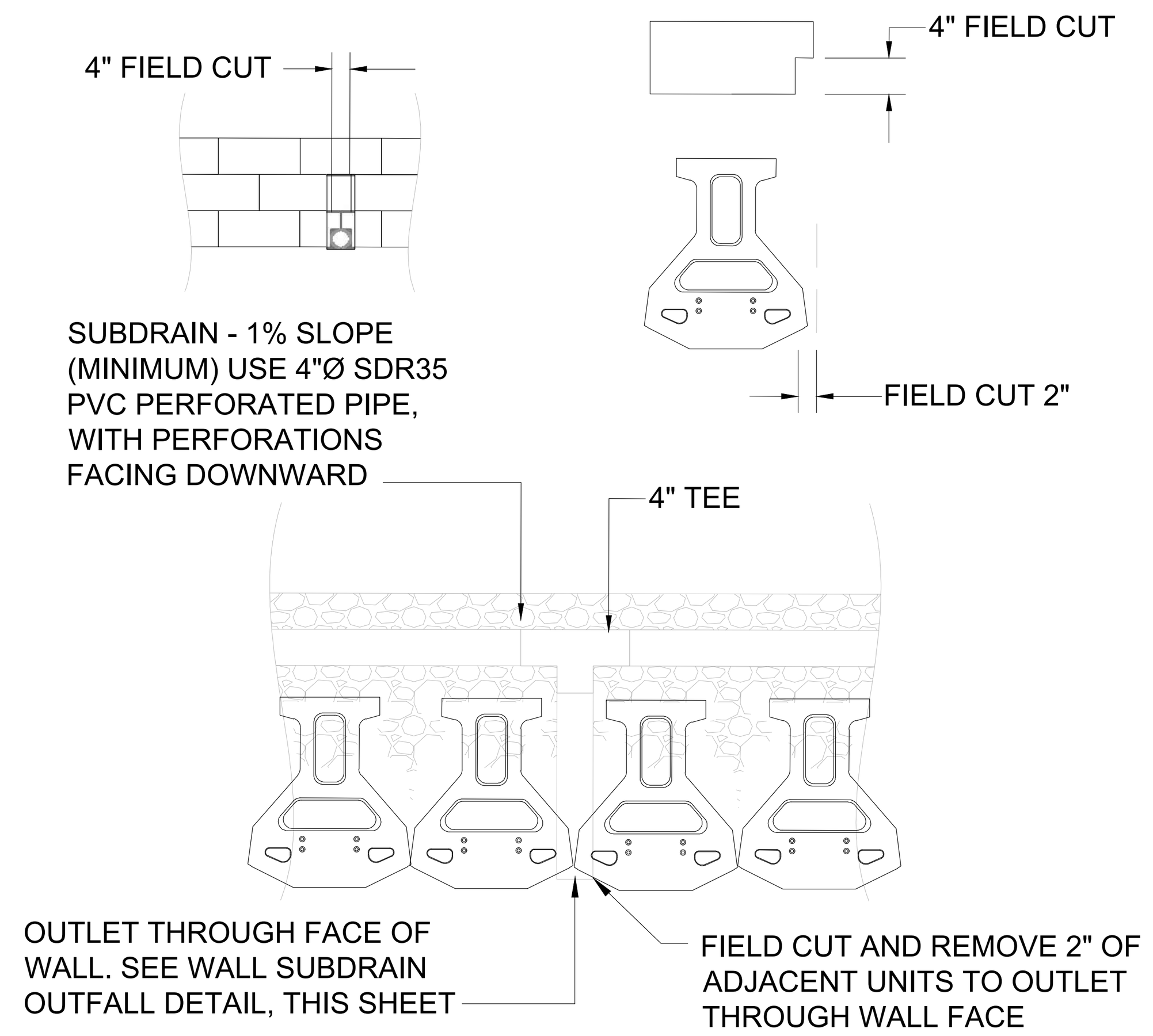
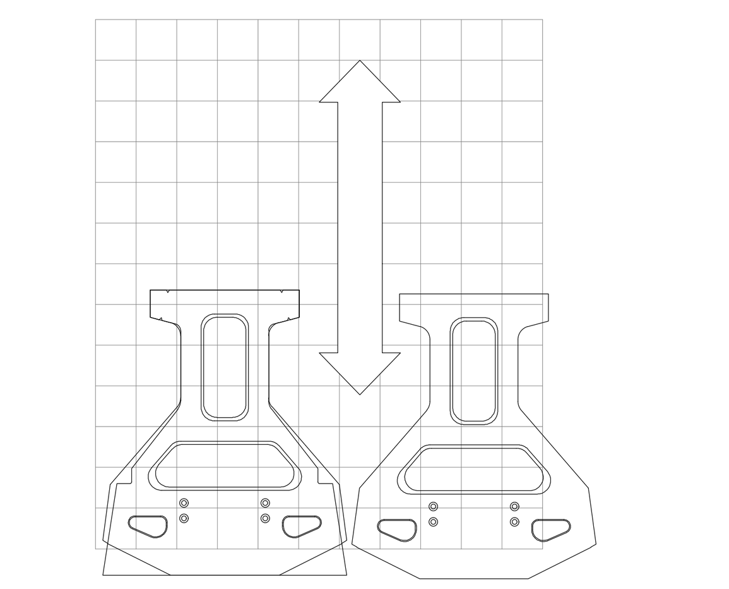
MSE WALL NOTES AND DETAILS
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 14 OF 22 SHEETS
PROJECT NO. 8870.000.011

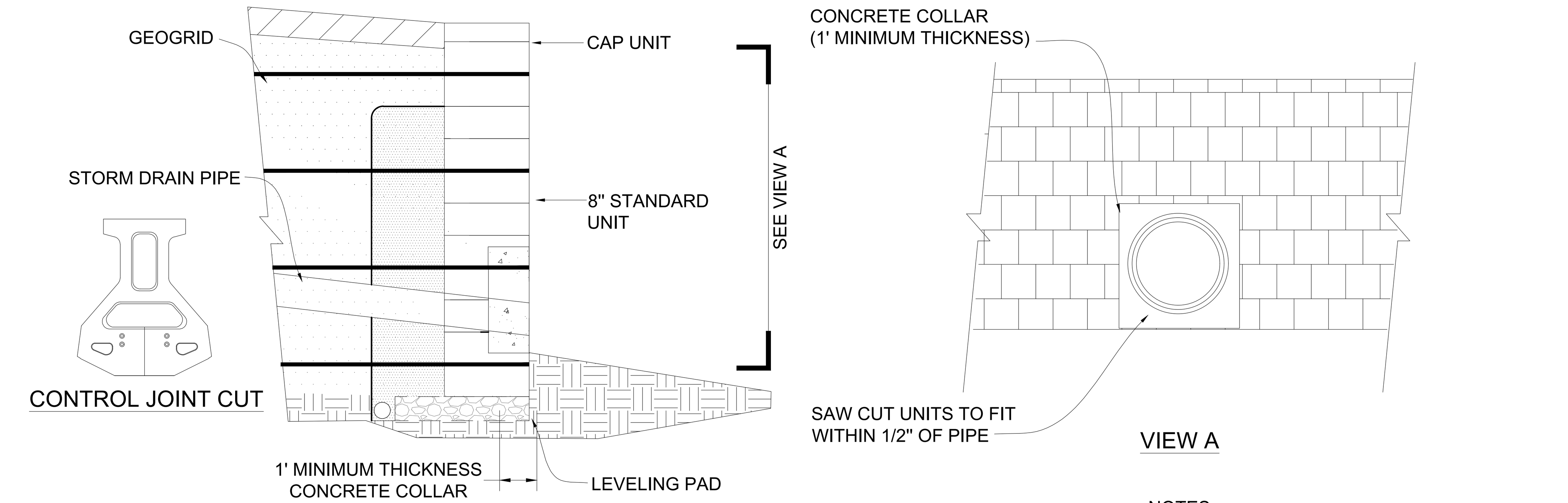


1 DRAIN DETAIL
NO SCALE



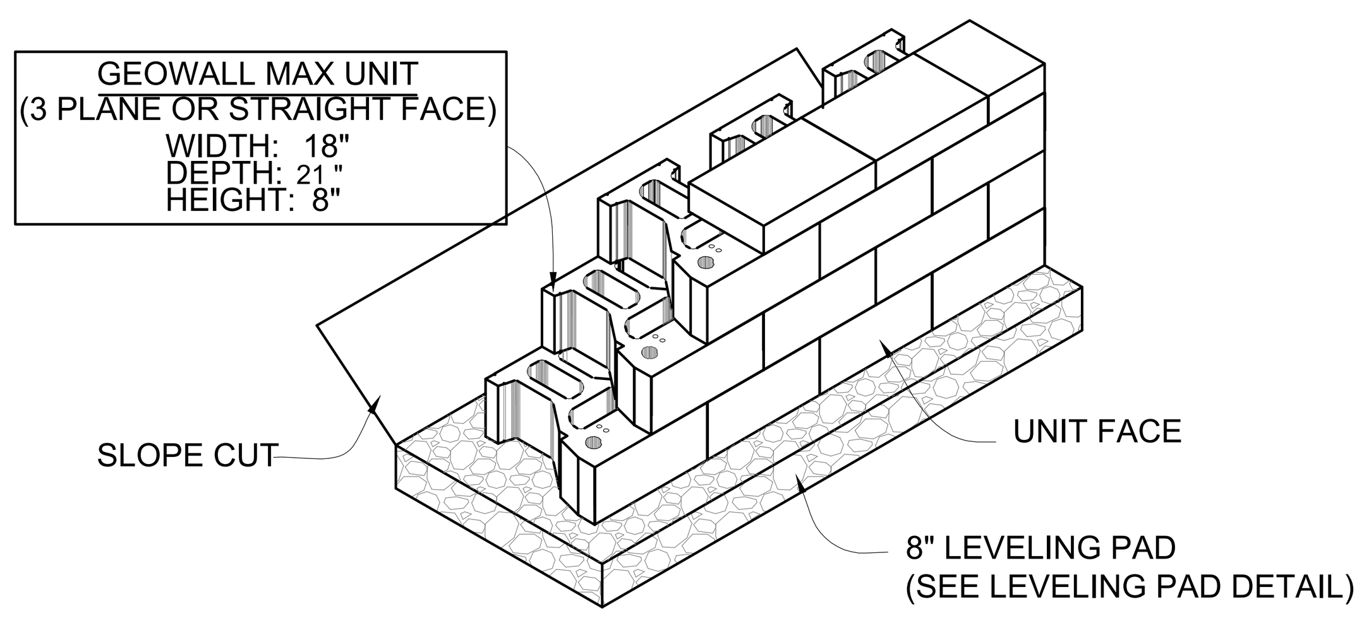
GEOGRID IS TO BE PLACED ON LEVEL BACKFILL OVER THE FIBERGLASS PINS. PLACE NEXT UNIT. PULL GRID TAUT AND BACKFILL. STAKE AS REQUIRED.

2 FRICTIONAL CONNECTION
NO SCALE

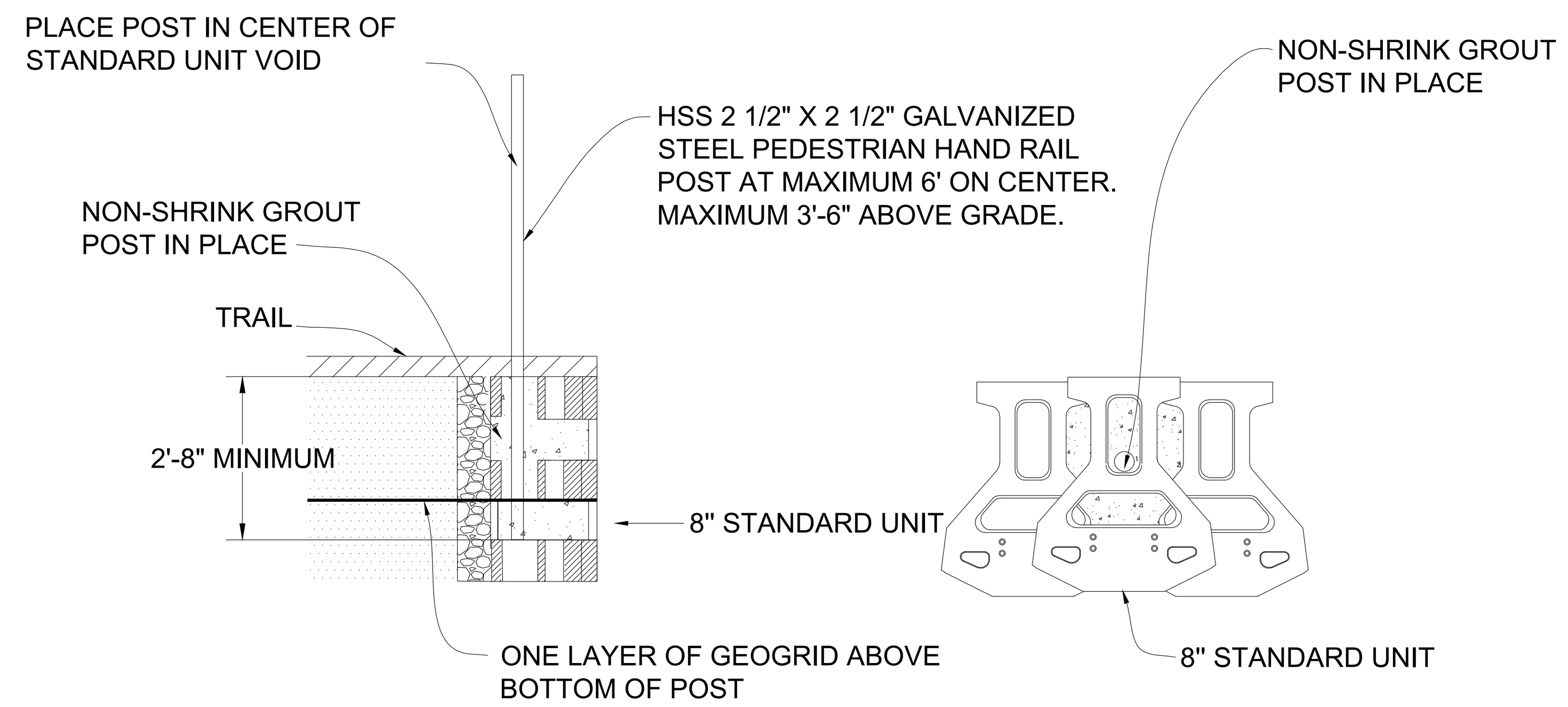


NOTES:
-REFER TO PROJECT CIVIL IMPROVEMENT PLANS FOR STORM DRAIN OUTFALL DETAIL.

3 TYPICAL STORM DRAIN DETAIL
NO SCALE



4 GEOWALL MAX UNIT/BASE PAD ISOMETRIC VIEW
NO SCALE



5 STEEL HANDRAIL POST CONNECTION DETAIL
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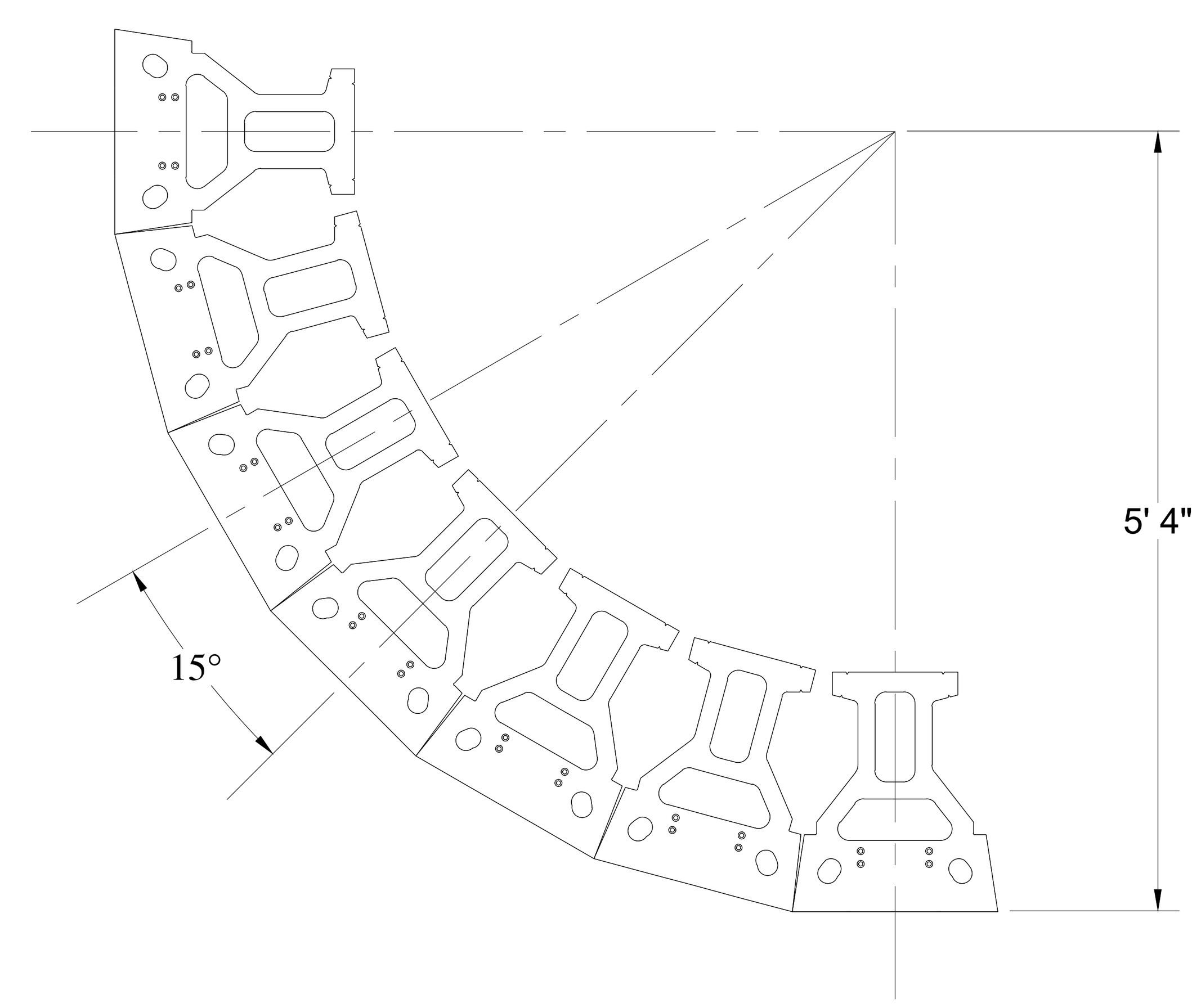
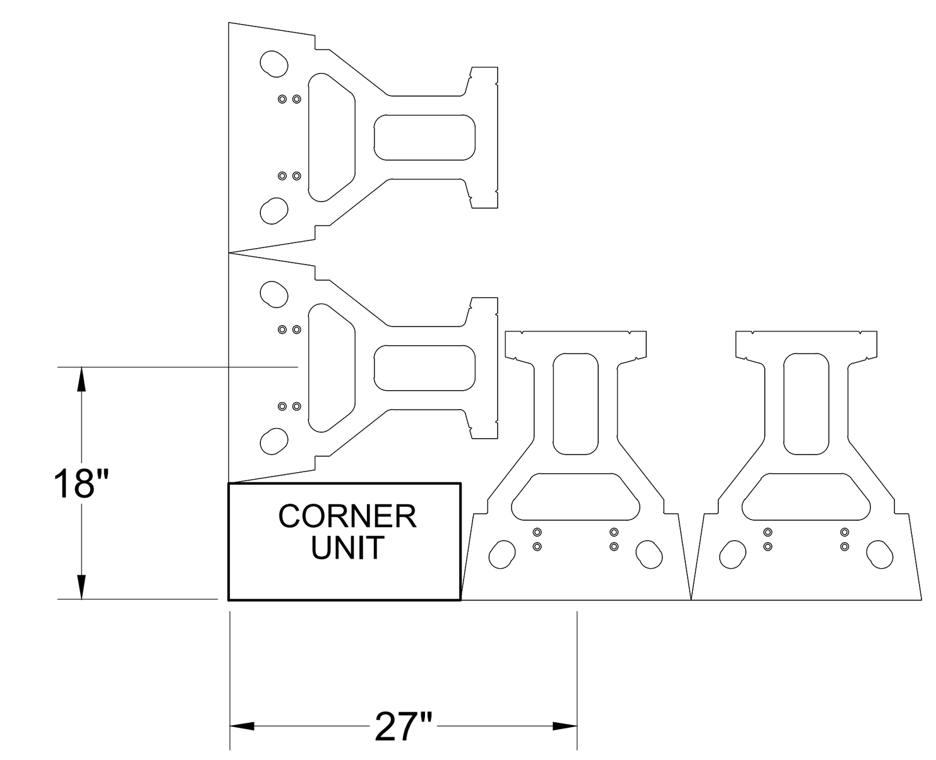


NOTE:
CORNERS AND RADII ARE TO BE CONSTRUCTED AS SPECIFIED IN THE CURRENT BASALITE CONSTRUCTION MANUAL.

6 RADIUS DETAIL (PLAN)
NO SCALE



7 CORNER DETAIL (PLAN)
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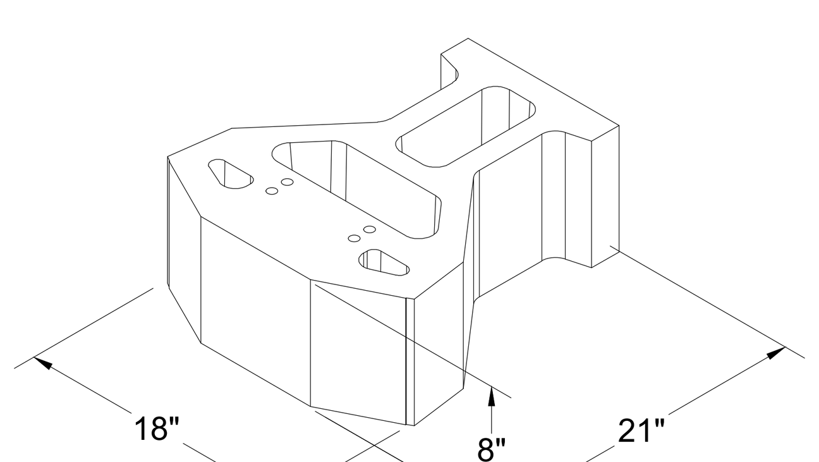

8 3 PLANE GEOWALL MAX UNIT
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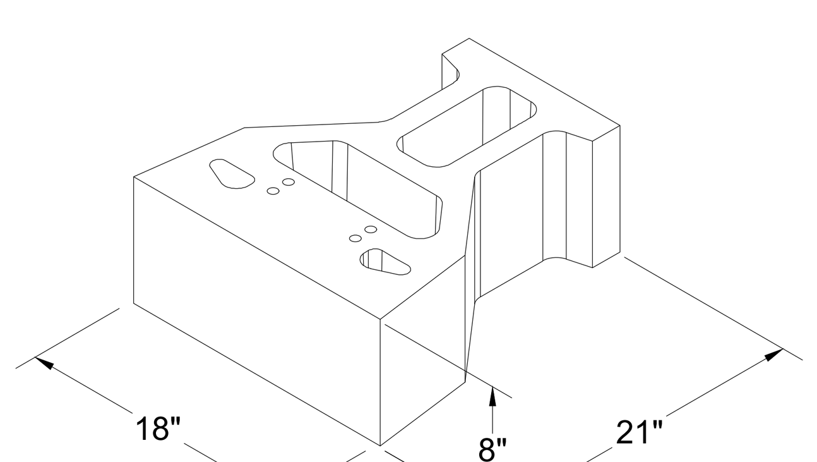

9 STRAIGHT FACE GEOWALL MAX UNIT
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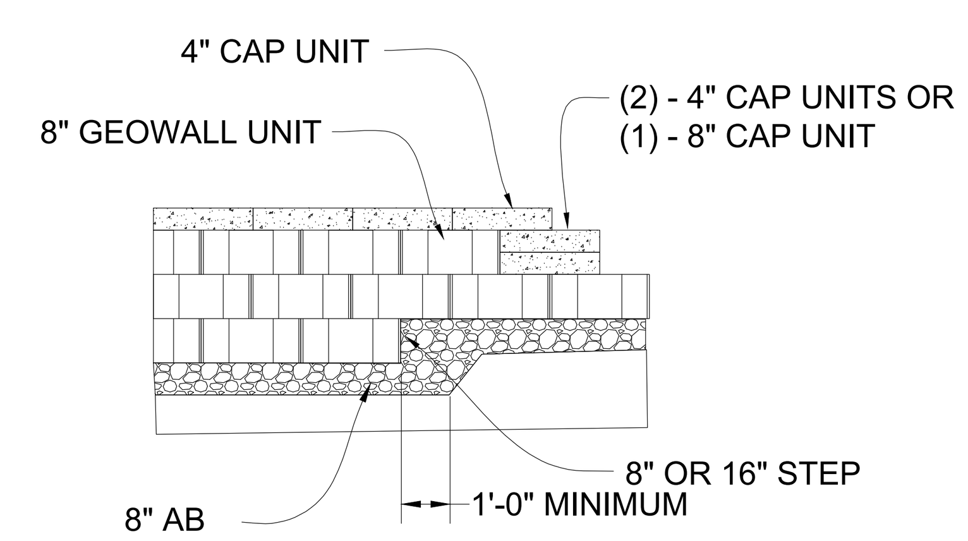

10 STEPPING AND CAPPING DETAIL
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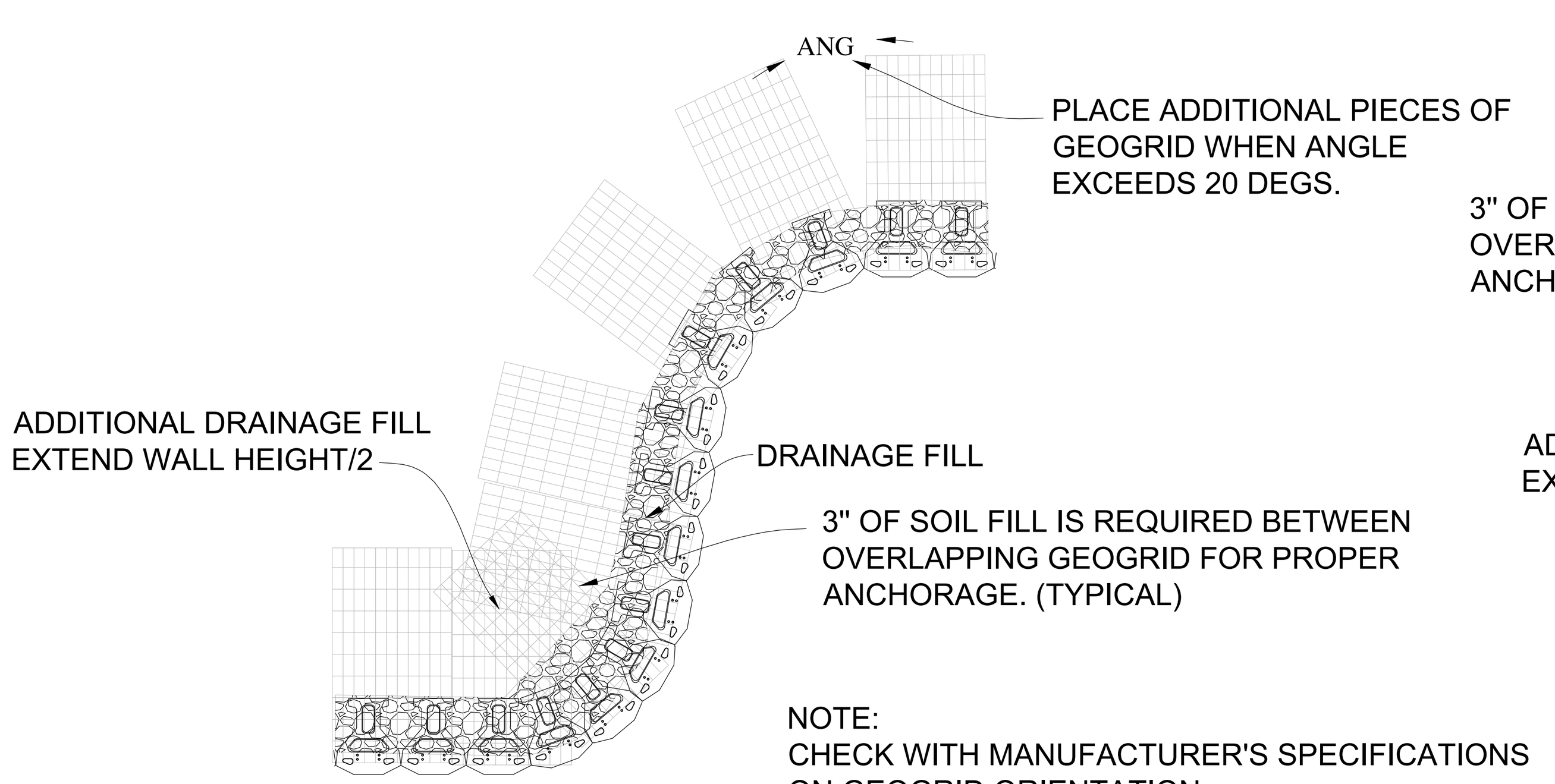
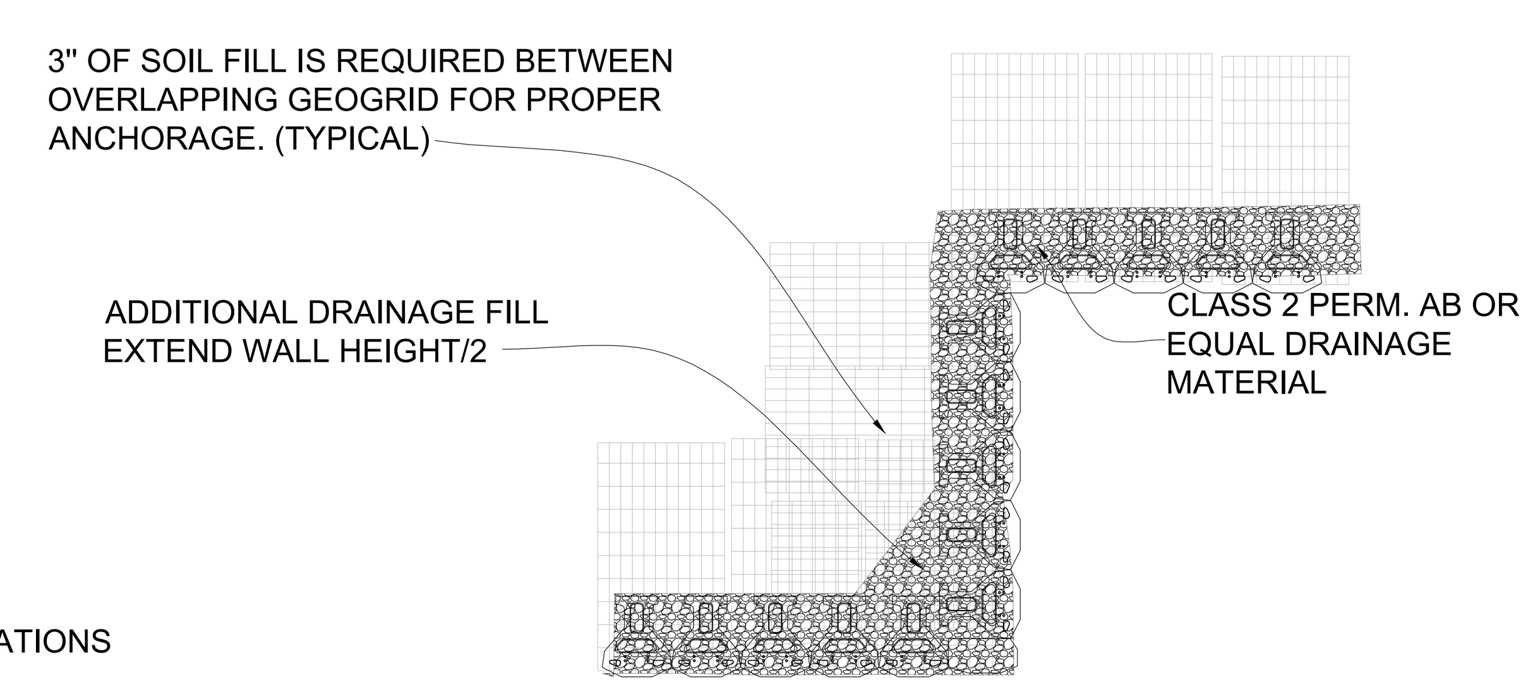
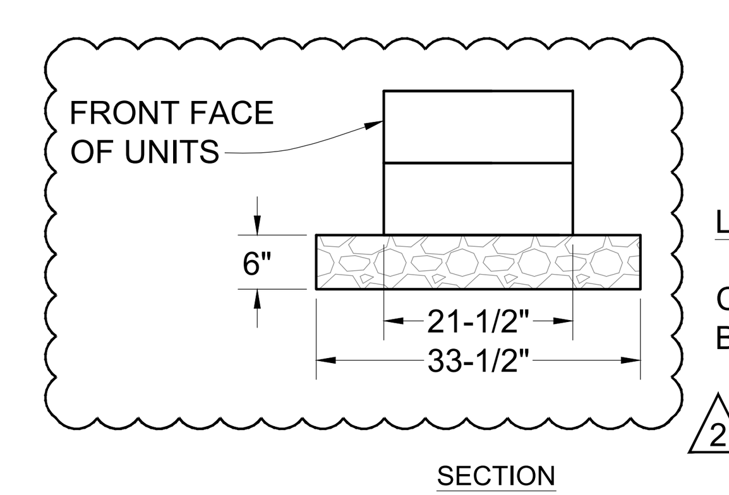


NOTE:
CHECK WITH MANUFACTURER'S SPECIFICATIONS ON GEOGRID ORIENTATION.

11 GEOGRID INSTALLATION ON CURVES
NO SCALE



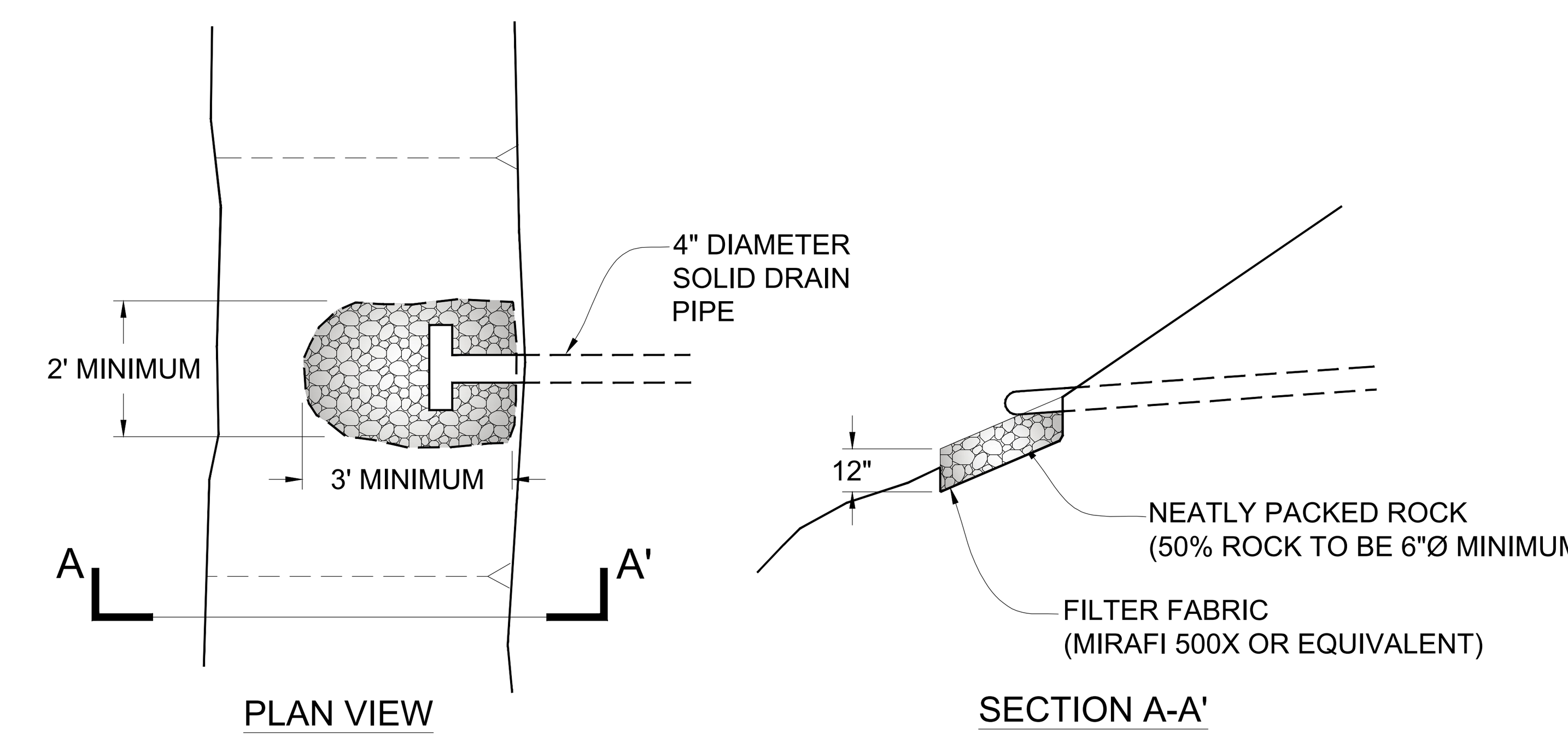
12 GEOGRID INSTALLATION AT CORNERS
NO SCALE



LEVELING PAD MATERIAL

COMPACTED CLASS 2 AGGREGATE BASE MATERIAL OR EQUAL

13 LEVELING PAD DETAIL
NO SCALE



14 WALL SUBDRAIN OUTFALL
NO SCALE

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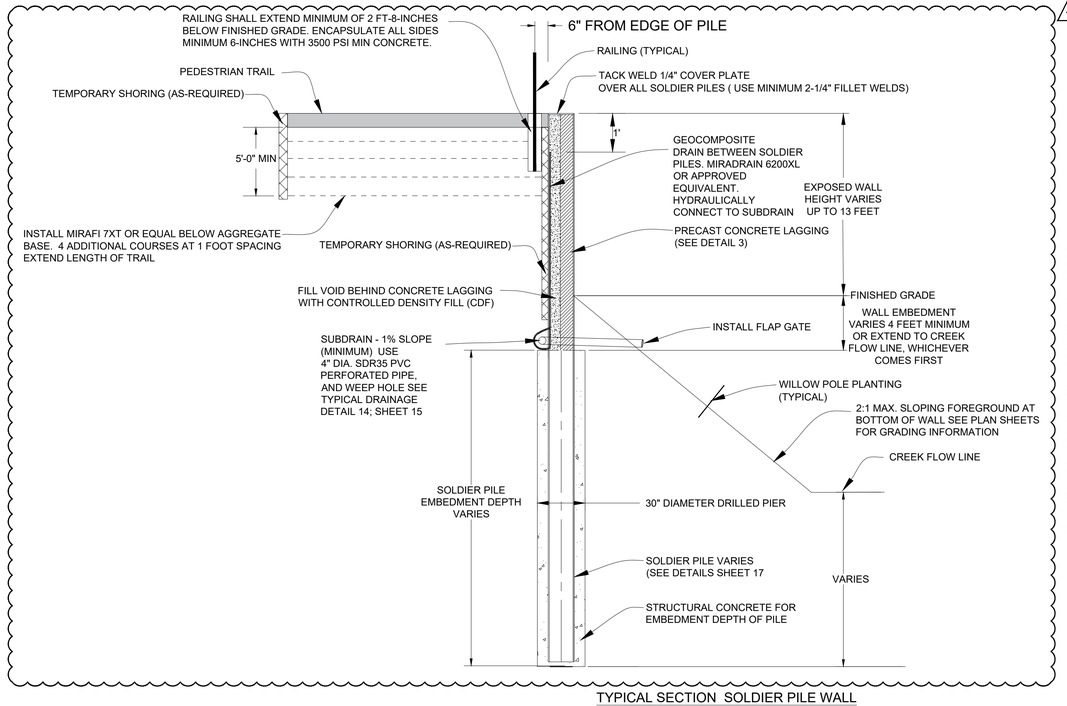
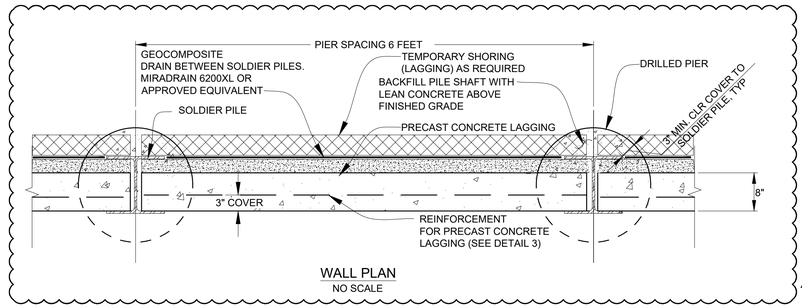
WALL DETAILS
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 15 OF 22 SHEETS
PROJECT NO. 8870.000.011



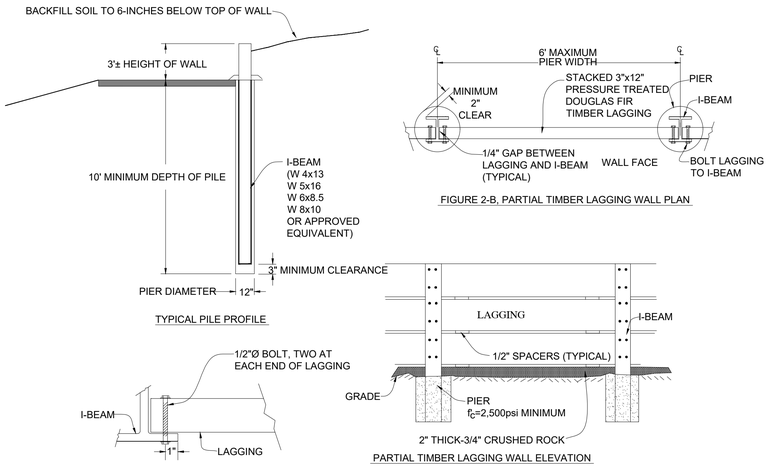
TYPICAL SECTION SOLDIER PILE WALL
NO SCALE



WALL PLAN
NO SCALE

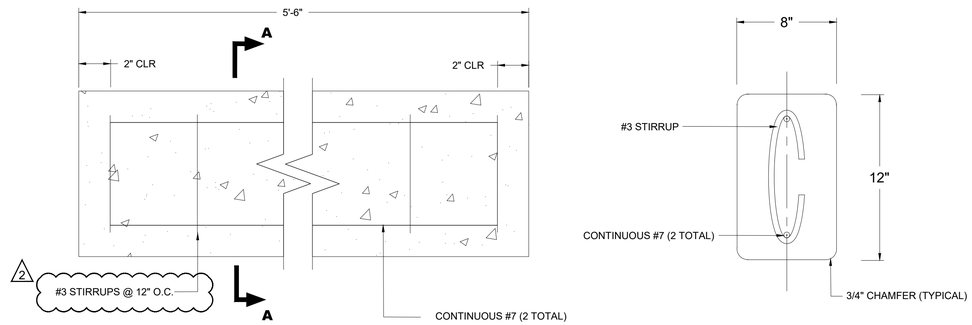
1 TYPICAL SOLDIER PILE WALL DETAIL
NO SCALE

NOTES:
1. STEEL SOLDIER PILES MINIMUM YIELD STRENGTH = 50 KSI.
2. INSTALL 4" STANDARD FLAP GATE AGRI DRAIN OR EQUAL AT SUBDRAIN OUTFALL.
3. PRECAST CONCRETE LAGGING: MINIMUM ULTIMATE STRENGTH OF CONCRETE = 4 KSI AND MINIMUM YIELD STRENGTH OF STEEL = 60 KSI.
4. A CORRSION RATE OF 0.001 INCH PER YEAR FOR SOIL EMBEDDED ZONE OVER A 50 YEAR LIFE SPAN HAS BEEN CONSIDERED FOR STEEL PILE SELECTION.



2 TYPICAL DEBRIS WALL DETAIL
NO SCALE

NOTES:
1. BOLTED CONNECTION NOT REQUIRED IN AREAS WHERE BACKFILL IS PLACED PER ENGINEER.
2. CONTRACTOR TO TAPER WALL AT BOTH ENDS, WITH 1 FOOT AND 2 FOOT SEGMENTS AS DIRECTED BY THE ENGINEER
3. TIMBER LAGGING SHALL CONFORM TO SECTION 57-2.01B(2), AND 57-2.01B(3) 2023 CALTRANS SPECIFICATIONS.



SECTION A-A

3 TYPICAL SOLDIER PILE WALL LAGGING DETAIL
NO SCALE

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2	7/09/2025	ADDENDUM 2	JB
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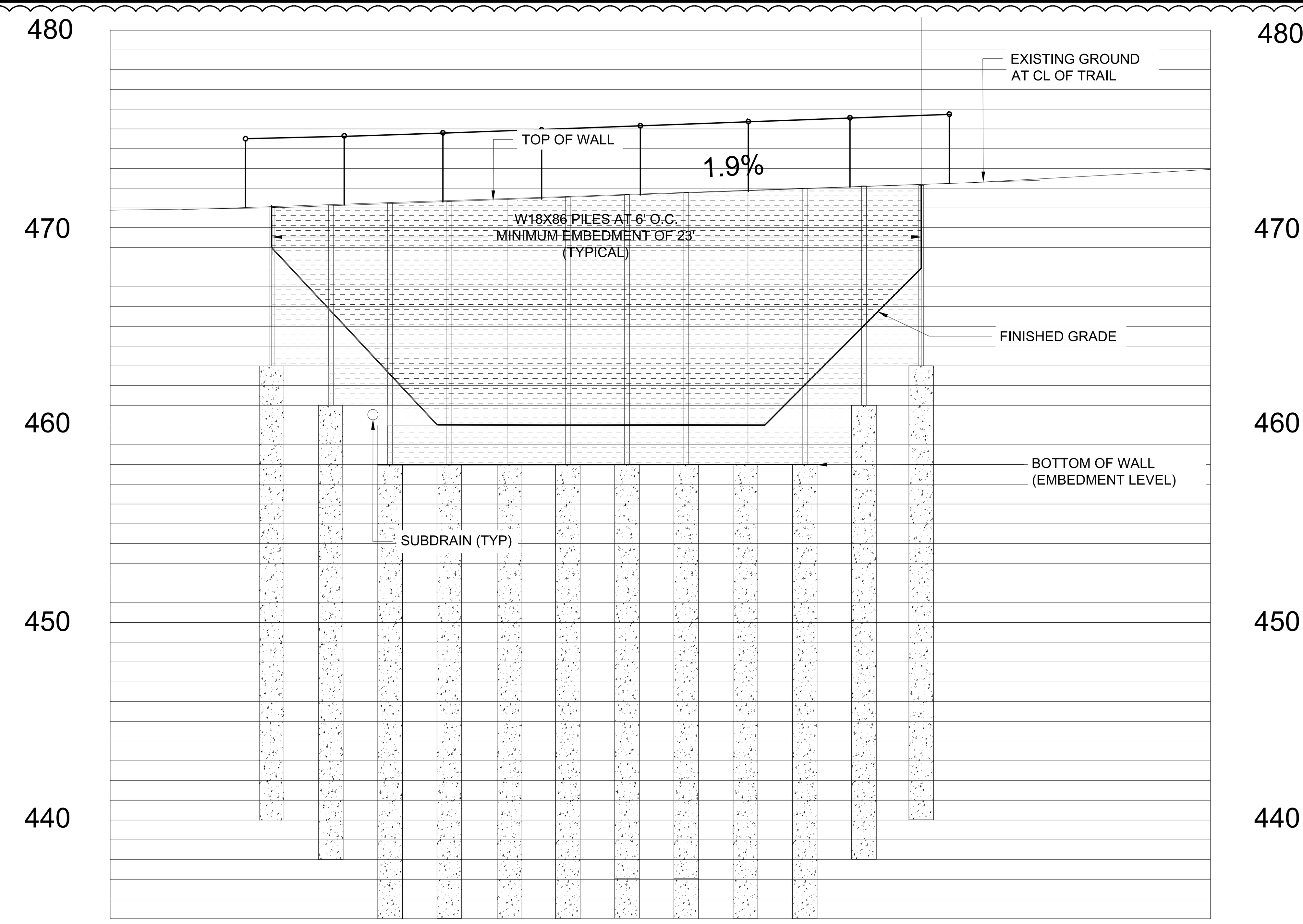
SOLDIER PILE WALL SECTIONS AND DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

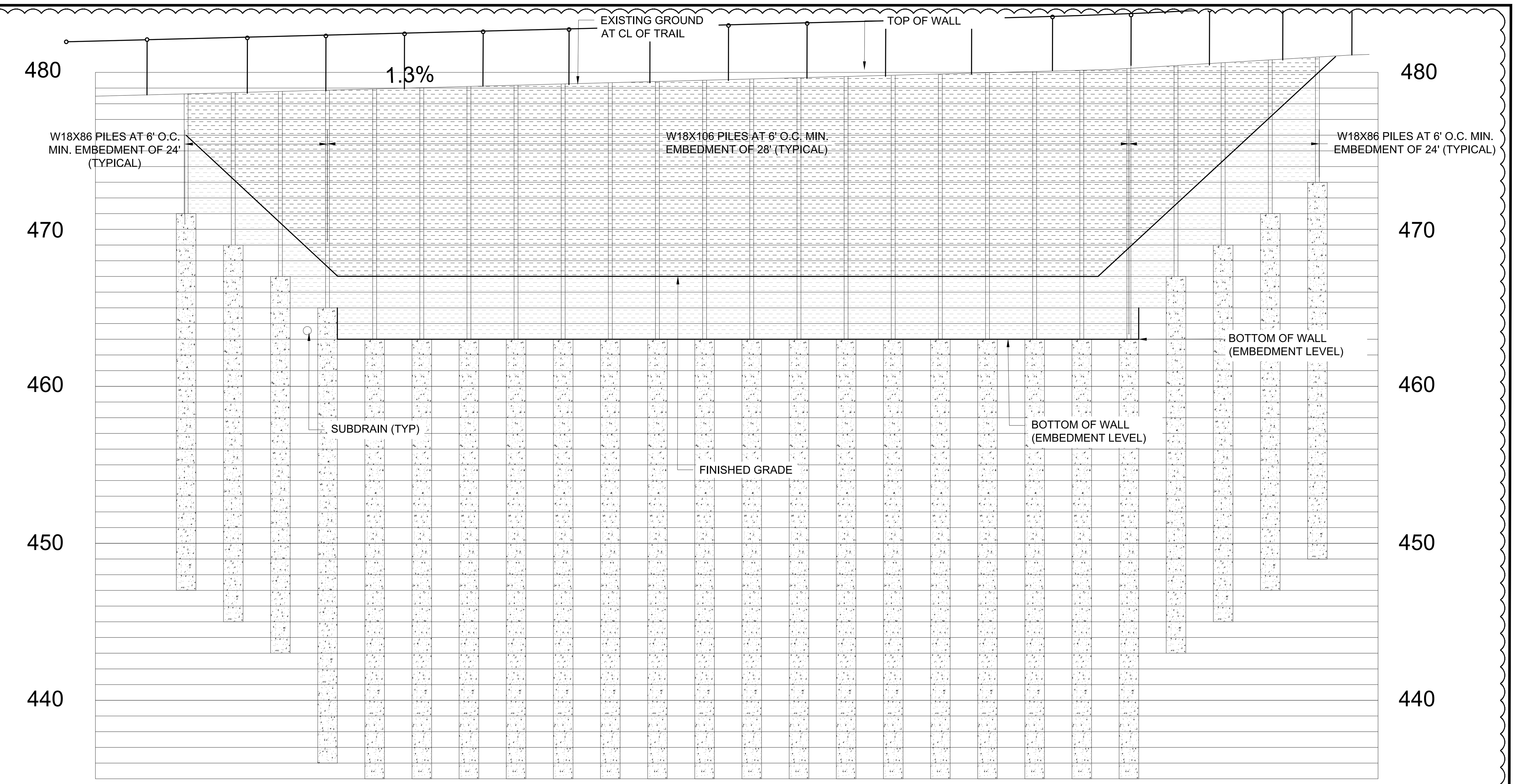
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 16 OF 22 SHEETS
PROJECT NO. 8870.000.011



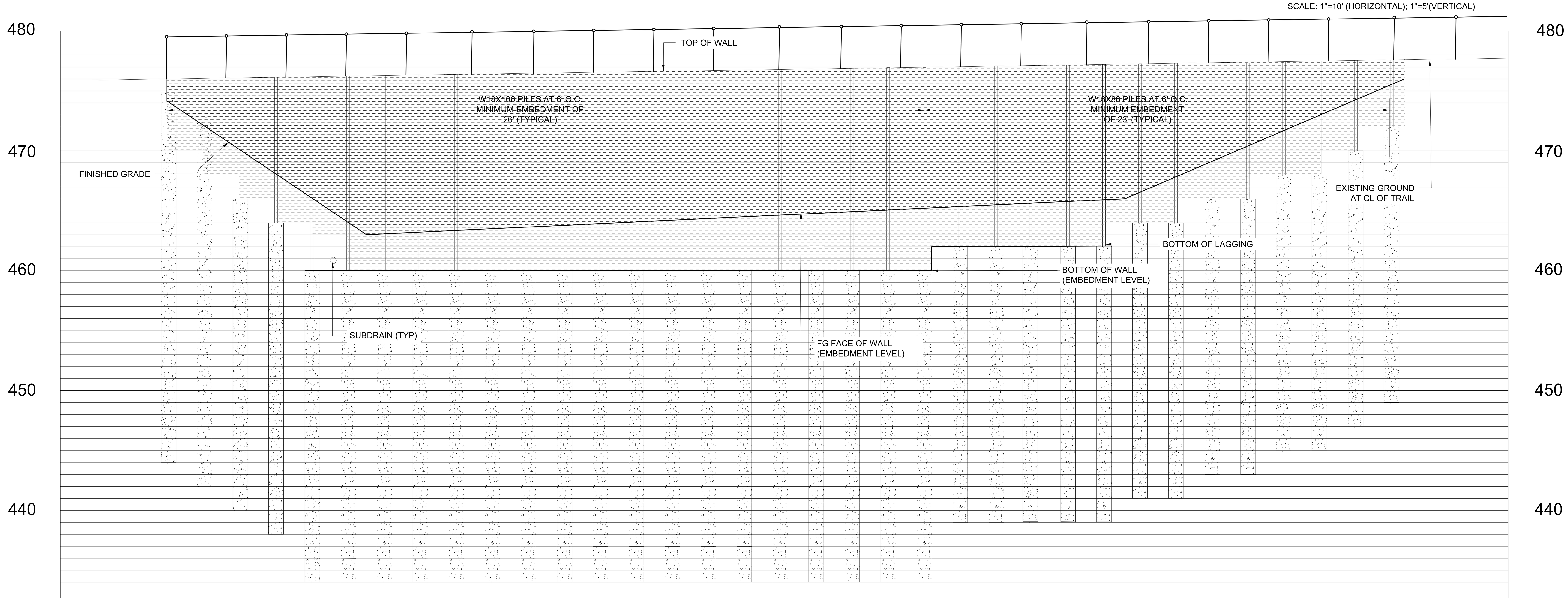
SOLDIER PILE WALL #1 PROFILE

SCALE: 1"=10' (HORIZONTAL); 1"=5'(VERTICAL)



SOLDIER PILE WALL #3 PROFILE

SCALE: 1"=10' (HORIZONTAL); 1"=5'(VERTICAL)



SOLDIER PILE WALL #2 PROFILE

SCALE: 1"=10' (HORIZONTAL); 1"=5'(VERTICAL)

NOTE: THE TOP COURSE OF LAGGING IN AREAS WHERE CONFORM IS REQUIRED WITH SLOPING GRADES MAY BE FABRICATED USING CONSTRUCTION HEART GRADE REDWOOD OR BETTER PER CALTRANS STANDARDS. MEMBERS SHALL BE 8 X 12.

REV.	DATE	DESCRIPTION	BY
2	7/09/2025	ADDENDUM 2	JB

DANVILLE

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MARCH 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

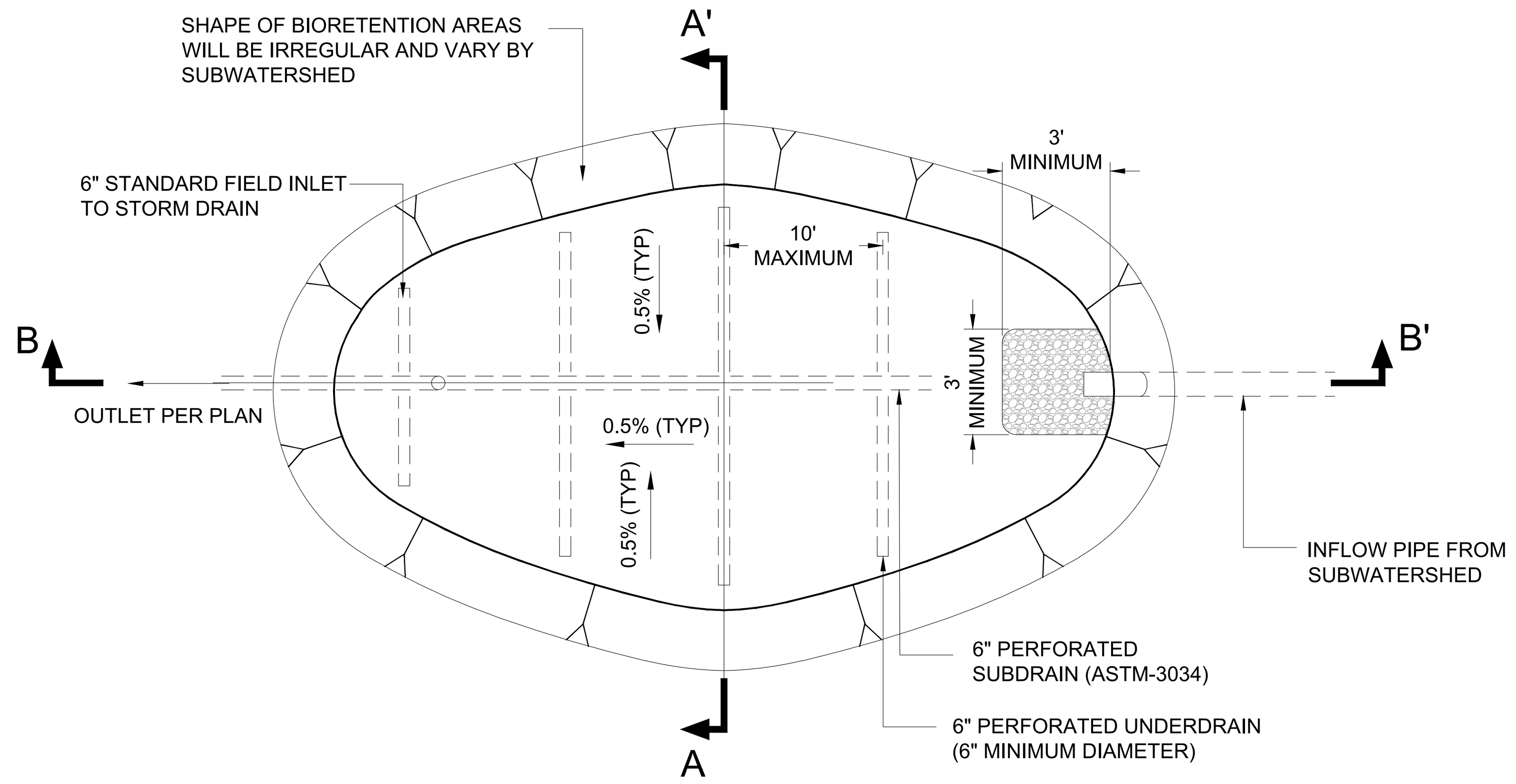
SOLDIER PILE WALLS PROFILES

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

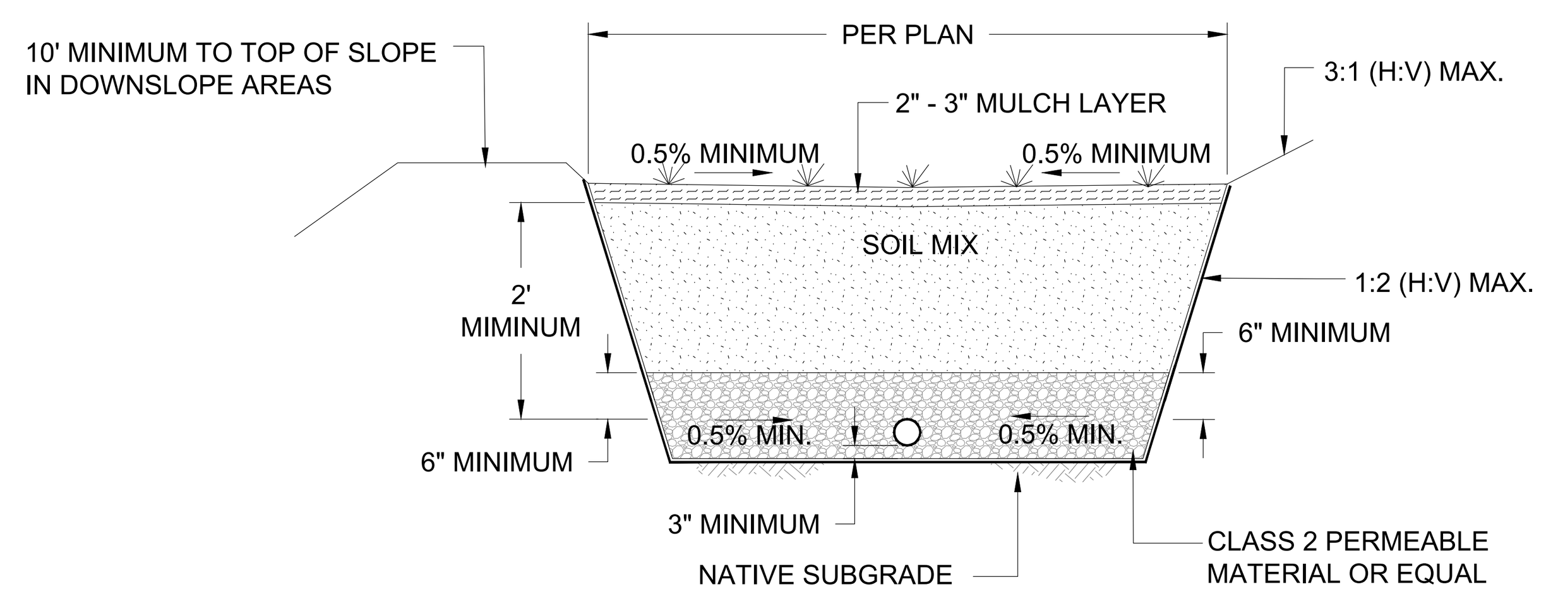
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 17 OF 22 SHEETS

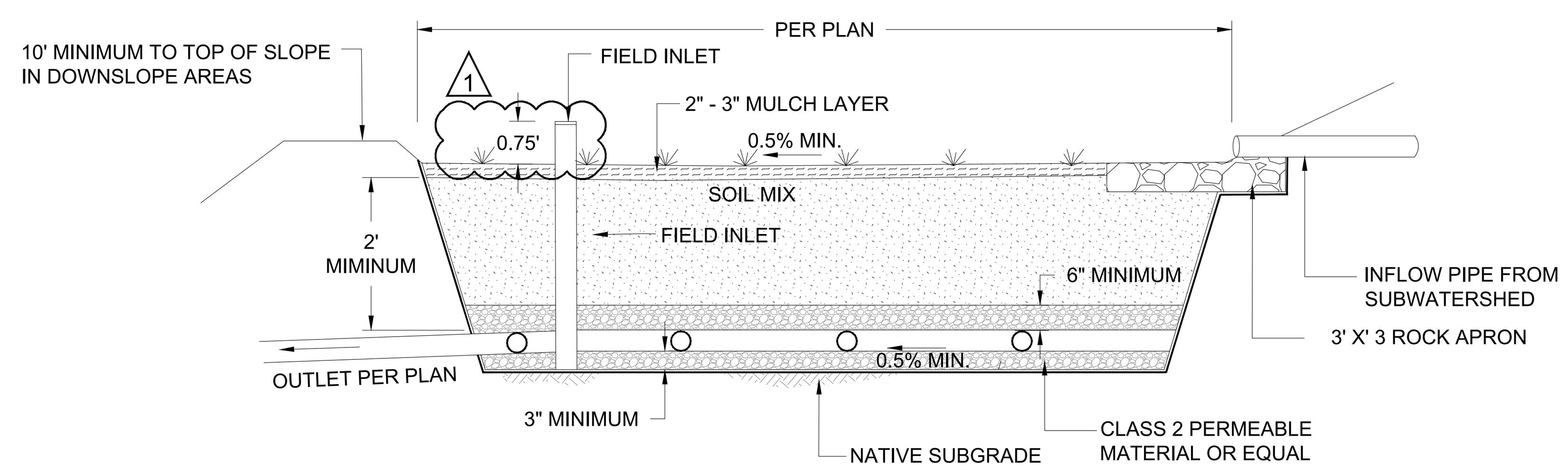
PROJECT NO. 8870.000.011



TYPICAL BIORETENTION AREA WITH 3:1 SIDE SLOPES - PLAN VIEW
NO SCALE

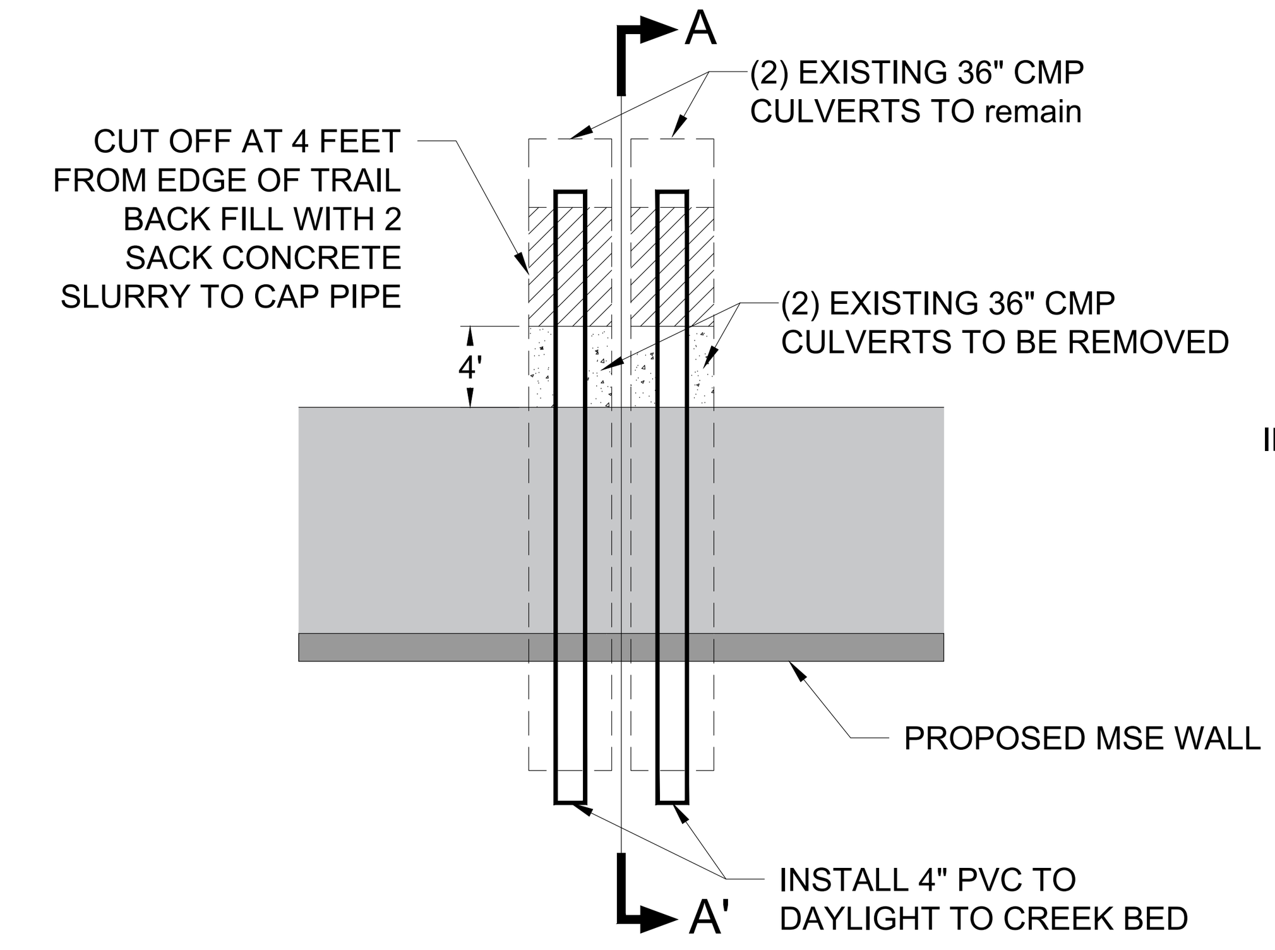


SECTION A-A'
NO SCALE

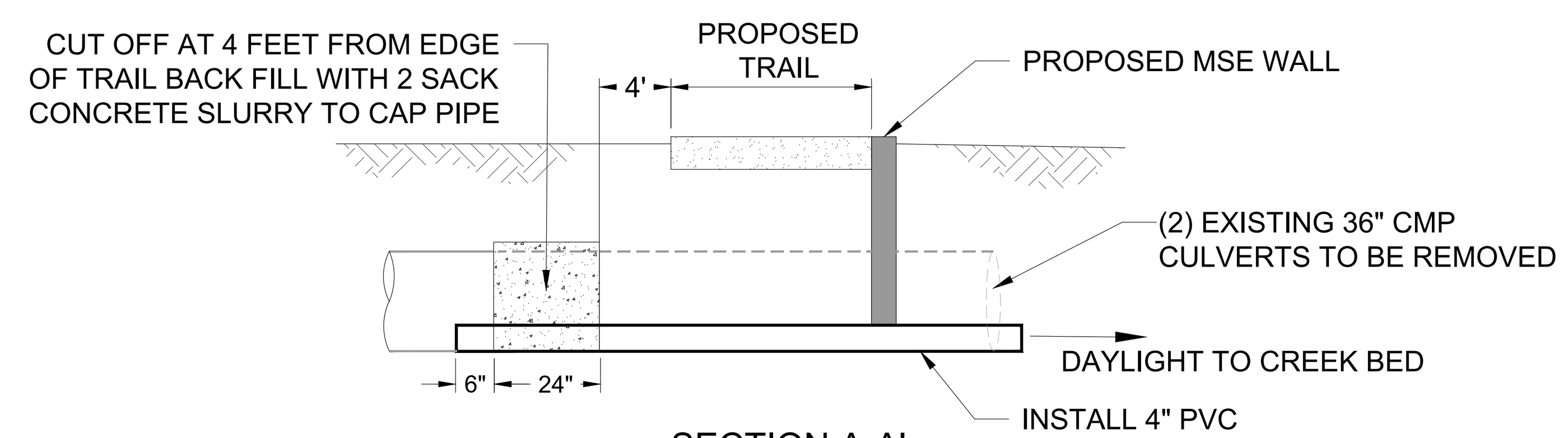


SECTION B-B'
NO SCALE

1 TYPICAL BIORETENTION DETAIL
NO SCALE



PLAN VIEW



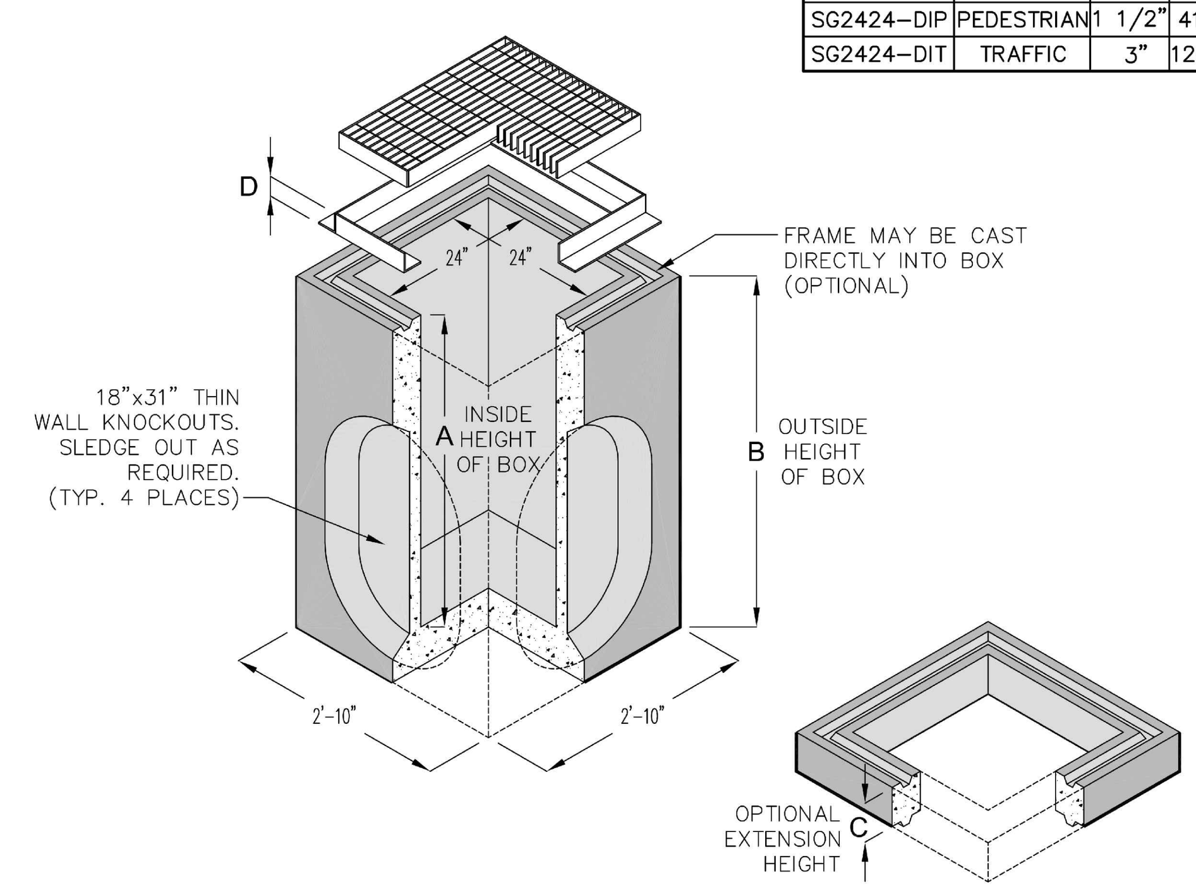
SECTION A-A'

2 TYPICAL CULVERT REMOVAL DETAIL
NO SCALE

DROP INLET			
MODEL NO.	A	B	*WEIGHT
DI242436	36"	42"	1900 LBS.
DI242448	48"	54"	2500 LBS.

*BOX ONLY

FRAME AND GRATE			
MODEL NO.	RATING	D	WEIGHT
SG2424–DIP	PEDESTRIAN	1 1/2"	41 LBS.
SG2424–DIT	TRAFFIC	3"	120 LBS.

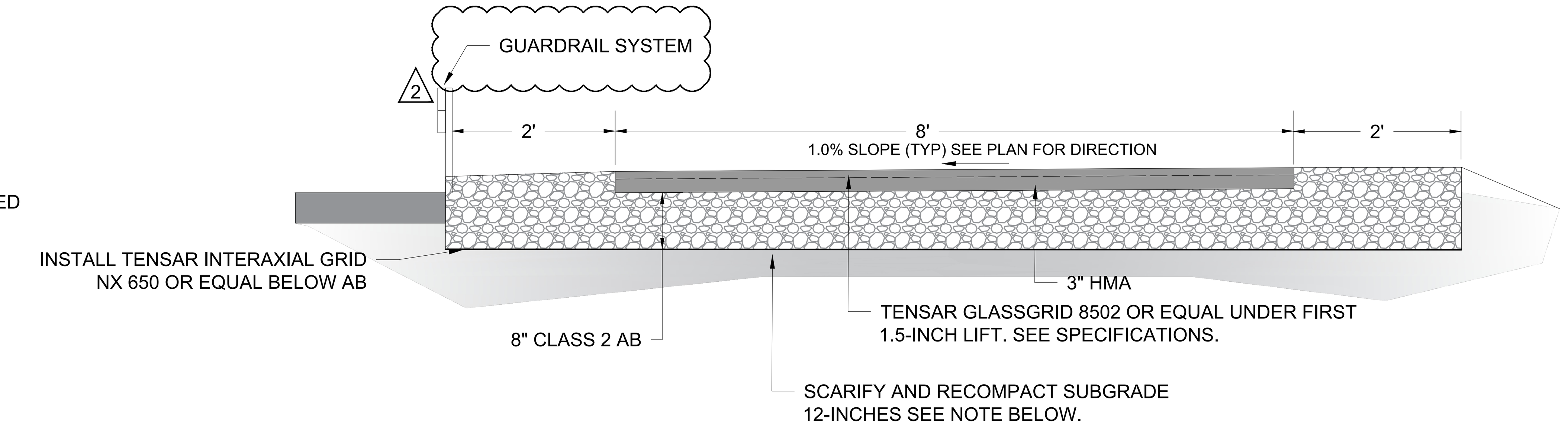


EXTENSION		
MODEL NO.	C	WEIGHT
RS242406	6"	300 LBS.
RS242412	12"	600 LBS.

- FRAME AND GRATE ASSEMBLY AVALIABLE IN TRAFFIC OR PEDESTRIAN MODELS.
- DESIGN FOR H-20-44 BRIDGE LOADING.
- ASSEMBLY TO BE PLACED ON A 6" BASE OF CRUSHER RUN FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.
- ILLUSTRATION IS TYPICAL ONLY OF GENERAL SERIES CONFIGURATION: FOR SPECIFIC CONFIGURATION, CALL JENSEN PRECAST.

24" X 24" DRAIN INLET
JENSEN PRECAST
ORG. DWG. DATE 11-28-00
REV. DWG. DATE
DI2424
8.01

3 TYPICAL DRAIN INLET DETAIL
NO SCALE

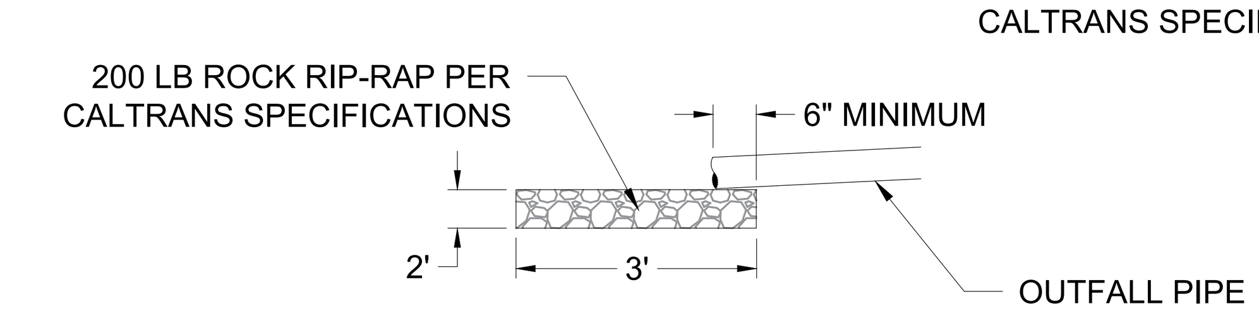


PAVEMENT CONSTRUCTION

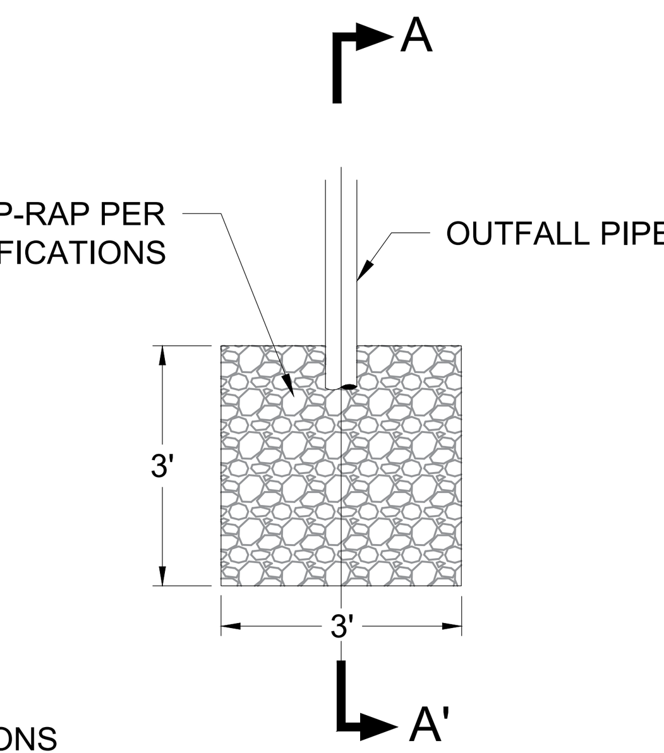
PAVEMENT CONSTRUCTION AND ALL MATERIALS SHOULD CONFORM TO THE SPECIFICATIONS AND REQUIREMENTS OF THE STANDARD SPECIFICATIONS BY THE DIVISION OF HIGHWAYS, DEPARTMENT OF PUBLIC WORKS, STATE OF CALIFORNIA, LATEST EDITION, TOWN OF DANVILLE REQUIREMENTS, AND THE FOLLOWING MINIMUM REQUIREMENTS.

- ALL PAVEMENT SUBGRADES SHOULD BE SCARIFIED TO A DEPTH OF 12 INCHES BELOW FINISHED SUBGRADE ELEVATION, MOISTURE CONDITIONED TO AT LEAST 4 PERCENTAGE POINTS ABOVE OPTIMUM, AND COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION AND IN ACCORDANCE WITH CITY REQUIREMENTS.
- SUBGRADE SOIL SHOULD BE IN A STABLE, NON -PUMPING CONDITION AT THE TIME AGGREGATE BASE MATERIALS ARE PLACED AND COMPACTED.
- AGGREGATE BASE MATERIALS SHOULD MEET CURRENT CALTRANS SPECIFICATIONS FOR CLASS 2 AGGREGATE BASE AND SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AT A MINIMUM OF 2 PERCENTAGE POINTS ABOVE OPTIMUM IN ACCORDANCE WITH ASTM D1557.
- ASPHALT PAVING MATERIALS SHOULD MEET CALTRANS SPECIFICATIONS FOR V-MIX HOT MIX ASPHALT.

A TYPICAL TRAIL SECTION
NO SCALE



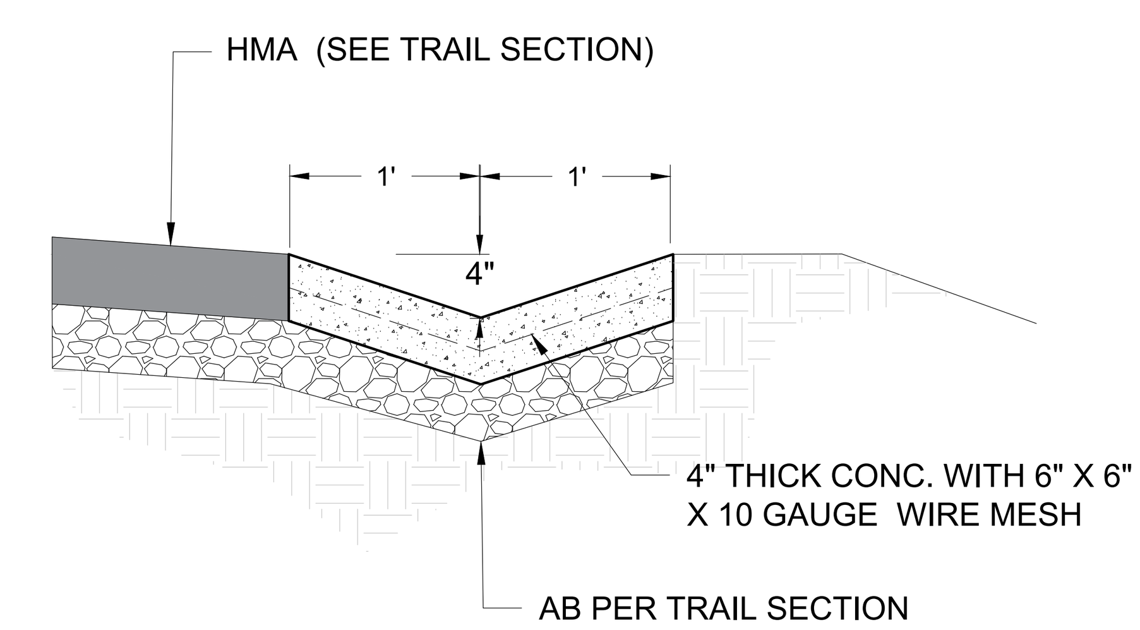
SECTION A-A'



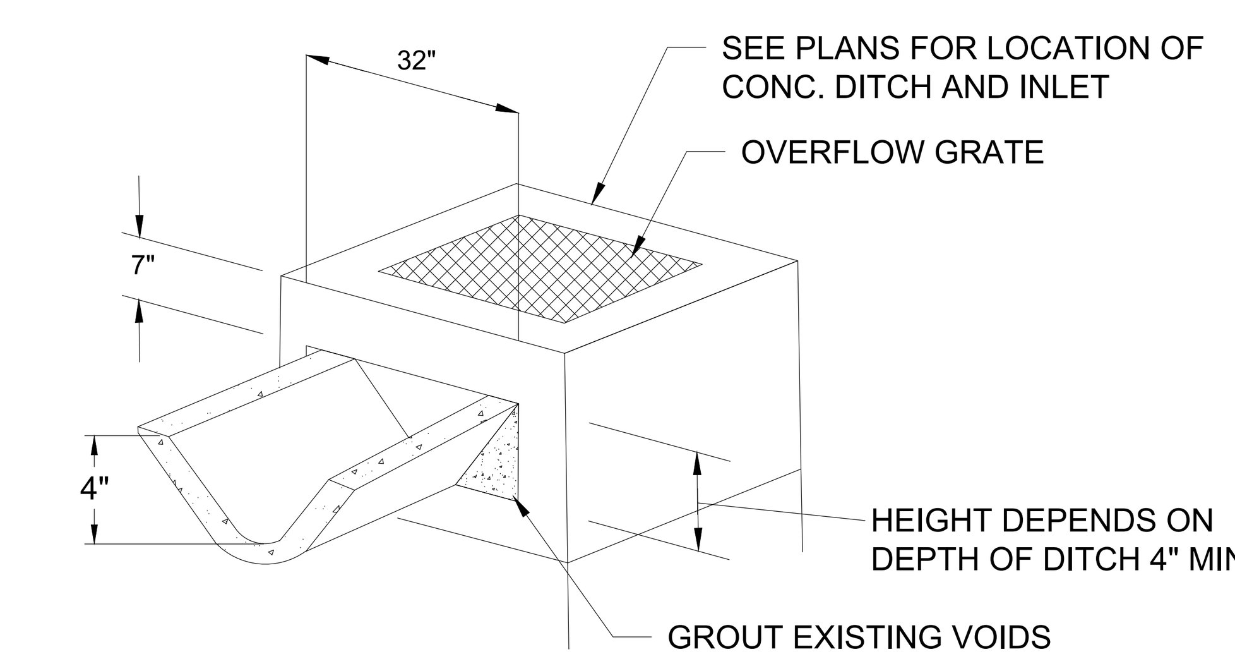
PLAN VIEW

NOTE: FOR BURIED ROCK CHECK DAMS USE SAME SPECIFICATIONS FOR ROCK RIP-RAP AS SHOWN ABOVE. EXCAVATE 3 FEET, PLACE ROCK AND COVER WITH 1' OF NATIVE SOIL.

4 TYPICAL ROCK RIP-RAP APRON DETAIL
NO SCALE



5 TYPICAL V-DITCH DETAIL
NO SCALE



NOTE:
1. DOWEL DITCH INTO FIELD INLET WITH 3 - #4 REBARS
2. FOR A CONCRETE DITCH DEPTH OF 4", THE CLEARANCE DISTANCE BETWEEN DITCH INVERT AND TOP SIDE OF OPENING IS 4"

5 TYPICAL V-DITCH DETAIL
NO SCALE

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REV.	DATE	DESCRIPTION	BY
2	7/09/2025	ADDENDUM 2	JB
1	6/25/2025	ADDENDUM 1	JB

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

CONSTRUCTION DETAILS & SECTIONS
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 18 OF 22 SHEETS
PROJECT NO. 8870.000.011


CLYDESDALE DR.
FAIRWAY DRIVE
CALLE ARROYO
ALAMEDA DIABLO
REMOVE EXISTING CONCRETE CATTLE TROUGH AND PRESERVE CONNECTION TO EXISTING WATER SURFACE
REMOVE 5-INCH DIA. OAK
REMOVE 14-INCH DIA. OAK
REMOVE 16-INCH DIA. OAK
REMOVE EXISTING BARB-WIRE FENCE (TYPICAL TO END OF PROJECT)
EXISTING UTILITY POLE (TYPICAL)
REMOVE 10-INCH DIA. OAK
REMOVE 2-CULVERTS AND INSTALL DRAIN PER DETAIL 2, SHEET 18
REMOVE 39-INCH DIA. VALLEY OAK
TAMP SOIL INTO OPPOSITE BANK TO PROTECT TREE ROOTS. SEE PROJECT SPECIFICATIONS.
REMOVE APPROXIMATELY 0.75 CY OF CONCRETE RUBBLE IN THIS AREA. DO NOT DISTURB SURROUNDING CREEK AREA.
APPROXIMATE AREA OF CLEAR AND GRUBBING ASSOCIATED WITH REMOVAL OF INVASIVE PISTACHE TREES; SEE CONTRACT SPECIFICATIONS.
CONTINUE DEMOLITION OF EXISTING FENCE TO END OF NEW CATTLE EXCLUSION FENCE
SEE TOP PLAN
SEE BOTTOM PLAN
N
50 25 0 50
SCALE IN FEET


SEE TOP PLAN
SEE BOTTOM PLAN
REMOVE CLUSTER OF TREES IN THIS AREA:
1 - 18" VALLEY OAK
1 - 12" VALLEY OAK
1 - 16" COAST LIVE OAK
1 - 10" COAST LIVE OAK
1 - 8" COAST LIVE OAK
1 - 7" COAST LIVE OAK
1 - 6" COAST LIVE OAK
PROTECT REMAINDER OF TREES PER TREE PROTECTION DETAIL 3, SHEET 22
REMOVE EXISTING BARB-WIRE FENCE (TYPICAL TO END OF PROJECT)
EDGE OF ROAD
REMOVE EXISTING BARB-WIRE FENCE (TYPICAL TO END OF PROJECT)
REMOVE EXISTING GATE
N
50 25 0 50
SCALE IN FEET

NOTES:

1. EXISTING BARBWIRE FENCE TO BE REMOVED IN COORDINATION WITH CONSTRUCTION OF NEW FENCE PER PLAN SHEETS 20-21 AND AS APPROVED BY THE TOWN.
2. TREE REMOVAL SHOWN HERE SHALL BE PERFORMED IN ACCORDANCE WITH TOWN OF DANVILLE. CONTRACTOR SHALL MINIMIZE TREE REMOVALS WHERE PRACTICAL.
3. ALL TREES TO REMAIN GREATER THAN 6-INCHES IN DIAMETER SHALL REQUIRE PROTECTIVE FENCING. SEE DETAIL 3, SHEET 22.

EXPLANATION

EXISTING FENCE TO BE REMOVED

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DANVILLE

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
No. 67302
CIVIL
STATE OF CALIFORNIA

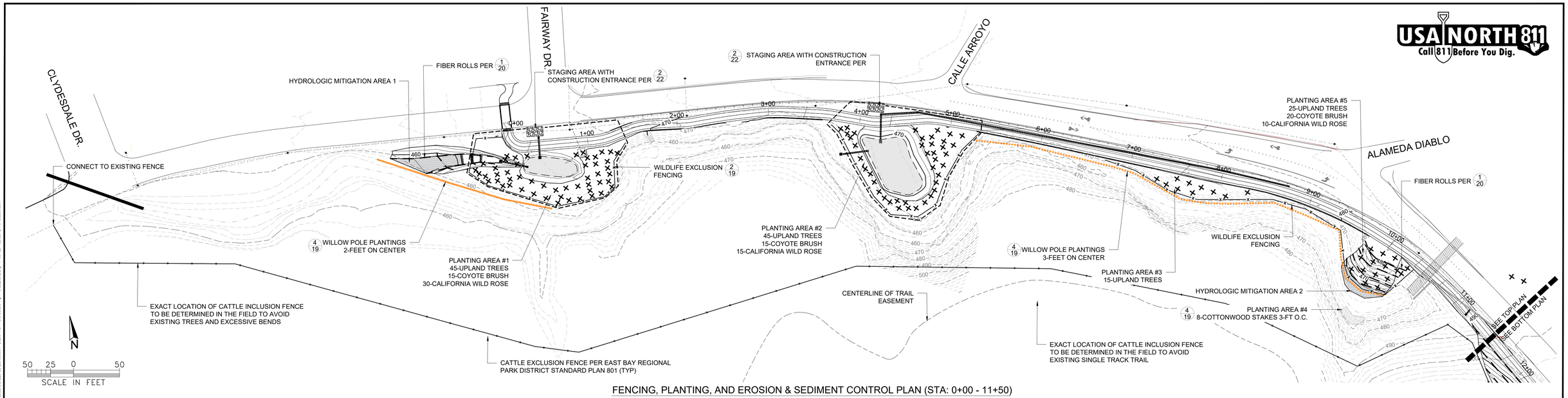
DEMOLITION PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

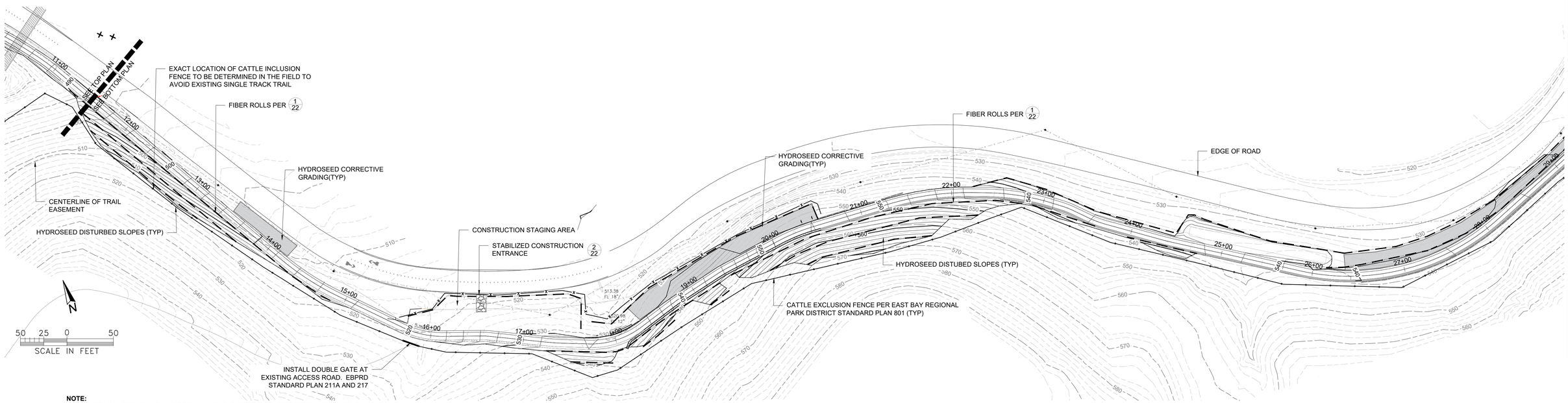
SHEET NUMBER 19
OF 22 SHEETS

PROJECT NO. 8870.000.011



FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 0+00 - 11+50)

SCALE: 1"=50'



FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 11+50 - 29+00)

SCALE: 1"=50'

NOTE:

1. EXACT LOCATION OF UPLAND TREE AND SHRUB SPECIES TO BE DETERMINED IN FIELD BY TOWN PAID RESTORATION ECOLOGIST. TREES SHALL CONSIST OF CALIFORNIA OAK (QUERCUS SPP.) AND CALIFORNIA BUCKEYE (AESCULUS SPP.). SHRUBS SHALL CONSIST OF CALIFORNIA WILD ROSE (ROSA CALIFORNIA) AND COYOTE BRUSH (BACCHARIS PILULARIS).
2. 20% OF TREE CONTAINER PLANS SHALL BE 5-GALLON MINIMUM; REMAINDER SHALL BE 1-GALLON MINIMUM.
3. ALL PLANTS GROWN IN NURSERY AND BROUGHT TO SITE SHALL CONFORM TO BEST PRACTICES TO PREVENT SPREAD OF SUDDEN OAK DEATH PER PROJECT STREAMBED ALTERATION AGREEMENT.
4. CONTRACTOR TO INSTALL A GRAVITY FLOW IRRIGATION SYSTEM TO ALL AREAS WHERE CONTAINER PLANTING IS PROPOSED. SEE PROJECT SPECIFICATIONS.
5. ALL CONSTRUCTION STAGING AREAS SHALL BE HYDROSEEDED AND RESTORED TO ORIGINAL CONDITION AT END OF PROJECT

EXPLANATION

- CATTLE EXCLUSION FENCE
- TEMPORARY WILDLIFE EXCLUSION FENCE (SEE DETAIL SHEET 22)
- STRAW WATTLES
- UPLAND TREE AND SHRUB INSTALLATION (SEE DETAIL SHEET 21)
- WILLOW OR COTTONWOOD POLE PLANTING

REV.	DATE	DESCRIPTION	BY

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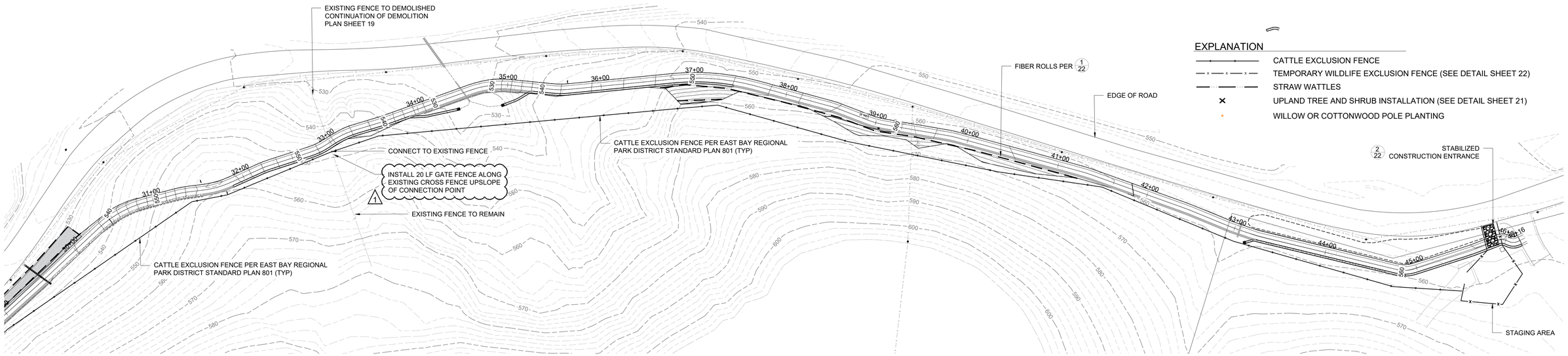
DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BACK No. 67302 CIVIL STATE OF CALIFORNIA

FENCING, PLANTING AND EROSION AND SEDIMENT CONTROL PLAN

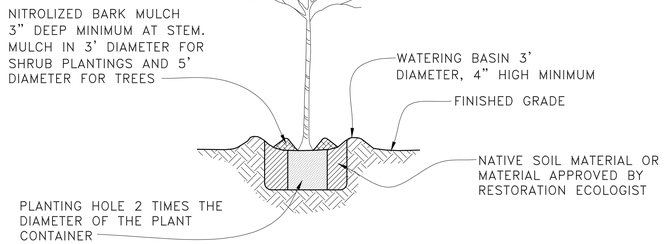
IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL
TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 20 OF 22 SHEETS
PROJECT NO. 8870.000.011



FENCING, PLANTING, AND EROSION & SEDIMENT CONTROL PLAN (STA: 29+00 - 45+55)

SCALE: 1"=50'

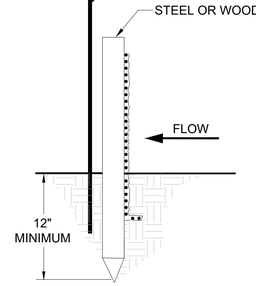


1. SCALP TREE POSITION CLEAR OF ANNUAL GRASS AND FORBS. 5' IN DIAMETER FOR TREES AND 3' IN DIAMETER FOR SHRUBS.

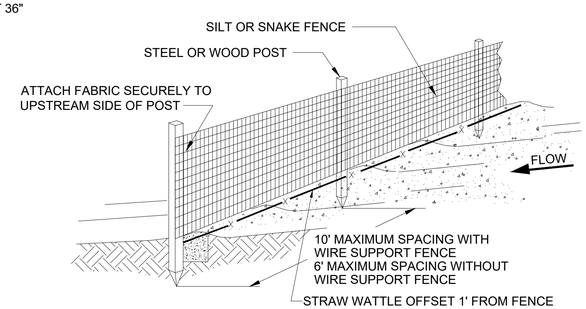
2. IN ENGINEERED FILL MATERIAL, AUGER PLANTING HOLE AND AUGER SIDES OF HOLE PRIOR TO BACKFILLING.

1 — **TYPICAL UPLAND TREE INSTALLATION**

NO SCALE



TRENCH



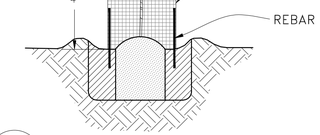
NOTES:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY, 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. STOP FENCE AT TOP OF BANK OF ALL DRAINAGES.
4. INSTALL WILDLIFE EXCLUSION FENCE DOWNSLOPE OF SILT FENCE PER PROJECT STREAMBED ALTERATION AGREEMENT IN VICINITY OF GREEN VALLEY CREEK.

SOURCE: JOHN McCULLAH, 1994

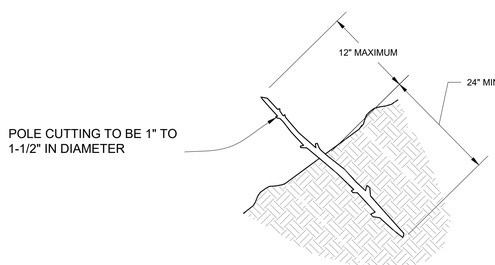
2 — **SILT FENCE / WILDLIFE EXCLUSION FENCING DETAIL**

NO SCALE



3 — **ANTI BROWSE CAGE**

NO SCALE



1. BACKFILL WITH NATIVE SOIL TO REMOVE AIR POCKETS.

2. SEE PLANS FOR LOCATION AND SPACING OF WILLOW POLES.

4 — **TYPICAL WILLOW OR COTTONWOOD PLANTING**

NO SCALE

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REV.	DATE	DESCRIPTION	BY
1	6/25/2025	ADDENDUM 1	JB

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DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JONATHAN BUCK
NO. 67305
CIVIL
STATE OF CALIFORNIA

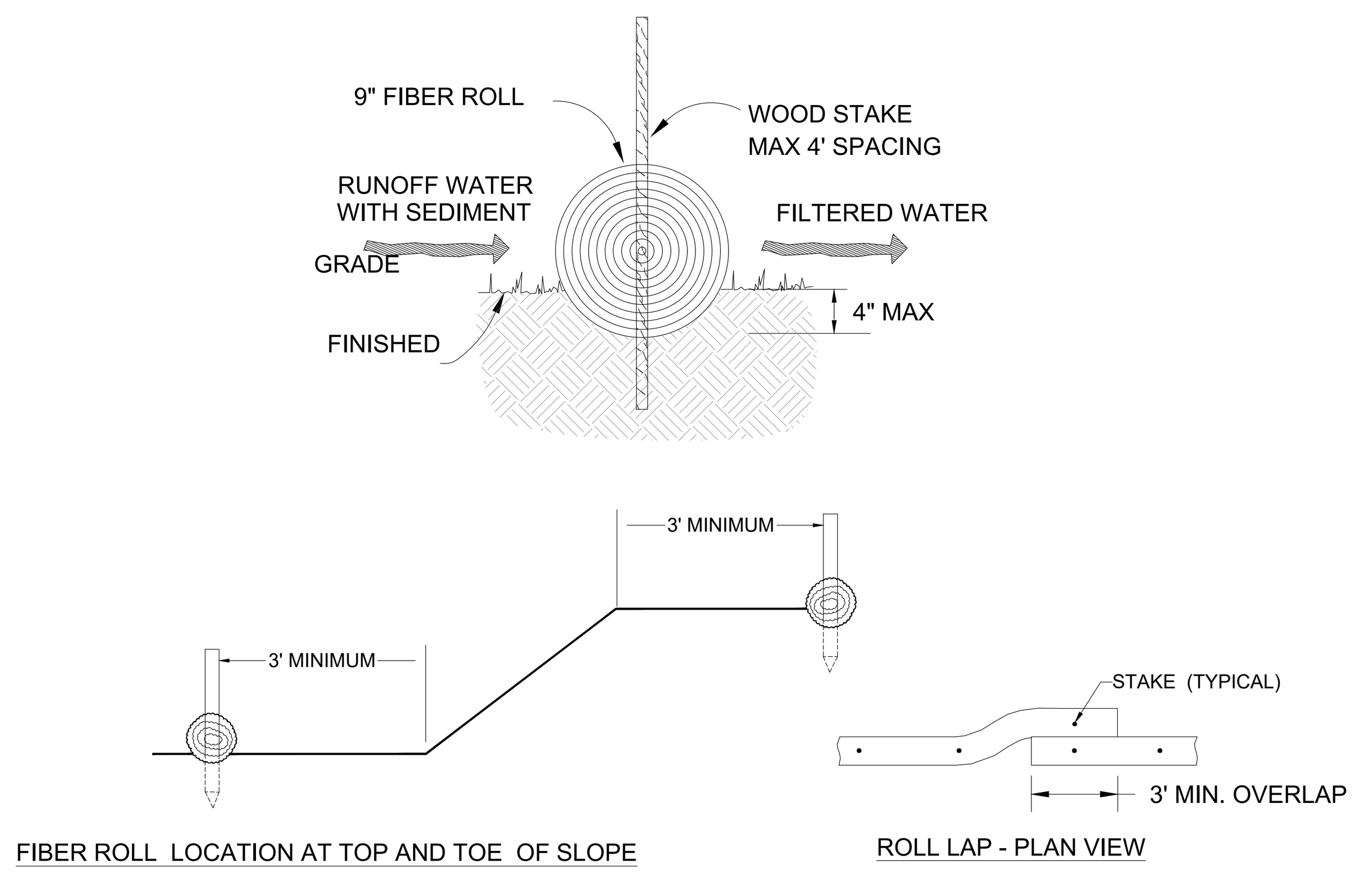
FENCING AND EROSION CONTROL PLAN

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 21 OF 22 SHEETS

PROJECT NO. 8870.000.011

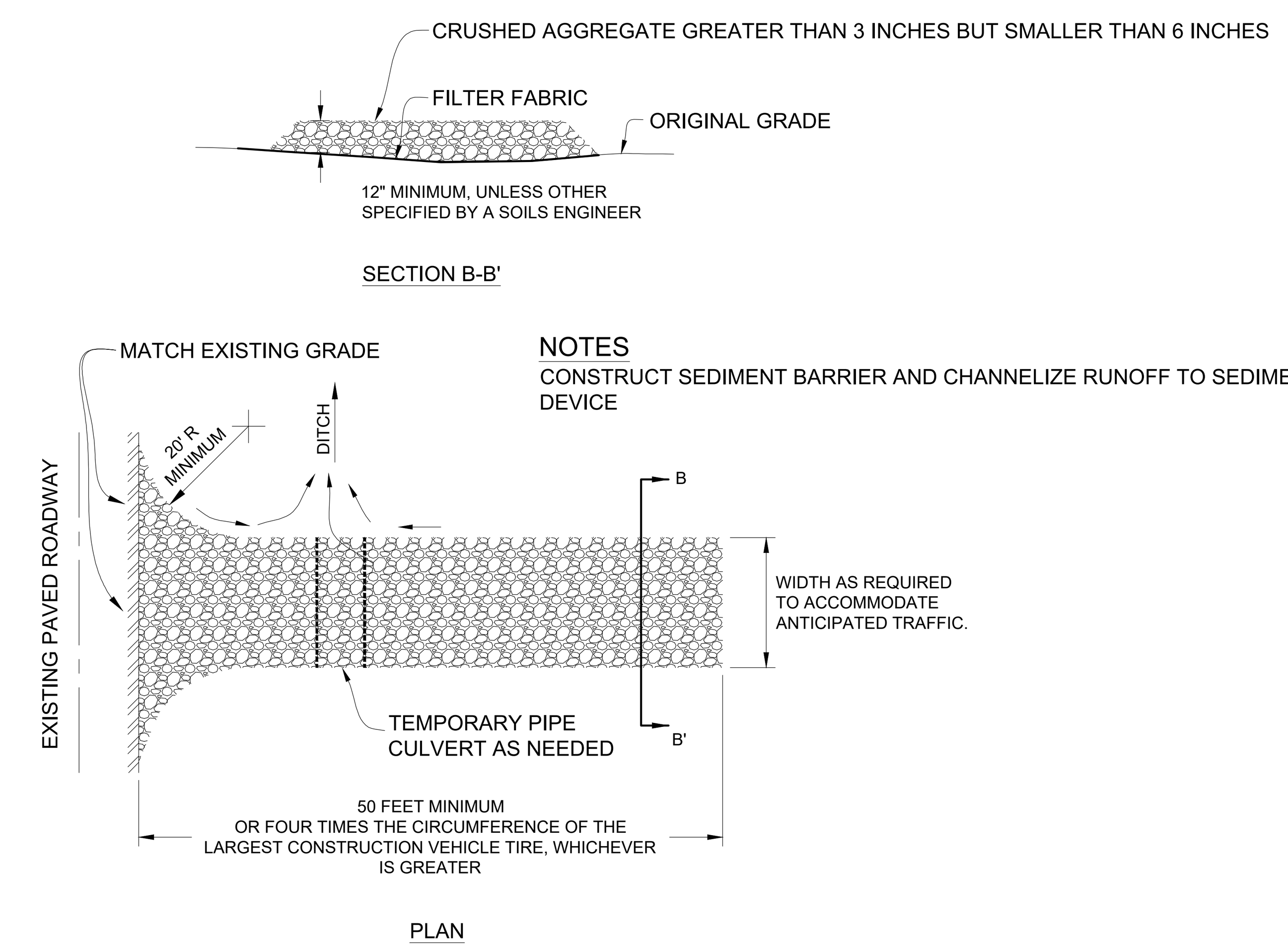


NOTES:

1. PREPARE SLOPE BEFORE THE FIBER ROLL PROCEDURE IS STARTED.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, ON CONTOUR OR AS SHOWN ON PLANS.
3. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE FIBER ROLL AND INTO THE SOIL FOR WOODEN STAKES.
4. DRIVE THE STAKE THROUGH THE PREPARED HOLE INTO THE SOIL. LEAVE ONLY ONE OR TWO INCHES OF STAKE EXPOSED ABOVE FIBER ROLL.
5. INSTALL STAKES THREE FEET ON CENTER THROUGH THE LENGTH OF THE FIBER ROLL.
6. ADJACENT FIBER ROLLS SHALL TIGHTLY ABUT AND OVERLAP A MINIMUM OF 3 FEET.
7. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
8. INSTALL AT LOCATIONS SHOWN ON PLANS. IN SLOPE AREAS SPACE FIBER ROLLS EVERY 10 VERTICAL FEET ON SLOPE.

1 FIBER ROLL DETAIL

NO SCALE

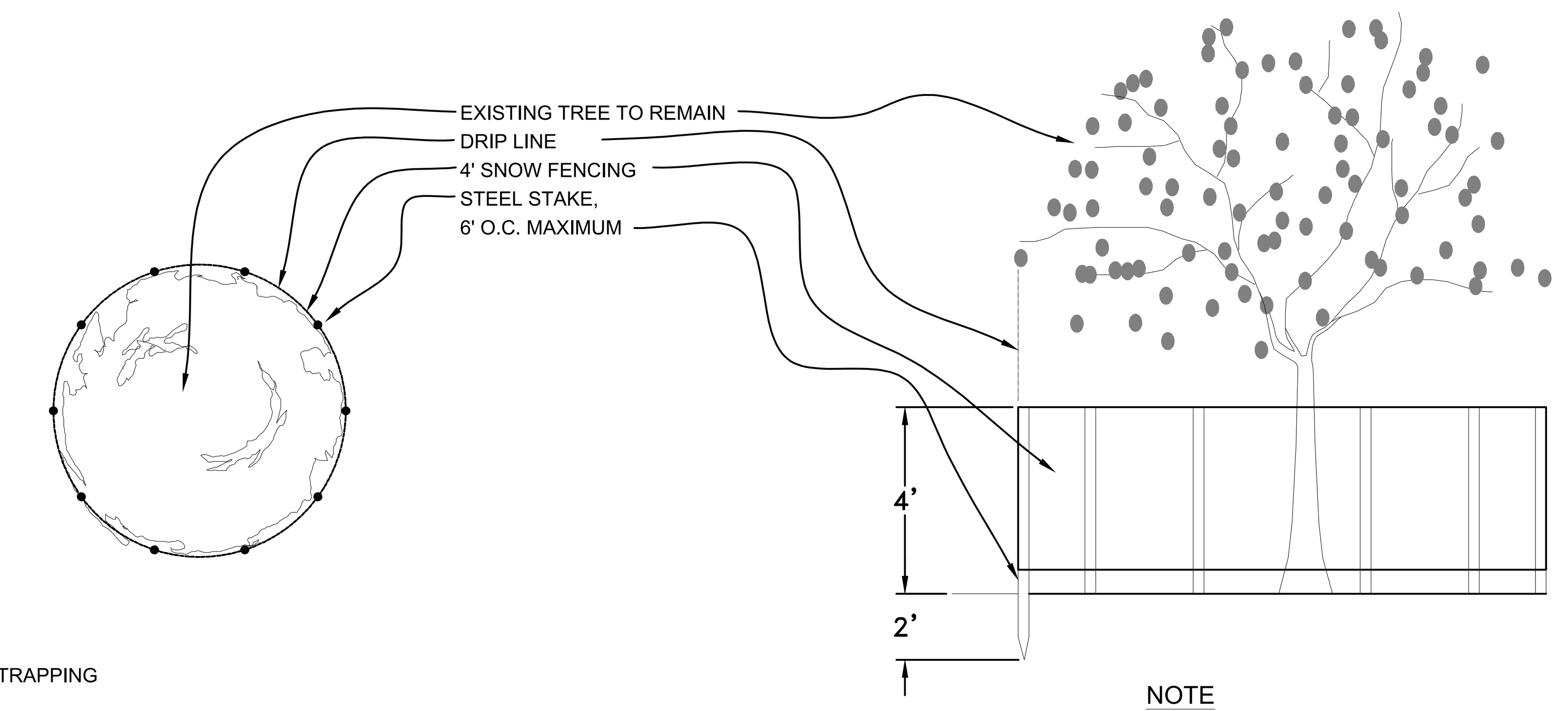


NOTES

CONSTRUCT SEDIMENT BARRIER AND CHANNELIZE RUNOFF TO SEDIMENT TRAPPING DEVICE

2 STABILIZED CONSTRUCTION ENTRANCE

NO SCALE



NOTE

TREE ZONE FENCE SHALL BE BARRIER TREE PROTECTION FENCE OR EQUAL

3 EXISTING TREE PROTECTIVE FENCING

NO SCALE

EROSION AND SEDIMENT CONTROL NOTES

1. EROSION CONTROL MEASURES SHALL BE EFFECTIVE FOR CONSTRUCTION DURING THE RAINY SEASON; OCTOBER 1 THROUGH APRIL 30 OR UNTIL VEGETATION IS ESTABLISHED ON DISTURBED AREAS.
2. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING SEDIMENT-LADEN STORMWATER RUNOFF FROM LEAVING THE SITE. STRAW WATTLES, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE. ALL EXISTING, TEMPORARY, AREAS OF CONCENTRATED OVERLAND FLOW SHALL USE SEDIMENT BARRIERS UNTIL UPSTREAM SOILS ARE STABILIZED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATELY OWNED AND MAINTAINED ROADS CAUSED BY THE CONTRACTOR'S ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
4. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TARPS, FIBER ROLL BARRIERS ETC.) TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.
5. ALL TRUCK TIRES SHALL BE CLEANED PRIOR TO EXITING THE PROPERTY.
6. DURING PERIODS WHEN STORMS ARE FORECAST –
   a. EXCAVATED SOILS SHOULD NOT BE PLACED IN STREETS OR ON PAVED AREAS.
   b. WHERE STOCKPILING IS NECESSARY, USE A TARPAULIN AND SURROUND THE STOCKPILED MATERIAL WITH A FIBER ROLL BARRIER OR OTHER RUNOFF CONTROLS.
   c. THOROUGHLY SWEEP ALL PAVED AREAS EXPOSED TO SOIL EXCAVATION AND PLACEMENT.

   DURING PERIODS WHEN STORMS ARE NOT FORECAST –
   a. PREVENT STOCKPILED MATERIAL FROM ENTERING THE STORM DRAIN SYSTEM.
   b. THOROUGHLY REMOVE LOOSE SOIL VIA SWEEPING FOLLOWING REMOVAL OF DIRT.
7. TRAINING OF INSPECTION PERSONNEL WILL BE CONDUCTED PRIOR TO IMPLEMENTATION OF THE MONITORING PROGRAM. THE MONITORING PROGRAM SHALL INCLUDE REGULAR SITE INSPECTIONS AND REPORTS. MONITORING FORMS AND COMPLIANCE CERTIFICATION SHALL BE PROVIDED TO THE OWNER AND ENGINEER BY JULY 1 FOR THE PREVIOUS YEARS ACTIVITIES.
8. THE LIMITS OF GRADING SHALL BE STAKED. VEHICLES AND EQUIPMENT SHALL BE LIMITED TO THE EXISTING ROADS AND TO WITHIN PROJECT LIMITS.
9. ALL GRADING WORK BETWEEN OCTOBER 1 AND APRIL 30 IS AT THE DISCRETION OF ALAMEDA COUNTY.
10. THE OWNER/OWNERS'S CONTRACTOR, AGENT, AND/OR ENGINEER SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES INCLUDING, BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS, GARBAGE CONTAINERS, ARE LOCATED OUTSIDE COUNTY RIGHT OF WAYS AND WATERWAYS.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREVENT THE FORMATION OF AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM FAILURE TO DO SO.
12. PROPOSED BEST MANAGEMENT PRACTICES TO REDUCE POLLUTANTS IN STORM WATER DISCHARGES WILL BE IMPLEMENTED ON SITE, INCLUDING MINIMIZATION AND STABILIZATION OF DISTURBED AREAS, PROTECTION OF SLOPES AND CHANNELS, PERIMETER CONTROLS, INTERNAL EROSION CONTROL, AND SPECIFIC BEST MANAGEMENT PRACTICES.
13. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES LISTED ON THIS SHEET. MEASURES REGARDING THE DISCHARGE OF NON-STORM WATER RUNOFF SHALL APPLY YEAR-ROUND.
14. THE EROSION CONTROL PLAN AND ACCOMPANYING PLANS SHALL BE ON-SITE AT ALL TIMES.
15. CONTRACTOR SHALL HYDROSEED ALL DISTURBED AREAS AT END OF PROJECT, INCLUDING CONSTRUCTION STAGING AREAS, TO THE SATISFACTION OF THE ENGINEER.

SEED MIX

SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. ALL AREA DISTURBED DURING INSTALLATION MUST BE RESEEDED. SEED SHOULD CONSIST OF THE FOLLOWING MIX OR APPROVED EQUIVALENT APPLIED WITHING LIMITS INDICATED BELOW:

SEED MIX	
REGREEN (ELYMUS X TRITICUM)	12.0 LBS/ACRE
CREEPING WILDRYE (LEYMUS TRITICOIDES)	8.0 LBS/ACRE
BLUE WILDRYE (ELYMUS GLAUCUS)	8.0 LBS/ACRE
MEADOW BALEY (HORDEUM BRACHYANTHERUM)	4.0 LBS/ACRE
MUGWORT (ARTEMESIA DOUGLASIANA)	4.0 LBS/ACRE
CALIFORNIA MILKWEED OR EQUAL (ASCLEPIAS SPP.)	0.5 LBS/ACRE
TOTAL (LBS/ACRE)	36.5 LBS/ARCE

SEED WILL BE MEASURED BY THE POUND. THE CONTRACT PRICE FOR SEED SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS.

BASIC CONTROL MEASURES:

1. WATER ALL ACTIVE CONTRUCTION AREAS AT LEAST TWICE DAILY.
2. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOS MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
3. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY (NON-TOXIC) SOIL STABLILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES.
4. SWEEP STREETS DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PUBLIC STREETS.

USA NORTH 811 Call 811 Before You Dig.

DANVILLE

REV.	DATE	DESCRIPTION	BY

ENGEO Expect Excellence

2010 CROW CANYON PLACE
SUITE 250
SAN RAMON, CALIFORNIA 94583-4634
(925) 866-9000
(888) 279-2698

CALIFORNIA - NEVADA - NEW ZEALAND - AUSTRALIA

DESIGNED BY: SPC
DRAWN BY: JDB
CHECKED BY: JDB
DATE: MAY 2025
SCALE: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER JONATHAN BUCK No. 67302 CIVIL STATE OF CALIFORNIA

EROSION AND SEDIMENT CONTROL DETAILS

IMPROVEMENT PLANS FOR DIABLO ROAD TRAIL

TOWN OF DANVILLE, CALIFORNIA

SHEET NUMBER 22 OF 22 SHEETS

PROJECT NO. 8870.000.011