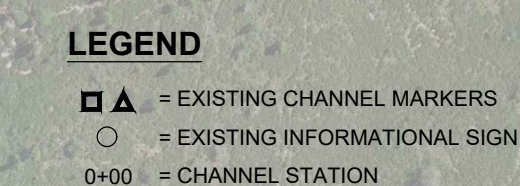


SURVEY BASELINE LINE TABLE				
LINE #	LENGTH	DIRECTION	START POINT (N, E)	END POINT (N, E)
L1	293.02'	N60° 42' 33"E	964738.73, 655124.01'	964882.09, 655379.57'
L2	219.23'	N75° 10' 24"E	964882.09, 655379.57'	964938.19, 655591.50'
L3	642.14'	N88° 53' 14"E	964938.19, 655591.50'	964950.66, 656233.52'
L4	506.51'	S85° 24' 42"E	964950.66, 656233.52'	964910.14, 656738.41'
L5	808.85'	S75° 16' 05"E	964910.14, 656738.41'	964704.45, 657520.67'
L6	205.24'	S48° 04' 37"E	964704.45, 657520.67'	964567.32, 657673.38'
L7	103.60'	S83° 05' 13"E	964567.32, 657673.38'	964554.85, 657776.23'
L8	81.81'	N72° 15' 30"E	964554.85, 657776.23'	964579.78, 657854.15'
L9	639.58'	S75° 22' 43"E	964579.78, 657854.15'	964418.33, 658473.02'
L10	311.99'	N68° 38' 42"E	962398.96, 655130.15'	962512.57, 655420.72'
L11	267.25'	N55° 39' 40"E	962512.57, 655420.72'	962663.32, 655641.39'
L12	509.92'	N52° 50' 07"E	962663.32, 655641.39'	962971.37, 656047.75'
L13	133.35'	N71° 51' 45"E	962971.37, 656047.75'	963012.88, 656174.47'
L14	252.20'	N85° 01' 47"E	963012.88, 656174.47'	963034.73, 656425.72'
L15	96.72'	N71° 33' 47"E	963034.73, 656425.72'	963065.32, 656517.48'
L16	248.74'	N51° 25' 04"E	963065.32, 656517.48'	963220.44, 656711.92'
L17	207.33'	N7° 52' 34"E	963220.44, 656711.92'	963425.81, 656740.33'
L18	650.34'	S36° 21' 55"E	963425.81, 656740.33'	962133.08, 656024.81'
L19	457.72'	S47° 52' 34"E	962133.08, 656024.81'	962767.76, 654574.84'
L20	992.09'	S35° 40' 34"E	962767.76, 654574.84'	961961.86, 655153.43'
L21	250.20'	S21° 48' 13"E	961961.86, 655153.43'	961729.56, 655246.36'
L22	252.19'	N51° 39' 16"E	960435.66, 653981.48'	960592.12, 654179.27'
L23	1574.90'	N23° 17' 50"E	960592.12, 654179.27'	962038.61, 654802.14'
L24	328.64'	S70° 35' 21"E	961132.34, 654412.48'	961023.12, 654722.44'
L25	271.36'	N84° 48' 26"E	961023.12, 654722.44'	961047.68, 654992.69'
L26	294.28'	S45° 26' 38"E	960494.53, 653432.31'	960288.06, 653642.00'
L27	167.84'	S66° 08' 28"E	960288.06, 653642.00'	960220.17, 653795.50'
L28	145.25'	S52° 25' 55"E	960220.17, 653795.50'	960131.61, 653910.63'
L29	176.92'	S25° 42' 33"E	960131.61, 653910.63'	959972.20, 653987.38'
L30	141.11'	S37° 20' 56"E	959972.20, 653987.38'	959860.02, 654072.99'
L31	3964.73'	S1° 03' 55"W	963522.40, 653011.16'	959558.36, 652937.45'
L32	129.02'	S15° 11' 47"E	959558.36, 652937.45'	959433.85, 652971.27'
L33	407.74'	S27° 37' 40"E	959433.85, 652971.27'	959072.60, 653160.35'
L34	1403.52'	S0° 55' 35"W	960684.35, 652436.08'	959281.01, 652413.39'
L35	148.47'	S31° 42' 04"W	959281.01, 652413.39'	959154.69, 652335.37'
L36	392.62'	S60° 31' 27"W	959154.69, 652335.37'	958961.50, 651993.57'
L37	680.39'	S3° 46' 19"W	958961.50, 651993.57'	958282.58, 651948.81'
L38	360.89'	S50° 38' 05"W	958006.35, 652095.63'	959277.53, 652416.55'
L39	668.83'	S89° 02' 41"E	960581.34, 652082.74'	960570.19, 652751.48'
L40	670.00'	S88° 23' 59"E	960232.11, 652060.45'	960213.40, 652730.19'
L41	661.48'	S88° 42' 46"E	959886.59, 652064.16'	959871.73, 652725.47'
L42	351.89'	S88° 55' 25"E	959630.16, 652062.07'	959523.55, 652413.90'

PUBLISHED TIDAL INFORMATION
 TIDAL DATUMS AT HARBOR HEIGHTS, PEACE RIVER ARE BASED ON FLORIDA 872 5791 TIDE STATION, PUBLISHED 4-15-2015.
 LENGTH OF SERIES = 4 MONTHS
 TIME PERIOD = 12/1977 - 3/1978
 TIDAL EPOCH = 1983 - 2001
 CONTROL TIDE STATION = 872 5110 NAPLES, GULF OF MEXICO
 ELEVATIONS OF TIDAL DATUMS ARE REFERENCED IN NAVD 1988.
 MEAN HIGH WATER (MHW) = +0.23 FT NAVD
 MEAN TIDE LEVEL (MTL) = -0.43 FT NAVD
 MEAN LOW WATER (MLW) = -1.09 FT NAVD
 MEAN LOWER LOW WATER (MLLW) = -1.54 FT NAVD

- NOTES**
- BATHYMETRIC SURVEY COMPLETED BY COASTAL ENGINEERING CONSULTANTS, INC. (CEC), ON 8/18/2022.
 - CHANNEL MARKERS WERE LOCATED BY CEC ON 8/18/2022.
 - PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE WEST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
 - ELEVATIONS SHOWN HEREON ARE IN FEET AND TENTHS AND REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD). REFERENCE BENCHMARKS: 872 5791 2, N: 964962.9, E: 657766.9, ELEV. = +5.05' NAVD AND X259, N: 964869.9, E: 654981.4, ELEV. = +9.22' NAVD.
 - TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC GPS AND REFERENCED TO NAVD88.
 - SURVEY ACCURACY STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING MANUAL, 11/30/2013.
 - INFORMATION SHOWN HEREON REFLECTS CONDITIONS AS THEY EXISTED ON THE SURVEY DATE SHOWN AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.
 - AERIAL PHOTOGRAPHY OBTAINED FROM THE CHARLOTTE COUNTY GIS DEPARTMENT, DATED 2020.



DATE: 8/30/2022 SCALE: AS NOTED
 DRAWN: GVT F.B.
 CHECKED: RJE PG.
 SEC. TWP. RING.
 ACAD NO. 22247-Harbour Heights.dwg
 REF. NO. 22.247 NO. DATE BY

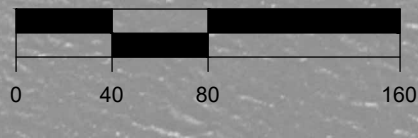
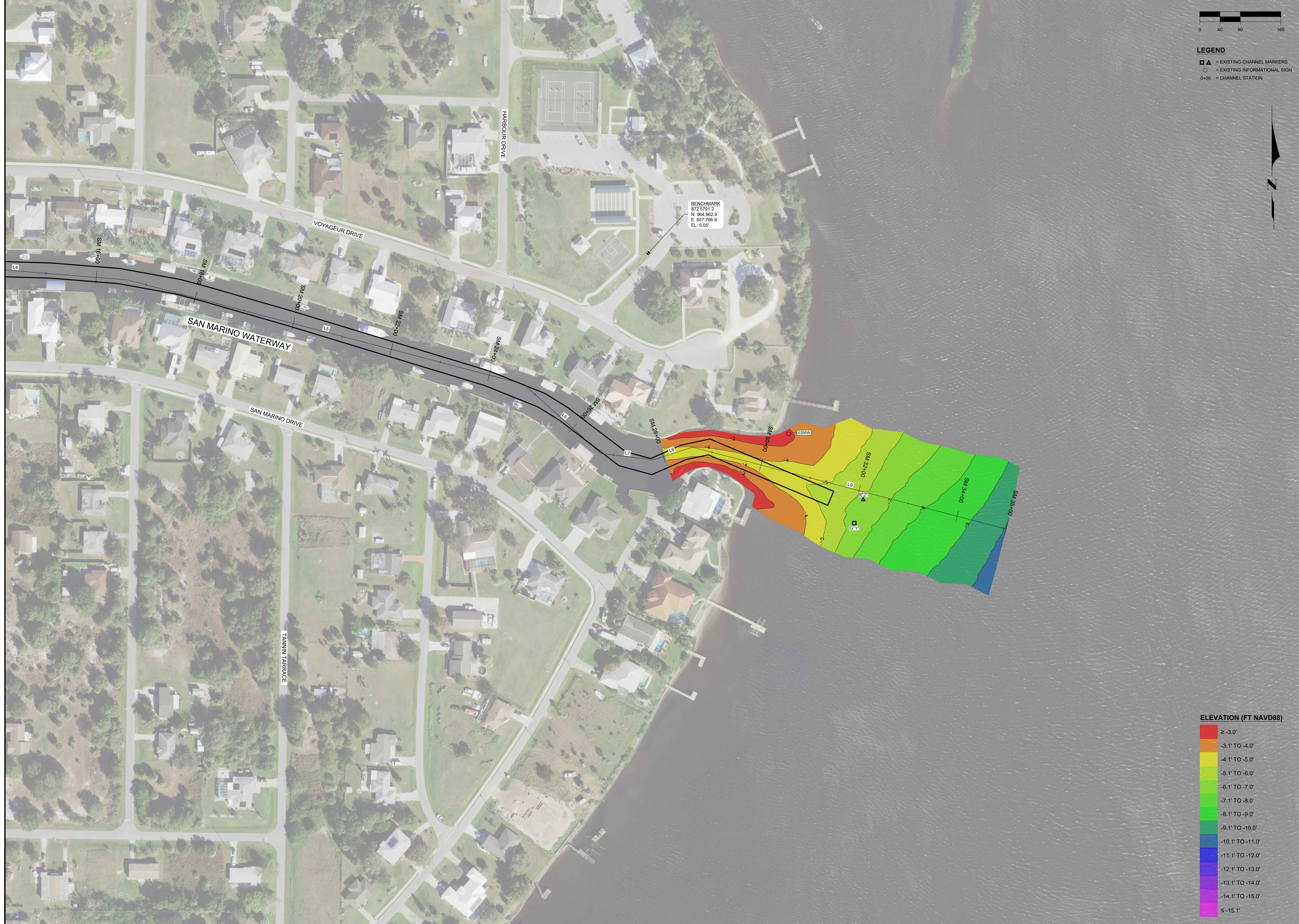
CHARLOTTE COUNTY
 HARBOR HEIGHTS ENTRANCE CHANNELS
 BATHYMETRIC SURVEY

COASTAL ENGINEERING CONSULTANTS, INC.
 ENVIRONMENTAL & GEOLOGICAL SERVICES
 SURVEYING AND MAPPING
 ENGINEERING, CA 2464
 SURVEYING, LB 2464

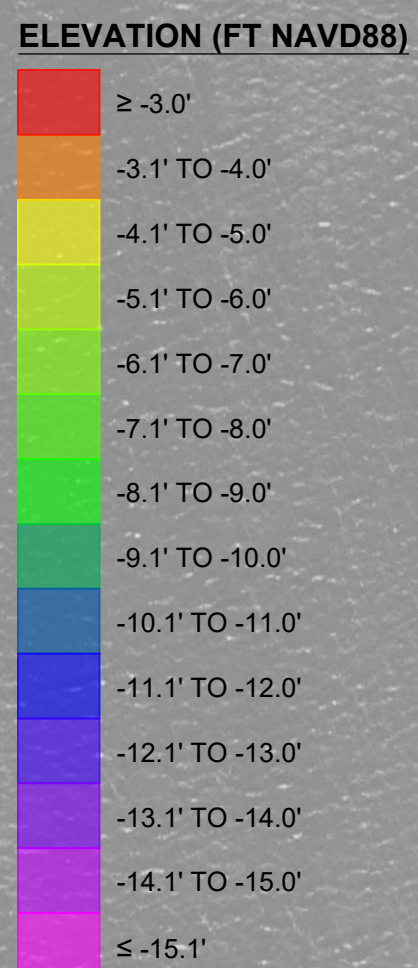
PHONE: (239)643-2324
 FAX: (239)643-1143
 www.coastaleng.com
 E-Mail: info@cecill.com

Richard J. Ewing, V.P.
 PROFESSIONAL SURVEYOR AND MAPPER
 FLORIDA CERTIFICATE NO. 5295
 NOT VALID WITHOUT THE SIGNATURE AND
 THE ORIGINAL RAISED SEAL OF A FLORIDA
 LICENSED SURVEYOR AND MAPPER
 CEC FILE NO. 22247
 DATE OF FIELD SURVEY: 8/18/2022
 DATE OF SIGNATURE:

SHEET 1
 FILE NO.: 22247-HH-1



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 Serving Florida Since 1977
 28421 BONITA CROSSINGS BLVD
 BONITA SPRINGS, FLORIDA 34104

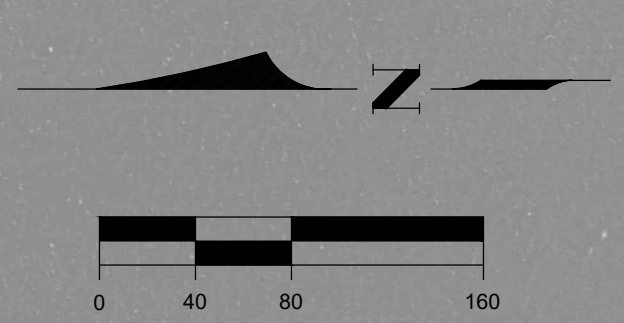
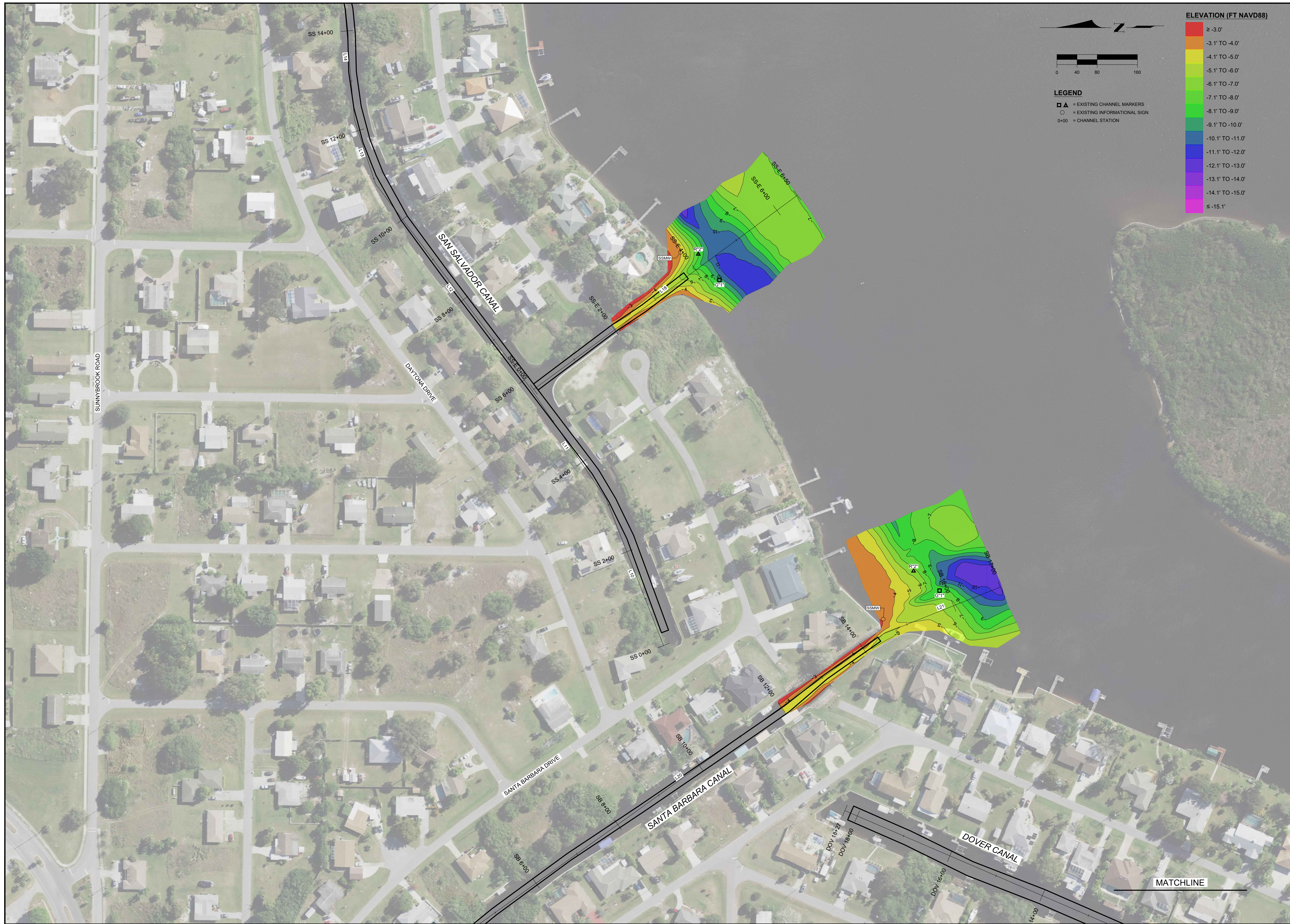
CLIENT: CHARLOTTE COUNTY
 TITLE: HARBOUR HEIGHTS ENTRANCE CHANNELS BATHYMETRIC SURVEY

DATE: 8/30/2022 SCALE: AS NOTED
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 CHECKED: RJE JG.
 SEC. TWP. RNG.
 ACAD NO. 22247-Harbour Heights.dwg
 REF. NO. 22.247 NO. DATE BY REVISION DESCRIPTION

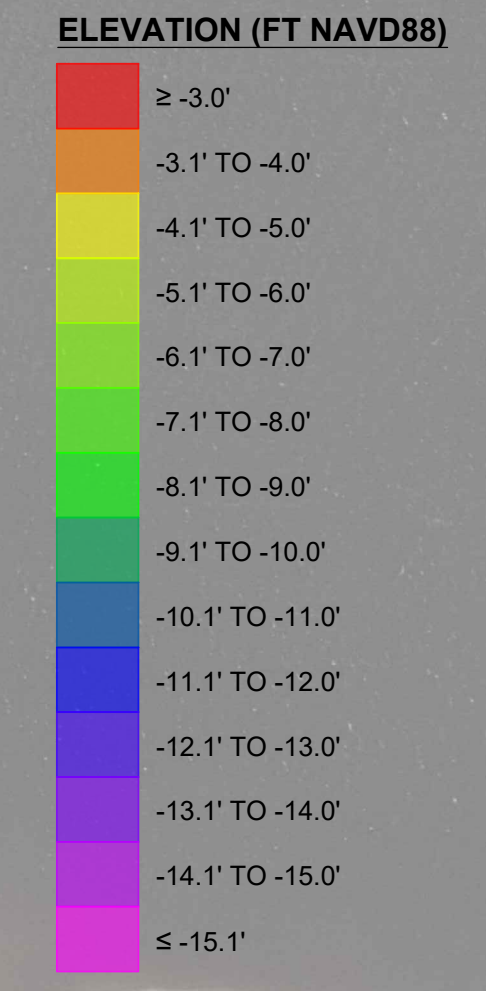
COASTAL & MARINE ENGINEERING ENVIRONMENTAL & GEOLOGICAL SERVICES SURVEY AND MAPPING ENGINEERING, CA 2464 SURVEYING, LB 2464
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SHEET 2
 FILE NO.: 22247-HH-2

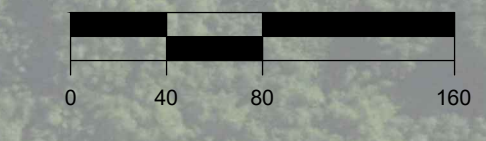
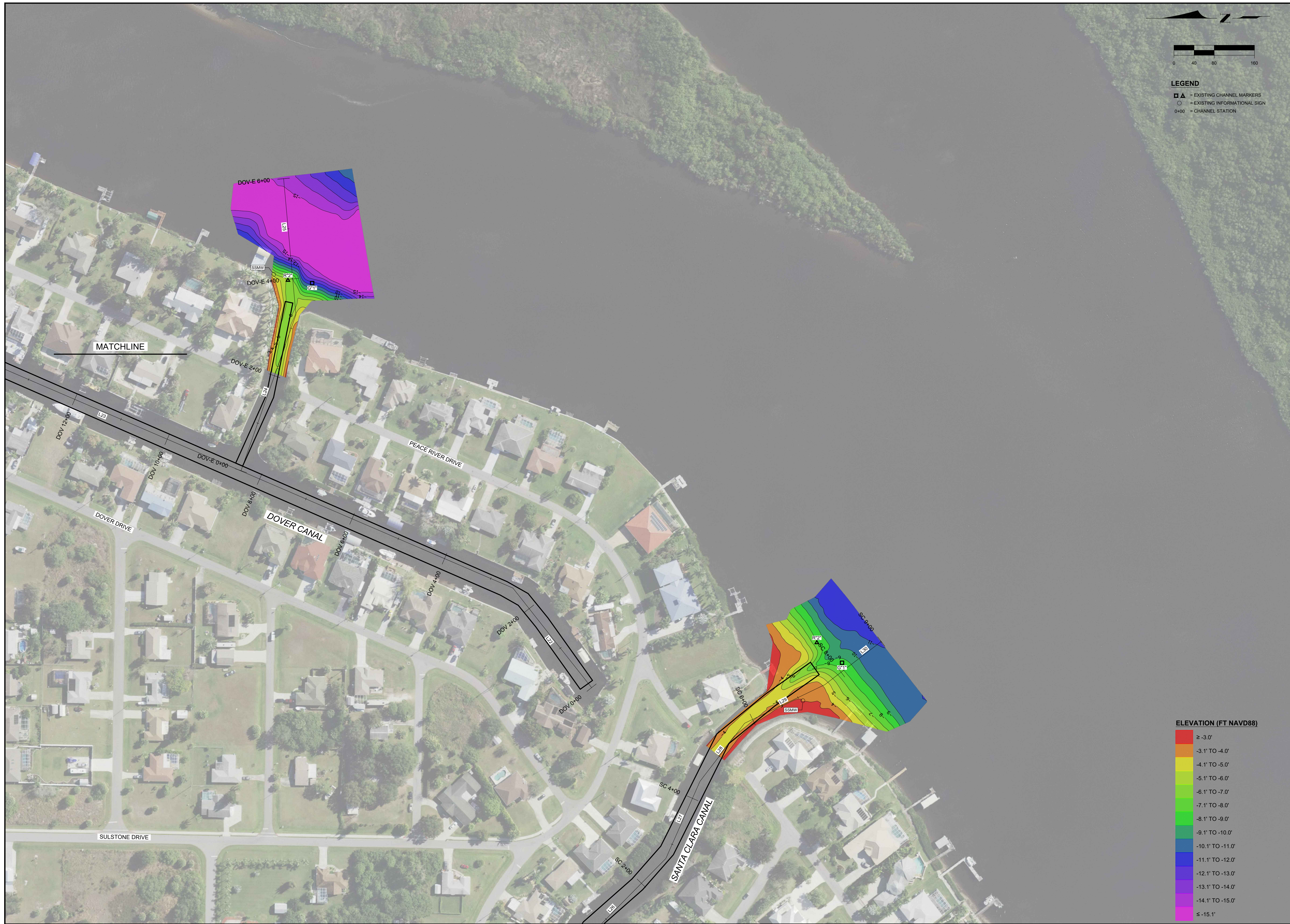
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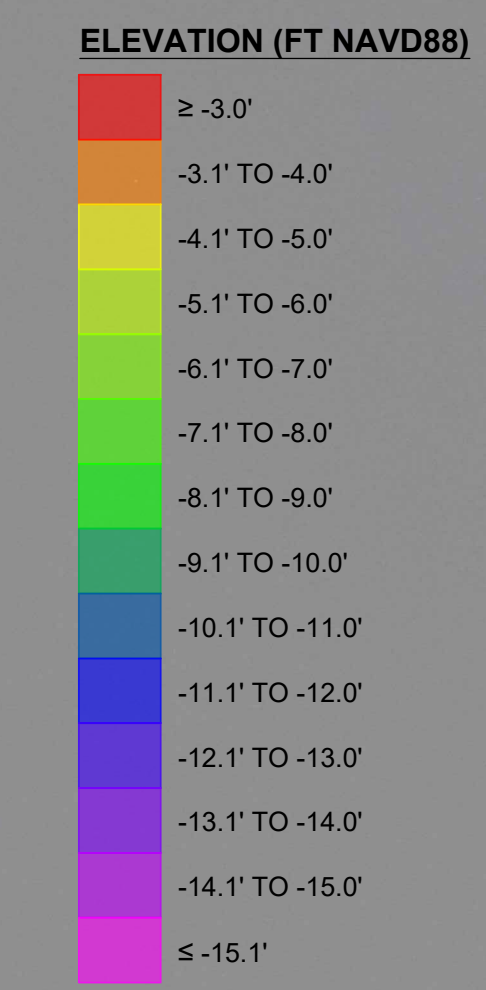
LEGEND
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<p>COASTAL ENGINEERING CONSULTANTS INC. Serving Florida Since 1977 28421 BONITA CROSSINGS BLVD BONITA SPRINGS, FLORIDA, 34104</p>	<p>CLIENT: CHARLOTTE COUNTY</p> <p>TITLE: HARBOUR HEIGHTS ENTRANCE CHANNELS BATHYMETRIC SURVEY</p>	<p>DATE: 8/30/2022</p> <p>DRAWN: GVT</p> <p>CHECKED: RJE</p> <p>ACAD NO. 22247-Harbour Heights.dwg</p>	<p>SCALE: AS NOTED</p> <p>F.B. GVT</p> <p>R/E PG.</p> <p>TWP. RING.</p> <p>REF. NO. 22,247</p>
	<p>ENVIRONMENTAL & GEOLOGICAL SERVICES SURVEY AND MAPPING ENGINEERING, CA 2464 SURVEYING, LB 2464</p> <p>PHONE: (239)643-2324 FAX: (239)643-1143 www.coastalengineering.com E-Mail: info@cecill.com</p>	<p>DATE: 8/30/2022</p> <p>DRAWN: GVT</p> <p>CHECKED: RJE</p> <p>ACAD NO. 22247-Harbour Heights.dwg</p>	<p>SCALE: AS NOTED</p> <p>F.B. GVT</p> <p>R/E PG.</p> <p>TWP. RING.</p> <p>REF. NO. 22,247</p>
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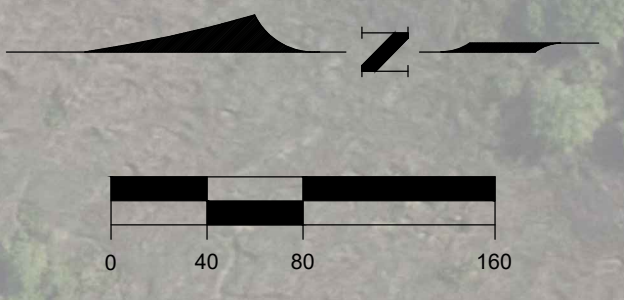
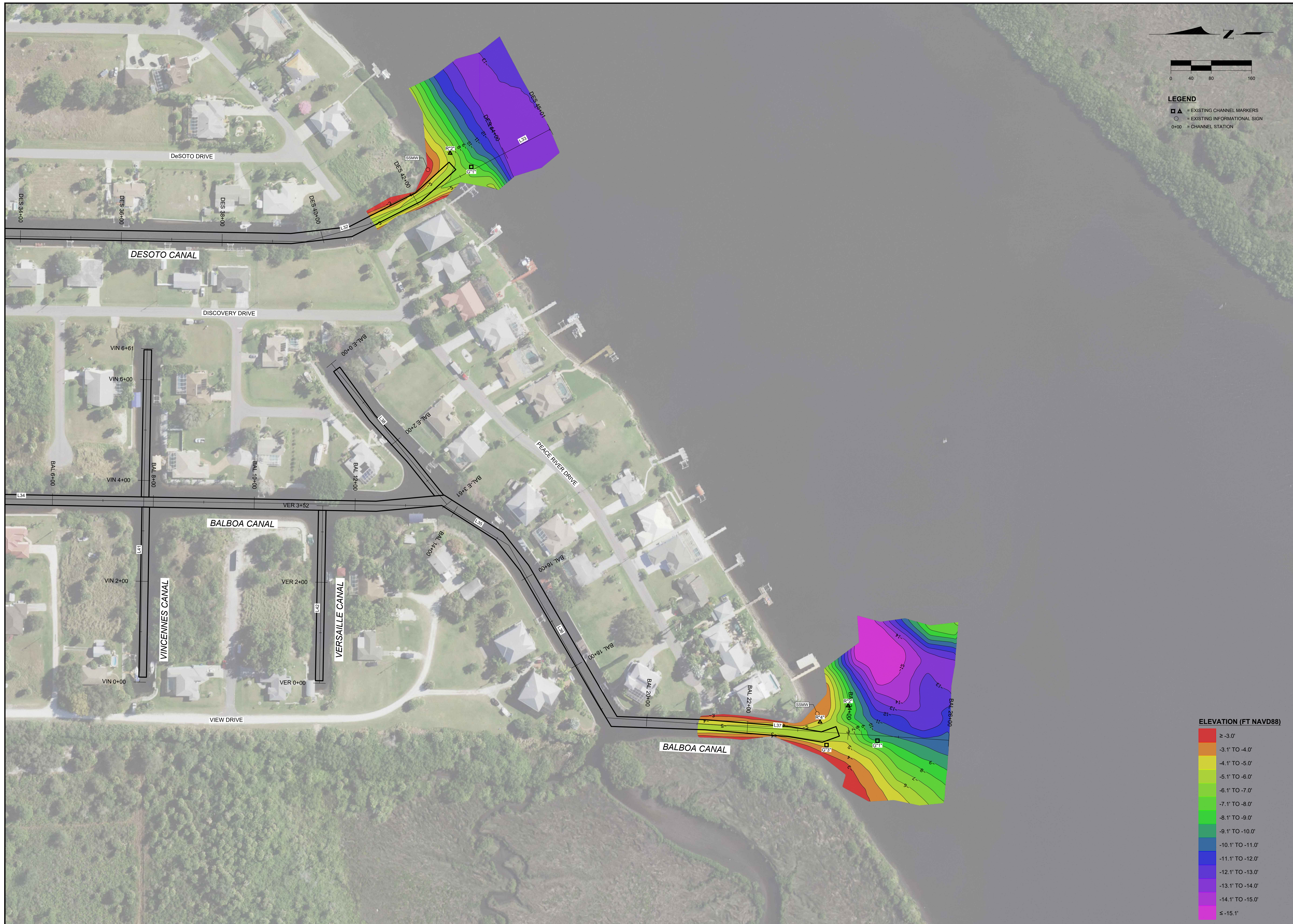
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CLIENT: CHARLOTTE COUNTY
TITLE: HARBOUR HEIGHTS ENTRANCE CHANNELS BATHYMETRIC SURVEY

DATE: 8/30/2022 **SCALE:** AS NOTED
DRAWN: GVT **F.B.**
CHECKED: RJE **PG.**
SEC. TWP. **RNG.**
ACAD NO. 22247-Harbour Heights.dwg
REF. NO. 22.247 **NO.** **DATE** **BY** **REVISION DESCRIPTION**

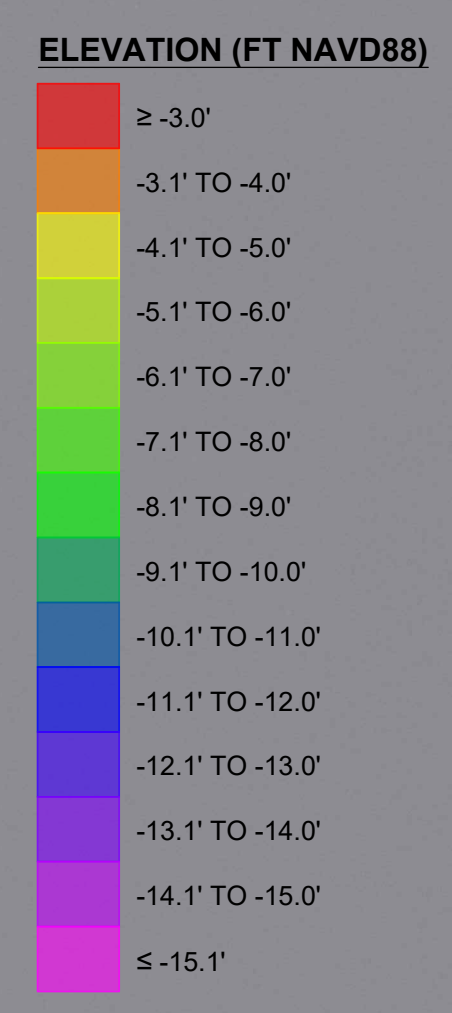
SHEET 4
 FILE NO.: 22247-HH-4

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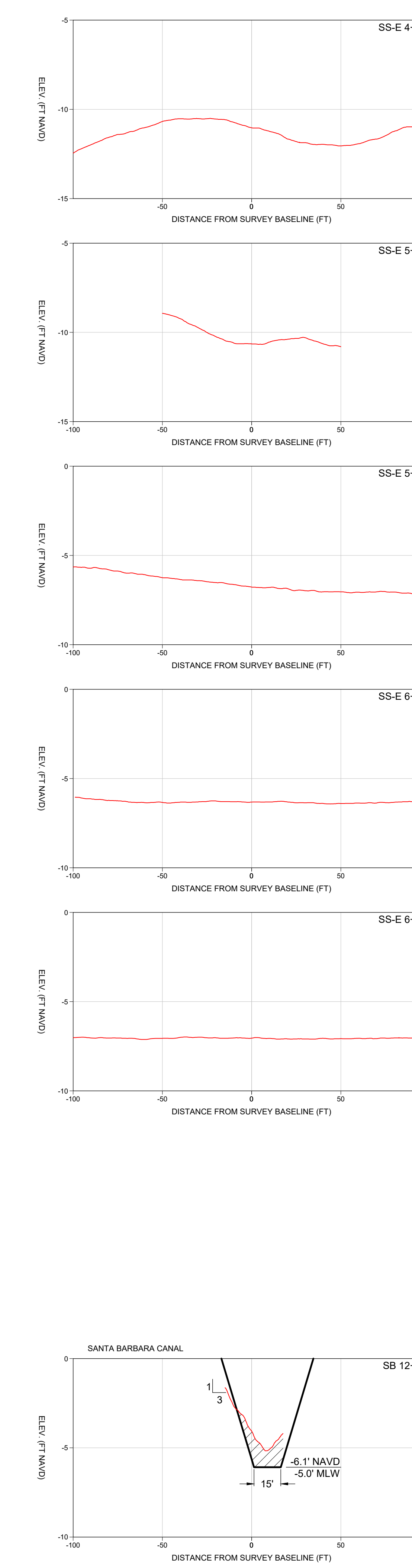
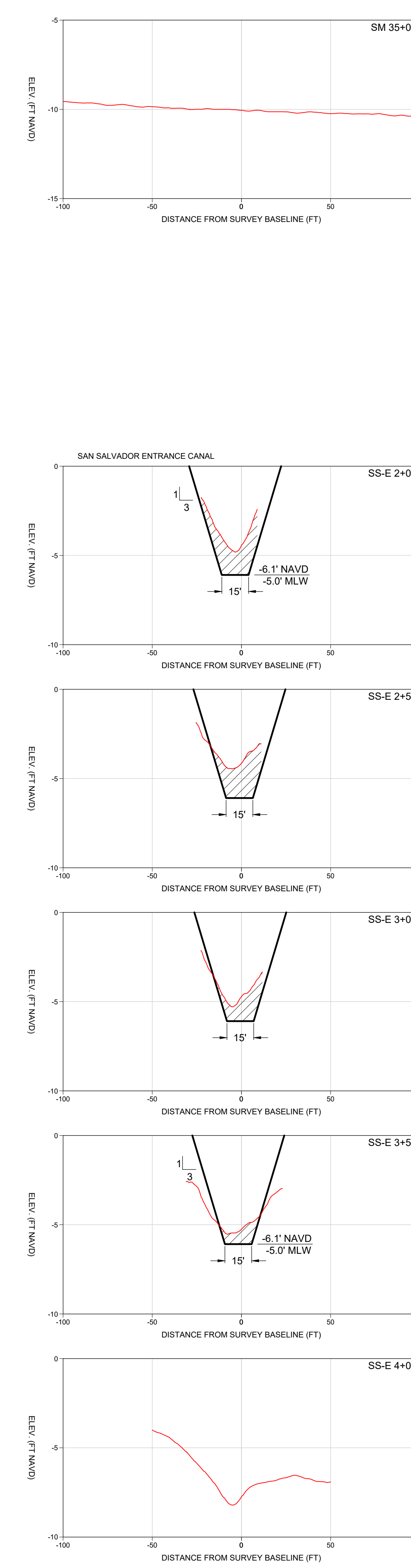
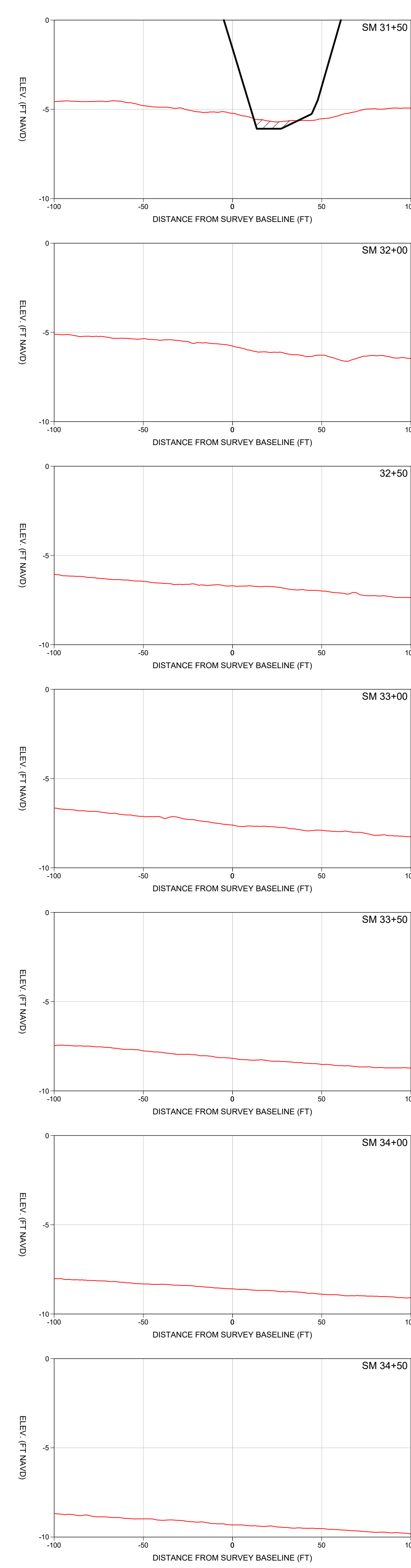
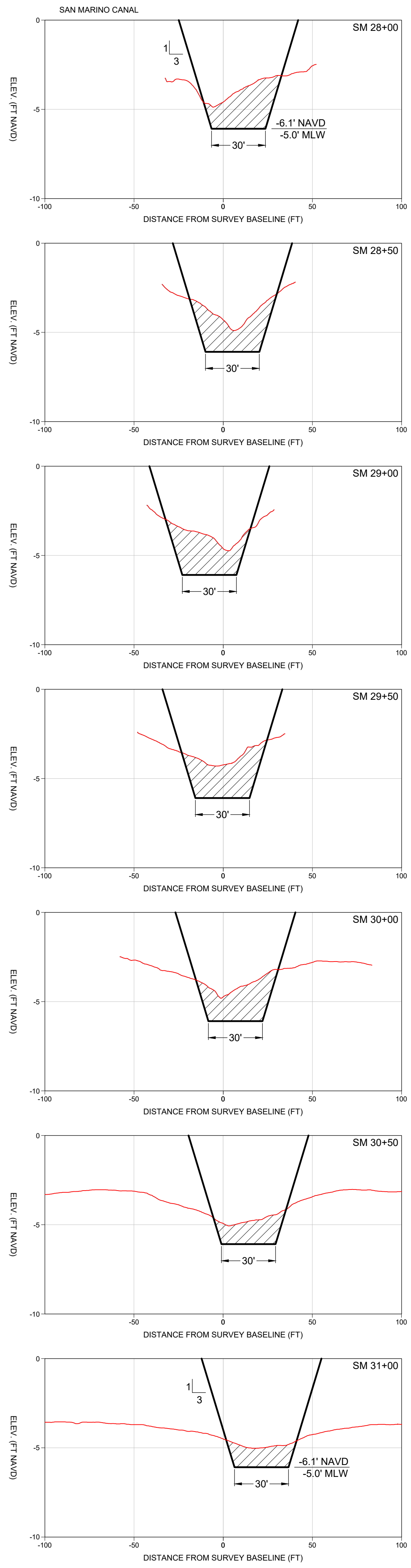


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CHARLOTTE COUNTY									
HARBOUR HEIGHTS ENTRANCE CHANNELS BATHYMETRIC SURVEY									
<p>CLIENT: COASTAL & MARINE ENGINEERING ENVIRONMENTAL & GEOLOGICAL SERVICES SURVEY AND MAPPING ENGINEERING, CA 2464 SURVEYING, LB 2464</p> <p>PHONE: (239)643-2324 FAX: (239)643-1143 www.coastalengineering.com E-Mail: info@cecill.com</p>	<p>DATE: 8/30/2022 SCALE: AS NOTED</p> <p>DRAWN: GVT F.B.</p> <p>CHECKED: RJE PG.</p> <p>SEC: TWP. RNG.</p> <p>ACAD NO. 22247-Harbour Heights.dwg</p> <p>REF. NO. 22.247</p>								
<p>COASTAL ENGINEERING CONSULTANTS INC.</p> <p>Serving Florida Since 1977 28421 BONITA CROSSINGS BLVD BONITA SPRINGS, FLORIDA 34104</p>	<p>SHEET 5</p> <p>FILE NO.: 22247-HH-5</p>								
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NO.	DATE	BY	REVISION DESCRIPTION						



LEGEND
 — 8/18/2022 SURVEY
 ▨ DREDGE AREA

SCALE
 H: 1" = 40'
 V: 1" = 4'

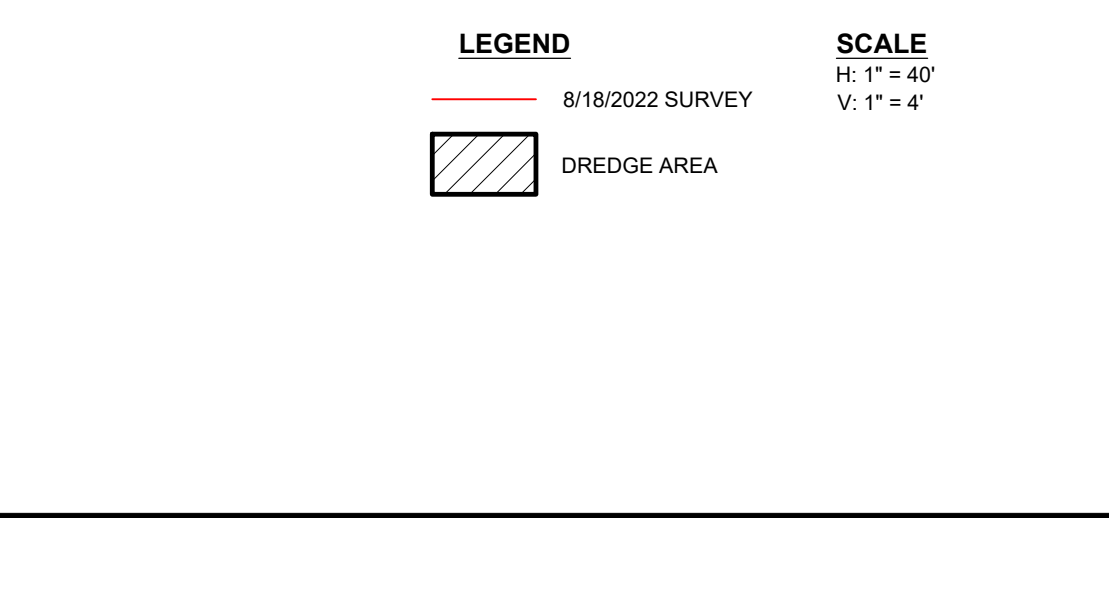
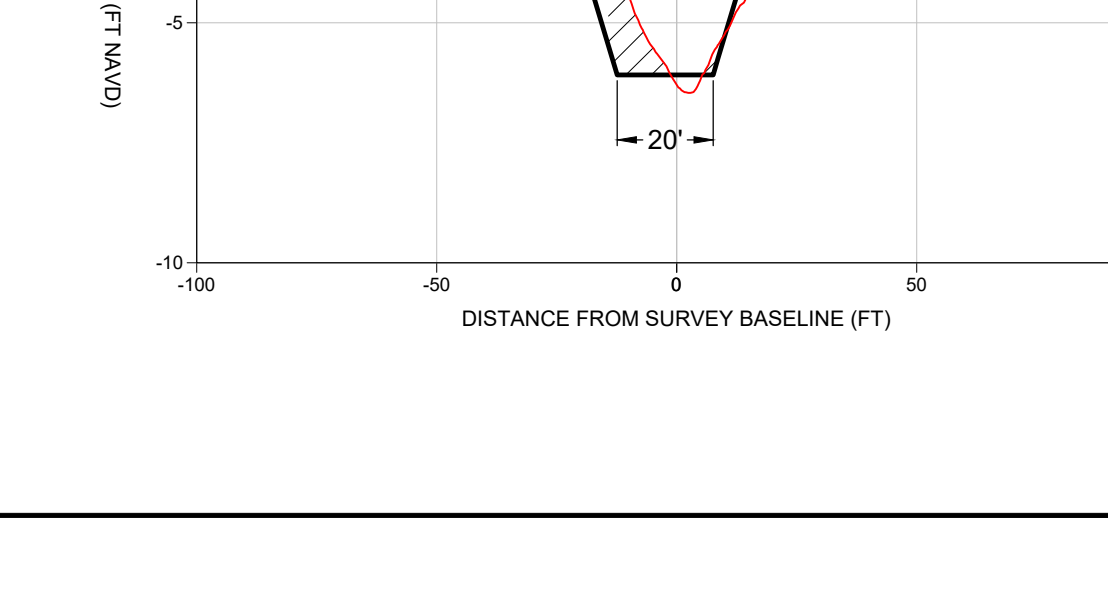
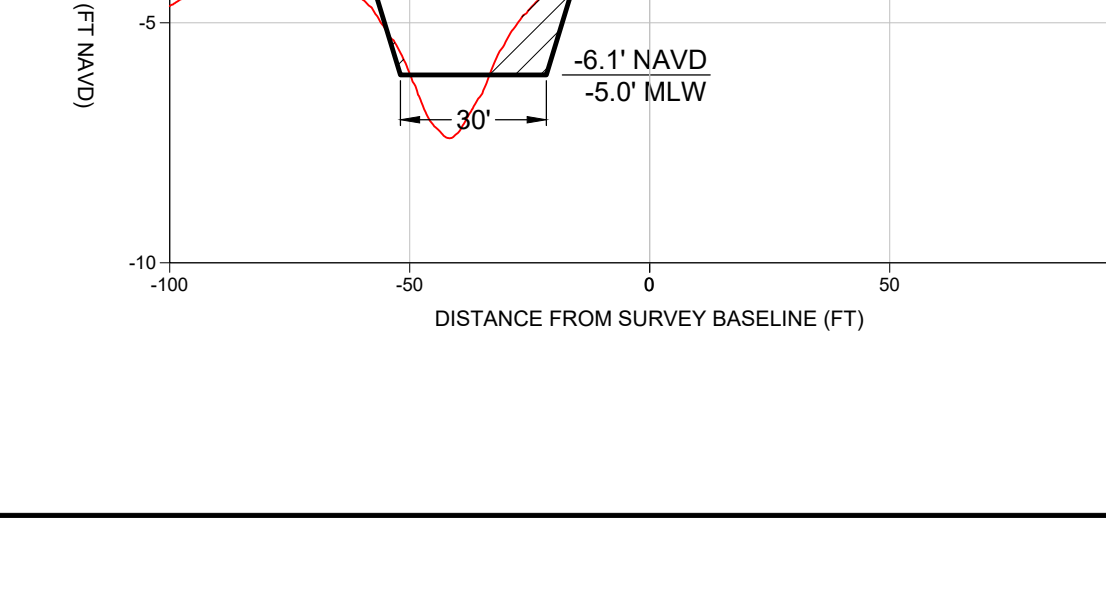
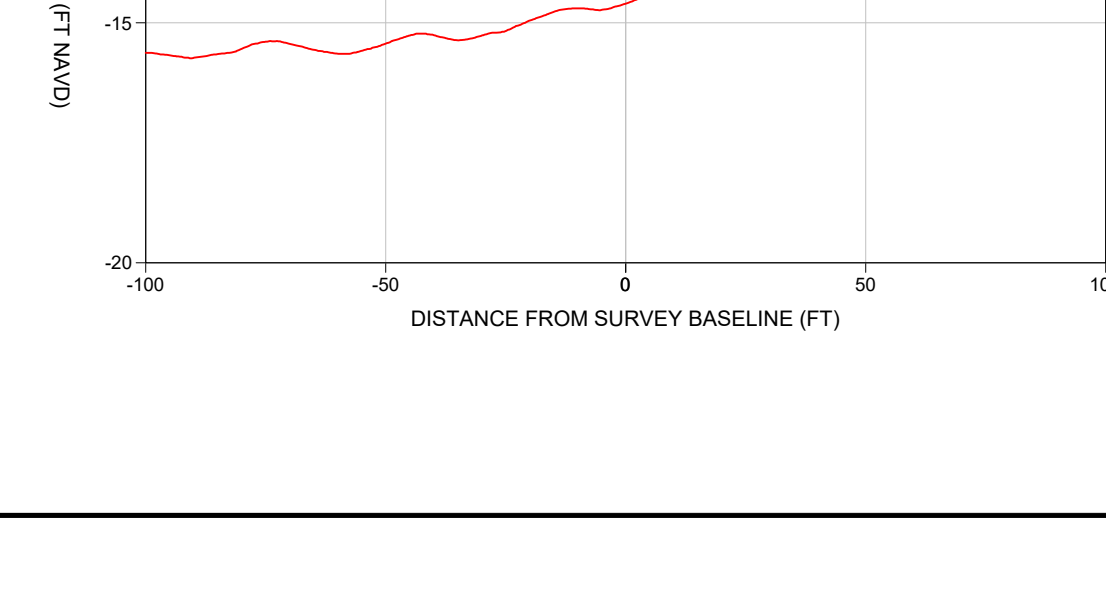
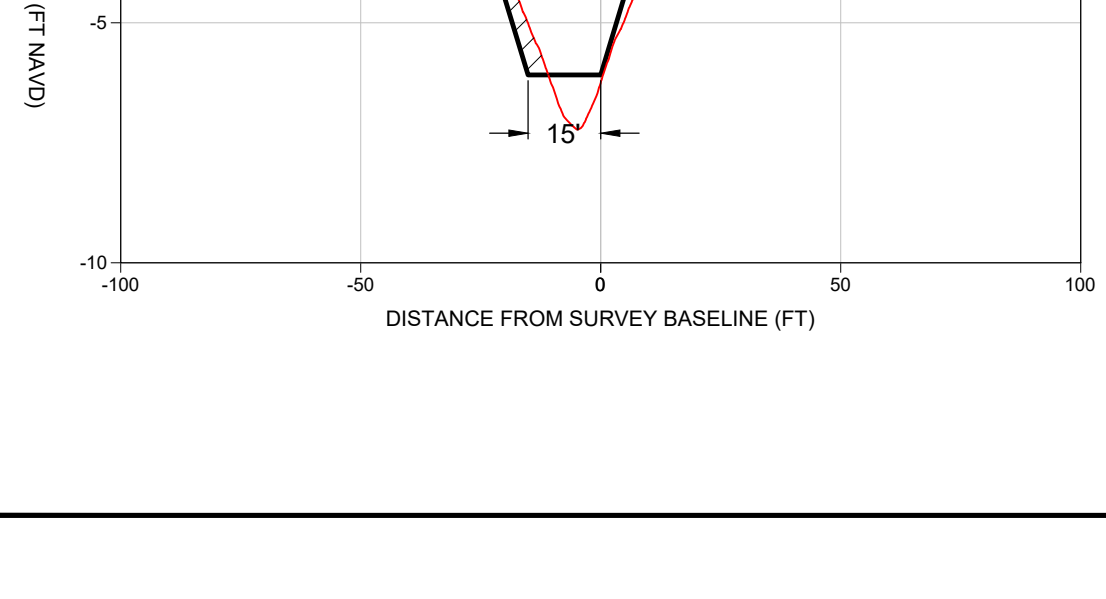
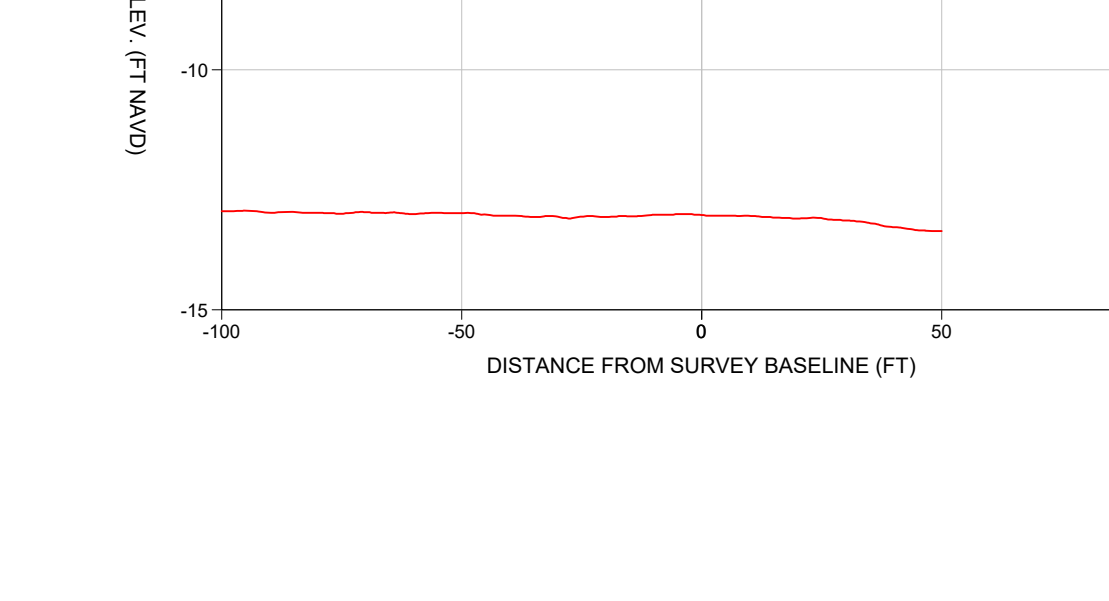
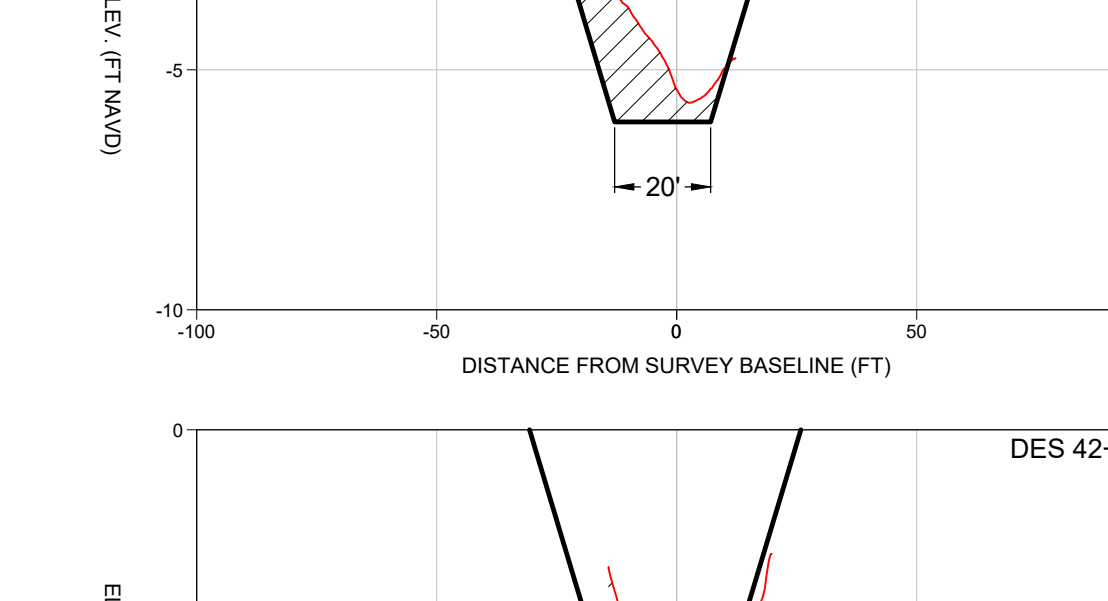
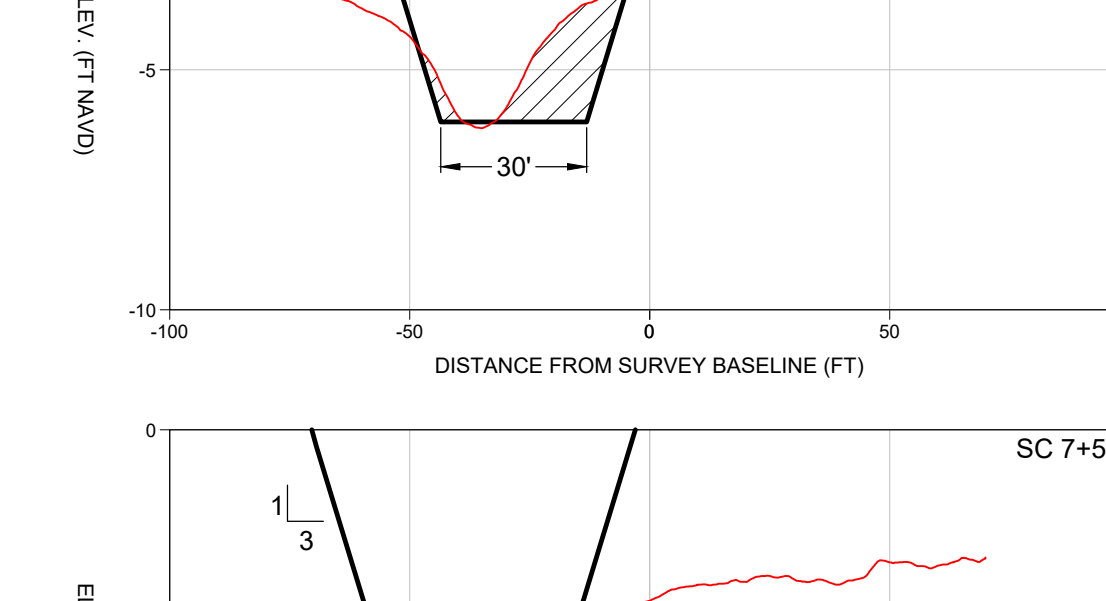
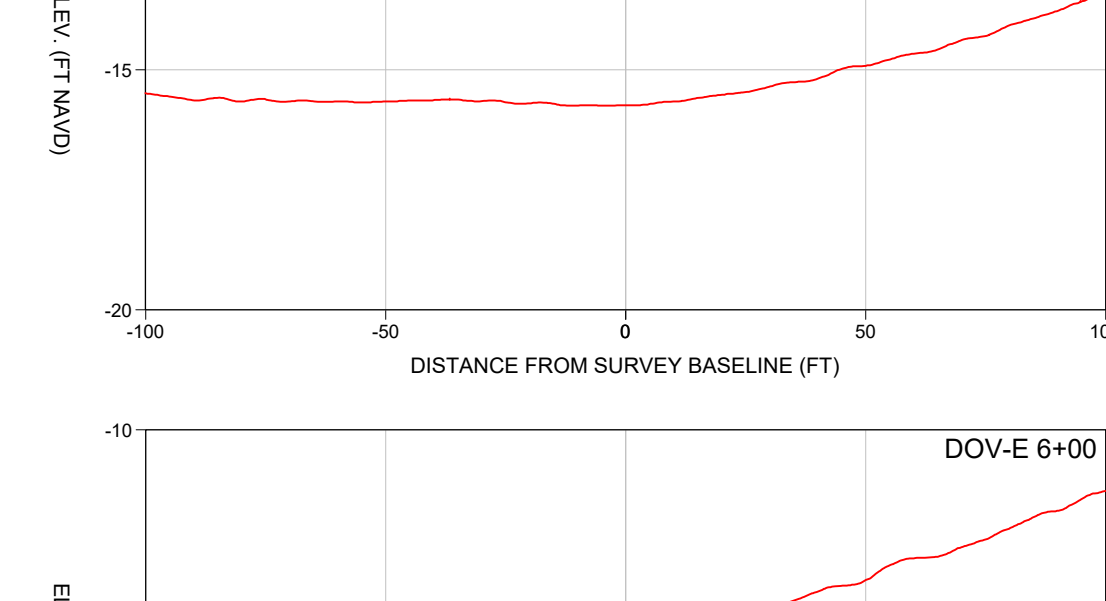
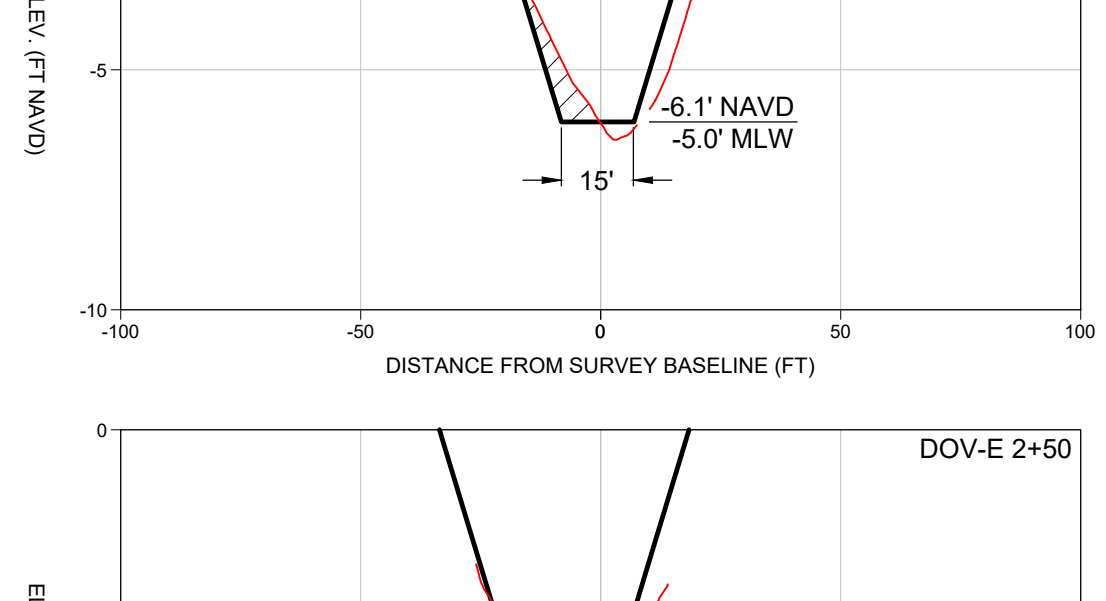
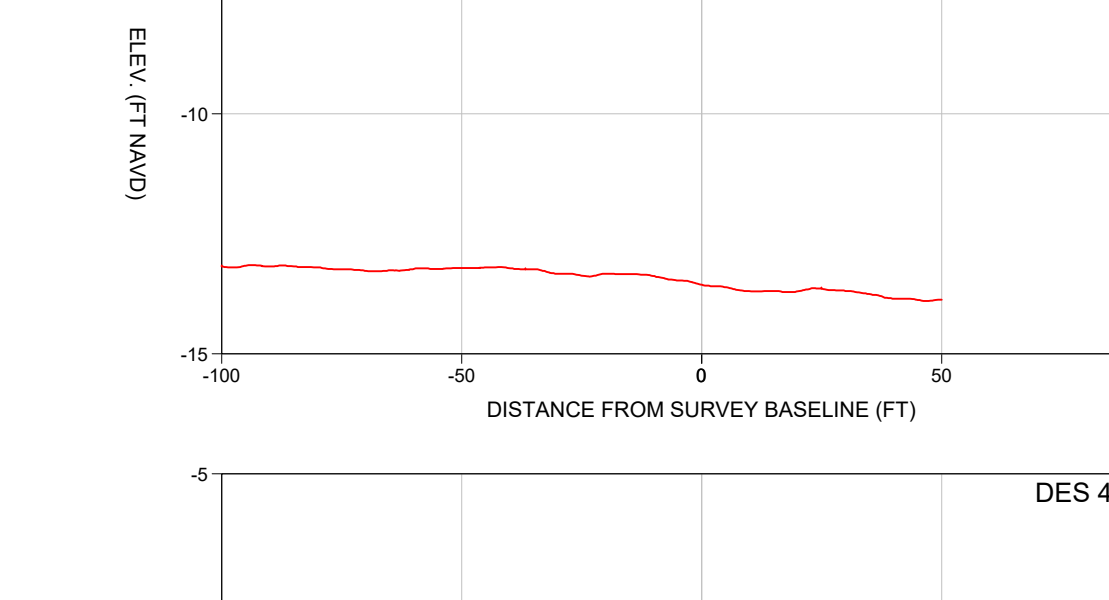
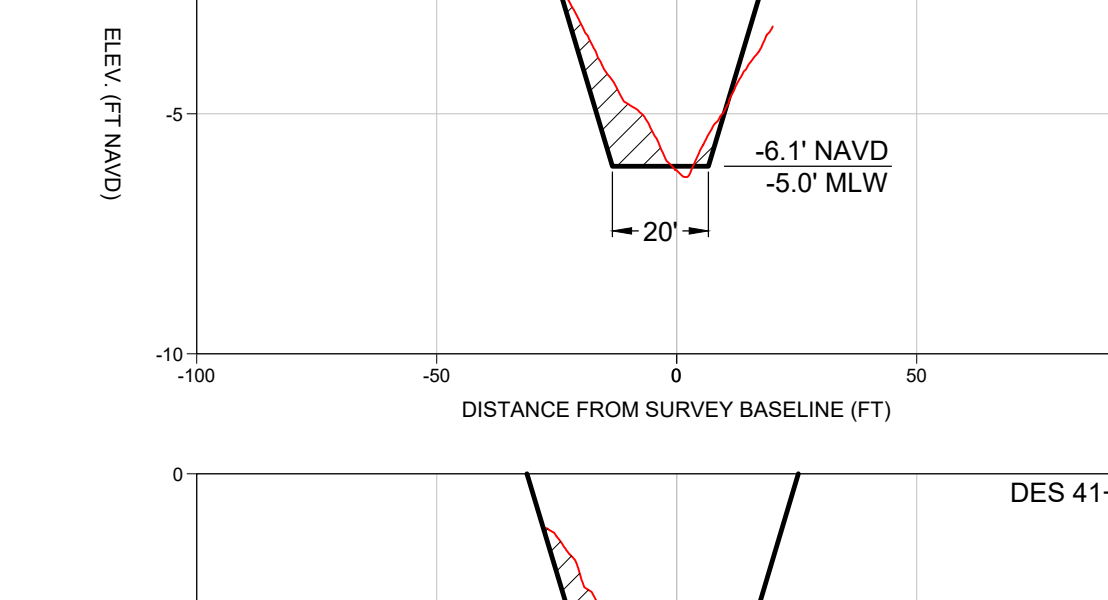
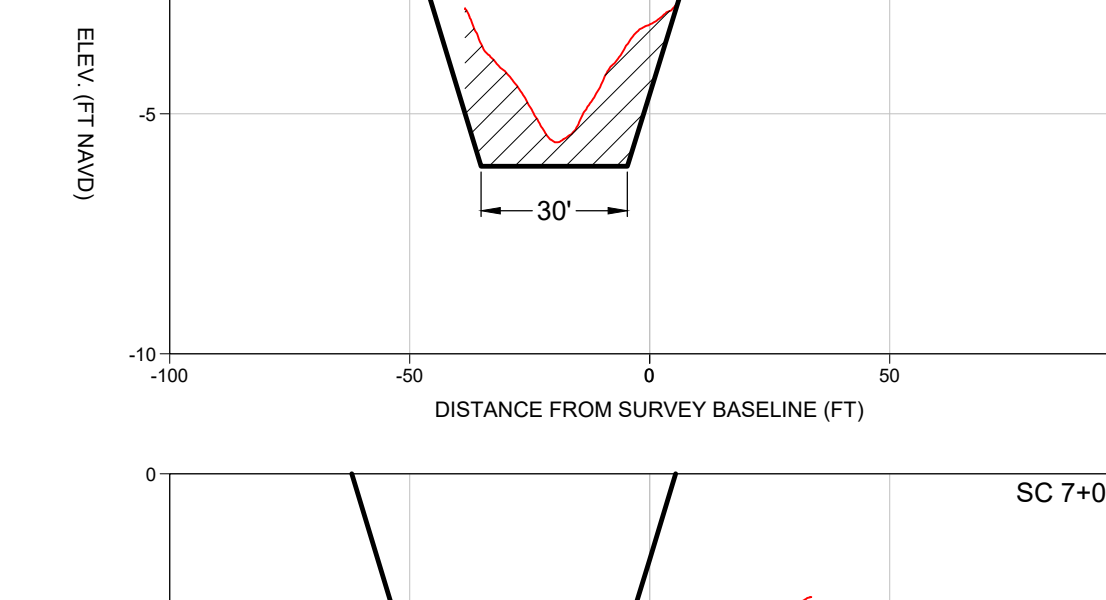
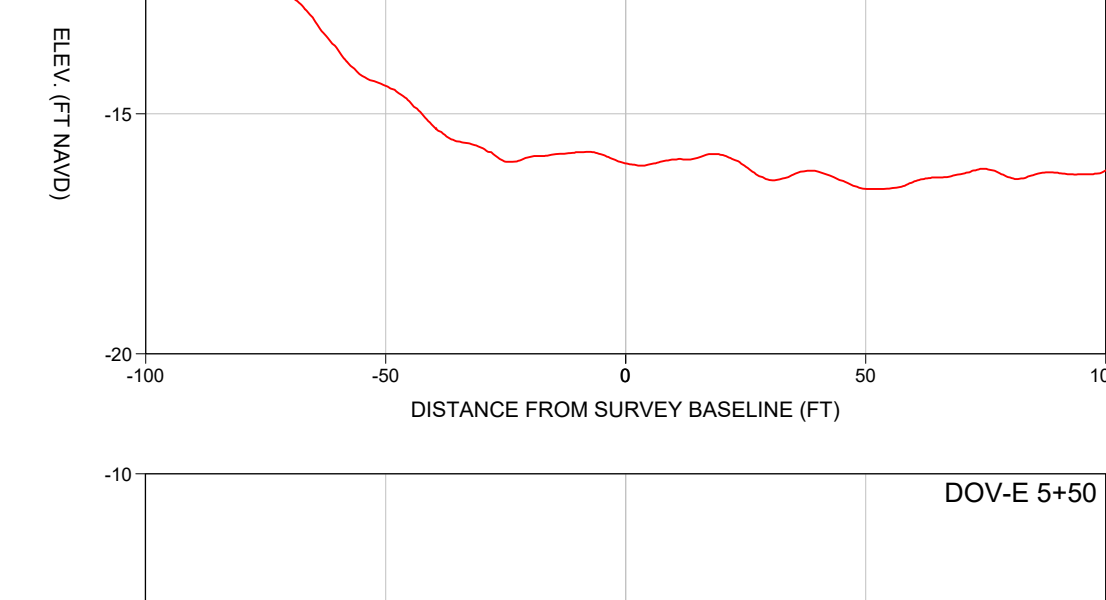
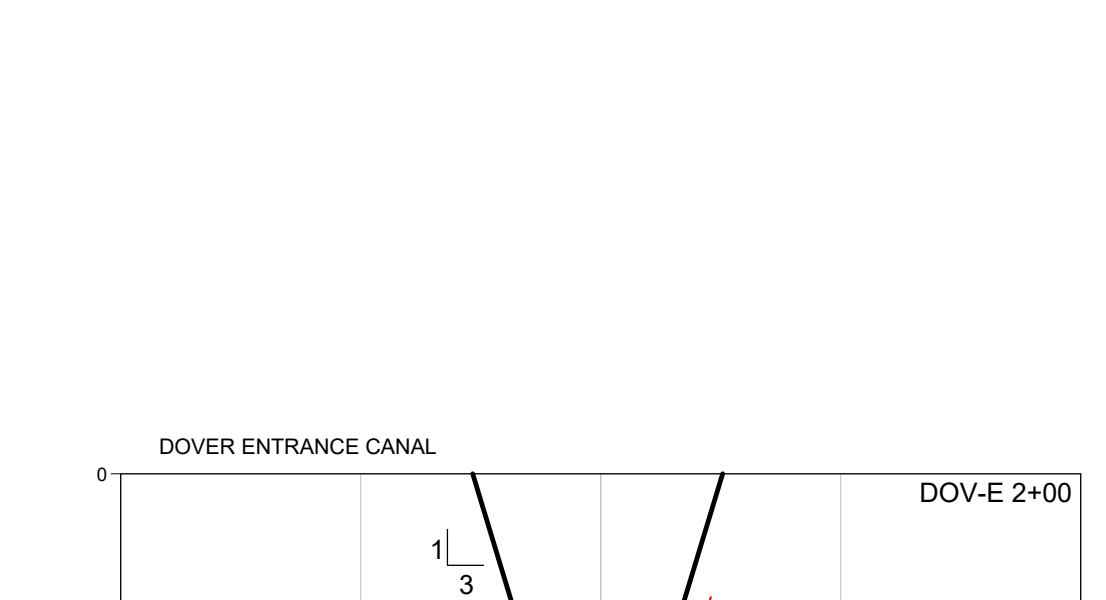
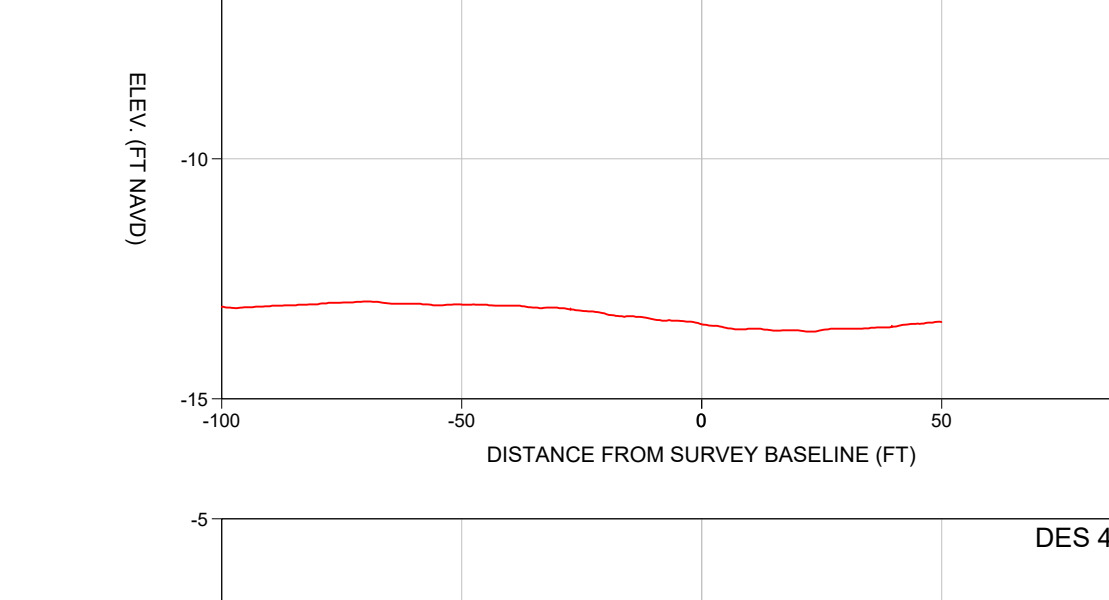
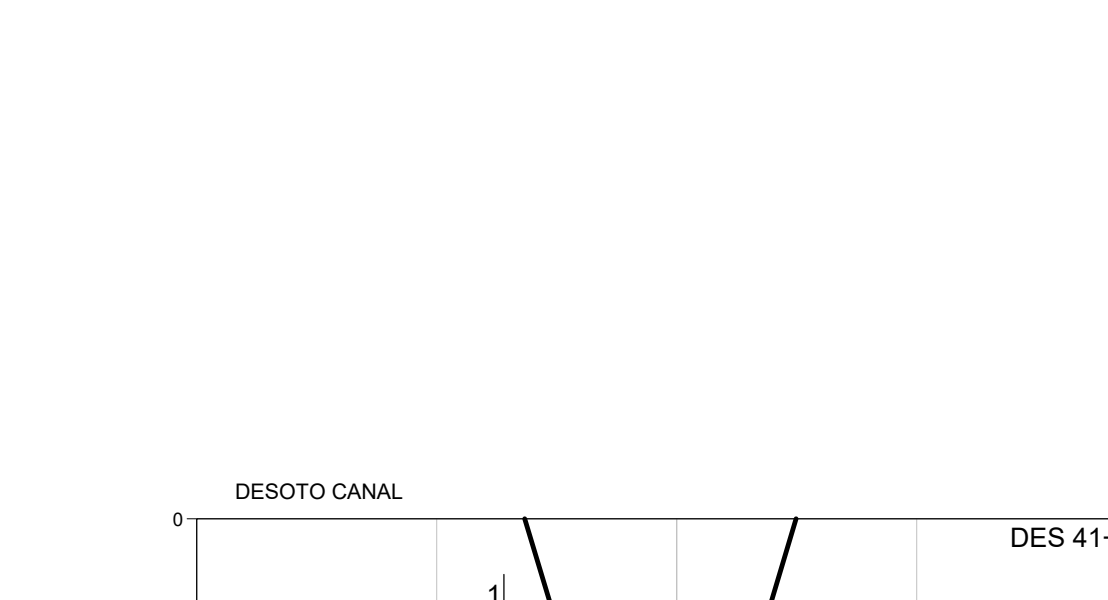
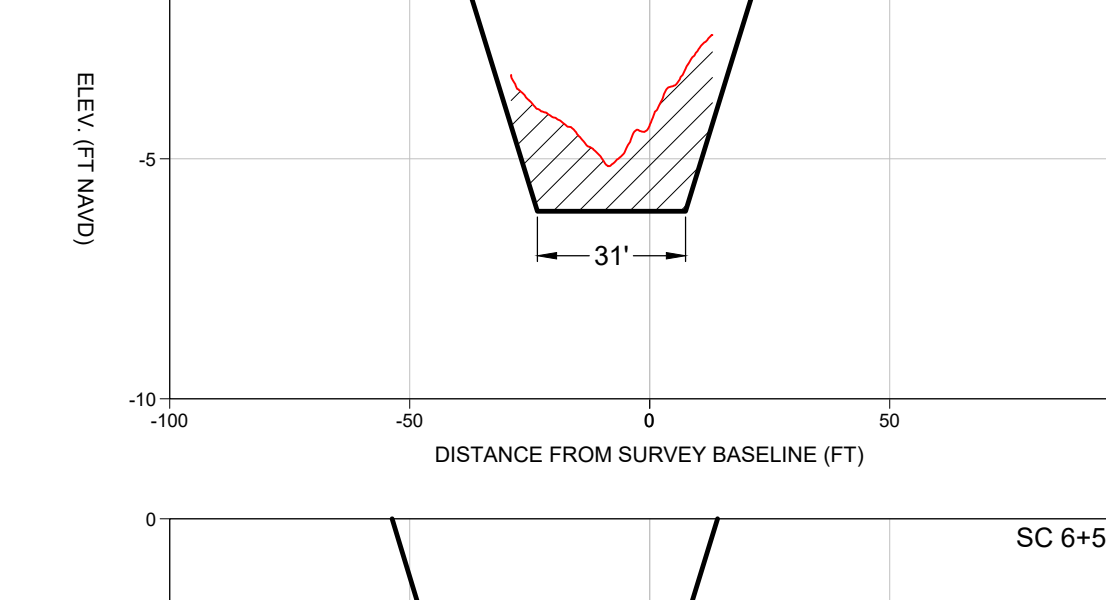
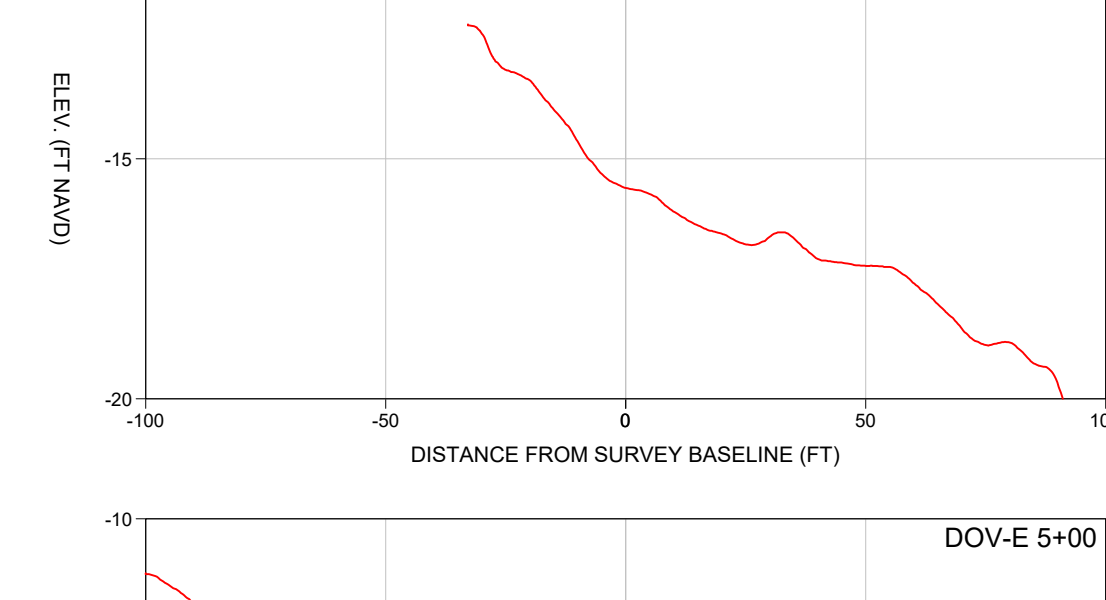
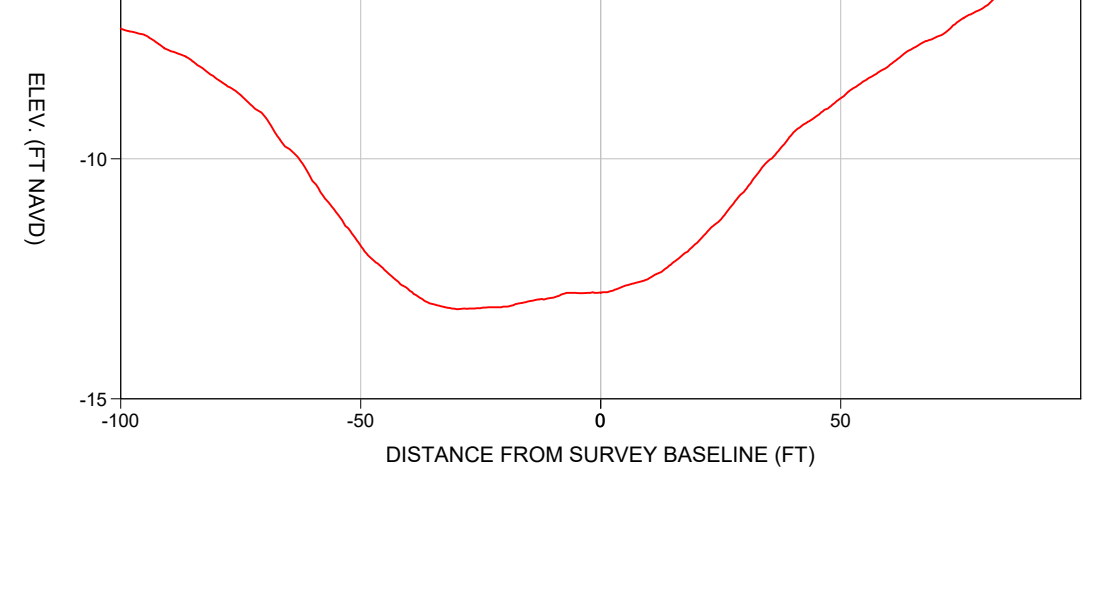
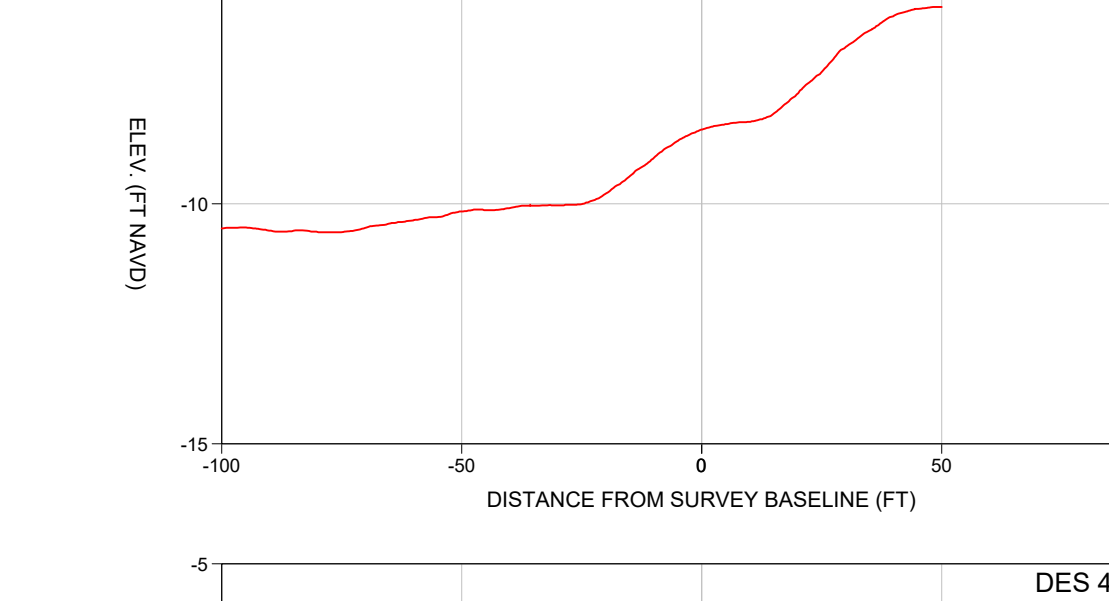
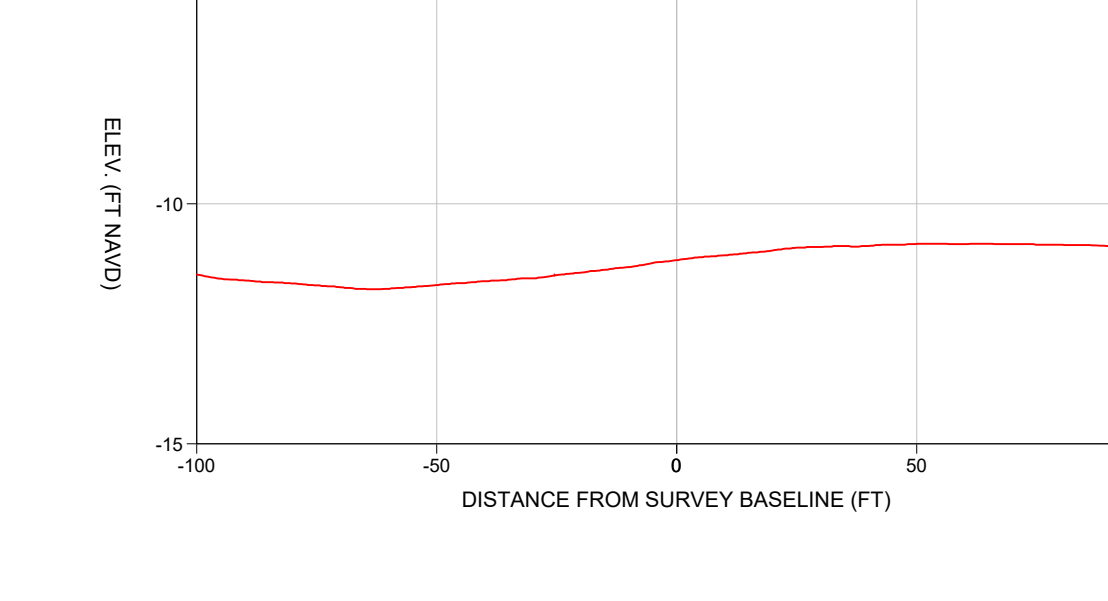
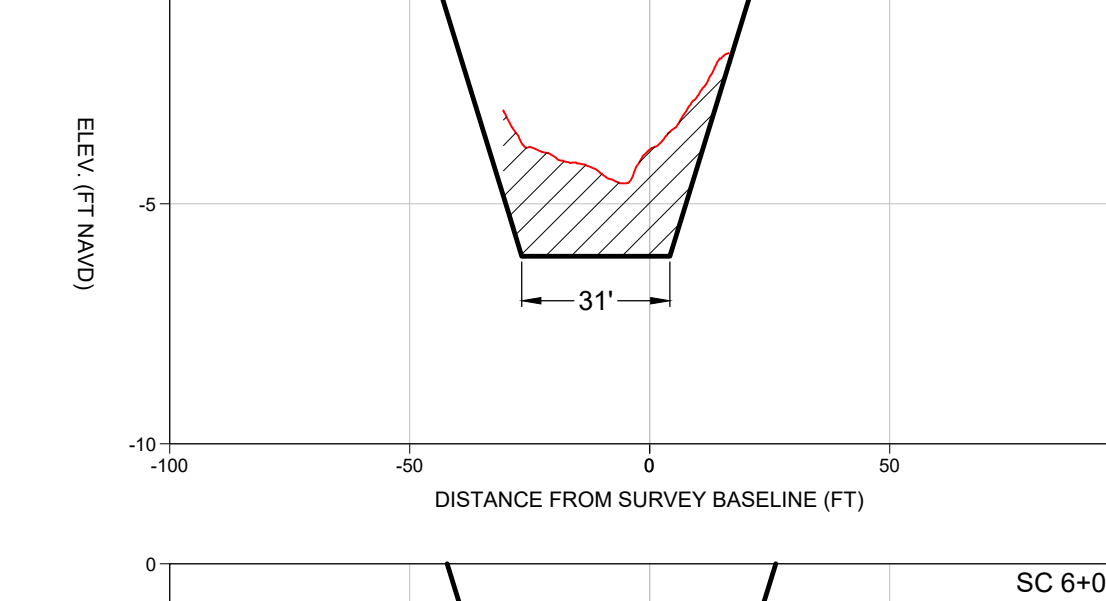
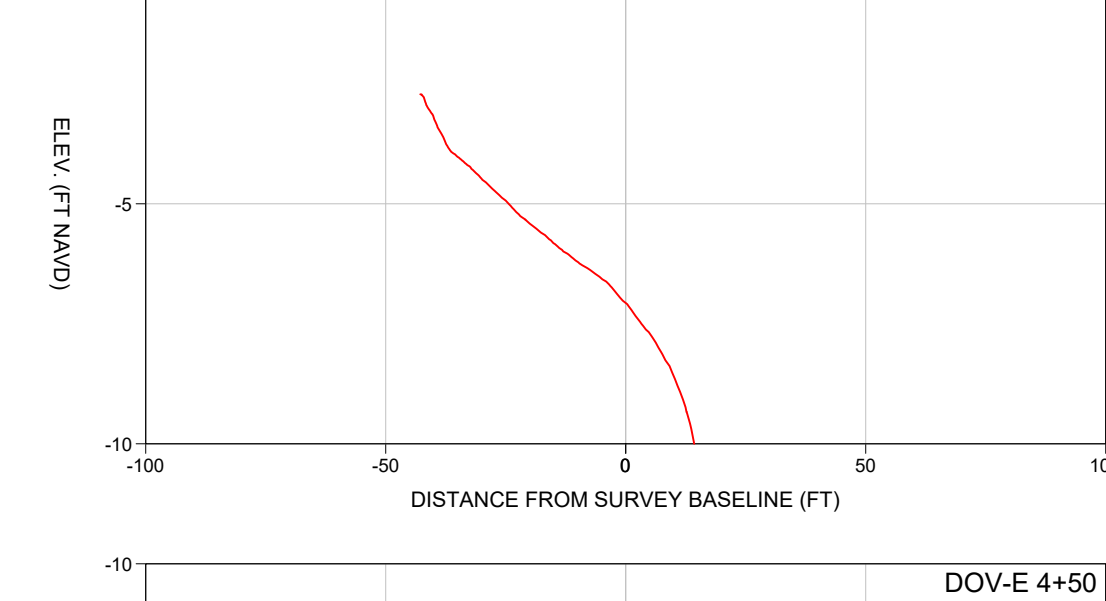
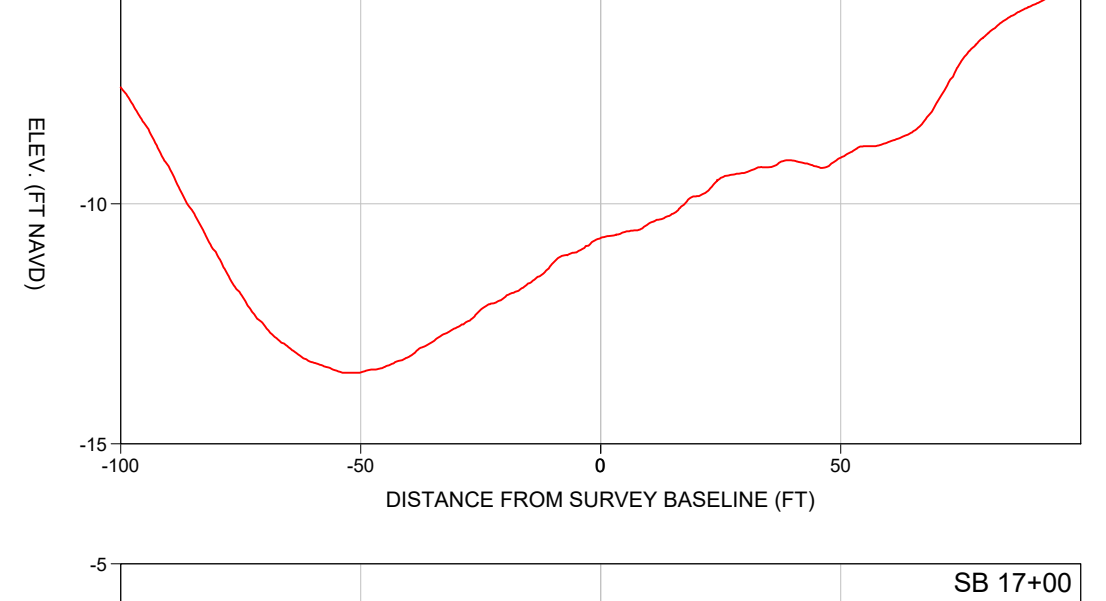
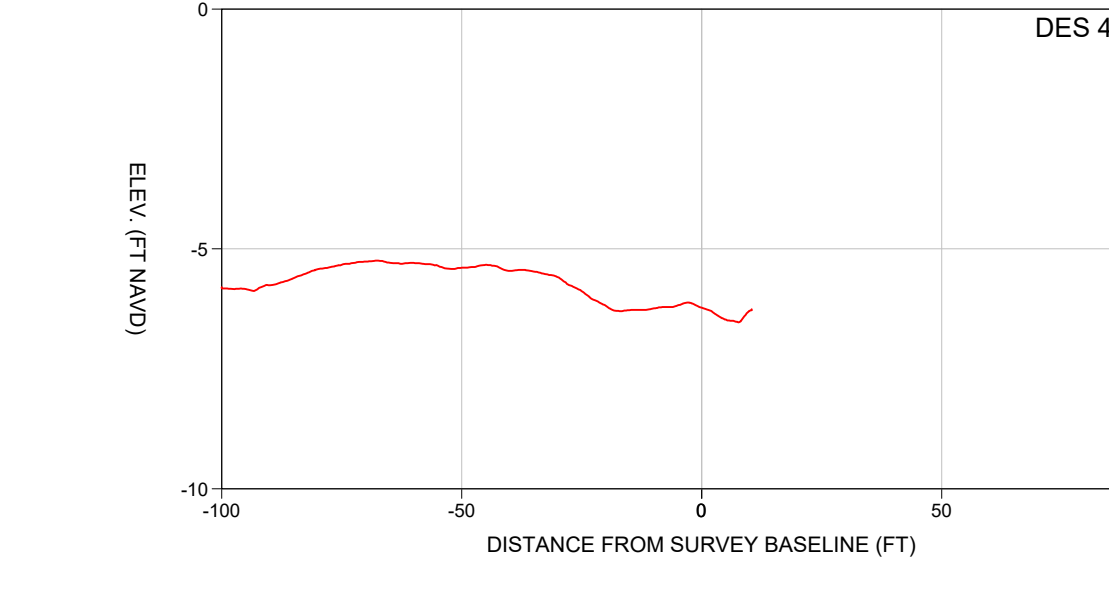
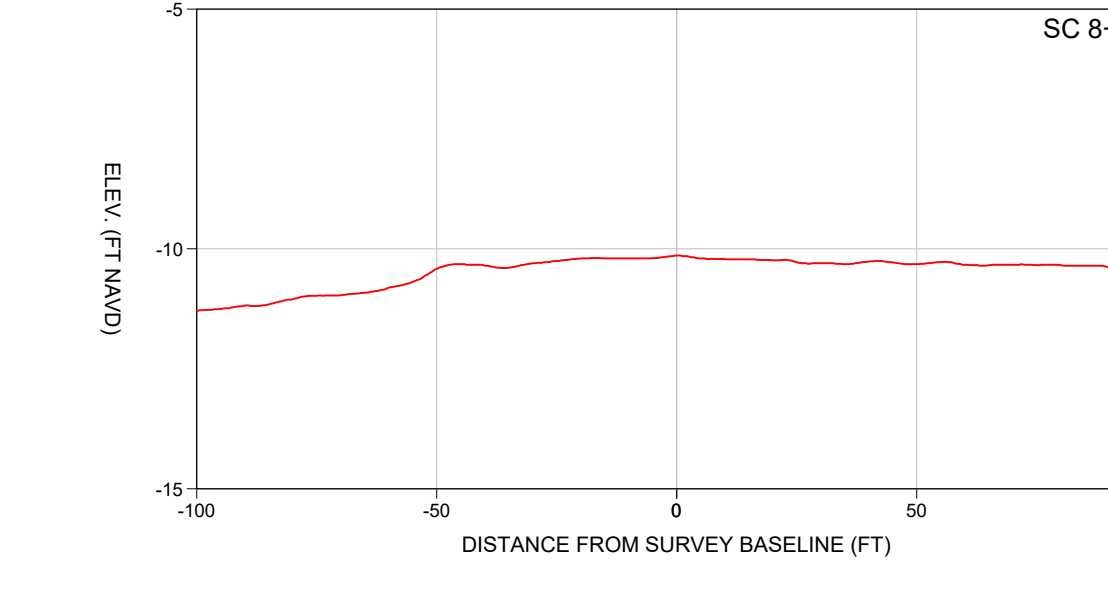
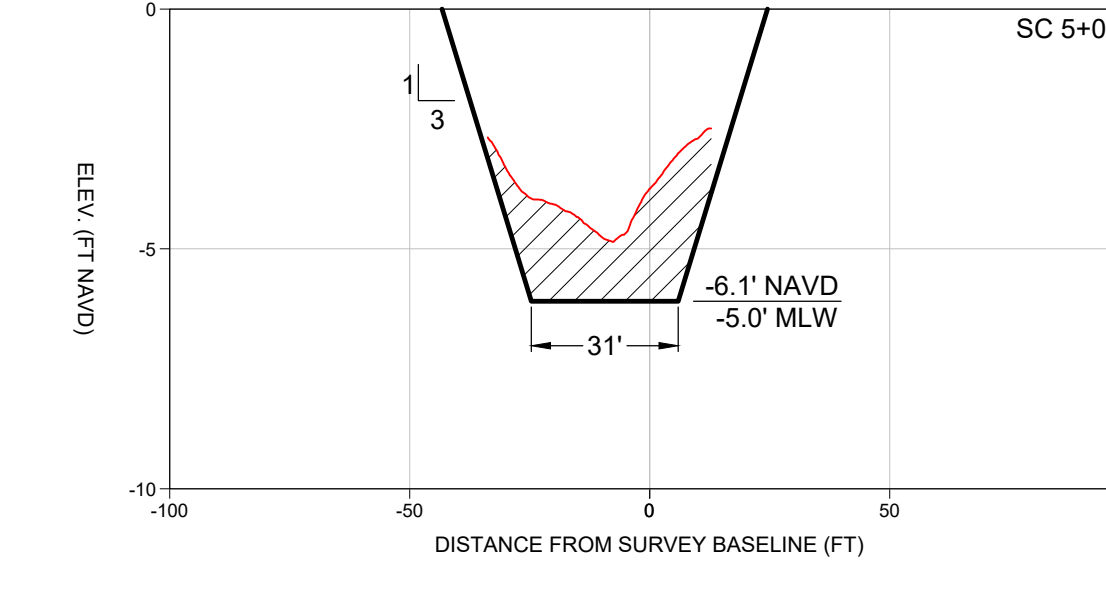
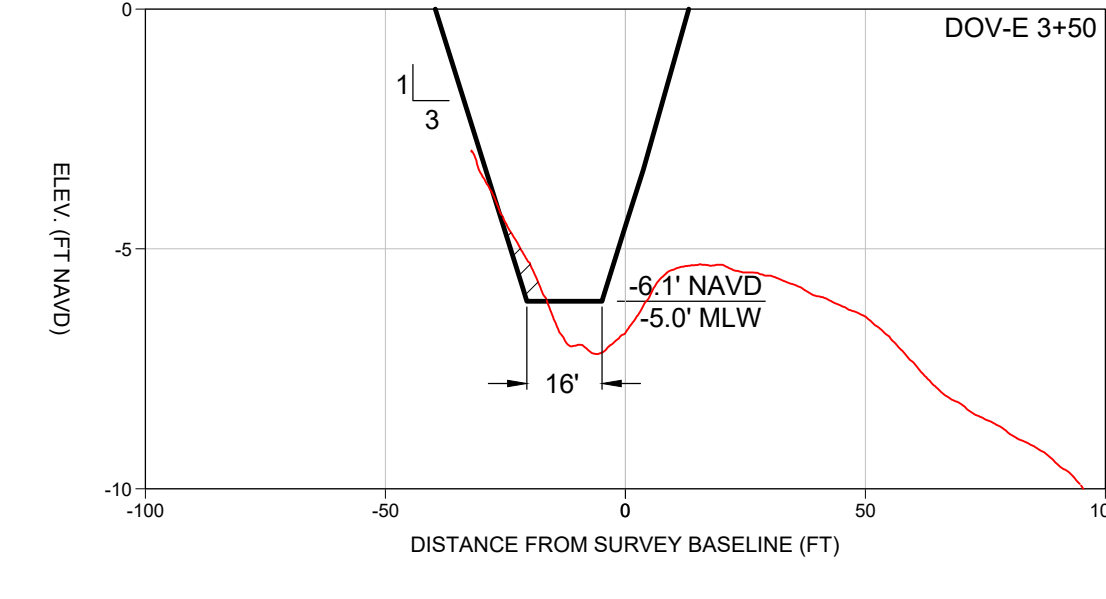
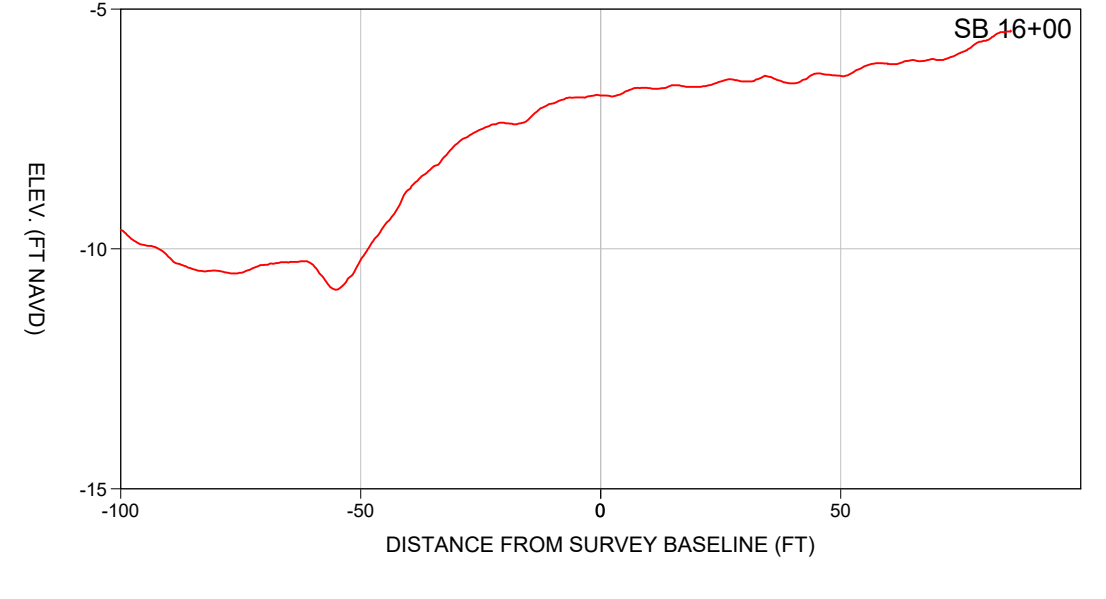
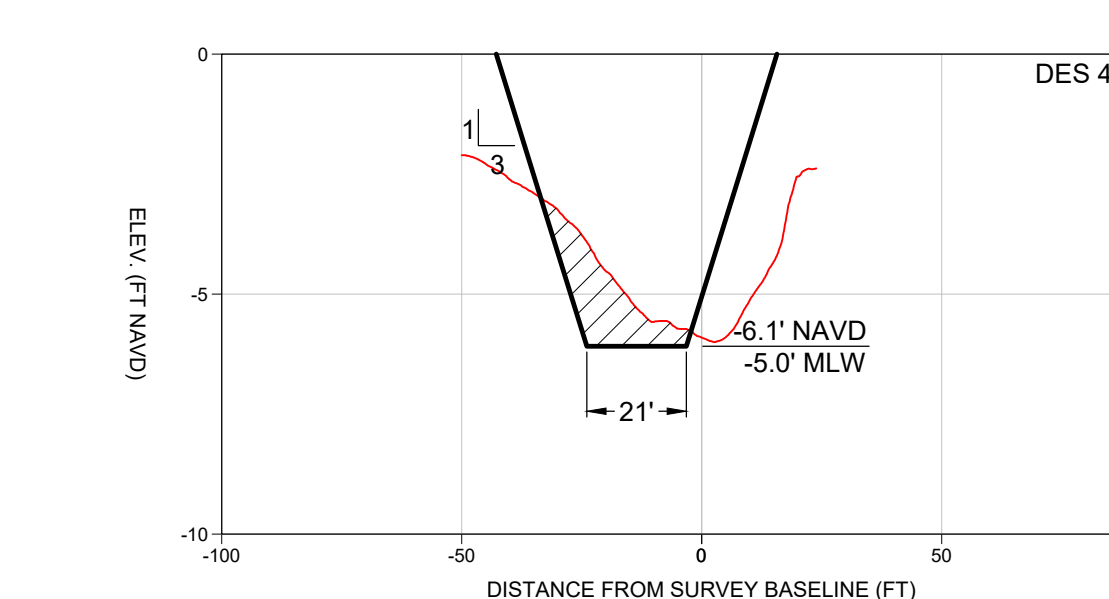
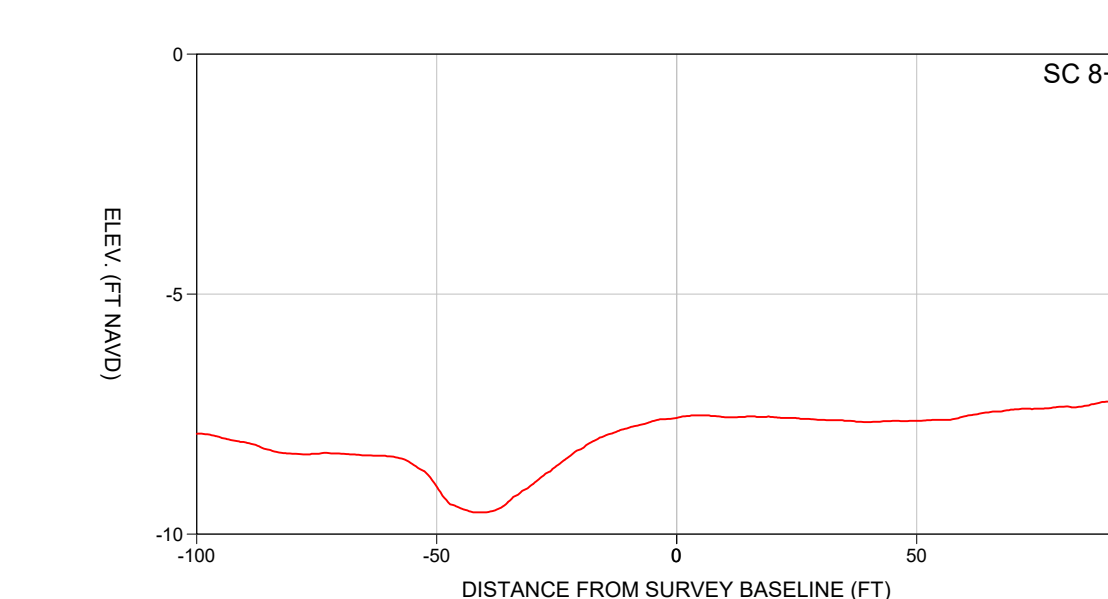
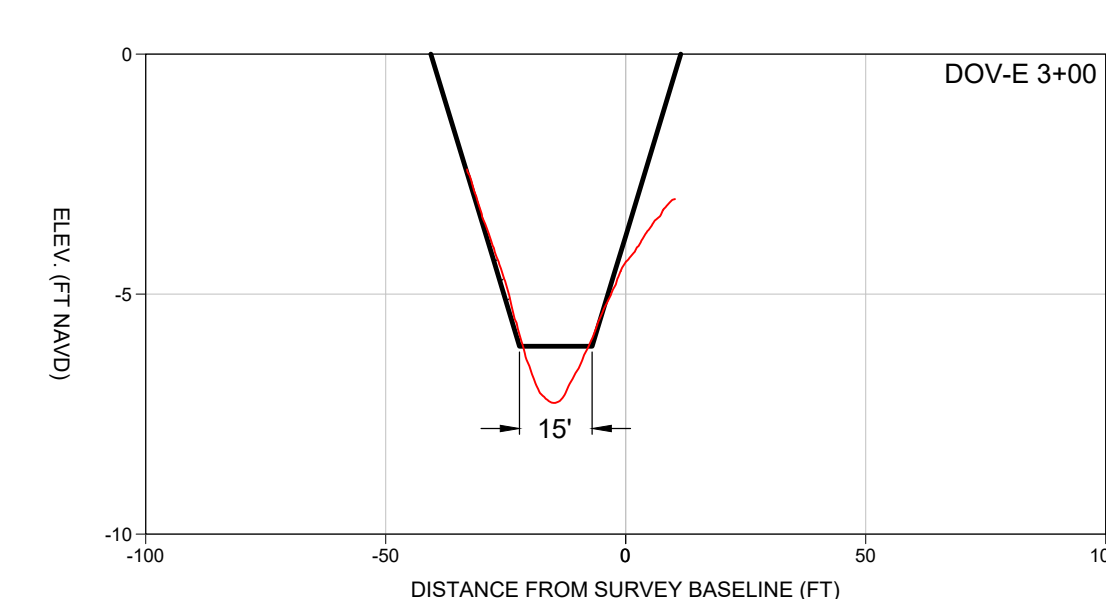
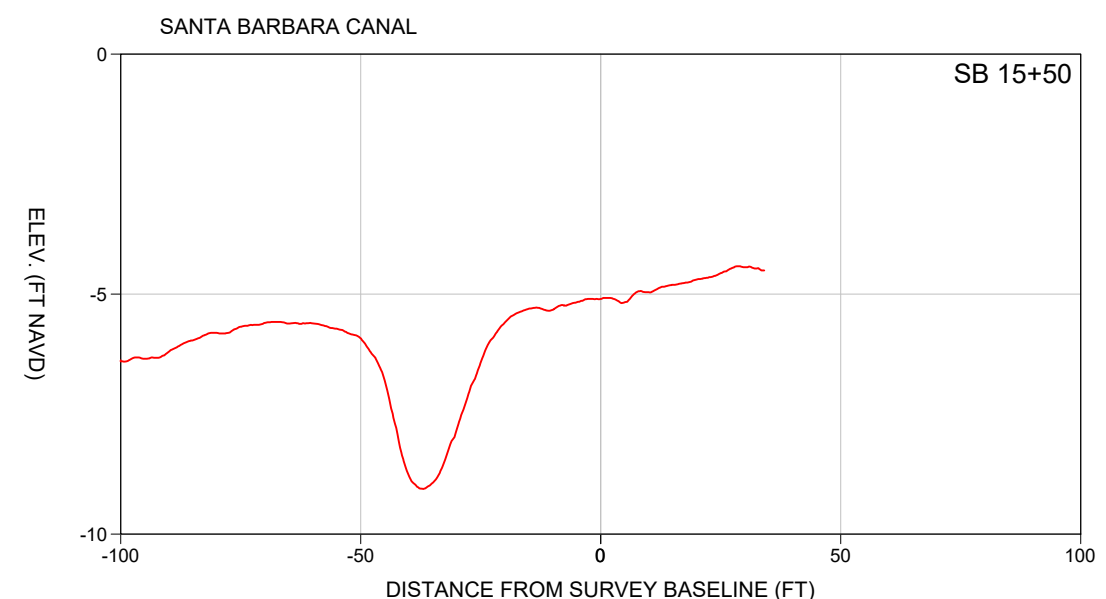
COASTAL & MARINE ENGINEERING ENVIRONMENTAL & GEOLOGICAL SERVICES SURVEY AND MAPPING ENGINEERING, CA 2464 SURVEYING, LB 2464
 PHONE: (239)643-2324 FAX: (239)643-1143 www.coastalengineering.com E-Mail: info@cecill.com

CHARLOTTE COUNTY
HARBOUR HEIGHTS ENTRANCE CHANNELS
CROSS SECTIONS

CLIENT: CHARLOTTE COUNTY
 TITLE: HARBOUR HEIGHTS ENTRANCE CHANNELS CROSS SECTIONS

DATE:	8/30/2022
DRAWN:	GVJ
CHECKED:	RJE
SEC.	TWP.
ACAD NO.	22247-Harbour Heights.dwg
REF. NO.	22.247
NO.	NO.
DATE	DATE
BY	BY

SHEET 6
 FILE NO.: 22247-HH-6



LEGEND
 — 8/18/2022 SURVEY
 ▨ DREDGE AREA

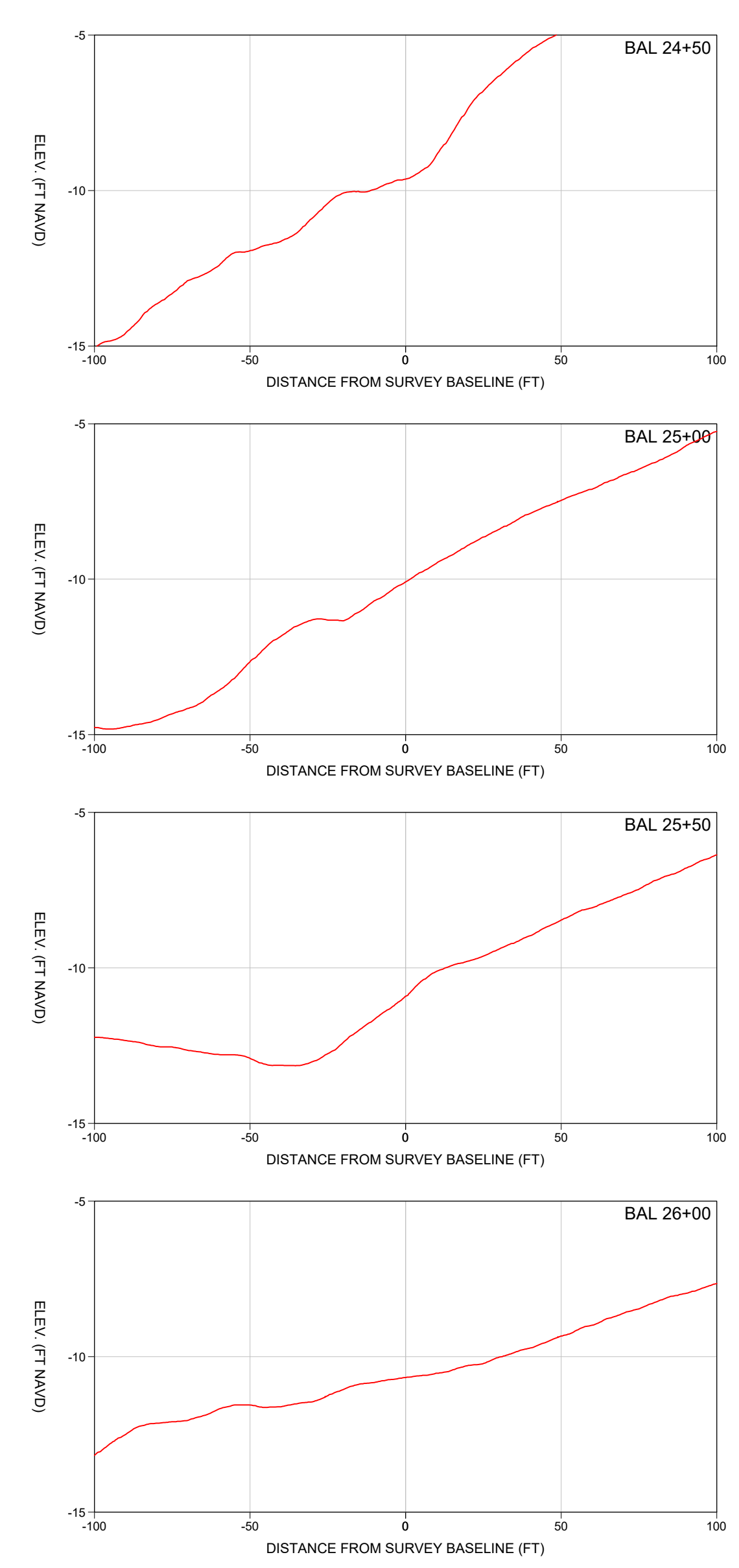
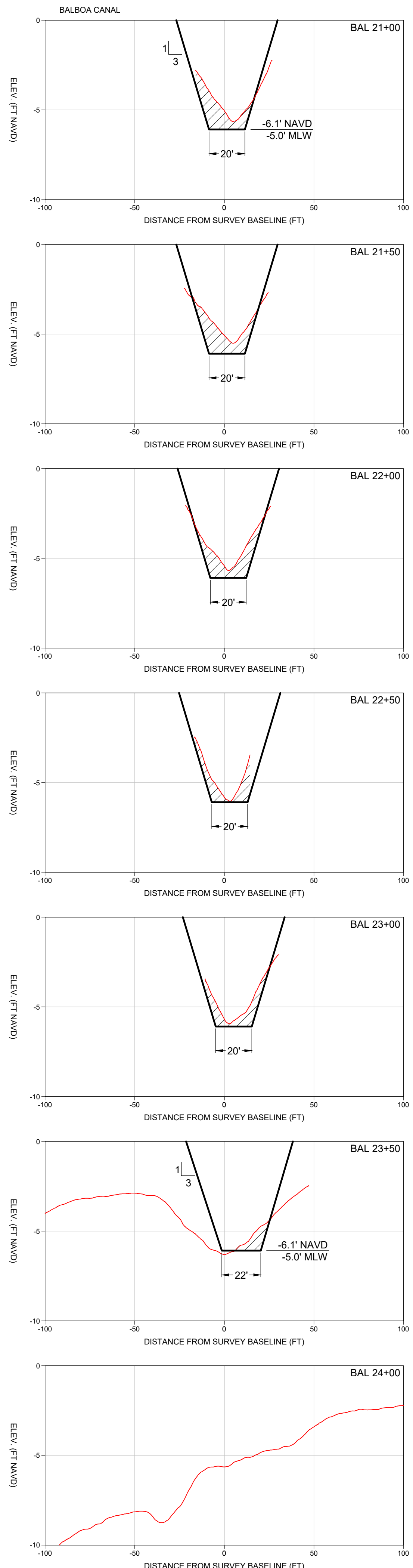
SCALE
 H: 1" = 40'
 V: 1" = 4'

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CLIENT: CHARLOTTE COUNTY
 TITLE: HARBOUR HEIGHTS ENTRANCE CHANNELS CROSS SECTIONS

DATE:	8/30/2022
DRAWN:	AS NOTED
CHECKED:	GVT
SEC.	RJE
ACAD NO.	TWP.
REF. NO.	RNG.
	22247-Harbour Heights.dwg
	22.247
NO.	
DATE	
BY	
REVISION DESCRIPTION	

SHEET 7
 FILE NO.: 22247-HH-7



LEGEND
 8/18/2022 SURVEY
 DREDGE AREA

SCALE
 H: 1" = 40'
 V: 1" = 4'

COASTAL ENGINEERING CONSULTANTS INC.
 Serving Florida Since 1977
 28421 BONITA CROSSINGS BLVD
 BONITA SPRINGS, FLORIDA 34104

CLIENT: CHARLOTTE COUNTY
TITLE: HARBOUR HEIGHTS ENTRANCE CHANNELS CROSS SECTIONS

DATE: 8/30/2022
SCALE: AS NOTED
DRAWN: GVT
CHECKED: RJE
SEC.: TWP.
ACAD NO.: 22247-Harbour Heights.dwg
REF. NO.: 22.247

NO.	DATE	BY	REVISION DESCRIPTION

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SHEET 8
FILE NO.: 22247-HH-8

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