

CITY OF PALO ALTO

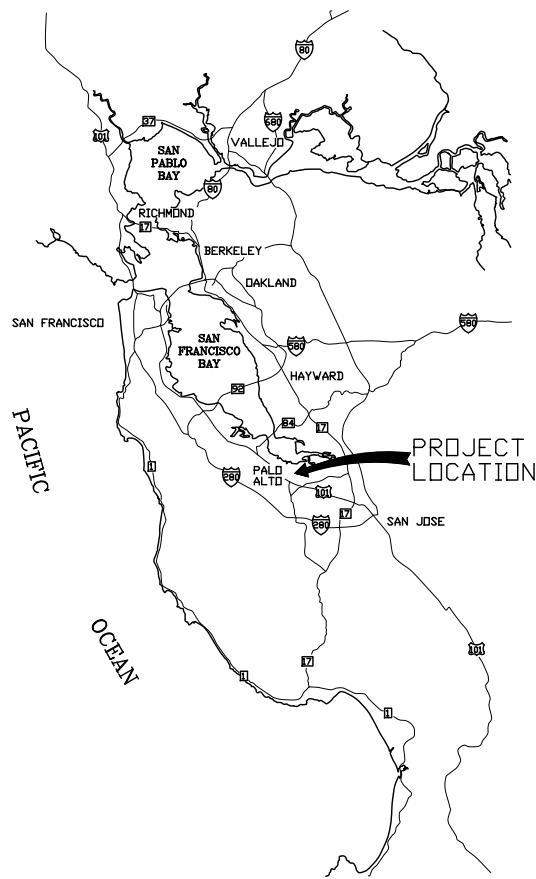
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT

FINAL 60% DESIGN

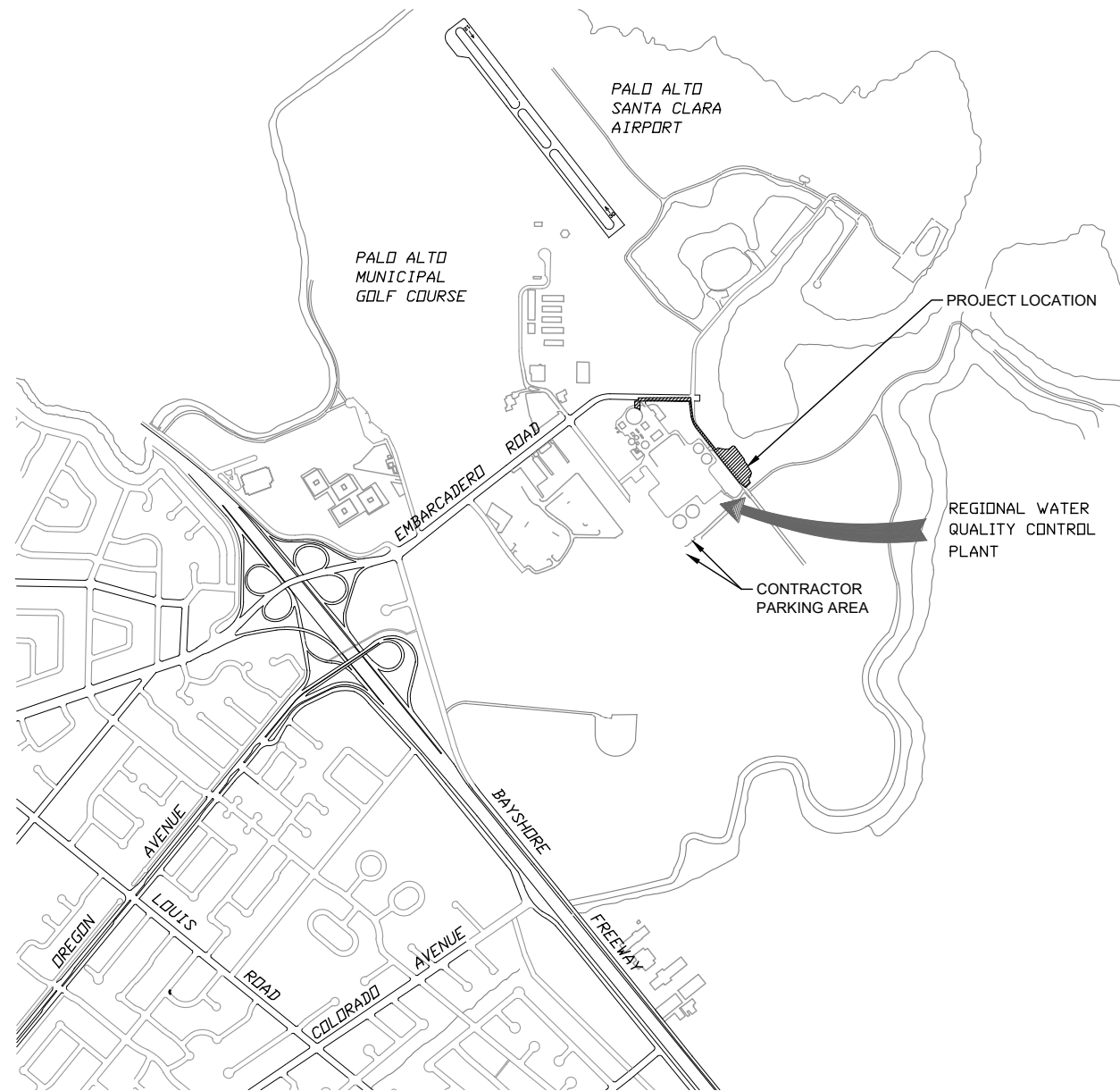
PALO ALTO, CALIFORNIA
MARCH 10, 2022

INDEX OF SHEETS

PAGE NO	DWG NO	SHEET TITLE
GENERAL		
1	G01	TITLE SHEET
2	G02	LEGEND, ABBREVIATIONS, AND NOTES
3	G03	SITE OVERVIEW
4	G04	CONSTRUCTION PHASING
5	G05	ENVIRONMENTAL PROTECTION
6	G06	EXISTING CONDITIONS AND DEMOLITION - EMBARCADERO ROAD
7	G07	EXISTING CONDITIONS AND DEMOLITION - LEVEE AREA
8	G08	SURVEY CONTROL [90% DESIGN]
CIVIL		
9	C01	GRADING PLAN
10	C02	TYPICAL GRADING SECTIONS
11	C03	GRADING SECTIONS 1
12	C04	GRADING SECTIONS 2
13	C05	GRADING SECTIONS 3
14	C06	GRADING SECTIONS 4
15	C07	STORM DRAIN PLAN & PROFILE
16	C08	CIVIL DETAILS
17	C09	SEDIMENT AND EROSION CONTROL PLAN
MECHANICAL		
18	M01	MECHANICAL NOTES AND ABBREVIATIONS [90% DESIGN]
19	M02	OVERALL PLAN AND KEY NOTES
20	M03	PUMPING PLAN AND SECTIONS
21	M04	RENZEL MARSH PUMP BYPASS UPGRADE (ADMIN BLDG)
22	M05	EFFLUENT PIPE PLAN AND PROFILE 1
23	M06	EFFLUENT PIPE PLAN AND PROFILE 2
24	M07	CONVEYANCE PIPE PLAN AND PROFILE 3
25	M08	HORIZONTAL LEVEE SUPPLY PIPE PLAN
26	M09	MECHANICAL DETAILS 1
27	M10	MECHANICAL DETAILS 2 [90% DESIGN]
ELECTRICAL AND INSTRUMENTATION		
28	E01	ELECTRICAL LEGEND AND SYMBOLS
29	E02	ELECTRICAL DETAILS [90% DESIGN]
30	E03	ONE LINE DIAGRAM
31	E04	MCC ELEVATION AND PANELBOARD SCHEDULE [90% DESIGN]
32	E05	OVERALL SITE PLAN
33	E06	UV ELECTRICAL ROOM PLAN
34	P01	SYMBOLS AND LEGEND
35	P02	HORIZONTAL LEVEE FEED
LANDSCAPE		
36	L01	PLANTING AND SEEDING PLAN
37	L02	PLANTING AND SEEDING SCHEDULES
38	L03	PLANTING DETAILS



LOCATION MAP
CITY OF PALO ALTO



VICINITY MAP

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G01
SHEET NO.
1 OF 38

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 THE 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. [XXX 90% DESIGN: INSERT NOTE ABOUT TEMPORARY BYPASS SERVICES DURING PUMP INSTALLATION XXX]. IF NECESSARY, THE CONTRACTOR SHALL PROVIDE FOR TEMPORARY BYPASS SERVICES IN ORDER TO MAINTAIN THE FACILITY'S OPERATIONS, AT NO ADDITIONAL COST TO THE OWNER. THE OWNER'S REPRESENTATIVE SHALL COORDINATE ALL UTILITY INTERRUPTIONS DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL 'DOWN TIME' WITH THE OWNER.

SITE ACCESS

9. [XXX 90% DESIGN: INSERT NOTE ABOUT CONTRACTOR COORDINATION WITH OTHER PLANNED CONSTRUCTION PROJECTS: RWQCP LOCAL AWPS PROJECT AT FINAL EFFLUENT JUNCTION BOX AND VALLEY WATER TIDE GATE PROJECT]

10. [XXX 90% DESIGN: INSERT NOTE ABOUT RWQCP ACCESS POINT OF CONTACT]

11. [XXX 90% DESIGN: INSERT NOTE ABOUT CONTRACTOR REQUIREMENTS FOR FAA CONSTRUCTION SAFETY PHASING PLAN]

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 G05 AND SPECIFICATIONS SECTION [XXX] ENVIRONMENTAL PROTECTION 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 C09 AND SPECIFICATIONS SECTION [XXX] 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. [XXX 90% DESIGN: MATERIAL QUANTITIES TABLE WILL BE ADDED TO EARTHWORK SHEET. XXX]

31. THE CONTRACTOR IS RESPONSIBLE FOR ALL WATER MANAGEMENT THROUGHOUT CONSTRUCTION, INCLUDING ISOLATING WORK FROM TIDAL WATERS. DEWATER AS REQUIRED FOR LEVEE KEYWAY CONSTRUCTION AND OTHERWISE DEEMED NECESSARY TO SAFELY AND EFFICIENTLY PERFORM AND CONTROL THE WORK.

GENERAL LEGEND

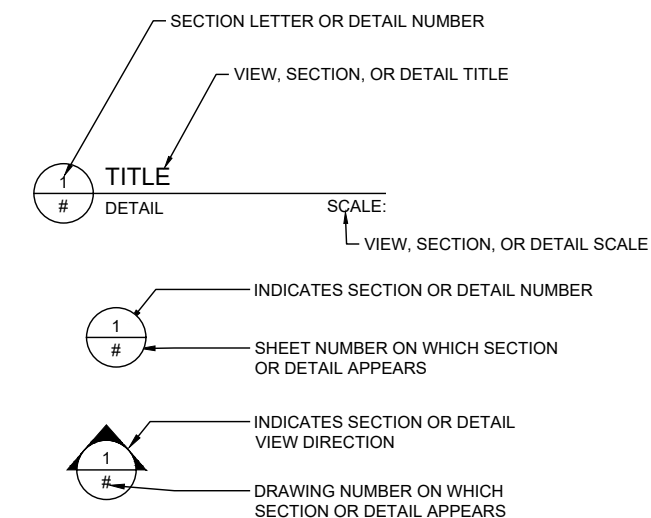
	EXISTING	PROPOSED
WORK LIMIT	N/A	---
GRADING LIMIT	N/A	----
PROPERTY BOUNDARY	---	N/A
ALIGNMENT	---	---
EDGE OF PAVEMENT	---	N/A
EDGE OF TRAIL	---	N/A
ENVIRONMENTAL PROTECTION FENCE	N/A	□
WOOD FENCE	N/A	○
FIBER ROLL	N/A	⊗
VEGETATION	~~~~~	N/A
MAJOR CONTOUR	---2.0---	---2.0---
MINOR CONTOUR	---0.5---	---0.5---
GRADE BREAK	N/A	---
FLOWLINE	---	---
STAGING AREA	N/A	▨
DECOMPOSED GRANITE TRAIL	N/A	▩
TREATMENT ZONE	N/A	▧
BUILDING	▭	N/A
EROSION CONTROL FABRIC	N/A	▩
MARSH WETLAND	---WET---	N/A
SURVEY CONTROL POINT	△	N/A
PIEZOMETER	N/A	⊕
EFFLUENT DISTRIBUTION BOX	N/A	▣

UTILITIES LEGEND

	EXISTING	PROPOSED
GAS LINE	—G—G—	N/A
OVERHEAD POWER LINE	—OH—OH—	N/A
POTABLE WATER LINE	—W—W—	N/A
STORM DRAIN LINE	—SD—SD—	▬
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
HORIZONTAL LEVEE EFFLUENT SUPPLY LINE	N/A	—EFF—
INFILTRATOR UNITS	N/A	▬

ABBREVIATIONS

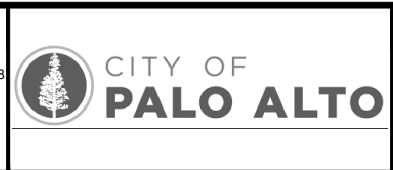
AC	ASPHALTIC CONCRETE	JP	JOINT SERVICE POLE
ADMIN	ADMINISTRATION	(N)	NEW
BLDG	BUILDING	OVHD / OH	OVERHEAD UTILITIES
CONC	CONCRETE	PIP	PROTECT IN PLACE
CLSM	CONTROLLED LOW-STRENGTH MATERIAL	RCP	REINFORCED CONCRETE PIPE
DBH	DIAMETER AT BREAST HEIGHT	RW	RECLAIMED WATER
D/S	DOWNSTREAM	RWQCP	REGIONAL WATER QUALITY CONTROL PLANT
(E)	EXISTING	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



FILENAME: C02 LEGEND, ABBREVIATIONS, AND NOTES 3-14-22 10:12am M.Landwehr XREFS: X-TBLK-Public-Board <<<

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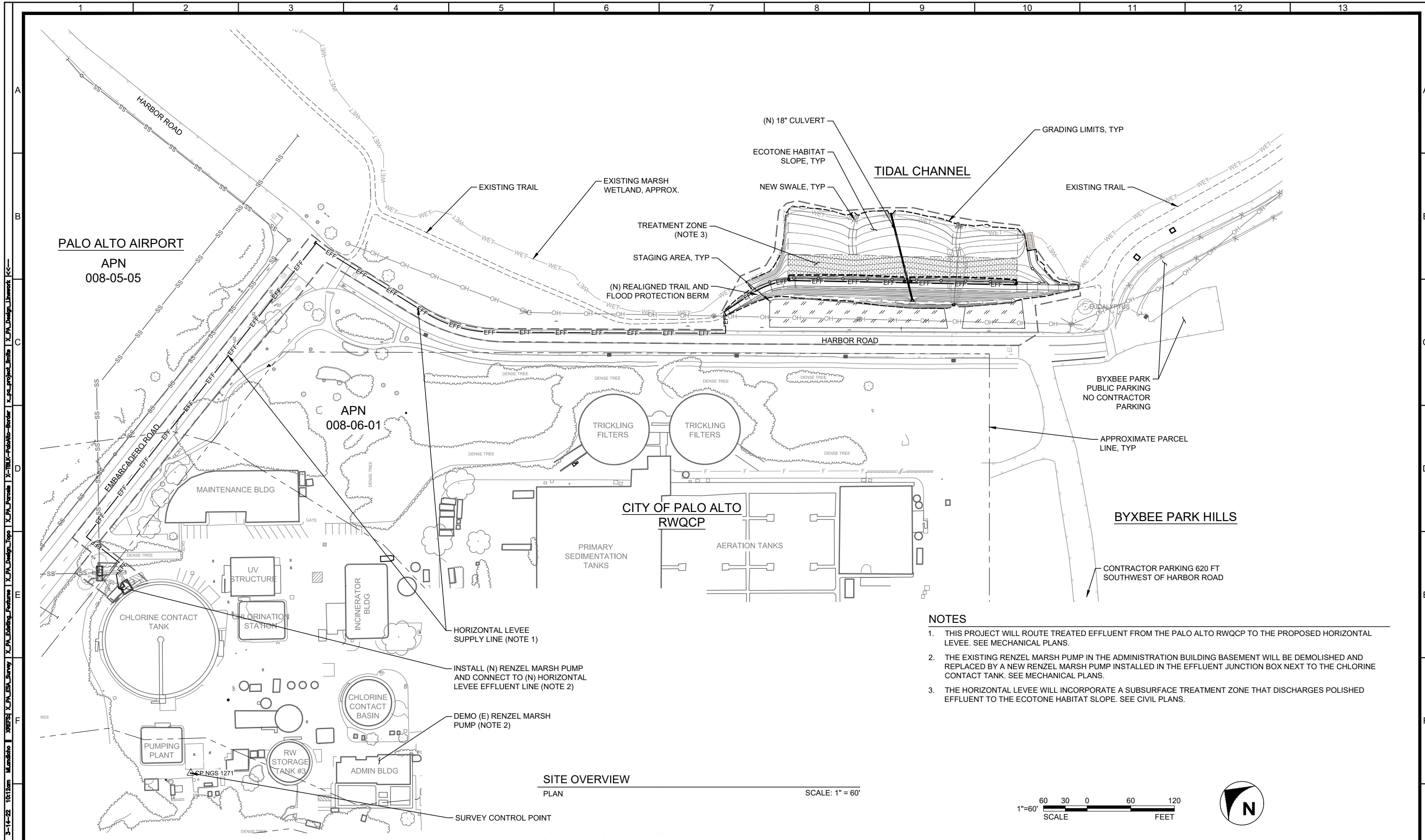


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PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

LEGEND, ABBREVIATIONS, AND NOTES

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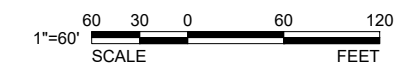
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2 OF 38



SITE OVERVIEW

PLAN

SCALE: 1" = 60'



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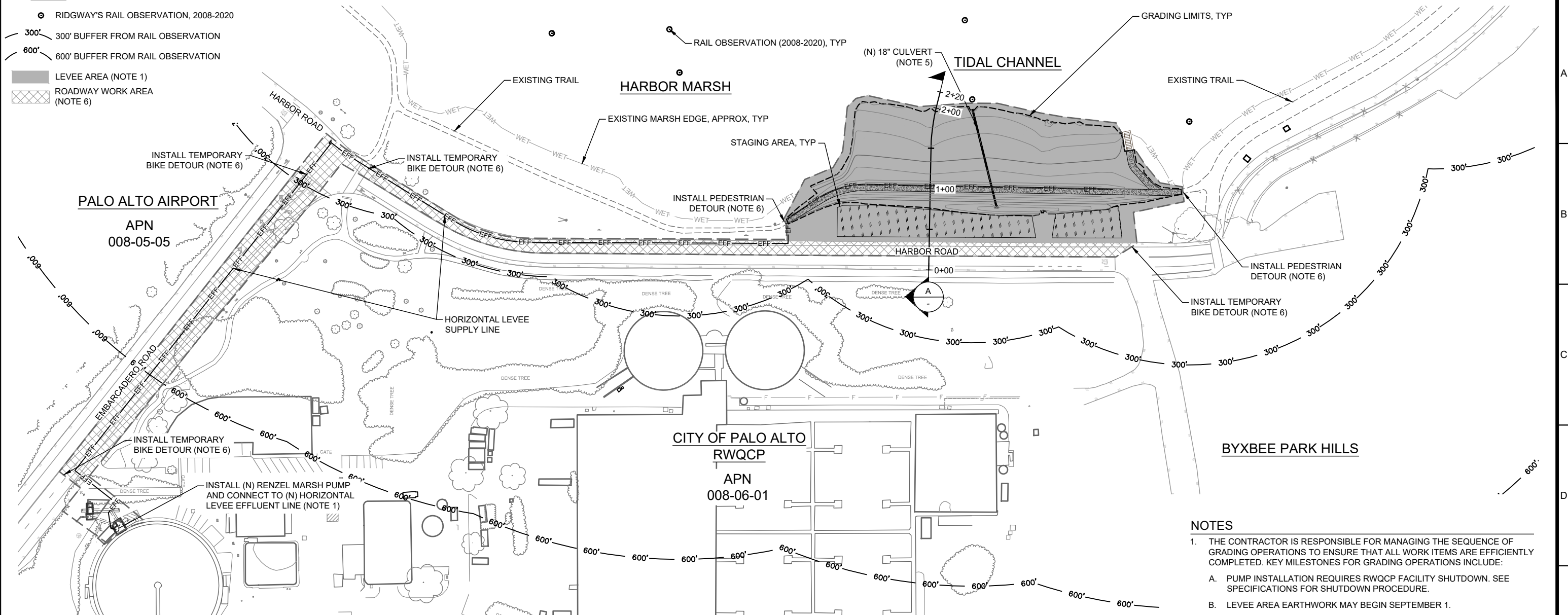
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SITE OVERVIEW

VERIFY SCALES	DATE
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	3 OF 38

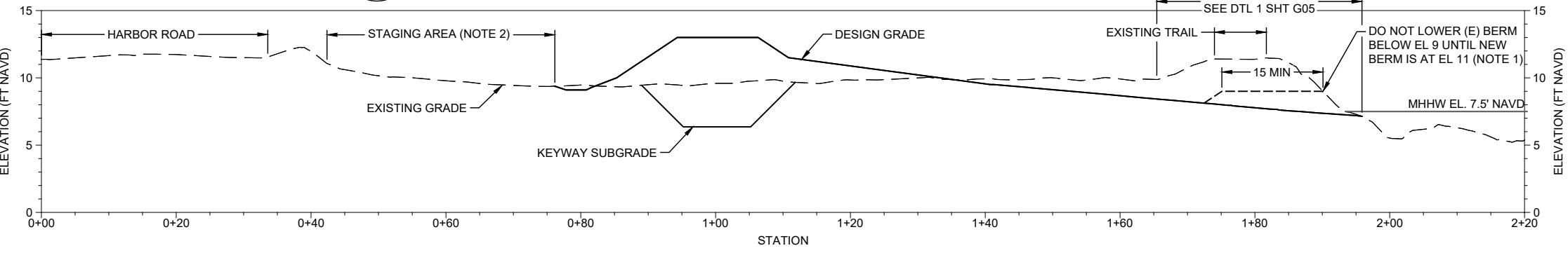
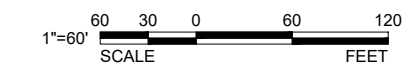
LEGEND

- RIDGWAY'S RAIL OBSERVATION, 2008-2020
- 300' 300' BUFFER FROM RAIL OBSERVATION
- 600' 600' BUFFER FROM RAIL OBSERVATION
- LEVEE AREA (NOTE 1)
- ▨ ROADWAY WORK AREA (NOTE 6)



CONSTRUCTION PHASING

PLAN SCALE: 1" = 60'



BERM CONSTRUCTION PHASING

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 GRADING OPERATIONS INCLUDE:
 - A. PUMP INSTALLATION REQUIRES RWQCP FACILITY SHUTDOWN. SEE SPECIFICATIONS FOR SHUTDOWN PROCEDURE.
 - B. LEVEE AREA EARTHWORK MAY BEGIN SEPTEMBER 1.
 - C. MAINTAIN CONTINUOUS PROTECTION OF HARBOR ROAD AT EL 9 MIN UNTIL NEW BERM IS BUILT TO EL 11 MIN.
 - D. GRADING OF THE NEW BERM AND ECOTONE SLOPE SHALL BE COMPLETED BY NOVEMBER 30.
2. EQUIPMENT MAY BE STAGED IN LEVEE AREA PRIOR TO SEPT 1 WITH MITIGATION MEASURES. FOR MITIGATION MEASURES AND ENVIRONMENTAL RESTRICTIONS, SEE SHEET G05, PROJECT PERMITS, AND PROJECT SPECIFICATIONS.
3. [XXX 90% DESIGN: NOTES ON MATERIAL TYPES FOR LEVEE CORE, ECOTONE SLOPE. XXX]
4. 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 C09 AND PROJECT SPECIFICATION SECTION [XXX] FOR WINTERIZATION PROGRAM REQUIREMENTS.
5. SEE SHEET G05 AND PROJECT SPECIFICATION FOR IN-WATER WORK RESTRICTIONS.
6. 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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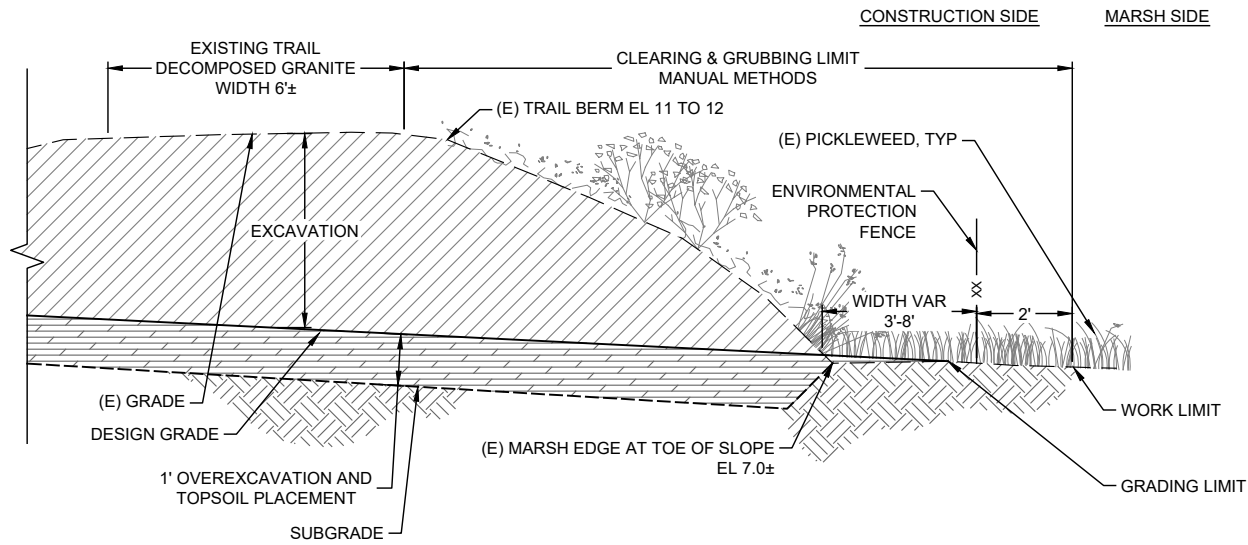


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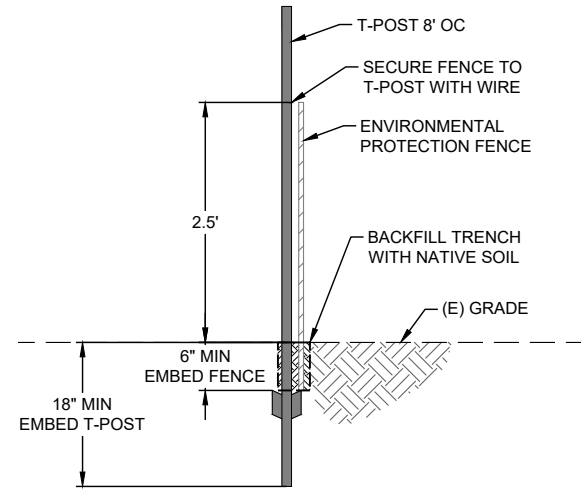
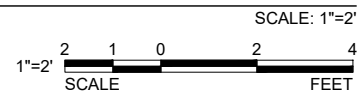


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CONSTRUCTION PHASING

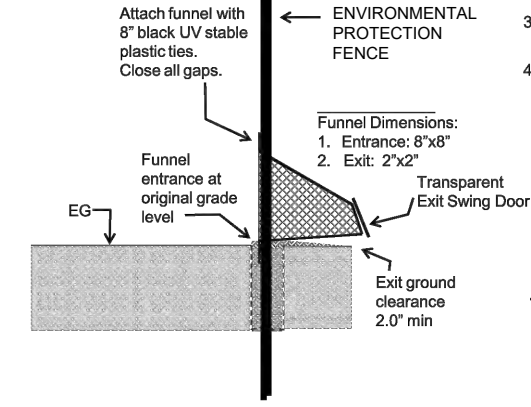
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	SHEET NO. 4 OF 38



1 CLEARING AND GRUBBING
G04 TYPICAL SECTION

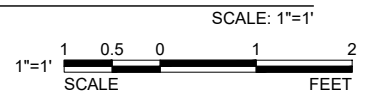


2 ENVIRONMENTAL PROTECTION FENCE
G08 TYPICAL SECTION



3 ENVIRONMENTAL PROTECTION FENCE - ESCAPE FUNNEL
TYPICAL DETAIL

- Notes:
1. Install 1 Funnel every 100 or 150 feet or as otherwise specified by project biologist.
 2. Install Funnel in direction as specified by project biologist. (The funnel is typically placed to allow animals to escape from the construction site).
 3. Locate funnels near segment ends, where possible, to reduce waste when fence material is removed and reused.
 4. For best conspicuity install orange funnel with black E-Fence and visa-versa.



NOTES

1. THIS SHEET OUTLINES SOME BUT NOT ALL REGULATORY PERMIT REQUIREMENTS. SEE PROJECT SPECIFICATIONS AND PERMITS.
2. SHEET G04 SHOWS 2008-2020 RAIL DETECTION LOCATIONS FOR BIDDING PURPOSES. ACTUAL LOCATIONS WILL BE FINALIZED BY APRIL 15, 2024 (FOLLOWING BID YEAR BIRD SURVEYS).
3. PROJECT BIOLOGIST TO PERFORM PRE-CONSTRUCTION AND DAILY SURVEYS FOR NESTING BIRDS AND SENSITIVE RAIL SPECIES. SEE PROJECT SPECIFICATIONS AND PERMITS.
4. SENSITIVE RAIL BREEDING SEASON RESTRICTIONS DO NOT APPLY TO THE FOLLOWING WORK AREAS: RWQCP FACILITY, HARBOR ROAD, AND EMBARCADERO ROAD.
5. SENSITIVE RAIL BREEDING SEASON RESTRICTIONS (FEBRUARY 1 TO AUGUST 31) IN LEVEE AREA:
 - a. PROJECT BIOLOGIST TO MONITOR ANY WORK INSIDE OR WITHIN 50 FEET OF SUITABLE HABITAT, AND/OR WITHIN 600 FEET OF RAIL DETECTION LOCATIONS.
 - b. BETWEEN 300 TO 600 FEET OF RAIL DETECTION LOCATIONS, ONLY HAND WORK WITH NON-MOTORIZED EQUIPMENT WORK ACTIVITIES, AS FOLLOWS, ARE ALLOWED:
 - i. PEDESTRIAN SURVEYS
 - ii. REMOVAL OF VEGETATION WITH NON-MOTORIZED HAND TOOLS (SUCH AS GRASS WHIPS, LOPPERS, RAKES, ETC.)
 - iii. TARGETED HERBICIDE APPLICATIONS
 - iv. EARTH MOVING WITH SHOVELS, PICKS, AND OTHER HAND TOOLS.
 - c. NO WORK WITHIN 300-FEET OF RAIL DETECTION LOCATIONS.
6. SENSITIVE RAIL NON-BREEDING SEASON RESTRICTIONS (SEPTEMBER 1 TO JANUARY 31) IN LEVEE AREA:
 - a. PROJECT BIOLOGIST TO MONITOR ANY WORK INSIDE OR WITHIN 50 FEET OF SUITABLE HABITAT.
7. PRE-CONSTRUCTION SURVEYS BY PROJECT BIOLOGIST ARE REQUIRED FOR SMHM. SEE PROJECT SPECIFICATIONS AND PERMITS.
8. CLEARING IN LEVEE AREA PER PROJECT PERMITS AND SEQUENCE BELOW:
 - a. STAKE LIMITS FOR REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE.
 - b. CONDUCT WORK UNDER THE SUPERVISION OF A PROJECT SMHM BIOLOGIST.
 - c. UP TO THREE (3) WORKERS SHALL CONDUCT VEGETATION REMOVAL IN PRESENCE OF (AND WITHIN 50 FEET OF) EACH PROJECT SMHM BIOLOGIST.
 - d. INITIALLY DISTURB VEGETATION BY TRAVERSING THE AREA ON FOOT AT PATH SPACING OF 5 FEET TO 10 FEET.
 - e. TRIM VEGETATION USING NON-MECHANIZED HAND TOOLS OR A STRING-TRIMMER, IF NECESSARY, TO A HEIGHT SUFFICIENT TO DETERMINE THAT NO SMHM OR THEIR NESTS ARE PRESENT. ONCE THE PROJECT SMHM BIOLOGIST HAS DETERMINED THAT THE VEGETATION IS CLEAR OF SMHM AND THEIR NESTS, REMOVE REMAINING VEGETATION TO GROUND LEVEL USING MOTORIZED HAND TOOLS (E.G. WALK-BEHIND MOWER, STRING-TRIMMERS, ETC.).
9. INSTALL GATES AT ALL INGRESS AND EGRESS POINTS OF TEMPORARY ENVIRONMENTAL PROTECTION FENCE AS REQUIRED FOR CONSTRUCTION ACCESS. APPROXIMATE LOCATIONS SHOWN, VERIFY IN FIELD.
10. FOLLOWING SMHM VEGETATION CLEARING AND ENVIRONMENTAL PROTECTION FENCE INSTALLATION, CLEAR ALL OTHER AREAS PER PROJECT SPECIFICATIONS.
11. IN-WATER WORK LIMITED TO SEPTEMBER 1 TO NOVEMBER 30.
12. CONTRACTOR SHALL LIMIT TURBID WATERS FROM THE TIDAL CHANNEL CONNECTIONS BY INSTALLING FLOATING SILT CURTAIN AROUND THE ACTIVE WORK AREA.

FILENAME: C09 ENVIRONMENTAL PROTECTION DETAILS 3-14-22 10:13am M.Landicho XREFS: X-TBLK-Public-Board X_PA_UTI_CML_KC

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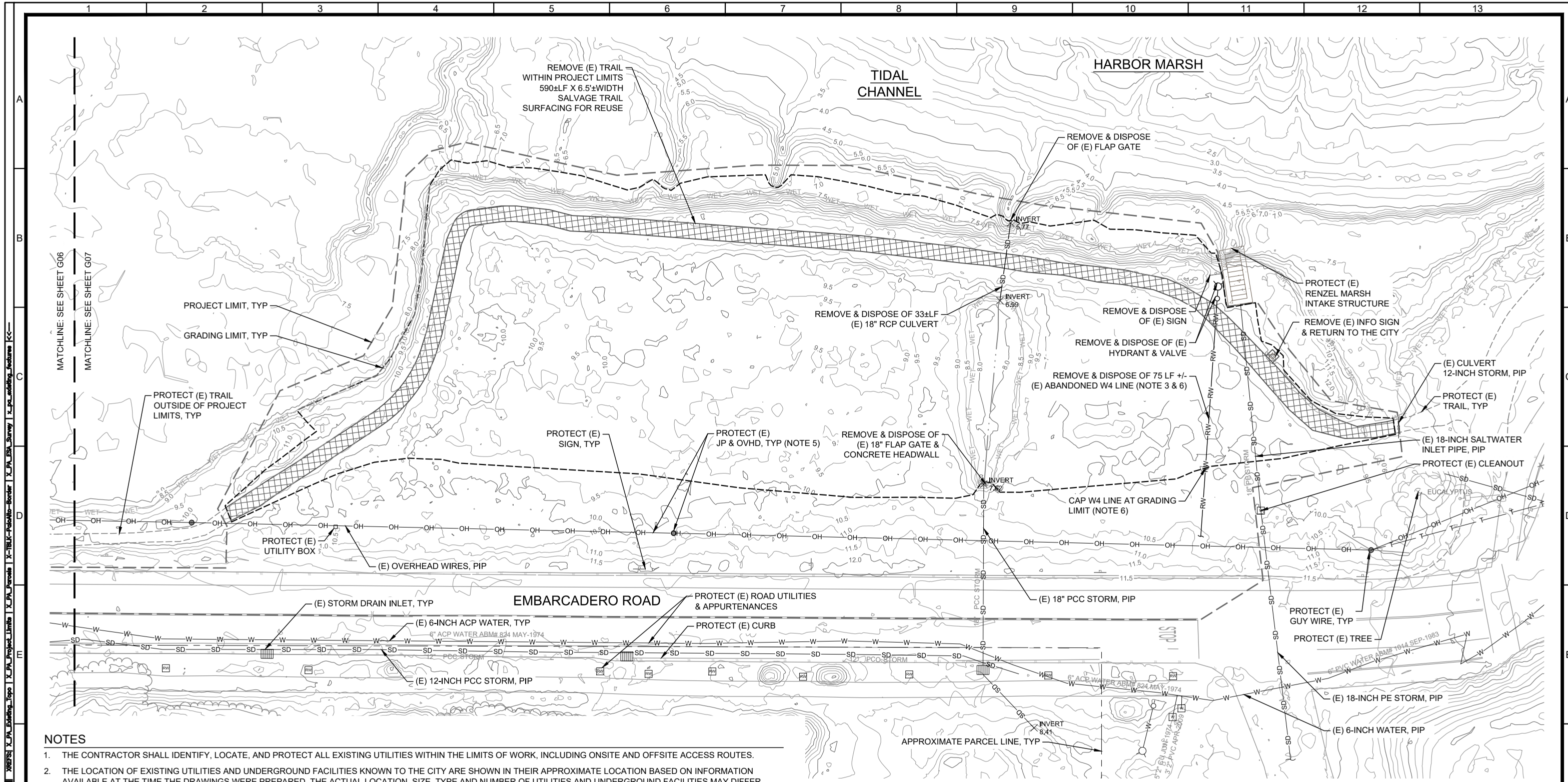


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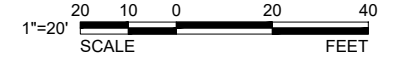
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FINAL 60% DESIGN
ENVIRONMENTAL PROTECTION

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" 1"	DATE MARCH 10, 2022
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	SHEET NO. 5 OF 38



- 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 PRESENT 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 CITY ENGINEER.

EXISTING CONDITIONS AND DEMOLITION - LEVEE AREA
PLAN
SCALE: 1" = 20'



REV	DATE	BY	DESCRIPTION
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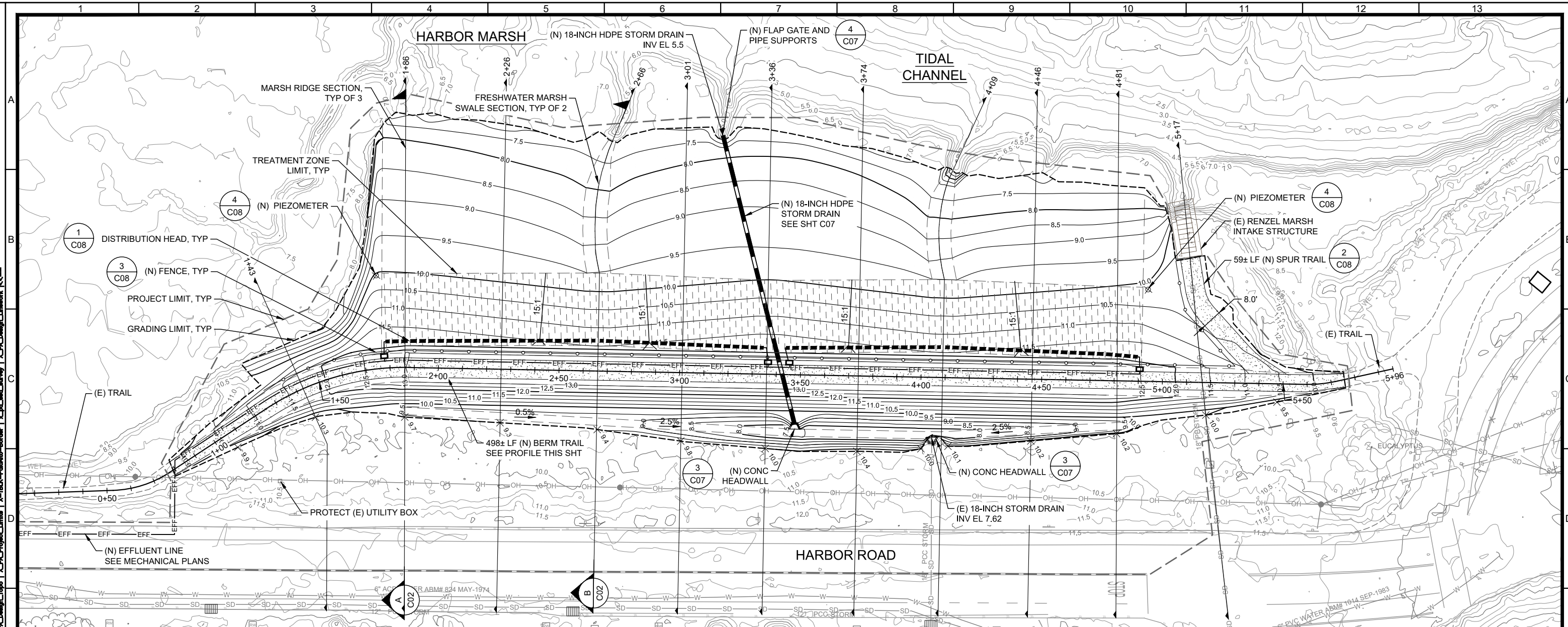


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EXISTING CONDITIONS AND DEMOLITION - LEVEE AREA

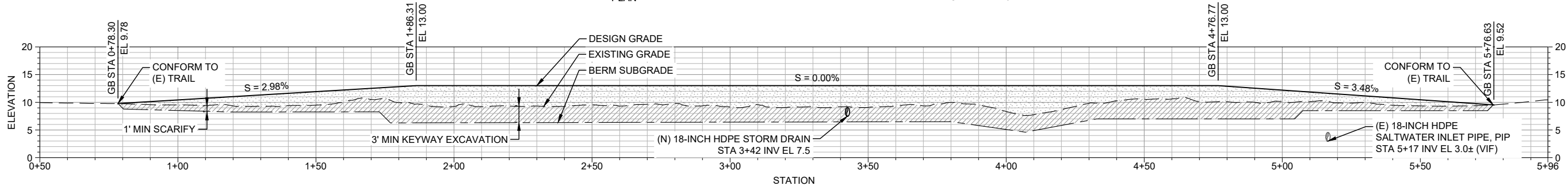
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GRADING PLAN

PLAN

SCALE: 1" = 20'

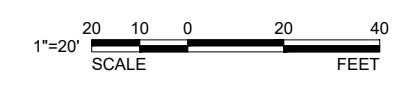


(N) BERM

PROFILE

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

- NOTES
- GRADING SECTIONS SHOWN ON SHEETS C03 TO C06.



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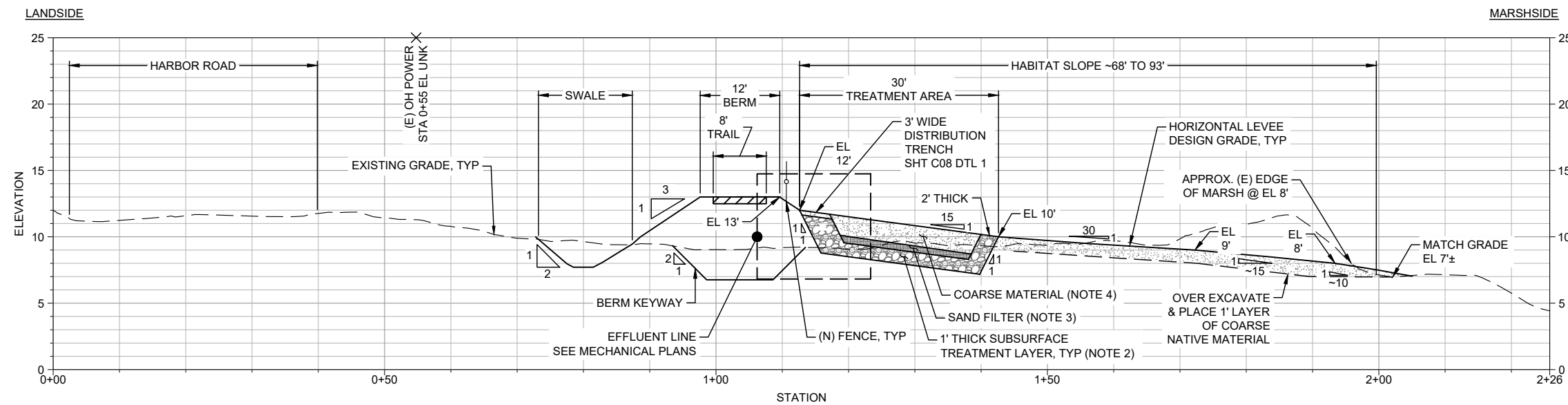
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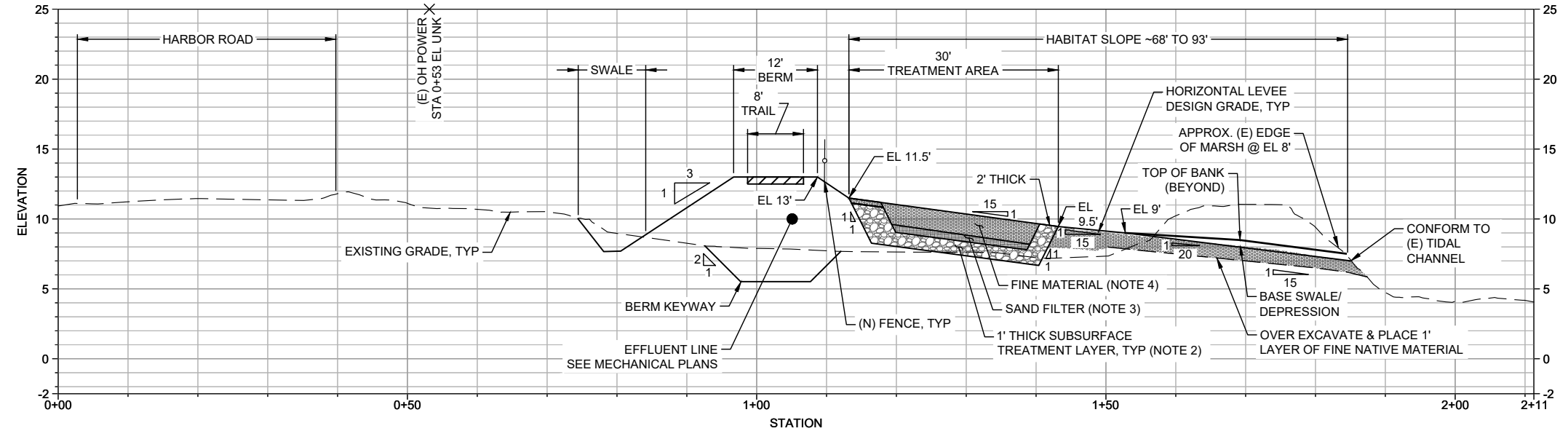
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GRADING PLAN

VERIFY SCALES	DATE
BAR IS ONE INCH ON ORIGINAL DRAWING	MARCH 10, 2022
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO.
	C01
	SHEET NO.
	9 OF 38



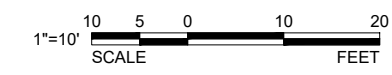
A TYPICAL SECTION - RIDGES/HIGH & WIDE
 PROFILE
 SCALE: 1" = 10' H
 1" = 5' V



B TYPICAL SECTION - SWALES
 PROFILE
 SCALE: 1" = 10' H
 1" = 5' 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 LAYER COMPRISED OF A BLEND OF DRAIN ROCK AND COMPOSTED WOOD CHIPS.
3. SAND FILTER COMPRISED OF A BLEND OF SAND AND WOOD CHIPS.
4. COARSE AND FINE MATERIAL INCLUDES A BLEND OF NATIVE MATERIAL WITH COMPOSTED WOOD FINES.
5. ALL ELEVATIONS ARE ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).



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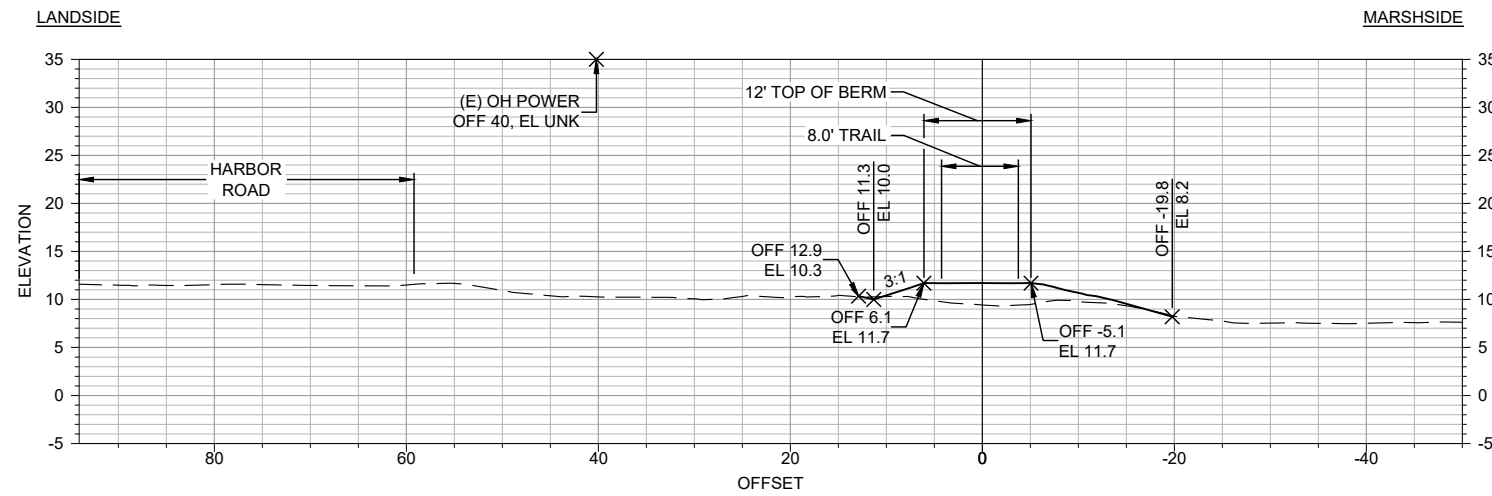
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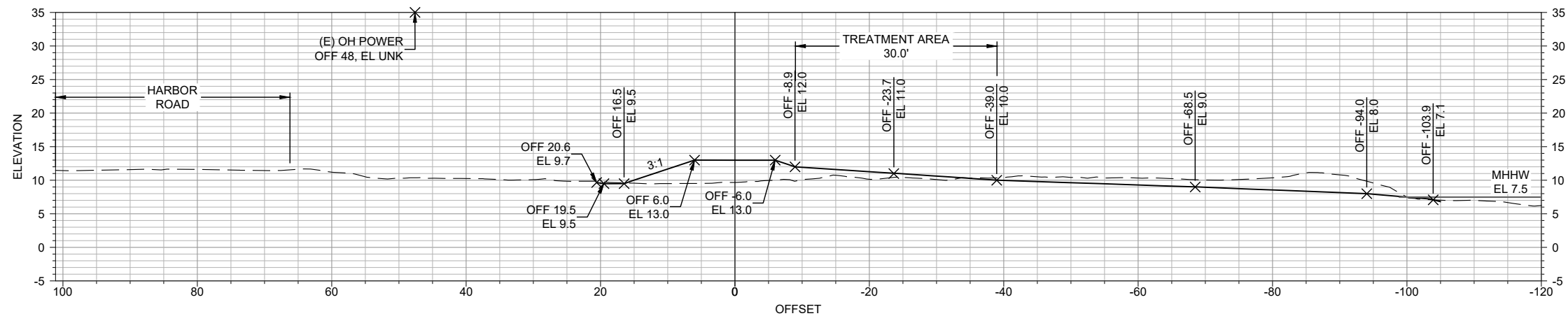
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 PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
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TYPICAL GRADING SECTIONS

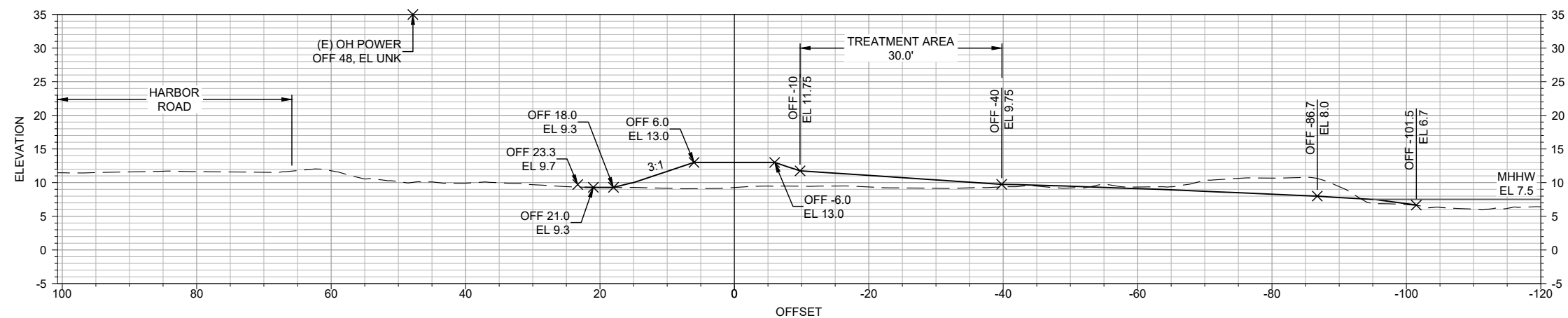
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0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. C02
	SHEET NO. 10 OF 38



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.



FILENAME: C02-C04 SECTIONS 3-14-22 10:14am M.Landscho XREFS X_PA_Profile X-TBLK-Patchto-Border K<<

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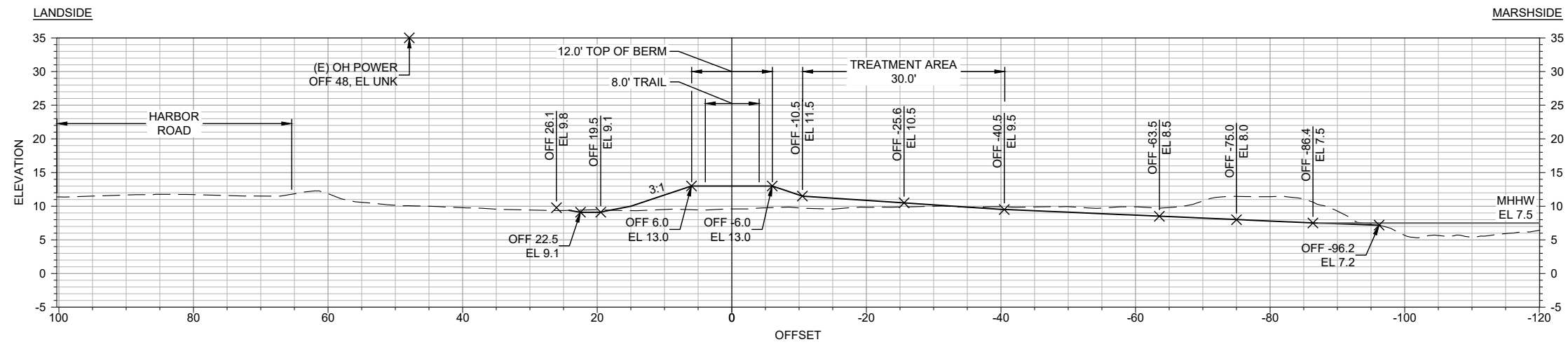


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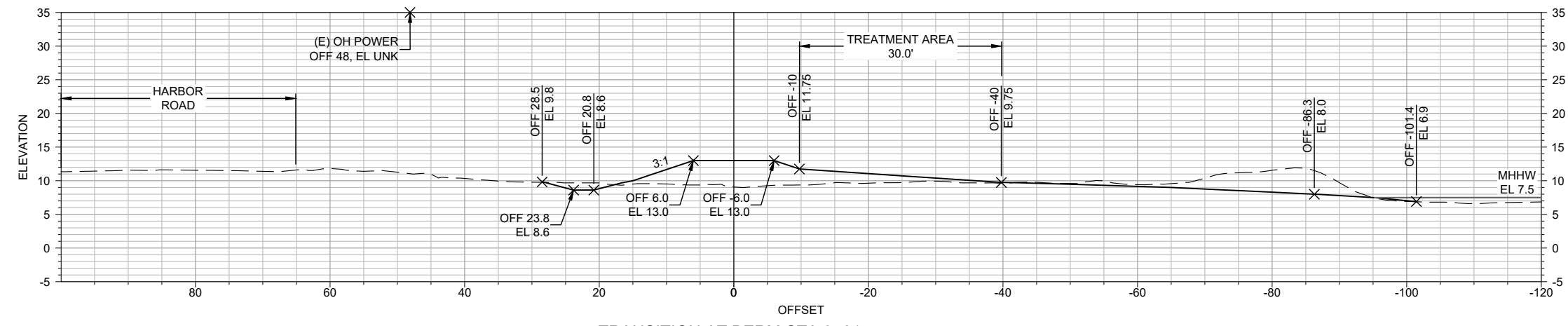
GRADING SECTIONS 1

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

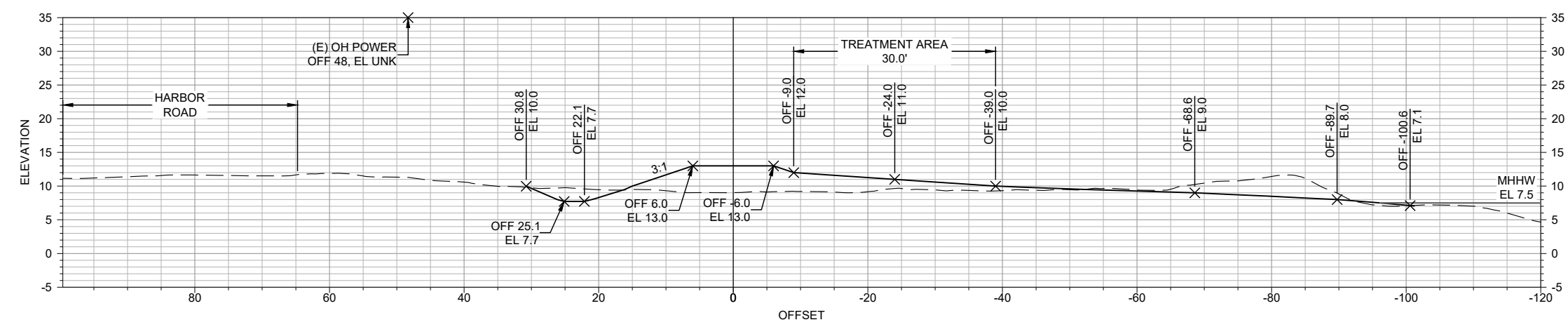
DATE
MARCH 10, 2022
DRAWING NO.
C03
SHEET NO.
11 OF 38



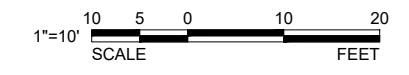
SWALE AT BERM STA 2+66
GRADING SECTION SCALE: 1" = 10' H
1" = 10' V



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.

FILENAME: C02-C04_SECTIONS_3-14-22_1014cm_Landscape | XREFS | X_PA_Profile | X-TBLK-Parcel-Border | K-

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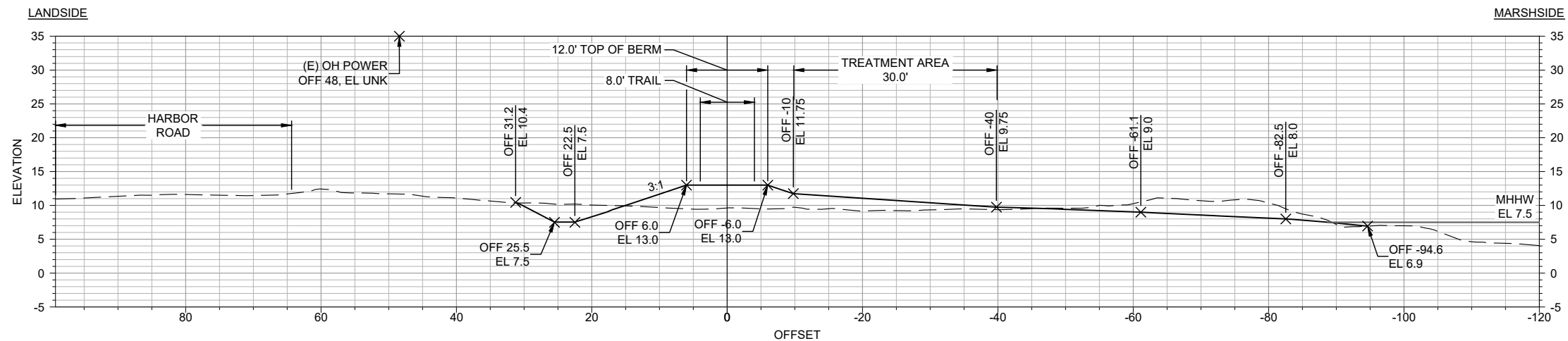


CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

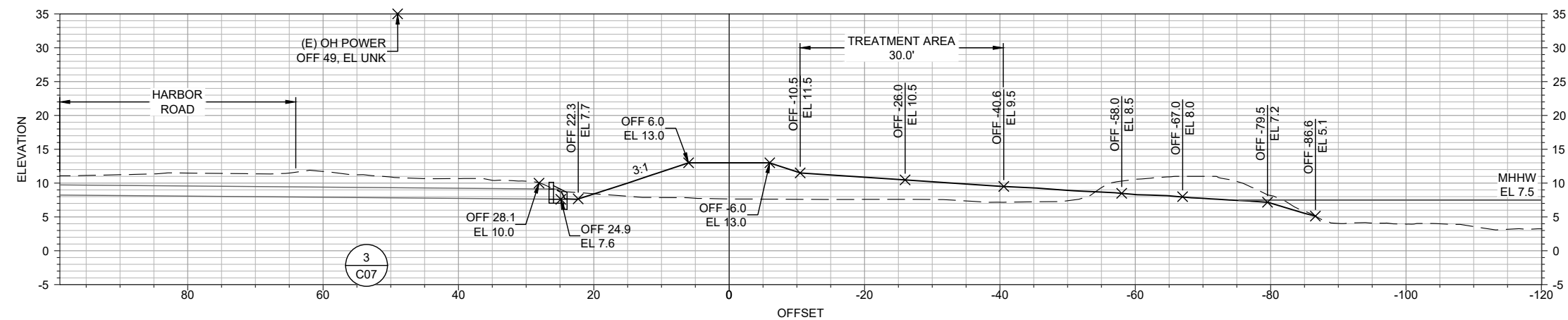
GRADING SECTIONS 2

VERIFY SCALES
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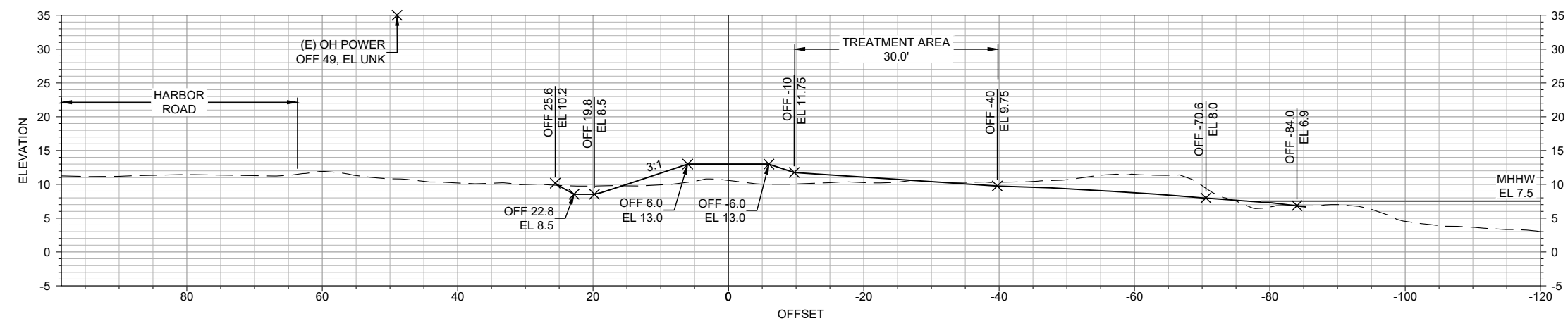
DATE
MARCH 10, 2022
DRAWING NO.
C04
SHEET NO.
12 OF 38



TRANSITION AT BERM STA 3+74
GRADING SECTION SCALE: 1" = 10' H
1" = 10' V

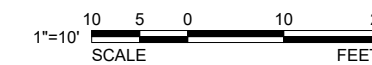


SWALE AT BERM STA 4+11
GRADING SECTION SCALE: 1" = 10' H
1" = 10' V



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.



FILENAME: C02-C04_SECTIONS_3-14-22_10:15am LANDSCAPE | XREFS | X_PA_Profile | X-TBLK-Patch-Border | X-C

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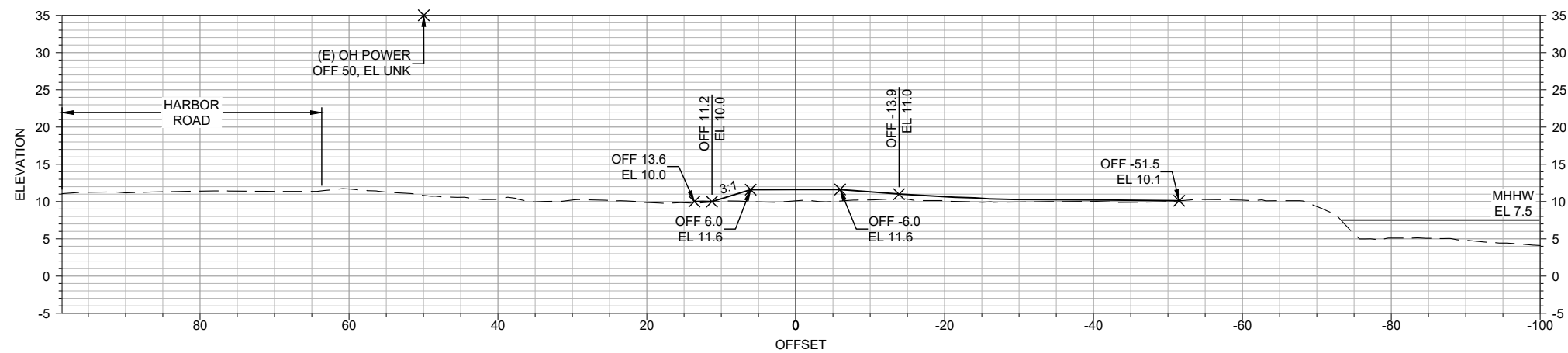
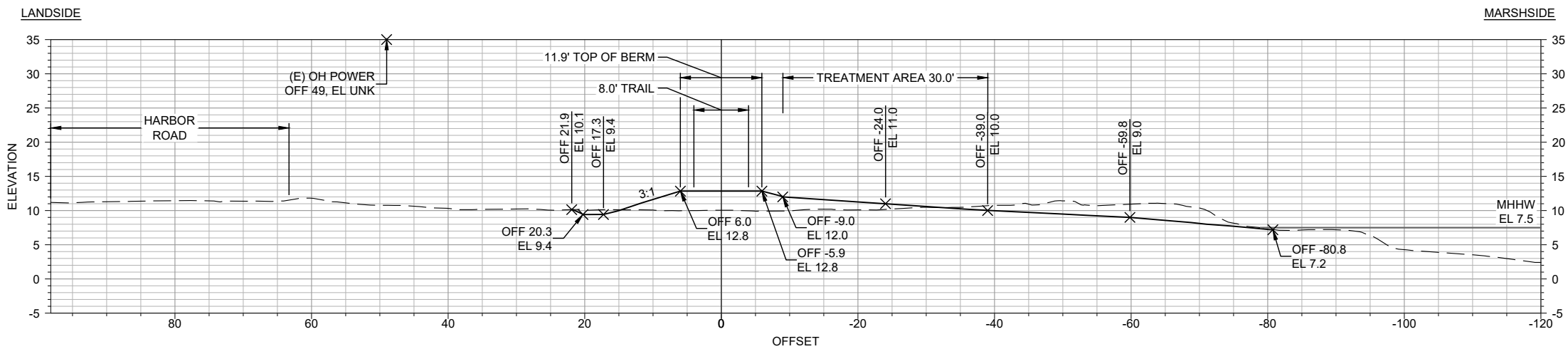


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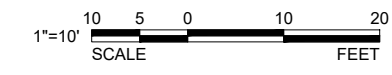


CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN
GRADING SECTIONS 3

VERIFY SCALES	DATE
BAR IS ONE INCH ON ORIGINAL DRAWING	MARCH 10, 2022
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO.
	C05
	SHEET NO.
	13 OF 38



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



FILENAME: C02-C04_SECTIONS_3-14-22_10115cm_M.Landscho | XREFS | X_PA_Profile | X_TBLK_PlotArea-Border | X- |

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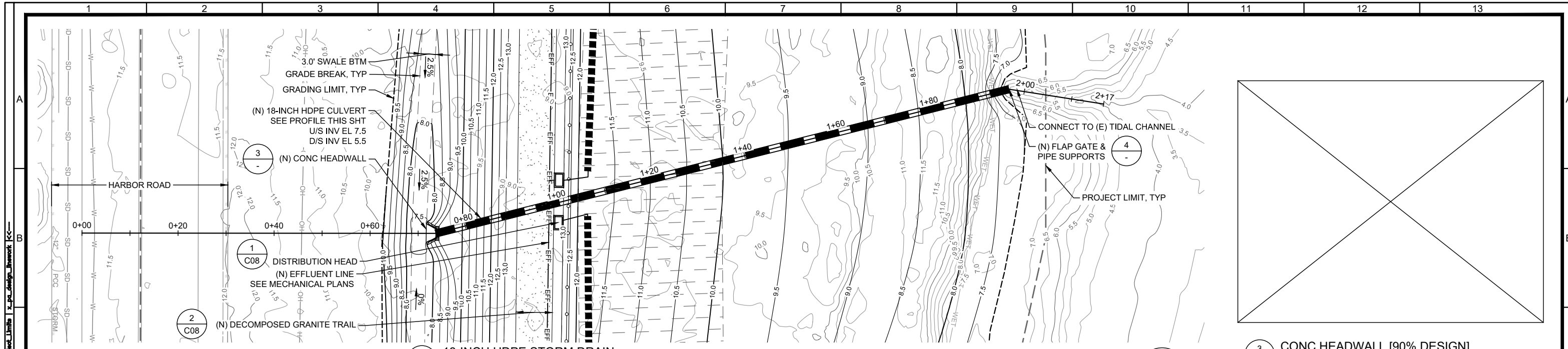


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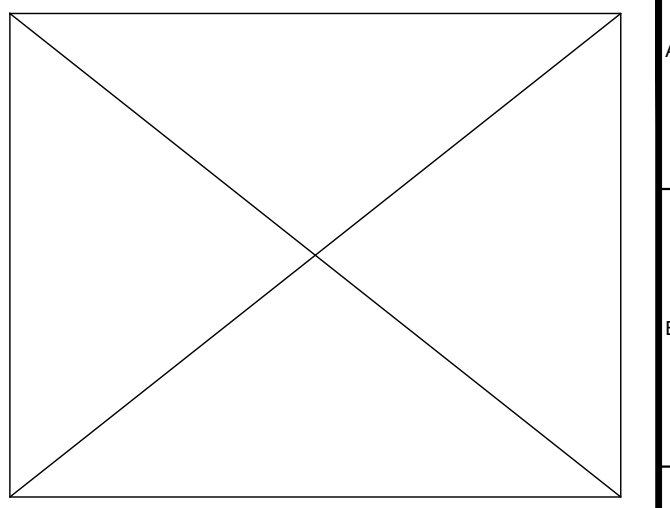


CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN
GRADING SECTIONS 4

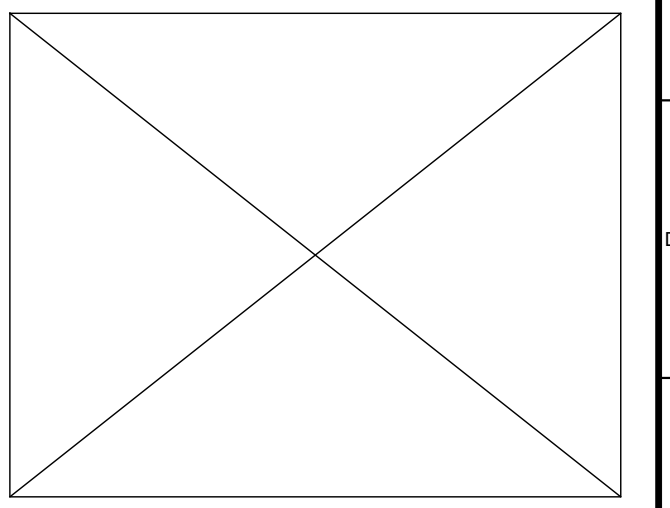
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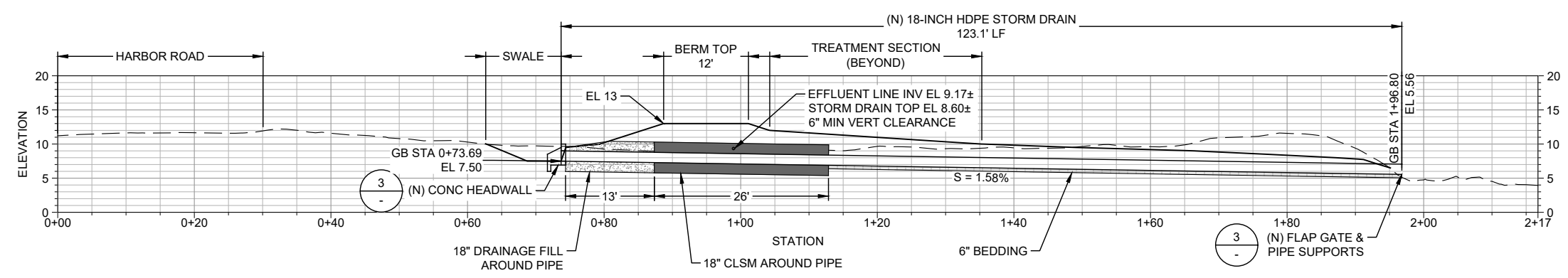
1 18-INCH HDPE STORM DRAIN
 C01 PLAN SCALE: 1"=10'
 1"=10' SCALE FEET



3 CONCRETE HEADWALL [90% DESIGN]
 C03 DETAIL SCALE: 1-1/2" = 1'



4 FLAP GATE & PIPE SUPPORTS [90% DESIGN]
 C04 DETAIL SCALE: 1-1/2" = 1'

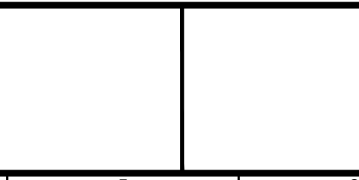


2 18-INCH HDPE STORM DRAIN
 C02 PROFILE SCALE: 1" = 10' H
 1" = 10' V 1"=10' SCALE FEET

- NOTES**
- CONSTRUCT LEVEE 2 FT ABOVE TOP OF PIPE ELEVATION PRIOR TO EXCAVATING PIPE TRENCH.

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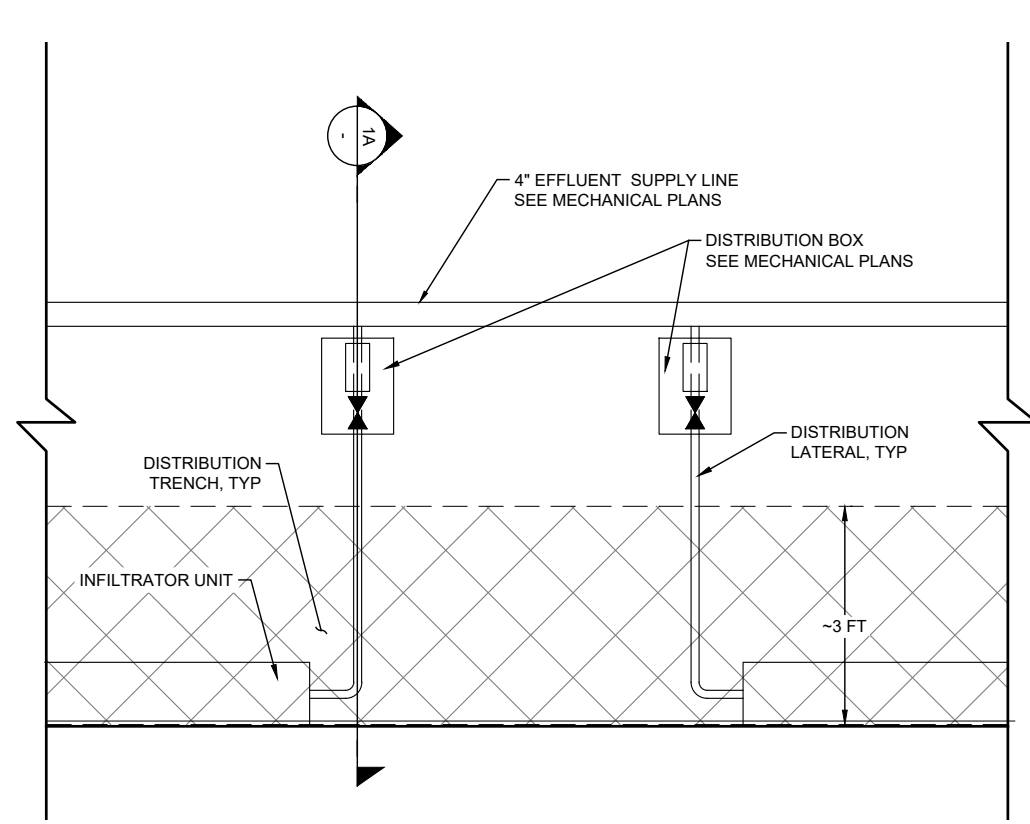


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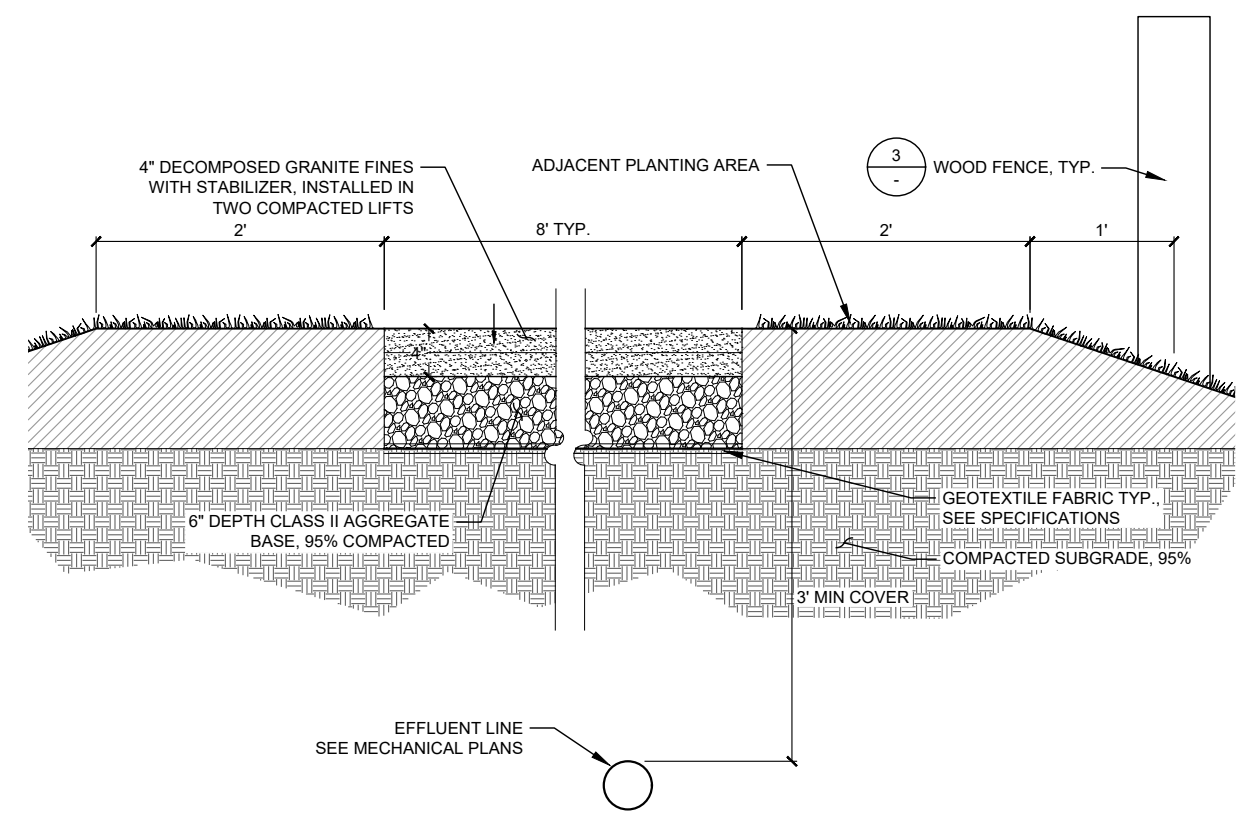


CITY OF PALO ALTO
 PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
 FINAL 60% DESIGN
STORM DRAIN PLAN & PROFILE

VERIFY SCALES	DATE
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0 1" SCALE	DRAWING NO.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	C07
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	15 OF 38

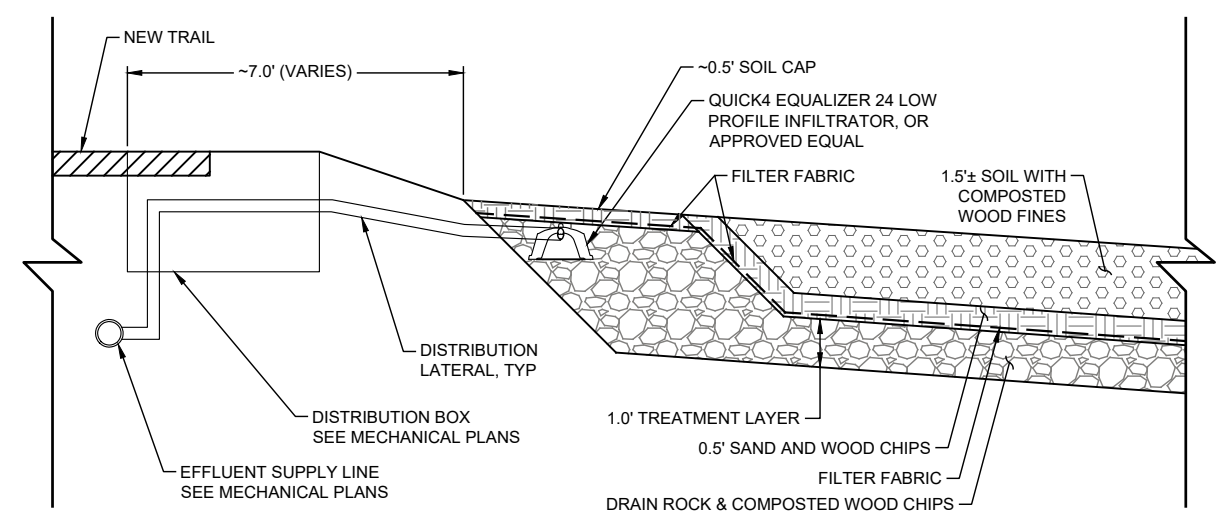


1 DISTRIBUTION HEAD
 C01 DETAIL SCALE: 1" = 2'
 1"=2' SCALE FEET

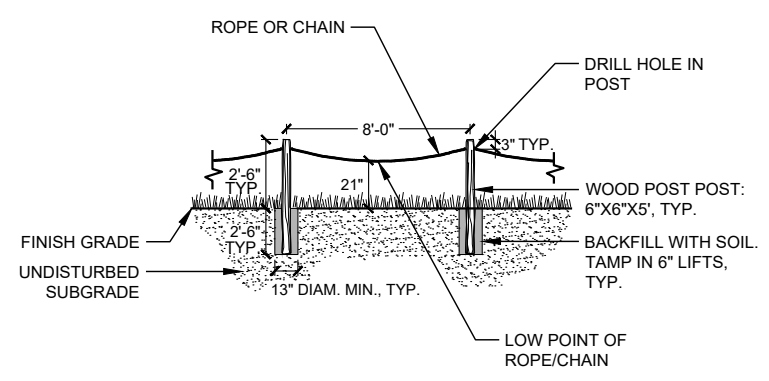


2 DECOMPOSED GRANITE PATH
 C01 DETAIL SCALE: 1-1/2" = 1'
 1-1/2"=1' SCALE FEET

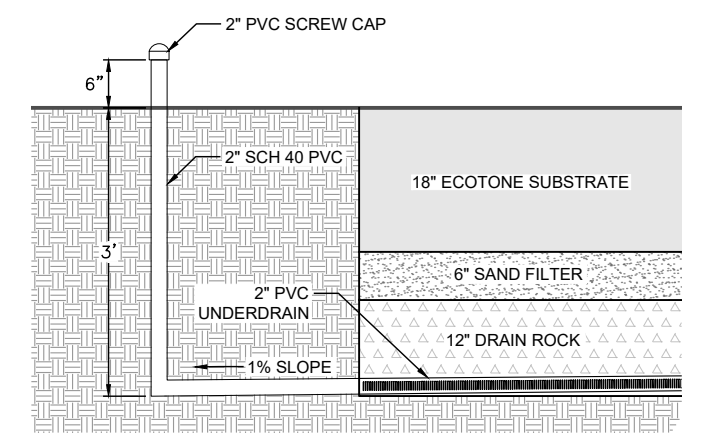
- NOTES**
1. DECOMPOSED GRANITE: GOLD PATHWAY FINES, O.A.E., AS AVAILABLE FROM AMERICAN SOIL & STONE PRODUCTS, TEL: 510-292-3000, WEBSITE: WWW.AMERICANSOIL.COM
 2. SET DG FLUSH WITH TOP OF ADJACENT GRADE.
 3. PITCH TO DRAIN WITH A SIDE SLOPE OF 1.9%.
 4. SEAL TOP LAYER WITH ALLIANCE GATOR STONE BOND LIQUID STONE STABILIZER, O.A.E., PER MANUFACTURER'S DIRECTIONS, AS AVAILABLE FROM AMERICAN SOIL AND STONE PRODUCTS, TEL: 510-292-3000, WEBSITE: WWW.AMERICANSOIL.COM



1A DISTRIBUTION CONNECTION AND TREATMENT ZONE MATERIAL
 C01 SECTION SCALE: 1" = 2'
 1"=2' SCALE FEET



3 WOOD FENCE
 C01 DETAIL SCALE: 1" = 4'
 1"=4' SCALE FEET



4 PIEZOMETER
 C01 DETAIL SCALE: 1" = 1'
 1"=1' SCALE FEET

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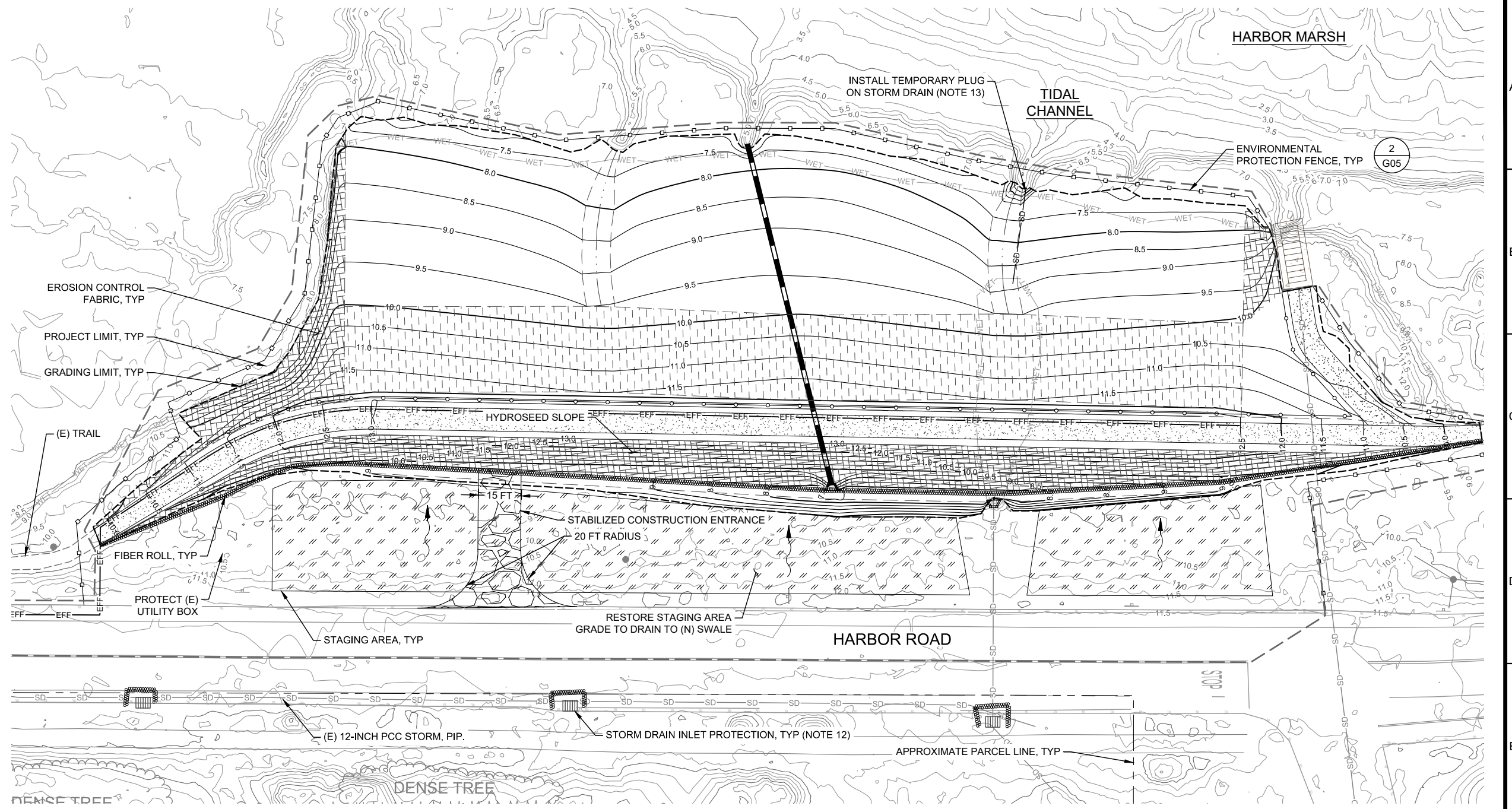
CIVIL DETAILS

VERIFY SCALES
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DATE
MARCH 10, 2022
 DRAWING NO.
C08
 SHEET NO.
16 OF 38

NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE PROJECT SWPPP, AND THE PROJECT PERMITS.
- 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):
 - SILT FENCE (SE-1);
 - FIBER ROLLS (SE-5);
 - STORM DRAIN INLET PROTECTION (SE-10);
 - STABILIZED CONSTRUCTION ENTRANCE/EXIT (TC-1);
 - STAGING AREA (NS-1, NS-8, NS-9, NS-10, NS-14, WM-01, WM-02, WM-04, WM-09, AND WM-10);
 - TEMPORARY STOCKPILE AREA (WM-03);
 - INTERIM HYDROSEEDING (EC-4);
 - DEWATERING OPERATION (NS-2);
 - CLEAR WATER DIVERSION (NS-5);
 - DEMOLITION REMOVAL ADJACENT TO WATER (NS-15).
- 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 OWNER'S REPRESENTATIVE AND NOTIFY THE DESIGN ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS.
- 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.
- 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 OWNER'S REPRESENTATIVE.
- LIMITS OF DISTURBED AREAS ARE APPROXIMATE ONLY. EROSION CONTROL MEASURES MUST BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
- 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



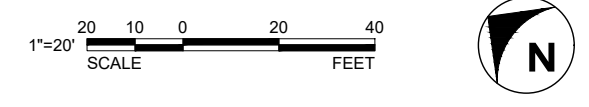
MEASURES TO PREVENT EROSION AND POLLUTED RUNOFF FROM ALL SITE CONDITIONS SHALL BE SUBMITTED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.

- 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.
- STABILIZED CONSTRUCTION ENTRANCE: A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED FOR REDUCING THE AMOUNT OF MUD THAT IS TRACKED FROM THE SITE TO THE STORM DRAIN SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING STABILIZED CONSTRUCTION

ENTRANCES, AS CONSTRUCTION PHASES DICTATE.

- 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.
- 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.
- 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'



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DRAWN BAD/ITS
CHECKED MRL

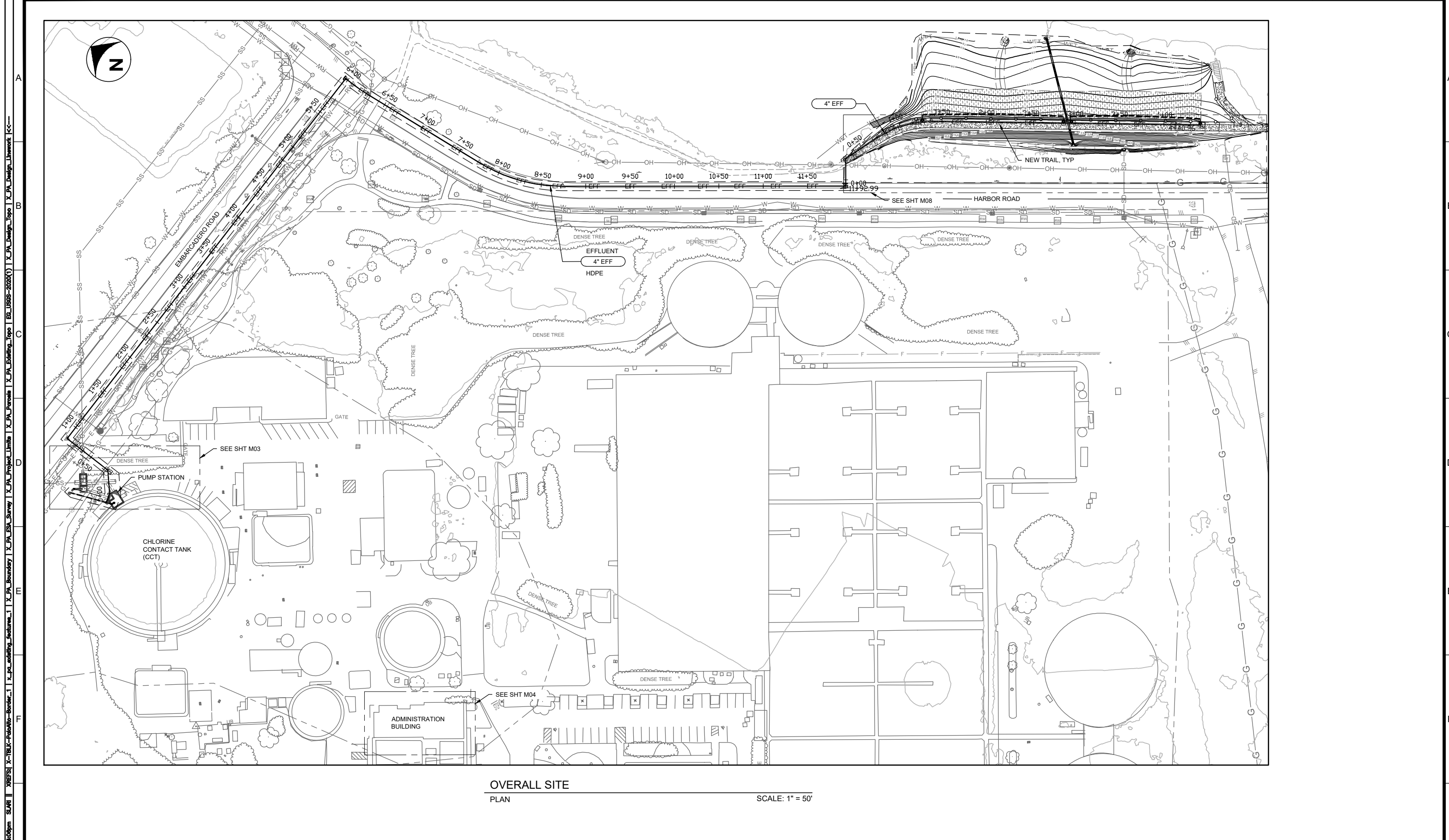
550 KEARNY STREET
SUITE 800
SAN FRANCISCO, CA 94108
T 415.896.5900
WWW.ESASSOC.COM

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

SEDIMENT AND EROSION CONTROL PLAN

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

DATE MARCH 10, 2022
DRAWING NO. C09
SHEET NO. 17 OF 38

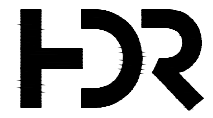


OVERALL SITE
PLAN

SCALE: 1" = 50'

REV	DATE	BY	DESCRIPTION

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



CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

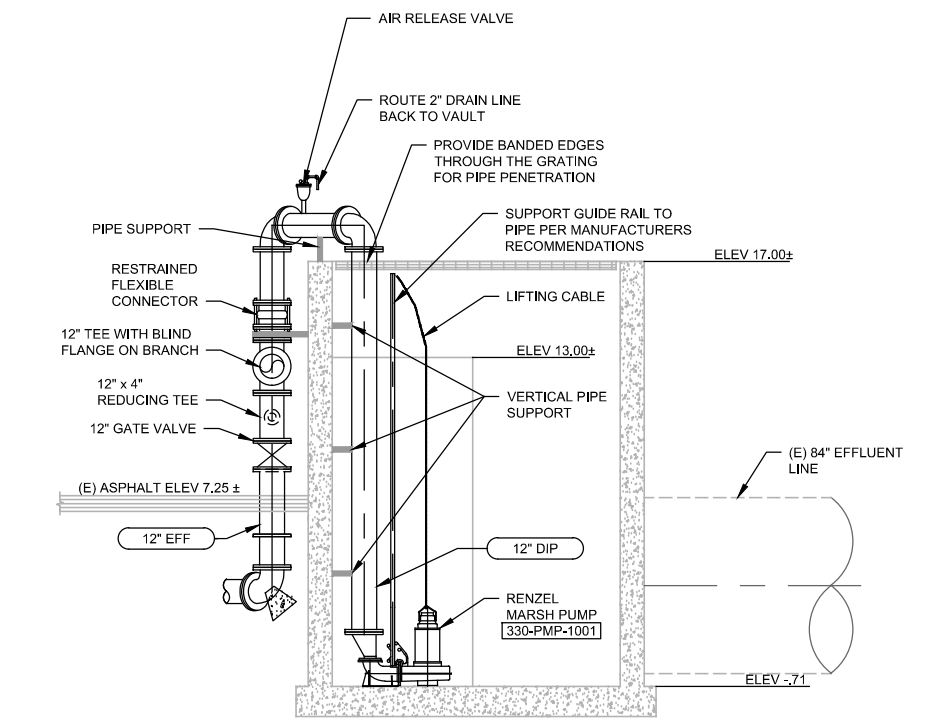
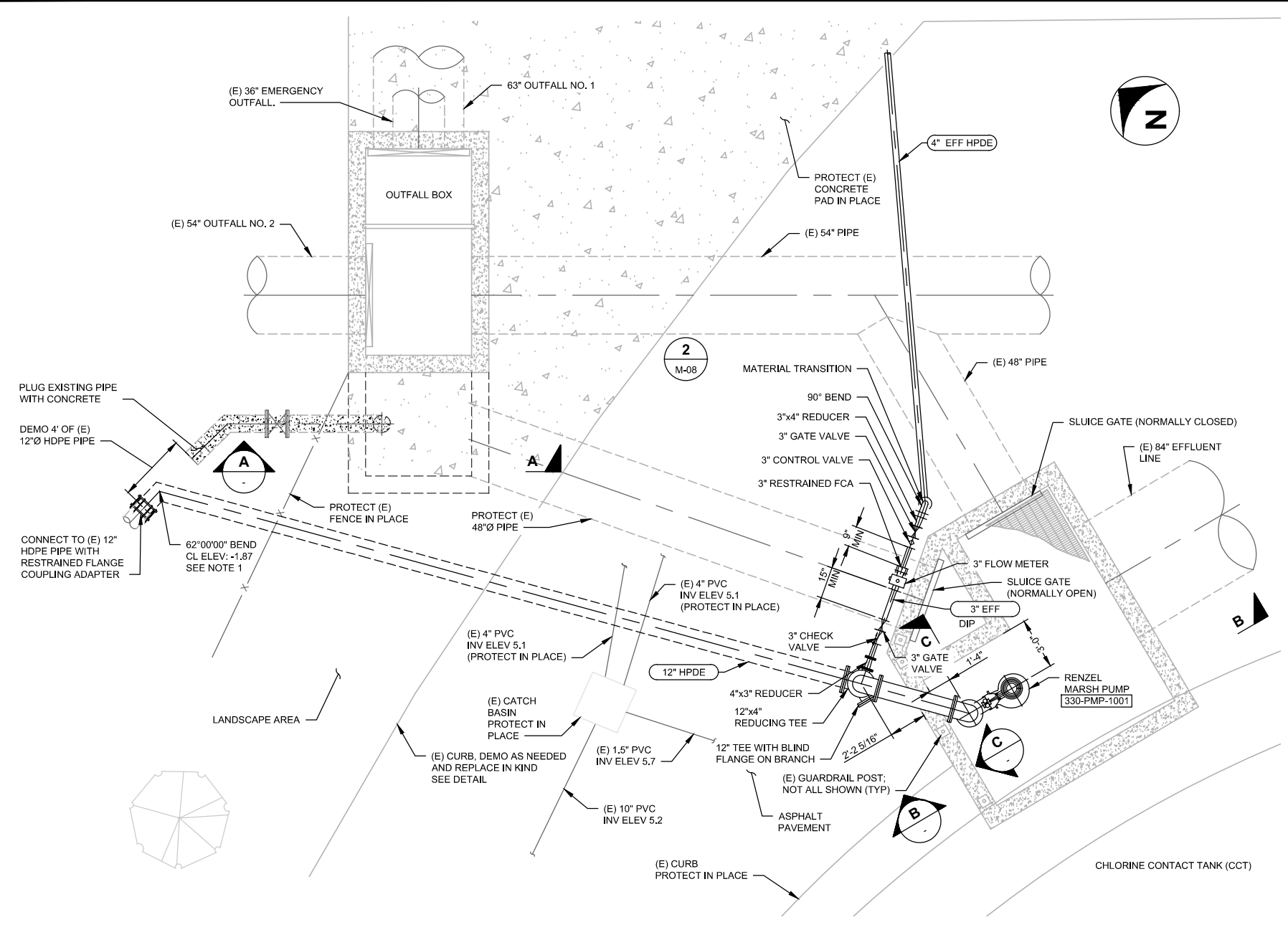
OVERALL PLAN AND KEY NOTES

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

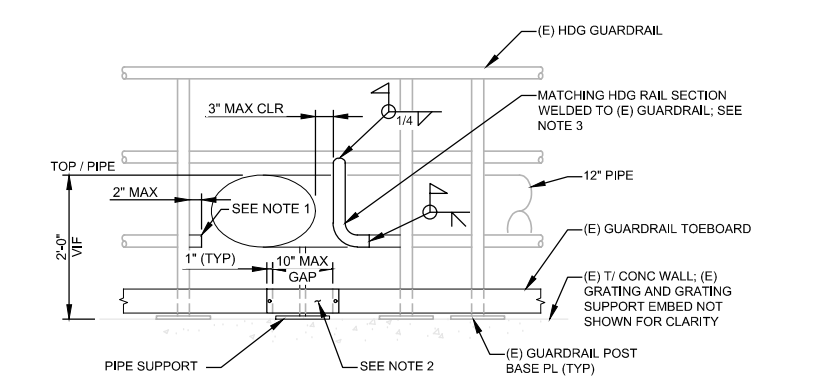
DATE
NOV. 2021
DRAWING NO.
M02
SHEET NO.
19 OF 38

NOTES:

1. POT HOLE 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.

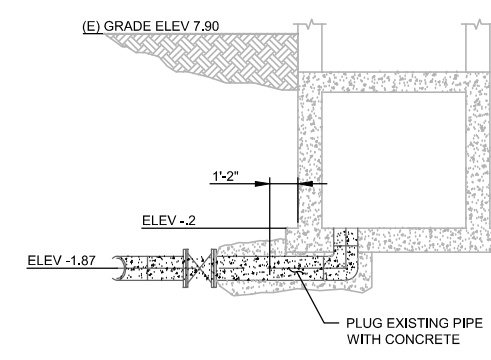


SECTION B
1/4"=1'-0"



- 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



SECTION A
1/4"=1'-0"

PLAN
1/4"=1'-0"

DESIGNED	T. HOFFMAN		
DRAWN	S. LARI		
CHECKED	T. KONTONICKAS		
REV	DATE	BY	DESCRIPTION

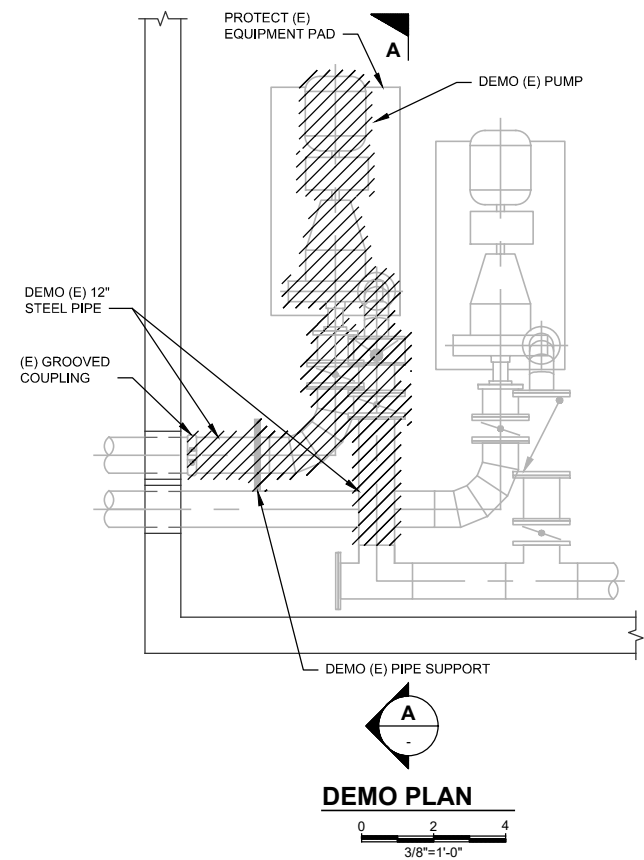
CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

PUMPING PLAN AND SECTIONS

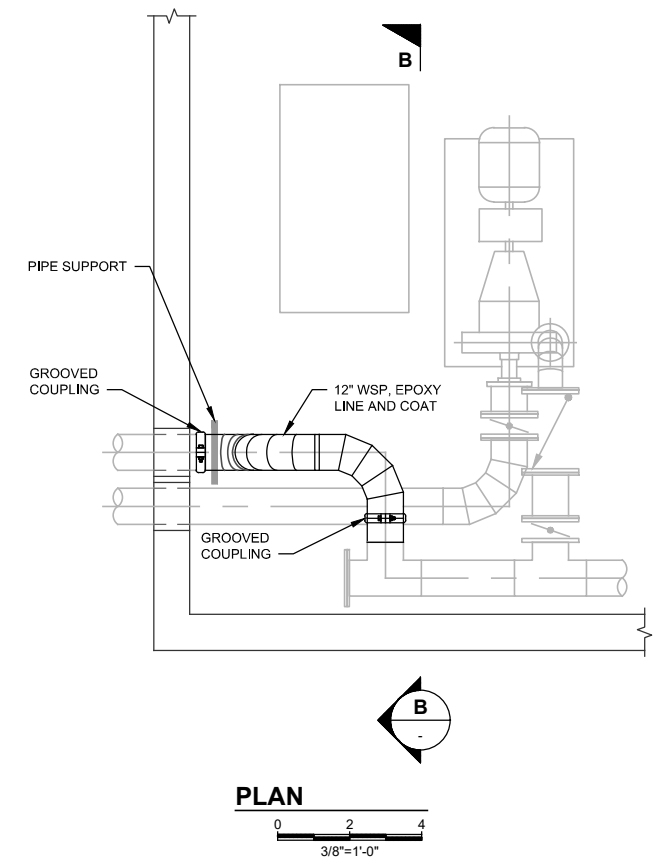
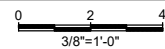
VERIFY SCALES	DATE
BAR IS ONE INCH ON ORIGINAL DRAWING	NOV. 2021
0 1"	DRAWING NO.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	M03
	SHEET NO.
	20 OF 38

NOTES:

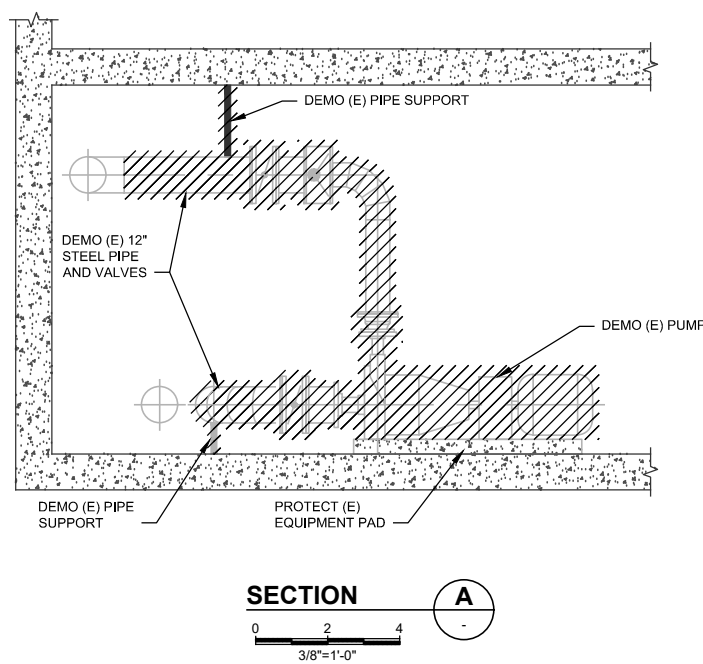
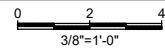
1. PIPING AND EQUIPMENT THAT IS REMOVED AND WHICH IS NOT SHOWN TO BE RELOCATED OR SALVAGED SHALL BE DISPOSED OF BY THE CONTRACTOR.
2. CONTRACTOR SHALL ASSUME (E) SUPPORTS TO BE DEMOLISHED ARE SIMILAR TO THE SUPPORTS REPLACING THEM.
3. ALL NEW PIPING ON THIS SHEET SHALL BE 12"Ø WELDED STEEL. SEE SECTION 40 27 00.



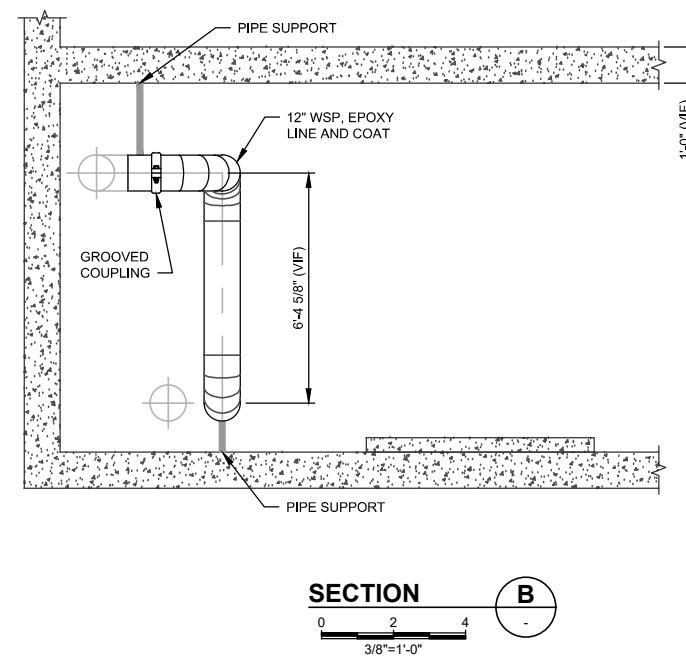
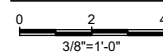
DEMO PLAN



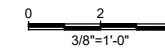
PLAN



SECTION A



SECTION B



FILENAME: WVA_3-10-22 04:09pm SLARI XRESH X-TBK-PaloAlto-Border 1-1

REV	DATE	BY	DESCRIPTION

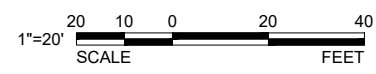
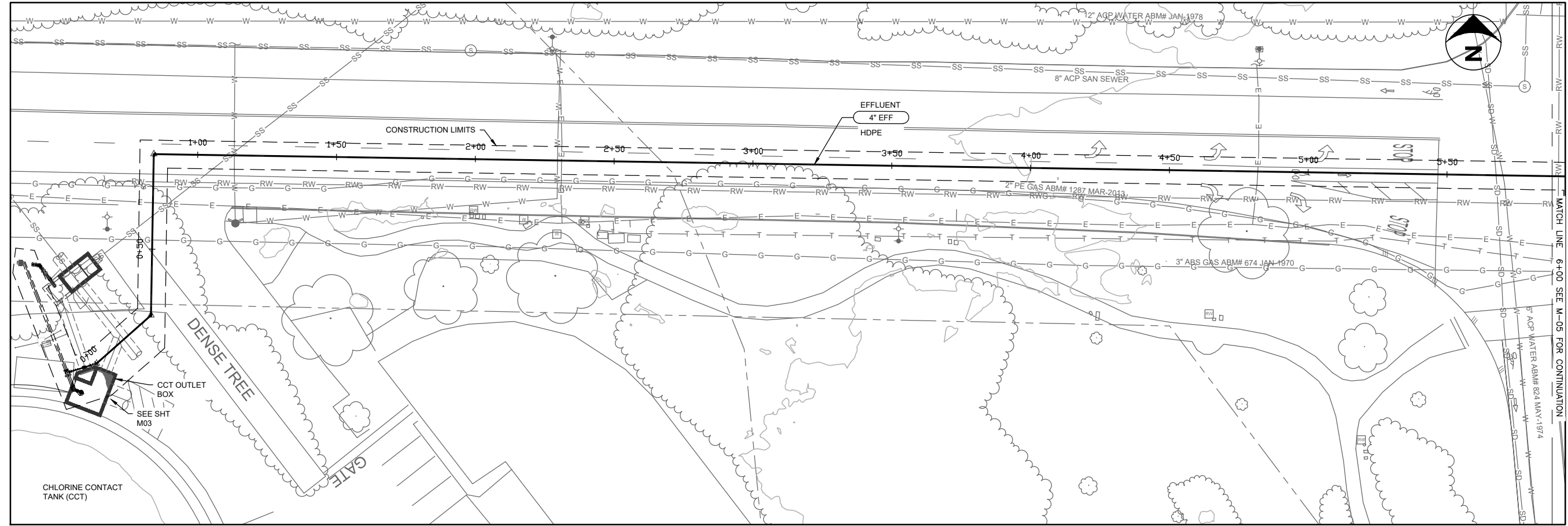
DESIGNED
T. HOFFMAN
DRAWN
S. LARI
CHECKED
T. KONTONICKAS



CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN
**RENZEL MARSH PUMP
BYPASS UPGRADE (ADMIN BLDG)**

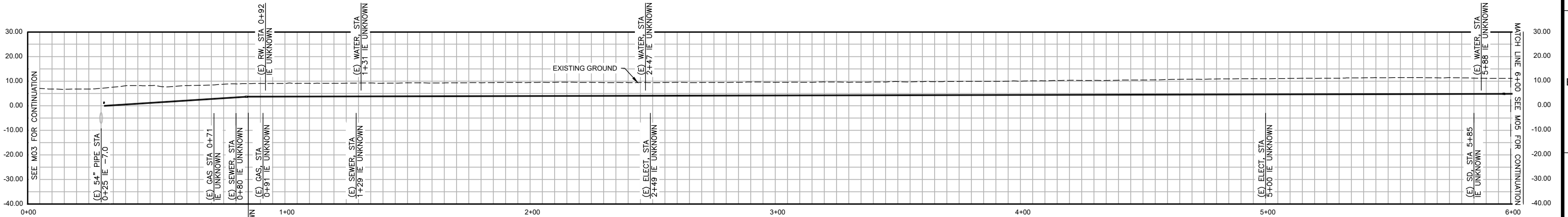
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE
NOV. 2021
DRAWING NO.
M04
SHEET NO.
21 OF 38



EFFLUENT PIPE
PLAN

SCALE: 1" = 20'



EFFLUENT PIPE
PROFILE

SCALE: 1" = 20'

REV	DATE	BY	DESCRIPTION
1			
2			
3			

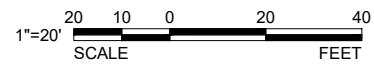
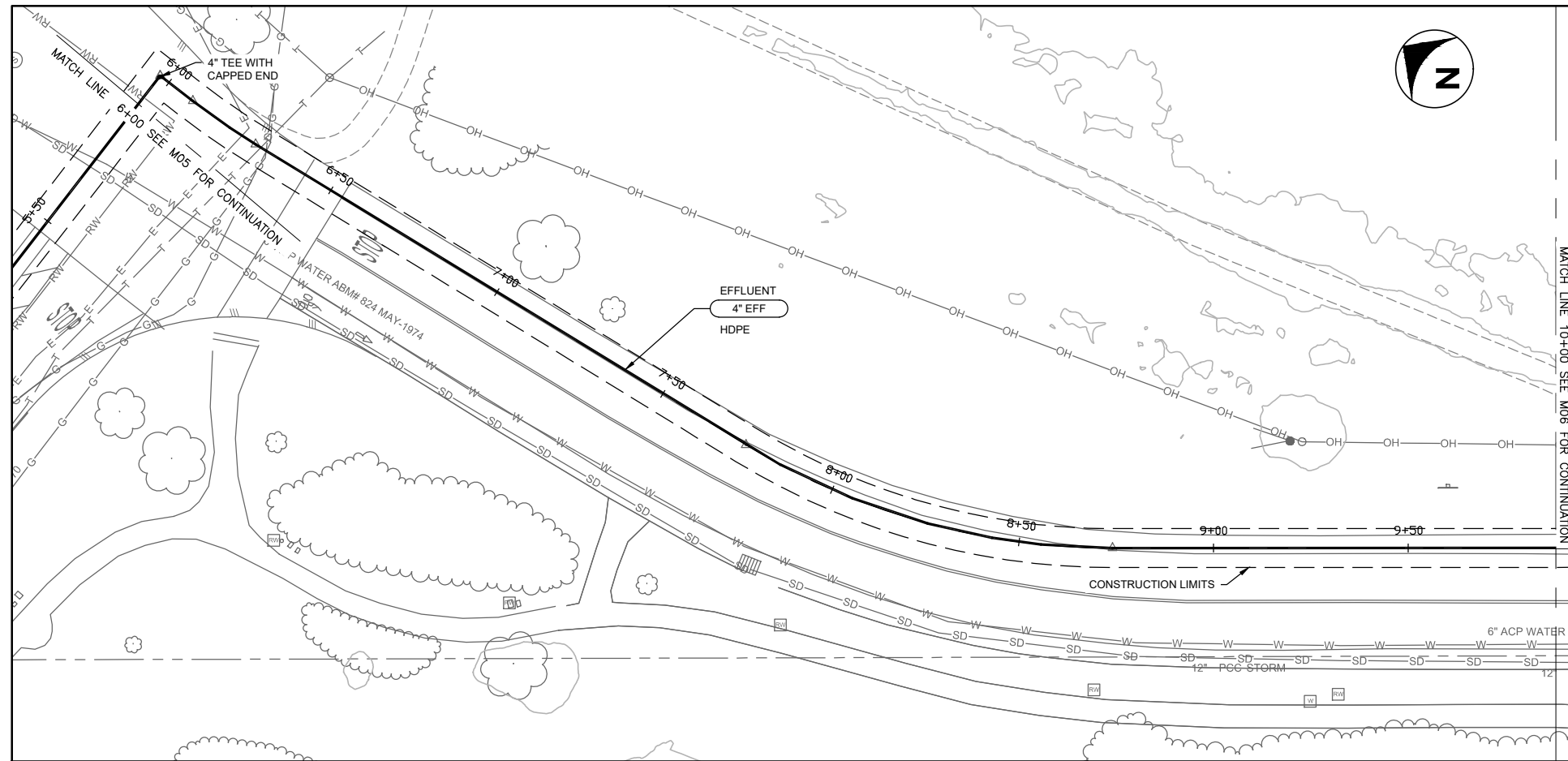
DESIGNED
T. HOFFMAN
DRAWN
S. LARI
CHECKED
T. KONTONICKAS



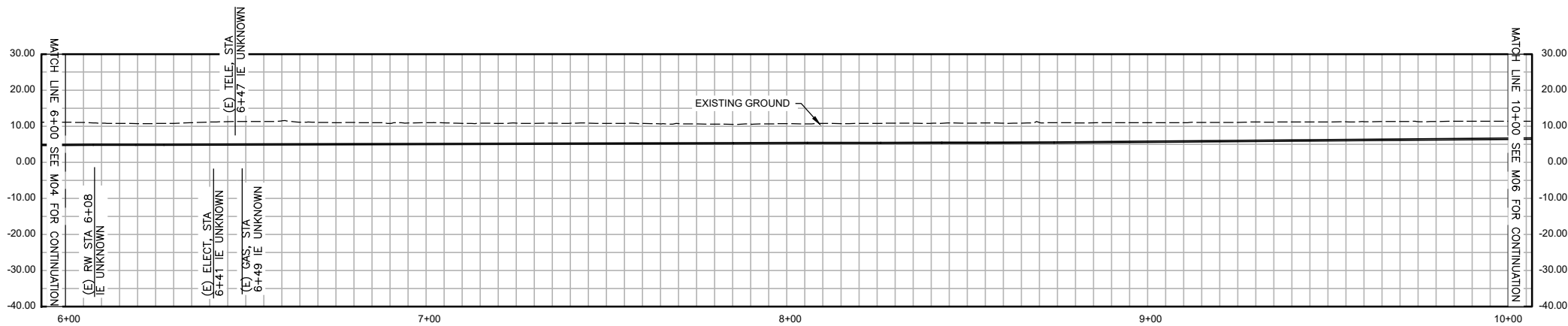
CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

EFFLUENT PIPE PLAN AND PROFILE 1

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	DATE NOV. 2021 DRAWING NO. M05 SHEET NO. 22 OF 38
--	--



EFFLUENT PIPE
 PLAN SCALE: 1" = 20'



EFFLUENT PIPE
 PROFILE SCALE: 1" = 20'

FILENAME: M06_3-10-22 04:09pm SURF | XREFS: X-TBK-Public-Border_1 | X_PU_Existing_Border_1 | X_PU_Boundary | X_PU_ESA_Survey | X_PU_Existing_Topog | X_PU_Parcel | X_PU_Project_Limits | X_PU_Existing_Topog | ER_US68-2020(1) | K-C-

REV	DATE	BY	DESCRIPTION

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



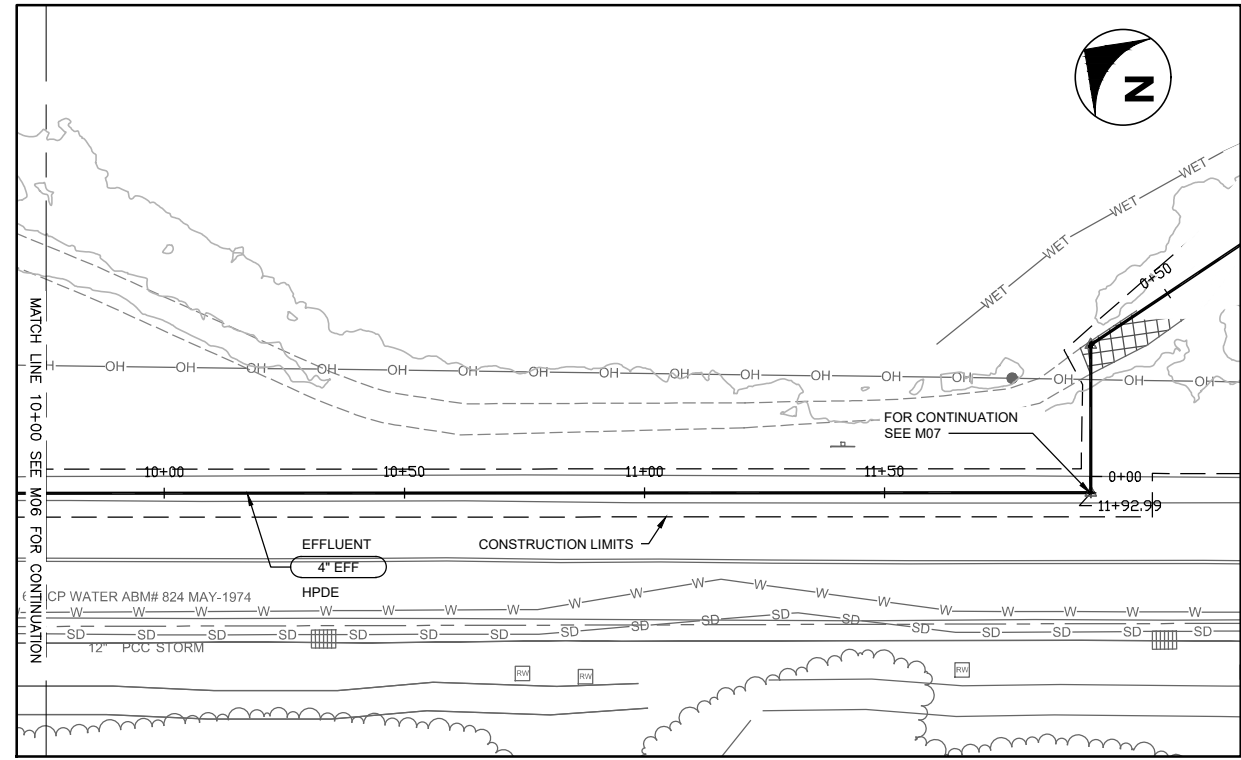
CITY OF PALO ALTO
 PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
 FINAL 60% DESIGN

EFFLUENT PIPE PLAN AND PROFILE 2

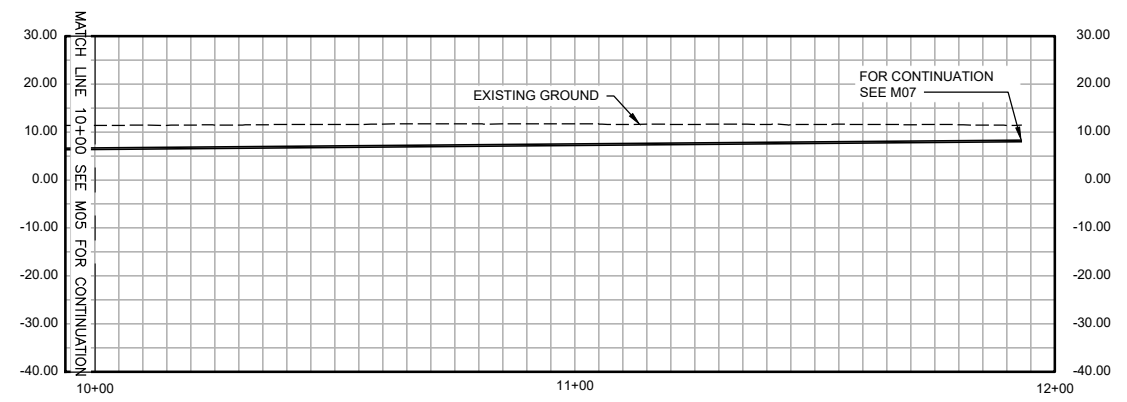
VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"

DATE
 NOV. 2021
 DRAWING NO.
 M06
 SHEET NO.
 23 OF 38

FILENAME: M07_3-10-22 04:09pm S.LARI | XREFS: X-TBK-Public-Border_1 | X_PC_Utilities_Border_1 | X_PA_Boundary | X_PA_ESA_Survey | X_PA_Permit | X_PA_Existing_Topo | ER_US68-2020(1) | <<--



1"=20'
 SCALE 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



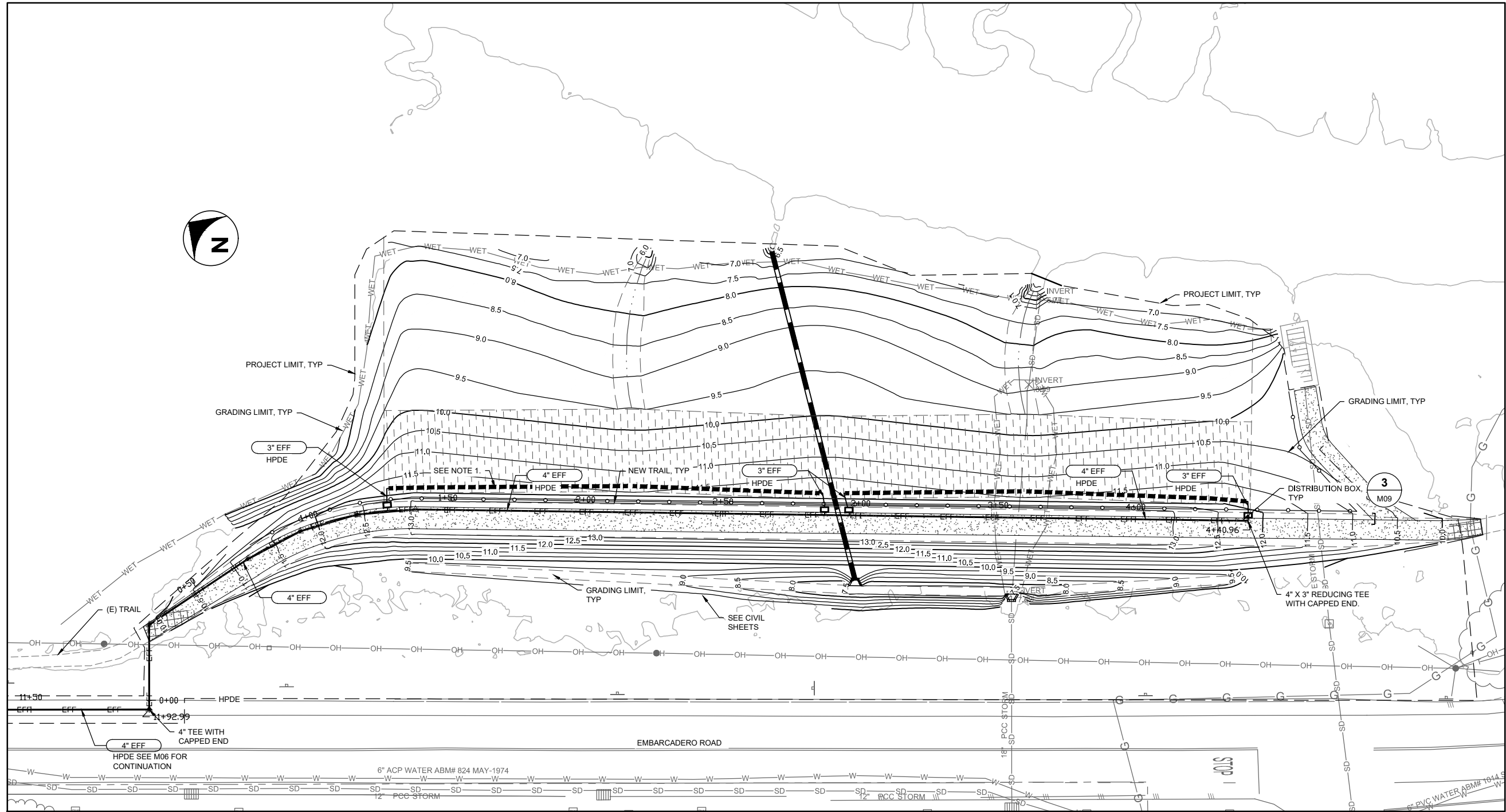
CITY OF PALO ALTO
 PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
 FINAL 60% DESIGN

CONVEYANCE PIPE PLAN AND PROFILE 3

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"

DATE
 NOV. 2021
 DRAWING NO.
M07
 SHEET NO.
 24 OF 38

FILENAME: M08_3-10-22 04:09pm S:\ARI\PROJECTS\TBLK-PaloAlto-Border_1\PC_Utilities\Border_1\PA_Existing\Border_1\PA_Boundary\PA_Boundary_Survey\PA_Boundary_Survey_Topographic\PA_Design\Border_1\PA_Design_Utilities\PA_Design_Utilities.dwg



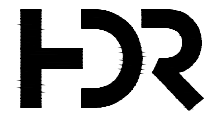
HORIZONTAL LEVEL EFFLUENT PIPE
PLAN
SCALE: 1" = 20'

NOTES

- 1. INFILTRATION UNITS SHALL BE LOW PROFILE CHAMBERS FROM INFILTRATOR WATER TECHNOLOGIES OR EQUAL AT 34" WIDTH X 8" HEIGHT. CONNECT EFFLUENT PIPE TO INFILTRATION UNIT PER MANUFACTURER INSTRUCTIONS.

REV	DATE	BY	DESCRIPTION

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



CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEL PILOT PROJECT
FINAL 60% DESIGN

HORIZONTAL LEVEL SUPPLY PIPE PLAN

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

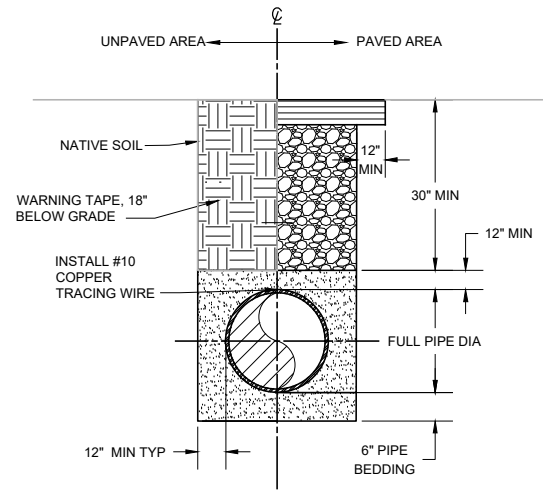
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

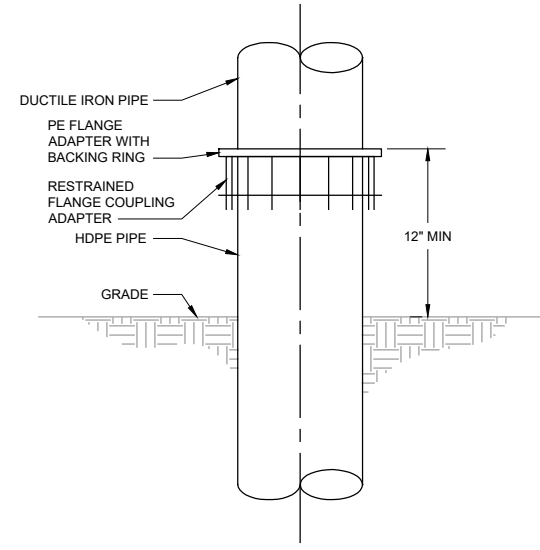
DATE
NOV. 2021

DRAWING NO.
M08

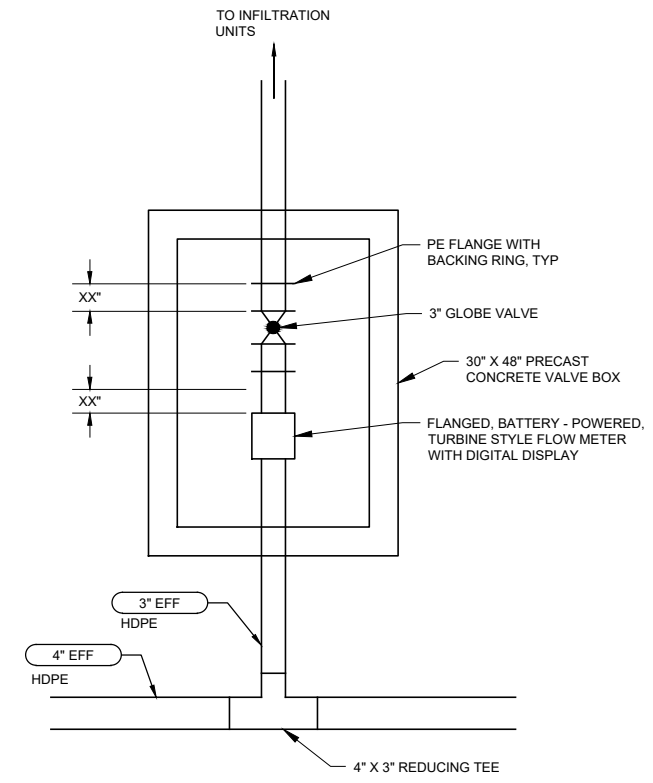
SHEET NO.
25 OF 38



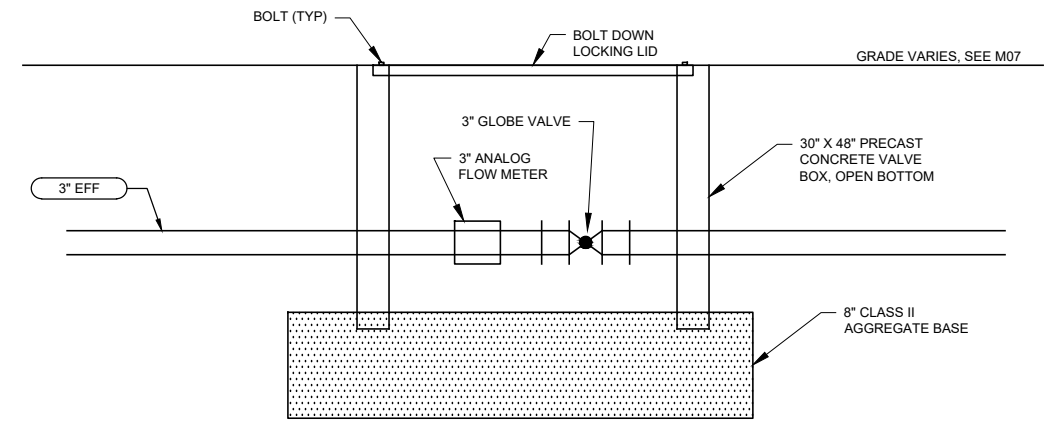
TRENCH DETAIL
NOT TO SCALE



PIPE TRANSITION
NOT TO SCALE



PLAN



SECTION

DISTRIBUTION BOX
1" = 1"

REV	DATE	BY	DESCRIPTION

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



CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

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
NOV. 2021
DRAWING NO.
M09
SHEET NO.
26 OF 38

FILENAME: M09_3-10-22_04:07pm_S.LARI_XREFS: X-TBK-PaloAlto-Border 1<<

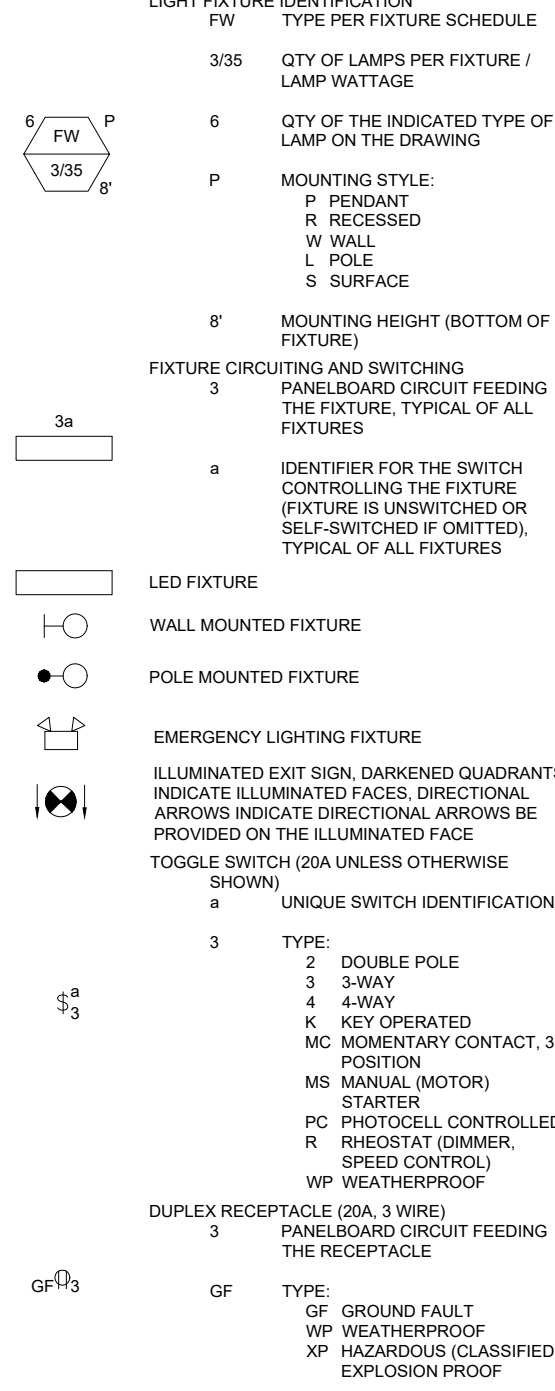
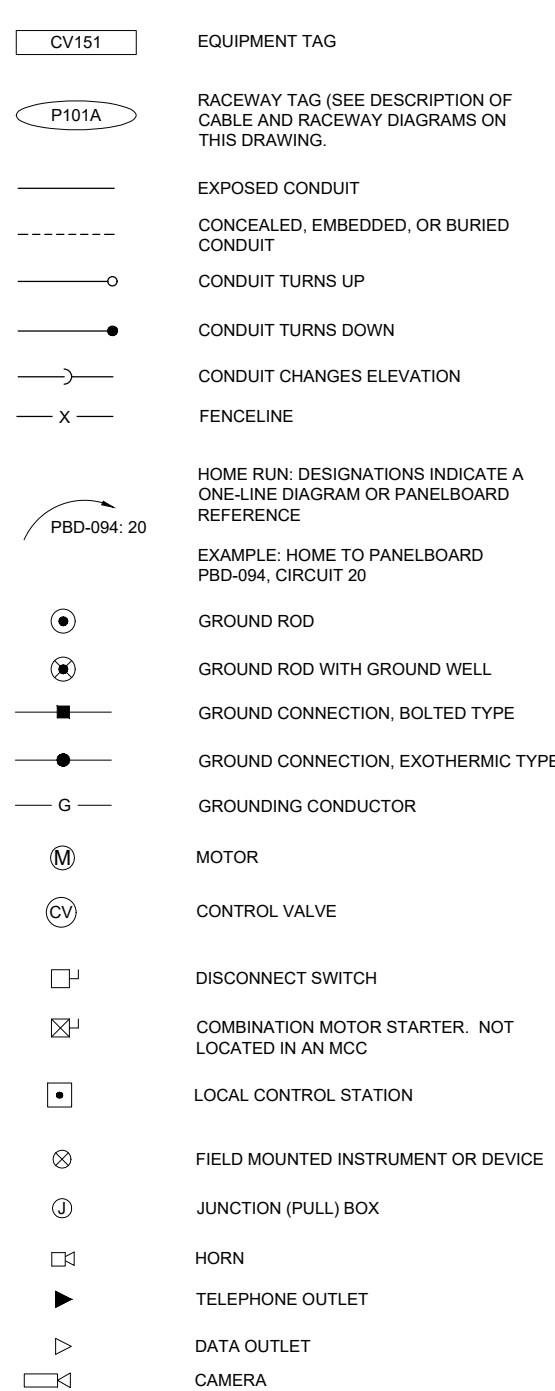
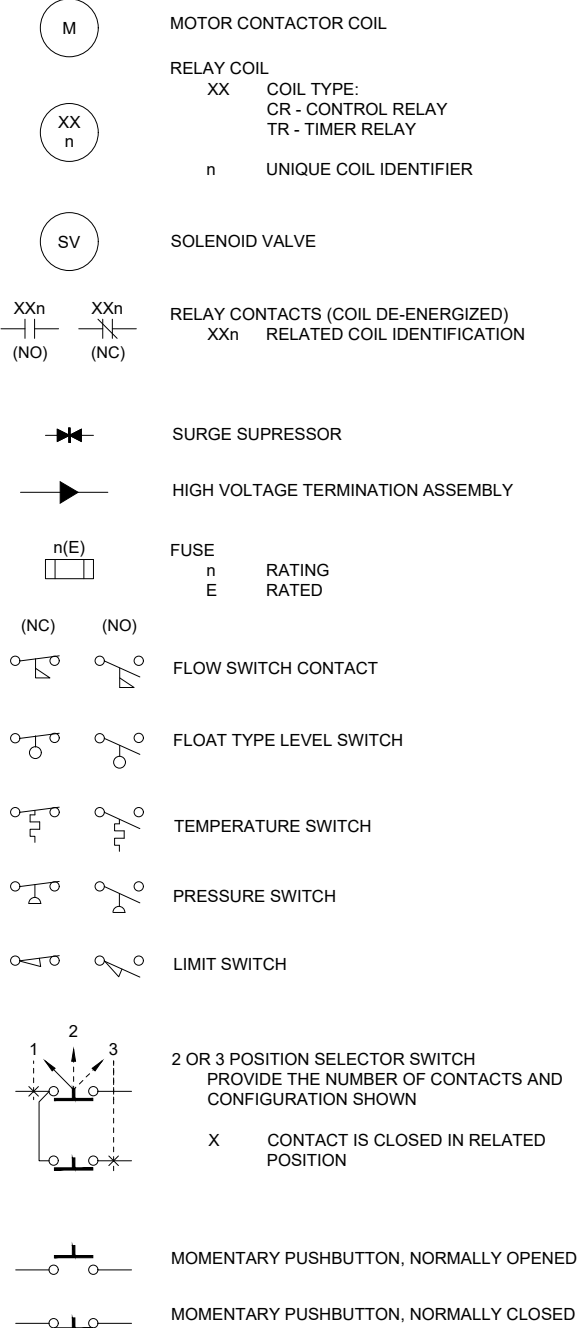
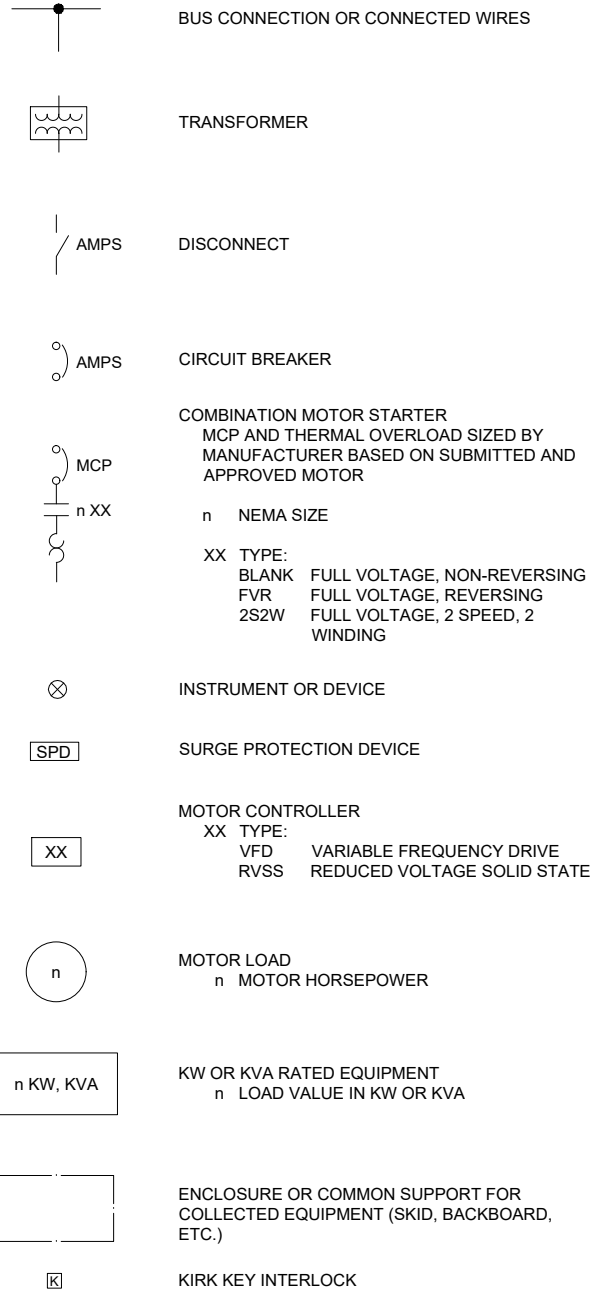
ONE LINE DIAGRAMS

CONTROL DIAGRAMS

PLAN DRAWINGS

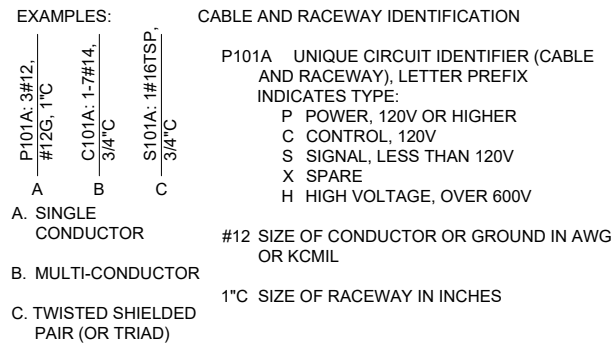
PLAN DRAWINGS (CONTINUED)

GENERAL NOTES:



- THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
- 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.
- 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.
- 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.
- 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.
- 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.
- THE CONTRACTOR SHALL COORDINATE WITH THE STRUCTURAL AND MECHANICAL DRAWINGS FOR CONDUIT STUB UP AND TERMINATION LOCATIONS.
- THE STANDARD DETAILS SHALL BE USED WHERE APPLICABLE.
- ALL EQUIPMENT SHALL BE LABELED WITH NAMEPLATES. PROVIDE A DESCRIPTION OF THE EQUIPMENT AND THE EQUIPMENT NUMBER ON NAMEPLATES.
- 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.

CABLE AND RACEWAY DIAGRAMS



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.

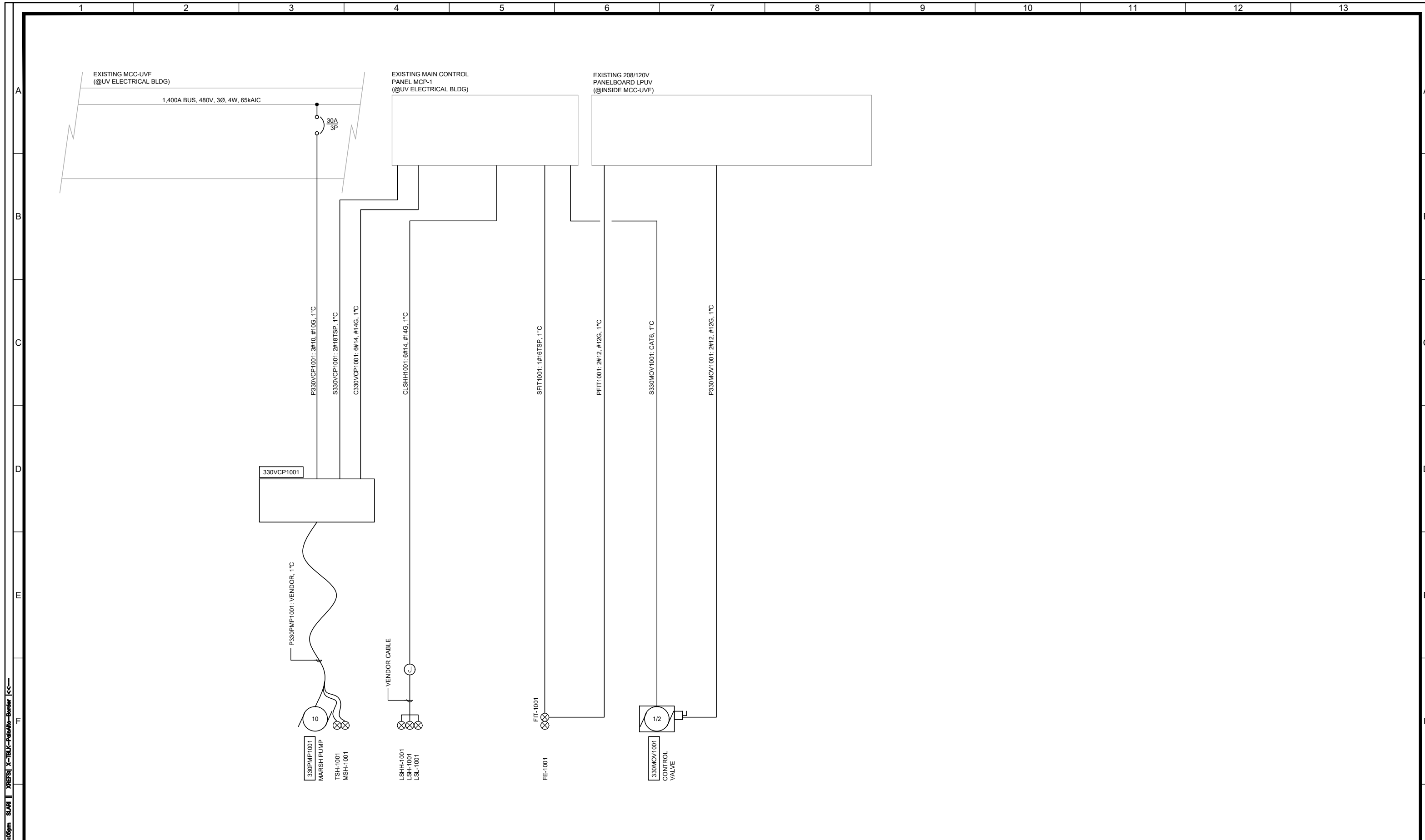
AFF (K)AIC	ABOVE FINISHED FLOOR (1000) AMPERE INTERRUPTING CAPACITY	DWG (E), EXIST	DRAWING EXISTING	PB	PULLBOX	SWBD	SWITCHBOARD
BC	BARE COPPER	HH, MH	HANDHOLE, MANHOLE	PBD	PANELBOARD	TB	TERMINAL BOX
CKT	CIRCUIT	MCC	MOTOR CONTROL CENTER	PHF	PASSIVE HARMONIC FILTER	TYP	TYPICAL
CONT	CONTINUED	MCP	MOTOR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

DESIGNED	
DRAWN	
CHECKED	
REV	DATE BY DESCRIPTION

CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

LEGEND AND SYMBOLS

<p>VERIFY SCALES</p> <p>BAR IS ONE INCH ON ORIGINAL DRAWING</p> <p>0 1"</p> <p>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY</p>	<p>DATE NOV. 2021</p> <p>DRAWING NO. E01</p> <p>SHEET NO. 27 OF 38</p>
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FILENAME: E02_3-10-22 04:05pm SJAR | XRESH | X-TBLX-PaloAlto-Border KC

REV	DATE	BY	DESCRIPTION

DESIGNED	
DRAWN	
CHECKED	

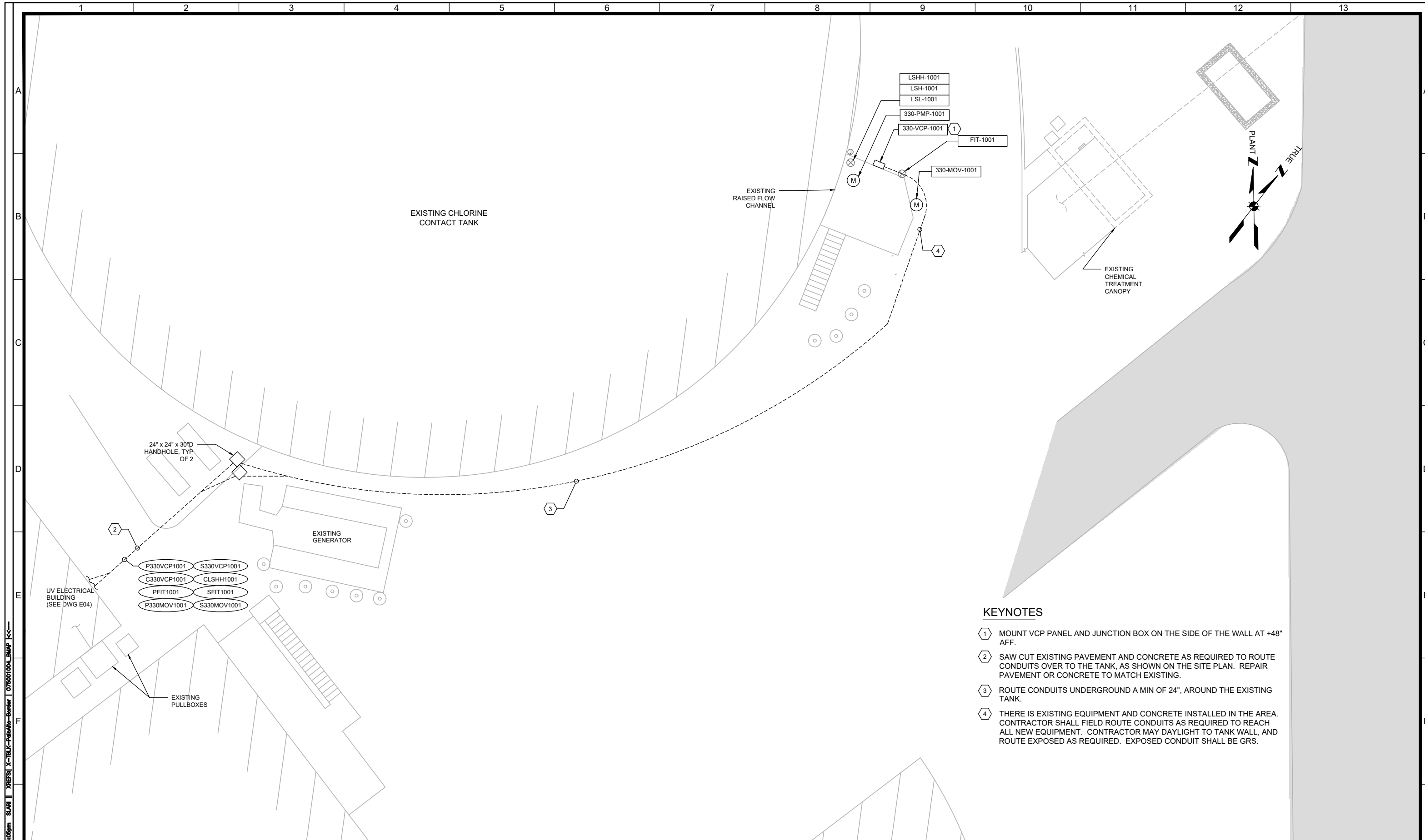


CITY OF PALO ALTO
PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

ONE LINE DIAGRAM

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

DATE NOV. 2021
DRAWING NO. E03
SHEET NO. 28 OF 38



KEYNOTES

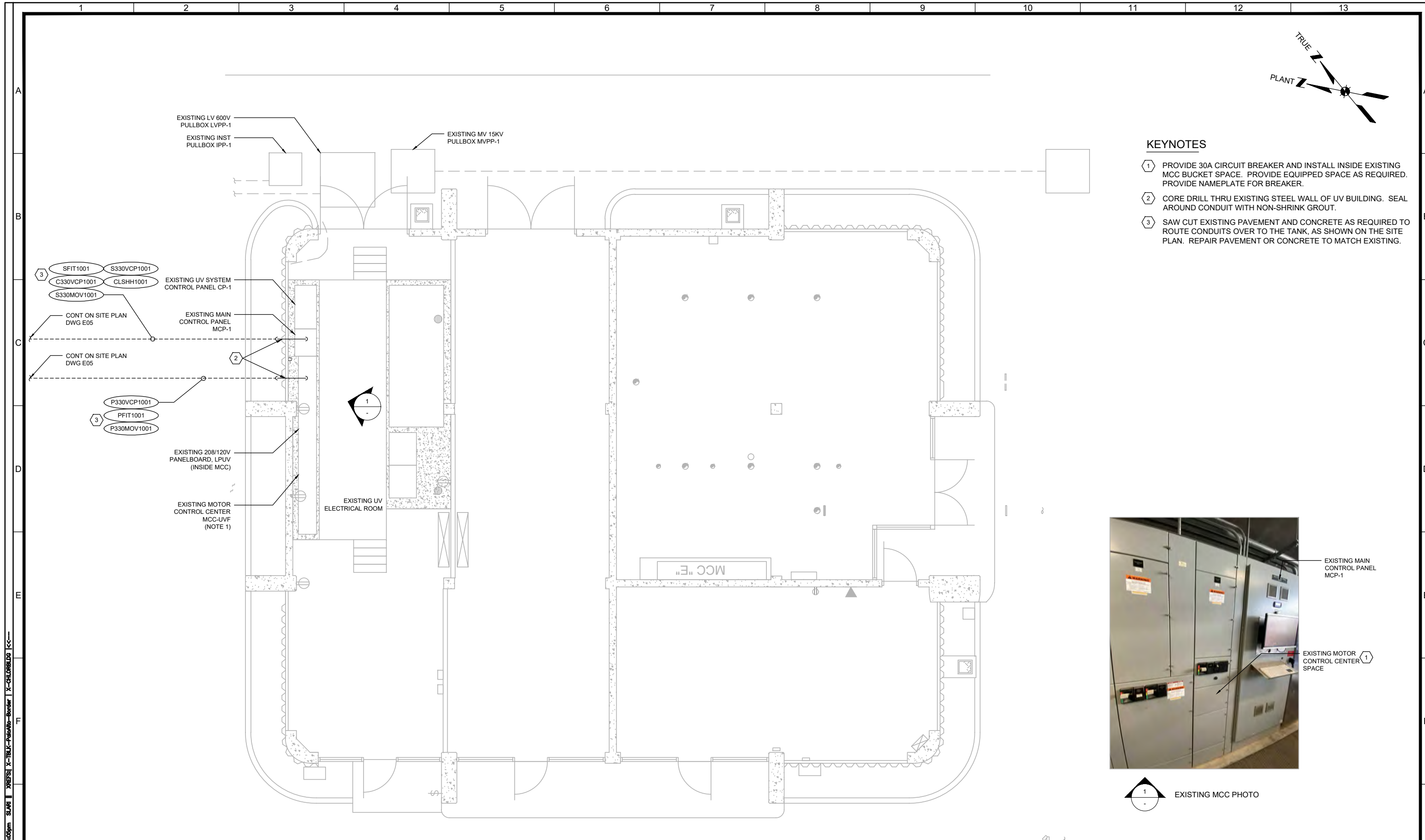
- 1 MOUNT VCP PANEL AND JUNCTION BOX ON THE SIDE OF THE WALL AT +48" AFF.
- 2 SAW CUT EXISTING PAVEMENT AND CONCRETE AS REQUIRED TO ROUTE CONDUITS OVER TO THE TANK, AS SHOWN ON THE SITE PLAN. REPAIR PAVEMENT OR CONCRETE TO MATCH EXISTING.
- 3 ROUTE CONDUITS UNDERGROUND A MIN OF 24", AROUND THE EXISTING TANK.
- 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.

FILENAME: E03_3-10-22_04:00pm_SJAR | XREFS: X-TBL: PdaNo-Border | 075001004_BMAP | K<<

REV	DATE	BY	DESCRIPTION

DESIGNED																				
DRAWN																				
CHECKED																				

CITY OF PALO ALTO PALO ALTO HORIZONTAL LEVEE PILOT PROJECT FINAL 60% DESIGN	VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	DATE NOV. 2021 DRAWING NO. E05 SHEET NO. 31 OF 38
OVERALL SITE PLAN		



KEYNOTES

- ① PROVIDE 30A 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 NON-SHRINK GROUT.
- 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.



① EXISTING MCC PHOTO

FILENAME: EDA_3-10-22 04:00pm SJAR | XRESH | X-TBL | PdaNo-Board | X-CHILDRD LG | X-

REV	DATE	BY	DESCRIPTION

DESIGNED	
DRAWN	
CHECKED	

CITY OF PALO ALTO PALO ALTO HORIZONTAL LEVEE PILOT PROJECT FINAL 60% DESIGN	VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	DATE NOV. 2021 DRAWING NO. E06 SHEET NO. 32 OF 38
UV ELECTRICAL ROOM PLAN		

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 AUXILIARY LOCATION - NORMALLY ACCESSIBLE TO OPERATOR (IPC, HMI)
	PROGRAMMABLE LOGIC CONTROL, PRIMARY LOCATION - NORMALLY INACCESSIBLE TO OPERATOR

INSTRUMENT IDENTIFICATION LETTERS

FIRST LETTER	SUCCEEDING LETTERS			
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION
A	ANALYSIS		ALARM	
B	BURNER, COMBUSTION			
C				CONTROL
D		DIFFERENTIAL		CLOSED
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
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

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

PROCESS AND INSTRUMENTATION ABBREVIATIONS

3W	CHLORINATED PLANT WATER	OF	OVERFLOW
4W	NON-CHLORINATED PLANT WATER	OG	OFF GAS
ABI	AERATION BASIN INFLUENT	OI	OPERATOR INTERFACE
AI	ANALOG INPUT	P&ID	PROCESS AND INSTRUMENTATION DIAGRAM
AO	ANALOG OUTPUT	PD	PLANT DRAIN
BNR	BIOLOGICAL NITROGEN REMOVAL	PE	PRIMARY EFFLUENT
BSCR	BANDSCREEN	PERM	PERMEATE
BYP	BYPASS	PI	PRIMARY INFLUENT
CA	COMPRESSED AIR	PSC	PRIMARY SCUM
CHEMD	CHEMICAL DRAIN	PMP	PUMP
CL2	CHLORINE (ANALYZER MODIFIER)	POL	POLYMER
CLS	CHLORINE SOLUTION	POTW	POTABLE WATER
CMP	COMPACTOR	PS	PRIMARY SLUDGE
CND	CONDENSER	PW	PLANT WATER
COND	CONDUCTIVITY (ANALYZER MODIFIER)	RAS	RETURN ACTIVATED SLUDGE
CS	CONTACT STABILIZATION	REC	RECIRCULATION
CSL	CAUSTIC SOLUTION	RS	RAW SEWAGE
CW	CITY WATER	RW	RECLAIMED WATER
D	DRAIN	SAM	SAMPLE
DEN	DENSITY	SBS	SODIUM BISULFATE
DG	DIGESTER GAS	SC	SCUM
DI	DIGITAL INPUT	SCR	SCREENINGS
DO	DIGITAL OUTPUT	SD	SANITARY DRAIN
DO	DISSOLVED OXYGEN (ANALYZER MODIFIER)	SE	SECONDARY EFFLUENT
DS	DIGESTED SLUDGE	SEW	SEWER
E/P	VOLTAGE TO PNEUMATIC	SHC	SODIUM HYPOCHLORITE
FA	FOUL AIR	SI	SECONDARY INFLUENT
FD	FLOOR DRAIN	SLG	SLIDE GATE, SLUICE GATE
FECL3	FERRIC CHLORIDE	SN	SUPERNATANT
FE	FILTER EFFLUENT	SO	SLOPE OIL
FF	FILTER FEED	SOD	SLOPE OIL DRAIN
FO	FUEL OIL	SS	SUSPENDED SOLIDS (ANALYZER MODIFIER)
FW	FEED WATER	SWR	SOFTENED WATER
GR	GRIT	T	TANK
GTSL	GRAVITY THICKENED SLUDGE	TS	THICKENED SLUDGE
HPA	HIGH PRESSURE AIR	TURB	TURBIDITY (ANALYZER MODIFIER)
HW	HOT WATER	TWAS	THICKENED WASTE ACTIVATED SLUDGE
HWR	HOT WATER RETURN	V	VENT
HWS	HOT WATER SUPPLY	WAS	WASTE ACTIVATED SLUDGE
I/O	INPUT/OUTPUT	WW	WASH WATER
IP	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		

VALVE AND GATE SYMBOLOGY

	AIR-RELEASE VACUUM VALVE ARV = AIR RELEASE VALVE VAC = VACUUM
	BV - BALL VALVE
	BFV - BUTTERFLY VALVE
	CV - 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

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

	CONTINUATION FROM DRAWING P1
	CONTINUATION TO DRAWING P2

GENERAL NOTES

- 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.
- SEE PROCESS, MECHANICAL AND PLUMBING LEGEND DRAWINGS FOR MISCELLANEOUS PIPING SYMBOLS.
- 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.
- 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.

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

ACTUATOR SYMBOLOGY

	OPERATOR ABBREVIATIONS: M = MOTOR P = PNEUMATIC S = SOLENOID
	FLOAT OPERATOR
	SPRING-OPOSED 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)

DESIGNED
DRAWN
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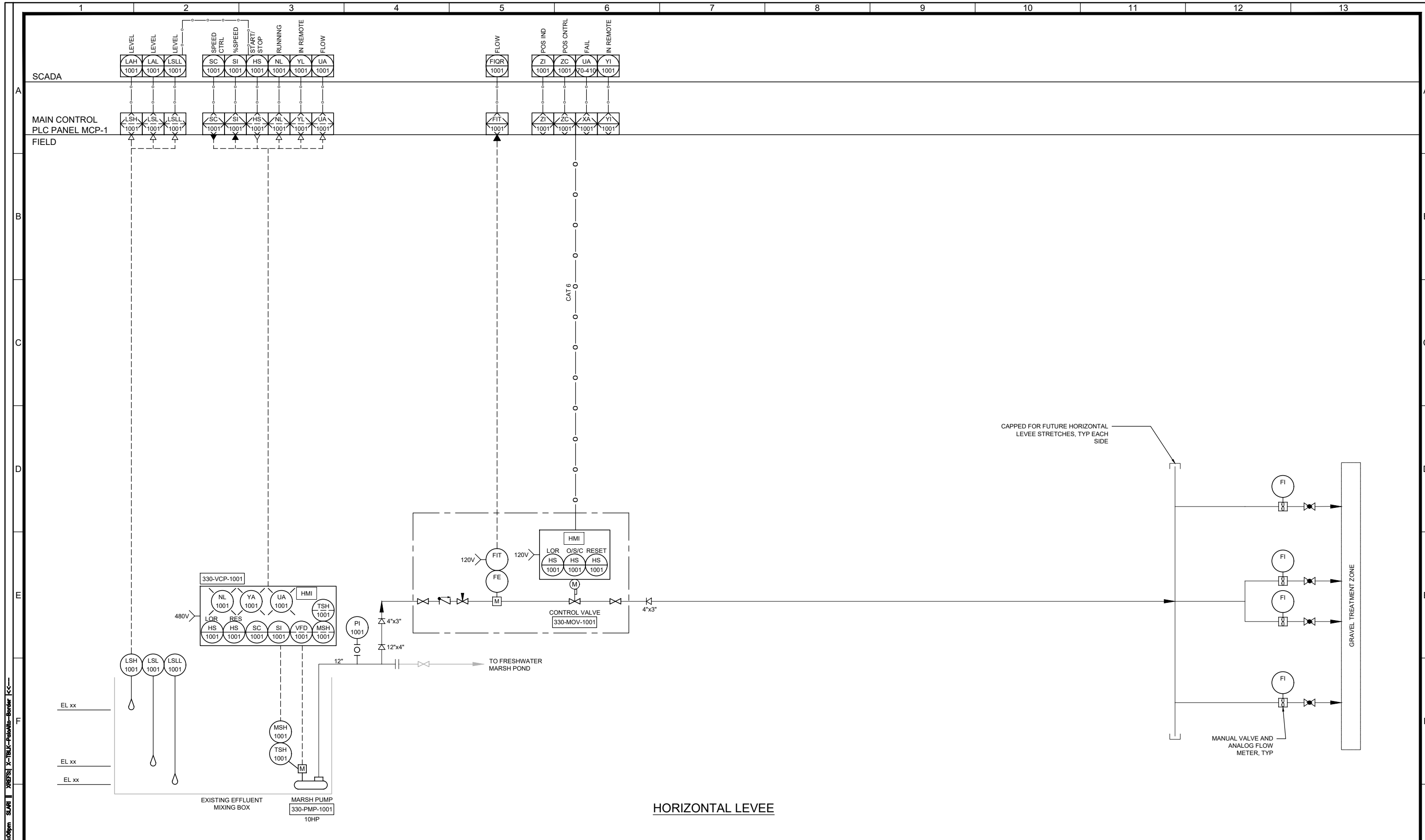
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PALO ALTO HORIZONTAL LEVEE PILOT PROJECT
FINAL 60% DESIGN

SYMBOLS AND LEGEND

VERIFY SCALES
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DATE
NOV. 2021
DRAWING NO.
P01
SHEET NO.
33 OF 38

FILENAME: P01_3-10-22 04:00pm S:\AR\XRES\X-TBL\Palto\B-Border K-C



HORIZONTAL LEVEE

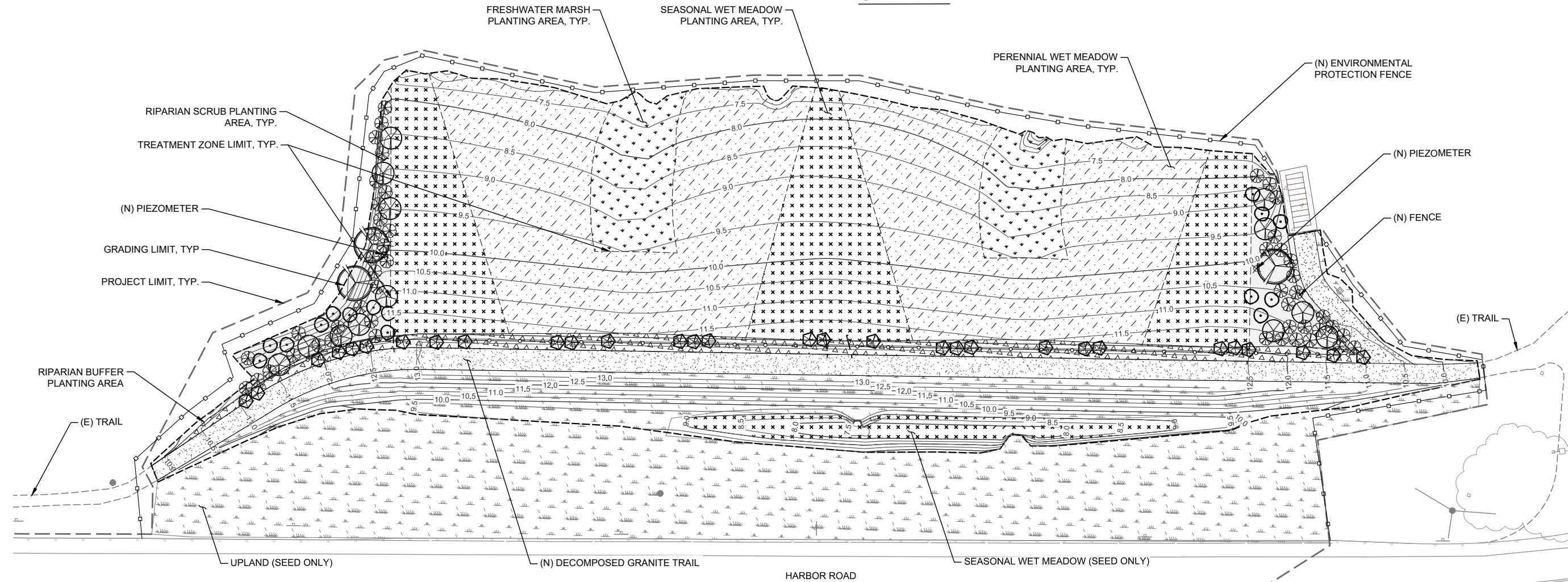
REV	DATE	BY	DESCRIPTION

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<p>CITY OF PALO ALTO PALO ALTO HORIZONTAL LEVEE PILOT PROJECT FINAL 60% DESIGN</p>	<p>HORIZONTAL LEVEE FEED</p>
<p>VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY</p>	<p>DATE NOV. 2021 DRAWING NO. P02 SHEET NO. 34 OF 38</p>

HARBOR MARSH

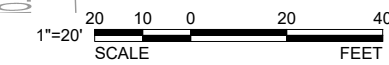
TIDAL CHANNEL



PLANTING AND SEEDING PLAN

PLAN

SCALE: 1" = 20'



PLANTING AND SEEDING LEGEND

	FRESHWATER MARSH (SWALE) PLANTING AREA		RIPARIAN SCRUB PLANTING AREA		Rosa californica
	PERENNIAL WET MEADOW PLANTING AREA		RIPARIAN BUFFER PLANTING AREA		Rubus ursinus
	SEASONAL WET MEADOW PLANTING AREA		UPLAND SEED MIX		Physocarpus capitatus
					Sambucus nigra
					Salix lasiolepis

NOTES

- INCORPORATE SEED INTO SOIL WITH A SHEEPSFOOT ROLLER. SEE SPECS.
- PLANT HERBACEOUS CONTAINER PLANTS IN GROUPS OF 7-11 OF THE SAME SPECIES.
- SEED DISTURBED AREAS.
- 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 AREAS UNTIL EFFLUENT SUPPLY LINE IS ONLINE.

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PLANTING AND SEEDING PLAN

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DATE
MARCH 10, 2022
DRAWING NO.
L01
SHEET NO.
36 OF 38

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

Riparian Buffer 0.05 acres					
Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes
<i>Baccharis glutinosa</i>	marsh baccharis	deepot	3 FT OC	50	low scrub zone along trail boundary
<i>Rosa californica</i>	California rose	deepot/sprig	10 FT OC	31	low scrub zone along trail boundary
Total				81	
<i>Symphotrichum chilense</i>	common aster	deepot	3 FT OC	50	low scrub zone along trail boundary
Total				50	

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

Freshwater Marsh and Perennial Wet Meadow Seed Mix

Botanical Name	Common Name
<i>Bidens frondosa</i>	beggar-lick
<i>Epiobium ciliatum</i>	willow-herb
<i>Parsicaria punctata</i>	dotted smartweed
<i>Hordeum brachyantherum</i>	meadow barley

Seasonal Wet Meadow & Riparian Seed Mix

Botanical Name	Common Name
<i>Amsinckia intermedia</i>	fiddleneck
<i>Centromadia pungens</i>	spikeweed
<i>Elymus triticoides</i>	creeping wild rye
<i>Hemizonia congesta spp. luzulifolia</i>	hayfield tarweed
<i>Helenium puberulum</i>	sneezeweed
<i>Madia sativa</i>	coast tarweed
<i>Hordeum brachyantherum</i>	meadow barley

UPLAND SEED MIX [90% DESIGN]

Seasonal Wet Meadow 0.22 acres					
Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes
<i>Ambrosia psilostachya</i>	western ragweed	sod fragment	3 FT OC	10	
<i>Artemisia douglasiana</i>	mugwort	deepot	3 FT OC	20	
<i>Baccharis glutinosa</i>	marsh baccharis	deepot	3 FT OC	60	
<i>Carex barbaeae</i>	basket sedge	plug/division	3 FT OC	120	
<i>Carex praegracilis</i>	clustered field rush	plug/division	3 FT OC	40	
<i>Elymus triticoides</i>	creeping wild rye	sod fragment	3 FT OC	160	
<i>Euthamia occidentalis</i>	western goldenrod	deepot	4 FT OC	40	
<i>Glycyrrhiza lepidia</i>	wild licorice	deepot	3 FT OC	10	
<i>Helianthus californicus</i>	California sunflower	deepot	4 FT OC	20	
<i>Juncus mexicanus</i>	Mexican rush	plug/division	3 FT OC	80	
<i>Symphotrichum chilense</i>	common aster	deepot	3 FT OC	40	
Total				600	

Riparian Scrub 0.06 acres						
Botanical Name	Common Name	Form/Container	Spacing	Quantity	Notes	
Trees	<i>Salix lasiolepis</i>	arroyo willow	tp-4	10 - 15 FT OC	3	peripheral slopes only
	Total				3	
	<i>Physocarpus capitatus</i>	ninebark	deepot	8 - 10 FT OC	15	
Sedges	<i>Rubus ursinus</i>	California blackberry	deepot/sprig	3 FT OC	60	understory with C. barbaeae
	<i>Sambucus nigra</i>	black elderberry	tp-4	8 - 15 FT OC	13	peripheral slopes only
	Total				88	
Sedges	<i>Carex barbaeae</i>	basket sedge	plug/division	3 FT OC	80	understory with blackberry
	Total				80	



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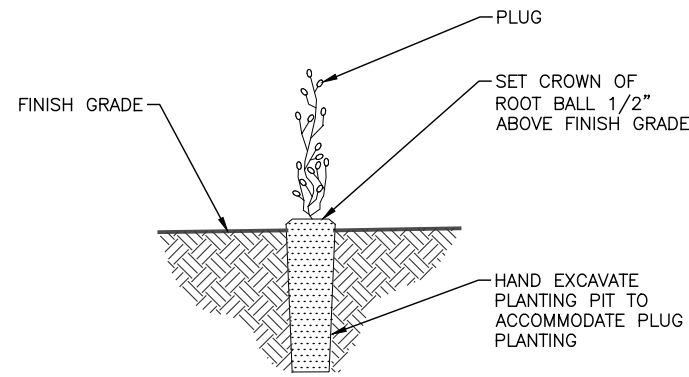


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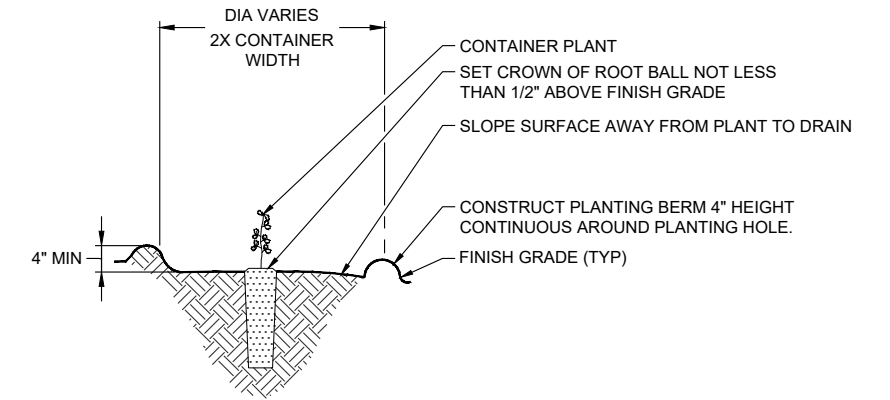
PLANTING AND SEEDING SCHEDULES

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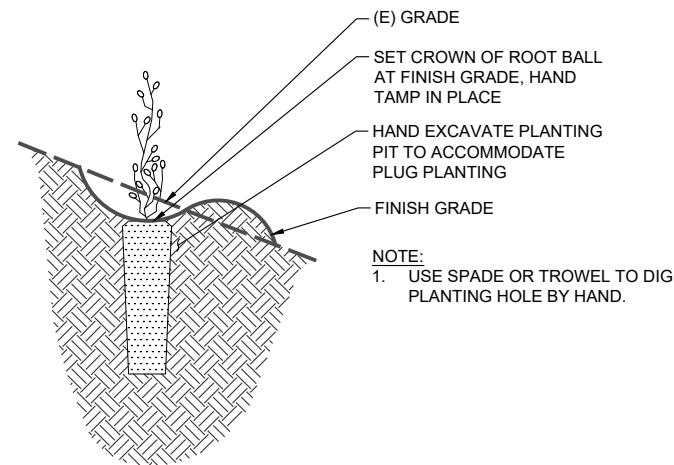
DATE MARCH 10, 2022
DRAWING NO. L02
SHEET NO. 37 OF 38



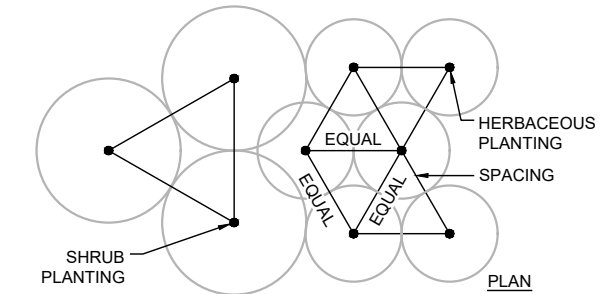
1 TYPICAL CONTAINER PLANTING
DETAIL SCALE: 1" = 2'



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

FILENAME: LOS PLANTING DETAILS 3-14-22 10:18am M.Landicho XREFS: X-TBLK-Planting-Border <<

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PLANTING DETAILS

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