

2025 Annual Summary Report
National Marine Sanctuary Permit MBNMS-2022-021

Surfers Beach Pilot Restoration Project

El Granada, San Mateo County, California

Prepared for:
San Mateo County Harbor District

Prepared by:
Brad Damitz, Consultant to the San Mateo County Harbor District

May 29, 2026

1. Introduction

This report fulfills the annual summary reporting requirement of Special Condition 9 of National Marine Sanctuary Permit MBNMS-2022-021 for activities conducted during calendar year 2025. The permit authorizes placement of suitable dredged sand at Surfers Beach within Monterey Bay National Marine Sanctuary (MBNMS) as part of the Surfers Beach Pilot Restoration Project.

This report summarizes activities conducted during calendar year 2025 within sanctuary jurisdiction. Separate physical and biological monitoring reports required pursuant to Special Condition 8 of Permit MBNMS-2022-021 will be submitted under separate cover in accordance with permit requirements.

2. Activity Log (Permit Item 9a)

- July 28, 2025 – Construction activities commenced.
- Hydraulic placement of dredged sand was conducted at Surfers Beach.
- Sand placement and beach grading progressed throughout the authorized fill area.
- October 22, 2025 – Sand placement and construction activities were completed.
- Post-construction surveys and as-built documentation were completed following construction.

Approximately 80,000 cubic yards of suitable sand were beneficially reused at Surfers Beach as part of the pilot restoration project.

3. Sand Placement Area and Material Quantity (Items 9b and 9c)

The final sand slurry placement area extended approximately 1,300 linear feet along Surfers Beach. Placement width varied throughout the project area in response to existing beach morphology, hydraulic placement operations, and final grading requirements. Cross-shore placement widths generally ranged from approximately 75 to 200 feet. **Final placement limits, contours, and surveyed as-built conditions are depicted in Attachment A.**

Approximately 80,000 cubic yards of sand slurry material were placed within the authorized Surfers Beach fill area during calendar year 2025.

No windblown sand removal was conducted during calendar year 2025. The elevation of the Caltrans revetment, recreational trail, and adjacent shoreline infrastructure effectively limited wind transport of beach sand onto the trail. Accumulation of windblown sand requiring management actions did not occur

during the reporting period. Accordingly, the area and volume of windblown sand placement during calendar year 2025 were zero.

4. Maps and Beach Profile Changes (Permit Items 9d and 9e)

Maps depicting the final sand placement area are included in Attachment A. The attached engineer-certified As-Built Plans identify the final placement footprint, beach contours, shoreline configuration, and relevant habitat features within the project area.

Representative pre-construction, design, and as-built beach profile sections are included in Attachment A (Sheets C-10 and C-11) and Attachment B. These profiles demonstrate substantial widening of the beach and increases in beach elevation throughout the nourishment area following placement of approximately 80,000 cubic yards of sand.

5. Endangered and Threatened Species Observations (Item 9f)

Black Abalone

A pre-construction black abalone survey was conducted prior to initiation of construction. Survey methods included systematic visual inspection of suitable rocky intertidal habitat, including crevices, boulder habitat, and other potential black abalone refugia. No black abalone were observed during the survey.

Western Snowy Plover and Nesting Birds

Pre-construction nesting bird surveys were conducted during 2025. No western snowy plovers, western snowy plover nests, or active migratory bird nests were observed within the survey area. Although these surveys were conducted primarily to satisfy requirements outside sanctuary jurisdiction, the results are relevant to biological observations associated with the overall project.

No federally listed threatened or endangered species were observed or reported within the sanctuary project area during activities conducted in calendar year 2025.

6. Marine Mammal and Seabird Disturbances (Permit Item 9g)

No marine mammal or seabird disturbances associated with activities conducted within sanctuary boundaries were observed during the reporting period.

7. Historic Resources, Paleontological Resources, Equipment Loss, and Other Issues (Permit Item 9h)

Pacific Paleontology, Inc. provided paleontological monitoring support for the project. No paleontological or archaeological resources were encountered and no discoveries required work stoppage, agency notification, avoidance measures, or additional investigation.

No historical resources were discovered or disturbed within sanctuary jurisdiction.

No equipment was lost within the sanctuary.

No spills, releases, incidents, permit violations, or other problems requiring agency notification occurred during activities conducted within sanctuary jurisdiction.

8. Attachments

Attachment A – Representative Project Photographs

Attachment B – Engineer-Certified Record Set / As-Built Plans (ESA, February 2026)

Attachment C – Post-Dredge and Material Placement Survey (Woolpert/Vortex)

Attachment A – Representative Project Photographs



Pipeline alignment at Surfers Beach



Northern containment cell on September 12, 2025



Southern containment cell on September 12, 2025



Sand placed on beach as of September 30, 2025



Completion of sand placement, October 31, 2025



November 04, 2025 post-placement beach profile

Attachment B – Engineer-Certified Record Set / As-Built Plans (ESA, February 2026)

SURFERS BEACH PILOT RESTORATION PROJECT

△
RECORD SET
FEBRUARY 06, 2026



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

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 1449, EL GRANADA, CA 94018

PROJECT NAME

REVISIONS	#	DATE	DESCRIPTION
	△	07/07/25	PRE-CONSTRUCTION SURVEYS
	△	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

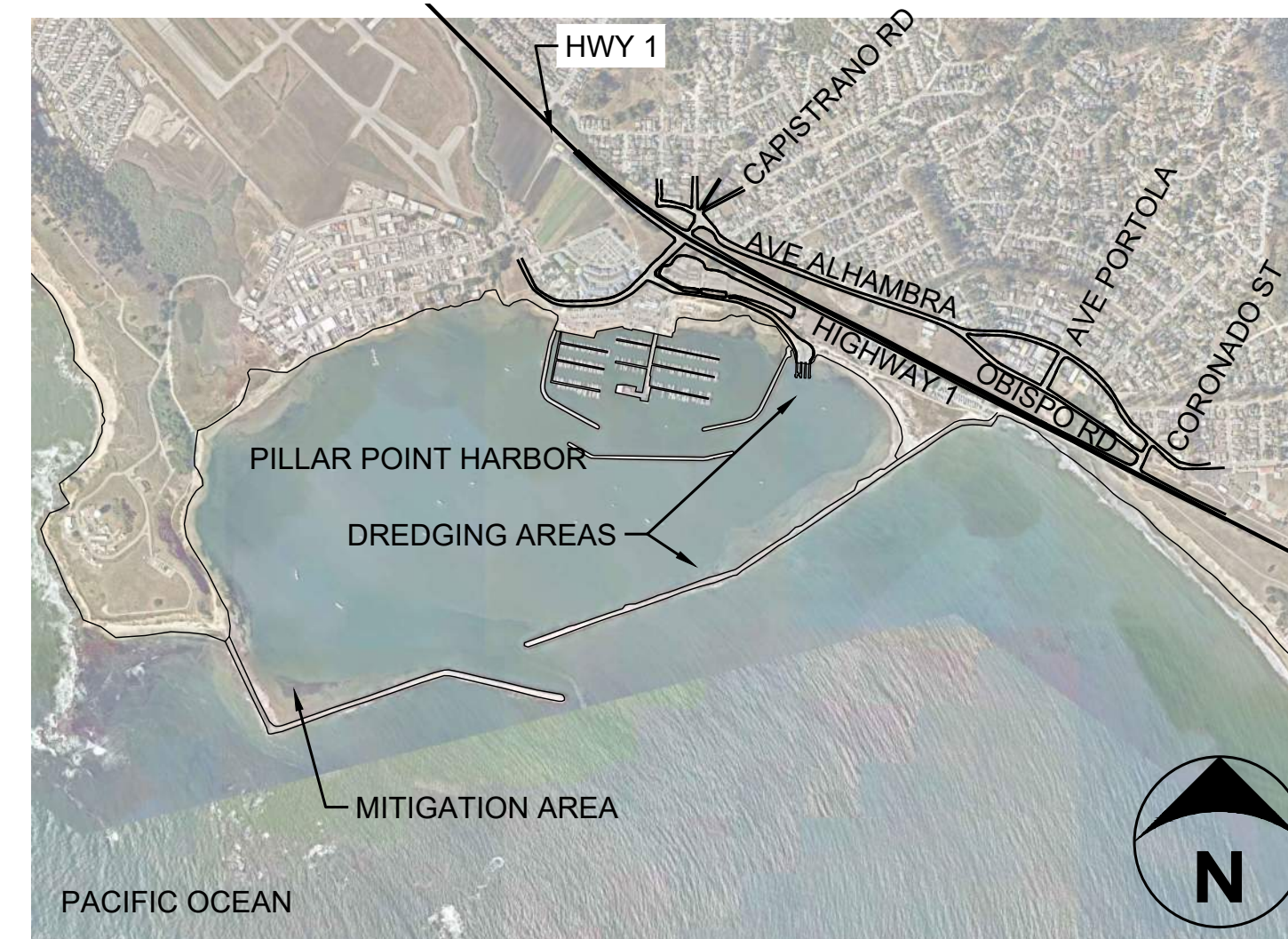
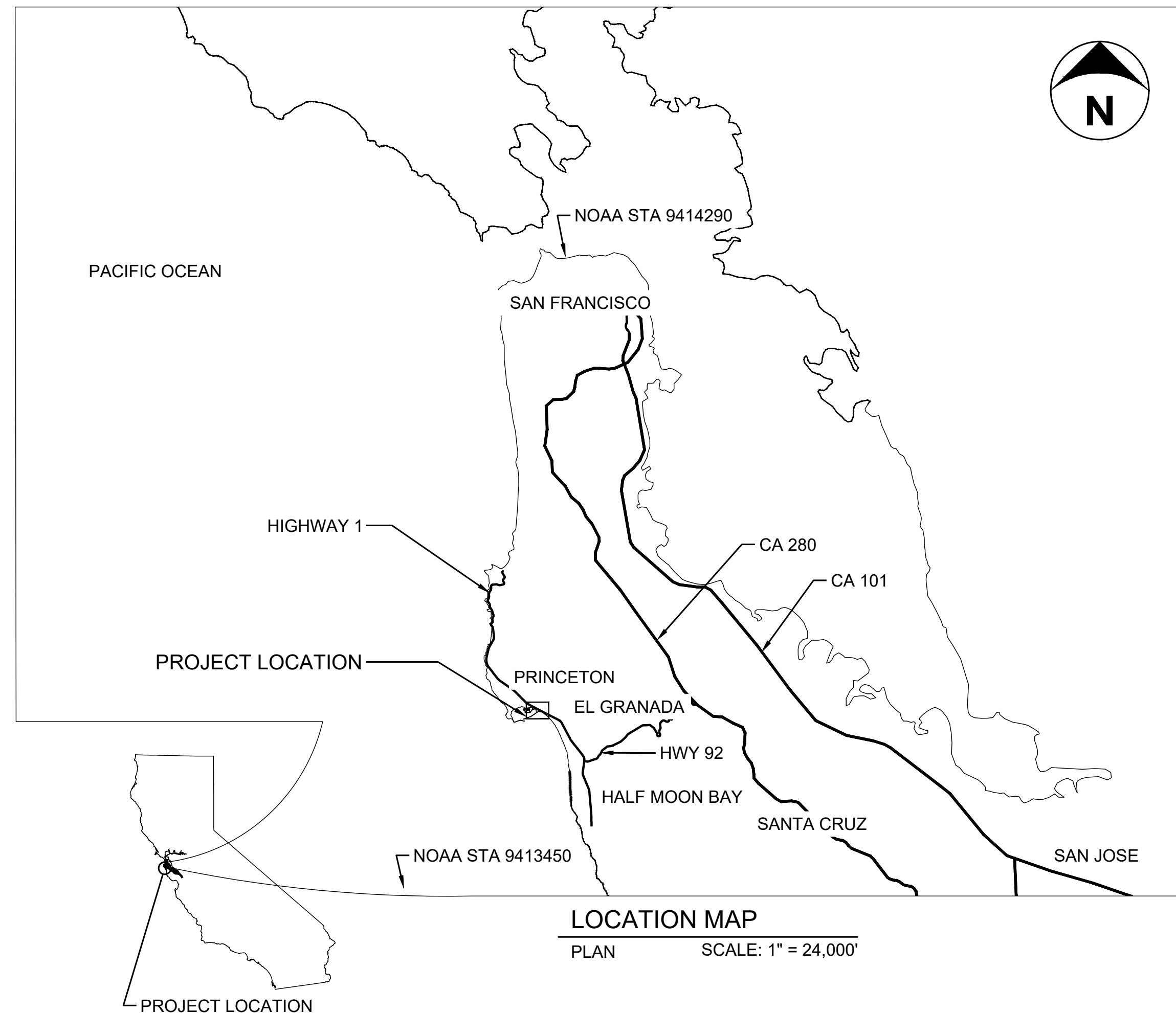
SHEET TITLE

TITLE SHEET

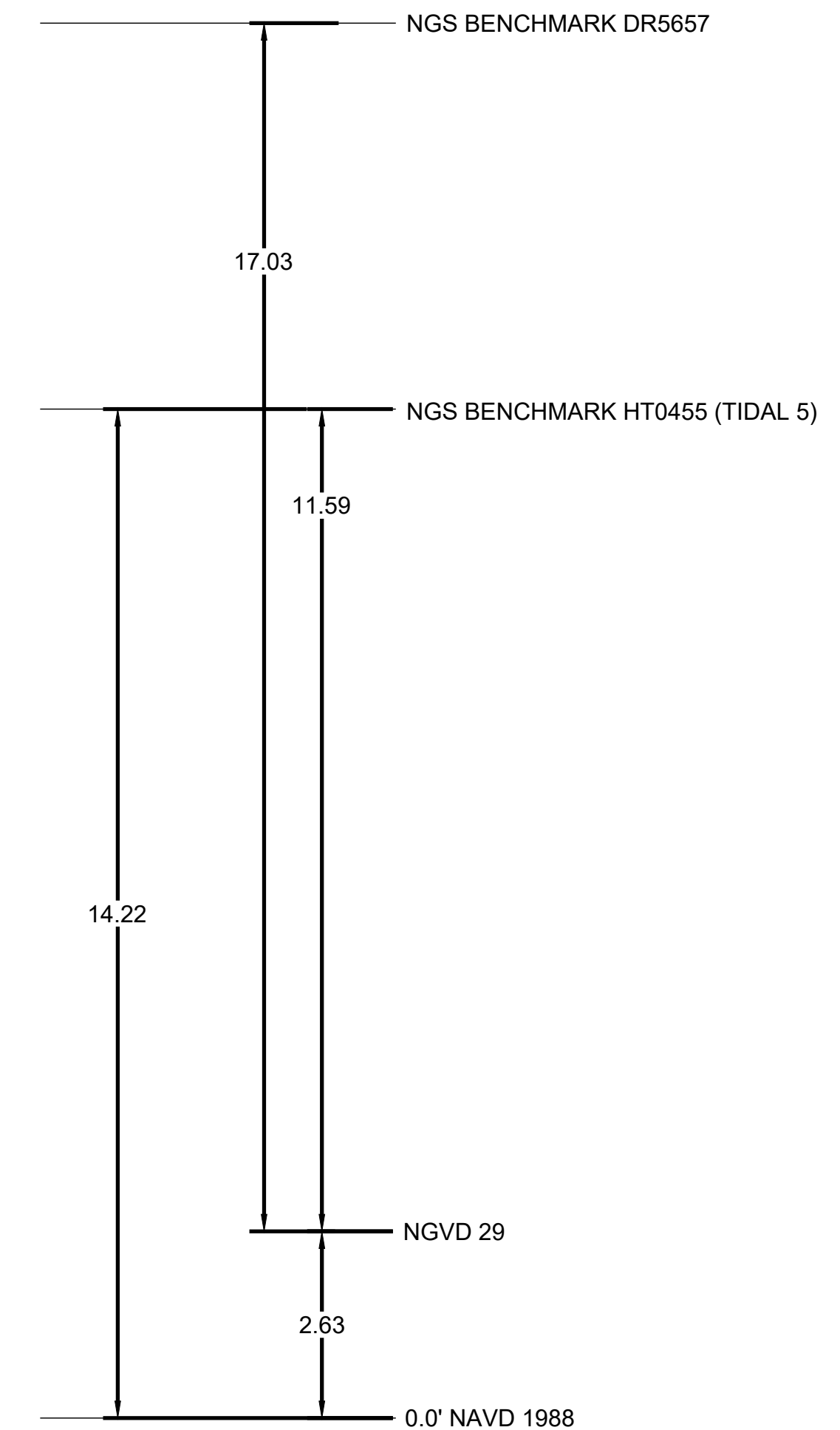
SHEET NUMBER

G-01

SHEET 01 OF 16



VICINITY MAP
PLAN SCALE: 1" = 1,500'



DEFINITIONS

PROJECT OWNER: SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200
P.O. BOX 1449, EL GRANADA, CA 94018

CONTACT: JOHN MOREN
PH: (650) 741-9163

PROJECT ENGINEER: ENVIRONMENTAL SCIENCE ASSOCIATES
575 MARKET STREET SUITE 3700
SAN FRANCISCO, CA 94105

CONTACT: LOUIS WHITE, PE
PH: (415) 896-5900

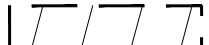
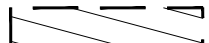








DISCLAIMER FOR RECORD DRAWINGS

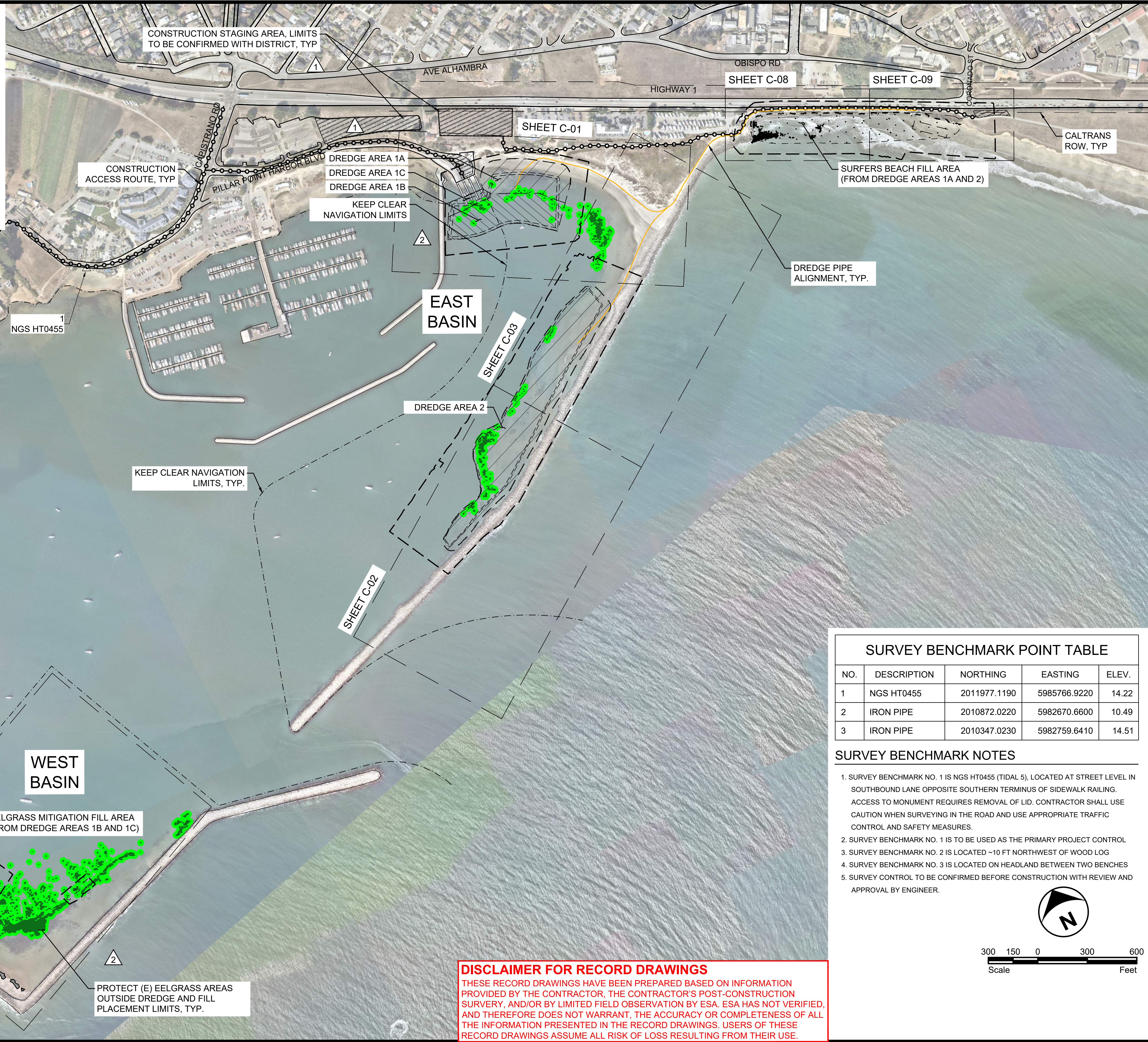
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

Sheet No.	Sheet Description	Sheet Title
01	G-01	TITLE SHEET
02	G-02	SITE PLAN
03	G-03	GENERAL NOTES LAYOUT LEGEND
04	C-01	EAST BASIN DREDGE PLAN - 1
05	C-02	EAST BASIN DREDGE PLAN - 2A
06	C-03	EAST BASIN DREDGE PLAN - 2B
07	C-04	EAST BASIN DREDGE 1 SECTIONS
08	C-05	EAST BASIN DREDGE 2 SECTIONS
09	C-06	EELGRASS MITIGATION FILL AREA PLAN
10	C-07	EELGRASS MITIGATION FILL AREA SECTIONS
11	C-08	SURFERS BEACH FILL AREA PLAN - 1
12	C-09	SURFERS BEACH FILL AREA PLAN - 2
13	C-10	SURFERS BEACH FILL AREA SECTIONS - 1
14	C-11	SURFERS BEACH FILL AREA SECTIONS - 2
15	C-12	TEMPORARY CONSTRUCTION ACCESS RAMP
16	TP-01	EELGRASS TRANSPLANTING PLAN

FILE: P:\01 CAD\18xxxx\20180631.00 - Surfers Beach Pilot Project\DWG\G01 TITLE SHEET.dwg PLOT DATE: 2/6/2026 1:58:51 PM PLOTTED BY: MARIO ACCORDINO

LEGEND

-  DREDGING AREA (SURFERS BEACH)
-  DREDGING AREA (MITIGATION AREA AND SURFERS BEACH)
-  DREDGING PIPELINE
-  PLACEMENT AREA
-  EELGRASS BED
-  POTENTIAL EELGRASS HABITAT
-  CONSTRUCTION ACCESS ROUTE
-  CONSTRUCTION STAGING AREA
-  NAVIGATION KEEP CLEAR LIMITS
-  CALTRANS RIGHT OF WAY (ROW)



FILE: P:\01 CAD\18xxxx\20180631.00 - Surfers Beach Pilot Project\DWG\02 SITE PLAN.dwg PLOT DATE: 2/6/2026 1:59:12 PM PLOTTED BY: MARIO ACCORDINO



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

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 1449, EL GRANADA, CA 94018

PROJECT NAME

REVISIONS

#	DATE	DESCRIPTION
△ 04/23/25		BID ADDENDUM 01
△ 07/07/25		PRE-CONSTRUCTION EELGRASS SURVEY
△ 02/06/26		RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE **RECORD SET**

SHEET TITLE

SITE PLAN

SHEET NUMBER

G-02

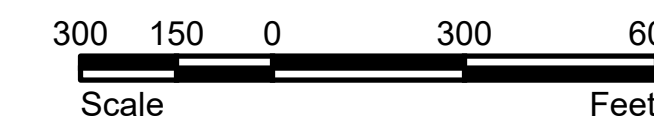
SHEET 02 OF 16

SURVEY BENCHMARK POINT TABLE

NO.	DESCRIPTION	NORTHING	EASTING	ELEV.
1	NGS HT0455	2011977.1190	5985766.9220	14.22
2	IRON PIPE	2010872.0220	5982670.6600	10.49
3	IRON PIPE	2010347.0230	5982759.6410	14.51

SURVEY BENCHMARK NOTES

1. SURVEY BENCHMARK NO. 1 IS NGS HT0455 (TIDAL 5), LOCATED AT STREET LEVEL IN SOUTHBOUND LANE OPPOSITE SOUTHERN TERMINUS OF SIDEWALK RAILING. ACCESS TO MONUMENT REQUIRES REMOVAL OF LID. CONTRACTOR SHALL USE CAUTION WHEN SURVEYING IN THE ROAD AND USE APPROPRIATE TRAFFIC CONTROL AND SAFETY MEASURES.
2. SURVEY BENCHMARK NO. 1 IS TO BE USED AS THE PRIMARY PROJECT CONTROL
3. SURVEY BENCHMARK NO. 2 IS LOCATED ~10 FT NORTHWEST OF WOOD LOG
4. SURVEY BENCHMARK NO. 3 IS LOCATED ON HEADLAND BETWEEN TWO BENCHES
5. SURVEY CONTROL TO BE CONFIRMED BEFORE CONSTRUCTION WITH REVIEW AND APPROVAL BY ENGINEER.



DISCLAIMER FOR RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR. THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

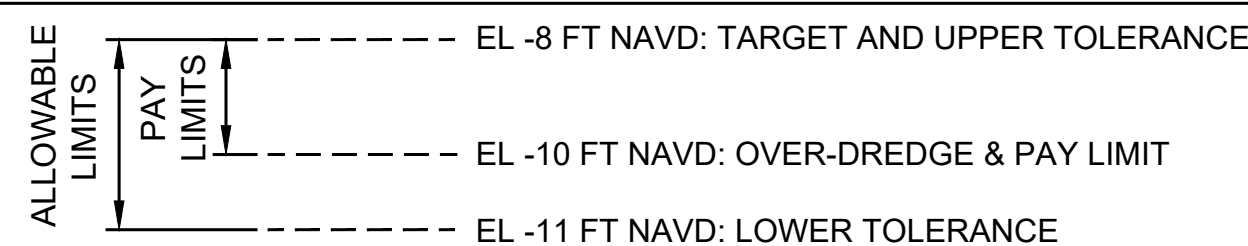
LEGEND

- DREDGING AREA (SURFERS BEACH)
- DREDGING AREA (MITIGATION AREA AND SURFERS BEACH)
- PLACEMENT AREA
- CONSTRUCTION STAGING AREA
- EELGRASS BED
- POTENTIAL EELGRASS HABITAT
- DREDGING PIPELINE
- PEDESTRIAN ACCESS ROUTE
- HTL HTL HIGH TIDE LINE: 7.2' NAVD
- MHW MHW MEAN HIGH TIDE LINE: 5.0' NAVD
- NAVIGATION KEEP CLEAR LIMITS
- PROPERTY LINE
- PROPERTY BOUNDARY
- LIMIT OF GRADING
- EXISTING GRADE (PROFILE & SECTION)
- DESIGN GRADE (PROFILE & SECTION)
- CONSTRUCTION ACCESS ROUTE
- CALTRANS RIGHT OF WAY (ROW)
- (E) MAJOR CONTOUR LINE
- (E) MINOR CONTOUR LINE
- (N) MAJOR CONTOUR LINE
- (N) MINOR CONTOUR LINE

GRADE TO DRAIN IN INDICATED DIRECTION

- INDICATES SECTION NUMBER
- VIEW DIRECTION
- SHEET NUMBER ON WHICH SECTION APPEARS
- INDICATES DETAIL NUMBER
- SHEET NUMBER ON WHICH DETAIL APPEARS
- NO. CONSTRUCTION CONTROL POINT
- SURVEY CONTROL POINT
- SEDIMENT SAMPLE
- SPOT ELEVATION

VERTICAL DREDGE LIMITS



ABBREVIATIONS

- AB - AGGREGATE BASE
- APPROX - APPROXIMATE
- CMP - CORRUGATED METAL PIPE
- DBH - DIAMETER AT BREST HEIGHT
- DEMO - DEMOLISH/DEMOLITION
- DG - DESIGN GRADE
- DIA - DIAMETER
- DS - DOWNSTREAM
- (E) - EXISTING
- EG - EXISTING GRADE
- EL / ELEV - ELEVATION
- FL - FLOWLINE
- FT - FEET
- GB - GRADE BREAK
- HOPE - HIGH DENSITY POLYETHYLENE
- IE - INVERT ELEVATION
- IRR - IRRIGATION
- LF - LINEAR FEET
- MAX - MAXIMUM
- MH - MANHOLE
- MIN - MINIMUM
- EL. - MISCELLANEOUS
- MTL - MEAN TIDE LEVEL
- (N) - NEW
- NIC - NOT IN CONTRACT
- P.I.P. - PROTECT IN PLACE
- R.C. - RELATIVE COMPACTION
- RCP - REINFORCED CONCRETE PIPE
- RWC - RECLAIMED WATER
- SD - STORM DRAIN LINE
- SS - SEWER PIPE LINE
- SPECS - SPECIFICATIONS
- TBD - TO BE DETERMINED
- TYP. - TYPICAL
- US - UPSTREAM
- VCP - VITRIFIED CLAY PIPE
- V.I.F. - VERIFY IN FIELD
- WIN - WITHIN

GENERAL NOTES

GENERAL

- THESE NOTES HIGHLIGHT KEY REQUIREMENTS OF THE SPECIFICATIONS AND PROVIDE ADDITIONAL PROJECT INFORMATION. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS CONTAINED IN THE PLANS, SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS.
- THE GENERAL SEQUENCE AND SCHEDULE REQUIREMENTS ARE SUMMARIZED BELOW AND DETAILED IN THE SPECIFICATIONS.

ACTION	REQUIRED PREDECESSOR ACTIVITIES	COMPLETION DATE
TRANSPLANT EELGRASS FROM MITIGATION AREA	NONE	PRIOR TO DREDGING AREAS 1B AND 1C
DREDGE AREAS 1B AND 1C AND PLACE FILL AT MITIGATION AREA	ONLY AFTER EELGRASS TRANSPLANTED FROM MITIGATION AREA	JULY 15, 2025
TRANSPLANT EELGRASS FROM AREA 2	AT LEAST TWO WEEKS AFTER FILL PLACEMENT IN MITIGATION AREA	AUGUST 15, 2025
DREDGE AREA 1A AND PLACE FILL AT SURFERS BEACH	DREDGE AREAS 1B AND 1C	OCTOBER 15, 2025
DREDGE AREA 2 AND PLACE FILL AT SURFERS BEACH	ONLY AFTER EELGRASS TRANSPLANTED FROM AREA 2 TO MITIGATION AREA	OCTOBER 15, 2025

- THE PROJECT BALANCES ONSITE. NO IMPORT OF FILL IS ALLOWED. NO EXPORT OF DREDGED MATERIAL IS ALLOWED EXCEPT IF DESIGNATED AS DEBRIS BY THE DISTRICT.

DREDGING

- METHODS: AREAS 1B AND 1C MAY BE HYDRAULICALLY OR MECHANICALLY DREDGED, AT CONTRACTOR'S OPTION. AREAS 1A AND 2 SHALL BE HYDRAULICALLY DREDGED.
- VERTICAL LIMITS:
 - FOR DREDGING, THE TARGET VERTICAL LIMIT IS ELEV -8 FT NAVD, AND THE OVER-DREDGE LIMIT IS -10 FT NAVD.
 - PAY LIMITS: MATERIAL EXCAVATED TO VERTICAL OVER-DREDGE LIMIT (-10 FT NAVD) WITHIN THE DREDGE AREAS.
 - TOLERANCE: PLUS TWO (2) FT AND MINUS ONE (1) FT (+2/-1') FROM OVER-DREDGE LIMIT.
 - ANY AREAS DREDGED MORE THAN 1 FT BELOW OVER-DREDGE LIMIT (BELOW ELEV -11 FT NAVD) SHALL BE BACKFILLED.
 - NO PAYMENT WILL BE MADE FOR:
 - DREDGING BELOW OVER-DREDGE LIMIT (BELOW ELEV -10 FT NAVD)
 - DREDGING OUTSIDE OF HORIZONTAL DREDGE AREA LIMITS
- DREDGE AREAS 1A, 1B AND 1C TO LIMITS SHOWN ON DRAWINGS.
- DREDGE AREA 2 ONLY AS NEEDED TO GENERATE SUFFICIENT MATERIAL FOR SURFERS BEACH FILL AREA.
- STOCKPILE ANY DEBRIS ENCOUNTERED DURING DREDGING ONSITE AS DIRECTED BY THE DISTRICT.

DREDGE VOLUMES

- ESTIMATED VOLUMES FOR DREDGE AND FILL PLACEMENT AREAS ARE AS FOLLOWS:

DREDGE AREA	AREA (AC.)	APPROX. OVER-DREDGE VOLUME (CY)	FILL PLACEMENT LOCATION	FILL VOLUME (CY)	1.3 X FILL VOLUME (CY)
AREA 1B	3.0	19,900	EELGRASS MITIGATION AREA	11,300	14,700
AREA 1C	0.3	1,700			
AREA 1A	2.5	28,300	SURFERS BEACH	59,200	77,000
AREA 2	9.2	122,500			

- DREDGE VOLUMES ARE BASED ON OVER-DREDGE LIMITS.
- FILL VOLUMES ARE BASED ON BANK CUBIC YARDS OF DESIGN GRADES SHOWN ON DRAWINGS.
- THE TOTAL DREDGE VOLUME NEEDED TO ACHIEVE THE DESIGN GRADES OF FILL AREAS WILL EXCEED THE BANK CUBIC YARD VOLUME. THE FILL VOLUME X A FACTOR OF 1.3 IS PROVIDED AS A ROUGH APPROXIMATION OF TOTAL DREDGE VOLUME NEEDED.
- THE MAXIMUM DREDGE VOLUME ALLOWED PER PROJECT PERMITS IS 114,000 CUBIC YARDS.

FILL PLACEMENT

- METHODS: PLACE FILL AT EELGRASS MITIGATION FILL AREA MECHANICALLY. PLACE FILL AT SURFERS BEACH HYDRAULICALLY.
- ENVIRONMENTAL CONDITIONS (WAVE, CURRENTS, WINDS, ETC.) ARE EXPECTED TO MOBILIZE SEDIMENTS AFTER PLACEMENT.
- EMPLOY MEASURES THROUGHOUT CONSTRUCTION TO CONTAIN FILL AND REDUCE TURBIDITY AS REQUIRED BY THE PERMITS AND THE SPECIFICATIONS.
- AT SURFERS BEACH, CONSTRUCT TEMPORARY SAND CONTAINMENT BERMS AS NEEDED TO LIMIT MIGRATION OF SAND DURING PLACEMENT. CONSTRUCT CONTAINMENT BERMS WITH DREDGED SEDIMENTS, DEWATERED AND CONDITIONED AS NEEDED.
- AS AN EXCEPTION, AT THE ONSET OF FILL PLACEMENT, UP TO 700 CY OF SAND MAY BE OVER-EXCAVATED FROM THE SOUTHERN END OF SURFERS BEACH FOR AN INITIAL CONTAINMENT BERM. BACKFILL AND GRADE ANY OVER-EXCAVATED AREA WITH DREDGED MATERIALS.
- OVERFILL AREAS AS NEEDED TO ACCOUNT FOR CONSOLIDATION AND POST-PLACEMENT EROSION.
- FILL PLACEMENT AREAS MAY BE SHAPED TO ACHIEVE DESIGN GRADES USING SUITABLE LAND-BASED AND/OR AMPHIBIOUS EQUIPMENT.

- EMPLOY MEASURES TO LIMIT WIND-BLOWN SAND AT SURFERS BEACH.
- DISTRICT MAY REQUIRE CONSTRUCTION CONTRACTOR TO REMOVE SEDIMENT BEYOND TOLERANCES OF THE MITIGATION FILL AREA.
- THE CONSTRUCTION CONTRACTOR SHALL ENDEAVOR TO AVOID FINER SEDIMENTS PLACED AT SURFERS BEACH BY MONITORING THE DREDGED SEDIMENT AND ADJUSTING DREDGE LOCATIONS ACCORDINGLY.
- BEDROCK OUTCROPS AND LOOSE ROCKS PROTRUDE INTO THE SURFERS BEACH AREA. THE CONSTRUCTION CONTRACTOR SHALL AVOID DISTURBING ROCK TO THE EXTENT PRACTICABLE.

ACCESS & NAVIGATION

- DREDGING AT THE BOAT LAUNCH RAMP (AREA 1C) IS IN CLOSE PROXIMITY TO THE CONCRETE RAMP AND BOARDING FLOATS. THE CONSTRUCTION CONTRACTOR SHALL 'KNOCK DOWN' THE SEDIMENT TO DEEPER WATER THAT IS ACCESSIBLE TO DREDGING PER SPECIFICATIONS AND PROJECT PERMITS.
- MARINE NAVIGATION FOR VESSELS, INCLUDING MOORINGS, AND OTHER GOVERNMENT, COMMERCIAL, AND RECREATIONAL ACTIVITIES (E.G. EMERGENCY RESPONSE, SAILING INSTRUCTION, WIND SURFING, SWIMMING) SHALL NOT BE CONSTRAINED BY CONSTRUCTION CONTRACTOR EQUIPMENT AND OPERATIONS EXCEPT AS NEEDED FOR SHORT PERIODS TO MOBILIZE AND MOVE EQUIPMENT AND ONLY TO THE EXTENT APPROVED IN WRITING BY THE DISTRICT AND APPROVAL BY THE COAST GUARD, WITH ADEQUATE NOTICE AND SAFETY PROTOCOLS (SEE SPECIFICATIONS AND PERMITS). PUBLIC ACCESS SHALL NOT BE ALLOWED IN ACTIVE WORK AREAS, BUT SUCH WORK AREAS SHALL NOT INTERFERE WITH NAVIGATION TO AND FROM THE HARBOR AND OPEN WATER.
- PUBLIC ACCESS TO AND ALONG THE SHORE SHALL NOT BE CONSTRAINED BY THE CONSTRUCTION CONTRACTORS OPERATIONS EXCEPT AS NEEDED FOR SHORT PERIODS TO MOBILIZE AND MOVE EQUIPMENT AND ONLY TO THE EXTENT APPROVED IN WRITING BY THE DISTRICT AND COMPLIANCE WITH PROJECT PERMITS, WITH ADEQUATE NOTICE AND SAFETY PROTOCOLS (SEE SPECIFICATIONS AND PERMITS). PUBLIC ACCESS SHALL NOT BE ALLOWED IN ACTIVE WORK AREAS, BUT SUCH WORK AREAS SHALL NOT PRECLUDE PEDESTRIAN ACCESS ALONG THE COASTAL TRAILS, TO AND ALONG THE BEACH, AND TO-FROM THE SURF. AN ANTICIPATED CORRIDOR FOR THE DREDGE PIPE HAS BEEN IDENTIFIED AND PERMITTED.
- THE CONTRACTOR SHALL INSTALL A TEMPORARY PERIMETER FENCE AND BUOYS AROUND THE PERIMETER OF THE PROJECT AREA TO MANAGE PUBLIC ACCESS DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO PROVIDE NOTICES, SIGNS AND FLAG MEN TO INFORM THE PUBLIC.
- CONSTRUCTION ACCESS IS LIMITED TO THE ROUTES DESIGNATED IN THESE DRAWINGS AND AS DETAILED IN THE CONTRACTOR'S SUBMITTALS APPROVED BY THE DISTRICT (SEE SPECIFICATIONS).

SITE PROTECTION & NOTIFICATIONS

- THE PROJECT DOES NOT ENTAIL ANY DEMOLITION. ALL EXISTING FACILITIES IN THE WORK AREA SHALL BE PROTECTED IN PLACE, OR STORED AND PROTECTED AND REINSTALLED, FROM DAMAGE DUE CONTRACTOR'S OPERATIONS. ANY DAMAGES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT WITHOUT COMPENSATION.
- CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 1-800-227-2600 PRIOR TO START OF ANY CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY COMPANIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO EXISTING UTILITY LINES.
- CONTRACTOR SHALL NOTIFY CALTRANS AND SAN MATEO COUNTY PRIOR TO MOBILIZING AT SURFERS BEACH PER PROJECT PERMITS.

SURVEY NOTES

- THIS SURVEY REPRESENTS GENERAL CONDITIONS AT THE TIME OF THE SURVEY. CONDITIONS LIKELY VARY FROM THOSE SHOWN IN THESE DRAWINGS DUE TO COASTAL PROCESSES AND OTHER PROCESSES SINCE THE DATES OF THE SURVEYS. VERIFY IN FIELD AND WITH PRE-CONSTRUCTION SURVEY.
- HORIZONTAL DATUM/PROJECTION: NAD83 (2011), SPCS CALIFORNIA ZONE 03 - U.S. SURVEY FEET
- HORIZONTAL CONTROL: NGS HT0455 TIDAL 5, N 37° 30' 13.27003" W 122° 29' 07.73809"
- VERTICAL DATUM: NAVD88, U.S. SURVEY FEET
- VERTICAL CONTROL: NGS HT0455 TIDAL 5, ELEVATION 14.22'
- FINAL SURFACE IS A MERGE OF ETRAC DATA, SOUNDINGS FROM MARINE TAXONOMIC SIDESCAN DATA, USGS LIDAR DATA AND HYDROGRAPHIC DATA.
- MULTI-BEAM DATA COLLECTED BY ETRAC ON DECEMBER 05 & 06, 2019. TOPOGRAPHIC DATA WITHIN PILLAR POINT HARBOR COLLECTED ON JANUARY 21ST, 2020
- POSITIONING AND MOTION DATA WAS COLLECTED BY ETRAC USING AN APPLANIX POS MV V5.
- SOUNDINGS WERE COLLECTED BY ETRAC USING AN R2SONIC 2020 OPERATING AT 400 KHZ.
- SOUNDINGS DEPTH NEGATIVE UNLESS INDICATED OTHERWISE.
- USGS LIDAR DATA COLLECTED BY DEWBERRY, APRIL-MAY 2016.
- AERIAL PHOTOGRAPHS SOURCED FROM NEARMAP, DATED SEPTEMBER 2022. CONDITIONS LIKELY VARY DUE TO CHANGES SINCE THE DATE OF PHOTOGRAPHY. CONSTRUCTION CONTRACTOR SHALL VERIFY CONDITIONS AS NEEDED TO ACCOMPLISH THE WORK CONSISTENT WITH THE CONTRACT DOCUMENTS.
- THE DISTRICT WILL PROVIDE PRE-CONSTRUCTION SURVEY AND QUANTITIES REQUIRED PRIOR TO CONSTRUCTION.
- ELEVATION CONTOURS, SOUNDINGS AND FEATURES ARE APPROXIMATE AND PROVIDED FOR GENERAL REFERENCE ONLY. THE CONTRACTOR SHALL PERFORM SITE INVESTIGATIONS, ESTIMATE QUANTITIES AND INCLUDE SUFFICIENT CONTINGENCY IN ITS BID TO COVER TOPOGRAPHIC AND BATHYMETRIC VARIABILITY.
- PRE-CONSTRUCTION SURVEY WAS CONDUCTED BY WOOLPERT.
 - MULTIBEAM DATA COLLECTED ON JUNE 16 2025; TOPOGRAPHIC DATA WAS COLLECTED ON JUNE 13 2025.
 - POSITIONING AND MOTION COLLECTED USING AN APPLANIX POS MV V5.
 - SOUNDINGS COLLECTED USING AN R2SONIC 2024 OPERATING AT 200 KHZ.
 - TOPOGRAPHIC DATA COLLECTED WITH PHOENIX LIDAR MINIVUX-3.
 - PRE-CONSTRUCTION SURFACE DATA WAS INTERPOLATED BY WOOLPERT WHERE DATA GAPS EXIST BETWEEN TOPOGRAPHIC AND BATHYMETRIC SURVEY LIMITS.
- APPROXIMATE EELGRASS LIMITS BASED ON PRE-CONSTRUCTION SURVEY DATED MAY 27 2025 BY MARINE TAXONOMIC SERVICES.
- AS-BUILT SURVEY WAS CONDUCTED BY WOOLPERT.
 - MULTIBEAM DATA COLLECTED ON OCTOBER 22 2025; SURFERS BEACH TOPOGRAPHIC DATA WAS COLLECTED BETWEEN SEPTEMBER 24 AND OCTOBER 21 2025.
 - POSITIONING AND MOTION COLLECTED USING AN APPLANIX POS MV V5.
 - SOUNDINGS COLLECTED USING AN R2SONIC 2024 OPERATING AT 200 KHZ.
 - TOPOGRAPHIC DATA COLLECTED WITH PHOENIX LIDAR MINIVUX-3.



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

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 14491, EL GRANADA, CA 94018

REVISIONS		
#	DATE	DESCRIPTION
△	07/07/25	PRE-CONSTRUCTION SURVEYS
△	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02
ISSUE DATE 02/06/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

SHEET TITLE

**GENERAL NOTES
LAYOUT LEGEND**

SHEET NUMBER

G-03

SHEET 03 OF 16

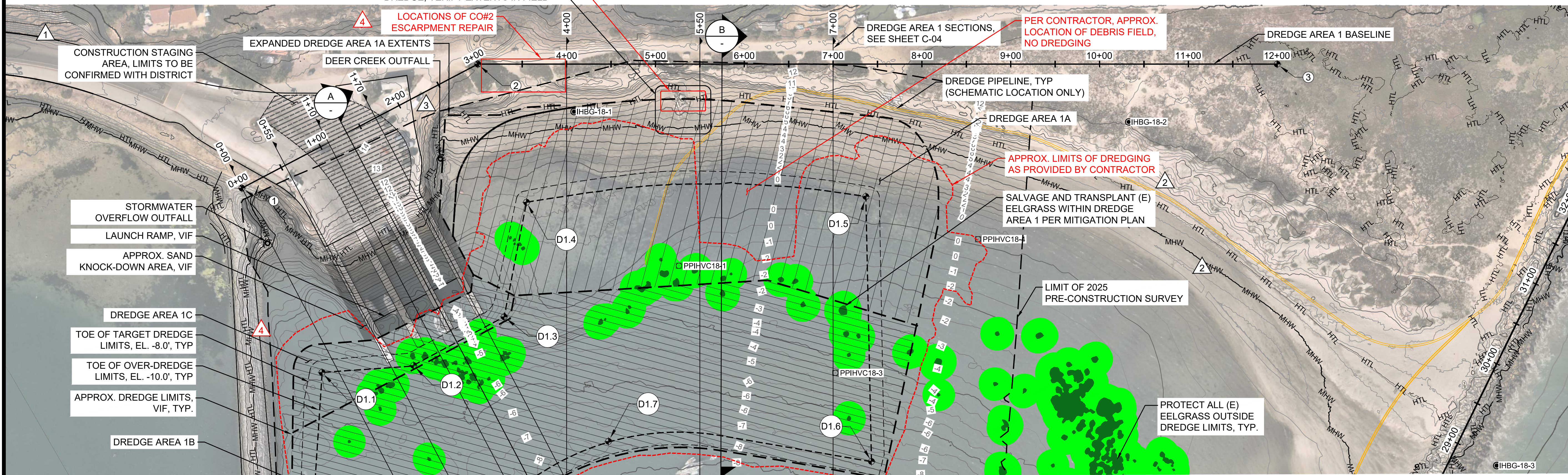
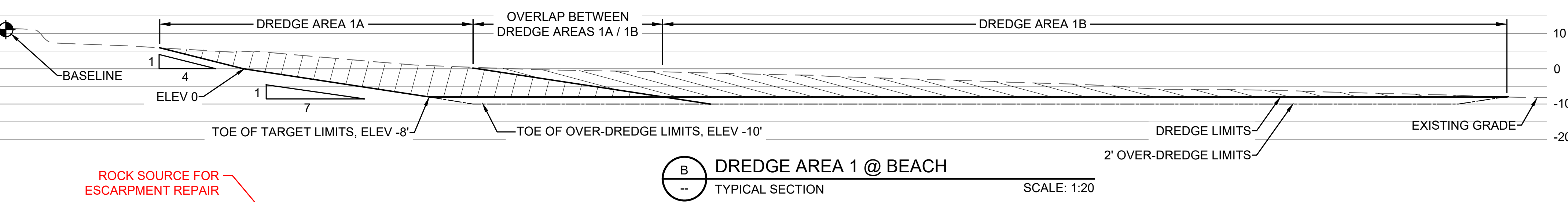
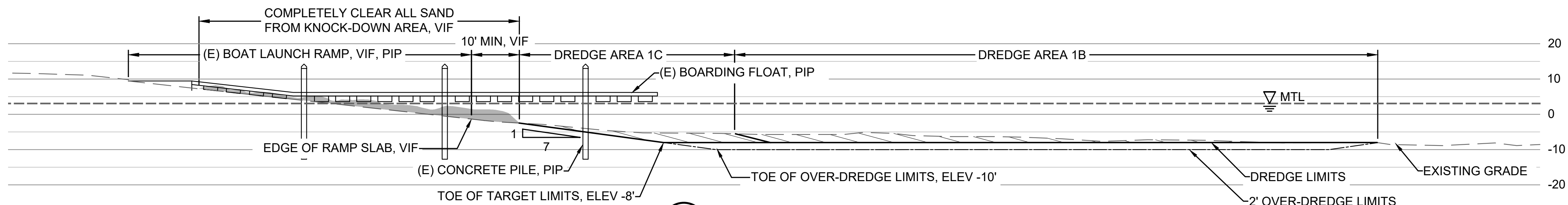
DISCLAIMER FOR RECORD DRAWINGS
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR. THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

BASELINE CONTROL POINT TABLE

NAME	NORTHING	EASTING	EXISTING GRADE ELEV., FT NAVD
①	2011526.6669	5987951.5021	10.87
②	2011515.0781	5988251.2782	9.78
③	2011065.6073	5989031.0063	6.63

DREDGE AREA 1 EXTENTS

NAME	NORTHING	EASTING	EXISTING GRADE ELEV., FT NAVD	OVER-DREDGE DESIGN GRADE ELEV., FT NAVD
D1.1	2011301.8552	5987925.8632	-5.48	-10.0
D1.2	2011257.1688	5988019.1286	-4.80	-10.0
D1.3	2011253.7146	5988134.8008	-2.25	-10.0
D1.4	2011352.9085	5988221.1386	1.30	-10.0
D1.5	2011167.6676	5988555.2958	0.54	-10.0
D1.6	2010906.0065	5988411.7965	-7.16	-10.0
D1.7	2011073.5178	5988166.5994	-7.36	-10.0
D1.8	2011146.9583	5987822.8267	-7.53	-10.0



SURFERS BEACH PILOT RESTORATION PROJECT
 PROJECT NAME
 SAN MATEO COUNTY HARBOR DISTRICT
 504 AVENUE ALHAMBRA, STE.200,
 P.O. BOX 14491, EL GRANADA, CA 94018

REVISIONS

#	DATE	DESCRIPTION
△	04/23/25	BID ADDENDUM 01
△	07/07/25	PRE-CONSTRUCTION SURVEYS DREDGE AREA 1A REFINEMENT
△	10/01/25	
△	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE
	C76509

PROJECT NUMBER D201800631.02
 ISSUE DATE 02/06/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

SHEET TITLE

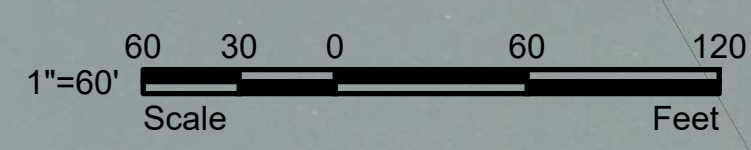
EAST BASIN DREDGE PLAN - 1

SHEET NUMBER

C-01

SHEET 04 OF 16

FILE: P:\01 CAD\18xxxx\2021\80631.00 - Surfers Beach Pilot Project\DWG\EAST BASIN DREDGE.dwg PLOT DATE: 2/6/2026 3:09:56 PM PLOTTED BY: MARIO ACCORDINO



DISCLAIMER FOR RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR. THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

NOTES

- DREDGE AREAS 1B AND 1C AND PLACE FILL AT EELGRASS MITIGATION FILL AREA.
- AREAS 1B AND 1C MAY BE DREDGED HYDRAULICALLY OR MECHANICALLY AT CONTRACTOR'S OPTION. FILL PLACEMENT AT MITIGATION FILL AREA SHALL BE MECHANICAL METHODS ONLY.
- HYDRAULICALLY DREDGE AREA 1A AND PLACE FILL AT SURFERS BEACH.
- ENDEAVOR TO ADJUST DREDGING LOCATIONS IN AREA 1A TO AVOID FINE SEDIMENTS.
- DREDGE AREAS 1A, 1B AND 1C TO HORIZONTAL AND VERTICAL LIMITS SHOWN ON DRAWINGS.
- BOUNDARIES SHOWN BETWEEN DREDGING AREAS ARE APPROXIMATE. ACTUAL BOUNDARIES BETWEEN DREDGE AREAS MAY ADJUST DURING CONSTRUCTION PER DISTRICT DIRECTION.
- DO NOT BEGIN DREDGING AREAS 1B AND 1C UNTIL EELGRASS HAS BEEN TRANSPLANTED FROM THE EELGRASS MITIGATION FILL AREA.
- SEE SHEET C-04 FOR GRADING SECTIONS.

LEGEND

- DREDGING AREA (SURFERS BEACH)
- DREDGING AREA (MITIGATION AREA AND SURFERS BEACH)
- CONSTRUCTION STAGING AREA
- DREDGING PIPELINE
- EELGRASS BED
- POTENTIAL EELGRASS HABITAT
- SAND KNOCK-DOWN AREA
- HTL - HIGH TIDE LINE: 7.2' NAVD
- MHW - MEAN HIGH TIDE LINE: 5.0' NAVD
- TOE OF OVER-DREDGE LIMITS
- TOE OF TARGET DREDGE LIMITS

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 14491, EL GRANADA, CA 94018

PROJECT NAME

REVISIONS #	DATE	DESCRIPTION
△ 02/06/26		RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

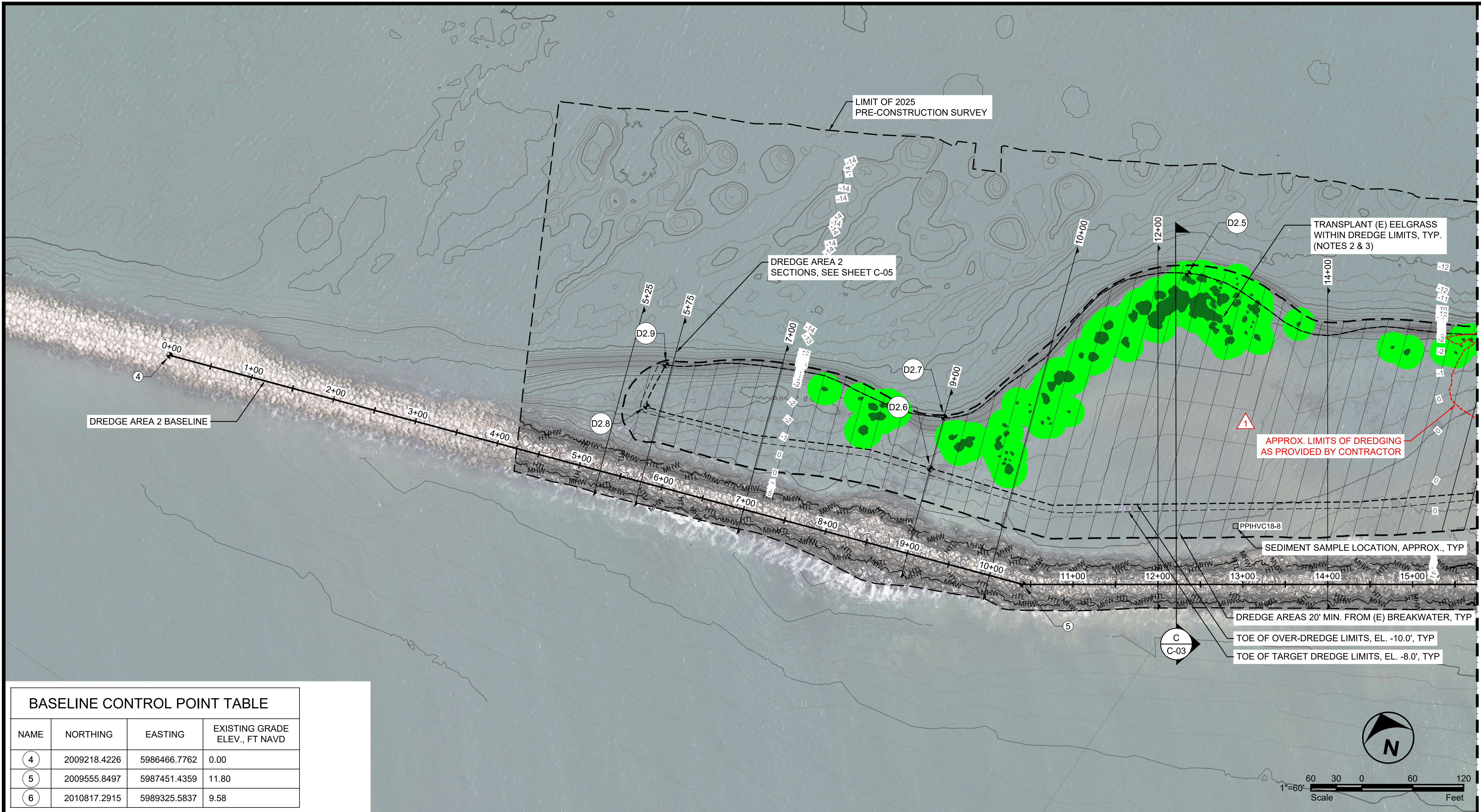
SHEET TITLE

**EAST BASIN
DREDGE PLAN - 2A**

SHEET NUMBER

C-02

SHEET 05 OF 16



MATCHLINE - SEE SHEET C-03

BASELINE CONTROL POINT TABLE

NAME	NORTHING	EASTING	EXISTING GRADE ELEV., FT NAVD
4	2009218.4226	5986466.7762	0.00
5	2009555.8497	5987451.4359	11.80
6	2010817.2915	5989325.5837	9.58

DREDGE AREA 2 EXTENTS

NAME	NORTHING	EASTING	EXISTING GRADE ELEV., FT NAVD	OVER-DREDGE DESIGN GRADE ELEV., FT NAVD
D2.1	2010360.9450	5988445.8427	2.23	-10.0
D2.2	2010493.1305	5988416.5394	-6.10	-10.0
D2.3	2010072.2736	5988019.1914	1.90	-10.0
D2.4	2010240.6884	5987905.6987	-6.03	-10.0
D2.5	2009968.4561	5987408.2901	-4.01	-10.0
D2.6	2009607.8843	5987284.8203	-1.42	-10.0
D2.7	2009667.4067	5987264.5669	-8.80	-10.0
D2.8	2009482.2825	5986966.4270	-2.47	-10.0
D2.9	2009535.5949	5986958.1133	-6.91	-10.0

DISCLAIMER FOR RECORD DRAWINGS
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

NOTES

- HYDRAULICALLY DREDGE AREA 2 AND PLACE FILL AT SURFER'S BEACH.
- DO NOT BEGIN DREDGING AREA 2 UNTIL EELGRASS HAS BEEN TRANSPLANTED TO THE EELGRASS MITIGATION FILL AREA.
- TRANSPLANT EELGRASS IN DREDGE LIMITS TO EELGRASS MITIGATION FILL AREA ACCORDING TO THE SPECIFICATIONS. SEE GENERAL NOTES, SHEET G-03 FOR ALL SEQUENCING REQUIREMENTS.
- DREDGE AREA 2 ONLY AS NEEDED TO GENERATE SUFFICIENT MATERIAL FOR SURFERS BEACH FILL AREA. (DO NOT EXCEED TOTAL PERMITTED DREDGE VOLUME OF 114,000 CY.)
- ENDEAVOR TO ADJUST DREDGING LOCATIONS IN AREA 2 TO AVOID FINE SEDIMENTS.
- SEE SHEET C-05 FOR GRADING SECTIONS.

LEGEND

- DREDGING AREA (SURFERS BEACH)
- DREDGING AREA (MITIGATION AREA AND SURFERS BEACH)
- DREDGING PIPELINE
- EELGRASS BED
- POTENTIAL EELGRASS HABITAT
- HTL - HIGH TIDE LINE: 7.2' NAVD
- MHW - MEAN HIGH TIDE LINE: 5.0' NAVD
- TOE OF OVER-DREDGE LIMITS
- TOE OF TARGET DREDGE LIMITS

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P. O. BOX 14491, EL GRANADA, CA 94018

REVISIONS

#	DATE	DESCRIPTION
1	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02
ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

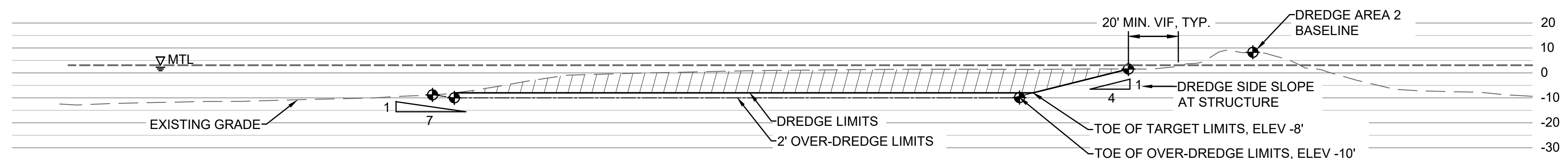
SHEET TITLE

**EAST BASIN
DREDGE PLAN - 2B**

SHEET NUMBER

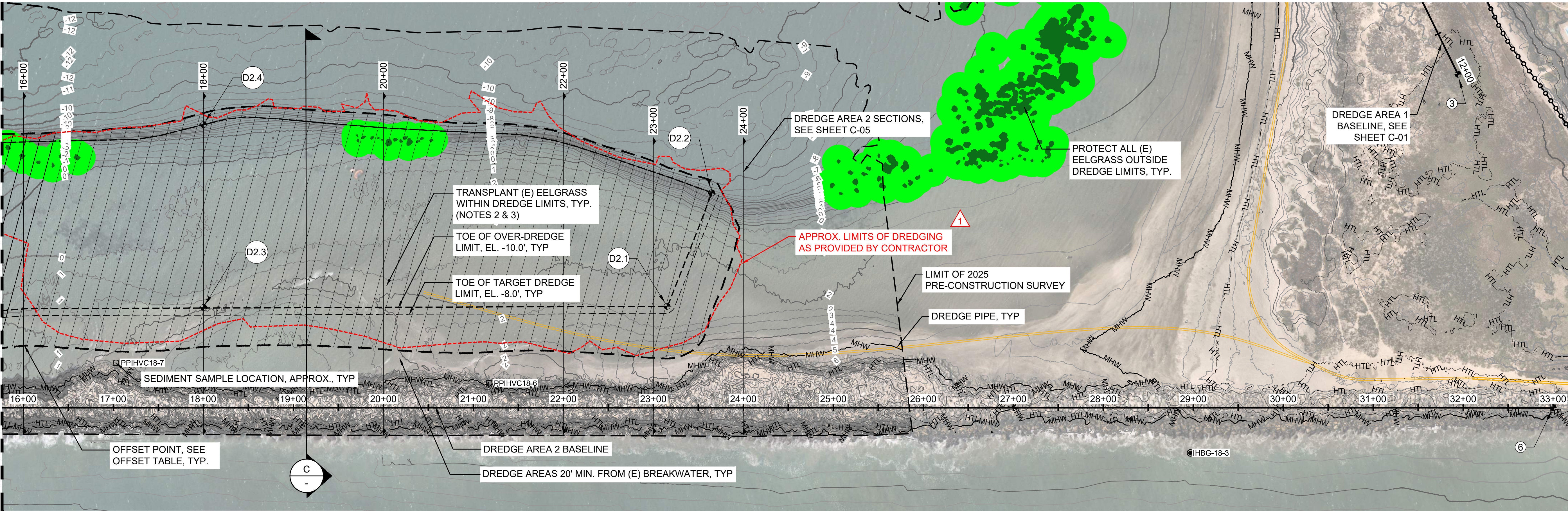
C-03

SHEET 06 OF 16



ACCEPTABLE TOLERANCE UP = N/A DOWN = -2'
PAY LIMIT = TARGET DREDGE + OVERDREDGE

(C) DREDGE AREA 2
TYPICAL SECTION
SCALE: 1:30



BASELINE CONTROL POINT TABLE

NAME	NORTHING	EASTING	EXISTING GRADE ELEV., FT NAVD
4	2009218.4226	5986466.7762	0.00
5	2009555.8497	5987451.4359	11.80
6	2010817.2915	5989325.5837	9.58

DREDGE AREA 2 EXTENTS

NAME	NORTHING	EASTING	EXISTING GRADE ELEV., FT NAVD	OVER-DREDGE DESIGN GRADE ELEV., FT NAVD
D2.1	2010360.9450	5988445.8427	2.23	-10.0
D2.2	2010493.1305	5988416.5394	-6.10	-10.0
D2.3	2010072.2736	5988019.1914	1.90	-10.0
D2.4	2010240.6884	5987905.6987	-6.03	-10.0
D2.5	2009968.4561	5987408.2901	-4.01	-10.0
D2.6	2009607.8843	5987284.8203	-1.42	-10.0
D2.7	2009667.4067	5987264.5669	-8.80	-10.0
D2.8	2009482.2825	5986966.4270	-2.47	-10.0
D2.9	2009535.5949	5986958.1133	-6.91	-10.0

DISCLAIMER FOR RECORD DRAWINGS
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

NOTES

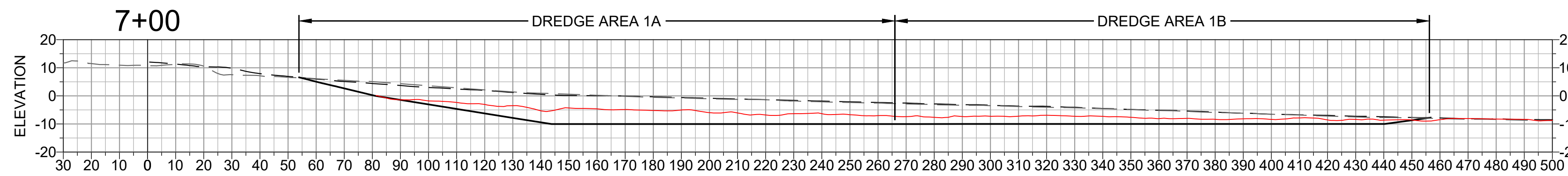
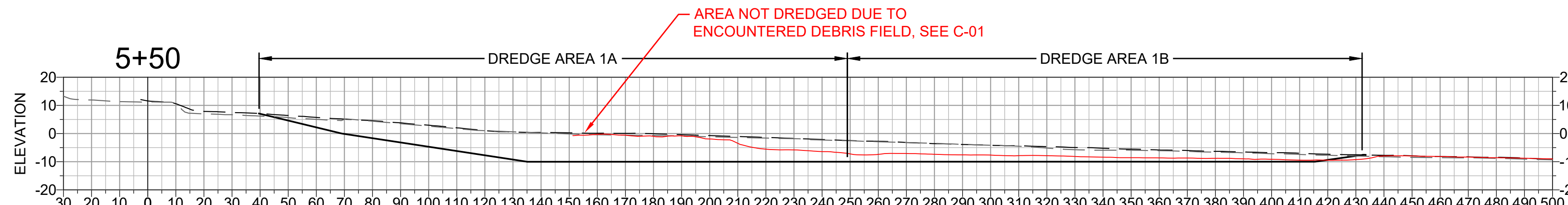
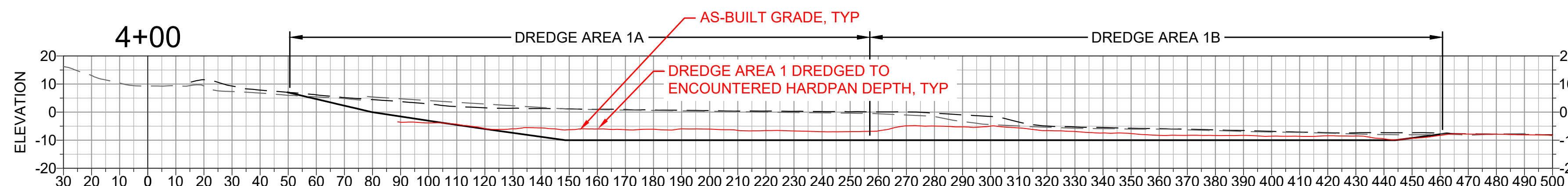
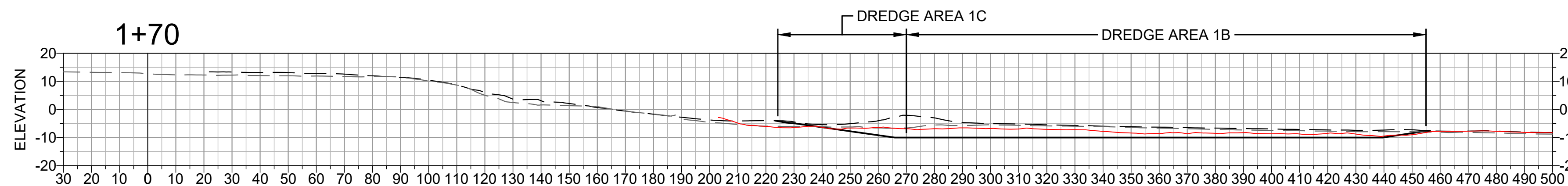
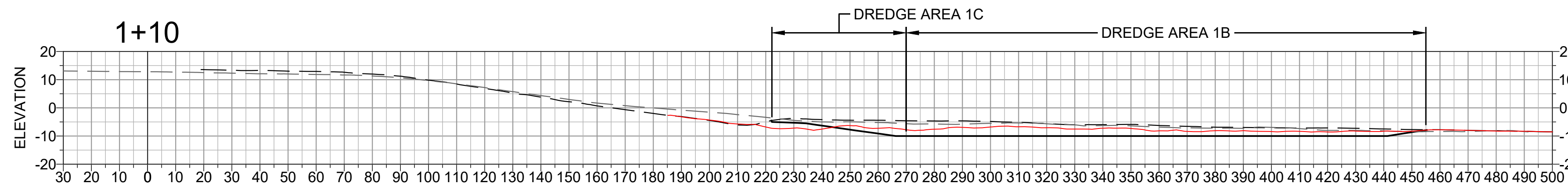
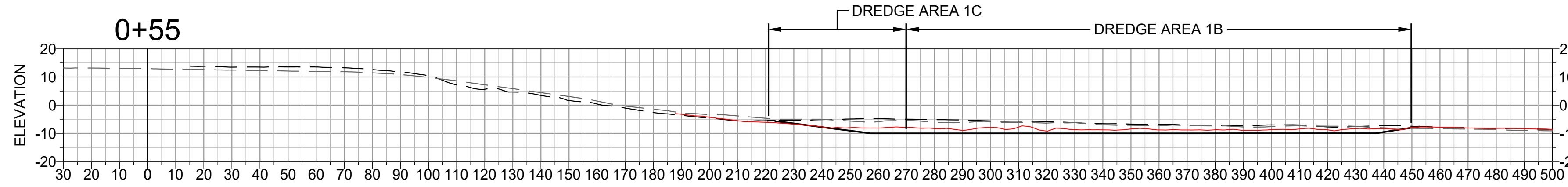
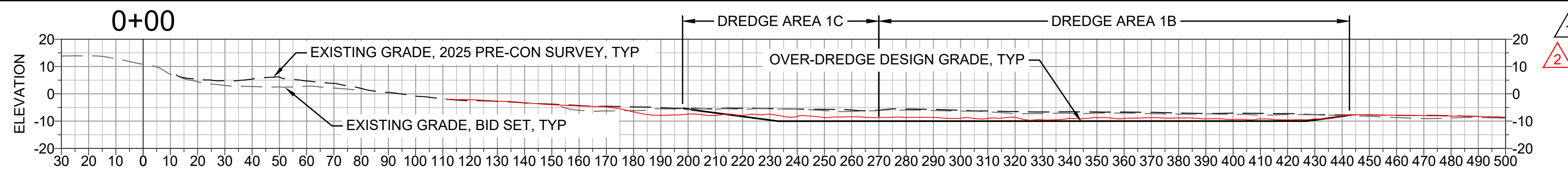
1. HYDRAULICALLY DREDGE AREA 2 AND PLACE FILL AT SURFER'S BEACH.
2. DO NOT BEGIN DREDGING AREA 2 UNTIL EELGRASS HAS BEEN TRANSPLANTED TO THE EELGRASS MITIGATION FILL AREA.
3. TRANSPLANT EELGRASS IN DREDGE LIMITS TO EELGRASS MITIGATION FILL AREA ACCORDING TO THE SPECIFICATIONS. SEE GENERAL NOTES, SHEET G-03 FOR ALL SEQUENCING REQUIREMENTS.
4. DREDGE AREA 2 ONLY AS NEEDED TO GENERATE SUFFICIENT MATERIAL FOR SURFERS BEACH FILL AREA. (DO NOT EXCEED TOTAL PERMITTED DREDGE VOLUME OF 114,000 CY.)
5. ENDEAVOR TO ADJUST DREDGING LOCATIONS IN AREA 2 TO AVOID FINE SEDIMENTS.
6. SEE SHEET C-05 FOR GRADING SECTIONS.

LEGEND

- DREDGING AREA (SURFERS BEACH)
- DREDGING AREA (MITIGATION AREA AND SURFERS BEACH)
- DREDGING PIPELINE
- EELGRASS BED
- POTENTIAL EELGRASS HABITAT
- HTL - HIGH TIDE LINE: 7.2' NAVD
- MHW - MEAN HIGH TIDE LINE: 5.0' NAVD
- TOE OF OVER-DREDGE LIMITS
- TOE OF TARGET DREDGE LIMITS

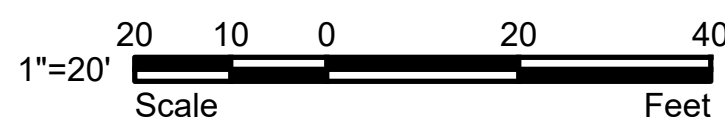
DISCLAIMER FOR RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.



NOTES

- DREDGE SECTIONS SHOW LIMITS OF OVER-DREDGE (EL -10' NAVD) ONLY FOR CLARITY.
- THE TARGET DREDGE LIMITS ELEVATION OF THE TARGET VERTICAL LIMIT OF DREDGING IS ELEV -8' NAVD (NOT SHOWN).
- SEE SHEET G-03 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON TOLERANCE AND PAY LIMITS.



DREDGE AREA 1 - SECTIONS

SECTION

SCALE: 1:30



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

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 14491, EL GRANADA, CA 94018

PROJECT NAME

REVISIONS

#	DATE	DESCRIPTION
1	07/07/25	PRE-CONSTRUCTION TOPOBATHY SURVEY
2	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE

RECORD SET

SHEET TITLE

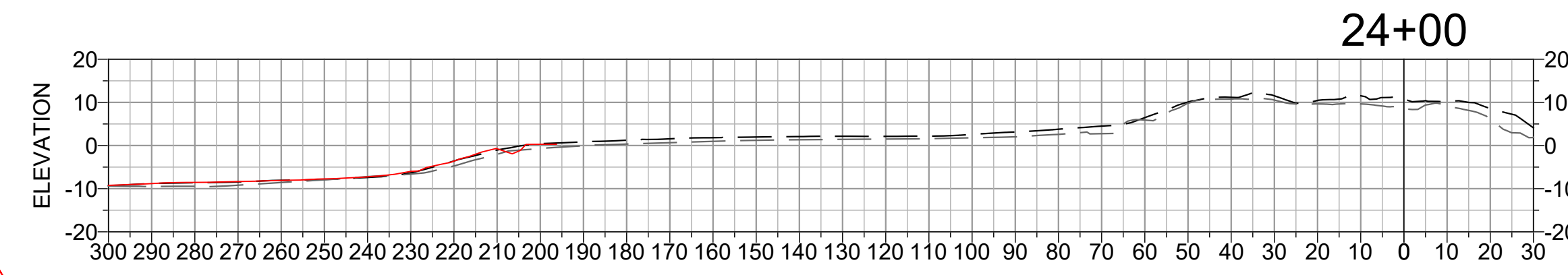
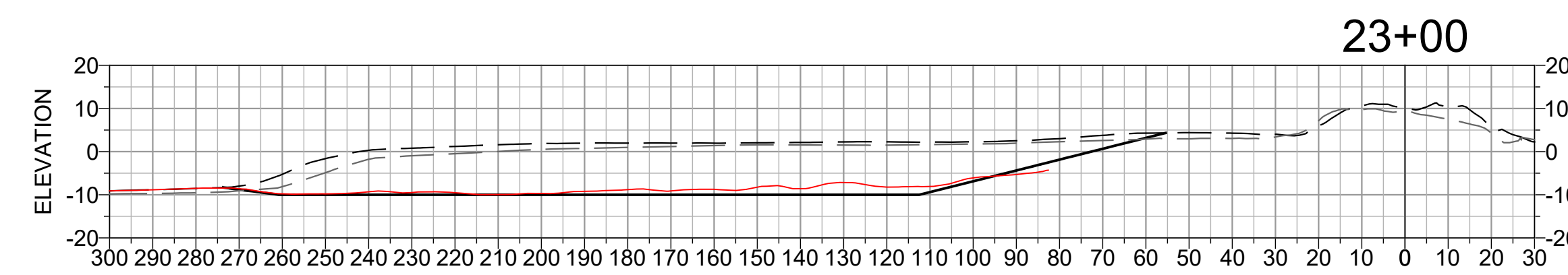
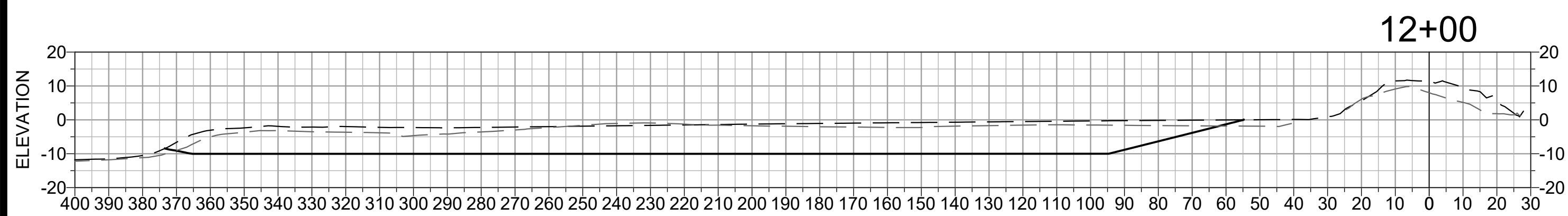
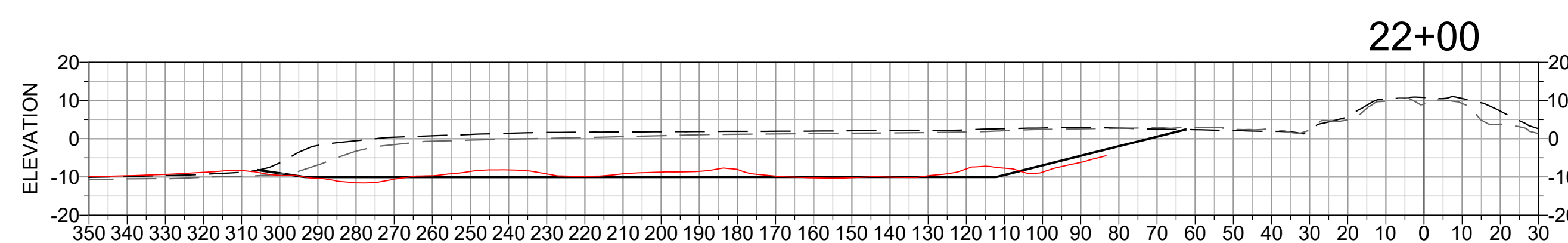
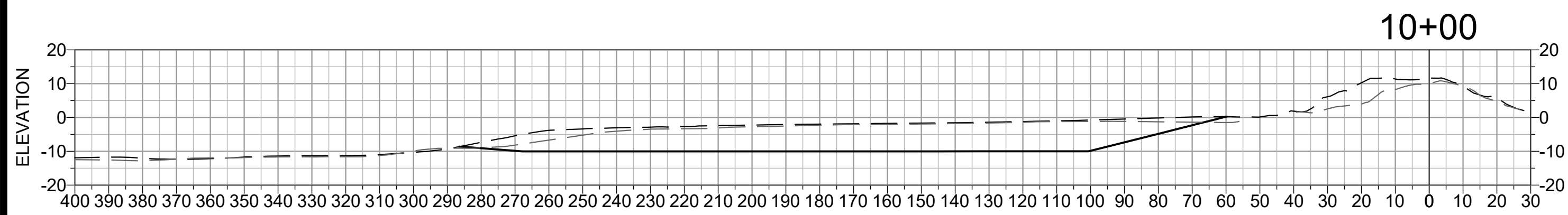
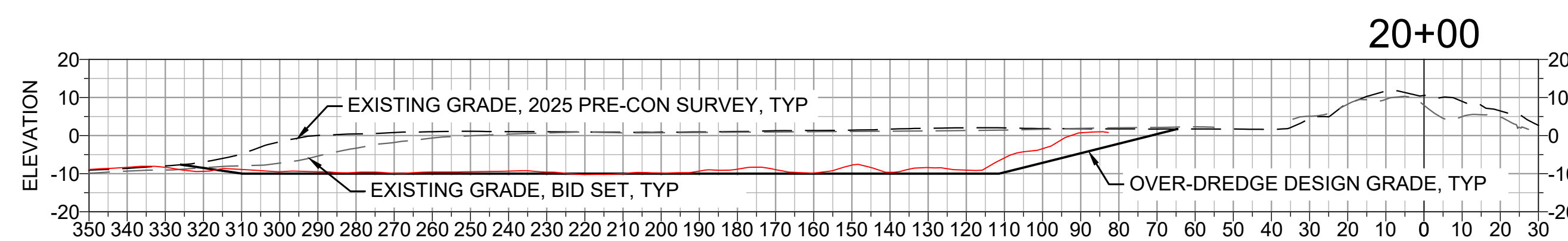
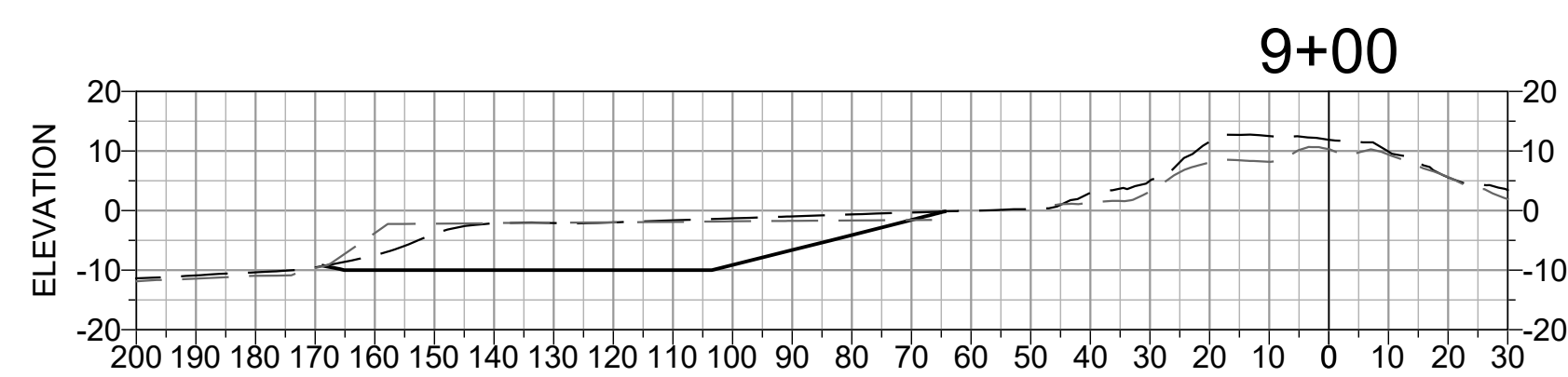
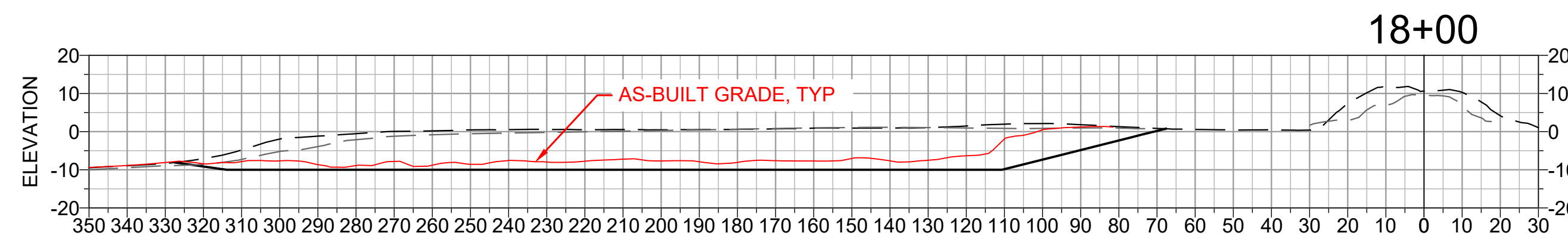
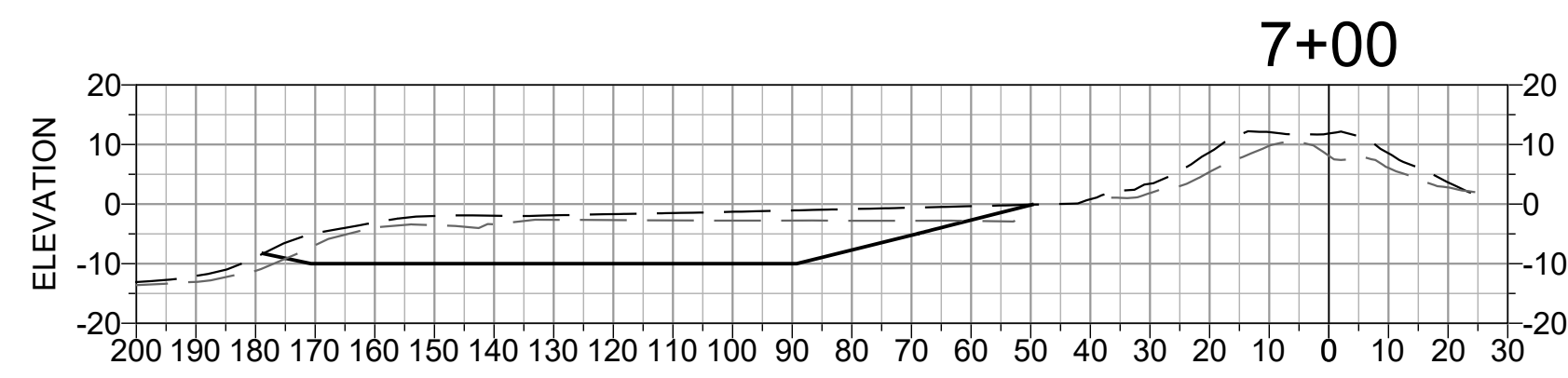
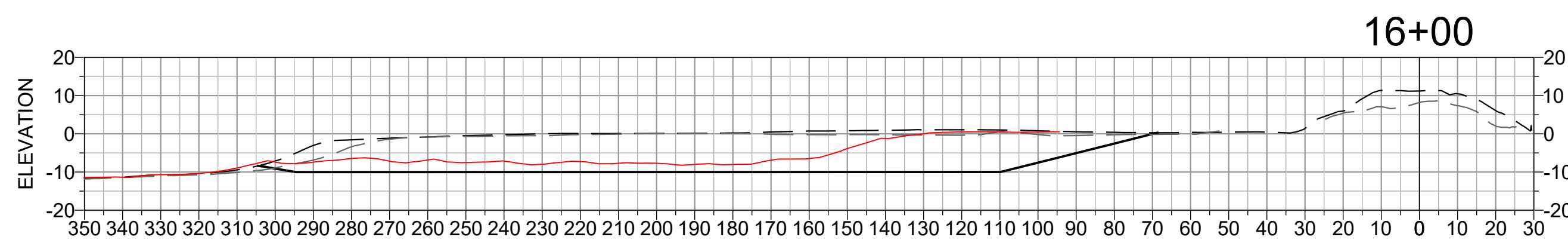
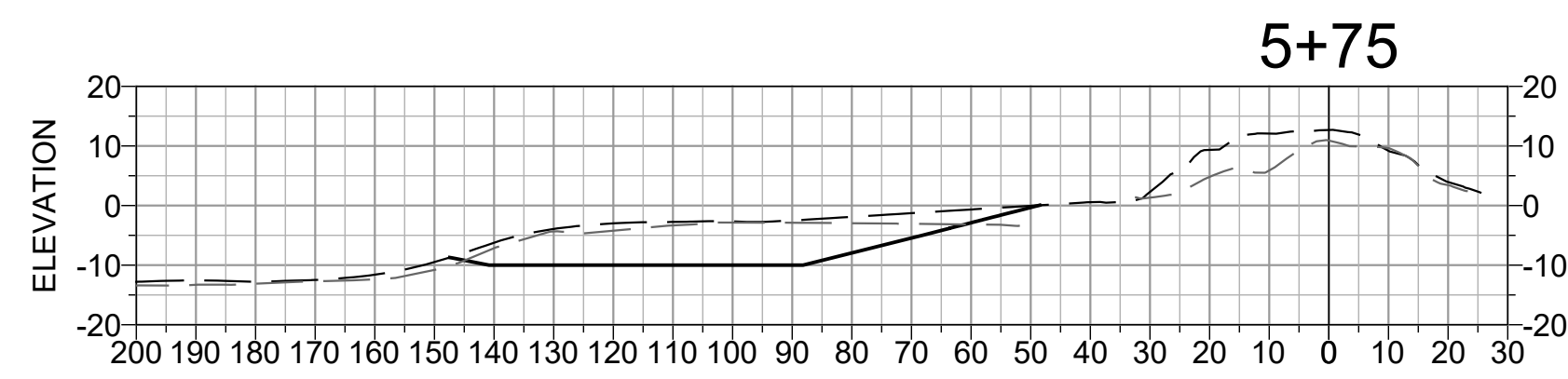
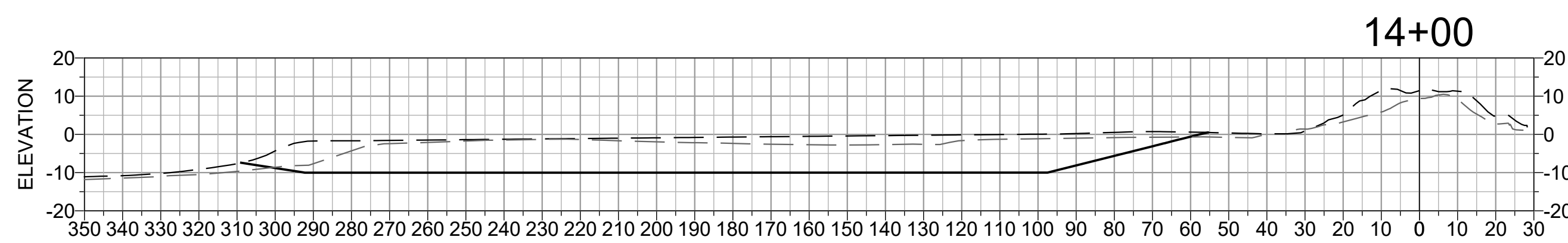
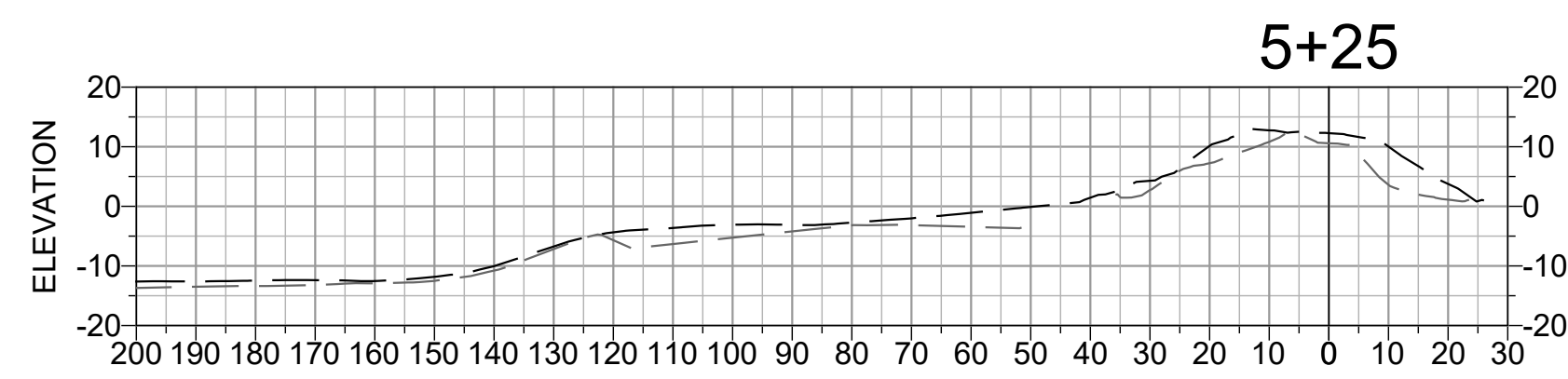
**EAST BASIN
DREDGE 1
SECTIONS**

SHEET NUMBER

C-04

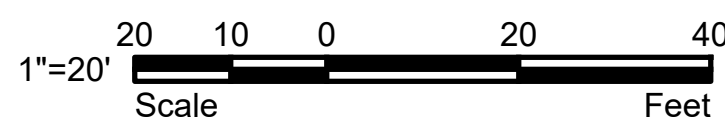
SHEET 07 OF 16

FILE: P:\01 CAD\18\180631_00 - Surfers Beach Pilot Project\DWG\EAST BASIN DREDGE.dwg PLOT DATE: 2/6/2026 2:00:38 PM PLOTTED BY: MARIO ACCORDINO



NOTES

1. DREDGE SECTIONS SHOW LIMITS OF OVER-DREDGE (EL -10' NAVD) ONLY FOR CLARITY.
2. THE TARGET DREDGE LIMITS ELEVATION OF THE TARGET VERTICAL LIMIT OF DREDGING IS ELEV -8' NAVD (NOT SHOWN).
3. SEE SHEET G-03 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON TOLERANCE AND PAY LIMITS.
4. STATIONS 0+00 TO 14+00 NOT DREDGED DURING CONSTRUCTION



DREDGE AREA 2 - SECTIONS
SECTION SCALE: 1:30

DISCLAIMER FOR RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.



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

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 14491, EL GRANADA, CA 94018

PROJECT NAME

REVISIONS #	DATE	DESCRIPTION
1	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

SHEET TITLE

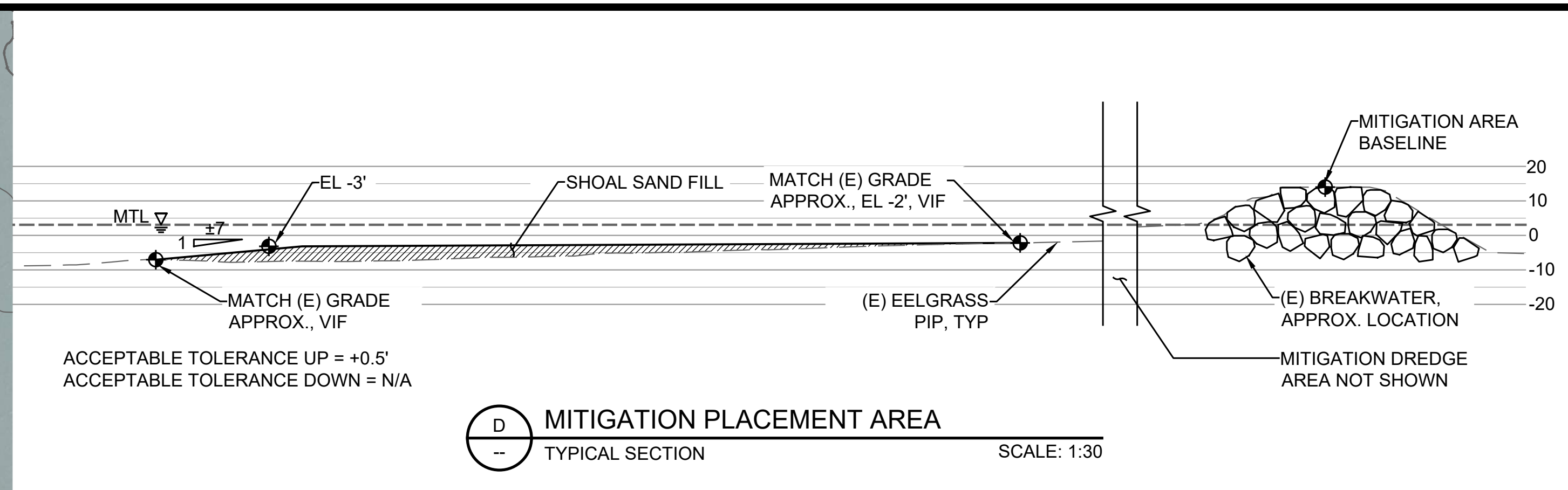
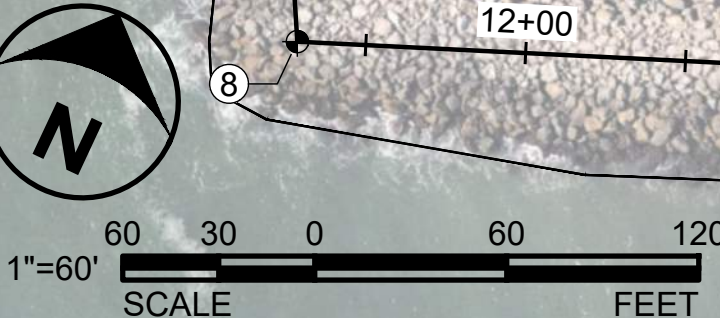
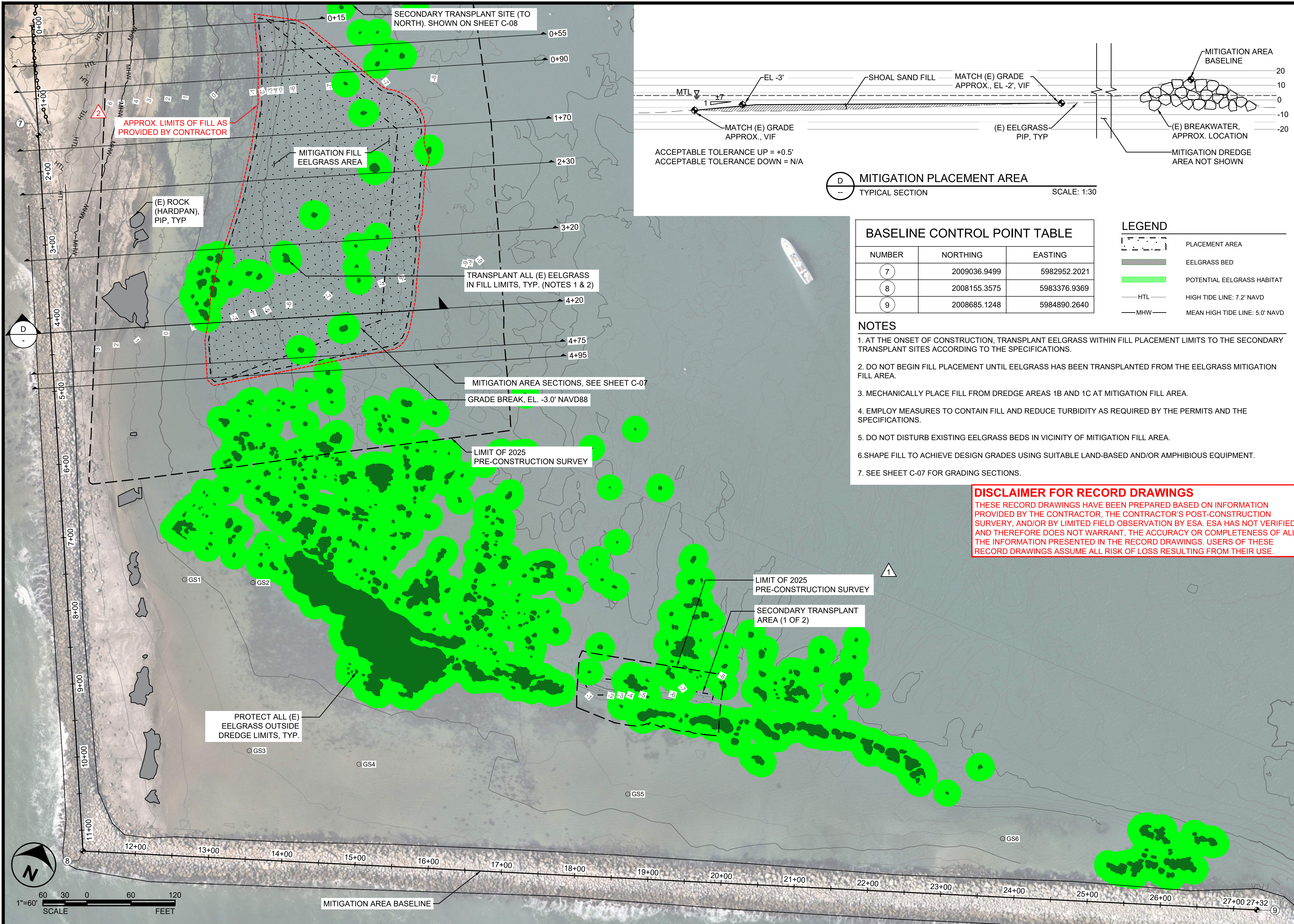
**EAST BASIN
DREDGE 2
SECTIONS**

SHEET NUMBER

C-05

SHEET 08 OF 16

FILE: P:\01 CAD\18xxxx\20180631.00 - Surfers Beach Pilot Project\DWG\PHASE 1 MITIGATION AREA.dwg PLOT DATE: 2/6/2025 3:10:25 PM PLOTTED BY: MARIO ACCORDINO



D MITIGATION PLACEMENT AREA
 -- TYPICAL SECTION SCALE: 1:30

BASELINE CONTROL POINT TABLE

NUMBER	NORTHING	EASTING
7	2009036.9499	5982952.2021
8	2008155.3575	5983376.9369
9	2008685.1248	5984890.2640

LEGEND

- PLACEMENT AREA
- EELGRASS BED
- POTENTIAL EELGRASS HABITAT
- HTL HIGH TIDE LINE: 7.2' NAVD
- MHW MEAN HIGH TIDE LINE: 5.0' NAVD

NOTES

1. AT THE ONSET OF CONSTRUCTION, TRANSPLANT EELGRASS WITHIN FILL PLACEMENT LIMITS TO THE SECONDARY TRANSPLANT SITES ACCORDING TO THE SPECIFICATIONS.
2. DO NOT BEGIN FILL PLACEMENT UNTIL EELGRASS HAS BEEN TRANSPLANTED FROM THE EELGRASS MITIGATION FILL AREA.
3. MECHANICALLY PLACE FILL FROM DREDGE AREAS 1B AND 1C AT MITIGATION FILL AREA.
4. EMPLOY MEASURES TO CONTAIN FILL AND REDUCE TURBIDITY AS REQUIRED BY THE PERMITS AND THE SPECIFICATIONS.
5. DO NOT DISTURB EXISTING EELGRASS BEDS IN VICINITY OF MITIGATION FILL AREA.
6. SHAPE FILL TO ACHIEVE DESIGN GRADES USING SUITABLE LAND-BASED AND/OR AMPHIBIOUS EQUIPMENT.
7. SEE SHEET C-07 FOR GRADING SECTIONS.

DISCLAIMER FOR RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

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



**SURFERS BEACH
 PILOT RESTORATION
 PROJECT**
 SAN MATEO COUNTY HARBOR DISTRICT
 504 AVENUE ALHAMBRA, STE 200,
 P.O. BOX 14491, EL GRANADA, CA 94018

REVISIONS

#	DATE	DESCRIPTION
1	07/07/25	PRE-CONSTRUCTION SURVEYS
2	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02
 ISSUE DATE 02/06/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE **RECORD SET**

SHEET TITLE
**EELGRASS
 MITIGATION FILL
 AREA PLAN**

SHEET NUMBER
C-06
 SHEET 09 OF 16



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

STAMP



**SURFERS BEACH
PILOT RESTORATION
PROJECT**

SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 14491, EL GRANADA, CA 94018

PROJECT NAME

REVISIONS	#	DATE	DESCRIPTION
	1	07/07/25	PRE-CONSTRUCTION TOPOBATHY SURVEY
	2	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02
ISSUE DATE 02/06/26

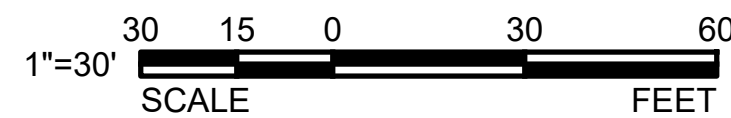
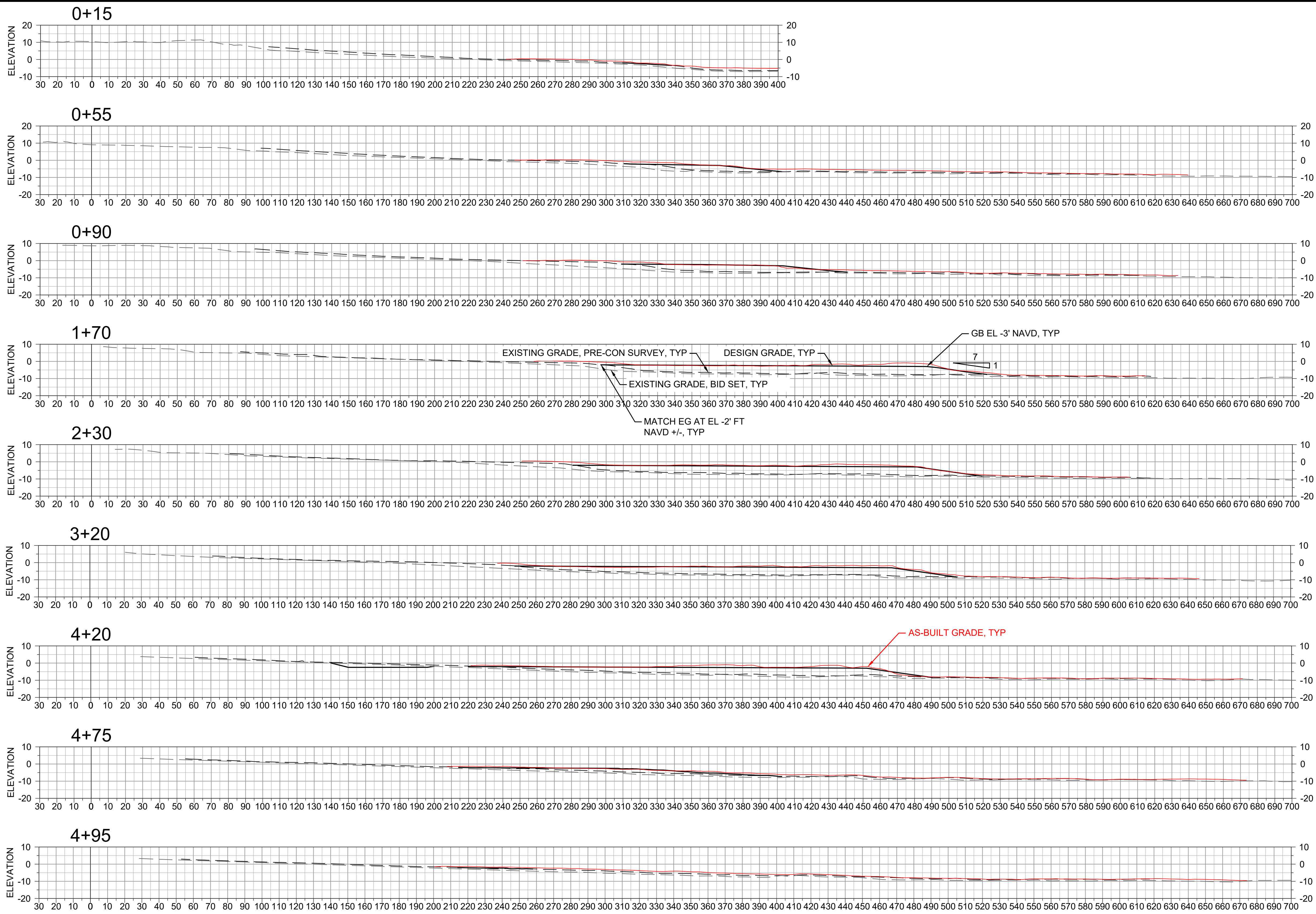
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

SHEET TITLE
EELGRASS MITIGATION FILL AREA SECTIONS

SHEET NUMBER
C-07

SHEET 10 OF 16



NOTES

EELGRASS MITIGATION - SECTIONS

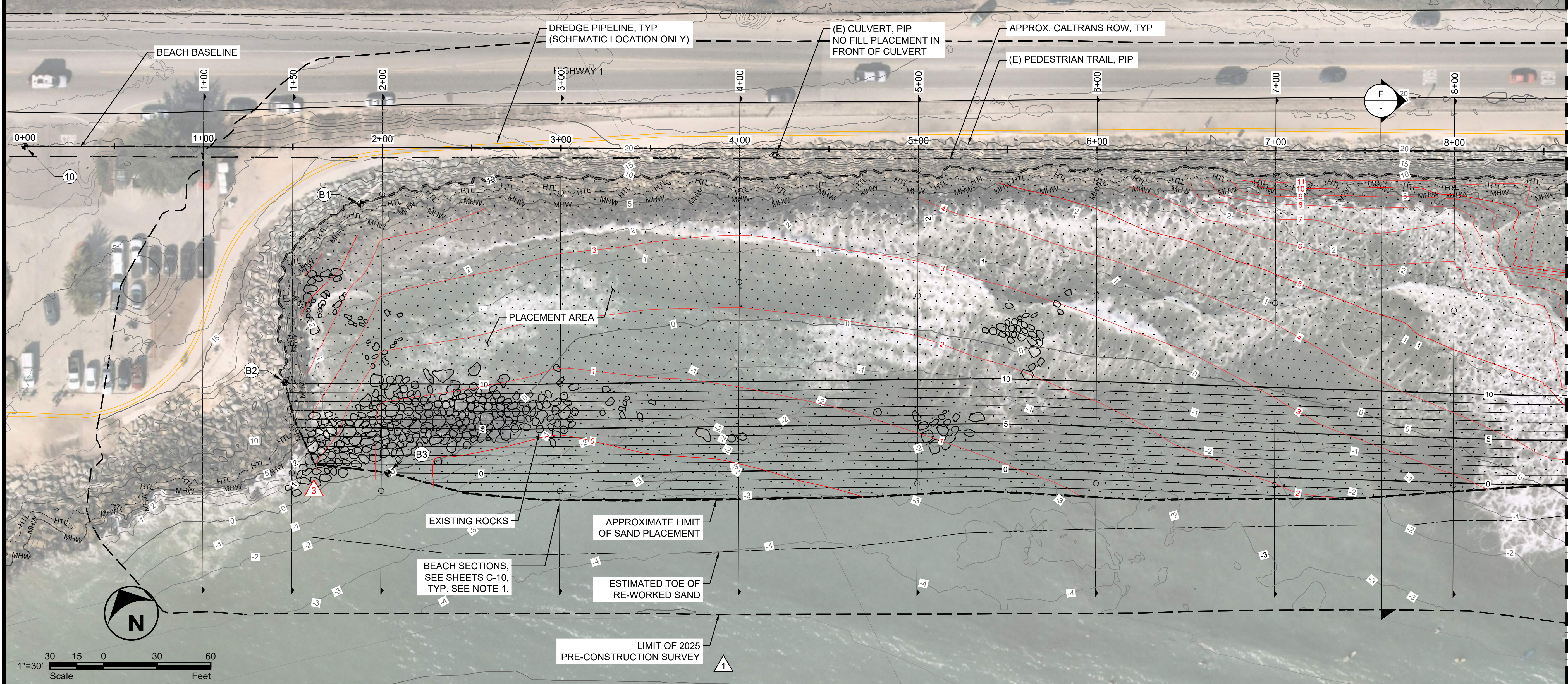
SECTION

SCALE: 1:30

DISCLAIMER FOR RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

DISCLAIMER FOR RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.



- LEGEND**
- TEMPORARY CONTAINMENT BERM EXCAVATION AREA
 - DREDGING PIPELINE
 - PLACEMENT AREA
 - CONSTRUCTION STAGING AREA
 - HTL HIGH TIDE LINE: 7.2' NAVD
 - MHW MEAN HIGH TIDE LINE: 5.0' NAVD
 - CALTRANS RIGHT OF WAY (ROW)

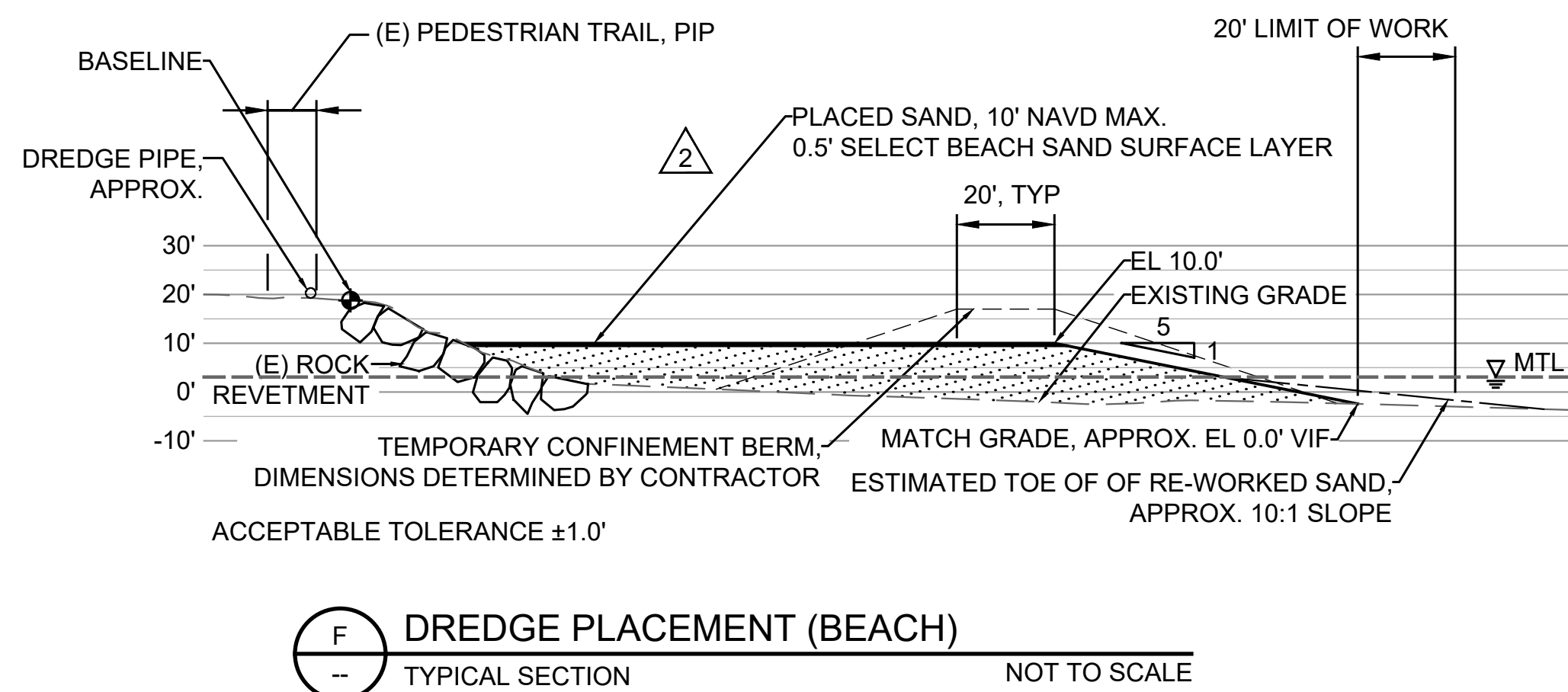
- NOTES**
1. HYDRAULICALLY PLACE FILL AT SURFER'S BEACH FILL AREA FROM DREDGE AREAS 1A AND 2.
 2. EMPLOY MEASURES TO CONTAIN FILL AND REDUCE TURBIDITY AS REQUIRED BY THE PERMITS AND THE SPECIFICATIONS.
 3. CONSTRUCT TEMPORARY SAND CONTAINMENT BERMS AS NEEDED TO LIMIT MIGRATION OF SAND DURING PLACEMENT. CONSTRUCT CONTAINMENT BERMS WITH DREDGED SEDIMENTS, DEWATERED AND CONDITIONED AS NEEDED.
 4. SHAPE FILL AS NEEDED TO ACHIEVE DESIGN GRADES USING SUITABLE LAND-BASED AND/OR AMPHIBIOUS EQUIPMENT.
 5. SEE SHEET C-10 FOR GRADING SECTIONS.
 6. AS-BUILT GRADES SURVEYED AT TIME OF STATION ACCEPTANCE.

BASELINE CONTROL POINT TABLE

NAME	NORTHING	EASTING	APPROX. EXISTING ELEV., FT NAVD
10	2011065.2411	5989661.2821	19.97
11	2010276.8152	5991195.5603	25.25

BEACH FILL AREA EXTENTS

NUMBER	NORTHING	EASTING	APPROX. EXISTING ELEV., FT NAVD	DESIGN GRADE, FT NAVD
B1	2010951.2632	5989814.0327	10.0	10.0
B2	2010881.2761	5989730.9724	10.0	10.0
B3	2010809.8262	5989759.3722	0.0	0.0
B4	2010573.3331	5990606.6268	10.0	10.0
B5	2010377.7936	5990847.0242	10.0	10.0
B6	2010347.0497	5990888.8043	10.0	10.0



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



SURFERS BEACH PILOT RESTORATION PROJECT
 SAN MATEO COUNTY HARBOR DISTRICT
 504 AVENUE ALHAMBRA, STE 200,
 P.O. BOX 1449, EL GRANADA, CA 94018

REVISIONS

#	DATE	DESCRIPTION
△	07/07/25	PRE-CONSTRUCTION TOPOBATHY SURVEY
△	09/19/25	RFI 005 RESPONSE
△	02/06/26	RECORD SET

DESIGNED L. WHITE
 DRAWN M.A.
 CHECKED A. BORGONOVO
 IN CHARGE L. WHITE
 C76509

PROJECT NUMBER D201800631.02
 ISSUE DATE 02/06/26
 SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE **RECORD SET**
 SHEET TITLE

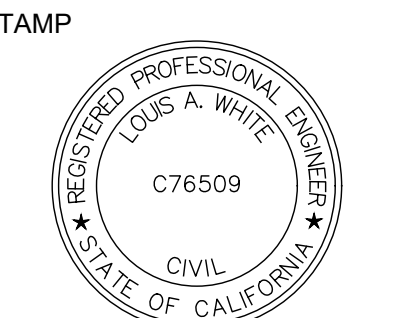
SURFERS BEACH FILL AREA PLAN - 1

SHEET NUMBER
C-08
 SHEET 11 OF 16

FILE: P:\01_CAD\18xxxx\202180631_00 - Surfers Beach Pilot Project\DWG\PHASE 2 SURFERS BEACH FILL AREA.dwg PLOT DATE: 2/6/2026 3:10:47 PM PLOTTED BY: MARIO ACCORDINO

DISCLAIMER FOR RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR. THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

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



SURFERS BEACH PILOT RESTORATION PROJECT
 PROJECT NAME
 SAN MATEO COUNTY HARBOR DISTRICT
 504 AVENUE ALHAMBRA, STE 200,
 P.O. BOX 1449, EL GRANADA, CA 94018

REVISIONS

#	DATE	DESCRIPTION
△	07/07/25	PRE-CONSTRUCTION TOPOBATHY SURVEY
△	09/19/25	RFI 005 RESPONSE
△	02/06/26	RECORD SET

DESIGNED L. WHITE
 DRAWN M.A.
 CHECKED A. BORGONOVO
 IN CHARGE L. WHITE
 C76509

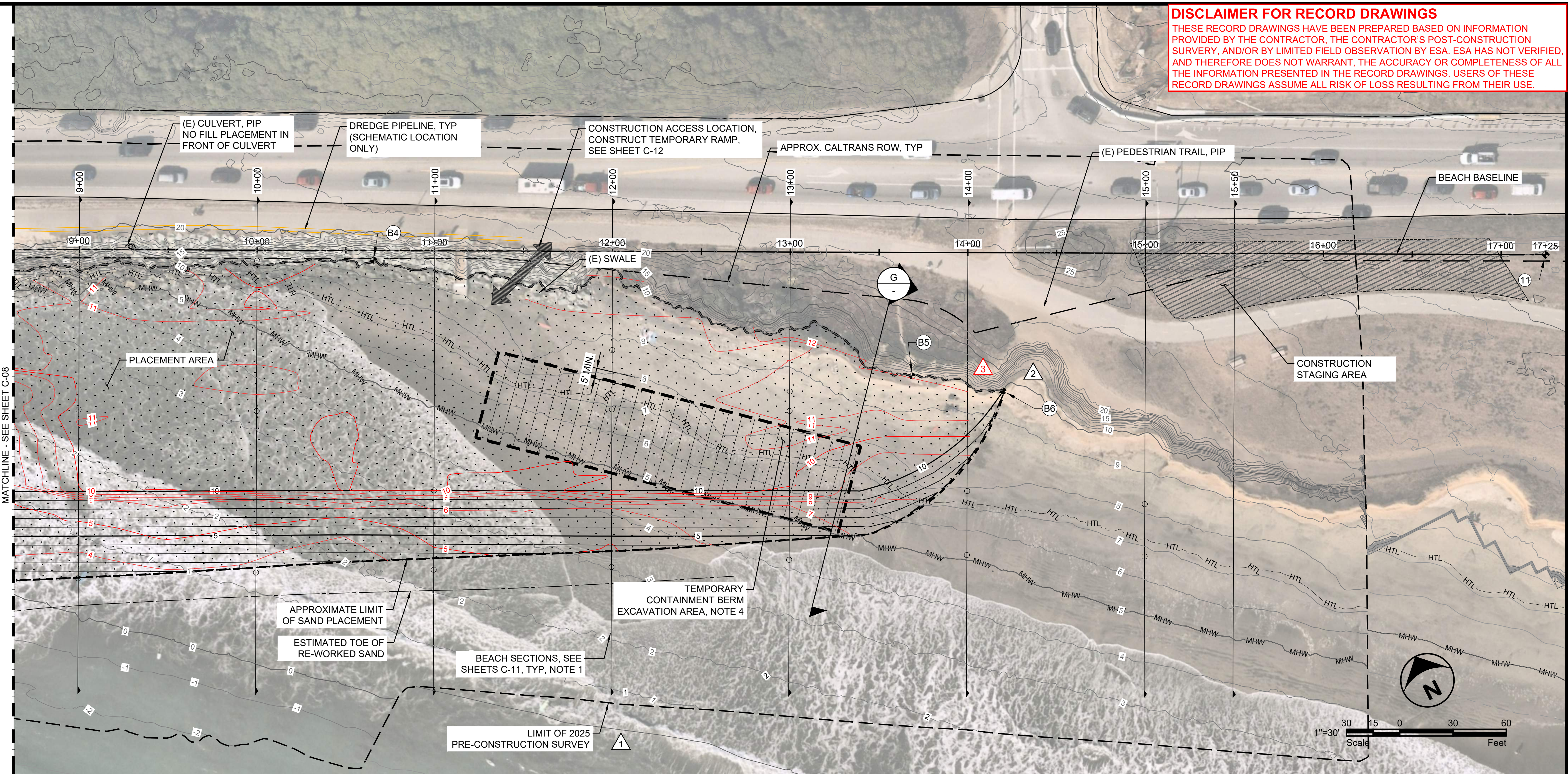
PROJECT NUMBER D201800631.02
 ISSUE DATE 01/19/26
 SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

SHEET TITLE

SURFERS BEACH FILL AREA PLAN - 2

SHEET NUMBER
C-09
 SHEET 12 OF 16



LEGEND

	TEMPORARY CONTAINMENT BERM EXCAVATION AREA
	DREDGING PIPELINE
	PLACEMENT AREA
	CONSTRUCTION STAGING AREA
	HIGH TIDE LINE: 7.2' NAVD
	MEAN HIGH TIDE LINE: 5.0' NAVD
	CALTRANS RIGHT OF WAY (ROW)

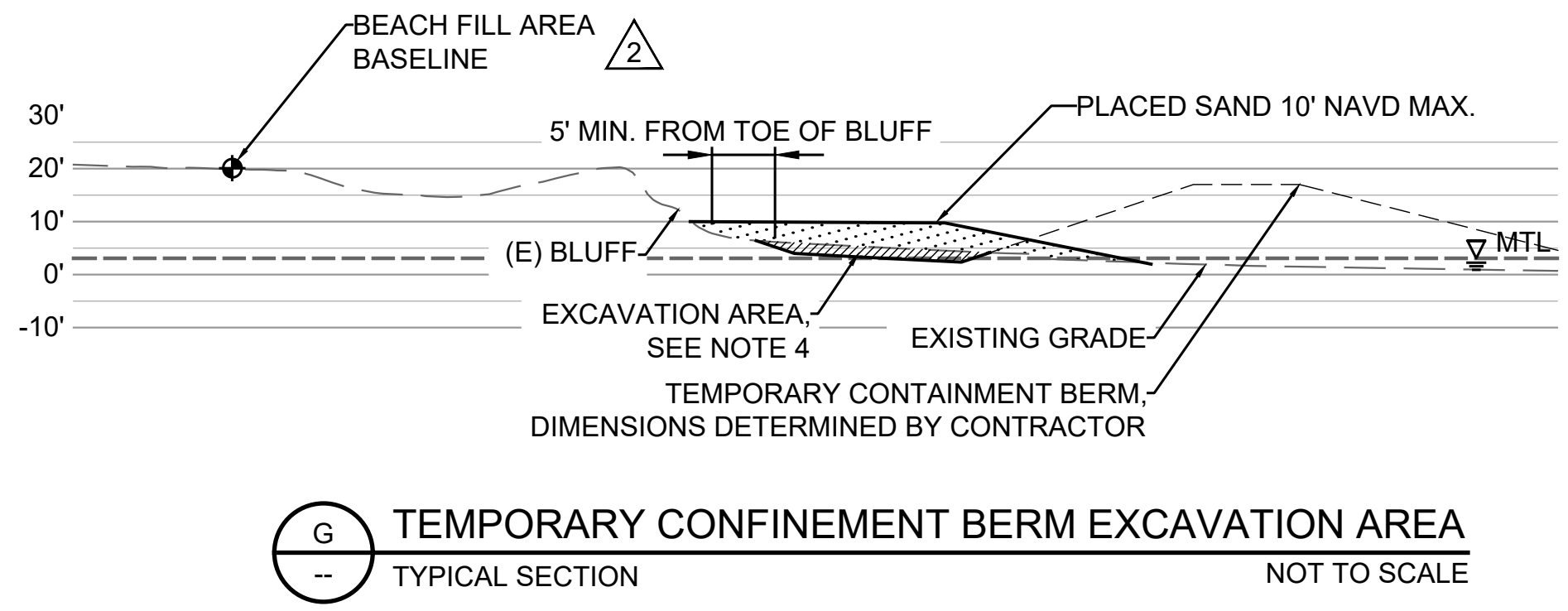
- NOTES**
- HYDRAULICALLY PLACE FILL AT SURFERS BEACH FILL AREA FROM DREDGE AREAS 1A AND 2.
 - EMPLOY MEASURES THROUGHOUT CONSTRUCTION TO CONTAIN FILL AND REDUCE TURBIDITY AS REQUIRED BY THE PERMITS AND THE SPECIFICATIONS.
 - CONSTRUCT TEMPORARY SAND CONTAINMENT BERMS AS NEEDED TO LIMIT MIGRATION OF SAND DURING PLACEMENT. CONSTRUCT CONTAINMENT BERMS WITH DREDGED SEDIMENTS, DEWATERED AND CONDITIONED AS NEEDED.
 - OVER-EXCAVATE UP TO 700 CY (UP TO 2 FT DEPTH OR CONTACT WITH HARD PAN). PROTECT EXISTING BLUFF FROM EROSION. BACKFILL AND GRADE ANY OVER-EXCAVATED AREA WITH DREDGED MATERIALS.
 - SHAPE FILL AS NEEDED TO ACHIEVE DESIGN GRADES USING SUITABLE LAND-BASED AND/OR AMPHIBIOUS EQUIPMENT.
 - SEE SHEET C-11 FOR GRADING SECTIONS.
 - AS-BUILT GRADES SURVEYED AT TIME OF STATION ACCEPTANCE.

BASELINE CONTROL POINT TABLE

NAME	NORTHING	EASTING	APPROX. EXISTING ELEV., FT NAVD
10	2011065.2411	5989661.2821	19.97
11	2010276.8152	5991195.5603	25.25

BEACH FILL AREA EXTENTS

NUMBER	NORTHING	EASTING	APPROX. EXISTING ELEV., FT NAVD	DESIGN GRADE, FT NAVD
B1	2010951.2632	5989814.0327	10.0	10.0
B2	2010881.2761	5989730.9724	10.0	10.0
B3	2010809.8262	5989759.3722	0.0	0.0
B4	2010573.3331	5990606.6268	10.0	10.0
B5	2010377.7936	5990847.0242	10.0	10.0
B6	2010347.0497	5990888.8043	10.0	10.0



FILE: P:\01_CAD\18xxxx\2021\80631_00 - Surfere Beach Pilot Project\DWG\PHASE 2 SURFERS BEACH FILL AREA.dwg PLOT DATE: 2/6/2026 2:01:52 PM PLOTTED BY: MARIO ACCORDINO

DISCLAIMER FOR RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVERY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.



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

STAMP



PROJECT NAME
**SURFERS BEACH
PILOT RESTORATION
PROJECT**
SAN MATEO COUNTY HARBOR DISTRICT
504 AVENUE ALHAMBRA, STE 200,
P.O. BOX 14491, EL GRANADA, CA 94018

REVISIONS		
#	DATE	DESCRIPTION
△	07/07/25	PRE-CONSTRUCTION TOPOBATHY SURVEY
△	09/19/25	RFI 005 RESPONSE
△	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

ISSUE DATE 01/19/26

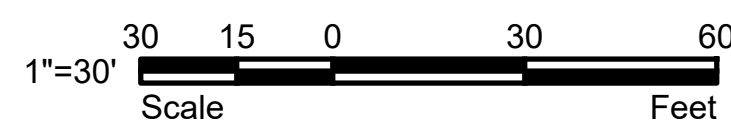
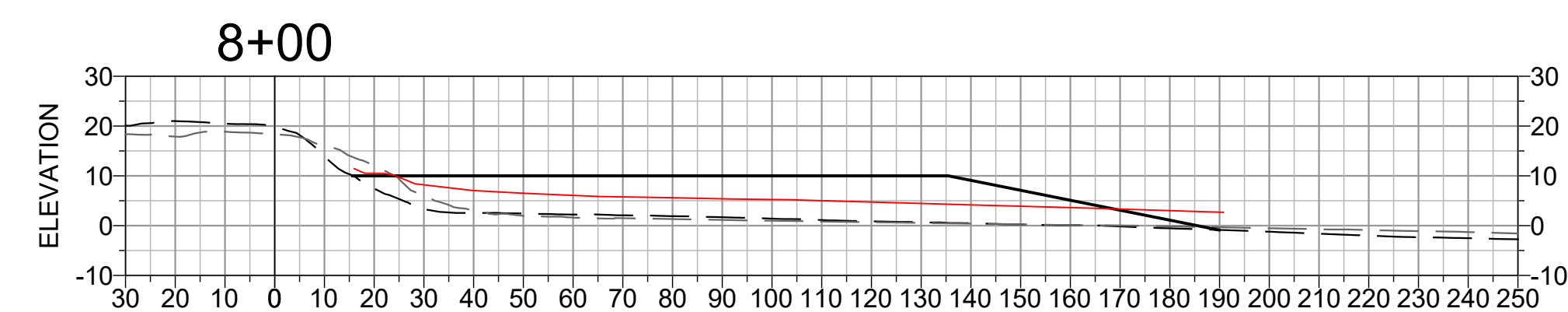
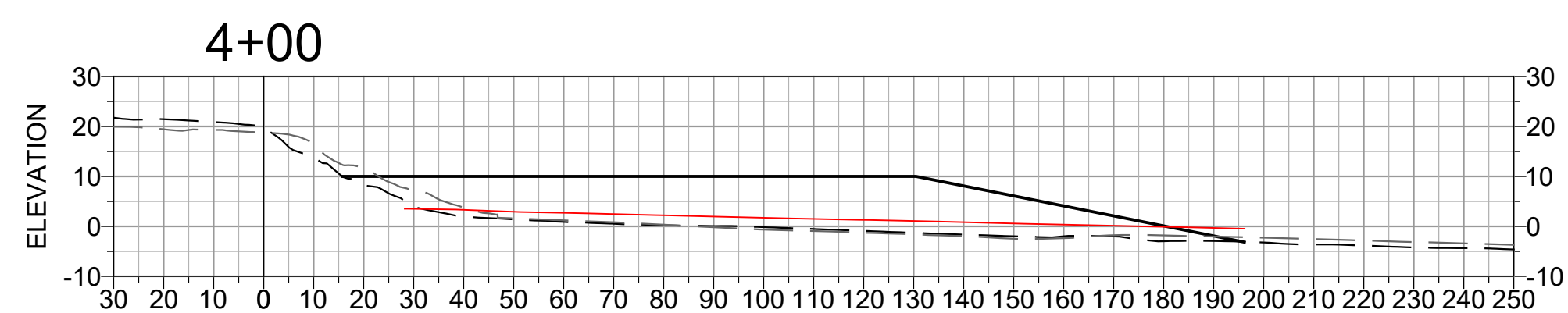
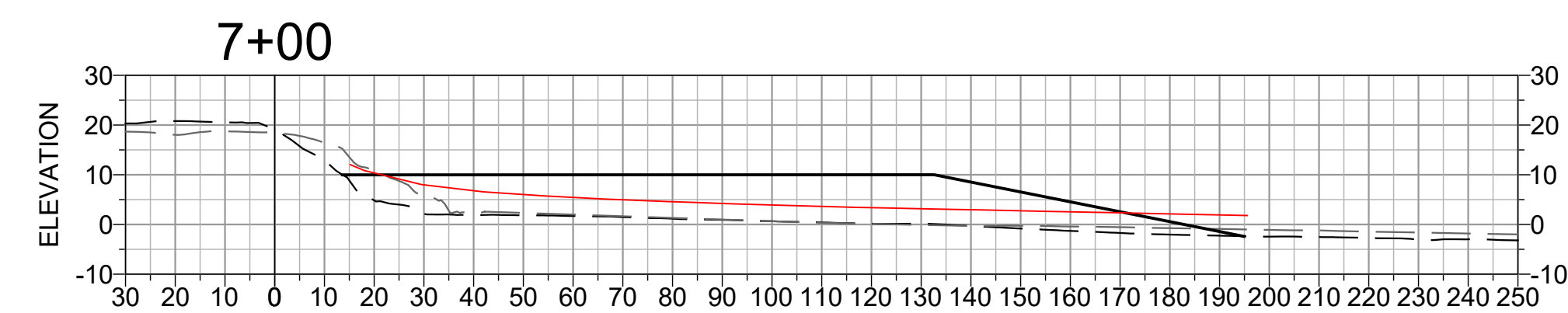
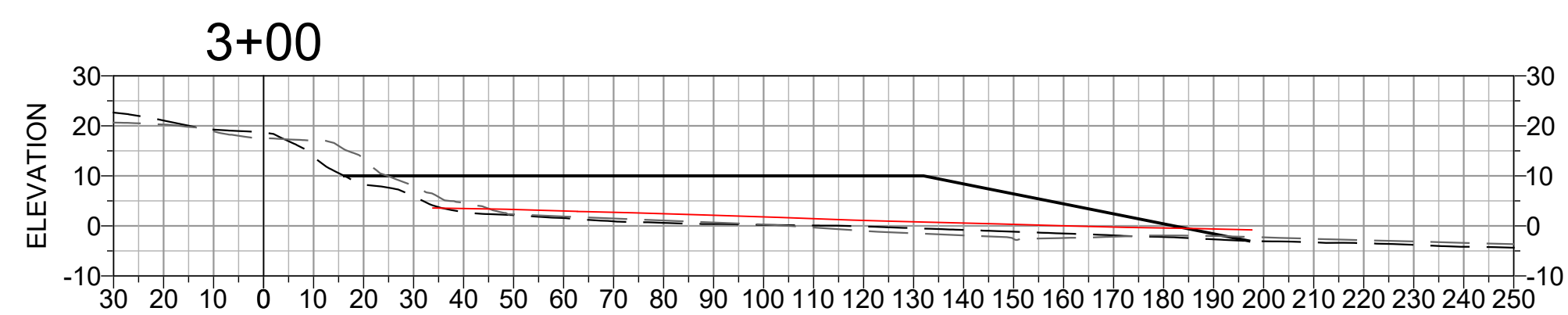
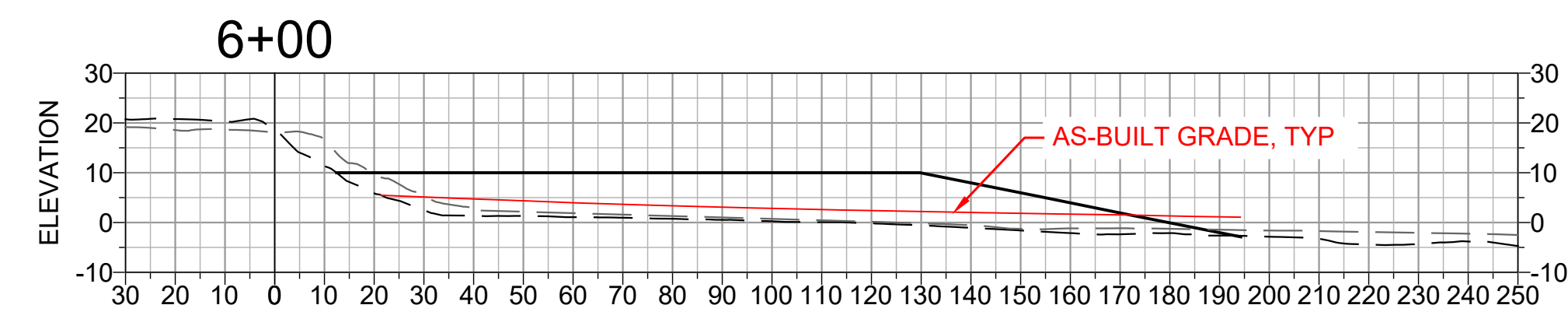
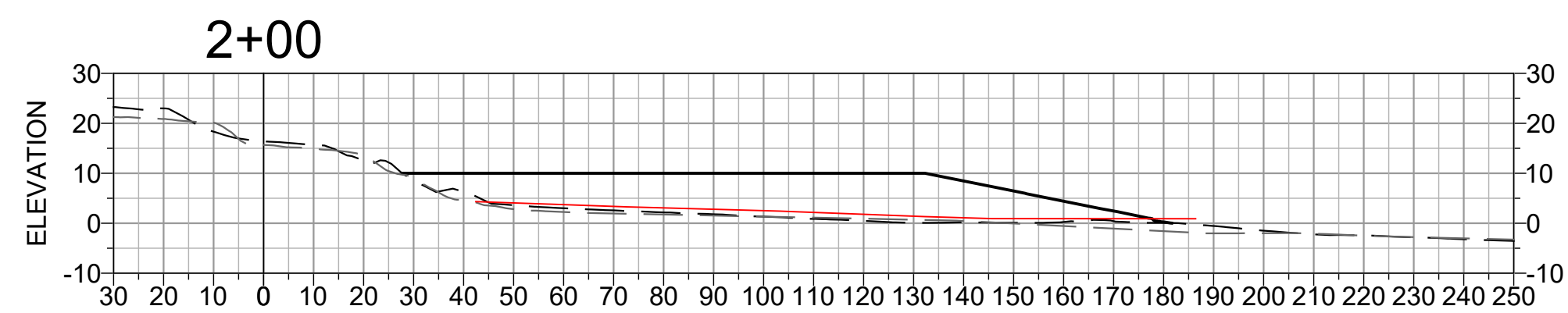
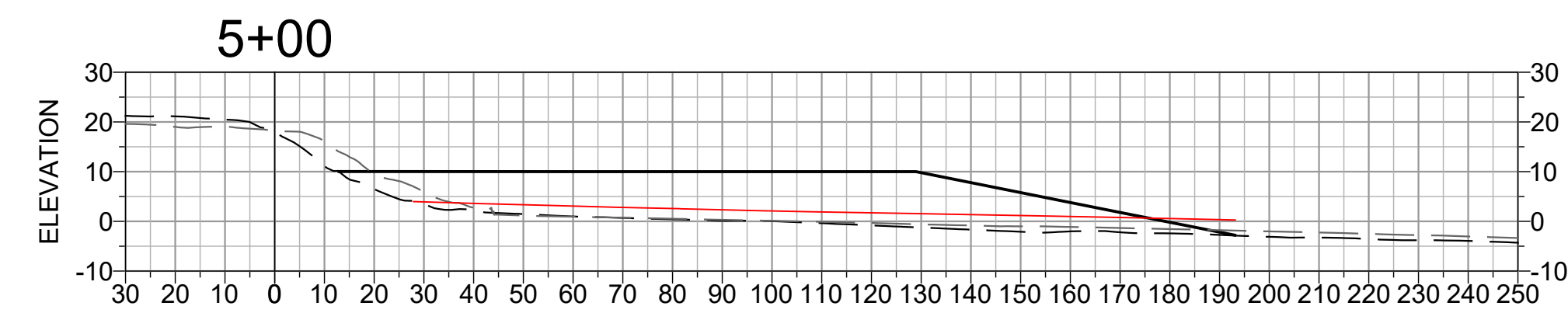
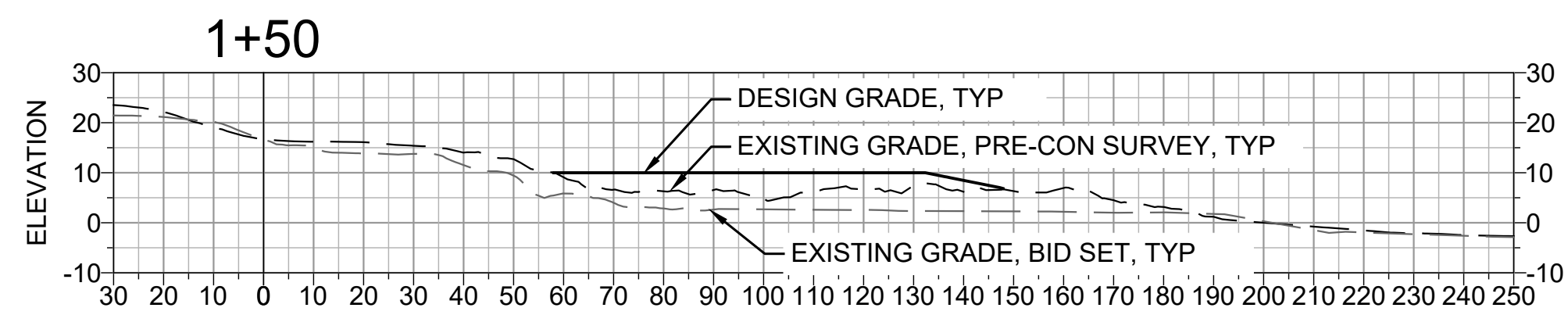
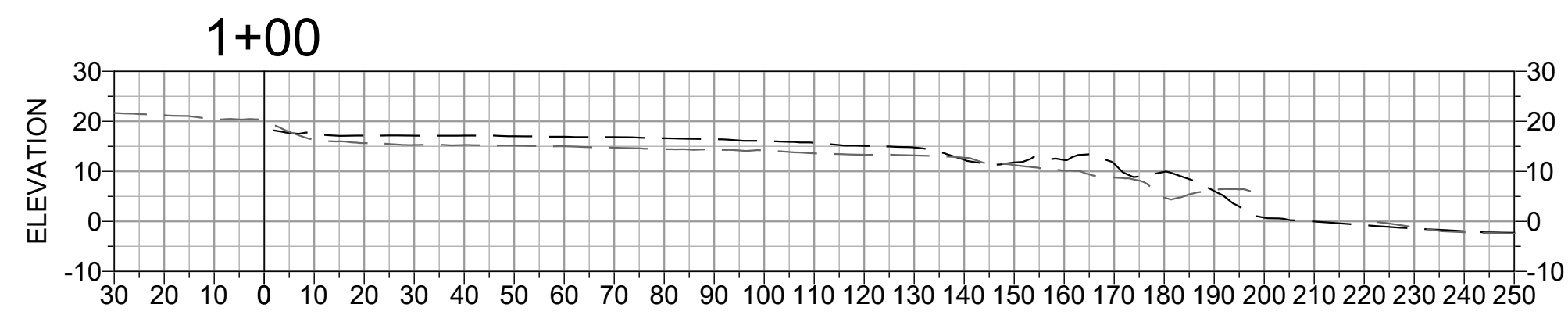
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

SHEET TITLE
**SURFERS BEACH
FILL AREA
SECTIONS - 1**

SHEET NUMBER
C-10
SHEET 13 OF 16

- 1
- 2
- 3



NOTES

1. AS-BUILT GRADES SURVEYED AT TIME OF STATION ACCEPTANCE.

SURFERS BEACH - SECTIONS

SECTION

SCALE: 1:30

FILE: P:\01 CAD\18xxxx\20180631.00 - Surfers Beach Pilot Project\DWG\PHASE 2 SURFERS BEACH FILL AREA.dwg PLOT DATE: 2/6/2026 2:01:56 PM PLOTTED BY: MARIO ACCORDINO

DISCLAIMER FOR RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

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



PROJECT NAME
**SURFERS BEACH
 PILOT RESTORATION
 PROJECT**
 SAN MATEO COUNTY HARBOR DISTRICT
 504 AVENUE ALHAMBRA, STE 200,
 P. O. BOX 14491, EL GRANADA, CA 94018

REVISIONS

#	DATE	DESCRIPTION
△	07/07/25	PRE-CONSTRUCTION TOPOBATHY SURVEY
△	09/19/25	RFI 005 RESPONSE
△	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

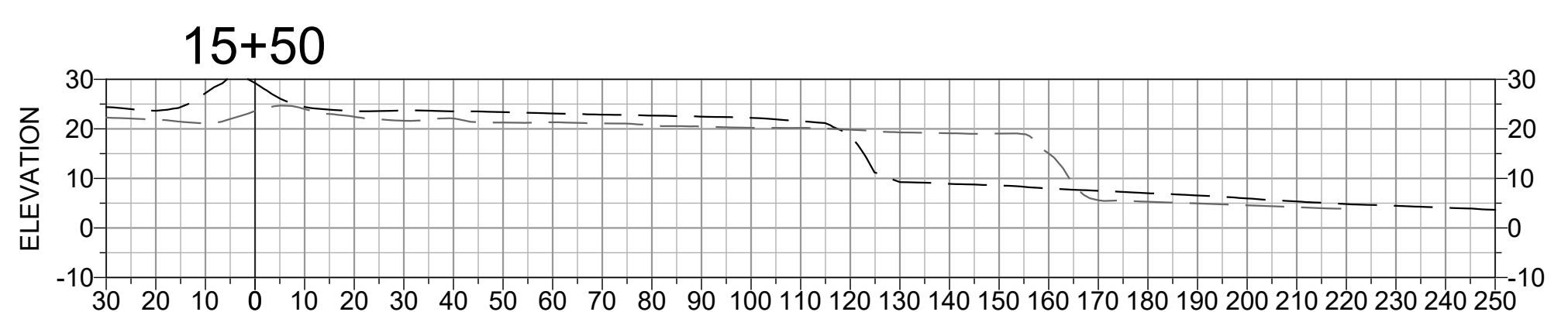
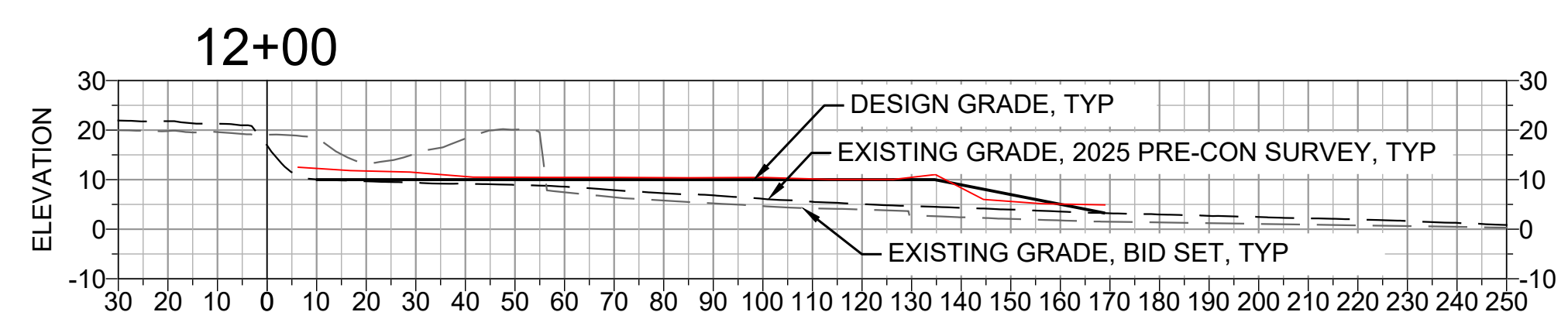
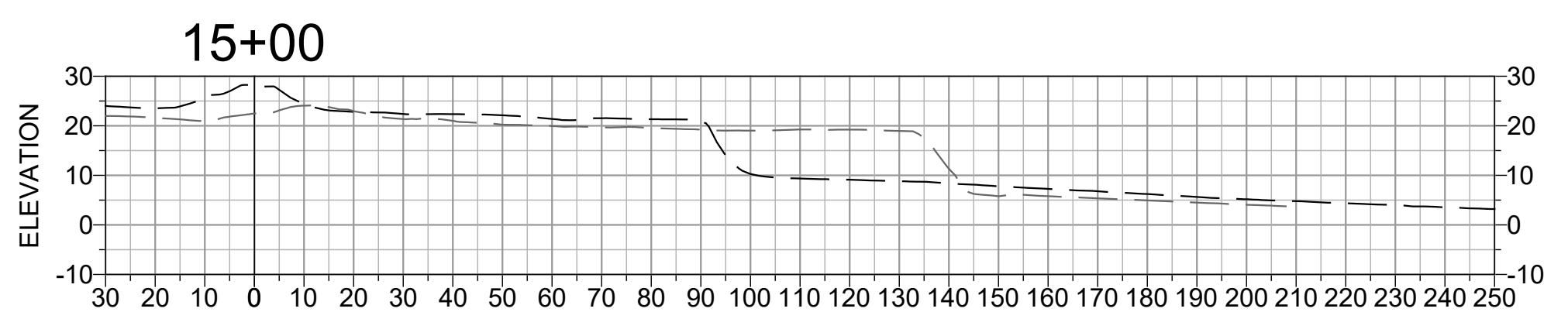
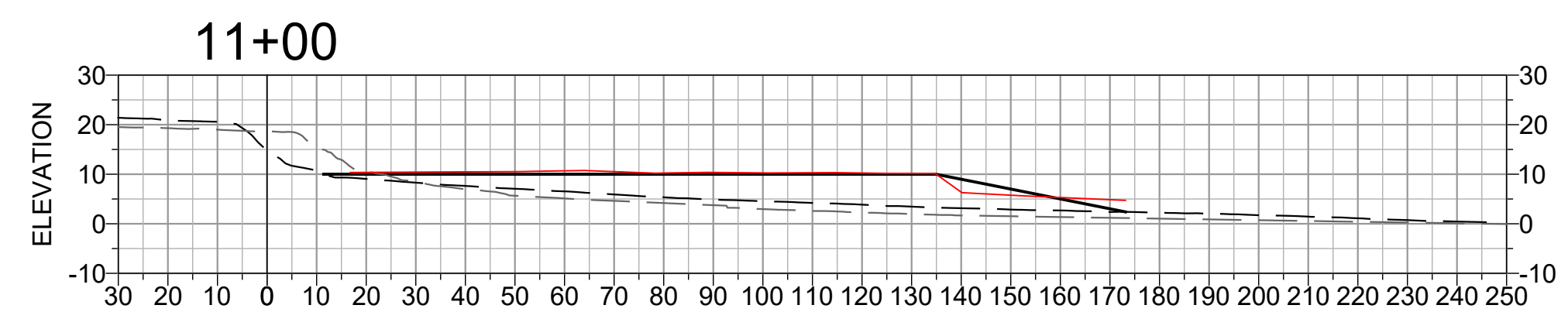
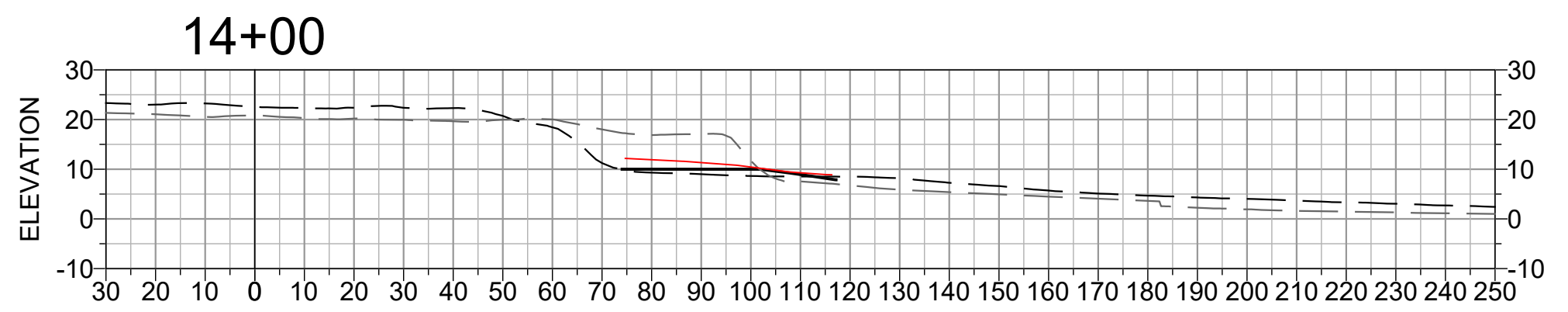
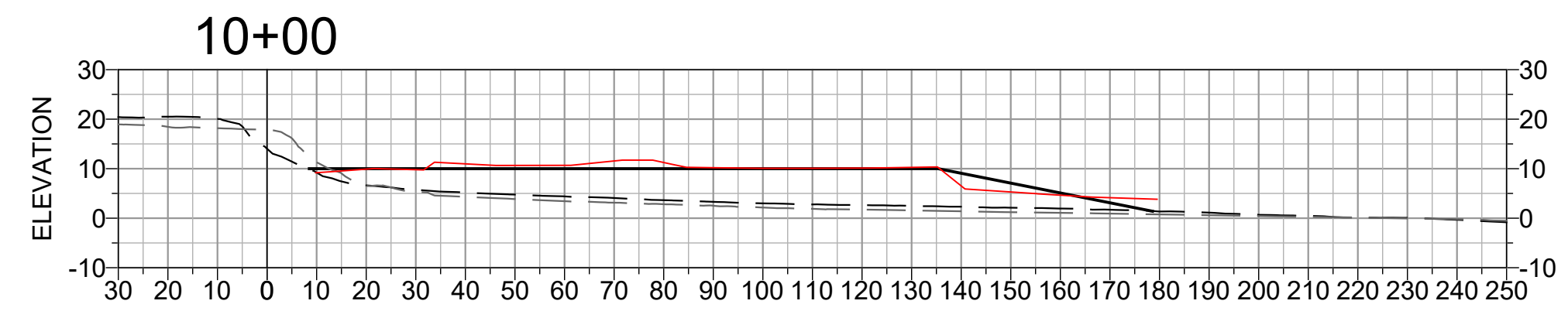
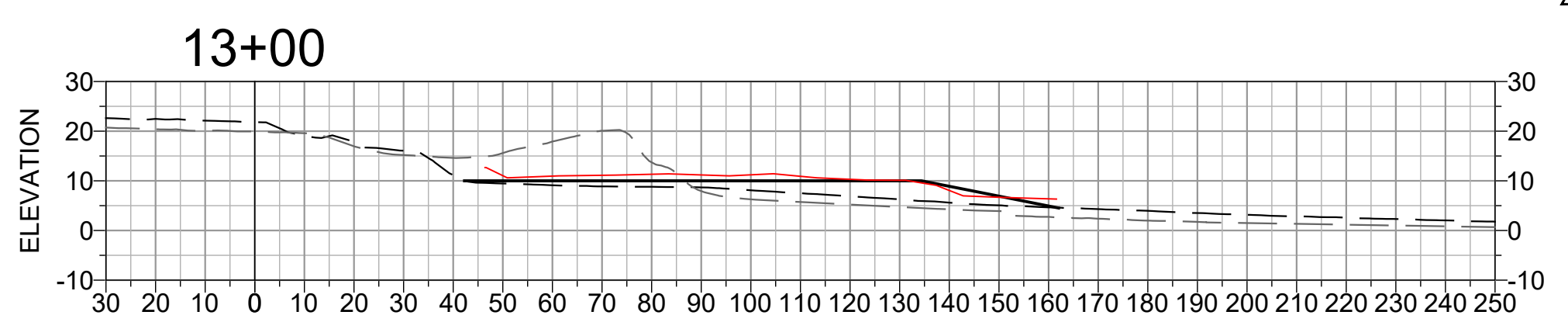
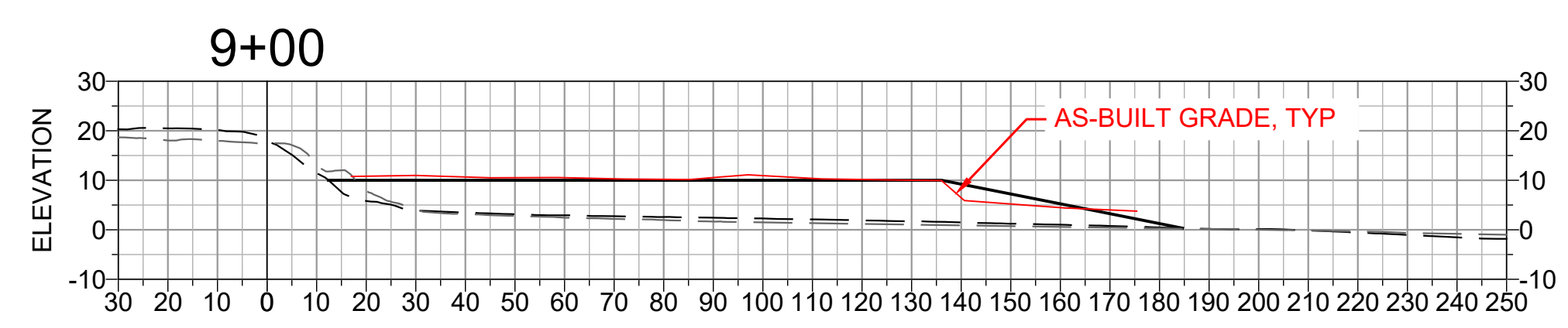
ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

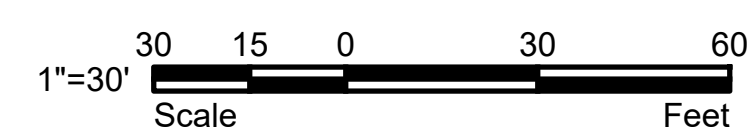
PHASE
RECORD SET

SHEET TITLE
**SURFERS BEACH
 FILL AREA
 SECTIONS - 2**

SHEET NUMBER
C-11
 SHEET 14 OF 16



1
2
3



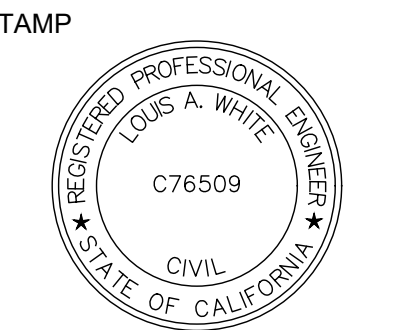
NOTES
 1. AS-BUILT GRADES SURVEYED AT TIME OF STATION ACCEPTANCE.

SURFERS BEACH - SECTIONS
 SECTION SCALE: 1:30

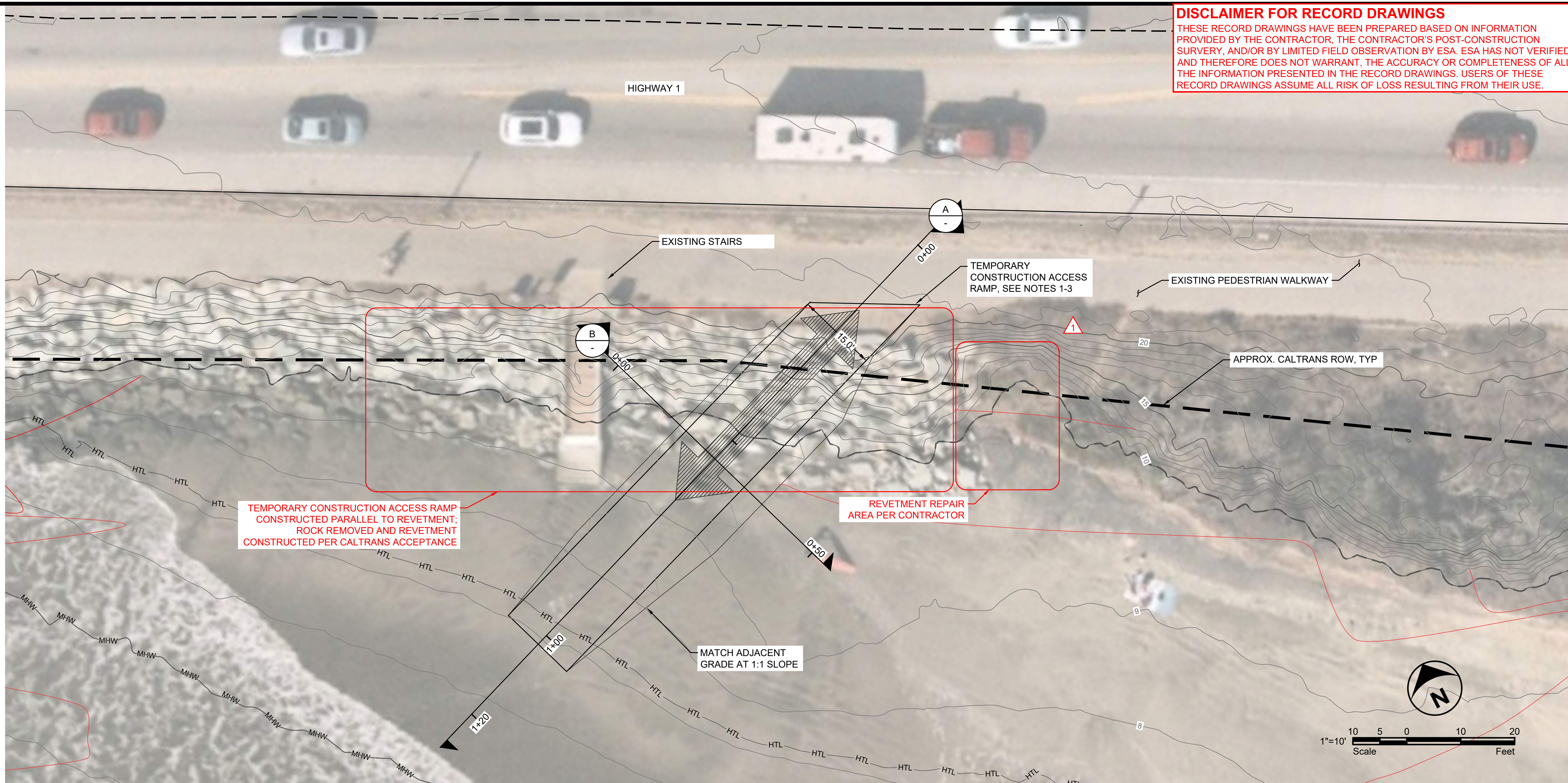
FILE: P:\01 CAD\18xxxx\20180631.00 - Surfers Beach Pilot Project\DWG\PHASE 2 SURFERS BEACH FILL AREA.dwg PLOT DATE: 2/6/2026 2:01:59 PM PLOTTED BY: MARIO ACCORDINO

DISCLAIMER FOR RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR, THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

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



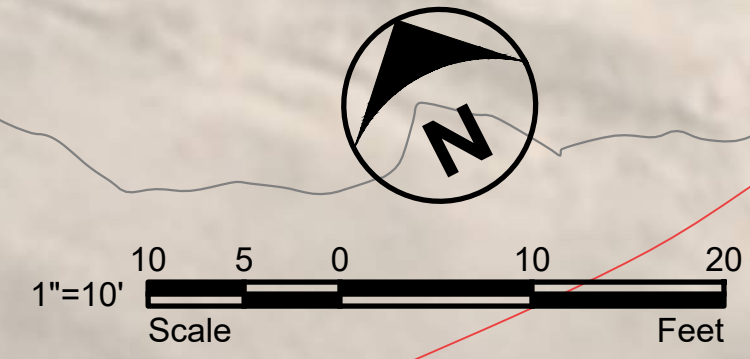
SURFERS BEACH PILOT RESTORATION PROJECT
 SAN MATEO COUNTY HARBOR DISTRICT
 504 AVENUE ALHAMBRA, STE 200,
 P.O. BOX 1449, EL GRANADA, CA 94018



TEMPORARY CONSTRUCTION ACCESS RAMP
 CONSTRUCTED PARALLEL TO REVETMENT;
 ROCK REMOVED AND REVETMENT
 CONSTRUCTED PER CALTRANS ACCEPTANCE

REVETMENT REPAIR
 AREA PER CONTRACTOR

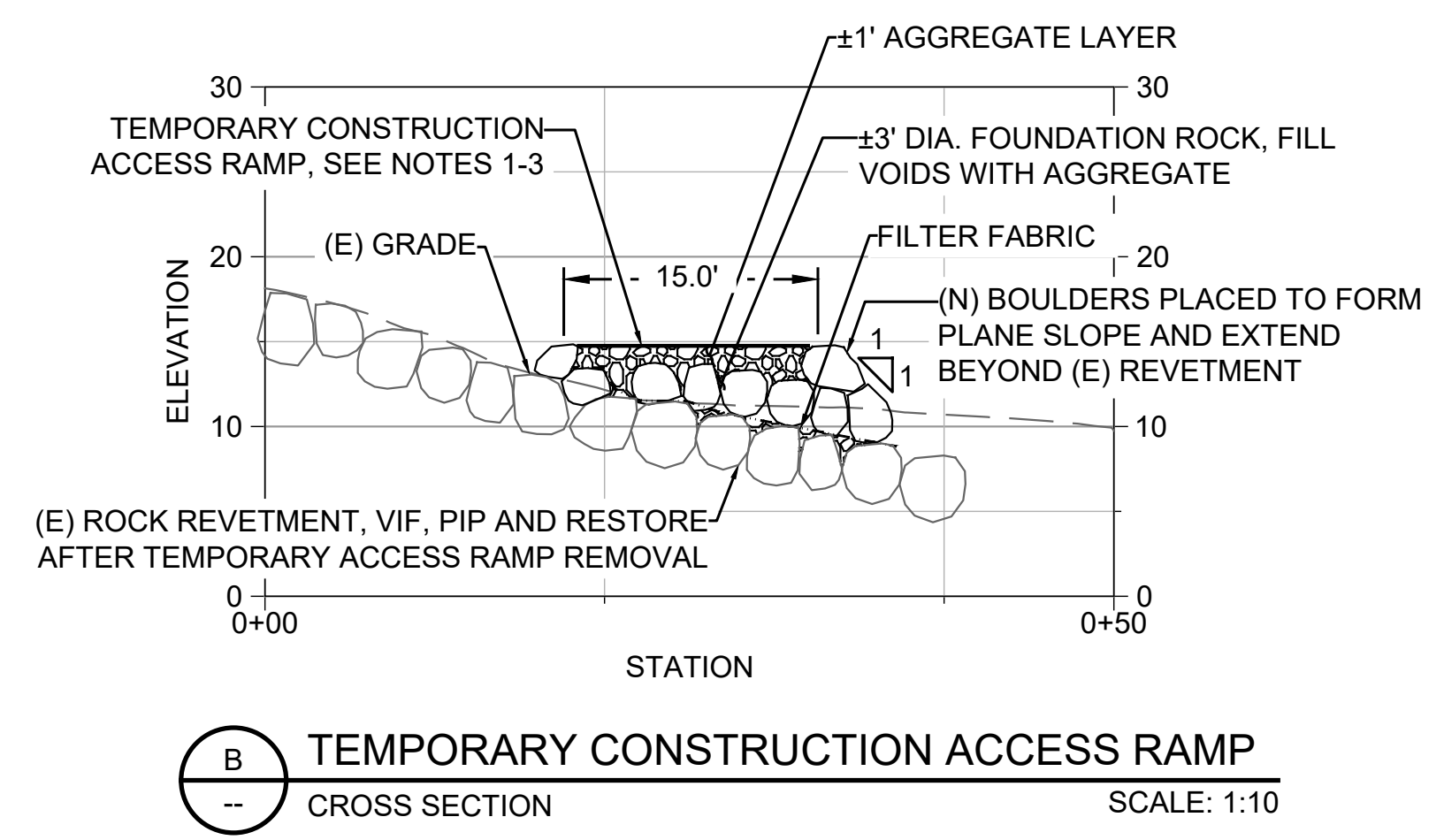
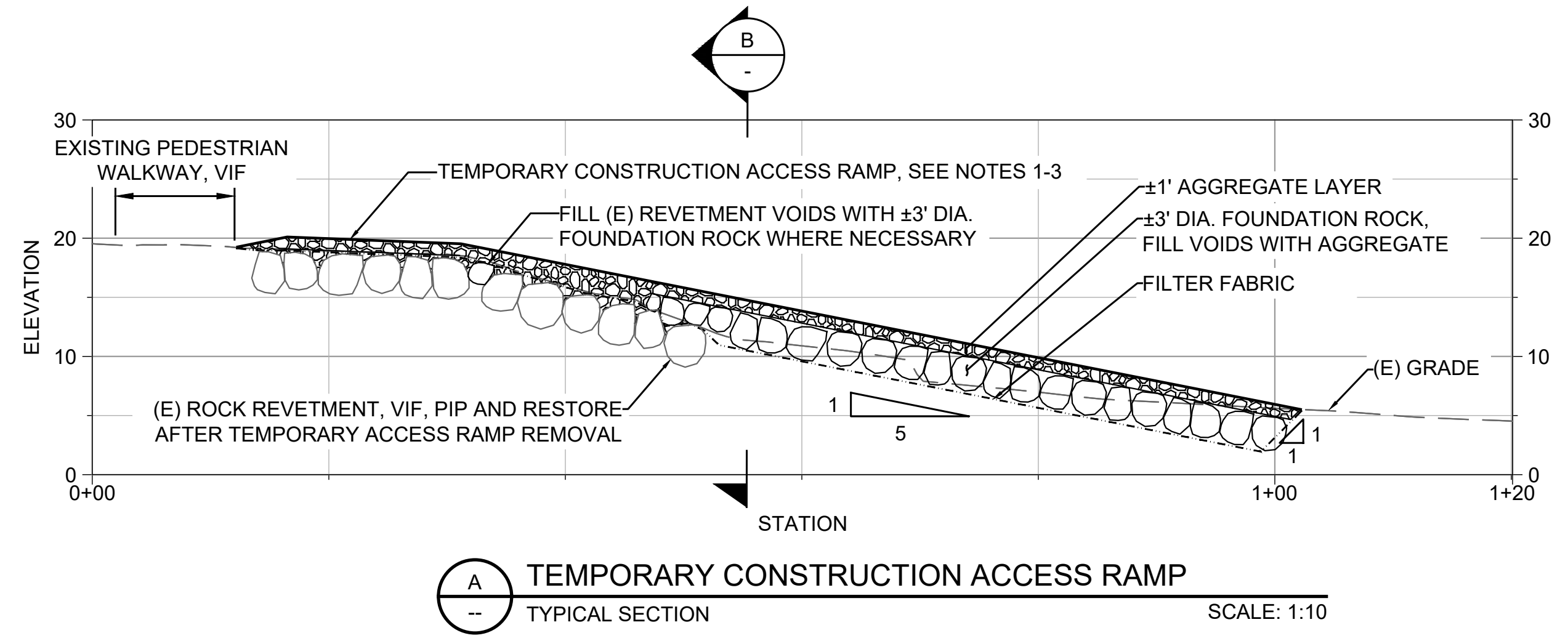
MATCH ADJACENT
 GRADE AT 1:1 SLOPE



LEGEND

— HTL —	HIGH TIDE LINE: 7.2' NAVD
— MHW —	MEAN HIGH TIDE LINE: 5.0' NAVD
— — —	CALTRANS RIGHT OF WAY (ROW)

- NOTES**
- WHEN CONSTRUCTION EQUIPMENT IS UTILIZING THE RAMP, ENSURE THE PRESENCE OF TWO (2) TRAFFIC CONTROL PERSONNEL TO MONITOR AND MANAGE FOOT / BIKE TRAFFIC ON THE PEDESTRIAN WALKWAY
 - WHEN THE RAMP IS NOT IN USE, INSTALL ACCESS BARRICADES AT BOTH ENDS OF THE RAMP
 - WHEN THE PROJECT IS COMPLETED, REMOVE THE RAMP AND REPLACE WITH RIP-RAP TO MATCH PRE-CONSTRUCTION GRADE



REVISIONS

#	DATE	DESCRIPTION
1	02/06/26	RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02
 ISSUE DATE 01/19/26
 SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
RECORD SET

SHEET TITLE

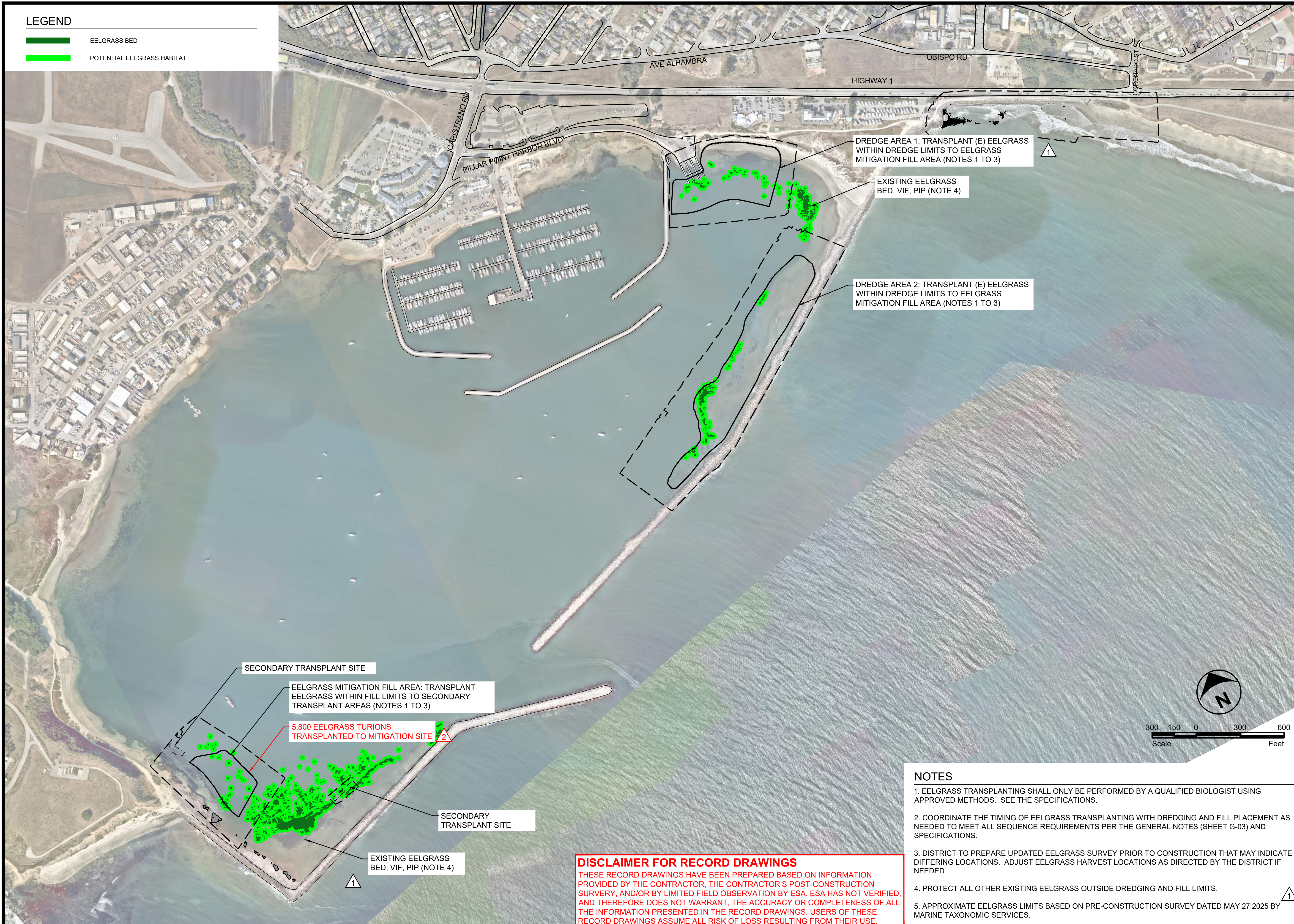
TEMPORARY CONSTRUCTION ACCESS RAMP

SHEET NUMBER
C-12
 SHEET 15 OF 16

FILE: P:\01 CAD\18\xxxx\2021\80631.00 - Surfers Beach Pilot Project\DWG\PHASE 2 SURFERS BEACH FILL AREA.dwg PLOT DATE: 2/6/2026 2:02:14 PM PLOTTED BY: MARIO ACCORDINO

LEGEND

- EELGRASS BED
- POTENTIAL EELGRASS HABITAT



FILE: P:\01 CAD\18xxxx\20180631.00 - Surfers Beach Pilot Project\DWG\02 SITE PLAN.dwg PLOT DATE: 2/6/2026 2:02:34 PM PLOTTED BY: MARIO ACCORDINO

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

STAMP



**SURFERS BEACH
 PILOT RESTORATION
 PROJECT**
 SAN MATEO COUNTY HARBOR DISTRICT
 504 AVENUE ALHAMBRA, STE 200,
 P.O. BOX 1449, EL GRANADA, CA 94018

REVISIONS

#	DATE	DESCRIPTION
△ 07/07/25		PRE-CONSTRUCTION EELGRASS SURVEY
△ 02/06/26		RECORD SET

DESIGNED	L. WHITE
DRAWN	M.A.
CHECKED	A. BORGONOVO
IN CHARGE	L. WHITE C76509

PROJECT NUMBER D201800631.02

ISSUE DATE 01/19/26

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE **RECORD SET**

SHEET TITLE

**EELGRASS
 TRANSPLANTING
 PLAN**

SHEET NUMBER
TP-01

SHEET 16 OF 16

NOTES

1. EELGRASS TRANSPLANTING SHALL ONLY BE PERFORMED BY A QUALIFIED BIOLOGIST USING APPROVED METHODS. SEE THE SPECIFICATIONS.
2. COORDINATE THE TIMING OF EELGRASS TRANSPLANTING WITH DREDGING AND FILL PLACEMENT AS NEEDED TO MEET ALL SEQUENCE REQUIREMENTS PER THE GENERAL NOTES (SHEET G-03) AND SPECIFICATIONS.
3. DISTRICT TO PREPARE UPDATED EELGRASS SURVEY PRIOR TO CONSTRUCTION THAT MAY INDICATE DIFFERING LOCATIONS. ADJUST EELGRASS HARVEST LOCATIONS AS DIRECTED BY THE DISTRICT IF NEEDED.
4. PROTECT ALL OTHER EXISTING EELGRASS OUTSIDE DREDGING AND FILL LIMITS.
5. APPROXIMATE EELGRASS LIMITS BASED ON PRE-CONSTRUCTION SURVEY DATED MAY 27 2025 BY MARINE TAXONOMIC SERVICES.

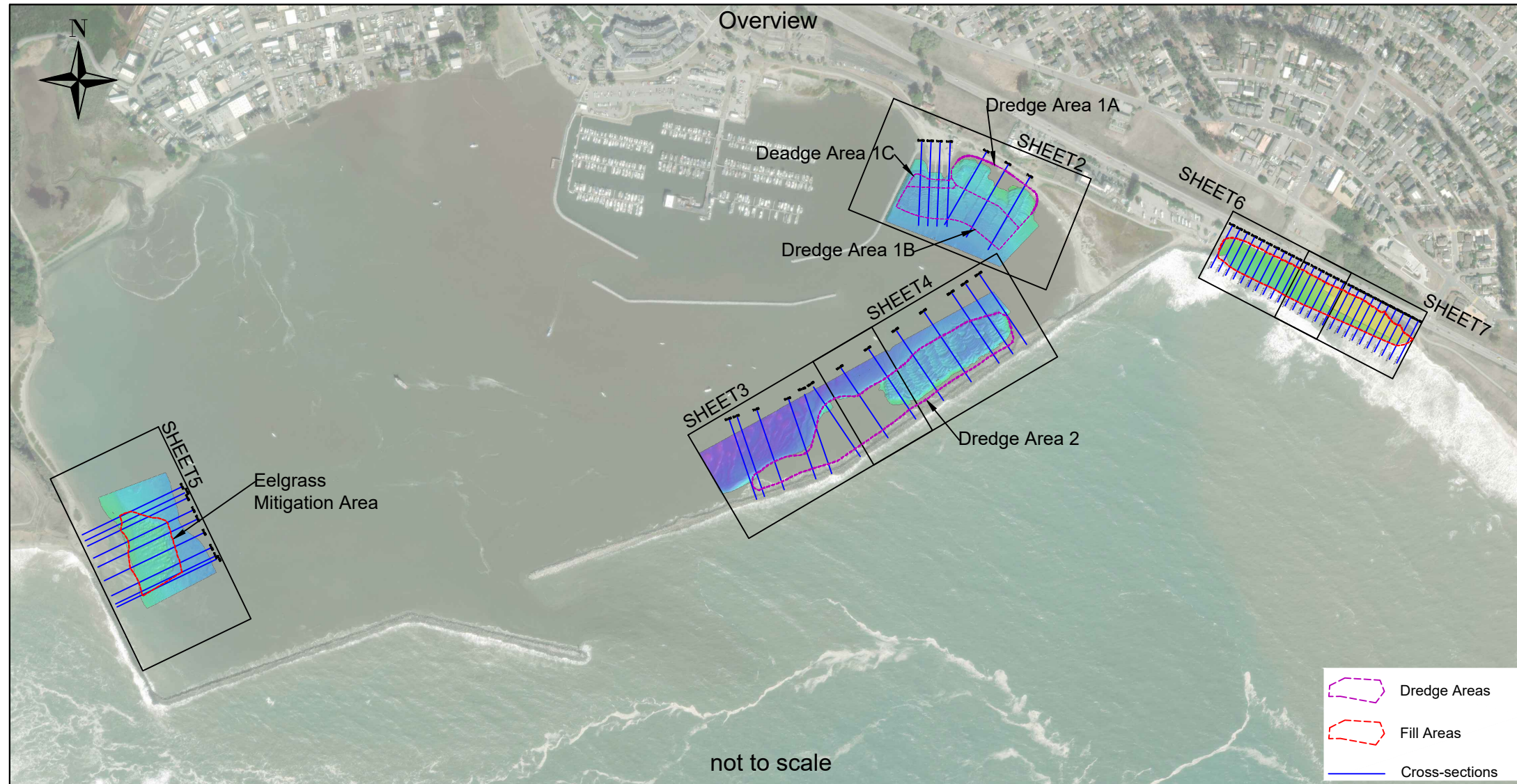
DISCLAIMER FOR RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR. THE CONTRACTOR'S POST-CONSTRUCTION SURVEY, AND/OR BY LIMITED FIELD OBSERVATION BY ESA. ESA HAS NOT VERIFIED, AND THEREFORE DOES NOT WARRANT, THE ACCURACY OR COMPLETENESS OF ALL THE INFORMATION PRESENTED IN THE RECORD DRAWINGS. USERS OF THESE RECORD DRAWINGS ASSUME ALL RISK OF LOSS RESULTING FROM THEIR USE.

**Attachment C – Post-Dredge and Material Placement Survey
(Woolpert/Vortex)**

SURFERS BEACH PILOT RESTORATION PROJECT

VORTEX MARINE CONSTRUCTION

POST-DREDGE AND MATERIAL PLACEMENT SURVEYS



SHEET INDEX:

- SHEET 1 - PROJECT INFORMATION
- SHEET 2 - DREDGE AREA 1A, 1B & 1C
- SHEET 3 - DREDGE AREA 2
- SHEET 4 - DREDGE AREA 2
- SHEET 5 - EELGRASS MITIGATION AREA
- SHEET 6 - SURFERS BEACH FILL AREA
- SHEET 7 - SURFERS BEACH FILL AREA
- SHEET 8 - CROSS-SECTIONS DREDGE AREA 1A, 1B & 1C
- SHEET 9 - CROSS-SECTIONS DREDGE AREA 2
- SHEET 10 - CROSS-SECTIONS EELGRASS MITIGATION AREA
- SHEET 11 - CROSS-SECTIONS SURFERS BEACH FILL AREA
- SHEET 12 - CROSS-SECTIONS SURFERS BEACH FILL AREA
- SHEET 13 - CROSS-SECTIONS SURFERS BEACH FILL AREA

GENERAL NOTES:

1. ALL HYDROGRAPHIC SURVEY DATA DISPLAYED COLLECTED ON OCTOBER 22, 2025.
2. ALL TOPOGRAPHIC GPS SURVEY POINTS DISPLAYED FOR THE SURFERS BEACH PLACEMENT AREA COLLECTED BETWEEN NOVEMBER 24 & OCTOBER 21, 2025.
3. HORIZONTAL DATUM/PROJECTION: NAD83 (2011), SPCS CALIFORNIA ZONE 03 - U.S. SURVEY FEET.
4. HORIZONTAL CONTROL: NGS HT0455 TIDAL 5, N 37° 30' 13.27003" W 122° 29' 07.73809".
5. VERTICAL DATUM: NAVD88, U.S. SURVEY FEET
6. VERTICAL CONTROL: NGS HT0455 TIDAL 5, ELEVATION 14.22'.
7. THIS SURVEY REPRESENTS GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
8. POSITIONING AND MOTION DATA WAS COLLECTED USING AN APPLANIX POS MV V5.
9. TOPOGRAPHIC GPS SURVEY POINTS COLLECTED WITH AN TRIMBLE R8 MODEL 4 GNSS RECEIVER.
10. SOUNDINGS WERE COLLECTED USING AN REASON SEABAT T-50R MULTIBEAM ECHOSOUNDER OPERATING AT 200 KHZ.
11. SOUNDINGS DEPTH NEGATIVE UNLESS INDICATED OTHERWISE.

Dredge Area 1 Material Removed										
Volumes Calculated via Hypack 2023 Tin-to-Channel & Tin-to-Tin Methods										
Survey Dates: 08/02/2025- 10/09/2025	Area A Design (yd ³)	Area A Outside of Design (yd ³)	Area A Below 10ft (yd ³)	Area B Design (yd ³)	Area B Outside of Design (yd ³)	Area B Below 10ft (yd ³)	Area C Design (yd ³)	Area C Outside of Design (yd ³)	Area C Below 10ft (yd ³)	Total (yd ³)
Material Removed	17,838	1,599	0	13,678	469	5	1,578	469	0	35,635

Dredge Area 2 Volumes Material Removed				
Volumes Calculated via Hypack 2023 Tin-to-Channel & Tin-to-Tin Methods				
Survey Dates: 09/04/2025- 10/22/2025	Design (yd ³)	Below 10ft (yd ³)	Areas Outside of Design (yd ³)	Total (yd ³)
Material Removed	58,492	827	593	59,912

Eelgrass Mitigation Placement Area				
Volumes Calculated via Hypack 2023 Tin-to-Channel & Tin-to-Tin Methods				
Survey Dates: 08/11/2025- 08/29/2025	Design (yd ³)	Above Flat Terrace (yd ³)	Areas Outside of Design (yd ³)	Total (yd ³)
Material Placed	10,940	1,335	1,209	13,484

Surfers Beach Placement Area			
Volumes Calculated via Hypack 2023 Tin-to-Tin Methods			
Survey Dates: 09/24/2025- 10/21/2025	Stations 1+50 to 9+00 (yd ³)	Stations 9+00 to 14+00 (yd ³)	Total (yd ³)
Material Placed	12,969	10,437	23,406

VORTEX MARINE
CONSTRUCTION
1 MARITIME WAY
ANTIOCH, CA 94509
PHONE: 510-261-2400
VORTEX-SFB.COM

WOOLPERT INC.
637 LINDARO STREET
SUITE 100
SAN RAFAEL, CA 94901
PHONE: 415-462-0421
WOOLPERT.COM/MARITIME

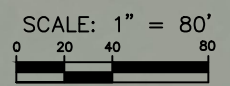
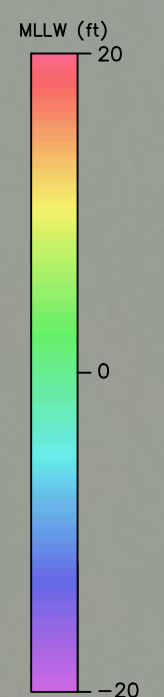
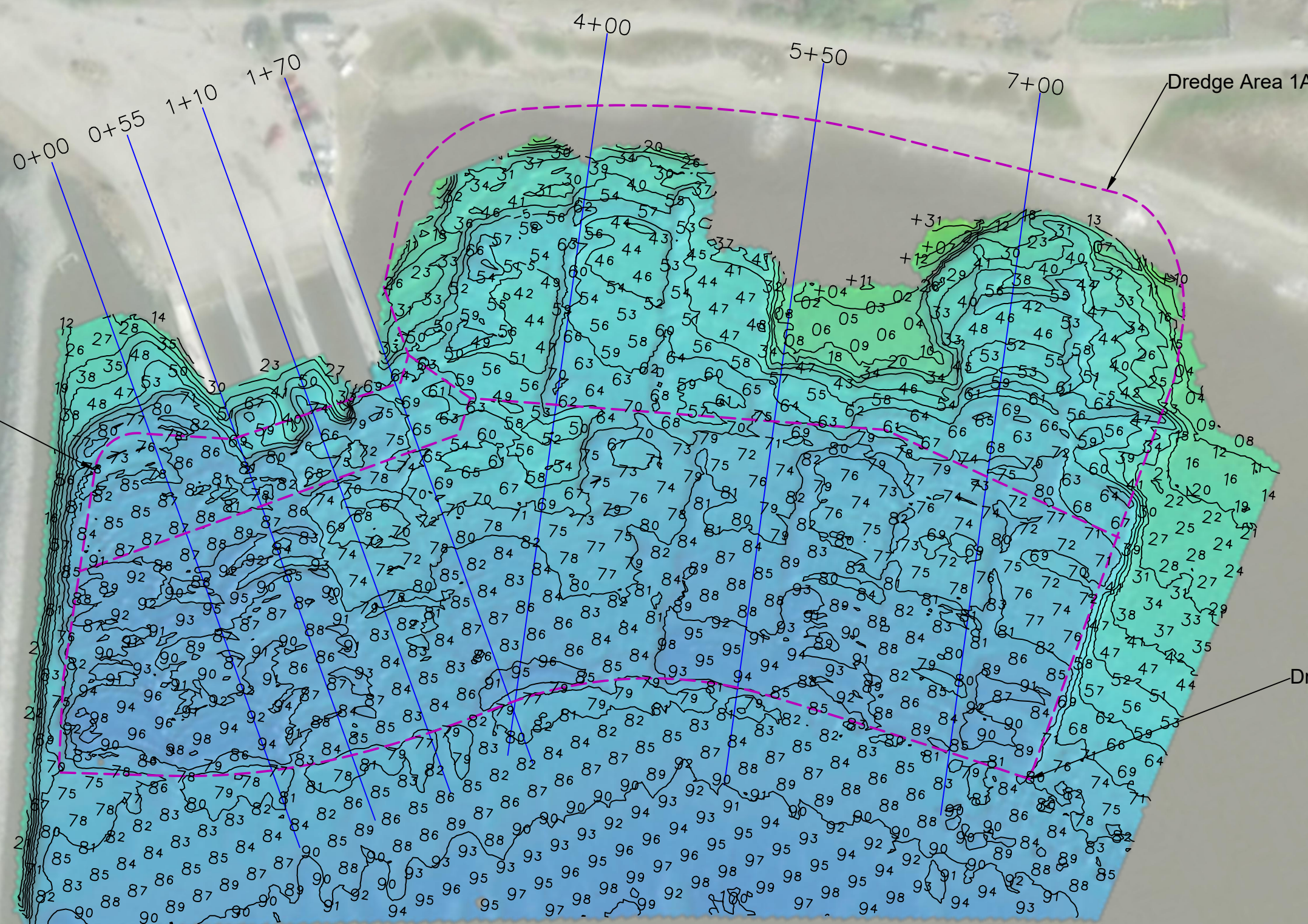
SURVEY DATE: See General Notes	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

SURFERS BEACH PILOT
RESTORATION PROJECT

PROJECT INFORMATION

Reference
Number:

S1



IF SHEET IS LESS THAN 11"x17"
IT IS A REDUCED PRINT,
SCALE ACCORDINGLY

- Dredge Area
- Cross-sections
- Major contour (5' interval)
- Minor contour (1' interval)



VORTEX MARINE
CONSTRUCTION
1 MARITIME WAY
ANTIOCH, CA 94509
PHONE: 510-261-2400
VORTEX-SFB.COM



WOOLPERT INC.
637 LINDARO STREET
SUITE 100
SAN RAFAEL, CA 94901
PHONE: 415-462-0421
WOOLPERT.COM/MARITIME

SURVEY DATE:
October 22, 2025

DESIGNED BY: NB

REVISION 0

FILE NAME:
Vortex_20251022_PillarPointHarbor_REV2.dwg

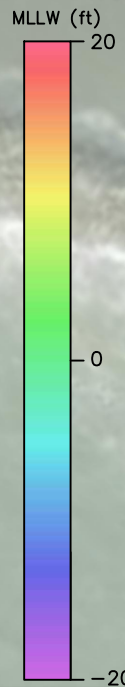
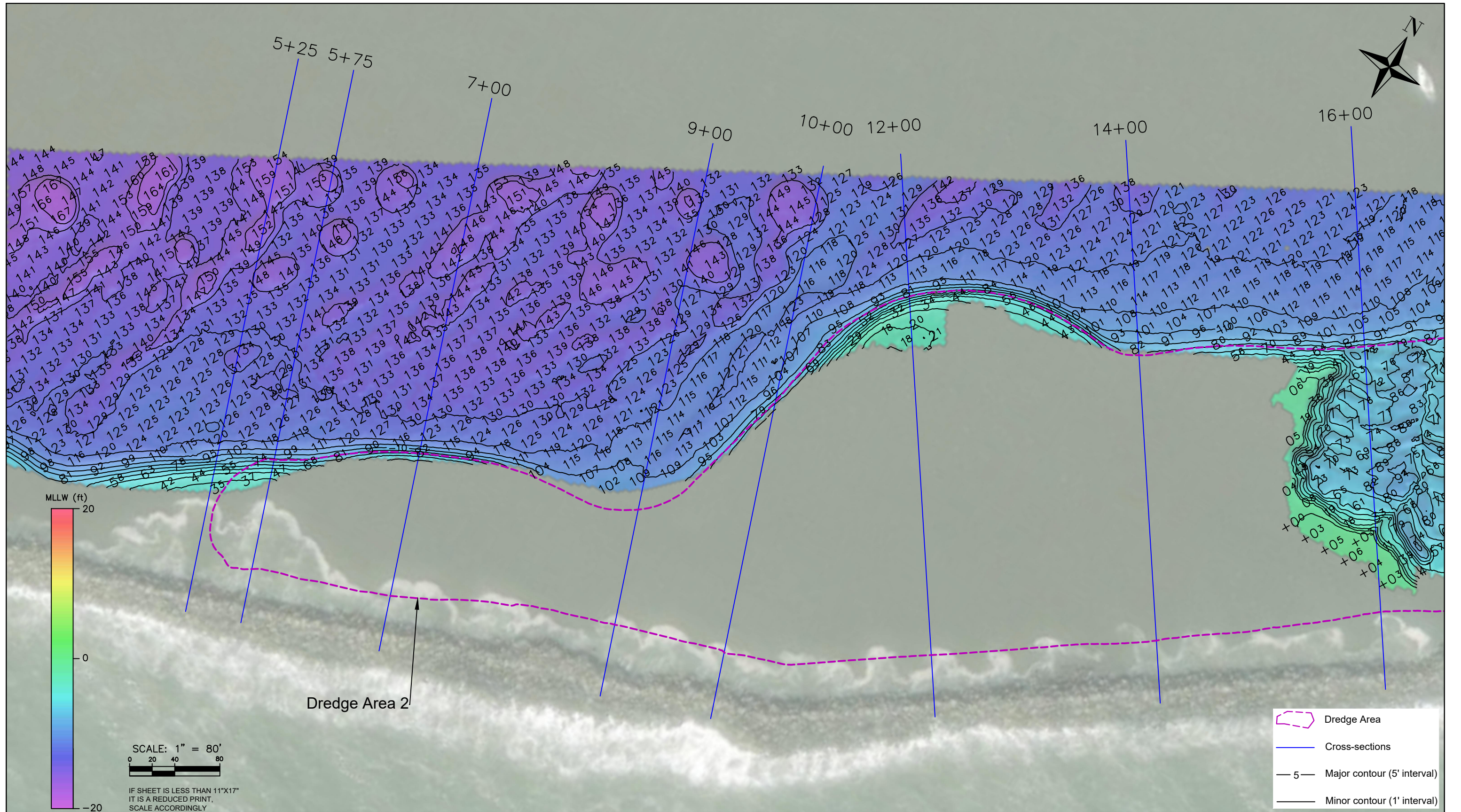
PLOT DATE:
December 4, 2025

CHECKED BY: JK

DREDGE AREA 1A, 1B & 1C





SOUNDINGS, CONTOURS & DEM

Reference
Number:
S2



SCALE: 1" = 80'
 0 20 40 80

IF SHEET IS LESS THAN 11"x17"
 IT IS A REDUCED PRINT,
 SCALE ACCORDINGLY

-  Dredge Area
-  Cross-sections
-  5 Major contour (5' interval)
-  Minor contour (1' interval)



VORTEX MARINE
 CONSTRUCTION
 1 MARITIME WAY
 ANTIOCH, CA 94509
 PHONE: 510-261-2400
 VORTEX-SFB.COM



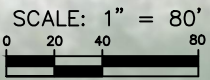
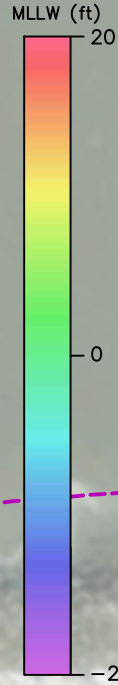
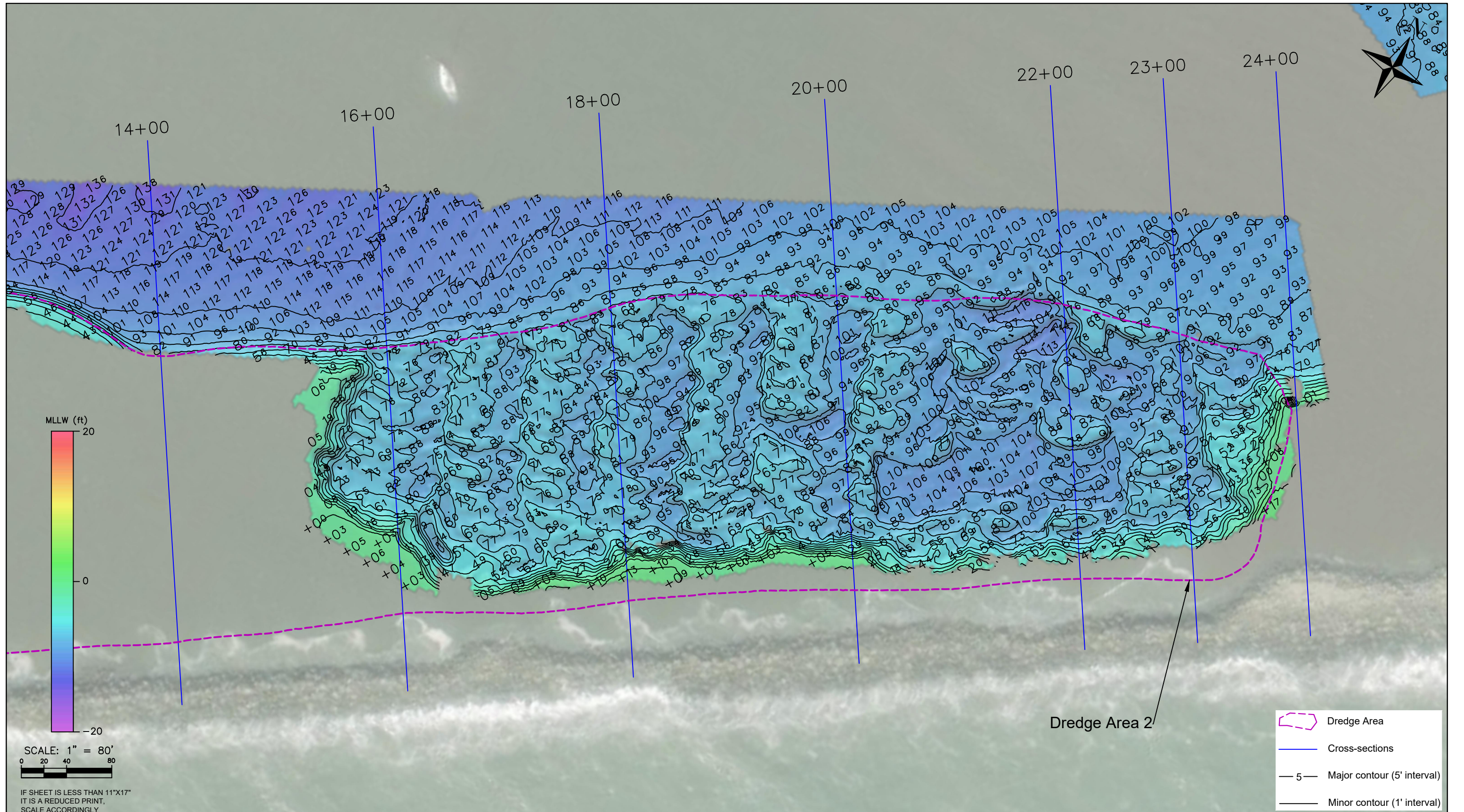
WOOLPERT INC.
 637 LINDARO STREET
 SUITE 100
 SAN RAFAEL, CA 94901
 PHONE: 415-462-0421
 WOOLPERT.COM/MARITIME

SURVEY DATE: October 22, 2025	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

DREDGE AREA 2

SOUNDINGS, CONTOURS & DEM

Reference
 Number:
S3



IF SHEET IS LESS THAN 11"x17"
IT IS A REDUCED PRINT,
SCALE ACCORDINGLY

- Dredge Area
- Cross-sections
- Major contour (5' interval)
- Minor contour (1' interval)



VORTEX MARINE
CONSTRUCTION
1 MARITIME WAY
ANTIOCH, CA 94509
PHONE: 510-261-2400
VORTEX-SFB.COM



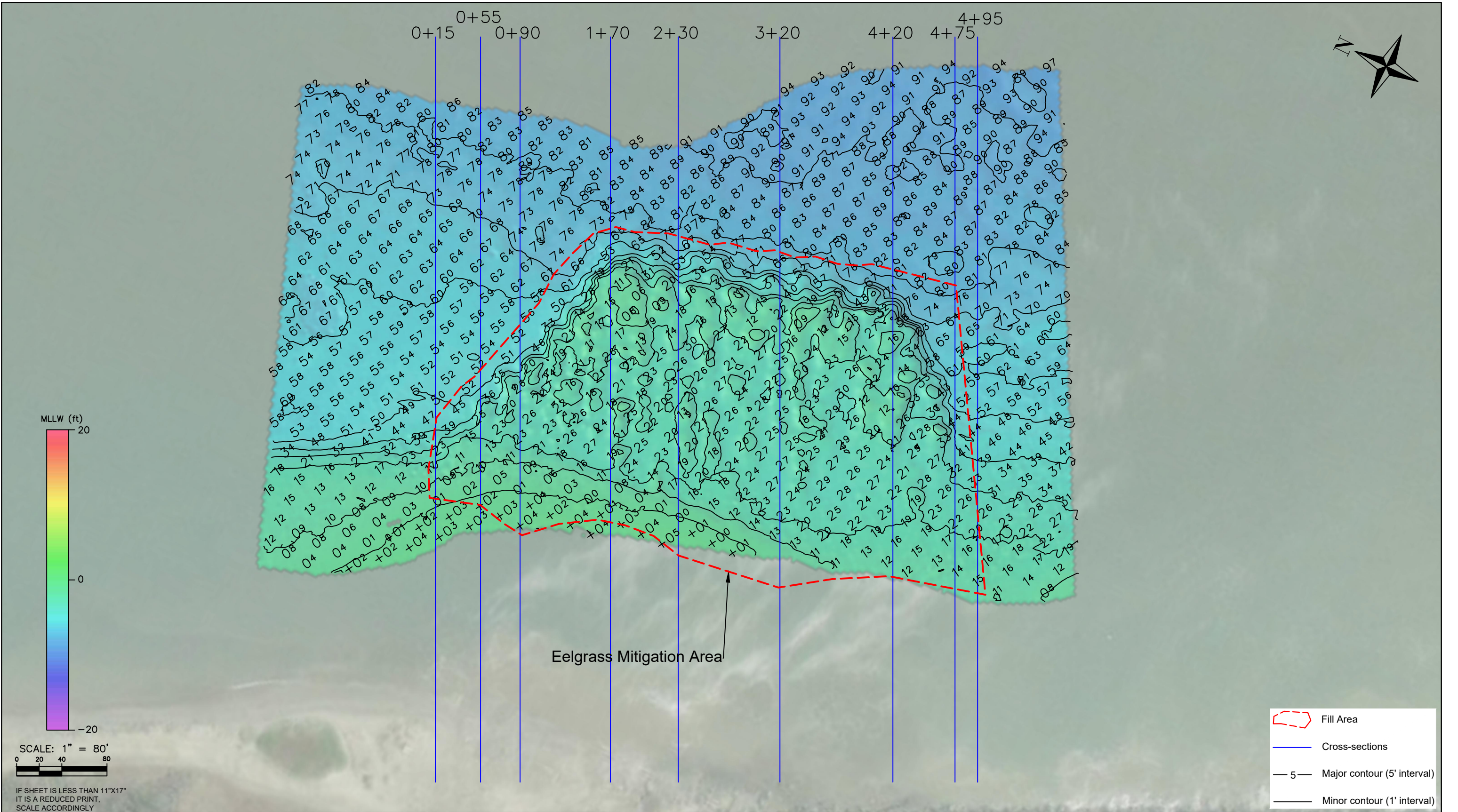
WOOLPERT INC.
637 LINDARO STREET
SUITE 100
SAN RAFAEL, CA 94901
PHONE: 415-462-0421
WOOLPERT.COM/MARITIME

SURVEY DATE: October 22, 2025	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

DREDGE AREA 2

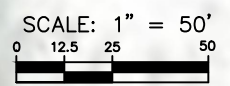
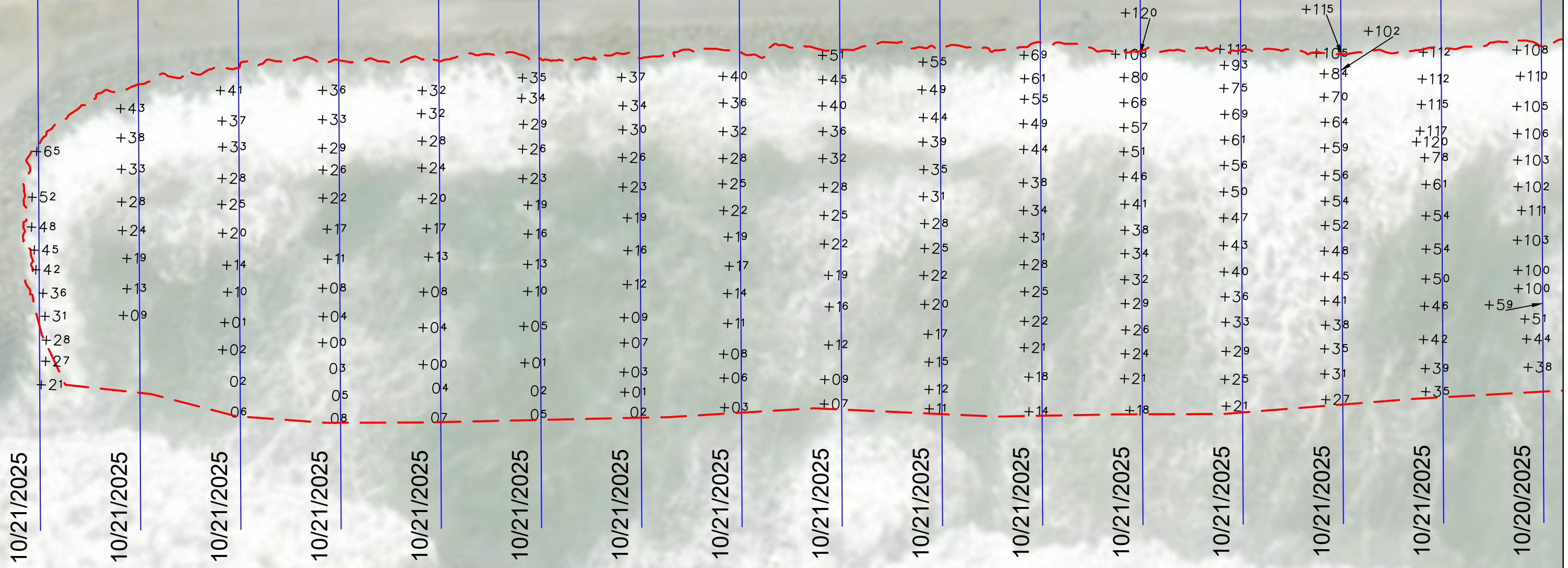
SOUNDINGS, CONTOURS & DEM

Reference
Number:
S4





1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00 5+50 6+00 6+50 7+00 7+50 8+00 8+50 9+00



IF SHEET IS LESS THAN 11"X17"
IT IS A REDUCED PRINT,
SCALE ACCORDINGLY

Fill Area
 Cross-sections



VORTEX MARINE
CONSTRUCTION
1 MARITIME WAY
ANTIOCH, CA 94509
PHONE: 510-261-2400
VORTEX-SFB.COM

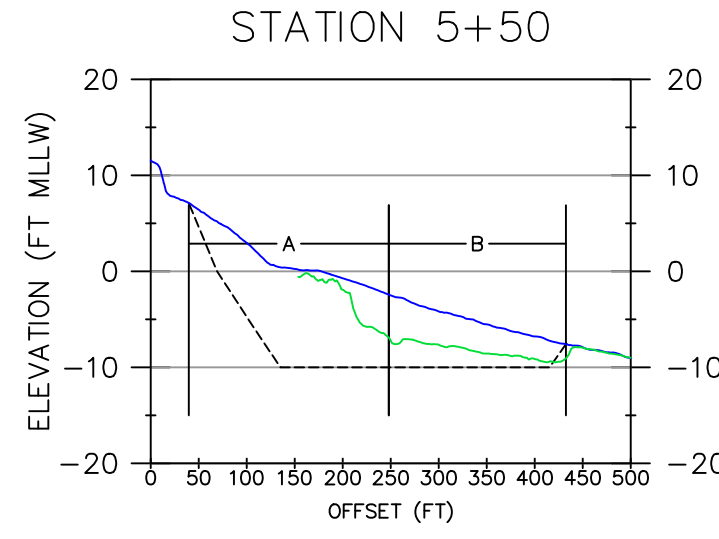
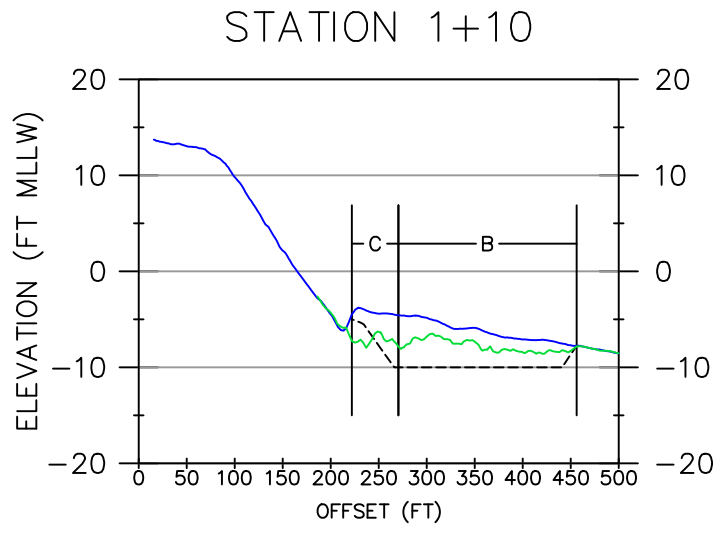
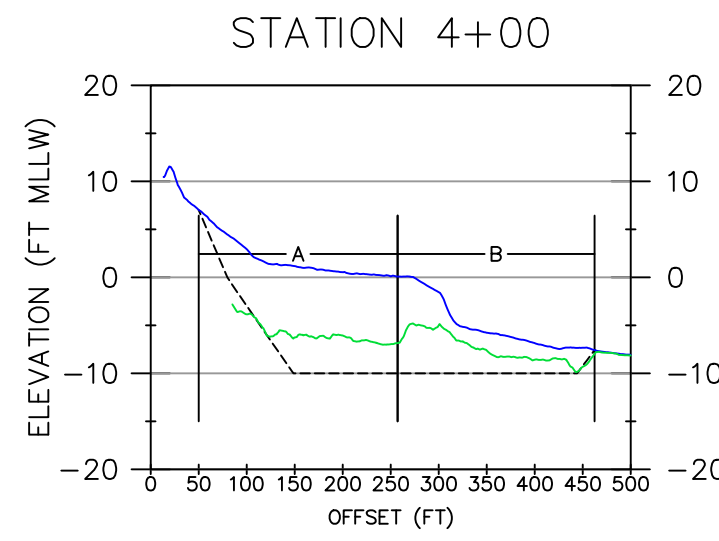
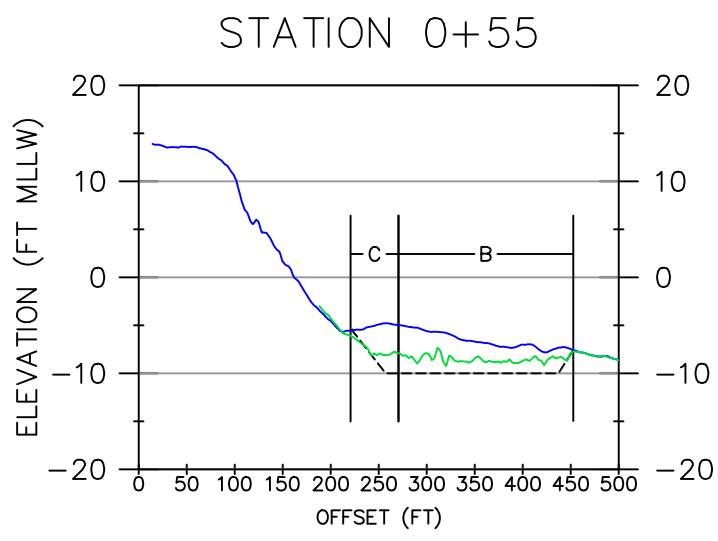
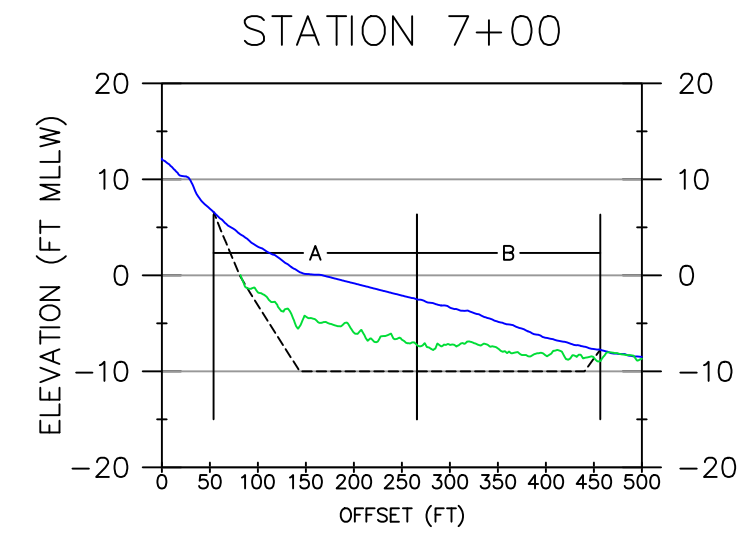
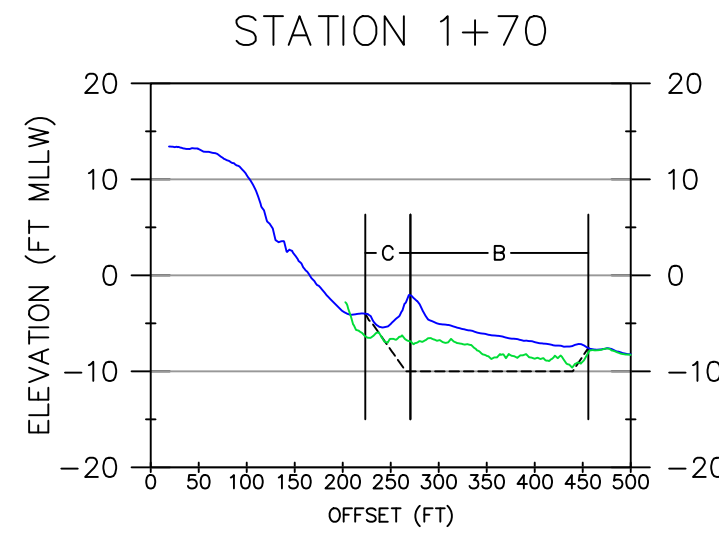
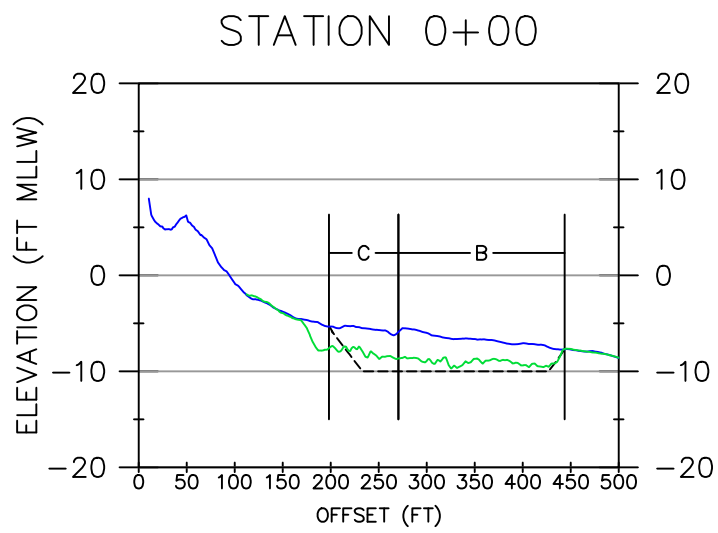


WOOLPERT INC.
637 LINDARO STREET
SUITE 100
SAN RAFAEL, CA 94901
PHONE: 415-462-0421
WOOLPERT.COM/MARITIME

SURVEY DATE:
October 20 & 21, 2025
DESIGNED BY: NB
REVISION 0
FILE NAME:
Vortex_20251022_PillarPointHarbor_REV2.dwg
PLOT DATE:
December 4, 2025
CHECKED BY: JK

SURFERS BEACH FILL AREA
TOPOGRAPHIC POINTS

Reference
Number:
S6



H. SCALE: 1" = 200'
 V. SCALE: 1" = 20'

 IF SHEET IS LESS THAN 11"x17"
 IT IS A REDUCED PRINT,
 SCALE ACCORDINGLY

— PRE-DREDGE ELEVATION 6/16/2025
 — POST-DREDGE ELEVATION 10/22/2025
 - - - DREDGE TEMPLATE



VORTEX MARINE
 CONSTRUCTION
 1 MARITIME WAY
 ANTIOCH, CA 94509
 PHONE: 510-261-2400
 VORTEX-SFB.COM



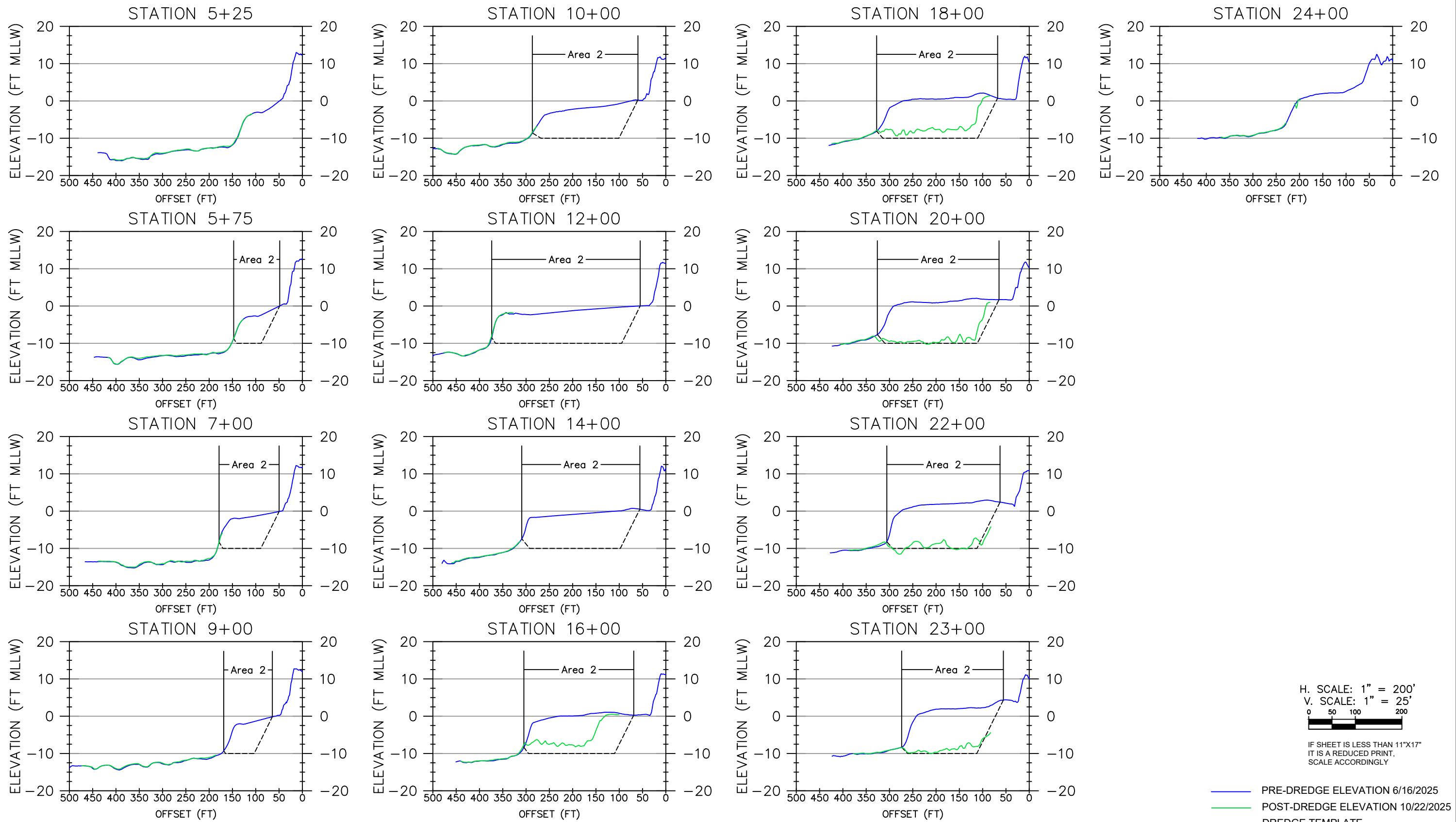
WOOLPERT INC.
 637 LINDARO STREET
 SUITE 100
 SAN RAFAEL, CA 94901
 PHONE: 415-462-0421
 WOOLPERT.COM/MARITIME

SURVEY DATE: June 16 & Oct 22, 2025	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

DREDGE AREA 1A, 1B & 1C

CROSS-SECTIONS

Reference
 Number:
S8



H. SCALE: 1" = 200'
 V. SCALE: 1" = 25'
 0 50 100 200
 IF SHEET IS LESS THAN 11"x17"
 IT IS A REDUCED PRINT,
 SCALE ACCORDINGLY

— PRE-DREDGE ELEVATION 6/16/2025
 — POST-DREDGE ELEVATION 10/22/2025
 - - - DREDGE TEMPLATE



VORTEX MARINE
 CONSTRUCTION
 1 MARITIME WAY
 ANTIOCH, CA 94509
 PHONE: 510-261-2400
 VORTEX-SFB.COM



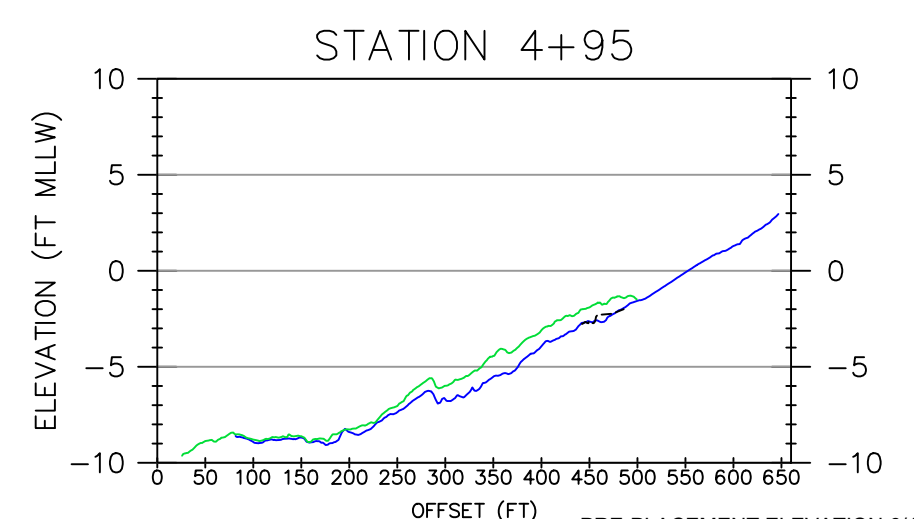
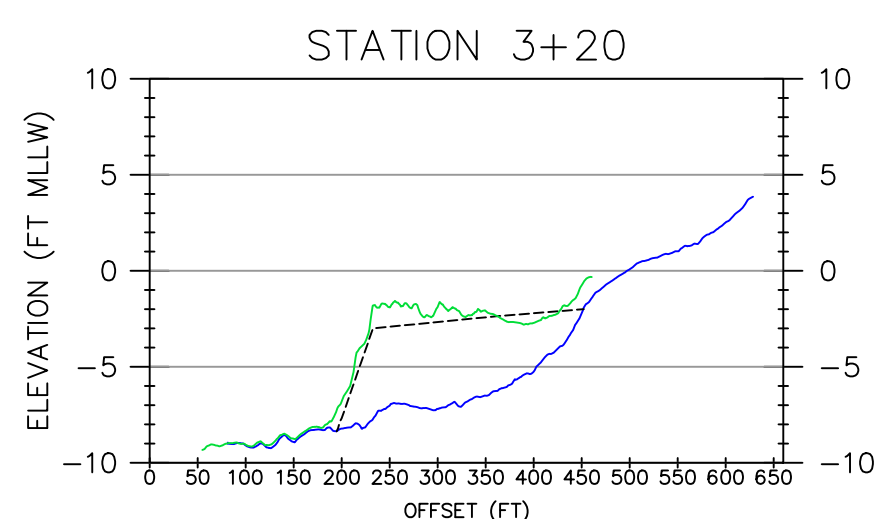
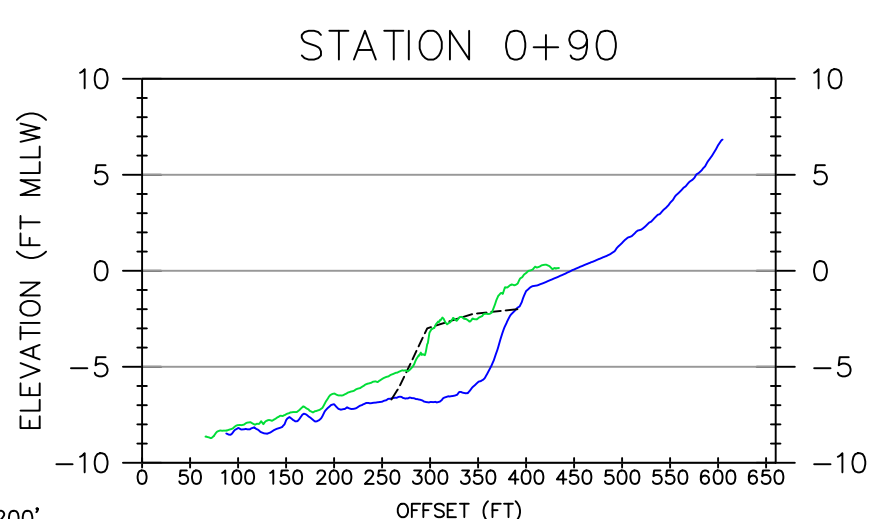
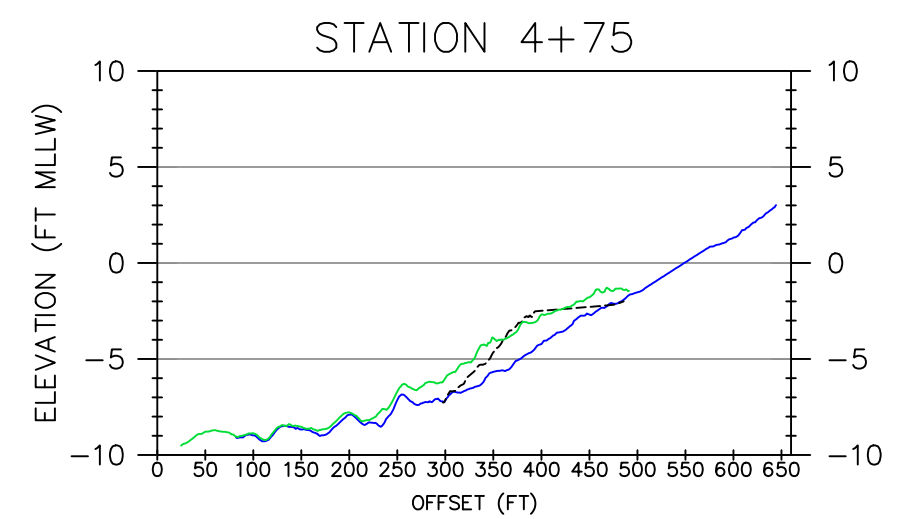
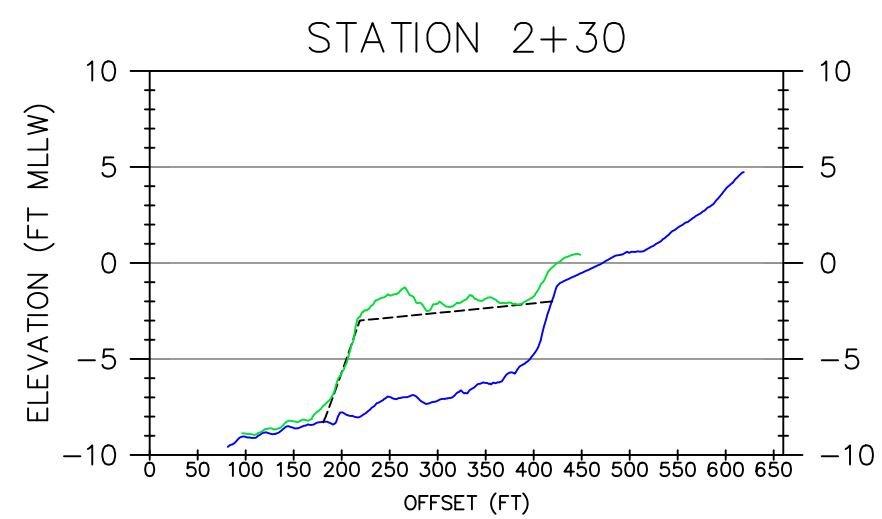
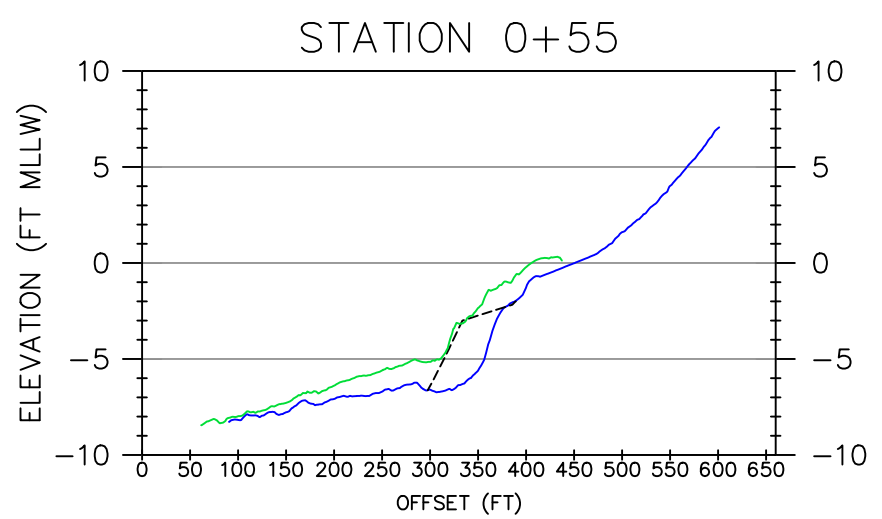
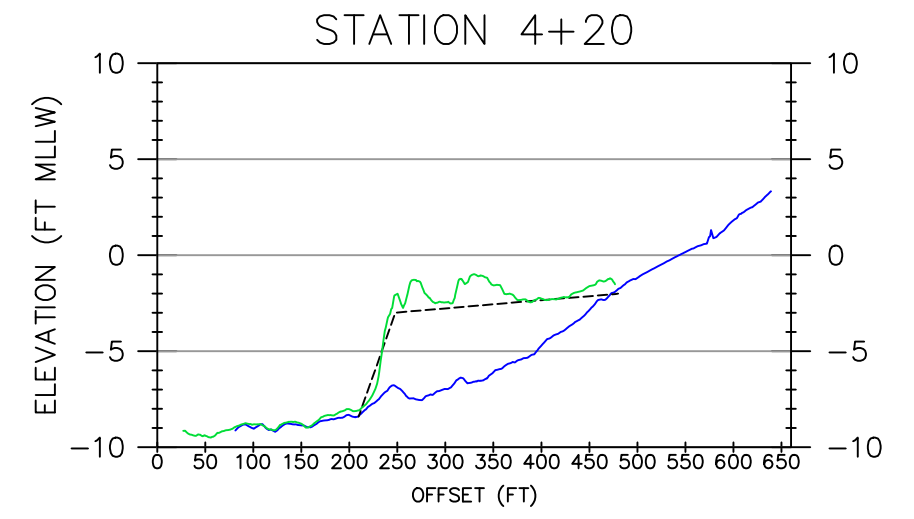
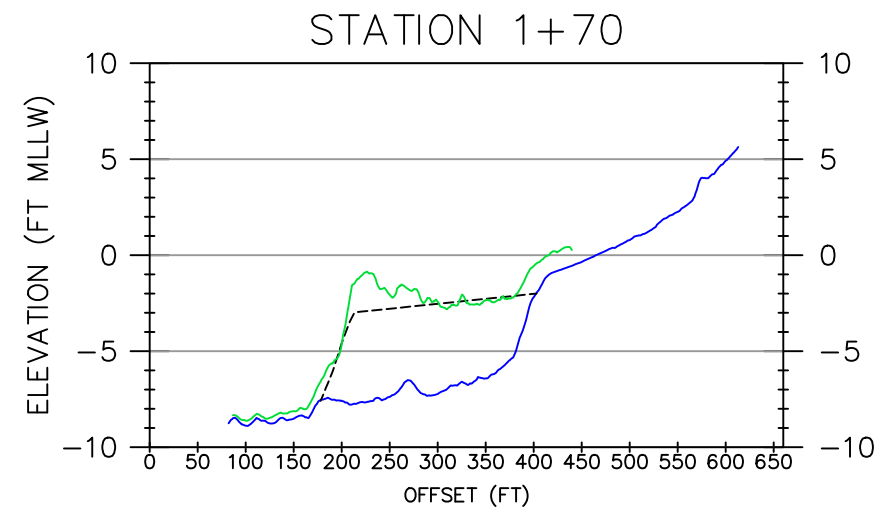
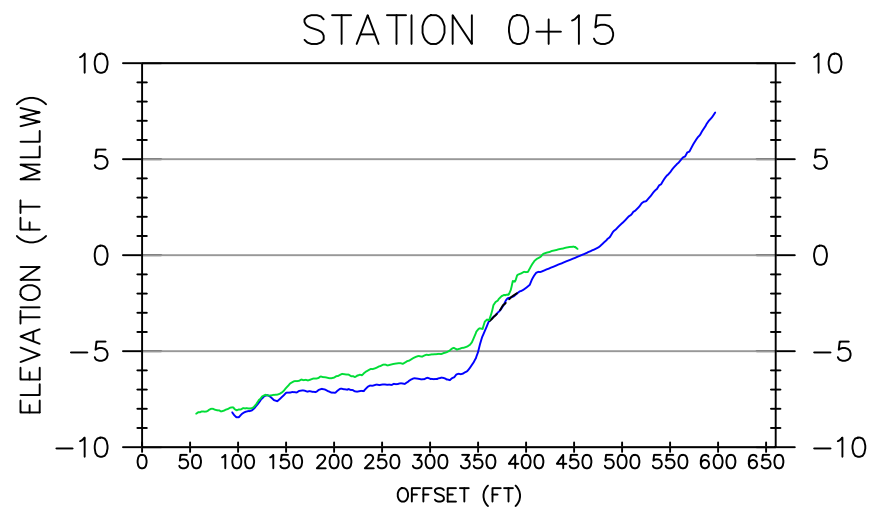
WOOLPERT INC.
 637 LINDARO STREET
 SUITE 100
 SAN RAFAEL, CA 94901
 PHONE: 415-462-0421
 WOOLPERT.COM/MARITIME

SURVEY DATE: June 16 & Oct 22, 2025	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

DREDGE AREA 2

CROSS-SECTIONS

Reference
 Number:
S9



H. SCALE: 1" = 200'
 V. SCALE: 1" = 10'
 0 50 100 200
 IF SHEET IS LESS THAN 11"x17"
 IT IS A REDUCED PRINT,
 SCALE ACCORDINGLY

— PRE-PLACEMENT ELEVATION 6/16/2025
 — POST-PLACEMENT ELEVATION 10/22/2025
 - - - DESIGN TEMPLATE



VORTEX MARINE
 CONSTRUCTION
 1 MARITIME WAY
 ANTIOCH, CA 94509
 PHONE: 510-261-2400
 VORTEX-SFB.COM

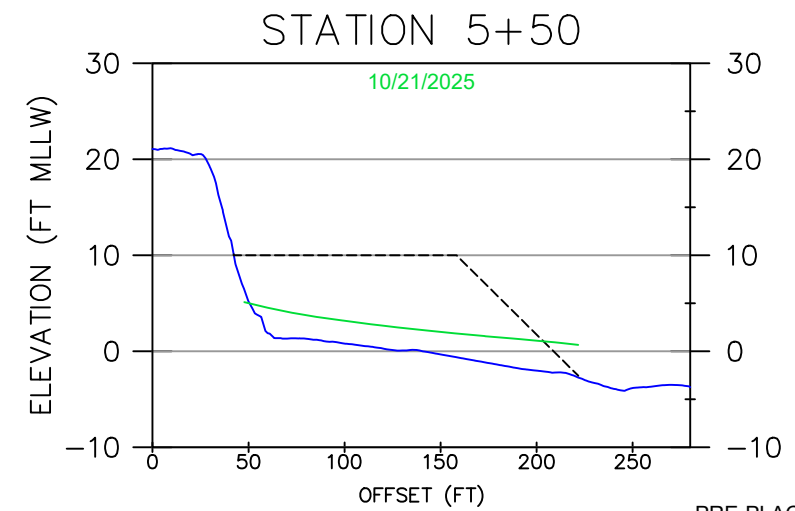
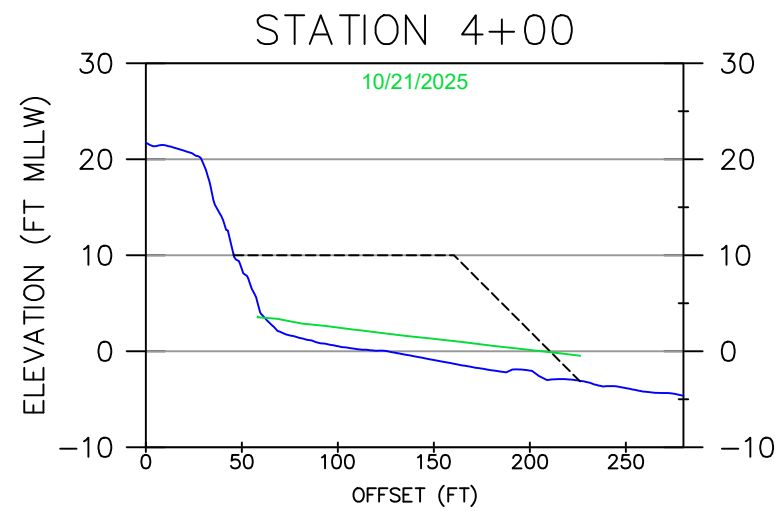
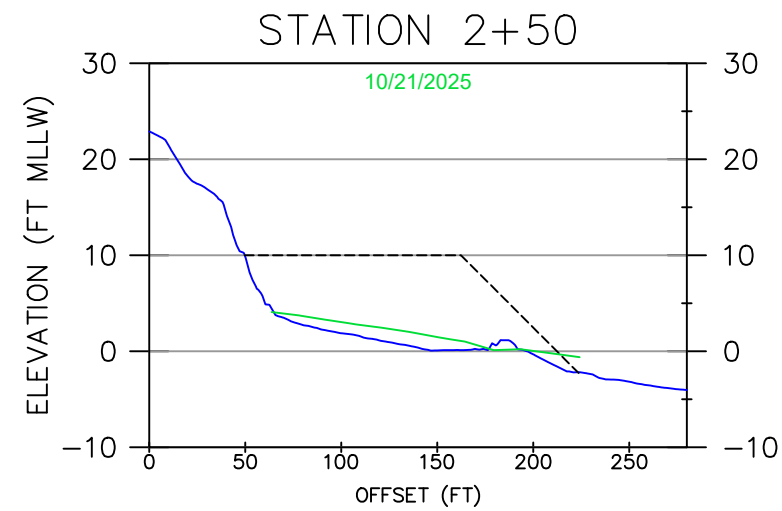
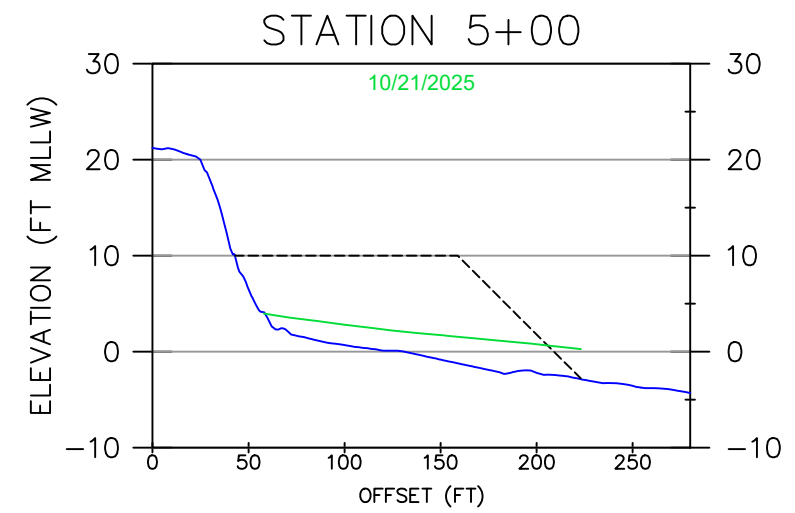
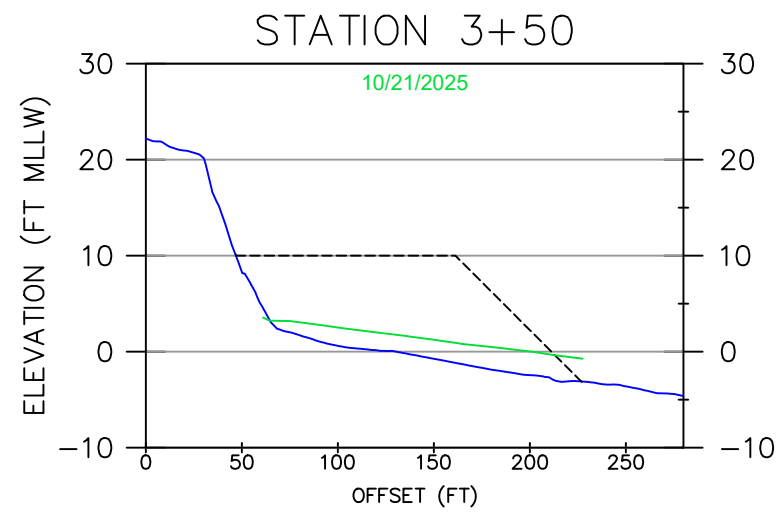
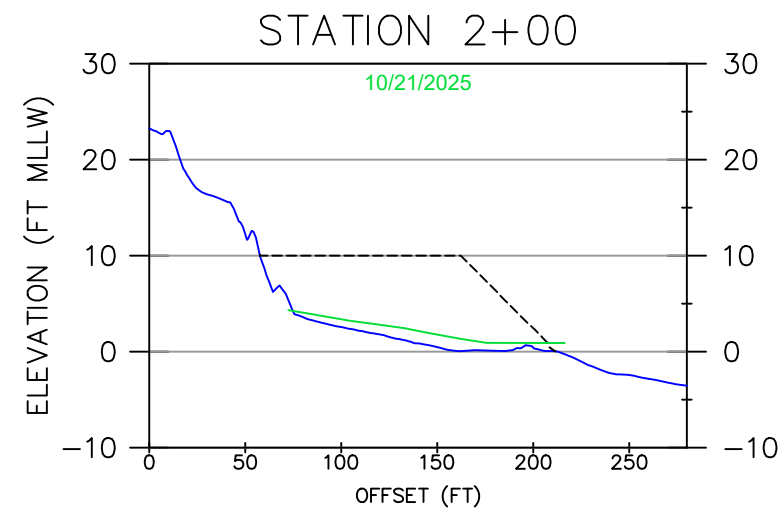
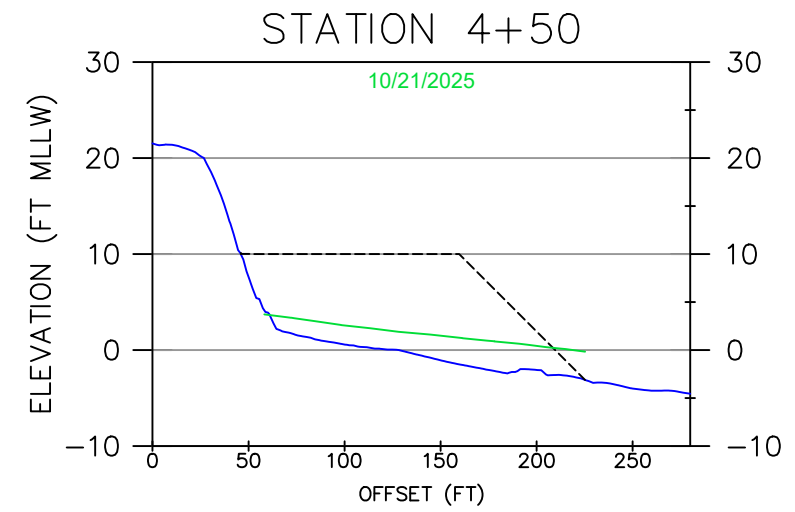
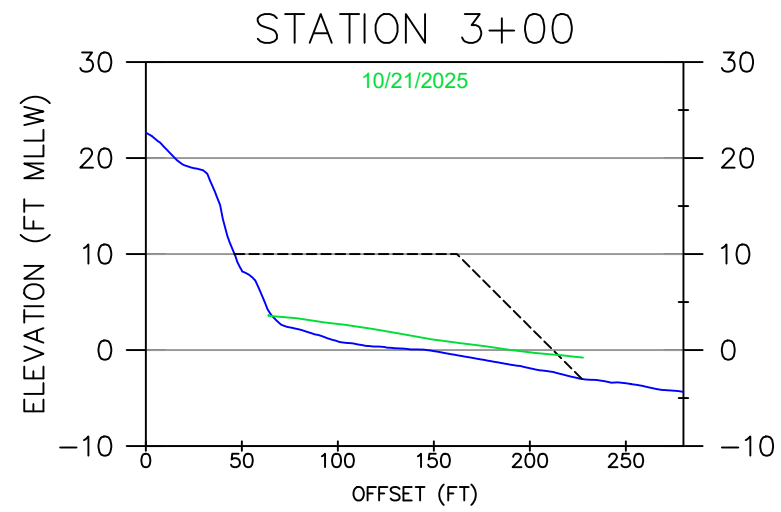
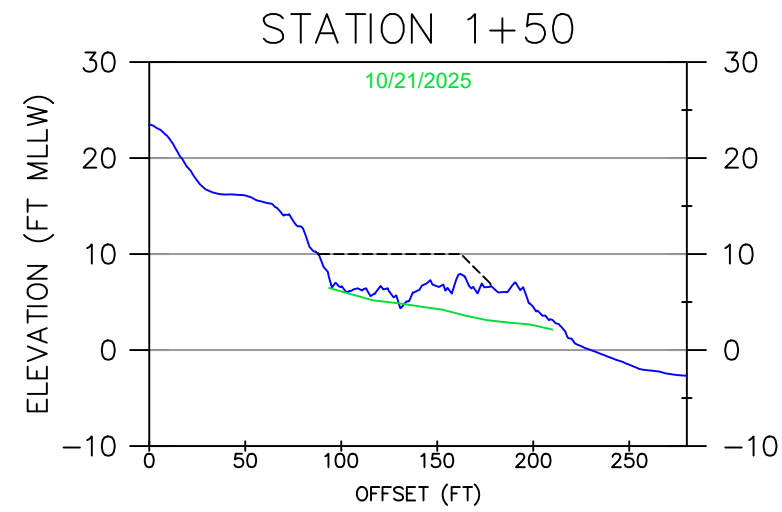


WOOLPERT INC.
 637 LINDARO STREET
 SUITE 100
 SAN RAFAEL, CA 94901
 PHONE: 415-462-0421
 WOOLPERT.COM/MARITIME

SURVEY DATE: June 16 & Oct 22, 2025	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

EELGRASS MITIGATION AREA
 CROSS-SECTIONS

Reference
 Number:
S10



H. SCALE: 1" = 100'
V. SCALE: 1" = 20'

IF SHEET IS LESS THAN 11"x17"
IT IS A REDUCED PRINT,
SCALE ACCORDINGLY

— PRE-PLACEMENT ELEVATION 6/16/2025
— POST-PLACEMENT ELEVATION
- - - DESIGN TEMPLATE



VORTEX MARINE
CONSTRUCTION
1 MARITIME WAY
ANTIOCH, CA 94509
PHONE: 510-261-2400
VORTEX-SFB.COM



WOOLPERT INC.
637 LINDARO STREET
SUITE 100
SAN RAFAEL, CA 94901
PHONE: 415-462-0421
WOOLPERT.COM/MARITIME

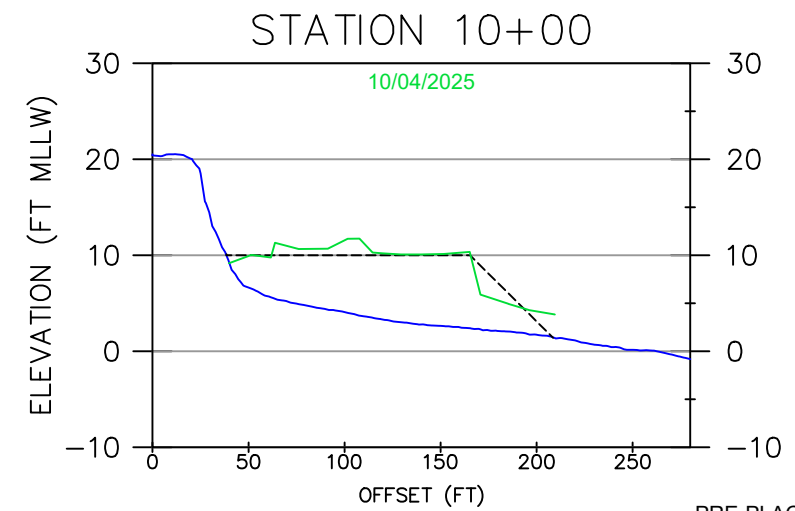
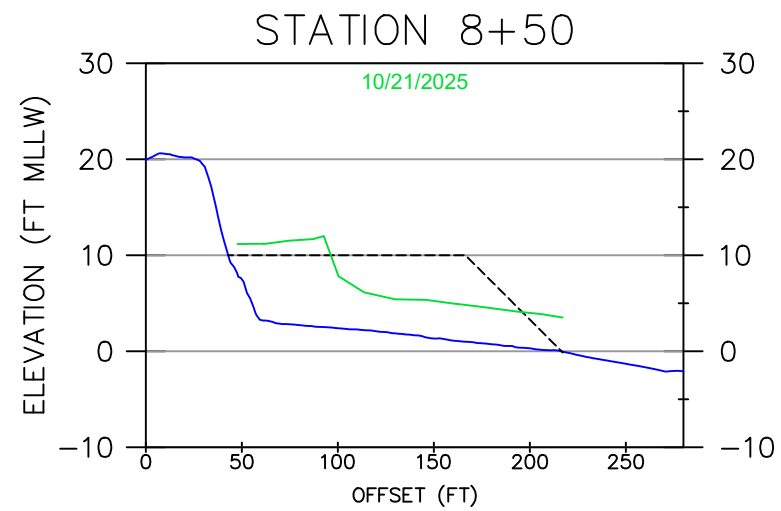
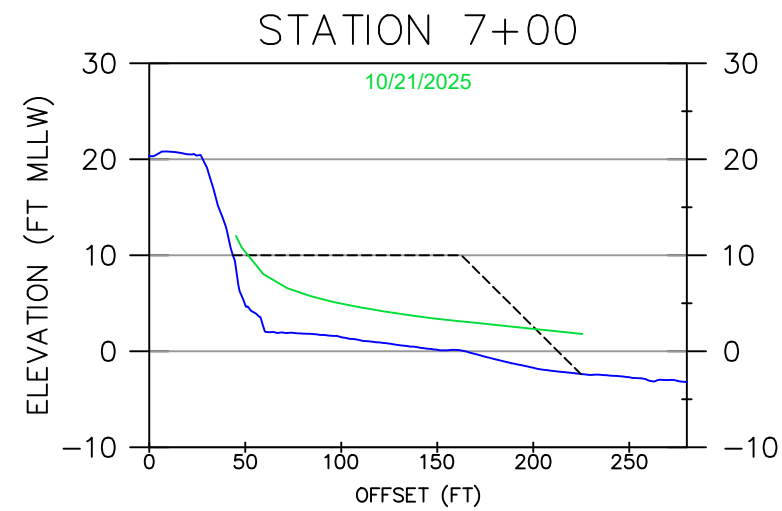
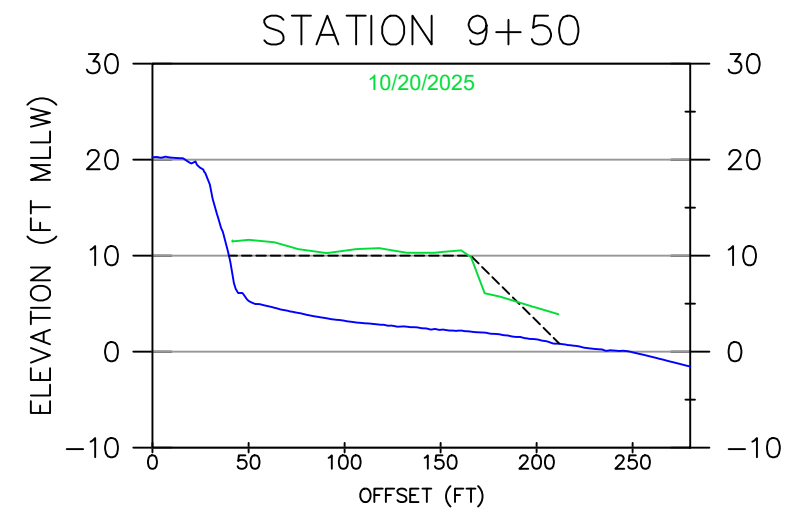
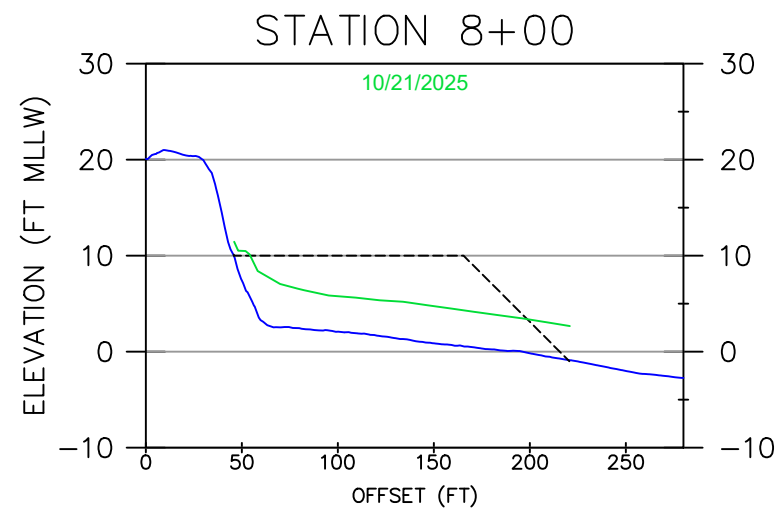
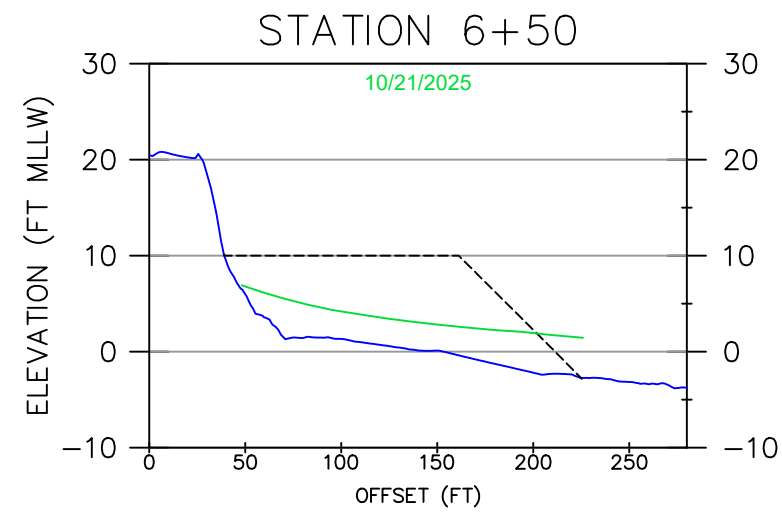
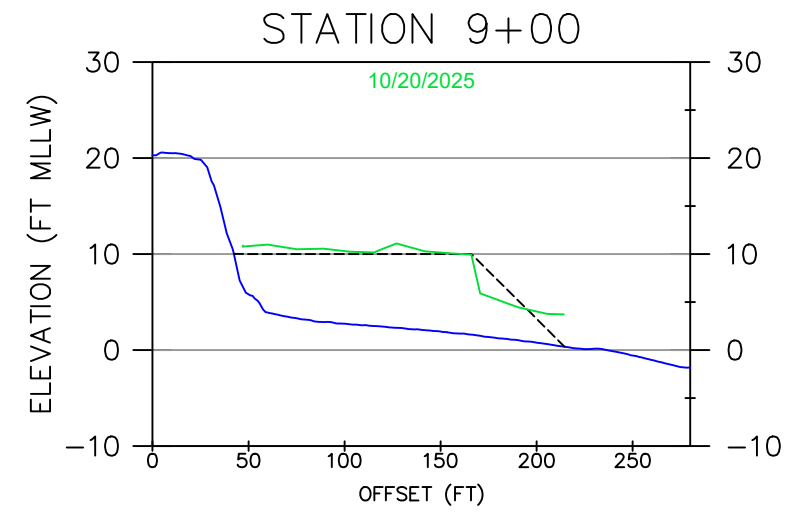
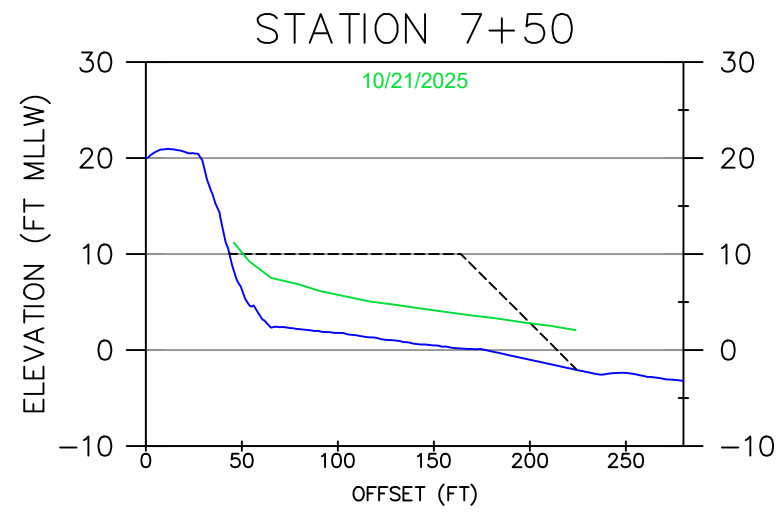
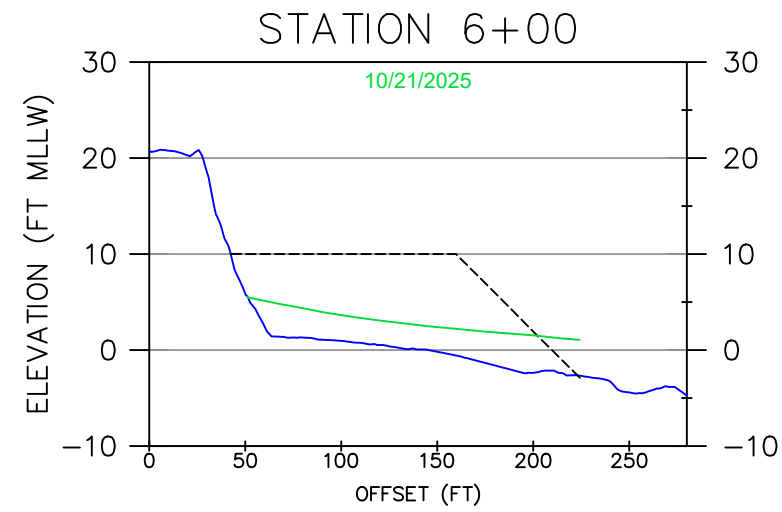
SURVEY DATE: See Legend	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

SURFERS BEACH FILL AREA

CROSS-SECTIONS

Reference
Number:

S11



H. SCALE: 1" = 100'
 V. SCALE: 1" = 20'
 0 50 100 200
 IF SHEET IS LESS THAN 11"x17"
 IT IS A REDUCED PRINT,
 SCALE ACCORDINGLY

— PRE-PLACEMENT ELEVATION 6/16/2025
 — POST-PLACEMENT ELEVATION
 - - - DESIGN TEMPLATE



VORTEX MARINE
 CONSTRUCTION
 1 MARITIME WAY
 ANTIOCH, CA 94509
 PHONE: 510-261-2400
 VORTEX-SFB.COM



WOOLPERT INC.
 637 LINDARO STREET
 SUITE 100
 SAN RAFAEL, CA 94901
 PHONE: 415-462-0421
 WOOLPERT.COM/MARITIME

SURVEY DATE:
 See Legend
 DESIGNED BY: NB
 REVISION 0
 FILE NAME:
 Vortex_20251022_PillarPointHarbor_REV2.dwg

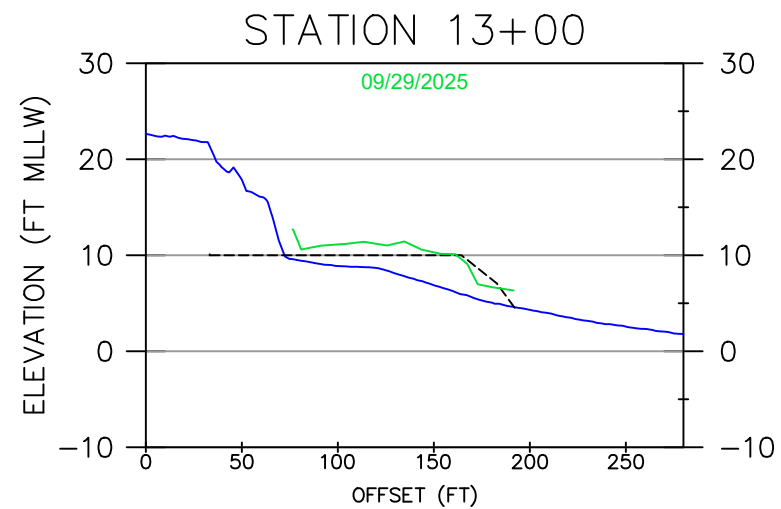
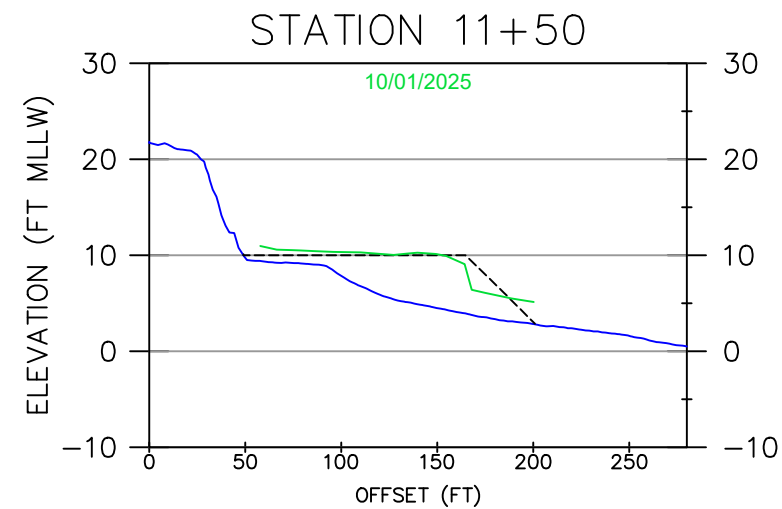
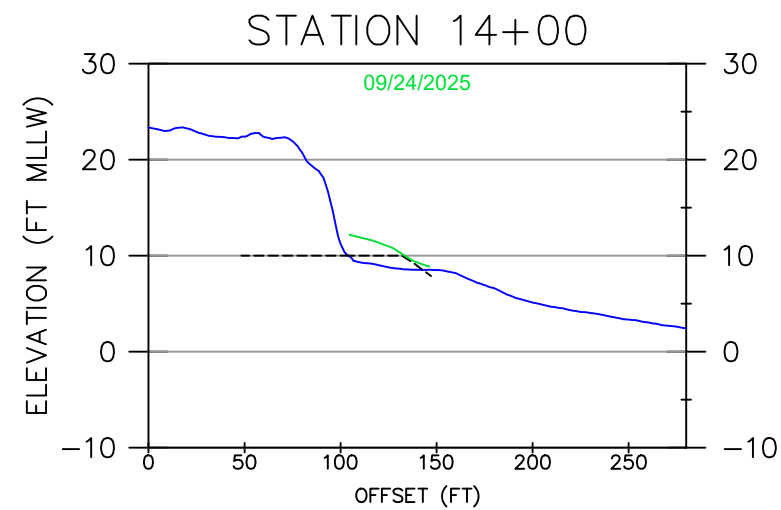
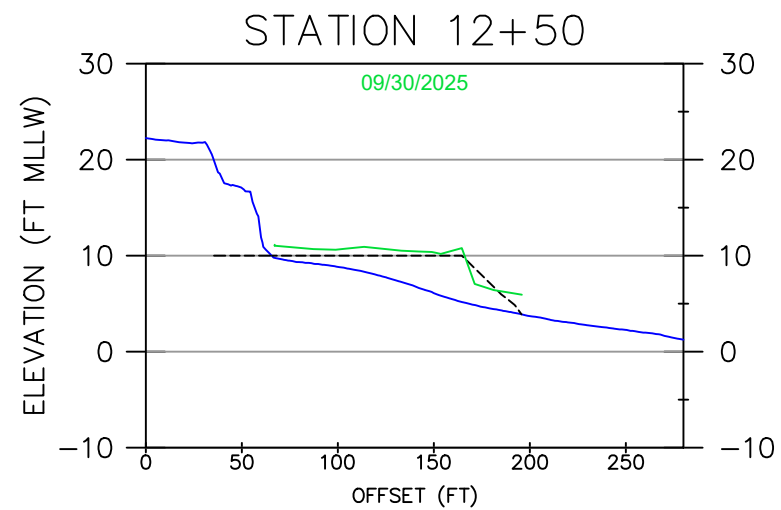
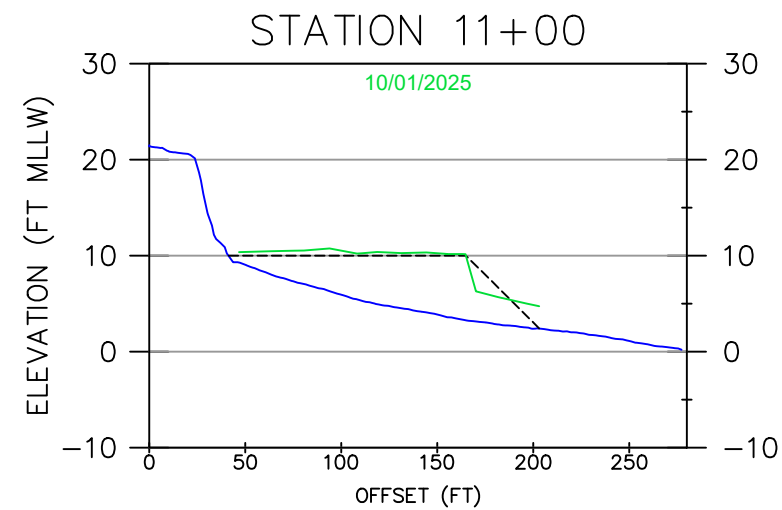
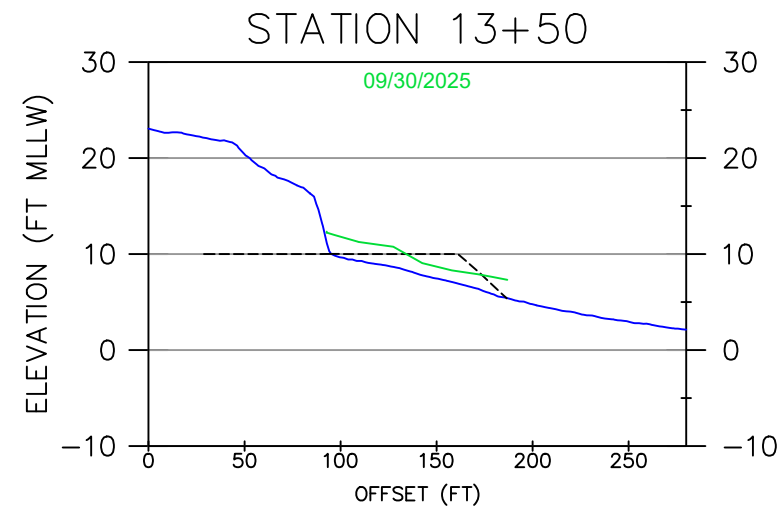
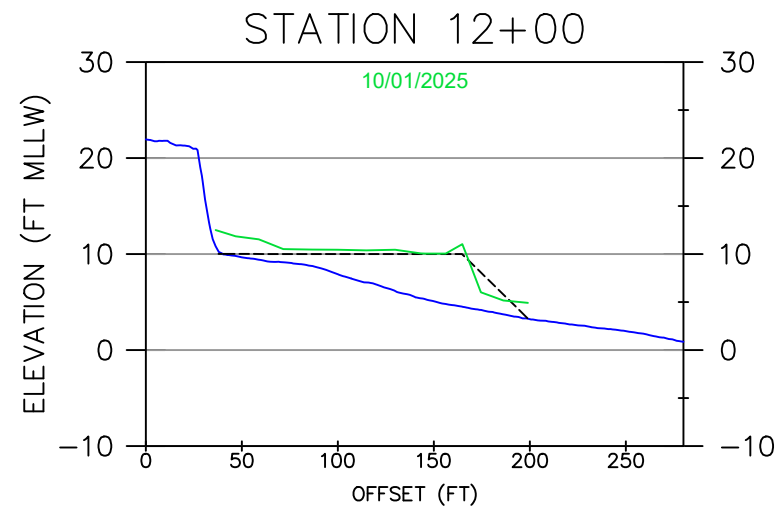
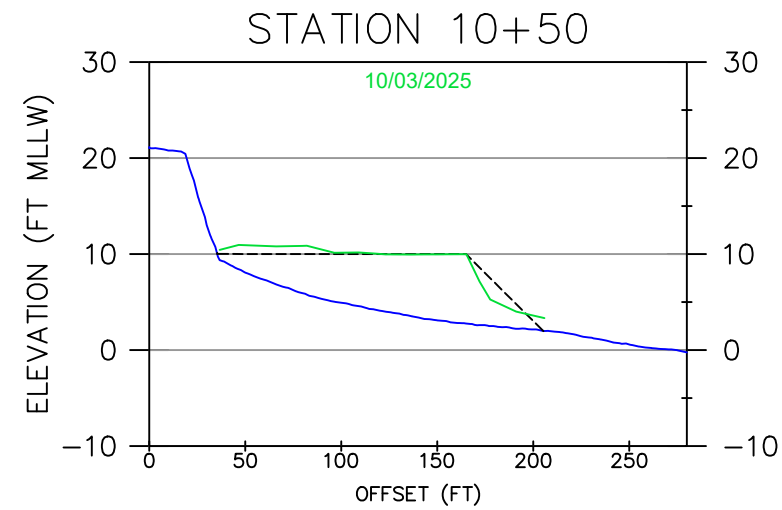
PLOT DATE:
 December 4, 2025
 CHECKED BY: JK

SURFERS BEACH FILL AREA

CROSS-SECTIONS

Reference
 Number:

S12



H. SCALE: 1" = 100'
 V. SCALE: 1" = 20'

IF SHEET IS LESS THAN 11"x17"
 IT IS A REDUCED PRINT,
 SCALE ACCORDINGLY

— PRE-PLACEMENT ELEVATION 6/16/2025
 — POST-PLACEMENT ELEVATION
 - - - DESIGN TEMPLATE



VORTEX MARINE
 CONSTRUCTION
 1 MARITIME WAY
 ANTIOCH, CA 94509
 PHONE: 510-261-2400
 VORTEX-SFB.COM



WOOLPERT INC.
 637 LINDARO STREET
 SUITE 100
 SAN RAFAEL, CA 94901
 PHONE: 415-462-0421
 WOOLPERT.COM/MARITIME

SURVEY DATE: See Legend	PLOT DATE: December 4, 2025
DESIGNED BY: NB	CHECKED BY: JK
REVISION 0	
FILE NAME: Vortex_20251022_PillarPointHarbor_REV2.dwg	

SURFERS BEACH FILL AREA

CROSS-SECTIONS

Reference
 Number:

S13