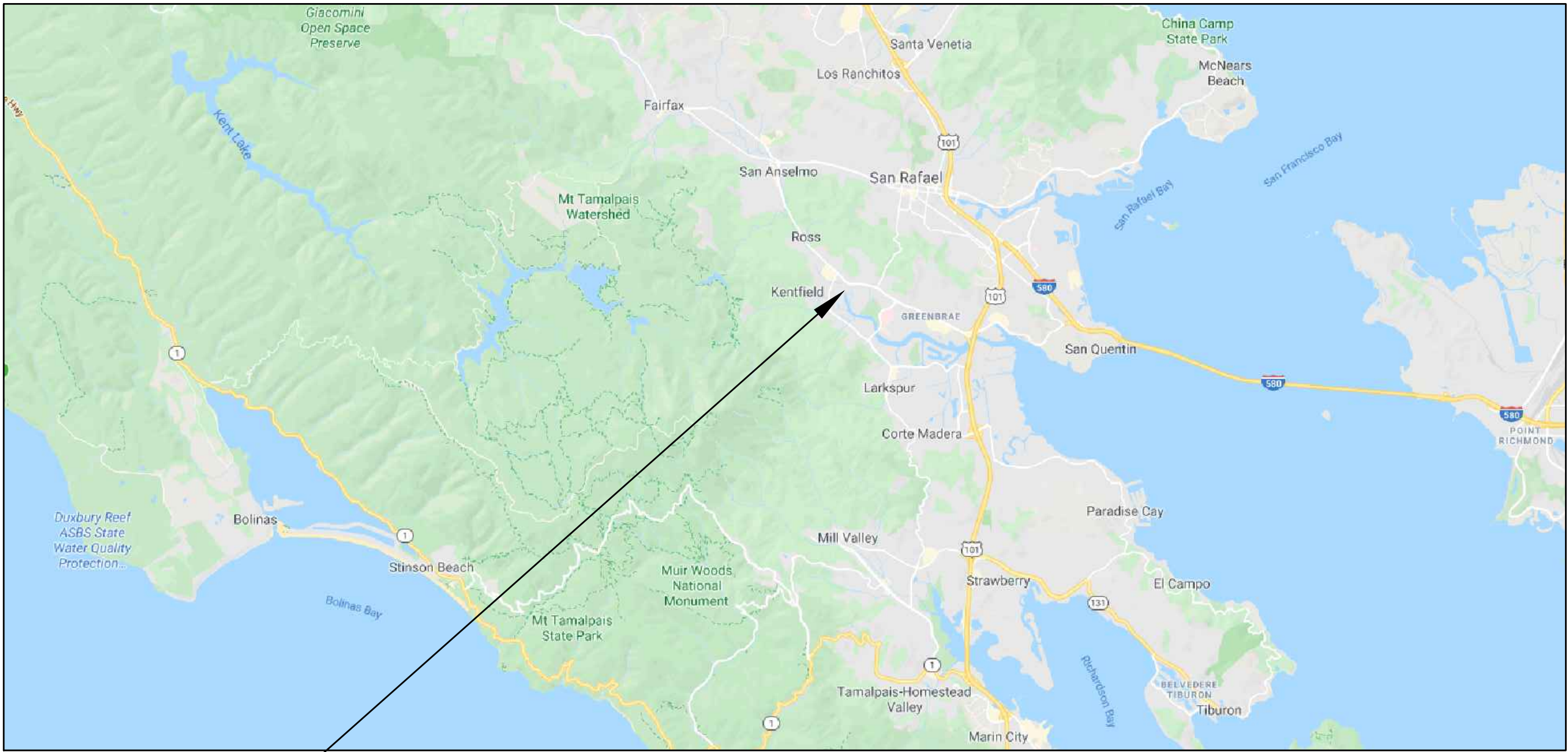


CORTE MADERA CREEK

LOWER COLLEGE OF MARIN

CORTE MADERA CREEK RESTORATION PROJECT

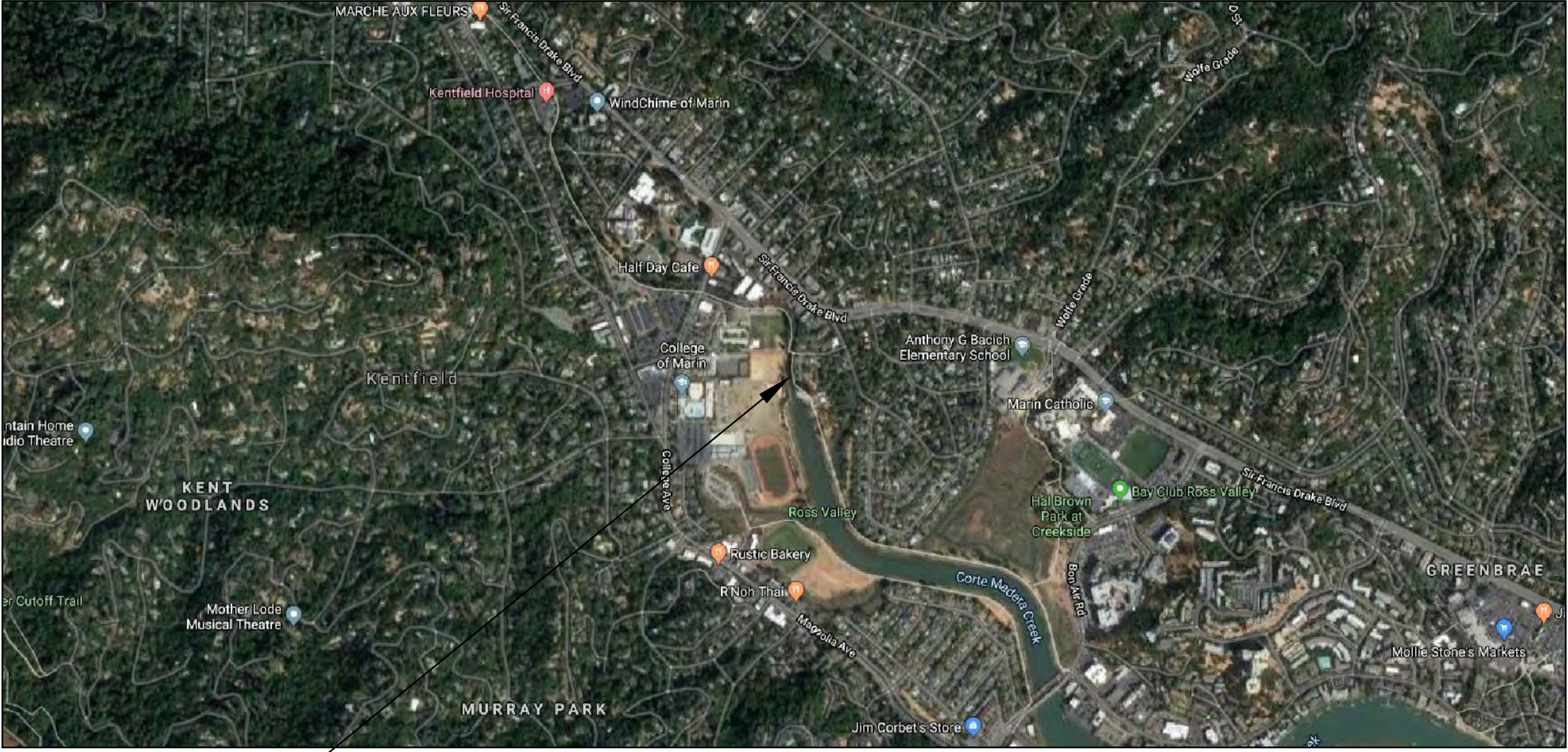
FINAL 100% DESIGN PLANS



PROJECT
LOCATION

REGIONAL MAP
N.T.S. (GOOGLE)

KENTFIELD, MARIN COUNTY



PROJECT
LOCATION

VICINITY MAP
N.T.S. (GOOGLE)

DOWNSTREAM END OF CORTE MADERA CREEK CONCRETE FLOOD CONTROL CHANNEL

GENERAL NOTES

- PROPERTY BOUNDARY AND EASEMENT DESCRIPTIONS BY:
OBERKAMPER & ASSOCIATES CIVIL ENGINEERS INC.
7200 REDWOOD BLVD., SUITE 308
NOVATO, CA 94945
DATED: 1/29/2020 (SURVEY DATE: 1/17/2020)
- TOPOGRAPHIC MAPPING BY:
GEOMORPH DESIGN
2100 FOURTH STREET, NO. 154
SAN RAFAEL, CA 94901
SURVEY DATES: 1/28/2020, 1/29/2020, 2/5/2020 AND 2/6/2020.
- AERIAL IMAGERY AND PHOTO SIMULATIONS BY:
WALLS LAND + WATER
320 ALAMO AVE
SANTA CRUZ, CA 95060
FLY DATE: 8/10/2021
- ELEVATION DATUM PER OBERKAMPER: THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) VIA RTK CONNECTED TO THE CRTN.
- BASIS OF BEARINGS PER OBERKAMPER: THE BEARINGS SHOWN HEREON ARE BASED ON CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), NAD83(2011) 2017.50 EPOCH. ROTATE, THE BEARINGS SHOWN, 0°00'27" CLOCKWISE TO MATCH BOOK 10 OF SURVEYS AT PAGE 13.
- CONTOUR INTERVAL IS ONE FOOT. ELEVATIONS AND DISTANCES SHOWN ARE IN DECIMAL FEET.
- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE 2018 EDITION OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS, ISSUED BY THE DEPARTMENT OF TRANSPORTATION (HEREAFTER REFERRED TO AS "STANDARD SPECIFICATIONS")
- THESE PLANS ARE DEVELOPED TO THE FINAL 100% DESIGN LEVEL.
- STAKEHOLDERS:
MARIN COUNTY PARKS
3501 CIVIC CENTER DRIVE, ROOM 206
SAN RAFAEL, CA 94903
TARA MCINTIRE, 415-521-8059, TMCINTIRE@MARINCOUNTY.ORG
COLLEGE OF MARIN
835 COLLEGE AVENUE
KENTFIELD, CA 94904-2551
DIRECTOR OF FACILITIES PLANNING, MAINTENANCE, AND OPERATIONS
KLAUS CHRISTIANSEN, 415-457-8811 X7449,
KCHRISTIANSEN@MARIN.EDU
ROSS VALLEY SANITARY DISTRICT
2960 KERNER BLVD.
SAN RAFAEL, CA 94901
NOEL SANDOVAL, 415-259-2949, NSANDOVAL@RVSD.ORG

GENERAL NOTES

- AGENCY CONTACTS:
BRIAN HANSEN, BAY DELTA U.S. FISH & WILDLIFE, 916-930-5603,
BRIAN.HANSEN@FWS.GOV
NICOLE FAIRLEY, RWQCB, (510) 622-2424,
NICOLE.FAIRLEY@WATERBOARDS.CA.GOV
ROBERTA MORGANSTERN, ARMY CORPS OF ENGINEERS, (415) 503-6782,
ROBERTA.A.MORGANSTERN@USACE.ARMY.MIL
SARA AZAT, NOAA MARINE FISHERIES SERVICE, (707) 575-6067,
SARA.AZAT@NOAA.GOV
MANDY CULPEPPER, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE,
(707) 428-2075, AMANDA.CULPEPPER@WILDLIFE.CA.GOV
ROWAN YELTON, SAN FRANCISCO BAY CONSERVATION & DEVELOPMENT
COMMISSION, (415) 352-3613, ROWAN.YELTON@BCDC.CA.GOV
DOBRI TUTOV, CALIFORNIA STATE LANDS COMMISSION, (916) 574-1900
- PROJECT DESIGNERS:
LEAD ENGINEER/GEOMORPHOLOGIST: MATT SMELTZER, P.E., GEOMORPHDESIGN,
510-219-1064, FLUVIALGEOMORPH@GMAIL.COM
ENGINEER: BRIAN SHEDDEN, P.E., SHEDDEN ENGINEERING & SURVEYING, INC.,
831-325-2692, SHEDDENENGINEERING@GMAIL.COM
GEOMORPHOLOGIST: SCOTT WALLS, M.L.A., WALLS LAND + WATER, LLC.,
831-246-1718, SCOTT@WALLSLANDWATER.COM
- GEOTECHNICAL ENGINEER:
MILLER PACIFIC ENGINEERING GROUP
504 REDWOOD BLVD.
NOVATO, CA 94947
SCOTT STEPHENS, 415-382-3444, SSTEPHEN@MILLERPAC.COM
- LANDSCAPE ARCHITECTS:
PRUNUSKE CHATHAM, INC.
400 MORRIS ST, SUITE G
SEBASTOPOL, CA 95472
MIKE JENSEN, 707-824-4600, MIKE@PCZ.COM
JOAN SCHWAN, 707-824-4600, JSCHWAN@PCZ.COM
- CIVIL & HYDRAULIC ENGINEERS:
STETSON ENGINEERS INC.
2171 EAST FRANCISCO BLVD, SUITE K
SAN RAFAEL, CA 94901
JAMES REILLY, 415-457-0701 X16, JAMESR@STETSONENGINEERS.COM
JULIAN FULWILER, 415-457-0701, JULIANF@STETSONENGINEERS.COM
- PROJECT SPONSOR:
FRIENDS OF CORTE MADERA CREEK WATERSHED
PO BOX 415
LARKSPUR, CA 94977
SANDY GULDMAN, 415-456-5052, SANDRA.GULDMAN@GMAIL.COM
NICK SALCEDO, 415-755-0874, NICHOLAS.M.SALCEDO@GMAIL.COM
- PROJECT OWNER:
MARIN COUNTY DPW
3501 CIVIC CENTER DRIVE, ROOM 304
SAN RAFAEL, CA 94903
JOANNA DIXON, 415-473-7031, JDIXON@MARINCOUNTY.ORG
RAYMOND WONG, RAYMOND.WONG@GHD.COM

SHEET INDEX

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SECTION AND DETAIL CONVENTION

- SECTION OR DETAIL IDENTIFICATION
(NUMBER OR LETTER)
- REFERENCE SHEET ON WHICH
SECTION OR DETAIL IS SHOWN.

ABBREVIATIONS

- | | |
|--------------|--------------------------|
| AVG. | AVERAGE |
| BLDG | BUILDING |
| CC | CONCRETE |
| CLSTR | CLUSTER |
| CMP | CORRUGATED METAL PIPE |
| CY | CUBIC YARDS |
| DBL | DOUBLE |
| DIA. | DIAMETER |
| E | EXISTING |
| EG | EXISTING GROUND |
| ELEV. | ELEVATION |
| EP | EDGE OF PAVEMENT |
| ETW | EDGE OF TRAVELED WAY |
| DI | DRAINAGE INLET |
| FG | FINISHED GRADE |
| FT | FEET |
| IR | IRRIGATION |
| INV | INVERT |
| LWM | LARGE WOODY MATERIAL |
| MH | MANHOLE |
| N | NEW |
| NIC | NOT IN CONTRACT |
| N.T.S. | NOT TO SCALE |
| O.C. | ON CENTER |
| PP | PLASTIC PIPE |
| RC | RELATIVE COMPACTION |
| RCP | REINFORCED CONCRETE PIPE |
| RSP | ROCK SLOPE PROTECTION |
| SDI | STORM DRAIN INLET |
| SPK | SPIKE |
| SF | SQUARE FOOT |
| TBD | TO BE DETERMINED |
| TOW | TOP OF WALL |
| TRPL | TRIPLE |
| TYP | TYPICAL |
| UNK | UNKNOWN |
| UTIL | UTILITY |
| VL | VAULT |
| VLT | VALVE |
| WSE | WATER SURFACE ELEVATION |
| XS | CROSS SECTION |
| YR | YEAR |
| TREE SPECIES | |
| A | ACACIA |
| EUC | EUCALYPTUS |
| O | OAK |
| PALM | PALM TREE |
| T | TREE (UNKNOWN) |
| NON | NON-NATIVE |

PROJECT OBJECTIVES

REMOVE PARTS OF THE CONCRETE FLOOD CONTROL CHANNEL WALLS DOWNSTREAM FROM THE STADIUM WAY PEDESTRIAN BRIDGE AS NEEDED TO RESTORE SLOPED CREEK BANK SURFACES SUPPORTING INTERTIDAL MUDFLAT, LOW AND HIGH MARSH TIDAL WETLAND, TRANSITIONAL, AND UPLAND RIPARIAN WOODLAND HABITAT AREAS AND VEGETATION COMMUNITIES. REFER TO SHEET L1 FOR PROPOSED HABITAT RESTORATION AREAS AND QUANTITIES (REVEGETATION ZONE TABLE).

SPECIFICALLY, REMOVE PART OF THE DOWNSTREAM 463 LINEAL FEET OF THE RIGHT (WEST) BANK WALL AND PART OF THE DOWNSTREAM 133 LF OF THE LEFT (EAST) BANK WALL AND GRADE RESTORED CREEK BANKS TO MAXIMIZE POTENTIAL HABITAT RESTORATION WITHIN PRACTICAL LIMITS CONSIDERING EXISTING FACILITIES ON BOTH SIDES OF THE CREEK:

- RVSD SANITARY SEWER SIPHON CROSSING UNDER THE CONCRETE CHANNEL ABOUT 20 FEET DOWNSTREAM FROM THE STADIUM WAY PEDESTRIAN BRIDGE;
- SEWER AND OTHER UTILITIES RUNNING PARALLEL TO THE LEFT BANK CHANNEL WALL UNDER THE MULTI-USE PATHWAY (MUP) (MARIN COUNTY BIKE ROUTE 20);
- REQUIRED STAGING, PARKING, AND EMERGENCY EQUIPMENT TURN-AROUND SPACE ADJACENT TO RVSD PUMPING PLANT PER RVSD AND KENTFIELD FIRE;
- REQUIRED SETBACK DISTANCE FROM COLLEGE OF MARIN MAINTENANCE AND OPERATIONS (M&O) FACILITIES PER COLLEGE OF MARIN;
- PLANNED OR POTENTIAL IMPROVEMENTS TO MULTI-USE PATHWAY AND STADIUM WAY FOOTBRIDGE PER MARIN COUNTY PARKS;
- PROVIDING ACCESS ALONG THE NEW TOP OF RIGHT BANK PER MARIN COUNTY FLOOD CONTROL DISTRICT, COLLEGE OF MARIN, AND KENTFIELD FIRE.

AND DETAIL THE DESIGN AND PHASE CONSTRUCTION SEQUENCE TO:

- MINIMIZE TEMPORARY ENVIRONMENTAL IMPACTS OF DEWATERING DURING CONSTRUCTION;
- MAKE THE RESTORED HABITAT RESILIENT AND ADAPTIVE TO PROJECTED FUTURE SEA LEVEL RISE;
- CREATE OPPORTUNITIES FOR IMPROVING THE EXISTING MULTI-USE PATHWAY AND VEST-POCKET PARK ADJACENT TO THE CREEK;
- BE CONSISTENT WITH MARIN COUNTY PARKS, SAFE ROUTES TO SCHOOL, AND MARIN COUNTY NON-MOTORIZED TRANSPORTATION GUIDELINES AND REQUIREMENTS (FOR THE MULTI-USE PATHWAY)
- REMOVE 9,200 SQUARE FEET OF RIP-RAP DOWNSTREAM FROM THE CONCRETE CHANNEL AND RE-USE FOR BURIED SUB-TIDAL BANK EROSION PROTECTION.
- RE-USE OR RECYCLE ALL MATERIALS REMOVED FROM THE SITE (RIPRAP, CONCRETE, STEEL, EARTHEN FILL, VEGETATION, FENCING, ETC.).
- PER HYDRAULIC MODEL ANALYSIS NOT INCREASE FLOOD WATER SURFACE ELEVATIONS AT AND NEAR THE SITE.

DESIGN DOCUMENTS AND REFERENCES

- DESIGN BASIS REPORT, GEOMORPH DESIGN GROUP (JAN 31, 2022)
- GEOTECHNICAL INVESTIGATION REPORT, MILLER-PACIFIC (DEC 28, 2021)
- HYDRAULIC STUDY REPORT, STETSON ENGINEERS (MAR 15, 2022)
- DEWATERING PLAN, FRIENDS OF CORTE MADERA CREEK (NOV 27, 2020)
- MITIGATION MONITORING AND REPORTING PLAN, FRIENDS OF CORTE MADERA CREEK (NOV 22, 2020)
- DESIGN PLANS FOR VESTED POCKET PARK, PRUNUSKE-CHATHAM AND MARIN COUNTY PARKS
- ENVIRONMENTAL PERMITS (SEE SPECIFICATIONS SECTION 01 45 00 PERMITS)



Revisions:

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
3501 Civic Center Dr., Rm 304
San Rafael, CA 94903



COVER SHEET
CORTE MADERA CREEK
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
www.geomorphdesign.com



Date:
24 FEB 2022

Design by:
MS

Drawn by:
BRS

Checked by:
MS

Scale:
AS SHOWN

FINAL 100%
DESIGN PLAN
SUBMITTAL

C1



EXISTING CONDITIONS
DATE OF FLIGHT: 10 AUG 2021 (~1.8' NAVD88)
(SEDIMENTATION IN THE EARTHEN CHANNEL DOWNSTREAM FROM THE CONCRETE CHANNEL PREVENTS TIDE LEVEL IN THE CONCRETE CHANNEL FROM REDUCING BELOW RIFFLE ELEVATION (APPROX. 1.7' NAVD88, NOT SURVEYED).



PROPOSED CONDITIONS
DESIGN PLAN CONCEPT
(WATER LEVEL SHOWN AT 3.5' NAVD88)



EXISTING CONDITIONS
DATE OF FLIGHT: 5 FEB 2020 AT LOW TIDE (~0.4' NAVD88)
(SEDIMENTATION IN THE EARTHEN CHANNEL DOWNSTREAM FROM THE CONCRETE CHANNEL PREVENTS TIDE LEVEL IN THE CONCRETE CHANNEL FROM REDUCING BELOW RIFFLE ELEVATION (APPROX. 1.7' NAVD88, SURVEYED FEB 2020).



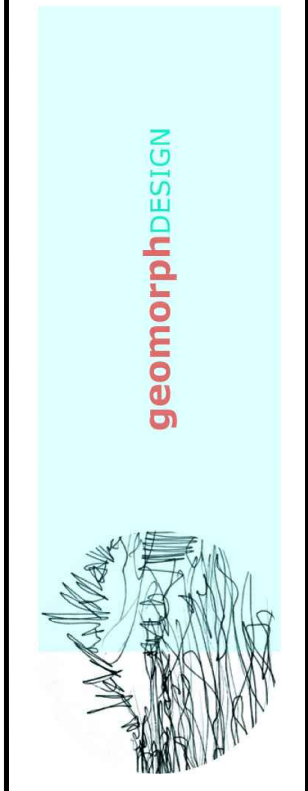
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AIR PHOTO DESIGN SIMULATION
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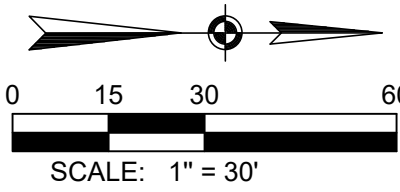


Date:
24 FEB 2022
Design by:
MS
Drawn by:
BRS
Checked by:
MS
Scale:
NTS
FINAL 100%
DESIGN PLAN
SUBMITTAL

C2

LEGEND

- 10 11
EXISTING CONTOURS
CORTE MADERA CREEK RIGHT OF WAY
PROPERTY LINE
SURVEY CONTROL POINT
SURVEY TOPO POINT (ELEV., DESCR)
EXISTING EDGE OF PAVEMENT
EXISTING EDGE OF GRAVEL PATH
EXISTING BUILDING LINE
(FROM MARINMAP GIS, APPROX.)
EXISTING LIVE TREE
UTILITIES LOCATED, MARKED, AND
SURVEYED FEB 2020



SUITABLE ALL PAVEMENT
CONSTRUCTION ACCESS
FROM COLLEGE AVENUE
(SEE SHEET C19 & C32 RE.
CONSTRUCTION ACCESS)

(E) ASPHALT PAVED EMERGENCY
VEHICLE TURN-AROUND LIMITS
LOCATED BY ORTHORECTIFIED
DRONE PHOTO DATED 10 AUG 2021

COLLEGE OF MARIN
MAINTENANCE &
OPERATIONS (M&O)
FACILITY

KENT MIDDLE SCHOOL
APN: 074-102-06

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
3601 Civic Center Dr., Rm 304
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EXISTING CONDITIONS SITE PLAN

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

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24 FEB 2022

Design by:
MS

Drawn by:
BRS

Checked by:
MS

Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C3

CONTROL POINTS (GEOMORPH DESIGN)

POINT #	DESCRIPTION	ELEV	EASTING	NORTHING
1	FD PNS	11.36	5971838.42	2175536.60
2	PNS	12.37	5972012.31	2175315.21
3	SPK	11.50	5971777.85	2175372.67
4	RBR	11.26	5971797.64	2175166.35
5	PNS	13.76	5971796.19	2175835.93
6	SPK TEMP	11.53	5971667.30	2175677.31
7	FD PNS	11.69	5971830.58	2175806.98
8	RBR TEMP	16.54	5971706.78	2175553.54
9	RBR TEMP	2.62	5971905.70	2175161.66
32	FD PNS	11.51	5971789.60	2175826.21
639	FD PNS	10.83	5971776.07	2175839.19

NOTE:

- NOT ALL CONTROL POINTS SHOWN DUE TO BEING OUT OF SHEET VIEW.
- CONTROL POINTS SET WITHIN COM M&O CONSTRUCTION SITE MAY BE DESTROYED.

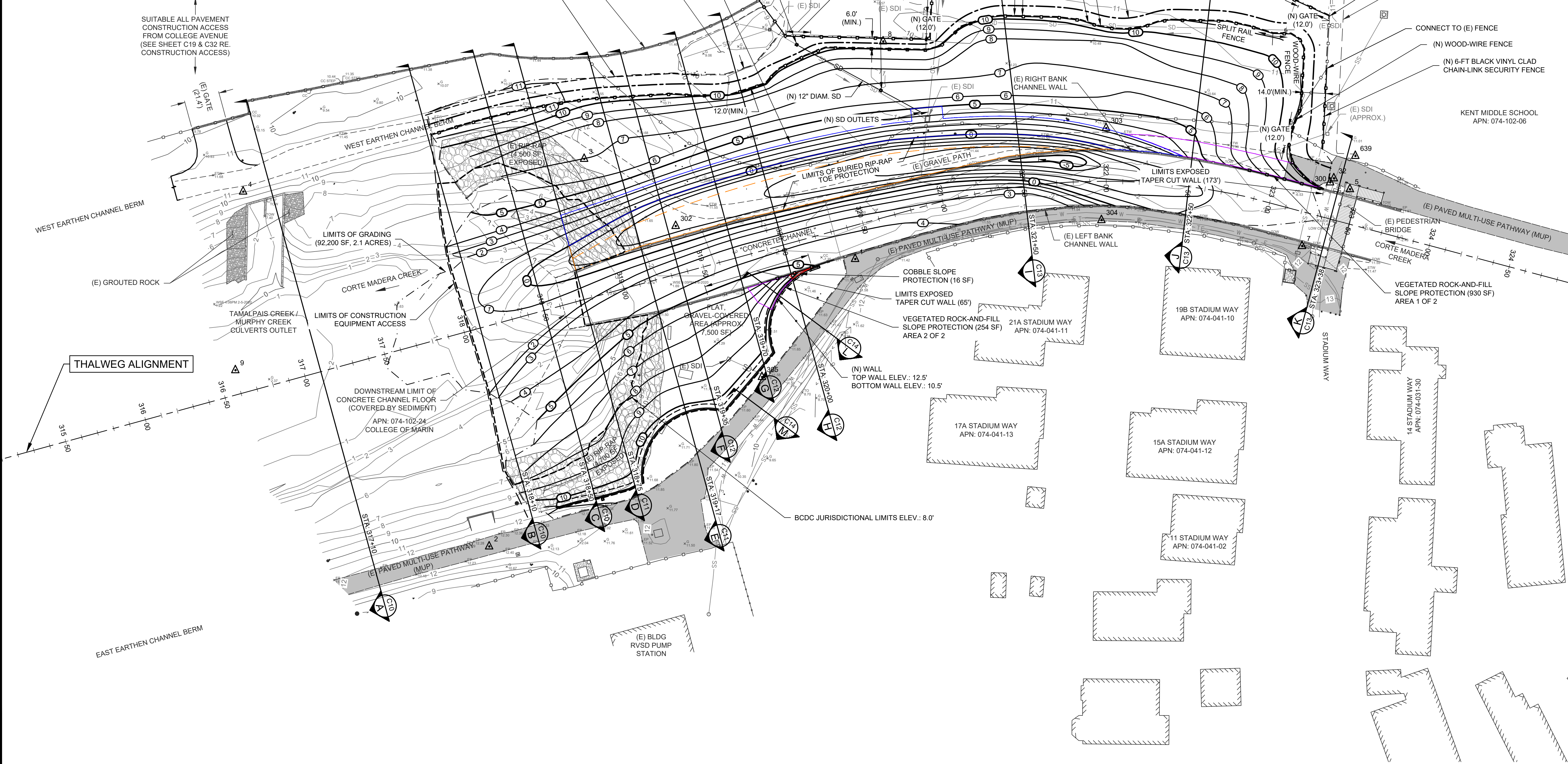
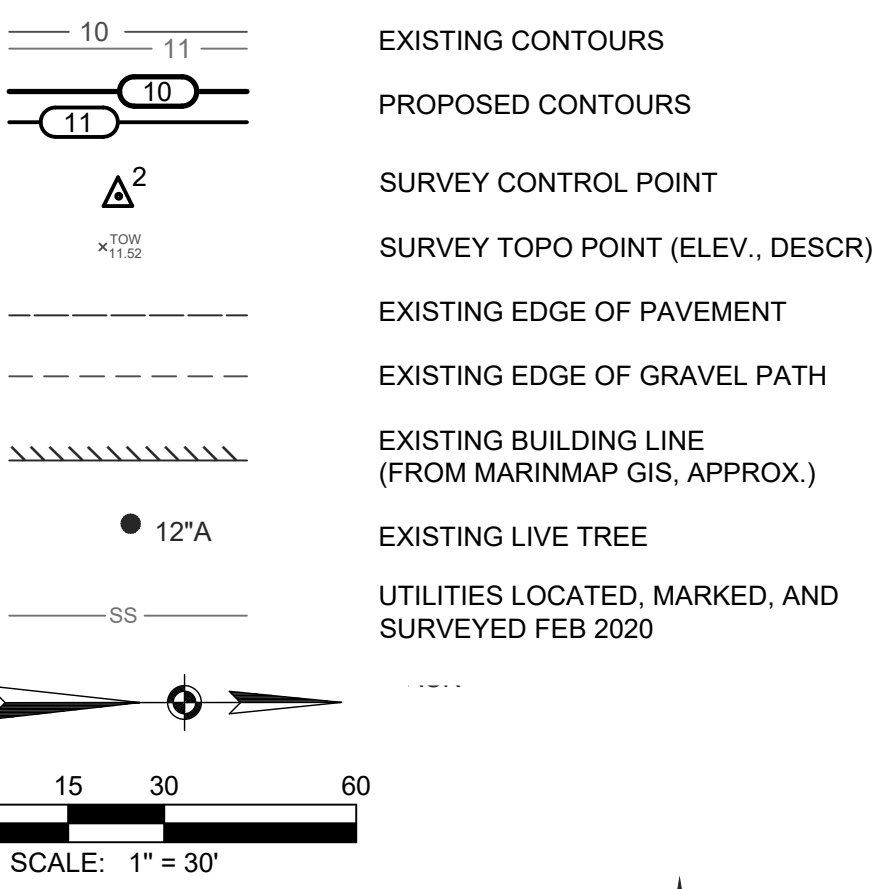
CONTROL POINTS (OBERKAMPER)

POINT #	DESCRIPTION	ELEV	EASTING	NORTHING
200	CEN MON	12.08	5970667.71	2175127.00
201	CEN MON	11.47	5970719.09	2175126.50
202	CEN MON	7.70	5972492.41	2175226.65
203	CEN MON	8.51	5972475.79	2174853.49
204	CEN MON	10.95	5972457.77	2174449.25
205	CEN MON	10.78	5972504.27	2174357.33
206	CEN MON	10.19	5972560.91	2174319.34
207	CEN MON	9.38	5972609.98	2174295.65
208	CEN MON	7.70	5972722.02	2174259.77
209	CEN MON	7.76	5972801.49	2174282.09
210	CEN MON	6.10	5973226.84	2174772.70
300	TMP CP NAIL	11.47	5971792.08	2175823.92
302	TMP CP NAIL	11.46	5971818.44	2175428.02
303	TMP CP NAIL	11.50	5971759.21	2175688.42
304	TMP CP NAIL	11.66	5971814.89	2175685.60
305	TMP CP MAG	11.56	5971909.79	2175480.22

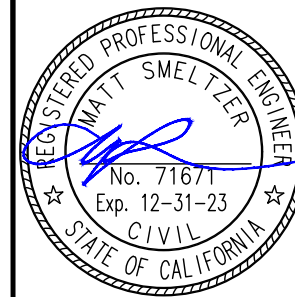
EXISTING CONDITIONS SITE PLAN

SCALE: 1" = 30'

LEGEND



DESIGN PLAN
SCALE: 1" = 30'



Revisions:

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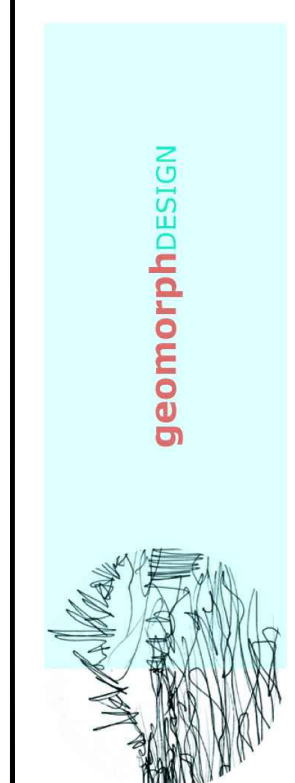
MARIN COUNTY
FLOOD CONTROL &
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DISTRICT

30-SCALE DESIGN PLAN

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
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Date:
24 FEB 2022

Design by:
MS

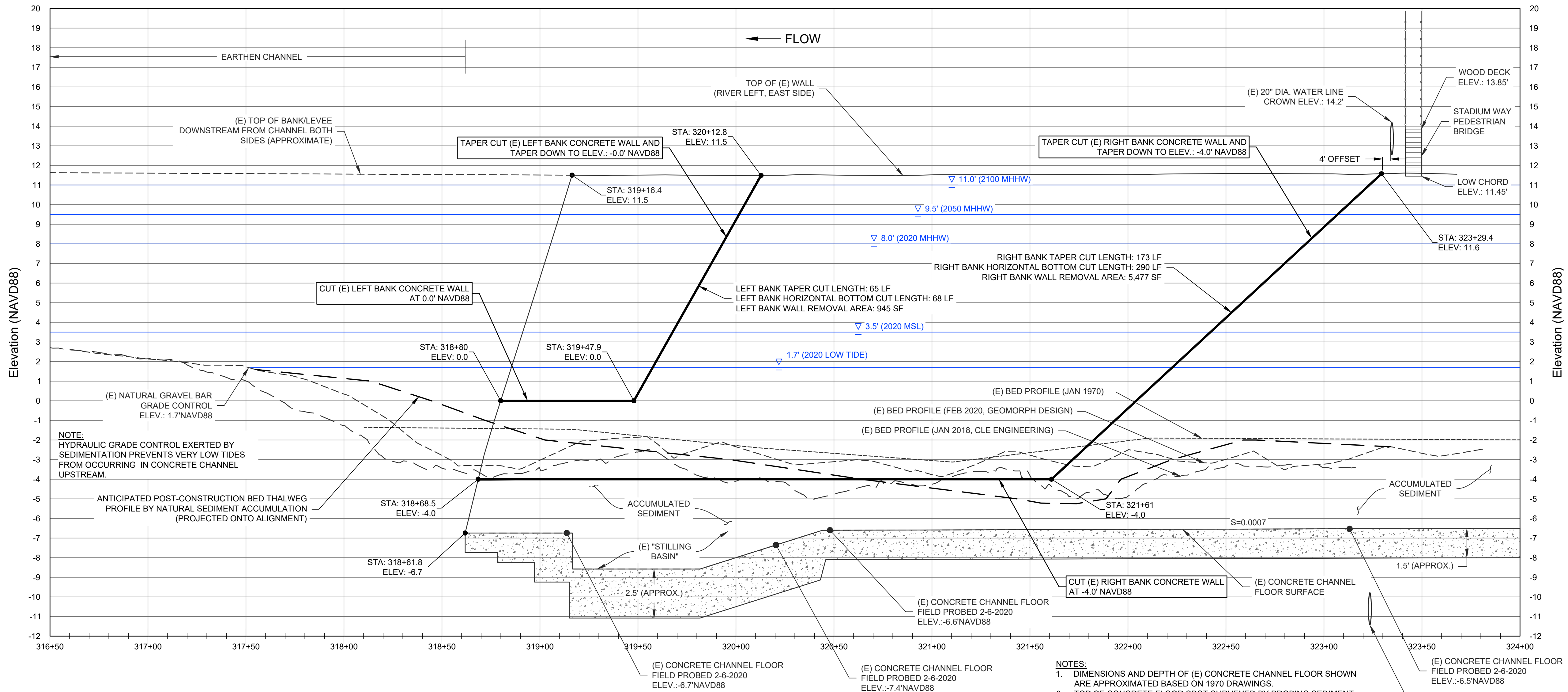
Drawn by:
BRS

Checked by:
MS

Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C4



- NOTES:
1. FUTURE MHHW ESTIMATED FOR FUTURE SEA LEVEL RISE
 2. WSE ELEV.: 1.7'NAVD88 AT 4:05pm 2-6-2020
(LOW TIDE ELEV.: -0.7'NAVD88 AT 4:26PM 2-6-2020)
 3. LOW TIDE IN CONCRETE CHANNEL CONTROLLED BY NATURAL GRAVEL BAR IN EARTHEN CHANNEL AND AFFECTED BY DREDGING MAINTENANCE, IF ANY.

- NOTES:
1. DIMENSIONS AND DEPTH OF (E) CONCRETE CHANNEL FLOOR SHOWN ARE APPROXIMATED BASED ON 1970 DRAWINGS.
 2. TOP OF CONCRETE FLOOR SPOT SURVEYED BY PROBING SEDIMENT 2-6-2020 IN PLACES TO CONFIRM FLOOR MATCHES 1970 RECORD DRAWINGS.
 3. ALL STEEL REINFORCEMENT TO BE TORCHED TO MINIMUM 3" DEPTH BELOW CUT WALL PROFILE (SEE SAW-CUT WALL CAP FINISH DETAIL, SHEET C30). CONTRACTOR TO VERIFY STEEL REINFORCEMENT. RECORD DRAWINGS SHOW 2 ROWS OF #4 BAR 12" O.C.
 4. NEW SAFETY FENCING TO BE INSTALLED PART-WAY DOWN FINISHED TAPER CUT WALLS. SEE FENCE AND GATE PLAN, SHEET C27.

(E) CONCRETE CHANNEL FLOOR
FIELD PROBED 2-6-2020
ELEV.: -6.5'NAVD88

(E) SANITARY SEWER SIPHON LOCATED
UNDER CONCRETE CHANNEL.
DIMENSIONS AND DEPTH UNKNOWN,
SHOWN APPROXIMATE.

PROFILE VIEW
SCALE: H:1" = 30', V:1" = 3'



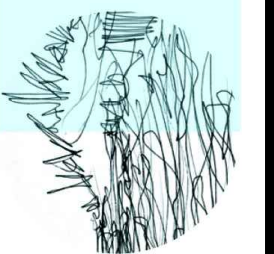
Revisions:

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FLOOD CONTROL &
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DESIGN LONGITUDINAL PROFILE
CORTE MADERA CREEK
LOWER COMI CORTE MADERA CREEK RESTORATION PROJECT

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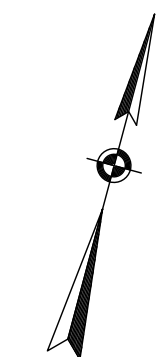
Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
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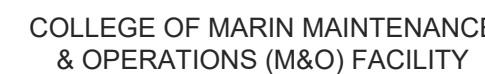
C5

Legend:

- 10 11
- 11 10
- 2
- TOPO
- 11 12
- 12°A
- 12°A
- SS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- CORTE MADERA CREEK RIGHT OF WAY
- PROPERTY LINE
- SURVEY CONTROL POINT
- SURVEY TOPO POINT (ELEV., DESCR)
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL PATH
- EXISTING BUILDING LINE
(FROM MARINMAP GIS, APPROX.)
- EXISTING LIVE TREE
- EXISTING LIVE TREE TO BE REMOVED
- UTILITIES LOCATED, MARKED, AND
SURVEYED FEB 2020



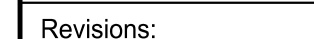
1. CONTRACTOR TO POTHOLE TO CONFIRM LOCATION AND DEPTH OF SS LINE THIS VICINITY FOR (N) FENCE POST LOCATIONS TO CONFORM
2. CONTRACTOR PROTECT SD LINE IN PLACE DURING ROUGH GRADING ACTIVITIES AND EXPOSE FOR INSPECTION. SD ALIGNMENT, ELEVATION, SLOPE, AND DISCHARGE POINT TO BE VERIFIED BY CONTRACTOR. AVOID CONFLICTS WITH (N) FENCE POSTS LOCATIONS.



REAR FACE OF
(F) BUILDING

DESIGN PLAN

SCALE: 1" = 10'



MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
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San Rafael, CA 94903



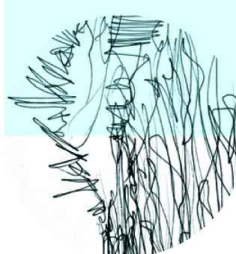
10-SCALE DESIGN PLAN (1 OF 4)

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
www.geomorphdesign.com

geomorphDESIGN



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Design by:
MS

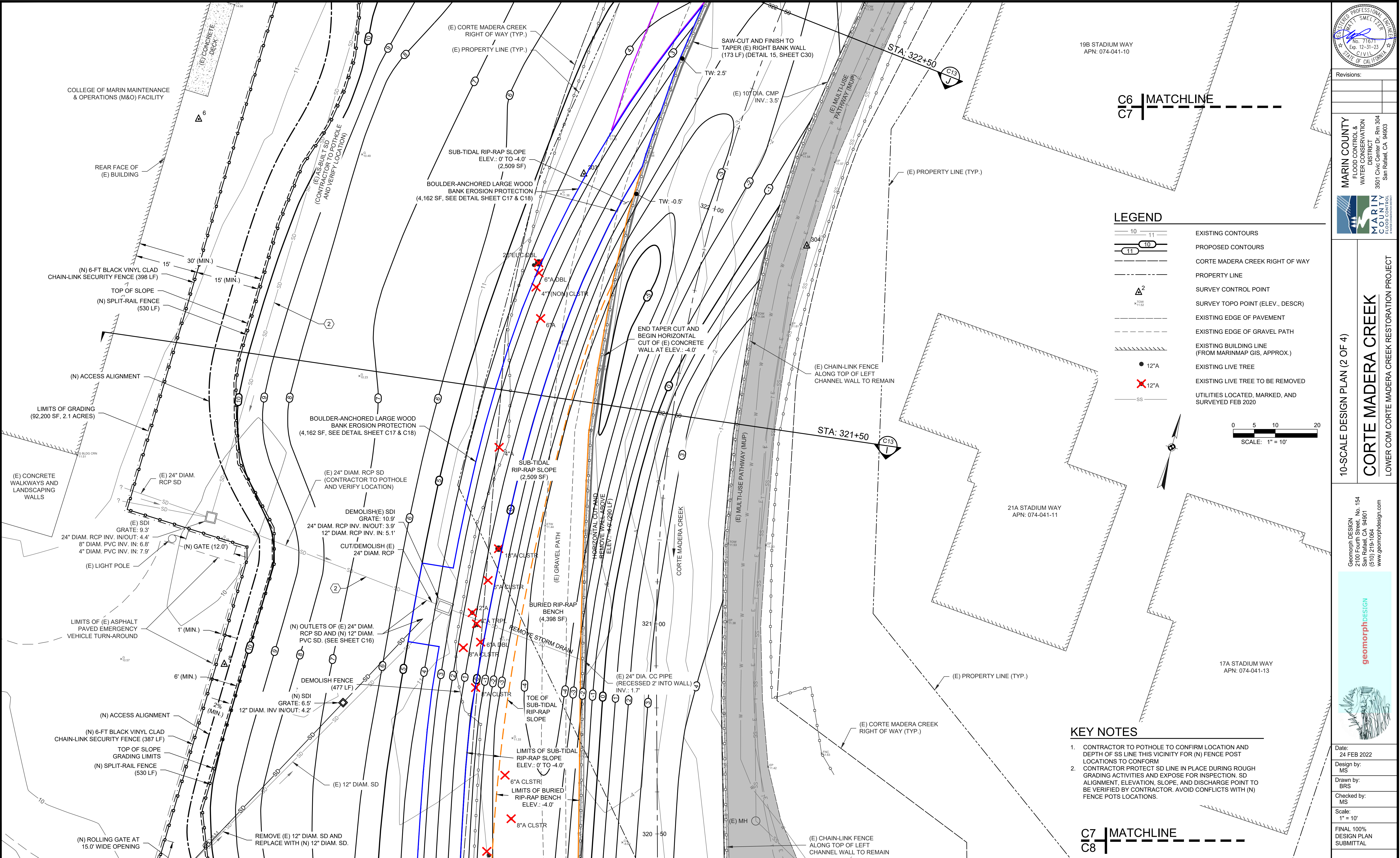
Drawn by:
BRS

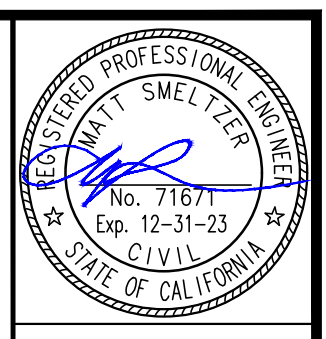
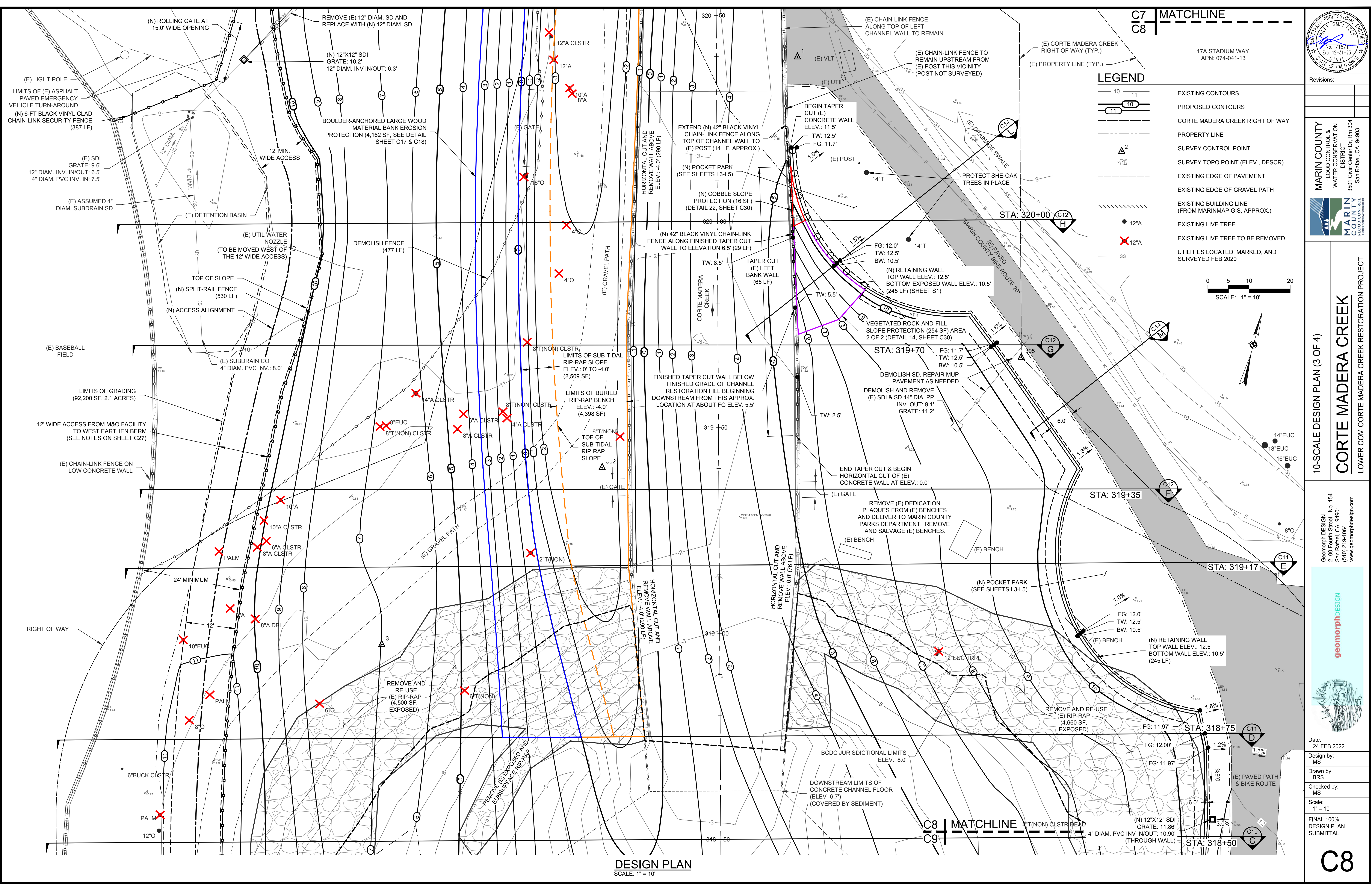
Checked by:
MS

Scale:
1" = 10'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C6





Revisions:

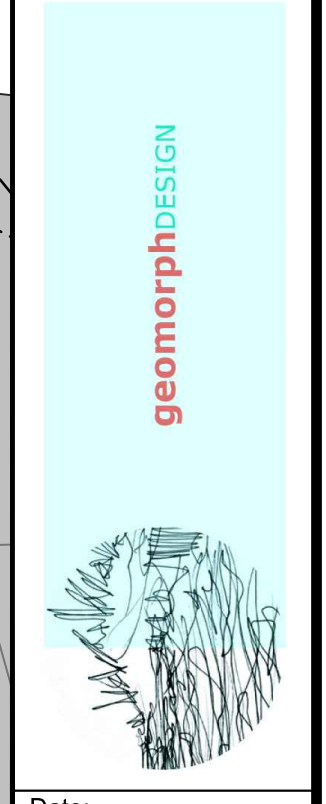
MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT, Rm 304
3601 Civic Center Dr., San Rafael, CA 94903

10-SCALE DESIGN PLAN (3 OF 4)

CORTE MADERA CREEK

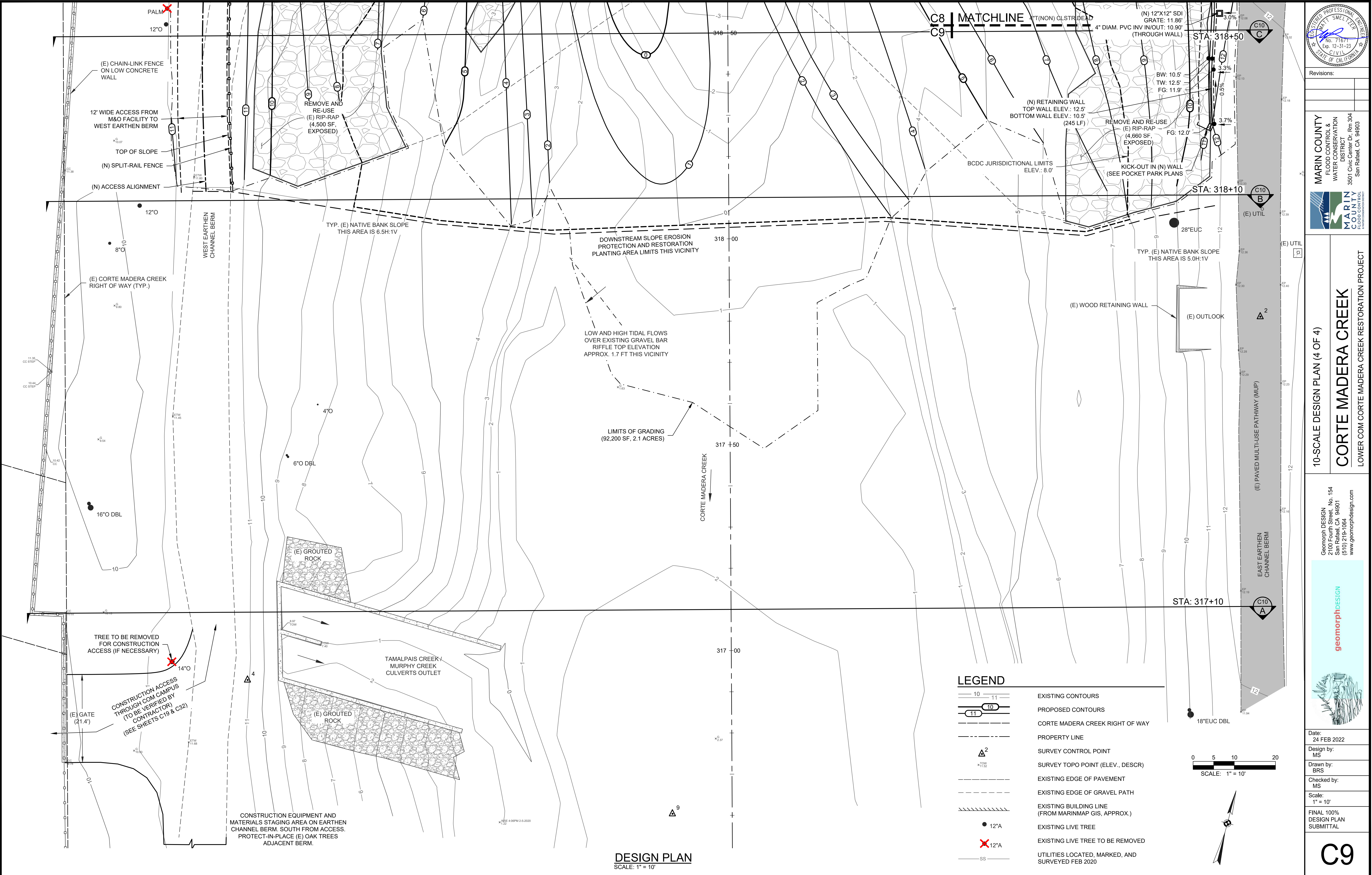
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

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Date: 24 FEB 2022
Design by: MS
Drawn by: BRS
Checked by: MS
Scale: 1" = 10'
FINAL 100%
DESIGN PLAN
SUBMITTAL

C8



SEALED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
No. 71671
Exp. 12-31-23
CIVIL

Revisions:

MARIN COUNTY
FLOOD CONTROL &
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MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

10-SCALE DESIGN PLAN (4 OF 4)

CORTE MADERA CREEK

LOWER COMI CORTE MADERA CREEK RESTORATION PROJECT

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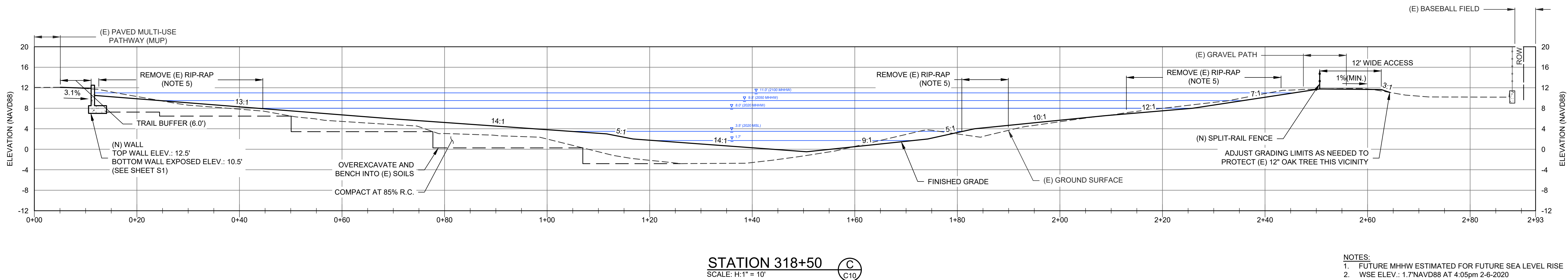
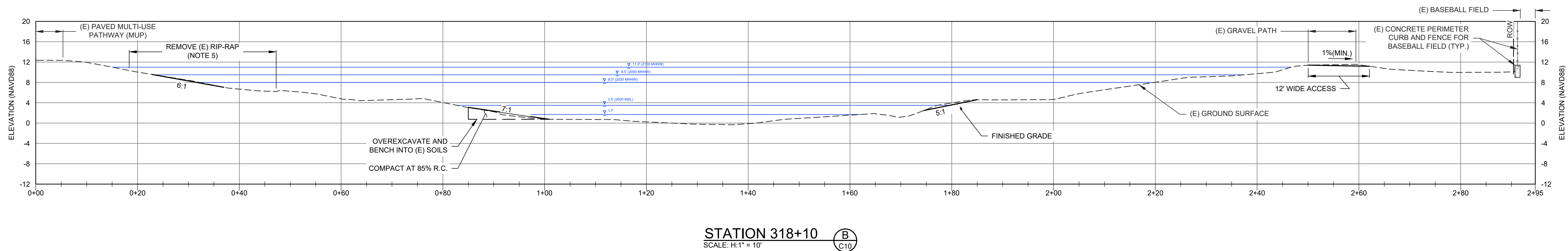
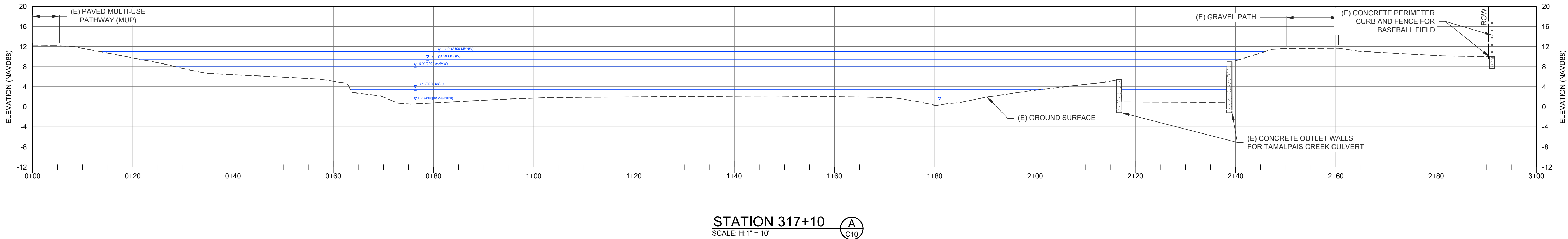
Drawn by:
BRS

Checked by:
MS

Scale:
1" = 10'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C9



- NOTES:
1. FUTURE MHW ESTIMATED FOR FUTURE SEA LEVEL RISE
 2. WSE ELEV.: 1.7' NAVD88 AT 4:05pm 2-6-2020 (LOW TIDE ELEV.: -0.7' NAVD88 AT 4:26PM 2-6-2020)
 3. LOW TIDE IN CONCRETE CHANNEL CONTROLLED BY NATURAL GRAVEL BAR IN EARTHEN CHANNEL AND AFFECTED BY DREDGING MAINTENANCE, IF ANY.
 4. SLOPES LISTED HORIZONTAL TO VERTICAL FORMAT (H:V)
 5. REMOVE COMPLETE EXTENT OF (E) RIP-RAP IN SECTION/AREA, SOME OF WHICH IS COVERED BY SEDIMENT AND VEGETATION.



Revisions:

No.	Description	By	Date

MARIN COUNTY
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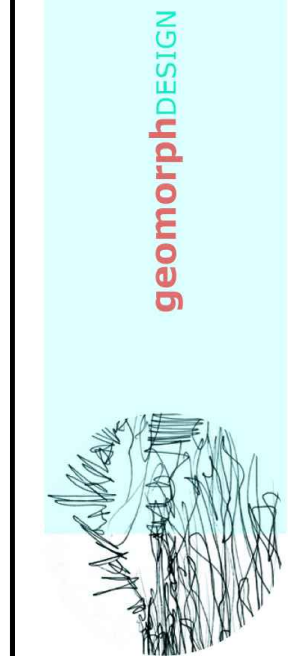
MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

TYPICAL SECTIONS (1 OF 5)

CORTE MADERA CREEK

LOWER COMI CORTE MADERA CREEK RESTORATION PROJECT

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Date:
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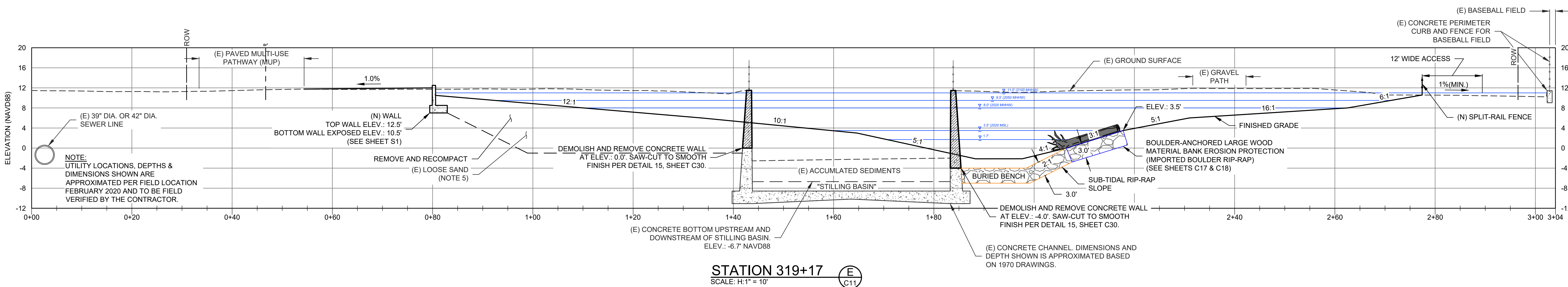
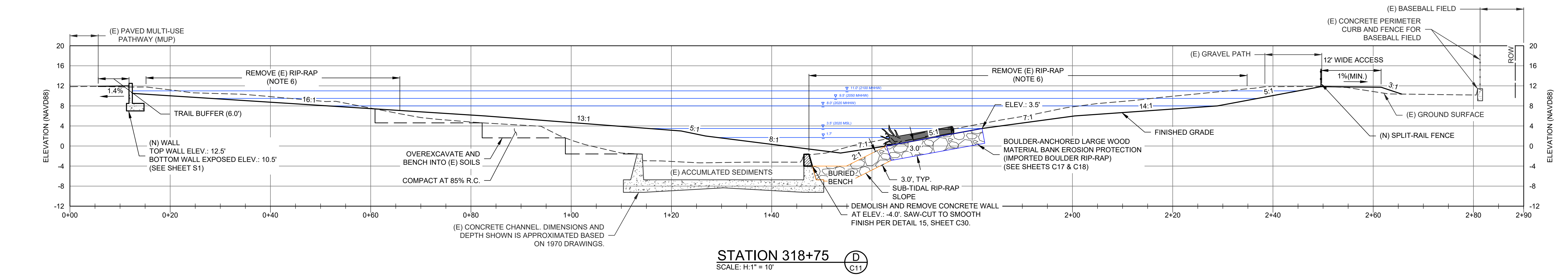
Drawn by:
BRS

Checked by:
MS

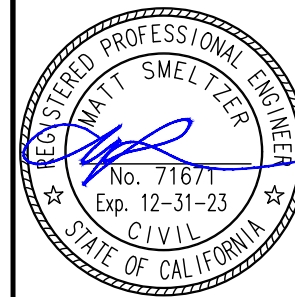
Scale:
1" = 10'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C10



- NOTES:
1. FUTURE MHHW ESTIMATED FOR FUTURE SEA LEVEL RISE
 2. WSE ELEV.: 1.7' NAVD88 AT 4:05pm 2-6-2020 (LOW TIDE ELEV.: -0.7' NAVD88 AT 4:26PM 2-6-2020)
 3. LOW TIDE IN CONCRETE CHANNEL CONTROLLED BY NATURAL GRAVEL BAR IN EARTHEN CHANNEL AND AFFECTED BY GREDGING MAINTENANCE, IF ANY.
 4. SLOPES LISTED HORIZONTAL TO VERTICAL FORMAT (H:V)
 5. GEOTECHNICAL INVESTIGATION REPORT CONTAINS RECOMMENDATIONS TO MITIGATE LIQUEFIABLE SANDS ENCOUNTERED IN BORING MADE ON THE LEFT BANK THIS VICINITY (MPEG 2021)
 6. REMOVE COMPLETE EXTENT OF (E) RIP-RAP IN SECTION/AREA, SOME OF WHICH IS COVERED BY SEDIMENT AND VEGETATION.



Revisions:

NO.	DESCRIPTION	DATE

MARIN COUNTY
FLOOD CONTROL &
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DISTRICT
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San Rafael, CA 94903

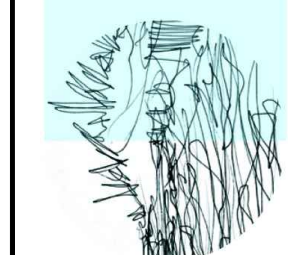
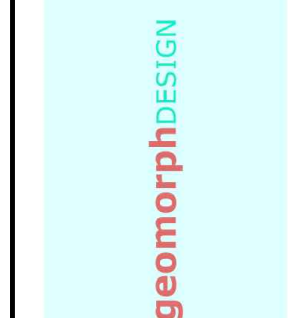
MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

TYPICAL SECTIONS (2 OF 5)

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

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Date:
24 FEB 2022

Design by:
MS

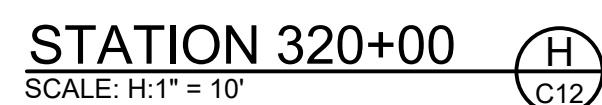
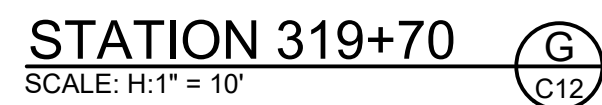
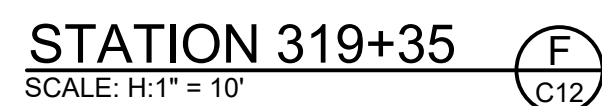
Drawn by:
BRS

Checked by:
MS

Scale:
1" = 10'

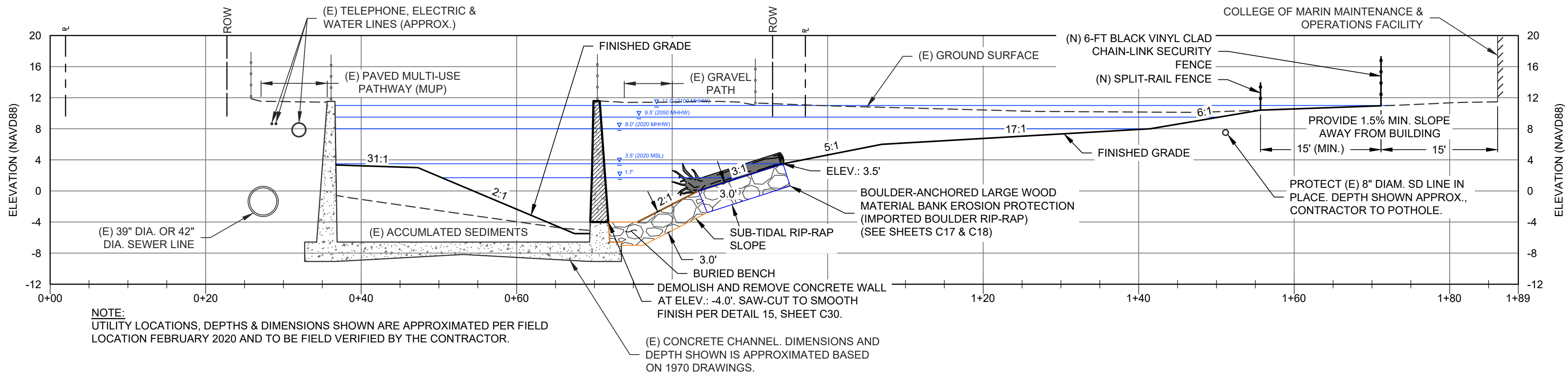
FINAL 100%
DESIGN PLAN
SUBMITTAL

C11



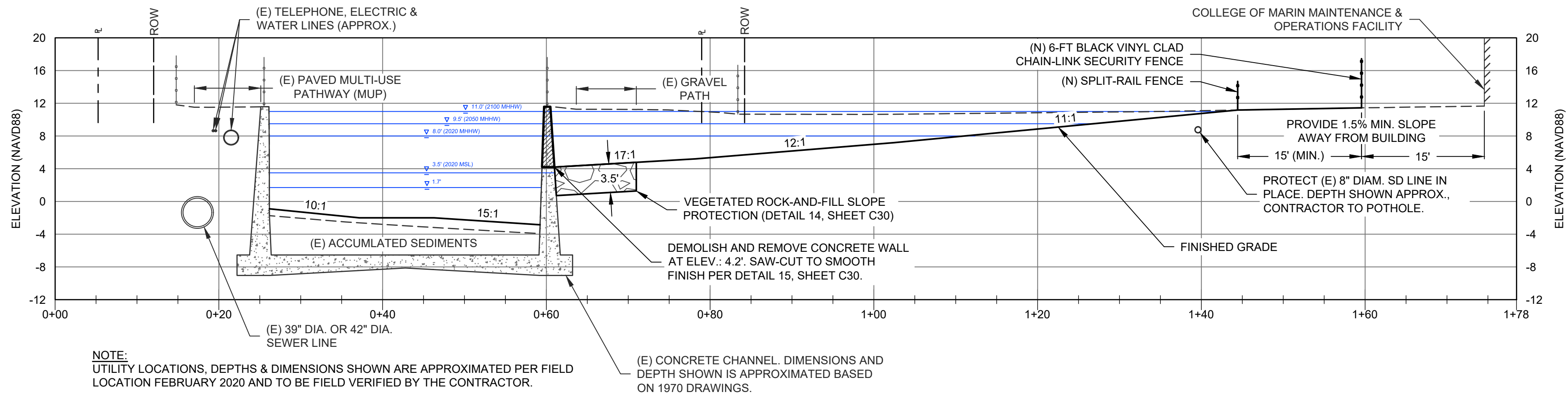
- NOTES:**
1. FUTURE MHHW ESTIMATED FOR FUTURE SEA LEVEL RISE
 2. WSE ELEV.: 1.7'NAD88 @ 4:05pm 2-6-2020
(LOW TIDE ELEV.: 0.7'NAD88 @ 4:26PM 2-6-2020)
 3. LOW TIDE IN CONCRETE CHANNEL CONTROLLED BY NATURAL GRAVEL BAR IN EARTHEN CHANNEL AND AFFECTED BY DREDGING MAINTENANCE, IF ANY.
 4. SLOPES LISTED HORIZONTAL TO VERTICAL FORMAT (H:V)
 5. GEOTECHNICAL INVESTIGATION REPORT CONTAINS RECOMMENDATIONS TO MITIGATE LIQUEFIABLE SANDS ENCOUNTERED IN BORING MADE ON THE LEFT BANK THIS VICINITY (MPEG 2021)





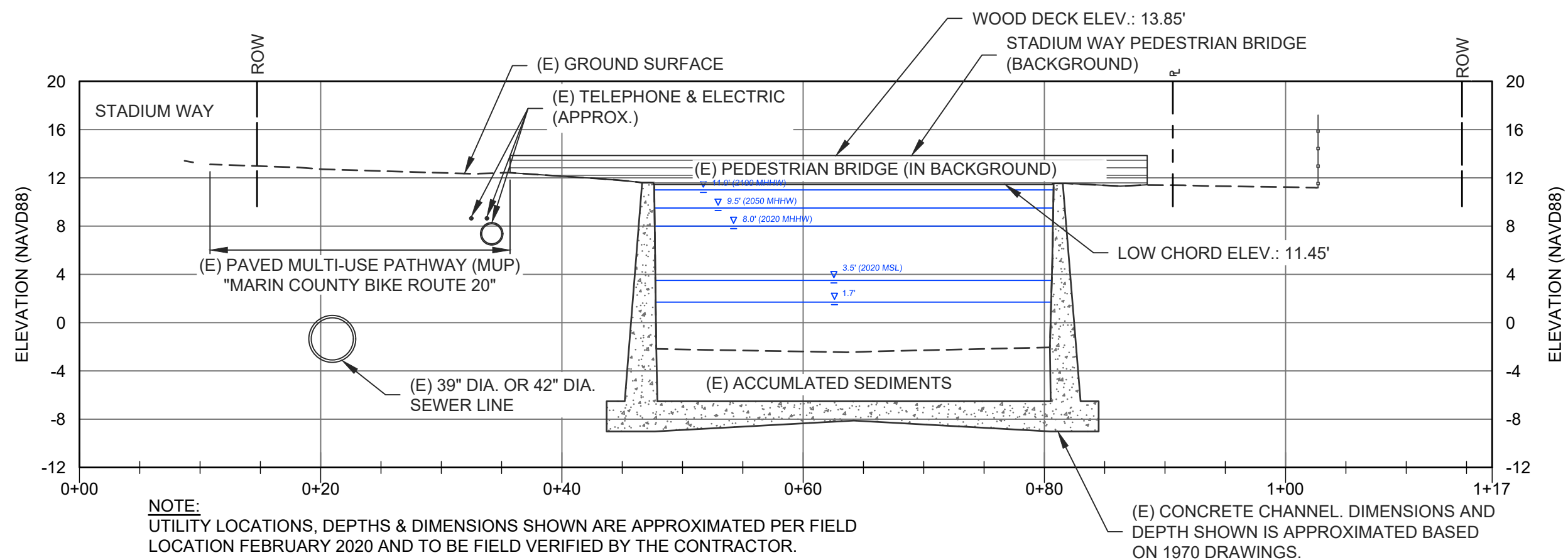
STATION 321+50
SCALE: H:1" = 10'

C13



STATION 322+50
SCALE: H:1" = 10'

C13



STATION 323+38
SCALE: H:1" = 10'

C13

- NOTES:
1. FUTURE MHHW ESTIMATED FOR FUTURE SEA LEVEL RISE
 2. WSE ELEV.: 1.7' NAVD88 AT 4:05pm 2-6-2020
(LOW TIDE ELEV.: -0.7' NAVD88 AT 4:26pm 2-6-2020)
 3. LOW TIDE IN CONCRETE CHANNEL CONTROLLED BY NATURAL GRAVEL BAR IN EARTHEN CHANNEL AND AFFECTED BY DREDGING MAINTENANCE, IF ANY.
 4. SLOPES LISTED HORIZONTAL TO VERTICAL FORMAT (H:V)



Revisions:

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
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San Rafael, CA 94903



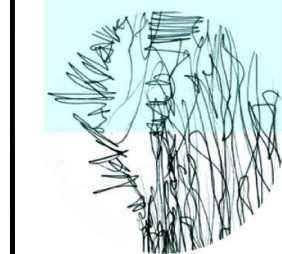
TYPICAL SECTIONS (4 OF 5)

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

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Drawn by:
BRS

Checked by:
MS

Scale:
1" = 10'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C13



Revisions:

MARIN COUNTY
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DISTRICT
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San Rafael, CA 94903

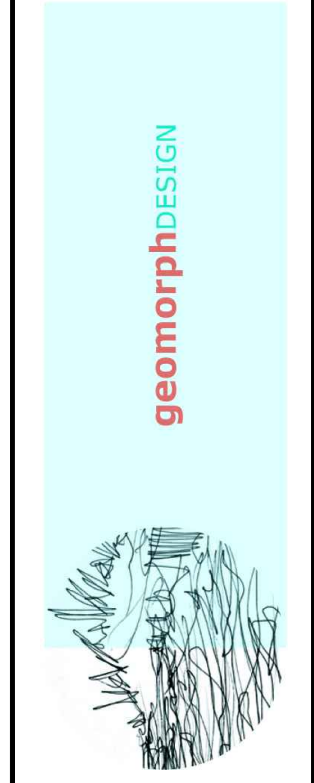
MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

TYPICAL SECTIONS (5 OF 5)

CORTE MADERA CREEK

LOWER COMI CORTE MADERA CREEK RESTORATION PROJECT

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Date:
24 FEB 2022

Design by:
MS

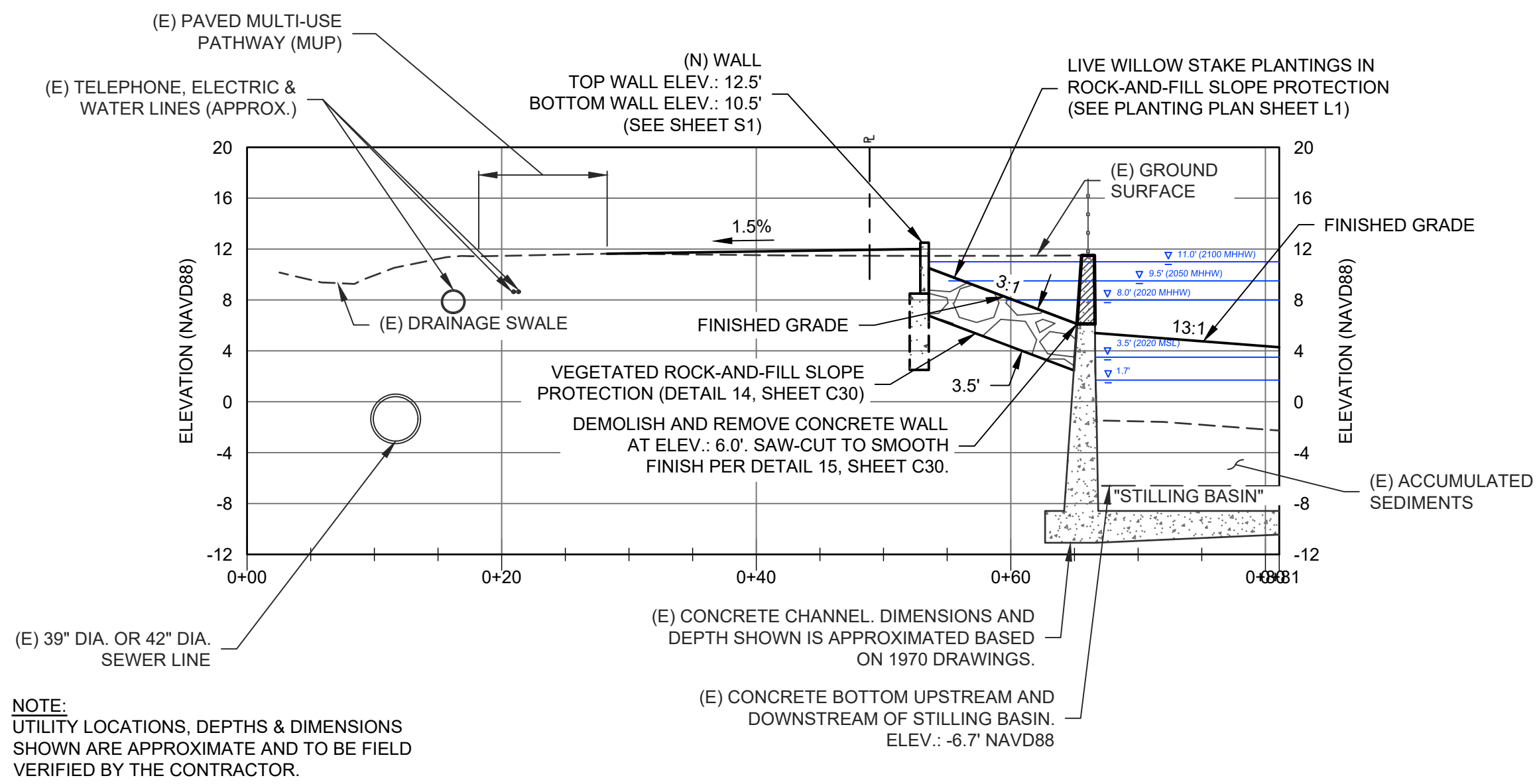
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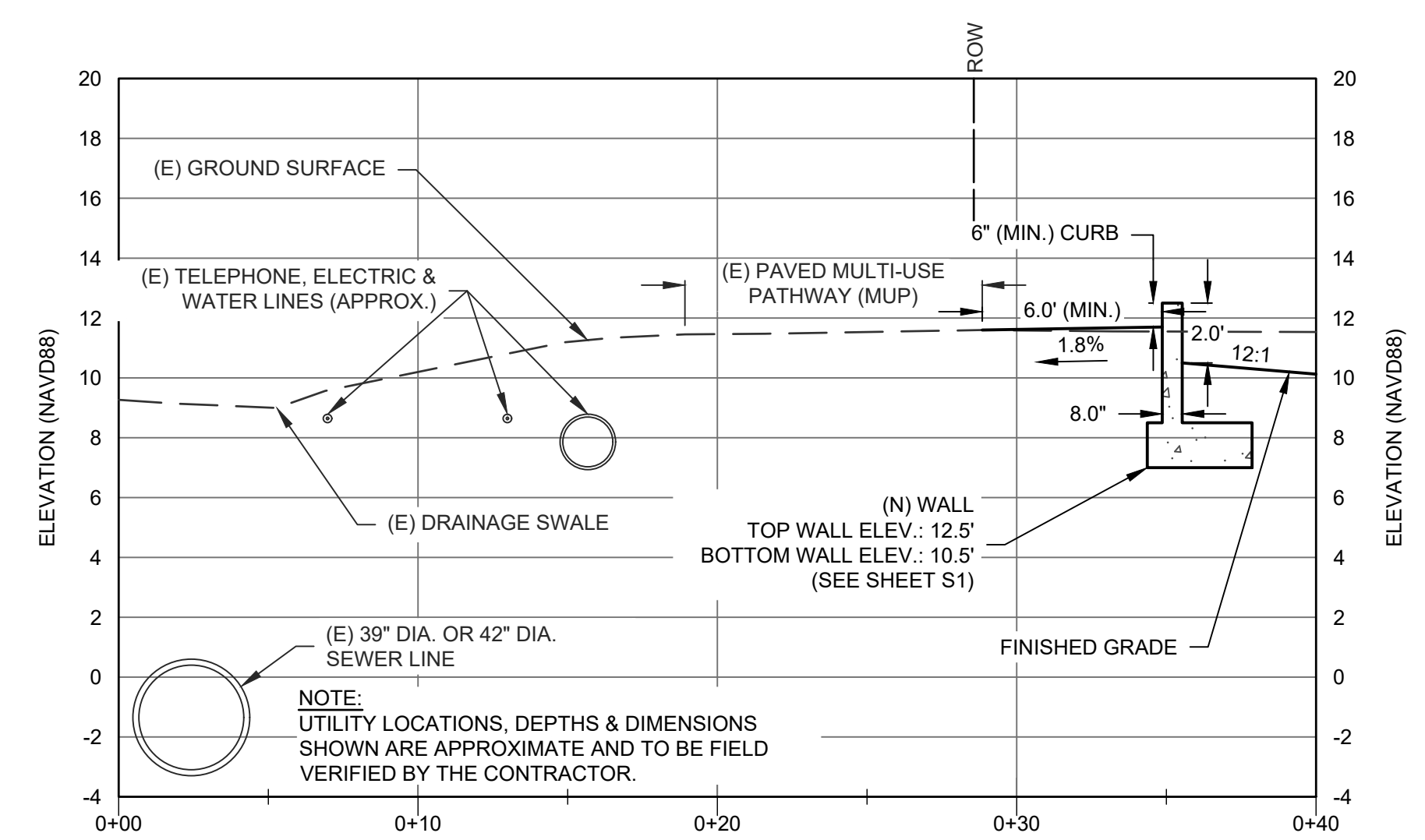
Scale:
1" = 10'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C14



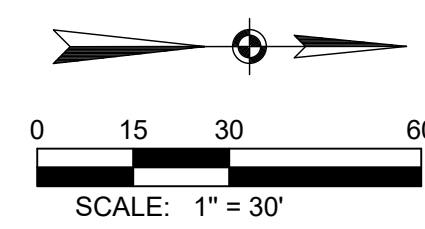
SECTION L
SCALE: H:1" = 10'



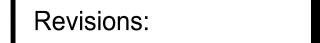
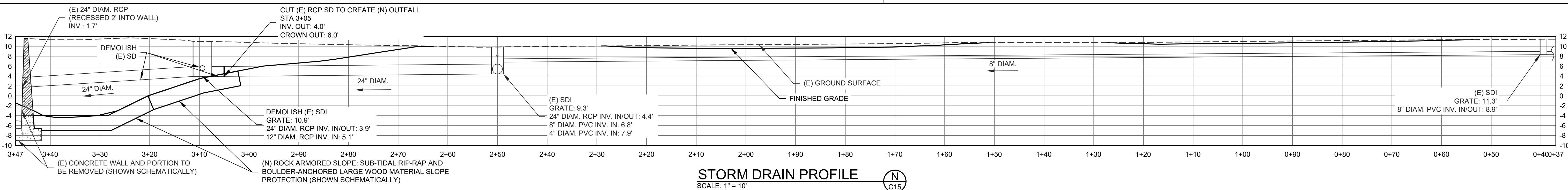
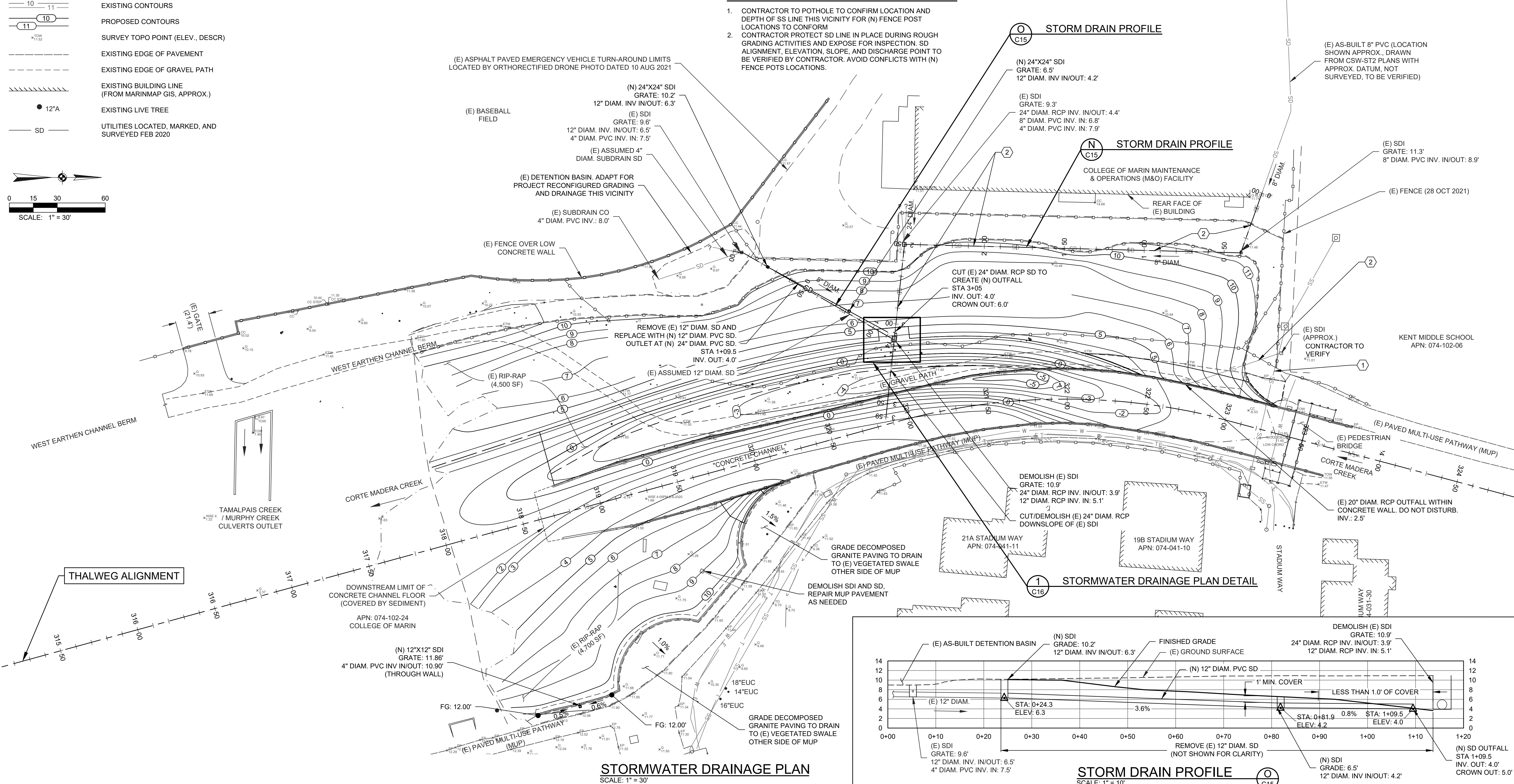
SECTION M
SCALE: H:1" = 5'

- NOTES:
- FUTURE MHHW ESTIMATED FOR FUTURE SEA LEVEL RISE
 - WSE ELEV.: 1.7' NAVD88 AT 4:05pm 2-6-2020
(LOW TIDE ELEV.: -0.7' NAVD88 AT 4:26PM 2-6-2020)
 - LOW TIDE IN CONCRETE CHANNEL CONTROLLED BY NATURAL GRAVEL BAR IN EARTHEN CHANNEL AND AFFECTED BY DREDGING MAINTENANCE, IF ANY.
 - SLOPES LISTED HORIZONTAL TO VERTICAL FORMAT (H:V)

	EXISTING CONTOURS
	PROPOSED CONTOURS
	SURVEY TOPO POINT (ELEV., DESCR)
	EXISTING EDGE OF PAVEMENT
	EXISTING EDGE OF GRAVEL PATH
	EXISTING BUILDING LINE (FROM MARINMAP GIS, APPROX.)
	EXISTING LIVE TREE
	UTILITIES LOCATED, MARKED, AND SURVEYED FEB 2020



1. CONTRACTOR TO POTHOLE TO CONFIRM LOCATION AND DEPTH OF SS LINE THIS VICINITY FOR (N) FENCE POST LOCATIONS TO CONFORM
2. CONTRACTOR PROTECT SD LINE IN PLACE DURING ROUGH GRADING ACTIVITIES AND EXPOSE FOR INSPECTION. SD ALIGNMENT, ELEVATION, SLOPE, AND DISCHARGE POINT TO BE VERIFIED BY CONTRACTOR. AVOID CONFLICTS WITH (N) FENCE POSTS LOCATIONS.



MARIN COUNTY
FLOOD CONTROL &
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San Rafael, CA 94903



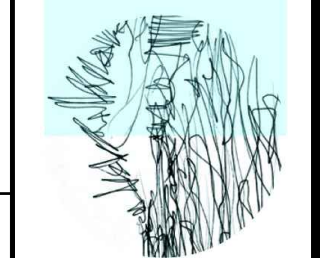
STORMWATER DRAINAGE PLAN

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

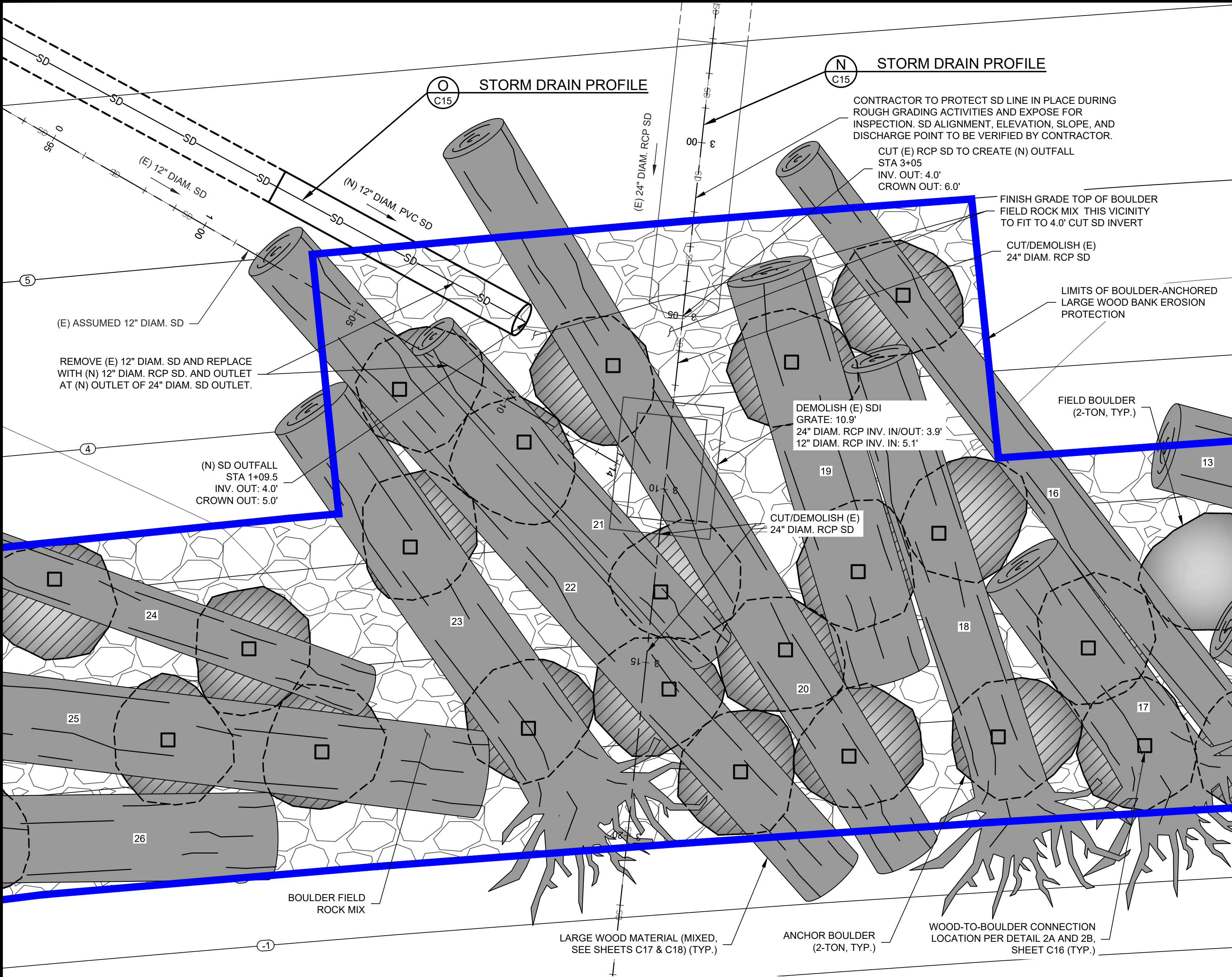
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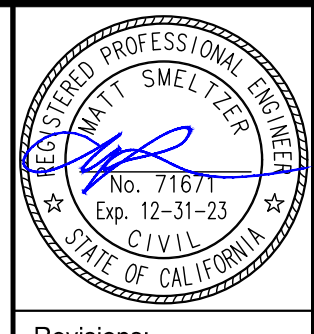
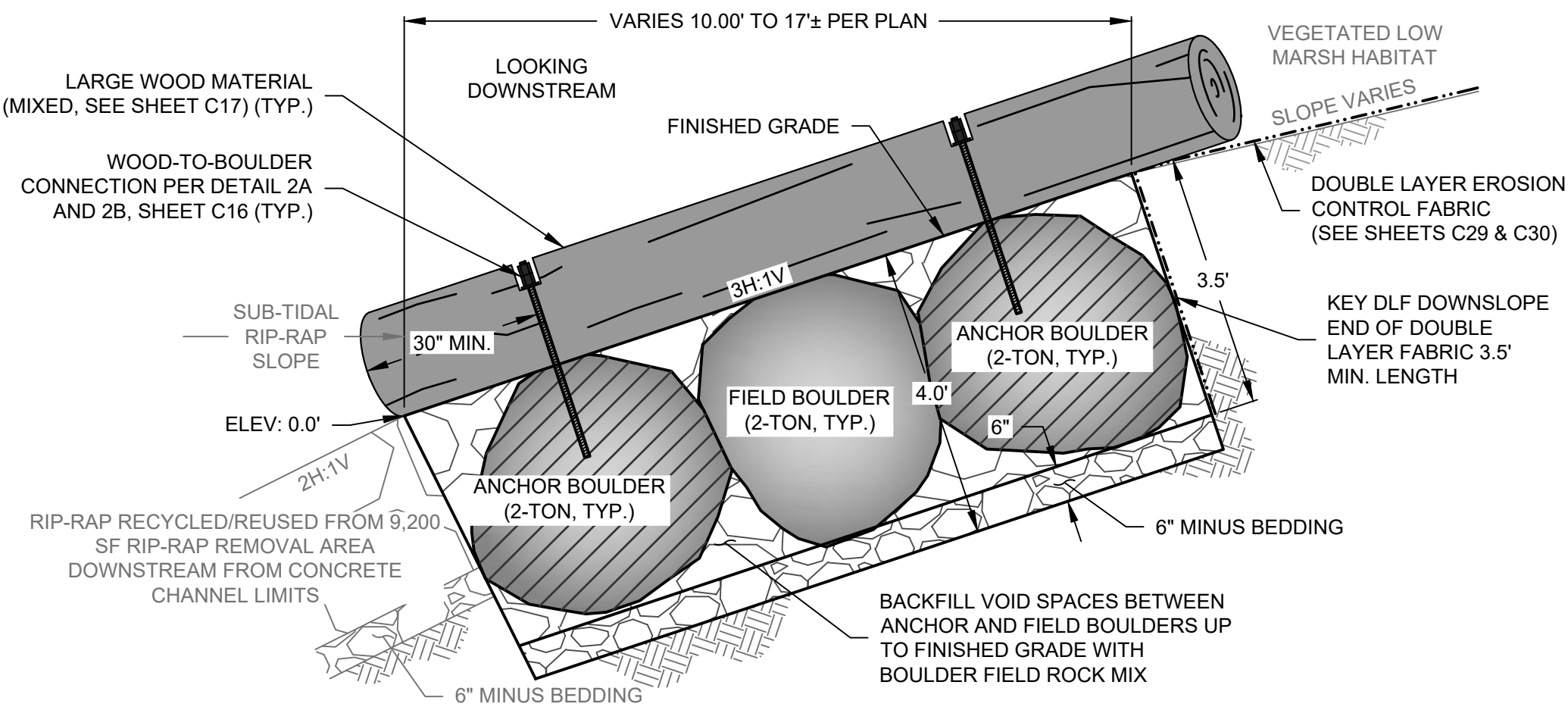
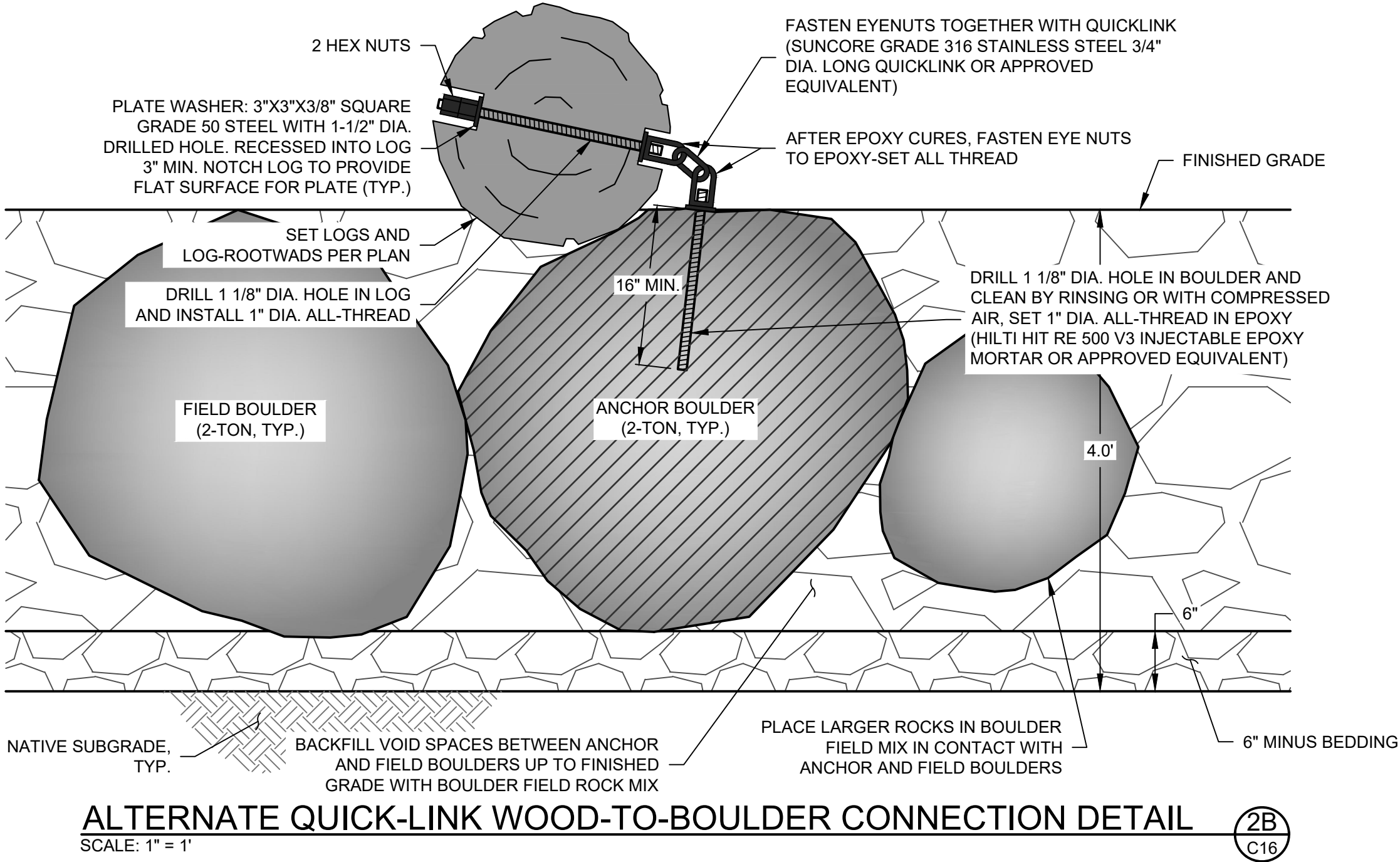
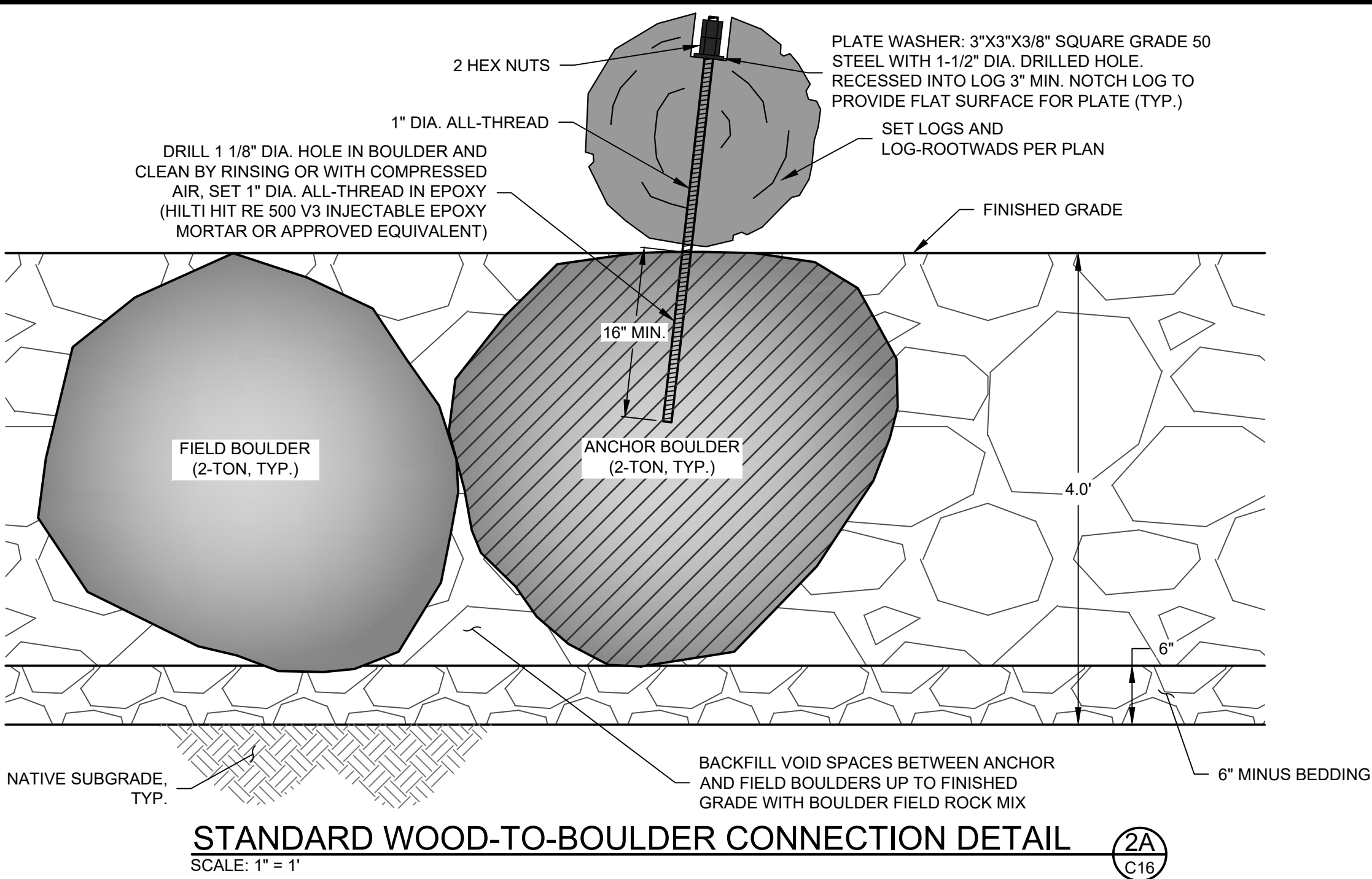
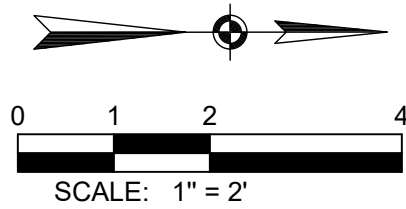
Date:	24 FEB 2022
Design by:	MS
Drawn by:	BRS
Checked by:	MS
Scale:	1" = 30'
FINAL 100% DESIGN PLAN SUBMITTAL	

C15



STORMWATER DRAINAGE PLAN DETAIL
SCALE: 1" = 2'
1 C16

- LEGEND**
- 10 11 EXISTING CONTOURS
 - 10 PROPOSED CONTOURS



Revisions:

No.	Description	By	Date

MARIN COUNTY
FLOOD CONTROL &
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DISTRICT
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San Rafael, CA 94903

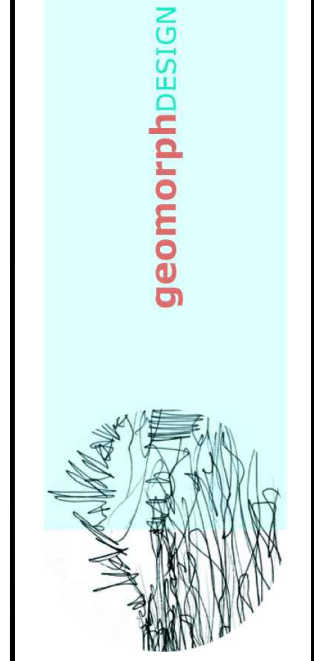
MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

STORMWATER OUTFALL AND WOOD CONNECTION
DETAILS

CORTE MADERA CREEK

LOWER COMI CORTE MADERA CREEK RESTORATION PROJECT

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Date:
24 FEB 2022

Design by:
MS

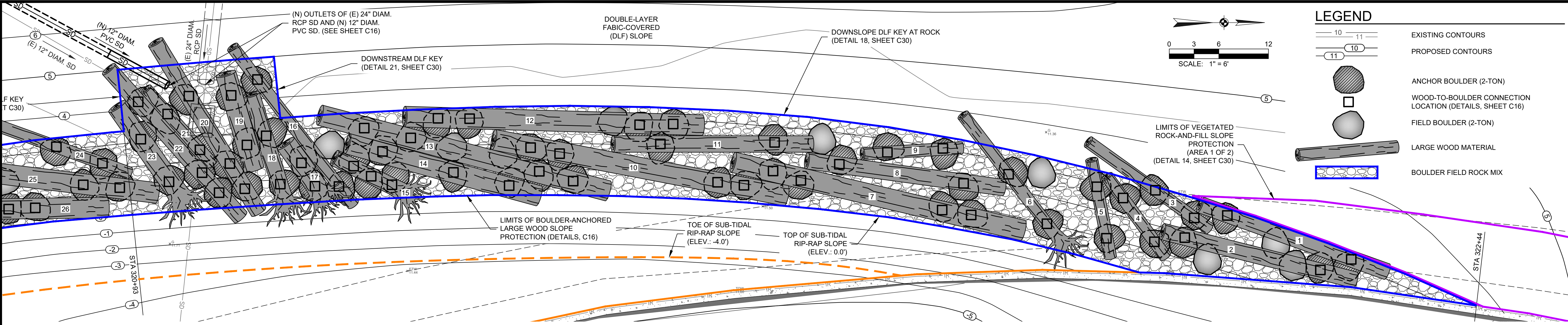
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BRS

Checked by:
MS

Scale:
AS SHOWN

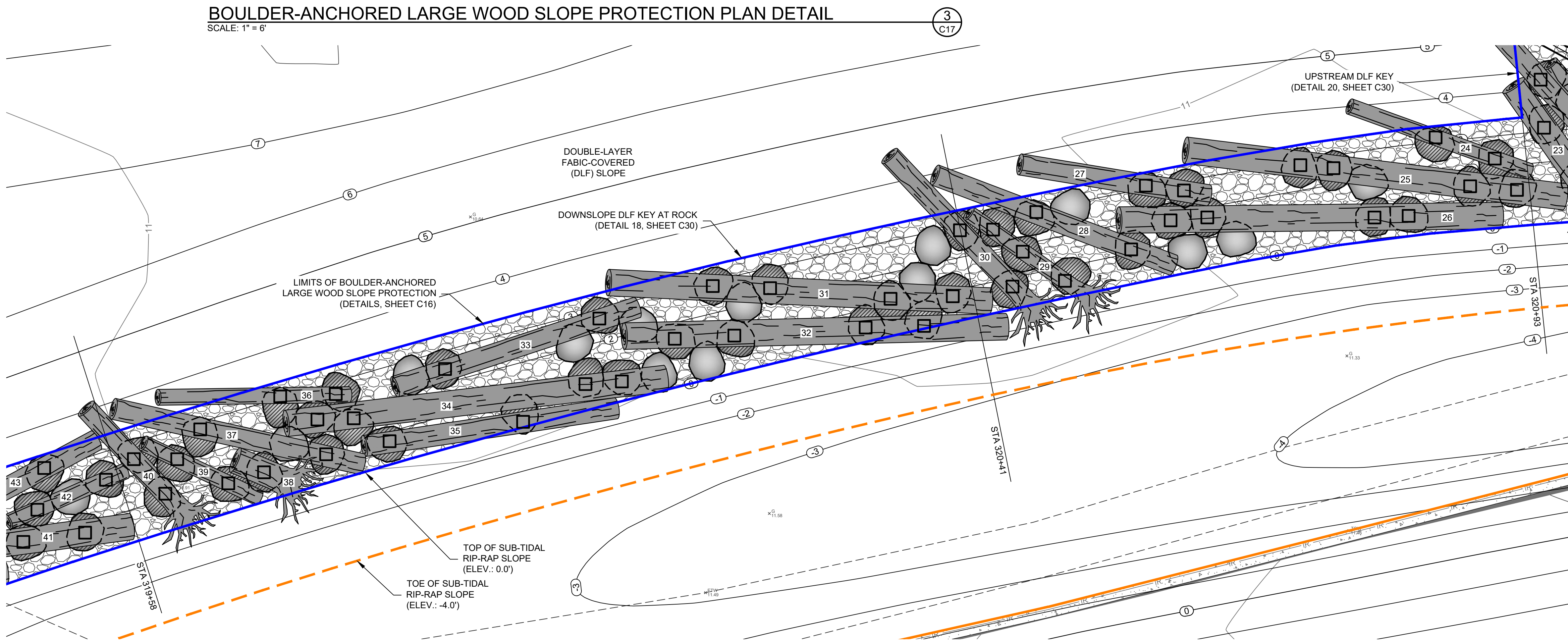
FINAL 100%
DESIGN PLAN
SUBMITTAL

C16



WOOD MATERIAL, BOULDER,
AND CONNECTION SCHEDULE

LARGE WOOD #	LW TYPE	LENGTH (FT)	DIAMETER (FT)	# ANCHOR BLDERS / CONNECTIONS	TOTAL ANCHOR BLDR WEIGHT (TONS)
1	Log	24	2.0	2	4
2	Log	24	2.0	2	4
3	Log	18	1.5	2	4
4	Log	12	1.5	2	4
5	Log	12	1.5	2	4
6	Log-Rw	18	1.5	2	4
7	Log	36	2.5	4	8
8	Log	24	2.0	2	4
9	Log	12	1.5	2	4
10	Log	36	2.5	4	8
11	Log	24	2.0	2	4
12	Log	36	2.5	4	8
13	Log	36	2.5	4	8
14	Log	24	2.5	3	6
15	Log-Rw	8	2.0	3	6
16	Log	24	1.5	2	4
17	Log-Rw	6	2.5	2	4
18	Log-Rw	12	2.0	2	4
19	Log	12	2.5	2	4
20	Log	24	2.0	3	6
21	Log	12	1.5	2	4
22	Log	24	2.0	3	6
23	Log-Rw	12	2.5	2	4
24	Log	18	1.5	2	4
25	Log	36	2.5	4	8
26	Log	36	2.5	4	8
27	Log	18	2.0	2	4
28	Log	24	2.0	2	4
29	Log-Rw	12	1.5	3	6
30	Log-Rw	18	2.0	2	4
31	Log	36	2.5	4	8
32	Log	36	2.5	4	8
33	Log	24	2.0	2	4
34	Log	36	2.5	4	8
35	Log	24	2.0	2	4
36	Log	18	1.5	2	4
37	Log	24	2.0	2	4
38	Log-Rw	4	2.5	1	2
39	Log	12	1.5	2	4
40	Log-Rw	12	2.0	2	4
41	Log	36	2.5	4	8
42	Log	12	1.5	2	4
43	Log	18	2.0	2	4
44	Log	36	2.5	4	8
45	Log	12	1.5	2	4
46	Log	24	2.0	2	4
47	Log	36	2.5	4	8
48	Log	18	1.5	2	4
49	Log	12	1.5	2	4
50	Log	24	2.0	3	6
51	Log	18	1.5	2	4
TOTAL				131	262



RECEIVED PROFESSIONAL ENGINEER
DATE: MAY 12 2022
No. 71671
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

Revisions:

MARIN COUNTY
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DISTRICT
3601 Civic Center Dr., Rm 304
San Rafael, CA 94903

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

CORTE MADERA CREEK
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

BOULDER-ANCHORED LARGE WOOD SLOPE
PROTECTION PLAN DETAILS

CORTE MADERA CREEK
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
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geomorphDESIGN

Date:
24 FEB 2022

Design by:
MS

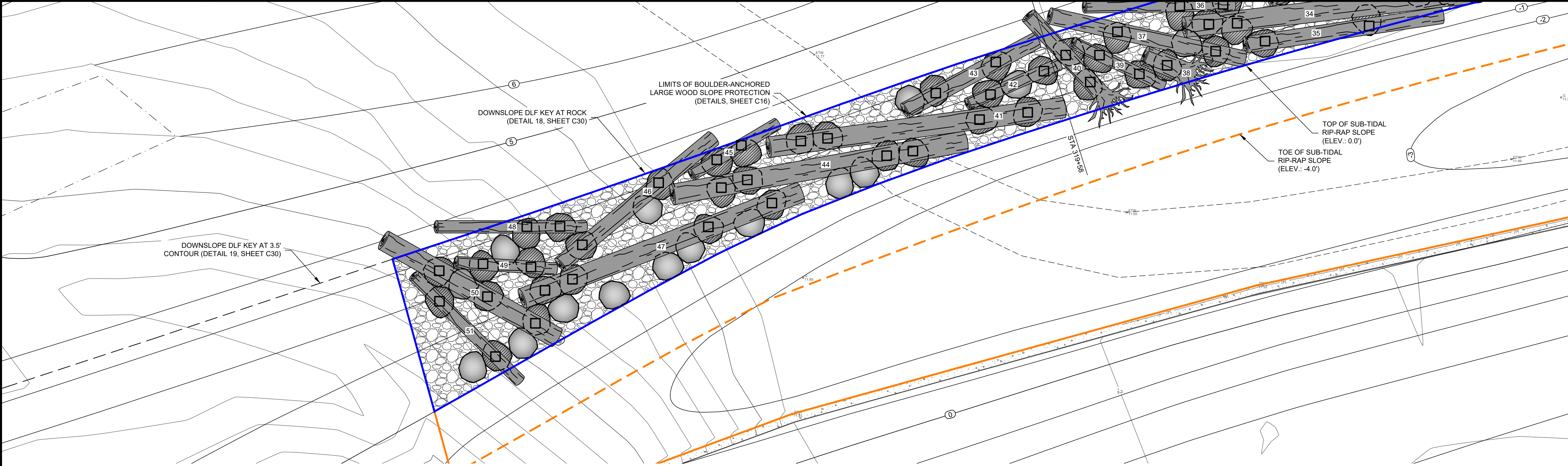
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BRS

Checked by:
MS

Scale:
AS SHOWN

FINAL 100%
DESIGN PLAN
SUBMITTAL

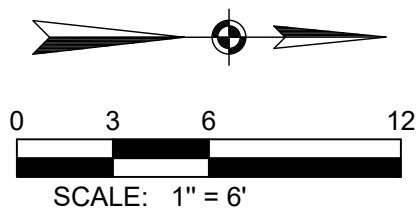
C17



BOULDER-ANCHORED LARGE WOOD SLOPE PROTECTION PLAN DETAIL
SCALE: 1" = 6'

WOOD MATERIAL, BOULDER,
AND CONNECTION SCHEDULE

LARGE WOOD #	LW TYPE	LENGTH (FT)	DIAMETER (FT)	# ANCHOR BLDRS / CONNECTIONS	TOTAL ANCHOR BLDR WEIGHT (TONS)
1	Log	24	2.0	2	4
2	Log	24	2.0	2	4
3	Log	18	1.5	2	4
4	Log	12	1.5	2	4
5	Log	12	1.5	2	4
6	Log-Rw	18	1.5	2	4
7	Log	36	2.5	4	8
8	Log	24	2.0	2	4
9	Log	12	1.5	2	4
10	Log	36	2.5	4	8
11	Log	24	2.0	2	4
12	Log	36	2.5	4	8
13	Log	36	2.5	4	8
14	Log	24	2.5	3	6
15	Log-Rw	8	2.0	3	6
16	Log	24	1.5	2	4
17	Log-Rw	6	2.5	2	4
18	Log-Rw	12	2.0	2	4
19	Log	12	2.5	2	4
20	Log	24	2.0	3	6
21	Log	12	1.5	2	4
22	Log	24	2.0	3	6
23	Log-Rw	12	2.5	2	4
24	Log	18	1.5	2	4
25	Log	36	2.5	4	8
26	Log	36	2.5	4	8
27	Log	18	2.0	2	4
28	Log	24	2.0	2	4
29	Log-Rw	12	1.5	3	6
30	Log-Rw	18	2.0	2	4
31	Log	36	2.5	4	8
32	Log	36	2.5	4	8
33	Log	24	2.0	2	4
34	Log	36	2.5	4	8
35	Log	24	2.0	2	4
36	Log	18	1.5	2	4
37	Log	24	2.0	2	4
38	Log-Rw	4	2.5	1	2
39	Log	12	1.5	2	4
40	Log-Rw	12	2.0	2	4
41	Log	36	2.5	4	8
42	Log	12	1.5	2	4
43	Log	18	2.0	2	4
44	Log	36	2.5	4	8
45	Log	12	1.5	2	4
46	Log	24	2.0	2	4
47	Log	36	2.5	4	8
48	Log	18	1.5	2	4
49	Log	12	1.5	2	4
50	Log	24	2.0	3	6
51	Log	18	1.5	2	4
TOTAL				131	262



LEGEND

10

11

11

10

EXISTING CONTOURS

PROPOSED CONTOURS

ANCHOR BOULDER (2-TON)

WOOD-TO-BOULDER CONNECTION LOCATION (DETAILS, SHEET C16)

FIELD BOULDER (2-TON)

LARGE WOOD MATERIAL

BOULDER FIELD ROCK MIX

REGISTERED PROFESSIONAL ENGINEER
DATE: MAY 1, 2022
No. 71671
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

Revisions:

MARIN COUNTY
FLOOD CONTROL &
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DISTRICT
3601 Civic Center Dr., Rm 304
San Rafael, CA 94903

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

BOULDER-ANCHORED LARGE WOOD SLOPE
PROTECTION PLAN DETAILS

CORTE MADERA CREEK
LOWER COMI CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
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geomorphDESIGN

Date:
24 FEB 2022

Design by:
MS

Drawn by:
BRS

Checked by:
MS

Scale:
AS SHOWN

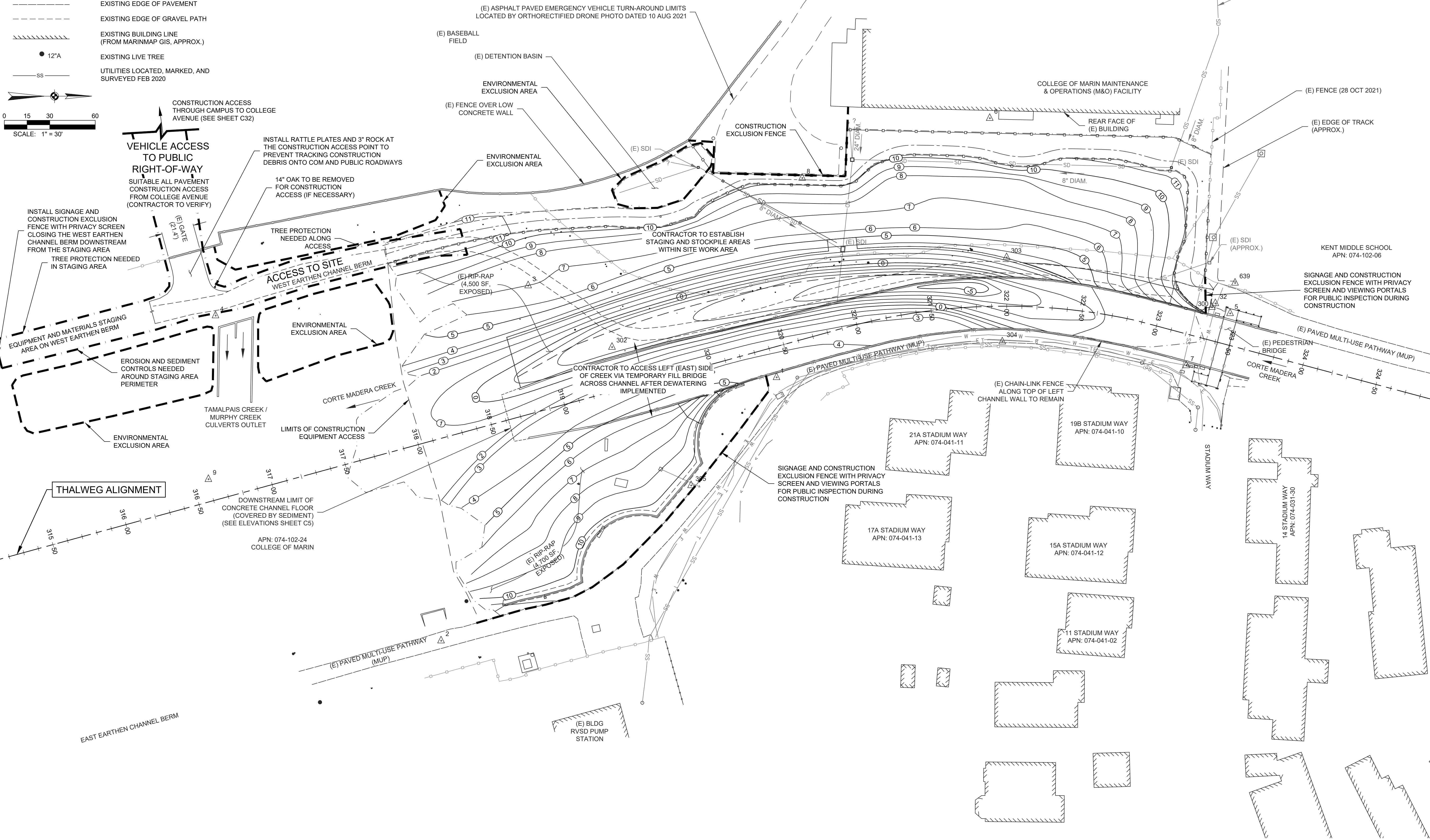
FINAL 100%
DESIGN PLAN
SUBMITTAL

C18

LEGEND

- 10 11
- 11 10
- 2
- TOW
- 11.32
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL PATH
- EXISTING BUILDING LINE (FROM MARINMAP GIS, APPROX.)
- 12"A
- SS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- SURVEY CONTROL POINT
- SURVEY TOPO POINT (ELEV., DESCR)
- EXISTING LIVE TREE
- UTILITIES LOCATED, MARKED, AND SURVEYED FEB 2020

NOTE:
THE CONSTRUCTION SITE WILL BE ACCESSED FROM COLLEGE AVENUE, THROUGH COM LOT 12, TO THE DISTRICT EASEMENT THAT FOLLOWS THE ALIGNMENT OF THE DOUBLE BARREL CULVERT CONTAINING TAMALPAIS AND MURPHY CREEKS. THIS IS THE ACCESS CURRENTLY USED BY THE DISTRICT TO REACH THE EARTHEN CHANNEL BERM AND TOP OF CONCRETE CHANNEL WALL IN THE PROJECT AREA. (SEE SHEET C32)



CONSTRUCTION ACCESS, EXCLUSION FENCING, AND STAGING PLAN
SCALE: 1" = 30'



Revisions:

No.	Description	Date

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CONSTRUCTION ACCESS, EXCLUSION FENCING,
AND STAGING PLAN
CORTE MADERA CREEK
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21A STADIUM WAY
APN: 074-041-11

19B STADIUM WAY
APN: 074-041-10

17A STADIUM WAY
APN: 074-041-13

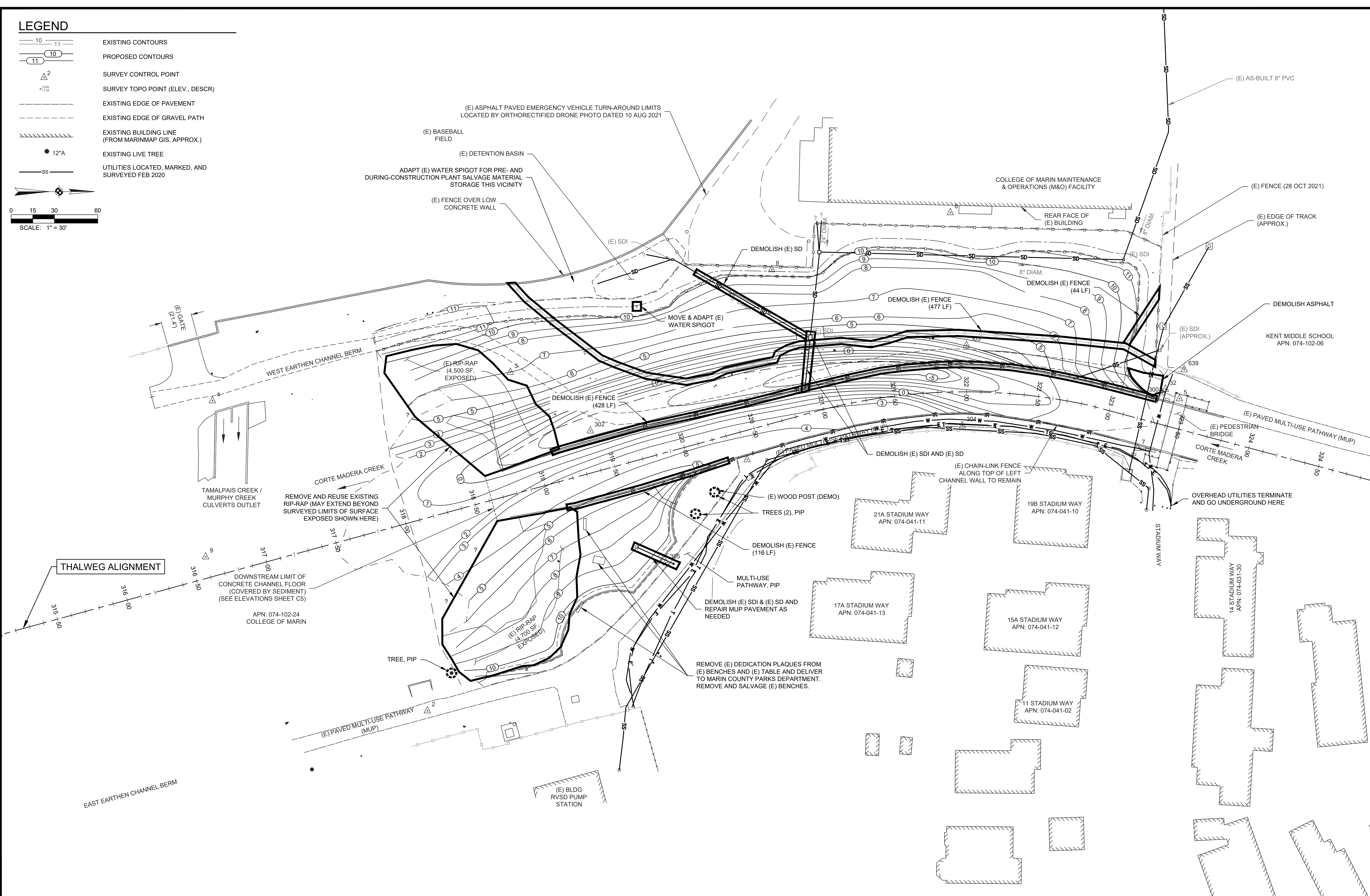
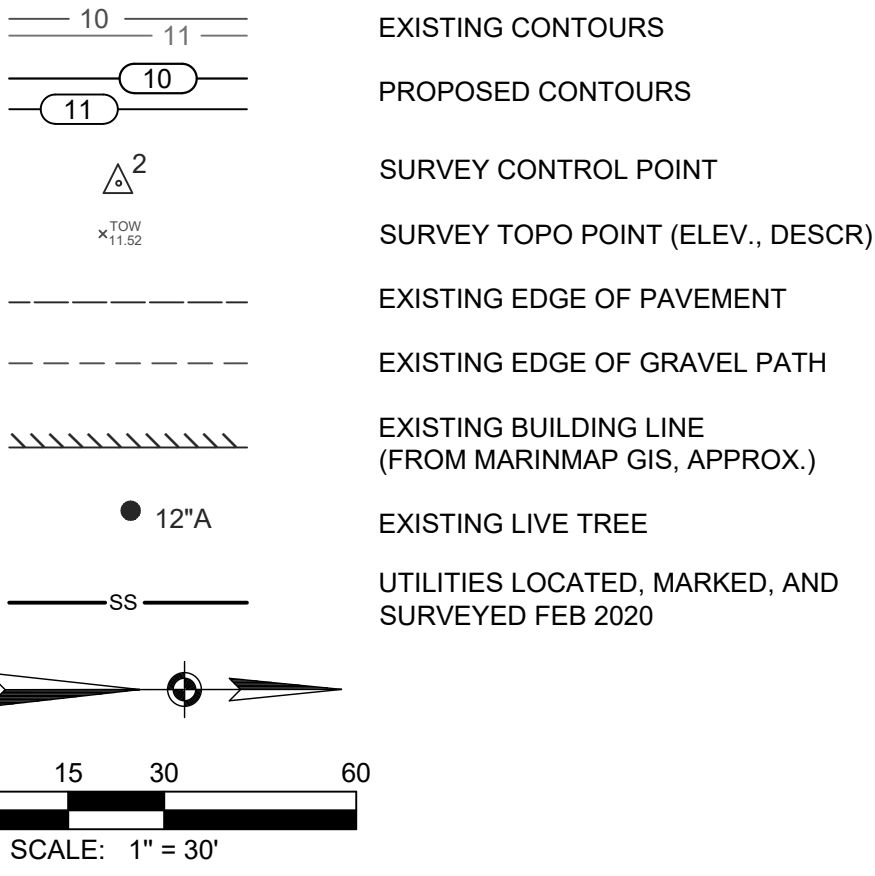
15A STADIUM WAY
APN: 074-041-12

11 STADIUM WAY
APN: 074-041-02

14 STADIUM WAY
APN: 074-031-30

DATE: 24 FEB 2022
DESIGN BY: MS
DRAWN BY: BRS
CHECKED BY: MS
SCALE: 1" = 30'
FINAL 100%
DESIGN PLAN
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LEGEND



DEMOLITION PLAN
SCALE: 1" = 30'



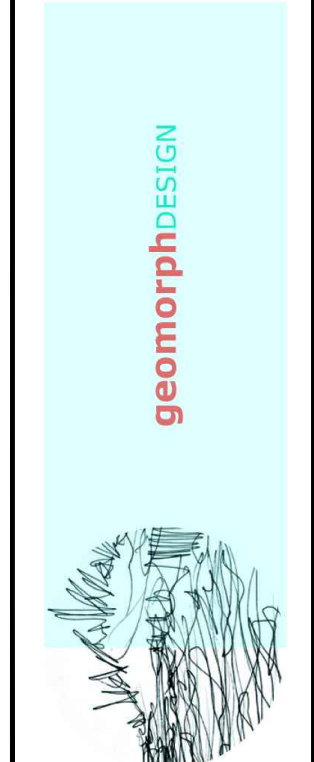
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FLOOD CONTROL &
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DEMOLITION PLAN
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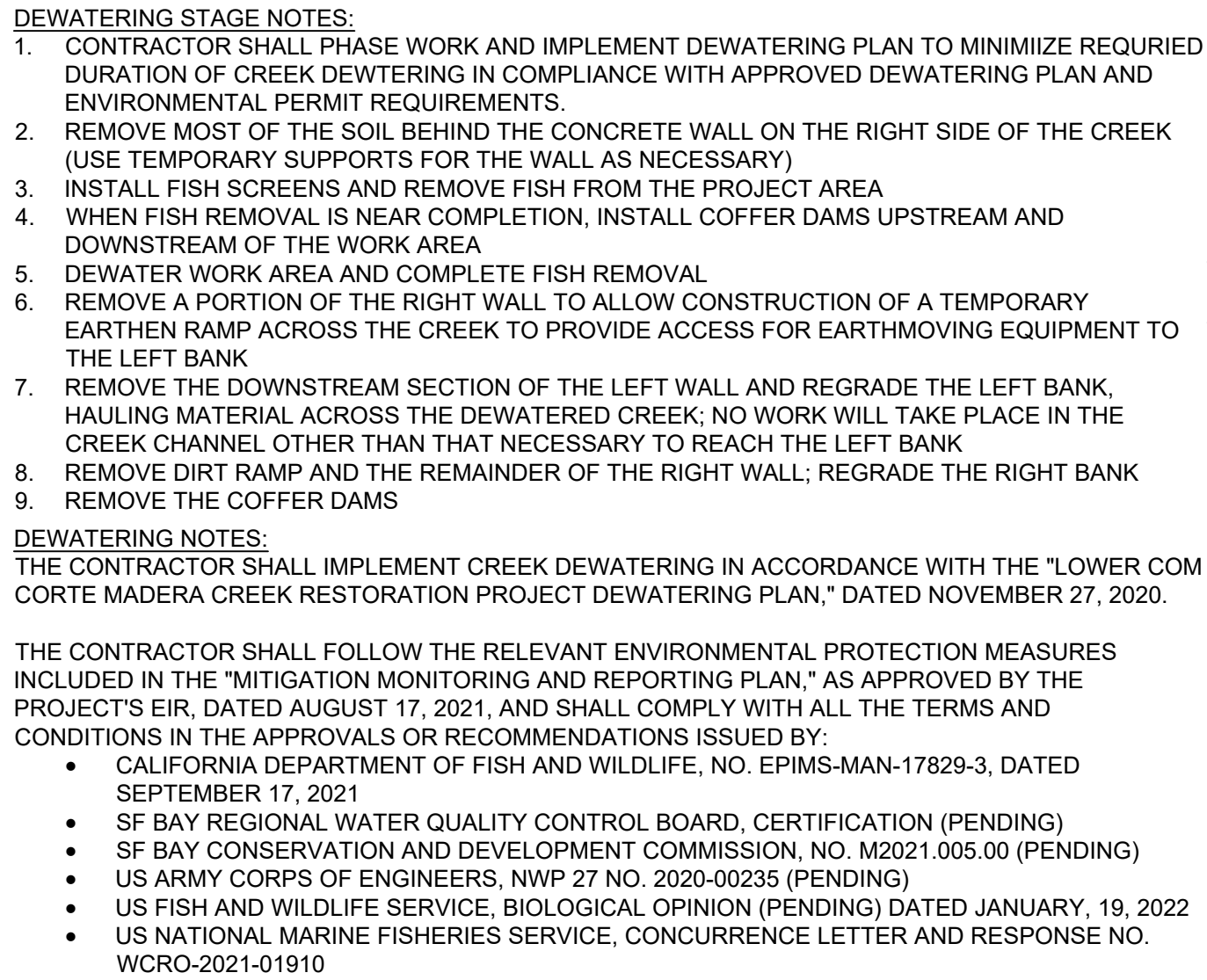
Checked by:
MS

Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL

Legend:

- EXISTING CONTOURS: 10, 11
- PROPOSED CONTOURS: 11, 10
- SURVEY CONTROL POINT: Δ^2
- SURVEY TOPO POINT (ELEV., DESCR): $\bullet$ 12" A
- EXISTING EDGE OF PAVEMENT: ---
- EXISTING EDGE OF GRAVEL PATH: - - - - -
- EXISTING BUILDING LINE (FROM MARINMAP GIS, APPROX.):
- EXISTING LIVE TREE:
- UTILITIES LOCATED, MARKED, AND SURVEYED FEB 2020:
- SS:
- SCALE: 1" = 30'





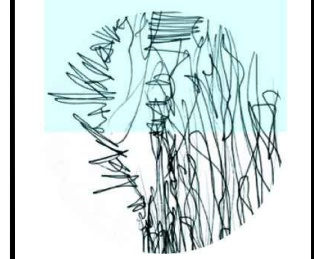
MARIN COUNTY
FLOOD CONTROL &
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San Rafael, CA 94903

DEWATERING PLAN
CORTE MADERA CREEK
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Scale:	1" = 30'
FINAL 100% DESIGN PLAN SUBMITTAL	

C21

LEGEND

- 10

11

10

11

2

10

11

12"A

12"A

SS

SS

EXISTING CONTOURS

PROPOSED CONTOURS

SURVEY CONTROL POINT

SURVEY TOPO POINT (ELEV., DESCR)

EXISTING EDGE OF PAVEMENT

EXISTING EDGE OF GRAVEL PATH

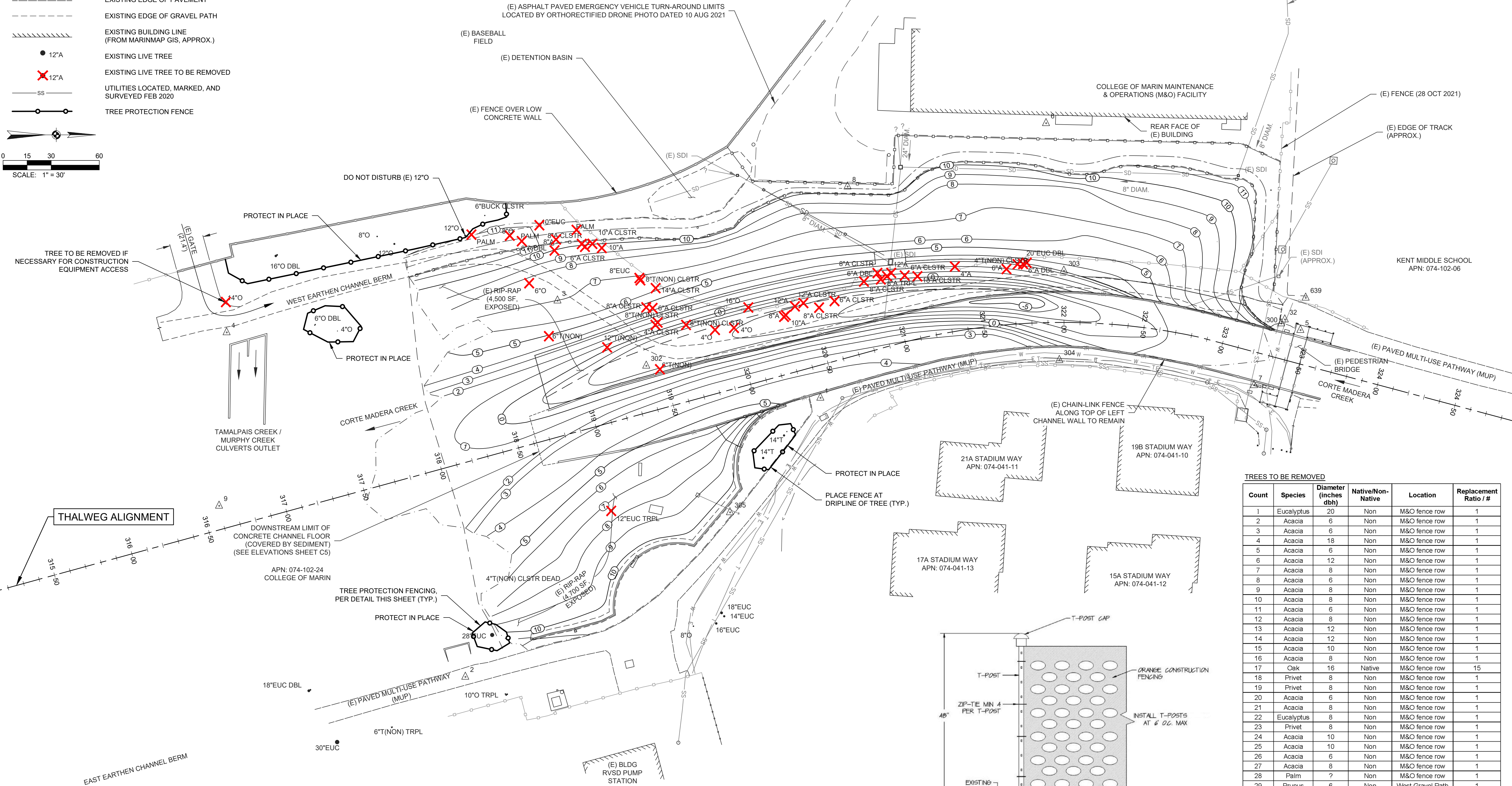
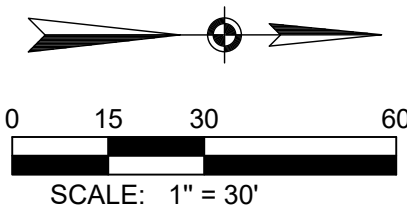
EXISTING BUILDING LINE
(FROM MARINMAP GIS, APPROX.)

EXISTING LIVE TREE

EXISTING LIVE TREE TO BE REMOVED

UTILITIES LOCATED, MARKED, AND
SURVEYED FEB 2020

TREE PROTECTION FENCE



TREE PROTECTION NOTES:
MINIMIZE DISTURBANCE, INCLUDING SOIL COMPACTION, GRADING, OR FILLING, TO TREES THAT ARE TO BE PROTECTED ON THE SITE. THIS APPLIES TO THE TREE PROTECTION ZONE (TPZ) OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. A TREE PROTECTION FENCE SHALL BE INSTALLED TO PROTECT THE TPZ; SEE DETAIL THIS SHEET. IF WORK WITHIN THE TPZ CANNOT BE FULLY AVOIDED, USE THE PROTECTION MEASURES BELOW TO PREVENT, REDUCE OR MITIGATE FOR IMPACTS TO PROTECTED TREES: WHERE VEHICLE TRAVEL OR OTHER SOIL DISTURBANCE CANNOT BE AVOIDED WITHIN 10' OF TREES, USE THE SMALLEST, TRACKED VEHICLE FEASIBLE, AND UNDERTAKE THE FOLLOWING MEASURES UNDER THE DIRECTION AND SUPERVISION OF A QUALIFIED ARBORIST:

1. INSTALL TRENCH PLATES, CONSTRUCTION MATS OR SIMILARLY PROTECTIVE MEANS TO PREVENT SOIL COMPACTION AROUND TREES.
2. DECOMPACT SOIL USING AN AIR SPADE ALONG ACCESS ROUTES AND WORK AREA AFTER PROJECT COMPLETION.

TREE PROTECTION AND REMOVAL PLAN

SCALE: 1" = 30'

TREE PROTECTION FENCE DETAIL

SCALE: N.T.S.

TREES TO BE REMOVED

Count	Species	Diameter (inches dbh)	Native/Non-Native	Location	Replacement Ratio / #
1	Eucalyptus	20	Non	M&O fence row	1
2	Acacia	6	Non	M&O fence row	1
3	Acacia	6	Non	M&O fence row	1
4	Acacia	18	Non	M&O fence row	1
5	Acacia	6	Non	M&O fence row	1
6	Acacia	12	Non	M&O fence row	1
7	Acacia	8	Non	M&O fence row	1
8	Acacia	6	Non	M&O fence row	1
9	Acacia	8	Non	M&O fence row	1
10	Acacia	8	Non	M&O fence row	1
11	Acacia	6	Non	M&O fence row	1
12	Acacia	8	Non	M&O fence row	1
13	Acacia	12	Non	M&O fence row	1
14	Acacia	12	Non	M&O fence row	1
15	Acacia	10	Non	M&O fence row	1
16	Acacia	8	Non	M&O fence row	1
17	Oak	16	Native	M&O fence row	15
18	Privet	8	Non	M&O fence row	1
19	Privet	8	Non	M&O fence row	1
20	Acacia	6	Non	M&O fence row	1
21	Acacia	8	Non	M&O fence row	1
22	Eucalyptus	8	Non	M&O fence row	1
23	Privet	8	Non	M&O fence row	1
24	Acacia	10	Non	M&O fence row	1
25	Acacia	10	Non	M&O fence row	1
26	Acacia	6	Non	M&O fence row	1
27	Acacia	8	Non	M&O fence row	1
28	Palm	?	Non	M&O fence row	1
29	Prunus	6	Non	West Gravel Path	1
30	Prunus	12	Non	West Gravel Path	1
31	Prunus	6	Non	West Rip-Rap	1
32	Oak	6	Native	West Rip-Rap	4
33	Eucalyptus	10	Non	West Berm Area	1
34	Acacia	8	Non	West Berm Area	1
35	Acacia	8	Non	West Berm Area	1
36	Palm	?	Non	West Berm Area	1
37	Palm	?	Non	West Berm Area	1
38	Oak	14	Native	Construction Access	5
39	Eucalyptus	12	Non	East Rip-Rap	1
Total =					60



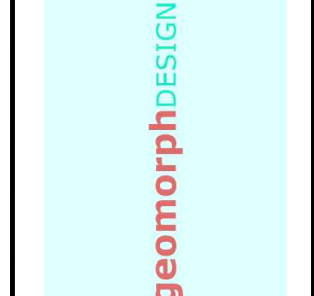
Revisions:

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TREE PROTECTION AND REMOVAL PLAN
CORTE MADERA CREEK
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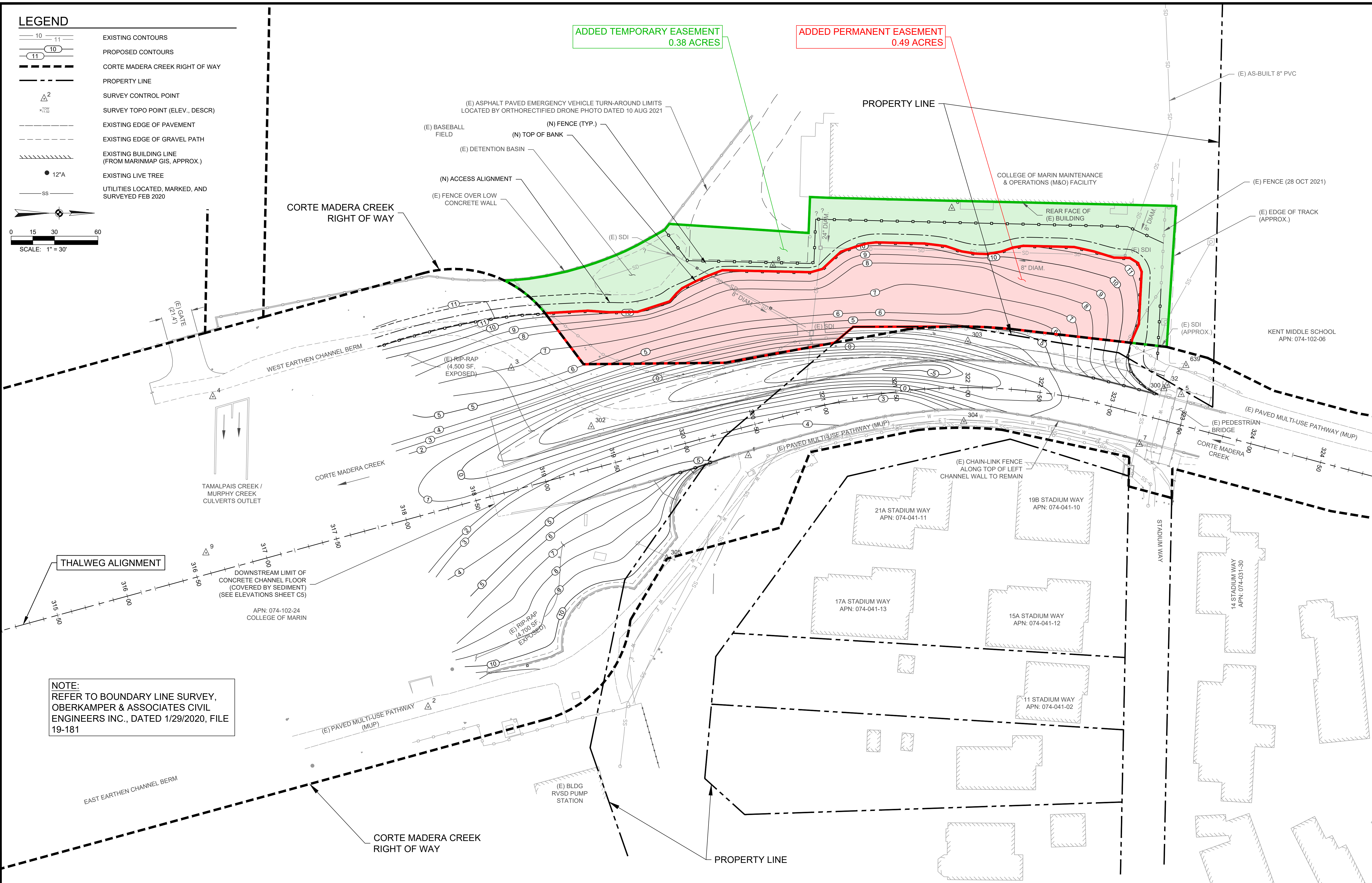
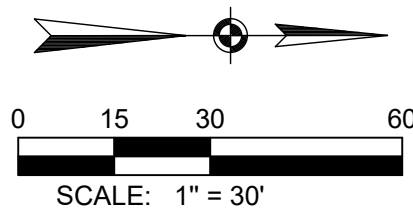
Date:
24 FEB 2022
Design by:
MS
Drawn by:
BRS
Checked by:
MS
Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C22

LEGEND

- 10 11
- 11 10
- CORTE MADERA CREEK RIGHT OF WAY
- PROPERTY LINE
- Δ^2
- SURVEY CONTROL POINT
- SURVEY TOPO POINT (ELEV., DESCR)
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL PATH
- EXISTING BUILDING LINE (FROM MARINMAP GIS, APPROX.)
- EXISTING LIVE TREE
- UTILITIES LOCATED, MARKED, AND SURVEYED FEB 2020



NOTE:
REFER TO BOUNDARY LINE SURVEY,
OBERKAMPER & ASSOCIATES CIVIL
ENGINEERS INC., DATED 1/29/2020, FILE
19-181

PROPERTY, EASEMENT, AND RIGHTS-OF-WAY BOUNDARY PLAN
SCALE: 1" = 30'



Revisions:

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FLOOD CONTROL &
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DISTRICT
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MARIN COUNTY
FLOOD CONTROL &
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PROPERTY, EASEMENT, AND RIGHTS-OF-WAY
BOUNDARY MAP
CORTE MADERA CREEK
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

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MS

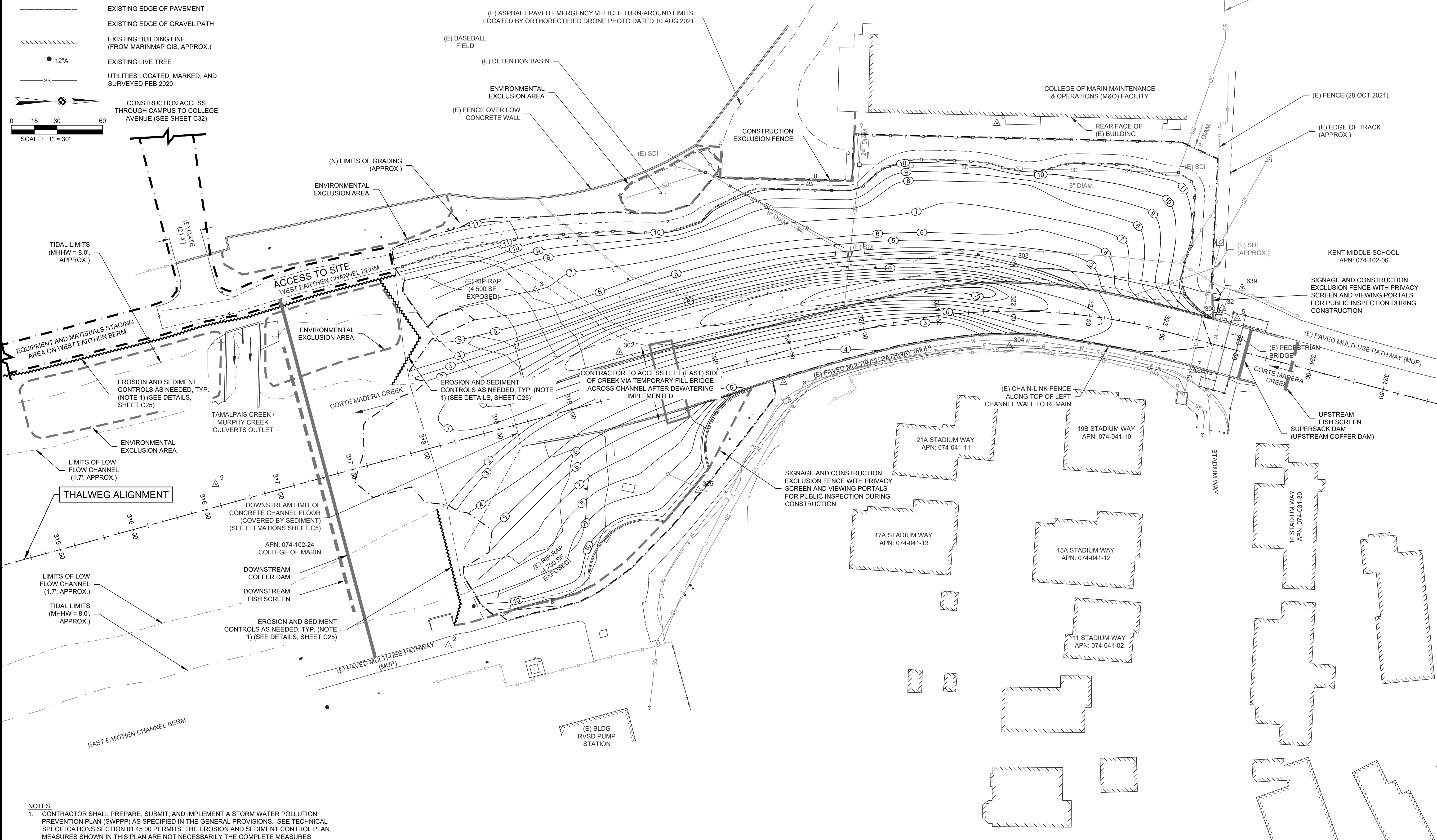
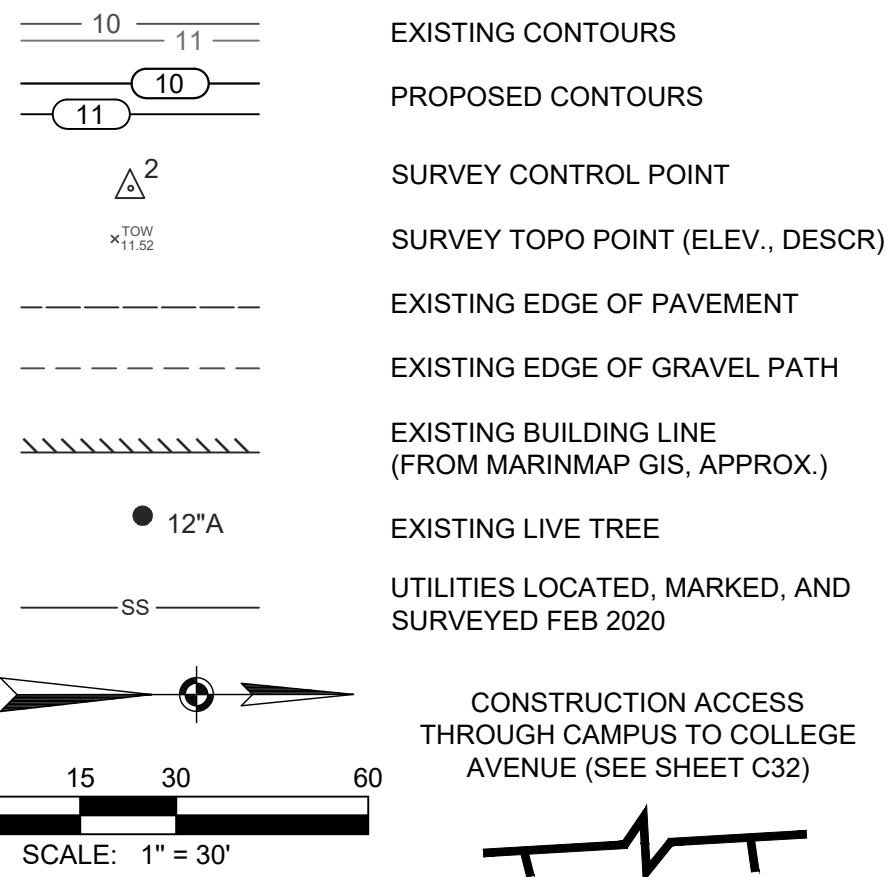
Drawn by:
BRS

Checked by:
MS

Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL

LEGEND



NOTES:

1. CONTRACTOR SHALL PREPARE, SUBMIT, AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS SPECIFIED IN THE GENERAL PROVISIONS. SEE TECHNICAL SPECIFICATIONS SECTION 01 45 00 PERMITS. THE EROSION AND SEDIMENT CONTROL PLAN MEASURES SHOWN IN THIS PLAN ARE NOT NECESSARILY THE COMPLETE MEASURES REQUIRED FOR PROJECT IMPLEMENTATION. MEASURES SHOWN MAY BE REVISED, AND AUGMENTED PER THE SWPPP.

EROSION AND SEDIMENT CONTROL PLAN (ESCP)

SCALE: 1" = 30'



Revisions:

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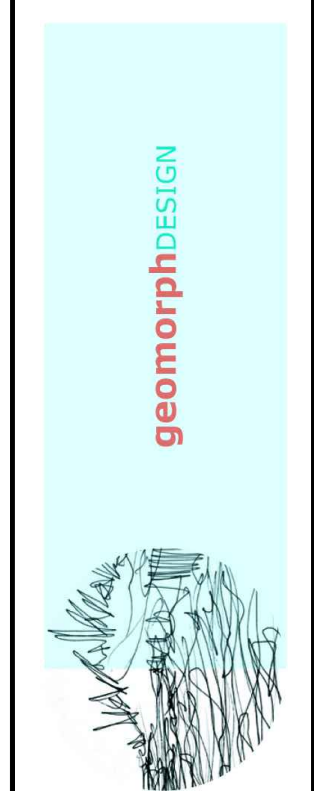


EROSION AND SEDIMENT CONTROL PLAN (ESCP)

CORTE MADERA CREEK

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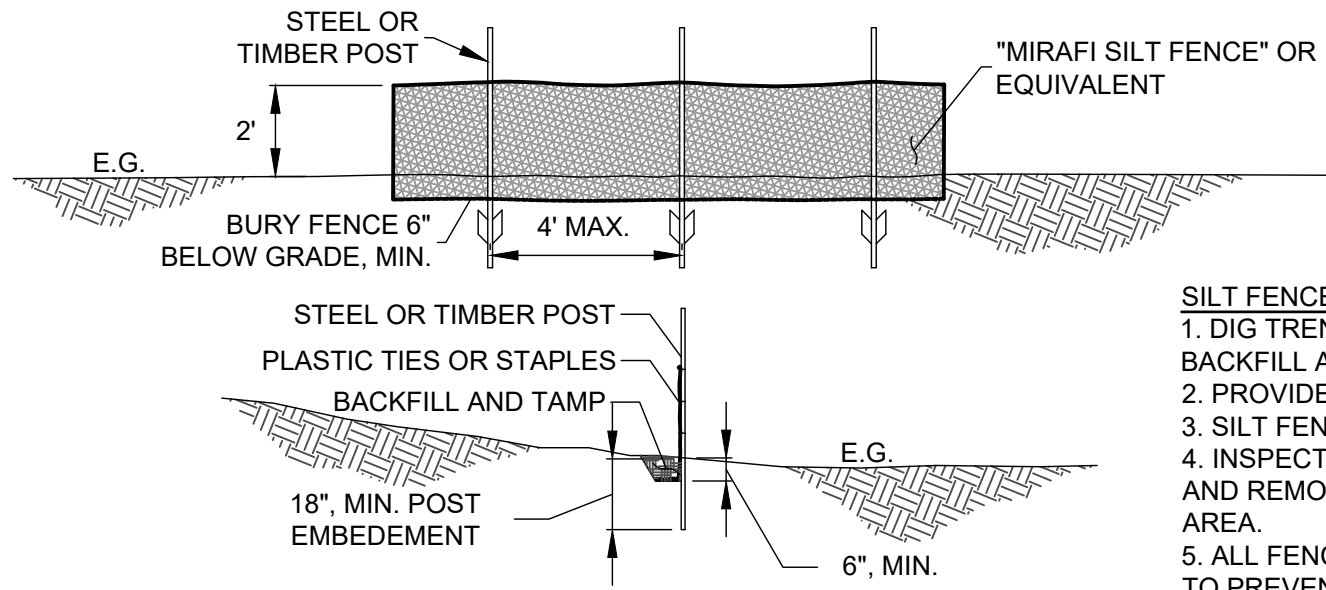
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BRS

Checked by:
MS

Scale:
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FINAL 100%
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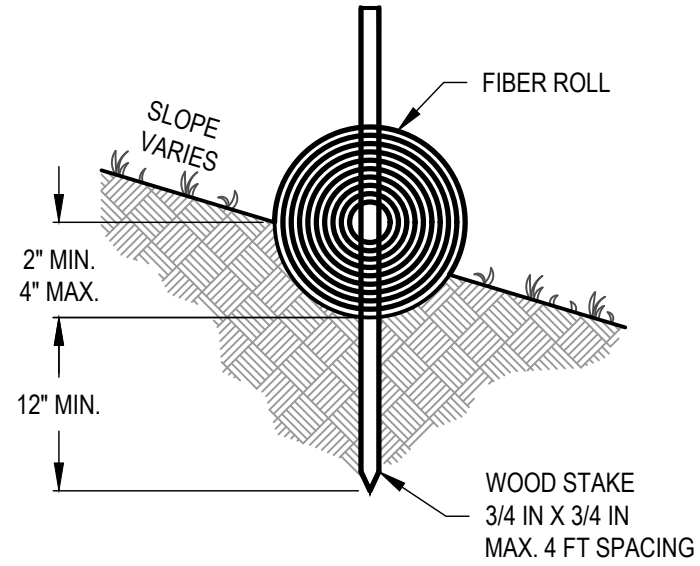
C24



- SILT FENCE NOTES**
1. DIG TRENCH FIRST, THEN ERECT FENCE IN TRENCH. BACKFILL AND COMPACT SOIL TO SECURE FABRIC.
 2. PROVIDE 1' MINIMUM OVERLAP AT FENCE SPLICES.
 3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS.
 4. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE ACCUMULATED SEDIMENT, TO AN APPROVED AREA.
 5. ALL FENCE TERMINATIONS SHOULD BE TURNED UPSLOPE TO PREVENT FLANKING.

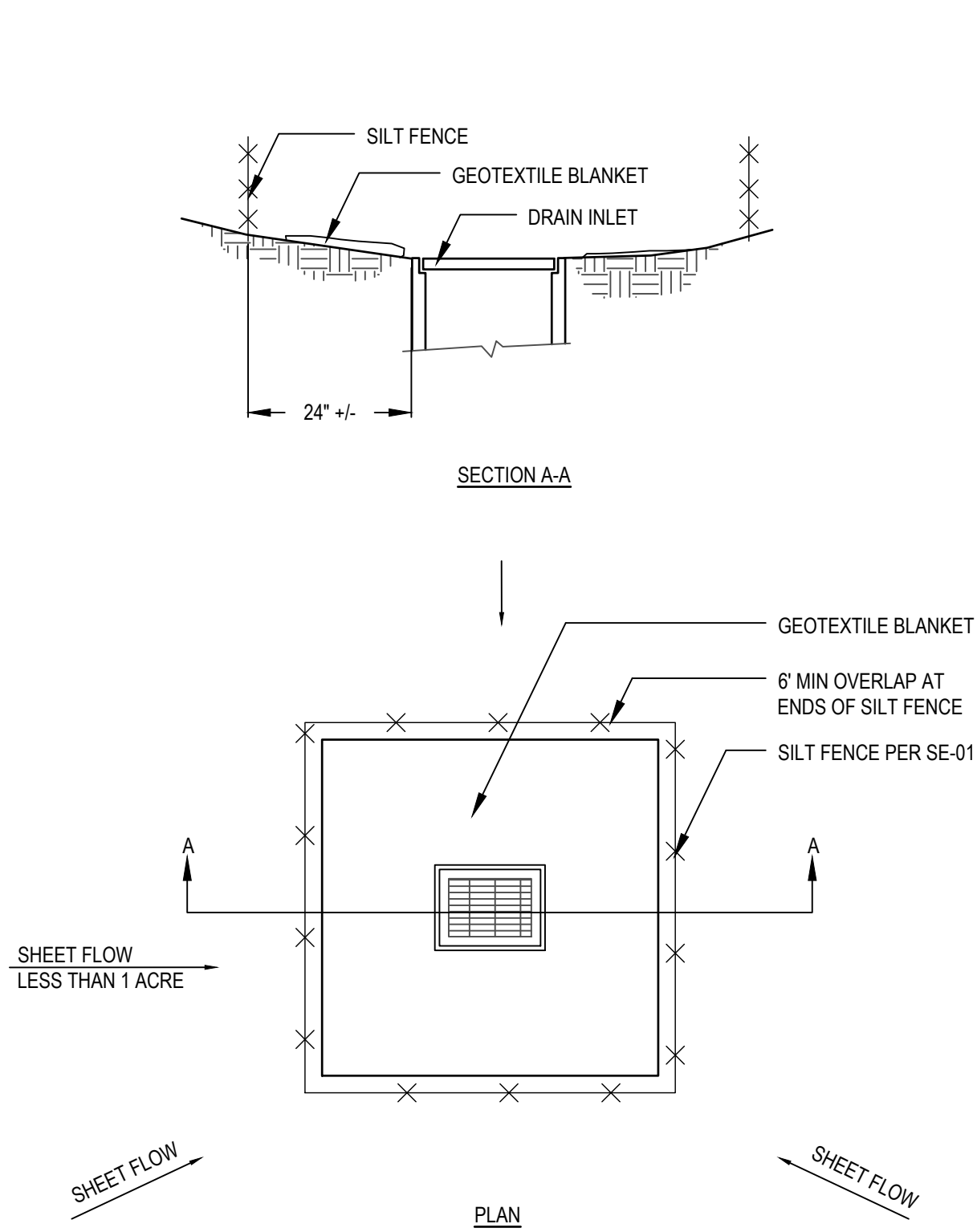
SILT FENCE
SCALE: 1" = 4'

6
C25



FIBER ROLL DETAIL
SCALE: NTS

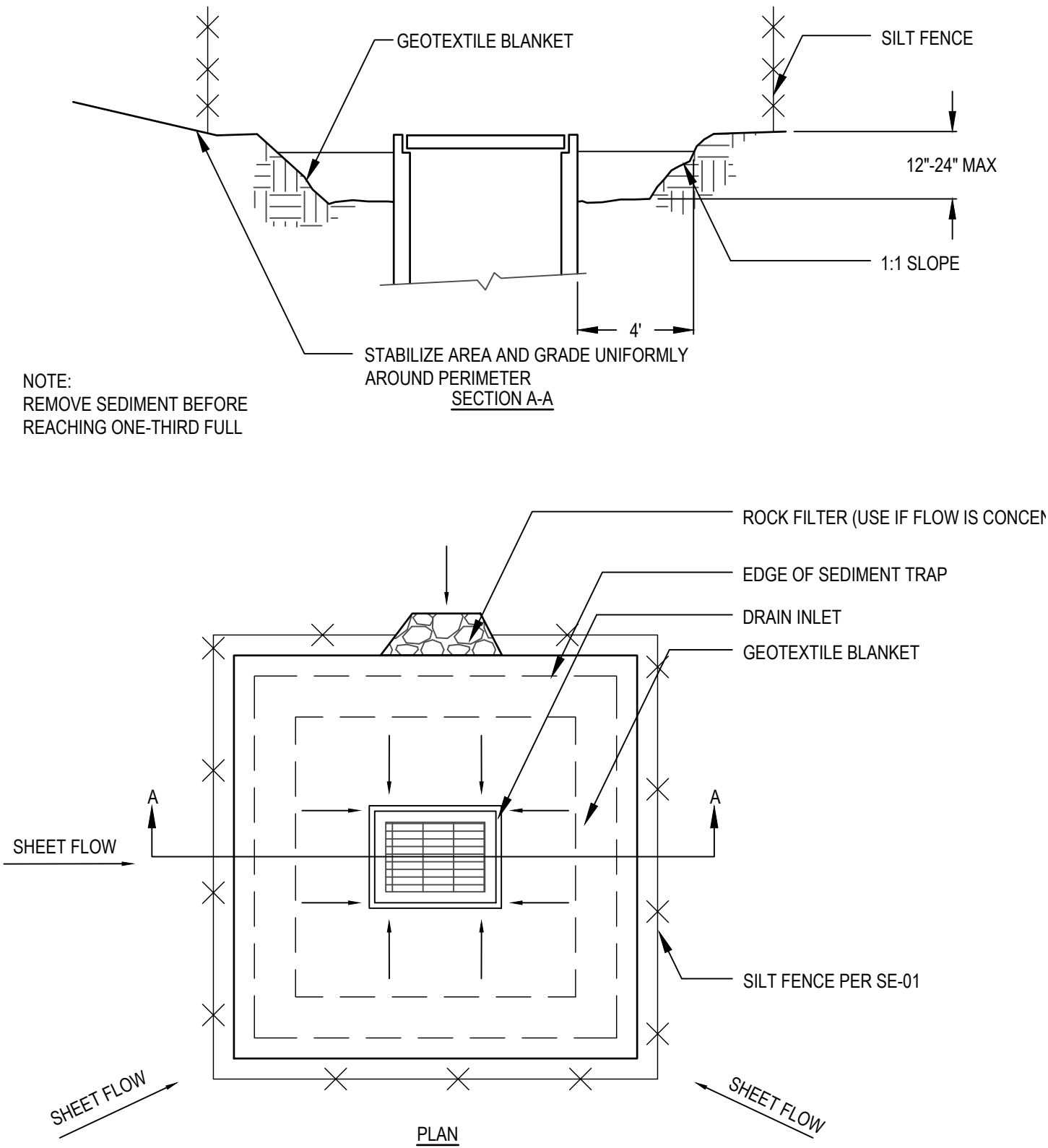
7
C25



- NOTES:**
1. DETAIL BASED ON CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) BMP HANDBOOK, DETAIL SE-10
 2. FOR USE IN AREAS WHERE GRADING HAS BEEN COMPLETED AND FINAL SOIL STABILIZATION AND SEEDING ARE PENDING SHAPE BASIN SO THAT LONGEST INFLOW AREA FACES LONGEST LENGTH OF TRAP
 3. NOT APPLICABLE IN PAVED AREAS
 4. NOT APPLICABLE WITH CONCENTRATED FLOWS

STORM DRAIN INLET PROTECTION - TYPE 1
SCALE: 1:1

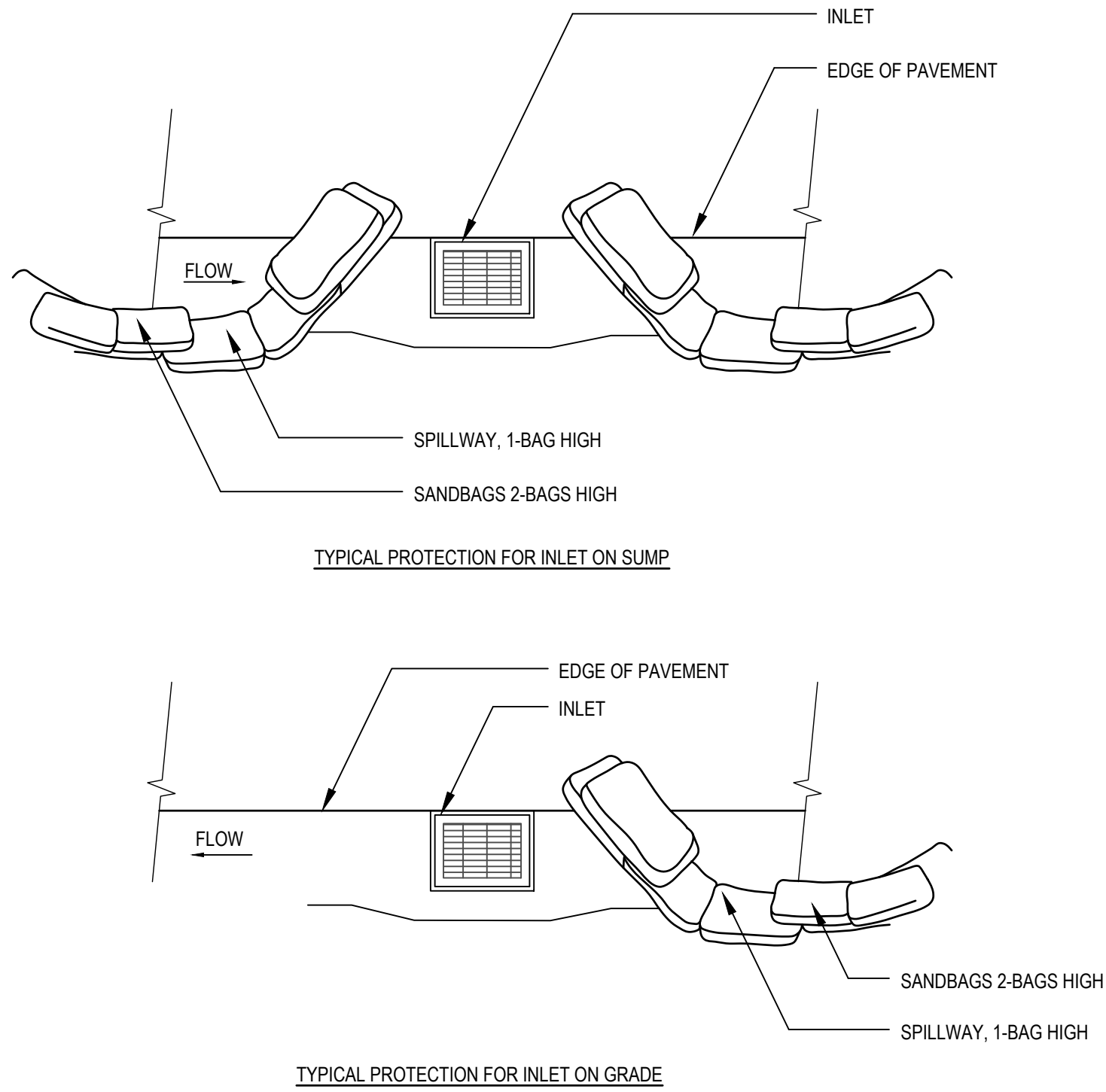
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C25



- NOTES:**
1. DETAIL BASED ON CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) BMP HANDBOOK, DETAIL SE-10
 2. FOR USE IN CLEARED AND GRUBBED AND IN GRADED AREAS
 3. SHAPE BASIN SO THAT LONGEST INFLOW AREA FACES LONGEST LENGTH OF TRAP
 4. FOR CONCENTRATED FLOWS SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION FLOW

STORM DRAIN INLET PROTECTION - TYPE 2
SCALE: 1:1

9
C25



- NOTES:**
1. DETAIL BASED ON CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) BMP HANDBOOK, DETAIL SE-10
 2. INTENDED FOR SHORT TERM USE
 3. USED TO INHIBIT STORM WATER FLOW
 4. ALLOW FOR PROPER MAINTENANCE AND CLEANUP
 5. BAG MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED
 6. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRICS

STORM DRAIN INLET PROTECTION - TYPE 3
SCALE: 1:1

10
C25



Revisions:

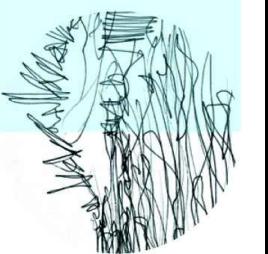
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DISTRICT
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EROSION CONTROL DETAILS AND NOTES
CORTE MADERA CREEK
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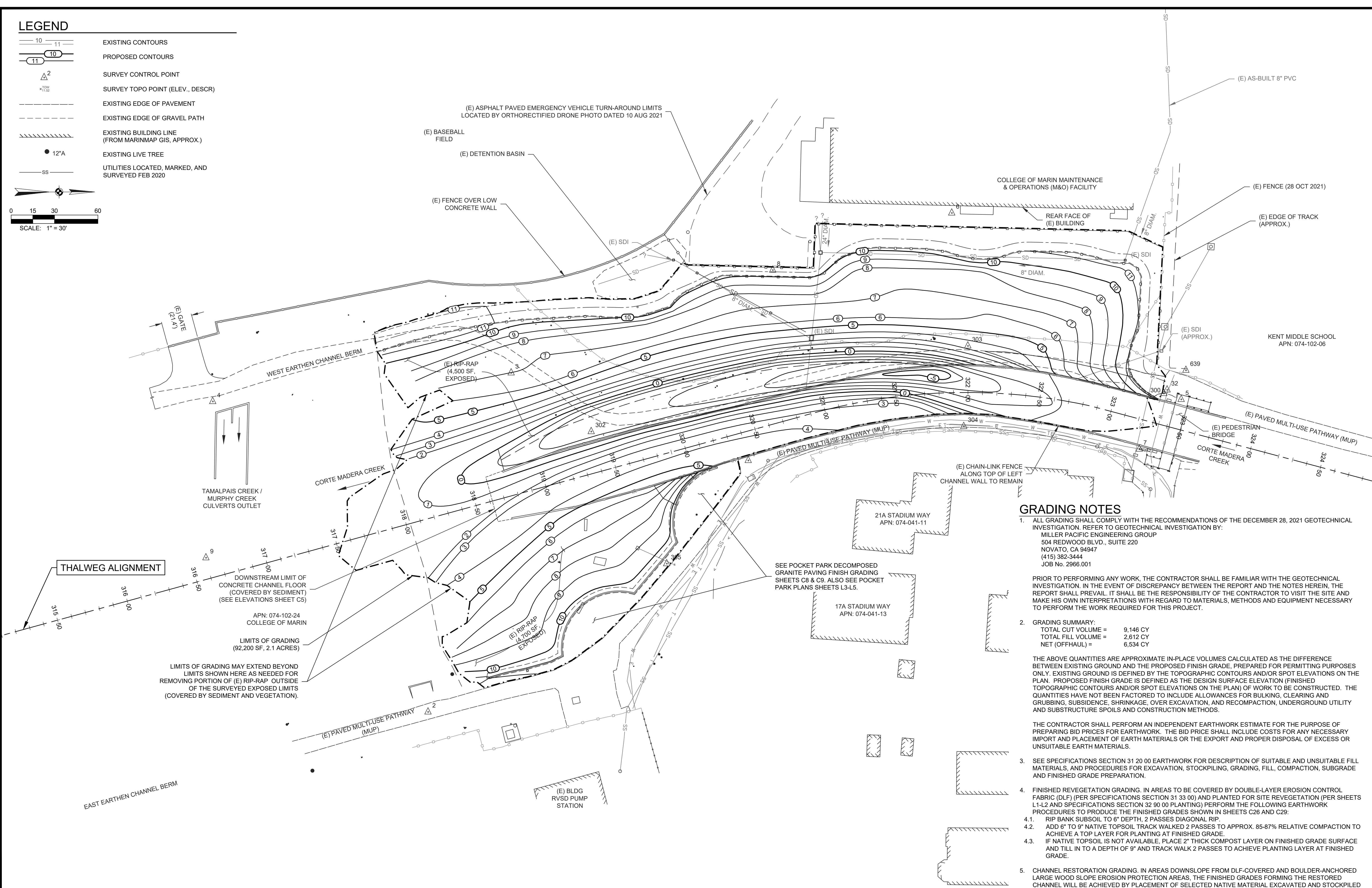
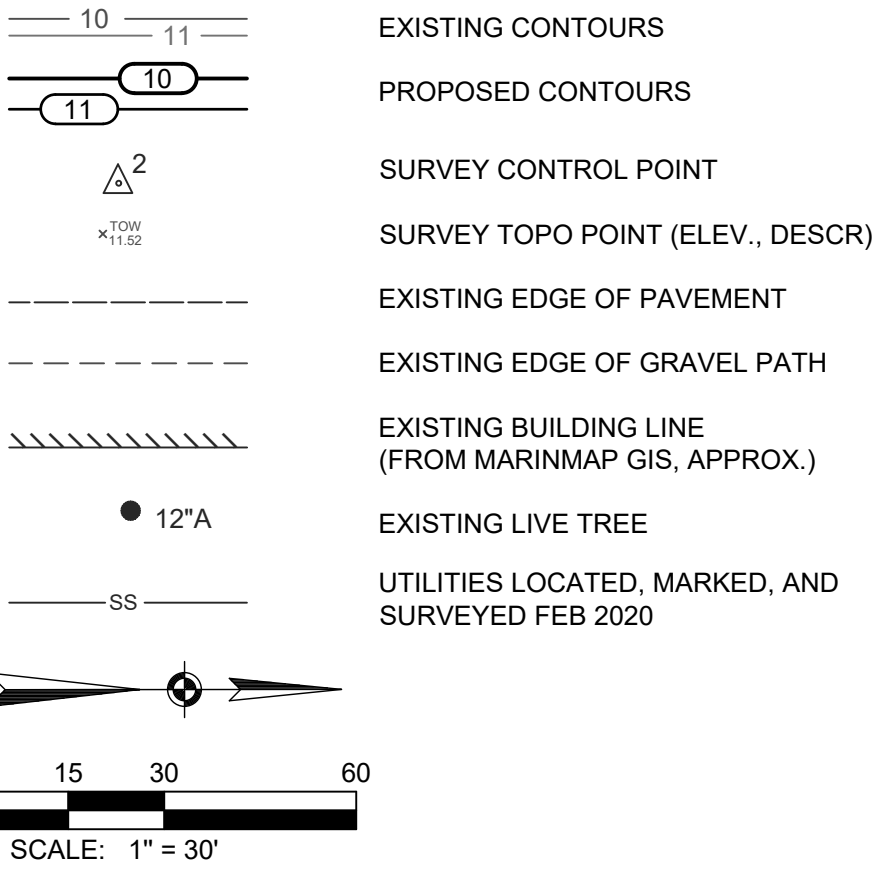
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Scale:
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DESIGN PLAN
SUBMITTAL

C25

LEGEND



GRADING NOTES

- ALL GRADING SHALL COMPLY WITH THE RECOMMENDATIONS OF THE DECEMBER 28, 2021 GEOTECHNICAL INVESTIGATION. REFER TO GEOTECHNICAL INVESTIGATION BY:
MILLER PACIFIC ENGINEERING GROUP
504 REDWOOD BLVD., SUITE 220
NOVATO, CA 94947
(415) 382-3444
JOB No. 2966.001

PRIOR TO PERFORMING ANY WORK, THE CONTRACTOR SHALL BE FAMILIAR WITH THE GEOTECHNICAL INVESTIGATION. IN THE EVENT OF DISCREPANCY BETWEEN THE REPORT AND THE NOTES HEREIN, THE REPORT SHALL PREVAIL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND MAKE HIS OWN INTERPRETATIONS WITH REGARD TO MATERIALS, METHODS AND EQUIPMENT NECESSARY TO PERFORM THE WORK REQUIRED FOR THIS PROJECT.

- GRADING SUMMARY:
TOTAL CUT VOLUME = 9,146 CY
TOTAL FILL VOLUME = 2,612 CY
NET (OFFHAUL) = 6,534 CY

THE ABOVE QUANTITIES ARE APPROXIMATE IN-PLACE VOLUMES CALCULATED AS THE DIFFERENCE BETWEEN EXISTING GROUND AND THE PROPOSED FINISH GRADE, PREPARED FOR PERMITTING PURPOSES ONLY. EXISTING GROUND IS DEFINED BY THE TOPOGRAPHIC CONTOURS AND/OR SPOT ELEVATIONS ON THE PLAN. PROPOSED FINISH GRADE IS DEFINED AS THE DESIGN SURFACE ELEVATION (FINISHED TOPOGRAPHIC CONTOURS AND/OR SPOT ELEVATIONS ON THE PLAN) OF WORK TO BE CONSTRUCTED. THE QUANTITIES HAVE NOT BEEN FACTORED TO INCLUDE ALLOWANCES FOR BULKING, CLEARING AND GRUBBING, SUBSIDENCE, SHRINKAGE, OVER EXCAVATION, AND RECOMPACTION, UNDERGROUND UTILITY AND SUBSTRUCTURE SPOILS AND CONSTRUCTION METHODS.

THE CONTRACTOR SHALL PERFORM AN INDEPENDENT EARTHWORK ESTIMATE FOR THE PURPOSE OF PREPARING BID PRICES FOR EARTHWORK. THE BID PRICE SHALL INCLUDE COSTS FOR ANY NECESSARY IMPORT AND PLACEMENT OF EARTH MATERIALS OR THE EXPORT AND PROPER DISPOSAL OF EXCESS OR UNSUITABLE EARTH MATERIALS.

- SEE SPECIFICATIONS SECTION 31 20 00 EARTHWORK FOR DESCRIPTION OF SUITABLE AND UNSUITABLE FILL MATERIALS, AND PROCEDURES FOR EXCAVATION, STOCKPILING, GRADING, FILL, COMPACTION, SUBGRADE AND FINISHED GRADE PREPARATION.
- FINISHED REVEGETATION GRADING. IN AREAS TO BE COVERED BY DOUBLE-LAYER EROSION CONTROL FABRIC (DLF) (PER SPECIFICATIONS SECTION 31 33 00) AND PLANTED FOR SITE REVEGETATION (PER SHEETS L1-L2 AND SPECIFICATIONS SECTION 32 90 00 PLANTING) PERFORM THE FOLLOWING EARTHWORK PROCEDURES TO PRODUCE THE FINISHED GRADES SHOWN IN SHEETS C26 AND C29:
 - RIP BANK SUBSOIL TO 6" DEPTH, 2 PASSES DIAGONAL RIP.
 - ADD 6" TO 9" NATIVE TOPSOIL TRACK WALKED 2 PASSES TO APPROX. 85-87% RELATIVE COMPACTION TO ACHIEVE A TOP LAYER FOR PLANTING AT FINISHED GRADE.
 - IF NATIVE TOPSOIL IS NOT AVAILABLE, PLACE 2" THICK COMPOST LAYER ON FINISHED GRADE SURFACE AND TILL IN TO A DEPTH OF 9" AND TRACK WALK 2 PASSES TO ACHIEVE PLANTING LAYER AT FINISHED GRADE.
- CHANNEL RESTORATION GRADING. IN AREAS DOWNSLOPE FROM DLF-COVERED AND BOULDER-ANCHORED LARGE WOOD SLOPE EROSION PROTECTION AREAS, THE FINISHED GRADES FORMING THE RESTORED CHANNEL WILL BE ACHIEVED BY PLACEMENT OF SELECTED NATIVE MATERIAL EXCAVATED AND STOCKPILED FROM THE EXISTING CHANNEL BED SURFACE AREAS ON SITE (CHANNEL RESTORATION FILL).

GRADING PLAN
SCALE: 1" = 30'



Revisions:

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
3601 Civic Center Dr., Rm 304
San Rafael, CA 94903

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

GRADING PLAN
CORTE MADERA CREEK
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
www.geomorphdesign.com



Date:
24 FEB 2022

Design by:
MS

Drawn by:
BRS

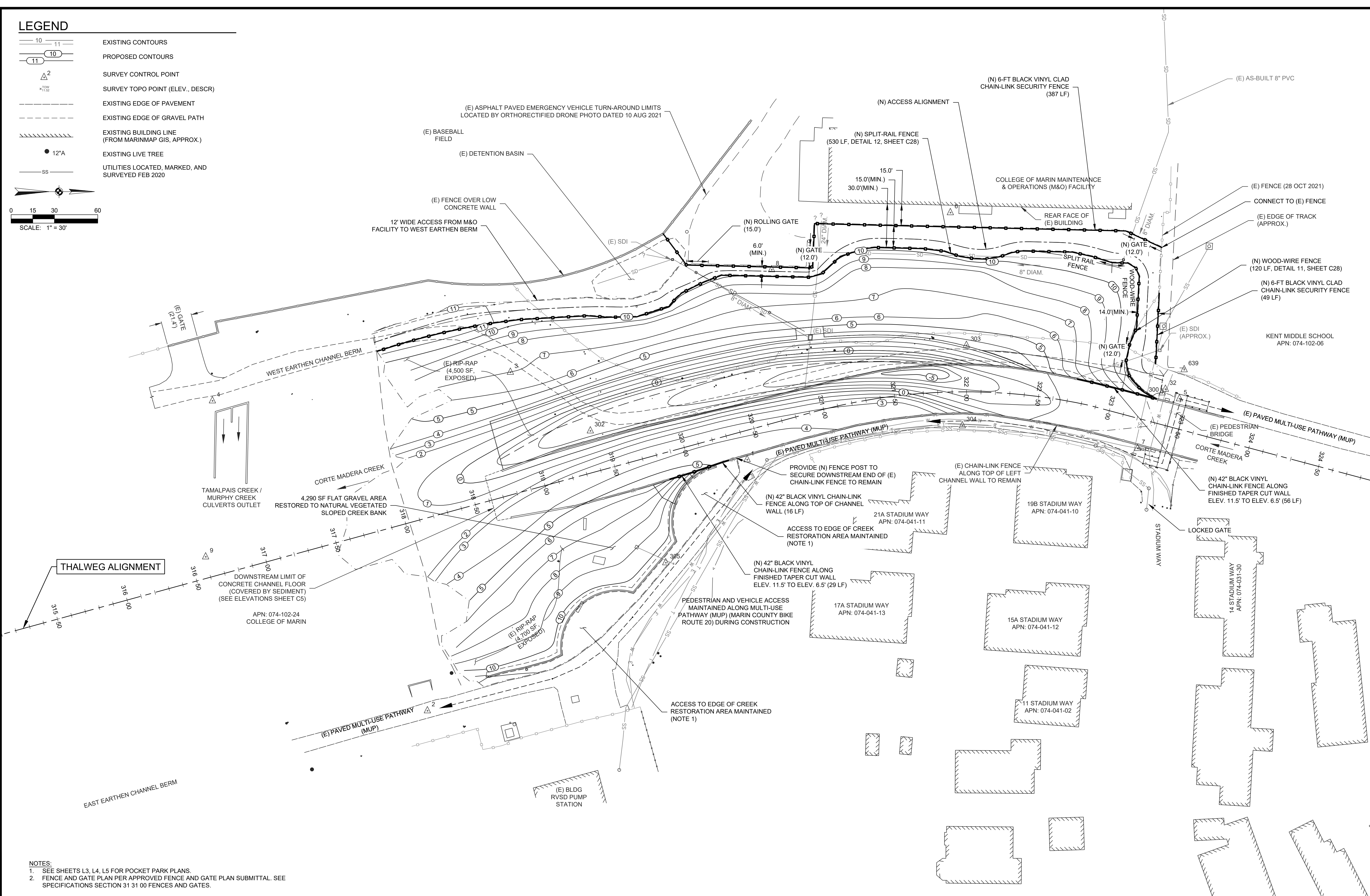
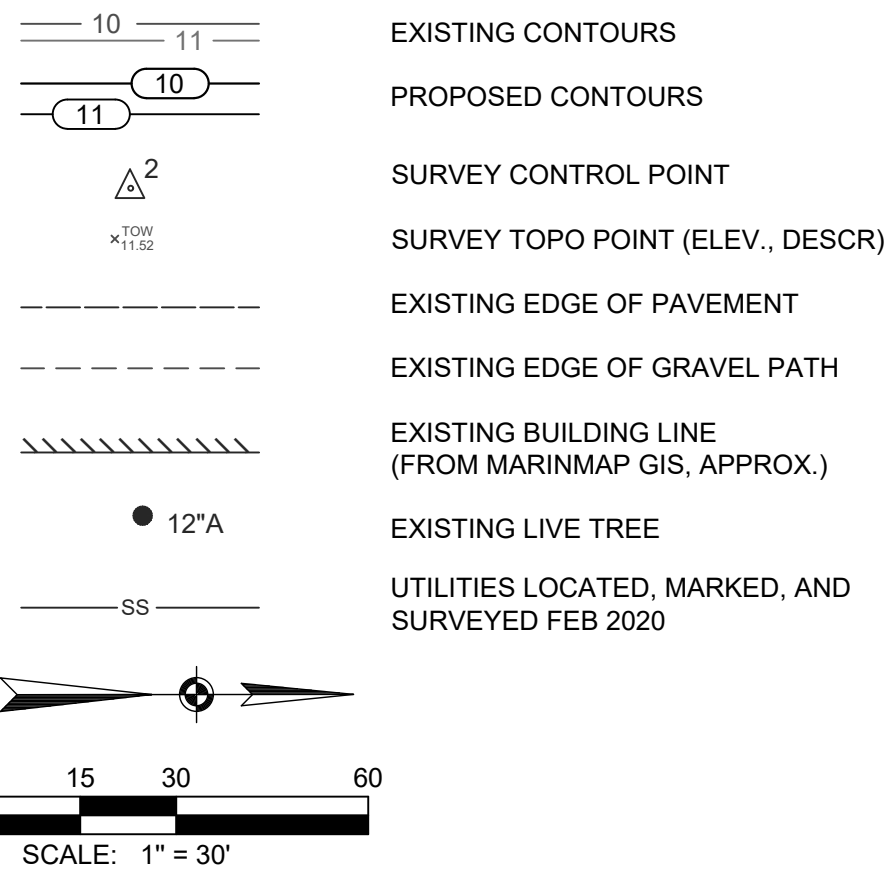
Checked by:
MS

Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C26

LEGEND



- NOTES:
 1. SEE SHEETS L3, L4, L5 FOR POCKET PARK PLANS.
 2. FENCE AND GATE PLAN PER APPROVED FENCE AND GATE PLAN SUBMITTAL. SEE SPECIFICATIONS SECTION 31 31 00 FENCES AND GATES.

FENCE AND GATE PLAN SCALE: 1" = 30'



Revisions:

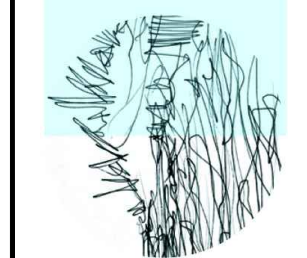
MARIN COUNTY
 FLOOD CONTROL &
 WATER CONSERVATION
 DISTRICT
 3501 Civic Center Dr., Rm 304
 San Rafael, CA 94903



FENCE AND GATE PLAN CORTES MADERA CREEK LOWER COM CORTES MADERA CREEK RESTORATION PROJECT

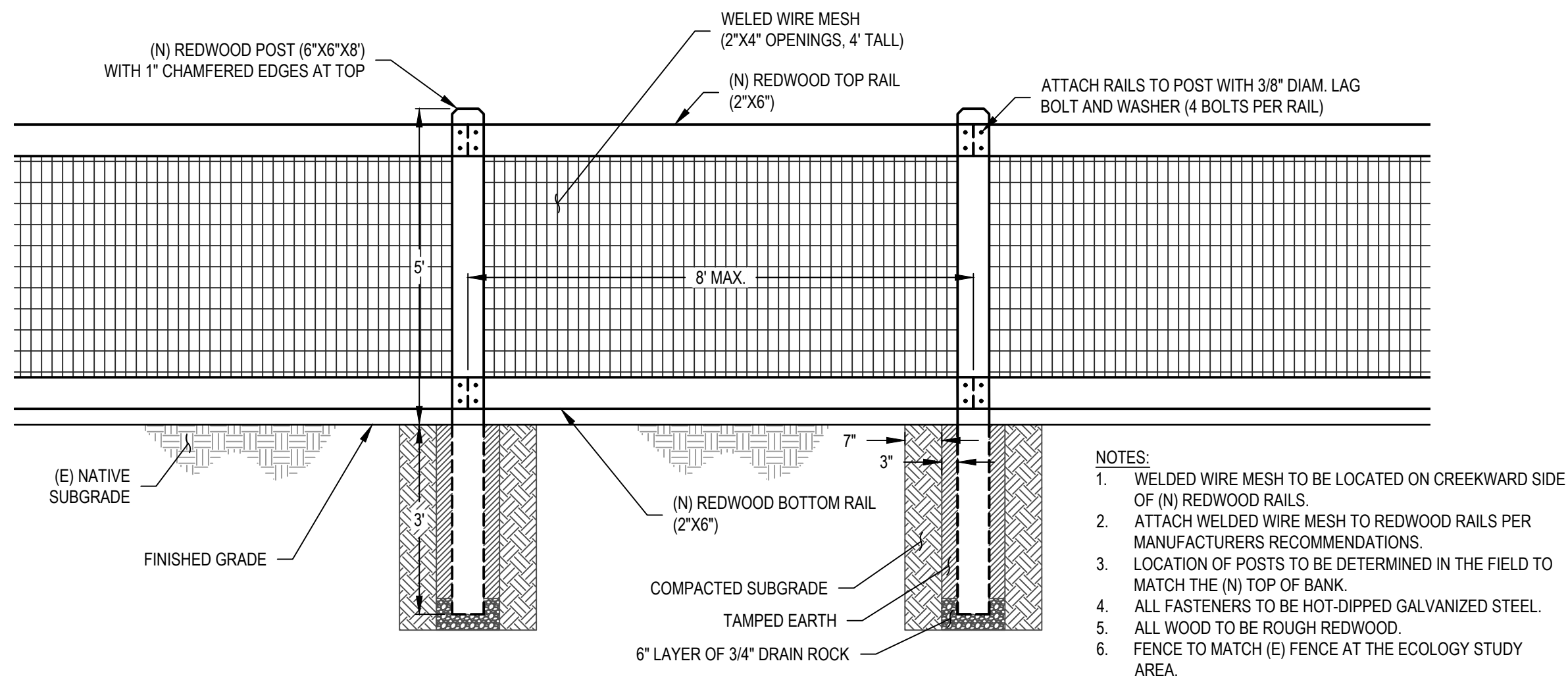
Geomorph DESIGN
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 San Rafael, CA 94901
 (510) 219-1064
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geomorphDESIGN



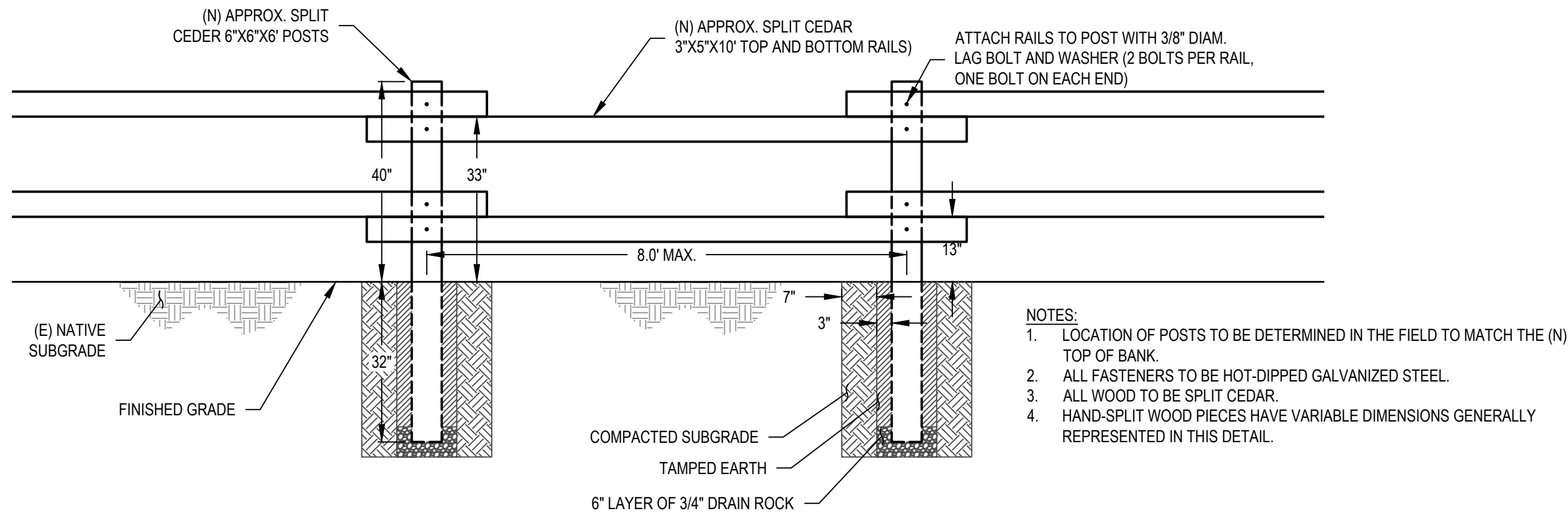
Date:
 24 FEB 2022
 Design by:
 MS
 Drawn by:
 BRS
 Checked by:
 MS
 Scale:
 1" = 30'
 FINAL 100%
 DESIGN PLAN
 SUBMITTAL

C27



WOOD-WIRE FENCE DETAIL
SCALE: 1" = 2'

11
C28



SPLIT-RAIL FENCE DETAIL
SCALE: 1" = 2'

12
C28



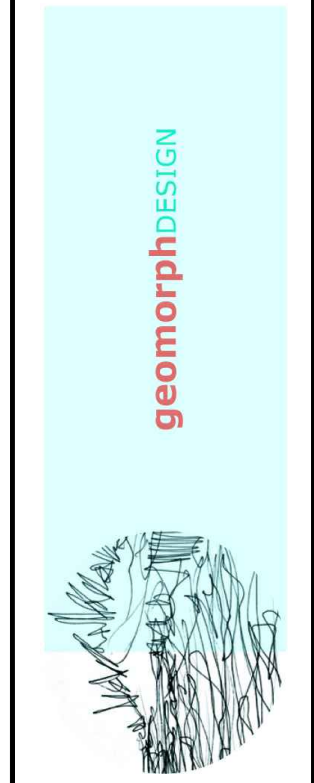
Revisions:

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
3601 Civic Center Dr., Rm 304
San Rafael, CA 94903



FENCE AND GATE DETAILS
CORTE MADERA CREEK
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

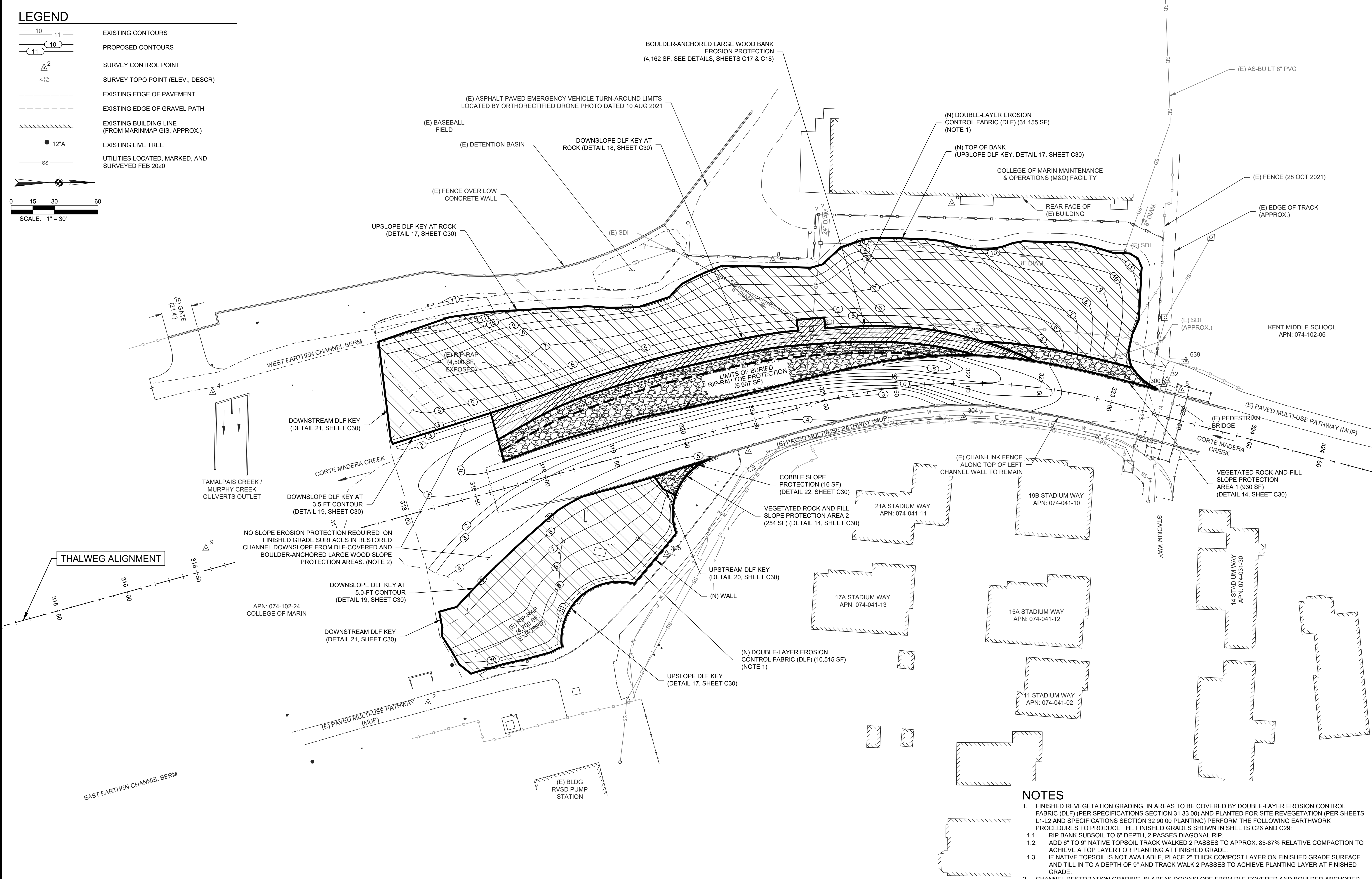
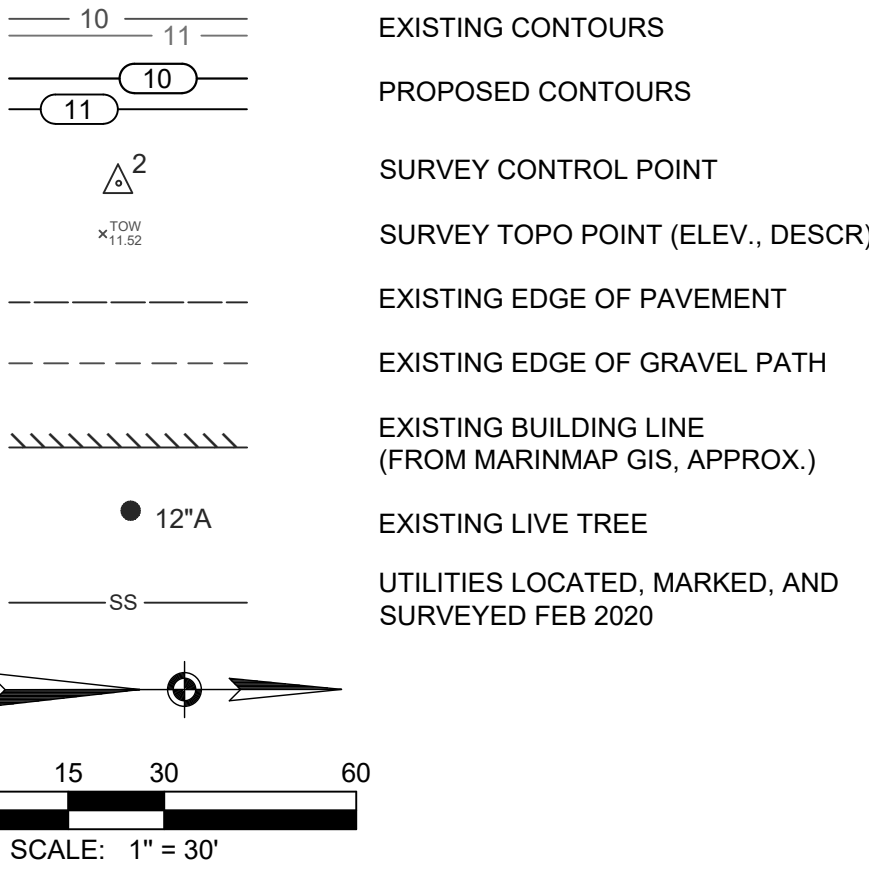
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Date:
24 FEB 2022
Design by:
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Scale:
AS SHOWN
FINAL 100%
DESIGN PLAN
SUBMITTAL

C28

LEGEND



SLOPE EROSION PROTECTION PLAN

SCALE: 1" = 30'

NOTES

1. FINISHED REVEGETATION GRADING. IN AREAS TO BE COVERED BY DOUBLE-LAYER EROSION CONTROL FABRIC (DLF) (PER SPECIFICATIONS SECTION 31 33 00) AND PLANTED FOR SITE REVEGETATION (PER SHEETS L1-L2 AND SPECIFICATIONS SECTION 32 90 00 PLANTING) PERFORM THE FOLLOWING EARTHWORK PROCEDURES TO PRODUCE THE FINISHED GRADES SHOWN IN SHEETS C26 AND C29:
 - 1.1. RIP BANK SUBSOIL TO 6" DEPTH, 2 PASSES DIAGONAL RIP.
 - 1.2. ADD 6" TO 9" NATIVE TOPSOIL TRACK WALKED 2 PASSES TO APPROX. 85-87% RELATIVE COMPACTION TO ACHIEVE A TOP LAYER FOR PLANTING AT FINISHED GRADE.
 - 1.3. IF NATIVE TOPSOIL IS NOT AVAILABLE, PLACE 2" THICK COMPOST LAYER ON FINISHED GRADE SURFACE AND TILL IN TO A DEPTH OF 9" AND TRACK WALK 2 PASSES TO ACHIEVE PLANTING LAYER AT FINISHED GRADE.
2. CHANNEL RESTORATION GRADING. IN AREAS DOWNSLOPE FROM DLF-COVERED AND BOULDER-ANCHORED LARGE WOOD SLOPE EROSION PROTECTION AREAS, THE FINISHED GRADES FORMING THE RESTORED CHANNEL WILL BE ACHIEVED BY PLACEMENT OF SELECTED NATIVE MATERIAL EXCAVATED AND STOCKPILED FROM THE EXISTING CHANNEL BED SURFACE AREAS ON SITE (CHANNEL RESTORATION FILL).



Revisions:

No.	Description	Date

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
3601 Civic Center Dr., Rm 304
San Rafael, CA 94903

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

SLOPE EROSION PROTECTION PLAN

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
www.geomorphdesign.com

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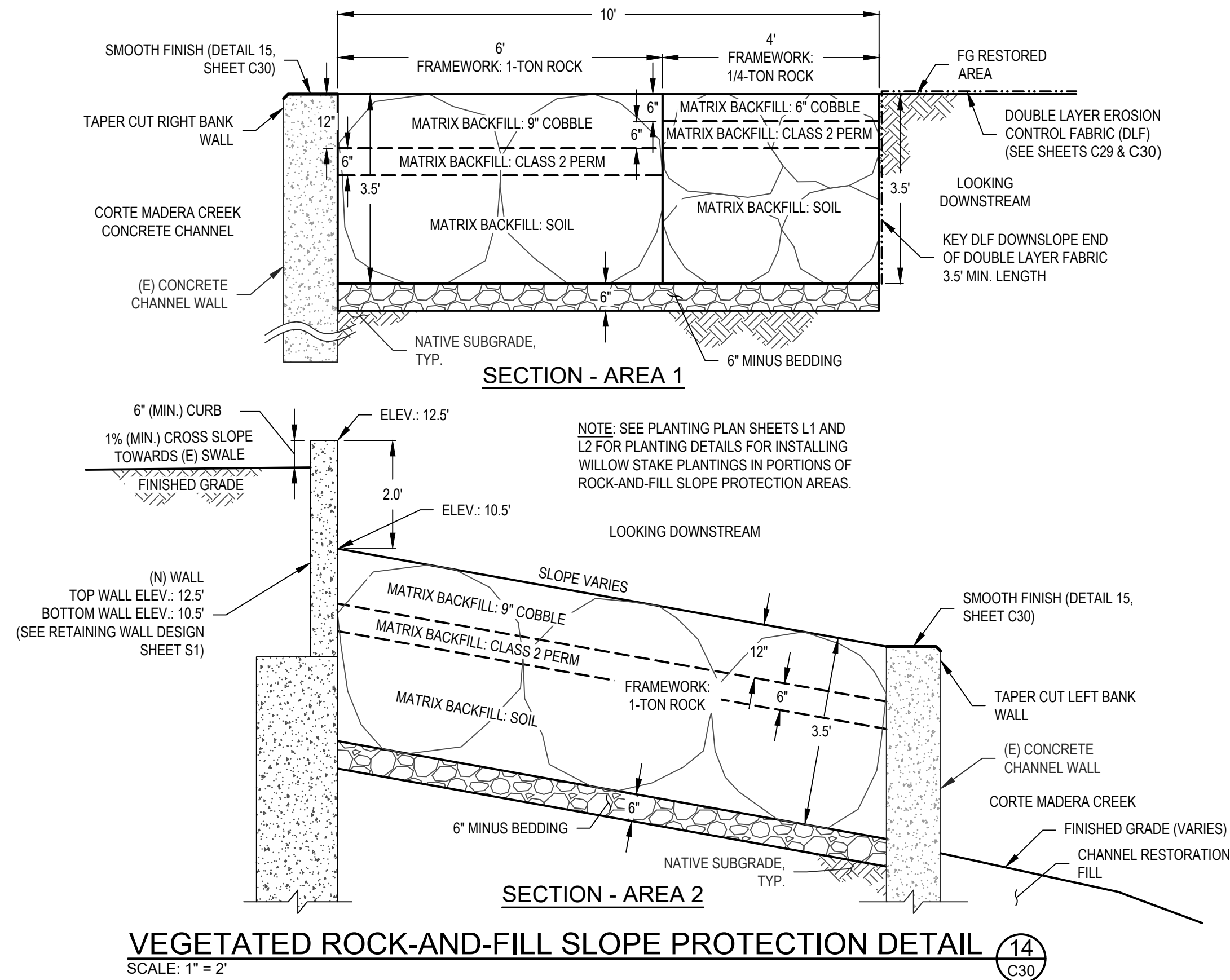
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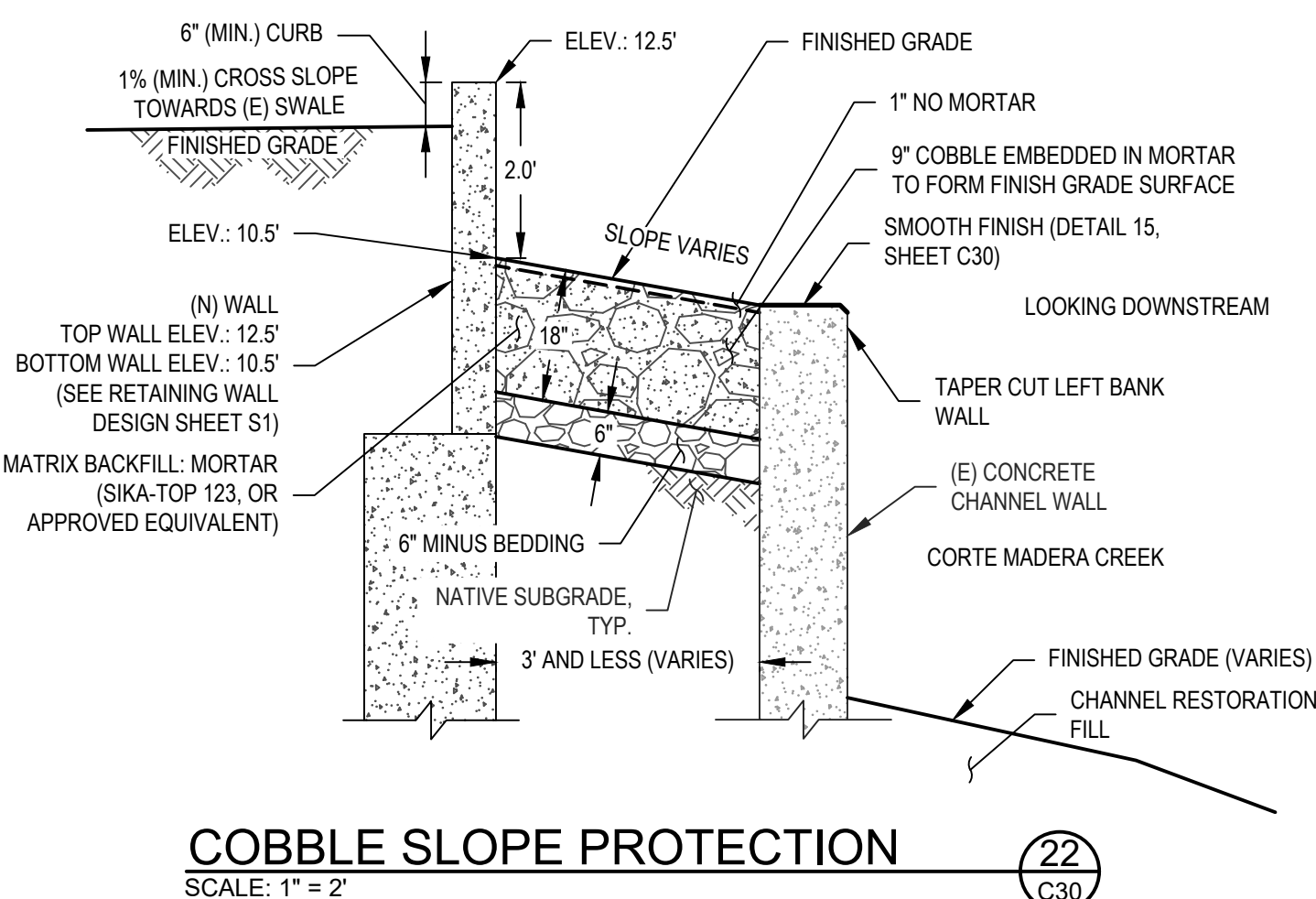
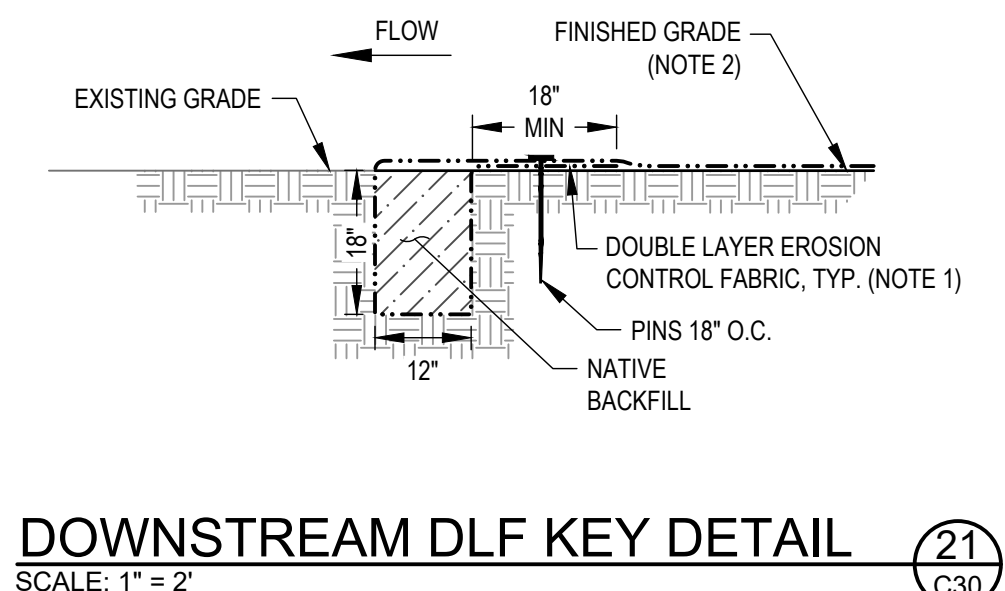
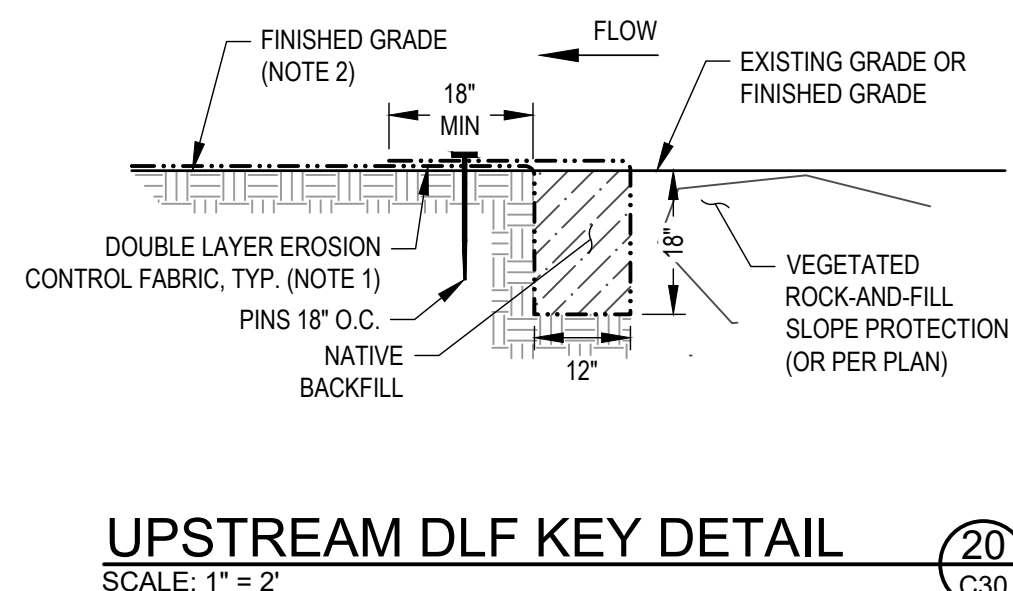
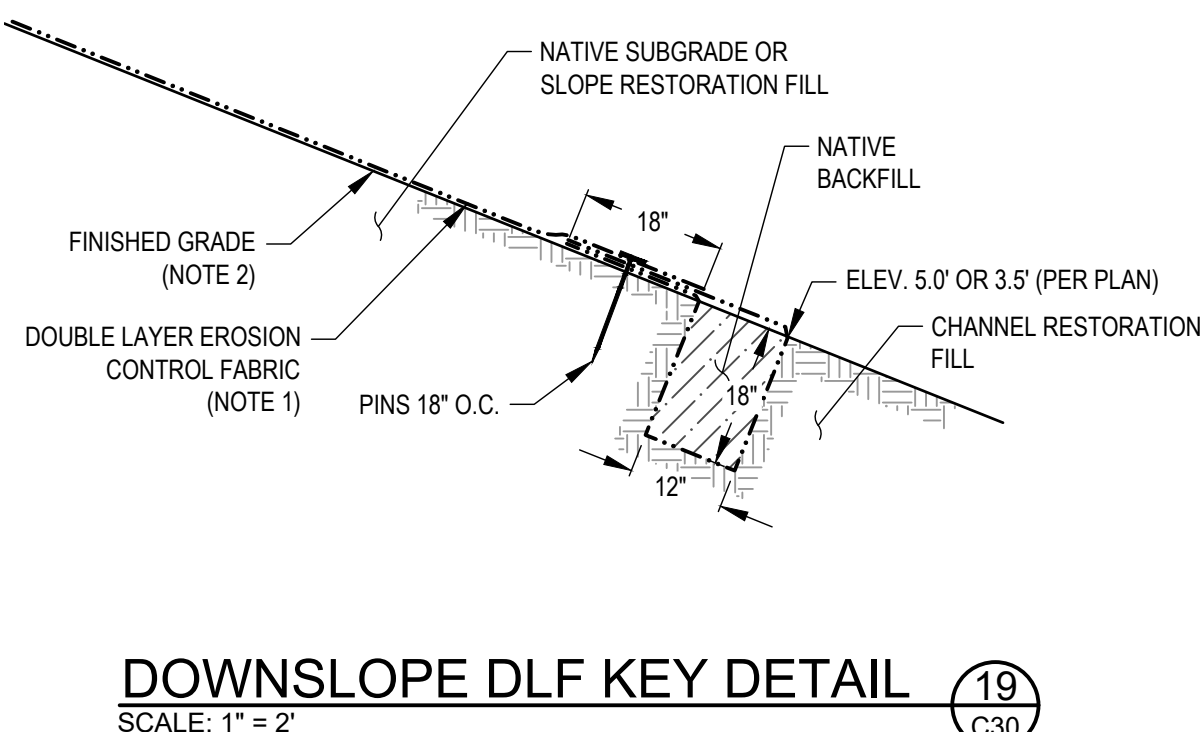
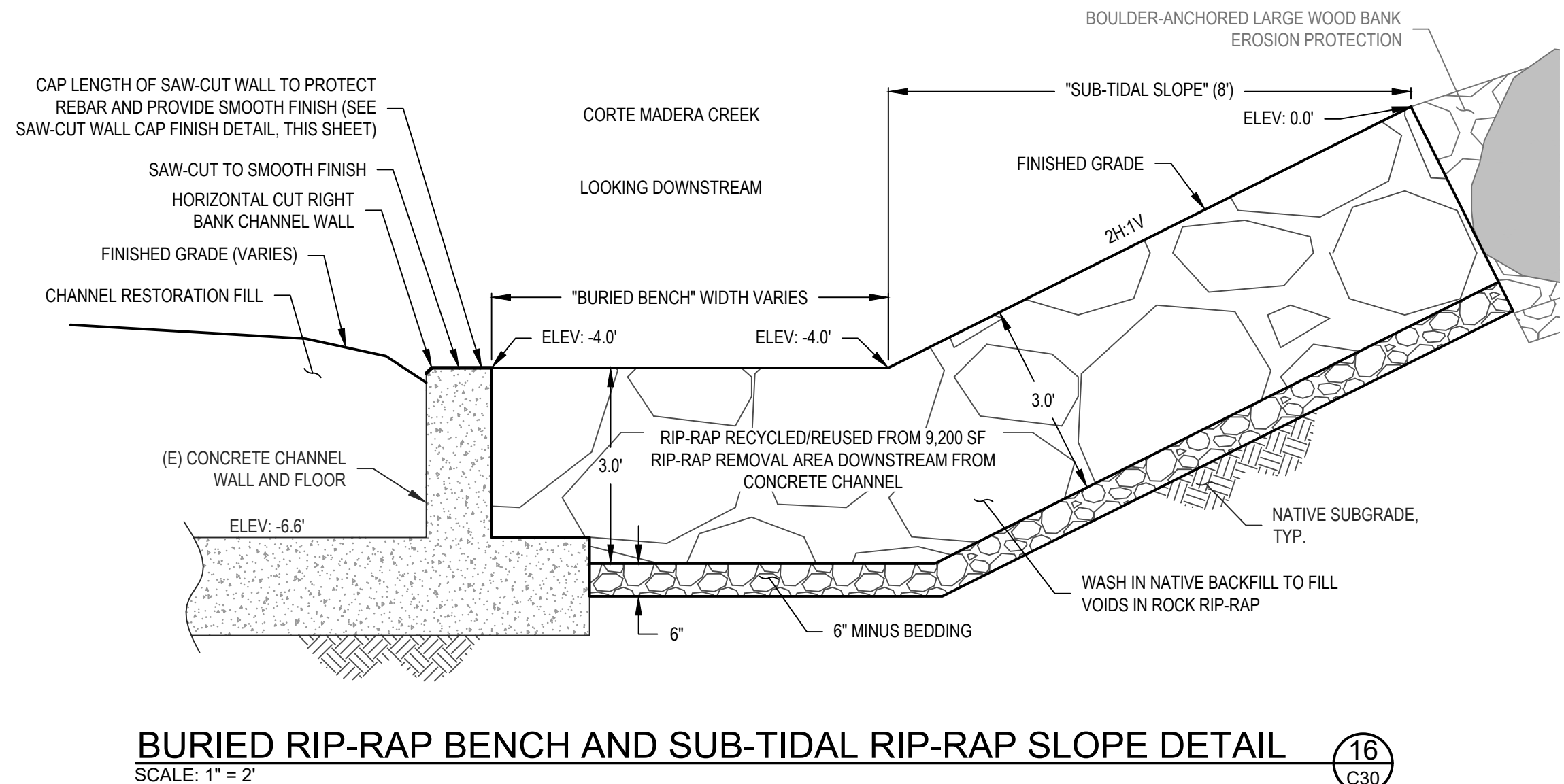
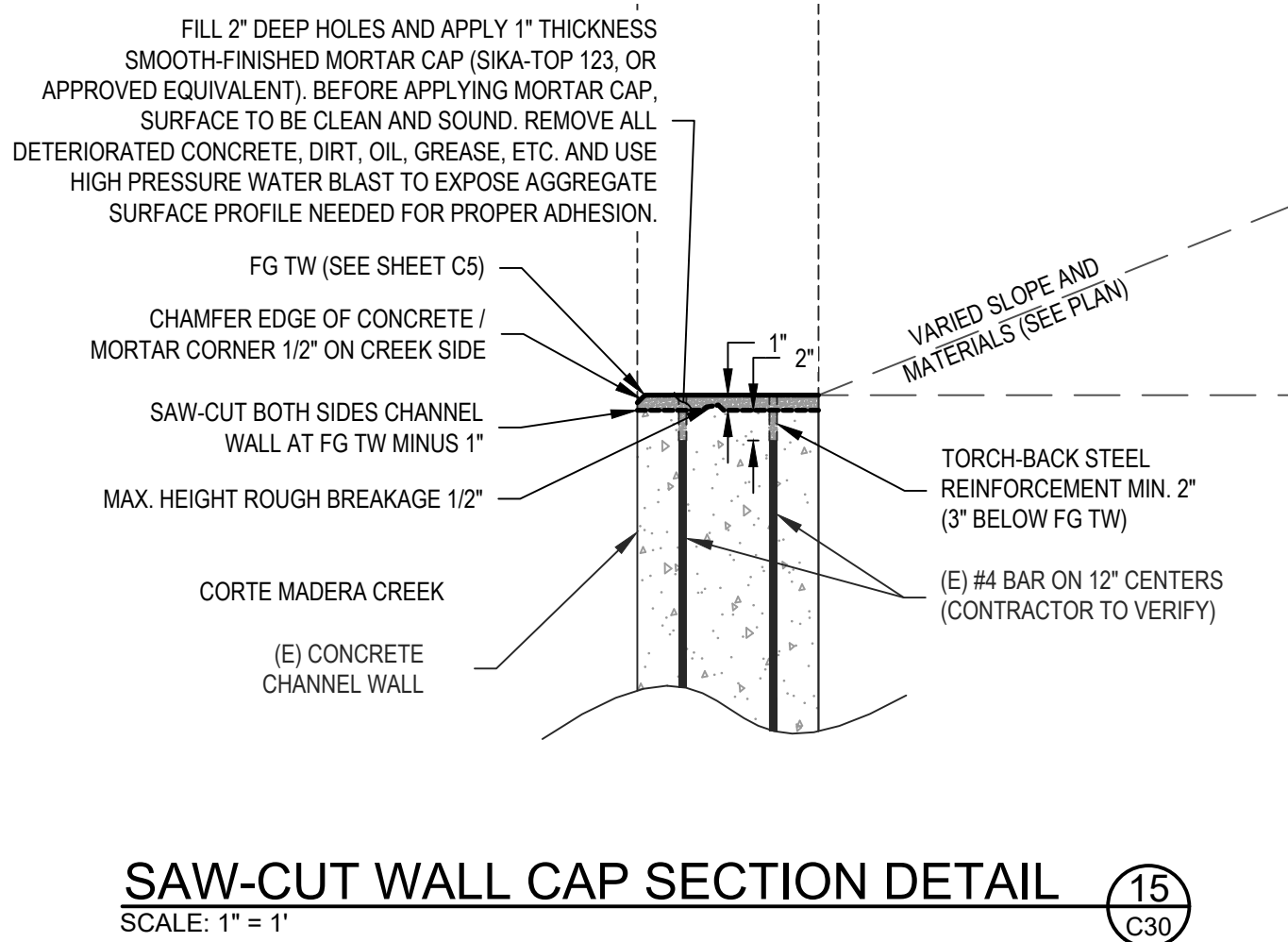
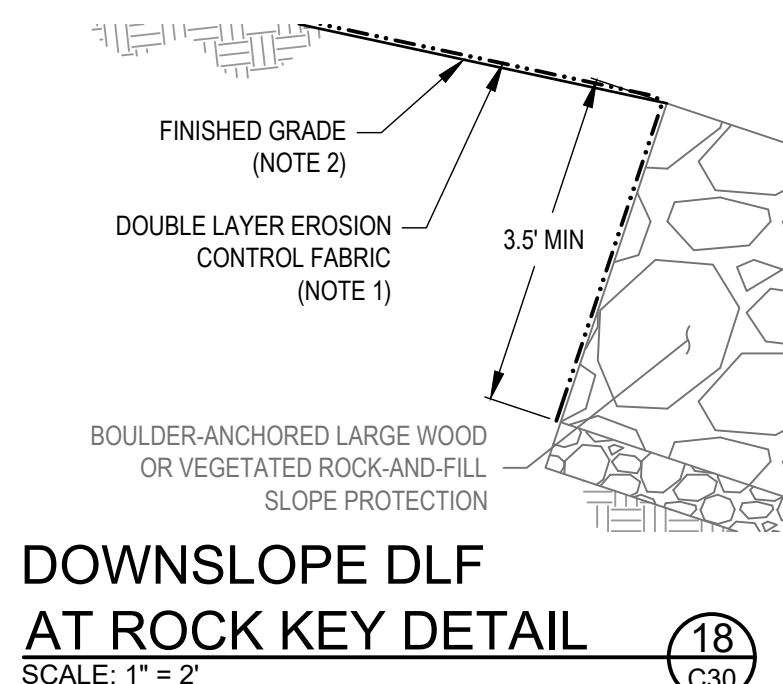
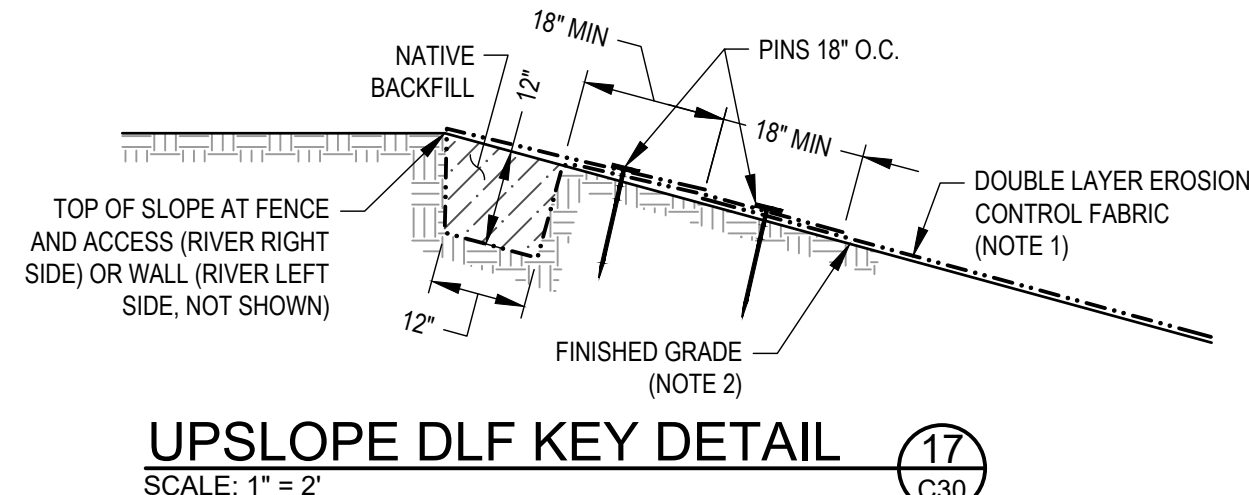
Checked by:
MS

Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL



- NOTES:
- DLF TOP LAYER: 700G COIR MAT (NEDIA KOIRMAT 700, OR APPROVED EQUIVALENT)
 - DLF BOTTOM LAYER: 650G COIR BLANKET (NORTH AMERICAN GREEN C125BN, OR APPROVED EQUIVALENT)
 - PRIOR TO PLACEMENT OF DOUBLE-LAYER EROSION CONTROL FABRIC, RIP BANK SUBSOIL TO 6" DEPTH, 2 PASSES DIAGONAL RIP. ADD 6" TO 9" NATIVE TOPSOIL TRACK WALKED 2 PASSES TO APPROXIMATELY 85-87% RELATIVE COMPACTION TO ACHIEVE A TOP SOIL LAYER FOR PLANTING AT FINISHED GRADE. IF NATIVE TOPSOIL IS NOT AVAILABLE PLACE 2" THICK COMPOST LAYER ON BANK, TILL INTO A DEPTH OF 9" AND TRACK WALK 2 PASSES.



Revisions:

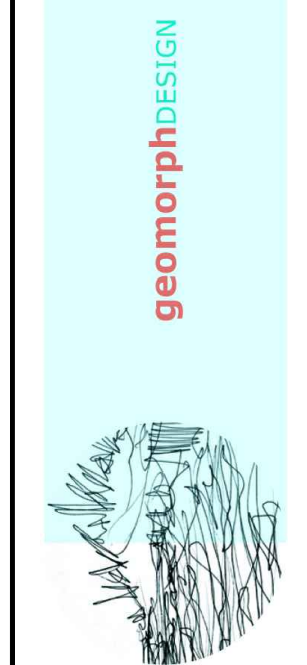


SLOPE EROSION PROTECTION DETAILS

CORTE MADERA CREEK

LOWER COMI CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
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24 FEB 2022

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Drawn by:
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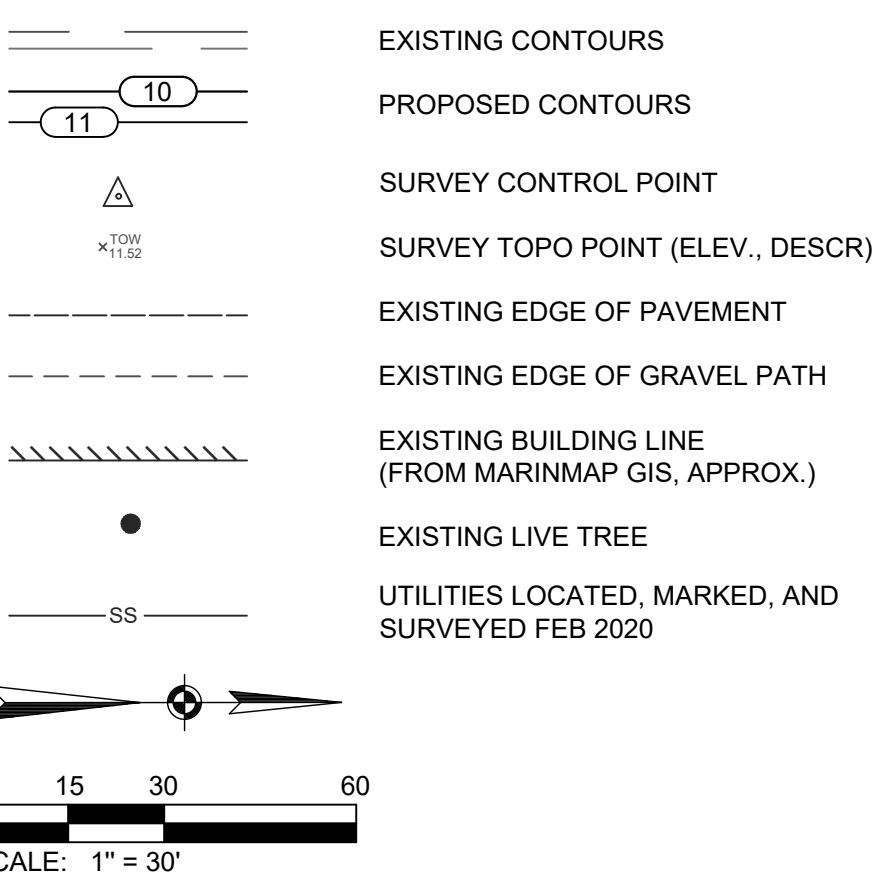
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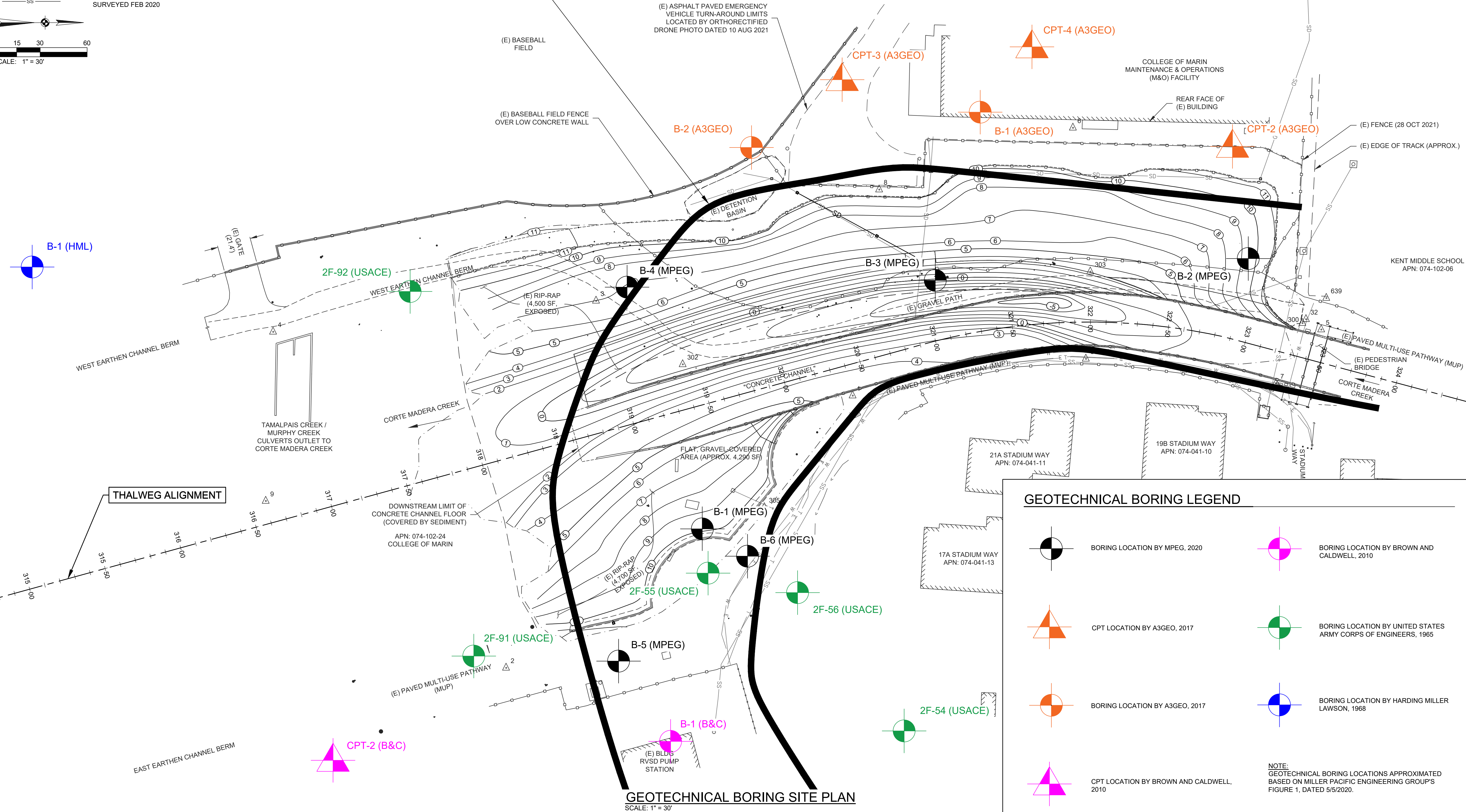
FINAL 100%
DESIGN PLAN
SUBMITTAL

C30

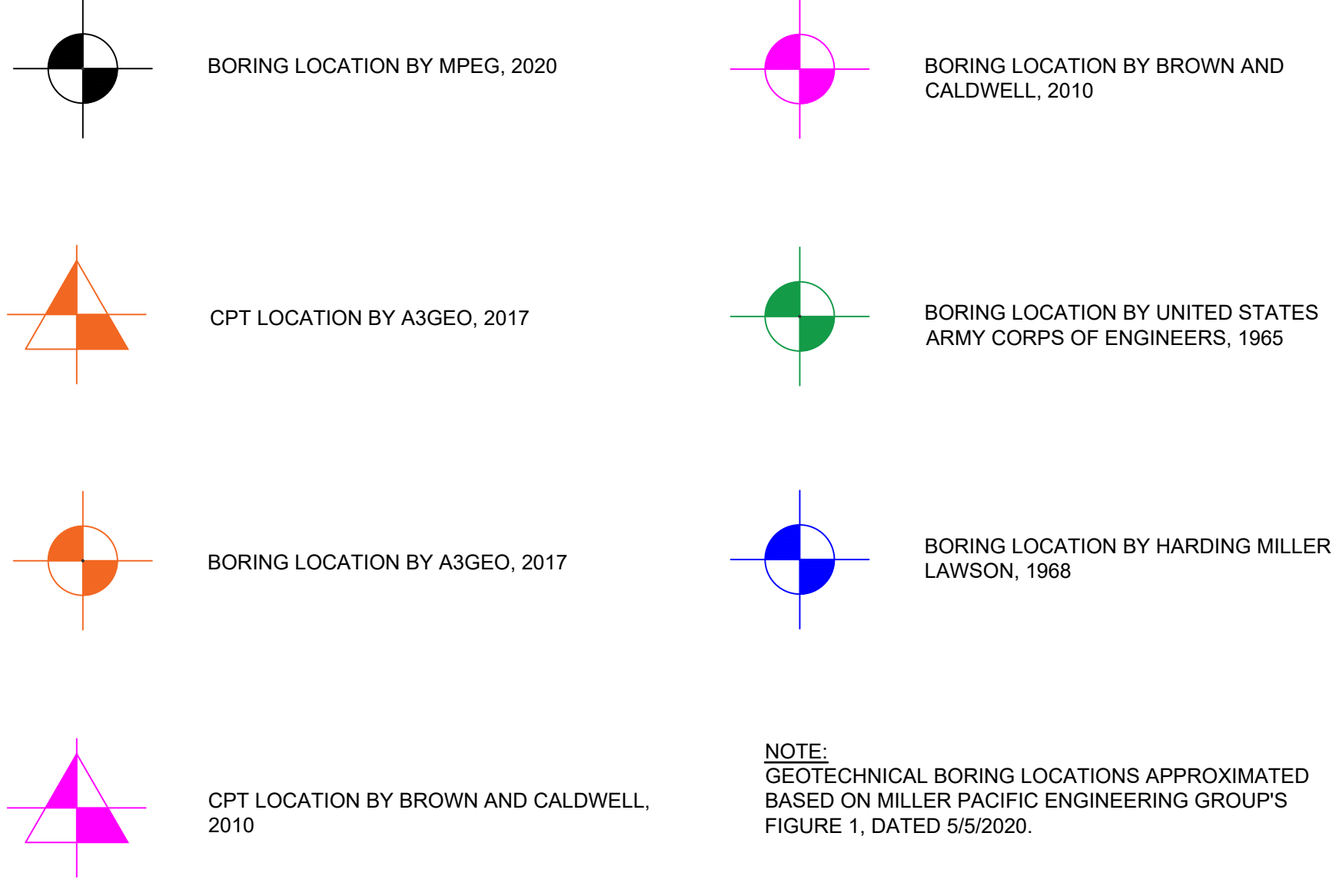
LEGEND



HISTORICAL TOP OF CHANNEL ALIGNMENT (APPROX.)



GEOTECHNICAL BORING LEGEND



RECEIVED PROFESSIONAL SEAL
DATE: MAY 12, 2022
No. 71671
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

Revisions:

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
3601 Civic Center Dr., Rm 304
San Rafael, CA 94903

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT

GEOTECHNICAL BORING SITE PLAN
CORTE MADERA CREEK
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
www.geomorphdesign.com

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Date:
24 FEB 2022

Design by:
MS

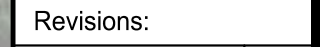
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BRS

Checked by:
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Scale:
1" = 30'

FINAL 100%
DESIGN PLAN
SUBMITTAL

C31

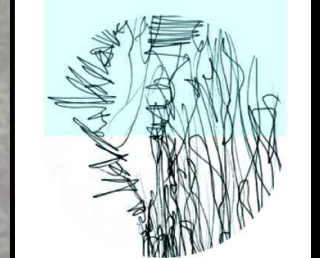
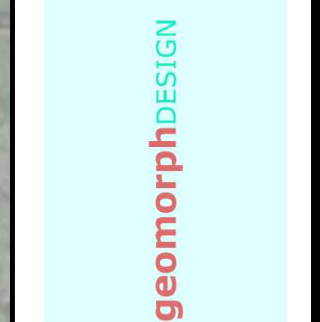


OVERALL CONSTRUCTION ACCESS PLAN

CORTE MADERA CREEK

LOWER COM CORTE MADERA CREEK RESTORATION

Geomorph DESIGN
2100 Fourth Street, No. 154
San Rafael, CA 94901
(510) 219-1064
www.geomorphdesign.com

Date:
24 FEB 2022

Design by:
MS

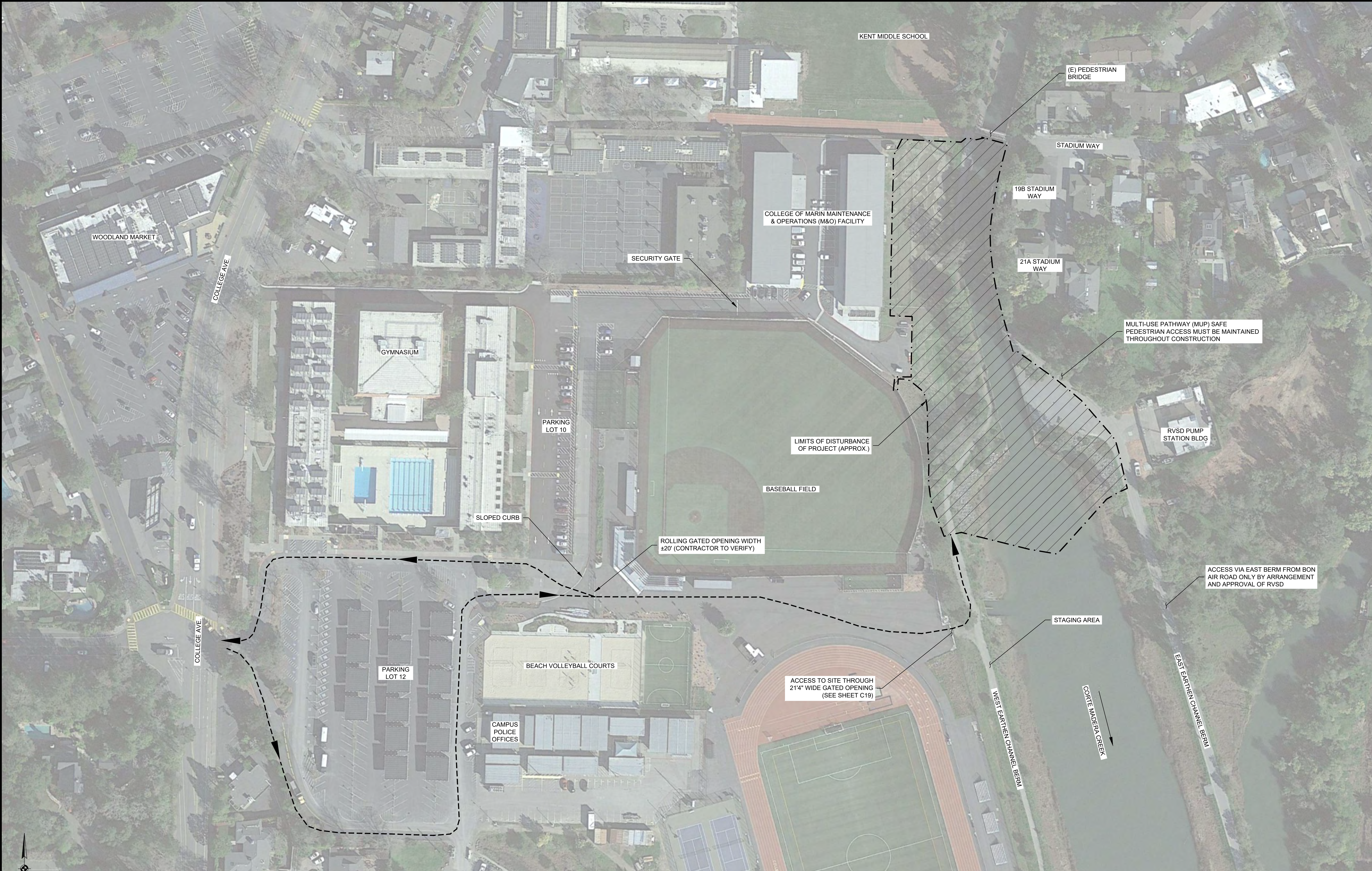
Drawn by:
BRS

Checked by:
MS

Scale:
AS SHOWN

FINAL 100% DESIGN PLAN SUBMITTAL	
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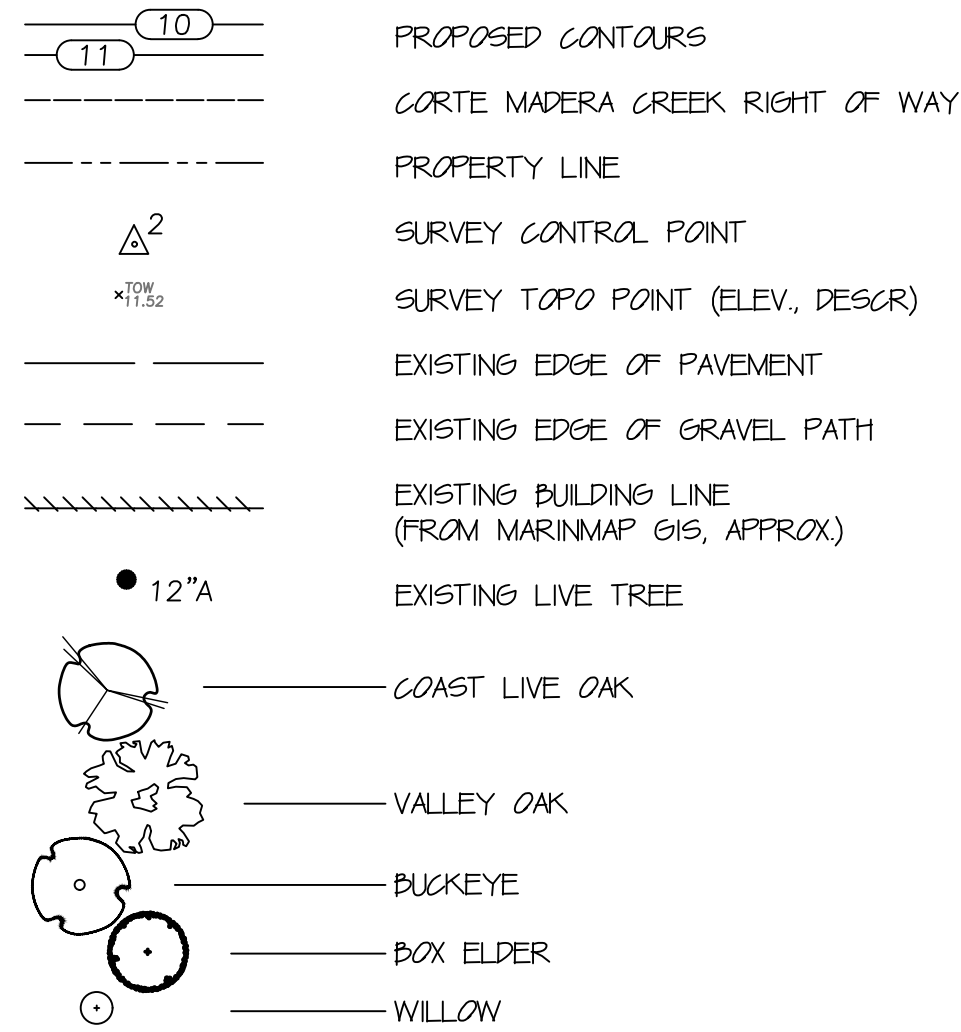
C32



OVERALL CONSTRUCTION ACCESS PLAN
SCALE: 1" = 60'

NOTE:
AERIAL PHOTO FROM GOOGLE
EARTH PRO, DATED FEB 2021.

LEGEND



- NOTES:
- RIP BANK SUBSOIL TO 6" DEPTH, 2 PASSES DIAGONAL RIP.
 - ADD 6" TO 9" NATIVE TOPSOIL TRACKED WALKED 2 PASSES. TO APPROX. 85-87% RELATIVE COMPACTION TO ACHIEVE A TOP SOIL LAYER FOR PLANTING.
 - IF NATIVE TOPSOIL IS NOT AVAILABLE PLACE 2" THICK COMPOST LAYER ON BANK, TILL IN TO A DEPTH OF 9" AND TRACK WALK 2 PASSES
 - SEE CIVIL DRAWINGS FOR EROSION CONTROL MEASURES AT BANK.
 - UPPER BANK ABOVE ELEVATION 8' TO BE SEEDED WITH NATIVE SEED MIX, SEE PLANT LIST
 - SHRUB PLANTINGS WILL OCCUR IN CLUSTERS THROUGHOUT UPLAND ZONE

PLANT LIST

Zone/ Revegetation Strategy	Common Name	Latin Name	Container Size (minimum) ¹	Browse (Feet on Guard center)	Plant Numbers
High Marsh: Plant within upper portion of zone; allow remainder to establish naturally.					
	pickleweed	<i>Salicornia pacifica</i>	transplant	1.5	800
	seacoast bulrush	<i>Bulboschoenus maritimus</i>	Stubby Cell	1.5	500
	fleshy jaumea	<i>Jaumea carnosa</i>	RP	1.5	600
Transition zone: Plant within upper portion of zone; allow remainder to establish naturally.					
	alkali heath	<i>Frankenia salina</i>	D16	1.5	1400
	gumplant	<i>Grindelia stricta</i>	D40 or 1 gal	1.5	600
	marsh lavender	<i>Limonium californicum</i>	RP	1.5	500
	salt grass	<i>Distichlis spicata</i>	LT6	1.5	1400
Upland: Locate trees and shrubs in clusters for habitat value as well as shade and views for park users.					
Trees	boxelder	<i>Acer negundo</i>	TP4	Y	15
	buckeye	<i>Aesculus californicus</i>	TP4	Y	15
	coast live oak	<i>Quercus agrifolia</i>	TP4	Y	15
	valley oak	<i>Quercus lobata</i>	TP4	Y	15
Shrubs	coastal sagebrush	<i>Artemisia californica</i>	D16	Y	4
	coffeberry	<i>Frangula californica</i>	D40	Y	6
	coyote brush	<i>Baccharis pilularis</i>	D40	Y	6
	snowberry	<i>Symphoricarpos mollis</i>	D40	Y	6
	sticky monkeyflower	<i>Mimulus aurantiacus</i>	D40	Y	4
	toyon	<i>Heteromeles arbutifolia</i>	D40	Y	6
	arroyo willow	<i>Salix lasiolepis</i>	cutting	5	36
	seed mixes: 40 lbs PLS/ac, applied to disturbed areas >8' elev.	% Composition by Weight			
Vegetated Rock-and-Fill Slope Protection					
	Upland blue wildrye	<i>Elymus glaucus</i>	40%		
	CA brome	<i>Bromus carinatus</i>	40%		
	sky lupine	<i>Lupinus nanus</i>	5%		
	small fescue	<i>Festuca microstachys</i>	10%		
	yarrow	<i>Achillea millefolium</i>	5%		

¹ Marsh and transition zone species may be planted from salvage or transplants to the extent available.

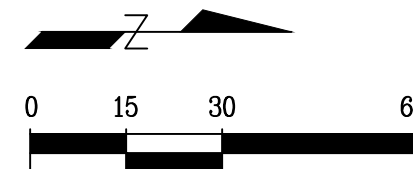
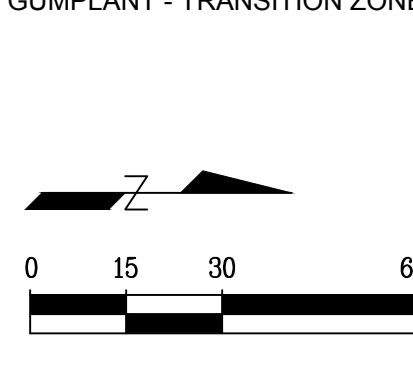
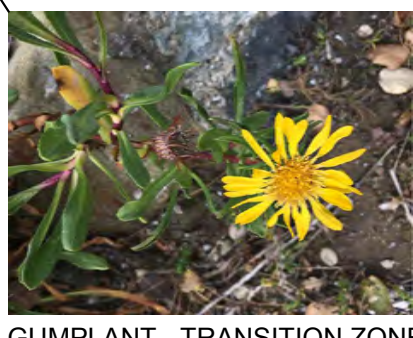
PLANT TABLE ABBREVIATIONS:
D = DEEPT
LT = DEEP LEACH TUBE
RP = ROSE POT
TP = TREE POT
1 GAL = 1 GALLON POT



REVEGETATION LEGEND AND ZONES

ZONE	DESCRIPTION	AREA	ELEVATION RANGE CURRENT	FORECAST ELEVATION RANGE 2050 (ASSUMES 1.5' SLR)	FORECAST ELEVATION RANGE 2100 (ASSUMES 3' SLR)
	APPROX. MEAN SEA LEVEL	30,100 SF	3'-5'	5'	6'-5'
	LOW MARSH - UNPLANTED, EROSION CONTROL FABRIC ONLY, SEE CIVIL PLANS, NATURAL CORDGRASS ESTABLISHMENT ANTICIPATED	7,000 SF	3'-4.5'	5'-6'	6'-5'-7.5'
	HIGH MARSH	8,600 SF	4.5'-6'	6'-7.5'	7.5'-9'
	TRANSITION ZONE	16,300 SF	6'-8'	7.5'-9.5'	9'-11'
	UPLAND	26,300 SF	>8'	>9.5'	>11'

REFERENCE VEGETATION TYPE IMAGES



PREPARED FOR:
**FRIENDS OF CORTE MADERA
CREEK WATERSHED**
PO BOX 415
LARKSPUR CA 94977

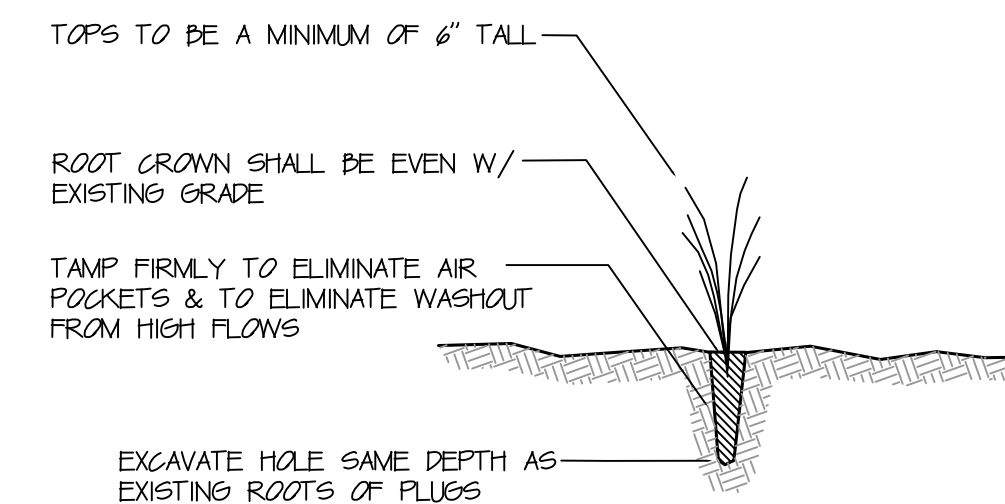
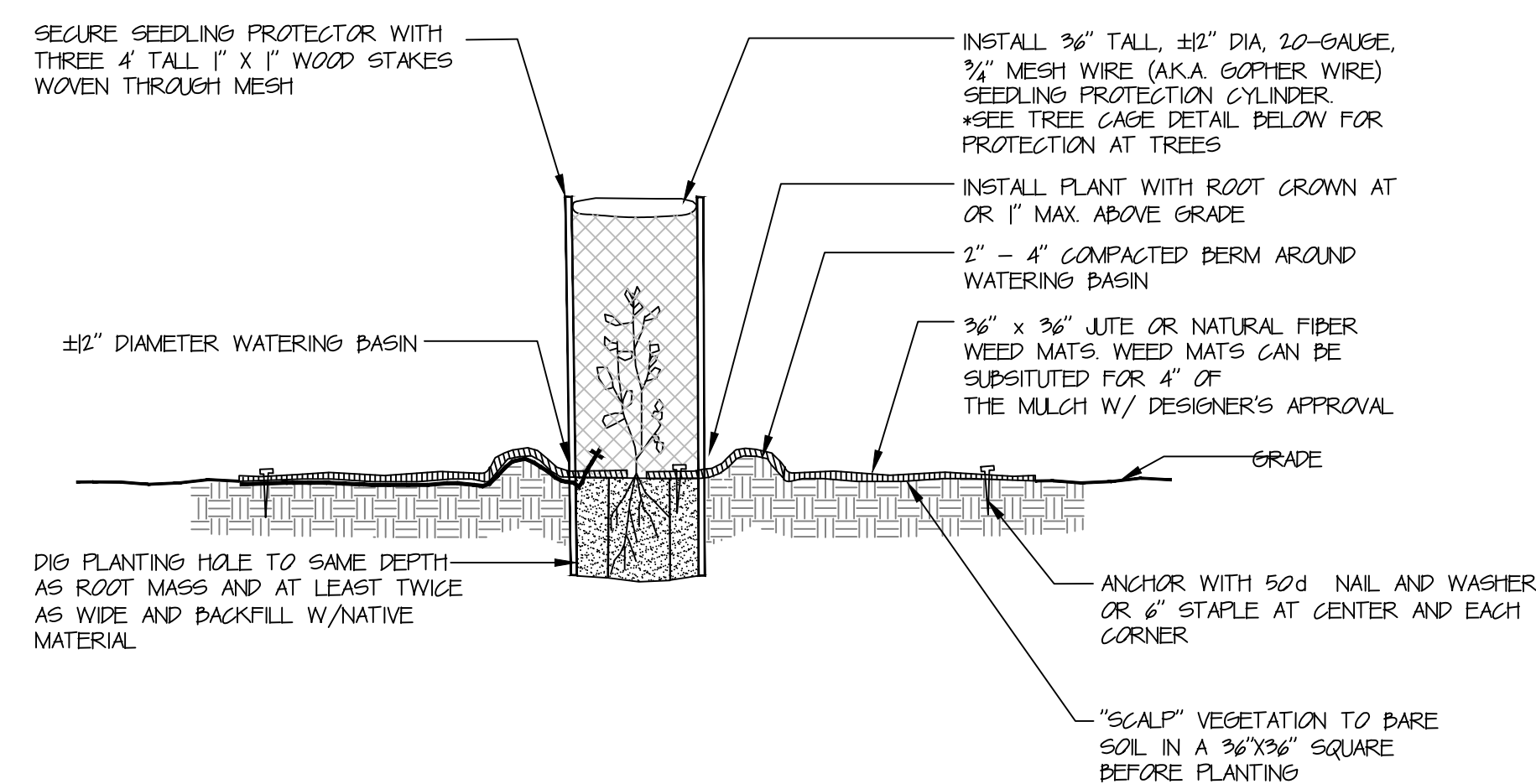
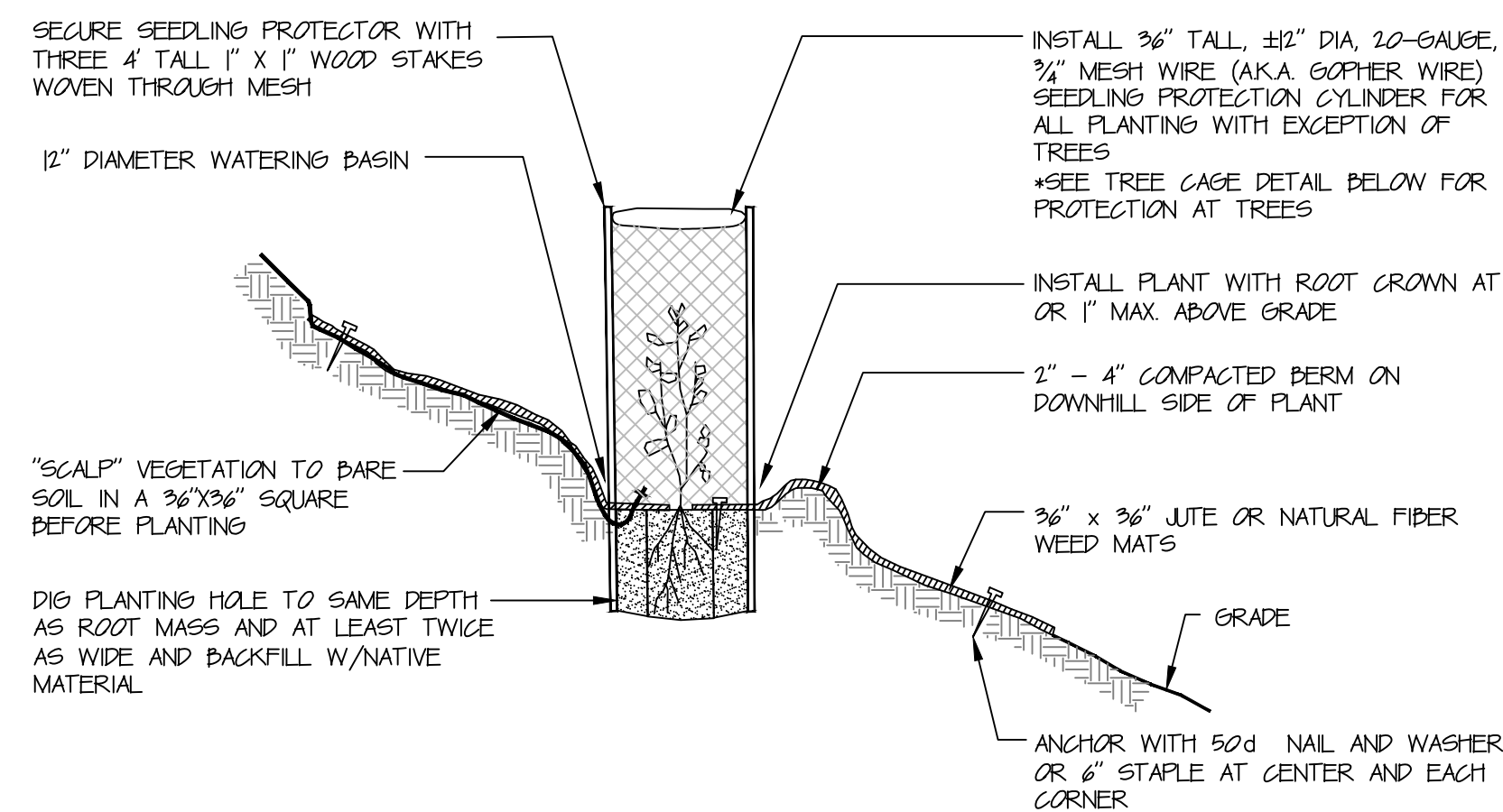
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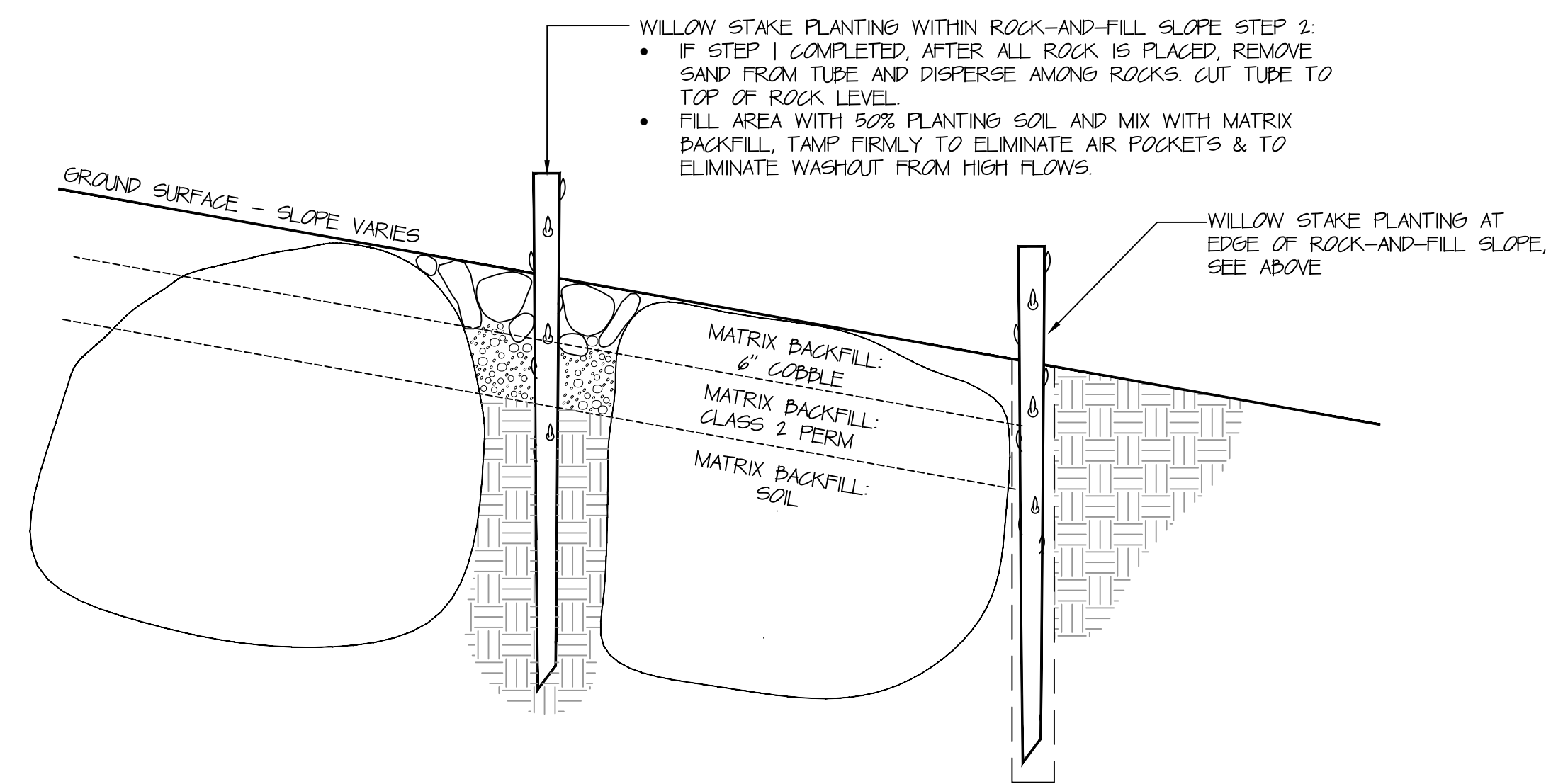
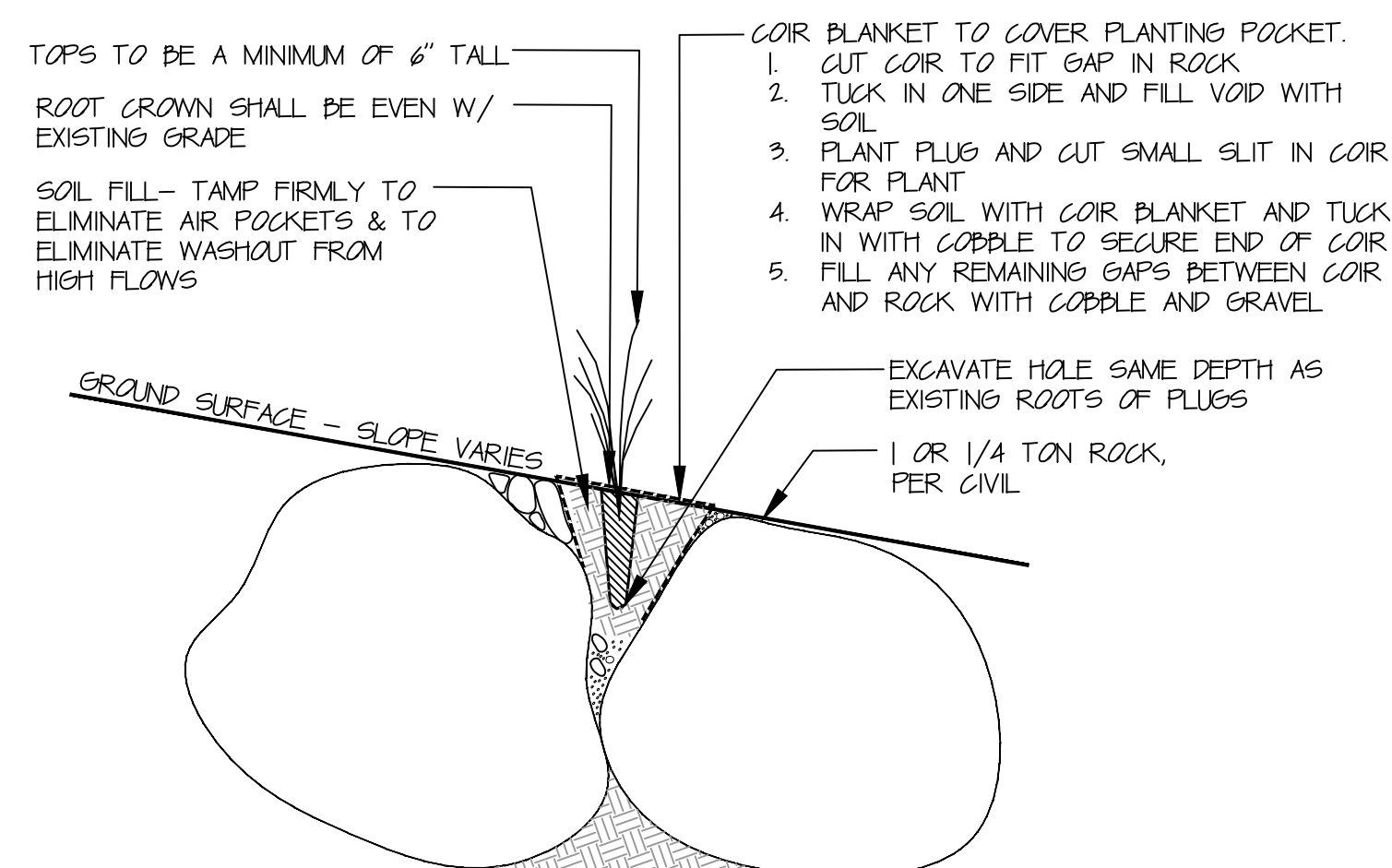
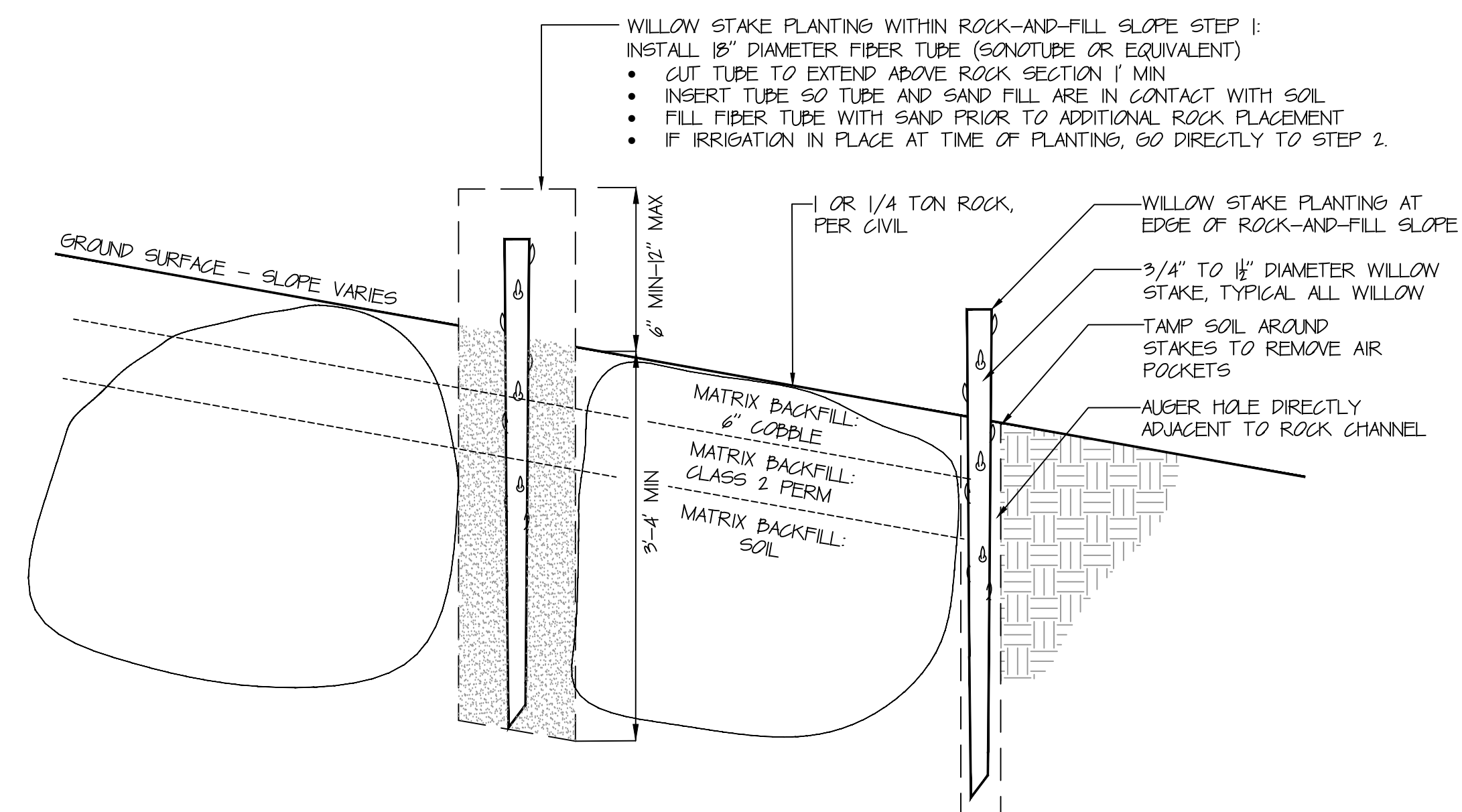
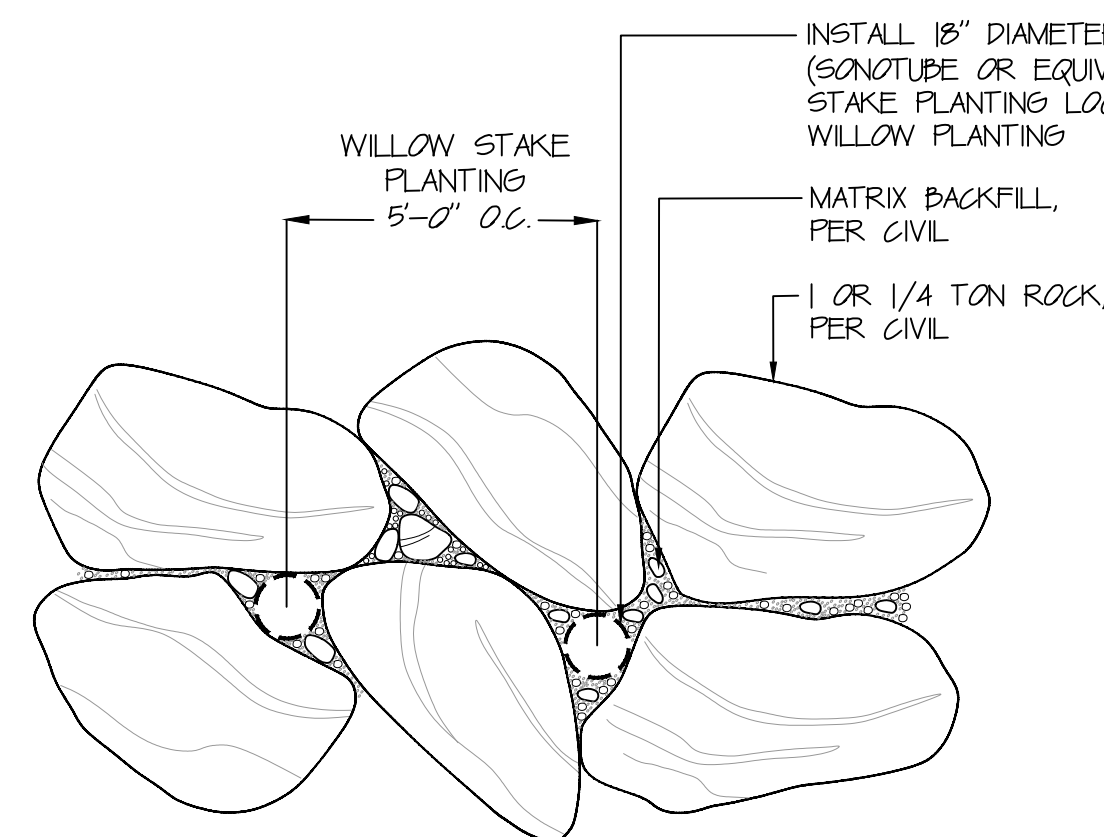
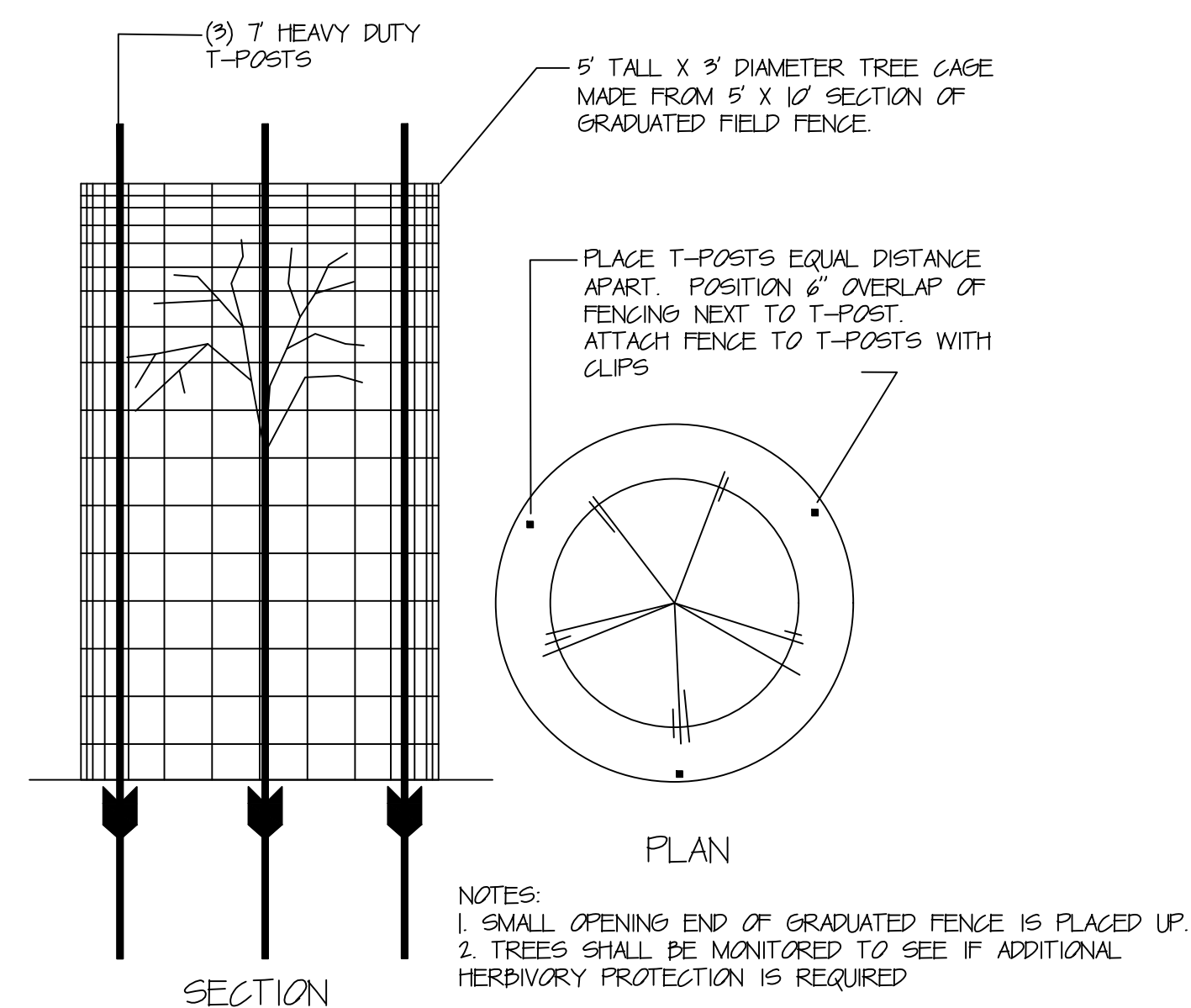
REVEGETATION PLAN
LOWER CORTE MADERA CREEK
CONCRETE CHANNEL REMOVAL PROJECT

SHEET
L1

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INSTALLATION ON HILL SLOPE CONTAINER PLANTING DETAIL



PLANTING IN ROCK WORK

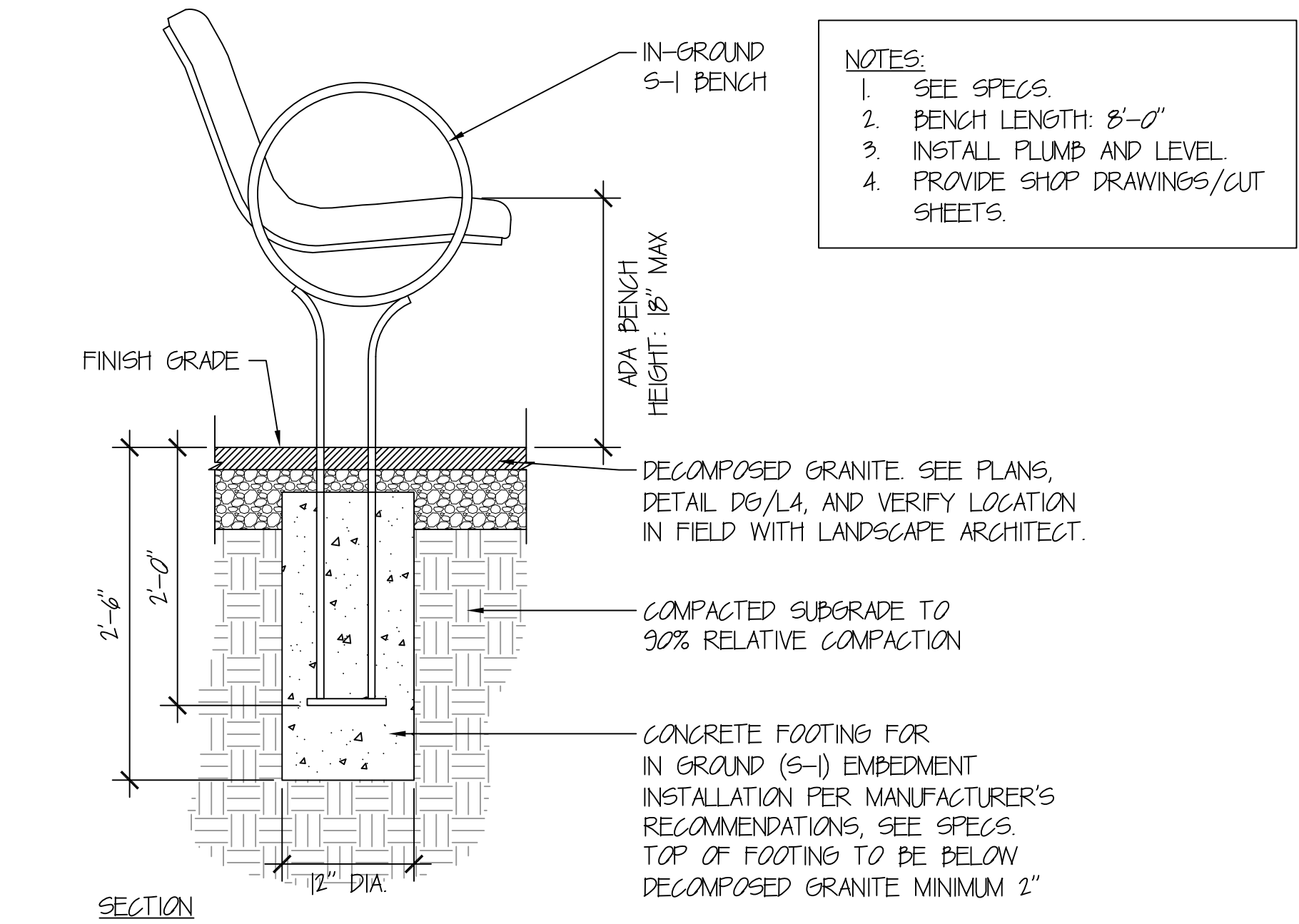
REVISIONS	DATE	BY

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DESIGNED BY: JS
DRAFTED BY: FW
CHECKED BY: MJ

REVEGETATION DETAILS

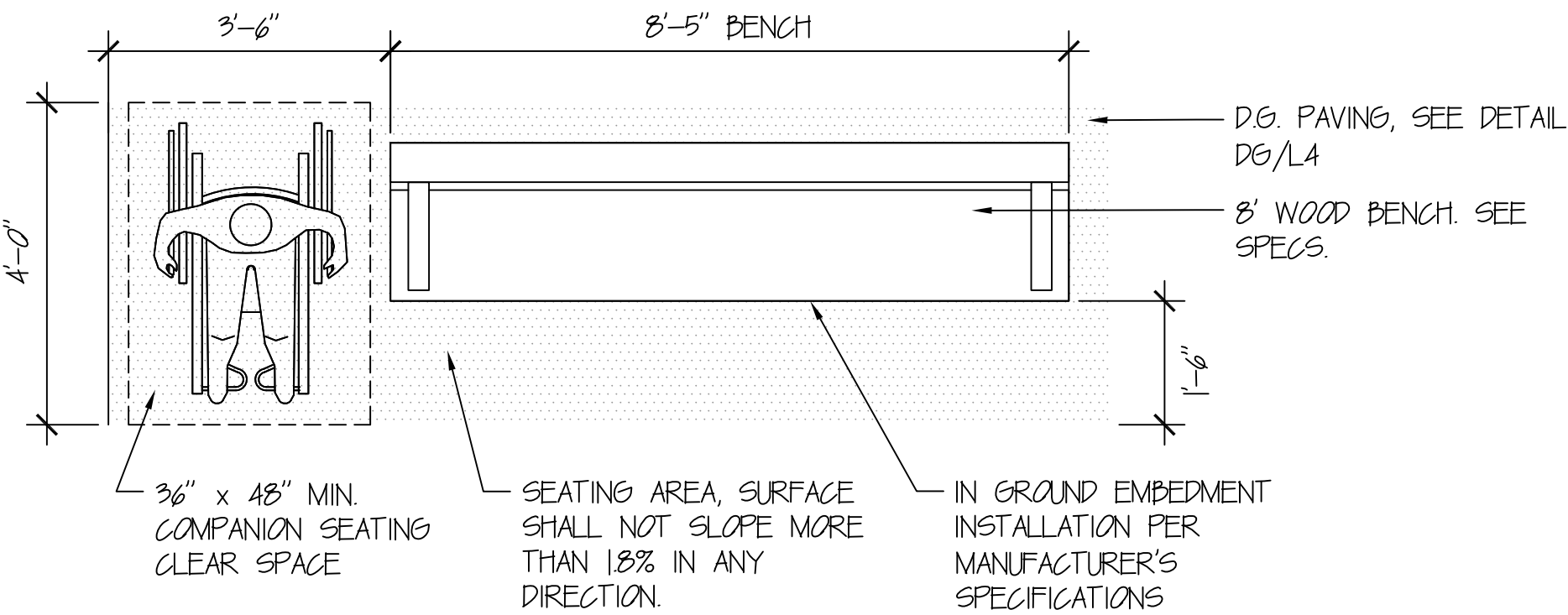


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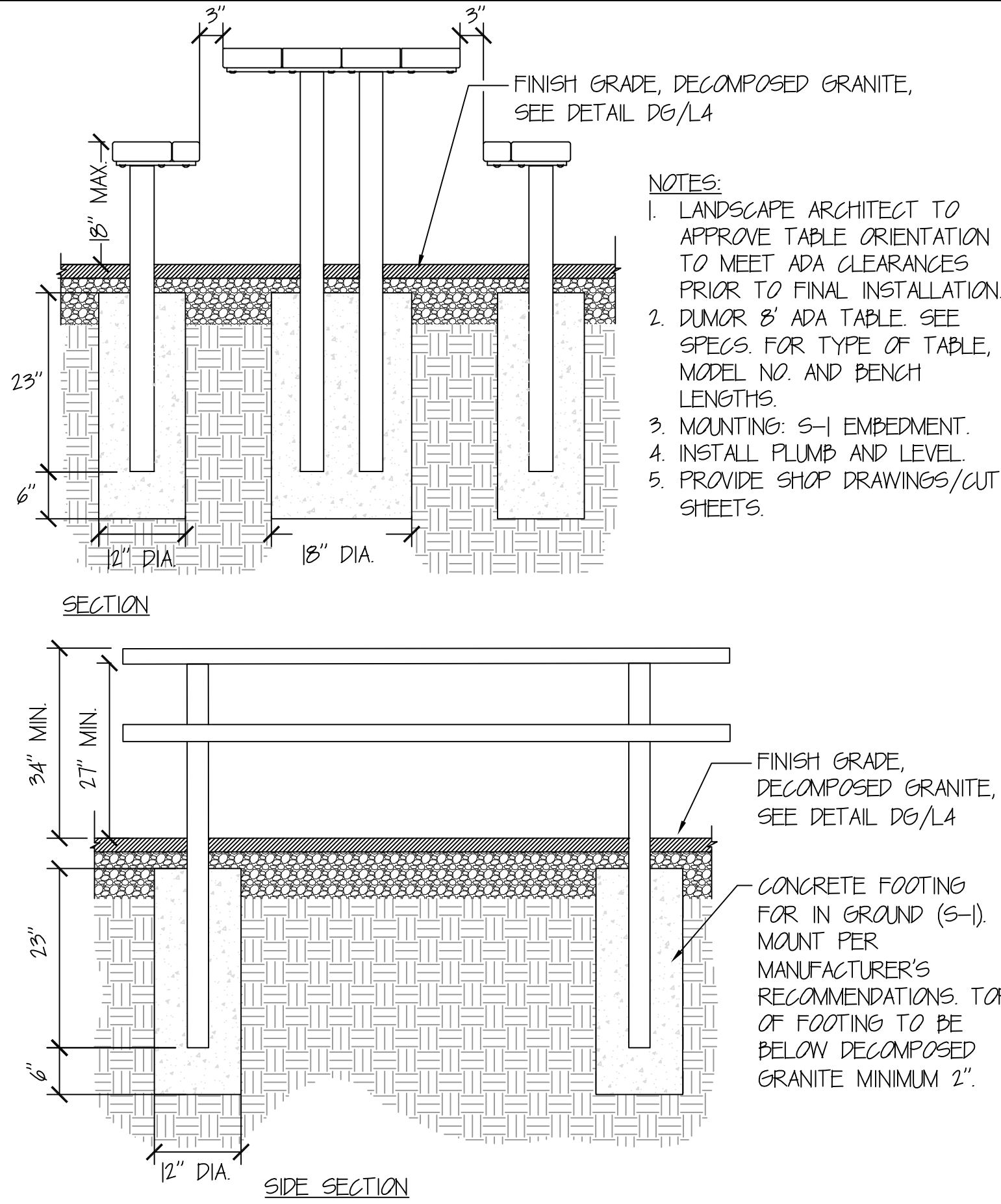
BE BENCH EMBEDMENT INSTALLATION

Scale: $\frac{1}{8}" = 1'-0"$



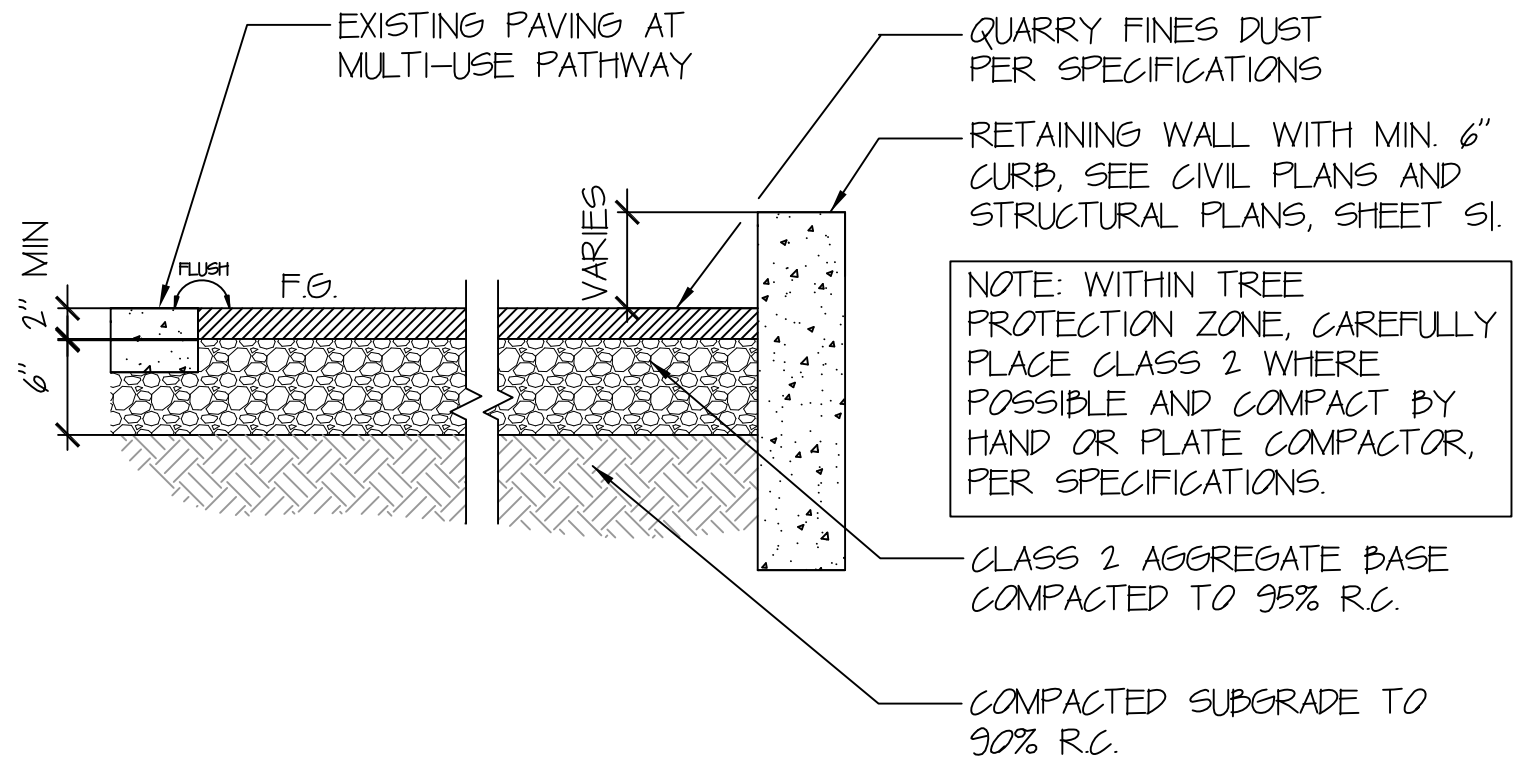
BE BENCH PLACEMENT PLAN

Scale: $\frac{1}{2}" = 1'-0"$



PT PICNIC TABLE

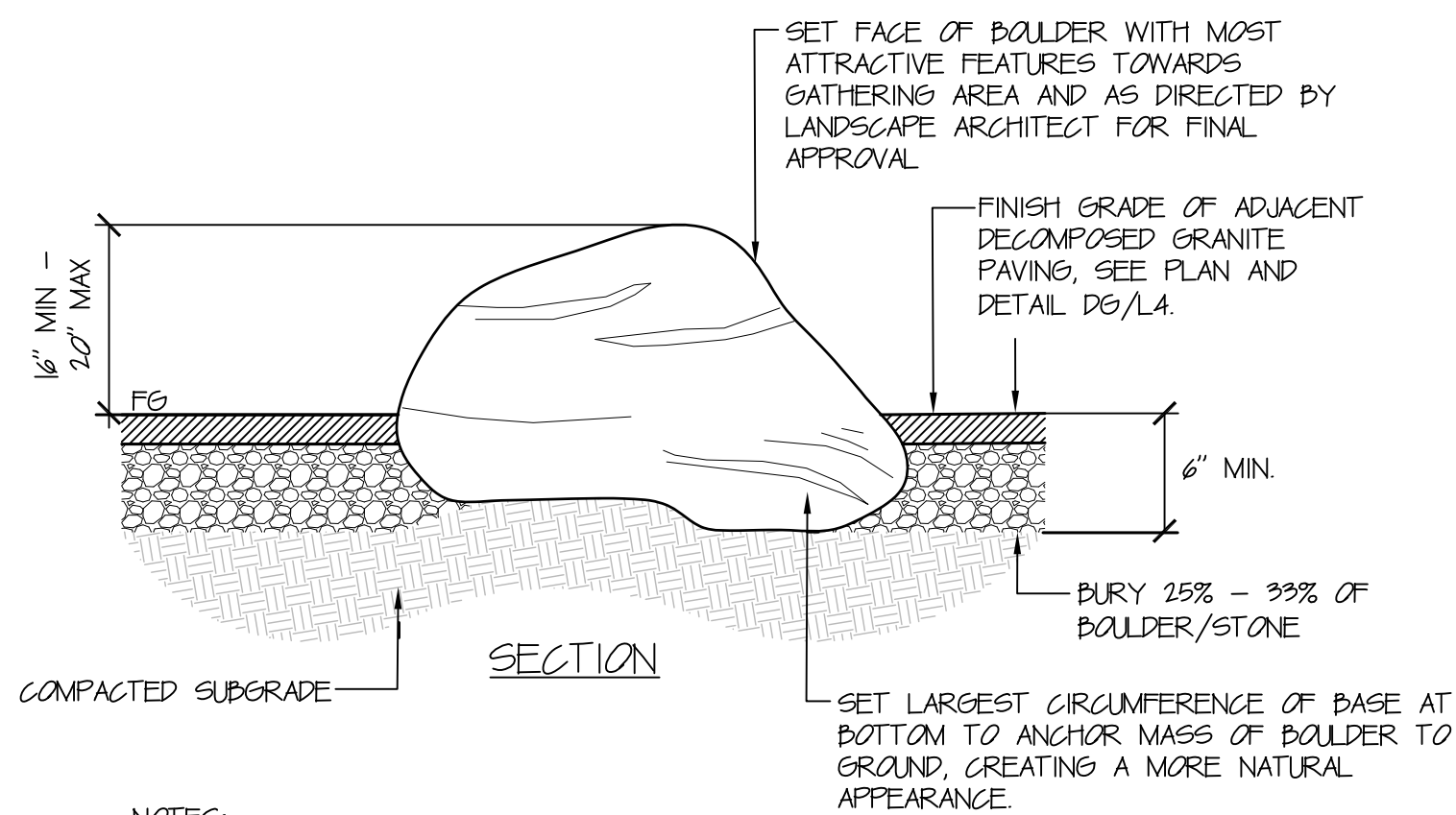
Scale: $\frac{3}{16}" = 1'-0"$



- NOTES:
1. PLACE D.G. OVER PREPARED SUBGRADE AND COMPACT TO 90% RELATIVE COMPACTION WITH A 350 LB. ROLLER.
 2. PROVIDE POSITIVE DRAINAGE THROUGHOUT SURFACED AREA, SEE CIVIL FOR GRADING AND DRAINAGE.

DG DECOMPOSED GRANITE PAVING

Scale: 1" = 1'-0"



- NOTES:
1. SEE PLAN FOR BOULDER SCHEDULE.
 2. STAKE BOULDER LOCATIONS (WITH SIZE NOTED) AND FIELD ADJUSTED PER LANDSCAPE ARCHITECT'S APPROVAL.
 3. BOULDERS SHALL BE HARD, SOLID UNDAMAGED, WEATHERED, ROUNDED SONOMA FIELD STONE OR OTHER APPROVED NATIVE ROCK, FREE OF SHARP CORNERS, OPEN CRACKS, OR HOLES.
 4. BOULDERS SHALL BE SET FIRMLY, WITH WIDEST POINT BELOW FINISH GRADE, INTO THE SOIL OR SPECIFIC SETTING BED SO THAT THEY WILL NOT ROLL, ROTATE, OR SETTLE.

LB LANDSCAPE BOULDERS

Scale: 1" = 1'-0"



PREPARED FOR:
MARIN COUNTY PARKS
3501 CIVIC CENTER DRIVE, SUITE 260
SAN RAFAEL, CA 94903



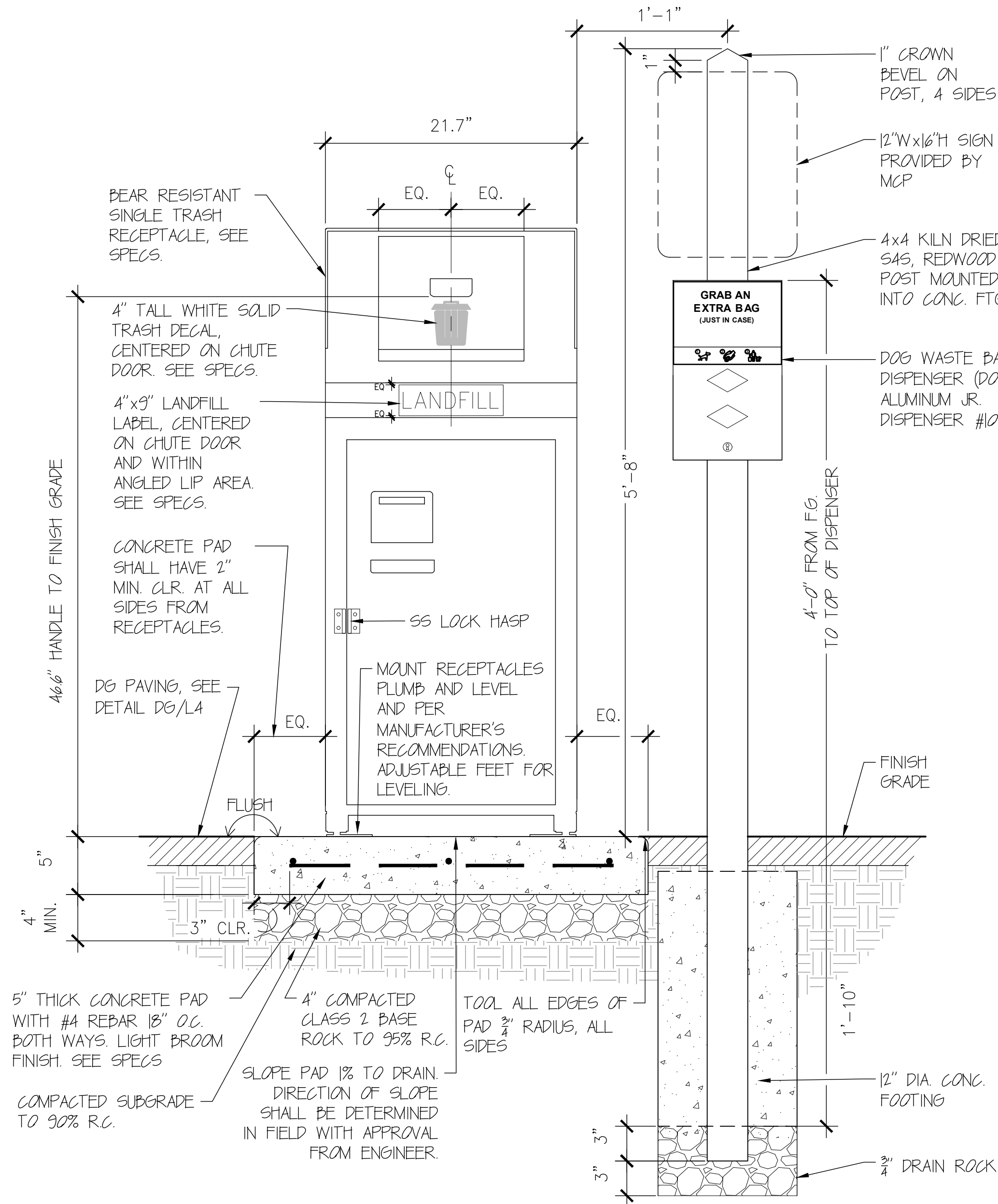
DATE:	BY	DATE	REVISIONS	DATE	BY
MARCH 2022					
SCALE: N/A					
MAPPING BY:					
DESIGNED BY: EM					
DRAFTED BY:					
CHECKED BY: MJ					

VEST POCKET PARK
LOWER CORTE MADERA CREEK
CONCRETE CHANNEL REMOVAL PROJECT
CONSTRUCTION DETAILS

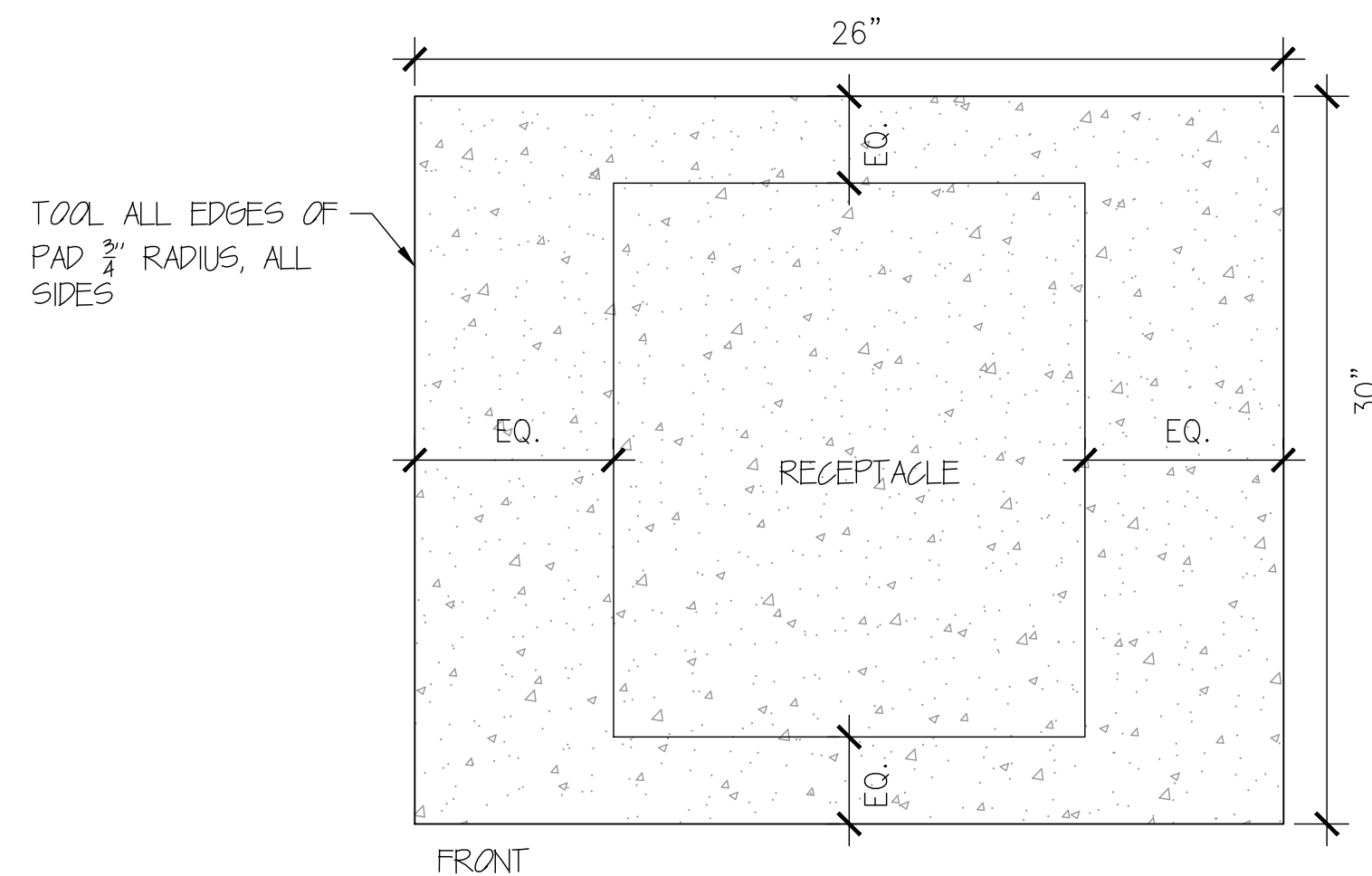
L4

Accd File Name: G:\Acad Dwg\Marin County Parks\MCP Corte Madera Ck Pocket Park\Drawings\DT1.dwg
Plot Date: 3/7/2022 4:19 PM Layout: L5

TRASH RECEPTACLE WITH SIGN POST AND DOG WASTE DISPENSER



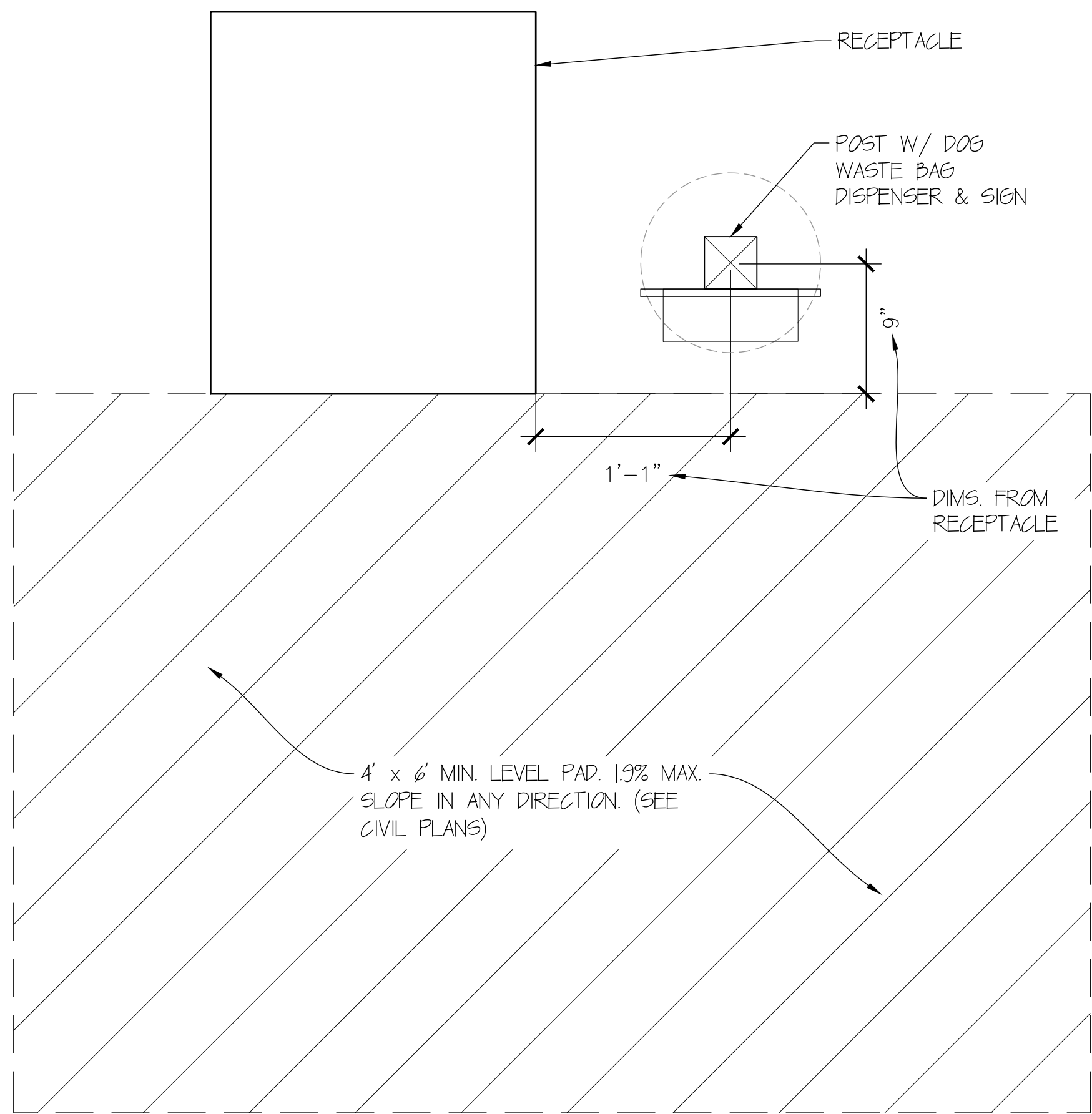
RECEPTACLE WITH SIGN POST
FRONT ELEVATION



SINGLE RECEPTACLE
PLAN

- NOTES:
1. SLOPE PADS 1% TO DRAIN.
 2. LIGHT BROOM FINISH, LEFT TO RIGHT.
 3. CENTER RECEPTABLES ON PAD.
 4. PAD SHALL BE FLUSH TO ADJACENT PAVING.
 5. RECEPTACLE OPENINGS SHALL BE ORIENTED TOWARD USE AREA OR PATHWAYS AT ALL TIMES, UNLESS DIRECTED OTHERWISE.
 6. RECEPTABLES SHALL INCLUDE LINERS/CANS.
 7. REQUEST LOCK AND RECEPTACLE BAGS FOR EACH LINER FROM MARIN COUNTY PARKS
 8. SEE SPECS.

- NOTES:
1. INSTALL POST, DISPENSER & SIGNS LEVEL AND PLUMB.
 2. 12x16 SIGN ATTACHMENT HARDWARE: 1/4" x 15" STAINLESS STEEL HEX LAG SCREWS WITH 1/2" STAINLESS STEEL SAE WASHERS (OD 5/8").
 3. DO NOT OVER TIGHTEN SIGNS SCREWS, VINYL OVERLAY WILL TWIST AND LIFT OFF ALUMINUM SUBSTRATE.
 4. CENTER SIGN AND DISPENSER TO POST.
 5. RAKE SMOOTH DISTURBED AREA AND DISPOSE OF ANY DEBRIS OFFSITE.



RECEPTACLE WITH SIGN POST
PLAN



VEST POCKET PARK
LOWER CORTE MADERA CREEK
CONCRETE CHANNEL REMOVAL PROJECT
CONSTRUCTION DETAILS

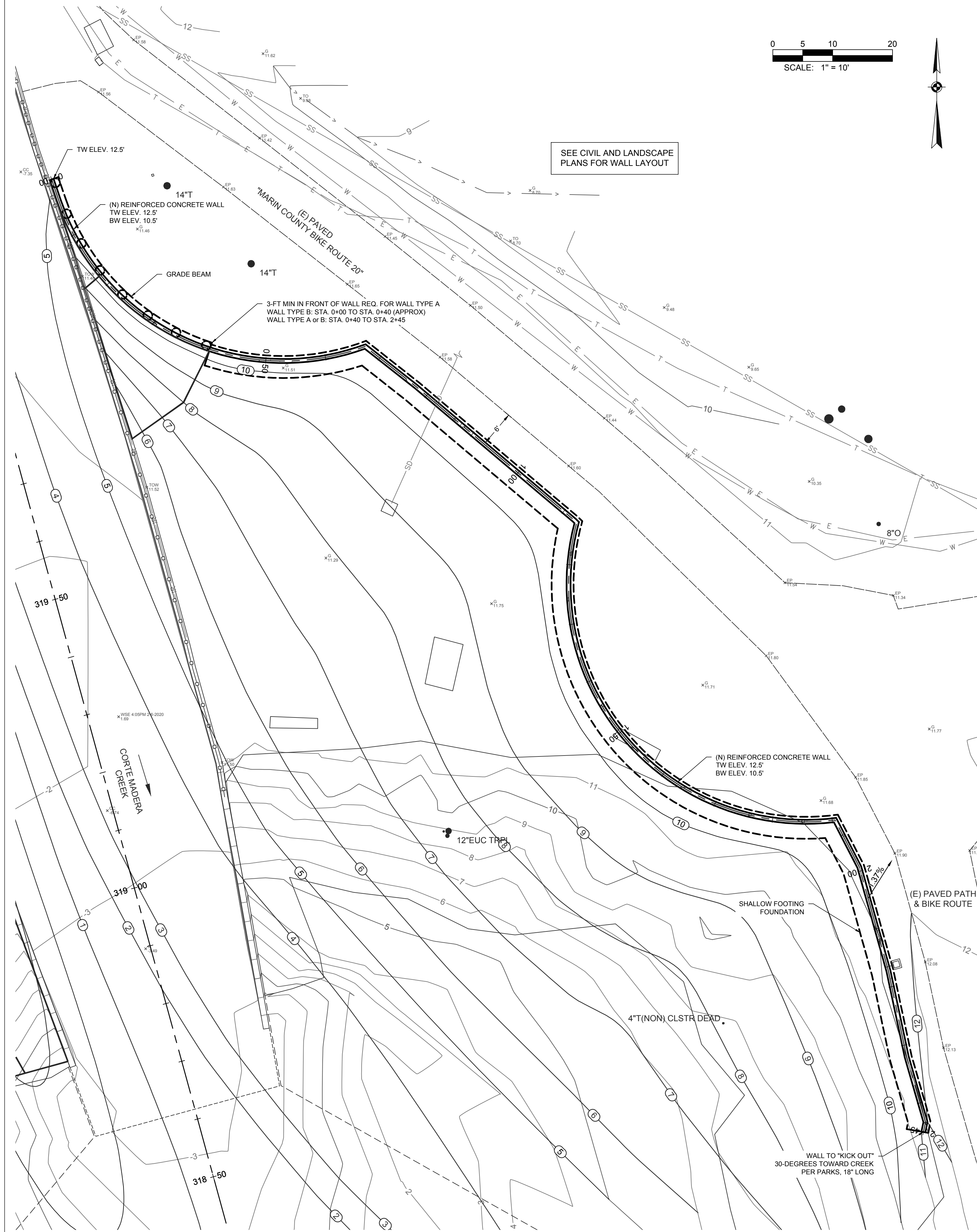
DATE:	MARCH 2022
SCALE:	N/A
MAPPING BY:	
DESIGNED BY:	EM
DRAFTED BY:	
CHECKED BY:	MJ

REVISIONS	DATE	BY

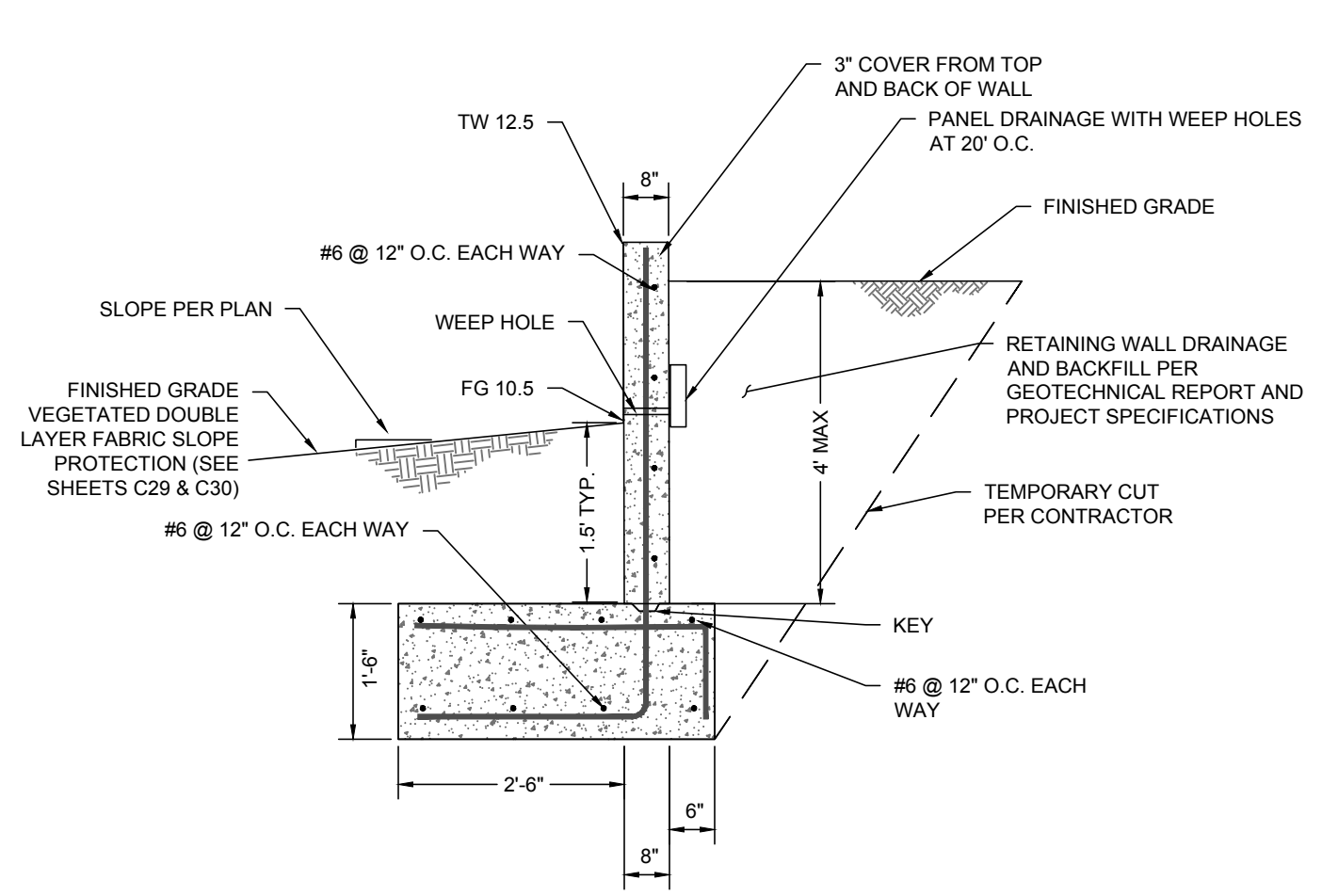
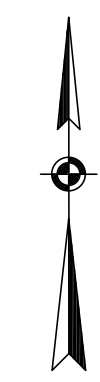
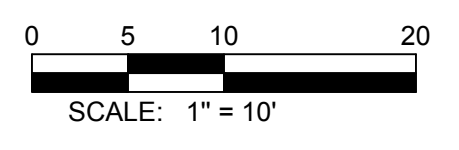


PREPARED FOR:
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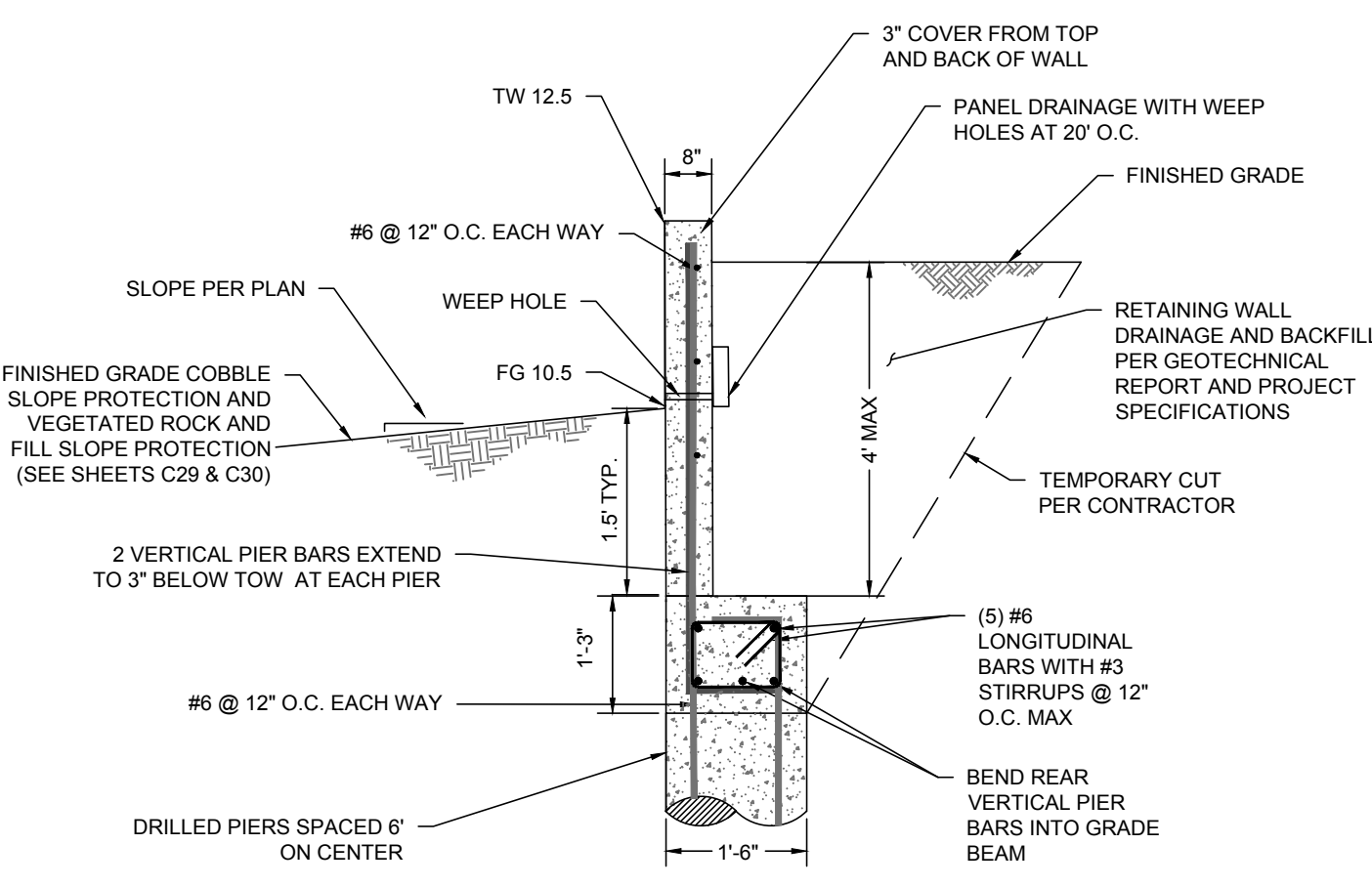




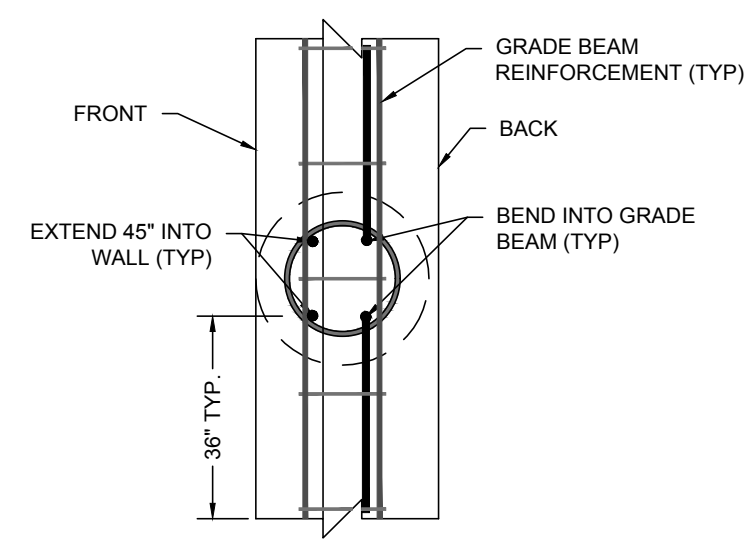
RETAINING WALL DESIGN PLAN
SCALE: 1" = 10'



1 RETAINING WALL A
SCALE: N.T.S.



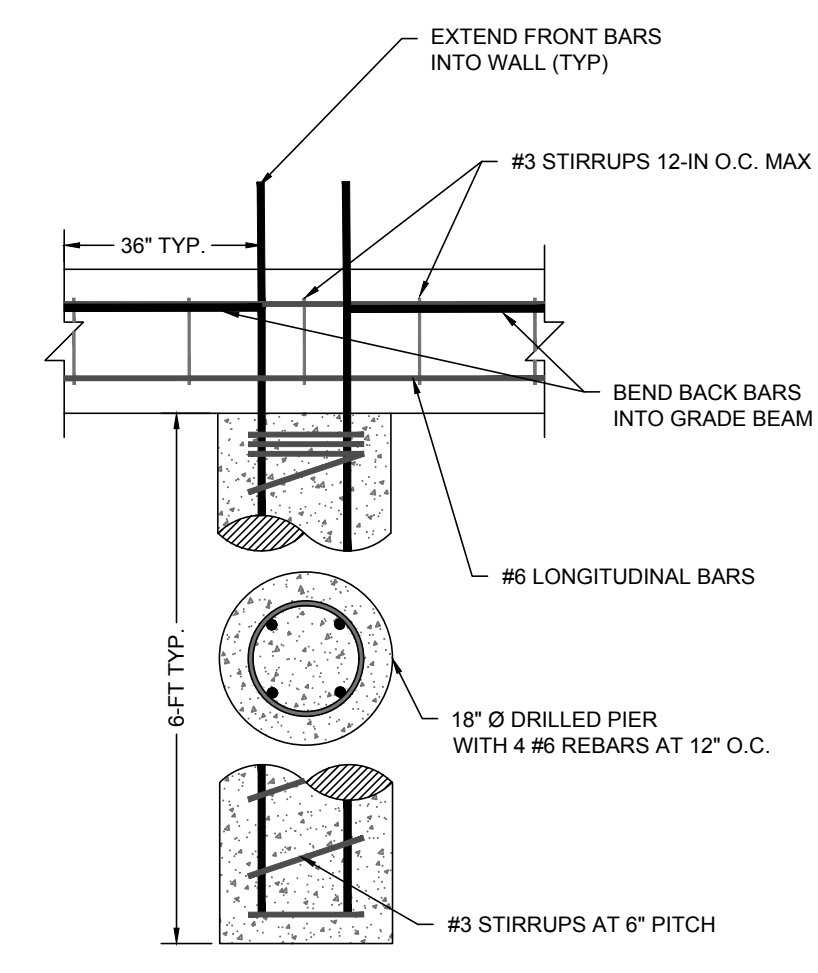
2 RETAINING WALL B SECTION
SCALE: N.T.S.



3 DRILLED PIER TO GRADE BEAM CONNECTION
PLAN VIEW - N.T.S.

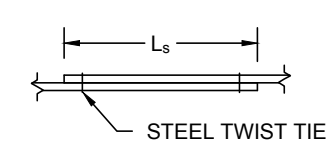
- GENERAL NOTES:**
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS PRIOR TO COMMENCING ANY ASPECT OF THE WORK.
 - THE ENGINEER SHOULD OBSERVE DRILLING FOR THE DRILLED PIERS TO CONFIRM SUBSURFACE CONDITIONS ARE CONSISTENT WITH THE DESIGN CRITERIA AND TO MODIFY PIER DEPTHS (IF REQUIRED).
 - THE CONTRACTOR IS RESPONSIBLE FOR LAYOUT OF THE DRILLED PIERS AND CONCRETE FOOTING. LOCATIONS TO BE CONFIRMED BY THE ENGINEER PRIOR TO COMMENCING DRILLING.
 - CONTRACTOR SHALL NOTIFY U.S.A. AND OWNER TO LOCATE UTILITIES.
 - ALL EXCAVATED DEBRIS MATERIAL, NOT USED AS FILL, SHALL BE HAULED FROM THE SITE AND LEGALLY DISPOSED OF BY THE CONTRACTOR.
 - ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI CODE AND STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND SPECIFICATIONS.
 - THE CONTRACTOR SHALL RESTORE ACCESS ROUTES TO THEIR ORIGINAL CONDITIONS. DAMAGE TO EXISTING IMPROVEMENTS, SUCH AS STRUCTURES OR PAVEMENTS SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
 - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY, INCLUDING PROVIDING TEMPORARY SHORING IF NECESSARY TO STABILIZE CUTS IN EXCESS OF 5 FEET IN HEIGHT.
 - MPEG SHALL NOT SUPERVISE, DIRECT OR HAVE ANY CONTROL OVER THE CONTRACTOR'S WORK NOR HAVE ANY RESPONSIBILITY FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES SELECTED BY THE CONTRACTOR NOR FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR PROGRAMS IN CONNECTION WITH THE WORK. THESE RIGHTS AND RESPONSIBILITIES ARE SOLELY THOSE OF THE CONTRACTOR.

- STRUCTURAL NOTES:**
- CONCRETE**
- ALL CONCRETE SHALL HAVE SAND AND GRAVEL AGGREGATE, TYPE I PORTLAND CEMENT, AND SHALL HAVE A COMPRESSIVE STRENGTH (F_c) OF 2,500 PSI AT 28 DAYS.
 - DETAILING FABRICATIONS AND PLACING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 308, LATEST EDITION.
 - ALL MIXING, TRANSPORTING, PLACING, AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE LATEST EDITIONS OF THE AMERICAN CONCRETE INSTITUTE ACI 318, ACI 301, ACI 309, ACI 305, AND ACI 306.
 - NO HORIZONTAL JOINTS WILL BE PERMITTED IN CONCRETE EXCEPT WHERE DETAILED.
 - FRESHLY DEPOSITED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND EXCESSIVE HOT OR COLD TEMPERATURES FOR THE PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND PROPER HARDENING OF THE CONCRETE. THIS SHALL BE A MINIMUM OF SEVEN DAYS AFTER THE CONCRETE IS POURED.
 - ALL CONCRETE SHALL BE CONSOLIDATED BY VIBRATION, SPADING, OR RODDING, SO THAT THE CONCRETE IS THOROUGHLY WORKED AROUND THE REINFORCEMENT, EMBEDDED ITEMS, AND INTO CORNERS OF FORMS, ELIMINATING ALL AIR OR STONE POCKETS WHICH MAY CAUSE HONEYCOMBING. CARE SHALL BE TAKEN NOT TO OVER VIBRATE AND CAUSE SEGREGATION.
- REINFORCEMENT**
- ALL CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615 GRADE 60.
 - NO CONCRETE SHALL BE PLACED UNTIL FORMS AND STEEL HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.
 - REINFORCING BARS MAY NOT BE WELDED WITHOUT APPROVAL FROM THE ENGINEER.
 - CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS FOLLOWS, (SEE SECTION 7.7 ACI 318, LATEST EDITION)
ALL CONCRETE FORMED AGAINST THE GROUND.....3"
SIDES AND BOTTOM OF GRADE BEAMS.....3"
WALLS AND SIDES OF BEAMS ABOVE GRADE.....1 1/2"
 - HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
- REINFORCEMENT**
- ALL CONCRETE SHALL HAVE SAND AND GRAVEL AGGREGATE, TYPE I PORTLAND CEMENT, AND SHALL HAVE A COMPRESSIVE STRENGTH (F_c) OF 3,000 PSI AT 28 DAYS.
 - ALL CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615 GRADE 60.
 - NO HORIZONTAL JOINTS WILL BE PERMITTED IN CONCRETE EXCEPT WHERE DETAILED.
 - HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
 - FRESHLY DEPOSITED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND EXCESSIVE HOT OR COLD TEMPERATURES FOR THE PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND PROPER HARDENING OF THE CONCRETE. THIS SHALL BE A MINIMUM OF SEVEN DAYS AFTER THE CONCRETE IS POURED.
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- SEE REFERENCE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
- 03 30 00 - CAST IN PLACE CONCRETE
 - 31 20 00 - EARTHWORK
 - 31 23 10 - DEWATERING
 - 31 48 15 - DRILLED PIERS
 - 32 32 00 - RETAINING WALLS



4 DRILLED PIER TO GRADE BEAM CONNECTION
ELEVATION VIEW - N.T.S.

BAR SPLICE LENGTH SCHEDULE (L _s) (IN)				
BAR SIZE	F _c ≥3000 PSI		F _c ≥3500 PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
# 3	21	17	20	16
# 4	29	22	26	21
# 5	35	27	33	25
# 6	42	33	39	30
# 7	49	38	46	35
# 8	59	47	55	42
# 9	74	57	69	53



Revisions: SAS
1/3/2022

MARIN COUNTY
FLOOD CONTROL &
WATER CONSERVATION
DISTRICT
3501 Civic Center Dr., Rm 304
San Rafael, CA 94903

RETAINING WALL DESIGN PLAN
CORTE MADERA CREEK
LOWER COM CORTE MADERA CREEK RESTORATION PROJECT

MILLER PACIFIC ENGINEERING GROUP
504 Redwood Boulevard
Suite 220
Novato, CA 94947
(415) 382-3444
www.millerpac.com

15 FEB 2022
Design by: SAS
Drawn by: YHS
Checked by: SAS
Scale: 1" = 10'
DRAFT 100%
DESIGN PLAN
SUBMITTAL

S1