US WIND MARYLAND OFFSHORE WIND PROJECT INDIAN RIVER BAY EXPORT CABLES DREDGING PLANS



BLACK & VEATCH CORPORATION OVERLAND PARK, KS PROJECT NO. 410735 2024

NOT TO BE USED FOR CONSTRUCTION

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	Building	INDIA	AN RIVEI	R BAY				410735 - 000	00						
DESIGNER	DJ	DRAWN SLH									CODE				
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TITLE	DRAWING NO.	REV	TITLE	DRAWING NO.	REV
COVER SHEET	000	0	DUCT BANK SECTION	020	0
INDEX	001	2	TYPICAL CABLE CORRIDOR CROSS SECTION	021	0
VICINITY MAP & GENERAL NOTES	002	2	NEAR NAVIGATIONAL CHANNEL		
KEY MAP	003	1	TYPICAL CABLE CORRIDOR CROSS SECTION	022	0
PLAN & PROFILE 1 - INDIAN RIVER BAY ROUTE	004	0	AWAY FROM NAVIGATIONAL CHANNEL		
PLAN & PROFILE 2 - INDIAN RIVER BAY ROUTE	005	0	HDD SECTION	023	0
PLAN & PROFILE 3 - INDIAN RIVER BAY ROUTE	006	0	SPLICING VAULT ON LAND -PLAN VIEW	024	0
PLAN & PROFILE 4 - INDIAN RIVER BAY ROUTE	007	0	SPLICING VAULT ON LAND -SECTION VIEW	025	0
PLAN & PROFILE 5 - INDIAN RIVER BAY ROUTE	008	0	TRANSITION VAULT DETAILS -NOTES	026	0
PLAN & PROFILE 6 - INDIAN RIVER BAY ROUTE	009	0	TRANSITION VAULT DETAILS -PLAN VIEW	027	0
PLAN & PROFILE 7 - INDIAN RIVER BAY ROUTE	010	0	TRANSITION VAULT DETAILS -SECTION VIEW	028	0
PLAN & PROFILE 8 - INDIAN RIVER BAY ROUTE	011	0	TRANSITION VAULT DETAILS -SECTION 2 VIEW	029	0
PLAN & PROFILE 9 - INDIAN RIVER BAY ROUTE	012	0	TRANSITION VAULT DETAILS -SECTION 3 VIEW	030	0
PLAN & PROFILE 10 - INDIAN RIVER BAY ROUTE	013	0	HDD 1 PLAN & PROFILE WEST LANDING	031	0
PLAN & PROFILE 11 - INDIAN RIVER BAY ROUTE	014	1	HDD 2 PLAN & PROFILE EAST LANDING - IRB	032	2
PLAN & PROFILE 12 - INDIAN RIVER BAY ROUTE	015	1	HDD 3 PLAN & PROFILE EAST LANDING - ATLANTIC	033	1
PLAN & PROFILE 13 - INDIAN RIVER BAY ROUTE	016	1	3R'S PARKING LOT PERMANENT DISTURBANCE AREA	034	1
PLAN & PROFILE 14 - INDIAN RIVER BAY ROUTE	017	1	3R'S PARKING LOT TEMPORARY DISTURBANCE AREA	035	1
ONSHORE PLAN & PROFILE 3R'S PARKING LOT	018	1	WEST LANDING PERMANENT DISTURBANCE AREA	036	1
ONSHORE PLAN & PROFILE 3R'S PARKING LOT	019	0	WEST LANDING TEMPORARY DISTURBANCE AREA	037	1

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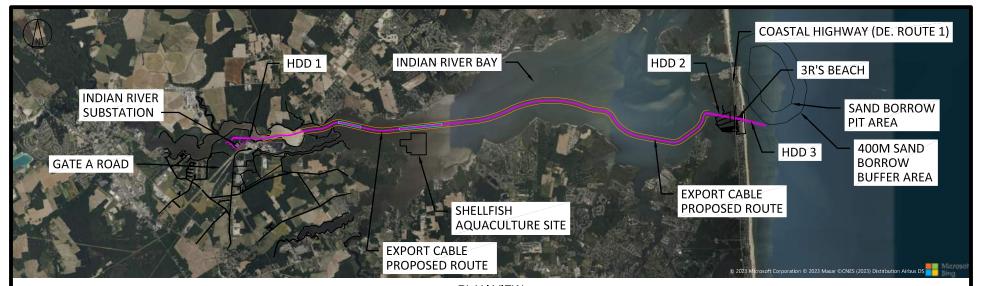
DESIGNER DRAWN
DJ SLH

CHECKED DATE
RW 10/13/23

INDEX

AREA

Project Route Overview and General Notes



PLAN VIEW

GENERAL NOTES:

- 1. Coordinates are in US Survey Feet, NAD 83, Delaware State Plane (SPCS 700)
- 2. Elevations are in US Survey Feet NAVD 88.
- 3. Route is not final. Minor adjustments in routing may be required as additional information is collected.
- 4. Disturbance area in water is based on the proposed installation methods.
- 5. Barge access dredge line is bottom of trench. Extents shown do not include side slopes. Side slope widths may vary.

0 5000 10000 FEET

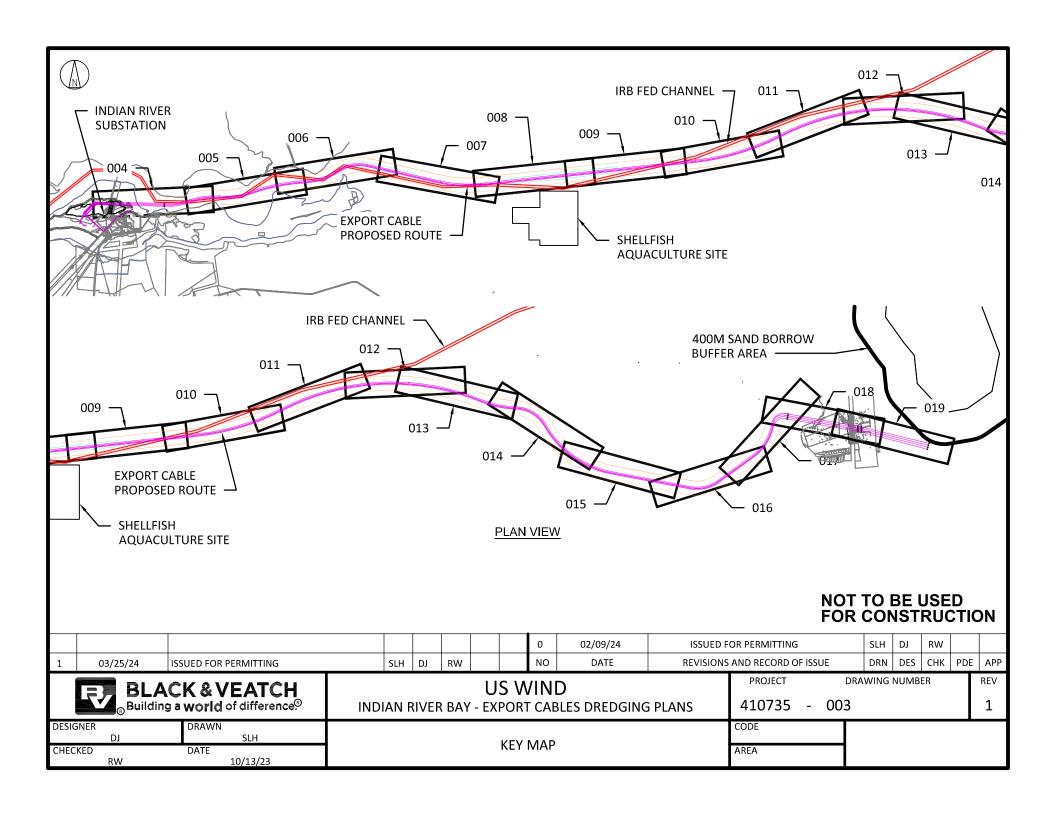
SCALE 1"=10000'

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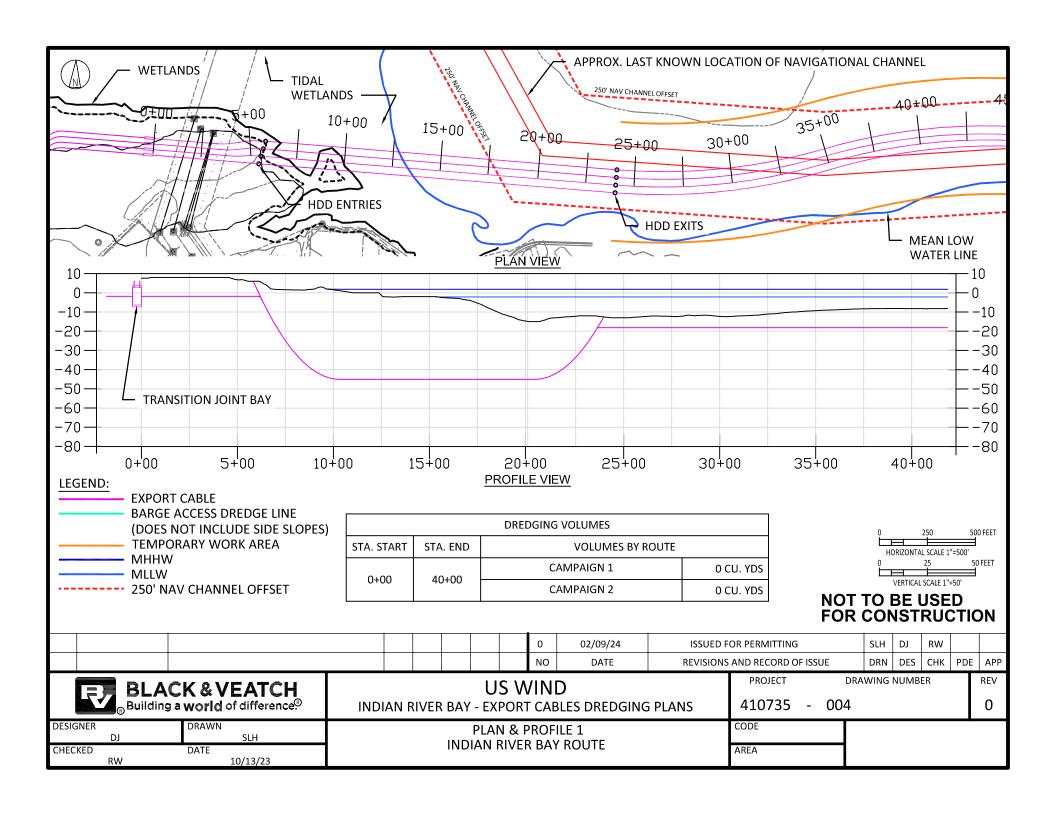
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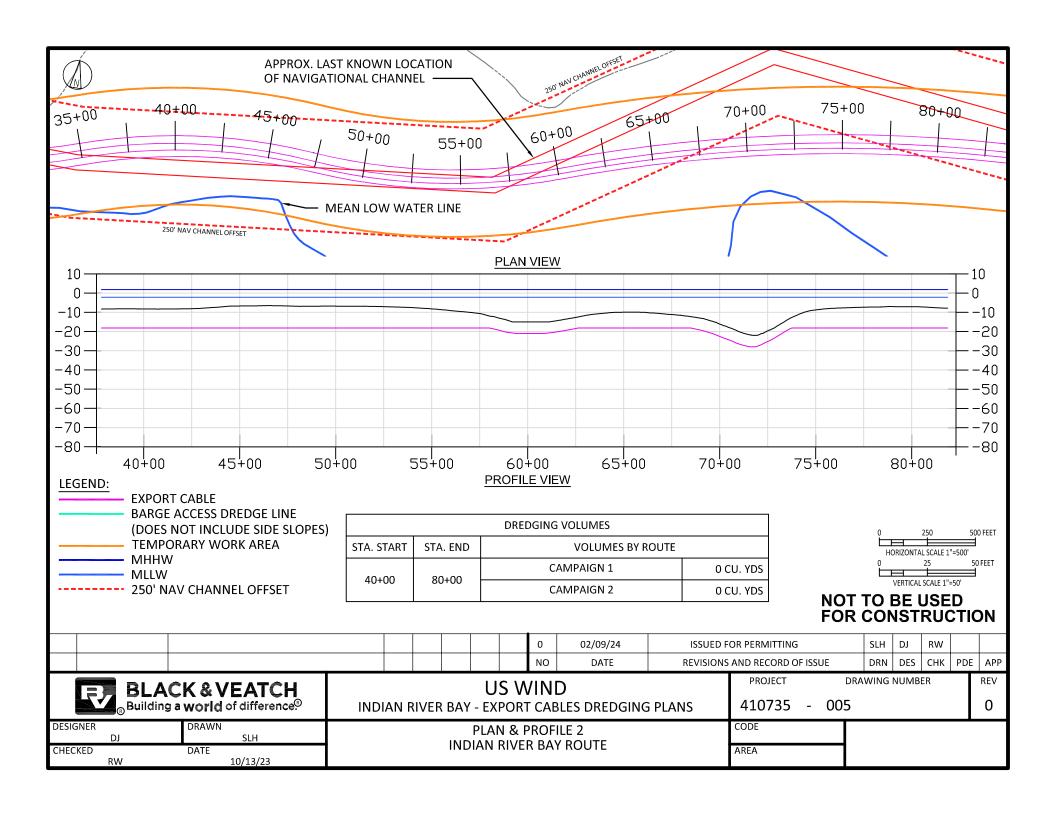
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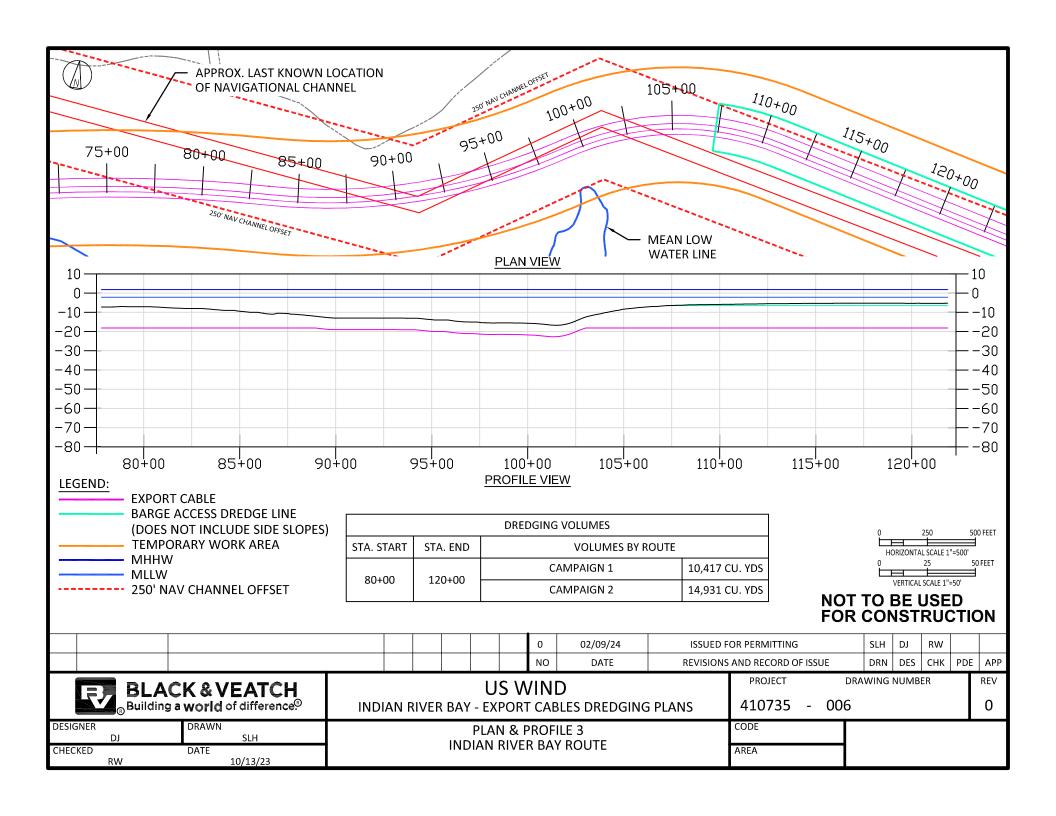
Plan and Profile Drawing Sheet Key Map

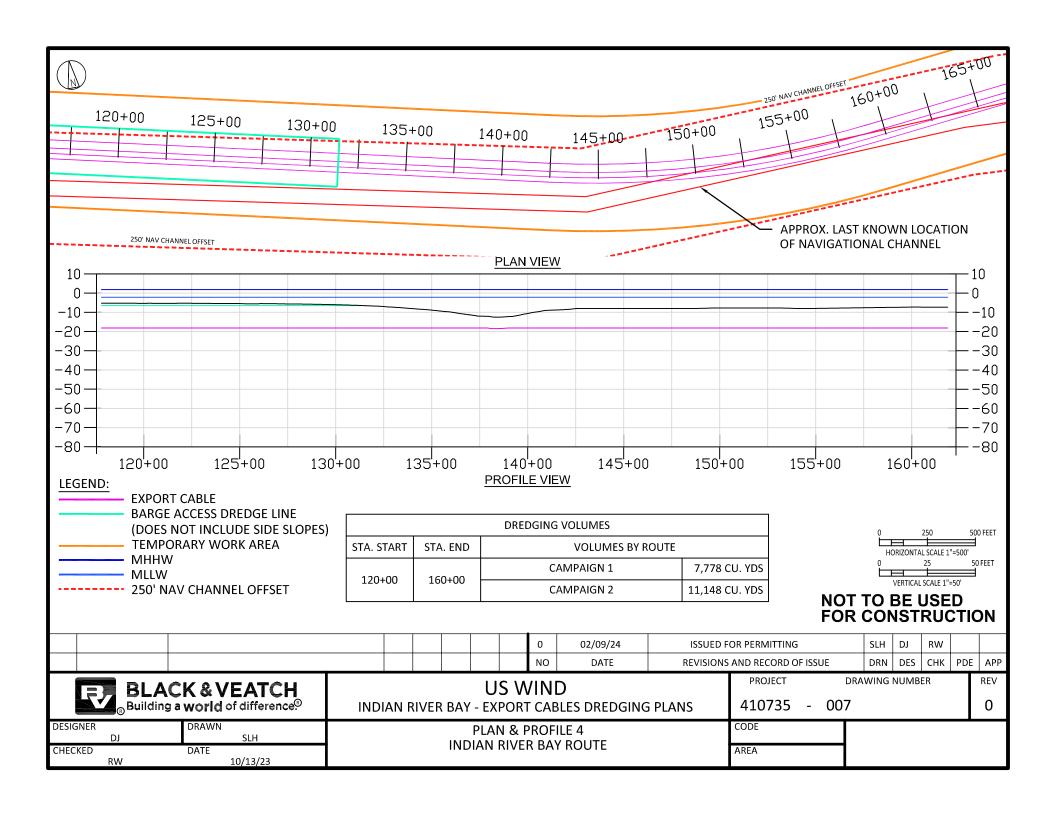


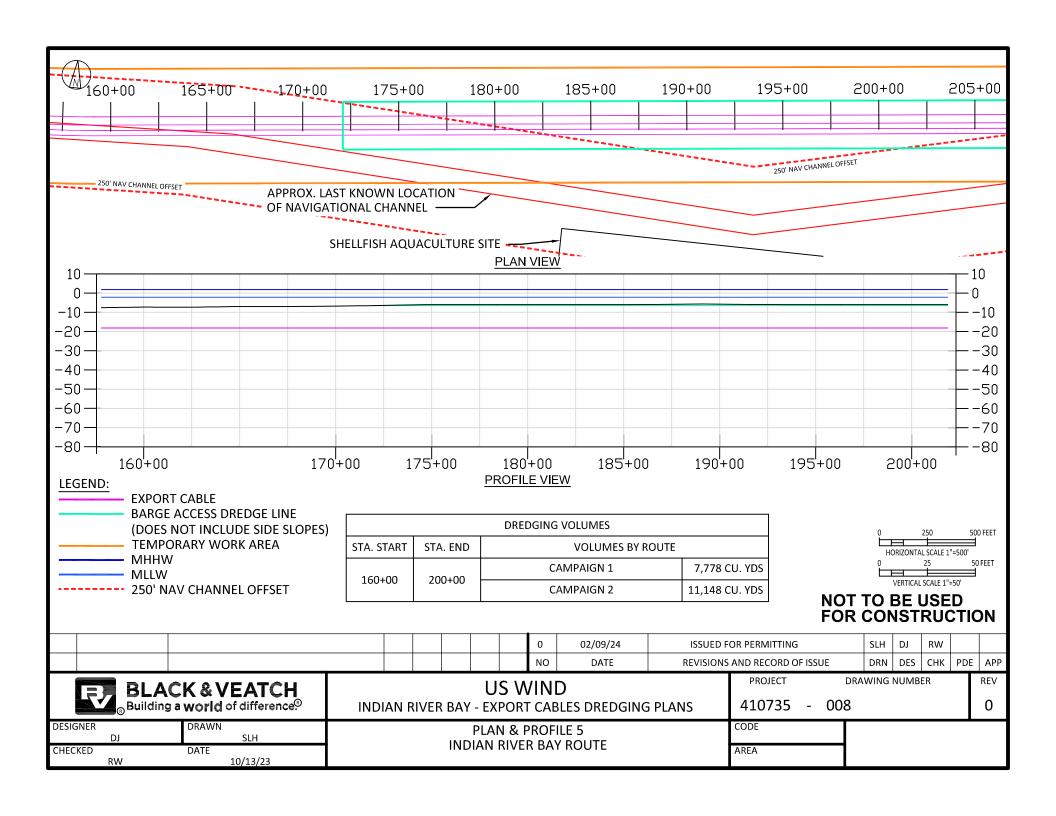
Plan and Profiles Indian River Bay

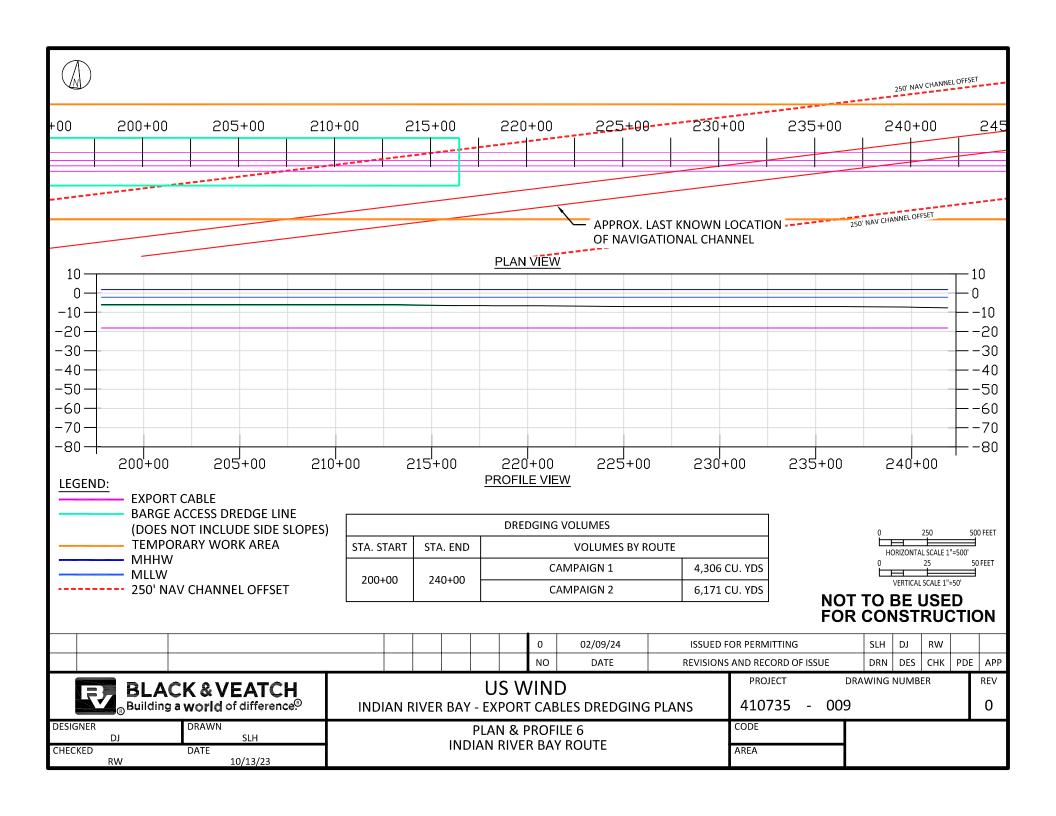


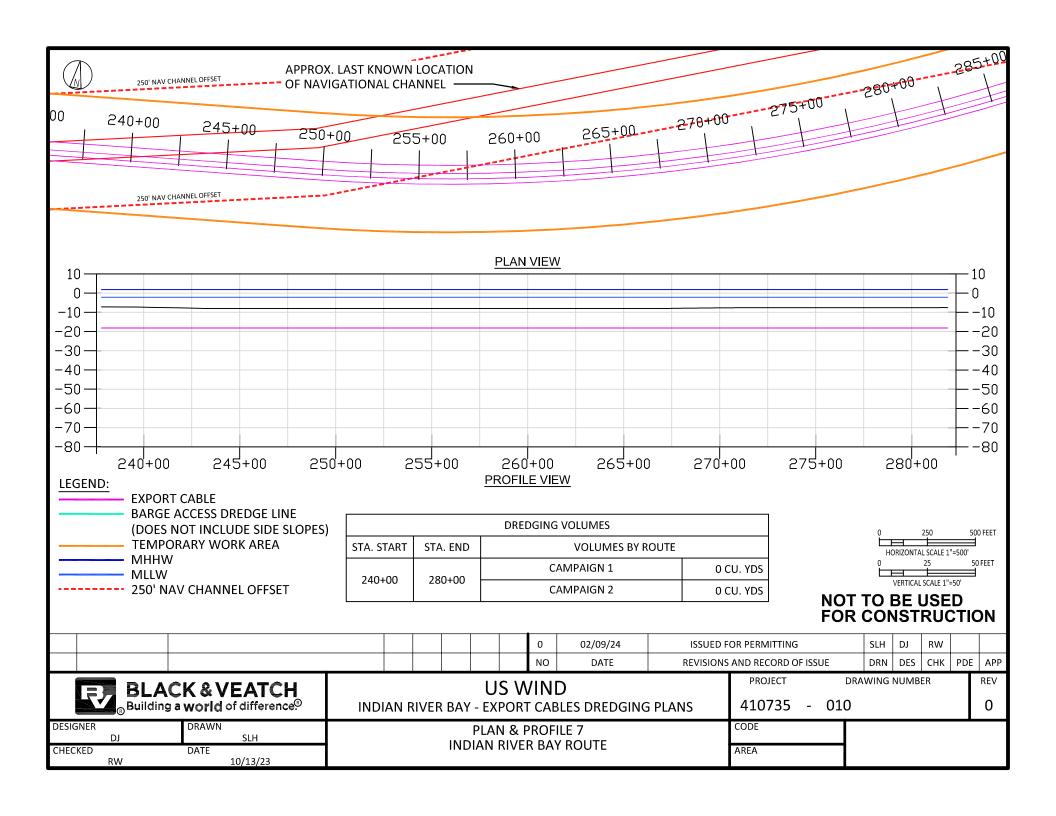


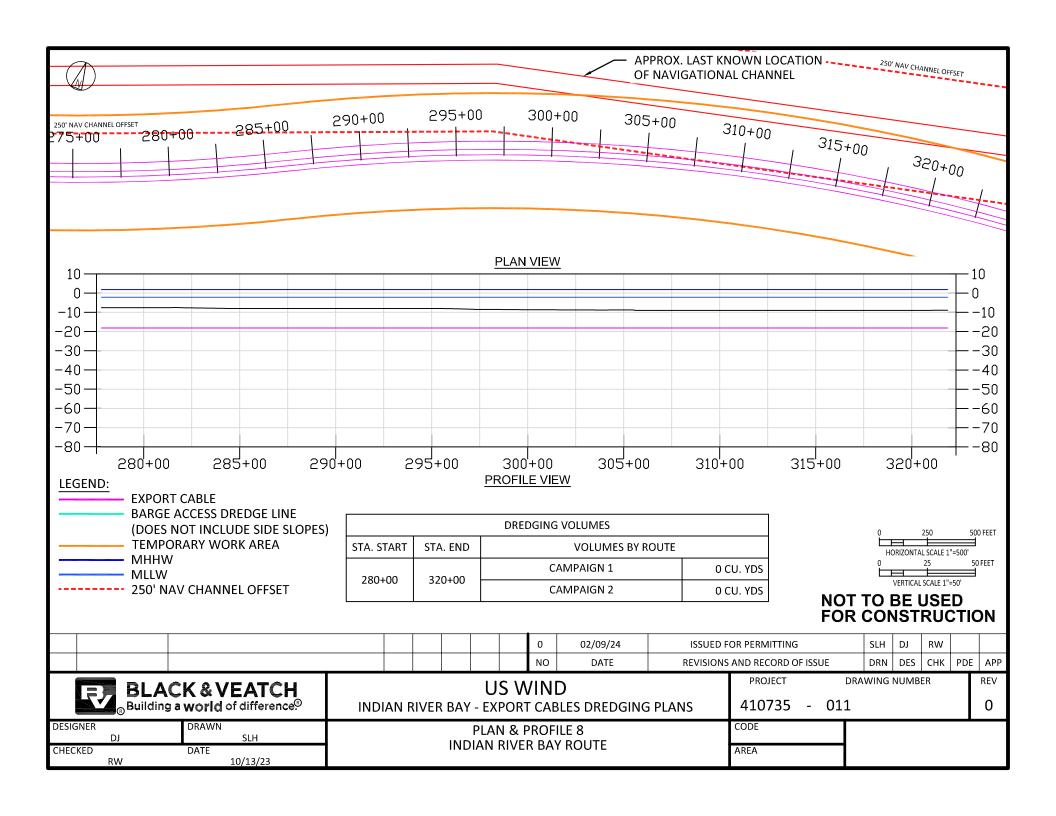


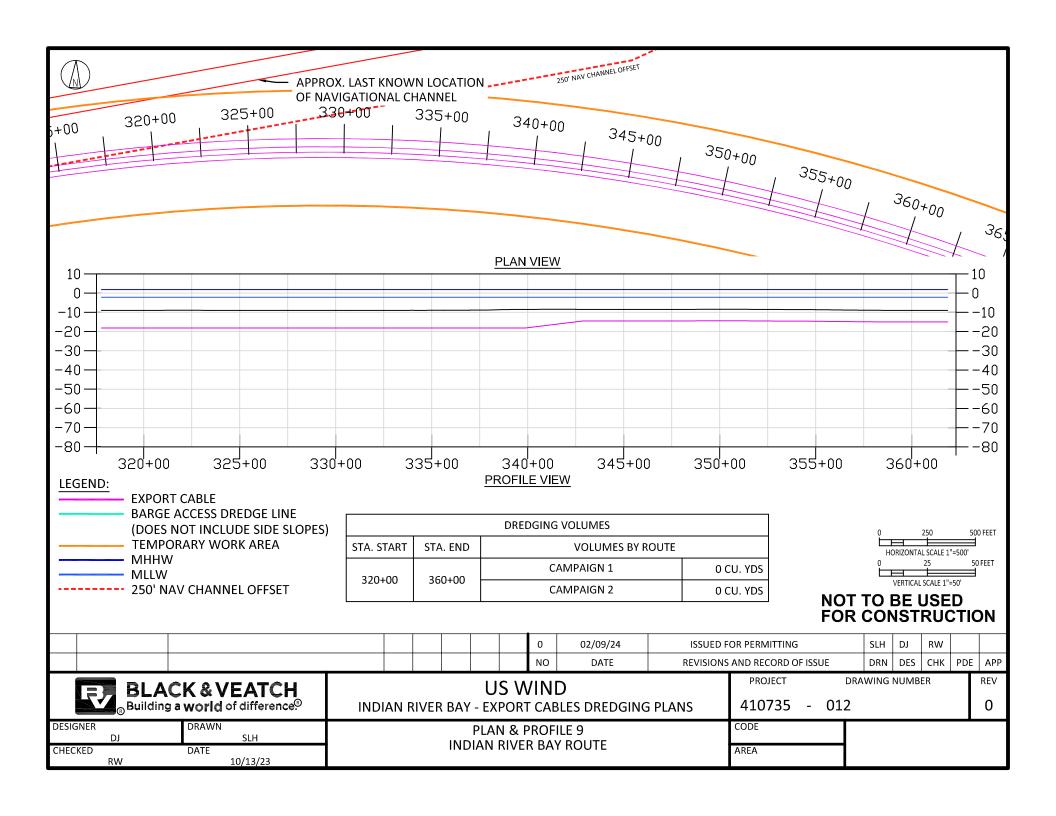


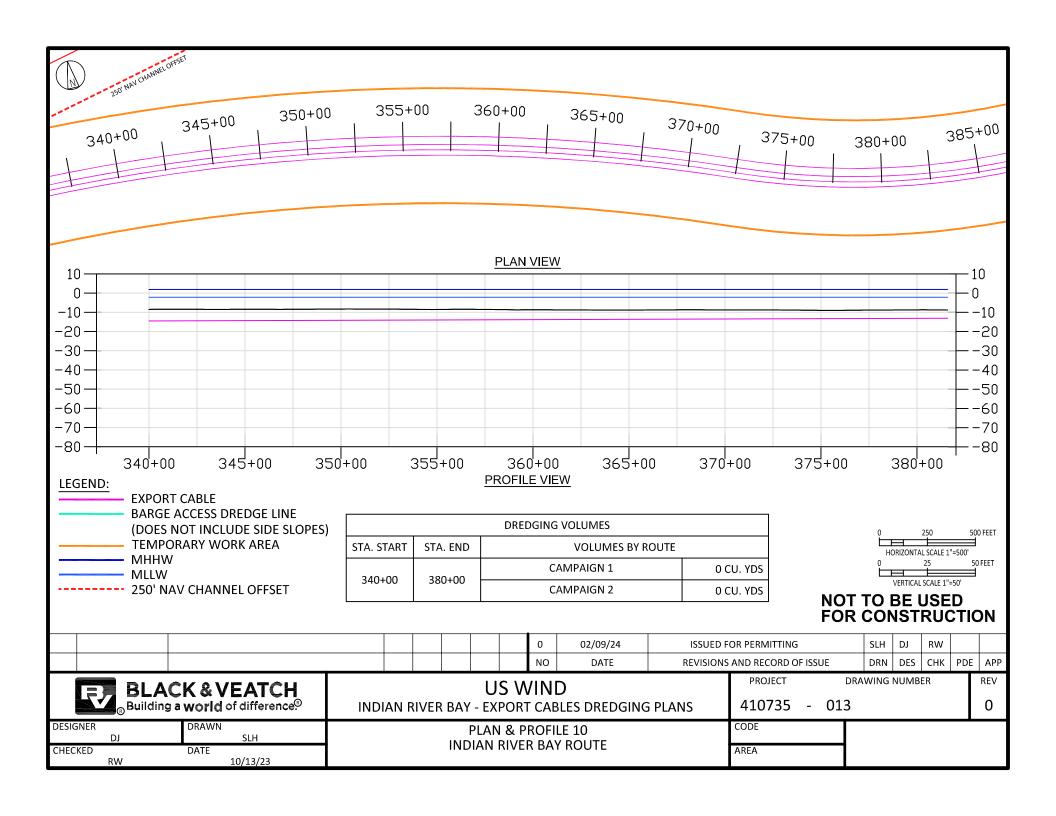


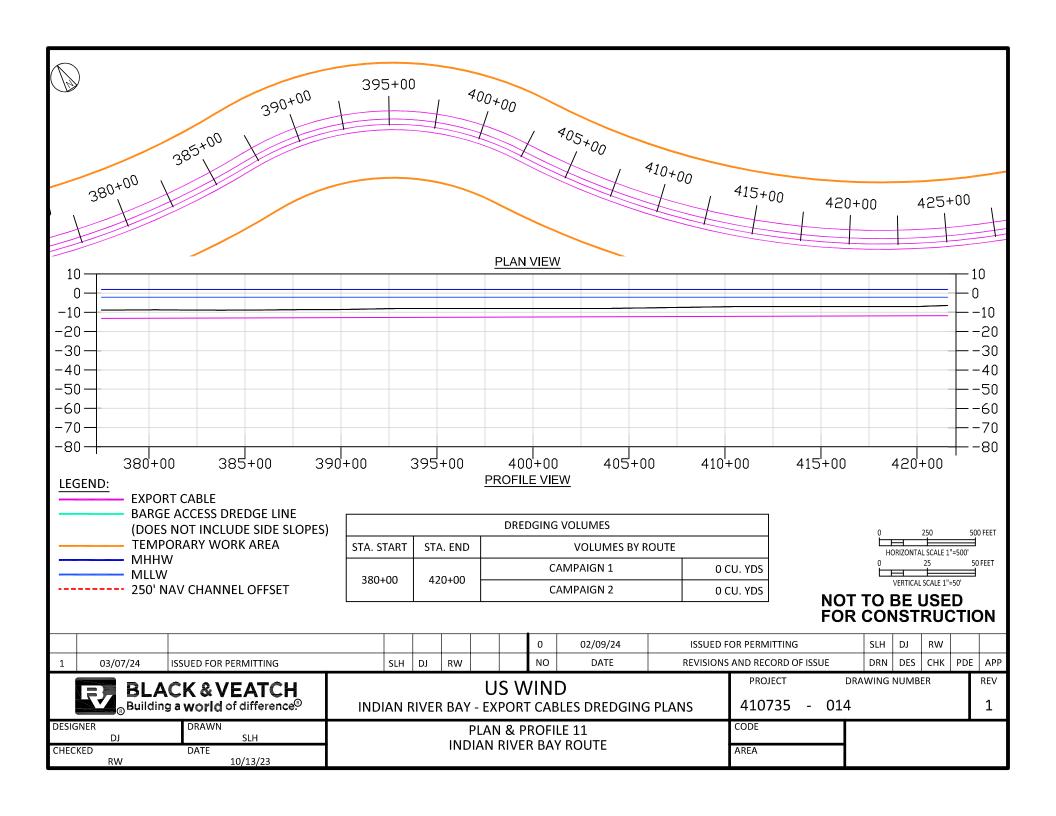


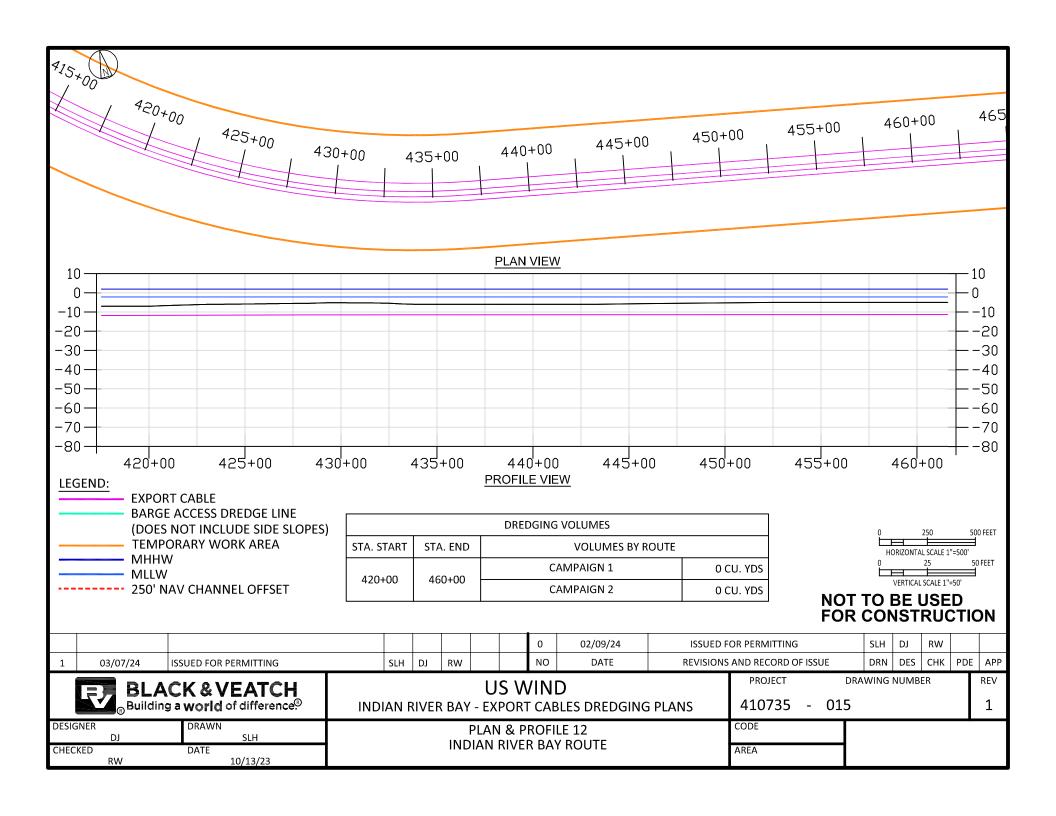


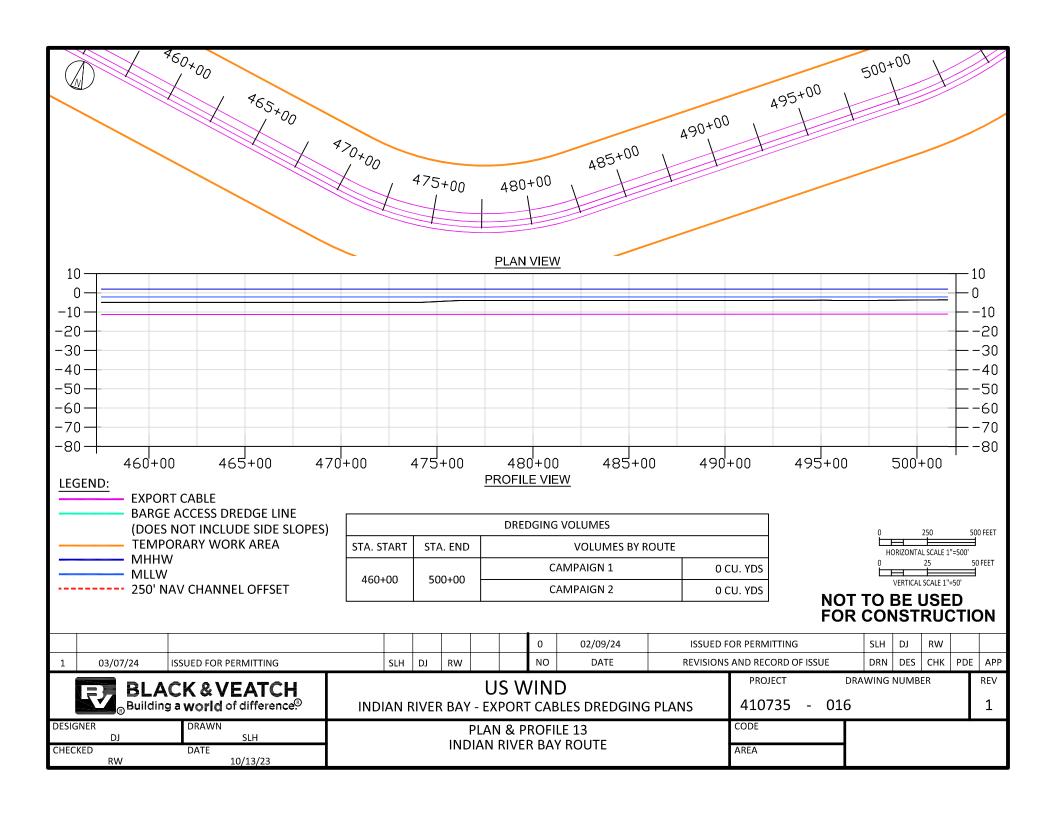


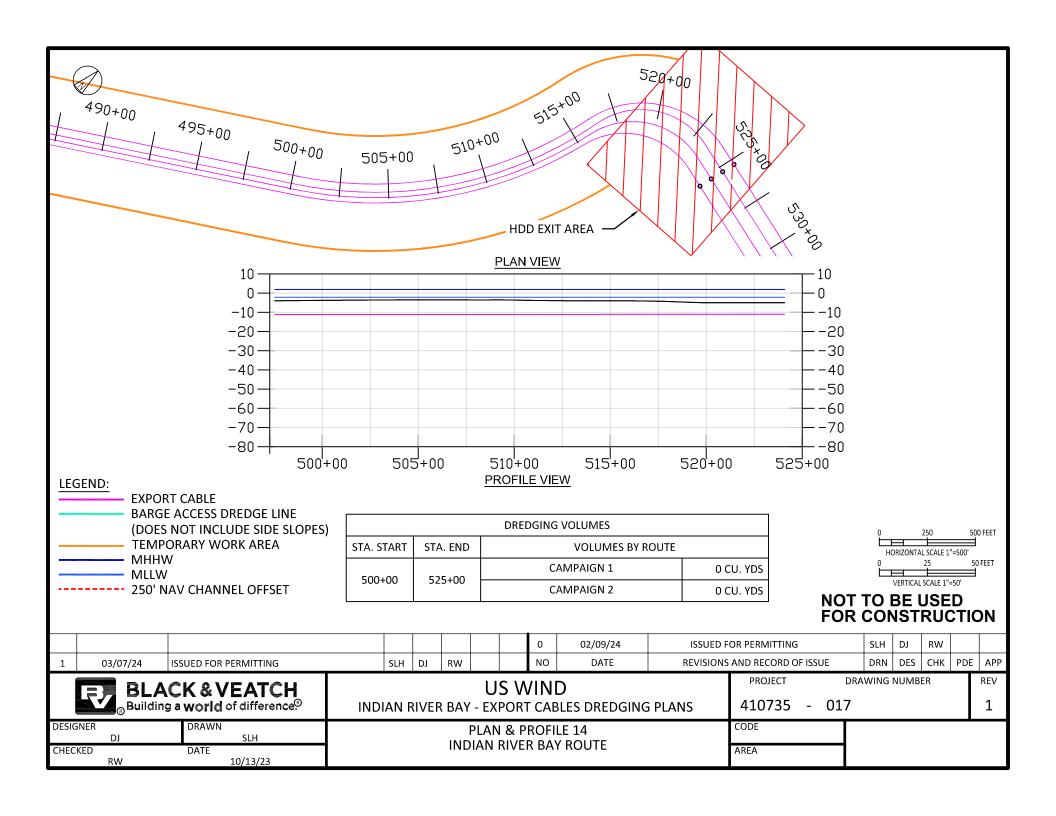


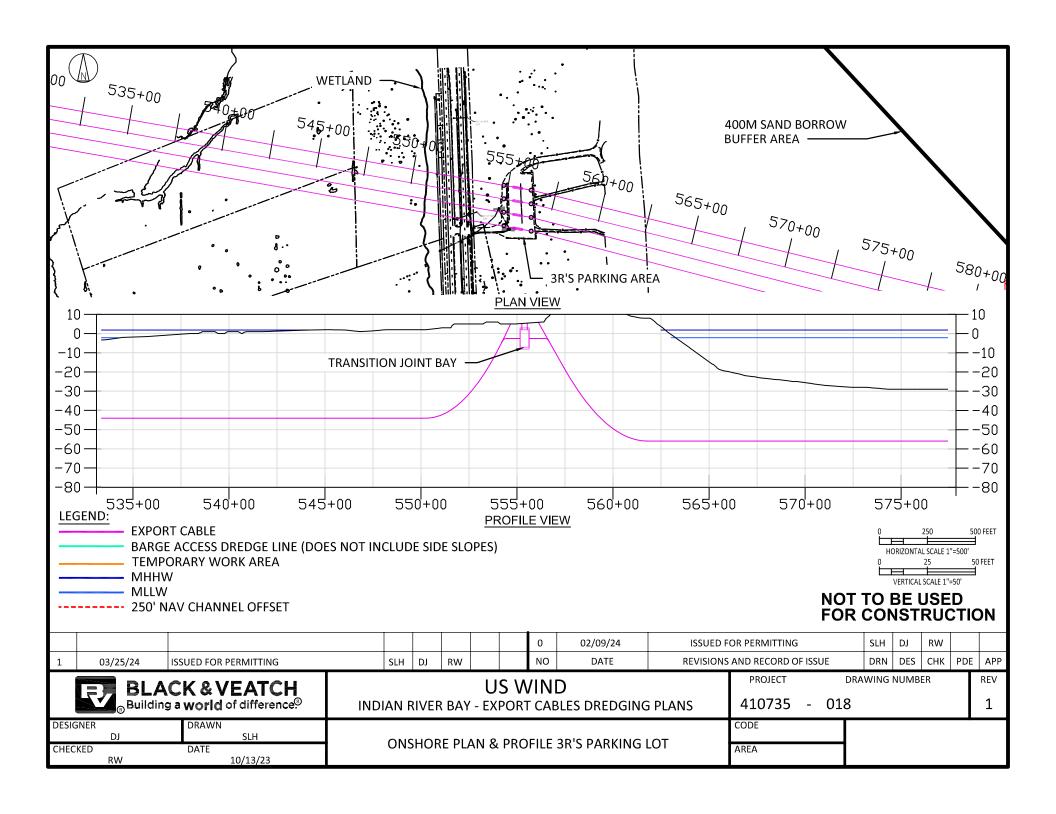


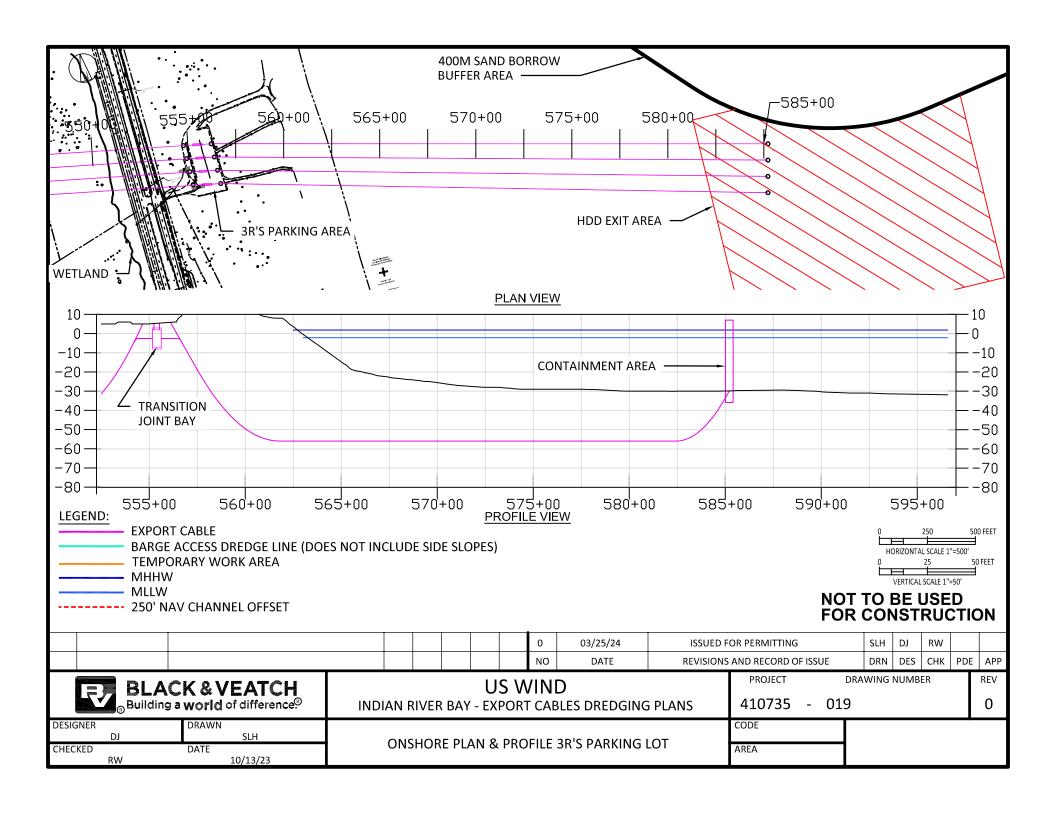




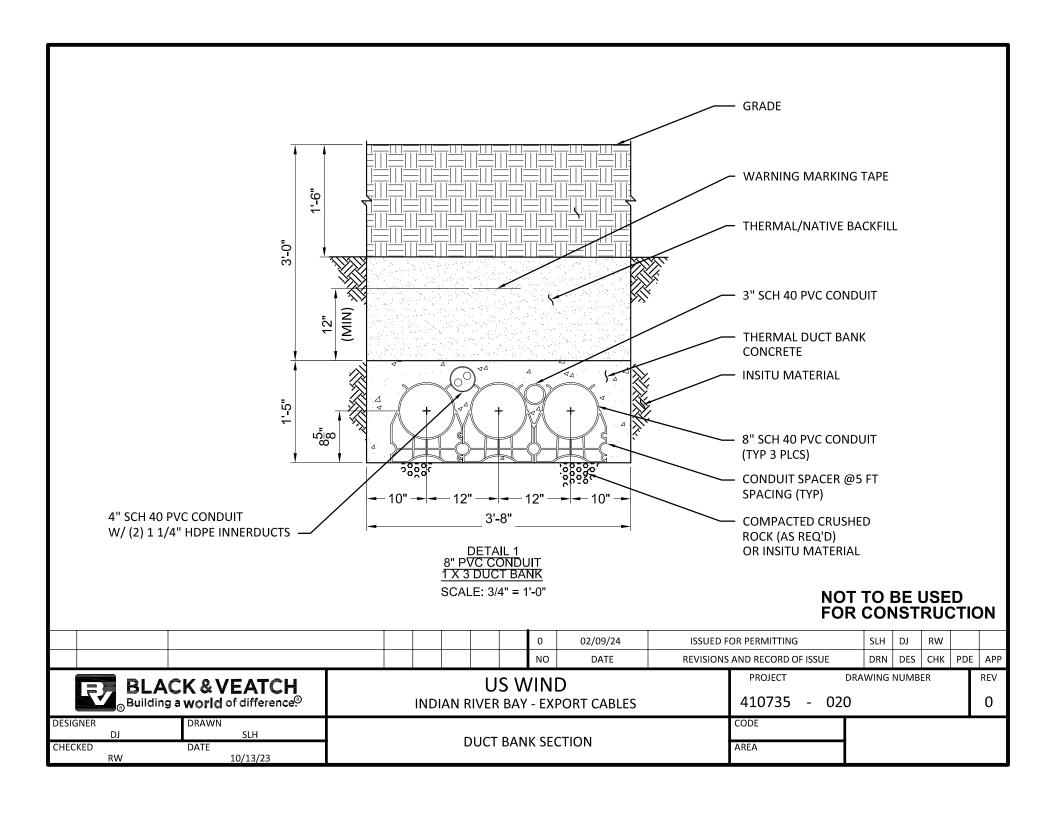




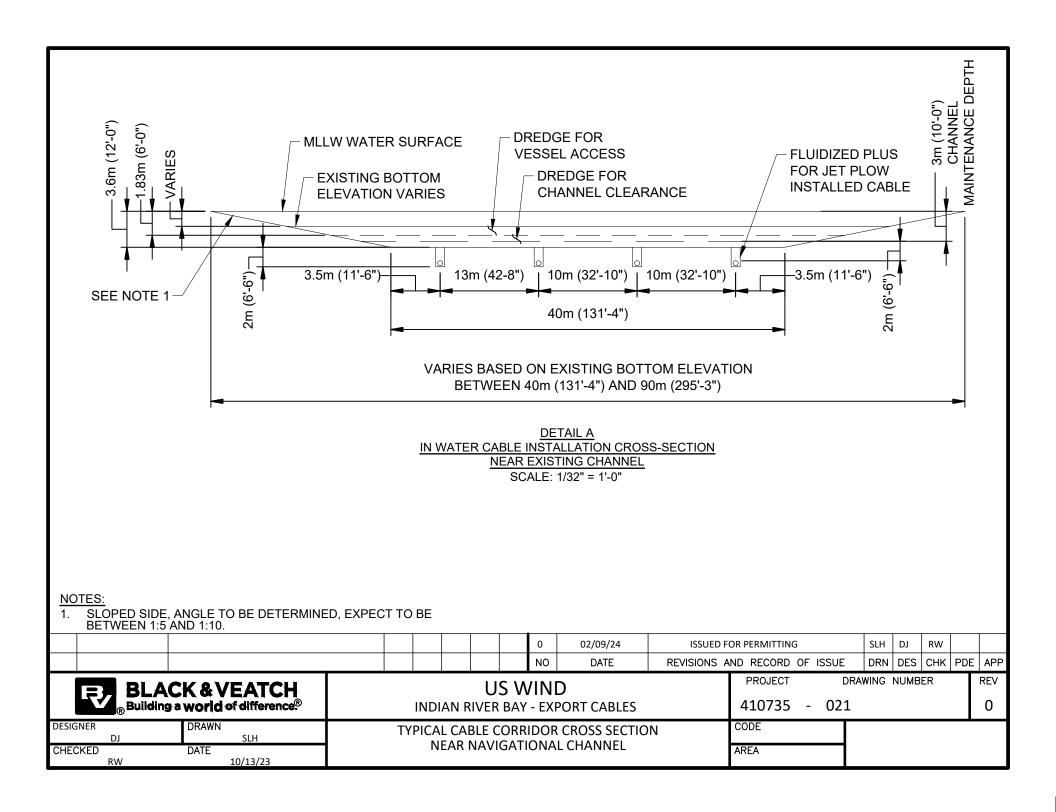


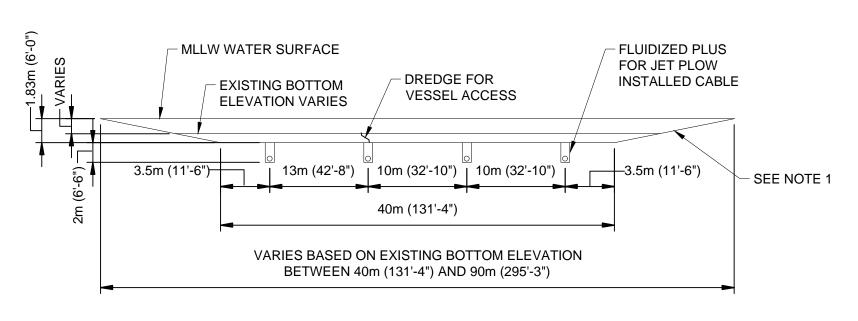


Ductbank Cross Section (Westside Land-based From Transition Vault To Substation)



Typical Submarine Cable Trench Details During Installation





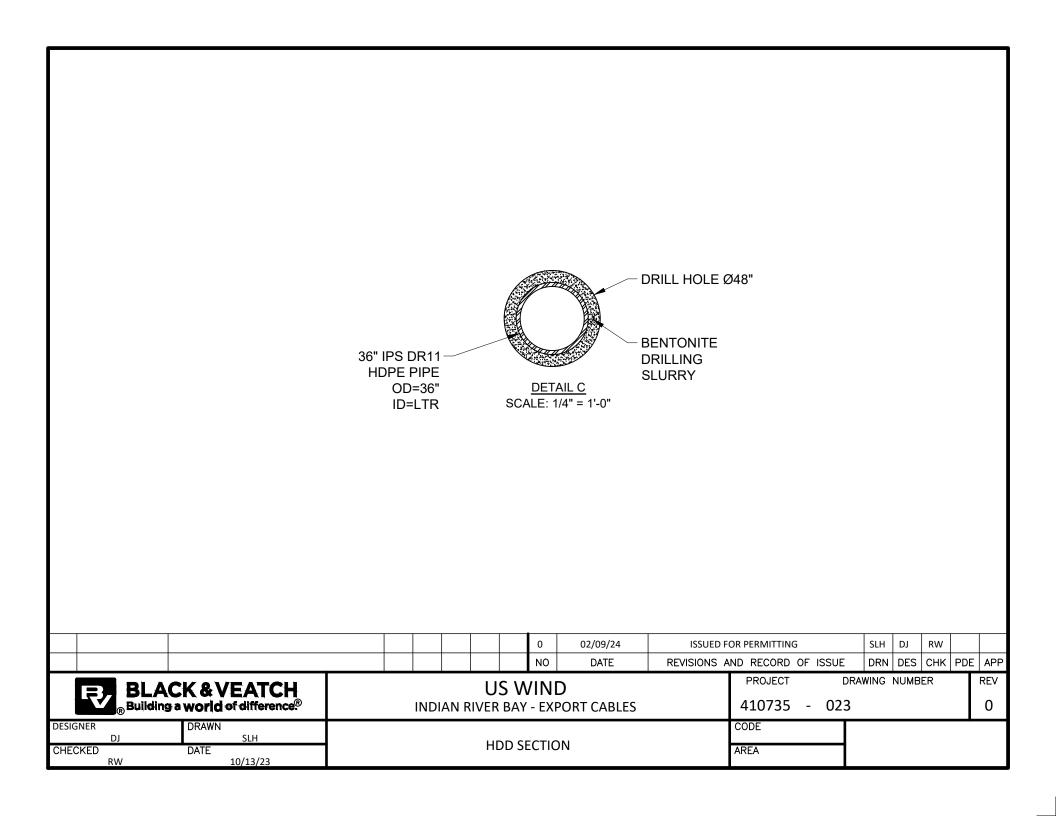
IN WATER CABLE INSTALLATION CROSS-SECTION (AWAY FROM NAVIGATIONAL CHANNEL) SCALE: 1/32" = 1'-0"

NOTES:

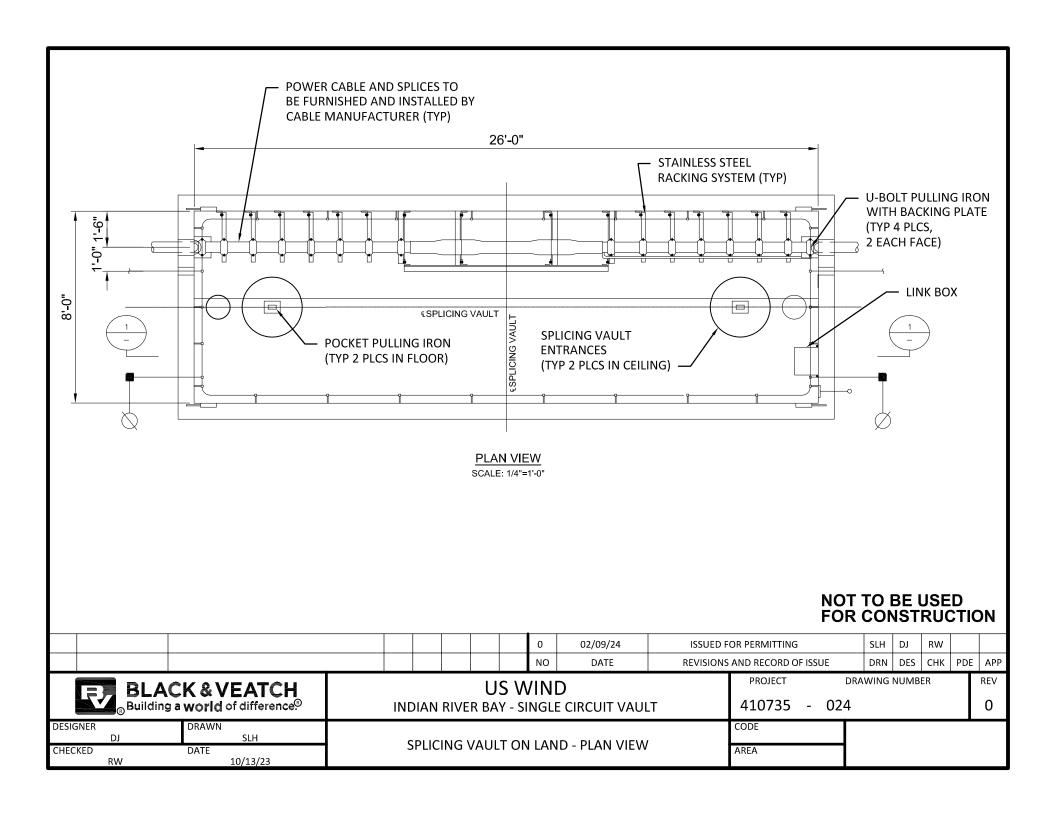
1. SLOPED SIDE, ANGLE TO BE DETERMINED, EXPECT TO BE BETWEEN 1:5 AND 1:10.

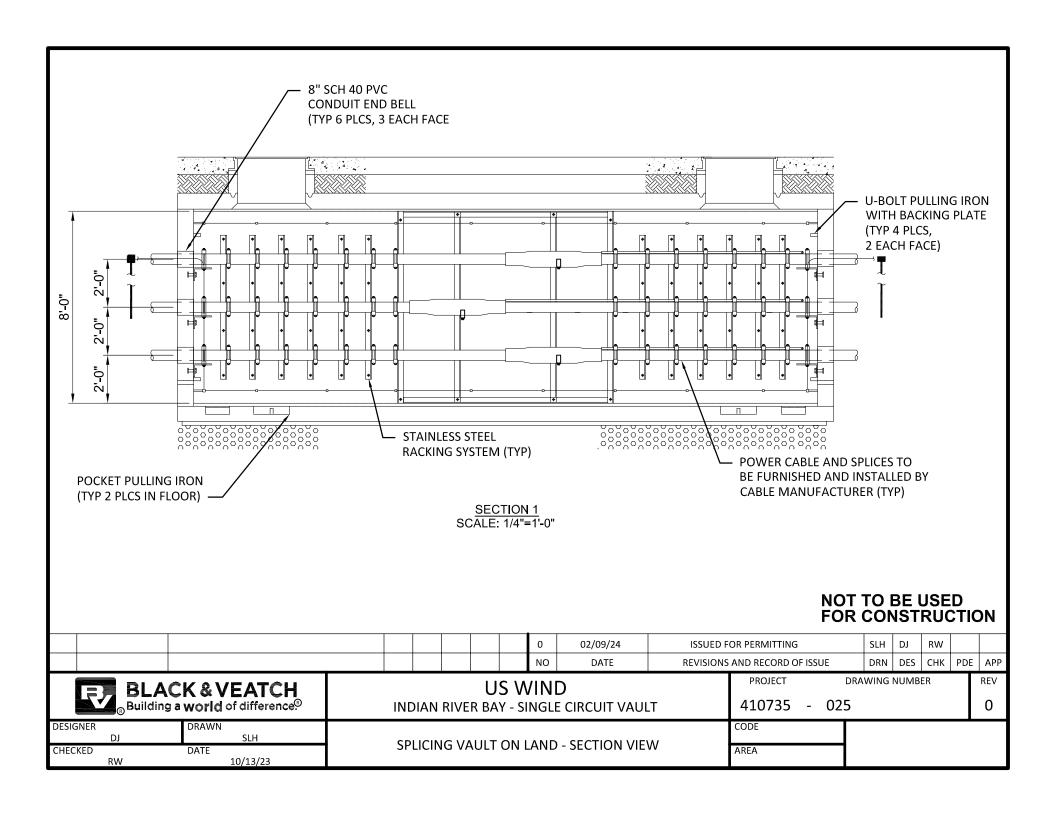
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Horizontal Directional Drill Cross Section



West Side Splicing Vault Details



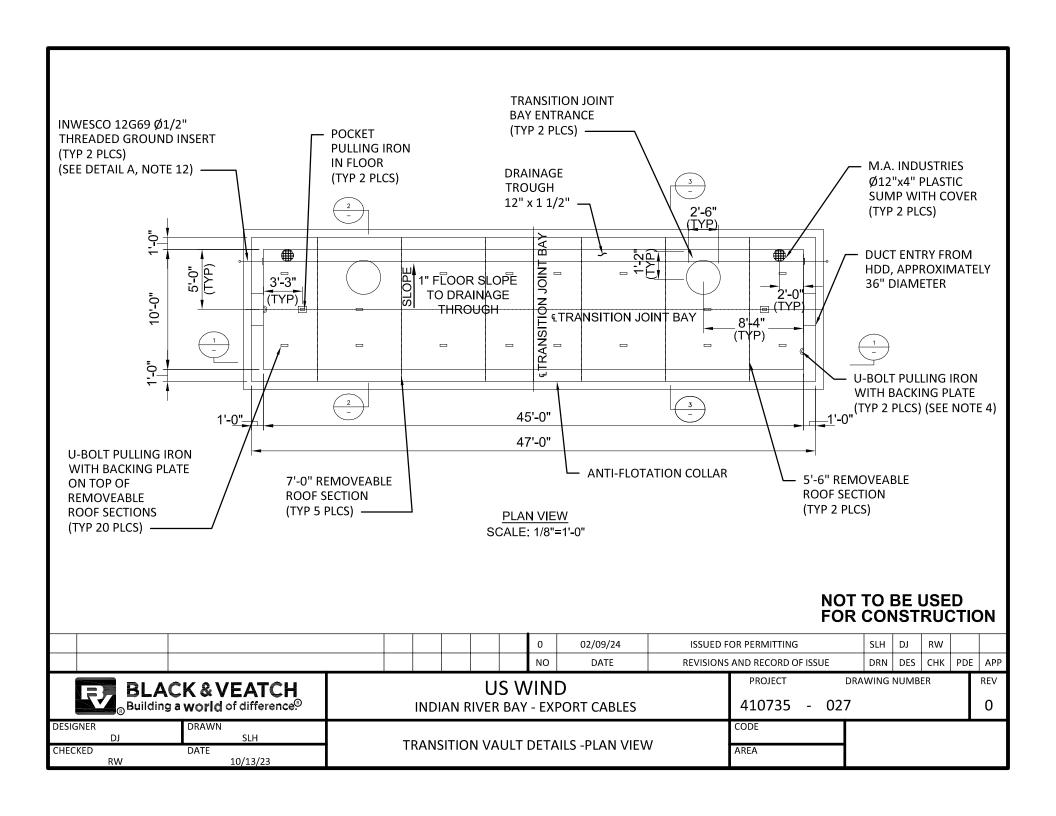


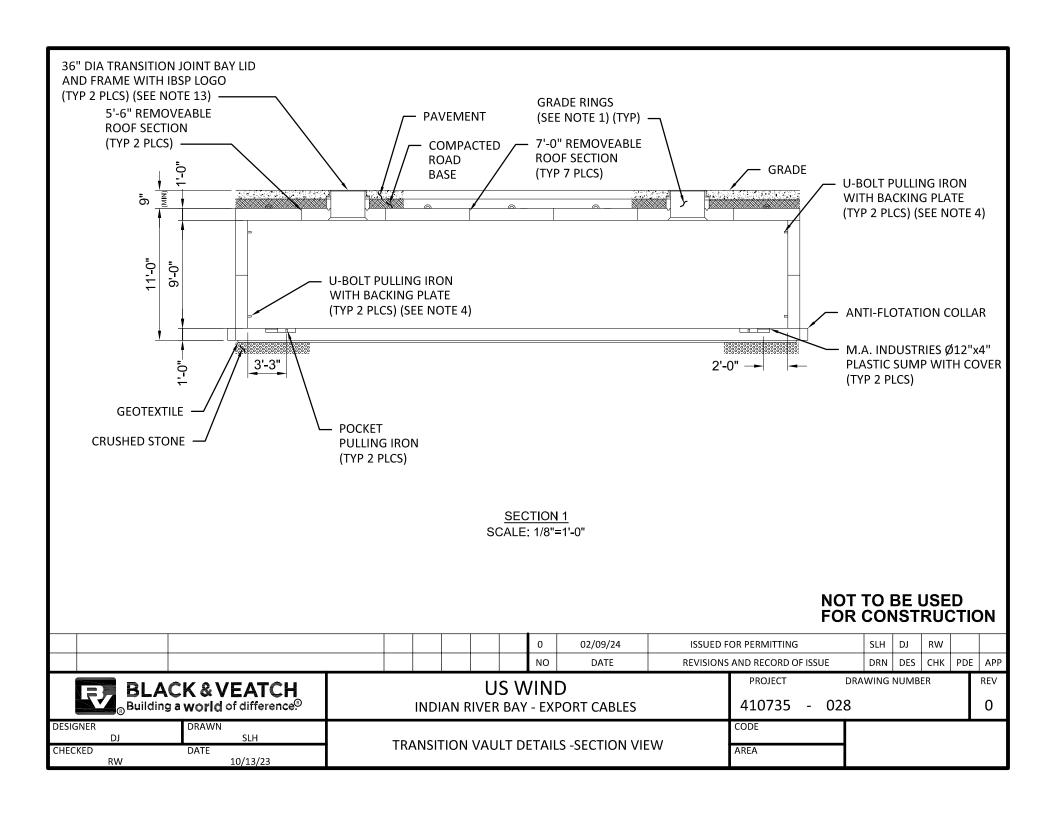
Transition Vault Details -3 R's Parking Lot Submarine Cable to Submarine Cable Splices -West Landing Submarine Cable to Land Cable Splices

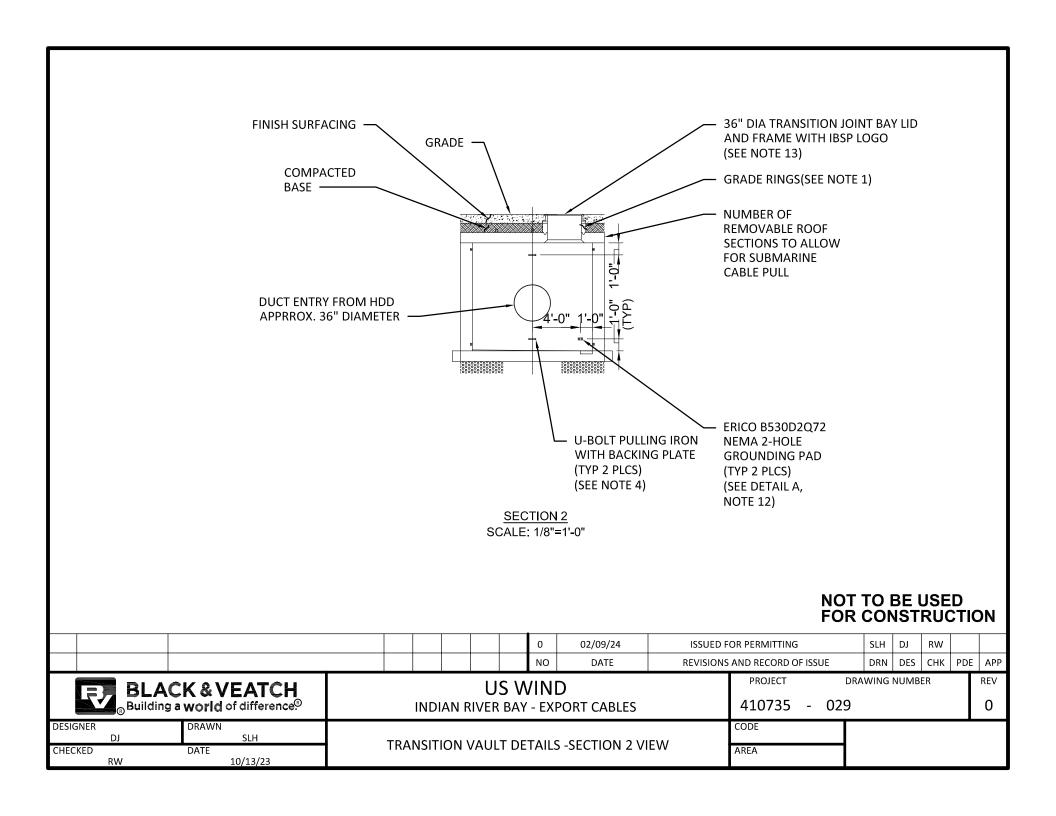
- 1. THE TRANSITION JOINT BAY SUPPLIER SHALL PROVIDE A SUFFICIENT NUMBER OF GRADE RINGS TO FACILITATE INSTALLATION OF THE TRANSITION JOINT BAY TO A DEPTH OF 4'-0" (TOP OF TRANSITION JOINT BAY TO GRADE) IF REQUIRED. TRANSITION JOINT BAY SHALL BE INSTALLED WITH A MINIMUM OF 1'-6" COVER.
- 2. EXTERIOR TRANSITION JOINT BAY SURFACES SHALL BE COATED WITH DAMP PROOFING, AND INTERIOR TRANSITION JOINT BAY SURFACES SHALL BE SEALED IN ACCORDANCE WITH THE SPECIFICATIONS.
- 3. THE TRANSITION JOINT BAY SHALL BE SUPPLIED WITH AN ADEQUATE QUANTITY OF JOINT SEALANT TO COMPLETELY SEAL ALL TRANSITION JOINT BAY JOINT INTERFACES, INCLUDING THE TRANSITION JOINT BAY COVER FRAME. JOINT SEALANT IS AVAILABLE AND APPLIED TO JOINT SURFACES WHEN SETTING TRANSITION JOINT BAYS.
- 4. PULLING IRONS SHALL BE RATED FOR A MINIMUM OF 32,000 LBS TENSION AT A LOADING ANGLE PERPENDICULAR TO THE WALL AND A SAFETY FACTOR OF 2.
- 5. TRANSITION JOINT BAY SUPPLIER SHALL PRECAST A MINIMUM 2" DEEP BY 2'-6" WIDE BY 4'-6" HIGH RECESS IN THE TRANSITION JOINT BAY OUTSIDE END WALL CENTERED AROUND EACH OF THE TWO DUCT ENTRANCES. TRANSITION JOINT BAY SUPPLIER SHALL FURNISH AND INSTALL 10 THREADED CONCRETE ANCHORS AND THREADED #4 BY 14 INCH LONG CONCRETE REINFORCING STEEL BARS AT EACH OF THE TWO DUCT ENTRANCES. CIVIL CONSTRUCTION SUBCONTRACTOR SHALL ENSURE A SUFFICIENT AMOUNT OF DUCT CONCRETE IS PLACED TO COMPLETELY FILL EACH RECESS.
- 6. TRANSITION JOINT BAY SUMP COVER SHALL BE FABRICATED USING MINIMUM 1/8"X3/4" STEEL BAR STOCK AND WELDED IN A CONFIGURATION FOR SUPPORT OF 300 PSF MINIMUM. COVER SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION. SUBCONTRACTOR SHALL SUBMIT COVER DESIGN FABRICATION DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION. TRANSITION JOINT BAY FLOOR SHALL BE SLOPED 1/16"/FT TOWARDS THE SUMP OPENING.
- 7. TRANSITION JOINT BAY FABRICATOR SHALL CAST WITHIN THE TRANSITION JOINT BAY END WALL PVC/HDPE MOLDED END BELL AND LONG BELL COUPLING FITTINGS TO FACILITATE INSTALLATION OF CONDUIT BY OTHERS. END BELLS SHALL BE SIZED AND LOCATED ON THE INTERIOR WALL AS SHOWN ON THE DRAWINGS.
- 8. TRANSITION JOINT BAY SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 HEAVY LOADINGS, USING WHICHEVER COMBINATION OF FORCES PRODUCES THE MAXIMUM STRESS.
- 9. FOR ADDITIONAL DESIGN PARAMETERS, SEE SPECIFICATIONS.
- 10. THE TRANSITION JOINT BAY SUPPLIER SHALL DESIGN AND INSTALL LIFTING LUGS SO AS TO SUPPORT THE WEIGHT OF EACH SECTION DURING PLACEMENT. LIFTING LUGS SHALL BE DESIGNED AND INSTALLED RECESSED INTO CONCRETE SLAB AND SHALL NOT PROTRUDE ABOVE FLOOR SURFACE.
- 11.REBAR WITHIN TRANSITION JOINT BAY WALLS SHALL NOT FORM A CLOSED LOOP AROUND ANY INDIVIDUAL 8 INCH CONDUIT OPENINGS. REBAR LOOPS ARE ACCEPTABLE WHEN ENCIRCLING ALL OF THE 8 INCH CONDUIT OPENINGS.
- 12. TRANSITION JOINT BAY SUPPLIER SHALL PROVIDE TWO (2) GROUNDING CONNECTIONS, EACH CONSISTING OF ONE (1) NEMA 2-HOLE PAD CONNECTED TO A BARE CONDUCTOR PIGTAIL CAST INTO THE TRANSITION JOINT BAY END WALL. CONNECTIONS SHALL BE EXOTHERMALLY WELDED AND CONTINUITY TESTED BEFORE AND AFTER INSTALLATION. PIGTAIL SHALL EXTEND A MINIMUM OF 8'-0" OUTSIDE OF THE WALL. SEE DETAIL A.
- 13. ALL FABRICATION DETAIL DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION.
- 14. AT NO POINT SHOULD A CLOSED METAL LOOP BE CREATED AROUND ANY ONE SINGLE CABLE.
- 15. VAULT WILL BE EXPOSED TO SEA WATER, WHICH CLASSIFIES AS EXPOSURE CLASS C2 PER ACI 318 WHICH REQUIRES ADDITIONAL MEASURE TO BE TAKEN TO PROTECT THE REINFORCEMENT FROM CORROSION. VAULT CONCRETE MIX DESIGN WILL REQUIRE A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 5,000 psi AND A MAXIMUM WATER CEMENT RATIO OF 0.40.

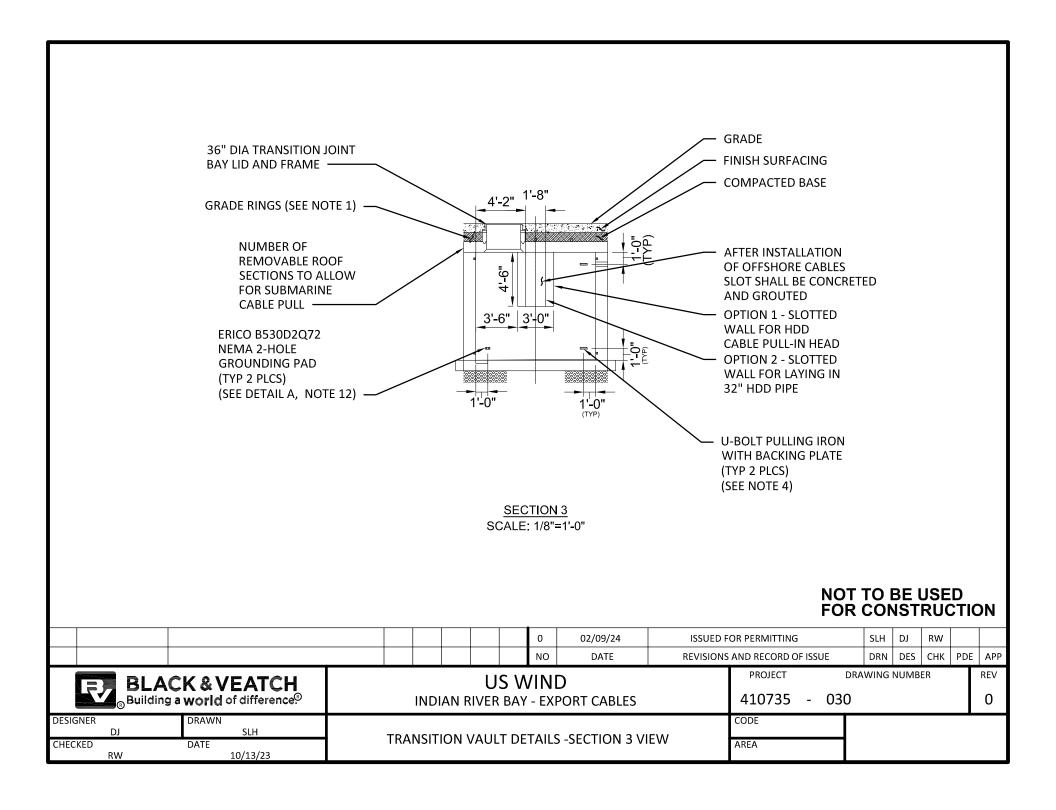
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	BLACK & VEATCH Building a world of difference.					П	s WI	NΠ	PROJECT	PROJECT DRAWING NUMBER						
				INDIAN RIVER BAY - EXPORT CABLES								410735 - 026				
DESIGNER	DJ	DRAWN SLH														
CHECKED	RW	DATE 10/13/23	TRANSITION VAULT DETAILS -NOTES AREA													

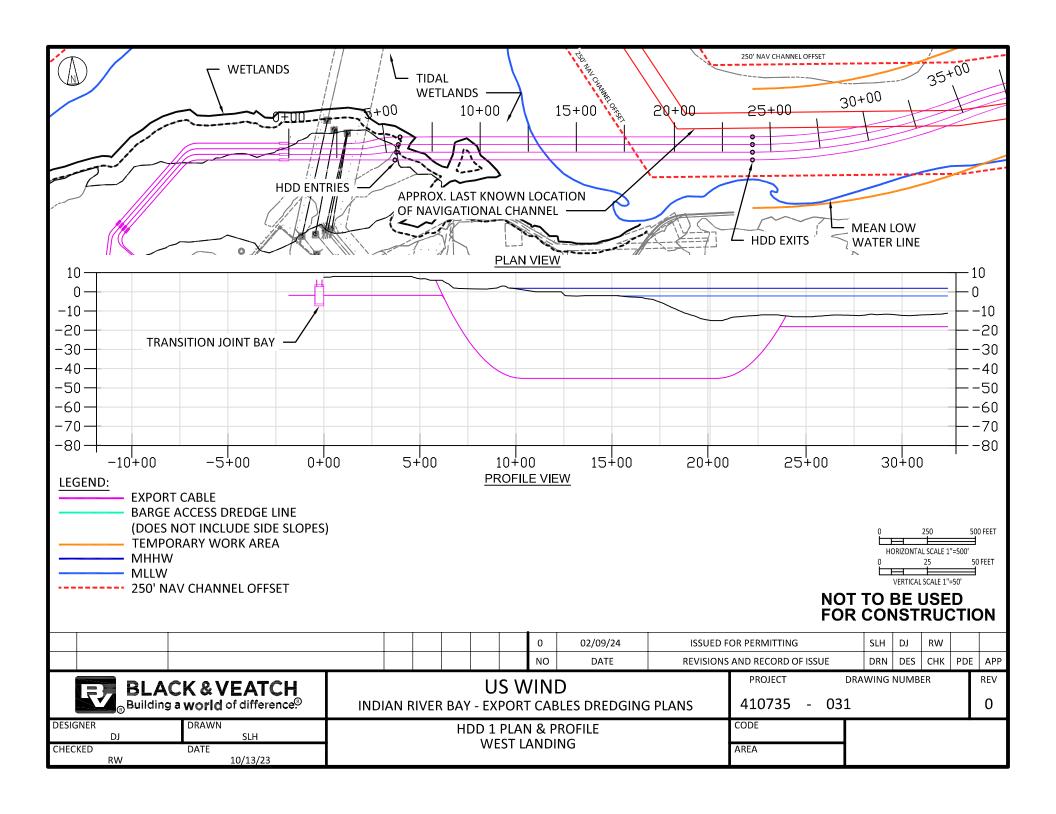


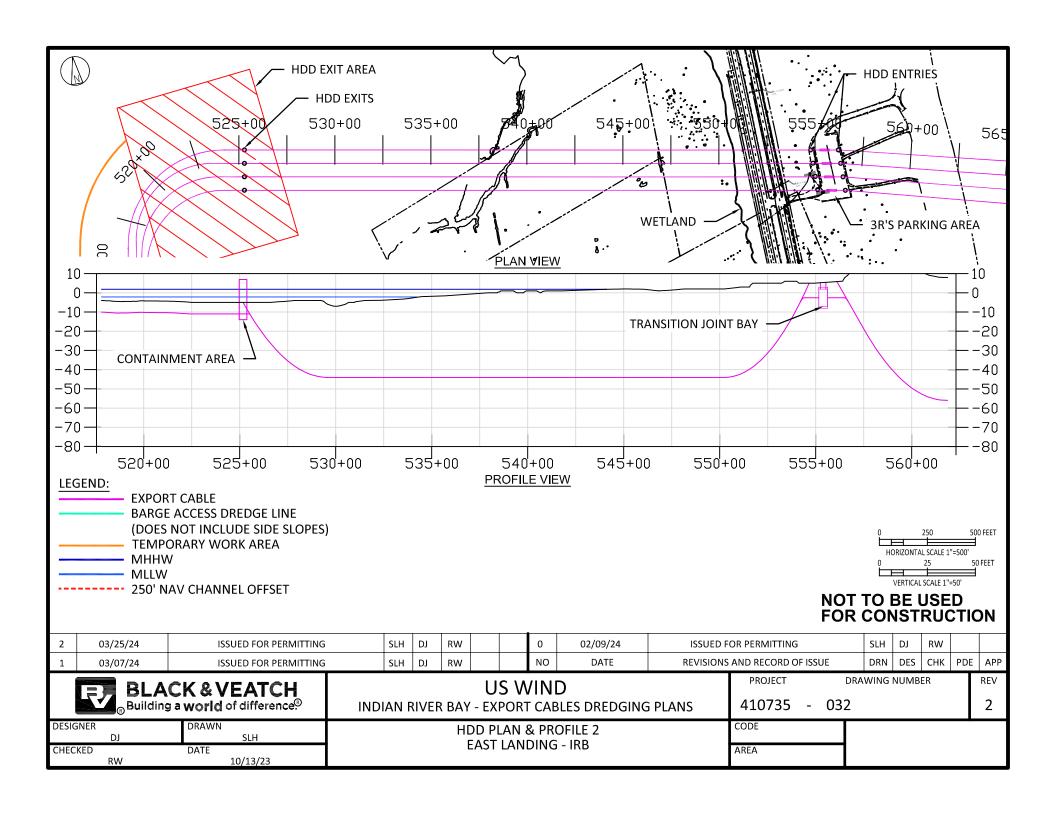


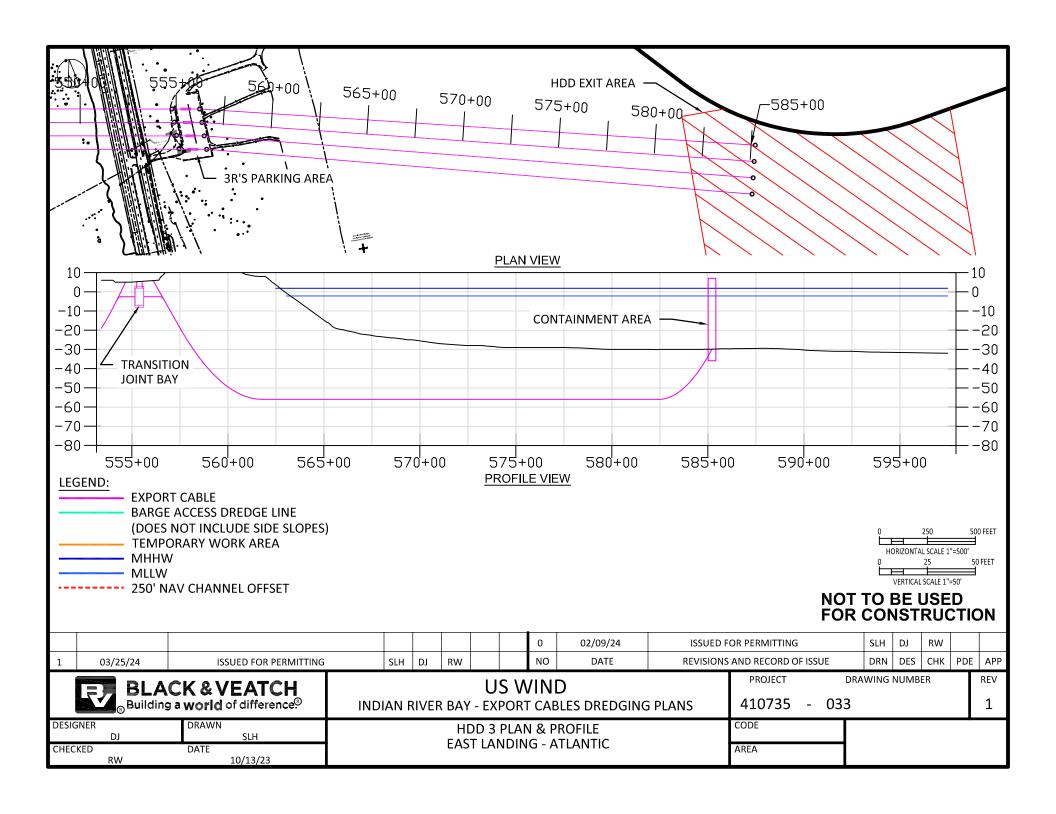




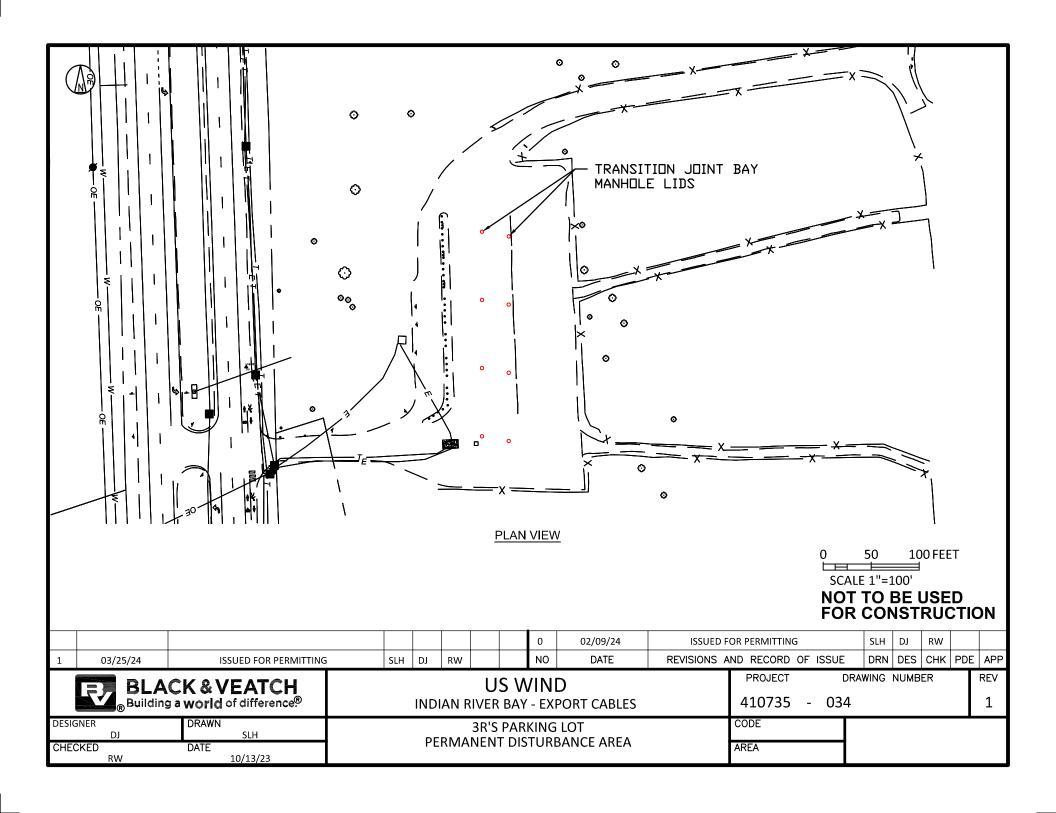
Horizontal Directional Drill Plan and Profiles



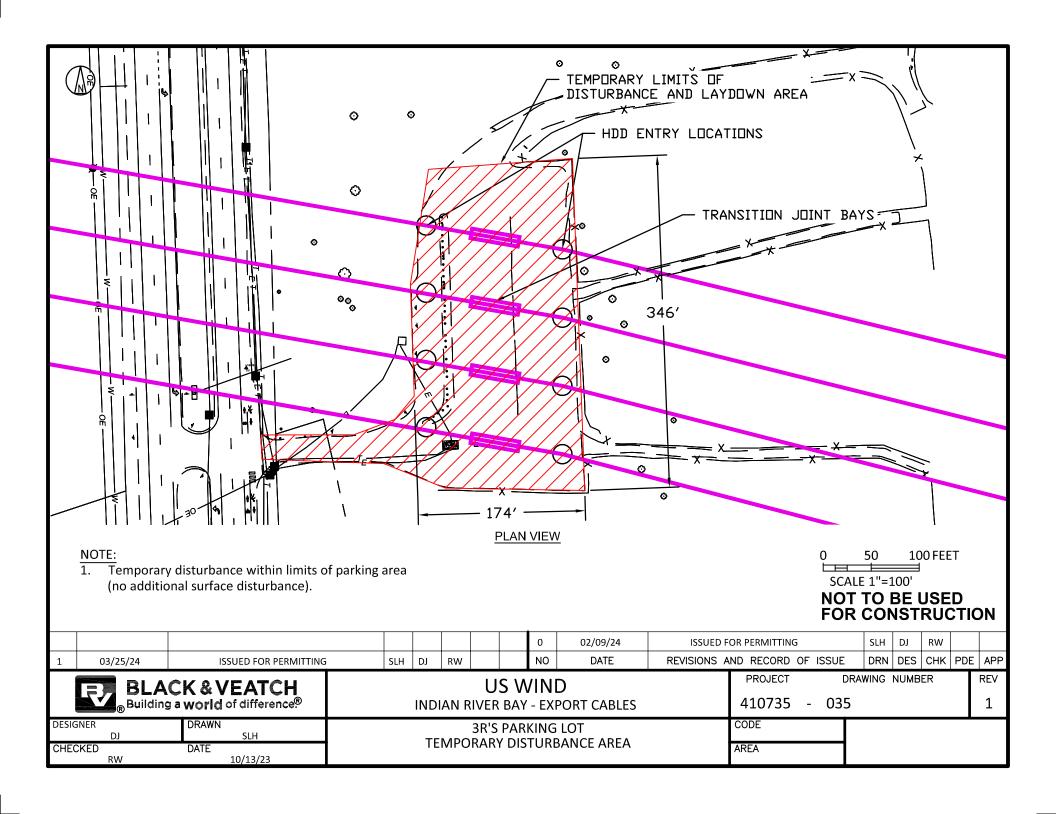




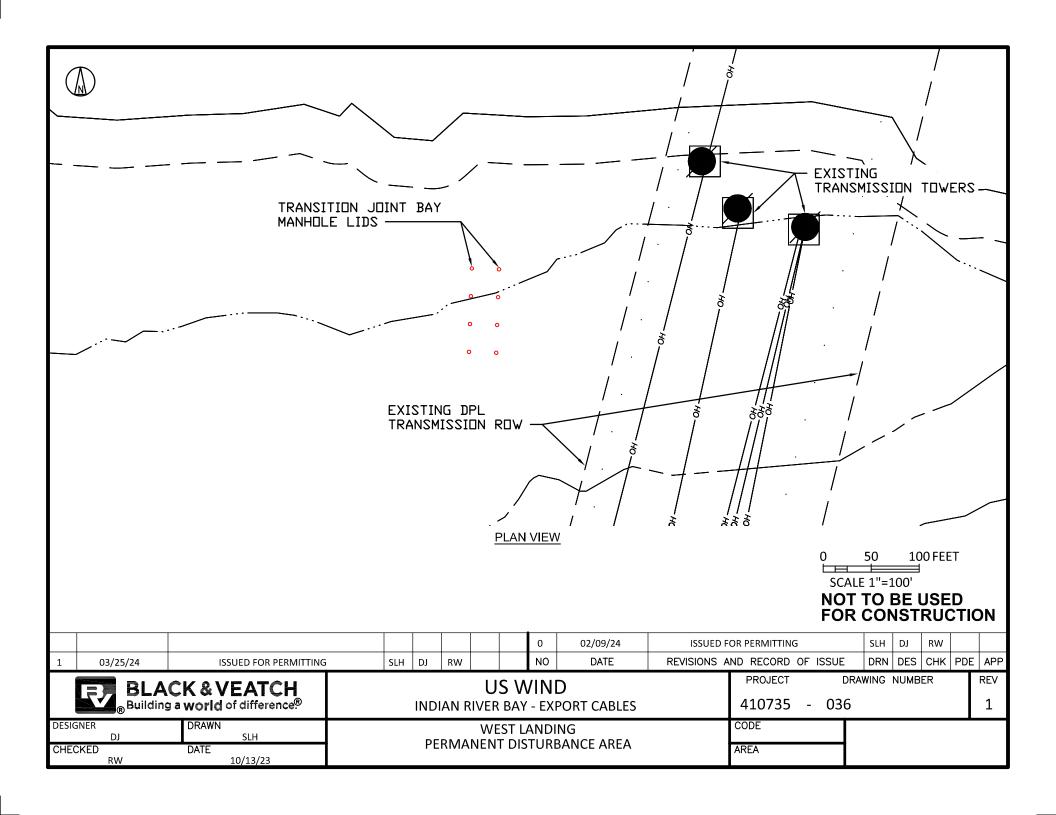
East Landing – 3 R's Parking Lot Permanent Disturbance (Manhole Lids Only)



East Landing – 3 R's Parking Lot Temporary Disturbance During Installation



West Landing – Vicinity Of Substations Permanent Disturbance (Manhole Lids Only)



West Landing – Vicinity of Substations Temporary Disturbance During Installation

