

**ZONE 7 WATER AGENCY
2022-2023 STORM DAMAGE HIGH PRIORITY REPAIRS
CALIFORNIA
Project 307-24
ADDENDUM NO. 2
JULY 17, 2024**

This Addendum No. 2 ("Addendum") is dated July 17, 2024, and modifies certain Bidding Documents issued by the Alameda County Flood Control and Water Conservation District, acting by and through its Zone 7 Water Agency ("District") in connection with the District's project: *2022-2023 Storm Damage High Priority Repairs*. All capitalized terms not otherwise defined herein shall have the meanings provided in the Bidding Documents. There are no other amendments to the Bidding Documents other than expressly contained in Addendum No.1 and Addendum No. 2. The bid submission date remains unchanged.

The following clarifications and/or modifications shall be incorporated into plans and specifications for the above-referenced project and shall become part of the Contract Documents. All other provisions and requirements shall remain unchanged.

CONTRACT DOCUMENTS AND SPECIFICATIONS

Addendum Item	Document/ Section	Location and Description of Change
1	Document 00010	Replace Document 00010-Table of Contents with Attachment Document 00010A- Table of Contents. Additionally, all references in the Contract to "Section 00010" shall refer to "Section 00010A."
2	Document 00400	Replace Document 00400-Bid Form with Attachment Document 00400A-Bid Form. Additionally, all references in the Contract to "Section 00400" shall refer to "Section 00400A."
3	Section 01100	Replace Section 01100-Summary of Work with Attachment Section 01100A-Summary of Work. Additionally, all references in the Contract to "Section 01100" shall refer to "Section 01100A."
4	Section 02804	Add Attached Section 02804-Biotechnical Structures The attached Section 02804 shall be included as part of the bid documents.
PROJECT DRAWINGS		
5	Project Drawings	Replace Sheets 3.2,4.3, 5.0, 7.0, 7.1, 7.2,7.3, and 7.4 with the attached respective sheets.

**ZONE 7 WATER AGENCY
2022-2023 STORM DAMAGE HIGH PRIORITY REPAIRS
CALIFORNIA
Project 307-24
ADDENDUM NO. 2
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Please be reminded that all bidders shall acknowledge receipt of this Addendum No. 2 in Document 00400A (Bid Form) and failure to acknowledge addendum in the Bid Form shall render the bid non-responsive and may be cause for its rejection.

Acknowledgement of receipt of Addendum No. 2 for the 2022-2023 Storm Damage High Priority Repairs, Project No 307-24.

Please also sign and email a copy of this page to Adolfo Perez, Zone 7 Water Agency, at aperez@zone7water.com to acknowledge receipt of Addendum No. 2 for this project.

Signature and Print Name

Date

Company

DOCUMENT 00010A

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DOCUMENT 00400A

BID FORM

To be submitted as part of Bidder's Envelope by the time and date specified in Document 00200 (Instructions to Bidders), paragraph 1.

TO THE HONORABLE BOARD OF DIRECTORS OF THE ZONE 7 WATER AGENCY OF THE ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

THIS BID IS SUBMITTED BY:

(Firm/Company Name)

**Re: Project No. 307-24
2022-2023 STORM DAMAGE HIGH PRIORITY REPAIRS**

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with the Alameda County Flood Control and Water Conservation District, acting by and through its Zone 7 Water Agency, a public agency of the State of California ("District") in the form included in the Contract Documents, Document 00520 (Agreement), to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum and within the Contract Time indicated in this Bid and in accordance with all other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Contract Documents, Document 00100 (Advertisement for Bids), and Document 00200 (Instructions to Bidders), including, without limitation, those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for 90 Days after the day of Bid opening.
3. In submitting this Bid, Bidder represents:
 - (a) Bidder has examined all of the Contract Documents and the following Addenda (receipt of all of which is hereby acknowledged).

Addendum Number	Addendum Date	Signature of Bidder

- (b) Bidder has presumably visited the Site and performed all tasks, research, investigation, reviews, examinations, and analysis and given notices, regarding the Project and the Site, as set forth in Document 00520 (Agreement), Article 5.
- (c) Bidder has given District prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and as-built drawings and actual conditions and the written resolution thereof through Addenda issued by District is acceptable to Contractor.

4. Based on the foregoing, Bidder proposes and agrees to fully perform the Work within the time stated and in strict accordance with the Contract Documents for the following sums of money listed in the following Schedule of Bid Prices:

SCHEDULE OF BID PRICES

All Bid items, including lump sums and unit prices, must be filled in completely. Bid items are described in Section 01100 (Summary of Work). Quote in figures only, unless words are specifically requested.

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL
0	SITE 913 MOBILIZATION / DE-MOBILIZATION	1	Lump Sum	\$	\$
1	SITE 913-CLEAR AND GRUB	5,700	SF	\$	\$
2	SITE 913-DEWATERING	1	Lump Sum	\$	\$
3	SITE 913-EXCAVATION, BACKFILL & GRADING	825	CY	\$	\$
4	SITE 913-MIRAFI 180N (BELOW RIP-RAP)	375	SY	\$	\$
5	SITE 913-RIP-RAP (1/2 TON AND 1/4 TON) – DOUBLE HANDLE)	325	TON	\$	\$
6	SITE 913-MIRAGRID 3XT	7,200	SF	\$	\$
7	SITE 913-COCONUT FIBERNET	5,700	SF	\$	\$
8	SITE 914-WILLOW STAKES	495	EA	\$	\$
9	SITE 914-MOBILIZATION / DE-MOBILIZATION	1	Lump Sum	\$	\$
10	SITE 914-CLEAR AND GRUB	11,900	SF	\$	\$
11	SITE 914-DEWATERING	1	Lump Sum	\$	\$
12	SITE 914-EXCAVATION, BACKFILL & GRADING	3,300	CY	\$	\$
13	SITE 914-MIRAFI 180N (BELOW RIP-RAP)	1,030	SY	\$	\$
14	SITE 914-RIP-RAP (1/2 TON AND 1/4 TON) – DOUBLE HANDLE)	1,080	TON	\$	\$
15	SITE 914-MIRAGRID 3XT	18,600	SF	\$	\$
16	SITE 914-COCONUT FIBERNET	14,985	SF	\$	\$
17	SITE 915-MOBILIZATION / DE-MOBILIZATION	1	Lump Sum	\$	\$

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL
18	SITE 915-CLEAR AND GRUB	9,800	SF	\$	\$
19	SITE 915-DEWATERING	1	Lump Sum	\$	\$
20	SITE 915-EXCAVATION, BACKFILL & GRADING	600	CY	\$	\$
21	SITE 915-MIRAFI 180N (BELOW RIP-RAP)	200	SY	\$	\$
22	SITE 915-RIP-RAP (1/2 TON AND 1/4 TON) – DOUBLE HANDLE)	140	TON	\$	\$
23	SITE 915-BRUSH MATTRESS	4,900	SF	\$	\$
24	SITE 915-LIVE FASCINES	132	LF	\$	\$
25	SITE 915 – WILLOW STAKES	385	EA	\$	\$
26	STORM WATER POLLUTION PREVENTION PLAN (SWPPP)	1	Lump Sum	\$	\$
27	SWPPP IMPLEMENTATION	1	Pre-Bid	\$50,000	\$50,000
28	EXTRA WORK ALLOWANCE (TO BE USED AS DIRECTED BY ZONE 7)	1	Pre-Bid	\$100,000	\$100,000
29	SITE 913 DISPOSAL OF UNUSED NATIVE MATERIAL	200	CY	\$	\$
30	SITE 914 DISPOSAL OF UNUSED NATIVE MATERIAL	825	CY	\$	\$
31	SITE 915 DISPOSAL OF UNUSED NATIVE MATERIAL	150	CY	\$	\$
TOTAL BID PRICE					\$

5. Descriptions of Bid Items are in Document 01100 (Summary of Work).
6. Item 27: Bid item is pre-bid at \$50,000. Actual costs will be based on time and materials used as required by the SWPPP and directed by the District. This item includes any materials and labor as well as reporting required to implement the SWPPP.
7. Item 28: Extra Work Allowance is allocated for potential changes solely at the engineer's discretion.
8. The Contract lump sum price paid for Items 0, 9, 17: Mobilization/De-Mobilization shall not exceed **ten percent (10%)** of the total bid price for each site and shall include full compensation for obtaining of all bonds, insurance, permits, and licenses; furnishing all labor, materials, tools, equipment, and incidentals; and for doing all work involved in mobilization as specified herein. All bids that have an individual bid price for Items 0, 9, and/or 17 that exceeds the 10% will be rejected.
9. Subcontractors for work included in all Bid items are listed on the attached Document 00430 (Subcontractors List).
10. The undersigned Bidder understands that District reserves the right to reject this Bid. District reserves the right to reject any or all Bids, to waive any informalities in a bid, and to make awards in the interest of the District.
11. If written notice of the acceptance of this Bid, hereinafter referred to as Notice of Award, is mailed or delivered to the undersigned Bidder within the time described in paragraph 2 of this Document 00400 or at any other time thereafter before it is withdrawn, the undersigned Bidder will execute and deliver the documents required by Document 00200 (Instructions to Bidders) within the times specified therein. These documents include, but are not limited to, Document 00520 (Agreement), Document 00610 (Construction Performance Bond), Document 00620 (Construction Labor and Material Payment Bond) and insurance certificates and endorsements required by Document 00700 (General Conditions).
12. Notice of Award or request for additional information may be addressed to the undersigned Bidder at the address set forth below.
13. The undersigned Bidder herewith encloses cash, a cashier's check, or certified check of or on a responsible bank in the United States, or a corporate surety bond furnished by a surety authorized to do a surety business in the State of California, in the form specified in Document 00200 (Instructions to Bidders), in the amount of ten percent (10%) of the Total Bid Price and made payable to "Zone 7 Water Agency."
14. The undersigned Bidder agrees to commence Work under the Contract Documents on the date established in Document 00700 (General Conditions) and to complete all work within the time specified in Document 00520 (Agreement). The undersigned Bidder

acknowledges that District has reserved the right to delay or modify the commencement date. The undersigned Bidder further acknowledges District has reserved the right to perform independent work at the Site, the extent of such work may not be determined until after the opening of the Bids, and that the undersigned Bidder will be required to cooperate with such other work in accordance with the requirements of the Contract Documents.

- 15. The undersigned Bidder agrees that, in accordance with Document 00700 (General Conditions), liquidated damages for failure to complete all Work in the Contract within the time specified in Document 00800 (Supplementary Conditions – Division 0) shall be as set forth in Document 00800 (Supplementary Conditions – Division 0).
- 16. The names of all persons interested in the foregoing Bid as principals are:

(IMPORTANT NOTICE: If Bidder or other interested person is a corporation, give the legal name of corporation, state where incorporated, and names of president and secretary thereof; if a partnership, give name of the firm and names of all individual co-partners composing the firm; if Bidder or other interested person is an individual, give first and last names in full).

NAME OF BIDDER: _____

Licensed in accordance with an act for the registration of Contractors, and with license number: _____ Expiration: _____

Where incorporated, if applicable

Contractor Registration Number & Expiration Date

Principals

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signature of Bidder

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address:

Contractor's Representative(s), (name, title):

Officers authorized to sign contracts:

Telephone Number(s):

Fax Number(s):

Date of Bid:

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01100A

SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

A. Section includes summary of Work including:

1. Work Covered By Contract Documents
2. Bid Items
3. Work Days and Hours
4. Cooperation of Contractor and Coordination with Other Work
5. Future Work
6. Work Sequence
7. Maintenance, Product Handling, and Protection
8. Contractor Use of Premises
9. Permits
10. Actual Damages for Violations
11. Site Administration
12. Equipment
13. Labor
14. Construction Foreman
15. Materials & Supplies
16. Haul Routes
17. Additional Contractor Responsibilities
18. Subcontracting
19. Standby Time and Downtime
20. District Written Notification
21. Compensation

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Work consists generally of repairing and grading eroded banks, installing rock slope protection including geogrid, installing willow stakes, and planting. Work shall be performed at one site along Line G-1-1 (Site 913) and two sites along Line B (Sites 914 and 915) in Pleasanton, California as shown on the drawings. Site 913 is an approximately 120-foot long segment of eroded right bank of Line G-1-1, adjacent to a DSRSD wastewater treatment plant. Sites 914 and 915 are eroded banks that span approximately 155 and 140 feet, respectively, of Arroyo De Laguna. A staging area is available at each site, as shown on the plans.

- B. Furnish all labor, materials, equipment, services, permits, temporary controls and construction facilities, and all general conditions, general requirements and incidentals required to complete the Work in its entirety as described in the Contract Documents. The Work includes, but is not necessarily limited to the following:
1. Water Control and Flow Diversion: Prior to beginning construction, coordinate with Zone 7 staff to ensure no flow in construction area during construction window. Additionally, perform dewatering within the work area as needed, to keep excavations free of standing water, and as the Contractor deems necessary for safe and efficient execution of the Work. Treat and contain removed water as needed to adequately remove suspended sediment prior to disposal. Dispose of water in an environmentally acceptable manner, in accordance with project permits and applicable law. Prior to mobilizing to the site, the Contractor shall have a Zone 7-approved Flow Diversion Plan and Dewatering/Water Control Plan in-place. See plans for dewatering limits.
 2. Site 913 Bank Repair and Stabilization: Install rip-rap slope protection to the 10-year water surface elevation, install AEC Premier Coconut FiberNet and BioD-Mat 90 for erosion control, and place geogrid (Miragrid 3XT or equivalent) in 16' lifts tapering up the slope. Prepare the subgrade with 4" trenching for fiber roll installation. Clear the area to be protected by riprap of vegetation and unsuitable soils. Install a silt fence at the toe of the slope and remove and replace the existing fence as needed.
 3. Site 914 Bank Repair and Stabilization: Install rip-rap slope protection to the 10-year water surface elevation, install two layers of AEC Premier Coconut FiberNet and BioD-Mat 90 for erosion control, and place geogrid (Miragrid 3XT or equivalent) in 16' lifts tapering up the slope. Prepare the subgrade with 4" trenching for fiber roll installation, place 3' of native material over rip-rap, and install willow stakes spaced at 2' on center. Protect the existing access road, sidewalk, curb, and gutter.
 4. Site 915 Bank Repair and Stabilization: Install a 12" thick brush mattress, secured with laced twine, rope, or wire in a diamond pattern between stakes, and place live fascine bundles. Extend the brush mattress to the existing bench and regrade the slope for proper drainage. Install BioD-Mat 90 at 1' depth from 2 feet back from the hinge point to the toe of the slope, and willow stakes at 2' O.C. from the toe to 5' above the ordinary high-water mark. Install 1/2-ton rip-rap keyway at the toe of the slope and install a silt fence to be removed post-construction. Protect existing infrastructure including the access road, concrete sidewalk, curb, and gutter.
 5. Seeding and Erosion Control. Seed and provide erosion control throughout the site. Upon completion of grading, hydroseed all newly graded soil surfaces with specified seed mix. Install fiber rolls along top of bank.

6. Environmental Measures. Undertake Work throughout the project duration in a manner that protects endangered animal and plant species in the project area, including, but not limited to: California red legged frog, the western pond turtle, raptors and other nesting birds. Perform work in compliance with the protective measures specified in the project permits (Appendix A). Coordinate with Zone 7 and schedule the Work to provide sufficient notification to allow Zone 7's Biologist to perform the following activities:
 - a. Conduct an environmental education program for all construction personnel.
 - b. Perform pre-construction biological surveys.
 - c. Biological monitoring/inspection during construction activities, including but not limited to coffer dam installation and sediment basin excavation if standing water is present.
 - d. Coordinate with California Department of Fish and Game regarding the relocation of any species found in the construction area.
 - e. All contractor personnel working onsite shall attend the environmental education program conducted by Zone 7's Biologist.
 - f. Note that Zone 7's Biologist will have the authority to stop all or a portion of project work due to, among other conditions, (i) the failure to follow instructions given at the first day meeting, (ii) discovery of a threat to known endangered species, or (iii) the discovery of additional endangered species and/or additional individuals of a known endangered species. In the event the Biologist orders a work stoppage due to a discovery, the contractor shall be entitled to an extension of the contract time.
7. Coordinate with local utility owners, City of Pleasanton and Zone 7, obtain necessary permits, comply with permit and environmental conditions, project startup and testing, site restoration and cleanup.
- C. The Work of this Contract comprises construction of all the Work indicated, described in the Specifications, or otherwise required by the Contract Documents. Such other items or details not mentioned above, but required by the Drawings and Specifications, shall be performed, placed, constructed, removed, or installed in accordance with the Contract Documents.
- D. Unless provided otherwise in the Contract Documents, all risk of loss to Work covered by Contract Documents shall rest with Contractor until Final Acceptance of the Work.
- E. Contractor's use of the premises for Work and storage (staging area) is limited to the areas indicated on the plans.
- F. Existing materials and equipment removed and not reused as a part of the Work shall be returned to the District. Contractor shall carefully remove, in a manner to

prevent damage, all materials and equipment specified or indicated to be salvaged and reused or to remain the property of District. Contractor shall store and protect salvaged items specified or indicated to be reused in the Work.

- G. As of project advertisement, the District is awaiting permits from the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB). Work cannot begin before receipt of permits. The District does not anticipate issuing a Notice to Proceed before August 2024.
1. If permits are issued on or before September 3, 2024, the contractor shall coordinate with the District and make a good faith effort to maximize work completed in 2024. Deliberate postponement of work shall be grounds for dismissal from the project.

1.3 BID ITEMS

- A. Any Bid Item may be deleted from the Work and Contract Sum, in total or in part, prior to or after award of Contract without compensation in any form or adjustment of other Bid Items or prices therefore.
- B. Payment of all items is subject to provisions of Contract Documents, including without limitation Section 01200 (Measurement and Payment).
- C. Work and requirements applicable to each individual Bid Item, or unit of Work, shall be deemed incorporated into the description of each Bid Item (whether Lump Sum, or Unit Price).
- D. Description of pre-bid, lump sum, and unit price Bid Items: Bid items are not intended to be exclusive description of work categories and Bidder shall determine and include in its pricing all materials, labor and equipment necessary to complete each Bid Item as shown and specified:

1. Sites 913, 914, and 915 Mobilization/Demobilization (Bid Items 0, 9, and 17): The lump sum price paid under this item shall be full payment for initial mobilization at Project commencement, including, but not limited to, payment for all Bonds and Insurance required by Document 00700 (General Conditions), providing the Safety Plan; applicable permits, as required by Document 00550 (Notice to Proceed) and Document 00700 (General Conditions); mobilization, existing utilities identification and protection, winterization of the site; demobilization before the rainy season and remobilization in the second year, if any; site restoration and clean up and demobilization, as described in Section 02041 (Mobilization); and record drawings at Final Completion of Payment. Progress payments shall be 50% to be paid upon completion of mobilization and 50% upon final demobilization, unless agreed to otherwise in the Schedule of Values.

2. Sites 913, 914, and 915 Clear & Grub (Bid Items 1, 10, and 18):
 - a. Measurement for clear and grub area will be made by the Project Engineer based upon total area cleared within the grading limits.
 - b. Total payment for clearing the site prior to construction will be made at the price named in the Bid Form under the Bid Item No. listed above. Such price named shall constitute full compensation for clearing, grubbing and minor debris removal and all related work as described in Section 02210 (Clearing and Grubbing).
3. Sites 913, 914, and 915 Dewatering (Bid Items 2, 11, and 19): The lump sum price paid under these items at sites 913, 914, and 915, respectively, shall be full payment for preparing and implementing a Zone 7-approved Flow Diversion Plan and Dewatering/Water Control Plan as described in Section 02240 (Temporary Water Diversion). Limits of dewatering are shown on plans.
4. Sites 913, 914, and 915 Excavation, Backfill, and Grading (Bid Items 3, 12, & 20):
 - a. Measurement of the volumes of cut and fill placement, excluding rock subgrade excavation, will be made by the Contractor based on pre- and post-construction topographic surveys.
 - b. Total payment for excavation at sites 913, 914, and 915, respectively, will be made at the price named in the Bid Form under the Bid Item No's. listed above. Such price named shall constitute full compensation for excavation, backfill and grading, including, but not limited to, excavating and backfilling to achieve design grades, transporting supplemental sediment across sites as needed for fill, finish grading, and disposing of any excess material at the offsite staging area as described in Section 02200 (Earthwork).
5. Sites 913, 914, and 915 Mirafi 180N (Bid Items 4, 13, and 21):
 - a. Measurement for Mirafi 180N soil stabilization fabric will be made by the Project Engineer based upon total surface area (square feet) installed and will exclude any overlapping in fabric.
 - b. Total payment for the furnishing and installation of fabric at sites 913, 914, and 915, respectively, will be made at the price named in the Bid Form under the Bid Item numbers listed above. Such price named shall constitute full compensation for the furnishing and installation of the soil stabilization fabric, including but not limited to: quality control, embedment, and all related work as described in Section 02241B (Soil Stabilization – Fabric – TC Mirafi 180N or Equivalent).
6. Sites 913, 914, and 915 Rip-Rap (Bid Items 5, 14, and 22):
 - a. Measurement for rip-rap installation will be made by the Project Engineer based upon total weight (tons) installed.

- b. Total payment for the furnishing and installation of rip-rap at sites 913, 914, and 915, respectively, will be made at the price named in the Bid Form under the Bid Item numbers listed above. Such price named shall constitute full compensation for the furnishing and installation of the rip-rap, including, but not limited to, removal and salvage of existing rock, subgrade preparation, placement of new bedding and rock slope protection and filling voids, as described in Section 02505 (Rip Rap).

7. Sites 913 and 914 Miragrid 3XT (Bid Items 6 and 15):

- a. Measurement for Miragrid 3XT soil stabilization fabric will be made by the Project Engineer based upon total surface area (square feet) installed and will exclude any overlapping in fabric.
- b. Total payment for the furnishing and installation of fabric at sites 913 and 914, respectively, will be made at the price named in the Bid Form under the Bid Item numbers listed above. Such price named shall constitute full compensation for the furnishing and installation of the soil stabilization fabric, including but not limited to: quality control, embedment, and all related work as described in Section 02241A (Soil Stabilization – Fabric – TC Mirafi Miragrid 3XT or Equivalent).

8. Sites 913 and 914 Coconut Fibernet (Bid Items 7 and 16):

- a. Measurement for AEC Premier Coconut Fibernet (or approved equivalent) soil stabilization fabric will be made by the Project Engineer based upon total surface area (square feet) installed and will exclude any overlapping in fabric.
- b. Total payment for the furnishing and installation of fabric at sites 913 and 914, respectively, will be made at the price named in the Bid Form under the Bid Item numbers listed above. Such price named shall constitute full compensation for the furnishing and installation of the soil stabilization fabric, including but not limited to: quality control, staples, embedment, and all related work as described in Section 02241D (Soil Stabilization – Fabric – AEC Premier Coconut Fibernet).

9. Sites 914 and 915 Willow Stakes (Bid Items 8 and 25):

- a. Measurement for willow stake planting will be made by the Project Engineer based upon total number of stakes installed.
- b. Total payment for the furnishing and installation of willow stakes at sites 914 and 915 will be made at the price named in the Bid Form under the Bid Item number listed above. Such price named shall constitute full compensation for the furnishing and planting of the willow stakes, including but not limited to: quality control and embedment.

10. Site 915 Brush Mattress (Bid Item 23):

- a. Measurement for brush mattress installation will be made by the Project Engineer based upon total surface area (square feet) installed and will exclude any overlapping in stakes.
 - b. Total payment for the furnishing and installation of brush mattress at site 915 will be made at the price named in the Bid Form under the Bid Item number listed above. Such price named shall constitute full compensation for the furnishing and installation of the brush mattress, including but not limited to: quality control and securing of brush mattress by lacing twine, rope, or wire.
11. Site 915 Live Fascines (Bid Item 24):
- a. Measurement for live fascine bundle installation will be made by the Project Engineer based upon total length of fascine bundles (linear feet) installed.
 - b. Total payment for the furnishing and installation of live fascines at site 915 will be made at the price named in the Bid Form under the Bid Item number listed above. Such price named shall constitute full compensation for the furnishing and installation of the brush mattress, including but not limited to: quality control and embedment.
12. Stormwater Pollution Prevention Plan (SWPPP) (Bid Item 26). The lump sum price paid under this item shall be full payment for Stormwater Pollution Prevention Plan (SWPPP) preparation as required by Section 001570 (Stormwater Management and Erosion Control). Payment shall include, but not limited to, preparation of the SWPPP by a qualified QSD, and preparation of the Monitoring and Reporting Plan (M&RP).
13. SWPPP Implementation (Bid Item 27): Bid Item is \$50,000 Pre-Bid for the implementation of the Stormwater Pollution Prevention Plan (SWPPP) as required by Section 001570 (Stormwater Management and Erosion Control), implementation of the Monitoring and Reporting Plan (M&RP), and installing, inspecting, and maintaining all supplemental storm water Best Management Practices (BMPs) that the Contractor deems necessary for SWPPP compliance during construction. Actual costs will be based on time and materials used as required by the SWPPP and directed by the District. This item includes any materials and labor as well as reporting required to implement the SWPPP.
14. Extra Work Allowance (Bid Item 28): Bid Item is Pre-Bid at \$100,000. This is allocated for potential changes solely at the Engineer's discretion. Actual costs will be based on time and materials used as directed by the engineer.

15. Site 913, 914, and 915 Disposal of Unused Native Material Allowance (Bid Items 29, 30, and 31):

- a. Bid items provide an allowance for the stockpiling and disposal of unused native material as described in section 02220. While it is estimated that approximately 25% of the total excavation, backfill, and grading at each of the three sites will result in unused native material, the exact volume of this material will be determined during construction. The contractor is required to measure the volume of the off-hauled unusable material in cubic yards by tracking the truckloads of material exported from the site.
- b. Payment for these bid items shall encompass all activities related to the export, stockpiling, and disposal of unusable native material. This includes but is not limited to transportation costs, stockpiling fees, and disposal charges. Bid items will be paid on a time and materials basis up to the allowance shown in the bid form. The Contractor shall get approval from the District's representative before exceeding amount of unused native material allowed in these bid items.

1.4 WORK DAYS AND HOURS

- A. Work Days and hours: Work shall be conducted only on Business Days as defined in Section 01420, Monday-Friday inclusive, 8:00 a.m.-5:00 p.m. local time. Work at the Site on weekends or holidays is not permitted, unless Contractor requests otherwise from Project Engineer in writing at least 48 hours in advance and Project Engineer and municipalities approve at their discretion. In the case of Work by Contractor after normal working hours, Contractor shall be responsible for any additional inspection costs incurred by the District and municipalities. Such costs may be withheld from any succeeding monthly progress payment.
- B. The following are holidays recognized by District and Alameda County:
 - a. New Year's Day, January 1;
 - b. Martin Luther King Jr.'s Birthday, third Monday in January;
 - c. Lincoln's Birthday, February 12;
 - d. Presidents' Day, third Monday in February;
 - e. Memorial Day, last Monday in May;
 - f. Juneteenth, June 19;
 - g. Independence Day, July 4;
 - h. Labor Day, first Monday in September;
 - i. Veterans' Day, November 11;
 - j. Thanksgiving Day, as designated by the President;
 - k. The Day following Thanksgiving Day;
 - l. Christmas Day, December 25; and

- m. Each day appointed by the Governor of California and formally recognized by the Alameda County Board of Supervisors as a day of mourning, thanksgiving, or special observance.

1.5 COOPERATION OF CONTRACTOR AND COORDINATION WITH OTHER WORK – NOT USED

1.6 FUTURE WORK – NOT USED

1.7 WORK SEQUENCE

- A. Sequence and schedule work as needed to complete all heavy equipment work, including demolition, grading, rock structures construction, hydroseeding, and installation of other erosion control measures as specified in Section 00800 (Supplementary Conditions- Division 0).
- B. Notice to Proceed with Work is subject to receipt of all regulatory permits. Therefore, all heavy equipment in-channel work and implementation of erosion control may be performed during the two construction seasons of **May 1, 2024 - October 31, 2024** and **May 1, 2025 - October 31, 2025**, or as directed by the Project Engineer. Work may not commence at any site unless all work can be completed within the same construction season.
- C. Each site shall be sequenced to be constructed and completed within the same construction season.
- D. Work below top of bank may not begin until regulatory permits are secured by the District.
- E. In general, perform the Work in the following sequence, unless approved otherwise by the Project Engineer:
 - 1. Mobilization, submittals, installation of coffer dams and/or temporary flow diversion.
 - 2. Perform the following sequentially for each site (Sites 913, 914 and 915)
 - a. Clearing, grubbing, and demolition
 - b. Earthwork and rock and native backfill placement
 - c. Hydroseeding and erosion control measures
 - d. Willow stake and vegetative planting
- F. Sequence and time the work at each site as needed to:
 - 1. Minimize overall site disturbance
 - 2. Allow for safe and efficient progress of the work

3. Comply with all permits
4. Complete within specified milestone dates and number of contract days
5. Comply with any additional construction sequencing and constraints as indicated on the Drawings and as specified. Coordinate all items with the District.

1.8 MAINTENANCE, PRODUCT HANDLING, AND PROTECTION

- A. Transport, deliver, handle, and store materials and equipment at the Site in such a manner as to prevent the breakage, damage or intrusions of foreign matter or moisture, and otherwise to prevent damage.
- B. Hazardous substance compliance: Provide District with copies of the OSHA Material Safety Data Sheets (MSDS) for all products containing a hazardous substance, examples: Adhesives, paints, sealants, and the like.
- C. Packaging: Provide packaged material in manufacturer's original containers with seals unbroken and labels intact until incorporated into the Work.
- D. Remove all damaged or otherwise unsuitable material and equipment promptly from the Site.

1.9 CONTRACTOR USE OF PREMISES

- A. Confine operations at Site to areas as directed by District Representative and permitted by Contract Documents, permits, ordinances, and laws.
- B. Do not unreasonably encumber Project Site with materials or equipment.
- C. Assume full responsibility for protection and safekeeping of products stored on premises.
- D. Move any stored products that interfere with operations of District or other contractor.
- E. Parking, storage, staging, and work areas shall be coordinated with the District, and comply with all other Contract documents requirements.

1.10 PERMITS

Contractor shall refer to Document 00700(General Conditions) and Document 00800 (Supplementary Conditions -Division 0), Section 01410 (Regulatory Requirements) and Section 01800 (Supplementary Conditions -Division 1).

1.11 ACTUAL DAMAGES FOR VIOLATIONS

- A. District may incur actual damages, including fines imposed by any regulatory agency resulting from loss of use of any permit described in this Section 01100, or from use in violation of legal or regulatory requirements where the violations result solely and directly from Contractor's activities. Continuous operation of District's flood protection facilities in compliance with legal or regulatory requirements is essential to avoid violating applicable regulations or permitting requirements. Violations or threatened violations may subject the District to fines and/or other costs or civil liabilities.
- B. Contractor shall be liable for and shall pay District the amount of any actual losses.
- C. Any money due or to become due to Contractor may be retained by District to cover the actual damages described above and, should such money not be sufficient to cover such damages, District shall have the right to recover the balance from Contractor or its sureties.
- A. Contractor, if not sole operator, shall assign a construction foreman to the Project for the entire duration of the Project. Construction foreman shall assume full responsibility for day-to-day maintenance operations, ensuring that resources required to successfully complete Project are applied in a timely manner. There shall be no change in construction foreman without written approval by District.

1.12 SITE ADMINISTRATION

Contractor shall be responsible for all areas of the Site used by it and by all Subcontractors in the performance of the Work. Contractor shall exert full control over the actions of all employees and other persons with respect to the use and preservation of property and existing facilities, except such controls as may be specifically reserved to District or others. Contractor shall have the right to exclude from the Site all persons who have no purpose related to the Work or its inspection, and may require all persons on the Site (except District's employees) to observe the same regulations as Contractor requires of its employees. Contractor shall at all times limit access to the Site to necessary personnel only. All personnel associated with construction of the Project shall enter the Site through access gate, at the location indicated on the Drawings.

1.13 EQUIPMENT – NOT USED

1.14 LABOR – NOT USED

1.15 CONSTRUCTION FOREMAN

- A. Contractor, if not sole operator, shall assign a construction foreman to the Project for the entire duration of the Project. Construction foreman shall assume full responsibility for day-to-day maintenance operations, ensuring that resources

required to successfully complete Project are applied in a timely manner. There shall be no change in construction foreman without written approval by District.

1.16 MATERIALS & SUPPLIES – NOT USED

1.17 HAUL ROUTES

A. See plans for approved haul routes, construction vehicles are not allowed on the following existing access bridges listed below:

1. In the City of Dublin:

- a. Across South San Ramon Creek at Dublin High School
- b. Across Alamo Creek at South San Ramon Creek
- c. Across Alamo Creek at Alamo Park
- d. Across Line G-1-1 at Dublin Blvd

2. In the City of Pleasanton:

- a. Across Line G -1-1 at Alamo Canal
- b. Across Arroyo Mocho at Arroyo de la Laguna
- c. Across Pleasanton Canal at Arroyo de la Laguna
- d. Across Pleasanton Canal at Hopyard Road
- e. Across Tassajara Creek at Stoneridge Drive

1.18 ADDITIONAL CONTRACTOR RESPONSIBILITIES

- A. Contractor, Subcontractor or Material Supplier under the direction of Contractor shall conform to California Code of Regulations, Title 8, Subchapter 4, and Construction Safety Orders.
- B. Contractor shall take all necessary measures to protect Work or Emergency Work and prevent accidents during any and all phases of work.
- C. Contractor shall maintain all books, documents, papers, employee time sheets, accounting records including certified payrolls and such other evidence pertaining to costs incurred for at least a period of three (3) years. Contractor shall not purge any records without the prior approval of District. Upon termination of the Contract, or at District's request, all such records shall be provided to District, including

records, certified payroll records, and hard copies of any other computer records pertaining to Project.

- D. Performance Standard: The Contractor shall perform all services required pursuant to this Contract in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged in the geographical area. All instruments of service of whatsoever nature which Contractor delivers to District pursuant to this Contract shall conform to the standard of quality normally observed by a person practicing in Contractor's area of work.
- E. Inclement Weather: The Contractor shall maintain Best Management Practices on all sites during construction and should inclement weather be anticipated, stabilize all active construction site to prevent damage / erosion to flood protection facilities.

1.19 SUBCONTRACTING

- A. Notification of the Work pertinent to this Contract shall be subcontracted with prior written authorization by District. Contractor does not need to obtain District's authorization for subcontractors listed in the Bid Proposal.
- B. Subcontractors shall be treated as a part of the work force and equipment provided by Contractor. No additional percentage markup and compensation will be allowed under this Contract. Contractor shall not subcontract any portion of this Contract without authorization by the District Representative.

1.20 STANDBY TIME AND DOWNTIME – NOT USED

1.21 DISTRICT WRITTEN NOTIFICATION – NOT USED

1.22 COMPENSATION – NOT USED

PART 2 PRODUCTS

2.1 PRODUCTS ORDERED IN ADVANCE – NOT USED

2.2 DISTRICT-FURNISHED PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

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SECTION 02804
BIOTECHNICAL STRUCTURES

PART 1 - GENERAL REQUIREMENTS

1.01 SCOPE OF WORK

- A. The work under this Section shall consist of performing all operations necessary to excavate all materials, regardless of character and conditions, by furnishing all labor, materials, tools, transportation, supplies, equipment, appurtenances, fuel, power, and incidentals, and for doing all the work necessary for installation of biotechnical structures in the flood control channels, as shown on the plans and as specified herein.

1.02 DESCRIPTION OF WORK

- A. This work consists of installing the following biotechnical structures at the locations shown on the Drawings.
 - 1. Live Fascine Bundles
 - 2. Willow stakes
 - 3. Brush Mattresses
- B. Biotechnical structures require offsite harvesting of live cuttings, and irrigation and maintenance during construction.
- C. Zone 7-owned parcels along Tassajara Creek and Alamo Creek in Dublin, CA may be suitable willow harvest sites. The Contractor may use these sites and/or propose an alternate harvest sites for Zone 7's approval.
- D. All willow harvesting and installation of live willow stems for biotechnical structures shall occur between August 1st and October 15th.
- E. All willow harvesting and installation of willow stakes shall occur between October 1st and November 30th.

1.03 RELATED SECTIONS

- A. Section 02110: Clearing, Grubbing and Demolition
- B. Section 02200: Earthwork
- C. Section 02505: Rip Rap
- D. Section 02905: Erosion Control

E. Section 02936: Hydroseeding

1.04 QUALITY ASSURANCE

A. Installer Qualifications: The Contractor shall only use subcontractors and/or individuals with a minimum of five (5) years of experience with installation of biotechnical structures and harvesting live vegetation.

1.05 SUBMITTALS

A. Installer’s Qualifications: Demonstrate compliance with 1.04 A. prior to beginning the work.

Willow harvest location(s): Submit for Zone 7 approval prior to harvest.

PART 2 - PRODUCTS AND MATERIALS

2.01 LIVE WILLOW STEMS

A. Willow species shall be a mix of Red Willow (*Salix laevigata*) and Arroyo Willow (*Salix lasiolepis*). Provide a minimum of 20% of each species. Stems shall be straight and unbranched at least half of stem length. Stems shall meet the minimum requirements in table, and any additional requirements listed by structure below:

Structure	Diameter (inches)	Minimum Length (feet)
Willow Stakes	1/2 - 2	2
Brush Mattress	1/2 - 1 1/2	3
Live Fascine (Individual)	1/4 - 1	5
Live Fascine (Bundle)	12	5

2.02 BRUSH MATTRESS

- A. Erosion Control Fabric: See Section 02241E (Soil Stabilization – Fabric – BioD-Mat 90)
- B. Planting Soil: See Section 02200 (Earthwork)
- C. Seed Material: See Section 02936 (Hydroseeding)
- D. Wooden Stakes: Wooden stakes, 12" x 2" x 1", tapered to a point, and capable of fully securing fabric to underlying soils.

PART 3 - EXECUTION AND INSTALLATION

3.01 CONSTRUCTION STAKING

- A. The Contractor shall stake the limits of each biotechnical structure as shown on the drawings. The Contractor shall allow up to three (3) working days for review and approval of staking by Zone 7's Project Engineer.

3.02 LIVE WILLOW HARVESTING

- A. The Contractor shall obtain all live willows needed for the construction of biotechnical structures. Live willow harvesting includes, but is not limited to:
 - 1. Identifying local, watershed specific harvest locations.
 - 2. Securing permission from landowner and meeting its requirements.
 - 3. Meeting all regulatory requirements.
 - 4. Identifying and obtaining all permits.
 - 5. Insuring health and rigor of live material.
 - 6. Insuring material is free of pests and disease.
 - 7. Trimming, cutting, soaking and otherwise preserving material.
 - 8. Transporting, loading and unloading, and storage of material at the site.
- B. Plant Species: Species shall be a mix of Red Willow (*Salix laevigata*) and Arroyo Willow (*Salix lasiolepis*). Harvested stems and poles are hereafter referred to as 'Material'.
- C. Harvest locations: contractor shall identify harvest source(s) and submit the location to Zone 7's Project Engineer for approval prior to harvest. See Paragraph 1.02 C. for potential harvest sites owned by Zone 7. Only plants harvested within the Alameda Creek watershed are permissible. The contractor shall secure permission from the landowner of the harvest source, and meet all regulatory, permitting and landowner's requirements.
- D. Access: Contractor is responsible for meeting the access requirements of landowner. The contractor shall employ measures that minimize trampling of vegetation, and do not cause soil erosion or over-compaction.
- E. Observation: Zone 7's Project Engineer shall be afforded the opportunity to observe material harvesting. Provide a minimum of three (3) working days notice prior to initiating material harvesting activities.

- F. Harvest Methods: Material shall be harvested above ground in a manner that does not damage the host plant. No more than 50% of the host plant shall be harvested and removal shall be balanced across entire host plant. Material shall be cut cleanly near the base of the stem leaving no more than 1/4 inch of stump. Leaves and small branches shall be left on the material to the maximum extent possible. Harvested material shall be trimmed at the project site as needed to meet specified dimensions.
- G. Debris: The Contractor is responsible for appropriate processing and disposal of all plant debris. The harvest locations shall be left clean and free of all harvest debris.
- H. Material Protection: Cut material shall be kept moist continuously from time of harvest to installation on site. Material shall be continuously protected from exposure to sun and wind. Live woody material shall not be refrigerated.
- I. Transportation: Material shall be wrapped in or layered between moist fabric for transportation. Material layers between fabric shall be no more than three feet thick.
- J. Storage: Coordinate all material harvesting with installation activities so that material is installed at the project site within 48 hours of being harvested. All unused material shall be stored by soaking.
- K. Soaking: All harvested material shall be soaked onsite with the cut (basal) end of the material submerged at least 1/3 of stem length. Soaking material shall be shaded from sun exposure at all times. Live woody material staking/storage site shall be located and constructed by Contractor, as approved by Zone 7's Project Engineer.

3.03 EROSION CONTROL FABRIC INSTALLATION

- A. Install BioD-Mat 90 or approved equal at 1' depth from 2 feet back from hinge point at existing bench down to toe of slope within repaired limits, per detail on sheet 4.1 of the plans. Subgrade shall be prepared with 4" trenching for fiber roll installation with vertical spacing of 15' max.

3.04 LIVE FASCINE BUNDLE AND WILLOW STAKE INSTALLATION

- A. Dig trench approximately 8 inches deep and 14 inches wide at the location of the fascine bundles shown on the plan.
- B. Position Fascine Bundles: Place live fascine bundles (12 inches in diameter) within the trench, securing them in place with live willow stakes.

- C. Drive live willow stakes through the fascine bundles at intervals of 2 feet on center. Ensure the stakes are driven into the ground at least 2 feet deep to provide stability.
- D. Place the stakes alternatively on each side of the bundle and at an angle towards the bundle to ensure it is held tightly in place.
- E. Use twine, rope, or wire to lash the bundles to the stakes. The materials used to secure the brush mattress shall be made from 100% biodegradable material including, but not limited to, jute, cotton, or coir (coconut fiber). Submit material specifications for twine, rope, and/or wire to Zone 7 for approval prior to construction.
- F. Wrap the lashing material around the stakes and bundles in a figure-eight pattern to secure them firmly. Ensure the lashing is tight and secure.
- G. After securing the bundles with stakes and lashing, backfill the trench with soil to the top of the bundle.
- H. Continue to place live willow stakes at intervals of 2 feet on center to 5 feet above the ordinary high-water mark. Ensure the stakes are driven into the ground at least 2 feet deep to provide stability.

3.05 BRUSH MATTRESS INSTALLATION

- A. Lay a 12-inch-thick layer of willow branch cuttings over the slope, extending from the toe of slope to the existing bench, as shown on the plans.
- B. Place dead stakes at 2 feet on center spacing from 5 feet above the ordinary high-water mark to the existing bench. Dead stakes should be securely driven into the ground.
- C. Secure the brush mattress by lacing twine, rope, or wire in a diamond pattern between the stakes, ensuring the mattress is tightly secured against the slope. The materials used to secure the brush mattress shall be made from 100% biodegradable material including, but not limited to, jute, cotton, or coir (coconut fiber). Submit material specifications for twine, rope, and/or wire to Zone 7 for approval prior to construction.

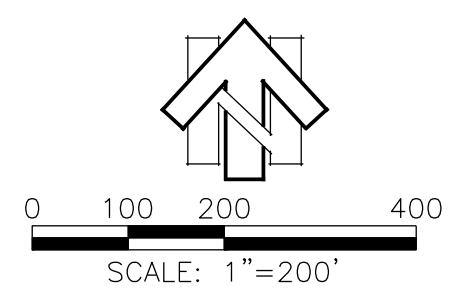
3.06 IRRIGATION AND MAINTENANCE

Immediately upon installing structures, irrigate all willow stems and brush mattress. Irrigate once a week minimum until the onset of seasonal rains.

PART 4 - MEASUREMENT AND PAYMENT

- 4.01** Full compensation for all costs incurred and the work covered in this Section shall be considered as included in the unit prices paid for in the various items as set forth in the Contractor's Bid, and no additional or separate compensation will be made therefor.
- 4.02** The Contractor's furnished materials used for any of the haul road improvements, development, modifications, supplements, and maintenance will not be measured for payment, and compensation for such hauling and placing costs incurred will be considered included in the prices paid for in the various contract items as set forth in the Contractor's Bid, and no additional or separate compensation will be made therefor.

END OF SECTION 02804



NO.	REVISION	DATE
△	BID ADDENDUM 2	07/12/24

DATE: 06/12/2024
 SCALE: _____
 DRAWN BY: SD
 DESIGNED BY: TPS
 CHECKED BY: CWG



PLANS PREPARED UNDER THE DIRECTION OF:
MACKAY & SOMPS
 ENGINEERS PLANNERS SURVEYORS
 5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690
MACKAY & SOMPS IS NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF REPRODUCTIONS OF THIS DOCUMENT THAT ARE GENERATED BY OTHERS FROM ELECTRONIC MEDIA.

ZONE 7 WATER AGENCY
 2022-2023 STORM DAMAGE
 HIGH PRIORITY REPAIRS
LINE G-1-1 LOCATION MAP
 ALAMEDA COUNTY CALIFORNIA

PROJECT NO.
 29174.000
 SHT
 3.2

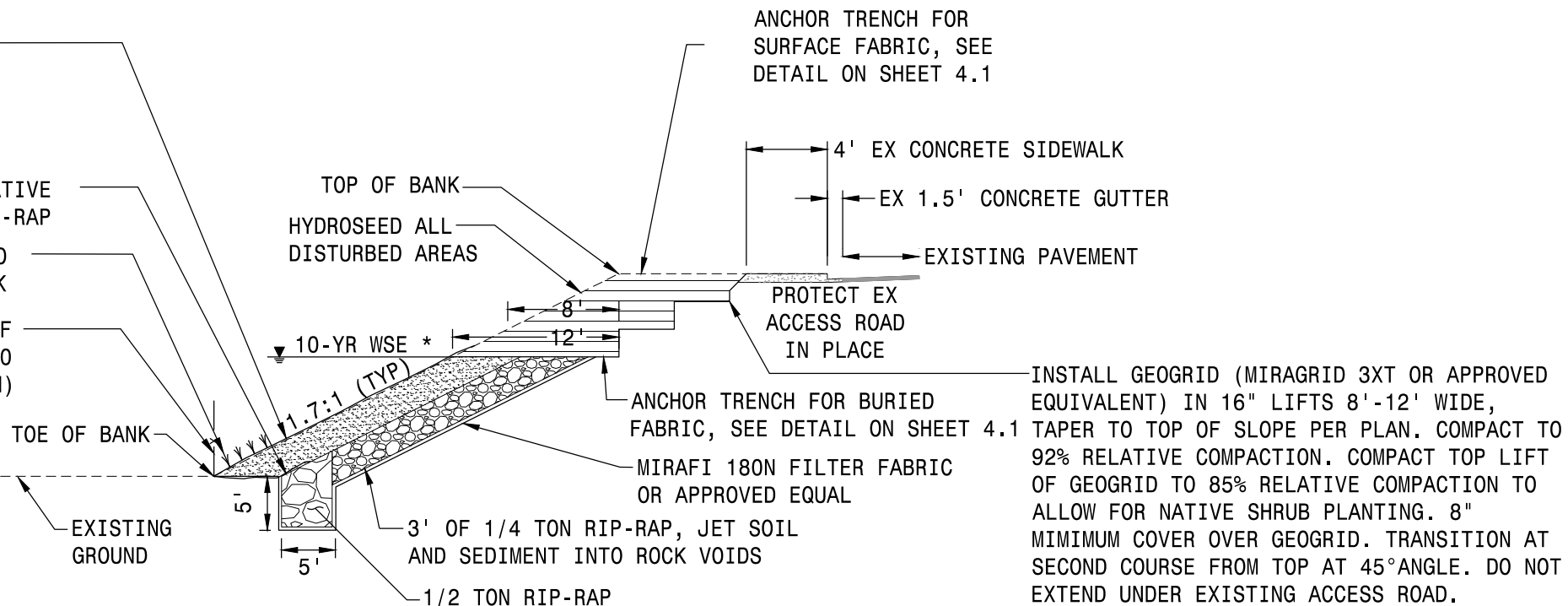
INSTALL TWO LAYERS OF AEC PREMIER COCONUT FIBRENET¹ OR APPROVED EQUAL AT SURFACE AND BIOD-MAT 90 OR APPROVED EQUAL AT 1' DEPTH FROM 2 FEET BACK FROM HINGE POINT DOWN TO TOE OF SLOPE WITHIN REPAIRED LIMITS, PER DETAIL ON SHEET 4.1. WRAP FABRIC AT TOE OF SLOPE. SUBGRADE SHALL BE PREPARED WITH 4" TRENCHING FOR FIBER ROLL INSTALLATION WITH VERTICAL SPACING OF 15' MAX.

INSTALL 3' NATIVE MATERIAL OVER RIP-RAP
WILLOW STAKES SPACED AT 2' O.C. TO 6' ABOVE ORDINARY HIGH WATER MARK

INSTALL SILT FENCE AT TOE OF SLOPE-SEE LIMITS SHEET 4.0 (TO BE REMOVED AFTER CONSTRUCTION)

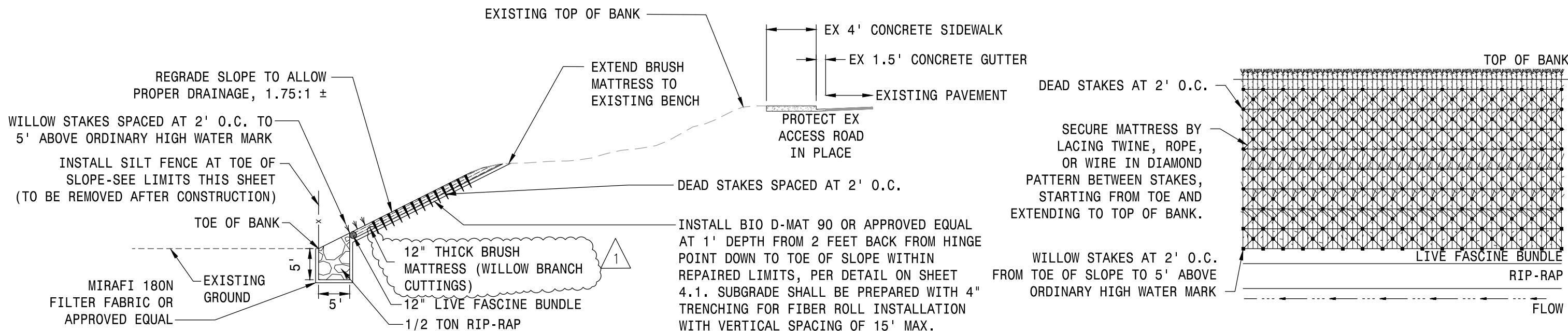
* EXTEND RIP-RAP TO 10-YR WSE OR TO EXTENT OF REPAIR AS SHOWN IN SECTION VIEW.

¹AEC PREMIER COCONUT FIBRENET MUST BE 100% BIODEGRADABLE AND HAVE BIODEGRADABLE THREAD.



LINE B - SITE 914 TYPICAL REPAIR SECTION - SLOPE REBUILD(WITH GEOGRID) (NO ROAD REBUILD)

NTS



LINE B - SITE 915 TYPICAL REPAIR SECTION - BRUSH MATTRESS WITH RIP RAP KEYWAY

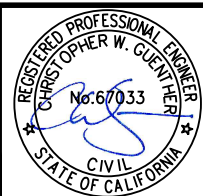
NTS

BRUSH MATTRESS - PLAN VIEW

NTS

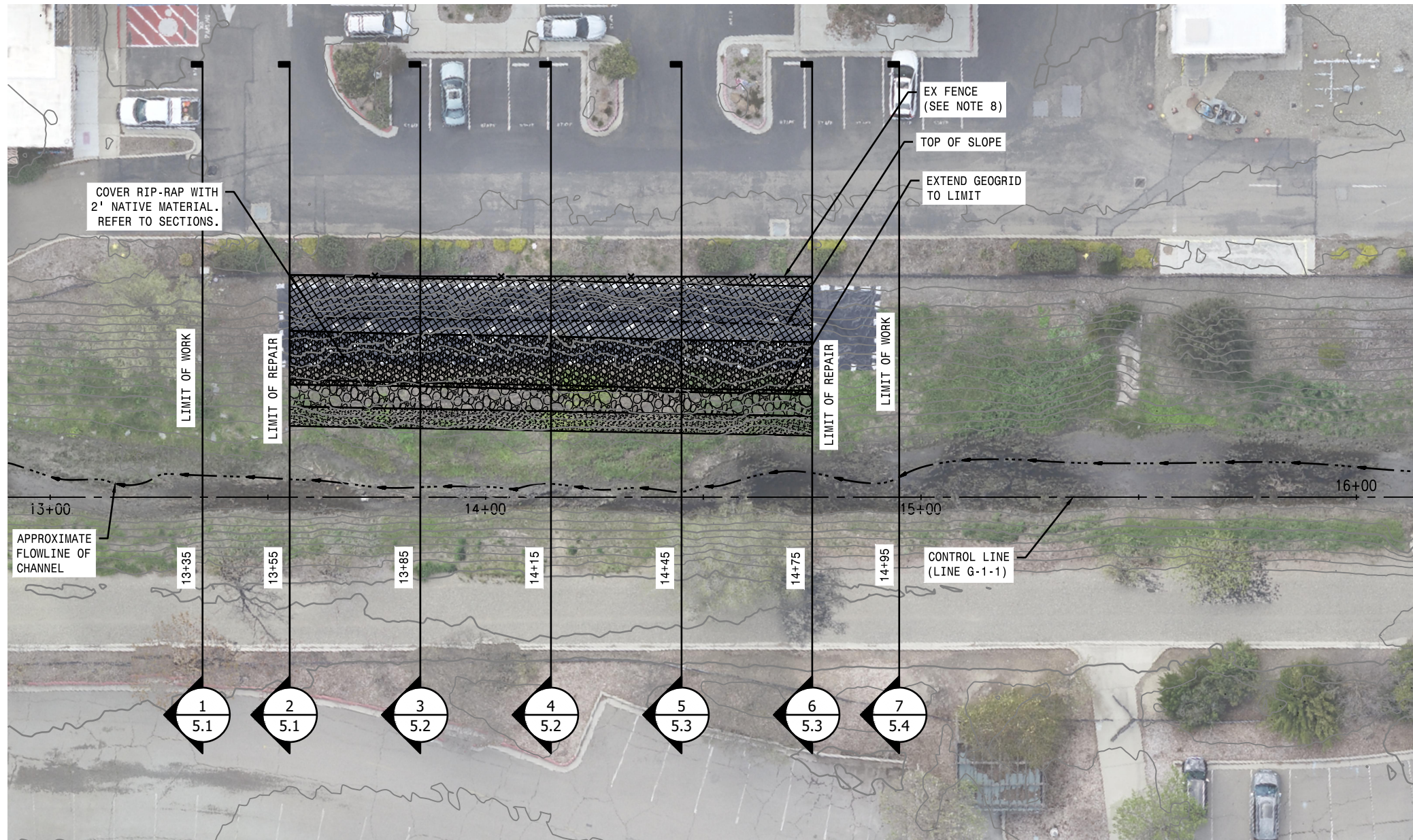
NO.	REVISION	DATE
Δ	BID ADDENDUM 2	07/12/24

DATE: 06/12/2024
SCALE: NO SCALE
DRAWN BY: JR
DESIGNED BY: TPS
CHECKED BY: CWG



PLANS PREPARED UNDER THE DIRECTION OF:
Mackay & Somps
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690
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ZONE 7 WATER AGENCY 2022-2023 STORM DAMAGE HIGH PRIORITY REPAIRS	PROJECT NO. 29174.000
	SHT 4.3
SECTIONS AND DETAILS ALAMEDA COUNTY CALIFORNIA	




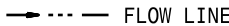


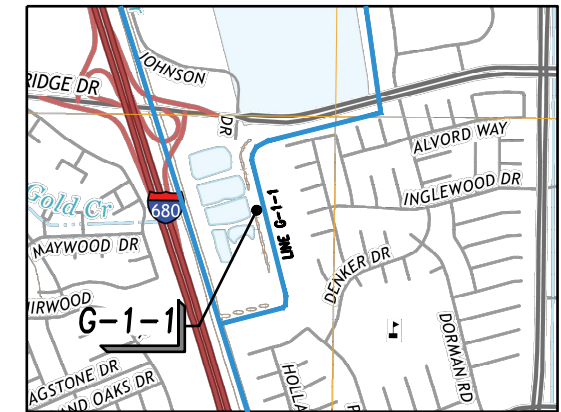
LINE G-1-1 SITE 913 PLAN VIEW

CONSTRUCTION NOTES:

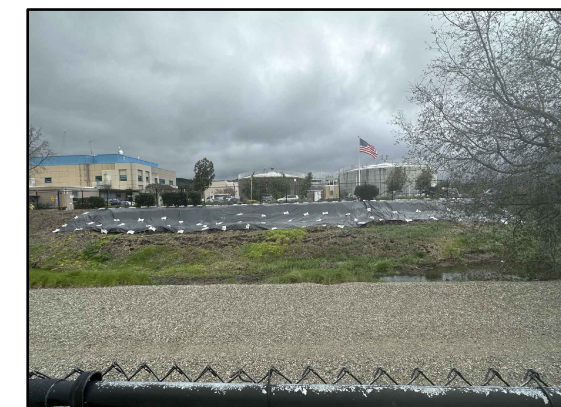
1. EXCAVATE AND INSTALL RIP-RAP PRIOR TO THE INSTALLATION OF GEOGRID.
2. ENSURE THAT EXISTING UTILITIES ARE MARKED BY USA AND THAT A MINIMUM DISTANCE OF 10 FEET IS MAINTAINED IN ANY DIRECTION BETWEEN EXCAVATED AREA AND EXISTING UTILITIES.
3. LAY MIRAGRID 3XT GEOGRID IN STRIPS PERPENDICULAR TO SLOPE (STRONG DIRECTION) WITH MAXIMUM 16" LIFTS.
4. COMPACT SOIL BETWEEN LIFTS OF MIRAGRID 3XT GEOGRID TO 92% COMPACTION, ENSURE THAT EDGES ARE BURIED AND NOT EXPOSED TO SURFACE. TERMINATE GEOGRID 1' FROM SLOPE SURFACE, SEE SECTION D ON SHEET 4.2.
5. MAINTAIN CONTINUITY OF GEOGRID LAYERS ACROSS ENTIRE LENGTH OF EXCAVATION ONCE ABOVE RIP-RAP AREA.
6. TOPOGRAPHY IS BASED ON A COMBINATION OF LIDAR AND SURVEY POINTS, ACTUAL TOPOGRAPHY MAY VARY.
7. CONTRACTOR TO STOCKPILE EXCAVATED MATERIAL AT STAGING AREA FOR SUITABILITY INSPECTION BY GEOTECHNICAL ENGINEER. SUITABLE MATERIAL SHALL BE USED AS FILL AT REPAIR LOCATION. UNSUITABLE MATERIAL TO BE OFF-HAULED AT CONTRACTORS EXPENSE.
8. REMOVE AND REPLACE EX FENCE AS NECESSARY FOR CONSTRUCTION ACTIVITIES.

LEGEND:

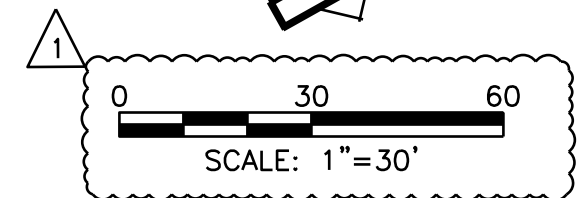
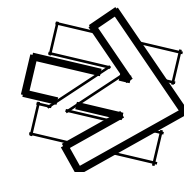
-  BURIED RIP RAP - SEE SECTION VIEW
-  GEOGRID - SEE SECTION VIEW
-  FILL - SEE SECTION VIEW
-  FLOW LINE



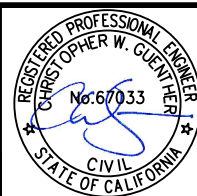
VICINITY MAP
NTS



SITE IMAGE

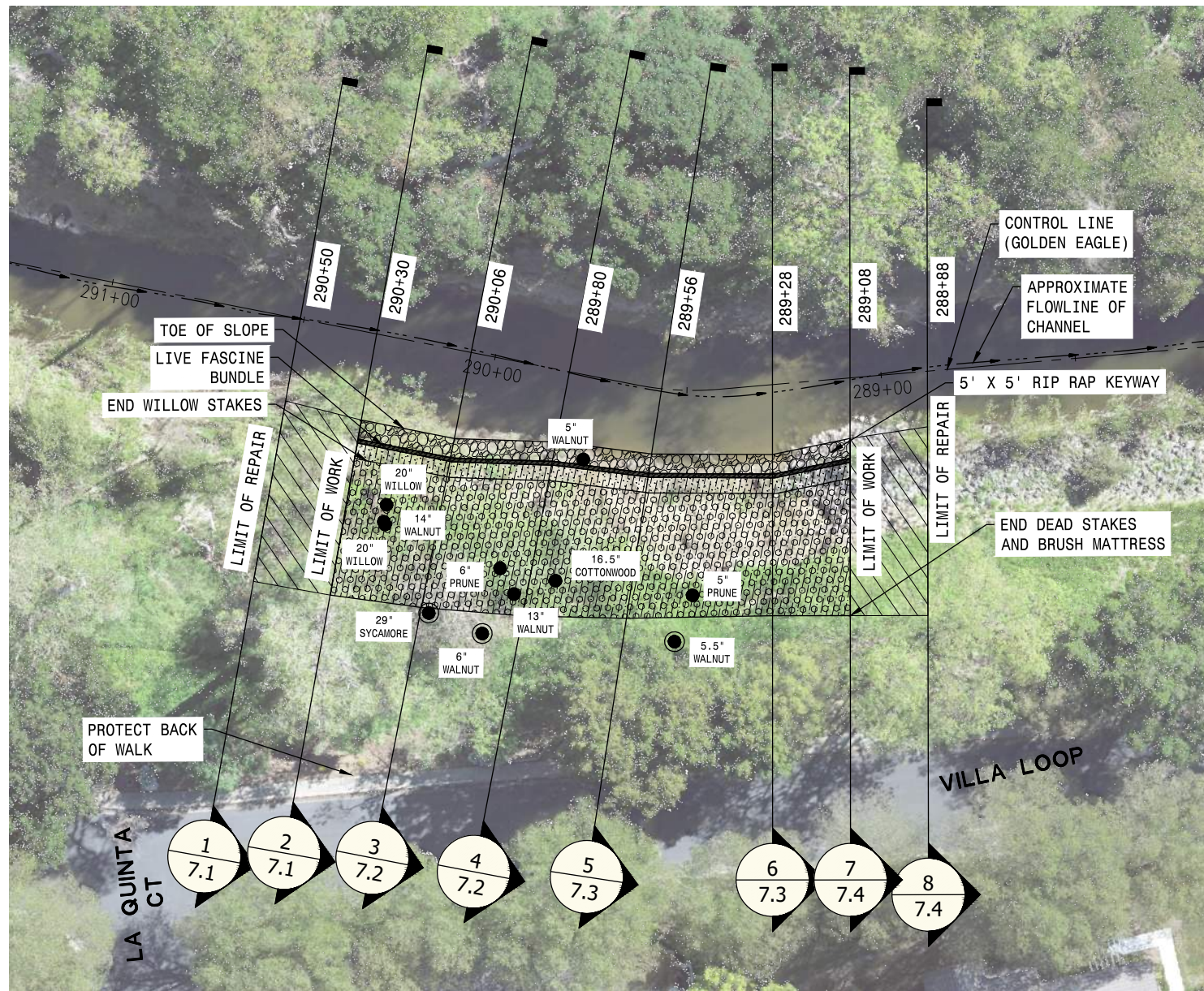


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			DRAWN BY: <u>JR</u>
			SCALE: <u>AS SHOWN</u>
			DATE: <u>06/12/2024</u>



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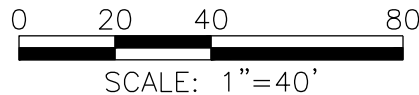
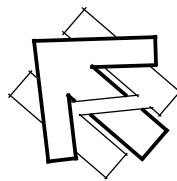
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LINE G-1-1 SITE 913 PLAN		SHT 5.0
ALAMEDA COUNTY		CALIFORNIA












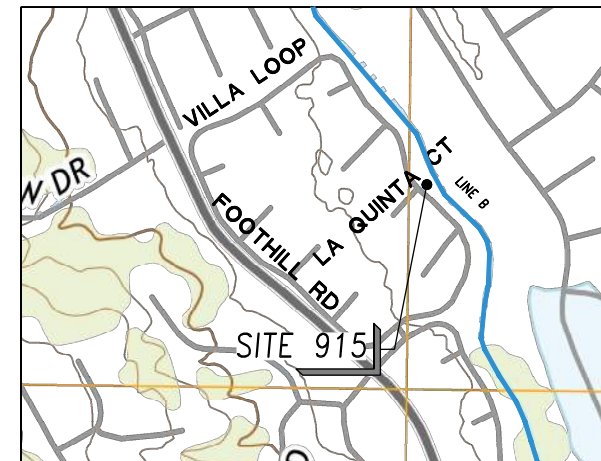
LINE B SITE 915 PLAN VIEW

CONSTRUCTION NOTES:

1. ENSURE THAT EXISTING UTILITIES ARE MARKED BY USA AND THAT A MINIMUM DISTANCE OF 10 FEET IS MAINTAINED IN ANY DIRECTION BETWEEN EXCAVATED AREA AND EXISTING UTILITIES.
2. TOPOGRAPHY IS BASED ON A COMBINATION OF LIDAR AND SURVEY POINTS, ACTUAL TOPOGRAPHY MAY VARY.
3. CONTRACTOR TO STOCKPILE EXCAVATED MATERIAL AT STAGING AREA FOR SUITABILITY INSPECTION BY GEOTECHNICAL ENGINEER. SUITABLE MATERIAL SHALL BE USED AS FILL AT REPAIR LOCATION. UNSUITABLE MATERIAL TO BE OFF-HAULED AT CONTRACTORS EXPENSE.



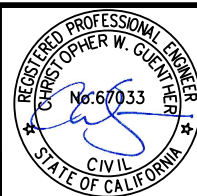
- LEGEND:**
-  BRUSH MATTRESS (WILLOW BRANCH CUTTINGS) - SEE SECTION VIEW
 -  WILLOW STAKES - SEE SECTION VIEW
 -  DEAD STAKES - SEE SECTION VIEW
 -  MATERIAL OFFHAUL - SEE SECTION VIEW
 -  RIP RAP - SEE SECTION VIEW
 -  LIVE FASCINE BUNDLE - SEE SECTION VIEW
 -  FLOW LINE
 -  EXISTING TREE TO BE REMOVED
 -  EXISTING TREE TO BE PROTECTED



VICINITY MAP
NTS

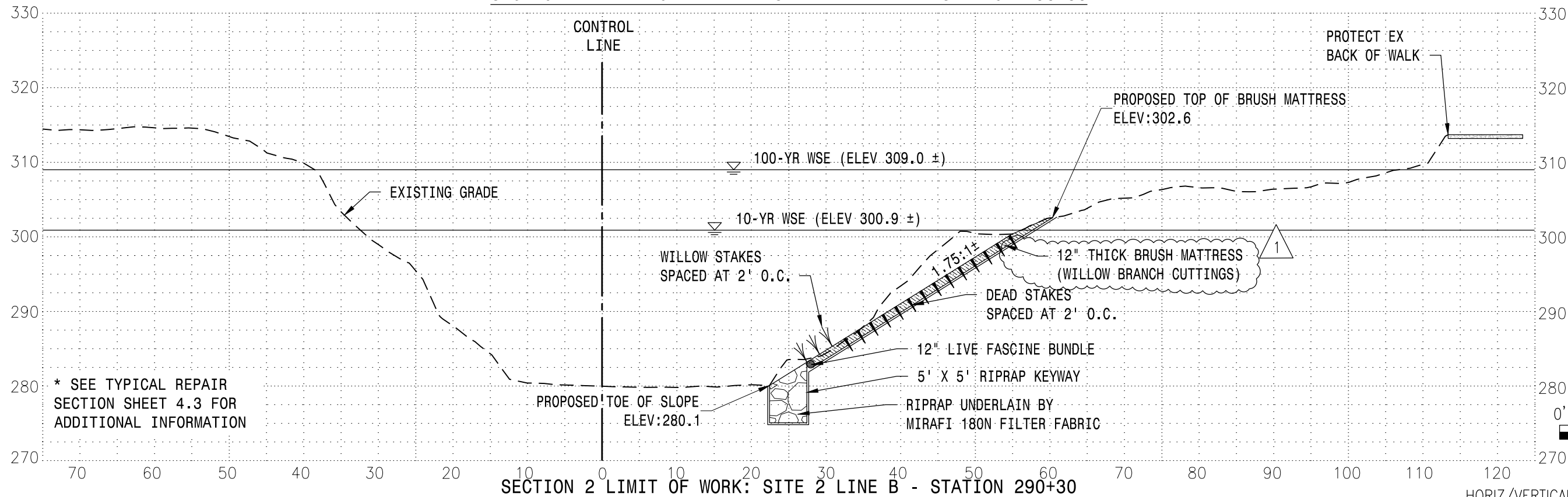
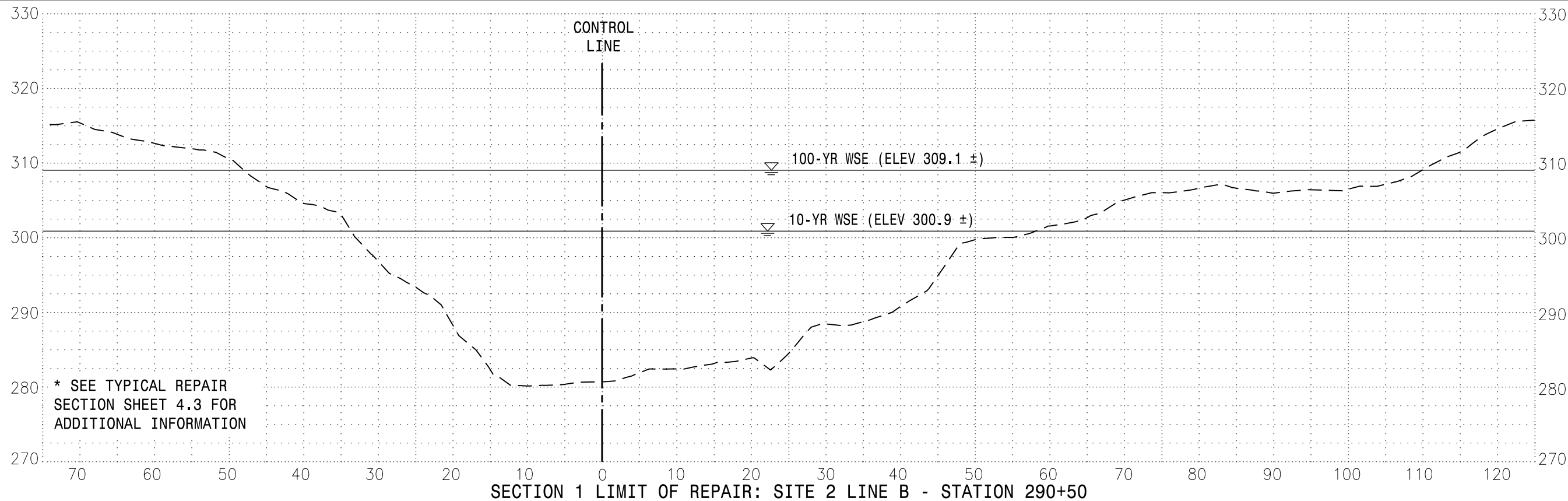


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	DATE

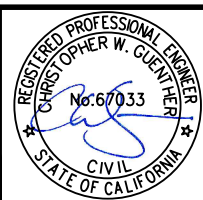


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	SHT 7.0
LINE B SITE 915 PLAN ALAMEDA COUNTY CALIFORNIA	



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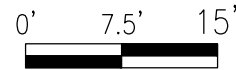
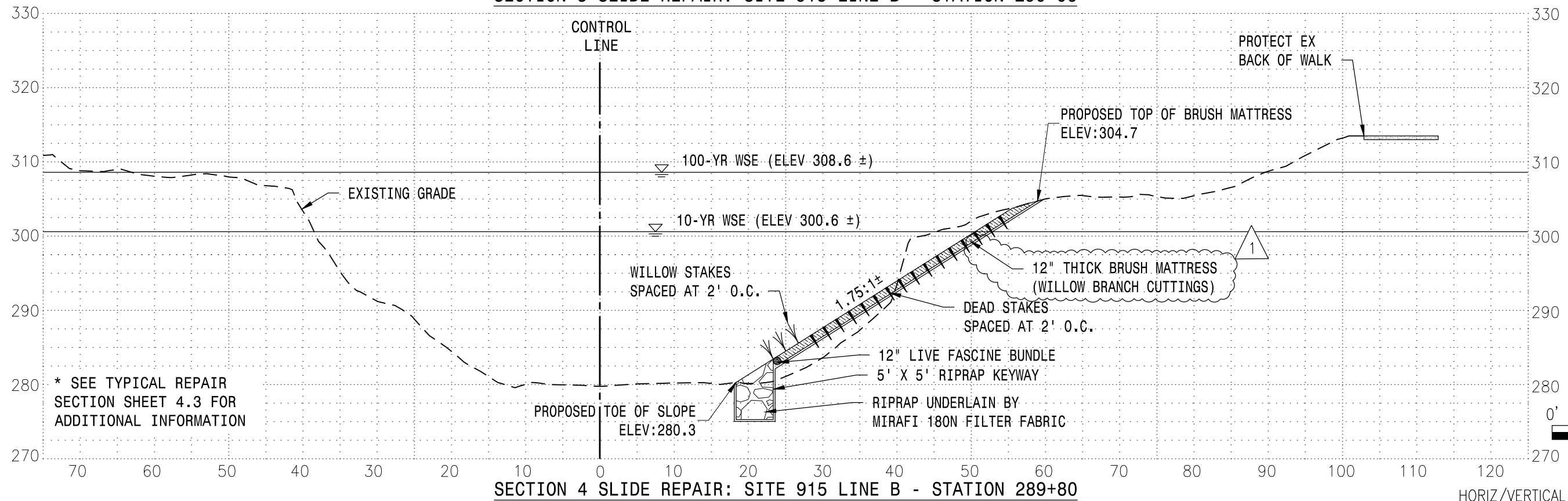
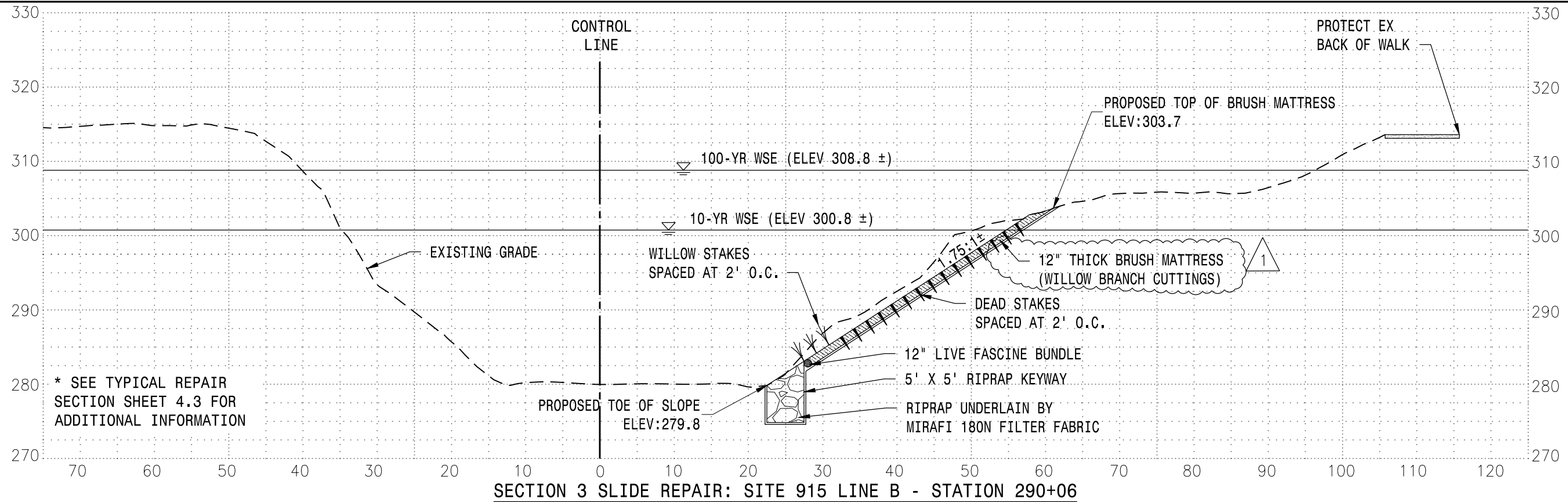
ZONE 7 WATER AGENCY
2022-2023 STORM DAMAGE
HIGH PRIORITY REPAIRS

LINE B SITE 915 CROSS SECTION

ALAMEDA COUNTY CALIFORNIA

PROJECT NO.
29174.000

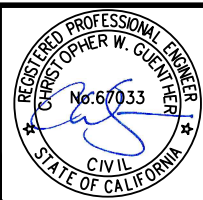
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HORIZ/VERTICAL SCALE: 1"=15'

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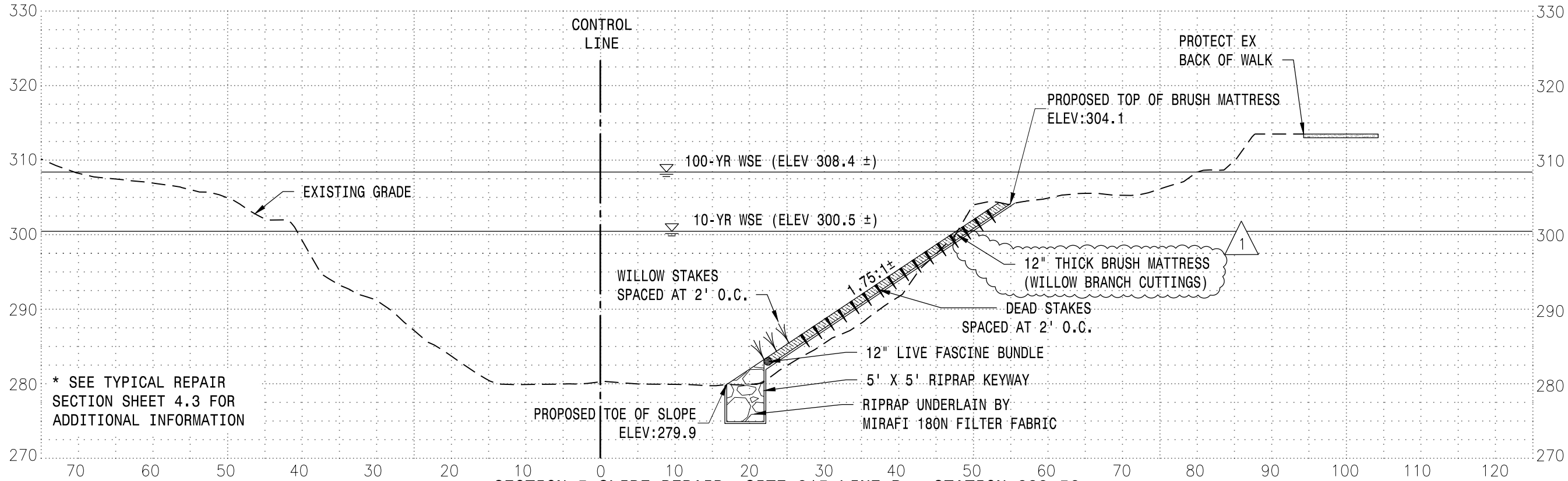
DATE: 06/12/2024
 SCALE: 1" = 15'
 DRAWN BY: JR
 DESIGNED BY: TPS
 CHECKED BY: CWG



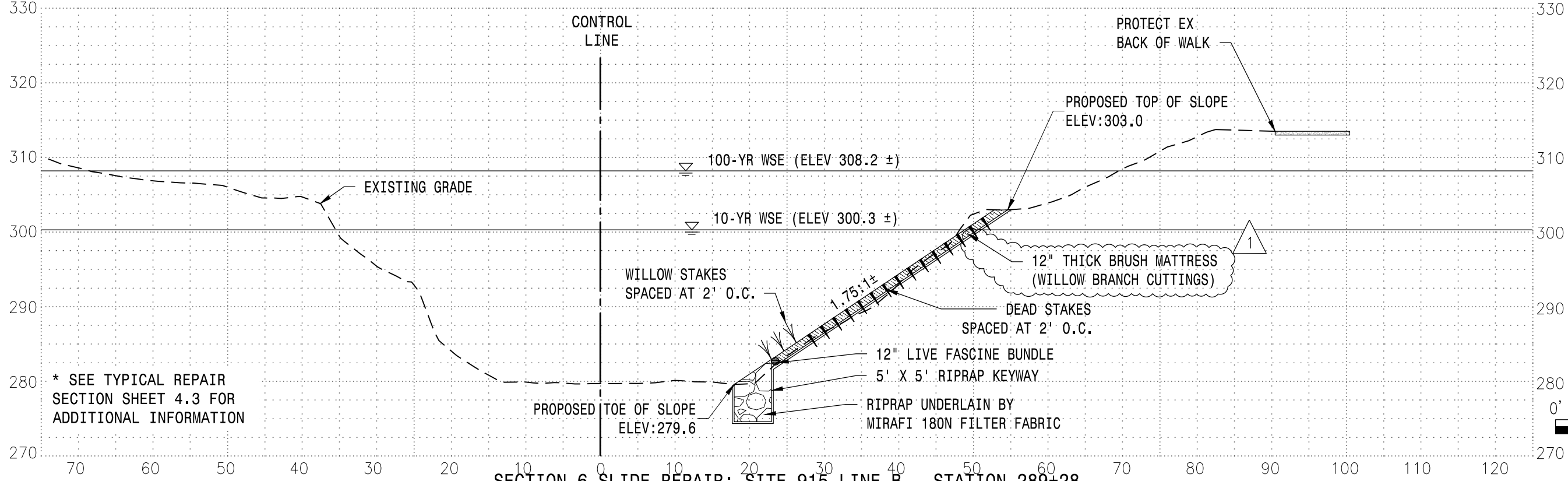
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LINE B SITE 915 CROSS SECTION
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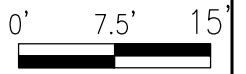
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SECTION 5 SLIDE REPAIR: SITE 915 LINE B - STATION 289+56

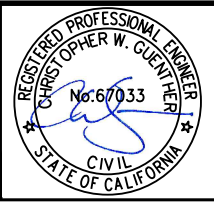


SECTION 6 SLIDE REPAIR: SITE 915 LINE B - STATION 289+28



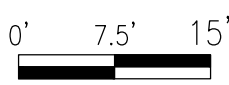
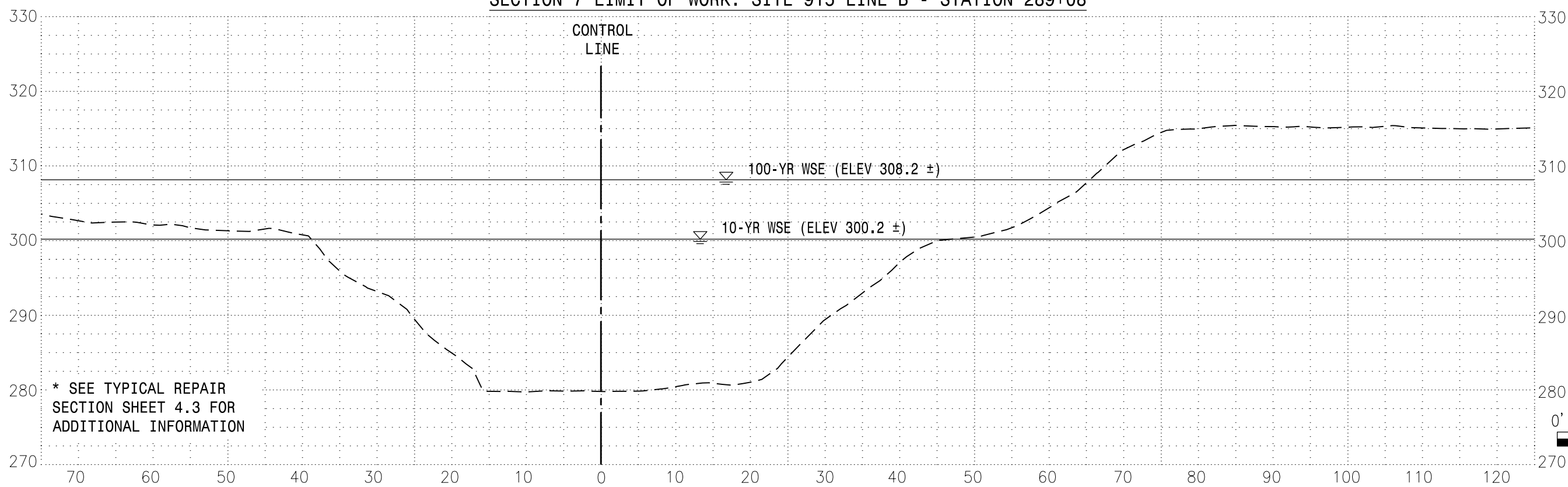
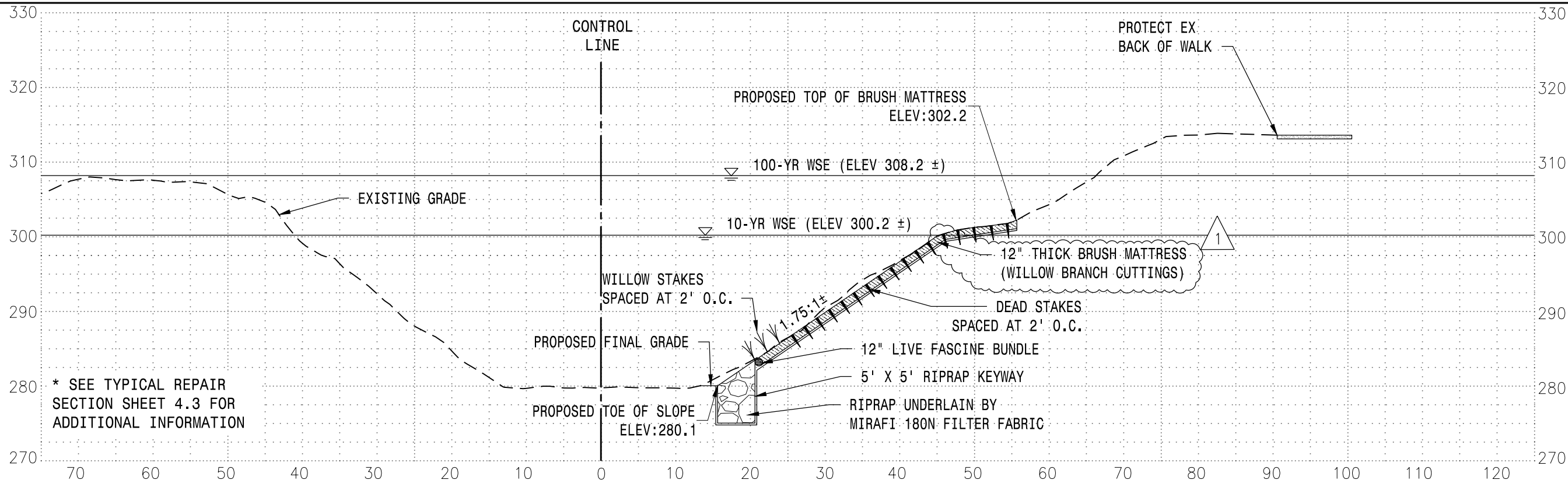
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SCALE:	1" = 15'
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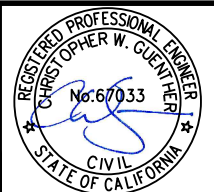
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ALAMEDA COUNTY		CALIFORNIA



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