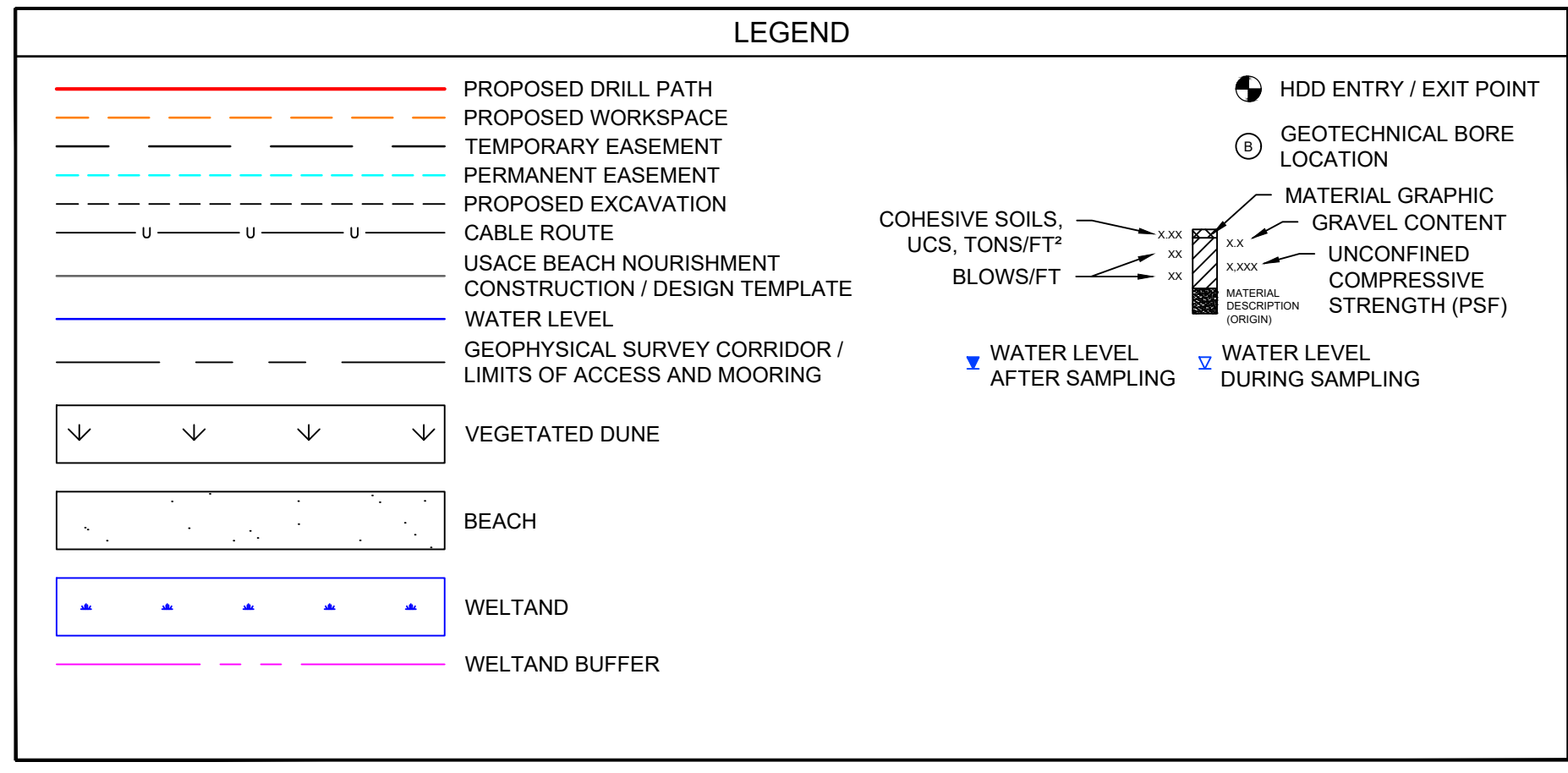


DIRECTIONAL DRILL DATA			
DESCRIPTION	STATION (ft)	ELEVATION (NAVD88 ft)	ELEVATION (MLLW ft)
ENTRY POINT @ 10°	0+00.00	6.52	8.99
PC 1 (1,500' R)	0+60.31	-4.11	-1.64
PT 1 @ 1°	2+94.60	-26.67	-24.20
PC 2 (1,500' R)	20+30.63	-56.97	-54.50
PT 2	22+13.61	-48.98	-46.51
EXIT POINT @ 6°	25+00.00	-18.88	-16.41
HORIZONTAL DISTANCE (ft) = 2,500.00			
DIRECTIONAL DRILL PIPE LENGTH (ft) = 2,504.39			

- GENERAL NOTES**
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- OFFSHORE CONTRACTOR TO ENSURE CARRIER PIPE STRING IS FREE OF DEBRIS AND SILT-IN PRIOR TO PULLBACK.
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- USACE BEACH NOURISHMENT CONSTRUCTION/DESIGN TEMPLATE SHOWN PER US ARMY CORPS OF ENGINEERS PHILADELPHIA DISTRICT DRAWING C-305 TYPICAL SECTION - 35TH STREET OCEAN CITY. ISSUED/SUBMITTAL DATE: 100% RTA - 13 JUNE 2019.
- CONCRETE MATTRESSES WILL BE USED TO STABILIZE THE PIPE WITHIN THE HDD EXIT PIT UPON INSTALLATION. MATTRESSES WILL BE LEFT IN PLACE AND HDD EXIT PITS WILL BE ALLOWED TO BACKFILL THROUGH NATURAL PROCESSES. OCEAN WIND WILL NOTIFY USACE, USCG AND NJDEP OFFICE OF COASTAL ENGINEERING WITH LOCATIONS OF HDD EXIT PITS FOLLOWING FINAL DESIGN AND CONSTRUCTION.

TIDAL DATUMS	BL ENGLAND ATLANTIC SHORELINE (NAVD88 FT ELEVATIONS)
0' MHHW	1.96'
0' MHW	1.56'
0' MTL	-0.37'
0' MLW	-2.32'
0' MLLW	-2.47'



NJ CERTIFICATE OF AUTHORIZATION 24GA28010700



Reilly Schoo
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

- NOTES:**
- HORIZONTAL DATUM: NAD83 NEW JERSEY STATE PLANE, U.S. FOOT
 - VERTICAL DATUM CONVERSION OYSTER CREEK: NGVD29 = NAVD88 + 1.385 FT
VERTICAL DATA CONVERSION BL ENGLAND: NGVD29 = NAVD88 + 1.263 FT
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 - SEE HDD SERIES SHEETS FOR DETAILED PLAN AND PROFILE OF CABLE ROUTE.
 - FOR DETAILS ON WETLAND AND WETLAND BUFFER IMPACTS PLEASE SEE ONSHORE PLAN SET.
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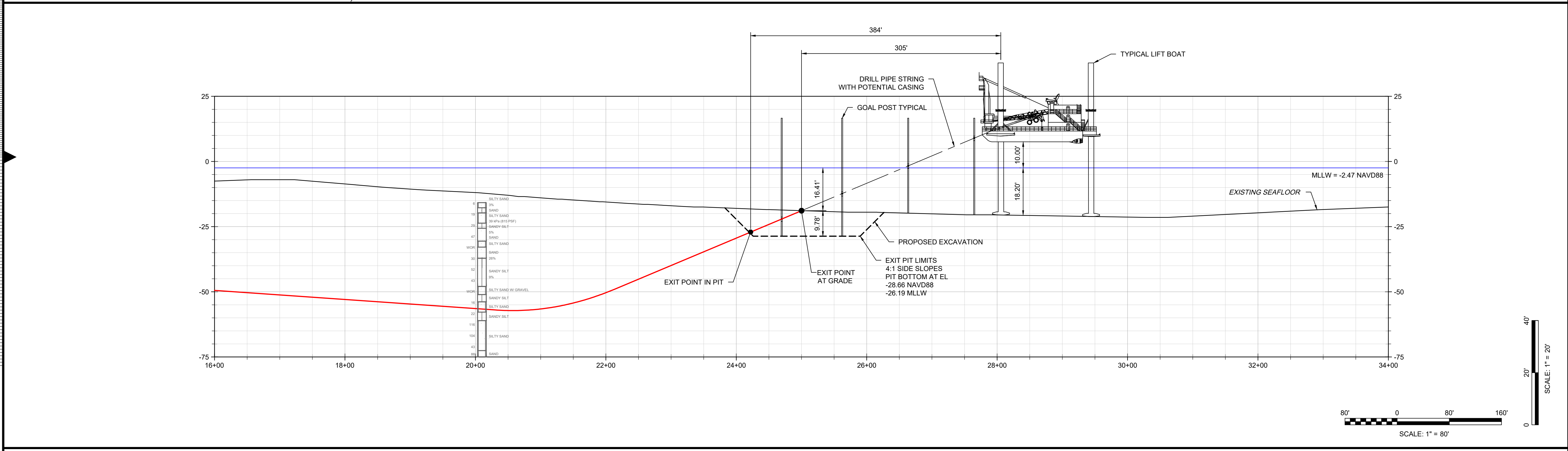
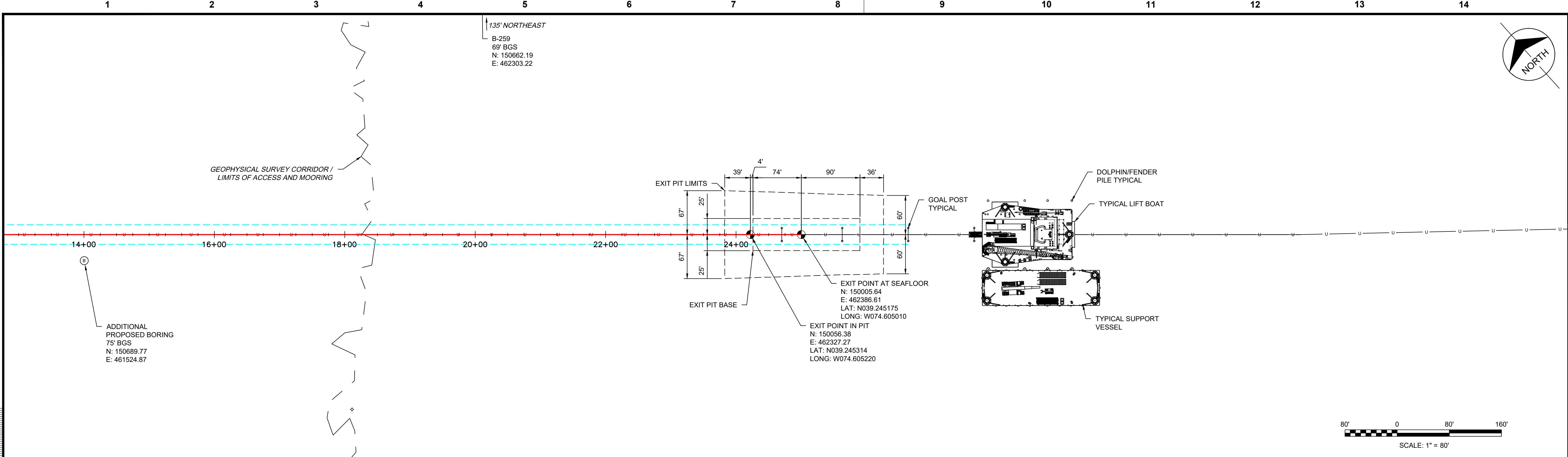
FOR PERMITTING APPROVAL

Ocean Wind 1
An Ørsted & PSEG project

HDR
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000
MAHWAH, NJ 07495

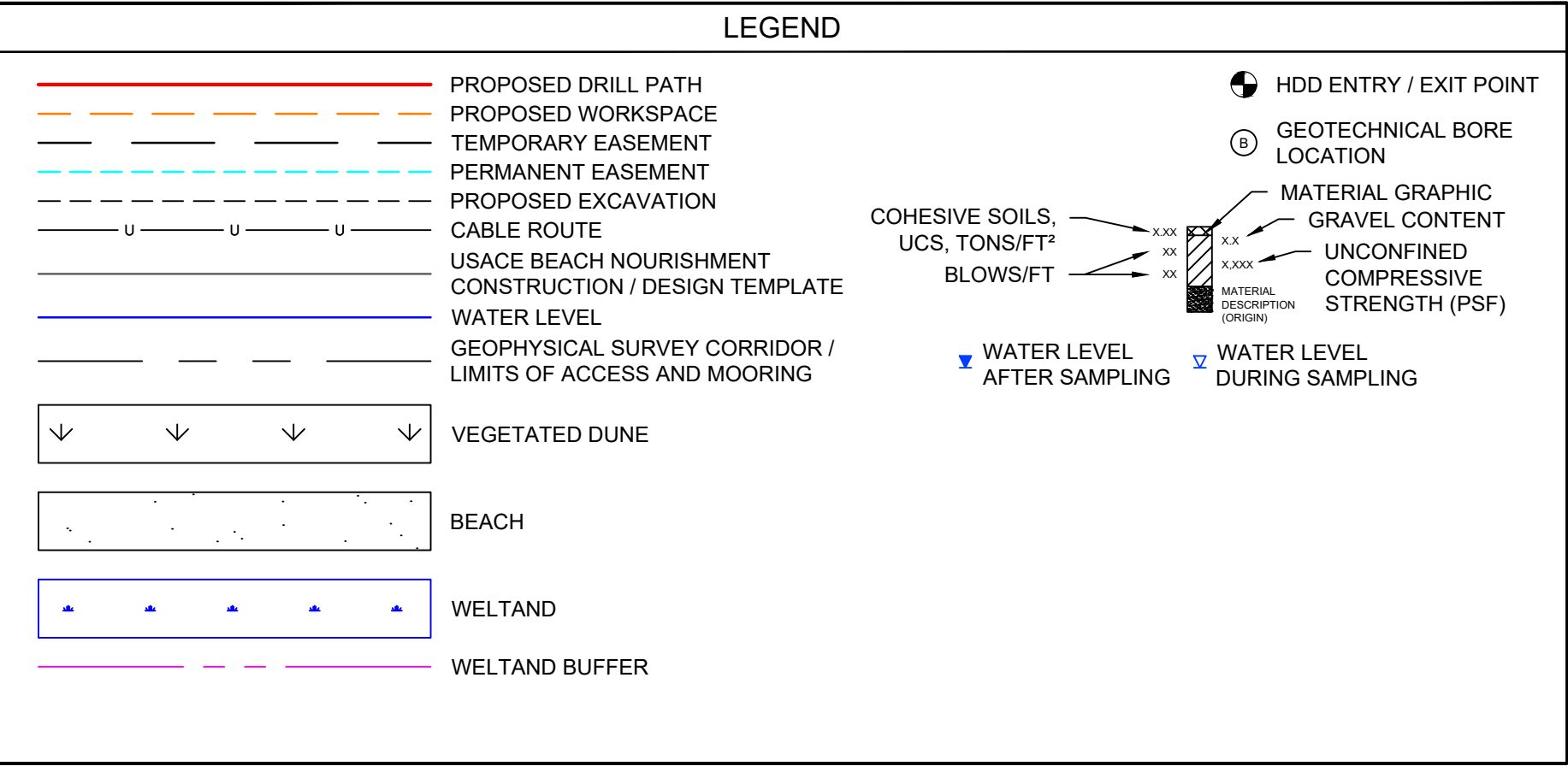
date	01/04/23	detailed	T. VONBERGE
designed	R. SCHOO	checked	D. BEARDEN

CAPE MAY COUNTY, NEW JERSEY	
32" OC3_A CROSSING BL ENGLAND / 35TH STREET CROSSING HORIZONTAL DIRECTIONAL DRILL PLAN AND PROFILE	
project	RDS-PP CODE
drawing	HDD-OF-BLE-01T-5-001
sheet	1 of 10 sheets
file	HDD-OF-BLE-01T-5-001



GENERAL NOTES

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NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

Reilly Schoo
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

NOTES:

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FOR PERMITTING APPROVAL

Ocean Wind 1
An Ørsted & PSEG project

HDR
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000
MAHWAH, NJ 07495

date	designed	detailed
01/04/23	R. SCHOO	T. VONBERGE
		checked D. BEARDEN

CAPE MAY COUNTY, NEW JERSEY

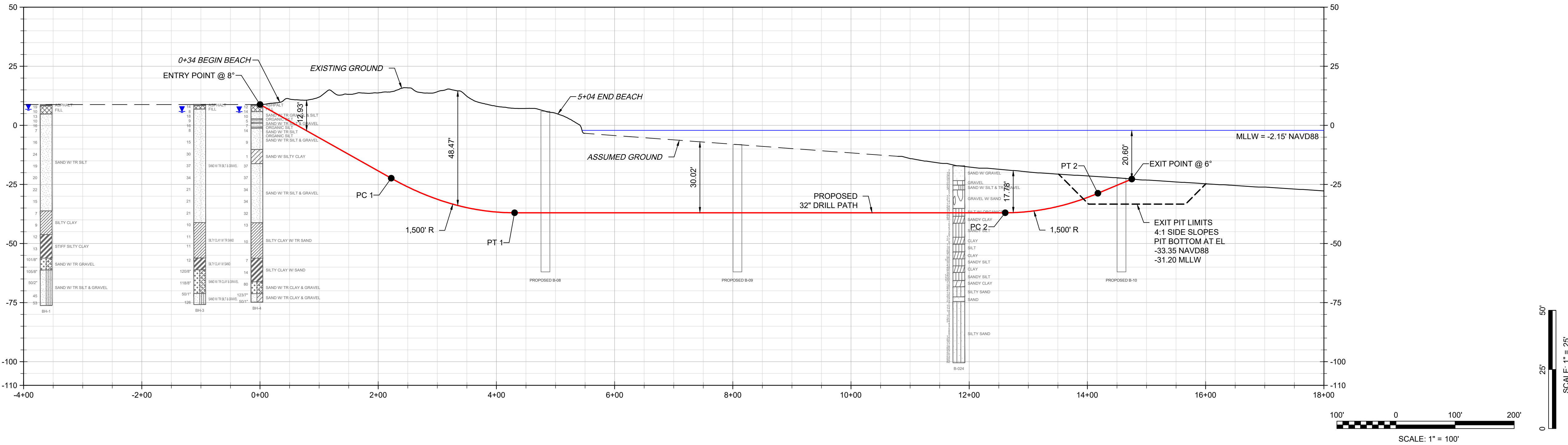
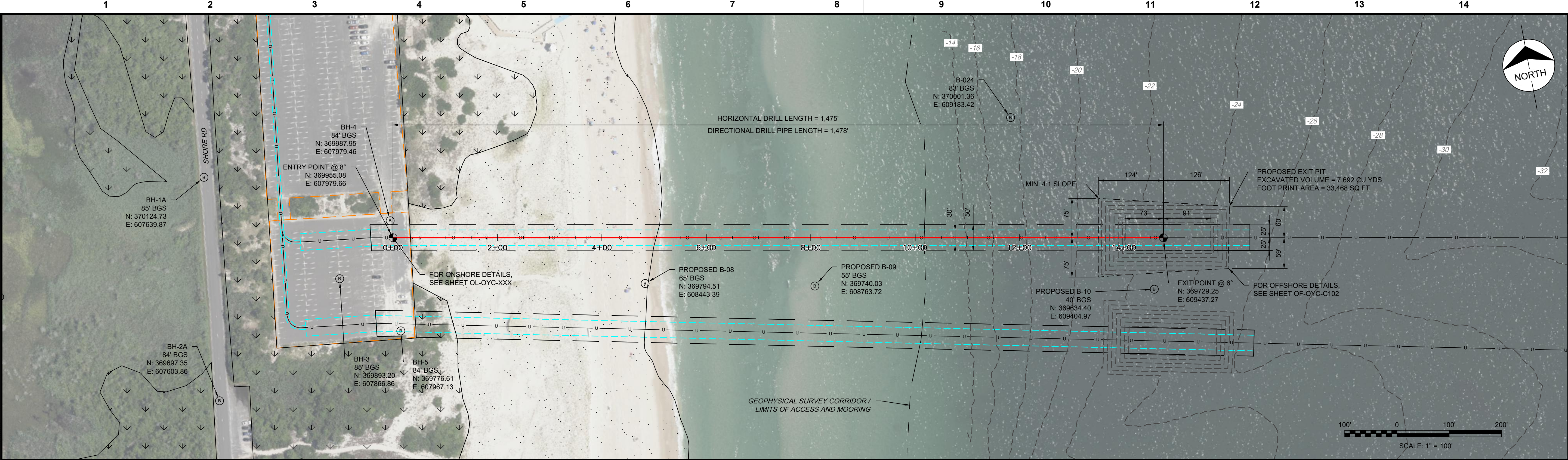
32" OC3_A CROSSING
BL ENGLAND / 35TH STREET CROSSING
OFFSHORE WORKSPACE
PLAN AND PROFILE

project	RDS-PP CODE
-	-

drawing	rev.
HDD-OF-BLE-01T-4-002	A

sheet	of	sheets
2	10	

file HDD-OF-BLE-01T-4-002

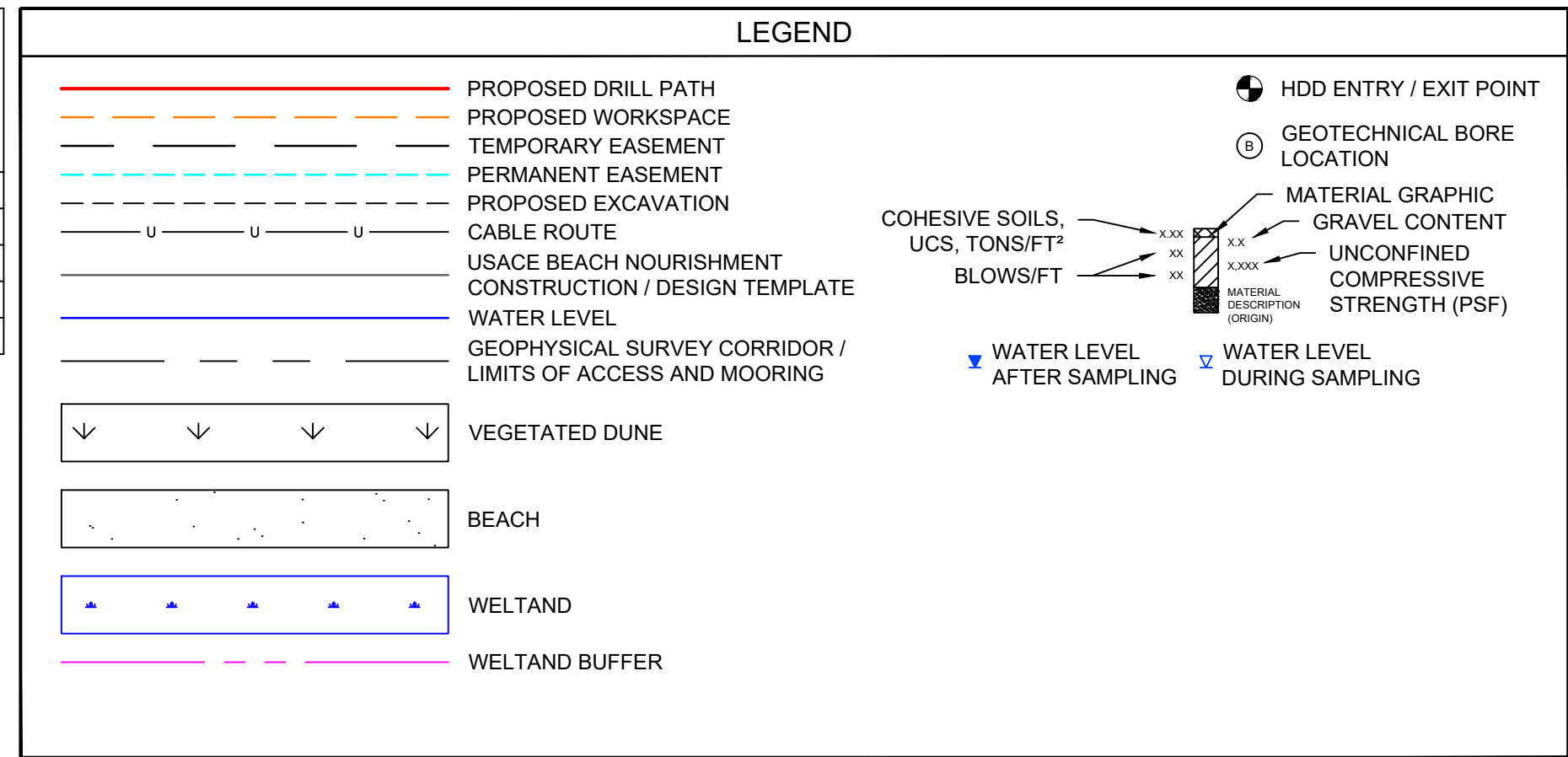


DIRECTIONAL DRILL DATA			
DESCRIPTION	STATION (ft)	ELEVATION (NAVD88 ft)	ELEVATION (MLLW ft)
ENTRY POINT @ 8°	0+00.00	8.79	10.94
PC 1 (1,500' R)	2+21.92	-22.40	-20.25
PT 1	4+30.68	-37.00	-34.85
PC 2 (1,500' R)	12+60.77	-37.00	-34.85
PT 2	14+17.56	-28.78	-26.63
EXIT POINT @ 6°	14+75.00	-22.75	-20.60
HORIZONTAL DISTANCE (ft) = 1,475.00			
DIRECTIONAL DRILL PIPE LENGTH (ft) = 1,478.46			

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TIDAL DATUMS	IBSP ATLANTIC SHORELINE (NAVD88 FT ELEVATIONS)
0' MHHW	2.17'
0' MHW	1.84'
0' MTL	-0.19'
0' MLW	-2.01'
0' MLLW	-2.15'



NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

OCEAN COUNTY, NEW JERSEY

32" OC1_C SHORE APPROACH
IBSP EAST CROSSING (NORTH)
HORIZONTAL DIRECTIONAL DRILL
PLAN AND PROFILE

project: RDS-PP CODE

drawing: **HDD-OF-OYC-04T-5-001** rev. **A**

sheet 3 of 10 sheets

file: HDD-OF-OYC-04T-5-001

Reilly School
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

FOR PERMITTING APPROVAL

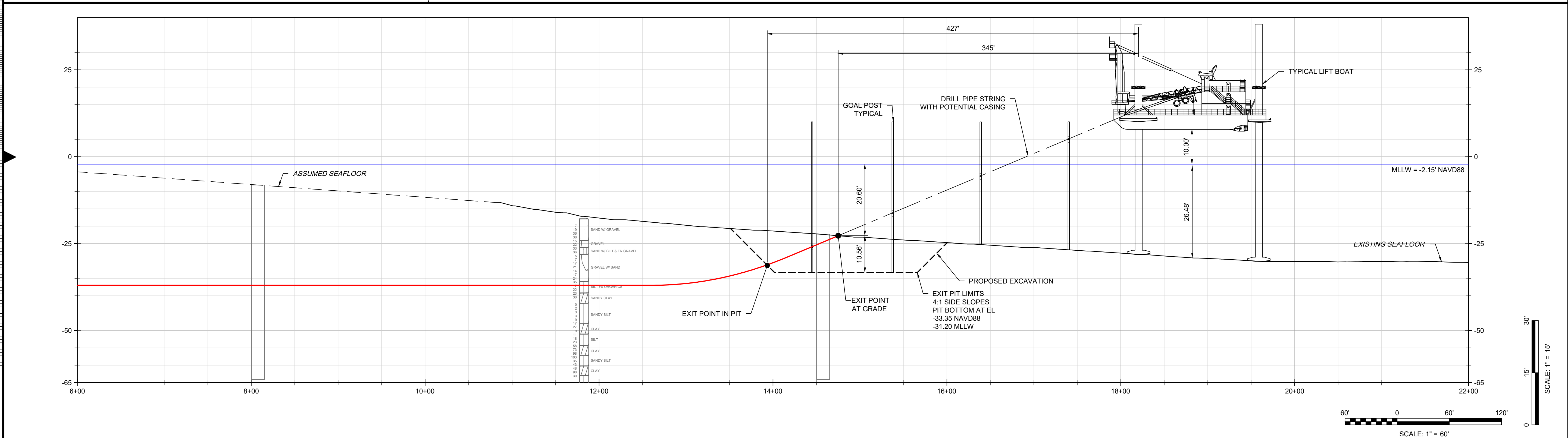
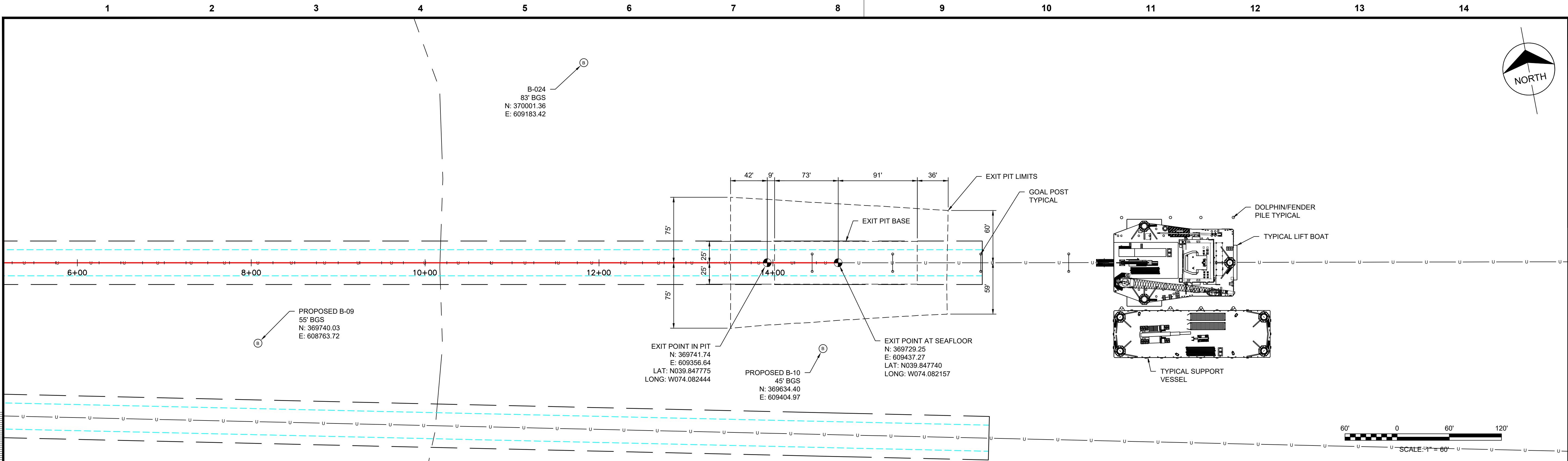
Ocean Wind 1
An Ørsted & PSEG project

HDR
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000
MAHWAH, NJ 07495

date	01/04/23	detailed	T. VONBERGE
designed	R. SCHOO	checked	D. BEARDEN

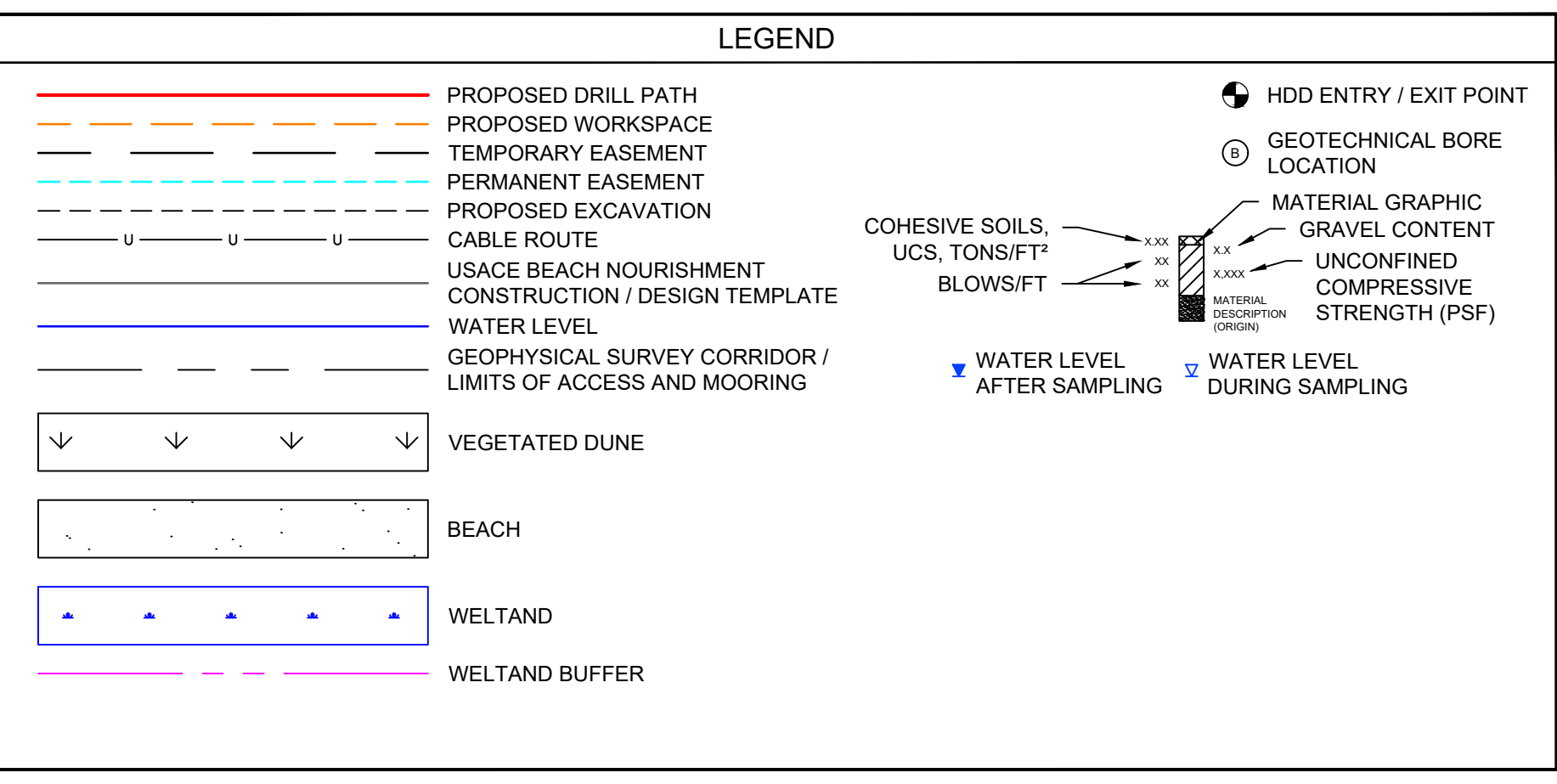
notes:

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NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

STATE OF NEW JERSEY
REILLY SCHOOL OF ENGINEERING
No. 24GE05344300
1-4-2023

Reilly School
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

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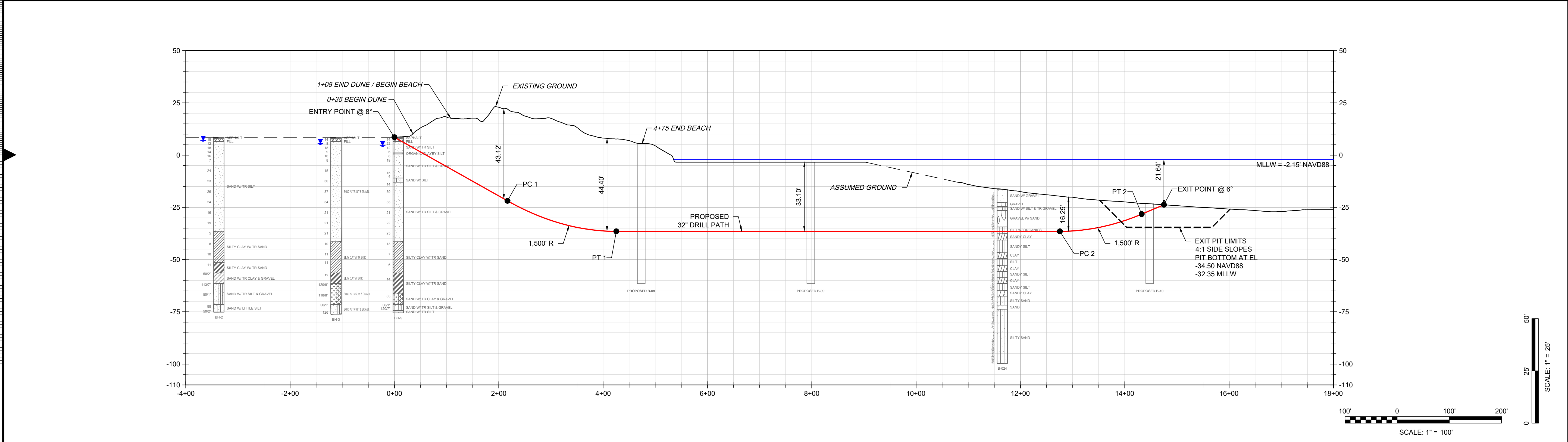
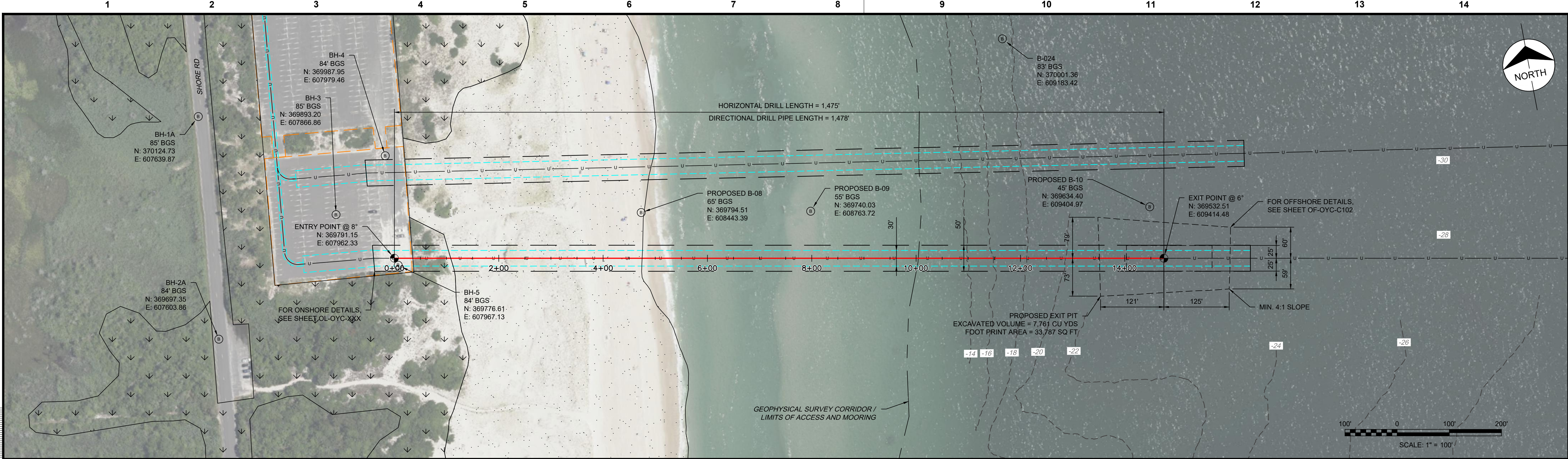
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date	01/04/23	detailed	T. VONBERGE
designed	R. SCHOO	checked	D. BEARDEN

OCEAN COUNTY, NEW JERSEY

32" OC1_C SHORE APPROACH
IBSP EAST CROSSING (NORTH)
OFFSHORE WORKSPACE
PLAN AND PROFILE

project	-	RDS-PP CODE	-
drawing	HDD-OF-OYC-04T-5-002	rev.	A
sheet	4	of 10	sheets
file	HDD-OF-OYC-04T-5-002		

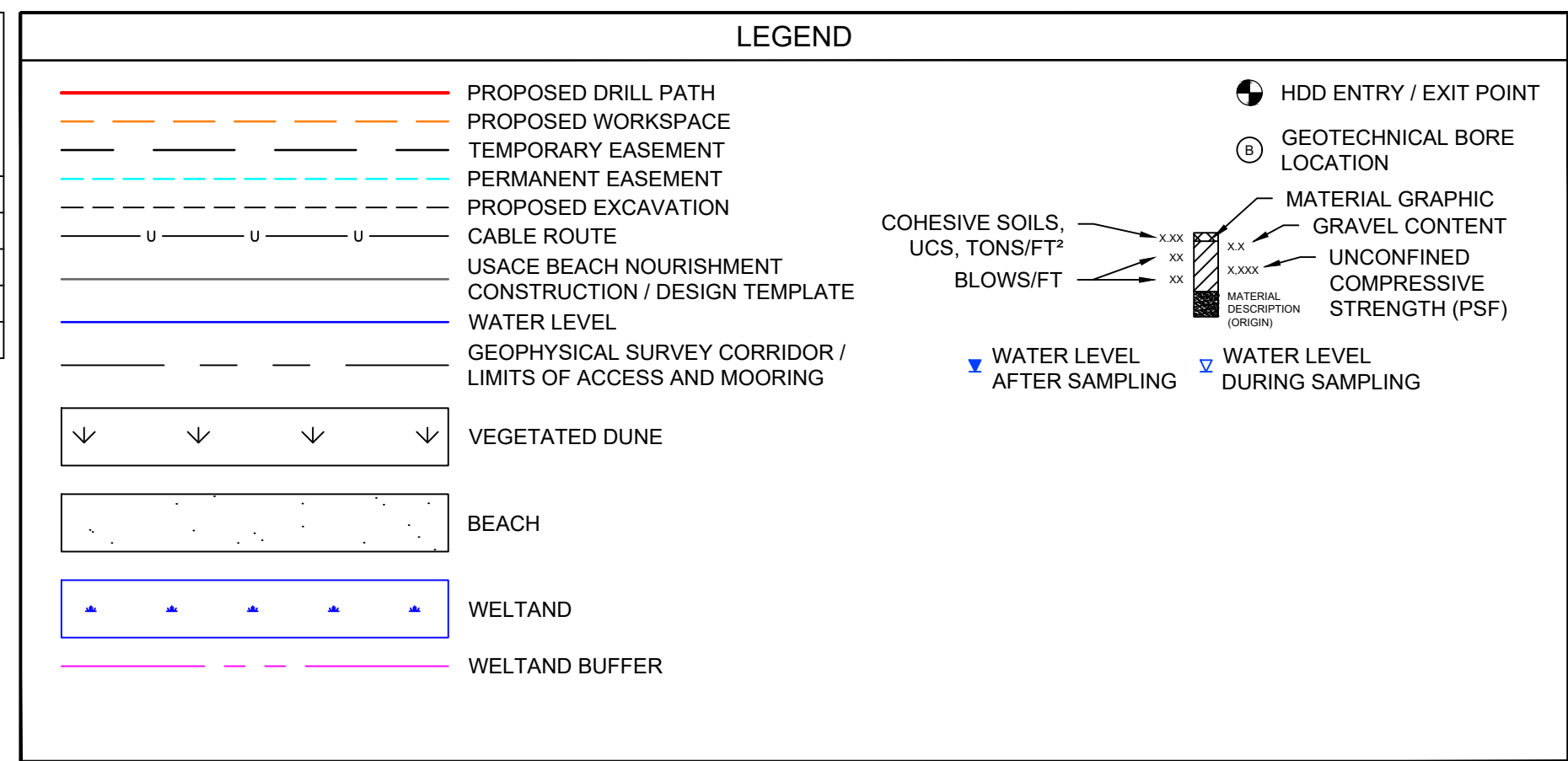


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- OFFSHORE CONTRACTOR TO ENSURE CARRIER PIPE STRING IS FREE OF DEBRIS AND SILT-IN PRIOR TO PULLBACK.
- VERTICAL DIMENSIONS OF EQUIPMENT NOT TO SCALE.
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TIDAL DATUMS	IBSP ATLANTIC SHORELINE (NAVD88 FT ELEVATIONS)
0' MHHW	2.17'
0' MHW	1.84'
0' MTL	-0.19'
0' MLW	-2.01'
0' MLLW	-2.15'



NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

Reilly Schoo
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

- NOTES:**
- HORIZONTAL DATUM: NAD83 NEW JERSEY STATE PLANE, U.S. FOOT
 - VERTICAL DATUM CONVERSION OYSTER CREEK: NGVD29 = NAVD88 + 1.385 FT
VERTICAL DATA CONVERSION BL ENGLAND: NGVD29 = NAVD88 + 1.263 FT
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 - ALL BATHYMETRIC CONTOURS ARE DEPICTED IN RELATION TO MEAN LOWER LOW WATER (MLLW).
 - SEE HDD SERIES SHEETS FOR DETAILED PLAN AND PROFILE OF CABLE ROUTE.
 - FOR DETAILS ON WETLAND AND WETLAND BUFFER IMPACTS PLEASE SEE ONSHORE PLAN SET.
 - THESE DRAWINGS ARE FOR DESIGN AND PERMITTING PURPOSES ONLY AND NOT INTENDED FOR CONSTRUCTION. FINAL LOCATION OF PROPOSED IMPROVEMENTS WILL BE COORDINATED WITH ENGINEER UPON AWARD OF CONTRACT.
 - AREAS OF IMPACTS TO REGULATED FEATURES ARE QUANTIFIED ON E2PM ONSHORE PLAN SHEETS OL-OC002 THROUGH OL-OC010.
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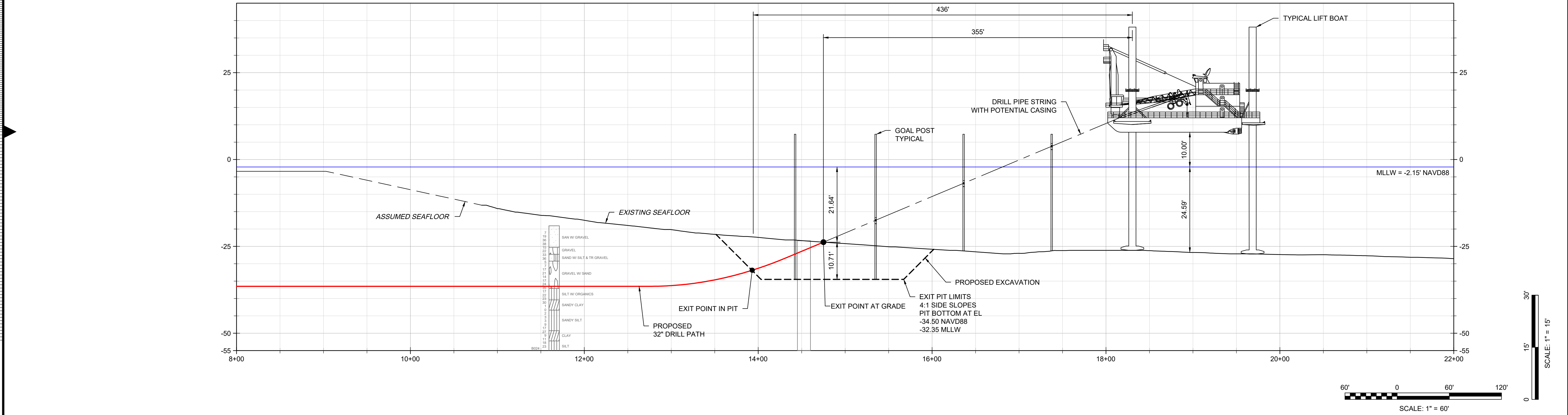
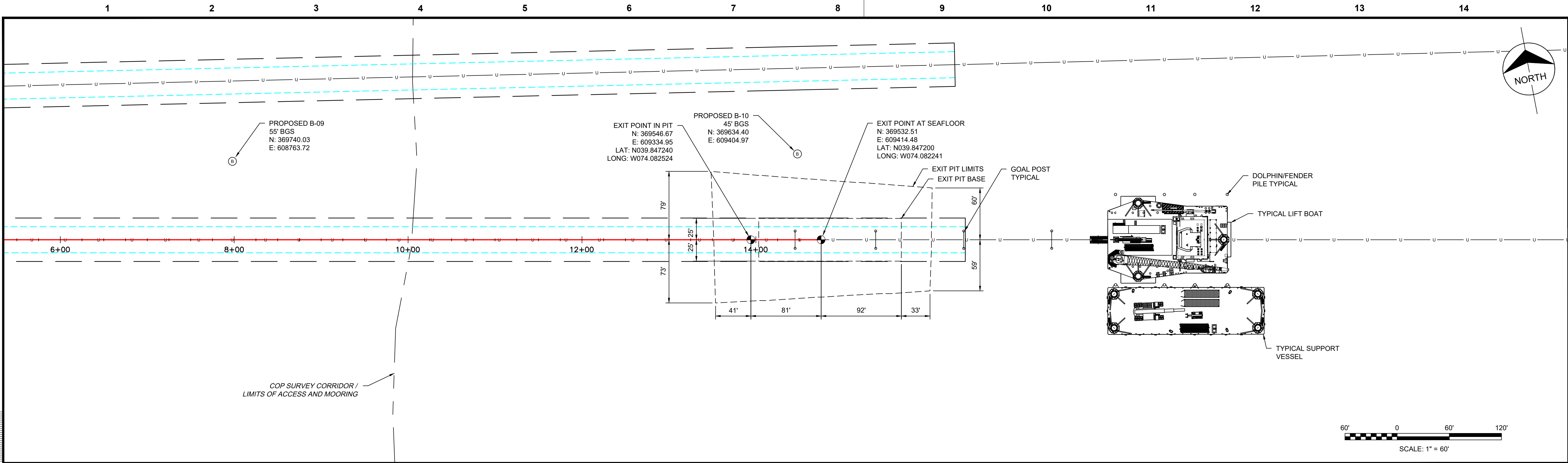
FOR PERMITTING APPROVAL

Ocean Wind 1
An Ørsted & PSEG project

HDR
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000
MAHWAH, NJ 07495

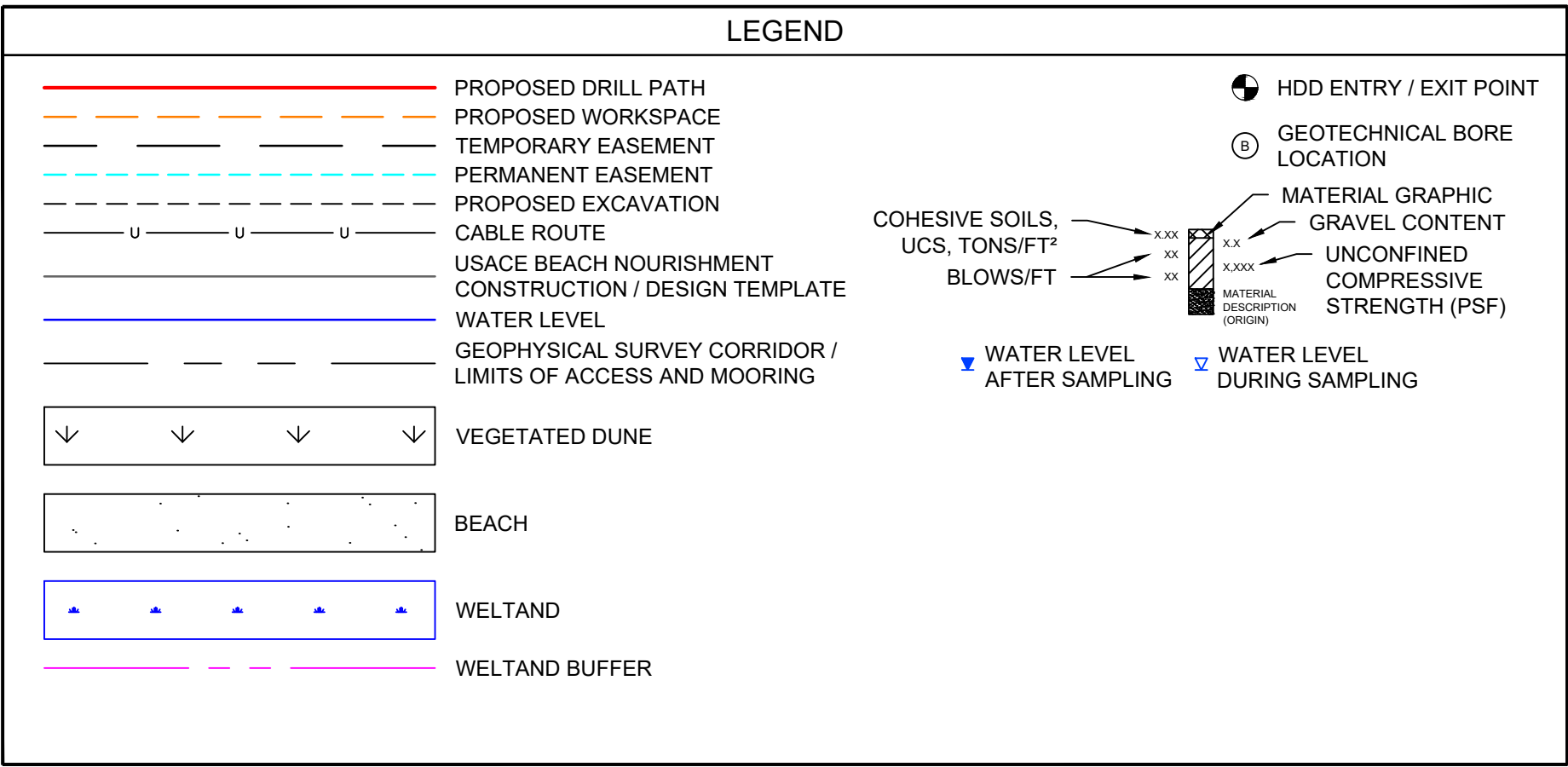
date	01/04/23	detailed	T. VONBERGE
designed	R. SCHOO	checked	D. BEARDEN

OCEAN COUNTY, NEW JERSEY	
32" OC2_C SHORE APPROACH IBSP EAST CROSSING (SOUTH) HORIZONTAL DIRECTIONAL DRILL PLAN AND PROFILE	
project	RDS-PP CODE
drawing	HDD-OF-OYC-05T-5-001
sheet 5 of 10 sheets	file HDD-OF-OYC-05T-5-001



GENERAL NOTES

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NJ CERTIFICATE OF AUTHORIZATION 24GA28010700



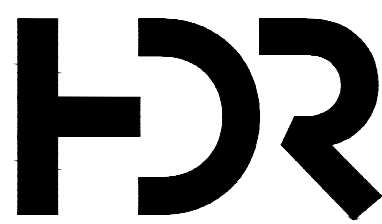
Reilly Schoo
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

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FOR PERMITTING APPROVAL

Ocean Wind 1
An Ørsted & PSEG project



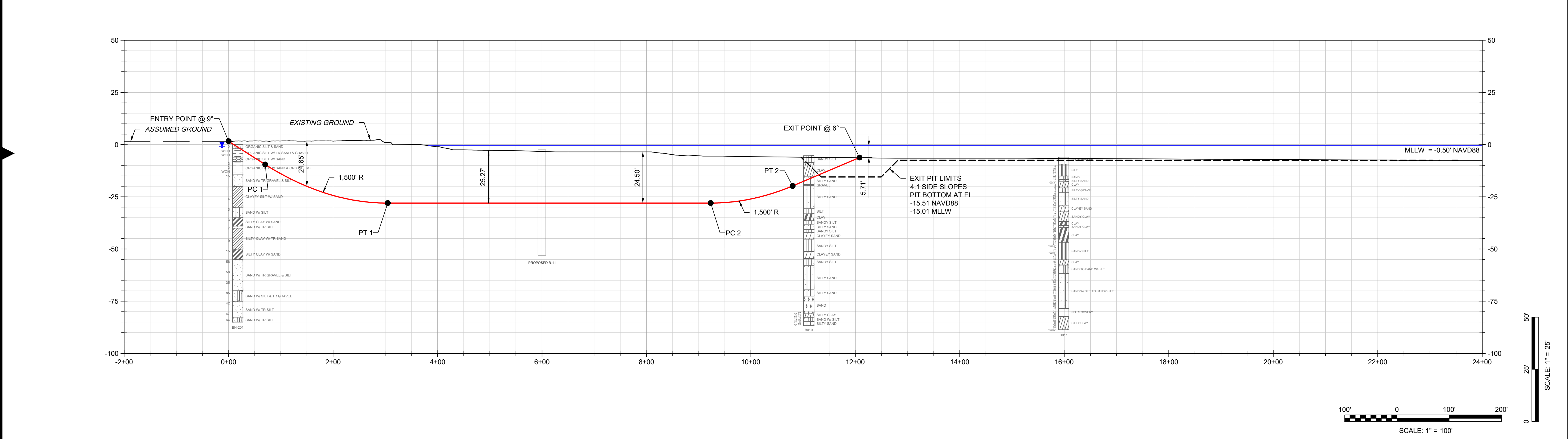
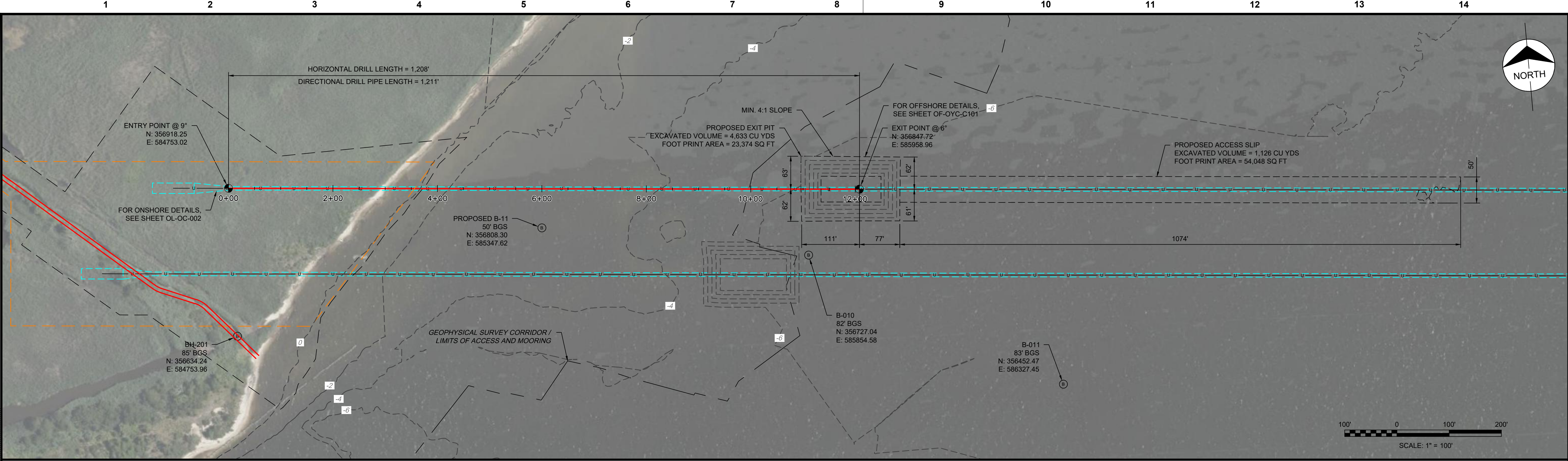
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000
MAHWAH, NJ 07495

date	01/04/23	detailed	T. VONBERGE
designed	R. SCHOO	checked	D. BEARDEN

OCEAN COUNTY, NEW JERSEY

32" OC2_C SHORE APPROACH
IBSP EAST CROSSING (SOUTH)
OFFSHORE WORKSPACE
PLAN AND PROFILE

project	-	RDS-PP CODE	-
drawing	HDD-OF-OYC-05T-4-001	rev.	A
sheet	6	of	10
file	HDD-OF-OYC-05T-4-001	sheets	

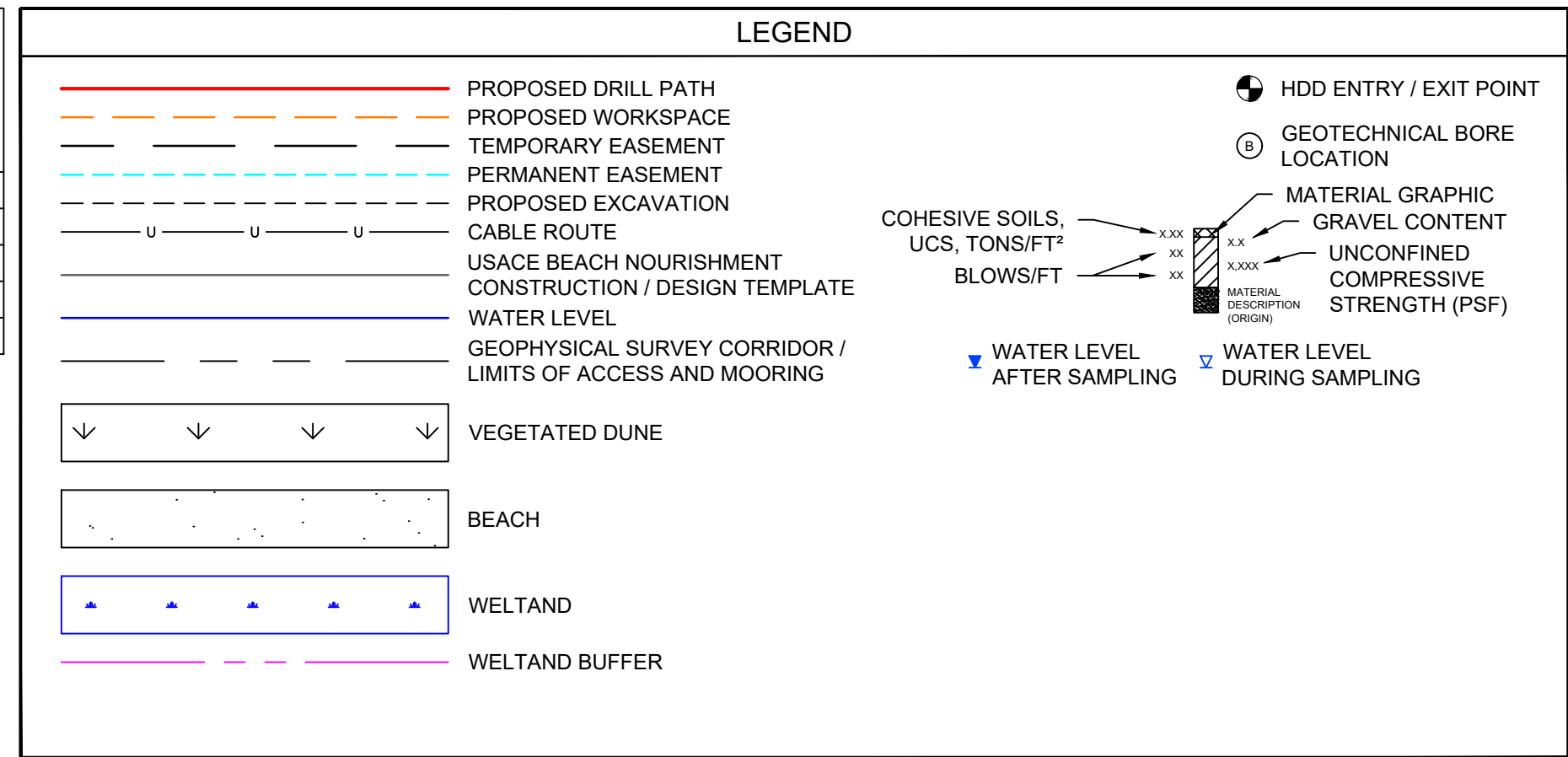


DIRECTIONAL DRILL DATA			
DESCRIPTION	STATION (ft)	ELEVATION (NAVD88 ft)	ELEVATION (MLLW ft)
ENTRY POINT @ 9°	0+00.00	1.57	2.07
PC 1 (1,500' R)	0+70.10	-9.53	-9.03
PT 1	3+04.75	-28.00	-27.50
PC 2 (1,500' R)	9+23.12	-28.00	-27.50
PT 2	10+79.92	-19.78	-19.28
EXIT POINT @ 6°	12+08.00	-6.21	-5.71
HORIZONTAL DISTANCE (ft) = 1,208.00			
DIRECTIONAL DRILL PIPE LENGTH (ft) = 1,210.83			

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TIDAL DATUMS	BARNEGAT BAY HOLTEC FARMS LANDING (NAVD88 FT ELEVATIONS)
0' MHHW	0.40'
0' MHW	0.27'
0' MTL	-0.05'
0' MLLW	-0.42'
0' MLLW	-0.50'



NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

REILLY SCHOOL
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

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FOR PERMITTING APPROVAL

Ocean Wind 1
An Ørsted & PSEG project

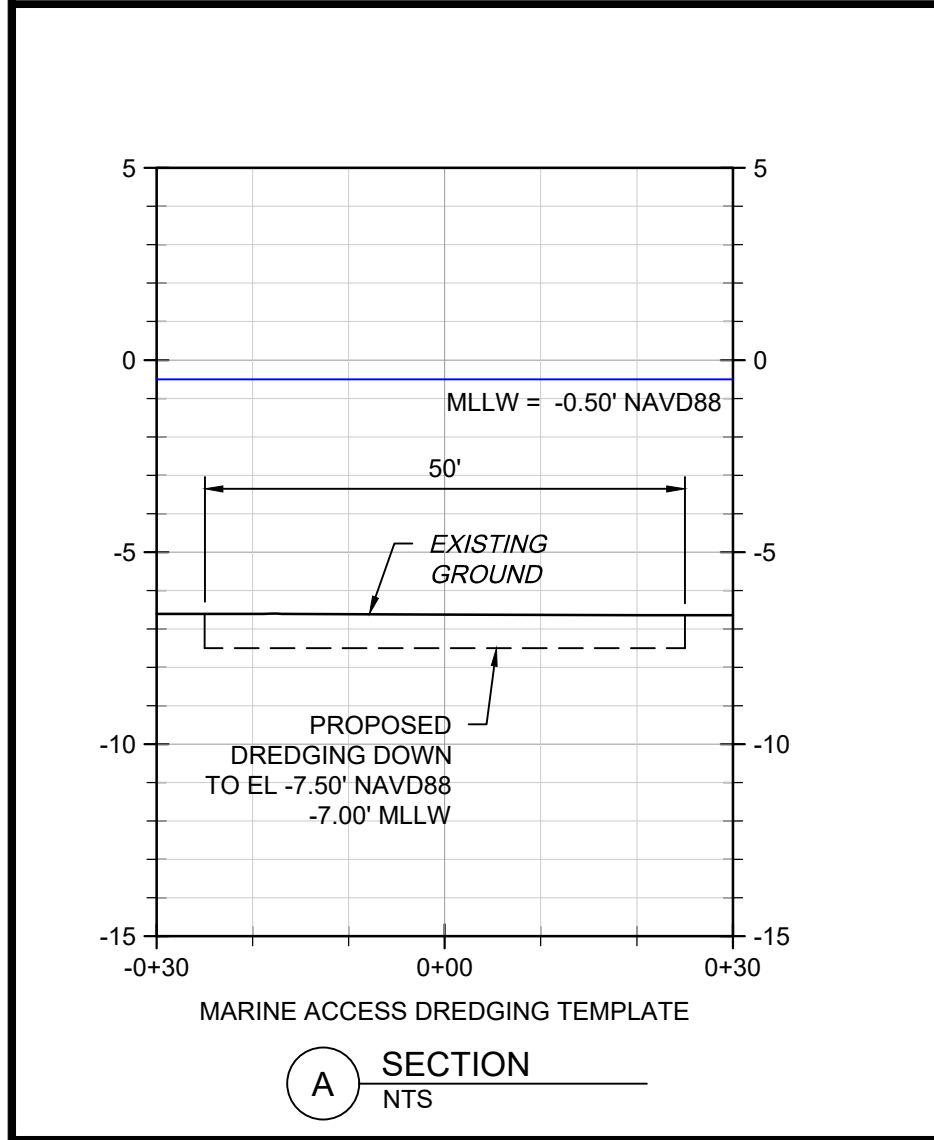
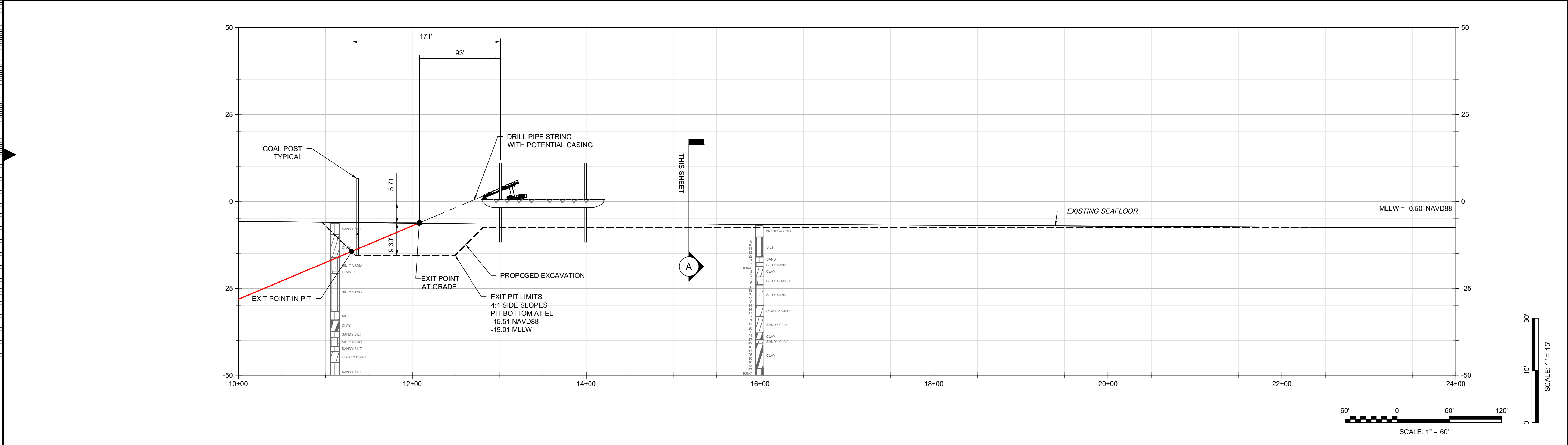
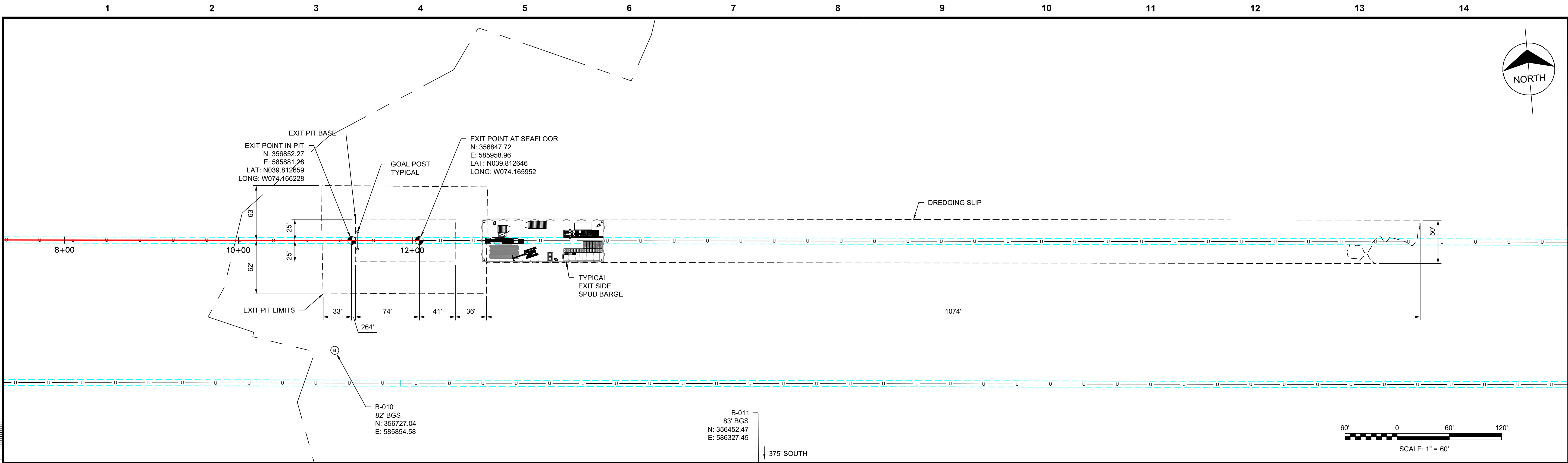
HDR
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000
MAHWAH, NJ 07495

date	01/04/23	detailed	T. VONBERGE
designed	R. SCHOO	checked	D. BEARDEN

OCEAN COUNTY, NEW JERSEY

32" OC1_A SHORE APPROACH
HOLTEC FARM CROSSING (NORTH)
HORIZONTAL DIRECTIONAL DRILL
PLAN AND PROFILE

project	-	RDS-PP CODE	-
drawing	HDD-OF-OYC-06T-5-001	rev.	A
sheet	7	of	10
file	HDD-OF-OYC-06T-5-001	sheets	



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LEGEND

- PROPOSED DRILL PATH
- PROPOSED WORKSPACE
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- PROPOSED EXCAVATION
- CABLE ROUTE
- USACE BEACH NOURISHMENT CONSTRUCTION / DESIGN TEMPLATE
- WATER LEVEL
- GEOPHYSICAL SURVEY CORRIDOR / LIMITS OF ACCESS AND MOORING
- VEGETATED DUNE
- BEACH
- WELTAND
- WELTAND BUFFER
- HDD ENTRY / EXIT POINT
- GEOTECHNICAL BORE LOCATION
- MATERIAL GRAPHIC GRAVEL CONTENT
- UNCONFINED COMPRESSIVE STRENGTH (PSF)
- COHESIVE SOILS, UCS, TONS/FT² BLOWS/FT
- WATER LEVEL AFTER SAMPLING
- WATER LEVEL DURING SAMPLING

NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

OCEAN COUNTY, NEW JERSEY

32" OC1_A SHORE APPROACH

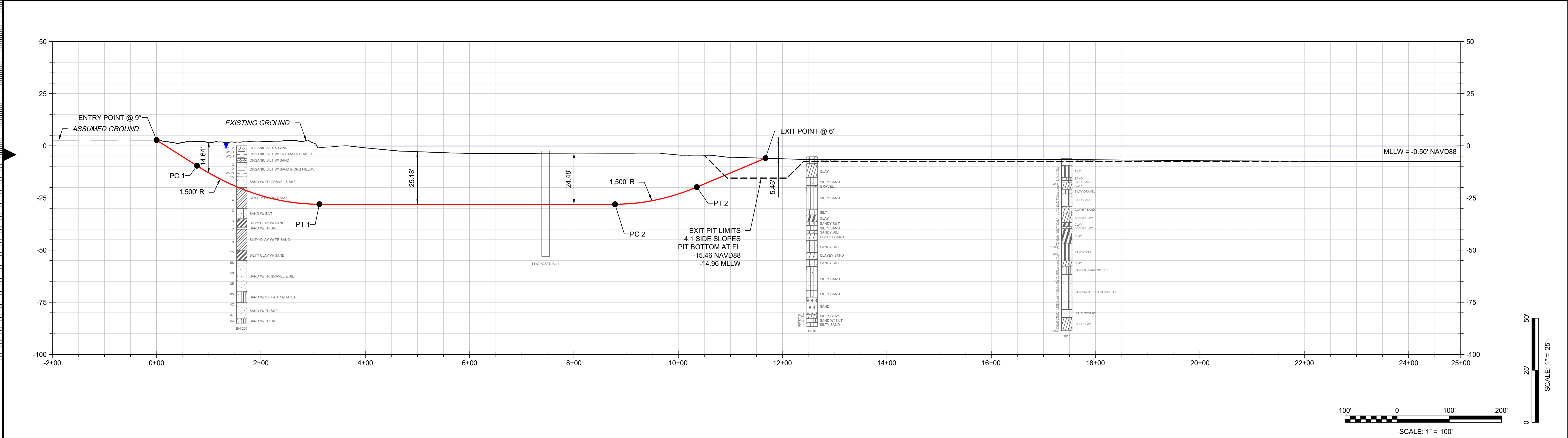
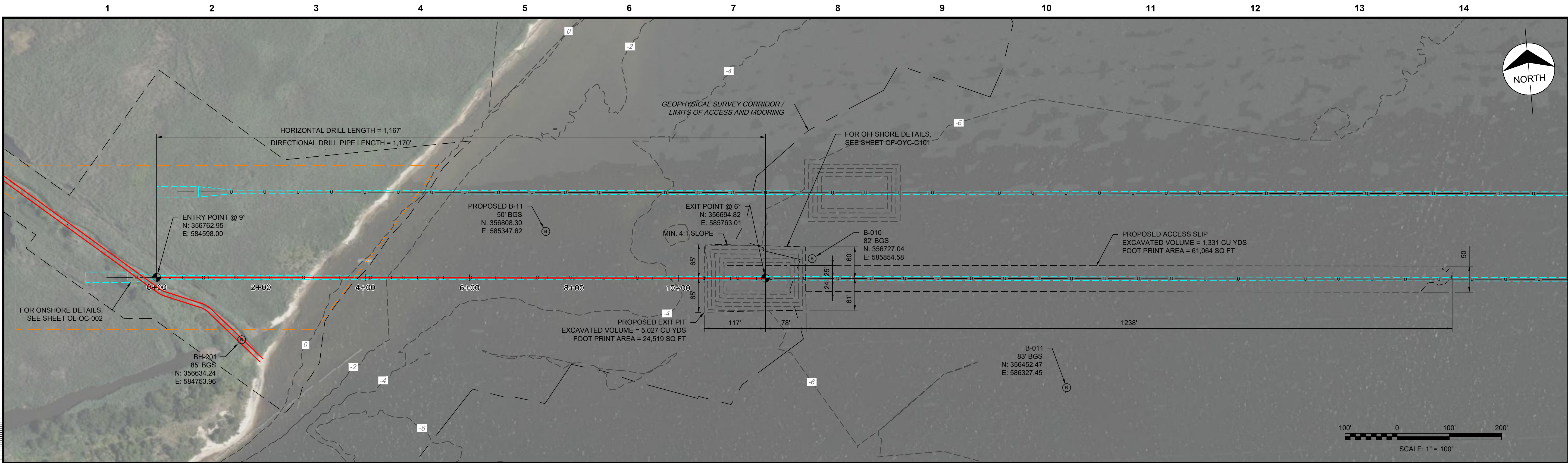
HOLTEC FARM CROSSING (NORTH) OFFSHORE WORKSPACE PLAN AND PROFILE

project: RDS-PP CODE

drawing: **HDD-OF-OYC-06T-4-001** sheet 8 of 10 sheets

rev. **A**

file: HDD-OF-OYC-06T-4-001

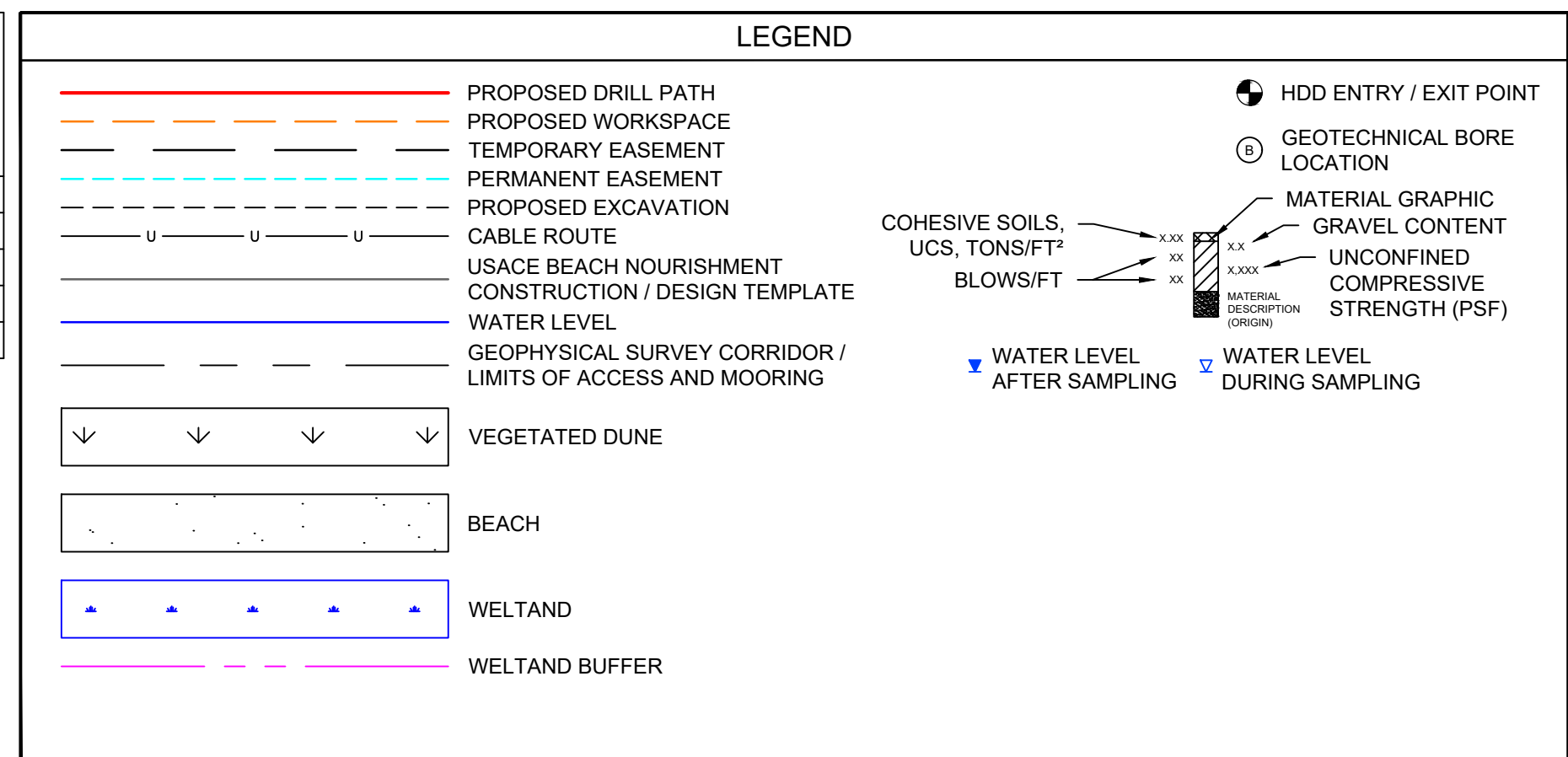


DIRECTIONAL DRILL DATA			
DESCRIPTION	STATION (ft)	ELEVATION (NAVD88 ft)	ELEVATION (MLLW ft)
ENTRY POINT @ 9°	0+00.00	2.71	3.21
PC 1 (1,500' R)	0+77.30	-9.53	-9.03
PT 1	3+11.95	-28.00	-27.50
PC 2 (1,500' R)	8+71.20	-28.00	-27.50
PT 2	10+35.43	-19.78	-19.28
EXIT POINT @ 6°	11+67.00	-5.95	-5.45
HORIZONTAL DISTANCE (ft) = 1,167.00			
DIRECTIONAL DRILL PIPE LENGTH (ft) = 1,169.94			

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TIDAL DATUMS	BARNEGAT BAY HOLTEC FARMS LANDING (NAVD88 FT ELEVATIONS)
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0' MHW	0.27'
0' MTL	-0.05'
0' MLLW	-0.42'
0' MLLW	-0.50'



NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

STATE OF NEW JERSEY
24GE05344300
1-4-2023

REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

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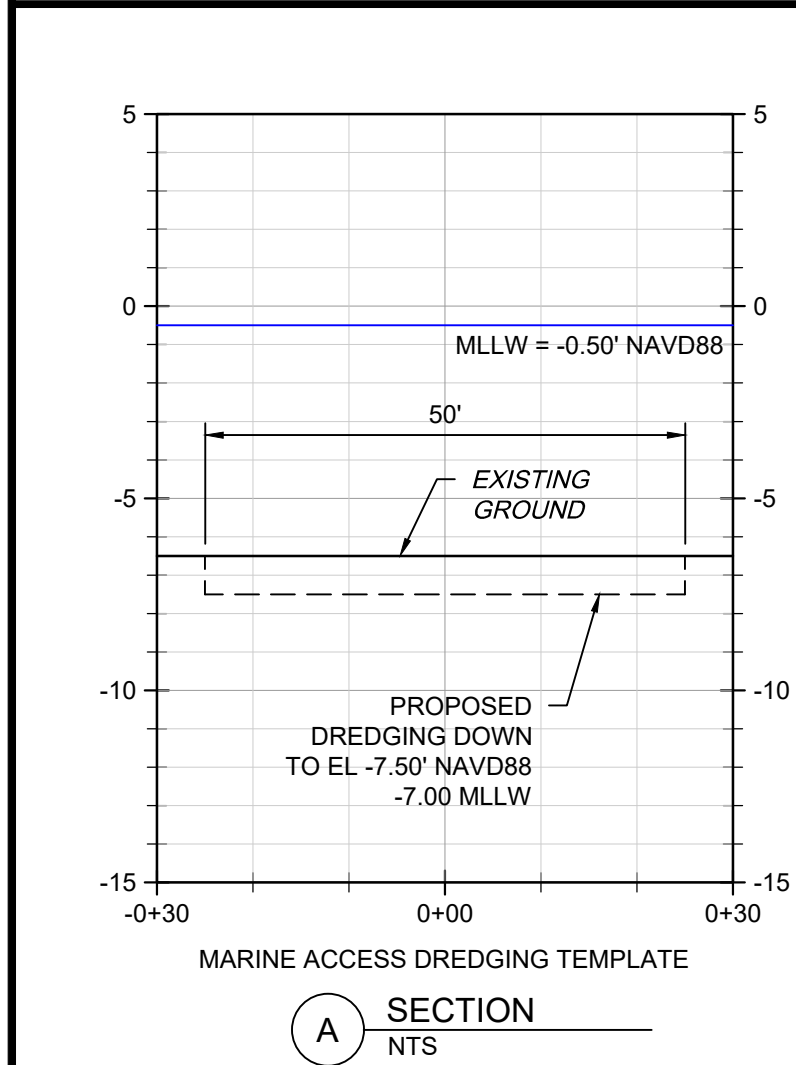
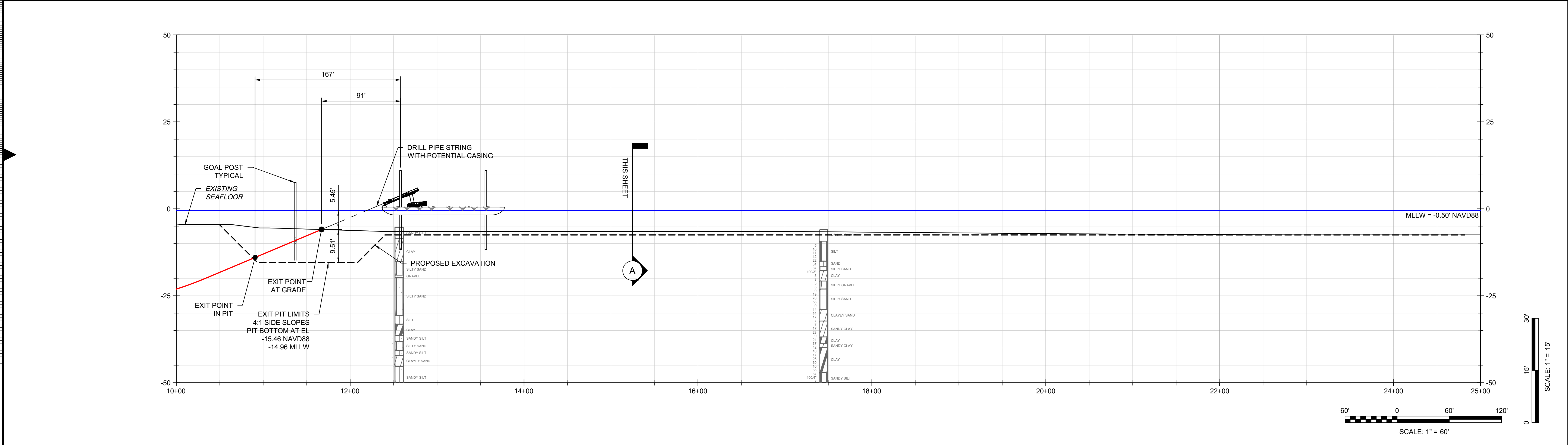
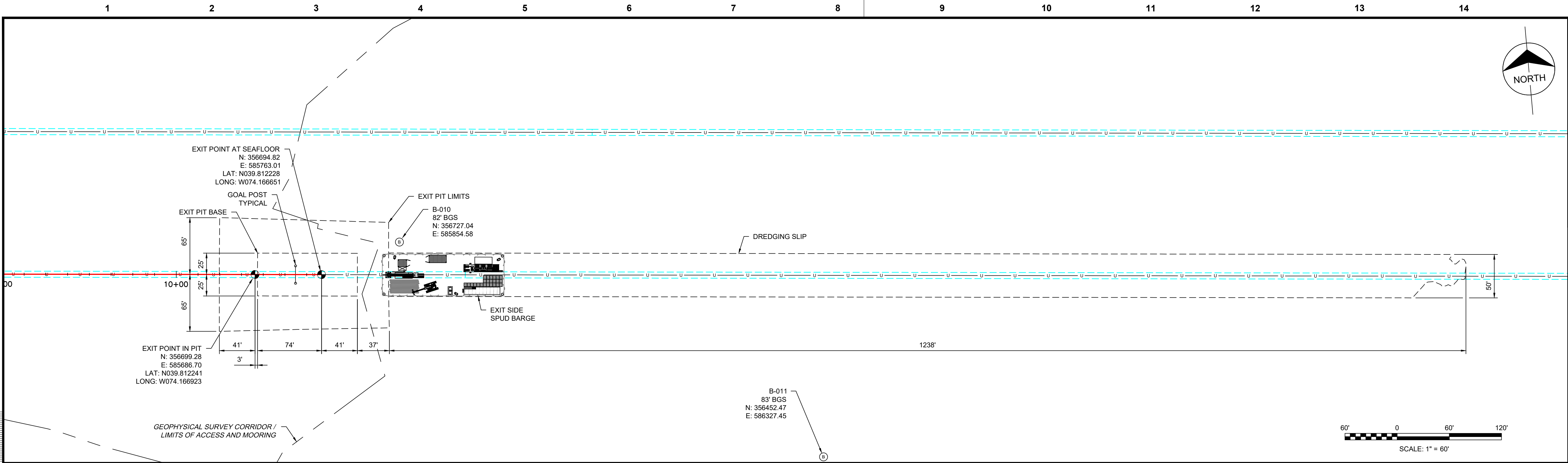
FOR PERMITTING APPROVAL

Ocean Wind 1
An Ørsted & PSEG project

HDR
HDR ENGINEERING, INC.
1 INTERNATIONAL BOULEVARD, SUITE 1000
MAHWAH, NJ 07495

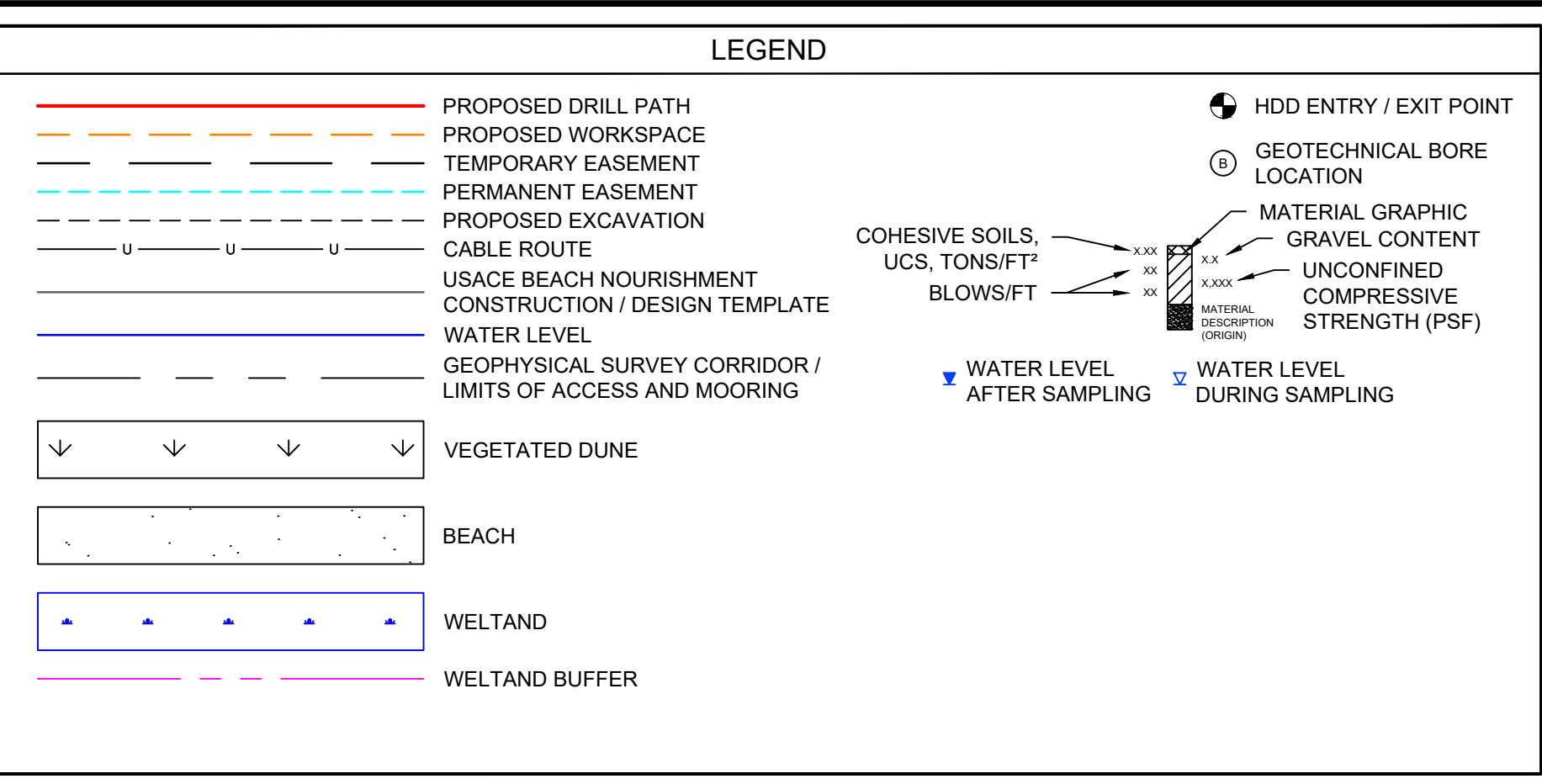
date	01/04/23	detailed	T. VONBERGE
designed	R. SCHOO	checked	D. BEARDEN

OCEAN COUNTY, NEW JERSEY	
32" OC2_A SHORE APPROACH HOLTEC FARM CROSSING (SOUTH) HORIZONTAL DIRECTIONAL DRILL PLAN AND PROFILE	
project	RDS-PP CODE
drawing	HDD-OF-OYC-07T-5-001
sheet 9 of 10 sheets	rev. A
file HDD-OF-OYC-07T-5-001	



GENERAL NOTES

- NORTHINGS AND EASTINGS ARE IN US SURVEY FEET REFERENCED TO NAD83 (2011), NEW JERSEY STATE PLANE, US FOOT.
- ALL ELEVATIONS ARE REFERENCED TO NAVD88.
- AERIAL IMAGERY PROVIDED BY GOOGLE EARTH.
- TOPOGRAPHIC SURVEY WAS PROVIDED BY ØRSTED.
- BASE FILE(S) PROVIDED BY ØRSTED.
- BATHYMETRIC SURVEY DATA PROVIDED BY ØRSTED 2021 AND BASED ON SITE INVESTIGATION HIGH RESOLUTION GEOPHYSICAL FIELD STUDIES CONDUCTED FROM 2019 THROUGH 2021. SUPPLEMENTAL BATHYMETRY FOR BARNEGAT BAY PROVIDED BY NOAA 2014 POST SANDY TOPOBATHY LIDAR.
- DRILL PATH STATIONING IS IN FEET BY HORIZONTAL MEASUREMENT AND IS REFERENCED TO THE CONTROL POSITION FOR THE CROSSING.
- DEPICTED WATER LEVEL INFORMATION SOURCED FROM NOAA VDATUM.
- LOCATION OF HDD RIG, OFFSHORE MARINE EQUIPMENT AND SUPPORT STRUCTURES ARE NOT FIXED BY DESIGNATION OF HDD ENTRY OR EXIT POINT AND ARE LIKELY TO CHANGE DURING CONSTRUCTION.
- VESSELS, EQUIPMENT, AND SUPPORT STRUCTURES ARE FOR ILLUSTRATION PURPOSES ONLY AND SHALL BE THE CONTRACTORS RESPONSIBILITY FOR SELECTING APPROPRIATELY SIZED AND CAPABLE EQUIPMENT FOR COMPLETING THE WORK.
- CONTRACTOR MUST REVIEW AND APPROVE ALL IN-WATER STRUCTURES AND COMPONENTS REQUIRED FOR CONSTRUCTION IN ORDER TO CONFIRM WITH SAFETY REQUIREMENTS, WATER DEPTH UNCERTAINTY, POSSIBILITY OF EXTREME WAVES AND ANY OTHER CONCERNS FOR THE SAFE AND SUCCESSFUL INSTALLATION OF CROSSING IN THE OFFSHORE ENVIRONMENT.
- OFFSHORE CONTRACTOR TO ENSURE CARRIER PIPE STRING IS FREE OF DEBRIS AND SILT-IN PRIOR TO PULLBACK.
- VERTICAL DIMENSIONS OF EQUIPMENT NOT TO SCALE.
- GEOTECHNICAL DATA AND INFORMATION IS PRESENTED FOR REFERENCE ONLY. REVIEW THE ASSOCIATED GEOTECHNICAL REPORT FOR ALL INTERPRETATIONS AND DETERMINATIONS REGARDING SUBSURFACE CONDITIONS.
- DRILLING FLUID AND CUTTINGS CAPTURED IN OFFSHORE EXCAVATION AT EXIT TO BE LEFT IN PLACE AND COVERED WITH AN APPROPRIATE LAYER OF NATIVE AND/OR COMPATIBLE MATERIAL.
- CONCRETE MATTRESSES WILL BE USED TO STABILIZE THE PIPE WITHIN THE HDD EXIT PIT UPON INSTALLATION. MATTRESSES WILL BE LEFT IN PLACE AND HDD EXIT PITS WILL BE ALLOWED TO BACKFILL THROUGH NATURAL PROCESSES. OCEAN WIND WILL NOTIFY USACE, USCG AND NJDEP OFFICE OF COASTAL ENGINEERING WITH LOCATIONS OF HDD EXIT PITS FOLLOWING FINAL DESIGN AND CONSTRUCTION.



NJ CERTIFICATE OF AUTHORIZATION 24GA28010700

STATE OF NEW JERSEY
RECEIVED
No. 24GE05344300
1-4-2023
REILLY J. SCHOO
NJ PROFESSIONAL ENGINEER
No. 24GE05344300

no.	date	by	ckd	description
A	01/04/23	TV	RS	ISSUED FOR PERMIT

- NOTES:
- HORIZONTAL DATUM: NAD83 NEW JERSEY STATE PLANE, U.S. FOOT
 - VERTICAL DATUM CONVERSION OYSTER CREEK: NGVD29 = NAVD88 + 1.385 FT
VERTICAL DATA CONVERSION BL ENGLAND: NGVD29 = NAVD88 + 1.263 FT
 - ALL DIMENSIONS ARE IN FEET (FT) UNLESS NOTED OTHERWISE.
 - ALL BATHYMETRIC CONTOURS ARE DEPICTED IN RELATION TO MEAN LOWER LOW WATER (MLLW).
 - SEE HDD SERIES SHEETS FOR DETAILED PLAN AND PROFILE OF CABLE ROUTE.
 - FOR DETAILS ON WETLAND AND WETLAND BUFFER IMPACTS PLEASE SEE ONSHORE PLAN SET.
 - THESE DRAWINGS ARE FOR DESIGN AND PERMITTING PURPOSES ONLY AND NOT INTENDED FOR CONSTRUCTION. FINAL LOCATION OF PROPOSED IMPROVEMENTS WILL BE COORDINATED WITH ENGINEER UPON AWARD OF CONTRACT.
 - AREAS OF IMPACTS TO REGULATED FEATURES ARE QUANTIFIED ON E2PM ONSHORE PLAN SHEETS OL-OC002 THROUGH OL-OC010.
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OCEAN COUNTY, NEW JERSEY	
32" OC2_A SHORE APPROACH HOLTEC FARM CROSSING (SOUTH) OFFSHORE WORKSPACE PLAN AND PROFILE	
project	RDS-PP CODE
drawing	HDD-OF-OYC-07T-4-001
sheet	10 of 10 sheets
file	HDD-OF-OYC-07T-4-001