

# BOLINAS LAGOON WYE WETLANDS PROJECT

## 60% DESIGN BOLINAS, CALIFORNIA

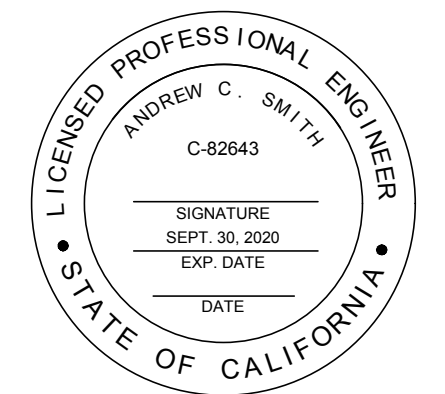


### BOLINAS LAGOON WYE WETLANDS PROJECT

BOLINAS, CALIFORNIA



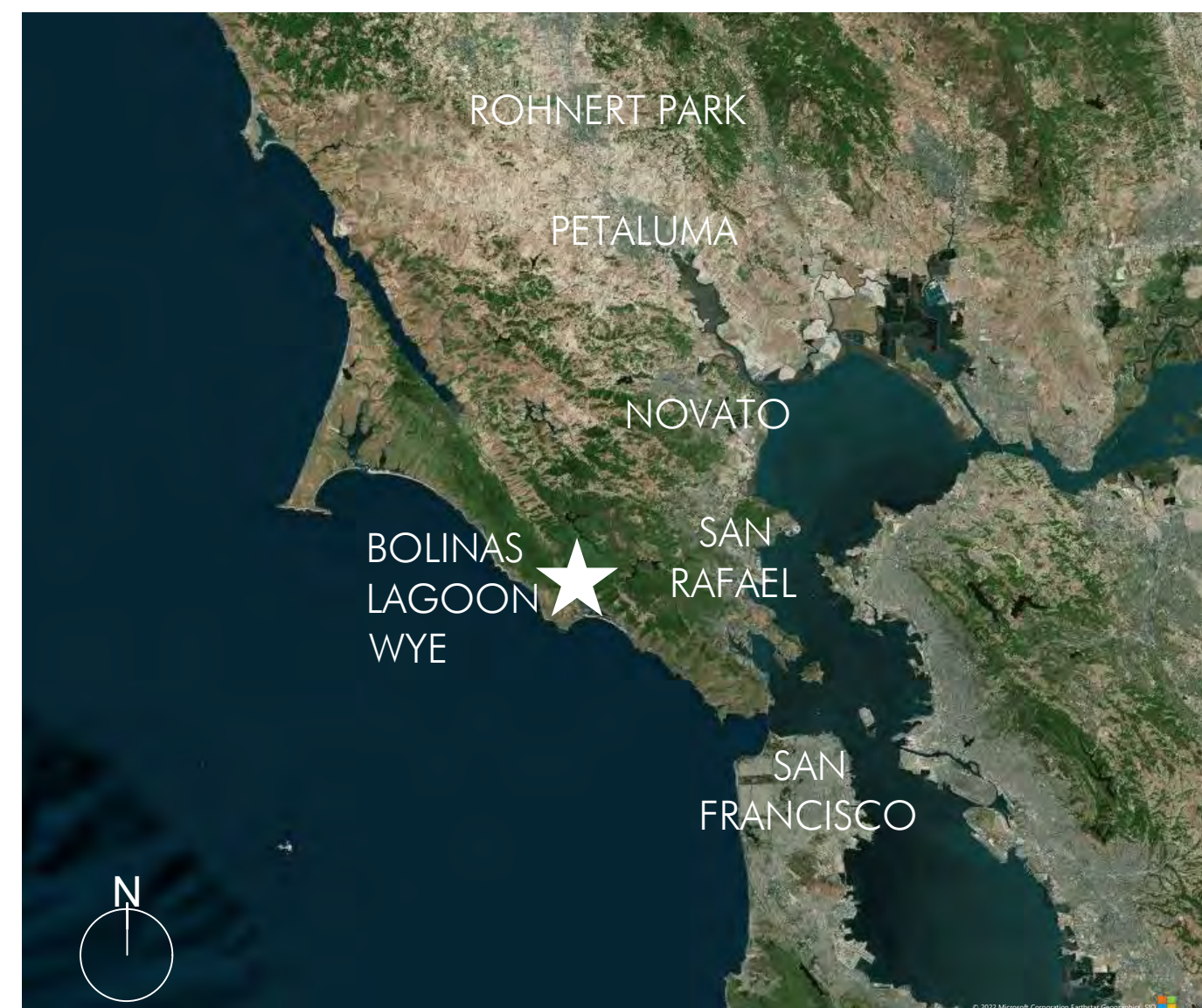
NOT FOR CONSTRUCTION



DESIGNED FOR  
MARIN COUNTY PARKS  
3501 CIVIC CENTER DRIVE, SUITE 260  
SAN RAFAEL, CALIFORNIA 94903  
CONTACT: VERONICA PEARSON  
(415) 473-5086  
VPEARSON@MARINCOUNTY.ORG

RESTORATION ENGINEER  
WRA, INC.  
2169-G E. FRANCISCO BLVD.  
SAN RAFAEL, CA 94901  
CONTACT: BRIAN BARTELL  
(415) 524-7588  
BARTELL@WRA-CA.COM

TRANSPORTATION ENGINEER  
MARK THOMAS  
701 UNIVERSITY AVENUE, SUITE 200  
SACRAMENTO, CA 95825  
CONTACT: JULIE PASSALACQUA, PE  
(916)712-2197  
JPASSALACQUA@MARKTHOMAS.COM



**1** VICINITY MAP  
NOT TO SCALE



**2** LOCATION PLAN  
NOT TO SCALE

#### WRA SHEET INDEX

G-1.0	TITLE SHEET
G-1.1	NOTES AND ABBREVIATIONS
V-1.0	EXISTING CONDITIONS
D-1.0	TREE REMOVAL PLAN
D-1.1	TREE REMOVAL PLAN
C-1.0	PHASE 1 SITE PLAN
C-1.1	PHASE 2 SITE PLAN
C-1.2	SITE SECTIONS
C-2.0	PHASE 1 ENVIRONMENTAL GRADING PLAN
C-2.1	PHASE 1 ENVIRONMENTAL GRADING PLAN
C-2.2	PHASE 2 ENVIRONMENTAL GRADING PLAN
C-2.3	PHASE 2 ENVIRONMENTAL GRADING PLAN
C-2.4	PHASE 2 ENVIRONMENTAL GRADING PLAN
C-3.0	LEWIS GULCH CREEK GRADING SECTIONS
C-3.1	LEWIS GULCH CREEK GRADING SECTIONS
C-3.2	LEWIS GULCH CREEK GRADING SECTIONS
C-3.3	LEWIS GULCH CREEK GRADING SECTIONS
C-4.0	LEWIS GULCH CREEK PROFILE
C-5.0	CHANNEL DETAILS
C-5.1	CHANNEL DETAILS
L-2.0	PHASE 1 PLANTING PLAN
L-2.1	PHASE 1 PLANTING PLAN
L-2.2	PHASE 2 PLANTING PLAN
L-2.3	PHASE 2 PLANTING PLAN
L-2.4	PHASE 2 PLANTING PLAN
L-2.5	PLANTING NOTES, DETAILS AND PALETTES

#### MARK THOMAS SHEET INDEX

GN-1	GENERAL NOTES
X-1	TYPICAL SECTIONS
PC-1	PROJECT CONTROL
DM-1	DEMOLITION PLANS
DM-2	DEMOLITION PLANS
DM-3	DEMOLITION PLANS
L-1	LAYOUT
L-2	LAYOUT
L-3	LAYOUT
PS-1	PROFILE
PS-2	PROFILE
C-1	CONSTRUCTION DETAILS
DU-1	DRAINAGE AND UTILITIES
DU-2	DRAINAGE AND UTILITIES
DU-3	DRAINAGE AND UTILITIES
EC-1	EROSION CONTROL
TH-1	STAGE CONSTRUCTION
TH-2	STAGE CONSTRUCTION
PD-1	PAVEMENT DELINEATION AND SIGNS
PD-2	PAVEMENT DELINEATION AND SIGNS
PD-3	PAVEMENT DELINEATION AND SIGNS
PD-4	PAVEMENT DELINEATION AND SIGNS
S-1	GENERAL PLAN
S-2	DECK CONTOURS
S-3	FOUNDATION PLAN
S-4	ABUTMENT LAYOUT

S-5
S-6
S-7
S-8
S-9
S-10
S-11
S-12
S-13

#### ABUTMENT DETAILS

PIER LAYOUT
PIER DETAIL NO.1
PIER DETAIL NO.2
PIER DETAIL NO.3
TYPICAL SECTIONS
LONGITUDINAL SECTION
LOG OF TEST BORING 1 OF 2
LOG OF TEST BORING 2 OF 2

01/29/2020	CONCEPT PLAN
07/30/2020	30% DESIGN
02/14/2022	60% DESIGN

Date	Issues And Revisions	No.
------	----------------------	-----

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY: RBB  
ORIGINAL DRAWING SIZE: 24 X 36

DRAFT

### TITLE SHEET

Sheet

# G-1.0



**PROJECT NOTES**

**1. OWNERSHIP**

ALL WORK TO BE PERFORMED IS ON PROPERTY OWNED BY THE COUNTY OF MARIN AND MARIN COUNTY OPEN SPACE DISTRICT (PARCEL #2392 OR 710) AND THE STATE OF CALIFORNIA (PARCEL # 1208 OR 303).

**2. SURVEY CONTROL**

HORIZONTAL DATUM: NAD83, CA STATE PLANE ZONE III, U.S. SURVEY FEET. VERTICAL DATUM: NAVD88, U.S. SURVEY FEET. SURVEYED BENCHMARKS ARE PROVIDED IN THE SPECIFICATIONS.

**3. BASE MAPPING**

BASE TOPOGRAPHY SHOWN HEREIN TAKEN FROM DATA PROVIDED BY THE COUNTY OF MARIN 2019, WHICH INCLUDES CLE ENGINEERING TOPOGRAPHIC SURVEY FROM 2017. ADDITIONAL, TOPOGRAPHIC SURVEYS WERE CONDUCTED BY WRA AND MARK THOMAS IN 2020.

**4. REGULATORY PERMIT REQUIREMENTS**

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL REGULATORY PERMITS AND AUTHORIZATIONS ISSUED FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO THOSE ISSUED BY THE FOLLOWING AGENCIES:

- a. US ARMY CORPS OF ENGINEERS
- b. US FISH AND WILDLIFE SERVICE
- c. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
- d. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
- e. NOAA NATIONAL MARINE FISHERIES SERVICE
- f. COUNTY OF MARIN, PUBLIC WORKS
- g. THE CALIFORNIA COASTAL COMMISSION

THE CONTRACTOR SHALL MAINTAIN A BINDER WITH ALL ENVIRONMENTAL PERMITS ON SITE AT ALL TIMES.

**3. ENVIRONMENTAL AWARENESS TRAINING**

ALL PEOPLE ENTERING THE SITE DURING CONSTRUCTION SHALL RECEIVE FULL ENVIRONMENTAL AND CULTURAL RESOURCE AWARENESS SENSITIVITY TRAINING PER THE REQUIREMENTS OF ALL ISSUED REGULATORY PERMITS AND SPECIFICATIONS.

**4. LIMITATIONS**

THIS PLAN SET HAS BEEN PREPARED IN ACCORDANCE WITH CURRENT ENGINEERING, GEOMORPHIC AND RESTORATION STANDARDS. THE DESIGN, NOTES, DETAILS AND SPECIFICATIONS LOCATED HEREIN AND IN ACCOMPANYING DOCUMENTS WERE CREATED CONTINGENT UPON WRA AND MARK THOMAS BEING CONSULTED IF ANY QUESTIONS ARISE WITH REGARD TO ANY INFORMATION CONTAINED HEREIN.

**5. STAGING/STOCKPILE LOCATIONS**

CONTRACTOR SHALL USE TEMPORARY STAGING AND STOCKPILE LOCATIONS AS SHOWN HEREIN.

**6. CLEARING AND GRUBBING**

CONTRACTOR SHALL CLEAR ALL INVASIVE SPECIES IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. FROM THE SITE AND REMOVE TO A LANDFILL AUTHORIZED TO RECEIVE THE MATERIAL. CONTRACTOR TO MEET WITH RESTORATION DESIGNER TO IDENTIFY NATIVE SPECIES TO RETAIN FOR USE IN THE PROJECT. ALL NATIVE TREES AND SHRUBS CLEARED ON THE SITE SHALL BE RETAINED FOR USE IN CONSTRUCTING HABITAT STRUCTURES. CONTRACTOR SHALL REMOVE TREES FROM SITE WITH ROOTWADS INTACT IN THE QUANTITY ADEQUATE TO CREATE LOG STRUCTURES SHOWN ON THE PLANS. EXCESS MATERIALS SHALL BE DISPOSED OFF-SITE AT AN APPROVED WASTE FACILITY

**7. PHYTOPHTHORA TREATMENT**

ALL LOGS, PLANTS MATERIALS OR OTHER ORGANIC MATERIALS IMPORTED ONTO THE SITE SHALL CARRY A CERTIFICATION THAT THE MATERIALS IS FREE OF PHYTOPHTHORA AND/OR TREATED FOR PHYTOPHTHORA PRIOR TO ENTERING THE SITE IN ACCORDANCE WITH THE SPECIFICATIONS.

**8. RESIDENT INSPECTOR**

THE RESIDENT INSPECTOR WILL BE RESPONSIBLE FOR COORDINATING WITH THE CONTRACTOR, RESTORATION ENGINEER AND TRANSPORTATION ENGINEER THROUGHOUT CONSTRUCTION. ALL PARTIES SHALL BE NOTIFIED OF CHANGES IN SCHEDULE, CHANGE ORDER REQUESTS, DEVIATIONS FROM DESIGN PLANS OR OTHER ISSUES THAT ARISE DURING CONSTRUCTION.

**9. CONSTRUCTION OVERSIGHT**

ALL LOG STRUCTURE AND LOG BANK STABILIZATION INSTALLATION IS TO BE COMPLETED UNDER THE SUPERVISION OF THE RESTORATION ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALERTING THE RESTORATION ENGINEER OF SCHEDULE ON A REGULAR BASIS PER THE SPECIFICATIONS.

**10. TRAFFIC CONTROL**

CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL PER THE SPECIFICATIONS AND THE MARIN COUNTY ENCROACHMENT PERMIT OBTAINED BY THE CITY FOR THIS PROJECT.

**11. UTILITIES**

NOT ALL UTILITIES PRESENT ARE SHOWN HEREIN. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING 811 TO HAVE ALL UTILITIES MARKED AT LEAST TWO DAYS PRIOR TO EXCAVATION. CONTRACTOR TO SUBMIT COPIES OF USA NORTH 811 TICKETS TO OWNER.

**12. HEALTH AND SAFETY PLAN**

THE CONTRACTOR SHALL PREPARE AND COMPLY WITH A HEALTH AND SAFETY PLAN FOR ALL WORK ON THE SITE PER THE SPECIFICATIONS.

**13. FIRE SAFETY**

ALL GASOLINE AND DIESEL POWERED EQUIPMENT USED ON THE SITE SHALL HAVE SPARK ARRESTORS, OR OTHER MECHANISMS TO PREVENT EXHAUST AND ENGINE PARTS FROM IGNITING FIRES. ALL EQUIPMENT, INCLUDING VEHICLES, ENTERING THE SITE SHALL BE EQUIPPED WITH FUNCTIONING FIRE EXTINGUISHERS.

**14. PROJECT PHASING**

THE WORK INCLUDED HEREIN WILL BE IMPLEMENTED OVER TWO CONSECUTIVE CONSTRUCTION SEASONS (MAY 15-OCTOBER 15). AN OVERVIEW OF EACH PHASE IS INCLUDED ON SHEETS C-1.0 AND C-1.1, AS DESCRIBED BELOW.

**PHASE 1(SHEET C-1.0):** THE PHASE 1 GENERALLY CONSISTS OF ALL IMPROVEMENTS TO OLEMA-BOLINAS ROAD AND ALL LEWIS GULCH CREEK WORK WEST AND UNDER OLEMA-BOLINAS ROAD. PUBLIC VEHICLE ACCESS BETWEEN BOLINAS AND HWY 1 DURING PHASE 1 SHALL BE THE CROSSOVER ROAD, WHICH SHALL BE KEPT OPEN AT ALL TIMES AND THE INTERSECTION IMPROVED TEMPORARILY TO FACILITATE THE ADDITIONAL TRAFFIC LOAD PER THE PLANS AND SPECIFICATIONS. LEWIS GULCH CREEK WILL CONTINUE TO FLOW THROUGH THE EXISTING BOX CULVERT ONLY.

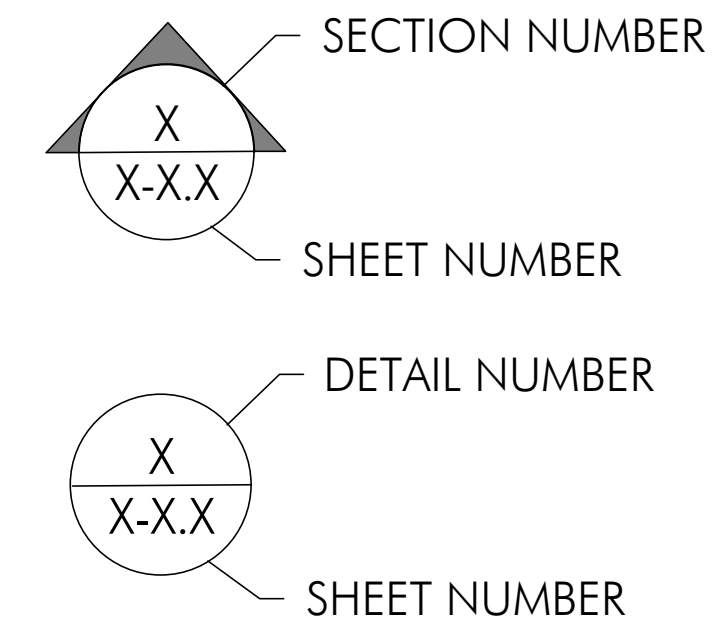
**PHASE 2 (SHEET C-1.1):** THE PHASE 2 WORK GENERALLY INCLUDES RESTORATION OF LEWIS GULCH CREEK EAST OF OLEMA-BOLINAS ROAD, REROUTING LEWIS GULCH CREEK INTO THE NEW ALIGNMENT UNDER THE BRIDGE, AND THE REMOVAL AND RESTORATION OF THE CROSSOVER ROAD. OLEMA-BOLINAS ROAD SHALL CONVEY TRAFFIC TO AND FROM STATE ROUTE 1 AT ALL TIMES.

**15. ROADWAY RESTORATION**

CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL PUBLIC ROADWAYS, DRAINAGE FEATURES AND GUARD RAILS TO THEIR ORIGINAL CONDITION UPON COMPLETION OF WORK TO THE SATISFACTION OF THE COUNTY OF MARIN PUBLIC WORKS DEPARTMENT.

**ABBREVIATIONS**

AC	ACRES
AF	ACRE-FEET
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CMP	CORRUGATED METAL PIPE
CDFW	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
CEQA	CALIFORNIA ENVIRONMENTAL QUALITY ACT
CY	CUBIC YARDS
DBH	DIAMETER AT BREAST HEIGHT
(E)	EXISTING
EG	EXISTING GRADE
FT	FEET
LGC	LEWIS GULCH CREEK
LOD	LIMIT OF DISTURBANCE
LOG	LIMIT OF GRADING
(N)	NEW
NAD 83	NORTH AMERICAN DATUM OF 1983
NAVD 88	NORTH AMERICAN VERTICAL DATUM OF 1988
NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NMFS	NATIONAL MARINE FISHERIES SERVICE
OHWM	ORDINARY HIGH WATER MARK (USACE JURISDICTION)
(P)	PROPOSED
PG	PROPOSED GRADE
PLS	PROFESSIONAL LAND SURVEYOR
RW	ROOTWAD
RWQCB	REGIONAL WATER QUALITY CONTROL BOARD
SLR	SEA LEVEL RISE
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
USACE	U.S. ARMY CORPS OF ENGINEERS
USFWS	U.S. FISH AND WILDLIFE SERVICE
WGC	WILKINS GULCH CREEK
WRA	WRA, INC.
WSE	WATER SURFACE ELEVATION

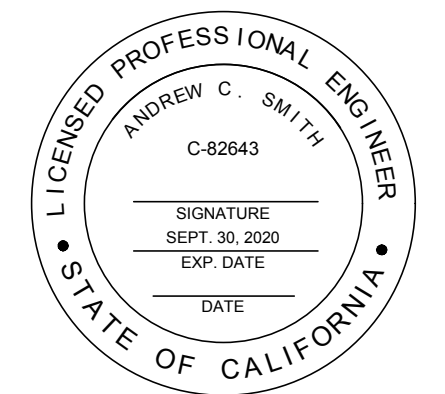


**BOLINAS LAGOON WYE WETLANDS PROJECT**

BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



01/29/2020	CONCEPT PLAN
07/30/2020	30% DESIGN
02/14/2022	60% DESIGN

Date	Issues And Revisions	No.
------	----------------------	-----

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY:RBB  
ORIGINAL DRAWING SIZE: 24 X 36

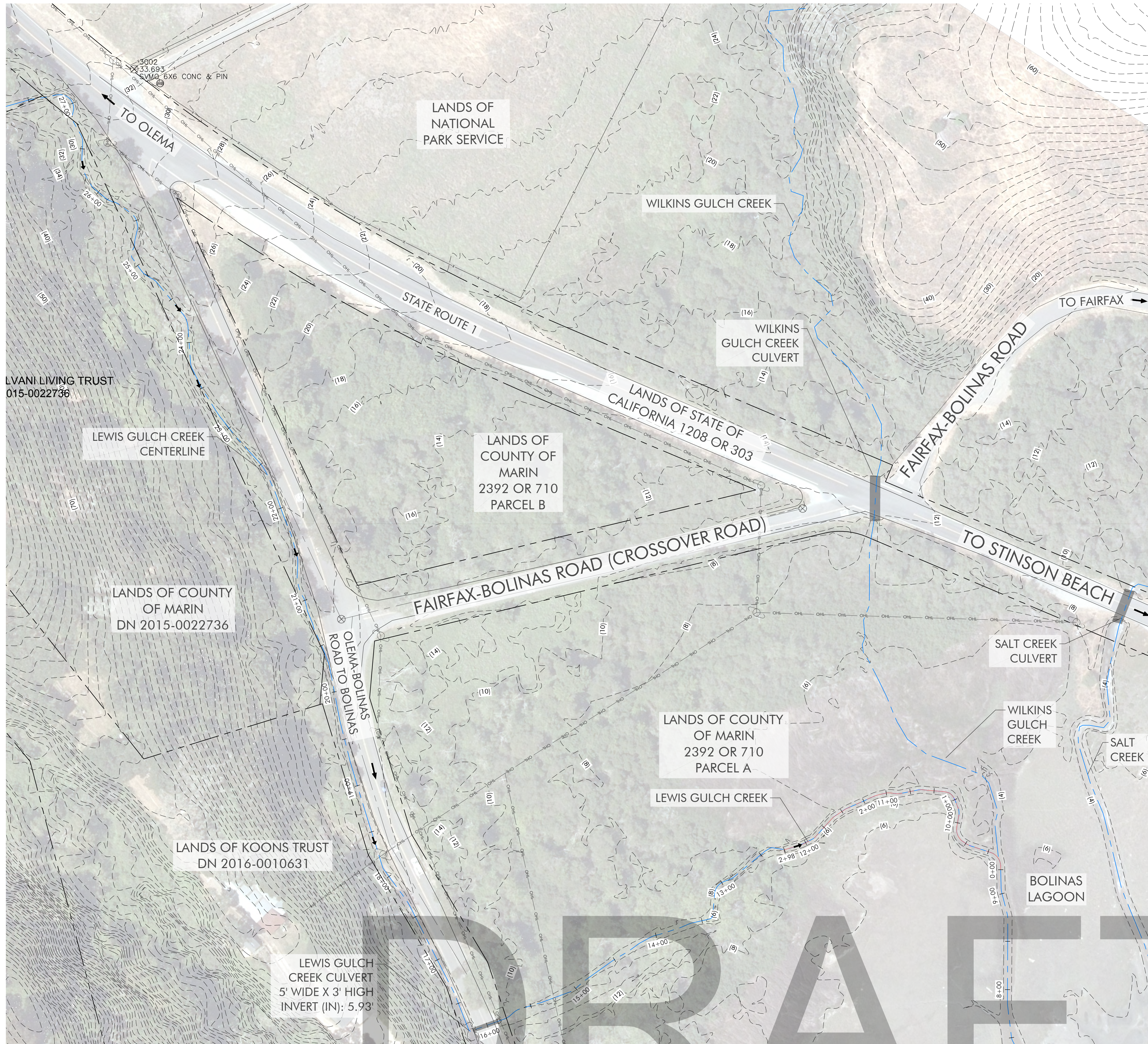
**DRAFT**

**NOTES AND ABBREVIATIONS**

Sheet

**G-1.1**





**EXISTING CONDITIONS LEGEND**

SYMBOL	DESCRIPTION
---	PROPERTY LINE (APPROXIMATE)
---	ROAD RIGHT OF WAY
x-x	EXISTING FENCE
(100)	EXISTING CONTOUR
---	EXISTING CHANNEL ALIGNMENT
---	OHL OVERHEAD UTILITY LINE
→	FLOW DIRECTION
.....	EXISTING JURISDICTIONAL WETLANDS
⊗	SURVEY CONTROL POINT
⊙	EXISTING UTILITY POLE
⊕	EXISTING MAILBOX

NOTES:  
1. FOR CONTROL POINTS, SEE SHEET PC-1



**BOLINAS LAGOON WYE WETLANDS PROJECT**

BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



01/29/2020 CONCEPT PLAN  
07/30/2020 30% DESIGN  
02/14/2022 60% DESIGN

Date	Issues And Revisions	No.

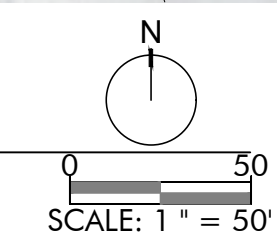
PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY:RBB  
ORIGINAL DRAWING SIZE: 24 X 36

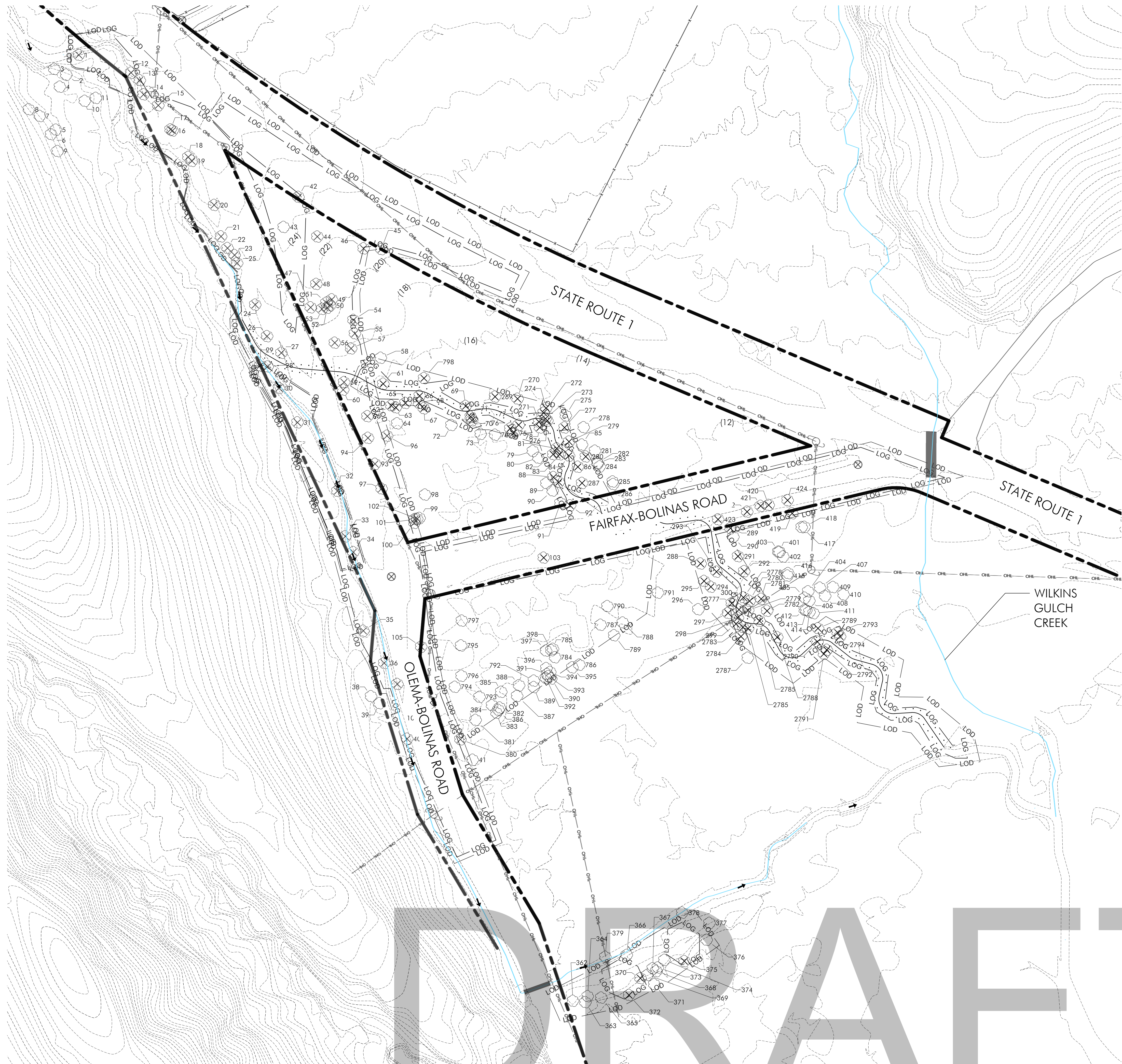
**PROPERTY OWNERSHIP**

Sheet

**V-1.0**

1 PLAN VIEW





DRAFT

1 TREE REMOVAL PLAN VIEW  
SCALE: 1" = 50'

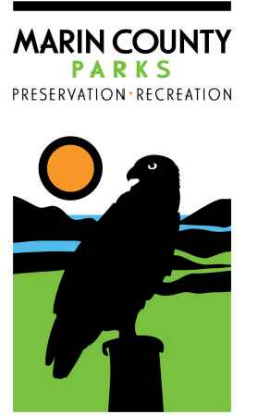
**TREE REMOVAL PLAN LEGEND**

- — — — — PROPERTY LINE
- LOD — LOD — LIMIT OF DISTURBANCE
- LOG — LOG — LIMIT OF GRADE
- - - - - EXISTING CONTOURS
- · · · · PROPOSED CHANNEL ALIGNMENT
- - - - - EXISTING FENCE
- — — — — OVERHEAD UTILITY LINE
- FLOW
- ⊗ SURVEY CONTROL POINT
- SURVEYED TREES (DBH > 6")
- ⊗ TREES TO BE REMOVED

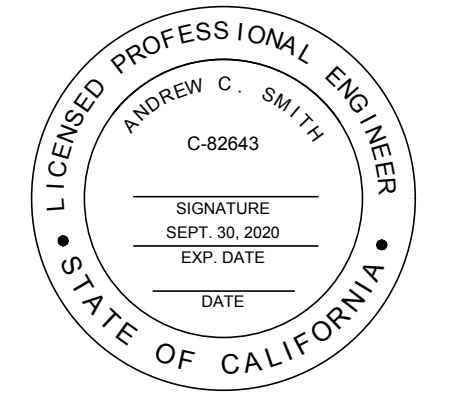
**NOTE:**  
SEE TREE REMOVAL TABLE AND NOTES, SHEET D-1.2



**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**  
BOLINAS, CALIFORNIA

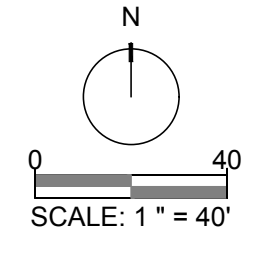


NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY: RBB  
ORIGINAL DRAWING SIZE: 24 X 36



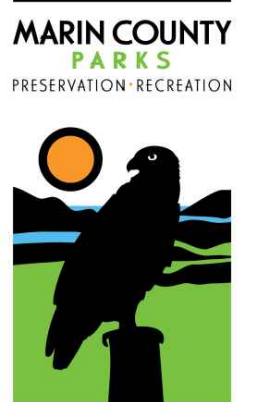
**TREE REMOVAL  
PLAN**

Sheet

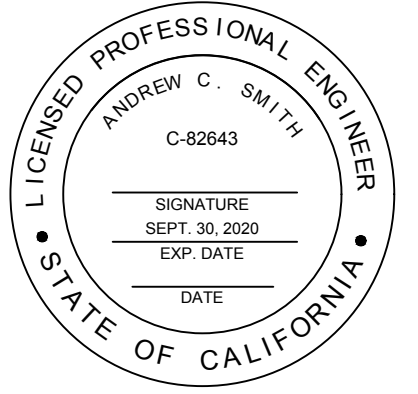
**D-1.0**

**BOLINAS LAGOON  
 WYE WETLANDS  
 PROJECT**

BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



01/29/2020 CONCEPT PLAN  
 07/30/2020 30% DESIGN  
 02/14/2022 60% DESIGN

Date Issues And Revisions No.

PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**TREE REMOVAL PLAN**

Sheet

**D-1.1**

TREE REMOVAL TABLE - PHASE 1

Tag ID	Botanical Name	Common Name	DBH 1	DBH 2	DBH 3	DBH 4	DBH 5	Total DBH	Within LOG	Within LOD	To be Removed
1	Salix lasiolepis	Arroyo Willow	7.1	6.5	8.2	0	0	21.8	Yes	Yes	Yes
12	Salix lasiolepis	Arroyo Willow	7.4	0	0	0	0	7.4	Yes	Yes	Yes
13	Salix lasiolepis	Arroyo Willow	6.5	5.2	4.2	2	0	17.9	Yes	Yes	Yes
14	Salix lasiolepis	Arroyo Willow	6.2	3.5	2.5	0	0	12.2	No	Yes	Yes
15	Umbellularia californica	California bay	16.8	8.9	0	0	0	25.7	No	Yes	Yes
16	Salix lasiolepis	Arroyo Willow	4.5	5	4.2	4	3.2	20.9	Yes	Yes	Yes
17	Quercus agrifolia	Coast live oak	6.1	3.2	0	0	0	9.3	Yes	Yes	Yes
18	Quercus agrifolia	Coast live oak	13.1	0	0	0	0	13.1	Yes	Yes	Yes
19	Quercus agrifolia	Coast live oak	29.5	0	0	0	0	29.5	Yes	Yes	Yes
20	Quercus agrifolia	Coast live oak	29.4	0	0	0	0	29.4	Yes	Yes	Yes
21	Quercus agrifolia	Coast live oak	28.3	0	0	0	0	28.3	Yes	Yes	Yes
22	Quercus agrifolia	Coast live oak	16.4	0	0	0	0	16.4	Yes	Yes	Yes
23	Quercus agrifolia	Coast live oak	28.6	0	0	0	0	28.6	Yes	Yes	Yes
24	Umbellularia californica	California bay	13	6.1	0	0	0	19.1	Yes	Yes	Yes
25	Salix lasiolepis	Arroyo Willow	4	3.1	3	2.5	0	12.6	Yes	Yes	Yes
26	Quercus agrifolia	Coast live oak	28.5	0	0	0	0	28.5	Yes	Yes	Yes
27	Quercus agrifolia	Coast live oak	14.9	0	0	0	0	14.9	Yes	Yes	Yes
28	Alnus rubra	Red Alder	6.4	7.3	7.9	4.2	4	29.8	Yes	Yes	Yes
29	Quercus agrifolia	Coast live oak	6.2	0	0	0	0	6.2	Yes	Yes	Yes
30	Alnus rubra	Red Alder	6.2	6.1	0	0	0	12.3	Yes	Yes	Yes
31	Alnus rubra	Red Alder	21	0	0	0	0	21	No	Yes	Yes
32	Alnus rubra	Red Alder	15.8	0	0	0	0	15.8	Yes	Yes	Yes
33	Alnus rubra	Red Alder	13.3	0	0	0	0	13.3	Yes	Yes	Yes
34	Alnus rubra	Red Alder	17.6	8.1	0	0	0	25.7	Yes	Yes	Yes
35	Salix lasiolepis	Arroyo Willow	6.5	6	4.2	3.5	2	22.2	Yes	Yes	Yes
36	Salix lasiolepis	Arroyo Willow	6.2	6.1	5	3.5	0	20.8	Yes	Yes	Yes
37	Salix lasiolepis	Arroyo Willow	6.7	0	0	0	0	6.7	Yes	Yes	Yes
40	Alnus rubra	Red Alder	10.6	8.9	8	0	0	27.5	Yes	Yes	Yes
42	Quercus agrifolia	Coast live oak	8.8	0	0	0	0	8.8	Yes	Yes	Yes
44	Quercus agrifolia	Coast live oak	18.6	0	0	0	0	18.6	Yes	Yes	Yes
45	Quercus agrifolia	Coast live oak	5.8	3.6	2	0	0	11.4	Yes	Yes	Yes
46	Quercus agrifolia	Coast live oak	22.5	0	0	0	0	22.5	Yes	Yes	Yes
47	Quercus agrifolia	Coast live oak	18.6	0	0	0	0	18.6	Yes	Yes	Yes
48	Quercus agrifolia	Coast live oak	16.4	0	0	0	0	16.4	Yes	Yes	Yes
49	Quercus agrifolia	Coast live oak	15.6	0	0	0	0	15.6	Yes	Yes	Yes
50	Quercus agrifolia	Coast live oak	12.2	0	0	0	0	12.2	Yes	Yes	Yes
51	Quercus agrifolia	Coast live oak	6	0	0	0	0	6	Yes	Yes	Yes
52	Quercus agrifolia	Coast live oak	7.8	0	0	0	0	7.8	Yes	Yes	Yes
52	Quercus agrifolia	Coast live oak	7.8	0	0	0	0	7.8	Yes	Yes	Yes
54	Quercus agrifolia	Coast live oak	5.1	3.2	0	0	0	8.3	Yes	Yes	Yes
55	Sequoia sempervirens	Coast redwood	21	0	0	0	0	21	Yes	Yes	Yes
56	Sequoia sempervirens	Coast redwood	37.6	0	0	0	0	37.6	Yes	Yes	Yes
57	Acer negundo	Boxelder	12	13	9	7	9	50	Yes	Yes	Yes
59	Aesculus californica	California buckeye	6.7	2	0	0	0	8.7	Yes	Yes	Yes
60	Quercus agrifolia	Coast live oak	16	0	0	0	0	16	Yes	Yes	Yes
93	Quercus agrifolia	Coast live oak	18.1	0	0	0	0	18.1	Yes	Yes	Yes
94	Alnus rubra	Red Alder	10.5	0	0	0	0	10.5	Yes	Yes	Yes
95	Alnus rubra	Red Alder	12.1	5.5	5	4.1	0	26.7	Yes	Yes	Yes
96	Alnus rubra	Red Alder	10	0	0	0	0	10	No	Yes	Yes
97	Hesperocyparis macrocarpa	Monterey cypress	57	0	0	0	0	57	Yes	Yes	Yes
99	Alnus rubra	Red Alder	12.8	0	0	0	0	12.8	No	Yes	Yes
100	Alnus rubra	Red Alder	10.9	0	0	0	0	10.9	No	Yes	Yes
101	Alnus rubra	Red Alder	10	0	0	0	0	10	No	Yes	Yes
102	Alnus rubra	Red Alder	11.2	0	0	0	0	11.2	No	Yes	Yes
105	Alnus rubra	Red Alder	7.5	6.6	0	0	0	14.1	No	Yes	Yes
380	Alnus rubra	Red Alder	16.8	0	0	0	0	16.8	No	Yes	Yes

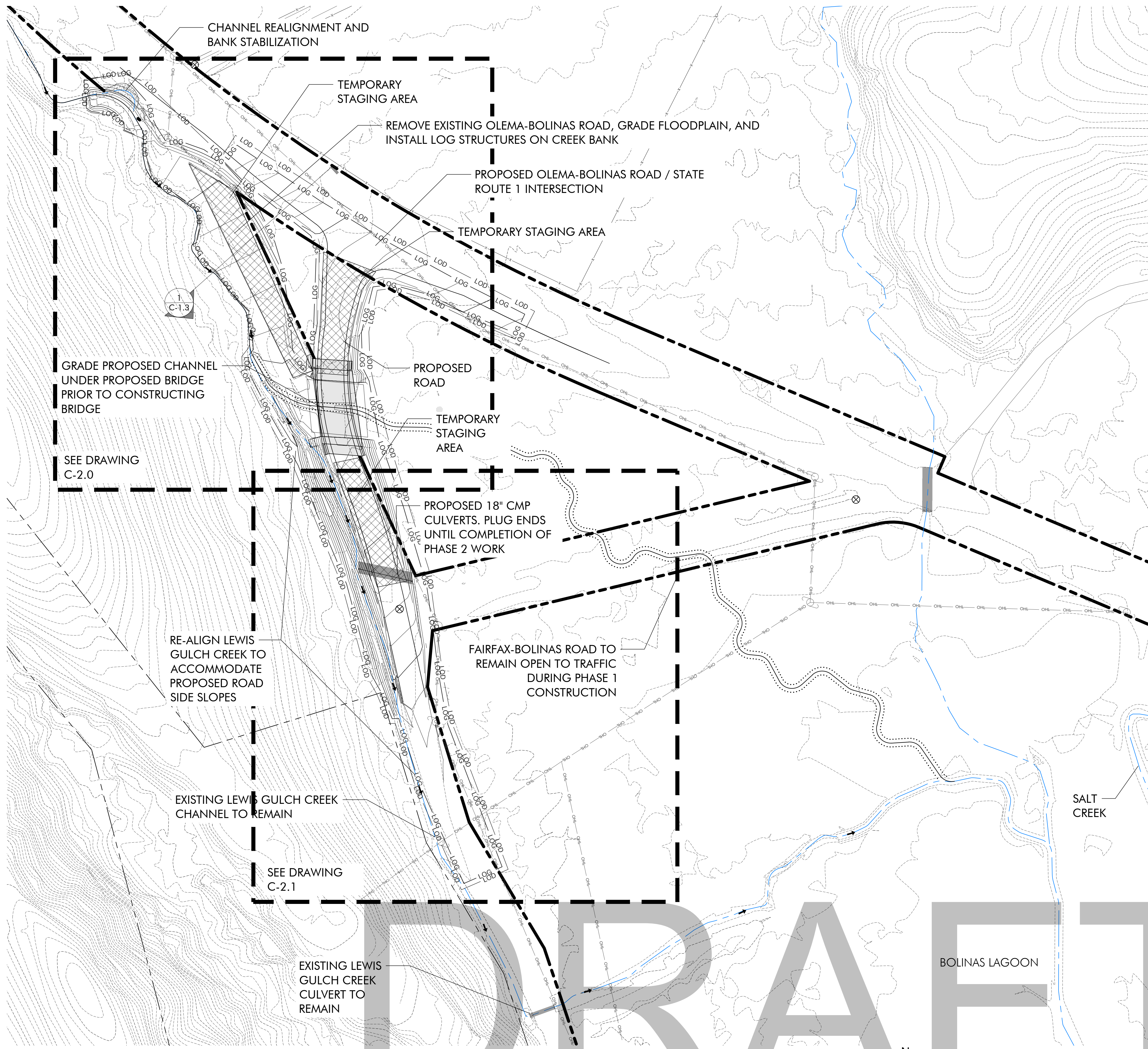
NOTES:

- TREE REMOVAL SHALL NOT BE STARTED UNTIL:
  - DELINEATION OF LIMITS OF DISTURBANCE HAVE BEEN MARKED WITH FLAGGING OR EXCLUSION FENCE AND APPROVED BY THE OWNER'S REPRESENTATIVE.
  - TREES TO BE REMOVED AND USED FOR ON-SITE LOG STRUCTURES HAVE BEEN IDENTIFIED AND FLAGGED.
- ALL TREES GREATER THAN 6" DBH ARE MARKED WITH NUMBERED ALUMINUM TREE TAGS CORRESPONDING TO THE NUMBERS SHOWN HEREIN.
- SELECTION OF TREES TO BE USED FOR LOG STRUCTURES AND REMOVAL OF ROOTWADS SHALL BE COMPLETED UNDER SUPERVISION OF THE RESTORATION DESIGNER.
- TREES TO BE PROTECTED IN PLACE WITHIN THE LIMITS OF DISTURBANCE SHALL BE INSPECTED BY THE COUNTY ARBORIST PRIOR TO DISTURBANCE. FENCING OR OTHER PROTECTIVE MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PER DIRECTION OF ARBORIST PRIOR TO GROUND DISTURBANCE IN THE AREA OF THOSE TREES.

**DRAFT**

TREE REMOVAL TABLE - PHASE 2

Tag ID	Botanical Name	Common Name	DBH 1	DBH 2	DBH 3	DBH 4	DBH 5	Total DBH	Within LOG	Within LOD	To be Removed
61	Alnus rubra	Red Alder	8.7	5.6	0	0	0	14.3	Yes	Yes	Yes
62	Alnus rubra	Red Alder	0	11.6	0	0	0	11.6	No	Yes	Yes
63	Alnus rubra	Red Alder	8.4	0	0	0	0	8.4	No	Yes	Yes
65	Alnus rubra	Red Alder	15	0	0	0	0	15	No	Yes	Yes
66	Salix lasiolepis	Arroyo Willow	15.7	0	0	0	0	15.7	Yes	Yes	Yes
67	Alnus rubra	Red Alder	10.2	0	0	0	0	10.2	No	Yes	Yes
68	Prunus sp.	Cherry	8.1	0	0	0	0	8.1	No	Yes	Yes
69	Salix lasiolepis	Arroyo Willow	10.1	0	0	0	0	10.1	Yes	Yes	Yes
70	Alnus rubra	Red Alder	10.3	5.1	0	0	0	15.4	Yes	Yes	Yes
71	Alnus rubra	Red Alder	7.4	0	0	0	0	7.4	Yes	Yes	Yes
75	Alnus rubra	Red Alder	13	0	0	0	0	13	No	Yes	Yes
76	Salix lasiolepis	Arroyo Willow	10.1	0	0	0	0	10.1	No	Yes	Yes
77	Alnus rubra	Red Alder	14.1	6.3	0	0	0	20.4	Yes	Yes	Yes
78	Alnus rubra	Red Alder	11.9	0	0	0	0	11.9	No	Yes	Yes
81	Alnus rubra	Red Alder	9	0	0	0	0	9	Yes	Yes	Yes
82	Alnus rubra	Red Alder	8.2	0	0	0	0	8.2	No	Yes	Yes
83	Alnus rubra	Red Alder	10.1	0	0	0	0	10.1	Yes	Yes	Yes
84	Alnus rubra	Red Alder	12.2	0	0	0	0	12.2	Yes	Yes	Yes
86	Alnus rubra	Red Alder	11	12.5	7.9	0	0	31.4	No	Yes	Yes
87	Alnus rubra	Red Alder	12.8	0	0	0	0	12.8	Yes	Yes	Yes
88	Alnus rubra	Red Alder	11.9	0	0	0	0	11.9	No	Yes	Yes
92	Alnus rubra	Red Alder	16.5	0	0	0	0	16.5	Yes	Yes	Yes
103	Alnus rubra	Red Alder	7.5	6.6	0	0	0	14.1	Yes	Yes	Yes
269	Alnus rubra	Red Alder	12	0	0	0	0	12	No	Yes	Yes
270	Alnus rubra	Red Alder	15.6	0	0	0	0	15.6	No	Yes	Yes
271	Salix lasiolepis	Arroyo Willow	10.8	0	0	0	0	10.8	Yes	Yes	Yes
272	Alnus rubra	Red Alder	3.7	0	0	0	0	3.7	No	Yes	Yes
273	Alnus rubra	Red Alder	7.2	0	0	0	0	7.2	Yes	Yes	Yes
274	Alnus rubra	Red Alder	3.3	1	0	0	0	4.3	No	Yes	Yes
276	Salix lasiolepis	Arroyo Willow	8	0	0	0	0	8	Yes	Yes	Yes
277	Salix lasiolepis	Arroyo Willow	8	0	0	0	0	8	Yes	Yes	Yes
279	Alnus rubra	Red Alder	12.2	0	0	0	0	12.2	No	Yes	Yes
288	Salix lasiolepis	Arroyo Willow	4.9	0	0	0	0	4.9	No	Yes	Yes
291	Salix lasiolepis	Arroyo Willow	17	0	0	0	0	17	No	Yes	Yes
292	Salix lasiolepis	Arroyo Willow	6.7	0	0	0	0	6.7	No	Yes	Yes
293	Salix lasiolepis	Arroyo Willow	10.8	0	0	0	0	10.8	No	Yes	Yes
294	Salix lasiolepis	Arroyo Willow	17.5	0	0	0	0	17.5	No	Yes	Yes
295	Salix lasiolepis	Arroyo Willow	13.5	1	0	0	0	14.5	No	Yes	Yes
297	Salix lasiolepis	Arroyo Willow	7.8	7	0	0	0	14.8	No	Yes	Yes
298	Salix lasiolepis	Arroyo Willow	1	1	4	3	0.5	9.5	Yes	Yes	Yes
299	Salix lasiolepis	Arroyo Willow	6	0	0	0	0	6	Yes	Yes	Yes
370	Sambucus nigra	Blue Elderberry	4.3	4.8	5.3	0	0	14.4	Yes	Yes	Yes
372	Salix lasiolepis	Arroyo Willow	10.1	0	0	0	0	10.1	Yes	Yes	Yes
375	Salix lasiolepis	Arroyo Willow	12	0	0	0	0	12	Yes	Yes	Yes
419	Alnus rubra	Red Alder	8	0	0	0	0	8	No	Yes	Yes
420	Salix lasiolepis	Arroyo Willow	8.2	0	0	0	0	8.2	Yes	Yes	Yes
421	Salix lasiolepis	Arroyo Willow	14.1	0	0	0	0	14.1	Yes	Yes	Yes
422	Salix lasiolepis	Arroyo Willow	7.8	0	0	0	0	7.8	Yes	Yes	Yes
423	Salix lasiolepis	Arroyo Willow	9.4	0	0	0	0	9.4	Yes	Yes	Yes
424	Salix lasiolepis	Arroyo Willow	7.5	0	0	0	0	7.5	Yes	Yes	Yes
798	Alnus rubra	Red Alder	7	5.8	5	14.4	0	32.2	No	Yes	Yes
2778	Salix lasiolepis	Arroyo Willow	4.6	0	0	0	0	4.6	Yes	Yes	Yes
2779	Salix lasiolepis	Arroyo Willow	1	2	2	1	2	8	Yes	Yes	Yes
2780	Salix lasiolepis	Arroyo Willow	2	2	0.5	0.5	0	5	Yes	Yes	Yes
2781	Salix lasiolepis	Arroyo Willow	5	4	0	0	0	9	No	Yes	Yes
2782	Salix lasiolepis	Arroyo Willow	4.3	4.5	6	0	0	14.8	No	Yes	Yes
2783	Salix lasiolepis	Arroyo Willow	7.3	1	1	0	0	9.3	Yes	Yes	Yes
2784	Salix lasiolepis	Arroyo Willow	11.1	0	0	0	0	11.1	Yes	Yes	Yes
2785	Salix lasiolepis	Arroyo Willow	5.1	5.3	16	0	0	26.4	Yes	Yes	Yes
2786	Salix lasiolepis	Arroyo Willow	9.6	0	0	0	0	9.6	Yes	Yes	Yes
2788	Salix lasiolepis	Arroyo Willow	13	6	0	0	0	19	Yes	Yes	Yes
2789	Salix lasiolepis	Arroyo Willow	13	0	0	0	0	13	No	Yes	Yes
2790	Salix lasiolepis	Arroyo Willow	2	0	0	0	0	2	Yes	Yes	Yes
2791	Salix lasiolepis	Arroyo Willow	3.8	0	0	0	0	3.8	No	Yes	Yes
2792											



**PHASE 1 LEGEND**

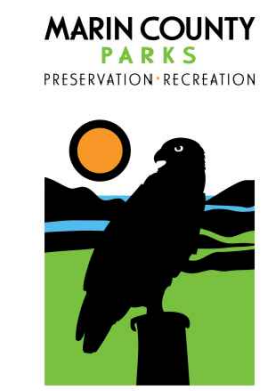
SYMBOL	DESCRIPTION
---	PROPERTY LINE (APPROXIMATE)
--- LOD ---	LIMIT OF DISTURBANCE
--- LOG ---	LIMIT OF GRADE
[Hatched Box]	STAGING AREA
--- (10) ---	EXISTING CONTOUR
--- 10 ---	PROPOSED CONTOUR
---	EXISTING CHANNEL ALIGNMENT
---	PROPOSED CHANNEL ALIGNMENT
---	EXISTING FENCE
---	OVERHEAD UTILITY LINE
→	FLOW
⊗	SURVEY CONTROL POINT

- NOTE:**
1. THIS SHEET IS INTENDED TO SHOW AN OVERVIEW OF PROJECT ELEMENTS FOR PHASE 1.
  2. SEE SHEETS C-2.0 AND C-2.1 FOR DETAILED CREEK CHANNEL TREATMENTS AND FLOODPLAIN GRADING INFORMATION.
  3. SEE SHEETS GN-1 THROUGH S-1 FOR ROADWAY AND BRIDGE CONSTRUCTION.

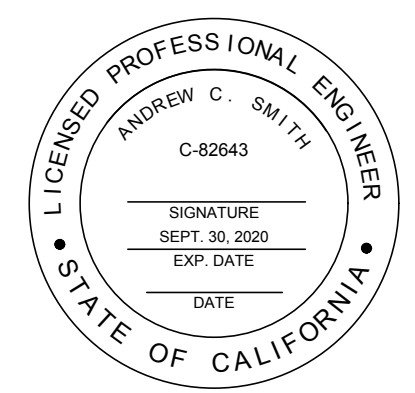


**BOLINAS LAGOON WYE WETLANDS PROJECT**

BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY: RBB  
ORIGINAL DRAWING SIZE: 24 X 36

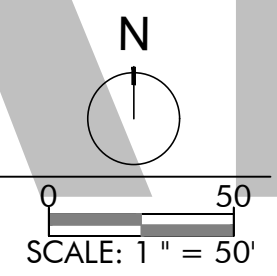
**PHASE 1 SITE PLAN**

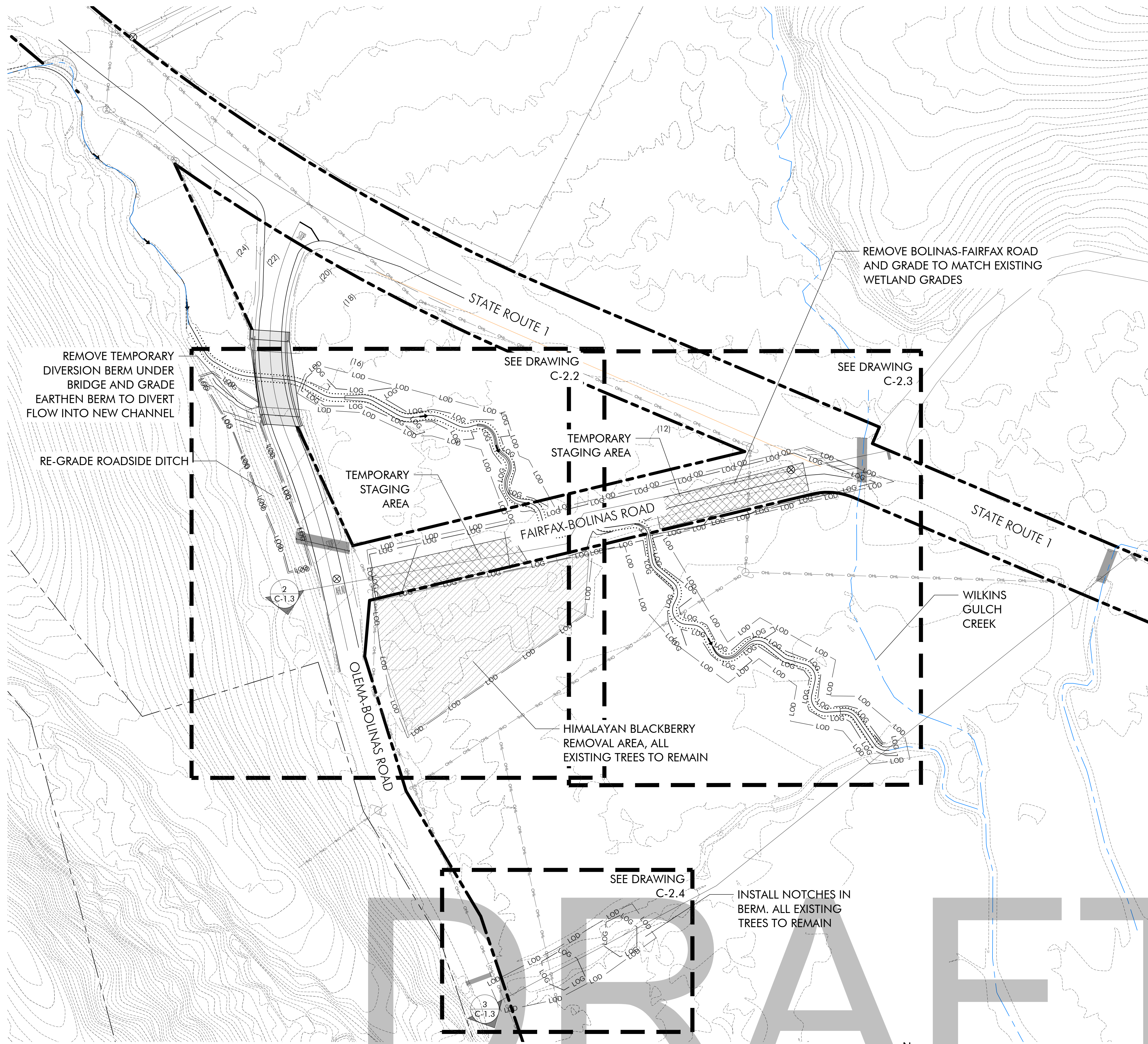
Sheet

**C-1.0**

1 PLAN VIEW

**DRAFT**





**PHASE 2 LEGEND**

SYMBOL	DESCRIPTION
---	PROPERTY LINE (APPROXIMATE)
— LOD —	LIMIT OF DISTURBANCE
— LOG —	LIMIT OF GRADE
▨	STAGING AREA
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING CHANNEL ALIGNMENT
---	PROPOSED CHANNEL ALIGNMENT
---	EXISTING FENCE
— OHL —	OVERHEAD UTILITY LINE
→	FLOW
⊗	SURVEY CONTROL POINT
▨	HIMALAYAN BLACKBERRY

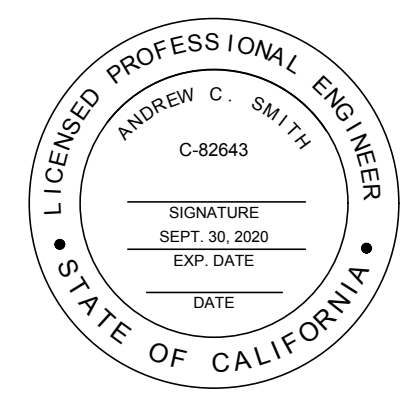


**BOLINAS LAGOON WYE WETLANDS PROJECT**

BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION

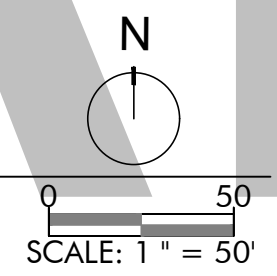


01/29/2020	CONCEPT PLAN
07/30/2020	30% DESIGN
02/14/2022	60% DESIGN

Date	Issues And Revisions	No.

PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

1 PLAN VIEW



DRAFT

PHASE 2 SITE PLAN

Sheet

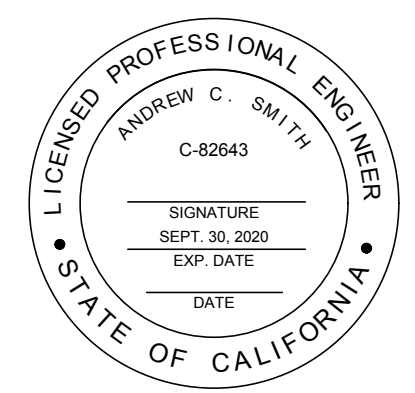
C-1.1

**BOLINAS LAGOON  
 WYE WETLANDS  
 PROJECT**

BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



01/29/2020 CONCEPT PLAN  
 07/30/2020 30% DESIGN  
 02/14/2022 60% DESIGN

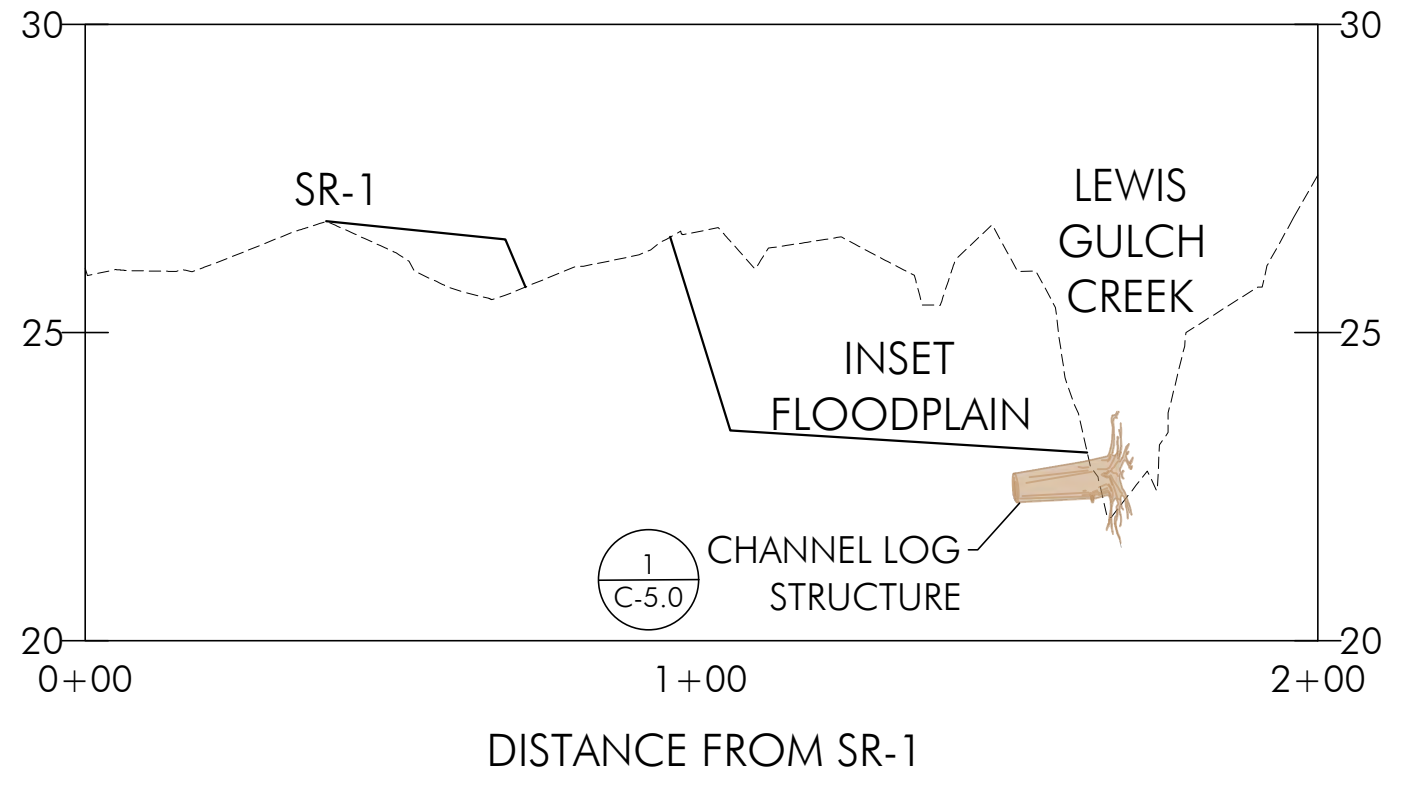
Date	Issues And Revisions	No.

PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**SITE SECTIONS**

Sheet

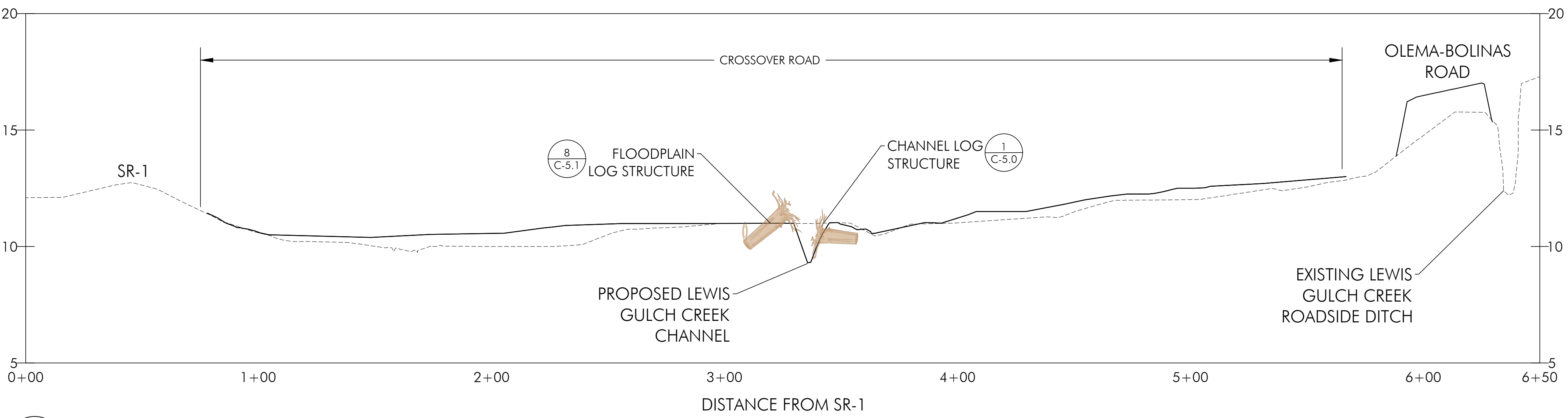
**C-1.2**



**1**  
 C-1.0 INSET FLOODPLAIN  
 SCALE: 1" = 30'

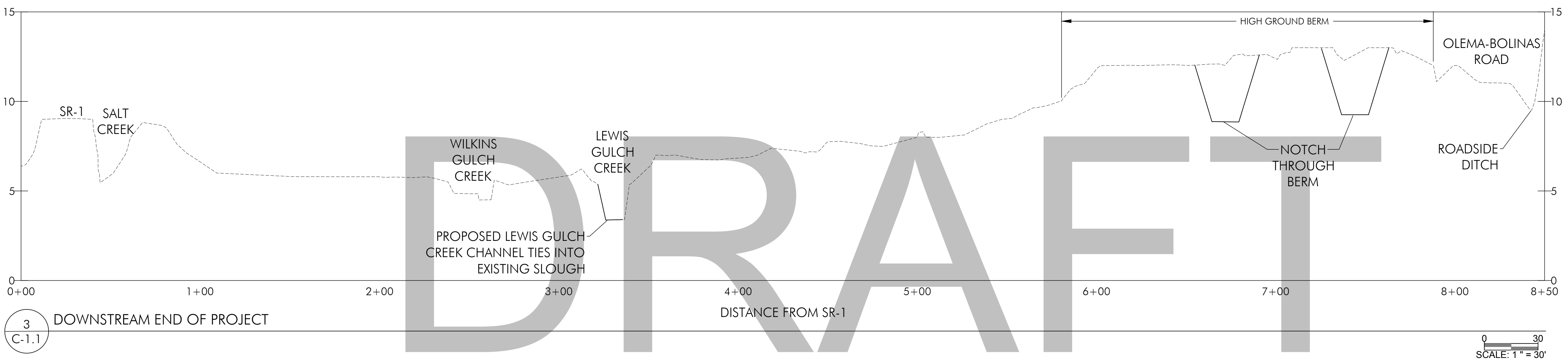
**SECTION LEGEND**

SYMBOL	DESCRIPTION
-----	EXISTING GRADE
—————	PROPOSED GRADE



**2**  
 C-1.1 CROSSOVER ROAD  
 SCALE: 1" = 30'

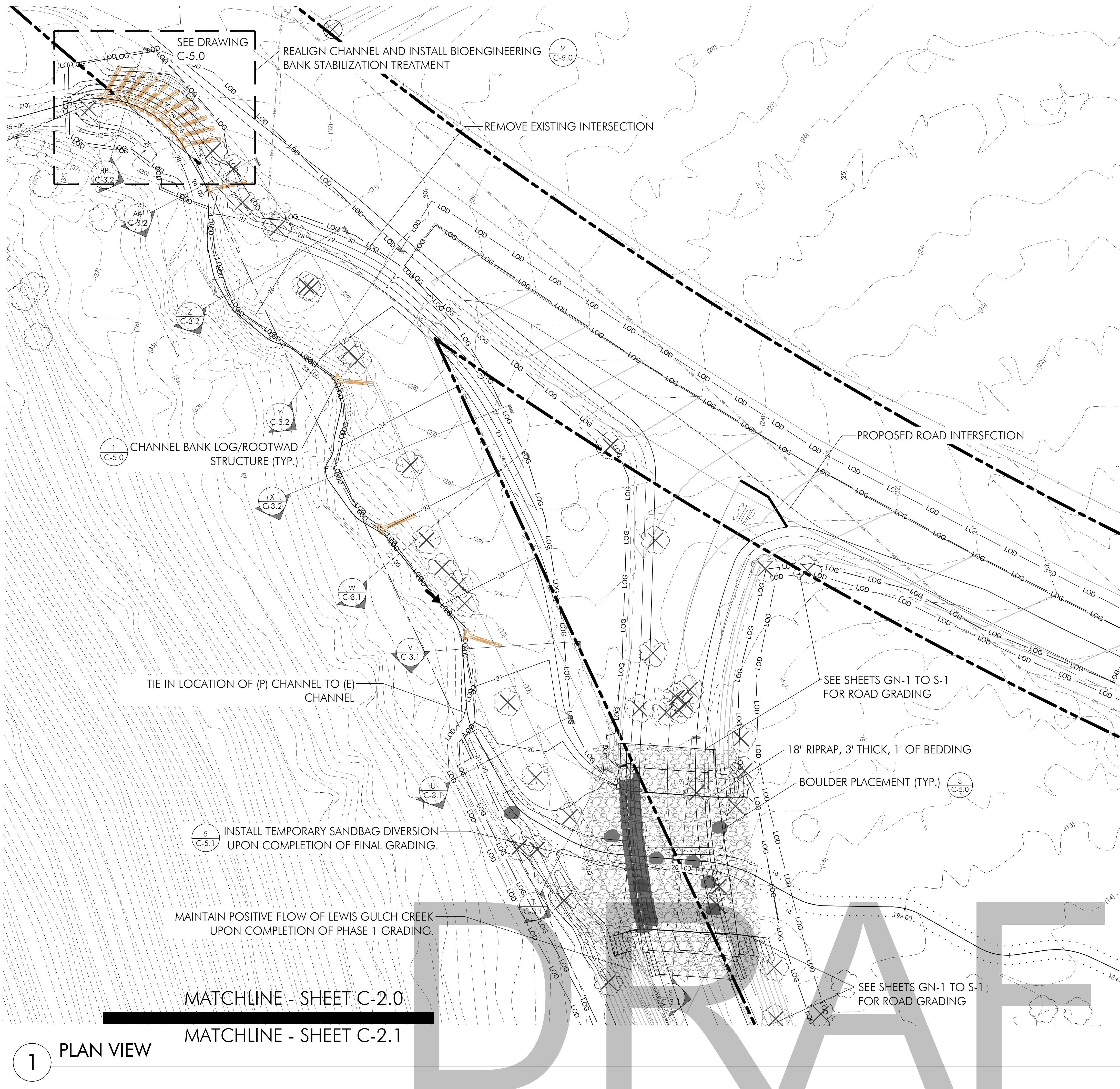
**BERM NOTCHES**



**3**  
 C-1.1 DOWNSTREAM END OF PROJECT  
 SCALE: 1" = 30'

**DRAFT**





**GRADING PLAN PHASE 1 SHEET 2.0 LEGEND**

SYMBOL	DESCRIPTION
	PROPERTY LINE
	LIMIT OF DISTURBANCE
	LIMIT OF GRADE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED CHANNEL ALIGNMENT
	EXISTING FENCE
	OVERHEAD UTILITY LINE
	FLOW
	SURVEY CONTROL POINT
	SURVEYED TREES (DBH > 6')
	TREES TO BE REMOVED
	UTILITY POLE
	LOGS WITH ROOTWAD (HARVESTED ON-SITE)

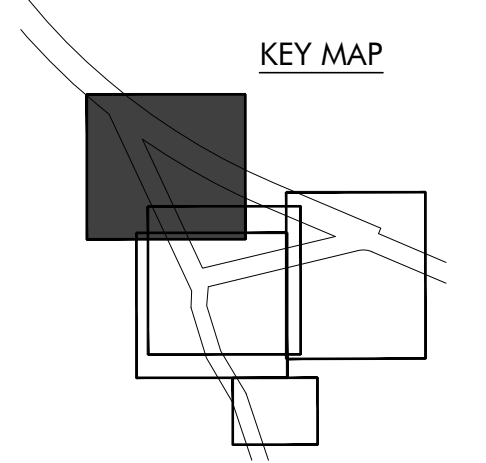
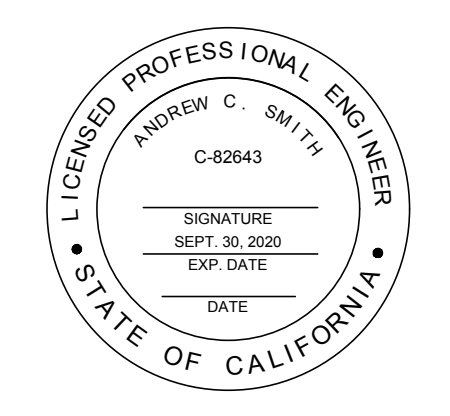
- NOTE:**
- SEE ROADWAY AND BRIDGE PLAN SHEETS GN-1 THROUGH S-1) FOR ROADWAY AND BRIDGE CONSTRUCTION INFORMATION.
  - ALL IN-CHANNEL WORK IS TO BE COMPLETED AFTER ALL FLOW HAS BEEN DIVERTED FROM LEWIS GULCH CREEK CHANNEL PER APPROVED DIVERSION PLANS.



**BOLINAS LAGOON WYE WETLANDS PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY: RBB  
ORIGINAL DRAWING SIZE: 24 X 36

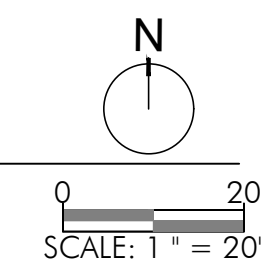
**PHASE 1 ENVIRONMENTAL GRADING PLAN**

Sheet

**C-2.0**

1 PLAN VIEW

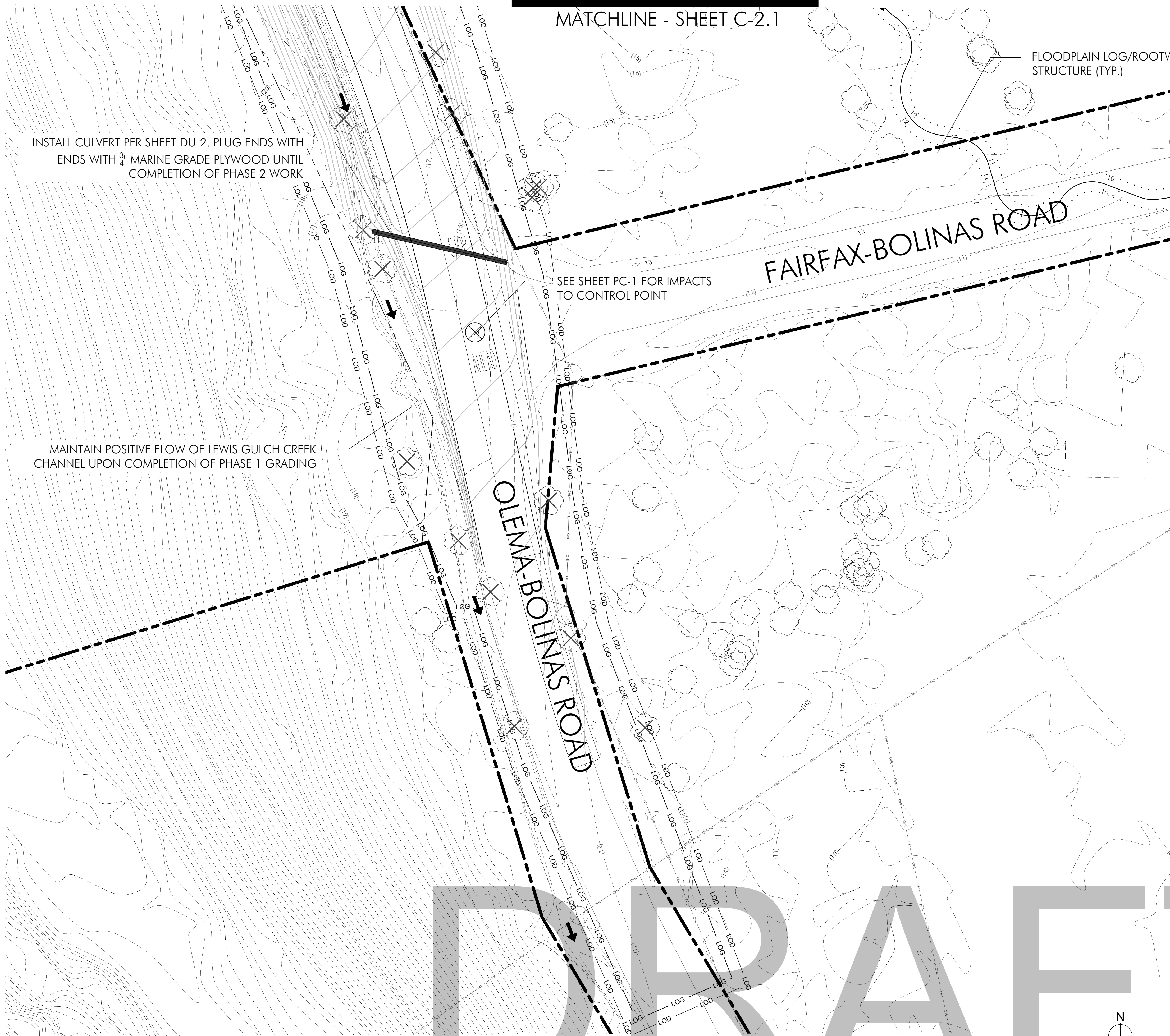
MATCHLINE - SHEET C-2.0  
MATCHLINE - SHEET C-2.1



DRAFT

MATCHLINE - SHEET C-2.0

MATCHLINE - SHEET C-2.1



GRADING PLAN PHASE 1 SHEET 2.1 LEGEND

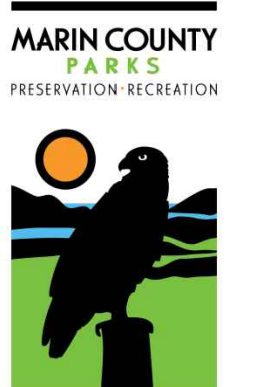
SYMBOL	DESCRIPTION
---	PROPERTY LINE
--- LOD --- LOD ---	LIMIT OF DISTURBANCE
--- LOG --- LOG ---	LIMIT OF GRADE
--- (100) ---	EXISTING CONTOURS
--- 100 ---	PROPOSED CONTOURS
---	PROPOSED CHANNEL ALIGNMENT
---	EXISTING FENCES
--- O-U --- O-U --- O-U --- O-U ---	OVERHEAD UTILITY LINE
→	FLOW
⊗	SURVEY CONTROL POINT
⊗	SURVEYED TREES (DBH > 6)
⊗	TREES TO BE REMOVED
⊗	UTILITY POLE

NOTE:

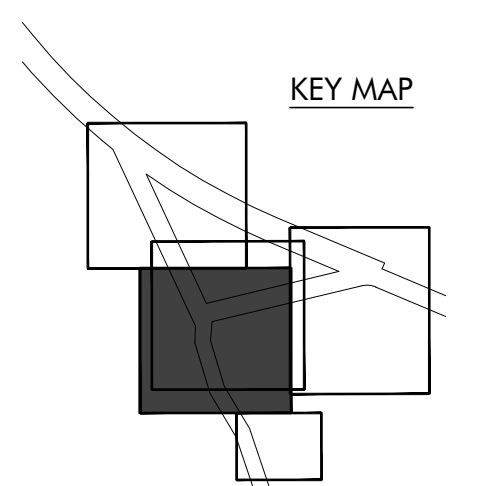
- SEE ROADWAY AND BRIDGE PLAN SHEETS GN-1 THROUGH S-X FOR ROADWAY AND BRIDGE CONSTRUCTION INFORMATION.
- ALL IN-CHANNEL WORK IS TO BE COMPLETED AFTER ALL FLOW HAS BEEN DIVERTED FROM LEWIS GULCH CREEK CHANNEL PER APPROVED DIVERSION PLANS.



**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



01/29/2020	CONCEPT PLAN
07/30/2020	30% DESIGN
02/14/2022	60% DESIGN

Date	Issues And Revisions	No.

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY: RBB  
ORIGINAL DRAWING SIZE: 24 X 36

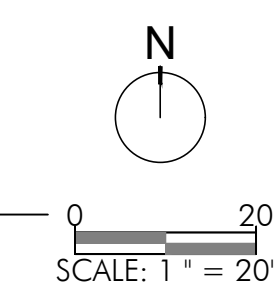
PHASE 1  
ENVIRONMENTAL  
GRADING PLAN

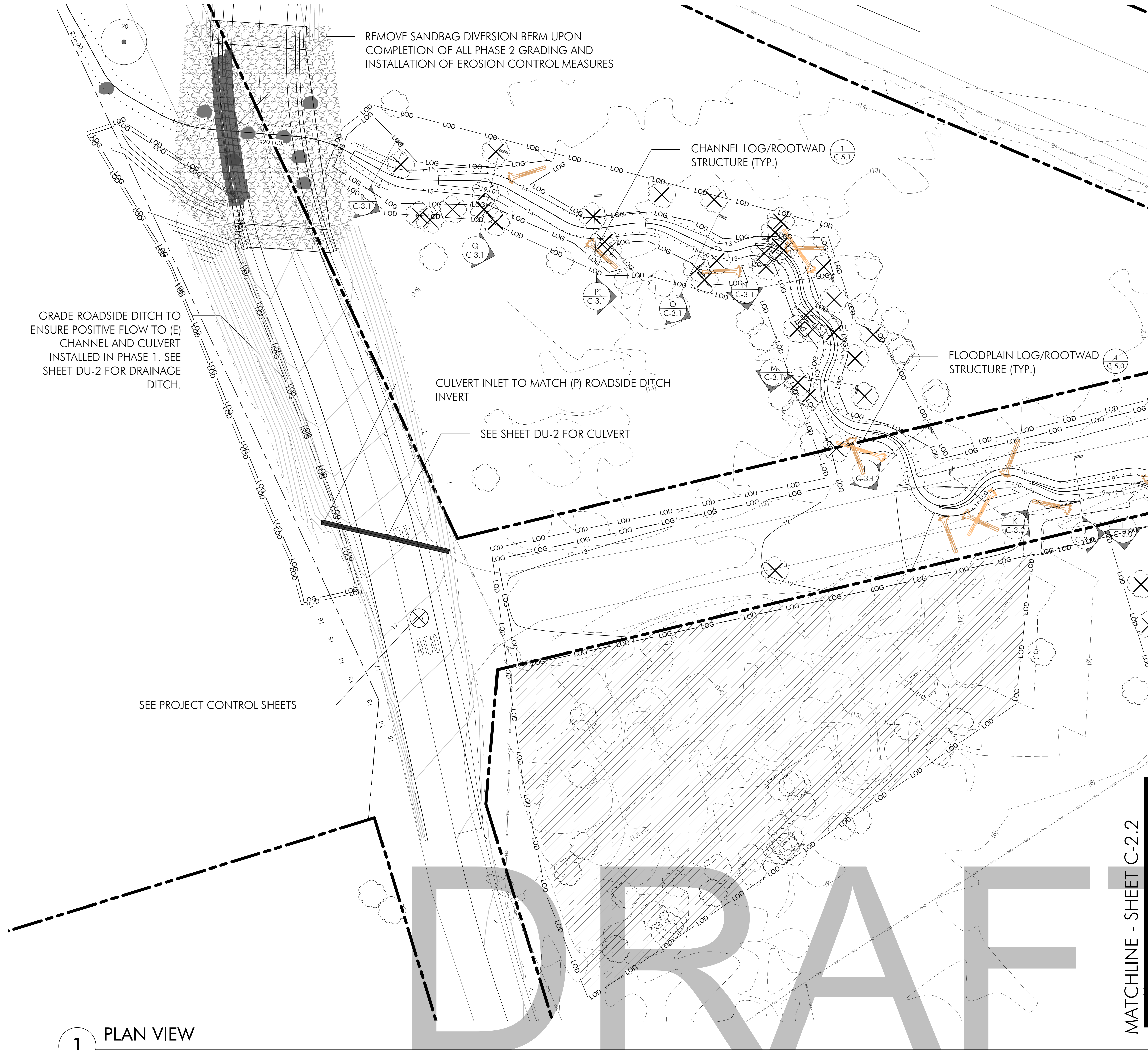
Sheet

C-2.1

1 PLAN VIEW

DRAFT





GRADING PLAN PHASE 2 SHEET 2.2 LEGEND

SYMBOL	DESCRIPTION
	PROPERTY LINE
	LIMIT OF DISTURBANCE
	LIMIT OF GRADE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED CHANNEL ALIGNMENT
	EXISTING FENCES
	OVERHEAD UTILITY LINE
	FLOW
	PROPOSED LOG/ROOTWAD STRUCTURE
	PROPOSED FLOODPLAIN LOG/ROOTWAD STRUCTURE
	SURVEY CONTROL POINT
	SURVEYED TREES (DBH>6')
	TREES TO BE REMOVED
	PROPOSED BOULDER
	UTILITY POLE

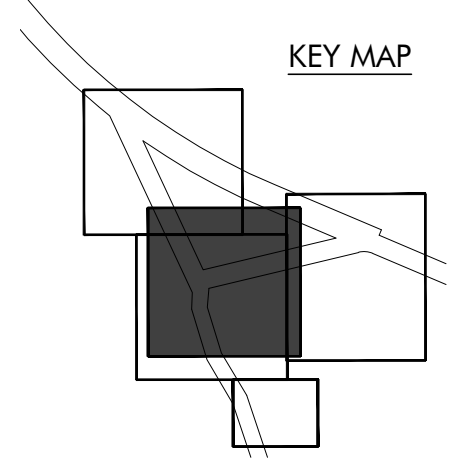
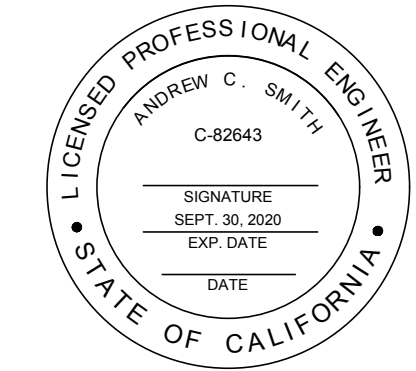
NOTE:  
 1. SUBSOIL FILLS HARVESTED ON SITE AS NECESSARY AND 6" OF TOPSOIL HARVESTED ON SITE TO MEET FINAL GRADE IN AREA WHERE FAIRFAX-BOLINAS ROAD HAS BEEN REMOVED.



**BOLINAS LAGOON WYE WETLANDS PROJECT**  
 BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY:RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

PHASE 2 ENVIRONMENTAL GRADING PLAN

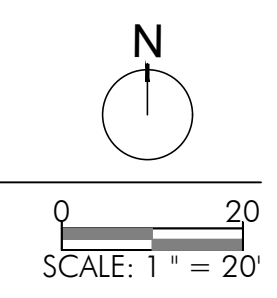
C-2.2

1 PLAN VIEW

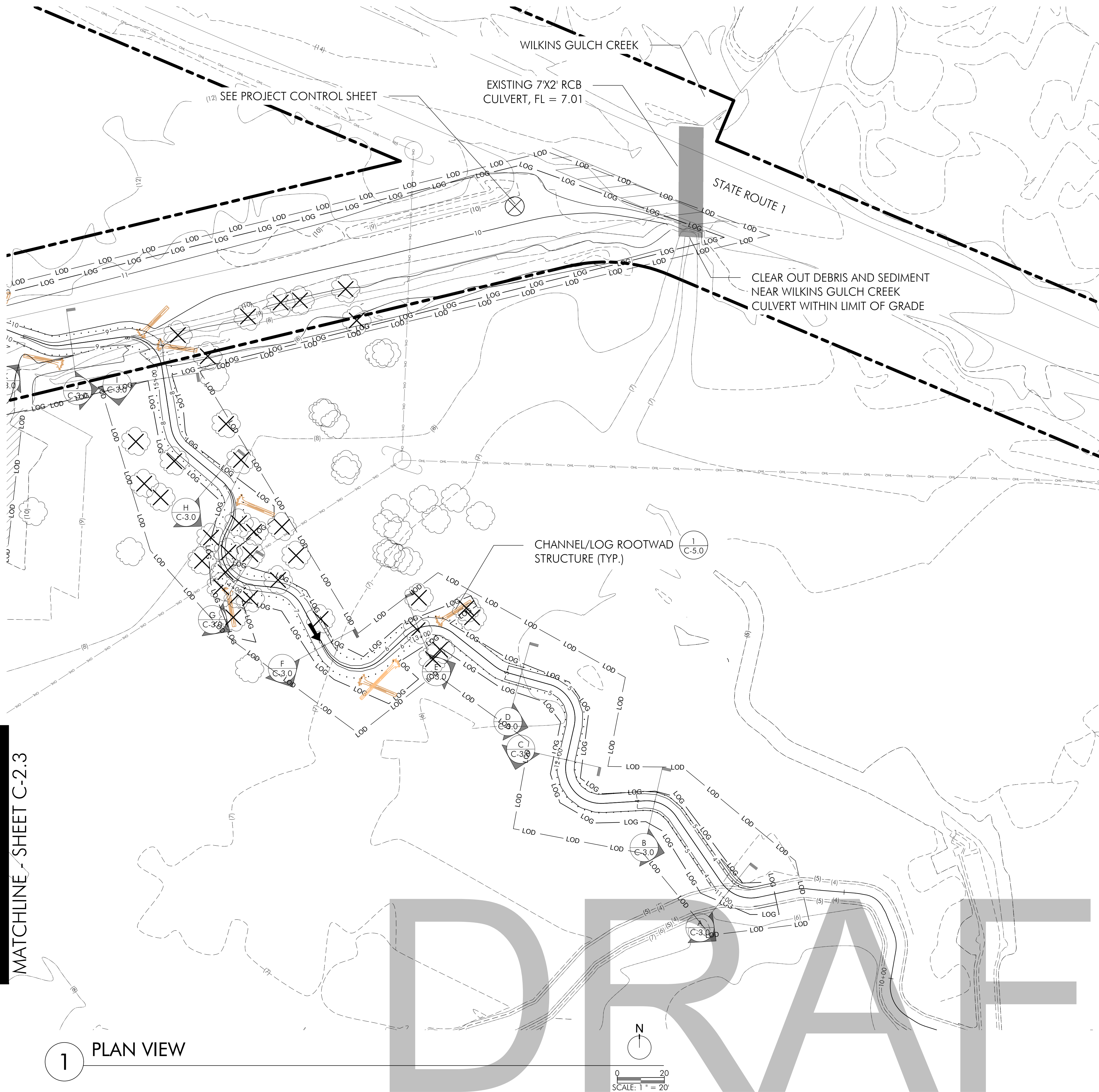
DRAFT

MATCHLINE - SHEET C-2.2

MATCHLINE - SHEET C-2.3



MATCHLINE - SHEET C-2.2  
 MATCHLINE - SHEET C-2.3



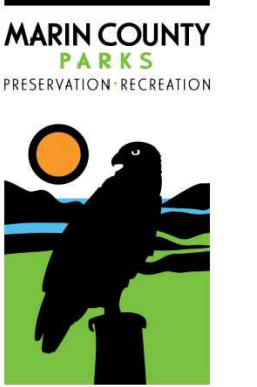
GRADING PLAN PHASE 2 SHEET 2.3 LEGEND

SYMBOL	DESCRIPTION
	PROPERTY LINE
	LIMIT OF DISTURBANCE
	LIMIT OF GRADE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED CHANNEL ALIGNMENT
	EXISTING FENCE
	OVERHEAD UTILITY LINE
	FLOW
	PROPOSED LOG/ROOTWAD STRUCTURE
	PROPOSED FLOODPLAIN LOG/ROOTWAD STRUCTURE
	SURVEY CONTROL POINT
	SURVEYED TREES (DBH > 6")
	TREES TO BE REMOVED
	UTILITY POLE

NOTE:  
 1. SUBSOIL FILLS HARVESTED ON SITE AS NECESSARY AND 6" OF TOPSOIL HARVESTED ON SITE TO MEET FINAL GRADE IN AREA WHERE FAIRFAX-BOLINAS ROAD HAS BEEN REMOVED.



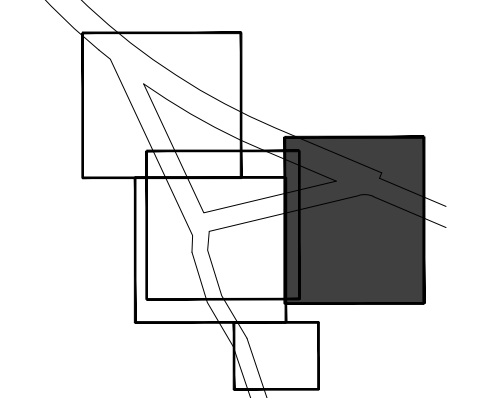
**BOLINAS LAGOON  
 WYE WETLANDS  
 PROJECT**  
 BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



KEY MAP



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

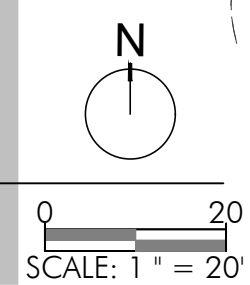
PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

PHASE 2  
 ENVIRONMENTAL  
 GRADING PLAN

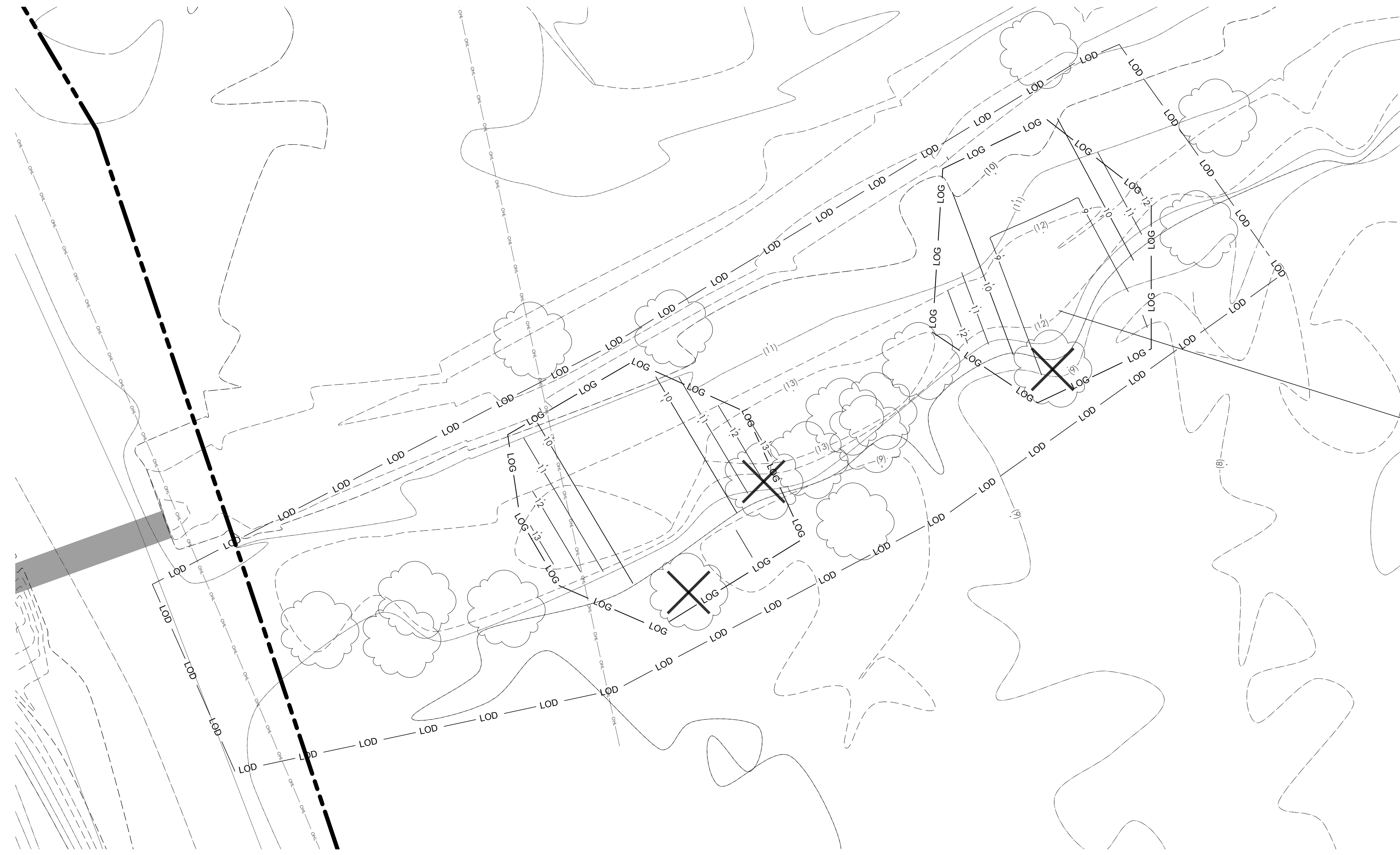
Sheet

**C-2.3**

1 PLAN VIEW



DRAFT



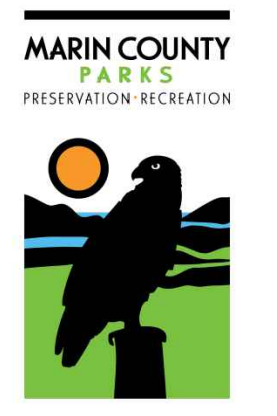
1 PLAN VIEW-BERM NOTCHING

**GRADING PLAN PHASE 2 SHEET 2.4 LEGEND**

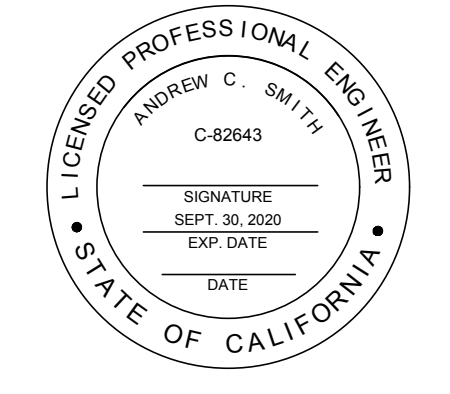
SYMBOL	DESCRIPTION
	PROPERTY LINE
	LIMIT OF DISTURBANCE
	LIMIT OF GRADE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED CHANNEL ALIGNMENT
	EXISTING FENCE
	OVERHEAD UTILITY LINE
	SURVEYED TREES (DBH>6')
	TREES TO BE REMOVED



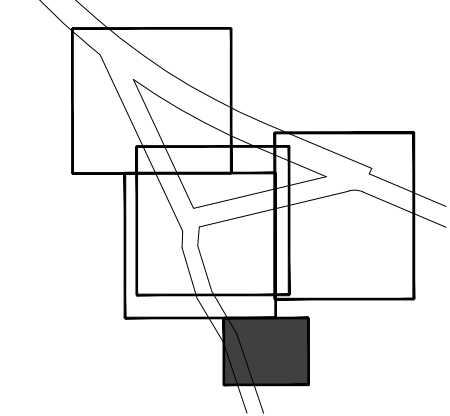
**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



KEY MAP



01/29/2020	CONCEPT PLAN
07/30/2020	30% DESIGN
02/14/2022	60% DESIGN

Date	Issues And Revisions	No.
------	----------------------	-----

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY:RBB  
ORIGINAL DRAWING SIZE: 24 X 36

**DRAFT**

PHASE 2  
ENVIRONMENTAL  
GRADING PLAN

Sheet

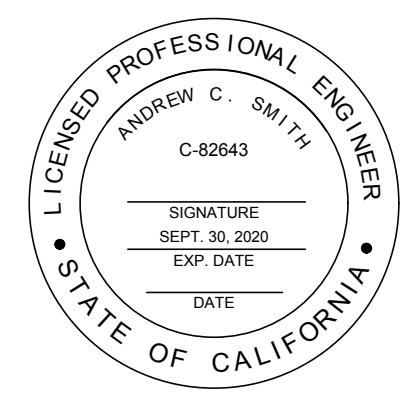
**C-2.4**

**BOLINAS LAGOON  
 WYE WETLANDS  
 PROJECT**

BOLINAS, CALIFORNIA

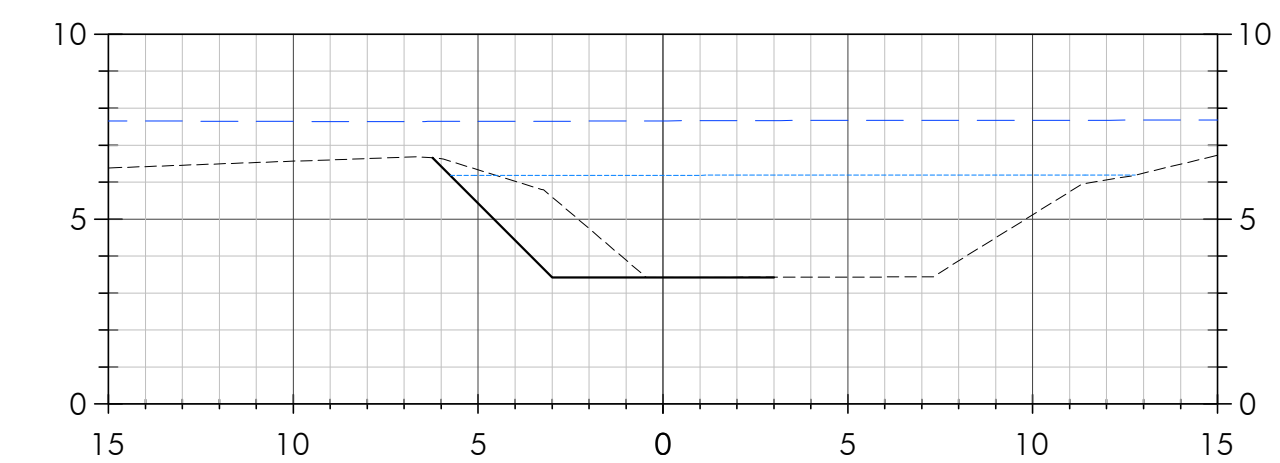


NOT FOR CONSTRUCTION

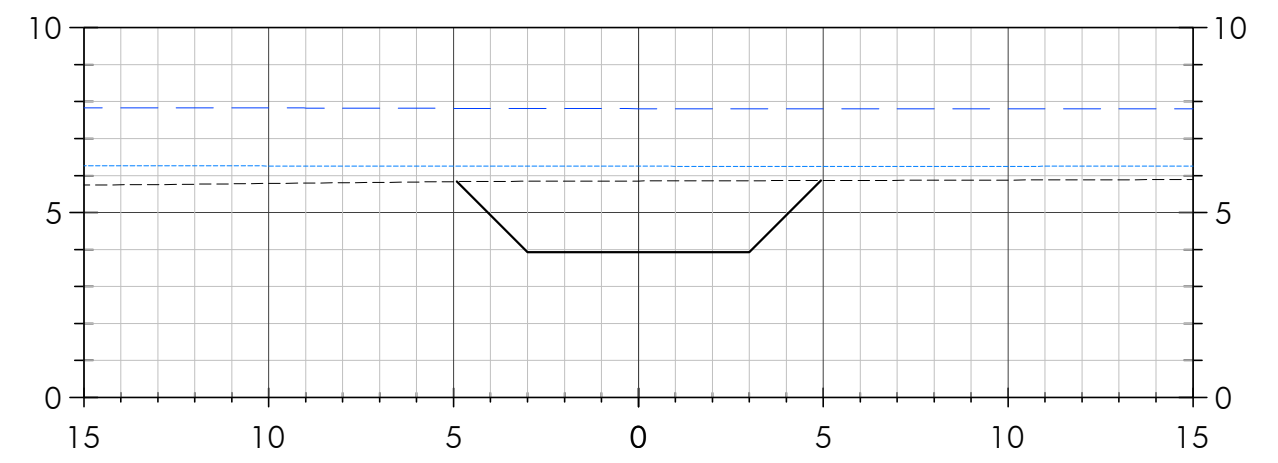


**SECTION LEGEND**

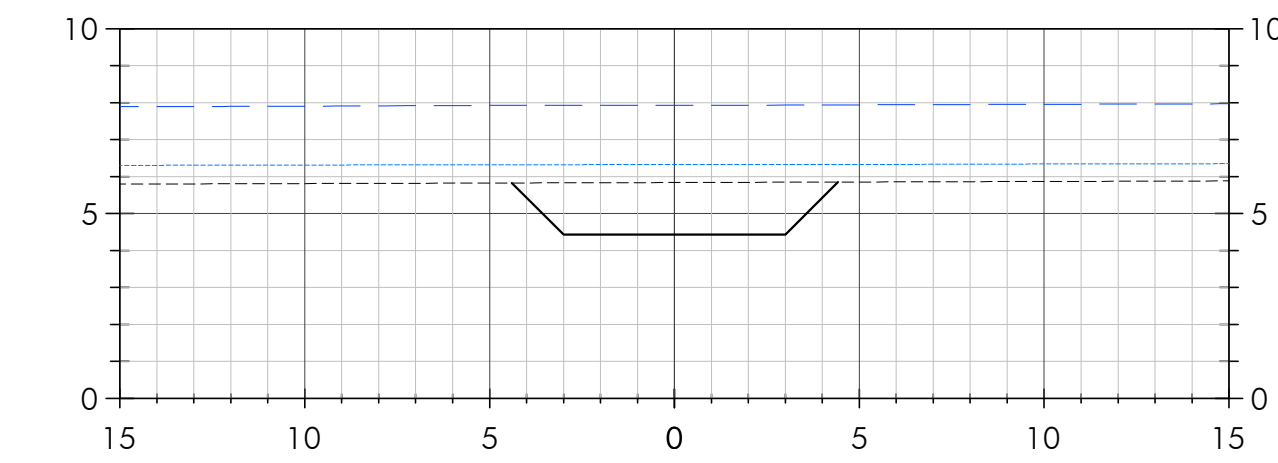
SYMBOL	DESCRIPTION
---	EXISTING GRADE
—	PROPOSED GRADE
---	1.5-YEAR WSEL
---	100-YEAR WSEL



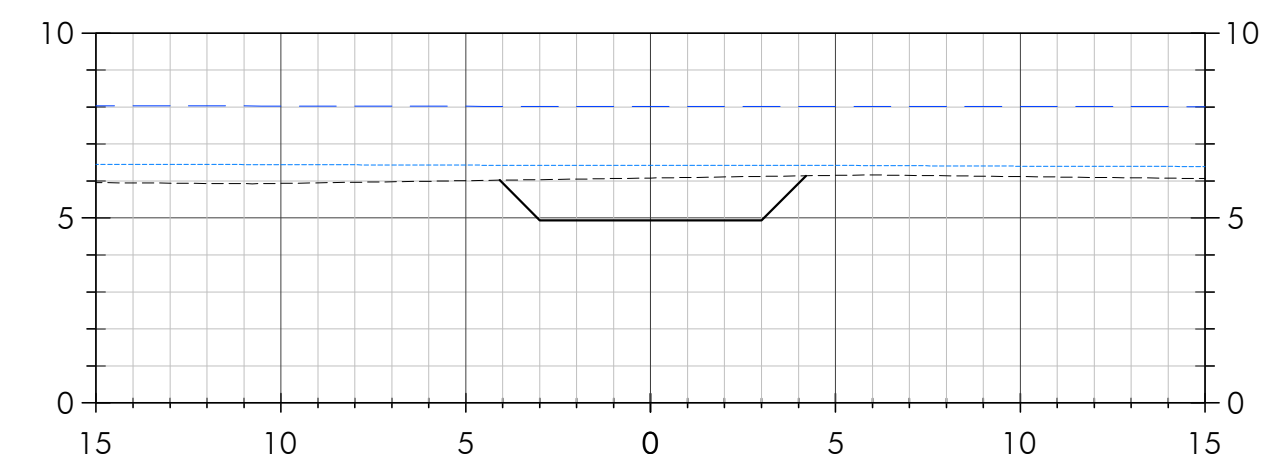
**A**  
STATION 11+00  
C-2.3



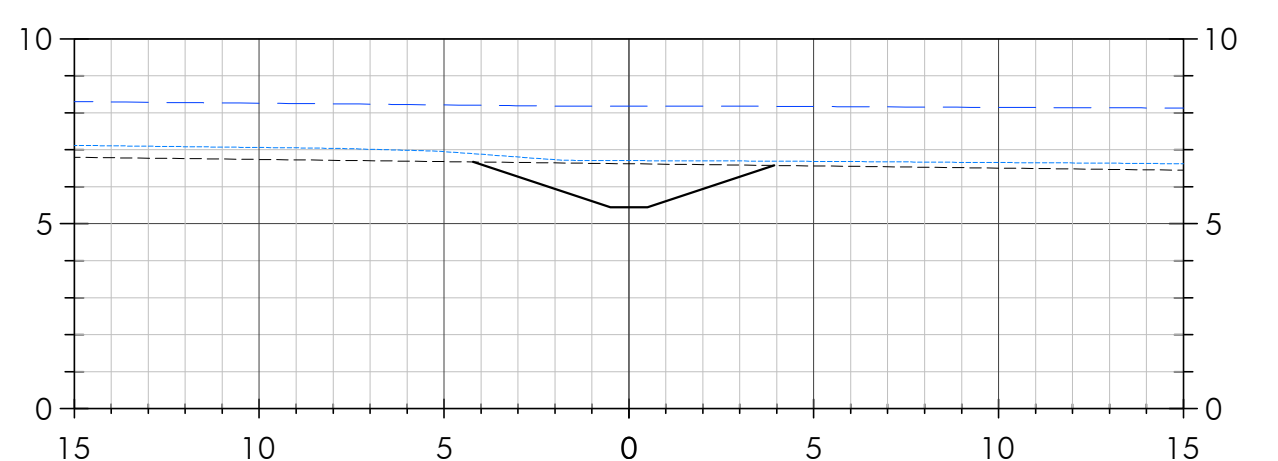
**B**  
STATION 11+50  
C-2.3



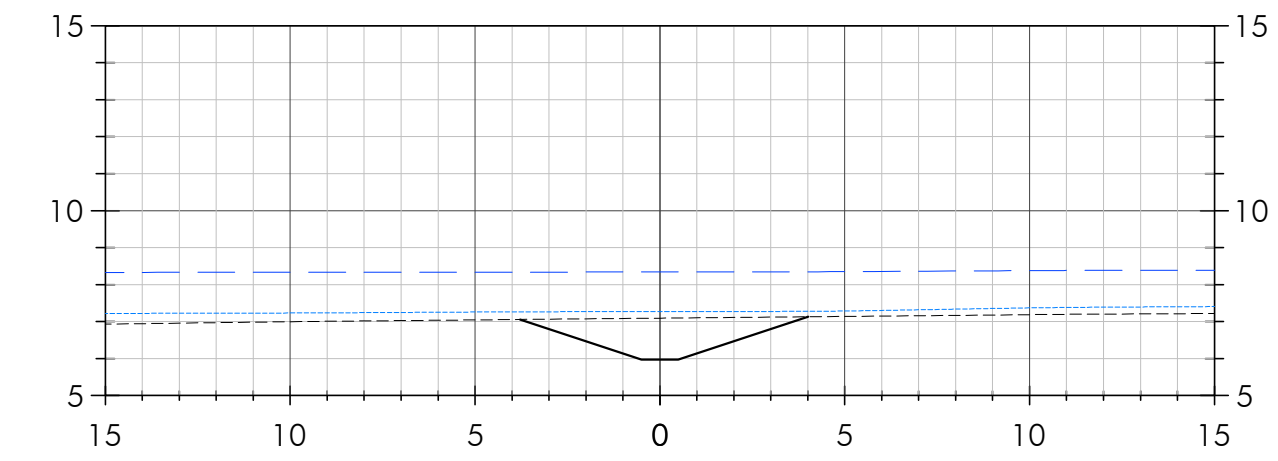
**C**  
STATION 12+00  
C-2.3



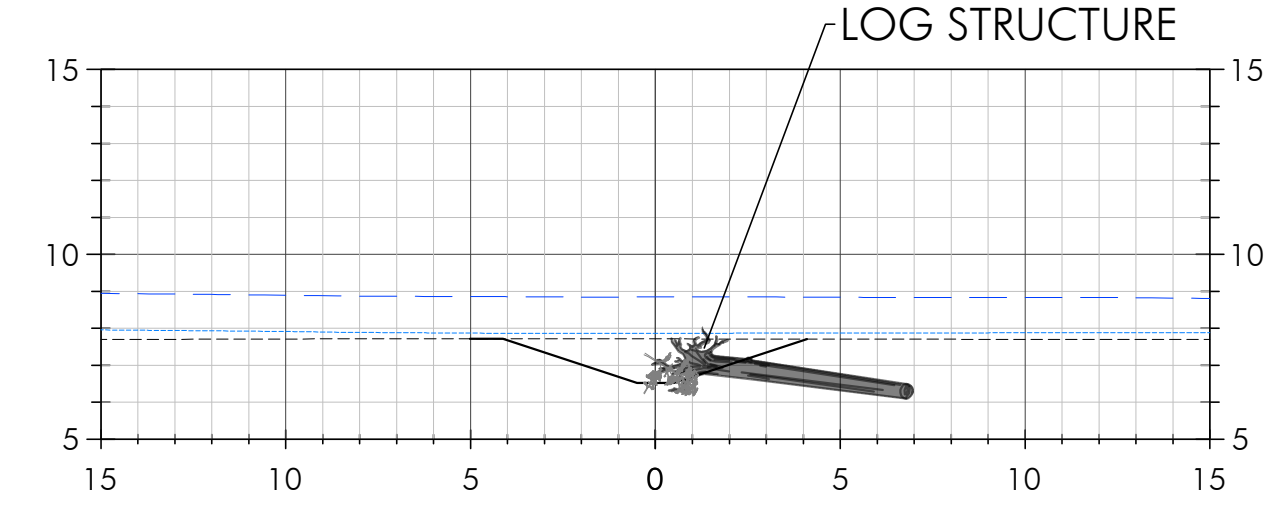
**D**  
STATION 12+50  
C-2.3



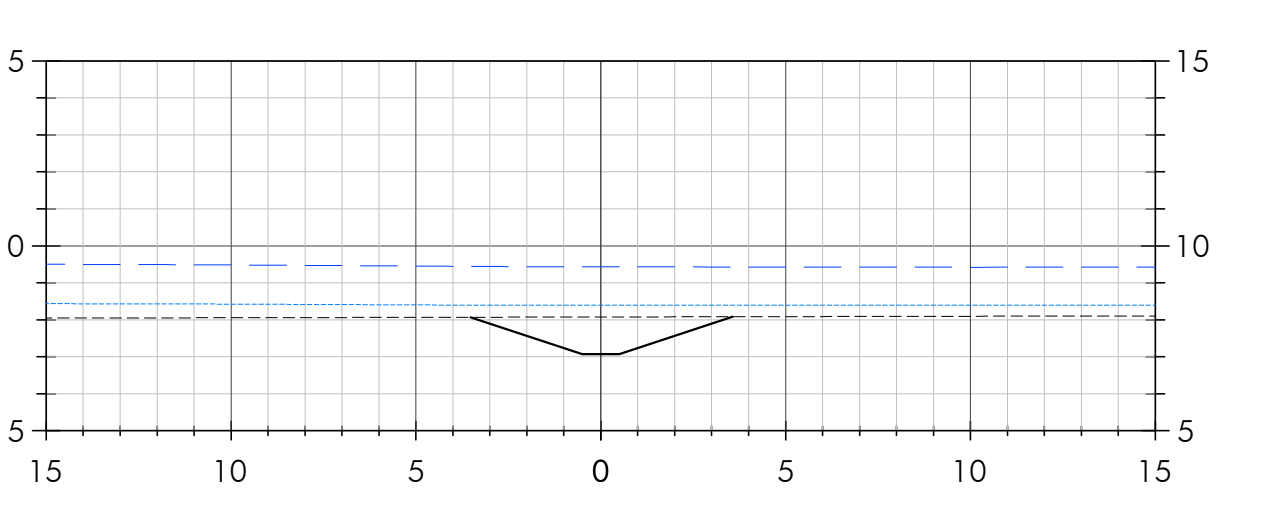
**E**  
STATION 13+00  
C-2.3



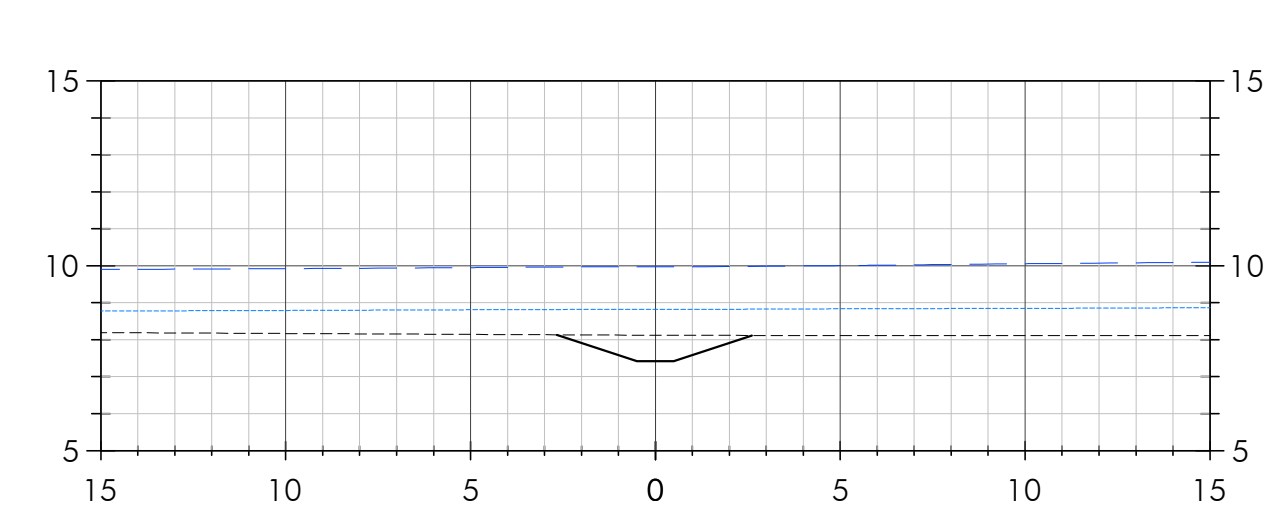
**F**  
STATION 13+50  
C-2.3



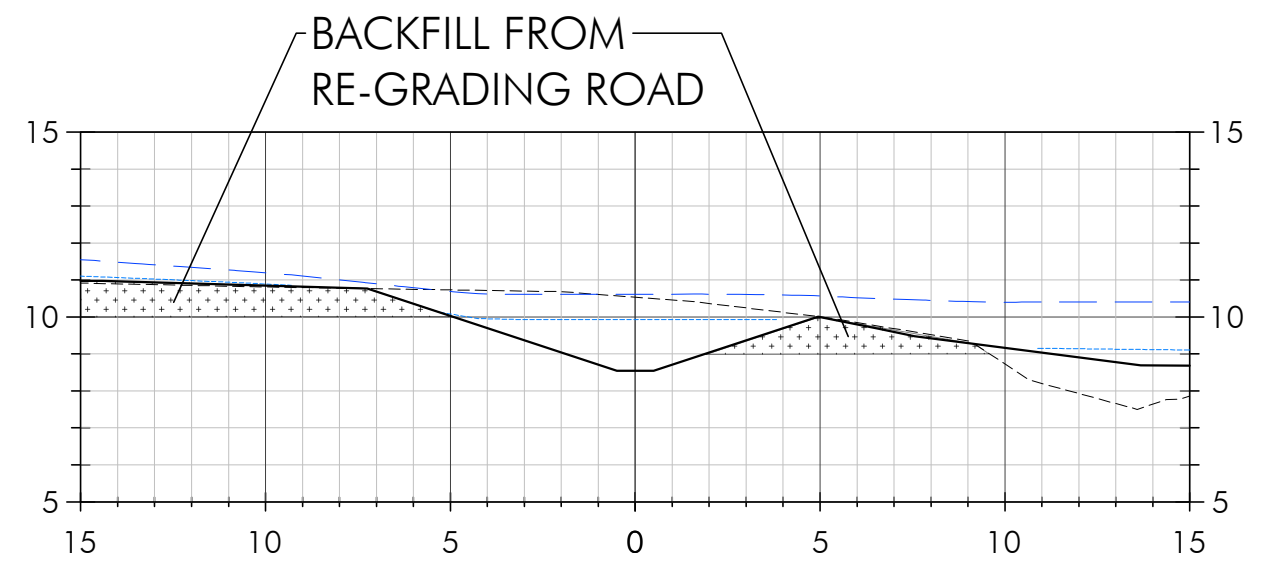
**G**  
STATION 14+00  
C-2.2



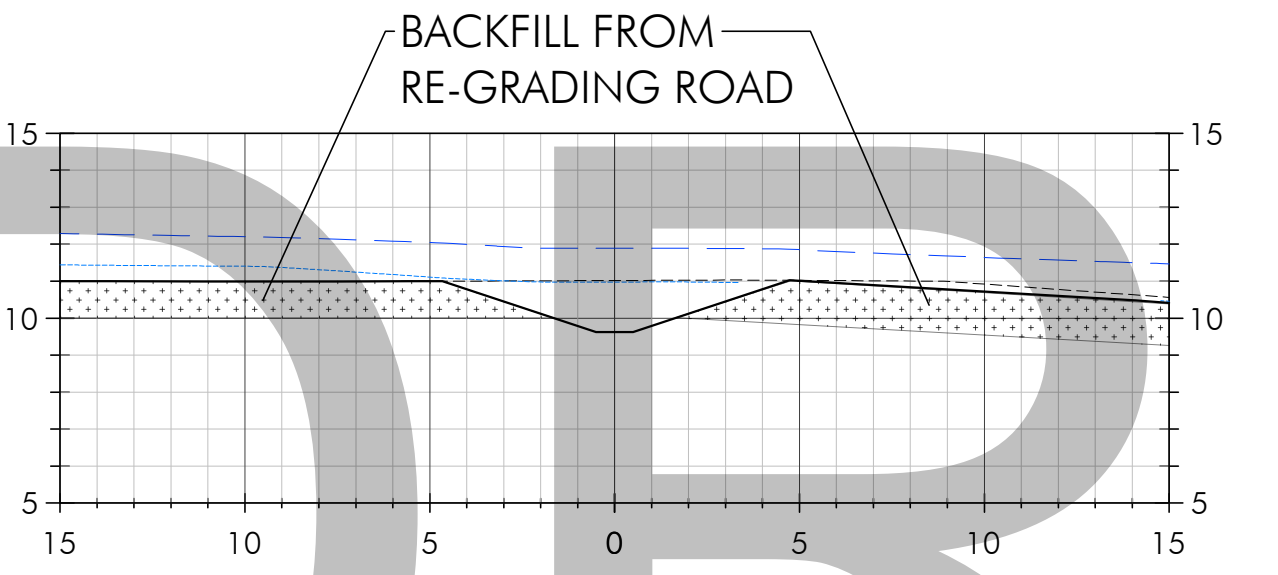
**H**  
STATION 14+50  
C-2.2



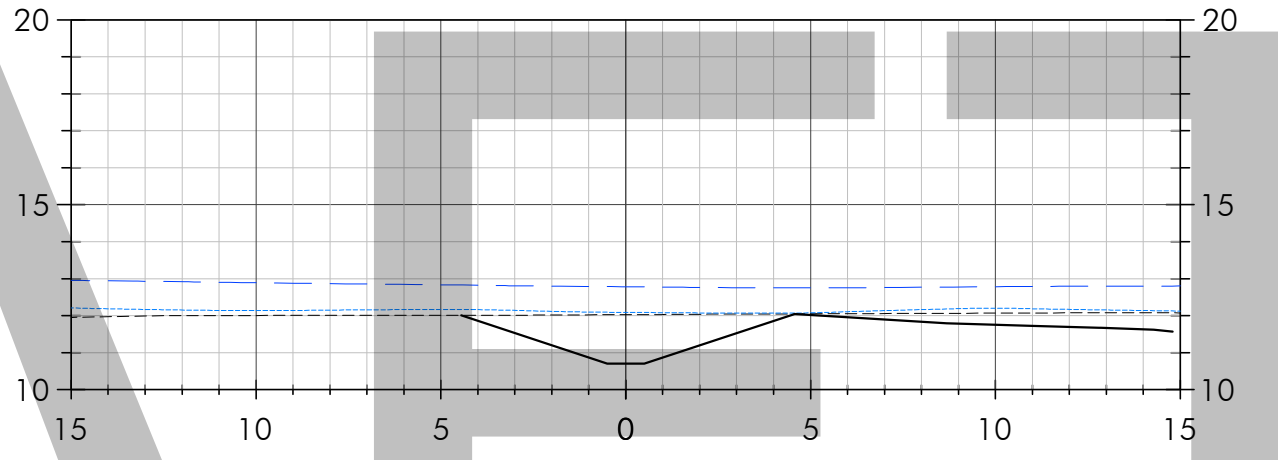
**I**  
STATION 15+00  
C-2.2



**J**  
STATION 15+50  
C-2.2



**K**  
STATION 16+00  
C-2.2



**L**  
STATION 16+50  
C-2.2

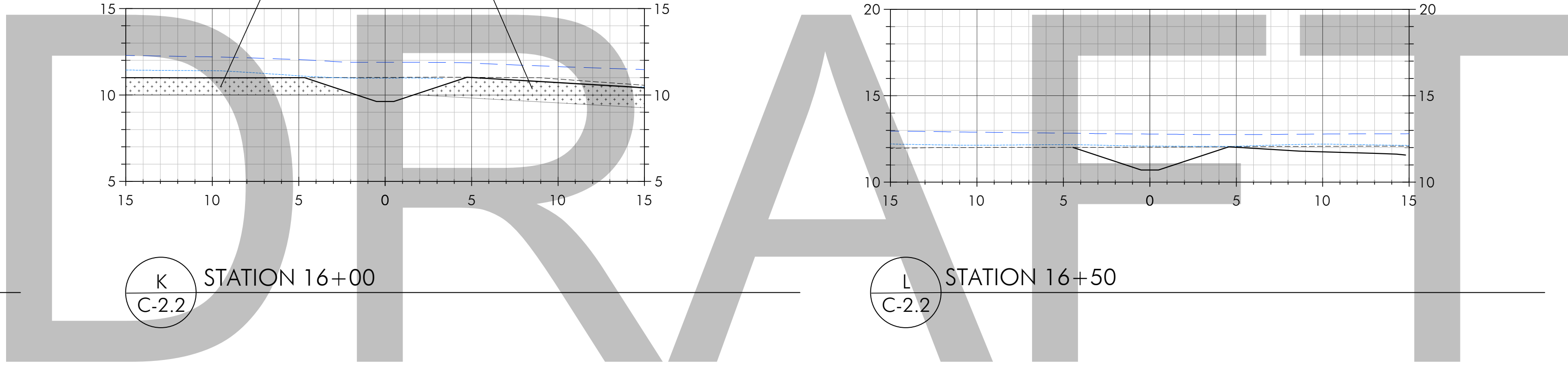
Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**LEWIS GULCH CREEK  
 GRADING SECTIONS**

Sheet

**C-3.0**

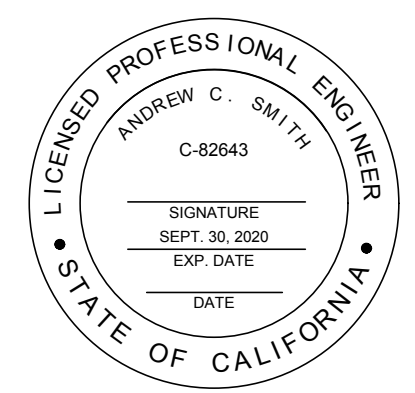


**BOLINAS LAGOON  
 WYE WETLANDS  
 PROJECT**

BOLINAS, CALIFORNIA

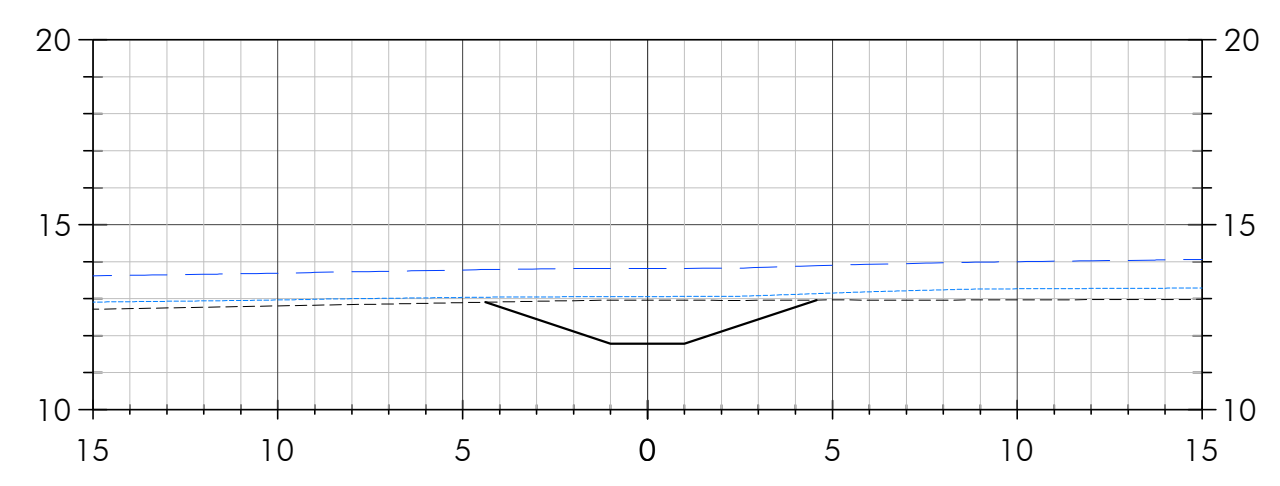


NOT FOR CONSTRUCTION

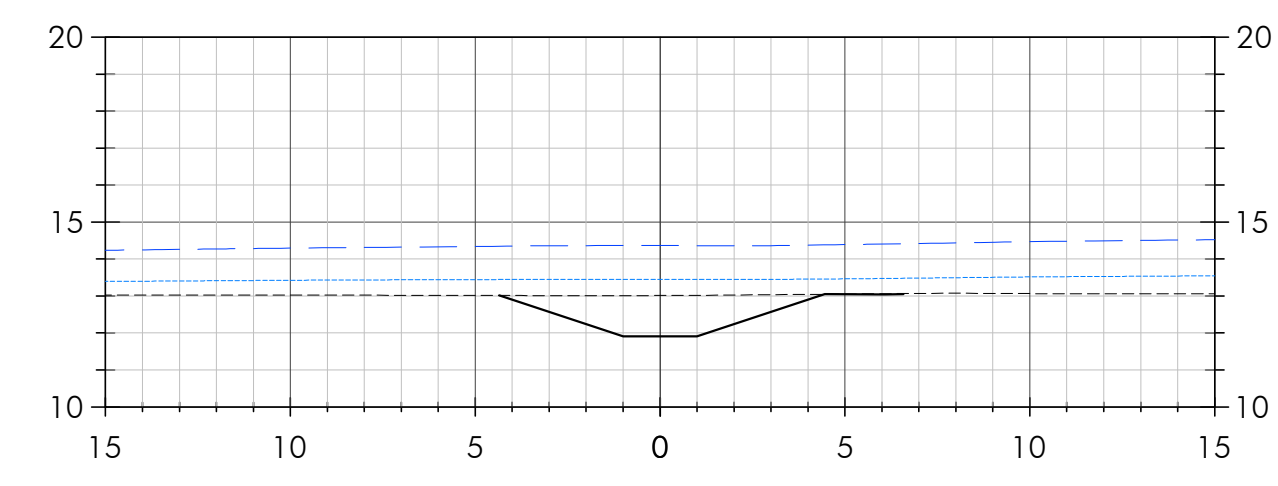


SECTION LEGEND

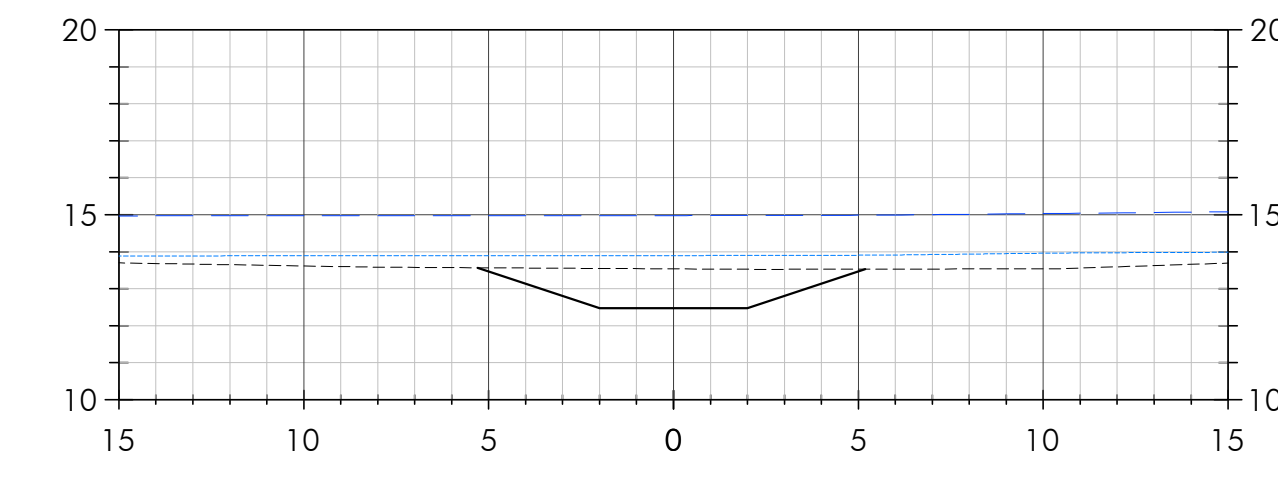
SYMBOL	DESCRIPTION
---	EXISTING GRADE
—	PROPOSED GRADE
---	1.5-YEAR WSEL
---	100-YEAR WSEL



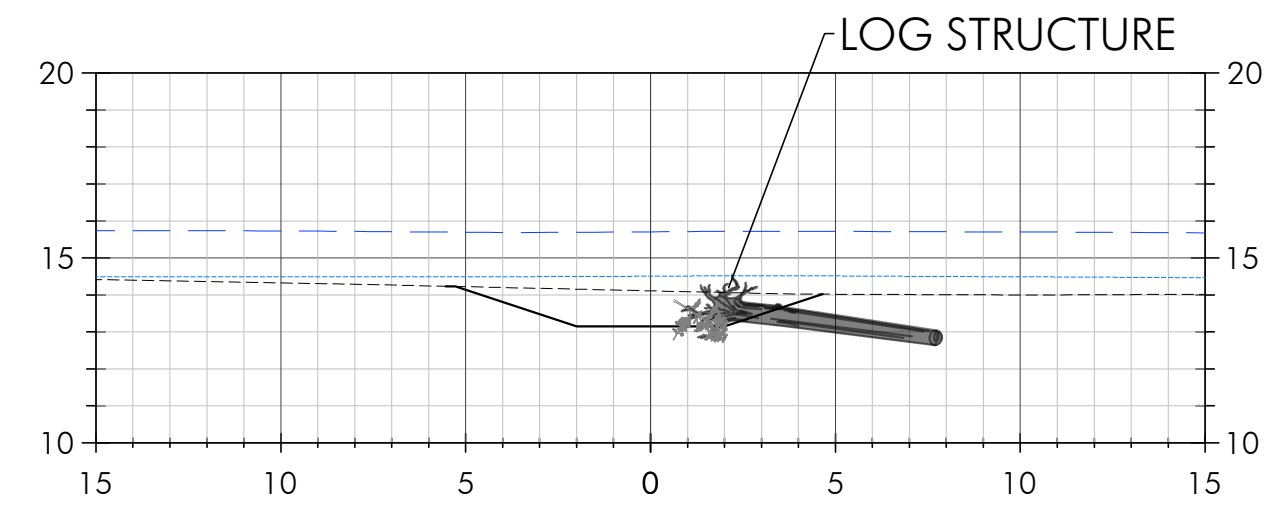
M STATION 17+00  
C-2.2



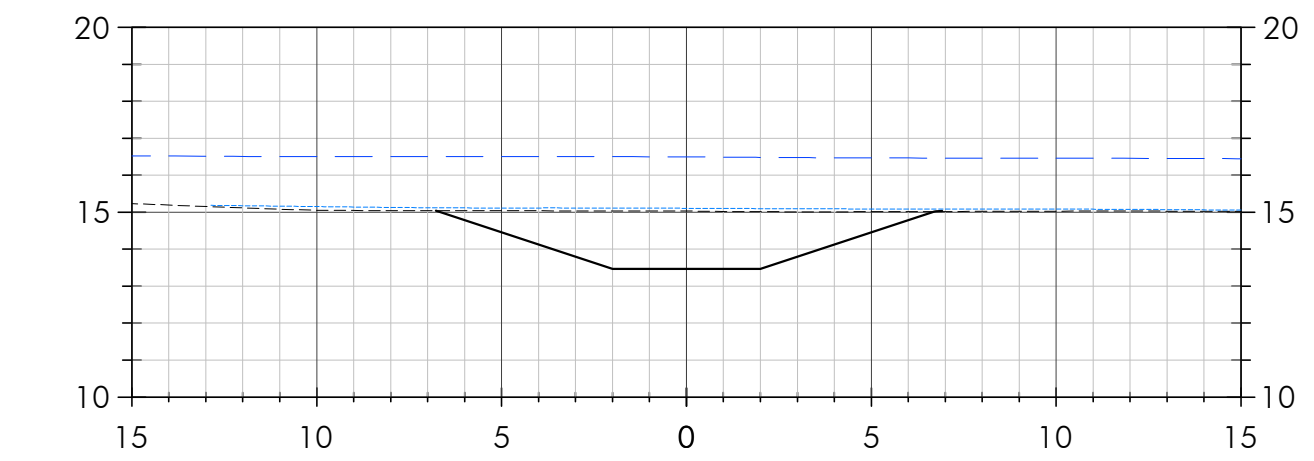
N STATION 17+50  
C-2.2



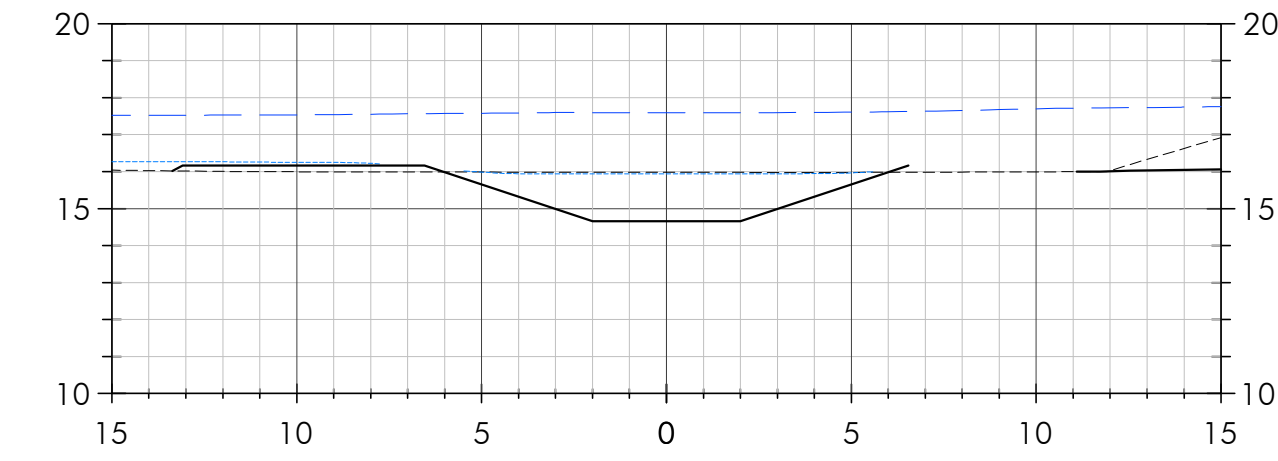
O STATION 18+00  
C-2.2



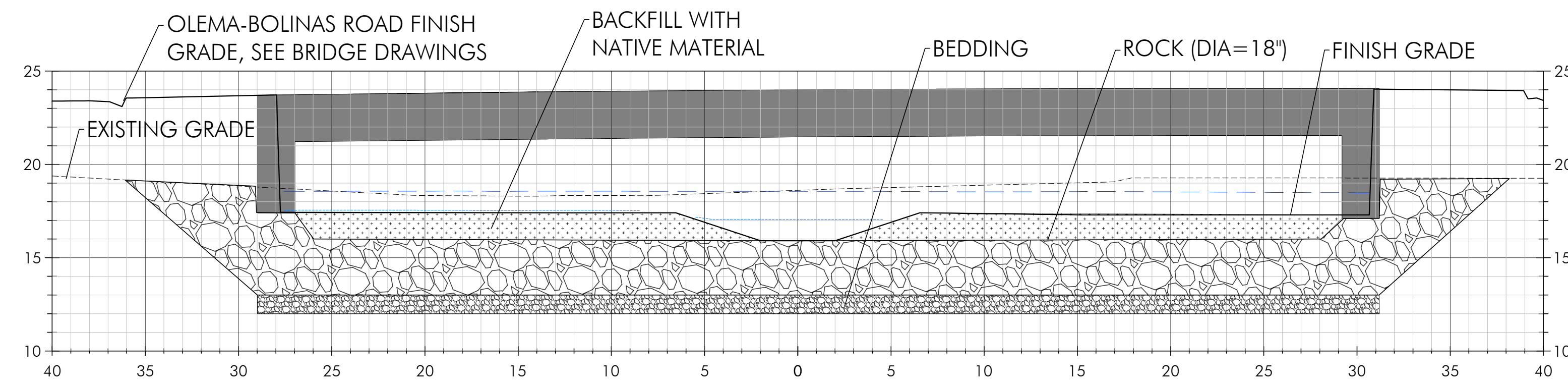
P STATION 18+50  
C-2.2



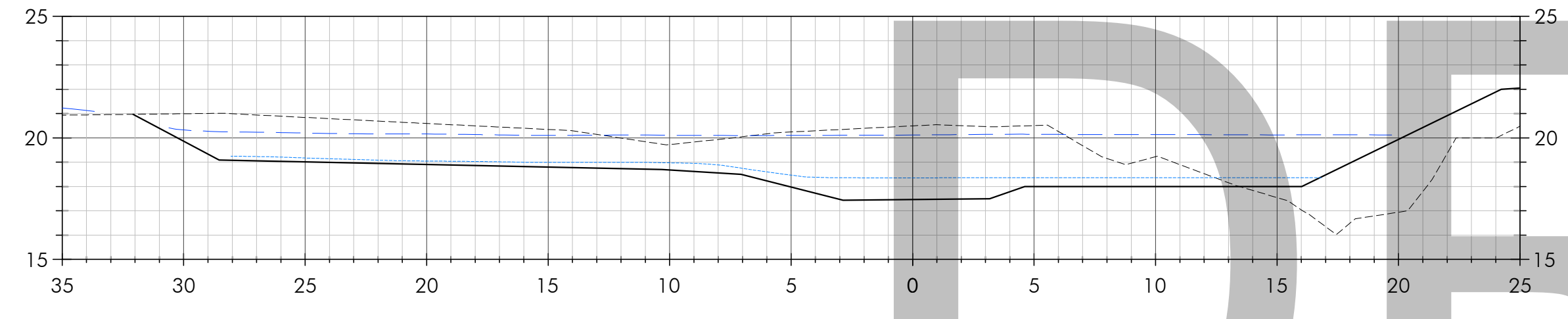
Q STATION 19+00  
C-2.2



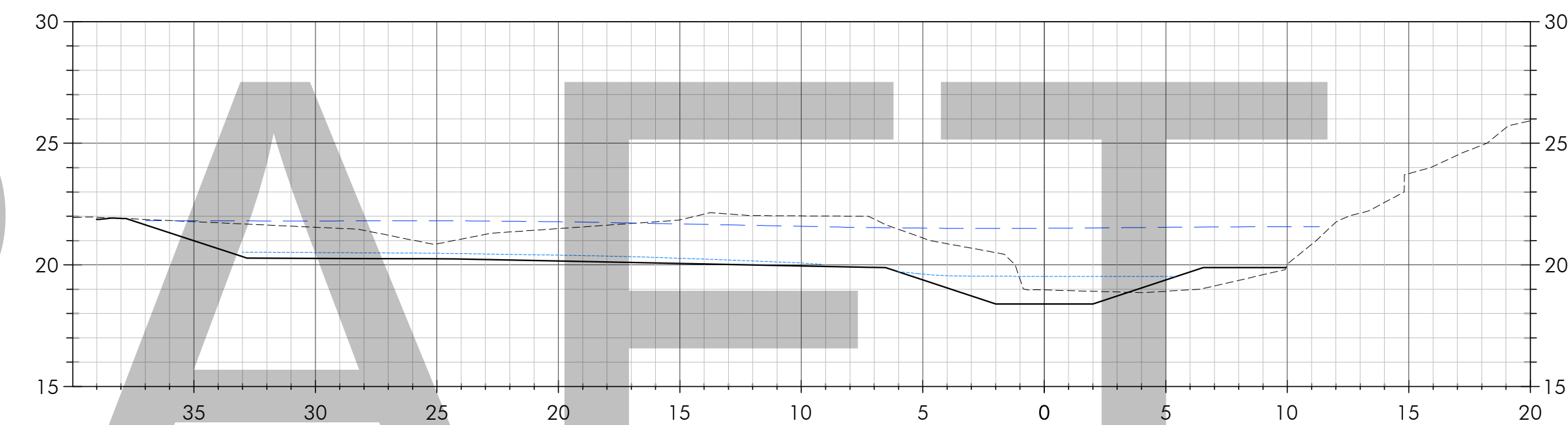
R STATION 19+50  
C-2.2



S STATION 20+00  
C-2.2



T STATION 20+50  
C-2.2



U STATION 21+00  
C-2.2

Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**LEWIS GULCH CREEK  
 GRADING SECTIONS**

Sheet

**C-3.1**

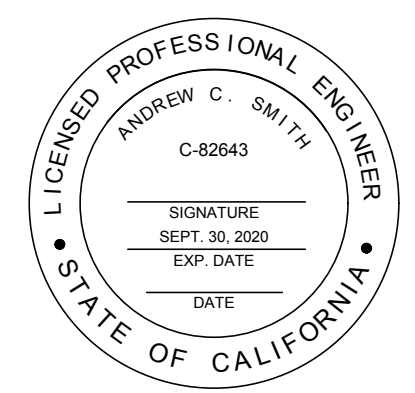
**DRAFT**

**BOLINAS LAGOON  
 WYE WETLANDS  
 PROJECT**

BOLINAS, CALIFORNIA

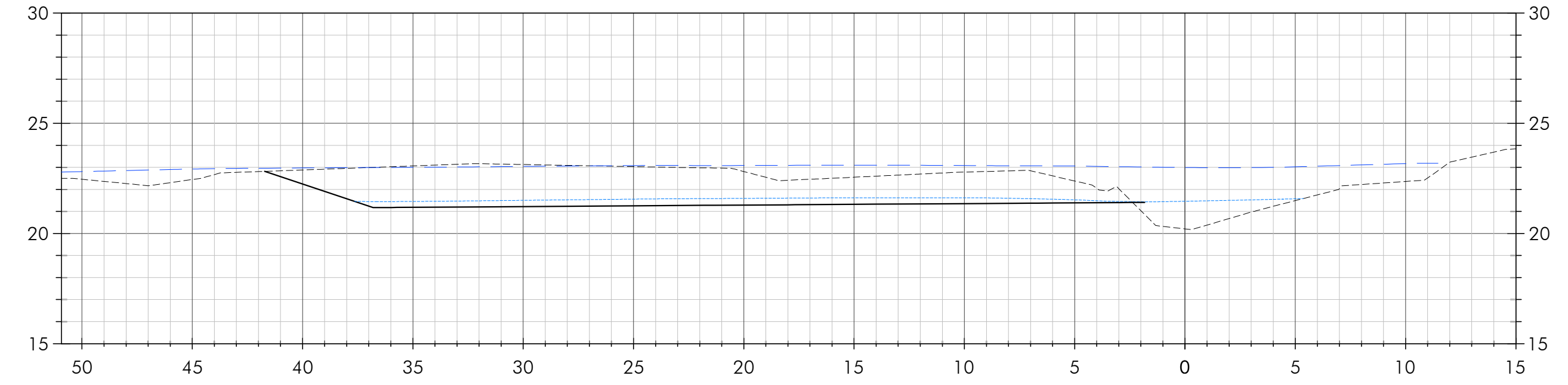


NOT FOR CONSTRUCTION

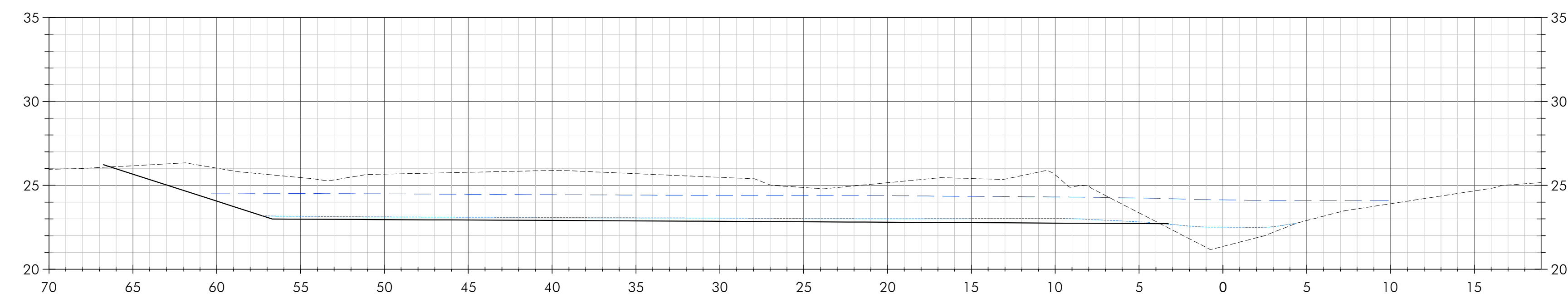


**SECTION LEGEND**

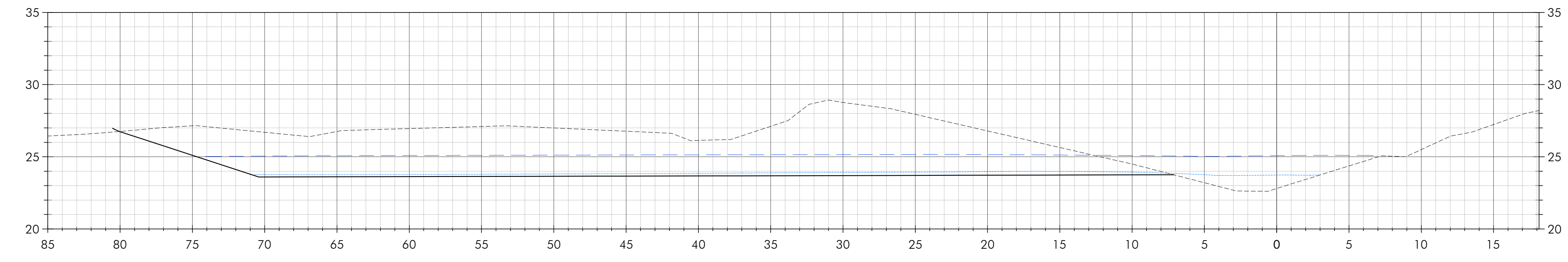
SYMBOL	DESCRIPTION
---	EXISTING GRADE
—	PROPOSED GRADE
---	1.5-YEAR WSEL
---	100-YEAR WSEL



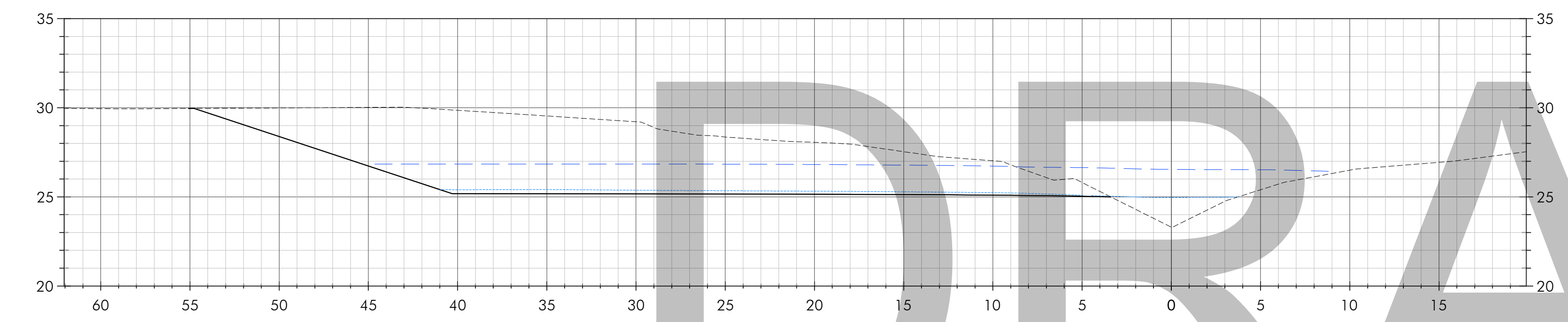
V  
C-2.2  
STATION 21+50



W  
C-2.0  
STATION 22+00



X  
C-2.0  
STATION 22+50



Y  
C-2.0  
STATION 23+00

**DRAFT**

Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

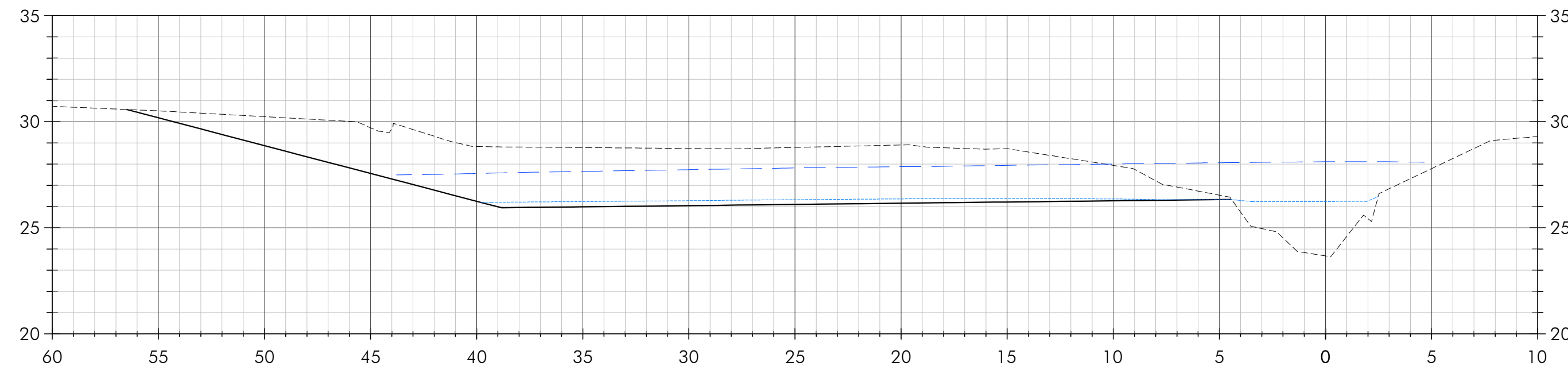
PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**LEWIS GULCH CREEK  
 GRADING SECTIONS**

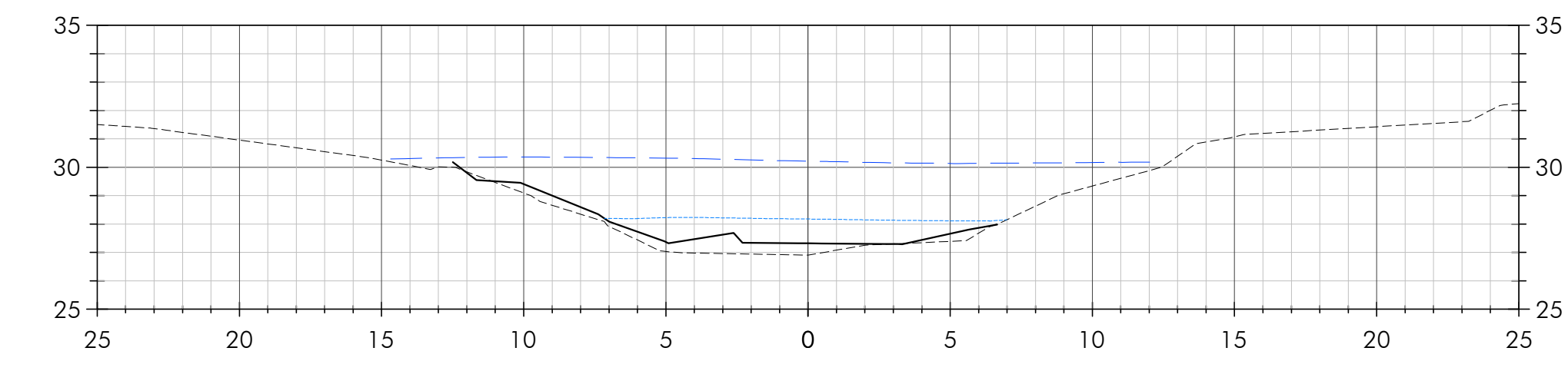
Sheet

**C-3.2**

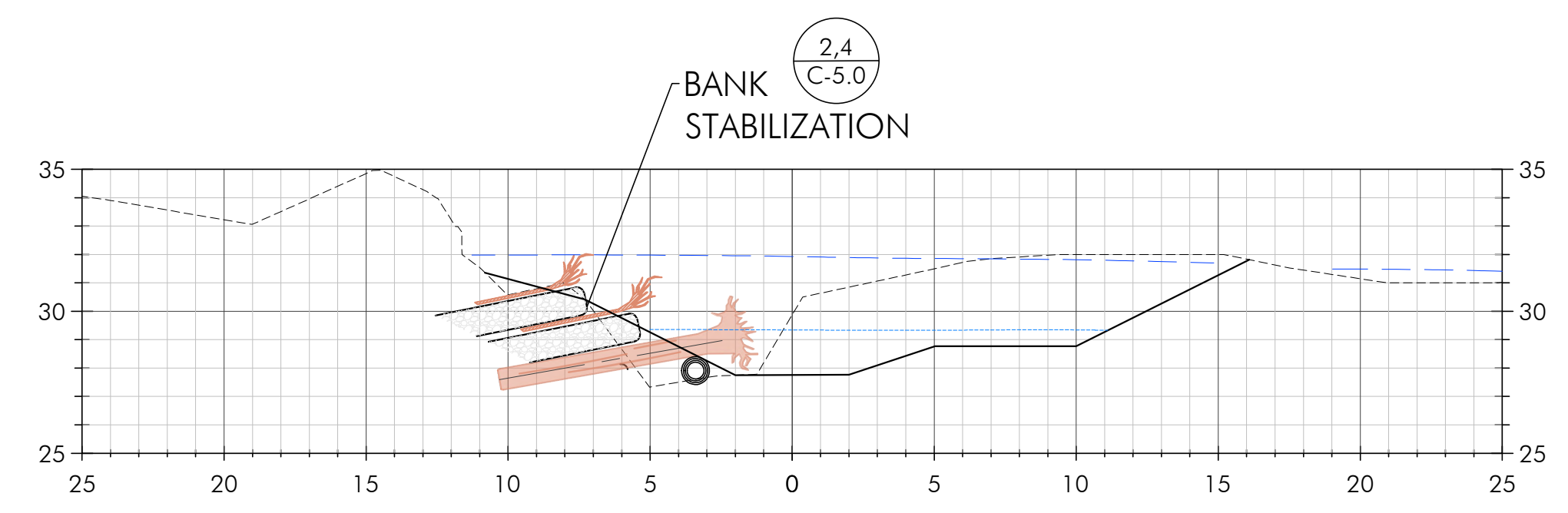




Z  
C-2.0 STATION 23+50



AA  
C-2.0 STATION 24+00



BB  
C-2.0 STATION 24+50



**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM  
CHECKED BY: RBB  
ORIGINAL DRAWING SIZE: 24 X 36

**SECTION LEGEND**

SYMBOL	DESCRIPTION
---	EXISTING GRADE
—	PROPOSED GRADE
.....	1.5-YEAR WSEL
----	100-YEAR WSEL

**DRAFT**

**LEWIS GULCH CREEK  
GRADING SECTIONS**

Sheet

**C-3.2**

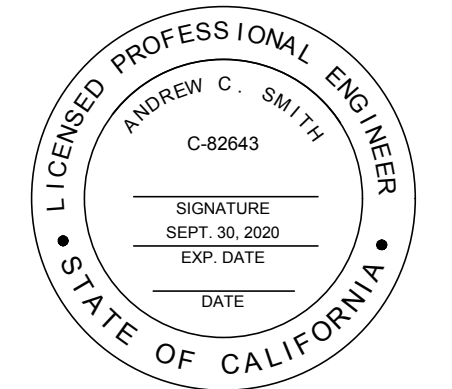
**BOLINAS LAGOON WYE WETLANDS PROJECT**

BOLINAS, CALIFORNIA

MARIN COUNTY  
 PARKS  
 PRESERVATION RECREATION



NOT FOR CONSTRUCTION



01/29/2020 CONCEPT PLAN  
 07/30/2020 30% DESIGN  
 02/14/2022 60% DESIGN

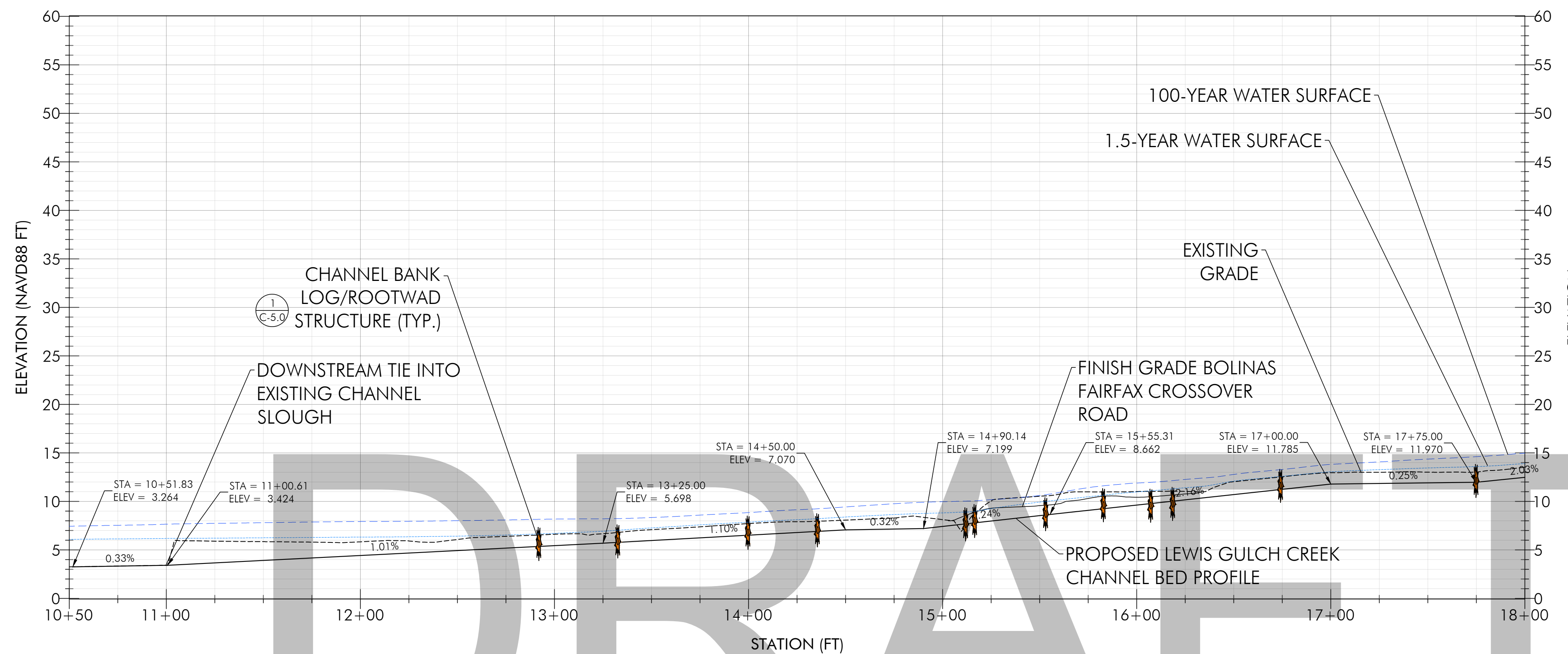
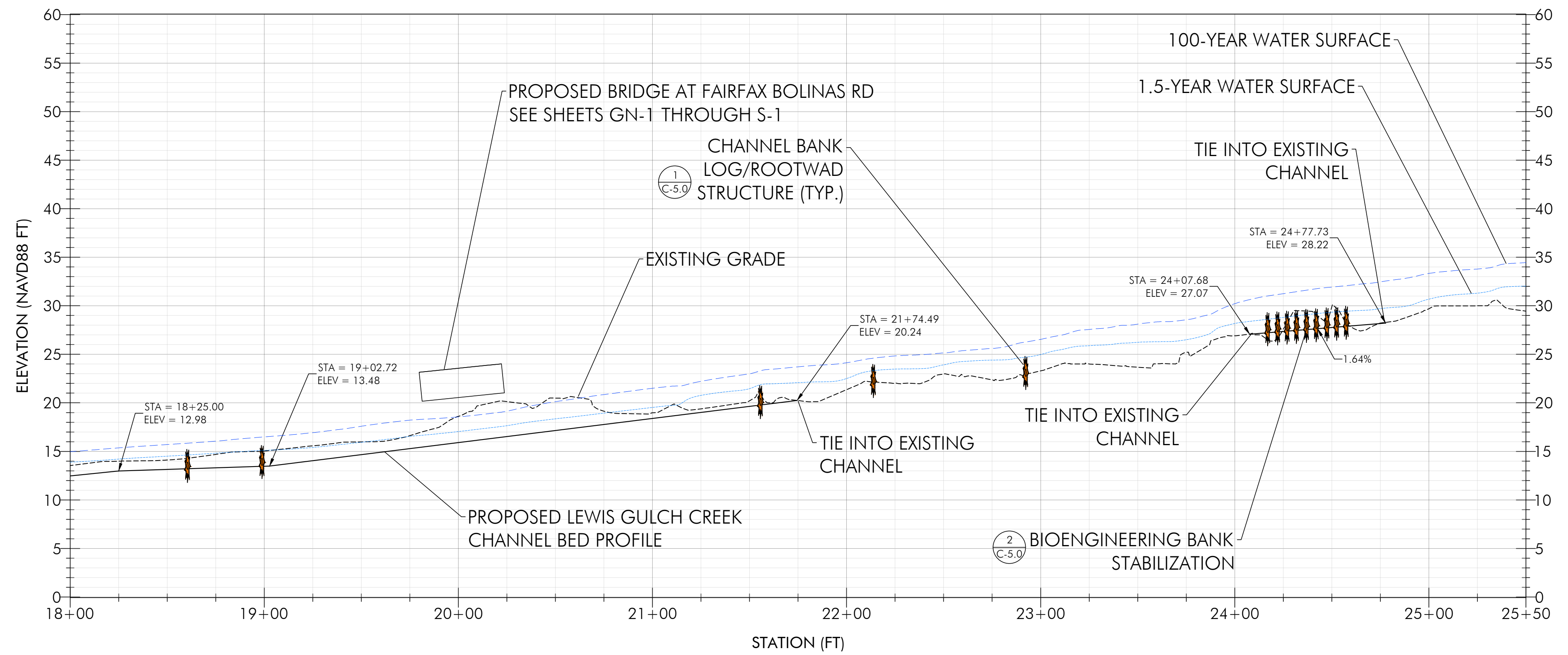
Date	Issues And Revisions	No.

PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**LEWIS GULCH CREEK PROFILE**

Sheet

**C-4.0**



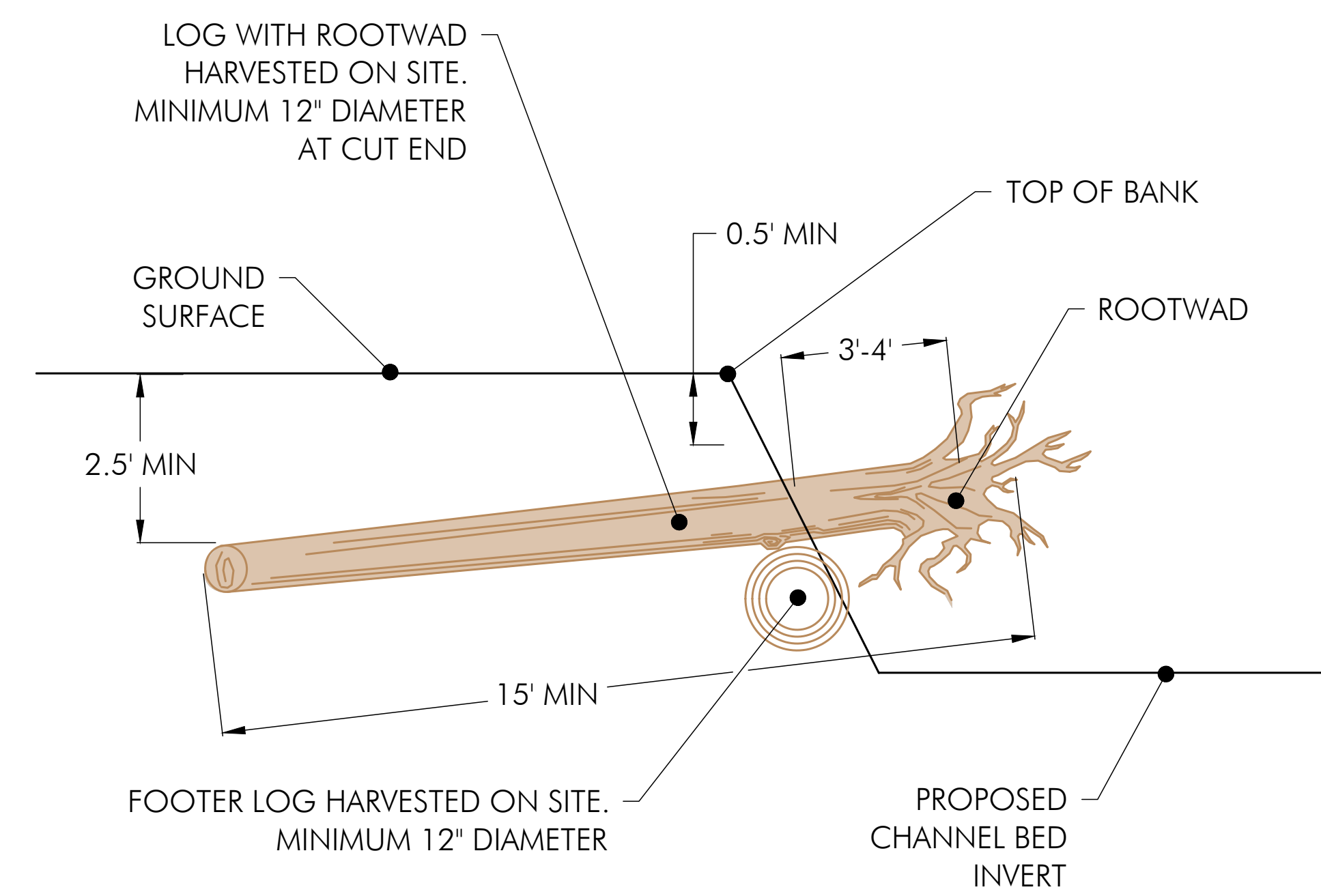
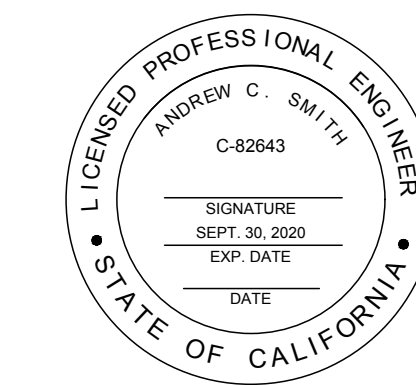
1 PROPOSED LEWIS GULCH CREEK CHANNEL PROFILE

**BOLINAS LAGOON WYE WETLANDS PROJECT**

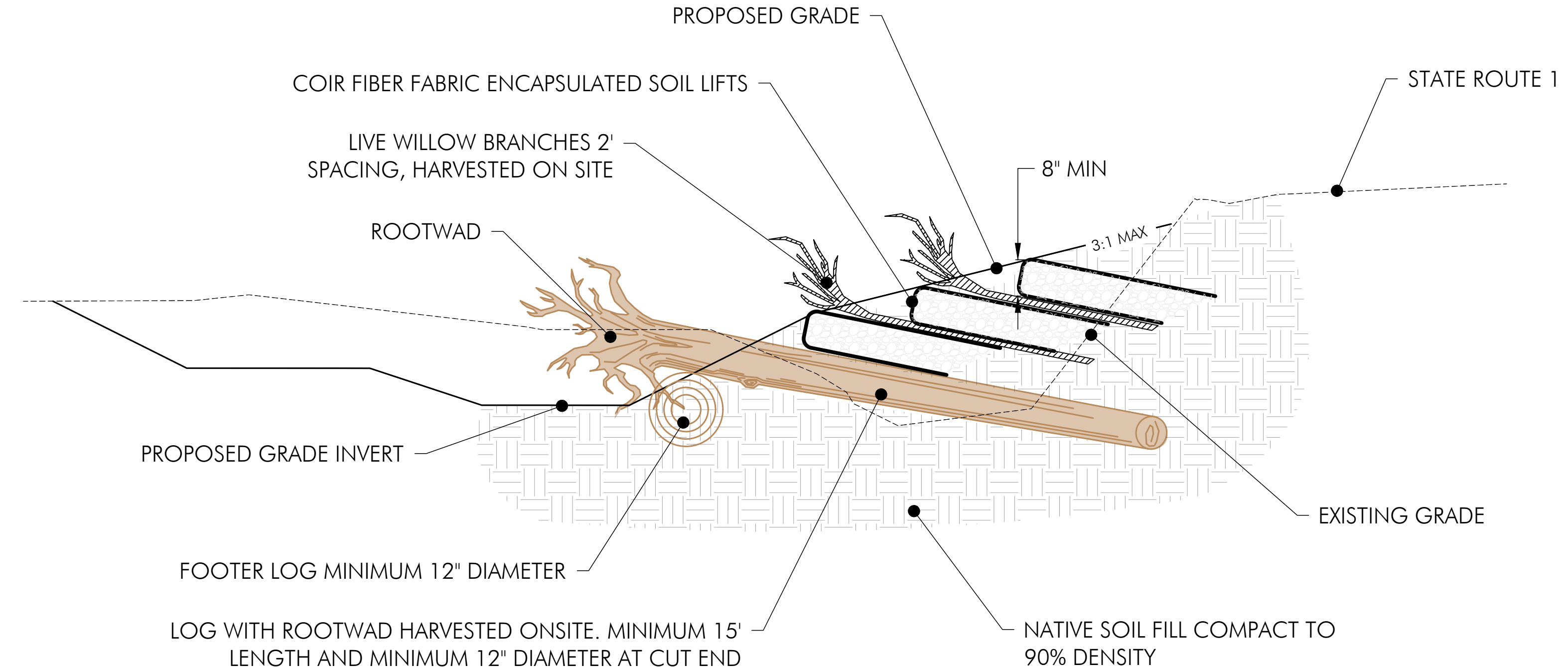
BOLINAS, CALIFORNIA



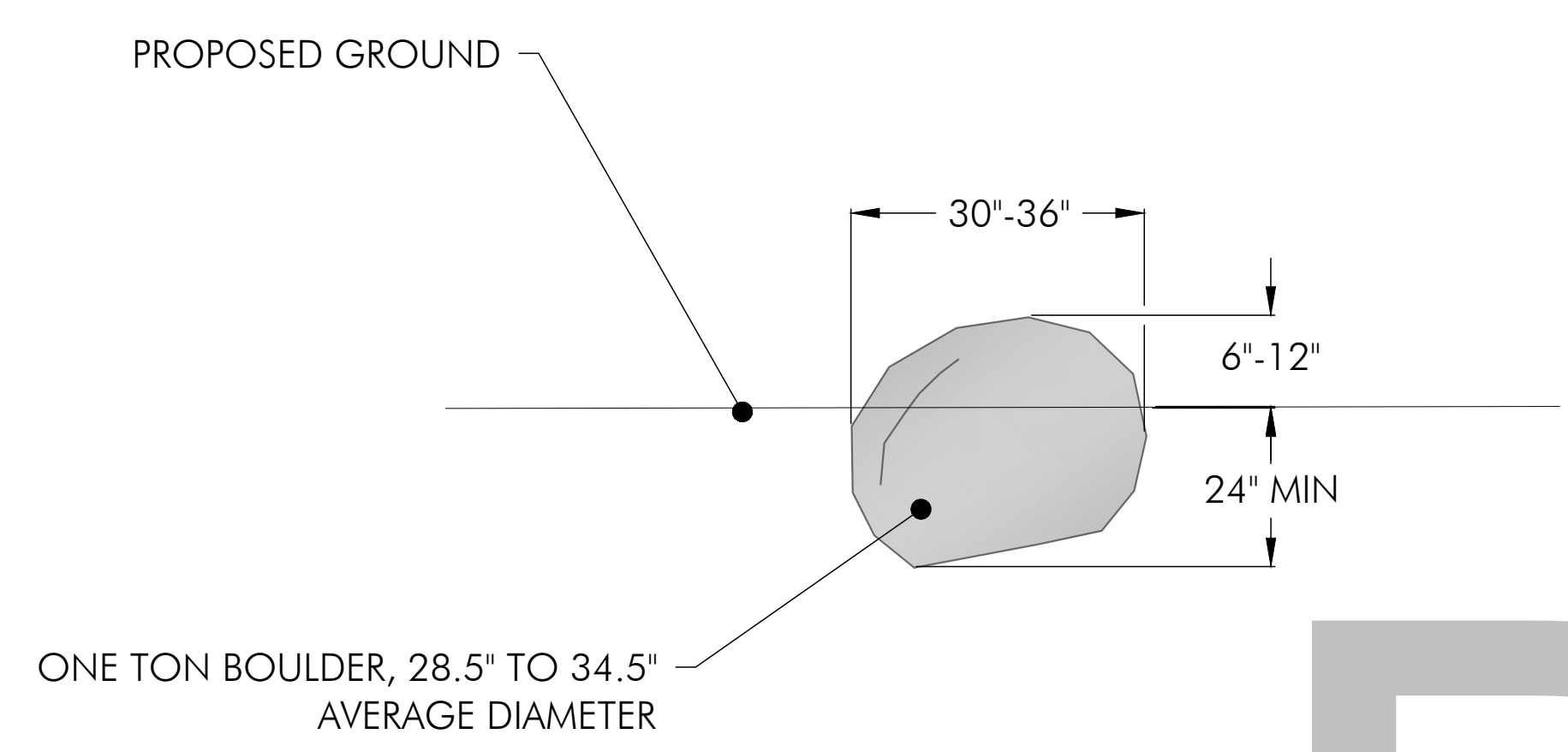
NOT FOR CONSTRUCTION



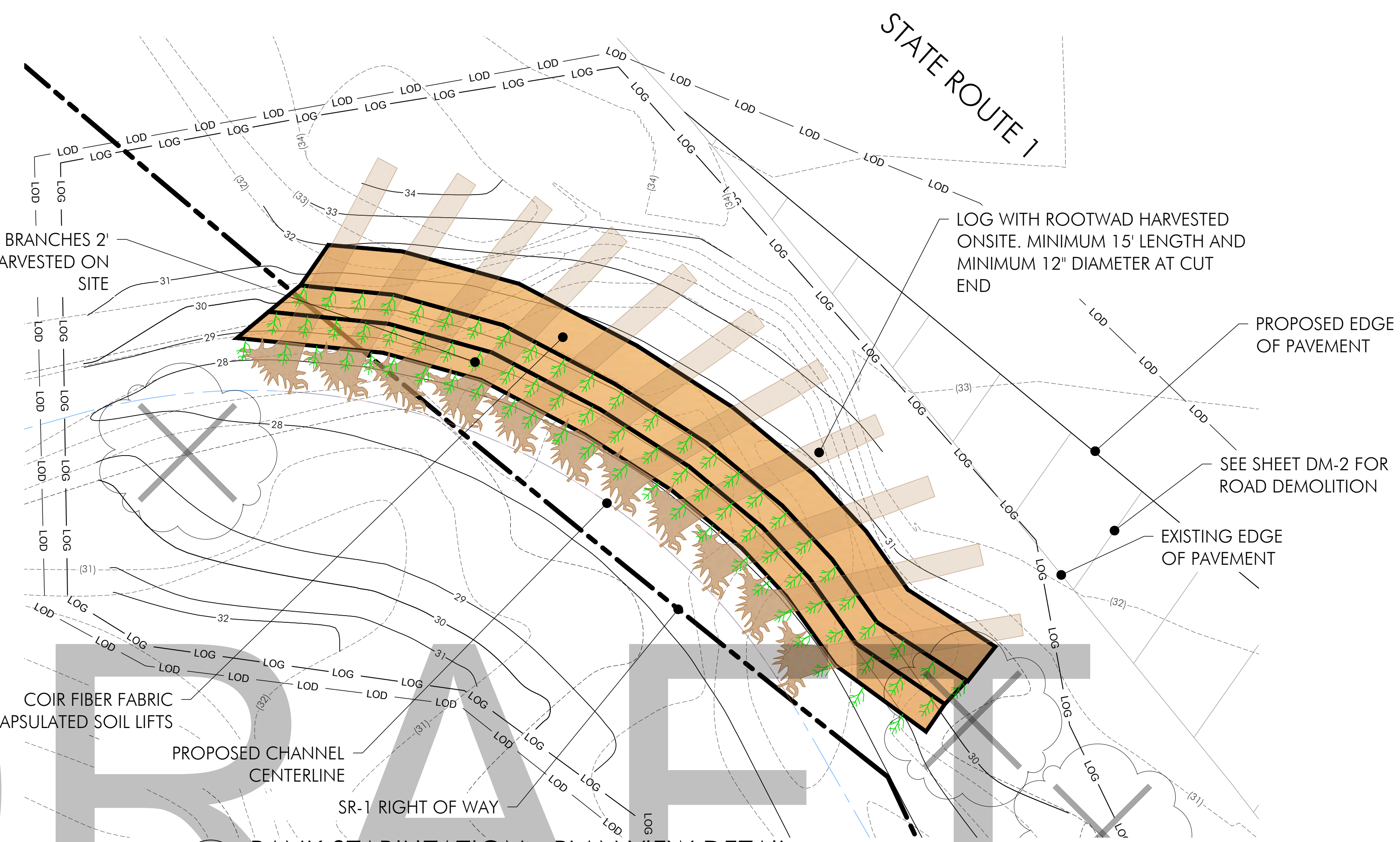
**1 CHANNEL LOG STRUCTURE DETAIL-SECTION VIEW**  
 C-2.0 NOT TO SCALE



**2 BANK STABILIZATION -TYPICAL SECTION**  
 C-2.0 NOT TO SCALE



**3 HIGH FLOW REFUGIA BOULDER DETAIL**  
 C-2.0 NOT TO SCALE



**4 BANK STABILIZATION - PLAN VIEW DETAIL**  
 C-2.0 SCALE: 1" = 5'

Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

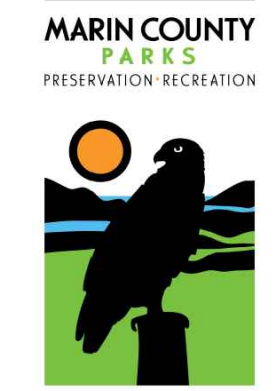
PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**CHANNEL DETAILS**

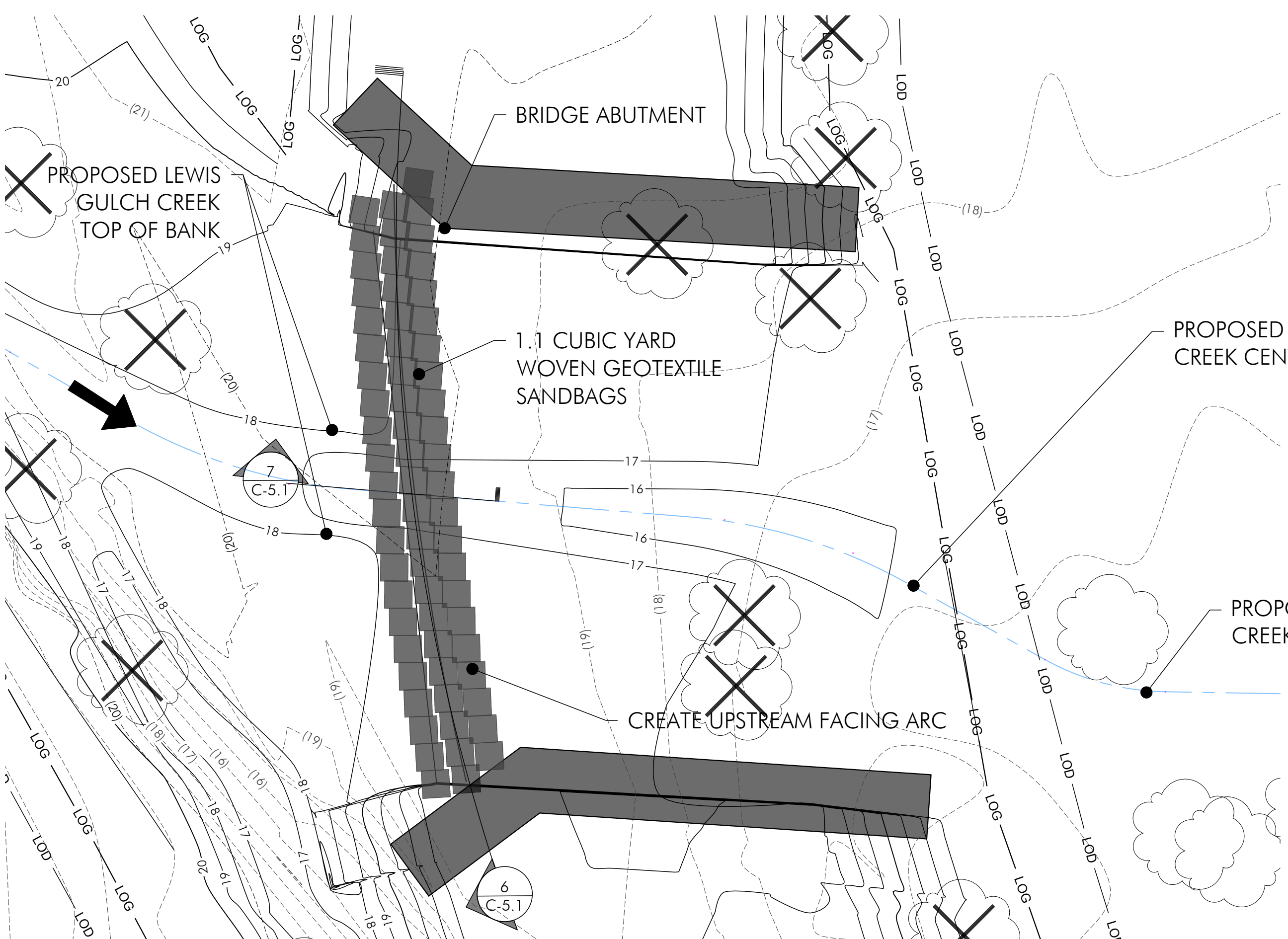
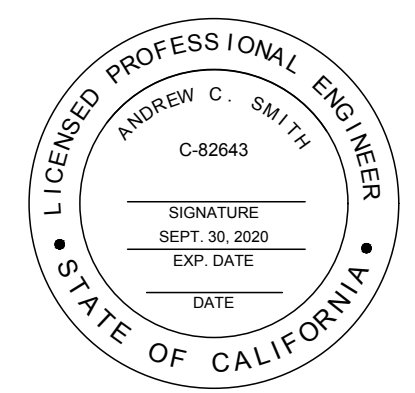
Sheet

**C-5.0**

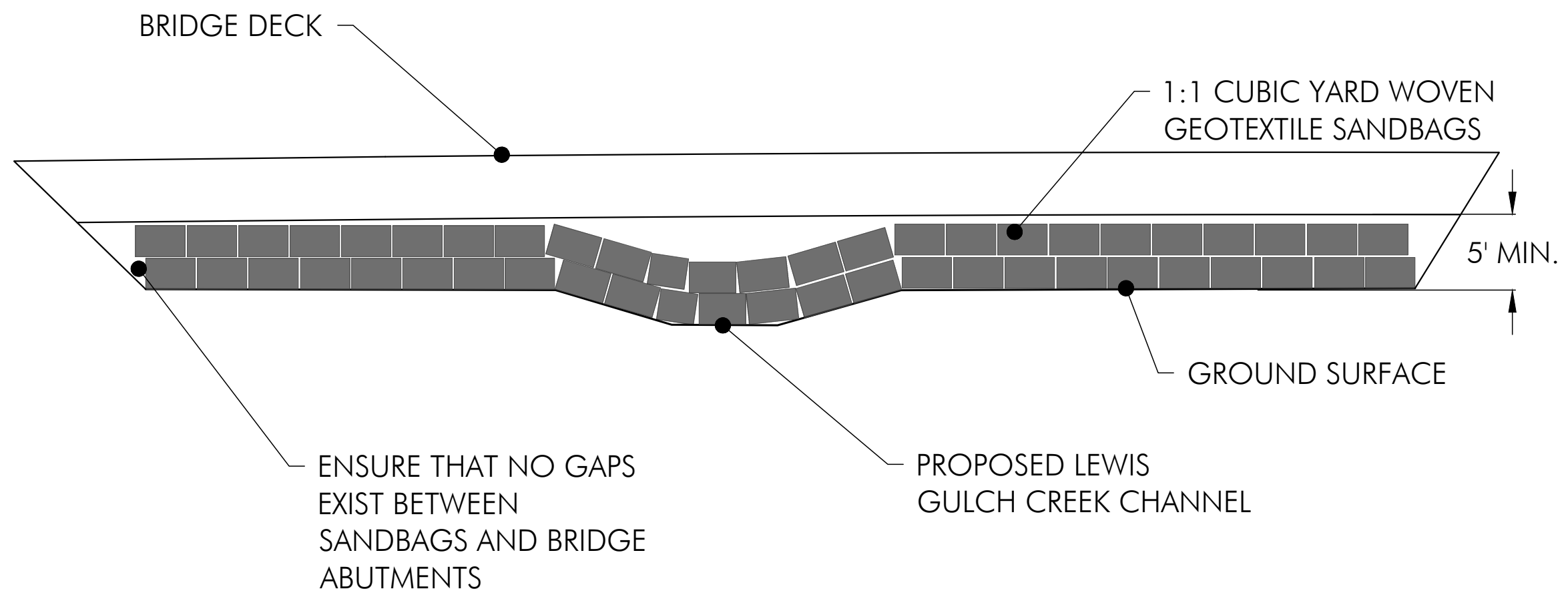
**BOLINAS LAGOON WYE WETLANDS PROJECT**  
 BOLINAS, CALIFORNIA



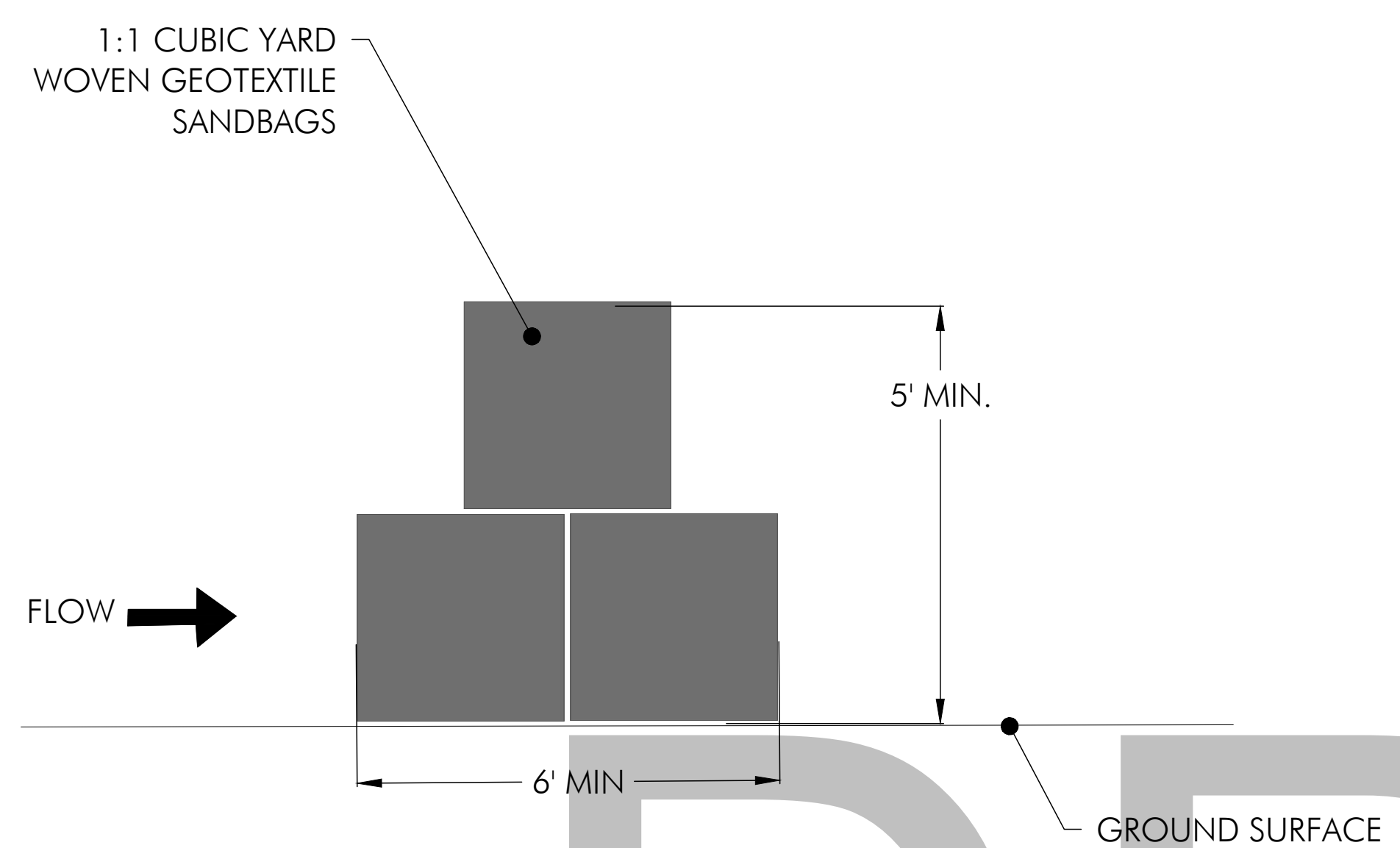
NOT FOR CONSTRUCTION



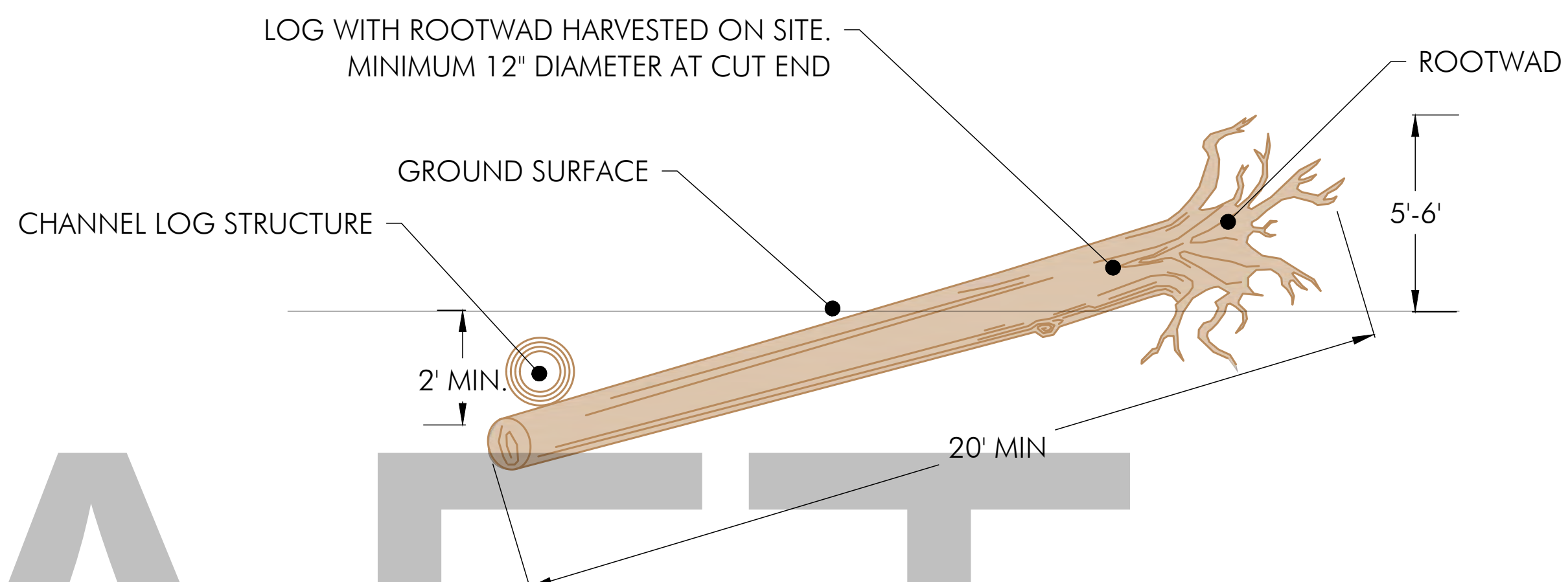
5 TEMPORARY SANDBAG DIVERSION PLAN VIEW-DETAIL  
 C-2.0 NOT TO SCALE



6 TEMPORARY SANDBAG DIVERSION SECTION VIEW DETAIL  
 C-5.1 NOT TO SCALE



7 TEMPORARY SANDBAG DIVERSION PROFILE VIEW-DETAIL  
 C-2.0 NOT TO SCALE



8 FLOODPLAIN LOG STRUCTURE DETAIL-SECTION VIEW  
 C-2.2 NOT TO SCALE

Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

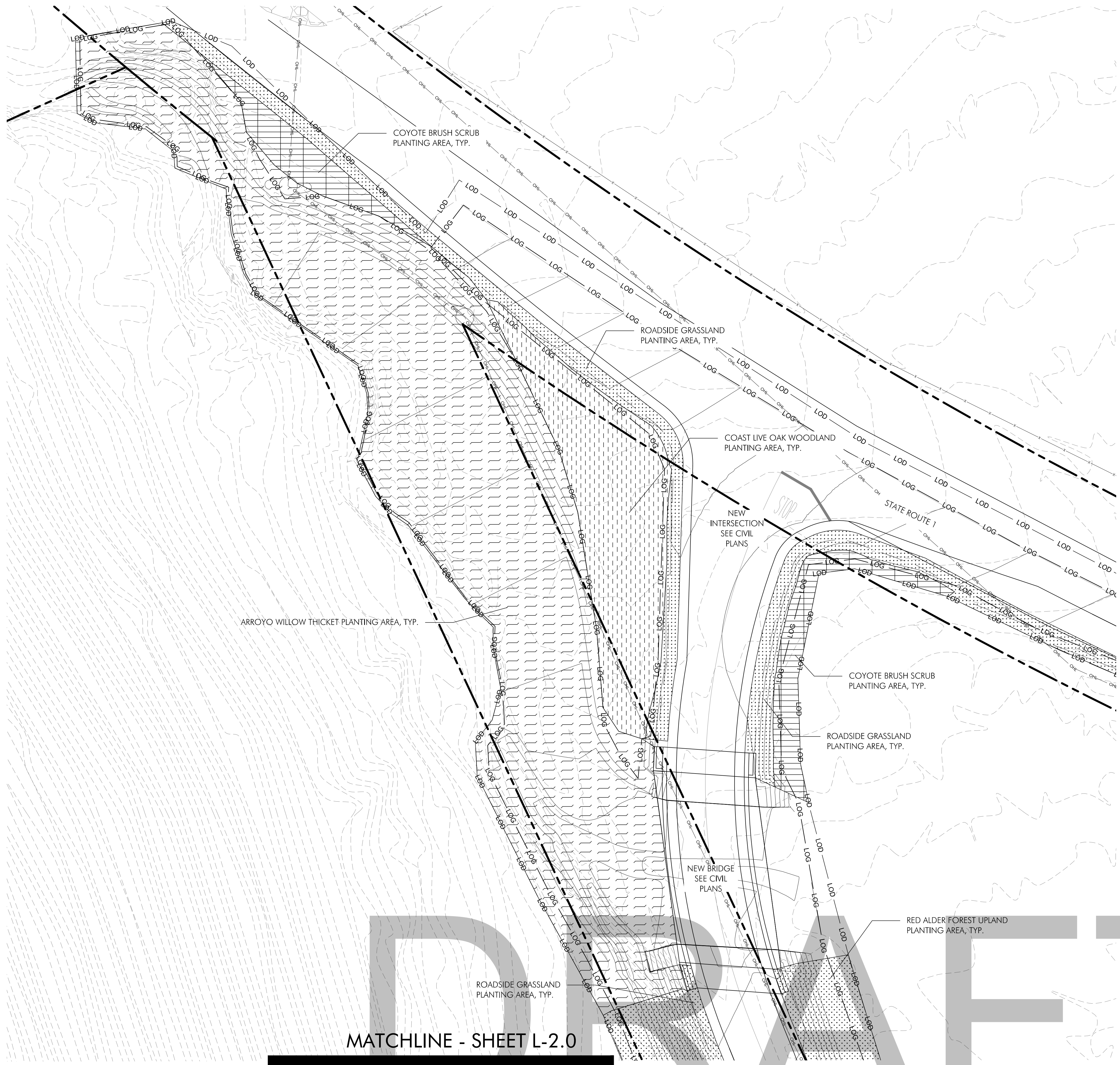
PROJECT #29244  
 DRAWN BY: ACS, AMO, BMM  
 CHECKED BY: RBB  
 ORIGINAL DRAWING SIZE: 24 X 36

**CHANNEL DETAILS**

Sheet

C-5.1

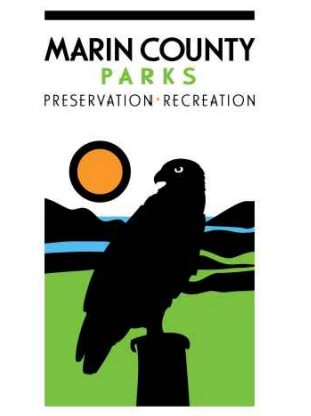
DRAFT



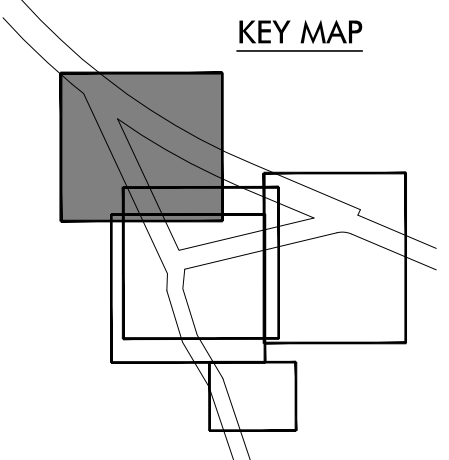
SYMBOL	DESCRIPTION
---	PROPERTY LINE (APPROXIMATE)
—HO—	OVERHEAD UTILITY LINE
—LOD—	LIMIT OF DISTURBANCE
—LOG—	LIMIT OF GRADE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
[Symbol]	ARROYO WILLOW THICKET
[Symbol]	COAST LIVE OAK WOODLAND
[Symbol]	COASTAL BRAMBLES
[Symbol]	COYOTE BRUSH SCRUB
[Symbol]	RED ALDER FOREST UPLAND
[Symbol]	RED ALDER FOREST LOWLAND
[Symbol]	RED ALDER FOREST LOWLAND SEEDING
[Symbol]	ROADSIDE GRASSLANDS
[Symbol]	SALT GRASS FLATS
[Symbol]	SALT MARSH BULRUSH MARSH



**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM, DAG  
CHECKED BY: BSS, RBB  
ORIGINAL DRAWING SIZE: 24 X 36

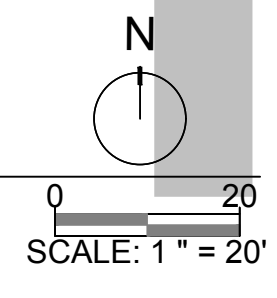
**PHASE I  
PLANTING PLAN**

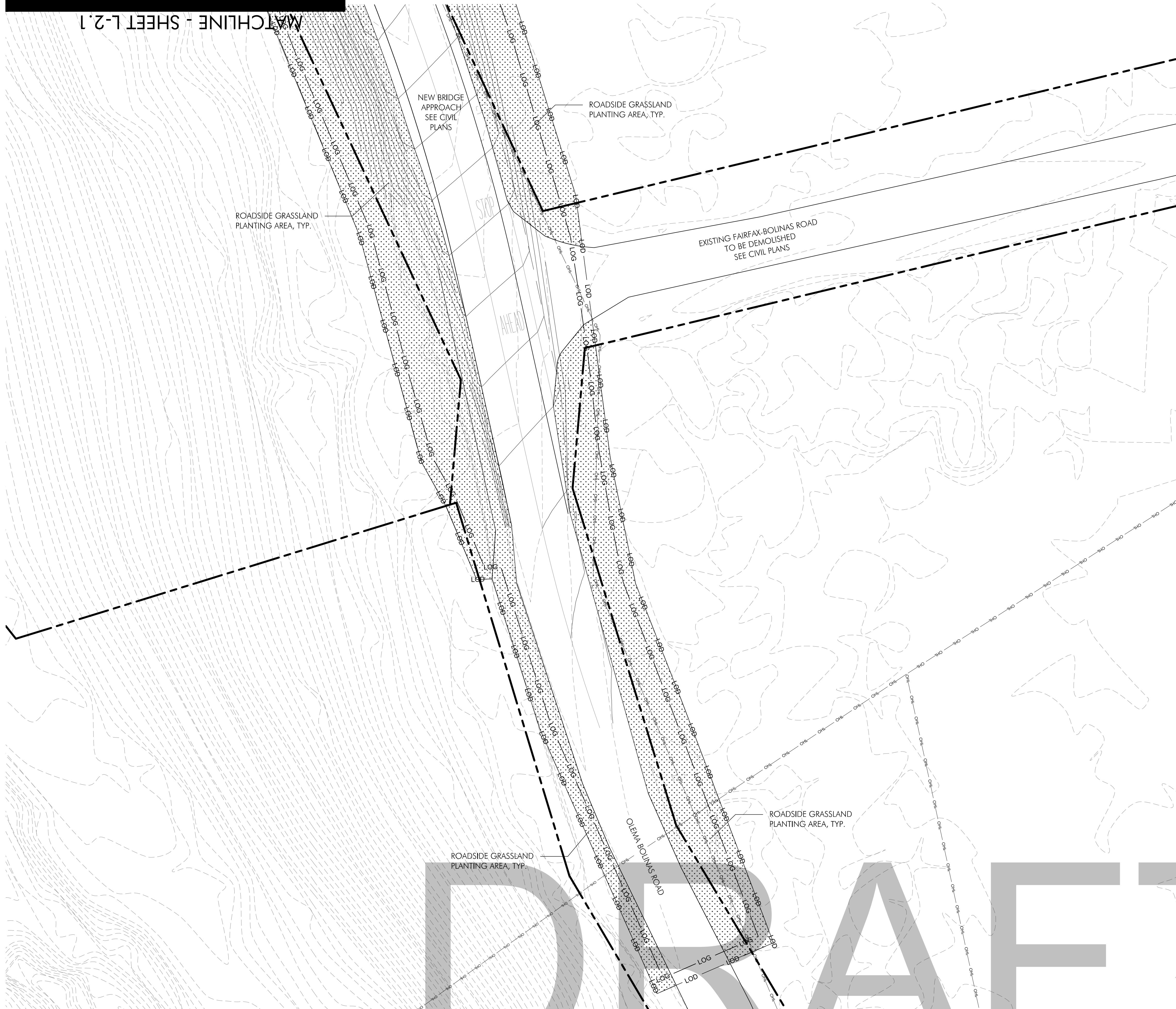
Sheet

**L-2.0**

1 PLAN VIEW

MATCHLINE - SHEET L-2.0  
MATCHLINE - SHEET L-2.1





**LEGEND**

SYMBOL	DESCRIPTION
- - - - -	PROPERTY LINE (APPROXIMATE)
—HO—	OVERHEAD UTILITY LINE
—LOD—	LIMIT OF DISTURBANCE
—LOG—	LIMIT OF GRADE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
[Symbol]	ARROYO WILLOW THicket
[Symbol]	COAST LIVE OAK WOODLAND
[Symbol]	COASTAL BRAMBLES
[Symbol]	COYOTE BRUSH SCRUB
[Symbol]	RED ALDER FOREST UPLAND
[Symbol]	RED ALDER FOREST LOWLAND
[Symbol]	RED ALDER FOREST LOWLAND SEEDING
[Symbol]	ROADSIDE GRASSLANDS
[Symbol]	SALT GRASS FLATS
[Symbol]	SALT MARSH BULRUSH MARSH

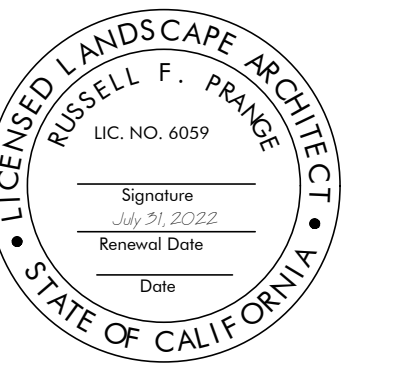


**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**

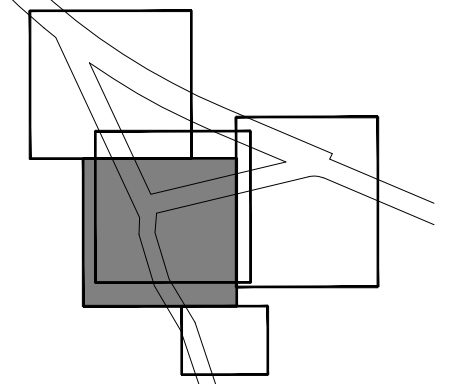
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



**KEY MAP**



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

Date Issues And Revisions No.

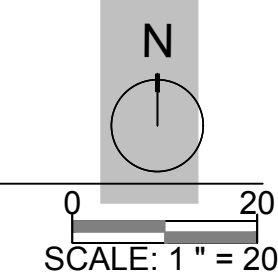
PROJECT #29244  
DRAWN BY: ACS, AMO, BMM, DAG  
CHECKED BY: BSS, RBB  
ORIGINAL DRAWING SIZE: 24 X 36

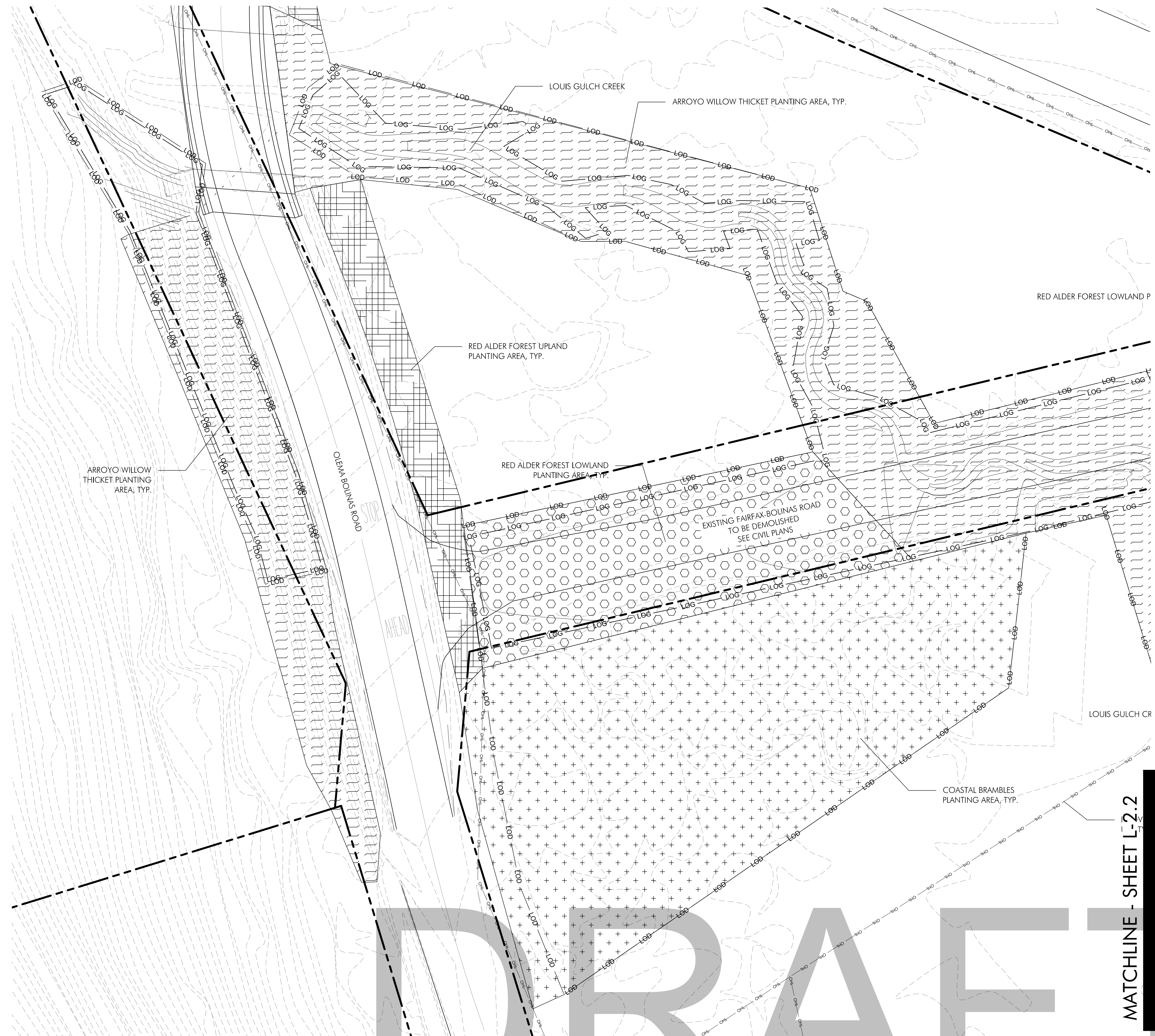
**PHASE 1  
PLANTING PLAN**

Sheet

**L-2.1**

1 PLAN VIEW

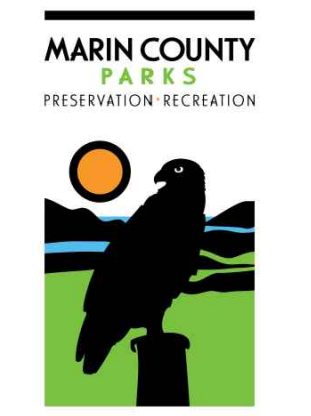




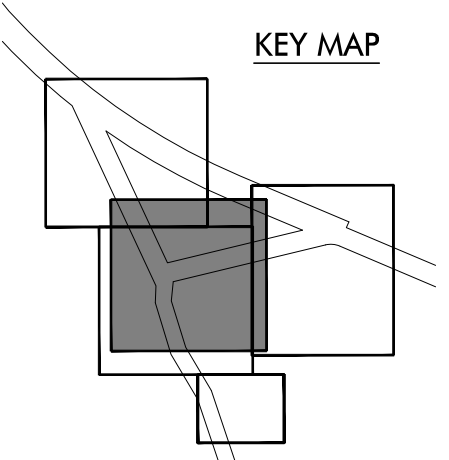
SYMBOL	DESCRIPTION
---	PROPERTY LINE (APPROXIMATE)
—HO—	OVERHEAD UTILITY LINE
—LOD—	LIMIT OF DISTURBANCE
—LOG—	LIMIT OF GRADE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
[Pattern]	ARROYO WILLOW THICKET
[Pattern]	COAST LIVE OAK WOODLAND
[Pattern]	COASTAL BRAMBLES
[Pattern]	COYOTE BRUSH SCRUB
[Pattern]	RED ALDER FOREST UPLAND
[Pattern]	RED ALDER FOREST LOWLAND
[Pattern]	RED ALDER FOREST LOWLAND SEEDING
[Pattern]	ROADSIDE GRASSLANDS
[Pattern]	SALT GRASS FLATS
[Pattern]	SALT MARSH BULRUSH MARSH



**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM, DAG  
CHECKED BY: BSS, RBB  
ORIGINAL DRAWING SIZE: 24 X 36

**PHASE 2  
PLANTING PLAN**

Sheet

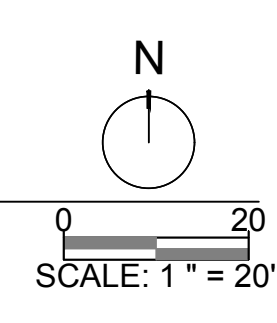
**L-2.2**

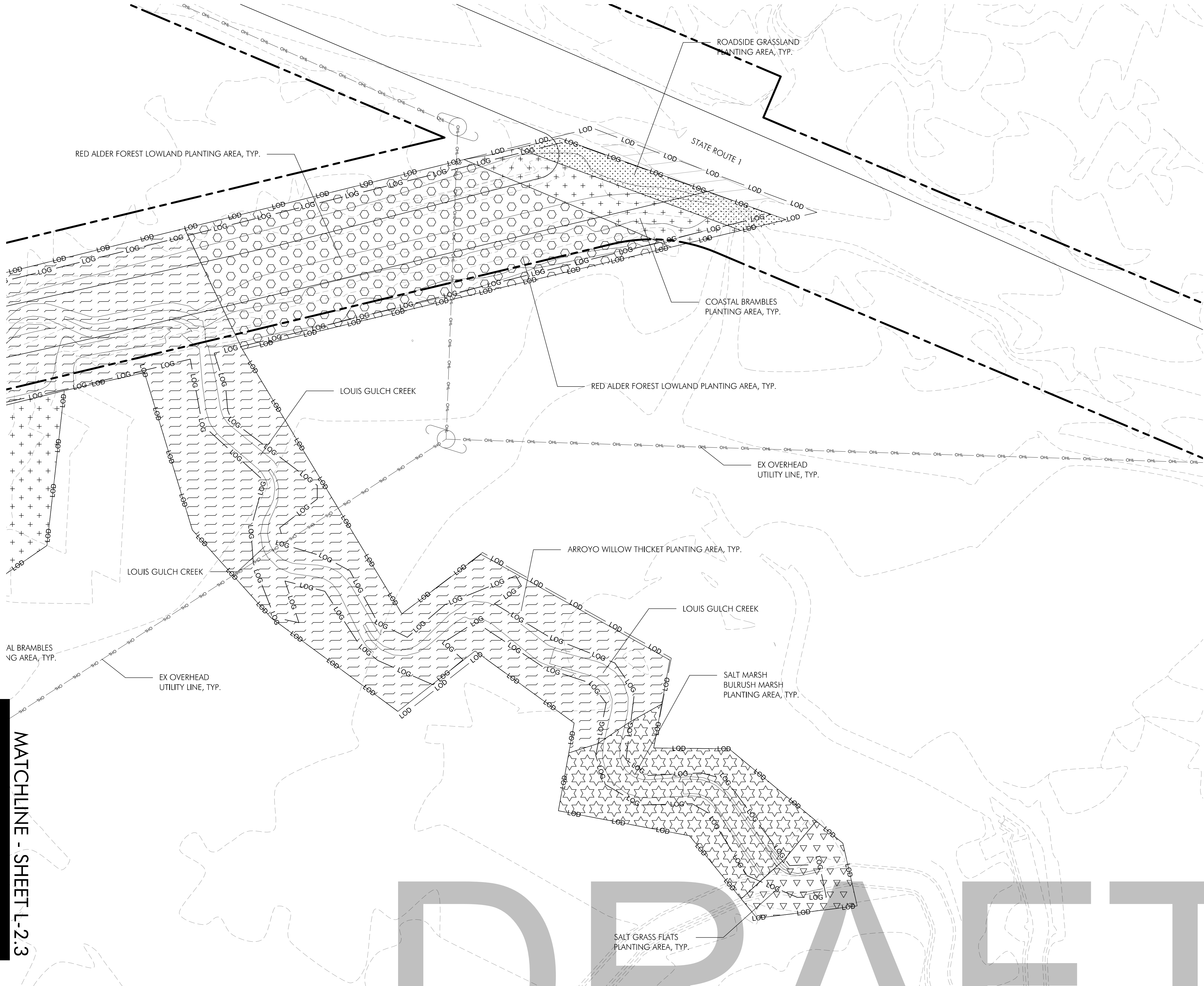
1 PLAN VIEW

**DRAFT**

MATCHLINE - SHEET L-2.1

MATCHLINE - SHEET L-2.3



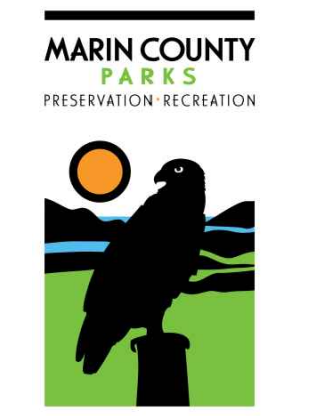


**LEGEND**

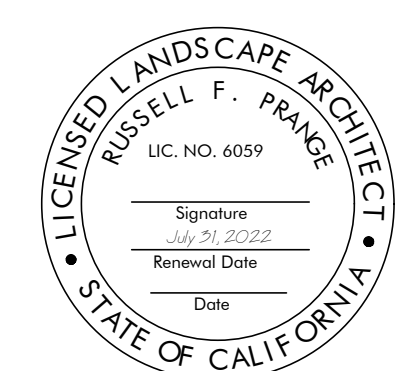
SYMBOL	DESCRIPTION
---	PROPERTY LINE (APPROXIMATE)
—HO—	OVERHEAD UTILITY LINE
—LOD—	LIMIT OF DISTURBANCE
—LOG—	LIMIT OF GRADE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
[Symbol]	ARROYO WILLOW THICKET
[Symbol]	COAST LIVE OAK WOODLAND
[Symbol]	COASTAL BRAMBLES
[Symbol]	COYOTE BRUSH SCRUB
[Symbol]	RED ALDER FOREST UPLAND
[Symbol]	RED ALDER FOREST LOWLAND
[Symbol]	RED ALDER FOREST LOWLAND SEEDING
[Symbol]	ROADSIDE GRASSLANDS
[Symbol]	SALT GRASS FLATS
[Symbol]	SALT MARSH BULRUSH MARSH



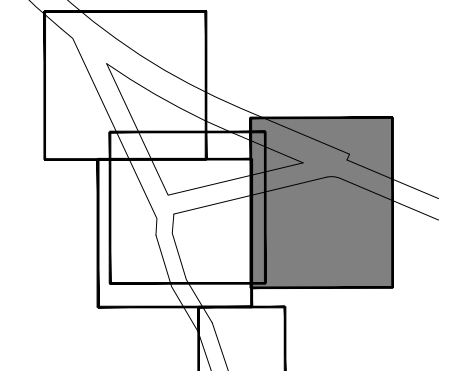
**BOLINAS LAGOON WYE WETLANDS PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



KEY MAP



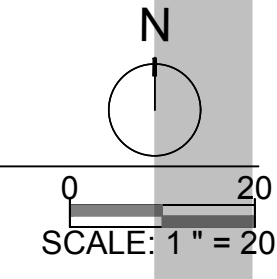
Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM, DAG  
CHECKED BY: BSS, RBB  
ORIGINAL DRAWING SIZE: 24 X 36

MATCHLINE - SHEET L-2.2  
MATCHLINE - SHEET L-2.3

1 PLAN VIEW

DRAFT

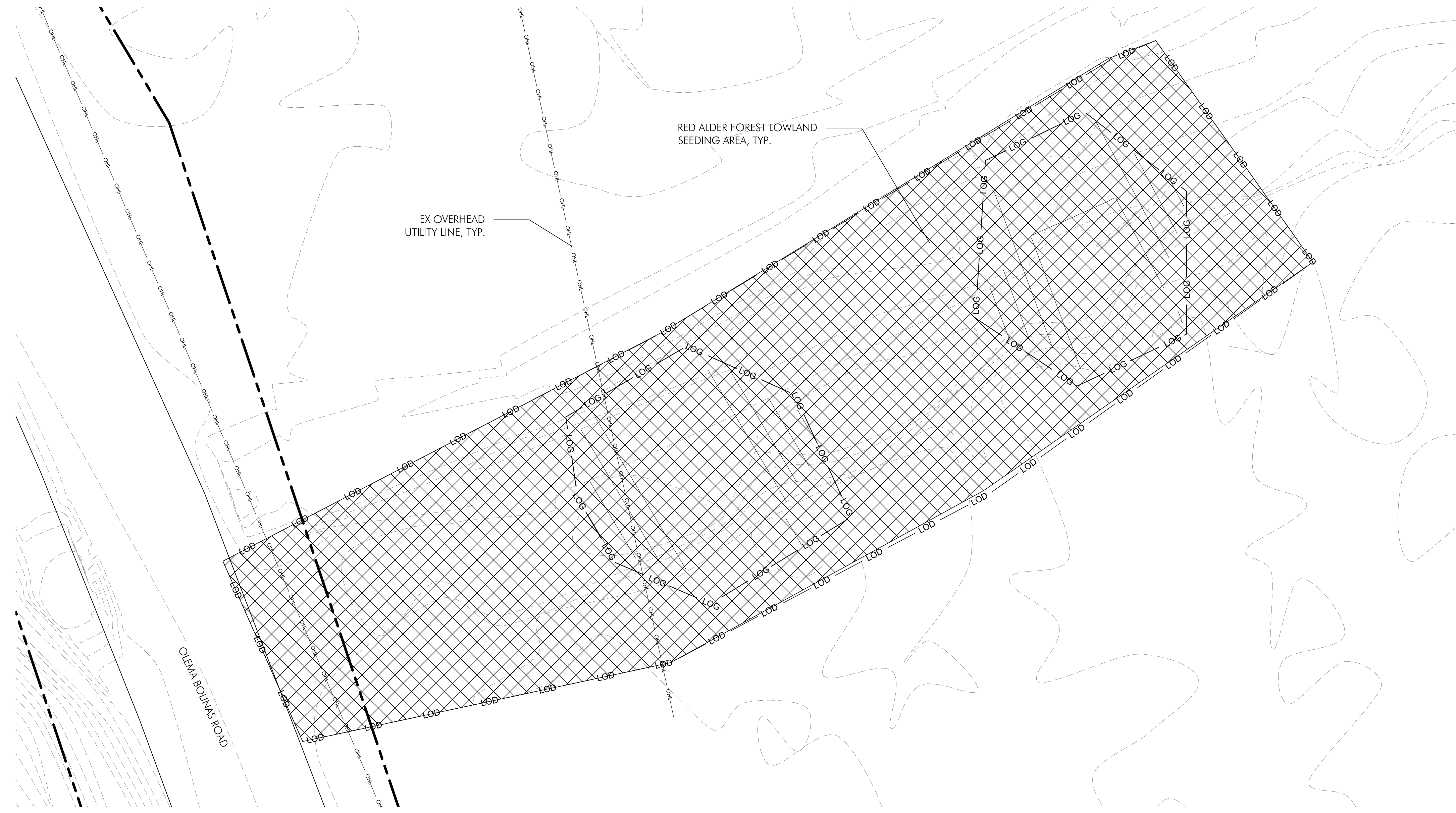


**PHASE 2 PLANTING PLAN**

Sheet

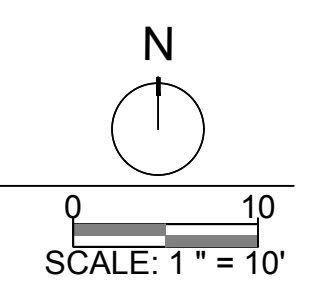
L-2.3



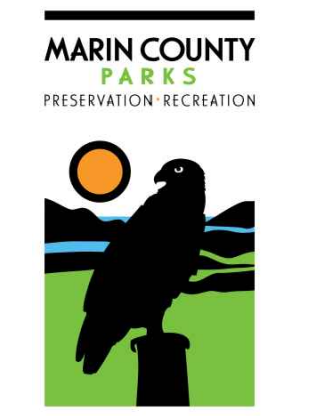


SYMBOL	DESCRIPTION
---	PROPERTY LINE (APPROXIMATE)
—HO—	OVERHEAD UTILITY LINE
—LOD—	LIMIT OF DISTURBANCE
—LOG—	LIMIT OF GRADE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
[Hatched pattern]	ARROYO WILLOW THICKET
[Vertical line pattern]	COAST LIVE OAK WOODLAND
[Cross-hatch pattern]	COASTAL BRAMBLES
[Horizontal line pattern]	COYOTE BRUSH SCRUB
[Vertical line pattern]	RED ALDER FOREST UPLAND
[Dotted pattern]	RED ALDER FOREST LOWLAND
[Cross-hatch pattern]	RED ALDER FOREST LOWLAND SEEDING
[Dotted pattern]	ROADSIDE GRASSLANDS
[Inverted triangle pattern]	SALT GRASS FLATS
[Wavy line pattern]	SALT MARSH BULRUSH MARSH

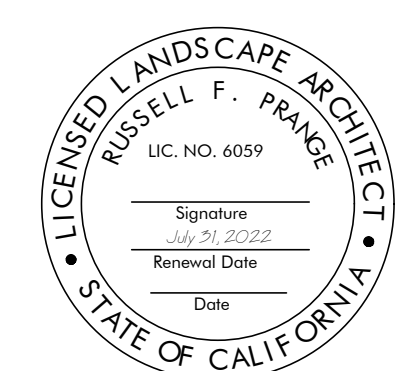
1 PLAN VIEW-BERM NOTCHING



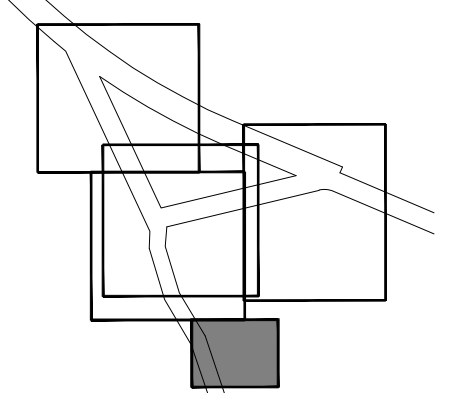
**BOLINAS LAGOON  
WYE WETLANDS  
PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



KEY MAP



01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	
Date	Issues And Revisions	No.

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM, DAG  
CHECKED BY: BSS, RBB  
ORIGINAL DRAWING SIZE: 24 X 36

**DRAFT**

**PHASE 2  
PLANTING PLAN**

Sheet

**L-2.4**

**PLANT LEGEND - SALT MARSH BULRUSH MARSH PLANTING AREAS**

BOTANICAL NAME	COMMON NAME	ON-CENTER SPACING (FEET)	CONTAINER SIZE	QUANTITY	PLANTING CLUSTERS	FENCE TYPE
BOBOSCHOENIUS MARITIMUS	ALKALI BULRUSH	3.0	DP 16	87	5	N/A
DISTICHLIS SPICATA	SALT GRASS	2.0	DP 16	30	5	N/A
FRANKENIA SALINA	ALKALI HEATH	3.0	DP 16	7	5	N/A
GRINDELIA STRICTA	GUMPLANT	3.0	DP 16	7	3	N/A
JALUPEA CARNOSA	MARSH JAUMEA	1.0	4" POT	60	7	N/A
SALICORNIA PACIFICA	PICKLEWEED	2.0	4" POT	30	7	N/A

**PLANT LEGEND - ARROYO WILLOW THICKET PLANTING AREAS**

BOTANICAL NAME	COMMON NAME	ON-CENTER SPACING (FEET)	CONTAINER SIZE	QUANTITY	PLANTING CLUSTERS	FENCE TYPE
ALNUS RUBRA	RED ALDER	6.0	DP 40	44	1	
CAREX OBNUPTA	SLOUGH SEDGE	3.0	DP 16	142	3	N/A
OENANTHE SARMENTOSA	WATER PARSLEY	3.0	DP 16	18	5	N/A
PERSICARIA PUNCTATA	SMARTWEED	3.0	DP 16	36	3	N/A
RUBUS URSINUS	CALIFORNIA BLACKBERRY	3.0	DP 16	266	3	GROUP
SALIX LASIOLEPIS	ARROYO WILLOW	6.0	STAKE	133	3	GROUP
SCIRPUS MICROCARPUS	SMALL-FRUITING BULRUSH	3.0	DP 16	533	7	N/A
STACHYS CHAMISSONIS	HEDGE NETTLE	3.0	DP 16	53	5	N/A
WOODWARDIA FIMBRIATA	WESTERN CHAIN FERN	3.0	4" POT	18	3	N/A

**PLANT LEGEND - RED ALDER FOREST - LOWLAND PLANTING AREAS**

BOTANICAL NAME	COMMON NAME	ON-CENTER SPACING (FEET)	CONTAINER SIZE	QUANTITY	PLANTING CLUSTERS	FENCE TYPE
ALNUS RUBRA	RED ALDER	6.0	DP 40	251	1	INDIVID
CAREX OBNUPTA	SLOUGH SEDGE	3.0	DP 16	168	3	N/A
JUNCUS LESCURII	DUNE RUSH	3.0	DP 16	168	5	N/A
PERSICARIA PUNCTATA	SMARTWEED	3.0	DP 16	101	3	N/A
POTENTILLA ANSERINA	SILVER CINQUEFOIL	3.0	DP 16	67	4	N/A
SALIX LASIOLEPIS	ARROYO WILLOW	6.0	STAKE	126	3	GROUP
SAMBUCUS RACEMOSA	RED ELDERBERRY	3.0	DP 40	168	3	INDIVID
SCIRPUS MICROCARPUS	SMALL-FRUITING BULRUSH	3.0	DP 16	1005	7	N/A
SCROPHULARIA CALIFORNICA	BEE PLANT	3.0	DP 16	101	5	N/A
STACHYS CHAMISSONIS	HEDGE NETTLE	3.0	DP 16	34	5	N/A
WOODWARDIA FIMBRIATA	WESTERN CHAIN FERN	3.0	4" POT	34	3	N/A

**PLANT LEGEND - RED ALDER FOREST - UPLAND PLANTING AREAS**

BOTANICAL NAME	COMMON NAME	ON-CENTER SPACING (FEET)	CONTAINER SIZE	QUANTITY	PLANTING CLUSTERS	FENCE TYPE
ACER NEGUNDO	BOXELDER	6.0	DP 16	6	1	INDIVID
ALNUS RUBRA	RED ALDER	6.0	DP 16	100	1	INDIVID
JUNCUS LESCURII	DUNE RUSH	3.0	DP 16	57	3	N/A
SALIX LASIOLEPIS	ARROYO WILLOW	6.0	STAKE	29	3	GROUP
SAMBUCUS RACEMOSA	RED ELDERBERRY	3.0	DP 40	34	3	INDIVID
SCIRPUS MICROCARPUS	SMALL-FRUITING BULRUSH	3.0	DP 16	182	4	N/A
SCROPHULARIA CALIFORNICA	BEE PLANT	3.0	DP 16	251	5	N/A
SEQUOIA SEMPERVIRENS	COAST REDWOOD	10.0	1G TREEBAND	6	1	INDIVID
WOODWARDIA FIMBRIATA	WESTERN CHAIN FERN	3.0	4" POT	11	3	N/A

**PLANT LEGEND - COASTAL BRAMBLES PLANTING AREAS**

BOTANICAL NAME	COMMON NAME	ON-CENTER SPACING (FEET)	CONTAINER SIZE	QUANTITY	PLANTING CLUSTERS	FENCE TYPE
ALNUS RUBRA	RED ALDER	6.0	DP 16	102	1	INDIVID
ARTEMISA DOUGLASIANA	MUGWORT	3.0	DP 16	136	3	GROUP
BACCHARIS PILULARIS	COYOTE BRUSH	4.0	DP 16	82	3	GROUP
JUNCUS HESPERIUS	COAST RUSH	3.0	DP 16	136	3	N/A
JUNCUS LESCURII	DUNE RUSH	3.0	DP 16	191	5	N/A
RUBUS URSINUS	CALIFORNIA BLACKBERRY	3.0	DP 16	1361	3	GROUP
SAMBUCUS RACEMOSA	RED ELDERBERRY	3.0	DP 40	136	3	INDIVID
SCIRPUS MICROCARPUS	SMALL-FRUITING BULRUSH	3.0	DP 16	272	7	N/A

**PLANT LEGEND - COAST LIVE OAK WOODLAND PLANTING AREAS**

BOTANICAL NAME	COMMON NAME	ON-CENTER SPACING (FEET)	CONTAINER SIZE	QUANTITY	PLANTING CLUSTERS	FENCE TYPE
AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	6.0	DP 16	11	1	INDIVID
ARTEMISA CALIFORNICA	COASTAL SAGE BRUSH	3.0	DP 16	43	3	GROUP
CHLOROGALUM POMERIDIANUM	SOAP ROOT	3.0	DP 16	43	3	N/A
DANTHONIA CALIFORNICA	CALIFORNIA OATGRASS	1.0	DP 16	384	7	N/A
FRAGARIA VESCA	WOODLAND STRAWBERRY	2.0	DP 16	96	5	N/A
HETEROMELES ARBUTIFOLIA	TOYON	6.0	DP 40	21	1	INDIVID
MARAH OREGANA	COAST MAN-ROOT	3.0	DP 16	43	1	N/A
QUERCUS AGRIFOLIA	COAST LIVE OAK	6.0	1G TREEBAND	85	1	INDIVID
SCROPHULARIA CALIFORNICA	BEE PLANT	3.0	DP 16	43	5	N/A
STIPA PULCHRA	PURPLE NEEDLE GRASS	1.0	DP 16	384	7	N/A
UMBELLULARIA CALIFORNICA	CALIFORNIA BAY	6.0	DP 40	21	1	INDIVID

**PLANT LEGEND - COYOTE BRUSH SCRUB PLANTING AREAS**

BOTANICAL NAME	COMMON NAME	ON-CENTER SPACING (FEET)	CONTAINER SIZE	QUANTITY	PLANTING CLUSTERS	FENCE TYPE
ARTEMISA CALIFORNICA	COASTAL SAGE BRUSH	3.0	DP 16	66	3	GROUP
BACCHARIS PILULARIS	COYOTE BRUSH	4.0	DP 16	93	3	GROUP
FRANCOA CALIFORNICA	COFFEEBERRY	6.0	DP 40	4	1	INDIVID
LONICERA HISPIDULA	PINK HONEYSUCKLE	3.0	DP 16	3	1	INDIVID
MIMULUS AURANTIACUS	STICKY MONKEY-FLOWER	3.0	DP 16	10	3	N/A
RUBUS URSINUS	CALIFORNIA BLACKBERRY	3.0	DP 16	46	3	GROUP
STIPA PULCHRA	PURPLE NEEDLE GRASS	1.0	DP 16	208	7	N/A

**SEED MIX - RED ALDER FOREST - LOWLAND PLANTING AREAS (FORMER CREEK ALIGNMENT)**

BOTANICAL NAME	COMMON NAME	PLS (LBS/ACRE)	TOTAL (LBS)
CAREX OBNUPTA	SLOUGH SEDGE	2.0	0.4
JUNCUS HESPERIUS	COAST RUSH	1.0	0.2
JUNCUS LESCURII	DUNE RUSH	1.0	0.2
PERSICARIA PUNCTATA	SMARTWEED	TBD	TBD
SCIRPUS MICROCARPUS	SMALL-FRUITING BULRUSH	2.5	0.5
OENANTHE SARMENTOSA	WATER PARSLEY	2.0	0.4

**SEED MIX - ROADSIDE GRASSLAND**

BOTANICAL NAME	COMMON NAME	PLS (LBS/ACRE)	TOTAL (LBS)
ARTEMISA DOUGLASIANA	MUGWORT	0.5	0.2
DANTHONIA CALIFORNICA	CALIFORNIA OATGRASS	6.0	2.1
ELYMUS GLAUCUS	BLUE WILD RYE	8.0	2.8
FESTUCA RUBRA	RED FESCUE	9.0	3.1
JUNCUS PATENS	BLUE RUSH	1.0	0.3
REGREEN (SEED MIX)	REGREEN	25.0*	8.7
SCROPHULARIA CALIFORNICA	BEE PLANT	1.0	0.3

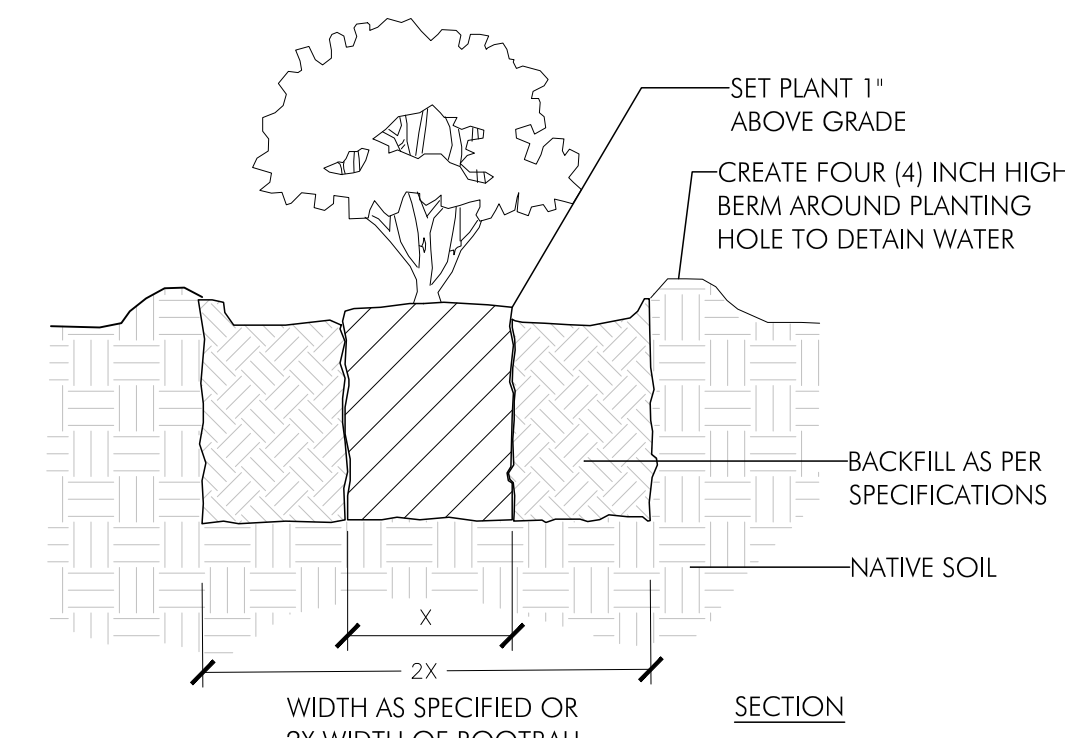
\*LBS PER ACRE OF SEED PRODUCT. NOT PLS. MIX WITH NATIVE SEEDS.

**SEEDING NOTES**

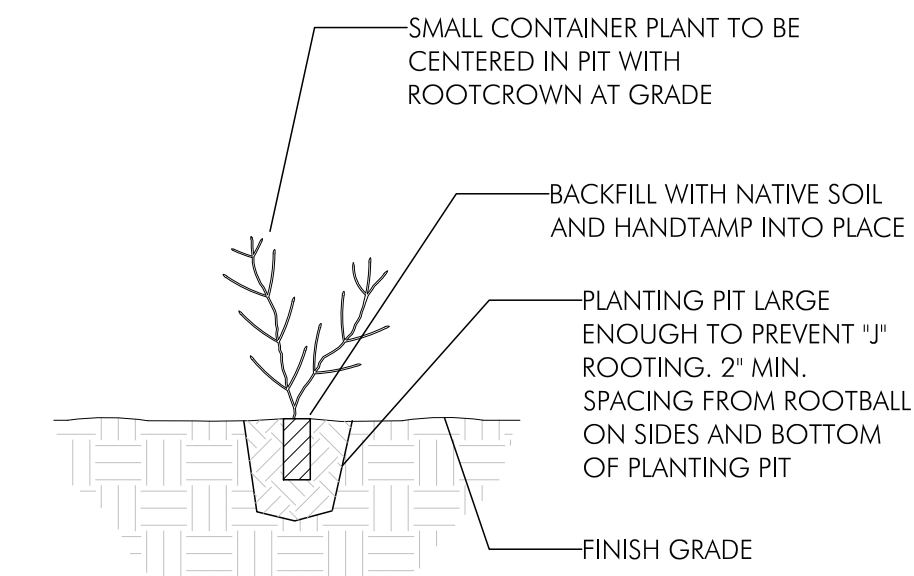
- SEED SHALL BE APPLIED ONLY AFTER ALL GRADING AND CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- SEED SHALL BE SUPPLIED ON THE BASIS OF PURE LIVE SEED (PLS).
- SEEDING AREAS SHALL BE MARKED PRIOR TO SEED APPLICATION AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- SOIL WILL BE PREPARED FOR SEED INSTALLATION USING A LIGHTWEIGHT HARROW OR CHAINLINK FENCE DRAG OR HAND RAKING IMMEDIATELY PRIOR TO SEEDING.
- SEED MIXES SHALL BE APPLIED BY BROADCAST SEEDING.
- SEEDING TO OCCUR BETWEEN OCT 15 AND NOV 30 OR AS APPROVED BY OWNER'S REPRESENTATIVE.

**PLANTING NOTES**

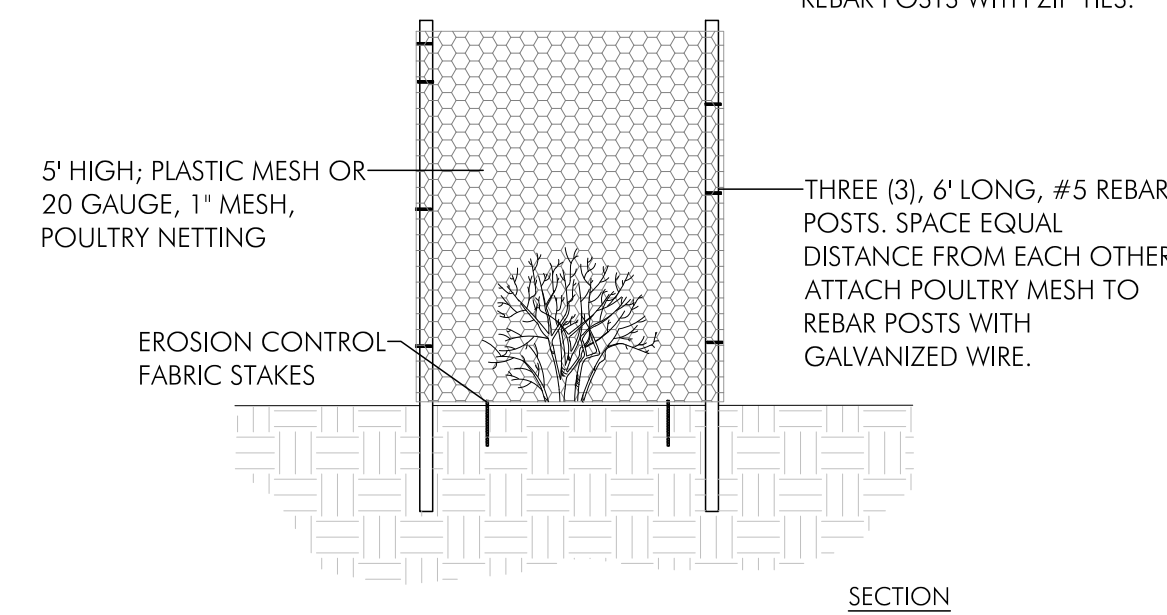
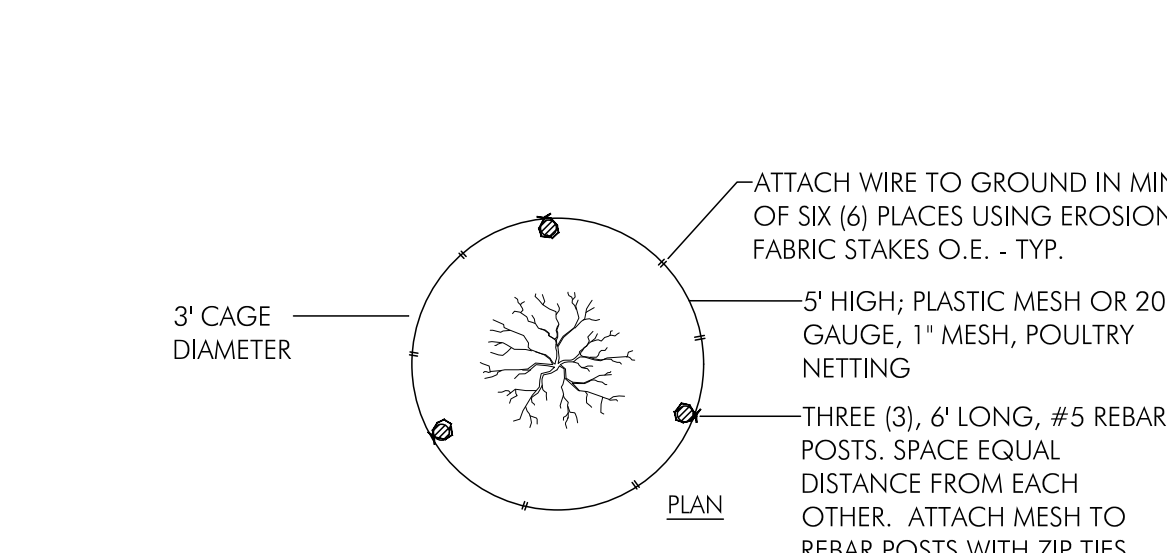
- LOOSEN THE TOP TEN (10) INCHES OF ANY UNDISTURBED OR COMPACTED SOIL PRIOR TO PLANTING.
- ALL NEW PLANT MATERIAL TO REMAIN WITHIN THE CONSTRUCTION AREA SHALL BE PROPERLY AND ADEQUATELY PROTECTED DURING CONSTRUCTION.
- SOIL AMENDMENTS AND/OR FERTILIZER TABLETS SHALL BE USED AS NEEDED TO ACHIEVE ADEQUATE SOIL NUTRIENT LEVEL IN PLANTING AREAS.
- SOIL TESTS SHALL BE CONDUCTED PRIOR TO PLANTING TO DETERMINE NUTRIENT AVAILABILITY PRIOR TO PLANTING.
- DEER PROTECTION CAGES
  - DEER FENCING SHALL BE INSTALLED EITHER AROUND INDIVIDUAL PLANTS OR AROUND PLANT GROUPS AS NOTED ON PLANT PALETTES. IF FENCING AROUND PLANT GROUPS, ENCLOSURES SHOULD BE NO LARGER THAN 12 FT X 24 FT.
  - IN AREAS SUBJECT TO INUNDATION, FENCING MUST BE REMOVED PRIOR TO RAINY SEASON AND REINSTALLED WHEN THE RAINS HAVE CEASED FOR THE SEASON. TIMING AND LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE.
  - FENCING TO REMAIN FOR A MINIMUM OF 3 YEARS.
- PLANT INSTALLATION SHALL OCCUR BETWEEN OCT 15TH AND DEC 31ST OR AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- TOTAL PLANT QUANTITIES ARE SHOWN FOR EACH PLANTING AREA. DENSITIES VARY. PLANTS TO BE GROUPED BASED ON SPACING AND CLUSTER NUMBER. THE CONTRACTOR SHALL PREPARE A TYPICAL LAYOUT OF EACH FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- AFTER EACH PLANT IS INSTALLED A FLAG OR BAMBOO STAKE SHOULD BE PLACED ON A CONSISTENT SIDE OF THE PLANT TO AID IN FINDING THE PLANT FOR WATERING, MONITORING AND FOLLOW-UP WEEDING.
- WILLOW STAKES:
  - INSTALLATION SHALL OCCUR BETWEEN DEC 1ST AND DEC 31ST OR AS APPROVED BY THE OWNER'S REPRESENTATIVE.
  - WILLOW STAKES WILL BE HARVESTED WITHIN THE PROJECT SITE BENEATH THE PG&E POWER LINES AS SHOWN ON FIGURE 3 OF THE VEGETATION MANAGEMENT PLAN PRODUCED BY THE GOLDEN GATE NATIONAL PARKS CONSERVANCY.
  - STAKES SHALL BE 0.75-2 INCHES IN DIAMETER.
  - STAKES SHALL BE INSTALLED A MINIMUM OF 18 INCHES BELOW GRADE. MINIMUM TOTAL LENGTH SHALL BE 36 INCHES.



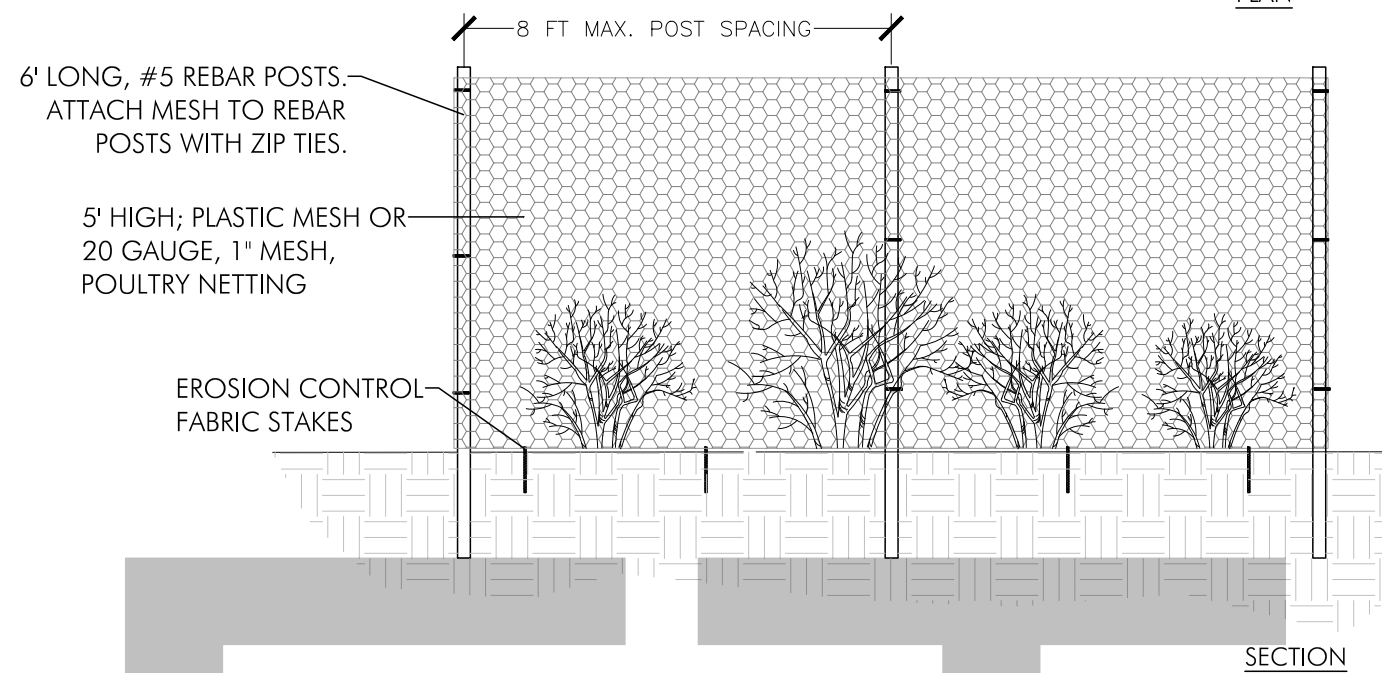
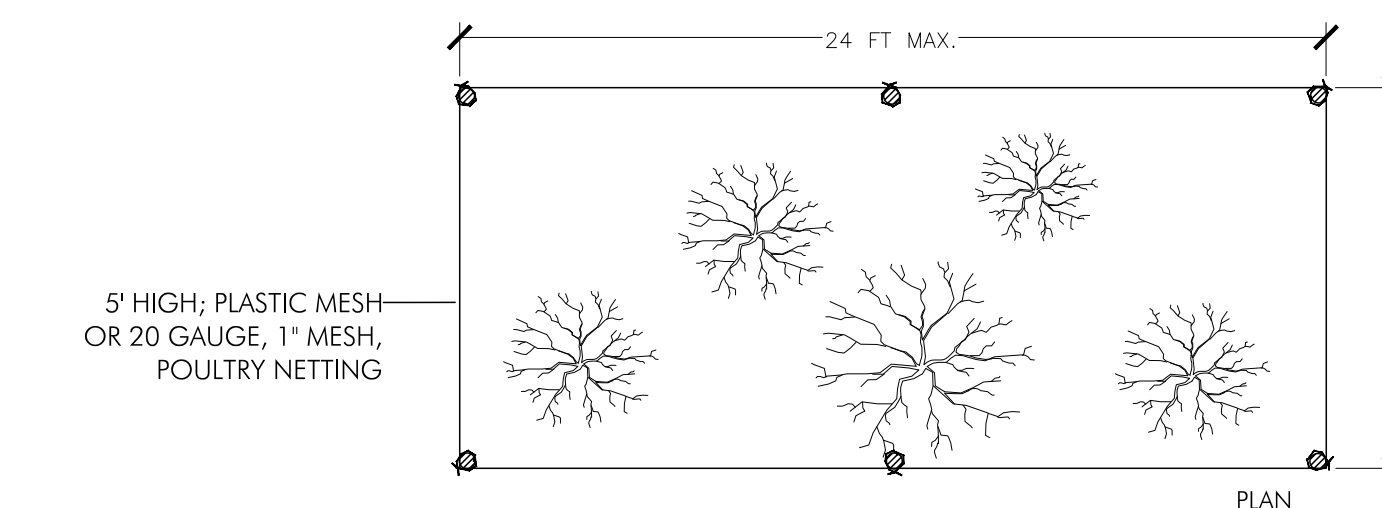
TREE & SHRUB PLANTING  
NOT TO SCALE



WETLAND PLUG PLANTING  
NOT TO SCALE



WIRE CAGE DEER PROTECTION (INDIVIDUAL)  
NOT TO SCALE



WIRE CAGE DEER PROTECTION (GROUP)  
NOT TO SCALE



**BOLINAS LAGOON WYE WETLANDS PROJECT**  
BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
01/29/2020	CONCEPT PLAN	
07/30/2020	30% DESIGN	
02/14/2022	60% DESIGN	

PROJECT #29244  
DRAWN BY: ACS, AMO, BMM, DAG  
CHECKED BY: BSS, RBB  
ORIGINAL DRAWING SIZE: 24 X 36

**PLANTING NOTES, DETAILS AND PALETTES**

Sheet

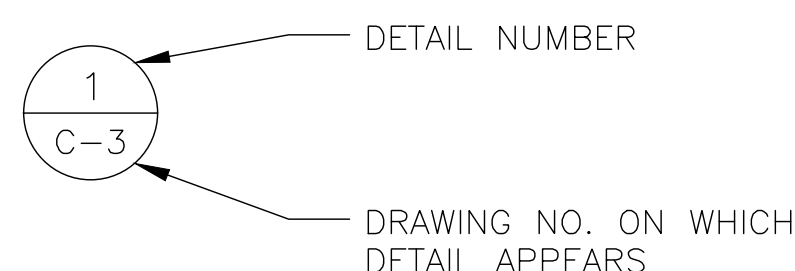
L-2.5

**GENERAL ROADWAY AND BRIDGE NOTES:**

- ALL WORK SHOWN ON THESE PLANS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITIES OF MARIN AND COUNTY OF MARIN DATED JUNE, 1992, THE UNIFORM CONSTRUCTION STANDARDS OF THE CITIES OF MARIN AND THE COUNTY OF MARIN DATED MAY, 2008, THE STATE STANDARD PLANS DATED MAY, 2018, AND THE STATE STANDARD SPECIFICATIONS DATED MAY, 2018, (INSOFAR AS THE SAME MAY APPLY) AS MODIFIED BY THE SPECIAL PROVISIONS FOR THIS PROJECT.
- THE LOCATION FOR UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION AND DEPTH. THIS VERIFICATION SHALL BE COORDINATED BY THE CONTRACTOR WITH THE APPROPRIATE UTILITY COMPANY. CALL U.S.A. (UNDERGROUND SERVICE ALERT) FOR UTILITY LOCATION QUESTIONS AT LEAST 24 HOURS BEFORE DIGGING. PHONE 1-800-642-2444.
- ALL EXISTING STREET SURFACE FEATURES (MANHOLES, CLEAN-OUTS, MONUMENTS, STRIPING, PAVEMENT MARKINGS, ETC.) SHALL BE REFERENCED BY THE CONTRACTOR PRIOR TO START OF ANY WORK.

**ABBREVIATIONS**

AB	AGGREGATE BASE	FG	FINISHED GRADE
AC	ASPHALT CONCRETE	FL	FLOW LINE
AP	ANGLE POINT	FOW	FRONT OF WALK
BB	BEGIN BRIDGE	HMA	HOT MIX ASPHALT
BC	BEGIN HORIZONTAL CURVE	HP	HINGE POINT
Beg	BEGIN	Lt	LEFT
BOW	BACK OF WALK	LF	LINEAR FEET
BVC	BEGIN VERTICAL CURVE	Max	MAXIMUM
CL	CLASS	Min	MINIMUM
CONC	CONCRETE	MGS	MIDWEST GUARD RAIL SYSTEM
CONT	CONTINUOUS	MH	MANHOLE
CONST	CONSTRUCT	O/C	ON CENTER
CP	CATCH POINT	OG	ORIGINAL GROUND
CT	CALTRANS	PCC	POINT OF COMPOUND CURVE
DBL	DOUBLE	PG	PROFILE GRADE
DIA	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DWG	DRAWING	Rem	REMOVE
EA	EACH	RSP	ROCK SLOPE PROTECTION
EB	END BRIDGE	Rt	RIGHT
EC	END HORIZONTAL CURVE	R/W	RIGHT OF WAY
ELEV	ELEVATION	SAW	SAWCUT
EP	EDGE OF PAVEMENT	SHLD	SHOULDER
ES	EDGE OF SHOULDER	SHT	SHEET
EVC	END VERTICAL CURVE	STA	STATION
EXC	EXCAVATION	STD	STANDARD
EXIST	EXISTING	TEMP	TEMPORARY
ETW	EDGE OF TRAVELED WAY	TYP	TYPICAL
		VAR	VARIES
		WSEL	WATER SURFACE ELEVATION



INDEX OF ROADWAY AND BRIDGE SHEETS

BOLINAS LAGOON WYE WETLANDS PROJECT

SHEET NO.	SHEET TITLE	
1	ROADWAY AND BRIDGE GENERAL NOTES	GN-1
2	ROADWAY AND BRIDGE TYPICAL CROSS SECTIONS	X-1
3	PROJECT CONTROL	PC-1
4-6	DEMOLITION PLAN	DM-1 TO DM-3
7-9	ROADWAY AND BRIDGE LAYOUT PLAN	L-1 TO L-3
10-11	ROADWAY AND BRIDGE PROFILE	PS-1 TO PS-2
12	ROADWAY AND BRIDGE CONSTRUCTION DETAILS	C-1
13-15	DRAINAGE AND UTILITIES	DU-1 TO DU-3
16	EROSION CONTROL	EC-1
17-18	ROADWAY AND BRIDGE STAGE CONSTRUCTION	TH-1 TO TH-2
19-22	PAVEMENT DELINEATION	PD-1 TO PD-4
23-XX	STRUCTURES PLANS	S-1 TO S-X

NOTE: THE CONTRACTOR SHALL POSSESS CLASS "A" LICENSE

CALL USA (UNDERGROUND SERVICE ALERT) AT LEAST 24HRS IN ADVANCE OF WORK - 1-(800)-642-2444.



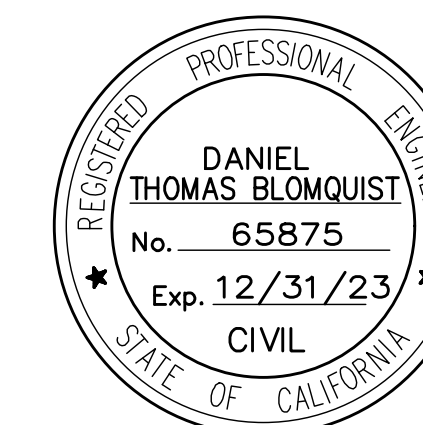
ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com



**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022	60% DESIGN
7/8/2020	30% DESIGN
3/20/2020	CONCEPT PLAN

Date Issues And Revisions No.

PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND BRIDGE GENERAL NOTES**

Sheet

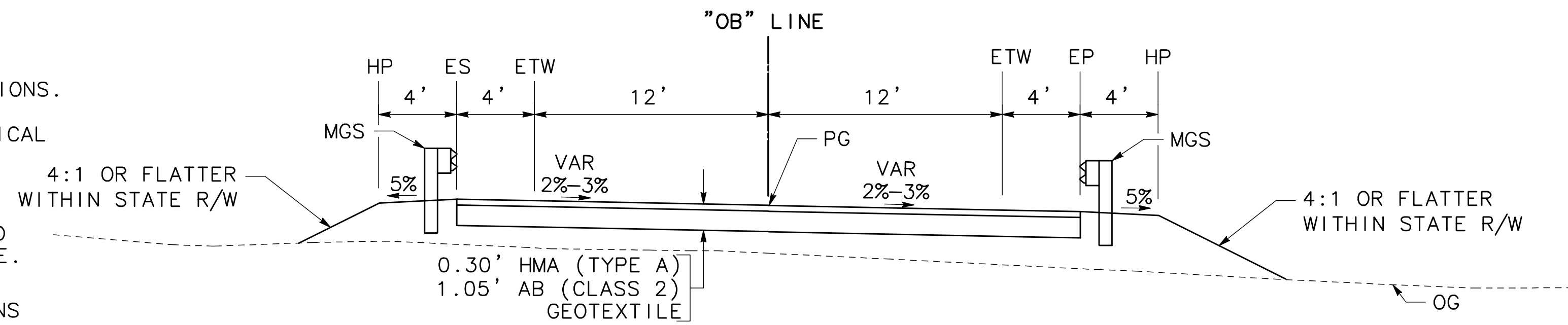
**GN-1**

SCALE: NTS  
1 OF XX

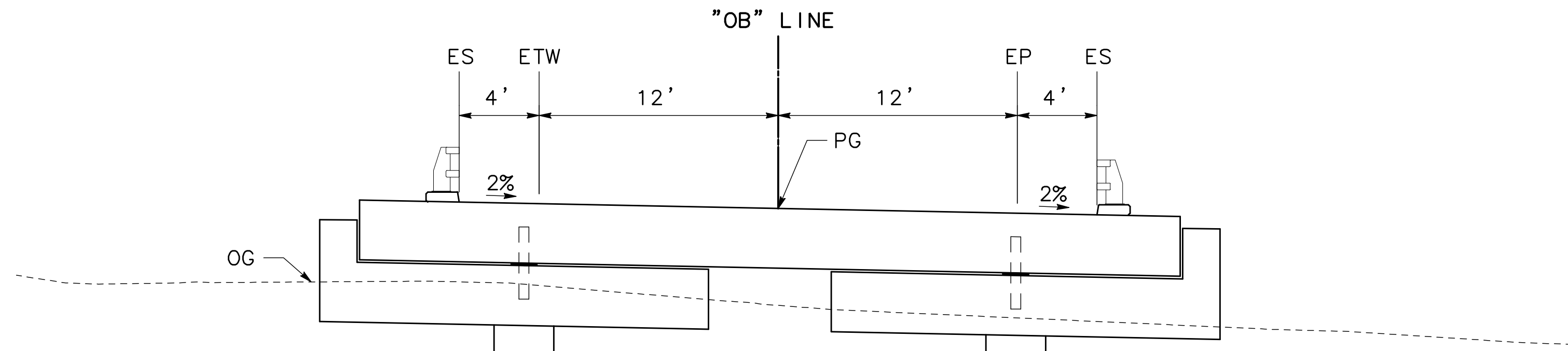
DRAFT

**NOTES:**

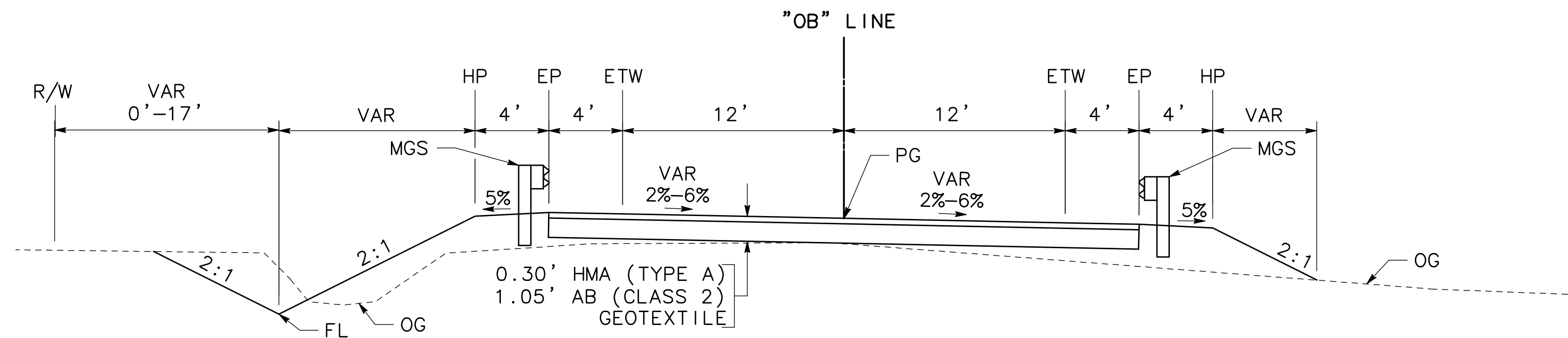
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. STRUCTURAL SECTION RECOMMENDATIONS PER GEOTECHNICAL FOUNDATAION REPORT BY CRAWFORD & ASSOCIATES, DATED JUNE 17, 2020.
3. PAVEMENT SECTION FOR OLEMA BOLINAS ROAD IS BASED ON A T1 OF 7 AND AN R VALUE OF 20 WITH GEOTEXILE.
4. SUPERELEVATIONS ARE SHOWN ON THE SUPERELEVATIONS DIAGRAMS.



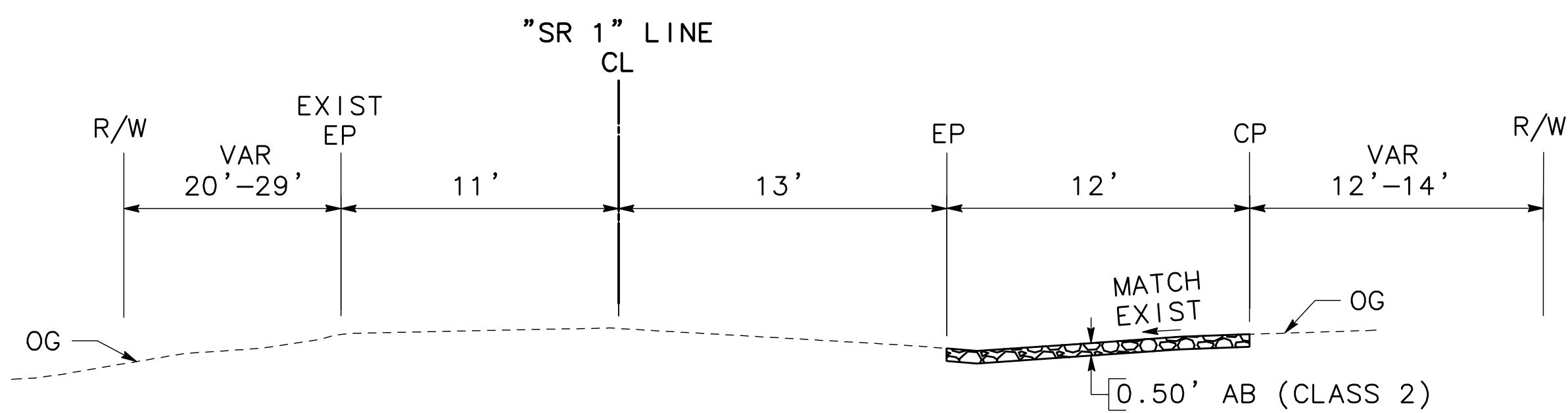
**"OB" LINE 14+95 TO 16+42**



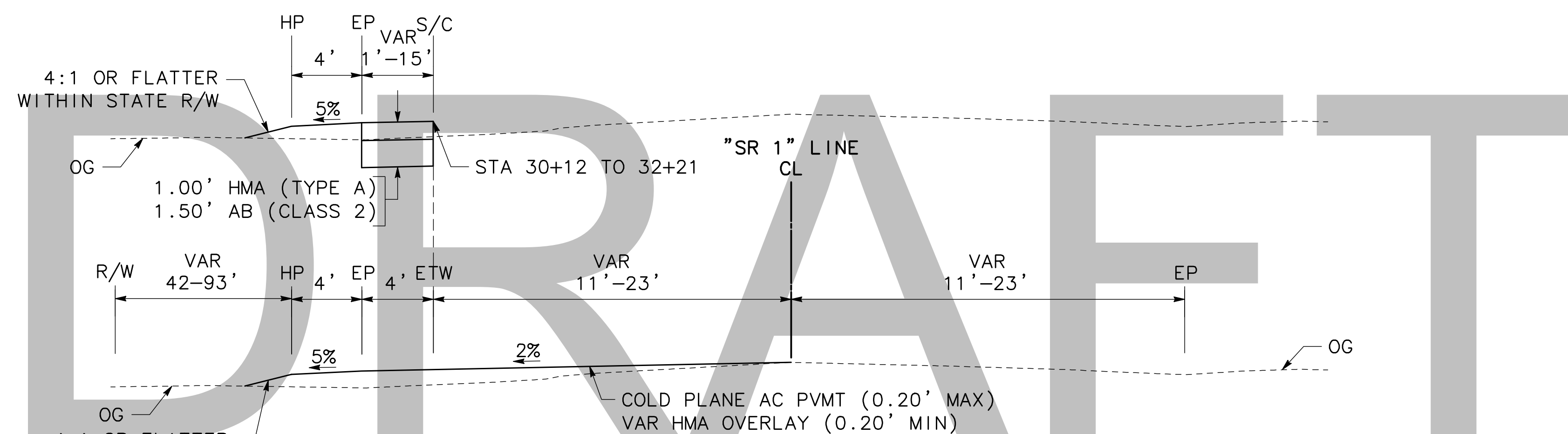
**"OB" LINE 14+34.84 TO 14+95.46**



**"OB" LINE 11+50 TO 14+35**



**"SR 1" LINE 33+39 TO 37+67**



**"SR 1" LINE 29+00 TO 32+50**



ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com

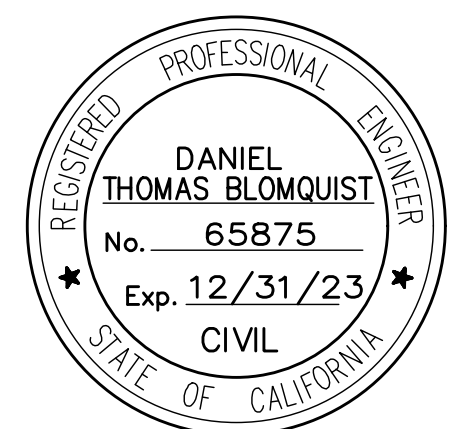


701 University Ave., Suite 200  
Sacramento, Ca 95762  
(916)381-9100  
markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
7/8/2020 30% DESIGN  
3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND BRIDGE TYPICAL SECTIONS**

Sheet

**X-1**

SCALE: 1"=5'  
2 OF XX

**NOTES:**

1. CONTRACTOR SHALL COMPLY WITH BUSINESS AND PROFESSIONS CODE SECTION 8771 (b) REGARDING REFERENCING, PRESERVING AND RECONSTRUCTING MONUMENTS, WHETHER OR NOT MONUMENTS ARE SHOWN IN THESE PLANS.
2. IF MONUMENT IS DAMAGED BY CONTRACTOR'S OPERATIONS, CONTRACTOR MUST REPLACE MONUMENT AT CONTRACTOR'S EXPENSE.
3. "OB" AND "SR 1" LINE ARE INTENDED FOR CONSTRUCTION PURPOSES AND NOT BASED ON RIGHT OF WAY CONTROL.

**DATUM**

PROJECT CONTROL IS BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983 (2011), ZONE III, EPOCH 2011.00.

THE BASIS AND ELEVATION IS THE NAVD 88 DATUM UTILIZING THE GEOID 12B

SURVEY CONTROL POINT WAS EXTRACTED FROM THE REPORT TITLED:

BOLINAS NORTH END-PHASE 1 PROJECT TOPOGRAPHIC SURVEYS  
MARIN COUNTY, CA  
FIELD DATA COLLECTING AND PROCESSING PROCEDURES AND RESULTS  
AUGUST 2017 - DRAFT

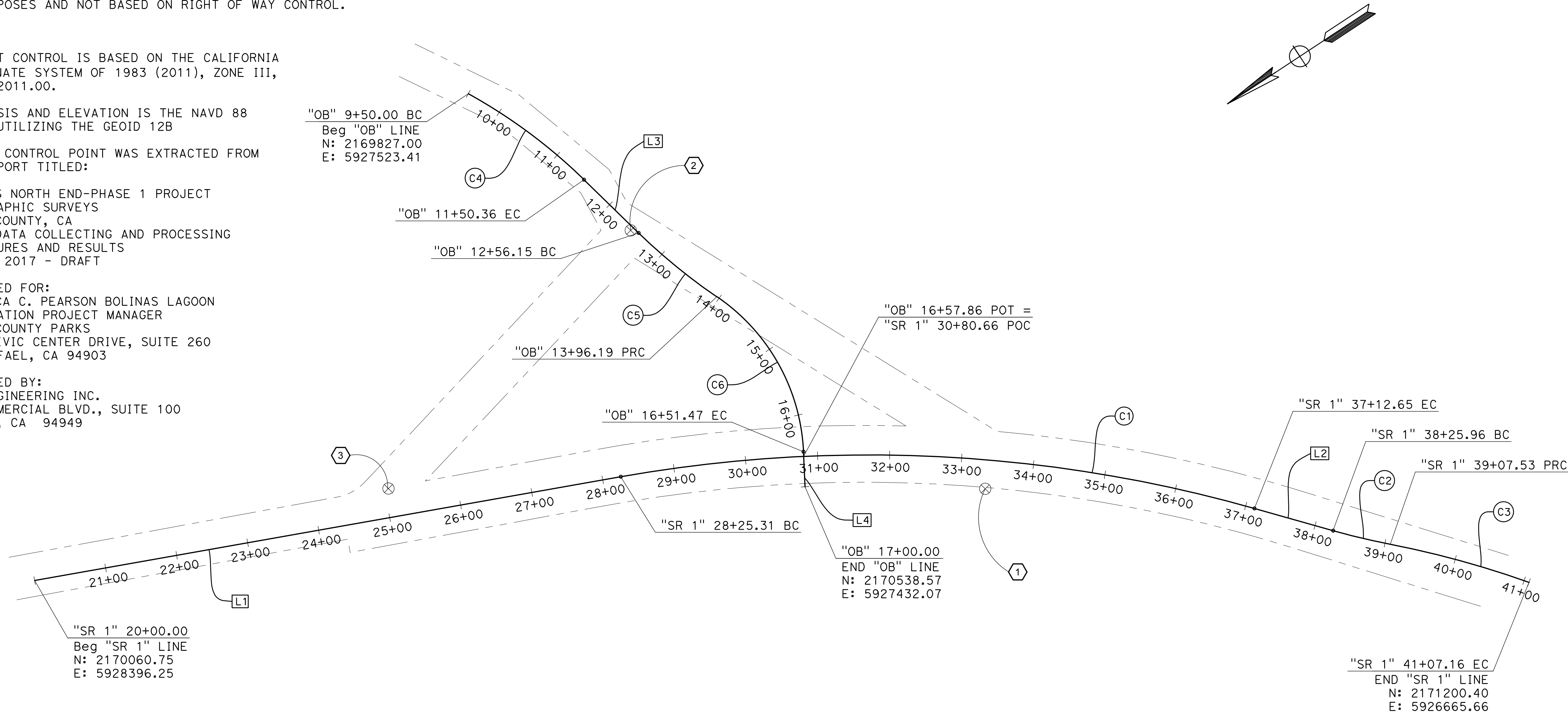
PREPARED FOR:  
VERONICA C. PEARSON BOLINAS LAGOON RESTORATION PROJECT MANAGER  
MARIN COUNTY PARKS  
3501 CIVIC CENTER DRIVE, SUITE 260  
SAN RAFAEL, CA 94903

PREPARED BY:  
CLE ENGINEERING INC.  
10 COMMERCIAL BLVD., SUITE 100  
NOVATO, CA 94949

**LEGEND:**

⊗ MONUMENT/SURVEY CONTROL POINT

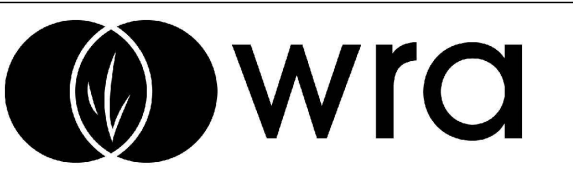
POINTS	NORTHING	EASTING	ELEVATION	DESCRIPTION	
1	3002	2170678.18	5927224.76	33.693	SVMO CONC & PIN
2	3010	2170108.95	5927439.01	14.864	MONUMENT
3	3050	2170223.51	5927916.21	9.912	MONUMENT



LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	825.36'	N66°44'40"W
L2	113.32'	N40°56'14"W
L3	105.80'	N12°28'40"W
L4	48.53'	N30°40'52"E

CURVE TABLE				
CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C1	1970.00'	25°48'25"	451.32'	887.32'
C2	1002.50'	4°39'36"	40.79'	81.54'
C3	1351.50'	8°27'47"	100.00'	199.63'
C4	750.00'	15°18'22"	100.78'	200.36'
C5	800.00'	10°01'45"	70.20'	140.03'
C6	275.00'	53°11'17"	137.67'	255.28'

DRAFT



ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com

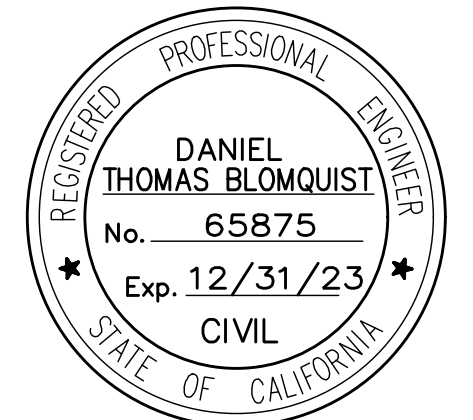


701 University Ave., Suite 200  
Sacramento, Ca 95762  
(916)381-9100  
markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
7/8/2020 30% DESIGN  
3/20/2020 CONCEPT PLAN

Date Issues And Revisions No.

PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36




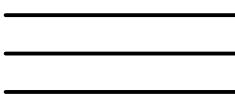
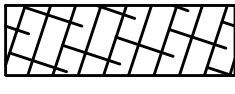
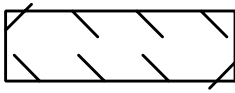
**PROJECT CONTROL**

Sheet

**PC-1**

SCALE: 1"=80'  
3 OF XX

**LEGEND:**

-  REMOVE BASE AND SURFACING
-  EXIST TREE
-  REMOVE TREE
-  CREEK FLOWLINE AND BANK
-  EMBANKMENT STABILIZATION
-  COLD PLANE AC PAVEMENT

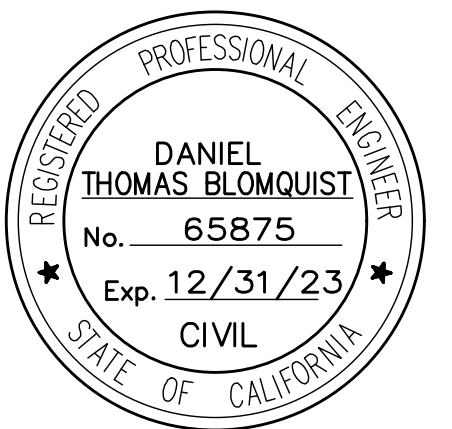
**wra**  
 ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

**MARK THOMAS**  
 701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



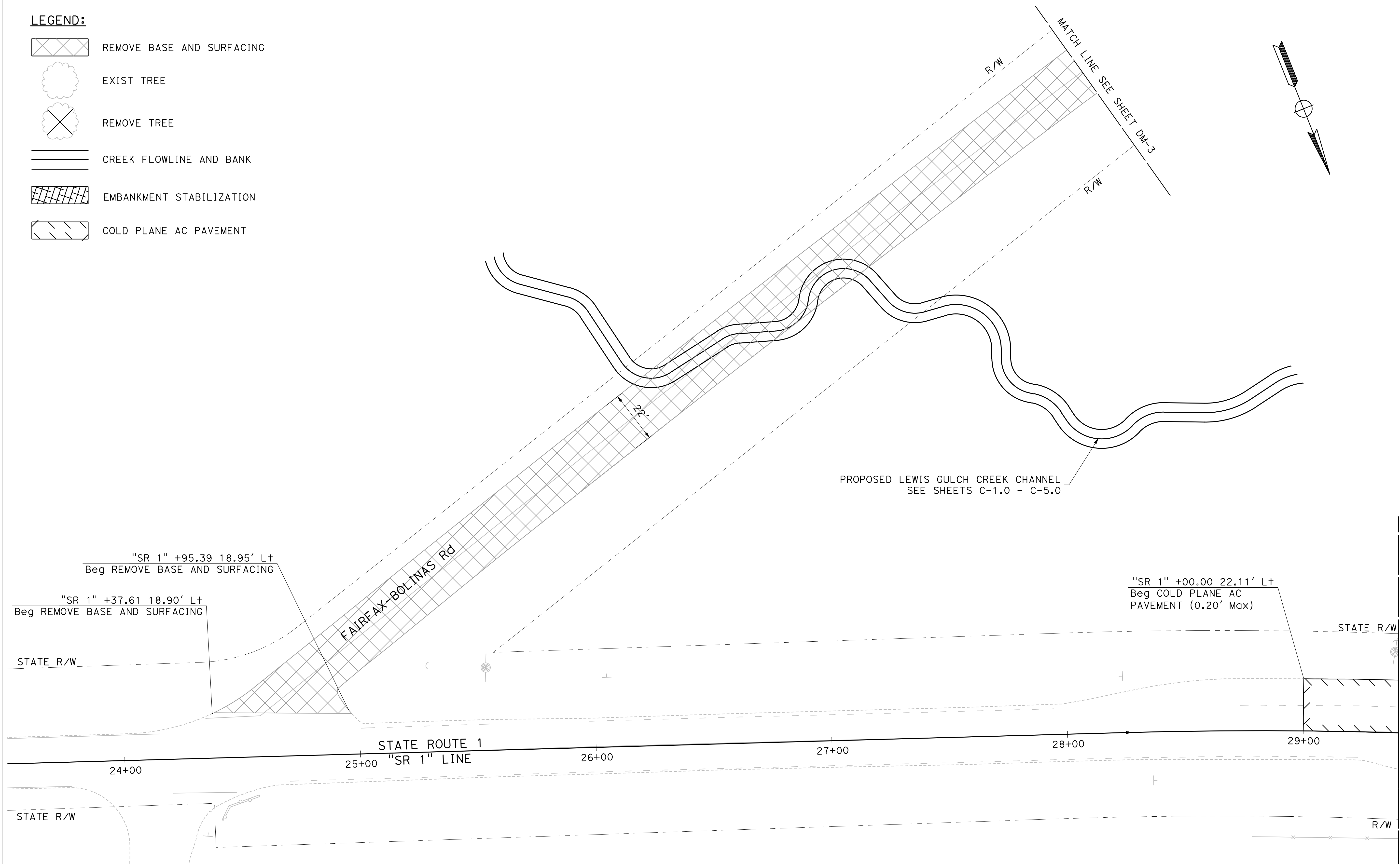
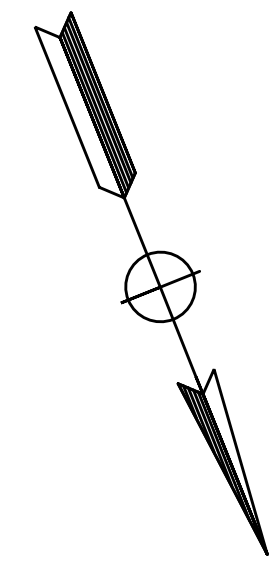
Date	Issues And Revisions	No.
1/28/2022	60% DESIGN	
7/8/2020	30% DESIGN	
3/20/2020	CONCEPT PLAN	

PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**DEMOLITION PLAN**

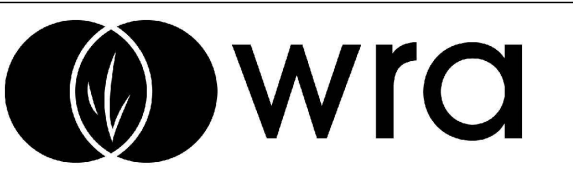
Sheet  
**DM-1**

SCALE: 1"=20'  
 4 OF XX



**DRAFT**





ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

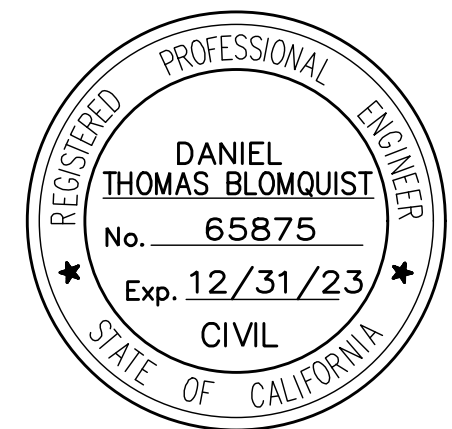


701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
 7/8/2020 30% DESIGN  
 3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

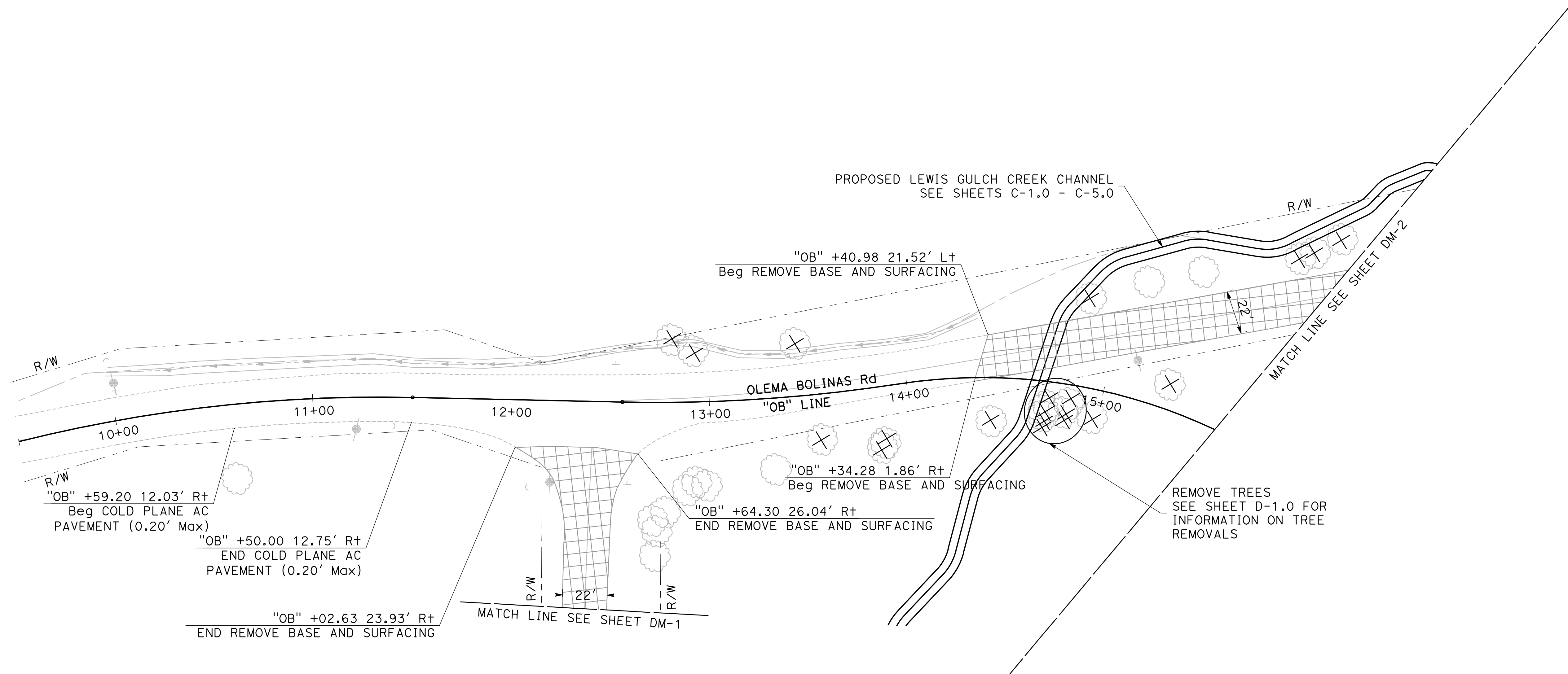
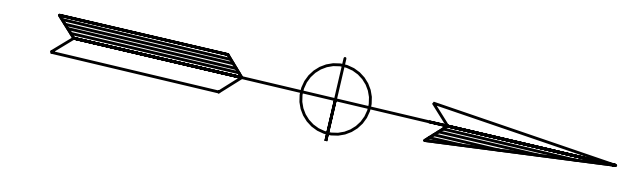
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**DEMOLITION PLAN**

Sheet

**DM-3**

SCALE: 1"=30'  
 6 OF XX



**DRAFT**

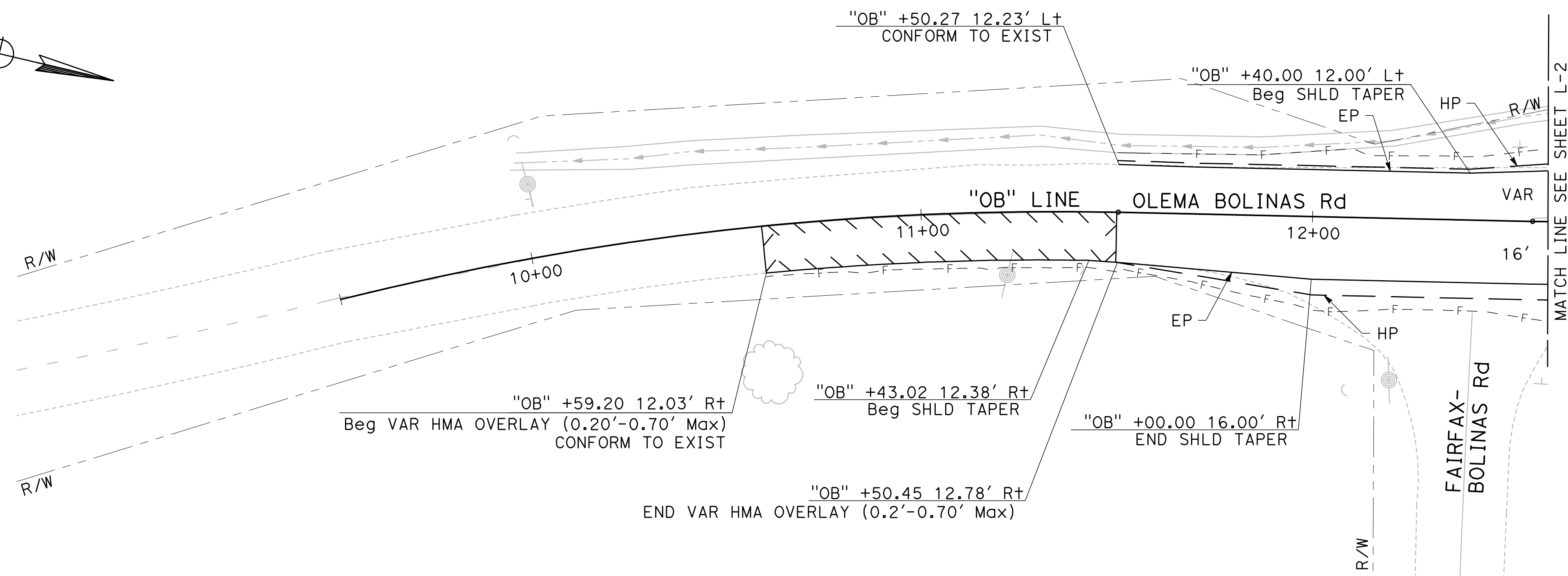
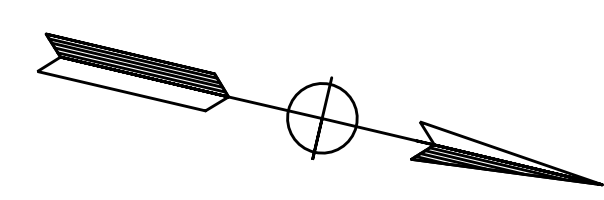


**NOTE:**

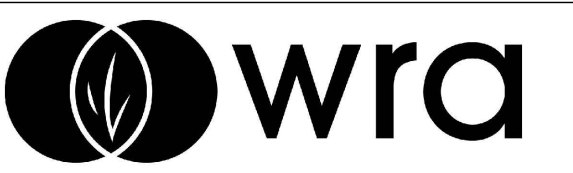
1. SEE DRAINAGE AND UTILITY PLANS FOR DITCH FLOW LINE AND UTILITY INFORMATION.
2. FOR ALL UNREFERENCED DETAILS, SEE CALTRANS STANDARD PLANS UNLESS OTHERWISE NOTED.
3. INSTALL CONCRETE VEGETATION CONTROL UNDER AITS, MGS, AND TRANSITION RAILING PER CALTRANS REVISED STANDARD PLAN A77N6.
4. SEE CONSTRUCTION DETAILS FOR SR 1/OLEMA BOLINAS INTERSECTION GRADING.

**LEGEND:**

- NEW CREEK
- SAWCUT
- — — — HINGE POINT
- - - - F - - - - LIMIT OF FILL
- - - - C - - - - LIMIT OF CUT
- > DITCH FLOW LINE
- RIGHT OF WAY
- ////// LIMITS OF OVERLAY



DRAFT



ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com

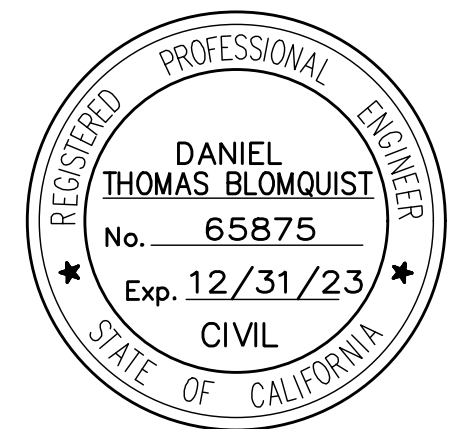


701 University Ave., Suite 200  
Sacramento, Ca 95762  
(916)381-9100  
markthomas.com

**BOLINAS  
LAGOON WYE  
WETLANDS  
PROJECT  
BOLINAS,  
CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022	60% DESIGN	
7/8/2020	30% DESIGN	
3/20/2020	CONCEPT PLAN	

Date Issues And Revisions No.

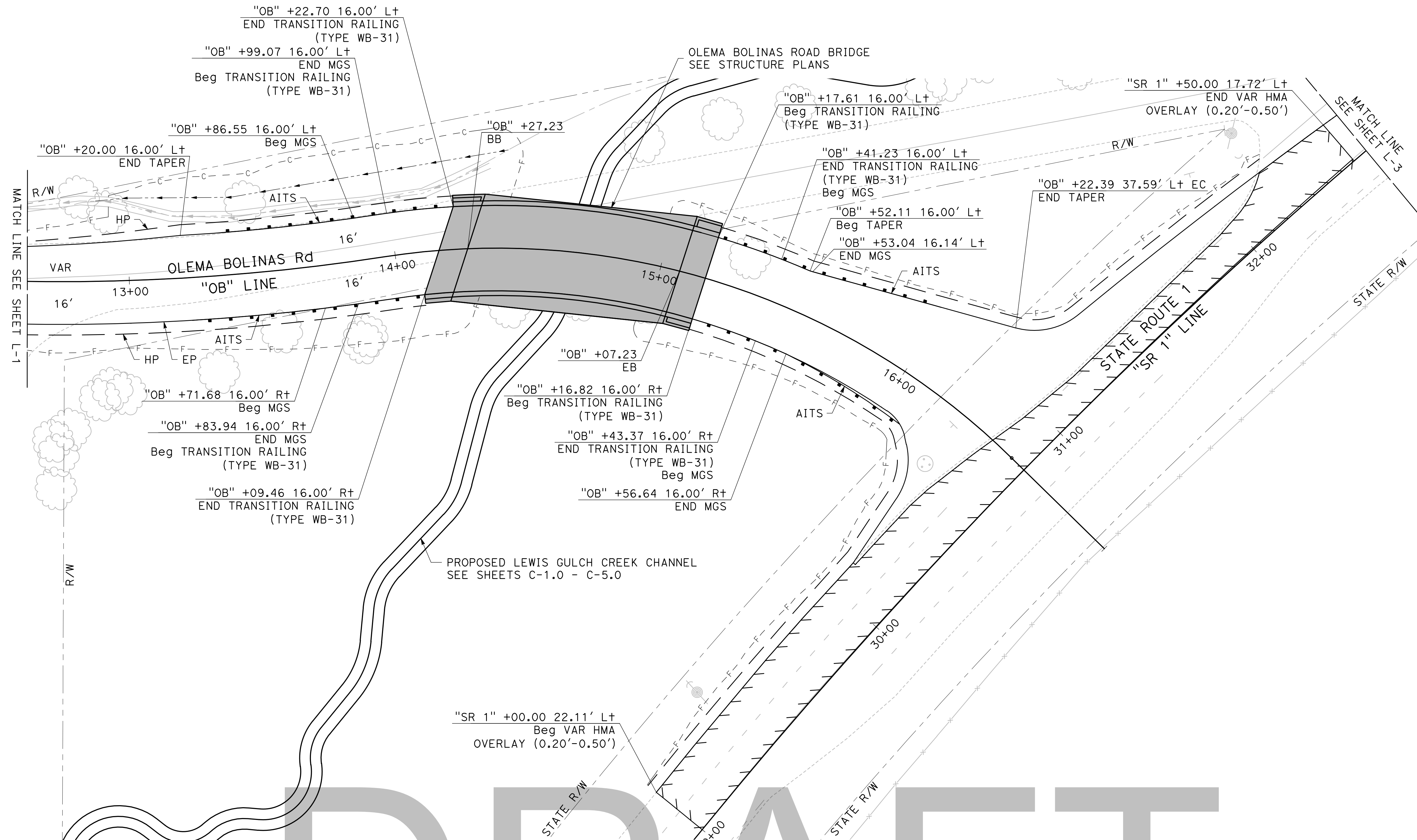
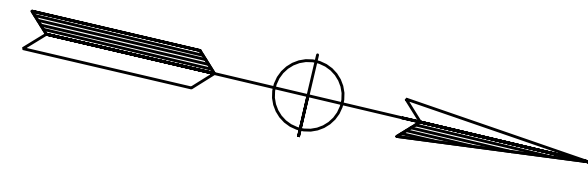
PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND  
BRIDGE LAYOUT**

Sheet

L-1

SCALE: 1"=20'  
7 OF XX



DRAFT

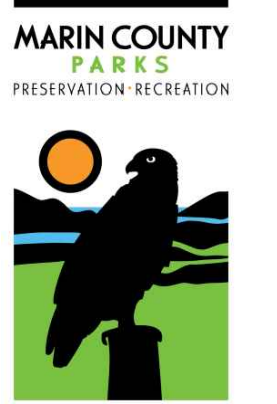


ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

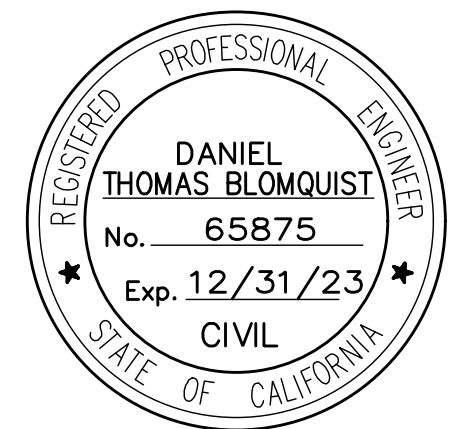


701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022	60% DESIGN
7/8/2020	30% DESIGN
3/20/2020	CONCEPT PLAN

Date	Issues And Revisions	No.

PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND BRIDGE LAYOUT**

Sheet

L-2

SCALE: 1"=20'  
 8 OF XX



ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

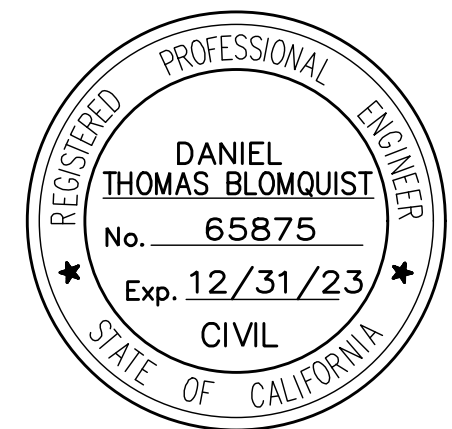


701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
1/28/2022	60% DESIGN	
7/8/2020	30% DESIGN	
3/20/2020	CONCEPT PLAN	

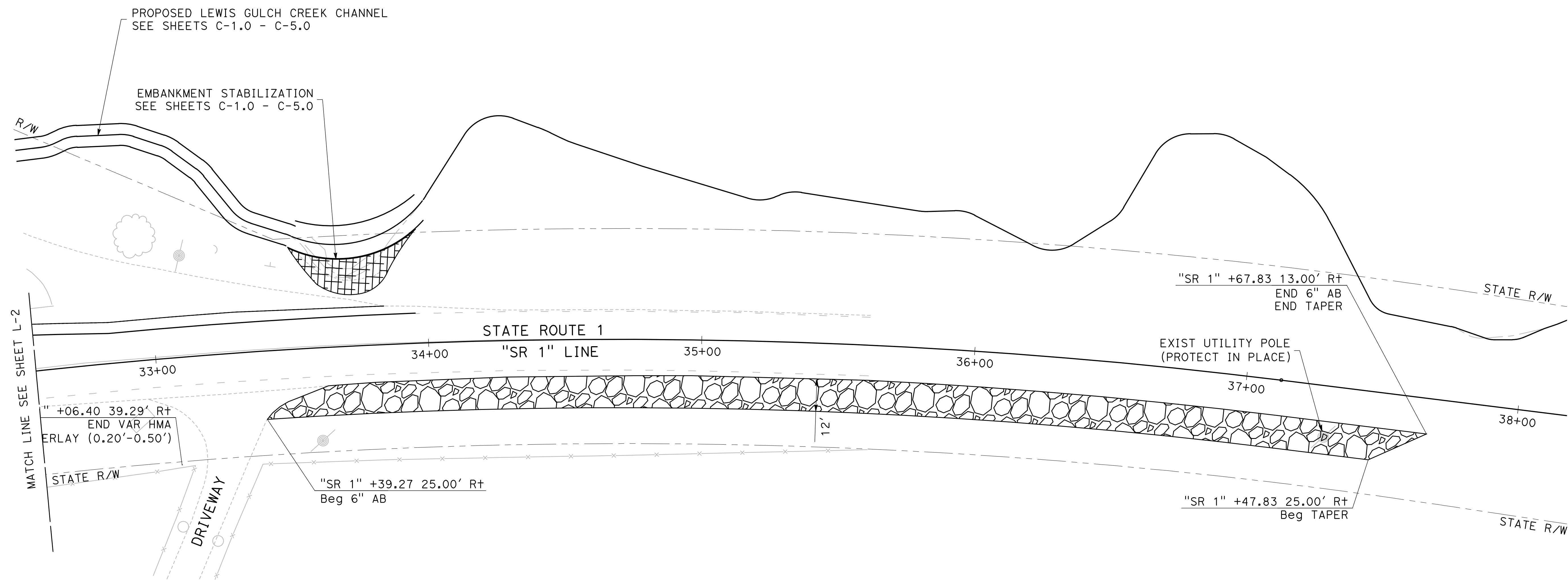
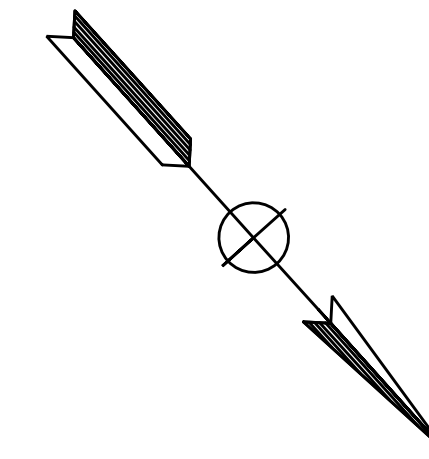
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND BRIDGE LAYOUT**

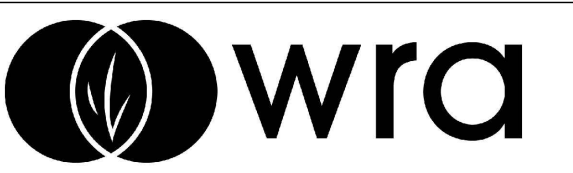
Sheet

**L - 3**

SCALE: 1"=20'  
 9 OF XX



**DRAFT**



ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

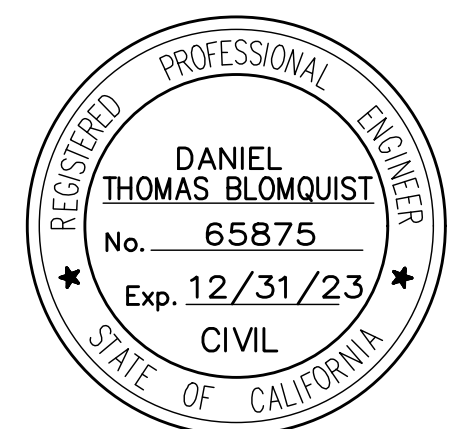


701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

# BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
 7/8/2020 30% DESIGN  
 3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

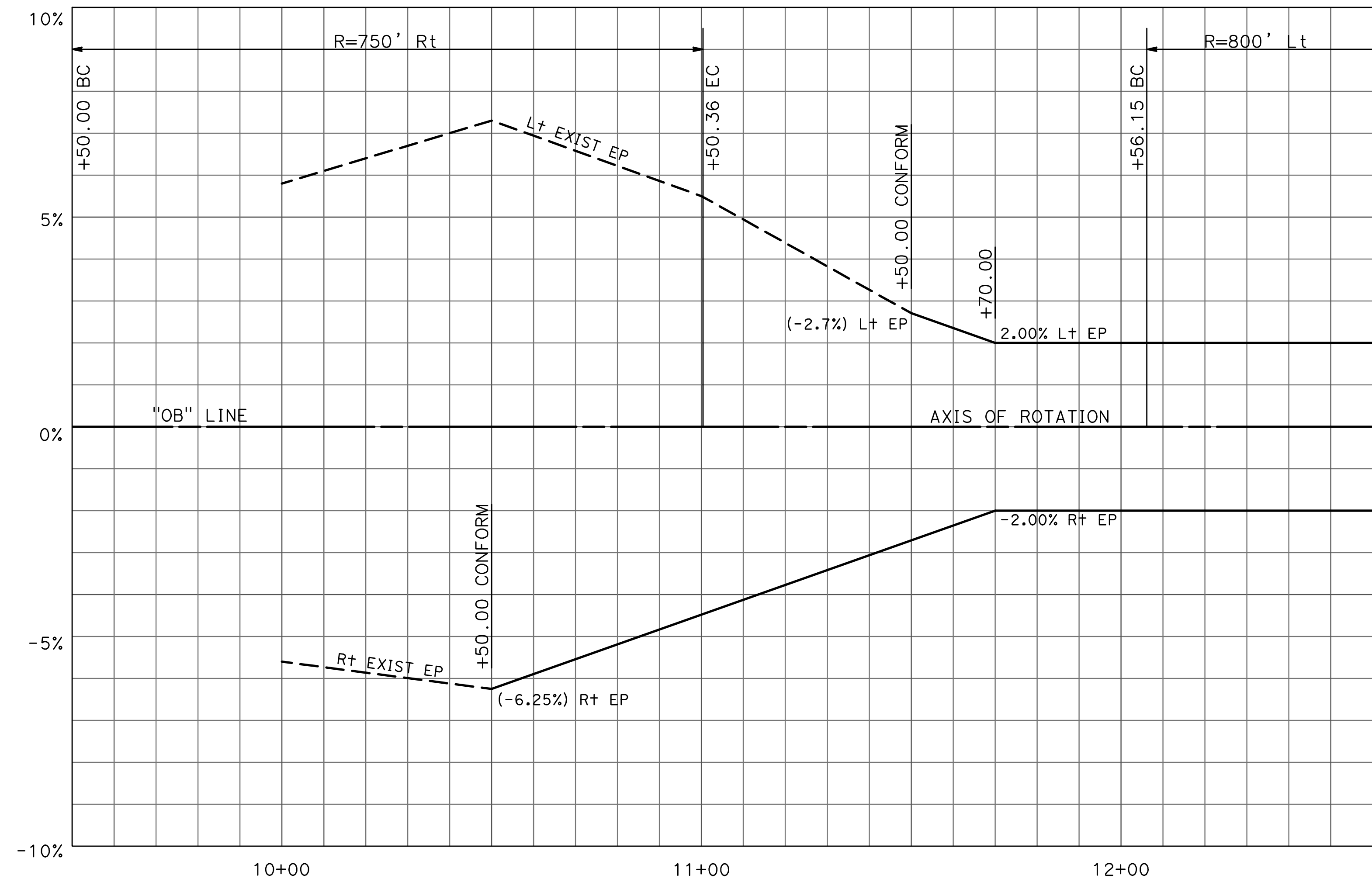
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

## ROADWAY AND BRIDGE PROFILE

Sheet

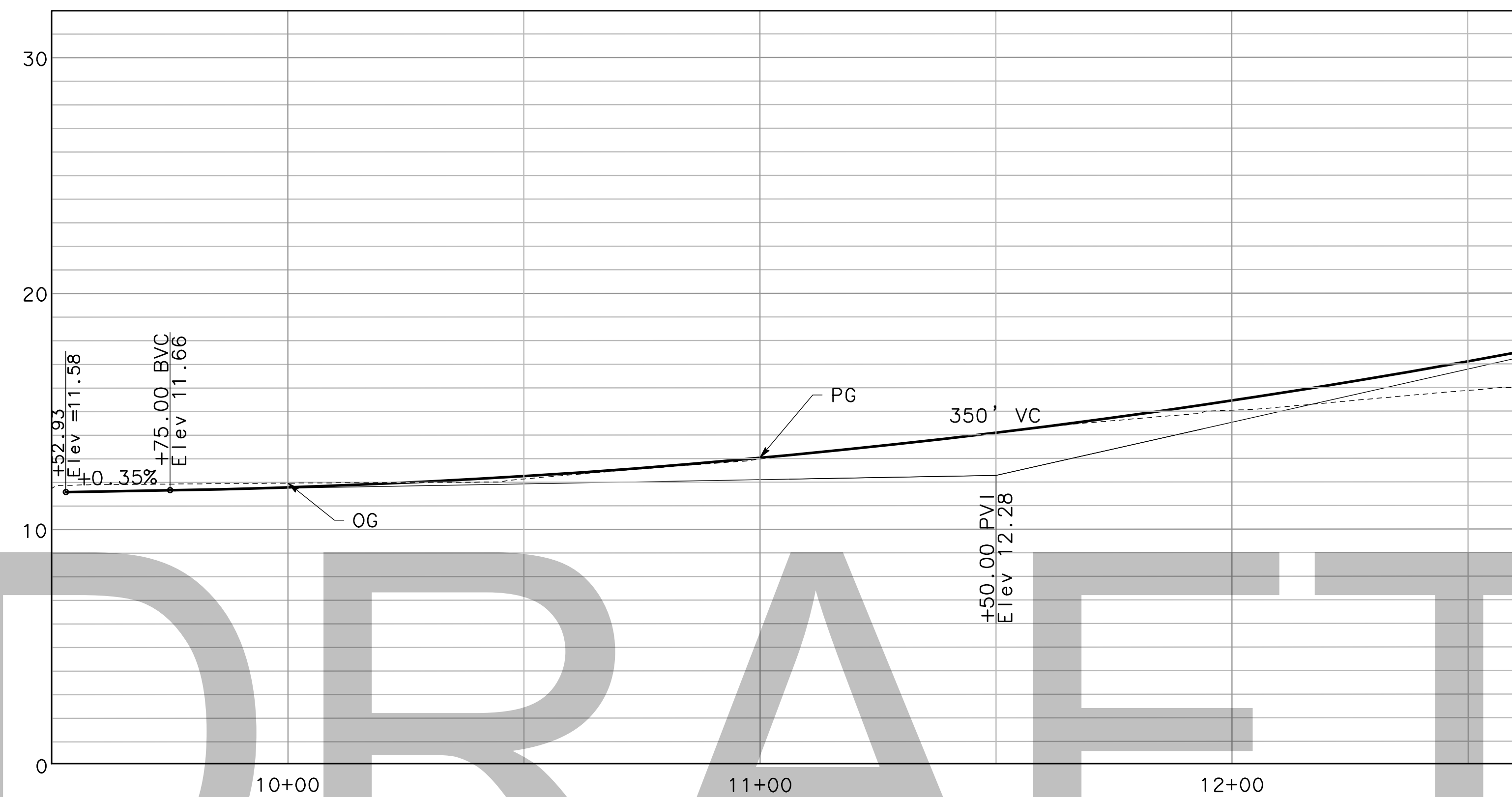
# PS-1

SCALE: 1"=20'  
 10 OF XX



### SUPERELEVATION DIAGRAM

SCALE: HORIZ 1"=20'



### PROFILE "OB" LINE

SCALE: HORIZ 1"=20'  
 VERT 1"=4'

DRAFT



ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

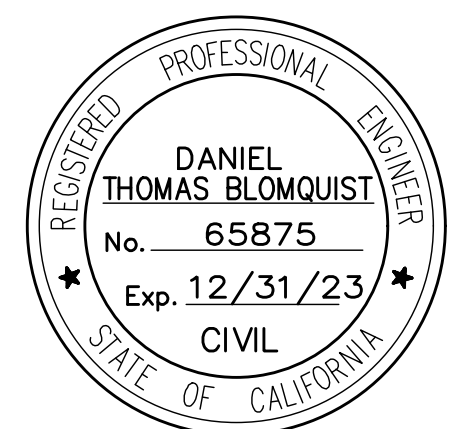


701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

# BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
 7/8/2020 30% DESIGN  
 3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

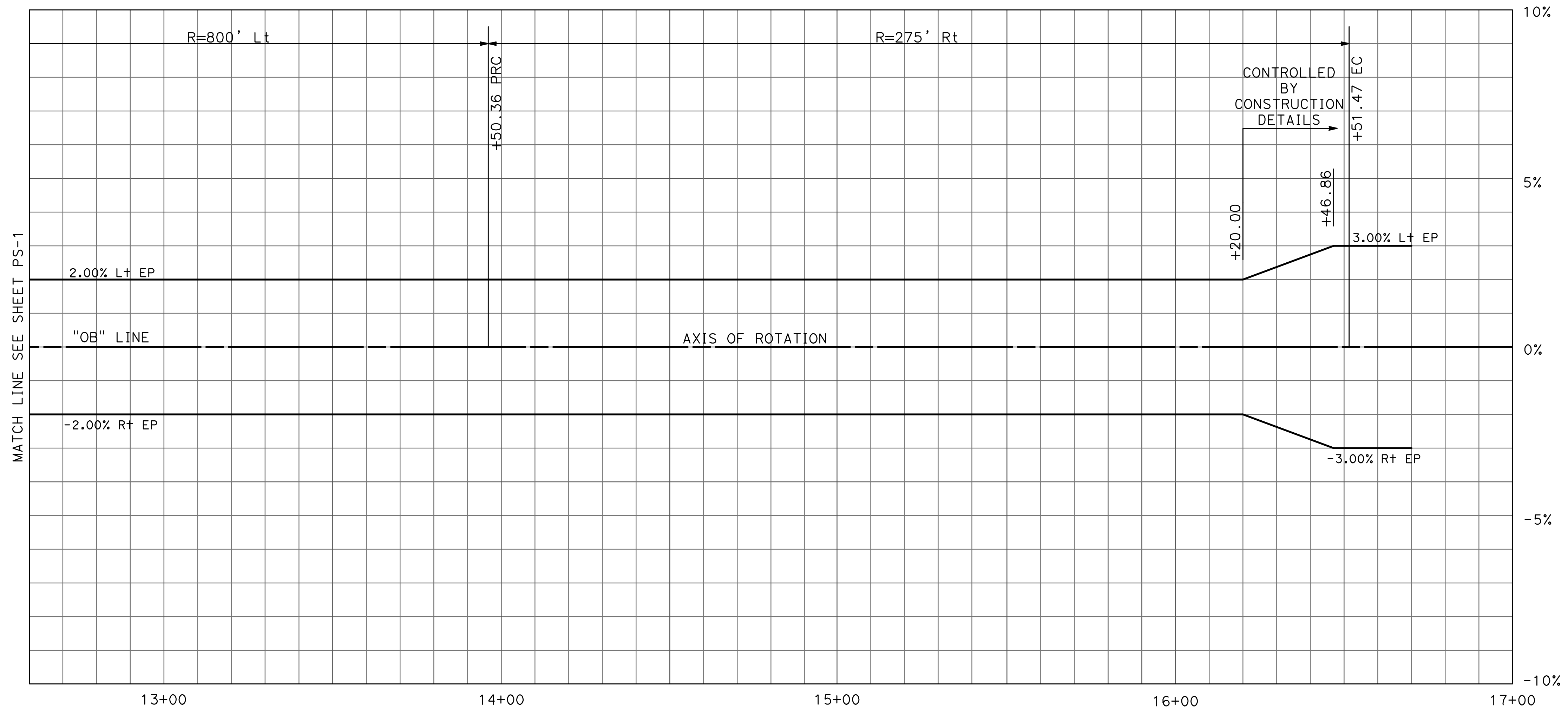
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

## ROADWAY AND BRIDGE PROFILE

Sheet

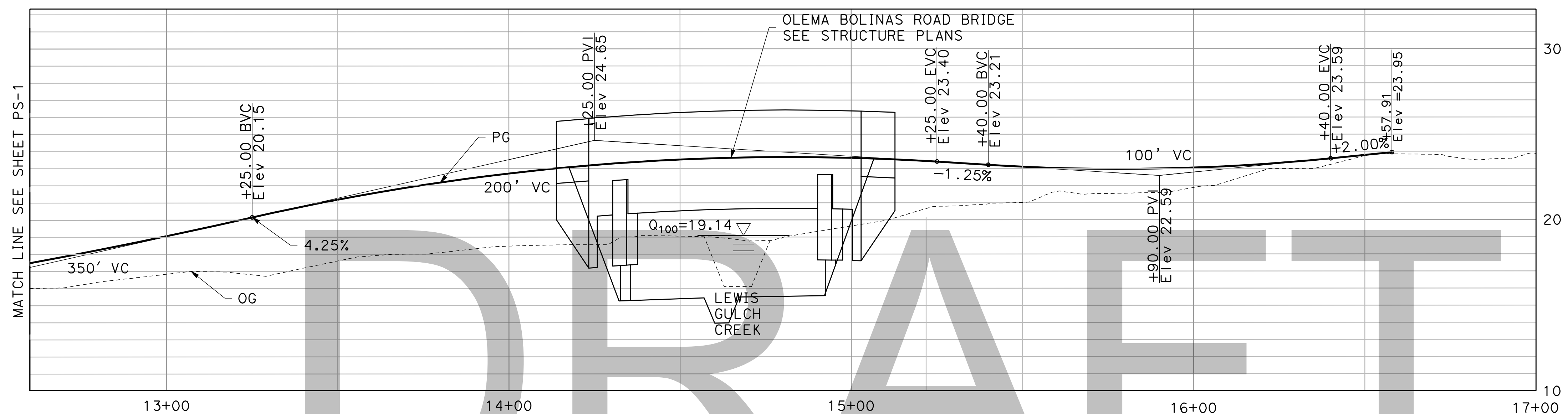
# PS-2

SCALE: 1"=20'  
 11 OF XX



### SUPERELEVATION DIAGRAM

SCALE: HORIZ 1"=20'



### PROFILE "OB" LINE

SCALE: HORIZ 1"=20'  
 VERT 1"=4'

DRAFT

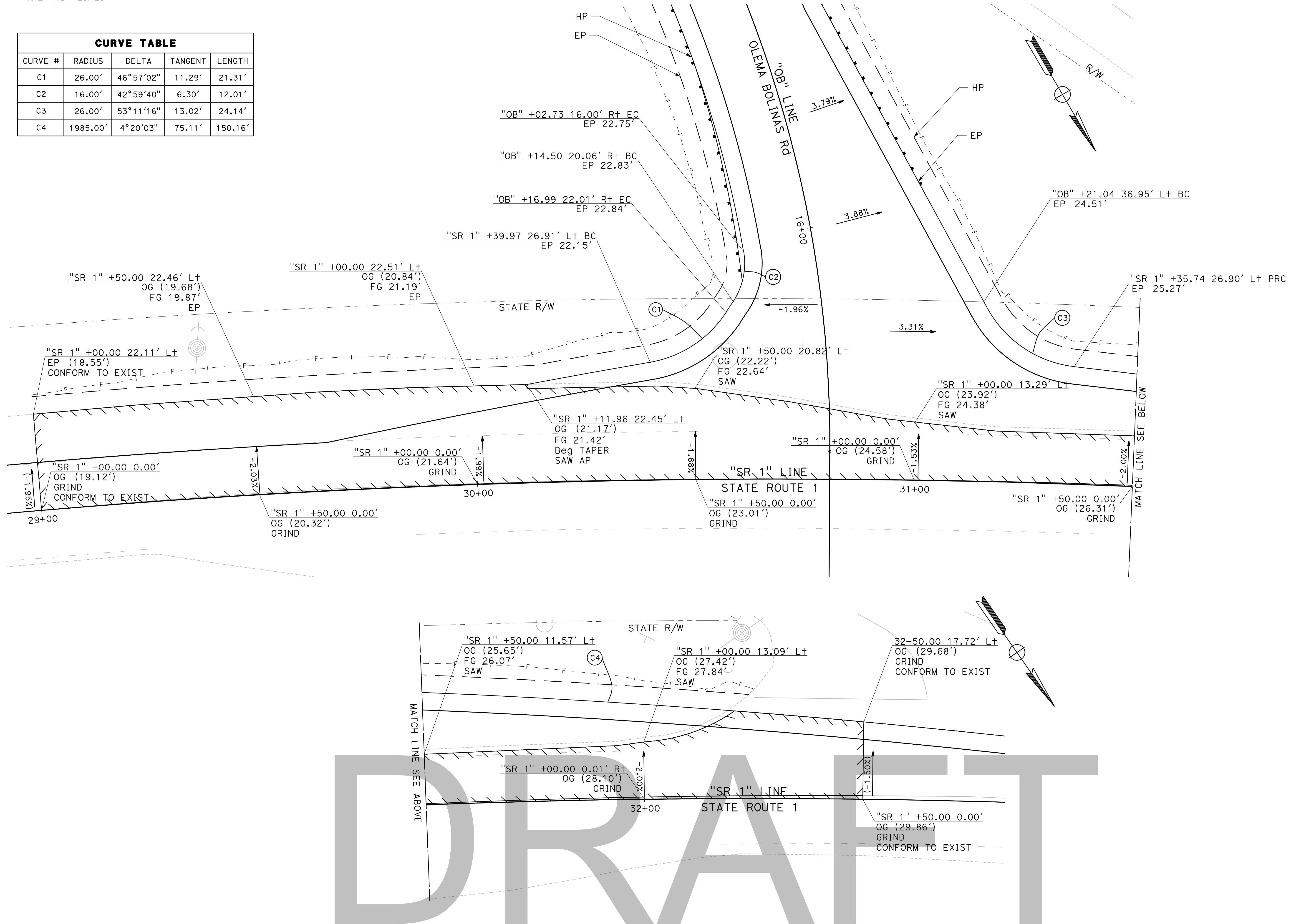
NOTES (SHEETS C1-C2):

1. ALL STATION CALLOUTS ON THIS SHEET REFERENCE THE "OB" LINE.

LEGEND (SHEETS C1-C2):



CURVE TABLE				
CURVE #	RADIUS	DELTA	TANGENT	LENGTH
C1	26.00'	46°57'02"	11.29'	21.31'
C2	16.00'	42°59'40"	6.30'	12.01'
C3	26.00'	53°11'16"	13.02'	24.14'
C4	1985.00'	4°20'03"	75.11'	150.16'



DRAFT



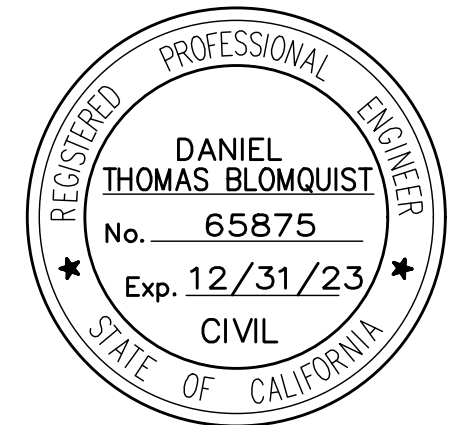
ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com



**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



Date	Issues And Revisions	No.
1/28/2022	60% DESIGN	
7/8/2020	30% DESIGN	
3/20/2020	CONCEPT PLAN	

PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND BRIDGE CONSTRUCTION DETAILS**

Sheet

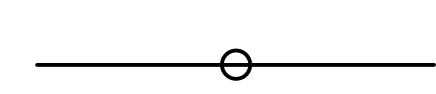
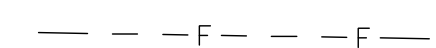






**C-1**

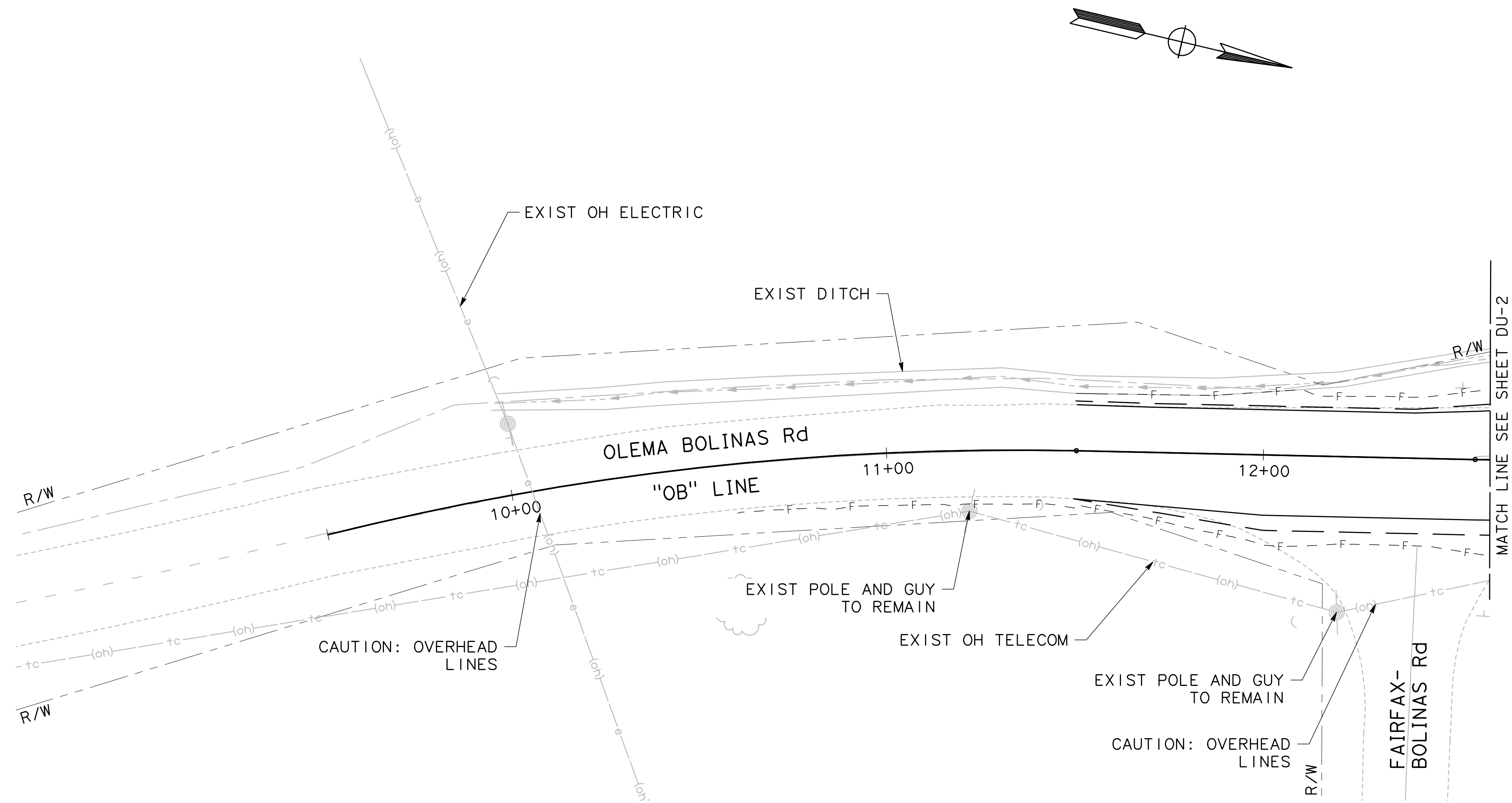
SCALE: 1"=10'  
12 OF XX

**NOTE:**

1. ALL FACILITIES TO BE ADJUSTED TO GRADE WILL BE ADJUSTED BY THE RESPECTIVE UTILITY COMPANY. ALL UTILITY MARKERS WILL BE RELOCATED BY RESPECTIVE UTILITY COMPANY, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE TO PROVIDE ALL LABOR AND EQUIPMENT NECESSARY TO LOCATE EXISTING UNDERGROUND FACILITIES BEYOND THE INFORMATION PROVIDED BY THE U.S.A. MARKINGS AND POTHOLE INFORMATION INCLUDING, BUT NOT LIMITED TO, METAL DETECTORS WIRE LOCATING EQUIPMENT, AND ADDITIONAL POTHOLING.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE SUBSURFACE CONDITIONS AND ANY OTHER EXISTING UNDERGROUND UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONTACT U.S.A. AND HAVE UTILITIES MARKED AT LEAST 48 HOURS BEFORE BEGINNING WORK. WHERE MARKINGS ARE NEAR PROPOSED UTILITIES, IMPROVEMENTS OR FOUNDATIONS AND WHERE A POTHOLE HAS NOT ALREADY BEEN COMPLETED, THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES BY POTHOLING PRIOR TO EXCAVATING.

**LEGEND:**

-  LEWIS GULCH CREEK
-  LIMIT OF FILL
-  DITCH FLOW LINE
-  CULVERT
-  FLARED END SECTION (FES)
-  EXISTING UNDERGROUND TELECOM (AT&T)
-  EXISTING OH TELECOM (AT&T)
-  EXISTING OH ELECTRIC (PG&E)



DRAFT



ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com

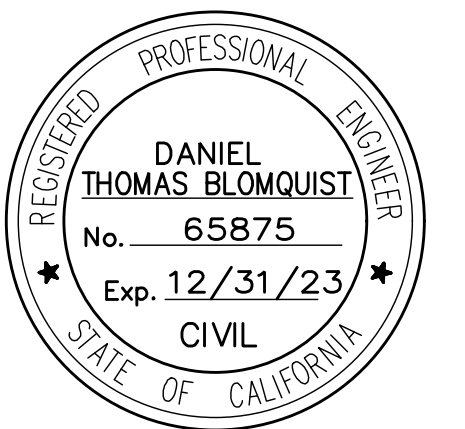


701 University Ave., Suite 200  
Sacramento, Ca 95762  
(916)381-9100  
markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
7/8/2020 30% DESIGN  
3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

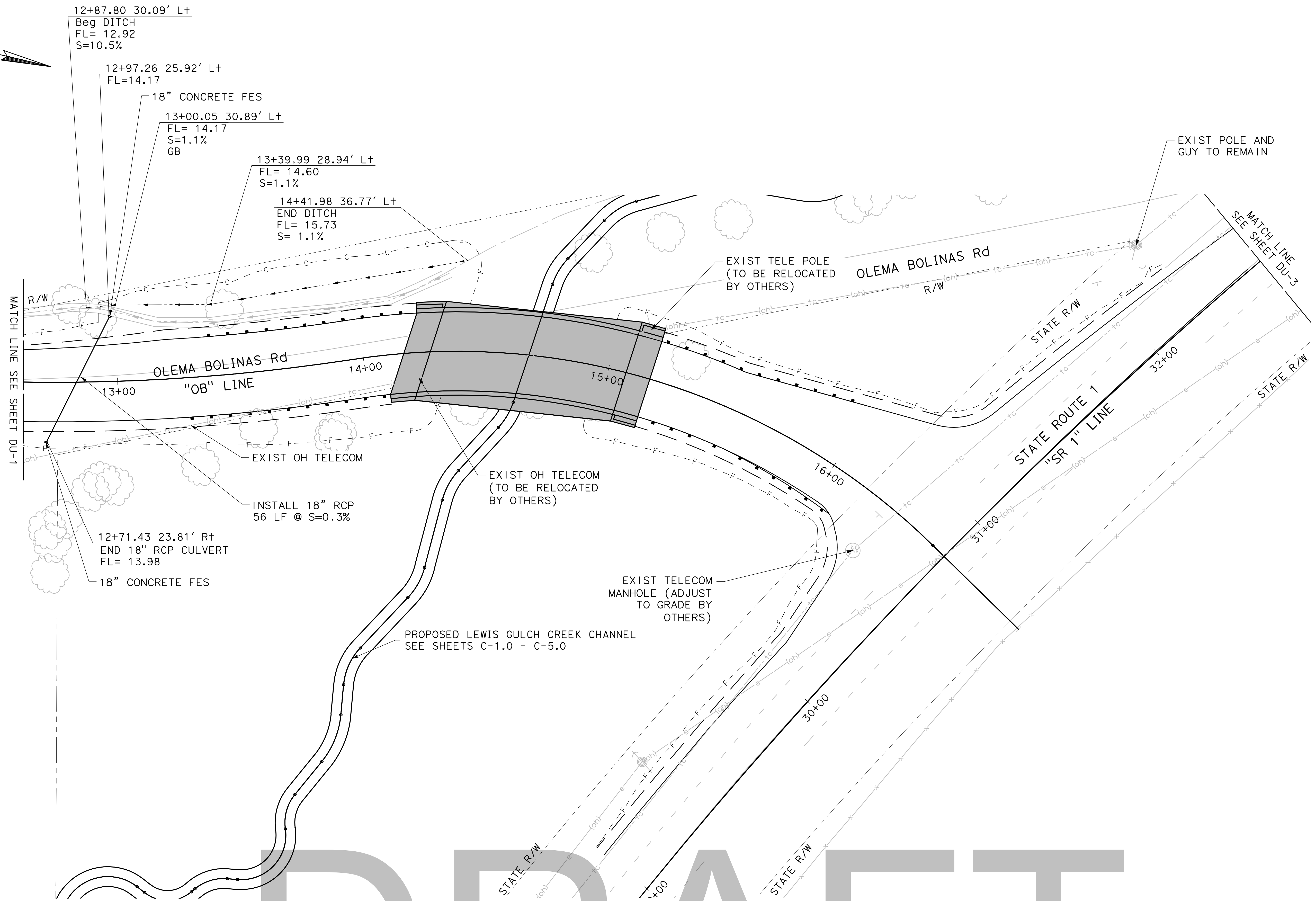
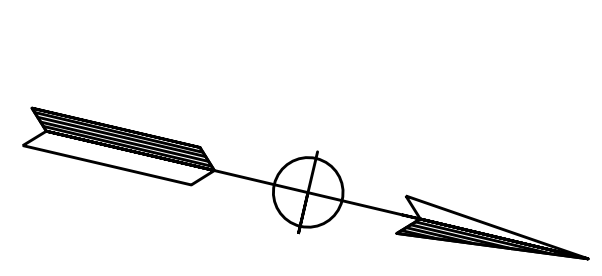
PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**DRAINAGE AND UTILITIES**

Sheet

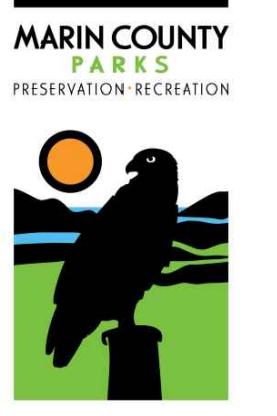
**DU-1**

SCALE: 1"=20'  
13 OF XX

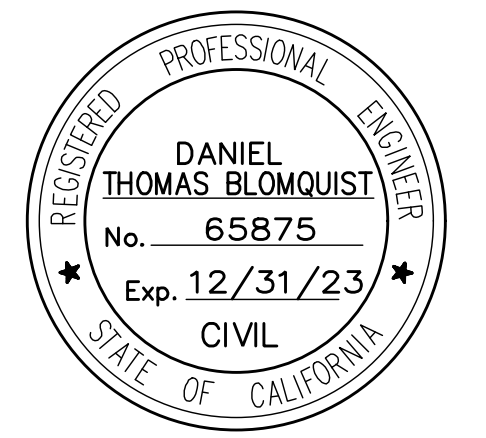


DRAFT

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022	60% DESIGN
7/8/2020	30% DESIGN
3/20/2020	CONCEPT PLAN

Date	Issues And Revisions	No.

PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**DRAINAGE AND UTILITIES**

Sheet  
**DU-2**

SCALE: 1"=20'  
 14 OF XX





ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

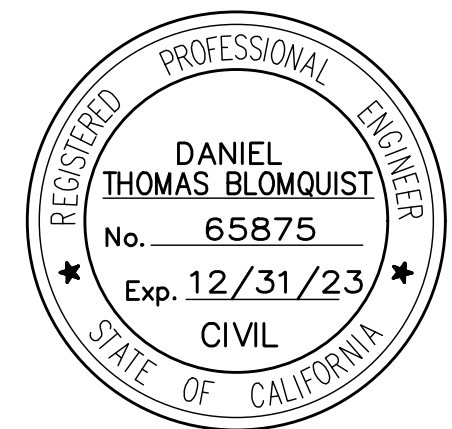


701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022	60% DESIGN
7/8/2020	30% DESIGN
3/20/2020	CONCEPT PLAN

Date	Issues And Revisions	No.
------	----------------------	-----

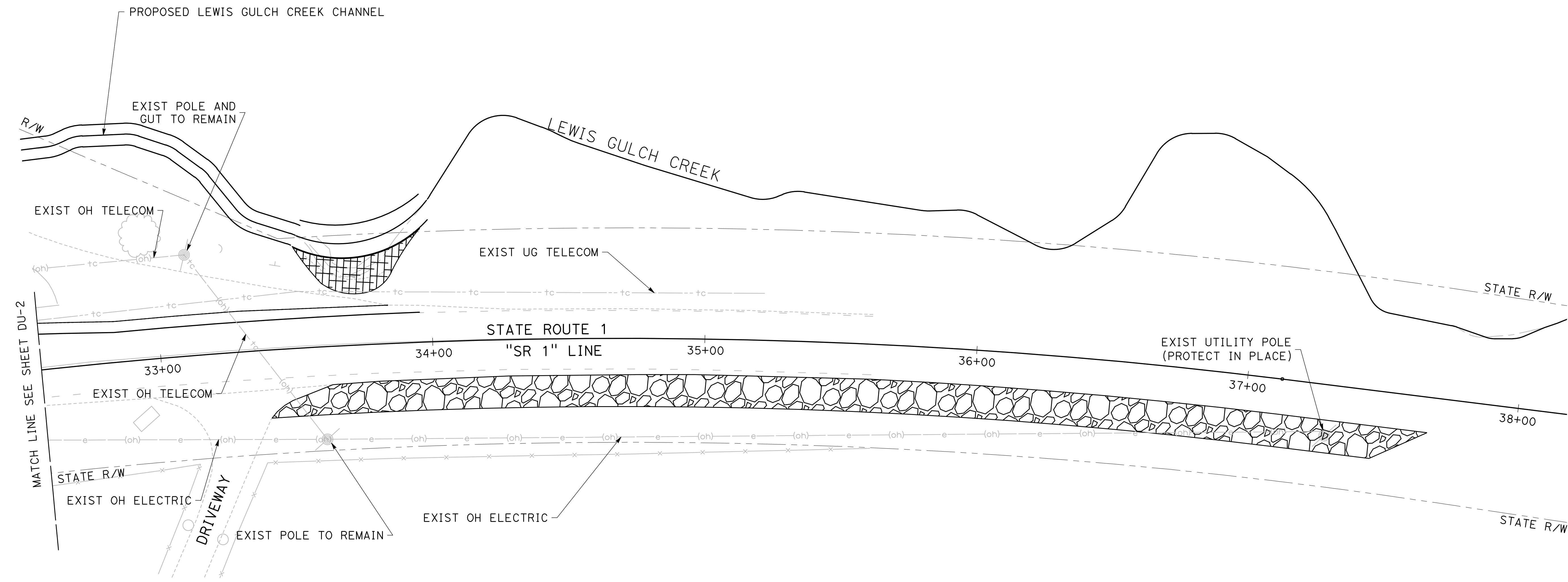
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**DRAINAGE AND UTILITIES**

Sheet

**DU-3**

SCALE: 1"=20'  
 16 OF XX



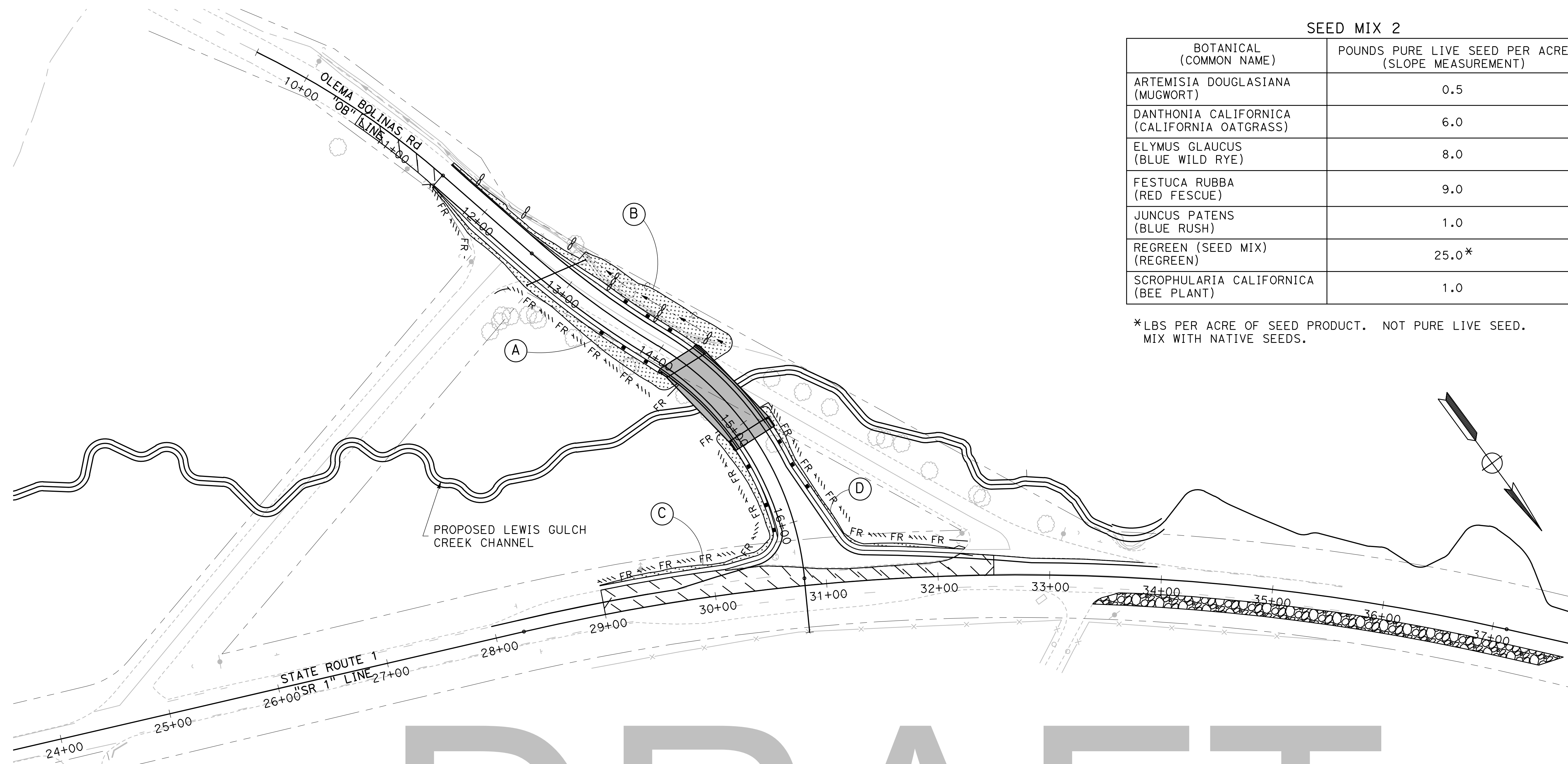
**DRAFT**

**NOTE:**

- PAYMENT FOR ALL WORK SHOWN ON THIS SHEET IS INCLUDED IN WATER POLLUTION CONTROL BID ITEM. EROSION CONTROL PLAN SHOWN IS FOR INFORMATIONAL PURPOSES ONLY.

**LEGEND:**

- FR — FIBER ROLL
- CHECK DAM
- ▨ EROSION CONTROL (TYPE 1)
- ▩ EROSION CONTROL (TYPE 2)
- (A) EROSION CONTROL AREA



**SEED MIX 1**

BOTANICAL (COMMON NAME)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
CAREX OBNUPTA (SLOUGH SEDGE)	2.0
JUNCUS HESPERIUS (COAST RUSH)	1.0
JUNCUS LESCURI (DUNE RUSH)	1.0
PERSICARIA PUNCTATA (SMARTWEED)	TBD
SCIRPUS MICROCARPUS (SMALL-FRUITING BULRUSH)	2.5
OENANTHE SARMENTOSA (WATER PERSLEY)	2.0

**SEED MIX 2**

BOTANICAL (COMMON NAME)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
ARTEMISIA DOUGLASIANA (MUGWORT)	0.5
DANTHONIA CALIFORNICA (CALIFORNIA OATGRASS)	6.0
ELYMUS GLAUCUS (BLUE WILD RYE)	8.0
FESTUCA RUBBA (RED FESCUE)	9.0
JUNCUS PATENS (BLUE RUSH)	1.0
REGREEN (SEED MIX) (REGREEN)	25.0*
SCROPHULARIA CALIFORNICA (BEE PLANT)	1.0

\*LBS PER ACRE OF SEED PRODUCT. NOT PURE LIVE SEED. MIX WITH NATIVE SEEDS.



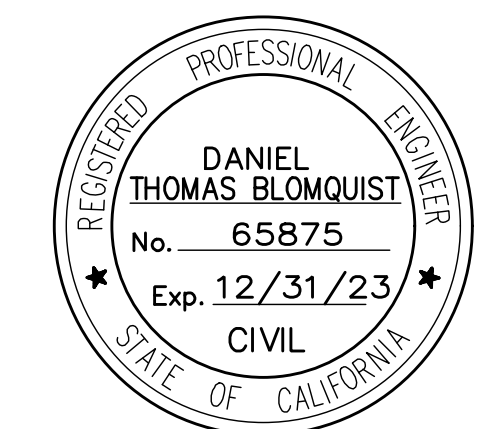
ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com



**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
7/8/2020 30% DESIGN  
3/20/2020 CONCEPT PLAN

Date Issues And Revisions No.

PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**DRAFT**

**EROSION CONTROL**

Sheet  
**EC-1**

SCALE: 1"=40'  
16 OF XX


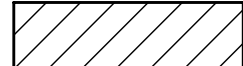
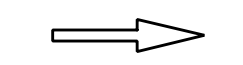

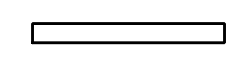





**NOTES:**

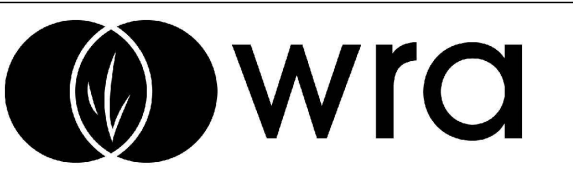
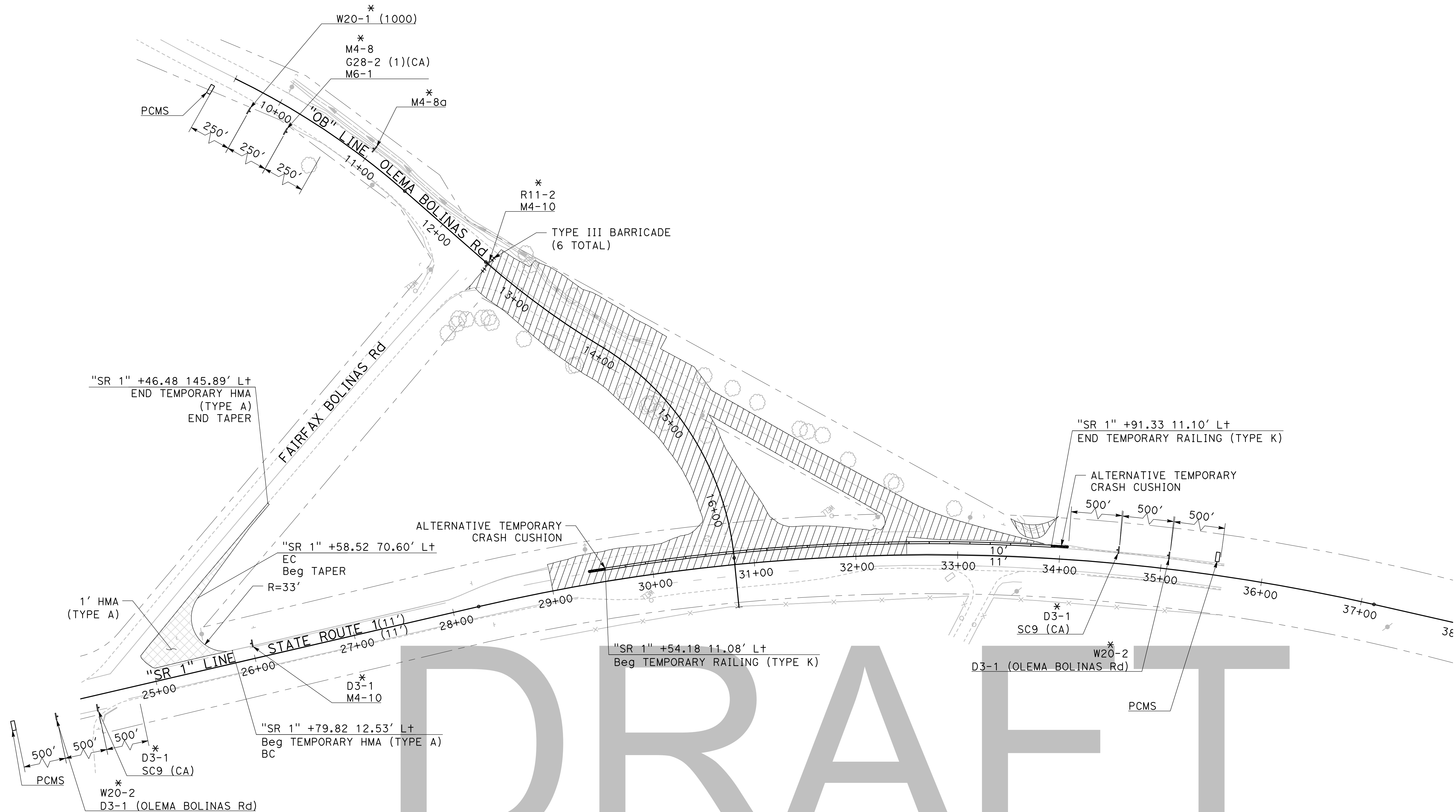
1. FOR ALL UNREFERENCED DETAILS, SEE CALTRANS STANDARD PLANS.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS DURING CONSTRUCTION.
3. PRIOR TO OPENING ROADWAY TO PUBLIC TRAFFIC, ALL EXISTING OR TEMPORARY PAVEMENT DELINEATION IN CONFLICT WITH TRAFFIC HANDLING PLAN MUST BE REMOVED.
4. ALL EXISTING SIGNS IN CONFLICT WITH TRAFFIC HANDLING MUST BE COVERED OR REMOVED UNDER THE DIRECTION OF THE ENGINEER.
5. STAGE CONSTRUCTION PLANS DO NOT SHOW ALL WORK REQUIRED TO BE COMPLETED. WORK NOT NECESSARY FOR TRAFFIC HANDLING MAY BE COMPLETED AT ANY TIME AND IS NOT SHOWN.

**STAGE 1 CONSTRUCTION ACTIVITIES:**

1. CONSTRUCT TEMPORARY PAVING UNDER TRAFFIC CONTROL.
2. ERECT CONSTRUCTION AREA SIGNS, TEMPORARY RAILING, AND ALTERNATIVE TEMPORARY CRASH CUSHIONS.
3. CONSTRUCT OLEMA BOLINAS ROAD BRIDGE.
4. CONSTRUCT BANK STABILIZATION.

**LEGEND:**

-  Temp PAVEMENT
-  CONSTRUCTION THIS STAGE
-  DIRECTION OF TRAVEL
-  CHANNELIZER (SURFACE MOUNTED)
-  Temp RAILING (TYPE K)
-  Temp CRASH CUSHION MODULE (ARRAY TS14)
-  Temp ALTERNATIVE CRASH CUSHION (NON-GATING)
-  TYPE III BARRICADE
-  CONSTRUCTION SIGN TO BE INSTALLED
-  PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)



ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com

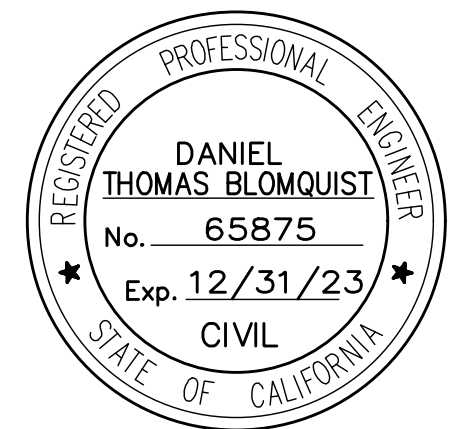


701 University Ave., Suite 200  
Sacramento, Ca 95762  
(916)381-9100  
markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022	60% DESIGN	
7/8/2020	30% DESIGN	
3/20/2020	CONCEPT PLAN	

Date Issues And Revisions No.

PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND BRIDGE STAGE CONSTRUCTION**

Sheet  
**TH-1**

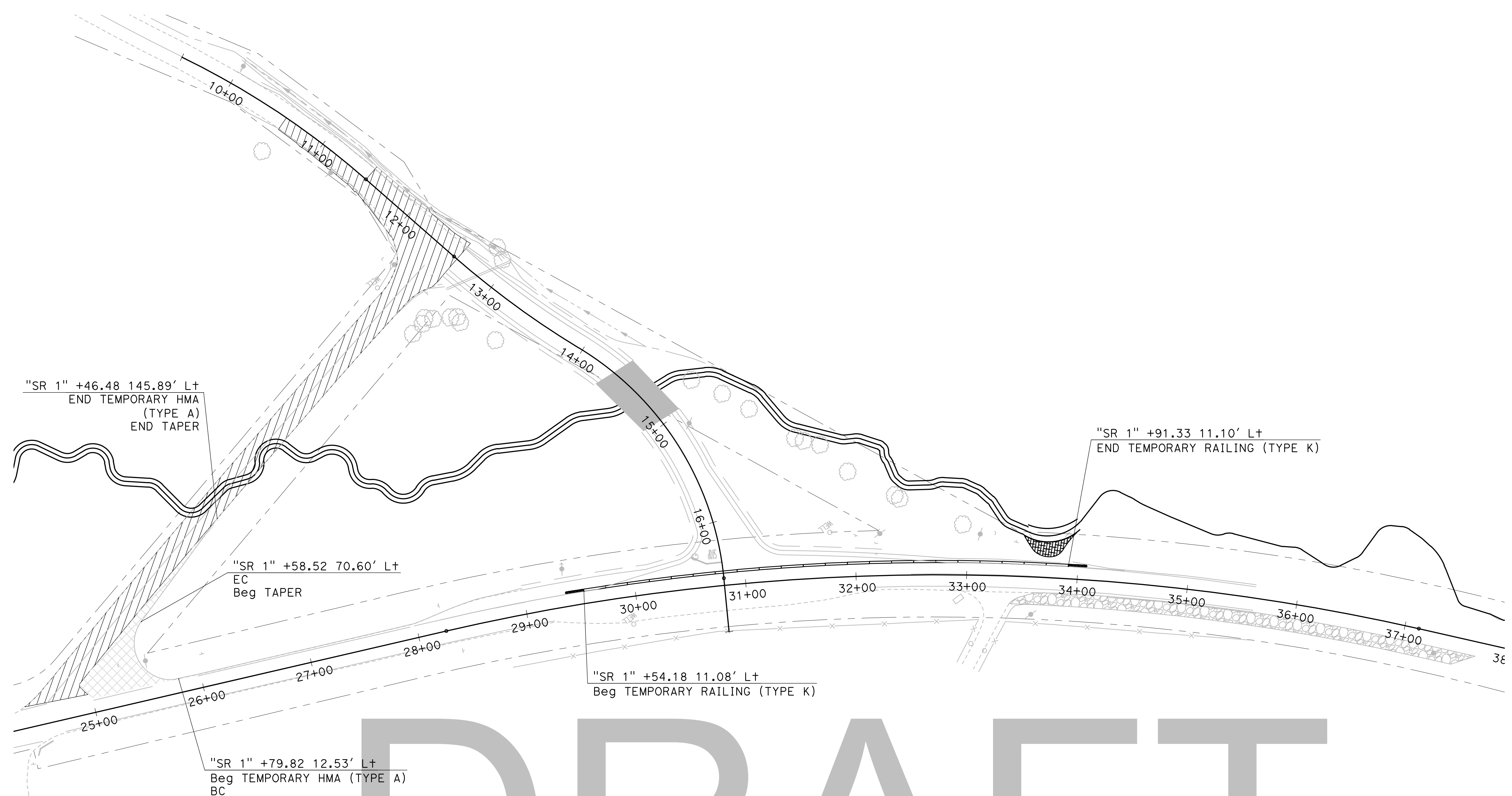
SCALE: 1"=50'  
17 OF XX

**STAGE 2 CONSTRUCTION ACTIVITIES:**

1. REMOVE EXISTING FAIRFAX BOLINAS ROAD.
2. CONSTRUCT FINAL PAVING ON OLEMA BOLINAS ROAD UNDER TRAFFIC CONTROL.
3. COMPLETE SR 1 COLD PLANE AND HMA PAVING UNDER TRAFFIC CONTROL.
4. INSTALL SIGNING AND STRIPING.

**LEGEND:**

 CONSTRUCTION THIS STAGE



DRAFT



ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com

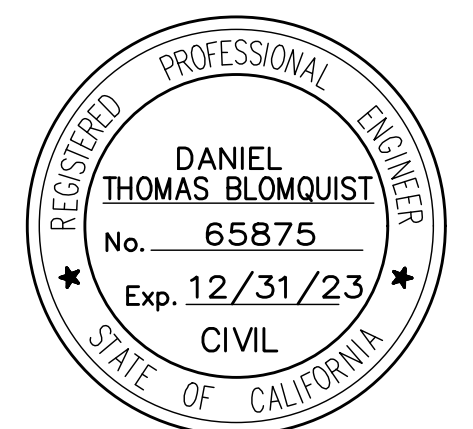


701 University Ave., Suite 200  
Sacramento, Ca 95762  
(916)381-9100  
markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
7/8/2020 30% DESIGN  
3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**ROADWAY AND BRIDGE STAGE CONSTRUCTION**

Sheet

**TH-2**

SCALE: 1"=50'  
18 OF XX

**NOTES:**

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS SHALL BE DETERMINED BY THE ENGINEER.
2. FEDERAL SIGN CODES ARE SHOWN UNLESS DESIGNATED BY <CA> WHICH INDICATES A CALIFORNIA SIGN CODE.
3. ALL PANELS SHALL BE CONTRACTOR FURNISHED.
4. ALL STRIPES AND PAVEMENT MARKINGS MUST BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
5. CONTRACTOR MUST REMOVE ANY EXISTING CONFLICTING STRIPING, PAVEMENT MARKERS, MARKINGS AND DELINEATORS.

**LEGEND (PAVEMENT DELINEATION)**

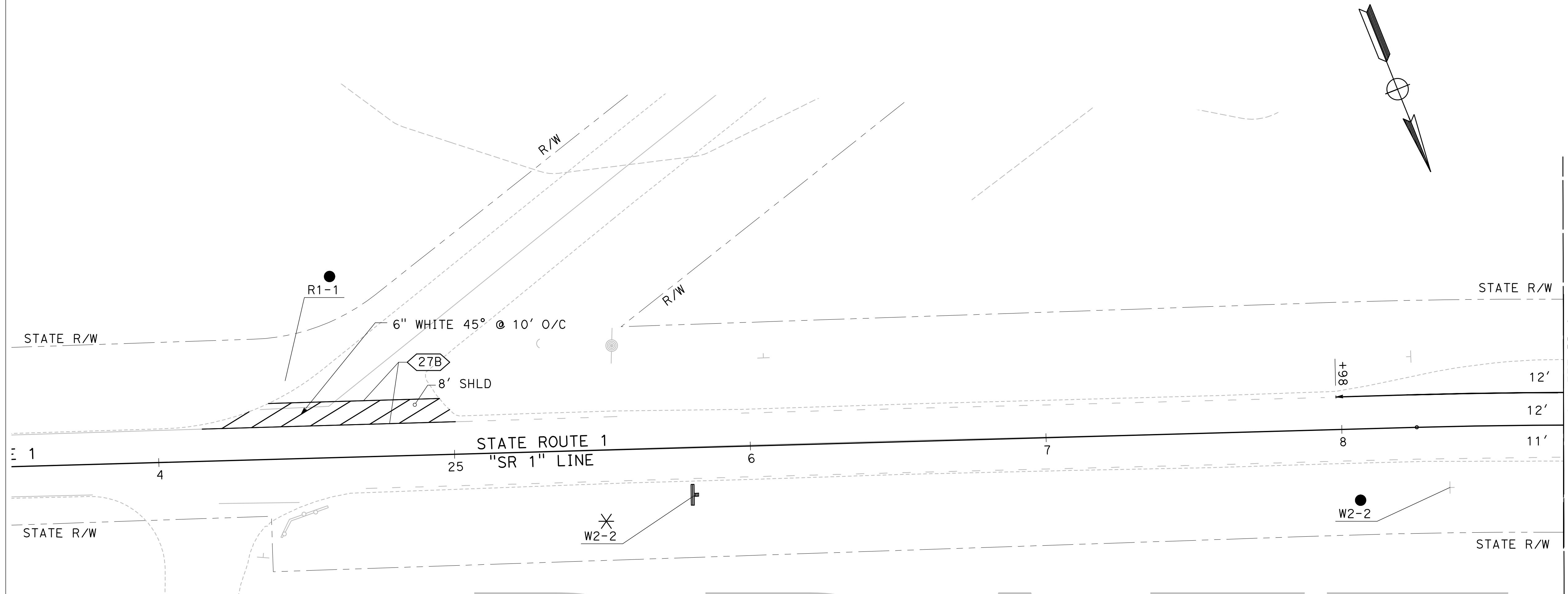
- LIMIT OF STRIPING PATTERN
- DELINEATOR OR OBJECT MARKER
- ◻ NO. PAVEMENT DELINEATION DETAIL
- ◻ LL LIMIT LINE
- STOP "STOP" PAVEMENT MARKING
- AHEAD "AHEAD" PAVEMENT MARKING

**ABBREVIATIONS:**

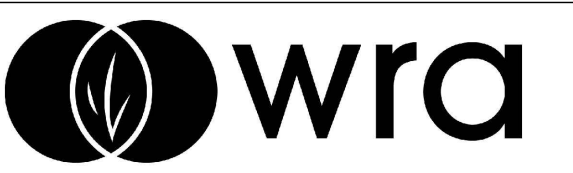
CFM CONFORM

**LEGEND (SIGNING)**

- ✕ INSTALL ROADSIDE SIGN
- REMOVE ROADSIDE SIGN
- RELOCATE ROADSIDE SIGN
- ROADSIDE SIGN TO REMAIN
- <CA> CALIFORNIA SIGN CODE
- † ROADSIDE SIGN 1 POST
- † EXISTING ROADSIDE SIGN 1 POST



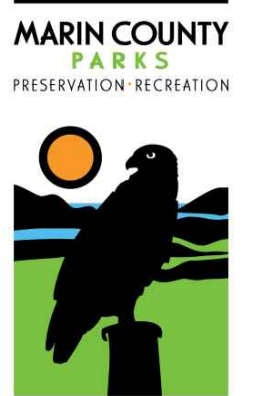
DRAFT



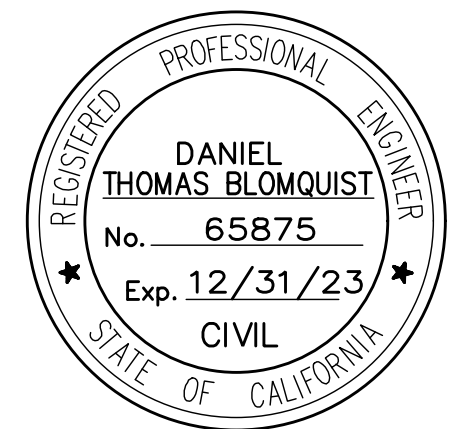
ENVIRONMENTAL CONSULTANTS  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
(415) 454-8868 Phone  
info@wra-ca.com



**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022	60% DESIGN
7/8/2020	30% DESIGN
3/20/2020	CONCEPT PLAN

Date	Issues And Revisions	No.
------	----------------------	-----

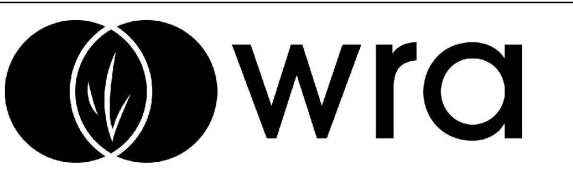
PROJECT #29244  
DRAWN BY: KD  
CHECKED BY: JW  
ORIGINAL DRAWING SIZE: 24 X 36

**PAVEMENT DELINEATION AND SIGNS**

Sheet

**PD-1**

SCALE: 1"=20'  
19 OF XX



ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

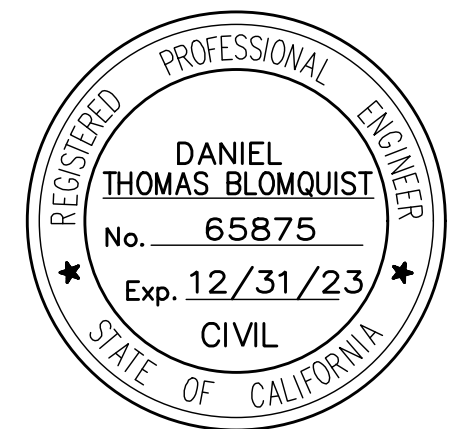


701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
 7/8/2020 30% DESIGN  
 3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

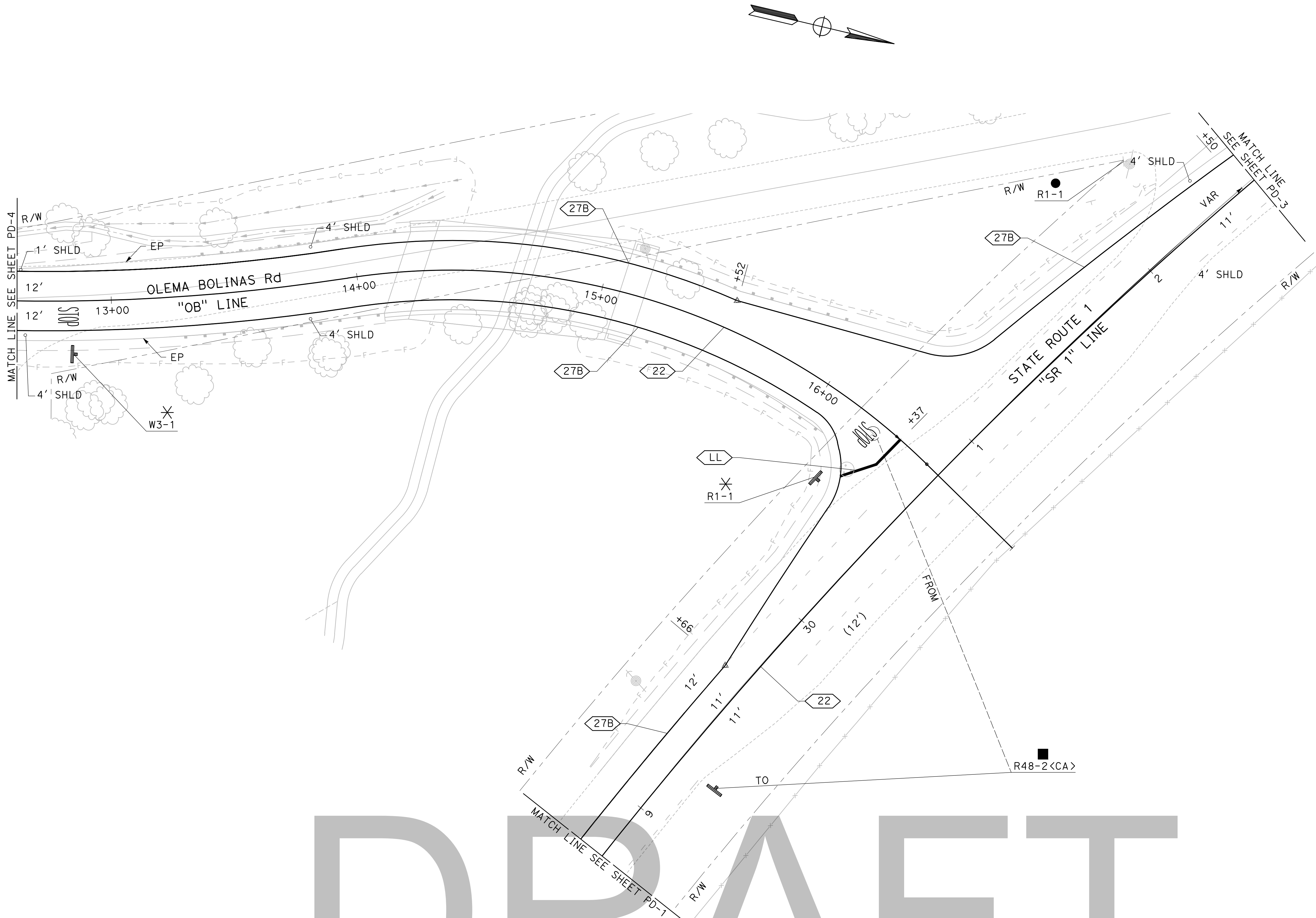
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**PAVEMENT DELINEATION AND SIGNS**

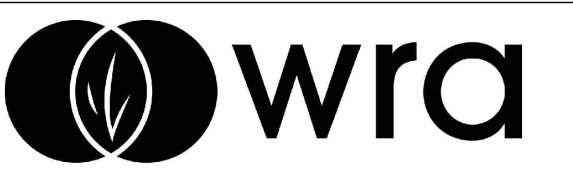
Sheet

**PD-2**

SCALE: 1"=20'  
 20 OF XX



**DRAFT**



ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

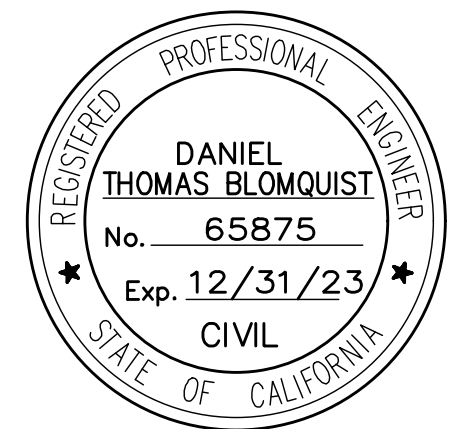
**MARK THOMAS**  
 701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**

MARIN COUNTY  
 PARKS  
 PRESERVATION-RECREATION



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
 7/8/2020 30% DESIGN  
 3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

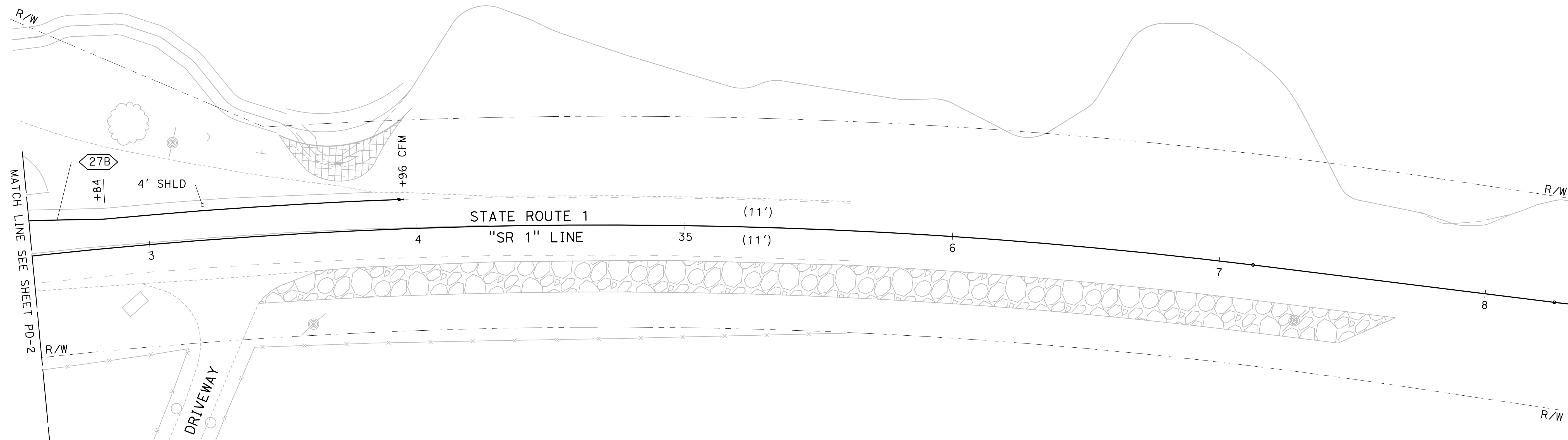
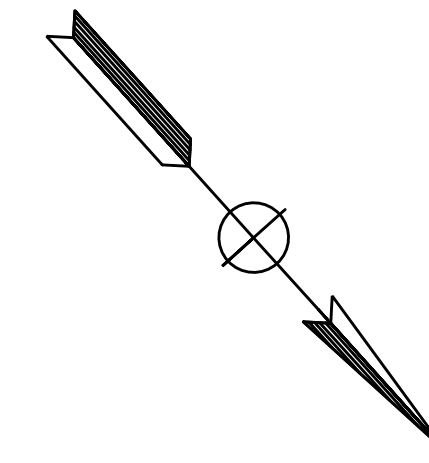
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**PAVEMENT DELINEATION AND SIGNS**

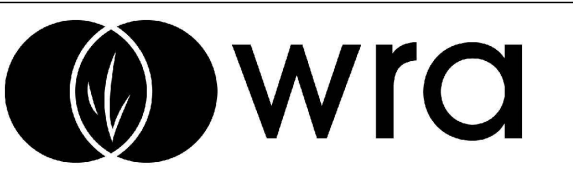
Sheet

**PD - 3**

SCALE: 1"=20'  
 21 OF XX



**DRAFT**



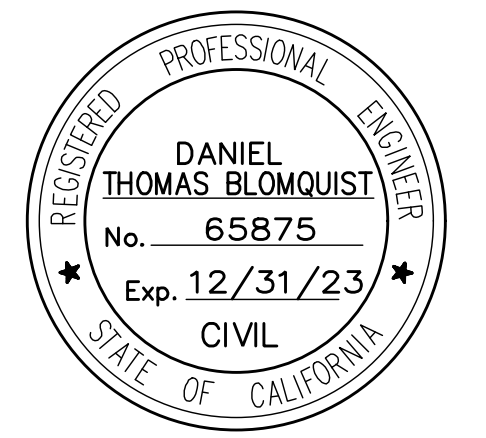
ENVIRONMENTAL CONSULTANTS  
 2169-G East Francisco Blvd.  
 San Rafael, CA 94901  
 (415) 454-8868 Phone  
 info@wra-ca.com

**MARK THOMAS**  
 701 University Ave., Suite 200  
 Sacramento, Ca 95762  
 (916)381-9100  
 markthomas.com

**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



1/28/2022 60% DESIGN  
 7/8/2020 30% DESIGN  
 3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

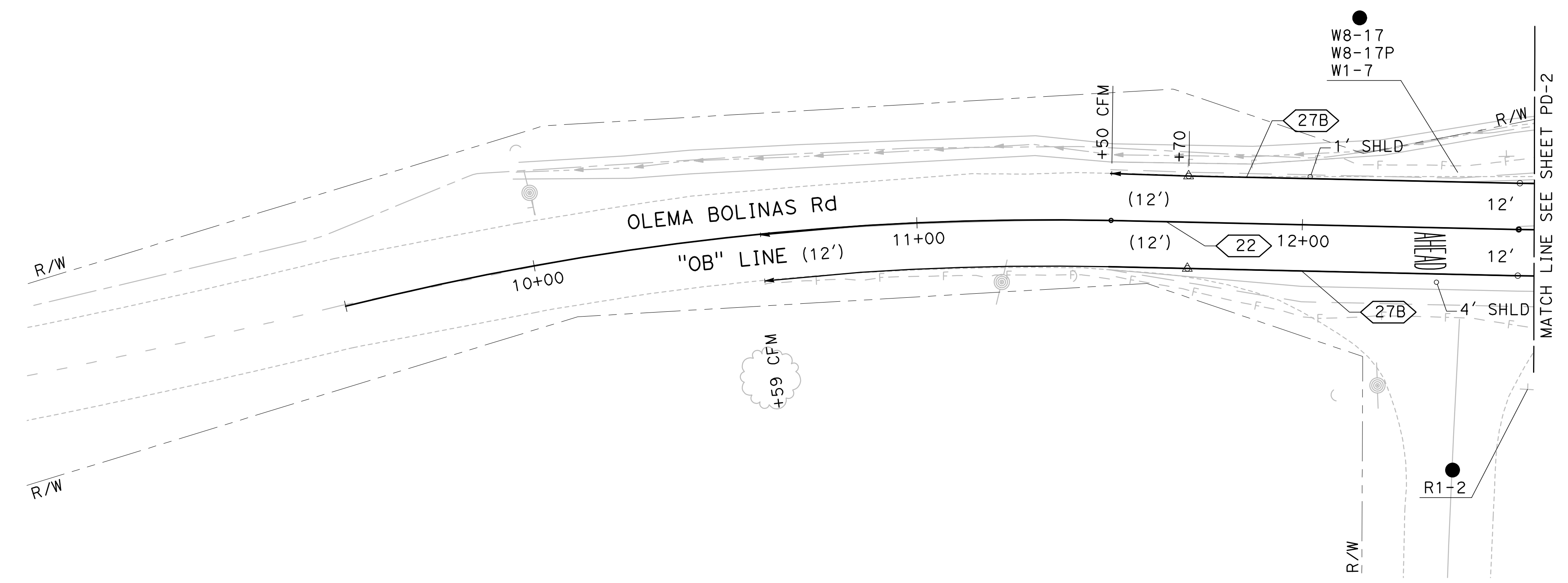
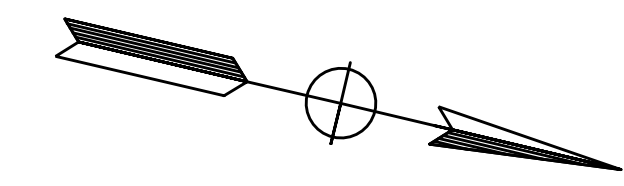
PROJECT #29244  
 DRAWN BY: KD  
 CHECKED BY: JW  
 ORIGINAL DRAWING SIZE: 24 X 36

**PAVEMENT DELINEATION AND SIGNS**

Sheet

**PD-4**

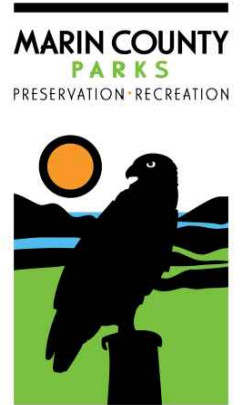
SCALE: 1"=20'  
 22 OF XX



**DRAFT**



**BOLINAS LAGOON WYE WETLANDS PROJECT BOLINAS, CALIFORNIA**



NOT FOR CONSTRUCTION



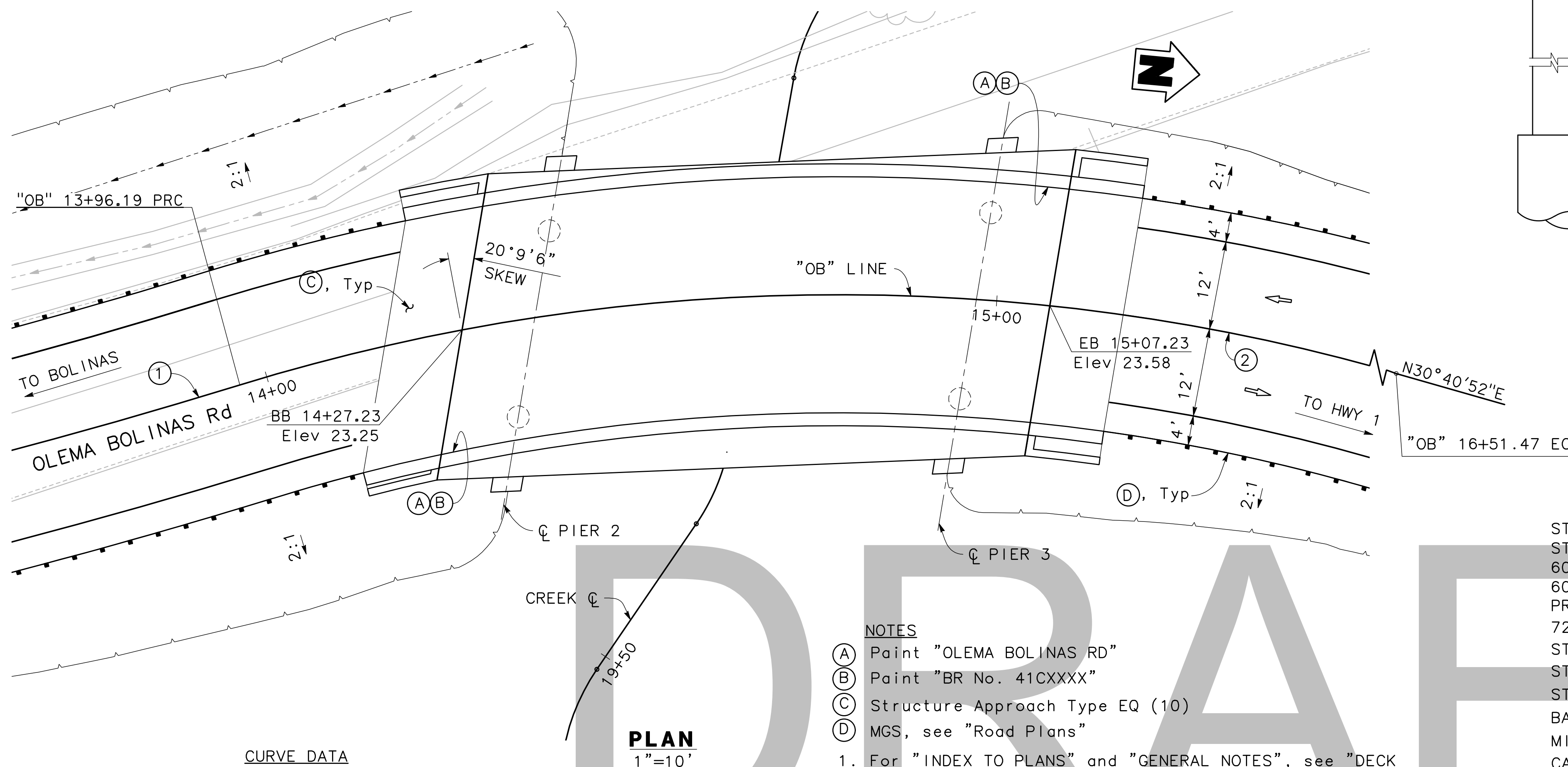
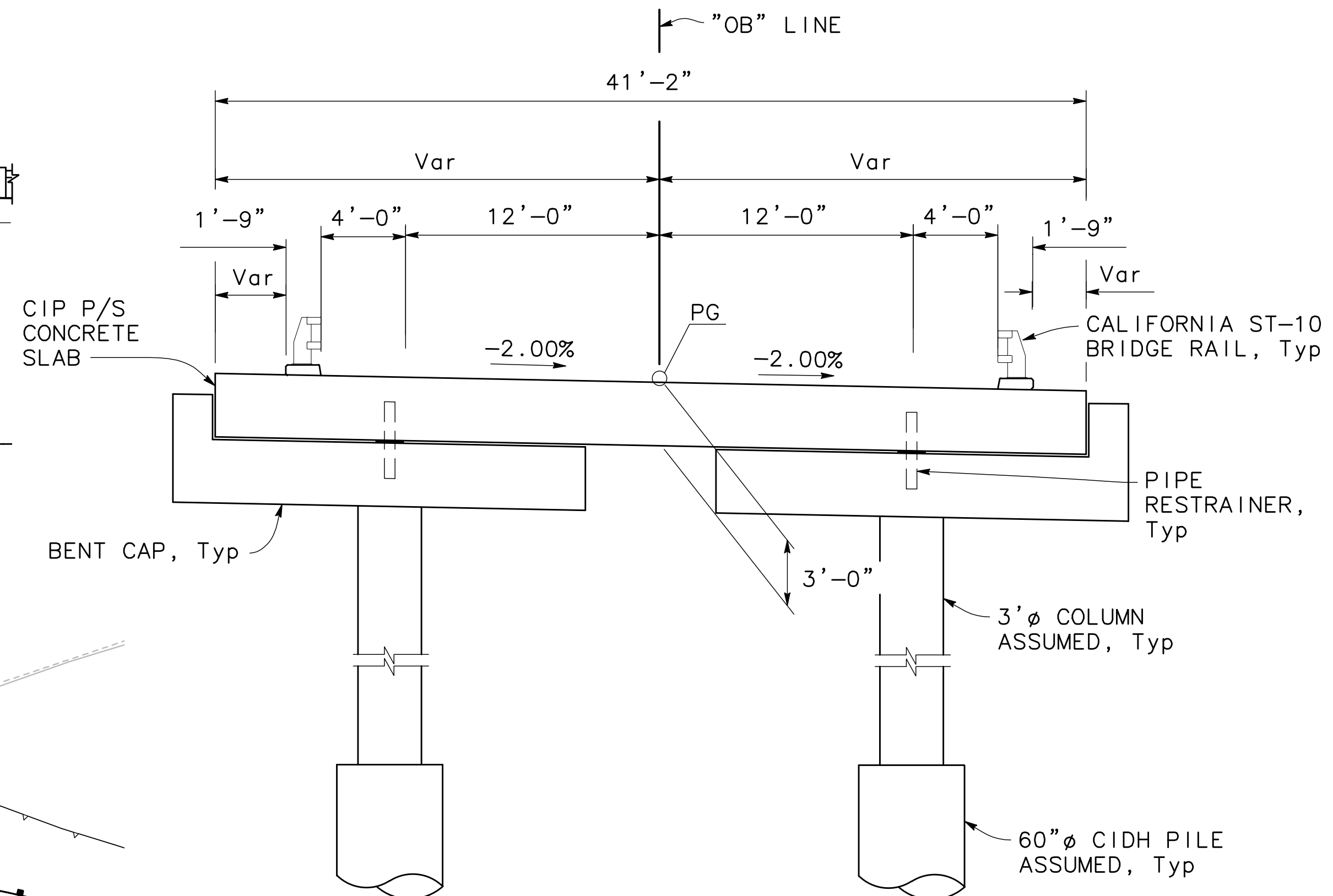
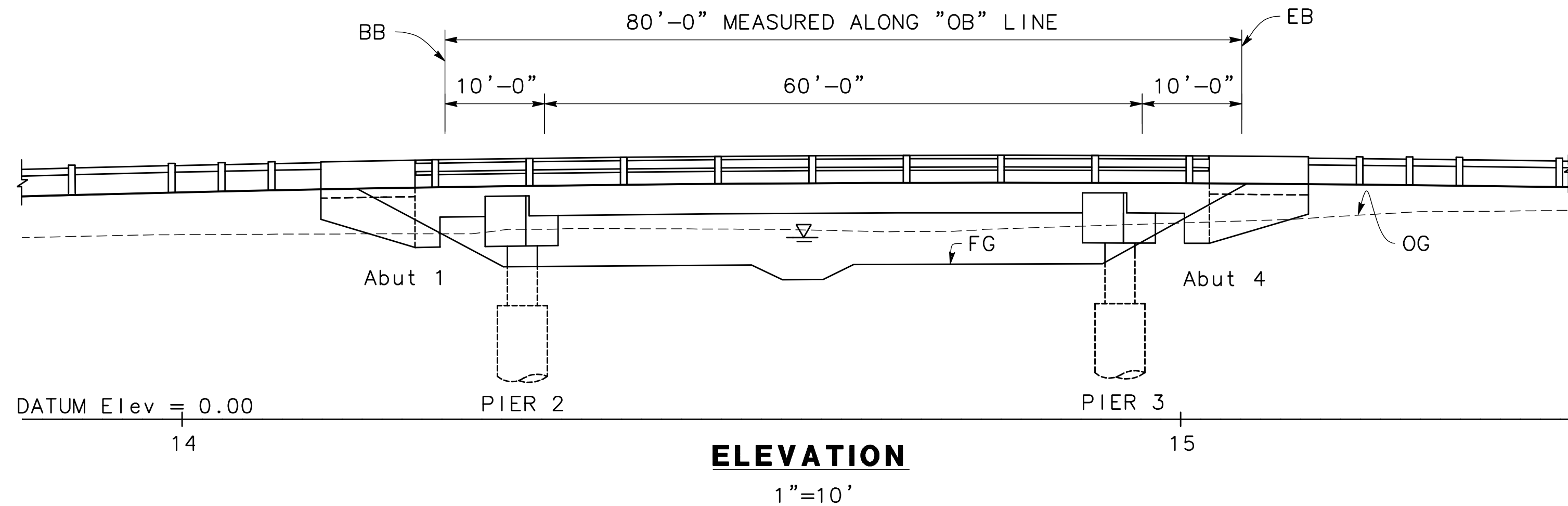
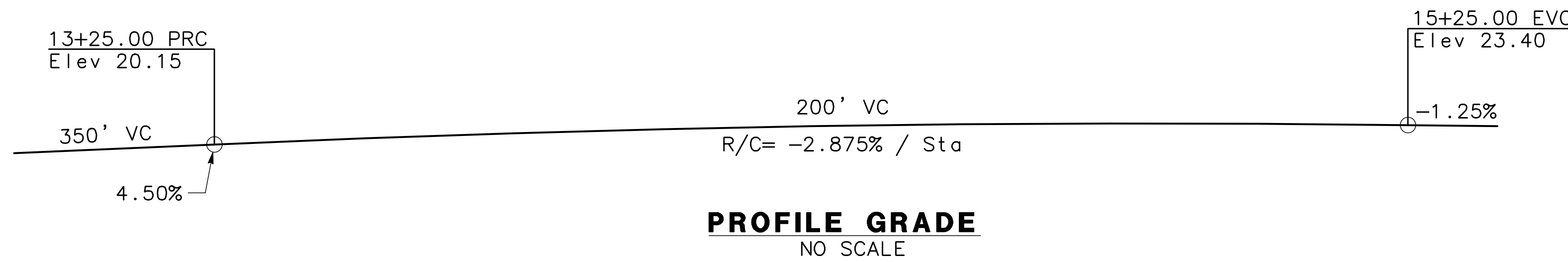
1/28/2022 65% DESIGN  
 7/8/2020 30% DESIGN  
 3/20/2020 CONCEPT PLAN

Date	Issues And Revisions	No.

PROJECT #29244  
 DRAWN BY: KD, JD  
 CHECKED BY: JP  
 ORIGINAL DRAWING SIZE: 24 X 36

**INDEX TO PLANS**

NO.	TITLE
S1	GENERAL PLAN
S2	DECK CONTOURS
S3	FOUNDATION PLAN
S4	ABUTMENT 1 LAYOUT
S5	ABUTMENT 2 LAYOUT
S6	ABUTMENT DETAILS
S7	PIER LAYOUT
S8	PIER DETAILS No. 1
S9	PIER DETAILS No. 2
S10	PIER DETAILS No. 3
S11	TYPICAL SECTION
S12	LONGITUDINAL SECTION
S13	LOG OF TEST BORINGS SHEET 1 OF 3
S14	LOG OF TEST BORINGS SHEET 2 OF 3
S15	LOG OF TEST BORINGS SHEET 3 OF 3



**CURVE DATA**

① R=800.00' Δ=10° 01' 45" T=70.20' L=140.03'	② R=275.00' Δ=53° 11' 17" T=137.67' L=255.28'
---	--

- NOTES**
- (A) Paint "OLEMA BOLINAS RD"
  - (B) Paint "BR No. 41CXXXX"
  - (C) Structure Approach Type EQ (10)
  - (D) MGS, see "Road Plans"
1. For "INDEX TO PLANS" and "GENERAL NOTES", see "DECK CONTOURS" sheet.
  2. For "PILE DATA TABLE", "HYDROLOGIC SUMMARY" and "SCOUR DATA TABLE" see "FOUNDATION PLAN" sheet.

**QUANTITIES**

STRUCTURE EXCAVATION (TYPE D)	XX LS
STRUCTURE BACKFILL (BRIDGE)	XX CY
60" CAST-IN-DRILLED-HOLE PILE	XX LF
60" CAST-IN-DRILLED-HOLE PILE (ROCK SOCKET)	XX LF
PRESTRESSING CAST-IN-PLACE CONCRETE	XX LS
72" PERMANENT STEEL CASING	XX LF
STRUCTURAL CONCRETE, BRIDGE	XX CY
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	XX CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE EQ)	XX CY
BAR REINFORCING STEEL (BRIDGE)	XX LB
MISCELLANEOUS METAL (RESTRAINER-PIPE TYPE)	XX LB
CALIFORNIA ST-10 BRIDGE RAIL	XX LF

**BRIDGE GENERAL PLAN**

Sheet  
**S-1**