LOS PEÑASQUITOS LAGOON RESTORATION PH. 1

CONTRACTOR'S RESPONSIBILITIES

1. PURSUANT TO SECTION 4216 OF THE CALIFORNIA GOVERNMENT CODE, AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION, YOU MUST CONTACT THE REGIONAL NOTIFICATION CENTER (E.G., UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA) AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
2. NOTIFY SDG&E AT LEAST 10 WORKING DAYS PRIOR TO EXCAVATING WITHIN 10' OF SDG&E UNDERGROUND HIGH VOLTAGE TRANSMISSION POWER LINES. (I.E., 69 KV & HIGHER)
3. NOTIFY AND COORDINATE WITH SDG&E FOR PROPOSED WORK AROUND EXISTING POWERPOLES AND NECESSARY SAFETY PROCEDURES INCLUDING POWER SHUT OFF
4. COORDINATE LIMIT OF WORK WITH PROJECT BIOLOGIST. ONSITE PROJECT BIOLOGIST WILL DETERMINE LIMITS OF ENHANCEMENT AND LIMITS OF DISTURBANCE IN FIELD.

CONSTRUCTION STORM WATER PROTECTION NOTES

1. TOTAL SITE DISTURBANCE AREA (ACRES) 130 AC
   HYDROLOGIC UNIT/ WATERSHED PENASQUITOS
   HYDROLOGIC SUBAREA LOS PENSQUITOS, CARROL CANYON, & CARMEL VALLEY
2. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE
   - ☒ WPCP
     - () THE PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT NO. R9-2013-0001 AS AMENDED BY R9-2015-0001 AND R9-2015-0100
   - ☒ SWPPP
     - () THE PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT NO. R9-2013-0001 AS AMENDED BY R9-2015-0001 AND R9-2015-0100 AND CONSTRUCTION GENERAL PERMIT ORDER 2009-0009-DWQ AS AMENDED BY ORDER 2010-0014-DWQ AND 2012-0006-DWQ
     - () TRADITIONAL: RISK LEVEL ☒
     - () LUP: RISK TYPE ☒
3. CONSTRUCTION SITE PRIORITY
   ☐ ASBS ☒ HIGH ☐ MEDIUM ☐ LOW

GENERAL NOTES

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GRENBOOK AND WHITEBOOK AND SUPPLEMENTS TO DATE, EXCEPT AS OTHERWISE STATED IN THE CITY'S STANDARD SPECIAL PROVISIONS, OR IN THIS CONTRACT'S SPECIAL PROVISIONS.
2. EXISTING UNDERGROUND UTILITIES ARE SHOWN AS PER AVAILABLE RECORDS. PRIOR TO ANY GROUND DISTURBANCE, CONTRACTOR SHALL LOCATE ALL UNDERGROUND AND OVERHEAD UTILITIES IN ACCORDANCE WITH SPECIFICATIONS AND STATE LAW. NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 1-800-227-2600.
3. ANY DISCREPANCY IN THE DRAWINGS OR SPECIFICATIONS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER. FAILURE TO DO SO WILL PLACE RESPONSIBILITY OF THE CONTRACTOR FOR CORRECTION.
4. ANY WORK NOT INDICATED ON THE DRAWINGS BUT CALLED FOR IN THE SPECIFICATIONS, OR VICE-VERSA, SHALL BE FURNISHED AND PERFORMED AS THOUGH SPECIFICALLY INDICATED ANDCALLED FOR IN BOTH. ANY WORK NOT INSTALLED ACCORDING TO DRAWINGS AND SPECIFICATIONS OR ORDINANCES AND LAWS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS AND PERMITS ISSUED FOR THE PROJECT.
6. CONTRACTOR SHALL HAVE COPIES OF THE APPROVED DRAWINGS, SPECIFICATIONS, AND PERMITS ON SITE AND READILY AVAILABLE AT ALL TIMES.
7. THE CITY HAS OBTAINED PERMITS FROM RESOURCE AGENCIES FOR THIS PROJECT. COMPLY WITH ALL PERMIT REQUIREMENTS AND SCHEDULE RESTRICTIONS FOR PROTECTION OF WATER QUALITY, WILDLIFE AND VEGETATION.
8. EXISTING ELEVATION CONTOURS ARE APPROXIMATE AND PROVIDED FOR GENERAL REFERENCES ONLY. THE ACCURACY OF THE ELEVATION CONTOURS IS LIMITED BY DISTORTION DUE TO EXISTING VEGETATION.
9. THE PROJECT IS WITHIN AN ACTIVE FLOOD PLAIN. PHASE THE WORK TO MINIMIZE THE POTENTIAL FOR EROSION DURING A STORM EVENT.
10. THE PROJECT INVOLVES EXCAVATION AND FILL PLACEMENT WITHIN AREAS SUBJECT TO FLOODING, CONITINUOUS DRY WEATHER FLOWS, TIDAL FLOWS AND HIGH GROUNDWATER AND ACTIVE FLOOD CHANNELS. THE CONTRACTOR SHALL BE AWARE THAT THERE WILL BE BASE FLOWS IN CARROL CANYON CREEK AND LOS PENASQUITOS CREEK AND DOWNSTREAM CHANNELS THROUGHOUT CONSTRUCTION.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL WATER MANAGEMENT THROUGHOUT CONSTRUCTION, INCLUDING DEWATERING, FLOW DIVERSION AND DRAINAGE.
12. THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A SITE-SPECIFIC SWPPP, PREPARED BY A QUALIFIED SWPPP DEVELOPER (QSD) AS DEFINED BY THE CONSTRUCTION GENERAL PERMIT (CGP) AND SUBMIT THE SWPPP TO THE ENGINEER. THE SWPPP SHALL INCLUDE THE INFORMATION NEEDEDTO DEMONSTRATE COMPLIANCE WITH ALL THE REQUIREMENTS OF THE CGP. AS THIS PROJECT IS WITHIN A FLOOD PLAIN, CLEARING, GRUBBING AND EXCVATION AND GRADING SHALL BE PHASED TO MINIMIZE THE POTENTIAL FOR EROSION DURING A STORM EVENT. THE CITY WILL SUBMIT THE APPROVED SWPPP TO THE STATE WATER BOARD AS PART OF THE PERMIT REGISTRATION DOCUMENT PACKAGE. NOTE THAT NO CONSTRUCTION ACTIVITY SHALL BE ALLOWED UNTIL THE STATE WATER BOARD APPROVES THE PERMIT PACKAGE.
13. THE CONTRACTOR SHALL PREPARE FOR SUBMITTAL AND REVIEW A PROJECT DEWATERING AND ON-SITE FLOW AND GROUNDWATER MANAGEMENT PLAN IN ADDITION TO THE SWPPP THAT DESCRIBES THE MEASURES AND METHODS TO MANAGE ON-SITE FLOW FOR WATER QUALITY AND STABILIZATION AND DEWATERING OF EXCAVATIONS.
14. THE ACCURACY OF BASE MAP IS LIMITED BY DENSE VEGETATION. PERFORM THE WORK IN STAGES, TO ALLOW THE ENGINEER TO REVIEW FIELD CONDITIONS, AND ADJUST THE DESIGN AS NEEDED.

ABBREVIATIONS

ABAND	ABANDON	CONTR	CONTRACTOR	FS	FIRE SERVICE
ABAND'D	ABANDONED	DI	DUCTILE IRON	HP	HIGH PRESSURE
BTWN	BETWEEN	EB	ENCASED BURIED	IE	INVERT ELEVATION
CATV	CABLE TV	EL, ELEV	ELEVATION	MTD	MULTIPLE TELEPHONE DUCT
CI	CAST IRON PIPE	ELEC	ELECTRIC	MTS	SAN DIEGO METROPOLITAN TRANSIT SYSTEM
℄	CENTER LINE	EX, EXIST	EXISTING		
COND	CONDUIT	E/O	EAST OF	OVHD	OVER HEAD
CONT	CONTINUED	FH	FIRE HYDRANT	PROP	PROPOSED

SD&AE	SAN DIEGO & ARIZONA EASTERN RAILROAD
SDTI	SAN DIEGO TROLLEY INC.
SWR	SEWER
TEL	TELEPHONE
UNK	UNKNOWN
WM	WATER METER
WTR	WATER
W/O	WEST OF

SHEET INDEX

SHEET NO.	DISCIPLINE CODE	TITLE	LIMITS
1	G-00	TITLE SHEET	–
2	G-01	GENERAL NOTES	–
3	G-02	CONSTRUCTION PHASING	–
4	G-03	MONUMENT SHEET	PHASE 1 AREA
5	C-01	ALIGNMENT SHEET	–
6	C-02	EXISTING TOPOGRAPHY	SOUTH PHASE 1 AREA
7	C-03	EXISTING TOPOGRAPHY	NORTH PHASE 1 AREA
8	C-04	KEY MAP FOR GRADING PLANS	PHASE 1 AREA
	PHASE 1A GRADING PLANS		
9	C-05	GRADING PLAN	FLOODPLAIN ENHANCEMENT 1 – SOUTH
10	C-06	GRADING PLAN	FLOODPLAIN ENHANCEMENT 1 – NORTH
11	C-07	GRADING PLAN	FLOODPLAIN ENHANCEMENT 2
	PHASE 1B GRADING PLANS		
12-17	C-08 TO C-13	GRADING PLAN	SOUTH PHASE 1
	PHASE 1B & 1C GRADING PLANS		
18-28	C-14 TO C-24	GRADING PLAN	NORTH PHASE 1
29-31	C-25 TO C-27	GRADING PLAN	FLOODPLAIN ENHANCEMENT 3
32	C-28	IMPROVEMENT PLAN – PHASE 1A	TRIPP CT OUTFALL
33-36	C-29 TO C-32	LOW FLOW CHANNEL PLAN & PROFILE	
37-39	C-33 TO C-35	STORM DRAIN PLAN & PROFILE – PHASE 1A	CARMEL MOUNTAIN ROAD STORM DRAIN
40-43	C-36 TO C-39	STORM DRAIN PLAN & PROFILE – PHASE 1C	FLINTKOTE AVENUE STORM DRAIN
44-49	C-40 TO C-45	CHANNEL CROSS SECTIONS	–
50-53	C-46 TO C-49	CIVIL DETAILS	–
54-57	C-50 TO C-53	CULVERT PROFILE	–
58-60	C-54 TO C-56	BEACH REPLINISHMENT PLAN	–
61	C-57	EROSION CONTROL NOTES & DETAILS	–
62	C-58	EROSION CONTROL PLAN PHASE 1A	FLOODPLAIN ENHANCEMENTS 1 & 2
63	C-59	EROSION CONTROL PLAN PHASE 1A	STORM DRAINS
64	C-60	EROSION CONTROL PLAN PHASE 1B	SOUTH PHASE 1
65	C-61	EROSION CONTROL PLAN PHASE 1B	NORTH PHASE 1
66	C-62	EROSION CONTROL PLAN PHASE 1C	SOUTH PHASE 1
67	C-63	BMP SITE MAP	–
68	L-01	REVEGETATION PLAN	–
69-71	L-02 TO L-04	REVEGETATION PLAN – PLANT PALETTE	–
72-73	L-05 TO L-05.5	REVEGETATION PLAN	SOUTH PHASE 1
74-75	L-06 TO L-06.5	REVEGETATION PLAN	NORTH PHASE 1
76-77	L-07 TO L-08	TEMPORARY IRRIGATION LEGEND & NOTES	–
78	L-09	TEMPORARY IRRIGATION PLAN KEY MAP	–
79-98	L-10 TO L-29	TEMPORARY IRRIGATION PLAN	–
99-100	L-30 TO L-31	TEMPORARY IRRIGATION DETAILS	–
101-102	L-32 TO L-33	MARSH TRAIL RESTORTATION & REALIGNMENT	–
103	L-34	MARSH TRAIL DETAILS	–

EARTHWORK

CUT	290400 CY
FILL	11550 CY
NET	278850 CY EXPORT

DISCIPLINE CODE

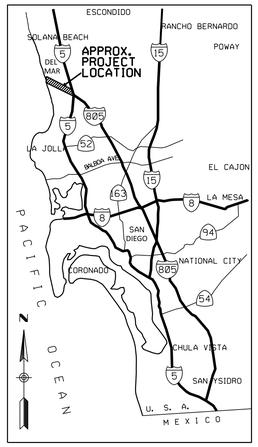
G	GENERAL
D	DEMOLITION
C	CIVIL
L	LANDSCAPE
A	ARCHITECTURAL
S	STRUCTURAL
M	MECHANICAL
E	ELECTRICAL
I	INSTRUMENTATION
T	TRAFFIC CONTROL

TRAFFIC CONTROL NOTES:

THE CONTRACTOR SHALL, PER SECTION 600 OF THE "WHITEBOOK" PREPARE TRAFFIC CONTROL WORKING DRAWINGS AND SUBMIT THEM TO THE RESIDENT ENGINEER. THE WORKING DRAWINGS WILL BE SENT TO THE ENGINEERING TRAFFIC CONTROL SECTION FOR REVIEW AND APPROVAL. THECONTRACTOR SHALL ALLOW A MINIMUM OF 20 WORKING DAYS FOR REVIEW OF THE WORKING DRAWINGS. UPON APPROVAL OF THE TRAFFIC CONTROL PLAN, THE ENGINEERING TRAFFIC CONTROL SECTION WILL ISSUE A TRAFFIC CONTROL PLAN (TCP) PERMIT. WORK SHALL NOT BEGIN IN THE PUBLIC RIGHT OF WAY WITHOUT THE APPROVED TCP PERMIT.

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF STORM DRAIN UPGRADES, GRADING, AND HABITAT RESTORATION WITHIN THE LAGOON AND SURROUNDING AREA.



VICINITY MAP

NOT TO SCALE

EXISTING STRUCTURES

- EX WATER MAIN & VALVES
- EX WATER METER
- EX FIRE HYDRANT
- EX SEWER MAIN & MANHOLES
- EX DRAINS
- EX PAVEMENT (PROFILE)
- EX GROUND LINE (PROFILE)
- EX TRAFFIC SIGNAL — TS
- EX STREET LIGHT — SL
- GAS MAIN
- ELEC. COND., TEL. COND., CATV — E — T — C
- RAILROAD, TROLLEY TRACKS
- PARCEL BOUNDARY
- EXISTING POWER POLE

LEGEND

IMPROVEMENTS	STANDARD DRAWINGS	SYMBOL
GRADING LIMITS	-	
MAJOR CONTOUR	-	
MINOR CONTOUR	-	
LIMITS OF DISTURBANCE (IDENTIFIED AS PROJECT SUBPHASE)	-	
RIP RAP	SDD-104	
NO. 3-1/2 PULLBOX	CALTRANS ES-8	
CONCRETE SWALE	SDD-109	
VEGETATED SWALE	-	
BOX CULVERT WARPED WINGWALL	SDD-112	
STORM DRAIN CLEANOUT TYPE A-5	D-9, TYPE 5	
ARTICULATED CONCRETE BLOCK	SEE DETAIL SHEET 39	
BIOENGINEERED GRADE CONTROL STRUCTURES	SEE DETAIL SHEET 39	
PROPOSED SEWER	SDS-101, SDS-113	
PROPOSED SEWER MANHOLE	SDS-106	
PROPOSED WATER	SDW-112	
REMOVE & REPLACE AC ROADWAY IN KIND	-	
REMOVE & REPLACE PCC ROADWAY IN KIND	-	
ARTICULATED CONCRETE BLOCK MAINTENANCE ROAD	-	
TEMPORARY ADAPTIVE MANAGEMENT ACCESS ROAD	-	
TEMPORARY CONSTRUCTION ACCESS ROAD	-	
NEW LONG-TERM MAINTENACE ACCESS ROAD	-	
ADD GRAVEL LAYER TO EXISTING GRAVEL ROAD	-	
MILL AND OVERLAY EXISTING AC PAVEMENT	-	
FIELD SURVEYED FRESHWATER MARSH/ RIPARIAN HABITAT ENHANCEMENT AREA	-	
NON-TIDAL SALT MARSH HABITAT REHABILITATION/RESTORATION	-	
CULVERT HEADWALL	D-34	
CURB AND GUTTER	SDG-151	
SPILLWAY RIPRAP	SDG-104	-
ALLEY APRON	SDG-120	
COMMERCIAL DRIVEWAY	SDG-163	CONTIGUOUS DRIVEWAY / NON-CONTIGUOUS DRIVEWAY
CHAIN LINK GATE	SDM-114	
CURB RAMP	SDG-135	-
CURB OUTLET	D-25A	

DECLARATION OF RESPONSIBLE CHARGE

* I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

DAVID POHL RCE# DATE

G-00

LOS PEÑASQUITOS LAGOON RESTORATION

AS-BUILT INFORMATION

MATERIALS	MANUFACTURER
–	–
–	–
–	–
–	–

CONSULTANT

SPEC. NO.

LOS PEÑASQUITOS
LAGOON RESTORATION - PH. 1
COVER SHEET

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 1 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/21	
REV 1	BMCD		4/1/22	
REV 2	BMCD		6/30/23	
REV 3	BMCD		2/2/24	

REGISTERED PROFESSIONAL ENGINEER DAVID R POHL C69622 CIVIL STATE OF CALIFORNIA

CONTRACTOR NTP DATE
INSPECTOR NOC DATE

SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

0101189-1-D

CONSTRUCTION CHANGE / ADDENDUM

CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

The City of SAN DIEGO Engineering & Capital Projects

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

GENERAL NOTES

1. IN CASE OF EMERGENCIES AND FOR TRACK AND TRAIN SAFETY CALL NORTH COUNTY TRANSIT DISTRICT (NCTD) 24/7 OPERATIONS CONTROL CENTER AT (760) 966-6700.

2. NO WORK SHALL BE PERFORMED ON NCTD'S RIGHT-OF-WAY (ROW) OR PROPERTY WITHOUT A RIGHT-OF-ENTRY PERMIT. SEE NCTD'S WEBSITE WORKING AROUND THE RAILS PAGES AT GONCTD.COM/ROW (PERMITS, LICENSES AND LEASES SECTION) FOR INFORMATION ON PROPERTY ACCESS REQUESTS. PROPERTY ACCESS REQUESTS SHALL BE ACCOMPANIED BY A SUBMITTAL. SEE NCTD'S WEBSITE AT GONCTD.COM/ROW (PROPERTY ACCESS REQUESTS AND SUBMITTAL REQUIREMENTS SECTION). TYPICAL REVIEW PERIOD IS 4-6 WEEKS FROM RECEIPT OF A COMPLETE SUBMITTAL.

3. ALL WORK ON THE JOINT NCTD/MTS RAIL CORRIDOR IN THE CITY OF SAN DIEGO SHALL ALSO ADHERE TO NCTD REQUIREMENTS AND SHALL FIRST BE SUBMITTED TO MTS. SEE MTS'S WEBSITE AT HTTPS://WWW.SDMTS.COM/BUSINESS-CENTER-PERMITS/RIGHT-ENTRY.

4. ALL WORK ON THE MARINE CORP BASE CAMP PENDLETON (CAMP PENDLETON) REQUIRES ACCESS AUTHORIZATION PURSUANT TO THE REQUIREMENTS OF CAMP PENDLETON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ACCESS AND COMPLYING WITH ALL CAMP PENDLETON REQUIREMENTS.

5. ALL PERSONNEL ENTERING NCTD'S ROW OR PROPERTY SHALL COMPLY WITH ALL NCTD REQUIREMENTS. FAILURE TO COMPLY SHALL BE GROUNDS FOR TERMINATION OF WORK AND REVOCATION OF THE RIGHT-OF-ENTRY PERMIT.

6. PRIOR TO ENTERING ONTO THE ROW AND AT THE CONTRACTOR'S EXPENSE, ALL PERSONNEL WORKING IN OR AROUND THE ROW, INCLUDING SUBCONTRACTORS AND THIRD PARTIES, SHALL COMPLETE NCTD'S ROADWAY WORKER PROTECTION (RWP) TRAINING COURSE. RWP TRAINING IS PROVIDED BY NCTD'S RAIL CONTRACTOR. SEE NCTD'S WEBSITE AT GONCTD.COM/ROW (ROADWAY WORKER PROTECTION RWP SECTION) FOR RATES, CLASS TIMES, SCHEDULING, AND CONTACT INFORMATION. A LINK TO REGISTER FOR CLASS IS ON THE WEBSITE PAGE. ALL PERSONS ENTERING THE RAILROAD ROW SHALL HAVE THE RWP STICKER AFFIXED TO THE RIGHT SIDE OF THEIR HARD HAT AND RWP BADGE IN THEIR POSSESSION.

7. THE CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS SET FORTH BY NCTD, THE RIGHT-OF-ENTRY PERMIT, PROJECT PLANS AND SPECIFICATIONS, AND THE JOB SITE NCTD RAILROAD FLAGMAN/ROADWAY WORKER IN CHARGE (RWIC). FAILURE TO COMPLY MAY RESULT IN WORK STOPPAGE OR REMOVAL FROM NCTD PROPERTY.

8. ALL CONTRACTORS PERFORMING WORK ON THE ROW WHOSE DUTIES INCLUDE INSPECTION, CONSTRUCTION, MAINTENANCE OR REPAIR OF RAILROAD TRACK, BRIDGES, ROADWAY, SIGNAL AND COMMUNICATION SYSTEMS, ELECTRIC TRACTION SYSTEMS, ROADWAY FACILITIES OR ROADWAY MAINTENANCE MACHINERY ARE REQUIRED TO SUBMIT TO NCTD A 49 CFR PART 219 CONTROL OF DRUG AND ALCOHOL USE PLAN ACCEPTED BY THE FEDERAL RAILROAD ADMINISTRATION, PRIOR TO THE COMMENCEMENT OF ANY WORK. DOCUMENTATION MUST INCLUDE THE PLAN DOCUMENT AS WELL AS THE FRA LETTER OF ACCEPTANCE.

9. ALL CONTRACTORS PERFORMING RESTORATIONS OR RENEWALS OF TRACK, TRACK INSPECTION WORK, AND INSPECTIONS OF CONTINUOUS WELDED RAIL TRACK INSTALLATIONS, ADJUSTMENTS, OR MAINTENANCE, ARE REQUIRED TO SUBMIT TO NCTD, CONTRACTOR QUALIFICATIONS IN COMPLIANCE WITH CFR TITLE 49 PART 213 SUBPART 213.7.

10. NCTD RAILROAD ROADWAY WORKER FLAG PROTECTION (FLAGGING) IS REQUIRED ANY TIME WHEN WORKING IN THE RAILROAD ROW, OR WORKING ON NON-RAILROAD PROPERTY NEAR OR ADJACENT TO THE ROW WITH THE POTENTIAL TO IMPACT THE RAILROAD TRACKS, OPERATIONS OR INFRASTRUCTURE. A RAILROAD FLAGMAN MAY BE DEFINED AS FLAGMAN, ROADWAY WORKER IN CHARGE (RWIC), OR WATCHMAN/LOOKOUT/FLAGGER (RAILROAD FLAGMAN). ONLY AN NCTD AUTHORIZED RAILROAD FLAGMAN, PROVIDED BY NCTD'S RAIL CONTRACTOR, IS PERMITTED TO PERFORM FLAGGING WITHIN THE RAILROAD ROW. THE RAILROAD FLAGMAN HAS SOLE RESPONSIBILITY TO PROTECT THE RAILROAD OPERATIONS AND INFRASTRUCTURE. AT ALL TIMES THE CONTRACTOR SHALL FOLLOW THE RAILROAD FLAGMAN'S DIRECTI

11. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING FLAGGING SERVICES WITH ADEQUATE NOTICE TO MEET CONTRACTOR'S CONSTRUCTION SCHEDULE. SEE NCTD'S WEBSITE AT GONCTD.COM/ROW (ROW SUPPORT SERVICES SECTION) FOR INFORMATION ON REQUESTING SERVICES.

12. THE CONTRACTOR MUST CONTACT DIG ALERT/CALL BEFORE YOU DIG (811) BEFORE ANY EXCAVATIONS OR GRADE LEVEL PENETRATION CAN OCCUR.

13. NCTD UTILITIES WITHIN THE ROW ARE NOT PART OF DIG ALERT/CALL BEFORE YOU DIG (811). NCTD UTILITIES MUST BE MARKED OUT BY NCTD'S RAIL CONTRACTOR. THE CONTRACTOR MUST REQUEST NCTD UTILITY MARK OUT WITH ADEQUATE NOTICE TO MEET CONTRACTOR'S CONSTRUCTION SCHEDULE BEFORE ANY EXCAVATIONS OR ANY GRADE-LEVEL PENETRATION CAN OCCUR. SEE NCTD'S WEBSITE AT GONCTD.COM/ROW (ROW SUPPORT SERVICES SECTION) FOR INFORMATION ON REQUESTING SERVICES.

14. THE CONTRACTOR SHALL PAY ALL COSTS ASSOCIATED WITH RWP TRAINING, FLAGGING, UTILITY MARK OUT, INSPECTIONS, AND REVIEWS, AS REQUIRED BY NCTD POLICY, THE RIGHT-OF-ENTRY PERMIT, AND/OR AS CONTRACTED WITH NCTD.

15. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR EACH EQUIPMENT OPERATOR TO HAVE CONSTANT AND DIRECT RADIO COMMUNICATIONS WITH THEIR FOREMAN AND RAILROAD FLAGMAN.

16. THE CONTRACTOR SHALL HAVE THE PERMITTED STAMPED SET OF PLANS ON-SITE. WORK WILL BE TERMINATED BY NCTD SHOULD NO STAMPED PLANS BE ON-SITE.

17. THE CONTRACTOR SHALL CONTACT NCTD A MINIMUM 72-HOURS IN ADVANCE FOR ANY REQUIRED NCTD INSPECTIONS.

18. UPON PROJECT COMPLETION, THE NCTD ROW SHALL BE LEFT IN AS GOOD OR BETTER CONDITION AS PRIOR TO THE START OF THE PROJECT. THE CONTRACTOR SHALL RESTORE ALL DISTURBED OR DAMAGED AREA AND FACILITIES AS DIRECTED BY NCTD AT THE CONTRACTOR'S EXPENSE. NCTD ROW AND PROPERTY SHALL NOT BE USED FOR STORAGE OR DISPOSAL OF SPOILS.

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

DRAFT – NOT FOR CONSTRUCTION

G-01

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

GENERAL NOTES

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 2 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

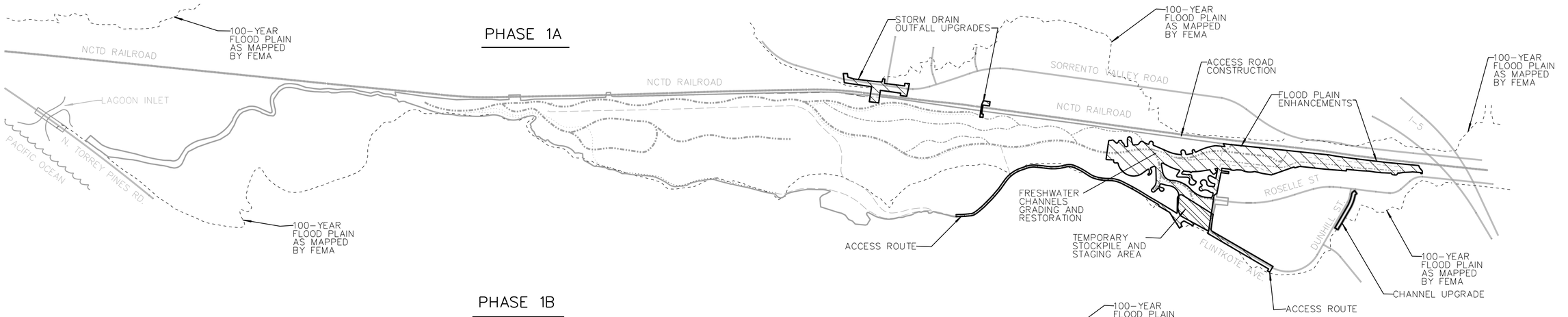
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-2-D

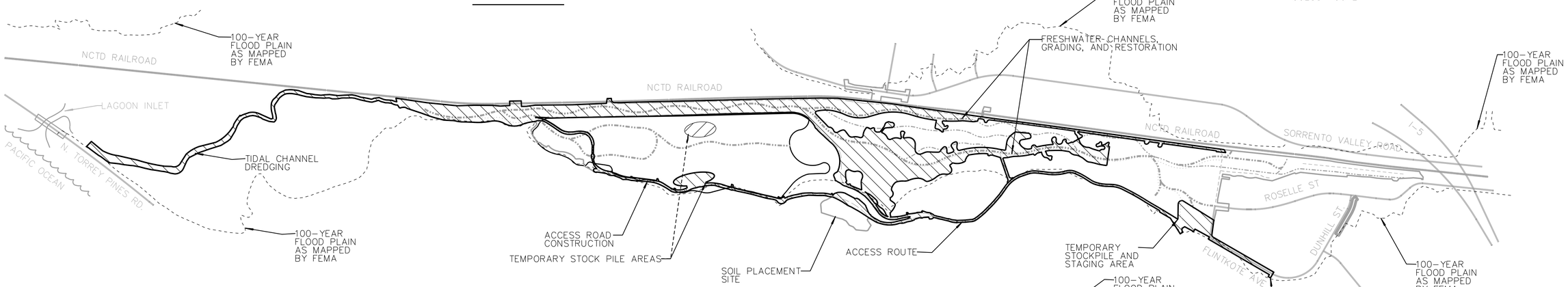
100% SUBMITTAL

GENERAL NOTES

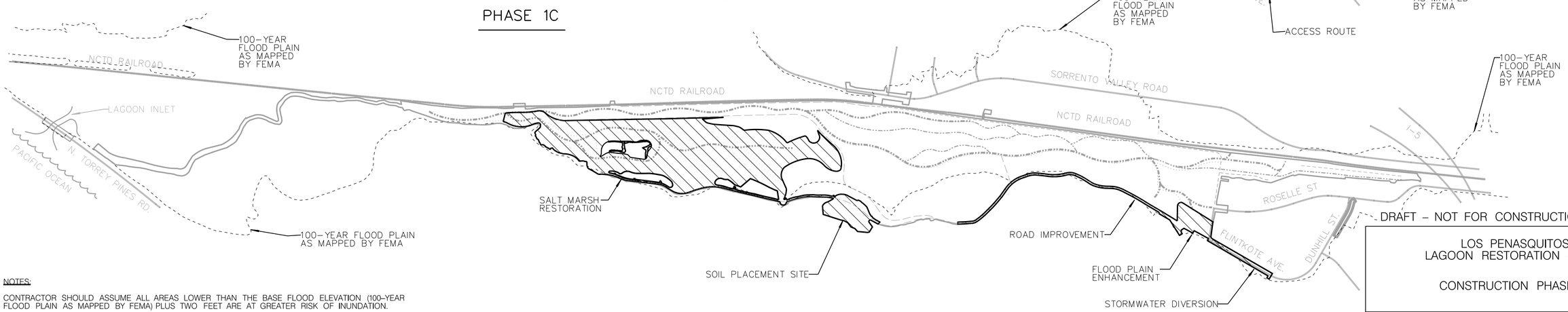
PHASE 1A



PHASE 1B



PHASE 1C



NOTES:

CONTRACTOR SHOULD ASSUME ALL AREAS LOWER THAN THE BASE FLOOD ELEVATION (100-YEAR FLOOD PLAIN AS MAPPED BY FEMA) PLUS TWO FEET ARE AT GREATER RISK OF INUNDATION.

0 600 1200 1800
SCALE 1"=600'

DRAFT – NOT FOR CONSTRUCTION

G-02

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

CONSTRUCTION PHASING

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 3 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER DAVID H PORE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
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SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-3-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

PLAN PHASE INDEX

100% SUBMITTAL

MONUMENTATION / SURVEY NOTES:
THIS MAP WAS CREATED FROM A PARCEL LAYER AND DOES NOT DEPICT THE ACTUAL LOCATION OF THE PROPERTY LINES. NO BOUNDARY ANALYSIS WAS PERFORMED. THE SURVEY MONUMENTS HAVE BEEN LOCATED BY SURVEY GRADE MEASUREMENTS, AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.

THE CITY OF SAN DIEGO LAND SURVEYORS SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE MONUMENTS. WHEN SETTING SURVEY MONUMENTS AS REQUIRED BY SECTIONS 6730.2 AND 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA, A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED WITH THE COUNTY SURVEYOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LICENSED LAND SURVEYOR OR LICENSED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA SHALL FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK, DEMOLITION OR SURFACE IMPROVEMENTS. IF DESTROYED, A LICENSED LAND SURVEYOR SHALL REPLACE SUCH MONUMENT(S) WITH APPROPRIATE MONUMENTS. WHEN SETTING SURVEY MONUMENTS USED FOR RE-ESTABLISHMENT OF THE DISTURBED CONTROLLING SURVEY MONUMENTS AS REQUIRED BY SECTIONS 6730.2 AND 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA, A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED WITH THE COUNTY SURVEYOR. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION SHALL BE NOTIFIED IN WRITING AT LEAST 7 DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

REFERENCE:
11188-B, 12580-B, 14136-B, 17186-B, 6445-D, 9620-BD,13828-D
17105-D, 17326-D, 19721-D, 23476-D, 5469-L, 7343-W, 3625, 3627.1, 3627.2
SUBDIVISION MAPS: MM 36, 362, 483, 4753, 4909, 7748, 9230
PARCEL MAPS: 940, 3392, 6739, 10282, 12921, 15028

FIELD DATA
BENCHMARK: EBP CARMEL MTN RD & SORRENTO VALLEY RD (PT# 585)
ELEV.=15.292
FIELD NOTES:
B-11035, WATER GROUP 939, HARRIS, 272-1695 21002645, SDG&E
BLK 1Y, MACY, 11/2017, 278-1692
BASIS OF BEARINGS / COORDINATES:
THE BASIS OF BEARING FOR THIS PROJECT WAS DERIVED FROM A PREVIOUS STATIC GPS SURVEY USIND ROS 14492 NAD 83 FEET, ZONE 6 (EPOCH 1991.32), UTILIZING RTK/GPS FIELD PROCEDURES WITH A CALVRS BASE STATION BROADCAST OF 2018 AND CONSTRAING TO GPS 198, AND GPS 17 (20017),I.E. S 37°10'22"W
DATUM: MEAN SEA LEVEL
REFERENCES:
CORNER RECORDS: 39149, 43402
ROS: 3020, 3021, 5008, 6814, 6852, 18531, 20266

DATA SOURCE INFORMATION:
1. CITY OF SAN DIEGO, SURVEY SECTION, AERIAL AND BASE TOPOGRAPHIC SURVEY OF LOS PENASQUITOS PHASE 1, 2019
2. O'DAY CONSULTANTS, LOS PENASQUITOS, FLINTKOTE AVENUE AND DUNHILL STREET RIGHT OF WAY, UTILITY, AND FLOODWALL TOPOGRAPHICAL SURVEY, NOVEMBER 2 2020

LEGEND:
- EXISTING SURVEY CHECK POINT
- SNF & SCP SURVEY CONTROL POINT
- HORIZONTAL CONTROL POINT MONUMENT
- BENCHMARK

CONTROL POINT	NORTHING	EASTING	ELEVATION (NGVD 29)	DESCRIPTION
BENCHMARK (585)	1914581.55	6258781.28	15.29	BM AT CARMEL MOUNTAIN RD. & SORRENTO VALLEY RD.
CP-9526	1910107.04	6262140.91	–	MONUMENT IN SORRENTO VALLEY RD.
CP-9527	1910200.27	6261436.39	–	MONUMENT IN ROSELLE STREET
CP-9528	1911332.53	6261466.84	–	MONUMENT IN SORRENTO VALLEY RD.
CP-9529	1911440.28	6261452.58	–	MONUMENT IN SORRENTO VALLEY RD.

0 600 1200 1800
SCALE 1"=600'

DRAFT – NOT FOR CONSTRUCTION

G-03

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

MONUMENT SHEET

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 4 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

SUBMITTED BY: NENAD DAMNJOANOVIC PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

CONTRACTOR NTP DATE
INSPECTOR NOC DATE

0101189-4-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

MONUMENT SHEET

100% SUBMITTAL

STREAM								
No.	BEG/PI STA.	R, FT	BEARING / Δ	LT/RT	T, FT	L, FT	N	E
L1	42+00.00		S30°31'05"E			379.91	1918578.520	6254635.504
L2	45+79.91		S14°28'55"E			1.54	1918251.241	6254828.428
C1	47+88.16	912.89	25°31'05"	LT	206.72	406.58	1918057.419	6254904.572
C2	51+74.99	1046.86	20°15'07"	LT	186.96	370.03	1917784.385	6255188.105
C3	54+71.95	1294.60	10°03'22"	RT	113.90	227.21	1917640.023	6255450.623
L3	55+85.26		S45°20'28"E			89.83	1917558.635	6255530.299
C4	57+47.16	1046.72	7°52'41"	LT	72.08	143.92	1917446.238	6255646.809
C5	59+09.78	419.16	24°26'13"	RT	90.77	178.78	1917345.416	6255774.453
C6	61+08.30	458.60	27°05'49"	LT	110.51	216.88	1917160.766	6255854.438
C7	62+81.67	415.07	18°20'20"	LT	67.00	132.85	1917045.749	6255989.640
C8	63+80.05	620.24	6°00'11"	RT	32.52	64.98	1917007.634	6256081.547
C9	65+57.65	824.44	19°58'08"	RT	145.14	287.34	1916917.398	6256234.592
C10	67+65.65	813.20	9°15'07"	RT	65.80	141.31	1916753.636	6256367.537
C11	68+88.93	1610.36	4°06'32"	LT	57.77	115.49	1916644.797	6256426.020
C12	70+33.51	669.90	14°46'30"	LT	86.86	172.75	1916524.340	6256505.954
C13	71+64.06	459.79	11°05'42"	LT	44.66	89.03	1916439.702	6256606.607
C14	72+88.59	1396.99	6°34'05"	RT	80.16	160.15	1916381.881	6256717.215
C15	74+89.71	833.08	16°32'46"	RT	121.13	240.57	1916266.669	6256882.237
C16	76+51.44	546.61	8°50'49"	RT	42.28	84.40	1916137.694	6256982.578
C17	77+67.84	817.31	10°23'13"	LT	74.28	148.16	1916036.969	6257041.241
C18	79+88.57	836.39	19°55'05"	LT	146.86	290.76	1915869.560	6257185.738
C19	82+25.82	743.92	14°18'14"	RT	93.35	185.72	1915756.340	6257397.484
C20	84+10.13	787.69	13°18'54"	RT	91.94	183.05	1915634.658	6257537.196
C21	85+32.90	390.27	9°16'34"	RT	31.66	63.18	1915533.714	6257608.513
C22	86+11.05	541.80	9°50'17"	LT	46.63	93.03	1915463.990	6257644.117
C23	87+09.85	410.08	14°33'54"	LT	52.40	104.24	1915386.989	6257706.331
C24	88+74.96	426.16	29°46'05"	RT	113.26	221.41	1915293.300	6257842.960
C25	91+08.04	417.65	33°18'32"	RT	124.94	242.80	1915077.809	6257944.420
C26	93+43.82	615.71	21°40'55"	LT	117.91	233.00	1914838.171	6257905.108
C27	95+62.64	532.60	22°02'31"	LT	103.73	204.90	1914620.950	6257949.124
C28	97+18.10	560.66	11°03'47"	LT	54.29	108.25	1914487.779	6258034.177
C29	98+37.44	851.65	8°46'52"	RT	65.39	130.52	1914399.500	6258114.989
C30	100+26.51	803.44	17°32'17"	RT	123.94	245.93	1914241.139	6258218.745
C31	102+12.44	977.56	7°28'59"	RT	63.93	127.67	1914060.070	6258268.812
C32	103.03.034	5596.14	0°33'00"	LT	26.85	53.70	1913970.295	6258282.169
C33	105+60.11	443.22	54°53'53"	LT	230.22	424.67	1913720.219	6258341.605
C34	110+56.61	1074.80	31°23'38"	RT	302.05	588.92	1913546.405	6258844.343
C35	114+29.81	1032.47	9°33'36"	RT	86.34	172.28	1913254.987	6259101.097
C36	116+34.56	829.71	16°17'56"	LT	118.82	236.03	1913084.698	6259215.374
C37	118+25.94	721.07	11°44'42"	LT	74.17	147.81	1912964.136	6259366.062
C38	119+91.10	953.71	10°57'43"	RT	91.51	182.46	1912885.441	6259511.825
C39	122+86.70	764.40	29°58'30"	RT	204.64	399.91	1912696.434	6259739.813
C40	126+45.17	785.25	23°28'55"	LT	163.20	321.83	1912350.129	6259863.653
C41	129+19.27	861.41	15°16'19"	LT	115.49	229.60	1912144.114	6260051.325
C42	131+61.09	709.86	20°23'42"	RT	127.69	252.68	1912015.192	6260257.517
C43	133+85.59	606.64	18°37'55"	RT	99.52	198.27	1911833.970	6260394.558
C44	135+26.60	2441.12	2°01'48"	LT	43.25	86.50	1911699.516	6260442.235
L4	135+69.85		S35°44'02"E			36.56	1911660.313	6260460.509
C45	136+54.98	408.83	13°33'11"	LT	48.58	96.70	1911591.499	6260510.635

BERM								
No.	BEG/PI STA.	R, FT	BEARING / Δ	LT/RT	T, FT	L, FT	N	E
L1	00+00.00		27°25'19"			9.29	1917217.363	6255751.921
C1	00+21.08	89.27	15°02'35"	LT	11.79	23.44	1917199.133	6255762.464
L2	00+32.73		S45°51'07"E			662.22	1917191.117	6255771.105
C2	14+26.64	62631.52	1°20'20"	LT	731.69	1463.31	1916216.139	6256767.281
L3	21+58.26		S45°52'19"E			369.10	1915714.717	6257300.143
L4	25+27.36		S45°53'56"E			265.07	1915457.723	6257565.080
C3	30+07.30	343.45	64°03'43"	RT	214.87	384.01	1915131.989	6257917.333
C4	32+16.81	406.47	11°20'46"	LT	40.38	80.49	1914884.910	6257853.712
C5	33+11.41	97474.72	0°03'50"	LT	54.49	108.97	1914790.056	6257854.998
C6	34+05.01	1011.97	4°25'34"	LT	39.11	78.17	1914696.491	6257857.081
C7	35+67.12	295.40	45°13'41"	RT	123.05	233.18	1914534.885	6257870.100
C8	37+30.74	1015.10	6°01'55"	RT	53.48	106.87	1914403.842	6257751.890
C9	38+02.64	699.22	3°02'02"	RT	18.52	37.03	1914358.543	6257695.955
C10	38+48.84	273.22	11°34'37"	LT	27.70	55.21	1914333.541	6257657.090
C11	39+47.62	91.67	75°43'48"	LT	71.27	121.16	1914267.508	6257583.403

ROAD 1								
No.	BEG/PI STA.	R, FT	BEARING / Δ	LT/RT	T, FT	L, FT	N	E
C1	00+20.29	16488.50	0°08'28"	LT	20.29	40.57	1914654.406	6256942.891
C2	00+82.47	129.79	35°46'44"	LT	41.90	81.05	1914601.885	6256976.181
C3	01+64.40	560.76	8°43'23"	RT	42.77	85.37	1914570.370	6257054.763
C4	02+46.41	1298.34	3°28'41"	RT	39.41	78.8	1914528.564	6257125.520
C5	03+46.50	487.82	14°11'02"	RT	60.69	120.76	1914472.507	6257208.459
C6	04+90.28	5120.19	1°52'23"	LT	83.71	167.41	1914364.793	6257304.639
C7	06+13.43	256.68	17°28'34"	RT	39.45	78.29	1914275.653	6257389.631
C8	06+83.32	786.32	4°31'19"	LT	31.05	62.06	1914212.378	6257420.711
C9	09+03.58	700.51	30°14'10"	RT	189.25	369.67	1914022.922	6257533.121
C10	11+32.11	356.96	15°21'11"	LT	48.11	95.65	1913785.567	6257534.968
C11	12+06.69	921.68	3°21'40"	RT	27.04	54.07	1913713.250	6257555.431
C12	13+82.83	327.89	48°54'29"	LT	149.11	279.89	1913541.232	6257593.372
C13	16+14.59	9856.00	1°10'26"	RT	100.98	201.96	1913421.308	6257812.835
C14	18+54.43	539.58	28°51'58"	RT	138.87	271.84	1913302.007	6258020.910
C15	20+55.16	4104.71	1°53'28"	RT	67.76	135.51	1913125.464	6258128.277
C16	21+54.21	362.36	9°52'23"	LT	31.30	62.44	1913039.177	6258176.927

ROAD 2								
No.	BEG/PI STA.	R, FT	BEARING / Δ	LT/RT	T, FT	L, FT	N	E
C1	00+00.00	1271.41	3°36'32"	LT	40.06	80.09	1914580.784	6258561.421
C2	00+80.09	770.25	7°06'32"	RT	47.84	95.57	1914516.849	6258621.731
L1	01+75.66		S35°55'26"E			137.69	1914366.311	6258730.171
L2	03+13.35		S35°53'49"E			174.23	1914225.171	6258832.326
C3	04+87.58	10127.02	1°58'08"	LT	174.01	347.98	1914083.304	6258933.085
L3	08+35.56		S36°36'25"E			543.49	1913944.982	6259038.659
L4	13+79.04		S37°11'49"E			807.42	1913508.699	6259362.749
C4	21+86.46	18442.61	2°00'40"	RT	323.76	647.46	1912608.968	6260048.349
L5	28+33.92		S36°39'47"E			1190.19	1912345.624	6260236.692
C5	40+24.12	31.25	85°42'47"	RT	28.99	46.74	1911367.898	6260965.016
C6	40+70.86	13896.37	2°15'11"	RT	273.21	546.35	1911185.551	6260724.158

CULVERTS					
CULVERT/ STORM PIPE REFERENCE No.	BEGIN		END		L, FT
	N	E	N	E	
1	1916231.792	6255789.740	1916243.874	6255814.112	27
2	1916021.405	6255911.103	1916036.173	6255931.230	25
3	1915783.361	6256094.892	1915797.259	6256115.580	25
4	1915572.542	6256162.871	1915584.516	6256184.877	22
	1915570.898	6256163.814	1915582.872	6256185.820	22
5	1915386.394	6256432.212	1915407.269	6256446.039	25
	1915385.257	6256433.931	1915406.132	6256447.758	25
6	1915113.438	6256648.924	1915129.187	6256673.890	30
7	1914646.662	6256933.851	1914656.440	6256956.908	25
8	1914583.687	6256991.593	1914606.419	6257002.671	25
9	1914237.780	6257396.391	1914246.188	6257420.103	25
	1914236.027	6257397.241	1914244.420	6257420.885	25
10	1914162.593	6257623.249	1914173.754	6257645.603	25
	1913747.783	6257535.052	1913759.891	6257558.567	27
11A	1913745.632	6257536.097	1913757.693	6257559.730	27
11B	1913804.263	6257668.535	1913801.466	6257694.935	27
12A	1913801.909	6257668.162	1913799.154	6257694.844	27
	1913427.763	6257865.911	1913380.683	6257866.220	47
12B	1913433.068	6257868.561	1913450.580	6257877.600	20
	1913280.041	6258031.591	1913244.365	6258022.646	37
13	1913280.416	6258034.262	1913243.768	6258025.078	38
	1913337.152	6258019.964	1913284.301	6258031.869	54
14	1913337.713	6258022.395	1913285.830	6258034.087	53
15	1911588.055	6260129.917	1911599.372	6260152.310	25
	1911586.114	6260131.017	1911597.402	6260153.359	25

DRAFT – NOT FOR CONSTRUCTION

C–01

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

ALIGNMENT TABLES

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 5 OF 103 SHEETS

WBS B–17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POYE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
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CONTRACTOR NTP DATE
INSPECTOR NOC DATE

0101189- 5 -D

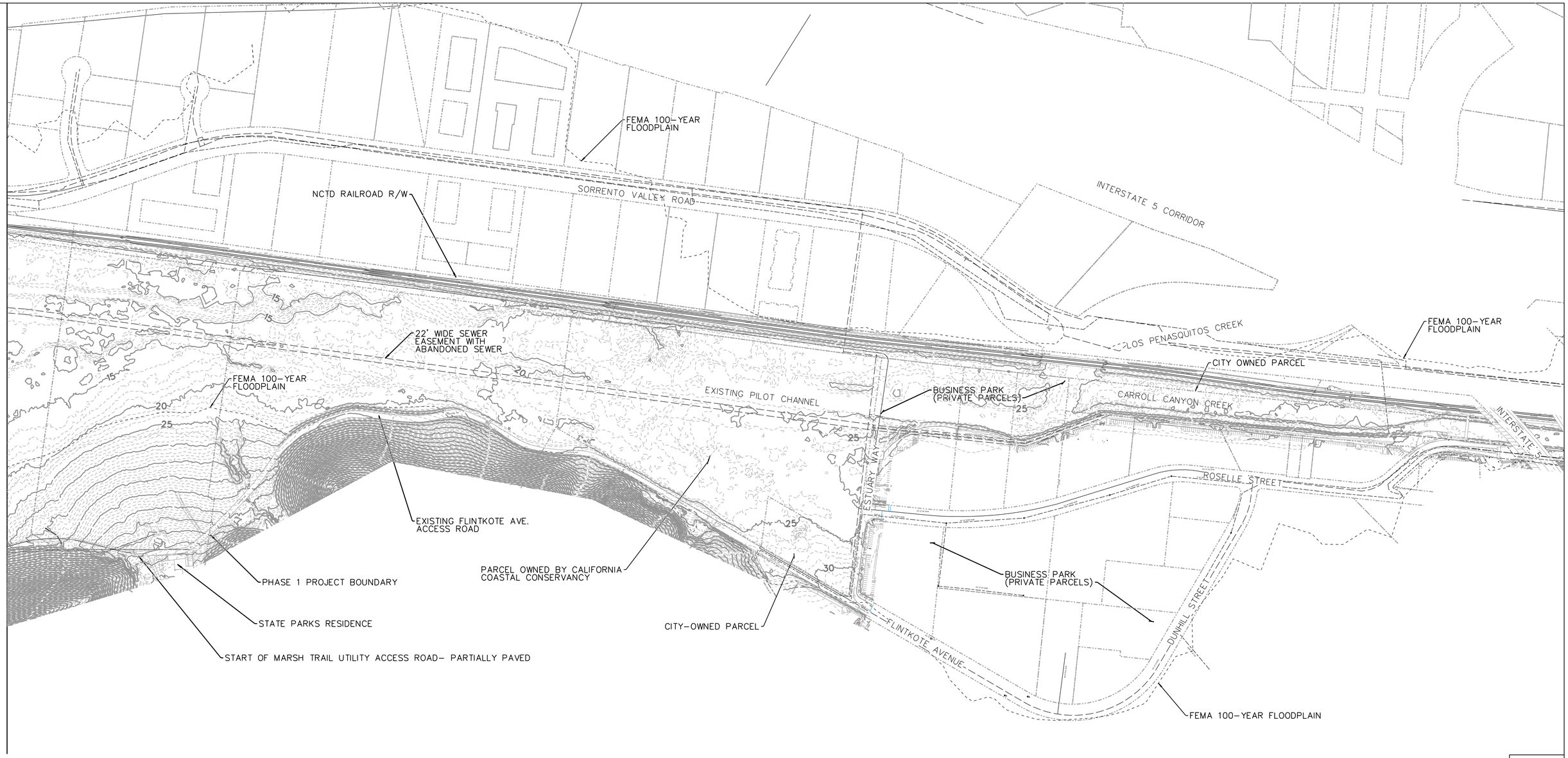
BURNS McDONNELL

4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320–2920

100% SUBMITTAL

ALIGNMENT TABLES

MATCHLINE SHEET 7



NOTES:

1. PROTECTED HABITAT: THE PROJECT IS LOCATED WITHIN SENSITIVE PROTECTED HABITATS. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS AND IN COMPLIANCE WITH PROJECT PERMITS.
2. ACCESS PERMIT: THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH APPROVED PROPERTY ACCESS PERMITS. THESE INCLUDE CONSTRUCTION ACCESS PERMITS AND/OR TEMPORARY CONSTRUCTION EASEMENTS FOR PRIVATE, CITY OF SAN DIEGO, CALIFORNIA COSTAL COSERVANCY, AND CALIFORNIA STATE PARKS TORREY PINES & LOS PENASQUITOS PRESERVE PROPERTY AND NCTD RIGHT OF WAY.
3. SOFT AND HIGHLY VARIABLE SITE CONDITIONS: THE PROJECT IS LOCATED WITHIN FRESHWATER AND SALT MARSH. CONDITIONS INCLUDE SOFT, WET AND HIGHLY VARIABLE CONDITIONS. THE SITE IS SUBJECT TO CONTINUOUS DRY WEATHER FLOWS AND TO COMPLETE INUNDATION OF THE MARSH PLAIN DURING AND FOLLOWING STORM EVENTS. AREAS OF THE PROJECT ARE ALSO SUBJECT TO TIDAL INUNDATION AND HIGH GROUNDWATER. THE CONTRACTOR SHALL PROVIDE THE MEANS AND METHODS TO COMPLETE THE WORK UNDER THESE SOFT, WET AND HIGHLY VARIABLE SITE CONDITIONS. THESE MAY INCLUDE THE USE OF LOW GROUND PRESSURE VEHICHLES THAT CAN OPERATE UNDER SOFT LOW LOAD BEARING CONDITIONS WITHIN SENSITIVE PROTECTED HABITAT.
4. PARCELS WITHIN PROJECT AREA ARE OWNED BY CALIFORNIA DEPARTMENT OF PARKS AND RECREATION AND ARE WITHIN THE LOS PENASQUITOS LAGOON STATE MARSH NATURAL PRESERVE UNLESS INDICATED OTHERWISE.
5. UTILITIES NOT SHOWN FOR CLARITY, SEE INDIVIDUAL DRAWINGS FOR EXISTING UTLITIES.
6. CONTRACTOR SHOULD ASSUME ALL AREAS LOWER THAN THE BASE FLOOD ELEVATION (100-YEAR FLOODPLAIN AS MAPPED BY FEMA) PLUS TWO FEET ARE AT GREATER RISK OF INUNDATION.

0 200 400 600
SCALE 1"=200'

DRAFT – NOT FOR CONSTRUCTION

C-02

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

EXISTING TOPOGRAPHY - SOUTH PHASE 1 AREA

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 6 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER DAVID H POYE C69622 CIVIL STATE OF CALIFORNIA

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REV 3	BMCD		2/2/2024	

SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

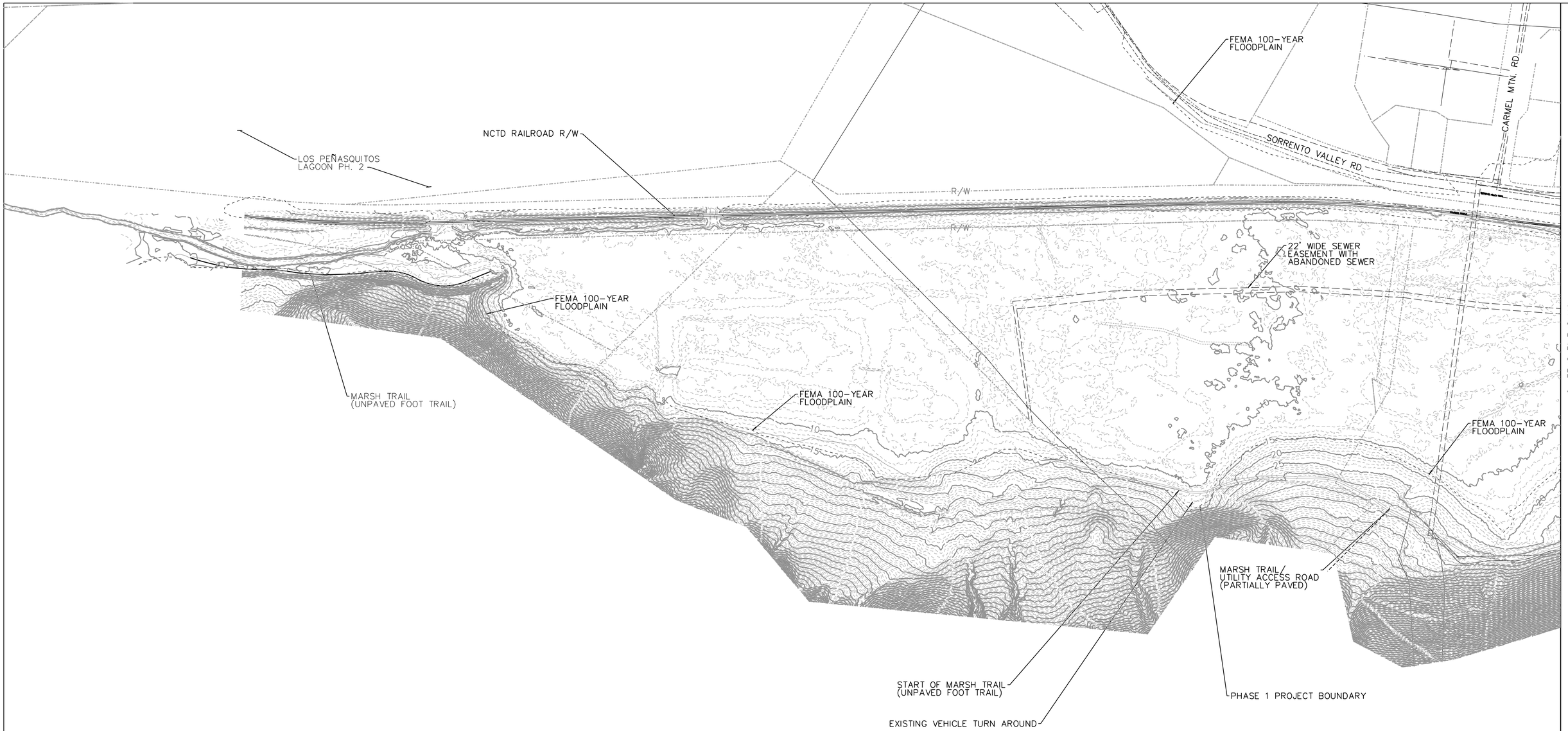
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

0101189-6 -D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

EXISTING TOPOGRAPHY

100% SUBMITTAL



EXISTING TOPOGRAPHY

NOTES:

1. PROTECTED HABITAT: THE PROJECT IS LOCATED WITHIN SENSITIVE PROTECTED HABITAT. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS AND IN COMPLIANCE WITH PROJECT PERMITS.
2. ACCESS PERMIT: THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH APPROVED PROPERTY ACCESS PERMITS. THESE INCLUDE CONSTRUCTION ACCESS PERMITS AND/OR TEMPORARY CONSTRUCTION EASEMENTS FOR PRIVATE, CITY OF SAN DIEGO, CALIFORNIA COSTAL COSERVANCY, AND CALIFORNIA STATE PARKS TORREY PINES & LOS PEÑASQUITOS PRESERVE PROPERTY AND NCTD RIGHT OF WAY.
3. SOFT AND HIGHLY VARIABLE SITE CONDITIONS: THE PROJECT IS LOCATED WITHIN FRESHWATER AND SALT MARSH. CONDITIONS INCLUDE SOFT, WET AND HIGHLY VARIABLE CONDITIONS. THE SITE IS SUBJECT TO CONTINUOUS DRY WEATHER FLOWS AND TO COMPLETE INUNDATION OF THE MARSH PLAIN DURING AND FOLLOWING STORM EVENTS. AREAS OF THE PROJECT ARE ALSO SUBJECT TO TIDAL INUNDATION AND HIGH GROUNDWATER. THE CONTRACTOR SHALL PROVIDE THE MEANS AND METHODS TO COMPLETE THE WORK UNDER THESE SOFT, WET AND HIGHLY VARIABLE SITE CONDITIONS. THESE MAY INCLUDE THE USE OF LOW GROUND PRESSURE VEHICHLES THAT CAN OPERATE UNDER SOFT LOW LOAD BEARING CONDITIONS WITHIN SENSITIVE PROTECTED HABITAT.
4. PARCELS WITHIN PROJECT AREA ARE OWNED BY CALIFORNIA DEPARTMENT OF PARKS AND RECREATION UNLESS INDICATED OTHERWISE.
5. UTILITIES NOT SHOWN FOR CLARITY, SEE INDIVIDUAL DRAWINGS FOR EXISTING UTLITIES.
6. CONTRACTOR SHOULD ASSUME ALL AREAS LOWER THAN THE BASE FLOOD ELEVATION (100-YEAR FLOOD PLAIN AS MAPPED BY FEMA) PLUS TWO FEET ARE AT GREATER RISK OF INUNDATION.

0 200 400 600
SCALE 1"=200'

DRAFT – NOT FOR CONSTRUCTION

C-03

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

EXISTING TOPOGRAPHY - NORTH PHASE 1 AREA

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 7 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

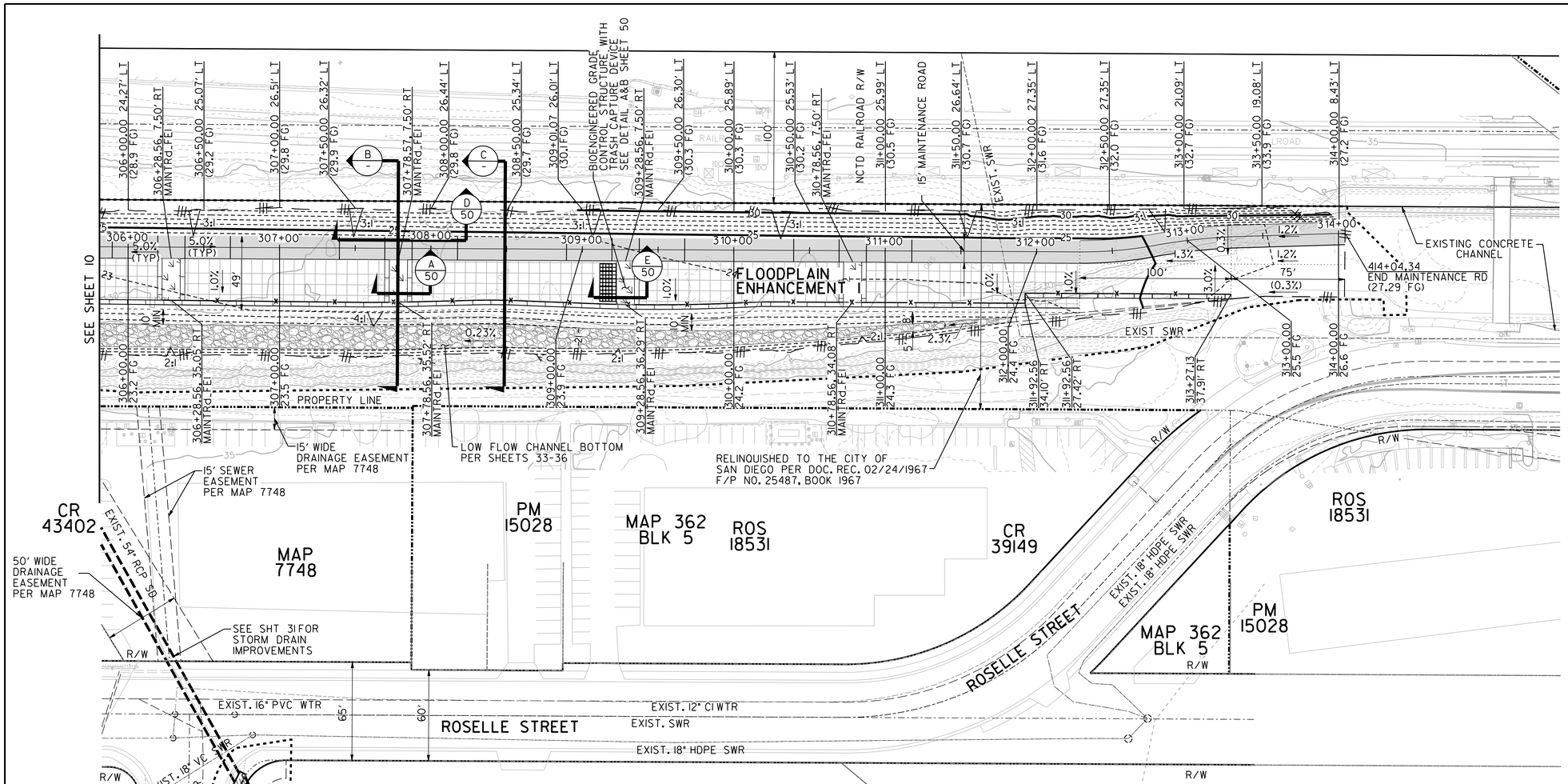
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

CONTRACTOR NTP DATE
INSPECTOR NOC DATE

0101189-7 -D

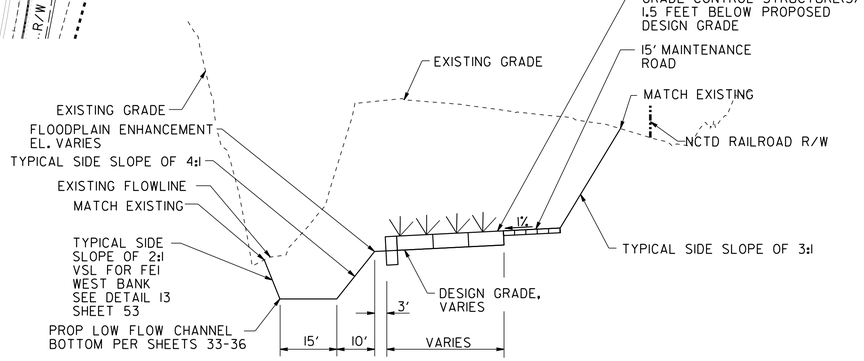
BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

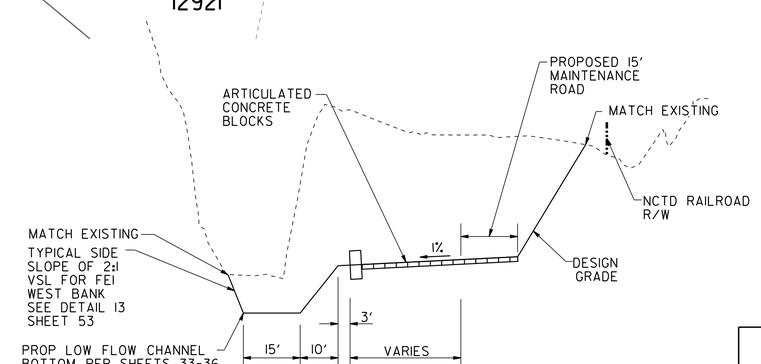


LEGEND

- ARTICULATED CONCRETE BLOCK SEE DETAIL C SHEET 50
- BIOENGINEERED GRADE CONTROL STRUCTURES WITH GABION MATTRESS SEE SECTION A-A SHEET 50
- DAYLIGHT LINE
- LIMITS OF WORK
- MAINTENANCE ROAD WITH ARTICULATED CONCRETE BLOCK SEE DETAIL E SHEET 50
- CHAIN LINK FENCE AT 1.0' ABOVE GABION TOP (FOR COURSE TRASH)
- BIOENGINEERED GRADE CONTROL STRUCTURE WITH TRASH CAPTURE DEVICE SEE DETAIL B SHEET 50



SECTION B-B
NTS



SECTION C-C
NTS

SCALE 1" = 40'

CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C-05

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN

FLOODPLAIN ENHANCEMENT 1 – SOUTH

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 9 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

266-1695 CCS27 COORDINATE
1906-6255 CCS83 COORDINATE

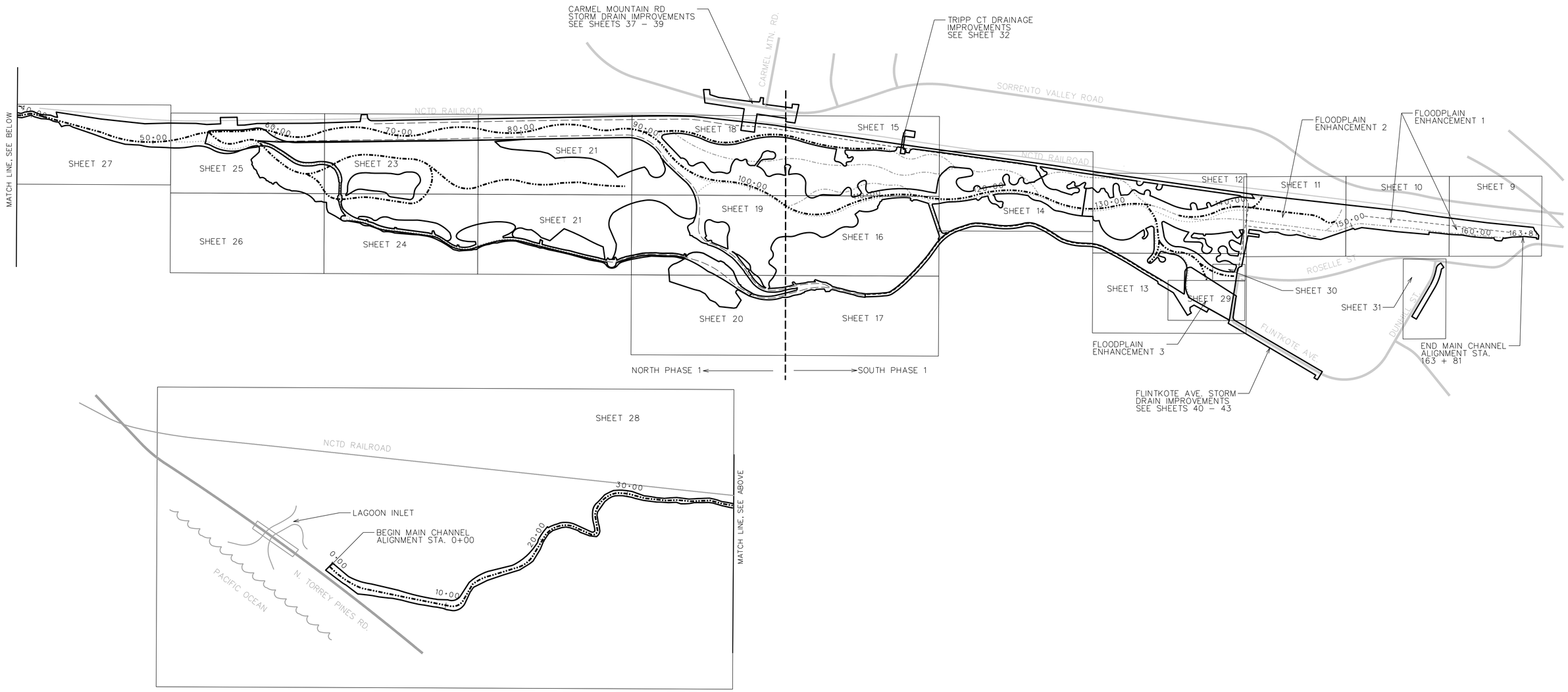
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

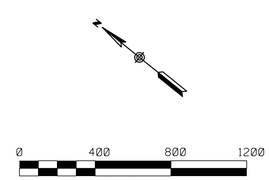
0101189-09-D

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

GRADING PLAN

100% SUBMITTAL





C-04

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

GRADING PLAN KEY MAP

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 8 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK PEKANI — 86523 RCE#
PRINT NAME

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER
DAVID H FOYE
C69522
CIVIL
STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SEE SHEETS
CCS27 COORDINATE

SEE SHEETS
CCS83 COORDINATE

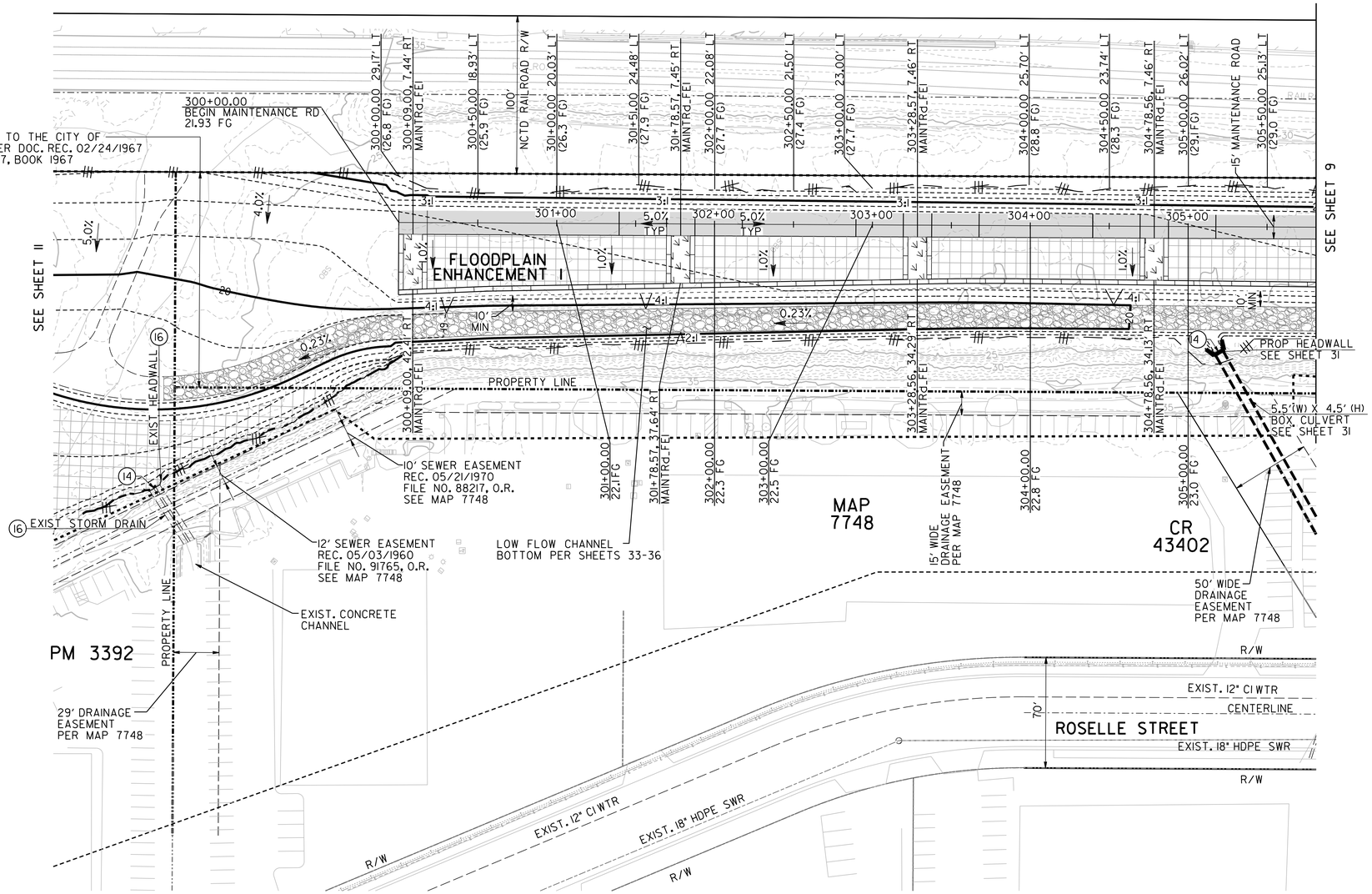
0101189-8-D

BURNS McDONNELL

4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

KEY MAP FOR GRADING PLANS



LEGEND

- ARTICULATED CONCRETE BLOCK SEE DETAIL C SHEET 50
- BIOENGINEERED GRADE CONTROL STRUCTURES SEE DETAIL A SHEET 50
- DAYLIGHT LINE
- LIMITS OF WORK
- MAINTENANCE ROAD WITH ARTICULATED CONCRETE BLOCK SEE DETAIL E SHEET 50
- CHAIN LINK FENCE AT 1.0' ABOVE GABION TOP (FOR COURSE TRASH)
- BIOENGINEERED GRADE CONTROL STRUCTURE WITH TRASH CAPTURE DEVICE SEE DETAIL B SHEET 50

CONSTRUCTION NOTE

(14) INSTALL TIDEFLEX FLAP GATE OR EQUAL

(16) PROTECT IN PLACE

SCALE 1" = 40'

CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

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DRAFT - NOT FOR CONSTRUCTION

C-06

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN

FLOODPLAIN ENHANCEMENT 1 – NORTH

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 10 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

266-1695 CCS27 COORDINATE
1906-6255 CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-10-D

GRADING PLAN

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

02-FEB-2024 18:42 nwhitmore

100% SUBMITTAL

CONSTRUCTION NOTES

(14) INSTALL TIDEFLEX FLAP GATE OR EQUAL

(15) ABANDON EXIST DUAL 18" ACP SD

100+00.00
BEGIN MAINTENANCE ROAD
22.5 FG

SEE SHEET 12 FOR GRADING PLAN

PORTION RESERVED FOR FUTURE STREET PER MAP 7748

101+00.00
20.6 FG

FE2 FG 22.5
MAINTENANCE ROAD FG 23.0
WITH ACCESS RAMP

102+00.00
22.8 FG

102+13.37 MAINTRD_FE2A=
200+00.00 MAINTRD_FE2B
23.1FG

103+00.00
24.6 FG

104+00.00
26.4 FG

105+00.00
28.2 FG

105+58.83
28.2 FG

105+70.27 7.50' RT
27.0 FG

105+45.82 7.56' LT
29.0 FG

105+45.85 21.10' LT
(30.8 FG)

SECONDARY CHANNEL-PHASE IA

PRIVATE DRIVEWAY

SLOPE EASEMENT
SEE MAP 7748

ABN'D 12" CI WTR

EXIST. DUAL 18" ACP SD

EXIST. GAS

EXIST. 12" AC WTR

ESTUARY WAY

ROSELLE ST

SEE SHEET 30 FOR ESTUARY WAY AND ROSELLE ST IMPROVEMENTS

15' MAINTENANCE ROAD

201+59.55 111.95' LT
MAINTRD_FE2B

95' MIN WILDLIFE CORRIDOR

BIOENGINEERED GRADE CONTROL STRUCTURE WITH TRASH CAPTURE DEVICE SEE DETAIL A SHEET 50

203+20.19 105.21' LT
MAINTRD_FE2B

LOW FLOW CHANNEL BOTTOM PER SHEET 33

NCTD RAILROAD R/W

FLOODPLAIN ENHANCEMENT 2

FE2 FG 22.1
MAINTENANCE ROAD FG 23.6
WITH ACCESS RAMP

205+73.79
END MAINTENANCE ROAD
22.8 FG

FE2 FG 21.8
MAINTENANCE ROAD FG 23.3

PM 3392

10' SEWER EASEMENT
REC. 05/21/1970
FILE NO. 88217, O.R.
SEE MAP 7748

12' SEWER EASEMENT
REC. 05/03/1960
FILE NO. 91765, O.R.
SEE MAP 7748

SEE SHEET 10

62+00.00 20.03' RT
22.1FG

62+00.00 28.87' RT
(24.9 FG)

62+15.34 26.75' RT
(25.1FG)

62+15.63 13.00' RT
22.1FG

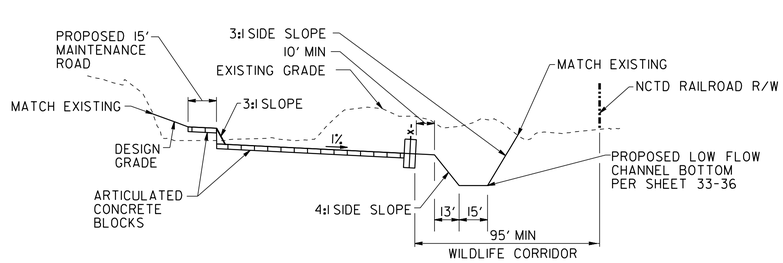
61+01.72 46.66' RT
22.1FG

61+05.79 57.73' RT
(25.1FG)

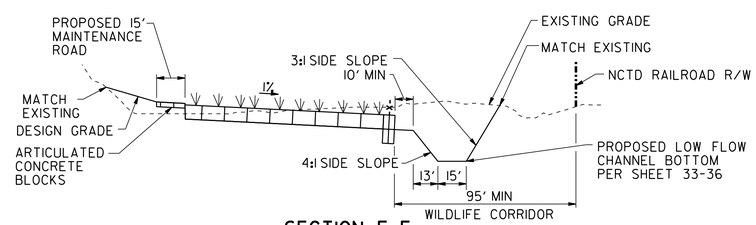
60+37.67 109.00' RT
22.6 FG

60+43.72 118.44' RT
(25.1FG)

FG 22.2



SECTION G-G
NTS



SECTION F-F
NTS

LEGEND

- ARTICULATED CONCRETE BLOCK SEE DETAIL C SHEET 50
- BIOENGINEERED GRADE CONTROL STRUCTURES SEE DETAIL A SHEET 50
- DAYLIGHT LINE
- LIMITS OF WORK
- MAINTENANCE ROAD WITH ARTICULATED CONCRETE BLOCK SEE DETAIL E SHEET 50
- CHAIN LINK FENCE AT 2.5' ABOVE GABION TOP (FOR COURSE TRASH) PER SECTION E-E SHEET 50
- BIOENGINEERED GRADE CONTROL STRUCTURE WITH TRASH CAPTURE DEVICE SEE DETAIL B SHEET 50

0 40 80 120
SCALE 1"=40'

DIGALERT 811
CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C-07

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

GRADING PLAN

FLOODPLAIN ENHANCEMENT 2

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 11 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

270-1695 CCS27 COORDINATE
1910-6255 CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-11-D

GRADING PLAN

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

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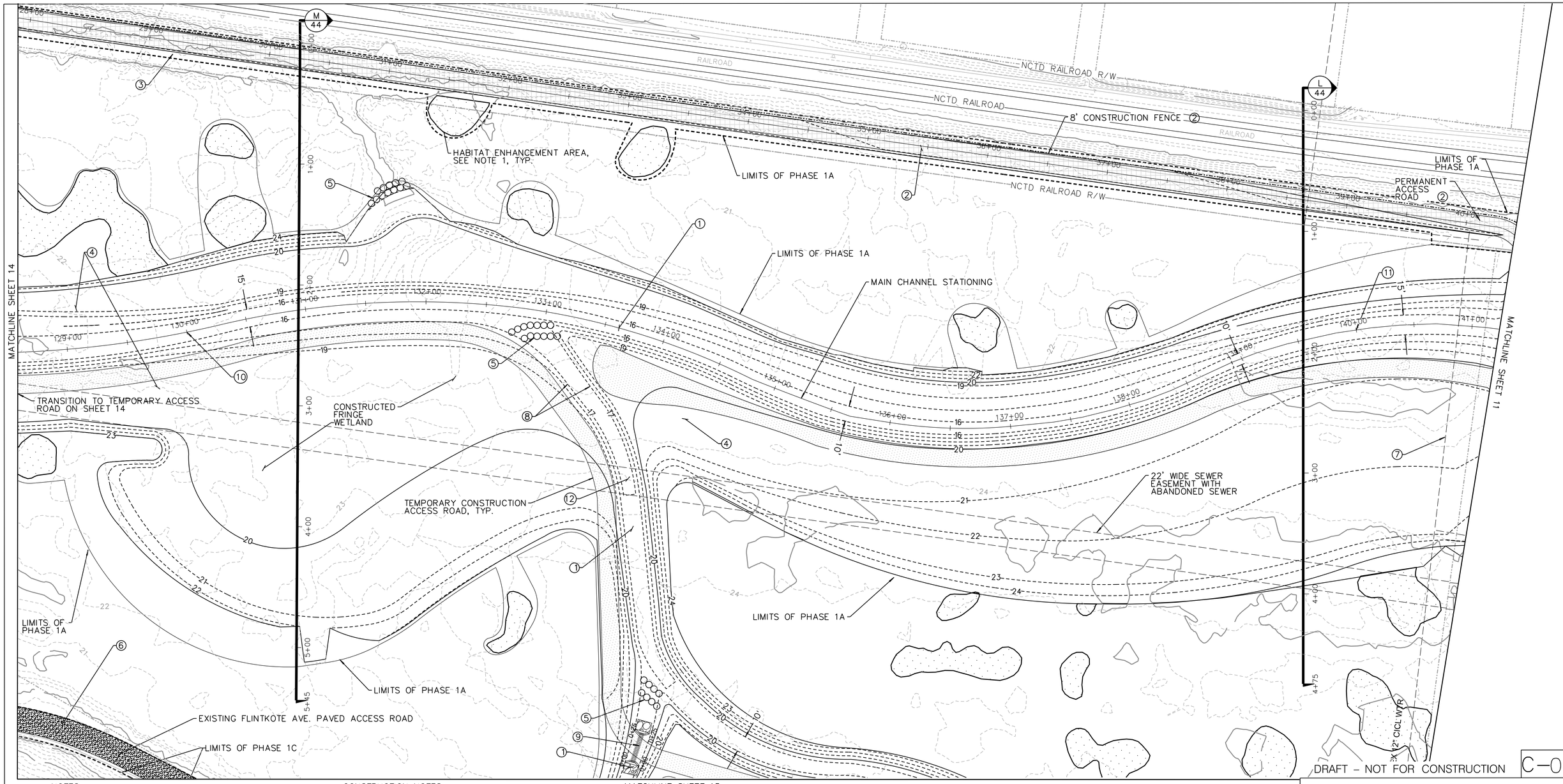
100% SUBMITTAL

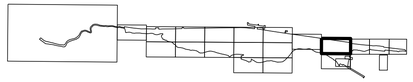


NOTES

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION, ROOT SYSTEM, AND SEED BANK. RESTORE PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDEDNOT TO CREATE ISOLATED DEPRESSION.
2. LIMITS OF HABITAT ENHANCEMENT ARE APPROXIMATE.
3. AREAS TO BE VERIFIED AND FLAGGED BY PROJECT BIOLOGIST AND STAKED BY PROJECT ENGINEER.
4. THE PHASE LIMIT LINE REPRESENTS APPROXIMATE LIMIT OF DISTURBANCE AND ENHANCEMENT WORK.

CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
2. CONSTRUCT LONG-TERM MAINTENANCE ACCESS ROAD, SEE DETAIL 4, SHEET 51.
3. ROAD EMBANKMENT RIPRAP, UNDERLAID WITH 10 OZ/SY NON-WOVEN GEOTEXTILE.
4. FLOODWAY BENCH @ 1% TO 2% SLOPE TOWARDS CHANNEL.
5. BOULDER STEP-DOWN, SEE DETAIL 8, SHEET 52.
6. EXISTING PAVED FLINTKOTE AVE. TO BE MILLED 2IN AND OVERLAID WITH ASPHALT PAVEMENT UPON COMPLETION OF PHASE 1C. EXISTING GRAVEL ROAD TO BE OVERLAID WITH 4IN OF ASPHALT.
7. EXISTING WATER LINE – LOCATE AND PROTECT IN PLACE OR RECONSTRUCT AS NECESSARY PER CITY STANDARDS AND CLEARANCE REQUIREMENTS.
8. CONSTRUCT TEMPORARY ADAPTIVE MANAGEMENT ACCESS ROAD, SEE DETAIL 9, SHEET 52.
9. INSTALL CULVERT 15 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 57.
10. 1200' COBBLE FROM STATION 118+00 TO 130+00. SEE SHEET 51.
11. 600' COBBLE FROM STATION 140+00 TO 146+00. SEE SHEET 51.
12. IF ABANDONED SEWER IS ENCOUNTERED, COORDINATE DEMOLTITON WITH OWNER AND ENGINEER.


SHEET LOCATION KEY

0 40 80 120
SCALE 1"=40'

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - SOUTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 12 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

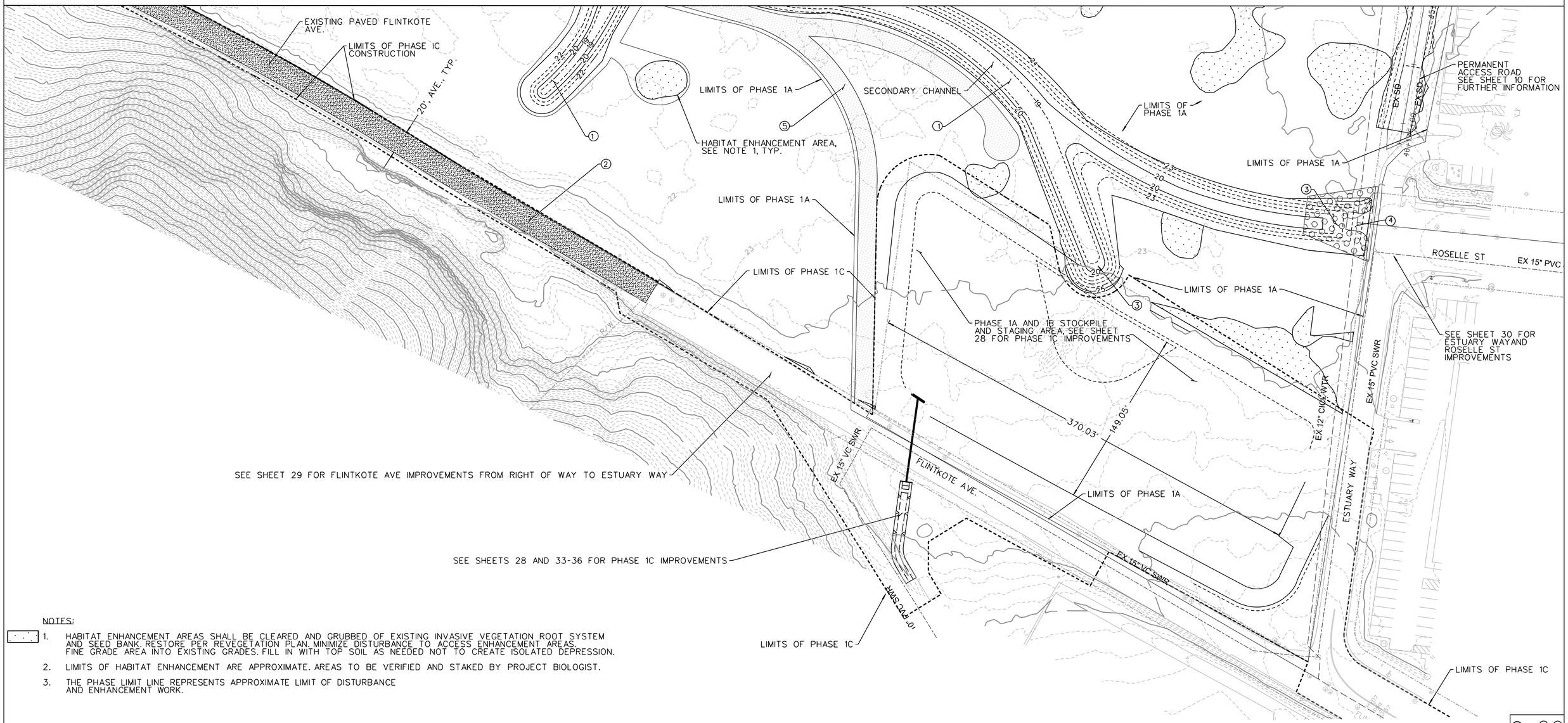
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE
0101189-12-D

GRADING PLAN

100% SUBMITTAL

MATCHLINE SHEET 12

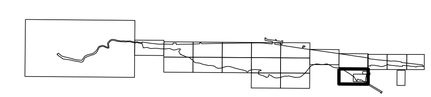


NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEM AND SEED BANK. RESTORE PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATE ISOLATED DEPRESSION.
2. LIMITS OF HABITAT ENHANCEMENT ARE APPROXIMATE. AREAS TO BE VERIFIED AND STAKED BY PROJECT BIOLOGIST.
3. THE PHASE LIMIT LINE REPRESENTS APPROXIMATE LIMIT OF DISTURBANCE AND ENHANCEMENT WORK.

CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
2. FOLLOWING COMPLETION OF PHASE 1C, EXISTING PAVED SECTION OF FLINTKOTE AVE TO BE MILLED 2IN AND RESURFACED WITH 2IN OF AC PAVEMENT. FLINTKOTE AVE. TO BE USED FOR ACCESS AND HAULING MATERIAL DURING PHASE 1A, 1B, AND 1C.
3. CONSTRUCT 18" DEPTH OF D50=12" COBBLE OR GRANITE OVER 10 OZ/SY NON-WOVEN GEOTEXTILE. SEE SAN DIEGO STANDARD DRAWING SDG-120 FOR DRIVE APRON.. SEE STANDARD DRAWING SDD-104 FOR SPILLWAY RIPRAP AND SHEET C-25 FOR CURB AND GUTTER INFORMATION.
4. CONSTRUCT 8" REINFORCED CONCRETE DRAINAGE APRON/ACCESS RAMP. LOCATE EXISTING WATER LINE AND PROTECT IN PLACE. SEE SAN DIEGO STANDARD DRAWING SDG-120, WITH D=15' AND R=10'.
5. CONSTRUCT ADAPTIVE MANAGEMENT ACCESS ROAD, SEE DETAIL 9, SHEET 52.



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

DRAFT – NOT FOR CONSTRUCTION

C-09

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - SOUTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 13 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523 RCE#
PRINT NAME

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER DAVID H PONE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		3/2/2024	

SEE SHEETS CCS27 COORDINATE

SEE SHEETS CCS83 COORDINATE

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

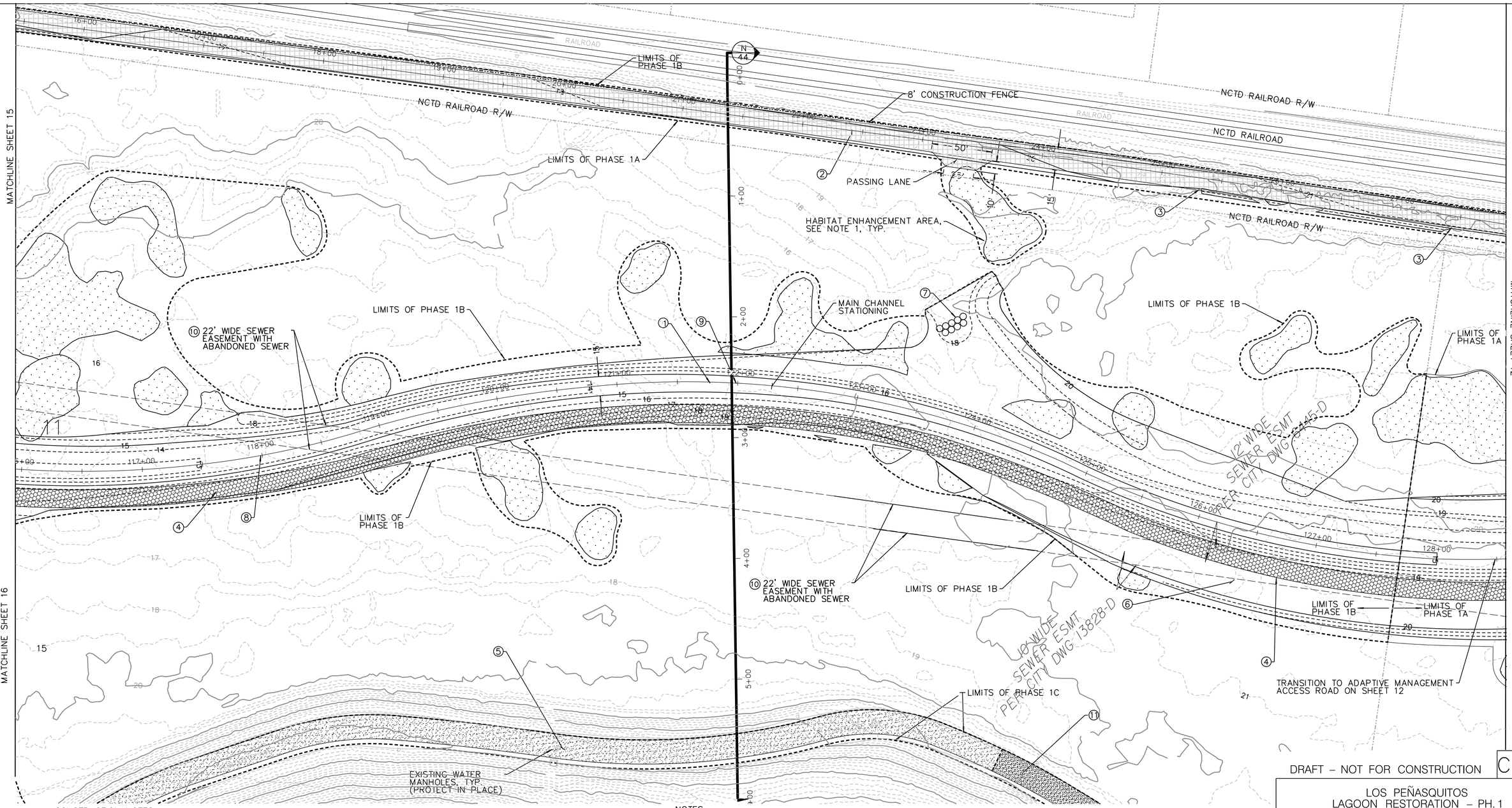
0101189-13-D

GRADING PLAN

BURNS McDONNELL

4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL



CONSTRUCTION NOTES

① CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.

② CONSTRUCT LONG-TERM MAINTENANCE ACCESS ROAD, SEE DETAIL 4, SHEET 51.

③ EXTENT OF ROAD EMBANKMENT RIPRAP, UNDERLAID WITH 10 OZ/SY NON-WOVEN GEOTEXTILE. SEE DETAIL 4, SHEET 51.

④ TEMPORARY CONSTRUCTION ACCESS ROAD, SEE DETAIL 9, SHEET 52.

⑤ FOLLOWING COMPLETION OF PHASE 1C, EXISTING GRAVEL COVERED ROAD TO BE REPAIRED BY FILLING IN RUTS AND COVERING WITH A MINIMUM OF 2INCHES OF CRUSHED GRAVEL FROM END OF PAVED SECTION OF FLINTKOTE AVE TO BEGINING OF MARSH TRAIL ACCESS ROAD

⑥ FLOODWAY BENCH AT 1% TO 2% TOWARDS CHANNEL.

⑦ CONSTRUCT BOULDER STEP-DOWN, SECONDARY CHANNEL SPILL ELEVATION 17.75'. SEE DETAIL 8, SHEET 52.

⑧ 1200' COBBLE FROM STATION 118+00 TO 130+00. SEE SHEET 51.

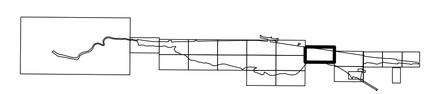
⑨ 300' VEGETATED SOIL LIFT FROM STATION 122+00 TO 125+00 (EAST BANK). SEE SHEET 53.

⑩ IF ABANDONED SEWER IS ENCOUNTERED, COORDINATE DEMOLITION WITH OWNER AND ENGINEER.

NOTES

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION, ROOT SYSTEM, AND SEED BANK. RESTORE PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATE ISOLATED DEPRESSION.
2. LIMITS OF HABITAT ENHANCEMENT ARE APPROXIMATE.
3. AREAS TO BE VERIFIED AND STAKED BY PROJECT BIOLOGIST.

⑪ FOLLOWING COMPLETION OF PHASE 1C, EXISTING PAVED SECTION OF FLINTKOTE AVE TO BE MILLED 2IN AND RESURFACED 2IN OF AC PAVEMENT



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

DRAFT – NOT FOR CONSTRUCTION

C-10

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - SOUTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 14 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523 RCE#
PRINT NAME

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

CCS27 COORDINATE: SEE SHEETS
CCS83 COORDINATE: SEE SHEETS

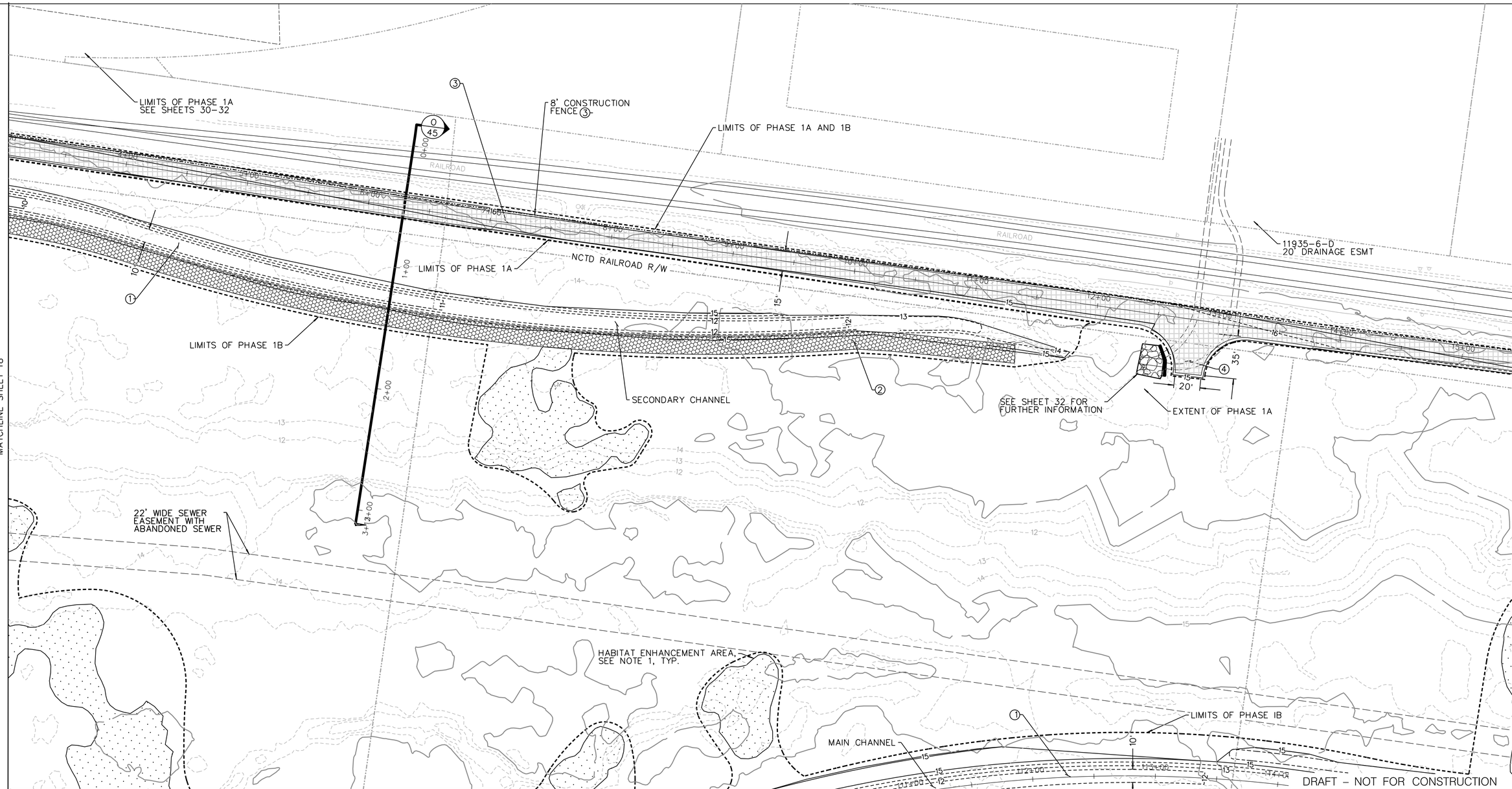
0101189-14-D

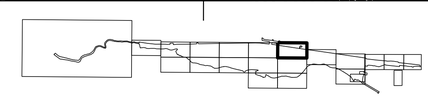
GRADING PLAN

BURNS McDONNELL

4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL





CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
2. CONSTRUCT TEMPORARY CONSTRUCTION ACCESS ROAD, SEE DETAIL 9, SHEET 52.
3. CONSTRUCT LONG-TERM MAINTENANCE ACCESS ROAD AT RAILROAD, SEE DETAIL 4, SHEET 51.
4. CONSTRUCT ACCESS ROAD TURN-AROUND.

NOTES

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION, ROOT SYSTEM, AND SEED BANK. RESTORE PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS.FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATE ISOLATED DEPRESSION.
2. LIMITS OF HABITAT ENHANCEMENT ARE APPROXIMATE.
3. AREAS TO BE VERIFIED AND STAKED BY PROJECT BIOLOGIST.

0 40 80 120
SCALE 1"=40'

LOS PEÑASQUITOS
LAGOON RESTORATION - PH. 1

GRADING PLAN - SOUTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 15 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

REGISTERED PROFESSIONAL ENGINEER DAVID H FORT C69522 CIVIL STATE OF CALIFORNIA

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

0101189-15-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

GRADING PLAN

100% SUBMITTAL

MATCHLINE SHEET 15

MATCHLINE SHEET 19

MATCHLINE SHEET 14

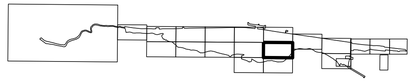
MATCHLINE SHEET 17

CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
2. TEMPORARY CONSTRUCTION ACCESS ROAD, SEE DETAIL 9, SHEET 52.
3. FOLLOWING COMPLETION OF PHASE 1C, EXISTING GRAVEL COVERED FLINTKOTE ROAD TO BE FILLED IN WITH 2-3 INCHES OF GRAVEL FROM LIMIT OF EXISTING PAVEMENT SECTION TO MARSH TRAIL ACESS ROAD. FLINTKOTE AVE TO BE USED FOR ACCESS AND HAULING MATERIAL DURING PHASE 1B AND 1C.
4. INSTALL TEMPORARY CULVERT(S) FOR DRAINAGE DURING HAULING ACTIVITIES AS NECESSARY. CONTOURS REPRESENT FINAL GRADING.

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED OF EXISTING INVASIVE VEGETATION AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS.



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

DRAFT – NOT FOR CONSTRUCTION

C–12

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

GRADING PLAN - SOUTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 16 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE
0101189-16-D

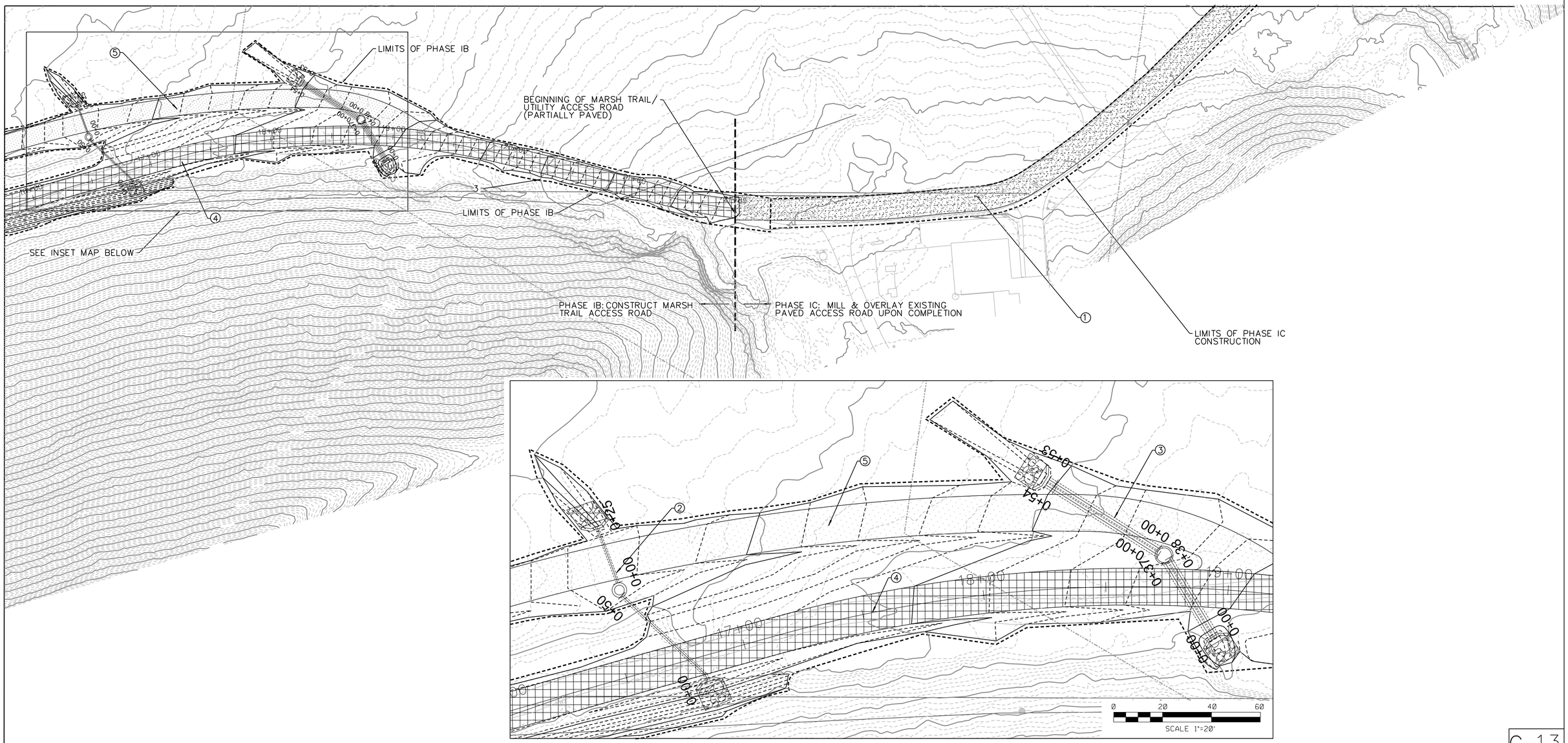
GRADING PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

MATCHLINE SHEET 16

MATCHLINE SHEET 20

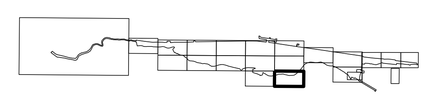


CONSTRUCTION NOTES

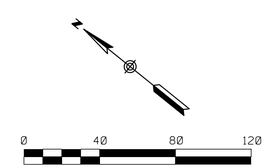
1. FOLLOWING COMPLETION OF PHASE 1C, EXISTING GTAVEL COVERED ROAD TO BE REPAIRED BY FILLING IN RUTS AND COVERING WITH A MINIMUM 2–3 INCHES OF CRUSHED GRAVEL FROM END OF PAVED SECTION TO BEGINING OF MARSH TRAIL ACCESS ROAD
2. INSTALL STORM LINE 11 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D–34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD–104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 56.
3. INSTALL STORM LINE 12 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D–34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD–104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 57.
4. CONSTRUCT MARSH TRAIL, UTILITY, AND LONG TERM MAINTENANCE ACCESS ROAD, SEE DETAILS 5 AND 6, SHEET 51. (PH. 1B)
5. CONSTRUCT ADAPTIVE MANAGEMENT ACCESS ROAD, SEE DETAIL 9, SHEET 52.

NOTES:

1. FLINTKOTE AVE. TO BE USED FOR ACCESS AND HAULING DURING PHASE 1B AND 1C.



SHEET LOCATION KEY



DRAFT – NOT FOR CONSTRUCTION

C–13

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - SOUTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 17 OF 103 SHEETS

WBS B–17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

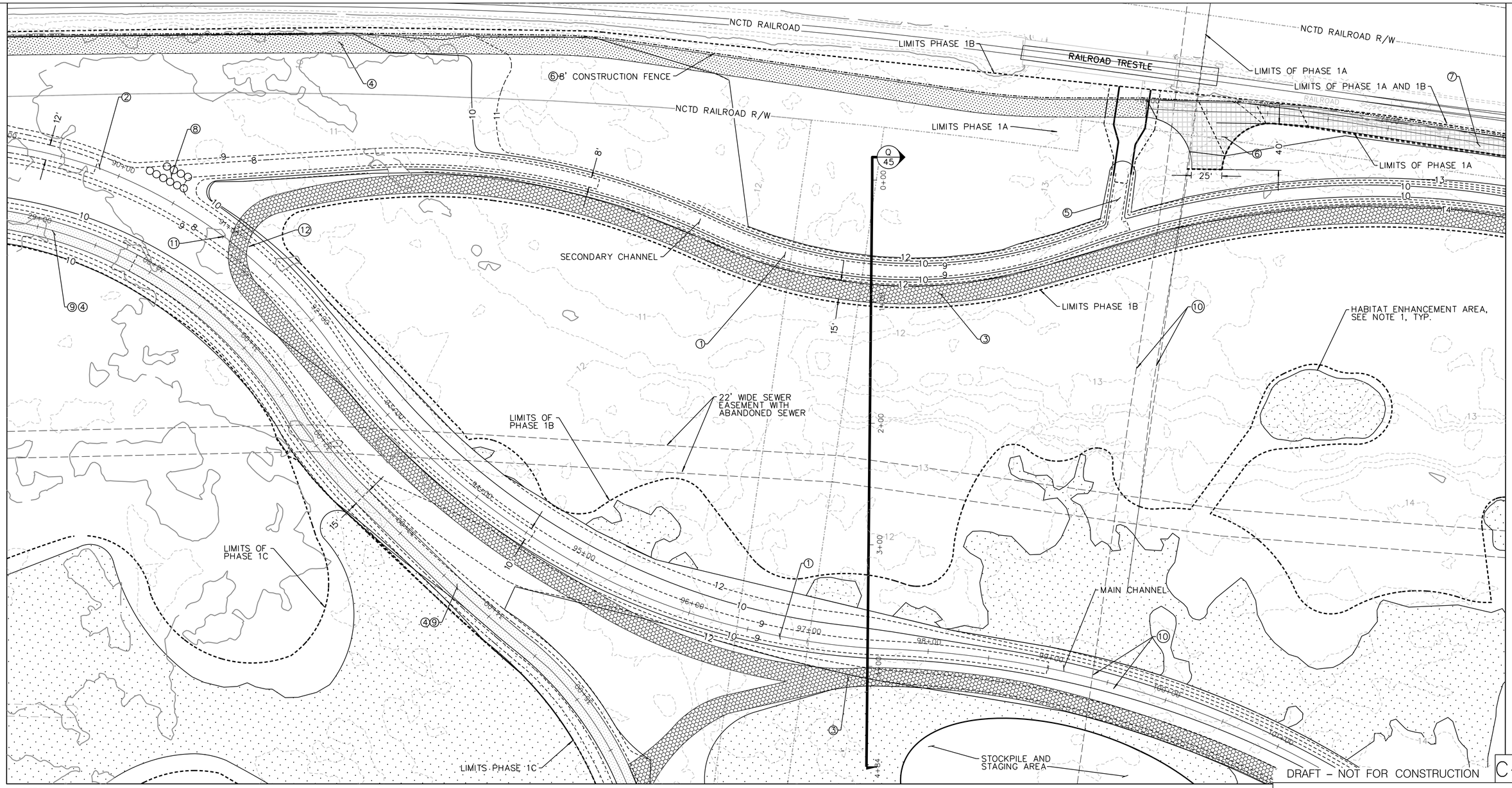
SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-17-D

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

GRADING PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320–2920

100% SUBMITTAL



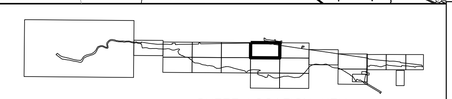
NOTES

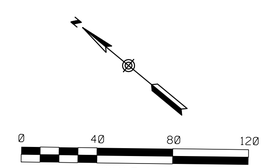
1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION, ROOT SYSTEM, AND SEED BANK. AND RESTORE PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATE ISOLATED DEPRESSION.
2. LIMITS OF HABITAT ENHANCEMENT AREA APPROXIMATE.
3. AREAS TO BE VERIFIED AND STAKED BY PROJECT BIOLOGIST.

CONSTRUCTION NOTES

① CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
② CONSTRUCT TYPICAL FRESHWATER FLOOD CHANNEL, SEE DETAIL 2, SHEET 51.
③ TEMPORARY CONSTRUCTION ACCESS ROAD, TO BE REMOVED UPON COMPLETION OF PHASE 1B, SEE DETAIL 9, SHEET 52.
④ TEMPORARY ADAPTIVE MANAGEMENT ACCESS ROAD, SEE DETAIL 9, SHEET 52.
⑤ EXTEND WIDENED CHANNEL GRADING TO PHASE 1A.
⑥ CONSTRUCT LONG–TERM MAINTENANCE ACCESS ROAD TURN–AROUND.
⑦ CONSTRUCT LONG–TERM MAINTENANCE ACCESS ROAD AT RAILROAD WITHIN THE RAILROAD R/W, SEE DETAIL 4, SHEET 51.
⑧ BOULDER STEP DOWN, SEE DETAIL 8, SHEET 52.
⑨ SALT MARSH PROTECTION GRADING FEATURE, SEE DETAIL 7, SHEET 52.
⑩ EXISTING WATER LINE EASEMENT – LOCATE AND PROTECT IN PLACE PER CITY STANDARDS AND CLEARANCE REQUIREMENTS.
⑪ 2400' COBBLE FROM STATION 67+00 TO 91+00. SEE SHEET 51.
⑫ INSTALL TEMPORARY CULVERT(S) FOR DRAINAGE DURING HAULING ACTIVITIES AS NECESSARY. CONTOURS REPRESENT FINAL GRADING.

MATCHLINE SHEET 19





BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 18 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

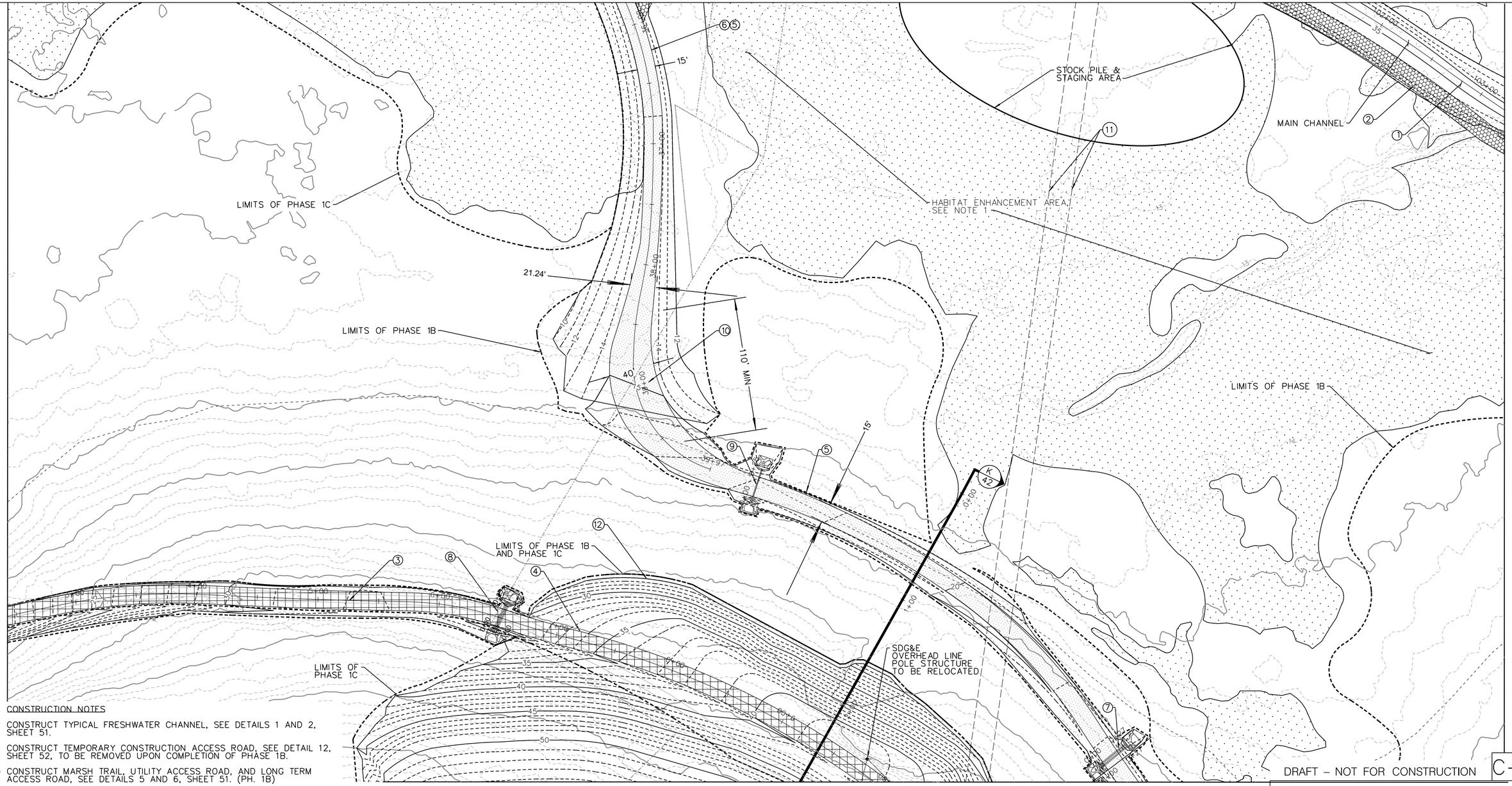
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-18-D

GRADING PLAN

100% SUBMITTAL

MATCHLINE SHEET 18



DRAFT – NOT FOR CONSTRUCTION

C–15

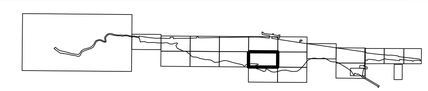
GRADING PLAN

CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
2. CONSTRUCT TEMPORARY CONSTRUCTION ACCESS ROAD, SEE DETAIL 12, SHEET 52, TO BE REMOVED UPON COMPLETION OF PHASE 1B.
3. CONSTRUCT MARSH TRAIL, UTILITY ACCESS ROAD, AND LONG TERM ACCESS ROAD, SEE DETAILS 5 AND 6, SHEET 51. (PH. 1B)
4. WITHIN LIMITS OF PHASE 1C FILL AREA, RECONSTRUCT MARSH TRAIL, UTILITY ACCESS ROAD, AND LONG TERM ACCESS ROAD. SEE DETAILS 5 AND 6, SHEET 51.
5. CONSTRUCT TEMPORARY ADAPTIVE MANAGEMENT PERIOD ACCESS ROAD, SEE DETAIL 12, SHEET 52. (PH. 1B)
6. CONSTRUCT SALT MARSH PROTECTION GRADING FEATURE, SEE DETAIL 9, SHEET 52. (PH. 1B)
7. INSTALL CULVERT 13 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D–34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD–104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 56.
8. INSTALL CULVERT 9 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D–34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD–104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 55.
9. INSTALL CULVERT 14 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D–34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD–104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 57.
10. PROVIDE MINIMUM 110 LINEAR FEET OF WIDENED ROAD (MINIMUM 26') FOR PASSING LANE.
11. EXISTING WATER LINE – LOCATE AND PROTECT IN PLACE PER CITY STANDARDS AND CLEARANCE REQUIREMENTS.
12. PERMANENT SITE SOIL PLACEMENT AREA SHALL BE CONSTRUCTED FOLLOWING USE OF TEMPORARY CONSTRUCTION ROAD DURING SUB–PHASE 1C WHEN OTHER ACCESS ROADS CAN BE USED FOR OFF–SITE EXCAVATED SOIL HAULING. REGRADED ROAD SHALL BE RECONSTRUCTED AS PART OF THE MARSH TRAIL, UTILITY ACCESS ROAD, AND LONG TERM ACCESS ROAD PER DETAILS 5 AND 6, SHEET 51. THE SOIL PLACEMENT AREA SHALL BE FINE GRADED FOLLOWING PLACEMENT OF A MINIMUM OF 2 FEET OF TOPSOIL AND SOIL (FROM FE1 AND FE2) AMENDMENTS PER THE SPECIAL PROVISIONS PRIOR TO REVEGETATION WITH NATIVE COASTAL SAGE SCRUB PLANTINGS PER THE PLANT SCHEDULE AND REVEGETATION PLAN (SHEETS 68 THROUGH 75).

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEM AND SEED BANK AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATED ISOLATED DEPRESSION.



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 19 OF 103 SHEETS

WBS B–17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523 RCE#
PRINT NAME

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

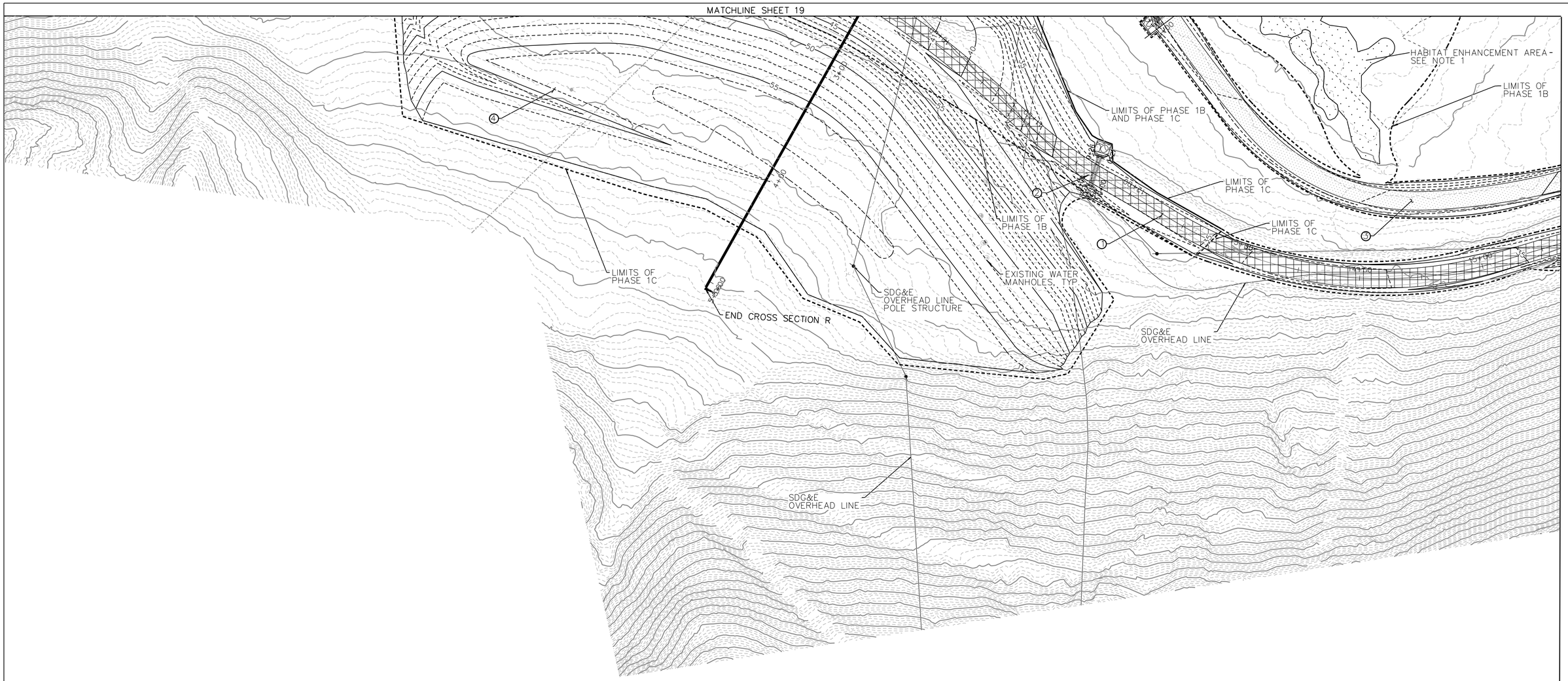
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

0101189-19-D

BURNS McDONNELL

4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320–2920

100% SUBMITTAL

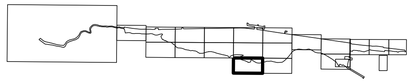


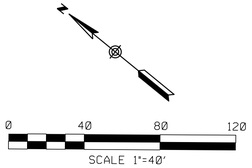
CONSTRUCTION NOTES

1. CONSTRUCT MARSH TRAIL, UTILITY ACCESS ROAD, AND LONG TERM ACCESS ROAD, SEE DETAILS 5 AND 6, SHEET 51.
2. INSTALL CULVERT 10 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 55.
3. CONSTRUCT ADAPTIVE MANAGEMENT ACCESS ROAD, SEE DETAIL 9, SHEET 52.
4. PERMANENT SITE SOIL PLACEMENT AREA SHALL BE CONSTRUCTED FOLLOWING USE OF TEMPORARY CONSTRUCTION ROAD DURING SUB-PHASE 1C WHEN OTHER ACCESS ROADS CAN BE USED FOR OFF-SITE EXCAVATED SOIL HAULING. REGRADED ROAD SHALL BE RECONSTRUCTED AS PART OF THE MARSH TRAIL, UTILITY ACCESS ROAD, AND LONG TERM ACCESS ROAD PER DETAILS 5 AND 6, SHEET 51. THE SOIL PLACEMENT AREA SHALL BE FINE GRADED FOLLOWINGPLACEMENT OF A MINIMUM OF 6 INCHES OF TOPSOIL AND SOIL AMENDMENTS PER THE SPECIAL PROVISIONS PRIOR TO REVEGETATION WITH NATIVE COASTAL SAGE SCRUB PLANTINGS PER THE PLANT SCHEDULE AND REVEGETATION PLAN (SHEETS 68 – 75).

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEM AND SEED BANK AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATED ISOLATED DEPRESSION.





DRAFT – NOT FOR CONSTRUCTION

C–16

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN – NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 20 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H FORE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

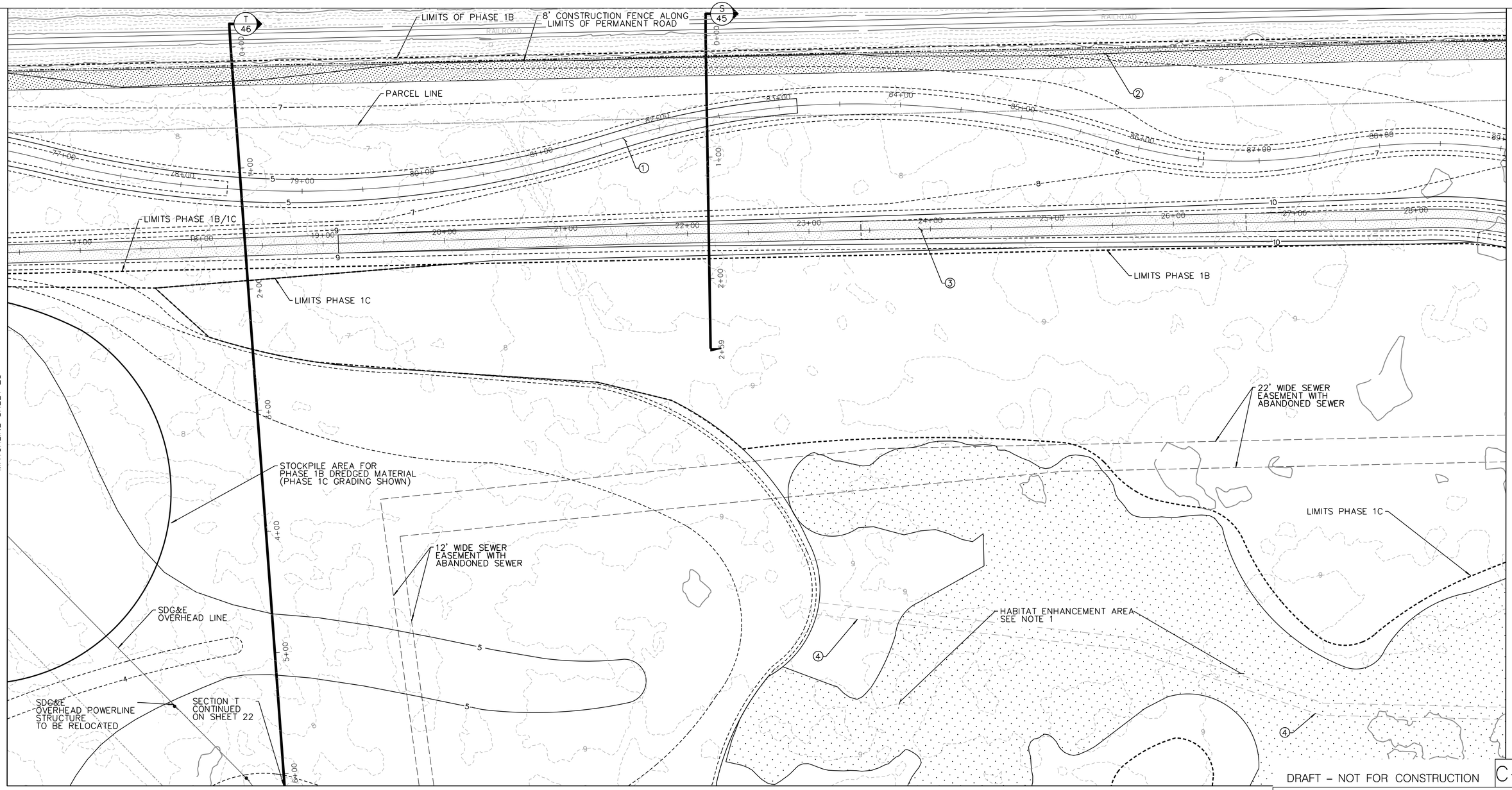
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-20-D

GRADING PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL



DRAFT – NOT FOR CONSTRUCTION

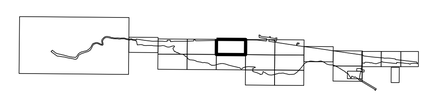
C–17

CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAIL 2, SHEET 51.
2. CONSTRUCT TEMPORARY ADAPTIVE MANAGEMENT ACCESS ROAD, DETAIL 9, SHEET 52.
3. CONSTRUCT SALT MARSH PROTECTION GRADING FEATURE, SEE DETAIL 7, SHEET 52.
4. CONSTRUCT SWALE WITHIN HABITAT ENHANCEMENT AREA WITH APPROXIMATE GRADE OF 1%, WITH MAX 3:1 SIDE SLOPES AND APPROXIMENT 1' BOTTOM WIDTH. CONTRACTOR TO LOCATE CONSTRUCT SWALE TO PROVIDE POSITIVE DRAINAGE WITHIN HABITAT ENHACEMENT AREA.

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEM AND SEED BANK AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATED ISOLATED DEPRESSION.



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 21 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POHL C69522 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE
0101189-21-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

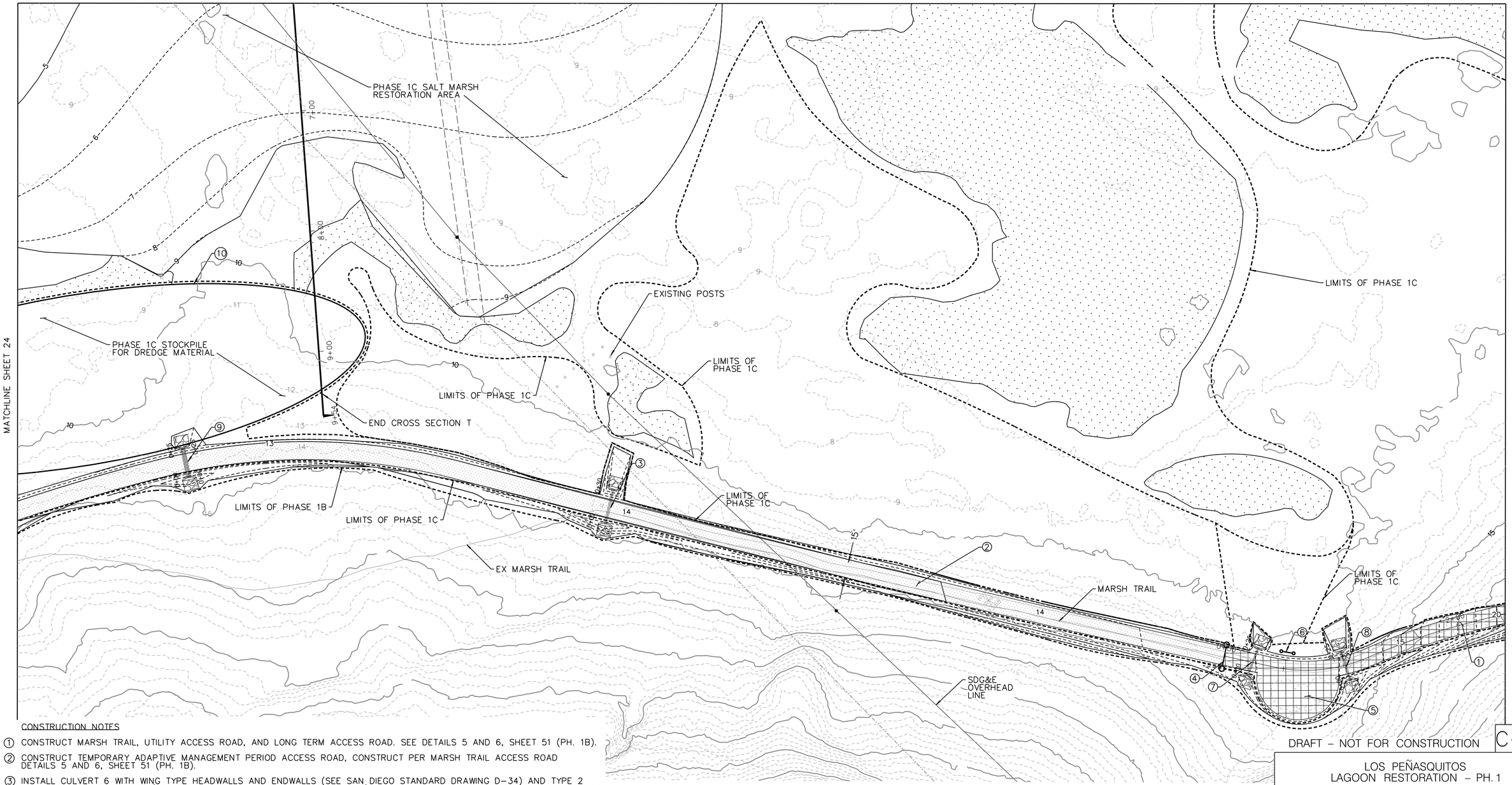
GRADING PLAN

100% SUBMITTAL

MATCHLINE SHEET 21

MATCHLINE SHEET 24

MATCHLINE SHEET 19

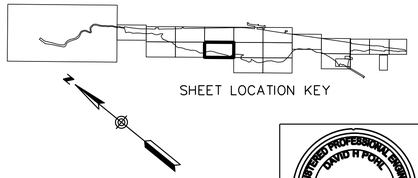


CONSTRUCTION NOTES

1. CONSTRUCT MARSH TRAIL, UTILITY ACCESS ROAD, AND LONG TERM ACCESS ROAD. SEE DETAILS 5 AND 6, SHEET 51 (PH. 1B).
2. CONSTRUCT TEMPORARY ADAPTIVE MANAGEMENT PERIOD ACCESS ROAD, CONSTRUCT PER MARSH TRAIL ACCESS ROAD DETAILS 5 AND 6, SHEET 51 (PH. 1B).
3. INSTALL CULVERT 6 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 55.
4. INSTALL TRAFFIC CONTROL GATE UPON COMPLETION OF PH. 1C AT THE BEGINNING OF MARSH TRAIL. SEE DETAIL 10 SHEET 52.
5. CONSTRUCT ACCESS ROAD TURN-AROUND WITH APPROXIMATELY 35' RADIUS (PH. 1B).CONSTRUCT PER MARSH TRAIL ACCESS ROAD, DETAIL 6, SHEET 51.
6. INSTALL INFORMATIONAL KIOSK UPON COMPLETION OF PH. 1C.
7. INSTALL CULVERT 7 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 56.
8. INSTALL CULVERT 8 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 56.
9. INSTALL CULVERT 9 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 56.
10. CONSTRUCT STOCK PILE BERM AROUND LIMITS OF STOCK PILE PER DETAIL 11, SHEET 52.

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEMAND SEED BANK AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATED ISOLATED DEPRESSION.



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

DRAFT – NOT FOR CONSTRUCTION

C–18

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN – NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 22 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

REGISTERED PROFESSIONAL ENGINEER DAVID H FORE C89522 CIVIL STATE OF CALIFORNIA

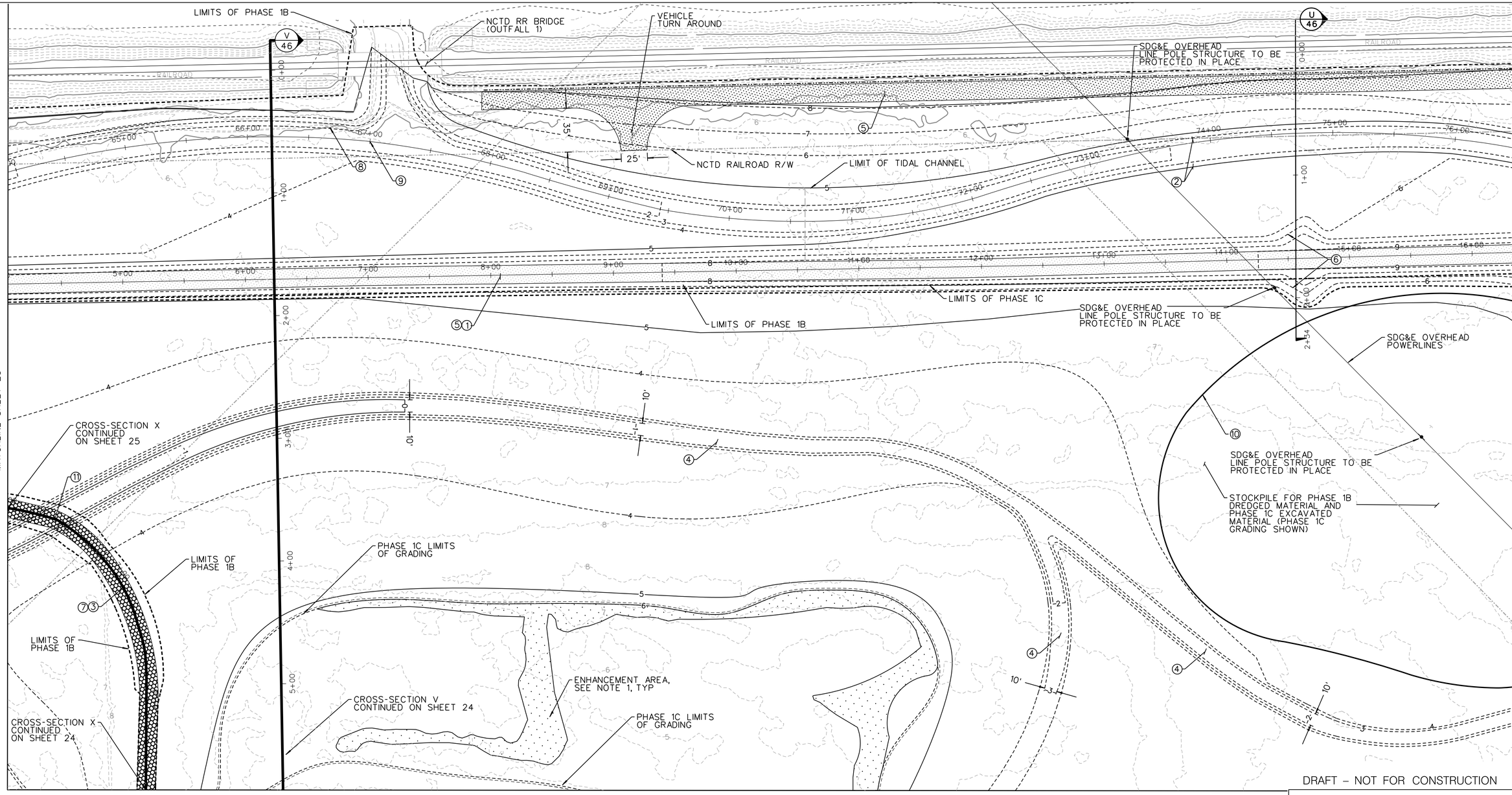
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE
0101189-22-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

GRADING PLAN

100% SUBMITTAL



DRAFT – NOT FOR CONSTRUCTION

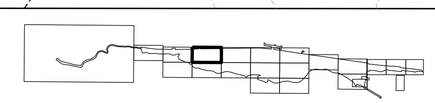
C–19

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEM AND SEED BANK AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATED ISOLATED DEPRESSION.

CONSTRUCTION NOTES

1. CONSTRUCT SALT MARSH PROTECTION GRADING FEATURE, (PH. 1B). SEE DETAIL 7, SHEET 52.
2. CONSTRUCT FRESHWATER CHANNEL, SEE DETAIL 2, SHEET 51.
3. CONSTRUCT TEMPORARY CONSTRUCTION ACCESS ROAD, SEE DETAIL 9, SHEET 52.
4. CONSTRUCT TIDAL CHANNEL, SEE DETAIL 3, SHEET 51.
5. CONSTRUCT TEMPORARY ADAPTIVE MANAGEMENT PERIOD ACCESS ROAD, SEE DETAIL 9, SHEET 52.
6. ACCESS RAMP GRADING
7. FINAL CONDITION GRADING SHOWN. TEMPORARY CONSTRUCTION ACCESS ROADS MAY REQUIRE GRADING DURING INTERIM CONSTRUCTION.
8. 300'± VEGETATED SOIL LIFT FROM STATION 64+00 TO 67+00 (EAST BANKS AND EXTENDING TO RAILROAD TRESTLE BOTH SIDES), SEE SHEET 53.
9. 2400' COBBLE FROM STATION 67+00 TO 91+00. SEE SHEET 51.
10. CONSTRUCT STOCKPILE BERM PER DETAIL 11 ON SHEET 50 AROUND STOCKPILE.
11. INSTALL TEMPORARY CULVERT(S) FOR DRAINAGE DURING HAULING ACTIVITIES AS NECESSARY. CONTOURS REPRESENT FINAL GRADING.



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN - NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 23 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H. POYE C69622 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

CONTRACTOR NTP DATE
INSPECTOR NOC DATE

0101189-23-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

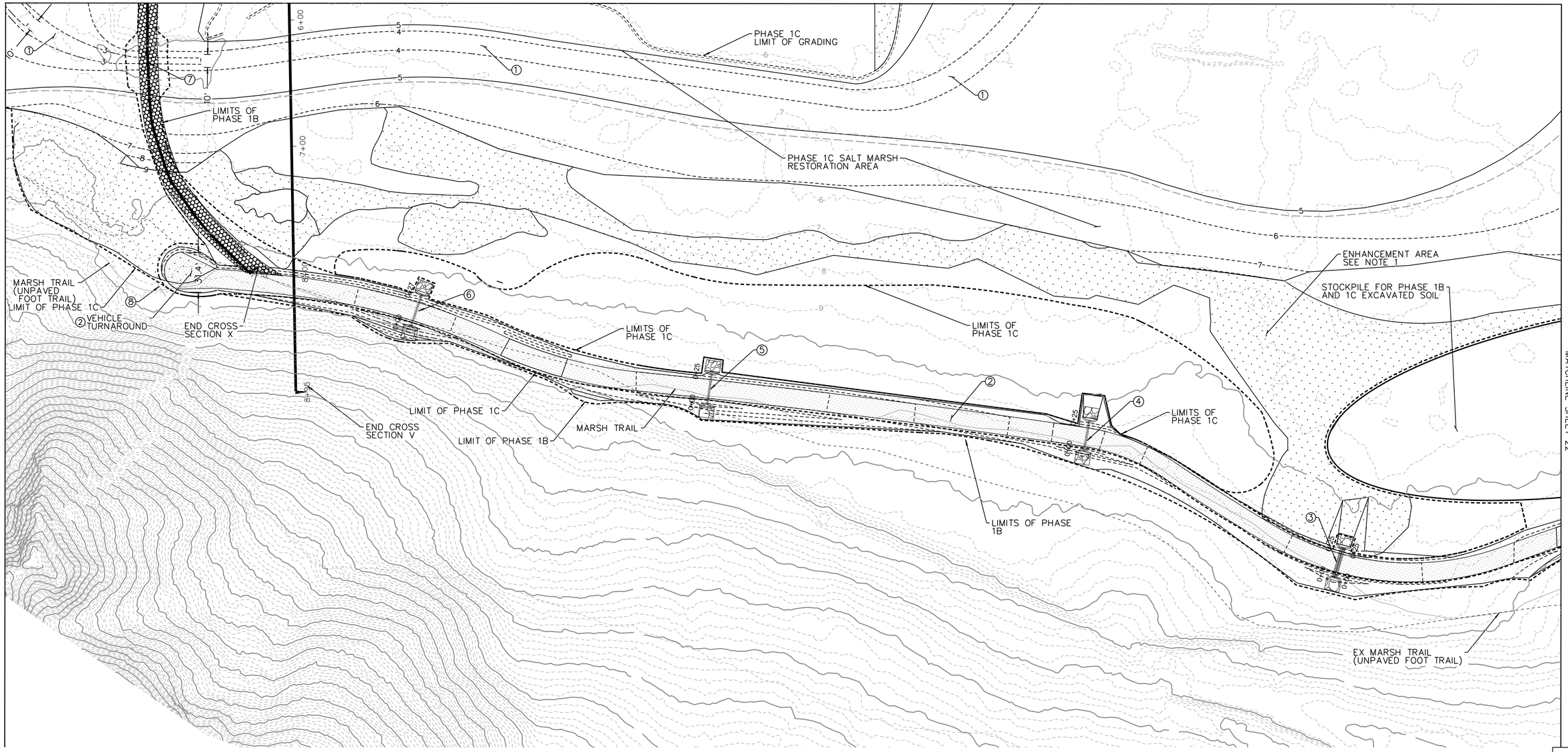
GRADING PLAN

100% SUBMITTAL

MATCHLINE SHEET 23

MATCHLINE SHEET 26

MATCHLINE SHEET 22

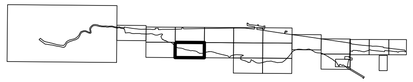


CONSTRUCTION NOTES

1. CONSTRUCT TIDAL CHANNEL, SEE DETAIL 3, SHEET 51.
2. CONSTRUCT TEMPORARY ADAPTIVE MANAGEMENT PERIOD ACCESS ROAD, WITH 15' RADIUS VEHICULAR TURNAROUND CONSTRUCT PER MARSH TRAIL ACCESS ROAD DETAILS 5 AND 6, SHEET 51 (PHASE 1B).
3. INSTALL CULVERT 4 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 54.
4. INSTALL CULVERT 3 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 54.
5. INSTALL CULVERT 2 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 54.
6. INSTALL CULVERT 1 WITH WING TYPE HEADWALLS AND ENDWALLS (SEE SAN DIEGO STANDARD DRAWING D-34) AND TYPE 2 RIPRAP ENERGY DISSIPATOR (SEE SAN DIEGO STANDARD DRAWING SDD-104). RIPRAP SHALL BE QUARRY STONE, FACING CLASS, 18" DEPTH. SEE PROFILE ON SHEET 54.
7. INSTALL TEMPORARY CULVERT(S) FOR DRAINAGE DURING HAULING ACTIVITIES AS NECESSARY. CONTOURS REPRESENT FINAL GRADING.
8. INSTALL TRAIL GATE, SEE DETAIL 10 SHEET 52

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEMAND SEED BANK AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATED ISOLATED DEPRESSION.



SHEET LOCATION KEY

0 40 80 120

SCALE 1"=40'

DRAFT – NOT FOR CONSTRUCTION

C–20

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

GRADING PLAN – NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 24 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER
DAVID H POPE
C69622
CIVIL
STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

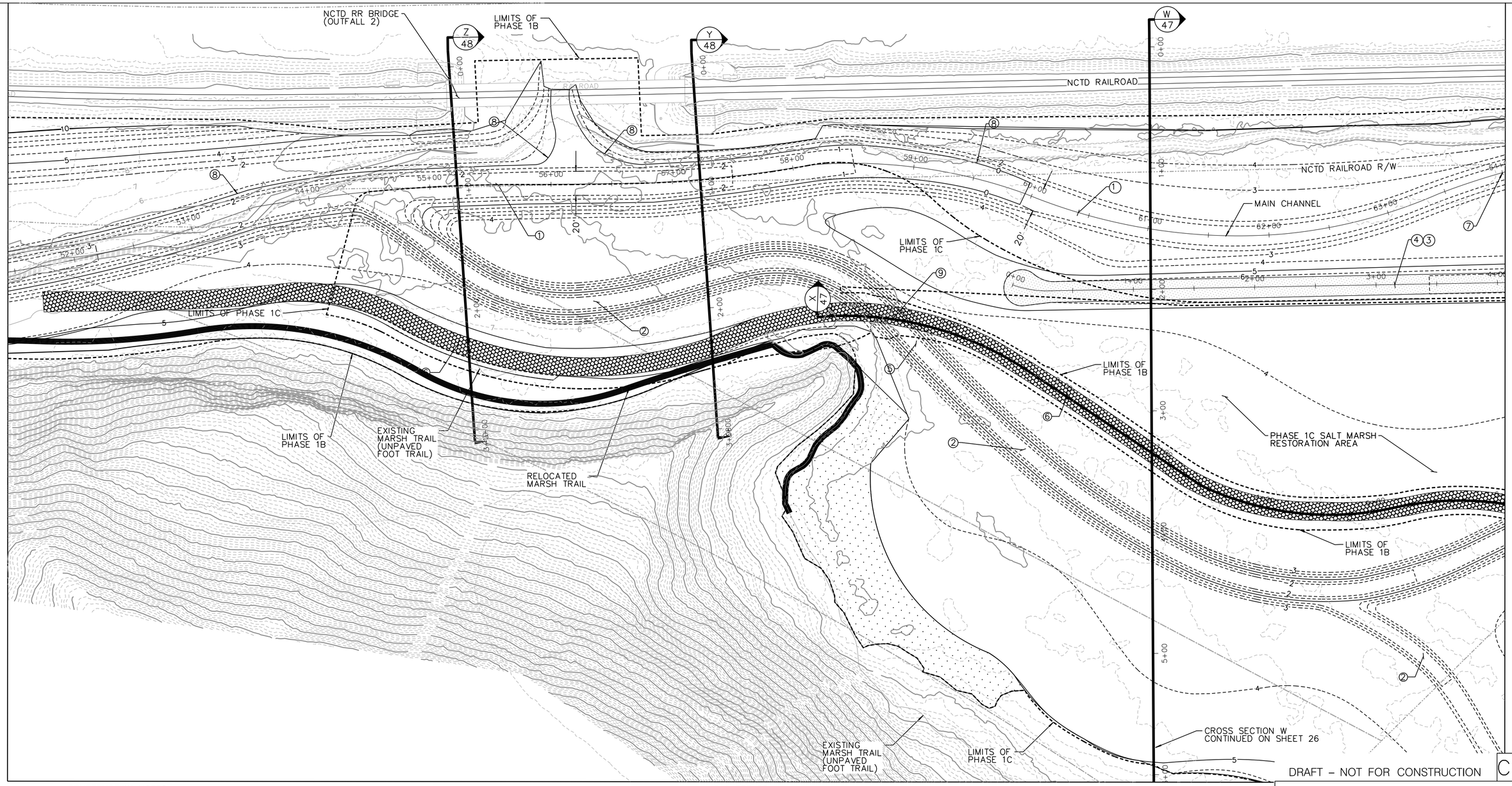
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-24-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

GRADING PLAN

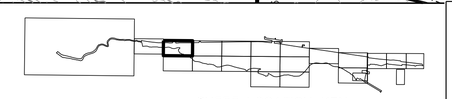


CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
2. CONSTRUCT TYPICAL TIDAL CHANNEL, SEE DETAIL 3, SHEET 51.
3. CONSTRUCT TEMPORARY ADAPTIVE MANAGEMENT PERIOD ACCESS ROAD, CONSTRUCT PER MARSH TRAIL ACCESS ROAD DETAIL 9, SHEET 52 (PH. 1B).
4. CONSTRUCT SALT MARSH PROTECTION FEATURE, SEE DETAIL 7, SHEET 52.
5. INSTALL TEMPORARY CHANNEL BERM DURING PH. 1C CONSTRUCTION, SEE EROSION CONTROL PLAN.
6. CONSTRUCT TEMPORARY CONSTRUCTION ACCESS ROAD, SEE DETAIL 9, SHEET 52.
7. 300'+ VEGETATED SOIL LIFT FROM STATION 64+00 TO 67+00 (EAST BANKS AND EXTENDING TO RAILROAD TRESTLE BOTH SIDES), SEE SHEET 53.
8. 600'+ VEGETATED SOIL LIFT FROM STATION 59+50 TO 53+50 (EAST BANKS AND EXTENDING TO RAILROAD TRESTLE BOTH SIDES), SEE SHEET 53.
9. INSTALL TEMPORARY CULVERT(S) FOR DRAINAGE DURING HAULING ACTIVITIES AS NECESSARY. CONTOURS REPRESENT FINAL GRADING.

NOTES:

1. HABITAT ENHANCEMENT AREAS SHALL BE CLEARED AND GRUBBED OF EXISTING INVASIVE VEGETATION ROOT SYSTEM AND SEED BANK AND RESTORED PER REVEGETATION PLAN. MINIMIZE DISTURBANCE TO ACCESS ENHANCEMENT AREAS. FINE GRADE AREA INTO EXISTING GRADES. FILL IN WITH TOP SOIL AS NEEDED NOT TO CREATED ISOLATED DEPRESSION.



0 40 80 120
SCALE 1"=40'

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN – NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 25 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69622 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/28/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

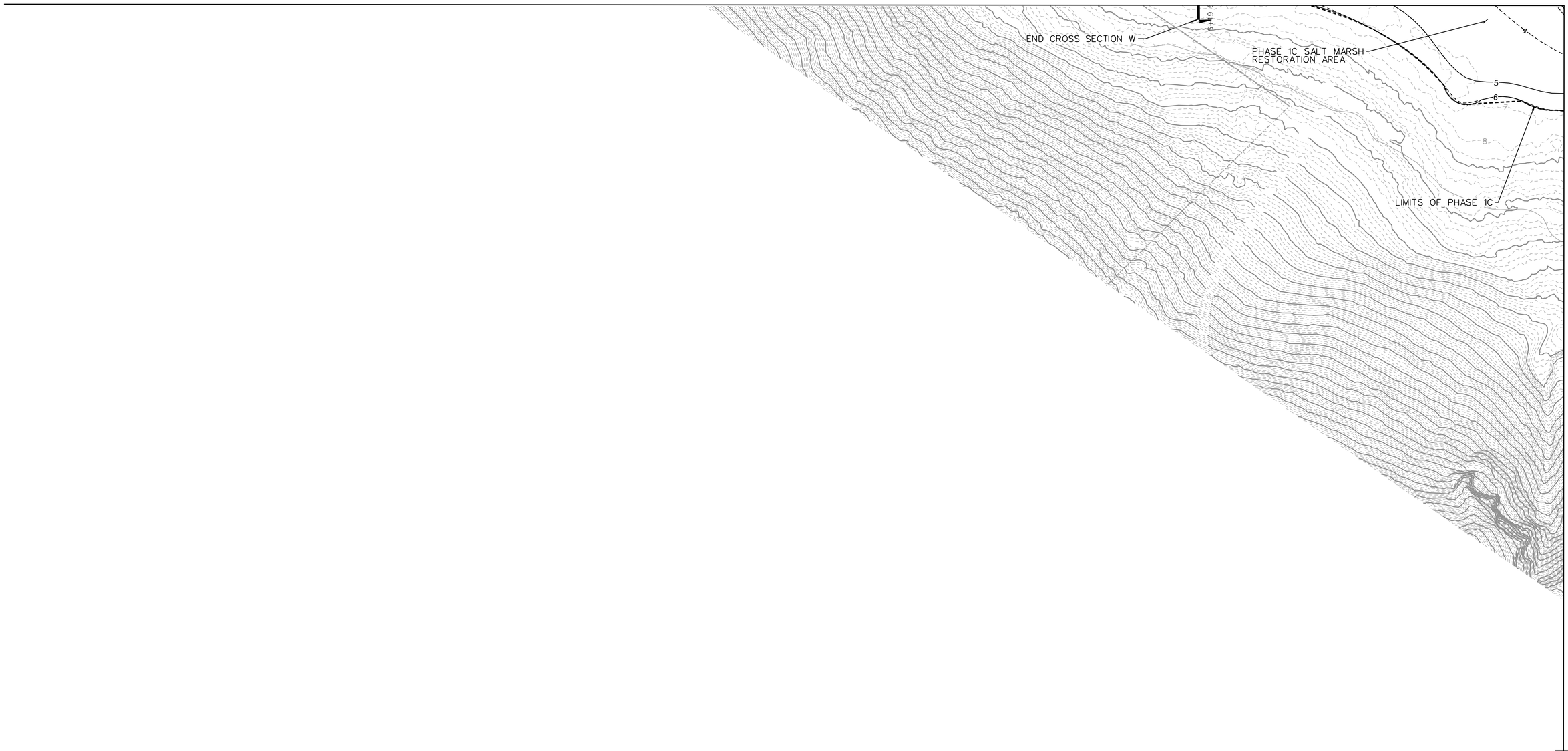
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-25-D

GRADING PLAN

100% SUBMITTAL

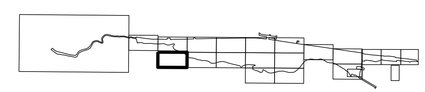
MATCHLINE SHEET 25



MATCHLINE SHEET 24

DRAFT – NOT FOR CONSTRUCTION

C–22



SHEET LOCATION KEY

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

GRADING PLAN - NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 26 OF 103 SHEETS

WBS B-17033

0 40 80 120

SCALE 1"=40'

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER

CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS
CCS27 COORDINATE

SEE SHEETS
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

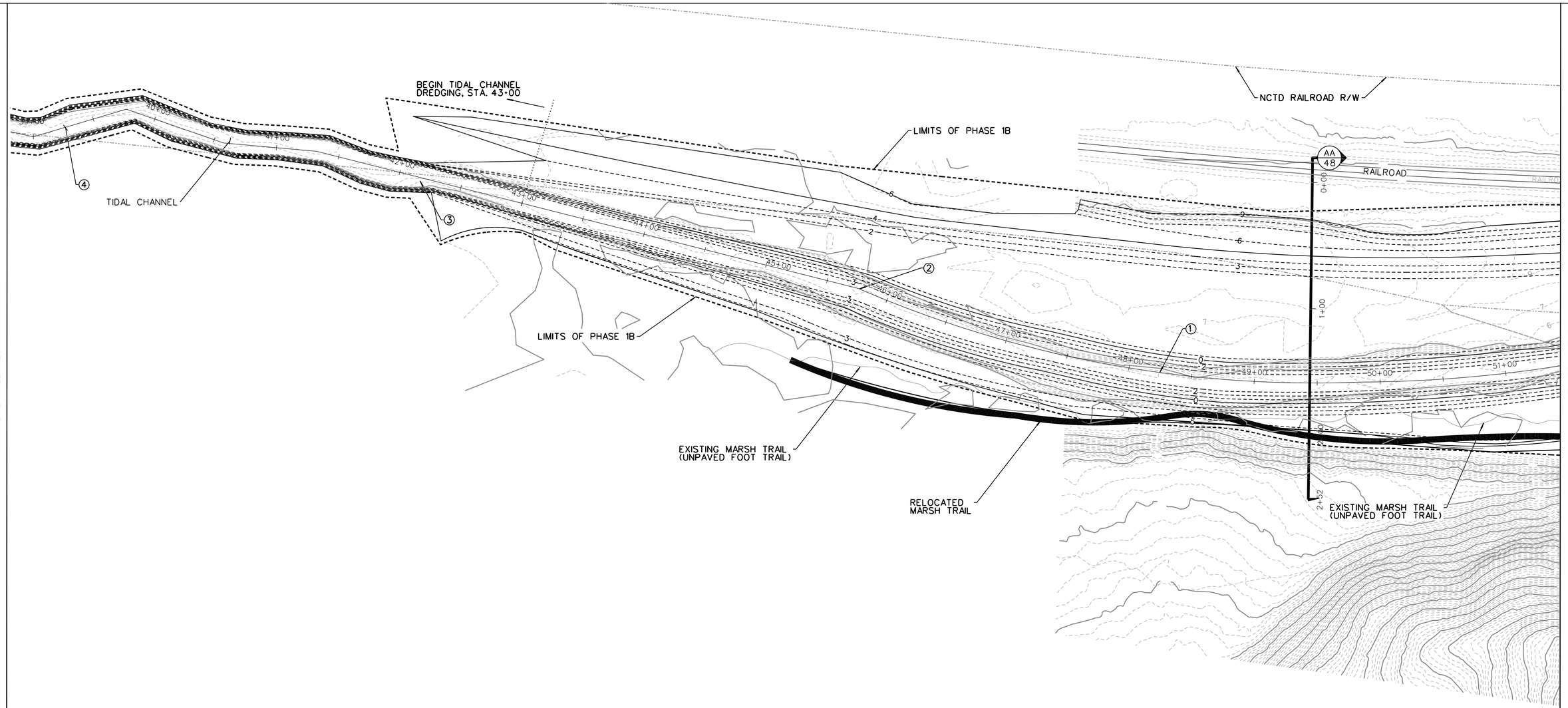
0101189-26-D

BURNS McDONNELL

4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

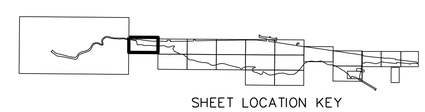
GRADING PLAN

100% SUBMITTAL



CONSTRUCTION NOTES

1. CONSTRUCT TYPICAL FRESHWATER CHANNEL, SEE DETAILS 1 AND 2, SHEET 51.
2. BEGIN TRANSITION TO EXISTING CHANNEL GRADE.
3. END TRANSITION TO EXISTING CHANNEL GRADES.
4. DREDGE EXISTING TIDAL CHANNEL BETWEEN EXISTING CHANNEL BANKS TO ELEVATION -3 MSL. PLACE DREDGED MATERIAL IN STOCKPILE LOCATION INDICATED. DREDGED MATERIAL SHALL BE MANAGED IN ACCORDANCE WITH SPECIAL PROVISIONS. FOLLOWING DEWATERING OF DREDGED MATERIAL, MATERIAL SHALL BE SPREAD OUT AS TOPSOIL IN SALT MARSH RESTORATION.



0 40 80 120
SCALE 1"=40'

DRAFT – NOT FOR CONSTRUCTION

C-23

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

GRADING PLAN - NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 27 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		3/2/2024	

REGISTERED PROFESSIONAL ENGINEER DAVID H FORE C69522 CIVIL STATE OF CALIFORNIA

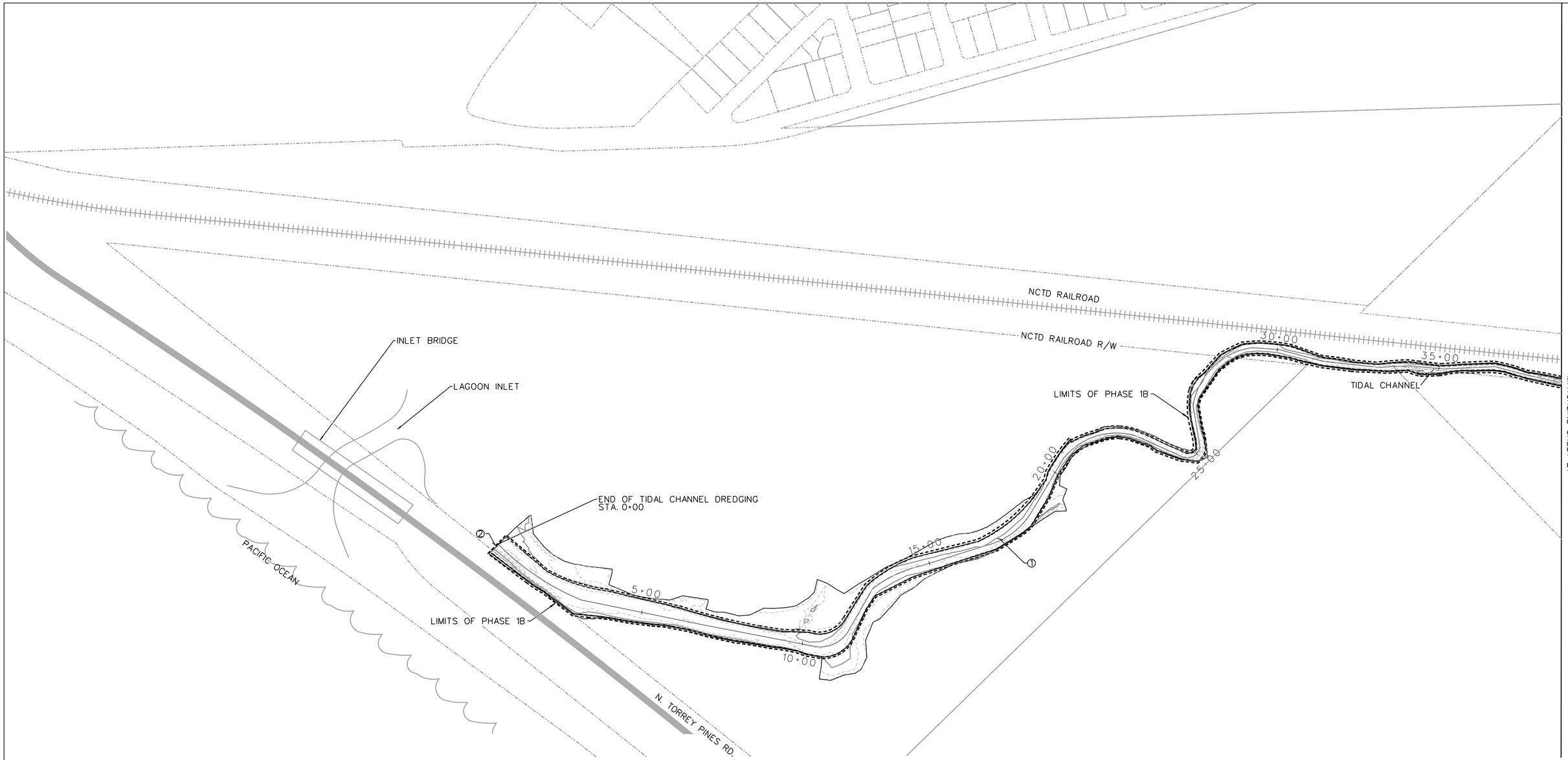
SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-27-D

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

GRADING PLAN

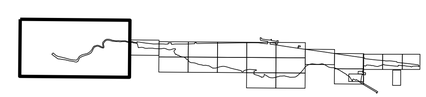
BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

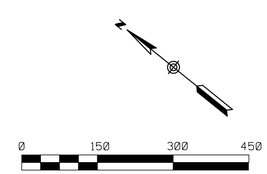


DRAFT – NOT FOR CONSTRUCTION

C–24



SHEET LOCATION KEY



CONSTRUCTION NOTES

① DREDGE EXISTING TIDAL CHANNEL BETWEEN EXISTING CHANNEL BANKS TO ELEVATION –3 MSL. PLACE DREDGED MATERIAL IN STOCKPILE LOCATION INDICATED. DREDGED MATERIAL SHALL BE MANAGED IN ACCORDANCE WITH SPECIAL PROVISIONS. FOLLOWING DEWATERING OF DREDGED MATERIAL, MATERIAL SHALL BE SPREAD OUT AS TOPSOIL IN SALT MARSH RESTORATION.

② ACCESS TO THE CHANNEL FOR DREDGING IS EITHER FROM THE PHASE 1 ENTRANCE OR FROM THE LAGOON INLET TAT REQUIRES COORDINATION AND APPROVAL OF EQUIPMENT AND PERSONELL ACCESS ROUTES. ACCESS FROM THE EXISTING PROTETED SALT MARSH BEYOND THE PROJECT LIMITS IS PROHIBITED. (SHOWN AS LIMITS OF PHASE 1B)

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

GRADING PLAN - NORTH PHASE 1

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 28 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C86522 CIVIL STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		3/2/2024	

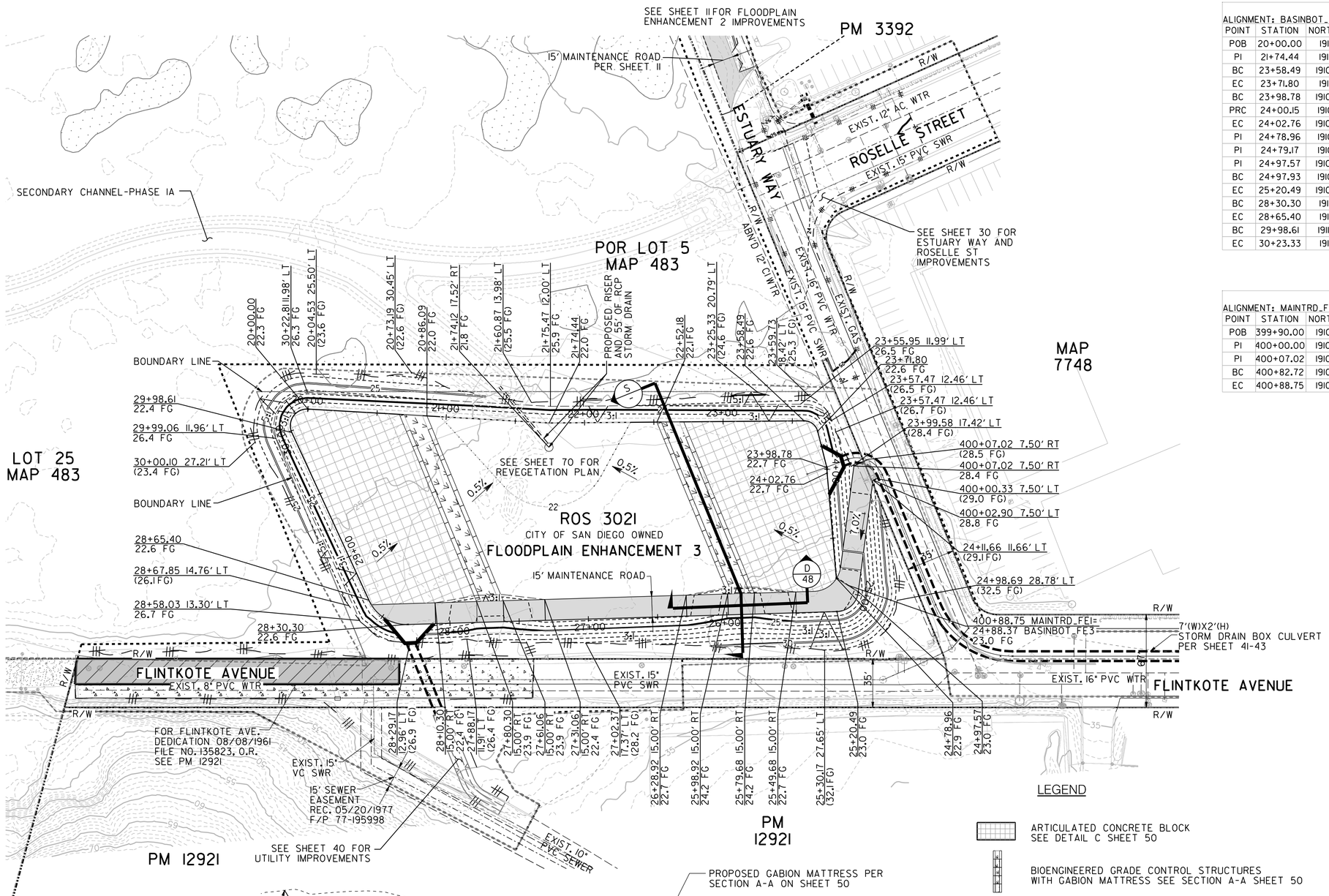
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-28-D

GRADING PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

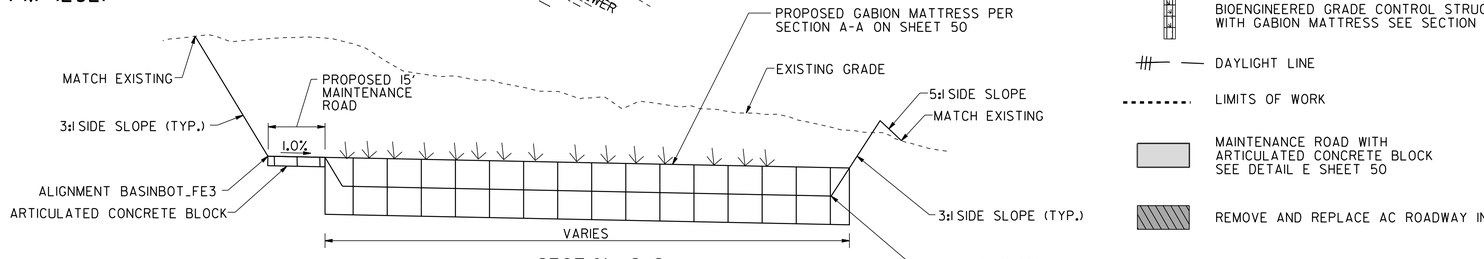


ALIGNMENT: BASINBOT_FE3

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGT
POB	20+00.00	1911271.87	6260198.10	STRAIGHT	S 11° 09'51" E	D = 174.44
PI	21+74.44	1911100.73	6260231.87	STRAIGHT	S 14° 57'31" E	D = 184.05
BC	23+58.49	1910922.93	6260279.38	R = +10.00	D = 76° 16'05" RT	L = 13.31
EC	23+71.80	1910911.57	6260274.52	STRAIGHT	S 61° 18'34" W	D = 26.99
BC	23+98.78	1910898.62	6260250.85	R = +5.00	D = 15° 37'31" RT	L = 1.36
PRC	24+00.15	1910898.13	6260249.58	R = -23.34	D = 6° 25'33" LT	L = 2.62
EC	24+02.76	1910897.40	6260247.06	STRAIGHT	S 70° 30'32" W	D = 76.19
PI	24+78.96	1910871.98	6260175.24	STRAIGHT	S 17° 19'47" W	D = 0.21
PI	24+79.17	1910871.77	6260175.17	STRAIGHT	S 17° 19'47" W	D = 18.40
PI	24+97.57	1910854.20	6260169.69	STRAIGHT	S 83° 01'40" W	D = 0.36
BC	24+97.93	1910854.16	6260169.34	R = +16.00	D = 80° 46'21" RT	L = 22.56
EC	25+20.49	1910865.58	6260152.03	STRAIGHT	N 16° 11'59" W	D = 309.81
BC	28+30.30	1911163.09	6260065.60	R = +30.00	D = 67° 01'59" RT	L = 35.10
EC	28+65.40	1911194.72	6260075.46	STRAIGHT	N 50° 50'00" E	D = 133.22
BC	29+98.61	1911278.85	6260178.75	R = +12.00	D = 118° 00'09" RT	L = 24.71
EC	30+23.33	1911271.87	6260198.10			

ALIGNMENT: MAINTRD_FE3

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGT
POB	399+90.00	1910858.84	6260264.36	STRAIGHT	N 39° 15'11" W	D = 10.00
PI	400+00.00	1910866.59	6260258.03	STRAIGHT	N 39° 20'19" W	D = 7.02
PI	400+07.02	1910872.02	6260253.58	STRAIGHT	S 83° 01'40" W	D = 75.70
BC	400+82.72	1910862.83	6260178.44	R = +20.36	D = 16° 58'20" RT	L = 6.03
EC	400+88.75	1910862.99	6260172.43			



SECTION S-S
NTS

LEGEND

- ARTICULATED CONCRETE BLOCK SEE DETAIL C SHEET 50
- BIOENGINEERED GRADE CONTROL STRUCTURES WITH GABION MATTRESS SEE SECTION A-A SHEET 50
- DAYLIGHT LINE
- LIMITS OF WORK
- MAINTENANCE ROAD WITH ARTICULATED CONCRETE BLOCK SEE DETAIL E SHEET 50
- REMOVE AND REPLACE AC ROADWAY IN KIND
- REMOVE AND REPLACE PCC ROADWAY IN KIND

0 40 80 120
SCALE 1" = 40'

DIGALERT 811
CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C-25

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN

FLOODPLAIN ENHANCEMENT 3

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 29 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FIL.MED
ORIGINAL	RICK			

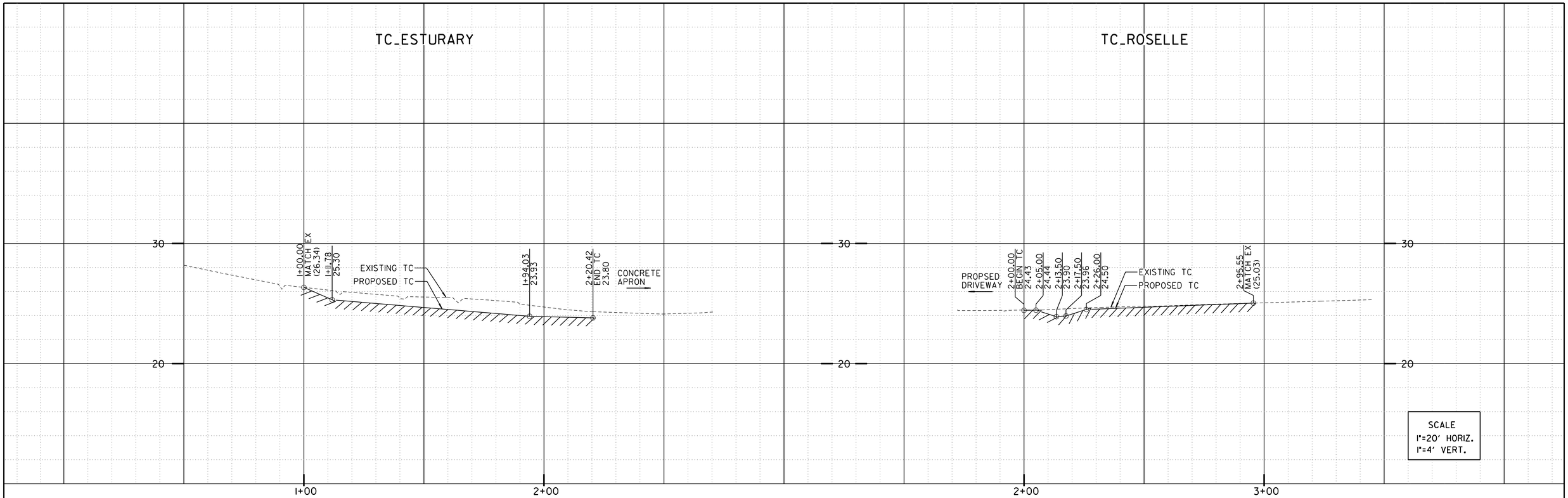
SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
270-1695 CCS27 COORDINATE
1910-6255 CCS83 COORDINATE
0101189-29-D

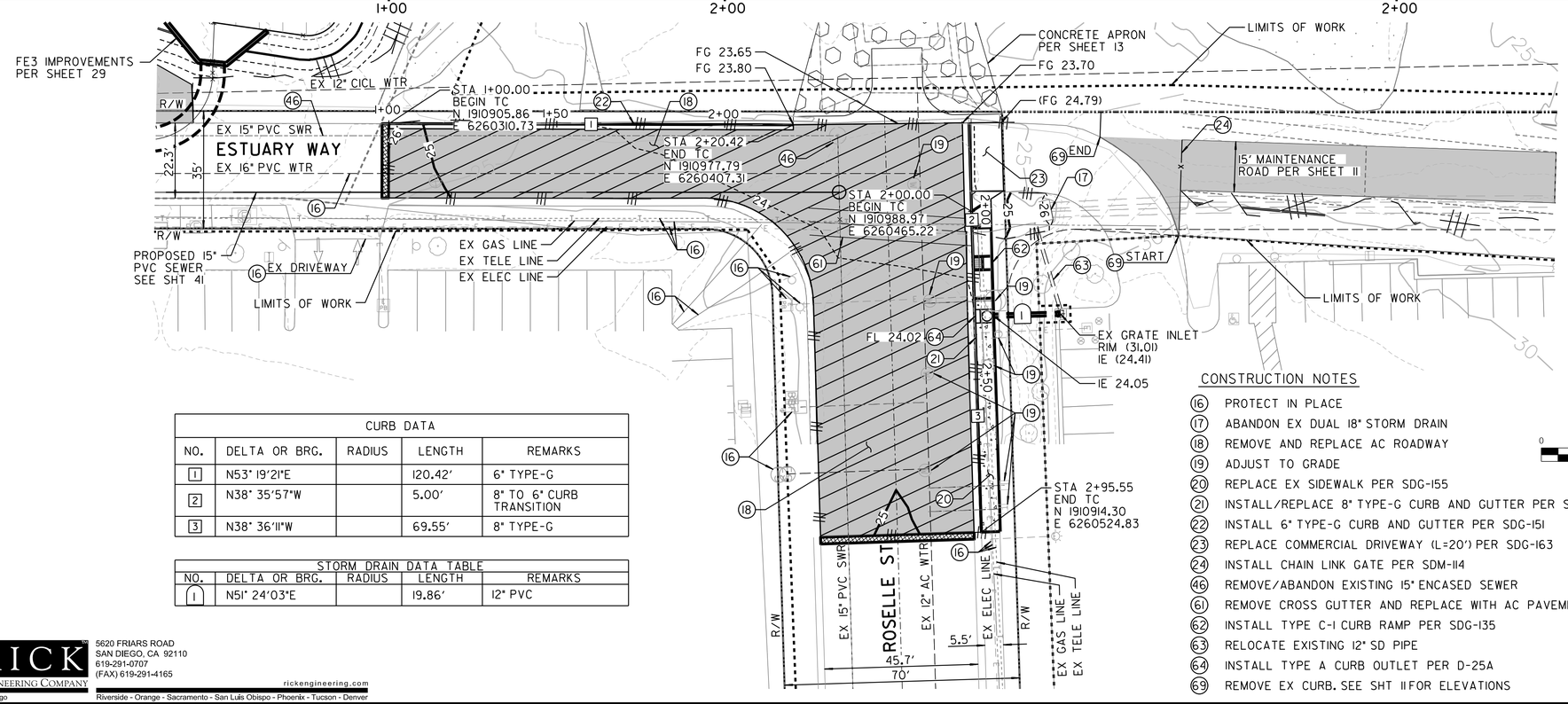
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

GRADING PLAN

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

100% SUBMITTAL





LEGEND

- REPLACE AND REGRADE DAMAGED PAVEMENT AS SHOWN (MAINTENANCE)
- REMOVE AND REPLACE CONCRETE SIDEWALK PER SDG-155
- GRIND AND OVERLAY
- 6" OR 8" TYPE-G CURB AND GUTTER PER SDG-151
- CURB RAMP
- TYPE A CURB OUTLET

DIGALERT 811

CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

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N

0 20 40 60

SCALE 1" = 20'

CONSTRUCTION NOTES

16. PROTECT IN PLACE
17. ABANDON EX DUAL 18" STORM DRAIN
18. REMOVE AND REPLACE AC ROADWAY
19. ADJUST TO GRADE
20. REPLACE EX SIDEWALK PER SDG-155
21. INSTALL/REPLACE 8" TYPE-G CURB AND GUTTER PER SDG-151
22. INSTALL 6" TYPE-G CURB AND GUTTER PER SDG-151
23. REPLACE COMMERCIAL DRIVEWAY (L=20') PER SDG-163
24. INSTALL CHAIN LINK GATE PER SDM-114
46. REMOVE/ABANDON EXISTING 15" ENCASED SEWER
61. REMOVE CROSS GUTTER AND REPLACE WITH AC PAVEMENT
62. INSTALL TYPE C-1 CURB RAMP PER SDG-135
63. RELOCATE EXISTING 12" SD PIPE
64. INSTALL TYPE A CURB OUTLET PER D-25A
69. REMOVE EX CURB. SEE SHT 11 FOR ELEVATIONS

CURB DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N53° 19'21"E		120.42'	6" TYPE-G
2	N38° 35'57"W		5.00'	8" TO 6" CURB TRANSITION
3	N38° 36'11"W		69.55'	8" TYPE-G

STORM DRAIN DATA TABLE				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N51° 24'03"E		19.86'	12" PVC

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C-26

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

PLAN AND PROFILE

ESTUARY WAY & ROSELLE STREET

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 30 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER RONAK REKANI PRINT DCE NAME — DATE — 86523 RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE

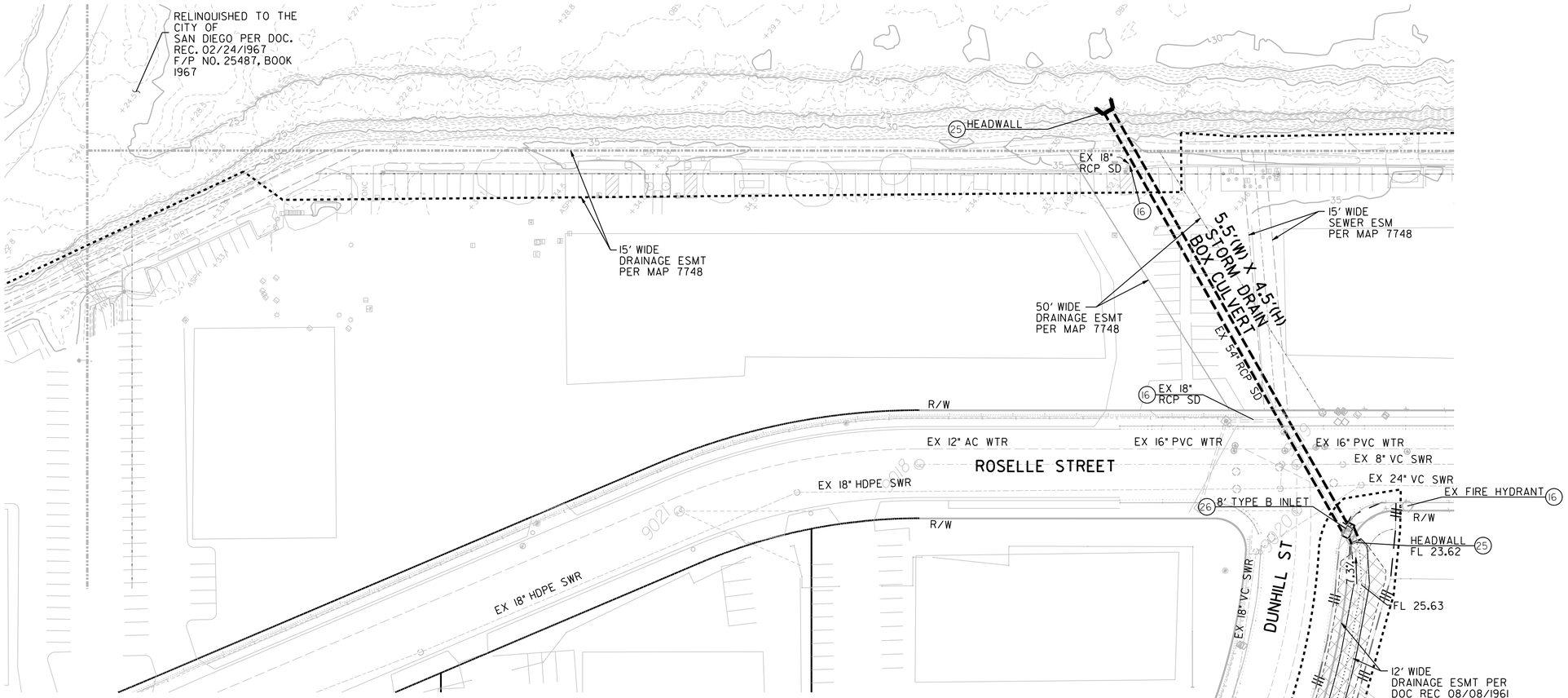
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

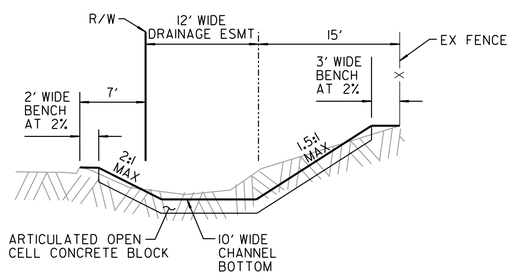
0101189-30-D

GRADING PLAN

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

100% SUBMITTAL





SECTION J–J
NTS

LEGEND

- ARTICULATED CONCRETE BLOCK SEE DETAIL C SHEET 50
- DAYLIGHT LINE
- LIMITS OF WORK

CONSTRUCTION NOTES

(16) PROTECT IN PLACE

(25) INSTALL HEADWALL PER CALTRANS STANDARD PLANS D-84

(26) INSTALL 8' TYPE B INLET PER STD. DWG. SDD-114

DIGALERT 811

CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C–27

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

GRADING PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 31 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86623
PRINT DCE NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE
0101189–31–D

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

GRADING PLAN

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

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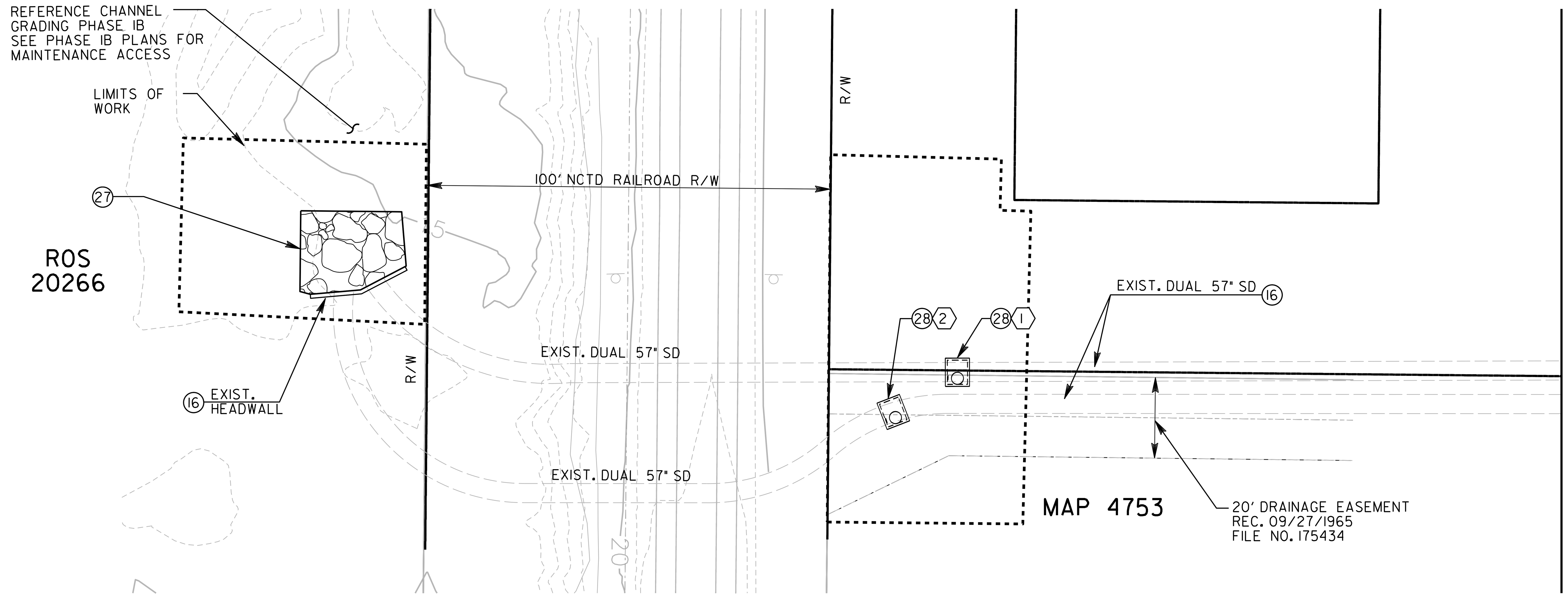
100% SUBMITTAL



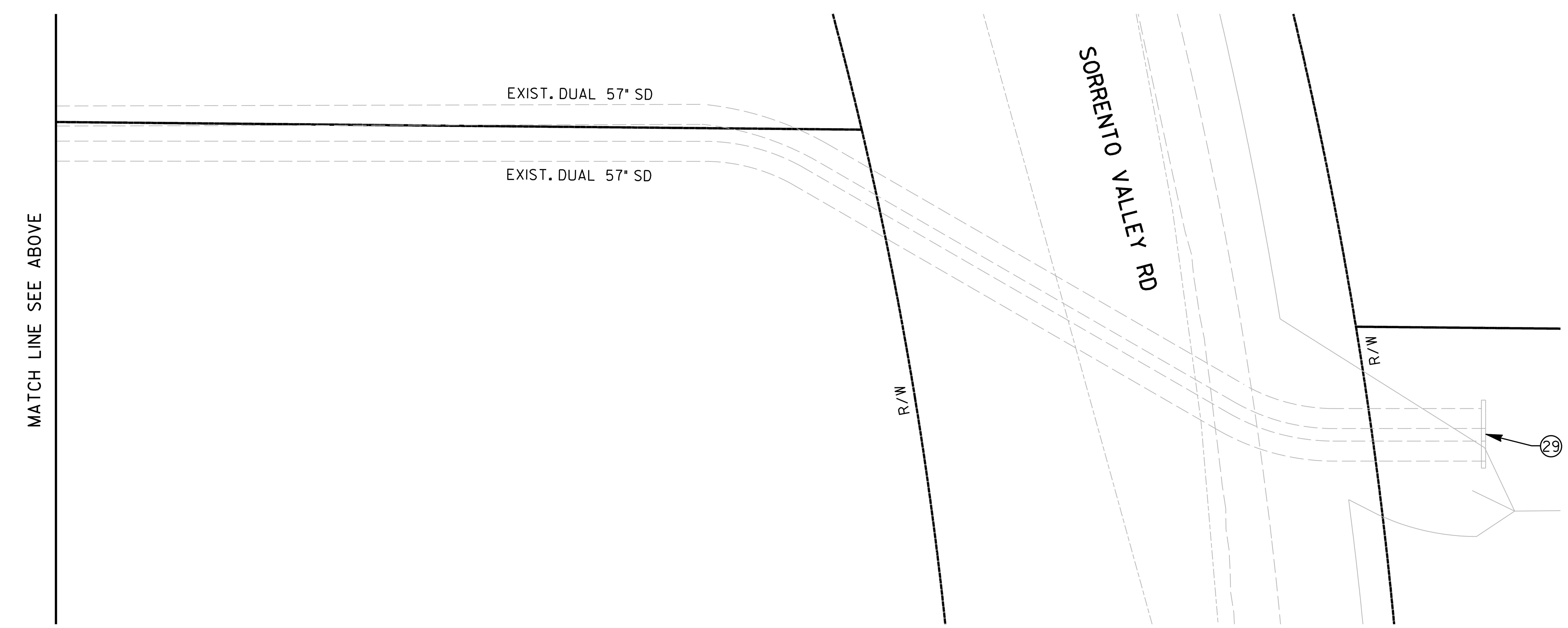
STRUCTURE DATA TABLE

NO.	NORTHING	EASTING	REMARKS
1	1913636.02	6259408.14	TYPE A6 CO
2	1913618.55	6259401.46	TYPE A6 CO

NOTE: LOCATION TO BE FIELD VERIFIED BY CONTRACTOR

CONSTRUCTION NOTES

16. PROTECT IN PLACE
27. REMOVE AND RE-INSTALL RIP RAP IN KIND PER CITY OF SAN DIEGO STD. DWG. SDD-104
28. CUT-IN TYPE A6 CLEANOUT PER CITY OF SAN DIEGO STD. DWG. D-09
29. INSTALL DEBRIS STRUCTURE WITH SLIDING MECHANISM. 5MM STAINLESS STEEL SCREEN INSTALLED AT A HEIGHT TBD



IMPROVEMENT PLAN

DRAFT - NOT FOR CONSTRUCTION

C-28

LOS PENASQUITOS LAGOON RESTORATION - PH. 1

IMPROVEMENT PLAN - PHASE 1A

SORRENTO VALLEY RD

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 32 OF 90 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

274-1695 CCS27 COORDINATE
1914-6255 CCS83 COORDINATE

CONTRACTOR ____ NTP DATE ____
INSPECTOR ____ NOC DATE ____

0101189-32-D

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

EXISTING OUTFALL FOR TRIPP COURT STORM DRAIN SYSTEM

0 20 40 60
SCALE 1" = 20'

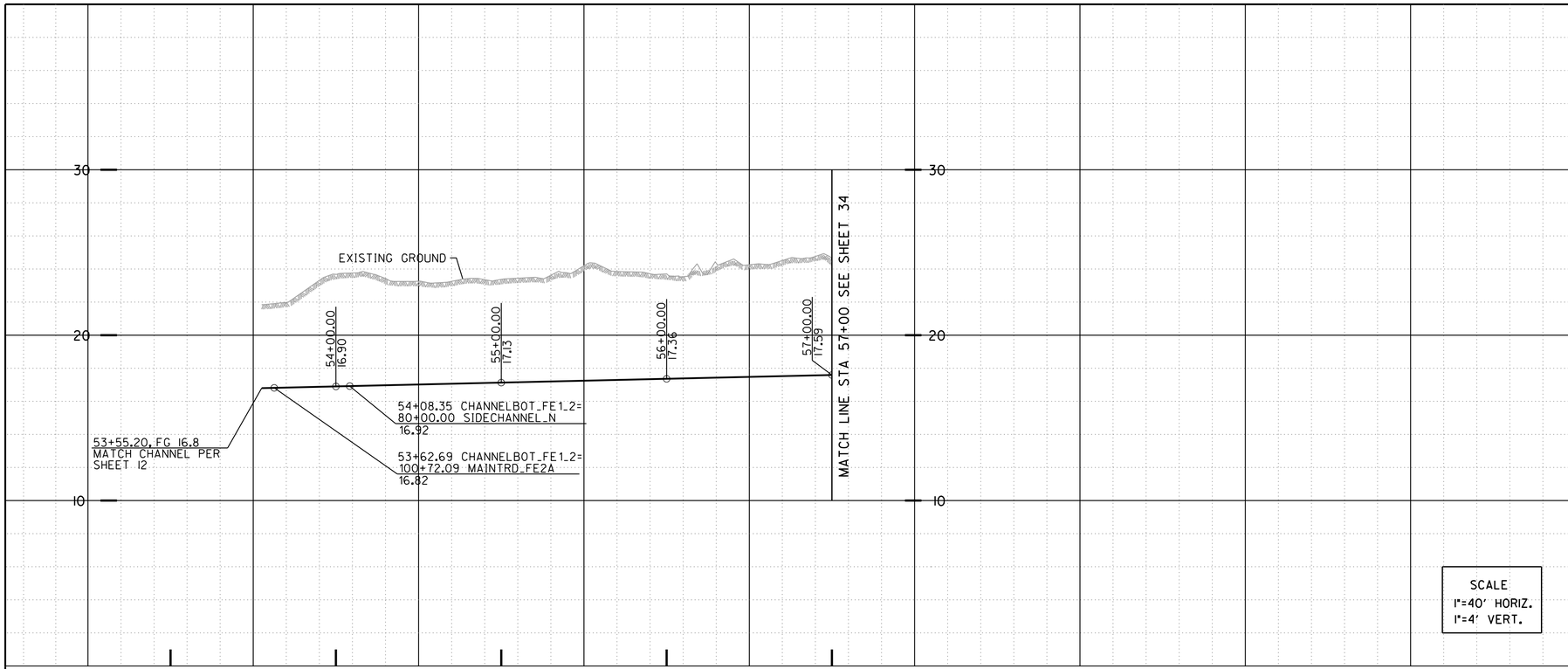
IMPORTANT NOTICE

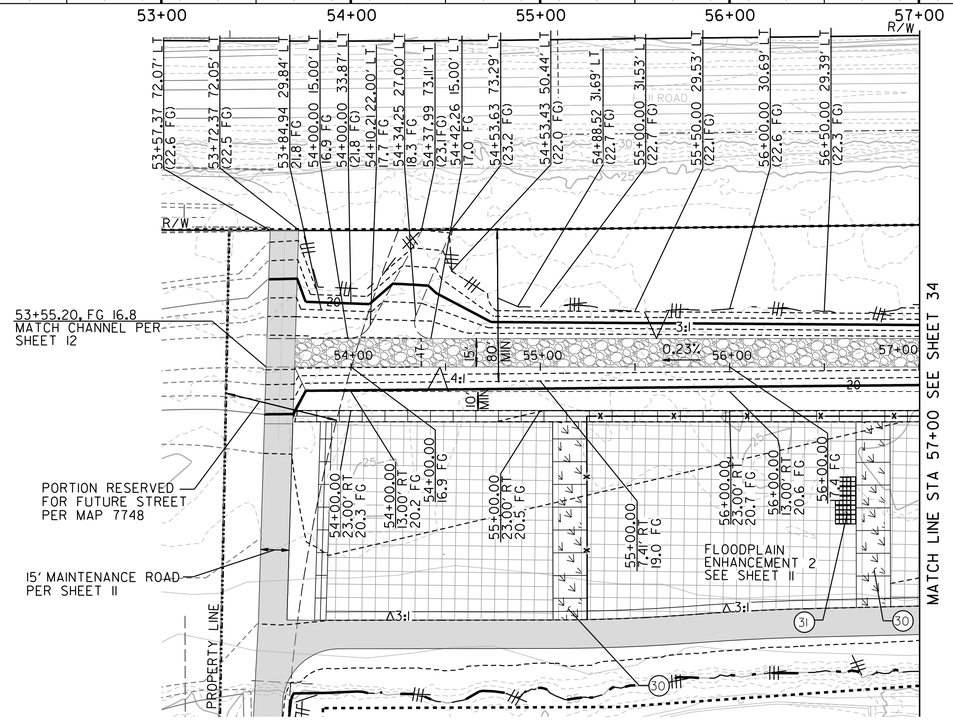
SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIACATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DIGALERT 811
CALL 811 BEFORE YOU DIG

RICK ENGINEERING COMPANY San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

100% SUBMITTAL





CONSTRUCTION NOTES

(30) BIOENGINEERED GRADE CONTROL STRUCTURE SEE DETAIL A SHEET 50

(31) INSTALL TRASH CAPTURE DEVICE SEE DETAIL B SHEET 50

Alignment: ChannelBot_FE1_2

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGT
EC	53+38.16	191330.35	6260878.57	STRAIGHT	S 37° 54'30.32" E	D = 522.98
BC	58+61.14	191091.72	626199.89	R = +250.00	D = 26° 21'31.45" RT	L = 115.01

Alignment: MaintRd_FE2A

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGT
POB	99+90.00	191359.46	6260959.90	STRAIGHT	S 53° 48'45.73" W	D = 10.00
PI	100+00.00	191353.56	6260951.82	STRAIGHT	S 53° 48'45.73" W	D = 57.31
PI	100+57.31	191319.72	6260905.57	STRAIGHT	S 53° 48'20.17" W	D = 148.40
PI	102+05.71	191232.09	6260785.81	STRAIGHT	S 55° 06'08.63" W	D = 369.09

0 40 80 120

SCALE 1" = 40'

DIGALERT 811

CALL 811 BEFORE YOU DIG

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DRAFT - NOT FOR CONSTRUCTION

C-29

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 33 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER RONAK REKANI PRINT DCE NAME — DATE — 86523 RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER

CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER

SEE SHEETS CCS27 COORDINATE

SEE SHEETS CCS83 COORDINATE

CONTRACTOR — NTP DATE

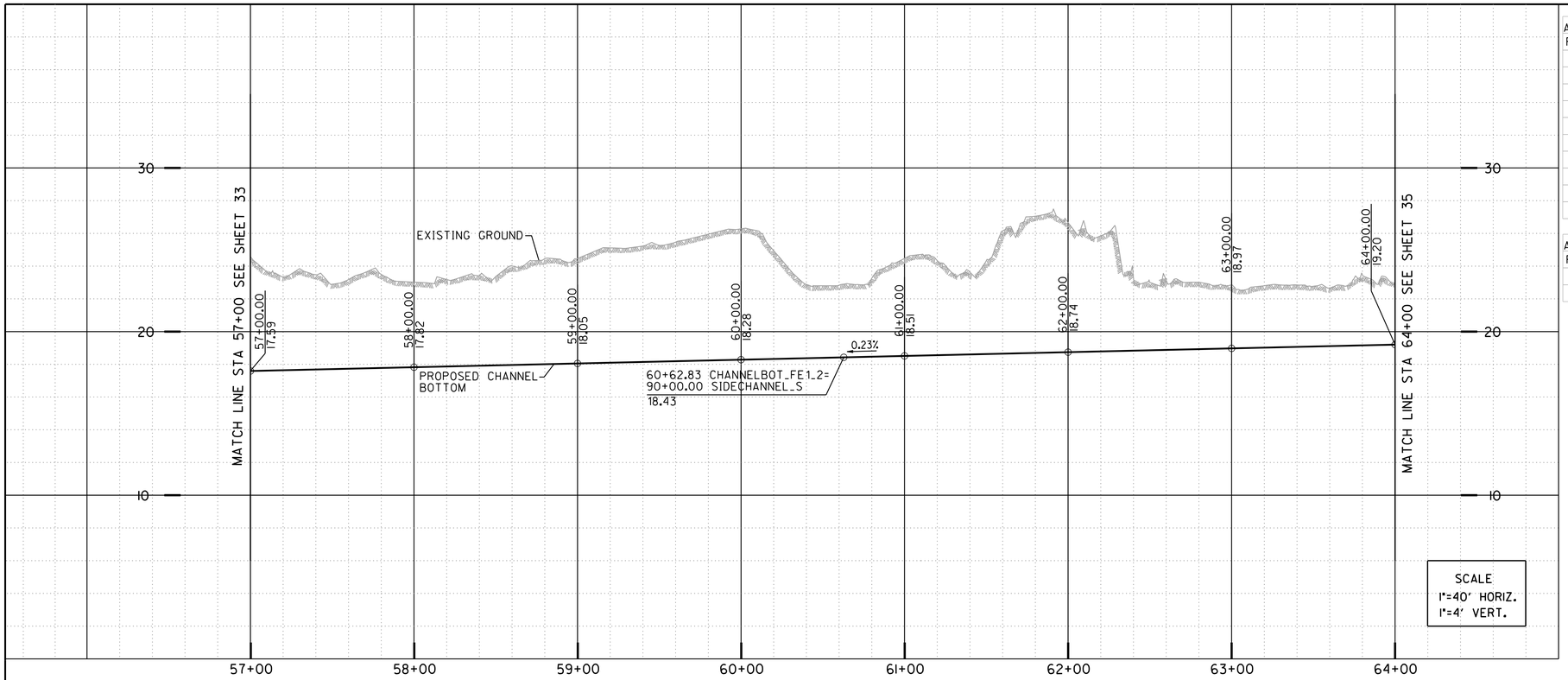
INSPECTOR — NOC DATE

0101189-33-D

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

02-FEB-2024 18:42 nwhitmore

100% SUBMITTAL

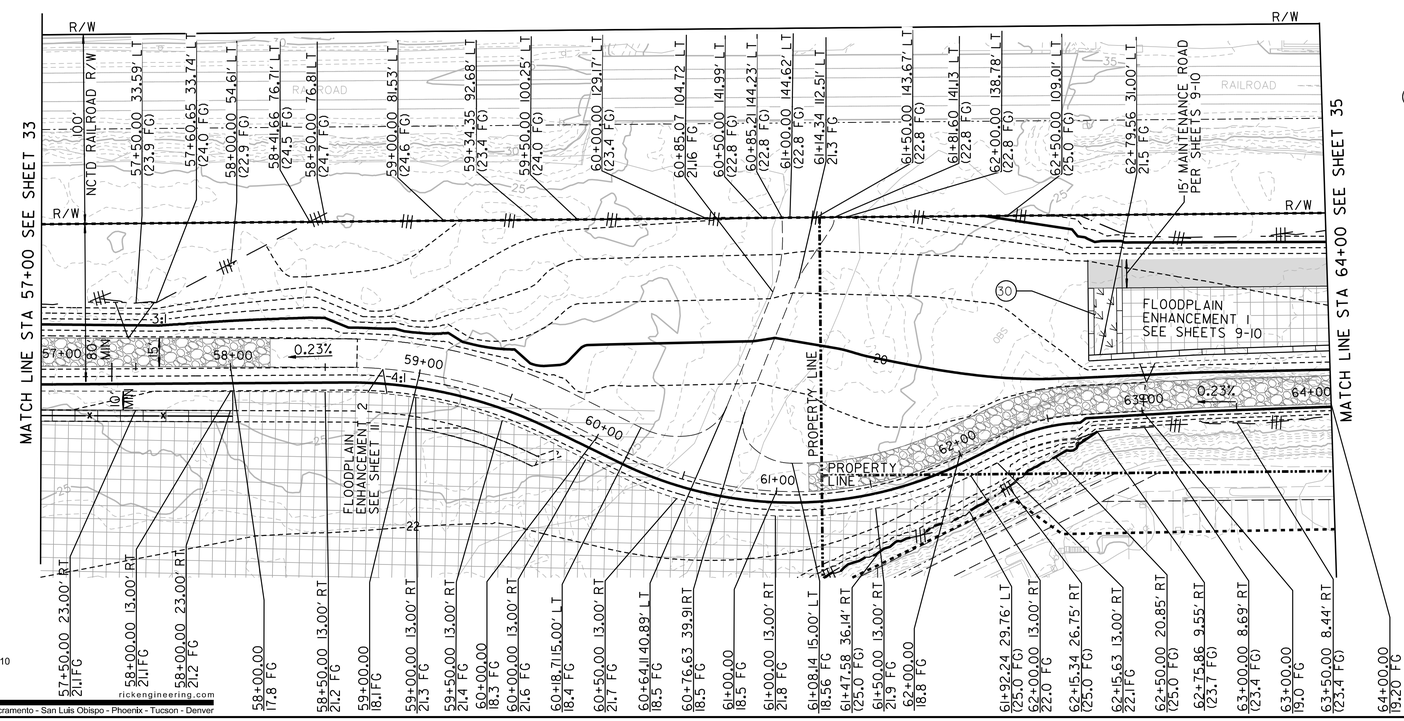


Alignment: ChannelBot_FE1_2

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
EC	53+38.16	1911330.35	6260878.57	STRAIGHT	S 37° 54'30.32" E	D = 522.98
BC	58+61.14	1910917.72	6261199.89	R = +250.00	D = 26° 21'31.45" RT	L = 115.01
EC	59+76.15	1910814.18	6261247.58	STRAIGHT	S 11° 32'58.87" E	D = 41.02
BC	60+17.17	1910773.99	6261255.79	R = -200.00	D = 52° 20'24.21" LT	L = 182.70
EC	61+99.87	1910634.44	6261363.72	STRAIGHT	S 63° 53'23.07" E	D = 24.78
BC	62+24.65	1910623.53	6261385.97	R = +100.00	D = 22° 38'27.38" RT	L = 39.52
EC	62+64.17	1910599.67	6261417.15	STRAIGHT	S 41° 14'55.69" E	D = 60.28
BC	63+24.45	1910554.35	6261456.89	R = +500.00	D = 1° 25'18.63" RT	L = 12.41
EC	63+36.86	1910544.92	6261464.96	STRAIGHT	S 39° 49'37.07" E	D = 274.98
BC	66+11.83	1910333.75	6261641.07	R = +2000.00	D = 1° 35'16.20" RT	L = 55.43

Alignment: MaintRd_FE1

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	299+90.00	1910647.58	6261473.88	STRAIGHT	S 38° 35'14.23" E	D = 1238.58
BC	312+28.58	1909679.43	6262246.39	R = -272.81	D = 10° 35'06.84" LT	L = 50.40



CONSTRUCTION NOTES

(30) BIOENGINEERED GRADE CONTROL STRUCTURE SEE DETAIL A SHEET 50

DIGALERT 811

CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIACATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C-30

0 40 80 120

SCALE 1" = 40'

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 34 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT DCE NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

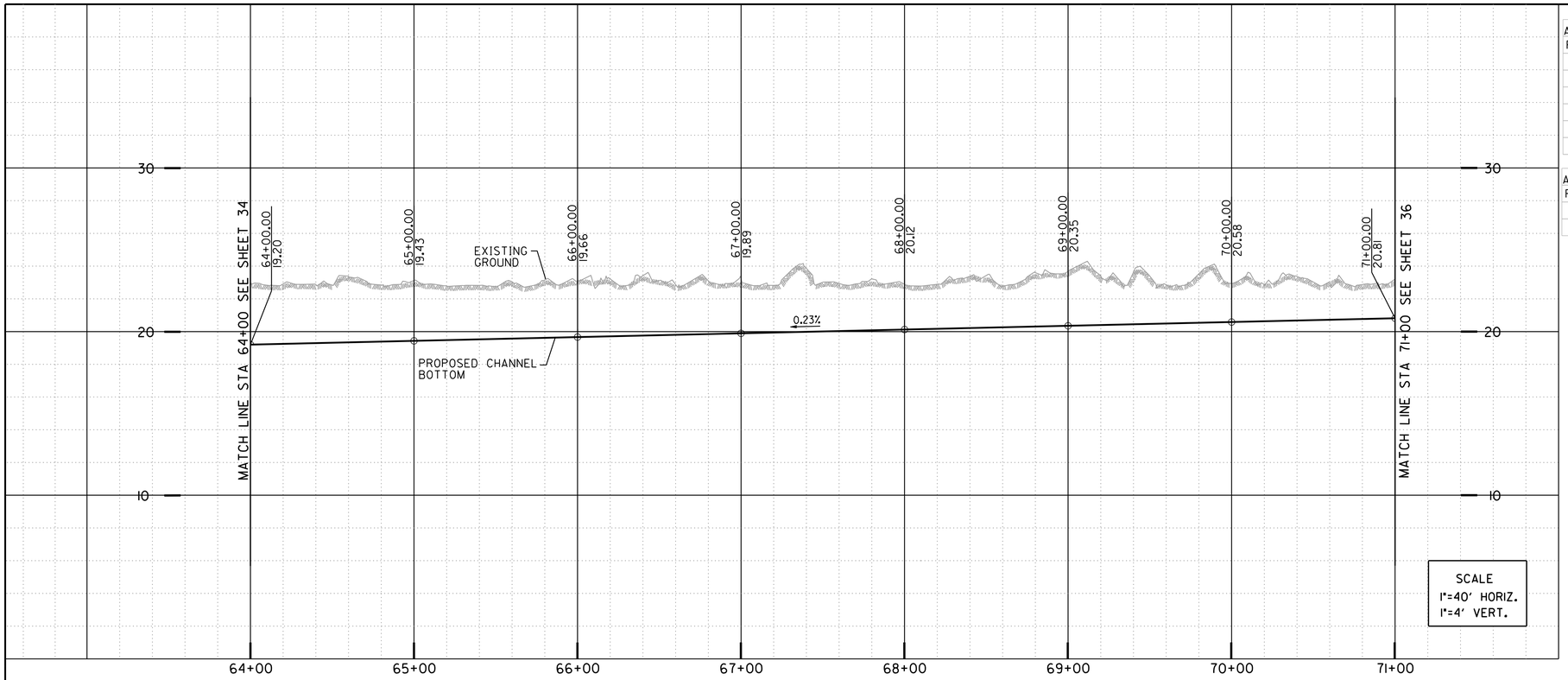
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE
0101189-34-D

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

100% SUBMITTAL

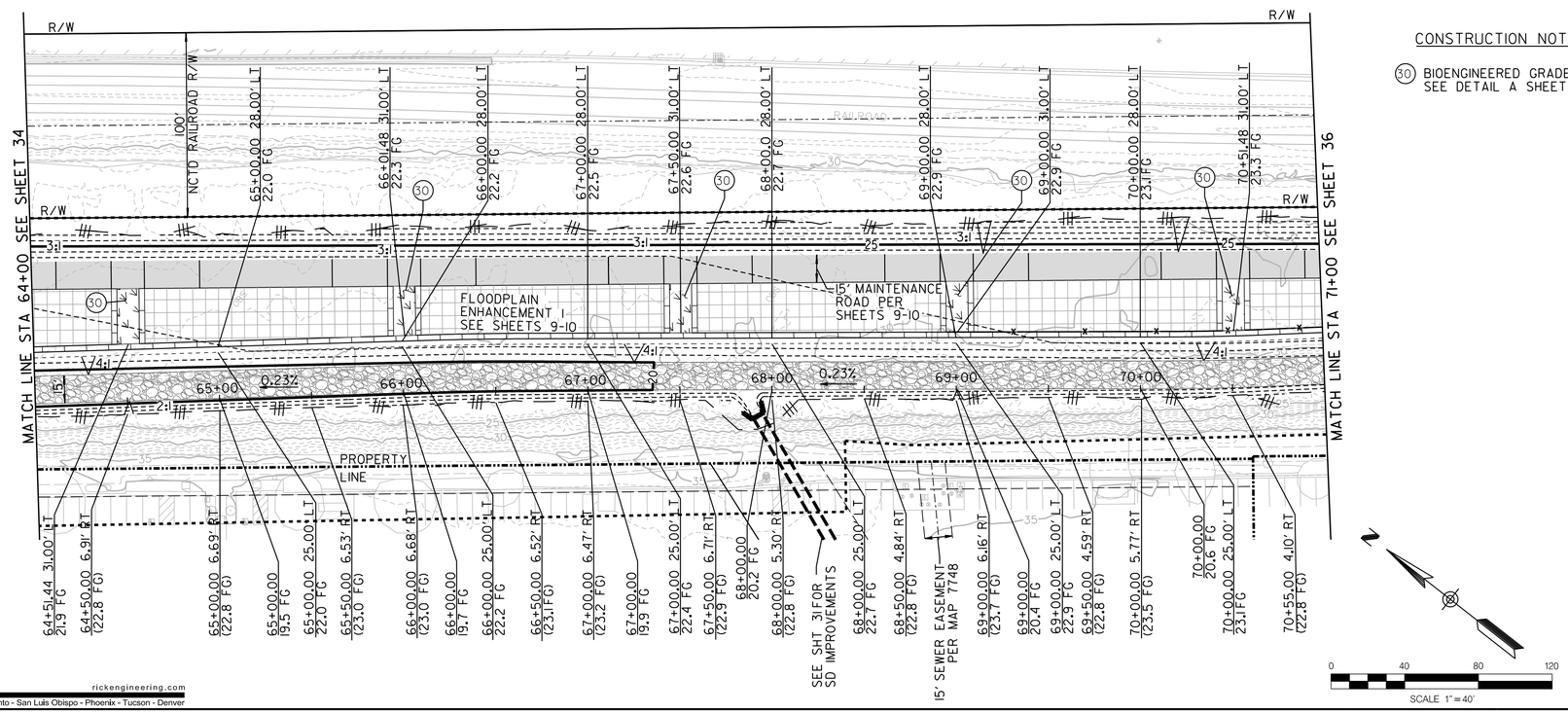


Alignment: ChannelBot_FEI_2

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGT
EC	63+36.86	1910544.92	6261464.96	STRAIGHT	S 39° 49'37.07" E	D = 274.98
BC	66+11.83	1910333.75	6261641.07	R = +2000.00	D = 1° 35'16.20" RT	L = 55.43
EC	66+67.26	1910290.69	6261675.97	STRAIGHT	S 38° 14'20.87" E	D = 351.35
BC	70+18.60	1910014.73	6261893.44	R = -1200.00	D = 2° 06'13.74" LT	L = 44.06
EC	70+62.67	1909980.63	6261921.34	STRAIGHT	S 40° 20'34.61" E	D = 37.82
BC	71+00.49	1909951.80	6261945.83	R = +450.00	D = 3° 00'07.39" RT	L = 23.58

Alignment: MaintRd_FEI

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	299+90.00	1910647.58	6261473.88	STRAIGHT	S 38° 35'14.23" E	D = 1238.58
BC	312+28.58	1909679.43	6262246.39	R = -272.81	D = 10° 35'06.84" LT	L = 50.40



CONSTRUCTION NOTES

(30) BIOENGINEERED GRADE CONTROL STRUCTURE SEE DETAIL A SHEET 50

DIGALERT 811

CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIACATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C-31

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 35 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER RONAK REKANI PRINT DCE NAME — DATE — 86523 RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE
0101189-35-D

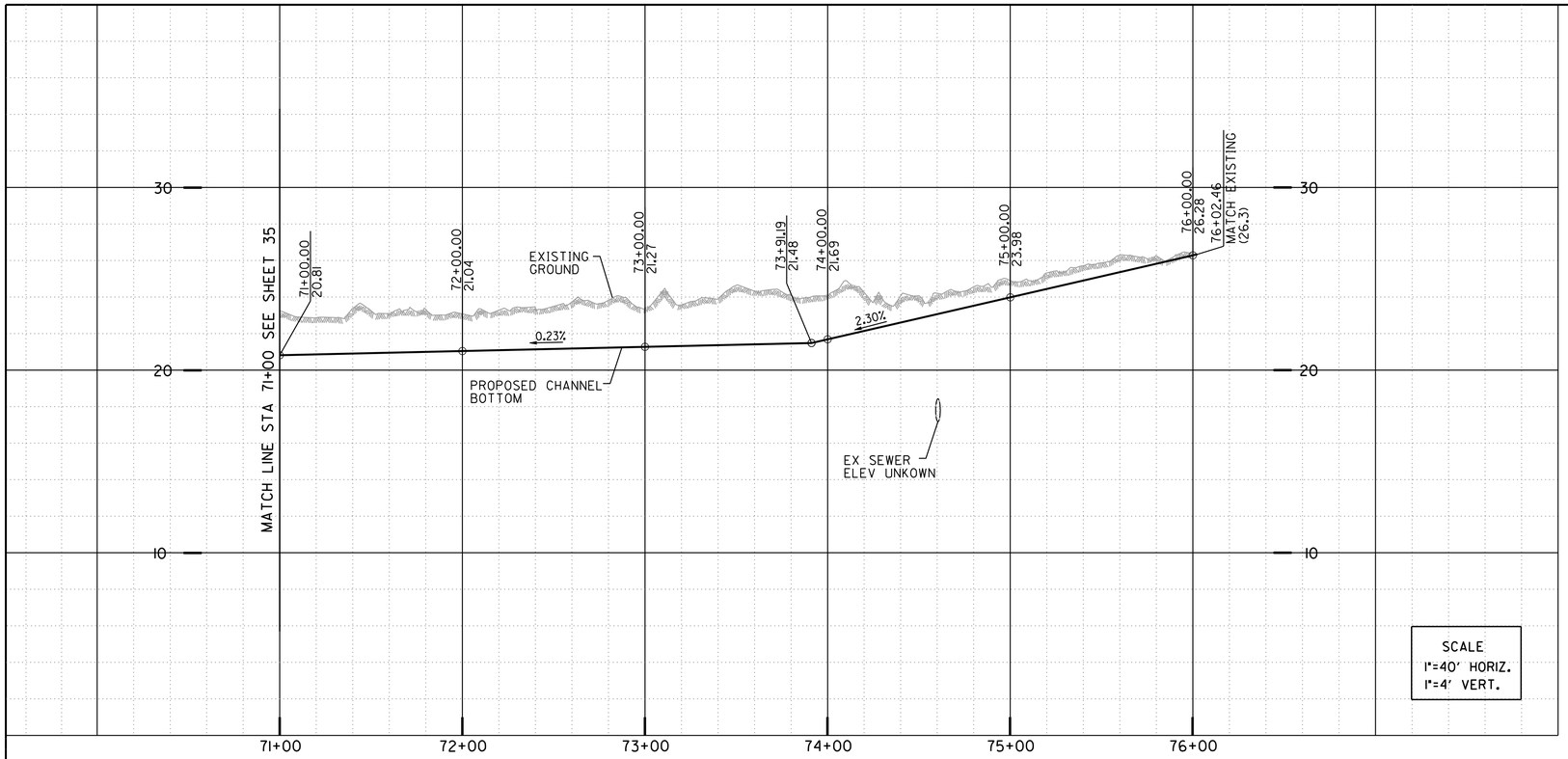
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

02-FEB-2024 18:42 nwhitmore

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

100% SUBMITTAL

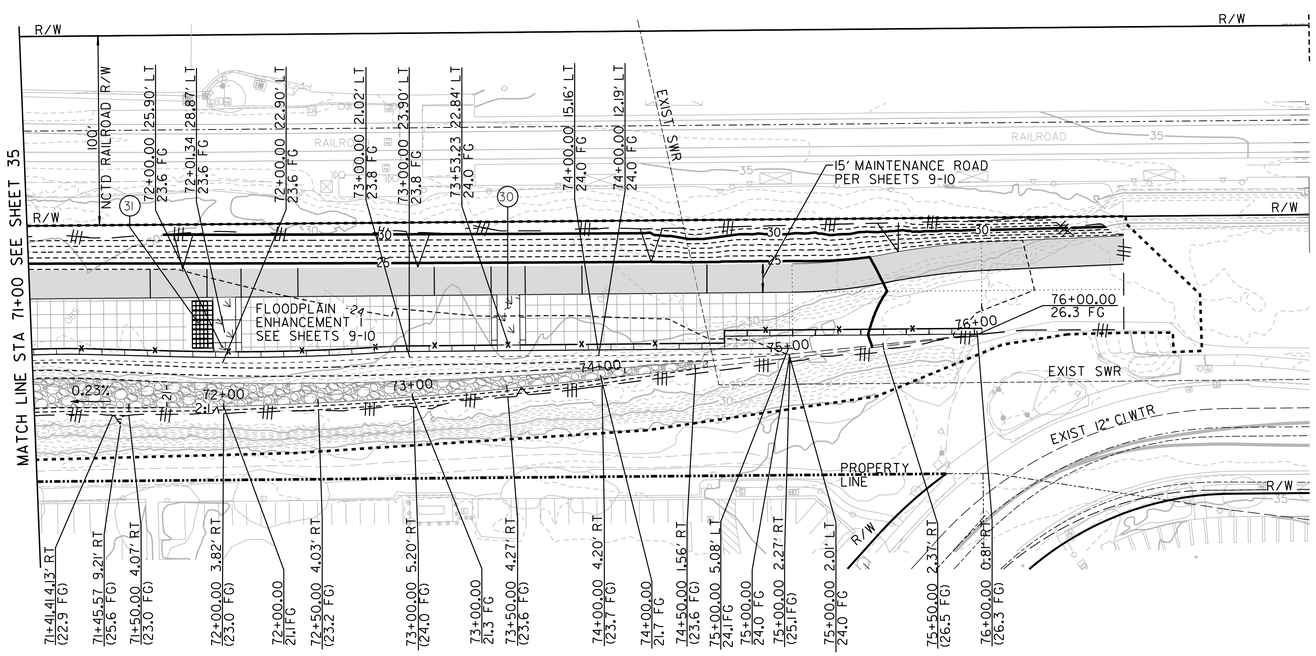


Alignment: ChannelBot_FEI_2

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGT
EC	70+62.67	1909980.63	6261921.34	STRAIGHT	S 40° 20'34.61" E	D = 37.82
BC	71+00.49	1909951.80	6261945.83	R = +450.00	D = 3° 00'07.39" RT	L = 23.58
PRC	71+24.07	1909933.44	6261960.61	R = -2000.00	D = 6° 56'36.62" LT	L = 242.37
EC	73+66.44	1909750.11	6262118.93	STRAIGHT	S 44° 17'03.84" E	D = 24.75
PI	73+91.19	1909732.40	6262136.21	STRAIGHT	S 44° 17'03.84" E	D = 110.79
PI	75+01.98	1909653.08	6262213.57	STRAIGHT	S 45° 14'35.55" E	D = 100.53
POE	76+02.52	1909582.30	6262284.95			

Alignment: MaintRd_FEI

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	299+90.00	1910647.58	6261473.88	STRAIGHT	S 38° 35'14.23" E	D = 1238.58
BC	312+28.58	1909679.43	6262246.39	R = -272.81	D = 10° 35'06.84" LT	L = 50.40
PRC	312+78.98	1909643.16	6262281.28	R = +372.26	D = 8° 34'32.88" RT	L = 55.72
EC	313+34.70	1909603.72	6262320.56	STRAIGHT	S 40° 35'48.18" E	D = 79.93
POE	314+14.63	1909543.02	6262372.57			



CONSTRUCTION NOTES

(30) BIOENGINEERED GRADE CONTROL STRUCTURE SEE DETAIL A SHEET 50

(31) INSTALL TRASH CAPTURE DEVICE SEE DETAIL B SHEET 50

DIGALERT 811

CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIACATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C-32

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 36 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

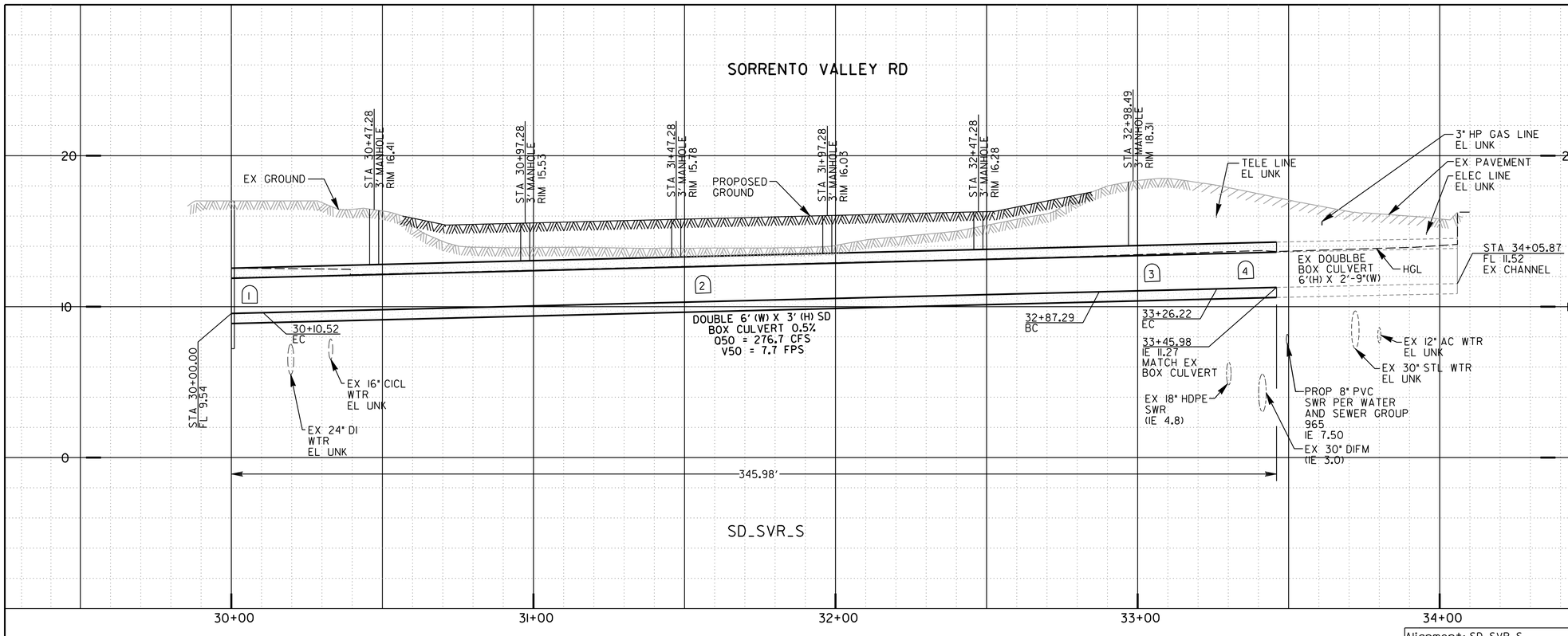
0101189-36-D

0 40 80 120
SCALE 1"=40'

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

LOW FLOW CHANNEL PLAN AND PROFILE – PHASE 1A

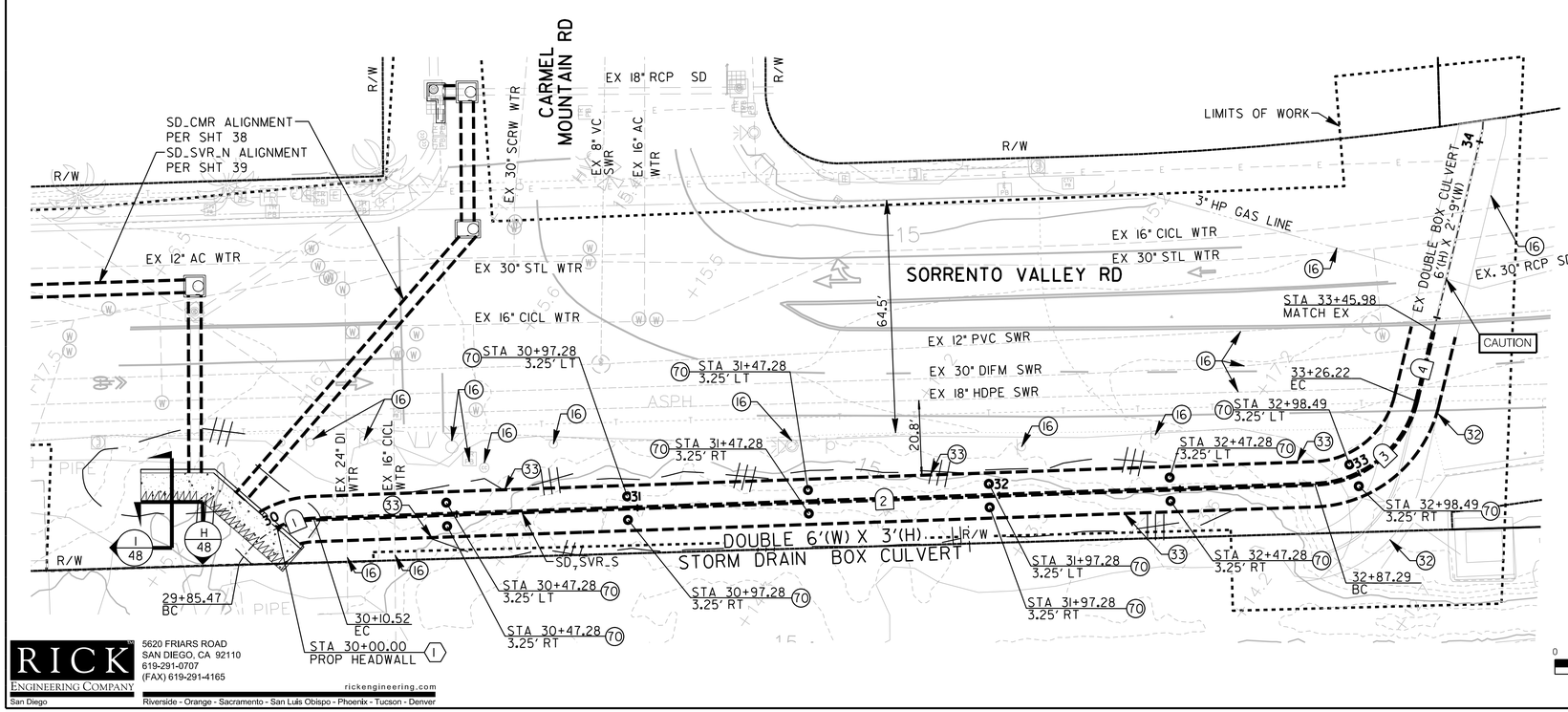
100% SUBMITTAL



STORM DRAIN DATA TABLE				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	Δ =24° 07'09"RT	25.00'	10.52'	DOULBE BOX CULVERT 6'(W) X 3' (H)
2	S88° 34'48"E		276.76'	DOULBE BOX CULVERT 6'(W) X 3' (H)
3	Δ =74° 21'48"LT	30.00'	38.94'	DOULBE BOX CULVERT 6'(W) X 3' (H)
4	N77° 48'11"E		19.76'	DOULBE BOX CULVERT 6'(W) X 3' (H)

STRUCTURE DATA TABLE				
NO.	STA	NORTHING	EASTING	REMARKS
1	30+00.00	1914655.98	6258617.92	MOD STRAIGHT HEADWALL PER D-30

Alignment: SD_SVR_S						
POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB/BC	29+85.47	1914659.00	6258603.91	R = +25.00	Δ = 57° 25'00" RT	L = 25.05
EC	30+10.52	1914649.15	6258625.82	STRAIGHT	S 37° 05'45" E	D = 276.76
BC	32+87.29	1914428.40	6258792.75	R = -30.00	Δ = 74° 21'48" LT	L = 38.94
EC	33+26.22	1914418.57	6258827.65	STRAIGHT	N 68° 32'27" E	D = 19.76
PI	33+45.98	1914425.80	6258846.04	STRAIGHT	N 68° 32'27" E	D = 57.49
PI	34+03.48	1914446.84	6258899.55	STRAIGHT	N 58° 22'25" E	D = 2.43
POE	34+05.90	1914448.11	6258901.62			



CONSTRUCTION NOTES

(16) PROTECT IN PLACE

(32) REMOVE PORTION OF EX STORM DRAIN RCB

(33) INSTALL 6'(H)X3'(W) DOUBLE BOX CULVERT PER CITY OF SAN DIEGO STD DWG D-77C

(70) INSTALL MANHOLE RISER PER CALTRANS STANDARD PLAN D-82 AND MANHOLE FRAME PER CITY OF SAN DIEGO STD. DWG. M-03A

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIACATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DRAFT - NOT FOR CONSTRUCTION

C-33

DIGALERT 811

CALL 811 BEFORE YOU DIG

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

STORM DRAIN PLAN AND PROFILE – PHASE 1A

SORRENTO VALLEY RD

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 37 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER RONAK REKANI PRINT DCE NAME — DATE — 86523 RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
274-1695 CCS27 COORDINATE
1914-6255 CCS83 COORDINATE
0101189-37-D

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

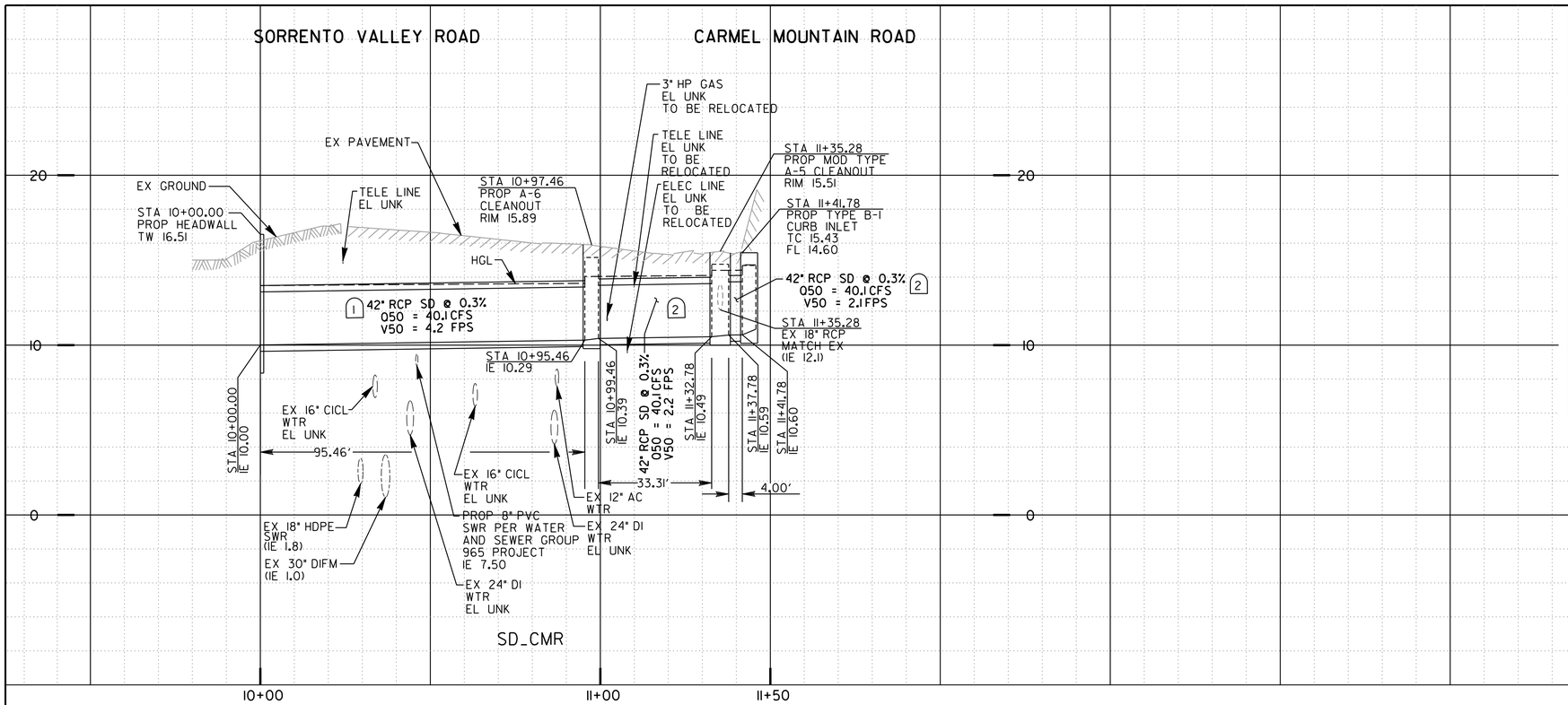
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

PLAN AND PROFILE

100% SUBMITTAL

02-FEB-2024 18:42 nwhitmore



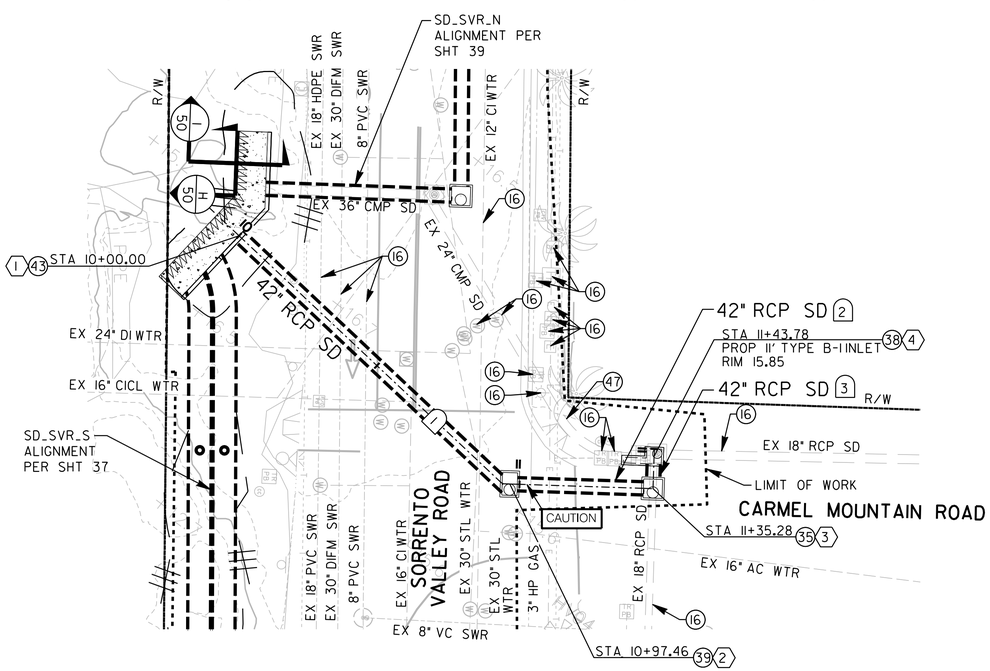
STORM DRAIN DATA TABLE				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	S84° 02'02"E		95.46'	42" RCP (2000-D)
2	N54° 32'48"E		33.31'	42" RCP (2000-D)
3	N34° 32'48"W		4.00'	42" RCP (2000-D)

STRUCTURE DATA TABLE				
NO.	STA	NORTHING	EASTING	REMARKS
1	10+00.00	1914669.18	6258619.30	MODIFIED STRAIGHT HEADWALL PER D-30
2	10+97.46	1914660.42	6258715.87	TYPE A6 CO
3	11+35.28	1914682.36	6258746.67	MOD TYPE A5 CO (Y=5')
4	11+43.78	1914689.29	6258741.75	TYPE B-1 INLET (L=11')

Alignment: SD_CMR

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	9+80.00	1914671.26	6258599.40	STRAIGHT	S 84° 02'02" E	D = 20.00
PI	10+00.00	1914669.18	6258619.30	STRAIGHT	S 84° 02'02" E	D = 95.46
PI	10+95.46	1914659.26	6258714.24	STRAIGHT	N 54° 32'48" E	D = 2.00
PI	10+97.46	1914660.42	6258715.87	STRAIGHT	N 54° 32'48" E	D = 2.00
PI	10+99.46	1914661.58	6258717.50	STRAIGHT	N 54° 32'48" E	D = 33.31
PI	11+32.78	1914680.91	6258744.64	STRAIGHT	N 54° 32'48" E	D = 2.50
PI	11+35.28	1914682.36	6258746.67	STRAIGHT	N 35° 27'12" W	D = 2.50
PI	11+37.78	1914684.39	6258745.22	STRAIGHT	N 35° 27'12" W	D = 4.00
PI	11+41.78	1914687.65	6258742.90	STRAIGHT	N 35° 08'14" W	D = 2.00
PI	11+43.78	1914689.29	6258741.75	STRAIGHT	N 35° 08'14" W	D = 2.00
POE	11+45.78	1914690.92	6258740.60			

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



CONSTRUCTION NOTES

16 PROTECT IN PLACE

35 INSTALL MOD A5 (5'X5') STORM DRAIN CLEANOUT PER CITY OF SAN DIEGO STD. DWG. D-09.

38 INSTALL TYPE B-1 INLET PER CITY OF SAN DIEGO STD. DWG. SDD-116

39 INSTALL A6 STORM DRAIN CLEANOUT PER CITY OF SAN DIEGO STD DWG. D-09

43 INSTALL MOD STRAIGHT HEADWALL PER CITY OF SAN DIEGO STD. DWG. D-30

47 ABANDON EXIST. STORM DRAIN

70 INSTALL MANHOLE RISER PER CALTRANS STANDARD PLAN D-82 AND MANHOLE FRAME PER CITY OF SAN DIEGO STD. DWG. M-03A

DIGALERT 811
CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

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DRAFT - NOT FOR CONSTRUCTION

C-34

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

STORM DRAIN PLAN AND PROFILE – PHASE 1A

SORRENTO VALLEY RD

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 38 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
274-1695 CCS27 COORDINATE
1914-6255 CCS83 COORDINATE
0101189-38-D

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

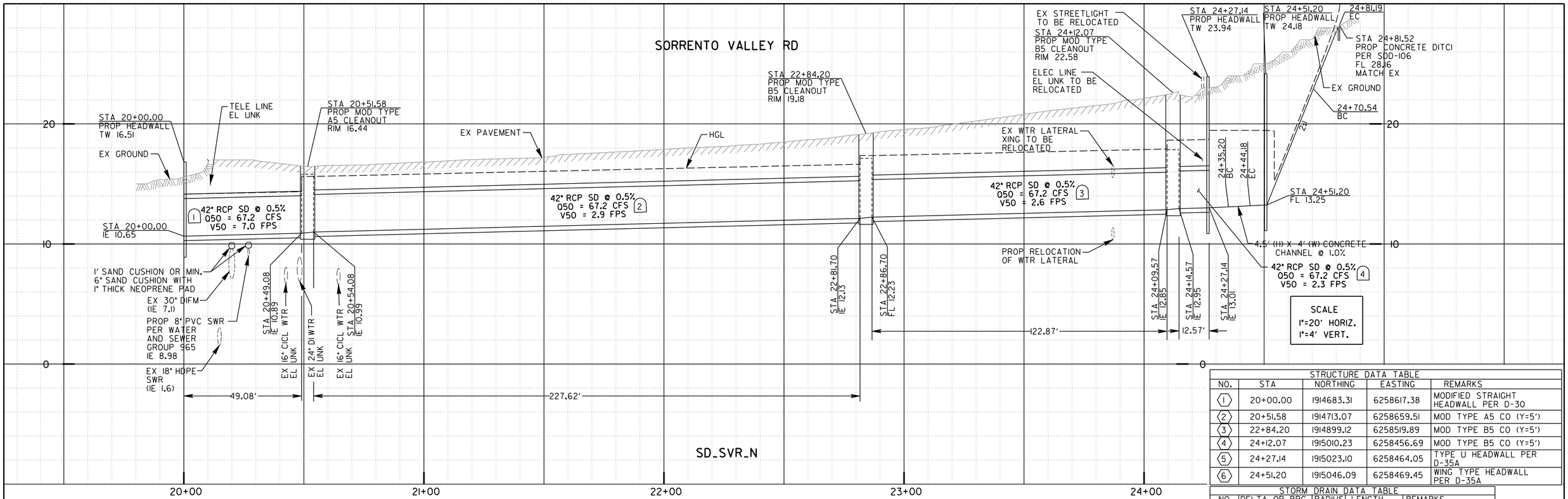
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SCALE 1"=20'

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
San Diego — Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

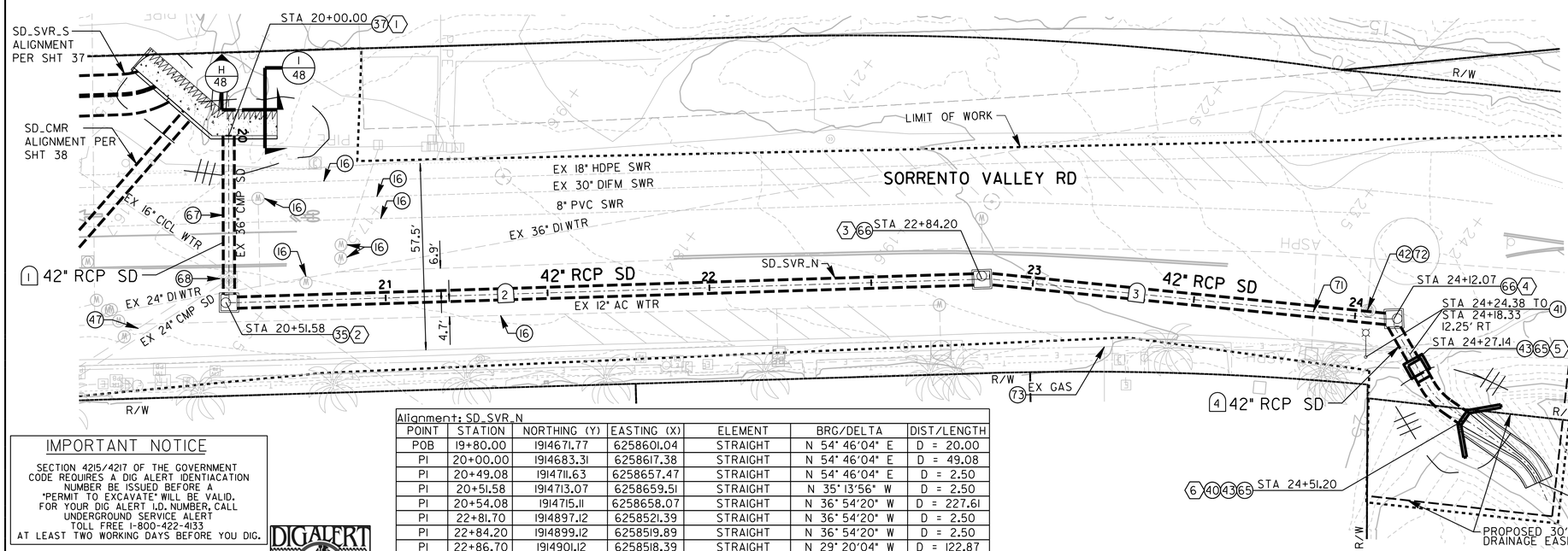
PLAN AND PROFILE

100% SUBMITTAL



STRUCTURE DATA TABLE				
NO.	STA	NORTHING	EASTING	REMARKS
1	20+00.00	1914683.31	6258617.38	MODIFIED STRAIGHT HEADWALL PER D-30
2	20+51.58	1914713.07	6258659.51	MOD TYPE A5 CO (Y=5')
3	22+84.20	1914899.12	6258519.89	MOD TYPE B5 CO (Y=5')
4	24+12.07	1915010.23	6258456.69	MOD TYPE B5 CO (Y=5')
5	24+27.14	1915023.10	6258464.05	TYPE U HEADWALL PER D-35A
6	24+51.20	1915046.09	6258469.45	WING TYPE HEADWALL PER D-35A

STORM DRAIN DATA TABLE				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N54° 46'04"W		49.08'	42" RCP (2000-D)
2	S36° 54'20"E		227.61'	42" RCP (2000-D)
3	S29° 20'04"E		122.87'	42" RCP (2000-D)
4	N25° 14'45"E		12.57'	42" RCP (2000-D)



CONSTRUCTION NOTES

16 PROTECT IN PLACE

35 INSTALL MOD A5 (5'X5') STORM DRAIN CLEANOUT PER CITY OF SAN DIEGO STD. DWG. D-09

37 INSTALL MOD STRAIGHT HEADWALL PER D-30

40 INSTALL CONCRETE DITCH TYPE D PER CITY OF SAN DIEGO STD. DWG SDD-106

41 RELOCATE EX STREET LIGHT

42 REMOVE AND RE-INSTALL EX WATER APPURTENANCES

43 INSTALL WING TYPE HEADWALL PER D-35A

47 ABANDON EX STORM DRAIN

65 MOD RECTANGULAR CONCRETE CHANNEL 4.5' (W) X 4' (H) PER SDD-108

66 INSTALL MOD B5 (5'X5') STORM DRAIN CLEANOUT PER CITY OF SAN DIEGO STD. DWG. D-10

67 REMOVE EXIST. 36" CMP AND REPLACE WITH 42" RCP

68 REMOVE EXIST. TYPE F CATCH BASIN

71 RELOCATE EX WATER LATERAL

72 REMOVE AND RE-INSTALL EX WATER LATERAL

73 CUT AND CAP EX 3" GAS 5' BEYOND SERVICE LINE

0 20 40 60
SCALE 1"=20'

DRAFT - NOT FOR CONSTRUCTION

C-35

Alignment: SD_SVR_N						
POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	19+80.00	1914671.77	6258601.04	STRAIGHT	N 54° 46'04" E	D = 20.00
PI	20+00.00	1914683.31	6258617.38	STRAIGHT	N 54° 46'04" E	D = 49.08
PI	20+49.08	1914711.63	6258657.47	STRAIGHT	N 54° 46'04" E	D = 2.50
PI	20+51.58	1914713.07	6258659.51	STRAIGHT	N 35° 13'56" W	D = 2.50
PI	20+54.08	1914715.11	6258658.07	STRAIGHT	N 36° 54'20" W	D = 227.61
PI	22+81.70	1914897.12	6258521.39	STRAIGHT	N 36° 54'20" W	D = 2.50
PI	22+84.20	1914899.12	6258519.89	STRAIGHT	N 36° 54'20" W	D = 2.50
PI	22+86.70	1914901.12	6258518.39	STRAIGHT	N 29° 20'04" W	D = 122.87
PI	24+09.57	1915008.23	6258458.19	STRAIGHT	N 36° 54'20" W	D = 2.50
PI	24+12.07	1915010.23	6258456.69	STRAIGHT	N 53° 05'40" E	D = 2.50
PI	24+14.57	1915011.73	6258458.69	STRAIGHT	N 25° 14'45" E	D = 12.57
PI	24+27.14	1915023.10	6258464.05	STRAIGHT	N 25° 14'43" E	D = 4.06
PI	24+31.20	1915026.77	6258465.78	STRAIGHT	N 25° 33'45" E	D = 4.00
BC	24+35.20	1915030.38	6258467.51	R = -20.00	Δ = 25° 42'56" LT	L = 8.98

Alignment: SD_SVR_N (CONTINUED)						
POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
EC	24+44.18	1915039.07	6258469.46	STRAIGHT	N 0° 09'12" W	D = 7.02
PI	24+51.20	1915046.09	6258469.45	STRAIGHT	Δ N 0° 09'12" W	D = 19.35
BC	24+70.54	1915065.43	6258469.39	R = +20.00	D = 30° 30'12" RT	L = 10.65
EC	24+81.19	1915075.59	6258472.14	STRAIGHT	N 30° 21'00" E	D = 6.90
POE	24+88.09	1915081.55	6258475.62			

IMPORTANT NOTICE

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DIGALERT 811

CALL 811 BEFORE YOU DIG

RICK ENGINEERING COMPANY
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SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

CONTRACTOR
INSPECTOR

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

NTP DATE
NOC DATE

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

STORM DRAIN PLAN AND PROFILE – PHASE 1A

SORRENTO VALLEY RD

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 39 OF 103 SHEETS

WBS B-17033

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

274-1695
CCS27 COORDINATE

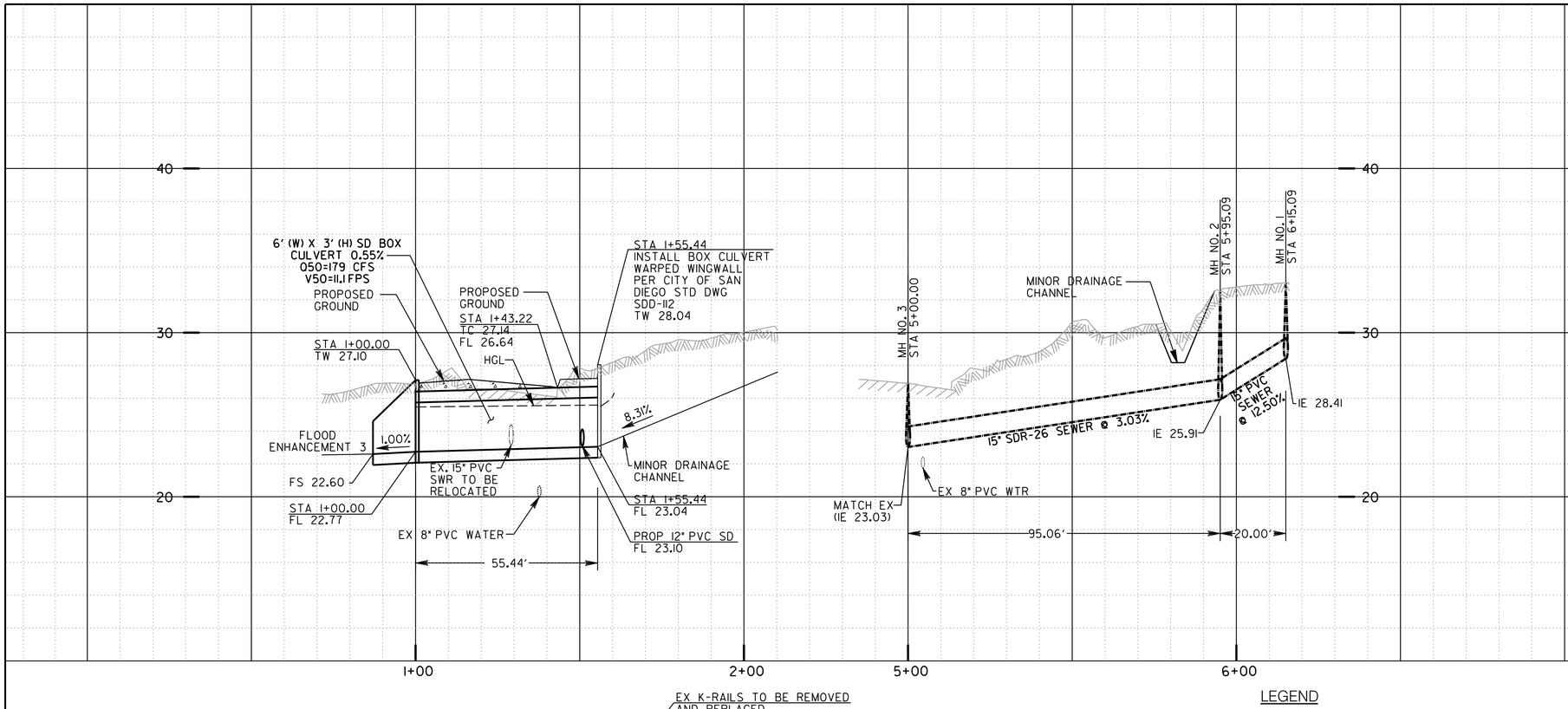
1914-6255
CCS83 COORDINATE

0101189-39-D

PLAN AND PROFILE

100% SUBMITTAL

02-FEB-2024 19:00 nwhitmore



Alignment: SWR_Flintkote_Crossing

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	4+85.00	191107 6.96	6260046.64	STRAIGHT	N 14° 23'23" W	D = 15.00
PI	5+00.00	191109 1.49	6260042.91	STRAIGHT	S 86° 42'51" W	D = 95.09
PI	5+95.09	191108 6.04	6259947.97	STRAIGHT	S 15° 23'57" W	D = 20.00
PI	6+15.09	191106 6.76	6259942.66	STRAIGHT	S 15° 23'57" W	D = 15.00
POE	6+30.09	191105 2.30	6259938.68			

Alignment: SD_Flintkote_Crossing

POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	0+71.41	191116 5.96	6260081.03	STRAIGHT	S 73° 48'01" W	D = 28.59
PI	1+00.00	191115 7.98	6260053.58	STRAIGHT	S 53° 19'06" W	D = 55.44
PI	1+55.44	191112 4.87	6260009.12	STRAIGHT	S 53° 12'36" W	D = 52.61
BC	2+08.05	191109 3.36	6259966.99	R = -25.00	Δ = 38° 24'32" LT	L = 16.76
EC	2+24.80	191107 9.73	6259957.79	STRAIGHT	S 14° 48'05" W	D = 16.00
POE	2+40.80	191106 4.26	6259953.70			

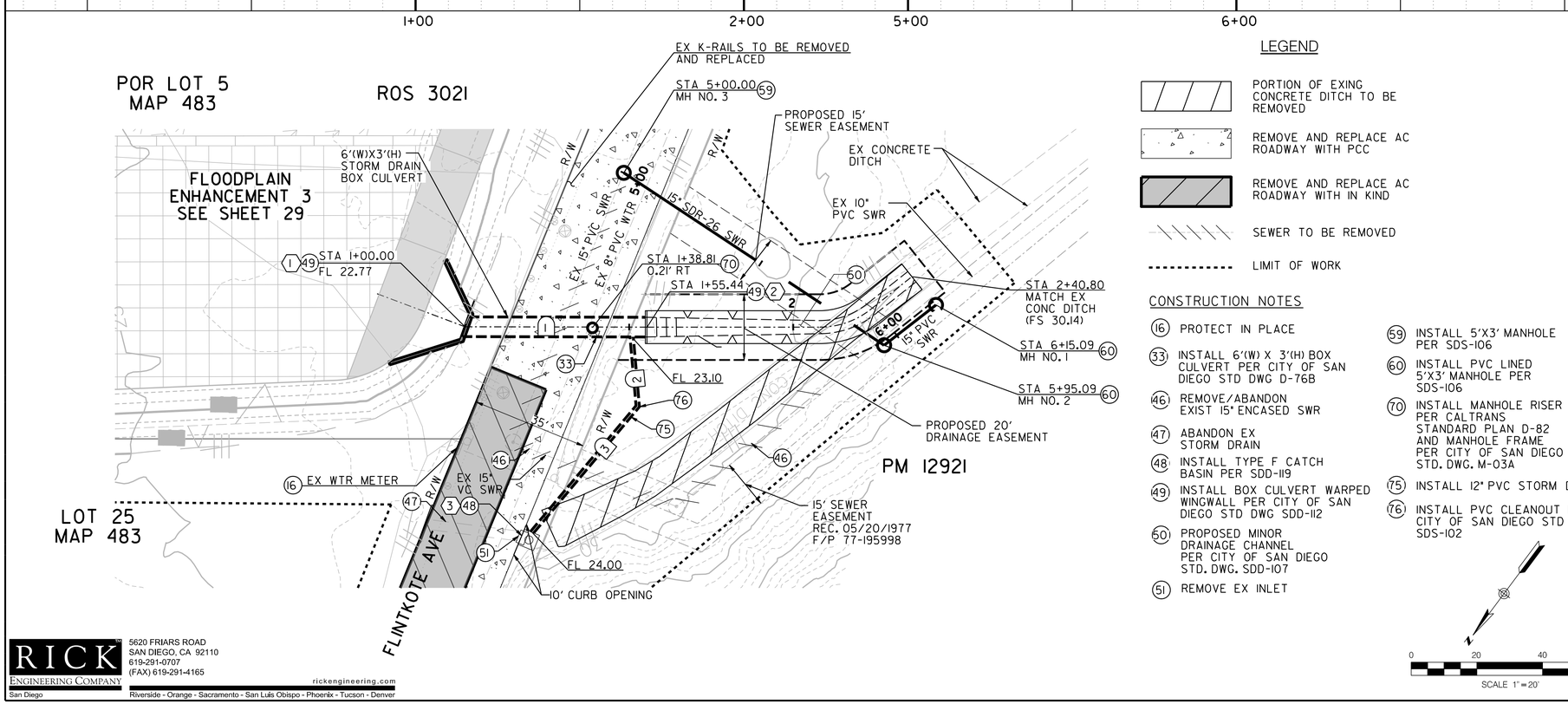
STORM DRAIN DATA TABLE

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	S53° 19'06"W		55.44'	BOX CULVERT 6'(W) X 3'(H)
2	S41° 47'59"E		21.18'	12" PVC PIPE
3	S03° 12'01"E		50.11'	12" PVC PIPE

STRUCTURE DATA TABLE

NO.	STA	NORTHING	EASTING	REMARKS
1	1+00.00	191115 7.98	6260053.58	BOX CULVERT WARPED WINGWALL
2	1+55.44	191112 4.87	6260009.12	BOX CULVERT WARPED WINGWALL
3		191119 9.52	6259998.80	TYPE F CATCH BASIN

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



LEGEND

- PORTION OF EXING CONCRETE DITCH TO BE REMOVED
- REMOVE AND REPLACE AC ROADWAY WITH PCC
- REMOVE AND REPLACE AC ROADWAY WITH IN KIND
- SEWER TO BE REMOVED
- LIMIT OF WORK

CONSTRUCTION NOTES

(16) PROTECT IN PLACE

(33) INSTALL 6'(W) X 3'(H) BOX CULVERT PER CITY OF SAN DIEGO STD DWG D-76B

(46) REMOVE/ABANDON EXIST 15" ENCASED SWR

(47) ABANDON EX STORM DRAIN

(48) INSTALL TYPE F CATCH BASIN PER SDD-119

(49) INSTALL BOX CULVERT WARPED WINGWALL PER CITY OF SAN DIEGO STD DWG SDD-112

(50) PROPOSED MINOR DRAINAGE CHANNEL PER CITY OF SAN DIEGO STD. DWG. SDD-107

(51) REMOVE EX INLET

(59) INSTALL 5'X3' MANHOLE PER SDS-106

(60) INSTALL PVC LINED 5'X3' MANHOLE PER SDS-106

(70) INSTALL MANHOLE RISER PER CALTRANS STANDARD PLAN D-82 AND MANHOLE FRAME PER CITY OF SAN DIEGO STD. DWG. M-03A

(75) INSTALL 12" PVC STORM DRAIN

(76) INSTALL PVC CLEANOUT PER CITY OF SAN DIEGO STD DWG SDS-102

0 20 40 60
SCALE 1"=20'

NOTE
CONTRACTOR SHALL COORDINATE CITY OF SAN DIEGO OPERATIONS DEPARTMENT DURING CONSTRUCTION

DIGALERT 811
CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE
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DRAFT - NOT FOR CONSTRUCTION

C-36

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

STORM DRAIN PLAN AND PROFILE – PHASE 1C

FLINTKOTE AVE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 40 OF 103 SHEETS

WBS B-17033

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

270-1695 CCS27 COORDINATE
1910-6255 CCS83 COORDINATE

0101189-40-D

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523 RCE#
PRINT DCE NAME

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

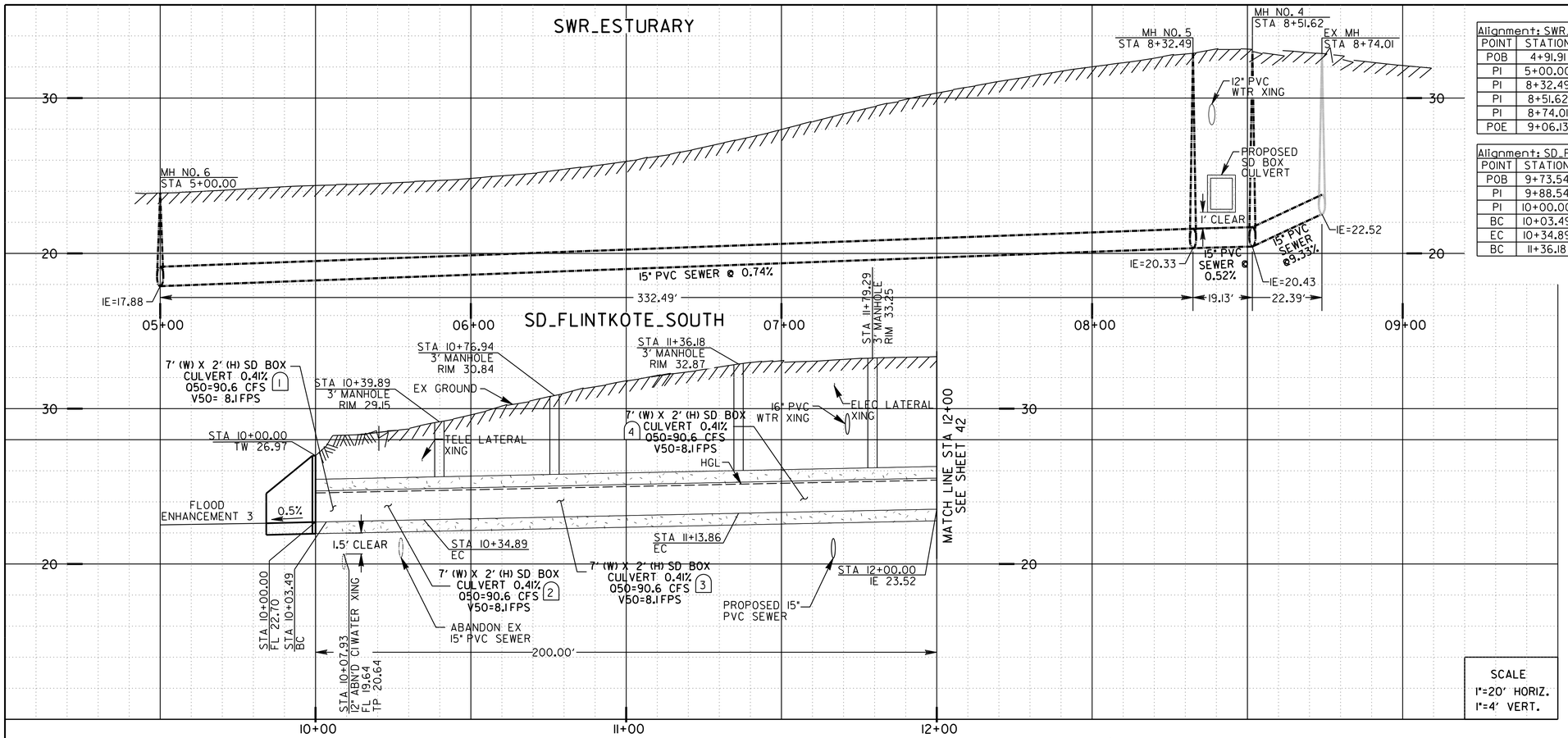
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

PLAN AND PROFILE

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

02-FEB-2024 18:42 nwhitmore

100% SUBMITTAL



Alignment: SWR_Estuary						
POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	4+91.91	1910963.55	6260435.27	STRAIGHT	N 38° 17'01" W	D = 8.09
PI	5+00.00	1910969.90	6260430.25	STRAIGHT	S 53° 09'16" W	D = 332.49
PI	8+32.49	1910770.52	6260164.18	STRAIGHT	N 65° 01'51" W	D = 19.13
PI	8+51.62	1910778.60	6260146.84	STRAIGHT	N 40° 21'41" W	D = 22.39
PI	8+74.01	1910795.66	6260132.34	STRAIGHT	N 37° 49'58" W	D = 32.12
POE	9+06.13	1910821.03	6260112.63			

Alignment: SD_Flintkote_South						
POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
POB	9+73.54	1910911.15	6260242.67	STRAIGHT	S 34° 21'17" E	D = 15.00
PI	9+88.54	1910898.77	6260251.13	STRAIGHT	S 34° 21'17" E	D = 11.46
PI	10+00.00	1910889.31	6260257.60	STRAIGHT	S 36° 47'09" E	D = 3.49
BC	10+03.49	1910886.51	6260259.69	R = +20.00	Δ = 89° 56'25" RT	L = 31.40
EC	10+34.89	1910858.53	6260255.67	STRAIGHT	S 53° 09'16" W	D = 101.29
BC	11+36.18	1910797.79	6260174.61	R = -60.00	Δ = 67° 37'23" LT	L = 70.81

STORM DRAIN DATA TABLE				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	S36° 47'09"E		3.49'	BOX CULVERT 7'(W) X 2'(H)
2	Δ =89° 56'25"RT	20.00'	31.40'	BOX CULVERT 7'(W) X 2'(H)
3	S53° 09'16"W		101.29'	BOX CULVERT 7'(W) X 2'(H)
4	Δ =60° 56'37"LT	60.00'	63.82'	BOX CULVERT 7'(W) X 2'(H)

STRUCTURE DATA TABLE				
NO.	STA	NORTHING	EASTING	REMARKS
1	10+00.00	1910889.31	6260257.60	BOX CULVERT WARPED WINGWALL

LEGEND

SEWER TO BE REMOVED

CONSTRUCTION NOTES

46 REMOVE/ABANDON EXISTING 15" ENCASED SWR

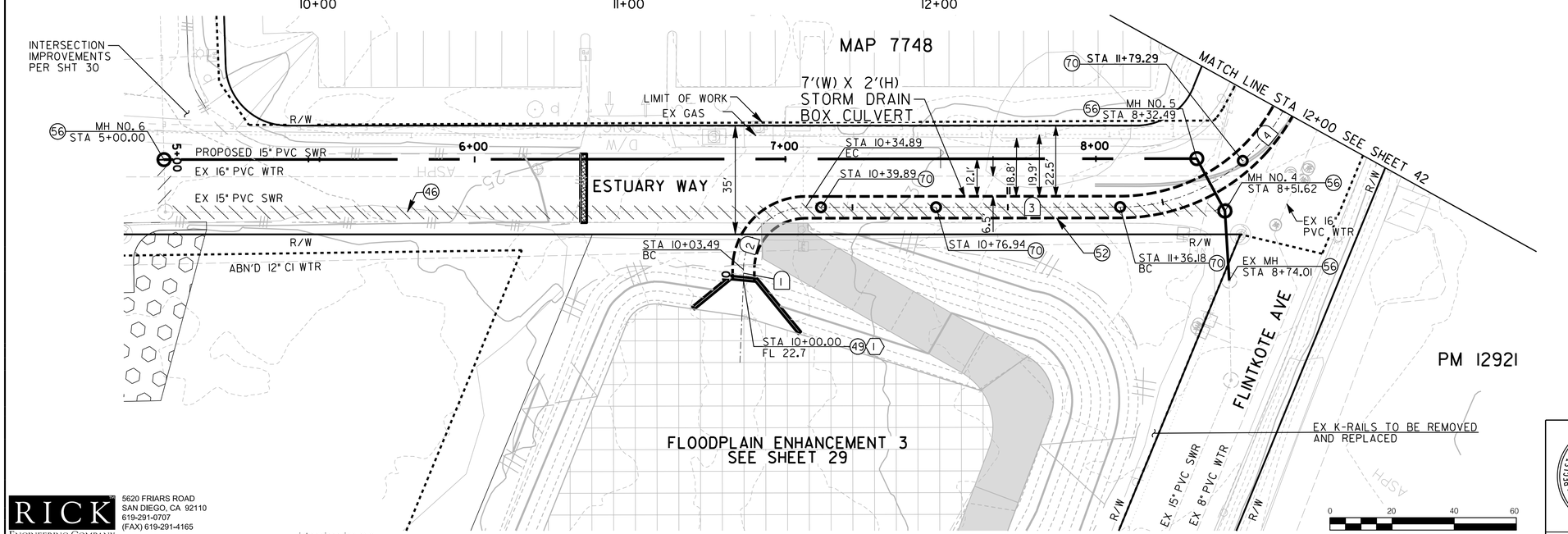
49 INSTALL BOX CULVERT WARPED WINGWALL PER CITY OF SAN DIEGO STD DWG SDD-112

52 INSTALL 7'(W) X2'(H) SINGLE BOX CULVERT PER CITY OF SAN DIEGO STD DWG D-76C

56 CONSTRUCT 5'x3' MANHOLE PER STD DWG NO. SDS-106

70 INSTALL MANHOLE RISER PER CALTRANS STANDARD PLAN D-82 AND MANHOLE FRAME PER CITY OF SAN DIEGO STD. DWG. M-03A

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



DIGALERT 811
CALL 811 BEFORE YOU DIG

IMPORTANT NOTICE

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DRAFT - NOT FOR CONSTRUCTION

C-37

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

STORM DRAIN PLAN AND PROFILE – PHASE 1C

ESTUARY WAY/FLINTKOTE AVE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 41 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT DCE NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
270-1695 CCS27 COORDINATE
1910-6255 CCS83 COORDINATE
0101189-41-D

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

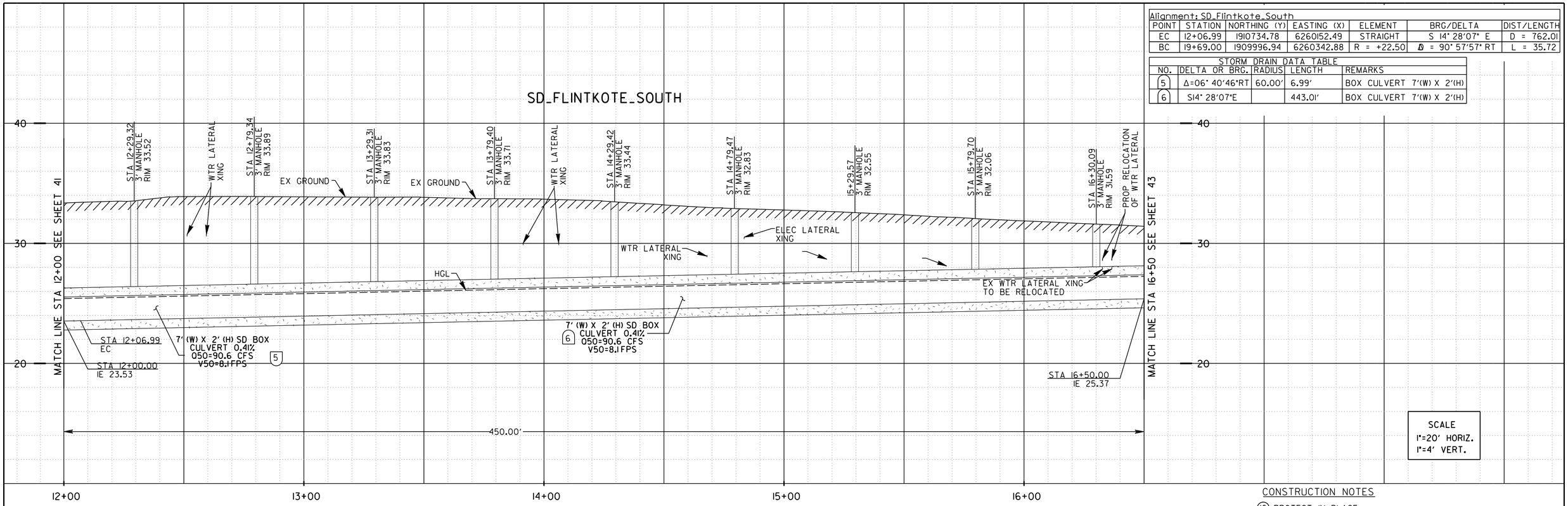
PLAN AND PROFILE

100% SUBMITTAL

02-FEB-2024 18:42 nwhitmore

Alignment: SD_Flintkote_South						
POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
EC	12+06.99	1910734.78	6260152.49	STRAIGHT	S 14° 28'07" E	D = 762.01
BC	19+69.00	1909996.94	6260342.88	R = +22.50	Δ = 90° 57'57" RT	L = 35.72

STORM DRAIN DATA TABLE				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
5	Δ=06° 40'46"RT	60.00'	6.99'	BOX CULVERT 7'(W) X 2'(H)
6	S14° 28'07"E		443.01'	BOX CULVERT 7'(W) X 2'(H)



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

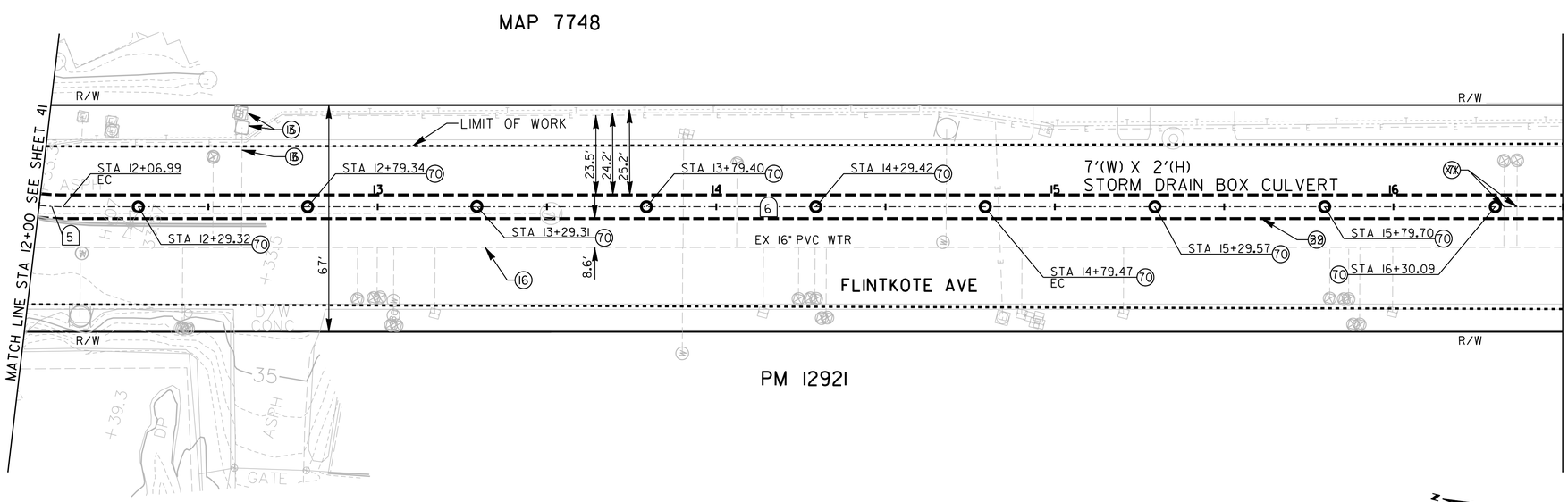
CONSTRUCTION NOTES

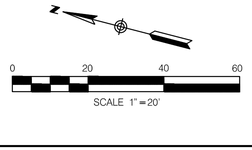
(16) PROTECT IN PLACE

(52) INSTALL 7'X2' BOX CULVERT PER CALTRANS STANDARD PLAN D-80

(70) INSTALL MANHOLE RISER PER CALTRANS STANDARD PLAN D-82 AND MANHOLE FRAME PER CITY OF SAN DIEGO STD. DWG. M-03A

(71) RELOCATE EX WATER LATERAL





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DRAFT - NOT FOR CONSTRUCTION

C-38

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

STORM DRAIN PLAN AND PROFILE – PHASE 1C

FLINTKOTE AVE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 42 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86623
PRINT DCE NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

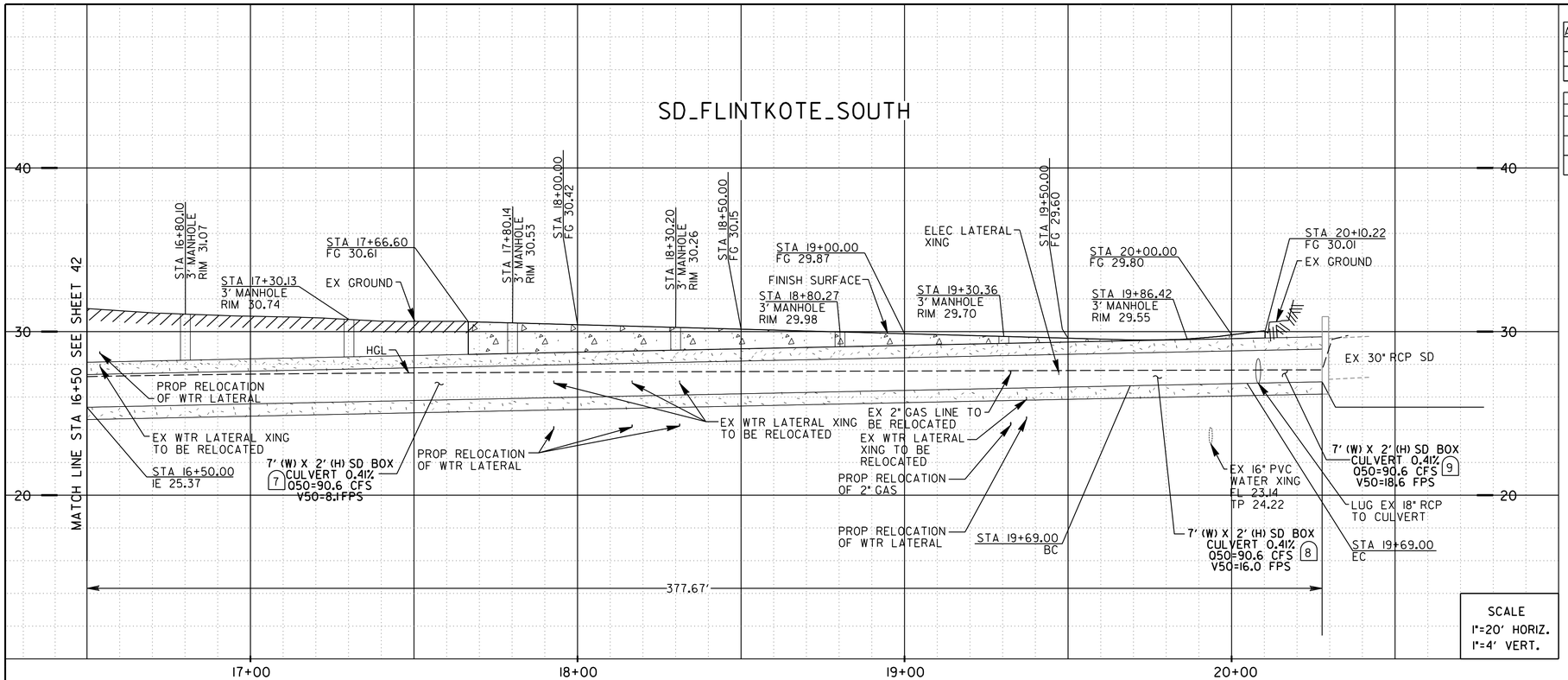
SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
270-1695 CCS27 COORDINATE
1910-6255 CCS83 COORDINATE
0101189-42-D

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

PLAN AND PROFILE

100% SUBMITTAL



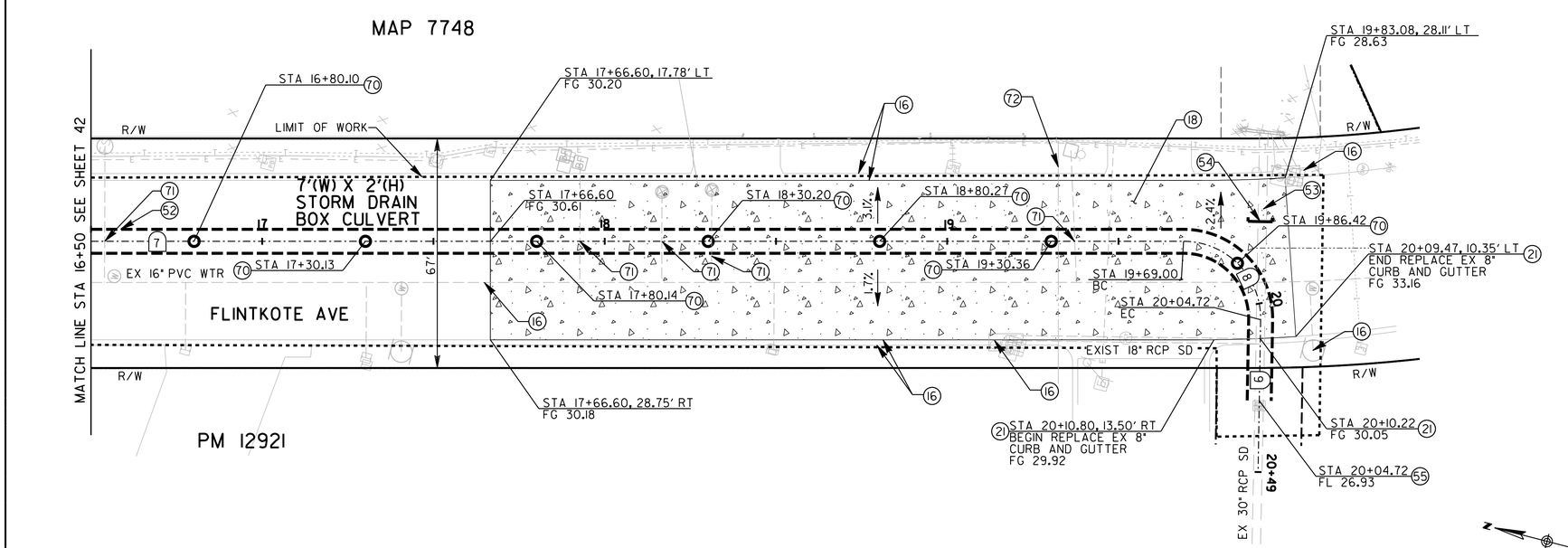
Alignment: SD_Flintkote_South						
POINT	STATION	NORTHING (Y)	EASTING (X)	ELEMENT	BRG/DELTA	DIST/LENGTH
EC	20+04.72	1909969.44	6260326.35	STRAIGHT	S 76° 29'50" W	D = 44.47
POE	20+49.20	1909959.06	6260283.10			

STORM DRAIN DATA TABLE

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
7	S14° 28'07"E		319.00'	BOX CULVERT 7'(W) X 2'(H)
8	Δ =90° 57'57"RT	22.50'	35.72'	BOX CULVERT 7'(W) X 2'(H)
9	S76° 29'50"W		23.64'	BOX CULVERT 7'(W) X 2'(H)

CONSTRUCTION NOTES

16 PROTECT IN PLACE
18 REMOVE AND REPLACE AC ROADWAY FROM TC TO TC
21 REPLACE 8" TYPE-G CURB AND GUTTER PER SDG-151
52 INSTALL 7'X2' BOX CULVERT PER CALTRANS STANDARD PLAN D-80
53 REMOVE 42' OF EX 30" RCP
54 CAP EXIST. 30" RCP
55 CONNECT TO EX GRATE INLET
70 INSTALL MANHOLE RISER PER CALTRANS STANDARD PLAN D-82 AND MANHOLE FRAME PER CITY OF SAN DIEGO STD. DWG. M-03A
71 RELOCATE EX WATER LATERAL
72 RELOCATE EX 2" GAS LINE



LEGEND

REMOVE AND REPLACE AC ROADWAY WITH PCC

DIGALERT 811
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DRAFT - NOT FOR CONSTRUCTION

C-39

LOS PENASQUITOS LAGOON RESTORATION – PH. 1

STORM DRAIN PLAN AND PROFILE – PHASE 1C

FLINTKOTE AVE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 43 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER RONAK REKANI PRINT DCE NAME — DATE — 86523 RCE#

SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER

CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER

266-1695 CCS27 COORDINATE

1906-6255 CCS83 COORDINATE

0101189-43-D

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO.52295 STATE OF CALIFORNIA

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SCALE 1"=20'

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

PLAN AND PROFILE

100% SUBMITTAL

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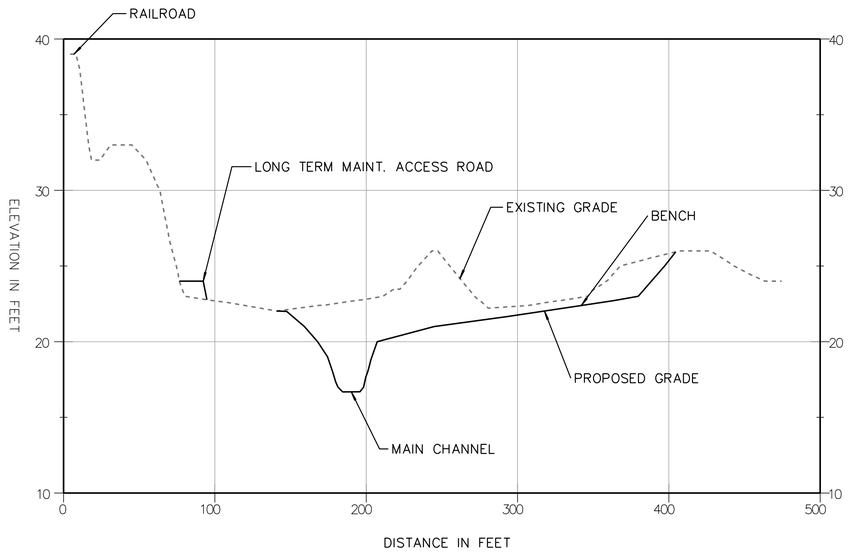
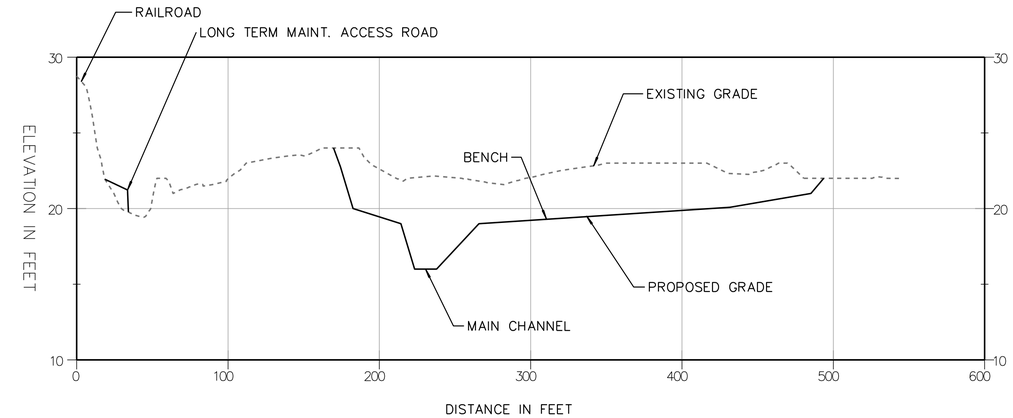
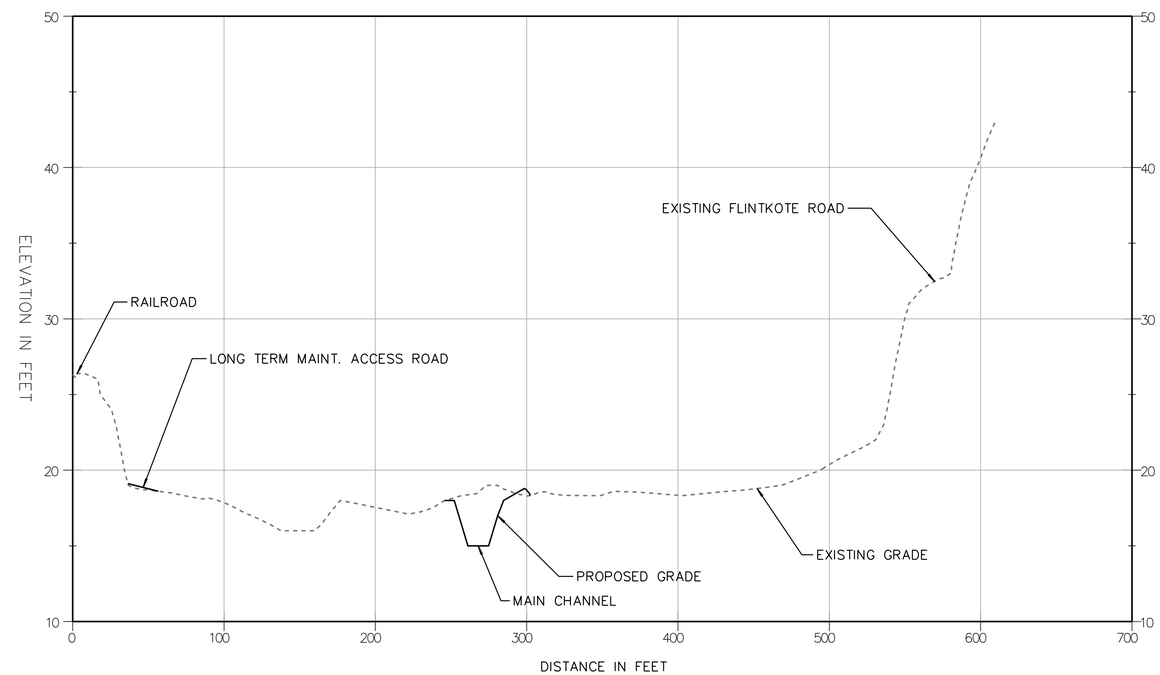


SECTION L–L



SECTION M–M



SECTION N–N

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1" = 5'

C-40

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

CHANNEL CROSS SECTIONS

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 44 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	

SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

REGISTERED PROFESSIONAL ENGINEER — DAVID H. POPE — C69522 — CIVIL — STATE OF CALIFORNIA

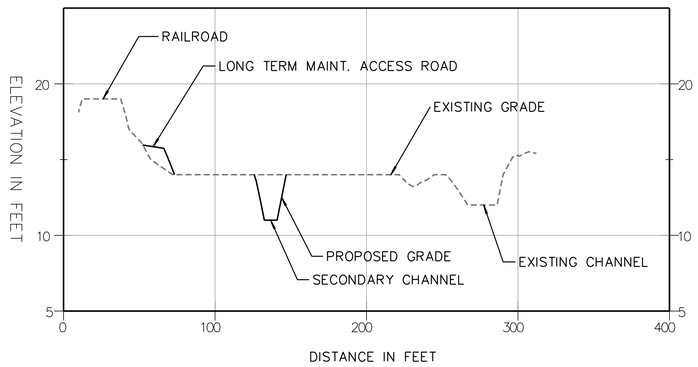
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

0101189-44-D

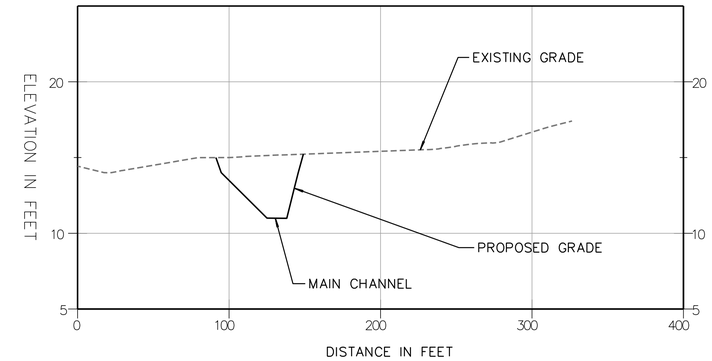
BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

CHANNEL CROSS SECTIONS

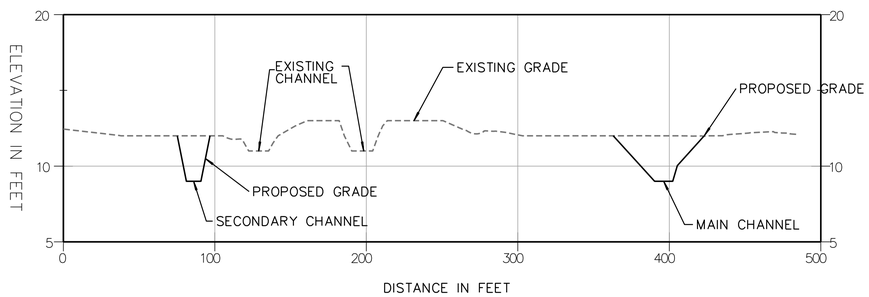
100% SUBMITTAL



SECTION O–O



SECTION P–P



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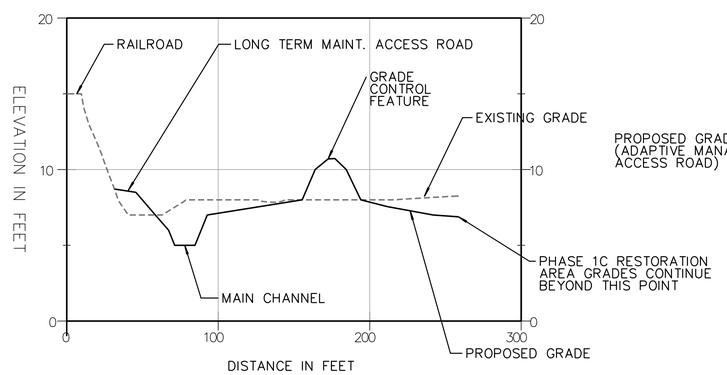
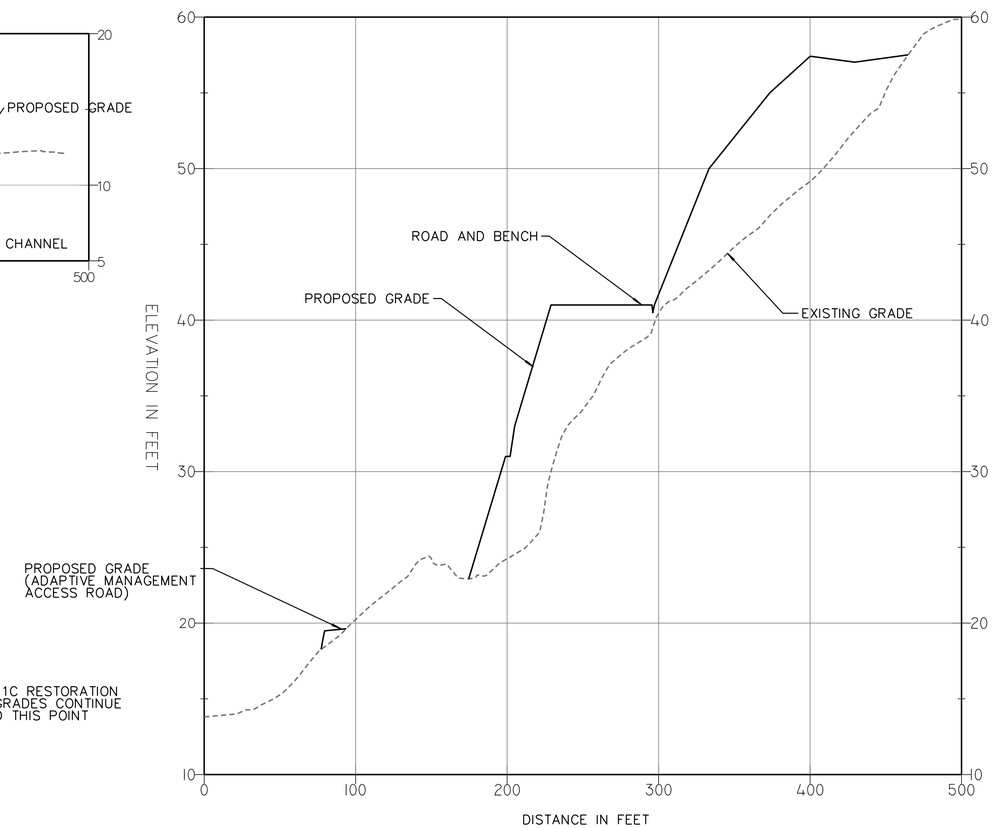


SECTION S–S



SECTION R–R

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1" = 5'

C-41

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

CHANNEL CROSS SECTIONS

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 45 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER — DAVID H. POPE — C69522 — CIVIL — STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	

CCS27 COORDINATE: SEE SHEETS
CCS83 COORDINATE: SEE SHEETS

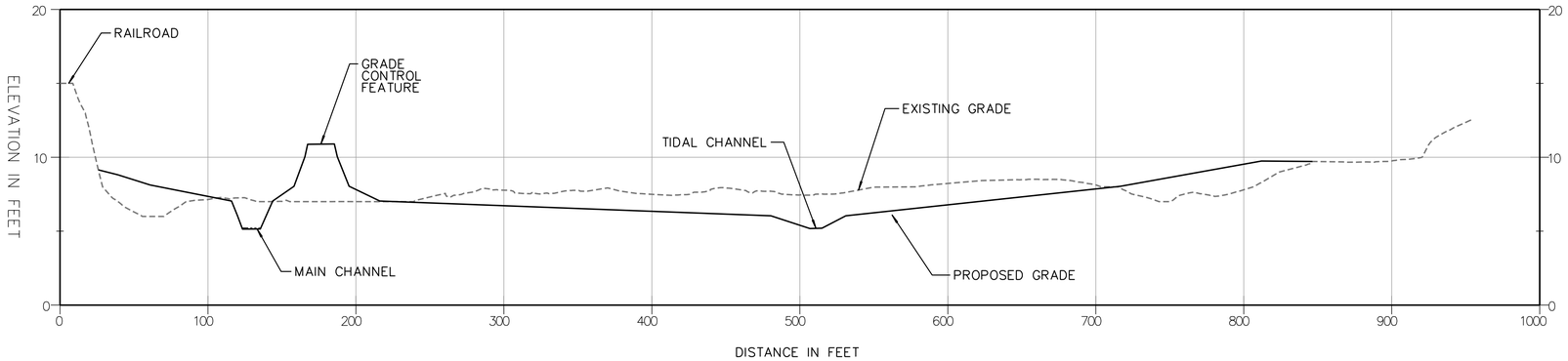
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-45-D

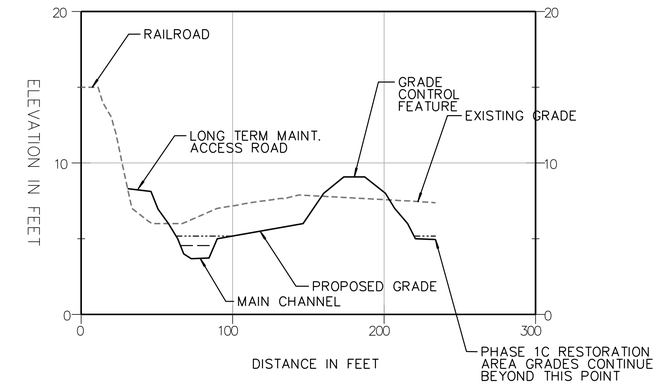
BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

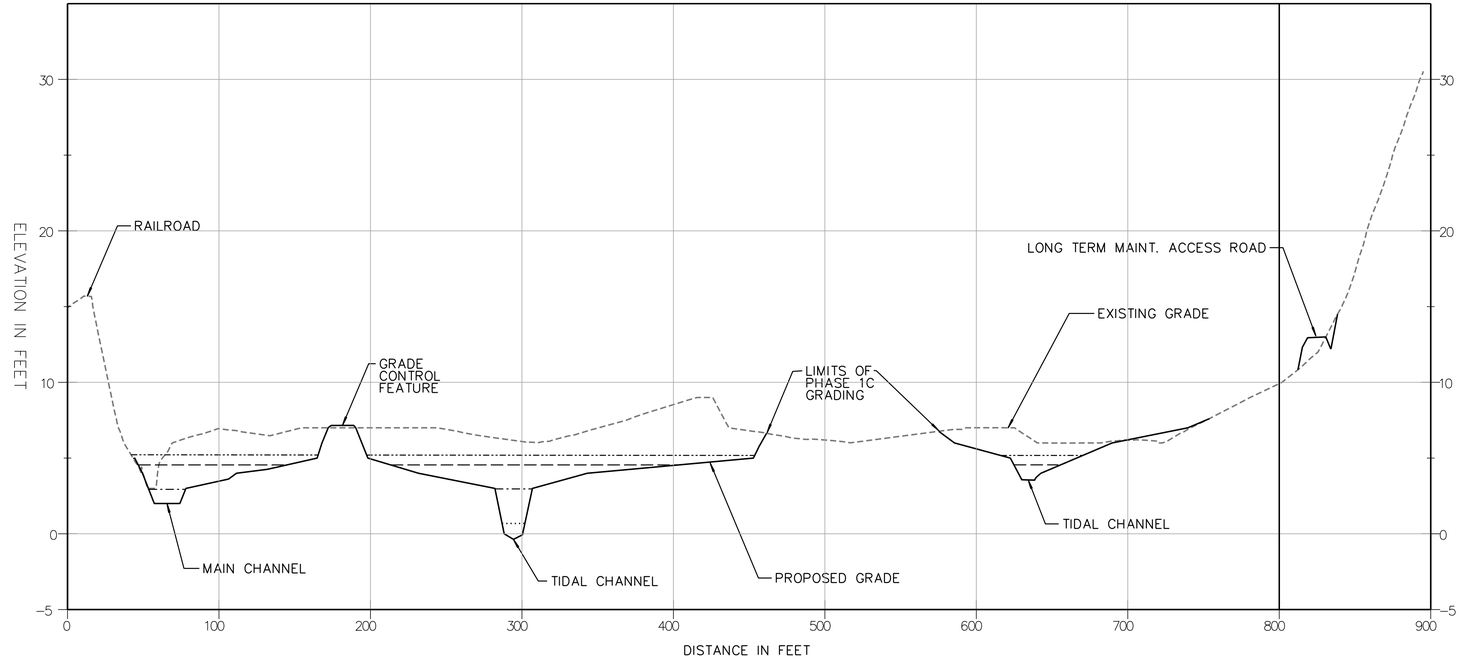
CHANNEL CROSS SECTIONS



SECTION T–T



SECTION U–U



SECTION V–V

WATER LEVEL LEGEND (FEET NGVD29)

- KING TIDE (5.3')
- SPRING HIGH (4.4')
- MHHW (3.0')
- MSL (0.8')
- MLLW (–1.0')

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1" = 5'

C-42

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

CHANNEL CROSS SECTIONS

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 46 OF 103 SHEETS

WBS B-17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE #

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	

SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

REGISTERED PROFESSIONAL ENGINEER DAVID H. PORT C69522 CIVIL STATE OF CALIFORNIA

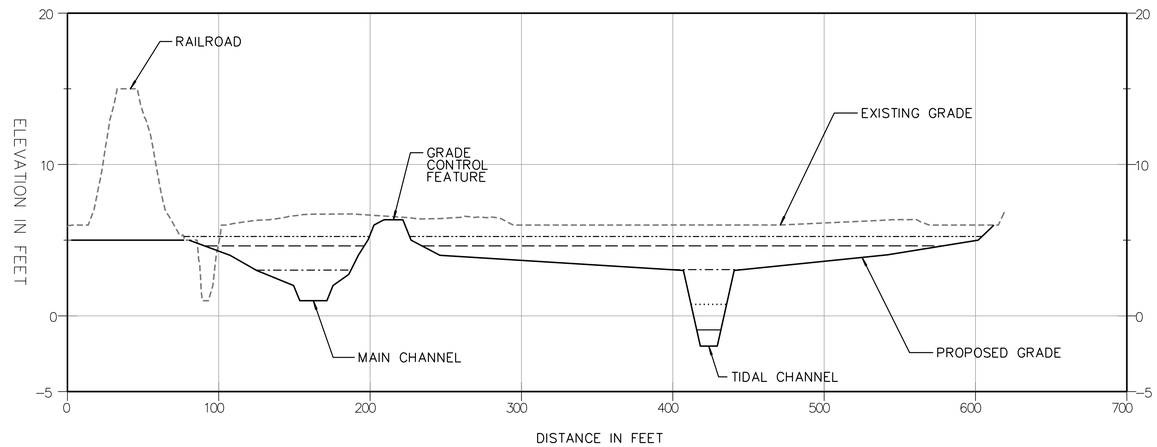
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

0101189-46-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

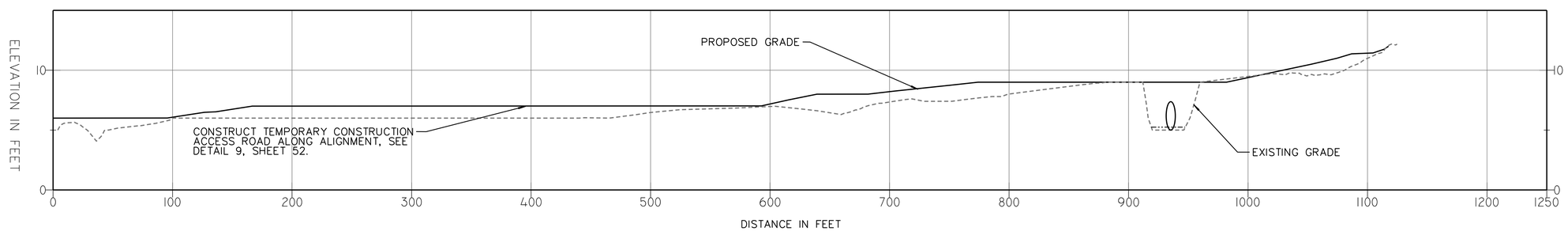
CHANNEL CROSS SECTIONS



SECTION W–W

WATER LEVEL LEGEND (FEET NGVD29)

- KING TIDE (5.3')
- SPRING HIGH (4.4')
- MHHW (3.0')
- MSL (0.8')
- MLLW (–1.0')



SECTION X–X

C-43

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

CHANNEL CROSS SECTIONS

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 47 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	

SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE
0101189-47-D

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

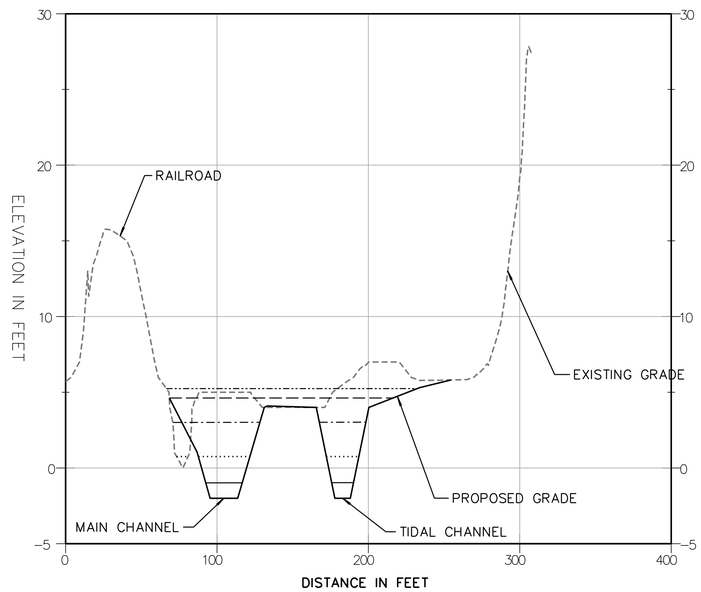
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1" = 5'

BURNS McDONNELL

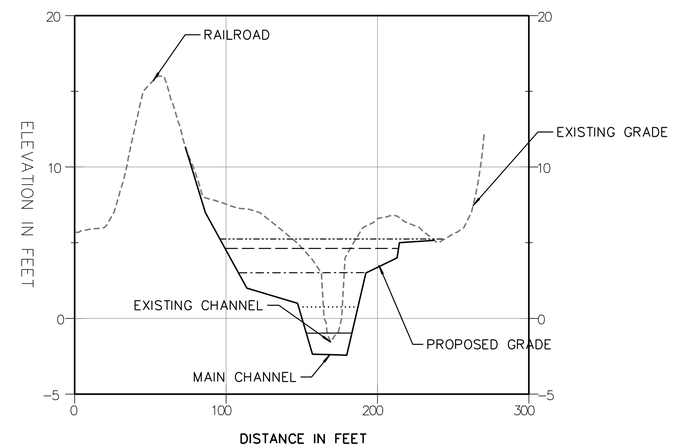
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

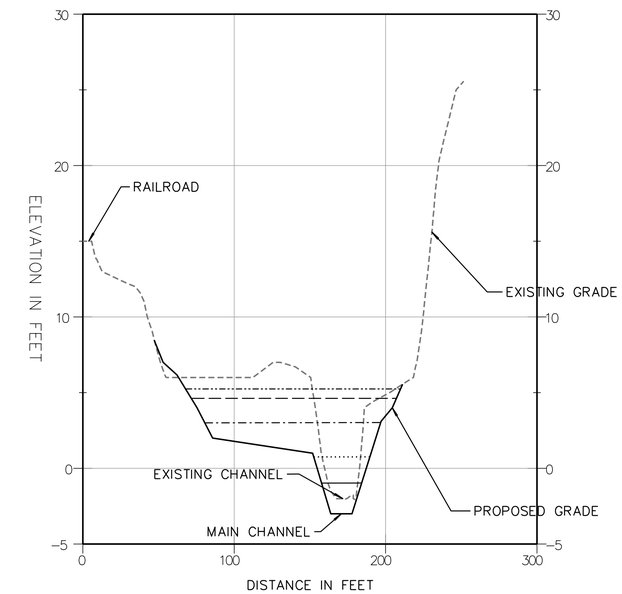
CHANNEL CROSS SECTIONS



SECTION Y-Y



SECTION Z-Z



SECTION AA-AA

WATER LEVEL LEGEND (FEET NGVD29)

- KING TIDE (5.3')
- SPRING HIGH (4.4')
- MHHW (3.0')
- MSL (0.8')
- MLLW (-1.0')

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1" = 5'

C-44

LOS PENASQUITOS
LAGOON RESTORATION - PH. 1

CHANNEL CROSS SECTIONS

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 48 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POHL C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER DATE
RONAK BEKANI 86523
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

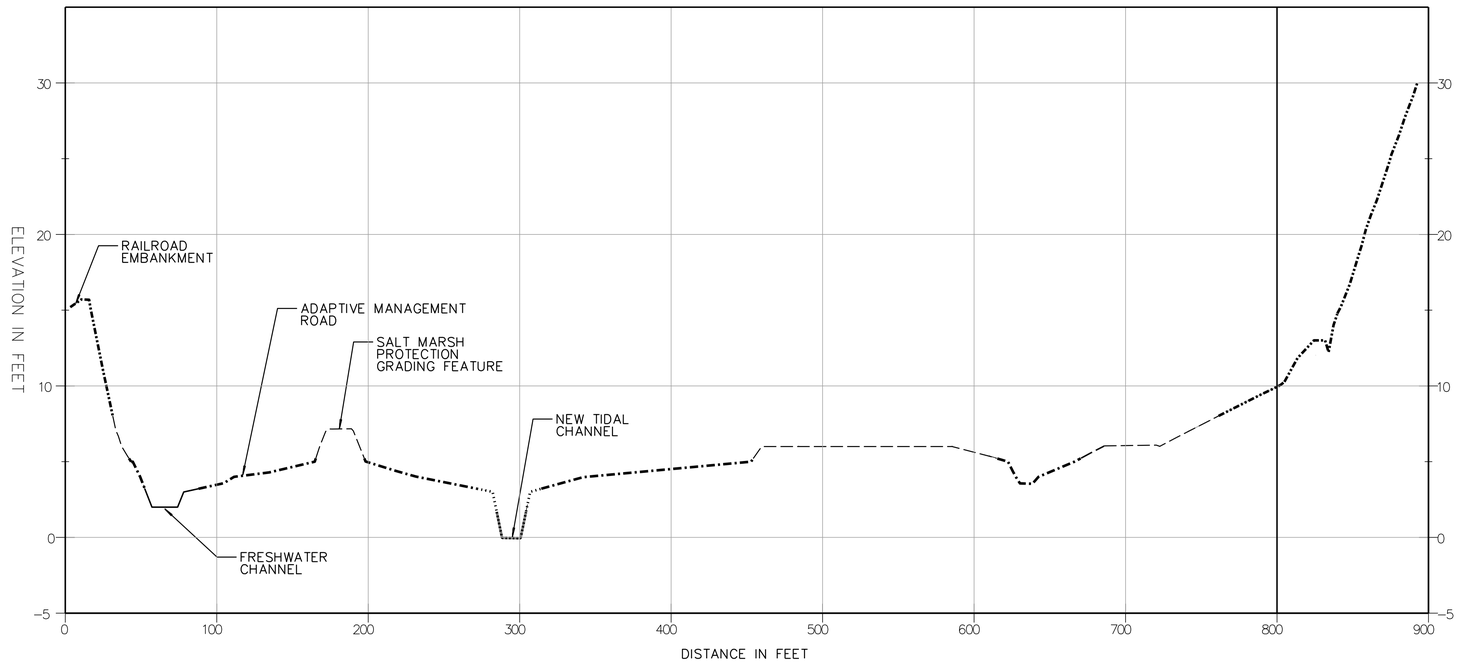
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-48-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

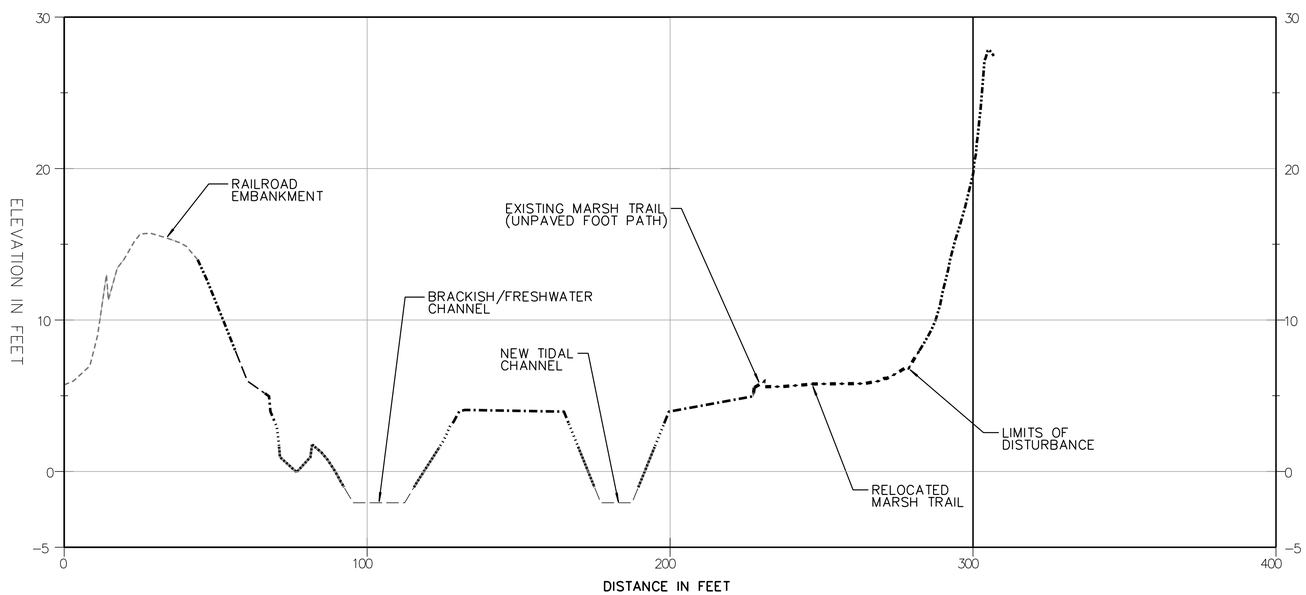
CHANNEL CROSS SECTIONS

100% SUBMITTAL



SECTION BB–BB (VEGETATION RESTORATION)

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1" = 5'



SECTION CC–CC (VEGETATION RESTORATION)

HORIZONTAL SCALE: 1"=25'
VERTICAL SCALE: 1" = 5'

WATER LEVEL LEGEND (FEET NGVD29)

- COASTAL SAGE SCRUB (OVER +8')
- NON–TIDAL SALT MARSH (+5.2' TO +8')
- SOUTHERN WILLOW SCRUB (+5.2' TO +8')
- HIGH MARSH (+3.2' TO +5.2')
- MID MARSH (+1.7' TO +3.2')
- MUD FLAT (–1' TO +1.7')
- FRESHWATER CHANNEL
- SHALLOW SUBTIDAL (–1' AND UNDER)
- EXISTING GRADE (NO DISTURBANCE)

CHANNEL CROSS SECTIONS

C-45

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

CHANNEL CROSS SECTIONS

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 49 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POHL C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	

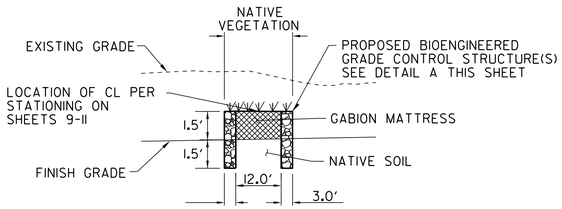
SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

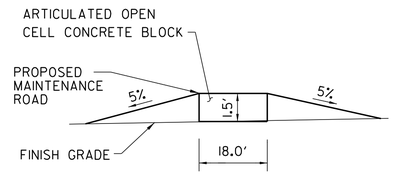
0101189-49-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

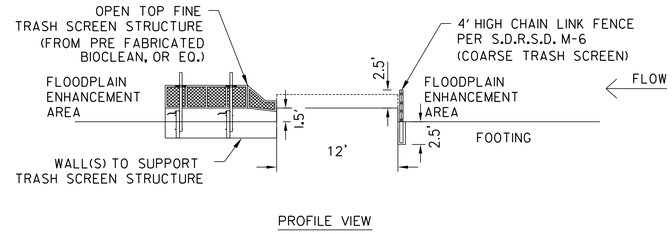
100% SUBMITTAL



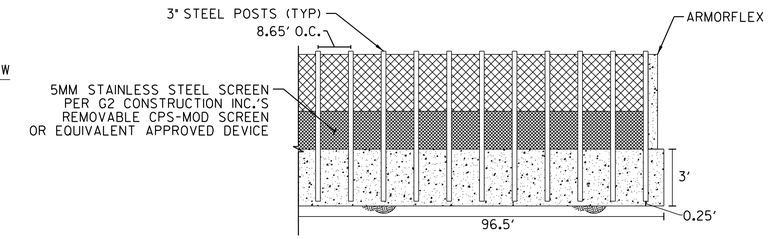
SECTION A-A
NTS



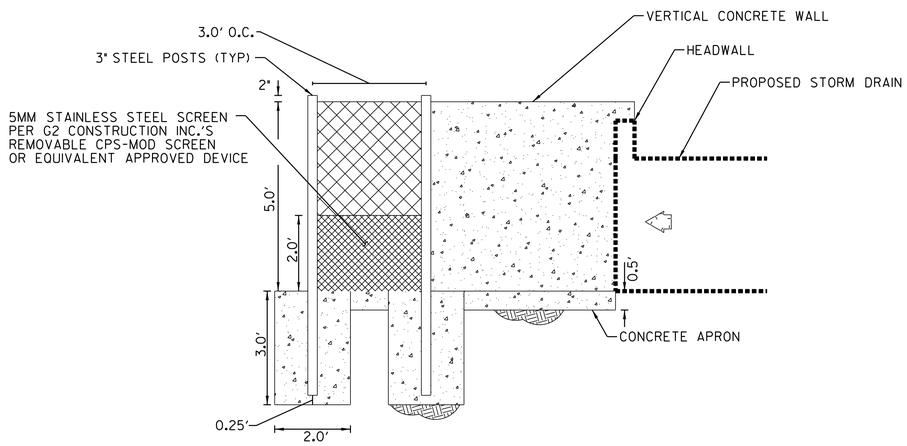
SECTION D-D
NTS



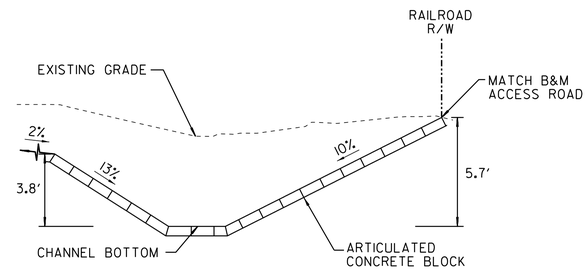
SECTION E-E
NTS



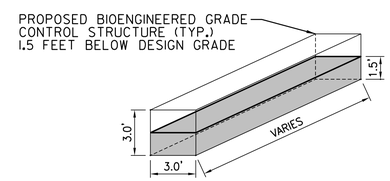
SECTION H-H
NTS



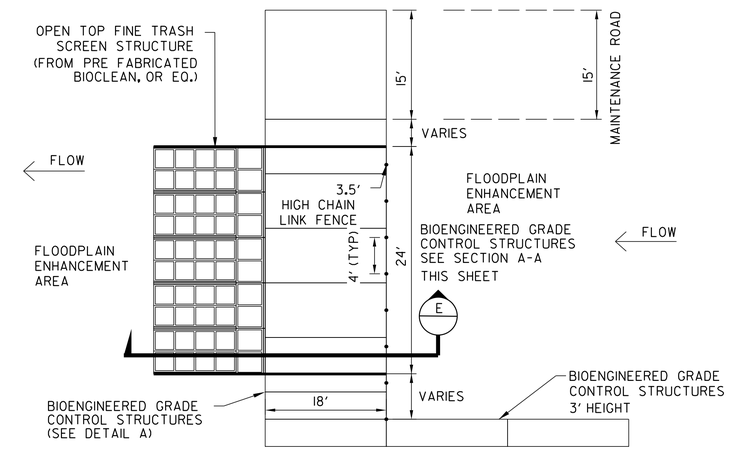
SECTION I-I
NTS



SECTION K-K
NTS

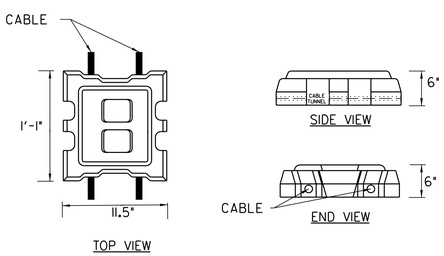


DETAIL A - TYPICAL BIOENGINEERED GRADE CONTROL STRUCTURE DETAIL
NTS

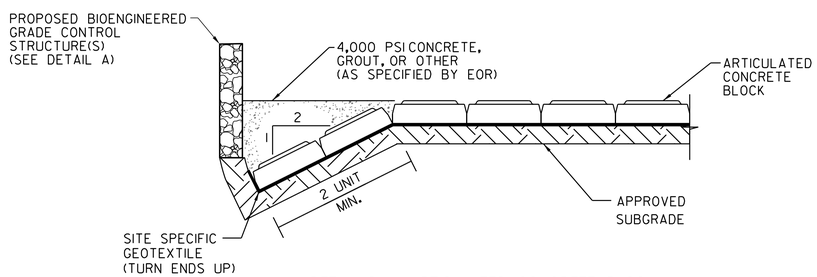


PLAN VIEW

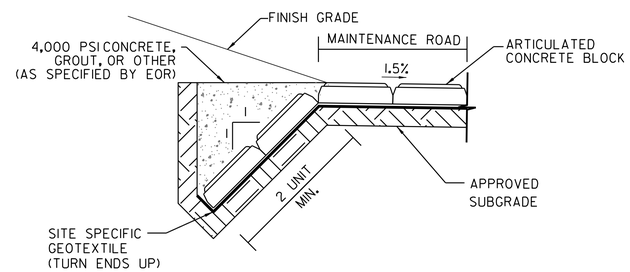
DETAIL B - TRASH CAPTURE DEVICE DETAIL
NTS



DETAIL C - ARTICULATED OPEN CELL CONCRETE BLOCK DETAIL
NTS



DETAIL D - ARTICULATED CONCRETE BLOCK KEY-IN (FLANK TERMINATION) DETAIL
NTS



DETAIL E -ARTICULATED CONCRETE BLOCK KEY-IN (TOP TERMINATION) DETAIL
NTS

NOTES:
1. FENCE FABRIC SHALL BE 2" MESH, 9 GAGE GALVANIZED STEEL WIRE, PLACED ON THE UPSTREAM SIDE OF THE POSTS AND TENSION VABLES.
2. TENSION CABLE SHALL BE 5/16" DIAMETER STEEL @ 18" O.C. SECURED ON ENDS WITH CABLE CLAMPS. SECURE FENCE TO CABLE WITH 12 GAGE GALVANIZED STEEL WIRE LOOPED @ 66" O.C.
3. POSTS SHALL BE 3" STEEL PIPE. 5.79 LBS./FT. FILL WITH MORTAR AFTER PLACING.
4. FENCE FABRIC SHALL BE SECURED TO POSTS WITH 9 GAGE WIRE CLIPS @ 9" O.C.
5. 5MM STAINLESS STEEL SCREEN PER G2 CONSTRUCTION INC.'S REMOVABLE CPS-MOD SCREEN, OR EQUIVALENT APPROVED DEVICE.
6. PROPOSED CUSTOM TRASH CAPTURE DEVICE TO REQUIRE APPROVAL FROM THE REGIONAL BOARD.

IMPORTANT NOTICE

SECTION 4215/4217 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIACATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

DIGALERT 811
CALL 811 BEFORE YOU DIG

RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619-291-0707
(FAX) 619-291-4165
rickengineering.com
Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

DRAFT - NOT FOR CONSTRUCTION

C-46

DETAILS

LOS PENASQUITOS LAGOON RESTORATION - PH. 1

CIVIL DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 50 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER KEVIN R. GIBSON NO. 52295 STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER _____ DATE _____
RONAK REKANI 86523
PRINT DCE NAME RCE#

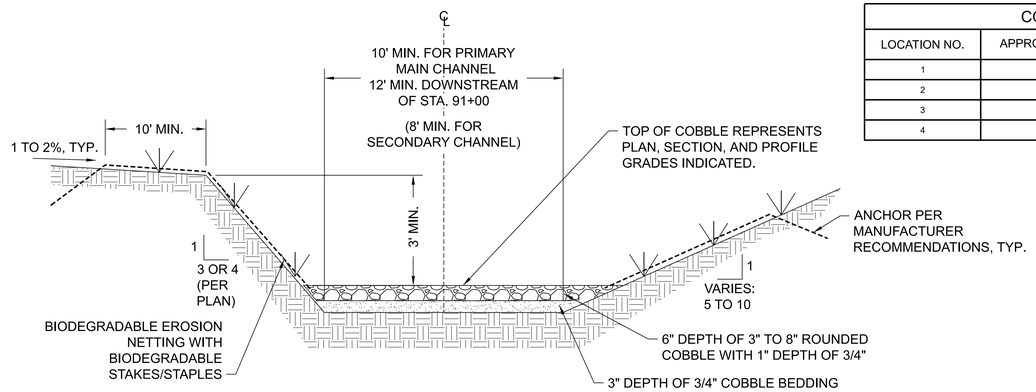
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RICK			

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE
0101189-50-D

CONTRACTOR _____ NTP DATE _____
INSPECTOR _____ NOC DATE _____

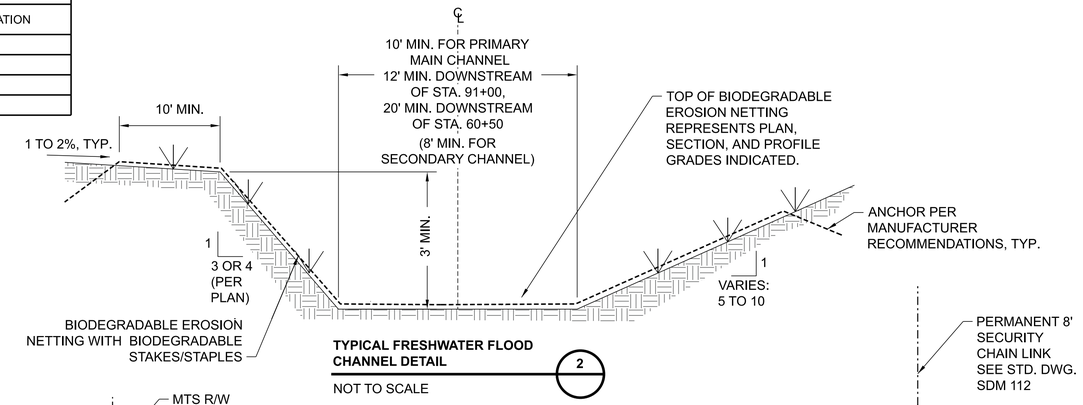
100% SUBMITTAL

COBBLE LOCATION TABLE		
LOCATION NO.	APPROX. LENGTH (FT.)	START AND END STATION
1	2400	67+00 TO 91+00
2	1200	118+00 TO 130+00
3	600	140+00 TO 146+00
4	1350	149+00 TO 162+50



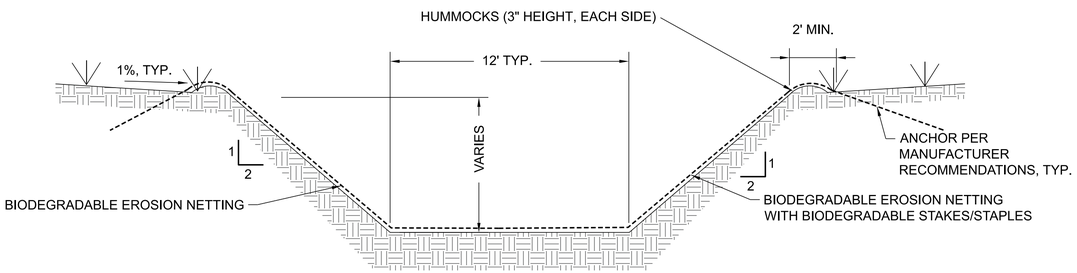
TYPICAL FRESHWATER CHANNEL WITH COBBLE DETAIL (1)

NOT TO SCALE



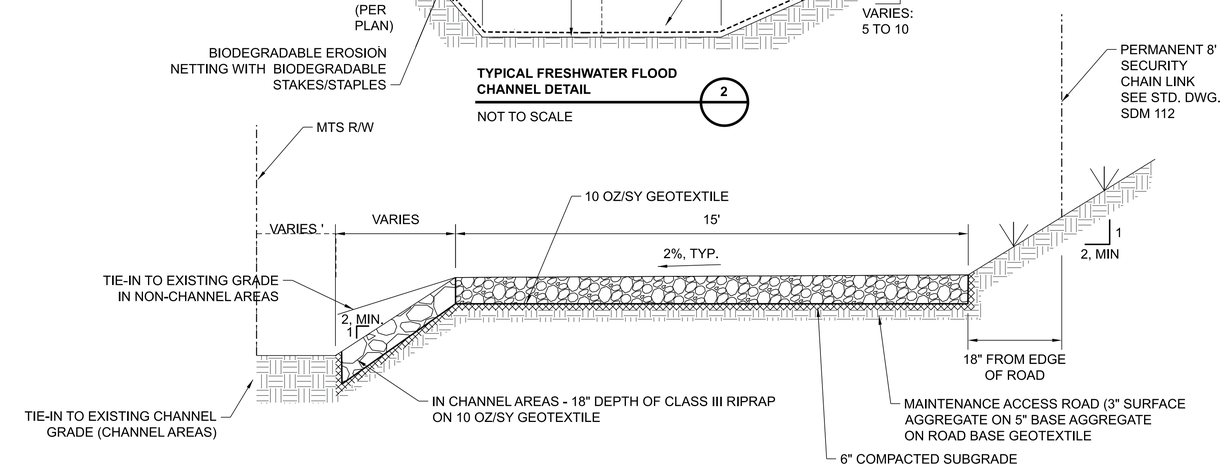
TYPICAL FRESHWATER FLOOD CHANNEL DETAIL (2)

NOT TO SCALE



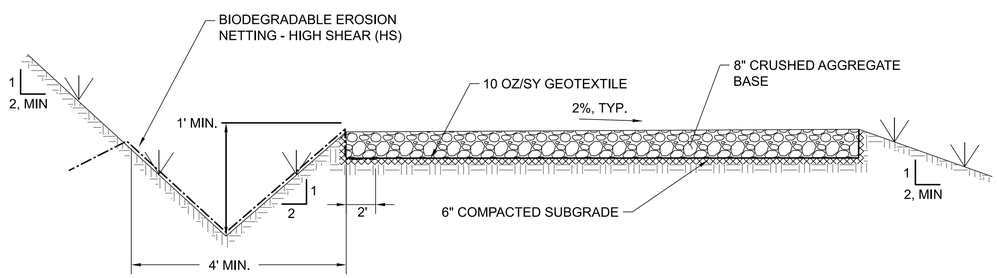
TYPICAL TIDAL CHANNEL DETAIL (3)

NOT TO SCALE



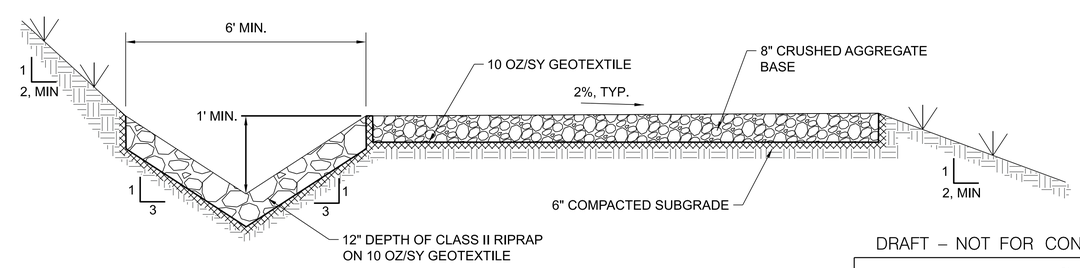
PERMENANT MAINTENANCE ACCESS ROAD AT RAILROAD (4)

NOT TO SCALE



MARSH TRAIL, UTILITY, AND LONG TERM MAINTENANCE ACCESS ROADS (5)

NOT TO SCALE



MARSH TRAIL, UTILITY, AND LONG TERM MAINTENANCE ACCESS ROADS ≥5% SLOPE (6)

NOT TO SCALE

NOTES APPLY TO DETAIL 1 AND DETAIL 2:

1. 5:1 OR 10:1 SIDESLOPES WILL BE TYPICAL FOR THE NORTHEAST STREAMBANK FROM STATIONS 92+00 TO 97+00, 102+00 TO 109+00, 114+00 TO 118+00, 125+00 TO 130+00, AND 133+00 TO 140+00.
2. 5:1 OR 10:1 SIDESLOPES WILL BE TYPICAL FOR THE SOUTHWEST STREAMBANK FROM STATIONS 97+00 TO 102+00, 107+50 TO 113+50, 118+50 TO 125+00, AND 129+50 TO 133+00.
3. FROM STATIONS 91+00 TO 118+00, 130+00 TO 140+00, AND 146+00 TO 149+00 NO COBBLE OR GRAVEL BEDDING WILL BE PLACED ALONG THE BOTTOM OF THE CHANNEL. ONLY BIODEGRADABLE EROSION NETTING - HIGH SHEAR (HS) WILL BE PLACED ALONG THE BOTTOM AND BANKS OF THE CHANNEL AT THESE LOCATIONS PER DETAIL 2. THE BOTTOM OF THE CHANNEL WILL NOT BE REVEGETATED (SEE SHEETS
4. FROM STATIONS 67+00 TO 91+00, 118+00 TO 130+00, 140+00 TO 146+00, AND 149+00 TO 162+50 THE CHANNEL WILL BE CONSTRUCTED WITH COBBLE PER DETAIL 2.
5. SECONDARY CHANNELS WILL TYPICALLY HAVE 3:1 SIDESLOPES OR GREAT AND WILL NOT HAVE COBBLE OR GRAVEL BEDDING PLACED ALONG THE BOTTOM OF THE CHANNEL.

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C-47

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

CIVIL DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 51 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H PORE C69522 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

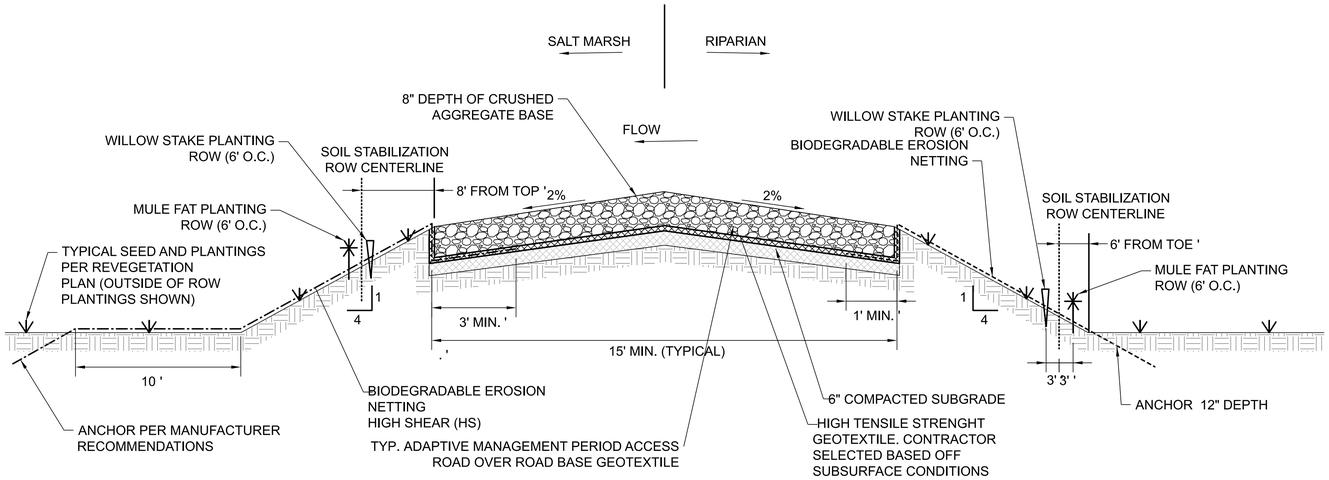
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-51-D

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

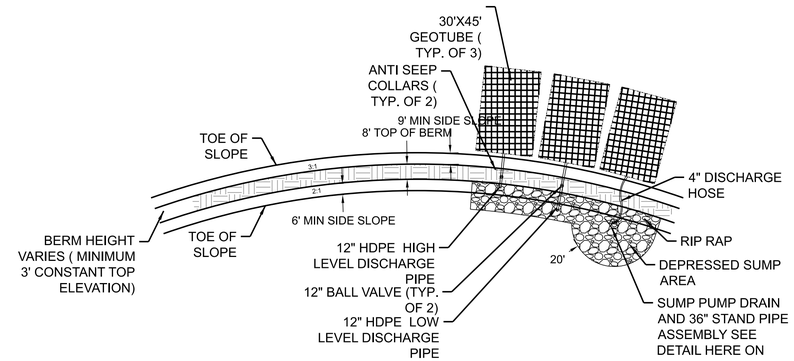
CIVIL DETAILS

100% SUBMITTAL

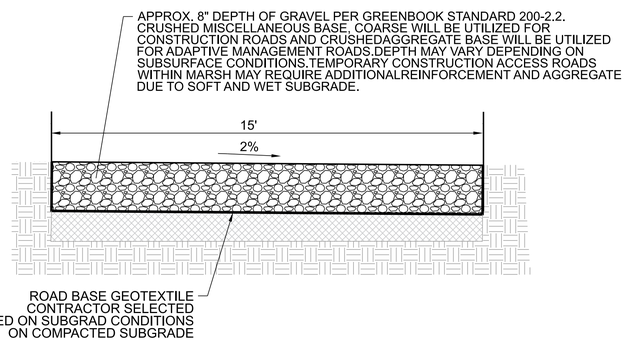


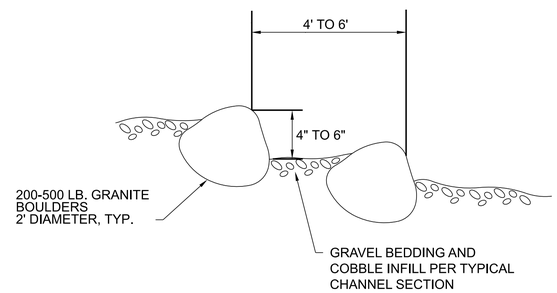
SALT MARSH PROTECTION GRADING FEATURE (7)

NOT TO SCALE



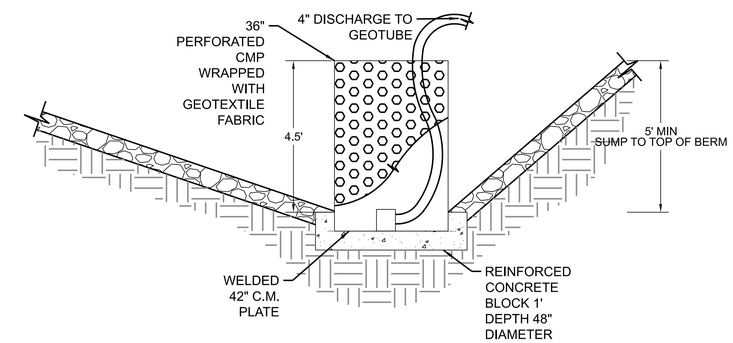
PLAN





BOULDER CHANNEL STEP DOWN DETAIL (8)

NOT TO SCALE



SECTION

STOCKPILE BERM (11)

NOT TO SCALE

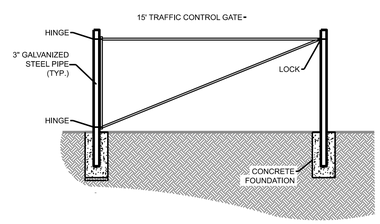
NOTES TO APPLY TO DETAIL 9

1. TEMPORARY CONSTRUCTION ACCESS ROADS WILL BE REMOVED, AND HABITAT RESTORED UPON COMPLETION OF THE CONSTRUCTION. ROAD MATERIALS SHALL BE REMOVED. DISTURBED AREAS GRADED AS NEEDED TO MAINTAIN DRAINAGE AND TIE INTO FINAL CONTOURS, AND THESE AREAS REPLANTED USING THE REVEGETATION PLAN FOR THE APPROPRIATE VEGETATION COMMUNITY. RESTORATION OF THE MARSHTRAIL SHALL REQUIRE REMOVAL OF ALL TEMPORARY ACCESS ROAD MATERIAL AND RESTORATION OF THE NATIVE VEGETATION ON THE UPHILL SIDE AND RETAINIG A 3-FOOT WIDE EARTHEN PATH ON THE DOWNSIDE SLOPE.

2. TEMPORARY ADAPTIVE MANAGMENT ACCESS ROADS WILL BE REMOVED, AND HABITAT RESTORED UPON COMPLETION OF THE 5-YEAR ADAPTIVE MANAGEMENT PERIOD. THIS WORK SHALL BE PERFORMED UNDER A SEPARATE MAINTENANCE CONTRACT. ROAD MATERIALS SHALL BE REMOVED. DISTURBED AREAS GRADED AS NEEDED TO MAINTAIN DRAINAGE AND TIE INTO FINAL CONTOURS, AND THESE AREAS REPLANTED USING THE REVEGETATION PLAN FOR THE APPROPRIATE VEGETATION COMMUNITY. THE EXCEPTION IS THE SEGMENT OF MARSH TRAIL, UTILITY, AND PERMANENT MAINTENANCE ACCESS ROAD FROM THE RANGERS STATION TO THE TURNAROUND WHICH WILL REMAIN A LONG-TERM ACCESS ROAD FOR FIRE MANAGEMENT AND THE TOP 4 INCHES OF AGGREGATE TO BE REPLACED WITH CRUSHED GRANITE TO RESTORE THE TRAIL. ALL DRAINAGE MANAGEMENT ALONG THE MARSH TRAIL SHALL REMAIN.

TEMPORARY CONSTRUCTION ACCESS ROAD & TEMPORARY ADAPTIVE MANAGEMENT ACCESS ROAD (9)

NOT TO SCALE



TRAFFIC CONTROL GATE (10)

NOT TO SCALE

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C–48

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

CIVIL DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 52 OF 103 SHEETS

WBS B–17033

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523 — RCE#
PRINT NAME

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER — DAVID H FORE — C69522 — CIVIL — STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
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SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-52-D

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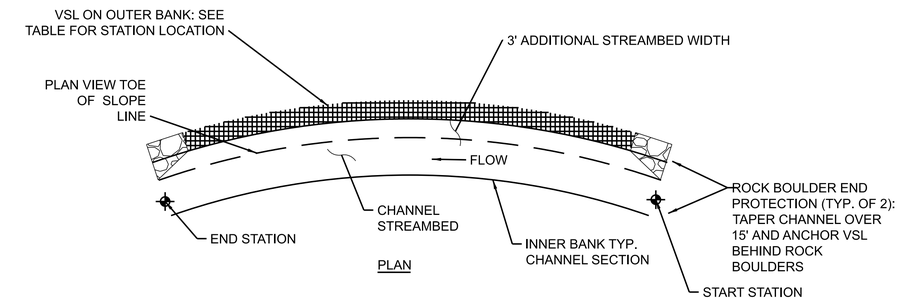
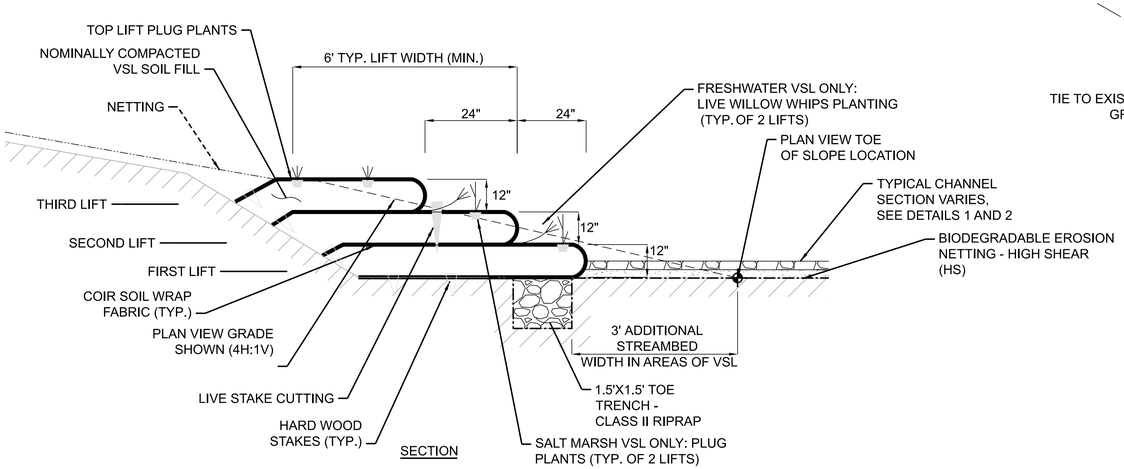
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320–2920

100% SUBMITTAL

CIVIL DETAILS



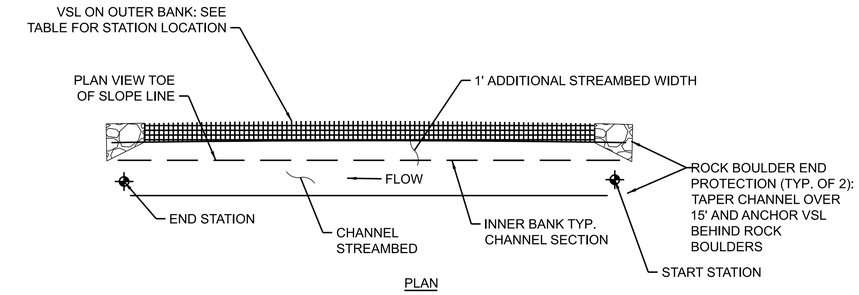
PLAN



SECTION

VEGETATED SOIL LIFT (VSL) FOR CHANNEL 12

NOT TO SCALE



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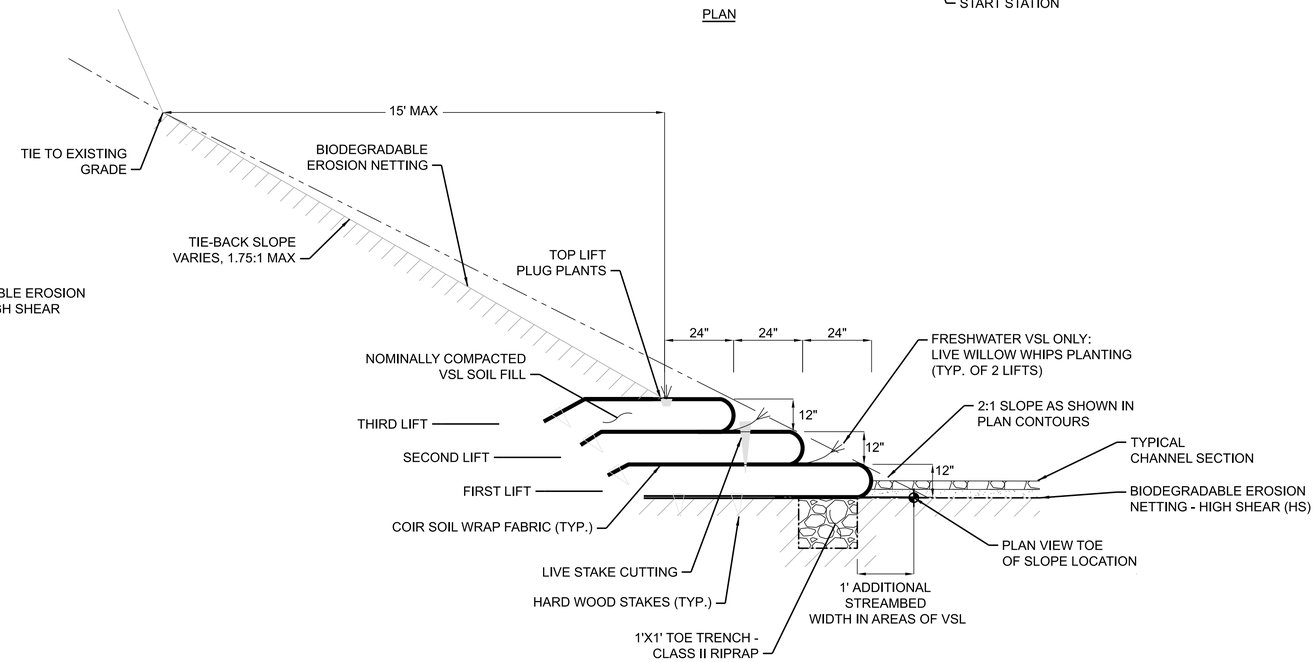

SECTION

NOTES FOR DETAIL 13:

1. CONTRACTOR SHALL EVALUATE SOILS AND SLOPE STABILITY AND PLAN EXCAVATION AND SHORTING AS REQUIRED FOR VSL CONSTRUCTION.

VEGETATED SOIL LIFT (VSL) FOR FE1 WEST BANK 13

NOT TO SCALE

VSL LOCATION TABLE			
LOCATION NO.	APPROX. LENGTH (FT.)	START AND END STATION	PLANTINGS
1	600	53+50 TO 59+50 (EAST BANKS AND EXTENDING UNDER RAILROAD TRESTLE, BOTH SIDES)	SALT MARSH
2	300	64+00 TO 67+00 (EAST BANK ON RAILROAD SIDE)	SALT & FRESHWATER
3	300	122+00 TO 125+00 (EAST BANK)	FRESHWATER
4	1456	149+25 TO 163+81 (WEST BANK ON PRIVATE PROPERTY SIDE)	FRESHWATER

NOTES:

1. FRESHWATER VSL:
   A. LIVE WILLOW WHIPS SHALL BE 5' TO 10' IN LENGTH, INSTALLED AT 2' O.C. MIN.
   B. LIVE STAKE CUTTINGS SHALL BE 1" TO 2" DIAMETER AND 24" TO 36" LENGTH AT 2' O.C SECOND LIFT.
2. SALT MARSH VSL (DOWNSTREAM OF STATION 68+00) SHALL CONTAIN SALT MARSH PLUG PLANTS AT 3' O.C. IN LIEU OF WILLOW STEMS AND LIVE STAKES.
3. TOP LIFT PLUG PLANTS SHALL BE TWO ROWS AT 4' O.C., STAGGERED. FRESHWATER AREAS SHALL ALTERNATE LIVE WILLOW STAKES AND MULE FAT PLANTS AND SALT MARSH AREAS SHALL ALTERNATE SALT GRASS AND JAUMEA PLANTS.

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LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

CIVIL DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 53 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H FORT C69522 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

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REV 3	BMCD		2/2/2024	

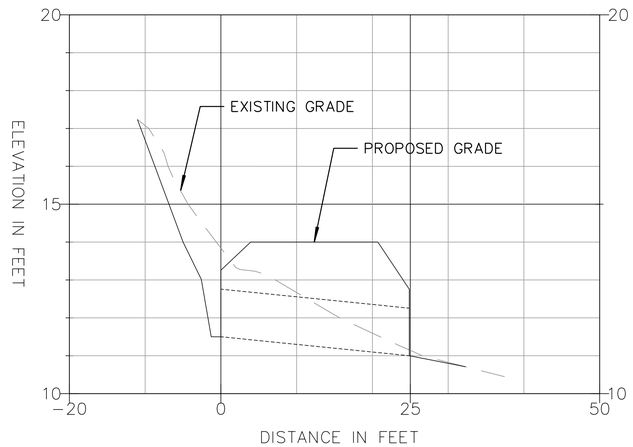
SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

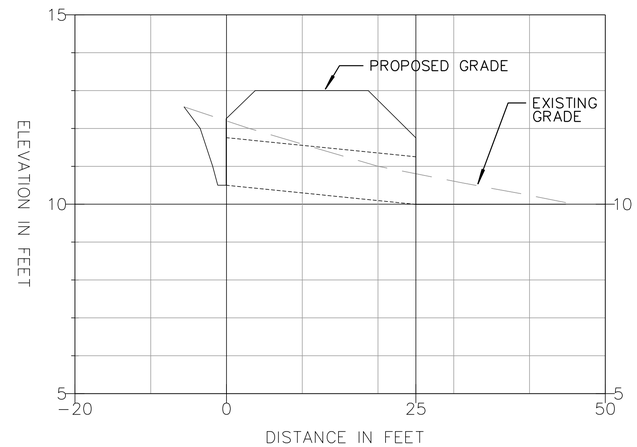
0101189-53-D

CIVIL DETAILS

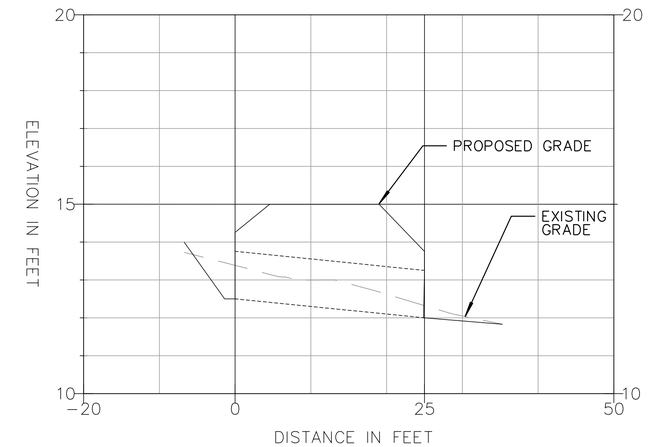
100% SUBMITTAL



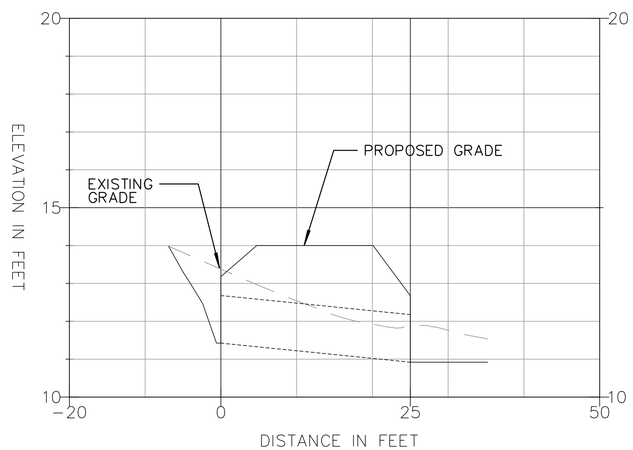
CULVERT 1



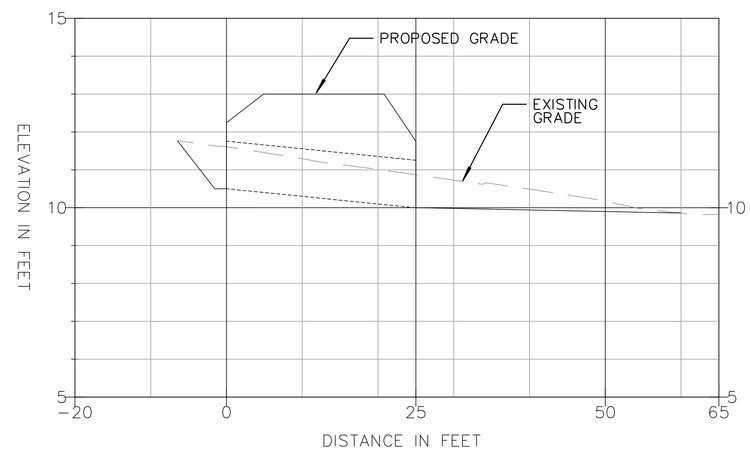
CULVERT 3



CULVERT 5



CULVERT 2



CULVERT 4

CULVERT/STORM PIPE NO.	TYPE	UPSTREAM INVERT (FT)	DOWNSTREAM INVERT (FT)	LENGTH (FT)	SLOPE (%)	SIZE (IN)	QUANTITY
1	RCP	11.5	11.0	25	2.0	15	1
2	RCP	11.5	11.0	25	2.0	15	1
3	RCP	10.5	10.0	25	2.0	15	1
4	RCP	10.5	10.0	25	2.0	15	2
5	RCP	12.5	12.0	25	2.0	15	2

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 8'

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C–50

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

CULVERT PROFILE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 54 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

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REV 3	BMCD		2/2/2024	

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

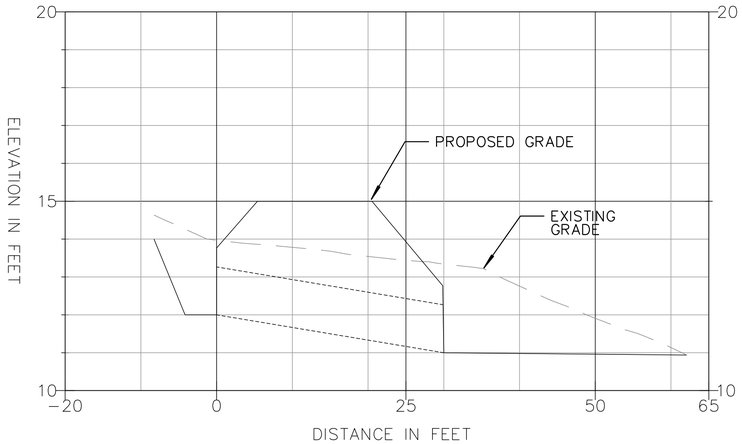
CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

0101189-54-D

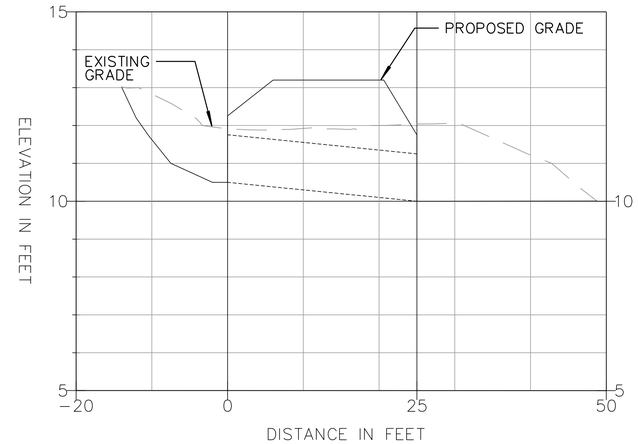
GRADING PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

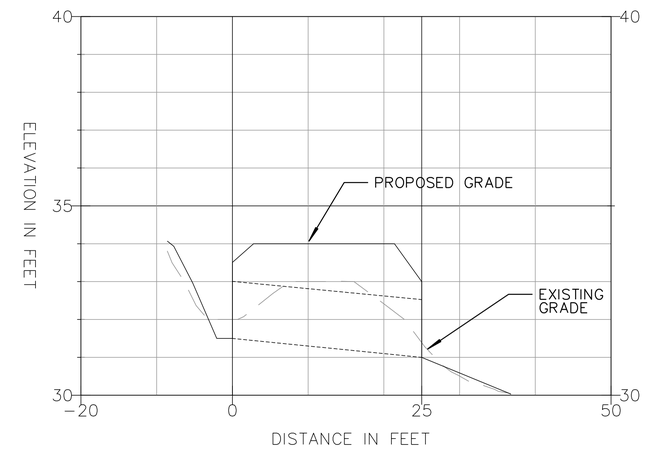
100% SUBMITTAL



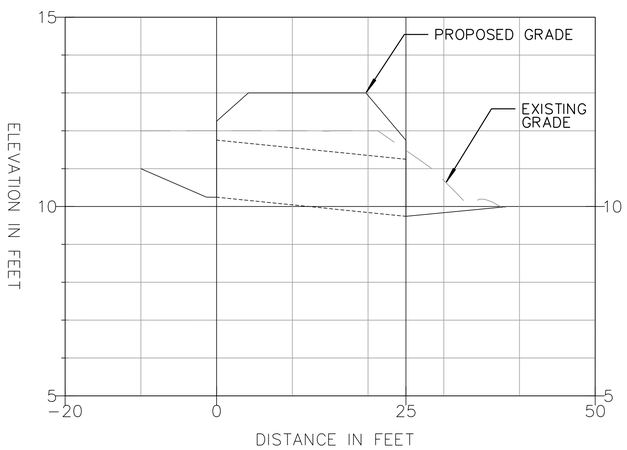
CULVERT 6



CULVERT 8



CULVERT 10



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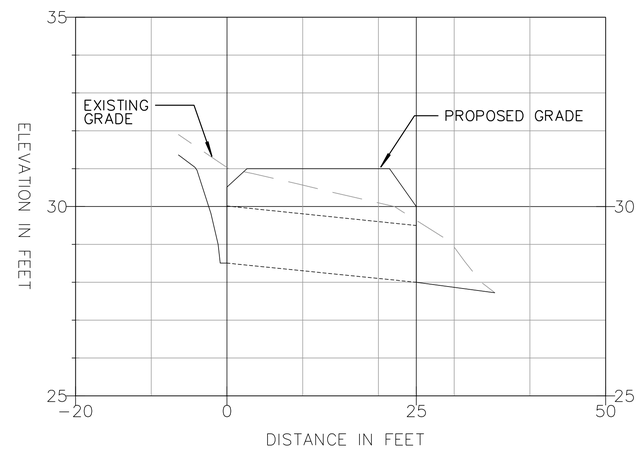

CULVERT 9

CULVERT/STORM PIPE NO.	TYPE	UPSTREAM INVERT (FT)	DOWNSTREAM INVERT (FT)	LENGTH (FT)	SLOPE (%)	SIZE (IN)	QUANTITY
6	RCP	12.0	11.0	30	3.3	15	1
7	RCP	10.25	9.75	25	2.0	18	1
8	RCP	10.5	10.0	25	2.0	15	1
9	RCP	28.5	28.0	25	2.0	18	2
10	RCP	31.5	31	26	1.9	18	2

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 8'

DRAFT – NOT FOR CONSTRUCTION

C–51

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

CULVERT PROFILE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 55 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 96523
PRINT NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER DAVID H. POPE C69522 CIVIL STATE OF CALIFORNIA

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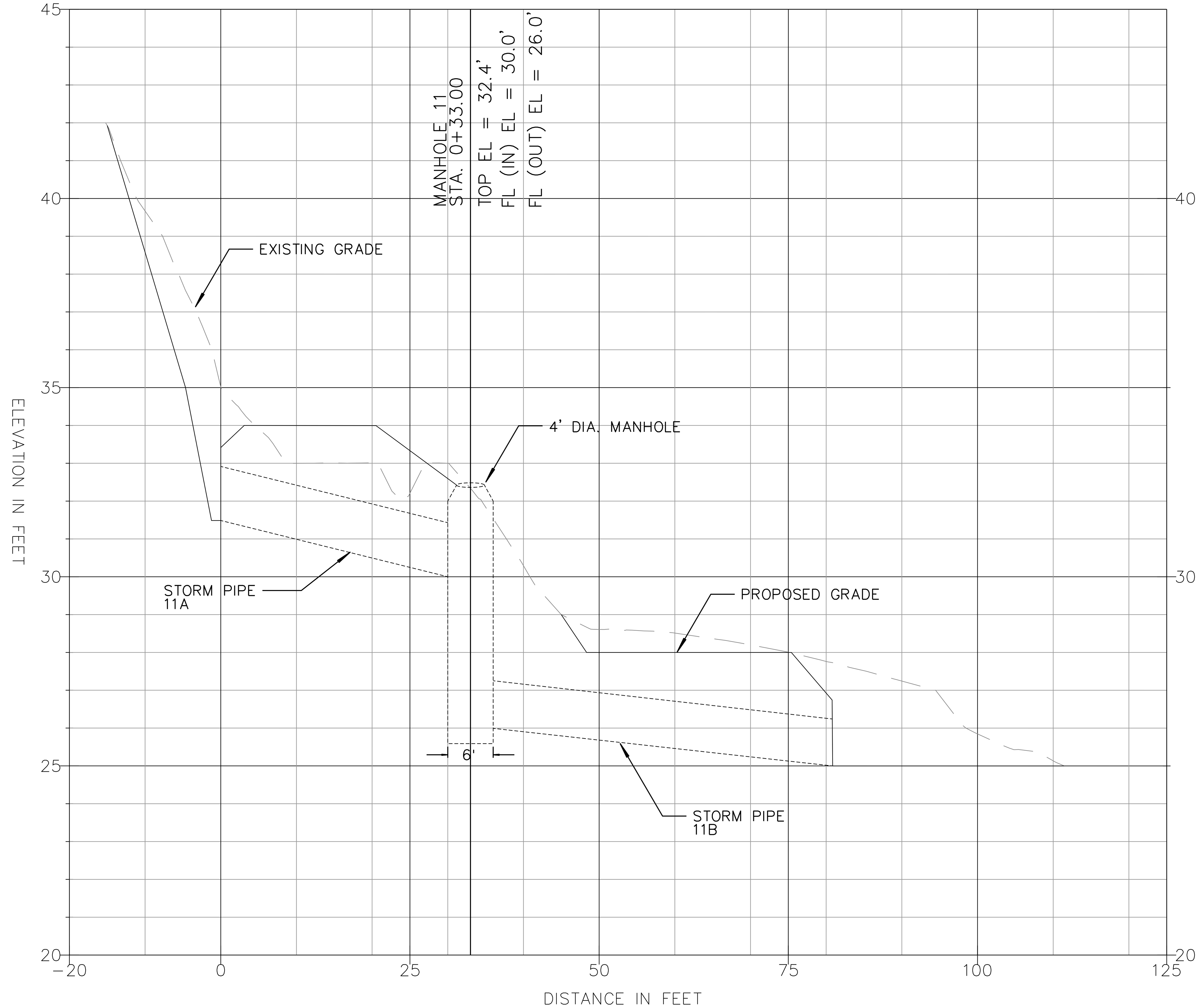
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-55-D

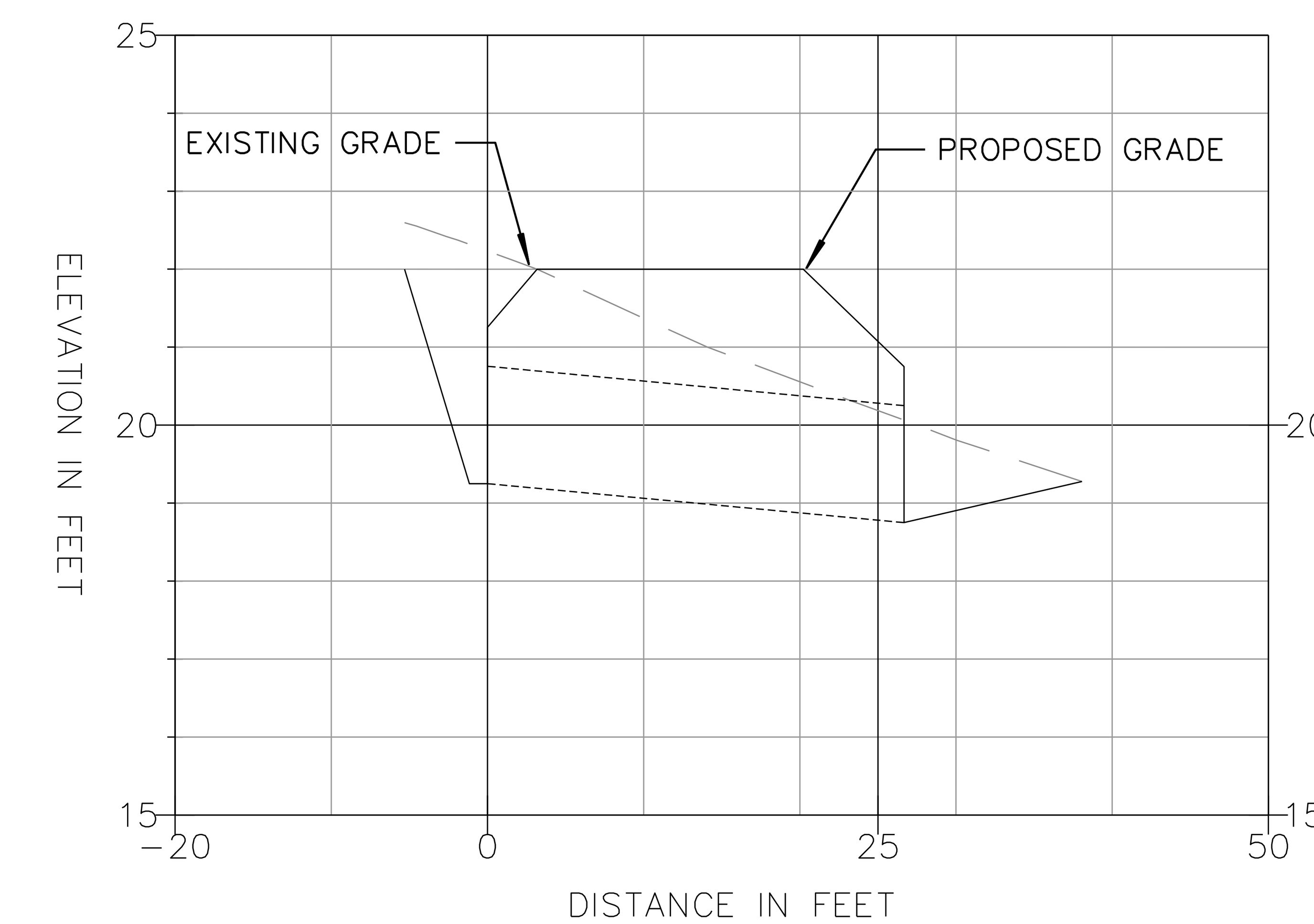
GRADING PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL



STORM LINE 11



CULVERT 13

CULVERT/STORM PIPE NO.	TYPE	UPSTREAM INVERT (FT)	DOWNSTREAM INVERT (FT)	LENGTH (FT)	SLOPE (%)	SIZE (IN)	QUANTITY
11A	RCP	31.5	30.0	30	5.0	15	1
11B	RCP	26.0	25.0	45	2.2	15	1
13	RCP	19.25	18.75	27	1.8	18	2

HORIZONTAL SCALE: 1" = 40"
VERTICAL SCALE: 1" = 8'

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

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C–52

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

CULVERT PROFILE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 56 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER – DAVID H POHL – C69522 – CIVIL – STATE OF CALIFORNIA

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REV 3	BMCD		2/2/2024	

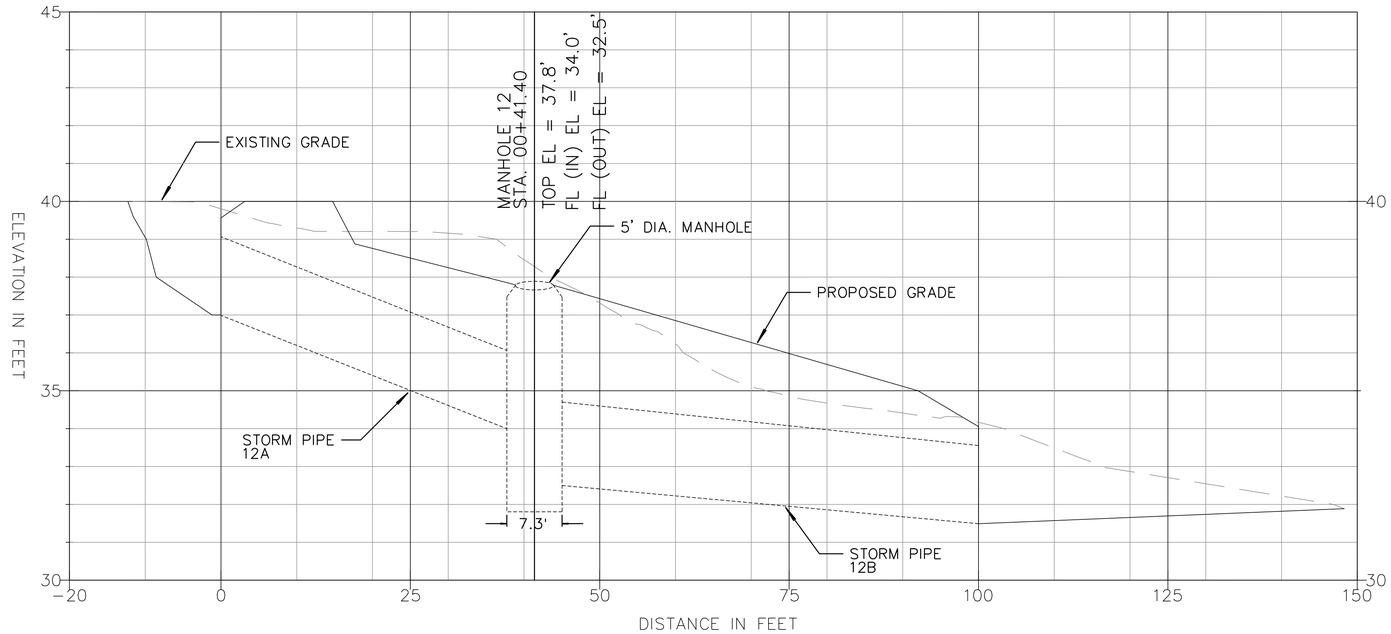
SEE SHEETS
CCS27 COORDINATE
SEE SHEETS
CCS83 COORDINATE

CONTRACTOR NTP DATE
INSPECTOR NOC DATE

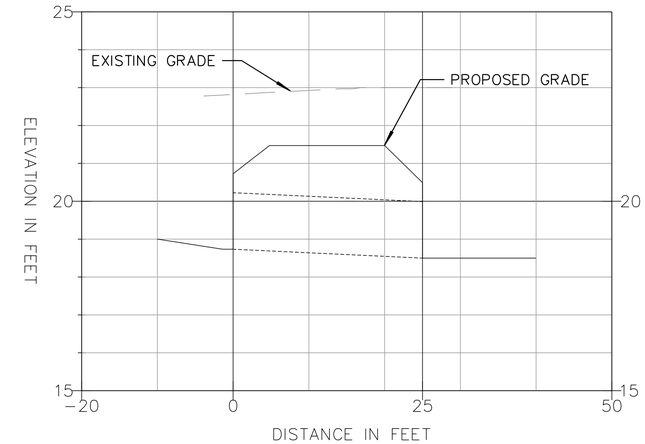
0101189-56-D

GRADING PLAN

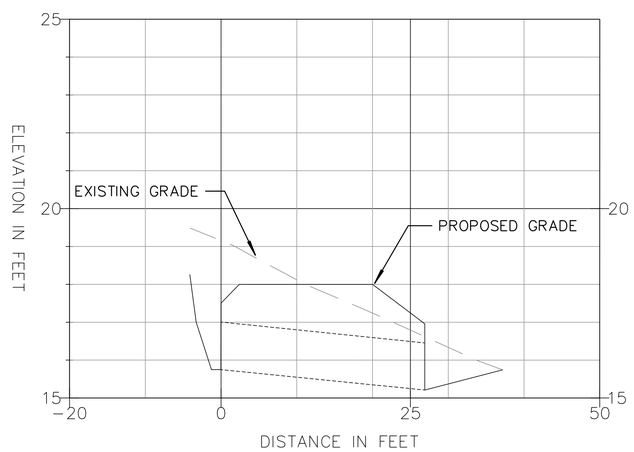
100% SUBMITTAL



STORM LINE 12



CULVERT 15



CULVERT 14

CULVERT/STORM PIPE NO.	TYPE	UPSTREAM INVERT (FT)	DOWNSTREAM INVERT (FT)	LENGTH (FT)	SLOPE (%)	SIZE (IN)	QUANTITY
12A	RCP	37.0	34.0	41	7.3	24	2
12B	RCP	32.5	31.5	55	1.8	24	2
14	RCP	15.75	15.25	27	1.8	15	1
15	RCP	18.75	18.5	25	1.0	18	2

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 8'

DRAFT - NOT FOR CONSTRUCTION

C-53

LOS PEÑASQUITOS
LAGOON RESTORATION - PH. 1

CULVERT PROFILE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 57 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS
CCS27 COORDINATE
SEE SHEETS
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-57-D

GRADING PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

PLACEHOLDER

BEACH REPLINISHMENT PLAN

DRAFT – NOT FOR CONSTRUCTION

C–54

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

BEACH REPLINISHMENT PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET **58** OF 103 SHEETS

WBS B–17033

REGISTERED PROFESSIONAL ENGINEER
DAVID H POHL
C69522
CIVIL
STATE OF CALIFORNIA

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SUBMITTED BY:
NENAD DAMNJANOVIC
PROJECT MANAGER

CHECKED BY:
MATTHEW KIEHLER
PROJECT ENGINEER

SEE SHEETS
CCS27 COORDINATE

SEE SHEETS
CCS83 COORDINATE

CONTRACTOR
INSPECTOR

NTP DATE
NOC DATE

0101189-58-D

BURNS McDONNELL

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LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

PLACEHOLDER

BEACH REPLINISHMENT PLAN

DRAFT – NOT FOR CONSTRUCTION

C–55

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

BEACH REPLINISHMENT PLAN

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WBS B–17033

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DAVID H POHL
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CIVIL
STATE OF CALIFORNIA

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CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

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PLACEHOLDER

BEACH REPLINISHMENT PLAN

DRAFT – NOT FOR CONSTRUCTION

C–56

LOS PEÑASQUITOS
LAGOON RESTORATION – PH. 1

BEACH REPLINISHMENT PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
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WBS B–17033

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STATE OF CALIFORNIA

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CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-60-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

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CONSTRUCTION BMP NOTES

PRIOR TO ANY SOIL DISTURBANCE, TEMPORARY SEDIMENT CONTROLS SHALL BE INSTALLED BY THE CONTRACTOR OR QUALIFIED PERSON(S) AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY OF SAN DIEGO STORM WATER STANDARDS MANUAL MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND/OR WATER POLLUTION CONTROL PLAN (WPCP) FOR CONSTRUCTION LEVEL BMPS AND, IF APPLICABLE, THE STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR POST-CONSTRUCTION BMPS.
2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL STORM DRAIN INLET PROTECTION. INLET PROTECTION IN THE PUBLIC RIGHT-OF-WAY MUST BE TEMPORARILY REMOVED PRIOR TO A RAIN EVENT TO ENSURE NO FLOODING OCCURS AND REINSTALLED AFTER RAIN IS OVER.
3. ALL CONSTRUCTION BMPS SHALL BE INSTALLED AND PROPERLY MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
4. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING, AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED CONTACT PERSON CAN PROVIDE EROSION AND SEDIMENT CONTROL MEASURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SUB-CONTRACTORS AND SUPPLIERS ARE AWARE OF ALL STORM WATER BMPS AND IMPLEMENT SUCH MEASURES. FAILURE TO COMPLY WITH THE APPROVED SWPPP/WPCP WILL RESULT IN THE ISSUANCE OF CORRECTION NOTICES, CITATIONS, CIVIL PENALTIES, AND/OR STOP WORK NOTICES.
6. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF ALL SILT, DEBRIS, AND MUD ON AFFECTED AND ADJACENT STREET(S) AND WITHIN STORM DRAIN SYSTEM DUE TO CONSTRUCTION VEHICLES/EQUIPMENT AND CONSTRUCTION ACTIVITY AT THE END OF EACH WORK DAY.
7. THE CONTRACTOR SHALL PROTECT NEW AND EXISTING STORM WATER CONVEYANCE SYSTEMS FROM SEDIMENTATION, CONCRETE RINSE, OR OTHER CONSTRUCTION-RELATED DEBRIS AND DISCHARGES WITH THE APPROPRIATE BMPS THAT ARE ACCEPTABLE TO THE CITY RESIDENT ENGINEER AND AS INDICATED IN THE SWPPP/WPCP.
8. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT AND DEBRIS DUE TO STORM FLOWS FROM EXCAVATED CHANNELS AND ADJACENT AFFECTED AREAS FOLLOWING STORM EVENTS AND PRIOR TO ADVANCING EXCAVATION AND GRADING IN DOWNSTREAM SEGMENTS AND AREAS TO PREVENT THE MIGRATION OF THESE SEDIMENT AND DEBRIS FROM ENTERING THESE NEW WORK AREAS.
9. IF A NON-STORM WATER DISCHARGE LEAVES THE SITE, THE CONTRACTOR SHALL IMMEDIATELY STOP THE ACTIVITY AND REPAIR THE DAMAGES. THE CONTRACTOR SHALL NOTIFY THE CITY RESIDENT ENGINEER OF THE DISCHARGE, PRIOR TO RESUMING CONSTRUCTION ACTIVITY. ANY AND ALL WASTE MATERIAL, SEDIMENT, AND DEBRIS FROM EACH NON-STORM WATER DISCHARGE SHALL BE REMOVED FROM THE STORM DRAIN CONVEYANCE SYSTEM AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
10. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ONSITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID DEPLOYMENT OF CONSTRUCTION BMPS WHEN RAIN IS IMMINENT.
11. THE CONTRACTOR SHALL RESTORE AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL BMPS TO WORKING ORDER YEAR ROUND.
12. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DUE TO UNFORESEEN CIRCUMSTANCES TO PREVENT NON-STORM WATER AND SEDIMENT-LADEN DISCHARGES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
14. ALL EROSION AND SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED SWPPP/WPCP SHALL BE INSTALLED AND MAINTAINED. ALL EROSION AND SEDIMENT CONTROLS FOR INTERIM CONDITIONS SHALL BE PROPERLY DOCUMENTED AND INSTALLED TO THE SATISFACTION OF THE CITY RESIDENT ENGINEER.
15. AS NECESSARY, THE CITY RESIDENT ENGINEER SHALL SCHEDULE MEETINGS FOR THE PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED CONTACT PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER, AND THE CITY RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION AND SEDIMENT CONTROL MEASURES AND OTHER BMPS RELATIVE TO ANTICIPATED CONSTRUCTION ACTIVITIES.
16. THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL CONDUCT VISUAL INSPECTIONS AND MAINTAIN ALL BMPS DAILY AND AS NEEDED. VISUAL INSPECTIONS AND MAINTENANCE OF ALL BMPS SHALL BE CONDUCTED BEFORE, DURING, AND AFTER EVERY RAIN EVENT AND EVERY 24 HOURS DURING ANY PROLONGED RAIN EVENT. THE CONTRACTOR SHALL MAINTAIN AND REPAIR ALL BMPS AS SOON AS POSSIBLE AS SAFETY ALLOWS.
17. CONSTRUCTION ENTRANCE AND EXIT AREA. TEMPORARY CONSTRUCTION ENTRANCE AND EXITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CASQA FACT SHEET TC-1 OR CALTRANS FACT SHEET TC-01 TO PREVENT TRACKING OF SEDIMENT AND OTHER POTENTIAL POLLUTANTS ONTO PAVED SURFACES AND TRAVELED WAYS. WIDTH SHALL BE 10 FT OR THE MINIMUM NECESSARY TO ACCOMMODATE VEHICLES AND EQUIPMENT WITHOUT BY-PASSING THE ENTRANCE.
18. NON-STORM WATER DISCHARGES SHALL BE EFFECTIVELY MANAGED PER THE SAN DIEGO MUNICIPAL CODE CHAPTER 4, ARTICLE 3, DIVISION 3 STORM WATER MANAGEMENT AND DISCHARGE CONTROL.
19. APPLY LINEAR SEDIMENT CONTROLS ALONG THE TOE OF THE SLOPE, FACE OF THE SLOPE, AND AT THE GRADE BREAKS OF EXPOSED SLOPES TO COMPLY WITH SHEET FLOW LENGTHS IN ACCORDANCE WITH TABLE 1 OF ATTACHMENT D OF THE CGP.
20. THE PROJECT IS WITHIN AN ACTIVE FLOOD PLAIN. PHASE THE WORK TO MINIMIZE THE POTENTIAL FOR EROSION DURING A STORM EVENT.
21. THE PROJECT INVOLVES EXCAVATION AND FILL PLACEMENT WITHIN AREAS SUBJECT TO FLOODING, CONTINUOUS DRY WEATHER FLOWS, TIDAL FLOWS AND HIGH GROUNDWATER AND ACTIVE FLOOD CHANNELS. THE CONTRACTOR SHALL BE AWARE THAT THERE WILL BE BASE FLOWS IN CARROL CANYON CREEK AND LOS PENASQUITOS CREEK AND DOWNSTREAM CHANNELS THROUGHOUT CONSTRUCTION.
22. THE CONTRACTOR IS RESPONSIBLE FOR ALL WATER MANAGEMENT THROUGHOUT CONSTRUCTION, INCLUDING DEWATERING, FLOW DIVERSION AND DRAINAGE.
23. THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A SITE-SPECIFIC STORMWATER POLUTION PREVENTION PLAN (SWPPP), PREPARED BY A QUALIFIED SWPPP DEVELOPER (QSD) AS DEFINED BY THE CONSTRUCTION GENERAL PERMIT (CGP) AND SUBMIT THE SWPPP TO THE ENGINEER. THE SWPPP SHALL INCLUDE THE INFORMATION NEEDED TO DEMONSTRATE COMPLIANCE WITH ALL THE REQUIREMENTS OF THE CGP. AS THIS PROJECT IS WITHIN A FLOOD PLAIN, CLEARING, GRUBBING AND EXCAVATION AND GRADING SHALL BE PHASED TO MINIMIZE THE POTENTIAL FOR EROSION DURING A STORM EVENT. THE CITY WILL SUBMT THE APPROVED SWPPP TO THE STATE WATER BOARD AS PART OF THE PERMIT REGISTRATION DOCUMENT PACKAGE. NOTE THAT NO CONSTRUCTION ACTIVITY SHALL BE ALLOWED UNTIL THE STATE WATER BOARD APPROVES THE PERMIT PACKAGE.
24. THE CONTACTOR SHALL PREPARE FOR SUBMITTAL AND REVIEW A PRJECT DEWATERING AND ON-SITE FLOW AND GROUNDWATER MANAGEMENT PLAN IN ADDITION TO THE SWPPP THAT DESCRIBES THE MEASURES AND METHODS TO MANAGE ON-SITE FLOW FOR WATER QUALITY AND STABILIZATION AND DEWATERING OF EXCAVATIONS.

CASQA STORMWATER HANDBOOK BMPS

EC-1	SCHEDULING
EC-2	PRESERVATION OF EXISTING VEGETATION
EC-5	SOIL BINDERS
EC-7	GEOTEXTILES AND MATS
EC-9	EARTH DIKE AND DRAINAGE SWALES
EC-10	VELOCITY DISSIPATION DEVICES
EC-11	SLOPE DRAINS
EC-12	STREAM BANK STABILIZATION
EC-15	SOIL PREPARATION-ROUGHENING
EC-16	NON-VEGETATED STABILIZATION
WE-1	WIND EROSION CONTROL
SE-2	SEDIMENT BASIN
SE-3	SEDIMENT TRAP
SE-4	CHECK DAMS
SE-5	FIBER ROLLS
SE-6	GRAVEL BAG BERM
SE-7	STREET SWEEPING
SE-10	STORM DRAIN INLET PROTECTION
TC-1	STABILIZED CONSTRUCTION ENTRANCE AND EXIT
TC-2	STABILIZED CONSTRUCTION ROADWAY
NS-1	WATER CONSERVATION PRACTICES
NS-2	DEWATERING OPERATION
NS-4	TEMPORARY STREAM CROSSING
NS-5	CLEAR WATER DIVERSION
NS-6	ILLICIT CONNECTION/DISCHARGE
NS-7	POTABLE WATER/IRRIGATION
NS-8	VEHICLE AND EQUIPMENT CLEANING
NS-9	VEHICLE AND EQUIPMENT FUELING
NS-10	VEHICLE AND EQUIPMENT MAINTENANCE
NS-14	MATERIAL AND EQUIPMENT USE OVER WATER
WM-01	MATERIAL DELIVERY AND STORAGE
WM-02	MATERIAL USE
WM-03	STOCKPILE MANAGEMENT
WM-04	SPILL PREVENTION AND CONTROL
WM-05	SOLID WASTE MANAGEMENT
WM-06	HAZARDOUS WASTE MANAGEMENT
WM-08	CONCRETE WASTE MANAGEMENT
WM-09	SANITARY-SEPTIC WASTE MANAGEMENT
WM-10	LIQUID WASTE MANAGEMENT

TABLE 1 OF ATTACHMENT D OF THE CGP

CRITICAL LENGTH/SHEET FLOW COMBINATIONS – RISK LEVEL 2

SLOPE PERCENTAGE	SHEET FLOW LENGTH NOT TO EXCEED
0-25%	20 FEET
25-50%	15 FEET
OVER 50%	10 FEET

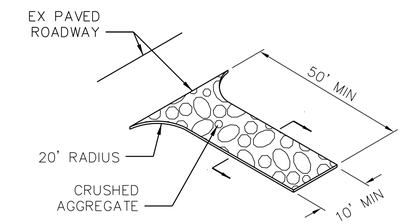
LEGEND

FIBER ROLL

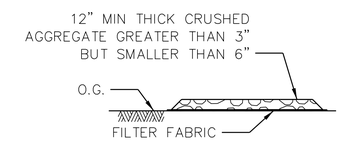
GRAVEL CHECK DAM

TEMPORARY V-DITCH SWALE

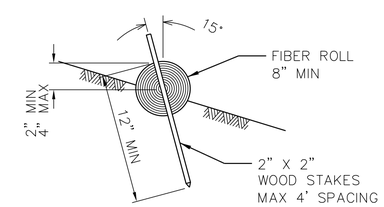
TEMPORARY CONSTRUCTION ENTRANCE



STABILIZED CONSTRUCTION ENTRANCE
NTS



STABILIZED CONSTRUCTION ENTRANCE
SECTION A-A
NTS



FIBER ROLL
NTS

DRAFT – NOT FOR CONSTRUCTION

C-57

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

EROSION CONTROL NOTES & DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 61 OF 103 SHEETS

WBS B-17033

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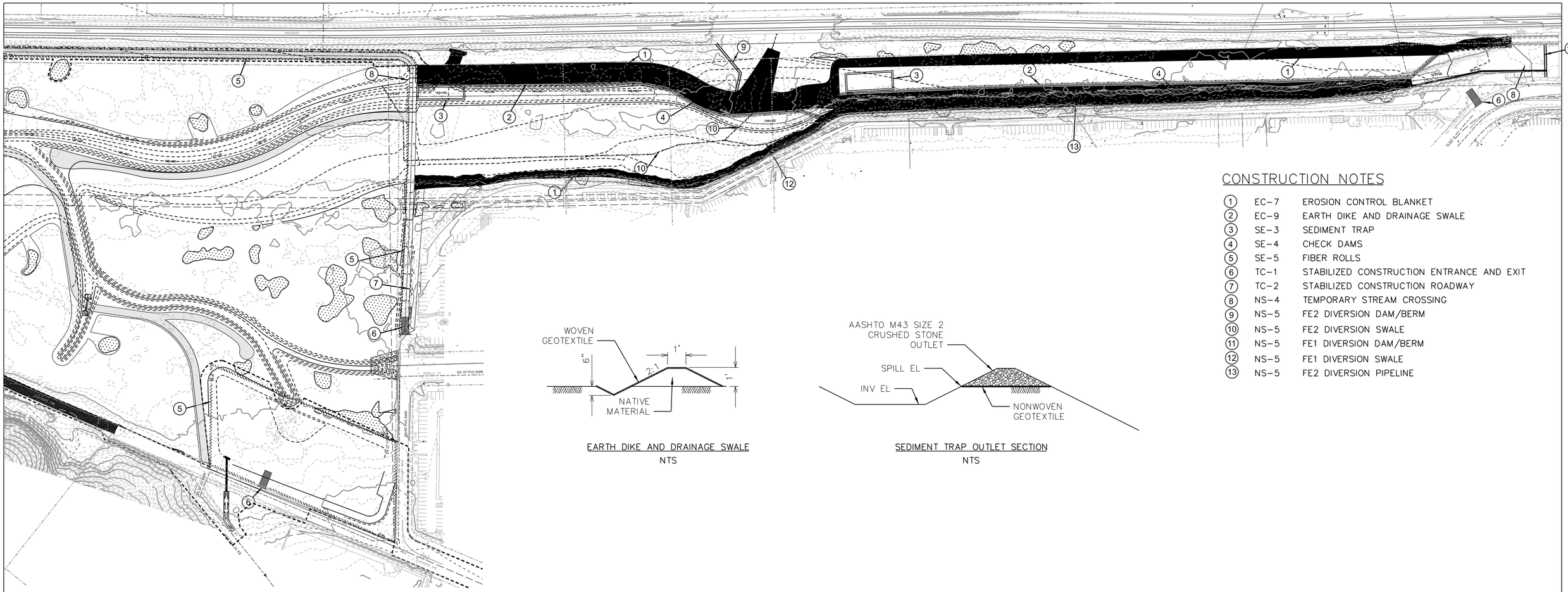
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

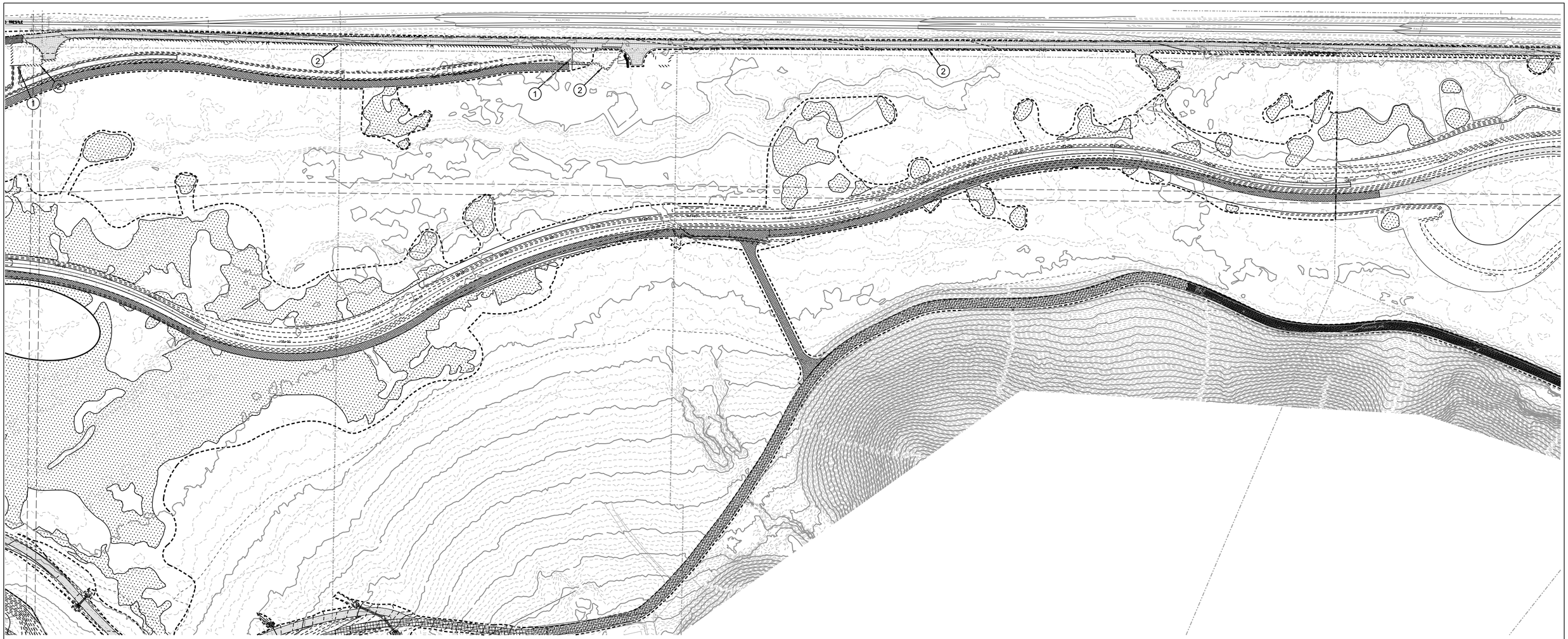
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-61-D

EROSION CONTROL PLAN

100% SUBMITTAL


RAILROAD
ROSELLE ST
EX 15" PVC SWR
EX 12" PVC SWR
EX 12" PVC SWR
EX 12



CONSTRUCTION NOTES

1. SE-4 CHECK DAMS
2. SE-5 FIBER ROLLS

EROSION CONTROL QUANTITIES – PHASE 1A

WATER DIVERSION	EARTH DIKE AND SWALE	FIBER ROLL	EROSION CONTROL BLANKET	GRAVEL BERM /CHECK DAM	CONSTRUCTION ENTRANCE	SEDIMENT TRAP EXCAVATION	8"-12" COBBLE
EA	LF		AC	LF	EA	CY	
2	1920	6148	3.21	413	3	400	4

EROSION CONTROL PHASING – PHASE 1A

1. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OUTFALLS

0 100 200 300
SCALE 1"=100'

DRAFT – NOT FOR CONSTRUCTION

C-59

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

EROSION CONTROL PLAN PHASE 1A

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 63 OF 103 SHEETS

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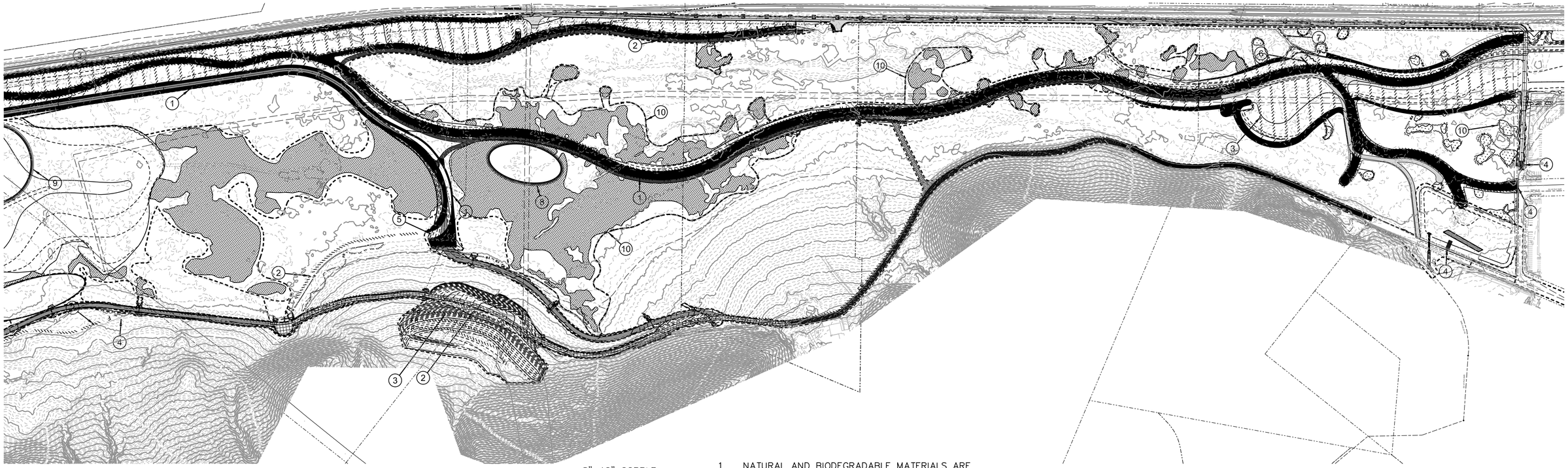
0101189-63-D

CONTRACTOR NTP DATE
INSPECTOR NOC DATE

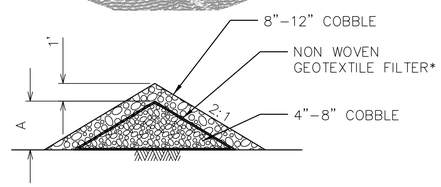
EROSION CONTROL PLAN

100% SUBMITTAL



CONSTRUCTION NOTES

1	EC-7	EROSION CONTROL BLANKET
2	SE-4	CHECK DAMS
3	SE-5	FIBER ROLLS
4	TC-1	STABILIZED CONSTRUCTION ENTRANCE AND EXIT
5	TC-2	STABILIZED CONSTRUCTION ROADWAY
6	NS-5	DIVERSION DAM/BERM
7	NS-5	DIVERSION SWALE
8	WM-3	STOCKPILE MANAGEMENT BERM
9	WM-3	DREDGE MATERIAL STOCKPILE MANAGEMENT BERM
10	SE-1	REVEGETATION AREA PERIMETER FIBER ROILL MAXIMUM EXTENT OF REVEGETATED AREA IS SHOWN ON THIS DRAWING. PLACEMENT OF EROSION CONTROL MEASURES FOR REVEGETATED AREAS TO BE DETERMINED IN THE FIELD BASED ON SOIL DISTURBANCE AND SHALL INCLUDE FIBER ROLLS ON DEVEGETATED SLOPES.

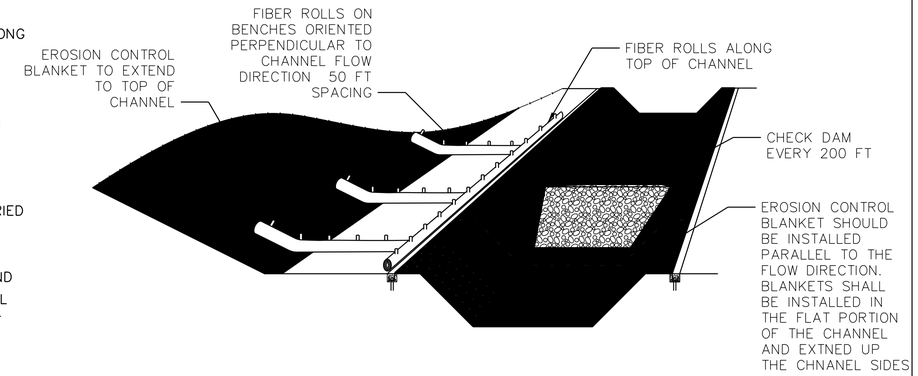


CHECK DAM AND STOCKPILE MANAGEMENT BERM
NTS

DAM/BERM TYPE	HEIGHT 'A'
CHECK DAM	1.5 FT
STOCKPILE MANAGEMENT BERM	2 FT
DREDGE MATERIAL STOCKPILE MANAGEMENT BERM	4 FT

*GEOTEXTILES TO BE PLACED IN EVERY STOCKPILE MANAGEMENT BERM AND EVERY OTHER CHECK DAM

1. NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS
2. A PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL EROSION CONTORL BLANKET AREAS
3. JOINT ANCHOR TRENCHES SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER BOTH LONGITUDINALLY AND TRANSVERSELY
4. AREAS THAT HAVE BEEN SEEDED THAT ARE DISTURBED DURING OR AFTER THE EROSION CONTROL BLANKET INSTALLATION SHALL BE RESEEDED AND REPARIED PRIOR TO FINAL INSTLATION OF EROSION CONTROL BLANKET
5. CONTRACTOR SHALL INSPECT BLANKETS WEEKLY AND MAINTAIN THEM IN AN EFFECTIVE CONDITION. THEY SHALL BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AS REPAIRS COMPLETED AS NECESSARY



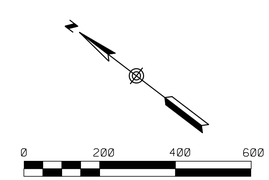
PHASE 1B CHANNEL EROSION CONTROL MEASURES
NTS

DRY WEATHER DIVERSION NOTES – PHASE 1B

1. DURING ALL PHASES OF CONSTRUCTION DRY WEATHER FLOWS SHALL BE KEPT OUT OF ACTIVE EXCAVATIONS.
2. DRY WEATHER SHALL BE DIVERTED TO THE EXISTING LOW FLOW CHANNEL VIA THE CONSTRUCTION OF THE PHASE 1B DIVERSION DAM/BERM AND DIVERSION SWALE.
3. FOR AREAS UPSTREAM OF THE PHASE 1B DIVERSION DAM, DRY WEATHER SHALL BE DIVERTED USING STREAM ISOLATION METHODS.
4. CONTRACTOR SHALL PREPARE A DIVERSION PLAN DESCRIBING THE MEANS AND METHODS FOR PREVENTING DRY WEATHER FLOWS FROM ENTERING INTO AREAS OF ACTIVE EXCAVATION. PROPOSED DIVERSION METHODS SHALL PRESERVE THE FLOOD CONTROL CAPACITY OF THE CHANNEL. THE DRY WEATHER DIVERSION PLAN SHALL ADDRESS ANY TEMPORARY DIVERSIONS NEEDED TO DIVERT THE DRY WEATHER FLOWS TO THESE EXISTING LOW FLOW CHANNELS AND THE PROTECTION OF DESIGNATED AREAS THAT ARE RESTRICTED DUE TO SENSITIVE HABITAT.

EROSION CONTROL PHASING – PHASE 1B

1. FIBER ROLLS SHALL BE CONSTRUCTED ALONG THE ACCESS ROAD PRIOR TO BEGINNING ANY PHASE 1B WORK.
2. STOCKPILE MANAGEMENT BERMS SHALL BE CONSTRUCTED BEFORE ANY STOCKPILING OF MATERIALS OCCURS.
3. THE PHASE 1B WATER DIVERSION SHALL BE INSTALLED PRIOR TO CLEARING AND GRUBBING OR EXCAVATING ANY CHANNELS DOWNSTREAM OF THE DIVERSION.
4. CHECK DAMS SHALL BE CONSTRUCTED DOWNSTREAM OF ANY CHANNEL REACH PRIOR TO THAT REACH BEING CLEARED AND GRUBBED OR EXCAVATED.
5. EROSION CONTROL BLANKETS AND FIBER ROLLS SHALL BE INSTALLED ALONG THE CHANNEL AND BENCHES IMMEDIATELY FOLLOWING GRADING OF EACH REACH OF THE CHANNEL.
6. PERIMETER EROSION CONTROL MEASURES FOR REVEGETATED AREAS SHALL BE INSTALLED PRIOR TO BEGINNING REVEGETATION WORK.
7. DREDGE MATERIAL FROM THE REMOVAL OF THE SILL IN THE EXISTING TIDAL CHANNEL SHALL BE PLACED IN A STOCKPILE AND DEWATERING AREA AS SHOWN. CONTRACTOR SHALL PREPARE A DREDGE MATERIAL HANDLING AND DEWATERING PLAN.
8. CHECK DAMS SHALL BE REMOVED BY DISPOSING OF THE GEOTEXTILE FABRIC AND GRADING THE COBBLE INTO THE CHANNEL BOTTOM.



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C-60

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

EROSION CONTROL PLAN PHASE 1B

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 64 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H PORE C69522 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER DATE
RONAK REKANI 86523
PRINT NAME RCE#

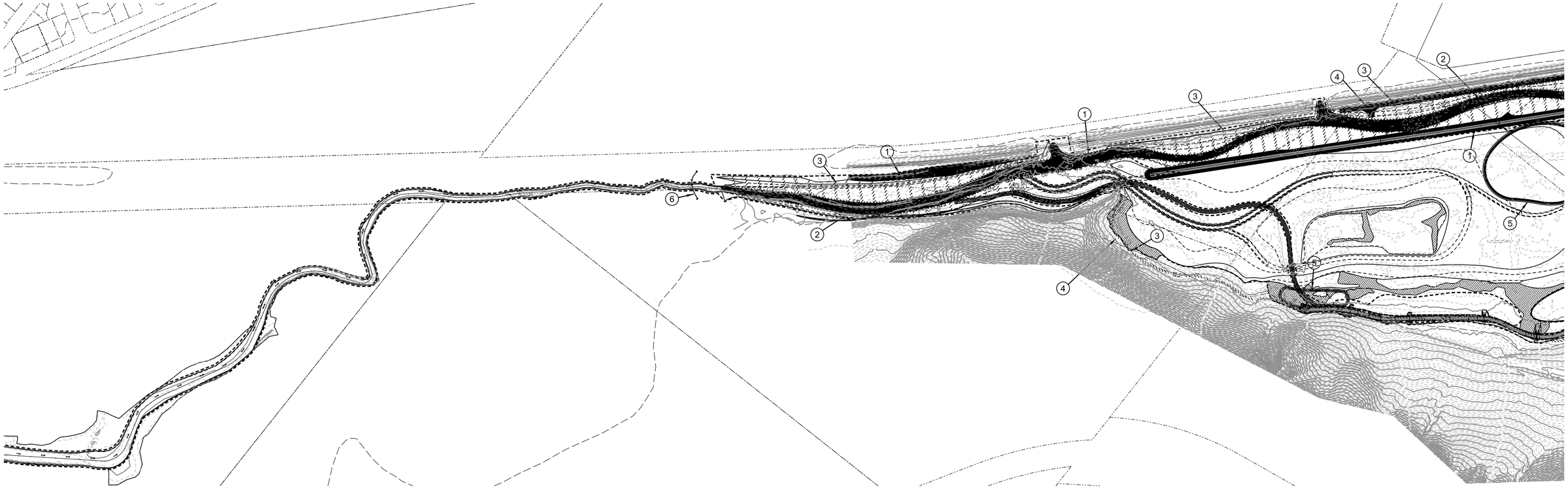
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FMF		5/27/2021	
REV 1	FMF		4/1/2022	

SUBMITTED BY: NENAD DAMNJANOVIC PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER PROJECT ENGINEER
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE
0101189-64-D

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

EROSION CONTROL PLAN

100% SUBMITTAL



EROSION CONTROL QUANTITIES – PHASE 1B

WATER DIVERSION	TURBIDITY CURTAIN	FIBER ROLL	EROSION CONTROL BLANKET	GRAVEL BERM /CHECK DAM
EA		LF	AC	LF
1	1	67766	14.1	3050

CONSTRUCTION NOTES

1. EC-7 EROSION CONTROL BLANKET
2. SE-4 CHECK DAMS
3. SE-5 FIBER ROLLS
4. TC-2 STABILIZED CONSTRUCTION ROADWAY
5. WM-3 STOCKPILE MANAGEMENT BERM
6. NS-5 TYPE 2 DOT TURBIDITY CURTAIN TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF ACTIVE HYDRAULIC DREDGING AREA AND RELOCATED AS NECESSARY

EROSION CONTROL PHASING – PHASE 1B

1. DOWNSTREAM TURBIDITY CURTAIN SHALL BE INSTALLED PRIOR TO BEGINNING HYDRAULIC DREDGING

N

0 200 400 600

SCALE 1"=200'

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LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

EROSION CONTROL PLAN PHASE 1B

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 65 OF 103 SHEETS

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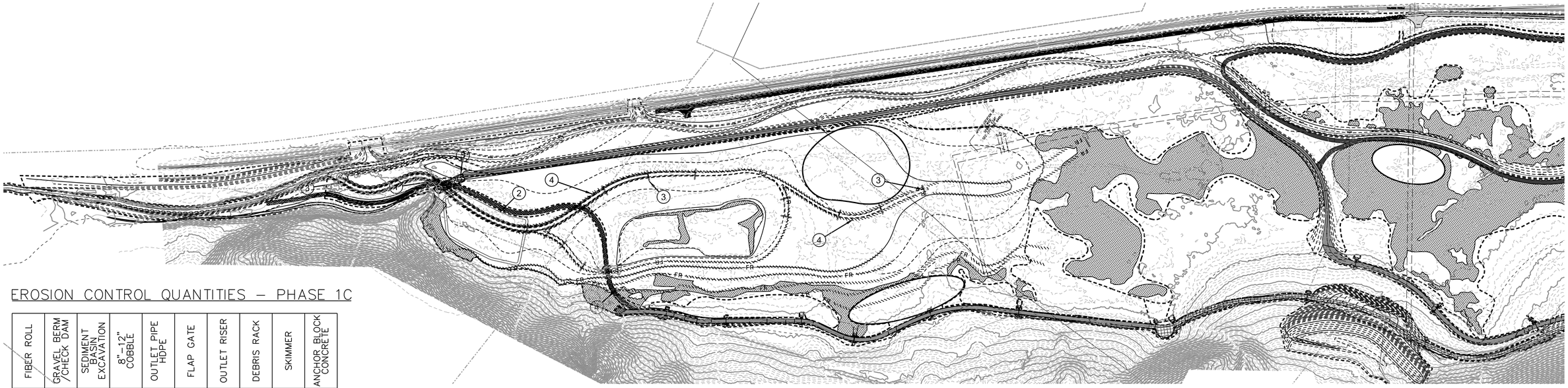
0101189-65-D

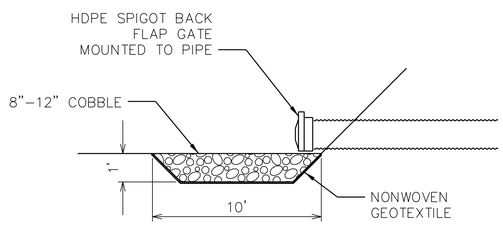
EROSION CONTROL PLAN

100% SUBMITTAL



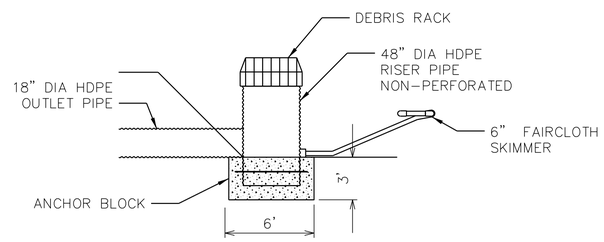
EROSION CONTROL QUANTITIES – PHASE 1C

FIBER ROLL	GRAVEL BERM /CHECK DAM	SEDIMENT BASIN EXCAVATION	8"–12" COBBLE	OUTLET PIPE HDPE	FLAP GATE	OUTLET RISER	DEBRIS RACK	SKIMMER	ANCHOR BLOCK CONCRETE
LF		CY		LF	EA				CY
12448	750	6700	159	90	1	1	1	1	4



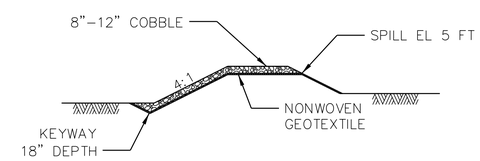
TEMPORARY SEDIMENT BASIN OUTFALL DETAIL

NTS



TEMPORARY SEDIMENT BASIN OUTLET DETAIL

NTS



TIDAL AND SEDIMENT CONTROL BERM SECTION

NTS

CONSTRUCTION NOTES

1. EC–10 VELOCITY DISSIPATION DEVICE
2. SE–2 SEDIMENT BASIN
3. SE–4 CHECK DAMS
4. SE–5 FIBER ROLLS
5. NS–5 TIDAL AND SEDIMENT CONTROL BERM

SEDIMENT BASIN DATA

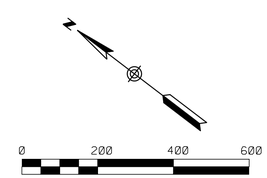
BASIN TOP EL	3 FT
BASIN BOTTOM EL	0 FT
BASIN SIDE SLOPE	3:1
BASIN VOLUME	6700 CY
RISER TOP EL	2.5 FT
RISER BOTTOM EL	0 FT
OUTFALL INV EL	–1 FT

WATER DIVERSION AND DEWATERING – PHASE 1C

1. THE TIDAL AND SEDIMENT CONTROL BERM SHALL BE CONSTRUCTED TO PREVENT TIDES FROM INUNDATING THE PHASE 1C EXCAVATION AREA.
2. STORM FLOWS RESULTING FROM A 1–YEAR STORM EVENT WITHIN LAGOON'S UPSTREAM TRIBUTARY WATERSHED MAY OVERTOP THE TIDAL AND SEDIMENT CONTROL BERM AND INUNDATE THE PHASE 1C EXCAVATION AREA. THE AREA SHALL BE DEWATERED BY ALLOWING THE WATER TO FLOW OVER THE BERM AND THROUGH THE SEDIMENT BASIN RISER VIA GRAVITY. WHEN THE WATER SURFACE ELEVATION FALLS BELOW THE ELEVATION OF THE SEDIMENT BASIN RISER, THE SEDIMENT BASIN SHALL BE DEWATERED THROUGH THE SKIMMER. DEWATERING SHALL NOT OCCUR THROUGH BREACHING THE BERM.
3. HIGH WATER SURFACE ELEVATIONS DOWNSTREAM OF THE TIDAL AND SEDIMENT CONTROL BERM WILL PREVENT THE AREA FROM DRAINING. THE AREA MAY BE DEWATERED USING A PUMP. DISCHARGES FROM DEWATERING OPERATIONS SHALL BE MONITORED FOR TURBIDITY AND PH AND SHALL BE WITHIN THE NUMERIC ACTION LEVELS FOR RISK LEVEL 2 PROJECTS. IF THE TURBIDITY OF THE DISCHARGE EXCEEDS 250 NTU A GRAVITY BAG FILTER SHALL BE USED TO FILTER DISCHARGES.
4. CONTRACTOR SHALL DEVELOP A DEWATERING PLAN FOR SUBMITTAL AND APPROVAL BY AGENCY.

EROSION CONTROL PHASING – PHASE 1C

1. THE STOCKPILE MANAGEMENT BERM SHALL BE CONSTRUCTED BEFORE ANY STOCKPILING OF MATERIALS OCCURS.
2. A CHECK DAM SHALL BE CONSTRUCTED AT THE DOWNSTREAM END OF THE PHASE 1C TIDAL CHANNEL PRIOR TO BEGINNING ANY CLEARING AND GRUBBING OR GRADING OF THE TIDAL CHANNEL. CONSTRUCTION OF THE TIDAL CHANNEL SHALL BEGIN AT THE LOCATION OF THE TIDAL AND SEDIMENT AND CONTROL BERM AND WORK DOWNSTREAM TOWARDS THE CHECK DAM.
3. THE PHASE 1C TIDAL AND SEDIMENT CONTROL BERM AND THE PHASE 1C SEDIMENT BASIN SHALL BE CONSTRUCTED PRIOR TO BEGINNING ANY CLEARING, GRUBBING, OR GRADING UPSTREAM OF THE BERM.
4. FIBER ROLLS AND CHECK DAMS SHALL BE INSTALLED PRIOR TO UPSTREAM CLEARING AND GRUBBING OR GRADING.
5. THE SEDIMENT BASIN AND TIDAL AND SEDIMENT CONTROL BERM SHALL BE REMOVED ONLY AFTER STABILIZATION OF THE UPSTREAM AREA.
6. SILT FENCE TO BE INSTALLED IN DISTURBED AREAS POST CLEARING AND GRUBBING.



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LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

EROSION CONTROL PLAN PHASE 1C

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 66 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69622 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER DATE
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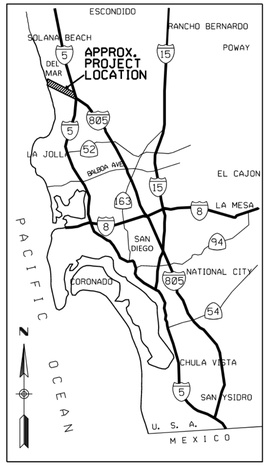
SEE SHEETS CCS27 COORDINATE
SEE SHEETS CCS83 COORDINATE
0101189-66-D

CONTRACTOR NTP DATE
INSPECTOR NOC DATE

EROSION CONTROL PLAN

100% SUBMITTAL



VICINITY MAP

SOURCE CONTROL BMP CHECKLIST FOR STANDARD PROJECTS — FORM I-4A

ALL DEVELOPMENT PROJECTS MUST IMPLEMENT SOURCE CONTROL BMPs. REFER TO CHAPTER 4 AND APPENDIX E OF THE BMP DESIGN MANUAL FOR INFORMATION TO IMPLEMENT BMPs SHOWN IN THIS CHECKLIST.

NOTE: ALL SELECTED BMPs MUST BE SHOWN ON THE CONSTRUCTION PLANS.

SOURCE CONTROL REQUIREMENT	APPLIED(1)?		
4.2.1 PREVENTION OF ILLICIT DISCHARGES INTO THE MS4	☐ YES	☐ NO	☒ N/A
4.2.2 STORM DRAIN STENCILING OR SIGNAGE	☐ YES	☐ NO	☒ N/A
4.2.3 PROTECT OUTDOOR MATERIALS STORAGE AREAS FROM RAINFALL, RUN-ON, RUNOFF, AND WIND DISPERSAL	☐ YES	☐ NO	☒ N/A
4.2.4 PROTECT MATERIALS STORED IN OUTDOOR WORK AREAS FROM RAINFALL, RUN-ON, RUNOFF, AND WIND DISPERSAL	☐ YES	☐ NO	☒ N/A
4.2.5 PROTECT TRASH STORAGE AREAS FROM RAINFALL, RUN-ON, RUNOFF, AND WIND DISPERSAL	☐ YES	☐ NO	☒ N/A
4.2.6 BMPs BASED ON POTENTIAL SOURCES OF RUNOFF POLLUTANTS	☐ YES	☐ NO	☒ N/A
ON-SITE STORM DRAIN INLETS	☐ YES	☐ NO	☒ N/A
INTERIOR FLOOR DRAINS AND ELEVATOR SHAFT SUMP PUMPS	☐ YES	☐ NO	☒ N/A
INTERIOR PARKING GARAGES	☐ YES	☐ NO	☒ N/A
NEED FOR FUTURE INDOOR AND STRUCTURAL PEST CONTROL	☐ YES	☐ NO	☒ N/A
LANDSCAPE / OUTDOOR PESTICIDE USE	☐ YES	☐ NO	☒ N/A
POOLS, SPAS, PONDS, DECORATIVE FOUNTAINS, AND OTHER WATER FEATURES	☐ YES	☐ NO	☒ N/A
FOOD SERVICE	☐ YES	☐ NO	☒ N/A
REFUSE AREAS	☐ YES	☐ NO	☒ N/A
INDUSTRIAL PROCESSES	☐ YES	☐ NO	☒ N/A
OUTDOOR STORAGE OF EQUIPMENT OR MATERIALS	☐ YES	☐ NO	☒ N/A
VEHICLE / EQUIPMENT REPAIR AND MAINTENANCE	☐ YES	☐ NO	☒ N/A
FUEL DISPENSING AREAS	☐ YES	☐ NO	☒ N/A
LOADING DOCKS	☐ YES	☐ NO	☒ N/A
FIRE SPRINKLER TEST WATER	☐ YES	☐ NO	☒ N/A
MISCELLANEOUS DRAIN OR WASH WATER	☐ YES	☐ NO	☒ N/A
PLAZAS, SIDEWALKS, AND PARKING LOTS	☐ YES	☐ NO	☒ N/A
SC-6A: LARGE TRASH GENERATING FACILITIES	☐ YES	☐ NO	☒ N/A
SC-6B: ANIMAL FACILITIES	☐ YES	☐ NO	☒ N/A
SC-6C: PLANT NURSERIES AND GARDEN CENTERS	☐ YES	☐ NO	☒ N/A
SC-6D: AUTOMOTIVE-RELATED USES	☐ YES	☐ NO	☒ N/A

DISCUSSION / JUSTIFICATION FOR ALL "NO" ANSWER SHOWN ABOVE:

THIS PROJECT IS A WETLAND RESTORATION PROJECT AND IS THEREFORE NOT APPLICABLE FOR THE FOLLOWING ITEMS.

SITE DESIGN BMP CHECKLIST FOR STANDARD PROJECTS — FORM I-5A

ALL DEVELOPMENT PROJECTS MUST IMPLEMENT SITE DESIGN BMPs SD-1 THROUGH SD-8. REFER TO CHAPTER 4 AND APPENDIX E OF THE BMP DESIGN MANUAL FOR INFORMATION TO IMPLEMENT BMPs SHOWN IN THIS CHECKLIST.

NOTE: ALL SELECTED BMPs MUST BE SHOWN ON THE CONSTRUCTION PLANS.

SITE DESIGN REQUIREMENT	APPLIED(1)?		
4.3.1 MAINTAIN NATURAL DRAINAGE PATHWAYS AND HYDROLOGIC FEATURES	☒ YES	☐ NO	☐ N/A
4.3.2 CONSERVE NATURAL AREAS, SOILS, AND VEGETATION	☒ YES	☐ NO	☐ N/A
4.3.3 MINIMIZE IMPERVIOUS AREA	☒ YES	☐ NO	☐ N/A
4.3.4 MINIMIZE SOIL COMPACTION	☒ YES	☐ NO	☐ N/A
4.3.5 IMPERVIOUS AREA DISPERSION	☐ YES	☐ NO	☒ N/A
4.3.6 RUNOFF COLLECTION	☒ YES	☐ NO	☐ N/A
4.3.7 LANDSCAPING WITH NATIVE OR DROUGHT TOLERANT SPECIES	☒ YES	☐ NO	☐ N/A
4.3.8 HARVESTING AND USING PRECIPITATION	☐ YES	☐ NO	☒ N/A

DISCUSSION / JUSTIFICATION FOR ALL "NO" ANSWER SHOWN ABOVE:

THIS PROJECT IS A WETLAND RESTORATION PROJECT AND IS THEREFORE NOT APPLICABLE FOR THE FOLLOWING ITEMS

(1) ANSWER FOR EACH SOURCE CONTROL AND SITE DESIGN CATEGORY SHALL BE PURSUANT TO THE FOLLOWING:
^"YES" MEANS THE PROJECT WILL IMPLEMENT THE BMP AS DESCRIBED IN CHAPTER 4 AND/OR APPENDIX E OF THE BMP DESIGN MANUAL. DISCUSSION / JUSTIFICATION IS NOT REQUIRED.
^"NO" MEANS THE BMP IS APPLICABLE TO THE PROJECT BUT IT IS NOT FEASIBLE TO IMPLEMENT. DISCUSSION / JUSTIFICATION MUST BE PROVIDED.
^"N/A" MEANS THE BMP IS NOT APPLICABLE AT THE PROJECT SITE BECAUSE THE PROJECT DOES NOT INCLUDE THE FEATURE THAT IS ADDRESSED BY THE BMP (E.G., THE PROJECT HAS NO OUTDOOR MATERIALS STORAGE AREAS). DISCUSSION / JUSTIFICATION MAY BE PROVIDED.

STORM WATER NOTE:

1. THE PROJECT IS SUBJECT TO MUNICIPAL CODE SECTION 43.03 AND TO MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT NO. R9-2013-0001 AS AMENDED BY R9-2015-0001 AND R9-2015-0100
2. NO OTHER IMPERVIOUS SURFACES. ROADWAY WORK LIMITED TO STANDARD MAINTENANCE MEASURES THAT INCLUDE MILLING AND RESURFACING.

ADD AREAS OF IMPERVIOUS SURFACES
(ADD TO THIS LIST AS APPLICABLE)

A) AREA OF BUILDING	0 SF
B) NEW WALKWAY/SIDEWALK	0 SF
C) REPLACED WALKWAY	0 SF
D) OTHER IMPERVIOUS AREA	389 SF
E) REMOVE AND REPLACE PCC PAVEMENT	5050 SF
F) REMOVE AND REPLACE AC ROADWAY WITH PCC IN KIND (ROUTINE MAINTENACNE)	10865 SF
G) REMOVE AND REPLACE AC ROADWAY	12861 SF
H) REMOVE AND REPLACE CONCRETE SIDEWALK (ROUTINE MAINTENANCE)	540 SF
I) GRIND AND OVERALY (ROUTINE MAINTENANCE)	21000 SF
J) REMOVE AND REPLACE CURB AND GUTTER (ROUTINE MAINTENANCE)	250 SF
K) REMOVE AND REPLACE DAMAGED DRIVEWAY APRON (ROUTINE MAINTENANCE)	250 SF

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LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1 BMP SITE MAP

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS DEPARTMENT
SHEET 67 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER — DAVID H FORE — C69522 — CIVIL — STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523 RCE#
PRINT NAME

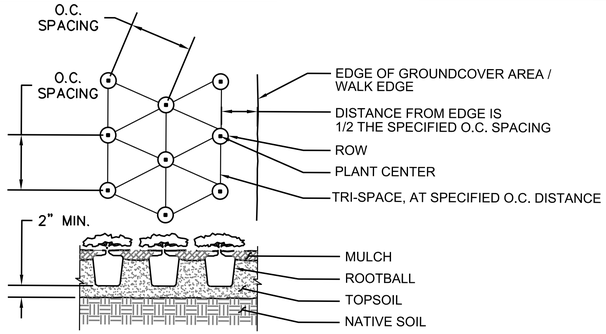
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE EACH SHEET — CCS27 COORDINATE
SEE EACH SHEET — CCS83 COORDINATE
0101189-67-D

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

BMP MAP FOR STANDARD DEVELOPMENT PROJECTS

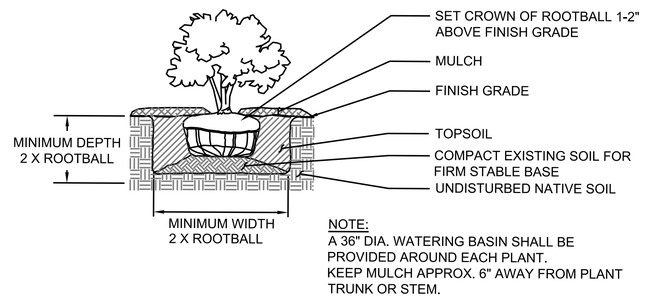
100% SUBMITTAL



NOTE:
KEEP MULCH APPROX. 6" AWAY FROM PLANT TRUNK OR STEM

1 PLANT SPACING

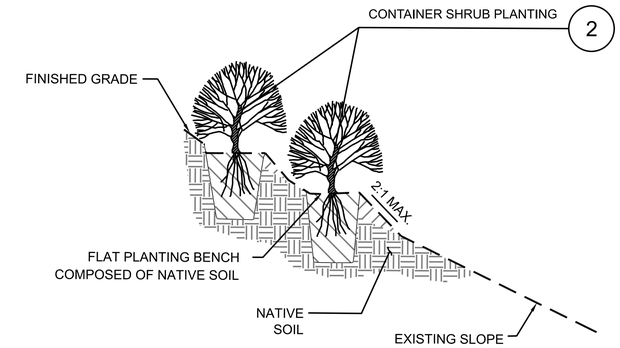
NOT TO SCALE



NOTE:
A 36" DIA. WATERING BASIN SHALL BE PROVIDED AROUND EACH PLANT.
KEEP MULCH APPROX. 6" AWAY FROM PLANT TRUNK OR STEM.

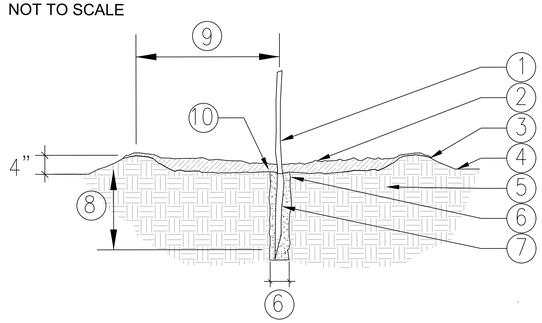
2 CONTAINER SHRUB PLANTING

NOT TO SCALE



3 TREE & SHRUB PLANTING ON SLOPES

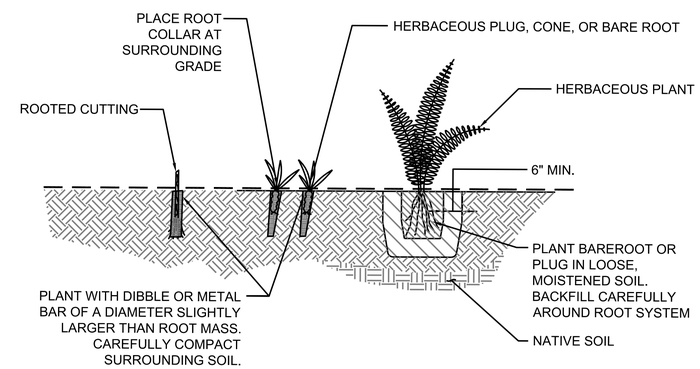
NOT TO SCALE



ITEM	DESCRIPTION
1	48" POLE CUTTING (SEE PLANT LIST FOR SPECIES)
2	2" THICK BARK MULCH LAYER 18" RADIUS, HOLD BACK 3" FROM ROOT CROWN
3	WATERING BASIN 4" ABOVE FINISH GRADE
4	FINISH GRADE
5	AMENDED SOIL (PER SPECIFICATIONS)
6	2" DIAMETER AUGERED PIT (LIGHTLY TAMP SURFACE AFTER PLANTING)
7	TREAT BELOW-GRADE PORTION OF CUTTING WITH ROOTING HORMONE
8	24" - 30" DEPTH
9	PLANTING BASIN MIN. 12" DISTANCE (RADIUS) FROM CUTTING
10	FILL AUGERED HOLE COMPLETELY WITH WATER AND ALLOW TO DRAIN BEFORE PLANTING

4 LIVE STAKE INSTALLATION

NOT TO SCALE



5 BAREROOT, PLUG, ROOTED CUTTING

NOT TO SCALE

PLANTING NOTES

1. THE LIMITS OF WORK SHALL BE FLAGGED IN THE FIELD PRIOR TO ANY CLEARING ACTIVITIES.
2. THE HABITAT RESTORATION LIMITS OF WORK MAY EXTEND BEYOND THE GRADING SHOWN, BUT NOT BEYOND THE PHASE LIMITS SHOWN UNLESS OTHERWISE APPROVED. WORK IN THESE AREAS MAY INCLUDE CLEARING AND REMOVAL OF INVASIVE SPECIES, PROTECTION OF NATIVE VEGETATION TO REMAIN, SOIL PREPARATION AND AMENDMENT, IRRIGATION AND REVEGETATION OF DISTURBED AREAS.
3. ALL AREAS TO BE PLANTED SHALL BE CLEARED AND GRUBBED OF INVASIVE SPECIES PER THE SPECIFICATIONS. PRIOR TO PLANTING, PLANTING ZONE BOUNDARIES SHALL BE STAKED IN THE FIELD BASED ON ADJUSTMENTS TO THE ESTIMATED EXTENT ON REVEGETATION PLAN BY THE OWNERS REPRESENTATIVE (PROJECT BIOLOGIST) BASED ON FIELD CONDITIONS FOLLOWING CLEARING AND GRUBBING AND GRADING ACTIVITIES. THE STAKED LIMITS OF THE PLANTINGS SHALL BE VERIFIED BY THE OWNERS REPRESENTATIVE (PROJECT BIOLOGIST).
4. CONTRACTOR SHALL VERIFY ALL QUANTITIES, MEASUREMENTS, AND SITE CONDITIONS.
5. A POST-GRADING MEETING WILL BE HELD TO REVIEW FINISH GRADING.
6. PLANTING PERIOD IS WEATHER DEPENDENT AND PLANTING SEQUENCE SHALL BE ADJUSTED ACCORDING TO SOIL MOISTURE.
7. ALL SEEDING ACTIVITIES SHALL CONFORM TO NORMAL LANDSCAPE INDUSTRY STANDARDS. INFERIOR SEED WILL BE REJECTED BY ENGINEER OR RESTORATION ECOLOGIST.
8. IF PURITY/GERMINATION RATES OF PROVIDED SEED ARE LESS THAN SPECIFIED, THE BULK POUNDS OF SEED PER ACRE SHALL BE ADJUSTED TO ACHIEVE THE DESIRED PURE LIVE SEED (PLS) PER ACRES.
9. CONTRACTOR SHALL CONTROL NOXIOUS OR INVASIVE WEEDS WHICH MAY DEVELOP ON SITE DURING WARRANTY PERIOD. SEE SPECIFICATIONS FOR MORE INFORMATION.
10. CONTRACTOR SHALL REPAIR AND SEED ALL AREAS DISTURBED THROUGHOUT THE COURSE OF CONSTRUCTION WITH APPROPRIATE SEED MIX AND APPLICATION RATE AS PRESCRIBED IN PLANT SCHEDULE.
11. PLANTS SHALL BE PLACED IN GROUPS OF LIKE VARIETY.
12. MAINTENANCE: ALL REQUIRED LANDSCAPE AND IRRIGATION SHALL BE MAINTAINED BY THE CITY IN COORDINATION WITH CALIFORNIA STATE PARKS UNDER THE APPROVED JOINT POWERS AGREEMENT. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER, AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMITS.
13. ALL LANDSCAPE AND IRRIGATION SHALL CONFROM TO THE APPROVED PROJECT PERMITS AND AT A MINIMUM TO THE STANDARDS OF THE CITY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE-RELATED CITY AND REGIONAL STANDARDS.

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L-01

LOS PEÑASQUITOS LAGOON RESTORATION – PH. 1

REVEGETATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 68 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69622 CIVIL STATE OF CALIFORNIA

APPROVED: FOR CITY ENGINEER — DATE
RONAK REKANI — 86523 RCE#
PRINT NAME

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

0101189-68-D

100% SUBMITTAL

REVEGETATION PLAN

Phase 1A

#	Scientific Name	Common Name	Installation Method	Container Size	Spacing (ft)	Grouping Size	Seed LBS/ac	Mulefat Scrub	So. Willow Scrub	Freshwater Wetlands	Enhancement Area	Bioengineered Grade Controls	Notes
		ACERAGE						4.91	7.65	3.03	0.87		
4	*Frankenia salina*	Alkali Heath	Container	4 in	3	6		1,188	1,851				
8	*Distichlis spicata*	Saltgrass	Container	4 in	3	6		1,188	370				
19	*Juncus acutus ssp. leopoldii*	Southwestern Spiny Rush	Container	1 gal	5	6		1,283	1,333				
22	*Baccharis salicifolia*	Mulefat	Container/Stakes	1 gal	8	5		1,671	52				
23	*Iva hayesiana*	San Diego Marsh-Elder	Container/seed	1 gal	5	3	2.00	1,711	1,999	792			
24	*Salix laseolepis*	Arroyo Willow	Container/Stakes	1 gal	8	10		167	521				
25	*Anemopsis californicum*	Yerba Mansa	Container	4 in	4	8			417	792			
26	*Eleocharis macrostachya*	Spike Rush	Container	4 in	5	5				1,056			
27	*Elymus triticoides*	Alkali Rye	Container/Seed	4 in	6		2.00	1,188	926	733			
28	*Juncus mexicanus*	Mexican Rush	Container	1 gal	5				666	792			
29	*Juncus xiphioides*	Iris-leaf Rush	Container	1 gal	5				400	792			
32	*Artemisia palmeri*	San Diego Sagewort	Container	1 gal	5			856	666				
33	*Clematis ligusticifolia*	Yerba de Chiva	Container	4 in	4-Jan			134	208				
34	*Platanus racemosa*	Western Sycamore	Container	1 gal	5			0	133				
35	*Artemisia douglasiana*	Douglas mugwart	Seed	1 gal	5		2.00	86	133				
36	*Muhlenbergia rigens*	Deer Grass	Container/Seed	1 gal	3	5	2.00	238	370				
37	*Isocoma menziesii*	Coast Goldenbush	Container/Seed	1 gal	4	6	5.00	134					
38	*Salix gooddingii*	Black Willow	Container/Stakes	1 gal	12	6			116				
39	*Sambucus mexicanus*	Mexican Elderberry	Container	1 gal	5	3			666				
68	*Elymus condensatus*	Giant Wild Rye	Container	1 gal	6	6						***	*** Plant gabion structure in FE1 that separates low flow channel from FE1 with Elymus 100-condensatus at 3' o.c. spacing spacing
69	*Salix exigua*	Sand Bar Willow	Container	1 gal	8	5		428	666			***	*** Plant half Salix exigua/half Pluchea sericea per specified spacing
70	*Juncus rugulosus*	Wrinkled Rush	Container	1 gal	5			428	666				

DRAFT – NOT FOR CONSTRUCTION

L-02

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

REVEGETATION PLAN – PLANT PALETTE

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 69 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69622 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

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SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE
0101189-69-D

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

REVEGETATION PLAN

100% SUBMITTAL

Phase 1B

#	Scientific Name	Common Name	Installation Method	Container Size	Spacing (ft)	Seed LBS/ac	Mid Marsh	High Marsh	Non-tidal Salt Marsh	Transitional Freshwater	Mulefat Scrub	So. Willow Scrub	Coastal Sage Scrub	Freshwater Wetlands	Enhancement Areas	Bioengineered Grade Controls	Notes
		ACERAGE					1.03	8.4	9.17	0.48	5.31	8.09	0.6	10.68	9		
1	*Batis maritima*	Saltwort	Container	4 in	3		499	2,033									
2	*Jaumea carnosa*	Fleshy *Jaumea*	Container	4 in	3		499	2,033	2,219								
3	*Distichlis littoralis*	Shoregrass	Container	4 in	3		748	8,131	2,219								
4	*Frankenia salina*	Alkali Heath	Container	4 in	3		1,246	4,066	4,438	232	1,285	1,958					
5	*Limonium californicum*	Marsh Rosemary	Container	4 in	5		90	732	799								
6	*Salicornia pacifica*	Common Pickleweed	Container	4 in	5			732	799								
7	*Suaeda esteroa*	Estuary Sea Blite	Container	1 gal	5		179										
8	*Distichlis spicata*	Saltgrass	Container	4 in	3		1,246	6,098	6,657	348	1,285	3,916					
9	*Arthrocnemum subterminale*	Parish's Glasswort	Container	4 in	5			2,927	1,598								
10	*Atriplex watsonii*	Matscale	Container	4 in	5			1,464	1,598								
11	*Cressa truxilensis*	Alkali Weed	Seed	4 in	3	1.00			2,219								
12	*Extriplex californica*	California Saltbush	Container	4 in	5			732									
15	*Sueada taxifolia*	Woolly Sea Blite	Container	1 gal	5				1,598								
16	*Heliotropium curassavicum*	Seaside Heliotrope	Container	4 in	5				479								
17	*Lycium californicum*	California Box Thorn	Container	1 gal	5				479								
19	*Juncus acutus ssp. leopoldii*	Southwestern Spiny Rush	Container	1 gal	5				1,598	125	1,388	2,114					
20	*Malvella leprosa*	Alkali Mallow	Container	4 in	5				799	42							
21	*Pluchea sericea*	Arrow Weed	Container	1 gal	5					42							
22	*Baccharis salicifolia*	Mulefat	Container/Stakes	1 gal	8					16	463	141					
23	*Iva hayesiana*	San Diego Marsh-Elder	Container/seed	1 gal	5	2.00				42	1,850	2,114		2,791			
24	*Salix laseolepis*	Arroyo Willow	Container/Stakes	1 gal	8					16	181	551					
25	*Anemopsis californicum*	Yerba Mansa	Container	4 in	5					42		1,410		2,791			
26	*Eleocharis macrostachya*	Spike Rush	Container	4 in	5					42				3,722			
27	*Elymus triticoides*	Alkali Rye	Container/Seed	4 in	6	2.00			1,110	33	723	551		3,722	9,409		
28	*Juncus mexicanus*	Mexican Rush	Container	1 gal	5					42		705		2,791			
29	*Juncus xiphioides*	Iris-leaf Rush	Container	1 gal	5					42	463	705		2,791	3,136		
32	*Artemisia palmeri*	San Diego Sagewort	Container	1 gal	5						925	705					
33	*Clematis ligusticifolia*	Yerba de Chiva	Container	4 in	3-4						257	392					
34	*Platanus racemosa*	Western Sycamore	Container	1 gal	5						-	141					
35	*Artemisia douglasiana*	Douglas mugwart	Seed	1 gal	5	2.00					93	141					
36	*Muhlenbergia rigens*	Deer Grass	Container/Seed	1 gal	5	2.00					93	141			3,136		
37	*Isocoma menziesii*	Coast Goldenbush	Container/Seed	1 gal	5	5.00					93						
38	*Salix gooddingii*	Black Willow	Container/Stakes	1 gal	12	6						245					
39	*Sambucus mexicanus*	Mexican Elderberry	Container	1 gal	5	6						705					
40	*Acmispon glaber*	Deerweed	Container/Seed	4 in	5	3.00							52				
41	*Artemisia californica*	California Sagebrush	Container/Seed	1 gal	5	4.00							105				
42	*Peritoma arborea*	Bladderpod	Container	1 gal	5	6.00							52				
43	*Encelia californica*	Coast Sunflower	Container/Seed	1 gal	5	3.00							105				
44	*Eriogonum fasciculatum*	California Buckwheat	Container/Seed	1 gal	5	6.00							105				
45	*Malosma laurina*	Laurel Sumac	Container	1 gal	5	5.00							52				
46	*Opuntia littoralis*	Coast Prickly Pear	Container/Pads	1 gal	5	1.00							52				
47	*Pinus torreyana*	Torrey Pine	Container	5-15 gal	25	8.00							2				
48	*Rhus integrifolia*	Lemonade Berry	Container	1 gal	5	1.00							52				
49	*Salvia apiana*	White Sage	Container	1 gal	5	1.00							52				
50	*Salvia mellifera*	Black Sage	Container/Seed	1 gal	5	3.00							52				
64	*Stipa pulchra*	Purple Needlegrass	Seed	--	3	2.00							145				
65	*Malacothamnus fasciculatus*	Bush Mallow	Container	1 gal	5								52				
66	*Melica imperfecta*	Coast range melic	Container	1 gal	3	3.00							145				
67	*Ribes speciosum*	Fuchsia flowered gooseberry	Container	1 gal	5	6.00							52				
68	*Elymus condensatus*	Giant Wild Rye	Container	1 gal	6	3.00							20				
69	*Salix exigua*	Sand Bar Willow	Container	1 gal	8	6.00					463	705				***	See phase 1A notes
70	*Pluchea sericea*				8	5										***	See phase 1A notes
71	*Juncus rugulosus*	Wrinkled Rush	Container	1 gal	5						463	705					

DRAFT – NOT FOR CONSTRUCTION

L-03

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

REVEGETATION PLAN – PLANT PALETTE

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 70 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69622 CIVIL STATE OF CALIFORNIA

APPROVED:
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RONAK REKANI — 86523
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SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-70-D

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

BURNS McDONNELL

4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

REVEGETATION PLAN

Phase 1C

#	Scientific Name	Common Name	Installation Method	Container Size	Spacing (ft)	Seed LBS/ac	Mid Marsh	High Marsh	Non-tidal Salt Marsh	Coastal Sage Scrub	Enhancement Areas	Bioengineered Grade Controls	Notes
		ACERAGE					1.59	20.67	17.14	2.37	8.6		
1	*Batis maritima*	Saltwort	Container	4 in	3		770	5,002					
2	*Jaumea carnosa*	Fleshy *Jaumea*	Container	4 in	3		770	5,002	4,148				
3	*Distichlis littoralis*	Shoregrass	Container	4 in	3		1,154	20,009	16,592				
4	*Frankenia salina*	Alkali Heath	Container	4 in	3		1,924	10,004	8,296				
5	*Limonium californicum*	Marsh Rosemary	Container	4 in	5		139	1,801	1,493				
6	*Salicornia pacifica*	Common Pickleweed	Container	4 in	5			1,801	1,493				
7	*Suaeda esteroa*	Estuary Sea Blite	Container	1 gal	5		277						
8	*Distichlis spicata*	Saltgrass	Container	4 in	3		1,924	15,006	12,444				
9	*Arthrocnemum subterminale*	Parish's Glasswort	Container	4 in	5			7,203	2,986				
10	*Atriplex watsonii*	Matscale	Container	4 in	5			3,602	597				
11	*Cressa truxilensis*	Alkali Weed	Seed	4 in	3	1.00			8,296				
12	*Extriplex californica*	California Saltbush	Container	4 in	5			1,801					
13	*Spartina foliosa*	Pacific cordgrass	Container	1 gal	5		277						
15	*Sueada taxifolia*	Woolly Sea Blite	Container	1 gal	5				2,986				
16	*Heliotropium curassavicum*	Seaside Heliotrope	Container	4 in	5				896				
17	*Lycium californicum*	California Box Thorn	Container	1 gal	5				896				
19	*Juncus acutus ssp. leopoldii*	Southwestern Spiny Rush	Container	1 gal	5				2,986				
20	*Malvella leprosa*	Alkali Mallow	Container	4 in	5				1,493				
37	*Isocoma menziesii*	Coast Goldenbush	Container/Seed	1 gal	5	5.00				206			
40	*Acmispon glaber*	Deerweed	Container/Seed	4 in	5	3.00				206			
41	*Artemisia californica*	California Sagebrush	Container/Seed	1 gal	5	4.00				413			
42	*Peritoma arborea*	Bladderpod	Container	1 gal	5	6.00				206			
43	*Encelia californica*	Coast Sunflower	Container/Seed	1 gal	5	3.00				413			
44	*Eriogonum fasciculatum*	California Buckwheat	Container/Seed	1 gal	5	6.00				413			
45	*Malosma laurina*	Laurel Sumac	Container	1 gal	5	5.00				206			
46	*Opuntia littoralis*	Coast Prickly Pear	Container/Pads	1 gal	5	1.00				206			
47	*Pinus torreyana*	Torrey Pine	Container	5-15 gal	25	8.00				8			
48	*Rhus integrifolia*	Lemonade Berry	Container	1 gal	5	1.00				206			
49	*Salvia apiana*	White Sage	Container	1 gal	5	1.00				206			
50	*Salvia mellifera*	Black Sage	Container/Seed	1 gal	5	3.00				206			
64	*Stipa pulchra*	Purple Needlegrass	Seed	--	3	2.00				574			
65	*Malacothamnus fasciculatus*	Bush Mallow	Container	1 gal	5					206			
66	*Melica imperfecta*	Coast range melic	Container	1 gal	5	3.00				206			
67	*Ribes speciosum*	Fuchsia flowered gooseberry	Container	1 gal	5	6.00				206			
68	*Elymus condensatus*	Giant Wild Rye	Container	1 gal	6	3.00				143			
69	*Salix exigua*	Sand Bar Willow	Container	1 gal	8	6.00						75	

DRAFT – NOT FOR CONSTRUCTION

L-04

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

REVEGETATION PLAN – PLANT PALETTE

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 71 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POPE C69622 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK BEKANI — 86523
PRINT NAME — RCE#

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SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

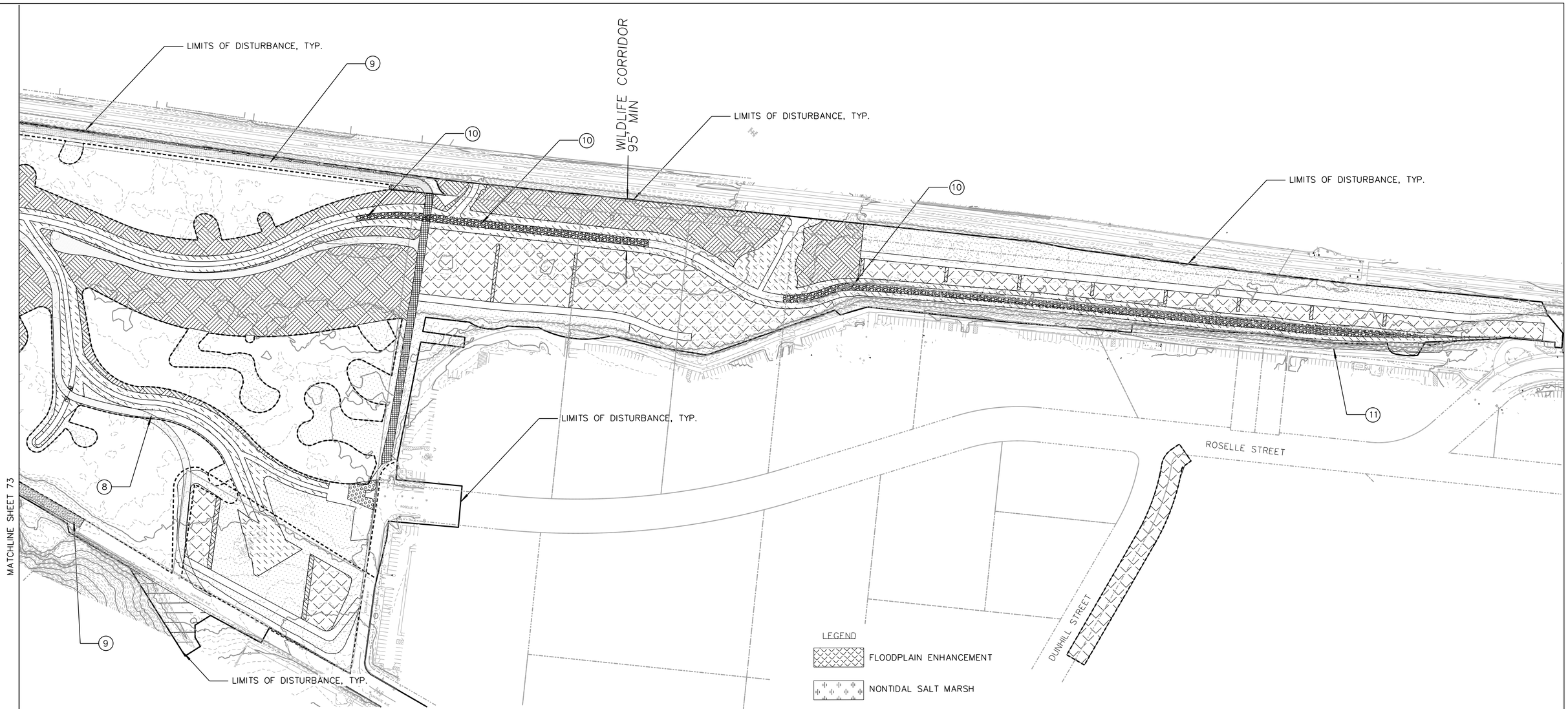
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-71-D

REVEGETATION PLAN

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL



NOTES

1. RESTORE AREAS INDICATED IN ACCORDANCE WITH THE PLANTING SCHEDULE AND DETAILS.
2. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO ACCESS ISOLATED AREAS AND RESTORE ALL DISTURBED ACCESS ROUTES WITH PLANTINGS INDICATED FOR ADJACENT RESTORATION.
3. REFER TO PHASE PLAN INDEX AND GRADING PLANS FOR RESTORATION PHASING LIMITS.
4. THE LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT AREAS ARE APPROXIMATE. LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT WILL BE FIELD STAKED AND VERIFIED BY THE PROJECT BIOLOGIST.
5. MAINTENANCE: ALL REQUIRED LANDSCAPE AND IRRIGATION SHALL BE MAINTAINED BY THE CITY IN COORDINATION WITH CALIFORNIA STATE PARKS UNDER THE APPROVED JOINT POWERS AGREEMENT. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER, AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMITS.
6. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE APPROVED PERMITS AND AT A MINIMUM TO THE STANDARDS OF THE CITY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE-RELATED CITY AND REGIONAL STANDARDS.
7. TEMPORARY CONSTRUCTION ROADS ARE NOT SHOWN AS THESE ARE TEMPORARY AND WILL BE REVEGETATED PER THESE VEGETATION PLANS. LOCATION OF THE TEMPORARY CONSTRUCTION ROADS ARE SHOWN ON SHEETS 12 TO 31.
8. ADAPTIVE MANAGEMENT ROADS LIMITS SHOWN WILL REMAIN IN-PLACE DURING THE APPROXIMATE 5-YEAR ADAPTIVE MANAGEMENT PERIOD. REVEGETATION OF THESE AREAS WILL BE PERFORMED UNDER A SEPARATE MAINTENANCE CONTRACT
9. LONG-TERM ACCESS ROAD - NO REVEGETATION.
10. LIMITS OF COBBLE SHOWN ON DRAWING. NO PLANTINGS WITHIN THE BOTTOM CHANNEL EITHER WITH OR WITHOUT COBBLE.
11. SLOPE TO BE CLEARED AND GRUBBED AND REVEGETATED WITH MULE FLAT SCRUB. SELECT REMOVAL ON SLOPE.

LEGEND

- FLOODPLAIN ENHANCEMENT
- NONTIDAL SALT MARSH
- HIGH MARSH
- MID MARSH
- TRANSITIONAL FRESHWATER
- FRESHWATER WETLANDS
- SOUTHERN WILLOW SCRUB
- MULE FAT SCRUB
- COASTAL SAGE SCRUB
- BIOENGINEERED GRADE CONTROL
- COBBLE

*SEE PLANTING SCHEDULE AND DETAILS, SHEETS 68 TO 71.

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

DRAFT NOT FOR CONSTRUCTION L-05

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

REVEGETATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 72 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H POAL C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
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CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER

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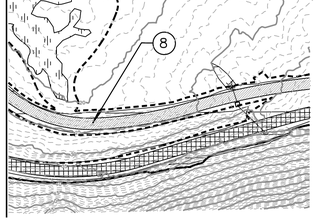
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE

CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE

0101189-72-D

REVEGETATION PLAN

100% SUBMITTAL



NOTES

1. RESTORE AREAS INDICATED IN ACCORDANCE WITH THE PLANTING SCHEDULE AND DETAILS.
2. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO ACCESS ISOLATED AREAS AND RESTORE ALL DISTURBED ACCESS ROUTES WITH PLANTINGS INDICATED FOR ADJACENT RESTORATION.
3. REFER TO PHASE PLAN INDEX AND GRADING PLANS FOR RESTORATION PHASING LIMITS.
4. THE LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT AREAS ARE APPROXIMATE. LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT WILL BE FIELD STAKED AND VERIFIED BY THE PROJECT BIOLOGIST.
5. MAINTENANCE: ALL REQUIRED LANDSCAPE AND IRRIGATION SHALL BE MAINTAINED BY THE CITY IN COORDINATION WITH CALIFORNIA STATE PARKS UNDER THE APPROVED JOINT POWERS AGREEMENT. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER, AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMITS.
6. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE APPROVED PERMITS AND AT A MINIMUM TO THE STANDARDS OF THE CITY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE-RELATED CITY AND REGIONAL STANDARDS.
7. TEMPORARY CONSTRUCTION ROADS ARE NOT SHOWN AS THESE ARE TEMPORARY AND WILL BE REVEGETATED PER THESE VEGETATION PLANS. LOCATION OF THE TEMPORARY CONSTRUCTION ROADS ARE SHOWN ON SHEETS 12 TO 31.
8. ADAPTIVE MANAGEMENT ROADS LIMITS SHOWN WILL REMAIN IN-PLACE DURING THE APPROXIMATE 5-YEAR ADAPTIVE MANAGEMENT PERIOD. REVEGETATION OF THESE AREAS WILL BE PERFORMED UNDER A SEPARATE MAINTENANCE CONTRACT
9. LONG-TERM ACCESS ROAD - NO REVEGETATION.
10. LIMITS OF COBBLE SHOWN ON DRAWING. NO PLANTINGS WITHIN THE BOTTOM CHANNEL EITHER WITH OR WITHOUT COBBLE.

LEGEND

- NONTIDAL SALT MARSH
- HIGH MARSH
- MID MARSH
- TRANSITIONAL FRESHWATER
- FRESHWATER WETLANDS
- SOUTHERN WILLOW SCRUB
- MULE FAT SCRUB
- COASTAL SAGE SCRUB
- COBBLE

*SEE PLANTING SCHEDULE AND DETAILS, SHEETS 68 TO 71.

DRAFT NOT FOR CONSTRUCTION

L-05.5

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

REVEGETATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 73 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H PORL C69622 CIVIL STATE OF CALIFORNIA

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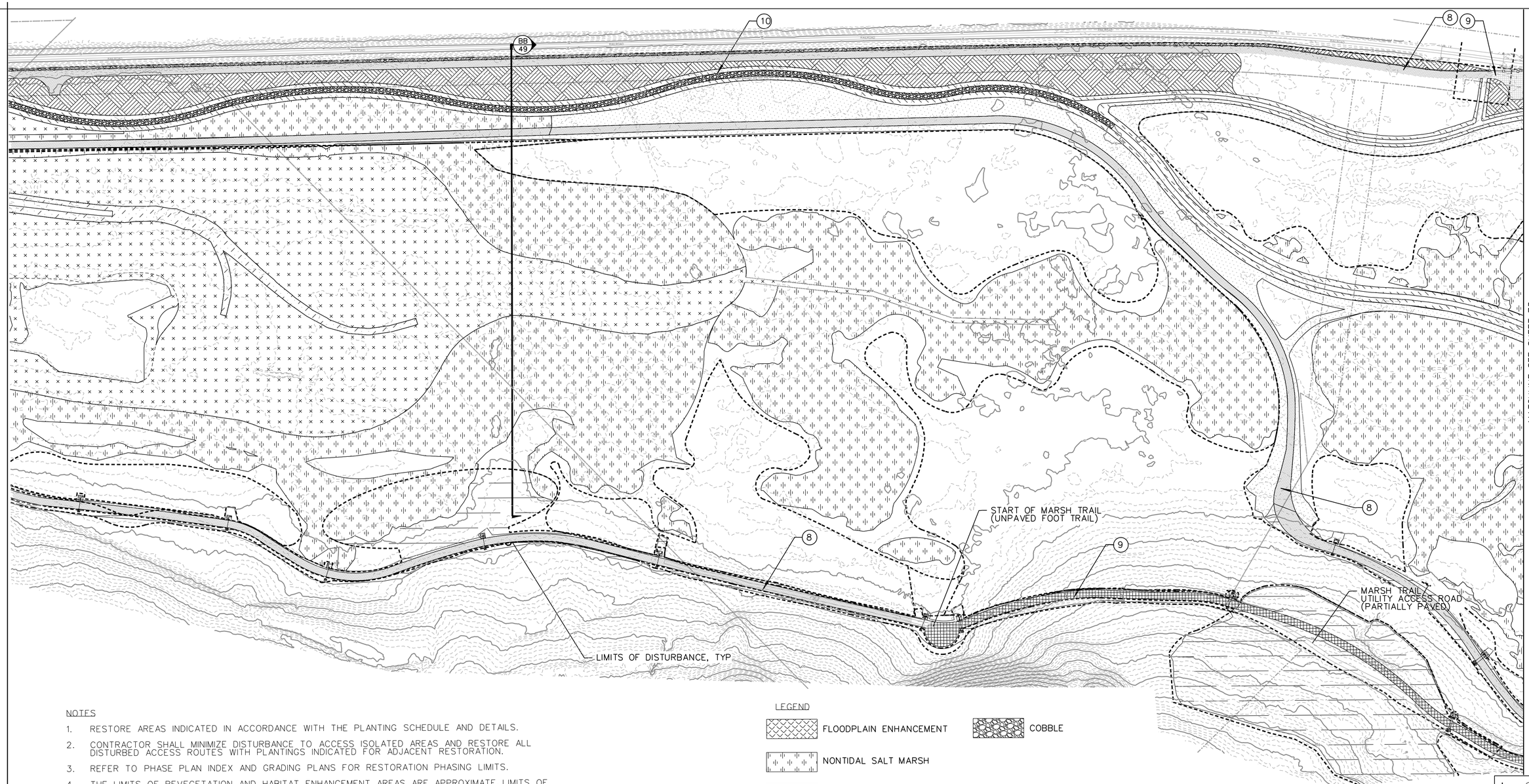
SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
CONTRACTOR
INSPECTOR
NTP DATE
NOC DATE
0101189-73-D

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

REVEGETATION PLAN



NOTES

1. RESTORE AREAS INDICATED IN ACCORDANCE WITH THE PLANTING SCHEDULE AND DETAILS.
2. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO ACCESS ISOLATED AREAS AND RESTORE ALL DISTURBED ACCESS ROUTES WITH PLANTINGS INDICATED FOR ADJACENT RESTORATION.
3. REFER TO PHASE PLAN INDEX AND GRADING PLANS FOR RESTORATION PHASING LIMITS.
4. THE LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT AREAS ARE APPROXIMATE. LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT WILL BE FIELD STAKED AND VERIFIED BY THE PROJECT BIOLOGIST.
5. MAINTENANCE: ALL REQUIRED LANDSCAPE AND IRRIGATION SHALL BE MAINTAINED BY THE CITY IN COORDINATION WITH CALIFORNIA STATE PARKS UNDER THE APPROVED JOINT POWERS AGREEMENT. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER, AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMITS.
6. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE APPROVED PERMITS AND AT A MINIMUM TO THE STANDARDS OF THE CITY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE-RELATED CITY AND REGIONAL STANDARDS.
7. TEMPORARY CONSTRUCTION ROADS ARE NOT SHOWN AS THESE ARE TEMPORARY AND WILL BE REVEGETATED PER THESE VEGETATION PLANS. LOCATION OF THE TEMPORARY CONSTRUCTION ROADS ARE SHOWN ON SHEETS 12 TO 31.
8. ADAPTIVE MANAGEMENT ROADS LIMITS SHOWN WILL REMAIN IN-PLACE DURING THE APPROXIMATE 5-YEAR ADAPTIVE MANAGEMENT PERIOD. REVEGETATION OF THESE AREAS WILL BE PERFORMED UNDER A SEPARATE MAINTENANCE CONTRACT
9. LONG-TERM ACCESS ROAD - NO REVEGETATION.
10. LIMITS OF COBBLE SHOWN ON DRAWING. NO PLANTINGS WITHIN THE BOTTOM CHANNEL EITHER WITH OR WITHOUT COBBLE.

LEGEND

- FLOODPLAIN ENHANCEMENT
- NONTIDAL SALT MARSH
- HIGH MARSH
- MID MARSH
- TRANSITIONAL FRESHWATER
- FRESHWATER WETLANDS
- SOUTHERN WILLOW SCRUB
- MULE FAT SCRUB
- COASTAL SAGE SCRUB
- COBBLE

*SEE PLANTING SCHEDULE AND DETAILS, SHEETS 68 TO 71.

DRAFT NOT FOR CONSTRUCTION

L-06

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

REVEGETATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 74 OF 103 SHEETS

WBS B-17033

APPROVED:
FOR CITY ENGINEER — DATE
RONAK REKANI — 86523
PRINT NAME — RCE#

REGISTERED PROFESSIONAL ENGINEER
DAVID H FORE
C69522
CIVIL
STATE OF CALIFORNIA

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

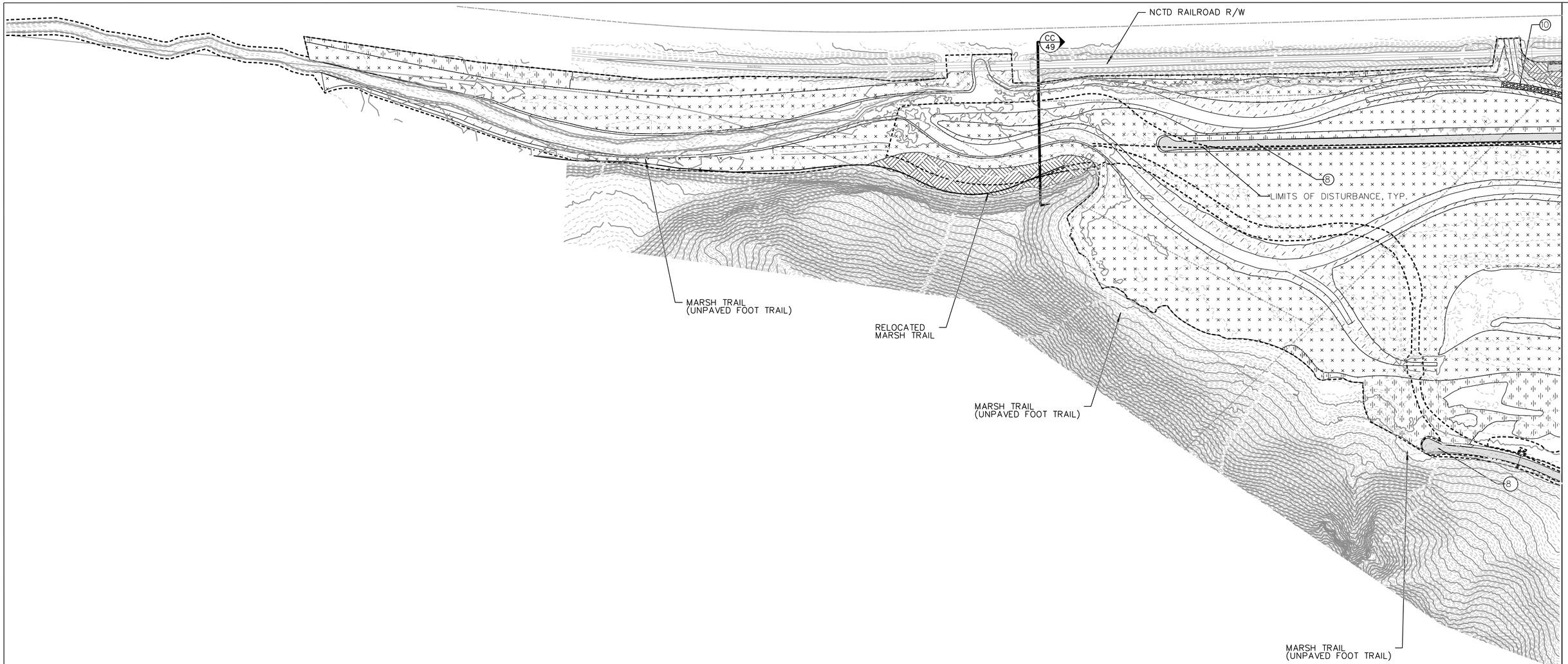
SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS — CCS27 COORDINATE
SEE SHEETS — CCS83 COORDINATE
0101189-74-D

CONTRACTOR — NTP DATE
INSPECTOR — NOC DATE

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

100% SUBMITTAL

REVEGETATION PLAN



NOTES

1. RESTORE AREAS INDICATED IN ACCORDANCE WITH THE PLANTING SCHEDULE AND DETAILS.
2. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO ACCESS ISOLATED AREAS AND RESTORE ALL DISTURBED ACCESS ROUTES WITH PLANTINGS INDICATED FOR ADJACENT RESTORATION.
3. REFER TO PHASE PLAN INDEX AND GRADING PLANS FOR RESTORATION PHASING LIMITS.
4. THE LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT AREAS ARE APPROXIMATE. LIMITS OF REVEGETATION AND HABITAT ENHANCEMENT WILL BE FIELD STAKED AND VERIFIED BY THE PROJECT BIOLOGIST.
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6. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE APPROVED PERMITS AND AT A MINIMUM TO THE STANDARDS OF THE CITY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE-RELATED CITY AND REGIONAL STANDARDS.
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8. ADAPTIVE MANAGEMENT ROADS LIMITS SHOWN WILL REMAIN IN-PLACE DURING THE APPROXIMATE 5-YEAR ADAPTIVE MANAGEMENT PERIOD. REVEGETATION OF THESE AREAS WILL BE PERFORMED UNDER A SEPARATE MAINTENANCE CONTRACT
9. LONG-TERM ACCESS ROAD - NO REVEGETATION.
10. LIMITS OF COBBLE SHOWN ON DRAWING. NO PLANTINGS WITHIN THE BOTTOM CHANNEL EITHER WITH OR WITHOUT COBBLE.

LEGEND

- NONTIDAL SALT MARSH
- HIGH MARSH
- MID MARSH
- TRANSITIONAL FRESHWATER
- FRESHWATER WETLANDS
- SOUTHERN WILLOW SCRUB
- MULE FAT SCRUB
- COASTAL SAGE SCRUB
- COBBLE

*SEE PLANTING SCHEDULE AND DETAILS, SHEETS 68 TO 71.

BURNS McDONNELL
4225 EXECUTIVE SQUARE #500
LA JOLLA, CA 92037
(858) 320-2920

DRAFT NOT FOR CONSTRUCTION

L-06.5

LOS PENASQUITOS
LAGOON RESTORATION – PH. 1

REVEGETATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 75 OF 103 SHEETS

WBS B-17033

REGISTERED PROFESSIONAL ENGINEER DAVID H. POPE C69522 CIVIL STATE OF CALIFORNIA

APPROVED:
FOR CITY ENGINEER _____ DATE
RONAK REKANI 86523
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BMCD		5/27/2021	
REV 1	BMCD		4/1/2022	
REV 2	BMCD		6/30/2023	
REV 3	BMCD		2/2/2024	

SUBMITTED BY: NENAD DAMNJANOVIC, PROJECT MANAGER
CHECKED BY: MATTHEW KIEHLER, PROJECT ENGINEER
SEE SHEETS, CCS27 COORDINATE
SEE SHEETS, CCS83 COORDINATE
0101189-75-D

CONTRACTOR _____ NTP DATE _____
INSPECTOR _____ NOC DATE _____

100% SUBMITTAL

REVEGETATION PLAN

TEMPORARY IRRIGATION NOTES:

1. THE IRRIGATION SYSTEM IS SHOWN DIAGRAMMATICALLY FOR CLARITY. LOCATE ALL PIPING, VALVES, BACKFLOW PREVENTERS, AND OTHER IRRIGATION EQUIPMENT WITHIN PLANTING AREAS UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL REVIEW PLANTING INSTALLATION DETAILS PRIOR TO BEGINNING WORK.
3. EXISTING UTILITIES AND FIELD CONDITIONS: PRIOR TO EXCAVATION, LOCATE ALL CABLES, CONDUITS, AND UNDERGROUND UTILITIES.CONTRACTOR SHALL BE RESPONSIBLE FOR AN UNDERGROUND UTILITY SERVICE TO LOCATE AND MARK UTILITIES. CONTRACTOR WILL TAKE PROPER PRECAUTIONS NOT TO DAMAGE OR DISTURB SUCH UNDERGROUND IMPROVEMENTS. NOTIFY THE RESIDENT ENGINEER IMMEDIATELY IF A CONFLICT EXISTS BETWEEN SUCH OBSTACLES AND THE PROPOSED WORK. PROCEED IN SAME MANNER IF ROCK LAYERS OR ANY OTHER CONDITIONS ENCOUNTERED UNDERGROUND MAKE CHANGES ADVISABLE.
4. ALL PIPING AND WIRING UNDER ROADWAYS AND PAVING AND THROUGH WALLS SHALL BE SLEEVED.
5. USE TWO WRAPS OF THREE-QUARTER INCH (3/4") TEFLON TAPE FOR ALL THREADED CONNECTIONS.
6. BATTERY OPERATED AUTOMATIC IRRIGATION CONTROLLERS ARE TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING, AND INSTALLING THE CORRECT DC LATCHING SOLENOIDS REQUIRED BY THE AUTOMATIC CONTROL VALVE FOR USE WITH THE CONTROLLER. CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS OF FIELD WIRES TO APPROPRIATE TERMINAL STRIPS.
7. ADJUST ALL SPRINKLERS TO AVOID OVERSPRAY ONTO WALLS, WALKS, STREETS, UTILITY BOXES, BUILDINGS AND OTHER IMPROVEMENTS WHERE APPLICABLE.
8. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO THE FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE DESIGNED ON THE PLANS.
9. CONTRACTOR SHALL INSTALL IN-LINE ANTI-DRAIN VALVES AS WARRANTED BY SITE CONDITIONS TO ALLEVIATE LOW HEAD DRAINAGE. SEE INSTALLATION DETAILS FOR ADDITIONAL INFORMATION.
10. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS NECESSARY.
11. THE CONTRACTOR SHALL KEEP AN UP-TO-DATE COMPLETE "AS-BUILT" RECORD SET OF PRINTS WHICH SHALL BE UPDATED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DESIGN.
12. ALL CONTROL VALVES SHALL BE MANIFOLDED AND GROUPED IN ONE AREA SHOWN ON PLAN. VALVES SHALL BE SET AT RIGHT ANGLES TO EDGES. LOCATE ALL VALVES AND VALVE BOXES IN AN ORDERLY ROW AND SIX INCHES FROM EDGE OF PAVING OR CURB WHERE APPLICABLE.
13. CONTRACTOR SHALL REMOVE AND DISCARD DAILY, ALL PIPING DISTURBED DURING TRENCHING OPERATION.
14. CONTRACTOR SHALL REVIEW IRRIGATION SPECIFICATIONS PRIOR TO BEGINNING WORK. REFER TO TECHNICAL SPECIFICATIONS AND CONSTRUCTION DETAILS FOR INSTALLATION PROCEDURES.
15. THE RESIDENT ENGINEER SHALL BE NOTIFIED 48 HOURS (2 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
16. IN ALL AREAS UNAFFECTED BY NEW GRADING, EXISTING IRRIGATION HEADS AND LINES ARE TO BE PROTECTED IN PLACE. CONTRACTOR TO REPLACE, RELOCATE AND/OR ADJUST IRRIGATION EQUIPMENT FOR ALL EXISTING IRRIGATION SYSTEMS THAT ARE DISTURBED DURING CONSTRUCTION IN ORDER TO PROVIDE HEAD TO HEAD COVERAGE WITH NO OVERSPRAY ON HARDSCAPE OR WALLS.
17. CONTRACTOR SHALL INSTALL NEW AUTOMATIC IRRIGATION CONTROL VALVES AND EQUIPMENT BELOW GRADE IN PLASTIC VALVE BOXES WHERE LANDSCAPE HAS BEEN DISTURBED FOR NEW CONSTRUCTION. MAINLINE HIGHLINE AND LATERAL HIGHLINE PIPING SHALL REMAIN ON GRADE EXCEPT WHERE REQUIRED TO GO BELOW GRADE FOR VALVE BOXES AND EQUIPMENT. CONTRACTOR SHALL ENSURE THAT SYSTEM IS FULLY OPERATIONAL AND PROVIDES FULL COVERAGE.
18. CONTRACTOR MAY ENCOUNTER REMNANTS OF PREVIOUS OR EXISTING ABANDONED IRRIGATION EQUIPMENT. CONTRACTOR SHALL CONFIRM WITH RESIDENT ENGINEER THAT THE EXISTING EQUIPMENT IS ABANDONED AND REMOVE THESE SYSTEMS TO A SITE OF LEGAL DISPOSAL.
19. WHERE VERTICAL OBSTRUCTIONS IN THE LANDSCAPE AREA (SUCH AS LIGHT POLES) INTERFERE WITH THE SPRAY PATTERN, CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS IN THE FILED. THIS MAY REQUIRE THE ADDITION OF QUARTER CIRCLE TO EACH SIDE OF THE OBSTRUCTION.
20. INFORMATION SHOWN ON THESE PLANS REFERENCES EXISTING POTABLE WATER SERVICE MAINLINE AND EQUIPMENT. CONTRACTOR TO REFER TO RECORD DRAWINGS FOR WATERLINES WHERE APPLICABLE.
21. ALL EXISTING IRRIGATION EQUIPMENT SHALL BE PROTECTED IN PLACE BEYOND THE LIMITS OF IMPROVEMENTS. REPAIR OR REPLACE ALL EXISTING IRRIGATION SYSTEMS DAMAGED DUE TO NEW CONSTRUCTION. PROVIDE 100% COVERAGE AND FUNCTIONALITY FOR EXISTING IRRIGATION SYSTEMS.
22. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE CITY-WIDE LANDSCAPE REGULATIONS AND THE CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS.
23. MAINTENANCE: ALL REQUIRED LANDSCAPE AND IRRIGATION SHALL BY MAINTAINED BY CITY OF SAN DIEGO. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER, AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMIT.
24. WHERE MODIFIED CITY STANDARD DETAILS ARE NOT PROVIDED, REFER TO CITY STANDARD DETAIL DRAWINGS FOR CONSTRUCTION INSTALLATION AND DIRECTION FOR TEMPORARY IRRIGATION SYSTEM. EXAMPLE INCLUDE CONCRETE THRUST AND ANCHOR BLOCK INSTALLATIONS (SDW-151) FOR GENERAL CONDITIONS AND SWING JOINT AND PIPE INSTALLATION ON SLOPES ABOVE GROUND PIPE INSTALLATIONS (SDI-123) AND ON-GRADE PIPE STABILIZATION TEMPORARY INSTALLATION (SDI-120) FOR SLOPE AND CHANNEL CONDITIONS.
25. FOLLOWING THE 5-YEAR ADAPTIVE MANAGEMENT PERIOD, THE TEMPORARY IRRIGATION SYSTEM INCLUDING ALL PIPES. VALVES, AND CONTROL SYSTEMS WILL BE REMOVED FROM THE SITE. THIS WORK WILL BE COMPLETED BY THE LANDSCAPE CONTRACTOR AS PART OF THE CONTRACT FOR THE 5-YEAR ADAPTIVE MANAGEMENT PERIOD UNDER THIS CONTRACT.

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS

IRRIGATION SCHEDULE

2023-06-16 11:44

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS	DETAIL
1.5 1.5	HUNTER PGP-00-CV 1.5 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	1.5	28'	L-30/SDI-102
2.0 2.0	HUNTER PGP-00-CV 2.0 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	2	31'	
2.5 2.5	HUNTER PGP-00-CV 2.5 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	2.5	32'	
3.0 3.0	HUNTER PGP-00-CV 3.0 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	3	34'	
4.0 4.0	HUNTER PGP-00-CV 4.0 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	4	36'	
5.0 5.0	HUNTER PGP-00-CV 5.0 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	5	38'	
6.0 6.0	HUNTER PGP-00-CV 6.0 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	6	39'	
8.0 8.0	HUNTER PGP-00-CV 8.0 SHRUB ROTOR, FIXED RISER. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	45	8	40'	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	DETAIL
▼	HUNTER ICV-G-DC 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH DC LATCHING SOLENOID FACTORY INSTALLED OPTION.	L-30/SDI-114 SDI-125
	RAIN BIRD 44-LRC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.	L-30/SDI-105
	NIBCO NP 408 BRONZE GATE VALVE WITH THREADED ENDS, SAME SIZE AS MAINLINE UP TO 4"	L-30/SDI-107
	MATCO-NORCA 772ST SCH 80 PVC BALL VALVE, TRUE UNION, 1/2", 3/4", 1", 1-1/4", 1-1/2" AND 2". BOTH SOLVENT AND THREADED ENDS IN BOX. SAME SIZE AS MAINLINE.	L-30/SDI-107
	FEBCO 825YALF REDUCED PRESSURE BACKFLOW PREVENTER	SDW-155
P1	BARRET-BOOSTER PUMP 1 - MODEL #: IBPCO-10-2-3/PACT BUSTER PALM WIH 120 GPM, 78 PSI MIN. AND 128 PSI MAX.	L-30/SDI-107
P2	BOOSTER PUMP 2 - MODEL #: IBPCO-10-2-3/PACT BUSTER PALM WIH 120 GPM, 78 PSI MIN. AND 128 PSI MAX.	SDG-001
X X	CAP FOR FUTURE USE CAP AT THE MAINLINE OR LATERAL LINE FOR FUTURE USE. THE PRESSURE AND FLOW PROVIDED TO THAT LOCATION ARE INDICATED NEXT TO THE CAP SYMBOL.	-
✳	INTERCEPT EXISTING POTABLE WATER LINE	-
PB	PULL BOX CHRYSTY'S PULL BOX CONCRETE BOX WITH CAST IRON LOCKING LID CHRISTY'S OR APPROVED EQUAL	L-31/I-23
W1	POINT OF CONNECTION 1 WATER METER 3" FRESHWATER / POTABLE WATER PSI ASSUMED AS OF 07/13/2023	-
W2	POINT OF CONNECTION 2 WATER METER 3" FRESH WATER/POTABLE WATER PSI ASSUMED AS OF 07/13/2023	-
BW3	POINT OF CONNECTION 3 - BRACKISH WET WELL BRACKISH WATER WELL / SALT WATER PRESSURE PROVIDED BY WELL PUMP 110 PSI BASIS OF DESIGN	-
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 BROWNLINE	L-31/I-25 L-31/I-26
E —— E	POWER SCHEDULE 40 PVC CONDUIT BOOSTER PUMP POWER SUPPLY IN CONDUIT	
	IRRIGATION MAINLINE A FOR POC #1-POTABLE WATER RESTRAINED JOINT PVC PRESSURE CERTA-LOK YELOMINE-SYSTEM ON-GRADE FOR TEMPORARY APPLICATIONS. 2" MIN. SIZE UP TO 4" AS REQUIRED.	L-31/I-25 L-31/I-26
	IRRIGATION MAINLINE B FOR POC #2-POTABLE WATER RESTRAINED JOINT PVC PRESSURE CERTA-LOK YELOMINE-SYSTEM ON-GRADE FOR TEMPORARY APPLICATIONS. 2" MIN. SIZE UP TO 4" AS REQUIRED.	L-31/I-25 L-31/I-26
	IRRIGATION MAINLINE C POC #3-BRACKISH WATER RESTRAINED JOINT PVC PRESSURE CERTA-LOK YELOMINE-SYSTEM ON-GRADE FOR TEMPORARY APPLICATIONS. 2" MIN. SIZE UP TO 4" AS REQUIRED.	L-31/I-25 L-31/I-26
	PIPE SLEEVE: SCHEDULE 40 PVC, 2 X DIAMETER OF	L-31/I-26

CONTROLLERS			DETAIL
HUNTER	NODE BATTERY CONTROLLER	PROVIDE 1,2 OR 4 STATION 'NODE' BATTER OPERATED AUTOMATIC IRRIGATION CONTROLLER BY HUNTER PER MANIFOLD	-

CRITICAL ANALYSIS POC#1(A)

Generated:	2023-09-28 10:48
P.O.C. NUMBER: 01	
Water Source Information: Potable Water	Freshwater /
PSI Assumed as of 3/31/2022	
FLOW AVAILABLE	
Water Meter Size:	3"
Flow Available	220 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	80 PSI
Elevation Change:	5.00 ft
Service Line Size:	4"
Length of Service Line:	20 ft
Booster Pump pressure provided:	35 PSI
Pressure Available:	108 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	200 GPM
Flow Available at POC:	220 GPM
Residual Flow Available:	20 GPM
Critical Station:	A-11
Design Pressure:	45 PSI
Friction Loss:	5.68 PSI
Fittings Loss:	0.57 PSI
Elevation Loss:	0 PSI
Loss through Valve:	2.26 PSI
Pressure Req. at Critical Station:	53.5 PSI
Loss for Fittings:	2.83 PSI
Loss for Main Line:	28.3 PSI
Loss for POC to Valve Elevation:	1.73 PSI
Loss for Backflow:	12.7 PSI
Loss for Water Meter:	1.36 PSI
Critical Station Pressure at POC:	100.4 PSI
Pressure Available:	108 PSI
Residual Pressure Available:	7.58 PSI

CRITICAL ANALYSIS-POC #2(B)

Generated:	2023-09-28 14:40
P.O.C. NUMBER: 02	
Water Source Information: On-Site Recycled Salt Water	Brackish Water Well /
Pressure provided by Well Pump. 80psi basis of design	
FLOW AVAILABLE	
Water Meter Size:	3"
Flow Available	220 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	110 PSI
Elevation Change:	5.00 ft
Service Line Size:	4"
Length of Service Line:	20 ft
Pressure Available:	108 PSI
DESIGN ANALYSIS	
Maximum Multi-valve Flow:	200 GPM
Flow Available at POC:	195 GPM
Residual Flow Available:	5.00 GPM
Critical Station:	B-58
Design Pressure:	45 PSI
Friction Loss:	7.77 PSI
Fittings Loss:	0.77 PSI
Elevation Loss:	10.8 PSI
Loss through Valve:	2 PSI
Pressure Req. at Critical Station:	66.2 PSI
Loss for Fittings:	1.83 PSI
Loss for Main Line:	18.3 PSI
Loss for POC to Valve Elevation:	10.4 PSI
Loss for Backflow:	0 PSI
Critical Station Pressure at POC:	96.7 PSI
Pressure Available:	108 PSI
Residual Pressure Available:	11.3 PSI

CRITICAL ANALYSIS POC#3 (C)

Generated:	2023-09-28 12:13
P.O.C. NUMBER: 03	
Water Source Information: WATER/POTABLE WATER WITH BRACKISH WATER CONNECTION	FRESH
FLOW AVAILABLE	
Water Meter Size:	3"
Flow Available	200 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	80 PSI
Elevation Change:	5.00 ft
Service Line Size:	4"
Length of Service Line:	20 ft
Booster Pump pressure provided:	95 PSI
Pressure Available:	173 PSI
DESIGN ANALYSIS	
Maximum Multi-valve Flow:	200 GPM
Flow Available at POC:	220 GPM

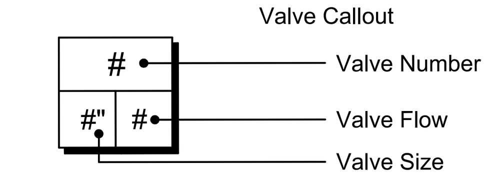
CRITICAL ANALYSIS POC#3 (C)

Critical Station:	C-198
Design Pressure:	45 PSI
Friction Loss:	7.08 PSI
Fittings Loss:	0.71 PSI
Elevation Loss:	0 PSI
Loss through Valve:	1.89 PSI
Pressure Req. at Critical Station:	54.7 PSI
Loss for Fittings:	5.65 PSI
Loss for Main Line:	56.5 PSI
Loss for POC to Valve Elevation:	-3.03 PSI
Loss for Backflow:	15.8 PSI
Loss for Water Meter:	8.94 PSI
Critical Station Pressure at POC:	138.5 PSI
Pressure Available:	173 PSI
Residual Pressure Available:	34.5 PSI

CRITICAL ANALYSIS POC#'S (B-C)

P.O.C. NUMBER: 02	
Water Source Information:	Brackish Water
Well / On-Site Recycled Salt Water	
Pressure provided by Well Pump. 80psi basis of design	
FLOW AVAILABLE	
Water Meter Size:	3"
Flow Available	220 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	110 PSI
Elevation Change:	5.00 ft
Service Line Size:	4"
Length of Service Line:	20 ft
Pressure Available:	108 PSI
DESIGN ANALYSIS	
Maximum Multi-valve Flow:	200 GPM
Flow Available at POC:	195 GPM
Residual Flow Available:	5.00 GPM
Critical Station:	B-58
Design Pressure:	45 PSI
Friction Loss:	7.77 PSI
Fittings Loss:	0.77 PSI
Elevation Loss:	10.8 PSI
Loss through Valve:	2 PSI
Pressure Req. at Critical Station:	66.2 PSI
Loss for Fittings:	1.83 PSI
Loss for Main Line:	18.3 PSI
Loss for POC to Valve Elevation:	10.4 PSI
Loss for Backflow:	0 PSI
Critical Station Pressure at POC:	96.7 PSI
Pressure Available:	108 PSI
Residual Pressure Available:	11.3 PSI
P.O.C. NUMBER: 03	
Water Source Information:	FRESH
WATER/POTABLE WATER WITH BRACKISH WATER CONNECTION	
FLOW AVAILABLE	
Water Meter Size:	3"
Flow Available	200 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	80 PSI
Elevation Change:	5.00 ft
Service Line Size:	4"
Length of Service Line:	20 ft
Booster Pump pressure provided:	95 PSI
Pressure Available:	173 PSI
DESIGN ANALYSIS	
Maximum Multi-valve Flow:	200 GPM
Flow Available at POC:	220 GPM
Residual Flow Available: GPM	20.0
Critical Station:	C-198
Design Pressure:	45 PSI
Friction Loss:	7.08 PSI
Fittings Loss:	0.71 PSI
Elevation Loss:	0 PSI
Loss through Valve:	1.89 PSI
Pressure Req. at Critical Station:	54.7 PSI
Loss for Fittings:	5.65 PSI
Loss for Main Line:	56.5 PSI
Loss for POC to Valve Elevation:	-3.03 PSI
Loss for Backflow:	15.8 PSI
Loss for Water Meter:	8.94 PSI
Critical Station Pressure at POC: PSI	138.5
Pressure Available:	173 PSI
Residual Pressure Available:	34.5 PSI

Valve Callout



L-07

DRAFT - NOT FOR CONSTRUCTION

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS No. ...8 ...-25 RENEWAL DATE ...-30-22 DATE STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

PLT DATE02.02.2024

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION LEGEND & NOTES

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 76 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER
266–1695 CCS27 COORDINATE
1906–6255 CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-76-D

100% SUBMITTAL

TEMPORARY IRRIGATION LEGEND + NOTES

VALVE SCHEDULE AREA -A

2024-01-19 12:44

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PRECIP
50	HUNTER ICV-G-DC	2"	SHRUB ROTOR	78	52.3	0.76 in/h
A-1	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.7	0.78 in/h
A-2	HUNTER ICV-G-DC	1"	SHRUB ROTOR	20	55.4	0.5 in/h
A-3	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	50.9	0.74 in/h
A-4	HUNTER ICV-G-DC	1"	SHRUB ROTOR	24	56.2	0.69 in/h
A-5	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	52.9	0.82 in/h
A-6	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.9	0.77 in/h
A-7	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	26	54.2	0.43 in/h
A-8	HUNTER ICV-G-DC	1"	SHRUB ROTOR	12	55.2	0.47 in/h
A-9	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	55.3	1.14 in/h
A-10	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	54.4	0.44 in/h
A-11	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	55.0	0.64 in/h
A-12	HUNTER ICV-G-DC	2"	SHRUB ROTOR	52	50.7	0.82 in/h
A-13	HUNTER ICV-G-DC	1"	SHRUB ROTOR	12	56.1	0.6 in/h
A-14	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.3	1.07 in/h
A-15	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.7	1.03 in/h
A-16	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	58.0	0.68 in/h
A-17	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	28	51.3	0.69 in/h
A-18	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	51.9	1.16 in/h
A-19	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	55.6	0.68 in/h
A-20	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.1	0.76 in/h
A-21	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.9	1.37 in/h
A-22	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	51.4	1.05 in/h
A-23	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.9	0.64 in/h
A-24	HUNTER ICV-G-DC	2"	SHRUB ROTOR	52.5	58.1	0.52 in/h
A-25	HUNTER ICV-G-DC	1"	SHRUB ROTOR	15	52.0	0.27 in/h
A-26	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.2	0.59 in/h
A-27	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.6	0.59 in/h
A-28	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	55.5	0.64 in/h
A-29	HUNTER ICV-G-DC	2"	SHRUB ROTOR	76	52.2	0.64 in/h
A-30	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.6	0.54 in/h
A-31	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	36	53.1	0.72 in/h
A-32	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	55.1	0.66 in/h
A-33	HUNTER ICV-G-DC	2"	SHRUB ROTOR	76	53.4	0.71 in/h
A-34	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.1	0.54 in/h
A-35	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.4	0.52 in/h
A-36	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	54.9	0.68 in/h
A-37	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.8	0.5 in/h
A-38	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	54.4	0.64 in/h
A-39	HUNTER ICV-G-DC	2"	SHRUB ROTOR	75	56.8	0.9 in/h
A-40	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.2	0.52 in/h
A-41	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	50.3	0.5 in/h
A-42	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	50.5	0.65 in/h
A-43	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	50	53.1	0.71 in/h
A-44	HUNTER ICV-G-DC	2"	SHRUB ROTOR	78	53.4	0.48 in/h
A-45	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	49.6	0.53 in/h
A-46	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	51.4	0.88 in/h
A-47	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.8	0.51 in/h
A-48	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	51.7	0.57 in/h
A-49	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	49.9	0.55 in/h
A-51	HUNTER ICV-G-DC	2"	SHRUB ROTOR	75	54.0	0.82 in/h
A-52	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.0	0.61 in/h
A-53	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	44	54.9	0.59 in/h
A-54	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.0	0.5 in/h
A-55	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.7	0.52 in/h
A-56	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	53.9	0.61 in/h
A-57	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.2	0.54 in/h
A-58	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.7	0.54 in/h
A-59	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.2	0.54 in/h
A-60	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.7	0.62 in/h
A-61	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.0	0.56 in/h
A-62	HUNTER ICV-G-DC	1"	SHRUB ROTOR	32	62.2	0.68 in/h
A-63	HUNTER ICV-G-DC	2"	SHRUB ROTOR	65	54.8	1.07 in/h
A-64	HUNTER ICV-G-DC	2"	SHRUB ROTOR	70	55.8	0.88 in/h
A-65	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	55	53.4	0.9 in/h
A-66	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	50	53.3	0.69 in/h
A-67	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.8	1.08 in/h
A-68	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.2	1.18 in/h
A-69	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.9	0.65 in/h
A-70	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72.5	58.2	0.66 in/h
A-71	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	57.3	0.74 in/h
A-72	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	36	49.5	0.63 in/h
A-73	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	44	53.6	0.63 in/h
A-74	HUNTER ICV-G-DC	2"	SHRUB ROTOR	12	50.9	0.69 in/h

VALVE SCHEDULE AREA-B

2024-01-10 08:28

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PRECIP
B-1	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	50.2	0.62 in/h
B-2	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	49.0	0.52 in/h
B-3	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	49.9	0.53 in/h
B-4	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.5	0.41 in/h
B-5	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.3	0.33 in/h
B-6	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	50.4	0.62 in/h
B-7	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.8	0.56 in/h
B-8	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.6	0.65 in/h
B-9	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	49.5	0.65 in/h
B-10	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	50.7	0.6 in/h
B-11	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	52.2	0.31 in/h
B-12	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	41	50.2	0.31 in/h
B-13	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	44	50.3	0.64 in/h
B-14	HUNTER ICV-G-DC	2"	SHRUB ROTOR	66	51.6	0.32 in/h
B-15	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	52	53.0	0.69 in/h
B-16	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.5	0.57 in/h
B-17	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	49.6	0.51 in/h
B-18	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	55	51.4	0.38 in/h
B-19	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	49.6	0.64 in/h
B-20	HUNTER ICV-G-DC	2"	SHRUB ROTOR	74	56.8	0.62 in/h
B-21	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	57	57.8	0.74 in/h
B-22	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	53.5	0.29 in/h
B-23	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	53.5	53.4	0.61 in/h
B-24	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	54.0	0.83 in/h
B-25	HUNTER ICV-G-DC	2"	SHRUB ROTOR	71	55.0	0.68 in/h
B-26	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	45	50.3	0.72 in/h
B-27	HUNTER ICV-G-DC	2"	SHRUB ROTOR	75	54.7	0.78 in/h
B-28	HUNTER ICV-G-DC	2"	SHRUB ROTOR	75	54.6	0.77 in/h
B-29	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	54	50.9	0.83 in/h
B-30	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	35	52.2	0.69 in/h
B-31	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	46	66.4	0.59 in/h
B-32	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	54	64.4	0.53 in/h
B-33	HUNTER ICV-G-DC	2"	SHRUB ROTOR	62	61.4	0.53 in/h
B-34	HUNTER ICV-G-DC	2"	SHRUB ROTOR	62	57.1	0.74 in/h
B-35	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	57.5	0.48 in/h
B-36	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	57.9	0.82 in/h
B-37	HUNTER ICV-G-DC	2"	SHRUB ROTOR	78	53.5	1.15 in/h
B-38	HUNTER ICV-G-DC	2"	SHRUB ROTOR	78	64.3	0.91 in/h
B-39	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.7	0.5 in/h
B-40	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	50.3	0.72 in/h
B-41	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	56.0	0.51 in/h
B-42	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	36	54.1	0.63 in/h
B-43	HUNTER ICV-G-DC	2"	SHRUB ROTOR	44	53.8	0.59 in/h
B-44	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	55	54.6	0.68 in/h
B-45	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	50	54.4	0.69 in/h
B-46	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.8	1.05 in/h
B-47	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.9	0.69 in/h
B-48	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.1	0.72 in/h
B-49	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.4	0.88 in/h
B-50	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	53.1	0.55 in/h
B-51	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.6	0.53 in/h
B-52	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	52	54.6	0.6 in/h

VALVE SCHEDULE AREA-C

2024-01-10 08:08

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PRECIP
C-1	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	56.6	0.6 in/h
C-2	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	56.3	0.33 in/h
C-3	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	55.7	0.71 in/h
C-4	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	54.0	0.76 in/h
C-5	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	52.6	0.63 in/h
C-6	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	39	51.7	0.26 in/h
C-7	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	46.7	0.54 in/h
C-8	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	50.0	0.3 in/h
C-9	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	55.0	0.58 in/h
C-10	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.9	0.37 in/h
C-11	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.6	0.38 in/h
C-12	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.8	0.65 in/h
C-13	HUNTER ICV-G-DC	2"	SHRUB ROTOR	76	55.3	0.59 in/h
C-14	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	36	51.3	0.34 in/h
C-15	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	30	48.9	0.7 in/h
C-16	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.8	0.4 in/h
C-17	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	50.9	0.62 in/h
C-18	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	52.7	0.62 in/h
C-19	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.6	0.63 in/h
C-20	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.6	0.31 in/h
C-21	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	51.3	0.43 in/h
C-22	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	48.0	0.33 in/h
C-23	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.1	0.3 in/h
C-24	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	48.8	0.5 in/h
C-25	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.3	0.61 in/h
C-26	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	48.5	0.49 in/h
C-27	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.4	0.63 in/h
C-28	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	52.4	0.32 in/h
C-29	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	51.3	0.61 in/h
C-30	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.3	0.48 in/h
C-31	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.7	0.49 in/h
C-32	HUNTER ICV-G-DC	2"	SHRUB ROTOR	73	54.9	0.55 in/h
C-33	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	51.6	0.6 in/h
C-34	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.2	0.5 in/h
C-35	HUNTER ICV-G-DC	2"	SHRUB ROTOR	80	52.2	0.51 in/h
C-36	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	56.2	0.52 in/h
C-37	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.1	0.52 in/h
C-38	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.4	0.52 in/h
C-39	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	54.7	0.6 in/h
C-40	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	53.1	0.63 in/h
C-41	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	55.8	0.35 in/h
C-42	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.1	0.51 in/h
C-43	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.3	0.5 in/h
C-44	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.2	0.53 in/h
C-45	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	51.2	0.51 in/h
C-46	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.6	0.49 in/h
C-47	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.5	0.49 in/h
C-48	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	53.4	0.54 in/h
C-49	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	44	54.5	0.59 in/h
C-50	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.2	0.36 in/h
C-51	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	51.9	0.39 in/h
C-52	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	64	56.8	0.46 in/h
C-53	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	57.0	0.68 in/h
C-54	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.0	0.56 in/h
C-55	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	52	53.9	0.31 in/h
C-56	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	54.2	0.97 in/h
C-57	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.4	0.59 in/h
C-58	HUNTER ICV-G-DC	2"	SHRUB ROTOR	80	53.1	0.61 in/h
C-59	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.1	0.55 in/h
C-60	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	55.8	0.63 in/h
C-61	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.2	0.5 in/h
C-62	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.9	0.49 in/h
C-63	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.2	0.57 in/h
C-64	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	56.1	0.6 in/h
C-65	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	54.0	0.51 in/h
C-66	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.5	0.65 in/h
C-67	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	54.0	0.56 in/h
C-68	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	50.7	0.59 in/h
C-69	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.9	0.51 in/h
C-70	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.9	0.47 in/h
C-71	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.0	0.5 in/h
C-72	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	56.0	0.63 in/h
C-73	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.8	0.48 in/h
C-74	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.9	0.5 in/h
C-75	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.0	0.48 in/h
C-76	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.7	0.49 in/h
C-77	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.8	0.51 in/h
C-78	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.6	0.5 in/h
C-79	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	54.0	0.5 in/h
C-80	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.2	0.51 in/h
C-81	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.4	0.49 in/h
C-82	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.8	0.48 in/h
C-83	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	52.5	0.69 in/h
C-84	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.6	0.56 in/h
C-85	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.3	0.54 in/h
C-86	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.1	0.52 in/h
C-87	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	52.5	0.54 in/h
C-88	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	51.1	0.53 in/h
C-89	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.3	0.51 in/h
C-90	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.4	0.51 in/h
C-91	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.3	0.52 in/h
C-92	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.0	0.57 in/h
C-93	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.0	0.53 in/h
C-94	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	53.7	0.53 in/h
C-95	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	54.5	0.52 in/h
C-96	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	50.5	0.39 in/h
C-97	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.0	0.55 in/h
C-98	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	64	53.4	0.52 in/h
C-99	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.3	0.55 in/h
C-100	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.3	0.63 in/h
C-101	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.8	0.58 in/h
C-102	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.1	0.62 in/h
C-103	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.6	0.55 in/h
C-104	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.5	0.62 in/h
C-105	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.9	0.56 in/h
C-106	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.6	0.57 in/h
C-107	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.5	0.54 in/h
C-108	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.8	0.65 in/h
C-109	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.3	0.61 in/h
C-110	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.5	0.54 in/h
C-111	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.1	0.57 in/h
C-112	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.7	0.57 in/h
C-113	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.2	0.76 in/h
C-114	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.7	0.57 in/h
C-115	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.7	0.62 in/h
C-116	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.4	0.56 in/h
C-117	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.7	0.62 in/h
C-118	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.1	0.61 in/h
C-119	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.4	0.62 in/h
C-120	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.3	0.6 in/h
C-121	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.8	0.62 in/h
C-122	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.4	0.59 in/h
C-123	HUNTER ICV-G-DC	2"	SHRUB ROTOR	48	51.8	0.59 in/h
C-124	HUNTER ICV-G-DC	2"	SHRUB ROTOR	48	51.8	0.58 in/h
C-125	HUNTER ICV-G-DC	2"	SHRUB ROTOR	32	49.8	0.53 in/h
C-126	HUNTER ICV-G-DC	2"	SHRUB ROTOR	56	52.3	0.55 in/h
C-127	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	45	50.8	0.78 in/h
C-128	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	68	53.0	0.61 in/h
C-129	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	36	52.4	0.6 in/h
C-130	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.8	0.73 in/h
C-131	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.1	0.57 in/h
C-132	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	50.2	0.51 in/h
C-133	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	51.6	0.58 in/h
C-134	HUNTER ICV-G-DC	1"	SHRUB ROTOR	20	51.6	0.59 in/h
C-135	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	51.3	0.59 in/h
C-136	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.7	0.6 in/h
C-137	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.4	0.59 in/h
C-138	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.5	0.98 in/h
C-139	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.4	0.56 in/h
C-140	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.5	0.52 in/h
C-141	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.0	0.64 in/h
C-142	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.5	0.75 in/h
C-143	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.1	0.59 in/h
C-144	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.2	0.52 in/h
C-145	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	51.0	0.56 in/h
C-146	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.0	0.85 in/h
C-147	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	55.0	0.6 in/h
C-148	HUNTER ICV-G-DC	2"	SHRUB ROTOR	60	51.5	0.47 in/h
C-149	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.1	0.52 in/h
C-150	HUNTER ICV-G-DC	2"	SHRUB ROTOR	48	50.3	1.13 in/h
C-151	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	54.0	0.58 in/h
C-152	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	50.9	0.78 in/h
C-153	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.6	0.83 in/h
C-154	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	53.8	1.17 in/h
C-155	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.1	0.55 in/h
C-156	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.2	0.53 in/h
C-157	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	55.9	1.46 in/h
C-158	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.0	0.92 in/h
C-159	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.8	0.88 in/h
C-160	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.1	0.52 in/h
C-161	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.0	1.02 in/h
C-162	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.6	0.83 in/h
C-163	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.4	0.56 in/h
C-164	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.3	1.22 in/h
C-165	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.6	0.66 in/h
C-166	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.1	0.75 in/h
C-167	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.1	0.57 in/h
C-168	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.1	1.31 in/h
C-169	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.7	0.96 in/h
C-170	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.2	0.77 in/h
C-171	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.6	0.78 in/h
C-172	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	54.3	0.69 in/h
C-173	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.3	1.1 in/h
C-174	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.7	0.87 in/h
C-175	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	52.5	0.51 in/h
C-176	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	54.0	0.59 in/h
C-177	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	53.4	0.59 in/h
C-178	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	54.1	0.56 in/h
C-179	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	54.2	0.67 in/h
C-180	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.5	0.55 in/h
C-181	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.2	0.58 in/h
C-182	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.4	0.51 in/h
C-183	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	50.7	0.54 in/h
C-184	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	50.0	0.53 in/h
C-185	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.8	0.64 in/h
C-186	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.7	0.58 in/h
C-187	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.4	0.58 in/h
C-188	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	51.2	0.64 in/h
C-189	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	50.8	0.59 in/h
C-190	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	50.4	0.62 in/h
C-191	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	40	50.4	0.62 in/h
C-192	HUNTER ICV-G-DC	2"	SHRUB ROTOR	56	50.6	0.62 in/h
C-193	HUNTER ICV-G-DC	2"	SHRUB ROTOR	40	49.8	0.61 in/h
C-194	HUNTER ICV-G-DC	2"	SHRUB ROTOR	56	51.2	0.59 in/h
C-195	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.5	0.6 in/h
C-196	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.9	0.64 in/h
C-197	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.0	0.62 in/h
C-198	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.7	0.57 in/h
C-199	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.9	0.54 in/h
C-200	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	54.6	0.58 in/h
C-201	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.8	1.06 in/h
C-203	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.2	0.55 in/h
C-204	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.5	0.85 in/h
C-205	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.5	0.54 in/h
C-206	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	50.0	0.57 in/h
C-207	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.4	0.56 in/h
C-208	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.4	0.55 in/h
C-209	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	50.2	0.6 in/h
C-210	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	32	49.7	0.56 in/h
C-211	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.3	0.86 in/h
C-212	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	54	52.5	0.76 in/h
C-213	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	52.6	0.61 in/h
C-214	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	46	52.5	0.63 in/h
C-215	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.1	0.46 in/h
C-216	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	52.7	1.03 in/h
C-217	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	51.8	0.52 in/h
C-218	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	53.9	0.68 in/h
C-219	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	48	51.9	0.82 in/h
C-220	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	52.1	1.01 in/h
C-221	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	53.1	0.5 in/h
C-222	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	53.8	0.65 in/h
C-223	HUNTER ICV-G-DC	2"	SHRUB ROTOR	72	51.3	0.52 in/h
C-224	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	56.6	0.34 in/h
C-225	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	55.0	0.64 in/h
C-226	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	49.8	0.52 in/h
C-227	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	49.1	0.58 in/h
C-228	HUNTER ICV-G-DC	1-1/2"	SHRUB ROTOR	56	49.5	0.53 in/h
C-229	HUNTER ICV-G-DC	2"	SHRUB ROTOR	68	50.5	0.54 in/h
C-230	HUNTER ICV-G-DC	2"	SHRUB ROTOR	64	50.9	0.61 in/h

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS No. ...8 ...-25 RENEWAL DATE ...-30-22 DATE STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

PLT DATE02.02.2024

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L-08

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION LEGEND & NOTES

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 77 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER | DATE
PRINT NAME | RCE#

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

266–1695 CCS27 COORDINATE
1906–6255 CCS83 COORDINATE

CONTRACTOR | DATE STARTED
INSPECTOR | DATE COMPLETED

XXXXX-77-D

TEMPORARY IRRIGATION LEGEND + NOTES

100% SUBMITTAL

TEMPORARY IRRIGATION PLAN KEY MAP

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS
NOT FOR CONSTRUCTION
STATE OF CALIFORNIA

PLT DATE:02.02.2024

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L-09

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN KEY MAP

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 78 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

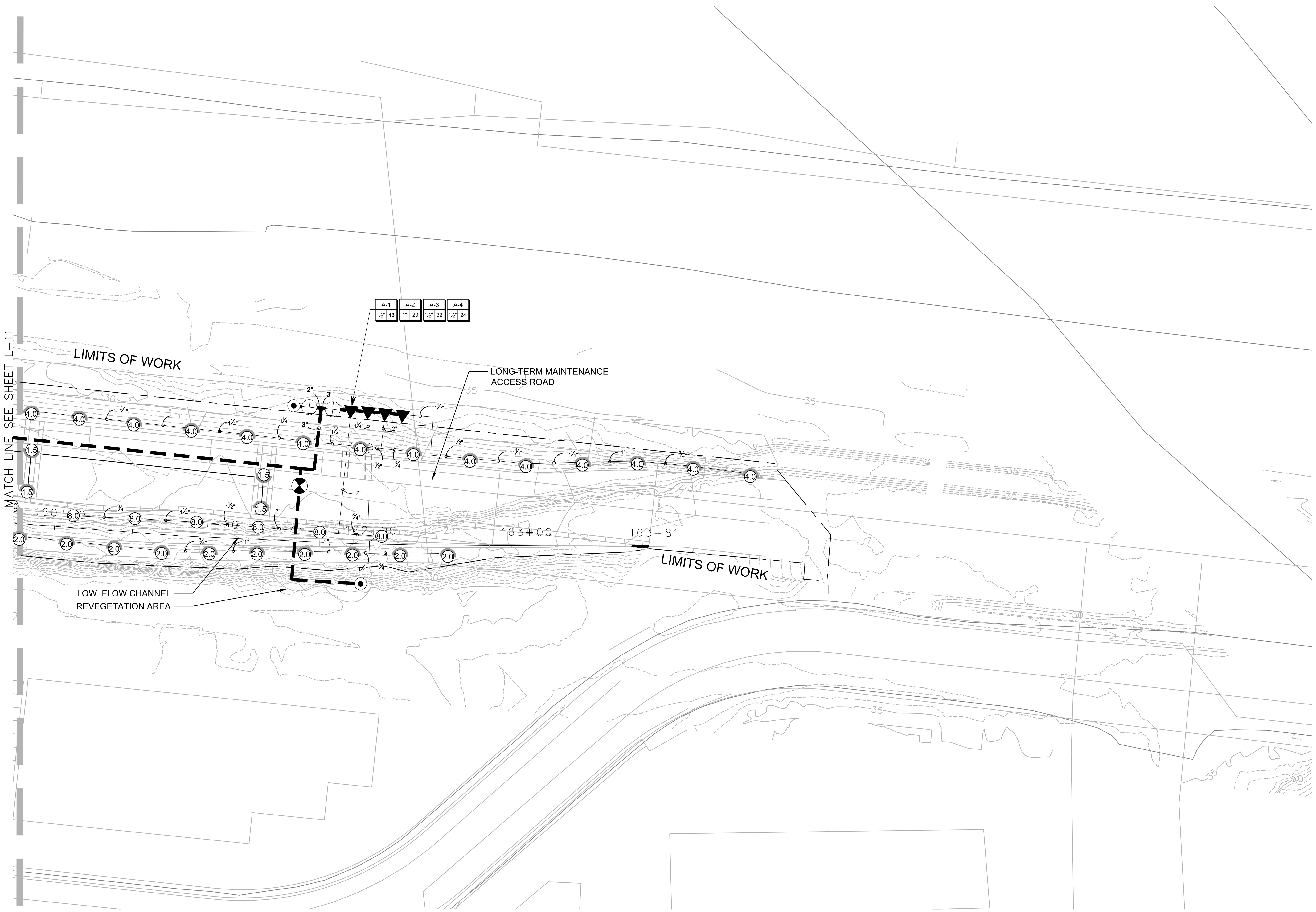
266–1695 CCS27 COORDINATE
1906–6255 CCS83 COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

XXXXX-78-D

100% SUBMITTAL

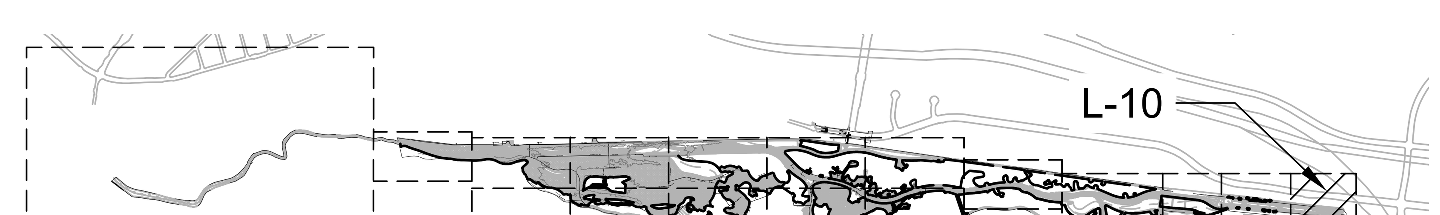
TEMPORARY IRRIGATION LEGEND + NOTES



L-10

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP

NTS

0 40 80 120
SCALE 1"=40'

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS — STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

PLT DATE02.02.2024

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 79 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER — DATE
PRINT NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

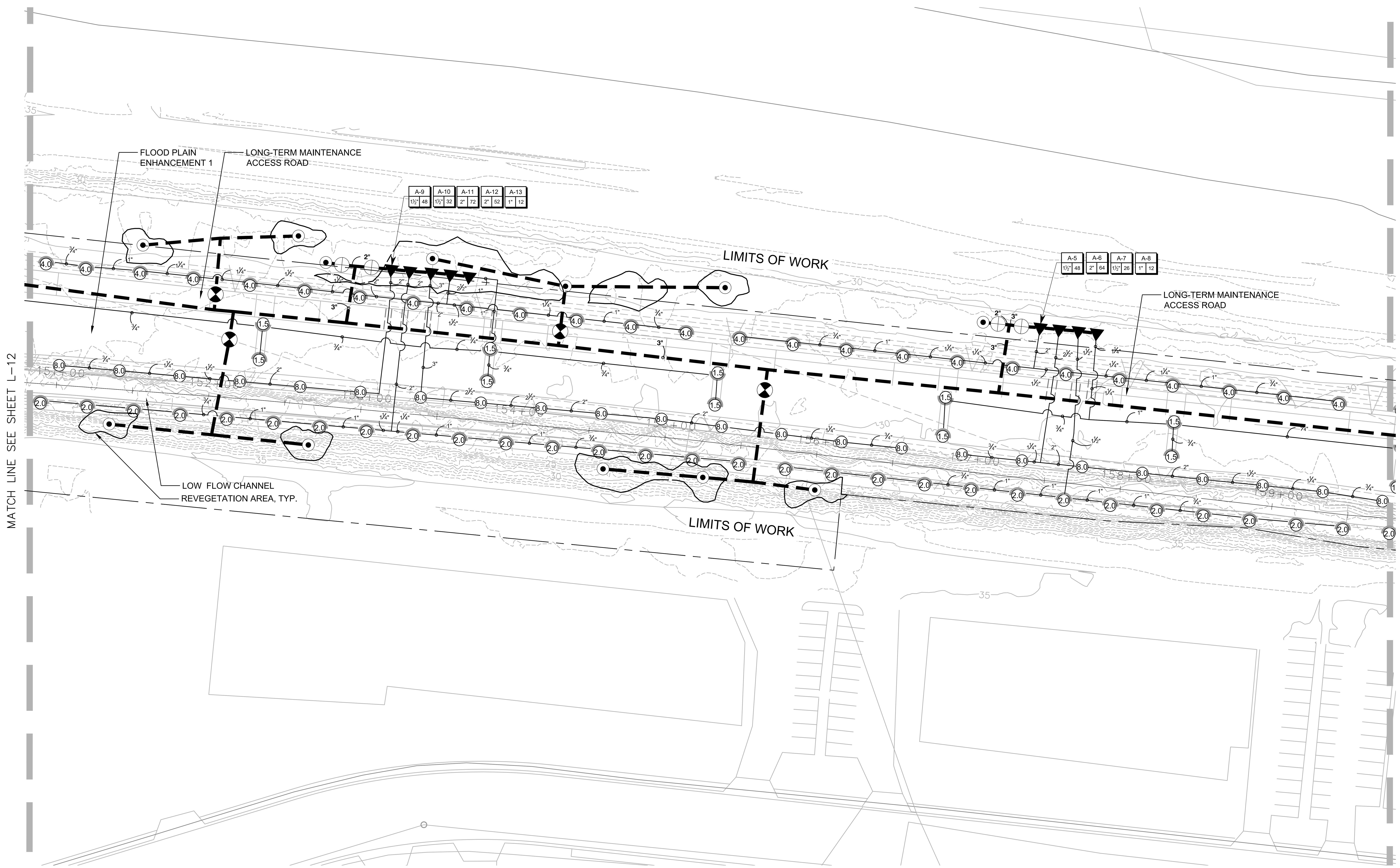
SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED

XXXXX-79-D

100% SUBMITTAL



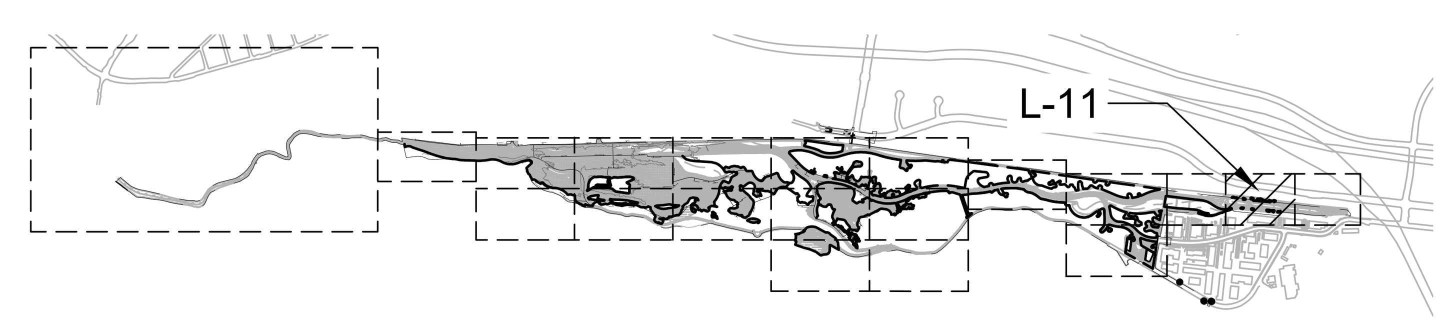
0 40 80 120

SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP

NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

PLT DATE02.02.2024

LICENSED LANDSCAPE ARCHITECT
JEFF J. JUSTUS
NOT FOR CONSTRUCTION
STATE OF CALIFORNIA

L-11

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN KEY MAP

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 80 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY:
PROJECT MANAGER
CHECKED BY:
PROJECT ENGINEER

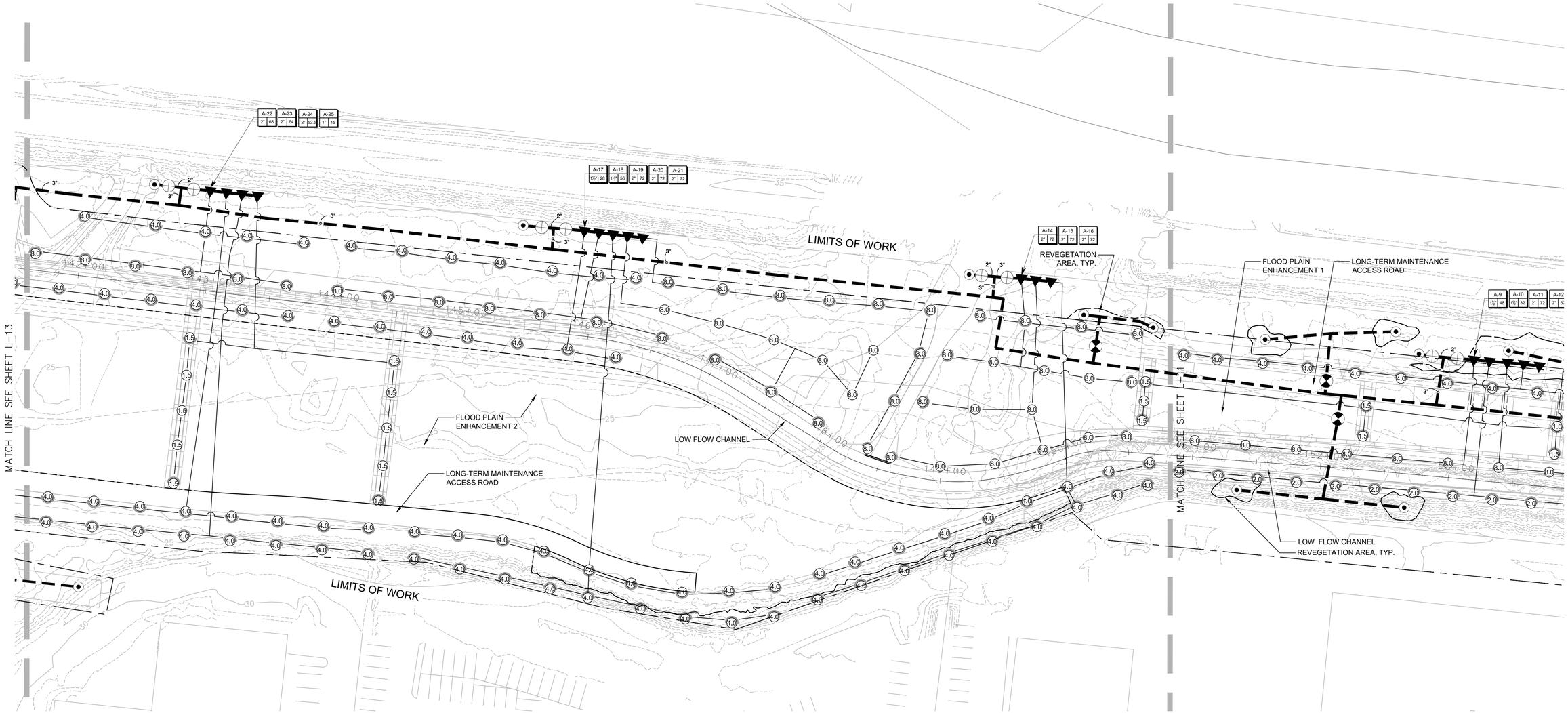
266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-80-D

TEMPORARY IRRIGATION PLAN KEY MAP

100% SUBMITTAL



L-12

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

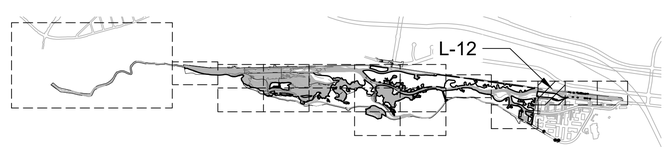
0 40 80 120

SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.2361462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR PLT DATE02.02.2024

NOT FOR CONSTRUCTION

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 81 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY:
PROJECT MANAGER
CHECKED BY:
PROJECT ENGINEER
266–1695
CCS27 COORDINATE
1906–6255
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

XXXXX- 81 -D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

L-13

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
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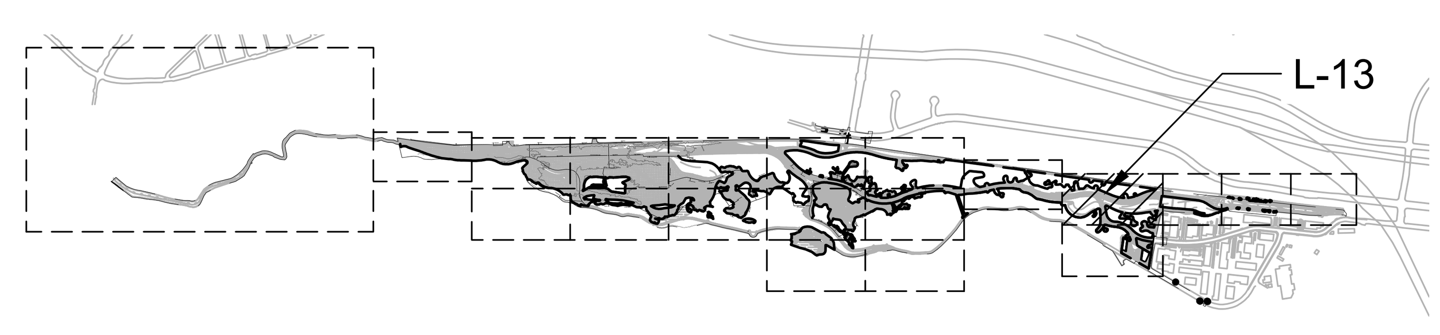


KEYMAP

NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

NOT FOR CONSTRUCTION

PLT DATE02.02.2024

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 82 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER — DATE
PRINT NAME — RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

266–1695
CCS27 COORDINATE

1906–6255
CCS83 COORDINATE

CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED

XXXXX-82-D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

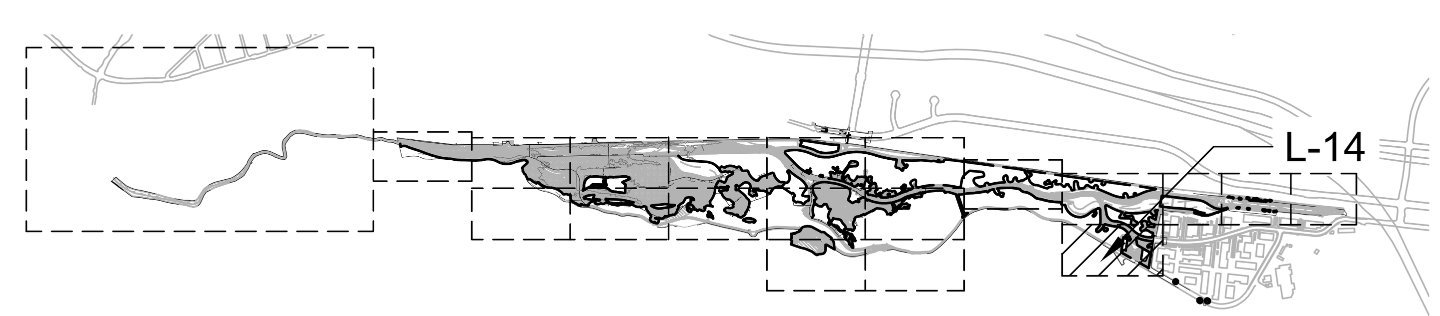
TEMPORARY IRRIGATION PLAN

L-14

SCALE 1"=40'

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP

NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

PLT DATE02.02.2024

DRAFT - NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 83 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

266–1695
CCS27 COORDINATE
1906–6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-83-D

100% SUBMITTAL

L-15

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

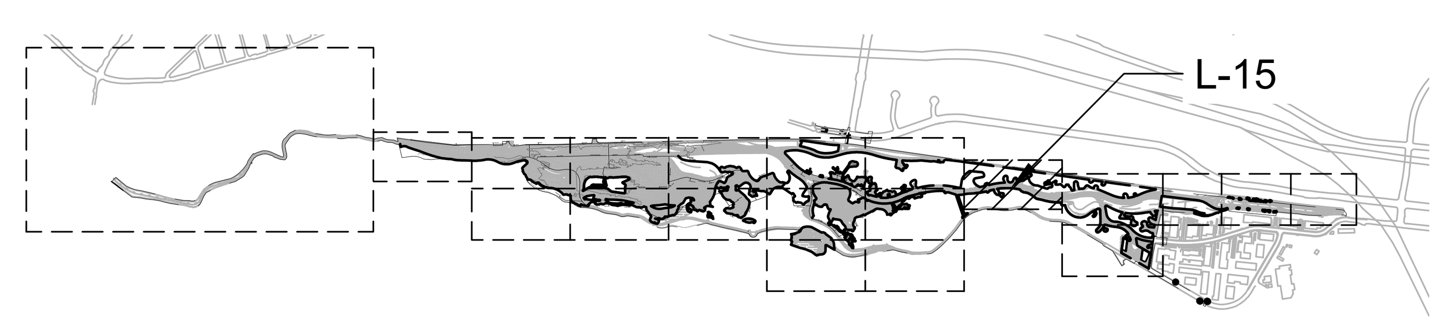
TEMPORARY IRRIGATION PLAN

0 40 80 120
SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT — JEFF J. JUSTUS — NOT FOR CONSTRUCTION — STATE OF CALIFORNIA

PLT DATE02.02.2024

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 84 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-84-D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

TEMPORARY IRRIGATION PLAN

0 40 80 120
SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

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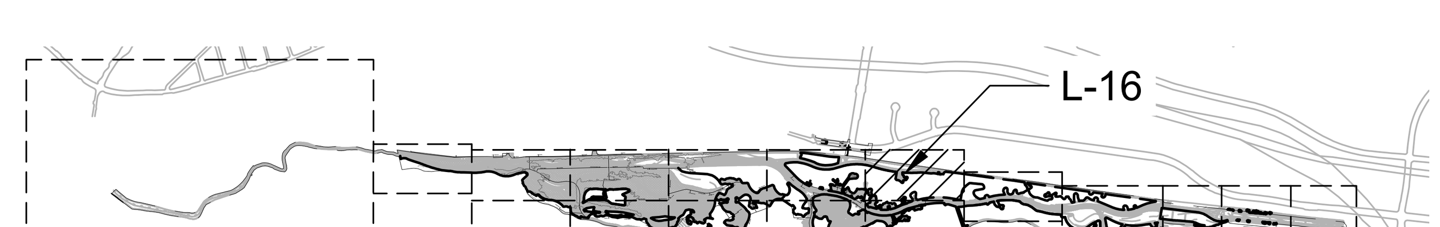
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

NOT FOR CONSTRUCTION

PLT DATE02.02.2024

L-16

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 85 OF 103 SHEETS

WBS

APPROVED:					
FOR CITY ENGINEER			DATE		
PRINT NAME			RCE#		
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	SDG		1/24/2024		

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER
266-1695 CCS27 COORDINATE
1906-6255 CCS83 COORDINATE

CONTRACTOR ____ DATE STARTED ____
INSPECTOR ____ DATE COMPLETED ____

XXXXX-85-D

100% SUBMITTAL

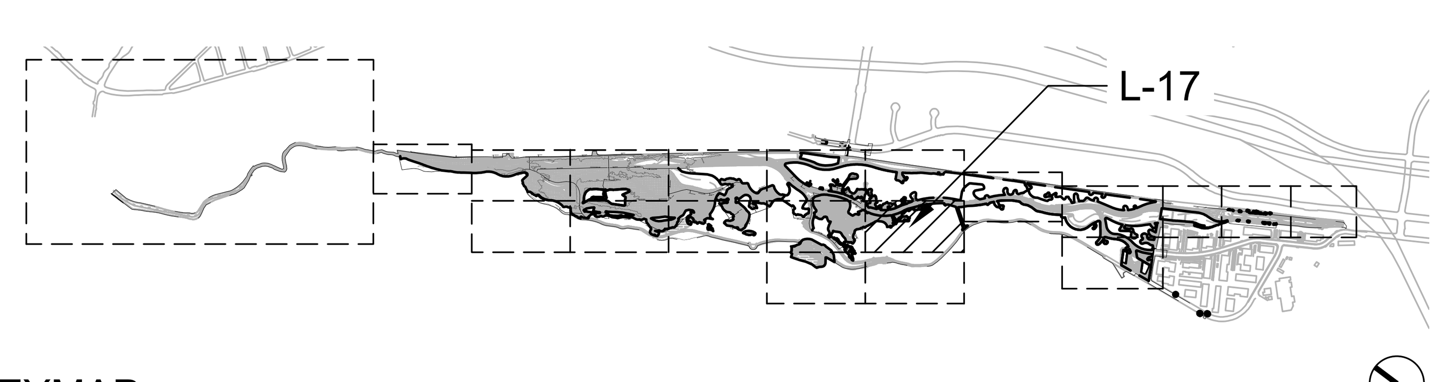
MATCH LINE SEE SHEET L-16

MATCH LINE SEE SHEET L-18

L-17

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP

NTS

0 40 80 120
SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

NOT FOR CONSTRUCTION

PLT DATE02.02.2024

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 86 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY:
PROJECT MANAGER
CHECKED BY:
PROJECT ENGINEER

266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-86-D

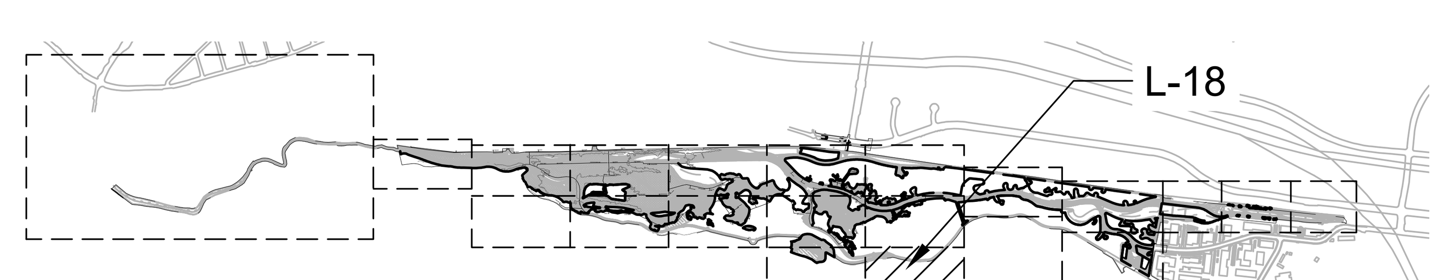
TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

MATCH LINE SEE SHEET L-17

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP

NTS

0 40 80 120
SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

NOT FOR CONSTRUCTION

PLT DATE02.02.2024

L-18

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 87 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

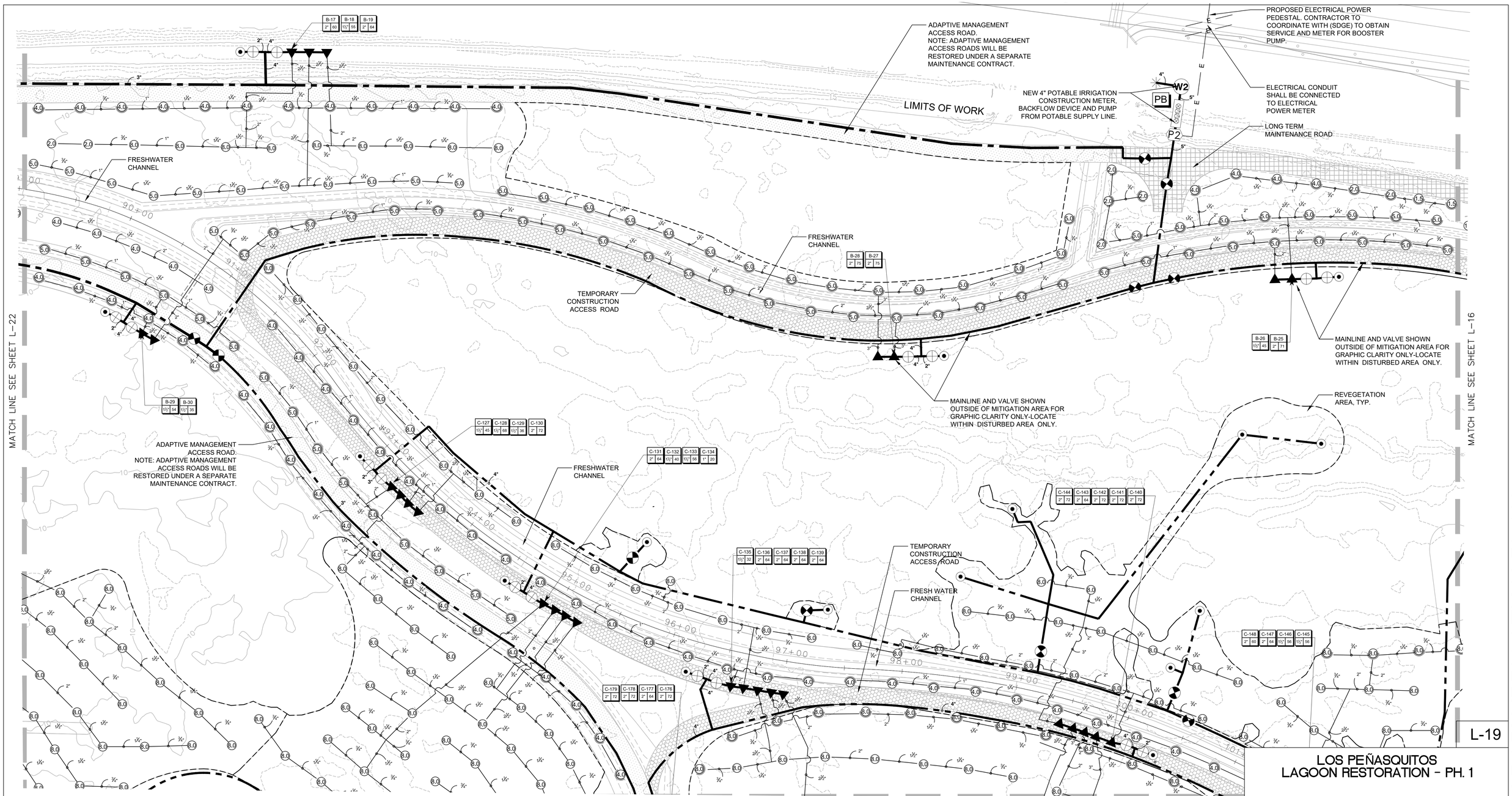
266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-87-D

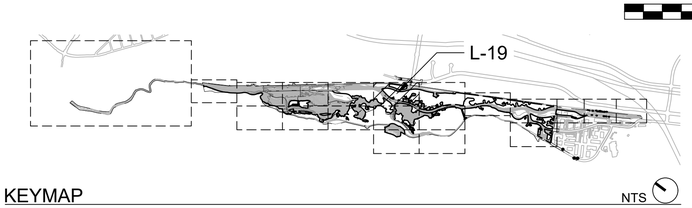
TEMPORARY IRRIGATION PLAN

100% SUBMITTAL



0 40 80 120

SCALE 1"=40'



KEYMAP

NTS

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS

SCHMIDT DESIGN GROUP
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619.2361462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

PLT DATE02.02.2024

LICENSED LANDSCAPE ARCHITECT JUSTUS R. SCHMIDT C-2138 EXP. DATE 30-22 STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

DRAFT - NOT FOR CONSTRUCTION

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 88 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

SUBMITTED BY:
PROJECT MANAGER
CHECKED BY:
PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

XXXXX-88-D

L-19

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

MATCH LINE SEE SHEET L-19

MATCH LINE SEE SHEET L-23

MATCH LINE SEE SHEET L-17

MATCH LINE SEE SHEET L-21

FRESHWATER CHANNEL

ADAPTIVE MANAGEMENT ACCESS ROAD.
NOTE: ADAPTIVE MANAGEMENT ACCESS ROADS WILL BE RESTORED UNDER A SEPARATE MAINTENANCE CONTRACT.

MAINLINE AND VALVE SHOWN OUTSIDE OF MITIGATION AREA FOR GRAPHIC CLARITY ONLY-LOCATE WITHIN DISTURBED AREA ONLY.

LONG-TERM MAINTENANCE ACCESS ROAD

LIMITS OF WORK

LOCATION OF MAINLINE ALIGNMENT PER PROJECT BIOLOGIST

SOIL PLACEMENT SITE

REVEGETATION AREA, TYP.

C-184	C-183	C-182	C-181	C-180
1½" 32	2" 72	1½" 56	2" 64	2" 72

C-175	C-174	C-173
1½" 48	1½" 56	2" 64

B-31	B-32	B-33	B-34	B-35	B-36
1½" 48	1½" 54	2" 62	2" 62	2" 60	2" 72

C-165	C-166	C-167
1½" 48	2" 72	2" 72

C-168	C-169	C-170	C-171	C-172
2" 72	2" 72	2" 64	2" 64	2" 72

0 40 80 120
SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

L-20

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS

KEYMAP

NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

PLT DATE02.02.2024

LICENSED LANDSCAPE ARCHITECT
KEITH A. JUSTUS
NOT FOR CONSTRUCTION
STATE OF CALIFORNIA

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 89 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY:
PROJECT MANAGER
CHECKED BY:
PROJECT ENGINEER

266-1695
CCS27 COORDINATE

1906-6255
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

XXXXX-89-D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

0 40 80 120
SCALE 1"=40'

DRAFT - NOT FOR CONSTRUCTION

GENERAL NOTE:
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SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
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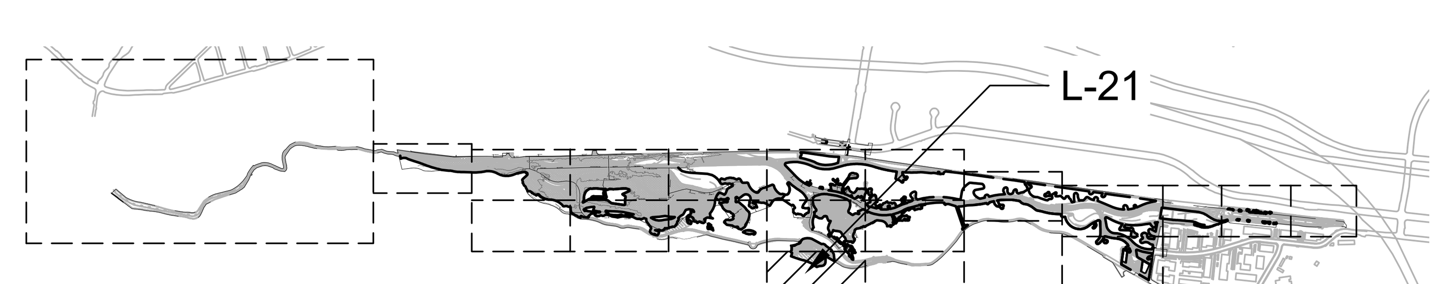
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS 10-22 STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

PLT DATE02.02.2024

L-21

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 90 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-90-D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

ADAPTIVE MANAGEMENT ACCESS ROAD.
NOTE: ADAPTIVE MANAGEMENT ACCESS ROADS WILL BE RESTORED UNDER A SEPARATE MAINTENANCE CONTRACT.

FRESHWATER CHANNEL

MAINLINE AND VALVE SHOWN OUTSIDE OF MITIGATION AREA FOR GRAPHIC CLARITY ONLY-LOCATE WITHIN DISTURBED AREA ONLY.

ADAPTIVE MANAGEMENT ACCESS ROAD.
NOTE: ADAPTIVE MANAGEMENT ACCESS ROADS WILL BE RESTORED UNDER A SEPARATE MAINTENANCE CONTRACT.

REVEGETATION AREA, TYP.

MAINLINE AND VALVE SHOWN OUTSIDE OF MITIGATION AREA FOR GRAPHIC CLARITY ONLY-LOCATE WITHIN DISTURBED AREA ONLY.

B-4	B-5	B-6	B-7	B-8
2" 64	2" 64	2" 60	2" 72	1½" 48

B-9	B-10	B-11	B-12
2" 72	1½" 32	2" 68	1½" 41

B-13	B-14	B-15	B-16
1½" 44	2" 66	1½" 52	2" 72

C-84	C-85	C-86	C-87	C-88	C-89
2" 72	2" 72	2" 64	1½" 48	1½" 40	1½" 56

C-95	C-94	C-93	C-92	C-91	C-90
1½" 56	1½" 48	2" 64	2" 64	2" 64	2" 64

C-96	C-97	C-98
1½" 48	2" 64	1½" 64

C-103	C-102	C-101	C-100	C-99
2" 64	2" 64	2" 64	1½" 56	2" 64

C-108	C-107	C-106	C-105	C-104
2" 64	2" 72	2" 64	2" 64	1½" 48

C-112	C-111	C-110	C-109
2" 64	2" 64	2" 72	2" 64

C-113	C-114	C-115	C-116
1½" 48	1½" 56	2" 64	2" 64

C-121	C-120	C-119	C-118	C-117
2" 64	2" 72	2" 64	2" 64	2" 72

C-126	C-125	C-124	C-123	C-122
2" 56	2" 32	2" 48	2" 48	2" 72

MATCH LINE SEE SHEET L-24

MATCH LINE SEE SHEET L-19

MATCH LINE SEE SHEET L-23

L-22

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

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CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 91 OF 103 SHEETS

WBS

APPROVED: FOR CITY ENGINEER DATE
PRINT NAME RCE#

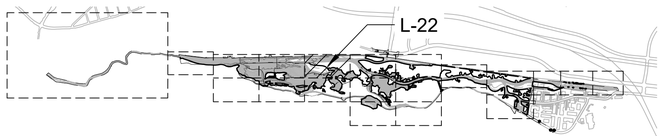
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER
266-1695 CCS27 COORDINATE
1906-6255 CCS83 COORDINATE
CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED
XXXXX- 91-D

TEMPORARY IRRIGATION PLAN

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP NTS

0 40 80 120
SCALE 1"=40'

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
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LICENSED LANDSCAPE ARCHITECT KEITH A. JUSTUS NO. 2138 STATE OF CALIFORNIA
NOT FOR CONSTRUCTION
10-25-23 INITIAL DATE
10-27-23 DATE

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR PLT DATE02.02.2024

100% SUBMITTAL

L-23

TEMPORARY IRRIGATION PLAN

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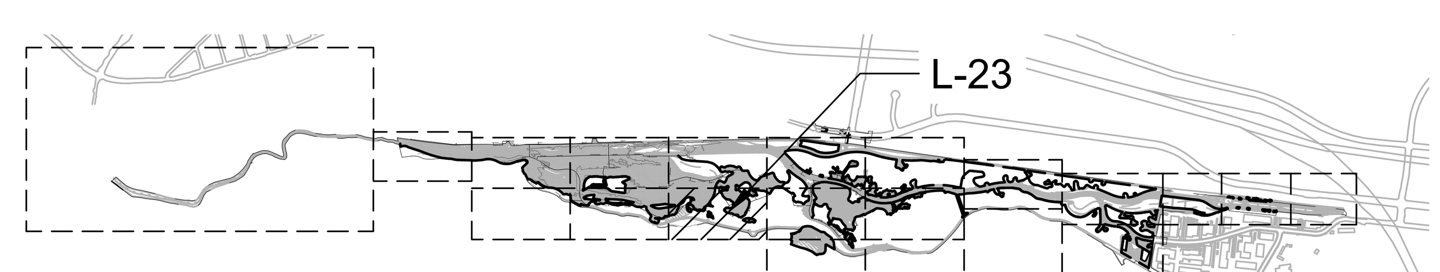

KEYMAP

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

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LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS
STATE OF CALIFORNIA

PLT DATE02.02.2024

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 92 OF 103 SHEETS

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266-1695
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CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

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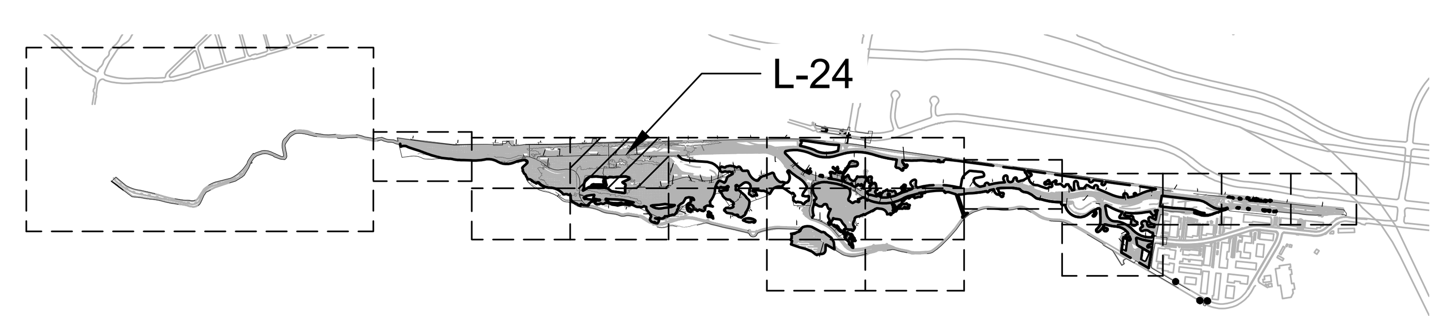
L-24



KEYMAP NTS

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SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS

0 40 80 120
SCALE 1"=40'

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS NOT FOR CONSTRUCTION STATE OF CALIFORNIA

PLT DATE02.02.2024

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 93 OF 103 SHEETS

WBS

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TEMPORARY IRRIGATION PLAN

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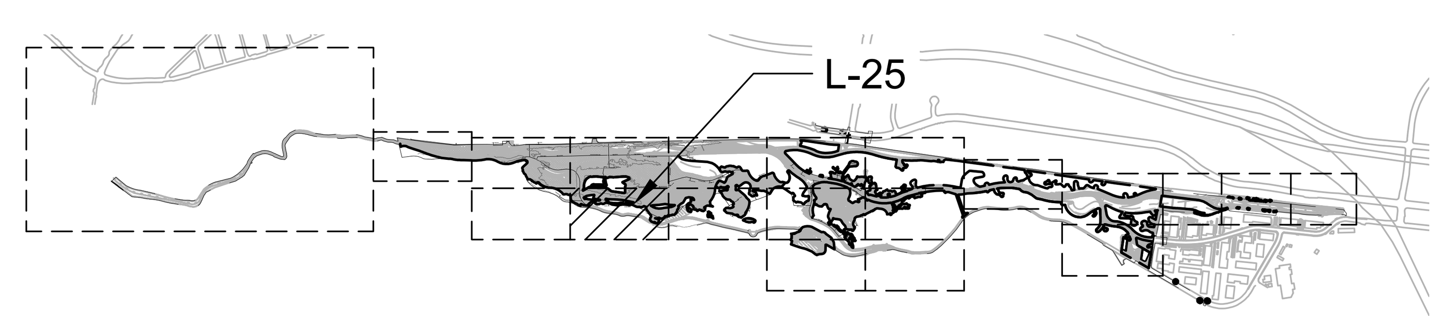

KEYMAP

NTS

0 40 80 120
SCALE 1"=40'

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LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

PLT DATE02.02.2024

L-25

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 94 OF 103 SHEETS

WBS

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ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
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266–1695
CCS27 COORDINATE
1906–6255
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

XXXXX-94-D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

MATCH LINE SEE SHEET L-27

L-26

TEMPORARY IRRIGATION PLAN

SCALE 1"=40'

GENERAL NOTE:
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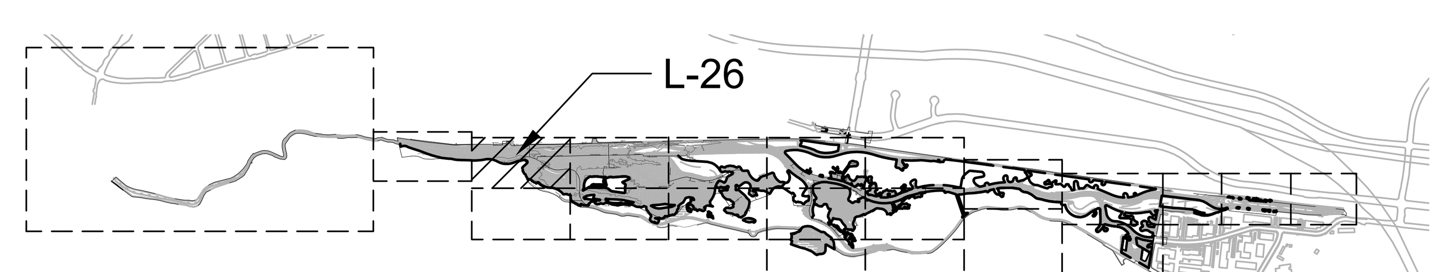

KEYMAP

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LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 95 OF 103 SHEETS

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1906-6255
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CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED

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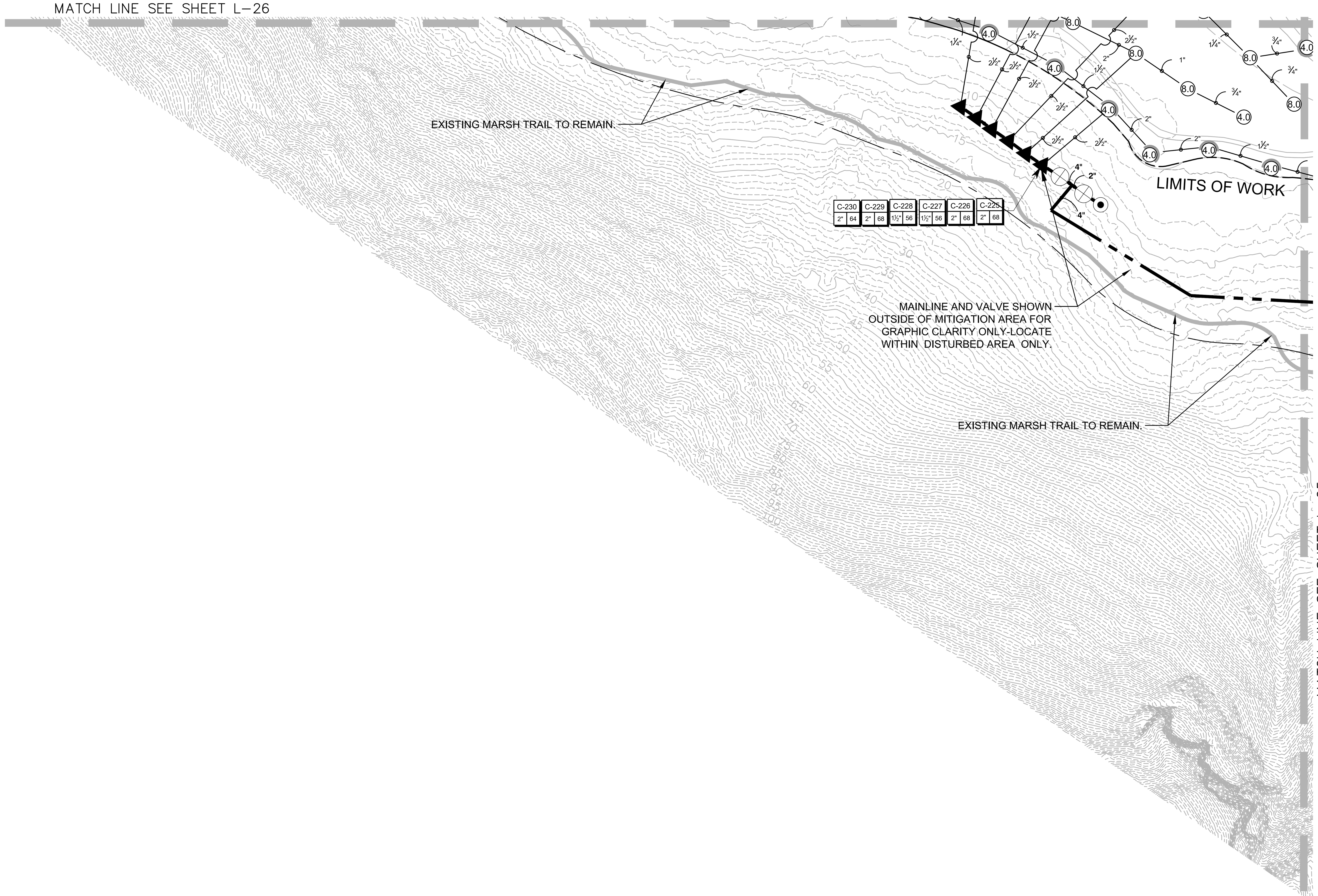
100% SUBMITTAL

MATCH LINE SEE SHEET L-26



MATCH LINE SEE SHEET L-25

SCALE 1"=40'

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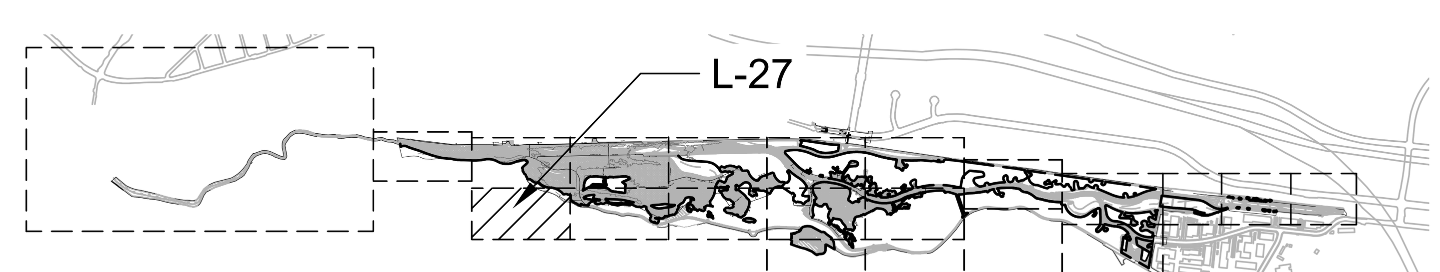

KEYMAP

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L-27

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 96 OF 103 SHEETS

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

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SUBMITTED BY: PROJECT MANAGER
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CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

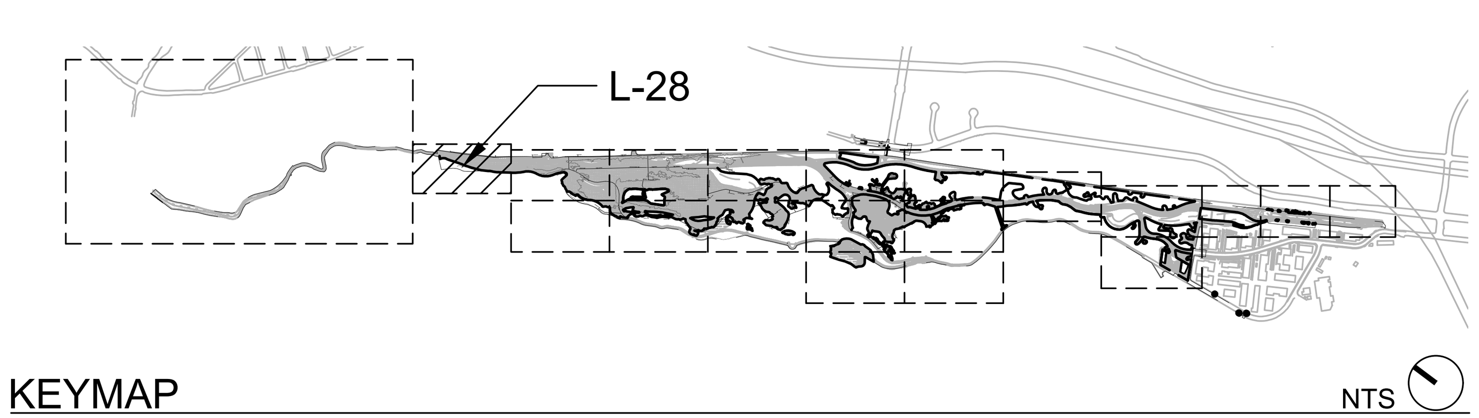
XXXXX-96-D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

L-28

0 40 80 120
SCALE 1"=40'



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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT
JEFF J. JUSTUS
NOT FOR CONSTRUCTION
STATE OF CALIFORNIA

PLT DATE02.02.2024

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LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
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266–1695
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1906–6255
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INSPECTOR DATE COMPLETED

XXXXX-97-D

TEMPORARY IRRIGATION PLAN

100% SUBMITTAL

TEMPORARY IRRIGATION PLAN

L-29

0 150 300 450
SCALE 1"=150'

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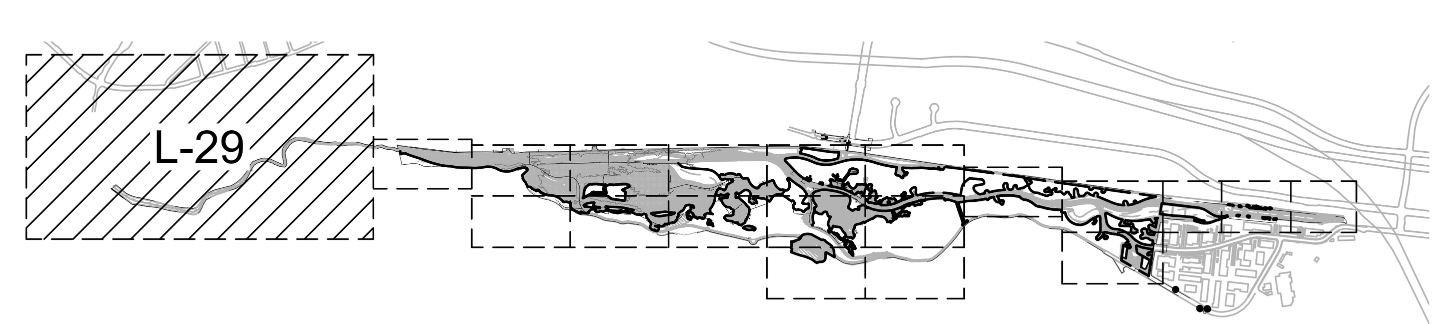
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP NTS

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LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION PLAN

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 98 OF 103 SHEETS

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266-1695 CCS27 COORDINATE
1906-6255 CCS83 COORDINATE

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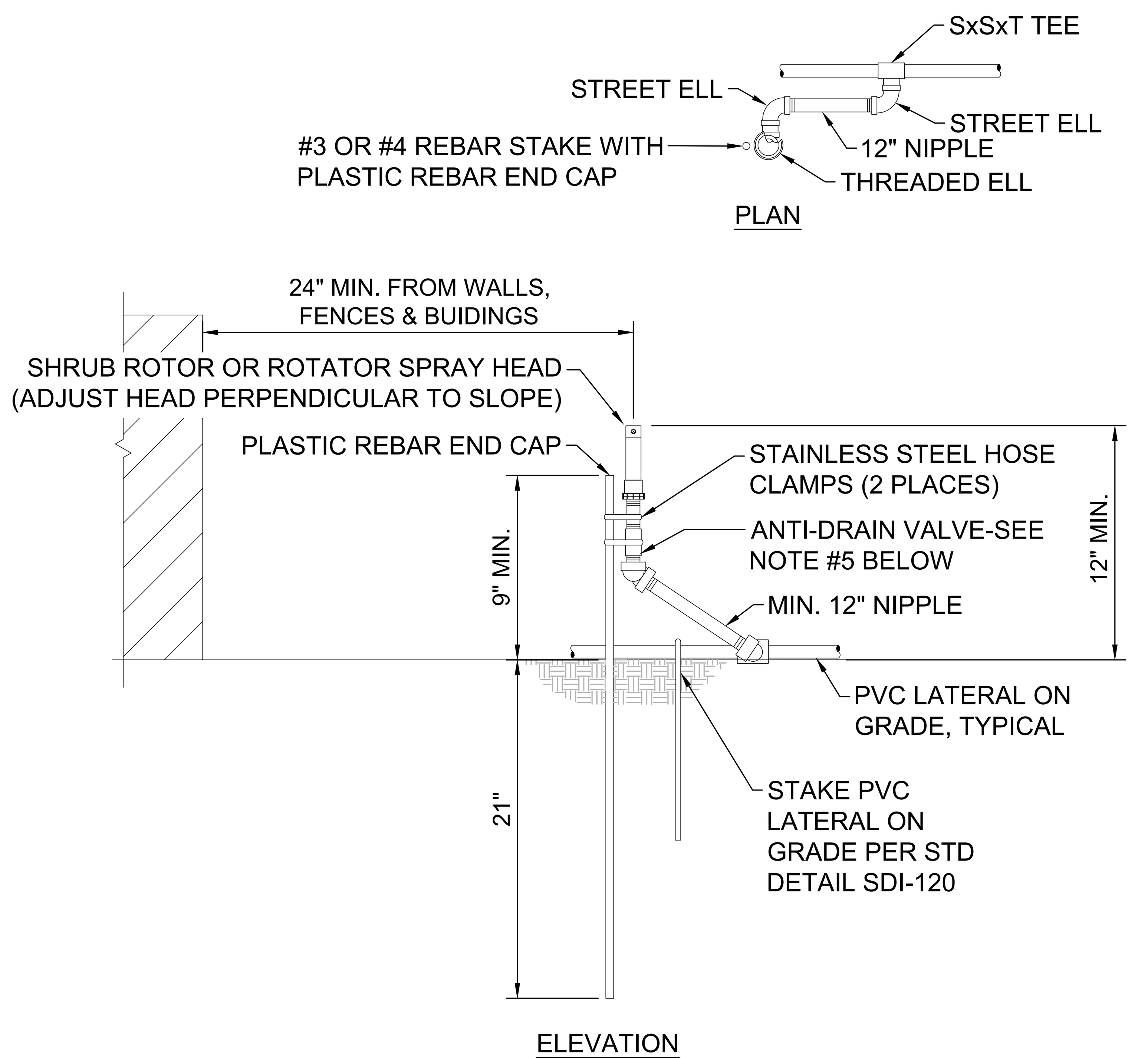
XXXXX-98-D

100% SUBMITTAL

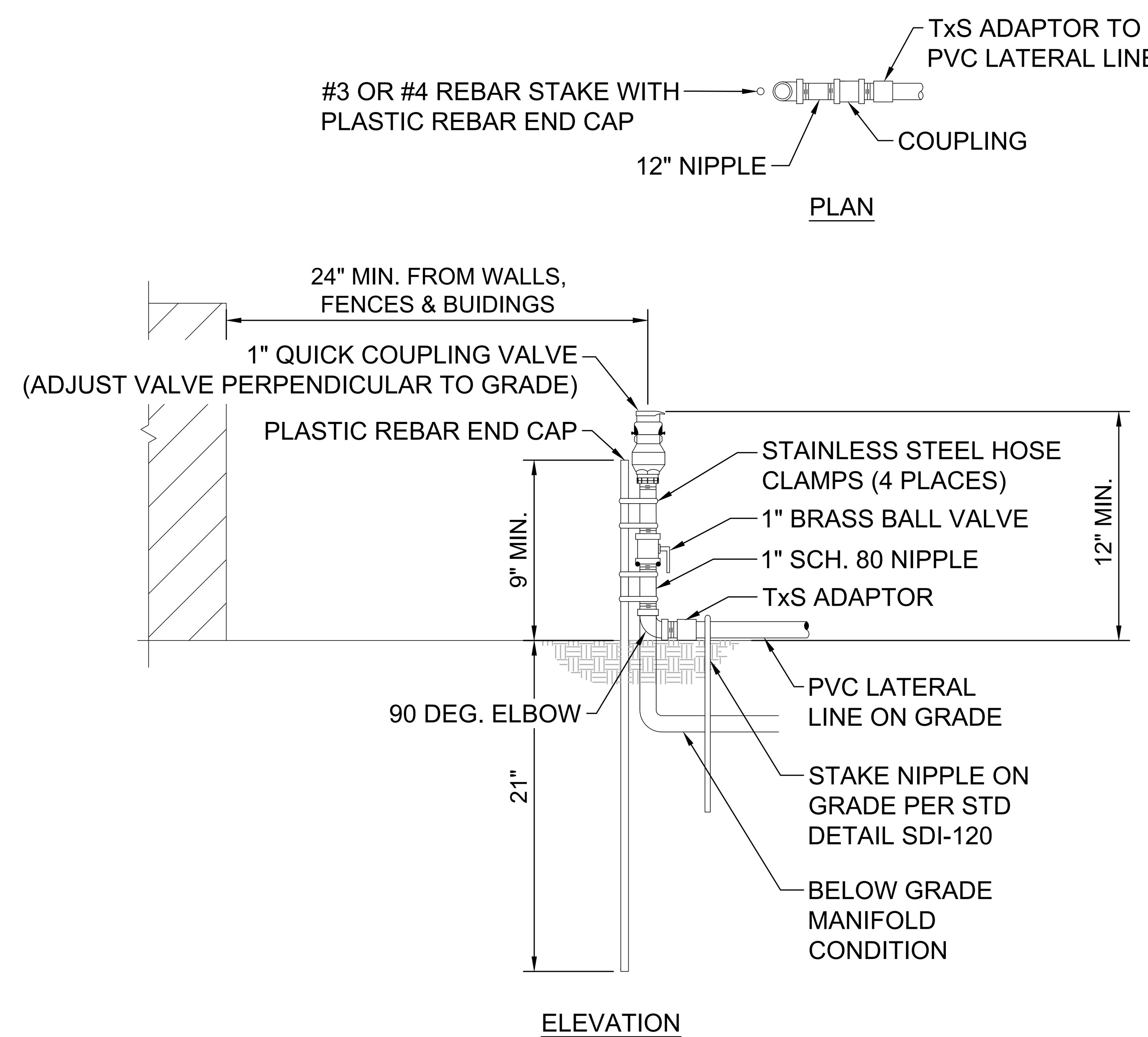


NOTES:

1. FITTINGS SHALL BE PVC SCH 40.
2. NIPPLES AND RISERS SHALL BE PVC SCH 80.
3. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
4. CLOSE NIPPLES SHALL NOT BE USED.
5. ANTI-DRAIN VALVES SHALL BE INSTALLED UNDER OR IN ALL HEADS.
6. NO FIXED RISERS ALLOWED IN RIGHT-OF-WAY OR WITHIN 10' OF VEHICULAR OR PEDESTRIAN TRAFFIC.

1 MODIFIED SDI-102 - ROTOR OR ROTATOR SPRAY HEAD ON FIXED RISER WITH LATERAL AT GRADE

1 1/2" = 1'-0"

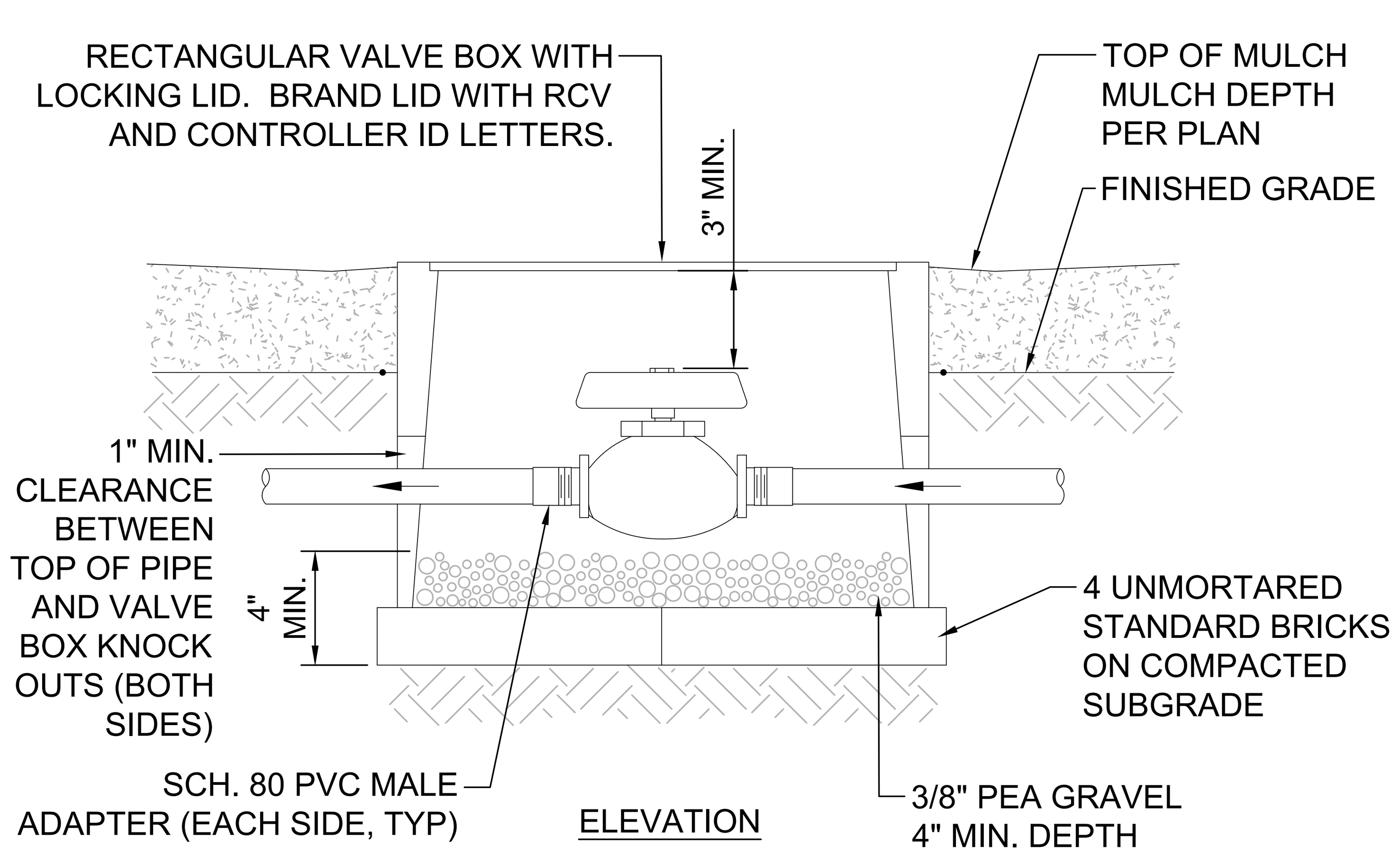


NOTES:

1. QUICK COUPLING VALVES SHALL BE STAKED ON RISER AND SECURED ABOVE FINISH GRADE IN SHRUB / GROUNDCOVER AREAS.
2. CLOSE NIPPLES SHALL NOT BE USED.
3. NIPPLES, COUPLINGS, AND ELBOWS SIZE SHALL BE 1" RED BRASS.
4. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
5. UPON PROJECT ACCEPTANCE, THE CONTRACTOR SHALL PROVIDE TWO SETS OF APPROPRIATE QUICK COUPLER VALVE KEY WITH 1" BRASS BALL VALVE AND SWIVEL ADAPTER INCLUDED IN THE ASSEMBLY.

2 MODIFIED SDI-105 - QUICK COUPLER ON FIXED RISER ABOVE GRADE

1 1/2" = 1'-0"

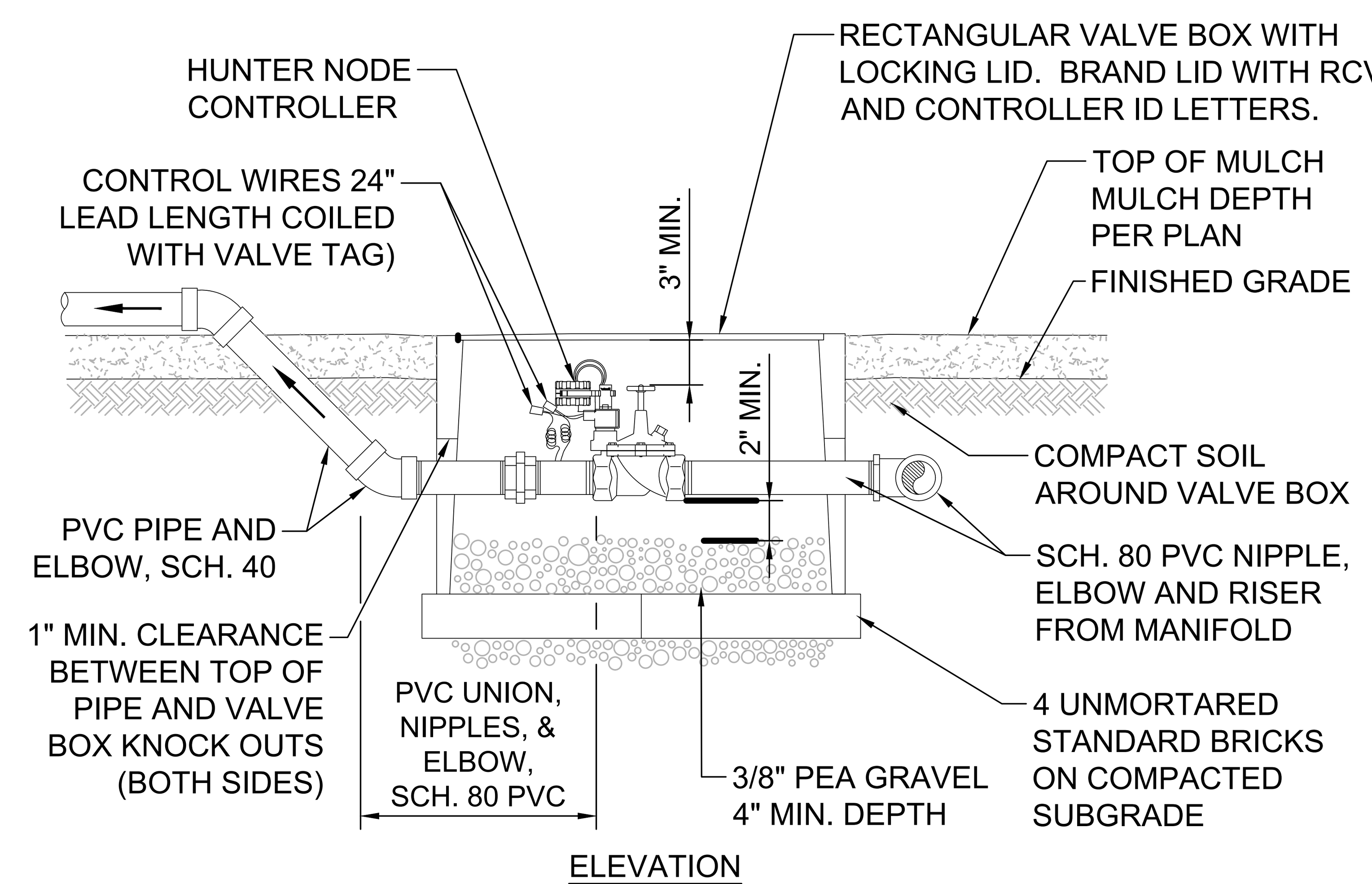


NOTES:

1. GLOBE VALVES SHALL BE FURNISHED WITH A STANDARD BRONZE CROSS HANDLE, CENTERED IN PIPE SLEEVE.
2. GLOBE VALVES SHALL BE FURNISHED WITH A REMOVABLE BONNET AND PACKING GLAND NUT.
3. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS.
4. VALVE BOX SHALL BE MOUNTED FLUSH WITH FINISH GRADE IN TURF AREAS AND PER MULCH DEPTH IN SHRUB AREAS.
5. PROVIDE TWO VALVE KEYS TO OPERATE VALVE.

3 MODIFIED SDI-107 - ISOLATION BALL/GATE VALVE FOR TEMPORARY IRRIGATION

1 1/2" = 1'-0"



NOTES:

1. SPLICES SHALL BE SOLDERED WITH A PROPERLY SET MECHANICAL SPLICE CONNECTOR, ENTIRELY ENCLOSED IN SELF-CURING RESIN AND SHALL BE COMPLETELY WATER-PROOF.
2. KNOCK OUTS SHALL NOT BE ENLARGED.
3. INSTALL ONLY ONE VALVE PER BOX.
4. VALVE BOXES SHALL BE SET ABOVE FINISHED GRADE IN SHRUB / GROUNDCOVER AREAS, PER MULCH DEPTH.
5. CLOSE NIPPLES SHALL NOT BE USED.
6. TEFLON TAPE SHALL BE USED ON THREADED CONNECTIONS

4 MODIFIED SDI-114 - REMOTE CONTROL VALVE FOR TEMPORARY IRRIGATION

1 1/2" = 1'-0"

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SEE SHEETS 84 - 86 FOR TEMPORARY IRRIGATION DETAILS

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

PLT DATE02.02.2024

L-30

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET 99 OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
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DESCRIPTION	BY	APPROVED	DATE	FILMED
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266-1695
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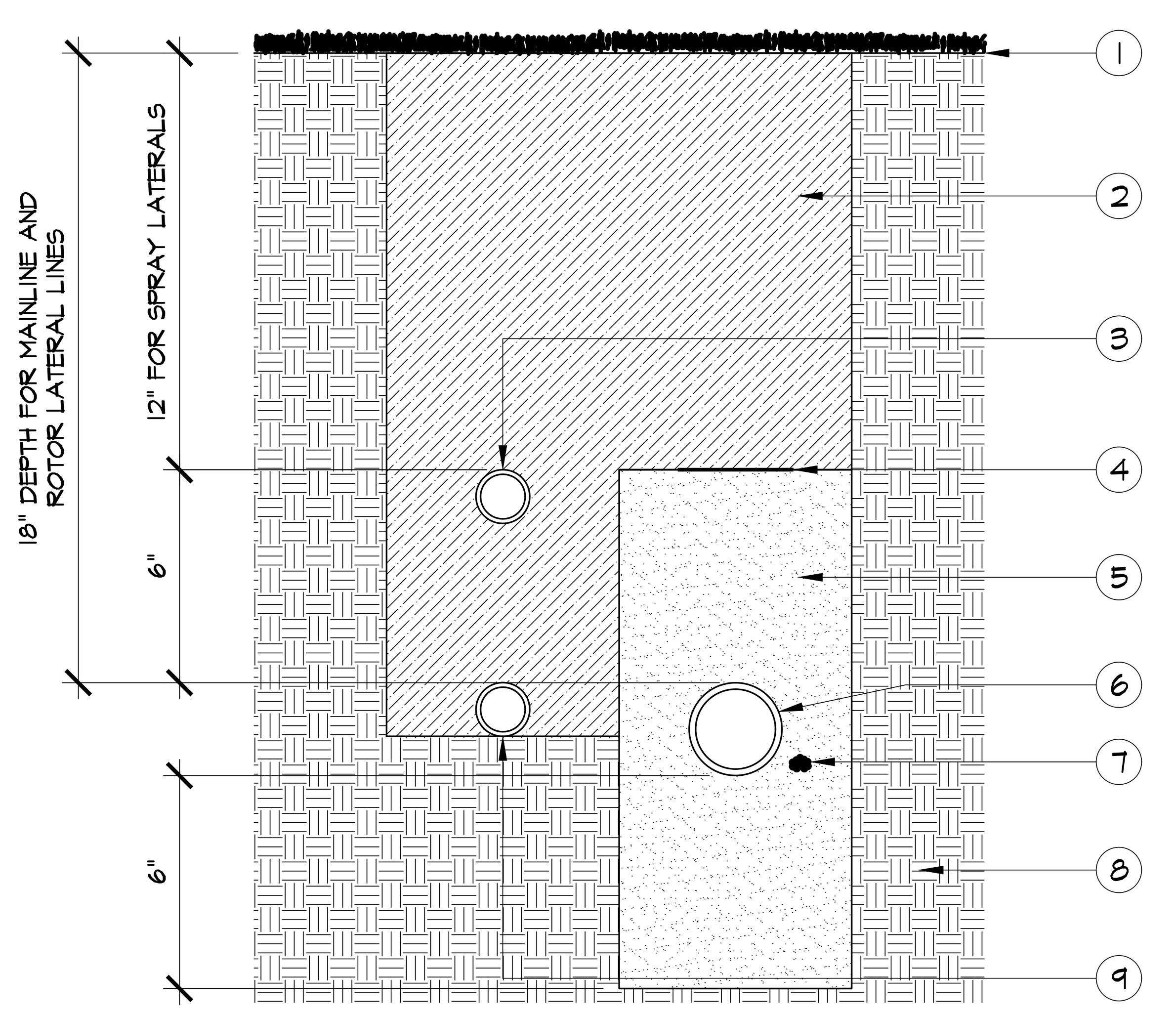
1906-6255
CCS83 COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

XXXXX-99-D

TEMPORARY IRRIGATION DETAILS

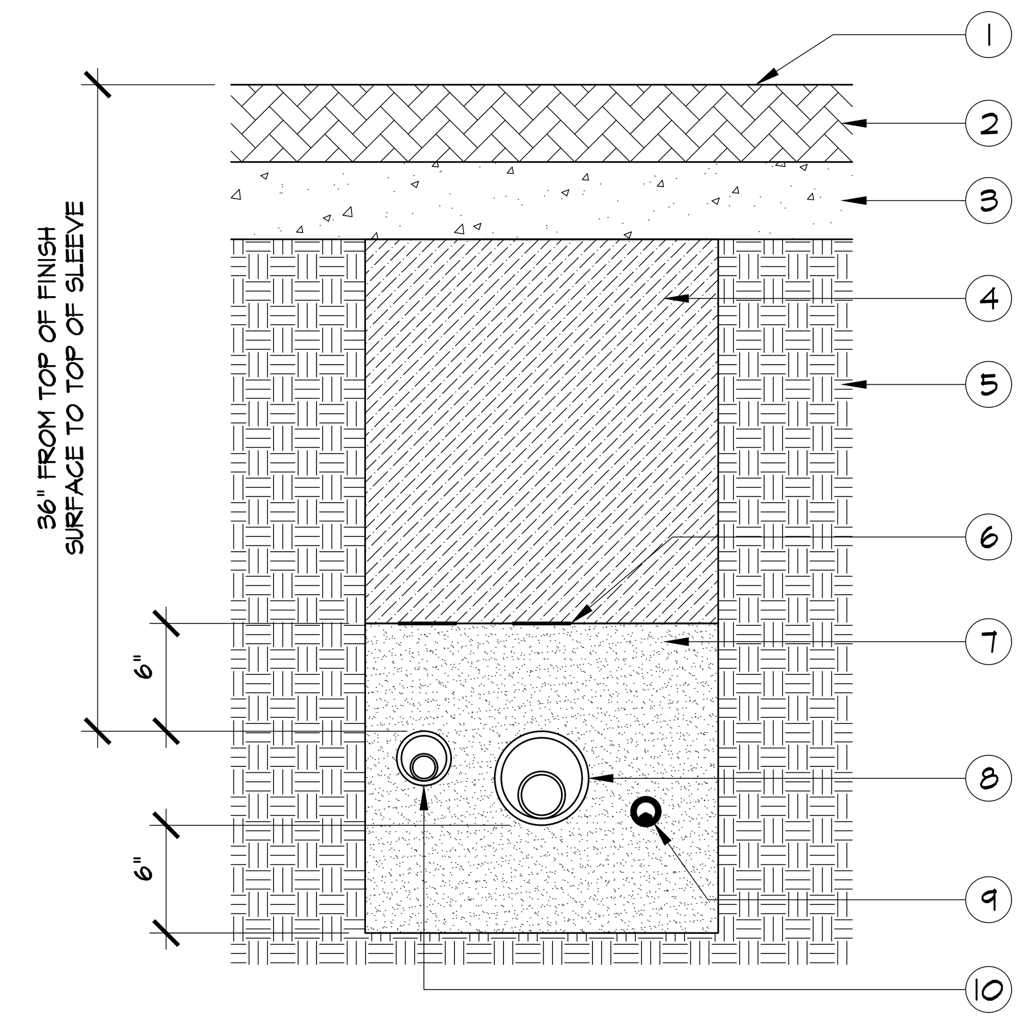
100% SUBMITTAL



1. FINISHED GRADE
2. SOIL BACKFILL, FREE OF DEBRIS AND ROCK GREATER THAN 1" (SEE SPECS)
3. LATERAL LINE FOR SPRAY AND ROTATOR HEADS (6" POP-UPS)
4. METALLIC DETECTOR TAPE, INSTALL 3" OVER MAINLINE (SEE SPECS)
5. CONSTRUCTION SAND BACKFILL, 6" DEPTH OVER AND UNDER MAINLINE
6. PVC MAINLINE PIPE, SEE PLANS FOR SIZE AND TYPE
7. LOW VOLTAGE CONTROL WIRES, TAPE TO MAINLINE 10' O.C.
8. UNDISTURBED SITE SOIL
9. LATERAL LINE FOR ROTOR HEADS AND 12" POP-UP SPRAY HEADS

TRENCH

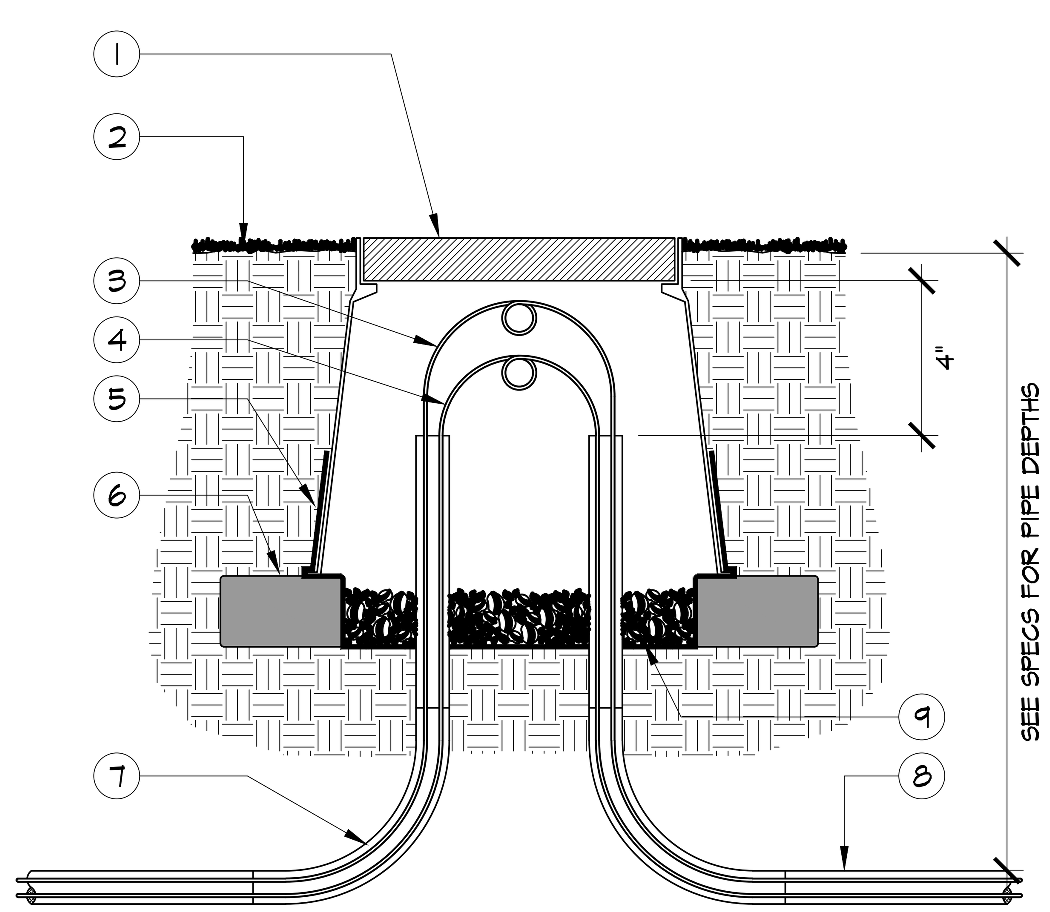
I-25 — N.T.S. — SECTION I-25 TRENCH



1. FINISHED PAVING SURFACE
2. PAVING MATERIAL (SEE PAVING PLANS)
3. BASE MATERIAL (SEE PAVING PLANS)
4. SOIL BACKFILL, FREE OF DEBRIS AND ROCK GREATER THAN 1" (SEE SPECS)
5. UNDISTURBED SITE SOIL
6. METALLIC DETECTOR TAPE, INSTALL 3" OVER SLEEVES (SEE SPECS)
7. CONSTRUCTION SAND BACKFILL, 6" DEPTH OVER AND UNDER SLEEVES
8. PVC MAINLINE SLEEVE, FOAM SEAL ENDS (SIZE AND TYPE PER SPECS)
9. PVC WIRE SLEEVE, FOAM SEAL ENDS (SIZE AND TYPE PER SPECS)
10. PVC LATERAL SLEEVE, FOAM SEAL ENDS (SIZE AND TYPE PER SPECS)

SLEEVES UNDER PAVING

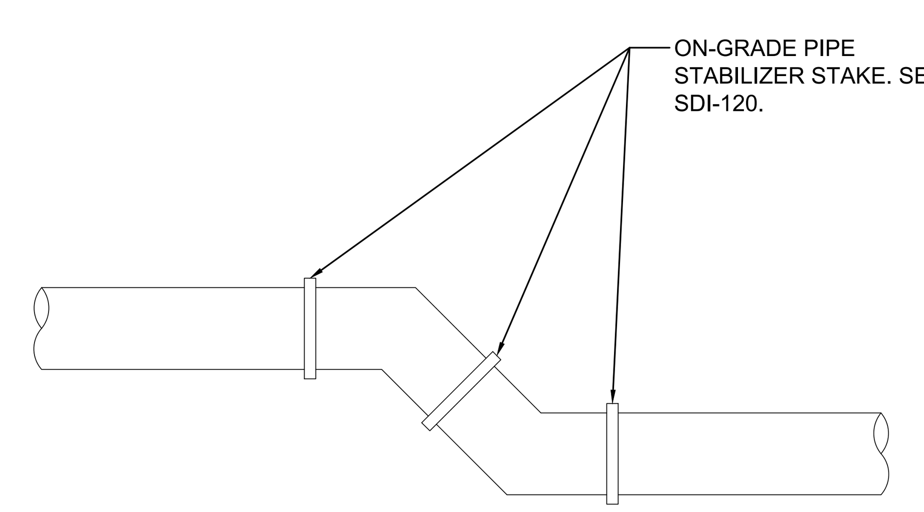
I-26 — N.T.S. — SECTION I-26 SLEEVE



1. 10" ROUND PLASTIC BOX W/ LOCKING LID FLUSH IN LAWN AREAS, 2" ABOVE FINISHED GRADE IN SHRUB AREAS
2. FINISHED GRADE
3. FLOW SENSOR CABLE, PROVIDE A 12" MINIMUM WIRE COIL IN BOX
4. MASTER VALVE CABLE, PROVIDE A 12" MINIMUM WIRE COIL IN BOX
5. WRAP BOTTOM AND SIDES OF BOX WITH APPROVED FILTER FABRIC
6. STANDARD BRICK SUPPORT, UNMORTARED (2 REQUIRED)
7. 1 1/4" SCH. 40 PVC (GREY) CONDUIT LONG SWEEP (2 REQUIRED)
8. 1 1/4" SCH. 40 PVC (GREY) ELECTRICAL CONDUIT FOR CONTROL CABLES
9. 3/4" GRAVEL SUMP IN BOTTOM OF VALVE BOX, MIN. 4" DEPTH

CABLE PULL BOX
MASTER VALVE & FLOW SENSOR

I-23 — N.T.S. — SECTION I-23 CABLE PULL BOX



NOTE:
ALL CHANGES IN DIRECTION MUST BE 45DEGREE MAXIMUM.

1 MAINLINE CHANGE IN DIRECTION ANCHORING DETAIL

N.T.S.

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L-31

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

TEMPORARY IRRIGATION DETAILS

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS No. ...8 — RENEWAL DATE ...-30-22 — STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

PLT DATE02.02.2024

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET100OF 103 SHEETS

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DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER

266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED

XXXXX-100-D

100% SUBMITTAL

TEMPORARY IRRIGATION DETAILS

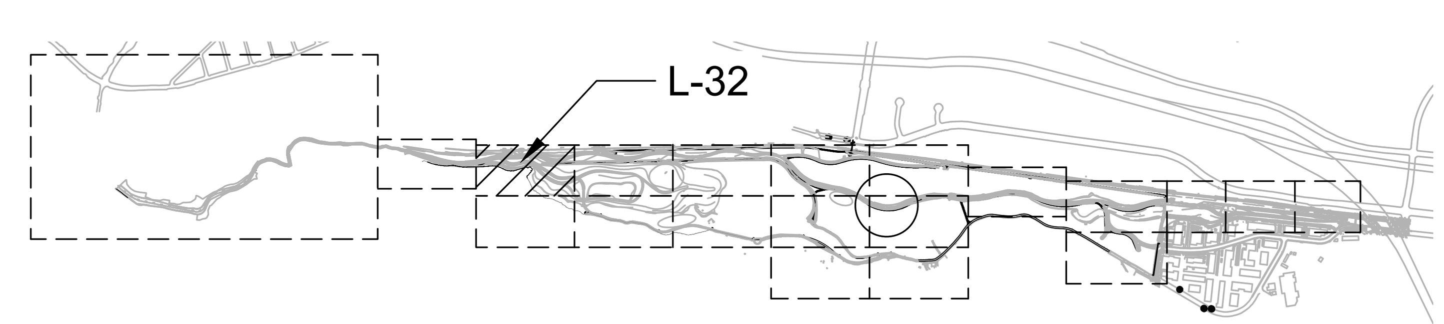
L-32

MARSH TRAIL RESTORATION AND REALIGNMENT

0 40 80 120
SCALE 1"=40'

GENERAL NOTE:
COORDINATE ALL IRRIGATION WORK WITH REVEGETATION PLANS AND PLANTING AREAS

SEE SHEET 61 - 62 FOR TEMPORARY IRRIGATION LEGEND AND NOTES
SEE SHEETS 64 - 84 FOR TEMPORARY IRRIGATION PLANS
SEE SHEETS 85 - 87 FOR TEMPORARY IRRIGATION DETAILS



KEYMAP

NTS

SCHMIDT DESIGN GROUP
1310 Rosecrans St., Suite G, San Diego, CA 92106
619.236.1462
LIC. CA 2138 | NV 219 | AZ 34139
SCHMIDTDESIGN.COM

PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

DRAFT - NOT FOR CONSTRUCTION

LICENSED LANDSCAPE ARCHITECT JEFF J. JUSTUS
NOT FOR CONSTRUCTION
STATE OF CALIFORNIA

PLT DATE02.02.2024

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

MARSH TRAIL RESTORATION AND REALIGNMENT

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET101OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

SUBMITTED BY:
PROJECT MANAGER
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PROJECT ENGINEER

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CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-101-D

100% SUBMITTAL

L-33

MARSH TRAIL RESTORATION AND REALIGNMENT

0 40 80 120
SCALE 1"=40'

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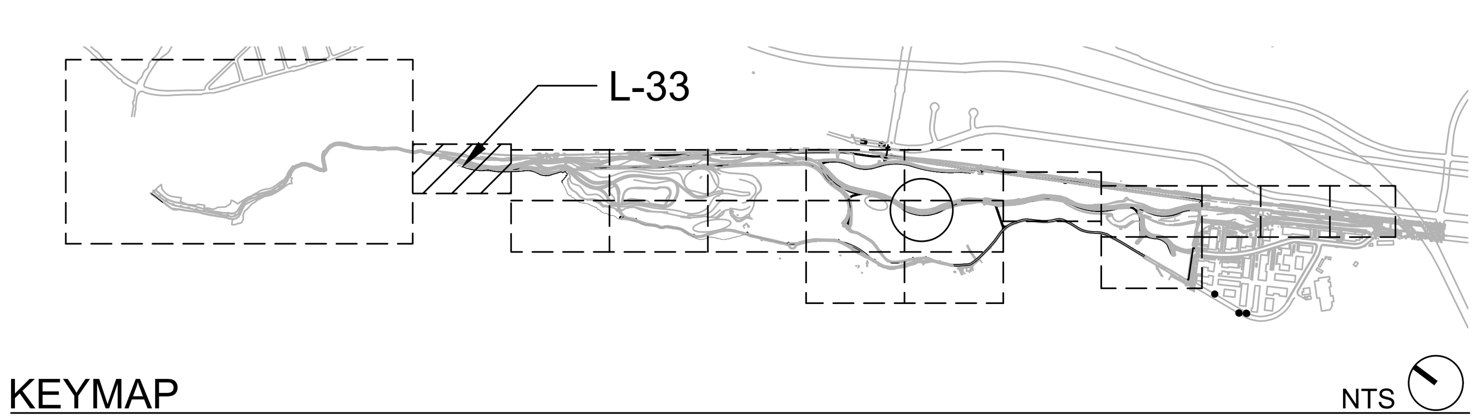

KEYMAP

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619.236.1462
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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

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LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

MARSH TRAIL RESTORATION AND REALIGNMENT

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET102OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER DATE
PRINT NAME RCE#

SUBMITTED BY:
PROJECT MANAGER
CHECKED BY:
PROJECT ENGINEER

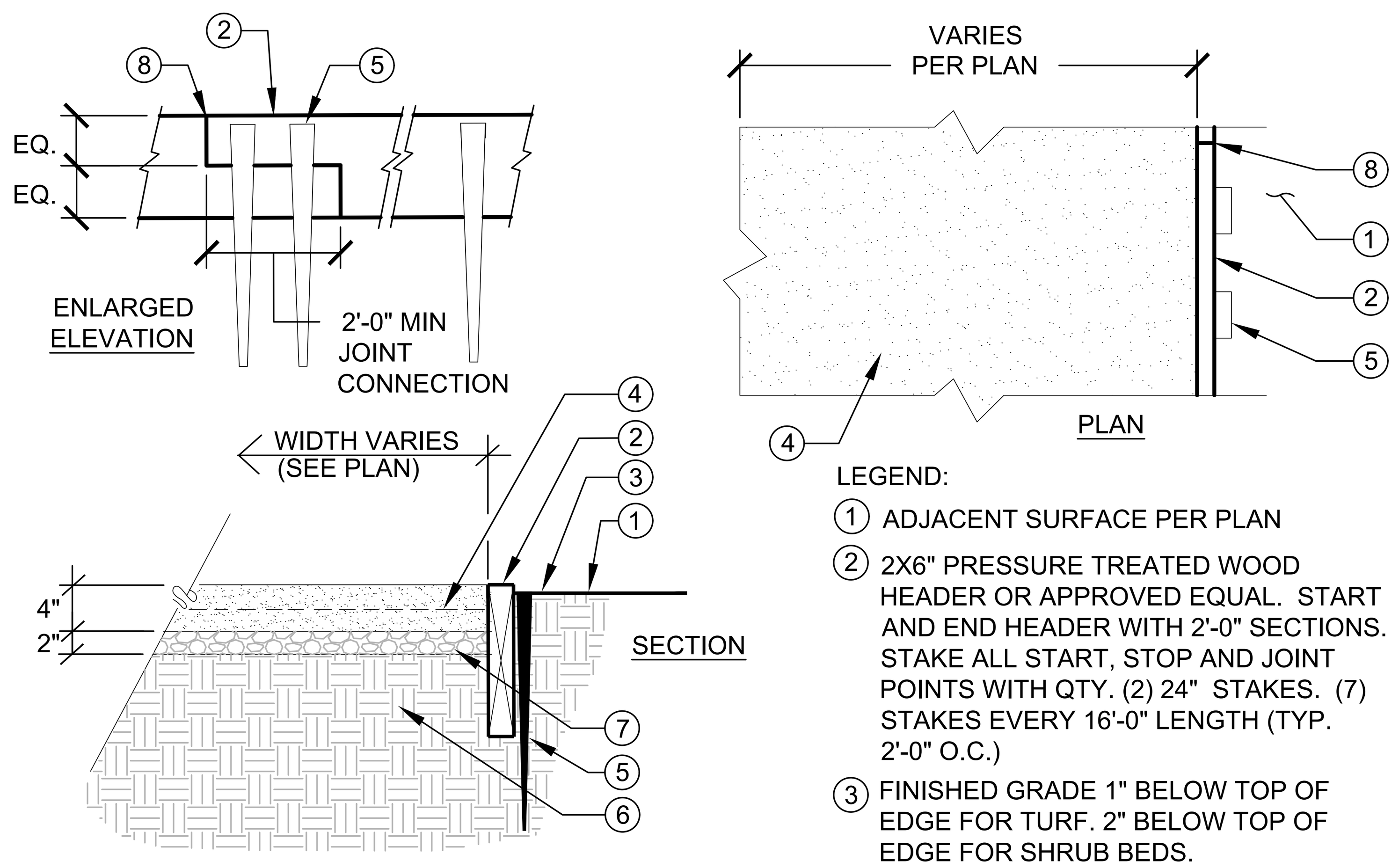
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

266-1695
CCS27 COORDINATE
1906-6255
CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-102-D

100% SUBMITTAL



LEGEND:

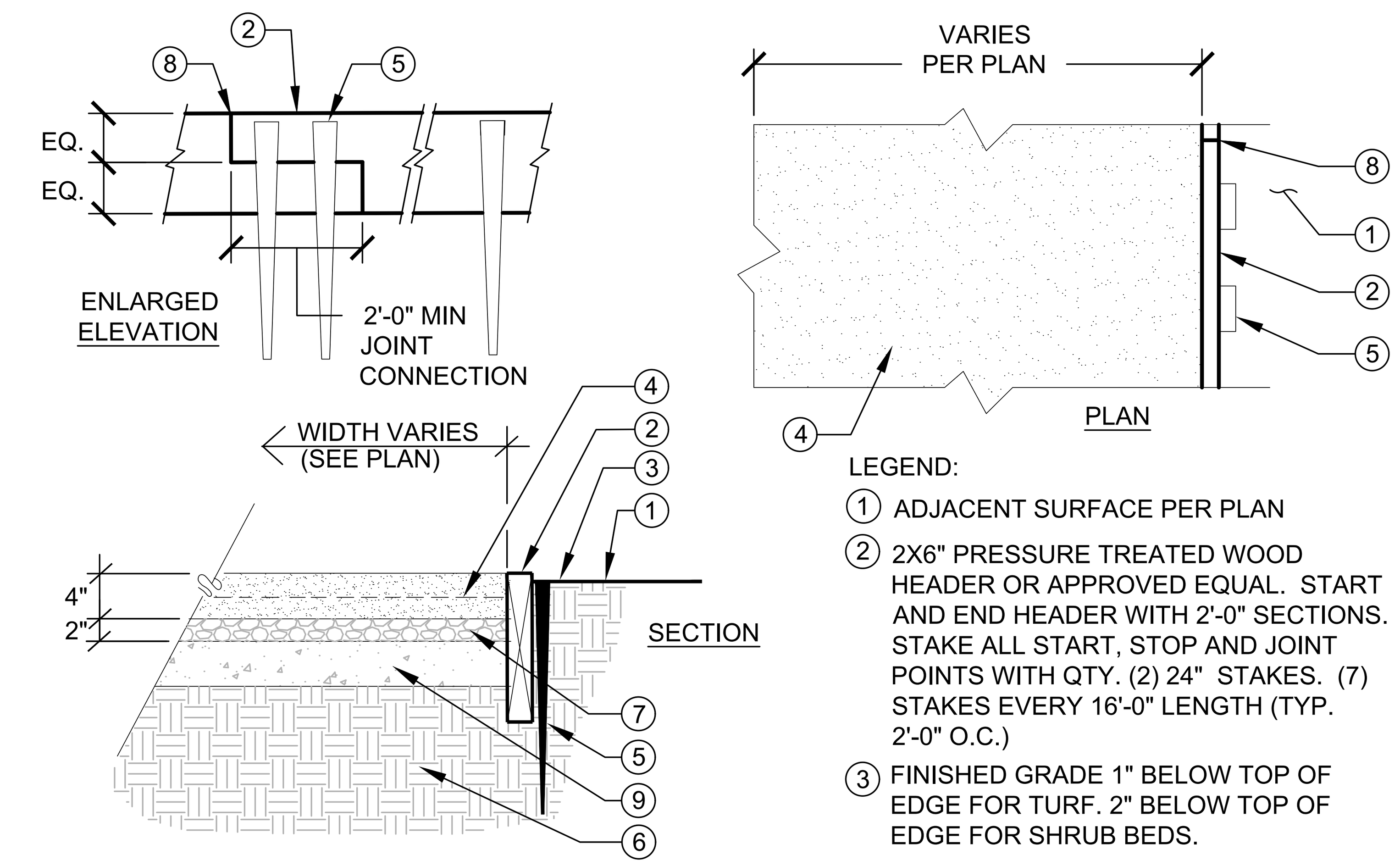
1. ADJACENT SURFACE PER PLAN
2. 2X6" PRESSURE TREATED WOOD HEADER OR APPROVED EQUAL. START AND END HEADER WITH 2'-0" SECTIONS. STAKE ALL START, STOP AND JOINT POINTS WITH QTY. (2) 24" STAKES. (7) STAKES EVERY 16'-0" LENGTH (TYP. 2'-0" O.C.)
3. FINISHED GRADE 1" BELOW TOP OF EDGE FOR TURF. 2" BELOW TOP OF EDGE FOR SHRUB BEDS.
4. DG PAVING WITH SOIL STABILIZER. TO BE PLACED IN 2" LAYERS. ROLL EACH LAYER SEPARATELY TO 95% MIN. COMPACTION. PAVING TO MEET FLUSH WITH TOP OF EDGING.
6. 12" DEPTH COMPACTED SUBGRADE, PER SOILS REPORT.
7. CLASS 2 AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION AS REQUIRED BY SOILS REPORT. OMIT THIS LAYER IF IT IS NOT REQUIRED BY SOILS REPORT.
8. SPLICE LOCATION TYPICAL.

NOTES:

A. SEE CONSTRUCTION PLAN FOR DECOMPOSED GRANITE TYPE, COLOR AND MANUFACTURER.
B. CONSTRUCTION SHALL COMPLY WITH ALL LOCAL AND REGIONAL STANDARDS AND WITH RECOMMENDATIONS FROM SOILS REPORT.
C. CONTRACTOR TO SUBMIT SAMPLE OF DECOMPOSED GRANITE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.

1 STABILIZED DG PAVING WITH PRESSURE TREATED HEADER

NO SCALE



LEGEND:

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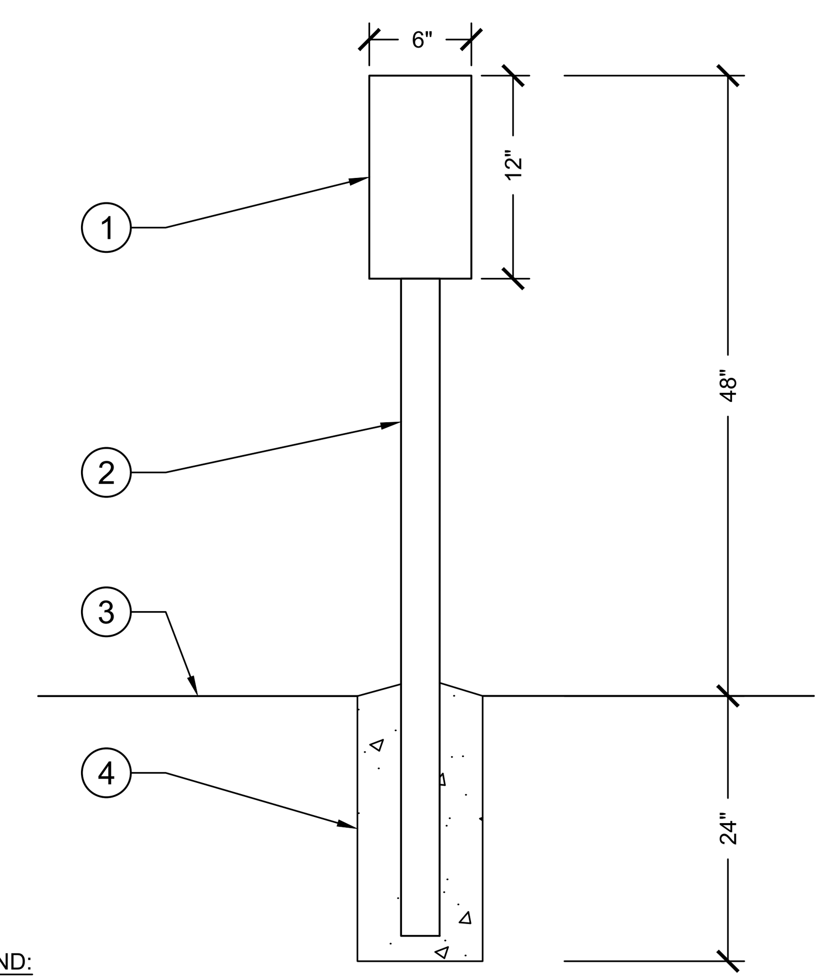
7. CLASS 2 AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION AS REQUIRED BY SOILS REPORT. OMIT THIS LAYER IF IT IS NOT REQUIRED BY SOILS REPORT.
8. SPLICE LOCATION TYPICAL.
9. EXISTING CONSTRUCTION ROAD.

NOTES:

A. SEE CONSTRUCTION PLAN FOR DECOMPOSED GRANITE TYPE, COLOR AND MANUFACTURER.
B. CONSTRUCTION SHALL COMPLY WITH ALL LOCAL AND REGIONAL STANDARDS AND WITH RECOMMENDATIONS FROM SOILS REPORT.
C. CONTRACTOR TO SUBMIT SAMPLE OF DECOMPOSED GRANITE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.

2 CONSTRUCTION ROAD TO DG RETROFIT

NO SCALE



LEGEND:

1. INTEPRETIVE SIGNAGE DESIGN TO BE SELECTED BY THE CITY.
2. 4"x4" PT POST.
3. FINISH GRADE.
4. 10" DIA. CONCRETE FOOTING.

NOTES:

A. SIGNS SHALL BE MANUFACTURED OF ALLUMINUM SHEET, THICKNESS .080" OR 18GA.
B. THE SIGN SHALL INCORPORATE A WHITE BACKGROUND WITH BLACK LETTERS.
C. SIGNS SHALL BE MOUNTED ON 4"x4" NOM. PRESSURE TREATED WOOD POST SET INTO CONCRETE. ATTACH SIGN TO POST USING 1/4" x 2 1/2" ANODIZED LAG SCREWS AND WASHERS (2 EACH).

3 TRAIL SIGN

NO SCALE

DRAFT - NOT FOR CONSTRUCTION

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PROJECT #: 21-701 DN BY: SM | CK BY: JJ, JR

LICENSED LANDSCAPE ARCHITECT, JEFF J. JUSTUS, STATE OF CALIFORNIA — NOT FOR CONSTRUCTION

PLT DATE02.02.2024

L-34

LOS PEÑASQUITOS LAGOON RESTORATION - PH. 1

MARSH TRAIL DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING & CAPITAL PROJECTS
SHEET103OF 103 SHEETS

WBS

APPROVED:
FOR CITY ENGINEER — DATE
PRINT NAME — RCE#

SUBMITTED BY: PROJECT MANAGER
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DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	SDG		1/24/2024	

266–1695
CCS27 COORDINATE
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CONTRACTOR — DATE STARTED
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XXXXX-103-D

MARSH TRAIL DETAILS

100% SUBMITTAL