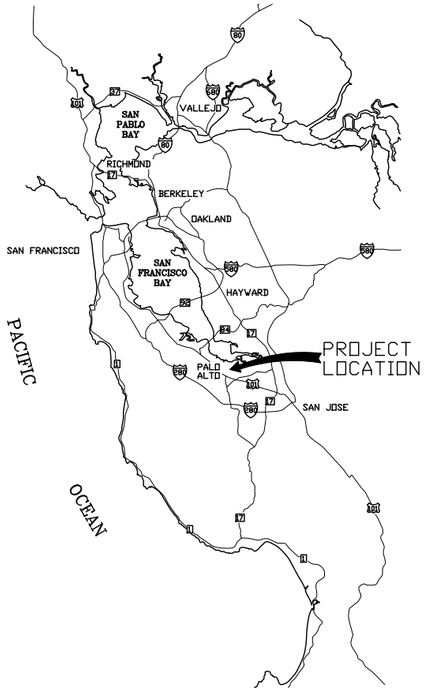
CITY OF PALO ALTO

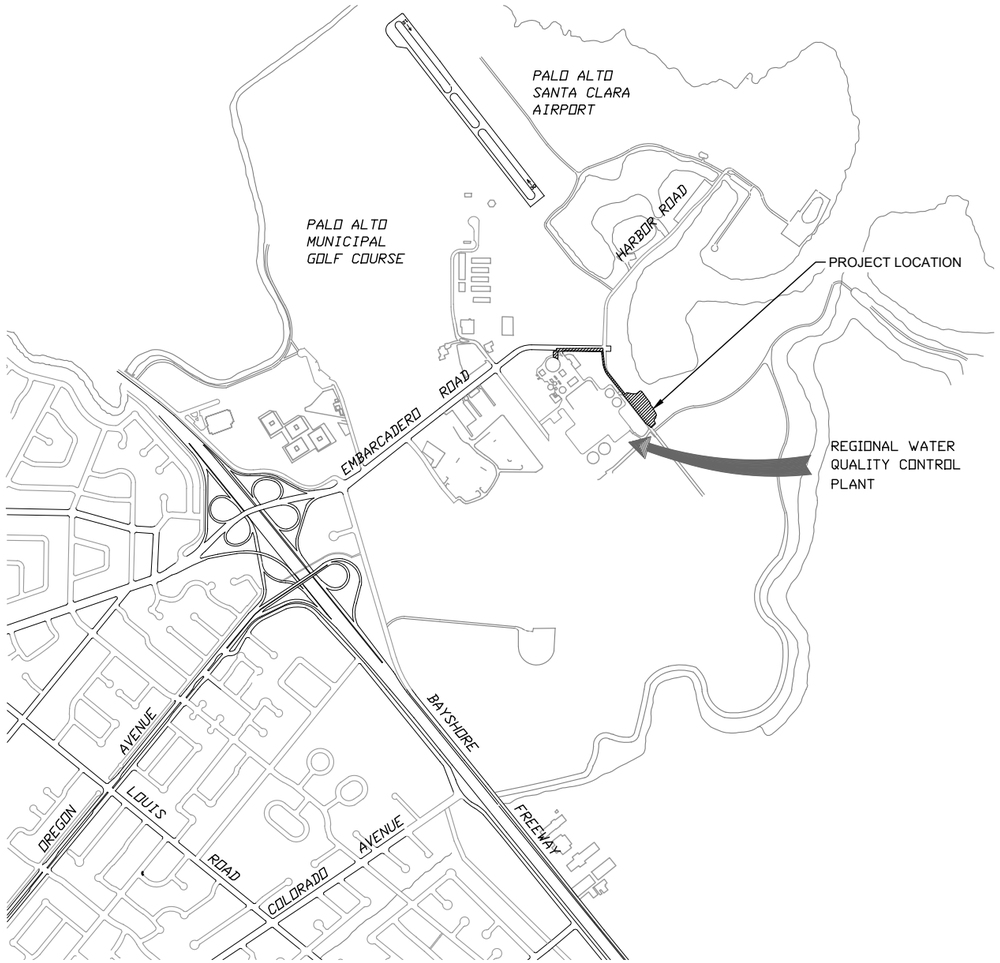
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

FINAL DESIGN

PALO ALTO, CALIFORNIA
NOVEMBER 1, 2023



LOCATION MAP
CITY OF PALO ALTO



VICINITY MAP
NTS

INDEX OF SHEETS

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER
MARK R. L'INDLEY
C 66701
EXP. 9/30/22
CIVIL
STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

CITY OF PALO ALTO

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PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

TITLE SHEET

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE
NOVEMBER 3, 2023
DRAWING NO.
G01
SHEET NO.
1 OF 45

FILENAME: G01 TITLE SHEET 11-03-23 04:17pm DHoreff XREFs: X_PA_AerialOverview X_PA_Parcels X-TBLX-PaloAlto-Border X_PA_Title_Maps K<—

Last Saved By: cto 4-12-18 02:36pm

GENERAL LEGEND

	EXISTING	PROPOSED
WORK LIMIT	N/A	
GRADING LIMIT	N/A	
PROPERTY BOUNDARY		N/A
ALIGNMENT		
EDGE OF PAVEMENT		N/A
EDGE OF TRAIL		N/A
BUILDING		N/A
SURVEY CONTROL POINT		N/A
VEGETATION		N/A
MARSH WETLAND	WET	N/A
TREE		N/A
TREE PROTECTION	N/A	
FIBER ROLL	N/A	
EROSION CONTROL FABRIC	N/A	
TEMPORARY ACOUSTIC BARRIER FENCE	N/A	AB
TEMPORARY ENVIRONMENTAL PROTECTION FENCE	N/A	X
SMHM VEGETATION REMOVAL AREA	N/A	
MAJOR CONTOUR	2.0	2.0
MINOR CONTOUR	0.5	0.5
GRADE BREAK	N/A	
FLOWLINE		
STAGING AREA	N/A	
LEVEE AREA	N/A	

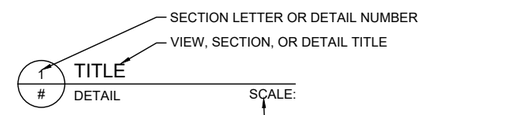
	EXISTING	PROPOSED
SUBGRADE (PROFILE AND SECTION)	N/A	
CUT MATERIAL (PROFILE AND SECTION)	N/A	
FILL MATERIAL (PROFILE AND SECTION)	N/A	
NATIVE MATERIAL	N/A	
NATIVE FINE MATERIAL	N/A	
NATIVE COARSE MATERIAL	N/A	
TREATMENT ZONE FINE MATERIAL	N/A	
TREATMENT ZONE COARSE MATERIAL	N/A	
SUBSURFACE TREATMENT MATERIAL	N/A	
LEVEE BERM MATERIAL	N/A	
SAND FILTER	N/A	
ROADWAY WORK AREA	N/A	
TRAIL SURFACE	N/A	
TREATMENT ZONE	N/A	
BIORETENTION SOIL	N/A	
EFFLUENT DISTRIBUTION BOX	N/A	
SIGN		
WOOD FENCE	N/A	
EXISTING GRADE (PROFILE AND SECTION)		N/A
DESIGN GRADE (PROFILE AND SECTION)	N/A	

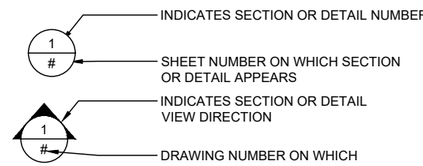
UTILITIES LEGEND

	EXISTING	PROPOSED
GAS LINE	G G	N/A
OVERHEAD POWER LINE	OH OH	N/A
OVERHEAD UTILITY POLE		N/A
UTILITY BOX		N/A
POTABLE WATER LINE	W W	N/A
STORM DRAIN LINE	SD SD	
STORM DRAIN INLET		N/A
CLEANOUT		N/A
TELECOM LINE	T T	N/A
SANITARY SEWER LINE	SS SS	N/A
UNDERGROUND POWER LINE	E E	N/A
RECYCLED WATER LINE	RW	N/A
RECYCLED WATER BOX		N/A
RECYCLED WATER VALVE		N/A
RECYCLED WATER HYDRANT		N/A
HORIZONTAL LEVEE EFFLUENT SUPPLY LINE	N/A	EFF
INFILTRATOR UNITS	N/A	
PIEZOMETER	N/A	

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	JP	JOINT SERVICE POLE
ADMIN	ADMINISTRATION	(N)	NEW
BLDG	BUILDING	NIC	NOT IN CONTRACT
CONC	CONCRETE	PCC	PLAIN CEMENT CONCRETE
CLSM	CONTROLLED LOW-STRENGTH MATERIAL	OVHD / OH	OVERHEAD UTILITIES
		PIP	PROTECT IN PLACE
DBH	DIAMETER AT BREAST HEIGHT	RCP	REINFORCED CONCRETE PIPE
DG	DESIGN GRADE	RW	RECLAIMED WATER
D/S	DOWNSTREAM	RWQCP	REGIONAL WATER QUALITY CONTROL PLANT
(E)	EXISTING		
EG	EXISTING GRADE	CP	SURVEY CONTROL POINT
EL	ELEVATION	SD	STORM DRAIN
EFF	EFFLUENT	SS	SANITARY SEWER
F/L	FLOWLINE	TYP	TYPICAL
G	GAS	U/S	UPSTREAM
HDPE	HIGH-DENSITY POLYETHYLENE	W	WATER
INV	INVERT	WM	WATER METER





GENERAL NOTES

GENERAL

1. THESE NOTES HIGHLIGHT SOME OF THE KEY REQUIREMENTS FROM THE SPECIFICATIONS AND PROVIDE ADDITIONAL PROJECT INFORMATION. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS CONTAINED IN THE PLANS, SPECIFICATIONS, PERMITS, AND OTHER CONTRACT DOCUMENTS.

PROTECTION OF FACILITIES

2. THE LOCATION OF EXISTING UTILITIES KNOWN TO THE OWNER ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON INFORMATION AVAILABLE AT THE TIME THE DRAWINGS WERE PREPARED. THE ACTUAL LOCATION, SIZE, TYPE, AND NUMBER OF UTILITIES MAY DIFFER FROM THAT SHOWN, AND UTILITIES OR UNDERGROUND FACILITIES MAY BE PRESENT THAT ARE NOT SHOWN.
3. PROTECT ALL EXISTING UTILITIES WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS.
4. THE CONTRACTOR SHALL EXPOSE ALL UNDERGROUND FACILITIES THAT ARE TO BE CONNECTED TO OR THAT ARE IN THE PATH OF THE PROPOSED IMPROVEMENTS PRIOR TO THE COMMENCEMENT OF WORK IN THE VICINITY OF EACH UNDERGROUND UTILITY. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY UPON DISCOVERY OF DISCREPANCIES BETWEEN EXISTING CONDITIONS IN THE FIELD AND INFORMATION SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF ANY DIFFERENCES IN LOCATIONS OF EXISTING UTILITIES SHOWN, OR ANY CONFLICTS WITH THE DESIGN THAT BECOME APPARENT DURING CONSTRUCTION, BEFORE CONTINUING WORK IN THAT AREA.
5. IF ANY DAMAGE TO EXISTING UTILITIES OCCURS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND SHALL REPAIR THE DAMAGE AS DIRECTED BY THE OWNER AT NO ADDITIONAL COMPENSATION.
6. THE SITE INCLUDES OVERHEAD POWER LINES. EXERCISE CAUTION WHEN WORKING AROUND EXISTING ELECTRICAL LINES. COMPLY WITH ALL SAFETY REGULATIONS AND REQUIREMENTS.
7. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (800-227-2600) FOR BURIED UTILITY INFORMATION AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK.
8. RWQCP SHUTDOWNS SHALL BE COORDINATED WITH THE CITY PER SPECIFICATIONS SECTION 01 14 00 - WORK RESTRICTIONS.
9. THE CONTRACTOR SHALL PREPARE AND SUBMIT FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION, TO THE FAA FOR ANY EQUIPMENT TALLER THAN 25 FEET. SEE SPECIFICATIONS SECTION 01 14 00 - WORK RESTRICTIONS.

SITE ACCESS

10. THE FOLLOWING PROJECTS WILL BE OCCURRING WITHIN THE RWQCP AT THE SAME TIME AS THE PROJECT CONSTRUCTION: SECONDARY TREATMENT UPGRADES PROJECT AND LOCAL ADVANCED WATER PURIFICATION FACILITY. COORDINATE WITH THE RESIDENT ENGINEER ONE WEEK PRIOR TO ANY OVERLAPPING WORK WITH THE ABOVE DEFINED PROJECTS.
11. COORDINATE WITH THE RESIDENT ENGINEER FOR ACCESS TO RWQCP.
12. CONTRACTOR SHALL MAINTAIN MINIMUM ONE LANE OPEN ON EMBARCADERO ROAD AND HARBOR ROAD AT ALL TIMES DURING CONSTRUCTION.

TOPOGRAPHIC DATA

13. ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88). HORIZONTAL CONTROL IS CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE 3, NORTH AMERICAN DATUM 1983 (NAD83, 2011), U.S. SURVEY FEET.
14. ALL ELEVATIONS AND HORIZONTAL COORDINATES ARE IN FEET. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
15. THE AERIAL PHOTO IS BASED ON USGS EARTH EXPLORER DATABASE, PREPARED BY NORTHROP GRUMMAN, DATED FEBRUARY 20 TO 24, 2015.
16. EXISTING TOPOGRAPHY IS SANTA CLARA COUNTY 2020 LIDAR, CAPTURED BY THE SANBORN MAP COMPANY, INC. IN APRIL 2020. SUPPLEMENTAL TOPOGRAPHIC DATA PROVIDED BY ESA (JUNE 2021).
17. ELEVATIONS ARE APPROXIMATE AND PROVIDED FOR GENERAL REFERENCE ONLY. THE ACCURACY OF THE ELEVATION CONTOURS IS LIMITED BY DISTORTION DUE TO EXISTING VEGETATION.
18. EXISTING GRADES MAY HAVE CHANGED SINCE TIME OF SURVEY, FOR EXAMPLE DUE TO SUBSIDENCE AND CONSOLIDATION.
19. THE CONTRACTOR SHALL PERFORM PRE-CONSTRUCTION SURVEYS, SITE INVESTIGATIONS, ESTIMATE QUANTITIES AND INCLUDE SUFFICIENT CONTINGENCY IN ITS BID TO COVER TOPOGRAPHIC AND BATHYMETRIC VARIABILITY.

ENVIRONMENTAL PROTECTION

20. REGULATORY PERMITS: OWNER HAS OBTAINED PERMITS FROM RESOURCE AGENCIES FOR THIS PROJECT. COMPLY WITH ALL PERMIT REQUIREMENTS FOR THE PROTECTION OF WATER QUALITY, WILDLIFE AND VEGETATION.
21. CONTRACTOR SHALL OBTAIN ALL OTHER PERMITS NOT PROVIDED BY OWNER.
22. COMPLY WITH ALL SCHEDULE RESTRICTIONS INCLUDED IN PROJECT PERMITS, INCLUDING REQUIREMENTS FOR THE PROTECTION OF NESTING BIRDS, PROTECTED FISH, AND OTHER WILDLIFE. SEE SHEET G06 AND SPECIFICATIONS SECTION 01 57 19 - TEMPORARY ENVIRONMENTAL CONTROLS AND PROJECT PERMITS FOR COMPLETE REQUIREMENTS.
23. CONTRACTOR SHALL PREPARE AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE STATE WATER RESOURCES CONTROL BOARD. INCORPORATE SEDIMENT CONTROL AND EROSION CONTROL MEASURES TO PREVENT EROSION, SEDIMENT, AND HAZARDOUS MATERIALS RUNOFF FROM THE CONSTRUCTION SITE. SEE SHEET C16 AND SPECIFICATIONS SECTION 01 57 19 - TEMPORARY ENVIRONMENTAL CONTROLS FOR COMPLETE REQUIREMENTS.
24. ELIMINATE OR MINIMIZE NON-STORM DISCHARGE FROM THE CONSTRUCTION SITE TO THE BAY AND ALL OTHER WATER BODIES, INCLUDING GROUNDWATER.
25. STORE AND USE ALL MATERIALS THAT COULD CAUSE WATER POLLUTION (I.E. MOTOR OIL, FUELS, PAINTS, ETC.) IN A CONTAINED AREA THAT WILL NOT CAUSE ANY POLLUTION. REMOVE ALL DISCARDED MATERIAL AND ANY ACCIDENTAL SPILLS AND DISPOSE AT AN APPROVED DISPOSAL SITE.
26. CONSTRUCTION EQUIPMENT SHALL BE STORED, REFUELED, AND MAINTAINED IN DESIGNATED STAGING AREAS.
27. DUST FROM GRADING OPERATIONS SHALL BE CONTROLLED. AT MINIMUM, WATER ACTIVE WORK AREAS TO PREVENT VISIBLE DUST FROM LEAVING THE SITE.

EARTHWORK AND WATER MANAGEMENT

28. THE PROJECT INVOLVES EXCAVATION, TRANSPORT, AND PLACEMENT OF MATERIAL BELOW GROUNDWATER LEVELS AND/OR WITHIN TIDAL WATERS.
29. ACCESS WITH CONVENTIONAL EQUIPMENT INCLUDING WHEELED SCRAPERS MAY BE DIFFICULT OR IMPOSSIBLE, PARTICULARLY IN AREAS EXCAVATED BELOW EXISTING GROUND SURFACE. PORTIONS OF THE WORK MAY REQUIRE USE OF LOW GROUND PRESSURE EQUIPMENT AND/OR USE OF CRANE MATS. THE CONTRACTOR SHALL DEVELOP EARTHWORK PLANS AND UTILIZE EQUIPMENT APPROPRIATE FOR SOFT, DIFFICULT CONDITIONS.
30. CONTRACTOR IS RESPONSIBLE FOR ESTIMATING ALL EARTHWORK QUANTITIES. APPROXIMATE EARTHWORK QUANTITIES ARE PROVIDED FOR CONTRACTOR'S REFERENCE ONLY. [
31. THE CONTRACTOR IS RESPONSIBLE FOR ALL WATER MANAGEMENT THROUGHOUT CONSTRUCTION, INCLUDING ISOLATING WORK FROM TIDAL WATERS. DEWATER AS REQUIRED FOR LEVEE SUBGRADE CONSTRUCTION AND OTHERWISE DEEMED NECESSARY TO SAFELY AND EFFICIENTLY PERFORM AND CONTROL THE WORK. SEE SHEET G05 FOR CONSTRUCTION PHASING.

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER
MARK R. L'INDEN
C 66701
EXP. 9/30/22
CIVIL
STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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LEGEND, ABBREVIATIONS, AND NOTES

VERIFY SCALES
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0 1"
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DATE NOVEMBER 3, 2023
DRAWING NO. G02
SHEET NO. 2 OF 45

FILENAME: G02 LEGEND, ABBREVIATIONS, AND NOTES 11-03-23 04:17pm DHewitt XREFS: X-TBLK-PaloAlto-Border

Last Saved By: cto 4-12-18 02:36pm

DESIGN NOTES

OVERALL DESIGN OBJECTIVES

1. IMPROVE HABITAT ALONG THE PERIMETER OF HARBOR MARSH
2. ADAPT TO SEA LEVEL RISE BY PROVIDING A TRANSITIONAL SLOPE THAT PROVIDES TRANSGRESSION SPACE FOR UP TO THREE FEET OF SEA LEVEL RISE
3. REDUCE FLOOD RISK BY INTEGRATING A HORIZONTAL LEVEE ON THE OUTBOARD SIDE OF A TRADITIONAL FLOOD CONTROL LEVEE PROVIDING WIND-WAVE ATTENUATION AND VEGETATIVE EROSION PROTECTION FOR THE FLOOD CONTROL LEVEE CORE.
4. PROVIDE POLISHING TREATMENT TO DISCHARGED TREATED WASTEWATER.
5. MAINTAIN PUBLIC ACCESS TO THE EXISTING TRAIL SYSTEM.

HORIZONTAL LEVEE EFFLUENT PIPELINE

1. DESIGN FLOW
   a. MAXIMUM FLOW = 59,500 GPD
   b. MINIMUM FLOW = 5,000 GPD
2. FUTURE FLOW
   a. MAXIMUM FULL BUILD OUT FLOW = 249,500 GPD

HORIZONTAL LEVEE FLOW OPERATION

1. CONTROL SCHEDULE:

SETPOINT	**VALUE**	**UNIT**
FLOW	100	GPM
VALVE MINIMUM OPEN	10	%
VALVE MAXIMUM OPEN	100	%

2. DAILY RUNTIME SCHEDULE

MONTH	MIN DAILY FLOW	MIN DAILY VALVE OPEN*	EST MAX DAILY FLOW	EST MAX DAILY VALVE OPEN*	EST MAX DAILY FLOW INTERVAL
	GPD	HOURS	GPD	HOURS	(EVERY X DAYS)
OCTOBER	6,700	1.1	7,900	1.3	6
NOVEMBER	5,000	0.8	29,700	5	5
DECEMBER	8,400	1.4	51,600	8.6	4
JANUARY	11,700	2	56,400	9.4	3
FEBRUARY	15,000	2.5	59,800	10	3
MARCH	16,700	2.8	52,200	8.7	4
APRIL	16,700	2.8	32,100	5.4	5
MAY	15,000	2.5	19,700	3.3	6
JUNE	13,400	2.2	14,900	2.5	7
JULY	11,700	2	11,700	2	7
AUGUST	10,000	1.7	11,600	1.9	7
SEPTEMBER	8,400	1.4	9,900	1.7	7

*ASSUMES VALVE OPENS TO 100 GPM

3. CONTROL AT HORIZONTAL LEVEE TREATMENT ZONE
   a. FLOWS TO EACH ZONE ADJUSTED MANUALLY AT A MONTHLY BASIS
   b. NUMBER OF ZONES = 4

RENZEL MARSH PUMP

1. MAXIMUM FLOW = 3 MGD
2. TYPICAL OPERATION FLOW = 1.0 TO 1.5 MGD
3. PUMP OPERATION CHARACTERISTICS

PARAMETER	VALUE
Primary Point at Full Speed (gpm @ TDH)	1,200 @ 19.3 ft
NPSHa at Primary Point	36 feet
Maximum Capacity at Full Speed (gpm @ TDH)	1,600 @ 8 ft
Minimum Capacity at Full Speed (gpm @ TDH)	200 @ 42 ft
Secondary Point at Reduced Speed (gpm @ TDH @ rpm)	650 gpm @ 12.5 ft @ 1,150 rpm
NPSHa at Secondary Point	30 feet
Minimum Shutoff Head	55 ft
Maximum Synchronous Speed	1,800 rpm
Pump Drive Type	Adjustable Speed
Minimum Operating Speed	1,100 rpm
Motor Horsepower	10 HP
Required minimum efficiency at Primary Point	54% (Wire-to-Water Efficiency)
Minimum Solids sphere passage	3 inches
Minimum Size Suction x Discharge (inches)	6 x 6
Discharge pressure gauge range	0 to 30 psig

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REGISTERED PROFESSIONAL ENGINEER MARK R. L'INDLEY C 66701 EXP. 9/30/22 CIVIL STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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BASIS OF DESIGN

VERIFY SCALES
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0 1"
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DATE NOVEMBER 3, 2023
DRAWING NO. G03
SHEET NO. 3 OF 45

FILENAME: G03 BASIS OF DESIGN 11-03-23 04:18pm DHowitt | XREFs: X-TBLK-PaloAlto-Border |<<—

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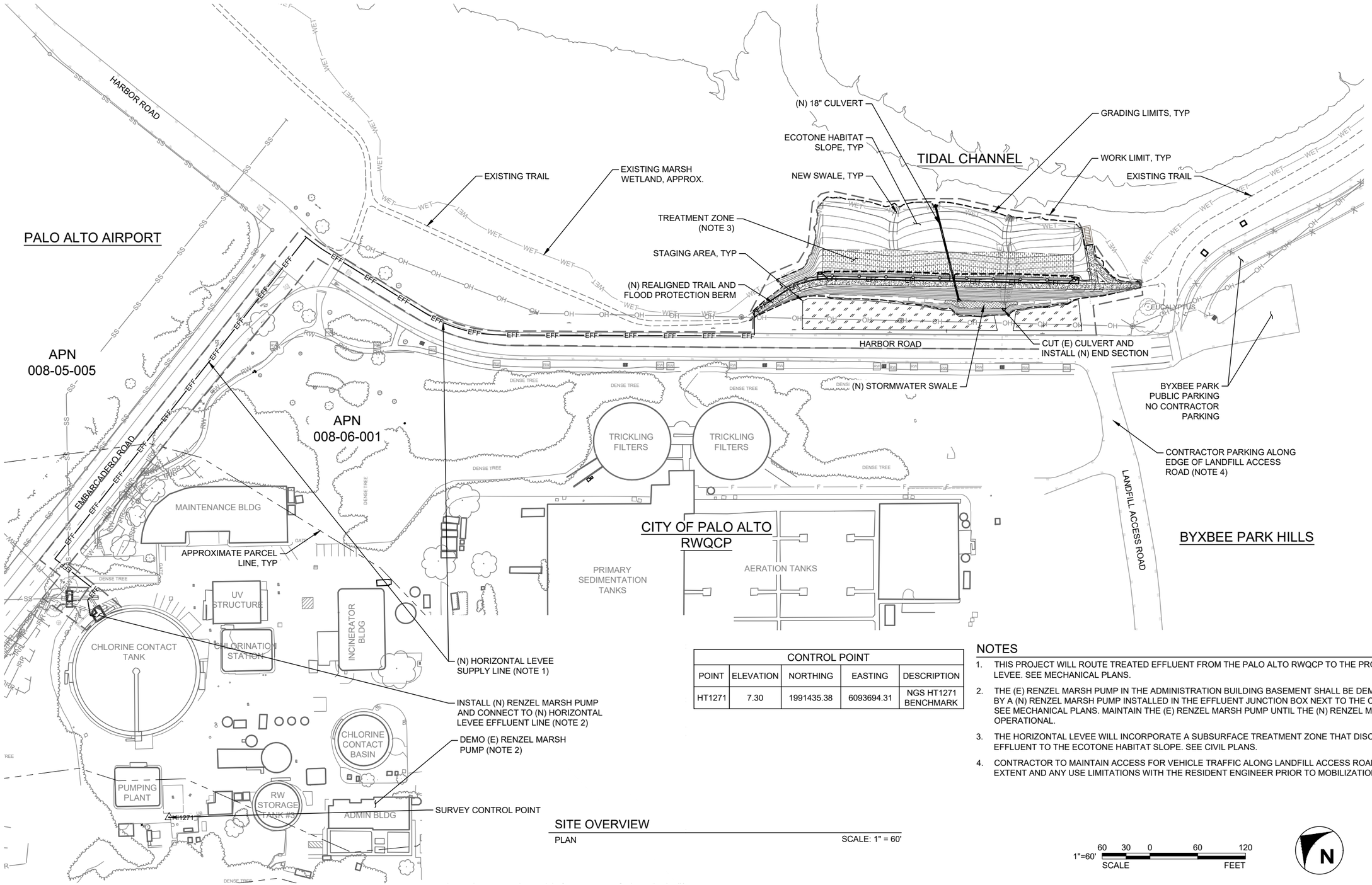

CONTROL POINT				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
HT1271	7.30	1991435.38	6093694.31	NGS HT1271 BENCHMARK

NOTES

1. THIS PROJECT WILL ROUTE TREATED EFFLUENT FROM THE PALO ALTO RWQCP TO THE PROPOSED HORIZONTAL LEVEE. SEE MECHANICAL PLANS.
2. THE (E) RENZEL MARSH PUMP IN THE ADMINISTRATION BUILDING BASEMENT SHALL BE DEMOLISHED AND REPLACED BY A (N) RENZEL MARSH PUMP INSTALLED IN THE EFFLUENT JUNCTION BOX NEXT TO THE CHLORINE CONTACT TANK. SEE MECHANICAL PLANS. MAINTAIN THE (E) RENZEL MARSH PUMP UNTIL THE (N) RENZEL MARSH PUMP IS FULLY OPERATIONAL.
3. THE HORIZONTAL LEVEE WILL INCORPORATE A SUBSURFACE TREATMENT ZONE THAT DISCHARGES POLISHED EFFLUENT TO THE ECOTONE HABITAT SLOPE. SEE CIVIL PLANS.
4. CONTRACTOR TO MAINTAIN ACCESS FOR VEHICLE TRAFFIC ALONG LANDFILL ACCESS ROAD. CONFIRM LOCATION, EXTENT AND ANY USE LIMITATIONS WITH THE RESIDENT ENGINEER PRIOR TO MOBILIZATION.

SITE OVERVIEW

PLAN — SCALE: 1" = 60'

1"=60' — 60 30 0 60 120 — SCALE FEET

N

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REGISTERED PROFESSIONAL ENGINEER — MARK R. LINDLEY — C 66701 EXP. 9/30/22 — CIVIL — STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
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DATE NOVEMBER 3, 2023
DRAWING NO. G04
SHEET NO. 4 OF 45

FILENAME: G04 SITE OVERVIEW 11-03-23 04:18pm DHowff | XREFs: X_PA_ESA_Survey | X_PA_Building_Features | X_PA_Design_Topo | X_PA_Parcels | X-TBLX-PaloAlto-Border | X_pa_project_limits | X_PA_Design_Linework

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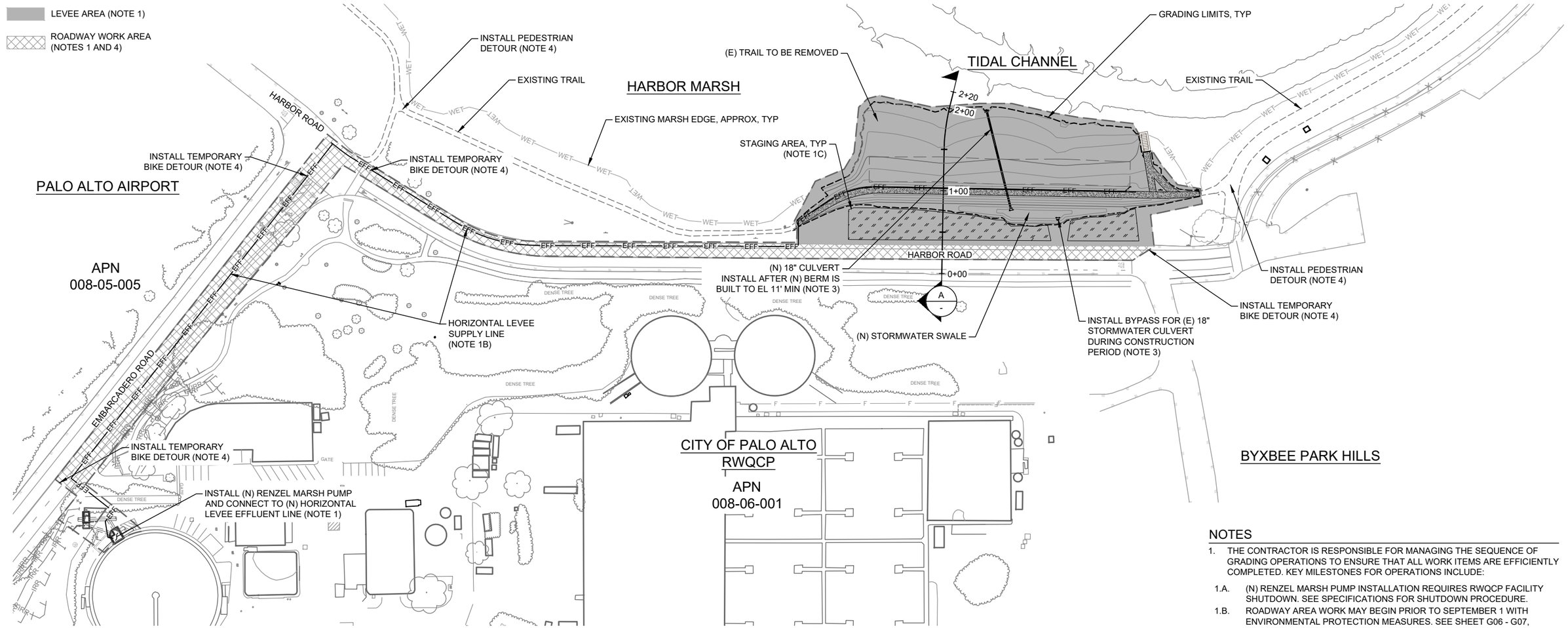

CONSTRUCTION PHASING

PLAN SCALE: 1" = 60'

1"=60' SCALE 60 30 0 60 120 FEET

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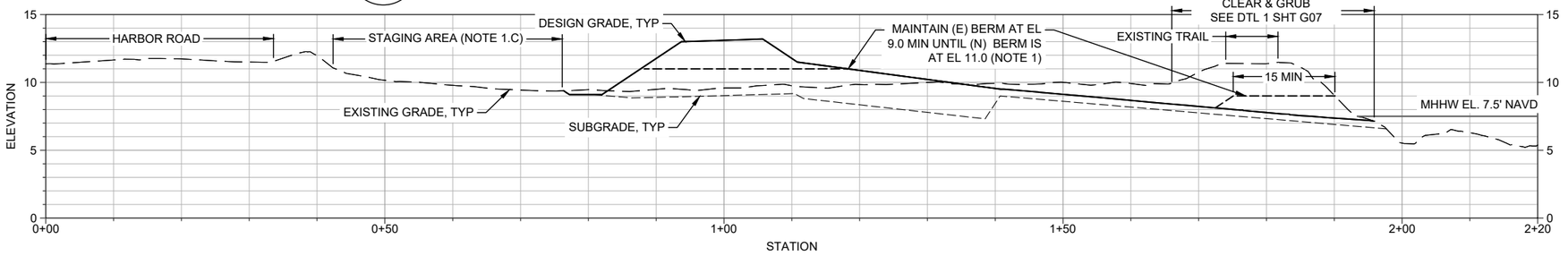

BERM CONSTRUCTION PHASING

A / - TYPICAL SECTION SCALE: 1" = 10'

NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING THE SEQUENCE OF GRADING OPERATIONS TO ENSURE THAT ALL WORK ITEMS ARE EFFICIENTLY COMPLETED. KEY MILESTONES FOR OPERATIONS INCLUDE:
   - 1.A. (N) RENZEL MARSH PUMP INSTALLATION REQUIRES RWQCP FACILITY SHUTDOWN. SEE SPECIFICATIONS FOR SHUTDOWN PROCEDURE.
   - 1.B. ROADWAY AREA WORK MAY BEGIN PRIOR TO SEPTEMBER 1 WITH ENVIRONMENTAL PROTECTION MEASURES. SEE SHEET G06 - G07, PROJECT SPECIFICATIONS, AND PERMITS.
   - 1.C. EQUIPMENT MAY BE STAGED IN LEVEE AREA PRIOR TO SEPTEMBER 1 WITH ENVIRONMENTAL PROTECTION MEASURES. SEE SHEET G06 - G07, PROJECT PERMITS, AND PROJECT SPECIFICATIONS.
   - 1.D. LEVEE AREA EARTHWORK MAY BEGIN SEPTEMBER 1.
   - 1.E. MAINTAIN CONTINUOUS PROTECTION OF HARBOR ROAD AT EL 9 MIN UNTIL NEW BERM IS BUILT TO EL 11 MIN.
   - 1.F. GRADING OF THE NEW BERM AND ECOTONE SLOPE SHALL BE COMPLETED BY NOVEMBER 30.
2. CONSTRUCTION BMPS WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PERMANENT SITE IMPROVEMENTS AND NEW STORMWATER SWALE AND CULVERT ARE IN PLACE. IF CONSTRUCTION IS NOT COMPLETE BY THE START OF THE WET SEASON (OCTOBER 15 THROUGH APRIL 15), A WINTERIZATION PROGRAM WILL BE IMPLEMENTED TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENTATION. SEE SHEET C16 AND PROJECT SPECIFICATIONS FOR WINTERIZATION PROGRAM REQUIREMENTS.
3. SEE SHEET G06 - G07 AND PROJECT SPECIFICATION FOR IN-WATER WORK RESTRICTIONS.
4. BIKE LANES AND PUBLIC TRAIL WILL BE IMPACTED DURING CONSTRUCTION. CONTRACTOR TO INCLUDE BIKE AND PEDESTRIAN DETOURS IN TRAFFIC CONTROL PLAN PER PROJECT SPECIFICATIONS.

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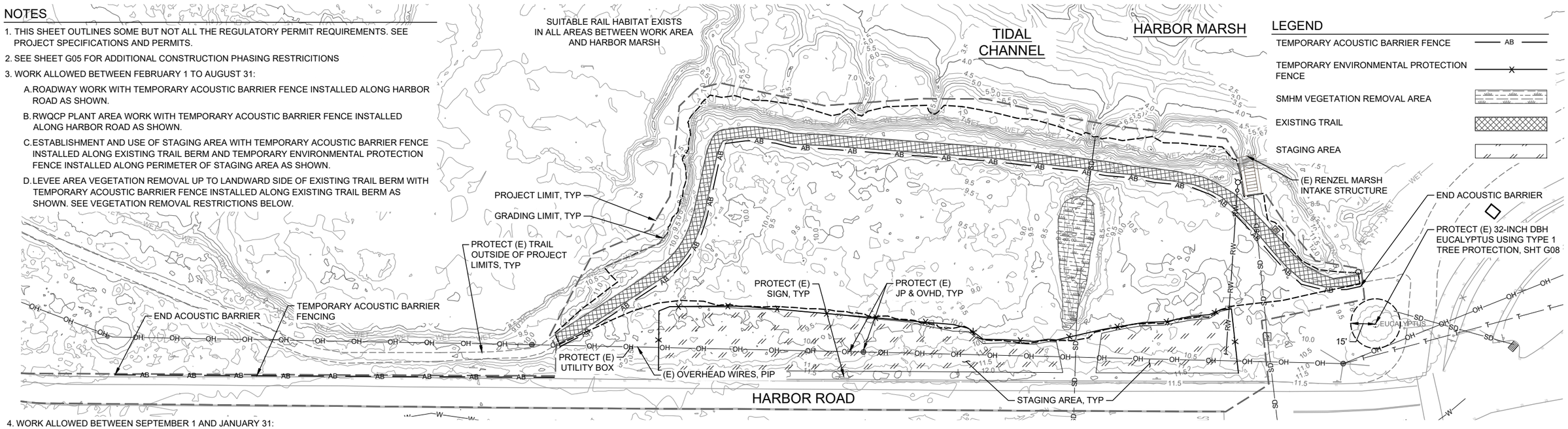
SHEET NO. 5 OF 45

FILENAME: G05 CONSTRUCTION PHASING 11-03-23 04:15pm DHowell | XREFS: X-TBLK-PaloAlto-Border | X_pa_design_topo_1ft | X_PA_Existing_Features | X_PA_Project_Limits | X_PA_Design_Linework | X_PA_Rd80bservationsBuffer | X_pa_aer_survey

Last Saved By: cto 4-12-18 02:36pm

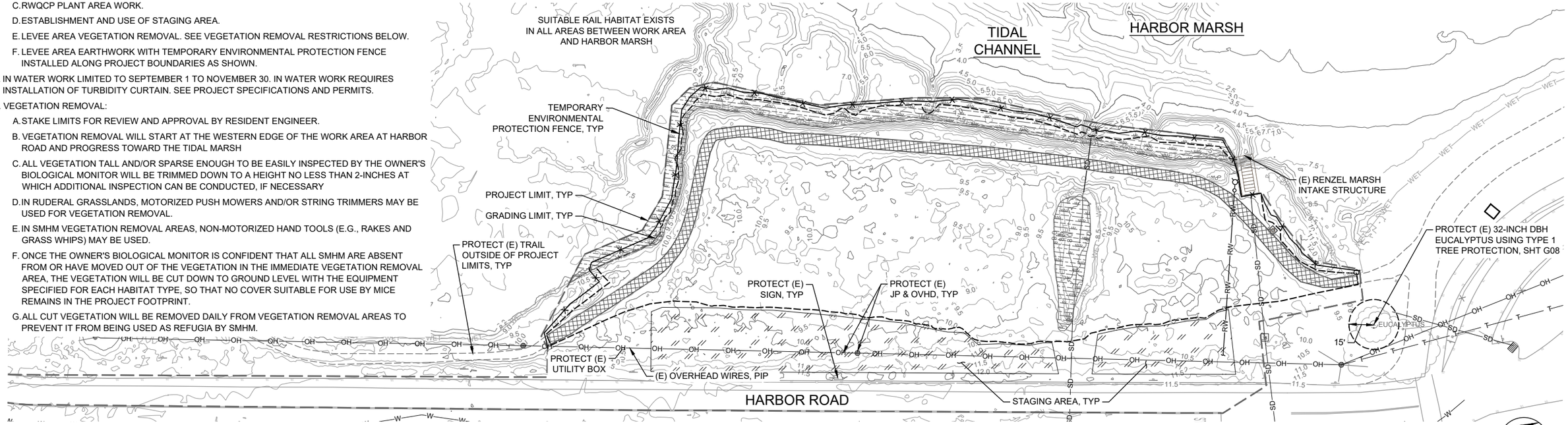
NOTES

1. THIS SHEET OUTLINES SOME BUT NOT ALL THE REGULATORY PERMIT REQUIREMENTS. SEE PROJECT SPECIFICATIONS AND PERMITS.
2. SEE SHEET G05 FOR ADDITIONAL CONSTRUCTION PHASING RESTRICITIONS
3. WORK ALLOWED BETWEEN FEBRUARY 1 TO AUGUST 31:
   - A. ROADWAY WORK WITH TEMPORARY ACOUSTIC BARRIER FENCE INSTALLED ALONG HARBOR ROAD AS SHOWN.
   - B. RWQCP PLANT AREA WORK WITH TEMPORARY ACOUSTIC BARRIER FENCE INSTALLED ALONG HARBOR ROAD AS SHOWN.
   - C. ESTABLISHMENT AND USE OF STAGING AREA WITH TEMPORARY ACOUSTIC BARRIER FENCE INSTALLED ALONG EXISTING TRAIL BERM AND TEMPORARY ENVIRONMENTAL PROTECTION FENCE INSTALLED ALONG PERIMETER OF STAGING AREA AS SHOWN.
   - D. LEVEE AREA VEGETATION REMOVAL UP TO LANDWARD SIDE OF EXISTING TRAIL BERM WITH TEMPORARY ACOUSTIC BARRIER FENCE INSTALLED ALONG EXISTING TRAIL BERM AS SHOWN. SEE VEGETATION REMOVAL RESTRICTIONS BELOW.
4. WORK ALLOWED BETWEEN SEPTEMBER 1 AND JANUARY 31:
   - A. NO TEMPORARY ACOUSTIC BARRIER FENCE REQUIRED FOR ANY PROJECT WORK.
   - B. ROADWAY WORK.
   - C. RWQCP PLANT AREA WORK.
   - D. ESTABLISHMENT AND USE OF STAGING AREA.
   - E. LEVEE AREA VEGETATION REMOVAL. SEE VEGETATION REMOVAL RESTRICTIONS BELOW.
   - F. LEVEE AREA EARTHWORK WITH TEMPORARY ENVIRONMENTAL PROTECTION FENCE INSTALLED ALONG PROJECT BOUNDARIES AS SHOWN.
5. IN WATER WORK LIMITED TO SEPTEMBER 1 TO NOVEMBER 30. IN WATER WORK REQUIRES INSTALLATION OF TURBIDITY CURTAIN. SEE PROJECT SPECIFICATIONS AND PERMITS.
6. VEGETATION REMOVAL:
   - A. STAKE LIMITS FOR REVIEW AND APPROVAL BY RESIDENT ENGINEER.
   - B. VEGETATION REMOVAL WILL START AT THE WESTERN EDGE OF THE WORK AREA AT HARBOR ROAD AND PROGRESS TOWARD THE TIDAL MARSH
   - C. ALL VEGETATION TALL AND/OR SPARSE ENOUGH TO BE EASILY INSPECTED BY THE OWNER'S BIOLOGICAL MONITOR WILL BE TRIMMED DOWN TO A HEIGHT NO LESS THAN 2-INCHES AT WHICH ADDITIONAL INSPECTION CAN BE CONDUCTED, IF NECESSARY
   - D. IN RUDERAL GRASSLANDS, MOTORIZED PUSH MOWERS AND/OR STRING TRIMMERS MAY BE USED FOR VEGETATION REMOVAL.
   - E. IN SMHM VEGETATION REMOVAL AREAS, NON-MOTORIZED HAND TOOLS (E.G., RAKES AND GRASS WHIPS) MAY BE USED.
   - F. ONCE THE OWNER'S BIOLOGICAL MONITOR IS CONFIDENT THAT ALL SMHM ARE ABSENT FROM OR HAVE MOVED OUT OF THE VEGETATION IN THE IMMEDIATE VEGETATION REMOVAL AREA, THE VEGETATION WILL BE CUT DOWN TO GROUND LEVEL WITH THE EQUIPMENT SPECIFIED FOR EACH HABITAT TYPE, SO THAT NO COVER SUITABLE FOR USE BY MICE REMAINS IN THE PROJECT FOOTPRINT.
   - G. ALL CUT VEGETATION WILL BE REMOVED DAILY FROM VEGETATION REMOVAL AREAS TO PREVENT IT FROM BEING USED AS REFUGIA BY SMHM.



ENVIRONMENTAL PROTECTION OVERVIEW (BEFORE SEPTEMBER 1)

PLAN — SCALE: 1" = 30'



ENVIRONMENTAL PROTECTION OVERVIEW (AFTER SEPTEMBER 1)

PLAN — SCALE: 1" = 30'

1"=30' SCALE 30 15 0 30 60 FEET

N

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER — MARK R. L'INDLEY — C 66701 EXP. 9/30/22 — CIVIL — STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

CITY OF PALO ALTO

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

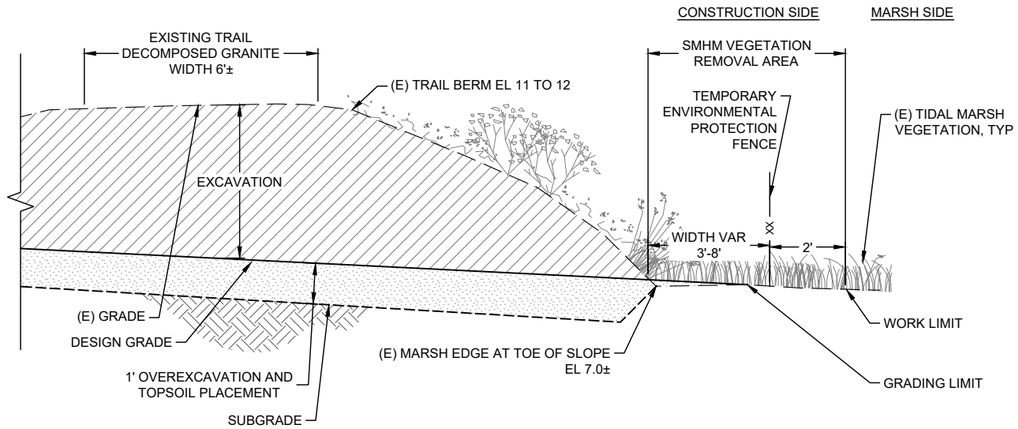
ENVIRONMENTAL PROTECTION OVERVIEW

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. G06
SHEET NO. 6 OF 45

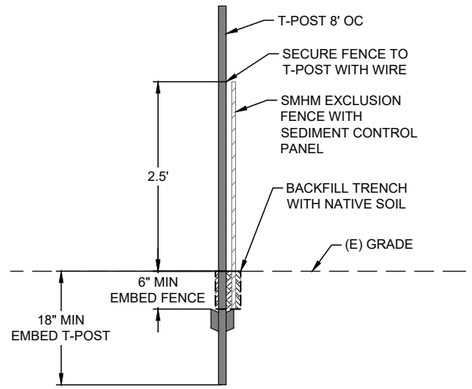
FILENAME: 006 ENVIRONMENTAL PROTECTION OVERVIEW | 11-03-23 04:19pm | DHowitt | XREFs: X_PA_ExistBldg_Topo | X_PA_Project_Limits | X_PA_Parcels | X_TBLK-PaloAlto-Border | X_PA_ESA_Survey | x_pa_existing_features | X_PA_Environmental Protection

Last Saved By: cto 4-12-18 02:36pm



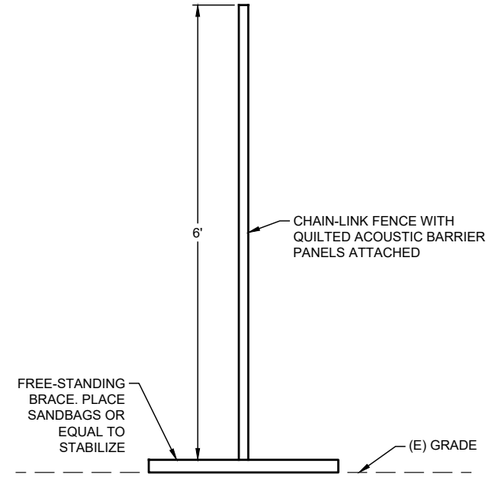
1 CLEARING AND GRUBBING
TYPICAL SECTION
SCALE: 1"=2'

1"=2' 2 1 0 2 4
SCALE FEET



2 TEMPORARY ENVIRONMENTAL PROTECTION FENCE
TYPICAL SECTION
SCALE: 1"=1'

1"=1' 1 0.5 0 1 2
SCALE FEET



3 TEMPORARY ACOUSTIC BARRIER FENCE
TYPICAL SECTION
SCALE: 1"=1'

1"=1' 1 0.5 0 1 2
SCALE FEET

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER
MARK R. L'INDLEY
C 66701
EXP. 9/30/22
CIVIL
STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

CITY OF PALO ALTO

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

ENVIRONMENTAL PROTECTION

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE
NOVEMBER 3, 2023
DRAWING NO.
G07
SHEET NO.
7 OF 45

FILENAME: 007 ENVIRONMENTAL PROTECTION 11-03-23 04:19pm DHowell | XREFS: X-TBLK-PaloAlto-Border | X_PA_DTL_CML |<<—

Last Saved By: cto 4-12-18 02:36pm

City of Palo Alto

Tree Protection - It's Part of the Plan!

Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. **An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree.** For detailed information on Palo Alto's regulated trees and protection during development, review the **City Tree Technical Manual** (TTM) found at www.cityofpaloalto.org/trees/.

TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 329-2441
http://www.cityofpaloalto.org

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on approved site plans. A completed disclosure statement must accompany all building permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS: 2375 Embarcadero Road, Palo Alto, CA

Are there Regulated[1] trees on or adjacent to the property? ☑ YES ☐ NO (If no, proceed to Section 4)

[Sections 1- 4 MUST be completed by the applicant. Please circle and/or check where applicable.]

1. Where are the trees? Check those that apply. **(Plans must be submitted showing over 4" diameter trees)**
   - ☑ On the property
   - ☐ On adjacent property overhanging the project site
   - ☑ In the City planter strip or right-of-way easement within 30' of property line (Street Trees)*

*Street trees **require special protection by a fenced enclosure**, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification from by calling Public Works Operations at 493-5953 for inspection of required type I, II or III fencing (see attached Detail 606).

2. Are there any Protected[1] or Designated[1] Trees? ☐ YES (Check where applicable) ☑ NO
   - ☐ Protected Tree (s)
   - ☐ Designated Tree (s)
   - ☐ On or overhanging the property

3. Is there activity or grading within the dripline? (radius 10 times the trunk diameter) of these trees? ☐ YES ☑ NO

*If Yes, a **Tree Preservation Report** must be prepared by an ISA certified arborist and submitted for staff review (see TTM , Section 6.25). Attach this report to Sheet T-1,'Tree Protection, its Part of the Plan!", per Site Plan Requirements.*

4. Are the Site Plan Requirements** completed? ☐ YES ☑ NO

**Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy dripline; (2) Plans must denote, as a bold dashed line, a fenced enclosure area set to the dripline, per Sheet T-1 and Detail #605 - http://www.cityofpaloalto.org/trees/forms.htm (See also TTM , Section 2.15 for area to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: _____ Print: _____ Date: _____
(Prop. Owner or Agent)

FOR STAFF USE:

Protective Fencing
Sections 5-6 must be **completed by staff** for the issuance of any development permit (demolition, grading or building permit).

5. Protected Trees. The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. ☐ YES ☐ NO
(N/A if there are no protected trees, check here ☐)

6. Street Trees. A signed Public Works Street Tree Protection Verification form is attached. ☐ YES ☐ NO
(N/A if there are no street trees, check here ☐)

[1]Regulated Trees – a) Street trees – trees on public property; b) Protected trees – Coast Live Oaks or Valley Oaks which are 11.5" in diameter or larger, Coast Redwoods which are 18" in diameter or larger, when measured 54" above natural grade; and Heritage trees are trees designated by City Council; and c) Designated Trees – commercial or non-residential property trees, which are part of an approved landscape plan.

Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at: http://www.cityofpaloalto.org/planning-community/tree_technical-manual.html

S:\Plan\Public\Arborist\Tree Protection Info\Tree Disclosure Statement — Revised 08/06

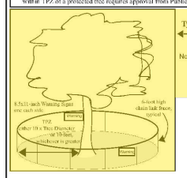
For written specifications associated with illustrations below, see Public Works Specifications Section 31
Detailed specifications are found in the Palo Alto Tree Technical Manual (TTM) (www.cityofpaloalto.org/trees/)

Tree Protection Zone (TPZ) shown in gray (radius of TPZ equals 10 times the diameter of the tree or 36-feet, whichever is greater).
- Restricted activity area – see Tree Technical Manual Sec 2.15(H).
- Restricted trenching area – see Tree Technical Manual Sec 2.20(C.0), any proposed trench or form work within a TPZ of a protected tree requires approval from Public Works Operations. Call 650-496-5953.

Type I Tree Protection

Any proposed Protected and Designated Trees, established in the tree preservation report (TPR) prepared by the applicant's project arborist or diagramed on the plans

Note: Ordinance Protected & Designated Trees. Issuance of a permit requires applicant's project arborist written verification Type I is installed correctly according to the plans and Tree Preservation Report



Type II Tree Protection

Any unwanted sidewalk or curb replacement or trenching requires approval

Fence distance to trunk location or TPZ

Planting

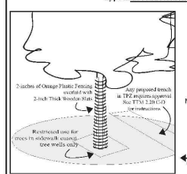
Paving

Pathway

Sidewalk

Yard

Fencing must provide public passage while protecting all other land in TPZ



Note: Street Trees. Issuance of a permit requires Public Works Operations inspection and signed approval on the Street Tree Verification (STV) form provided.

Type III Tree Protection
(to be used only with approval of Public Works Operations)

Tree fencing is required and shall be erected before demolition, grading or construction begins.

Rev	By	Date
0	WRH	12/14/05
R1	D.D.	10/20/06
R2	D.D.	06/30/06

Scale: NTS

Tree Protection During Construction

City of Palo Alto Standard

Approved by: Dave Dockter
PE No. _____
Date: 2006
Dwg No. 605

APPENDIX J
PALO ALTO STREET TREE PROTECTION INSTRUCTIONS –SECTION 31–

31-1 General
- a. **Tree protection has three primary functions**; 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state; and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.
- b. **The Tree Protection Zone (TPZ)** is a restricted area around the base of the tree with a radius of ten-times the diameter of the tree's trunk or ten feet; whichever is greater, enclosed by fencing.

31-2 Reference Documents
- a. **Detail 605** Illustrations of situations described below.
- b. **Tree Technical Manual (TTM) Forms** (http://www.cityofpaloalto.org/trees/)
  1. Trenching Restriction Zones (TTM, Section 2.20(C))
  2. Arborist Reporting Process (TTM, Section 6.10)
  3. Site Plan Requirements (TTM, Section 6.15)
  4. Tree Disclosure Statement (TTM, Appendix B)
- c. **Street Tree Verification (STV) Form** (http://www.cityofpaloalto.org/trees/forms)

31-3 Execution
- a. **Type I Tree Protection:** The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved by Public Works Operations.
- b. **Type II Tree Protection:** For trees situated within a planting strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.
- c. **Type III Tree Protection:** To be used only with approval of Public Works Operations. Trees situated in a tree well or sidewalk planter pit, shall be wrapped with 3-inches of orange plastic fencing from the ground to the first branch and overlaid with 2-inch thick wooden slats bound securely (slats shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major limbs may also require plastic fencing as directed by the City Arborist.
- d. **Size, type and area to be fenced.** All trees to be preserved shall be protected with six (6') foot high chain link fences. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. Fencing shall extend to the outer branching, unless specifically approved on the STV Form.
- e. **'Warning' signs.** A warning sign shall be weather proof and prominently displayed on each fence at 20-foot intervals. The sign shall be minimum 8.5 inches x 11 inches and clearly state in bold 1inch tall letters: "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PAMC Section 8.10.120."
- f. **Duration.** Tree fencing shall be erected before demolition; grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work or soil disturbance in the TPZ requires approval by the project arborist or City Arborist (in the case of work around Street Trees). Excavations within the public right of way require a Street Work Permit from Public Works.
- g. **During construction**
  1. All neighbors' trees that overhang the project site shall be protected from impact of any kind.
  2. The applicant shall be responsible for the repair or replacement plus penalty of any publicly owned trees that are damaged during the course of construction, pursuant to Section 8.04.070 of the Palo Alto Municipal Code.
  3. The following tree preservation measures apply in all trees to be retained:
     - a. No storage of material, topsoil, vehicles or equipment shall be permitted within the TPZ.
     - b. The ground under and around the tree canopy area shall not be altered.
     - c. Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

END OF SECTION

City of Palo Alto 2004 Standard Drawings and Specifications
Street Tree Verification of Protection, PWE, Section 31 — Revised 08/06

City of Palo Alto
250 Hamilton Avenue, Palo Alto, CA 94301

Search: _____ Advanced — Browse By Topic

Home > Planning & Community Environment

Tree Technical Manual

To purchase the Tree Technical Manual

June, 2001 First Edition

View by section:

- Table of Contents (PDF, 87KB)
- Intent and Purpose (PDF, 1.05MB)
- Introduction – Use of Manual (PDF, 1.05MB)
- Section 1.0 - Definitions (PDF, 96KB)
- Section 2.0 - Protection of Trees During Construction (PDF, 259KB)
- Section 3.0 - Removal, Replacement & Planting of Trees (PDF, 117KB)
- Section 4.0 - Hazardous Trees (PDF, 105KB)
- Section 5.0 - Tree Maintenance Guidelines (PDF, 110KB)
- Section 6.0 - Tree Reports (PDF, 84KB)

View ALL sections:

- Tree Technical Manual - Full (PDF, 1.84MB)

APPENDICES
A. Palo Alto Municipal Code Chapter 8.10, Tree Preservation & Management Regulations
B. Tree City - USA
C: ISA Hazard Evaluation Form
D: List of Inherent Failure Patterns for Selected Species (Reference source)
E: ISA Tree Pruning Guidelines (PDF, 1.85MB)
F: Tree Care Safety Standards, ANSI Z133.1-1994 (Reference source)
G. Pruning Performance Standards, ANSI A300-1995 (Reference source) H: Tree Planting Details, Diagram 504 & 505
I: Tree Disclosure Statement
J: Palo Alto Standard Tree Protection Instructions

Table 2-2 Palo Alto Tree Technical Manual

CONTRACTOR & ARBORIST INSPECTION SCHEDULE

Reference: the Palo Alto Tree Technical Manual is available at www.cityofpaloalto.org/environment/

ALL CHECKED ITEMS APPLY TO THIS PROJECT:

1. ☑ **Inspection of Protective Tree Fencing.** For Public Trees, the Street Tree Verification Form shall be signed by the City Arborist. For Protected Trees, the project site arborist shall provide an initial Monthly Tree Activity Report form with a photograph verifying that he has conducted a field inspection of the trees and that the correct type of protective fencing is in place around the designated tree protection zone (TPZ) prior to issuance of a demolition, grading, or building permit. (See TTM, Verification of Tree Protection, Section 1.39).
2. ☑ **Pre-Construction Meeting.** Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading operators, project site arborist, City Arborist, and, if a city maintained irrigation system is involved, the Parks Manager (Contact 650-496-6962).
3. ☑ **Inspection of Rough Grading or Trenching.** Contractor shall ensure the project site arborist performs an inspection during the course of rough grading or trenching adjacent to or within the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 24 hours advance notice of such activity.
4. ☑ **Monthly Tree Activity Report Inspections**. The project site arborist shall perform a minimum monthly activity inspection to monitor and advise on conditions, tree health and retention or, immediately if there are *any revisions* to the approved plans or protection measures. The Tree Technical Manual Monthly Tree Activity Report format shall be used and sent to the Planning Dept. landscape reviews' staff no later than 14 days after issuance of building permit date. Fax to (650) 329-2154. (See TTM, Monthly Tree Activity Inspection Report, Addendum 11 & section 1.17).
5. ☑ **Special activity within the Tree Protection Zone**. Work in the TPZ area (see also #7 below) requires the direct onsite supervision of the project arborist (see TTM, Trenching, Excavation & Equipment, Section 2.20 C).
6. ☐ **Landscape Architect Inspection.** For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see TTM, Planting Quality, Section 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The Planning Dept. landscape reviews staff shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.
7. ☐ **List Other** (please describe as called out in the site Tree Preservation Report, Sheet T-1, T-2, etc.)
   - _____
   - _____

City of Palo Alto
Tree Department
Public Works Operations
PO Box 10250 Palo Alto, CA 94303
650/496-5953 FAX: 650/852-0209
treeprotection@CityofPaloAlto.org

Verification of Street Tree Protection

Applicant Instructions: Complete upper portion of this form. Mail or FAX this form along with signed Tree Disclosure Statement to Public Works Dept. Public Works Tree Staff will inspect and notify applicant.

APPLICATION DATE:	
ADDRESS/LOCATION OF STREET TREES TO BE PROTECTED:	
APPLICANT'S NAME:	
APPLICANT'S ADDRESS:	
APPLICANT'S TELEPHONE & FAX NUMBERS:	

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. The type of protection used is:	YES ☐ NO* ☐ * If NO, go to #2 below
Inspected by:	
Date of Inspection:	
2. The Street Trees at the above address are NOT adequately protected. The following modifications are required: _____ indicate how the required modifications were communicated to the applicant:	_____
Subsequent Inspection	
Street trees at above address were found to be adequately protected:	YES ☐ NO* ☐ * If NO, indicate in "Notes" below the disposition of case.
Inspected by:	
Date of Inspection:	
Notes: List City street trees by species, site, condition and type of tree protection installed. Also note if pictures were taken. Use back of sheet if necessary.	

Return approved sheet to Applicant for demolition or building permit issuance.

S:\PAD\DPS\Tree&DS\B.TreeProject — 6/17/06

City of Palo Alto — Arborist Firm Data Here — ADDENDUM 11

Monthly Tree Activity Report- *Construction Site*

Inspection Date: _____ Inspection #_____	Site address: _____ Palo Alto, CA	Contractor-Main Site Contact information	#1: Job site superintendent Company: Email: Job site Office: Cell: Mail:
		Also present:	• _____ • _____
Distribution:	1. City of Palo Alto 2. Others	Attn: Dave Dockter	Dave.dockter@cityofpaloalto.org 650-329-2440

Provide the requested minimum information with each report, customize as necessary. To be completed by project site arborist. Send monthly to city arborist at above address until project completion. Use additional sheets as needed.

1. Assignment Activity (Demolition/grading/sewer/trenching/foundation/list relevant visits)
   a. Pre-construction meeting requirement with sub-contractors
   b. Inspect to verify that tree protection measures are in place
   c. Determine if field adjustments, watering or plan revisions may be needed
2. Field Observations (general site-wide and list by individual tree number)
   a. Tree Protection Fences (TPF) are …
   b. Trenching has/will occur …
3. Action Items (list site-wide, by tree number and date to be satisfied) and Date Due
   a. Tree Protection Fence (TPF) needs adjusting (tree # x, x, x)
   b. Root zone buffer material (wood chips) can be installed next
   c. Schedule sever trench, foundation dig with …
4. Photographs (use often)
5. Tree Location Map (mandatory 8.5 x 11 sheet)
6. Recommendations, notes or monitor items for project/staff/schedule
   •
7. Past visits (list carry-over items satisfied/still outstanding)
   •

Respectfully submitted,

Project site arborist
Consultant contact information (Include email, cell#, and mailing)
Cc:

Enter Date — CPA Monthly Tree Activity Report: Type site address here — Page #1 of 1

---WARNING---
Tree Protection Zone

This fencing shall not be removed without City Arborist approval (650-496-5953)

Removal without permission is subject to a $500 fine per day*

Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at http://www.city.palo-alto.ca.us/trees/technical-manual.html

SPECIAL INSPECTIONS — **PLANNING DEPARTMENT**

TREE PROTECTION INSPECTIONS MANDATORY

PAMC 8.10 PROTECTED TREES. CONTRACTOR SHALL ENSURE PROJECT SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT LANDSCAPE REVIEW STAFF BEGINNING 14 DAYS AFTER BUILDING PERMIT ISSUANCE.

BUILDING PERMIT DATE: _____

DATE OF 1ST TREE ACTIVITY REPORT: _____

CITY STAFF: _____

REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1 FORMAT. VERIFY THAT ALL TREE PROTECTION MEASURES ARE IMPLIMENTED AND WILL INCLUDE ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED, WITHIN A TREE PROTECTION ROOT ZONE. NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PAMC 8.10.080. REFERENCE: PALO ALTO TREE TECHNICAL MANUAL, SECTION 2.00 AND ADDENDUM 11.

Apply Tree Protection Report on sheet(s) T-2

Use addtional "T" sheets as needed

NOTE

1. SEE SPECIFICATIONS SECTION 01 56 39 - TEMPORARY TREE PROTECTION FOR COMPLETE REQUIREMENTS ON TREE PROTECTION.

Project Data

T-1

All other tree-related reports shall be added to the space provided on this sheet (adding as needed)
Include this sheet(s) on Project Sheet Index or Legend Page.
A copy of T-1 can be downloaded at
http://www.cityofpaloalto.org/civica/filebank/blobdload.asp?BlobID=6460

Special Tree Protection Instruction Sheet
City of Palo Alto

T-1

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER — MARK R. L'INDLEY — C 66701 EXP. 9/30/22 — CIVIL — STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

CITY OF PALO ALTO

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PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

SPECIAL TREE PROTECTION INSTRUCTION

VERIFY SCALES
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0 — 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE
NOVEMBER 3, 2023
DRAWING NO.
G08
SHEET NO.
8 OF 45

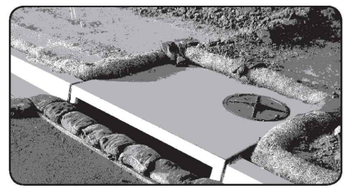
FILENAME: G08 SPECIAL TREE PROTECTION INSTRUCTION 11-03-23 04:19pm DHowff X-TBLK-PaloAlto-Border K<—
Last Saved By: cto 4-12-18 02:36pm

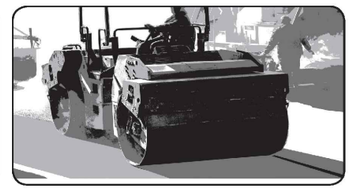
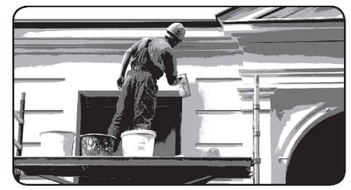
POLLUTION PREVENTION — IT'S PART OF THE PLAN

Construction projects are required to implement year-round stormwater BMPs, as they apply to your project.

Runoff from streets and other paved areas is a major source of pollution to San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep construction dirt, debris, and other pollutants out of storm drains and local creeks. Following these guidelines will ensure your compliance with City of Palo Alto Ordinance requirements.





MATERIALS & WASTE MANAGEMENT

Non-Hazardous Materials

- ☐ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- ☐ Use (but don't overuse) reclaimed water for dust control.
- ☐ Ensure dust control water doesn't leave site or discharge to storm drains.

Hazardous Materials

- ☐ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ☐ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ☐ Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ☐ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ☐ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- ☐ Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- ☐ Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ☐ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- ☐ Keep site clear of litter (e.g. lunch items, cigarette butts).
- ☐ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Construction Entrances and Perimeter

- ☐ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ☐ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

EQUIPMENT MANAGEMENT & SPILL CONTROL

Maintenance and Parking

- ☐ Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto and equipment parking, and storage.
- ☐ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ☐ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ☐ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ☐ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- ☐ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ☐ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- ☐ Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- ☐ Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- ☐ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- ☐ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ☐ Report any hazardous materials spills immediately! Call City of Palo Alto Communications, **(650) 329-2413**. If the spill poses a significant hazard to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. **(800) 852-7550 (24 hours).**

EARTHMOVING

Grading and Earthwork

- ☐ Schedule grading and excavation work during dry weather.
- ☐ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ☐ Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- ☐ Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (e.g., silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- ☐ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ☐ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells.
  - Buried barrels, debris, or trash.
- ☐ If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not disturbed by construction activities.

Landscaping

- ☐ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ☐ Stack bagged material on pallets and under cover.
- ☐ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

CONCRETE MANAGEMENT & DEWATERING

Concrete Management

- ☐ Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- ☐ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- ☐ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will fl ow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

Dewatering

- ☐ Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.
- ☐ Be sure to obtain a Permit for Construction in the Public Street from Public Works Engineering before discharging water to a street, gutter, or storm drain. Call the Regional Water Quality Control Plant (RWQCP) at **(650) 329-2598** for an inspection prior to commencing discharge. Use filtration or diversion through a basin, tank, or sediment trap as required by the approved dewatering plan. Dewatering is not permitted from October to April.
- ☐ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the City inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

PAVING/ASPHALT WORK

Paving

- ☐ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ☐ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ☐ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.

Sawcutting & Asphalt/Concrete Removal

- ☐ Protect storm drain inlets during saw cutting.
- ☐ If saw cut slurry enters a catch basin, clean it up immediately.
- ☐ Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.

PAINTING & PAINT REMOVAL

Painting Cleanup and Removal

- ☐ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ☐ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ☐ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ☐ Sweep up or collect paint chips and dust from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ☐ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state certified contractor.


STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO $10,000 PER DAY!

250 Hamilton Avenue
Palo Alto, CA 94301
650.329.2211
cityofpaloalto.org

CITY OF PALO ALTO

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ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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POLLUTION PREVENTION

VERIFY SCALES
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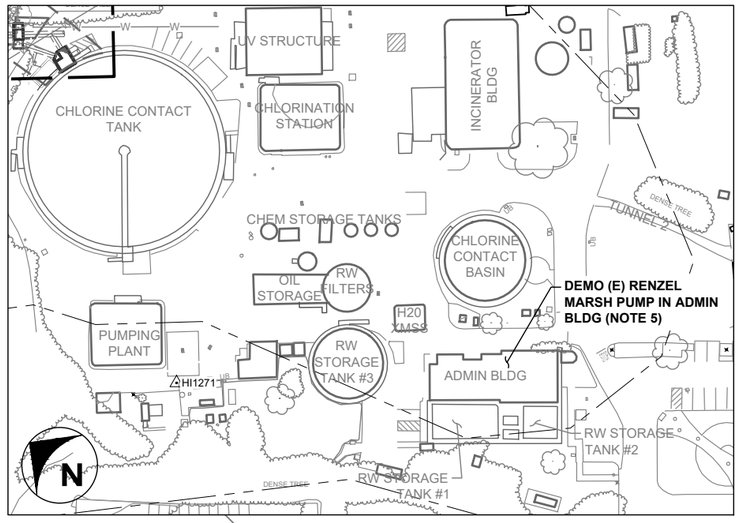
DATE
NOVEMBER 3, 2023
DRAWING NO.
G09
SHEET NO.
9 OF 45

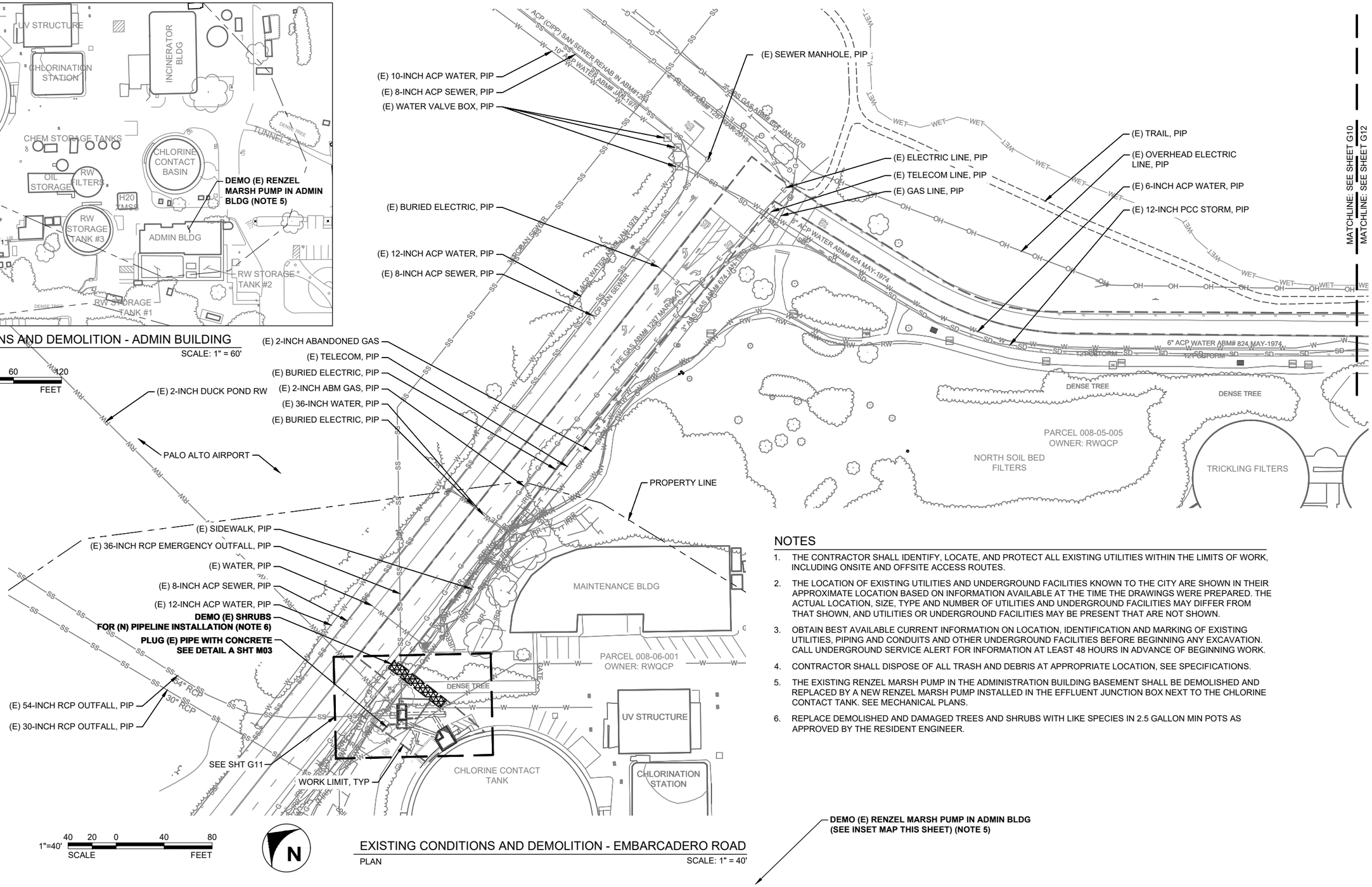
FILENAME: G09 POLLUTION PREVENTION 11-03-23 04:19pm DHarvill | XREFS: | X-TALK-PaloAlto-Border |
Last Saved By: dto 4-12-18 02:36pm



EXISTING CONDITIONS AND DEMOLITION - ADMIN BUILDING

PLAN SCALE: 1" = 60'

60 30 0 60 120
SCALE FEET



1"=40' 40 20 0 40 80
SCALE FEET

EXISTING CONDITIONS AND DEMOLITION - EMBARCADERO ROAD

PLAN SCALE: 1" = 40'

NOTES

1. THE CONTRACTOR SHALL IDENTIFY, LOCATE, AND PROTECT ALL EXISTING UTILITIES WITHIN THE LIMITS OF WORK, INCLUDING ONSITE AND OFFSITE ACCESS ROUTES.
2. THE LOCATION OF EXISTING UTILITIES AND UNDERGROUND FACILITIES KNOWN TO THE CITY ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON INFORMATION AVAILABLE AT THE TIME THE DRAWINGS WERE PREPARED. THE ACTUAL LOCATION, SIZE, TYPE AND NUMBER OF UTILITIES AND UNDERGROUND FACILITIES MAY DIFFER FROM THAT SHOWN, AND UTILITIES OR UNDERGROUND FACILITIES MAY BE PRESENT THAT ARE NOT SHOWN.
3. OBTAIN BEST AVAILABLE CURRENT INFORMATION ON LOCATION, IDENTIFICATION AND MARKING OF EXISTING UTILITIES, PIPING AND CONDUITS AND OTHER UNDERGROUND FACILITIES BEFORE BEGINNING ANY EXCAVATION. CALL UNDERGROUND SERVICE ALERT FOR INFORMATION AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK.
4. CONTRACTOR SHALL DISPOSE OF ALL TRASH AND DEBRIS AT APPROPRIATE LOCATION, SEE SPECIFICATIONS.
5. THE EXISTING RENZEL MARSH PUMP IN THE ADMINISTRATION BUILDING BASEMENT SHALL BE DEMOLISHED AND REPLACED BY A NEW RENZEL MARSH PUMP INSTALLED IN THE EFFLUENT JUNCTION BOX NEXT TO THE CHLORINE CONTACT TANK. SEE MECHANICAL PLANS.
6. REPLACE DEMOLISHED AND DAMAGED TREES AND SHRUBS WITH LIKE SPECIES IN 2.5 GALLON MIN POTS AS APPROVED BY THE RESIDENT ENGINEER.

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
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ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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EXISTING CONDITIONS AND DEMOLITION - EMBARCADERO ROAD

VERIFY SCALES
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DATE NOVEMBER 3, 2023
DRAWING NO. G10
SHEET NO. 10 OF 45

FILENAME: G12 EXISTING CONDITIONS AND DEMOLITION - LEVEE AREA 11-03-23 04:20pm DHoneff | XREFs: X_PA_Existing_Topo | X_PA_Project_Limits | X_PA_Parcels

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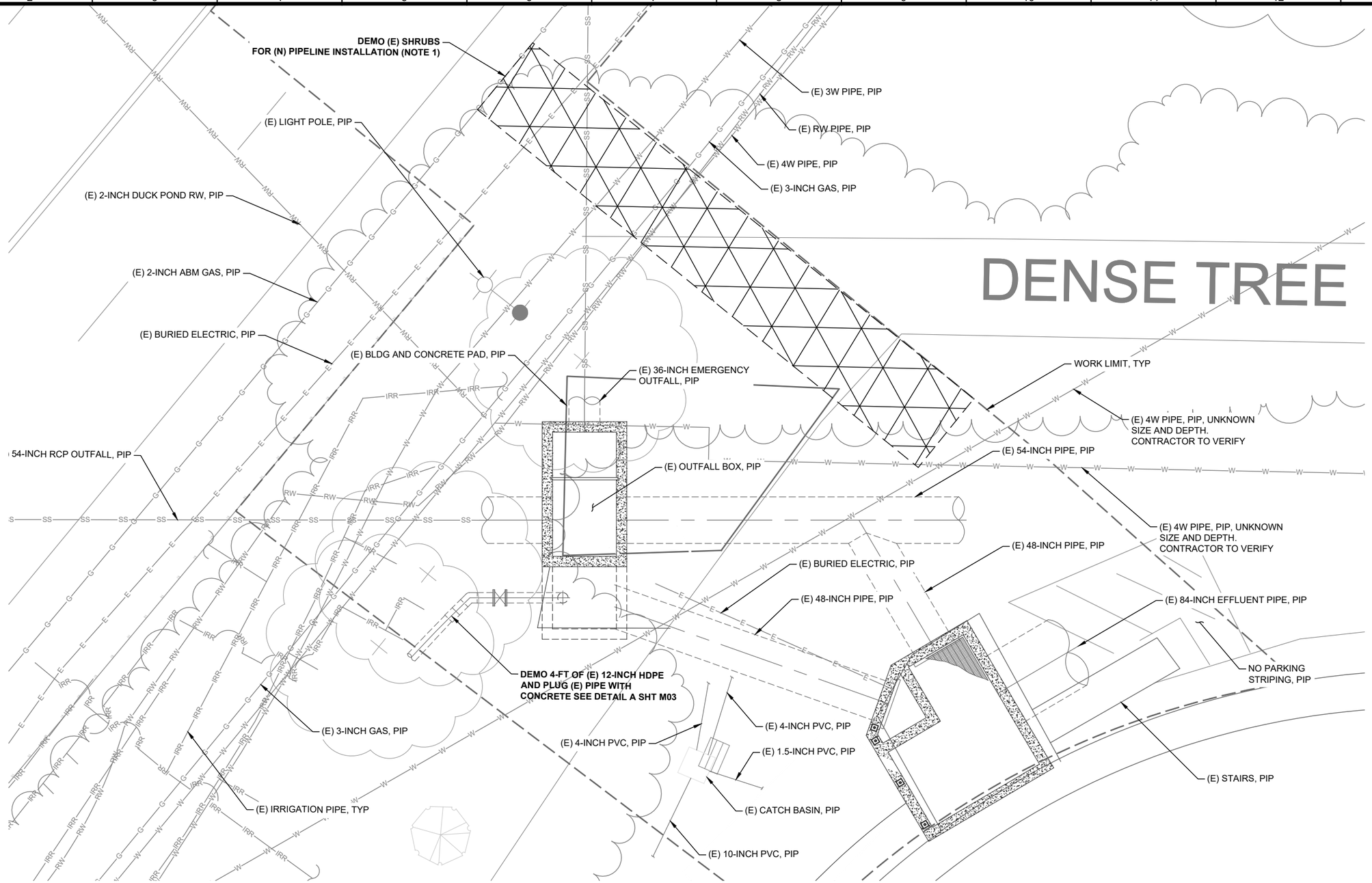

1"=5' SCALE 5 2.5 0 5 10 FEET

N

EXISTING CONDITIONS AND DEMOLITION - PUMP STATION & OUTFALL BOX

PLAN SCALE: 1" = 5'

NOTES

1. REPLACE DEMOLISHED AND DAMAGED TREES AND SHRUBS WITH LIKE SPECIES IN 2.5 GALLON MIN POTS AS APPROVED BY THE RESIDENT ENGINEER.
2. HAND DIGGING ONLY FROM OUTFALL BOX TO CURB AT OUTFALL AREA. NO MACHINE EXCAVATION ALLOWED.

REV	DATE	BY	DESCRIPTION

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ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
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EXISTING CONDITIONS AND DEMOLITION - PUMP STATION & OUTFALL BOX

VERIFY SCALES
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0 1"
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DATE NOVEMBER 3, 2023
DRAWING NO. G11
SHEET NO. 11 OF 45

FILENAME: EXISTING CONDITIONS AND DEMOLITION - PUMP STATION & OUTFALL 11-03-23 04:20pm DHowitt | XREFs: X_PA_Existing_Topo | X_PA_Project_Limits | X_PA_Parcels | X-TBLK-PaloAlto-Border | X_PA_ESA_Survey | x_pa_existing_features

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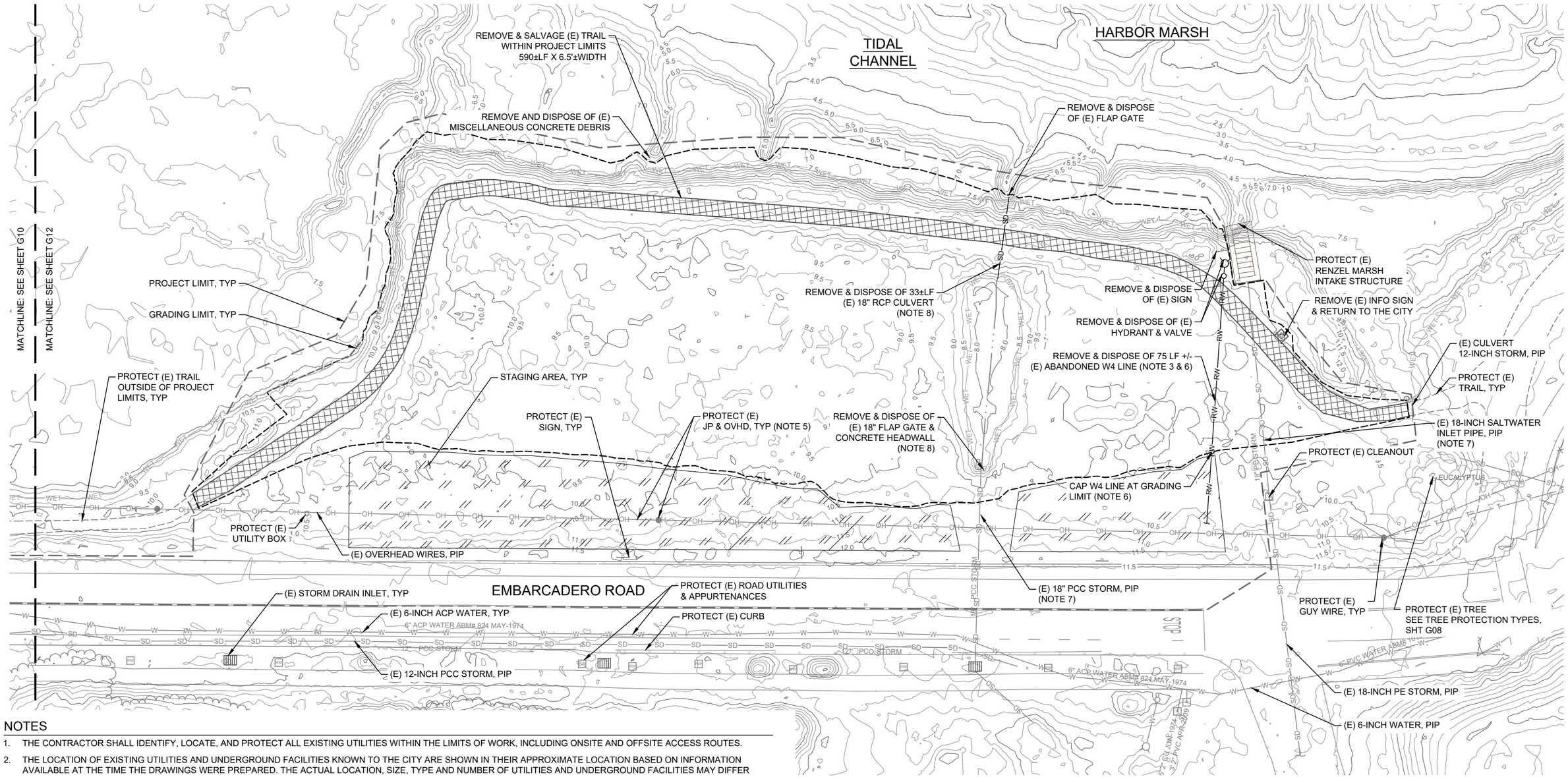

NOTES

1. THE CONTRACTOR SHALL IDENTIFY, LOCATE, AND PROTECT ALL EXISTING UTILITIES WITHIN THE LIMITS OF WORK, INCLUDING ONSITE AND OFFSITE ACCESS ROUTES.
2. THE LOCATION OF EXISTING UTILITIES AND UNDERGROUND FACILITIES KNOWN TO THE CITY ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON INFORMATION AVAILABLE AT THE TIME THE DRAWINGS WERE PREPARED. THE ACTUAL LOCATION, SIZE, TYPE AND NUMBER OF UTILITIES AND UNDERGROUND FACILITIES MAY DIFFER FROM THAT SHOWN, AND UTILITIES OR UNDERGROUND FACILITIES MAY BE PRESENT THAT ARE NOT SHOWN.
3. OBTAIN BEST AVAILABLE CURRENT INFORMATION ON LOCATION, IDENTIFICATION AND MARKING OF EXISTING UTILITIES, PIPING AND CONDUITS AND OTHER UNDERGROUND FACILITIES BEFORE BEGINNING ANY EXCAVATION. CALL UNDERGROUND SERVICE ALERT FOR INFORMATION AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK.
4. CONTRACTOR SHALL DISPOSE OF ALL TRASH AND DEMOLITION DEBRIS AT APPROPRIATE LOCATION, SEE SPECIFICATIONS.
5. PROTECT (E) OVERHEAD POWER LINES. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING AROUND AND TRAVERSING UNDER THE OVERHEAD POWER LINES.
6. REMOVE (E) ABANDONED W4 LINE FROM WITHIN THE LIMITS OF WORK. CAP (E) LINE AT END OF REMAINING LINE AS APPROVED BY THE RESIDENT ENGINEER.
7. CONTRACTOR SHALL CCTV CONDITION OF EXISTING PIPE PRE- AND POST-CONSTRUCTION TO VERIFY THE CONDITION DOES NOT DETERIORATE DUE TO PROPOSED CONSTRUCTION AND NEW MATERIAL LOADS. SEE SPECIFICATIONS.
8. CONTRACTOR SHALL MANAGE STORM DRAIN FLOWS DURING EARTHWORK UNTIL (N) STORMWATER SWALE AND (N) CULVERTS ARE INSTALLED AND OPERATIONAL. MAINTAIN PUMP AND PIPING AS NEEDED TO CONTROL WATER DURING WORK.

EXISTING CONDITIONS AND DEMOLITION - LEVEE AREA

PLAN

SCALE: 1" = 20'

1"=20' SCALE: 20 10 0 20 40 FEET

N

REV	DATE	BY	DESCRIPTION

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ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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EXISTING CONDITIONS AND DEMOLITION - LEVEE AREA

VERIFY SCALES
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DATE NOVEMBER 3, 2023
DRAWING NO. G12
SHEET NO. 12 OF 45

FILENAME: G12 EXISTING CONDITIONS AND DEMOLITION – LEVEE AREA 11-03-23 04:20pm DHowitt | XREFs: X_PA_Existing_Topo | X_PA_Project_Limits | X_PA_Parcels

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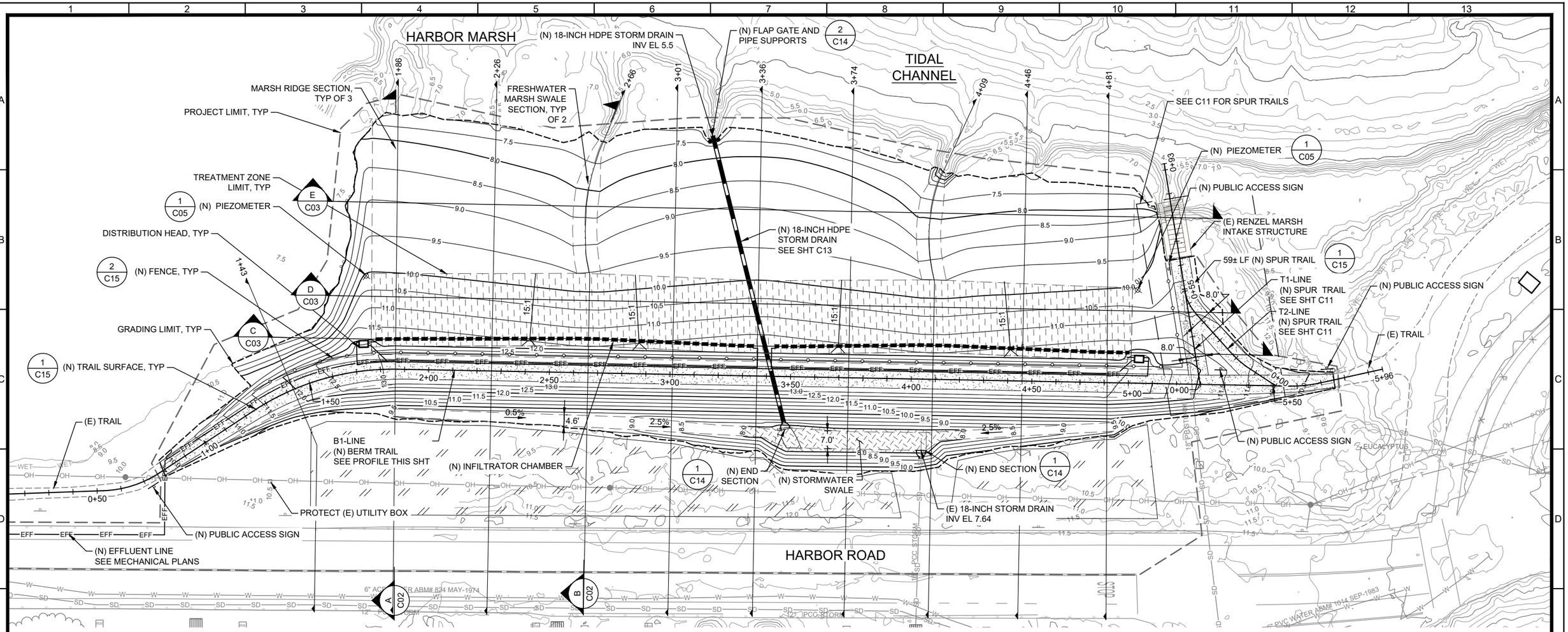
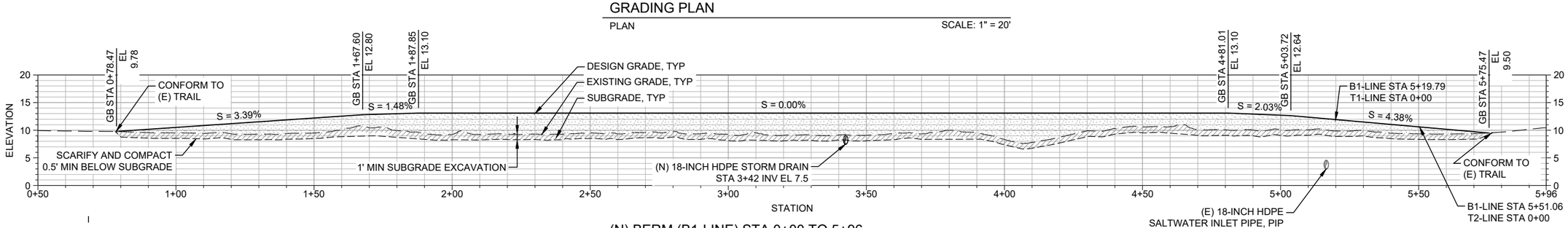


GRADING PLAN

PLAN SCALE: 1" = 20'



(N) BERM (B1-LINE) STA 0+00 TO 5+96

PROFILE SCALE: 1" = 20' H
1" = 10' V

NOTES

1. GRADING SECTIONS SHOWN ON SHEETS C07 TO C10.

1"=20' SCALE 20 10 0 20 40 FEET

N

REV	DATE	BY	DESCRIPTION

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ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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GRADING PLAN

VERIFY SCALES
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DATE NOVEMBER 3, 2023
DRAWING NO. C01
SHEET NO. 13 OF 45

FILENAME: C01 GRADING PLAN 11-03-23 04:21pm DHorwff [XREFs: X_PA_Existing_Topo | X_PA_Existing_Features | X_PA_Design_Topo | X_PA_Design_Linework | X_pa_asd_survey | X-TBLK-PaloAlto-Border | X_PA_Project_Limits]

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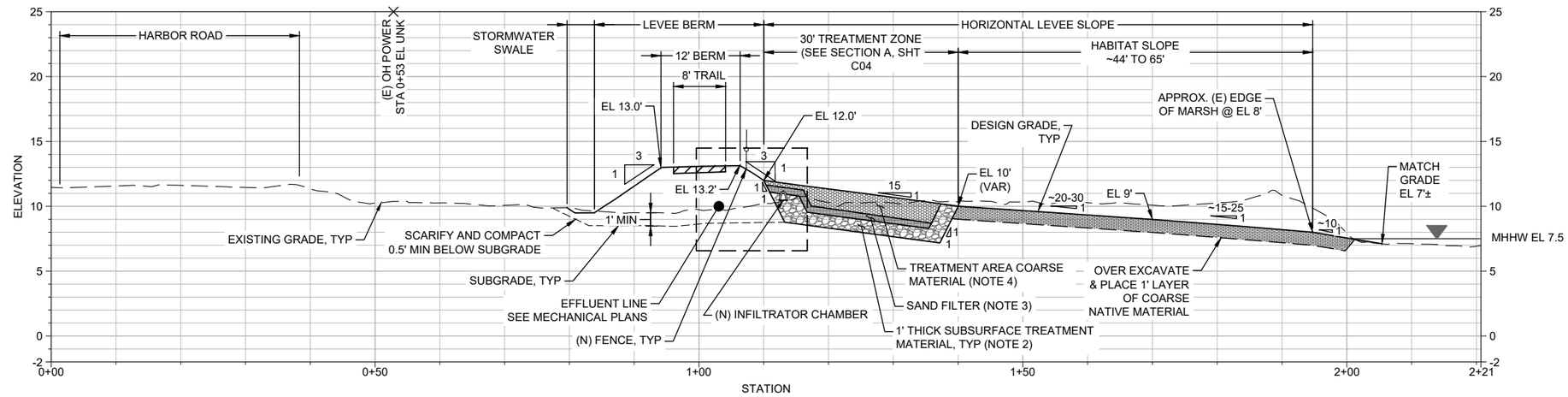
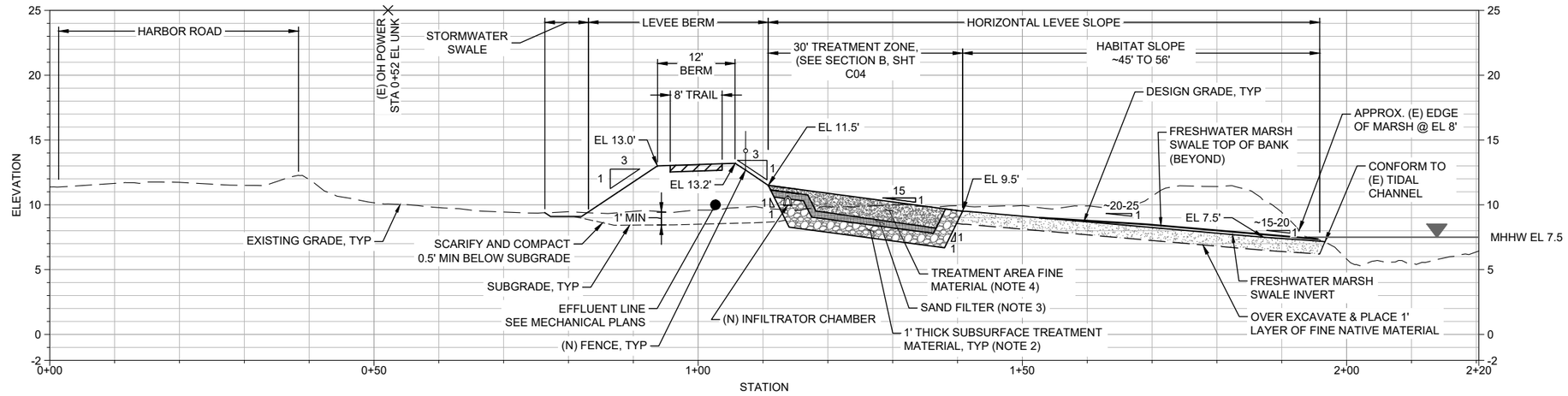


A / - SECTION

TYPICAL SECTION - RIDGES/HIGH & WIDE

SCALE: 1" = 10' H
1" = 5' V



B / - SECTION

TYPICAL SECTION - SWALES

SCALE: 1" = 10' H
1" = 5' V

NOTES

1. SEGREGATE LEVEE, FINE AND COARSE MATERIAL ENCOUNTERED DURING EXCAVATION OF SITE TO SUBGRADE. DURING FILL OPERATIONS, PRIORITIZE PLACEMENT OF LEVEE MATERIAL FOR LEVEE CORE, AND PLACE COARSE MATERIAL ON THE RIDGES AND FINE MATERIALS IN THE SWALES. TRANSITION FROM COARSE MATERIAL TO FINE MATERIAL BETWEEN RIDGES AND SWALES.
2. SUBSURFACE TREATMENT MATERIAL COMPRISED OF A BLEND OF PERMEABLE MATERIAL AND COMPOSTED WOOD CHIPS.
3. SAND FILTER COMPRISED OF A BLEND OF SAND AND WOOD FINES.
4. TREATMENT AREA COARSE AND FINE MATERIAL INCLUDES A BLEND OF NATIVE MATERIAL WITH SAND AND COMPOSTED WOOD FINES.
5. ALL ELEVATIONS ARE ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

1"=10' SCALE 10 5 0 10 20 FEET

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ESA
575 MARKET STREET
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SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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TYPICAL GRADING SECTIONS

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DATE NOVEMBER 3, 2023
DRAWING NO. C02
SHEET NO. 14 OF 45

FILENAME: C10 GRADING SECTIONS 4 11-03-23 04:21pm DHowitt | XREFS: X_PA_Profiles | X-TBLK-PaloAlto-Border K<—

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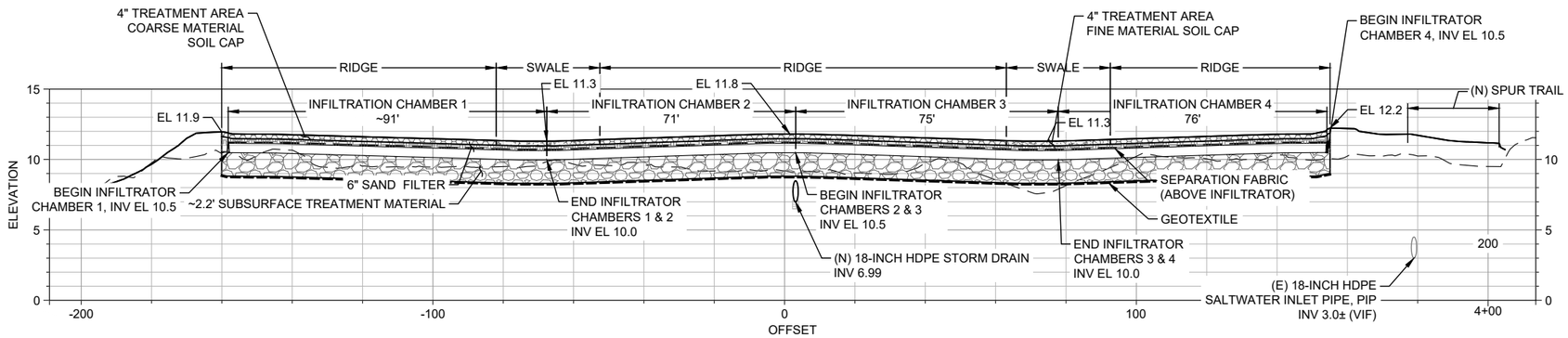
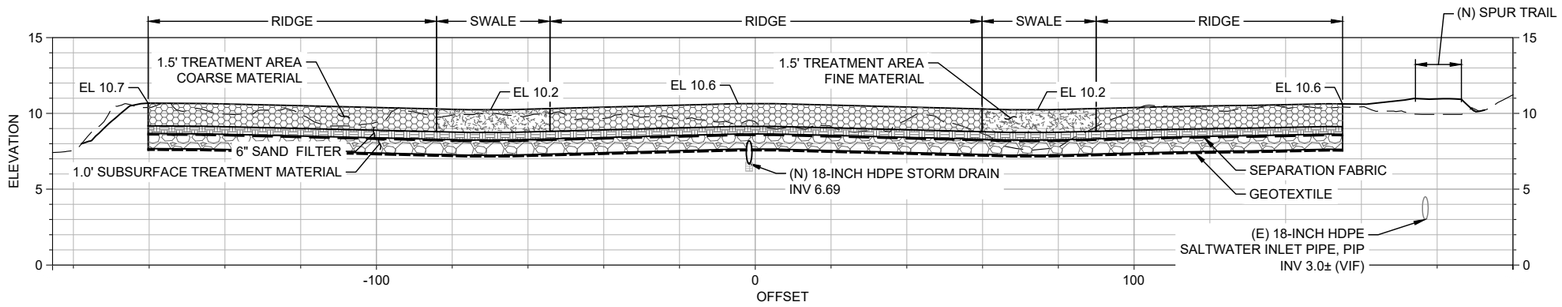
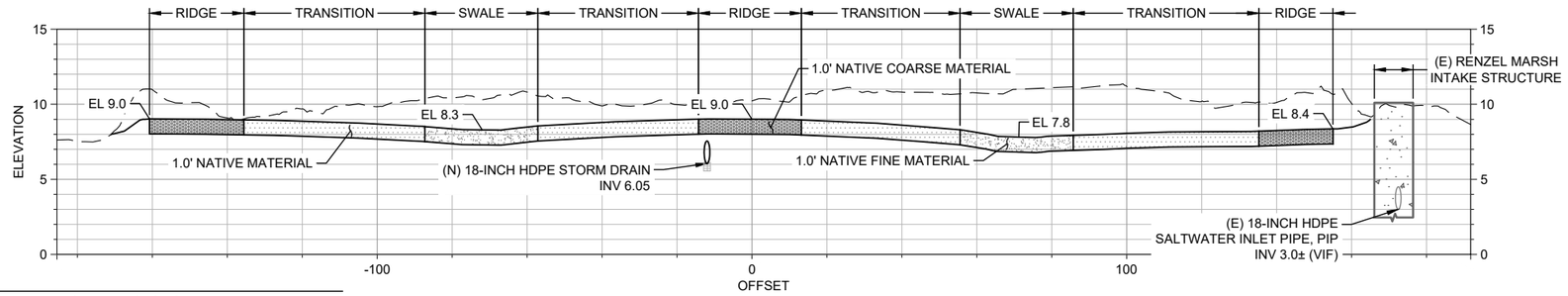


C/C01 INFILTRATOR SECTION — SCALE: 1" = 20' H, 1" = 5' V



D/C01 TREATMENT ZONE SECTION — SCALE: 1" = 20' H, 1" = 5' V



E/C01 ECOTONE HABITAT SLOPE SECTION — SCALE: 1" = 20' H, 1" = 5' V

NOTES

1. SECTIONS ON THIS SHT ARE CENTERED ON B1-LINE (N) BERM TRAIL STA 3+36 SECTION.
2. SEE SHT C04 FOR TREATMENT ZONE LAYER DETAILS.
3. SEE SHT C06 FOR MATERIAL PLACEMENT PLAN VIEW DETAILS.
4. IN THE INFILTRATOR CHAMBER AREA: ALONG RIDGES PLACE 4-INCH TREATMENT AREA COARSE MATERIAL SOIL CAP ABOVE SAND FILTER AND ALONG SWALES, PLACE 4-INCH TREATMENT AREA FINE MATERIAL SOIL CAP ABOVE SAND FILTER.
5. IN THE TREATMENT ZONE: ALONG RIDGES, PLACE 1.5-FT TREATMENT AREA COARSE MATERIAL ABOVE SAND FILTER AND ALONG SWALES, PLACE 1.5-FT TREATMENT AREA FINE MATERIAL ABOVE SAND FILTER.
6. ALONG THE HABITAT SLOPES, PLACE COARSE AND FINE NATIVE MATERIAL AT RIDGES AND SWALES; TRANSITION FROM COARSE TO FINE MATERIAL BETWEEN THE RIDGES AND SLOPES.

1"=20' SCALE: 20 10 0 20 40 FEET

REV	DATE	BY	DESCRIPTION

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ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
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HORIZONTAL LEVEE SECTIONS

VERIFY SCALES
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DATE NOVEMBER 3, 2023
DRAWING NO. C03
SHEET NO. 15 OF 45

FILENAME: C03 HORIZONTAL LEVEE SECTIONS 11-03-23 04:22pm DHowell XREFS: X-TBLX-PaloAlto-Border X_PA_Profiles_Horizontal K<—

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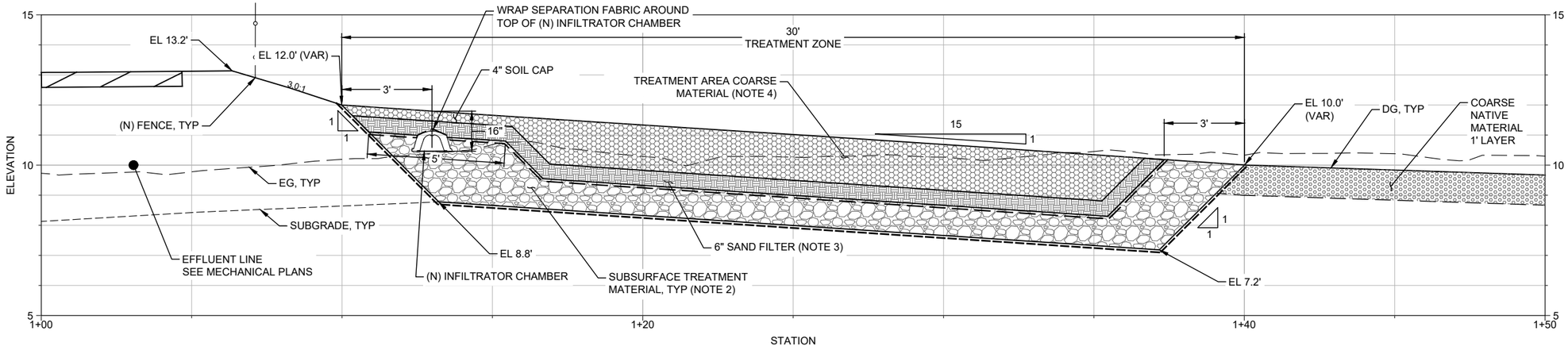
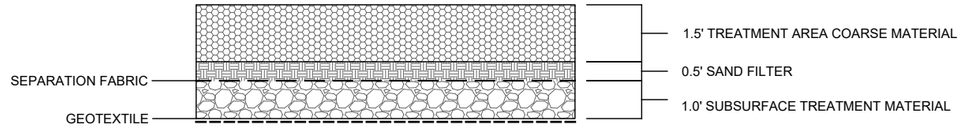
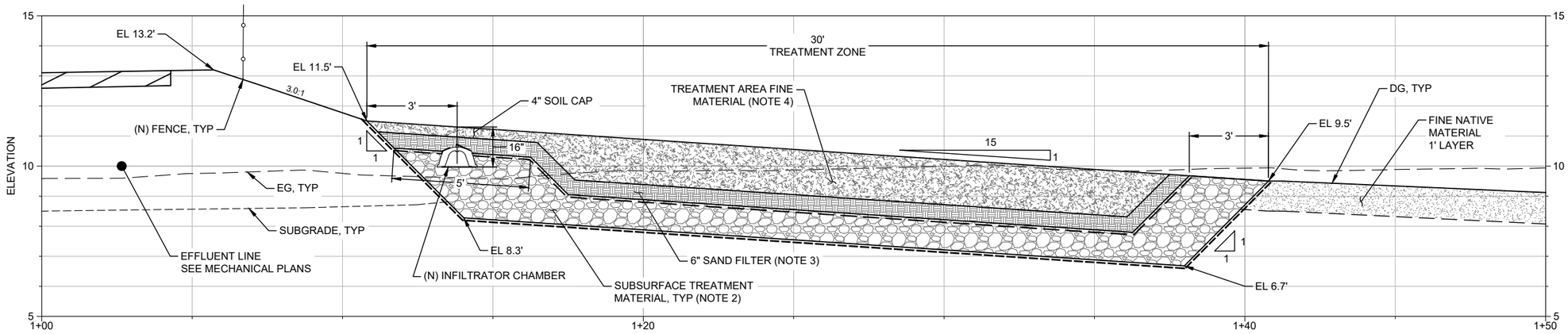


A / - TYPICAL TREATMENT ZONE SECTION - RIDGES/HIGH & WIDE

SECTION

SCALE: 1" = 2' H
1" = 2' V



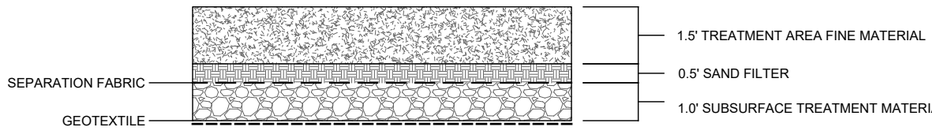


1"=2' SCALE: 2 1 0 2 4 FEET

B / - TYPICAL TREATMENT ZONE SECTION - SWALES

SECTION

SCALE: 1" = 2' H
1" = 2' V



NOTES

1. SEGREGATE FINE AND COARSE MATERIAL ENCOUNTERED DURING EXCAVATION OF SITE TO SUBGRADE. DURING FILL OPERATIONS, PLACE COARSE MATERIAL ON THE RIDGES AND FINE MATERIALS IN THE SWALES.
2. SUBSURFACE TREATMENT MATERIAL COMPRISED OF A BLEND OF PERMEABLE MATERIAL AND COMPOSTED WOOD CHIPS.
3. SAND FILTER COMPRISED OF A BLEND OF SAND AND WOOD CHIPS.
4. TREATMENT AREA COARSE AND FINE MATERIAL INCLUDES A BLEND OF NATIVE MATERIAL WITH SAND AND COMPOSTED WOOD FINES.
5. ALL ELEVATIONS ARE ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

REV	DATE	BY	DESCRIPTION

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TYPICAL TREATMENT ZONE SECTIONS

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DATE NOVEMBER 3, 2023
DRAWING NO. C04
SHEET NO. 16 OF 45

FILENAME: C10 GRADING SECTIONS 4 11-03-23 04:22pm DHowell | XREFs: X_PA_Profiles | X-TBLK-PaloAlto-Border
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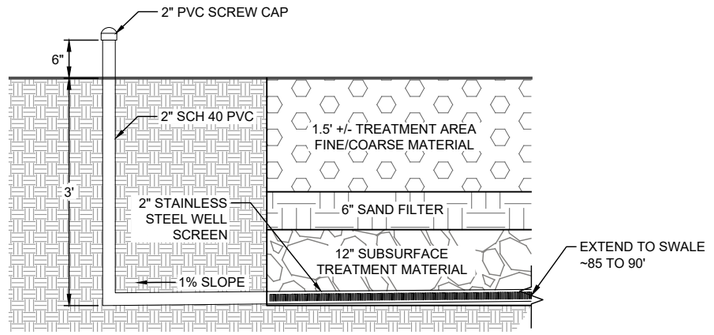

1 / C01 PIEZOMETER DETAIL

SCALE: 1" = 1'

1"=1' 1 0.5 0 1 2
SCALE FEET

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C 66701
EXP. 9/30/22
CIVIL
STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
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CIVIL DETAILS

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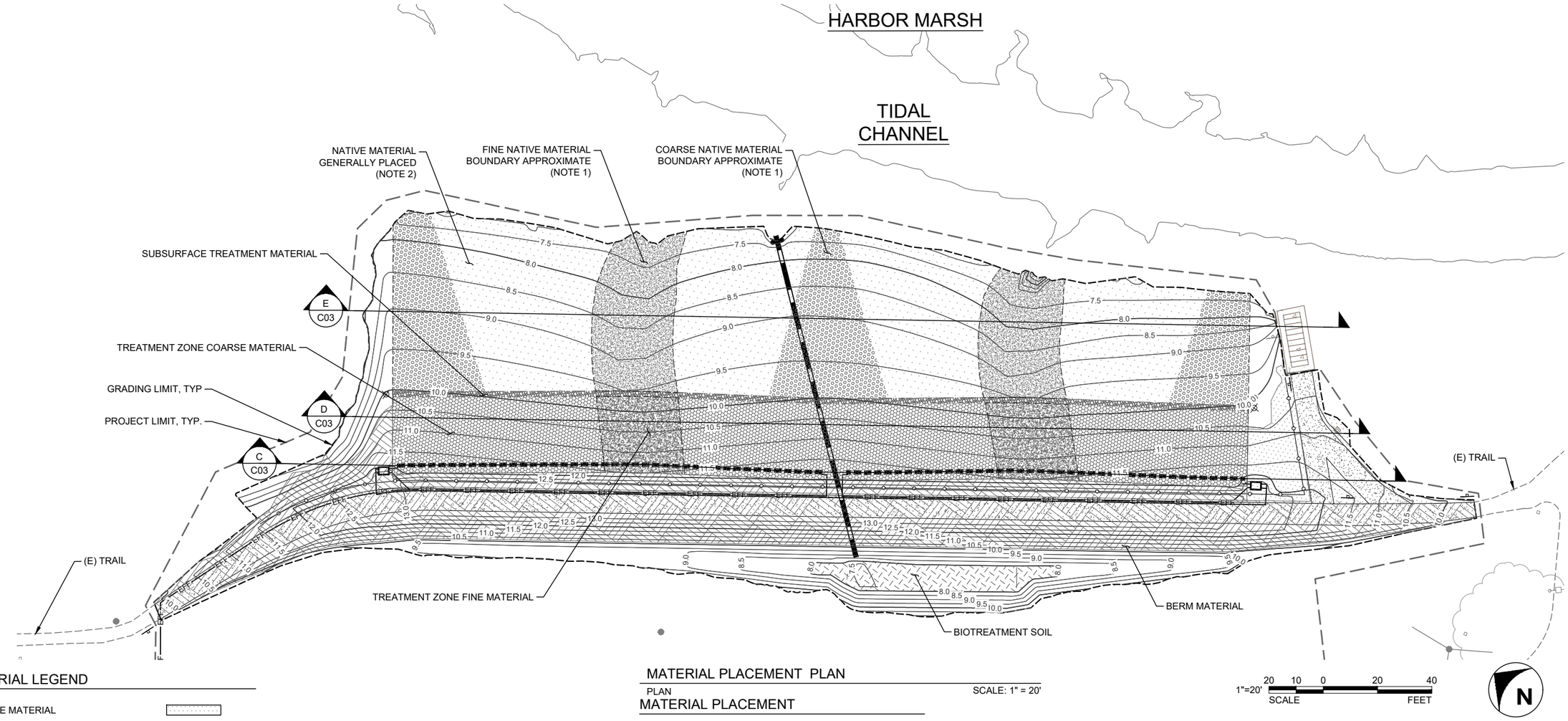
DRAWING NO.
C05
SHEET NO.
17 OF 45

FILENAME: C05 CIVL DETAILS 11-03-23 0422pm DHorwff | XREFs: X-TBLK-PaloAlto-Border | X_detail-paving-asphalt | X_detail-grade-edge-ac-paving | X_detail-4g | X_pd_design_linework

Last Saved By: cto 4-12-18 02:36pm



MATERIAL PLACEMENT PLAN

PLAN

SCALE: 1" = 20'

MATERIAL LEGEND

- NATIVE MATERIAL
- NATIVE FINE MATERIAL
- NATIVE COARSE MATERIAL
- TREATMENT ZONE FINE MATERIAL
- TREATMENT ZONE COARSE MATERIAL
- SUBSURFACE TREATMENT MATERIAL
- BERM MATERIAL
- BIOTREATMENT SOIL

NOTES

1. BOUNDARY OF FINE AND COARSE GRAINED NATIVE MATERIAL IS APPROXIMATE. THE CONTRACTOR SHALL PRIORITIZE THE COARSEST NATIVE MATERIAL FOR PLACEMENT IN THE HIGHEST RIDGE ZONES AND THE FINEST NATIVE MATERIAL FOR PLACEMENT IN THE LOWEST PORTIONS OF THE SWALES.
2. IN BETWEEN RIDGES AND SWALES, MATERIAL SHALL BE GENERALLY CLASSIFIED AS COARSE TRANSITIONING TO FINE TO FILL OUT THE REMAINING HIGHER TO LOWER GRADES ALONG THE ECOTONE.
3. ESTIMATED VOLUMES ARE BASED ON BANK CUBIC YARDS, AS CALCULATED AS THE DIFFERENCE OF EXISTING AND DESIGN GRADES (INCLUDING SUBGRADES).
4. CONTRACTOR RESPONSIBLE FOR ESTIMATING ACTUAL VOLUMES AND SHALL ACCOUNT FOR VOLUME ADJUSTMENTS (SHRINKAGE, DRYING, BULKING, LOSSES, ETC.)

MATERIAL PLACEMENT

EXCAVATION	MATERIAL TYPE	QUANTITY	UNIT
STRIP TOP 3-INCHES WITHIN GRADING FOOTPRINT	DISPOSAL	420	BCY
TOP 4 TO 12-INCHES LANDWARD SIDE OF LEVEE	NATIVE MATERIAL	930	BCY
ALL OTHER EXCAVATION	BERM MATERIAL	1620	BCY

FILL PLACEMENT LOCATION	MATERIAL TYPE	QUANTITY	UNIT	PRIMARY COMPONENTS													
				BERM MATERIAL		NATIVE MATERIAL		PERMEABLE MATERIAL		SAND		WOOD CHIPS		COMPOSTED WOOD FINES		BIOTREATMENT SOIL	
				% VOL	BCY	% VOL	BCY	% VOL	BCY	% VOL	BCY	% VOL	BCY	% VOL	BCY	% VOL	BCY
LEVEE BERM	BERM MATERIAL (ON-SITE)	1,130	BCY	100	1,130				-		-		-		-		-
	BERM MATERIAL (IMPORTED)	550	BCY	100	550												
SPUR TRAIL	NATIVE MATERIAL	440	BCY		-	100	440										
HABITAT SLOPE	FINE NATIVE MATERIAL	110	BCY		-	70	77		-	30	33		-		-		-
	COARSE NATIVE MATERIAL	150	BCY		-	40	60		-	60	90		-		-		-
TREATMENT ZONE	TREATMENT AREA FINE MATERIAL	70	BCY		-	60	42			30	21			10	7		
	TREATMENT AREA COARSE MATERIAL	320	BCY		-	30	96		-	60	192		-	10	32		-
	SAND FILTER	150	BCY		-		-		-	70	105		-	30	45		-
	SUBSURFACE TREATMENT MATERIAL	410	BCY		-		-	70	287		-	30	123		-		-
STORMWATER SWALE	BIOTREATMENT SOIL	44	BCY		-		-		-		-		-		-	100	44
TOTAL		3,374			1,680		715		287		441		123		84		44

REV	DATE	BY	DESCRIPTION

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MATERIAL PLACEMENT PLAN

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DATE
NOVEMBER 3, 2023

DRAWING NO.
C06

SHEET NO.
18 OF 45

FILENAME: C06 MATERIAL PLACEMENT PLAN 11-03-23 04:22pm DHorvff | XREFS: X_PA_Grading_Features | X_PA_Boundary | X_PA_Project_Limits | X_PA_Design_Topo | X-TBLK-FebaWin-Border | X_pa_design_linework | X_PA_Erosion_Control | X_PA_Soil_Placement | Out-FIL_20230517 K<—
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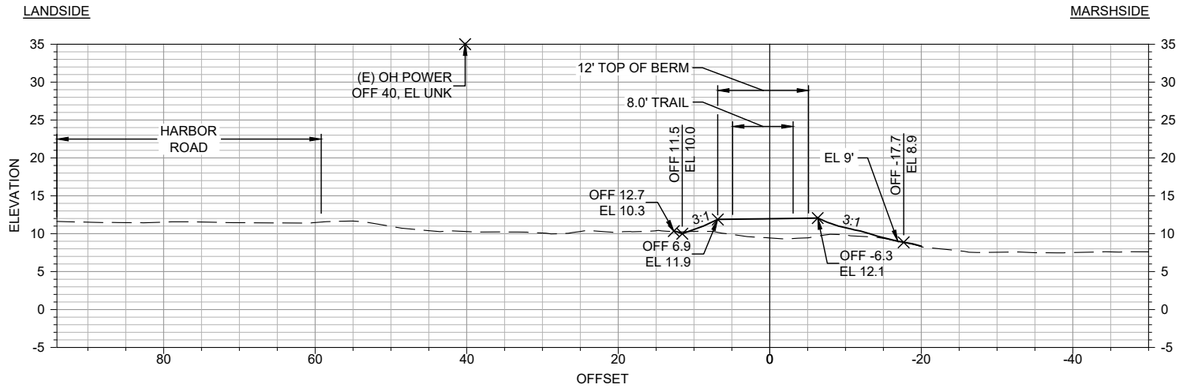
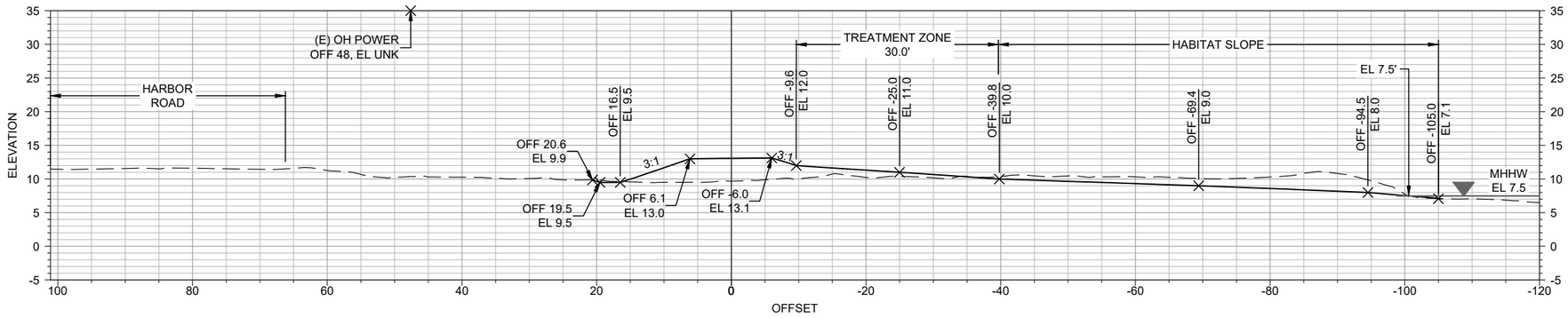


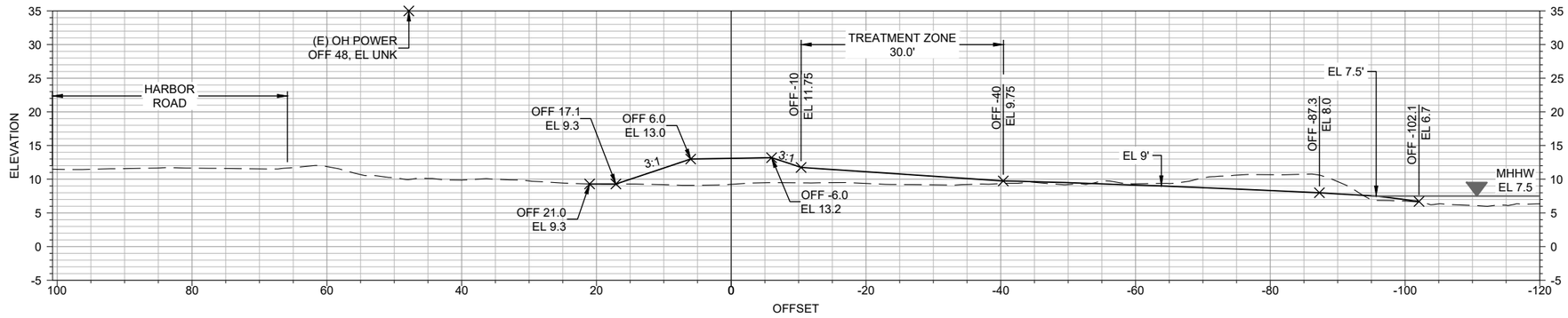
TRANSITION AT BERM STA 1+43

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V



RIDGE AT BERM STA 1+86

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V



TRANSITION AT BERM STA 2+26

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V

NOTES

1. GRADING SECTIONS SHOWN IN PLAN VIEW ON SHEET C01.

1"=10' SCALE — 10 5 0 10 20 FEET

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GRADING SECTIONS 1

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DATE NOVEMBER 3, 2023
DRAWING NO. C07
SHEET NO. 19 OF 45

FILENAME: C10 GRADING SECTIONS 4 11-03-23 0423pm DHowitt | XREFs: X_PA_Profile | X-TBLK-PaloAlto-Border K<<
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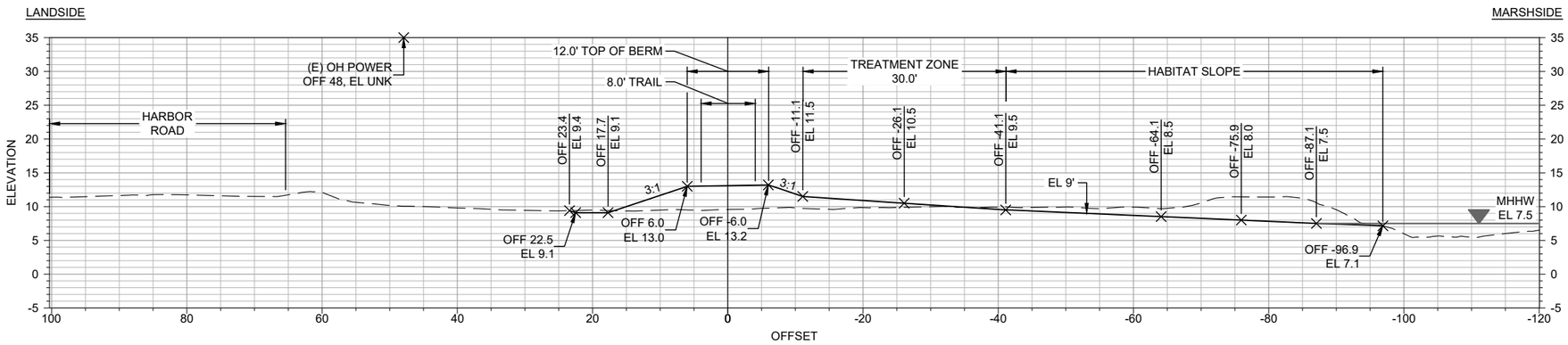
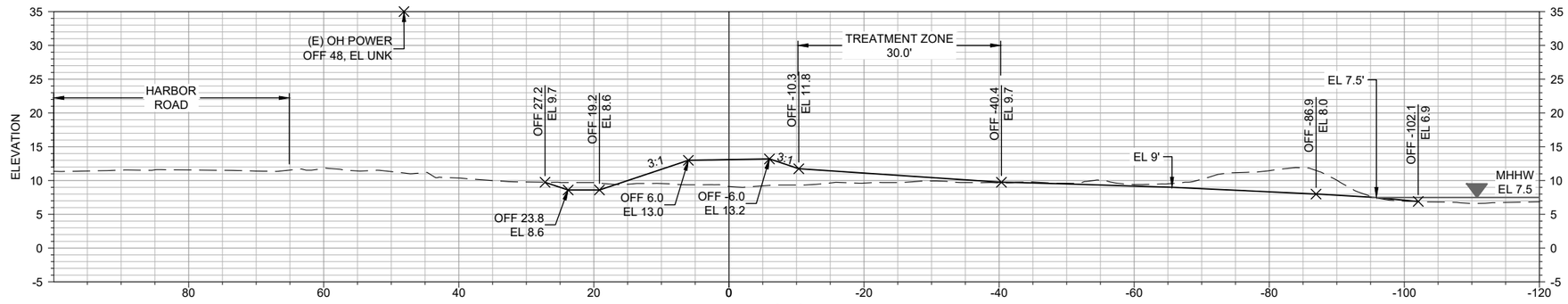


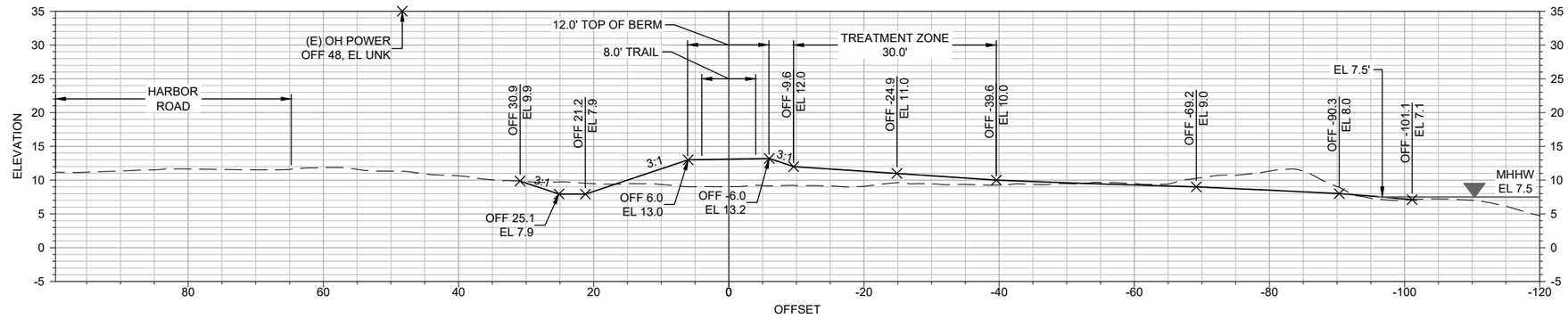
SWALE AT BERM STA 2+66

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V



TRANSITION AT BERM STA 3+01

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V



RIDGE AT BERM STA 3+36

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V

NOTES

1. GRADING SECTIONS SHOWN IN PLAN VIEW ON SHEET C01.

1"=10' SCALE: 10 5 0 10 20 FEET

REV	DATE	BY	DESCRIPTION

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CHECKED MRL

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GRADING SECTIONS 2

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DATE NOVEMBER 3, 2023
DRAWING NO. C08
SHEET NO. 20 OF 45

FILENAME: C10 GRADING SECTIONS 4 11-03-23 0423pm DHowitt | XREFs: X_PA_Profiles | X-TBLK-PaloAlto-Border

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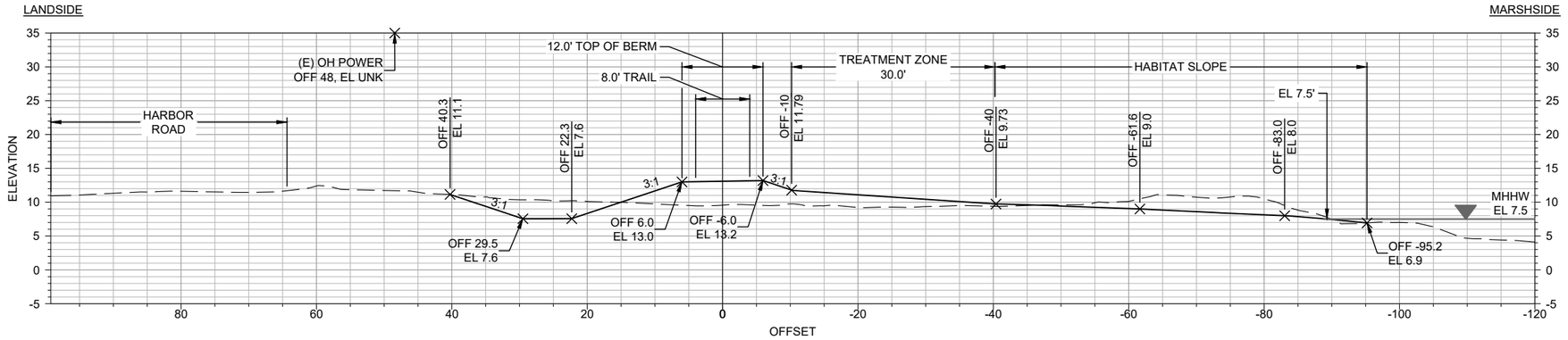
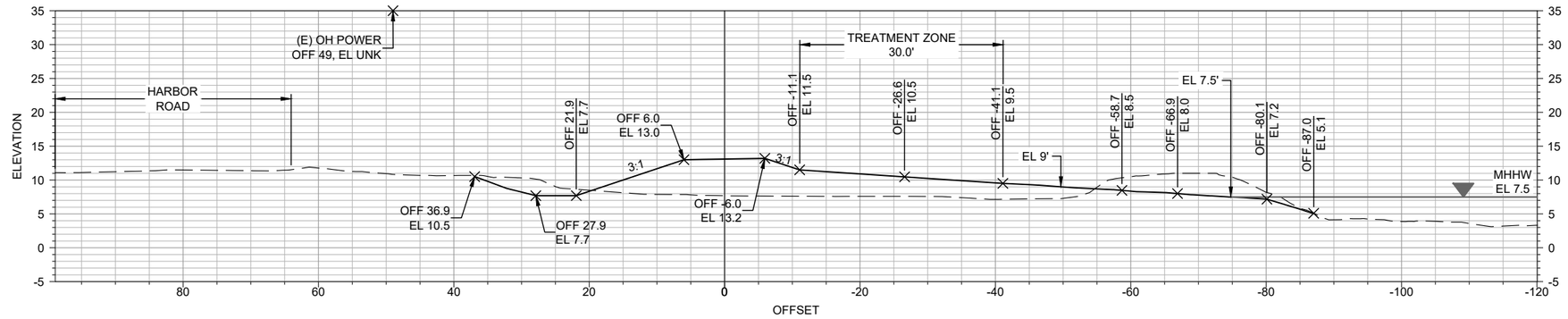


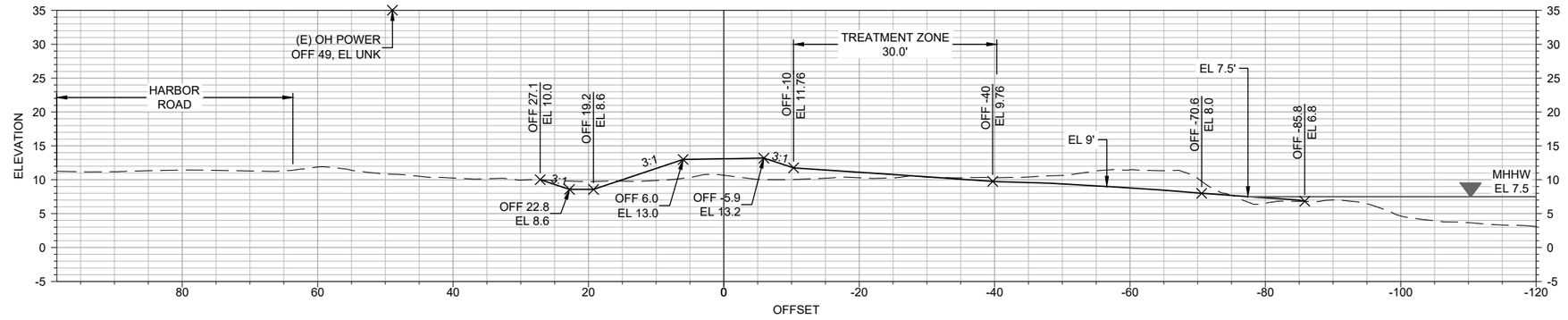
TRANSITION AT BERM STA 3+74

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V



SWALE AT BERM STA 4+09

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V



TRANSITION AT BERM STA 4+46

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V

NOTES

1. GRADING SECTIONS SHOWN IN PLAN VIEW ON SHEET C01.

1"=10' SCALE 10 5 0 10 20 FEET

REV	DATE	BY	DESCRIPTION

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GRADING SECTIONS 3

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DATE NOVEMBER 3, 2023
DRAWING NO. C09
SHEET NO. 21 OF 45

FILENAME: C10 GRADING SECTIONS 4 11-03-23 04:23pm Dkowff XREFs: X_PA_Profile X-TBLK-PaloAlto-Border
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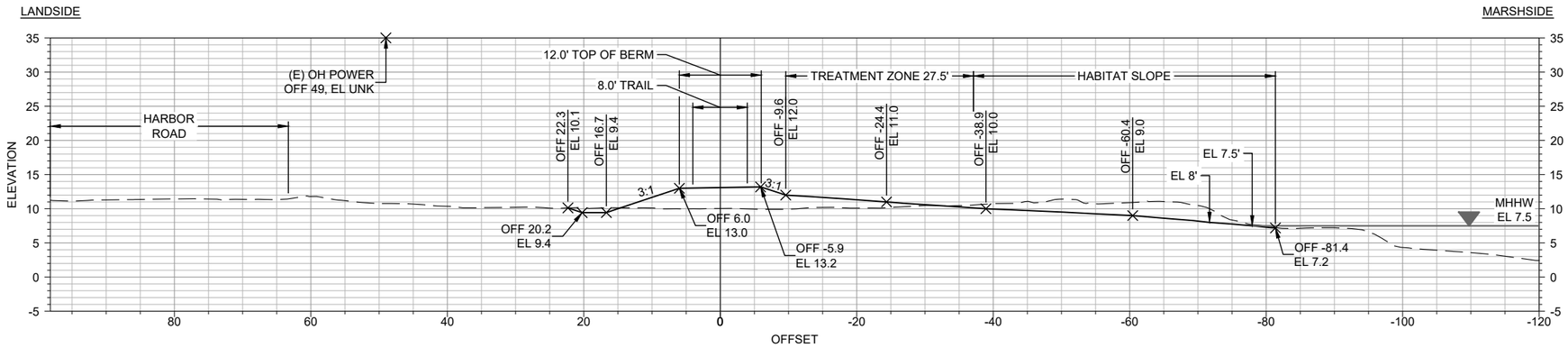

RIDGE AT BERM STA 4+81

GRADING SECTION — SCALE: 1" = 10' H, 1" = 10' V

NOTES

1. GRADING SECTIONS SHOWN IN PLAN VIEW ON SHEET C01.

1"=10' 10 5 0 10 20 SCALE FEET

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GRADING SECTIONS 4

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DRAWING NO. C10
SHEET NO. 22 OF 45

FILENAME: C10 GRADING SECTIONS 4 11-03-23 04:23pm DHarwff | XREFS: X_PA_Profiles | X-TBLK-PaloAlto-Border |X<—

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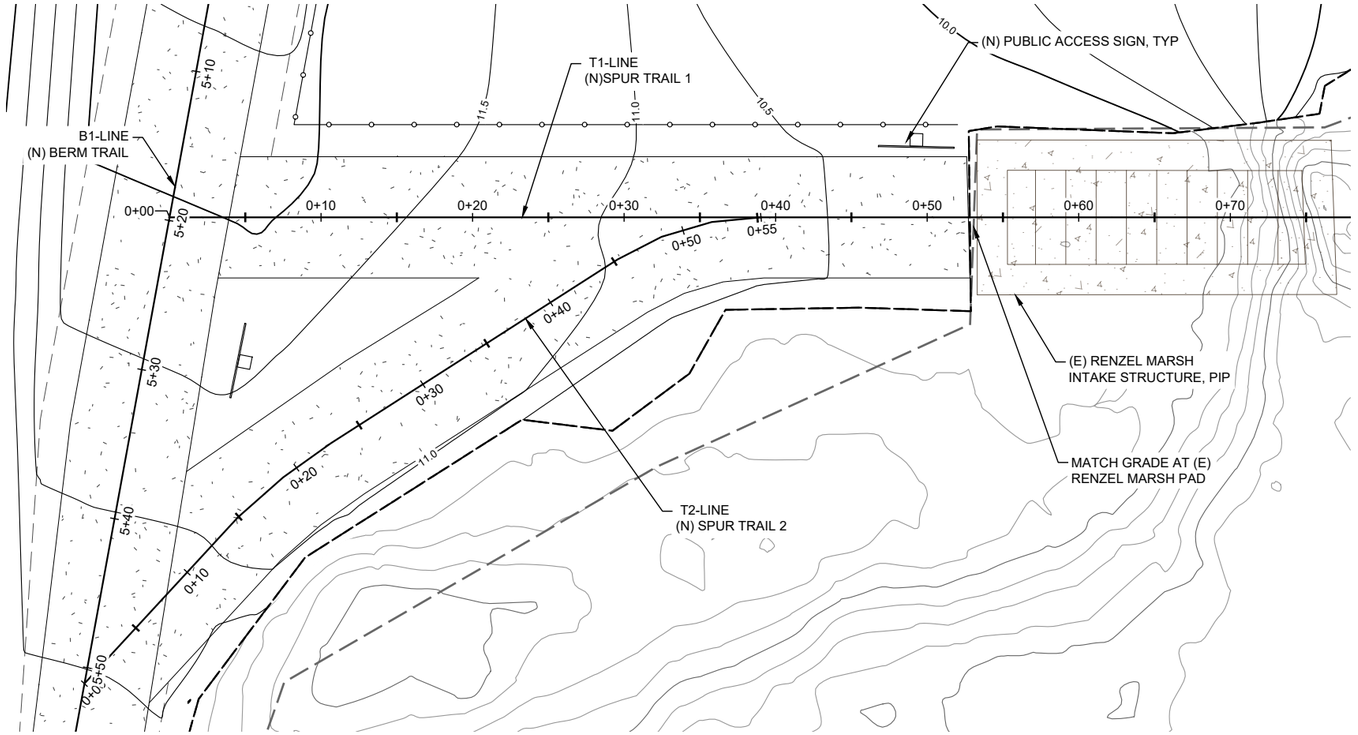
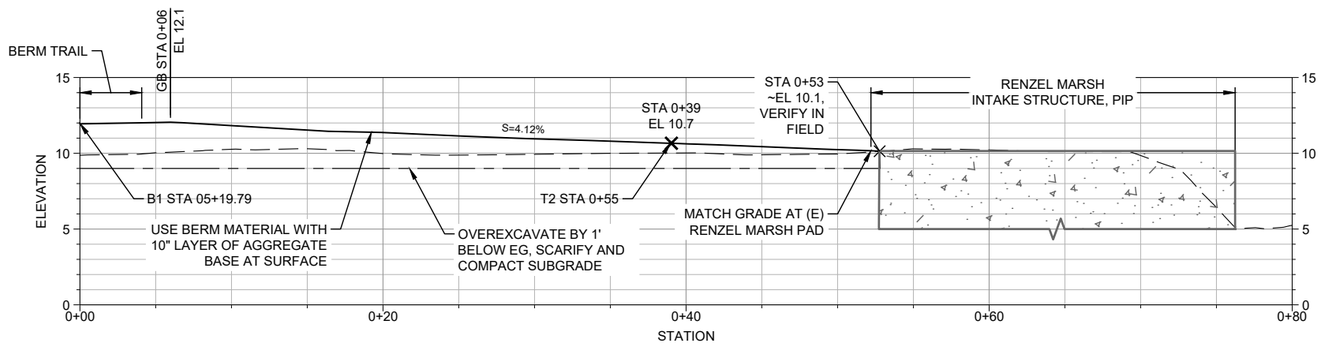


SPUR TRAIL 1 AND 2

PLAN SCALE: 1" = 5'

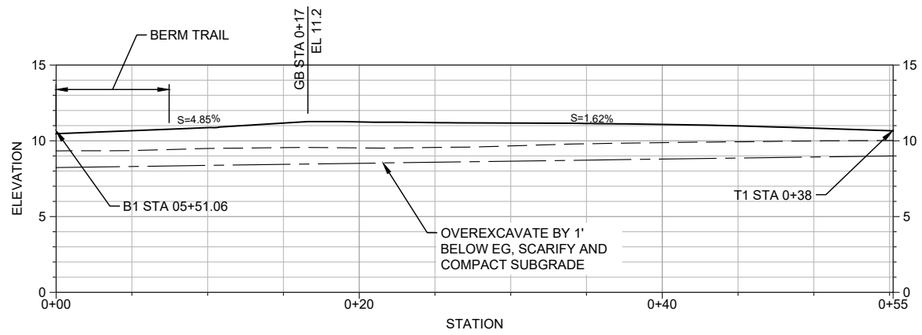
1"=5' 5 2.5 0 5 10
SCALE FEET

N



SPUR TRAIL 1 (T1-LINE) STA 0+00 TO 0+52

GRADING PROFILE SCALE: 1" = 5' H
1" = 5' V



SPUR TRAIL 2 (T2-LINE) STA 0+00 TO 0+54

GRADING PROFILE SCALE: 1" = 5' H
1" = 5' V

REV	DATE	BY	DESCRIPTION

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CITY OF PALO ALTO

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

SPUR TRAILS PLAN AND PROFILE

VERIFY SCALES
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0 1"
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DATE NOVEMBER 3, 2023
DRAWING NO. C11
SHEET NO. 23 OF 45

FILENAME: C11 SPUR TRAILS PLAN AND PROFILE 11-03-23 04:24pm DHowe XREFs: X-TBLK-PaloAlto-Border X_PA_Profiles x_ps_project_limits X_PA_Design X_PA_ESA_Survey X_ps_existing_features K<—

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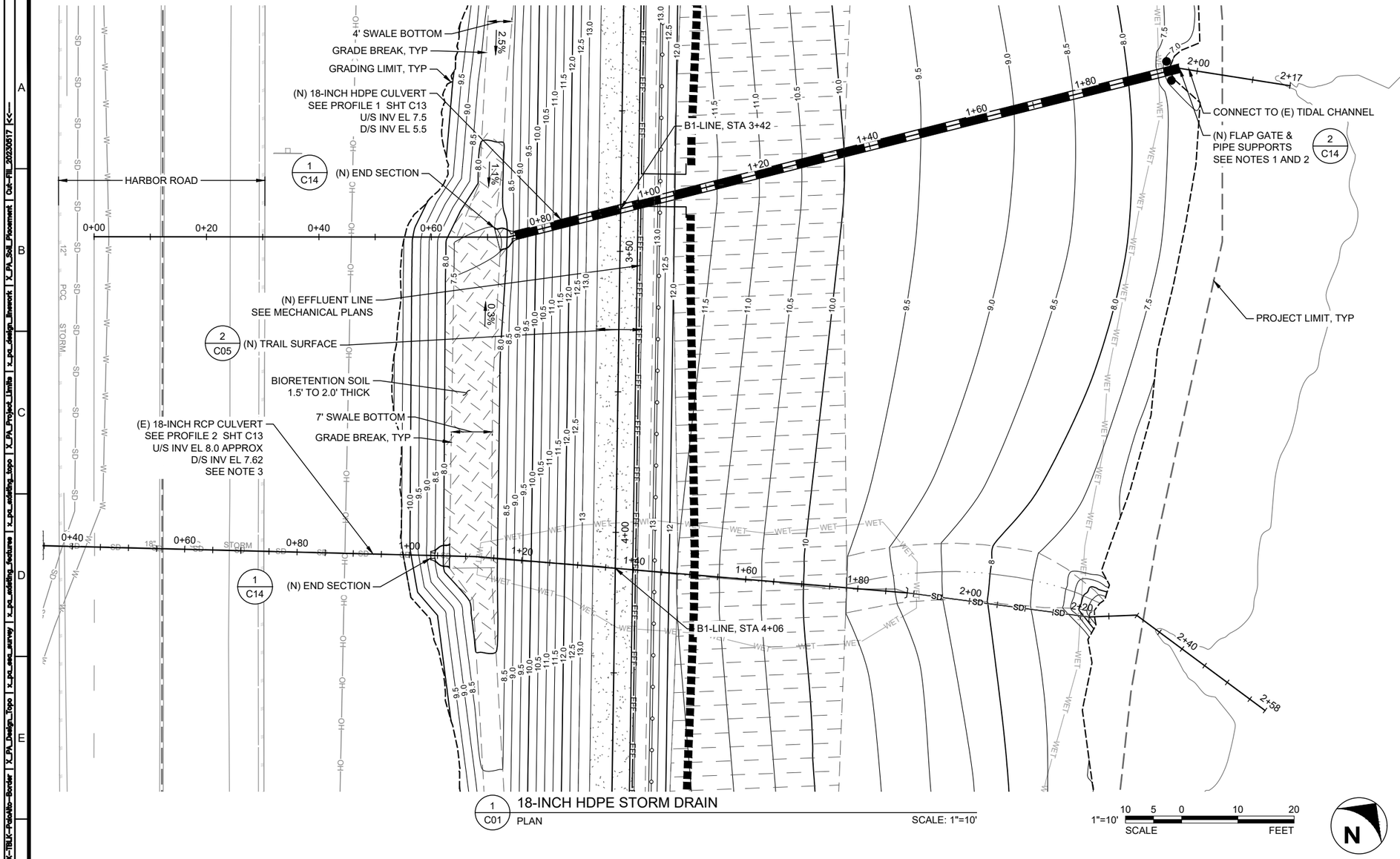

NOTES

1. STORM DRAIN OUTFALL WITH FLAP GATE SHALL BE SUPPORTED BY PIPE SUPPORTS. PILES AND PIPE SUPPORT MEMBERS SHALL BE 8-INCH DIA STEEL PIPE PILE OR 6X6-INCH H-PILE. STEEL SHALL BE EPOXY COATED, SEE SPECS OR OWNER-APPROVED EQUAL.
2. SUPPORT PILES SHALL BE DRIVEN TO REFUSAL OR 8 FEET MIN BELOW FINISHED GRADE.
3. CONTRACTOR SHALL CCTV CONDITION OF (E) PIPE PRE- AND POST- CONSTRUCTION TO VERIFY THE CONDITION DOES NOT DETERIORATE DUE TO PROPOSED CONSTRUCTION AND NEW MATERIALS LOADS.

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER — MARK R. LINDLEY — C 66701 EXP. 9/30/22 — CIVIL — STATE OF CALIFORNIA

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SUITE 3700
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STORM DRAIN PLAN

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NOVEMBER 3, 2023
DRAWING NO.
C12
SHEET NO.
24 OF 45

FILENAME: C13 STORM DRAIN PROFILES 11-03-23 04:24pm DHanff XREFS: X-TBLK-PaloAlto-Border X_PA_Design_Topo X_pa_esa_survey X_pa_existing_features X_PA_Project_Limits X_pa_design_linework X_PA_Soil_Placement Cut-Fill_20230517
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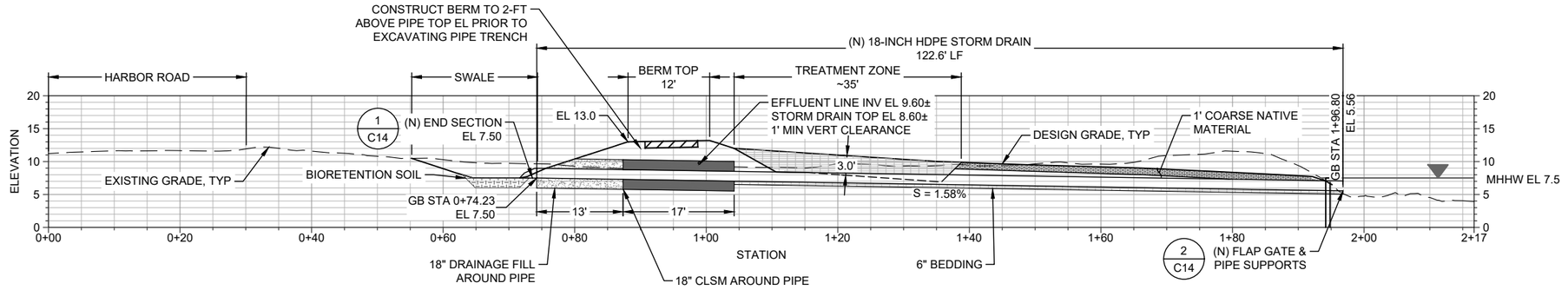
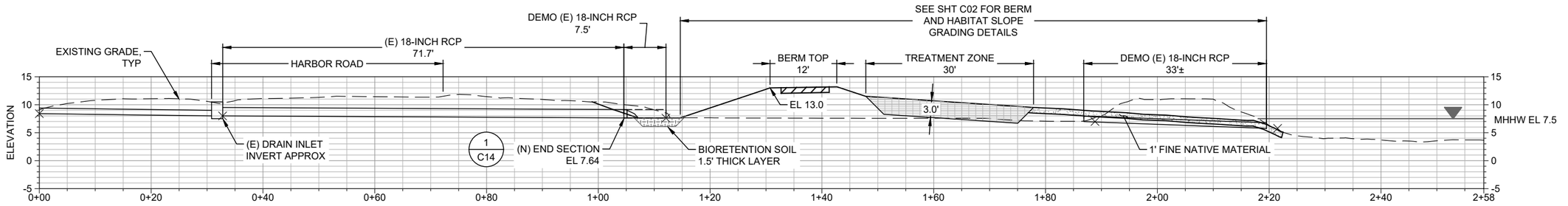


1 - (N) 18-INCH HDPE STORM DRAIN
PROFILE

SCALE: 1" = 10' H
1" = 10' V

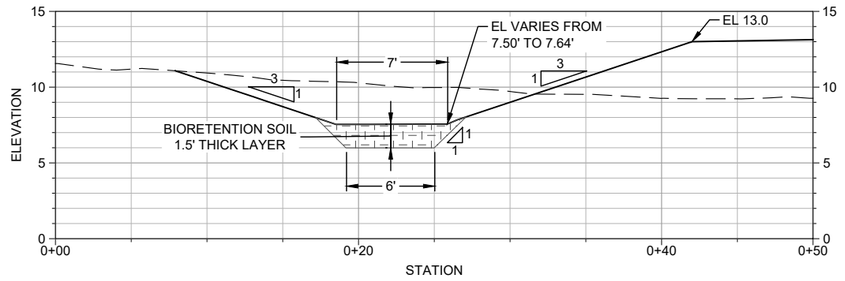
1"=10' 10 5 0 10 20
SCALE FEET



2 - (E) 18-INCH RCP STORM DRAIN
PROFILE

SCALE: 1" = 10' H
1" = 10' V

1"=10' 10 5 0 10 20
SCALE FEET



3 - TYPICAL SECTION - STORMWATER SWALE
SECTION

SCALE: 1" = 5' H
1" = 5' V

1"=5' 5 2.5 0 5 10
SCALE FEET

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
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CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER MARK R. LINDLEY C 66701 EXP. 9/30/22 CIVIL STATE OF CALIFORNIA

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575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
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STORM DRAIN PROFILES

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DATE NOVEMBER 3, 2023
DRAWING NO. C13
SHEET NO. 25 OF 45

FILENAME: C13 STORM DRAIN PROFILES 11-03-23 04:24pm DHowff | XREFs: X-TBLK-PaloAlto-Border | X_PA_Design_Topo | x_pc_exs_survey | x_pc_existing_features | x_pc_existing_topo | X_PA_Project_Limits | x_pc_design_linework | X_PA_Soil_Placement | Out-FIL_20230517 |<<—

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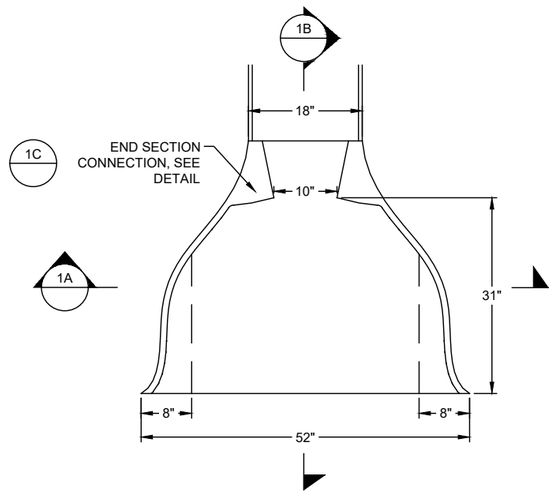
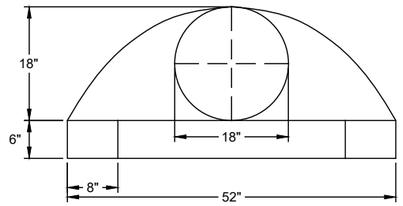
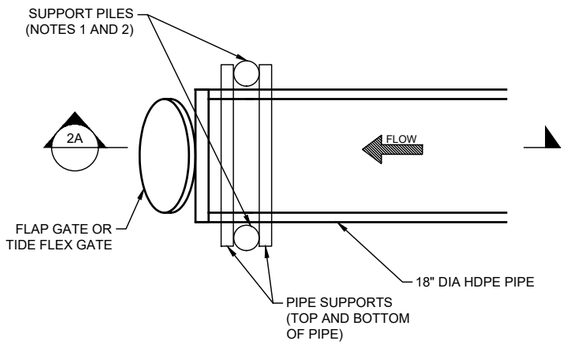


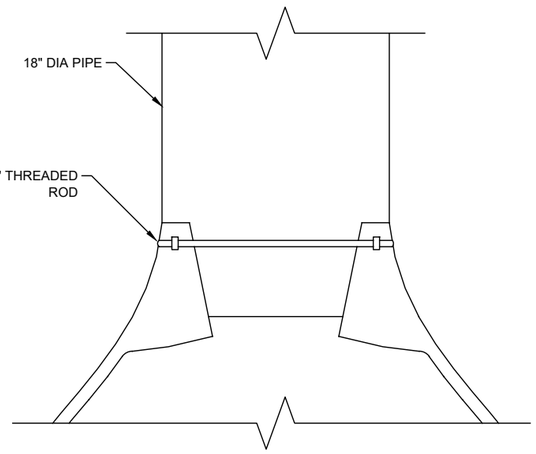
1 C01 END SECTION
PLAN
SCALE: 1" = 1'



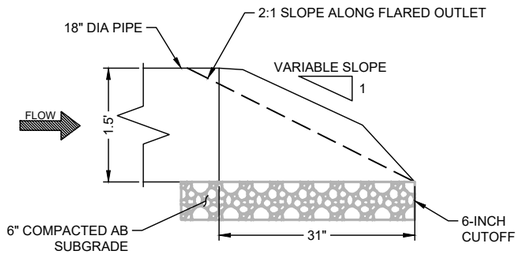
1A - END SECTION
SECTION
SCALE: 1" = 1'



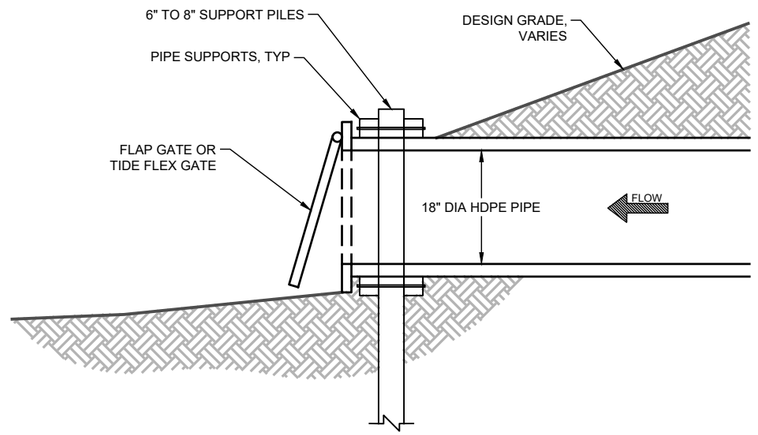
2 C01 FLAP GATE & PIPE SUPPORTS
PLAN
SCALE: 1" = 1'



1C - END SECTION CONNECTION
DETAIL
SCALE: 1" = 6"



1B - END SECTION
SECTION
SCALE: 1" = 1'



2A - FLAP GATE & PIPE SUPPORTS
SECTION
SCALE: 1" = 1'

NOTES

1. STORM DRAIN OUTFALL WITH FLAP GATE SHALL BE SUPPORTED BY PIPE SUPPORTS. PILES AND PIPE SUPPORT MEMBERS SHALL BE 8-INCH DIA STEEL PIPE PILE OR 6X6-INCH H-PILE. STEEL SHALL BE EPOXY COATED, SEE SPECS OR OWNER-APPROVED EQUAL.
2. SUPPORT PILES SHALL BE DRIVEN TO REFUSAL OR 8 FEET MIN BELOW FINISHED GRADE
3. APPROXIMATE DIMENSIONS OF END SECTION SHOWN. CONTRACTOR SHALL VERIFY WITH MANUFACTURER PRIOR TO INSTALLATION.

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER
MARK R. L'INDLEY
C 66701
EXP. 9/30/22
CIVIL
STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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STORM DRAIN DETAILS

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DATE
NOVEMBER 3, 2023
DRAWING NO.
C14
SHEET NO.
26 OF 45

FILENAME: C14 STORM DRAIN DETAILS 11-03-23 04:24pm DHowitt | XREFs: X-TBLK-PaloAlto-Border | X_PA_Design_Linework <<—

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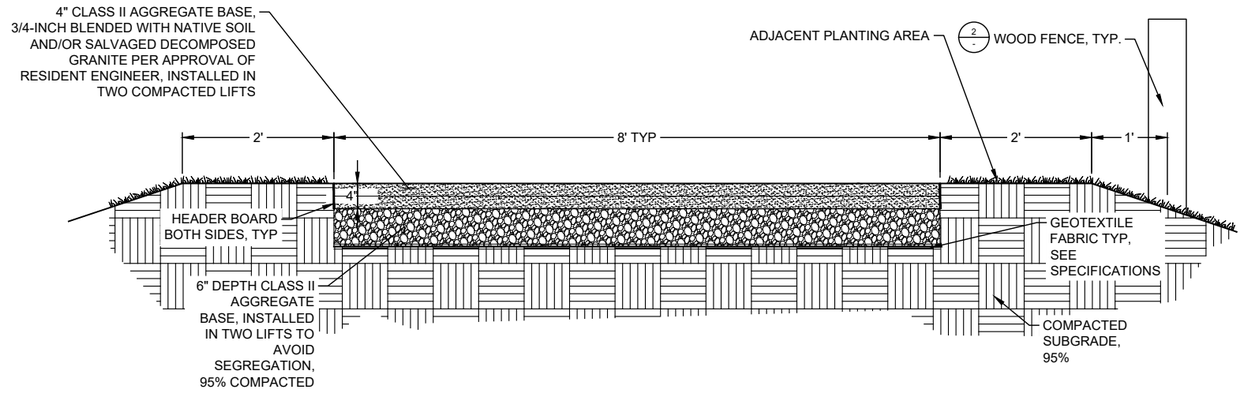
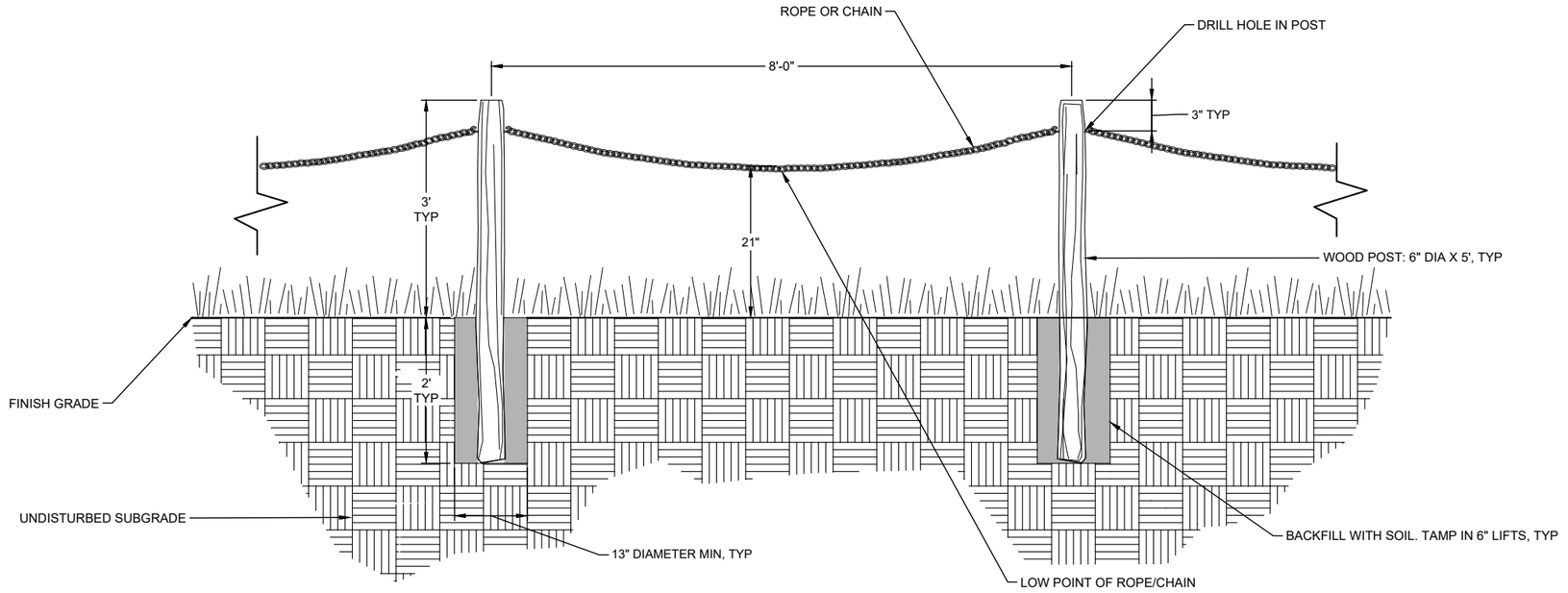


1 / C01 TRAIL SURFACE DETAIL — SCALE: 1" = 1.0'

1"=1' SCALE 1 0.5 0 1 2 FEET



2 / C01 WOOD FENCE DETAIL — SCALE: 1" = 1.0'

1"=1' SCALE 1 0.5 0 1 2 FEET

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
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REGISTERED PROFESSIONAL ENGINEER — MARK R. L'INDEN — C 66701 EXP. 9/30/22 — CIVIL — STATE OF CALIFORNIA

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SUITE 3700
SAN FRANCISCO, CA 94105
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PUBLIC ACCESS DETAILS

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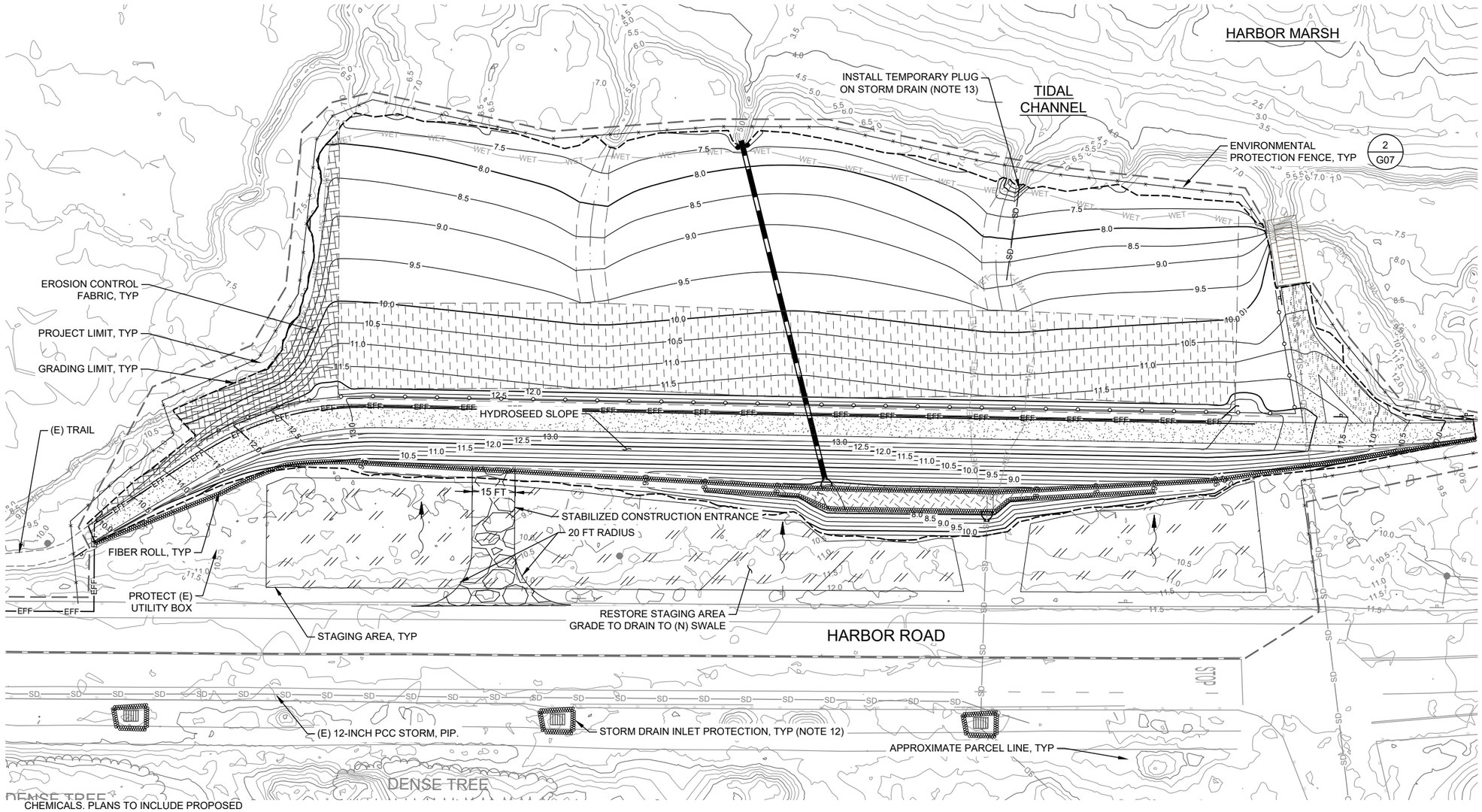
DATE NOVEMBER 3, 2023
DRAWING NO. C15
SHEET NO. 27 OF 45

FILENAME: C15 PUBLIC ACCESS DETAILS 11-03-23 0424pm DHarwit | XREFs: X-TBLK-PaloAlto-Border | X_detail-paving-asphalt | X_detail-grade-edge-ac-paving | X_detail-

Last Saved By: ato 4-12-18 02:36pm

NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE PROJECT SWPPP, AND THE PROJECT PERMITS.
2. THE FOLLOWING BMPS AS OUTLINED IN, BUT NOT LIMITED TO, THE CONSTRUCTION BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA), 2009, OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS):
   a. SILT FENCE (SE-1);
   b. FIBER ROLLS (BIODEGRADABLE COIR; SE-5);
   c. STREET SWEEPING (SE-7);
   d. STORM DRAIN INLET PROTECTION (SE-10);
   e. STABILIZED CONSTRUCTION ENTRANCE/EXIT (TC-1);
   f. STAGING AREA (NS-1, NS-8, NS-9, NS-10, NS-14, WM-01, WM-02, WM-04, WM-09, AND WM-10);
   g. TEMPORARY STOCKPILE AREA (WM-03);
   h. INTERIM HYDROSEEDING (EC-4);
   i. DEWATERING OPERATION (NS-2);
   j. CLEAR WATER DIVERSION (NS-5);
   k. DEMOLITION REMOVAL ADJACENT TO WATER (NS-15).
3. THE BMPS SHOWN ON THIS PLAN ARE SUBJECT TO CHANGE. IF ADDITIONAL EROSION CONTROL MEASURES ARE NEEDED TO PROTECT THE SITE AND NEARBY AREAS, SUCH MEASURES SHALL BE INSTALLED AT THE DISCRETION OF THE RESIDENT ENGINEER AND NOTIFY THE DESIGN ENGINEER.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS.
5. CONTRACTOR SHALL UPDATE THE PLANS TO REFLECT CHANGING SITE CONDITIONS. PLAN UPDATES SHALL BE BASED UPON GENERAL SURVEY DATA. EROSION CONTROL EFFECTIVENESS SHALL ALSO BE MONITORING AND THE PLANS UPGRADED AS REQUIRED TO PREVENT SIGNIFICANT QUANTITIES OF SEDIMENT FROM ENTERING THE BAY AND OTHER WATERS.
6. CHANGES TO THIS SEDIMENT AND EROSION CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE RESIDENT ENGINEER.
7. LIMITS OF DISTURBED AREAS ARE APPROXIMATE ONLY. EROSION CONTROL MEASURES MUST BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
8. CONSTRUCTION BMPS WILL REMAIN IN PLACE AND BE MAINTAINED OR REPLACED AS NECESSARY UNTIL THE PERMANENT SITE IMPROVEMENTS AND STORMWATER TREATMENT FACILITIES ARE IN PLACE. IF CONSTRUCTION IS NOT COMPLETE BY THE START OF THE WET SEASON (OCTOBER 15 THROUGH APRIL 15, OR PRIOR TO A RAINFALL EVENT PREDICTED PRIOR TO OCTOBER 15), A WINTERIZATION PROGRAM WILL BE IMPLEMENTED TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENTATION. AS APPROXIMATE TO THE SITE AND STATUS OF CONSTRUCTION, WINTERIZATION REQUIREMENTS SHALL INCLUDE INSPECTING/MAINTAINING/CLEANING ALL SOIL EROSION AND SEDIMENTATION CONTROLS PRIOR TO, DURING, AND IMMEDIATELY AFTER EACH STORM EVENT; STABILIZATION DISTURBED SOILS THROUGH TEMPORARY OR PERMANENT SEEDING, MULCHING, MATTING, TARPING OR OTHER PHYSICAL MEANS; ROCKING UNPAVED VEHICLE ACCESS TO LIMIT DISPERSION OF MULCH ONTO PUBLIC RIGHT-OF-WAY; AND COVERING/TARPING STORED CONSTRUCTION MATERIALS, FUELS, AND OTHER CHEMICALS. PLANS TO INCLUDE PROPOSED MEASURES TO PREVENT EROSION AND POLLUTED RUNOFF FROM ALL SITE CONDITIONS SHALL BE SUBMITTED FOR APPROVAL BY THE RESIDENT ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
9. PRIOR TO OCTOBER 15, THE COMPLETION OF SITE IMPROVEMENT SHALL BE EVALUATED AND REVISIONS MADE TO THE WINTERIZATION PLAN, FOR APPROVAL BY THE OWNER. PLANS ARE TO BE RESUBMITTED FOR OWNER APPROVAL PRIOR TO OCTOBER 15 OF EACH SUBSEQUENT YEAR UNTIL SITE IMPROVEMENTS ARE ACCEPTED BY THE OWNER.
10. STABILIZED CONSTRUCTION ENTRANCE: A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED FOR REDUCING THE AMOUNT OF MUD THAT IS TRACKED FROM THE SITE TO THE STREETS AND STORM DRAIN SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING STABILIZED CONSTRUCTION ENTRANCES, AS CONSTRUCTION PHASES DICTATE.
11. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF GRADING IN THE LEVEE AREA. CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE WAYS.
12. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT.
13. PRIOR TO EARTH-MOVING ACTIVITIES IN THE LEVEE AREA, CONTRACTOR SHALL INSTALL AND MAINTAIN A TEMPORARY CAP ON CULVERT TO PREVENT TIDAL FLOW INTO WORK AREA. CAP SHOULD BE MAINTAINED UNTIL EXISTING TRAIL BERM IS LOWERED.



SEDIMENT AND EROSION CONTROL PLAN

PLAN — SCALE: 1" = 20'

1"=20' SCALE: 20 10 0 20 40 FEET

N

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REGISTERED PROFESSIONAL ENGINEER — MARK R. L'HOTELLIER — C 66701 EXP. 9/30/22 — CIVIL — STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
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PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

SEDIMENT AND EROSION CONTROL PLAN

VERIFY SCALES
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DATE NOVEMBER 3, 2023
DRAWING NO. C16
SHEET NO. 28 OF 45

FILENAME: C16 SEDIMENT AND EROSION CONTROL PLAN 11-03-23 04:25pm Dhorneff XREFs: X_PA_Existing_Topo X_PA_Existing_Features X_PA_BSI_Survey X_TBLX-PaloAlto-Border X_PA_Aerial_Detail X_PA_Parcels X_PA_Project_Limits X_PA_Boundary X_PA_Design_Topo X_PA_Erosion_Control X_PA_Design_Levee
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YARD PIPING LEGEND

NOTES:

SYMBOLOGY SHOWN IS FOR SINGLE LINE PIPING.
DOUBLE LINE PIPING SYMBOLS ARE SIMILAR.

VALVES

- GATE VALVE
- GLOBE VALVE
- BALL VALVE
- CHECK VALVE
- BUTTERFLY VALVE
- DIAPHRAGM VALVE
- OR — PRESSURE RELIEF VALVE
- PLUG VALVE
- NEEDLE VALVE
- PRESSURE REDUCING VALVE
- X — AIR RELIEF / VACUUM VALVE
  A = AIR RELIEF
  V = VACUUM
- PRESSURE REGULATING VALVE

YARD PIPING LEGEND (CONT'D)

MISCELLANEOUS

- VARIABLE AREA METER
- ROTAMETER
- UNION
- WYE-STRAINER
  LINE SIZE CHANGE (CONCENTRIC REDUCER)
- FLEXIBLE HOSE OR TUBING
- FLEXIBLE PIPING CONNECTION
- LINE SIZE CHANGE (CONCENTRIC REDUCER)
- LINE SIZE CHANGE (ECCENTRIC REDUCER)
- LINE TURNING DOWN
- LINE TURNING UP
- BLIND FLANGE
- PIPE JOINT (SEE SPECS FOR REQUIREMENTS)
- SLEEVE TYPE COUPLING
- FLANGED COUPLING ADAPTER (FCA)
- FLEXIBLE CONNECTION
- HARNESSED MECHANICAL COUPLING
- PRESSURE GAGE (W/COCK)
- TRAP
- QUICK DISCONNECT
  CAM & GROOVE COUPLING
- CAP or PLUG
- CO — INTERIOR CLEANOUT
- HB-X — HOSE VALVE, HOSE BIBB OR
  FLUSHING CONNECTION
- HR-X — HOSE RACK
  X = TYPE DESIGNATED IN SPECIFICATIONS
- FD-X — FLOOR DRAIN
- PIPE IN SECTION
- BU — BELL UP (PLAN)
- BU — BELL UP (SECTION OR SCHEMATIC)

GENERAL CIVIL NOTES

GENERAL NOTES

1. TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING UNDERGROUND UTILITIES AND FACILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND FACILITIES. OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR COMPLETENESS OR ACCURACY OF DELINEATION OF SUCH UNDERGROUND FACILITIES, NOR FOR EXISTENCE OF OTHER BURIED OBJECTS OR FACILITIES WHICH ARE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL EXPOSE ALL UNDERGROUND FACILITIES THAT ARE TO BE CONNECTED TO FOR VERIFICATION OF LOCATION AND ELEVATION.
2. LOCATION SHOWN FOR ALL PIPING BETWEEN NEW AND EXISTING FACILITIES IS APPROXIMATE AND DEPENDS ON LOCATION OF EXISTING PIPING AND OTHER IMPROVEMENTS. CONTRACTOR IS REQUIRED TO FOLLOW ALIGNMENT SHOWN AS CLOSELY AS POSSIBLE AFTER DETERMINING EXACT LOCATION OF EXISTING FACILITIES.
3. COORDINATE ALL PIPING WITH SITE ELECTRICAL WORK IN EXISTING PLANT. DO NOT START PIPING UNTIL ELECTRICAL CONDUITS AND DUCT BANKS ARE LOCATED.
4. SMALL DIAMETER (LESS THAN 4") WATER AND OTHER MISCELLANEOUS PIPING EXISTS THROUGHOUT SITE AREA. CONTRACTOR IS REQUIRED TO REPAIR PIPING DAMAGED BY CONSTRUCTION AND/OR REALIGN PIPING AS REQUIRED TO CONSTRUCT IMPROVEMENTS UNDER THIS CONTRACT.
5. ALL PAVING, LANDSCAPING, PIPING, AND OTHER EXISTING FACILITIES NOT DESIGNATED FOR REMOVAL/DEMOLITION DURING CONSTRUCTION OF NEW FACILITIES TO BE PROTECTED IN PLACE OR REPLACED IN KIND.
6. SELECT MECHANICAL EQUIPMENT TO MINIMIZE DAMAGE TO EXISTING PAVEMENT AT PROJECT SITE AND AT ALL ROADS USED TO MOVE MATERIAL AND EQUIPMENT TO AND FROM PROJECT. REPLACE ALL DAMAGED ASPHALT CONCRETE PAVEMENT IN ACCORDANCE WITH CONTRACT DOCUMENTS.
7. COMPLY WITH ALL STATE AND COUNTY LAWS AND ORDINANCES RELATING TO SAFETY AND CHARACTER OF WORK, EQUIPMENT AND LABOR. THIS SHALL INCLUDE, BUT NOT LIMITED TO, SHORING OF TRENCHES, VENTILATION OF CONFINED SPACES, CONFORMANCE TO TRAFFIC CONTROL REQUIREMENTS, INCLUDING PROVISION AND MAINTENANCE OF BARRICADES AND PREPARATION AND IMPLEMENTATION OF TRAFFIC CONTROL PLANS AS REQUIRED.
8. ARRANGE FOR ALL REQUIRED INSPECTION. PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE CONTRACTOR OF FULL RESPONSIBILITY FOR PROPER PERFORMANCE OF WORK.
9. WORK TO BE RESTRICTED TO LIMITS OF OWNERS PROPERTY, TEMPORARY CONSTRUCTION EASEMENTS, PERMANENT EASEMENTS, AND RIGHTS-OF-WAYS.
10. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIAL.
11. WHEN EXCAVATION IS REQUIRED AROUND EXISTING UTILITIES THOSE UTILITIES SHALL BE SUPPORTED USING STEEL BEAMS OR OTHER SUITABLE SUPPORTS.
12. PIPE SLOPES SHOWN ON PIPING PROFILES ARE APPROXIMATE. PIPES SHALL BE CONSTRUCTED TO INVERT ELEVATIONS SHOWN ON THESE DRAWINGS.

REV	DATE	BY	DESCRIPTION

DESIGNED
DRAWN
CHECKED

HDR

CITY OF PALO ALTO

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

CIVIL LEGEND

VERIFY SCALES
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DATE
NOVEMBER 3, 2023

DRAWING NO.
M01

SHEET NO.
29 OF 45

FILENAME: M01 9-06-23 01:07pm SLARI | XREFS: X-TBLK-PaloAlto-Border |X<—

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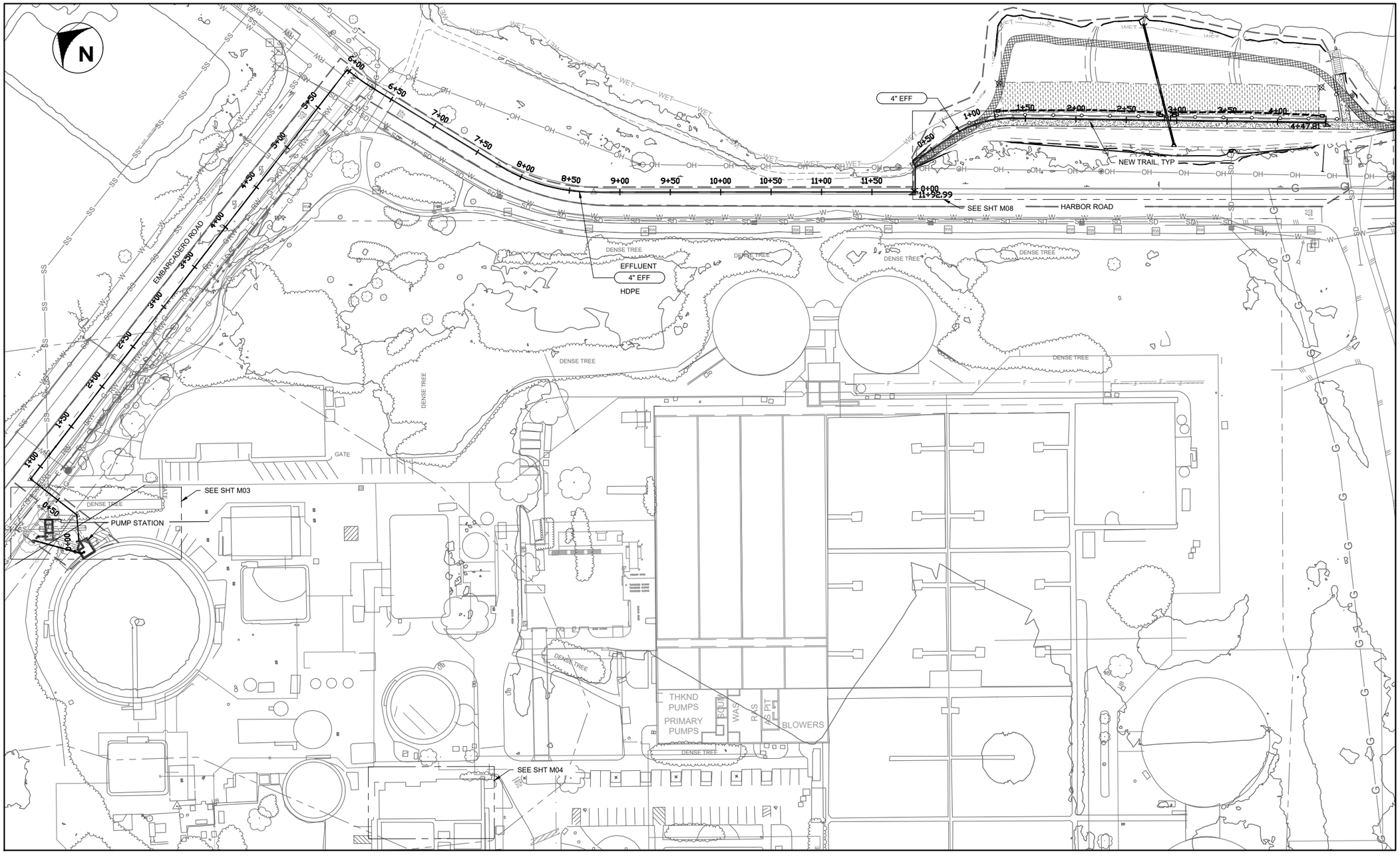

OVERALL SITE

PLAN

SCALE: 1" = 50'

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

CITY OF PALO ALTO

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

OVERALL PLAN AND KEY NOTES

VERIFY SCALES
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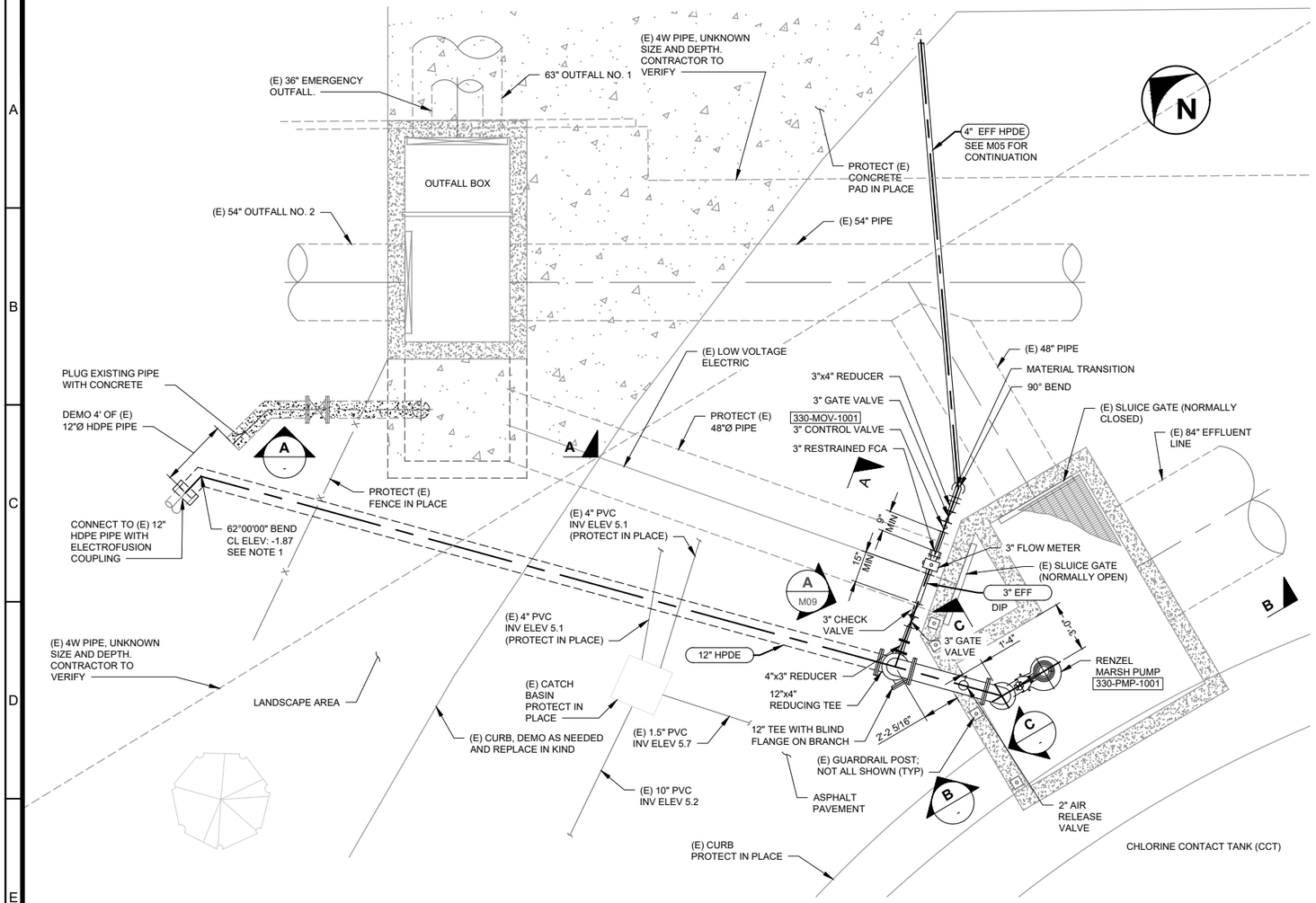
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. M02
SHEET NO. 30 OF 45

FILENAME: M02 9-08-23 01:07pm SLARI | XREFs: X-TBLK-PaloAlto-Border_1 | X_pa_existing_features_1 | X_PA_Boundary | X_PA_ESN_Survey | X_PA_Project_Limits | X_PA_Parcels | X_PA_Existing_Topo | BG_USGS-2020(1) | X_PA_Design_Topo | X_PA_Design_Linework | Basemap | dtaylan | PaloAlto_LandFill_2015_PLAN

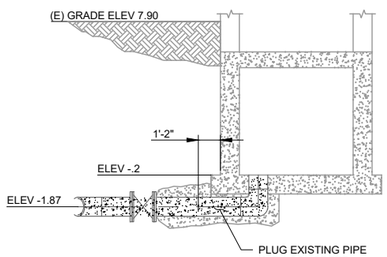
Last Saved By: cto 4-12-18 02:36pm



PLAN

0 3 6

1/4"=1'-0"



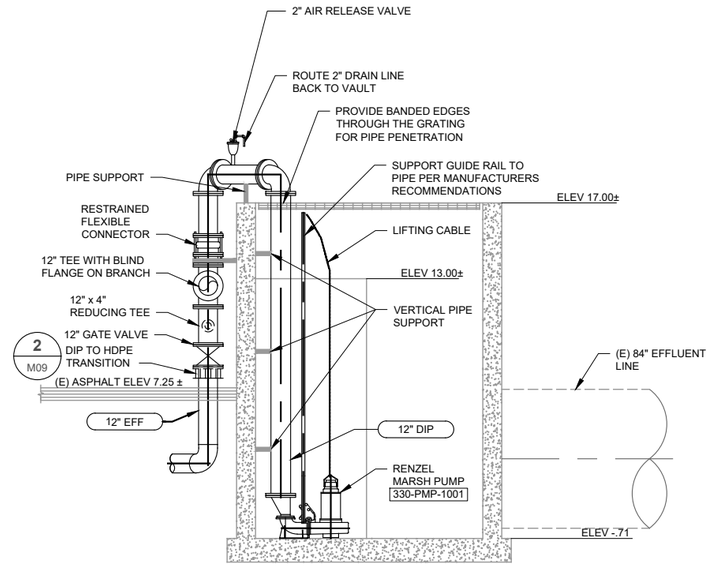
SECTION A

0 3 6

1/4"=1'-0"

NOTES:

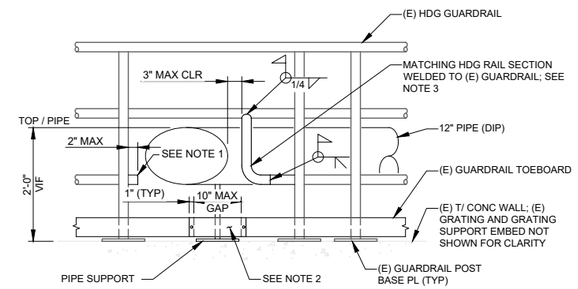
1. POTHOLE EXISTING PIPE AT LOCATION OF NEW HDPE FITTING. CONFIRM DEPTH OF CONNECTION AND DETERMINE PRECISE BEND ANGLE OF FITTING PRIOR TO SUBMITTAL OF HDPE SHOP DRAWINGS.



SECTION B

0 3 6

1/4"=1'-0"



NOTE:

1. CUT (E) BOTTOM RAIL TO ACCOMMODATE PIPE. LEAVE 2" LONG MAX STUB. SEAL STUB END WITH WELDED 1/4" CAP PL. GRIND WELDS AND EDGES SMOOTH. REPAIR WITH COLD GALVANIZING SPRAY.
2. CUT 10" LONG MAX SECTION OUT OF (E) TOEBOARD TO ACCOMMODATE PIPE SUPPORT INSTALLATION. GRIND ENDS SMOOTH AND REPAIR WITH COLD GALVANIZING SPRAY. CLOSE GAP WITH 12" LONG SECTION OF MATCHING, HOT DIP GALVANIZED TOEBOARD, FASTENED AT EA END W/ (1)-HDG 1/2"Ø BOLT, CENTERED ON 1" OVERLAP.
3. GRIND WELDS SMOOTH AND REPAIR WITH COLD GALVANIZING SPRAY.

SECTION C

NOT TO SCALE

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

HDR

CITY OF PALO ALTO

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

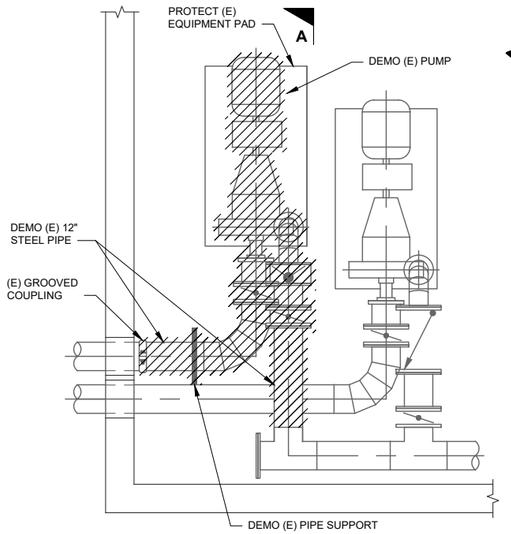
PUMPING PLAN AND SECTIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. M03
SHEET NO. 31 OF 45

FILENAME: M03 | 9-08-23 01:36pm | SLARI | XREFS: X-TBLK-PaloAlto-Border | Utilities <<—

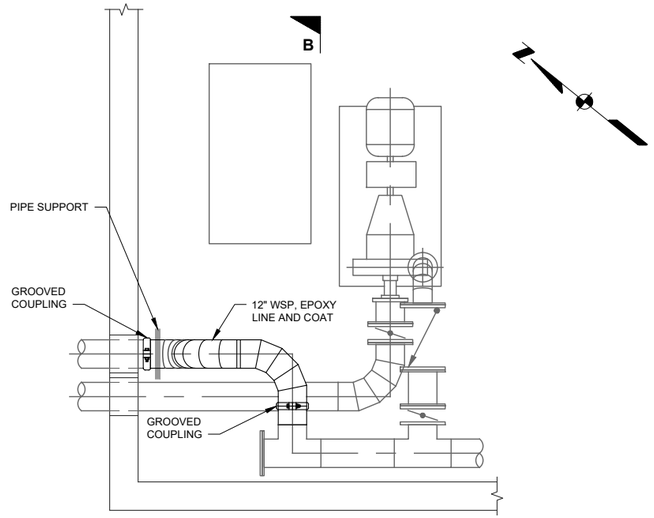
Last Saved By: cto 4-12-18 02:36pm



A
-

DEMO PLAN

0 2 4
3/8"=1'-0"



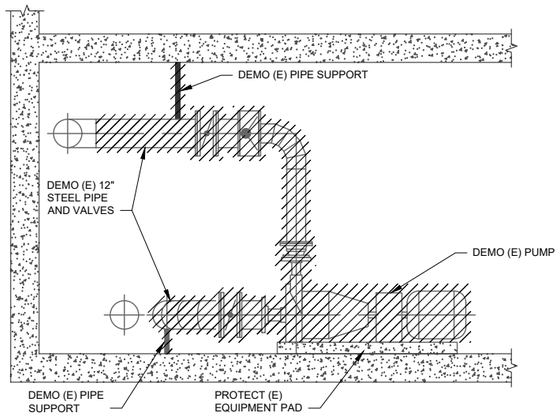
B
-

PLAN

0 2 4
3/8"=1'-0"

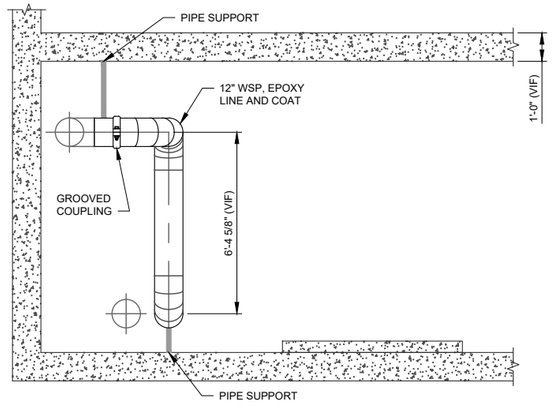
NOTES:

1. PIPING AND EQUIPMENT THAT IS REMOVED AND WHICH IS NOT SHOWN TO BE RELOCATED OR SALVAGED SHALL BE DISPOSED OF BY THE CONTRACTOR.
2. CONTRACTOR SHALL ASSUME (E) SUPPORTS TO BE DEMOLISHED ARE SIMILAR TO THE SUPPORTS REPLACING THEM.
3. ALL NEW PIPING ON THIS SHEET SHALL BE 12"Ø WELDED STEEL.



SECTION A
-

0 2 4
3/8"=1'-0"



SECTION B
-

0 2 4
3/8"=1'-0"

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
I

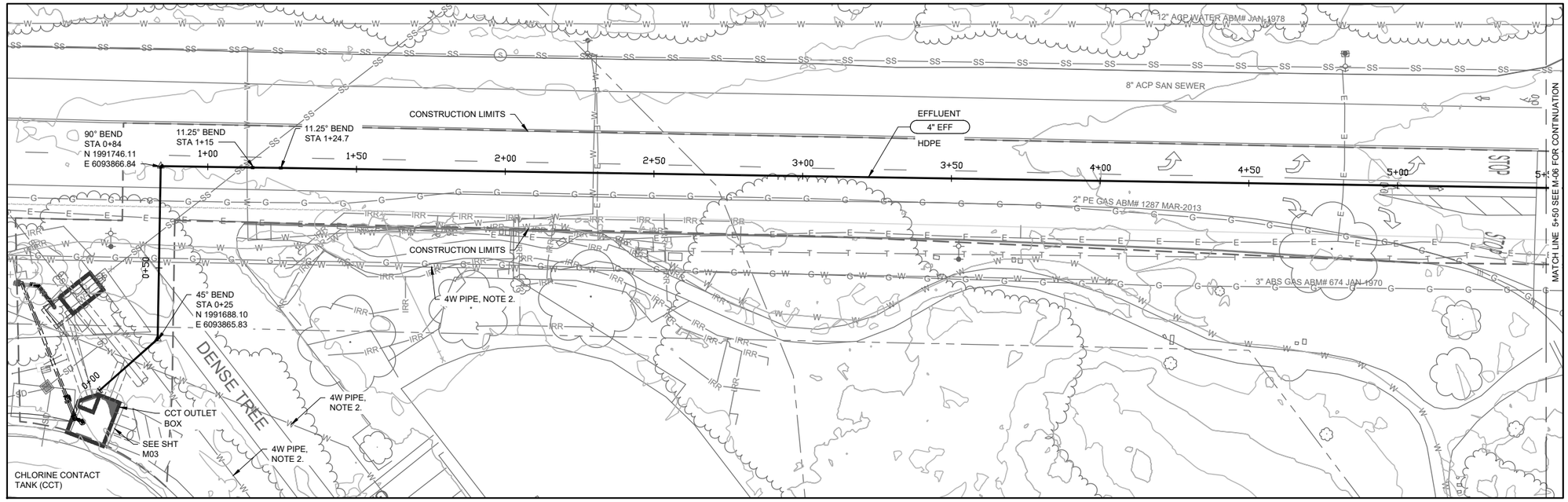
RENZEL MARSH PUMP BYPASS UPGRADE (ADMIN BLDG)

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE
NOVEMBER 3, 2023
DRAWING NO.
M04
SHEET NO.
32 OF 45

FILENAME: M04 9-08-23 01:12pm SLARI | XREFs: X-TBLK-PaloAlto-Border K<<

Last Saved By: cto 4-12-18 02:36pm



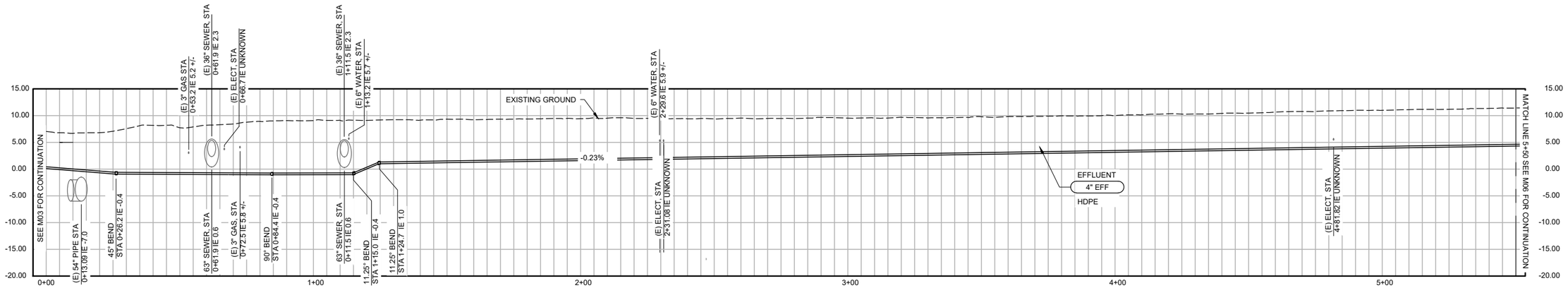
1"=20' SCALE 20 10 0 20 40 FEET

EFFLUENT PIPE

PLAN SCALE: 1" = 20'

NOTES:

1. PROVIDE 12" MINIMUM CLEAR BETWEEN PIPE CROSSINGS.
2. EXISTING PIPING SHOWN IN APPROXIMATE LOCATION. CONTRACTOR TO VERIFY PIPING SIZE, LOCATION, AND DEPTH.



EFFLUENT PIPE

PROFILE SCALE: 1" = 20'

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

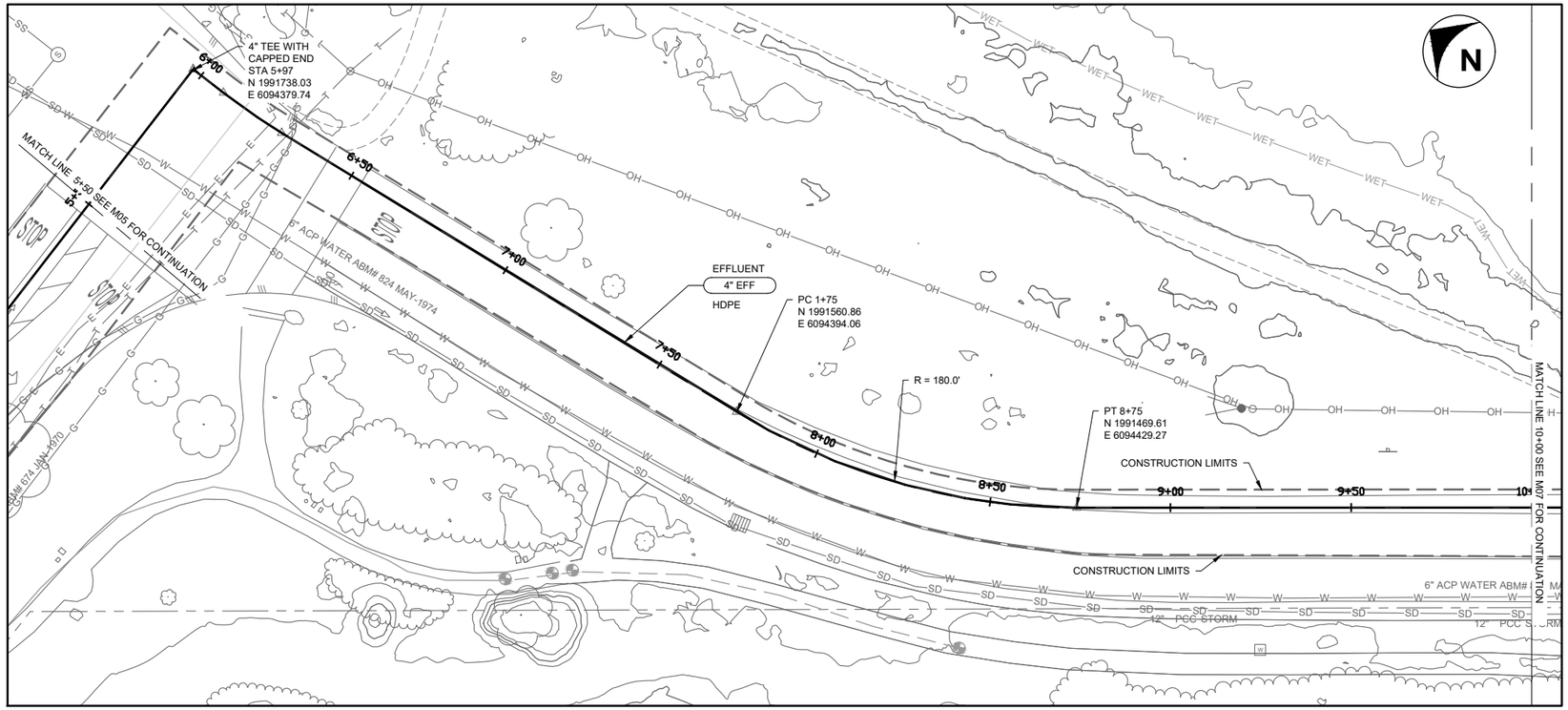
EFFLUENT PIPE PLAN AND PROFILE 1

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. M05
SHEET NO. 33 OF 45

FILENAME: M05 11-03-23 12:21pm BELERT | XREFS: X-TBLK-PaloAlto-Border_1 | x_pa_existing_features_1 | X_PA_Boundary | X_PA_ESA_Survey | X_PA_Project_Limits | X_PA_Grading_Limits | X_PA_Parcels | X_PA_ExSeting_Topo | Utilities | Basemap | ellapian | PaloAlto_LumiFIL_2015_PLAN | ellapian_DRFebruary2015 | Bo_JSB

Last Saved By: cto 4-12-18 02:36pm

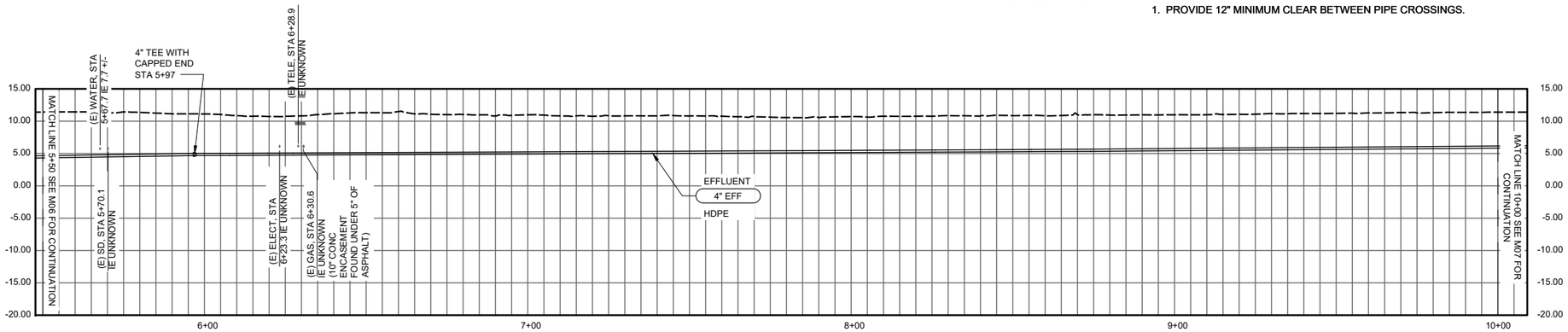


EFFLUENT PIPE

PLAN SCALE: 1" = 20'

NOTES:

1. PROVIDE 12" MINIMUM CLEAR BETWEEN PIPE CROSSINGS.



EFFLUENT PIPE

PROFILE SCALE: 1" = 20'

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

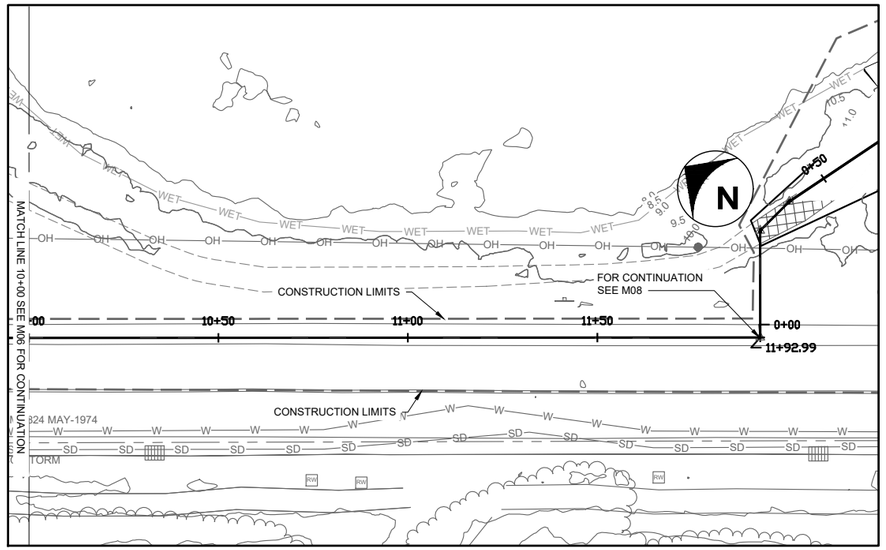
CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

EFFLUENT PIPE PLAN AND PROFILE 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. M06
SHEET NO. 34 OF 45

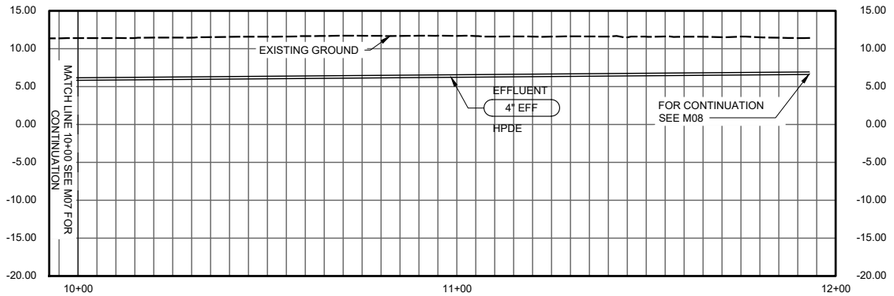
FILENAME: M06 9-06-23 12:27pm SLARI | XREFS: X-TBLK-PaloAlto-Border_1 | x_pc_existing_features_1 | X_PA_Boundary | X_PA_ESA_Survey | X_PA_Project_Limits | X_PA_Parcels | X_PA_Drafting_Topo | BD_USGS-2020(1) | Utilities | Basemap | sfapolun | PaloAlto_LimeFill_2015_PLAN | sfapolun_06February2015 |<--
Last Saved By: cto 4-12-18 02:36pm



1"=20' SCALE 20 10 0 20 40 FEET

EFFLUENT PIPE

PLAN SCALE: 1" = 20'



EFFLUENT PIPE

PROFILE SCALE: 1" = 20'

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

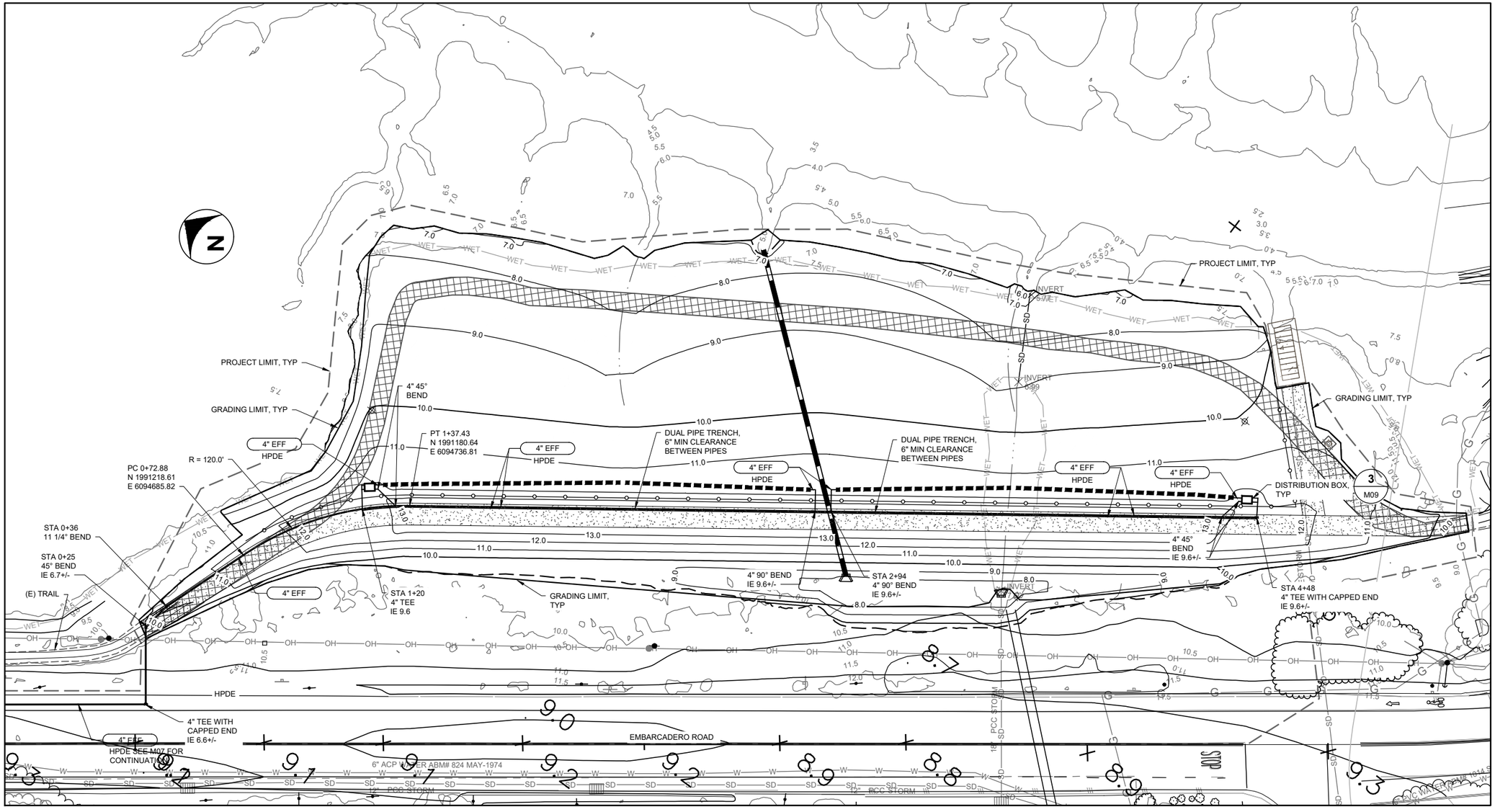
CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

CONVEYANCE PIPE PLAN AND PROFILE 3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. M07
SHEET NO. 35 OF 45

FILENAME: M07 9-08-23 1223pm SLARI | XREFS: X-TBLK-PaloAlto-Border_1 | X_pw_existing_features_1 | X_PA_Boundary | X_PA_BSA_Survey | X_PA_Project_Limits | X_PA_Parcels | X_PA_Existing_Topo | BD_USGS_2020(1) | Utilities | Basemap | alleplan | PaloAlto_LandFill_2015_PLAN | alleplan_06FebruaryZ015
Last Saved By: cto 4-12-18 02:36pm



1"=20' SCALE 20 10 0 20 40 FEET

HORIZONTAL LEVEE EFFLUENT PIPE

PLAN SCALE: 1" = 20'

NOTES

1. REFER TO CIVIL PLANS FOR GRADING OF LEVEE.
2. PROVIDE CONSISTENT SLOPE BETWEEN IDENTIFIED INVERT ELEVATIONS WITHOUT LOCAL HIGH OR LOW POINTS.
3. BEDDING AND BACKFILL MATERIAL FOR SINGLE AND DUAL PIPE TRENCH WITHIN LEVEE TO BE CLSM, STA 0+50 TO STA 4+48 THIS SHEET.

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

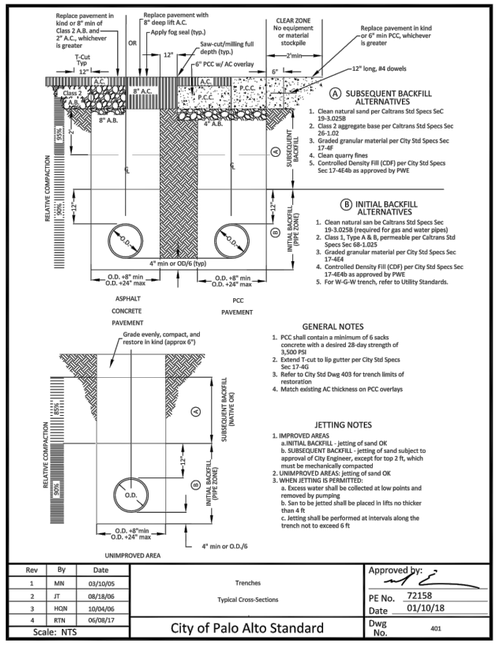
HORIZONTAL LEVEE SUPPLY PIPE PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. M08
SHEET NO. 36 OF 45

FILENAME: M08 11-03-23 12:45pm BELERT | XREFS: X-TBLK-PaloAlto-Border_1 | X_pal_existing_features_1 | X_PA_Boundary | X_PA_ESA_Survey | X_PA_Project_Limits | X_PA_Parcels | X_PA_Editing_Topo | EB_USGS_2020(1) | X_PA_Design_Topo | X_PA_Design_Linework | Utilities | Basemap | aerialplan | PaloAlto_LandPlan_201

Last Saved By: cto 4-12-18 02:36pm



(A) SUBSEQUENT BACKFILL ALTERNATIVES

1. Clean natural sand per Caltrans Std Specs SeC 19-3.025B
2. Class 2 aggregate base per Caltrans Std Specs Sec 26-1.02
3. Graded granular material per City Std Specs Sec 17-4E
4. Clean quarry fines
5. Controlled Density Fill (CDF) per City Std Specs Sec 17-4E4b as approved by PWE

(B) INITIAL BACKFILL ALTERNATIVES

1. Clean natural san be Caltrans Std Specs Sec 19-3.025B (required for gas and water pipes)
2. Class 1, Type A & B, permeable per Caltrans Std Specs Sec 68-1.025
3. Graded granular material per City Std Specs Sec 17-4E4
4. Controlled Density Fill (CDF) per City Std Specs Sec 17-4E4b as approved by PWE
5. For W-G-W trench, refer to Utility Standards.

GENERAL NOTES

1. PCC shall contain a minimum of 6 sacks concrete with a desired 28-day strength of 3,500 PSI
2. Extend T-cut to lip gutter per City Std Specs Sec 17-4G
3. Refer to City Std Dwg 403 for trench limits of restoration
4. Match existing AC thickness on PCC overlays

JETTING NOTES

1. IMPROVED AREAS
   a. INITIAL BACKFILL - jetting of sand OK
   b. SUBSEQUENT BACKFILL - jetting of sand subject to approval of City Engineer, except for top 2 ft, which must be mechanically compacted
2. UNIMPROVED AREAS: jetting of sand OK
3. WHEN JETTING IS PERMITTED:
   a. Excess water shall be collected at low points and removed by pumping
   b. San to be jetted shall be placed in lifts no thicker than 4 ft
   c. Jetting shall be performed at intervals along the trench not to exceed 6 ft

Rev	By	Date
1	MN	03/10/05
2	JT	08/18/06
3	HQN	10/04/06
4	RTN	06/08/17

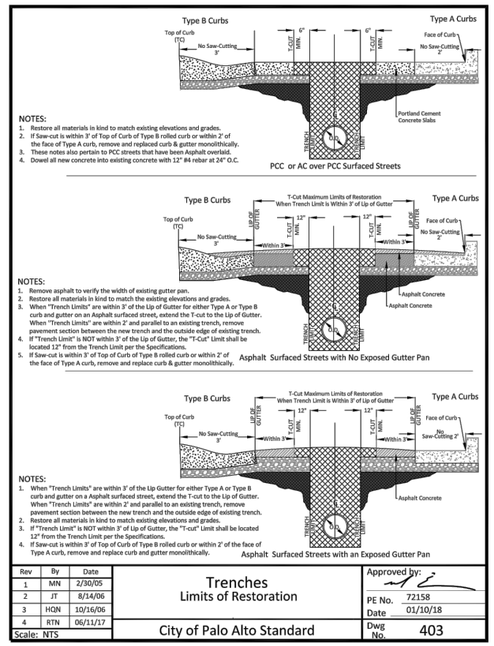
Scale: NTS

Trenches
Typical Cross-Sections

Approved by:
PE No. 72158
Date 01/10/18

City of Palo Alto Standard

Dwg No. 401



NOTES:
1. Restore all materials in kind to match existing elevations and grades.
2. If Saw-cut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replaced curb & gutter monolithically.
3. These notes also pertain to PCC streets that have been Asphalt overlaid.
4. Dowel all new concrete into existing concrete with 12" #4 rebar at 24" O.C.

PCC or AC over PCC Surfaced Streets

NOTES:
1. Remove asphalt to verify the width of existing gutter pan.
2. Restore all materials in kind to match the existing elevations and grades.
3. When "Trench Limits" are within 3' of the Lip of Gutter for either Type A or Type B curb and gutter on an Asphalt surfaced street, extend the T-cut to the Lip of Gutter. When "Trench Limits" are within 2' and parallel to an existing trench, remove pavement section between the new trench and the outside edge of existing trench.
4. If "Trench Limit" is NOT within 3' of the Lip of Gutter, the "T-Cut" Limit shall be located 12" from the Trench Limit per the Specifications.
5. If Saw-cut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb & gutter monolithically.

Asphalt Surfaced Streets with No Exposed Gutter Pan

NOTES:
1. When "Trench Limits" are within 3' of the Lip Gutter for either Type A or Type B curb and gutter on a Asphalt surfaced street, extend the T-cut to the Lip of Gutter. When "Trench Limits" are within 2' and parallel to an existing trench, remove pavement section between the new trench and the outside edge of existing trench.
2. Restore all materials in kind to match existing elevations and grades.
3. If "Trench Limit" is NOT within 3' of Lip of Gutter, the "T-cut" Limit shall be located 12" from the Trench Limit per the Specifications.
4. If Saw-cut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb and gutter monolithically.

Asphalt Surfaced Streets with an Exposed Gutter Pan

Rev	By	Date
1	MN	2/30/05
2	JT	8/14/06
3	HQN	10/16/06
4	RTN	06/11/17

Scale: NTS

Trenches
Limits of Restoration

Approved by:
PE No. 72158
Date 01/10/18

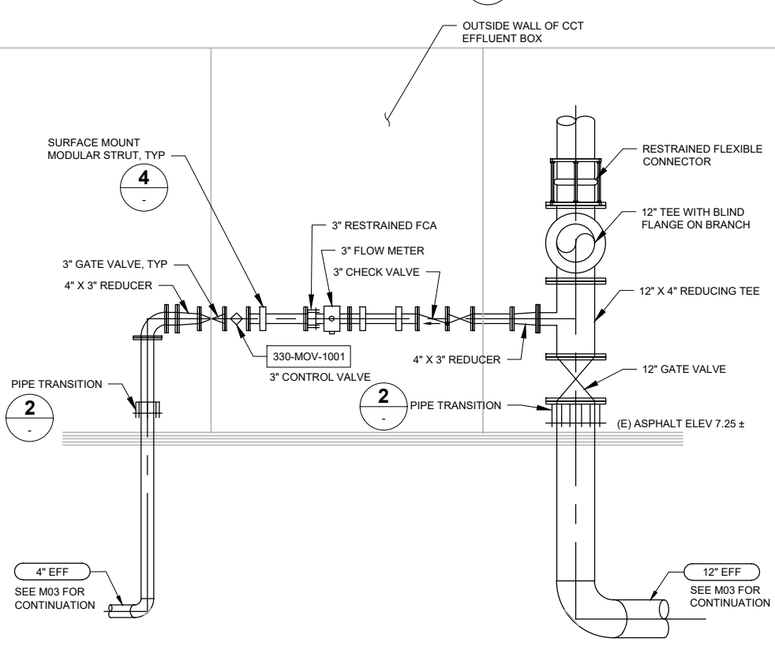
City of Palo Alto Standard

Dwg No. 403

TRENCH DETAIL

NOT TO SCALE

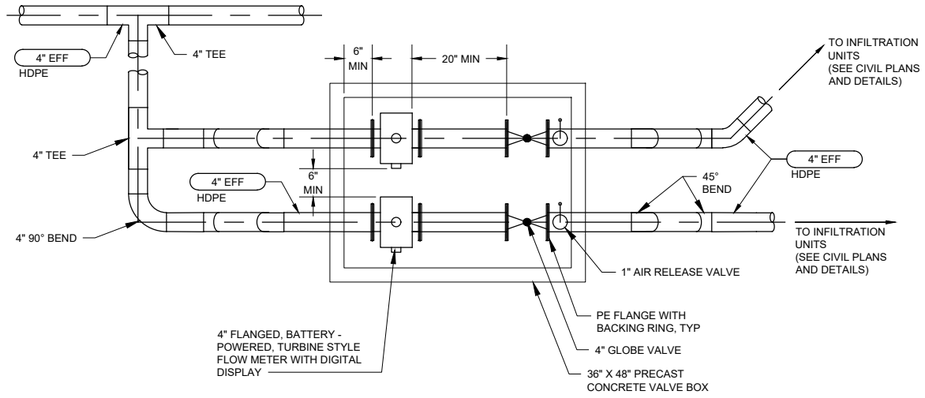
1 / -



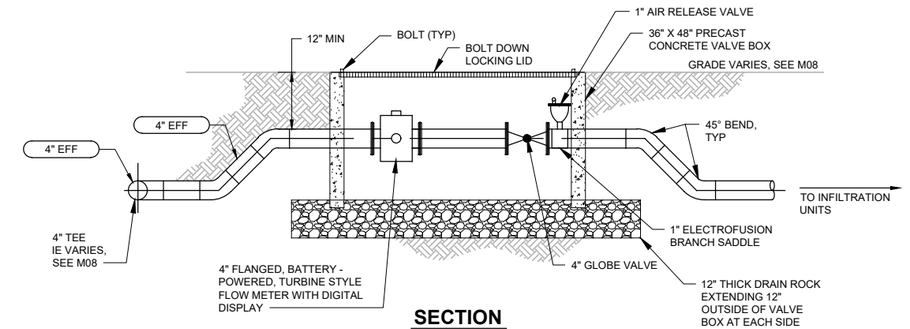
SECTION FLOW METER ASSEMBLY

1/2" = 1'-0"

A / M03



PLAN

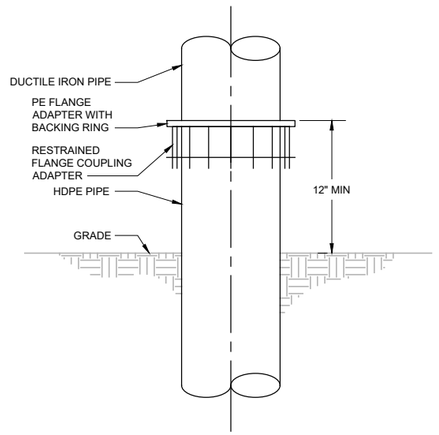


SECTION

DISTRIBUTION BOX

3/4" = 1'-0"

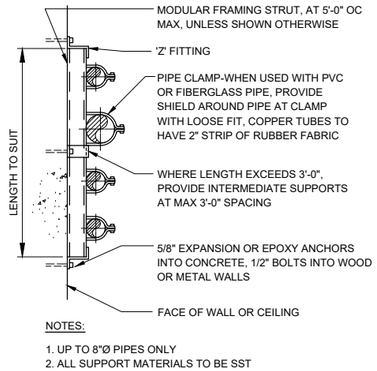
3 / -



PIPE TRANSITION

NOT TO SCALE

2 / -



NOTES:
1. UP TO 8"Ø PIPES ONLY
2. ALL SUPPORT MATERIALS TO BE SST

SURFACE MOUNT MODULAR STRUT

NOT TO SCALE

4 / -

REV	DATE	BY	DESCRIPTION

DESIGNED T. HOFFMAN
DRAWN S. LARI
CHECKED T. KONTONICKAS

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

MECHANICAL DETAILS 1

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. M09
SHEET NO. 37 OF 45

FILENAME: M09 11-03-23 12:49pm BELERT || XREFs: X-TBLK-PaloAlto-Border |<<—

Last Saved By: cto 4-12-18 02:36pm

ONE LINE DIAGRAMS

- BUS CONNECTION OR CONNECTED WIRES
- TRANSFORMER
- AMPS — DISCONNECT
- AMPS — CIRCUIT BREAKER
- COMBINATION MOTOR STARTER
  MCP AND THERMAL OVERLOAD SIZED BY MANUFACTURER BASED ON SUBMITTED AND APPROVED MOTOR
  - n NEMA SIZE
  - XX TYPE:
    - BLANK FULL VOLTAGE, NON-REVERSING
    - FVR FULL VOLTAGE, REVERSING
    - 2S2W FULL VOLTAGE, 2 SPEED, 2 WINDING
- INSTRUMENT OR DEVICE
- SPD — SURGE PROTECTION DEVICE
- MOTOR CONTROLLER
  - XX TYPE:
    - VFD VARIABLE FREQUENCY DRIVE
    - RVSS REDUCED VOLTAGE SOLID STATE
- n — MOTOR LOAD
  - n MOTOR HORSEPOWER
- n KW, KVA — KW OR KVA RATED EQUIPMENT
  - n LOAD VALUE IN KW OR KVA
- ENCLOSURE OR COMMON SUPPORT FOR COLLECTED EQUIPMENT (SKID, BACKBOARD, ETC.)
- K — KIRK KEY INTERLOCK

CABLE AND RACEWAY DIAGRAMS

EXAMPLES:

P101A: 3#12, #12G, 1"C	C101A: 1-7#14, 3/4"C	S101A: 1#16TSP, 3/4"C
A	B	C

A. SINGLE CONDUCTOR

B. MULTI-CONDUCTOR

C. TWISTED SHIELDED PAIR (OR TRIAD)

CABLE AND RACEWAY IDENTIFICATION

P101A UNIQUE CIRCUIT IDENTIFIER (CABLE AND RACEWAY), LETTER PREFIX INDICATES TYPE:
- P POWER, 120V OR HIGHER
- C CONTROL, 120V
- S SIGNAL, LESS THAN 120V
- X SPARE
- H HIGH VOLTAGE, OVER 600V

#12 SIZE OF CONDUCTOR OR GROUND IN AWG OR KCMIL

1"C SIZE OF RACEWAY IN INCHES

CONTROL DIAGRAMS

- M — MOTOR CONTACTOR COIL
- XX / n — RELAY COIL
  - XX COIL TYPE:
    - CR - CONTROL RELAY
    - TR - TIMER RELAY
  - n UNIQUE COIL IDENTIFIER
- SV — SOLENOID VALVE
- XXn (NO) / XXn (NC) — RELAY CONTACTS (COIL DE-ENERGIZED)
  - XXn RELATED COIL IDENTIFICATION
- SURGE SUPRESSOR
- HIGH VOLTAGE TERMINATION ASSEMBLY
- n(E) — FUSE
  - n RATING
  - E RATED
- (NC) (NO) — FLOW SWITCH CONTACT
- FLOAT TYPE LEVEL SWITCH
- TEMPERATURE SWITCH
- PRESSURE SWITCH
- LIMIT SWITCH
- 2 OR 3 POSITION SELECTOR SWITCH
  PROVIDE THE NUMBER OF CONTACTS AND CONFIGURATION SHOWN
  - X CONTACT IS CLOSED IN RELATED POSITION
- MOMENTARY PUSHBUTTON, NORMALLY OPENED
- MOMENTARY PUSHBUTTON, NORMALLY CLOSED
- PUSH-TO-TEST INDICATING LAMP
  - X COLOR:
    - G GREEN
    - R RED
    - A AMBER
    - W WHITE
  - n POINT NUMBER WHERE PUSH-TO-TEST CONNECTS
- DI/DO — DISCRETE PLC INPUT OR OUTPUT
- DATA/SOFTWARE LINK

PLAN DRAWINGS

- CV151 — EQUIPMENT TAG
- P101A — RACEWAY TAG (SEE DESCRIPTION OF CABLE AND RACEWAY DIAGRAMS ON THIS DRAWING.
- EXPOSED CONDUIT
- CONCEALED, EMBEDDED, OR BURIED CONDUIT
- CONDUIT TURNS UP
- CONDUIT TURNS DOWN
- CONDUIT CHANGES ELEVATION
- X — FENCELINE
- PBD-094: 20 — HOME RUN: DESIGNATIONS INDICATE A ONE-LINE DIAGRAM OR PANELBOARD REFERENCE
  EXAMPLE: HOME TO PANELBOARD PBD-094, CIRCUIT 20
- GROUND ROD
- GROUND ROD WITH GROUND WELL
- GROUND CONNECTION, BOLTED TYPE
- GROUND CONNECTION, EXOTHERMIC TYPE
- G — GROUNDING CONDUCTOR
- M — MOTOR
- CV — CONTROL VALVE
- DISCONNECT SWITCH
- COMBINATION MOTOR STARTER. NOT LOCATED IN AN MCC
- LOCAL CONTROL STATION
- FIELD MOUNTED INSTRUMENT OR DEVICE
- J — JUNCTION (PULL) BOX
- HORN
- TELEPHONE OUTLET
- DATA OUTLET
- CAMERA

PLAN DRAWINGS (CONTINUED)

LIGHT FIXTURE IDENTIFICATION

6 / FW / 3/35 / P / 8'

- FW TYPE PER FIXTURE SCHEDULE
- 3/35 QTY OF LAMPS PER FIXTURE / LAMP WATTAGE
- 6 QTY OF THE INDICATED TYPE OF LAMP ON THE DRAWING
- P MOUNTING STYLE:
  - P PENDANT
  - R RECESSED
  - W WALL
  - L POLE
  - S SURFACE
- 8' MOUNTING HEIGHT (BOTTOM OF FIXTURE)

FIXTURE CIRCUITING AND SWITCHING

3a

- 3 PANELBOARD CIRCUIT FEEDING THE FIXTURE, TYPICAL OF ALL FIXTURES
- a IDENTIFIER FOR THE SWITCH CONTROLLING THE FIXTURE (FIXTURE IS UNSWITCHED OR SELF-SWITCHED IF OMITTED), TYPICAL OF ALL FIXTURES

- LED FIXTURE
- WALL MOUNTED FIXTURE
- POLE MOUNTED FIXTURE
- EMERGENCY LIGHTING FIXTURE
- ILLUMINATED EXIT SIGN, DARKENED QUADRANTS INDICATE ILLUMINATED FACES, DIRECTIONAL ARROWS INDICATE DIRECTIONAL ARROWS BE PROVIDED ON THE ILLUMINATED FACE

TOGGLE SWITCH (20A UNLESS OTHERWISE SHOWN)

$a/3

- a UNIQUE SWITCH IDENTIFICATION
- 3 TYPE:
  - 2 DOUBLE POLE
  - 3 3-WAY
  - 4 4-WAY
  - K KEY OPERATED
  - MC MOMENTARY CONTACT, 3 POSITION
  - MS MANUAL (MOTOR) STARTER
  - PC PHOTOCELL CONTROLLED
  - R RHEOSTAT (DIMMER, SPEED CONTROL)
  - WP WEATHERPROOF

DUPLEX RECEPTACLE (20A, 3 WIRE)

GF / 3

- 3 PANELBOARD CIRCUIT FEEDING THE RECEPTACLE
- GF TYPE:
  - GF GROUND FAULT
  - WP WEATHERPROOF
  - XP HAZARDOUS (CLASSIFIED) EXPLOSION PROOF

GENERAL NOTES:

1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
2. IDENTIFICATIONS (ID), SIZES, RATINGS, LOCATIONS AND SIMILAR INFORMATION SHOWN ASSOCIATED WITH SYMBOLS ARE OPTIONAL; EXAMPLES OF SUCH INFORMATION ARE SHOWN WITH SOME SYMBOLS FOR CLARITY.
3. THE ELECTRICAL DRAWINGS USE THE ONE LINE DIAGRAMS AND PANEL SCHEDULES IN CONJUNCTION WITH SHOWING THE LOCATION OF THE ELECTRICAL/ INSTRUMENTATION SOURCES AND LOADS/DEVICES ON THE PLAN DRAWINGS TO DEPICT THE WORK. THE CONTRACTOR SHALL USE THESE DOCUMENTS TO DETERMINE AND PROVIDE THE NECESSARY RACEWAY AND WIRING SYSTEM FOR EACH CIRCUIT. ALL INDOOR RACEWAY SHALL BE RUN EXPOSED, AND ROUTED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. THE TYPE OF RACEWAY AND WIRE USED SHALL BE AS SPECIFIED.
4. IF EQUIPMENT SUPPLIED BY MANUFACTURER HAS A LARGER LOAD THAN INDICATED ON THE SINGLE LINE DIAGRAM, THE CONSTRUCTION MANAGER SHALL BE NOTIFIED. THE CABLE, CONDUIT AND ELECTRICAL EQUIPMENT SHALL BE SIZED AS REQUIRED, TO ACCOMMODATE THE HIGHER VALUE.
5. IN AREAS WHERE THERE ARE OVERHEAD BRIDGE CRANES, HOISTS, ETC., OR WHERE EQUIPMENT IS LIFTED AND MOVED FOR MAINTENANCE OR REPLACEMENT, NO CONDUITS SHALL BE RUN OVERHEAD THAT WILL INTERFERE WITH THE OPERATION OF THE EQUIPMENT OR ACCESS TO EQUIPMENT.
6. THE LOCATION OF THE CONTROL STATIONS SHOWN ON THE PLAN DRAWINGS ARE DIAGRAMMATIC AND THE ACTUAL LOCATION SHALL BE COORDINATED IN THE FIELD WITH THE CONSTRUCTION MANAGER. THE EXACT LOCATION OF THE MOTORS AND ACCESSORIES ARE NOT SHOWN.
7. THE CONTRACTOR SHALL COORDINATE WITH THE STRUCTURAL AND MECHANICAL DRAWINGS FOR CONDUIT STUB UP AND TERMINATION LOCATIONS.
8. THE STANDARD DETAILS SHALL BE USED WHERE APPLICABLE.
9. ALL EQUIPMENT SHALL BE LABELED WITH NAMEPLATES. PROVIDE A DESCRIPTION OF THE EQUIPMENT AND THE EQUIPMENT NUMBER ON NAMEPLATES.
10. FOR WIRING AND CABLE INSTALLATION REQUIREMENTS, SEE PROJECT SPECIFICATION SECTION 16000. SINCE LIGHTING AND RECEPTACLE CONDUITS AND CABLES ARE NOT SHOWN, THE CONTRACTOR SHALL USE PANELBOARD CIRCUIT SCHEDULES FOR PROVIDING CONDUIT AND CABLE INSTALLATION, SIZE PER NEC.

ABBREVIATIONS:
THIS LIST APPLIES TO THE ELECTRICAL DRAWINGS AND MAY NOT INCLUDE ALL OF THE ABBREVIATIONS USED. OTHER ABBREVIATIONS ARE PER ANSI OR IEEE STANDARDS, OR COMMON USAGE.

AFF	ABOVE FINISHED FLOOR	DWG	DRAWING	PB	PULLBOX	SWBD	SWITCHBOARD
(K)AIC	(1000)AMPERE INTERRUPTING CAPACITY	(E), EXIST	EXISTING	PBD	PANELBOARD	TB	TERMINAL BOX
				PHF	PASSIVE HARMONIC FILTER	TYP	TYPICAL
BC	BARE COPPER	HH, MH	HANDHOLE, MANHOLE	PLC	PROGRAMMABLE LOGIC CONTROLLER	VC	VENDOR CABLE
CKT	CIRCUIT	MCC	MOTOR CONTROL CENTER	PNL	PANEL		
CONT	CONTINUED	MCP	MOTOR CIRCUIT PROTECTOR				
CPT	CONTROL POWER TRANSFORMER			RECP	RECEPTACLE		
		NEC	NATIONAL ELECTRICAL CODE	REQ'D	REQUIRED		
		NP	NAMEPLATE				

REV	DATE	BY	DESCRIPTION

DESIGNED | DRAWN | CHECKED

HDR

CITY OF PALO ALTO

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

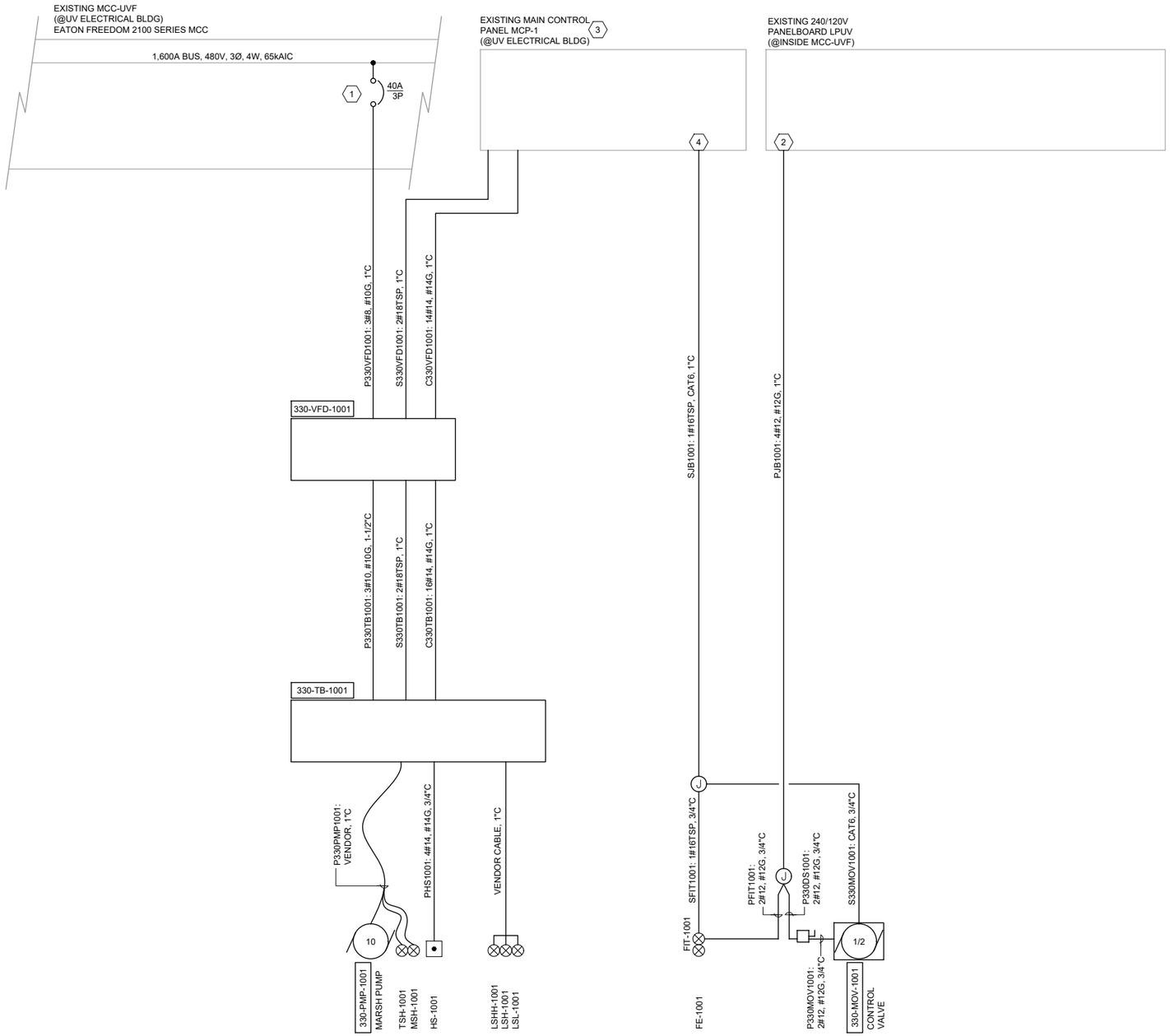
LEGEND AND SYMBOLS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE NOVEMBER 3, 2023
DRAWING NO. E01
SHEET NO. 38 OF 45

FILENAME: E01 9-08-23 01:09pm SLAN || XREFS: X-TBLK-PaloAlto-Border

Last Saved By: cto 4-12-18 02:36pm



KEYNOTES

1. INSTALL 40A CIRCUIT BREAKER IN EXISTING MCC, REFER TO KEYNOTE 1 ON DWG E4.
2. PROVIDE 20A CIRCUIT BREAKERS TO MATCH EXISTING AND INSTALL IN EXISTING PANELBOARD. PROVIDE NAMEPLATE OR LABELS FOR EACH CIRCUIT.
3. LOCATE EXISTING SPARE I/O CARD SPACE FOR EACH CONTROL WIRE. COORDINATE WITH DWG P2 FOR I/O REQUIRED FOR THE ADDED EQUIPMENT.
4. ROUTE CAT6 CABLE WITH PLUG TO THE EXISTING ETHERNET SWITCH LOCATED IN THE EXISTING PLC PANEL.

REV	DATE	BY	DESCRIPTION

DESIGNED
DRAWN
CHECKED

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

ONE LINE DIAGRAM

VERIFY SCALES
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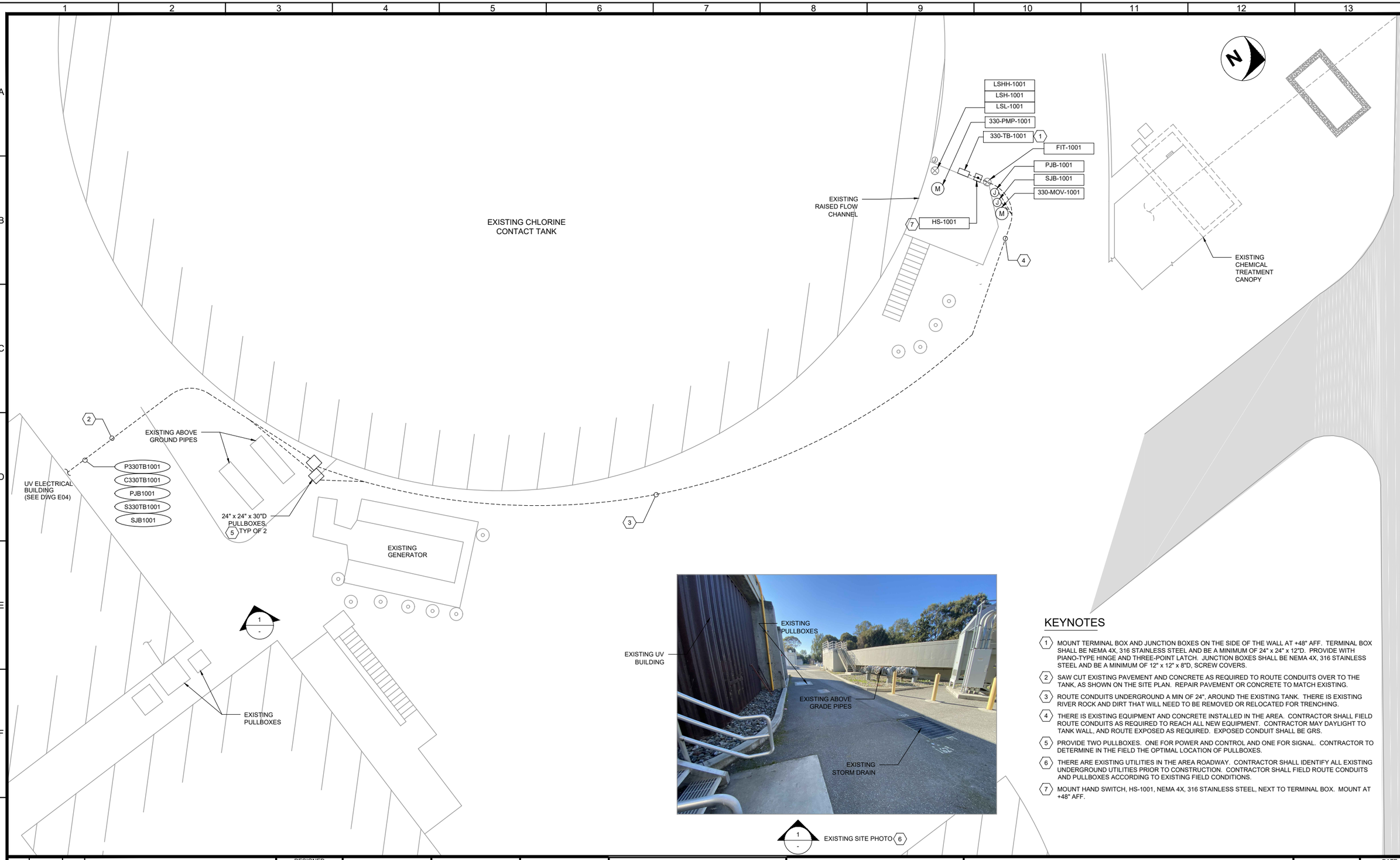
DATE
NOVEMBER 3, 2023
DRAWING NO.
E02
SHEET NO.
39 OF 45

FILENAME: E02 9-08-23 01:59pm SLAR | XREFS: X-TBLK-PaloAlto-Border |<<—
Last Saved By: cto 4-12-18 02:36pm



KEYNOTES

1. MOUNT TERMINAL BOX AND JUNCTION BOXES ON THE SIDE OF THE WALL AT +48" AFF. TERMINAL BOX SHALL BE NEMA 4X, 316 STAINLESS STEEL AND BE A MINIMUM OF 24" x 24" x 12"D. PROVIDE WITH PIANO-TYPE HINGE AND THREE-POINT LATCH. JUNCTION BOXES SHALL BE NEMA 4X, 316 STAINLESS STEEL AND BE A MINIMUM OF 12" x 12" x 8"D, SCREW COVERS.
2. SAW CUT EXISTING PAVEMENT AND CONCRETE AS REQUIRED TO ROUTE CONDUITS OVER TO THE TANK, AS SHOWN ON THE SITE PLAN. REPAIR PAVEMENT OR CONCRETE TO MATCH EXISTING.
3. ROUTE CONDUITS UNDERGROUND A MIN OF 24", AROUND THE EXISTING TANK. THERE IS EXISTING RIVER ROCK AND DIRT THAT WILL NEED TO BE REMOVED OR RELOCATED FOR TRENCHING.
4. THERE IS EXISTING EQUIPMENT AND CONCRETE INSTALLED IN THE AREA. CONTRACTOR SHALL FIELD ROUTE CONDUITS AS REQUIRED TO REACH ALL NEW EQUIPMENT. CONTRACTOR MAY DAYLIGHT TO TANK WALL, AND ROUTE EXPOSED AS REQUIRED. EXPOSED CONDUIT SHALL BE GRS.
5. PROVIDE TWO PULLBOXES. ONE FOR POWER AND CONTROL AND ONE FOR SIGNAL. CONTRACTOR TO DETERMINE IN THE FIELD THE OPTIMAL LOCATION OF PULLBOXES.
6. THERE ARE EXISTING UTILITIES IN THE AREA ROADWAY. CONTRACTOR SHALL IDENTIFY ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD ROUTE CONDUITS AND PULLBOXES ACCORDING TO EXISTING FIELD CONDITIONS.
7. MOUNT HAND SWITCH, HS-1001, NEMA 4X, 316 STAINLESS STEEL, NEXT TO TERMINAL BOX. MOUNT AT +48" AFF.

REV	DATE	BY	DESCRIPTION

DESIGNED | DRAWN | CHECKED

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

OVERALL SITE PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DATE: NOVEMBER 3, 2023
DRAWING NO.: E03
SHEET NO.: 40 OF 45

FILENAME: E03 8-08-23 01:09pm SLAN | XREFS: X-TBLK-PaloAlto-Border | 07500104_BMP

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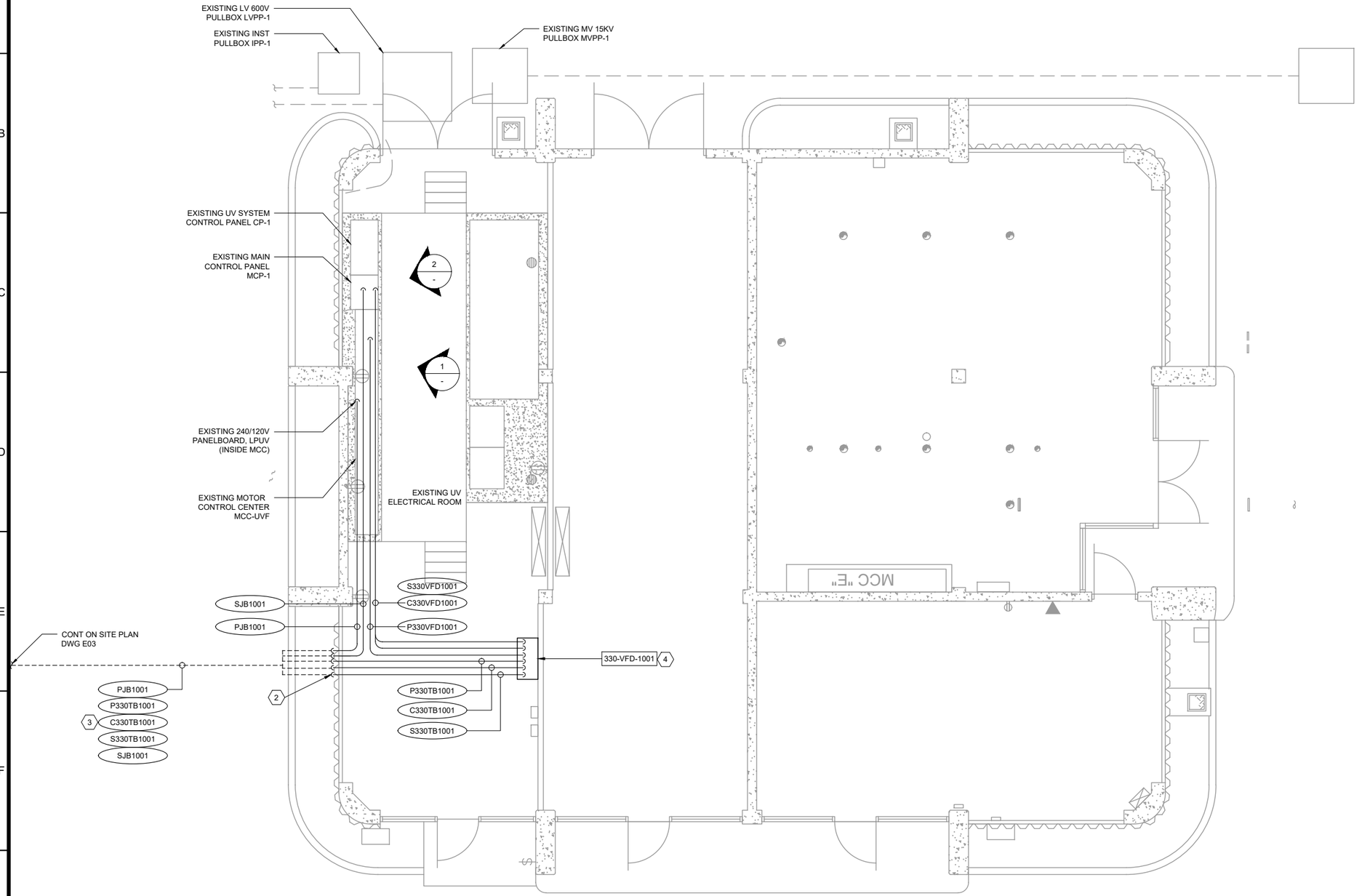

KEYNOTES

1. PROVIDE 40A CIRCUIT BREAKER AND INSTALL INSIDE EXISTING MCC BUCKET SPACE. PROVIDE EQUIPPED SPACE AS REQUIRED. PROVIDE NAMEPLATE FOR BREAKER.
2. CORE DRILL THRU EXISTING STEEL WALL OF UV BUILDING. SEAL AROUND CONDUIT WITH FOAM. CONTRACTOR MAY NEED TO COME OUT OF THE CONCRETE WALL AND CORE DRILL THRU THE EXISTING CONCRETE WALL. SEAL AROUND CONDUITS WITH NON-SHRINK GROUT AND PAINT TO MATCH EXISTING.
3. SAW CUT EXISTING PAVEMENT AND CONCRETE AS REQUIRED TO ROUTE CONDUITS OVER TO THE TANK, AS SHOWN ON THE SITE PLAN. REPAIR PAVEMENT OR CONCRETE TO MATCH EXISTING.
4. MOUNT THE VFD ON THE EXISTING WALL AT +48" AFF. WHERE REQUIRED, PROVIDE A NEMA 1 WIREWAY ABOVE THE VFD. CONDUCTORS CAN BE COMBINED IN ONE CONDUIT FROM WIREWAY TO VFD, POWER AND CONTROL SEPARATE FROM SIGNAL OR DATA.

1 - EXISTING MCC PHOTO

2 - EXISTING PLC PANEL MCP-1 PHOTO

REV	DATE	BY	DESCRIPTION

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PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

UV ELECTRICAL ROOM PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DATE
NOVEMBER 3, 2023
DRAWING NO.
E04
SHEET NO.
41 OF 45

FILENAME: E04 9-08-23 01:30pm SLAVE | XREFs: X-TBLK-PaloAlto-Border | X-CHLORBLDG

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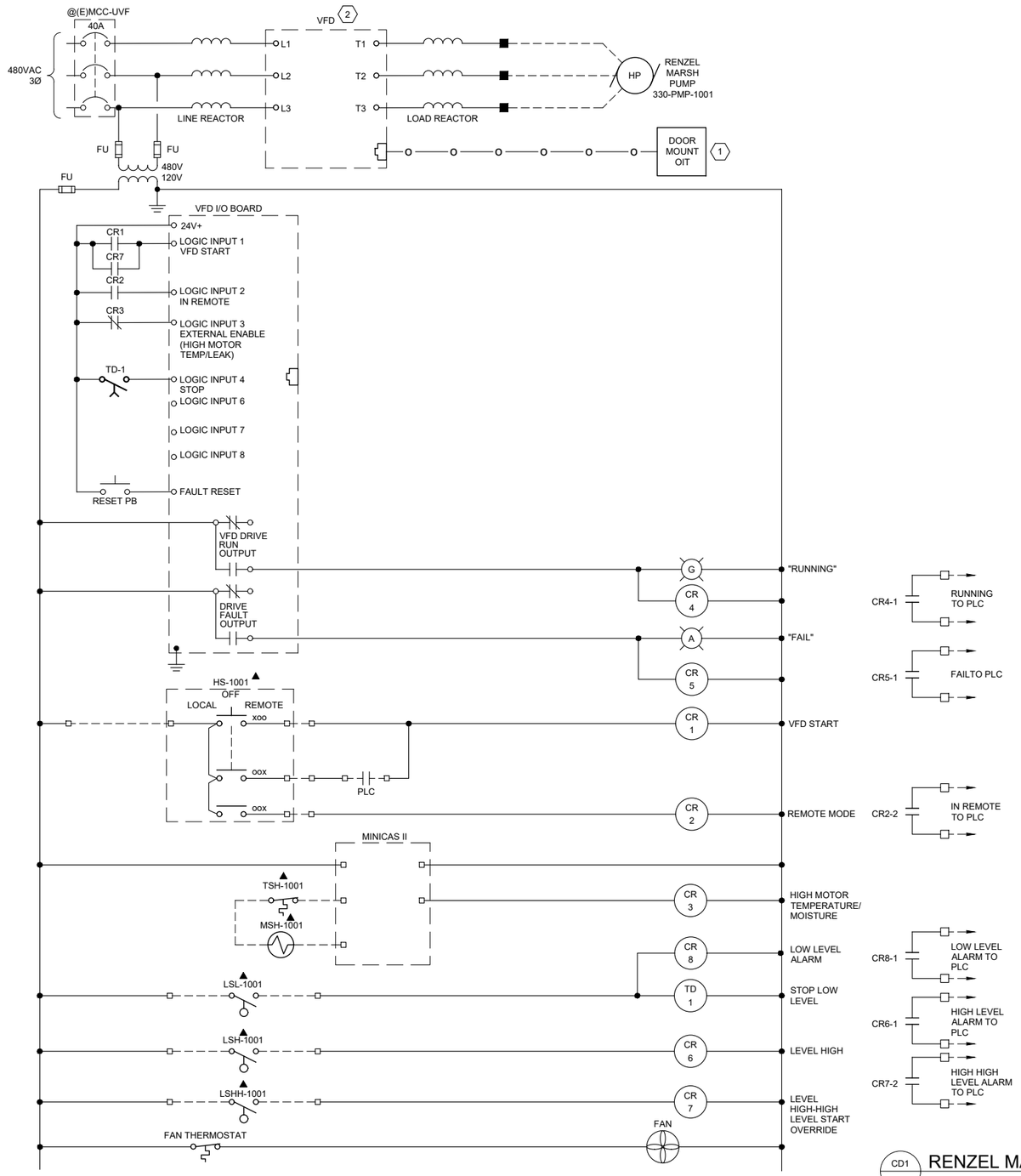

CD1 - RENZEL MARSH PUMP CONTROL DIAGRAM

GENERAL NOTES

1. PROVIDE ALL COMPONENTS/INTERLOCKS NECESSARY FOR A COMPLETE AND FUNCTIONING SYSTEM AS OUTLINED IN THE CONTROL LOOP DESCRIPTIONS, SPECIFICATION SECTION 40.90.05.XX
2. ALL DEVICES ARE LOCATED IN THE VFD ENCLOSURE UNLESS OTHERWISE NOTED.
3. ALL EQUIPMENT SHALL BE INSTALLED TO THEIR MANUFACTURERS LITERATURE AND DATA SHEETS AND THEIR RECOMMENDATIONS SHALL BE ADHERED TO.
4. CONTACTS SHOWN IN DE-ENERGIZED STATE.

KEYNOTES

1. PROVIDE ON VFD ENCLOSURE DOOR.
2. PROVIDE VFD AS SPECIFIED. PROVIDE WITH STANDARD EQUIPMENT AND FILTERS.

LEGEND

- INDICATES TERMINAL CONNECTION IN VFD
- INDICATES FIELD WIRING
- INDICATES EQUIPMENT LOCATED IN FIELD/REMOTE FROM VFD

REV	DATE	BY	DESCRIPTION

DESIGNED | DRAWN | CHECKED

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

RENZEL MARSH PUMP CONTROL DIAGRAM

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DATE: NOVEMBER 3, 2023
DRAWING NO.: E05
SHEET NO.: 42 OF 45

FILENAME: E05 9-05-23 01:09pm SLARI | XREFS: X-TBLK-PaloAlto-Border |<<—
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INSTRUMENT SYMBOLOGY

- LOCALLY MOUNTED FIELD INSTRUMENTATION
- MOUNTED ON PANEL FRONT
- MOUNTED INSIDE PANEL
- FRONT PANEL MOUNTED ON AUXILIARY PANEL (SUBSCRIPT INDICATES PANEL)
- MOUNTED INSIDE AUXILIARY PANEL
- PILOT LIGHT
- INSTRUMENT FUNCTIONS SHARING COMMON HOUSING
- COMPLEX INTERLOCK AS DEFINED IN CONTROL DIAGRAM OR IN SPECIFICATIONS
- SHARED DISPLAY, SHARED CONTROL, FIELD MOUNTED
- SHARED DISPLAY, SHARED CONTROL AT PRIMARY LOCATION - NORMALLY ACCESSIBLE TO OPERATOR (SCADA WORKSTATION)
- SHARED DISPLAY, SHARED CONTROL AT AUXILLIARY LOCATION - NORMALLY ACCESSIBLE TO OPERATOR (IPC, HMI)
- PROGRAMMABLE LOGIC CONTROL, PRIMARY LOCATION - NORMALLY INACCESSIBLE TO OPERATOR

PRIMARY ELEMENT SYMBOLOGY

- MAGNETIC FLOWMETER
- PROPELLER TYPE FLOWMETER
- FLUME
- SIGHT FLOW GLASS
- CHEMICAL SEAL
- SUBMERSIBLE PUMP
- PROGRESSIVE CAVITY PUMP
- CENTRIFUGAL PUMP
- VERTICAL TURBINE PUMP
- BALL LEVEL FLOAT
- MOTOR
- HYDROSTATIC LEVEL PROBE
- GATE

INSTRUMENT IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION				
C				CONTROL	CLOSED
D		DIFFERENTIAL			
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)			
G			GLASS, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME; RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M		MOMENTARY			MIDDLE, INTERMEDIATE
N					
O			ORIFICE, RESTRICTION		
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECH. ANALYSIS			VALVE DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL		
X		X-AXIS			
Y	EVENT, STATE OR PRESENCE	Y-AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION, DIMENSION	Z-AXIS		DRIVER, ACTUATOR UNCLASSIFIED FINAL CONTROL ELEMENT	

ACTUATOR SYMBOLOGY

- OPERATOR ABBREVIATIONS: M = MOTOR, P = PNEUMATIC, S = SOLENOID
- FLOAT OPERATOR
- SPRING-OPPOSED SINGLE-ACTING PNEUMATIC CYLINDER
- DOUBLE-ACTING PNEUMATIC CYLINDER
- PNEUMATIC DIAPHRAGM
- PNEUMATIC DIAPHRAGM WITH POSITIONER

TYPES OF POWER SUPPLY

A	PLANT COMPRESSED AIR
IA	INSTRUMENT AIR
ES	ELECTRICAL SUPPLY
NG	NATURAL GAS
HYD	HYDRAULIC
AC	120VAC POWER
480	480VAC POWER
DC	24VDC POWER

PLC INTERFACES

- ANALOG INPUT (4-20mA DC)
- ANALOG OUTPUT (4-20mA DC)
- DISCRETE INPUT (24VDC)
- DISCRETE OUTPUT (DRY CONTACT 120VAC)

CONTROL SWITCH NOTATION ABBREVIATIONS

XXX

ACK	ACKNOWLEDGE
ESTOP	EMERGENCY STOP
FAIL	FAILURE
FOR	FORWARD-OFF-REVERSE
FR	FORWARD-REVERSE
FS	FAST-SLOW
HA	HAND-AUTO
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
HSE	EMERGENCY STOP
LL	LEAD-LAG
LLS	LEAD-LAG-STANDBY
LOR	LOCAL-OFF-REMOTE
LR	LOCAL-REMOTE
LS	LEAD-STANDBY
MA	MANUAL-AUTO
OAC	OPEN-AUTO-CLOSE
OC	OPEN-CLOSE
OO	ON-OFF
OSC	OPEN-STOP-CLOSE
RJ	RUN-JOG
RJR	RUN-JOG-REVERSE
SIL	SILENCE

VALVE AND GATE SYMBOLOGY

- AIR-RELEASE VACUUM VALVE, ARV = AIR RELEASE VALVE, VAC = VACUUM
- BV - BALL VALVE
- BFV - BUTTERFLY VALVE
- CNV - CONE VALVE
- CV - CHECK VALVE
- DDCV - DOUBLE-DISK CHECK VALVE
- BCV - BALL CHECK VALVE
- DV - DIAPHRAGM VALVE
- GV - GATE VALVE
- GLV - GLOBE VALVE
- KGV - KNIFE GATE VALVE
- NV - NEEDLE VALVE
- PNV - PINCH VALVE
- PV - PLUG VALVE
- PRV - PRESSURE-REDUCING VALVE
- PRV - PRESSURE-REGULATING VALVE
- PRV - PRESSURE-RELIEF VALVE
- Y-STRAINER
- FLEX COUPLING
- DRAIN
- SOLENOID VALVE
- MOTOR OPERATOR OPEN/CLOSE
- MOTOR OPERATOR MODULATING
- ANTI SIPHON VALVE
- REDUCER

PROCESS AND INSTRUMENTATION ABBREVIATIONS

3W	CHLORINATED PLANT WATER
4W	NON-CHLORINATED PLANT WATER
ABI	AERATION BASIN INFLUENT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
BNR	BIOLOGICAL NITROGEN REMOVAL
BSCR	BANDSCREEN
BYP	BYPASS
CA	COMPRESSED AIR
CHEMD	CHEMICAL DRAIN
CL2	CHLORINE (ANALYZER MODIFIER)
CLS	CHLORINE SOLUTION
CMP	COMPACTOR
CND	CONDENSER
COND	CONDUCTIVITY (ANALYZER MODIFIER)
CS	CONTACT STABILIZATION
CSL	CAUSTIC SOLUTION
CW	CITY WATER
D	DRAIN
DEN	DENSITY
DG	DIGESTER GAS
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DO	DISSOLVED OXYGEN (ANALYZER MODIFIER)
DS	DIGESTED SLUDGE
E/P	VOLTAGE TO PNEUMATIC
FA	FOUL AIR
FD	FLOOR DRAIN
FECL3	FERRIC CHLORIDE
FE	FILTER EFFLUENT
FF	FILTER FEED
FO	FUEL OIL
FW	FEED WATER
GR	GRIT
GTSL	GRAVITY THICKENED SLUDGE
HPA	HIGH PRESSURE AIR
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
I/O	INPUT/OUTPUT
I/P	CURRENT TO PNEUMATIC
IA	INSTRUMENT AIR
LCP	LOCAL CONTROL PANEL
LO	LUBE OIL
LOX	LIQUID OXYGEN
LPA	LOW PRESSURE AIR
LPDG	LOW PRESSURE DIGESTER AIR
LSG	LOW PRESSURE SLUDGE GAS
MA	MURIATIC ACID
ML	MIXED LIQUOR
MXR	MIXER
N2	NITROGEN GAS
NC	NORMALLY CLOSE
NG	NATURAL GAS
NO	NORMALLY OPEN
OF	OVERFLOW
OF	OVERFLOW
OG	OFF GAS
OI	OPERATOR INTERFACE
P&ID	PROCESS AND INSTRUMENTATION DIAGRAM
PD	PLANT DRAIN
PE	PRIMARY EFFLUENT
PERM	PERMEATE
PI	PRIMARY INFLUENT
PSC	PRIMARY SCUM
PMP	PUMP
POL	POLYMER
POTW	POTABLE WATER
PS	PRIMARY SLUDGE
PW	PLANT WATER
RAS	RETURN ACTIVATED SLUDGE
REC	RECIRCULATION
RS	RAW SEWAGE
RW	RECLAIMED WATER
SAM	SAMPLE
SBS	SODIUM BISULFATE
SC	SCUM
SCR	SCREENINGS
SD	SANITARY DRAIN
SE	SECONDARY EFFLUENT
SEW	SEWER
SHC	SODIUM HYPOCHLORITE
SI	SECONDARY INFLUENT
SLG	SLIDE GATE, SLUICE GATE
SN	SUPERNATANT
SO	SLOPE OIL
SOD	SLOPE OIL DRAIN
SS	SUSPENDED SOLIDS (ANALYZER MODIFIER)
SWR	SOFTENED WATER
T	TANK
TS	THICKENED SLUDGE
TURB	TURBIDITY (ANALYZER MODIFIER)
TWAS	THICKENED WASTE ACTIVATED SLUDGE
V	VENT
WAS	WASTE ACTIVATED SLUDGE
WW	WASH WATER

LINE TYPES

- MAIN PROCESS LINE
- SECONDARY PROCESS LINE
- AUXILIARY PROCESS LINE
- DIRECTION OF FLOW
- PNEUMATIC SIGNAL
- ELECTRICAL SIGNAL
- 480V POWER
- HYDRAULIC SIGNAL
- SOFTWARE OR DATA LINK
- SIGNAL CONNECTION
- CROSSOVER - NO CONNECTION
- CAPILLARY
- MECHANICAL LINK
- ETHERNET I/O DATA LINK
- DEVICENET DATA LINK
- SERIAL RS232 LINK
- FIBER OPTIC

CROSS REFERENCE SYMBOLOGY

- P1 — CONTINUATION FROM DRAWING P1
- P2 — CONTINUATION TO DRAWING P2

GENERAL NOTES

1. THIS IS A STANDARD INSTRUMENTATION SYMBOLOGY AND ABBREVIATIONS SHEET. LISTING OF SYMBOLS AND ABBREVIATIONS DOES NOT IMPLY ALL SYMBOLS AND ABBREVIATIONS HAVE BEEN USED ON THIS PROJECT.
2. SEE PROCESS, MECHANICAL AND PLUMBING LEGEND DRAWINGS FOR MISCELLANEOUS PIPING SYMBOLS.
3. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH DRAWING FOR USAGE.
4. VALVE SYMBOLS SHOWN HERE ARE APPLICABLE ONLY TO INSTRUMENTATION DIAGRAMS. SEE PROCESS, MECHANICAL AND PLUMBING LEGEND SHEET FOR VALVE SYMBOLS USED ELSEWHERE ON THE DRAWINGS.

REV	DATE	BY	DESCRIPTION

DESIGNED | DRAWN | CHECKED

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

SYMBOLS AND LEGEND

VERIFY SCALES
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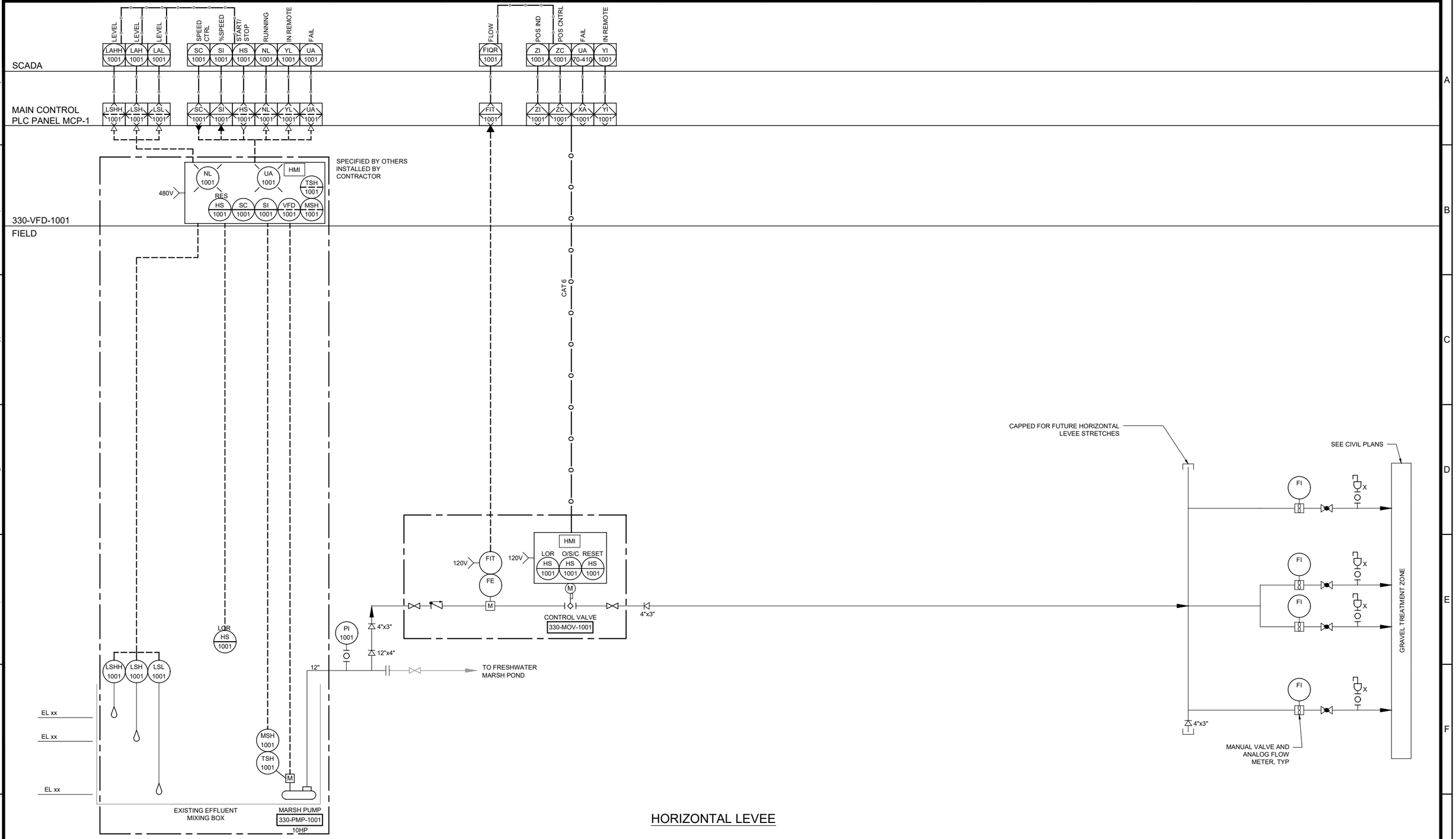
DATE: NOVEMBER 3, 2023
DRAWING NO.: P01
SHEET NO.: 43 OF 45

FILENAME: P01 9-06-23 01:09pm SLARI | XREFS| X-TBLK-PaloAlto-Border

Last Saved By: cto 4-12-18 02:36pm



HORIZONTAL LEVEE

REV	DATE	BY	DESCRIPTION

DESIGNED
DRAWN
CHECKED

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

HORIZONTAL LEVEE FEED

VERIFY SCALES
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0 1"
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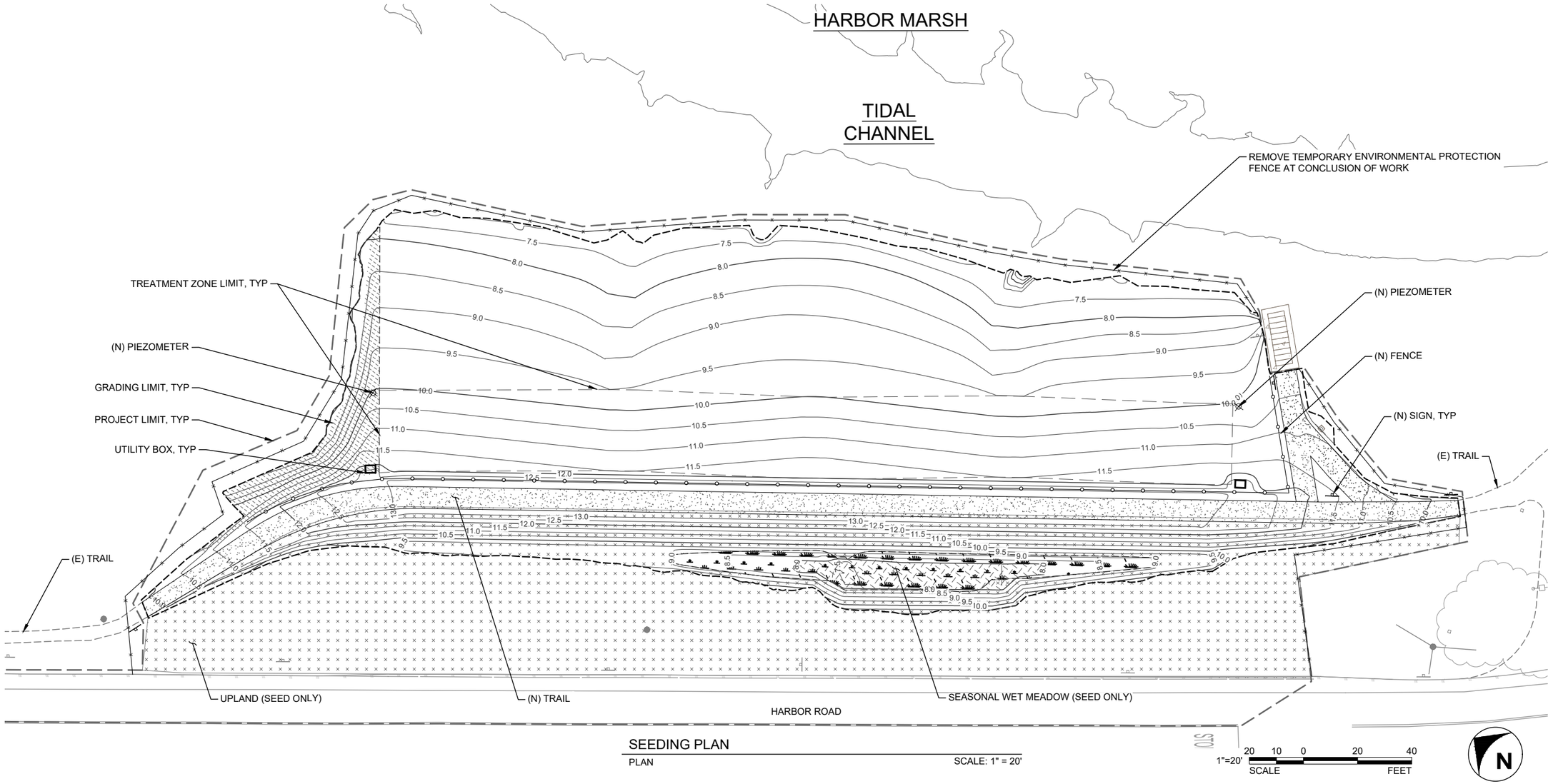
DATE
NOVEMBER 3, 2023
DRAWING NO.
P02
SHEET NO.
44 OF 45

FILENAME: P02 9-08-23 01:09pm SLAR | XREFS: X-TBLK-PaloAlto-Border
Last Saved By: cto 4-12-18 02:36pm



SEEDING PLAN

PLAN SCALE: 1" = 20'

SEEDING LEGEND

- SEASONAL WET MEADOW SEEDING AREA
- RIPARIAN SEEDING AREA
- UPLAND SEEDING AREA

Seasonal Wet Meadow & Riparian Seed Mix		0.33	acres
Botanical Name	Common Name	PLS Lbs/Ac	Total PLS lb
Amsinckia intermedia	fiddleneck	6.5	2.1
Centromadia pungens	spikeweed	6	2.0
Hemizonia congesta spp. luzulifolia	hayfield tarweed	6.5	2.1
Helenium puberulum	sneezeweed	1	0.3
Madia sativa	coast tarweed	6.5	2.1
Hordeum brachyantherum	meadow barley	8	2.6
	Total	26.5	**11.2**

Upland Erosion Control Seed Mix		0.54	acres
Botanical Name	Common Name	PLS lb/ac	Total PLS lb
Bromus carinatus	California brome	10	5.4
Elymus glaucus	blue wldrye	10	5.4
Festuca (Vulpia) microstachys	small fescue	10	5.4
Festuca rubra Molate	red fescue	6	3.3
Stipa pulchra	purple needle grass	8	4.3
Achillea millefolium	yarrow	0.25	0.1
Eschscholzia californica	California poppy	1.5	0.8
	Total	45.75	**24.7**

NOTE

1. INCORPORATE SEED INTO SOIL WITH A SHEEPSFOOT ROLLER. SEE SPECS.

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER MARK R. LINDLEY C 66701 EXP. 9/30/22 CIVIL STATE OF CALIFORNIA

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575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

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SEEDING PLAN

VERIFY SCALES
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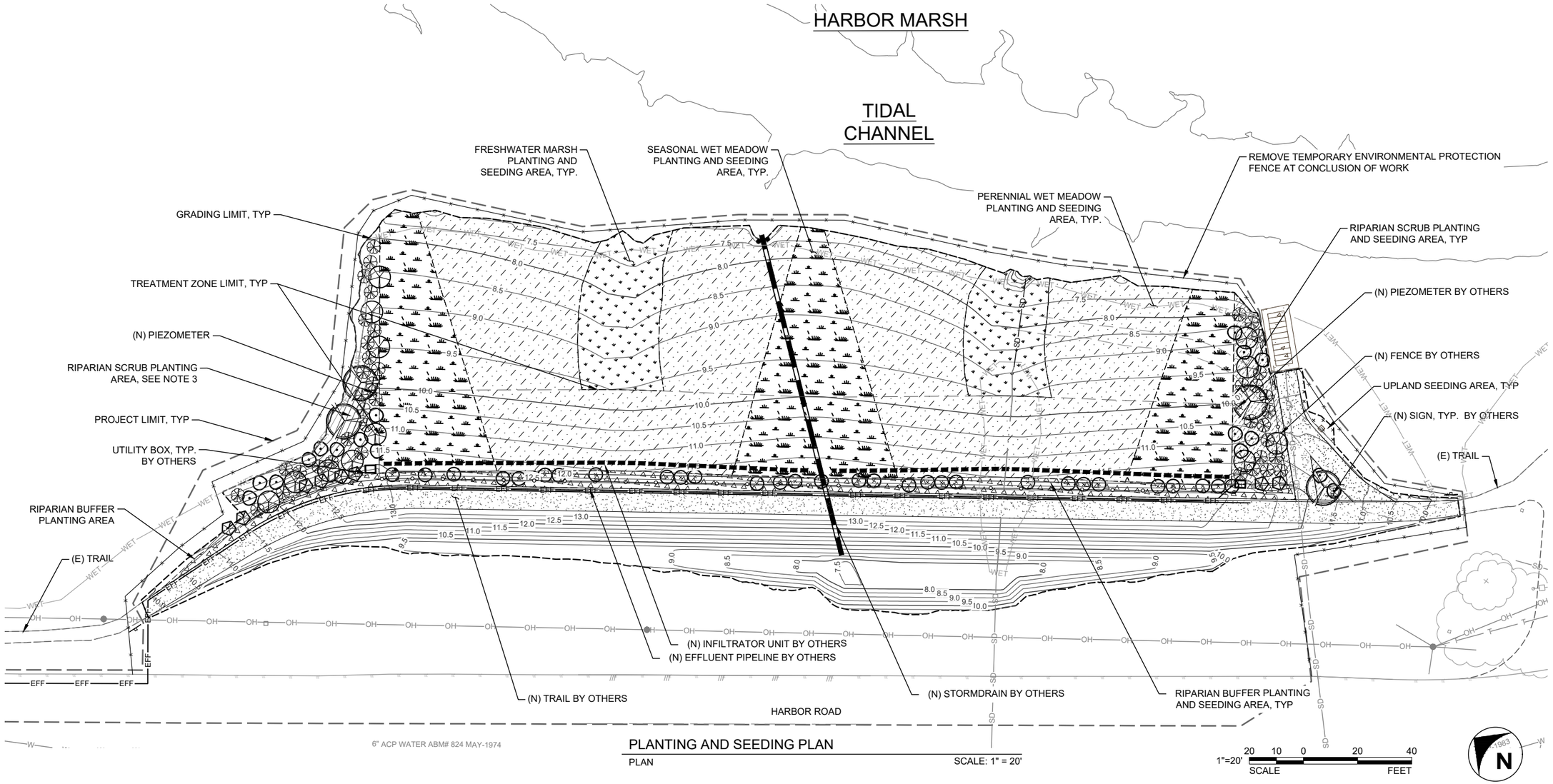
DATE NOVEMBER 3, 2023
DRAWING NO. L01
SHEET NO. 45 OF 45

FILENAME: L01 SEEDING PLAN 11-03-23 04:25pm Dhorneff XREFs: X_PA_Existing_Features | X_PA_Planting_Hatches | X_PA_Boundary | X_PA_Project_Limits | X_PA_Design_Topo | X-TBLK-PaloAlto-Border | x_pa_design_linework | X_PA_Erosion_Control

Last Saved By: cto 4-12-18 02:36pm



PLANTING AND SEEDING PLAN

PLAN SCALE: 1" = 20'

SEEDING LEGEND

- SEASONAL WET MEADOW PLANTING AND SEEDING AREA
- RIPARIAN SCRUB PLANTING AND SEEDING AREA
- UPLAND SEEDING AREA
- RIPARIAN BUFFER PLANTING AND SEEDING AREA
- FRESHWATER MARSH PLANTING AND SEEDING AREA
- PERENNIAL WET MEADOW PLANTING AND SEEDING AREA
- LUPINUS ALBIFRONS
- PHYSOCARPUS CAPITATUS
- ROSA CALIFORNICA
- RUBUS URSINUS
- SAMBUCUS NIGRA
- SALIX LASIOLEPIS

NOTES

1. SAVE THE BAY SHALL PROPAGATE, INSTALL, AND MAINTAIN ALL PLANTING AND SEEDING SHOW ON SHEET L01 AND MAINTAIN ALL SEEDING SHOWN ON SHEET L04 PER THE AGREEMENT BETWEEN SAVE THE BAY AND ABAG DATED APRIL 25, 2023.
2. PLANT HERBACEOUS CONTAINER PLANTS IN GROUPS OF 7-11 OF THE SAME SPECIES.
3. RIPARIAN SCRUB SEEDING AND EROSION CONTROL FABRIC INSTALLATION BY OTHERS, SEE SHEETS L05 AND L06.
4. INSTALL TEMPORARY IRRIGATION SYSTEM FOR RIPARIAN SCRUB PLANTING AREA. TEMPORARY IRRIGATION TO BE SUPPLIED TO FRESHWATER MARSH, PERENNIAL WET MEADOW, AND SEASONAL WET MEADOW PLANTING AND SEEDING AREAS UNTIL EFFLUENT SUPPLY LINE IS ONLINE. SUPPLEMENTAL IRRIGATION MAY BE NEEDED TO ESTABLISH PLANTS IN ALL PLANTING ZONES.

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

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ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
WWW.ESASSOC.COM

CITY OF PALO ALTO

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REVEGETATION PLANS

PLANTING AND SEEDING PLAN

VERIFY SCALES
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DATE NOVEMBER 10, 2023
DRAWING NO. L01
SHEET NO. 2 OF 5

FILENAME: L01 PLANTING AND SEEDING PLAN 11-17-23 11:36am CCocoamo XREFs: X_PA_Existing_Feature | X_PA_Planting_Hatches | X_PA_Erosion_Control | x_pa_design_linework | X-TBLK-PaloAlto-Border | X_PA_Design_Topo | X_PA_Project_Limits | X_PA_Boundary | X_pa_aea_survey | K<—

Last Saved By:

Freshwater Marsh				0.07	acres
Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes
Eleocharis macrostachya	common spikerush	plug	3 FT OC	24	plant in groups of 5-7
Juncus effusus	soft rush	plug	3 FT OC	12	plant in groups of 11-13
Helianthus californicus	California sunflower	deepot	4 FT OC	2	
Schoenoplectus americanus	three-square bulrush	plug	3 FT OC	46	
Schoenoplectus acutus	hardstem tule	plug	3 FT OC	145	
Typha latifolia	broadleaf cattail	plug	3 FT OC	2	one container per planting area
			Total	**231**	

Herbaceous/Sedges, Rushes

Perennial Wet Meadow				0.36	acres
Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes
Artemisia douglasiana	mugwort	deepot	3 FT OC	80	
Baccharis glutinosa	saltmarsh baccharis	deepot	5 FT OC	107	
Carex barbarae	basket sedge	plug	3 FT OC	320	
Carex praegracilis	clustered field sedge	plug	3 FT OC	107	
Eleocharis macrostachya	common spikerush	plug	3 FT OC	213	
Elymus triticoides	creeping wild rye	sod fragment	3 FT OC	53	
Euthamia occidentalis	western goldenrod	deepot	4 FT OC	160	
Glycyrrhiza lepida	wild licorice	deepot	3 FT OC	27	
Helenium puberulum	sneezeweed	deepot	3 FT OC	27	
Helianthus californicus	California sunflower	deepot	4 FT OC	53	
Juncus balticus	baltic rush	plug	3 FT OC	320	
Juncus effusus	soft rush	plug	3 FT OC	53	
Symphyotrichum lentum	Suisun marsh aster	deepot	3 FT OC	53	
			Total	**1,573**	

Herbaceous/Sedges, Rushes

Riparian Scrub				0.03	acres
Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes
Salix lasiolepis	arroyo willow	tp-4	10 - 15 FT OC	3	**peripheral slopes only**
			Total	**3**	
Physocarpus capitatus	ninebark	deepot	8 - 10 FT OC	15	plant on margins - away from canopy
Rubus ursinus	California blackberry	deepot/sprig	3 FT OC	60	understory with C. barbarae
Sambucus nigra	black elderberry	tp-4	8 - 15 FT OC	13	**peripheral slopes only**
			Total	**88**	
Carex barbarae	basket sedge	plug/division	3 FT OC	80	understory with blackberry
			Total	**80**	

Trees

Shrubs

Sedges

Seasonal Wet Meadow				0.18	acres
Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes
Ambrosia psilostachya	western ragweed	sod fragment	3 FT OC	10	
Artemisia douglasiana	mugwort	deepot	3 FT OC	20	
Baccharis glutinosa	marsh baccharis	deepot	3 FT OC	60	
Carex barbarae	basket sedge	plug/division	3 FT OC	120	
Carex praegracilis	clustered field rush	plug/division	3 FT OC	40	
Elymus triticoides	creeping wild rye	sod fragment	3 FT OC	160	
Euthamia occidentalis	western goldenrod	deepot	4 FT OC	40	
Glycyrrhiza lepida	wild licorice	deepot	3 FT OC	10	
Helianthus californicus	California sunflower	deepot	4 FT OC	20	
Juncus mexicanus	Mexican rush	plug/division	3 FT OC	80	
Symphyotrichum chilense	common aster	deepot	3 FT OC	40	
			Total	**600**	

Herbaceous/ Sedges, Rushes

Riparian Buffer					0.05	acres
	Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes
Shrubs	*Baccharis glutinosa*	marsh baccharis	deepot	3 FT OC	50	low scrub zone along trail boundary
	Rosa californica	California rose	deepot/sprig	10 FT OC	8	low scrub zone along trail boundary
	Lupinus albifrons	Silver lupine	deepot	5 FT OC	30	low scrub zone along trail boundary
				Total	**81**	
Herbaceous	*Symphyotrichum chilense*	common aster	deepot	3 FT OC	50	low scrub zone along trail boundary
				Total	**50**	

Seed Mix - Freshwater Marsh and Perennial Wet Meadow		0.43	acres
Botanical Name	Common Name	PLS Lbs/Ac	Total PLS lb
Bidens frondosa	devil's beggartick	2.5	1.1
Epilobium ciliatum	willow-herb	10	4.3
Persicaria punctata	dotted smartweed	12.5	5.4
Hordeum brachyantherum	meadow barley	8	3.4
	Total	25	**14.2**

Seed Mix - Seasonal Wet Meadow & Riparian Scrub/Buffer		0.26	acres
Botanical Name	Common Name	PLS Lbs/Ac	Total PLS lb
Amsinckia intermedia	fiddleneck	6.5	1.7
Centromadia pungens	spikeweed	6	1.6
Hemizonia congesta spp. luzulifolia	hayfield tarweed	6.5	1.7
Helenium puberulum	sneezeweed	1	0.3
Madia sativa	coast tarweed	6.5	1.7
Hordeum brachyantherum	meadow barley	8	2.1
	Total	26.5	**9.0**

Seed Mix - Upland		0.54	acres
Botanical Name	Common Name	PLS lb/ac	Total PLS lb
Bromus carinatus	California brome	10	5.4
Elymus glaucus	blue wldrye	10	5.4
Festuca (Vulpia) microstachys	small fescue	10	5.4
Festuca rubra Molate	red fescue	6	3.3
Stipa pulchra	purple needle grass	8	4.3
Achillea millefolium	yarrow	0.25	0.1
Eschscholzia californica	California poppy	1.5	0.8
	Total	45.75	**24.7**

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
DRAWN DPH/AGHC
CHECKED MRL

REGISTERED PROFESSIONAL ENGINEER
MARK R. L'INDEN
C 66701
EXP. 9/30/22
CIVIL
STATE OF CALIFORNIA

ESA
575 MARKET STREET
SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
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REVEGETATION PLANS

PLANTING AND SEEDING SCHEDULES

VERIFY SCALES
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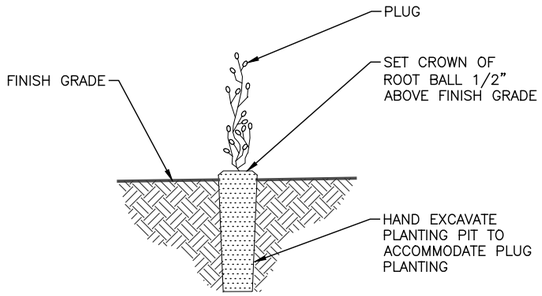
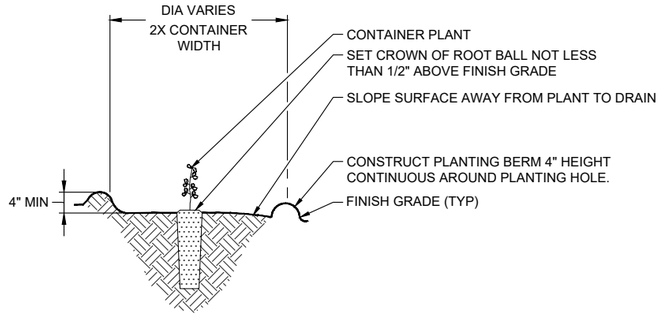
DATE
NOVEMBER 10, 2023
DRAWING NO.
L02
SHEET NO.
3 OF 5

FILENAME: L02_PLANTING AND SEEDING SCHEDULES 11-17-23 11:36am CAcocarno XREFs: X_PA_Proposed_Hatches | X-TBLK-PaloAlto-Border

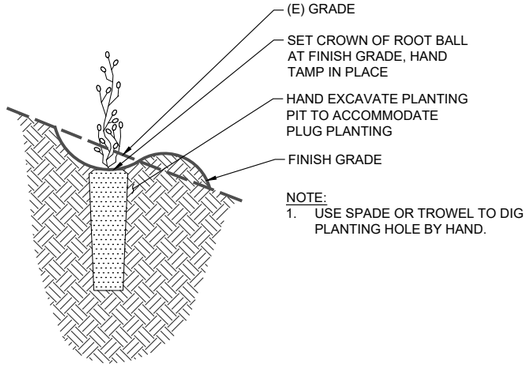
Last Saved By:



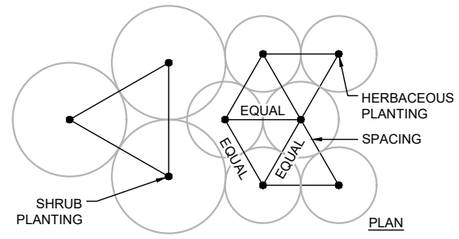
1 / - TYPICAL CONTAINER PLANTING
DETAIL — SCALE: 1" = 2'



2 / - TYPICAL RIPARIAN CONTAINER PLANTING
DETAIL — SCALE: 1" = 2'



3 / - RIPARIAN CONTAINER PLANTING ON SLOPE
DETAIL — SCALE: 1" = 2'



4 / - TYPICAL PLANT LAYOUT
DETAIL — SCALE: NTS

REV	DATE	BY	DESCRIPTION

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SUITE 3700
SAN FRANCISCO, CA 94105
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REVEGETATION PLANS

PLANTING DETAILS

VERIFY SCALES
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DATE NOVEMBER 10, 2023
DRAWING NO. L03
SHEET NO. 4 OF 5

FILENAME: L03 PLANTING DETAILS 11-17-23 11:36am Cbaccamo XREFS: X-TBLK-PaloAlto-Border

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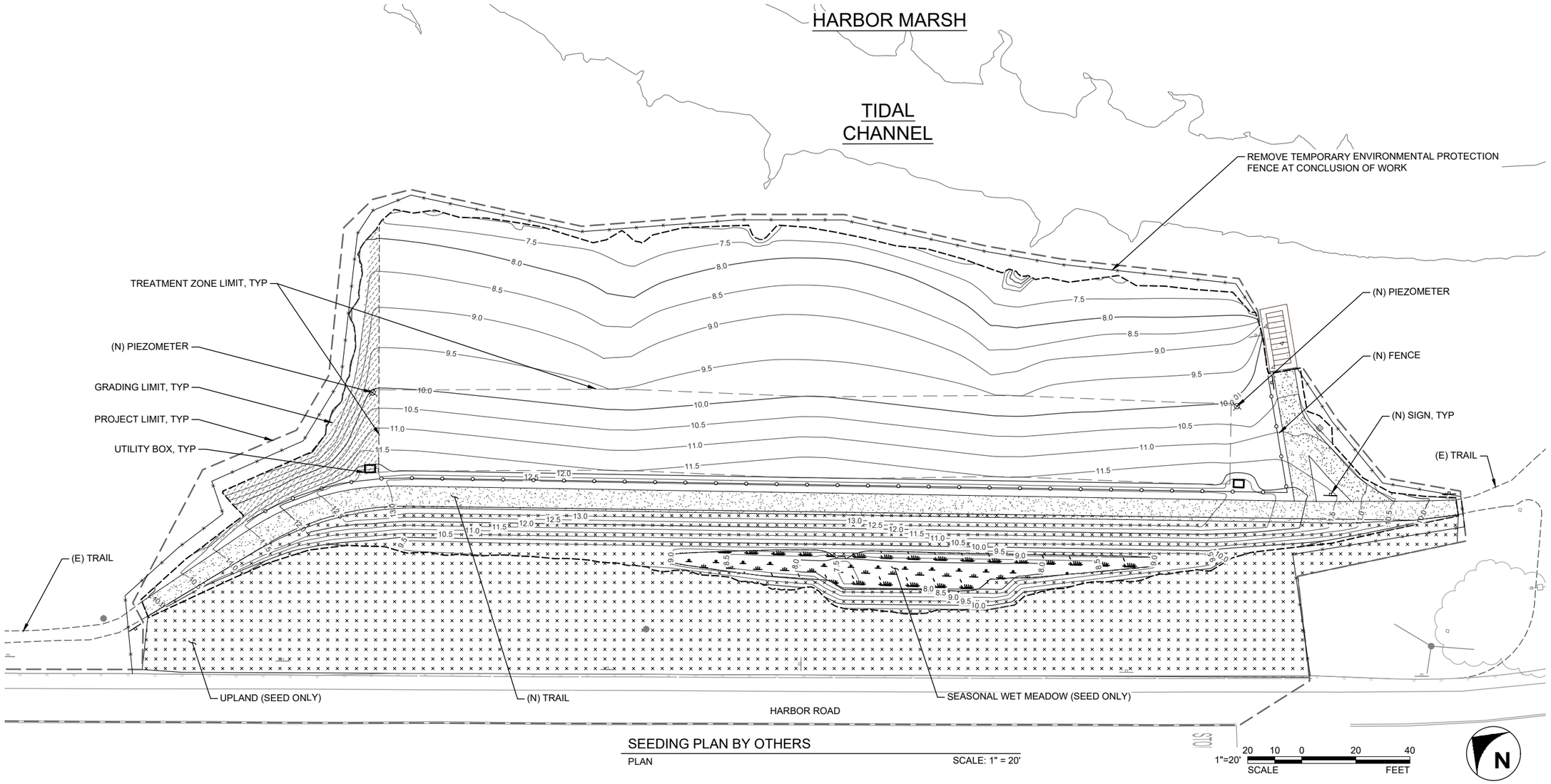

SEEDING PLAN BY OTHERS

PLAN SCALE: 1" = 20'

SEEDING LEGEND

- SEASONAL WET MEADOW SEEDING AREA
- RIPARIAN SEEDING AREA
- UPLAND SEEDING AREA

Seasonal Wet Meadow & Riparian Seed Mix		0.33	acres
Botanical Name	Common Name	PLS Lbs/Ac	Total PLS lb
Amsinckia intermedia	fiddleneck	6.5	2.1
Centromadia pungens	spikeweed	6	2.0
Hemizonia congesta spp. luzulifolia	hayfield tarweed	6.5	2.1
Helenium puberulum	sneezeweed	1	0.3
Madia sativa	coast tarweed	6.5	2.1
Hordeum brachyantherum	meadow barley	8	2.6
	Total	26.5	**11.2**

Upland Erosion Control Seed Mix		0.54	acres
Botanical Name	Common Name	PLS lb/ac	Total PLS lb
Bromus carinatus	California brome	10	5.4
Elymus glaucus	blue wldrye	10	5.4
Festuca (Vulpia) microstachys	small fescue	10	5.4
Festuca rubra Molate	red fescue	6	3.3
Stipa pulchra	purple needle grass	8	4.3
Achillea millefolium	yarrow	0.25	0.1
Eschscholzia californica	California poppy	1.5	0.8
	Total	45.75	**24.7**

NOTE

1. SEEDING SHOWN ON THIS SHEET TO BE COMPLETED BY OTHERS AND PROVIDED FOR REFERENCE ONLY.

REV	DATE	BY	DESCRIPTION

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REGISTERED PROFESSIONAL ENGINEER MARK R. LINDLEY C 66701 EXP. 9/30/22 CIVIL STATE OF CALIFORNIA

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SUITE 3700
SAN FRANCISCO, CA 94105
T 415.896.5900
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REVEGETATION PLANS

SEEDING PLAN BY OTHERS

VERIFY SCALES
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DATE NOVEMBER 10, 2023
DRAWING NO. L04
SHEET NO. 5 OF 5

FILENAME: L04_SEEDING PLAN 11-17-23 11:37am GOcocarmo | XREFs: X_PA_Existing_Features | X-TBLK-PaloAlto-Border | x_pc_design_linework | X_PA_Planting_Hatches | X_PA_Boundary | X_PA_Design_Topo | X_PA_Project_Limits | X_PA_Erosion_Control |

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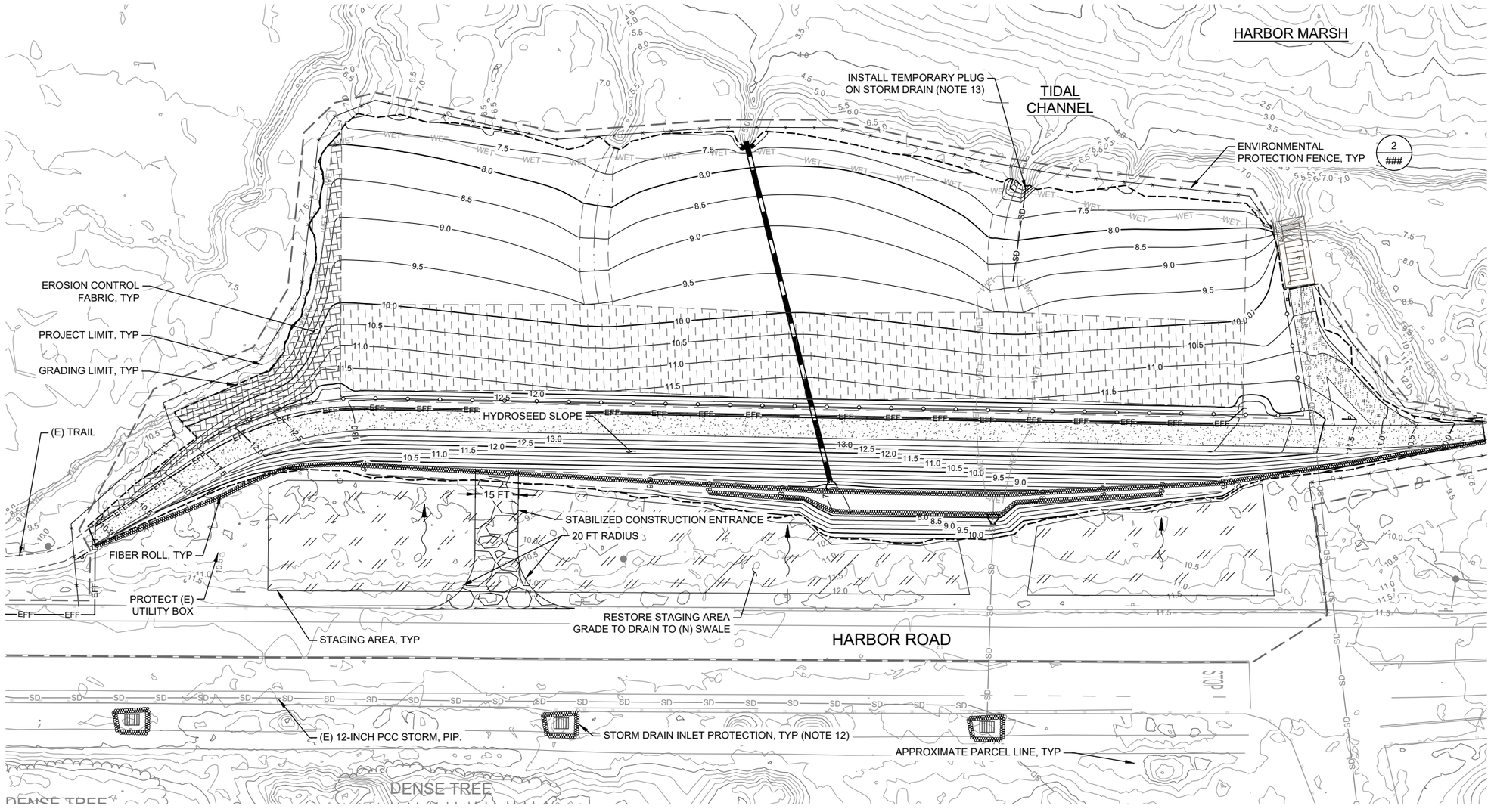

NOTES

1. WORKING SHOWN ON THIS SHEET TO BE COMPLETED BY OTHERS AND PROVIDED FOR REFERENCE ONLY.

SEDIMENT AND EROSION CONTROL PLAN BY OTHERS

PLAN SCALE: 1" = 20'

1"=20' 20 10 0 20 40 SCALE FEET

N

REV	DATE	BY	DESCRIPTION

DESIGNED MRL
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SUITE 3700
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REVEGETATION PLANS

SEDIMENT AND EROSION CONTROL PLAN BY OTHERS

VERIFY SCALES
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DATE NOVEMBER 10, 2023
DRAWING NO. L05
SHEET NO. ---- OF 5

FILENAME: C16 SEDIMENT AND EROSION CONTROL PLAN 11-17-23 | XREFs: X_PA_Boundary | X_PA_Project_Limits | X_PA_Parcels | X_PA_AerialDetail | X-TBLK-PaloAlto-Border | X_PA_BSI_Survey | X_PA_Erosion_Control | X_PA_Design_Topo | X_PA_Existing_Features | X_PA_Existing_Topo | 11537cm COcoacmo | X_PA_Design_Topo

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