

CALIFORNIA COASTAL COMMISSION

SOUTH COAST DISTRICT OFFICE
301 E. OCEAN BLVD, SUITE 300
LONG BEACH, CA 90802-4325
VOICE (562) 590-5071
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W9b

5-24-0845 (City of Long Beach)

JUNE 11, 2025

EXHIBITS

Exhibit 1 – Vicinity Map and Project Site

Exhibit 2 – Project Plans

Exhibit 1 – Vicinity Map and Project Site



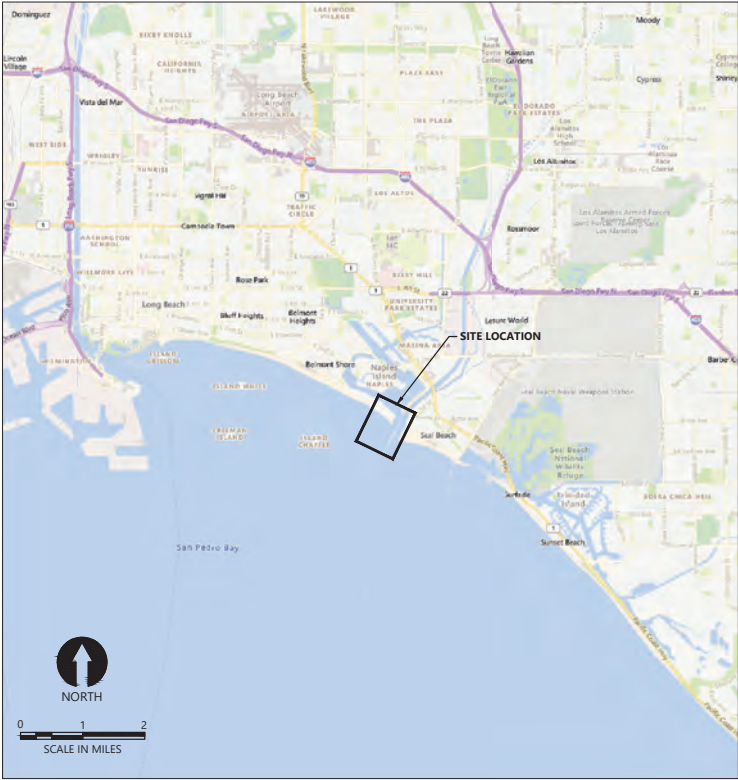


Exhibit 2 – Project Plans

90% DESIGN SUBMITTAL

ALAMITOS BAY ENTRANCE CHANNEL MAINTENANCE DREDGING AND BEACH NOURISHMENT

CITY OF LONG BEACH



BASEMAP: ESRI 2024

LOCATION MAP

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AERIAL IMAGERY: ESRI 2024

SITE MAP

- NOTES:
1. HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET
 2. VERTICAL DATUM: FEET MLLW, NTDE 1983-2001.

PLAN INTENDED TO BE VIEWED
IN COLOR. ADJACENT BLOCK IS
"BLUE"

ONE INCH
= 100 FEET
AT THE SITE. IF NOT ONE
INCH SCALE ACCORDINGLY

DRAFT-NOT FOR CONSTRUCTION

ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT

TITLE SHEET

T01

SHEET # 1 OF 11



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: D. MASSARO
DRAWN BY: M. PRATTSCHNER
CHECKED BY: M. COLLINS
APPROVED BY: T. WANG
SCALE: AS NOTED
DATE: MAY 2025

May 09, 2023, 3:43pm mprattschner
C:\Projects\05441 City of Long Beach\Alamitos Bay Entrance Channel\Construction Plans\05441_R_T01.dwg T01

May 09, 2023, 3:41pm mpratschneer
C:\projects\0845 - City of Long Beach-Alamitos Bay Entrance Channel Construction Plans\0845 B. Title.dwg 001

- CONTRACT DOCUMENTS REFER TO THESE DRAWINGS, CONSTRUCTION PERMITS, AND SPECIFICATIONS. NOTES AND DETAILS ON THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER GENERAL NOTES HEREIN.
- CHANGES TO THE SPECIFICATIONS AND/OR CONSTRUCTION SHOWN IN THESE DRAWINGS SHALL NOT BE MADE WITHOUT APPROVAL FROM THE CITY OR AUTHORIZED REPRESENTATIVE.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL THE WORK AS INDICATED IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL VISIT THE WORK SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CITY OR AUTHORIZED REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING THE WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS. CONTRACTOR TO PROVIDE NOTICE TO THE CITY OR AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING CONSTRUCTION WORK. DREDGING SHALL NOT START UNTIL THE CITY OR AUTHORIZED REPRESENTATIVE APPROVES THE START DATE.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE BY THE CITY OR AUTHORIZED REPRESENTATIVE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- ALL THE WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE WORK SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACT DOCUMENTS REPRESENT THE FINISHED SITE CONDITIONS. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR SHALL KEEP THE WORK SITE CLEAN AND HAZARD-FREE. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT SITE CONDITIONS, EXISTING STRUCTURES, UTILITIES, WORKERS, AND THE PUBLIC DURING CONSTRUCTION. ANY DAMAGE TO ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- UNLESS NOTED OTHERWISE, ALL DEMOLISHED STRUCTURES MATERIAL AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL FACILITY OR RECYCLING FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE LAWS AND REGULATIONS GOVERNING DISPOSAL. THE CONTRACTOR SHALL DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH FOR DURATION OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL MATERIAL AND EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY.
- TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT AND SUBJECT TO ALL LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
- ALL THE WORK SHALL SATISFY CONDITIONS AND REQUIREMENTS OF FEDERAL, STATE, AND LOCAL PERMITS, AS APPLICABLE. IN CASES WHERE CONDITIONS AND/OR REQUIREMENTS VARY FROM PERMIT TO PERMIT, THE MOST STRINGENT CONDITION AND/OR REQUIREMENT SHALL BE EMPLOYED.
- IN-WATER WORK IS SUBJECT TO AN ENVIRONMENTAL CLOSURE WINDOW. THE WORK DATES ARE PROVIDED IN THE PROJECT PERMITS.
- INFORMATION DISPLAYED, INCLUDING PROPERTY BOUNDARIES, IS BASED ON AVAILABLE RECORDS PROVIDED BY THE CITY OF LONG BEACH. THE CONTRACTOR IS TO VERIFY ALL SITE INFORMATION PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE CITY OR AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING THE WORK.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING THE WORK IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE SIZE AND LOCATION OF ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. EXISTING UTILITIES SHOWN HAVE BEEN OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL UTILITY LOCATIONS NOT SHOWN. CARE SHOULD BE TAKEN TO AVOID DAMAGE OR DISTURBANCE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONTRACTOR'S ACTIVITIES.
- NO IN-WATER STOCKPILING OF DEBRIS IS ALLOWED.
- BATHYMETRIC SURVEY DATA COLLECTED BY ETRAC (A WOOLPERT COMPANY), DATED JULY 12, 2023. BATHYMETRY AT TIME OF DREDGING MAY DIFFER.
 - HORIZONTAL CONTROL: ETRAC BASE, 33°44'57.40631" N, 118°6'56.37614" W
 - VERTICAL CONTROL: ETRAC BASE, ELEVATION -105.243 U.S. FT (ELLIPSOIDAL)
 - NAVD88 TO MLLW DATUM CONVERSION BASED ON NOSS/NO5 VDATUM IN THE SURVEY AREA. NAVD88 TO MLLW IS -0.2 U.S. FT.

DREDGE DESIGNATIONS	DREDGE VOLUME CUBIC YARDS
REQUIRED DREDGE ELEVATION (-20' MLLW)	285,000
1' PAYABLE OD (-21' MLLW)	55,600
TOTAL PAYABLE VOLUME	340,600
1' ALLOWABLE OD (-22' MLLW)	49,800
TOTAL ALLOWABLE VOLUME	390,400

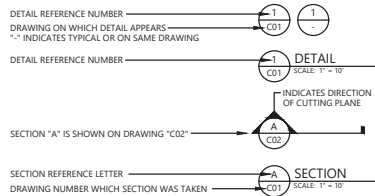
NOTE:

- THE REQUIRED DREDGE ELEVATION VOLUME INCLUDES 26,800 CY FROM THE 2H:1V SIDE SLOPES.
- THE 1' PAYABLE OD (-21' MLLW) INCLUDES 5,800 CY FROM THE SIDE SLOPES.

ABBREVIATIONS:

*	FEET, MINUTES
*	INCHES, SECONDS
*	DEGREES
#	NUMBER
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BM	BENCHMARK
BMP	BEST MANAGEMENT PRACTICE
CY	CUBIC YARDS
DWG	DRAWING
E	EAST, EASTING
ELEV	ELEVATION
EXIST	EXISTING
FT	FEET
FG	FINISHED GRADE
H	HORIZONTAL
L	LENGTH
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
MLLW	MEAN LOWER LOW WATER
N	NORTH, NORTHING
NAD	NORTH AMERICAN DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
NTDE	NATIONAL TIDAL DATUM EPOCH
NTS	NOT TO SCALE
OD	OVERDREDGE
PE	PROFESSIONAL ENGINEER
ROW	RIGHT-OF-WAY
STA	STATION
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
TOW	TOP OF WALL
TYP	TYPICAL
USCG	UNITED STATES COAST GUARD
V, VERT	VERTICAL
W/	WITH
WSEL	WATER SURFACE ELEVATION
YR	YEAR

DETAIL AND SECTION REFERENCING



CONTROL POINTS FOR DREDGE BOUNDARY		
POINT #	NORTHING	EASTING
1	1726727.14	6524689.05
2	1726583.49	6524951.82
3	1729634.72	6526652.63
4	1729777.14	6526672.75
5	1731121.39	6526385.89
6	1730761.86	6526155.86
7	1730038.04	6526310.32
8	1729862.23	6526313.22
9	1729578.46	6526277.85

CONTROL POINTS FOR BEACH NOURISHMENT		
POINT #	NORTHING	EASTING
10	1730454.91	6524378.72
11	1732027.59	6524449.40
12	1729962.75	6524859.04
13	1729196.20	6525835.27
14	1729302.97	6525852.78
15	1729388.98	6525852.78
16	1730054.45	6524993.40

DRAFT-NOT FOR CONSTRUCTION



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DRAWN BY: M. PRATSCHNER
CHECKED BY: M. COLLINS
APPROVED BY: T. WANG
SCALE: AS NOTED
DATE: MAY 2025

ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT

GENERAL NOTES

G01

SHEET # 2 OF 11

ONE INCH
AT THE SITE. IF MORE
INCH SCALE ACCORDINGLY

PLAN INTENDED TO BE VIEWED
IN COLOR. ADJACENT BLOCK IS
"BLUE"



- LEGEND:
- DREDGE BOUNDARY
 - EXISTING CONTOUR (5')
 - EXISTING CONTOUR (1')
 - EXISTING EELGRASS

- NOTES:
- HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: FEET MLLW, NTDE 1983-2001.
 - BATHYMETRIC SURVEY DATA COLLECTED BY ETRAC (A WOOLPERT COMPANY), DATED JULY 12, 2023. BATHYMETRY AT TIME OF DREDGING MAY DIFFER.
 - EELGRASS SURVEY BY MTS IN MARCH 2024. AVOID DISTURBING EELGRASS AREAS. NO DREDGING, ANCHORING, OR SPUDDING IS ALLOWED WITHIN EELGRASS AREAS.

DRAFT-NOT FOR CONSTRUCTION



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ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT

EXISTING CONDITIONS

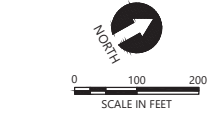
G02

SHEET # 3 OF 11





- LEGEND:
- DREDGE FOOTPRINT
 - DREDGE DAYLIGHT (TOP OF SLOPE)
 - DREDGE FOOTPRINT (TOE OF DREDGE SLOPE)
 - EXISTING CONTOUR (5')
 - EXISTING CONTOUR (1')
 - EXISTING EELGRASS
 - CONTROL POINT



- NOTES:
- HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: FEET MLLW, NTDE 1983-2001.
 - BATHYMETRIC SURVEY DATA COLLECTED BY ETRAC (A WOOLPERT COMPANY), DATED JULY 12, 2023. BATHYMETRY AT TIME OF DREDGING MAY DIFFER.
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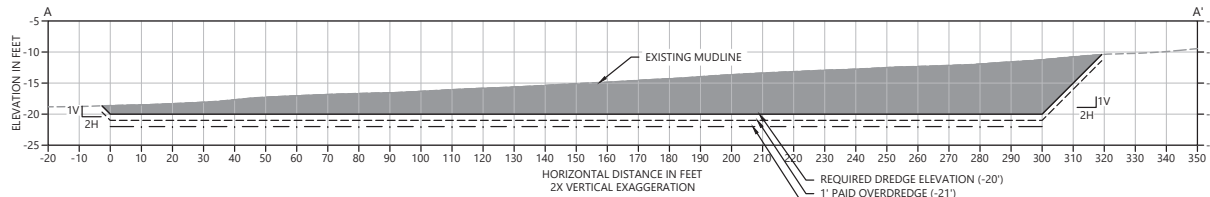
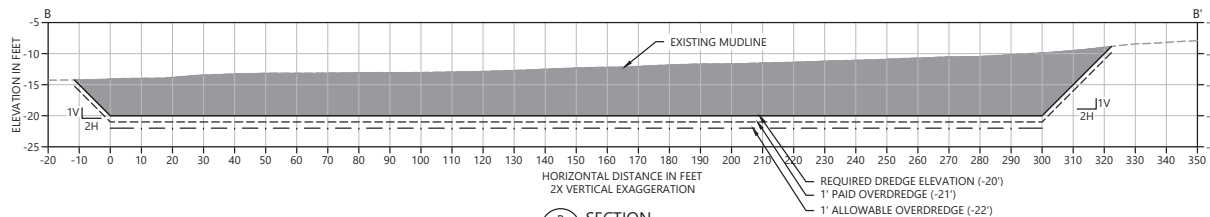
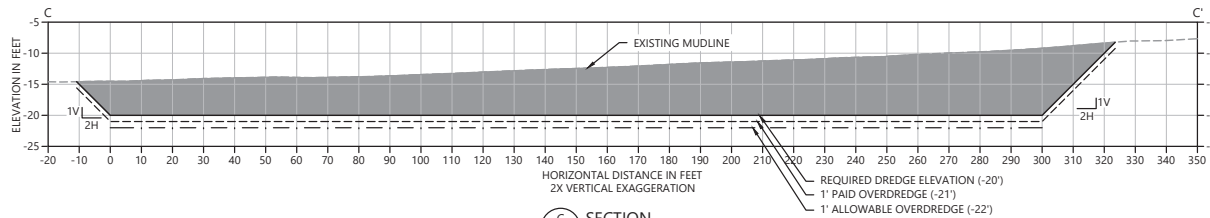
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ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT

DREDGE PLAN VIEW (2)

C02

SHEET # 5 OF 11



- LEGEND:
- REQUIRED DREDGE ELEVATION (-20' MLLW)
 - 1' PAID OVERDREDGE (-21' MLLW)
 - · - · - 1' ALLOWABLE OVERDREDGE (-22' MLLW)
 - EXISTING MUDLINE
 - REQUIRED DREDGING TO -20' MLLW

- NOTES:
1. DREDGED MATERIAL EXCLUDING DEBRIS SHALL BE PLACED AT THE IDENTIFIED BEACH NOURISHMENT AREA.
 2. CONTRACTOR SHALL DREDGE THE SIDE SLOPES IDENTIFIED IN THE DRAWING. THE SIDE SLOPE VOLUME ASSOCIATED WITH THE MAXIMUM PAY LIMIT IS INCLUDED IN THE DREDGING BID ITEM QUANTITIES.
 3. DREDGING OF SEDIMENT OUTSIDE THE DREDGING LIMITS AND/OR BELOW THE NON-PAY OVERDREDGE ELEVATION IS DEFINED AS EXCESSIVE DREDGING AND IS PROHIBITED. CONTRACTOR WILL NOT BE PAID FOR EXCESSIVE DREDGING AND WILL BE RESPONSIBLE FOR ANY REGULATORY AGENCY FEES AND/OR FINES INCURRED AS A RESULT OF EXCESSIVE DREDGING. ADDITIONALLY, IF EXCESSIVE DREDGING RESULTS IN DAMAGE OR UNDERMINING TO EXISTING STRUCTURES, THE CONTRACTOR SHALL RECTIFY TO THE CITY OR AUTHORIZED REPRESENTATIVE'S SATISFACTION PRIOR TO CLOSE OF THE CONTRACT.
 4. THE REQUIRED DREDGE ELEVATION MUST BE ACHIEVED IN ALL AREAS FOR IT TO BE ACCEPTED AS COMPLETE. CONTRACTOR MUST REMOVE ALL SLOUGH MATERIAL FROM THE REQUIRED DREDGE AREA IN ORDER FOR WORK TO BE ACCEPTED BY THE CITY OR AUTHORIZED REPRESENTATIVE. THE CITY OR AUTHORIZED REPRESENTATIVE WILL COMPARE THE PRE- AND POST-DREDGE SURVEYS TO ENSURE THAT DREDGED SEDIMENT FROM ALL OF THE DREDGE AREA IS REMOVED FROM THE SITE.
 5. CONTRACTOR MUST REMOVE ALL DEBRIS TO CONDUCT THE DREDGING WORK. THE CONTRACTOR SHALL TAKE CARE TO AVOID CONTACT WITH THE NEARBY BANK DURING DEBRIS REMOVAL ACTIVITIES.
 6. ANY DEBRIS ENCOUNTERED AND REMOVED DURING THE WORK SHALL BE REMOVED BY THE CONTRACTOR AND PROPERLY DISPOSED OF AT A CONTRACTOR-SELECTED AND OWNER-APPROVED OFF-SITE UPLAND COMMERCIAL LANDFILL LOCATION IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. NO DEBRIS IS ALLOWED TO BE PLACED WITHIN THE BEACH NOURISHMENT AREA AND MUST BE SEGREGATED FROM THE SANDS.

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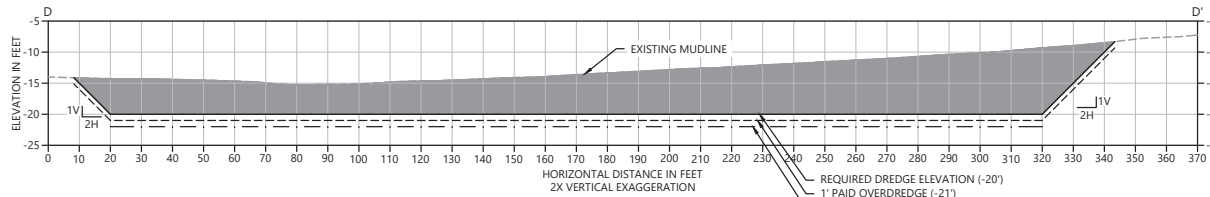
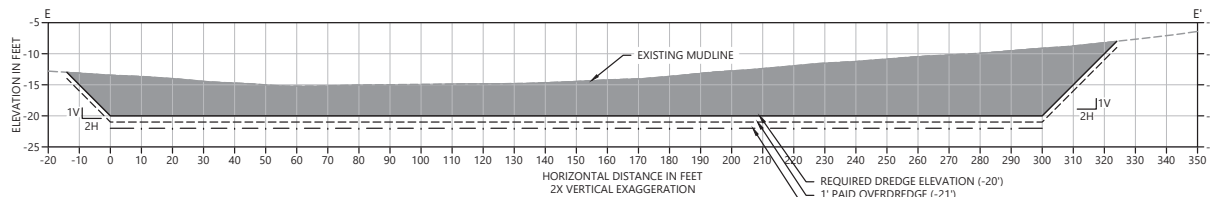
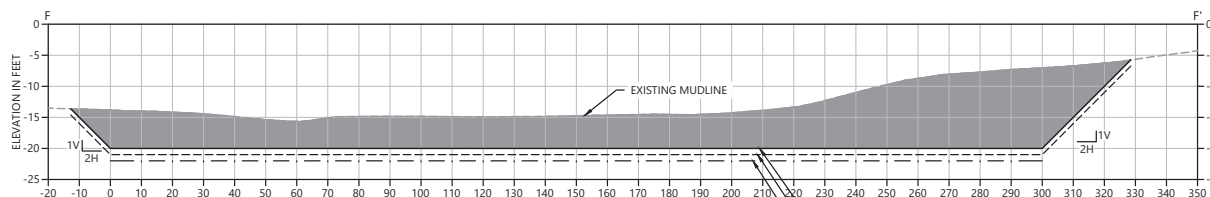
**ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT**

DREDGE CROSS SECTIONS (1)

C03

SHEET # **6** OF **11**

ONE INCH
AT THE SITE, IF NO ONE
INCH SCALE ACCORDINGLY



- LEGEND:
- REQUIRED DREDGE ELEVATION (-20' MLLW)
 - 1' PAID OVERDREDGE (-21' MLLW)
 - · - · - 1' ALLOWABLE OVERDREDGE (-22' MLLW)
 - EXISTING MUDLINE
 - REQUIRED DREDGING TO -20' MLLW

- NOTES:
1. DREDGED MATERIAL SHALL BE PLACED AT THE IDENTIFIED BEACH NOURISHMENT AREA.
 2. CONTRACTOR SHALL DREDGE THE SIDE SLOPES IDENTIFIED IN THE DRAWING. THE SIDE SLOPE VOLUME ASSOCIATED WITH THE MAXIMUM PAY LIMIT IS INCLUDED IN THE DREDGING BID ITEM QUANTITIES.
 3. DREDGING OF SEDIMENT OUTSIDE THE DREDGING LIMITS AND/OR BELOW THE NON-PAY OVERDREDGE ELEVATION IS DEFINED AS EXCESSIVE DREDGING AND IS PROHIBITED. CONTRACTOR WILL NOT BE PAID FOR EXCESSIVE DREDGING AND WILL BE RESPONSIBLE FOR ANY REGULATORY AGENCY FEES AND/OR FINES INCURRED AS A RESULT OF EXCESSIVE DREDGING. ADDITIONALLY, IF EXCESSIVE DREDGING RESULTS IN DAMAGE OR UNDERMINING TO EXISTING STRUCTURES, THE CONTRACTOR SHALL RECTIFY TO THE CITY OR AUTHORIZED REPRESENTATIVE'S SATISFACTION PRIOR TO CLOSE OF THE CONTRACT.
 4. THE REQUIRED DREDGE ELEVATION MUST BE ACHIEVED IN ALL AREAS FOR IT TO BE ACCEPTED AS COMPLETE. CONTRACTOR MUST REMOVE ALL SLOUGH MATERIAL FROM THE REQUIRED DREDGE AREA IN ORDER FOR WORK TO BE ACCEPTED BY THE CITY OR AUTHORIZED REPRESENTATIVE. THE CITY OR AUTHORIZED REPRESENTATIVE WILL COMPARE THE PRE- AND POST-DREDGE SURVEYS TO ENSURE THAT DREDGED SEDIMENT FROM ALL OF THE DREDGE AREA IS REMOVED FROM THE SITE.
 5. CONTRACTOR MUST REMOVE ALL DEBRIS TO CONDUCT THE DREDGING WORK. THE CONTRACTOR SHALL TAKE CARE TO AVOID CONTACT WITH THE NEARBY BANK DURING DEBRIS REMOVAL ACTIVITIES.
 6. ANY DEBRIS ENCOUNTERED AND REMOVED DURING THE WORK SHALL BE REMOVED BY THE CONTRACTOR AND PROPERLY DISPOSED OF AT A CONTRACTOR-SELECTED AND OWNER-APPROVED OFF-SITE UPLAND COMMERCIAL LANDFILL LOCATION IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. NO DEBRIS IS ALLOWED TO BE PLACED WITHIN THE BEACH NOURISHMENT AREA AND MUST BE SEGREGATED FROM THE SANDS.

PLAN INTENDED TO BE VIEWED
AT THE SITE. IF NOT ONE
INCH SCALE ACCORDINGLY

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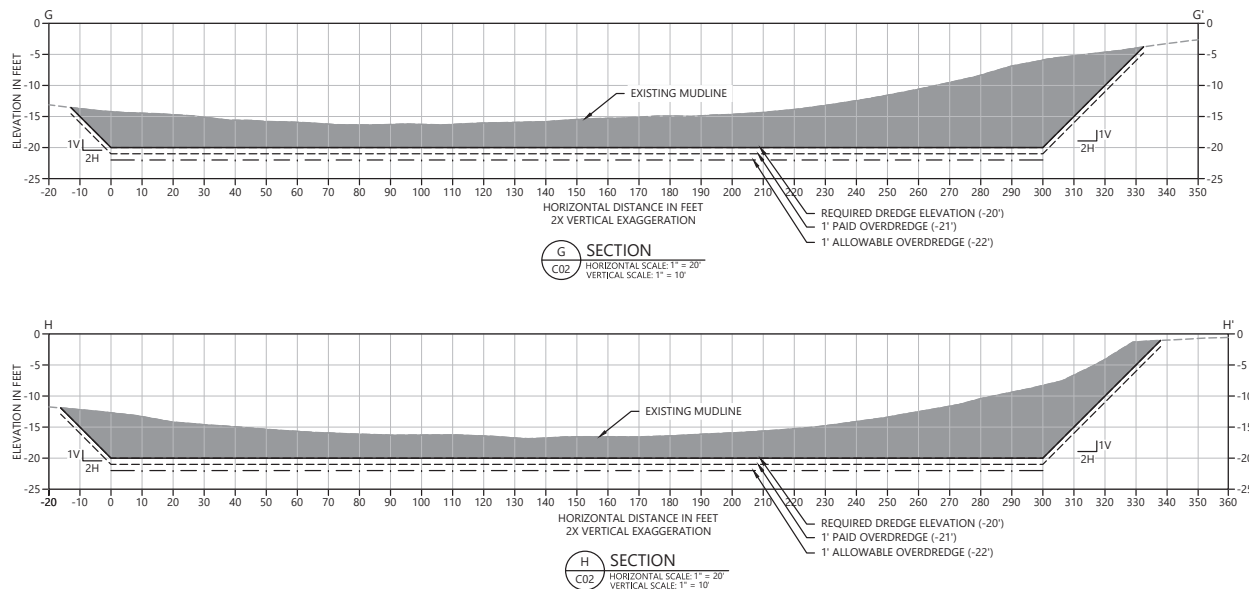
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**ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT**

DREDGE CROSS SECTIONS (2)

C04

SHEET # **7** OF **11**



- NOTES:
1. DREDGED MATERIAL SHALL BE PLACED AT THE IDENTIFIED BEACH NOURISHMENT AREA.
 2. CONTRACTOR SHALL DREDGE THE SIDE SLOPES IDENTIFIED IN THE DRAWING. THE SIDE SLOPE VOLUME ASSOCIATED WITH THE MAXIMUM PAY LIMIT IS INCLUDED IN THE DREDGING BID ITEM QUANTITIES.
 3. DREDGING OF SEDIMENT OUTSIDE THE DREDGING LIMITS AND/OR BELOW THE NON-PAY OVERDREDGE ELEVATION IS DEFINED AS EXCESSIVE DREDGING AND IS PROHIBITED. CONTRACTOR WILL NOT BE PAID FOR EXCESSIVE DREDGING AND WILL BE RESPONSIBLE FOR ANY REGULATORY AGENCY FEES AND/OR FINES INCURRED AS A RESULT OF EXCESSIVE DREDGING. ADDITIONALLY, IF EXCESSIVE DREDGING RESULTS IN DAMAGE OR UNDERMINING TO EXISTING STRUCTURES, THE CONTRACTOR SHALL RECTIFY TO THE CITY OR AUTHORIZED REPRESENTATIVE'S SATISFACTION PRIOR TO CLOSE OF THE CONTRACT.
 4. THE REQUIRED DREDGE ELEVATION MUST BE ACHIEVED IN ALL AREAS FOR IT TO BE ACCEPTED AS COMPLETE. CONTRACTOR MUST REMOVE ALL SLOUGH MATERIAL FROM THE REQUIRED DREDGE AREA IN ORDER FOR WORK TO BE ACCEPTED BY THE CITY OR AUTHORIZED REPRESENTATIVE. THE CITY OR AUTHORIZED REPRESENTATIVE WILL COMPARE THE PRE- AND POST-DREDGE SURVEYS TO ENSURE THAT DREDGED SEDIMENT FROM ALL OF THE DREDGE AREA IS REMOVED FROM THE SITE.
 5. CONTRACTOR MUST REMOVE ALL DEBRIS TO CONDUCT THE DREDGING WORK. THE CONTRACTOR SHALL TAKE CARE TO AVOID CONTACT WITH THE NEARBY BANK DURING DEBRIS REMOVAL ACTIVITIES.
 6. ANY DEBRIS ENCOUNTERED AND REMOVED DURING THE WORK SHALL BE REMOVED BY THE CONTRACTOR AND PROPERLY DISPOSED OF AT A CONTRACTOR-SELECTED AND OWNER-APPROVED OFF-SITE UPLAND COMMERCIAL LANDFILL LOCATION IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. NO DEBRIS IS ALLOWED TO BE PLACED WITHIN THE BEACH NOURISHMENT AREA AND MUST BE SEGREGATED FROM THE SANDS.

- LEGEND:
- REQUIRED DREDGE ELEVATION (-20' MLLW)
 - - - 1' PAID OVERDREDGE (-21' MLLW)
 - · - · 1' ALLOWABLE OVERDREDGE (-22' MLLW)
 - - - - - EXISTING MUDLINE
 - REQUIRED DREDGING TO -20' MLLW

DRAFT-NOT FOR CONSTRUCTION



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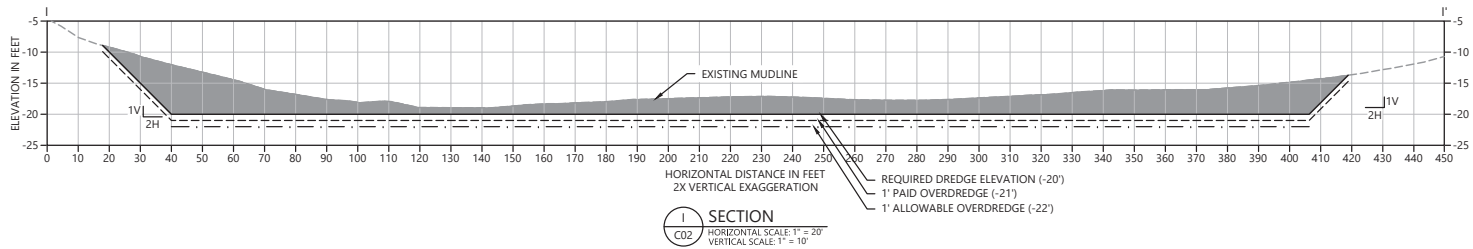
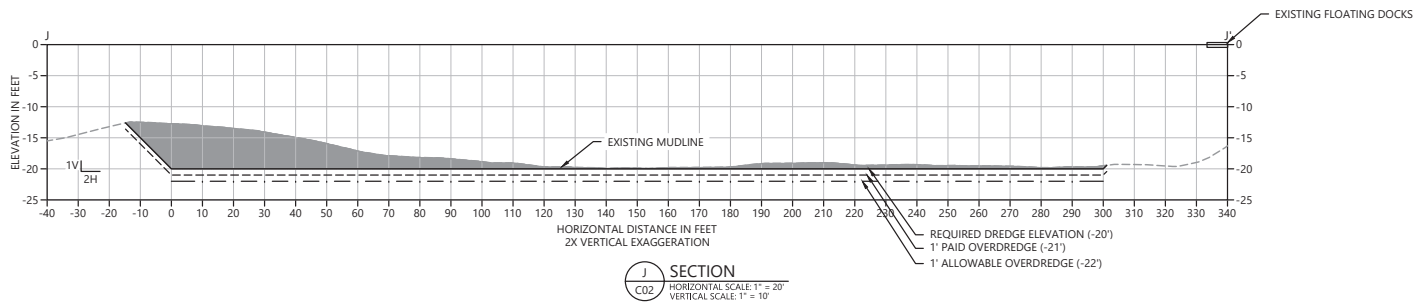
**ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT**

DREDGE CROSS SECTIONS (3)

C05

SHEET # **8** OF **11**

ONE INCH
AT THE SITE. IF MORE THAN
ONE INCH SCALE ACCORDINGLY
PLAN INTENDED TO BE VIEWED
IN COLOR. ADJACENT BLOCK IS
"BLUE"



LEGEND:

- REQUIRED DREDGE ELEVATION (-20' MLLW)
- 1' PAID OVERDREDGE (-21' MLLW)
- · - · - 1' ALLOWABLE OVERDREDGE (-22' MLLW)
- EXISTING MUDLINE
- REQUIRED DREDGING TO -20' MLLW

- NOTES:
- DREDGED MATERIAL SHALL BE PLACED AT THE IDENTIFIED BEACH NOURISHMENT AREA.
 - CONTRACTOR SHALL DREDGE THE SIDE SLOPES IDENTIFIED IN THE DRAWING. THE SIDE SLOPE VOLUME ASSOCIATED WITH THE MAXIMUM PAY LIMIT IS INCLUDED IN THE DREDGING BID ITEM QUANTITIES.
 - DREDGING OF SEDIMENT OUTSIDE THE DREDGING LIMITS AND/OR BELOW THE NON-PAY OVERDREDGE ELEVATION IS DEFINED AS EXCESSIVE DREDGING AND IS PROHIBITED. CONTRACTOR WILL NOT BE PAID FOR EXCESSIVE DREDGING AND WILL BE RESPONSIBLE FOR ANY REGULATORY AGENCY FEES AND/OR FINES INCURRED AS A RESULT OF EXCESSIVE DREDGING. ADDITIONALLY, IF EXCESSIVE DREDGING RESULTS IN DAMAGE OR UNDERMINING TO EXISTING STRUCTURES, THE CONTRACTOR SHALL RECTIFY TO THE CITY OR AUTHORIZED REPRESENTATIVE'S SATISFACTION PRIOR TO CLOSE OF THE CONTRACT.
 - THE REQUIRED DREDGE ELEVATION MUST BE ACHIEVED IN ALL AREAS FOR IT TO BE ACCEPTED AS COMPLETE. CONTRACTOR MUST REMOVE ALL SLOUGH MATERIAL FROM THE REQUIRED DREDGE AREA IN ORDER FOR WORK TO BE ACCEPTED BY THE CITY OR AUTHORIZED REPRESENTATIVE. THE CITY OR AUTHORIZED REPRESENTATIVE WILL COMPARE THE PRE- AND POST-DREDGE SURVEYS TO ENSURE THAT DREDGED SEDIMENT FROM ALL OF THE DREDGE AREA IS REMOVED FROM THE SITE.
 - CONTRACTOR MUST REMOVE ALL DEBRIS TO CONDUCT THE DREDGING WORK. THE CONTRACTOR SHALL TAKE CARE TO AVOID CONTACT WITH THE NEARBY BANK DURING DEBRIS REMOVAL ACTIVITIES.
 - ANY DEBRIS ENCOUNTERED AND REMOVED DURING THE WORK SHALL BE REMOVED BY THE CONTRACTOR AND PROPERLY DISPOSED OF AT A CONTRACTOR-SELECTED AND OWNER-APPROVED OFF-SITE UPLAND COMMERCIAL LANDFILL LOCATION IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. NO DEBRIS IS ALLOWED TO BE PLACED WITHIN THE BEACH NOURISHMENT AREA AND MUST BE SEGREGATED FROM THE SANDS.
 - CONTRACTOR IS RESPONSIBLE FOR CLEANING MATERIAL FROM ANY SURFACES, DOCKS, OR PROPERTY AS SOON AS POSSIBLE OR BY THE END OF EACH WORK DAY.

PLAN INTENDED TO BE VIEWED AT THE SITE. IF NOT ONE INCH SCALE ACCORDINGLY

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REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

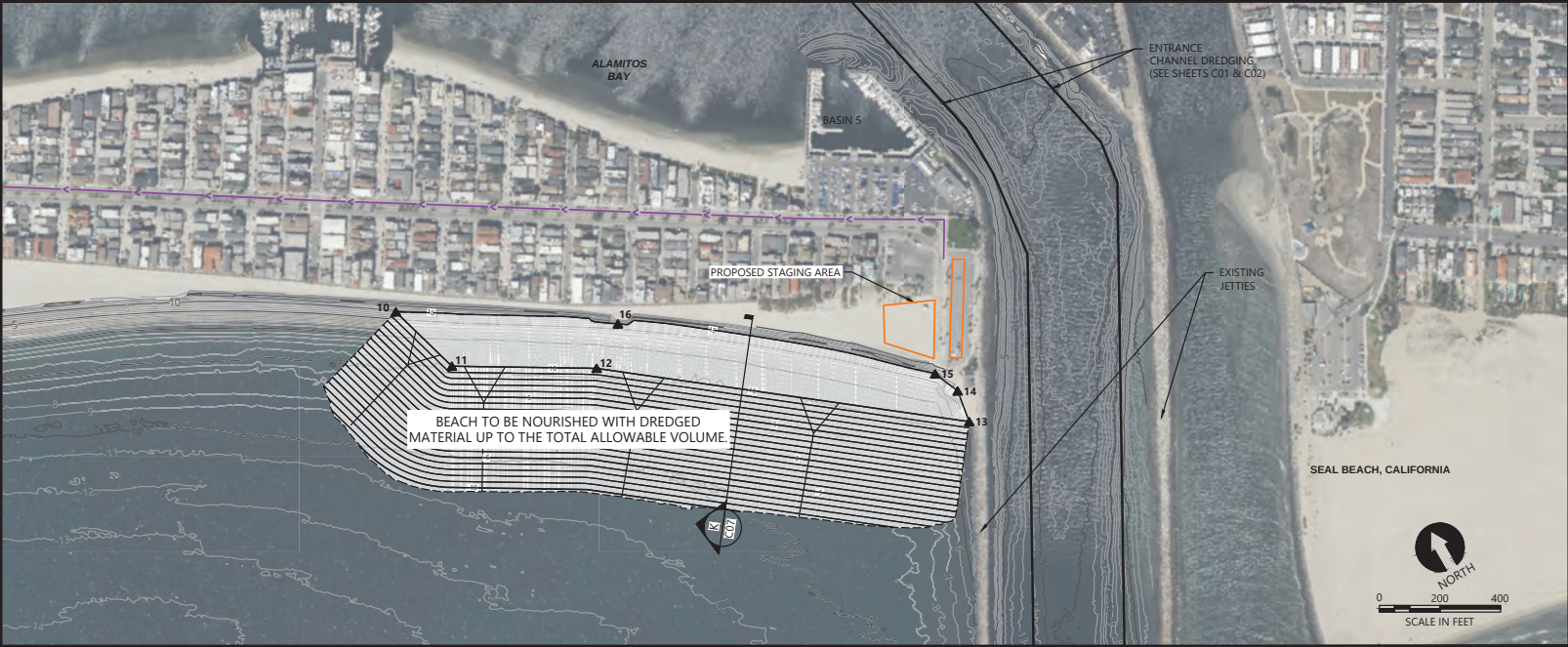
DESIGNED BY: D. MASSARO
 DRAWN BY: M. PRATTSCHNER
 CHECKED BY: M. COLLINS
 APPROVED BY: T. WANG
 SCALE: AS NOTED
 DATE: MAY 2025

**ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT**

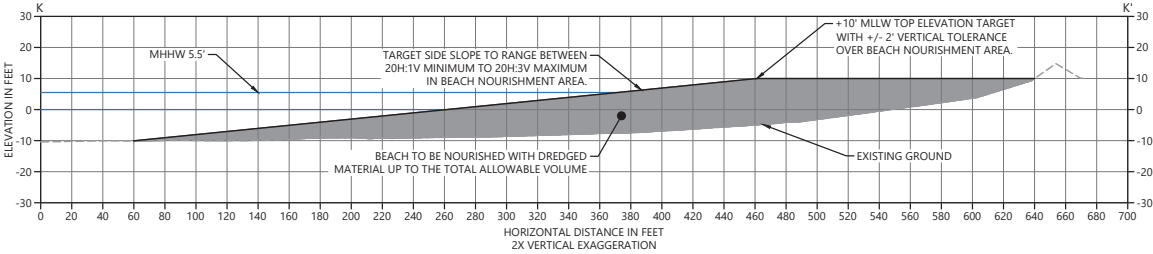
DREDGE CROSS SECTIONS (4)

C06

SHEET # **9** OF **11**



- LEGEND:
- EXISTING CONTOUR (5')
 - EXISTING CONTOUR (1')
 - BEACH NOURISHMENT PLACEMENT AREA
 - HAUL ROUTE FOR OFFSITE DISPOSAL OF DEBRIS



- NOTES:
- HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: FEET MLLW, NTDE 1983-2001.
 - BATHYMETRIC SURVEY DATA COLLECTED BY ETRAC (A WOOLPERT COMPANY), DATED JULY 12, 2023. BATHYMETRY AT TIME OF DREDGING MAY DIFFER.
 - CONTRACTOR RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING PUBLIC SAFETY MEASURES AROUND BEACH PLACEMENT AND STAGING AREAS. SAFETY MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, SIGNAGE, BARRICADES, FENCING WITH GATES, SPOTTERS, AND CORDONED OFF ACTIVE WORK AREAS. SEE SPECIFICATIONS FOR PUBLIC SAFETY REQUIREMENTS.
 - CONTRACTOR SHALL PLACE DREDGED MATERIAL IN BEACH NOURISHMENT AREA USING HYDRAULIC PLACEMENT METHODS FROM EITHER HYDRAULIC DREDGING DISCHARGE PIPELINE, OR HYDRAULIC DISCHARGE FROM A HAUL BARGE IF MECHANICAL DREDGING IS USED.
 - CONTRACTOR TO CONFIRM EXTENTS AND LOCATION OF STAGING AREA WITH CITY.

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REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: D. MASSARO

DRAWN BY: M. PRATTSCHNER

CHECKED BY: M. COLLINS

APPROVED BY: T. WANG

SCALE: AS NOTED

DATE: MAY 2025

**ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT**

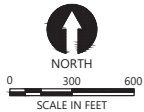
BEACH NOURISHMENT AREA

C07

SHEET # **10** OF **11**



- LEGEND:
- EXISTING CONTOUR (5')
 - EXISTING CONTOUR (1')
 - BEACH NOURISHMENT PLACEMENT AREA
 - CONCEPTUAL PIPELINE ROUTE OVER JETTY IF FEASIBLE AND APPROVED (SEE NOTE 6)
 - EXISTING EELGRASS



- NOTES:
- HORIZONTAL DATUM: CALIFORNIA STATE PLANE ZONE 5, NAD83, U.S. SURVEY FEET
 - VERTICAL DATUM: FEET MLLW, NTDE 1983-2001.
 - BATHYMETRIC SURVEY DATA COLLECTED BY ETRAC (A WOOLPERT COMPANY), DATED JULY 12, 2023. BATHYMETRY AT TIME OF DREDGING MAY DIFFER.
 - THE HYDRAULIC PIPELINE, IF USED TO PERFORM THE DREDGING, SHALL BE PRIMARILY LOCATED OUTSIDE OF THE ENTRANCE CHANNEL LIMITS EXCEPT FOR THE PORTION OF THE PIPELINE ATTACHED TO THE HYDRAULIC DREDGE OPERATING WITHIN THE ENTRANCE CHANNEL BOUNDARIES. ALL FLOATING PIPELINES SHALL BE MARKED WITH LIGHTS MEETING USCG REGULATIONS. CONTRACTOR SHALL FULLY SUBMERGE THE HYDRAULIC PIPELINE PORTIONS LOCATED WITHIN THE NAVIGATION CHANNEL FOR SAFE VESSEL PASSAGE. SUBMERGED PIPELINES SHALL BE MARKED WITH BUOYS ALONG ITS LENGTH. PIPELINES SHALL NOT DISTURB EELGRASS AREAS.
 - EELGRASS SURVEY BY MTS IN MARCH 2024. AVOID DISTURBING EELGRASS AREAS. NO DREDGING, ANCHORING, SPUDDING, OR PIPELINE ROUTING IS ALLOWED WITHIN EELGRASS AREAS.
 - CONTRACTOR SHALL PROPOSE A PIPELINE ROUTE TO SAFELY CROSS OVER THE WESTERN JETTY. PUBLIC SAFETY MUST BE MAINTAINED THROUGHOUT THE WORK. PIPELINE MUST BE PLACED WATERWARD OF THE 72ND PI LIFEGUARD STATION, ALLOWING FOR CONTINUOUS VEHICLE ACCESS TO 72ND STATION FROM THE ROAD.

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE". ONE INCH AT THE SITE IF NOT ONE INCH SCALE ACCORDINGLY.

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**ALAMITOS BAY ENTRANCE CHANNEL
MAINTENANCE DREDGING AND BEACH
NOURISHMENT**

**POTENTIAL HYDRAULIC DREDGE
PIPELINE ROUTE**

C08

SHEET # 11 OF 11