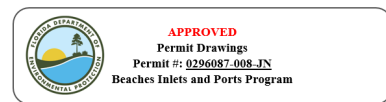
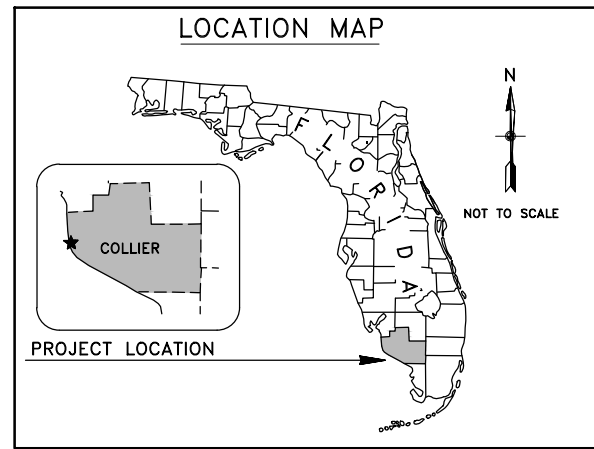
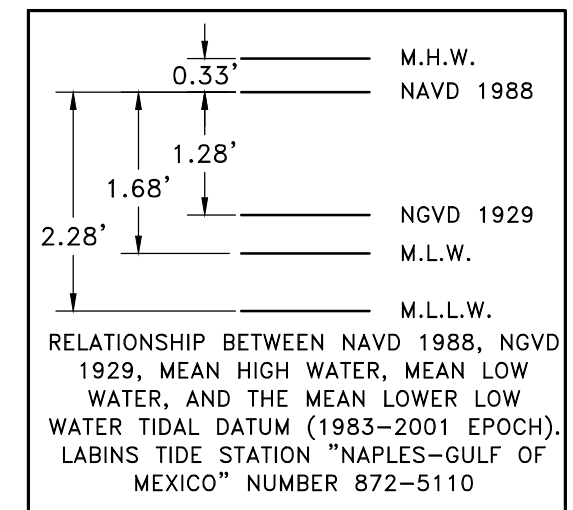


# CLAM PASS MAINTENANCE PROJECT COLLIER COUNTY, FLORIDA PERMIT PLANS



### SHEET INDEX

1. COVER SHEET AND LOCATION MAP
2. SITE PLAN - BEACH ACCESS LOCATIONS
3. SITE PLAN - EXCAVATION & FILL
4. SITE PLAN - EXCAVATION DETAILS
5. CROSS SECTION - TYPICAL EXCAVATION
6. CROSS SECTIONS - EXCAVATION
7. CROSS SECTIONS - EXCAVATION
8. CROSS SECTIONS - EXCAVATION
9. CROSS SECTIONS - EXCAVATION
10. CROSS SECTIONS - EXCAVATION
11. CROSS SECTIONS - BEACH FILL



### NOTES:

1. AERIAL PHOTOGRAPH TAKEN DECEMBER 2022 AND PROVIDED COURTESY OF COLLIER COUNTY PROPERTY APPRAISER.
2. COORDINATES SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN DATUM OF 1983, EAST ZONE (NAD83).
3. ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. THESE DRAWINGS SHALL NOT BE CONSIDERED VALID FOR CONSTRUCTION PURPOSES UNLESS SIGNED AND SEALED.
5. AUTHORIZED BY DEP PERMIT NUMBER 0296087-001-JC AS MODIFIED THROUGH 0296087-007-JN AND USACE PERMIT NUMBER SAJ-1996-02789 (SP-BEM).



CLAM PASS - MAINTENANCE PROJECT COVER SHEET & LOCATION MAP		
FOR: PELICAN BAY SERVICES DIVISION		
DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN
JOB: 29-018	DATUM: NAVD88	SHEET: 1

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VANDERBILT BEACH ROAD CONSTRUCTION ACCESS AND PRECONSTRUCTION STAGING AREA

MIXING ZONE  
PER DEP PERMIT #0296087-001-JC

GULF OF MEXICO



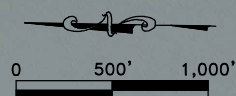
HORIZON WAY CONSTRUCTION ACCESS AND PRECONSTRUCTION STAGING AREA

PROJECT AREA - MIXING ZONE  
MIXING ZONE PER DEP PERMIT #0296087-001-JC

GULF OF MEXICO

NOTES:

1. AERIAL PHOTOGRAPH TAKEN IN DECEMBER 2022 AND PROVIDED COURTESY OF COLLIER COUNTY PROPERTY APPRAISER.
2. HORIZON WAY CONSTRUCTION ACCESS IS MORE LIMITED THAN THE VANDERBILT BEACH CONSTRUCTION ACCESS.

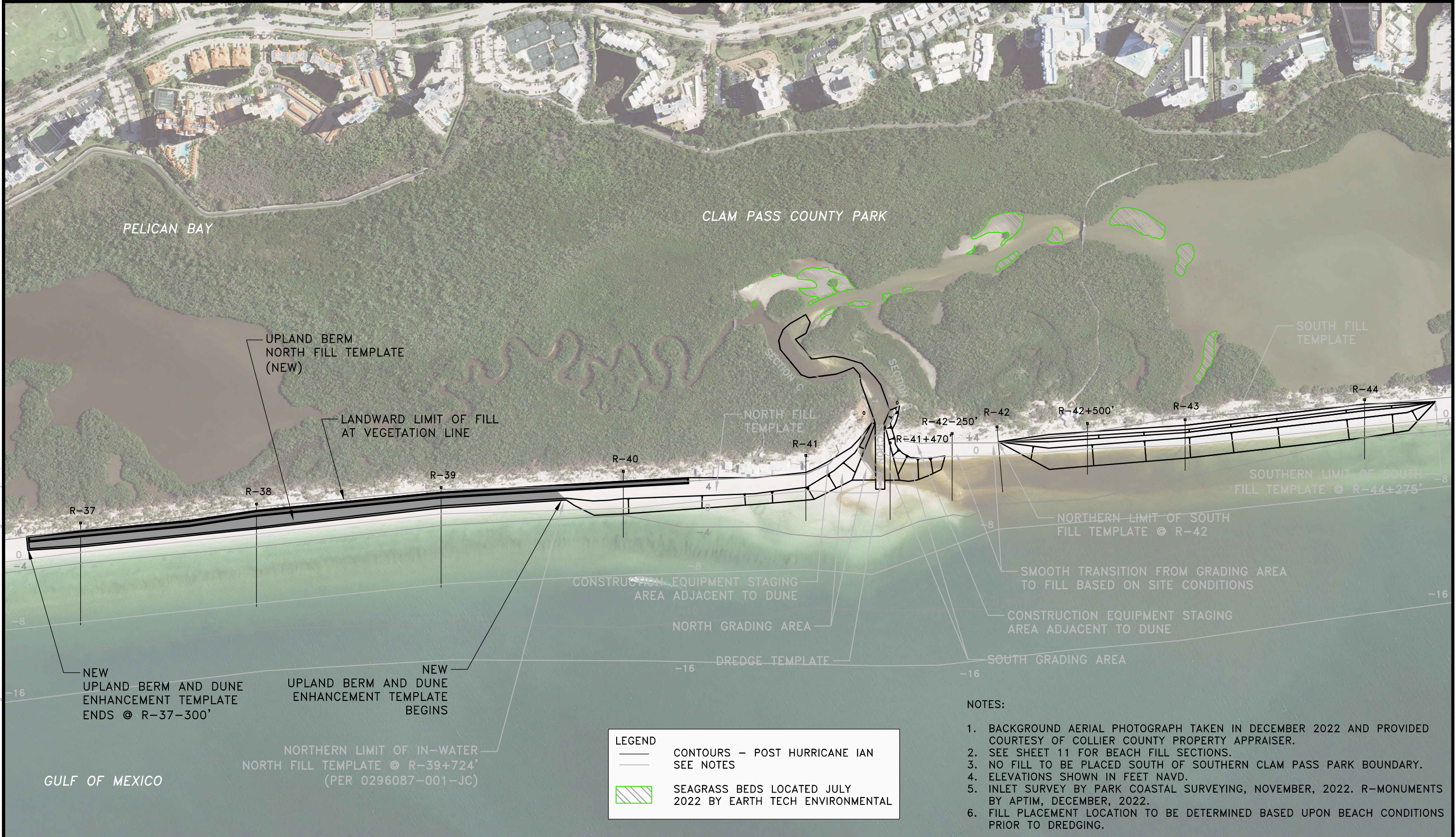


**HM**  
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 COASTAL ENGINEERING DESIGN AND PERMITTING

CLAM PASS - MAINTENANCE PROJECT SITE PLAN - BEACH ACCESS		
FOR: PELICAN BAY SERVICES DIVISION		
DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN
JOB: 29-018	DATUM: NAVD88	SHEET: 2

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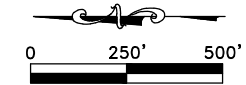
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**LEGEND**

- CONTOURS - POST HURRICANE IAN  
SEE NOTES
- SEAGRASS BEDS LOCATED JULY 2022 BY EARTH TECH ENVIRONMENTAL

- NOTES:**
1. BACKGROUND AERIAL PHOTOGRAPH TAKEN IN DECEMBER 2022 AND PROVIDED COURTESY OF COLLIER COUNTY PROPERTY APPRAISER.
  2. SEE SHEET 11 FOR BEACH FILL SECTIONS.
  3. NO FILL TO BE PLACED SOUTH OF SOUTHERN CLAM PASS PARK BOUNDARY.
  4. ELEVATIONS SHOWN IN FEET NAVD.
  5. INLET SURVEY BY PARK COASTAL SURVEYING, NOVEMBER, 2022. R-MONUMENTS BY APTIM, DECEMBER, 2022.
  6. FILL PLACEMENT LOCATION TO BE DETERMINED BASED UPON BEACH CONDITIONS PRIOR TO DREDGING.





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CLAM PASS MAINTENANCE DREDGING SITE PLAN - EXCAVATION AND FILL		
FOR: PELICAN BAY SERVICES DIVISION		
DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN
JOB: 29-018	DATUM: NAVD88	SHEET: 3

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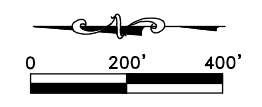
**LEGEND**

-  CONTOURS – POST HURRICANE IAN  
SEE NOTES
-  SEAGRASS BEDS LOCATED JULY  
2022 BY EARTH TECH ENVIRONMENTAL



- NOTES:**
1. AERIAL DATED DECEMBER 2022 COURTESY OF COLLIER COUNTY PROPERTY APPRAISER.
  2. SEAWARD TOE OF TEMPLATE EXTENSION AT +2 ELEVATION. FILL PLACEMENT TO REMAIN UPLAND OF MEAN HIGH WATER.

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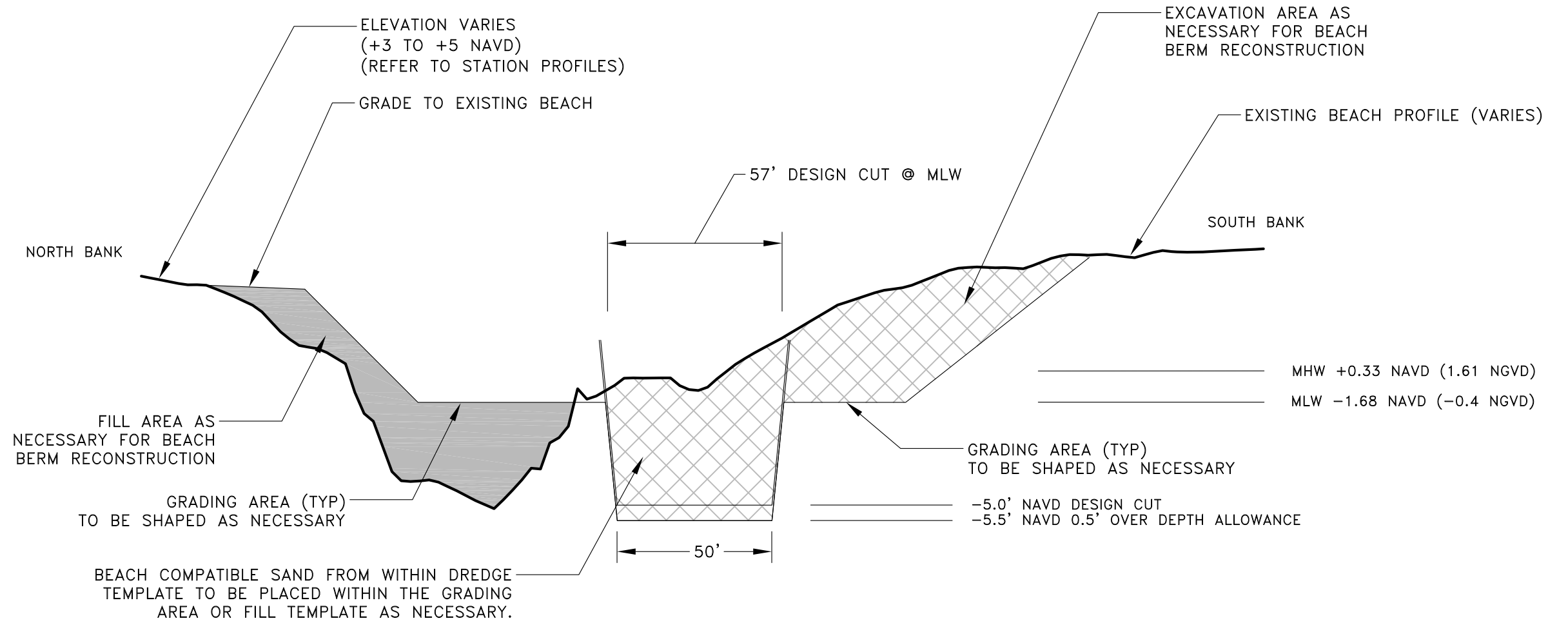


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CLAM PASS MAINTENANCE DREDGING SITE PLAN – NEW UPLAND FILL EXTENTS		
FOR: PELICAN BAY SERVICES DIVISION		
DATE: 05/26/23	FILE: PLAN	SCALE: SHOWN
JOB: 23-065	DATUM: NAVD88	SHEET: PLAN

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TYPICAL DREDGE CUT FOR INLET STATIONS (0+00 TO 3+64.5)  
 (STATION 1+50 SHOWN FOR REFERENCE ONLY)



NOTES:

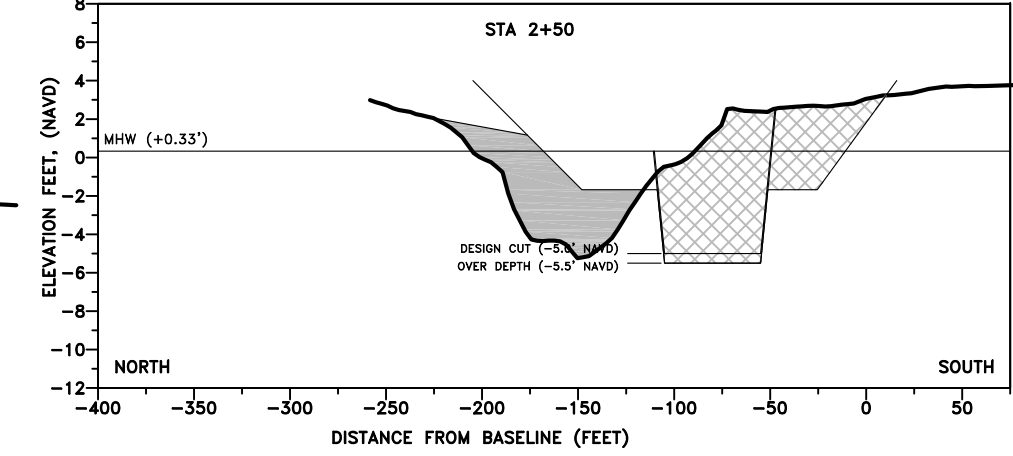
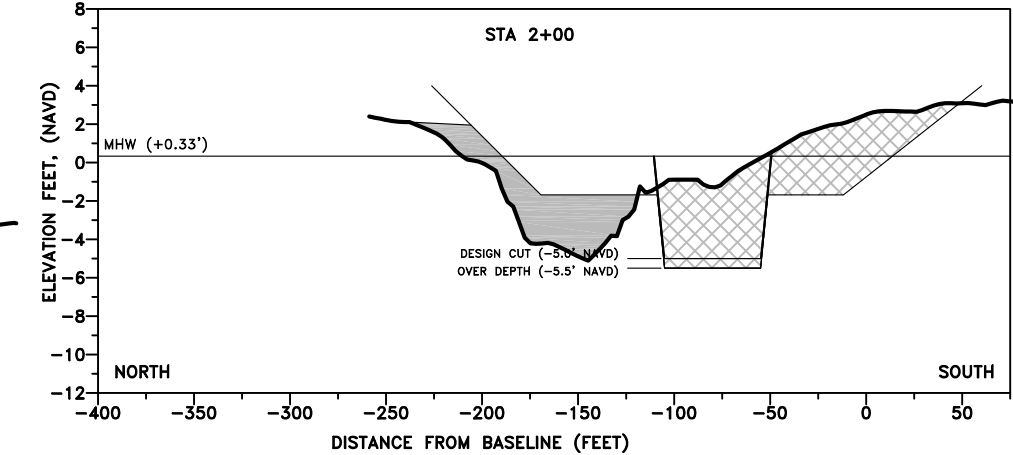
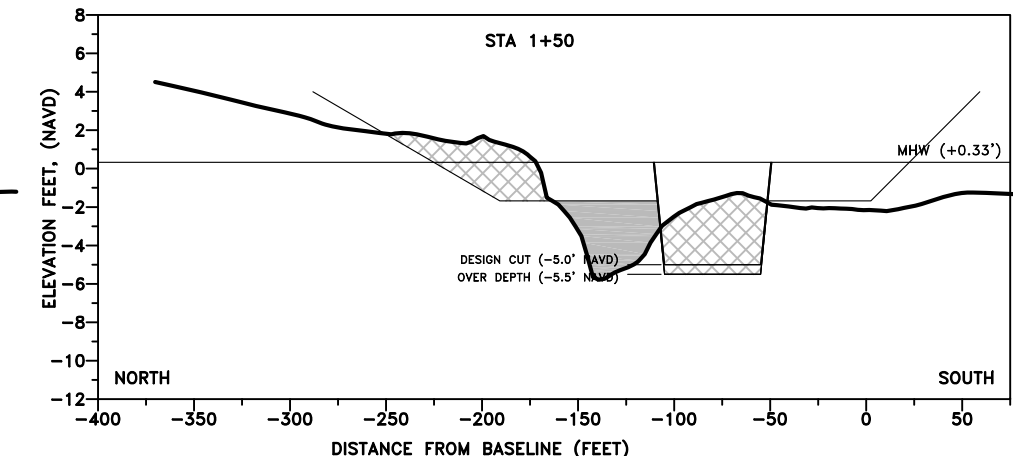
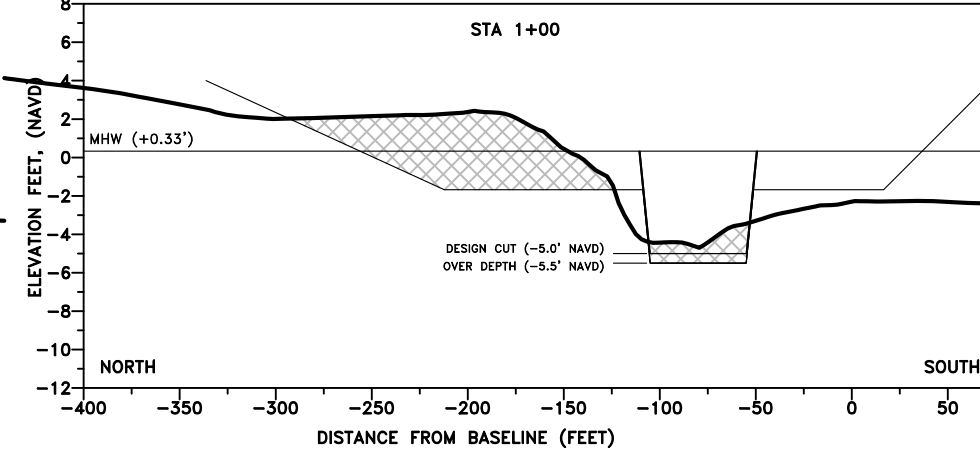
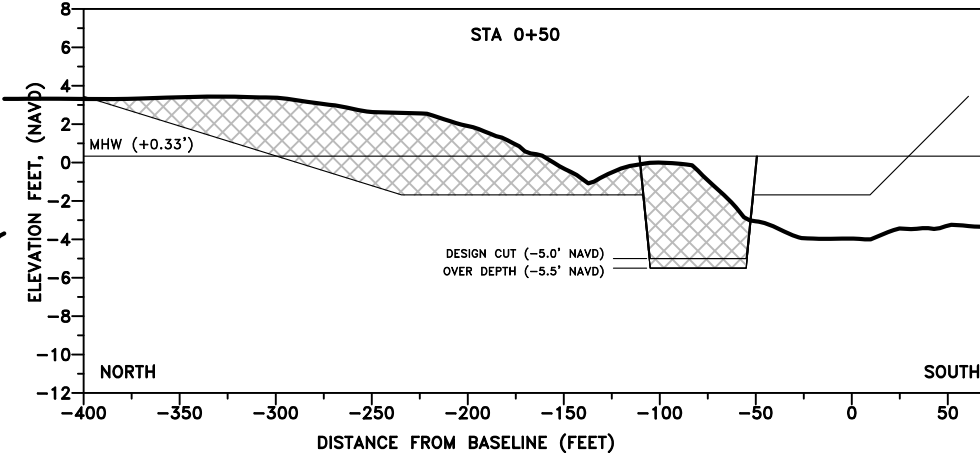
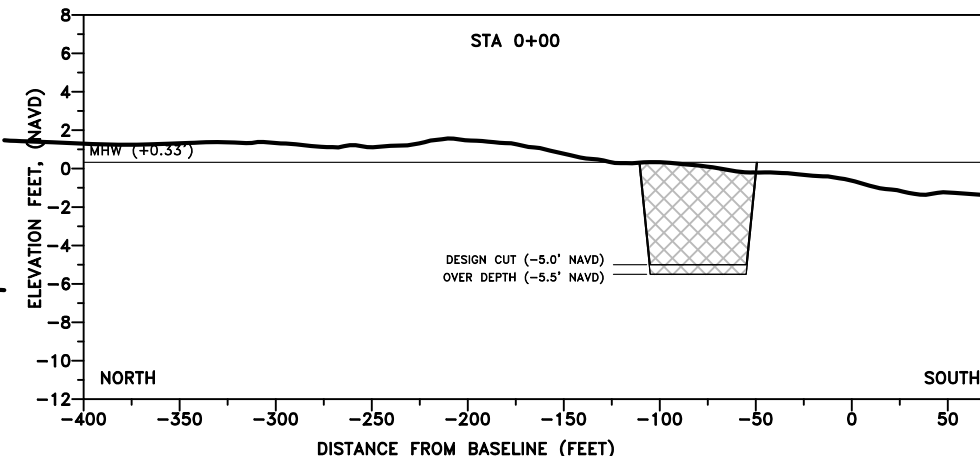
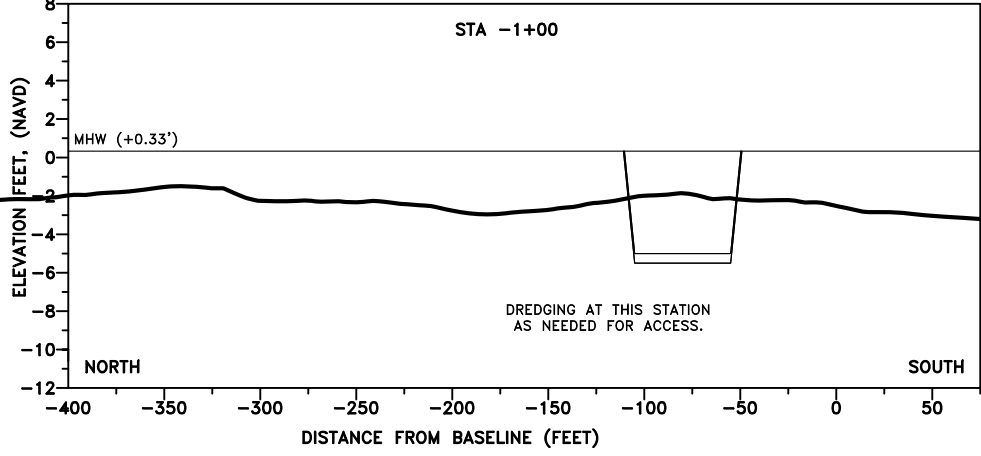
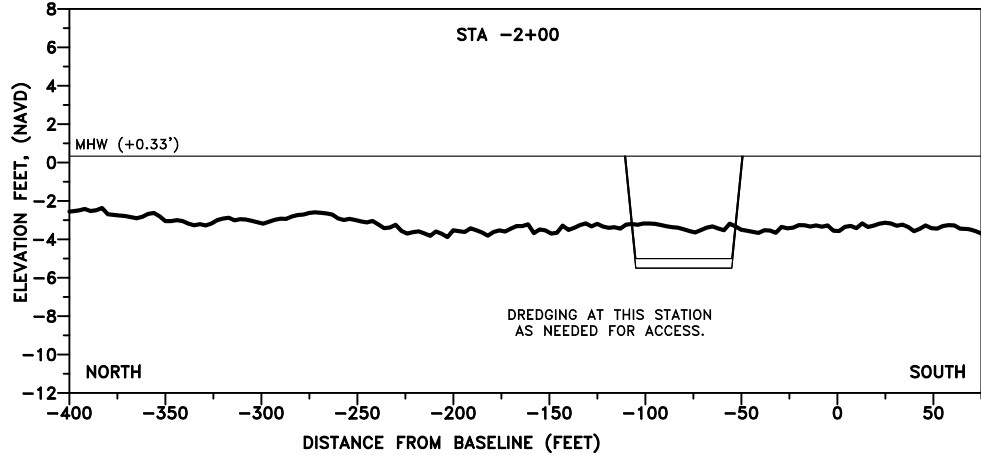
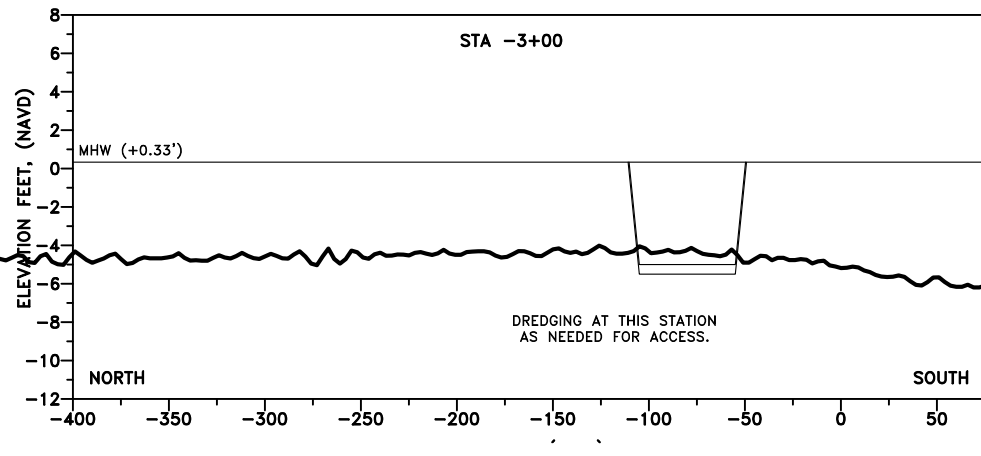
1. ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. DISTANCES SHOWN IN FEET.
3. PROFILE BASED ON SURVEY CONDUCTED BY PARK COASTAL SURVEYING NOVEMBER, 2022.
4. SLOPES WILL VARY BY STATION FROM STATION 0+00 TO 3+64.5.
5. GRADE ESCARPMENTS AT LANDWARD EDGE OF FILL TO MINIMUM SLOPE 1:4 OR FLATTER



CLAM PASS - MAINTENANCE PROJECT		
CROSS SECTIONS - INLET TEMPLATE		
FOR: PELICAN BAY SERVICES DIVISION		
DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN
JOB: 29-018	DATUM: NAVD88	SHEET: 5

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**LEGEND**

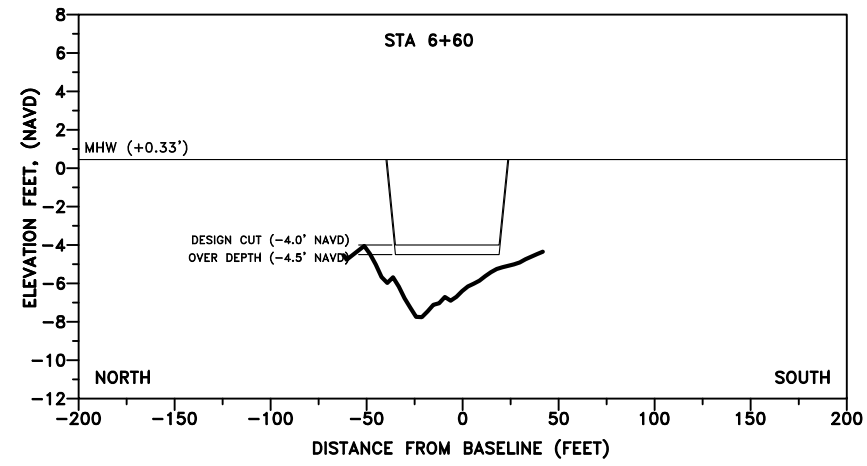
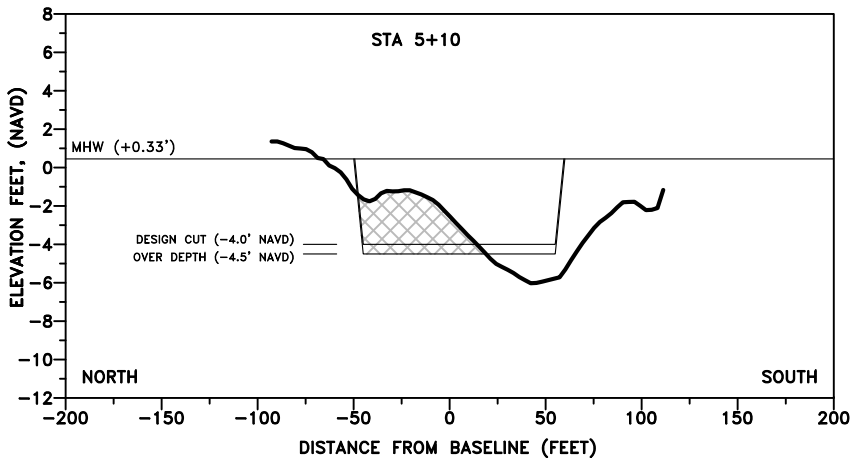
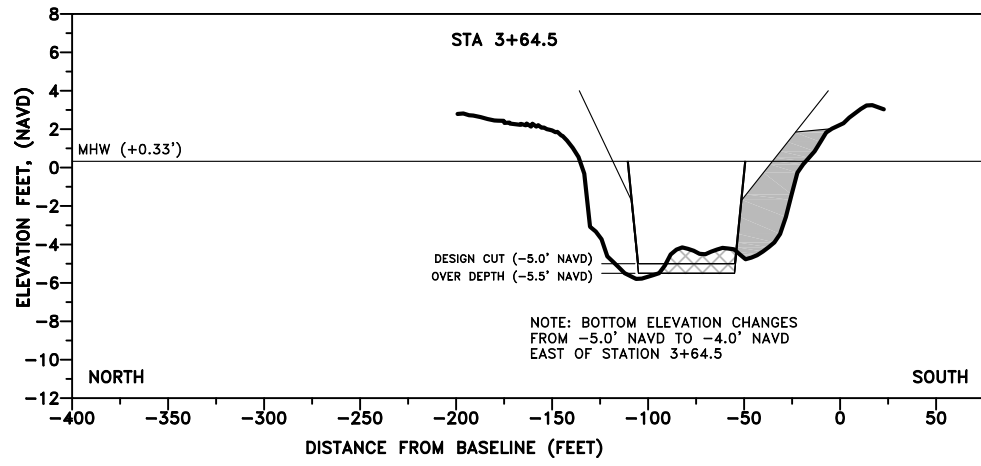
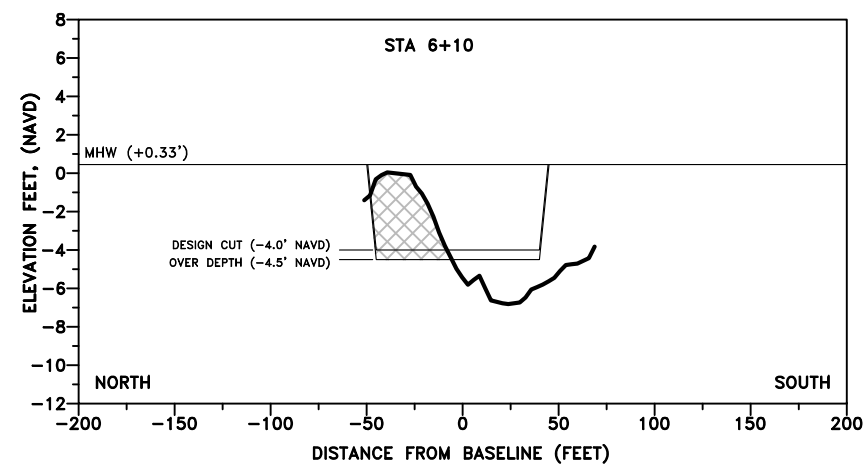
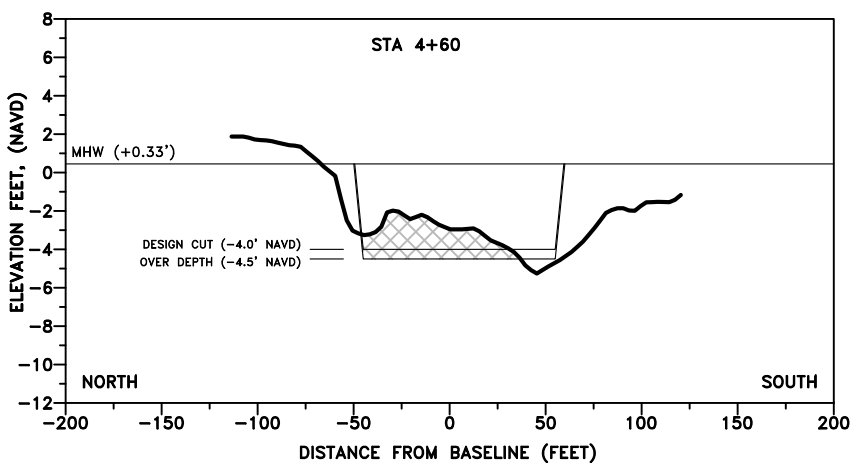
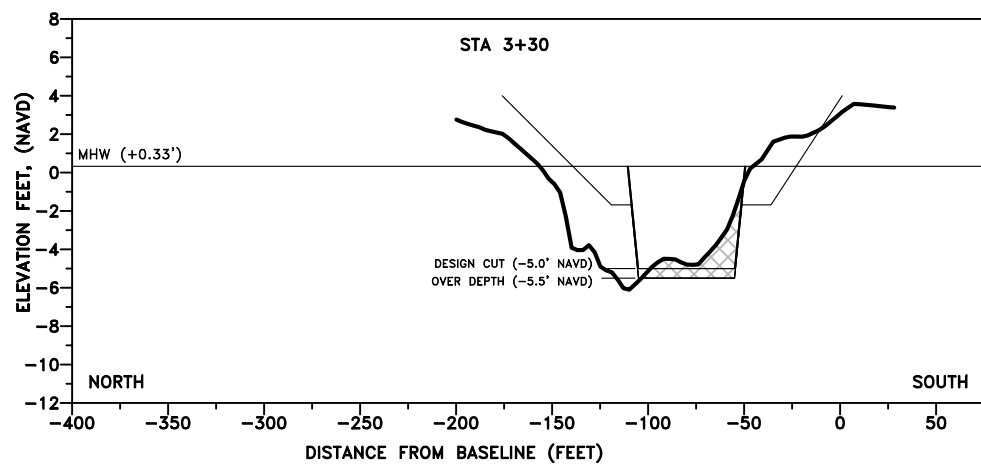
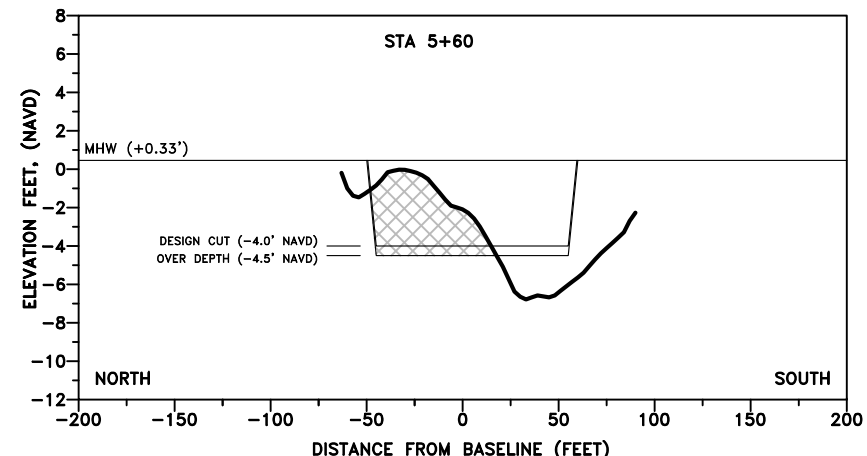
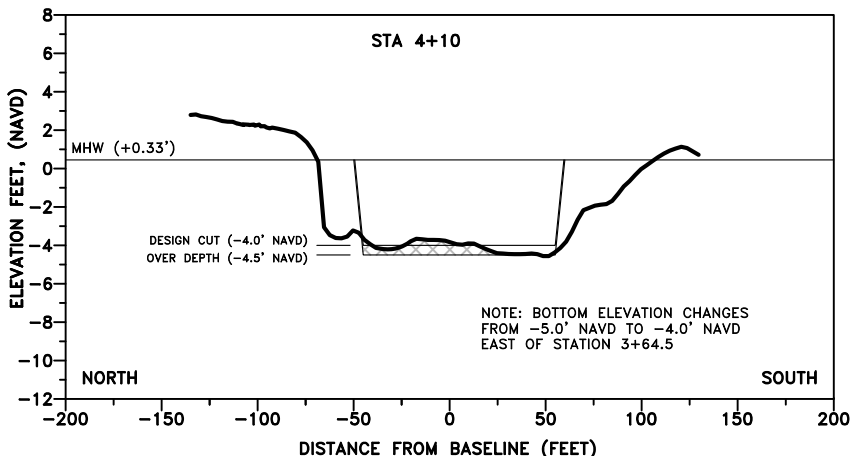
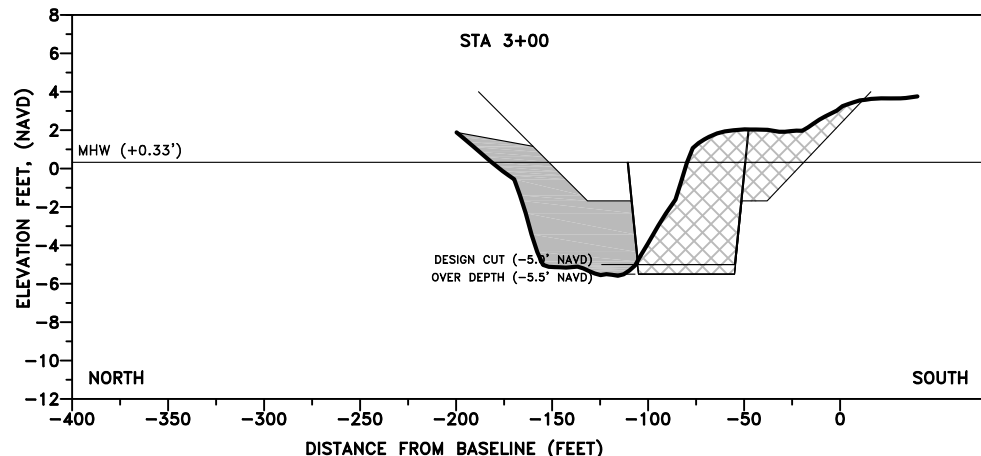
- EXCAVATION
- FILL
- TEMPLATE
- NOVEMBER 2022 SURVEY (POST HC IAN)

- NOTES:
- ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - DISTANCES SHOWN IN FEET.
  - STATIONS -1+00 THROUGH -3+00 SHOWN FOR REFERENCE ONLY
  - PROFILES BASED ON SURVEYS CONDUCTED BY PARK COASTAL SURVEYING, NOVEMBER 2022.

<b>HUMISTON &amp; MOORE ENGINEERS</b> <small>COASTAL ENGINEERING DESIGN AND PERMITTING</small>	CLAM PASS - MAINTENANCE PROJECT CROSS SECTIONS - INLET TEMPLATE		
	FOR: PELICAN BAY SERVICES DIVISION		
	DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN
	JOB: 29-018	DATUM: NAVD88	SHEET: 6

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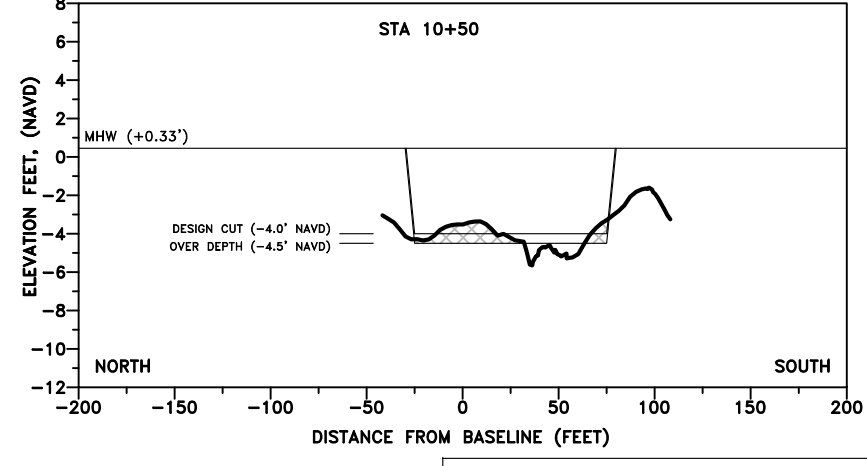
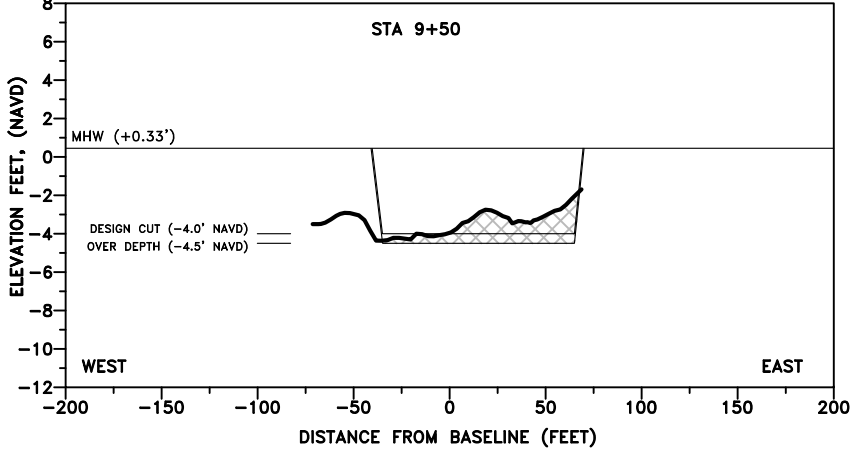
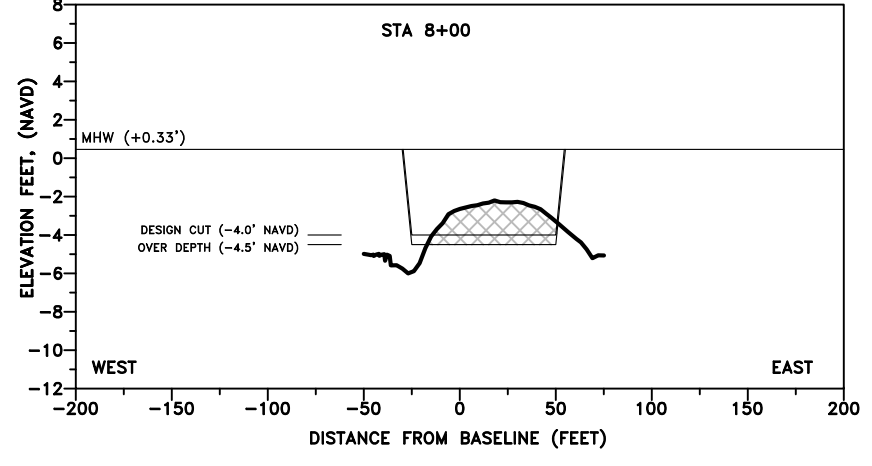
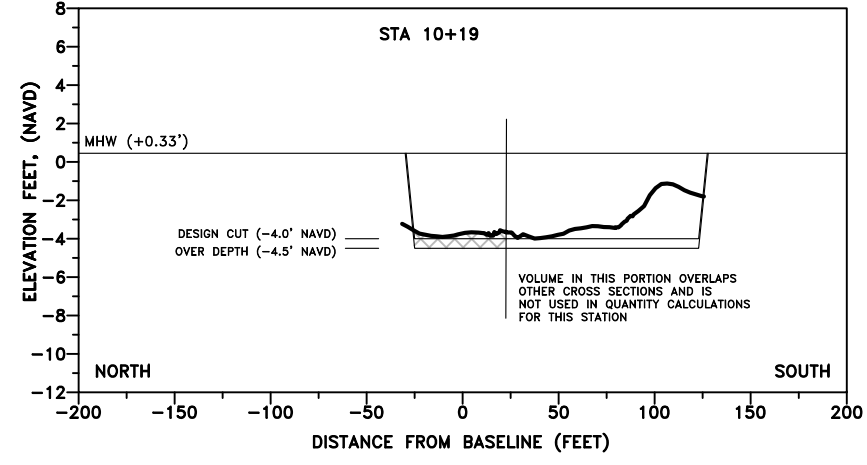
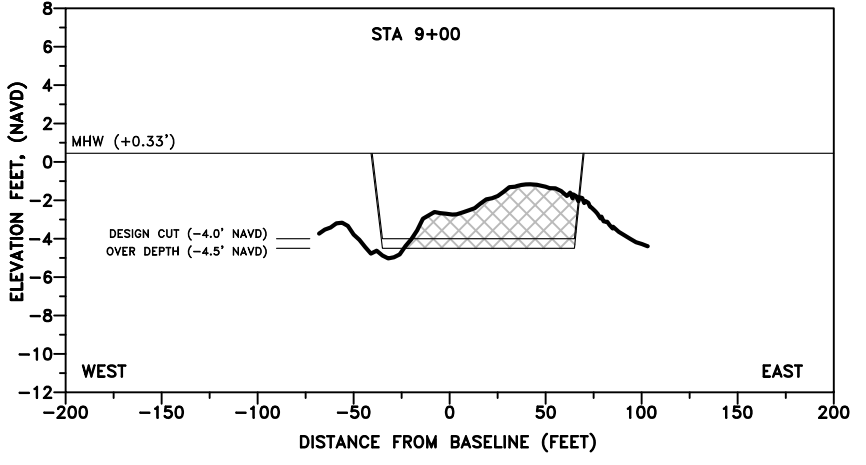
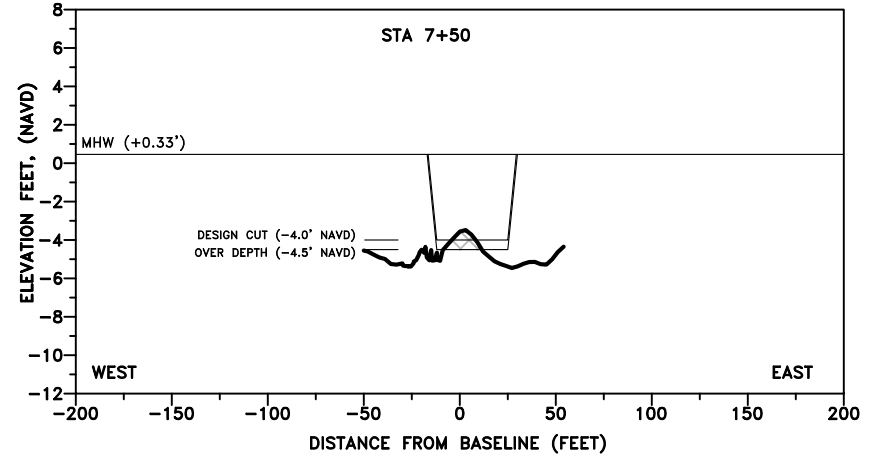
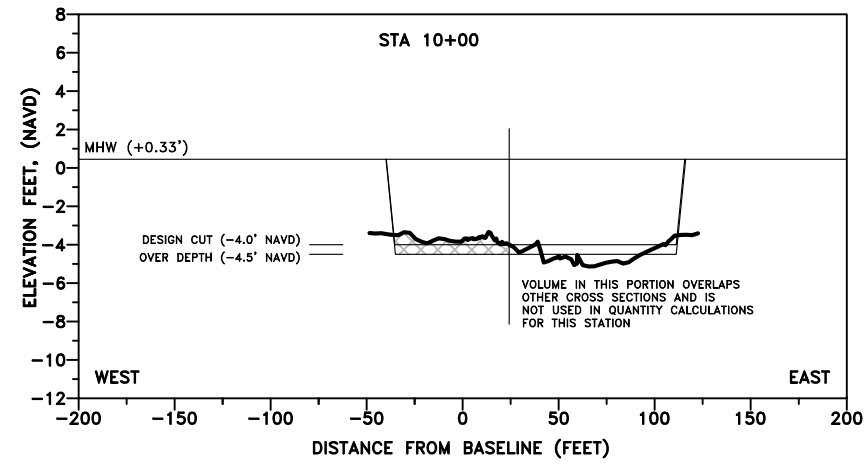
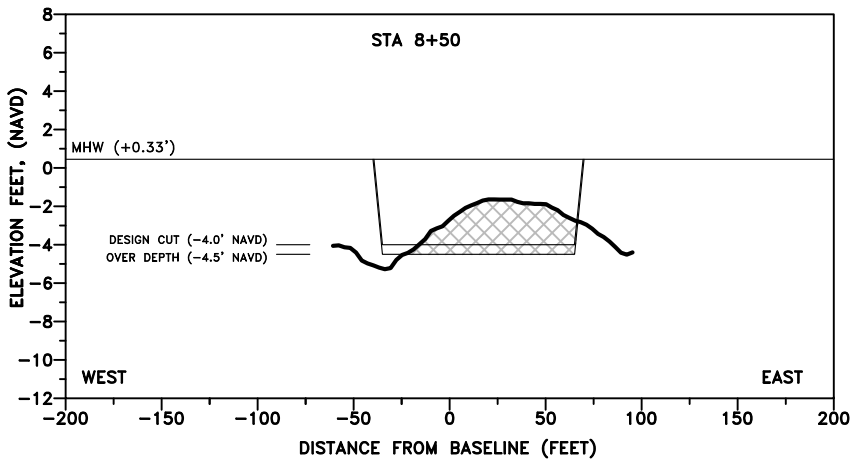
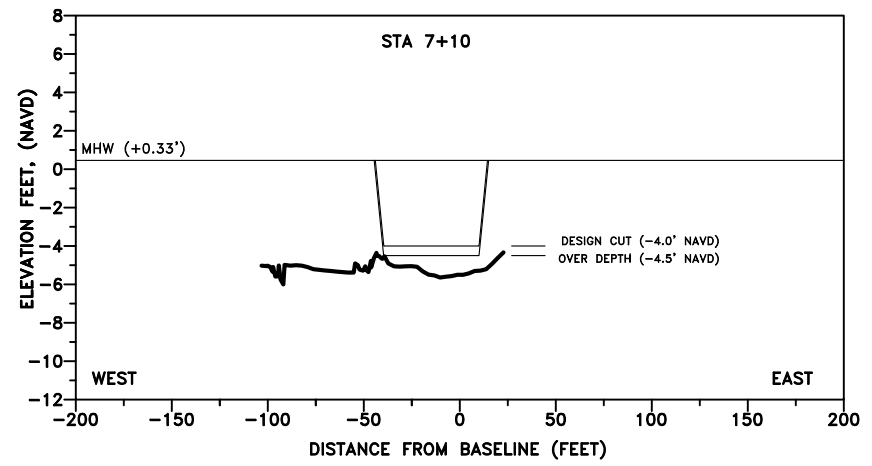
- NOTES:
- ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - DISTANCES SHOWN IN FEET.
  - PROFILES BASED ON SURVEYS CONDUCTED BY PARK COASTAL SURVEYING, NOVEMBER 2022.

**LEGEND**

- EXCAVATION
- FILL
- TEMPLATE
- NOVEMBER 2022 SURVEY (POST HC IAN)

<b>HUMISTON &amp; MOORE ENGINEERS</b> <small>COASTAL ENGINEERING DESIGN AND PERMITTING</small>	CLAM PASS - MAINTENANCE PROJECT		
	CROSS SECTIONS - INLET TEMPLATE		
	FOR: PELICAN BAY SERVICES DIVISION		
	DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN
JOB: 29-018	DATUM: NAVD88	SHEET: 7	
			5679 STRAND COURT NAPLES, FL 34110 FAX: (239) 594-2025 PHONE: (239) 594-2021 www.humistonandmoore.com

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**NOTES:**

- ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- DISTANCES SHOWN IN FEET.
- PROFILES BASED ON SURVEYS CONDUCTED BY PARK COASTAL SURVEYING, NOVEMBER 2022.

**LEGEND**

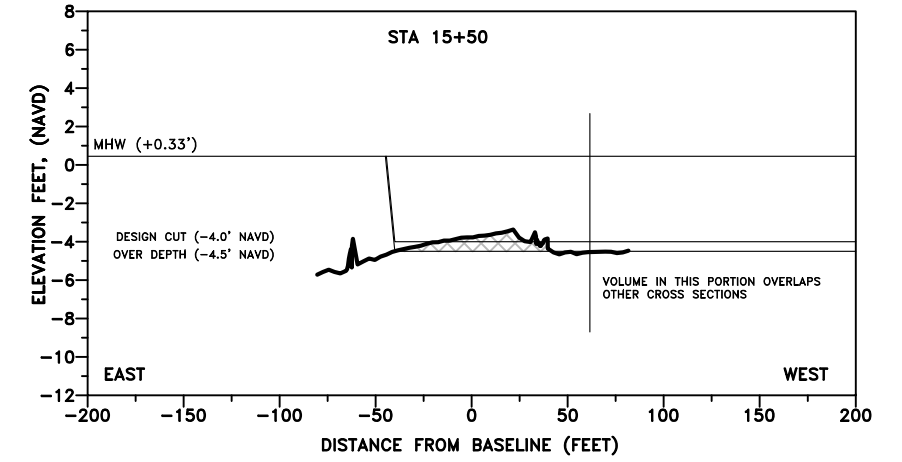
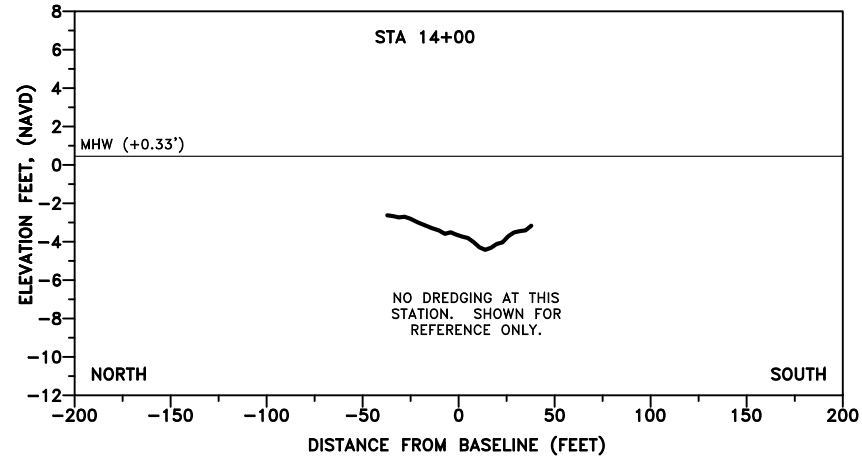
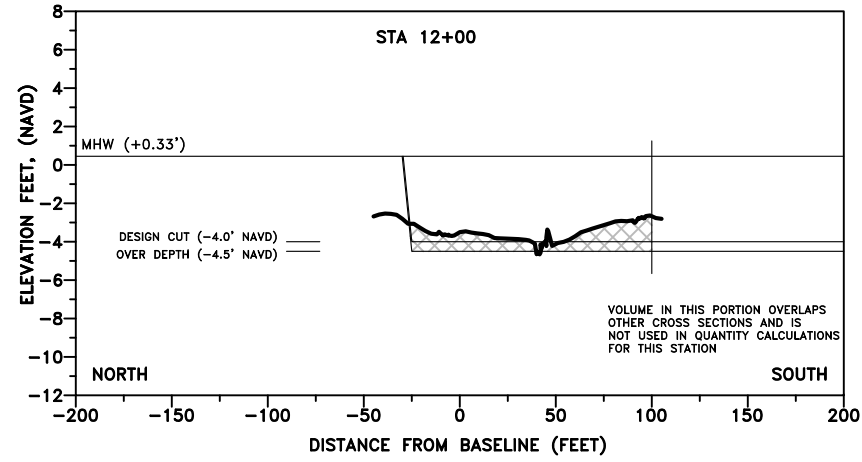
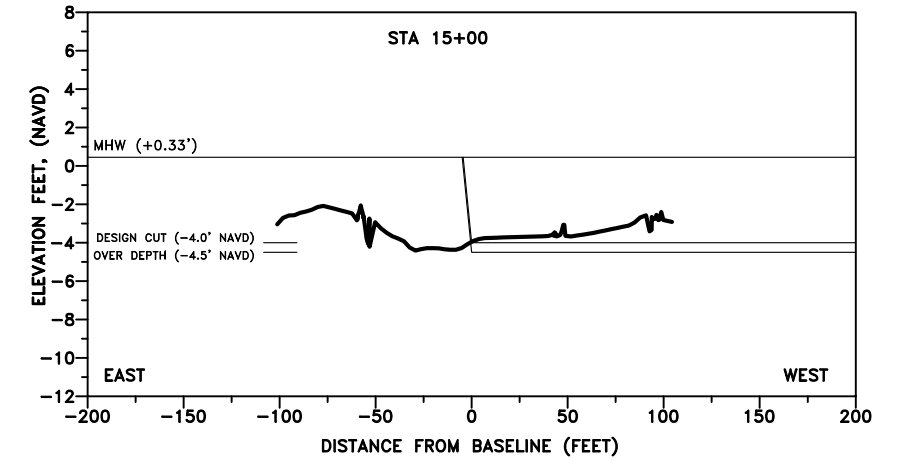
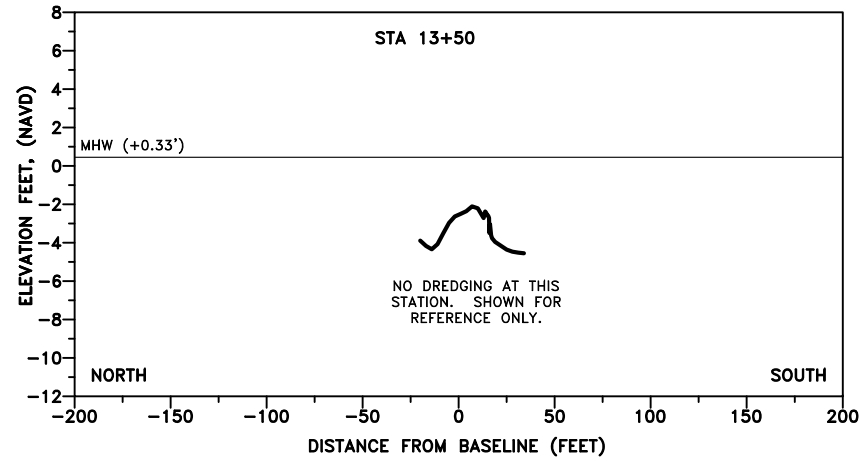
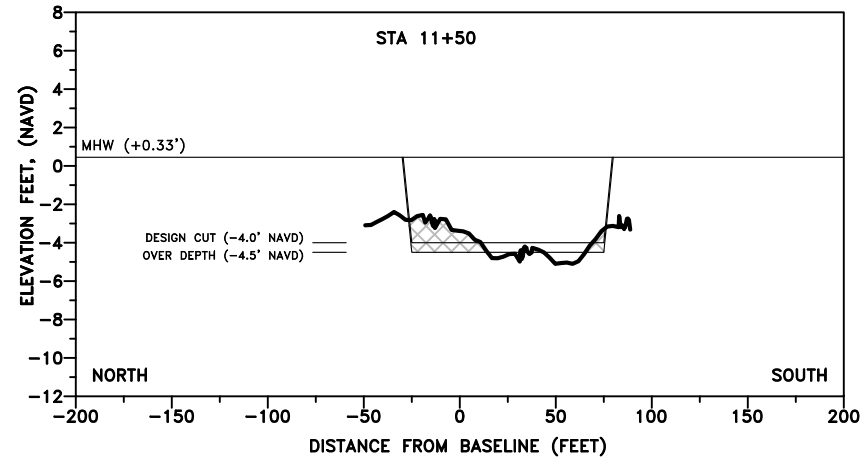
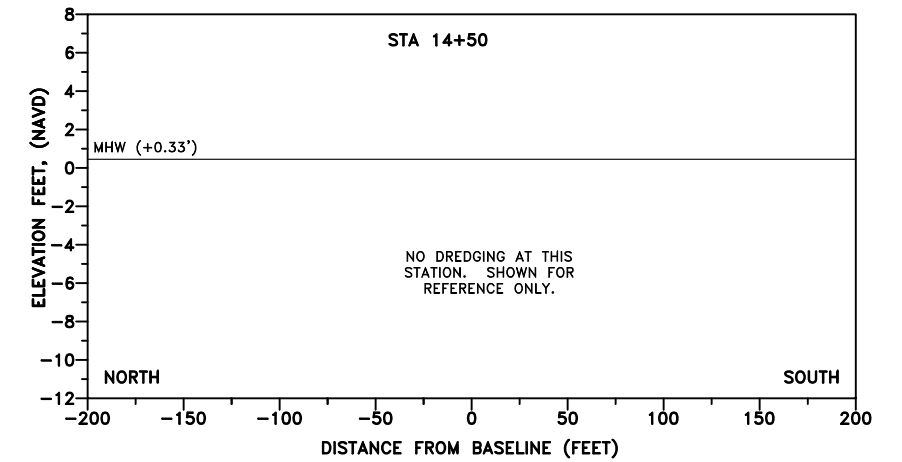
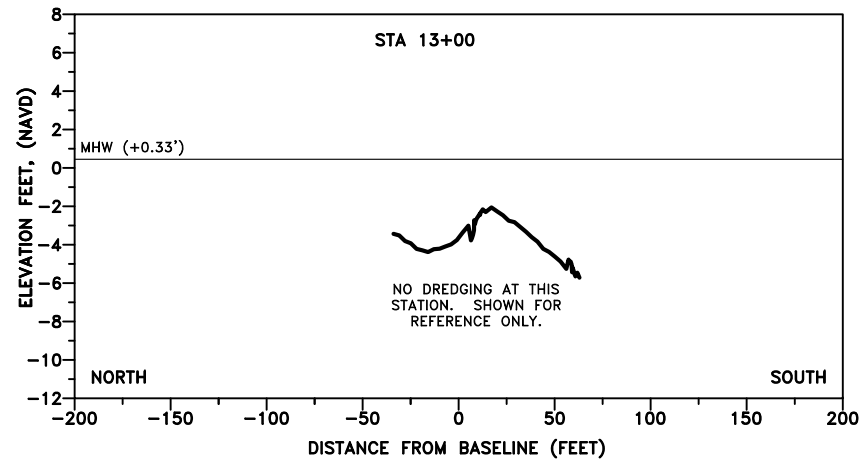
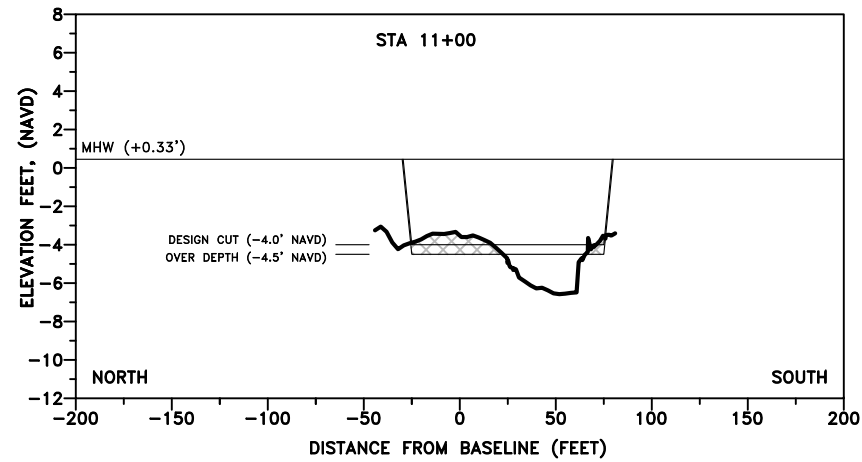
- EXCAVATION
- FILL
- TEMPLATE
- NOVEMBER 2022 SURVEY (POST HC IAN)

<p><b>HUMISTON &amp; MOORE ENGINEERS</b> COASTAL ENGINEERING DESIGN AND PERMITTING</p>	CLAM PASS - MAINTENANCE PROJECT CROSS SECTIONS - INLET TEMPLATE		
	FOR: PELICAN BAY SERVICES DIVISION		
	DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN
	JOB: 29-018	DATUM: NAVD88	SHEET: 8

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**NOTES:**

- ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- DISTANCES SHOWN IN FEET.
- PROFILES BASED ON SURVEYS CONDUCTED BY PARK COASTAL SURVEYING, NOVEMBER 2022.

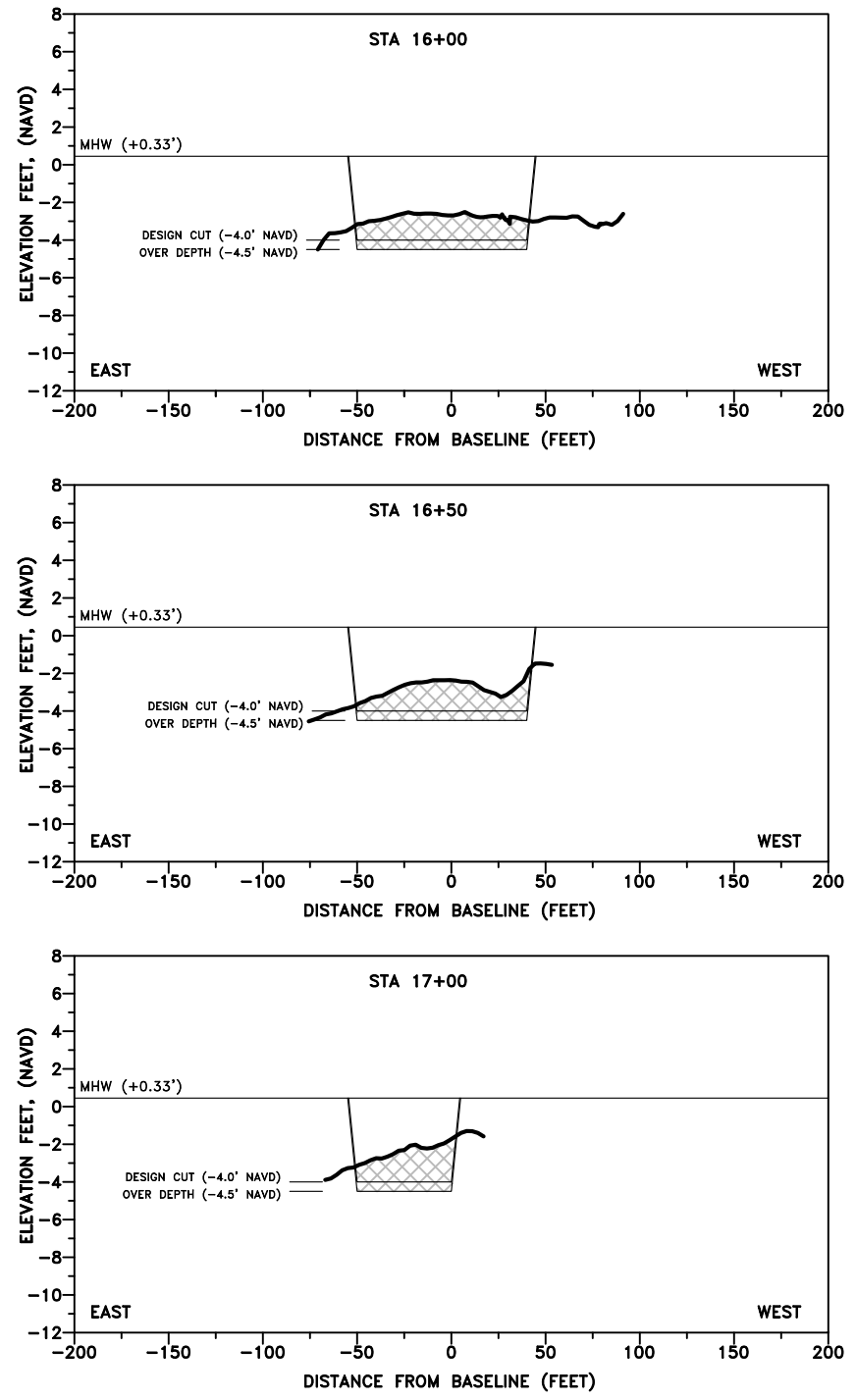
**LEGEND**

- EXCAVATION
- FILL
- TEMPLATE
- NOVEMBER 2022 SURVEY (POST HC IAN)

<p><b>HUMISTON &amp; MOORE ENGINEERS</b> COASTAL ENGINEERING DESIGN AND PERMITTING</p>	<p>CLAM PASS - MAINTENANCE PROJECT CROSS SECTIONS - INLET TEMPLATE</p>		
	<p>FOR: PELICAN BAY SERVICES DIVISION</p>		
DATE: 5/26/23	FILE: PLAN	SCALE: SHOWN	
JOB: 29-018	DATUM: NAVD88	SHEET: 9	

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Clam Pass 2023 Dredge Quantity											
	Easting	Northing	Azimuth	Effective Distance	Volume in Template		Grading Area Cut		Grading Area Fill		
					Measured Volumetric Rate (CY/FT)	Total Volume (CY)	Measured Volumetric Rate (CY/FT)	Total Volume (CY)	Measured Volumetric Rate (CY/FT)	Total Volume (CY)	
Section A	0+00	387,864.94	686,294.98	180	12.5	11.6	144.6	--	--	--	--
	0+50	387,914.94	686,295.42	180	50.0	9.3	463.0	25.8	1,290.8	--	--
	1+00	387,964.94	686,295.87	180	50.0	2.5	124.3	15.5	772.8	--	--
	1+50	388,014.94	686,296.32	180	50.0	7.3	364.6	5.5	274.6	5.3	262.6
	2+00	388,064.94	686,296.77	180	50.0	9.8	487.6	8.9	444.1	8.3	414.1
	2+50	388,114.94	686,297.22	180	50.0	14.0	701.0	6.6	327.6	10.3	515.8
	3+00	388,164.94	686,297.67	180	40.0	10.3	412.6	4.5	180.5	10.7	427.7
	3+30	388,194.94	686,297.94	180	32.3	2.4	78.8	--	--	--	--
	3+64.5	388,229.44	686,298.25	180	42.3	1.6	67.3	--	--	4.8	203.9
	Section B	4+10	388,279.10	686,372.13	156	50.0	1.5	73.7			
4+60		388,326.17	686,389.30	156	50.1	4.8	240.3				
5+10		388,373.24	686,406.47	156	50.1	5.8	291.0				
5+60		388,420.31	686,423.64	156	50.1	7.4	372.1				
6+10		388,467.38	686,440.81	156	49.0	5.0	247.2				
6+60		388,512.37	686,457.21	156	49.1	0.0	0.0				
7+10		388,553.62	686,486.14	145	45.0	0.0	0.0				
7+50		388,548.38	686,525.38	82	44.8	0.4	19.9				
Section C	8+00	388,541.76	686,574.94	82	50.0	4.5	223.3				
	8+50	388,535.14	686,624.50	82	50.0	6.9	345.7				
	9+00	388,528.52	686,674.06	82	50.0	7.9	396.3				
	9+50	388,521.91	686,723.62	82	50.0	4.0	198.0				
	10+00	388,515.29	686,773.18	82	34.5	1.8	61.5				
	10+19	388,512.76	686,792.09	140	25.0	1.4	34.0				
	10+50	388,536.63	686,811.79	140	40.5	1.6	63.4				
	11+00	388,575.19	686,843.61	140	50.0	1.7	84.1				
	11+50	388,613.75	686,875.44	140	50.0	2.2	110.4				
	12+00	388,652.32	686,907.26	140	101.0	4.6	460.1				
16+00	388,736.07	686,848.63	240	25.0	5.9	147.8					
16+50	388,760.89	686,805.22	240	50.0	5.9	295.9					
17+00	388,785.72	686,761.82	240	25	4.1	102.0					
Section A						2,844					
Section B						1,224					
Section C						2,542					
<b>Total</b>						<b>6,610</b>		<b>3,290</b>		<b>1,824</b>	

Clam Pass 2023 Fill Template Capacity							
		Easting	Northing	Azimuth	Effective Distance	Measured Volumetric Rate (CY/FT)	Total Volume (CY)
North	R-36	387,522.6	691,835.2	270			
	R-37	387,678.2	690,789.1	270	642	9.6	6,135
	R-38	387,783.7	689,818.1	270	1,000	10.1	10,111
	R-39	387,874.7	688,799.5	270	1,016	8.8	8,956
	R-40	387,963.8	687,793.8	270	1,011	15.1	15,277
	R-41	388,051.6	686,785.6	270	506	11.9	5,997
South	R-42-250'	388,172.4	685,978.3	270			
	R-42	388,209.4	685,731.0	265			
	R-42+500'	388,228.2	685,231.4	270	720	5.1	3,653
	R-43	388,248.5	684,692.3	270	768	13.1	10,069
	R-44	388,359.1	683,701.5	270	693	7.2	5,005
	R-45	388,478.9	682,660.0	270			
<b>Total - North</b>							46,476
<b>Total - South</b>							18,728
<b>Total Fill Template</b>							<b>65,204</b>

- NOTES:
- ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - DISTANCES SHOWN IN FEET.
  - PROFILES BASED ON SURVEYS CONDUCTED BY PARK COASTAL SURVEYING, NOVEMBER 2022.

**LEGEND**

- EXCAVATION
- FILL
- TEMPLATE
- NOVEMBER 2022 SURVEY (POST HC IAN)

**HUMISTON & MOORE ENGINEERS**  
COASTAL ENGINEERING DESIGN AND PERMITTING

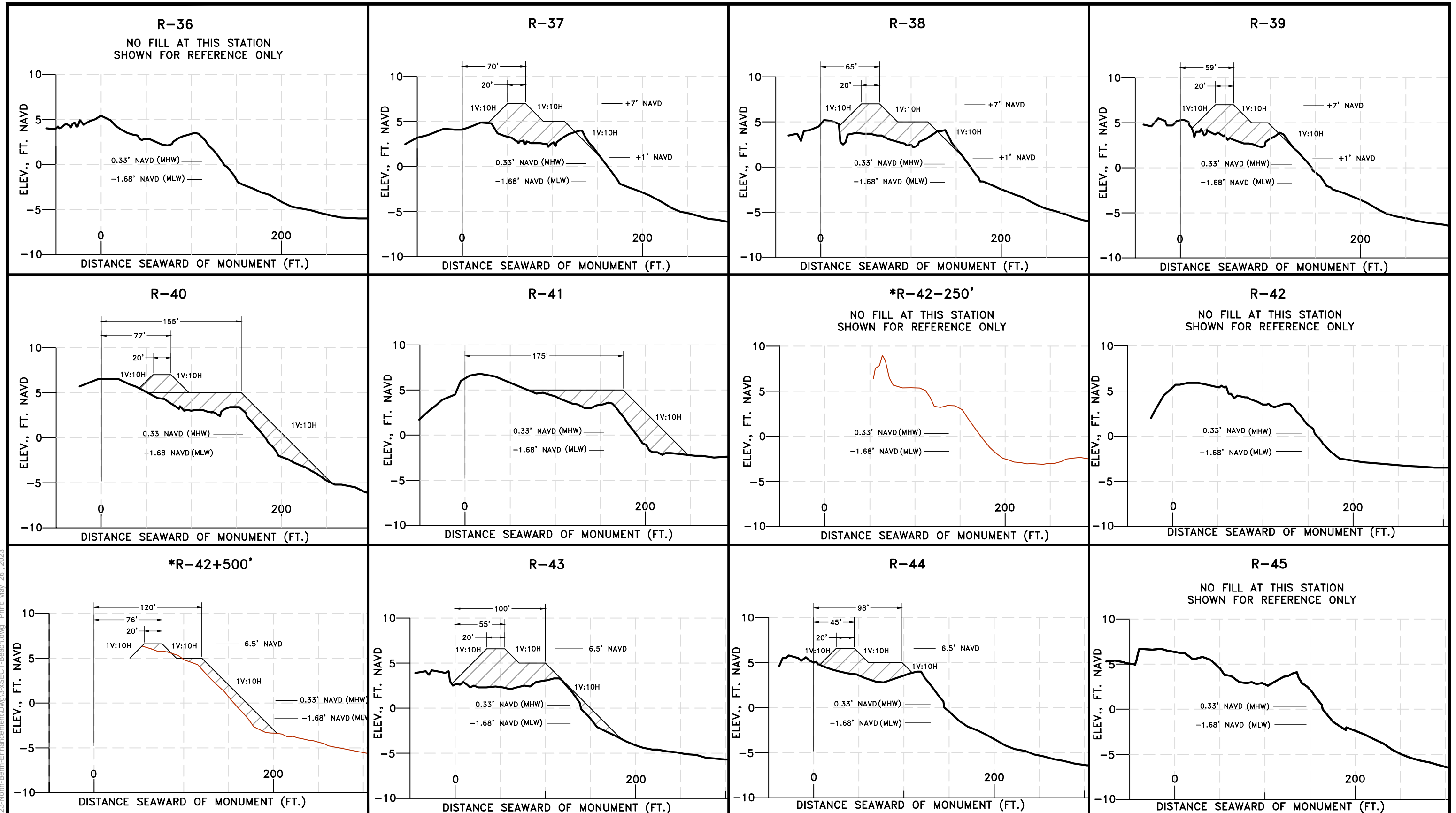
CLAM PASS - MAINTENANCE PROJECT  
CROSS SECTIONS - INLET TEMPLATE

FOR: PELICAN BAY SERVICES DIVISION

DATE: 5/26/23 FILE: PLAN SCALE: SHOWN

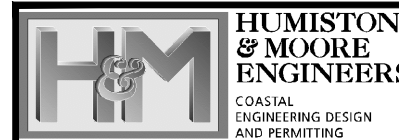
JOB: 29-018 DATUM: NAVD88 SHEET: 10

5679 STRAND COURT  
NAPLES, FL 34110  
FAX: (239) 594-2025  
PHONE: (239) 594-2021  
www.humistonandmoore.com



NOTES:

1. PROFILES BASED ON SURVEYS CONDUCTED BY APTIM, INC. IN NOVEMBER, 2022 POST-HURRICANE IAN. PROFILES WITH ASTERISK BASED ON POST CONSTRUCTION SURVEY BY PARK COASTAL SURVEYING, APRIL, 2022.
2. COORDINATES SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN DATUM OF 1983, EAST ZONE (NAD83).
3. ELEVATIONS SHOWN ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. TOP OF BERM OR DUNE TO BE GRADED TO VEGETATION LINE AS DIRECTED BY ENGINEER BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION.



CLAM PASS - MAINTENANCE PROJECT  
 CROSS SECTIONS - BEACH FILL  
 FOR: PELICAN BAY SERVICES DIVISION  
 DATE: 5/26/23 FILE: XSEC SCALE: SHOWN  
 JOB: 29-018 DATUM: NAVD88 SHEET: 11

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F:\Collier\300-Clam-Pass\2023-North-Berm-Enhancement\Draw\3-x-SECTION-Beach.dwg Print: May 26, 2023