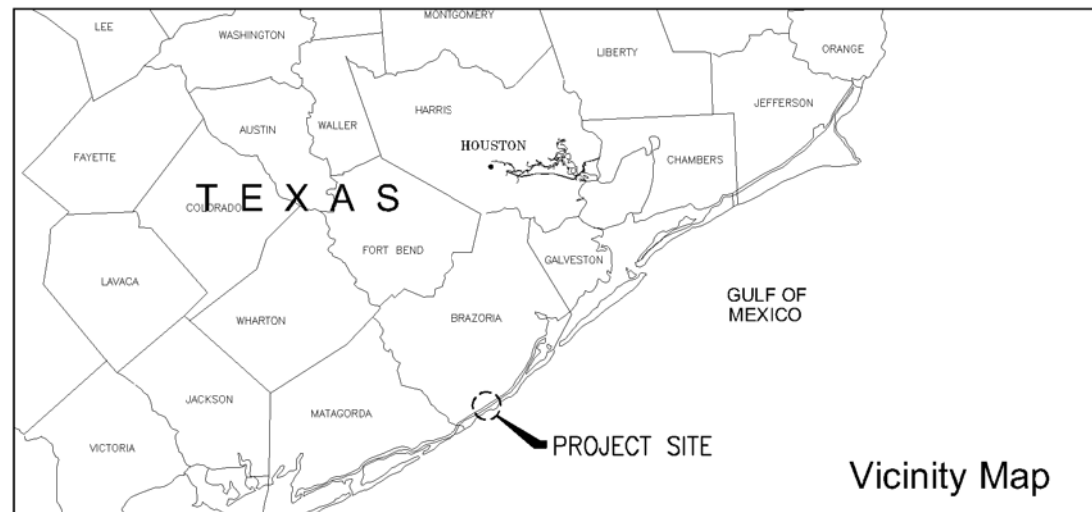


# **ATTACHMENT 1 DRAWINGS**

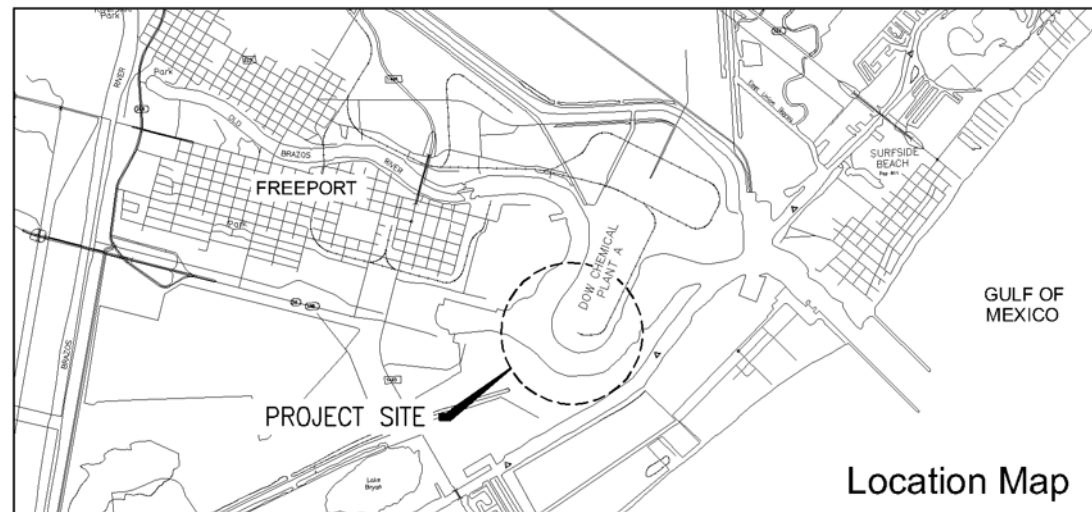
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**US Army Corps  
of Engineers®**



Vicinity Map



Location Map

Preliminary (10% Design) Drawings For

# Freeport Harbor

## Channel Improvement Project - General Reevaluation Report (GRR)

HDR Project No.  
10026951

Freeport Harbor, Texas  
January 2017

INDEX OF DRAWINGS	
Sheet Number	Sheet Title
GENERAL	
00G-01	COVER SHEET AND INDEX
00G-02	GENERAL NOTES
ALTERNATIVES	
00C-01	PROJECT SITE PLAN
00C-02	PROJECT LAYOUT
00C-03	DREDGING CROSS SECTIONS
00C-04	DREDGING CROSS SECTIONS
00C-05	DREDGING CROSS SECTIONS
00C-06	DREDGING CROSS SECTIONS
00C-07	DREDGING CROSS SECTIONS
00C-08	DREDGING CROSS SECTIONS

### PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN  
LICENSE NO.: 86936  
DATE: 01-27-2017

**MATERIALS IN PLAN/SECTION**

- EXISTING GRADE
- DREDGING TEMPLATE
- REQUIRED DREDGING
- ALLOWABLE OVERDEPTH

**SHEET NAMING CONVENTION**

**DISCIPLINE DESIGNATOR & DISCIPLINE ORDER**

- G GENERAL
- V SURVEYING/MAPPING
- X DEMOLITION
- C CIVIL
- L LANDSCAPING
- U MULTI-DISCIPLINE
- S STRUCTURAL
- A ARCHITECTURAL
- D PROCESS
- M MECHANICAL (HVAC)
- P PLUMBING
- F FIRE PROTECTION
- E ELECTRICAL
- Y INSTRUMENTATION

**EXAMPLE**

0	5				
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**AREA DESIGNATION**

		A			
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**DISCIPLINE DESIGNATOR**

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**SHEET TYPE DESIGNATOR**

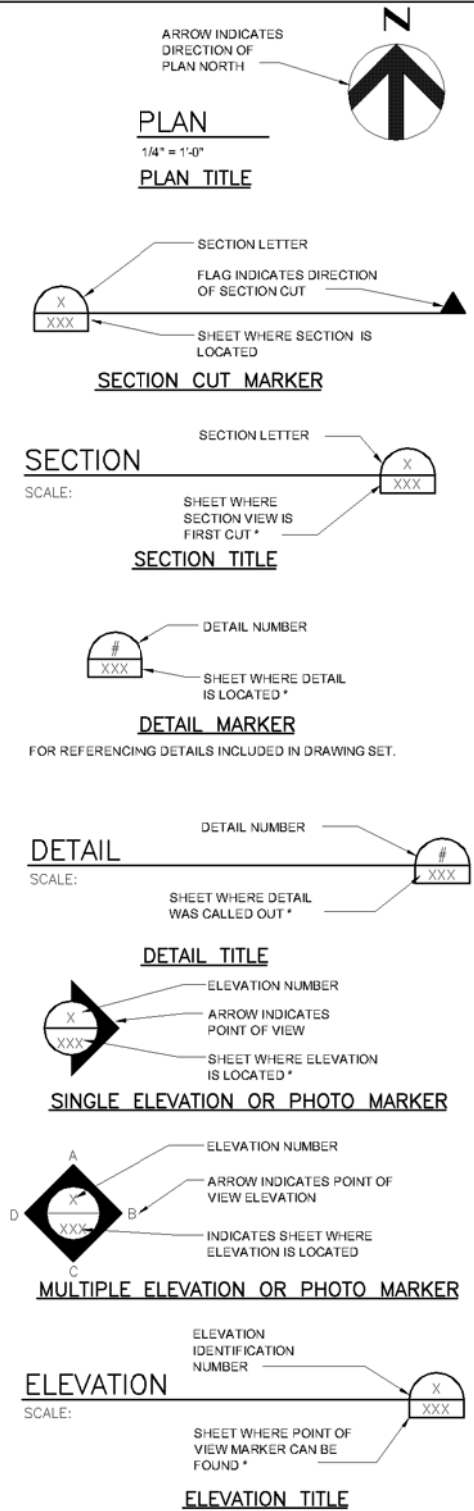
				0	1
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**SHEET NUMBER**

**ABBREVIATIONS**

- AO ALLOWABLE OVERDEPTH
- PA PLACEMENT AREA

**GENERAL SYMBOLOGY**



\* EXCEPTIONS WHERE THE SHEET NUMBER IS REPLACED BY A DASH (-).  
 1) FOR COMMON DETAILS, SECTIONS, ELEVATIONS OR DETAILS THAT ARE CUT OR CALLED OUT ON MULTIPLE SHEETS.  
 2) SECTIONS, ELEVATIONS OR DETAILS THAT ARE LOCATED ON THE SAME SHEET THEY ARE CUT OR CALLED OUT ON.

**GENERAL NOTES AND SURVEY CONTROL:**

- THE SURVEY DATA APPLIED FOR DEVELOPMENT OF THESE DRAWINGS ARE A MOSAIC OF LIDAR DATA OBTAINED FROM USGS, AND LIDAR AND BATHYMETRY PROVIDED BY ERDC. THE DATA PROVIDED BY ERDC WERE ORIGINALLY COMPILED BY ERDC FOR THE DEVELOPMENT OF THE STWAVE MODEL PREPARED FOR THE FHCIP GRR STUDY. UPDATED TOPOGRAPHY AND BATHYMETRY WILL BE OBTAINED PRIOR TO FINAL DESIGN.
- ALL ELEVATIONS SHOWN ARE IN FEET REFERENCED TO MEAN LOWER LOW WATER (MLLW) DATUM. THE CORRELATION BETWEEN MLLW AND NAVD 88 IS 0.00' NAVD 88 = +0.65' MLLW.
- ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET REFERENCED TO STATE PLANE, TEXAS SOUTH CENTRAL ZONE, NAD '83. HORIZONTAL CONTROL:
- CONTRACTOR SHALL VERIFY ACCURACY OF SURVEY CONTROL MONUMENTS PRIOR TO CONSTRUCTION. IMMEDIATELY REPORT ANY DISCREPANCIES TO ENGINEER.
- ALL EXISTING UTILITIES, PIPELINES, AND OTHER POTENTIAL OBSTRUCTIONS MAY NOT BE SHOWN. CONTRACTOR SHALL LOCATE ALL POTENTIAL OBSTRUCTIONS PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL TAKE MEASURES TO PROTECT ALL EXISTING IMPROVEMENTS WITHIN AND ADJACENT TO THE WORK AREA. ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE EXPENSE OF CONTRACTOR AND TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL TAKE PRECAUTIONS AND SECURE EQUIPMENT AGAINST ADVERSE WEATHER AND MARINE CONDITIONS.

**DREDGING NOTES:**

- PRIOR TO COMMENCING DREDGING, CONTRACTOR SHALL PERFORM A PRE-DREDGE HAZARD SURVEY OVER THE WORK AREA TO LOCATE ANY BURIED OBSTRUCTIONS OR UNCHARTED PIPELINES THAT MAY BE PRESENT. REFER TO SPECIFICATION SECTION 02000, "CONSTRUCTION SURVEYING," FOR REQUIREMENTS.
- ALL CHANNEL END SLOPES SHALL BE EQUAL TO CHANNEL SIDE SLOPES AT THE SAME STATION.
- DREDGED MATERIAL SHALL BE DEPOSITED WITHIN THE LIMITS OF THE DESIGNATED PLACEMENT AREAS. MATERIAL DEPOSITED OUTSIDE THESE LIMITS SHALL BE REMOVED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP, MITIGATION, PERMITTING, AND ALL OTHER CORRECTIVE MEASURES ASSOCIATED WITH MISPLACED DREDGED MATERIAL AND/OR DAMAGE CAUSED BY CONTRACTOR.
- FREEMPORT HARBOR IS ONE OF THE BUSIEST PORTS IN THE NATION AND CONTRACTOR SHALL BE AWARE OF NAVIGATIONAL REQUIREMENTS. DREDGING OPERATIONS, EQUIPMENT, AND PERSONNEL SHALL NOT RESTRICT NAVIGATION IN THE SHIP CHANNEL. RIGHT OF WAY SHALL BE PROVIDED TO ANY AND ALL VESSELS ENTERING PORT. CONTRACTOR SHALL KEEP ABEAST OF THE NAVIGATION REQUIREMENTS OF VESSELS' INGRESS AND EGRESS THROUGH THE PORT AND PROVIDE APPROPRIATE ACCOMMODATIONS TO MOVE DREDGING PLANT AND OTHER EQUIPMENT SO AS NOT TO INTERFERE WITH NAVIGATION. DELAYS CAUSED BY SHIPPING SHALL NOT BE GROUNDS FOR CLAIMS, CHANGED CONDITIONS, OR TIME EXTENSIONS TO THE CONTRACT.
- ALL DREDGES, TRAWLS, BARGES, AND OTHER SUPPORT VESSELS SHALL CONTINUOUSLY MONITOR AND BE CAPABLE OF TRANSMITTING ON RADIOTELEPHONE CHANNEL 14 TO COORDINATE NAVIGATION WITH THE BRAZOS PILOTS ASSOCIATION. HOWEVER, CHANNEL 14 SHALL NOT BE USED AS THE WORKING CHANNEL FOR CONTRACTOR'S OWN COORDINATION OF DAILY DREDGING ACTIVITIES. REFER TO SPECIFICATION SECTION 0221, "DREDGING," FOR ADDITIONAL REQUIREMENTS REGARDING BRIDGE-TO-BRIDGE RADIO TELEPHONE EQUIPMENT.
- DREDGED MATERIAL SHALL BE PLACED IN PA 1. REFER TO SHEET 00C-01 FOR LOCATION OF PA 1.



ISSUE	DATE	DESCRIPTION
-	11-28-2016	10% DESIGN PLANS

PROJECT MANAGER	N. McLELLAN
DESIGNED BY	D. HEILMAN
DRAWN BY	F. MARTINEZ
CHECKED BY	N. McLELLAN
PROJECT NUMBER	269928

**PRELIMINARY**

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 ENGINEER: DANIEL J. HEILMAN  
 LICENSE NO.: 86936  
 DATE: 11-28-2016



**GENERAL NOTES**

FILENAME | 00G-02.DWG  
 SCALE | AS NOTED

SHEET  
**00G-02**



**CHANNEL ALIGNMENT DATA**

CURVE NO.	POINT	STATION	NORTHING	EASTING	RADIUS	LENGTH	DELTA	DIRECTION
HORIZONTAL DATUM: TEXAS SOUTH-CENTRAL ZONE, NAD83, U.S. SURVEY FEET FREEPORT HARBOR WITH ASSUMPTION OF MAINTENANCE, NEW ENTRANCE								
	POB	-300+50.00	13,519,112.760	3,176,141.220				
	P.C.	58+39.72	13,544,804.340	3,151,081.010				
1	P.L.	66+96.56	13,545,417.710	3,150,482.710	1,671.03	1,583.50	54°17'39.87"	LEFT
	CC		13,543,637.530	3,149,884.800				
	P.T.	74+23.21	13,545,289.850	3,149,635.450				
	P.C.	106+74.23	13,544,804.740	3,146,420.830				
2	P.L.	117+84.41	13,544,639.080	3,145,323.080	1,909.86	2,011.26	60°20'16.03"	LEFT
	CC		13,542,916.260	3,146,705.820				
	P.T.	126+85.49	13,543,603.200	3,144,923.780				
	P.C.	132+66.62	13,543,060.960	3,144,714.750				
3	P.L.	137+52.68	13,542,607.430	3,144,539.930	2,602.08	961.03	21°09'40.00"	RIGHT
	CC		13,543,996.870	3,142,286.820				
	P.C.C.	142+27.65	13,542,247.600	3,144,213.180				
4	P.L.	361+87.17	13,525,990.620	3,129,450.700	1,452.14	4,370.26	172°25'59.88"	RIGHT
	CC		13,543,223.810	3,143,138.130				
	P.T.	185+97.91	13,544,049.970	3,141,943.900				
USCG BASIN - FREEPORT								
	POB	-3+11.79	13,545,254.210	3,150,860.950				
	P.L.	0+00.00	13,545,537.680	3,150,990.780				
	POE	1+53.25	13,545,677.020	3,151,054.590				



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PROJECT NUMBER	269928

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ENGINEER: DANIEL J. HEILMAN  
 LICENSE NO.: 86936  
 DATE: 11-28-2016



**PROJECT SITE PLAN**

FILENAME | 00C-01.DWG  
 SCALE | AS NOTED

SHEET  
**00C-01**





**PROJECT LAYOUT**  
 00C-01 SCALE: 1" = 300'

**NOTE:**  
 1. LEVEE STABILITY MEASURES MAY BE REQUIRED ALONG INSIDE OF CURVE. SLOPE STABILITY ANALYSES TO BE PERFORMED BY USACE.

**LEGEND:**  
 REQUIRED DREDGING (BOTTOM OF CUT) TO ELEV. -48.0' MLLW



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<b>CHECKED BY</b>	N. McLELLAN
<b>PROJECT NUMBER</b>	269928

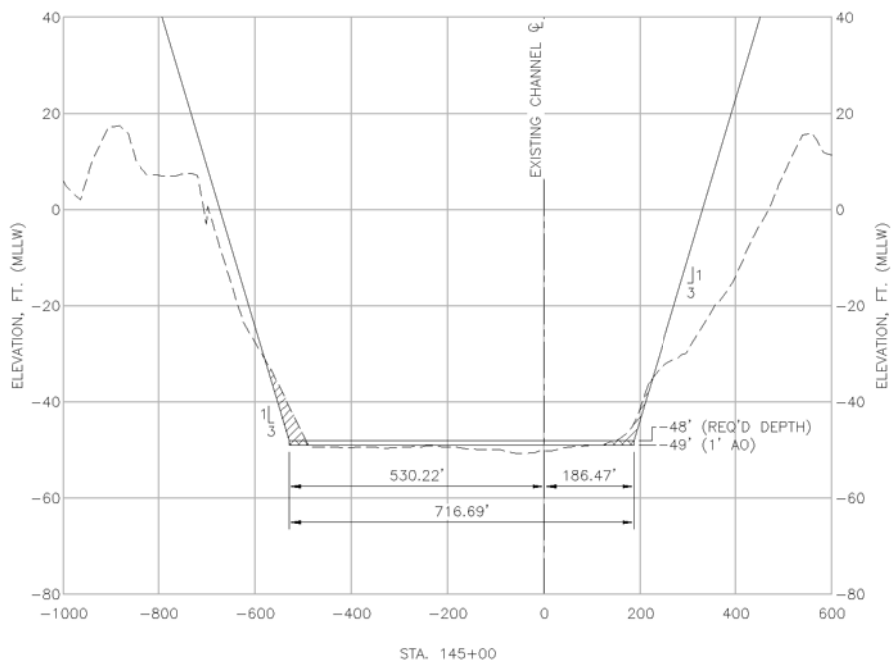
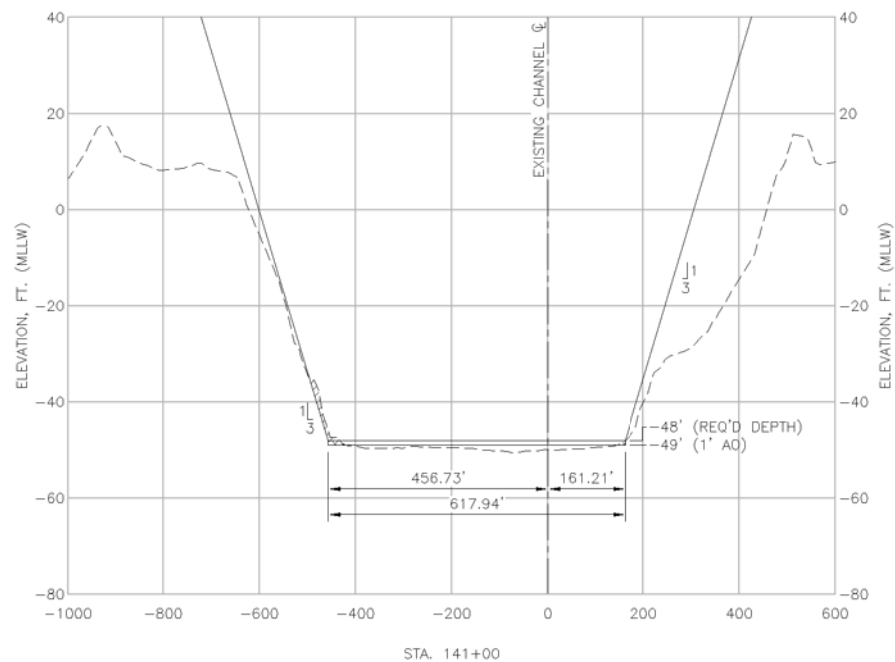
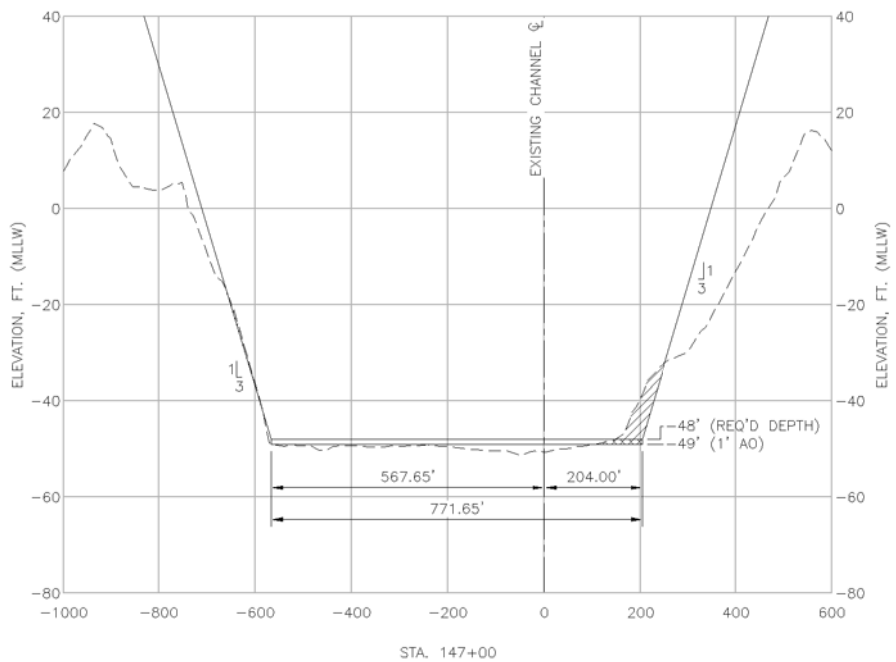
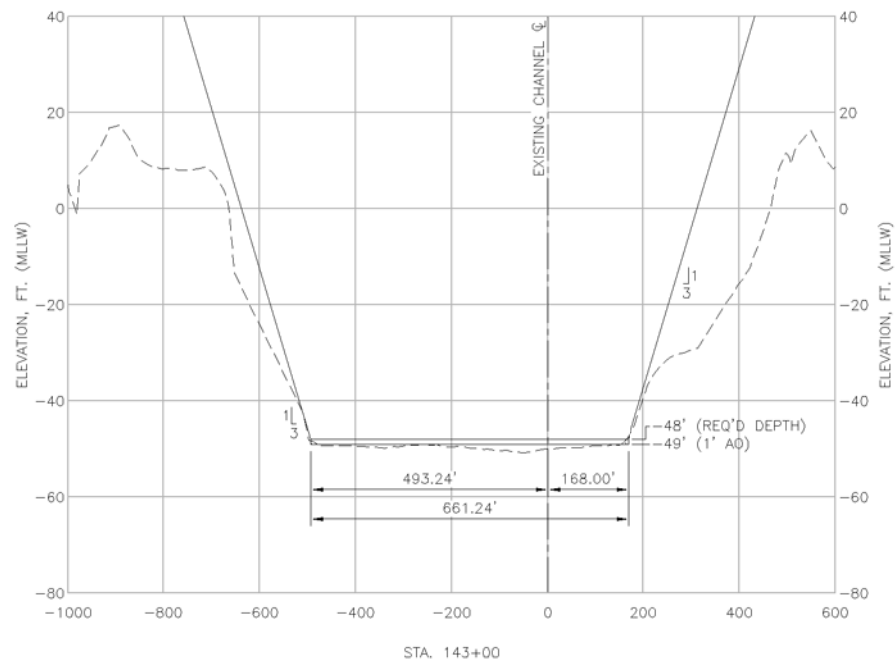
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 LICENSE NO.: 86936  
 DATE: 11-28-2016



**PROJECT LAYOUT**

<b>FILENAME</b>	00C-02.DWG	<b>SHEET</b>	00C-02
<b>SCALE</b>	AS NOTED		

**NOTE:**  
 1. CROSS SECTIONS VIEWED LOOKING TOWARDS INCREASING STATIONS.



**LEGEND:**  
 - - - - - EXISTING GRADE  
 ——— DREDGING TEMPLATE  
 AO ALLOWABLE OVERDEPTH  
 [Hatched Box] REQUIRED DREDGING  
 [Cross-hatched Box] ALLOWABLE OVERDEPTH



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-	11-28-2016	10% DESIGN PLANS

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DESIGNED BY	D. HEILMAN
DRAWN BY	F. MARTINEZ
CHECKED BY	N. McLELLAN
PROJECT NUMBER	269928

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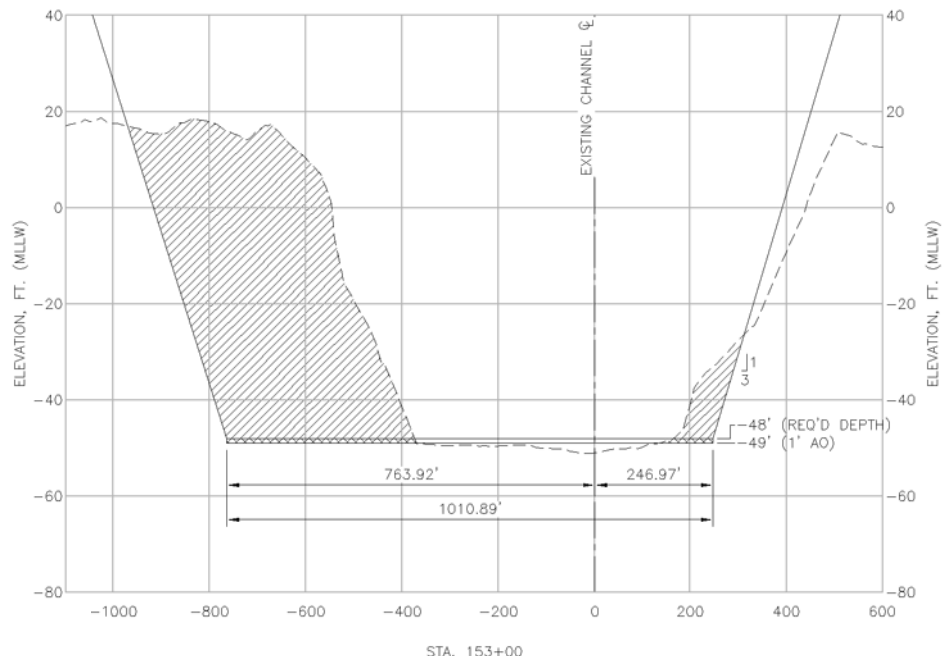
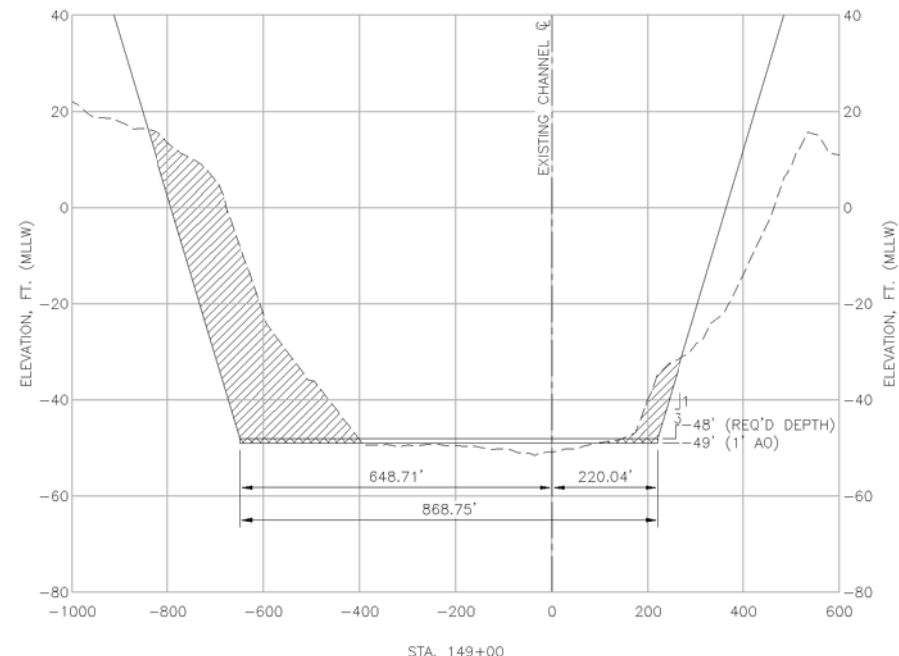
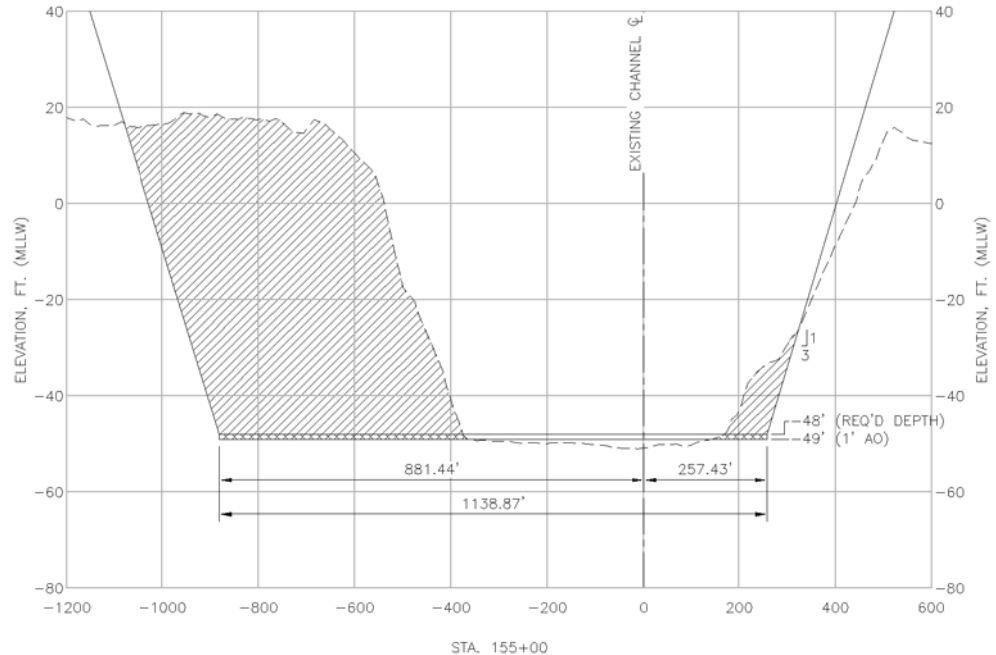
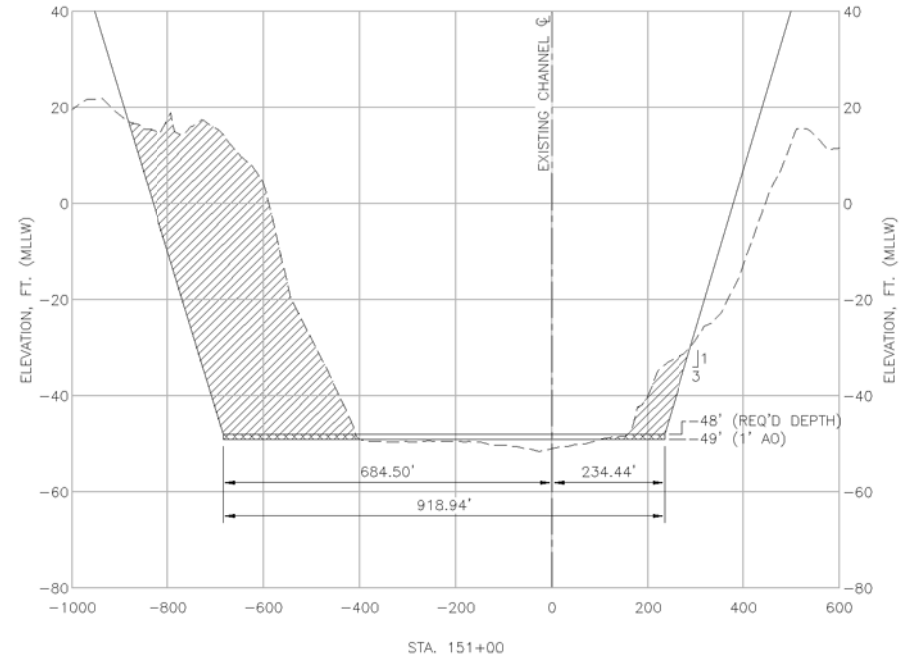


**DREDGING CROSS SECTIONS**

FILENAME: 00C-03.DWG  
 SCALE: AS NOTED

SHEET  
**00C-03**

**NOTE:**  
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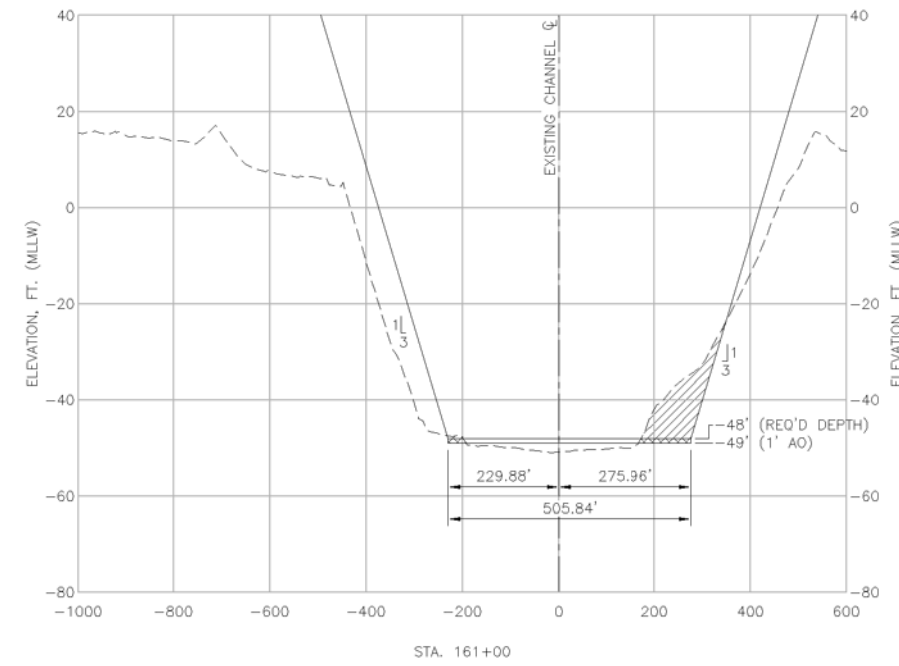
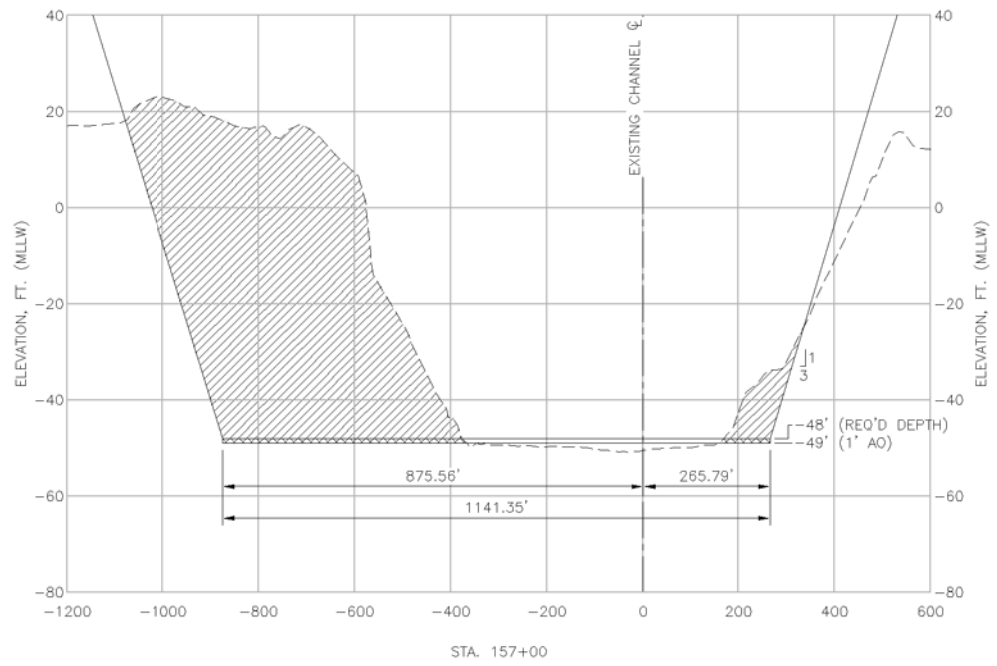
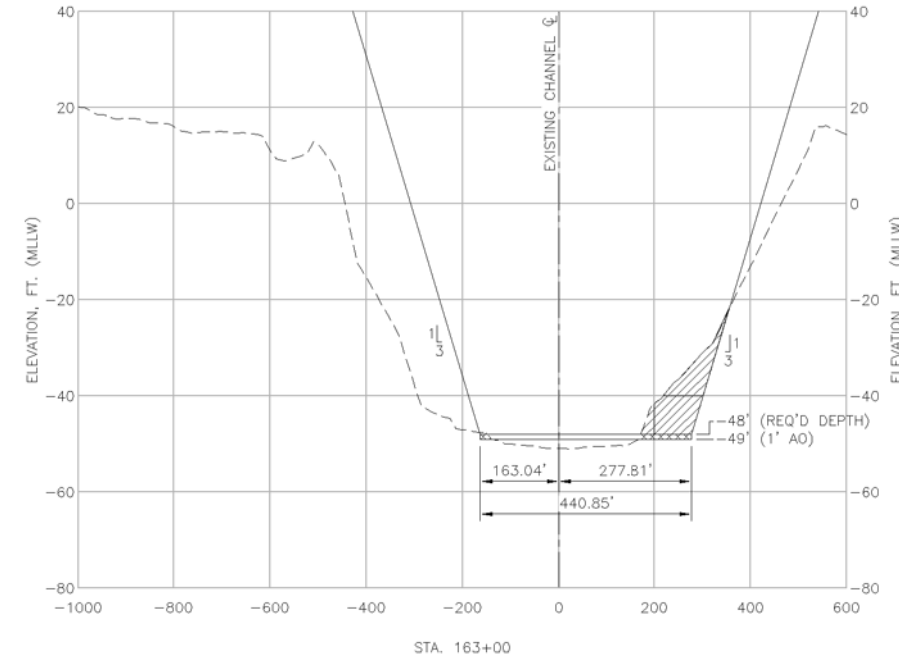
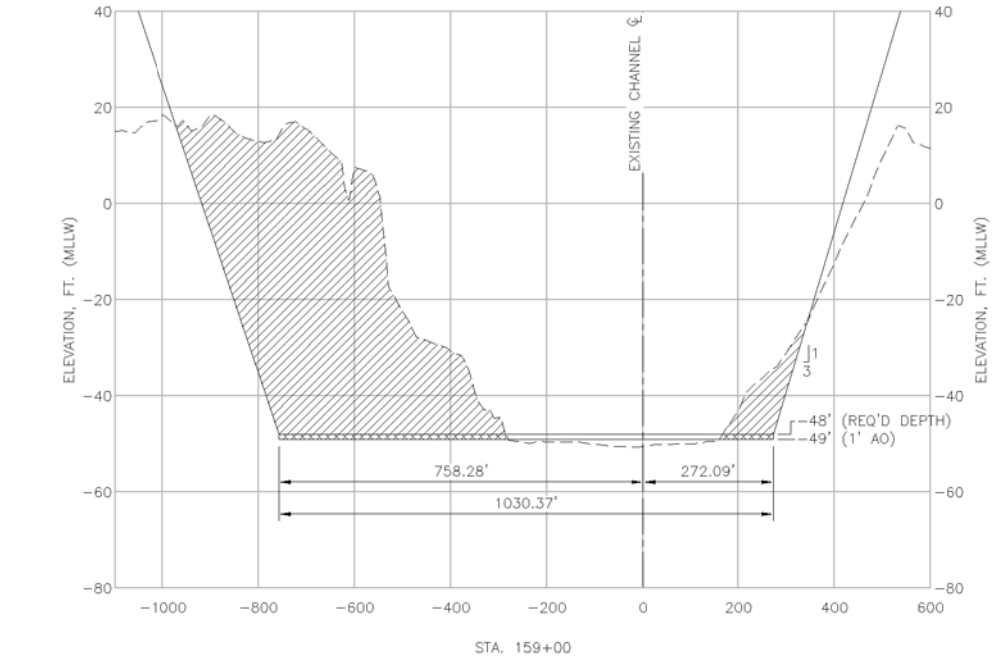
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 SCALE: AS NOTED

SHEET  
**00C-04**



**NOTE:**  
 1. CROSS SECTIONS VIEWED LOOKING TOWARDS INCREASING STATIONS.



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 AO ALLOWABLE OVERDEPTH  
 [Hatched] REQUIRED DREDGING  
 [Cross-hatched] ALLOWABLE OVERDEPTH



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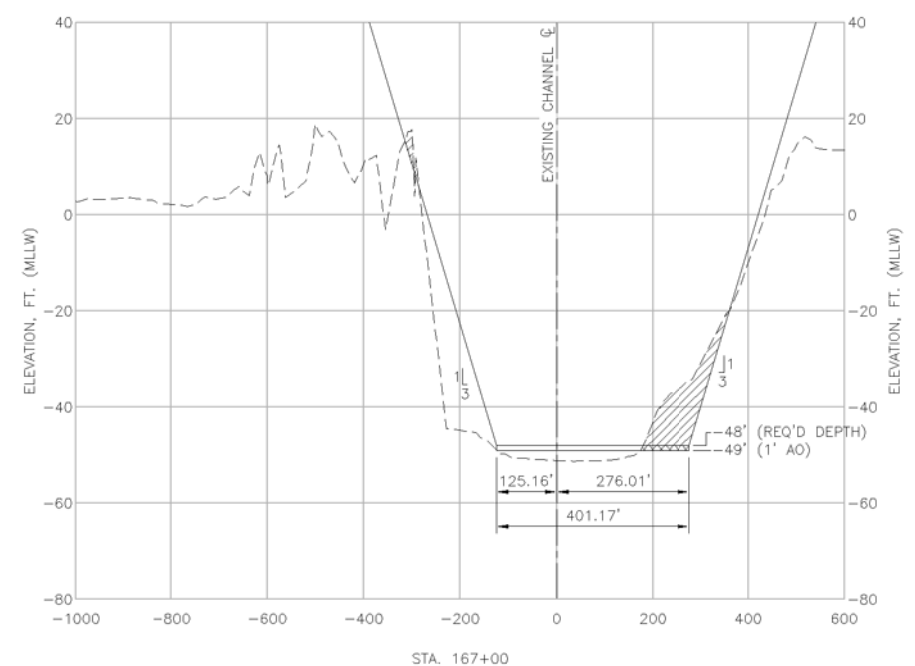
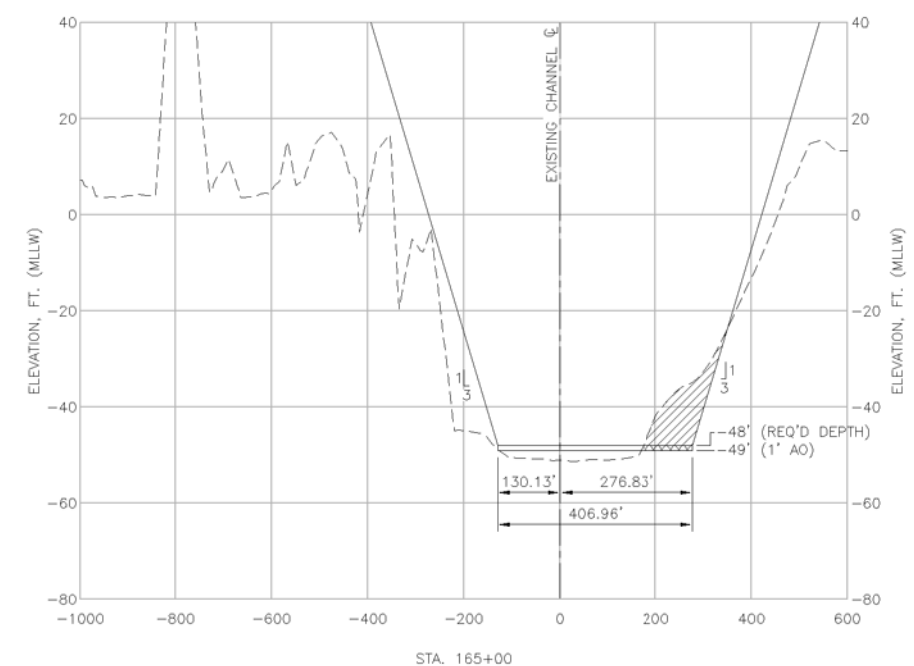
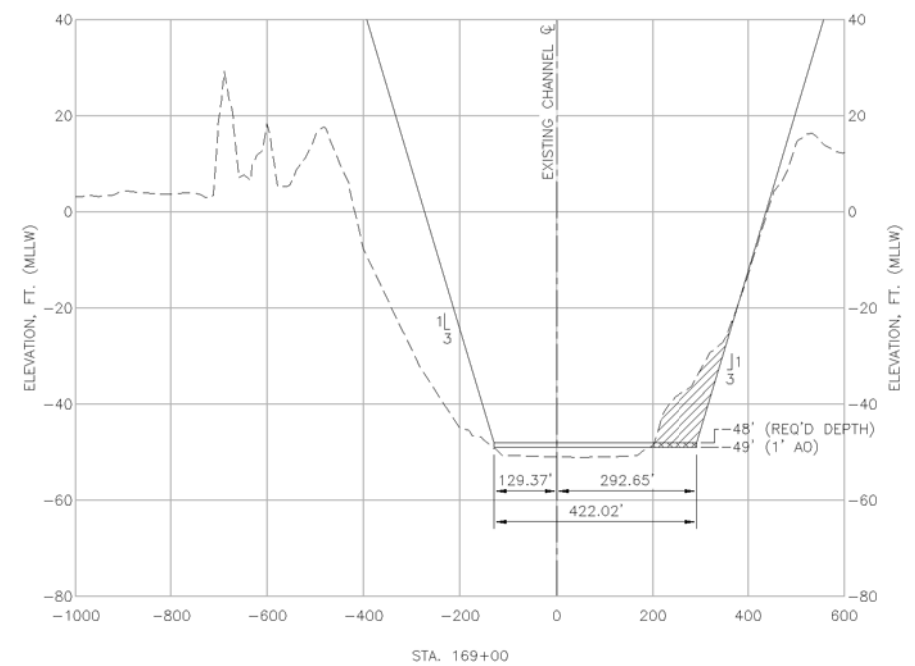
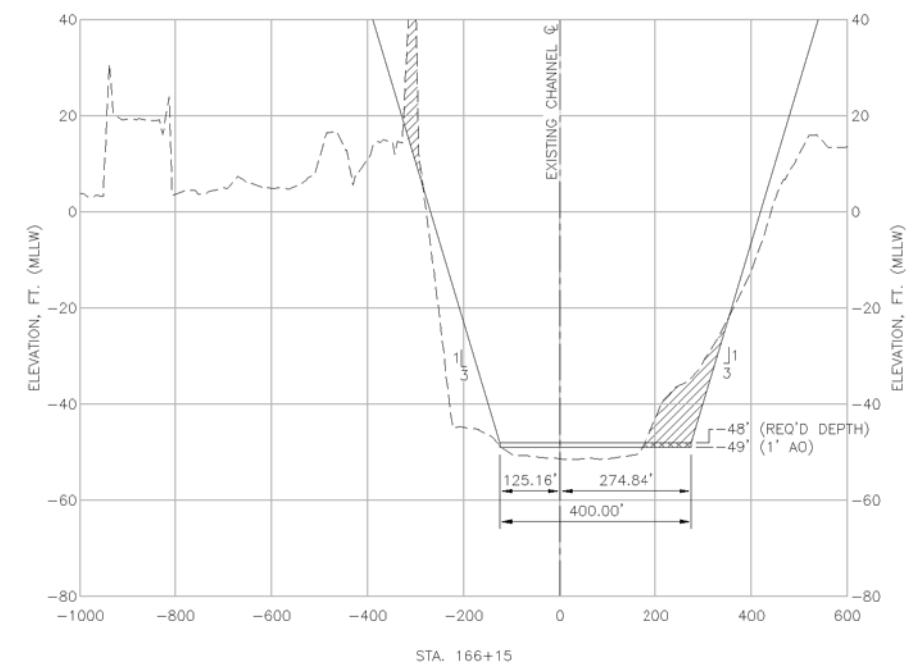


**DREDGING CROSS SECTIONS**

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 SCALE: AS NOTED

SHEET  
**00C-05**

**NOTE:**  
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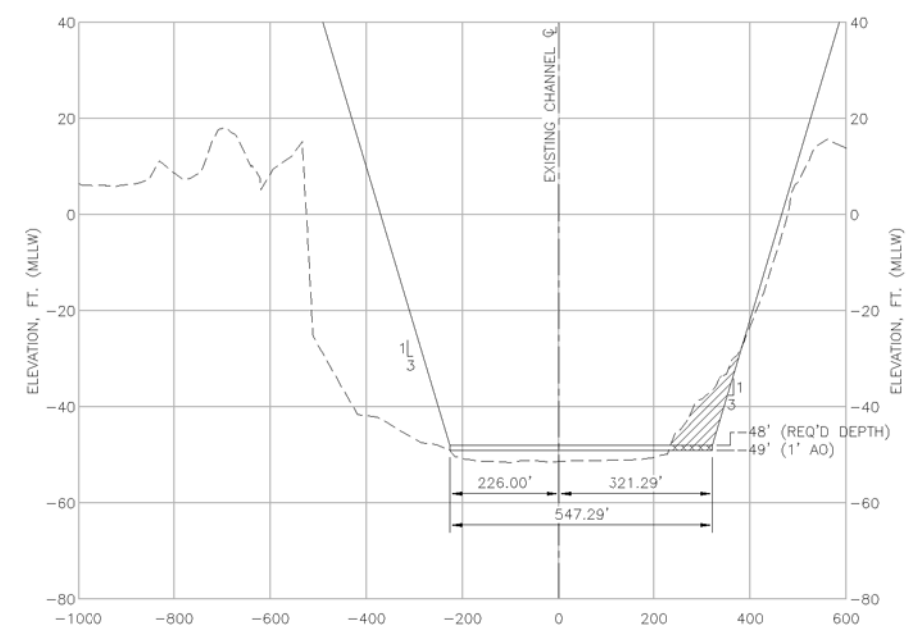


**DREDGING CROSS SECTIONS**

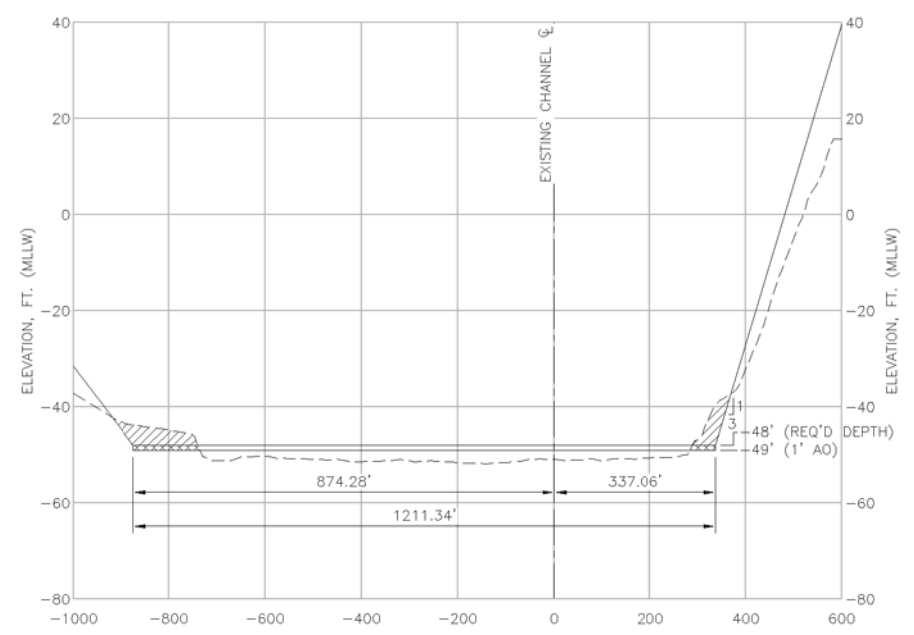
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 SCALE: AS NOTED

SHEET  
**00C-06**

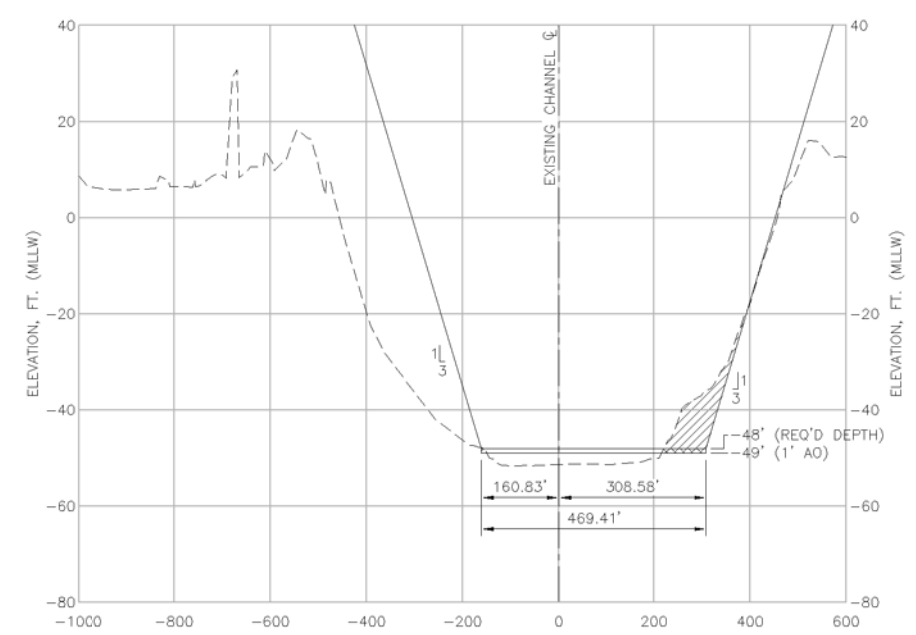
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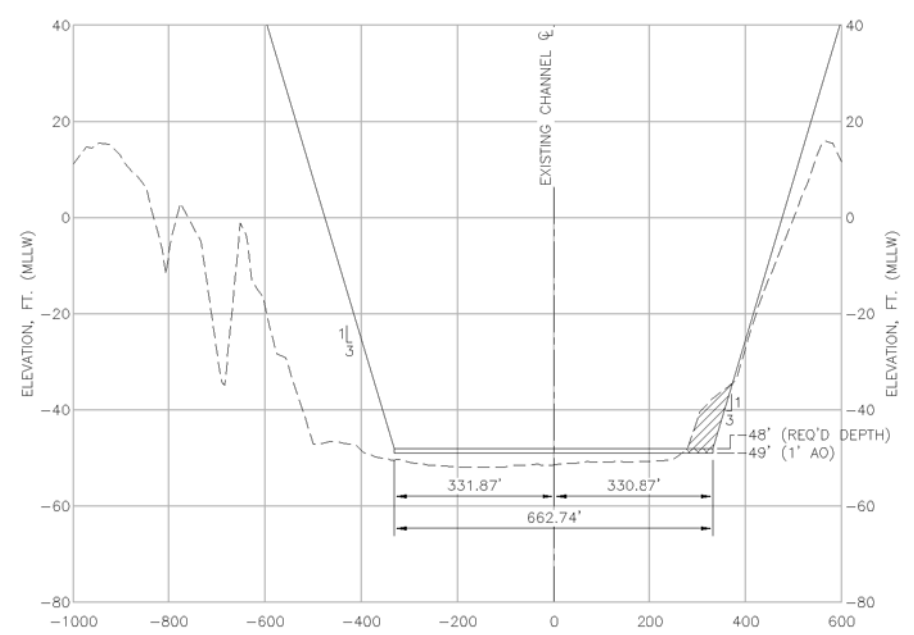
STA. 173+00



STA. 177+00



STA. 171+00



STA. 175+00

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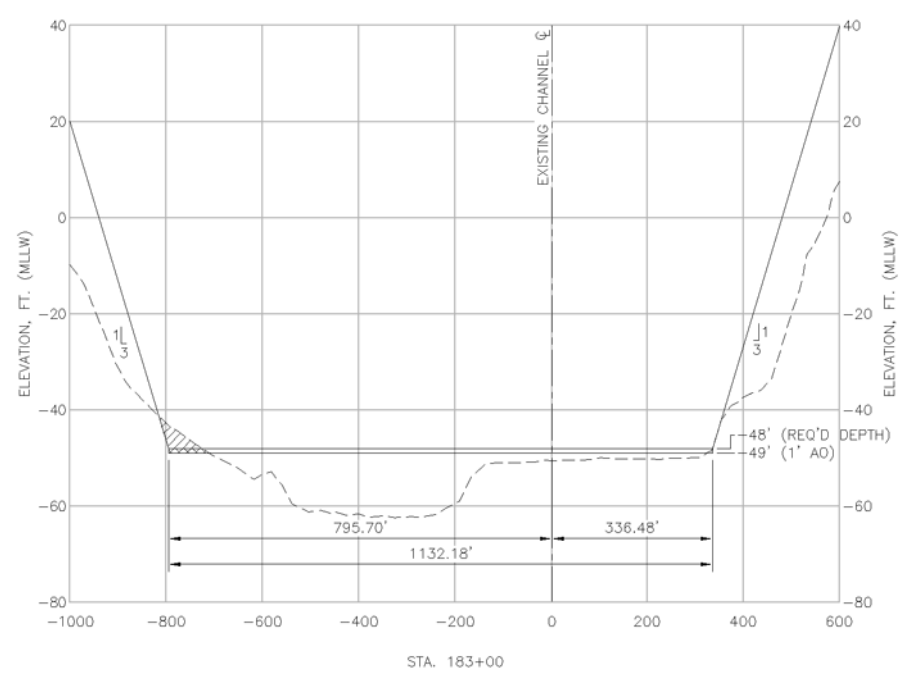
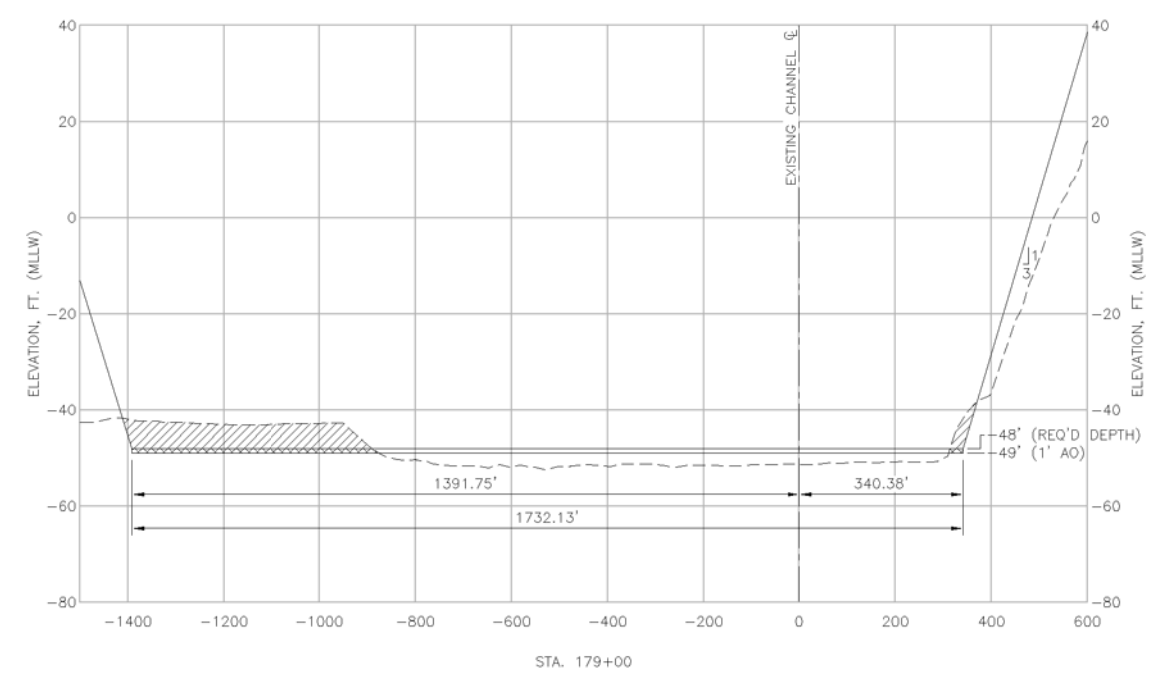
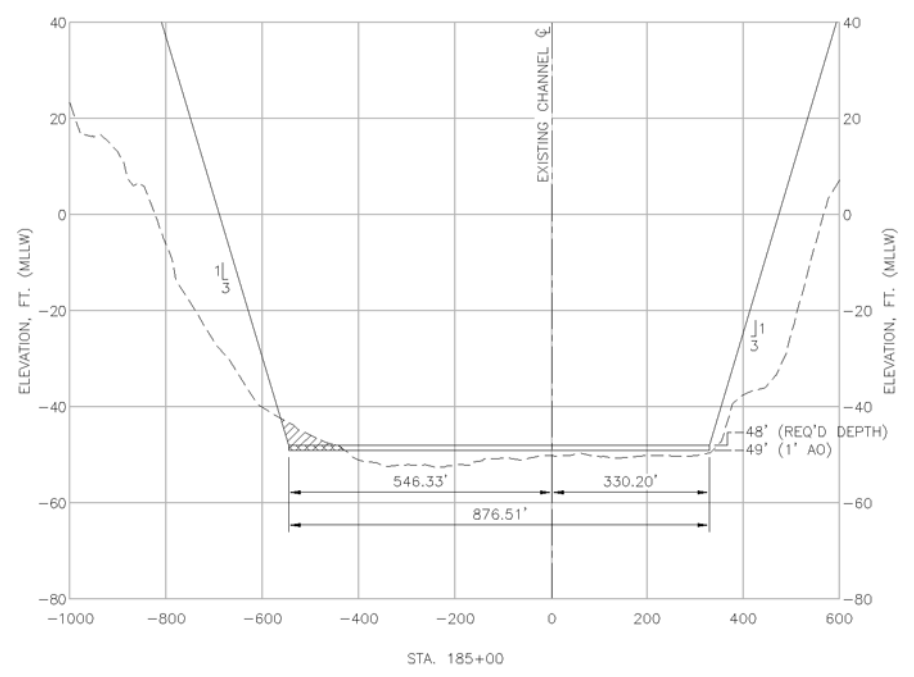
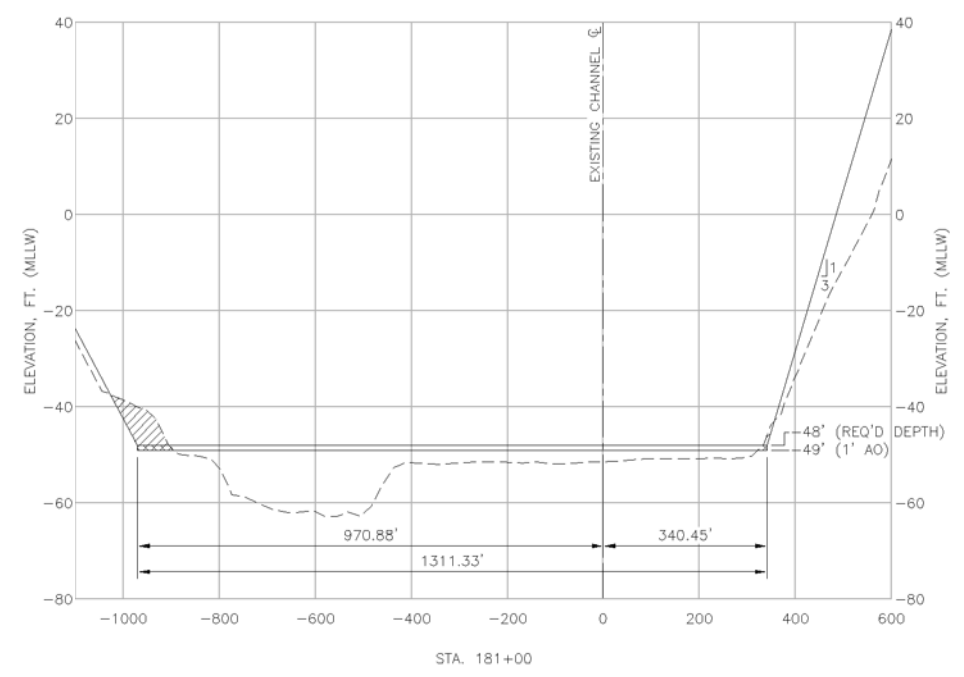


**DREDGING CROSS SECTIONS**

FILENAME | 00C-07.DWG  
 SCALE | AS NOTED

SHEET  
**00C-07**

**NOTE:**  
 1. CROSS SECTIONS VIEWED LOOKING TOWARDS INCREASING STATIONS.



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 - - - - - EXISTING GRADE  
 ——— DREDGING TEMPLATE  
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**DREDGING CROSS SECTIONS**

FILENAME: 00C-08.DWG  
 SCALE: AS NOTED

SHEET  
**00C-08**