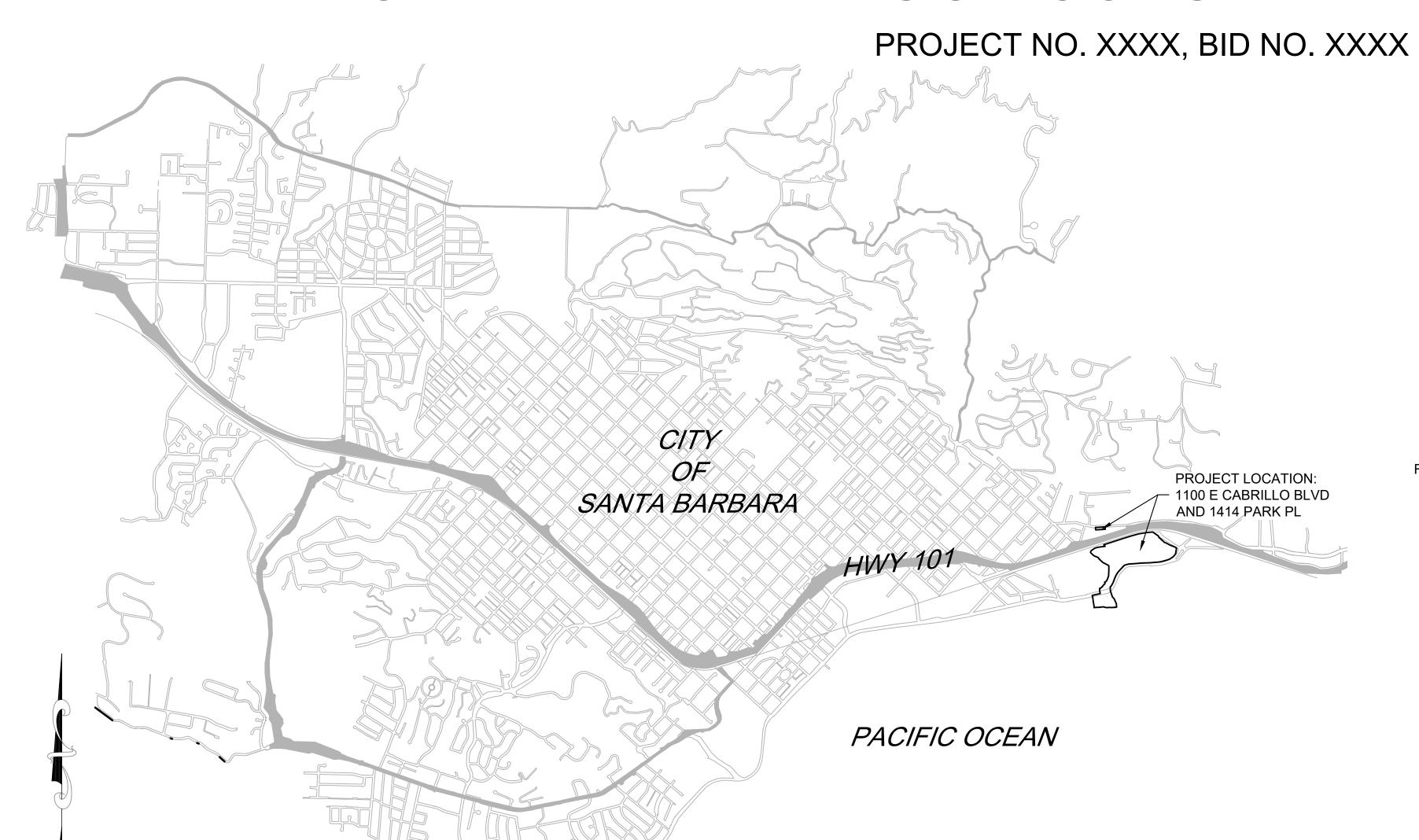
CITY OF SANTA BARBARA

ANDRÉE CLARK BIRD REFUGE COASTAL RESTORATION 65% DESIGN



VICINITY MAP

PROJECT DATA

PROJECT OWNER: CITY OF SANTA BARBARA PUBLIC WORKS DEPARTMENT

PROJECT TEAM: ANCHOR QEA, LLC. 301 EAST OCEAN BLVD

> **SUITE 1860** LONG BEACH, CA 90802 (657) 227-7430

1100 E CABRILLO BLVD

SANTA BARBARA, CA 93103

MUNICIPAL TENNIS COURTS 1414 PARK PL SANTA BARBARA, CA 93103

ZONING ORDINANCE AND

ZONE DISTRICTS: TITLE 28, P-R/S-D-3

GENERAL PLAN LAND USE DESIGNATION: RECREATIONAL AND OPEN SPACE

COASTAL ZONE APPEALABLE, NON-APPEALABLE, AND PERMIT JURISDICTIONS

DESIGNATION:

FLOODPLAIN DESIGNATION: ZONE AE AND ZONE VE

PROJECT SITE PARKING: 15 STALLS (14 STANDARD/1 ADA) AT ACBR PARKING LOT OFF LOS PATOS WAY TO EAST OF

WINGWALLS, AND PAD AT BIORETENTION BASIN).

WEIR; REPLACE 21 SF (EXISTING WEIR HEADWALL) WITH 50 SF (NEW WEIR HEADWALL AND GATE WALLS) FOR A NEW IMPERVIOUS AREA OF 29 SF. REMOVE 7 SF (EXISTING

MANHOLE COVER WITH PERVIOUS GRATING).

ESTIMATED GRADING CUT = 2,400 CY QUANTITIES: FILL = 2,360 cy

SCOPE OF WORK THE PROJECT CONSISTS OF REPLACEMENT OF THE ANDREE CLARK BIRD REFUGE

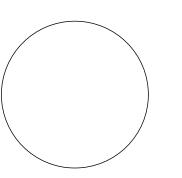
LAGOON WEIR AND WEIR GATE, REMOVAL OF APPROXIMATELY 74 NON-NATIVE TREES, RECONTOURING PORTIONS OF THE LAGOON SHORELINE, RECONTOURING THE MOUTH OF THE LAGOON ON THE BEACH SIDE (ADJACENT TO THE VOLLEYBALL COURTS), SEASONAL LOWERING OF THE SAND BERM AT THE MOUTH OF THE LAGOON ON THE BEACH SIDE, INSTALLATION OF NATIVE PLANTS AND ROCK CLUSTERS ALONG THE MARGIN OF THE LAKE, ISLANDS AND MOUTH OF THE LAGOON, AND INSTALLATION OF NEW INTERPRETATIVE SIGNS. TIER 2 STORMWATER IMPROVEMENTS ARE SATISFIED BY THE LANDSCAPING IMPROVEMENTS. CONSTRUCTION OF A BIO-RETENTION BASIN WILL ALSO OCCUR AT THE MUNICIPAL TENNIS CENTER PROPERTY, LOCATED AT 1414 PARK PLACE.

보/ /	
, -	HIGHWAY
BARK PLACE	MUNICIPAL TENNIS COURTS
3	ADNI 047 004 004
X	
Ø.	(7.77 AC)
5	
	> PROJECT LIMITS — PROJECT LIMITS
	CABRILLO BLVD
	CABRILLO BLVD
	ANDRÉE CLARK BIRD REFUGE
	// APN 017-382-001
	1100 E CABRILLO BLVD
/	(42.42 AC)
/	
	VACANT BEACH LOT
	APN 017-383-001
	1100 E CABRILLO BLVD
	(12.80 AC)
	(12:337.13)
\	
1	

PROJECT LOCATION MAP

Know what's **below. Call** before you dig.

		DRAWING INDEX			DRAWING INDEX			DRAWING INDEX
SHT#	DWG#	TITLE	SHT#	DWG#	TITLE	SHT#	DWG#	TITLE
1	G-1.0	COVER SHEET	19	EC-2.0	TESC DETAILS AND NOTES	36	S-2.0	OUTLET STRUCT. SECTIONS
2	G-2.0	GENERAL NOTES, LEGENDS, AND	20	D-1.0	DEMOLITION AND CLEARING PLAN	37	S-3.0	OUTLET STRUCT. GENERAL NOTES
		ABBREVIATIONS	_ 21	C-1.0	PROJECT CONTROL POINTS	38	S-4.0	BIO-RETENTION BASIN INLET AND OUTLET
3	G-3.0	SHEET LAYOUT	22	C-1.1	GRADING AND CONST. MAT. PLAN (1 OF 9)		3-4.0	STRUCTURES
4	G-4.0	PROPERTY OWNERSHIP	23	C-1.2	GRADING AND CONST. MAT. PLAN (2 OF 9)	39	I-1.0	IRRIGATION AREAS
5	CS-1.0	COMPOSITE SITE PLAN	24	C-1.3	GRADING AND CONST. MAT. PLAN (3 OF 9)	40	L-1.1	PLANTING PLAN (1 OF 9)
6	V-1.0	SURVEY CONTROL PLAN	25	C-1.4	GRADING AND CONST. MAT. PLAN (4 OF 9)	41	L-1.2	PLANTING PLAN (2 OF 9)
7	V-1.1	EXISTING CONDITIONS PLAN (1 OF 9)	26	C-1.5	GRADING AND CONST. MAT. PLAN (5 OF 9)	42	L-1.3	PLANTING PLAN (3 OF 9)
8		EXISTING CONDITIONS PLAN (2 OF 9)	27	C-1.6	GRADING AND CONST. MAT. PLAN (6 OF 9)	43	L-1.4	PLANTING PLAN (4 OF 9)
9	V-1.3	EXISTING CONDITIONS PLAN (3 OF 9)	28	C-1.7	GRADING AND CONST. MAT. PLAN (7 OF 9)	44	L-1.5	PLANTING PLAN (5 OF 9)
10	V-1.4	EXISTING CONDITIONS PLAN (4 OF 9)	29	C-1.8	GRADING AND CONST. MAT. PLAN (8 OF 9)	45	L-1.6	PLANTING PLAN (6 OF 9)
11	V-1.5	EXISTING CONDITIONS PLAN (5 OF 9)	30	C-1.9	GRADING AND CONST. MAT. PLAN (9 OF 9)	46	L-1.7	PLANTING PLAN (7 OF 9)
12	V-1.6	EXISTING CONDITIONS PLAN (6 OF 9)			GRADING AND CONSTRUCTION	47	L-1.8	PLANTING PLAN (8 OF 9)
13	V-1.7	EXISTING CONDITIONS PLAN (7 OF 9)	 31	C-2.0	MATERIALS SECTIONS	48	L-1.9	PLANTING PLAN (9 OF 9)
14	V-1.8	EXISTING CONDITIONS PLAN (8 OF 9)	32	C-2.1	MARSH HABITAT LOBE SECTION AND	49	L-2.0	PLANTING SCHEDULE
15	V-1.9	EXISTING CONDITIONS PLAN (9 OF 9)			DETAIL	50	L-3.0	PLANTING DETAILS
16	TA-1.0	TEMPORARY ACCESS AND STAGING	33	C-2.3	OUTLET WEIR LAYOUT AND SECTIONS	51	L-4.0	PLANTING DETAILS
17	EC-1.0	TESC PLAN	34	C-2.4	BIO-RETENTION LAYOUT AND SECTIONS	52	L-5.0	PLANTING DETAILS
18	EC-1.1	TESC PLAN	35	S-1.0	OUTLET STRUCT. PLAN AND SECTION	53	L-6.0	LANDSCAPE DETAILS



SUPERVISING CIVIL ENGINEER

G-1.0 SHT. 1 OF 53

PROJECT NARRATIVE

THE PROJECT WILL RESTORE A 30-ACRE COASTAL LAGOON TO IMPORVE WATER QUALITY AND WILDLIFE HABITAT. THE PROJECT INCLUDES THE FOLLOWING COMPONENTS:

- RESTORATION OF 5 ACRES OF SALT MARSH AND UPLAND HABITAT AROUND THE PERIMETER OF THE LAGOON AND ISLANDS.
- 2. RESTORATION OF 1.4 ACRES OF DUNE, SALT MARSH, AND OPEN WATER HABITAT AT THE MOUTH OF THE LAGOON.
- 3. PERIODIC BREACH PRIMING OF THE SAND BERM AT THE MOUTH OF THE LAGOON USING EQUIPMENT AND MACHINERY TO LOWER THE SAND BERM ELEVATION TO ALLOW THE LAGOON TO NATURALLY FILL, OVERTOP, AND FLOW TO THE OCEAN.
- 4. REMOVE AND REPLACE THE WEIR/DAM AND WEIR GATE AT EAST CABRILLO BLVD. IMPROVING WATER FLOW BETWEEN THE UPPER LAGOON AND BEACH LAGOON/OCEAN.
- CONSTRUCT A LOW FLOW WATER TREATMENT WETLAND ON OPEN SPACE WITHIN THE MUNICIPAL TENNIS CENTER NORTH OF THE LAGOON. THE RESTORED WETLANDS WILL IMPROVE HYDROLOGIC FUNCTION, CONNECTIVITY TO THE OCEAN, AVIAN HABITAT, AQUATIC HABITAT, AND WATER QUALITY.

GENERAL CONSTRUCTION NOTES:

- CONTRACT DOCUMENTS INCLUDE THESE DRAWINGS AND PROJECT SPECIFICATIONS.
- 2. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL WORK AS INDICATED ON THE CONTRACT DOCUMENTS.
- 3. CONTRACTOR SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS. AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 4. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO PROCEEDING WITH THE
- 5. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- 6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE BY THE CONTRACTING OFFICER OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- 7. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES REGULATIONS, AND ORDINANCES.
- CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS
- 10. DETAILS ARE INTENDED TO SHOW THE FINAL RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED BY THE CONTRACTING OFFICER TO SUIT JOB SITE DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- 11. THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, ROADWAY, DRAINAGE WAYS, CULVERTS, AND VEGETATION UNTIL SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED ON THE CONTRACT DOCUMENTS.
- 12. CONTRACTOR SHALL KEEP PROJECT AREA CLEAN AND HAZARD-FREE. CONTRACTOR SHALL DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH FOR DURATION OF THE WORK. UPON COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL MATERIAL AND EQUIPMENT NOT SPECIFIED AS REMAINING WITHIN THE PROJECT
- 13. REPRESENTATIONS OF TRUE NORTH SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THIS
- 14. WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- 15. NOTES AND DETAILS ON THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER GENERAL NOTES HEREON 16. DIMENSION CALLOUTS SHALL TAKE PRECEDENCE OVER SCALES
- SHOWN ON THE CONTRACT DOCUMENTS. 17. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED GRADES AND SURFACES. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL
- MEASURES NECESSARY TO PROTECT THE STRUCTURES. WORKERS. AND THE PUBLIC DURING CONSTRUCTION. 18. ASTM, AASHTO, AND OTHER STANDARD SPECIFICATIONS NOTED ON THE CONTRACT DOCUMENTS SHALL BE OF THE LATEST VERSION.
- UNLESS NOTED OTHERWISE. 19. TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT AND SUBJECT TO ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
- 20. CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING PRIOR TO COMMENCEMENT OF THE CONSTRUCTION. MEETING LOCATION, DATE, AND TIME TO BE DETERMINED BY THE CONTRACTING OFFICER

STANDARD CIVIL NOTES:

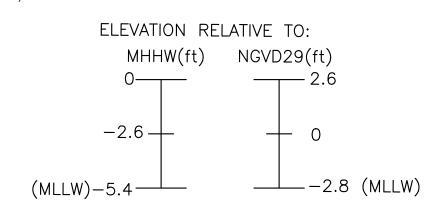
- ALL SITE WORK SHALL BE AS INDICATED ON THE CONTRACT
- 2. DO NOT EXCAVATE OR DISTURB BEYOND THE JOB SITE AREA UNLESS NOTED OTHERWISE
- RUBBISH, DEBRIS, GARBAGE, AND OTHER REFUSE SHALL BE REMOVED FROM THE JOB SITE AND DISPOSED OF LEGALLY.
- 4. NO TOPSOIL, ORGANIC SPOILS, FILL, EXCAVATED MATERIAL, RIP RAP, CONSTRUCTION MATERIAL, EQUIPMENT, OR ANY OTHER SUCH ITEMS SHALL BE PLACED, STOCKPILED, OR PARKED IN THE ROADWAY SUCH THAT IT WOULD PREVENT A MINIMUM WIDTH OF 12-FEET FOR TRAFFIC CLEARANCE.
- 5. ANY BACKFILL, NOT OTHERWISE DESCRIBED ON THE CONTRACT DOCUMENTS, MUST BE PLACED WITH A MAXIMUM LIFT DEPTH OF 12-INCHES OR AS INSTRUCTED BY CONTRACTING OFFICER.
- CONTRACTOR AND ITS EMPLOYEES SHALL PROVIDE SAFETY TRAINING FOR THE WORK CREW PRIOR TO STARTING THE
- 7. THE AREAS OF THE JOB SITE DISTURBED BY THE WORK SHALL BE GRADED SMOOTH TO THE PRE-CONSTRUCTION GRADE. DECOMPACTED AND PROTECTED AND/OR REVEGETATED AS SPECIFIED HEREON.
- 8. ALL MATERIALS SHALL BE NEW AND UNDAMAGED, UNLESS OTHERWISE APPROVED BY THE CONTRACTING OFFICER. THE SAME MANUFACTURER OF EACH ITEM SHALL BE USED THROUGHOUT THE WORK UNLESS OTHERWISE APPROVED BY THE CONTRACTING OFFICER

UTILITY NOTES:

- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE LOCATIONS OF EXISTING UTILITIES HAVE NOT BEEN FIELD VERIFIED. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE DIG ALERT UTILITY LOCATION REQUEST CENTER (ONE-CALL CENTER) AT 811 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE THE SCHEDULED DATE FOR EARTHWORK OR TRENCHING THAT MAY IMPACT EXISTING UTILITIES, UNLESS OTHERWISE NOTED.
- 2. ALL ABANDONED UTILITIES WHICH INTERFERE WITH THE EXECUTION OF THE WORK SHALL BE VERIFIED BY THE CONTRACTING OFFICER AND THE UTILITY FRANCHISE PRIOR TO DISTURBING THE UTILITIES. ONLY AFTER WRITTEN APPROVAL OF DISTURBANCE OR MODIFICATION OF THE UTILITY FROM THE UTILITY FRANCHISE IS RECEIVED BY THE CONTRACTING OFFICER MAY THE CONTRACTOR TAKE ACTION.
- 3. SIZE, LOCATION, AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-BUILT DRAWINGS BY THE CONTRACTOR AND ISSUED TO THE CONTRACTING OFFICER AT COMPLETION OF THE PROJECT

SURVEY NOTES:

- TOPOGRAPHIC SURVEYS CONDUCTED BY BILL CARR SURVEYS (NOVEMBER 2018) AND CLE ENGINEERING (OCTOBER 2016). 2. HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE V, NORTH AMERICAN DATUM (NAD83), U.S. SURVEY FEET
- VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929, FEET.



TESC NOTES:

- 1. DURING CLEARING, EARTH MOVING AND/OR GRADING PHASES OF THE PROJECT, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED IN SUFFICIENT QUANTITIES TO PREVENT DUST FROM LEAVING THE SITE. IN ADDITION, THE ENTIRE AREA OF DISTURBED SOILS SHALL BE WETTED DOWN DURING THE EARLY MORNING HOURS AND AT THE END OF EACH DAY IN SUCH A MANNER TO AS TO CREATE A CRUST.
- 2. DURING THE CONSTRUCTION PHASE OF THE PROJECT, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED TO KEEP ALL AREAS OF VEHICULAR MOVEMENT DAMP ENOUGH TO PREVENT DUST RAISED FROM LEAVING THE SITE. AS A MINIMUM, THIS WILL INCLUDE THE WETTING DOWN OF SUCH AREAS IN THE LATE MORNING HOURS AND AT THE CLOSE OF EACH DAYS ACTIVITIES.
- ALL TRUCKS HAULING SOIL MATERIALS TO AND FROM THE SITE SHALL BE COVERED WITH A TARP TO PREVENT DUST FROM BLOWING OFF THE TRUCK.
- 4. ALL ALLEYWAYS, CIRCULATION ROUTES, HAUL ROUTES, STREETS AND SIDEWALKS SHALL BE KEPT CLEAN AND CLEAR OF DIRT, DUST, AND DEBRIS IN A MANNER ACCEPTABLE TO THE CITY OF SANTA BARBARA'S PUBLIC WORKS DEPARTMENT AS OUTLINED IN THEIR "PROCEDURES FOR THE CONTROL OF RUNOFF INTO STORM DRAINS AND WATERCOURSES". AT A MINIMUM, SAID AREAS SHALL BE CLEANED AT THE END OF EACH WORKING DAY OR MORE OFTEN IF DIRECTED BY CITY PERSONNEL. THE FLUSHING OF DIRT AND DEBRIS TO STORM DRAIN OR SANITARY SEWER FACILITIES SHALL NOT BE PERMITTED. FAILURE TO KEEP THESE AREAS CLEAN WILL RESULT IN THE ISSUANCE OF A "STOP WORK" ORDER, WHICH WILL NOT BE RELEASED UNTIL SUCH TIME AS THE AREA IS CLEANED IN A MANNER ACCEPTABLE TO THE CITY. EARTH MOVING AND GRADING ACTIVITIES SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 AM AND 6:00 PM, OR AS SPECIFIED IN THE APPROVED EROSION CONTROL PLAN OR THE PROJECT CONDITIONS OF APPROVAL.
- AFTER COMPLETION OF CLEARING, GRADING, OR EXCAVATION PHASE, THE ENTIRE AREA OF DISTURBED SOIL SHALL BE TREATED TO PREVENT WIND PICK UP OF THE SOIL BY ANY ONE OF THE FOLLOWING METHODS: SEEDING OR WATERING OF THE SITE UNTIL SUCH TIME AS THE GROUND COVER HAS TAKEN ROOT, SPREADING OF SOIL BINDERS, WETTING DOWN OF THE AREA IN SUCH A MANNER AS TO CREATE A CRUST ON THE SURFACE AND THE REPEATED SOAKING OF THE AREA, AS NECESSARY, TO MAINTAIN THE CRUST AND PREVENT SOIL BLOWING.
- 6. THE CONTRACTOR SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE STORM WATER POLLUTION PREVENTION AND DUST CONTROL PROGRAMS, AND TO ORDER INCREASED WATERING AS NECESSARY TO PREVENT THE TRANSPORT OF DUST OFF-SITE, AND ADDITIONAL BMPs TO PREVENT STORM WATER POLLUTANTS FROM ENTERING PUBLIC RIGHT OF WAY. THE PERSONS DUTY SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN THE WORK MAY NOT BE IN PROGRESS. THE NAME AND TELEPHONE OF SUCH PERSON OR PERSONS SHALL BE PROVIDED TO THE CITY OF SANTA BARBARA COMMUNITY DEVELOPMENT DEPARTMENT AND BE PLACED ON THE PLANS.

X ANCHOR L QEA SEE

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				DATE	
	APPROVED:			CITY ENGINEER	
DESIGN EBP	DRAWN EBP	CHECKED_MW_	\d	% c o	DRAFT

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RE

PBW. NO.

G-2.0 DWG. NO.

SHT. 2 OF 53

BID NO.

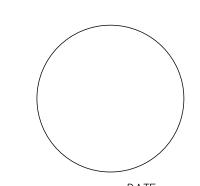
ABBREVIATION LEGEND

W	EXISTING WATER MAIN	— CTV —	EXISTING CABLE TV	\blacksquare	EXISTING WATER METER
RW	EXISTING RECYCLED WATER MAIN		EXISTING EDGE OF PAVEMENT	ОТМН	EXISTING TELEPHONE MANHOLE
— G —	EXISTING GAS MAIN		EXISTING FLOWLINE	ΠЕ	EXISTING ELECTRIC PULL BOX
— S —	EXISTING SEWER MAIN		EXISTING FENCE		EXISTING POWER POLE
— E —	EXISTING SCE MAIN	 ⟨ FH	EXISTING FIRE HYDRANT	0	EXISTING STREET SIGN
— т —	EXISTING TELEPHONE MAIN	\bowtie	EXISTING WATER VALVE	*	EXISTING STREET LIGHT
—SD—	EXISTING STORM DRAIN MAIN	OGV	EXISTING GAS VALVE		EXISTING CITY MONUMENT
	PARCEL BOUNDARY	□ GM	EXISTING GAS METER		EXISTING IP SURVEY MARKER

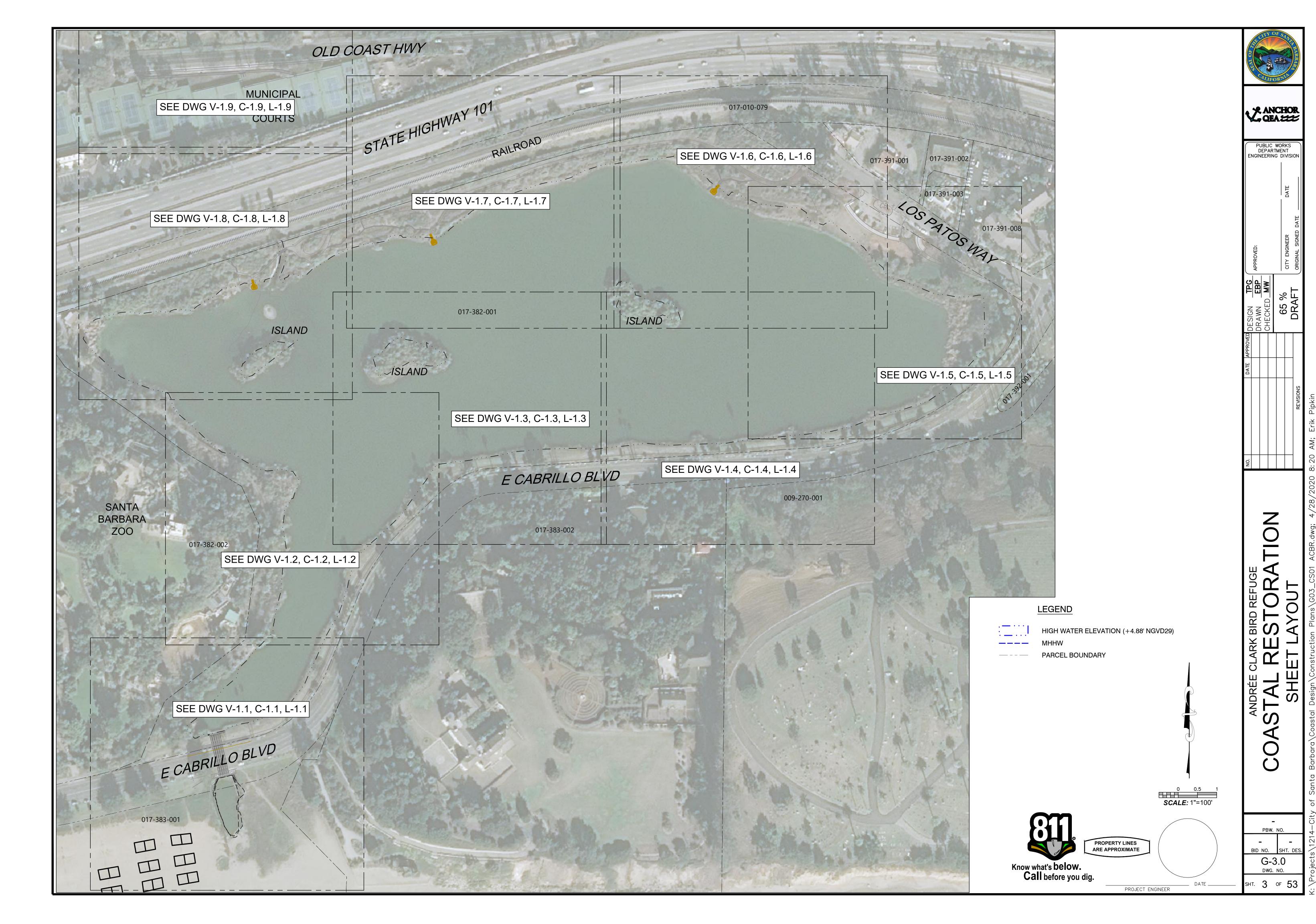
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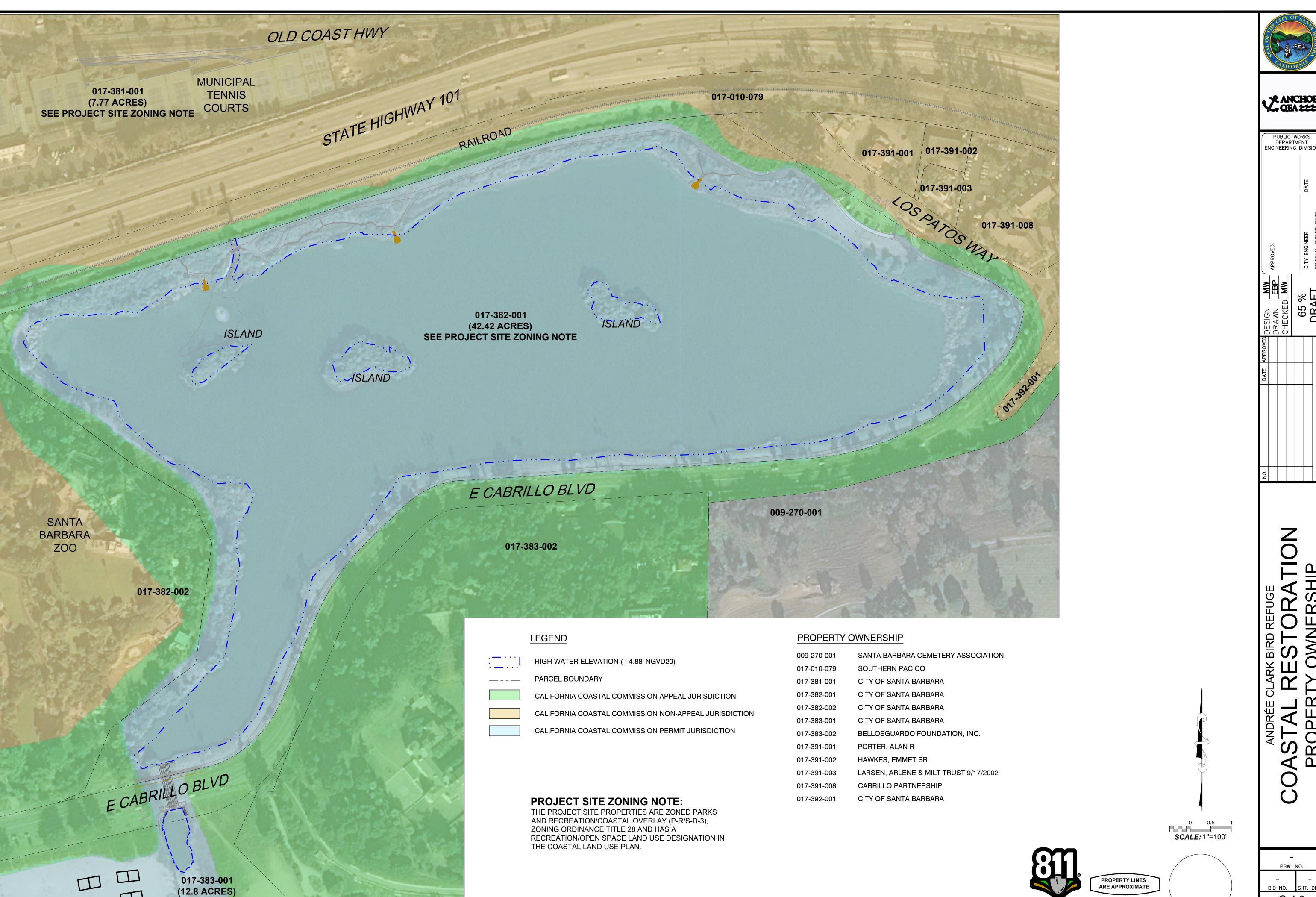
ВМ BENCHMARK BOW BACK OF WALK CTV CABLE TELEVISION DIAMETER DIA. **ELECTRICAL** ELEVATION **ECONC** EDGE OF CONCRETE FIRE HYDRANT FΗ FL FLOW LINE FOW FRONT OF WALK GAS

MANHOLE MEAN HIGHER HIGH WATER MHHW NOT TO SCALE NTS RIGHT OF WAY SEWER STORM DRAIN TELEPHONE TOP OF CURB TMH TELEPHONE MANHOLE PAVEMENT WATER



PROJECT ENGINEER





SEE PROJECT SITE

ZONING NOTE

ANCHOR QEASS

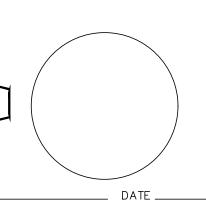
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

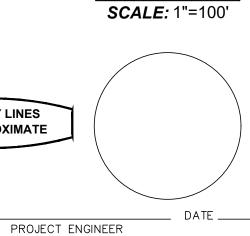
ARK BIRD REFUGE

G-4.0

DWG. NO.

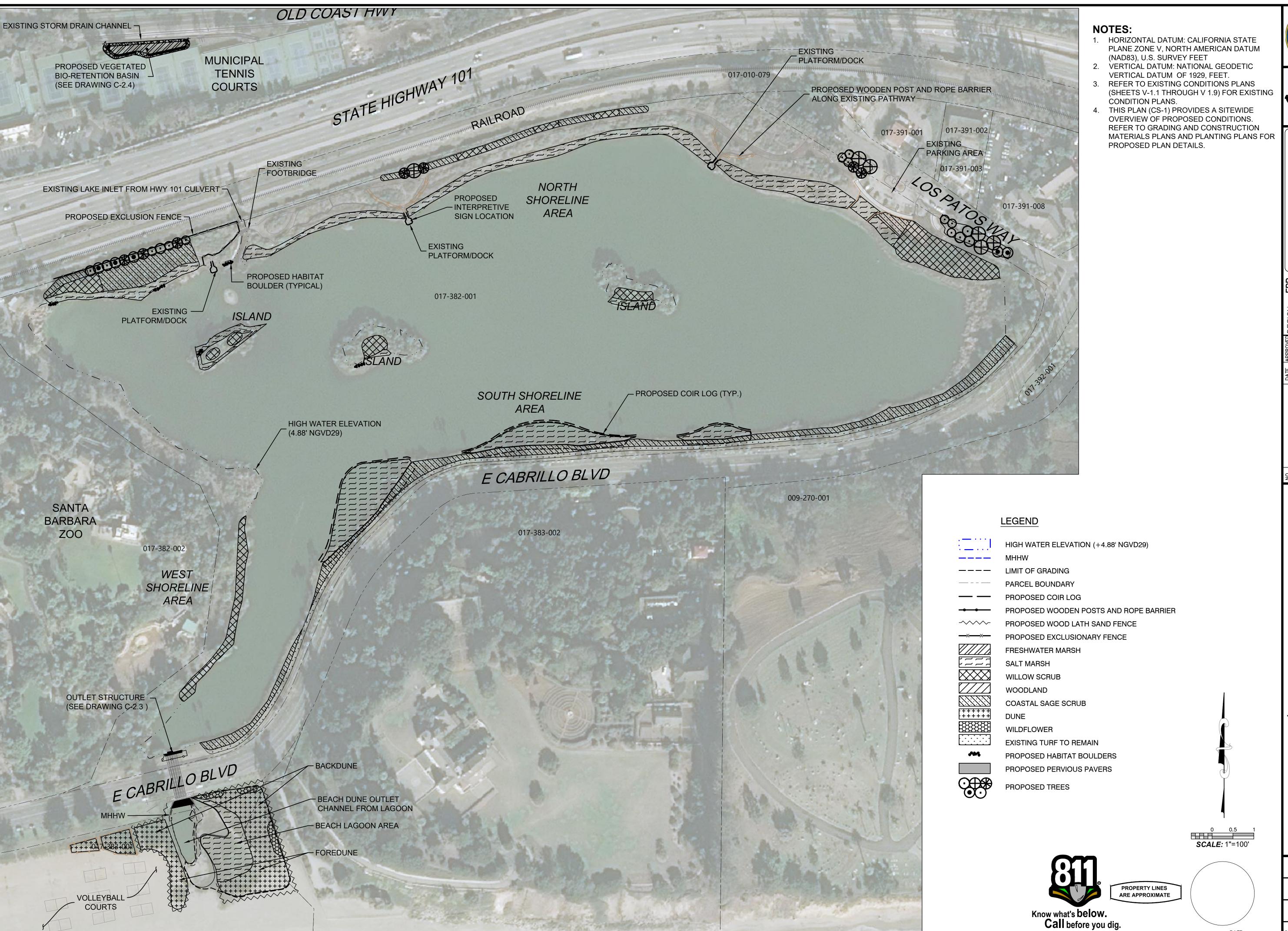
SHT. 4 OF 53





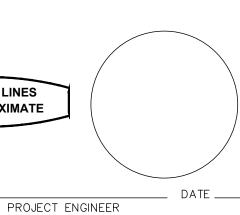
Know what's below.

Call before you dig.

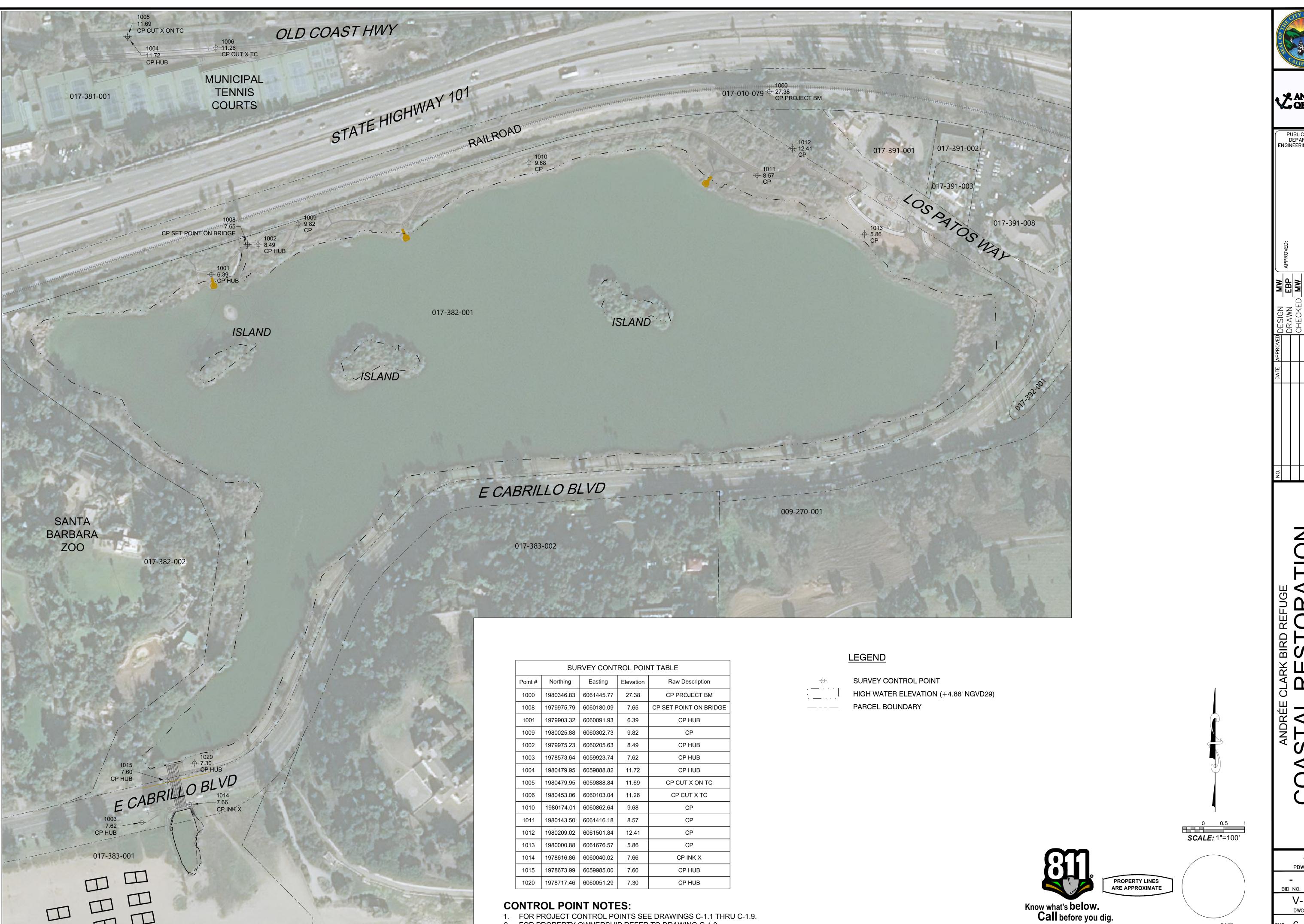


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PBW. NO. BID NO. SHT. D CS-1.0 DWG. NO. sнт. **5** оғ **53**



1. FOR PROJECT CONTROL POINTS SEE DRAWINGS C-1.1 THRU C-1.9.

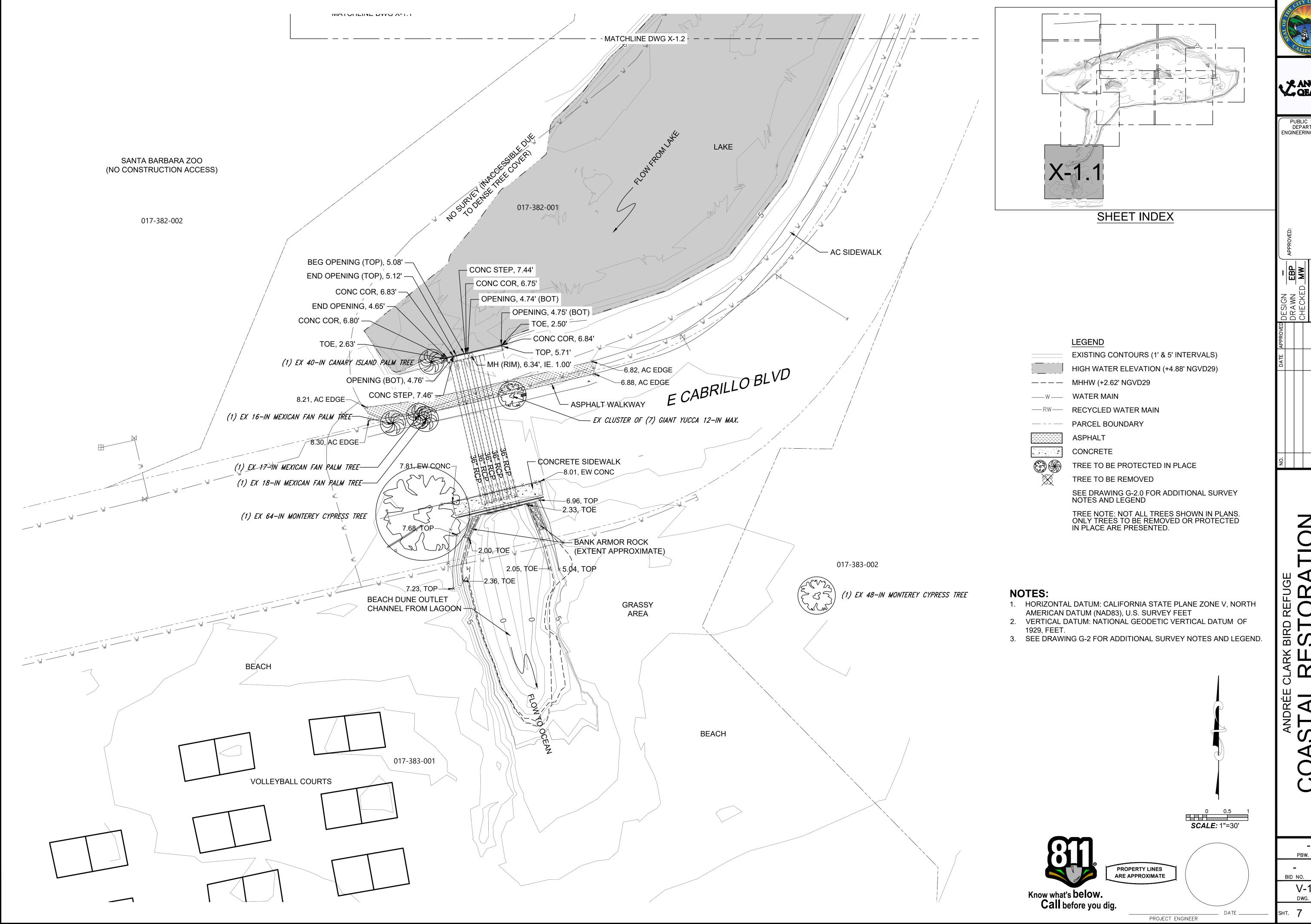
2. FOR PROPERTY OWNERSHIP REFER TO DRAWING G-4.0.

✓ ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

PROJECT ENGINEER

PBW. NO. BID NO. SHT. DE V-1.0 DWG. NO. SHT. 6 OF **53**

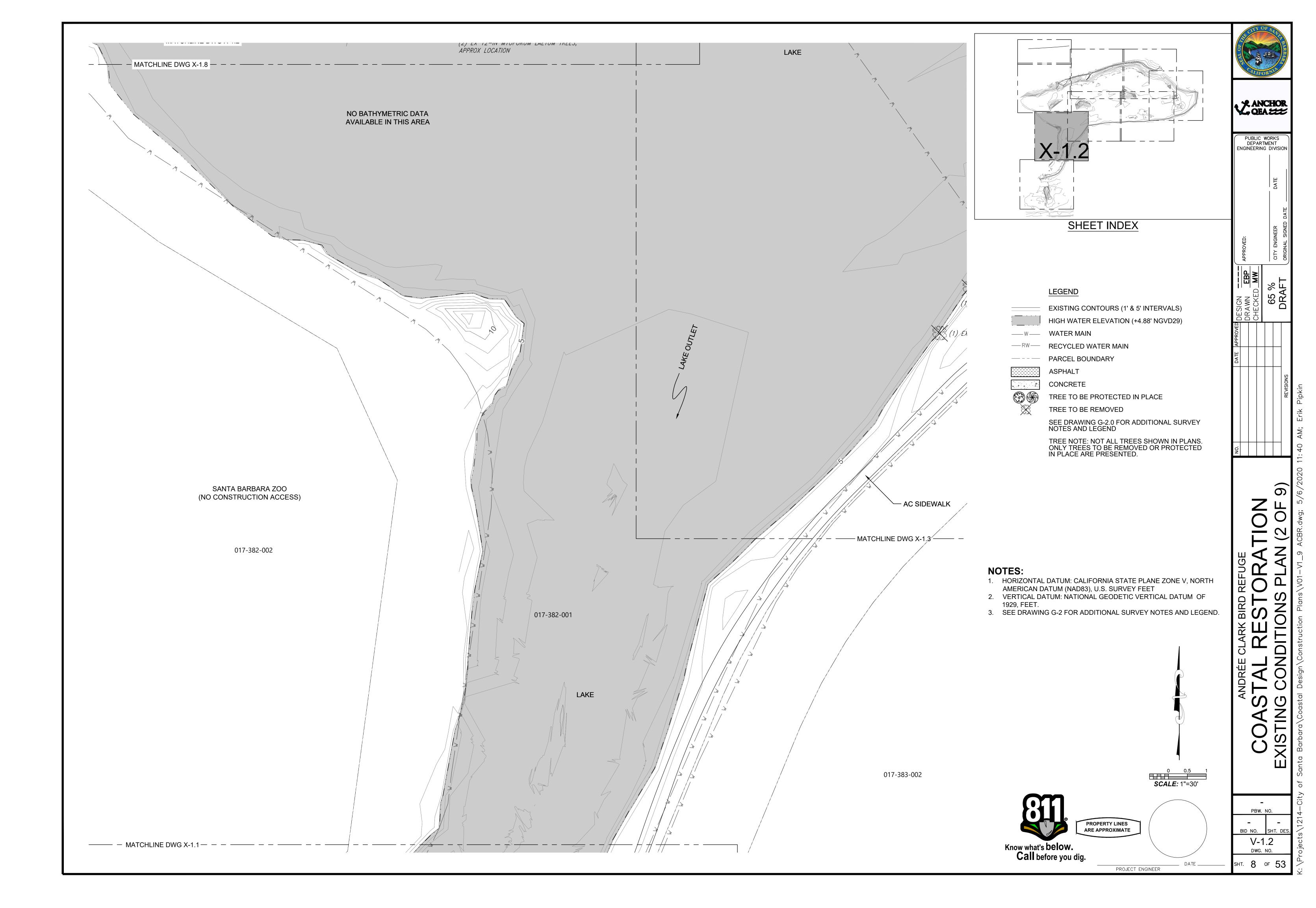


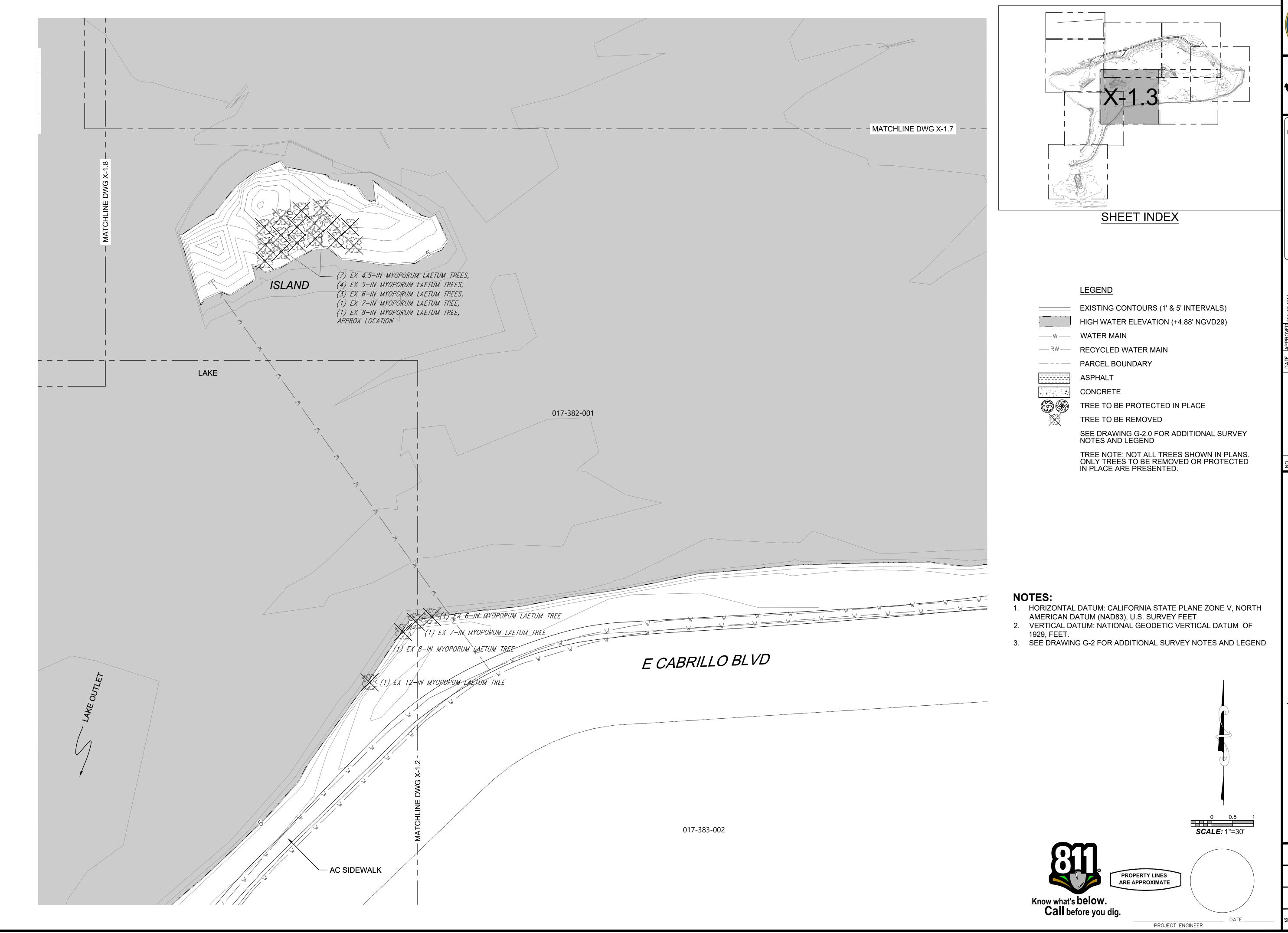


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PUBLIC WORKS
DEPARTMENT
ENGINEERING DIVISION

V-1.1 SHT. 7 OF 53

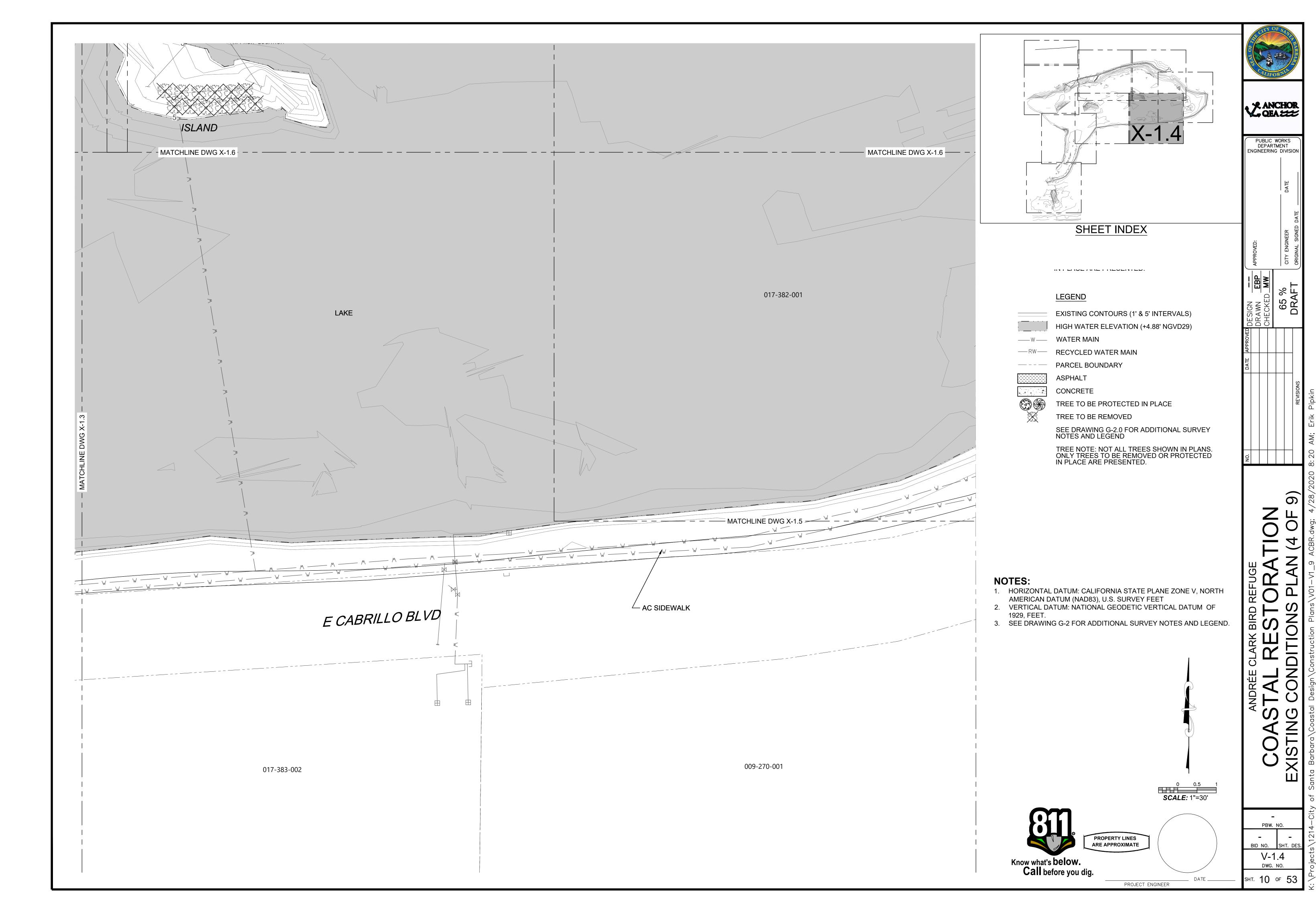


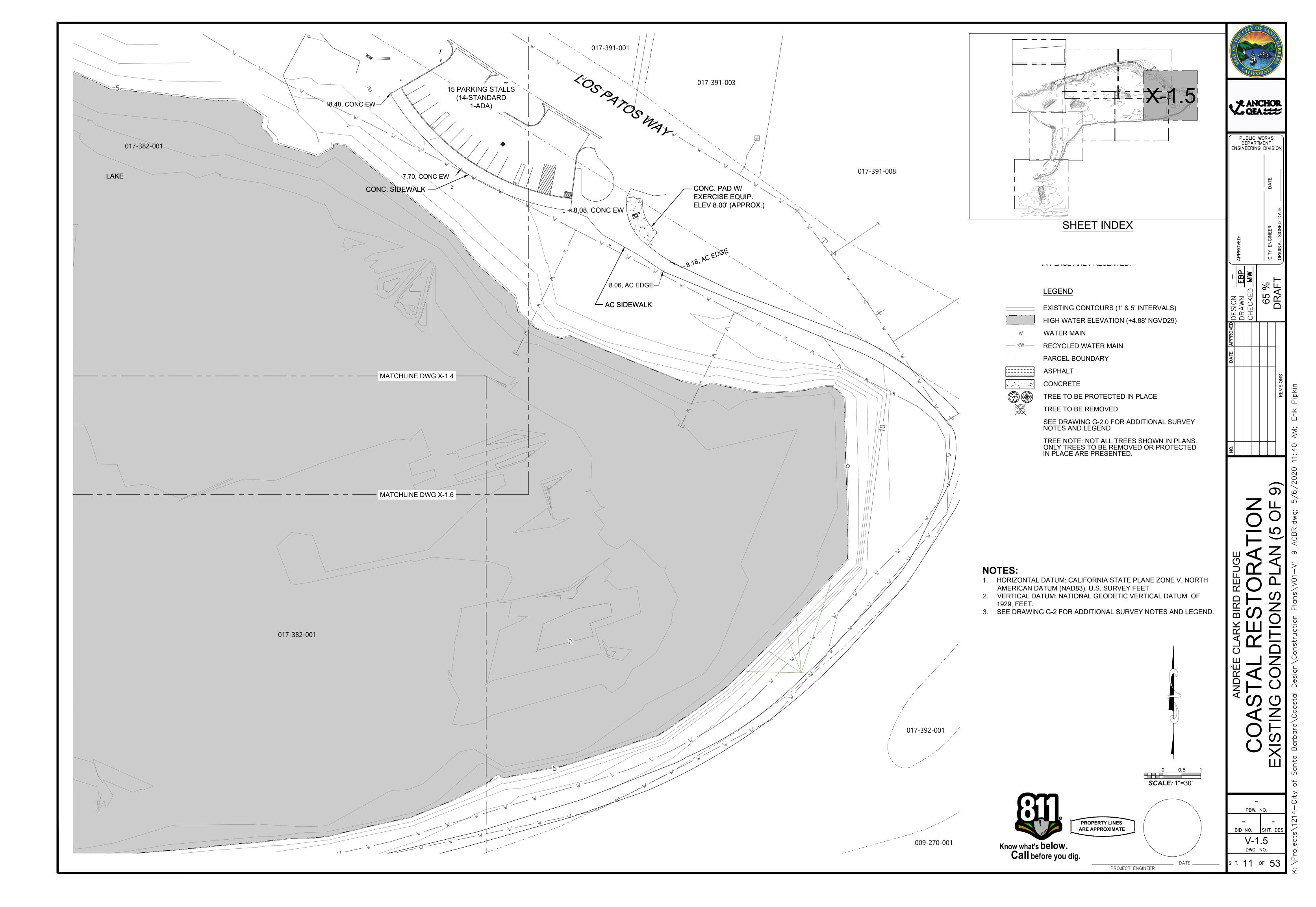


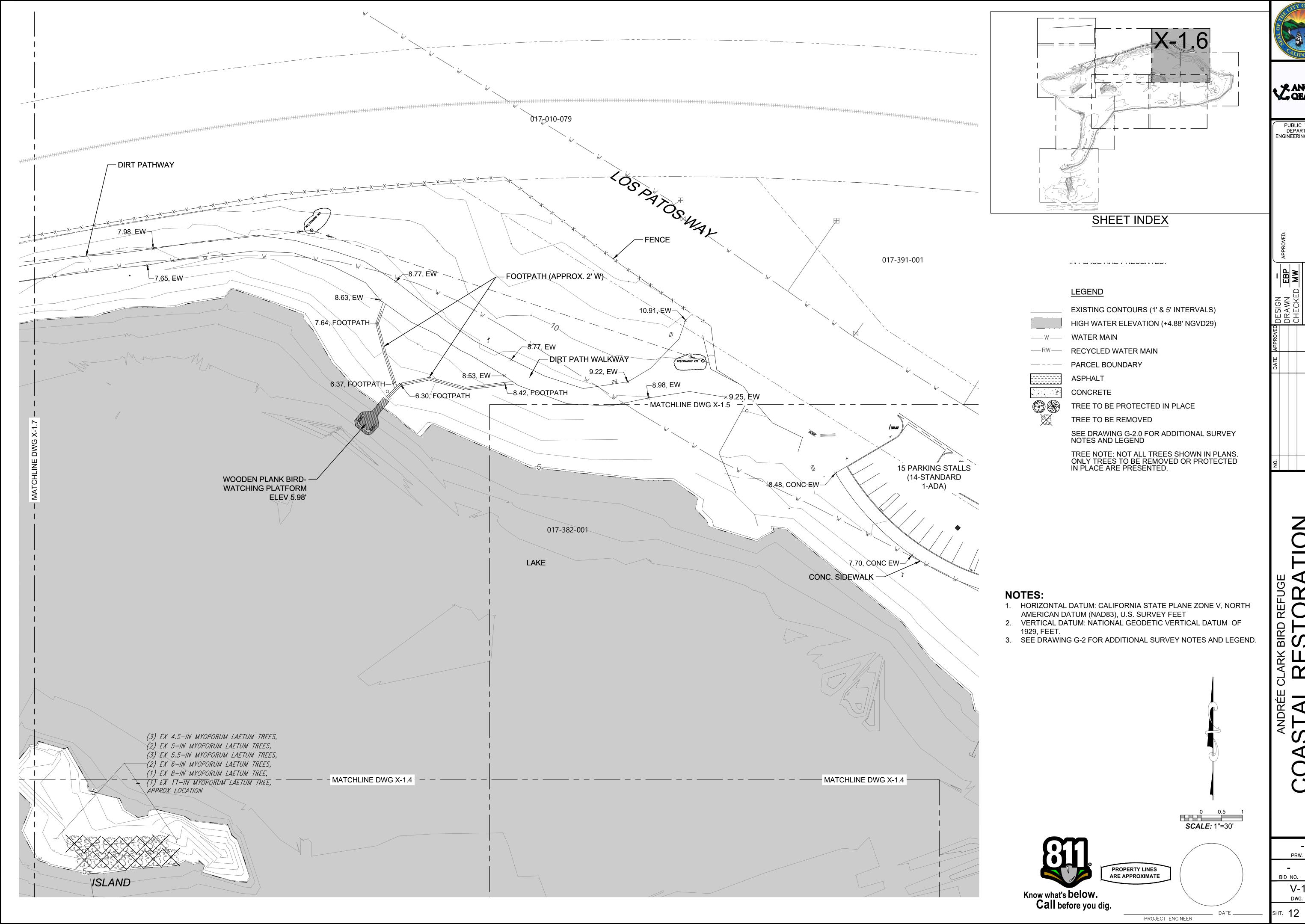
₹ ANCHOR QEA

PUBLIC WORKS
DEPARTMENT
ENGINEERING DIVISION

V-1.3 SHT. 9 OF 53





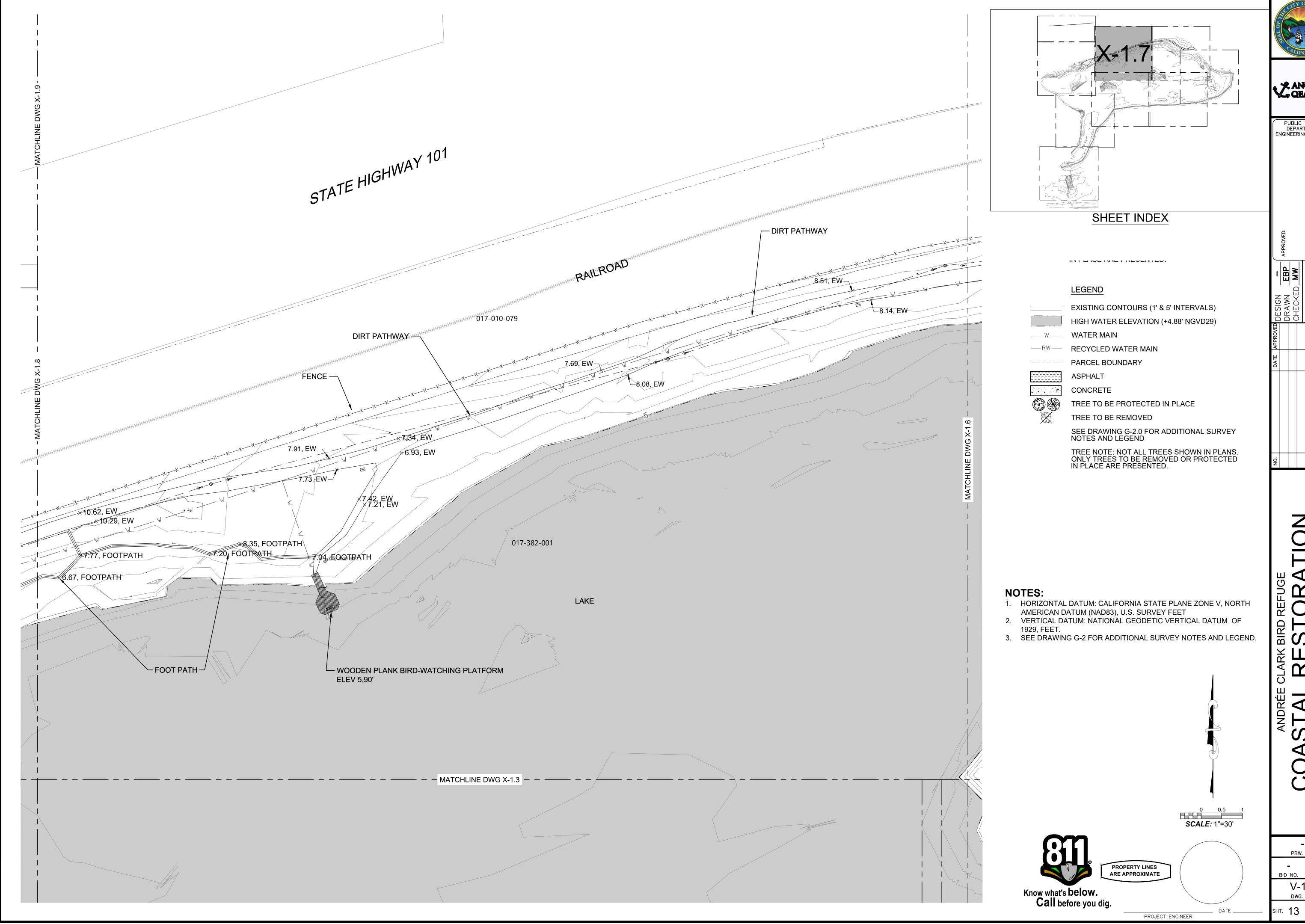




ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

V-1.6 SHT. 12 OF 53

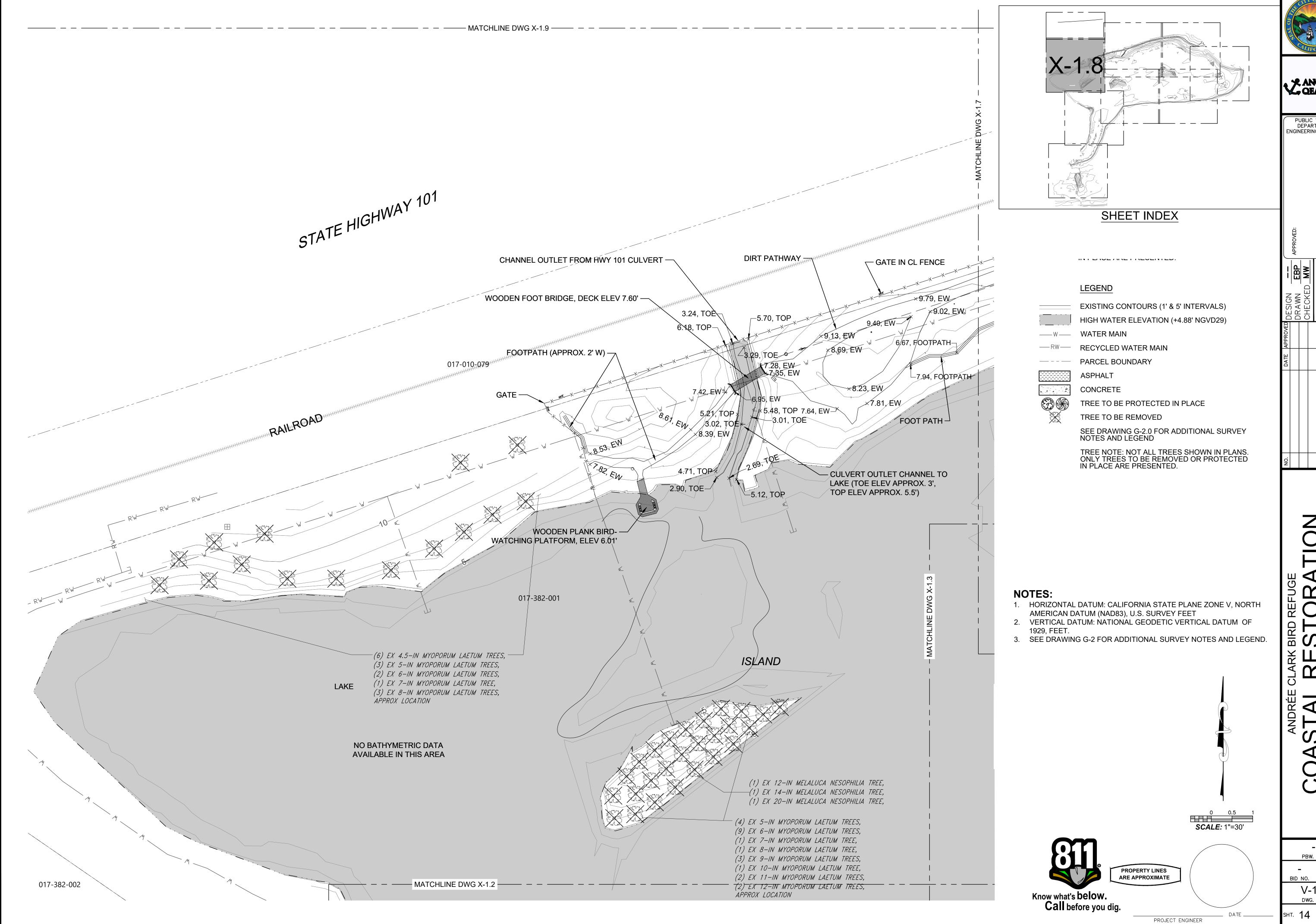




₹ ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

V-1.7 sнт. **13** оғ **53**

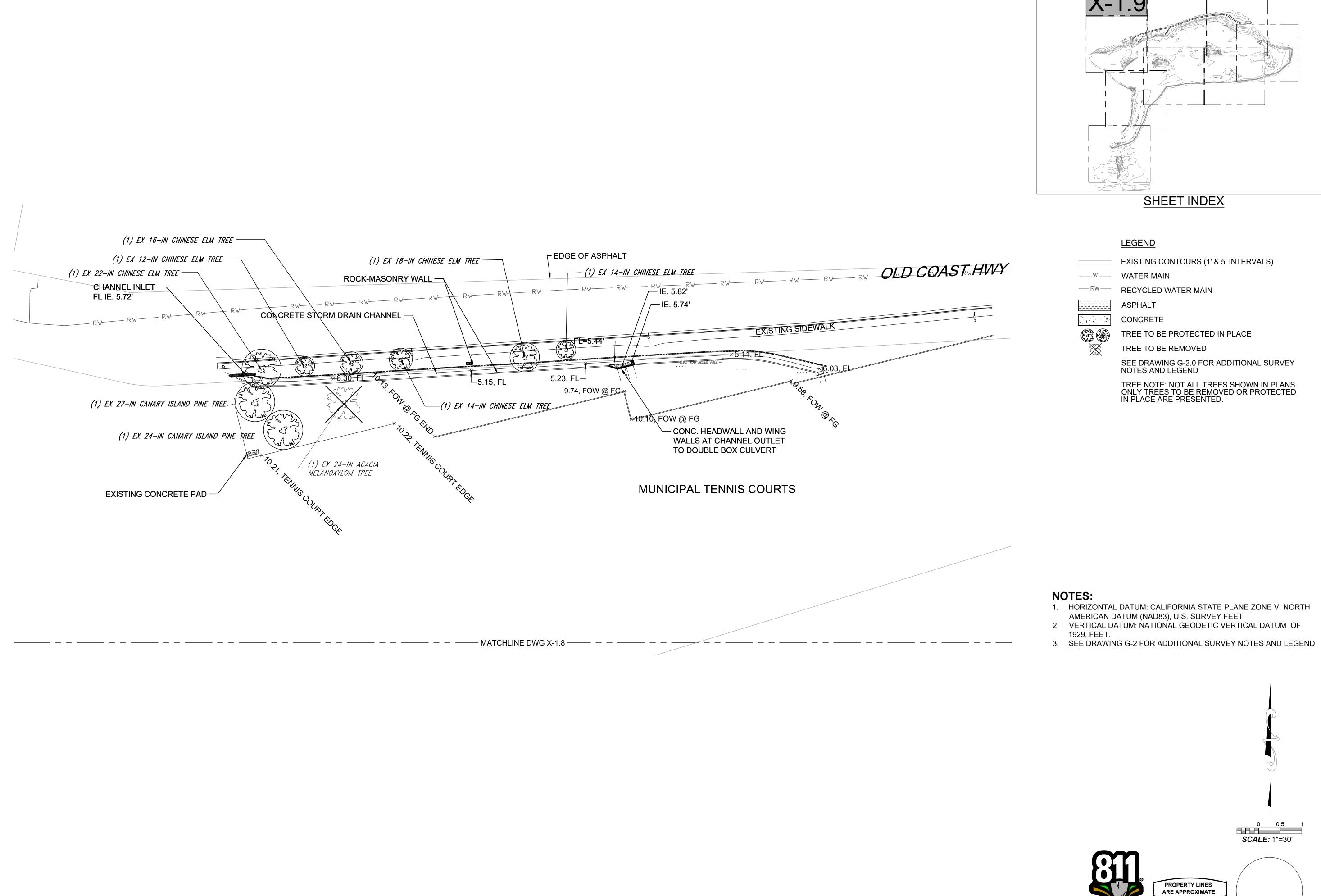


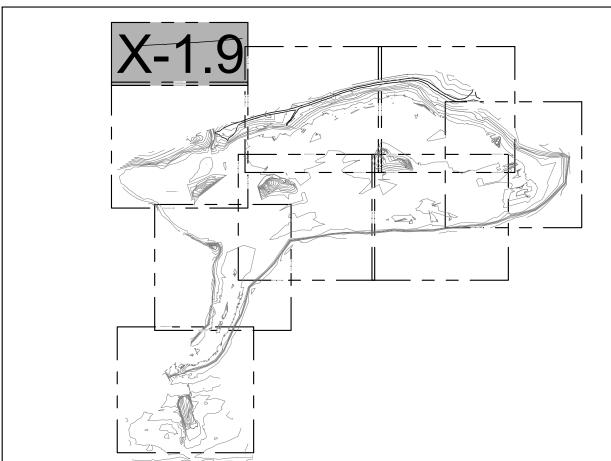


ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

V-1.8 SHT. 14 OF 53





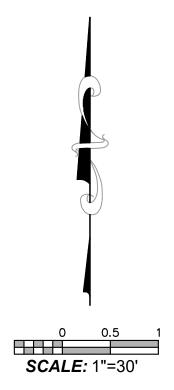
SHEET INDEX

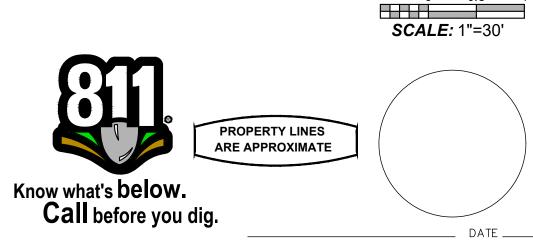
EXISTING CONTOURS (1' & 5' INTERVALS)

TREE TO BE REMOVED

SEE DRAWING G-2.0 FOR ADDITIONAL SURVEY NOTES AND LEGEND

TREE NOTE: NOT ALL TREES SHOWN IN PLANS. ONLY TREES TO BE REMOVED OR PROTECTED IN PLACE ARE PRESENTED.





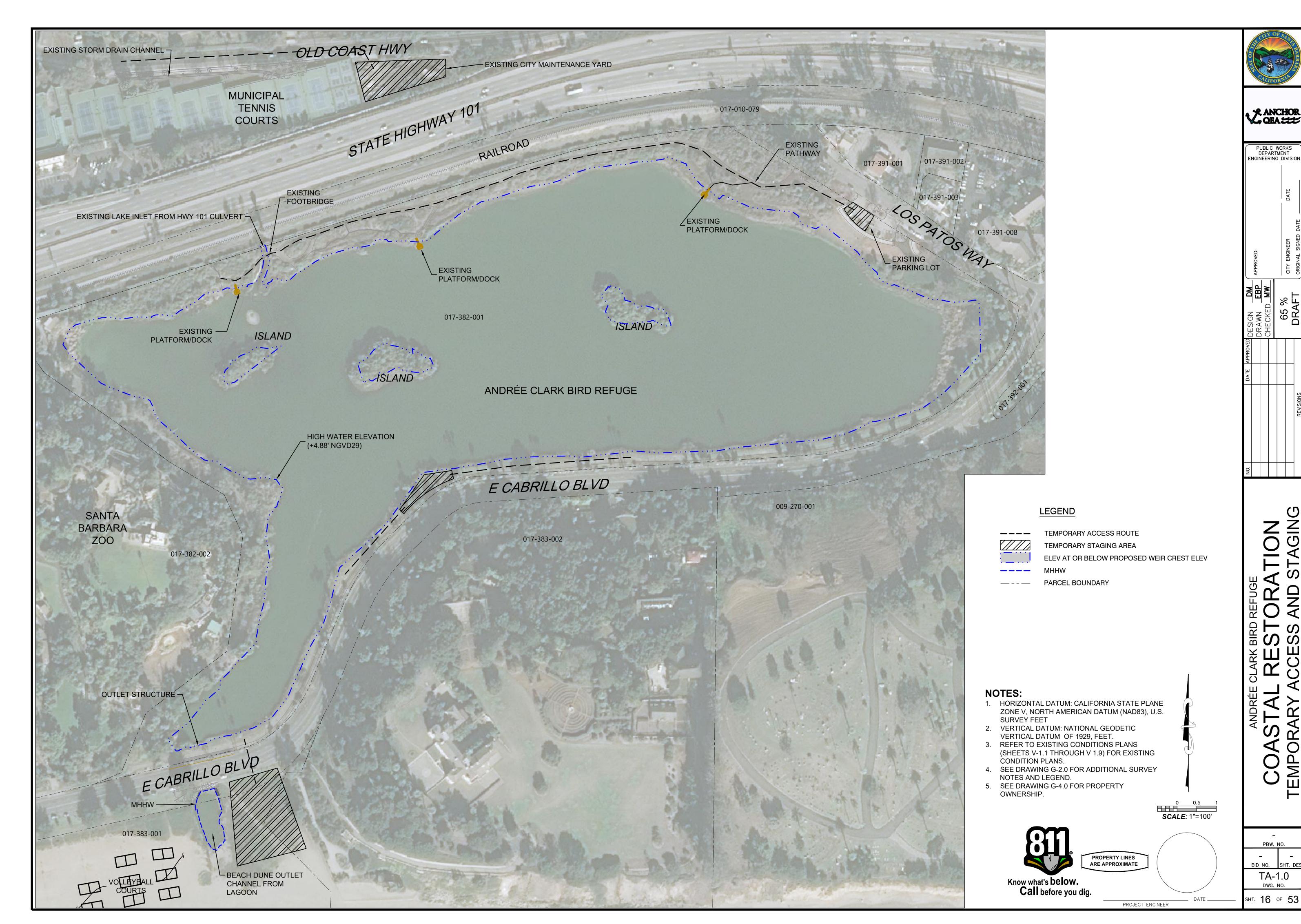
PROJECT ENGINEER

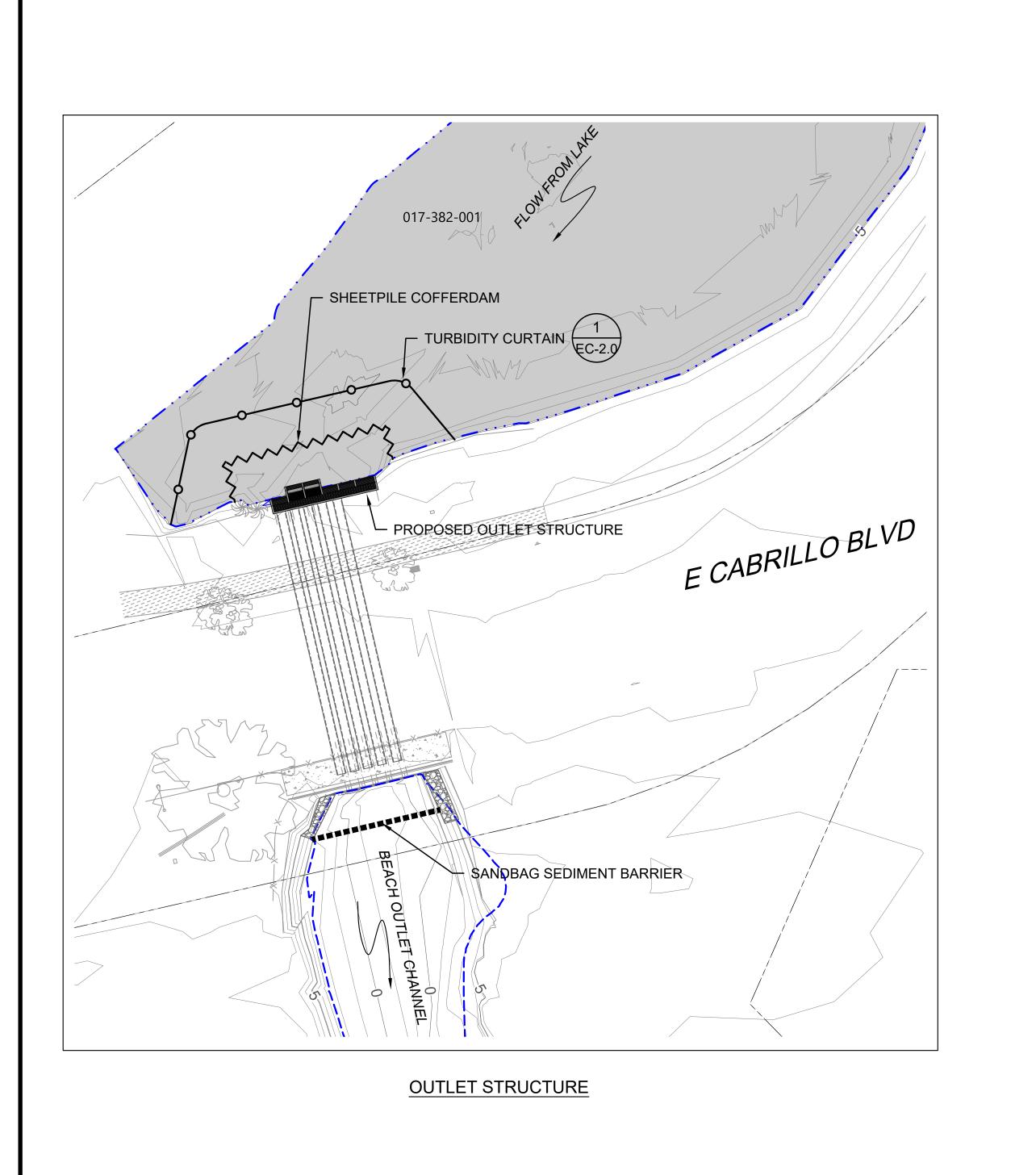
₹ ANCHOR QEA

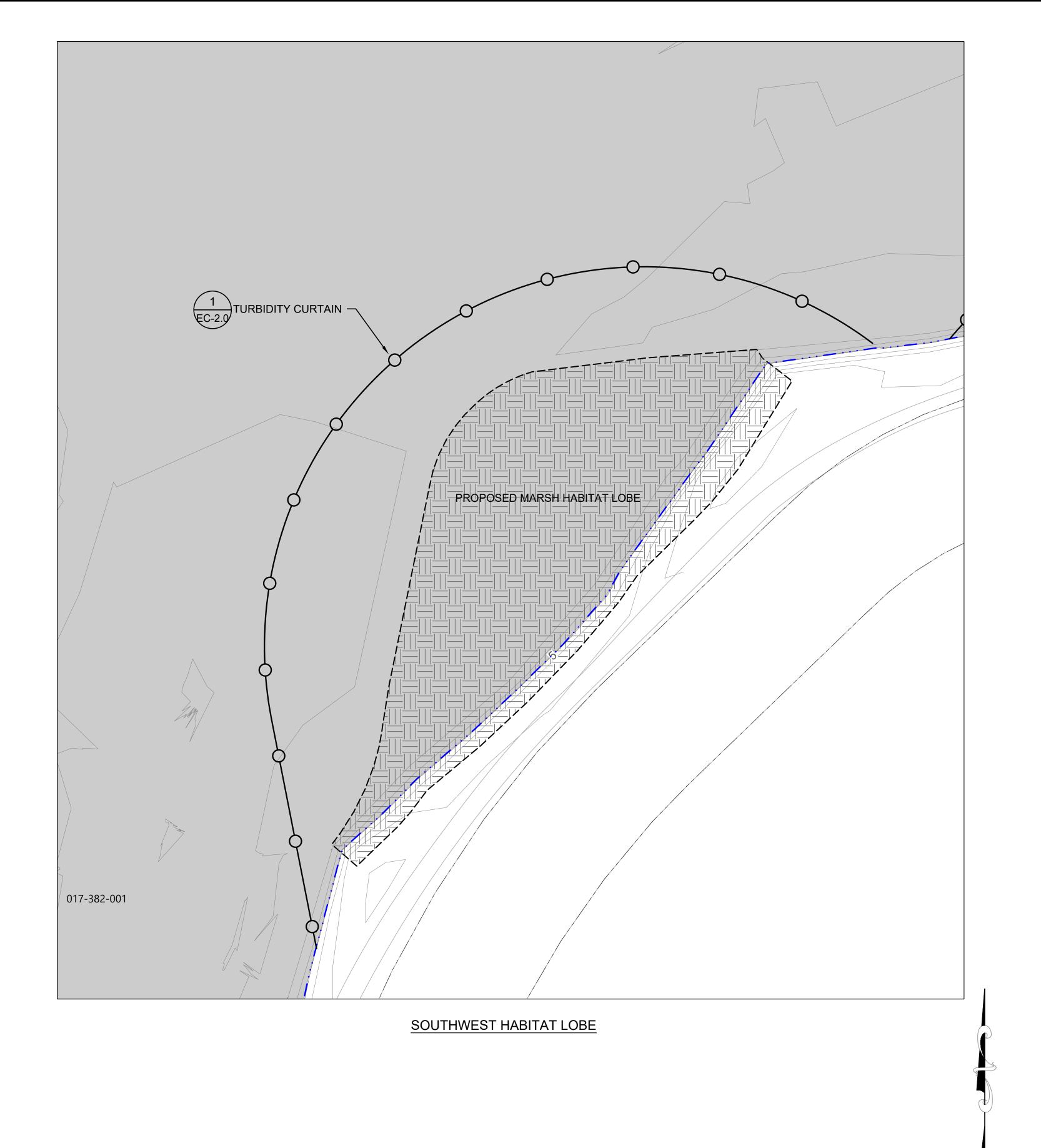
PUBLIC WORKS
DEPARTMENT
ENGINEERING DIVISION

V-1.9

sнт. 15 оғ 53







<u>LEGEND</u>

EXISTING CONTOURS (1' & 5' INTERVALS)

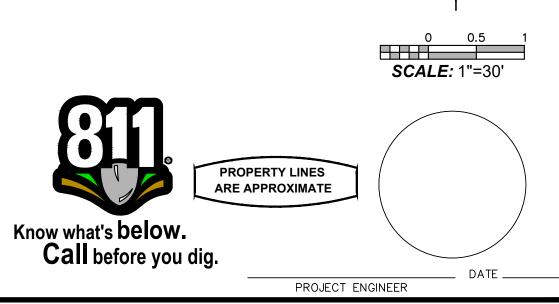
ELEV AT OR BELOW PROPOSED WEIR CREST ELEV

PROPOSED ELEMENT GRADING EXTENT

MHHW

PARCEL BOUNDARY
TURBIDITY CURTAIN

SANDBAG SEDIMENT BARRIER



PBW. NO.

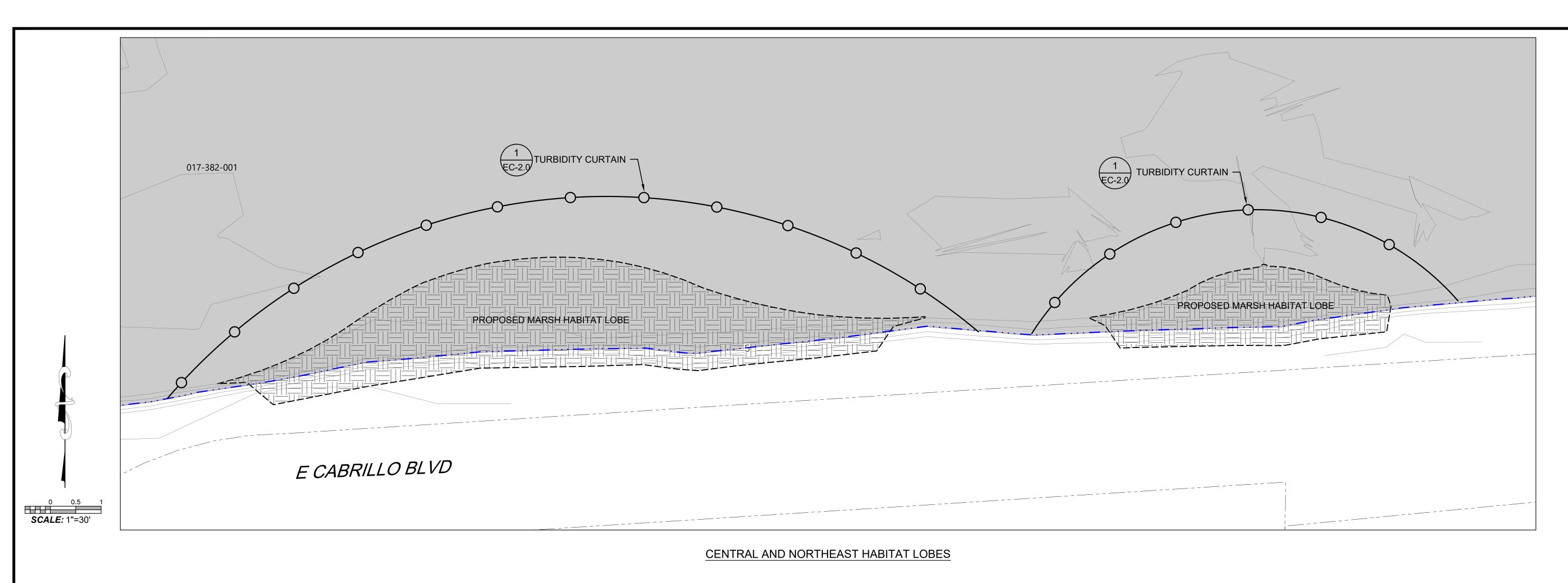
BID NO. SHT. DES.

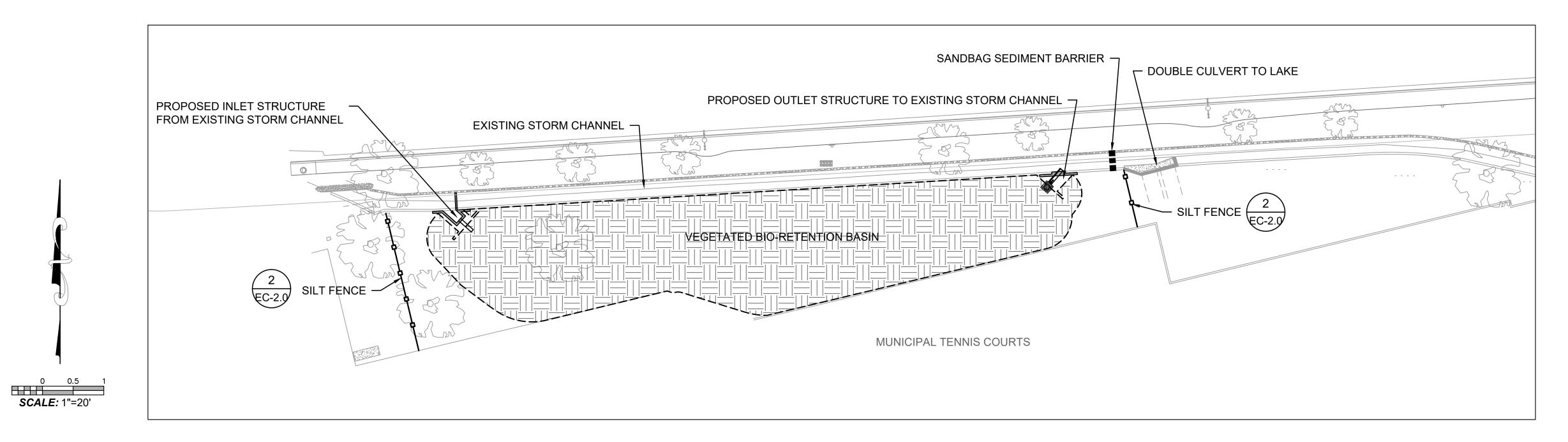
EC-1.0
DWG. NO.

SHT. 17 OF 53

ANCHOR QEASS

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION





BIO-RETENTION BASIN



EXISTING CONTOURS (1' & 5' INTERVALS)

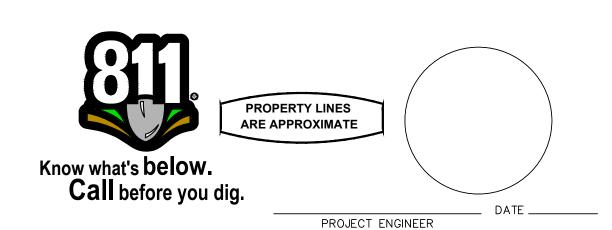
ELEV AT OR BELOW PROPOSED WEIR CREST ELEV

PROPOSED ELEMENT GRADING EXTENT

PARCEL BOUNDARY

TUBBIDITY CURTAIN

TURBIDITY CURTAIN
SANDBAG SEDIMENT BARRIER



O THE OWNER OF STREET

Z ANCHOR QEA

APPROVED:

MW

CITY ENGINEER

CITY ENGINEER

DATE

ORIGINAL SIGNED DATE

ORIGINAL SIGNED DATE

DATE APPROVED DESIGN DM APPROVED DRAWN EBP CHECKED MW

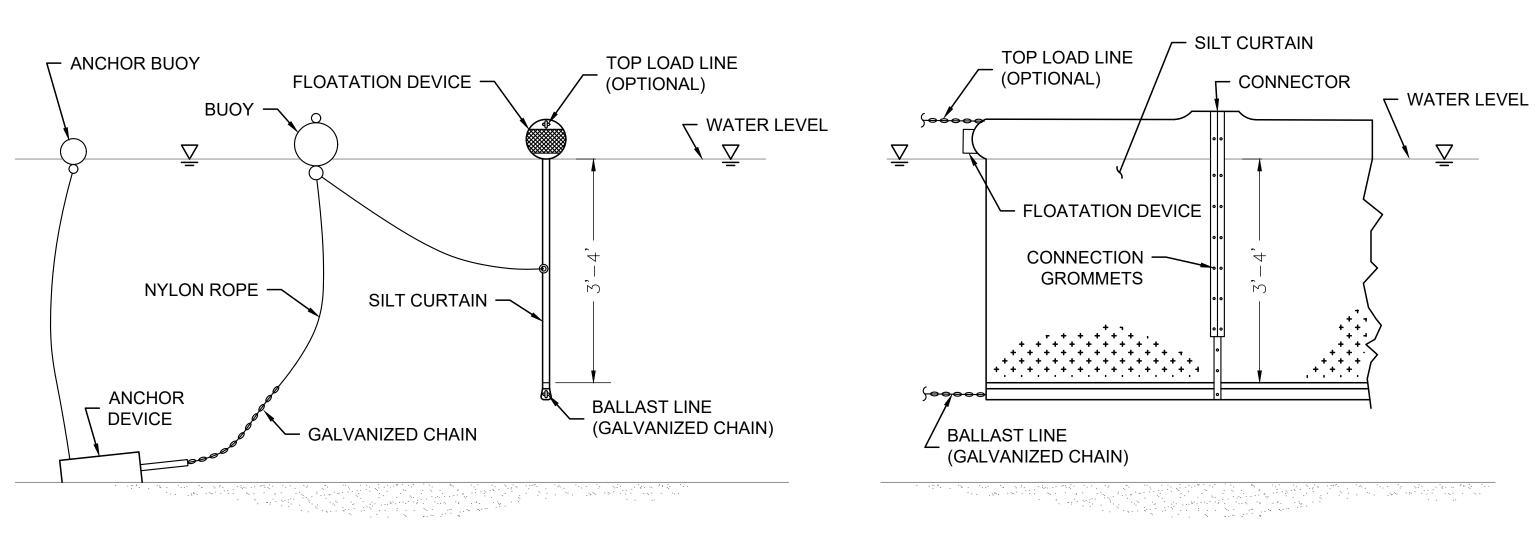
CHECKED MW

65 % CITY ENGI

ANDRÉE CLARK BIRD REFUGE

ASTAL RESTORATION

TEST DI ANI



SIDE VIEW

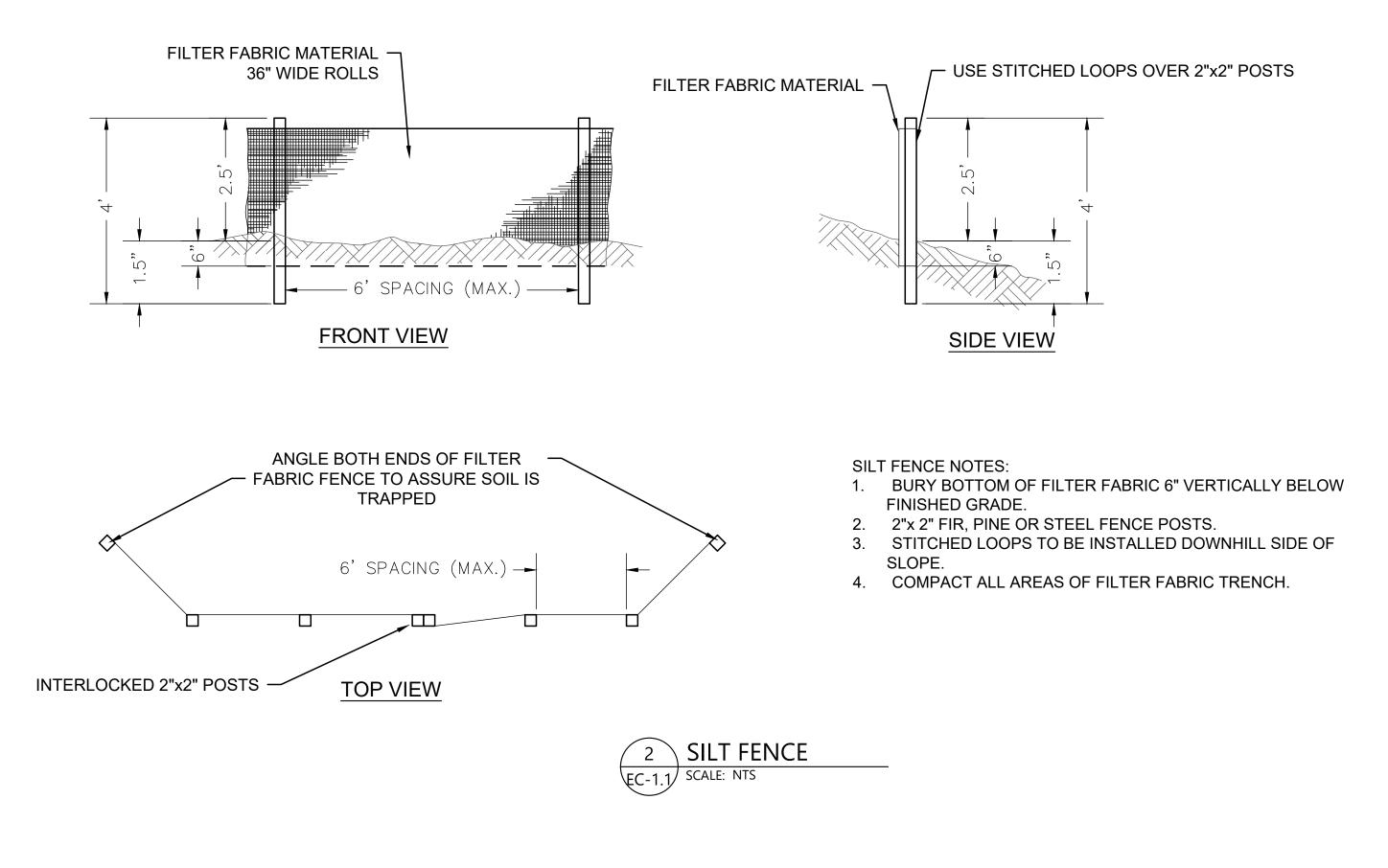
FRONT VIEW

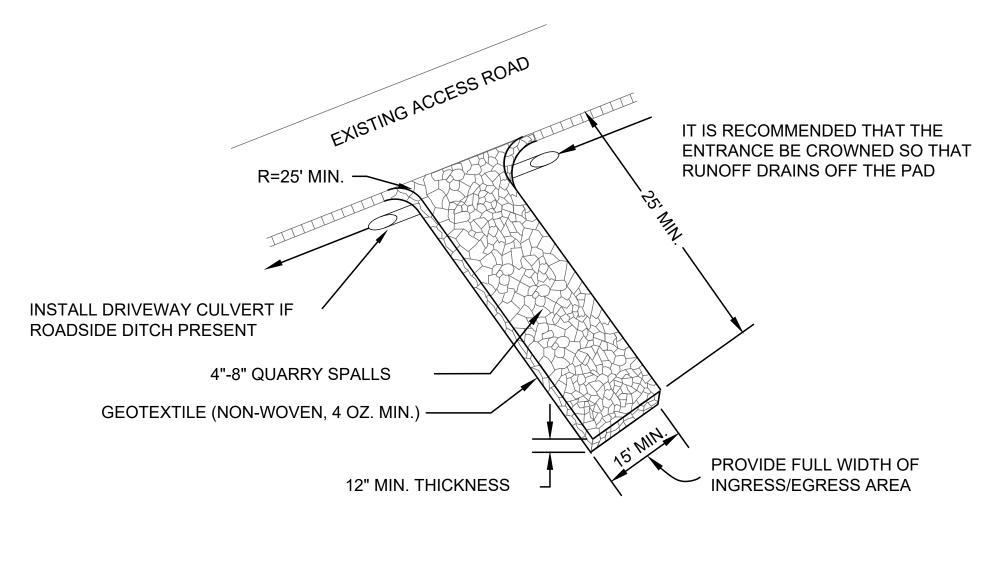
TURBIDITY CURTAIN NOTES:

 AROUND PILE DRIVING AREAS AND EXISTING PILE REMOVAL AREAS, LENGTH OF CURTAIN SHALL EXTEND TO MUDLINE FOR ALL TIDE LEVELS.

- 2. ALL OTHER AREAS, WHERE DEBRIS FROM DEMOLITION WORK MAY EXIST, LENGTH OF CURTAIN SHALL BE 6 FEET.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TURBIDITY CURTAIN TO MAINTAIN FUNCTIONALITY OF THE TURBIDITY CURTAIN THROUGHOUT ALL TIDAL CONDITIONS AND WEATHER EXPECTED DURING THE CONSTRUCTION PERIOD, AS REQUIRED BY THE APPROVED PROJECT PERMITS.
- 4. SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.

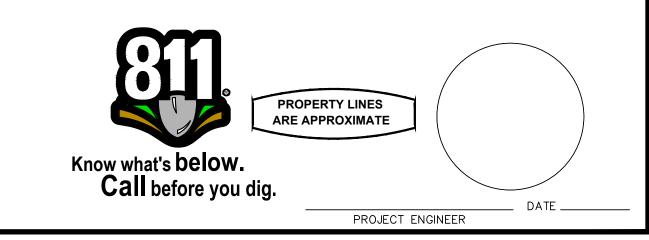






3 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NTS



THE PARTY OF THE P

ANCHOR QEA

APPROVED:

APPROVED:

APPROVED:

CITY ENGINEER

CITY ENGINEER

CITY ENGINEER

DATE

ORIGINAL SIGNED DATE

DATE APPROVED DESIGN DM CBP

DRAWN EBP

CHECKED MW

GAS %

CITY ENGINEER

Sevisions

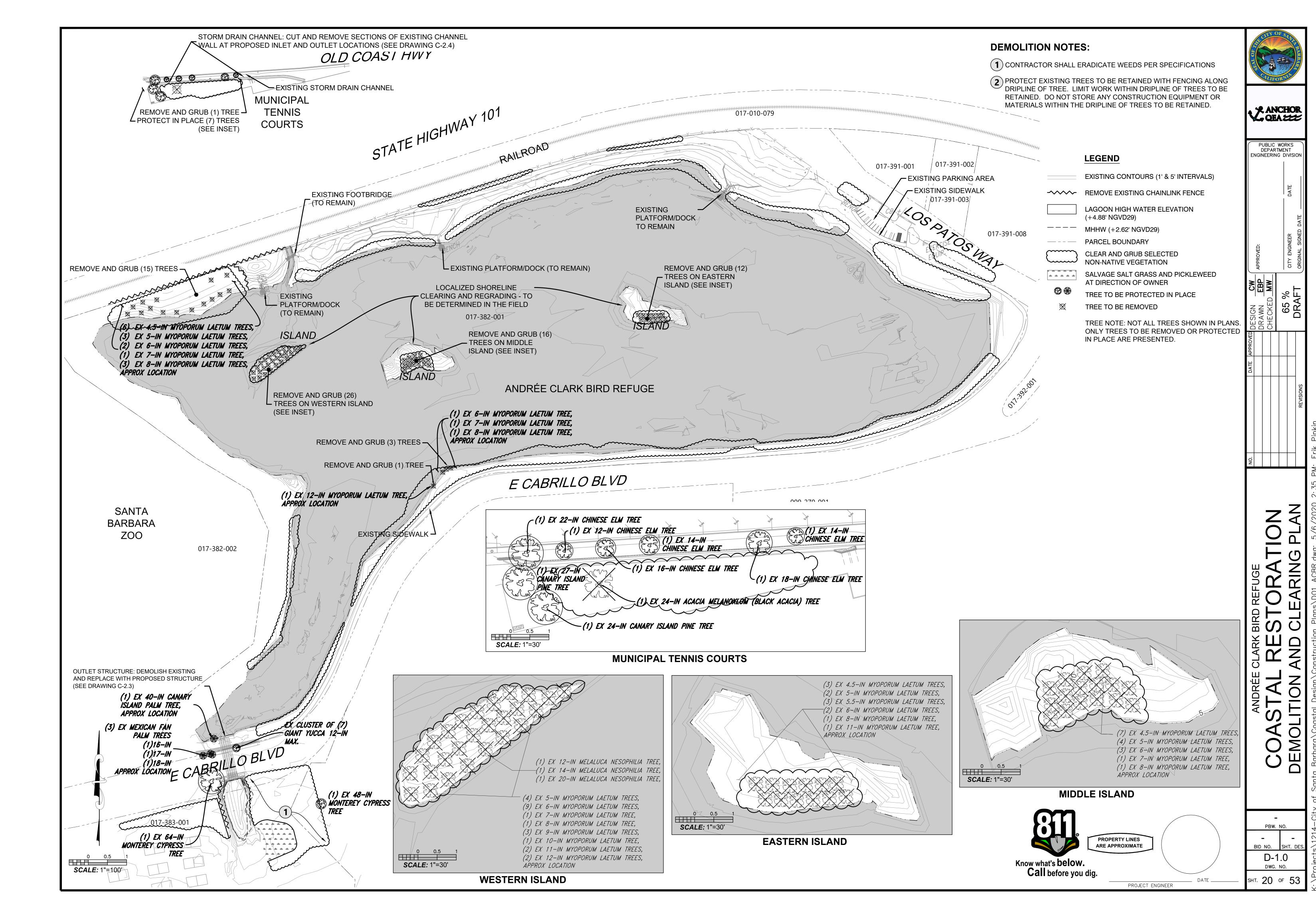
ASTAL RESTORATION
TESC DETAILS AND NOTES

PBW. NO.

BID NO. SHT. DES.

EC-2.0
DWG. NO.

SHT. 19 OF 53



PROJECT CONTROL POINT TABLE							
Northing	Easting	Elevation	Description				



VANCHOR QEA ₩

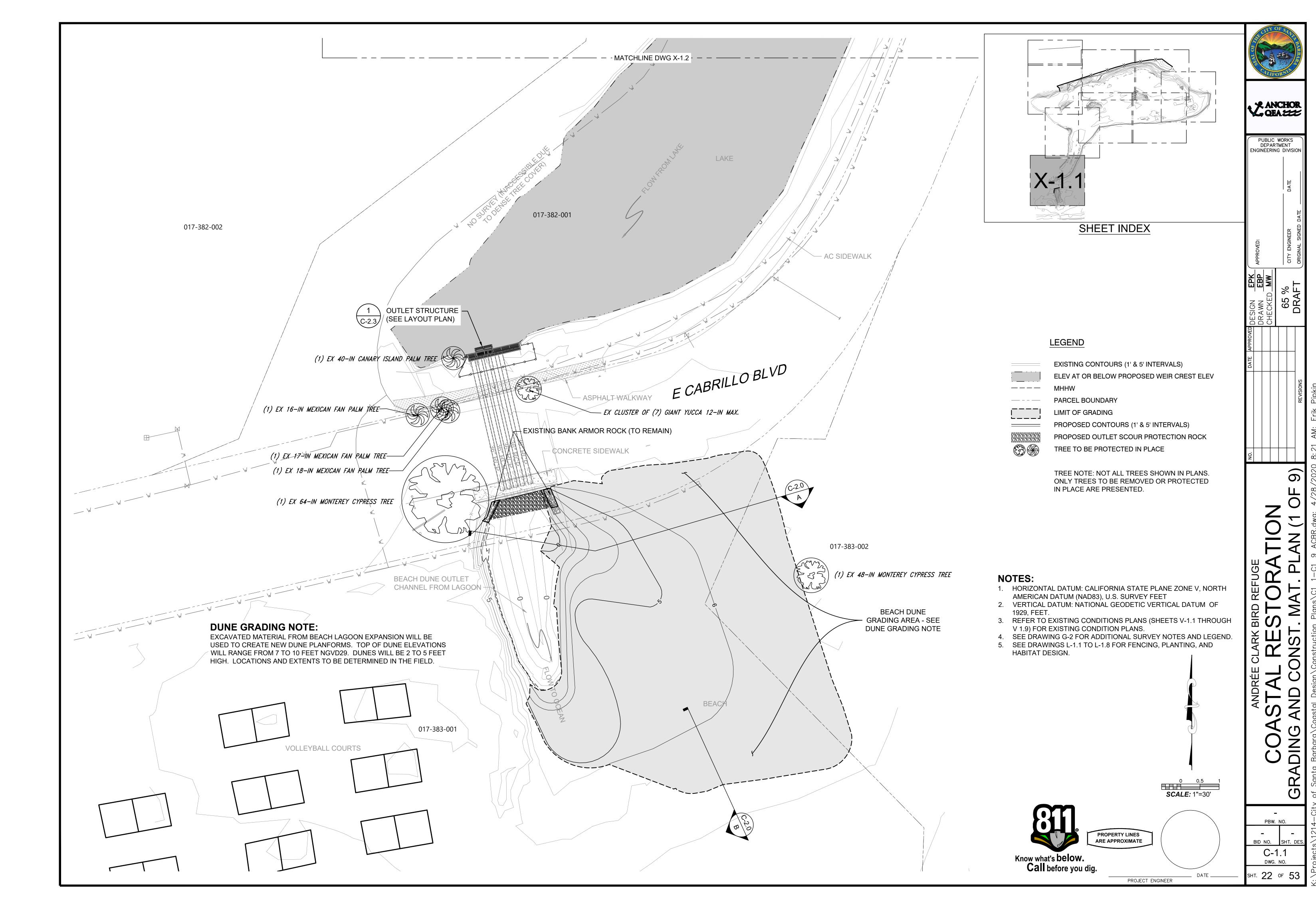
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

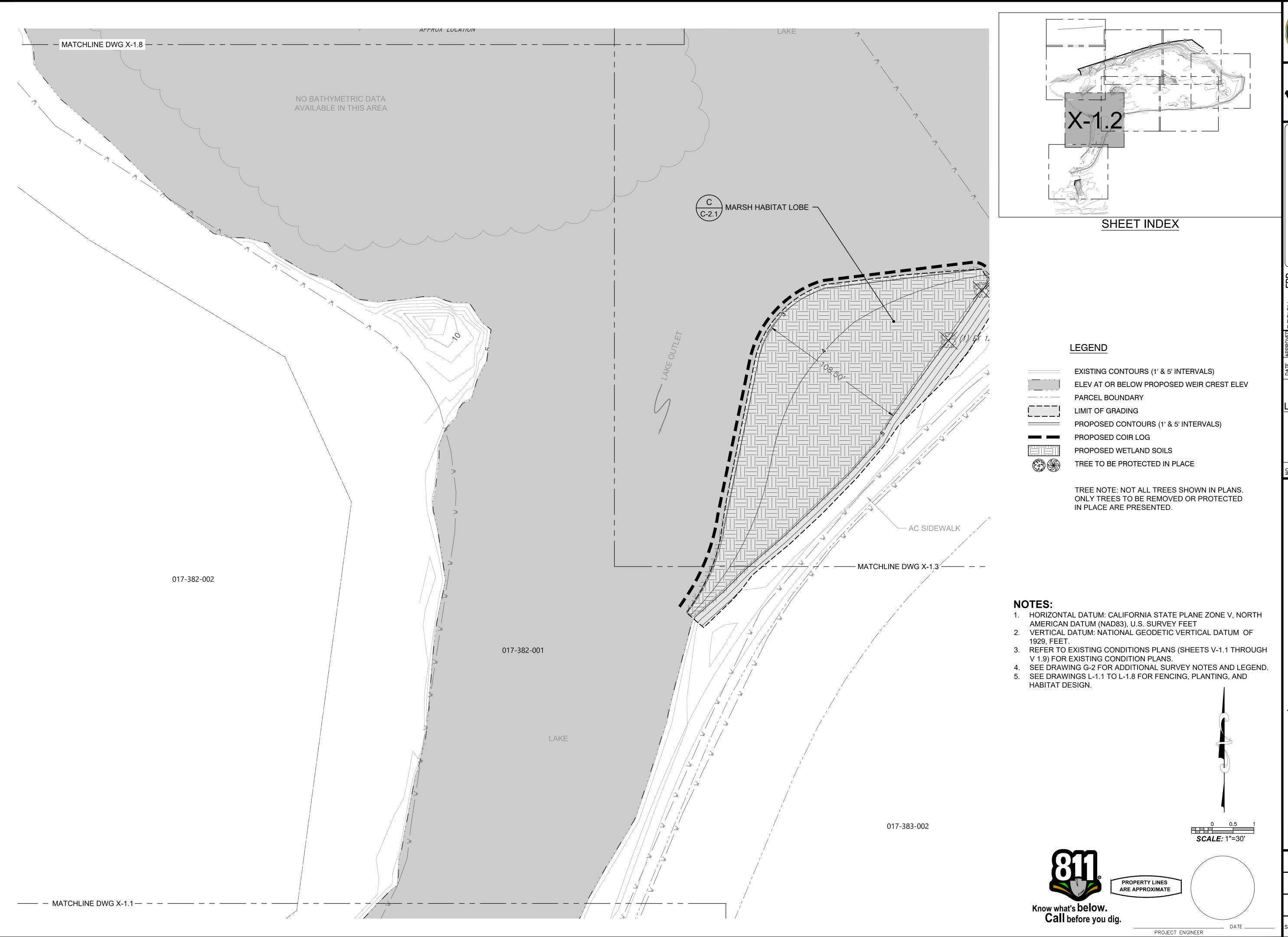
0 0.5 1 SCALE: 1"=30' PROPERTY LINES
ARE APPROXIMATE PROJECT ENGINEER

Know what's below.

Call before you dig.

PBW. NO. BID NO. SHT. DES C-1.0 DWG. NO. sнт. **21** оғ **53**





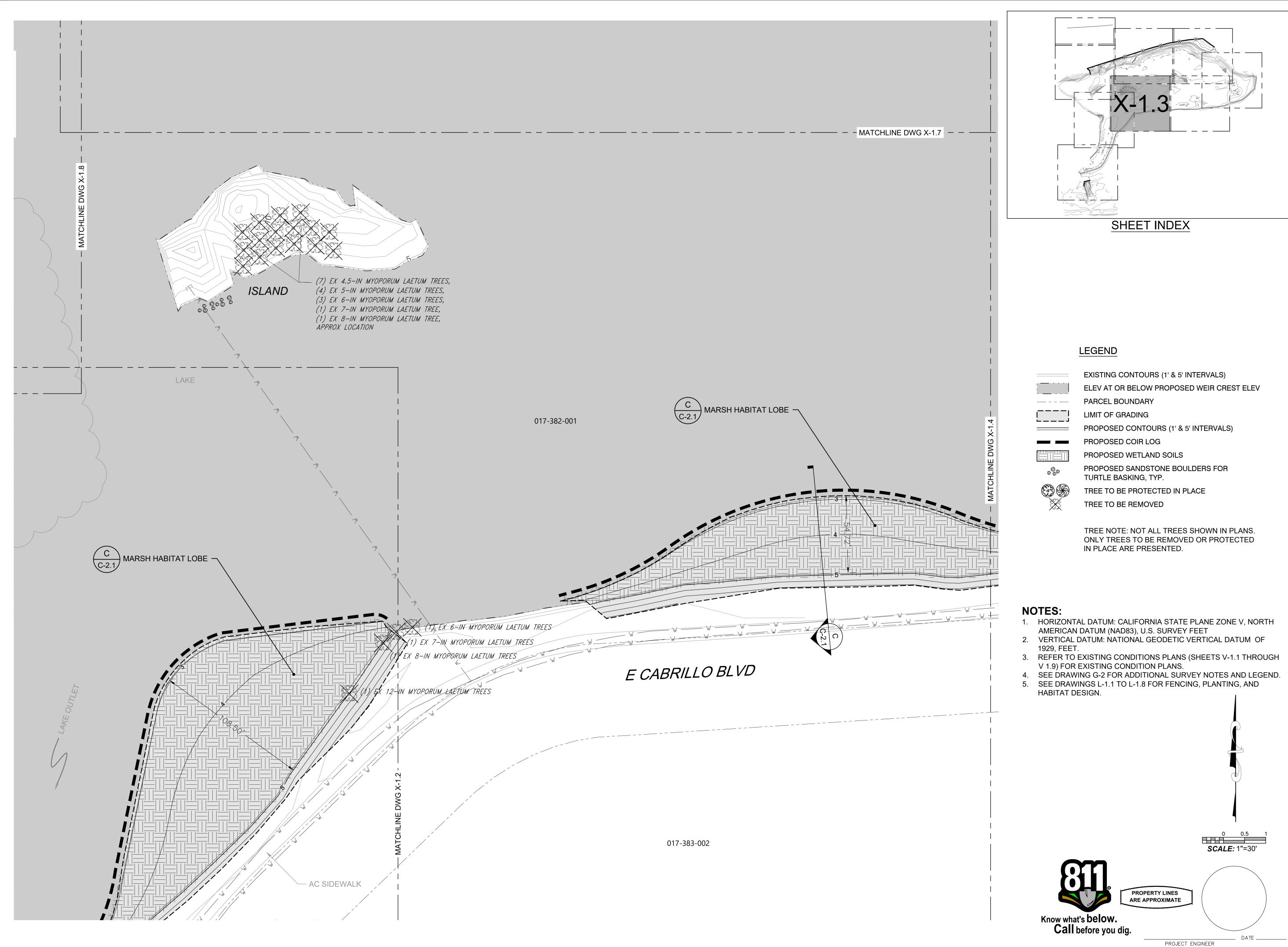
✓ ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

LEGEND

0

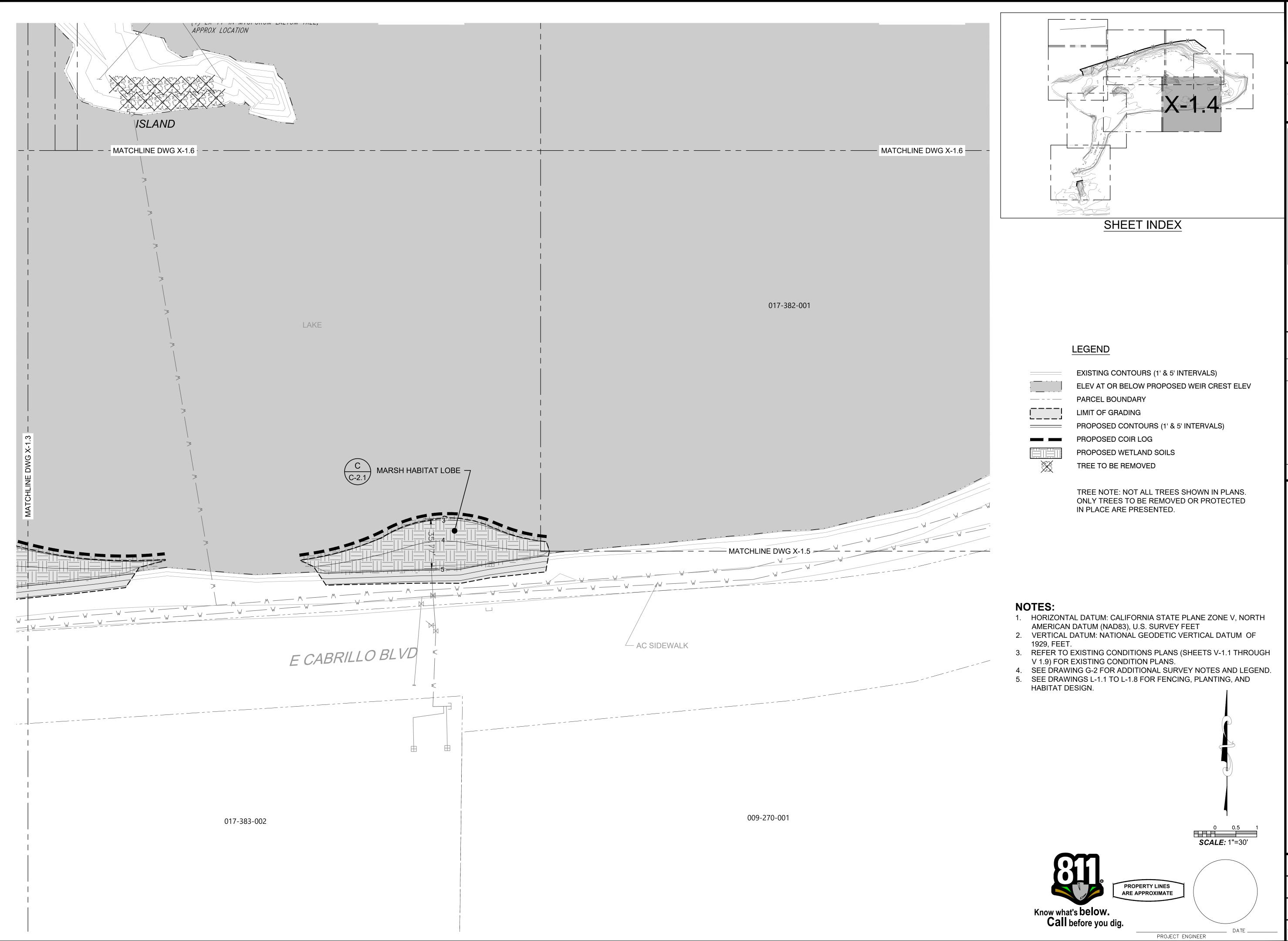
PBW. NO. BID NO. SHT. DE C-1.2 DWG. NO. SHT. 23 OF 53



✓ ANCHOR QEA 😅

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

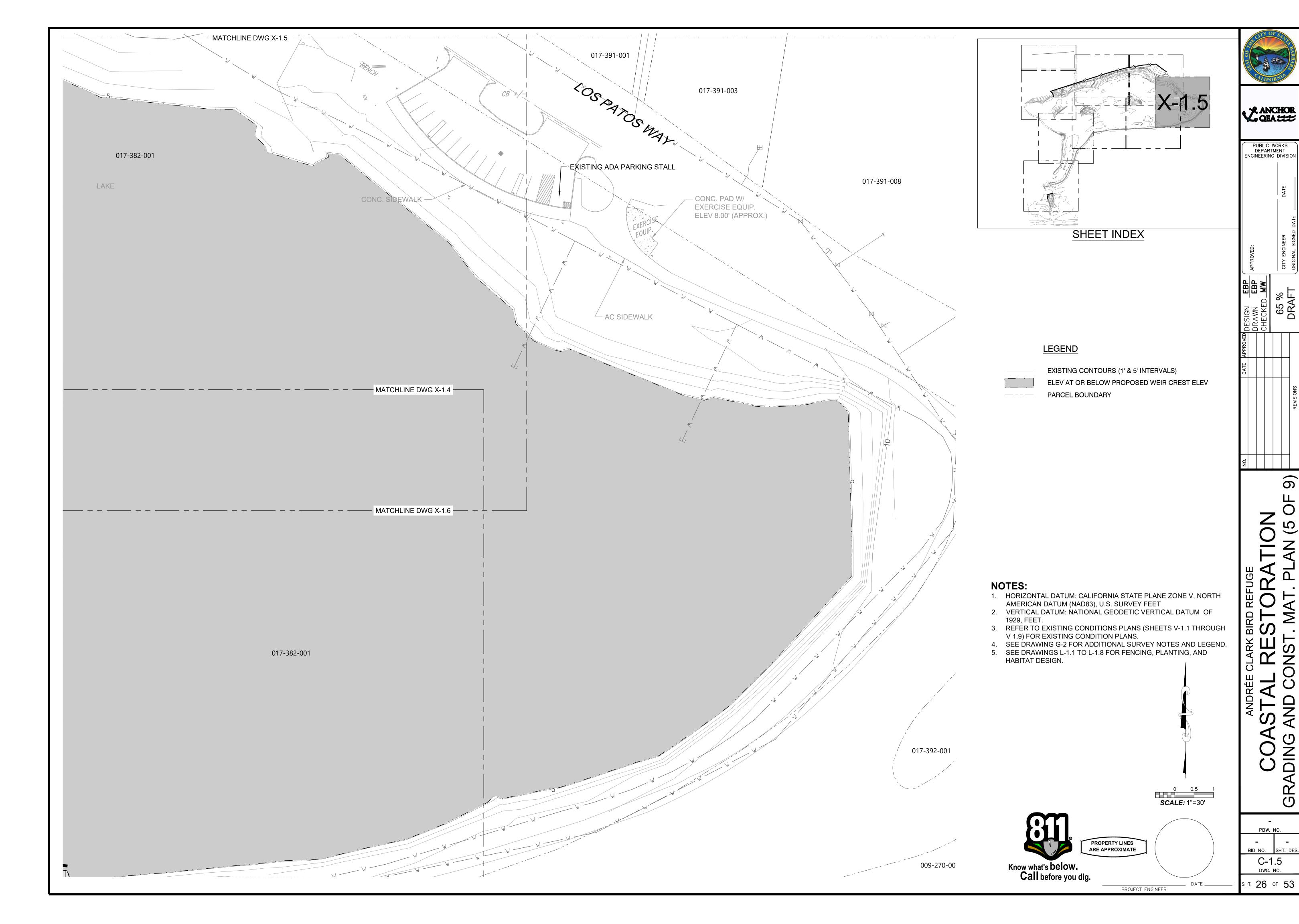
BID NO. SHT. D C-1.3 DWG. NO. sнт. **24** оғ **5**3

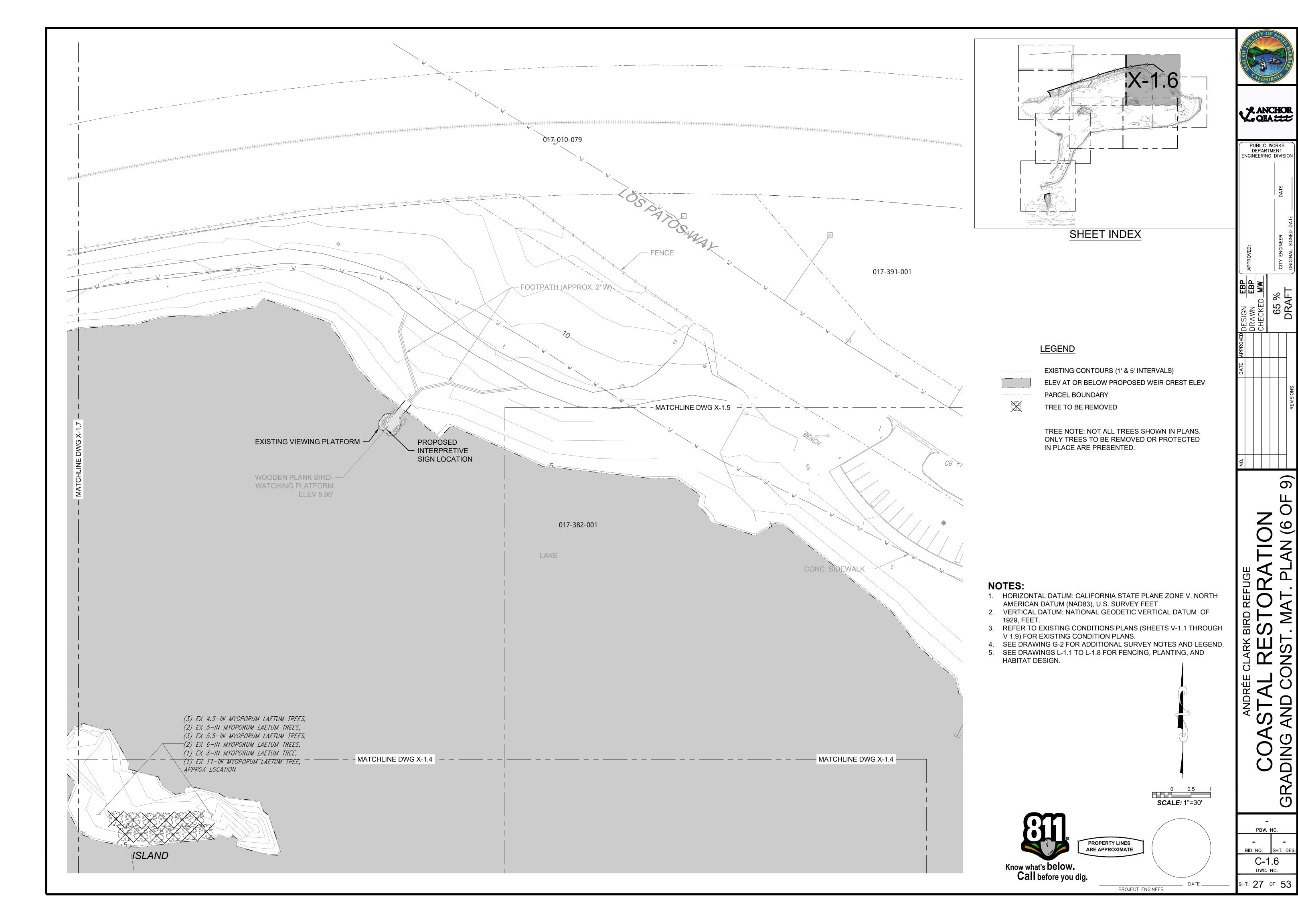


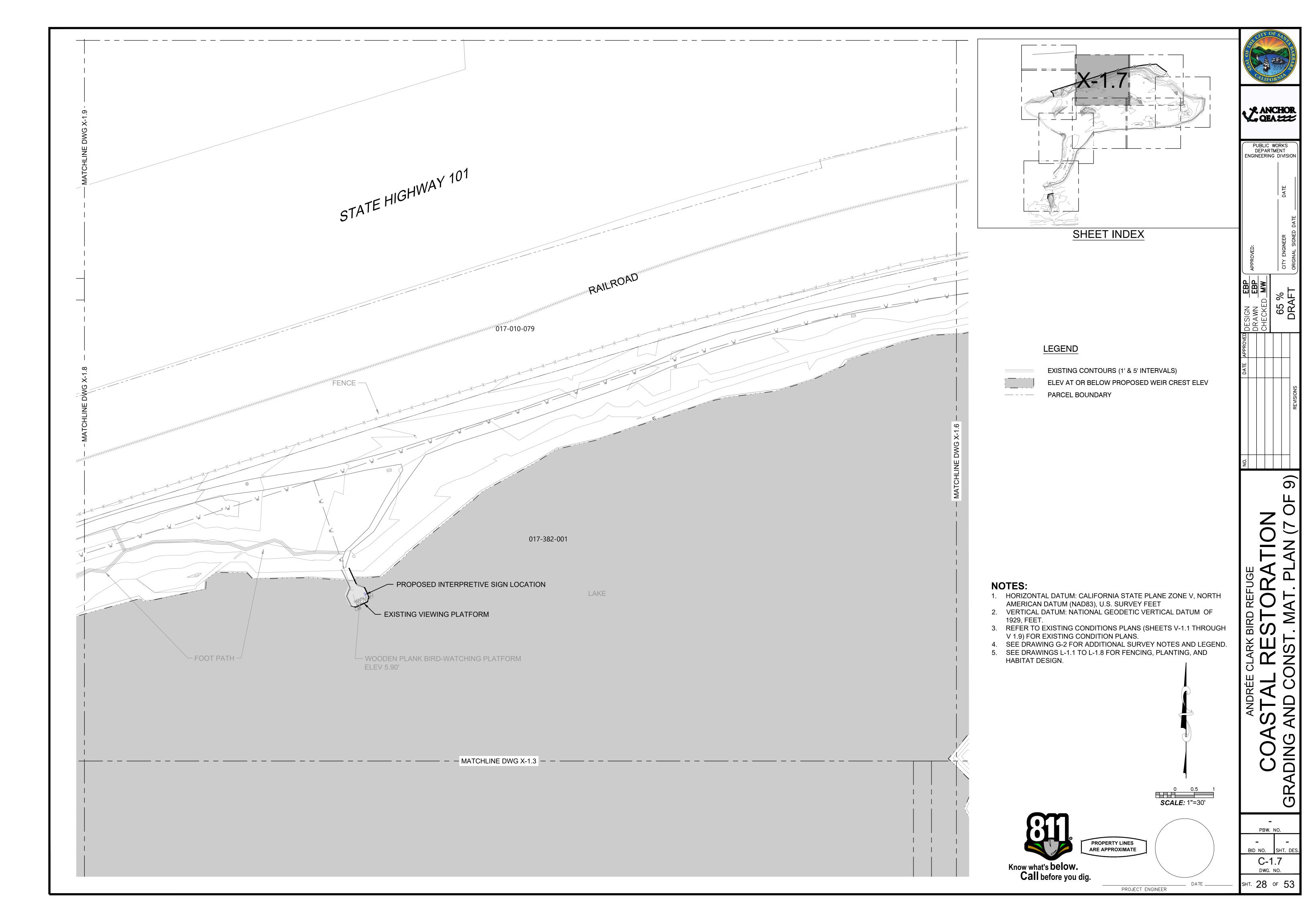
✓ ANCHOR QEA 😅

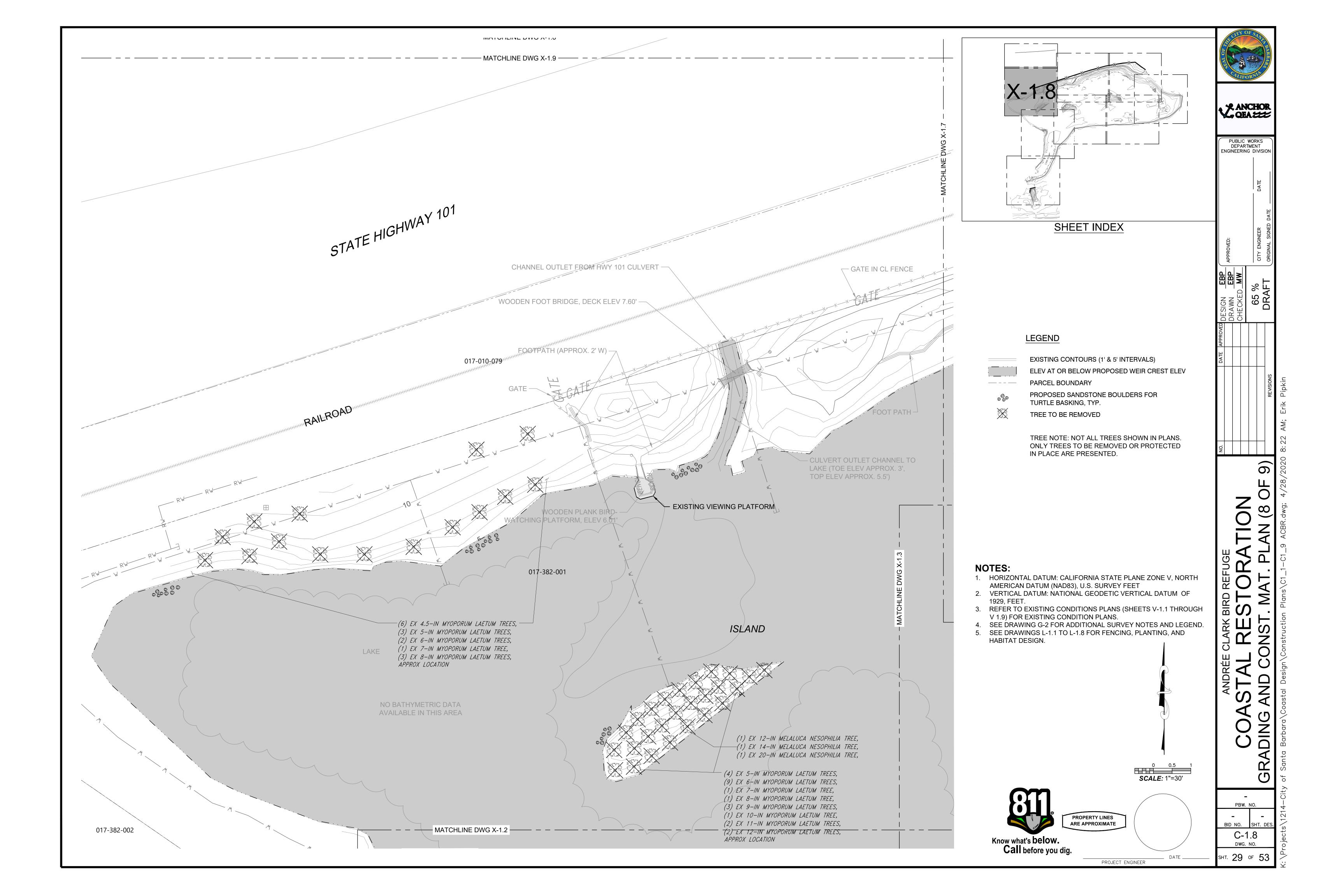
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

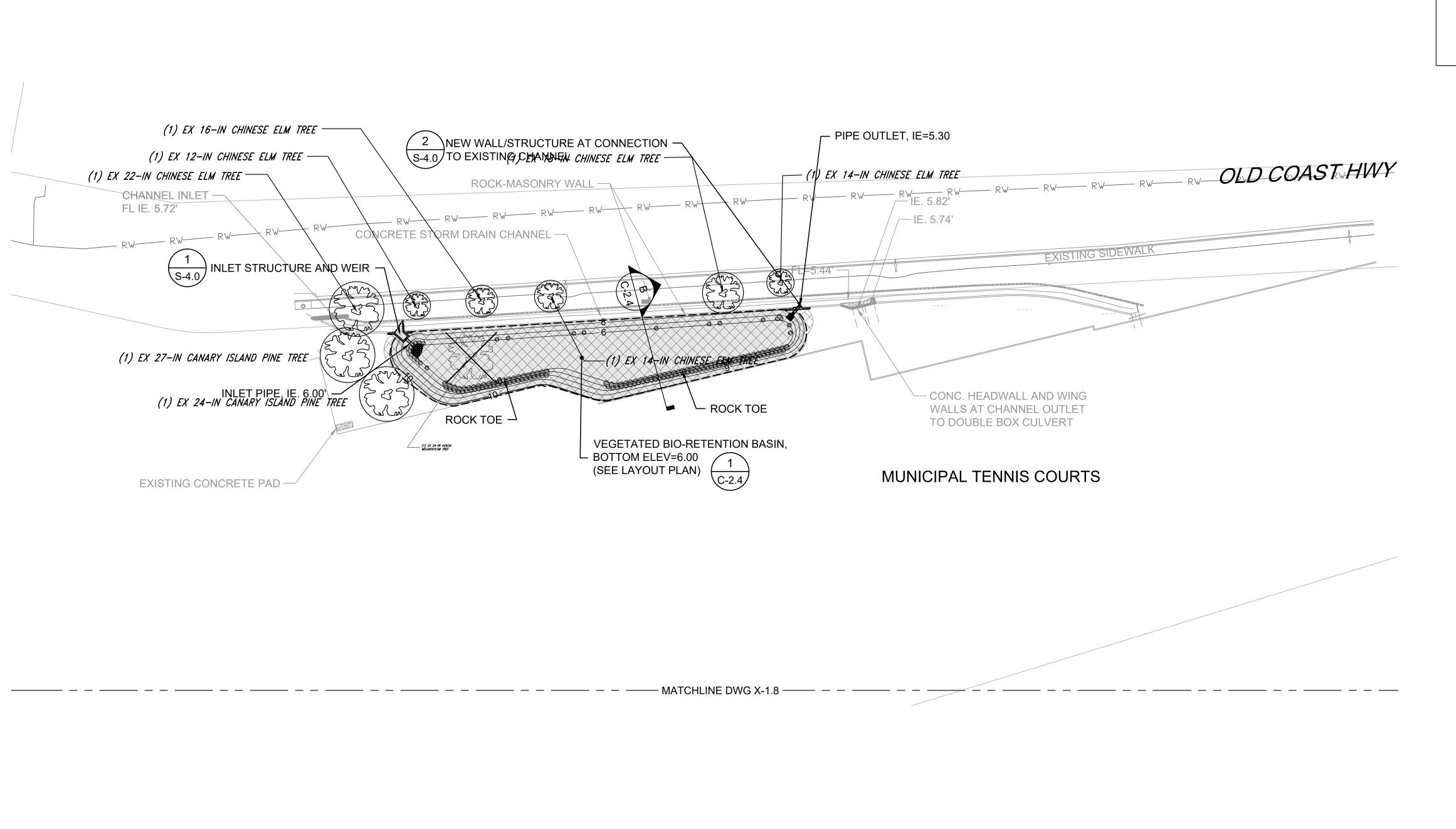
BID NO. SHT. DE C-1.4 DWG. NO. sнт. **25** оғ **5**3

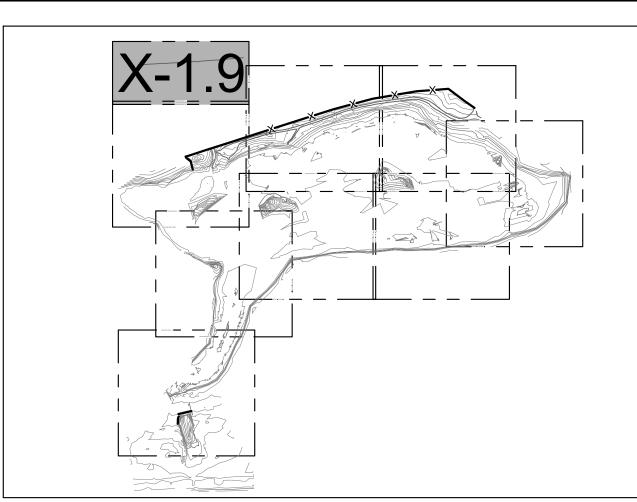












SHEET INDEX

LEGEND

EXISTING CONTOURS (1' & 5' INTERVALS) LIMIT OF GRADING

PROPOSED CONTOURS (1' & 5' INTERVALS) PROPOSED BIO-RETENTION SOILS

PROPOSED ROCK TOE BOULDER TREE TO BE PROTECTED IN PLACE

TREE TO BE REMOVED

TREE NOTE: NOT ALL TREES SHOWN IN PLANS. ONLY TREES TO BE REMOVED OR PROTECTED IN PLACE ARE PRESENTED.

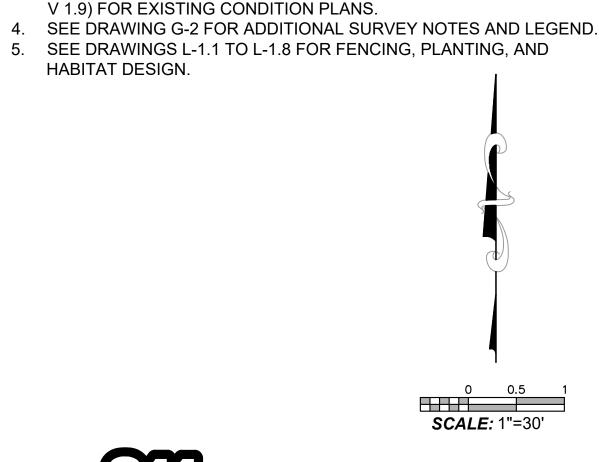
NOTES:

- 1. HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE V, NORTH
- AMERICAN DATUM (NAD83), U.S. SURVEY FEET

 2. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF

- REFER TO EXISTING CONDITIONS PLANS (SHEETS V-1.1 THROUGH V 1.9) FOR EXISTING CONDITION PLANS.
- SEE DRAWINGS L-1.1 TO L-1.8 FOR FENCING, PLANTING, AND

HABITAT DESIGN.





ANCHOR QEASS

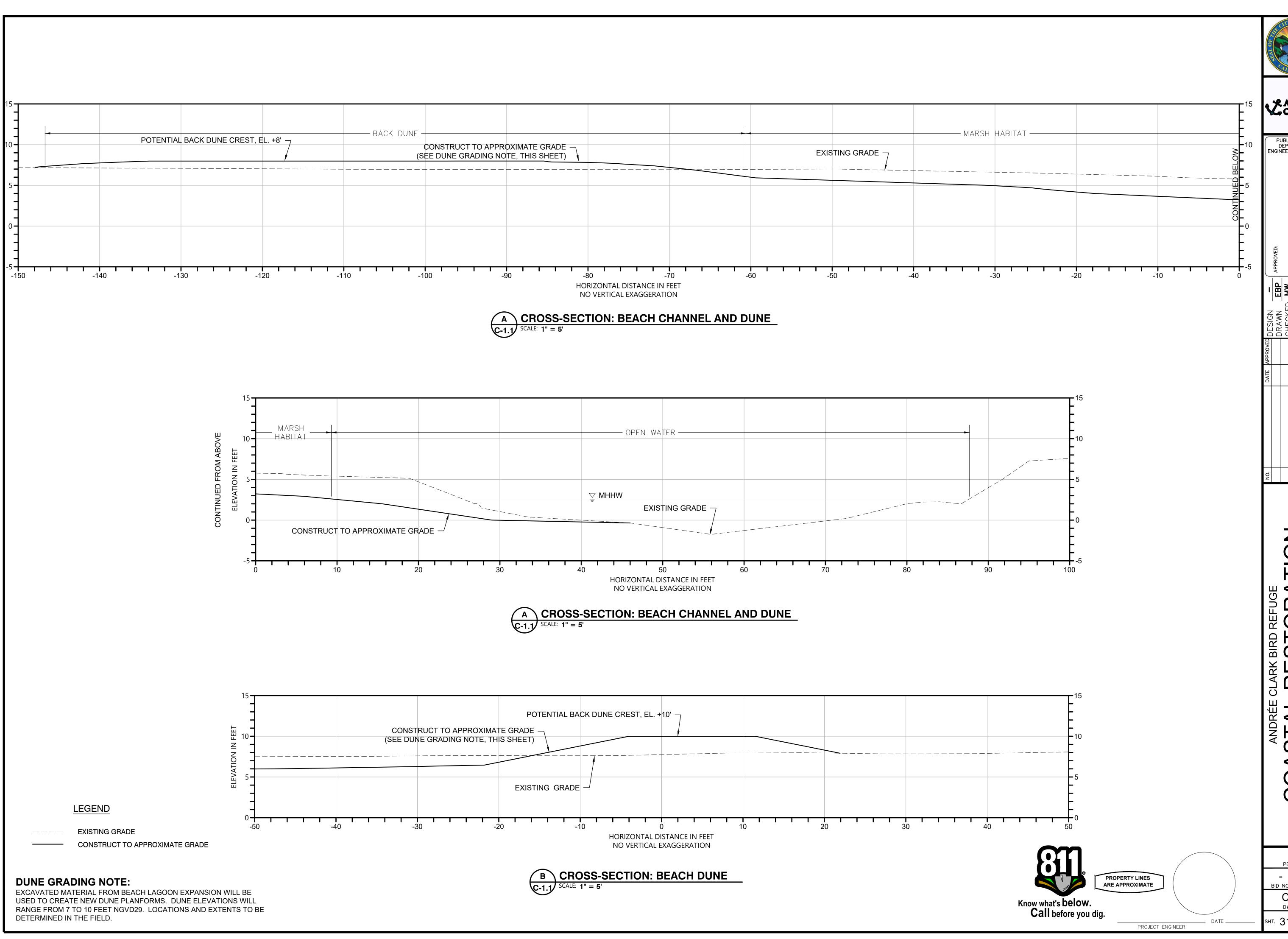
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

sнт. 30 оғ 53

PBW. NO.

DWG. NO.

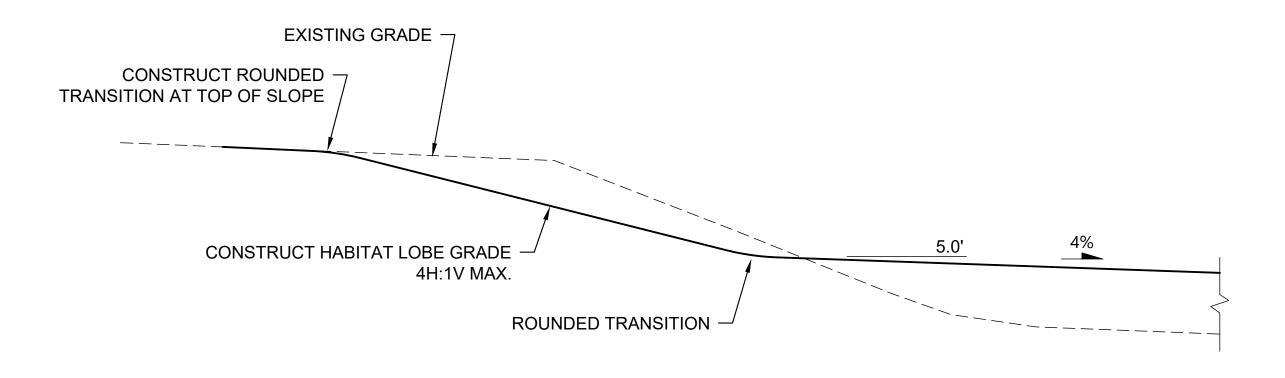
BID NO. SHT. DE C-1.9



✓ ANCHOR QEA 😅

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

PBW. NO. BID NO. SHT. DE C-2.0 DWG. NO. sнт. **31** оғ **53**



DETAIL 2: MARSH HABITAT LOBE GRADING SCALE: N.T.S.

LEGEND

--- EXISTING GRADE

CONSTRUCT TO APPROXIMATE GRADE



CHECKED_MW

65 %

CITY ENGINEER

DRAFT

ORIGINAL SIGNED DATE

ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

CHECKED MW EBP CHECKED MW REVISIONS CHECKED MW CBP CHECKED MW CBP

COASH HABITAT LOBE SECTION AND DE

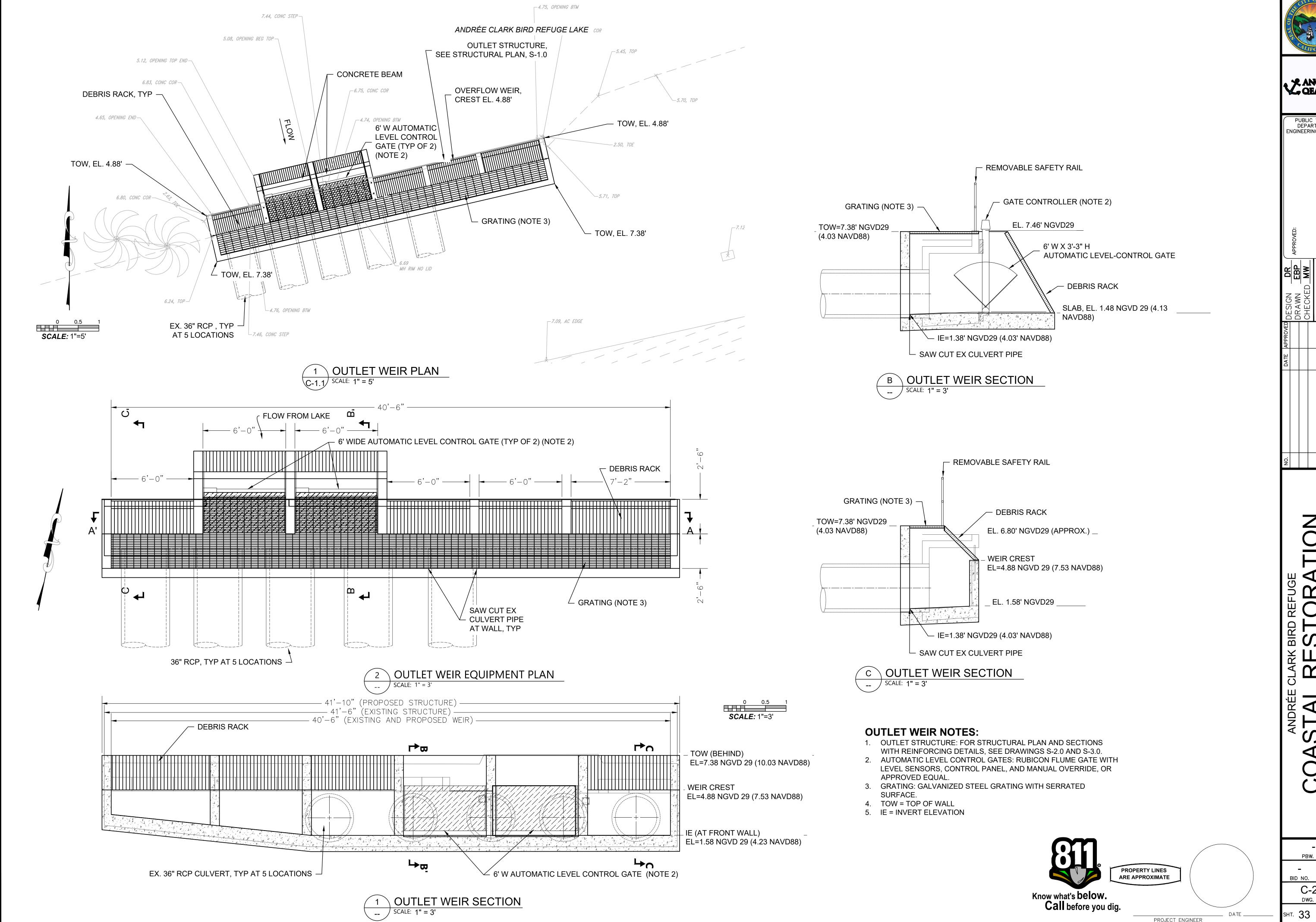
PBW. NO.

BID NO. SHT. DES.

C-2.1
DWG. NO.

SHT. 32 OF 53

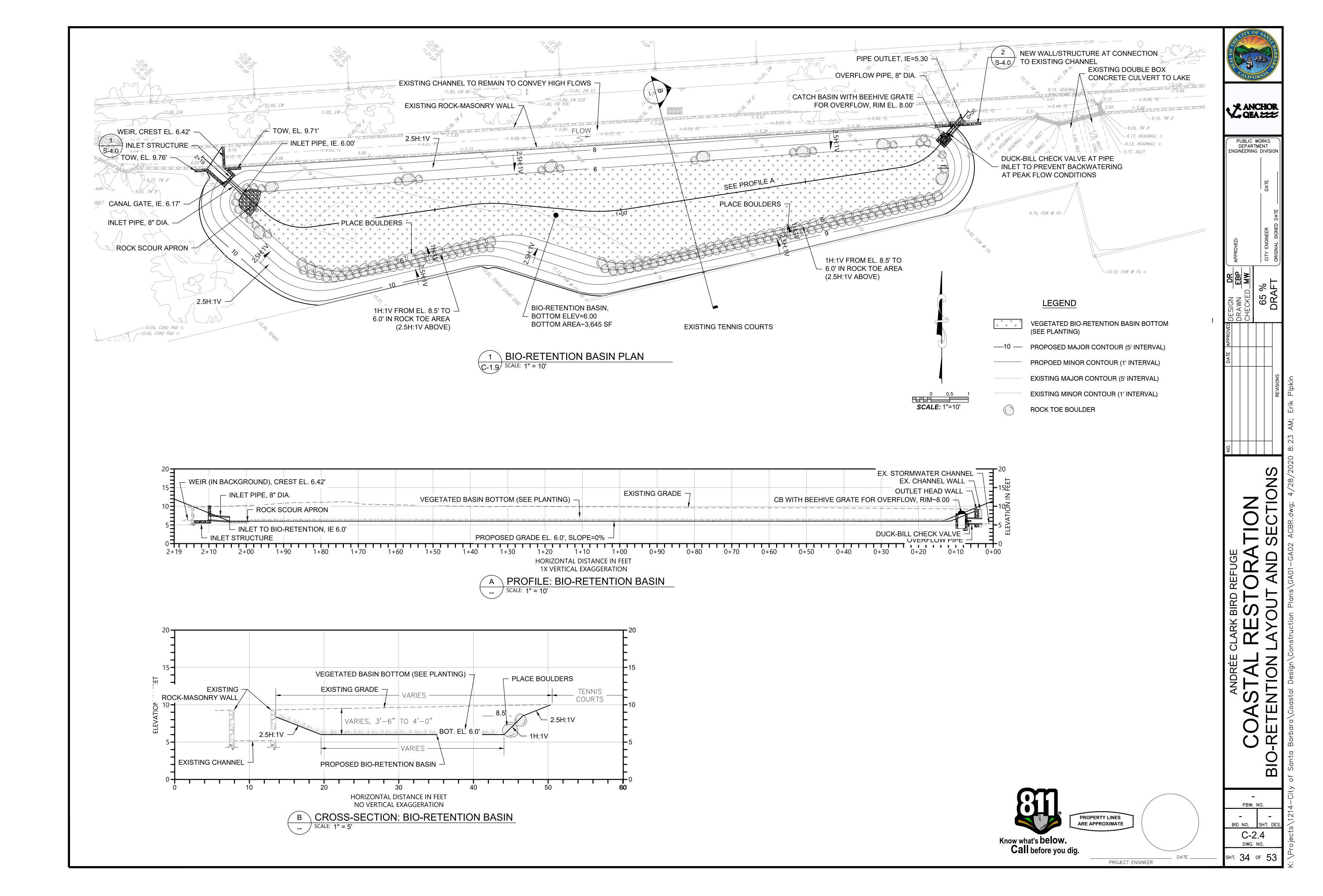
PROJECT ENGINEER

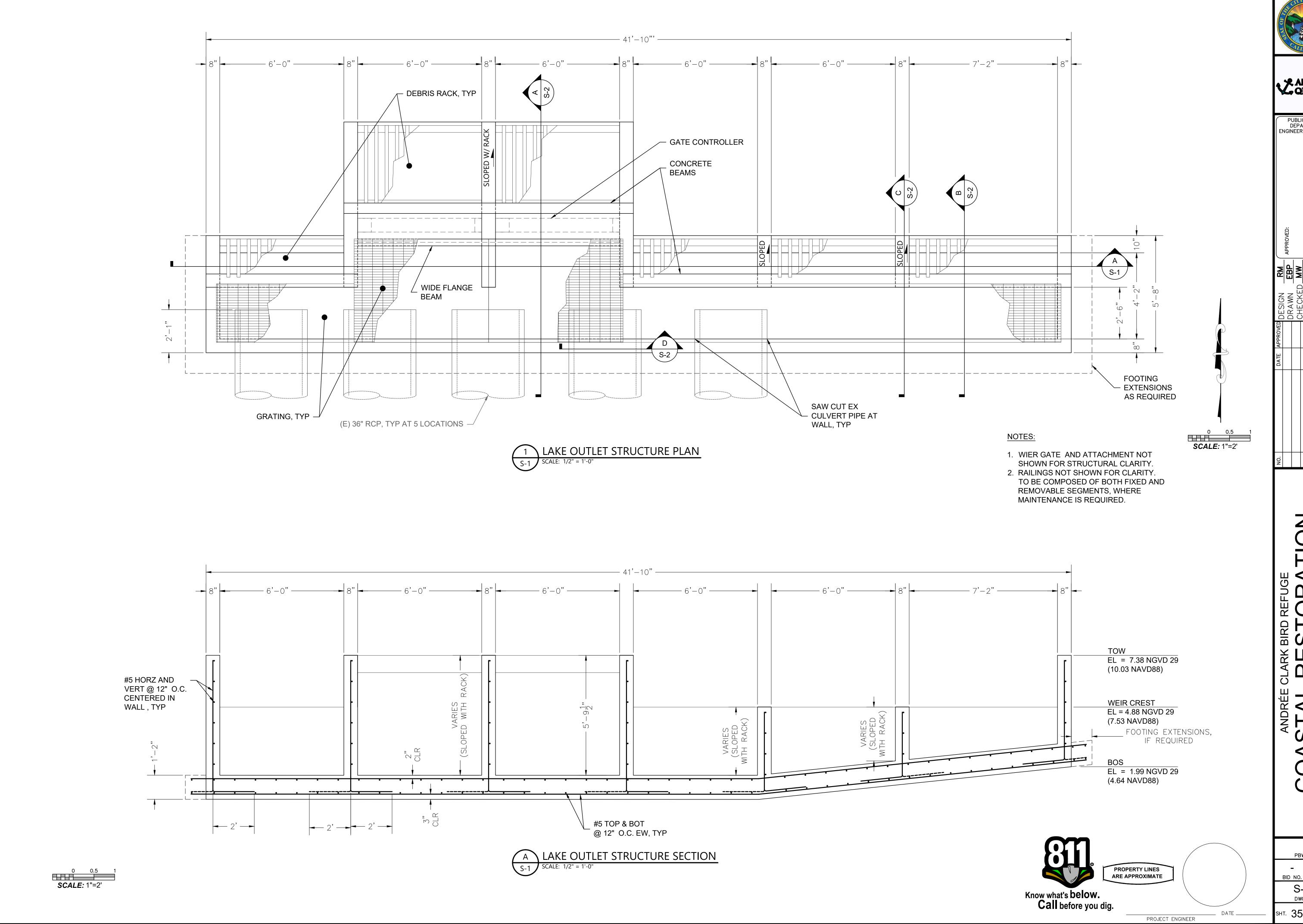


ANCHOR QEA

PUBLIC WORKS DEPARTMENT **ENGINEERING DIVISION**

PBW. NO. C-2.3 DWG. NO. SHT. 33 OF 53

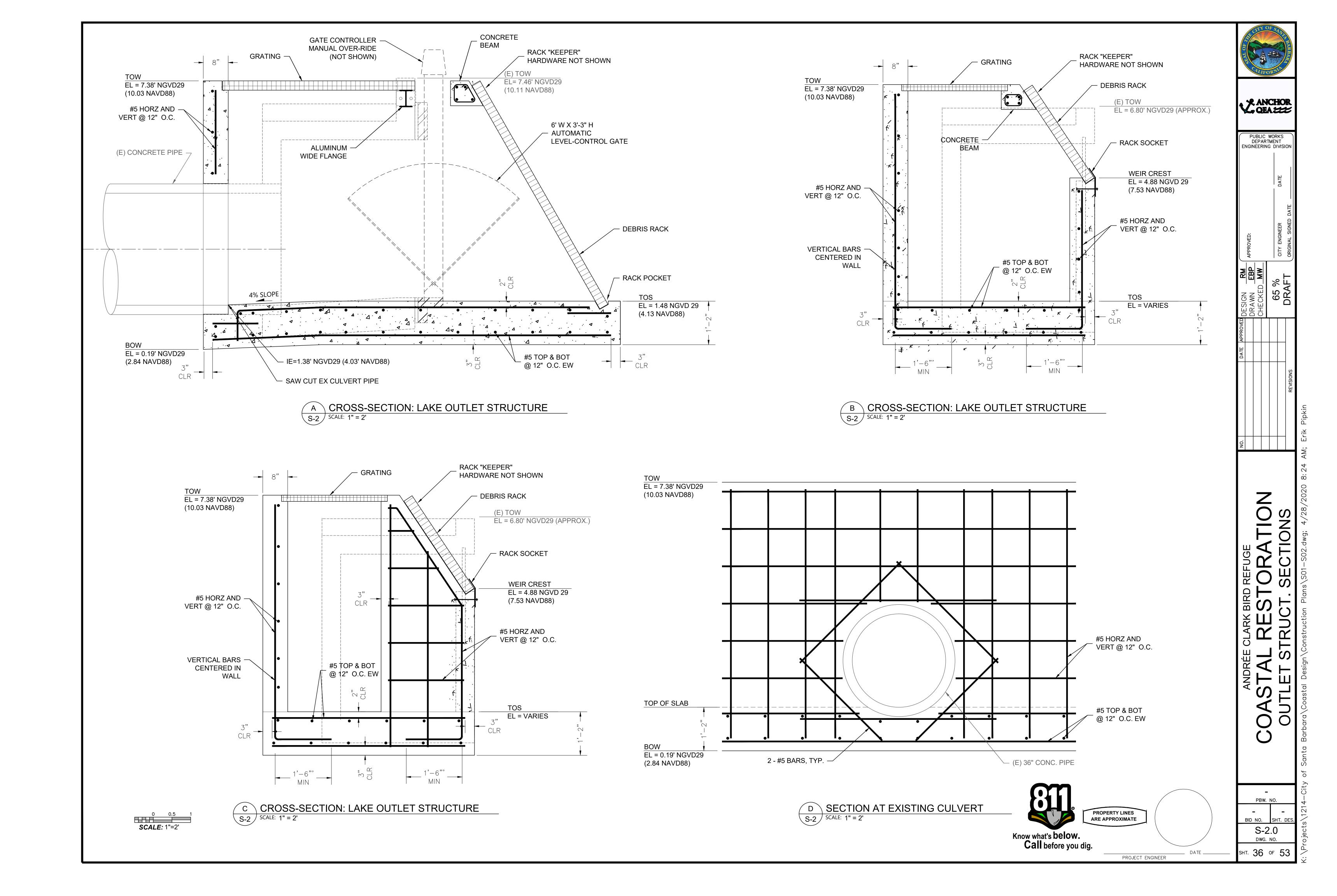




ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

BID NO. S-1.0 DWG. NO. SHT. 35 OF 53



STRUCTURAL NOTES

- 1. THE REFERENCE SPECIFICATIONS FOR THIS PROJECT WILL BE THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2018 EDITION, REFERRED TO IN THESE NOTES AND THE CONTRACT DOCUMENTS AS "SSPWC".
- 2. CONCRETE ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS, IN SOUND MATERIAL, WITH NO LESS THAN THE MINIMUM EMBEDMENT SPECIFIED BY THE MANUFACTURER.
- 3. CONCRETE: ALL CONCRETE MIX DESIGNS SHALL BE CERTIFIED BY A 2. CONCRETE TESTING LABORATORY AND STAMPED AND SIGNED BY A PROFESSIONAL CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA.
 - 1. f'c = 5000 psi @ 28 DAYS, CONFORMING TO ASTM C94
 - 2. WATER-CEMENT RATIO = 0.42 MIN.
 - 3. PRIOR TO PLACEMENT OF CONCRETE, ENGINEER SHALL INSPECT EXCAVATION AND PLACEMENT OF REBAR.

4. REINFORCING BARS:

- A. ASTM A615, GRADE 60
- B. ALL BARS TO BE EPOXY COATED PER ASTM A934 AND A775.

5. STEEL:

- A. STRUCTURAL STEEL SHALL CONFORM TO STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL FOR BRIDGES AND BUILDINGS, ASTM A36, UNLESS NOTED OTHERWISE.
- B. FABRICATION AND ERECTION SHALL COMPLY WITH THE LATEST AISC SPECIFICATIONS.
- C. ALL DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OR ERECTION OF STRUCTURAL STEEL OR METAL FABRICATIONS.
- D. ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL HAVE HOT-DIPPED GALVANIZED FINISH, UNLESS NOTED OTHERWISE.
- E. ALL EXPANSION ANCHORS USED FOR THIS PROJECT SHALL BE STAINLESS STEEL TYPE 316.

6. ALUMINUM:

- A. ALUMINUM SHAPES SHALL BE EXTRUDED FROM 6061-T6 OR 6063-T6 UNLESS OTHERWISE NOTED. CLEAR MARINE ANODIZED.
- B. ALL FASTENERS SHALL BE STAINLESS STEEL.

7. WELDING:

- A. WELD LENGTHS SHOWN ARE EFFECTIVE LENGTH PER CODE. WHERE LENGTHS ARE NOT SHOWN, THE WELD SHALL BE FULL LENGTH OF JOINT. IN ADDITION TO INDICATED STRUCTURAL WELDS, ALL CONNECTED PARTS SHALL BE SEAL-WELDED, ALL-AROUND, A MINIMUM OF 1/8" FILLET WELDS.
- B. ALL WELDING SHALL BE AS PER LATEST EDITION OF AWS D1.1.
- C. ALL WELDERS SHALL BE CERTIFIED TO THE SATISFACTION OF THE GOVERNING JURISDICTION(S).
- D. ALL WELDING REQUIREMENTS SHOWN OR INDICATED ON THE DRAWINGS MAY BE FIELD OR SHOP WELDED AS REQUIRED FOR EFFICIENT ERECTION BY CERTIFIED WELDERS, SUBJECT TO THE APPROVAL OF THE ENGINEER.



ANCHOR QEA

PUBLIC WORKS DEPARTMENT **ENGINEERING DIVISION**

BID NO.

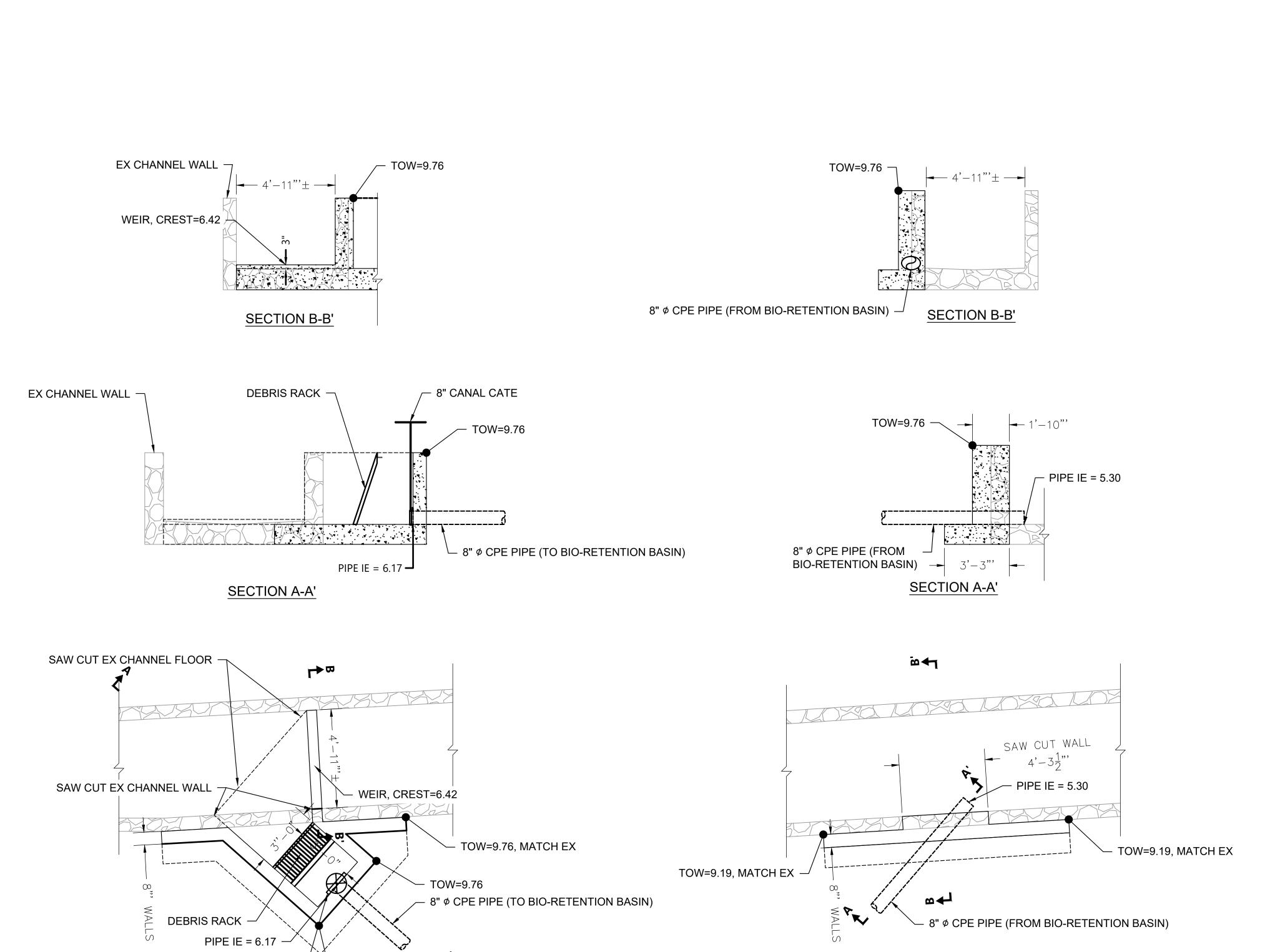
S-3.0

DWG. NO.

SHT. 37 OF 53

PROPERTY LINES
ARE APPROXIMATE Know what's below.

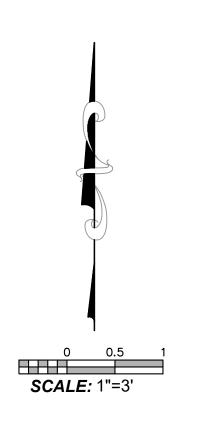
Call before you dig. PROJECT ENGINEER



BIO-RETENTION BASIN OUTLET WALL STRUCTURE PLAN

C-2.4 SCALE: 1"=3"

<u>PLAN</u>



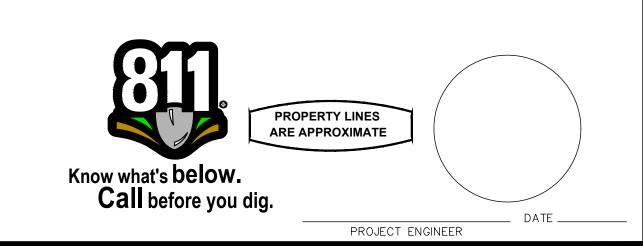
BIO-RETENTION INLET AND OUTLET STRUCTURE NOTE: REINFORCEMENT AND ADDITIONAL DETAIL TO BE PROVIDED AT 90% DESIGN.

8" CANAL CATE

<u>PLAN</u>

1 BIO-RETENTION BASIN INLET STRUCTURE

| C-2.4 | SCALE: 1"=3"



2. ANCHOR QEASE

V ANCHOR QEA ₩	
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	

					DATE	
	APPROVED:				CITY ENGINEER	ORIGINAL SIGNED DATE -
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NEISION) - - - -	U	ا ک ا	בר בר
APPROVED DESIGN	NWAMU	XULTU MYNA		<u>u</u>		<u>,</u>
DATE APPROVED DESIGN	DESIGN					Y -

DASTAL RESTORATION

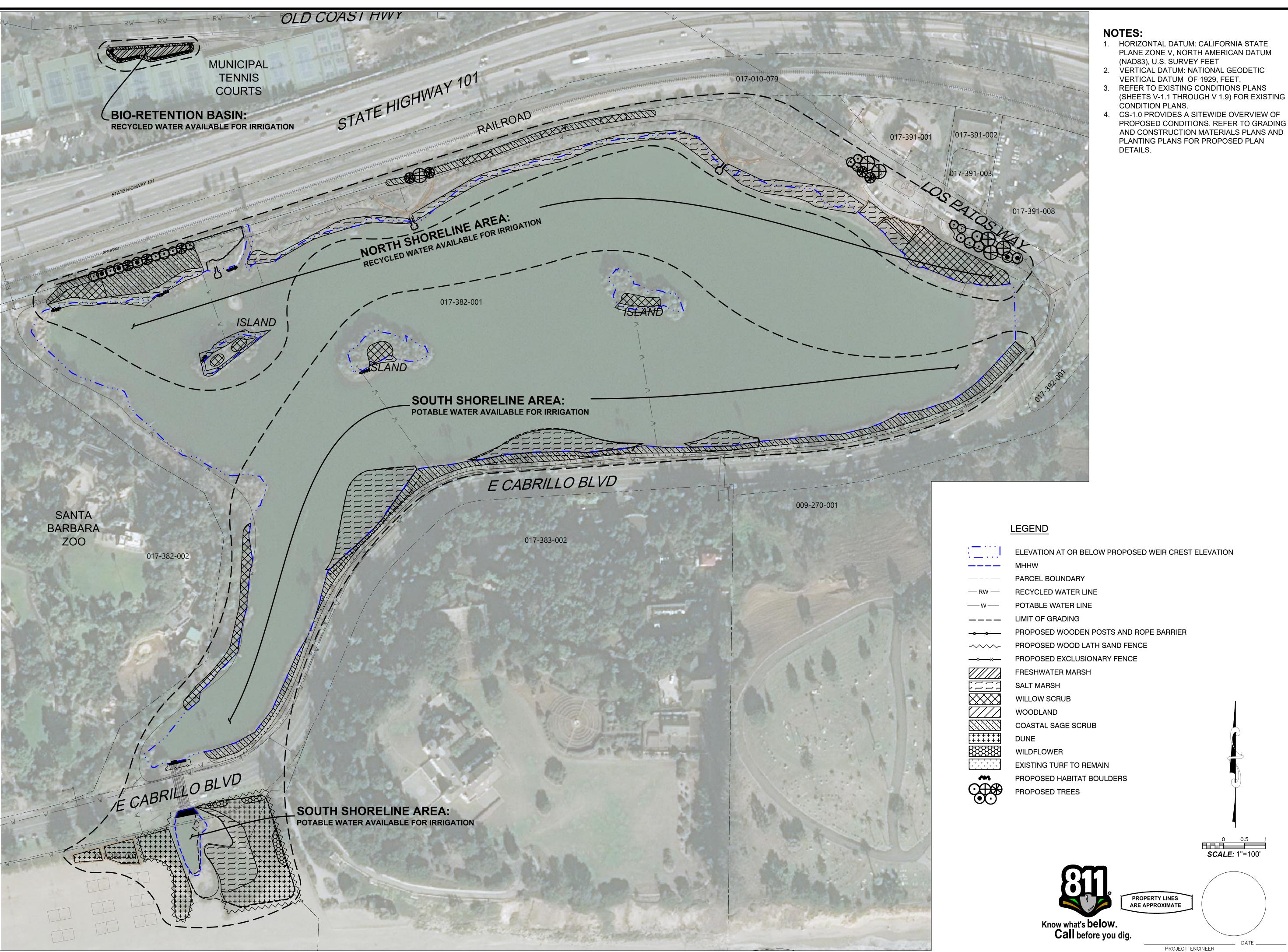
TENTION BASIN INLET AND OUTLET STRUCTURES

PBW. NO.

BID NO. SHT. DES.

S-4.0
DWG. NO.

SHT. 38 OF 53

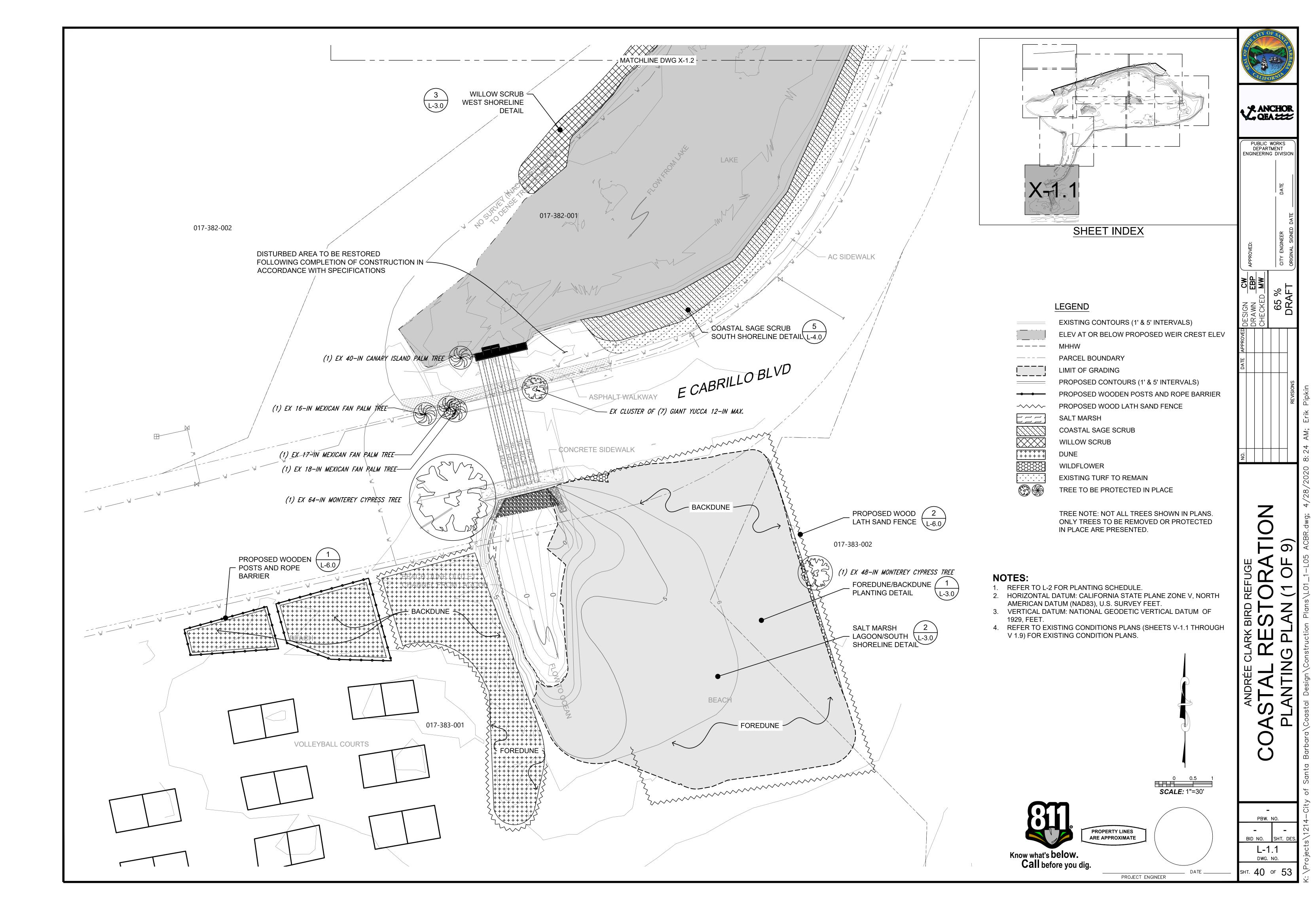


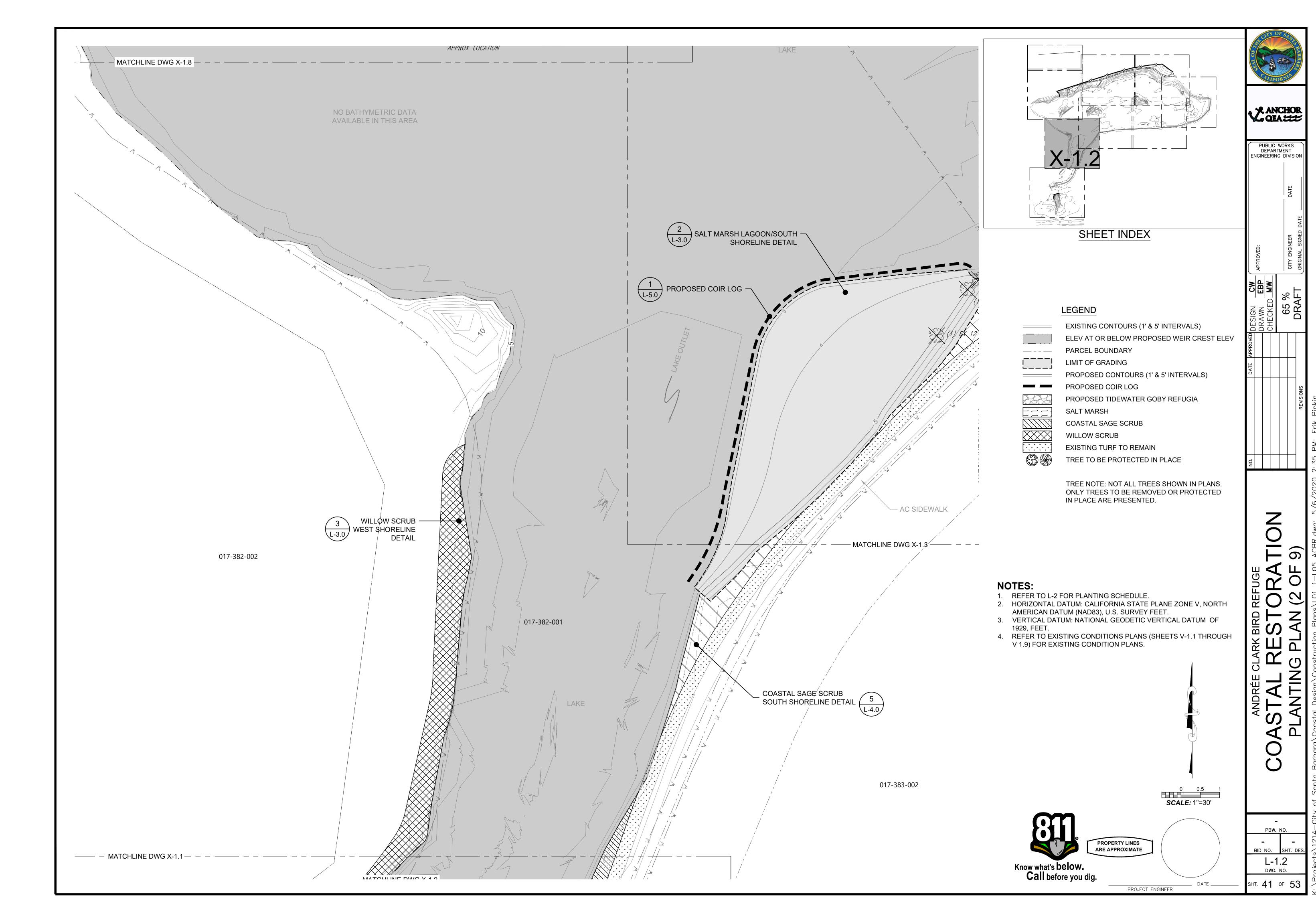
∠ ANCHOR QEA

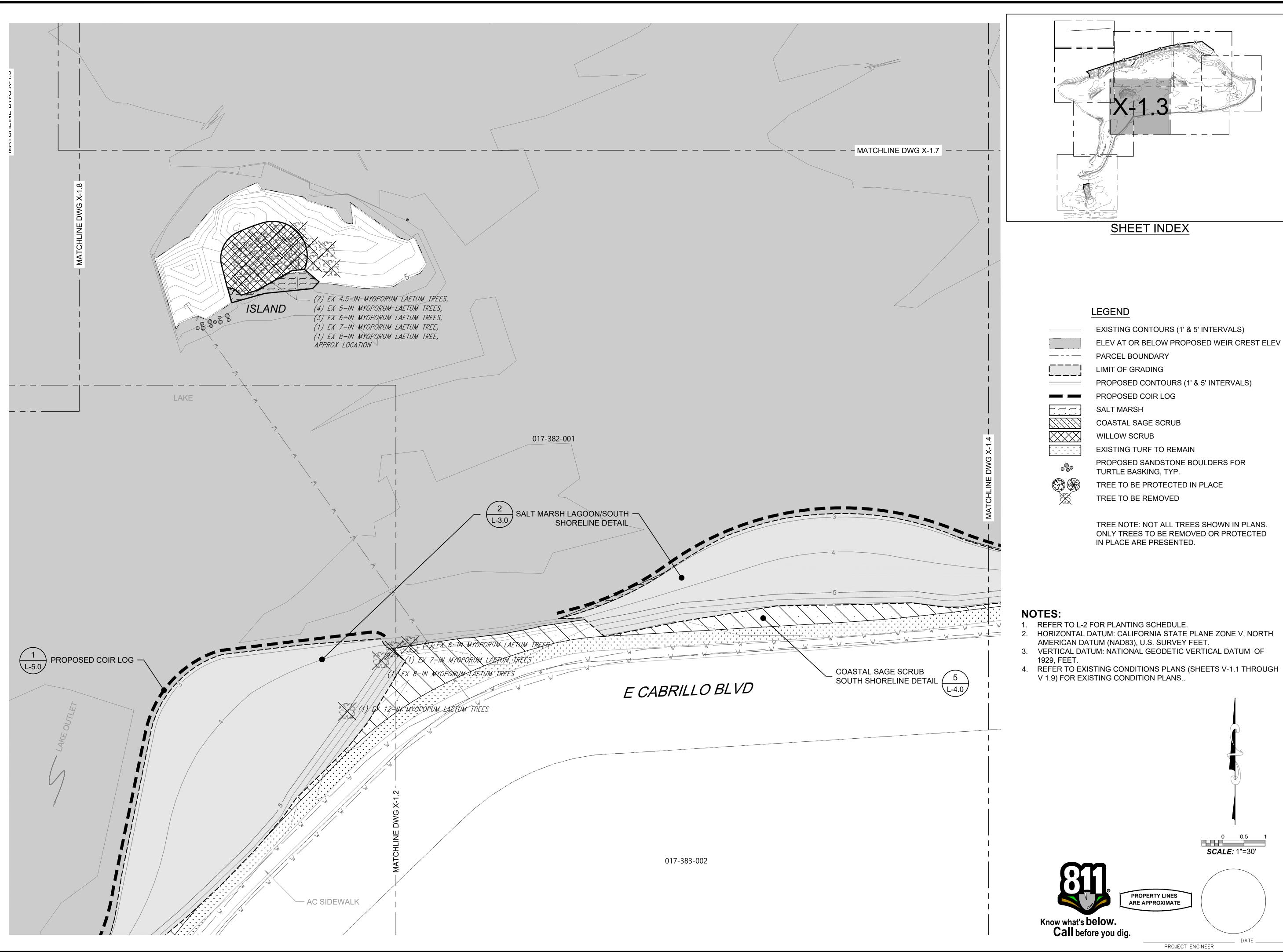
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

PBW. NO. I-1.0 DWG. NO.

BID NO. SHT. DE SHT. 39 OF 53







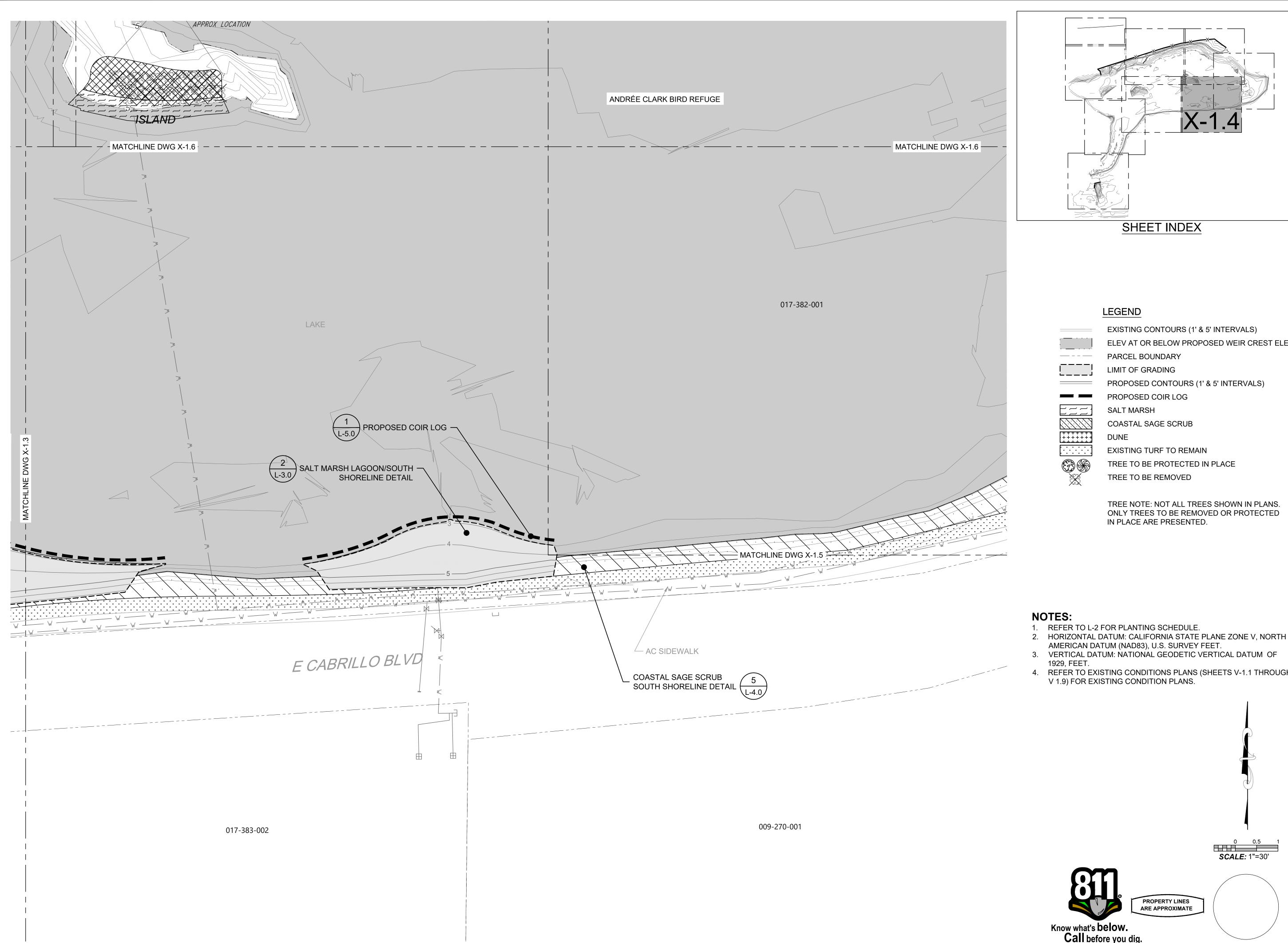
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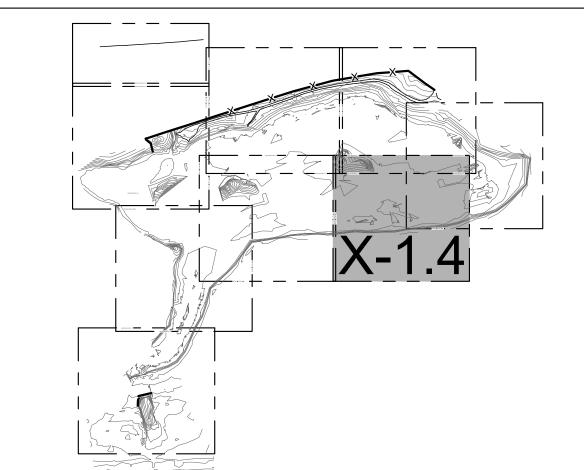
PUBLIC WORKS DEPARTMENT

ENGINEERING DIVISION

BID NO. SHT. DE L-1.3 DWG. NO. sнт. **42** оғ **5**3

PBW. NO.





✓ ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

SHEET INDEX

LEGEND

EXISTING CONTOURS (1' & 5' INTERVALS)

ELEV AT OR BELOW PROPOSED WEIR CREST ELEV PARCEL BOUNDARY

LIMIT OF GRADING

PROPOSED COIR LOG

SALT MARSH COASTAL SAGE SCRUB

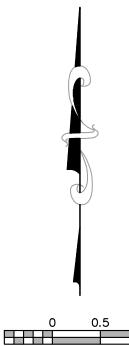
EXISTING TURF TO REMAIN

TREE TO BE PROTECTED IN PLACE TREE TO BE REMOVED

TREE NOTE: NOT ALL TREES SHOWN IN PLANS. ONLY TREES TO BE REMOVED OR PROTECTED IN PLACE ARE PRESENTED.

- 1. REFER TO L-2 FOR PLANTING SCHEDULE.
- AMERICAN DATUM (NAD83), U.S. SURVEY FEET.
 3. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF

4. REFER TO EXISTING CONDITIONS PLANS (SHEETS V-1.1 THROUGH V 1.9) FOR EXISTING CONDITION PLANS.

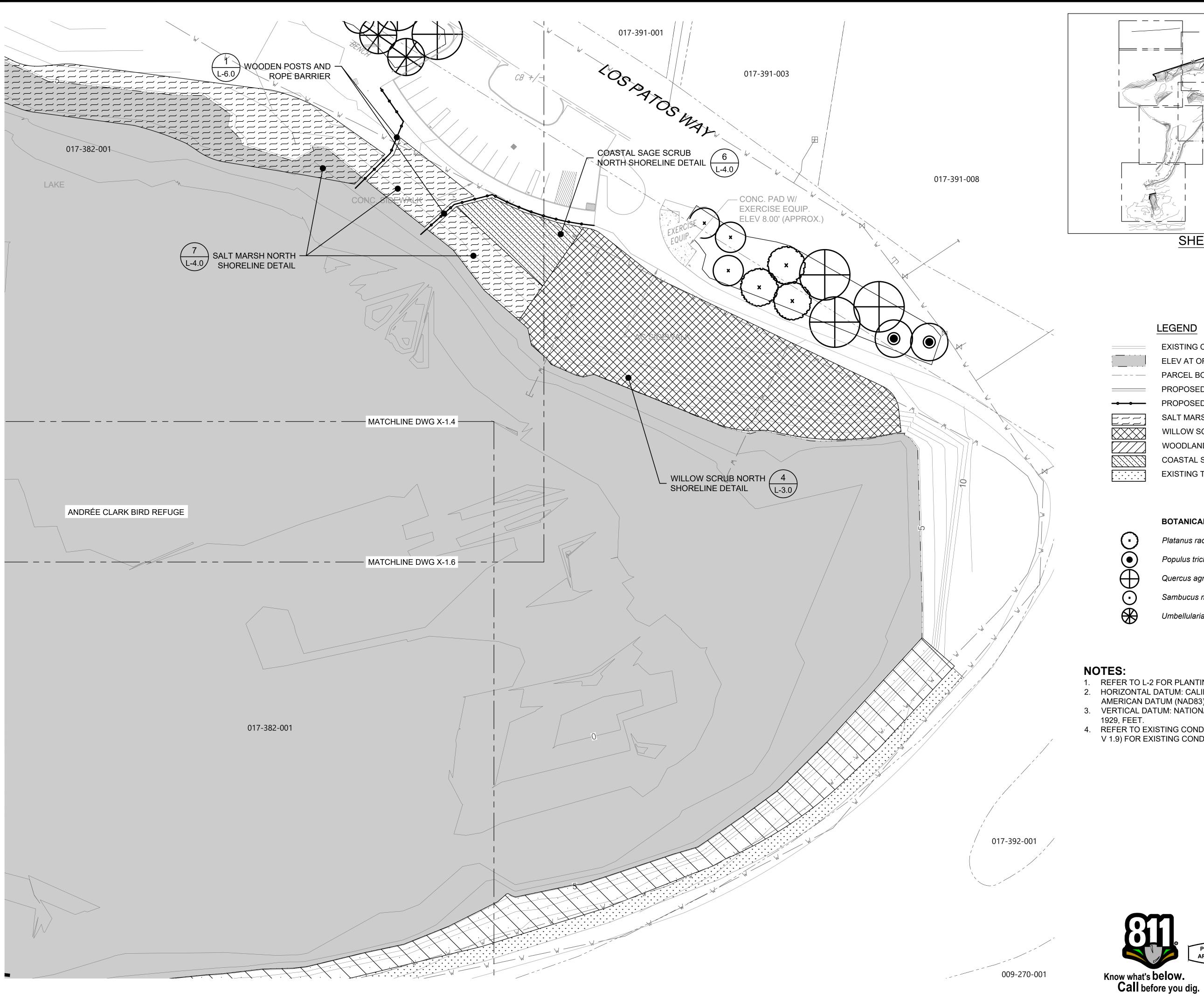


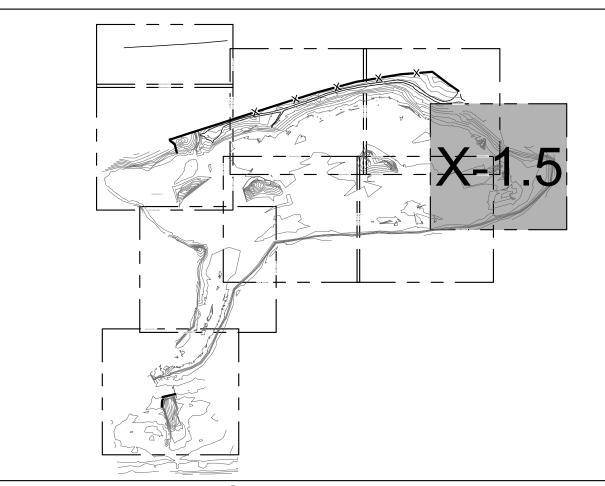
0 0.5 1 SCALE: 1"=30'



PROJECT ENGINEER

BID NO. SHT. DE L-1.4 DWG. NO. sнт. 43 оғ 53





SHEET INDEX

LEGEND

EXISTING CONTOURS (1' & 5' INTERVALS) ELEV AT OR BELOW PROPOSED WEIR CREST ELEV PARCEL BOUNDARY PROPOSED CONTOURS (1' & 5' INTERVALS)

PROPOSED WOODEN POSTS AND ROPE BARRIER SALT MARSH

WILLOW SCRUB WOODLAND

COASTAL SAGE SCRUB

EXISTING TURF TO REMAIN

BOTANICAL NAME Platanus racemosa Populus trichocarpa

> Coast Live Oak Quercus agrifolia Mexican Elderberry Sambucus mexicanus

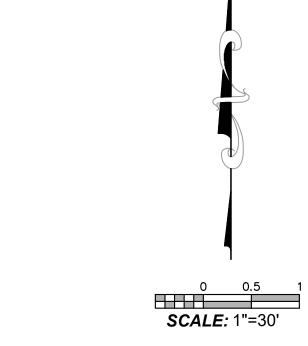
COMMON NAME

Western Sycamore

Black Cottonwood

Umbellularia californica Bay Laurel

- 1. REFER TO L-2 FOR PLANTING SCHEDULE.
- HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE V, NORTH AMERICAN DATUM (NAD83), U.S. SURVEY FEET.
- VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF
- 4. REFER TO EXISTING CONDITIONS PLANS (SHEETS V-1.1 THROUGH V 1.9) FOR EXISTING CONDITION PLANS.

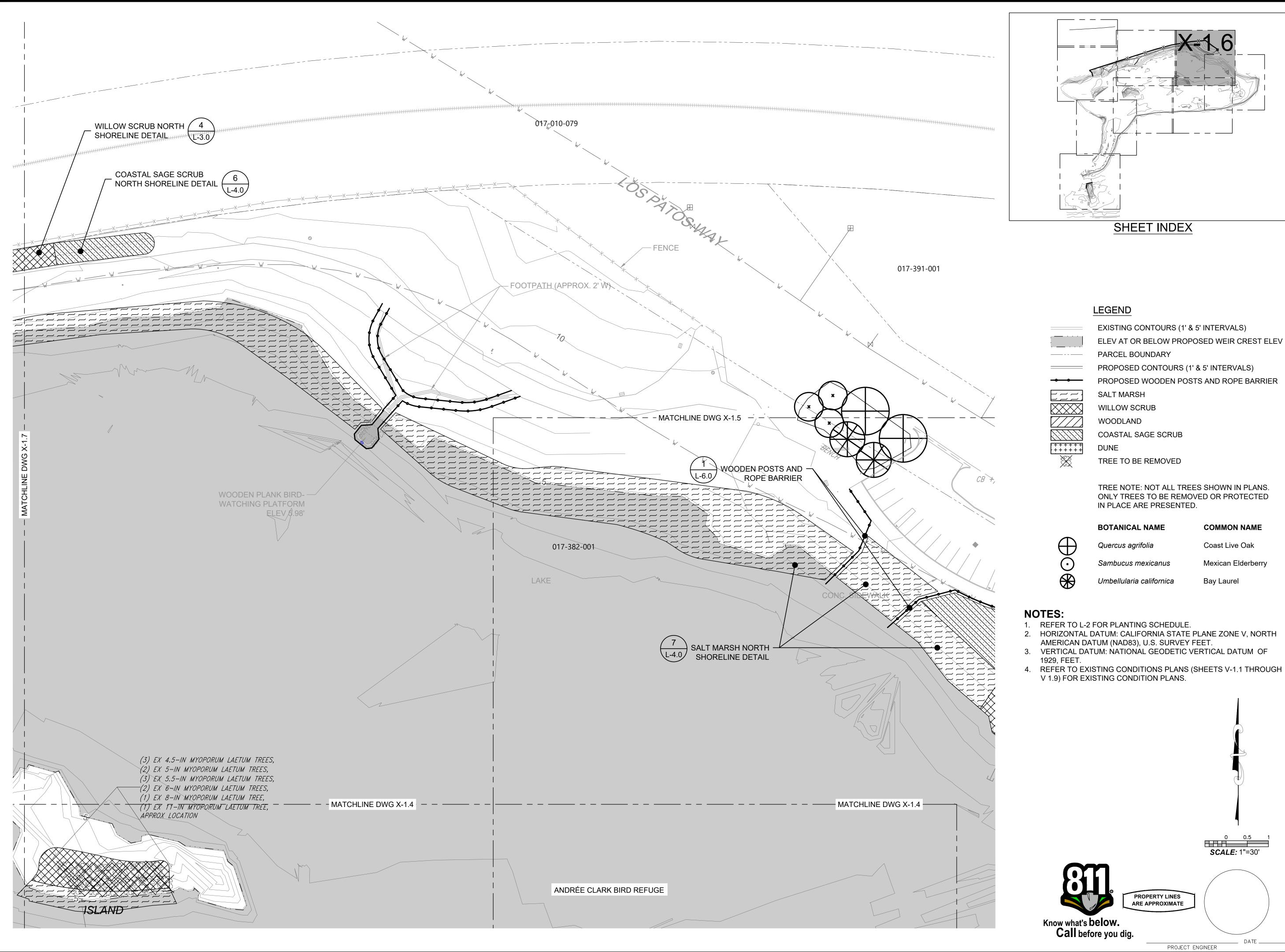


PROPERTY LINES
ARE APPROXIMATE

PROJECT ENGINEER

PBW. NO. BID NO. SHT. D' L-1.5 DWG. NO. sнт. **44** оғ **5**3

L ANCHOR QEA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION





Z ANCHOR QEA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

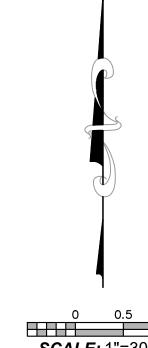
TREE NOTE: NOT ALL TREES SHOWN IN PLANS. ONLY TREES TO BE REMOVED OR PROTECTED

BOTANICAL NAME COMMON NAME Quercus agrifolia

Coast Live Oak Mexican Elderberry Sambucus mexicanus

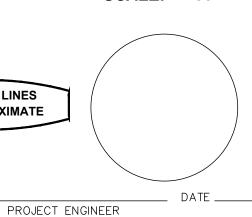
Umbellularia californica Bay Laurel

- REFER TO L-2 FOR PLANTING SCHEDULE.
- HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE V, NORTH AMERICAN DATUM (NAD83), U.S. SURVEY FEET.
- VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF
- REFER TO EXISTING CONDITIONS PLANS (SHEETS V-1.1 THROUGH

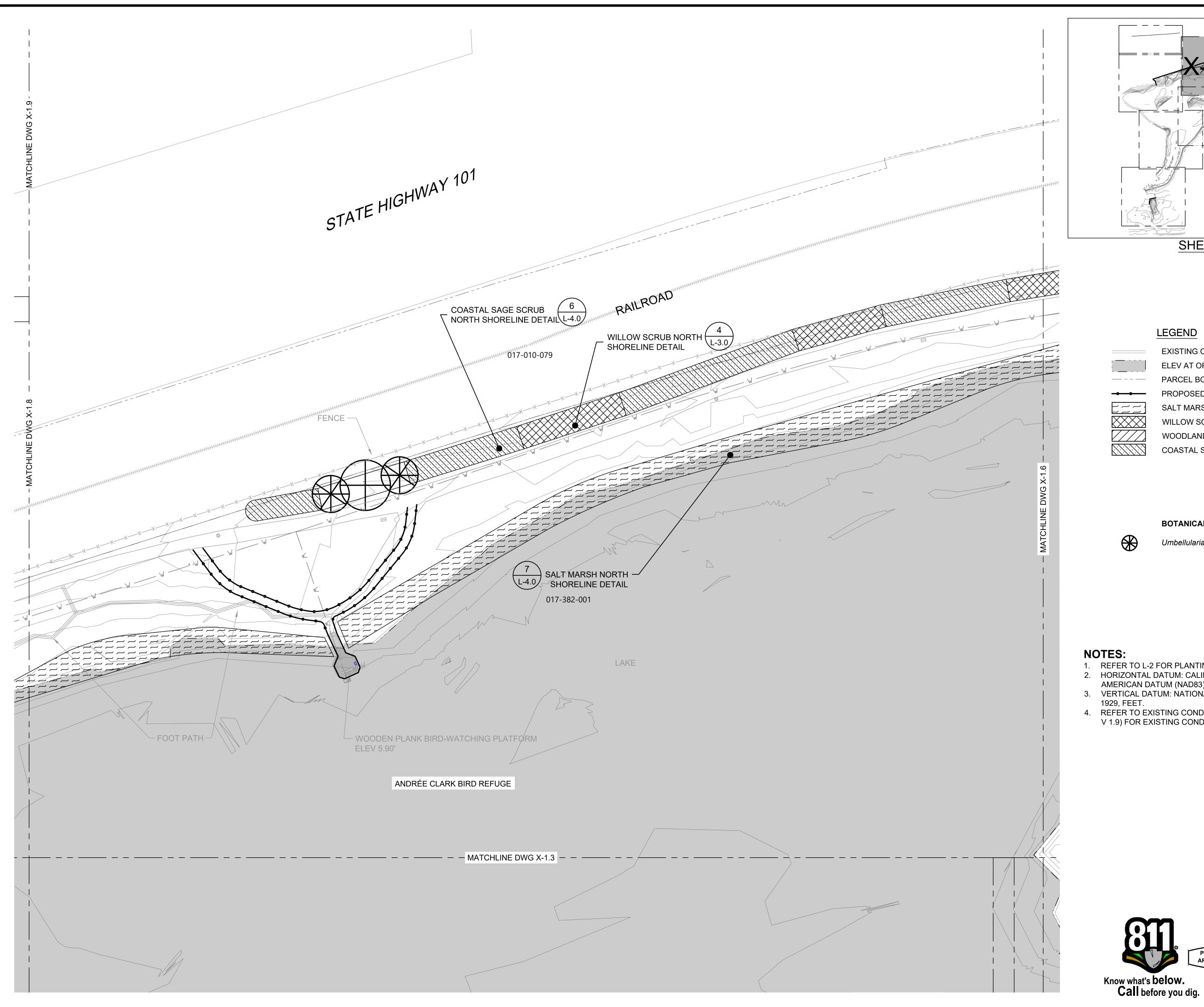


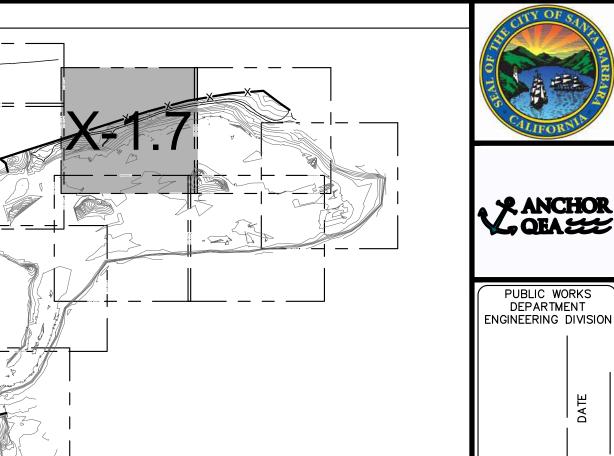
0 0.5 1 SCALE: 1"=30'





PBW. NO. BID NO. SHT. DE L-1.6 DWG. NO. sнт. 45 оғ 53





PUBLIC WORKS DEPARTMENT

SHEET INDEX

LEGEND

EXISTING CONTOURS (1' & 5' INTERVALS) ELEV AT OR BELOW PROPOSED WEIR CREST ELEV PARCEL BOUNDARY

PROPOSED WOODEN POSTS AND ROPE BARRIER SALT MARSH

WILLOW SCRUB WOODLAND

COASTAL SAGE SCRUB

BOTANICAL NAME

COMMON NAME

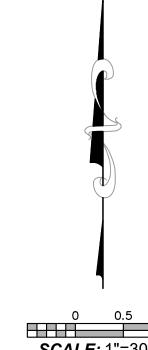
Umbellularia californica

Bay Laurel

- REFER TO L-2 FOR PLANTING SCHEDULE.
 HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE V, NORTH
- AMERICAN DATUM (NAD83), U.S. SURVEY FEET.

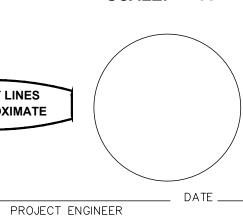
 3. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF
- 1929, FEET.

 4. REFER TO EXISTING CONDITIONS PLANS (SHEETS V-1.1 THROUGH V 1.9) FOR EXISTING CONDITION PLANS..

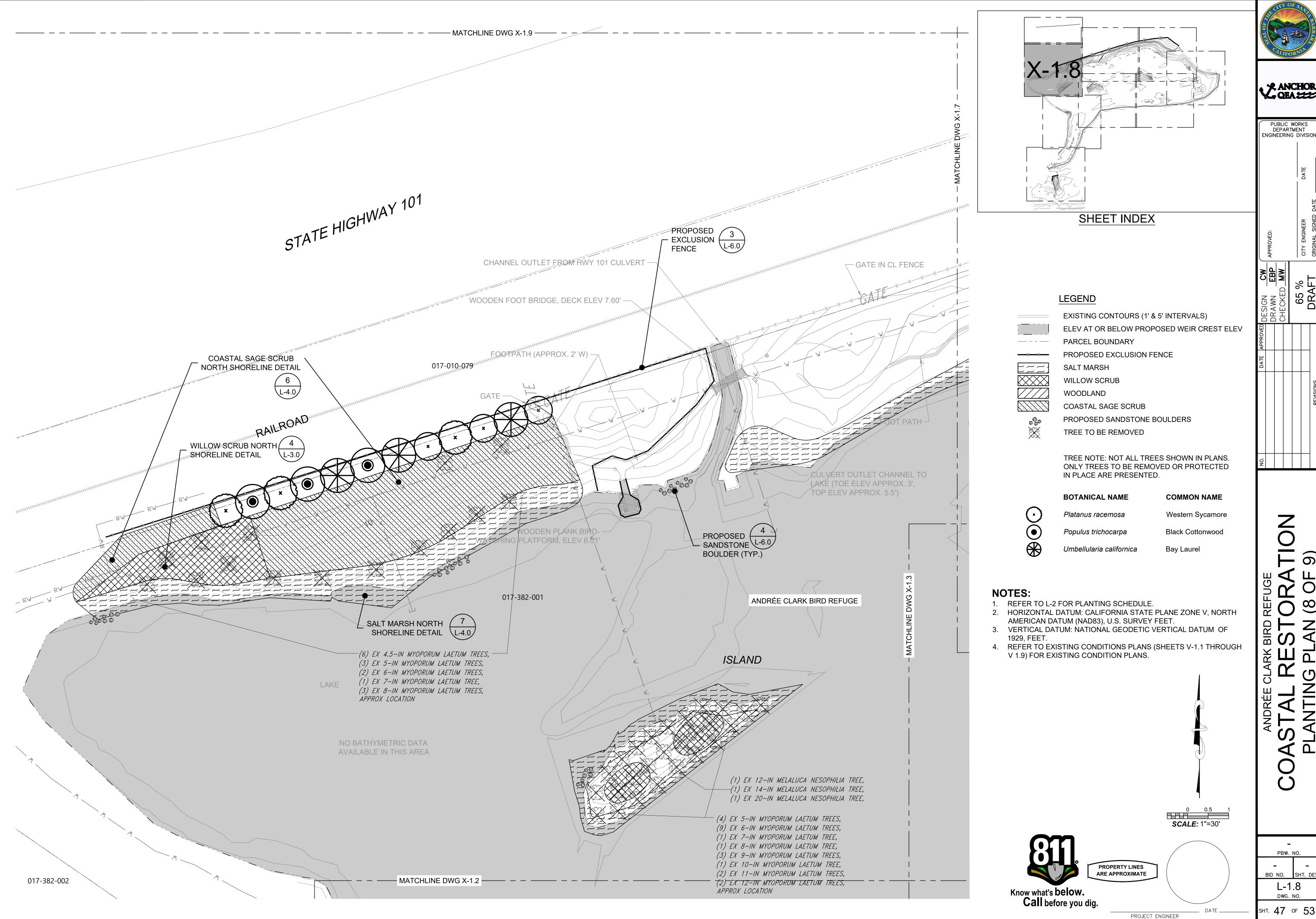


0 0.5 1 SCALE: 1"=30'





BID NO. SHT. DE L-1.7 DWG. NO. sнт. 46 оғ 53

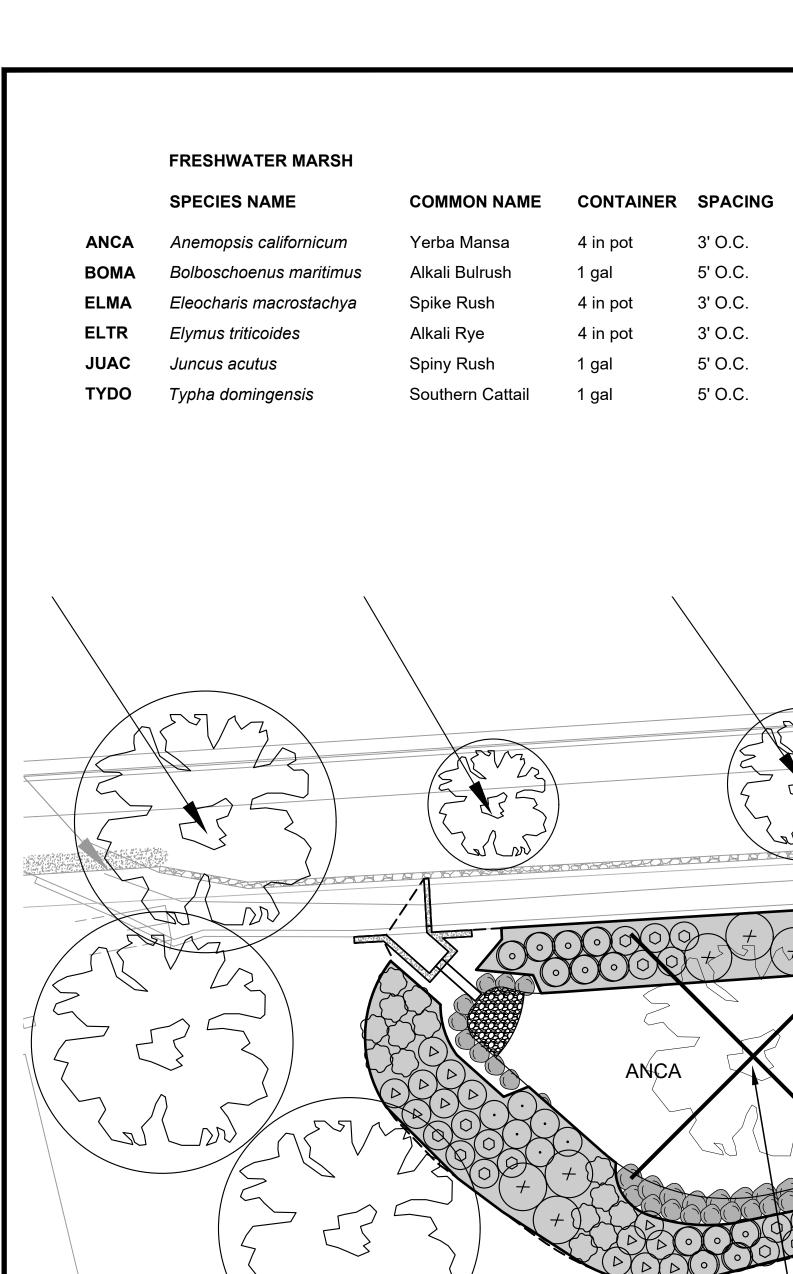


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PBW. NO. BID NO. SHT. DE L-1.8 DWG. NO.

sнт. **47** оғ **53**

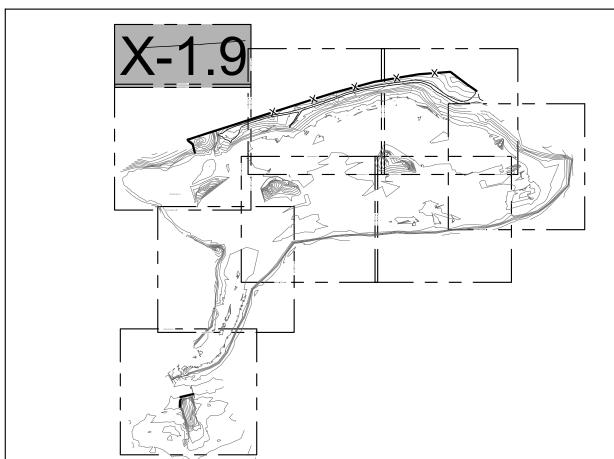


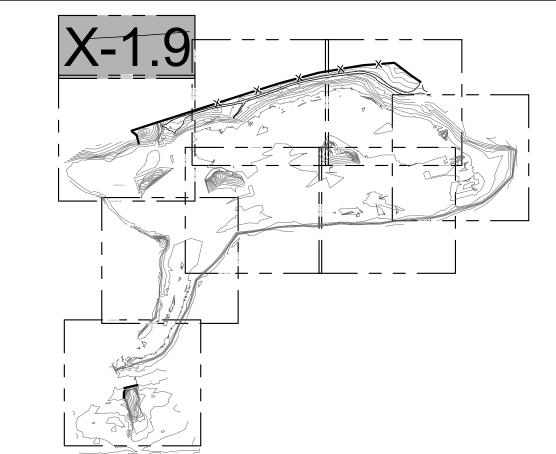
WILDFLOWER SEED - HYDROSEED	(SEE NOTE 6)

SPECIES NAME	COMMON NAME	SEED LBS/ac
Eschscholzia californica	California Poppy	5
Lupinus succulentus	Succulent Lupine	3.5
Sisyrinchium bellum	Blue Eyed Grass	2.5

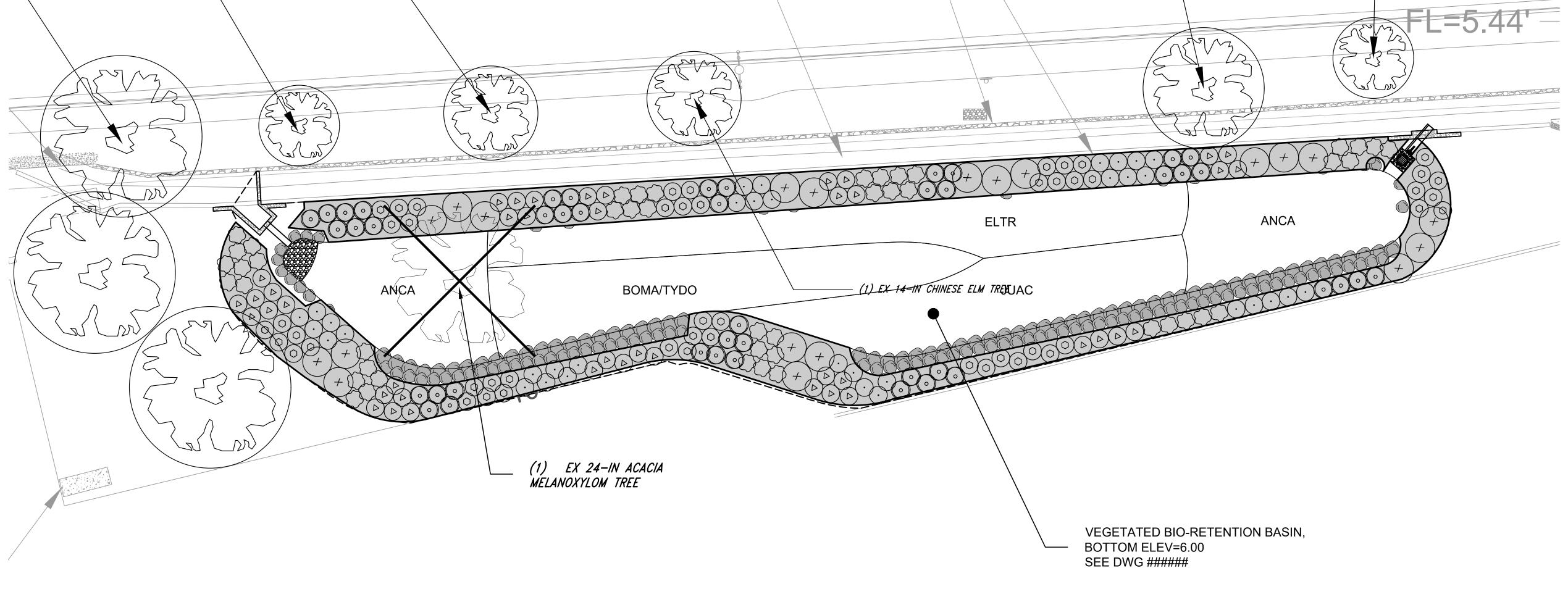
COASTAL SAGE AND WILLOW SCRUB

	SPECIES NAME	COMMON NAME	CONTAINER	SPACING
\bigcirc	Acmispon glaber	Deerweed	1 gal	3' O.C.
(+)	Baccharis salicifolia	Mulefat	1 gal	5' O.C.
\odot	Epilobium canum	California Fuschia	1 gal	3' O.C.
\bigcirc	Encelia californica	Coast Sunflower	1 gal	3' O.C.
\bigcirc	Eriogonum fasciculatum	California Buckwheat	1 gal	3' O.C.
	Salvia mellifera	Black Sage	1 gal	3' O.C.





SHEET INDEX





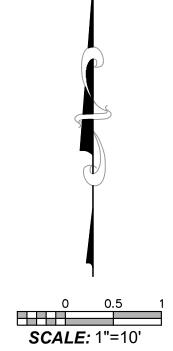
EXISTING CONTOURS (1' & 5' INTERVALS) LIMIT OF GRADING

TREE TO BE PROTECTED IN PLACE TREE TO BE REMOVED

TREE NOTE: NOT ALL TREES SHOWN IN PLANS. ONLY TREES TO BE REMOVED OR PROTECTED IN PLACE ARE PRESENTED.

NOTES:

- 1. HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE V, NORTH AMERICAN DATUM (NAD83), U.S. SURVEY FEET.
- 2. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929, FEET.
- 3. REFER TO EXISTING CONDITIONS PLANS (SHEETS V-1.1 THROUGH V 1.9) FOR EXISTING CONDITION PLANS.
- 4. PLANT LOCATION SHALL BE FIELD-DIRECTED BY OWNER PRIOR TO INSTALLATION.
- 5. REFER TO L-2 FOR PLANTING SCHEDULE (CONTAINER SIZE, SPACING, AND QUANTITIES).
- 6. THE SEED MIX AT THE BIO-RETENTION BASIN AREA WILL BE A HYDROSEED APPLICATION.



PROPERTY LINES
ARE APPROXIMATE PROJECT ENGINEER

PBW. NO. BID NO. SHT. DE L-1.9 DWG. NO.

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SHT. 48 OF 53

Know what's below.

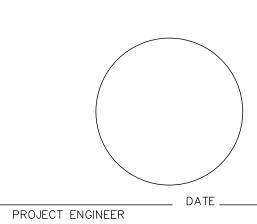
Call before you dig.

			PLANT SCHEDULE								S	ITE LOCATION	N						
/MBOL	HABITAT/COMMUNITY	SPECIES NAME	COMMON NAME	CONTAINER OR SEED	CONTAINER SIZE	SPACING	SEED LBS/ac	Bioretention Basin	Beach Lagoon	North Shore	South Shore	West Shore	Island	Foredune	Backdune	Parking Area	Total Plant Count	Unit	Detail Reference
/////	Freshwater Marsh	-		1	i			i		i	•			•	•	•		Ea	
		Anemopsis californicum	Yerba Mansa		1	3' O.C.		X										Ea	
		Bolboschoenus maritimus	Alkali Bulrush		1 gal	5' O.C.		X										Ea	0115551 4.0
		Eleocharis macrostachya	Spike Rush		4 in	3' O.C.		X										Ea	SHEET L-1.9
		Elymus triticoides	Alkali Rye		4 in	3' O.C.		X										Ea	$2\sqrt{3}$
		Juncus acutus	Spiny Rush	Container	1	5' O.C.		X										Ea	L-5.0 L-5.0
,	Calt Marah	Typha domingensis	Southern Cattail	Container	1 gal	5' O.C.		Х										Ea	
	Salt Marsh	Authora and married architecture in a la	Parish's Glasswort	Cantainar	4 :	2' O C	1		Y		l v		Y					Ea	
		Arthrocnemum subterminale Batis maritima	Salt Wort	Container Container	4 in 4 in	3' O.C. 3' O.C.			Y	Y	Y		X					Ea	
		Centromadia paryii australis	Southern Tarplant	Seed	4 111	5 U.C.	2		X	X			Λ		X	1		Ac	$\left(\begin{array}{c}2\end{array}\right)$
		Distichlis littoralis	Shoregrass	Container	4 in	3' O.C.	2		X	X	X		X		Λ	1		Fa	L-3.0
		Distichlis spicata	Salt Grass		4 in	3' O.C.		X	X		X		X	X	X			Fa	7
		Frankenia salina	Alkali Heath	Container		3' O.C.		X	X		X		X	Λ	A			Ea	L-4.0
		Heliotropium curassavicum	Seaside Heliotrope	Seed			15		X	X	X				X			Ac	2
		Jaumea carnosa	Fleshy Jaumea	Container	4 in	3' O.C.	1		X		X		Х			<u> </u>		Ea	L-5.0
		Juncus acutus	Spiny Rush			5' O.C.	 		X	Х	X		X			1		Ea	3
		Limonium californicum	Marsh Rosemary	Container	1	3' O.C.	 		X	X	X		X					Ea	L-5.0
		Malvella leprosa	Alkali Mallow	Seed			3		,,		<u> </u>					1		Ac	
		Sueada taxifolia	Woolly Sea Blite		1 gal	5' O.C.	† †		X	Х	X		Х			1		Ea	
XXX	Willow Scrub	Odedda taxiiolia	,	Container	<u> </u>	J 0.C.	<u>l</u>		, , , , , , , , , , , , , , , , , , ,	<u> </u>	1	<u> </u>		<u> </u>		<u>I</u>			
× × ×		Baccharis salicifolia	Mulefat	Container	1 gal	Varies, see		X		Х		Х	Х					Ea	
		Salix laevigata	Red Willow		1 gal	detail				Х		Х	Х					Ea	$\begin{pmatrix} 3 & 4 & 4 & 2 \\ 1 & 2 & 2 & 4 & 5 & 2 \end{pmatrix}$
		Salix laseolepis	Arroyo Willow		1 gal	references				Х		Х	Х					Ea	L-3.0 \ L-3.0 \ L-5.0
,	Woodland	•		•	•		<u> </u>	•		•	•	•		•	•	•		·	
Ī		Platanus racemosa	Western Sycamore	Container	5 gal - 24"	Space as				Х						Х		Ea	
	\bullet	Populus trichocarpa	Black Cottonwood	Container	5 gal - 24"	shown on				Х						Х		Ea	
		Quercus agrifolia	Coast Live Oak		Treepot - 24"	Sheets										Х		Ea	$\begin{pmatrix} 3 & 4 \\ 1 & 5 & 2 \end{pmatrix}$
	/ :: \	Sambucus mexicanus	Mexican Elderberry		1 gal	L-1.5, L-1.6, L-1.7, and				Х						Х		Ea	L-5.0 L-5.0
		Umbellularia californica	Bay Laurel		5 gal	L-1.8				Х						Х		Ea	
	Coastal Sage Scrub			1			<u> </u>				1			1	•	1			
		Acmispon glaber	Deerweed	Container	1 gal	5' O.C.	4	Х		Х	Х				Х			Ea	
		Artemisia californica	California Sagebrush			5' O.C.				Х	Х							Ea	
		Epilobium canum	California Fuschia	Container	1 gal	5' O.C.		Х		Х	Х				Х			Ea	
		Encelia californica	Coast Sunflower	Container	1 gal	5' O.C.		Х			Х							Ea	
		Eriogonum fasciculatum	California Buckwheat	Container	1 gal	5' O.C.		Х		Х	Х							Ea	
		Heteromeles arbutifolia	Toyon	Container	1 gal	8' O.C.				Х								Ea	
		Isocoma menziesii	Coast Goldenbush	Container	1 gal	5' O.C.				Χ								Ea	$\begin{pmatrix} 5 & 7 & 6 & 7 & 2 \\ 1 & 4 & 2 & 1 & 1 & 2 & 1 & 5 & 2 \end{pmatrix}$
		Lonicera subspicata	Southern Honeysuckle	Container	1 gal	5' O.C.				Χ								Ea	L-4.0 \ L-4.0 \ L-5.0
		Malosma laurina	Laurel Sumac	Container	1 gal	8' O.C.				Х								Ea	
		Pruncus ilicifolia	Hollyleaf Cherry	Container	1 gal	8' O.C.				Х								Ea	
		Quercus dumosa	Scrub Oak	Container	1 gal	5' O.C.				Х								Ea	
		Rhus integrifolia	Lemonade Berry	Container	1 gal	8' O.C.				Х								Ea	
		Salvia mellifera	Black Sage	+		5' O.C.		Х		Х	Х							Ea	
		Sueada taxifolia	Wholly Sea Blite	Container	1 gal	5' O.C.			Х	Х	Х							Ea	
++++	Dune	•	_	İ						,	_						<u> </u>	<u>, </u>	
L		Abronia maritima	Red Sand Verbena	Seed			2				ļ			Х		<u> </u>		Ac	
L		Abronia umbellata	Pink Sand Verbena	Seed			2				ļ			Х	X	ļ		Ac	
L		Ambrosia chamissonis	Beach Bur		 	5' O.C.	 				ļ			Х		ļ		Ea	
L		Astragalus trichopodus	Santa Barbara Milkvetch	Container		5' O.C.	\sqcup				<u> </u>				X	<u> </u>		Ea	
L		Atriplex leucophylla	Sea Scale	Container	4 in	3' O.C.					ļ			Х	Х	ļ		Ea	$\begin{pmatrix} 1 & \gamma & \zeta \\ 1 & 2 & 0 & 1 & 5 & 0 \end{pmatrix}$
L		Camissoniopsis chieranthifolia	Beach Evening Primrose	Seed			1.5				ļ			Х	X			Ac	L-3.0 \ L-5.0
L		Camissoniopsis micrantha	Spencer Primrose	Seed			1.5				ļ				Х			Ac	
L		Corethrogyne filaginifolia	Common Sandaster	Container		5' O.C.	 				ļ				Х			Ea	
		Eriogonum parvifolium	Seacliff Buckwheat	Container		3' O.C.					Х				X			Ea -	
XXX		Phacelia ramosissima	Branching Phacelia	Container	1 gal	5' O.C.									Х			Ea	
*************************************	Wildflower		T	T	1			_		<u> </u>	_			_		_	 		
		Eschscholzia californica	California Poppy	Seed			5	X			ļ				X			Ac	
		Lupinus succulentus	Succulent Lupine	Seed	 		3.5	I X							X		I	Ac	SHEET L-1.9

Sisyrinchium bellum

Blue Eyed Grass

Seed



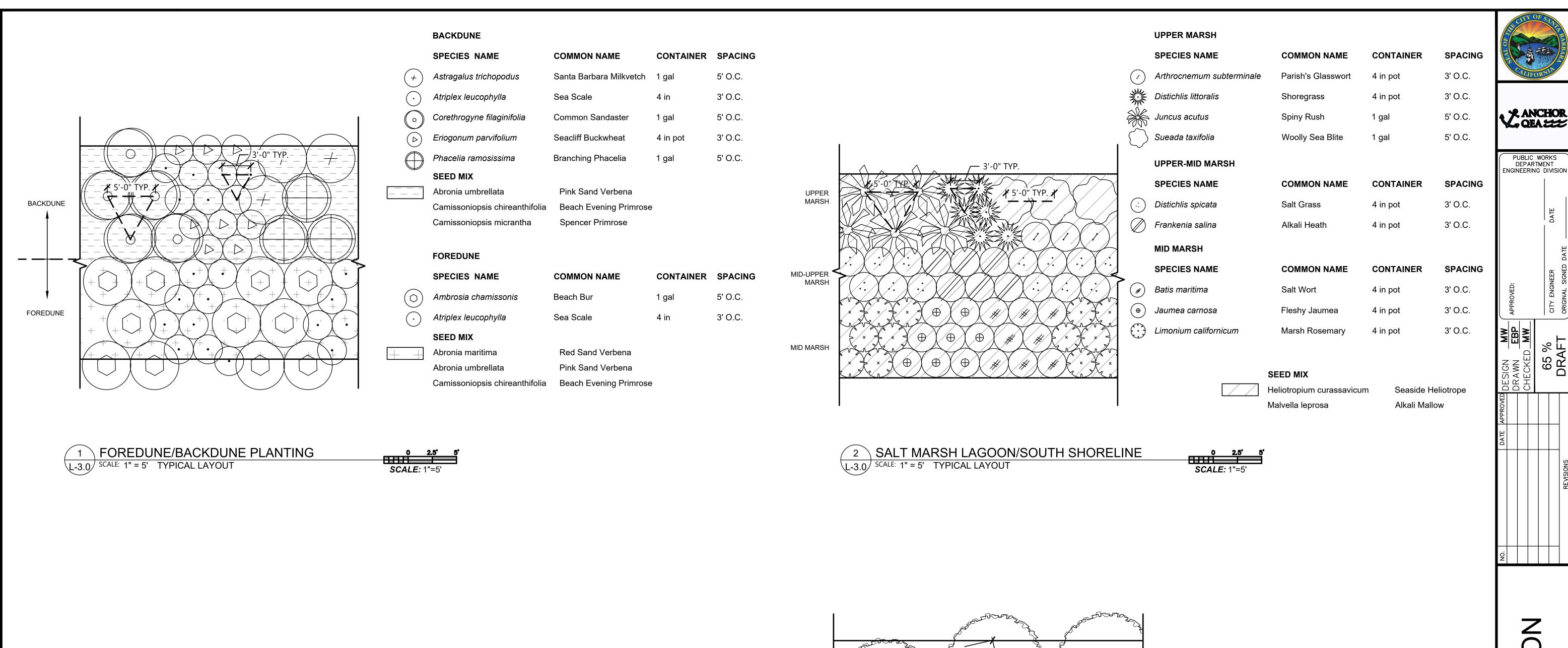
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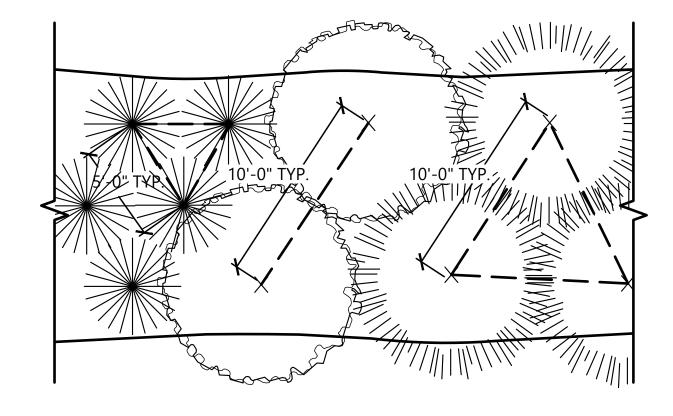
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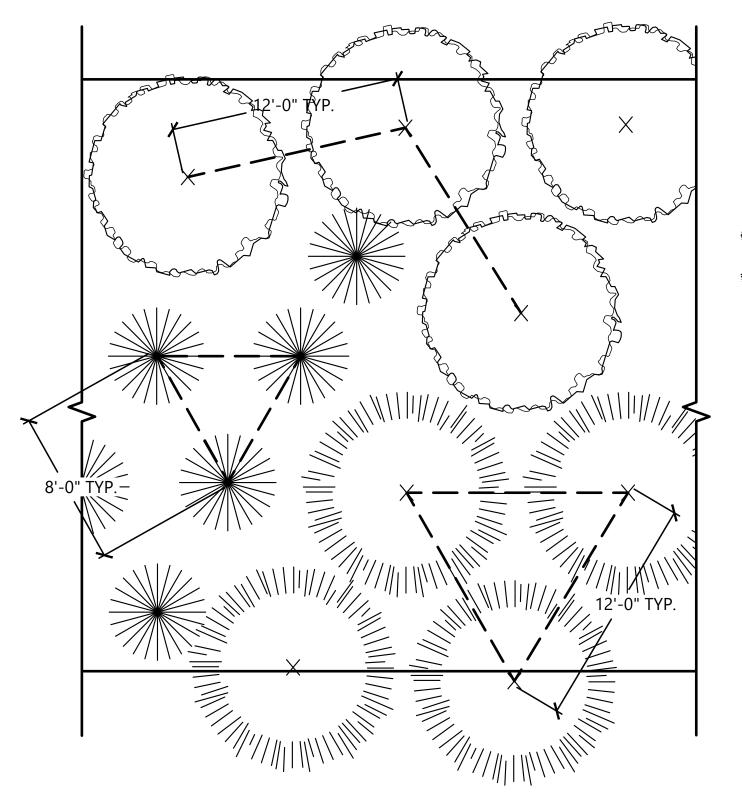
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

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	SPECIES NAME	COMMON NAME	CONTAINER	SPACING
**	Baccharis salicifolia	Mulefat	1 gal	5' O.C.
	Salix laevigata	Red Willow	1 gal	10' O.C.
×	Salix laeseolepis	Arroyo Willow	1 gal	10' O.C.



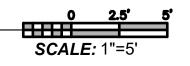
	SPECIES NAME	COMMON NAME	CONTAINER	SPACING
**	Baccharis salicifolia	Mulefat	1 gal	8' O.C.
\bigcirc	Salix laevigata	Red Willow	1 gal	12' O.C.
X X X X X X X X X X X X X X X X X X X	Salix laeseolepis	Arroyo Willow	1 gal	12' O.C.

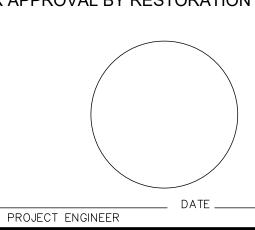
GENERAL DETAIL NOTES:

- 1. OVERALL DIMENSIONS OF PLANT AREA VARIES. SEE L-1.X SHEETS FOR LIMITS OF PLANTING. REPEAT PLANT SPACING AS NEEDED TO ACHIEVE UNIFORM COVERAGE.
- 2. PLANT LOCATION SHALL BE FIELD-DIRECTED BY OWNER.

BEFORE PLANTING, CONTRACTOR TO PROVIDE 10'X10' SAMPLE OF PLANTING APPROACH FOR APPROVAL BY RESTORATION ECOLOGIST.

4 WILLOW SCRUB NORTH SHORELINE L-3.0 SCALE: 1" = 5' TYPICAL LAYOUT

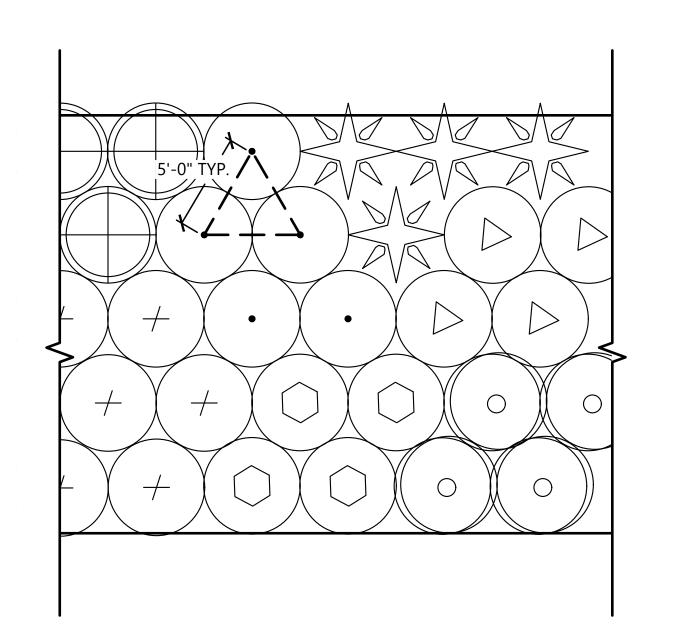




BID NO. SHT. D L-3.0 DWG. NO. SHT. 50 OF 53

3 WILLOW SCRUB WEST SHORELINE L-3.0 SCALE: 1" = 5' TYPICAL LAYOUT





5 COASTAL SAGE SCRUB SOUTH SHORELINE

L-4.0 SCALE: 1" = 5' TYPICAL LAYOUT

	SPECIES NAME	COMMON NAME	CONTAINER	SPACING
	Acmispon glaber	Deerweed	1 gal	5' O.C.
\bigcirc	Artemisia californica	California Sagebrush	1 gal	5' O.C.
$\overline{\left(+\right) }$	Epilobium canum	California Fuschia	1 gal	5' O.C.
$\overline{(\cdot)}$	Encelia californica	Coast sunflower	1 gal	5' O.C.
\bigcirc	Eriogonum fasciculatum	California Buckwheat	1 gal	5' O.C.
\bigcirc	Salvia mellifera	Black Sage	1 gal	5' O.C.
$\widetilde{\bigoplus}$	Sueada taxifolia	Woolly Sea Blite	1 gal	5' O.C.
9				

UPPER MARSH

	SPECIES NAME	COMMON NAME	CONTAINER	SPACING
(/	Arthrocnemum subterminale	Parish's Glasswort	4 in pot	3' O.C.
	Distichlis littoralis	Shoregrass	4 in pot	3' O.C.
	Juncus acutus	Spiny Rush	1 gal	5' O.C.
	Sueada taxifolia	Woolly Sea Blite	1 gal	5' O.C.
	MID MARSH			
	SPECIES NAME	COMMON NAME	CONTAINER	SPACING
*	SPECIES NAME Batis maritima	COMMON NAME Salt Wort	CONTAINER 4 in pot	SPACING 3' O.C.
*				
*	Batis maritima Limonium californicum	Salt Wort	4 in pot	3' O.C.
	Batis maritima Limonium californicum SEED MIX	Salt Wort Marsh Rosemary	4 in pot 4 in pot	3' O.C.
	Batis maritima Limonium californicum	Salt Wort	4 in pot 4 in pot	3' O.C.

Alkali Mallow

UPPER MARSH

Malvella leprosa

NOTES:

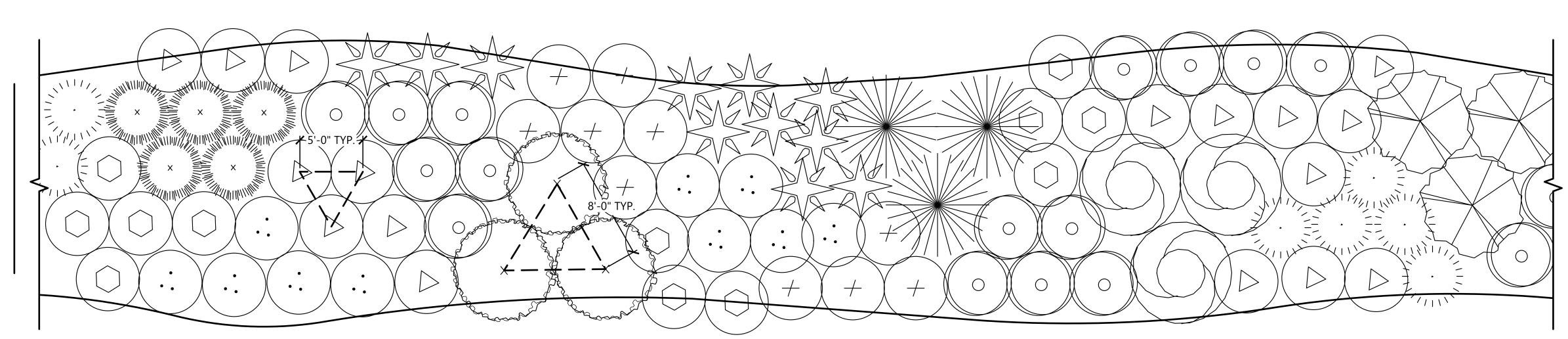
1. CLUSTER SPECIES IN GROUPS OF 5-7



7 SALT MARSH NORTH SHORELINE L-4.0 SCALE: 1" = 5' TYPICAL LAYOUT

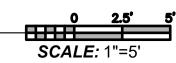
SPEC	IES NAME	COMMON NAME	CONTAINER	SPACING
Acmis	spon glaber	Deerweed	1 gal	5' O.C.
Artem	nisia californica	California Sagebrush	1 gal	5' O.C.
+ Epilok	oium canum	California Fuschia	1 gal	5' O.C.
© Eriogo	onum fasciculatum	California Buckwheat	1 gal	5' O.C.
Heter	omeles arbutifolia	Toyon	1 gal	8' O.C.
: Isocol	ma menziesii	Coast Goldenbush	1 gal	5' O.C.

	SPECIES NAME	COMMON NAME	CONTAINER	SPACING
	Lonicera subspicata	Southern Honeysuckle	1 gal	5' O.C.
	Malosma laurina	Laurel Sumac	1 gal	8' O.C.
\odot	Pruncus ilicifolila	Hollyleaf Cherry	1 gal	8' O.C.
× William	Quercus dumosa	Scrub Oak	1 gal	5' O.C.
	Rhus integrifolia	Lemonade Berry	1 gal	8' O.C.
\bigcirc	Salvia mellifera	Black Sage	1 gal	5' O.C.



6 COASTAL SAGE SCRUB NORTH SHORELINE

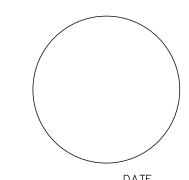
L-4.0 SCALE: 1" = 5' TYPICAL LAYOUT



GENERAL DETAIL NOTES:

- 1. OVERALL DIMENSIONS OF PLANT AREA VARIES. SEE L-1.X SHEETS FOR LIMITS OF PLANTING. REPEAT PLANT SPACING AS
- NEEDED TO ACHIEVE UNIFORM COVERAGE.

 2. PLANT LOCATION SHALL BE FIELD-DIRECTED BY OWNER.
- 3. BEFORE PLANTING, CONTRACTOR TO PROVIDE 10'X10' SAMPLE OF PLANTING APPROACH FOR APPROVAL BY RESTORATION ECOLOGIST.

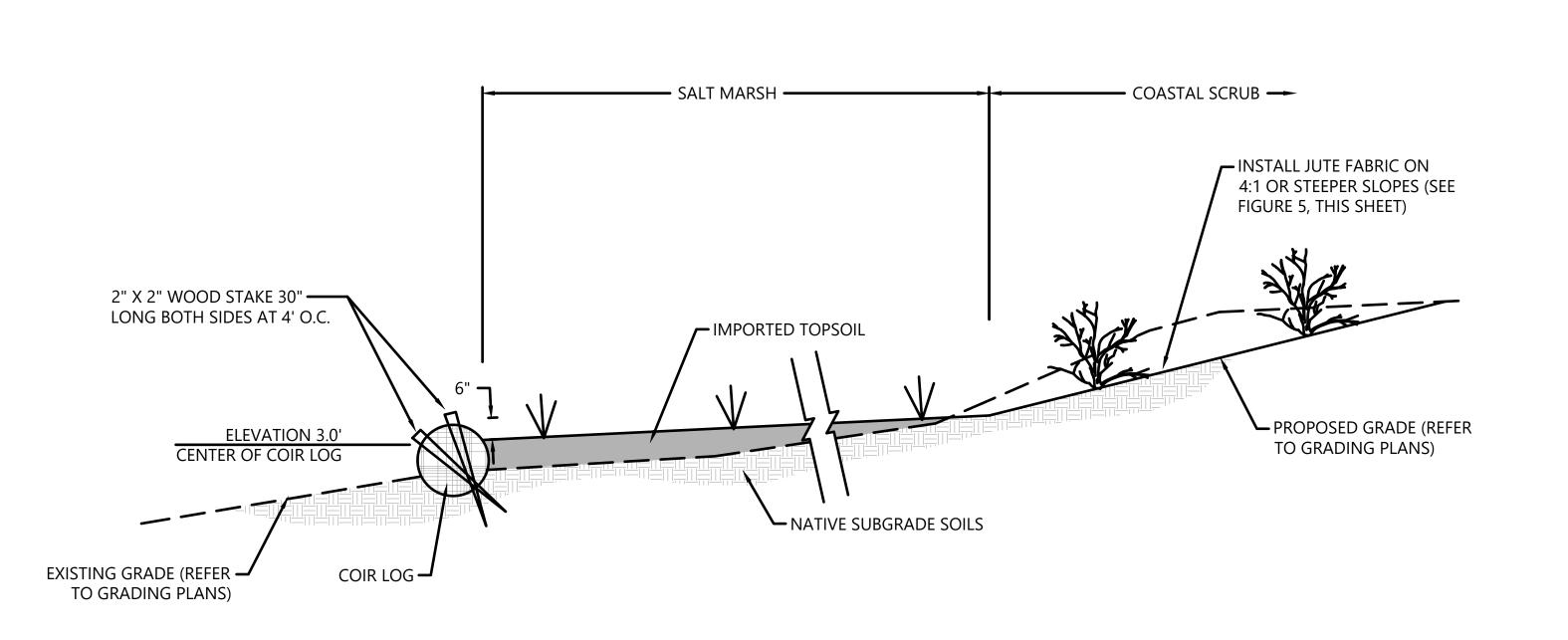


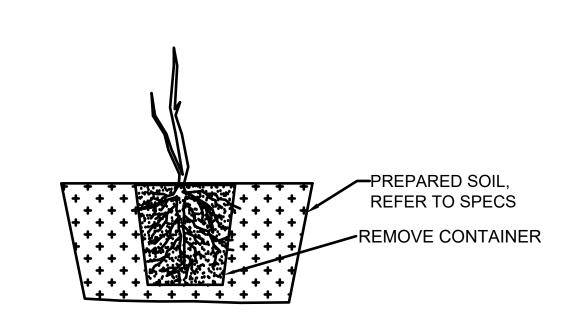
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PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

sнт. **51** оғ **53** PROJECT ENGINEER

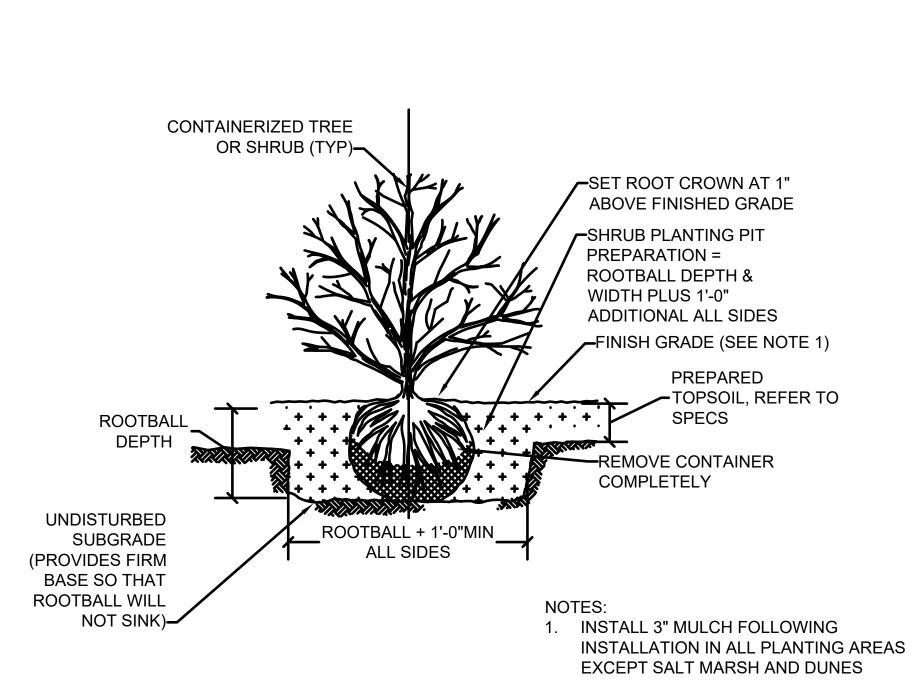




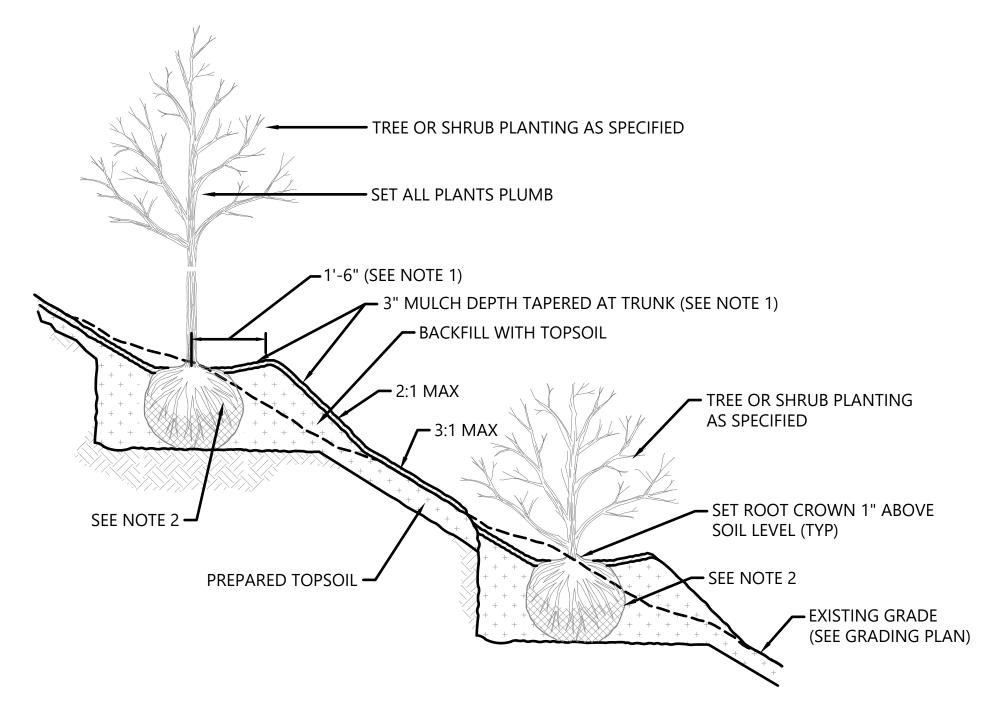




TOP OF SLOPE ANCHOR DETAIL

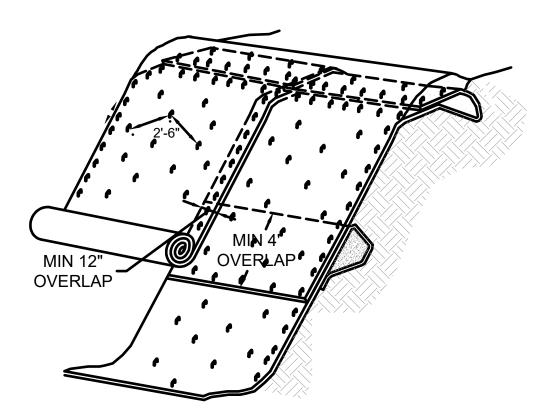


3 1 AND 5 GALLON PLANTING



- 1. SHAPE SOIL TO PROVIDE 3-FOOT-DIAMETER OR ROOTBALL DIAMETER
- (WHICHEVER IS GREATER) WATERING RING.
- ROPES AT TOP OF ROOTBALL SHALL BE CUT. REMOVE TOP 2/3 OF BURLAP. NON-BIODEGRADABLE MATERIAL SHALL BE COMPLETELY REMOVED.
- 3. ON SLOPES 4:1 OR STEEPER, INSTALL JUTE FABRIC PER DETAIL 5/THIS SHEET.

TREE AND SHRUB PLANTING ON SLOPE DETAIL – SECTION

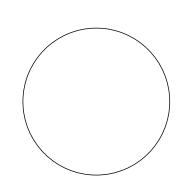


JUTE FABRIC INSTALLATION, TOP OF SLOPE ISOMETRIC VIEW NOT TO SCALE

- 1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND
- GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT. 2. LAY BLANKETS LOOSELY AND STAKE TO MAINTAIN DIRECT
- CONTACT WITH THE SOIL. DO NOT STRETCH.
- 3. MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY
- DOWNSLOPE.
- 4. INSTALL JUTE MAT OVER ENTIRE PLANTING AREA WITH SLOPE 4:1
- OR STEEPER. AVOID EXISTING TREES AND EXISTING STUMPS.
- 5. JUTE FABRIC SHALL BE ROLLED IN A CONTROLLED FASHION.

INSTALL 2" X 2" X 12" WOOD STAKES AS MAT IS UNROLLED. FABRIC SHALL NOT BE ALLOWED TO ROLL DOWN THE SLOPE ON ITS OWN.





PROJECT ENGINEER

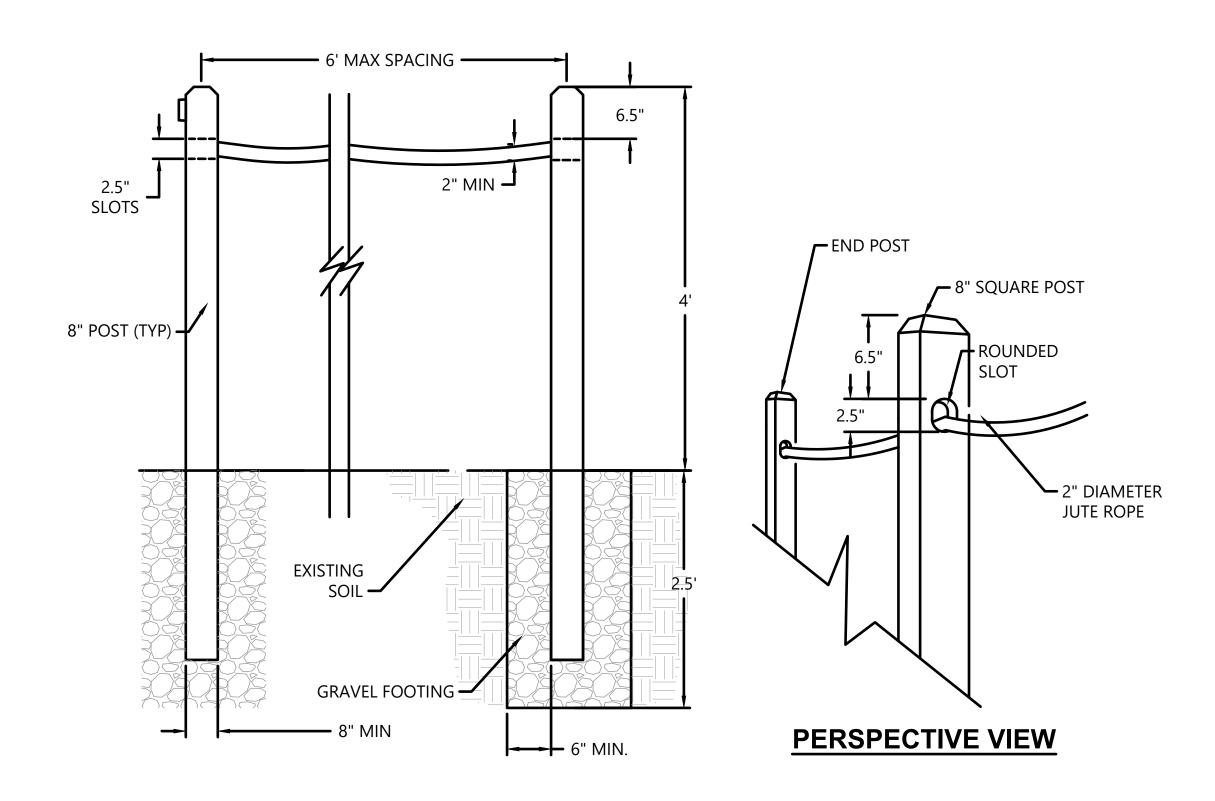
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PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

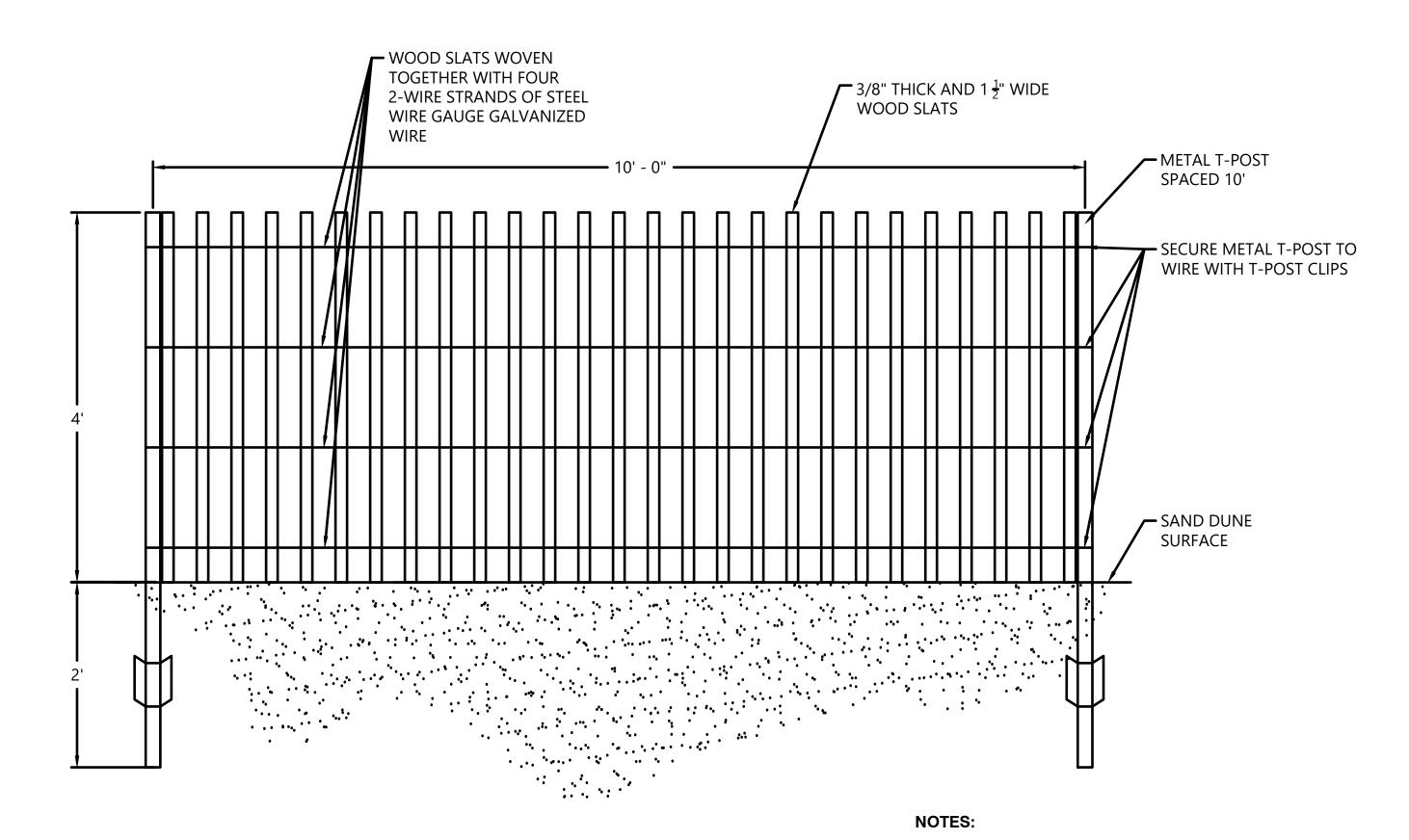
SHT. **52** OF **53**



WOODEN POSTS AND ROPE BARRIER C-1.1 SCALE: NTS

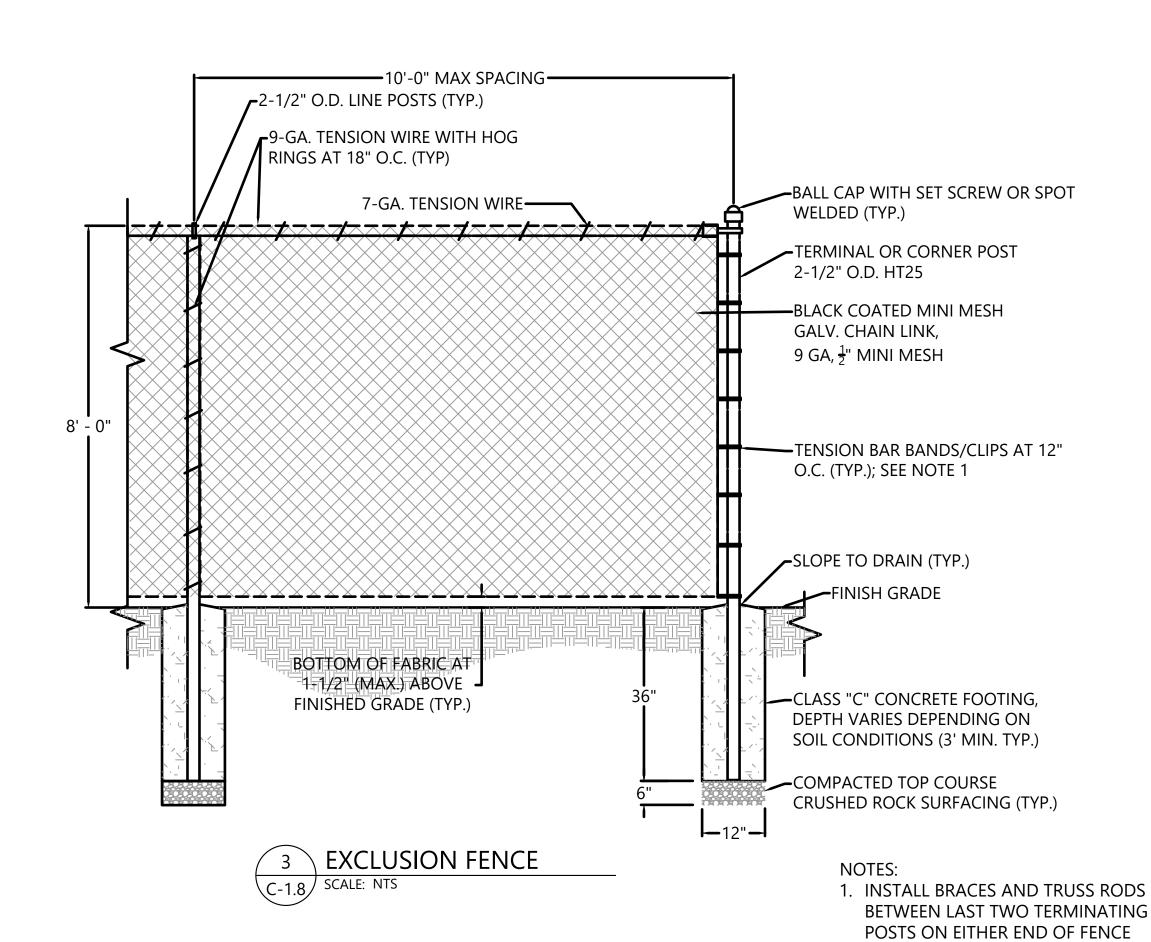
2 WOOD LATH SAND FENCE

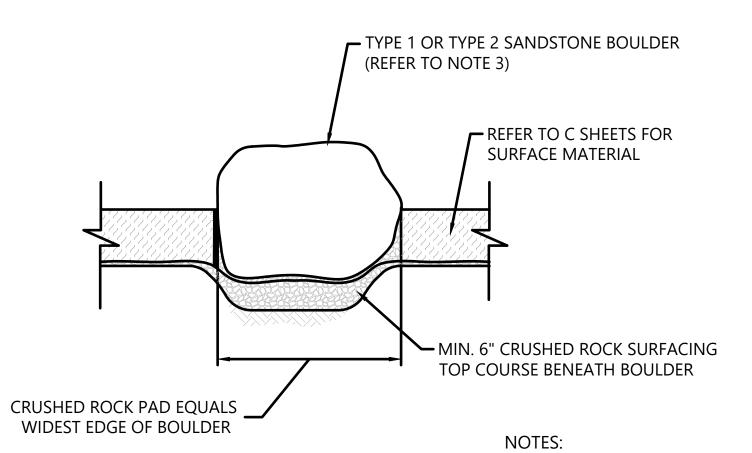
C-1.1 SCALE: NTS



1. MAXIMUM AMOUNT OF VARIANCE

BETWEEN 2 POSTS IS 6"





BOULDER SIZING TABLE ROCK WEIGHT AVERAGE **ROCK SIZE** DIMENSION (IN) 50-200 12-18 TYPE 1 18-28 TYPE 2 200-700

1. ADJACENT SURFACE CONDITIONS VARY. REFER TO C SHEETS. 2. ALL SALVAGED BOULDERS SHALL BE OWNER-APPROVED

PRIOR TO INSTALL. 3. INSTALL 5 CLUSTERS OF BOULDERS WITH (2) ONE-MAN AND

FABRIC.

(3) TWO-MAN BOULDERS EACH. 4. REFER TO BOULDER SIZING TABLE FOR WEIGHT AND DIMENSIONS.





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E	D	IBLIC EPAR EERIN	TME	RKS NT DIVI		ON
				DATE		
	APPROVED:			CITY ENGINEER		ORIGINAL SIGNED DATE
	<u> </u>	>				
		CHECKED_M	L	% 60	F C C	DRAFI
DATE APPROVED DESIGN		CHECKED MW	C	% 69		DRAFI

CLARK BIRD REFUGE RESTORA

PBW. NO. BID NO. SHT. DE L-6.0 DWG. NO. sнт. **53** оғ **53**

PROJECT ENGINEER