

TO NEW HAVEN

TO BOSTON

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE - ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) - ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) - ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) - ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) - ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) - ELEVATION -1.71'
- [Symbol] — [Symbol] — FIELD LOCATED WETLAND BOUNDARY
- [Symbol] — [Symbol] — LIMITS OF PROJECT DISTURBANCE
- [Symbol] — [Symbol] — AMTRAK RIGHT OF WAY (ROW)
- [Symbol] PERMANENT IMPACTS IN FLOODPLAIN
- [Symbol] TEMPORARY IMPACTS IN FLOODPLAIN

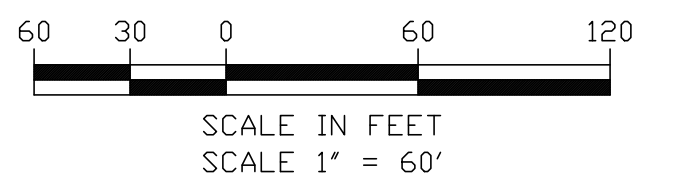
NOTES:

1. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

ANY STAGING AREAS AND PATHS TO BE RETURNED TO EXISTING CONDITION AT COMPLETION OF USE

ZONE AE (EL 11)

MATCHLINE DWG FEMA-02



FILE NAME: 212004-IMPACT\_ACTIVITY\_2\_FEMA\_100.DWG  
PRINT DATE: 7/16/2023 8:40 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT			
REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER			
FLOODPLAIN IMPACT PLAN			
Designed	CB	Drawn	CB/MD
Checked	KM	Date	5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.:	66 OF 140
Dwg. No.:	<b>FEMA-01</b>

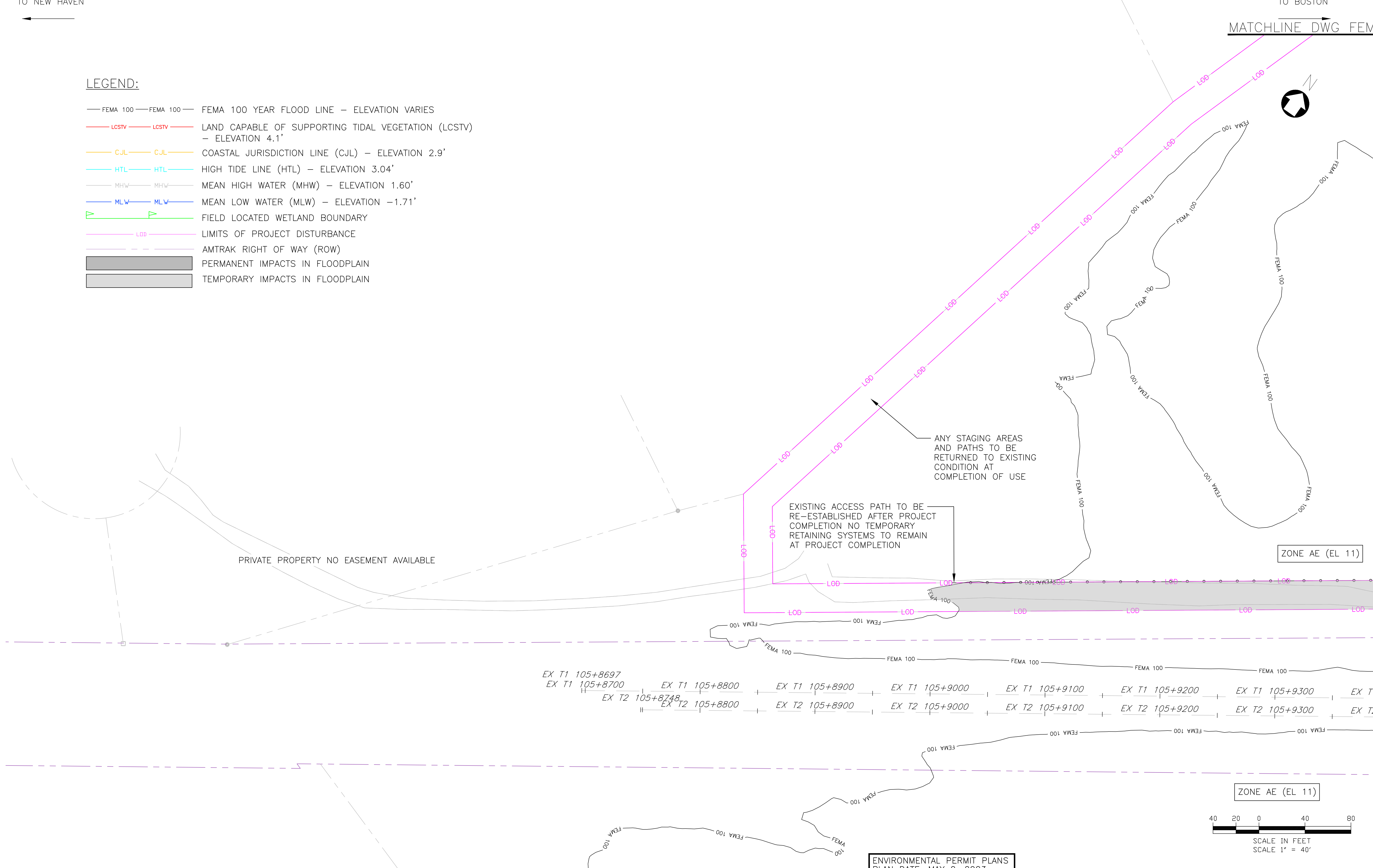
TO NEW HAVEN

TO BOSTON

MATCHLINE DWG FEMA-01

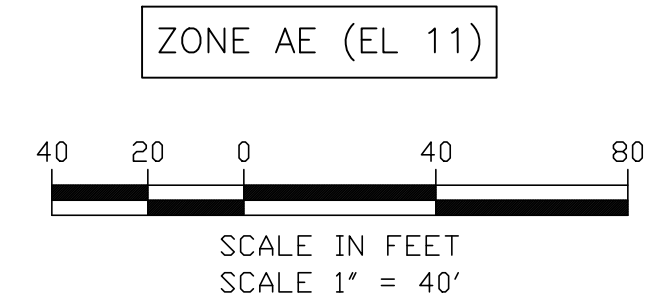
LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LDD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)
- PERMANENT IMPACTS IN FLOODPLAIN
- TEMPORARY IMPACTS IN FLOODPLAIN



MATCHLINE DWG FEMA-03

EX T1 105+8697    EX T1 105+8700    EX T1 105+8748    EX T2 105+8748    EX T2 105+8800    EX T1 105+8800    EX T2 105+8800    EX T1 105+8900    EX T2 105+8900    EX T1 105+9000    EX T2 105+9000    EX T1 105+9100    EX T2 105+9100    EX T1 105+9200    EX T2 105+9200    EX T1 105+9300    EX T2 105+9300    EX T1



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

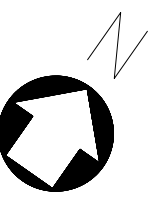
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
FLOODPLAIN IMPACT PLAN**  
Designed CB    Drawn CB/MD    Checked KM    Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.:	67 OF 140
Dwg. No.:	<b>FEMA-02</b>

FILE NAME: 217004-IMPACT\_ACTIVITY\_2\_FEMA\_100.DWG  
PRINT DATE: 7/16/2023 8:41 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

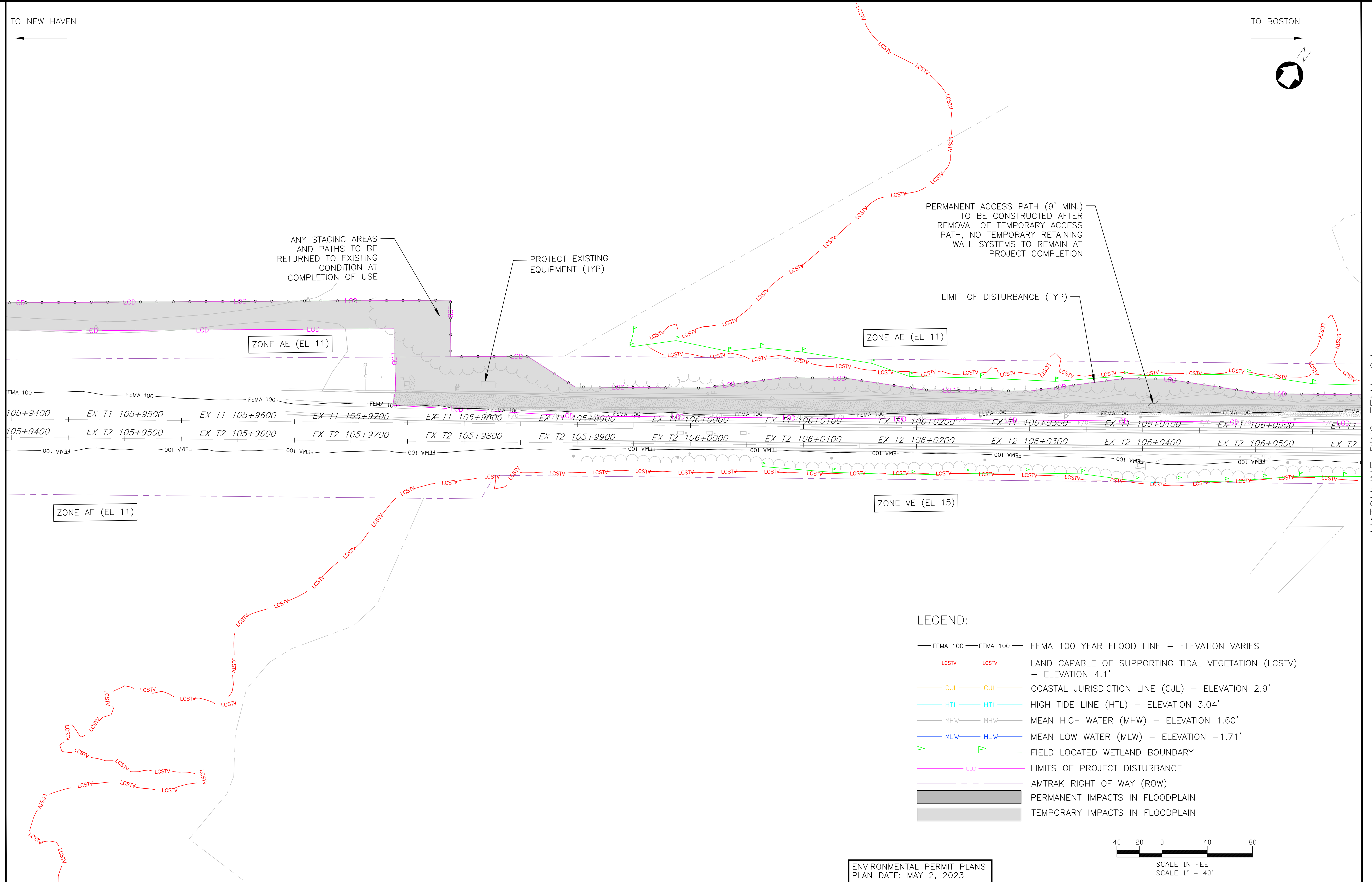
TO NEW HAVEN

TO BOSTON

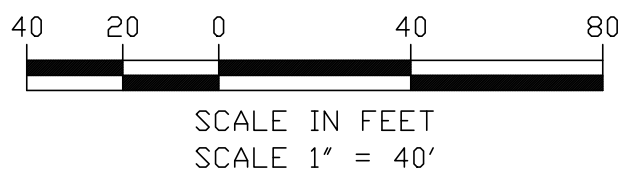


MATCHLINE FEMA-02

MATCHLINE DWG FEMA-04



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023



FILE NAME: 21700A\_IMPACT\_ACTIVITY\_3\_FEMA\_100.DWG  
PRINT DATE: 7/18/2023 8:41 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



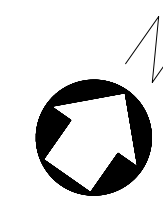
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
FLOODPLAIN IMPACT PLAN**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.:	68 OF 140
Dwg. No.:	<b>FEMA-03</b>

TO NEW HAVEN

TO BOSTON



PERMANENT ACCESS PATH (9' MIN.) TO BE CONSTRUCTED AFTER REMOVAL OF TEMPORARY ACCESS PATH, NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN AT PROJECT COMPLETION

EXISTING SURFACE GRADES AND SURFACE TYPES (INCLUDING RIPRAP AND GRAVEL) TO BE RESTORED AT PROJECT COMPLETION (TYP.)

EXIST TRACK 2  
EXIST TRACK 1

EXISTING UTILITIES TO REMAIN

ZONE AE (EL 11)

ZONE VE (EL 15)

WESTERN LIMIT OF GRADING WORK

EMBANKMENT SCOUR PROTECTION

LIMIT OF DISTURBANCE (TYP)

EXISTING SURFACE GRADES AND SURFACE TYPES (INCLUDING PLANTINGS) TO BE RESTORED AT PROJECT COMPLETION (TYP.)

ENVIRONMENTALLY SENSITIVE AREA. GROUND DISTURBANCES IN THIS AREA SHALL BE AVOIDED UNLESS SUBMITTED TO THE ENGINEER AND APPROVED. WHERE PERMITTED, PROPOSED GROUND DISTURBANCES SHALL NOT EXCEED 2 FEET IN DEPTH.



SCALE IN FEET  
SCALE 1" = 40'

MATCHLINE DWG FEMA-03

MATCHLINE DWG FEMA-05

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- — — FIELD LOCATED WETLAND BOUNDARY
- — — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)
- — — PERMANENT IMPACTS IN FLOODPLAIN
- — — TEMPORARY IMPACTS IN FLOODPLAIN

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

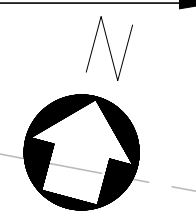
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
FLOODPLAIN IMPACT PLAN**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 69 OF 140  
Dwg. No. **FEMA-04**

FILE NAME: 212004-IMPACT\_ACTIVITY\_3\_FEMA\_100.DWG  
PRINT DATE/TIME: 5/2/2023 8:41 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON



PERMANENT ACCESS PATH (9' MIN.) TO BE CONSTRUCTED AFTER THE REMOVAL OF TEMPORARY ACCESS PATH, NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN AT PROJECT COMPLETION

PERMANENT 12' WIDE ACCESS PATH

EXISTING SURFACE GRADES AND SURFACE TYPES (INCLUDING RIPRAP AND GRAVEL) TO BE RESTORED AT PROJECT COMPLETION (TYP.)

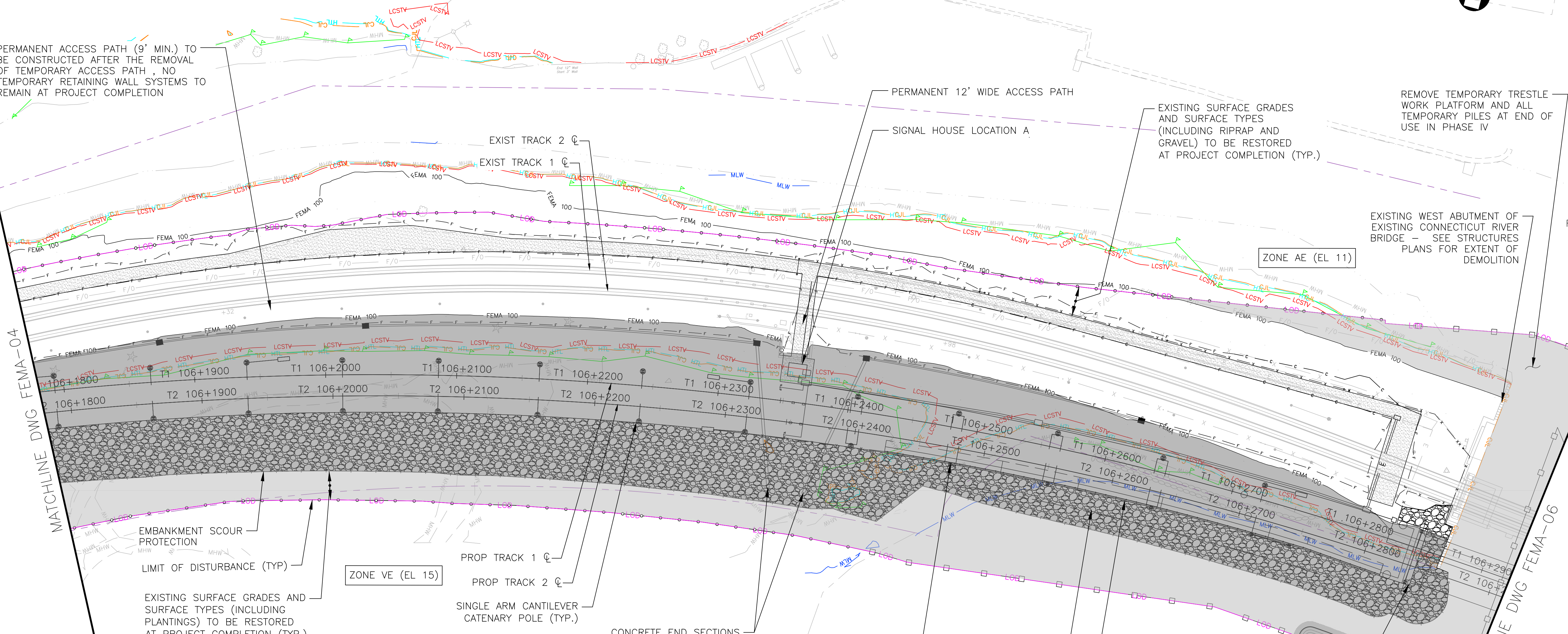
REMOVE TEMPORARY TRESTLE WORK PLATFORM AND ALL TEMPORARY PILES AT END OF USE IN PHASE IV

EXISTING WEST ABUTMENT OF EXISTING CONNECTICUT RIVER BRIDGE - SEE STRUCTURES PLANS FOR EXTENT OF DEMOLITION

FLOOD  
↑  
EBB

MATCHLINE DWG FEMA-04

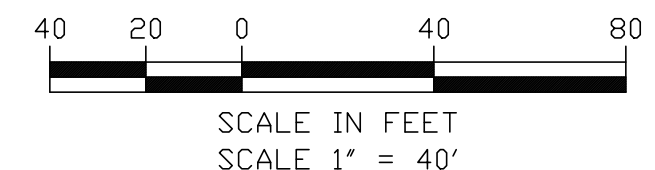
MATCHLINE DWG FEMA-06



**LEGEND:**

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE - ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) - ELEVATION 4.1'
- C/JL — C/JL — COASTAL JURISDICTION LINE (C/JL) - ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) - ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) - ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) - ELEVATION -1.71'
- LCB — LCB — FIELD LOCATED WETLAND BOUNDARY
- LDB — LDB — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)
- — — PERMANENT IMPACTS IN FLOODPLAIN
- — — TEMPORARY IMPACTS IN FLOODPLAIN

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023



FILE NAME: 212006-IMPACT\_ACTIVITY\_01\_FEMA\_100.DWG  
PRINT DATE/TIME: 6/2/2023 8:41 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

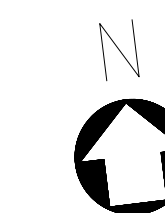
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
FLOODPLAIN IMPACT PLAN**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 70 OF 140  
Dwg. No. **FEMA-05**

TO NEW HAVEN

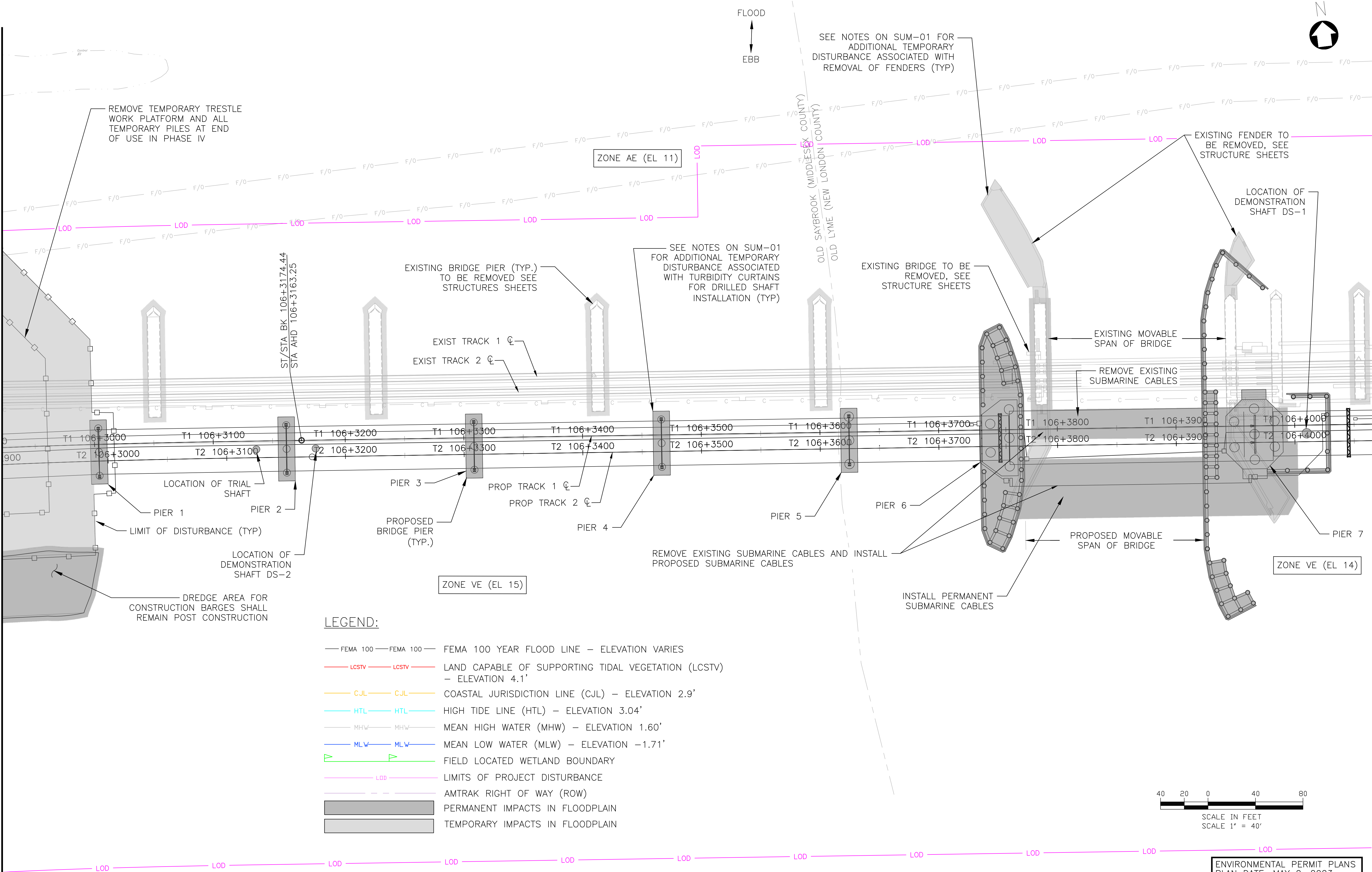
TO BOSTON

FLOOD  
↑  
EBB

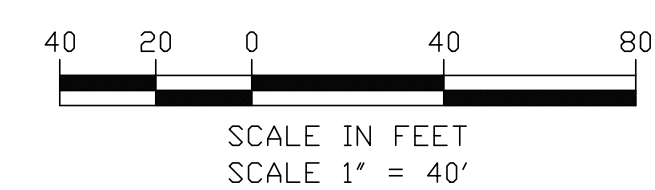


MATCHLINE DWG FEMA-05

MATCHLINE DWG FEMA-07



- LEGEND:**
- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE - ELEVATION VARIES
  - LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) - ELEVATION 4.1'
  - CJL — CJL — COASTAL JURISDICTION LINE (CJL) - ELEVATION 2.9'
  - HTL — HTL — HIGH TIDE LINE (HTL) - ELEVATION 3.04'
  - MHW — MHW — MEAN HIGH WATER (MHW) - ELEVATION 1.60'
  - MLW — MLW — MEAN LOW WATER (MLW) - ELEVATION -1.71'
  - FIELD LOCATED WETLAND BOUNDARY
  - LOD — LOD — LIMITS OF PROJECT DISTURBANCE
  - AMTRAK RIGHT OF WAY (ROW)
  - PERMANENT IMPACTS IN FLOODPLAIN
  - TEMPORARY IMPACTS IN FLOODPLAIN



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 217006-IMPACT\_ACTIVITY\_0 FEMA 100.DWG  
PRINT DATE: 7/16/2023 8:41 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



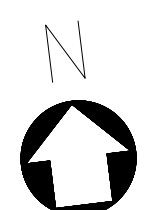
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
FLOODPLAIN IMPACT PLAN  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 71 OF 140  
Dwg. No. **FEMA-06**

TO NEW HAVEN

TO BOSTON



2000-GALLON MAINLAND SANITARY TANK WITH DRY SANITARY LINE TO SANITARY WASTE COLLECTION PORT IN CTDEEP PARKING LOT

2000-GALLON MAINLAND WATER TANK WITH DRY WATER LINE TO WATER FILL PORT IN CTDEEP PARKING LOT  
FUEL TANK AND TELECOMS ENCLOSURE

MATCHLINE DWG FEMA-12

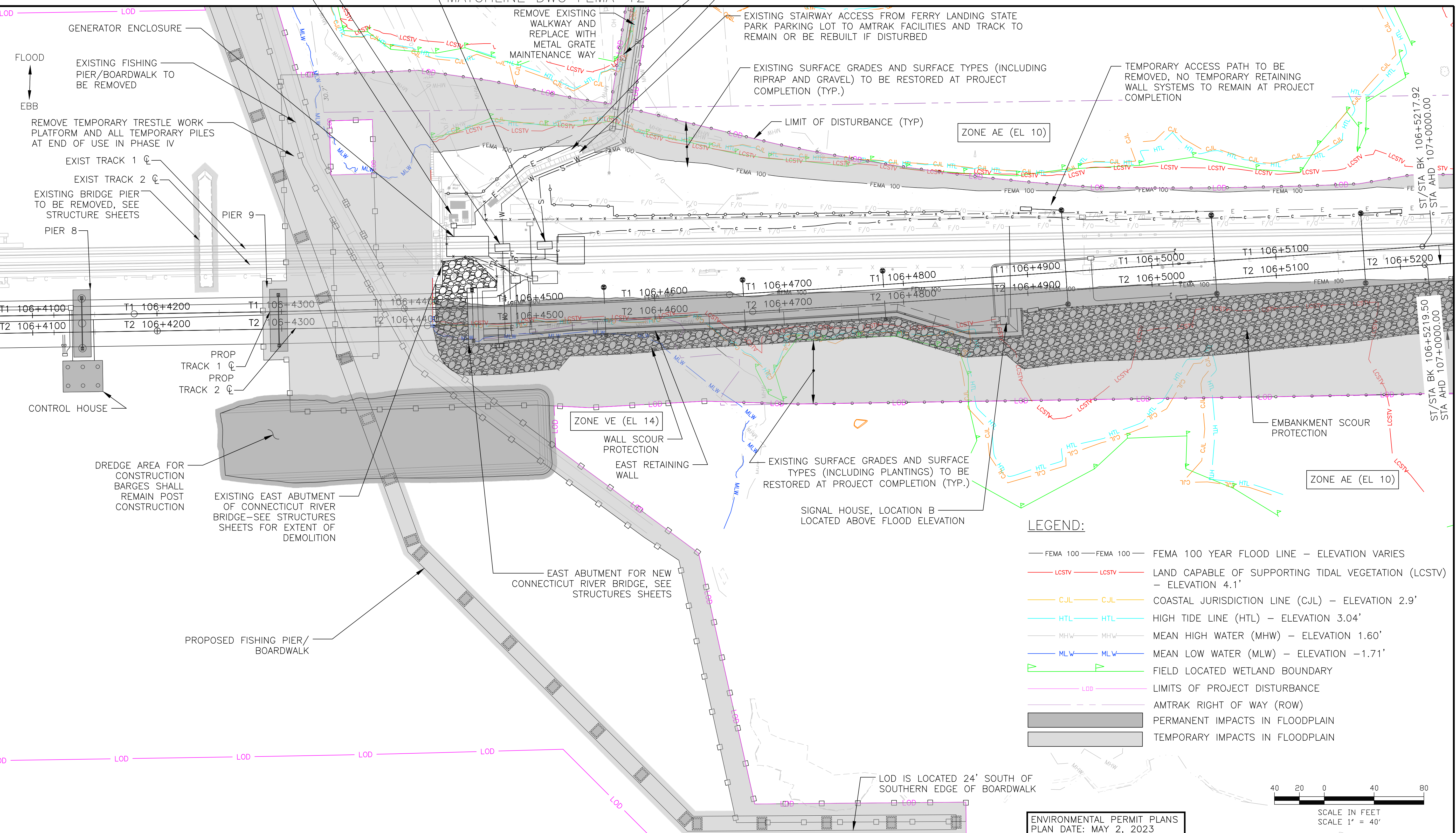
ELECTRIC CONDUITS TO CTDEEP PARKING LOT

REMOVE EXISTING DRY FIRE PIPE

EXISTING STAIRWAY ACCESS FROM FERRY LANDING STATE PARK PARKING LOT TO AMTRAK FACILITIES AND TRACK TO REMAIN OR BE REBUILT IF DISTURBED

EXISTING SURFACE GRADES AND SURFACE TYPES (INCLUDING RIPRAP AND GRAVEL) TO BE RESTORED AT PROJECT COMPLETION (TYP.)

TEMPORARY ACCESS PATH TO BE REMOVED, NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN AT PROJECT COMPLETION



FLOOD  
EBB

REMOVE TEMPORARY TRESTLE WORK PLATFORM AND ALL TEMPORARY PILES AT END OF USE IN PHASE IV

EXIST TRACK 1

EXIST TRACK 2

EXISTING BRIDGE PIER TO BE REMOVED, SEE STRUCTURE SHEETS

PIER 8

PIER 9

PROP TRACK 1

PROP TRACK 2

CONTROL HOUSE

DREDGE AREA FOR CONSTRUCTION BARGES SHALL REMAIN POST CONSTRUCTION

EXISTING EAST ABUTMENT OF CONNECTICUT RIVER BRIDGE—SEE STRUCTURES SHEETS FOR EXTENT OF DEMOLITION

PROPOSED FISHING PIER/BOARDWALK

ZONE VE (EL 14)

WALL SCOUR PROTECTION

EAST RETAINING WALL

EAST ABUTMENT FOR NEW CONNECTICUT RIVER BRIDGE, SEE STRUCTURES SHEETS

EXISTING SURFACE GRADES AND SURFACE TYPES (INCLUDING PLANTINGS) TO BE RESTORED AT PROJECT COMPLETION (TYP.)

SIGNAL HOUSE, LOCATION B LOCATED ABOVE FLOOD ELEVATION

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)
- PERMANENT IMPACTS IN FLOODPLAIN
- TEMPORARY IMPACTS IN FLOODPLAIN

40 20 0 40 80  
SCALE IN FEET  
SCALE 1" = 40'

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-IMPACT\_ACTIVITY\_3\_FEMA\_100.DWG  
PRINT DATE: 7/16/2023 8:42 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

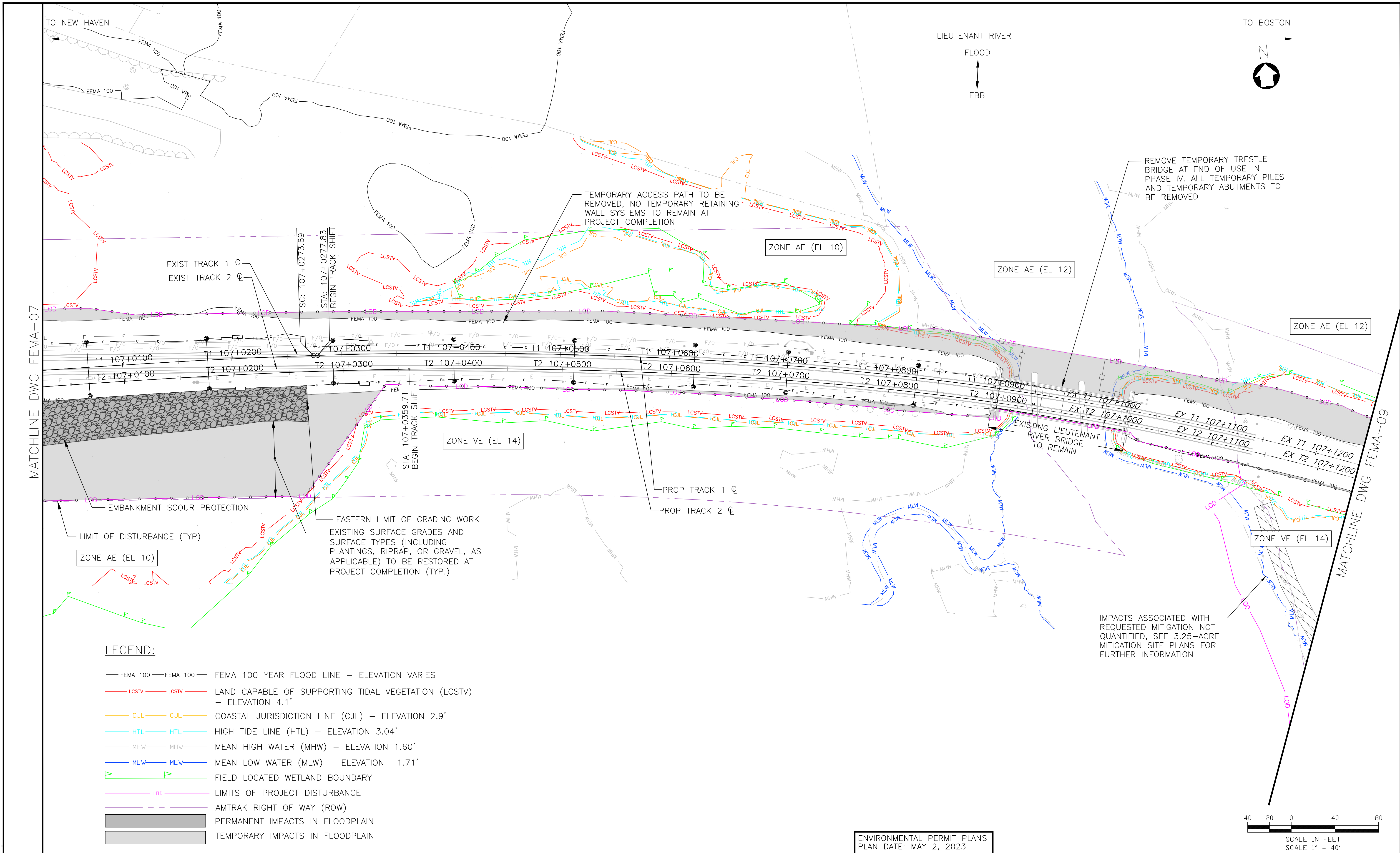
Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
FLOODPLAIN IMPACT PLAN**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 72 OF 140  
Dwg. No. **FEMA-07**



MATCHLINE DWG FEMA-07

MATCHLINE DWG FEMA-09

**LEGEND:**

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)
- PERMANENT IMPACTS IN FLOODPLAIN
- TEMPORARY IMPACTS IN FLOODPLAIN

TEMPORARY ACCESS PATH TO BE REMOVED, NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN AT PROJECT COMPLETION

REMOVE TEMPORARY TRESTLE BRIDGE AT END OF USE IN PHASE IV. ALL TEMPORARY PILES AND TEMPORARY ABUTMENTS TO BE REMOVED

EXISTING LIEUTENANT RIVER BRIDGE TO REMAIN

IMPACTS ASSOCIATED WITH REQUESTED MITIGATION NOT QUANTIFIED, SEE 3.25-ACRE MITIGATION SITE PLANS FOR FURTHER INFORMATION

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

SCALE IN FEET  
SCALE 1" = 40'

FILE NAME: 212004-IMPACT\_ACTIVITY\_01\_FEMA\_100.DWG  
PRINT DATE: 7/18/2023 8:42 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak). Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
FLOODPLAIN IMPACT PLAN  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 73 OF 140  
Dwg. No. **FEMA-08**



TO NEW HAVEN

TO BOSTON

MATCHLINE DWG FEMA-11

MATCHLINE DWG FEMA-10

TEMPORARY ACCESS PATH TO BE REMOVED, NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN AT PROJECT COMPLETION

EXISTING SURFACE GRADES AND SURFACE TYPES (INCLUDING PLANTINGS, RIPRAP, OR GRAVEL, AS APPLICABLE) TO BE RESTORED AT PROJECT COMPLETION (TYP.)

EXIST TRACK 1  
EXIST TRACK 2

LIMIT OF DISTURBANCE (TYP)

ZONE AE (EL 12)

ZONE AE (EL 11)

ZONE AE (EL 11)

ZONE VE (EL 14)

ZONE AE (EL 10)

ZONE VE (EL 14)

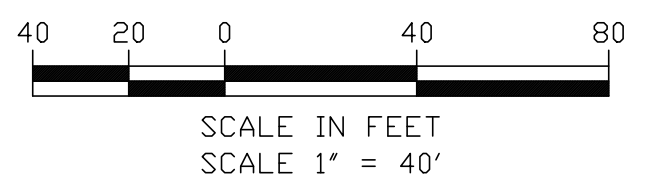
EXISTING CHAIN LINK FENCE TO BE REPLACED IF DISTURBED DURING CONSTRUCTION

8'-0" CHAIN LINK FENCE 1' INBOUND FROM ROW TO COMPLY WITH MOA ON HISTORIC SITES

IMPACTS ASSOCIATED WITH REQUESTED MITIGATION NOT QUANTIFIED, SEE 3.25-ACRE MITIGATION SITE PLANS FOR FURTHER INFORMATION

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- Field Located Wetland Boundary
- LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)
- PERMANENT IMPACTS IN FLOODPLAIN
- TEMPORARY IMPACTS IN FLOODPLAIN



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

**Amtrak**<sup>®</sup>

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**wsp**  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
FLOODPLAIN IMPACT PLAN**

Designed CB Drawn CB/MD Checked KM Date 5/2/2023

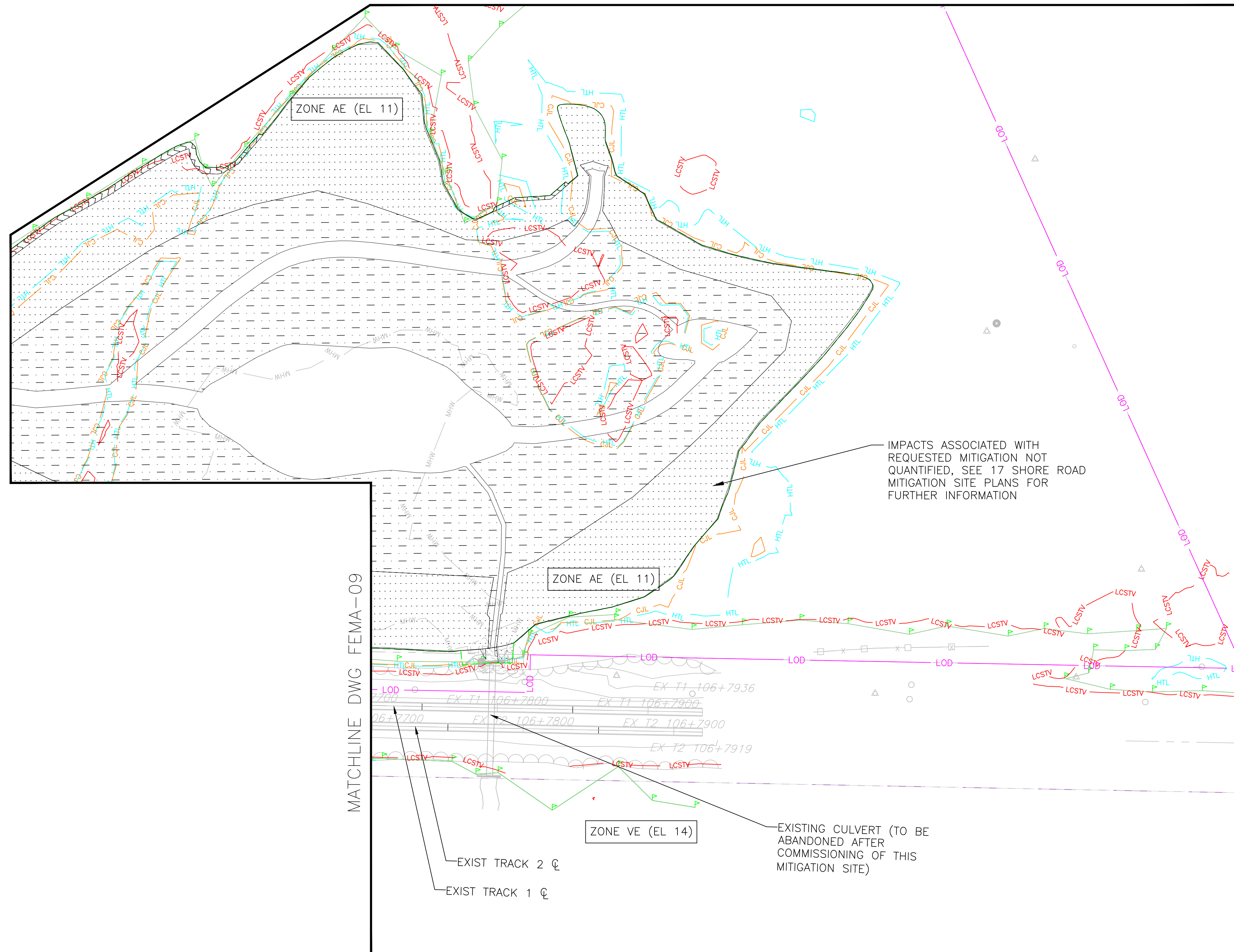
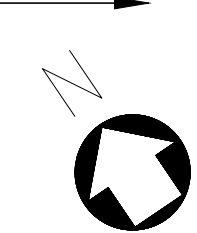
Project Code: XXX XXX  
WBS:  
Sheet No. 74 OF 140  
Dwg. No. **FEMA-09**

FILE NAME: 212006-IMPACT\_ACTIVITY\_3\_FEMA\_100.DWG  
PRINT DATE/TIME: 5/2/2023 8:42 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON

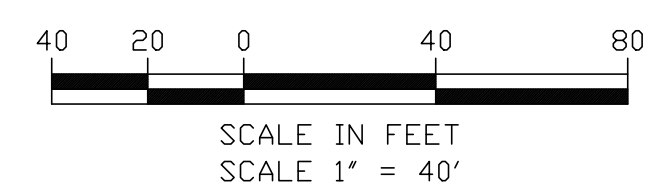
MATCHLINE DWG FEMA-11



MATCHLINE DWG FEMA-09

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- — — FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)
- — — PERMANENT IMPACTS IN FLOODPLAIN
- — — TEMPORARY IMPACTS IN FLOODPLAIN



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

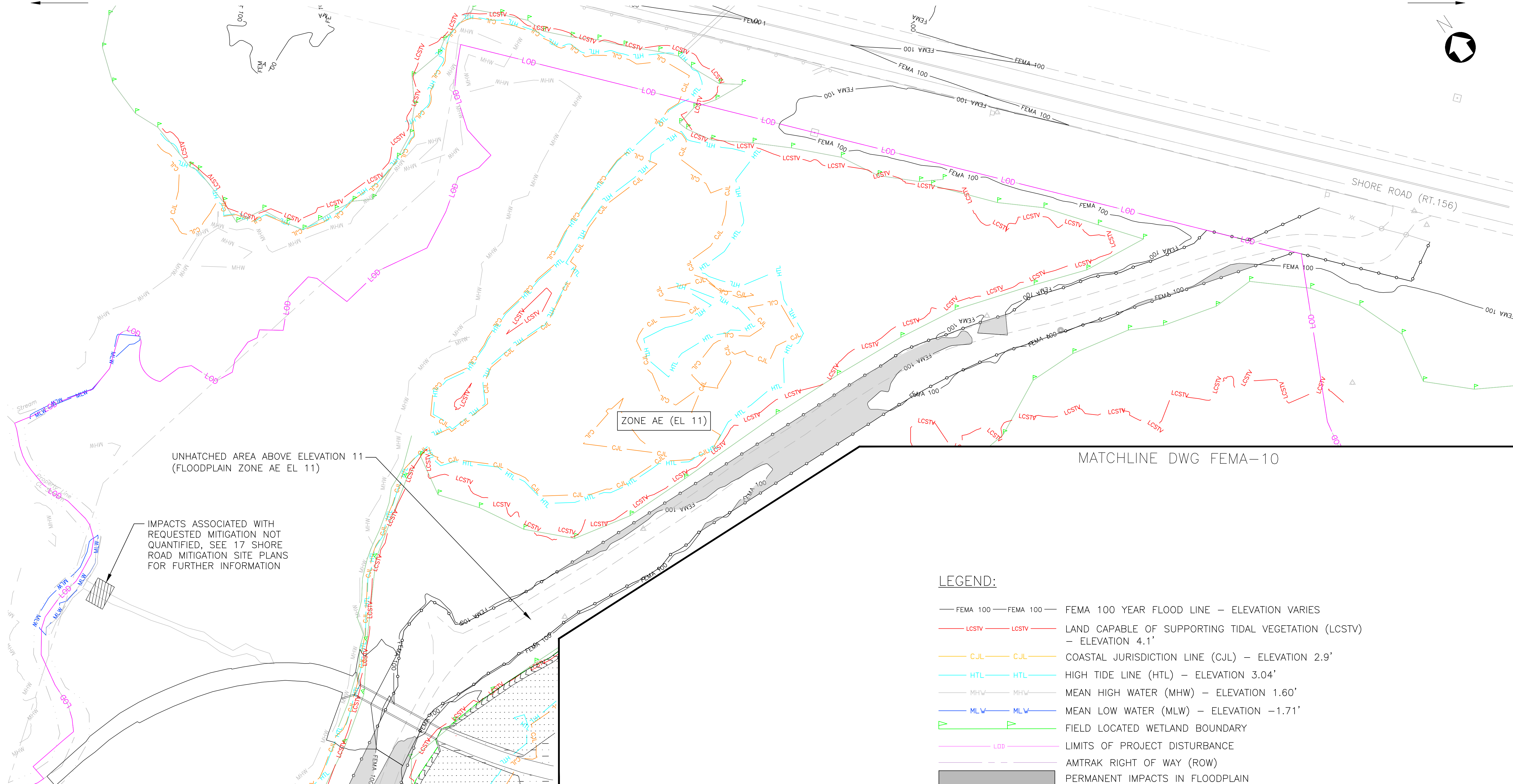
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**FLOODPLAIN IMPACT PLAN**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.:	75 OF 140
Dwg. No.:	<b>FEMA-10</b>

FILE NAME: 217004-IMPACT\_ACTIVITY\_3\_FEMA\_100.DWG  
PRINT DATE: 7/18/2023 8:42 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON

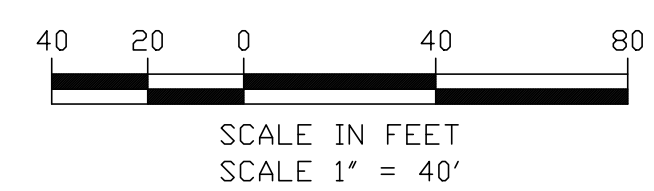


MATCHLINE DWG FEMA-10

MATCHLINE DWG FEMA-09

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- — — FIELD LOCATED WETLAND BOUNDARY
- — — LOD — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)
- PERMANENT IMPACTS IN FLOODPLAIN
- TEMPORARY IMPACTS IN FLOODPLAIN



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**WSP** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

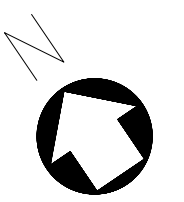
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**FLOODPLAIN IMPACT PLAN**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.:	76 OF 140
Dwg. No.:	<b>FEMA-11</b>

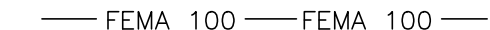









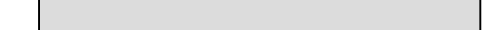
FILE NAME: 212004-IMPACT\_ACTIVITY\_3\_FEMA\_100.DWG  
 PRINT DATE/TIME: 5/2/2023 8:42 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES

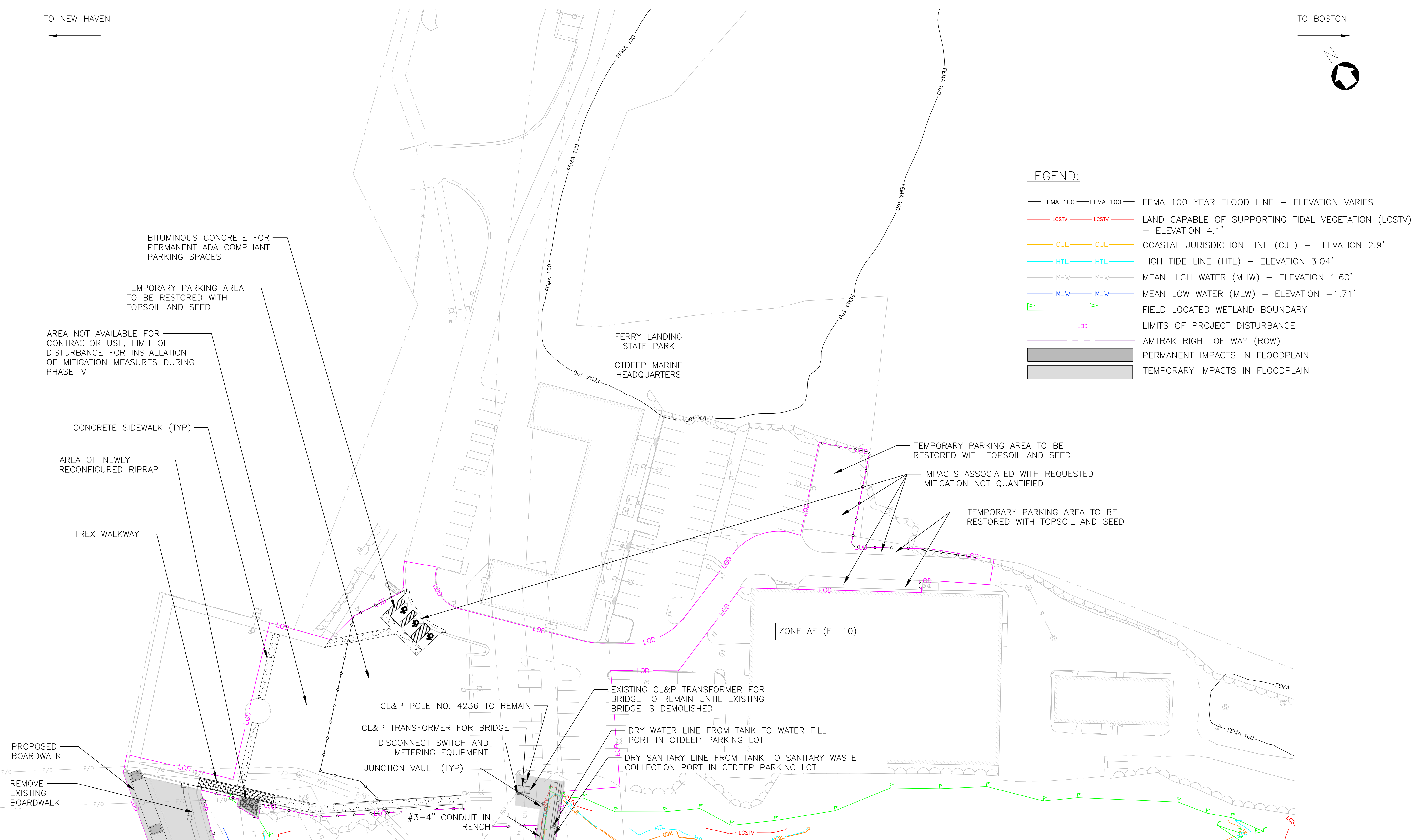
TO NEW HAVEN

TO BOSTON



**LEGEND:**

-  FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
-  LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
-  CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
-  HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
-  MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
-  MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
-  — — — FIELD LOCATED WETLAND BOUNDARY
-  — — — LIMITS OF PROJECT DISTURBANCE
-  — — — AMTRAK RIGHT OF WAY (ROW)
-  PERMANENT IMPACTS IN FLOODPLAIN
-  TEMPORARY IMPACTS IN FLOODPLAIN



MATCHLINE DWG FEMA-07



FILE NAME: 212004-IMPACT\_ACTIVITY\_0\_FEMA\_100.DWG  
 PRINT DATE: 7/18/2023 8:42 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**FLOODPLAIN IMPACT PLAN**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 77 OF 140  
Dwg. No. **FEMA-12**

SUGGESTED CONSTRUCTION SEQUENCE

THIS SUGGESTED CONSTRUCTION SEQUENCE PROVIDES A SUMMARY OUTLINE FOR A POTENTIAL SEQUENCE OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR ACTUAL CONSTRUCTION PLANNING, SCHEDULING AND COORDINATION AND ENSURING ALL REQUIRED TEMPORARY ENVIRONMENTAL SAFEGUARDS ARE INSTALLED AND MAINTAINED WITH ALL PERMITS.

PHASE I SUMMARY

PHASE I CONSISTS OF CONSTRUCTING THE NEW BRIDGE, ELECTRIFICATION AND C&S FACILITIES, PART OF THE FENDER SYSTEM AND SUBSTANTIAL PORTIONS OF THE NEAR-BRIDGE APPROACHES IN THEIR ENTIRETY. TWO TRACK RAILROAD SERVICE WILL CONTINUE UNIMPEDED ON THE EXISTING STRUCTURE AND APPROACHES FOR THE DURATION OF THIS PHASE, EXCEPT FOR WINDOWS OF SINGLE TRACK OPERATIONS AS MAY BE PERMITTED BY AMTRAK TO SAFELY ACCOMMODATE NEARBY CONTRACTOR OPERATIONS. TEMPORARY FACILITIES REQUIRED INCLUDE BUT ARE NOT LIMITED TO MOVABLE BRIDGE POWER AND CONTROL SYSTEMS, TEMPORARY ELECTRIFICATION AND C&S SUBMARINE CABLE REROUTING, TEMPORARY OPERATOR'S SHANTY AND ACCESS PLATFORMS. THE EXISTING FERRY PARK LANDING BOARDWALK WILL BE CLOSED FOR CONSTRUCTION. THE NAVIGATION CHANNEL WILL BE SLIGHTLY NARROWED DURING THIS PHASE CONSTRUCTION TO ACCOMMODATE CONSTRUCTION OF THE NEW MOVABLE SPAN NEXT TO THE EXISTING. NAVIGATION OUTAGES WILL BE REQUIRED FOR SUBMARINE CABLE WORK AND PROPOSED FLOAT-IN OF THE NEW MOVABLE SPAN.

PH IA: BEGIN CONSTRUCTION

- IA1. MOBILIZE, CLEAR SITE, AND BEGIN SETTING UP TEMPORARY ENVIRONMENTAL AND SECURITY SAFEGUARDS. APPLICABLE TEMPORARY ENVIRONMENTAL SAFEGUARDS TO BE IMPLEMENTED PRIOR TO EACH APPLICABLE INSTALLATION AND DEMOLITION ACTIVITY AND TO REMAIN IN PLACE UNTIL LOCATION IS STABILIZED.
- IA2. BEGIN PLANNING, FABRICATION AND PROCUREMENT OF FOUNDATION ELEMENTS, STRUCTURAL STEEL, BRIDGE MACHINERY, BRIDGE ELECTRICAL, ELECTRIFICATION COMPONENTS, AND ALL OTHER CONSTRUCTION ELEMENTS.
- IA3. AMTRAK WILL RELOCATE 480V-60HZ POWER TO NORTH SIDE OF TRACKS AT BP 1076.
- IA4. INITIATE TEMPORARY ACCESS FROM OLD SAYBROOK AND FROM OLD LYME AND BEGIN APPROACH EMBANKMENT CONSTRUCTION.
- IA5. PERFORM APPROPRIATE MITIGATION MEASURES WHICH SHALL INCLUDE BUT NOT BE LIMITED TO THE CONSTRUCTION OF EXCLUSION BARRIERS, TRANSPORTATION OF STATE LISTED PLANT SPECIES, THE INSTALLATION OF FENCING TO PROTECT SENSITIVE AREAS, THE CONSTRUCTION OF MEASURES TO MITIGATE THE LOSS OF RECREATIONAL FISHING, AND INTIAL WETLAND MITIGATION ACTIVITIES TO PERMIT CONSTRUCTION ACCESS CONSTRUCTION.

PH IB: PREPARE TEMPORARY FACILITIES NEEDED DURING CONSTRUCTION

- IB1. CONTINUE PHASE IA ACTIVITIES.
- IB2. CLOSE FERRY PARK LANDING BOARDWALK TO PUBLIC USE, PERFORM BARGE ACCESS DREDGING ACTIVITIES, AND CONSTRUCT TEMPORARY WORK PLATFORMS.
- IB3. INSTALL TEMPORARY FACILITIES FOR THE EXISTING BRIDGE AND RAIL NECESSARY TO ACCOMMODATE CONSTRUCTION OF THE NEW BRIDGE AND RAIL ON THE SOUTH SIDE OF THE EXISTING BRIDGE. THIS INCLUDES BUT IS NOT LIMITED TO: TEMPORARY MOVABLE BRIDGE POWER AND CONTROL SYSTEMS; TEMPORARY BRIDGE ELECTRIFICATION AND C&S CABLE REROUTING; TEMPORARY CASE C ON PLATFORM BETWEEN PIERS 6 AND 7, TEMPORARY C&S ESIC CASE ON PIER 5, AND ALL OTHER TEMPORARY C&S EQUIPMENT LOCATED ON THE EXISTING BRIDGE; ALL TEMPORARY CABLE, TROUGH, DUCT BANKS, VAULTS, AND PULL BOXES ON THE EXISTING BRIDGE; MOVING AND/OR PROTECTING SOUTHSIDE HIGH VOLTAGE LINE THAT IS MOUNTED ON THE SOUTH FASCIA OF THE EXISTING BRIDGE APPROACH SPANS; AND TEMPORARY OPERATOR'S SHANTY AND ACCESS PLATFORMS. TEMPORARY SAFETY AND SECURITY EQUIPMENT IN THE OPERATOR'S SHANTY AND THE BRIDGE STRUCTURE, COMMISSIONING TEMPORARY OPERATING FACILITIES AND ABANDONING SOUTHSIDE SUBMARINE CABLES.

PH IC: MAJOR CONSTRUCTION (NAVIGATION CHANNEL WIDTH REDUCED)

- IC1. CONTINUE PHASE IA AND IB ACTIVITIES AS NEEDED.
- IC2. INITIATE CONSTRUCTION ON EAST APPROACH EMBANKMENT AND WEST APPROACH EMBANKMENT. CONSTRUCT WEST APPROACH EMBANKMENT ALLOWING FOR ADEQUATE TIME FOR SURCHARGE CONSOLIDATION.
- IC3. CONSTRUCT FOUNDATIONS FOR BRIDGE WEST AND EAST ABUTMENTS; PIERS 1 TO 6, 8 AND 9; AND RETAINING WALLS. CONSTRUCT ABUTMENT AND PIER SUBSTRUCTURES AND RETAINING WALLS.
- IC4. CONSTRUCT PORTION OF WEST SIDE AND EAST SIDE FENDER SYSTEMS. NAVIGATION CHANNEL AT BRIDGE IS REDUCED FROM EXISTING APPROXIMATELY 139-FT TO 129-FT WIDTH. DEMOLISH PORTION OF EXISTING WEST SIDE AND EAST SIDE FENDER SYSTEMS.
- IC5. CONSTRUCT FOUNDATION AND SUBSTRUCTURE OF BASCULE PIER 7.
- IC6. CONSTRUCT BRIDGE APPROACH SPANS SUPERSTRUCTURE AND DECK, EXCEPT APPROACH SPAN 8, TO BE CONSTRUCTED AFTER INSTALLATION OF THE BASCULE SPAN REAR SECTION IN PHASE IC10.
- IC7. CONSTRUCT NEW CONTROL HOUSE.
- IC8. INSTALL PREASSEMBLED AND WIRED SIGNAL ENCLOSURES ON THE RIGHT-OF-WAY AND CONSTRUCT C&S FACILITIES ON APPROACHES AND BRIDGE APPROACH SPANS. INSTALL ALL PERMANENT TROUGH, CABLE, CONDUIT, OR DUCT BANKS NECESSARY BETWEEN NEW LOCATIONS. INSTALL ALL TEMPORARY CABLE ROUTING BETWEEN THE NEW C&S CIH. THE NEW LOCATION A AND THE TEMPORARY CASES AND EQUIPMENT CONSTRUCTED TO PROVIDE TEMPORARY SIGNALING DURING CONSTRUCTION.

- IC9. CONSTRUCT TRUNNION TOWERS AND REAR PORTION OF BASCULE SPAN WITH COUNTERWEIGHTS. COMPLETE CONSTRUCTION OF APPROACH SPANS. CONSTRUCT TEMPORARY SHORING TO SUPPORT REAR SECTION AND ALLOW FOR INSTALLATION OF COUNTERWEIGHT MATERIAL.
- IC10. BEGIN BRIDGE MACHINERY AND ELECTRICAL SYSTEMS INSTALLATIONS.
- IC11. CLOSE CHANNEL TO NAVIGATION.
- IC12. INSTALL PERMANENT SUBMARINE AND MOUNTED CABLES.
- IC13. REOPEN CHANNEL TO NAVIGATION.
- IC14. COMPLETE APPROACH GRADING AND SUBBALLAST.
- IC15. CONSTRUCT TRACKWORK, OVERHEAD CATENARY SYSTEMS ON APPROACHES AND BRIDGE APPROACH SPANS.

PH ID: BASCULE SPAN FLOAT-IN (NAVIGATION DURATION SUSPENSION)

- ID1. CLOSE CHANNEL TO NAVIGATION
- ID2. FLOAT-IN FORWARD PORTION OF BASCULE SPAN.
- ID3. CONNECT BASCULE FORWARD AND REAR PORTIONS. FORWARD AND REAR SPLICING INCLUDES TRUSS GUSSET PLATE CONNECTIONS, FLOOR SYSTEM CONNECTIONS, UPPER AND LOWER LATERAL BRACING CONNECTIONS, TRACK AND OTHER MISCELLANEOUS ATTACHMENTS.
- ID4. RAISE BASCULE SPAN AND SECURE IN OPEN POSITION.
- ID5. REOPEN CHANNEL TO NAVIGATION.

PH IE: COMPLETE MAJOR CONSTRUCTION WITH EXISTING BRIDGE STILL IN FULL SERVICE.

- IE1. COMPLETE PHASE IC ACTIVITIES AS NEEDED.
- IE2. COMPLETE BASCULE SPAN TRUSS ASSEMBLY, INCLUDING TIES, TRACKS, MITER RAIL ASSEMBLIES, AND ELECTRICAL APPURTENANCES AND PERFORM FINAL BALANCING OF MOVABLE SPAN.
- IE3. PERFORM INTERIM TESTING AND COMMISSION MOVABLE SPAN FOR FULL OPERABILITY. FINAL TESTING TO BE COMPLETED AFTER EXISTING BRIDGE REMOVAL AND WITH ALL PERMANENT ELEMENTS IN PLACE.
- IE4. FINALIZE TRACK, RAIL ELECTRIFICATION FOR TRACK 2 AND C&S FACILITIES ON THE NEW BRIDGE FOR SIGNALING ON THE NEW BRIDGE (EXCEPT TIE INS).

PHASE II SUMMARY

PHASE II CONSISTS OF CONSTRUCTION OF TRACK, ELECTRIFICATION AND SIGNAL TIE-INS AT THE EAST AND WEST ENDS OF THE PROJECT TO ACTIVATE NEW TRACK 2 FOR RAIL SERVICE AT THE END OF THE WORK OF THIS PHASE. DURING TRACK 2 TIE-IN WORK, SINGLE TRACK SERVICE WILL CONTINUE ON TRACK 1.

PH II: TRACK 2 SWITCHOVER, ONE TRACK OPERATION ON TRACK 1

- II-1. INITIATE ONE-TRACK SERVICE ON TRACK 1.
- II-2. CONSTRUCT NEW TRACK 2 TRACK, ELECTRIFICATION AND ASSOCIATED C&S TIE-INS AT EAST AND WEST ENDS OF PROJECT.
- II-3. OPEN TRACK 2 TO SERVICE (TRACK 1 IN SERVICE ON EXISTING BRIDGE, TRACK 2 IN SERVICE ON NEW BRIDGE).
- II-4. INSTALL SAFETY AND SECURITY EQUIPMENT FOR TRACK 2 AND AT THE OPERATOR'S SHANTY (OR OTHER PROPOSED LOCATION FOR THIS EQUIPMENT).
- II-5. REMOVE OLD LOCATION B AND SIGNAL 2W TO ALLOW THE BUILDOUT OF THE NEW TRACK 1.
- II-6. FINALIZE ELECTRIFICATION FOR TRACK 1 (EXCEPT TIE INS).

PHASE III SUMMARY

PHASE III CONSISTS OF CONSTRUCTION OF TRACK, ELECTRIFICATION AND SIGNAL TIE-INS AT THE EAST AND WEST ENDS OF THE PROJECT TO ACTIVATE NEW TRACK 1 FOR RAIL SERVICE AT THE END OF THE WORK OF THIS PHASE. DURING TRACK 1 TIE-IN WORK, SINGLE TRACK SERVICE WILL CONTINUE ON TRACK 2.

PH III: TRACK 1 SWITCHOVER, ONE TRACK OPERATION ON TRACK 2

- III-1. INITIATE ONE-TRACK SERVICE ON TRACK 2.
- III-2. CONSTRUCT NEW TRACK 1 TRACK, ELECTRIFICATION AND ASSOCIATED C&S TIE-INS AT EAST AND WEST ENDS OF PROJECT.
- III-3. OPEN TRACK 1 TO SERVICE (BOTH TRACKS IN SERVICE OVER NEW BRIDGE).
- III-4. INSTALL SAFETY AND SECURITY EQUIPMENT FOR TRACK 1.

PHASE IV SUMMARY

DURING PHASE IV WITH RAIL SERVICE ENTIRELY ON THE NEW BRIDGE, THE EXISTING BRIDGE WILL BE DEMOLISHED, THE NEW FENDER SYSTEM COMPLETED, TEMPORARY FACILITIES DECOMMISSIONED AND REMOVED, FERRY PARK LANDING BOARDWALK RESTORED, FINAL ELECTRICAL SERVICE FOR THE NEW BRIDGE INSTALLED, CONTROL HOUSE UTILITIES ON EXISTING GRADE INSTALLED, AND SITE WORK WILL BE FINISHED. A NAVIGATION OUTAGE WILL BE REQUIRED FOR FLOAT-OUT OF THE EXISTING BRIDGE MOVABLE SPAN.

PH IVA: FLOAT-OUT EXISTING MOVABLE SPAN (NAVIGATION SHORT DURATION SUSPENSION)

- IVA1. RAISE EXISTING BASCULE SPAN TO FULLY OPEN POSITION AND INSTALL TEMPORARY SUPPORTS.
- IVA2. DEMOLISH EXISTING COUNTERWEIGHT.
- IVA3. CLOSE CHANNEL TO NAVIGATION.
- IVA4. LOWER EXISTING BASCULE SPAN TO CLOSED POSITION.
- IVA5. PREPARE AND FLOAT-OUT EXISTING BASCULE SPAN.
- IVA6. OPEN CHANNEL TO NAVIGATION.

PH IVB: DEMOLISH EXISTING BRIDGE AND FACILITIES

- IVB1. DEMOLISH EXISTING BRIDGE APPROACH SPANS.
- IVB2. DEMOLISH EXISTING BRIDGE SUBSTRUCTURES AND FOUNDATIONS DESIGNATED FOR REMOVAL.
- IVB3. COMPLETE FENDER SYSTEM CONSTRUCTION (NAVIGATION CHANNEL WIDTH 150-FT).
- IVB4. REMOVE ALL REMAINING TRACK AND RAIL SYSTEMS FACILITIES NO LONGER IN SERVICE.
- IVB5. INSTALL UTILITY STRUCTURES ON GRADE AND CONNECT PERMANENT ELECTRICAL SERVICE FOR THE NEW BRIDGE.
- IVB6. PERFORM FINAL TESTING OF THE NEW MOVABLE SPAN.
- IVB7. CONSTRUCT NEW FERRY PARK LANDING BOARDWALK AND OPEN TO PUBLIC.
- IVB8. REMOVE TEMPORARY CONSTRUCTION FACILITIES AND TEMPORARY ACCESS AND RESTORE SITE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT ENVIRONMENTAL PERMITS.

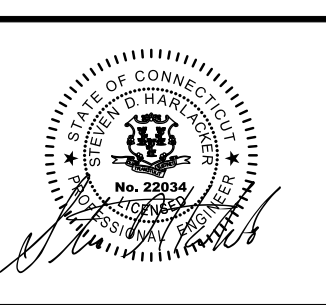
FILE NAME: 348-BASCULE\_SECTIONS.DWG  
PLOT DATE: 5/2/2023 10:58 AM  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By
Δ	XXXX	MM/DD/YY	XXX



**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

OLD SAYBROOK	CONNECTICUT	Project Code: XXX XXX
<b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b>		WBS: 000000
<b>SUGGESTED CONSTRUCTION SEQUENCE</b>		Sheet No. 78 OF 140
Designed CJR	Drawn JG	Checked SJT
Date 5/2/2023	Dwg. No. <b>PH-01</b>	

CONSTRUCTION STAGING AND ENVIRONMENTAL SAFEGUARDS NOTES:

PHASE IA AND IB: INITIATE TEMPORARY ACCESS FROM OLD SAYBROOK AND FROM OLD LYME

1. MOBILIZE, CLEAR SITE, AND BEGIN SETTING UP TEMPORARY ENVIRONMENTAL AND SECURITY SAFEGUARDS.
2. STATE-LISTED PLANT SPECIES WITHIN IMPACT AREAS SHALL BE RELOCATED PRIOR TO ANY DISTURBANCE IN THEIR VICINITY AND TRANSPLANTED AT AN OFF-SITE LOCATION. SEE TIDAL WETLANDS MITIGATION PLAN REPORT FOR ADDITIONAL INFORMATION ON TRANSPLANTING.
3. INITIATE OLD SAYBROOK TEMPORARY ACCESS:
  - A.GAIN VEHICULAR SITE ACCESS FROM ROUTE 1 (BOSTON POST ROAD) THROUGH EASEMENTS IN OLD SAYBROOK TO AMTRAK RIGHT OF WAY.
  - B.INSTALL TEMPORARY ENVIRONMENTAL AND SECURITY SAFEGUARDS IN ADVANCE OF SEQUENTIAL PORTIONS OF CONSTRUCTION.
  - C.CONSTRUCT TEMPORARY RETAINING WALL SYSTEMS AND TEMPORARY ACCESS PATH STARTING AT WEST AND WORKING EASTWARD UTILIZING PATH AS CONSTRUCTION STAGING FOR NEXT PORTION OF PATH. NO DISRUPTION TO ADJACENT TRACK USAGE.
  - D.THE CONTRACTOR SHALL SUBMIT THE PLAN FOR TEMPORARY TRACK CROSSING TO THE ENGINEER FOR APPROVAL WHERE PERMITTED GROUND DISTURBANCES TO ENVIRONMENTALLY SENSITIVE AREA SHALL NOT EXCEED 2 FEET IN DEPTH.
  - E.IF APPROVED DESIGN OBTAINED BY CONTRACTOR FROM AMTRAK, INSTALL TEMPORARY TRACK CROSSING AND PLACE FILL AND TEMPORARY EARTH RETAINING SYSTEM TO PROVIDE TRAVERSABLE GRADE DOWN TO SOUTHERN TEMPORARY TRESTLE PLATFORM AREA.
  - F.PLACE TEMPORARY TRESTLE PIERS AND WORK PLATFORMS FROM THE TEMPORARY TRESTLE WORK PLATFORM AT THE LOCATION OF THE PROPOSED RETAINING WALL WESTERLY TOWARDS THE SOUTHERN TEMPORARY CONSTRUCTION LAY DOWN AREA. ALL WORK TO BE DONE BEHIND SEDIMENTATION CONTROL BARRIERS OR TURBIDITY CURTAINS.
  - G.INSTALL TURBIDITY CURTAINS AROUND AREA OF DREDGING FOR BARGE ACCESS. PERFORM DREDGING ACTIVITY ON THE WEST BANK OF THE CONNECTICUT RIVER FROM BARGE WORKING TOWARDS THE SHORE MAINTAINING TURBIDITY CURTAIN AROUND AREAS OF DISTURBANCE. DREDGED MATERIAL TO BE REMOVED FROM SITE VIA BARGE.
  - H.INSTALL TURBIDITY CURTAINS AROUND AREA OF TEMPORARY TRESTLE WORK PLATFORM.
  - I. INSTALL TEMPORARY TRESTLE PILING AND WORK PLATFORM WITHIN CONNECTICUT RIVER. INSTALLATION TO BE FROM A COMBINATION OF ACCESS FROM THE TEMPORARY ACCESS PATH PREVIOUSLY CONSTRUCTED AND PORTIONS OF THE TEMPORARY TRESTLE WORK PLATFORM COMPLETED, AND FROM BARGE LOCATED WITHIN CONNECTICUT RIVER WHERE DEPTH ACCESS ALLOWS.
  - J. TEMPORARY TRESTLE WORK PLATFORM UNDER EXISTING BRIDGE TO BE PROVIDED SUCH THAT A MINIMUM OF 14' OF VERTICAL CLEARANCE IS AVAILABLE FOR VEHICULAR TRAFFIC ON THE WORK PLATFORM. THIS VERTICAL CLEARANCE MAY NOT BE ABLE TO BE MAINTAINED ONCE THE PROPOSED BRIDGE SPANS ARE INSTALLED WITH A LOWER LOW CHORD ELEVATION AND CONTRACTOR'S SEQUENCING SHOULD TAKE THIS INTO ACCOUNT FOR WHEN THESE SPANS ARE INSTALLED COMPARED TO WHEN VEHICULAR ACCESS IS REQUIRED TO THE SOUTH PORTION OF THE TEMPORARY TRESTLE WORK PLATFORM. FOR THE PROPOSED SPANS THE CONTRACTOR MAY NEED TO ADJUST CONSTRUCTION SEQUENCING, LIMIT EQUIPMENT HEIGHTS, ADJUST THE TEMPORARY TRESTLE ROADWAY ELEVATION, INITIALLY SET THE NEW SPAN STEEL TEMPORARILY HIGHER, OR OTHERWISE ALLOW FOR CONSTRUCTION EQUIPMENT ACCESS.
4. INITIATE OLD LYME TEMPORARY ACCESS:
  - A.CONSTRUCT 17 SHORE ROAD CULVERT AND INSTALL MITIGATION MEASURES AT 17 SHORE ROAD AND THE 3.25 ACRE PARCEL, SEE MITIGATION PLANS FOR ADDITIONAL INFORMATION REGARDING SEQUENCING.
  - B.GAIN VEHICULAR SITE ACCESS FROM ROUTE 156 (SHORE ROAD) THROUGH EASEMENT IN OLD LYME TO AMTRAK RIGHT OF WAY. ANY WORK REQUIRED TO CONSTRUCT AN ACCESS ROAD OR LAYDOWN AREA WILL BE DONE WITH TEMPORARY ENVIRONMENTAL SAFEGUARDS IN PLACE.
  - C.INSTALL TEMPORARY ENVIRONMENTAL AND SECURITY SAFEGUARDS IN ADVANCE OF SEQUENTIAL PORTIONS OF CONSTRUCTION.
  - D.CONSTRUCT TEMPORARY RETAINING WALL SYSTEMS AND TEMPORARY ACCESS PATH STARTING AT EAST AND WORKING WESTWARD UTILIZING PATH AS CONSTRUCTION STAGING FOR NEXT PORTION OF PATH. NO DISRUPTION TO ADJACENT TRACK USAGE.
  - E.INSTALL TEMPORARY EASTERN ABUTMENT FOR TEMPORARY TRESTLE BRIDGE ACROSS THE LIEUTENANT RIVER FROM PREVIOUSLY CONSTRUCTED TEMPORARY ACCESS PATH.
  - F.INSTALL TEMPORARY WESTERN ABUTMENT AND ANY NECESSARY TEMPORARY PILING FOR TEMPORARY TRESTLE BRIDGE ACROSS THE LIEUTENANT RIVER FROM EXISTING TRACK 1 (MAY REQUIRE SHORT TRACK SERVICE DISRUPTION DUE TO LACK OF ACCESS FROM WEST AND SMALL BARGE ACCESS FROM LIEUTENANT RIVER TO BE COORDINATED WITH AMTRAK). NAVIGATION OF LIEUTENANT RIVER TO MATCH OR EXCEED OPENING OF EXISTING NAVIGATION RESTRICTIONS OF EXISTING LIEUTENANT RIVER BRIDGE.
  - G.INSTALL TEMPORARY TRESTLE BRIDGE OVER LIEUTENANT RIVER (MAY REQUIRE SHORT TRACK SERVICE DISRUPTION TO BE COORDINATED WITH AMTRAK).
  - H.CONTINUE WITH CONSTRUCTION OF TEMPORARY RETAINING WALLS AND TEMPORARY ACCESS PATH FROM EAST AND WORKING WESTWARD UTILIZING PATH AS CONSTRUCTION STAGING FOR NEXT PORTION OF PATH. NO DISRUPTION TO ADJACENT TRACK USAGE.
  - I. INSTALL NON-PUBLIC CONSTRUCTION PERSON USE PEDESTRIAN ACCESS MEASURES FROM CTDEEP EXISTING ACCESS POINT OVER THE EXISTING MAINTENANCE WALKWAY TO EXISTING ACCESS PATH AND STAIRS.
  - J.CONSTRUCT EAGLE LANDING BOARDWALK IN ADVANCE OF DECOMMISSIONING FERRY LANDING BOARDWALK.
  - K.CLOSE FERRY PARK LANDING BOARDWALK TO PUBLIC USE PRIOR TO DREDGING ACTIVITY AND INSTALLATION OF TEMPORARY TRESTLE WORK PLATFORM ON OLD LYME SHORE. INSTALL TURBIDITY CURTAINS AROUND AREA OF BOARDWALK. REMOVE PORTIONS OF FERRY PARK LANDING BOARDWALK WHICH WILL CONFLICT WITH DREDGING ACTIVITY AND TEMPORARY

- L.INSTALL TURBIDITY CURTAINS AROUND AREA OF DREDGING FOR BARGE ACCESS. PERFORM DREDGING ACTIVITY ON THE EAST BANK OF THE CONNECTICUT RIVER FROM BARGE WORKING TOWARDS THE SHORE MAINTAINING TURBIDITY CURTAIN AROUND AREAS OF DISTURBANCE. DREDGED MATERIAL TO BE REMOVED FROM SITE VIA BARGE.
- M.INSTALL TURBIDITY CURTAINS AROUND AREA OF TEMPORARY TRESTLE WORK PLATFORM.
- N.INSTALL TEMPORARY TRESTLE PILING AND WORK PLATFORM. INSTALLATION TO BE FROM A COMBINATION OF ACCESS FROM THE TEMPORARY ACCESS PATH PREVIOUSLY CONSTRUCTED AND PORTIONS OF THE TEMPORARY TRESTLE WORK PLATFORM COMPLETE AS WELL AS FROM BARGE LOCATED WITHIN RIVER WHERE DEPTH ACCESS ALLOWS.
- O.TEMPORARY TRESTLE WORK PLATFORM UNDER EXISTING BRIDGE TO BE PROVIDED SUCH THAT A MINIMUM OF 14' OF VERTICAL CLEARANCE IS AVAILABLE FOR VEHICULAR TRAFFIC ON THE WORK PLATFORM. THIS VERTICAL CLEARANCE MAY NOT BE ABLE TO BE MAINTAINED ONCE THE PROPOSED BRIDGE SPANS ARE INSTALLED WITH A LOWER LOW CHORD ELEVATION AND CONTRACTOR'S SEQUENCING SHOULD TAKE THIS INTO ACCOUNT FOR WHEN THESE SPANS ARE INSTALLED COMPARED TO WHEN VEHICULAR ACCESS IS REQUIRED TO THE SOUTH PORTION OF THE TEMPORARY TRESTLE WORK PLATFORM. FOR THE PROPOSED SPANS THE CONTRACTOR MAY NEED TO ADJUST CONSTRUCTION SEQUENCING, LIMIT EQUIPMENT HEIGHTS, ADJUST THE TEMPORARY TRESTLE ROADWAY ELEVATION, INITIALLY SET THE NEW SPAN STEEL TEMPORARILY HIGHER, OR OTHERWISE ALLOW FOR CONSTRUCTION EQUIPMENT ACCESS.
- P.CONSTRUCTION ACCESS TO TEMPORARILY IMPACTED AREA TO SOUTH OF EMBANKMENT TO THE EAST OF THE TEMPORARY TRESTLE WORK PLATFORM MAY EITHER BE A CONTINUATION OF THE TEMPORARY TRESTLE WORK PLATFORMS OR TEMPORARY WOODEN MATS.

PHASE IC: INITIATE CONSTRUCTION ON EAST APPROACH EMBANKMENT AND WEST APPROACH EMBANKMENT

3. BEGIN APPROACH EMBANKMENT CONSTRUCTION IN OLD SAYBROOK AND OLD LYME. (SEE WEST EMBANKMENT CONSTRUCTION NOTES, SHEET GEO-04)
  - A.MAINTAIN CONTINUED TEMPORARY ENVIRONMENTAL AND SECURITY SAFEGUARDS IN ADVANCE OF SEQUENTIAL PORTIONS OF CONSTRUCTION.
  - B.INSTALL TEMPORARY EARTH RETAINING SYSTEM AT TOE OF PROPOSED RIPRAP PRIOR TO ANY EXCAVATION ACTIVITIES.
  - C.FOR BOTH APPROACHES, PERFORM EXCAVATION ACTIVITIES FROM TEMPORARY TRESTLE WORK PLATFORMS OR FROM PREVIOUSLY CONSTRUCTED APPROACH EMBANKMENT AREAS.
  - D.EXCAVATED MATERIAL WHICH IS ANTICIPATED AS UNSUITABLE FOR REUSE TO BE REMOVED FROM SITE EITHER VIA VEHICULAR ACCESS ON THE TEMPORARY ACCESS PATHS OR VIA BARGE FROM THE TEMPORARY TRESTLE WORK PLATFORMS.
  - E.SURCHARGED PORTIONS OF THE WEST EMBANKMENT SHALL NOT DISRUPT THE USE OF EXISTING TRACK 1.
  - F.REMOVE PORTIONS OF THE TEMPORARY TRESTLE WORK PLATFORMS AS REQUIRED FOR CONTINUED CONSTRUCTION OF THE EMBANKMENTS.
  - G.EXCAVATED MATERIAL FROM THE EXISTING EMBANKMENTS TO PROVIDE BENCHING BETWEEN THE EXISTING EMBANKMENT AND THE PROPOSED EMBANKMENT WILL BE REUSED ONSITE.
  - H.REMOVE TEMPORARY TRACK CROSSING PRIOR TO INITIATING PHASE II.

PHASE IC: TEMPORARY ENVIRONMENTAL SAFEGUARDS

1. INSTALL COFFERDAMS FOR BRIDGE WEST AND EAST ABUTMENTS; PIER 9; AND RETAINING WALLS.
2. INSTALL STEEL CASING WITH VIBRATORY HAMMERS AND DRILLED SHAFTS WITH CONCRETE CAPS FOR PIERS 1 TO 8 BEHIND TURBIDITY CURTAINS.
3. DREDGED MATERIAL FROM THE PIERS WILL BE REMOVED FROM SITE VIA BARGE AND DISPOSED OF AT AN APPROVED OFF-SITE LOCATION.
4. CONSTRUCT ABUTMENT AND PIER SUBSTRUCTURES AND RETAINING WALLS ALL BEHIND COFFERDAMS, TEMPORARY EARTH RETAINING SYSTEMS, OR TURBIDITY CURTAINS AS PREVIOUSLY INSTALLED.
5. CONTINUE TO RELOCATE TURBIDITY CURTAINS AROUND AND/OR IMMEDIATELY ADJACENT TO THE WORK AREA DURING EACH CONSTRUCTION ACTIVITY EXPECTED TO PRODUCE DEBRIS AND/OR SEDIMENT. TO MINIMIZE CONSTRUCTION-RELATED TURBIDITY, A FULL-DEPTH TURBIDITY CURTAIN WILL BE DEPLOYED PRIOR TO DRIVING ANY SHEET PILE OR SHAFT CASINGS OR PERFORMING ANY DREDGING/EXCAVATING WORK. DUE TO STRONG TIDES AND CURRENTS, THE FABRIC FOR THE CURTAINS TO BE COMPOSED OF A HEAVY WOVEN PERVIOUS MATERIAL TO CREATE A FLOW-THROUGH MEDIA, WHICH WILL REDUCE THE PRESSURE ON THE CURTAINS AND KEEP THEM IN THE SAME RELATIVE SHAPE AND LOCATION AT ALL TIDES AND RIVER FLOWS. DEBRIS NETS, TURBIDITY CURTAINS AND/OR FLOATING BOOMS WILL BE PLACED AS NECESSARY. TURBIDITY LIMITS WILL BE ESTABLISHED, AND MONITORS DEPLOYED TO MEASURE LEVELS DURING CONSTRUCTION.
6. CONSTRUCT EAST SIDE FENDER SYSTEM AND DEMOLISH EXISTING EAST SIDE FENDER SYSTEM BEHIND TURBIDITY CURTAINS.
7. CLOSE CHANNEL TO NAVIGATION, SEE SC-05 FOR SUBMARINE CABLE SUGGESTED CONSTRUCTION PHASING.

PHASE IVB: DEMOLITION ENVIRONMENTAL SAFEGUARDS

1. INSTALL TEMPORARY ENVIRONMENTAL SAFEGUARDS INCLUDING TEMPORARY TURBIDITY CURTAINS AND DEBRIS NETS FOR DEMOLITION OF APPROACH SPANS AND DEMOLISH EXISTING BRIDGE APPROACH SPANS.
2. INSTALL COFFERDAMS AROUND EACH OF THE EXISTING BRIDGE SUBSTRUCTURES AND FOUNDATIONS DESIGNATED FOR REMOVAL.
3. DEMOLISH EXISTING BRIDGE SUBSTRUCTURES AND FOUNDATIONS DESIGNATED FOR REMOVAL. EXISTING STONE PIERS WILL BE DEMOLISHED BEHIND COFFERDAMS. THE EXISTING TIMBER PILES COMPRISING THE PIER FOUNDATIONS AND THE FENDER SYSTEM WILL BE EITHER PULLED OR CUT OFF TWO (2) FEET BELOW THE MUDLINE. ALL BRIDGE COMPONENTS AND DEBRIS WILL BE REMOVED BY BARGE. NO FOREIGN MATERIAL SHALL BE INSTALLED AT THE LOCATION OF THE PIER REMOVALS WITHIN THE CONNECTICUT RIVER. NO NEW MATERIAL SHALL BE PLACED IN THESE LOCATIONS. THE EXISTING MATERIAL FROM AROUND THE PIERS SHALL BE REDISTRIBUTED NATURALLY.

PHASE IVB6: REMOVE TEMPORARY CONSTRUCTION ACCESS AND RESTORE SITE

1. REMOVE TEMPORARY TRESTLE WORK PLATFORMS INCLUDING ALL TEMPORARY PILES FROM EACH ABUTMENT AS THEY ARE NO LONGER NECESSARY.
2. CONSTRUCT NEW FERRY PARK LANDING BOARDWALK AND CTDEEP PARKING LOT PERMANENT ADA PARKING SPACES, SIDEWALKS, AND TREX WALKWAYS AND OPEN TO PUBLIC.
3. REMOVE TEMPORARY ACCESS PATH FILL, TEMPORARY RETAINING WALL SYSTEMS, AND TEMPORARY TRESTLE BRIDGE INCLUDING TEMPORARY ABUTMENTS AND PILING AT LIEUTENANT RIVER IN A SIMILAR REVERSE SEQUENTIAL ORDER AS INSTALLED (MAY REQUIRE SHORT TRACK SERVICE DISRUPTION TO BE COORDINATED WITH AMTRAK).
4. RETURN AREA DISTURBED BY TEMPORARY ACCESS PATH TO PRE-EXISTING GRADES AND SURFACING. SEE TIDAL WETLANDS MITIGATION PLAN REPORT FOR ADDITIONAL INFORMATION ON SITE RESTORATION OF TEMPORARILY DISTURBED VEGETATED WETLAND AREAS.
5. REMOVE TEMPORARY CONSTRUCTION FACILITIES AND RESTORE SITE.
6. TEMPORARY ENVIRONMENTAL SAFEGUARDS TO BE MAINTAINED IN APPLICABLE AREAS UNTIL STABILIZATION OF AREA AND THEN REMOVED IN FULL.

NOTE:

1. CONTRACTOR IS RESPONSIBLE FOR ANY BORINGS NECESSARY TO FACILITATE THE DESIGN OF THE TEMPORARY RETAINING SYSTEMS FOR THE TEMPORARY ACCESS PATHS.
2. CONTRACTOR IS RESPONSIBLE FOR ANY BORINGS NECESSARY TO FACILITATE THE DESIGN OF THE TEMPORARY WORK PLATFORMS.
3. CONTRACTOR IS RESPONSIBLE FOR ANY BORINGS NECESSARY TO FACILITATE THE DESIGN OF THE TEMPORARY TRESTLE BRIDGE FOR THE OLD LYME TEMPORARY ACCESS PATH.

SEE SHEET PH-01 FOR SUGGESTED CONSTRUCTION SEQUENCE.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



**Office of Chief Engineer  
STRUCTURES**  
  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK		CONNECTICUT		Project Code: XXX XXX
REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER				WBS:
STAGING PLAN - CIVIL NOTES				Sheet No. 79 OF 140
Designed	CB	Drawn	CB/MD	Checked KM
Date	5/2/2023	Dwg. No. <b>PH-02</b>		

FILE NAME: 217004-PH-02.DWG  
PRINT DATE/TIME: 5/1/2023 5:21 PM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

ENVIRONMENTAL COMPLIANCE NOTES

1. ALL ON-SITE CONSTRUCTION STAFF WILL ATTEND TRAINING BY A QUALIFIED ENVIRONMENTAL SCIENTIST AND RECEIVE A COPY OF FINAL WILDLIFE PROTECTION PLAN PRIOR TO BEGINNING WORK ON SITE.
2. A QUALIFIED ENVIRONMENTAL SCIENTIST WILL BE PRESENT WHEN WORK IS BEING CONDUCTED.
3. NOISE-GENERATING CONSTRUCTION ACTIVITIES MUST BEGIN PRIOR TO MAY 1 AND CONTINUE WITHOUT PROLONGED INTERRUPTION THROUGH AUGUST 31. IF A SIGNIFICANT NOISE-GENERATING CONSTRUCTION ACTIVITY DOES NOT START PRIOR TO MAY 1, THEN A TIME OF YEAR RESTRICTION WILL APPLY, AND WORK MAY NOT BEGIN UNTIL SEPTEMBER 1 WITHOUT THE APPROVAL OF CTDEEP TO PROTECT LEAST BITTERN AND SALTMARSH SHARP-TAILED SPARROW.
4. IF BALD EAGLE NESTING ACTIVITY IS OBSERVED WITHIN 600FT FROM CONSTRUCTION ACTIVITY, ALL CONSTRUCTION MUST STOP UNTIL NESTING OR ROOSTING ACTIVITY HAS CEASED.
5. CONSTRUCTION WITHIN TIDAL CREEKS OF SIMILAR CHANNELIZED AQUATIC HABITAT IS PROHIBITED BETWEEN NOVEMBER 1 – MARCH 31 TO PROTECT OVER-WINTERING STATE-LISTED TURTLES.
6. CONSTRUCTION IN AREAS THAT FLOOD DAILY WILL BE CONDUCTED DURING LOW TIDE TO THE GREATEST EXTENT PRACTICAL FROM APRIL 1 – OCTOBER 31.
7. WORK LIMITS MUST BE ENCLOSED BY A WILDLIFE BARRIER SYSTEM BETWEEN APRIL 1 – OCTOBER 31 (E.G., SILT FENCE OR ELEVATED WORK SURFACES) TO PREVENT ENTRY BY STATE-LISTED TURTLES. THE ISOLATED WORK LIMITS ARE TO BE INSPECTED DAILY BY TRAINED CONSTRUCTION STAFF OR ENVIRONMENTAL MONITORS FOR THE PRESENCE OF STATE-LISTED TURTLES PRIOR TO THE START OF WORK; TURTLES ARE TO BE RELOCATED IF OBSERVED IN WORK LIMITS AND REPORTED TO THE ON-SITE ENVIRONMENTAL MONITOR AND AMTRAK REPRESENTATIVE; DEFICIENCIES IN THE WILDLIFE BARRIER ARE TO BE PROMPTLY REPAIRED.
8. CONSTRUCTION AT TWO SANDY BEACHES AND ADJACENT DREDGING/EXCAVATION WILL BE INITIATED PRIOR TO JUNE 1 OR BEACHES WILL BE COVERED WITH DETERRENT FROM JUNE 1 – JULY 15.
9. SPEED LIMIT ALONG ACCESS ROADS IS NOT TO EXCEED 10 MPH.
10. REFUELING OR HANDLING OTHER BIO-TOXIC LIQUIDS IS PROHIBITED IN THE VICINITY OF LOW MARSH, RIVERBANKS, TIDAL CREEKS, OR DITCHES.
11. INACTIVE OSPREY NESTS MAY BE REMOVED FROM SEPTEMBER 1 – MARCH 1; CTDEEP IS TO BE NOTIFIED PRIOR TO REMOVING ANY OSPREY NEST.
12. OSPREY NESTING MATERIALS ALONG THE BRIDGE WILL BE REMOVED TO DISCOURAGE NESTING DURING THE MONTH OF MARCH.
13. TREE CLEARING IS PROHIBITED FROM JUNE 1 – JULY 31 TO PROTECT NORTHERN LONG-EARED BATS.
14. APPROPRIATE SOIL EROSION, SEDIMENT, AND TURBIDITY CONTROLS SHALL BE USED AND MAINTAINED DURING CONSTRUCTION; AND AREAS CAPABLE OF PRODUCING GREATER THAN MINIMAL TURBIDITY OR SEDIMENTATION WILL BE DONE DURING PERIODS OF LOW- OR NO-FLOW TO PROTECT FISHERIES RESOURCES.
15. WORK THAT PRODUCES GREATER THAN MINIMAL TURBIDITY OR SEDIMENTATION (DONE OUTSIDE OF TURBIDITY CURTAINS OR COFFERDAMS) IS PROHIBITED FROM FEBRUARY 1 – JUNE 30 TO PROTECT FISHERIES RESOURCES.
16. TO REDUCE THE NOISE IMPACTS FROM DRIVING SHEET PILE AND SHAFT CASINGS, ONLY VIBRATORY HAMMERS SHOULD BE USED DURING THE DIADROMOUS FISH MIGRATORY PERIOD FROM APRIL 1 – JUNE 30, INCLUSIVE.
17. CONSTRUCTION OR DEMOLITION OF PIERS SHOULD BE LIMITED TO EITHER THE WESTERN-MOST THREE PIERS (PIERS# 1, 2, AND 3) OR EASTERNMOST THREE PIERS (PIERS# 7, 8, 9) DURING THE DIADROMOUS FISH SPRING MIGRATION PERIOD FROM APRIL 1 – JUNE 30. AT NO TIME DURING THIS PERIOD SHOULD IN-WATER CONSTRUCTION OR DEMOLITION OCCUR IN THE MIDDLE OF THE RIVER OR SIMULTANEOUSLY AT MORE THAN THREE PIERS.
18. DURING THE SPRING MIGRATION PERIOD FROM APRIL 1 – JUNE 30, ARTIFICIAL LIGHTING OVER THE WATER SHALL BE LIMITED TO NAVIGATION LIGHTS AND ANY LIGHTING TYPICALLY REQUIRED FOR THE OPERATION OF THE BRIDGE.
19. TIMBER PILES AND STONE PIERS SHALL BE REMOVED FROM INSIDE COFFERDAMS, BELOW THE MUDLINE. PULLING AND CUTTING OF TIMBER PILES SHALL BE PROHIBITED FROM FEBRUARY 1 – JUNE 30.
20. TO MINIMIZE CONSTRUCTION RELATED TURBIDITY, FULL DEPTH TURBIDITY CURTAINS SHALL BE DEPLOYED PRIOR TO DRIVING ANY SHEET PILE OR SHAFT CASINGS. DUE TO STRONG TIES AND CURRENTS THE FABRIC FOR THE CURTAINS SHOULD BE COMPOSED OF A HEAVY WOVEN PERVIOUS MATERIAL TO CREATE A FLOW-THROUGH MEDIUM, WHICH WILL REDUCE THE PRESSURE ON THE CURTAINS AND KEEP THEM IN THE SAME RELATIVE SHAPE AND LOCATION AT ALL TIDES AND RIVER FLOWS.
21. DREDGING AND EXCAVATION OF BARGE DOCKING AREAS SHALL BE PROHIBITED FROM FEBRUARY 1 – JUNE 30.
22. HOE RAMS ARE PROHIBITED BETWEEN APRIL 1 – JUNE 30.
23. TO PREVENT DAMAGE TO BENTHIC AQUATIC ORGANISMS, ALL BARGE MOVEMENTS SHALL TAKE PLACE DURING CONDITIONS THAT MINIMIZE OR DO NOT CREATE RIVER BOTTOM DISTURBANCE. WORK DONE FROM BARGES SHOULD ONLY OCCUR WHEN SUFFICIENT TIDE TO PREVENT GROUNDING.
24. LOUD CONSTRUCTION ACTIVITIES INCLUDING DRILLING PILES AND DRIVING SHEET PILE OR SHAFT CASINGS (INCLUDING VIBRATORY MEANS) SHALL BE PROHIBITED FROM SUNSET TO SUNRISE DURING THE COMMERCIAL SHAD FISHING SEASON FROM APRIL 1 – JUNE 15.
25. AMTRAK AND THE CONTRACTOR WILL MINIMIZE INTERFERENCE WITH SHAD FISHERY ACTIVITY; COORDINATE WORK EQUIPMENT LOCATIONS AND TIMING WITH LOCAL FISHERMEN.
26. THE INSTALLATION AND REMOVAL OF THE TEMPORARY TRESTLE BRIDGE CROSSING LIEUTENANT RIVER SHALL BE PROHIBITED FROM MARCH 1 – JUNE 1, INCLUSIVE.
27. THE TEMPORARY TRESTLE BRIDGE CROSSING LIEUTENANT RIVER SHALL ALLOW PASSAGE OF RECREATIONAL BOATS. THE CONTRACTOR SHALL COORDINATE WITH AMTRAK TO NOTIFY CTDEEP AND THE PUBLIC OF CONSTRUCTION ACTIVITIES AFFECTING THE WATERWAY INCLUDING ADVANCED NOTICE OF ANY NAVIGATION CLOSURES.
28. SUBMARINE CABLE INSTALLATION AND REMOVAL SHALL BE DONE WITHIN TURBIDITY CURTAINS AND WILL BE PROHIBITED FROM FEBRUARY 1 – JUNE 30.
29. WORK TRESTLE AND COFFERDAM CONSTRUCTION WILL BE DONE WITHIN TURBIDITY CURTAINS AND WILL BE PROHIBITED FROM FEBRUARY 1 – JUNE 30.
30. PULLING OR CUTTING PILES (INCLUDING TEMPORARY WORK TRESTLE PILES AND TURBIDITY CURTAIN SUPPORT PILES) WILL BE PROHIBITED FROM FEBRUARY 1 – JUNE 30.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By
Δ	xxxx	MM/DD/YY	xxx



This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
STRUCTURES

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HR HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK		CONNECTICUT		Project Code: XXX XXX
REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER				WBS:
				Sheet No. 80 OF 140
ENVIRONMENTAL COMPLIANCE NOTES				
Designed BSH	Drawn CBS	Checked BSH	Date 5/2/2023	Dwg. No. PH-03

TO NEW HAVEN

TO BOSTON

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- [Green Line with Triangles] — FIELD LOCATED WETLAND BOUNDARY
- [Pink Line] — LIMITS OF PROJECT DISTURBANCE
- [Dashed Line] — AMTRAK RIGHT OF WAY (ROW)

NOTES:

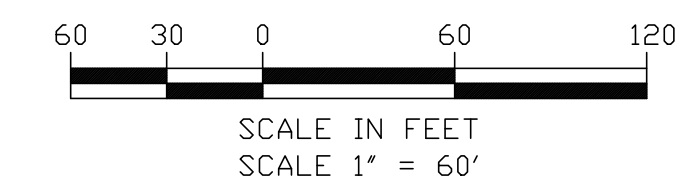
1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

CONTRACTOR TO OBTAIN CTDOT ENCROACHMENT PERMIT FOR ANY TEMPORARY WORK WITHIN STATE RIGHT OF WAY, INCLUDING TEMPORARY SIGNAGE

LOCATION FOR CONSTRUCTION ACCESS

LIMIT OF DISTURBANCE THROUGH PRIVATE QUARRY TO BE DETERMINED WITH QUARRY OPERATOR AND LAND OWNER

MATCHLINE DWG PH-IAB-02



FILE NAME: 212004-PH-IAB-01-PH-IAB-12.DWG  
PRINT DATE: 7/16/2023 11:42 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
STRUCTURES  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IAB**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 81 OF 140  
Dwg. No. **PH-IAB-01**



TO NEW HAVEN

TO BOSTON

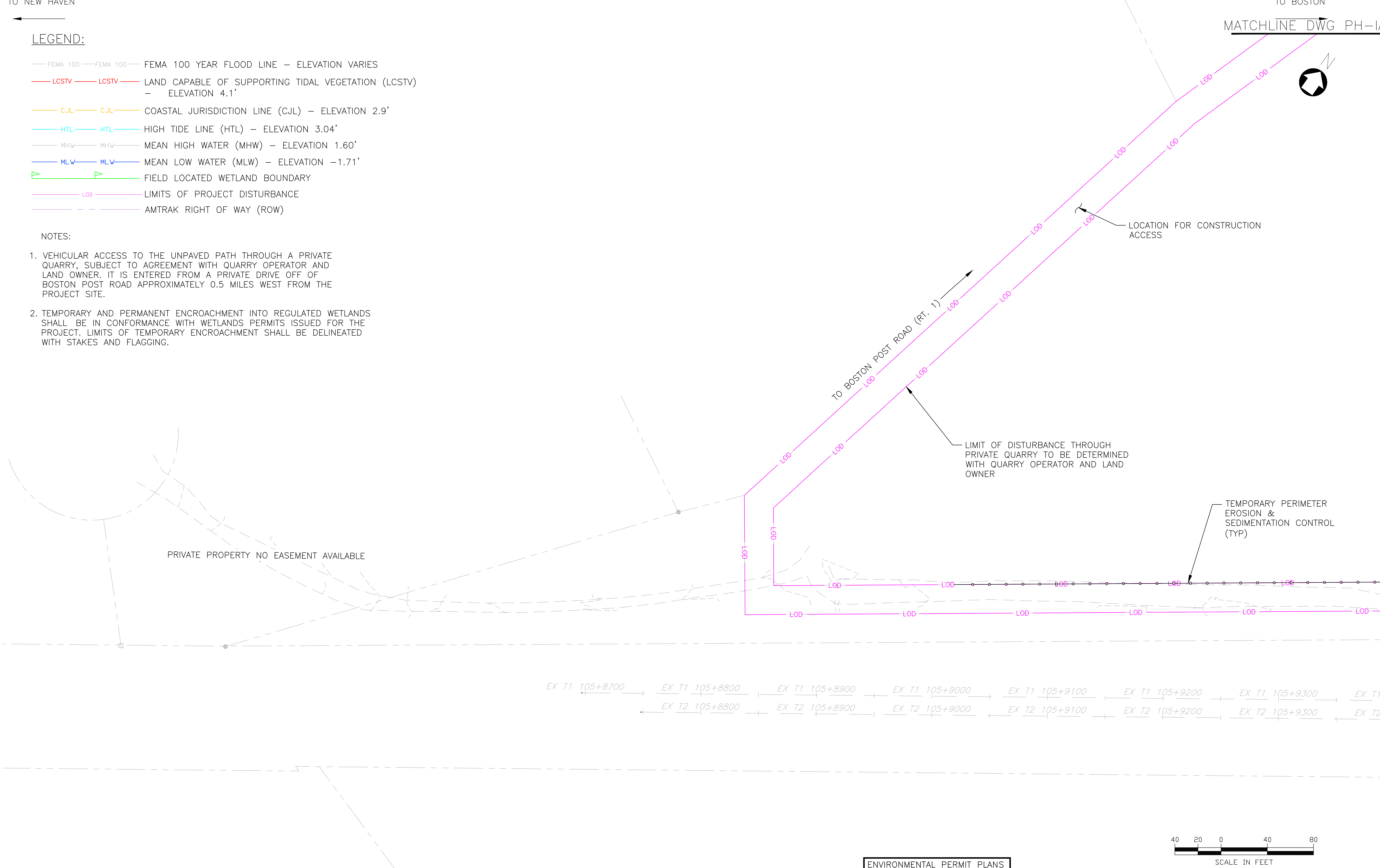
MATCHLINE DWG PH-IAB-01

LEGEND:

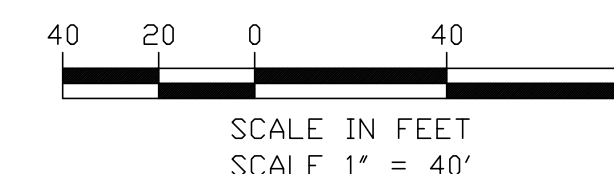
- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROXIMATELY 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



MATCHLINE DWG PH-IAB-03



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

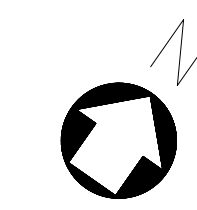
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IAB**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.	82 OF 140
Dwg. No.	<b>PH-IAB-02</b>

FILE NAME: 212004-Ph-IAB-01-Ph-IAB-12.DWG  
PRINT DATE: 7/16/2023 11:42 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

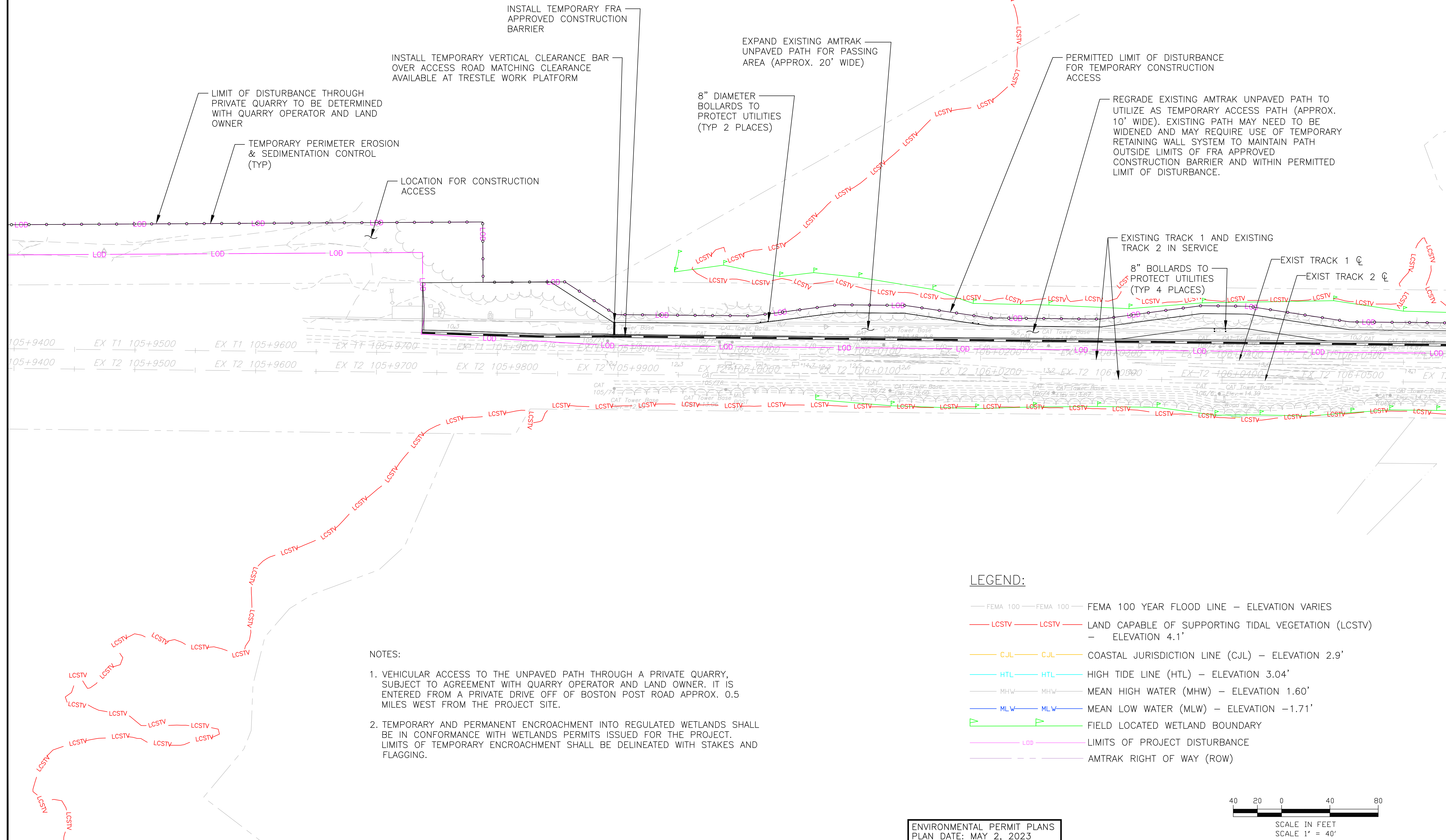
TO NEW HAVEN

TO BOSTON



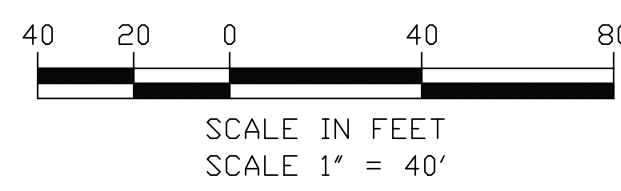
MATCHLINE DWG PH-IAB-02

MATCHLINE DWG PH-IAB-04



- LEGEND:**
- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
  - LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
  - CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
  - HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
  - MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
  - MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
  - > —> — FIELD LOCATED WETLAND BOUNDARY
  - LOD — LOD — LIMITS OF PROJECT DISTURBANCE
  - — — AMTRAK RIGHT OF WAY (ROW)

- NOTES:**
- VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
  - TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



**Office of Chief Engineer  
STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**wsp**  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

**STAGING PLAN - PHASE IAB**

Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX

WBS:  

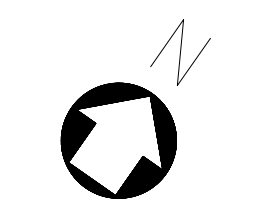
Sheet No. 83 OF 140

Dwg. No. **PH-IAB-03**

FILE NAME: 212004-Ph-IAB-01-Ph-IAB-12.DWG  
 PRINT DATE/TIME: 5/2/2023 11:43 AM  
 PLOT SCALE, AS NOTED  
 STANDARD PEN TABLE, YES

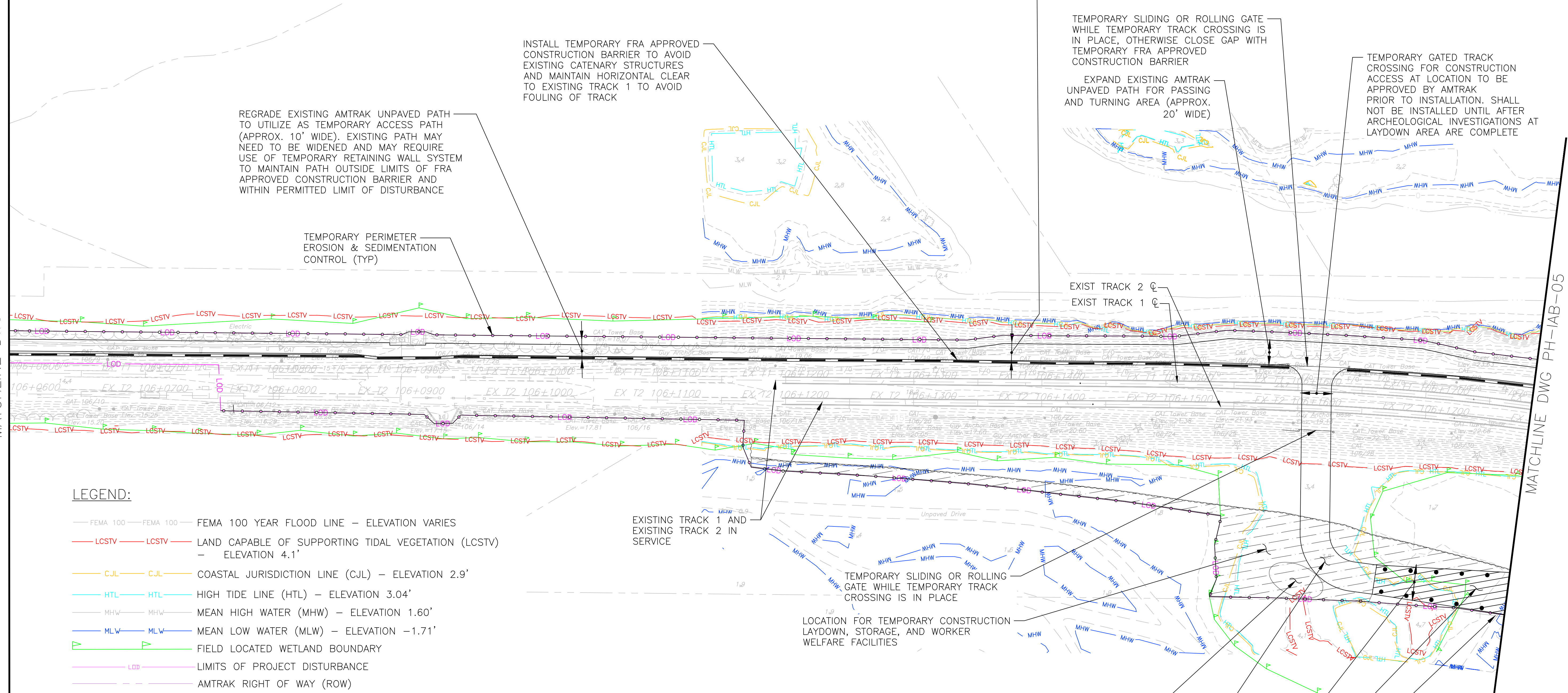
TO NEW HAVEN

TO BOSTON



MATCHLINE DWG PH-IAB-03

MATCHLINE DWG PH-IAB-05



LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- [Symbol] — [Symbol] — FIELD LOCATED WETLAND BOUNDARY
- LDB — LDB — LIMITS OF PROJECT DISTURBANCE
- [Symbol] — [Symbol] — AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. THE CONTRACTOR SHALL SUBMIT THE PLAN FOR THE TEMPORARY TRACK CROSSING TO THE ENGINEER FOR APPROVAL. WHERE PERMITTED GROUND DISTURBANCES TO ENVIRONMENTALLY SENSITIVE AREA SHALL NOT EXCEED 2 FEET IN DEPTH.

REGRADE EXISTING AMTRAK UNPAVED PATH TO UTILIZE AS TEMPORARY ACCESS PATH (APPROX. 14' WIDE). EXISTING PATH MAY NEED TO BE WIDENED AND MAY REQUIRE USE OF TEMPORARY RETAINING WALL SYSTEM TO MAINTAIN PATH OUTSIDE LIMITS OF FRA APPROVED CONSTRUCTION BARRIER AND WITHIN PERMITTED LIMIT OF DISTURBANCE

INSTALL TEMPORARY FRA APPROVED CONSTRUCTION BARRIER TO AVOID EXISTING CATENARY STRUCTURES AND MAINTAIN HORIZONTAL CLEAR TO EXISTING TRACK 1 TO AVOID FOULING OF TRACK

TEMPORARY SLIDING OR ROLLING GATE WHILE TEMPORARY TRACK CROSSING IS IN PLACE, OTHERWISE CLOSE GAP WITH TEMPORARY FRA APPROVED CONSTRUCTION BARRIER

EXPAND EXISTING AMTRAK UNPAVED PATH FOR PASSING AND TURNING AREA (APPROX. 20' WIDE)

TEMPORARY GATED TRACK CROSSING FOR CONSTRUCTION ACCESS AT LOCATION TO BE APPROVED BY AMTRAK PRIOR TO INSTALLATION. SHALL NOT BE INSTALLED UNTIL AFTER ARCHEOLOGICAL INVESTIGATIONS AT LAYDOWN AREA ARE COMPLETE

EXISTING TRACK 1 AND EXISTING TRACK 2 IN SERVICE

TEMPORARY SLIDING OR ROLLING GATE WHILE TEMPORARY TRACK CROSSING IS IN PLACE

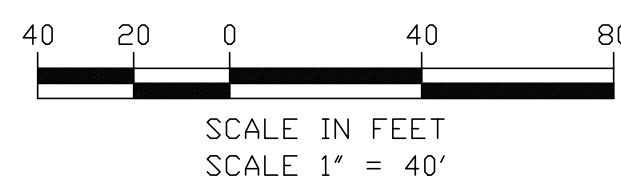
LOCATION FOR TEMPORARY CONSTRUCTION LAYDOWN, STORAGE, AND WORKER WELFARE FACILITIES

ENVIRONMENTALLY SENSITIVE AREA. GROUND DISTURBANCES IN THIS AREA SHALL BE AVOIDED UNLESS SUBMITTED TO THE ENGINEER AND APPROVED. SEE NOTE 3

CONSTRUCT TEMPORARY ACCESS PATH AT TRACK CROSSING (APPROX. 14' WIDE.) MAY REQUIRE USE OF TEMPORARY RETAINING WALL SYSTEM TO MAINTAIN PATH WITHIN PERMITTED LIMIT OF DISTURBANCE

TEMPORARY TRESTLE WORK PLATFORM  
TEMPORARY CONSTRUCTION WORK AREA

LIMIT OF DISTURBANCE NOT TO EXCEED RIGHT OF WAY



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

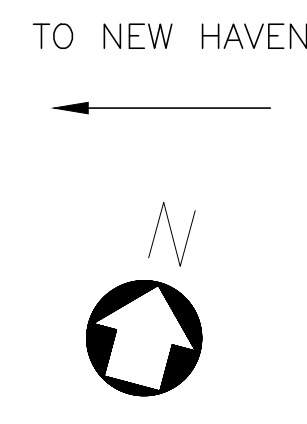
Office of Chief Engineer  
STRUCTURES  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK		CONNECTICUT		Project Code: XXX XXX
REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER				WBS:
STAGING PLAN - PHASE IAB				Sheet No. 84 OF 140
Designed	CB	Drawn	CB/MD	Dwg. No. <b>PH-IAB-04</b>
Checked	KM	Date	5/2/2023	

FILE NAME: 212004-Ph-IAB-01\_PN-IAB-12.DWG  
PRINT DATE/TIME: 5/2/2023 11:43 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES



REGRADE EXISTING AMTRAK UNPAVED PATH TO UTILIZE AS TEMPORARY ACCESS PATH (14' WIDE). EXISTING PATH MAY NEED TO BE WIDENED AND MAY REQUIRE USE OF TEMPORARY RETAINING WALL SYSTEM TO MAINTAIN PATH OUTSIDE LIMITS OF FRA APPROVED CONSTRUCTION BARRIER AND WITHIN PERMITTED LIMIT OF DISTURBANCE - GRADE DOWN TO TEMPORARY TRESTLE WORK PLATFORM NEAR ABUTMENT

FOR VEHICULAR CLEARANCE INFORMATION:  
EXISTING SPAN 1 LOW STEEL TO MEAN HIGH WATER = 18.0' (ELEV 19.7)  
PROPOSED SPAN 1 LOW STEEL TO MEAN HIGH WATER = 14.3' (ELEV 16.0)  
CONTRACTOR TO VERIFY

EXPAND EXISTING AMTRAK UNPAVED PATH FOR PASSING AREA (APPROX. 20' WIDE)

INSTALL TEMPORARY FRA APPROVED CONSTRUCTION BARRIER TO AVOID EXISTING CATENARY STRUCTURES AND MAINTAIN HORIZONTAL CLEAR TO EXISTING TRACKS TO AVOID FOULING OF TRACK

TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL (TYP)

EXISTING TRACK 1 AND EXISTING TRACK 2 IN SERVICE

PROTECT EXISTING EQUIPMENT (TYP.)

PERMITTED LIMIT OF DISTURBANCE FOR TEMPORARY ACCESS, TRESTLE WORK PLATFORM, AND DREDGING FOR BARGE ACCESS

REMOVE EXISTING CHAINLINK FENCE

POSITION TEMPORARY PILES TO AVOID INSTALLATION CONFLICT WITH EXISTING BRIDGE AND REMOVAL CONFLICT WITH PROPOSED BRIDGE (TYP)

LOCATE F/O PRIOR TO ANY TEMPORARY PILE INSTALLATION

FLOOD  
EBB

PROTECT EXISTING FIBEROPTIC CABLE

LIMIT OF DISTURBANCE TO BE COORDINATED WITH EASEMENT LIMITS

EXISTING LILAEOPSIS WITHIN IMPACT AREA TO BE RELOCATED PRIOR TO CONSTRUCTION ACTIVITIES

ANCHOR TEMPORARY TURBIDITY CONTROL CURTAIN SECURELY WITH OVERLAP TO TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL (TYP)

TEMPORARY TRESTLE WORK PLATFORM SHALL EXTEND INTO WATER TO ASSUMED MINIMUM RIVER DEPTH OF 12' FOR BARGE ACCESS - AS PER NOAA CHART 12375, MIN. NAVIGABLE CHANNEL DEPTH FOR CONNECTICUT RIVER IS 13' (30' MINIMUM WIDTH),

LIMIT OF PERMISSIBLE BARGE ACCESS LOCATION FOR EQUIPMENT AND MATERIAL LOADING AND UNLOADING STA 106+2800 TO 106+3000

TURBIDITY CURTAIN TO BE PROVIDED AROUND DREDGE AREA DURING DREDGING ACTIVITY

MAXIMUM WATER DEPTH AT THE DREDGE AREA FOR CONSTRUCTION BARGES SHALL NOT EXCEED 14.60 FEET WHEN MEASURED FROM MHW AND SHALL REMAIN POST CONSTRUCTION

TEMPORARY PILES ARE SHOWN SCHEMATICALLY SEE DETAIL SHEET DTL-05

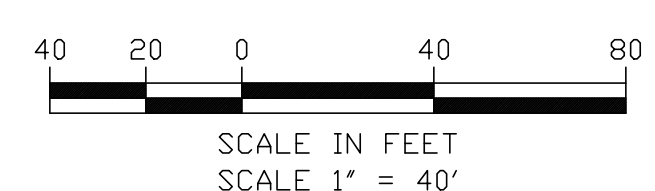
**LEGEND:**

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE - ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) - ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) - ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) - ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) - ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) - ELEVATION -1.71'
- FLD — FLD — FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- ROW — ROW — AMTRAK RIGHT OF WAY (ROW)

CONTRACTOR TO DETERMINE NORTHERN LIMITS OF TEMPORARY TRESTLE WORK PLATFORM WITHIN PERMITTED LIMIT OF DISTURBANCE SUCH THAT ACCESS FOR INSTALLATION OF PERMANENT RIPRAP SCOUR PROTECTION IS NOT AFFECTED

**NOTES:**

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



MATCHLINE DWG PH-IAB-04

MATCHLINE DWG PH-IAB-06

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

Approved \_\_\_\_\_ Date \_\_\_\_\_



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
STAGING PLAN - PHASE IAB**  
Project Code: XXX XXX  
WBS:  
Sheet No. 85 OF 140  
Dwg. No. **PH-IAB-05**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023



This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

FILE NAME: 212004-Ph-IAB-01-Ph-IAB-12.DWG  
PRINT DATE/TIME: 5/2/2023 11:43 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

TO NEW HAVEN

TO BOSTON



MATCHLINE DWG PH-IAB-05

MATCHLINE DWG PH-IAB-07

TEMPORARY TURBIDITY CONTROL CURTAIN

TEMPORARY TRESTLE WORK PLATFORM SHALL EXTEND INTO WATER TO ASSUMED MINIMUM RIVER DEPTH OF 12' FOR BARGE ACCESS - AS PER NOAA CHART 12375, MIN. NAVIGABLE CHANNEL DEPTH FOR CONNECTICUT RIVER IS 13' (30' MINIMUM WIDTH),

INSTALL DEMONSTRATION SHAFT DS-2

INSTALL TRIAL SHAFT

POSITION TEMPORARY PILES TO AVOID INSTALLATION CONFLICT WITH EXISTING BRIDGE AND REMOVAL CONFLICT WITH PROPOSED BRIDGE (TYP)

FOR VEHICULAR CLEARANCE INFORMATION:  
EXISTING SPAN 1 LOW STEEL TO MEAN HIGH WATER = 18.0' (ELEV 19.7)  
PROPOSED SPAN 1 LOW STEEL TO MEAN HIGH WATER = 14.3' (ELEV 16.0)  
CONTRACTOR TO VERIFY

LIMIT OF PERMISSIBLE BARGE ACCESS LOCATION FOR EQUIPMENT AND MATERIAL LOADING AND UNLOADING STA 106+2800 TO 106+3000

MAXIMUM WATER DEPTH AT THE DREDGE AREA FOR CONSTRUCTION BARGES SHALL NOT EXCEED 14.60 FEET WHEN MEASURED FROM MHW AND SHALL REMAIN POST CONSTRUCTION

TURBIDITY CURTAIN TO BE PROVIDED AROUND DREDGE AREA DURING DREDGING ACTIVITY

EXISTING BRIDGE PIER (TYP.)

EXIST TRACK 1 C  
EXIST TRACK 2 C

EXISTING TRACK 1 AND EXISTING TRACK 2 IN SERVICE

Old Saybrook (Middlesex County)  
Old Lyme (New London County)

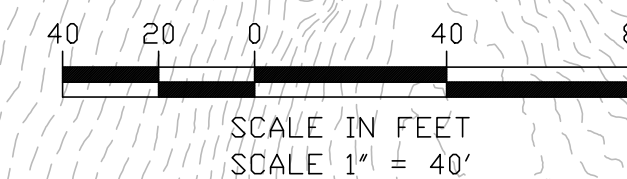
FLOOD  
EBB

Connecticut River

INSTALL DEMONSTRATION SHAFT DS-1

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- — — — — AMTRAK RIGHT OF WAY (ROW)



NOTES:

1. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-PH-IAB-01-PH-IAB-12.DWG  
PRINT DATE/TIME: 6/7/2023 11:44 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

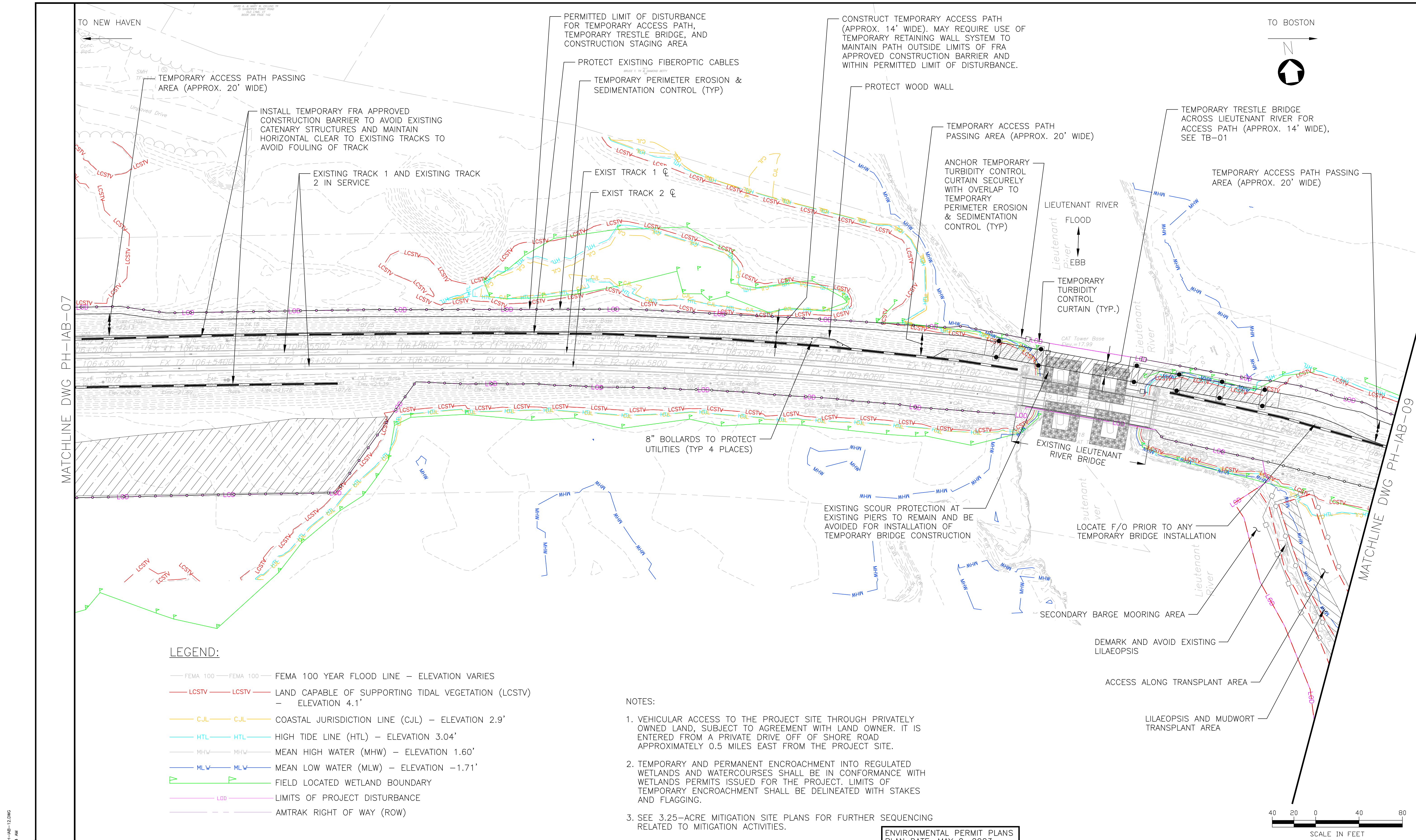


**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**WSP** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IAB**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 86 OF 140  
Dwg. No. **PH-IAB-06**





FILE NAME: 212004-PH-IAB-01-PH-IAB-12.DWG  
 PRINT DATE/TIME: 6/2/2023 11:44 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
 National Railroad Passenger Corporation  
 30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
 ENGINEERING  
 1501 Broadway New York, NY 10036  
 1700 Market St. Suite 1050  
 Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IAB**  
 Designed CB Drawn CB/MD Checked KM Date 5/2/2023

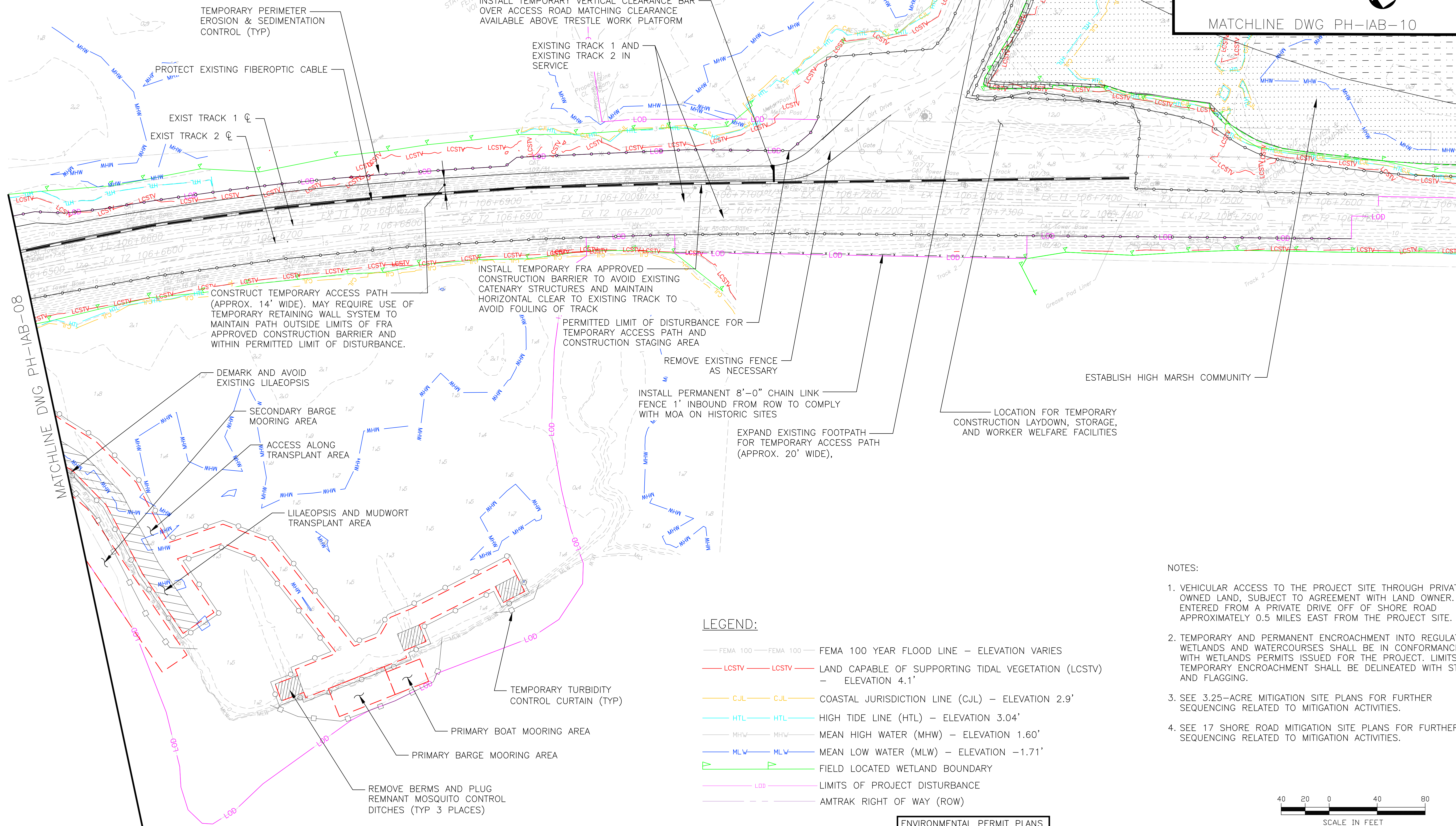
Project Code:	XXX XXX
WBS:	
Sheet No.	88 OF 140
Dwg. No.	<b>PH-IAB-08</b>

TO NEW HAVEN

TO BOSTON

MATCHLINE DWG PH-IAB-11

MATCHLINE DWG PH-IAB-10

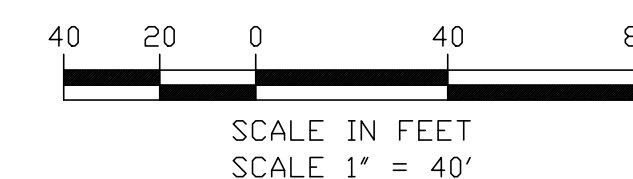


NOTES:

- VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
- TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
- SEE 3.25-ACRE MITIGATION SITE PLANS FOR FURTHER SEQUENCING RELATED TO MITIGATION ACTIVITIES.
- SEE 17 SHORE ROAD MITIGATION SITE PLANS FOR FURTHER SEQUENCING RELATED TO MITIGATION ACTIVITIES.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- Field Located Wetland Boundary
- LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

Project Code: XXX XXX
WBS:
Sheet No. 89 OF 140
Dwg. No. <b>PH-IAB-09</b>
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

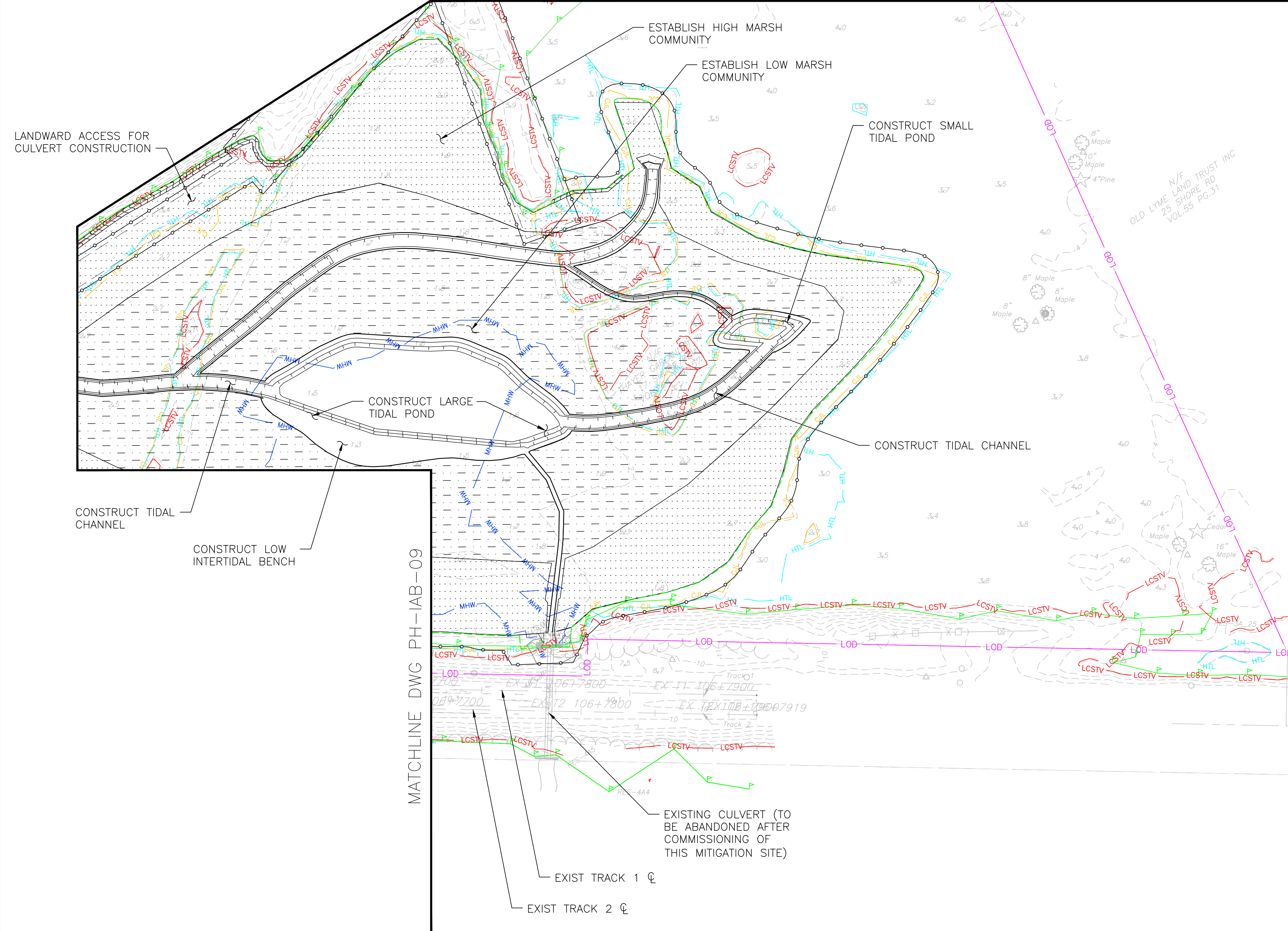
FILE NAME: 212004-Ph-IAB-01-Ph-IAB-10.DWG  
 PRINT DATE: 7/16/2023 11:44 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES



TO NEW HAVEN

TO BOSTON

MATCHLINE DWG PH-IAB-11

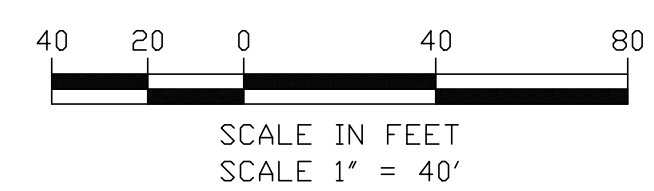


LEGEND:

- FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. SEE 17 SHORE ROAD MITIGATION SITE PLANS FOR FURTHER SEQUENCING RELATED TO MITIGATION ACTIVITIES.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

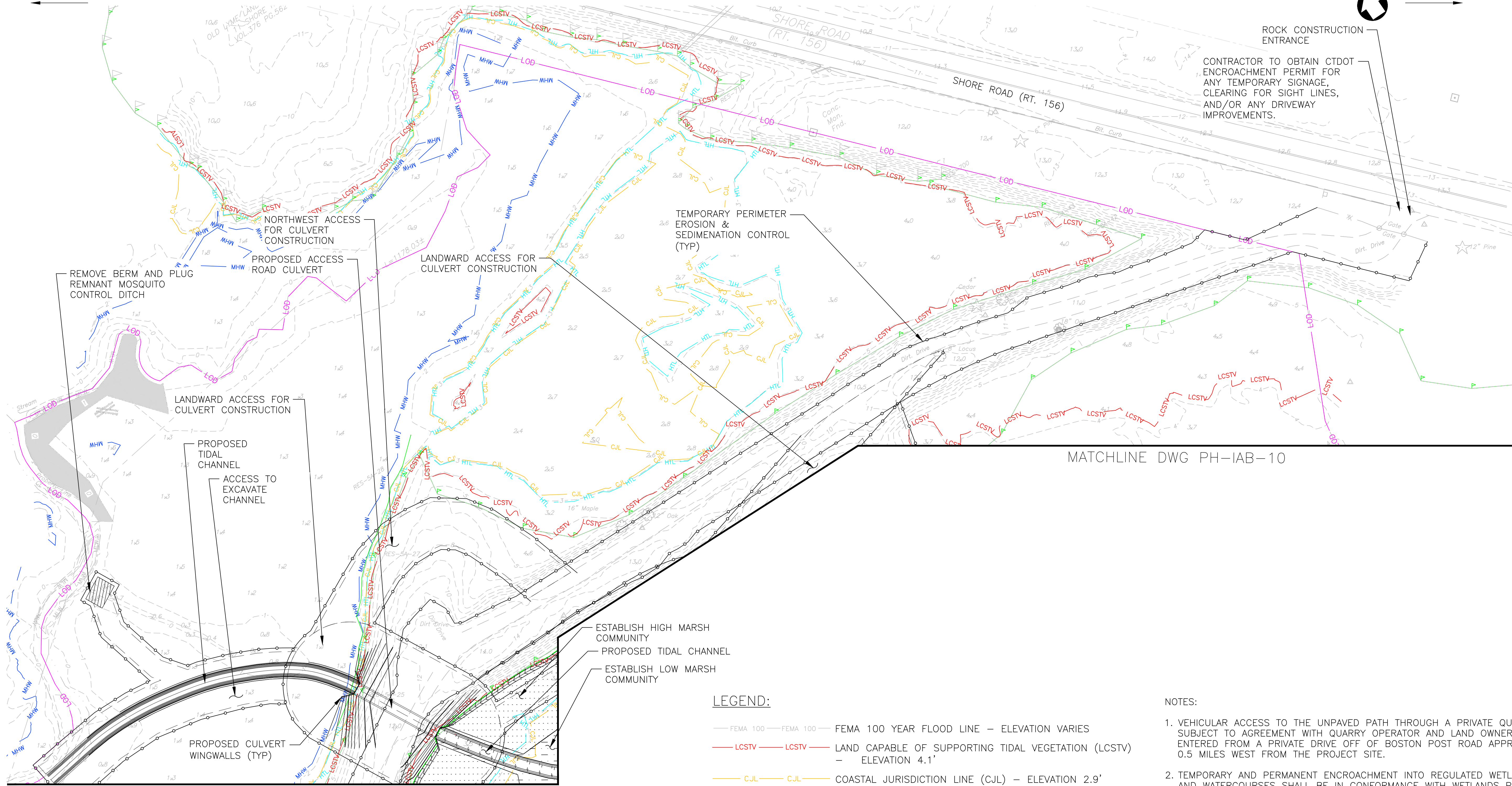
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IAB**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 90 OF 140  
Dwg. No. **PH-IAB-10**

FILE NAME: 212004-Ph-IAB-01-Ph-IAB-10.DWG  
 PRINT DATE/TIME: 5/2/2023 11:45 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON



ROCK CONSTRUCTION ENTRANCE

CONTRACTOR TO OBTAIN CT DOT ENCROACHMENT PERMIT FOR ANY TEMPORARY SIGNAGE, CLEARING FOR SIGHT LINES, AND/OR ANY DRIVEWAY IMPROVEMENTS.

TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL (TYP)

NORTHWEST ACCESS FOR CULVERT CONSTRUCTION

PROPOSED ACCESS ROAD CULVERT

REMOVE BERM AND PLUG REMNANT MOSQUITO CONTROL DITCH

LANDWARD ACCESS FOR CULVERT CONSTRUCTION

LANDWARD ACCESS FOR CULVERT CONSTRUCTION

PROPOSED TIDAL CHANNEL

ACCESS TO EXCAVATE CHANNEL

PROPOSED CULVERT WINGWALLS (TYP)

ESTABLISH HIGH MARSH COMMUNITY

PROPOSED TIDAL CHANNEL

ESTABLISH LOW MARSH COMMUNITY

MATCHLINE DWG PH-IAB-10

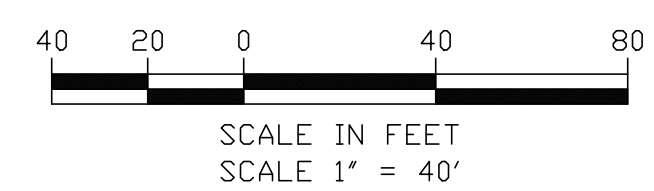
MATCHLINE DWG PH-IAB-09

**LEGEND:**

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

**NOTES:**

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER, IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. SEE 17 SHORE ROAD MITIGATION SITE PLANS FOR FURTHER SEQUENCING RELATED TO MITIGATION ACTIVITIES.



FILE NAME: 212004-PH-IAB-01-PH-IAB-11.DWG  
 PRINT DATE/TIME: 6/2/2023 11:45 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
 National Railroad Passenger Corporation  
 30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
 PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
 ENGINEERING  
 1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
 Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
 OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IAB**  
 Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
 WBS:  
 Sheet No. 91 OF 140  
 Dwg. No. **PH-IAB-11**

TO NEW HAVEN

TO BOSTON

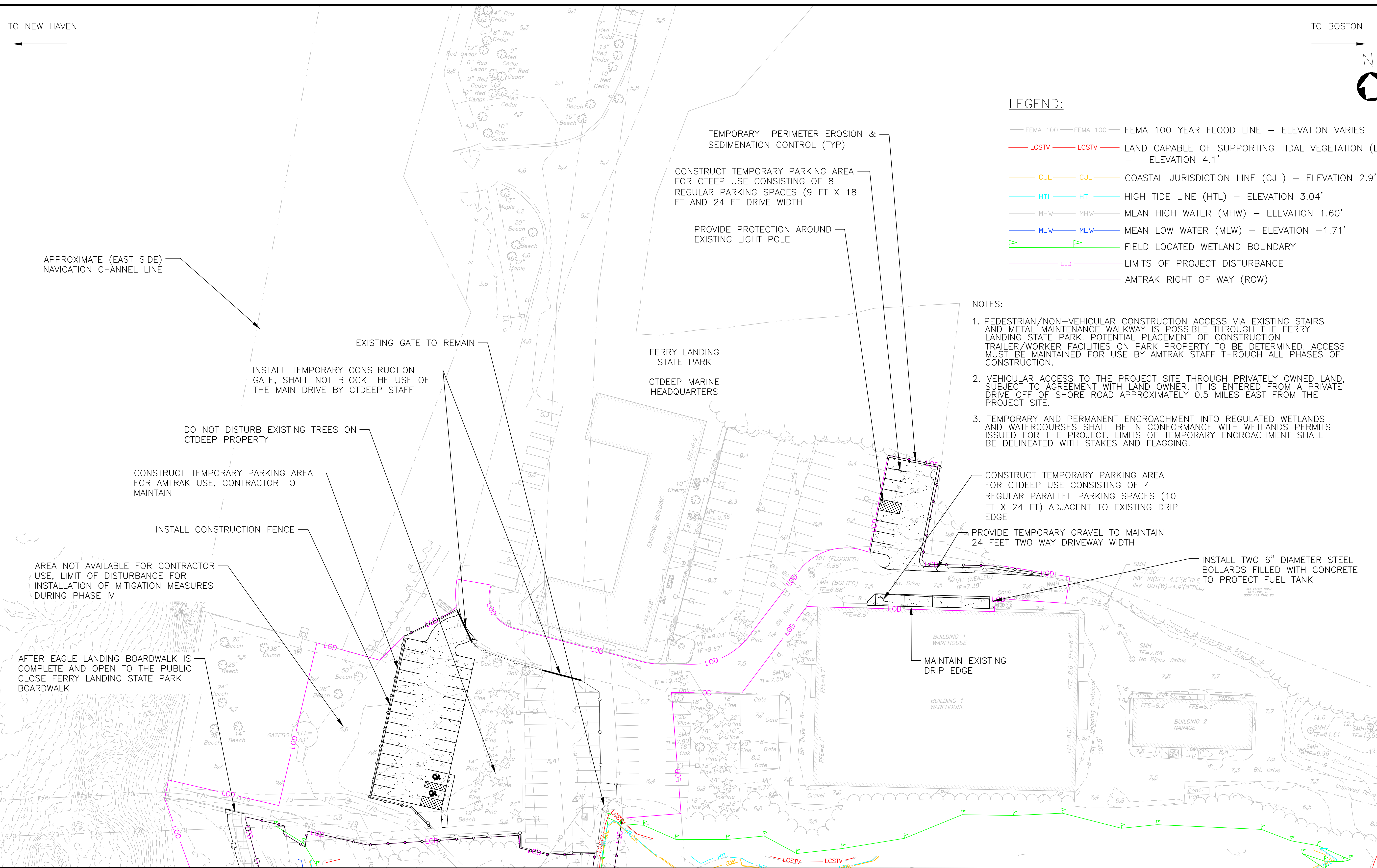


LEGEND:

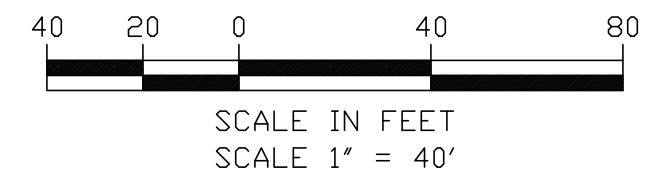
- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER, IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



MATCHLINE DWG PH-1AB-07



No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
 National Railroad Passenger Corporation  
 30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
 PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
 ENGINEERING  
 1501 Broadway New York, NY 10036  
 1700 Market St. Suite 1050  
 Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
 OVER CONNECTICUT RIVER**

**STAGING PLAN - PHASE IAB**

Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
 WBS:  
 Sheet No. 92 OF 140  
 Dwg. No. **PH-1AB-12**

FILE NAME: 2/2020-Ph-1AB-01\_Ph-1AB-12.DWG  
 PRINT DATE: 5/2/2023 11:45 AM  
 PLOT SCALE: AS SHOWN  
 STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON

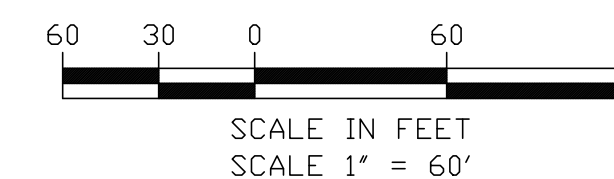
LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- — — — — AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

MATCHLINE DWG PH-ICDE-02



FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
PRINT DATE: 7/16/2023 11:56 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
STRUCTURES  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
STAGING PLAN - PHASE ICDE**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023











Project Code: XXX XXX  
WBS:  
Sheet No. 93 OF 140  
Dwg. No. **PH-ICDE-01**

TO NEW HAVEN

TO BOSTON

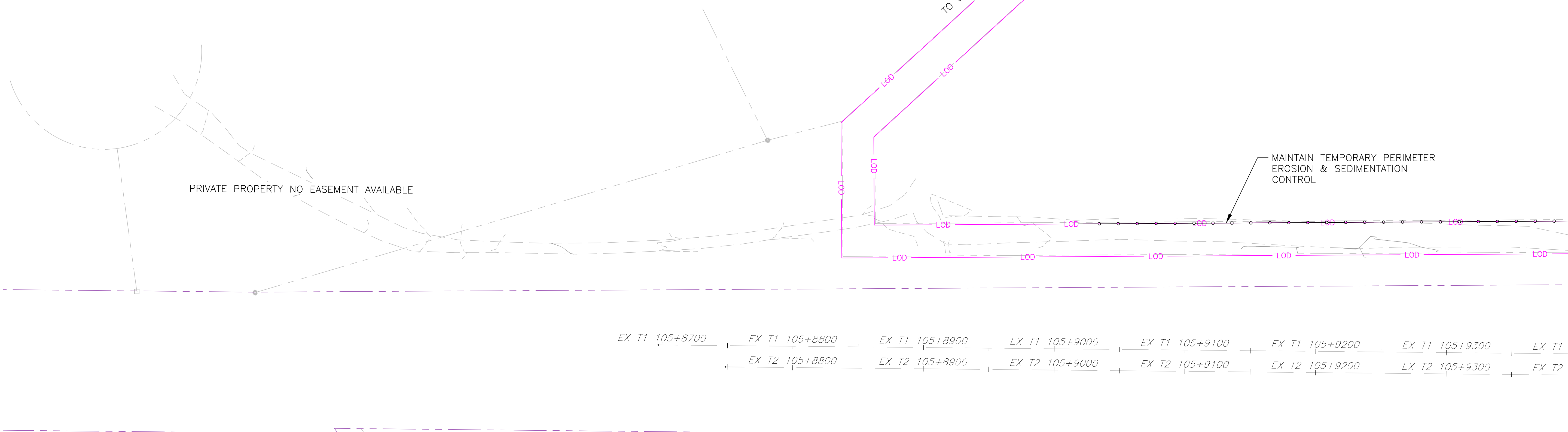
MATCHLINE PH-ICDE-01

LEGEND:

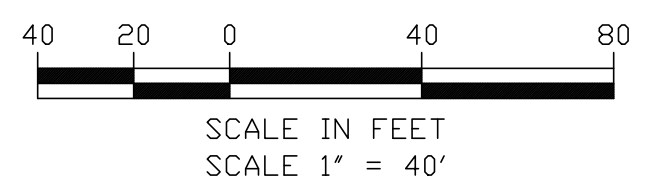
-  FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
-  LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
-  CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
-  HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
-  MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
-  MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
-   FIELD LOCATED WETLAND BOUNDARY
-  LOD — LIMITS OF PROJECT DISTURBANCE
-  — — — — — AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATELY QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROXIMATELY 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.



EX T1 105+8700	EX T1 105+8800	EX T1 105+8900	EX T1 105+9000	EX T1 105+9100	EX T1 105+9200	EX T1 105+9300	EX T1
EX T2 105+8800	EX T2 105+8900	EX T2 105+9000	EX T2 105+9100	EX T2 105+9200	EX T2 105+9300	EX T2	EX T2



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
PRINT DATE: 7/16/2023 11:56 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



**Office of Chief Engineer  
STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

**STAGING PLAN - PHASE ICDE**

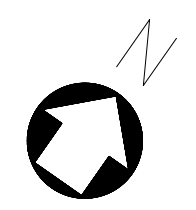
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX
WBS:
Sheet No. 94 OF 140
Dwg. No. PH-ICDE-02

MATCHLINE DWG PH-ICDE-03

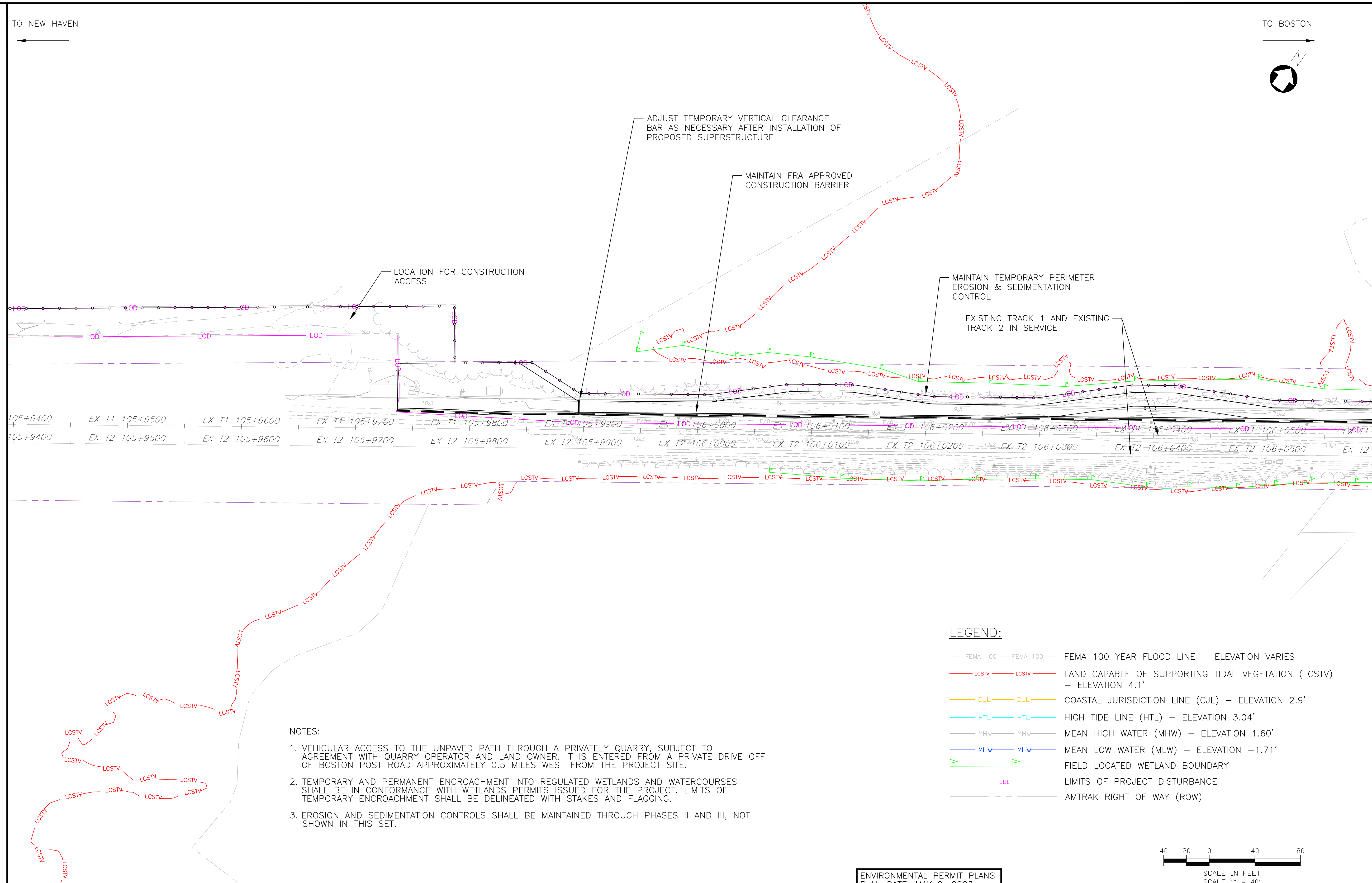
TO NEW HAVEN

TO BOSTON



MATCHLINE DWG PH-ICDE-02

MATCHLINE DWG PH-ICDE-04

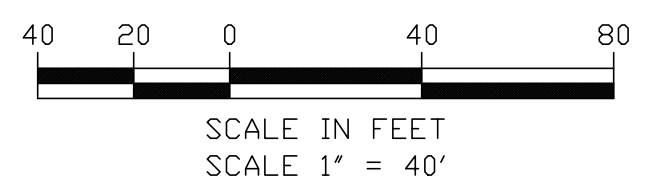


NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATELY QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROXIMATELY 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CjL — CjL — COASTAL JURISDICTION LINE (CjL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- P — P — FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- — — — — AMTRAK RIGHT OF WAY (ROW)



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
PRINT DATE: 7/16/2023 11:56 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



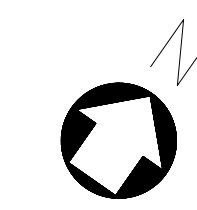
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE ICDE**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 95 OF 140  
Dwg. No. **PH-ICDE-03**

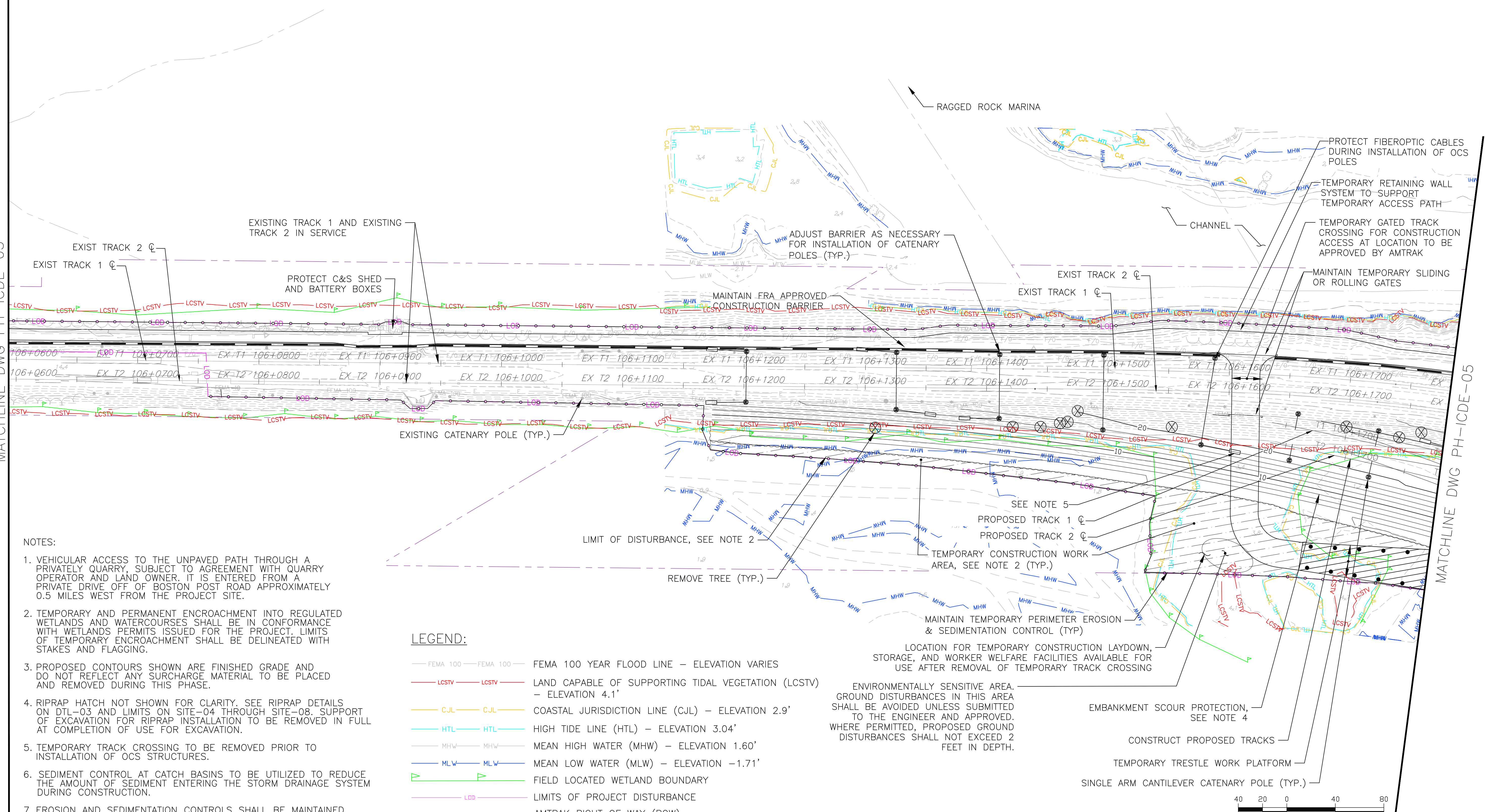
TO NEW HAVEN

TO BOSTON



MATCHLINE DWG PH-ICDE-03

MATCHLINE DWG PH-ICDE-05



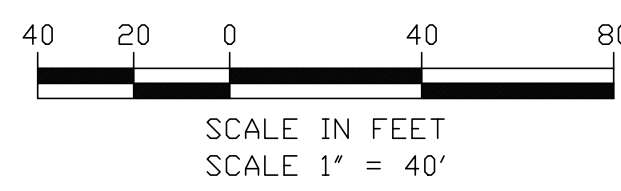
NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATELY QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROXIMATELY 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. PROPOSED CONTOURS SHOWN ARE FINISHED GRADE AND DO NOT REFLECT ANY SURCHARGE MATERIAL TO BE PLACED AND REMOVED DURING THIS PHASE.
4. RIPRAP HATCH NOT SHOWN FOR CLARITY. SEE RIPRAP DETAILS ON DTL-03 AND LIMITS ON SITE-04 THROUGH SITE-08. SUPPORT OF EXCAVATION FOR RIPRAP INSTALLATION TO BE REMOVED IN FULL AT COMPLETION OF USE FOR EXCAVATION.
5. TEMPORARY TRACK CROSSING TO BE REMOVED PRIOR TO INSTALLATION OF OCS STRUCTURES.
6. SEDIMENT CONTROL AT CATCH BASINS TO BE UTILIZED TO REDUCE THE AMOUNT OF SEDIMENT ENTERING THE STORM DRAINAGE SYSTEM DURING CONSTRUCTION.
7. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- [Symbol] — [Symbol] — FIELD LOCATED WETLAND BOUNDARY
- [Symbol] — [Symbol] — LIMITS OF PROJECT DISTURBANCE
- [Symbol] — [Symbol] — AMTRAK RIGHT OF WAY (ROW)

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023



FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
PRINT DATE/TIME: 6/27/2023 11:56 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



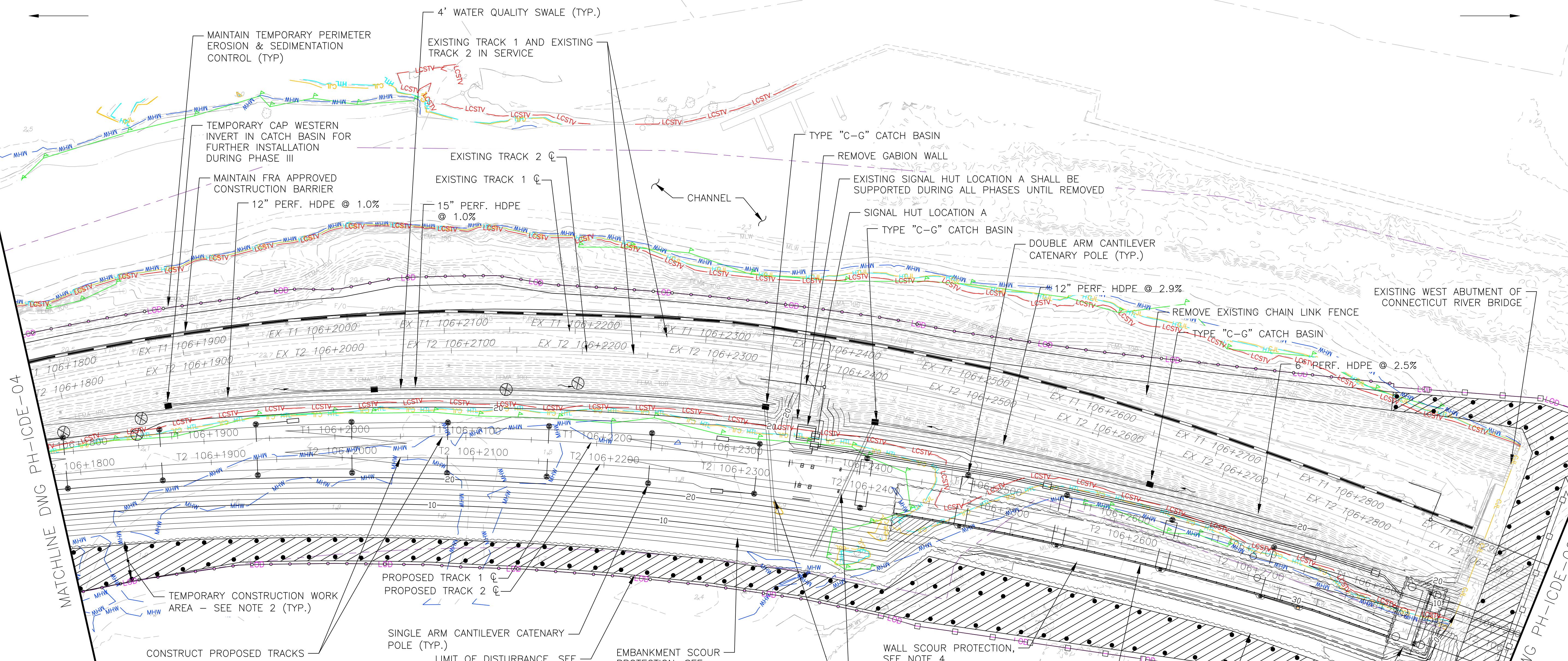
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
STAGING PLAN - PHASE ICDE**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 96 OF 140  
Dwg. No. **PH-ICDE-04**

TO NEW HAVEN

TO BOSTON



NOTES:

- VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATELY QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROXIMATELY 0.5 MILES WEST FROM THE PROJECT SITE.
- TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
- PROPOSED CONTOURS SHOWN ARE FINISHED GRADE AND DO NOT REFLECT ANY SURCHARGE MATERIAL TO BE PLACED AND REMOVED DURING THIS PHASE.
- RIPRAP HATCH NOT SHOWN FOR CLARITY. SEE RIPRAP DETAILS ON DTL-03 AND LIMITS ON SITE-04 THROUGH SITE-08. SUPPORT OF EXCAVATION FOR RIPRAP INSTALLATION TO BE REMOVED IN FULL AT COMPLETION OF USE FOR EXCAVATION.
- SEDIMENT CONTROL AT CATCH BASINS TO BE UTILIZED TO REDUCE THE AMOUNT OF SEDIMENT ENTERING THE STORM DRAINAGE SYSTEM DURING CONSTRUCTION.
- EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.

LEGEND:

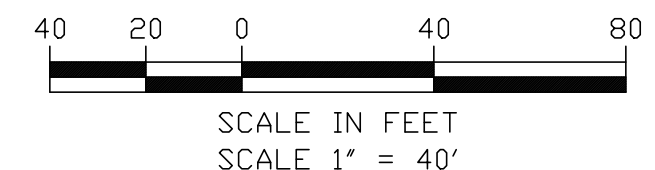
- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- LWB — LWB — FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- ROW — ROW — AMTRAK RIGHT OF WAY (ROW)

COFFERDAM FOR RETAINING WALL AND ABUTMENT CONSTRUCTION TO BE CUT AT TOP OF CONCRETE OR BELOW SCOUR PROTECTION AND LEFT IN PLACE

MAINTAIN TEMPORARY TURBIDITY CONTROL CURTAIN IN WATER (TYP)

WEST ABUTMENT

DEMO PORTION OF WEST ABUTMENT, SEE STRUCTURE PLANS



FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
 PRINT DATE/TIME: 6/2/2023 11:57 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

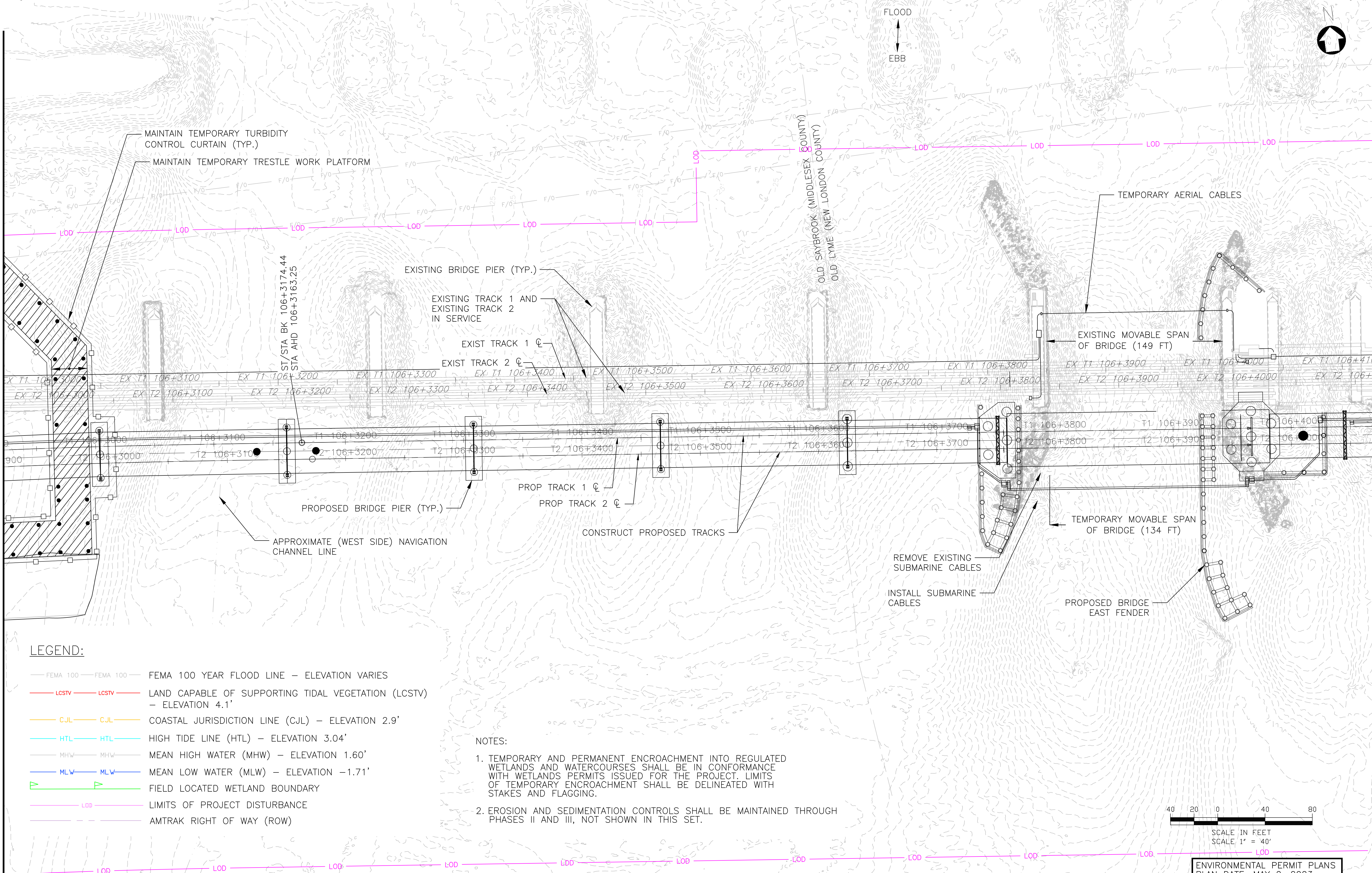
DESIGNED				DRAWN				CHECKED				DATE			

Project Code: XXX XXX  
WBS:    
Sheet No. 97 OF 140  
Dwg. No. PH-ICDE-05



TO NEW HAVEN

TO BOSTON



MATCHLINE DWG PH-ICDE-05

MATCHLINE DWG PH-ICDE-07

LEGEND:

- FEMA 100 — F/0 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FLWB — FLWB — FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
2. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
PRINT DATE/TIME: 6/7/2023 11:57 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

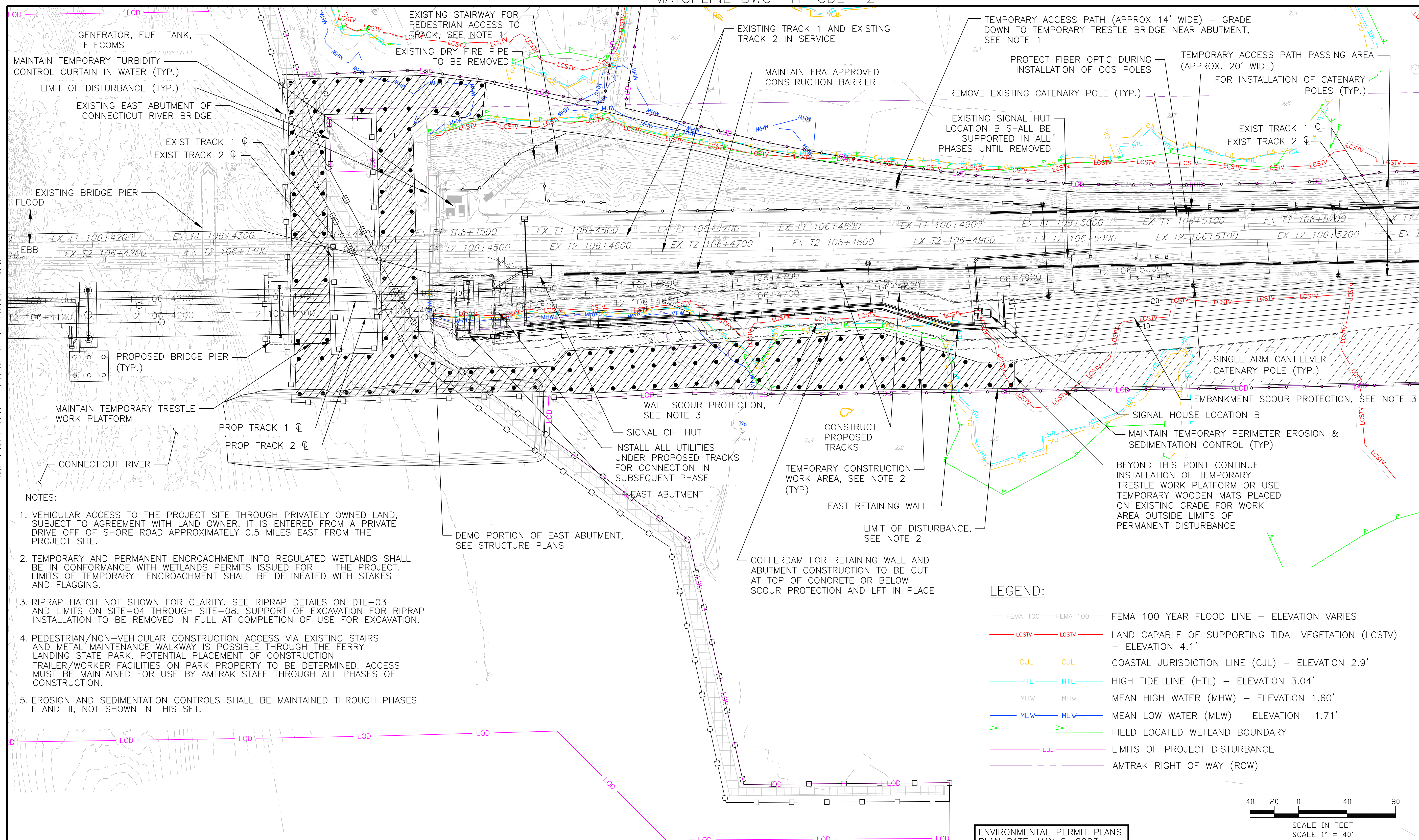
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE ICDE**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.	98 OF 140
Dwg. No.	<b>PH-ICDE-06</b>

TO NEW HAVEN

TO BOSTON

MATCHLINE DWG PH-ICDE-12

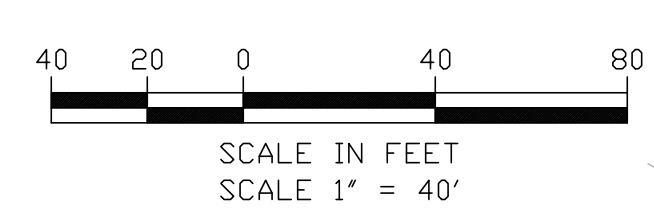


MATCHLINE DWG PH-ICDE-06

MATCHLINE DWG PH-ICDE-08

- NOTES:
- VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
  - TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
  - RIPRAP HATCH NOT SHOWN FOR CLARITY. SEE RIPRAP DETAILS ON DTL-03 AND LIMITS ON SITE-04 THROUGH SITE-08. SUPPORT OF EXCAVATION FOR RIPRAP INSTALLATION TO BE REMOVED IN FULL AT COMPLETION OF USE FOR EXCAVATION.
  - PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
  - EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.

- LEGEND:
- FEMA 100 - FEMA 100 - FEMA 100 YEAR FLOOD LINE - ELEVATION VARIES
  - LCSTV - LCSTV - LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) - ELEVATION 4.1'
  - CJL - CJL - COASTAL JURISDICTION LINE (CJL) - ELEVATION 2.9'
  - HTL - HTL - HIGH TIDE LINE (HTL) - ELEVATION 3.04'
  - MHW - MHW - MEAN HIGH WATER (MHW) - ELEVATION 1.60'
  - MLW - MLW - MEAN LOW WATER (MLW) - ELEVATION -1.71'
  - FIELD LOCATED WETLAND BOUNDARY
  - LOD - LOD - LIMITS OF PROJECT DISTURBANCE
  - AMTRAK RIGHT OF WAY (ROW)



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-Ph-ICDE-07-Ph-ICDE-12.DWG  
PRINT DATE: 7/16/2023 11:57 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



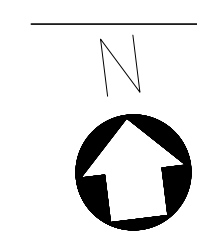
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
STAGING PLAN - PHASE ICDE**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 99 OF 140  
Dwg. No. **PH-ICDE-07**

TO NEW HAVEN

TO BOSTON



EXISTING TRACK 1 AND EXISTING TRACK 2 IN SERVICE

MAINTAIN TEMPORARY ACCESS PATH

ADJUST BARRIER AS NECESSARY FOR INSTALLATION OF CATENARY POLES (TYP.)

MAINTAIN FRA APPROVED CONSTRUCTION BARRIER

EXIST TRACK 1

EXIST TRACK 2

CATENARY POLE (TYP.)

LIEUTENANT RIVER

FLOOD

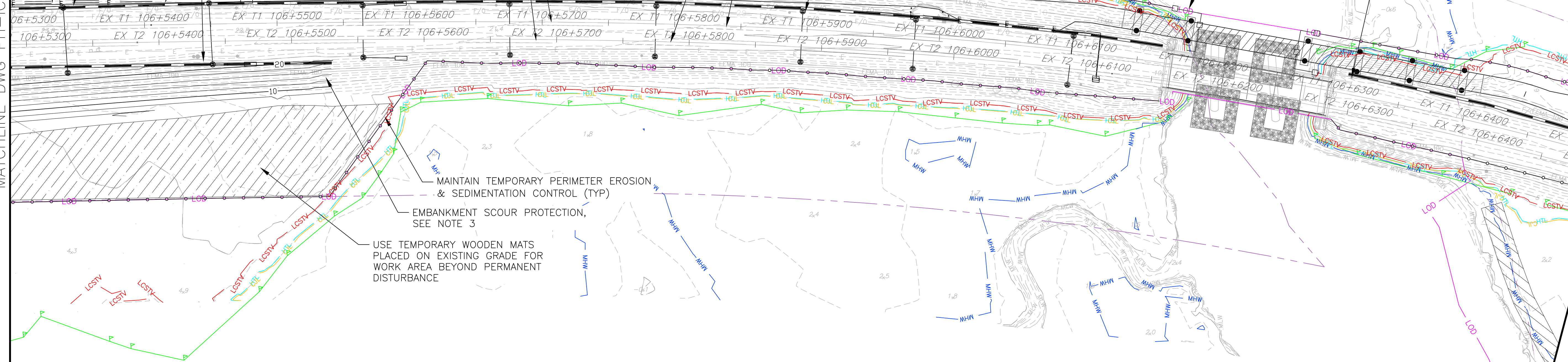
EBB

MAINTAIN TEMPORARY TURBIDITY CONTROL CURTAIN (TYP.)

EXISTING CATENARY POLE (TYP.)

MATCHLINE DWG PH-ICDE-07

MATCHLINE DWG PH-ICDE-09



NOTES:

- VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
- TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
- RIPRAP HATCH NOT SHOWN FOR CLARITY. SEE RIPRAP DETAILS ON DTL-03 AND LIMITS ON SITE-04 THROUGH SITE-08. SUPPORT OF EXCAVATION FOR RIPRAP INSTALLATION TO BE REMOVED IN FULL AT COMPLETION OF USE FOR EXCAVATION.
- EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- Field Located Wetland Boundary
- LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)



SCALE IN FEET  
SCALE 1" = 40'

FILE NAME: 212004-01-ICDE-01-01-01-ICDE-12.DWG  
PRINT DATE/TIME: 5/2/2023 11:57 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE ICDE**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 100 OF 140  
Dwg. No. **PH-ICDE-08**

TO NEW HAVEN

TO BOSTON

MATCHLINE DWG PH-ICDE-11

MATCHLINE DWG PH-ICDE-10

ADJUST TEMPORARY VERTICAL CLEARANCE BAR AS NECESSARY AFTER INSTALLATION OF PROPOSED SUPERSTRUCTURE

PERMITTED LIMIT OF DISTURBANCE FOR TEMPORARY ACCESS PATH AND CONSTRUCTION STAGING AREA

MAINTAIN TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL (TYP)

MAINTAIN TEMPORARY ACCESS PATH

EXIST TRACK 1  
EXIST TRACK 2

EXISTING CATENARY POLE (TYP.)

LOCATION FOR TEMPORARY CONSTRUCTION LAYDOWN, STORAGE, AND WORKER WELFARE FACILITIES

MATCHLINE DWG PH-ICDE-08

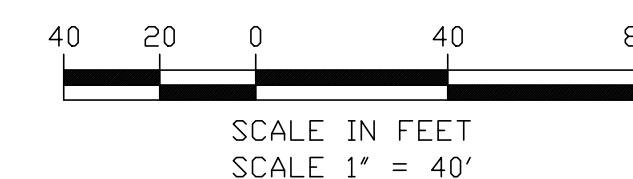
MATCHLINE DWG PH-ICDE-10

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- — — FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
STRUCTURES  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

Project Code: XXX XXX
WBS:
Sheet No. 101 OF 140
Dwg. No. PH-ICDE-09
Project Name: REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER STAGING PLAN - PHASE ICDE
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

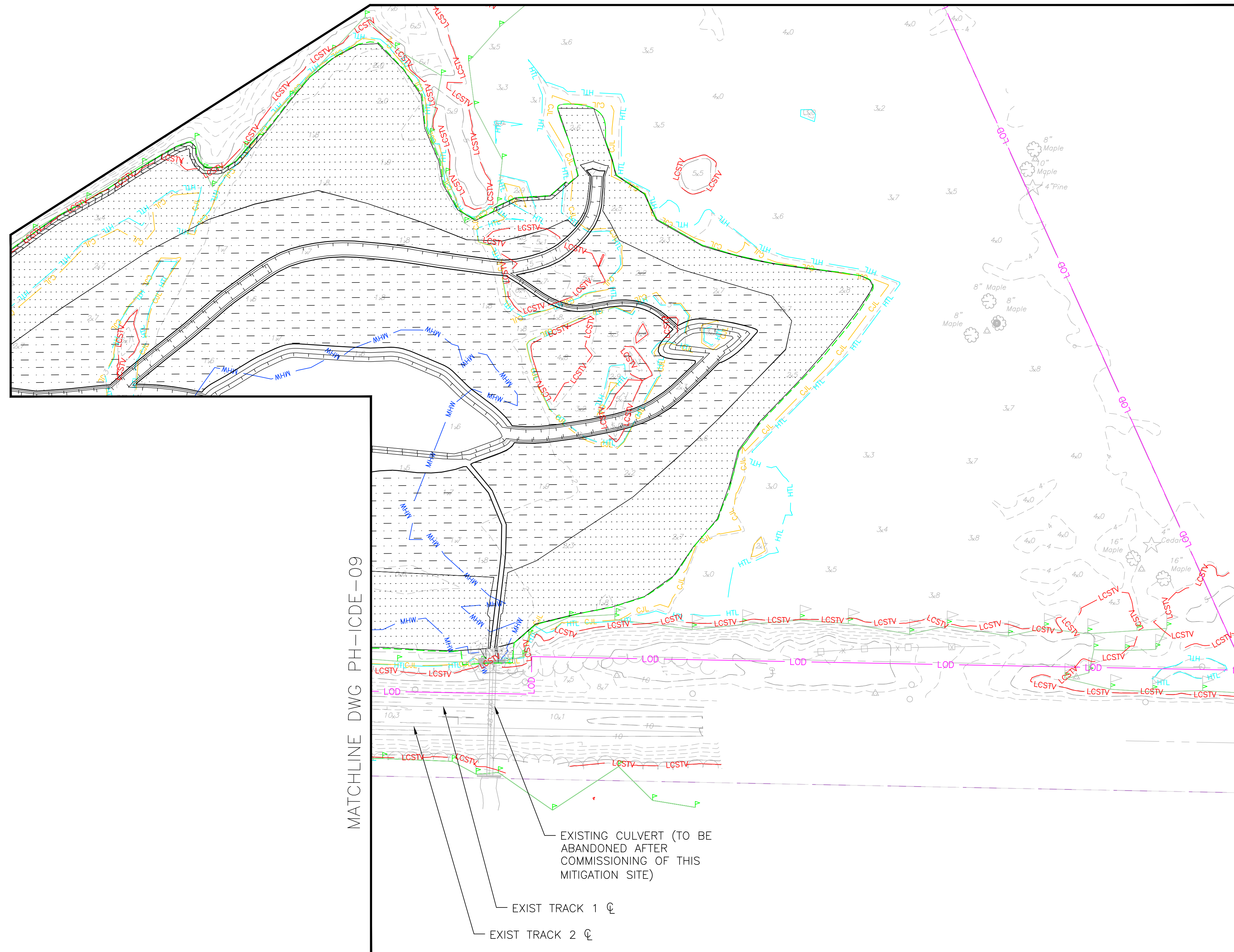
FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
PRINT DATE/TIME: 5/2/2023 11:57 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

TO NEW HAVEN

TO BOSTON

MATCHLINE DWG PH-ICDE-11



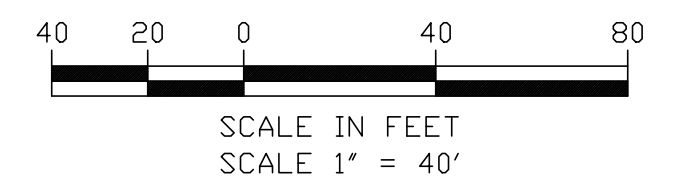
MATCHLINE DWG PH-ICDE-09

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.



FILE NAME: 212004-PH-ICDE-01-PH-ICDE-11.DWG  
PRINT DATE/TIME: 5/2/2023 11:58 AM  
PLOT SCALE, AS NOTED  
STANDARD PEN TABLE, YES

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



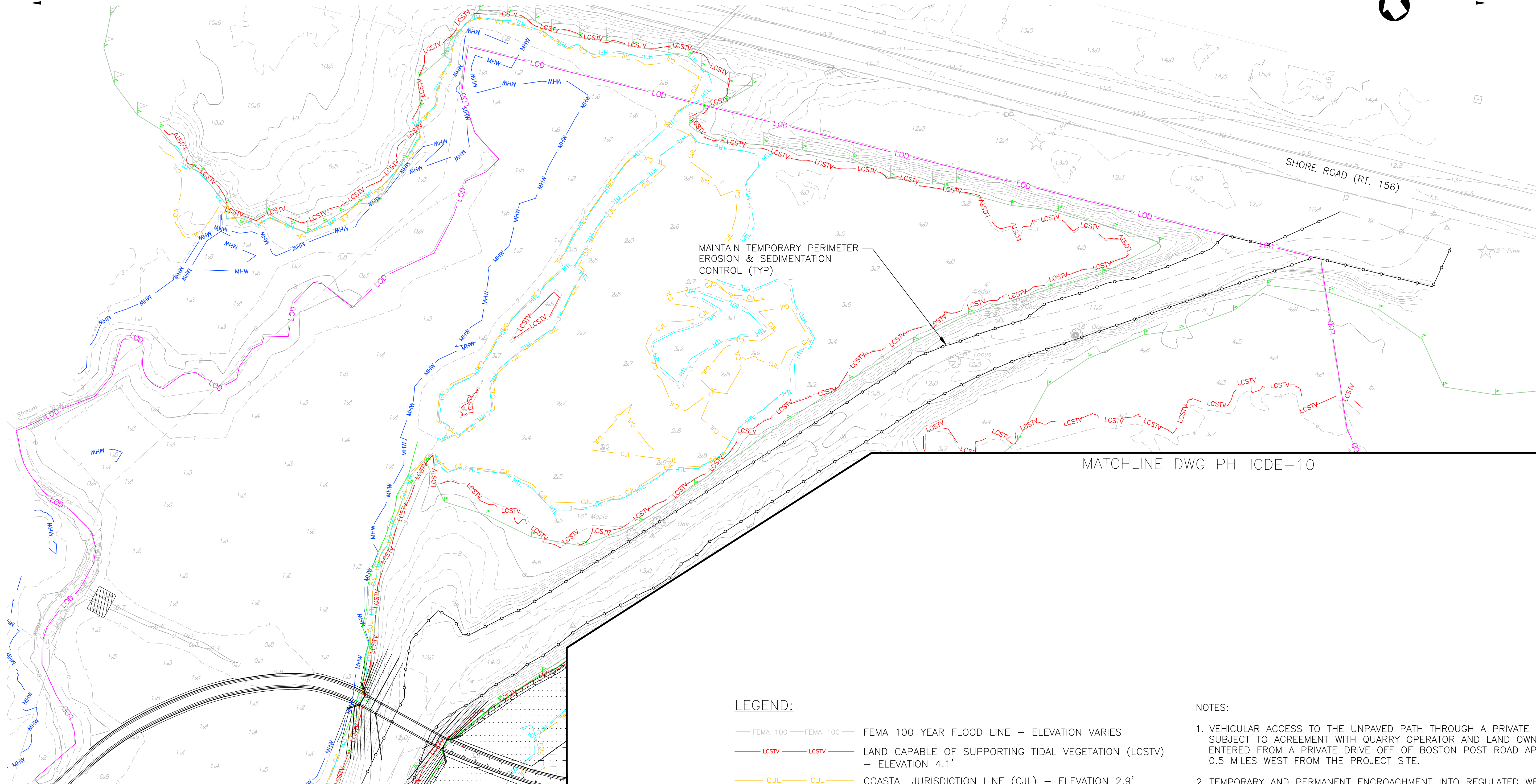
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE ICDE**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.:	102 OF 140
Dwg. No.:	<b>PH-ICDE-10</b>

TO NEW HAVEN

TO BOSTON



MAINTAIN TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL (TYP)

MATCHLINE DWG PH-ICDE-10

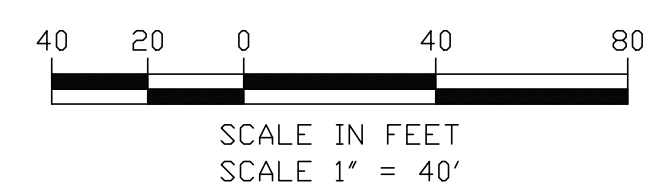
MATCHLINE DWG PH-ICDE-09

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
3. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



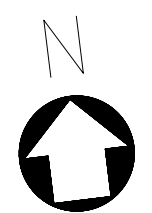
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK		CONNECTICUT		Project Code: XXX XXX
DESIGNED		DRAWN		WBS:
REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER		STAGING PLAN - PHASE ICDE		Sheet No. 103 OF 140
Designed	CB	Drawn	CB/MD	Checked
Checked	KM	Date	5/2/2023	Dwg. No. <b>PH-ICDE-11</b>

FILE NAME: 212004-PH-ICDE-01-PH-ICDE-11.DWG  
PRINT DATE/TIME: 5/2/2023 11:58 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON



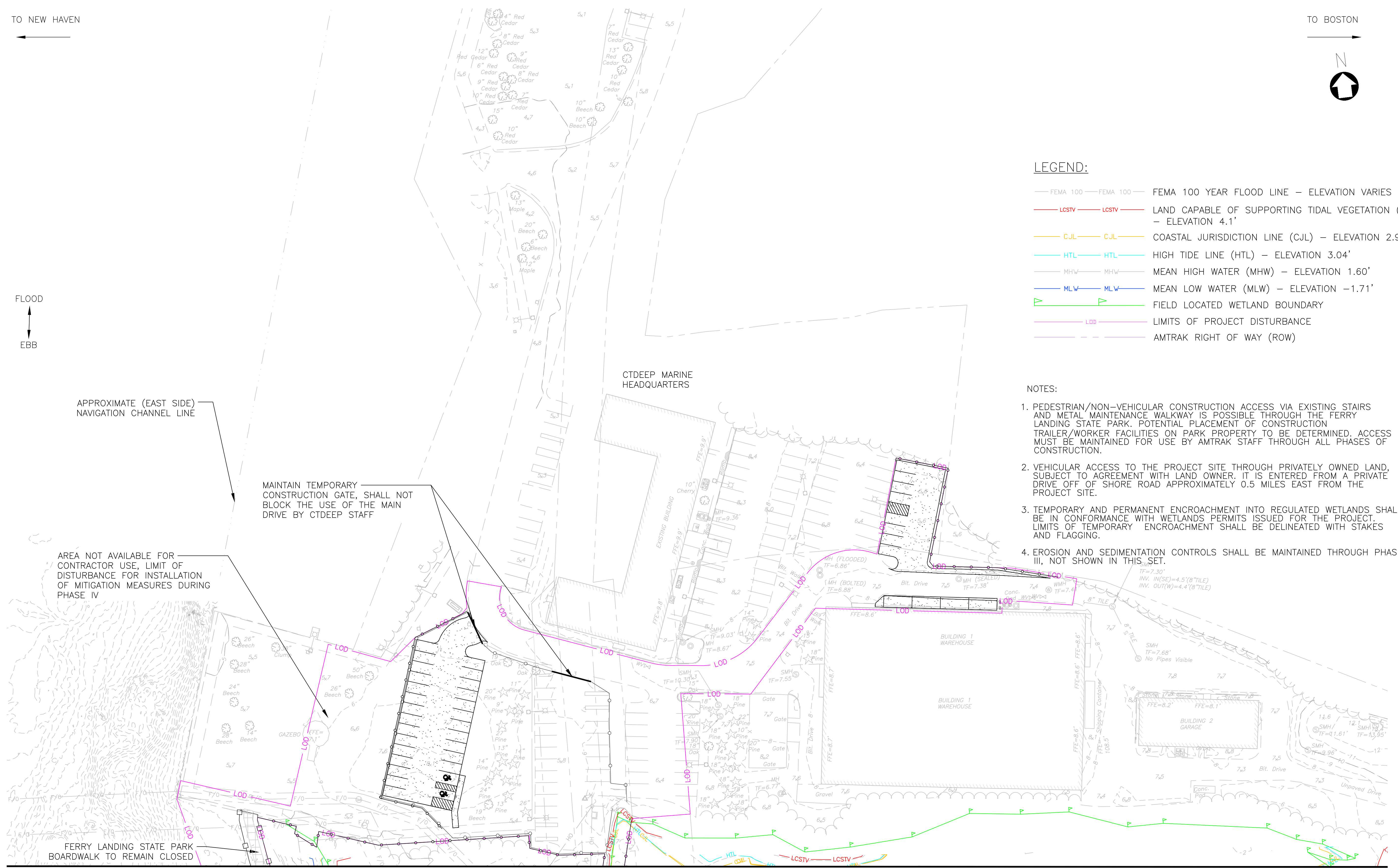
FLOOD  
↑  
EBB

**LEGEND:**

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

**NOTES:**

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.
4. EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED THROUGH PHASES II AND III, NOT SHOWN IN THIS SET.



APPROXIMATE (EAST SIDE) NAVIGATION CHANNEL LINE

MAINTAIN TEMPORARY CONSTRUCTION GATE, SHALL NOT BLOCK THE USE OF THE MAIN DRIVE BY CTDEEP STAFF

AREA NOT AVAILABLE FOR CONTRACTOR USE, LIMIT OF DISTURBANCE FOR INSTALLATION OF MITIGATION MEASURES DURING PHASE IV

FERRY LANDING STATE PARK BOARDWALK TO REMAIN CLOSED

MATCHLINE DWG PH-ICDE-07



FILE NAME: 212004-PH-ICDE-01-PH-ICDE-12.DWG  
PRINT DATE/TIME: 5/2/2023 11:56 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



**Office of Chief Engineer  
STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**WSP**  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER  
STAGING PLAN - PHASE ICDE**

Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 104 OF 140  
Dwg. No. **PH-ICDE-12**

TO NEW HAVEN

TO BOSTON

LEGEND:

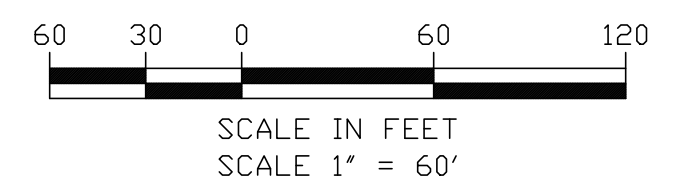
- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATELY QUARRY, SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER, IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROXIMATELY 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

ANY STAGING AREAS AND PATHS TO BE RETURNED TO EXISTING CONDITION AT COMPLETION OF USE

MATCHLINE DWG PH-IV-02



FILE NAME: 217004-PH-IV-01\_PN-IV-12.DWG  
PRINT DATE: 7/16/2023 10:52 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

**STAGING PLAN - PHASE IV**

Designed	CB	Drawn	CB/MD	Checked	KM	Date	5/2/2023
----------	----	-------	-------	---------	----	------	----------

Project Code: XXX XXX

WBS:

Sheet No. 105 OF 140

Dwg. No. **PH-IV-01**



TO NEW HAVEN

TO BOSTON

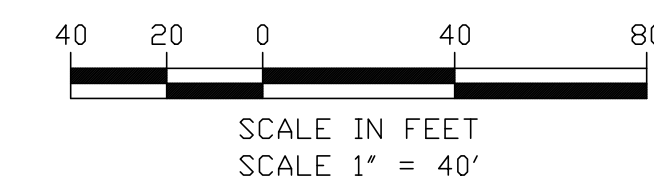
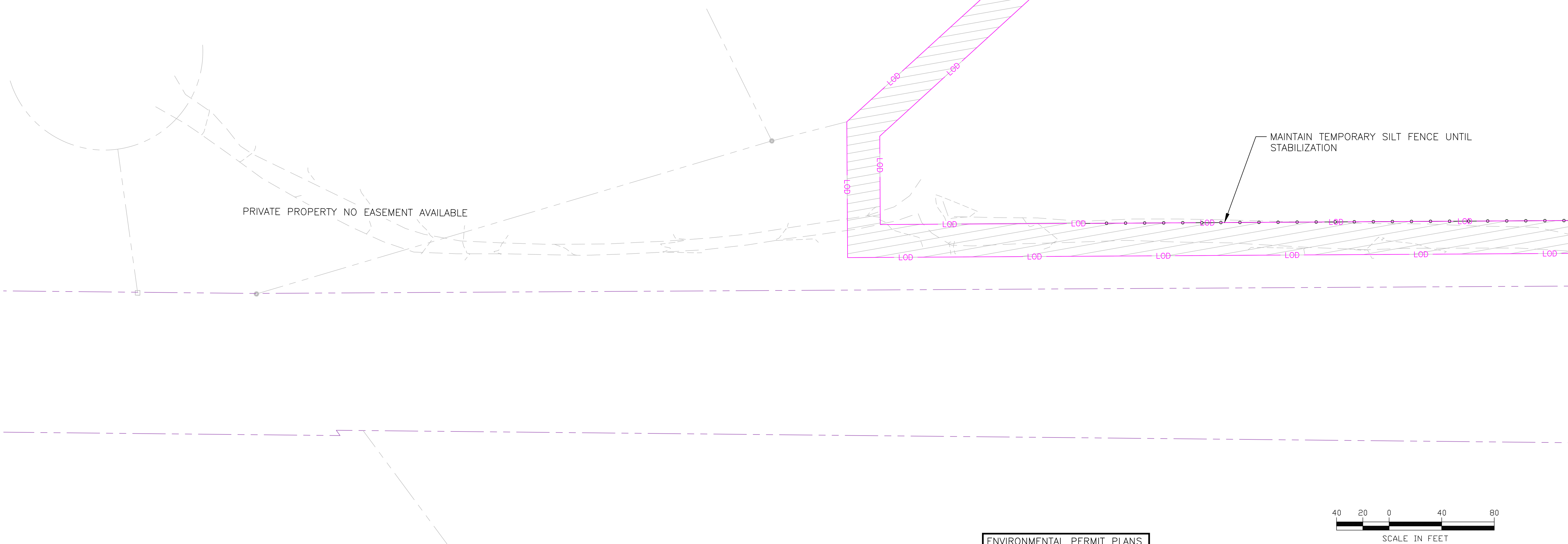
MATCHLINE DWG PH-IV-01

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



MATCHLINE DWG PH-IV-03

FILE NAME: 212004-Ph-IV-01\_Plan-IV-12.DWG  
PRINT DATE: 7/16/2023 10:52 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

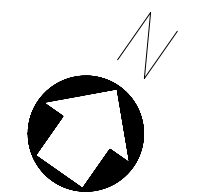
**STAGING PLAN - PHASE IV**

Designed	CB	Drawn	CB/MD	Checked	KM	Date	5/2/2023
----------	----	-------	-------	---------	----	------	----------

Project Code:	XXX XXX
WBS:	
Sheet No.:	106 OF 140
Dwg. No.:	<b>PH-IV-02</b>

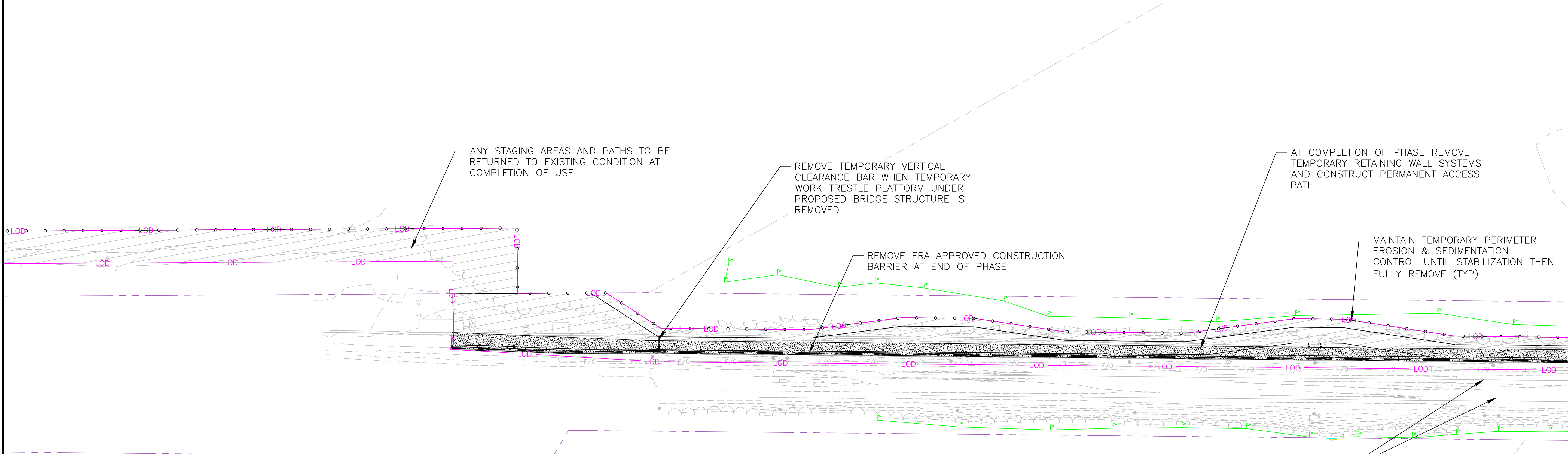
TO NEW HAVEN

TO BOSTON



MATCHLINE DWG PH-IV-02

MATCHLINE DWG PH-IV-04

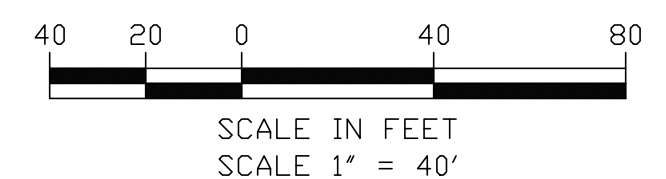


NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CjL — CjL — COASTAL JURISDICTION LINE (CjL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- P — P — FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- — — — — AMTRAK RIGHT OF WAY (ROW)



FILE NAME: 212004-Ph-IV-03\_Plan-03-12.DWG  
PRINT DATE: 7/16/2023 10:52 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

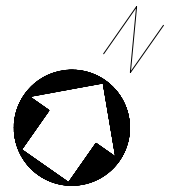
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IV**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 107 OF 140  
Dwg. No. **PH-IV-03**

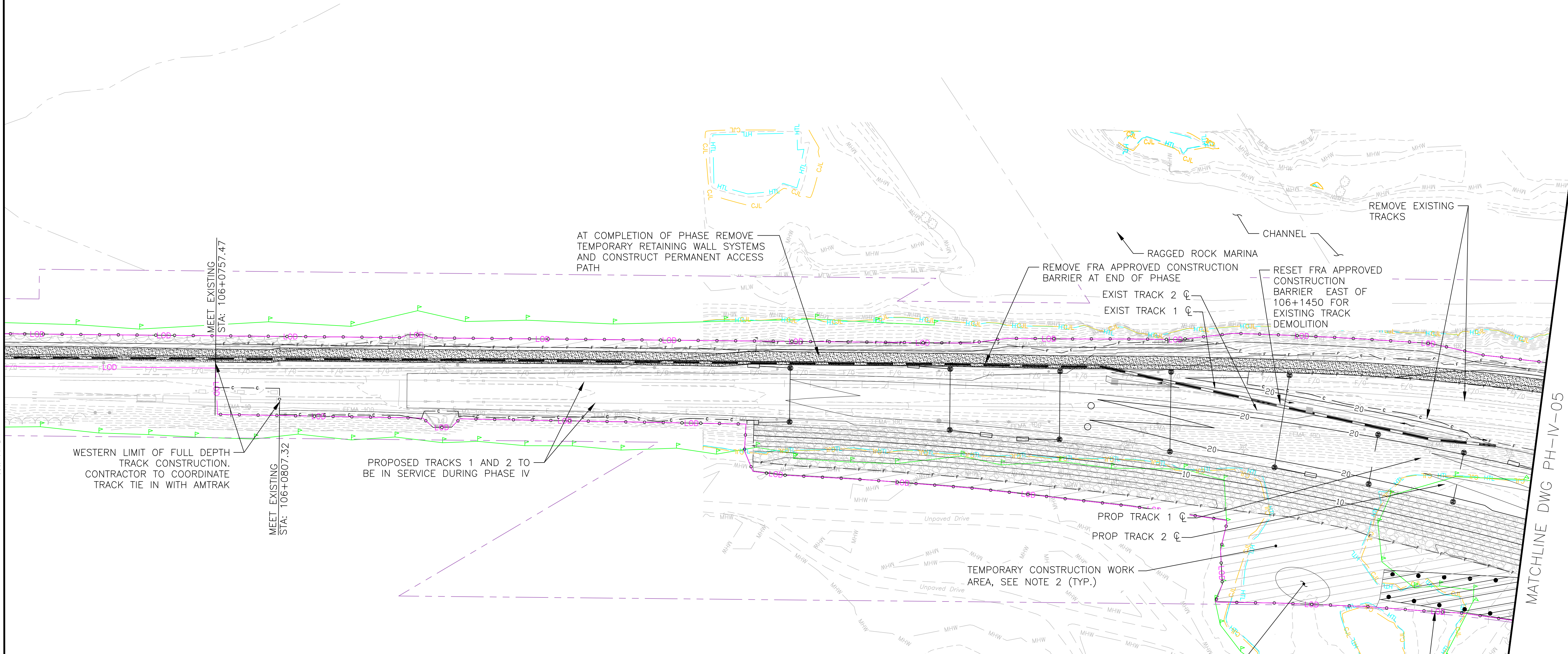
TO NEW HAVEN

TO BOSTON



MATCHLINE DWG PH-IV-03

MATCHLINE DWG PH-IV-05



WESTERN LIMIT OF FULL DEPTH TRACK CONSTRUCTION. CONTRACTOR TO COORDINATE TRACK TIE IN WITH AMTRAK

MEET EXISTING STA: 106+0807.32

PROPOSED TRACKS 1 AND 2 TO BE IN SERVICE DURING PHASE IV

AT COMPLETION OF PHASE REMOVE TEMPORARY RETAINING WALL SYSTEMS AND CONSTRUCT PERMANENT ACCESS PATH

REMOVE FRA APPROVED CONSTRUCTION BARRIER AT END OF PHASE

RESET FRA APPROVED CONSTRUCTION BARRIER EAST OF 106+1450 FOR EXISTING TRACK DEMOLITION

PROP TRACK 1  
PROP TRACK 2

TEMPORARY CONSTRUCTION WORK AREA, SEE NOTE 2 (TYP.)

MAINTAIN TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL UNTIL STABILIZATION THEN FULLY REMOVE (TYP.)

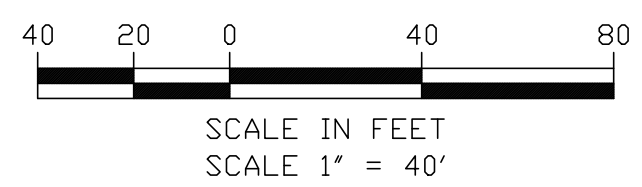
ENVIRONMENTALLY SENSITIVE AREA. GROUND DISTURBANCES IN THIS AREA SHALL BE AVOIDED UNLESS SUBMITTED TO THE ENGINEER AND APPROVED. WHERE PERMITTED, PROPOSED GROUND DISTURBANCES SHALL NOT EXCEED 2 FEET IN DEPTH.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LIMITS OF PROJECT DISTURBANCE
- — — — — AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-Ph-IV-C1\_PN-04-12.DWG  
PRINT DATE/TIME: 6/2/2023 10:52 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



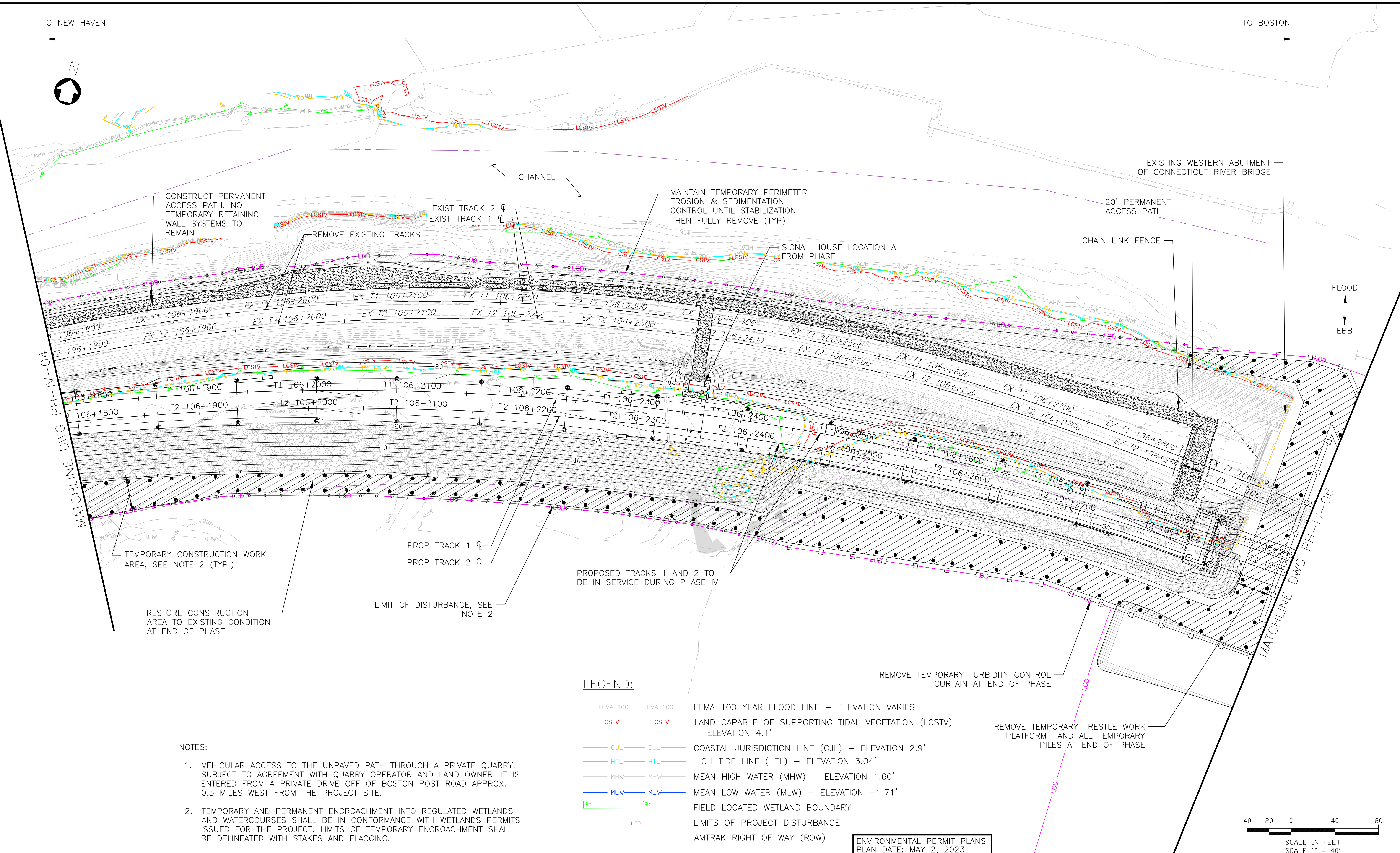
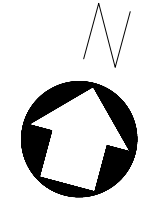
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IV**  
Designed KM Drawn CB Checked KF Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 108 OF 140  
Dwg. No. **PH-IV-04**

TO NEW HAVEN

TO BOSTON



CONSTRUCT PERMANENT ACCESS PATH, NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN

REMOVE EXISTING TRACKS

EXIST TRACK 2

EXIST TRACK 1

MAINTAIN TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL UNTIL STABILIZATION THEN FULLY REMOVE (TYP)

SIGNAL HOUSE LOCATION A FROM PHASE I

EXISTING WESTERN ABUTMENT OF CONNECTICUT RIVER BRIDGE

20' PERMANENT ACCESS PATH

CHAIN LINK FENCE

FLOOD

EBB

MATCHLINE DWG PH-IV-04

MATCHLINE DWG PH-IV-06

TEMPORARY CONSTRUCTION WORK AREA, SEE NOTE 2 (TYP.)

PROP TRACK 1

PROP TRACK 2

PROPOSED TRACKS 1 AND 2 TO BE IN SERVICE DURING PHASE IV

LIMIT OF DISTURBANCE, SEE NOTE 2

RESTORE CONSTRUCTION AREA TO EXISTING CONDITION AT END OF PHASE

REMOVE TEMPORARY TURBIDITY CONTROL CURTAIN AT END OF PHASE

REMOVE TEMPORARY TRESTLE WORK PLATFORM AND ALL TEMPORARY PILES AT END OF PHASE

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- C/JL — C/JL — COASTAL JURISDICTION LINE (C/JL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- LDB — LDB — FIELD LOCATED WETLAND BOUNDARY
- — — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
2. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



SCALE IN FEET  
SCALE 1" = 40'

FILE NAME: 212004-Ph-IV-01-Ph-IV-12.DWG  
PRINT DATE: 7/16/2023 10:53 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IV**  
Designed KM Drawn CB Checked KF Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 109 OF 140  
Dwg. No. **PH-IV-05**

TO NEW HAVEN

TO BOSTON



FLOOD  
↑  
EBB  
↓

LIMIT OF DISTURBANCE (TYP.)  
REMOVE TEMPORARY TRESTLE  
WORK PLATFORM AND ALL  
TEMPORARY PILES AT END OF  
PHASE

DEMOLISH EXISTING  
WEST FENDER

TWO PIERS TO REMAIN

DEMOLISH EXISTING PIERS  
FROM OLD BRIDGE (TYP.)

REMOVE EXISTING BRIDGE

EXIST TRACK 1

EXIST TRACK 2

PROP TRACK 1  
PROP TRACK 2

PROPOSED TRACKS 1 AND 2 TO  
BE IN SERVICE DURING PHASE IV

PROPOSED MOVABLE SPAN  
OF BRIDGE (150 FT)  
TEMPORARY  
MOVABLE SPAN OF  
BRIDGE (134 FT)  
UNTIL WEST  
FENDER REMOVED

BRIDGE EAST FENDER  
FROM PHASE I  
INSTALL BRIDGE  
WEST FENDER

REMOVE TEMPORARY  
TURBIDITY CONTROL  
CURTAIN AT END OF PHASE

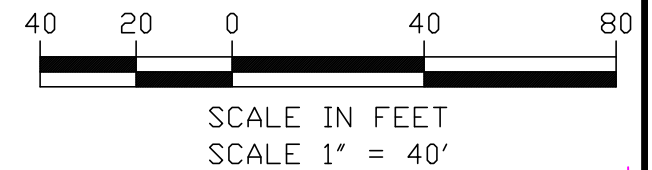
APPROXIMATE (WEST SIDE) NAVIGATION  
CHANNEL LINE

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

MATCHLINE PH-IV-05

MATCHLINE DWG PH-IV-07

FILE NAME: 212004-PH-IV-01\_PN-06-12.DWG  
PRINT DATE: 7/16/2023 10:53 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

**Amtrak®**

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**wsp**  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

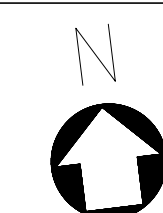
OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

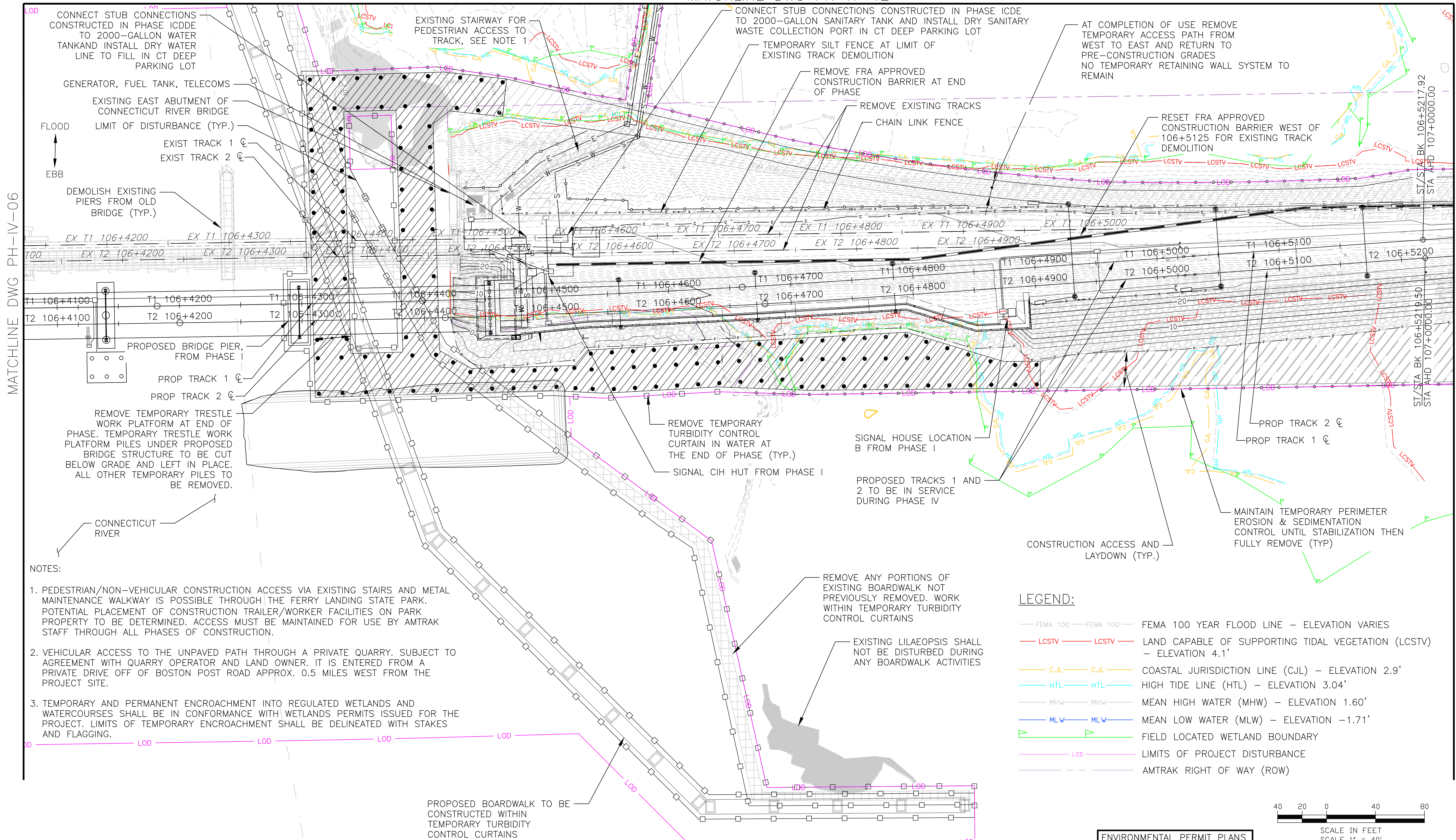
**STAGING PLAN - PHASE IV**

Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 110 OF 140  
Dwg. No. **PH-IV-06**



MATCHLINE DWG PH-IV-12



MATCHLINE DWG PH-IV-06

MATCHLINE DWG PH-IV-08

CONNECT STUB CONNECTIONS CONSTRUCTED IN PHASE ICDDE TO 2000-GALLON WATER TANK AND INSTALL DRY WATER LINE TO FILL IN CT DEEP PARKING LOT

EXISTING STAIRWAY FOR PEDESTRIAN ACCESS TO TRACK, SEE NOTE 1

CONNECT STUB CONNECTIONS CONSTRUCTED IN PHASE ICDE TO 2000-GALLON SANITARY TANK AND INSTALL DRY SANITARY WASTE COLLECTION PORT IN CT DEEP PARKING LOT

AT COMPLETION OF USE REMOVE TEMPORARY ACCESS PATH FROM WEST TO EAST AND RETURN TO PRE-CONSTRUCTION GRADES. NO TEMPORARY RETAINING WALL SYSTEM TO REMAIN

GENERATOR, FUEL TANK, TELECOMS

REMOVE FRA APPROVED CONSTRUCTION BARRIER AT END OF PHASE

REMOVE EXISTING TRACKS

RESET FRA APPROVED CONSTRUCTION BARRIER WEST OF 106+5125 FOR EXISTING TRACK DEMOLITION

EXISTING EAST ABUTMENT OF CONNECTICUT RIVER BRIDGE

CHAIN LINK FENCE

FLOOD LIMIT OF DISTURBANCE (TYP.)

EXIST TRACK 1

EXIST TRACK 2

DEMOLISH EXISTING PIERS FROM OLD BRIDGE (TYP.)

EX T1 106+4200 EX T1 106+4300 EX T1 106+4400 EX T1 106+4500 EX T1 106+4600 EX T1 106+4700 EX T1 106+4800 EX T1 106+4900 EX T1 106+5000

EX T2 106+4200 EX T2 106+4300 EX T2 106+4400 EX T2 106+4500 EX T2 106+4600 EX T2 106+4700 EX T2 106+4800 EX T2 106+4900

T1 106+4100 T1 106+4200 T1 106+4300 T1 106+4400 T1 106+4500 T1 106+4600 T1 106+4700 T1 106+4800 T1 106+4900 T1 106+5000

T2 106+4100 T2 106+4200 T2 106+4300 T2 106+4400 T2 106+4500 T2 106+4600 T2 106+4700 T2 106+4800 T2 106+4900

T1 106+5100 T1 106+5200

T2 106+5100 T2 106+5200

PROPOSED BRIDGE PIER FROM PHASE I

PROP TRACK 1

PROP TRACK 2

REMOVE TEMPORARY TRESTLE WORK PLATFORM AT END OF PHASE. TEMPORARY TRESTLE WORK PLATFORM PILES UNDER PROPOSED BRIDGE STRUCTURE TO BE CUT BELOW GRADE AND LEFT IN PLACE. ALL OTHER TEMPORARY PILES TO BE REMOVED.

REMOVE TEMPORARY TURBIDITY CONTROL CURTAIN IN WATER AT THE END OF PHASE (TYP.)

SIGNAL HOUSE LOCATION B FROM PHASE I

PROPOSED TRACKS 1 AND 2 TO BE IN SERVICE DURING PHASE IV

PROP TRACK 2

PROP TRACK 1

MAINTAIN TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL UNTIL STABILIZATION THEN FULLY REMOVE (TYP)

CONSTRUCTION ACCESS AND LAYDOWN (TYP.)

NOTES:

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

REMOVE ANY PORTIONS OF EXISTING BOARDWALK NOT PREVIOUSLY REMOVED. WORK WITHIN TEMPORARY TURBIDITY CONTROL CURTAINS

EXISTING LILAEOPSIS SHALL NOT BE DISTURBED DURING ANY BOARDWALK ACTIVITIES

PROPOSED BOARDWALK TO BE CONSTRUCTED WITHIN TEMPORARY TURBIDITY CONTROL CURTAINS

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- — — FIELD LOCATED WETLAND BOUNDARY
- — — LIMITS OF PROJECT DISTURBANCE
- — — AMTRAK RIGHT OF WAY (ROW)



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-01-01-01-01-12.DWG  
PRINT DATE/TIME: 6/27/2023 10:53 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



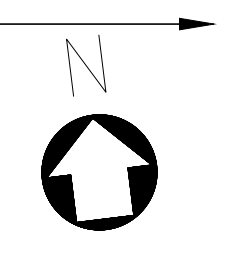
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IV**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 111 OF 140  
Dwg. No. **PH-IV-07**

TO NEW HAVEN

TO BOSTON



REMOVE FRA APPROVED CONSTRUCTION BARRIER AT END OF PHASE  
AT COMPLETION OF USE REMOVE TEMPORARY ACCESS PATH FROM WEST TO EAST AND RETURN TO PRE-CONSTRUCTION GRADES NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN

REMOVE TEMPORARY TURBIDITY CONTROL CURTAIN AT END OF PHASE (TYP.)

REMOVE TEMPORARY TRESTLE BRIDGE ACROSS LIEUTENANT RIVER FROM PHASE I AND RESTORE DISTURBED AREAS TO PRE-CONSTRUCTION GRADES AND SURFACE TYPES

EASTERN LIMIT OF NEW FULL TRACK CONSTRUCTION, CONTRACTOR TO COORDINATE TRACK TIE IN WITH AMTRAK.

LIEUTENANT RIVER  
FLOOD  
EBB

EXIST TRACK 1  
EXIST TRACK 2

PROPOSED TRACKS 1 AND 2 TO BE IN SERVICE DURING PHASE IV

MAINTAIN TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL UNTIL STABILIZATION THEN FULLY REMOVE (TYP.)

MATCHLINE DWG PH-IV-07

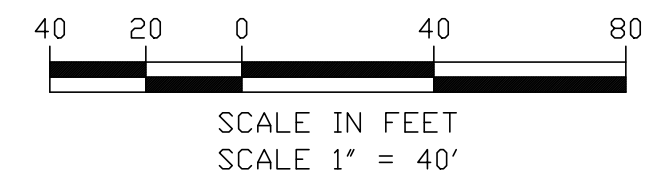
MATCHLINE DWG PH-IV-09

NOTES:

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- [Symbol] — [Symbol] — FIELD LOCATED WETLAND BOUNDARY
- [Symbol] — [Symbol] — LIMITS OF PROJECT DISTURBANCE
- [Symbol] — [Symbol] — AMTRAK RIGHT OF WAY (ROW)



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IV**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 112 OF 140  
Dwg. No. **PH-IV-08**

FILE NAME: 212004-PH-IV-01\_PN-04-12.DWG  
PRINT DATE: 7/16/2023 10:53 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON

MATCHLINE DWG PH-IV-11

MATCHLINE DWG PH-IV-10

MATCHLINE DWG PH-IV-10

AT COMPLETION OF USE REMOVE TEMPORARY ACCESS PATH FROM WEST TO EAST AND RETURN TO PRE-CONSTRUCTION GRADES NO TEMPORARY RETAINING WALL SYSTEMS TO REMAIN

REMOVE TEMPORARY VERTICAL CLEARANCE BAR WHEN TEMPORARY WORK TRELLIS WORK PLATFORM UNDER PROPOSED BRIDGE STRUCTURE IS REMOVED MAINTAIN TEMPORARY PERIMETER EROSION & SEDIMENTATION CONTROL UNTIL STABILIZATION THEN FULLY REMOVE (TYP.) REMOVE FRA APPROVED CONSTRUCTION BARRIER AT END OF PHASE

INDICATIVE LOCATION FOR TEMPORARY CONSTRUCTION LAYDOWN, STORAGE, AND WORKER WELFARE FACILITIES FROM PHASE I. RESTORE TO EXISTING CONDITIONS AT END OF PHASE.

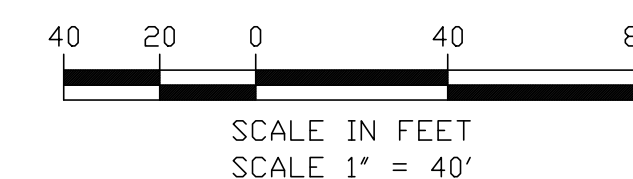
EXISTING TRACKS BACK IN SERVICE DURING PHASE IV

NOTES:

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- Field Located Wetland Boundary
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK ROW — AMTRAK RIGHT OF WAY (ROW)



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
**STAGING PLAN -PHASE IV**  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 113 OF 140  
Dwg. No. **PH-IV-09**

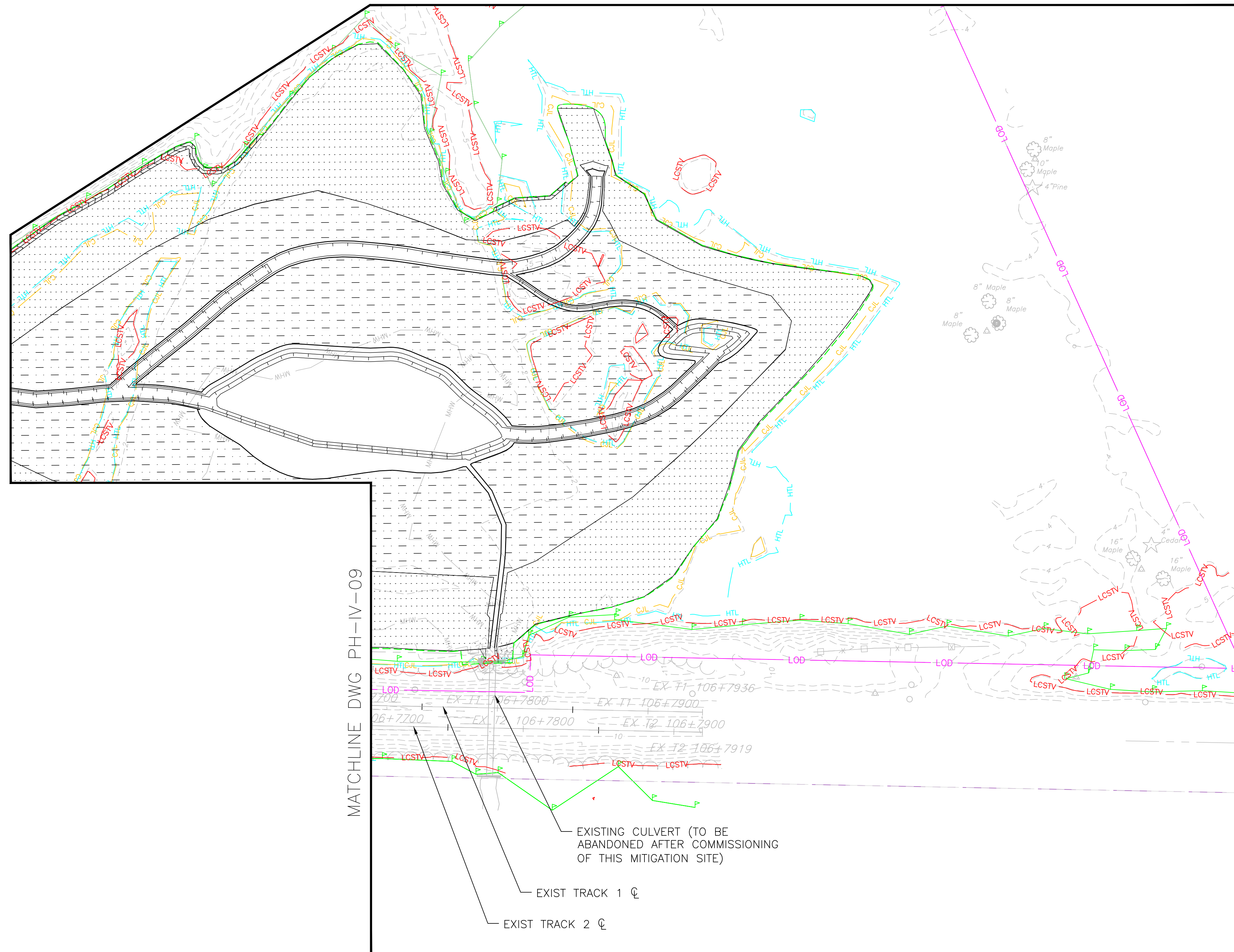
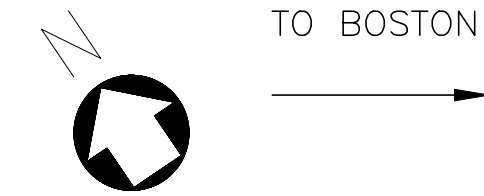
FILE NAME: 212004-Ph-IV-09-11-DWG  
PRINT DATE: 7/18/2023 10:53 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES



TO NEW HAVEN

TO BOSTON

MATCHLINE DWG PH-IV-11



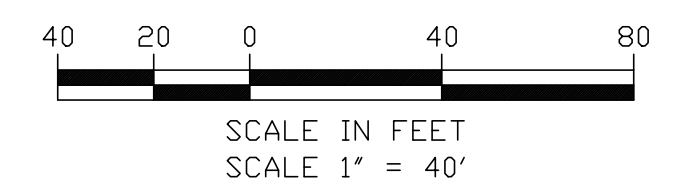
MATCHLINE DWG PH-IV-09

LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

**Amtrak®**

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

**STAGING PLAN -PHASE IV**

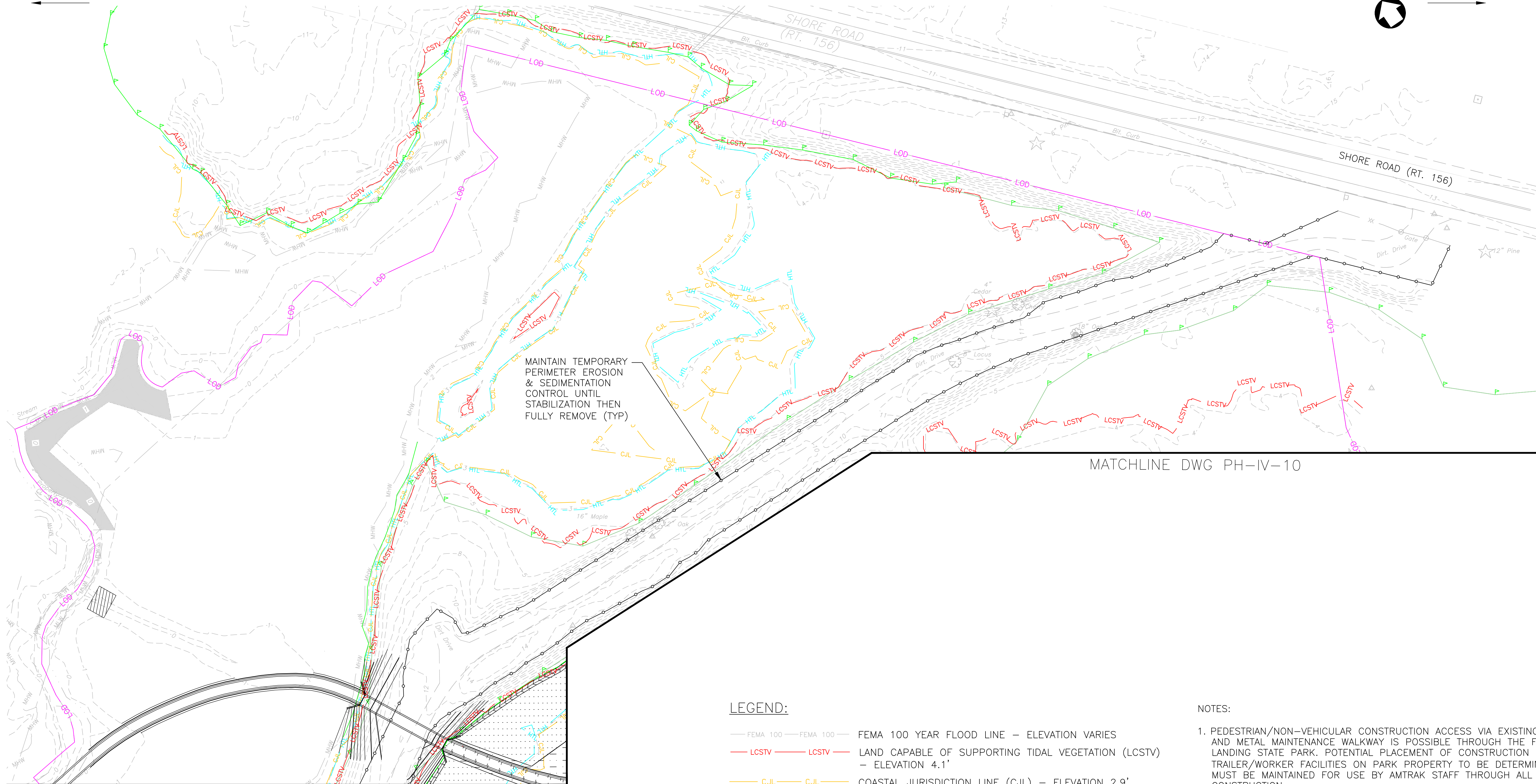
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 114 OF 140  
Dwg. No. **PH-IV-10**

FILE NAME: 212004-PH-IV-C1-PH-IV-11.DWG  
PRINT DATE/TIME: 5/2/2023 10:53 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

TO NEW HAVEN

TO BOSTON

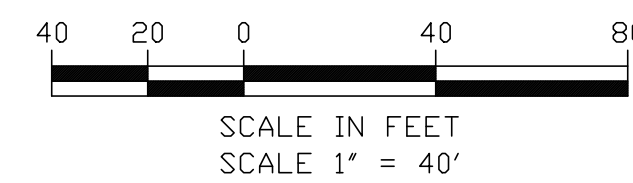


LEGEND:

- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOB — LOB — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE UNPAVED PATH THROUGH A PRIVATE QUARRY. SUBJECT TO AGREEMENT WITH QUARRY OPERATOR AND LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF BOSTON POST ROAD APPROX. 0.5 MILES WEST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



MATCHLINE DWG PH-IV-09

MATCHLINE DWG PH-IV-10

FILE NAME: 217004-Ph-IV-C1-Ph-IV-11.dwg  
PRINT DATE: 7/16/2023 10:54 AM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK		CONNECTICUT		Project Code: XXX XXX
<b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b>		<b>STAGING PLAN -PHASE IV</b>		WBS:
Designed CB	Drawn CB/MD	Checked KM	Date 5/2/2023	Sheet No. 115 OF 140
Dwg. No. <b>PH-IV-11</b>				

TO NEW HAVEN

TO BOSTON

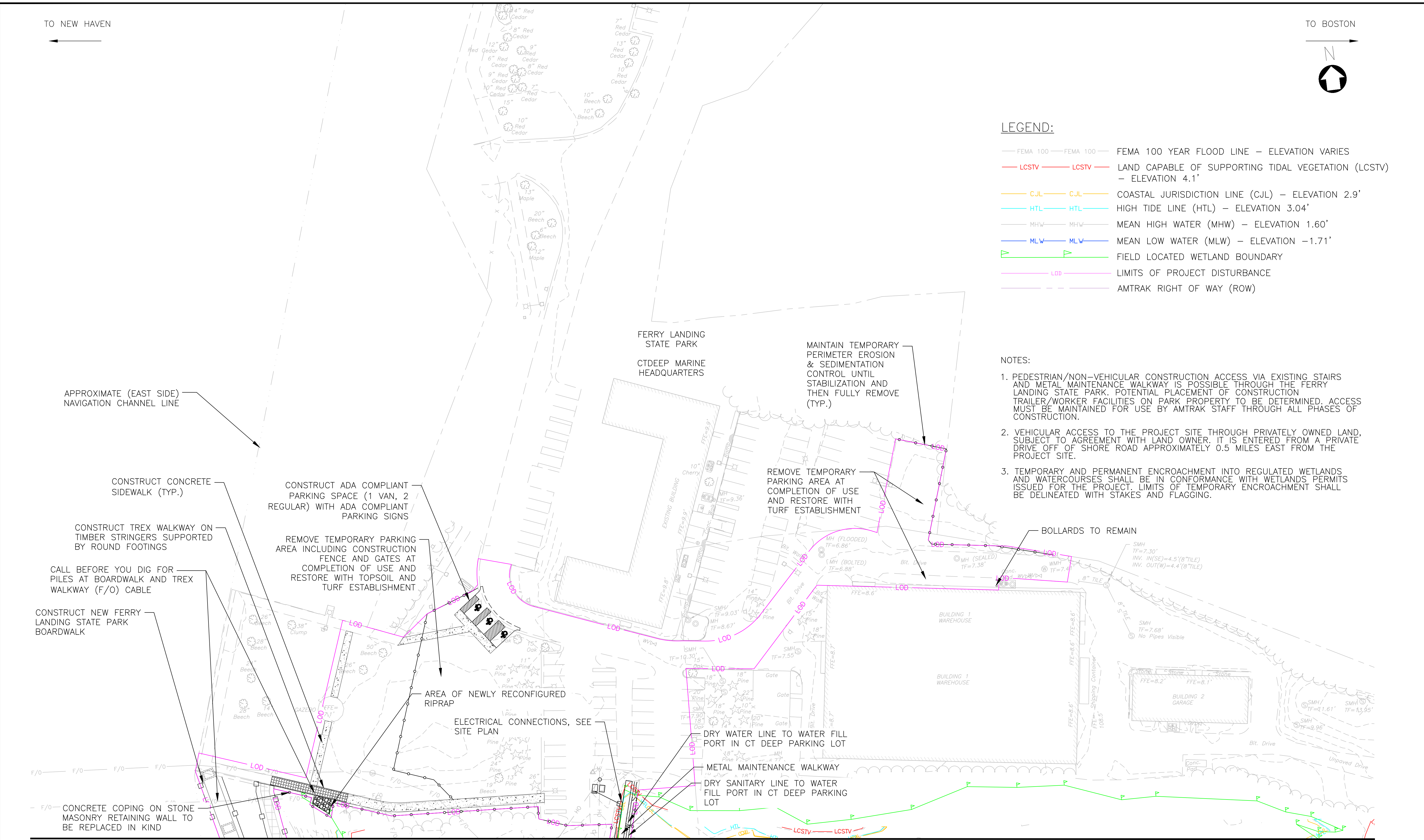


LEGEND:

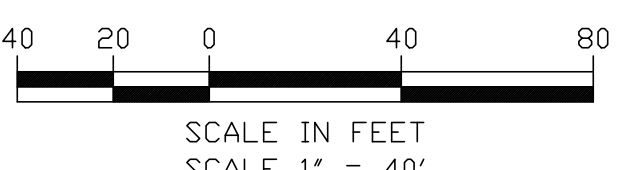
- FEMA 100 — FEMA 100 — FEMA 100 YEAR FLOOD LINE — ELEVATION VARIES
- LCSTV — LCSTV — LAND CAPABLE OF SUPPORTING TIDAL VEGETATION (LCSTV) — ELEVATION 4.1'
- CJL — CJL — COASTAL JURISDICTION LINE (CJL) — ELEVATION 2.9'
- HTL — HTL — HIGH TIDE LINE (HTL) — ELEVATION 3.04'
- MHW — MHW — MEAN HIGH WATER (MHW) — ELEVATION 1.60'
- MLW — MLW — MEAN LOW WATER (MLW) — ELEVATION -1.71'
- FIELD LOCATED WETLAND BOUNDARY
- LOD — LOD — LIMITS OF PROJECT DISTURBANCE
- AMTRAK RIGHT OF WAY (ROW)

NOTES:

1. PEDESTRIAN/NON-VEHICULAR CONSTRUCTION ACCESS VIA EXISTING STAIRS AND METAL MAINTENANCE WALKWAY IS POSSIBLE THROUGH THE FERRY LANDING STATE PARK. POTENTIAL PLACEMENT OF CONSTRUCTION TRAILER/WORKER FACILITIES ON PARK PROPERTY TO BE DETERMINED. ACCESS MUST BE MAINTAINED FOR USE BY AMTRAK STAFF THROUGH ALL PHASES OF CONSTRUCTION.
2. VEHICULAR ACCESS TO THE PROJECT SITE THROUGH PRIVATELY OWNED LAND, SUBJECT TO AGREEMENT WITH LAND OWNER. IT IS ENTERED FROM A PRIVATE DRIVE OFF OF SHORE ROAD APPROXIMATELY 0.5 MILES EAST FROM THE PROJECT SITE.
3. TEMPORARY AND PERMANENT ENCROACHMENT INTO REGULATED WETLANDS AND WATERCOURSES SHALL BE IN CONFORMANCE WITH WETLANDS PERMITS ISSUED FOR THE PROJECT. LIMITS OF TEMPORARY ENCROACHMENT SHALL BE DELINEATED WITH STAKES AND FLAGGING.



MATCHLINE DWG PH-IV-07



FILE NAME: 212004-PH-IV-07\_PN-IV-12.DWG  
 PRINT DATE: 7/18/23 10:54 AM  
 PLOT SCALE: AS NOTED  
 STANDARD PEN TABLE: YES

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
 National Railroad Passenger Corporation  
 30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



ENVIRONMENTAL PERMIT PLANS  
 PLAN DATE: MAY 2, 2023

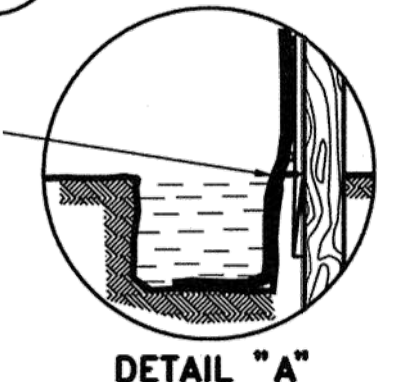
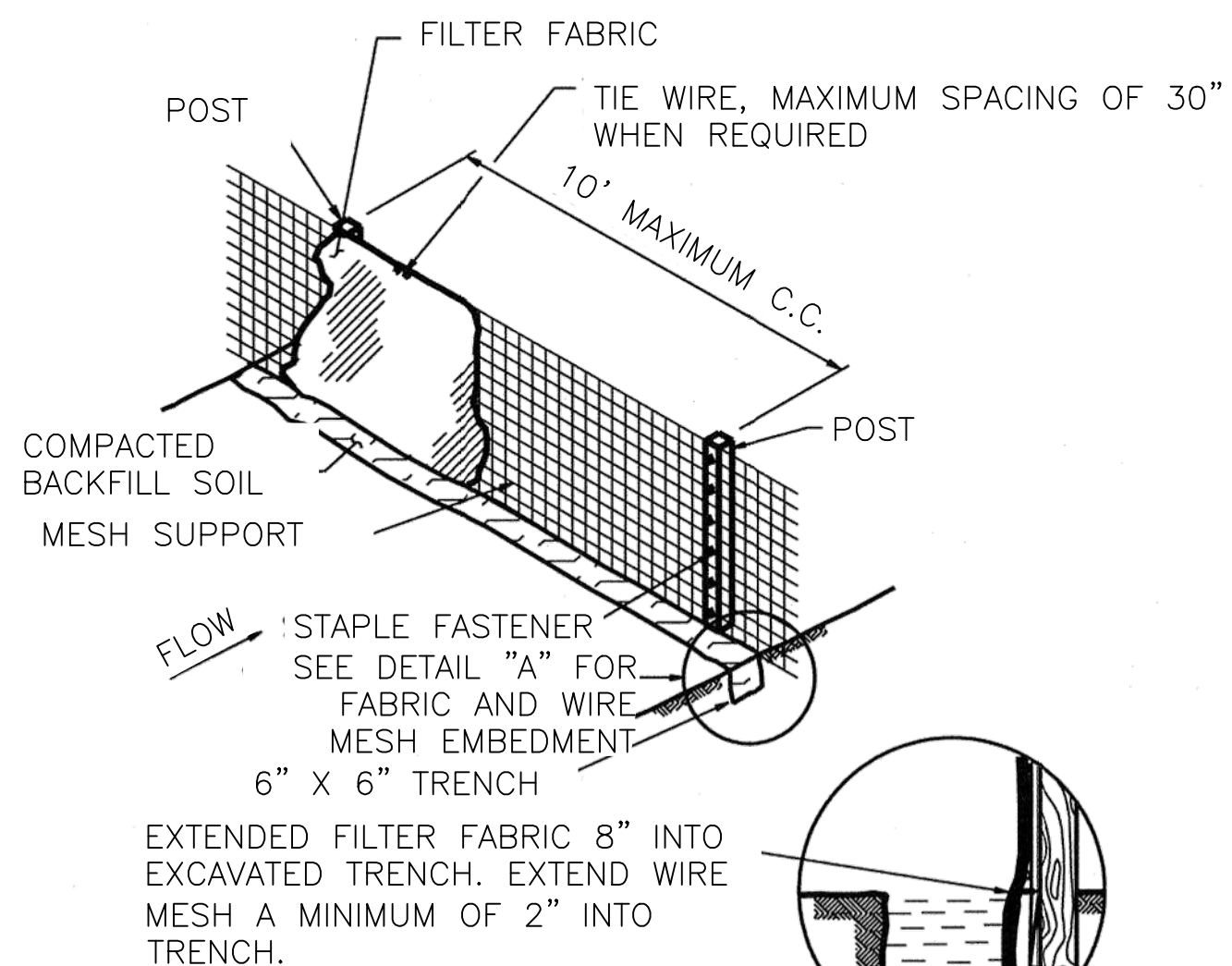
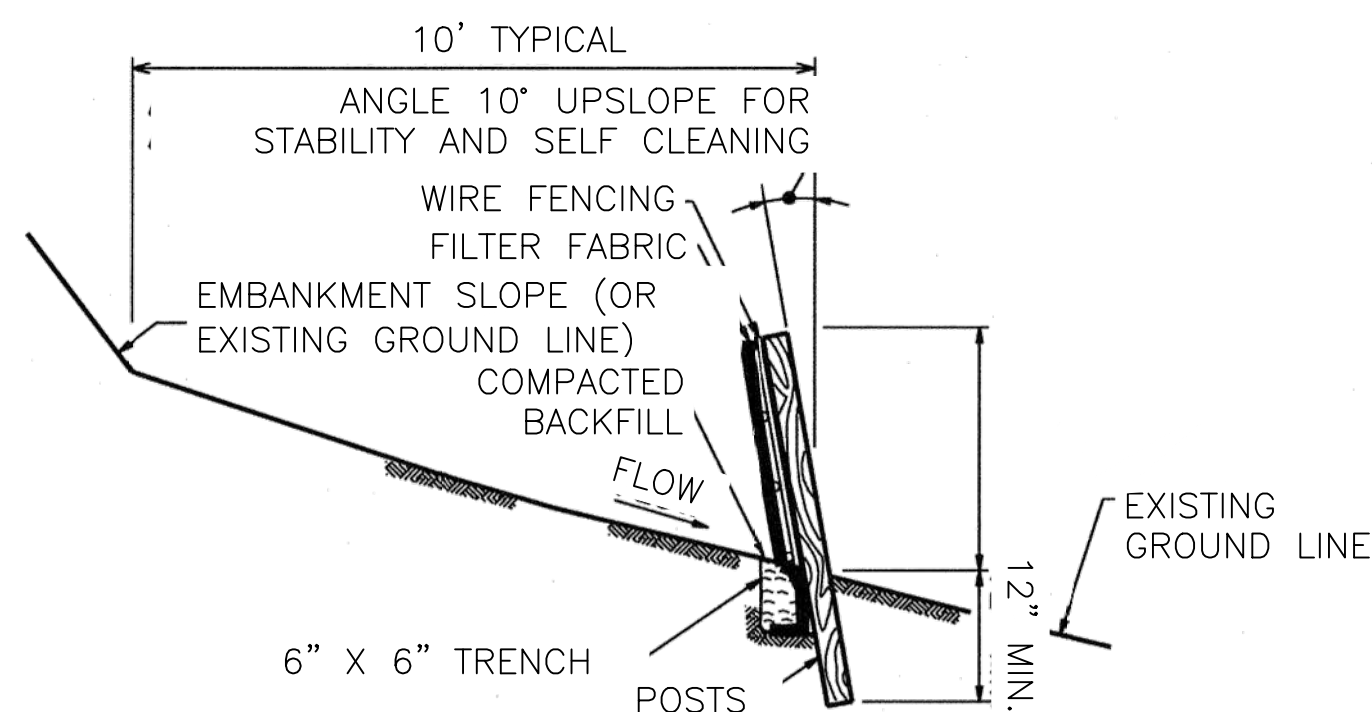
**HARDESTY & HANOVER, LLC**  
 ENGINEERING  
 1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
 Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
 OVER CONNECTICUT RIVER**  
**STAGING PLAN - PHASE IV**  
 Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
 WBS:  
 Sheet No. 116 OF 140  
 Dwg. No. **PH-IV-12**

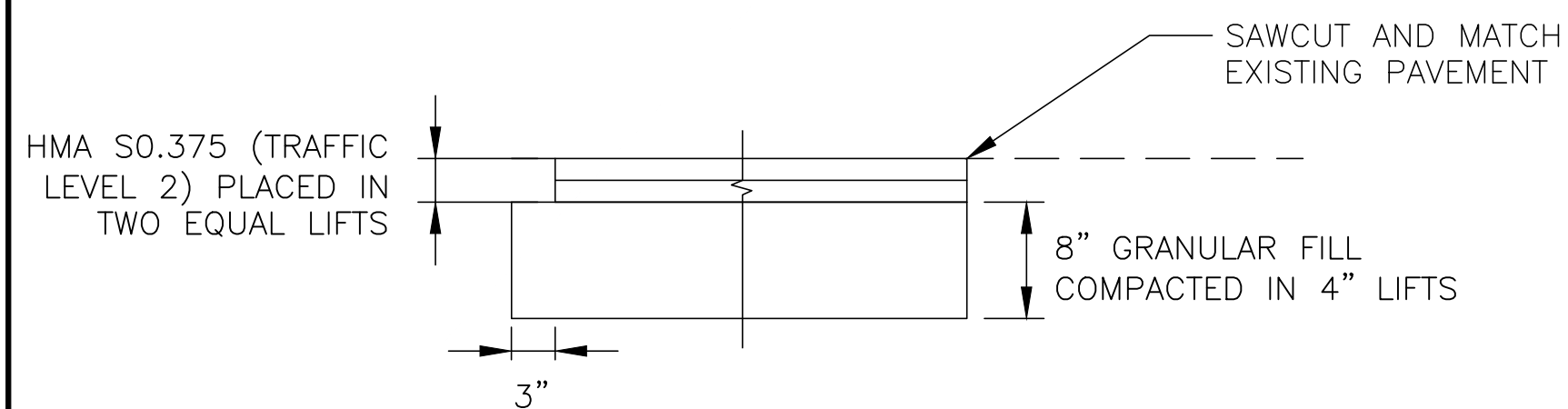
**EROSION AND SEDIMENTATION CONTROL PLAN NOTES**

- A. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE GENERAL SITE DISTURBANCE WITHIN THE TRIBUTARY AREAS OF THOSE CONTROLS.
- B. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.
- C. EROSION AND SEDIMENTATION CONTROLS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES IN ACCORDANCE SPECIFICATION 1399.1.11.
- D. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.
- E. THE CONTRACTOR MUST DEVELOP, AND HAVE APPROVED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, A SEPARATE EROSION AND SEDIMENTATION CONTROL PLAN FOR EACH SPOIL, BORROW, OR OTHER WORK AREA NOT DETAILED IN THE PERMITTED PLAN, WHETHER LOCATED WITHIN OR OUTSIDE OF THE CONSTRUCTION LIMITS.
- F. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE ALL SUCH PROBLEMS.
- G. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED PER PERMIT REQUIREMENTS.
- H. EROSION AND SEDIMENTATION CONTROLS SHALL CONFORM TO THE REQUIREMENTS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL. CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION (GUIDELINES)."

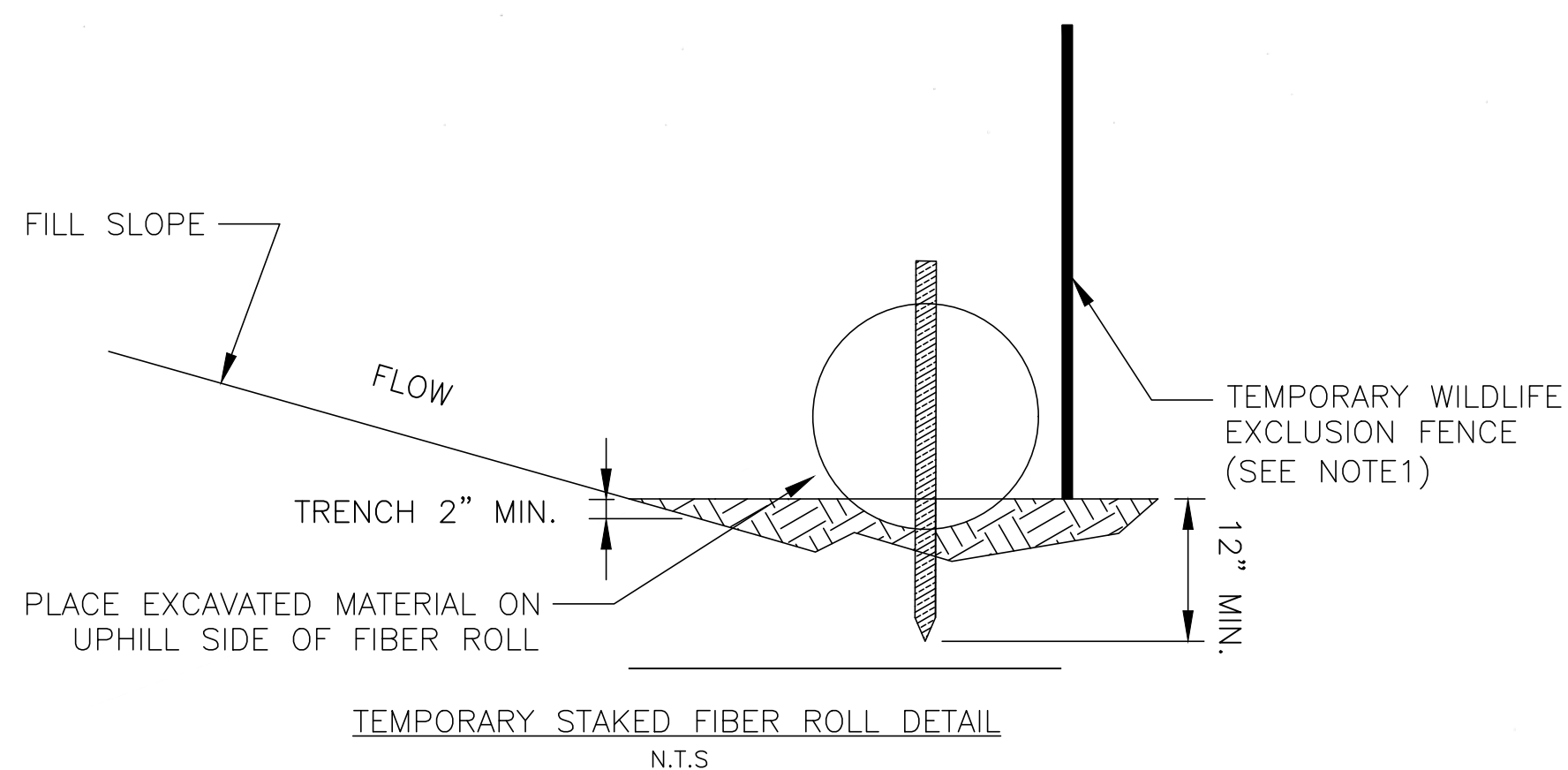


SEE CONSTRUCTION GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL (2002) FOR ADDITIONAL FILTER FENCE REQUIREMENTS.

**TEMPORARY SILT FENCE DETAIL**  
N.T.S.

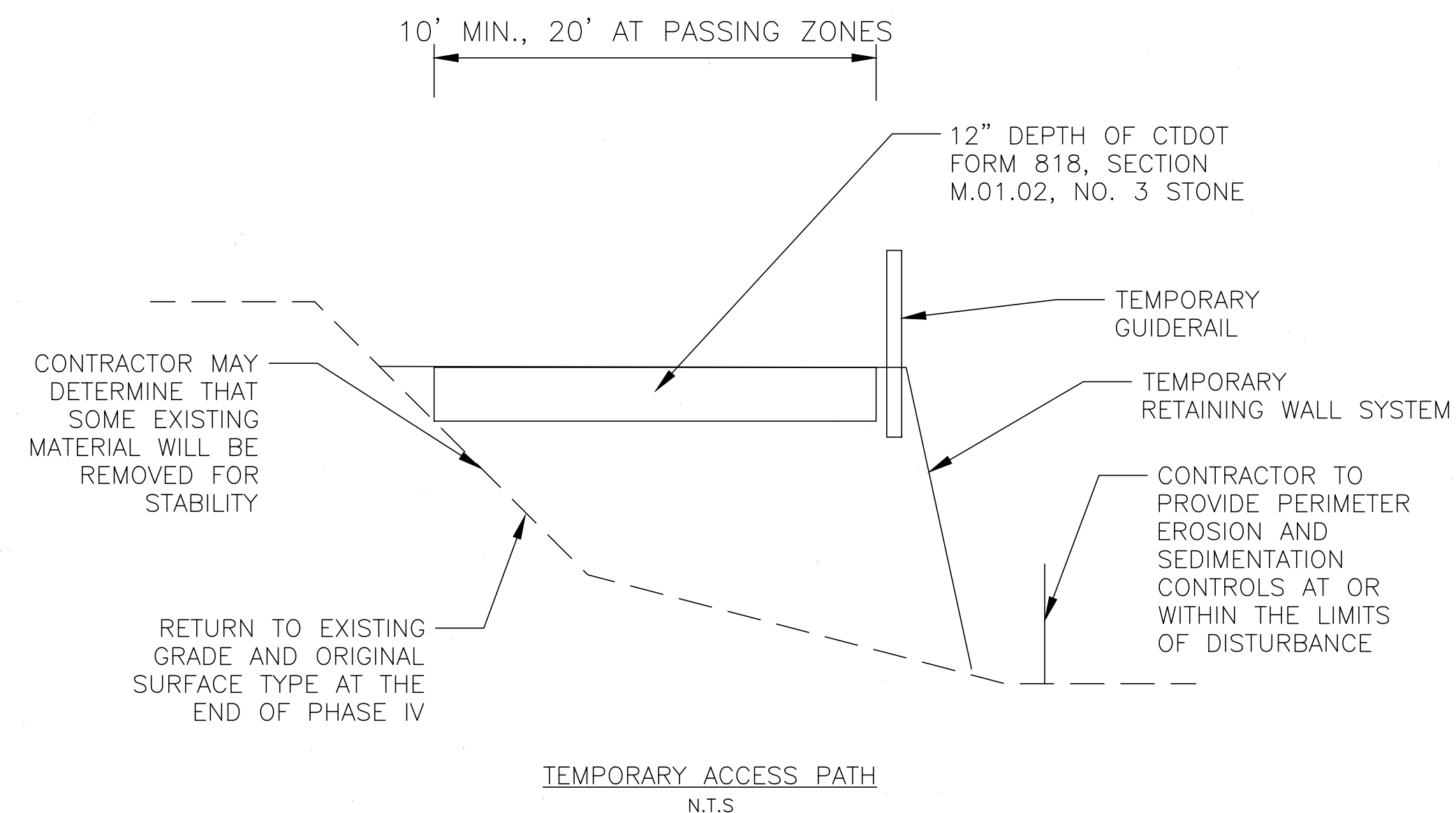


**TEMPORARY PARKING**  
N.T.S.

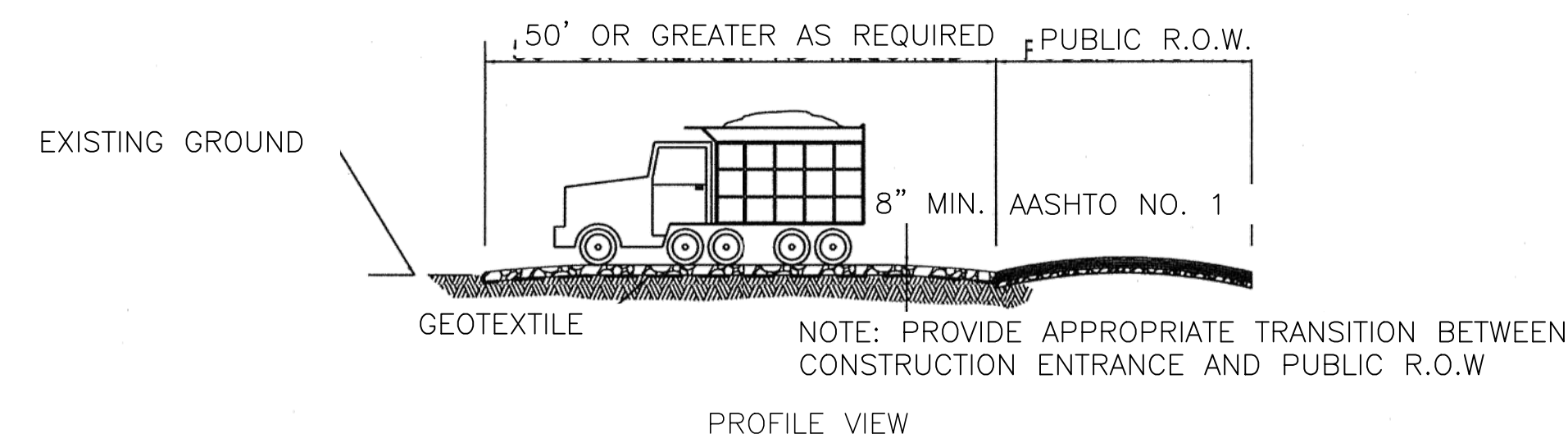


NOTE:  
1. USE TEMPORARY STAKED FIBER ROLL WITH TEMPORARY WILDLIFE EXCLUSION FENCE WHERE REQUIRED BY PERMITS.

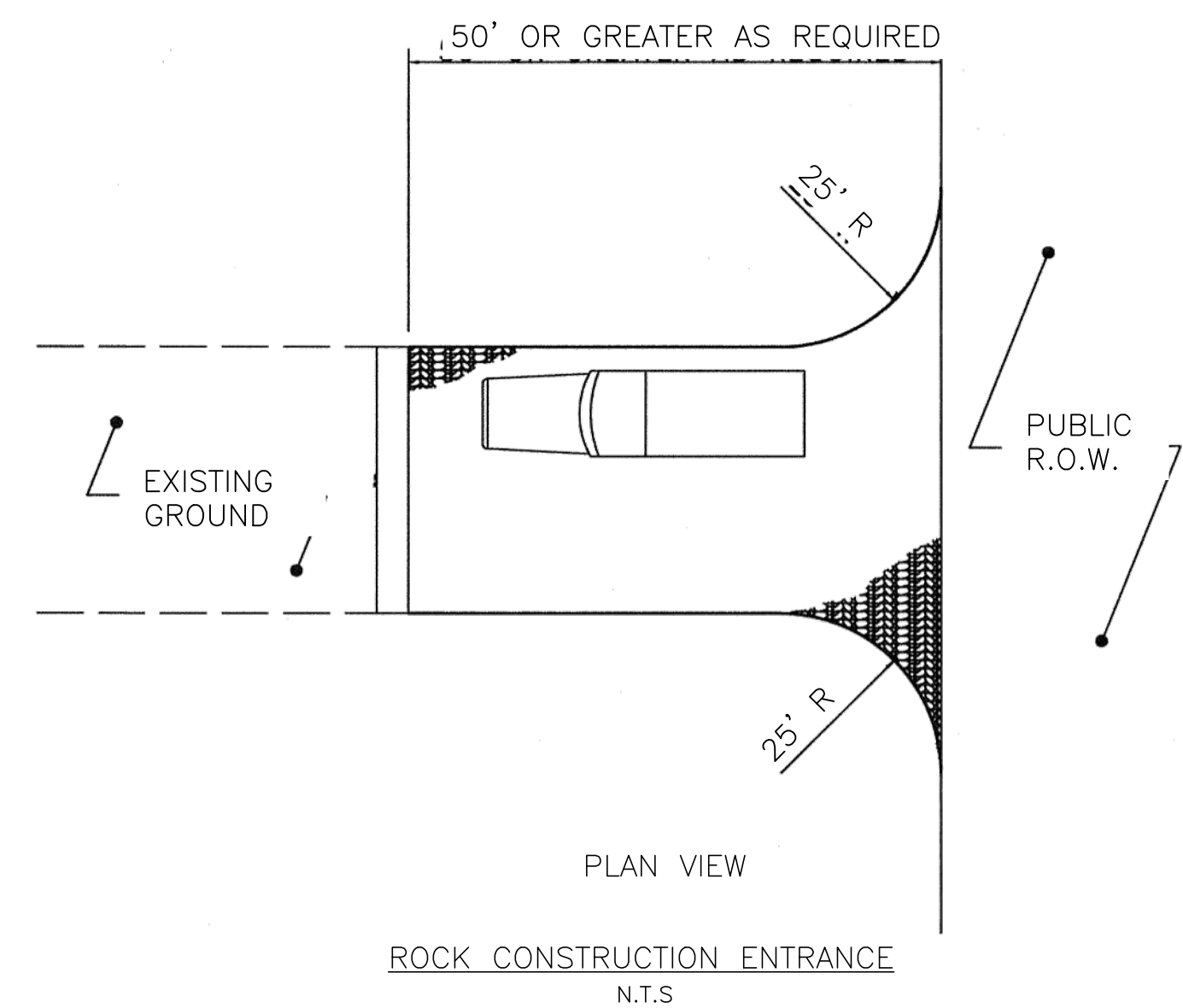
**TEMPORARY STAKED FIBER ROLL DETAIL**  
N.T.S.



NOTE:  
1. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ANY BORINGS NECESSARY TO FACILITATE THE DESIGN OF THE TEMPORARY RETAINING WALL SYSTEMS.



**PROFILE VIEW**



**PLAN VIEW**

**ROCK CONSTRUCTION ENTRANCE**  
N.T.S.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

**Amtrak**<sup>®</sup>  
This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved \_\_\_\_\_ Date \_\_\_\_\_

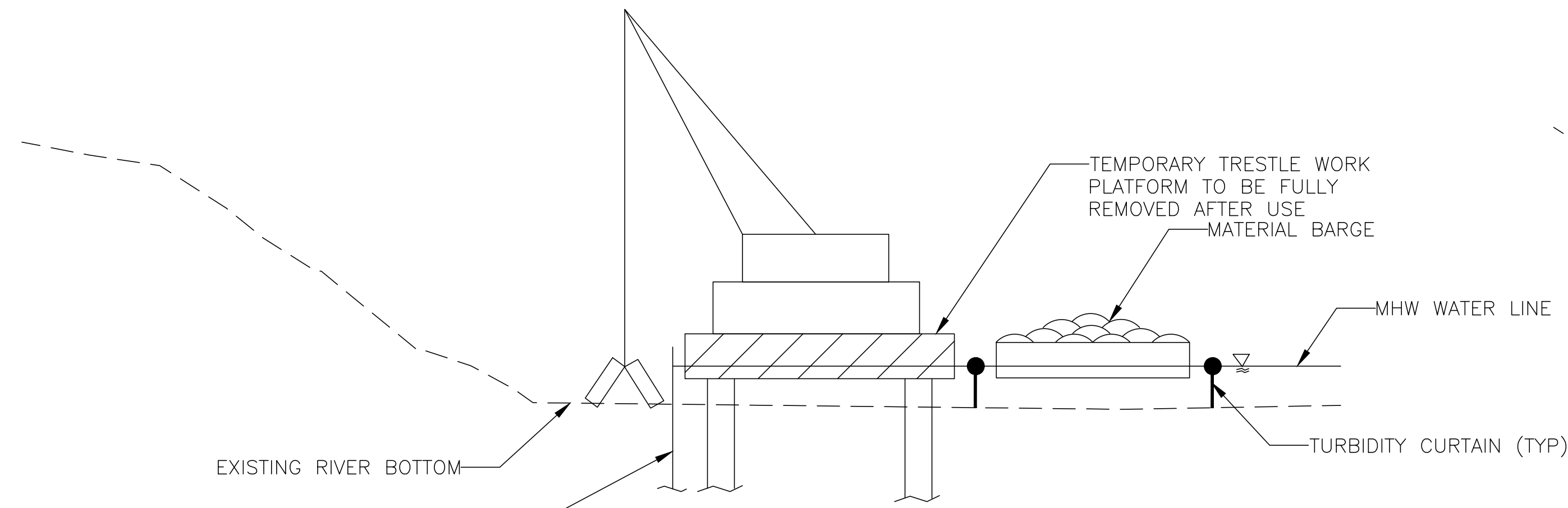
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

STATE OF CONNECTICUT  
KARI F. FAY  
35227  
LICENSED PROFESSIONAL ENGINEER

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
CIVIL DETAILS  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS: \_\_\_\_\_  
Sheet No. 117 OF 140  
Dwg. No. **DTL-01**

FILE NAME: 217004-DTL-01.rvt  
PRINT DATE: 7/16/2023 6:19 PM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

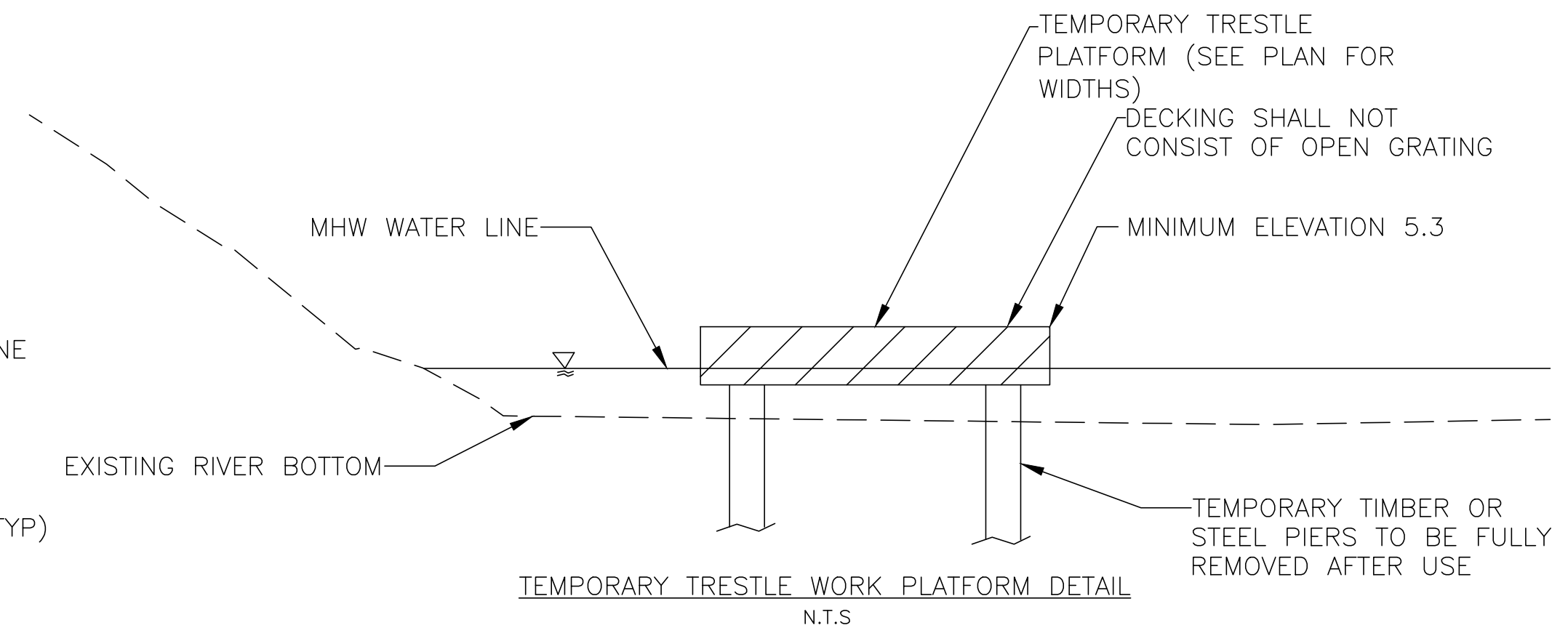


TEMPORARY EARTH RETAINING SYSTEM FOR SCOUR PROTECTION EXCAVATION TO BE FULLY REMOVED AFTER USE

**DREDGING OPERATION OFF TRESTLE WORK PLATFORM**  
N.T.S

NOTE:

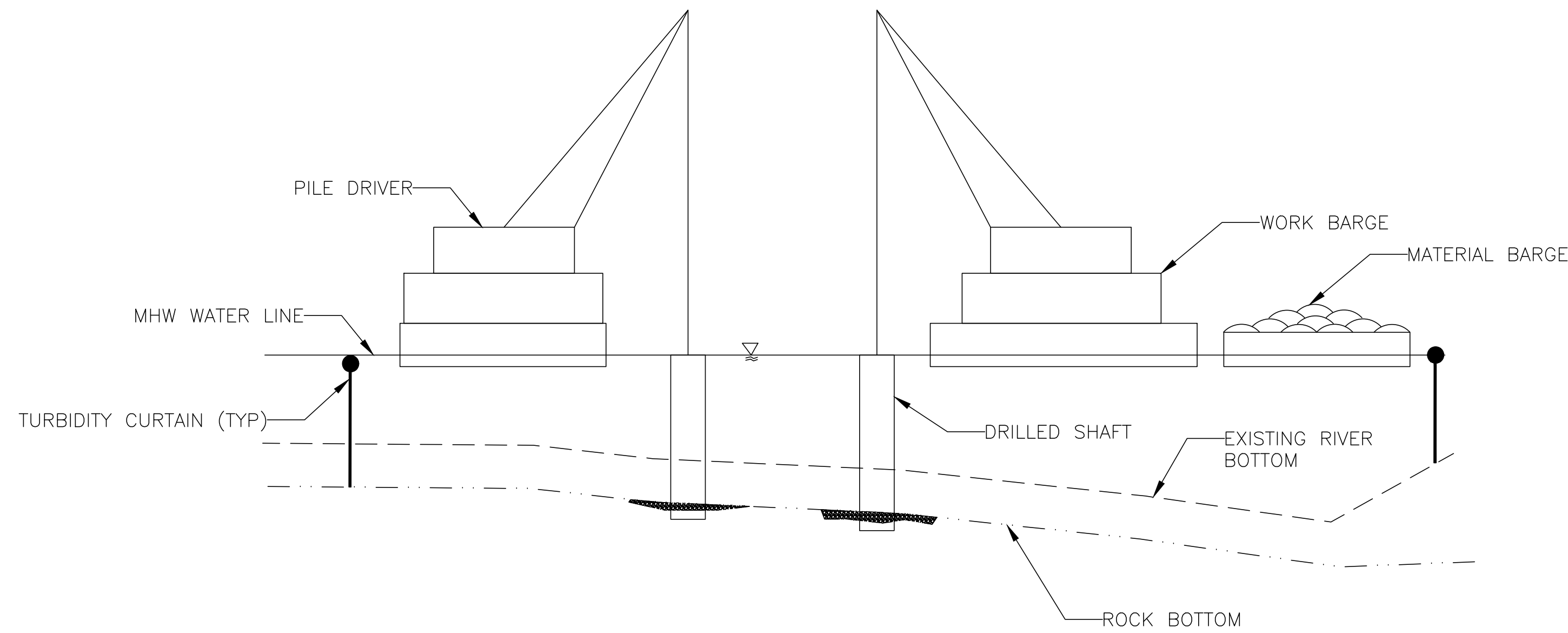
1. MATERIAL TO BE PLACED ON MATERIAL BARGE, AS SHOWN, OR ON CONSTRUCTION VEHICLES LOCATED ON TRESTLE WORK PLATFORM, NOT SHOWN.



**TEMPORARY TRESTLE WORK PLATFORM DETAIL**  
N.T.S

NOTES:

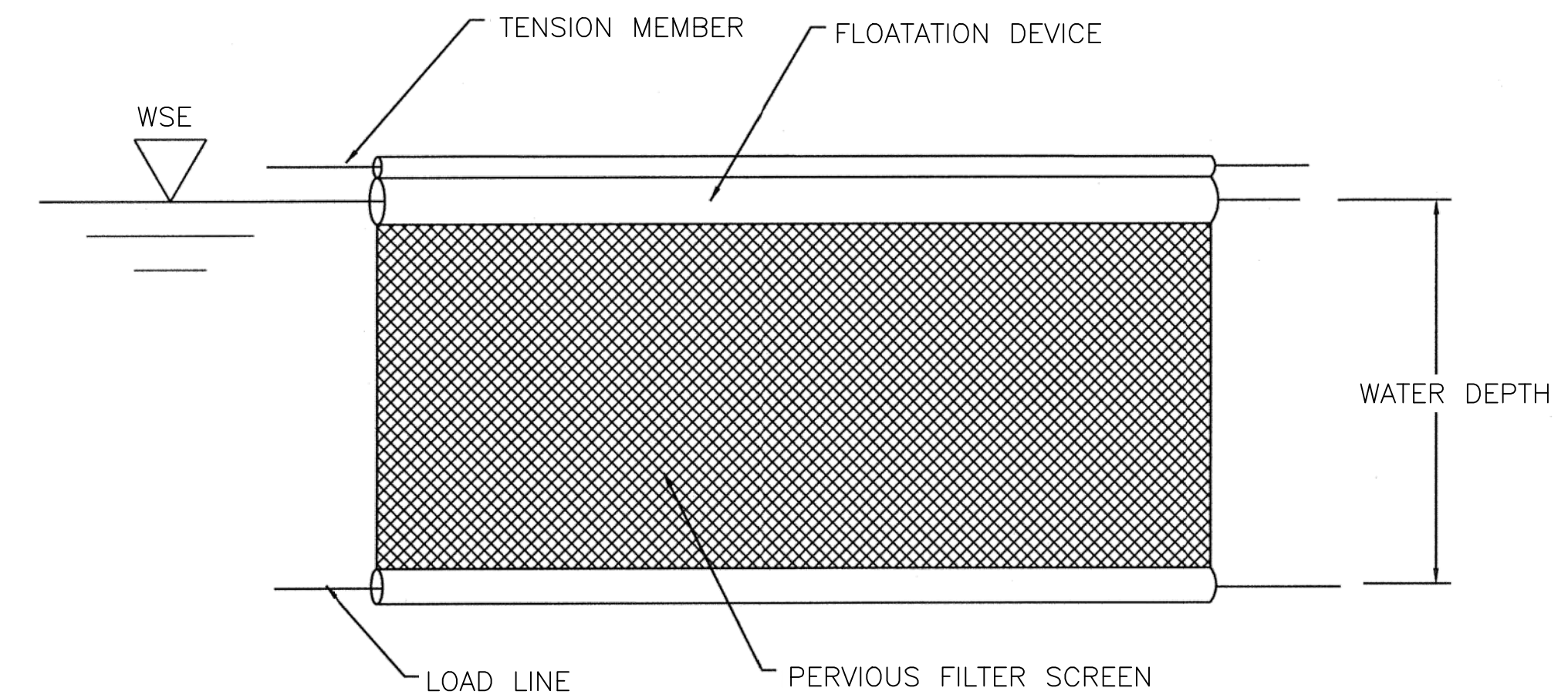
1. INSTALLATION TO OCCUR BEHIND TURBIDITY CURTAINS.
2. TEMPORARY PILES INSTALLED IN VICINITY OF EXISTING BRIDGE FOUNDATION OR BOARDWALK SHALL BE LOCATED SO AS TO AVOID POTENTIAL CONFLICTS WITH EXISTING PILES AND OTHER OBSTRUCTIONS ABOVE OR BELOW.
3. SIZE OF PIERS, SPACING OF PIERS, AND DEPTH OF SUBSTRUCTURE (DEFINING LOW CHORD) TO BE DESIGNED BY CONTRACTOR. TOTAL NUMBER OF PIERS TO BE NO MORE THAN THOSE SHOWN ON PERMIT PLANS.
4. TEMPORARY TRESTLE WORK PLATFORM TO BE REMOVED IN FULL AFTER COMPLETION OF USE FOR CONSTRUCTION ACCESS AND SITE RESTORED TO PRE-EXISTING CONDITIONS.
5. CONTRACTOR TO CONFIRM AVAILABLE VERTICAL CLEARANCE UNDER EXISTING BRIDGE SUPERSTRUCTURE AND PROPOSED BRIDGE SUPERSTRUCTURE. INSTALLATION AT ELEVATION 5.30 WILL PROVIDE APPROXIMATELY 14'-0" UNDER EXISTING BRIDGE STRUCTURE AND APPROXIMATELY 10'-6" UNDER PROPOSED BRIDGE SUPERSTRUCTURE.



**DREDGING OPERATION OFF OF WORK BARGE**  
N.T.S

NOTE:

1. SEE SC-01 THROUGH SC-05 FOR ADDITIONAL WORK BARGE INFORMATION.



**TURBIDITY CONTROL CURTAIN DETAIL**  
N.T.S

TURBIDITY CURTAIN TO MEET CTDEEP CLASS IV STANDARDS

NOTES:

1. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS.

PHYSICAL PROPERTY	REQUIREMENTS
FILTERING EFFICIENCY	75% (MIN.)
TENSILE STRENGTH AT 20% (MAX.) ELONGATION	EXTRA STRENGTH - 50 lbs./ lin. in. (MIN.) STANDARD STRENGTH - 30 lbs./ lin. in. (MIN.)
FLOW RATE	0.3 gal./sq. ft./ (MIN.)

2. PROVIDE FILTER FABRIC ALONG ALL INTERFACE AREAS WITH GROUND CONTACT.

FILE NAME: 217004-DTL-PWS  
PRINT DATE: 7/16/23 6:19 PM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

**Amtrak®**  
This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

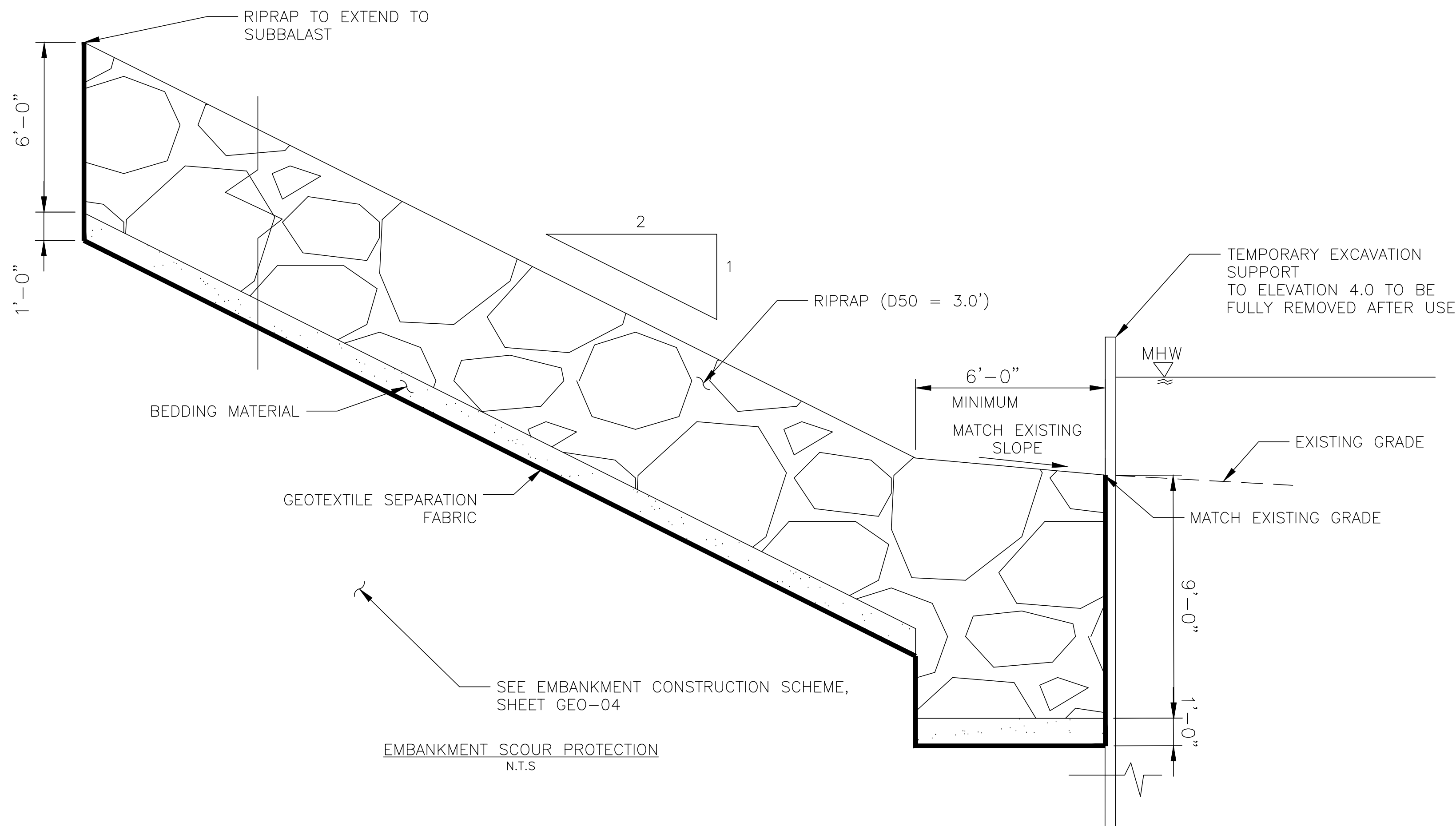
Approved	Date



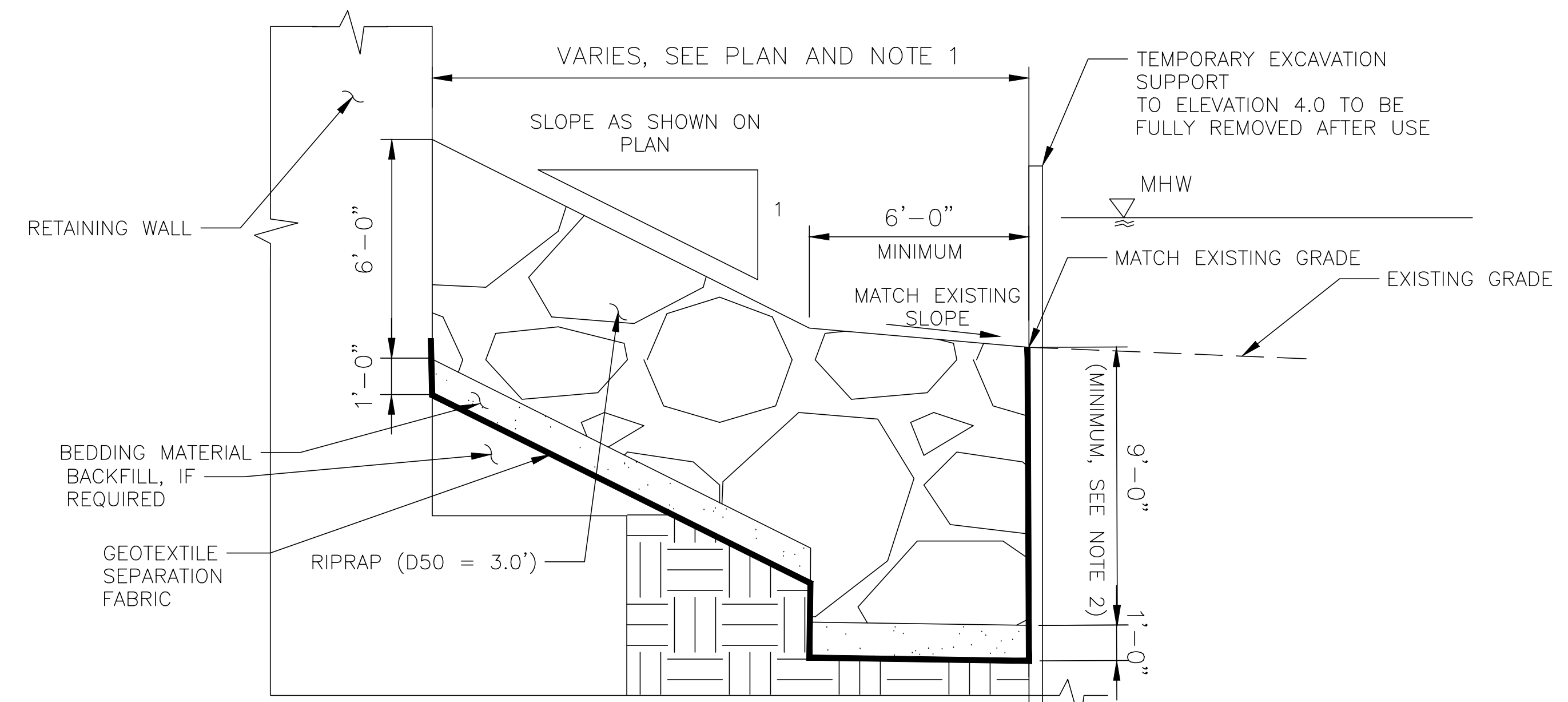
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
CIVIL DETAILS  
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code: XXX XXX  
WBS:  
Sheet No. 118 OF 140  
Dwg. No. **DTL-02**

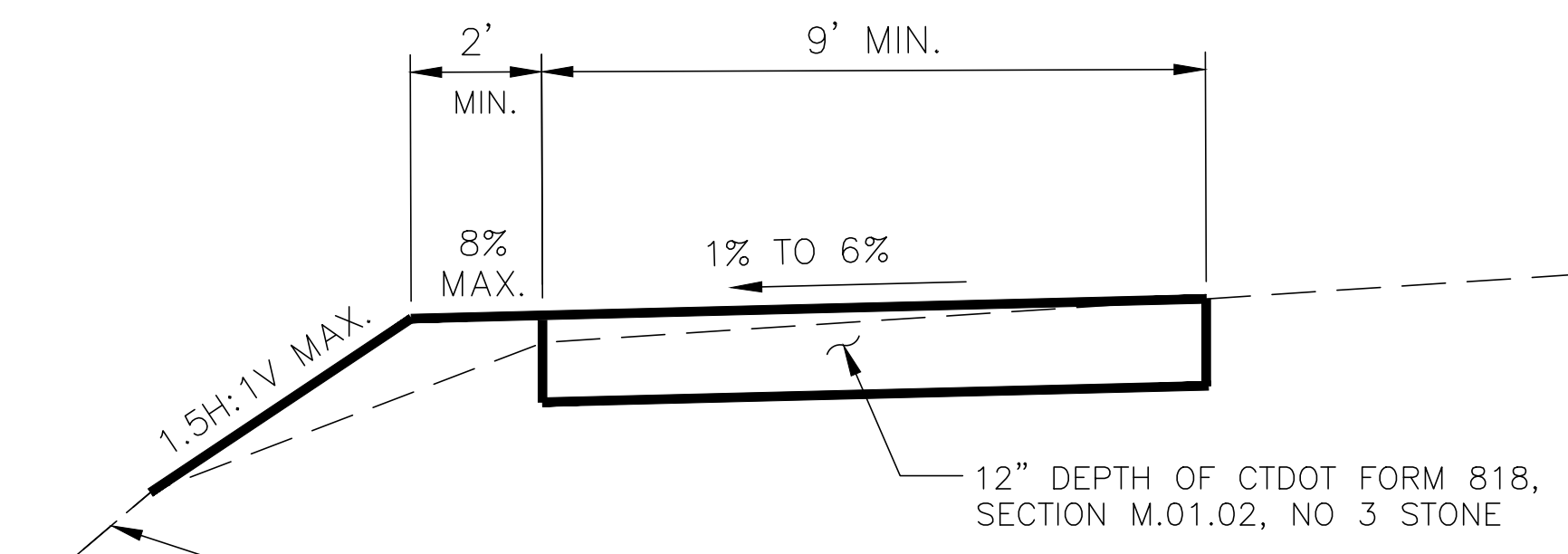


EMBANKMENT SCOUR PROTECTION  
N.T.S



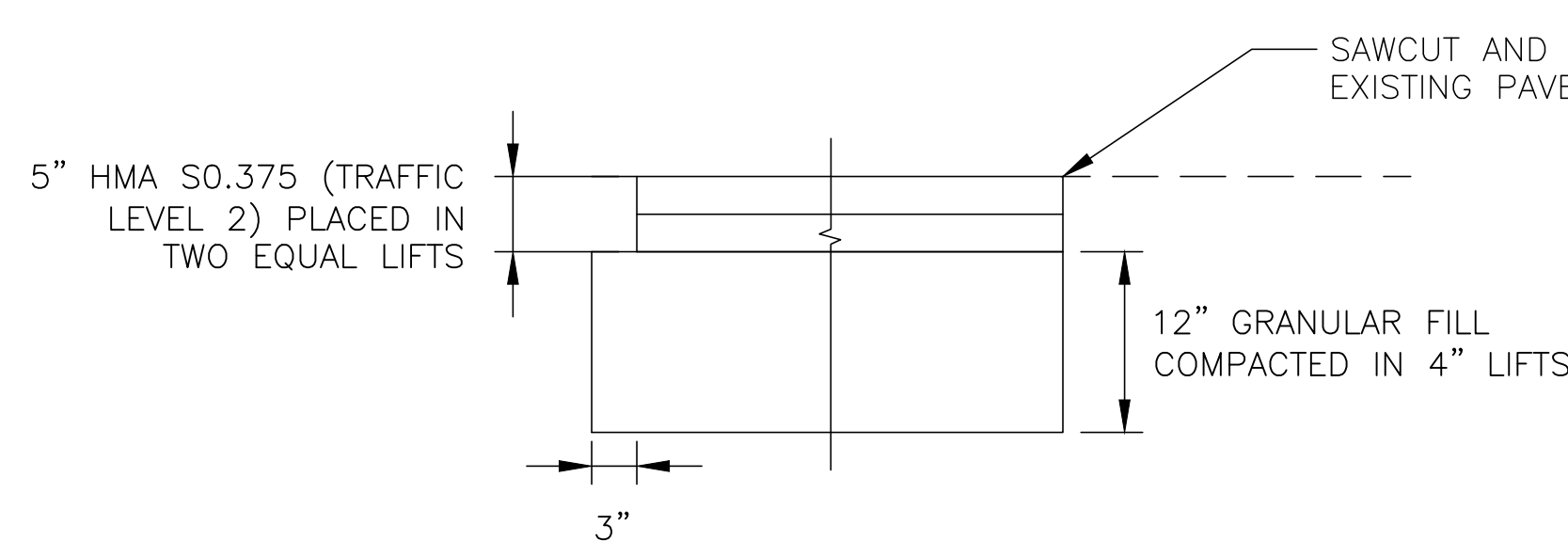
TYPICAL SCOUR PROTECTION AT EAST AND WEST  
APPROACH RETAINING WALLS  
N.T.S

- NOTES:
- 25'-0" MINIMUM DIMENSION TO BE HELD WITHIN 40' OF WEST ABUTMENT AND WITHIN 28' OF EAST ABUTMENT. BEYOND THOSE LIMITS THE RIPRAP AT WALLS CAN TAPER IN TO BE A MINIMUM OF 6'-0" BEYOND LIMIT OF WALL TOE. SEE SITE PLANS AND TRACK SECTIONS.
  - RIPRAP KEY-IN SHALL BE 15'-0" IN FRONT OF AND SOUTH SIDE OF ABUTMENTS AND TAPER TO 9'-0" ALONG A 30'-0" DISTANCE IN FRONT OF THE RETAINING WALLS AFTER WHICH THE 9'-0" DIMENSION APPLIES.
  - SLOPES SHALL NOT EXCEED 1.5H:1V

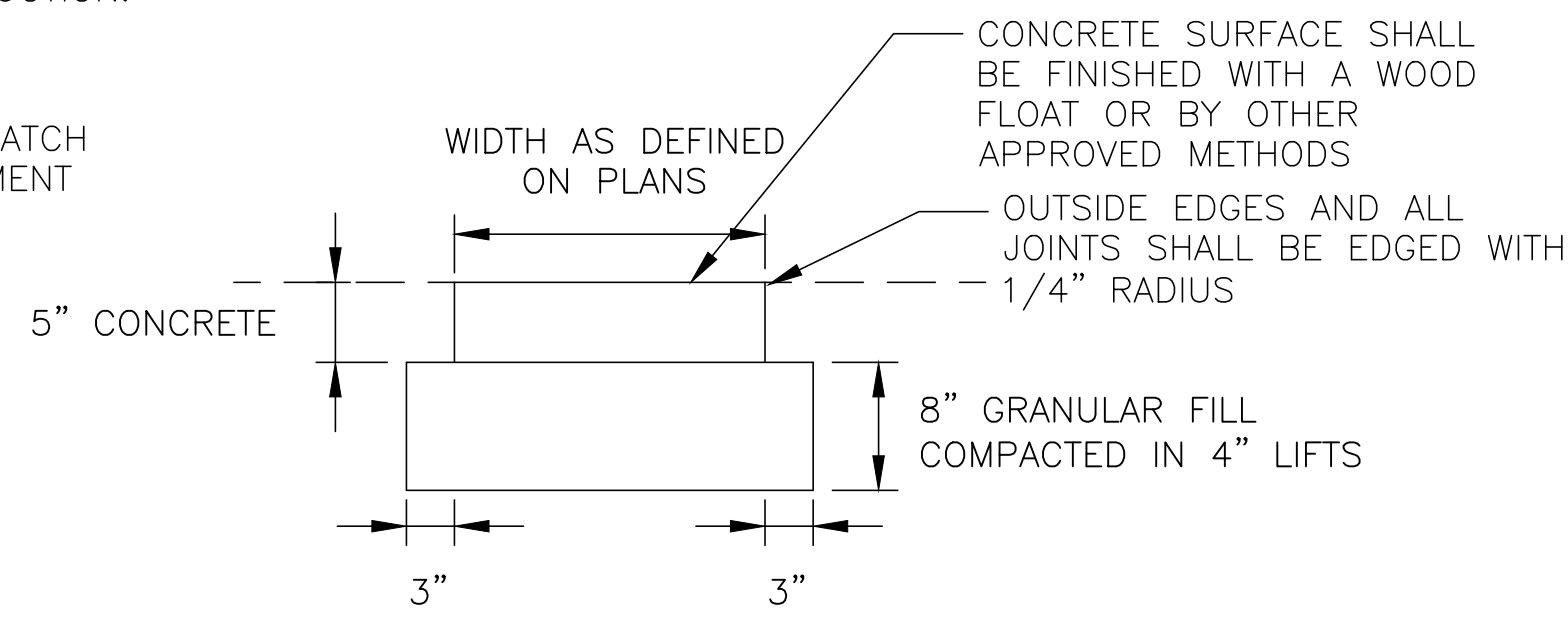


PERMANENT ACCESS PATH  
N.T.S

- NOTES:
- PORTIONS OF TEMPORARY ACCESS PATH MAY BE UTILIZED AS PERMANENT ACCESS PATH, HOWEVER, NO TEMPORARY RETAINING STRUCTURES MAY REMAIN POST CONSTRUCTION.

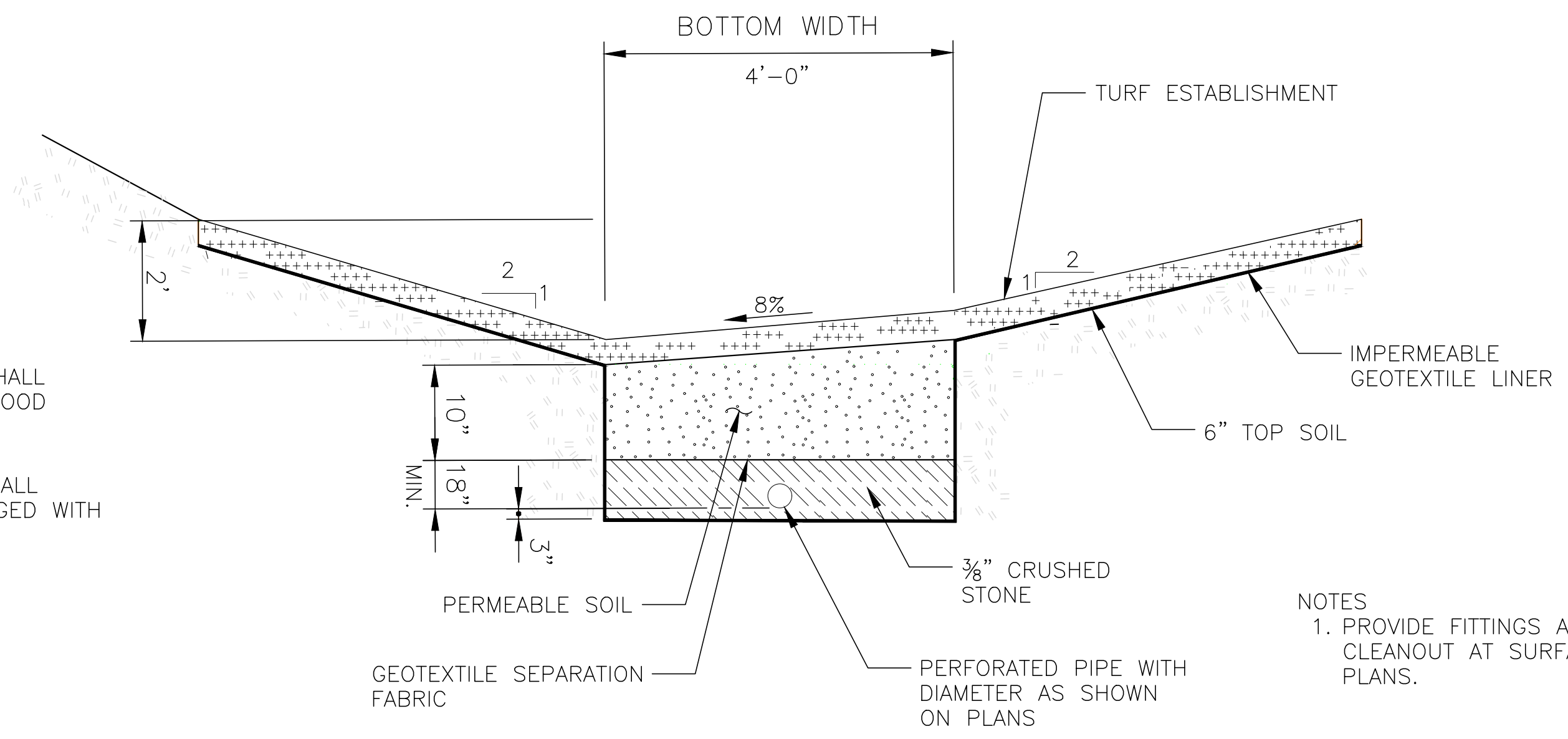


PERMANENT PARKING  
N.T.S



CONCRETE SIDEWALK  
N.T.S

- NOTES:
- DUMMY JOINTS TO BE 4' TYPICAL
  - EXPANSION JOINT TO BE 12" OR AS DIRECTED



SWALE  
N.T.S

- NOTES:
- PROVIDE FITTINGS AND CAP TO PROVIDE CLEANOUT AT SURFACE AS SHOWN ON PLANS.

FILE NAME: 217004-DTL-ENV  
PRINT DATE: 7/16/2023 6:19 PM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

**Amtrak®**

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**wsp**  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

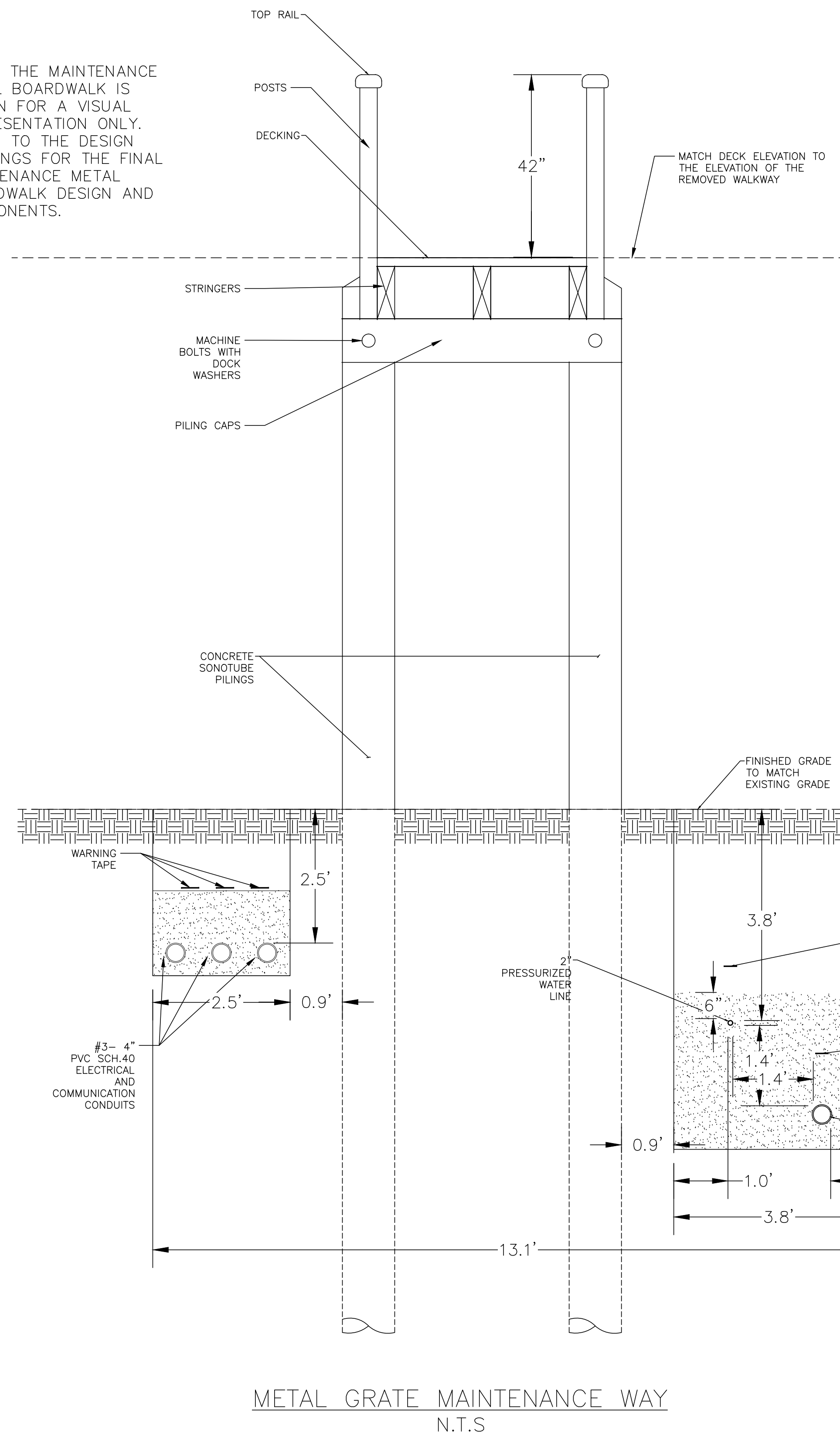
REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER

CIVIL DETAILS

Designed CB Drawn CB/MD Checked KM Date 5/2/2023

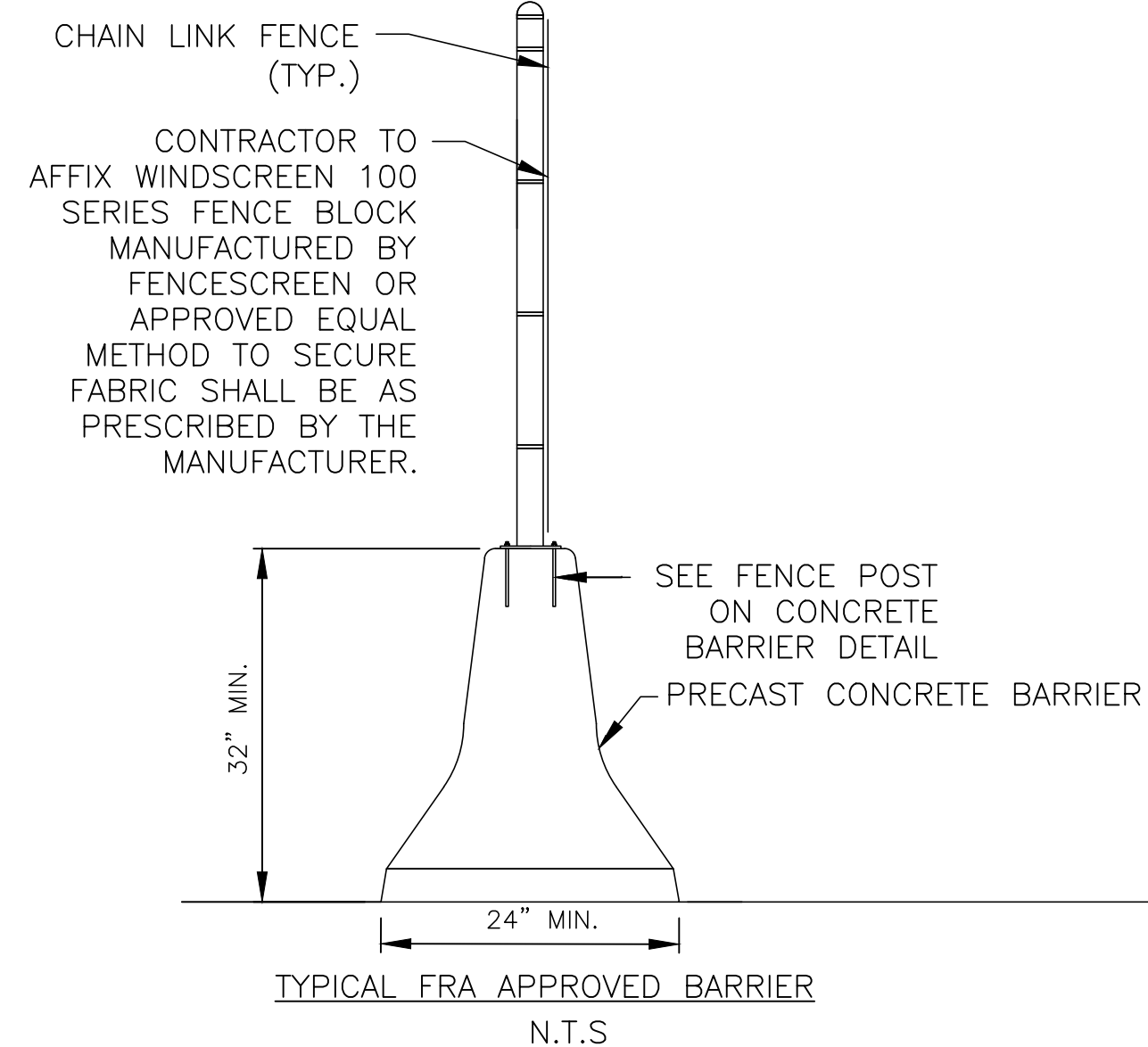
Project Code: XXX XXX
WBS:
Sheet No. 119 OF 140
Dwg. No. <b>DTL-03</b>

NOTE: THE MAINTENANCE METAL BOARDWALK IS SHOWN FOR A VISUAL REPRESENTATION ONLY. REFER TO THE DESIGN DRAWINGS FOR THE FINAL MAINTENANCE METAL BOARDWALK DESIGN AND COMPONENTS.



METAL GRATE MAINTENANCE WAY  
N.T.S

NOTE:  
1. SEE P-100 PLUMBING DRAWINGS.



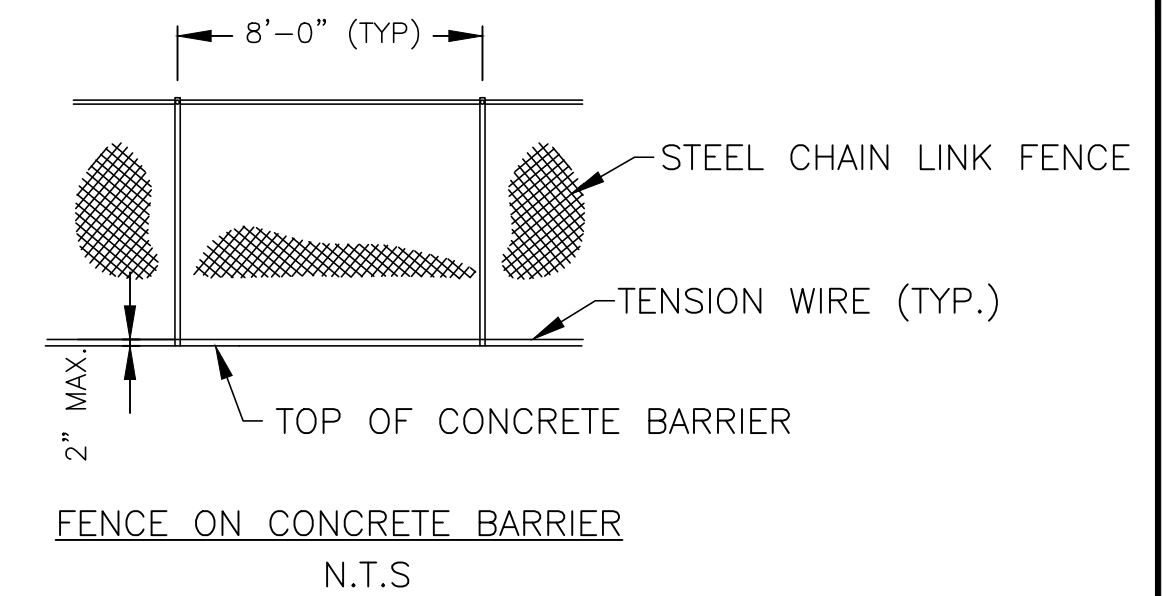
TYPICAL FRA APPROVED BARRIER  
N.T.S

NOTES:

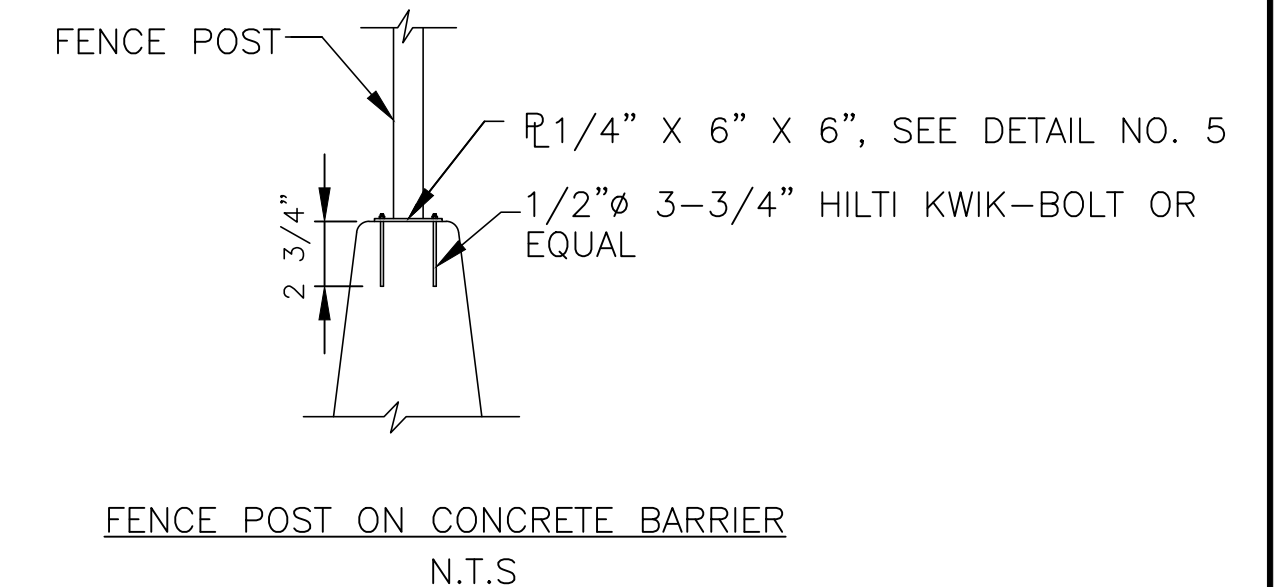
1. FRA APPROVED BARRIER SHALL BE CONTINUOUS BARRIER OF SEMI-PERMANENT NATURE THAT SPANS THE ENTIRE WORK AREA, THAT IS AT LEAST FOUR FEET IN HEIGHT, AND IS OF SUFFICIENT STRENGTH TO PREVENT A ROADWAY WORKER FROM FOULING THE ADJACENT TRACK.
2. ALL CONCRETE BARRIERS AND TEMPORARY FENCING TO BE REMOVED UPON COMPLETION OF PROJECT OR AS DIRECTED BY THE REO.
3. SEE GROUNDING REQUIREMENTS FOR FENCING ON CV-404.

NOTES:

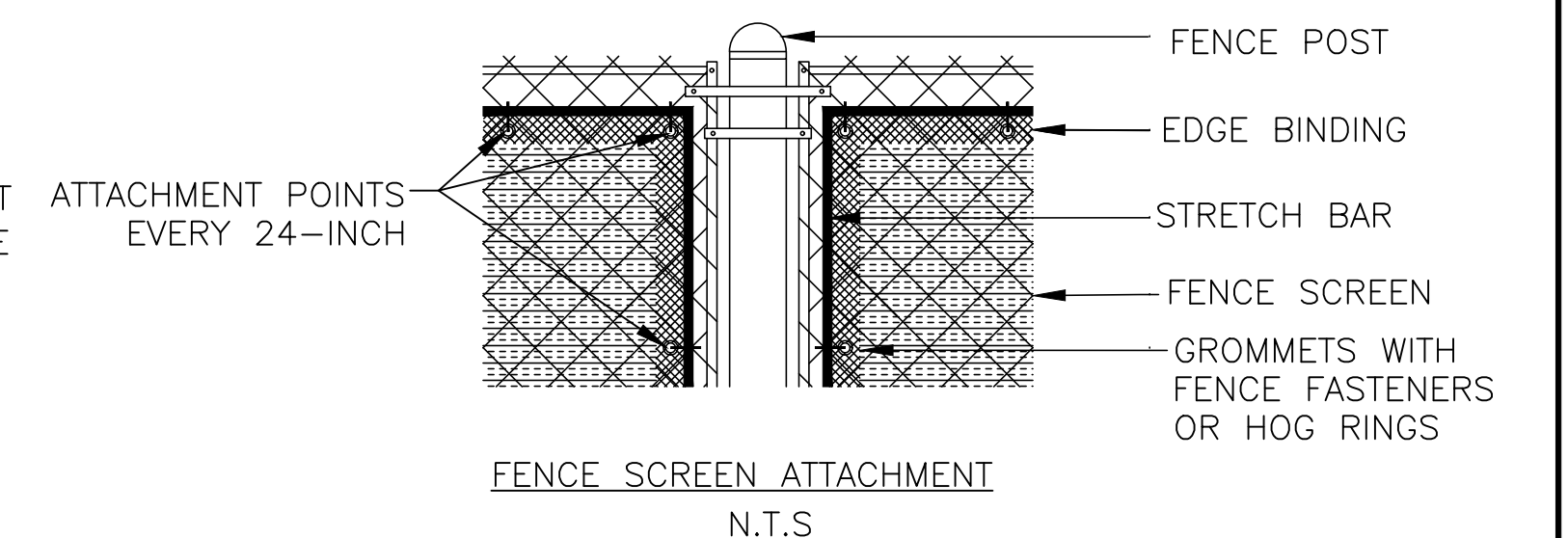
1. CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
2. THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.  
  
LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR SENSITIVE RESOURCE. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.  
  
SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.
3. SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
4. SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO BE CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD.
5. WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.
6. HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.



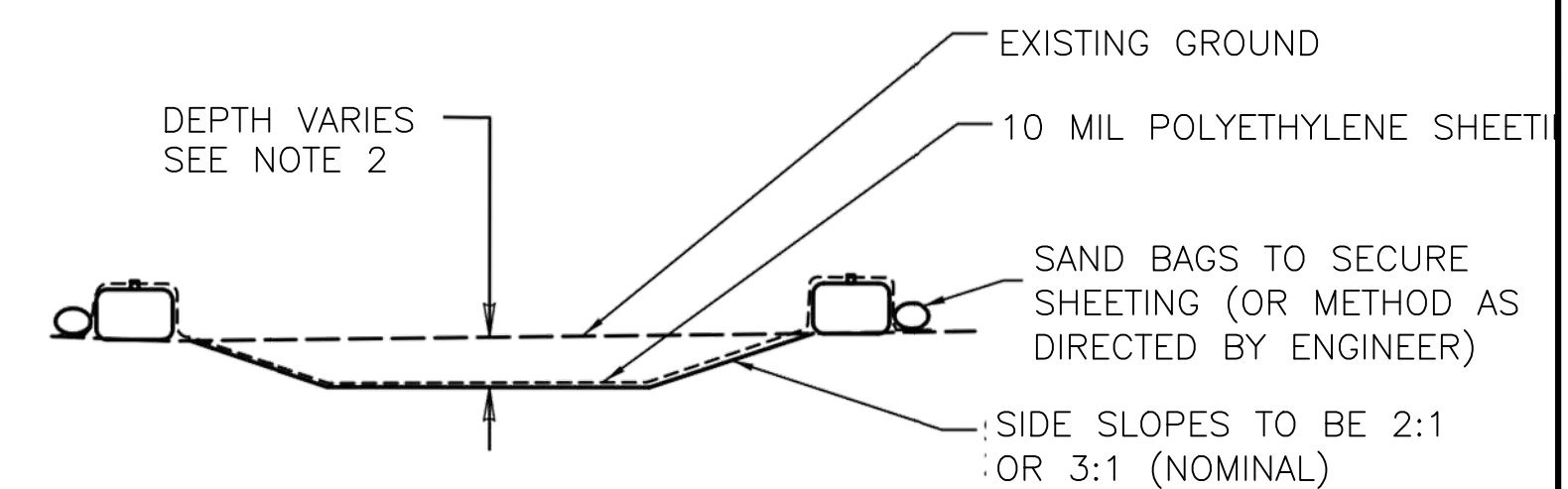
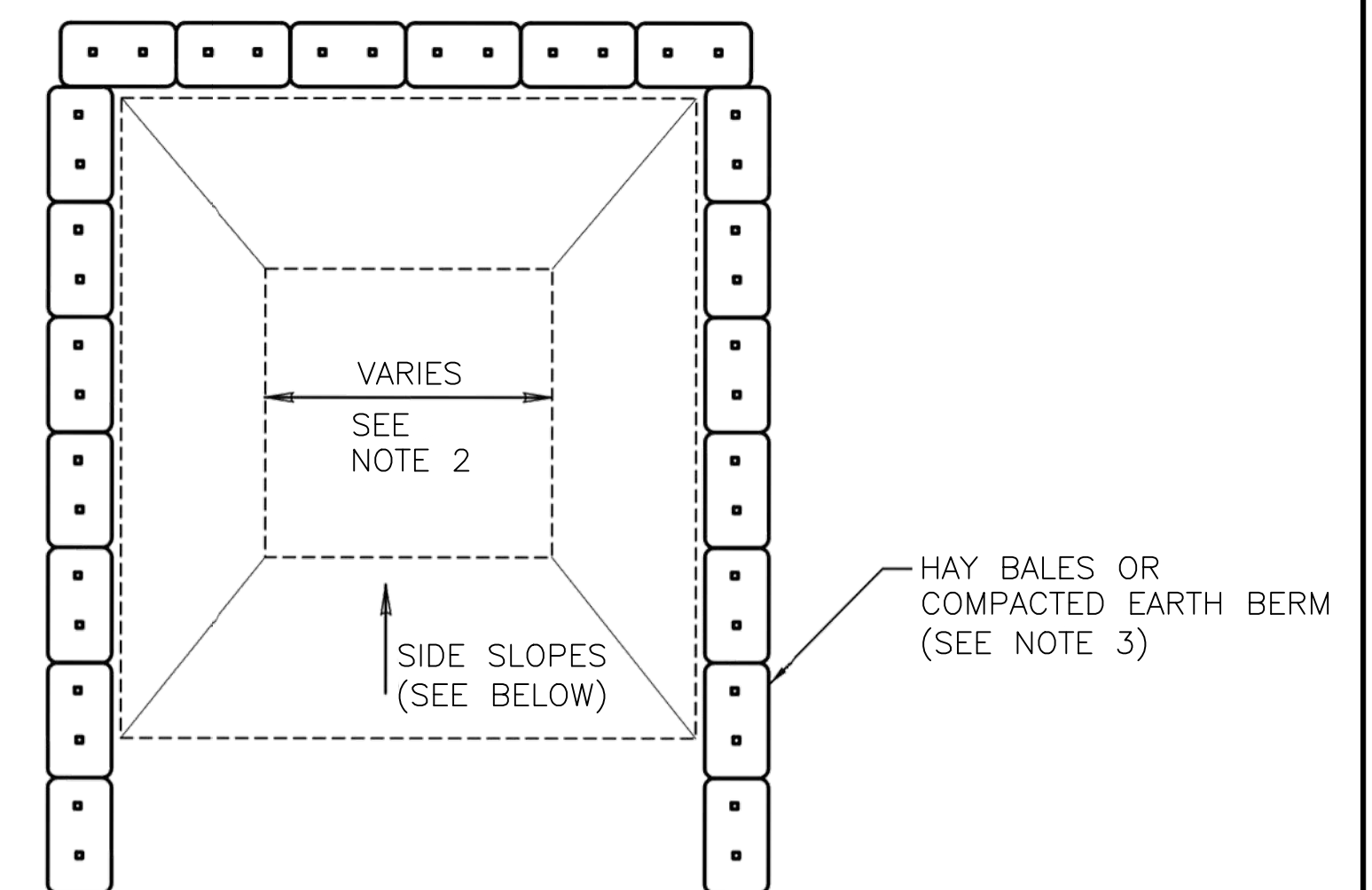
FENCE ON CONCRETE BARRIER  
N.T.S



FENCE POST ON CONCRETE BARRIER  
N.T.S



FENCE SCREEN ATTACHMENT  
N.T.S



CONCRETE WASHOUT AREA  
N.T.S  
(SEE NOTE 2)

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
STRUCTURES

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

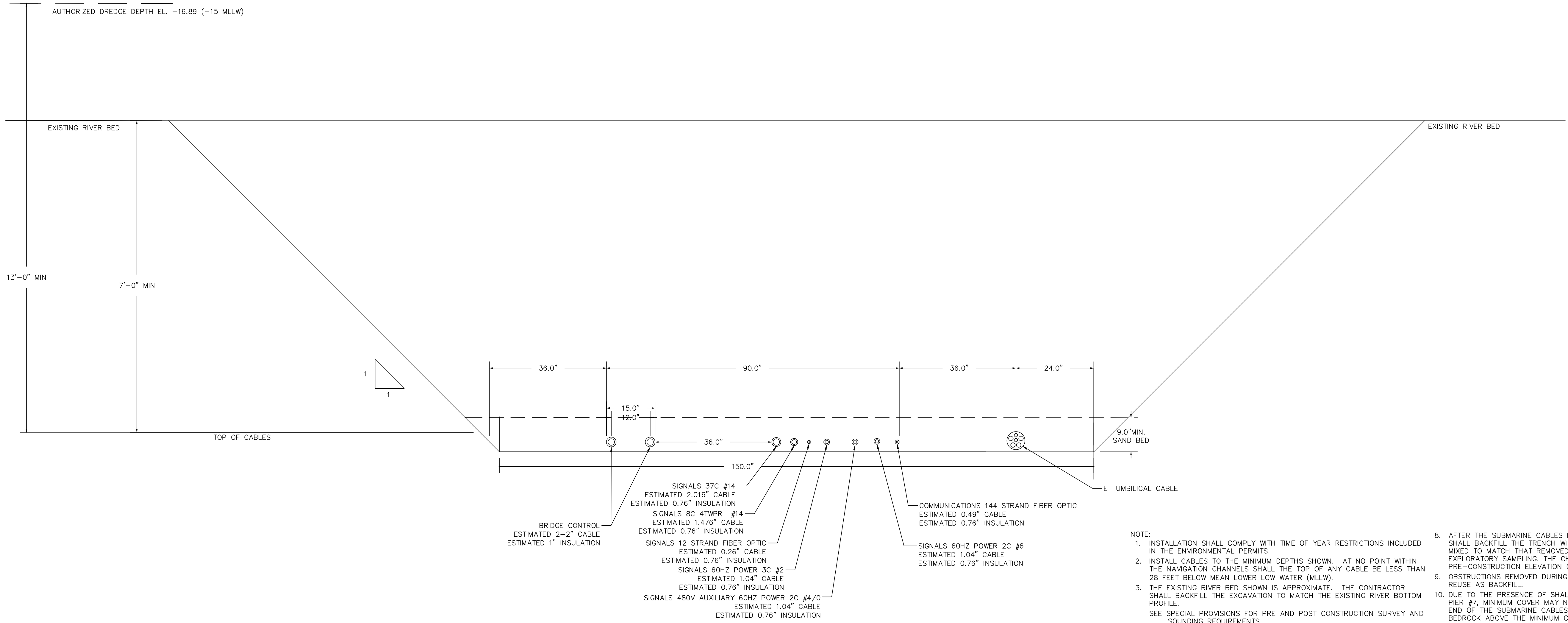
Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036  
1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK	CONNECTICUT	Project Code: XXX XXX
REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER		WBS:
CIVIL DETAILS		Sheet No. 120 OF 140
Designed CB	Drawn CB/MD	Checked KM
Date 5/2/2023	Dwg. No. DTL-04	

FILE NAME: 217004-DTL.DWG  
PRINT DATE: 7/16/23 6:19 PM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES



**SUBMARINE CABLE DETAIL**  
N.T.S

- NOTE:
- INSTALLATION SHALL COMPLY WITH TIME OF YEAR RESTRICTIONS INCLUDED IN THE ENVIRONMENTAL PERMITS.
  - INSTALL CABLES TO THE MINIMUM DEPTHS SHOWN. AT NO POINT WITHIN THE NAVIGATION CHANNELS SHALL THE TOP OF ANY CABLE BE LESS THAN 28 FEET BELOW MEAN LOWER LOW WATER (MLLW).
  - THE EXISTING RIVER BED SHOWN IS APPROXIMATE. THE CONTRACTOR SHALL BACKFILL THE EXCAVATION TO MATCH THE EXISTING RIVER BOTTOM PROFILE. SEE SPECIAL PROVISIONS FOR PRE AND POST CONSTRUCTION SURVEY AND SOUNDING REQUIREMENTS.
  - THE CONTRACTOR SHALL COORDINATE ALL INSTALLATIONS WITH THE USCG.
  - ALL WORK BARGES SHALL HAVE A TURBIDITY CURTAIN AROUND THE PERIMETER OF THE WORK AREA. THE CONTRACTOR SHALL SUBMIT DETAILS TO THE ENGINEER FOR APPROVAL.
  - TURBIDITY CURTAIN AND SUPPORTING PILES OR ANCHORS SHALL BE DESIGNED BY THE CONTRACTOR.
  - THE CONTRACTOR SHALL MAINTAIN THE TURBIDITY CURTAINS AND MAKE REPAIRS AS NECESSARY FOR THE DURATION OF USE. A DEBRIS BOOM MAY BE EMPLOYED BY THE CONTRACTOR TO PROTECT THE TURBIDITY CURTAINS.
  - AFTER THE SUBMARINE CABLES HAVE BEEN INSTALLED, THE CONTRACTOR SHALL BACKFILL THE TRENCH WITH NEW GRANULAR BACKFILL MATERIAL MIXED TO MATCH THAT REMOVED DURING RIVER CHANNEL EXCAVATION EXPLORATORY SAMPLING. THE CHANNEL WILL BE BACKFILLED TO MATCH THE PRE-CONSTRUCTION ELEVATION OF THE RIVER BOTTOM.
  - OBSTRUCTIONS REMOVED DURING EXCAVATION ARE NOT SUITABLE FOR REUSE AS BACKFILL.
  - DUE TO THE PRESENCE OF SHALLOW BEDROCK IN THE VICINITY OF BRIDGE PIER #7, MINIMUM COVER MAY NOT BE ACHIEVABLE OVER THE EASTERN END OF THE SUBMARINE CABLES. WHERE THE CONTRACTOR ENCOUNTERS BEDROCK ABOVE THE MINIMUM CABLE DEPTH, THE CABLE WILL BE LAID ON A 6" SAND LAYER ON TOP OF THE BEDROCK AND THE TRENCH BACKFILLED TO MATCH THE EXISTING MUDLINE.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 212004-DTL.dwg  
PRINT DATE: 7/16/2023 6:19 PM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

**Amtrak**<sup>®</sup>

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

**Office of Chief Engineer  
STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING

1501 Broadway New York, NY 10036

**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

OLD SAYBROOK CONNECTICUT

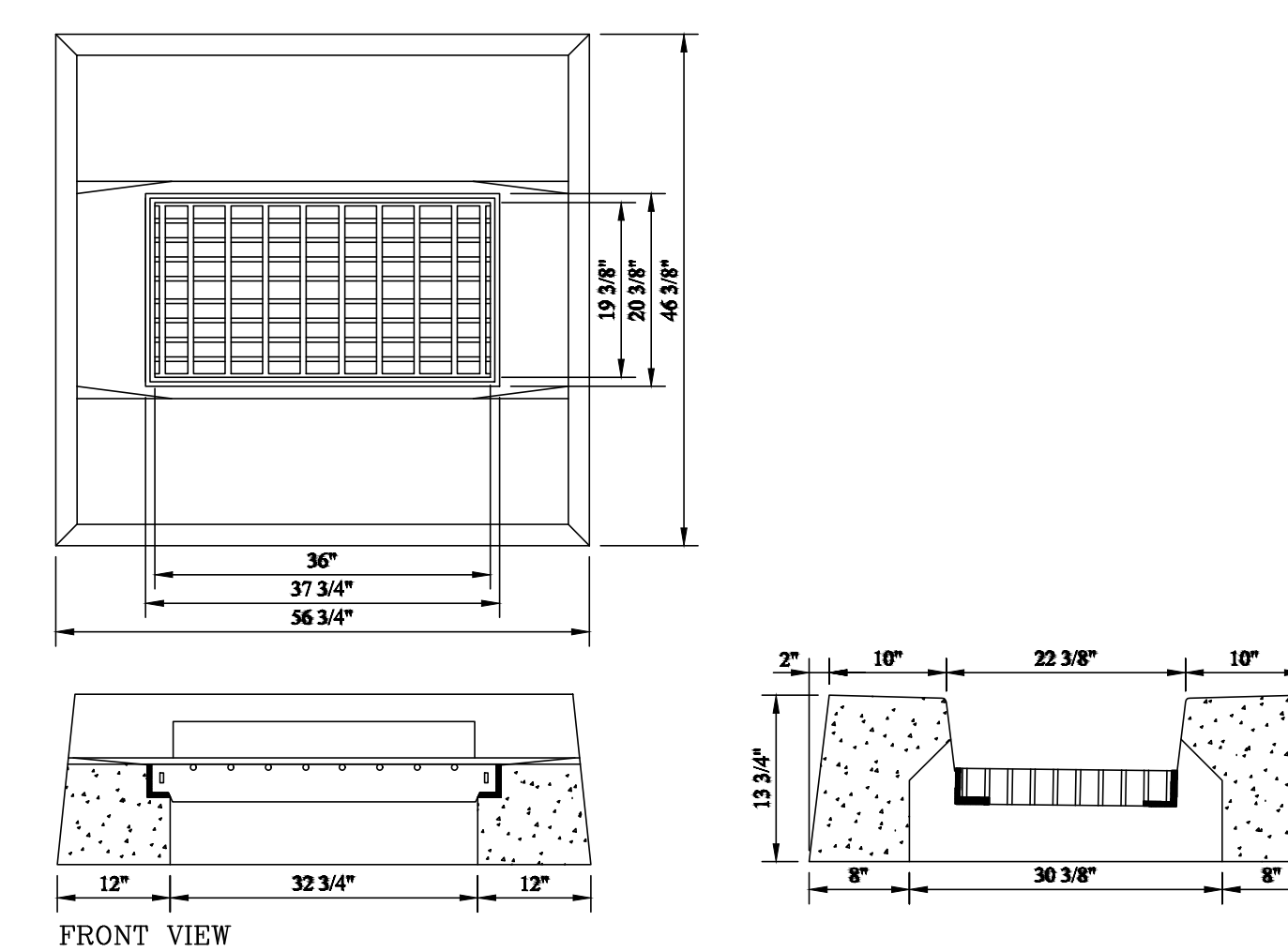
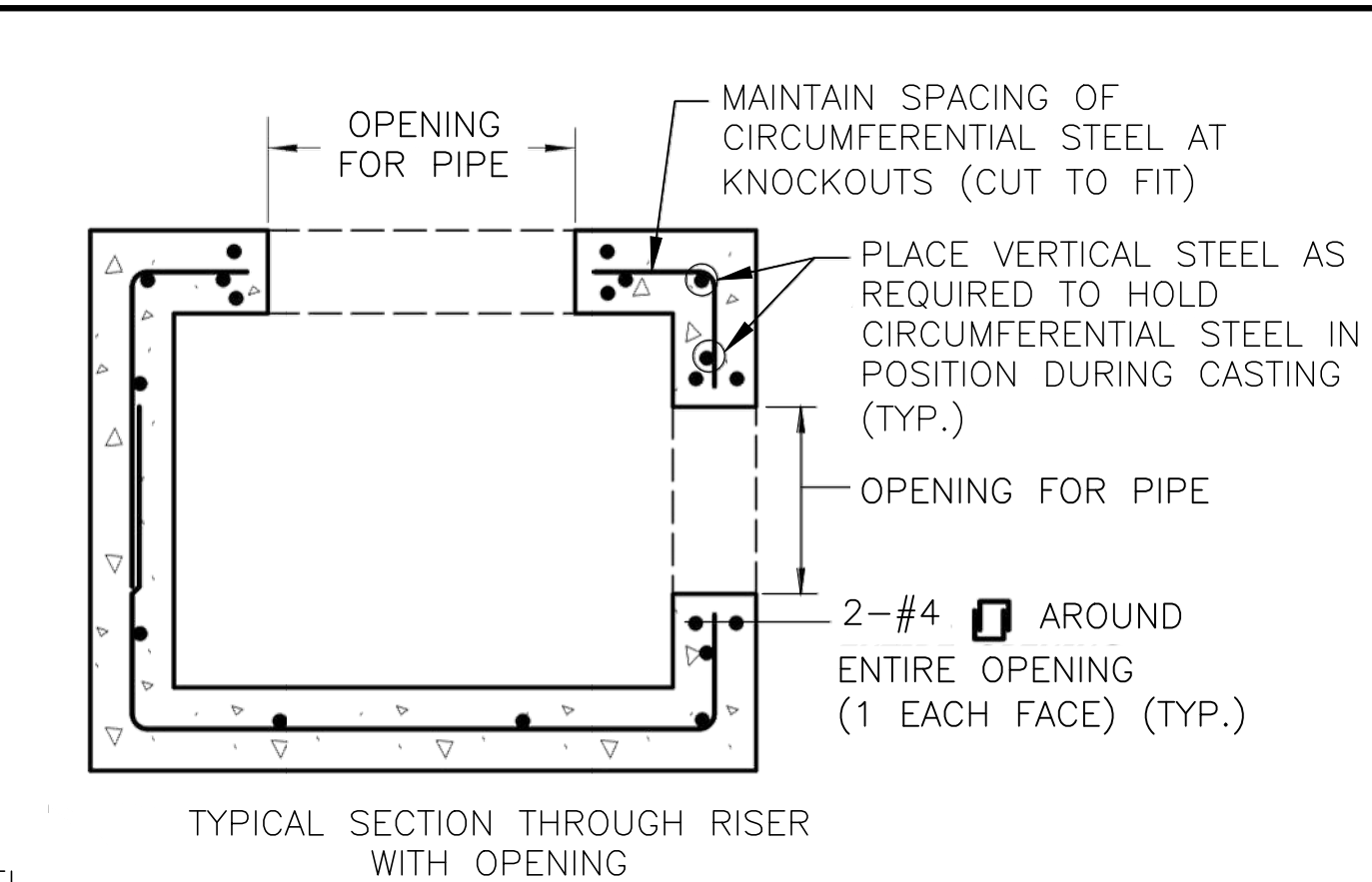
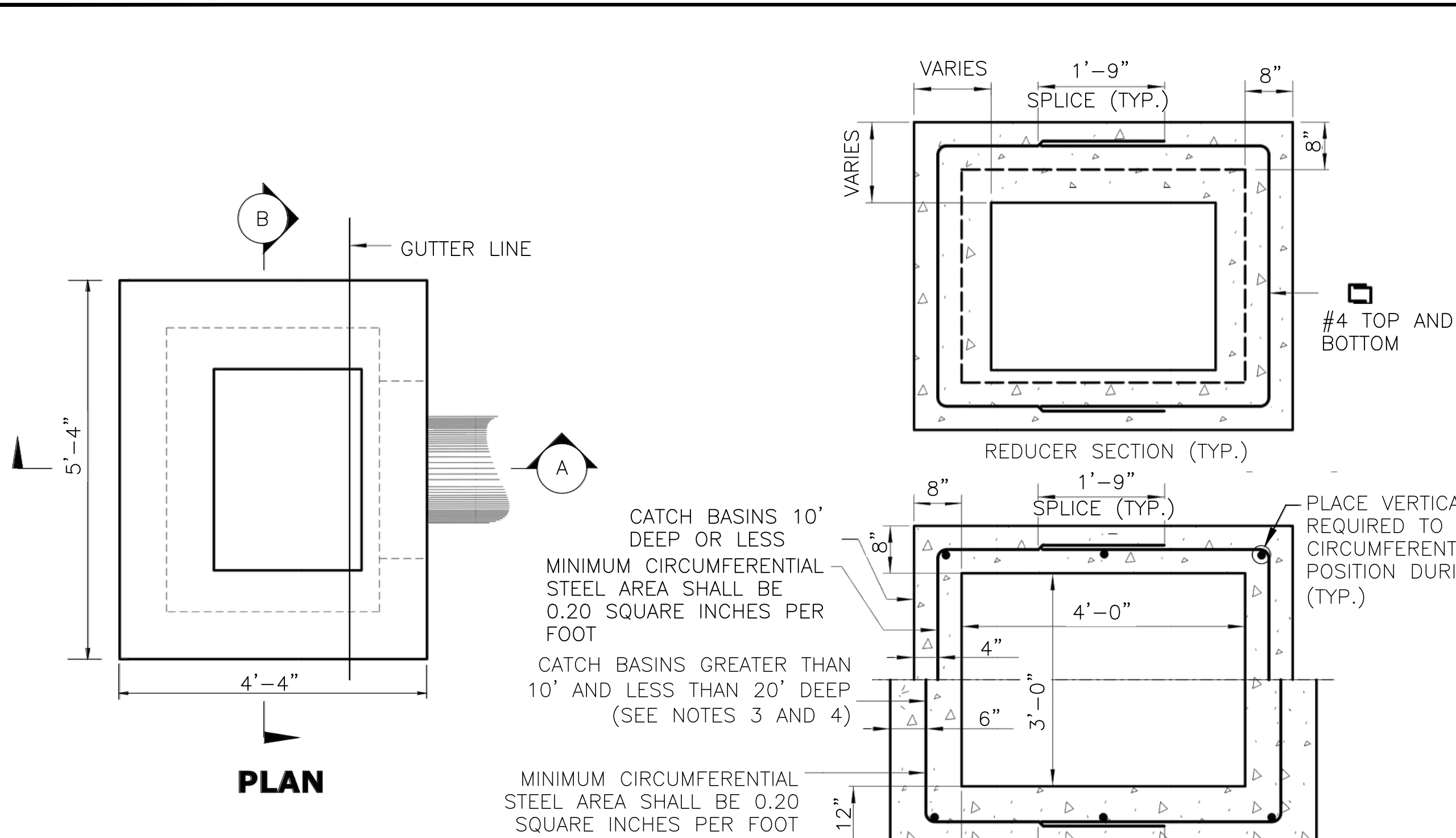
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

**CIVIL DETAILS**

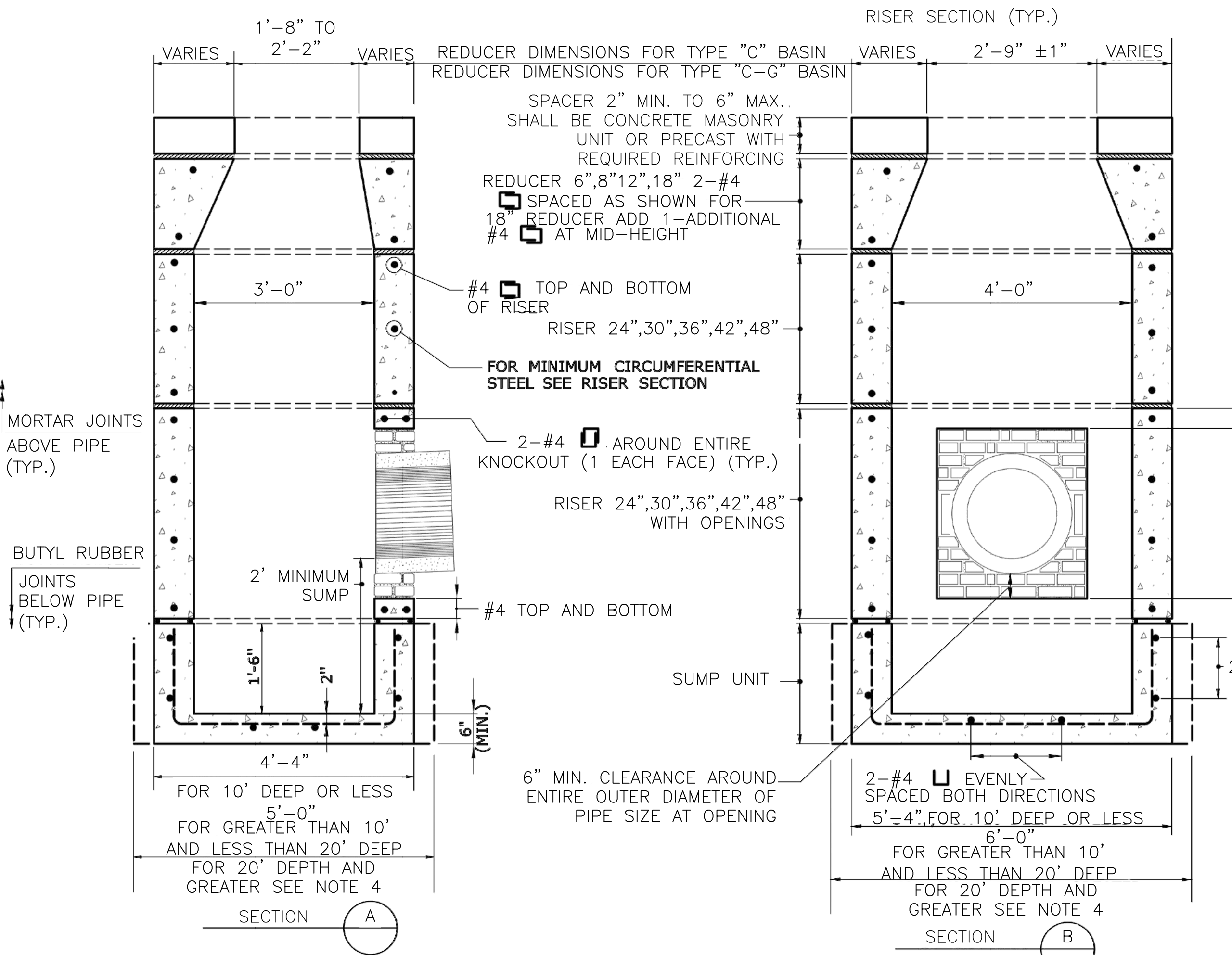
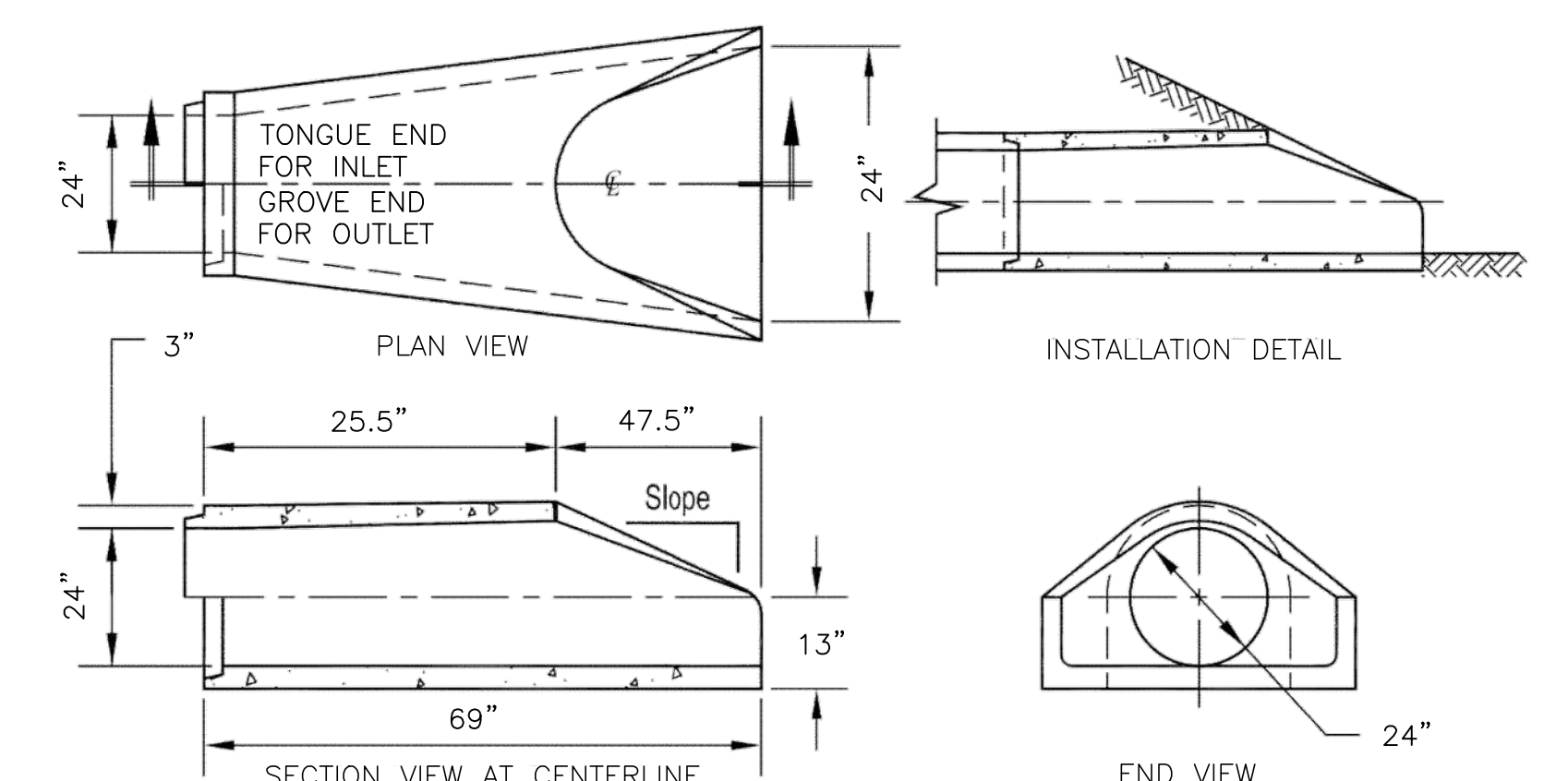
Designed CB Drawn CB/MD Checked KM Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.	121 OF 140
Dwg. No.	<b>DTL-05</b>

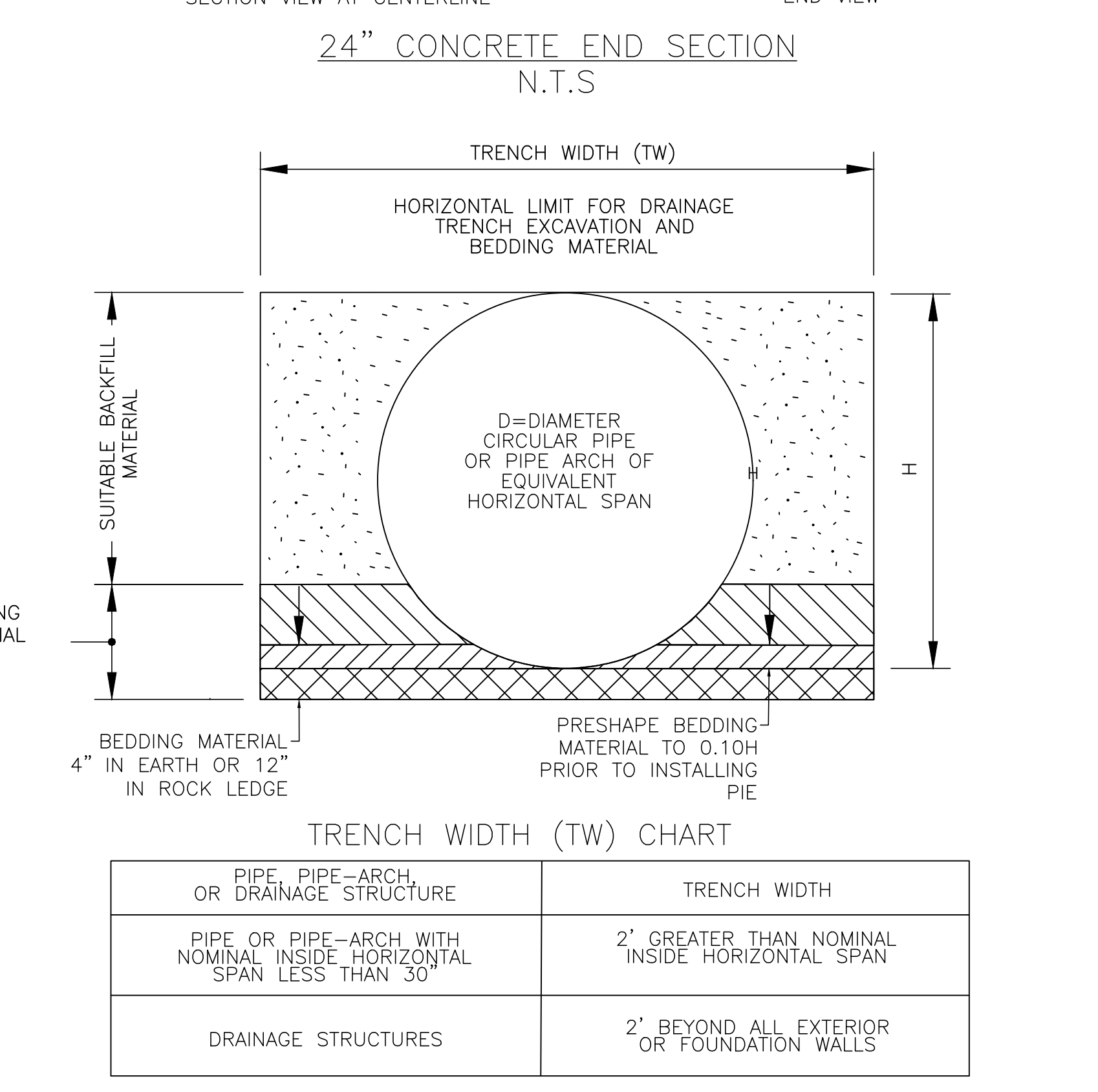




- NOTE:
1. WELDED WIRE FABRIC WITH AN AREA EQUAL TO OR GREATER THAN THE REINFORCING SHOWN MAY BE SUBSTITUTED AS APPROVED BY THE ENGINEER.
  2. ALL REINFORCEMENT SHALL HAVE A MINIMUM CLEAR COVER OF 2 INCHES EXCEPT FOR BENEATH BOTTOM REINFORCEMENT IN TOP SLABS, WHERE THE MINIMUM MAY BE 1 1/2 INCHES.
  3. WALL THICKNESS OF ALL CATCH BASINS OVER 10 FEET DEEP SHALL BE INCREASED TO 12 INCHES. INSIDE DIMENSIONS SHALL REMAIN THE SAME. THE 12 INCH THICKNESS SHALL START AFTER THE FIRST 10 FEET.
  4. BASES AND RISER AT A DEPTH OF 20 FEET AND GREATER SHALL BE DESIGNED BY THE CONTRACTOR AND WORKING DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
  5. RISERS MAY BE PREFABRICATED WITH PIPE OPENINGS IN ALL FOUR WALLS. ADEQUATE REINFORCING AROUND PIPE OPENINGS SHALL BE PROVIDED. RISERS USED WHERE A PIPE OPENING IS TO REMAIN IN PLACE MUST BE FORMED UP WITH BRICK AS DIRECTED BY THE ENGINEER.
  6. RISERS SHALL NEVER HAVE A CORNER PIPE ENTRIES. ROUND STRUCTURES SHALL BE USED WHEN PIPES CANNOT ALIGN WITH A RECTANGULAR STRUCTURE KNOCKOUT.
  7. SHRINKAGE AND TEMPERATURE REINFORCEMENT SHALL BE PROVIDED IN THE TOPS OF SLABS. THE TOTAL AREA OF REINFORCEMENT PROVIDED SHALL BE AT LEAST 0.125 SQUARE INCHES PER FOOT IN EACH DIRECTION. THE MAXIMUM SPACING OF THIS REINFORCEMENT SHALL NOT EXCEED 18 INCHES.
  8. THE DETAILS SHOWN IN THE PLAN VIEW FOR PRECAST CONCRETE ROUND STRUCTURES SHALL ALSO BE USED FOR CONVERTING MANHOLES TO CATCH BASINS.
  9. FOR CATCH BASIN TOPS, SEE SHEET NO. HW-586-07 FOR RECTANGULAR OPENING OR SHEET NOS. H@-586-10a, HW-586-10b OR HW-586-10c FOR CIRCULAR OPENING.



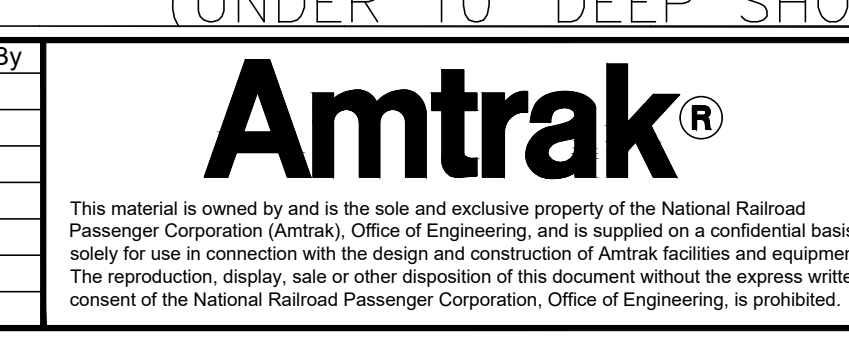
**PRECAST CONCRETE TYPE "C" AND "C-L" CATCH BASIN**  
(UNDER 10' DEEP SHOWN)



**PIPE TRENCH DETAIL**  
N.T.S.

FILE NAME: 217004-DTL.DWG  
PRINT DATE: 7/16/2023 6:19 PM  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

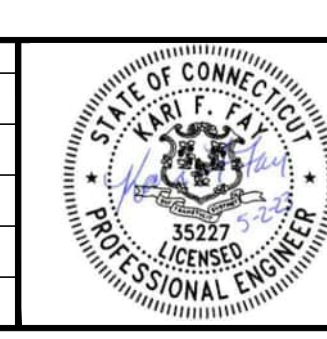
No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

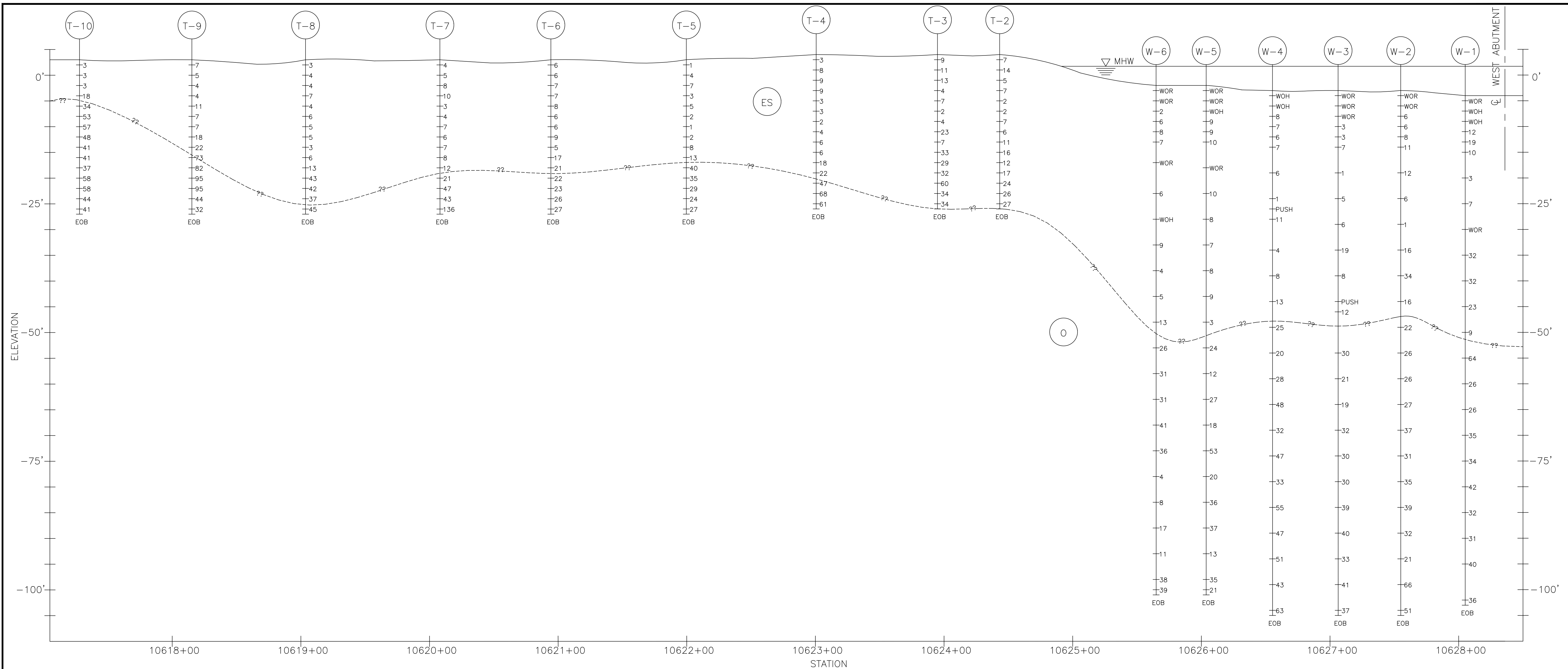


ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

**wsp** 1700 Market St. Suite 1050  
Philadelphia, PA 19103

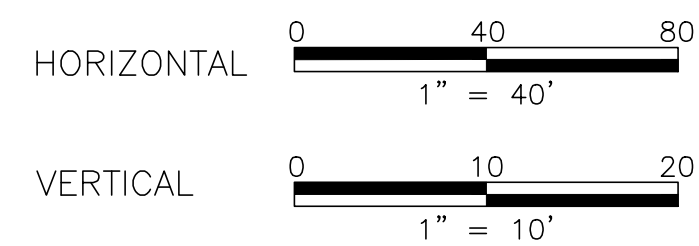
Project Code: XXX XXX			
WBS:			
Sheet No. 122 OF 140			
Dwg. No. <b>DTL-06</b>			
DESIGNED: CB	DRAWN: CB/MD	CHECKED: KM	DATE: 5/2/2023



**WEST APPROACH SOIL PROFILE LOOKING NORTH**

**LEGEND**

- ES ESTUARINE SEDIMENTS
- O OUTWASH



**NOTES**

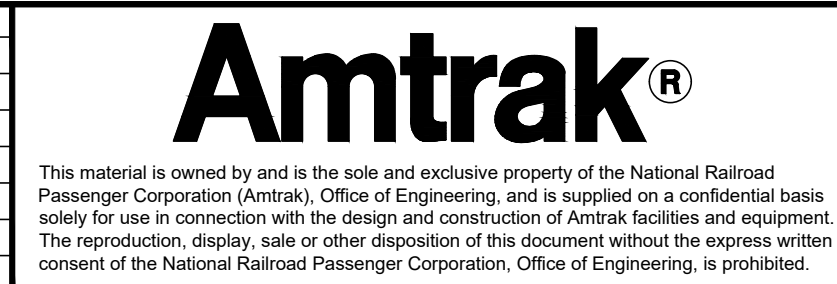
1. TOP OF ROCK ELEVATIONS ARE APPROXIMATE, ACTUAL TOP OF ROCK ELEVATION WILL VARY.
2. GRAPHIC LOGS MAY HAVE BEEN SHIFTED FROM THEIR TRUE STATION FOR CLARITY.
3. BORING LOCATIONS AND ELEVATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. SEE BORING LOGS IN THE GEOTECHNICAL AND FOUNDATION RECOMMENDATIONS REPORT FOR ACTUAL COORDINATES AND ELEVATIONS.
4. THIS GENERALIZED INTERPRETATIVE SOIL PROFILE IS INTENDED TO CONVEY TRENDS IN SUBSURFACE CONDITIONS. THE BOUNDARIES BETWEEN THE STRATA ARE APPROXIMATE AND IDEALIZED, AND HAVE BEEN DEVELOPED BY INTERPRETATIONS OF WIDELY SPACED EXPLORATION AND SAMPLES. ACTUAL SOIL AND ROCK TRANSITIONS MAY VARY AND ARE PROBABLY MORE ERRATIC. FOR MORE SPECIFIC INFORMATION, REFER TO THE GEOTECHNICAL AND FOUNDATION RECOMMENDATION REPORT.
5. SUITABLE ROCK IS DEFINED AS THE TOP OF THE SHALLOWEST CORE RUN WITH THE ROCK QUALITY DESIGNATION (RQD) EQUAL TO 25% OR GREATER AS DETERMINED BY THE FIELD INSPECTOR.
6. ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). FEMA 100 YEAR FLOOD ELEVATIONS VARY ACROSS THE PROJECT. VALUE SHOWN IN THE ELEVATION TABLE IS THE MAXIMUM ELEVATION THROUGHOUT THE PROJECT.
7. STATIONS SHOWN ARE BASED ON PROPOSED PROJECT TRACK 1.

ELEVATION TABLE			
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (NAV88)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.8900
CT COASTAL JURISDICTION LINE	CJL	2.90	4.7900
HIGH TIDE LINE	HTL	3.04	4.9300
MEAN HIGH WATER LINE	MHW	1.60	3.4900
MEAN LOW WATER LINE	MLW	-1.71	0.1800
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 1486\_GEO-01\_03\_SUBSURFACE\_PROFILE.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By



**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

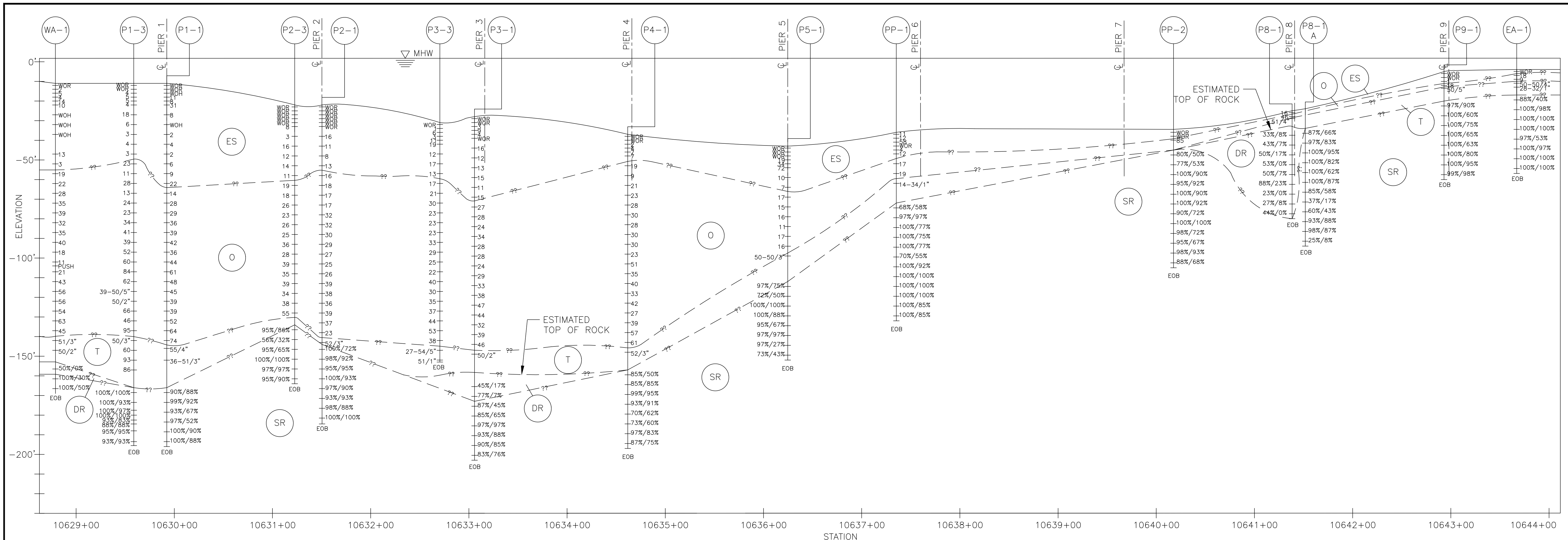
Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

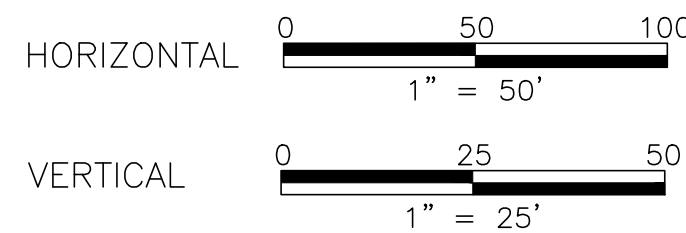
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
SUBSURFACE PROFILE 1  
Designed KG Drawn KG Checked AR/RM Date 5/2/2023

Project Code: XXX XXX  
WBS:    
Sheet No. 123 OF 140  
DWG No. **GEO-01**



BRIDGE SOIL PROFILE LOOKING NORTH

- LEGEND
- ES ESTUARINE SEDIMENTS
  - O OUTWASH
  - T TILL
  - DR DECOMPOSED ROCK
  - SR SUITABLE ROCK



ELEVATION TABLE			
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (NAV88)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.8900
CT COASTAL JURISDICTION LINE	CJL	2.90	4.7900
HIGH TIDE LINE	HTL	3.04	4.9300
MEAN HIGH WATER LINE	MHW	1.60	3.4900
MEAN LOW WATER LINE	MLW	-1.71	0.1800
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

NOTES

1. ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).
2. STATIONS SHOWN ARE BASED ON PROPOSED PROJECT TRACK 1.
3. SEE INTERPRETIVE SUBSURFACE PROFILE SHEET GEO-01 FOR NOTES AND LEGEND.

FILE NAME: 1486\_GEO-01-03\_SUBSURFACE\_PROFILE.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

Office of Chief Engineer  
**STRUCTURES**

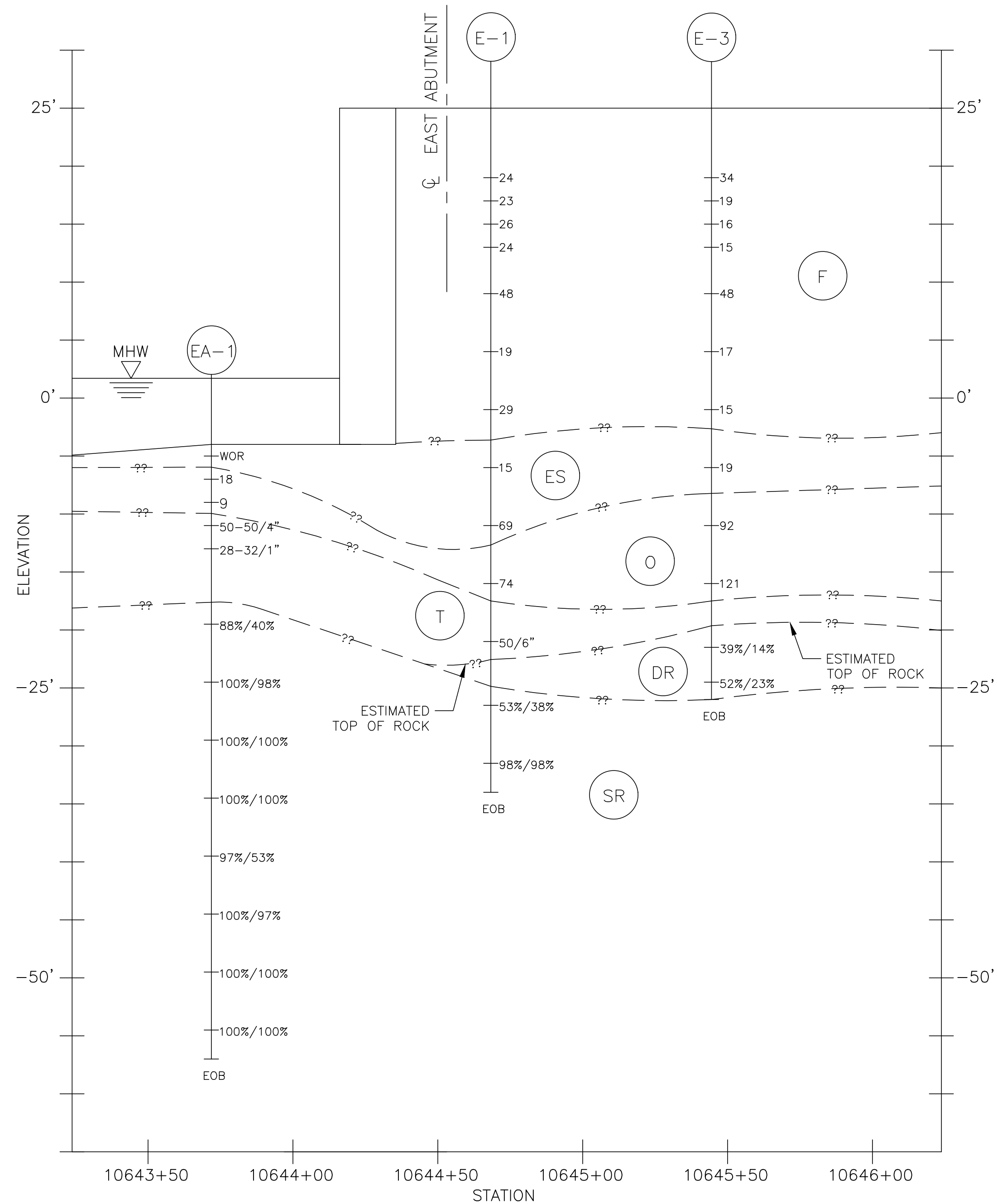
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



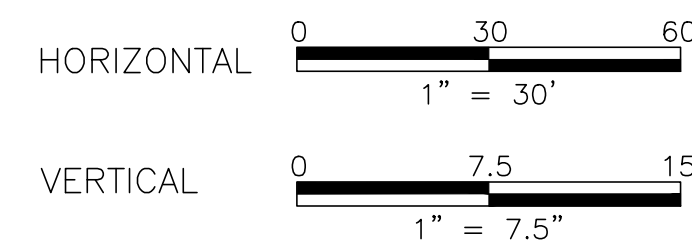
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

Designed	KG	Drawn	KG	Checked	AR/RM	Date	5/2/2023
CONNECTICUT <b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b> SUBSURFACE PROFILE 2							
Project Code:	XXX XXX	WBS:		Sheet No.:	124 OF 140	GEO-02	



- LEGEND
- (F) FILL
  - (ES) ESTUARINE SEDIMENTS
  - (O) OUTWASH
  - (T) TILL
  - (DR) DECOMPOSED ROCK
  - (SR) SUITABLE ROCK

**EAST APPROACH SOIL PROFILE  
LOOKING NORTH**



ELEVATION TABLE			
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (NAV88)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.8900
CT COASTAL JURISDICTION LINE	CJL	2.90	4.7900
HIGH TIDE LINE	HTL	3.04	4.9300
MEAN HIGH WATER LINE	MHW	1.60	3.4900
MEAN LOW WATER LINE	MLW	-1.71	0.1800
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

NOTES

1. ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. STATIONS SHOWN ARE BASED ON PROPOSED PROJECT TRACK 1.
3. SEE INTERPRETIVE SUBSURFACE PROFILE SHEET GEO-01 FOR NOTES AND LEGEND.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

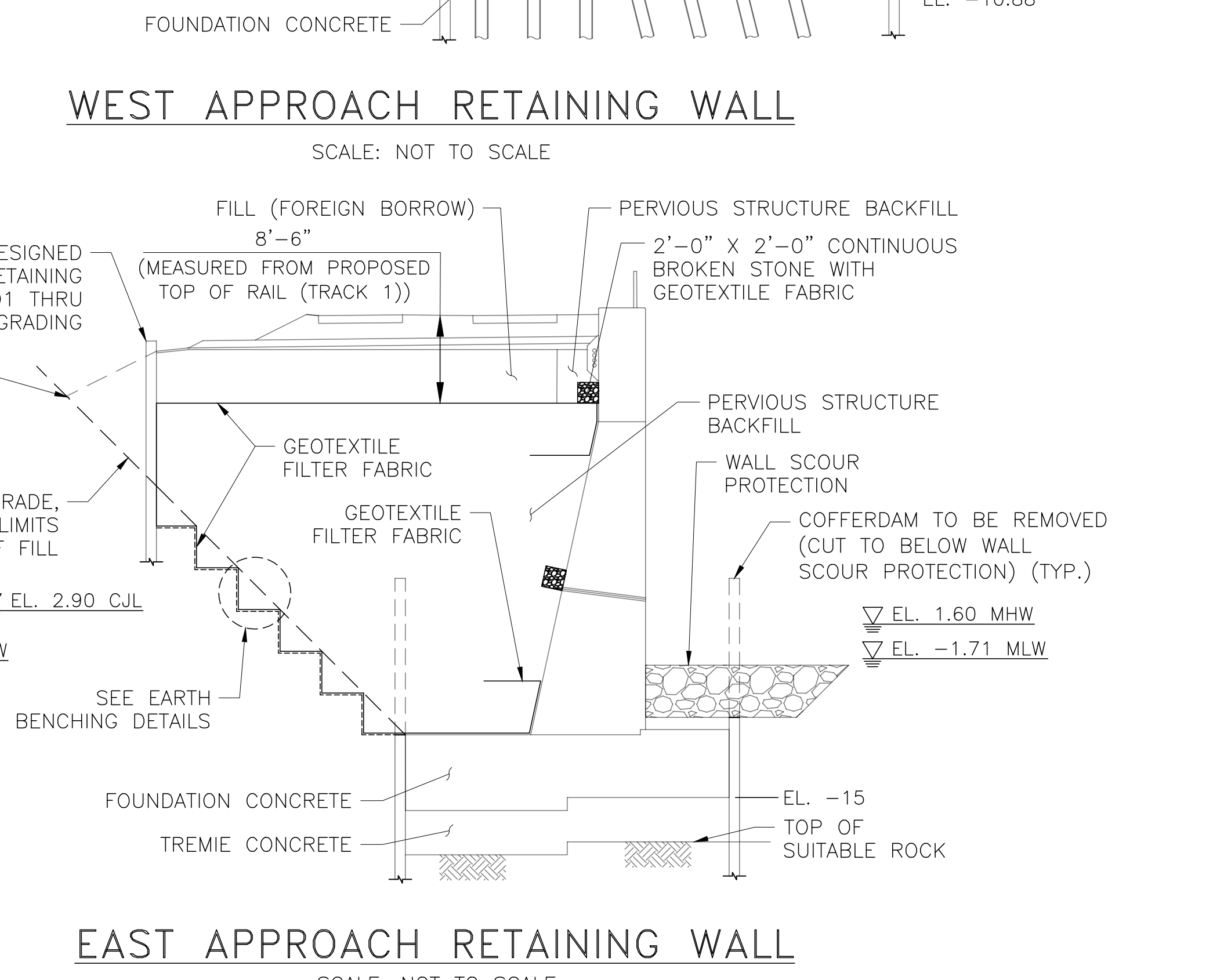
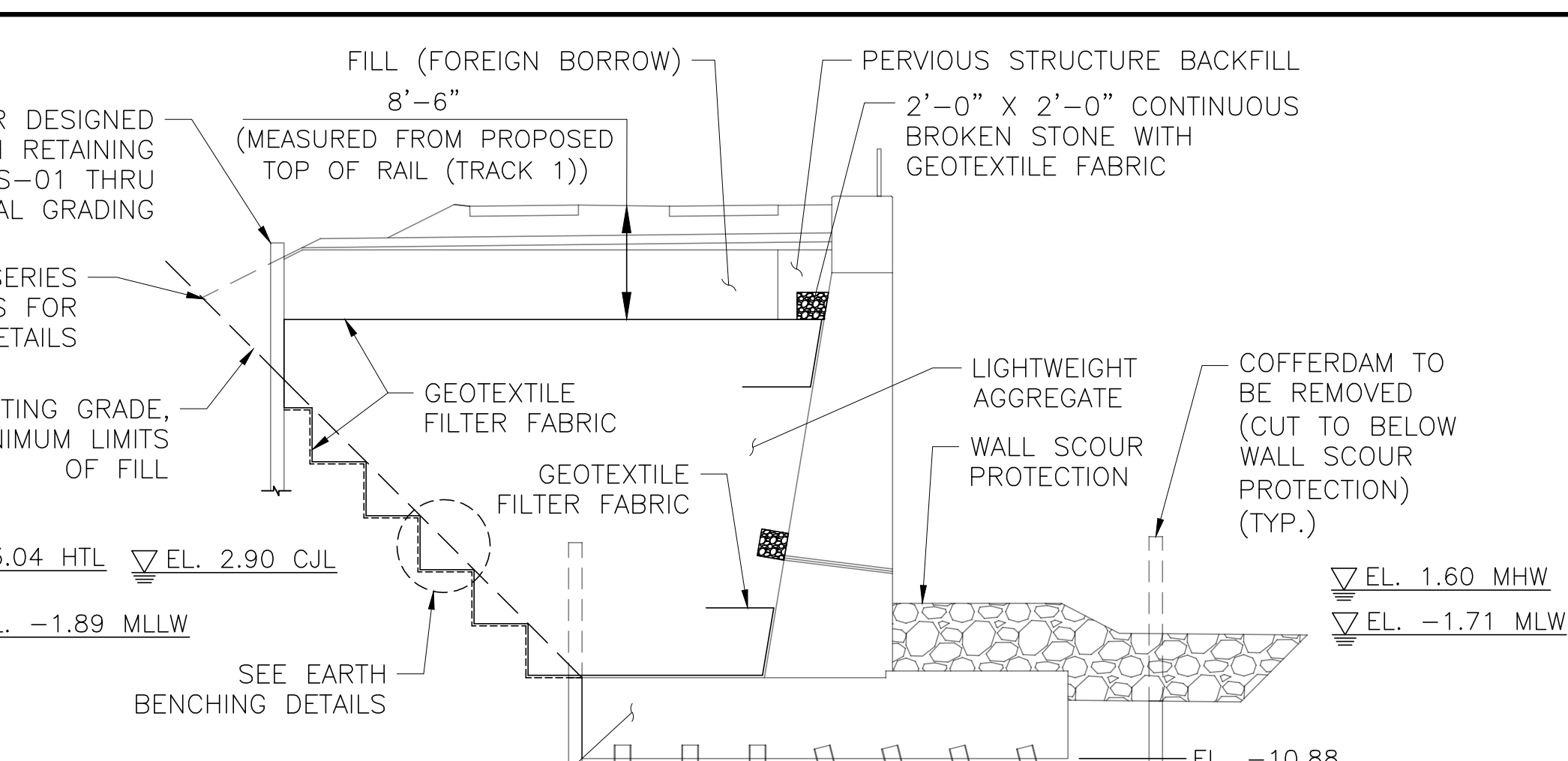
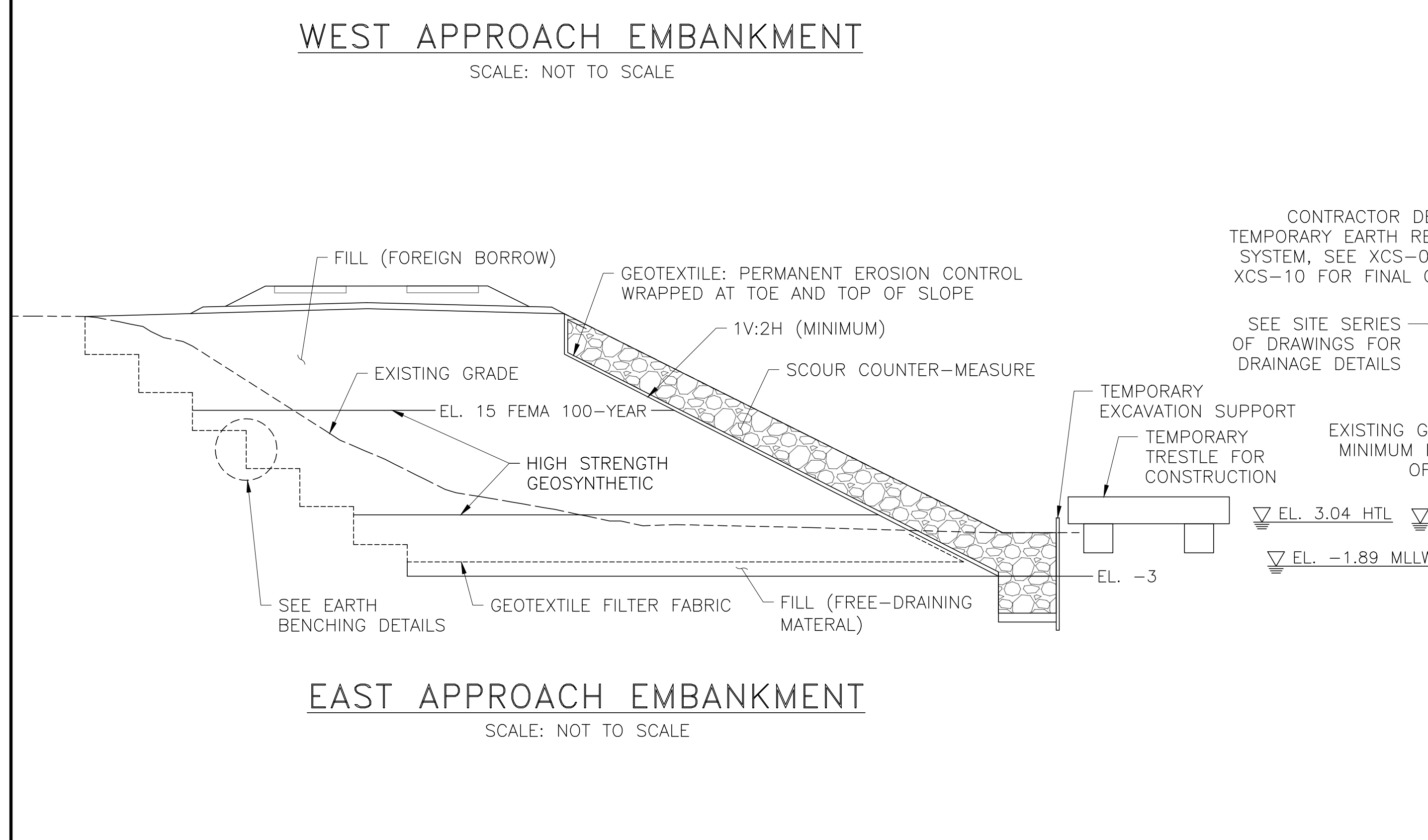
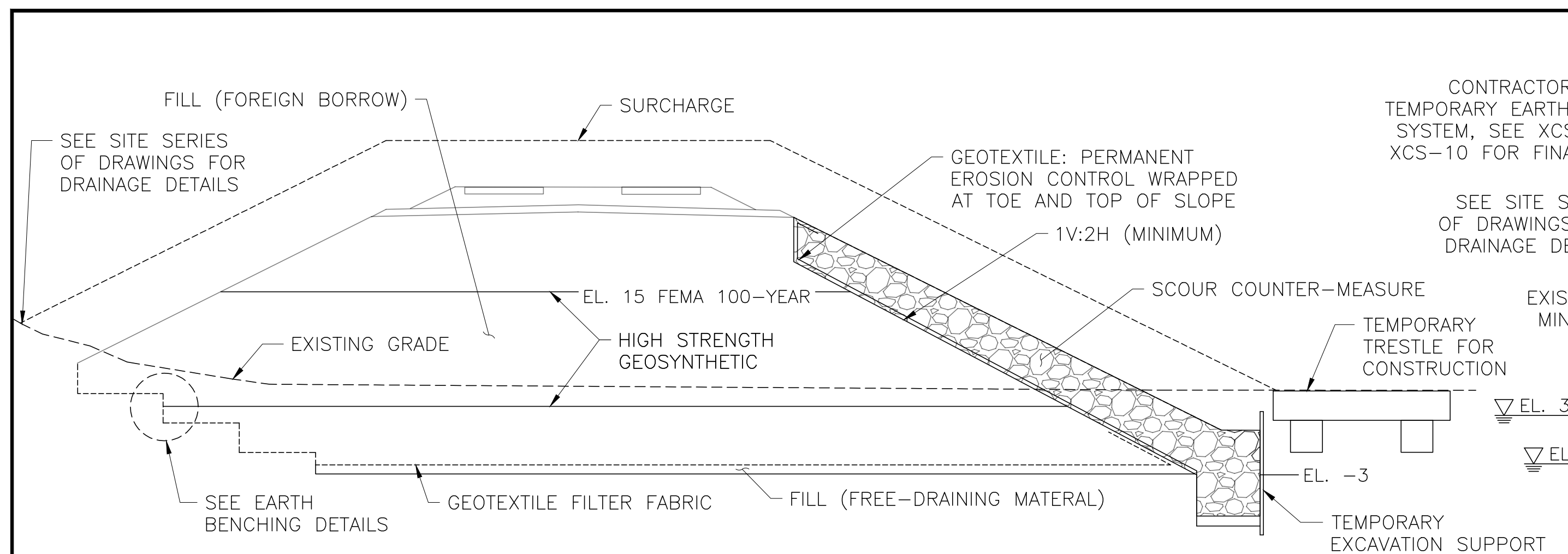
Approved	Date



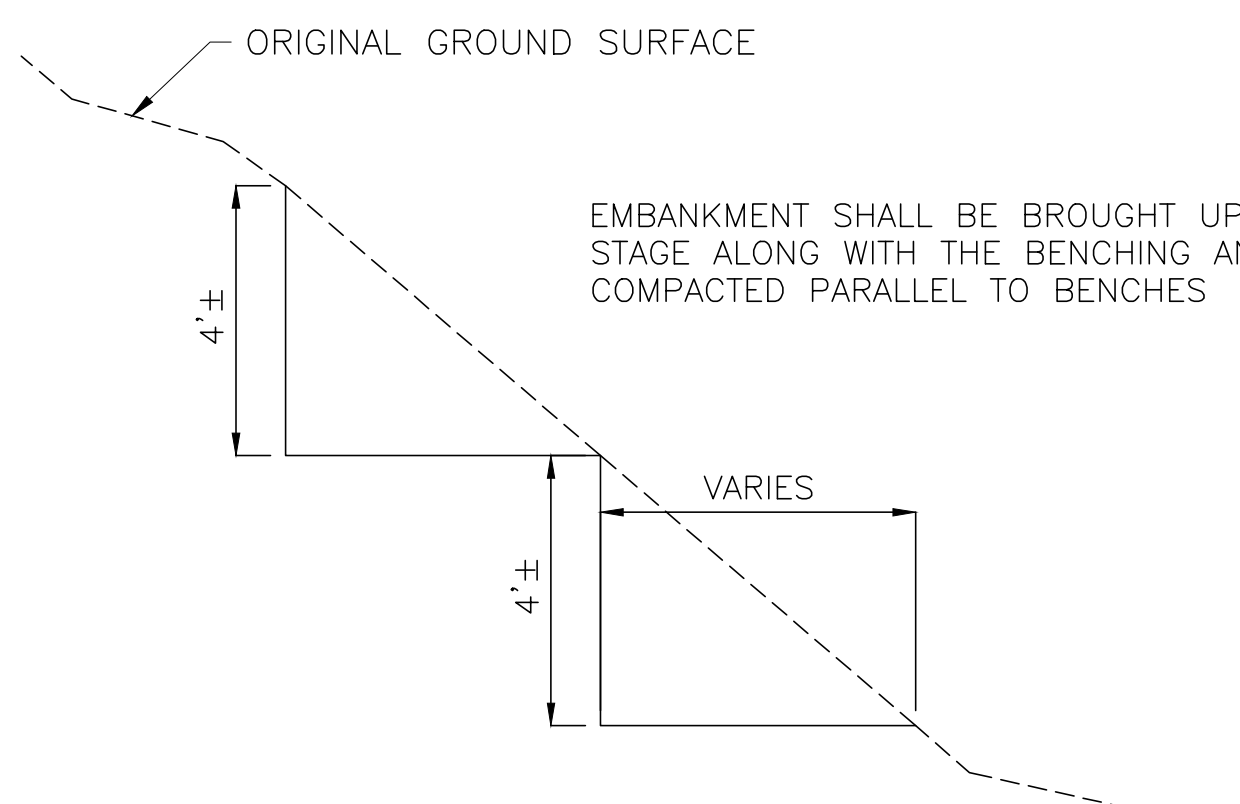
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK		CONNECTICUT	
Project Code:	XXX XXX	WBS:	
Sheet No.	125 OF 140		
<b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b>			
<b>SUBSURFACE PROFILE 3</b>			
Designed	KG	Drawn	KG
Checked	AR/RM	Date	5/2/2023

**GEO-03**



- NOTES:
- USE LIGHTWEIGHT AGGREGATE, AS SHOWN, WITHIN THE LIMITS OF THE WEST APPROACH RETAINING WALL.
  - CONSTRUCT THE APPROACH EMBANKMENTS IN SEQUENTIAL STEPS AS FOLLOWS:
    - EXCAVATE TO REMOVE THE TOP SOFT SOIL ON THE WETLAND LIMITS WITHIN THE FOOTPRINT OF THE EMBANKMENT FILL TO ELEVATION -3.0 FEET, OR AS DIRECTED BY THE ENGINEER.
    - BACKFILL WITH FREE-DRAINING MATERIAL TO ELEVATION -1.0 FEET TO CONSTRUCT WORKING PLATFORM. FREE-DRAINING MATERIAL SHALL MEET THE REQUIREMENTS OF CONNDOT FORM 818, SECTION M.02.07.
    - DEWATER TO CREATE DRY WORK AREA.
    - PLACE THE GEOTEXTILE FILTER FABRIC ON ALL WETLAND SURFACES. GEOTEXTILE FILTER FABRIC SHALL MEET THE REQUIREMENTS OF 7.55 AND M.08.01-19 OF THE CONNDOT FORM 818 AND CONFORM TO THE REQUIREMENTS FOR SEPARATION HAVING HIGH SURVIVABILITY.
    - CONSTRUCT EMBANKMENT FILLS TO ELEVATION +5.0 FEET USING FOREIGN BORROW. ALLOW FOR A 21-DAY CONSOLIDATION PERIOD, OR AS ORDERED BY THE ENGINEER BEFORE ADDING NEW FILL. FOREIGN BORROW SHALL CONFORM TO THE PROVISION CONNDOT FORM 818 SECTION 2.07.02 AND SHALL ALSO COMPLY WITH THE PROJECT SPECIFICATIONS.
    - CONSTRUCT EMBANKMENT FILLS TO ELEVATION +12.0 FEET USING FOREIGN BORROW AFTER PLACING GEOTEXTILE EMBANKMENT REINFORCEMENT AT ELEVATION +5.0 FEET ALONG THE ENTIRE FOOTPRINT OF THE FILL AREA. ALLOW FOR A 21-DAY CONSOLIDATION PERIOD, OR AS ORDERED BY THE ENGINEER BEFORE ADDING NEW FILL. GEOTEXTILE EMBANKMENT REINFORCEMENT SHALL MEET THE REQUIREMENTS OF 7.55 AND M.08.01-19 OF CONNDOT FORM 818 AND SHALL COMPLY WITH THE PROJECT SPECIFICATIONS.
    - CONTINUE CONSTRUCTION OF THE EMBANKMENT TO THE FINAL GRADE AFTER PLACING A GEOTEXTILE EMBANKMENT REINFORCEMENT AT ELEVATION +15.0 FEET ACROSS THE ENTIRE FOOTPRINT OF THE EMBANKMENT. ALLOW FOR A 21-DAY CONSOLIDATION PERIOD, OR AS ORDERED BY THE ENGINEER BEFORE ADDING THE NEW SURCHARGE FILL.
    - AT THE WEST APPROACH EMBANKMENT, PLACE AN ADDITIONAL 5 FEET OF SURCHARGE. SURCHARGE SHALL BE PLACED SUCH THAT THE TEMPORARY ACCESS ROADS REMAIN ACCESSIBLE THROUGHOUT THE CONSOLIDATION PERIOD.
    - ALLOW FOR A 180-DAY CONSOLIDATION PERIOD AT THE WEST APPROACH EMBANKMENT AND A 75-DAY CONSOLIDATION PERIOD AT THE EAST APPROACH EMBANKMENT TO ACHIEVE THE COMPLETION OF PRIMARY CONSOLIDATION PRIOR TO THE PLACEMENT OF THE RAILROAD BALLAST. THE ACTUAL WAITING PERIOD WILL BE DETERMINED BY THE ENGINEER BASED ON THE SETTLEMENT PLATFORM AND SLOPE INCLINOMETER READINGS. DURING THE WAITING PERIOD, ALL CONSTRUCTION EQUIPMENT WILL BE PERMITTED. SEE CV-408 FOR SETTLEMENT MONITORING INSTRUMENTATION DETAILS.
    - RE-GRADE THE SITE TO FINAL GRADE AND CONSTRUCT THE RAILROAD TRACKS.
  - PRIOR TO COMMENCEMENT OF WEST APPROACH RETAINING WALL OR EMBANKMENT CONSTRUCTION, CONFIRMATORY BORINGS SHALL BE CONDUCTED AT A MAXIMUM SPACING OF 150 FEET OR A TOTAL OF 10 BORINGS, WHICHEVER IS LARGER. MINIMUM BORING DEPTH SHALL BE 70 FEET BELOW EXISTING GRADE.
  - DETAILS SHOWN ON THIS SHEET NOT TO SCALE FOR CLARITY



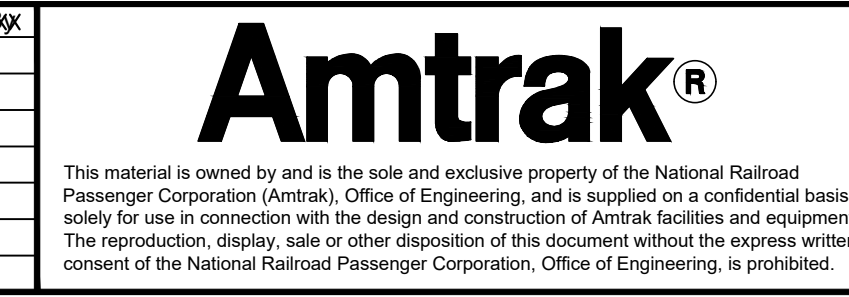
NOTE: THE FACE OF THE EXISTING EMBANKMENT SHALL BE BENCHED SUCH THAT THE TOP BENCH BEGINS AT THE TOP OF SLOPE OF THE EXISTING EMBANKMENT. WHERE EXCAVATION IS REQUIRED BELOW THE THEORETICAL RAILROAD EMBANKMENT LINE, CONTRACTOR SHALL DESIGN AND PLACE TEMPORARY SHEETING TO ENSURE STABILITY OF THE EXISTING EMBANKMENT AND TRACK STRUCTURE THROUGHOUT CONSTRUCTION.

BORING ON LAND		
DESCRIPTION	UNIT	QUANTITIES
SOIL SAMPLING	LF	700

ELEVATION TABLE				
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (MLLW)(FT)	
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.89	
CT COASTAL JURISDICTION LINE	CJL	2.90	4.79	
HIGH TIDE LINE	HTL	3.04	4.93	
MEAN HIGH WATER LINE	MHW	1.60	3.49	
MEAN LOW WATER LINE	MLW	-1.71	0.18	
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00	

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

Revisions	MM/DD/YY	BY



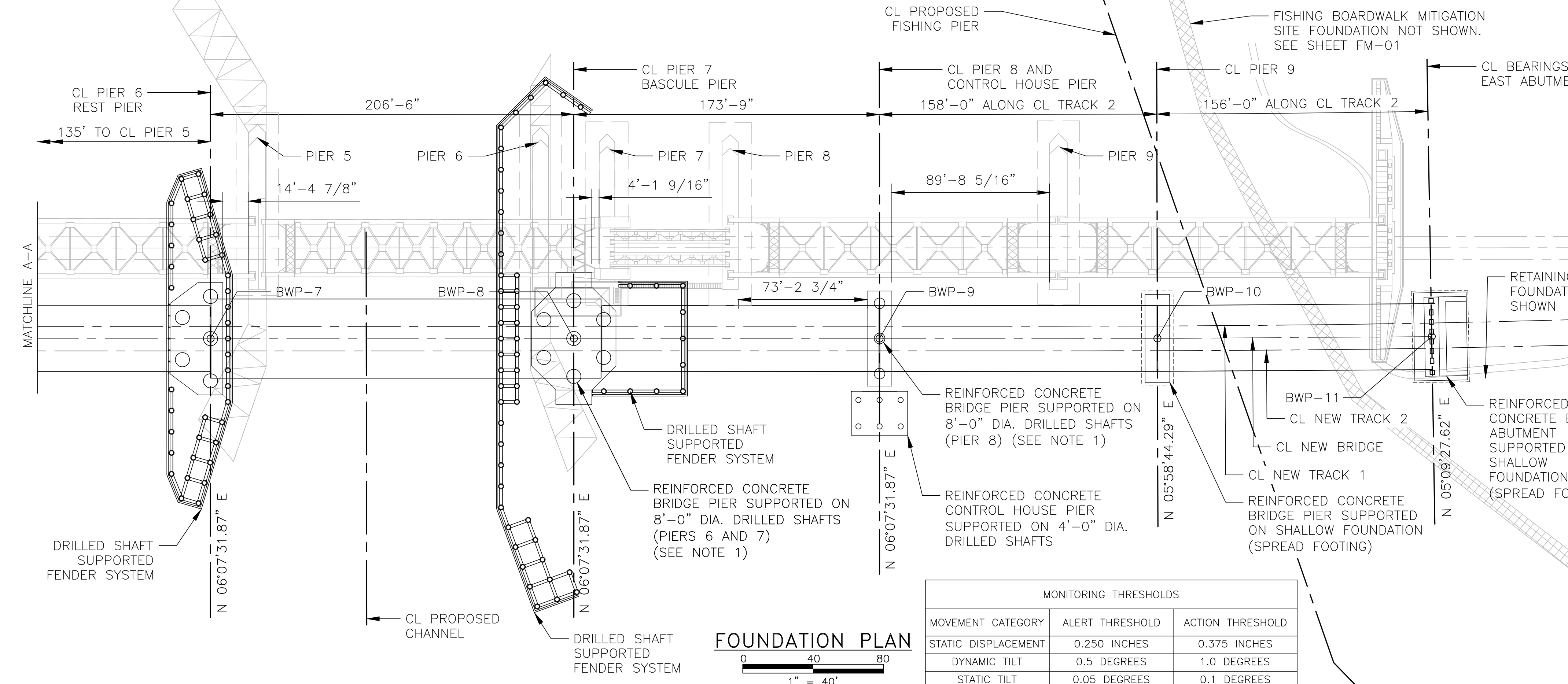
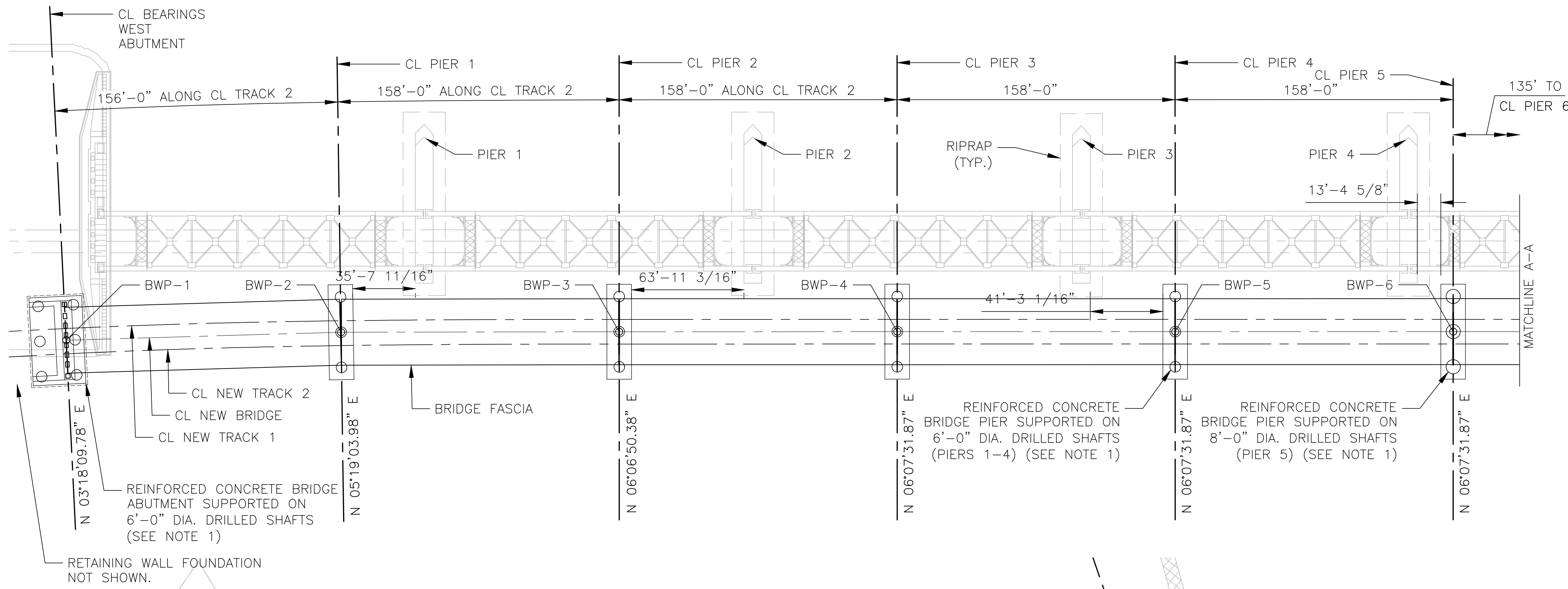
Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

Designed	KG	Drawn	KG	Checked	AR/RM	Date	5/2/2023
PROJECT: REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER EMBANKMENT CONSTRUCTION SCHEME SHEET: GEO-04							



**NOTES:**

- SEE DRAWINGS GEO-06 AND GEO-07 FOR DRILLED SHAFT DEEP FOUNDATION AND SPREAD FOOTING SHALLOW FOUNDATION DETAILS AND NOTES.
- EXISTING BRIDGE STRUCTURE SHOWN FOR INFORMATION ONLY. EXISTING STRUCTURE TO BE DEMOLISHED PER THE DETAILS SHOWN ON DRAWING DEM-01.
- PROPOSED FISHING PIER NOT SHOWN FOR CLARITY.

**CONSTRUCTION NOTES:**

- CARE SHALL BE EXERCISED TO AVOID UNDERMINING NEARBY SOIL SUPPORTING THE FOUNDATION OF EXISTING BRIDGE AND TO PROTECT UTILITIES DURING INSTALLATION AND CONSTRUCTION OF ANY TEMPORARY STRUCTURE, DRILLED SHAFTS, PILES AND/OR SPREAD FOOTING. THE CONTRACTOR SHOULD COMMENCE CONSTRUCTION OPERATIONS FOR THE DRILLED SHAFTS FOR EACH SUBSTRUCTURE UNIT AT THE POINT CLOSEST TO THE EXISTING BRIDGE STRUCTURE.
- CARE SHALL BE EXERCISED TO AVOID UNDERMINING NEARBY SOIL SUPPORTING THE FOUNDATION OF THE NEWLY CONSTRUCTED BRIDGE AND TO PROTECT UTILITIES DURING DEMOLITION OF THE EXISTING BRIDGE.
- THE EXISTING FEATURES SHOWN ON THE PLAN (IF ANY) ARE FOR INFORMATION ONLY. THERE MAY BE ADDITIONAL UTILITIES, OBSTRUCTIONS (REMNANT FROM PREVIOUS CONSTRUCTION ACTIVITIES) AND EXISTING RIPRAP AT PROPOSED FOUNDATION LOCATION. CONTRACTOR SHALL LOCATE ANY FEATURES AND REMOVE OBSTRUCTIONS/RIPRAP PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL EXERCISE CAUTION WHILE REMOVING OBSTRUCTIONS AND RIPRAP TO AVOID UNDERMINING THE SOIL SUPPORTING THE FOUNDATION OF THE EXISTING BRIDGE. SCOPE OF OBSTRUCTION AND RIPRAP REMOVAL SHALL BE LIMITED TO PERMIT INSTALLATION OF DRILLED SHAFTS AND SPREAD FOOTINGS.
- THE DIMENSIONS SHOWN ON THIS SHEET INDICATING THE CLEARANCE DISTANCES BETWEEN THE EXISTING PIER CAPS AND THE PROPOSED DRILLED SHAFTS AND SPREAD FOOTINGS ARE APPROXIMATE, AND SHALL BE VERIFIED BY THE CONTRACTOR, WHERE REQUIRED.
- CONTRACTOR SHALL PROTECT EXISTING UTILITIES NOT ABANDONED FROM DAMAGE, DISTURBANCE, AND/OR EXCESSIVE VIBRATION THROUGHOUT THE CONSTRUCTION OF THE PROPOSED STRUCTURE AND DEMOLITION OF THE EXISTING STRUCTURE.

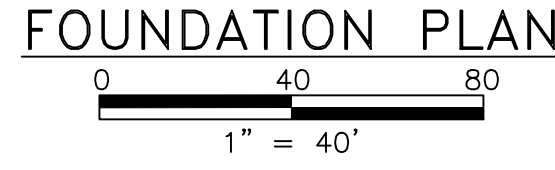
**STRUCTURE MONITORING NOTES:**

- THE EXISTING BRIDGE'S PIERS AND ABUTMENTS SHALL BE MONITORED PER THE CONTRACT SPECIFICATIONS.
- LIMIT EXISTING BRIDGE DISPLACEMENT AND TILT MEASUREMENTS AS LISTED IN MONITORING THRESHOLDS TABLE BELOW. THRESHOLDS SUBJECT TO REVIEW AND REVISION BASED ON RESULTS OF THE BASELINE SURVEY.
- VIBRATION/TILT SENSORS PER EACH PIER (MINIMUM):
  - PIERS 1 THROUGH 4, PIER 9, AND ABUTMENTS: TWO SURVEY TARGETS, ONE TILT SENSOR, AND ONE VIBRATION SENSOR PER PIER.
  - PIERS 5 THROUGH 8: FOUR SURVEY TARGETS, TWO TILT SENSORS, AND TWO VIBRATION SENSORS PER PIER. FOR SURVEY TARGETS: TWO SETS OF MONITORING POINTS ON THE UPSTREAM AND DOWNSTREAM SIDES OF THE PIER. FOR TILT: ONE TILT SENSOR ON THE UPSTREAM AND DOWNSTREAM SIDES OF THE PIER. FOR VIBRATION: ONE VIBRATION SENSOR ON THE UPSTREAM AND DOWNSTREAM SIDES OF THE PIER.

BRIDGE CENTERLINE WORKING POINTS				
WORKING POINT	STATION ALONG TRACK 2	OFFSET	NORTHING	EASTING
BWP-1	106+2836.4857	7.74' LT.	674288.8932	1109335.4415
BWP-2	106+2992.4857	7.61' LT.	674276.7387	1109491.2302
BWP-3	106+3150.4857	7.00' LT.	674260.1025	1109648.4550
BWP-4	106+3308.4857	7.00' LT.	674243.2426	1109805.5543
BWP-5	106+3466.4857	7.00' LT.	674226.3829	1109962.6522
BWP-6	106+3624.4857	7.00' LT.	674209.5233	1110119.7501
BWP-7	106+3759.4857	7.00' LT.	674195.1178	1110253.9793
BWP-8	106+3965.9857	7.00' LT.	674173.0828	1110459.3003
BWP-9	106+4139.7357	7.00' LT.	674154.5425	1110632.0583
BWP-10	106+4297.7357	6.96' LT.	674137.7275	1110789.1430
BWP-11	106+4453.7357	6.62' LT.	674122.1158	1110944.2614

NOTE: BRIDGE CENTERLINE WORKING POINTS ARE PROVIDED AT INTERSECTIONS OF CL SUBSTRUCTURES AND CL BRIDGE.

MONITORING THRESHOLDS		
MOVEMENT CATEGORY	ALERT THRESHOLD	ACTION THRESHOLD
STATIC DISPLACEMENT	0.250 INCHES	0.375 INCHES
DYNAMIC TILT	0.5 DEGREES	1.0 DEGREES
STATIC TILT	0.05 DEGREES	0.1 DEGREES
VIBRATION	0.40 IN/SEC	0.50 IN/SEC



ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023



This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved \_\_\_\_\_ Date \_\_\_\_\_



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

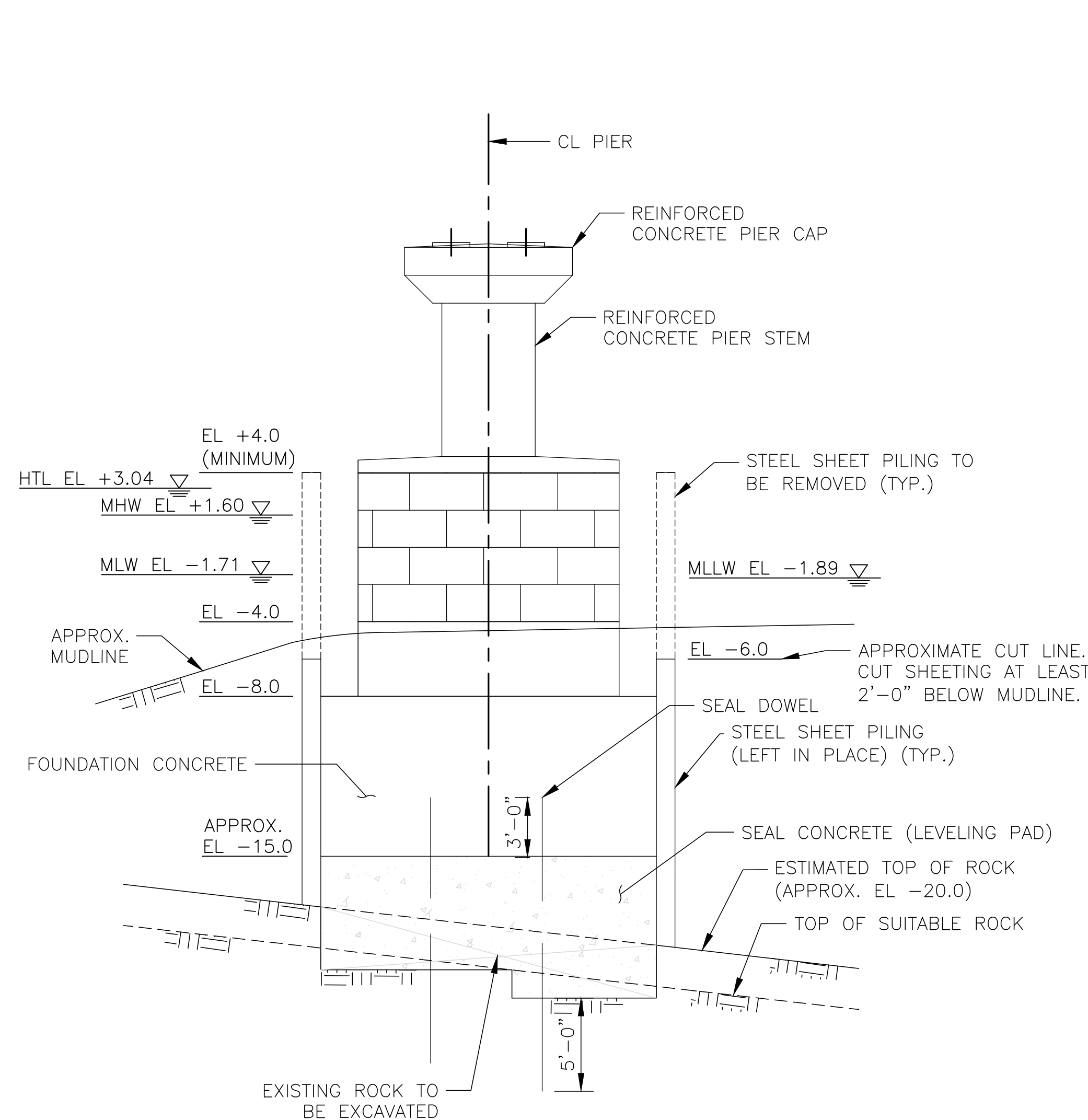
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
FOUNDATION PLAN  
Designed KG Drawn KG Checked AR/RM Date 5/2/2023

Project Code: XXX XXX  
WBS: \_\_\_\_\_  
Sheet No. 127 OF 140  
**GEO-05**

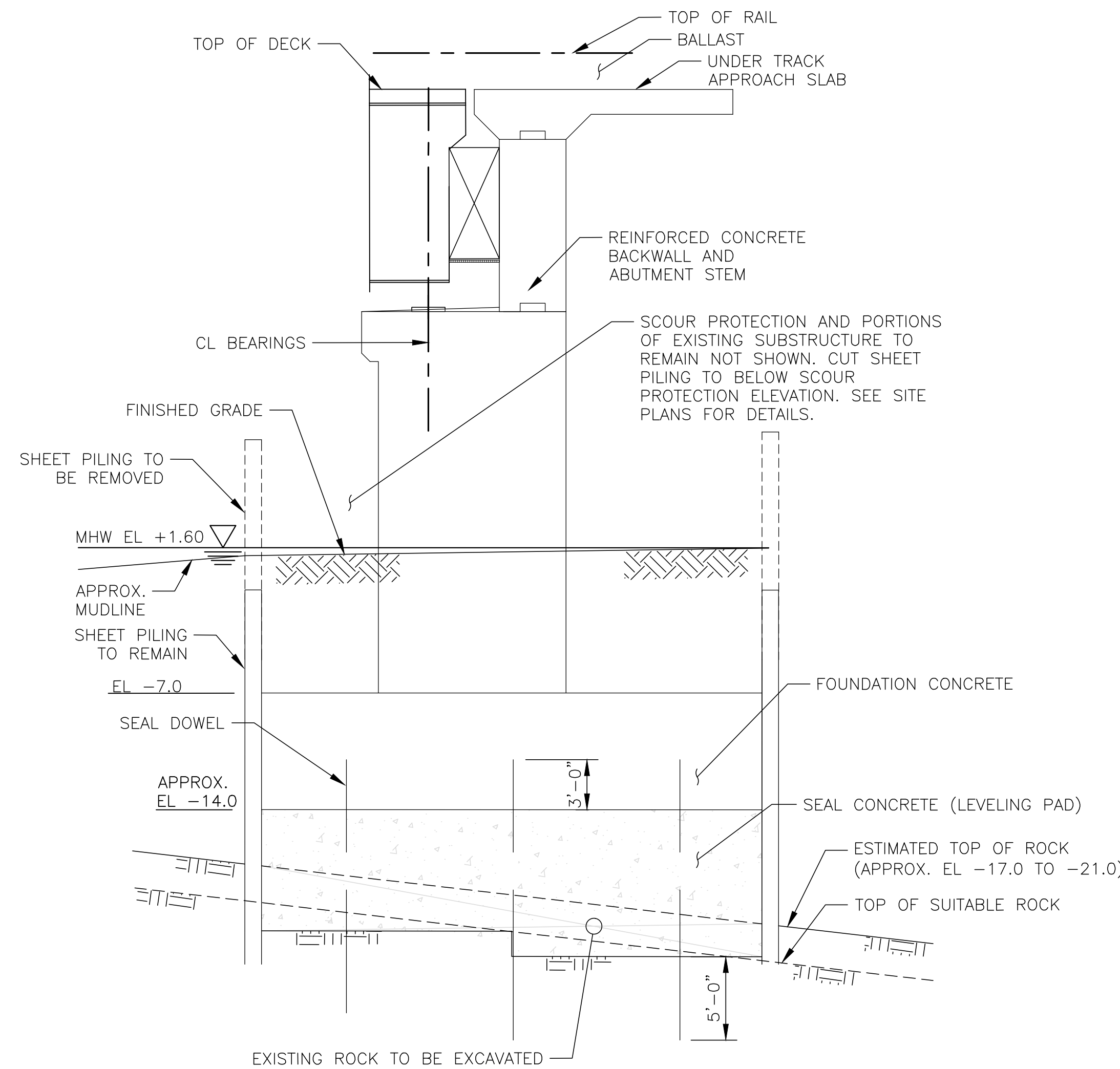
FILE NAME: S486.GEO-05\_FOUNDATION-PLAN.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

SHALLOW FOUNDATION NOTES:

1. THE BEDROCK WILL VARY IN NATURE, SLOPE, AND DEGREE OF FRACTURING. AFTER THE FOUNDATION EXCAVATIONS ARE COMPLETED AND ALL DECOMPOSED BEDROCK REMOVED, THE CONTRACTOR SHALL SURVEY THE FOUNDATION BEDROCK AND PROVIDE THE EXACT BEDROCK ELEVATIONS TO THE PROJECT ENGINEER.
2. SEAL CONCRETE (LEVELING PAD) SHALL BE PLACED ON NON-ERODIBLE SUITABLE BEDROCK CLEANED OF ALL WEATHERED OR FRACTURED ROCK OR LOOSE SOIL. PRIOR TO PLACING THE FOOTING, THE BEARING SURFACE SHALL BE WASHED WITH HIGH PRESSURE WATER AND AIR, AND SMOOTH BEDROCK SHALL BE ROUGHENED. WHERE THE BEDROCK SURFACE SLOPE EXCEEDS 4H:1V THE BEDROCK SURFACE SHALL BE BENCHED IN LEVEL STEPS OR MADE COMPLETELY LEVEL. THE BEDROCK BEARING SURFACE BENEATH THE NEAR FACE OF ABUTMENTS AND WALLS SHALL HAVE A LEVEL SURFACE OF 3 FEET MINIMUM, MEASURED PERPENDICULAR TO THE FACE.
3. WHEN BEDROCK PROTRUDES ABOVE THE BOTTOM OF THE FOOTING/LEVELING PAD, THE FOOTING/LEVELING PAD MAY BE RAISED AND VERTICAL REINFORCING MAY BE CUT IN THE FIELD WITH THE APPROVAL OF THE PROJECT ENGINEER. THE MINIMUM ALLOWABLE FOOTING THICKNESS IS SHOWN ON THE PLANS. PAYMENT FOR ADJUSTING FOOTING DEPTH AND ADJUSTING REINFORCING STEEL WILL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS. NO SEPARATE PAYMENT WILL BE MADE.
4. AT THE OPTION OF THE PROJECT ENGINEER, BEDROCK THAT PROTRUDES ABOVE THE BOTTOM OF FOOTING/SEAL CONCRETE (LEVELING PAD) ELEVATION MAY BE REMOVED.



PIER 9  
N.T.S



EAST ABUTMENT  
N.T.S

ELEVATION TABLE			
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (MLLW)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.8900
CT COASTAL JURISDICTION LINE	CJL	2.90	4.7900
HIGH TIDE LINE	HTL	3.04	4.9300
MEAN HIGH WATER LINE	MHW	1.60	3.4900
MEAN LOW WATER LINE	MLW	-1.71	0.1800
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

FILE NAME: 2486\_GEO-06\_PIER\_9\_EAST\_ABUTMENT.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

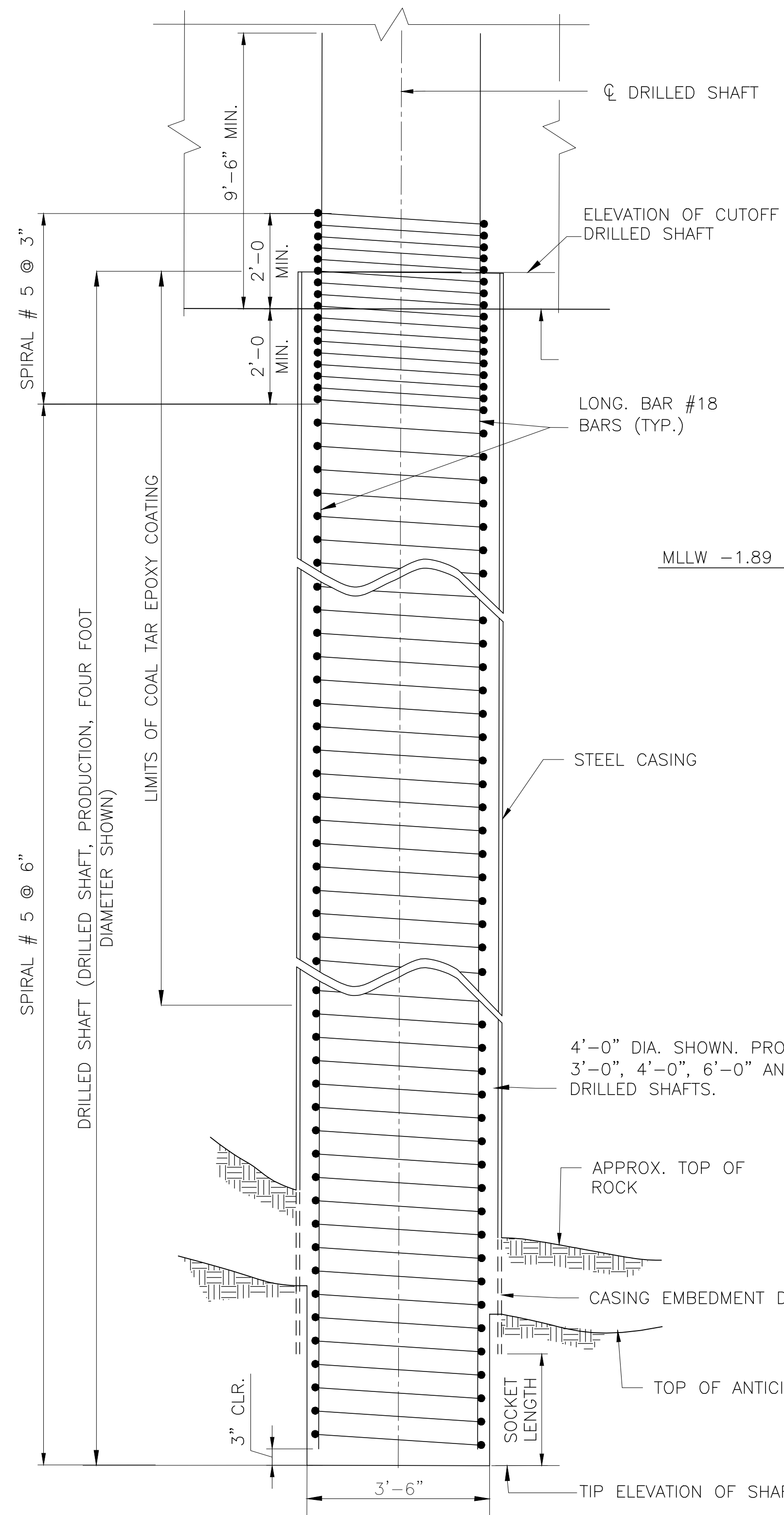
Approved	Date



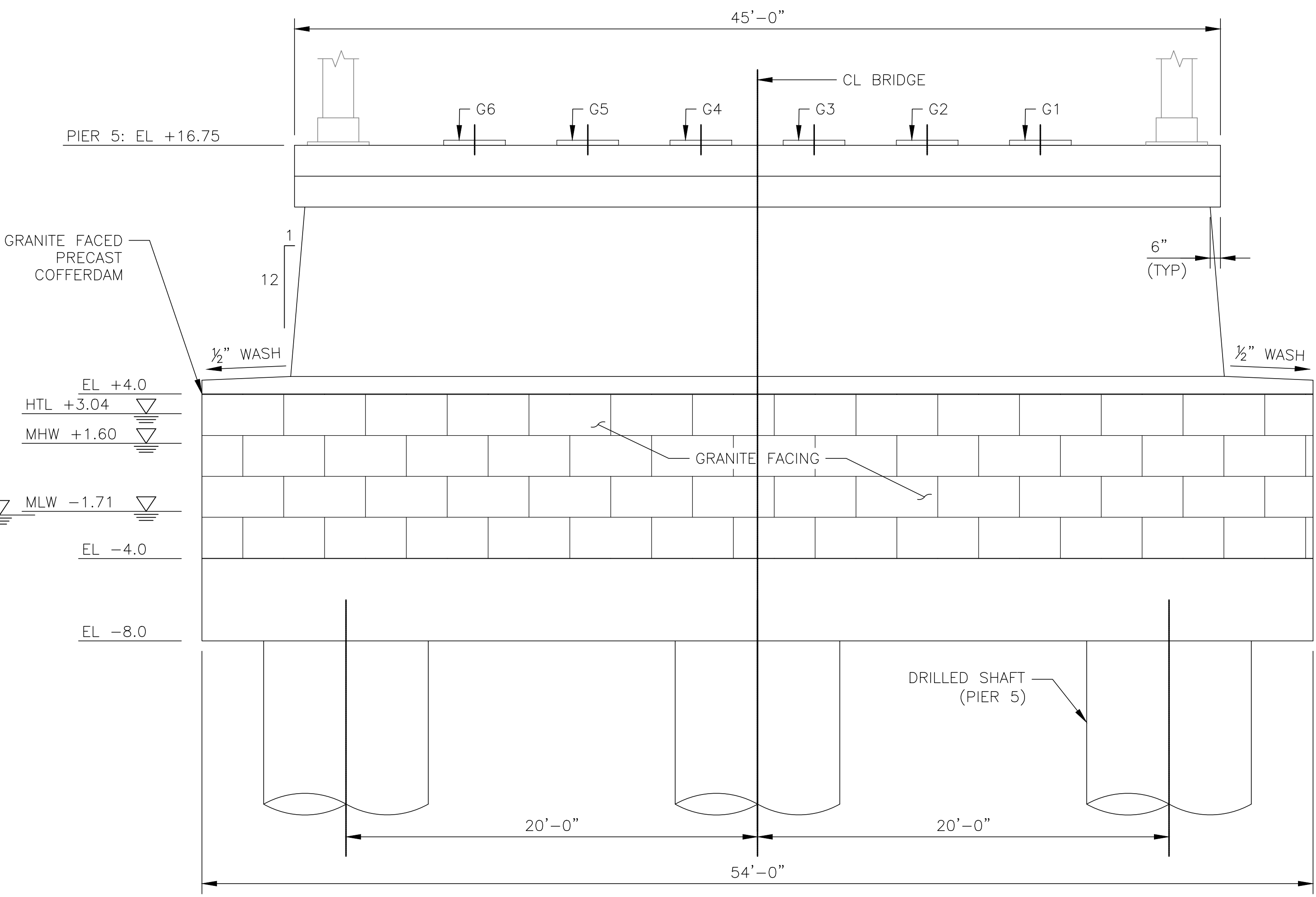
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
PIER 9 AND EAST ABUTMENT  
Designed KG Drawn KG Checked AR/RM Date 5/2/2023

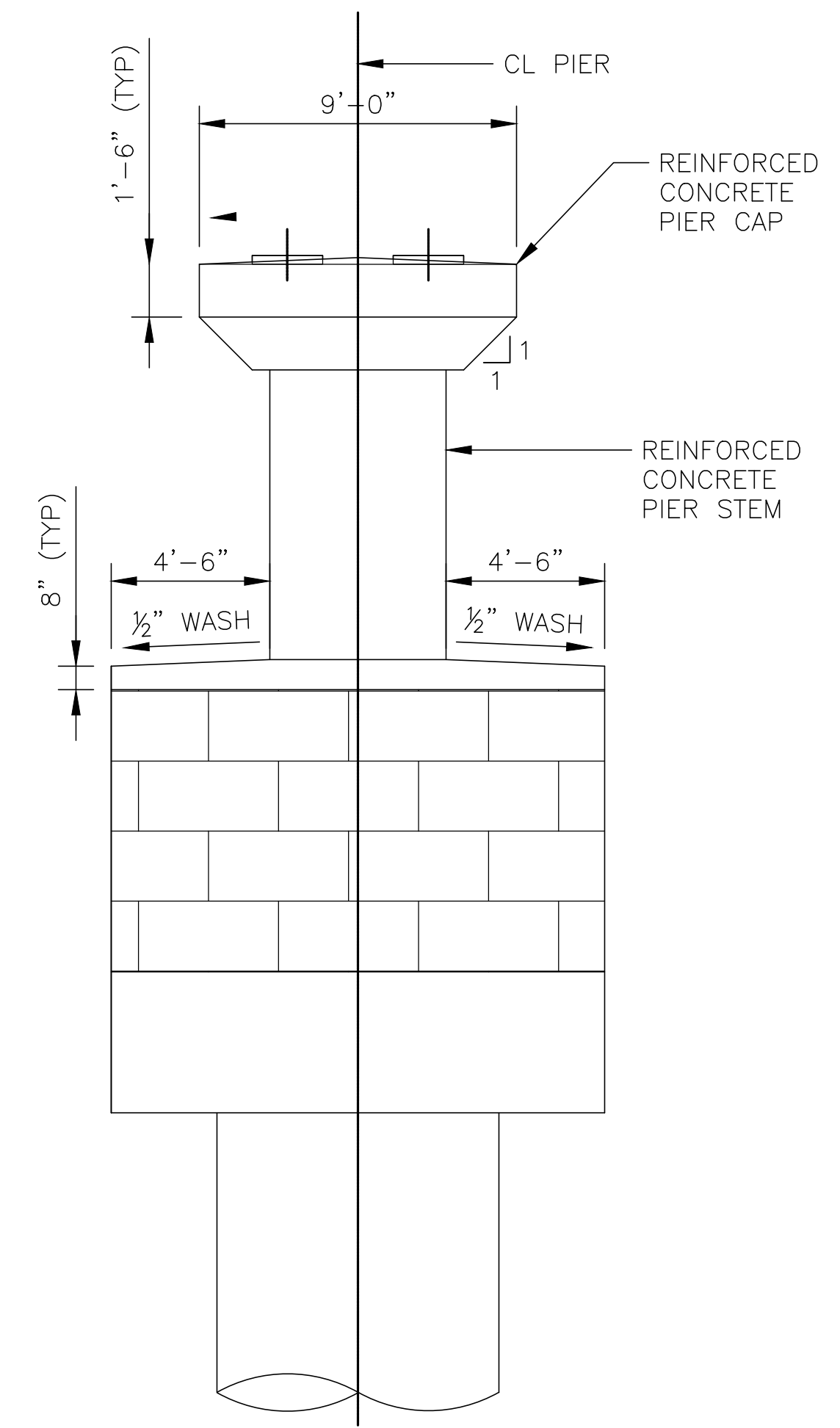
Project Code: XXX XXX  
WBS:  
Sheet No. 128 OF 140  
**GEO-06**



**TYPICAL DRILLED SHAFT DETAIL**  
 SCALE: NOT TO SCALE



**TYPICAL DRILLED SHAFT PIER ELEVATION**  
 (PIER 5 SHOWN, OTHERS SIMILAR)



**TYPICAL PIER SECTION**

ELEVATION TABLE

DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (MLLW)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.8900
CT COASTAL JURISDICTION LINE	CJL	2.90	4.7900
HIGH TIDE LINE	HTL	3.04	4.9300
MEAN HIGH WATER LINE	MHW	1.60	3.4900
MEAN LOW WATER LINE	MLW	-1.71	0.1800
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

**NOTES:**

- THE CONTRACTOR SHALL CONSTRUCT THE DRILLED SHAFTS CONFORMING TO THE REQUIREMENTS OF THIS DRAWING AND THE PROJECT SPECIFICATIONS.
- PERMANENT STEEL CASING SHALL CONFORM TO ASTM A572, GR60.
- REINFORCEMENT STEEL FOR CONCRETE SHALL BE HOT DIP GALVANIZED. SEE STRUCTURAL GENERAL NOTES.
- SEE DRAWING GEO-05 FOR LOCATIONS OF DRILLED SHAFTS.
- PRIOR TO COMMENCEMENT OF DRILLED SHAFT EXCAVATION, CONFIRMATORY BORINGS SHALL BE CONDUCTED AT EACH SHAFT LOCATION FOR ALL PIERS AND CONTROL HOUSE TO CONFIRM TOP OF BEDROCK AND TYPE AND QUALITY OF BEDROCK. CONFIRMATORY BORINGS FOR FENDERS SHALL BE CONDUCTED AT 50-FOOT INTERVALS OR A TOTAL OF 15 BORINGS FOR BOTH FENDERS, WHICHEVER IS LARGER. CONFIRMATORY ROCK CORING SHALL EXTEND AT LEAST 10 FEET DEEPER THAN THE ESTIMATED SOCKET LENGTH OF THE SUBSTRUCTURE.
- DUE TO TIDAL FACTORS, FLUCTUATIONS OF SEVERAL FEET IN NORMAL ELEVATION OF RIVE LEVEL MAY OCCUR. THIS FLUCTUATION IN WATER CAN OCCUR OVER SHORT PERIODS OR TIME FRAMES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SAFEGUARD THE DRILLED SHAFT CONSTRUCTION ACTIVITIES AND OPERATION AGAINST THE CONSEQUENCE AND IMPACT OF TIDAL FLUCTUATIONS.
- DUE TO STRONG RIVER CURRENTS, DIFFICULT CONDITIONS ARE ANTICIPATED DURING INSTALLATION OF THE CASING IN THE CORRECT LOCATION, VERTICAL ALIGNMENT, AND SEATING CASING INTO THE BEDROCK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ALLOW THE CASING TO BE INSTALLED IN THE CORRECT LOCATION AND MAINTAIN ITS POSITION WHILE MEETING PROJECT SPECIFICATION LOCATION TOLERANCES.
- SLOPING BEDROCK CONDITIONS ARE ANTICIPATED AT THE LOCATIONS OF THE DEMONSTRATION DRILLED SHAFTS, WEST ABUTMENT, AND PIERS 1 TO 7.

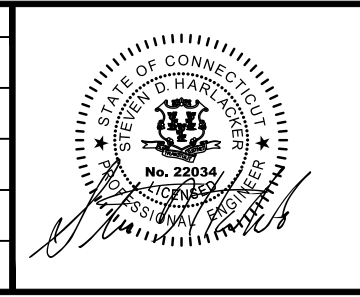
ENVIRONMENTAL PERMIT PLANS  
 PLAN DATE: MAY 2, 2023

Revisions	MM/DD/YY	BY
XXXX		



**Office of Chief Engineer**  
**STRUCTURES**  
 National Railroad Passenger Corporation  
 30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

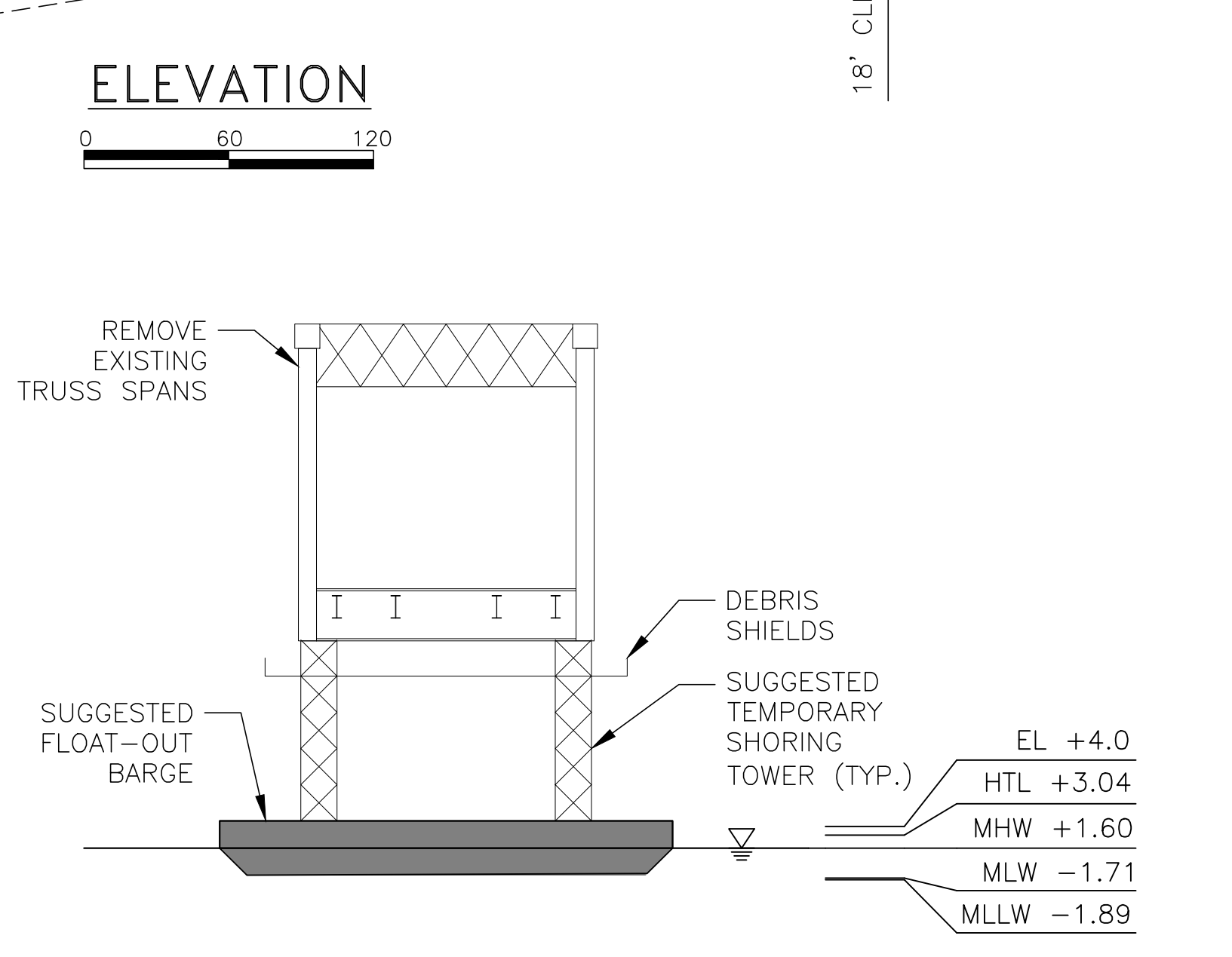
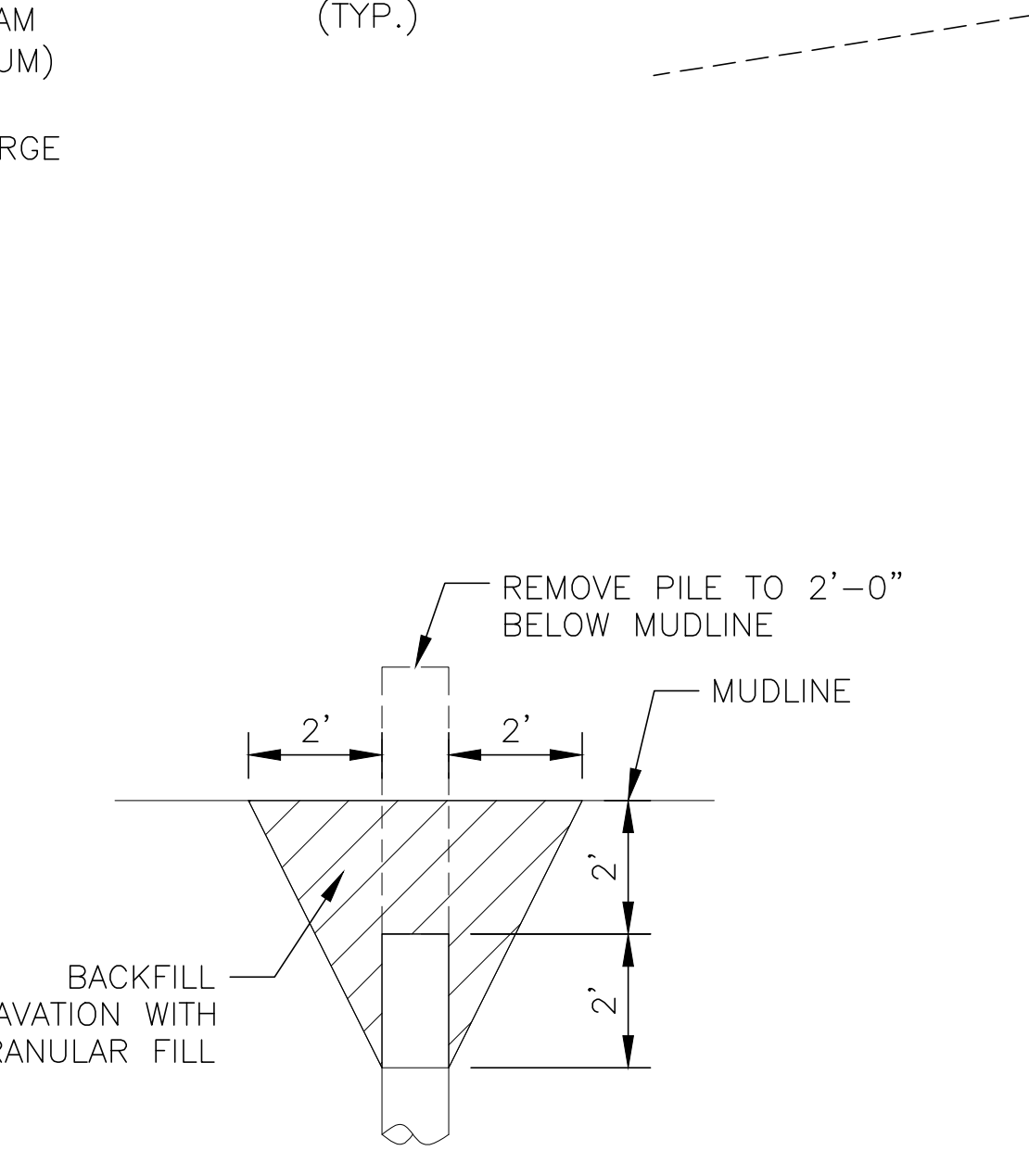
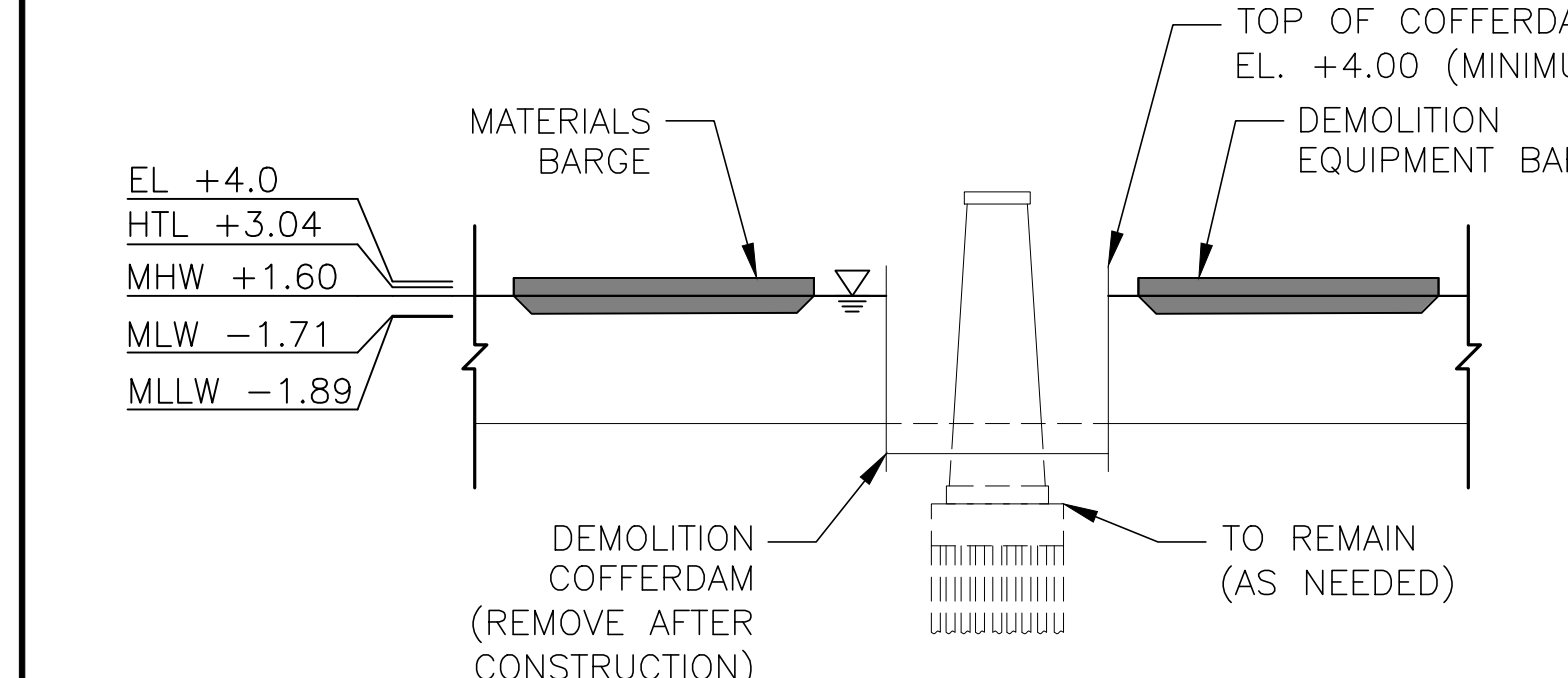
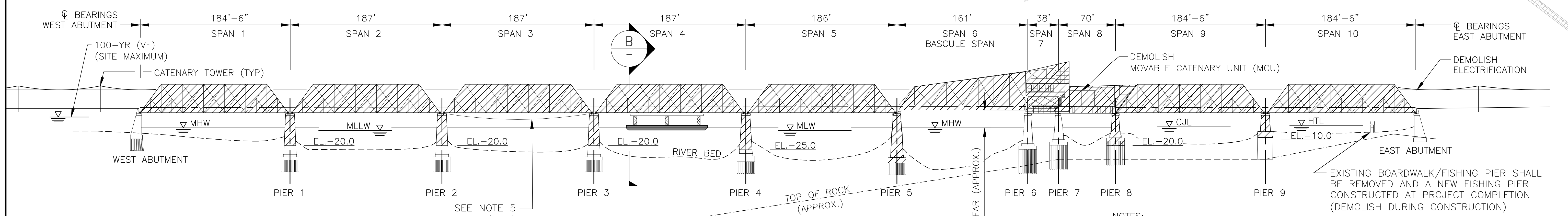
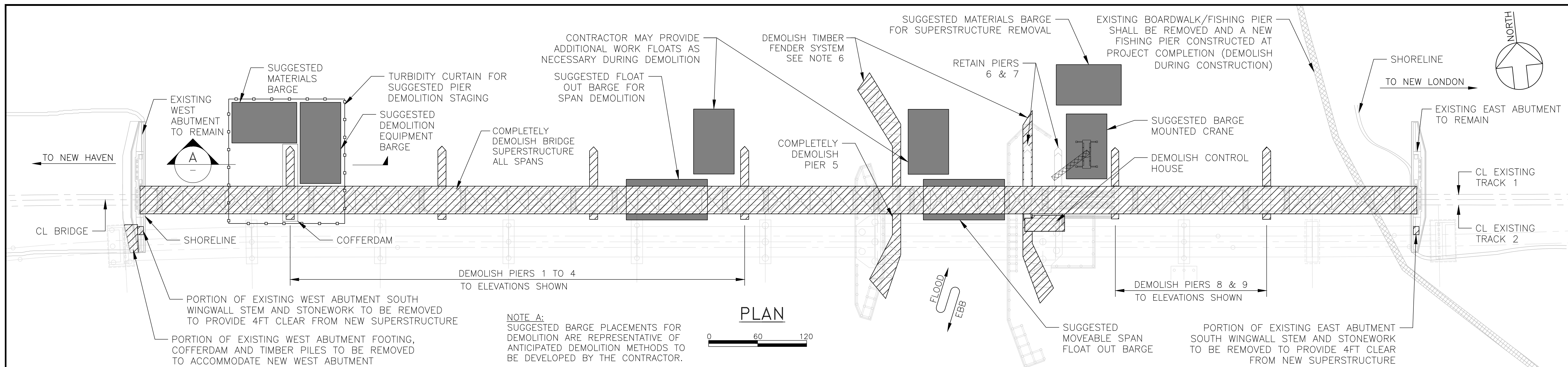


**HARDESTY & HANOVER, LLC**  
 ENGINEERING  
 1501 Broadway New York, NY 10036

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89**  
**OVER CONNECTICUT RIVER**  
**DRILLED SHAFT TYPICAL DETAILS**  
 Designed HF Drawn OW Checked RS Date 5/2/2023

Project Code	XXX XXX
WBS:	
Sheet No.	129 OF 140
DATE	GEO-07





- NOTES:**
- ALL EXISTING UNDERWATER AMTRAK OWNED BRIDGE, ET AND C&S CABLES SHALL BE DEMOLISHED OR ABANDONED.
  - ALL EXISTING ELECTRIFICATION CATENARY FACILITIES SHALL BE DEMOLISHED.
  - AMTRAK WILL SALVAGE SOME MATERIALS THAT ARE DEMOLISHED BY THE CONTRACTOR. SEE SPECIFICATIONS FOR MORE INFORMATION. THE CONTRACTOR SHALL SUBMIT ITS SCHEDULE OF DEMOLITION ITEMS FOR AMTRAK REVIEW AND APPROVAL PRIOR TO DEMOLITION.
  - DEMOLISH PIERS WITHIN COFFERDAMS. ALL COFFERDAMS WHETHER TEMPORARY OR PERMANENT WILL BE DESIGNED AND CONSTRUCTED UNDER THE DISCRETION OF THE CONTRACTOR IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. TEMPORARY IMPACTS DUE TO COFFER DAMS ARE IDENTIFIED ON THE IMPACT PLANS AND SUMMARIZED ON SUM-01.
  - CONTRACTOR TO PROVIDE DEBRIS NETTING BELOW SPANS DURING DEMOLITION ACTIVITIES.
  - DEMOLITION OF EXISTING TIMBER FENDER SYSTEMS SHALL BE PERFORMED WITHIN A TURBIDITY CURTAIN. THE DESIGN OF THE TURBIDITY CURTAIN SHALL ACCOMMODATE BARGE MOVEMENTS AS NECESSARY. SEE SC-03 FOR PHASING OF EXISTING TIMBER FENDER SYSTEM DEMOLITION.
  - TURBIDITY CURTAINS ARE REQUIRED DURING CONSTRUCTION FOR ALL IN-WATER WORK CAPABLE OF GENERATING TURBIDITY, IN ACCORDANCE WITH ENVIRONMENTAL PERMIT APPROVALS. CT DEEP REQUIRES THAT FULL DEPTH TURBIDITY CURTAINS MUST BE DEPLOYED PRIOR TO SHAFT CASING INSTALLATION.
  - PIN PILE SUPPORTED TURBIDITY CURTAIN LIMITS SHOWN ARE APPROXIMATE. TEMPORARY RIVER BOTTOM IMPACTS DUE TO TURBIDITY CURTAIN PIN PILES SHALL BE WITHIN THE TOTAL AREA LIMITS IDENTIFIED ON SUM-01.
  - ALL BARGE MOVEMENTS SHALL TAKE PLACE DURING CONDITIONS THAT MINIMIZE OR DO NOT CREATE RIVER BOTTOM DISTURBANCE. DRIVING OF BARGE SPUD PILES IS CONSIDERED A TEMPORARY IMPACT AND INCLUDED IN THE TOTAL TEMPORARY IMPACT AREAS IDENTIFIED ON SUM-01. BARGES NOT LOCATED WITHIN LARGER PIN PILE SUPPORTED TURBIDITY CURTAIN ZONES SHALL BE PROTECTED WITH INDIVIDUAL BARGE MOUNTED CURTAINS.

**ELEVATION TABLE**

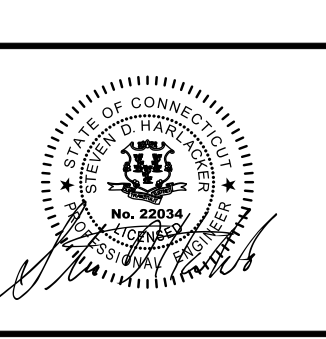
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (MLLW)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.89
CT COASTAL JURISDICTION LINE	CJL	2.90	4.79
HIGH TIDE LINE	HTL	3.04	4.93
MEAN HIGH WATER LINE	MHW	1.60	3.49
MEAN LOW WATER LINE	MLW	-1.71	0.18
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved \_\_\_\_\_ Date \_\_\_\_\_



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

OLD SAYBROOK CONNECTICUT

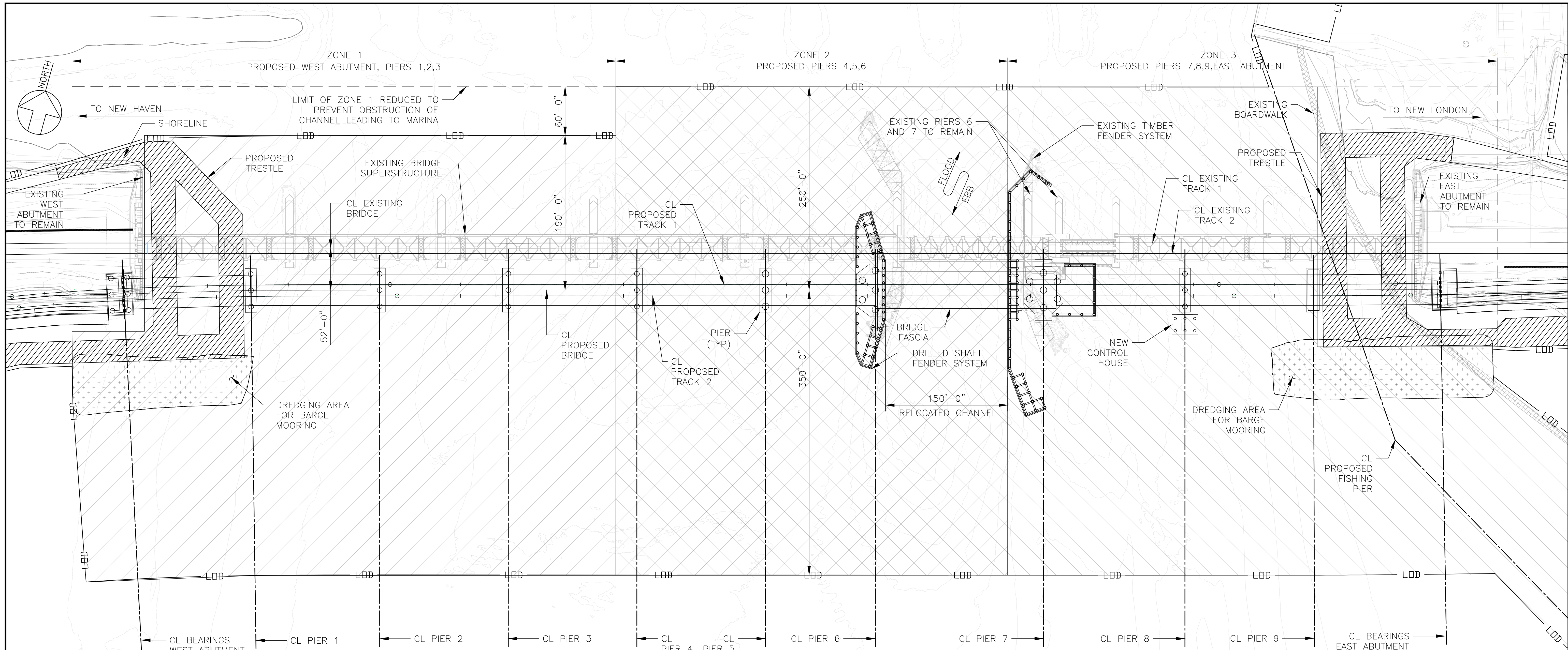
**REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER**

DESIGNATION: DEMOLITION PLAN

Designed MY Drawn MY Checked SJT Date 5/2/2023

Project Code: XXX XXX  
WBS: \_\_\_\_\_  
Sheet No. 130 OF 140  
DWG No. **DEM-01**

FILE NAME: MB\_106.89-01\_DEMOLITION\_PLANS  
PLOT SCALE: AS SHOWN  
STANDARD PLOT TABLE: YES



**NOTES**

- THE LIMITS OF DISTURBANCE SHOWN REPRESENT ANTICIPATED BOUNDARY OF BARGE OPERATIONS WITHIN THE PROJECT LIMITS. THE TOTAL BARGE OCCUPANCY ZONE AREA OUTLINED IN THE ABOVE PLAN VIEW IS 920,000 SF (21.12 ACRES).
- THE BARGE OCCUPANCY ZONES SHOWN ON THIS SHEET HAVE BEEN DEVELOPED IN CONSULTATION WITH CTDEEP. THE RESTRICTIONS ON WORK WITHIN PARTICULAR ZONES ARE GOVERNED BY THE APPLICABLE TIME OF YEAR RESTRICTION DESCRIBED IN THE PERMIT AND HEREIN.
- BARGES USED FOR CONSTRUCTION OR DEMOLITION WILL BE LOCATED WITHIN THE BOUNDARIES SHOWN ON THIS SHEET. ZONES ARE INTENDED TO LIMIT THE WORK TO A MAXIMUM OF 3 PIERS SIMULTANEOUSLY DURING THE PERIOD OF APRIL 1 TO JUNE 30. LATERAL BOUNDS OF THE ZONES ARE APPROXIMATE AND IT IS UNDERSTOOD THAT BARGES OR TURBIDITY CURTAINS MAY OVERLAP ZONES. THE ZONES ARE AS FOLLOWS:
  - ZONE 1- AREA FROM WEST ABUTMENT TO PIER 3
  - ZONE 2- AREA BETWEEN PIER 4 AND PIER 6
  - ZONE 3- AREA FROM PIER 7 TO EAST ABUTMENT
- AT NO TIME DURING THE PERIOD OF APRIL 1 TO JUNE 30 SHALL IN-WATER CONSTRUCTION OR DEMOLITION OCCUR IN THE MIDDLE OF THE RIVER (ZONE 2) OR SIMULTANEOUSLY AT MORE THAN THREE PIERS (ZONES 1 OR 3). DIADROMOUS FISH CAN UTILIZE THE ENTIRE WIDTH OF THE CONNECTICUT RIVER DURING THEIR MIGRATION BUT PRIMARILY MIGRATE UP THE NAVIGATION CHANNEL IN THE MIDDLE OF THE RIVER (ZONE 2). TO ENSURE THE MIDDLE OF THE RIVER IS RELATIVELY UNDISTURBED DURING THE SPRING MIGRATION, APRIL 1 TO JUNE 30, CONSTRUCTION AND DEMOLITION OF PIERS WILL BE LIMITED TO EITHER THE THREE WESTERN-MOST (ZONE 1) OR THREE EASTERN-MOST (ZONE 3) PIERS. DURING THE SPRING MIGRATION, NO CONSTRUCTION OR DEMOLITION OF PIERS SHALL OCCUR WITHIN THE MIDDLE THREE PIERS (ZONE 2).
- VIBRATORY HAMMERS SHALL BE USED DURING THE DIADROMOUS FISH MIGRATORY PERIOD FROM APRIL 1 TO JUNE 30, IN ORDER TO REDUCE THE NOISE IMPACTS FROM DRIVING SHEET PILE SHAFT CASINGS. THE USE OF IMPACT HAMMERS IS ACCEPTABLE OUTSIDE OF THIS TIMEFRAME.
- TO MINIMIZE CONSTRUCTION RELATED TURBIDITY, FULL DEPTH TURBIDITY CURTAINS SHALL BE DEPLOYED PRIOR TO DRIVING ANY SHEET PILE OR SHAFT CASINGS. DUE TO STRONG TIDES AND CURRENTS, THE FABRIC FOR THE CURTAINS WILL BE SELECTED TO BE COMPOSED OF HEAVY WOVEN PERVIOUS MATERIALS TO CREATE A FLOW THROUGH MEDIUM. THIS WILL REDUCE THE PRESSURE ON THE CURTAINS AND KEEP THEM IN THE SAME RELATIVE SHAPE AND LOCATION AT ALL TIDES AND RIVER FLOWS.
- ARTIFICIAL LIGHTING OVER THE WATER SHALL BE LIMITED TO NAVIGATION LIGHTS AND ANY LIGHTING TYPICALLY REQUIRED FOR THE OPERATION OF THE RAILROAD BRIDGE DURING THE SPRING MIGRATION PERIOD FROM APRIL 1 TO JUNE 30. DIADROMOUS FISH OFTEN MIGRATE AT NIGHT, AND BRIGHT ARTIFICIAL LIGHTS CAN INTERFERE WITH THEIR MIGRATION.
- THE PULLING OR CUTTING OF TIMBER PILES SHALL BE PROHIBITED FROM FEBRUARY 1 TO JUNE 30.
- ALL TIMBER PILES AND STONE PIERS SHALL BE REMOVED TO AT LEAST TWO FEET BELOW THE MUD LINE.
- ALL DREDGING AND SUBCABLE INSTALLATION SHALL BE PROHIBITED FROM FEBRUARY 1 TO JUNE 30 INCLUSIVE.
- DUE TO THE NOISE CONCERNS, THE USE OF HOE RAMS SHALL BE PROHIBITED APRIL 1 TO JUNE 30, INCLUSIVE.
- ANY WORK DONE FROM BARGES SHALL ONLY OCCUR WHEN THERE IS SUFFICIENT TIDE TO PREVENT VESSELS FROM GROUNDING IN ORDER TO PREVENT DAMAGE TO BENTHIC AQUATIC ORGANISMS. PERMANENT DREDGE AREAS WILL BE PROVIDED FOR BARGE MOORING ADJACENT TO TEMPORARY TRESTLE PLATFORMS.
- ALL LOUD CONSTRUCTION RELATED ACTIVITIES, INCLUDING DRILLING PILES OR SHAFT CASINGS (EVEN BY VIBRATORY MEANS), SHALL BE PROHIBITED FROM SUNSET TO SUNRISE DURING THE COMMERCIAL SHAD FISHING SEASON FROM APRIL 1 TO JUNE 15, INCLUSIVE.
- PROPOSED FISHING PIER NOT SHOWN DUE TO CLARITY. FISHING PIER TO BE CONSTRUCTED AFTER CONSTRUCTION OF THE NEW BRIDGE HAS BEEN COMPLETED AND THE EXISTING BRIDGE HAS BEEN DEMOLISHED. LOW-DRAFT WORK FLOATS ANTICIPATED FOR USE CONSTRUCTING THE NEW FISHING PIER WILL NOT OCCUPY THE RIVER CONCURRENT WITH THE BARGE BASED ACTIVITIES PRESENTED ON SC-02 THROUGH SC-05. SEE FM-01 FOR PIER DETAILS.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

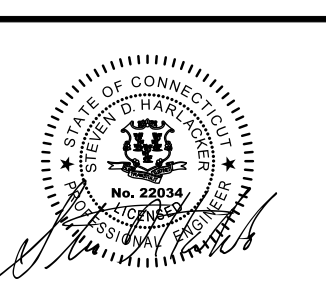
0 60 120

No.	Revisions	Date	By



**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

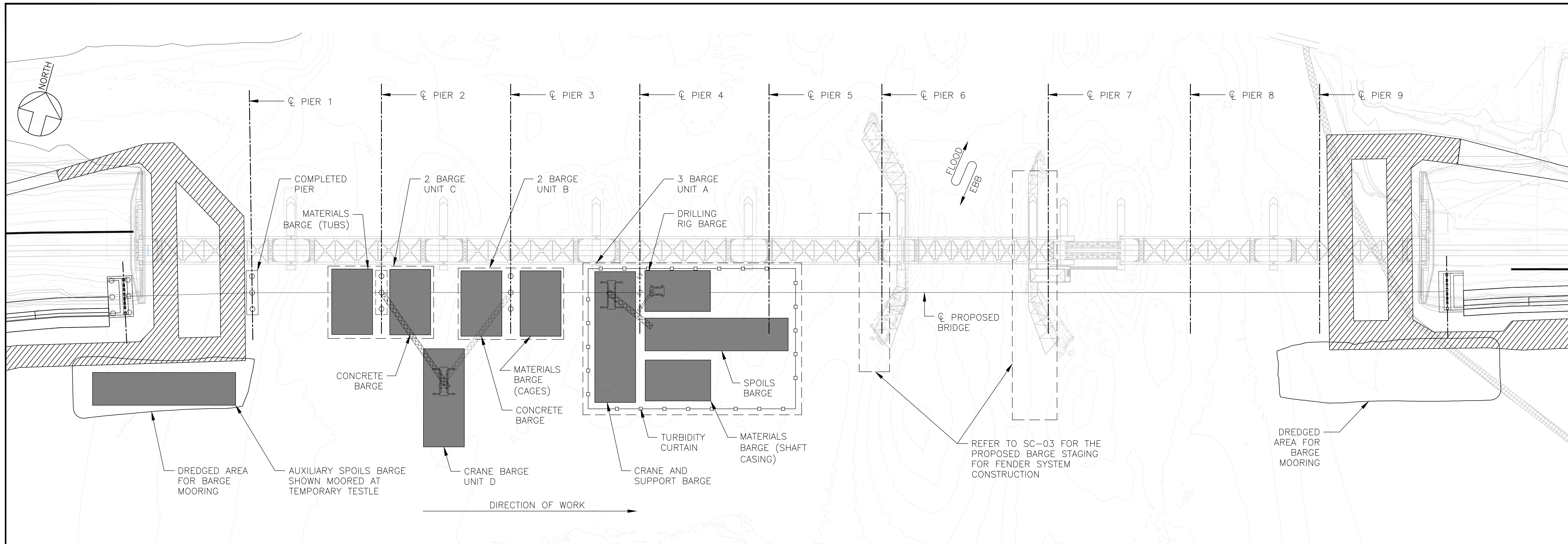
Approved	Date



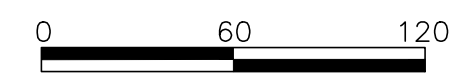
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK	CONNECTICUT	Project Code: XXX XXX
<b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b>		WBS:
<b>BARGE OCCUPANCY ZONES</b>		Sheet No. 131 OF 140
Designed BSH	Drawn CBS	Checked BSH
Date 5/2/2023	Dwg. No. <b>SC-01</b>	

FILE NAME: PLS, SCALE: XXX, STANDARD PEN TABLE: YES



**BARGE STAGING FOR PIER CONSTRUCTION**



**NOTES**

1. THE PIER CONSTRUCTION SEQUENCE SHOWN IS A CONCEPTUAL BARGE BASED CONSTRUCTION SCHEME FOR IN-WATER WORK ACTIVITIES. SEE DRAWING PH-02 FOR SUGGESTED CONSTRUCTION PHASING.
2. BARGE PLACEMENTS ARE CONCEPTUAL AND WILL BE DESIGNED BY THE CONTRACTOR.
3. PIER CONSTRUCTION IS ANTICIPATED TO REQUIRE 3 GROUPS OF BARGES FOR CONSTRUCTION:
  - 3.1. BARGE GROUP A IS ANTICIPATED FOR DRILLED SHAFT CASING
  - 3.2. BARGE GROUP B IS ANTICIPATED FOR DRILLED SHAFT REINFORCEMENT AND CONCRETE INSTALLATION
  - 3.3. BARGE GROUP C IS ANTICIPATED FOR PIER CAP AND CONCRETE CONSTRUCTION
  - 3.4. BARGE GROUP D IS ANTICIPATED TO BE A SINGULAR CRANE BARGE THAT WILL ASSIST BOTH GROUPS B AND C
4. NEW SUPERSTRUCTURE ELEMENTS ARE SHOWN IN VARIOUS STATES OF COMPLETION BASED ON THE CONCEPTUAL SEQUENCE. WORK IS SHOWN TO PROGRESS FROM WEST TO EAST AND THEREFORE THE NEW STRUCTURES WEST OF PIER 4 ARE NOT SHOWN. DEEP FOUNDATION PIER CONSTRUCTION WILL GENERALLY FOLLOW THE PROCEDURE OF DRILLED SHAFT CASING INSTALLATION, EXCAVATION AND DRILLING, INSTALLATION OF SHAFT REINFORCEMENT AND CONCRETE, FOLLOWED BY CONCRETE PILE CAP, PIER STEM AND PIER CAP CONSTRUCTION.
5. STAGES ARE SHOWN TO PROGRESS FROM WEST TO EAST, BUT WILL BE SUBJECT TO THE FINAL PLAN DEVELOPED BY THE CONTRACTOR, IN ACCORDANCE WITH THE TIME OF THE YEAR RESTRICTIONS ON THE TYPE OF WORK PERMITTED AND AREAS OF THE RIVER THAT MAY BE OCCUPIED. SEE DRAWING SC-01 AND PH-02 FOR ENVIRONMENTAL SAFEGUARDS.
6. THE CONTRACTOR SHALL PROVIDE MEASURES, IN ACCORDANCE WITH THE CONTRACT PLANS, SPECIFICATIONS, AND ENVIRONMENTAL PERMITS TO PROTECT THE WATERWAY DURING EXCAVATION CONSTRUCTION, CONCRETE PLACEMENT AND CURING.
7. TURBIDITY CURTAINS ARE REQUIRED DURING CONSTRUCTION FOR ALL IN-WATER WORK CAPABLE OF GENERATING TURBIDITY, IN ACCORDANCE WITH ENVIRONMENTAL PERMIT APPROVALS. CT DEEP REQUIRES THAT FULL DEPTH TURBIDITY CURTAINS MUST BE DEPLOYED PRIOR TO SHAFT CASING INSTALLATION.
8. PIN PILE SUPPORTED TURBIDITY CURTAIN LIMITS SHOWN ARE APPROXIMATE. TEMPORARY RIVER BOTTOM IMPACTS DUE TO TURBIDITY CURTAIN PIN PILES SHALL BE WITHIN THE TOTAL AREA LIMITS IDENTIFIED ON SUM-01.
9. ALL BARGE MOVEMENTS SHALL TAKE PLACE DURING CONDITIONS THAT MINIMIZE OR DO NOT CREATE RIVER BOTTOM DISTURBANCE. DRIVING OF BARGE SPUD PILES IS CONSIDERED A TEMPORARY IMPACT AND INCLUDED IN THE TOTAL TEMPORARY IMPACT AREAS IDENTIFIED ON SUM-01. BARGES NOT LOCATED WITHIN LARGER PIN PILE SUPPORTED TURBIDITY CURTAIN ZONES SHALL BE PROTECTED WITH INDIVIDUAL BARGE MOUNTED CURTAINS.
10. NAVIGATIONAL IMPEDIMENTS ARE TO BE MARKED WITH WARNING LIGHTS.
11. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN ICE MANAGEMENT PLAN.
12. ALL TEMPORARY WORK AND EQUIPMENT SHALL MEET THE REQUIREMENTS OF USCG AND DEEP BOATING.

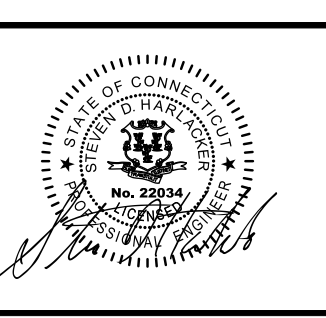
FILE NAME: PLOT SCALE: XXX STANDARD PEN TABLE: YES

Revisions	MM/BB/YY	BY



**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

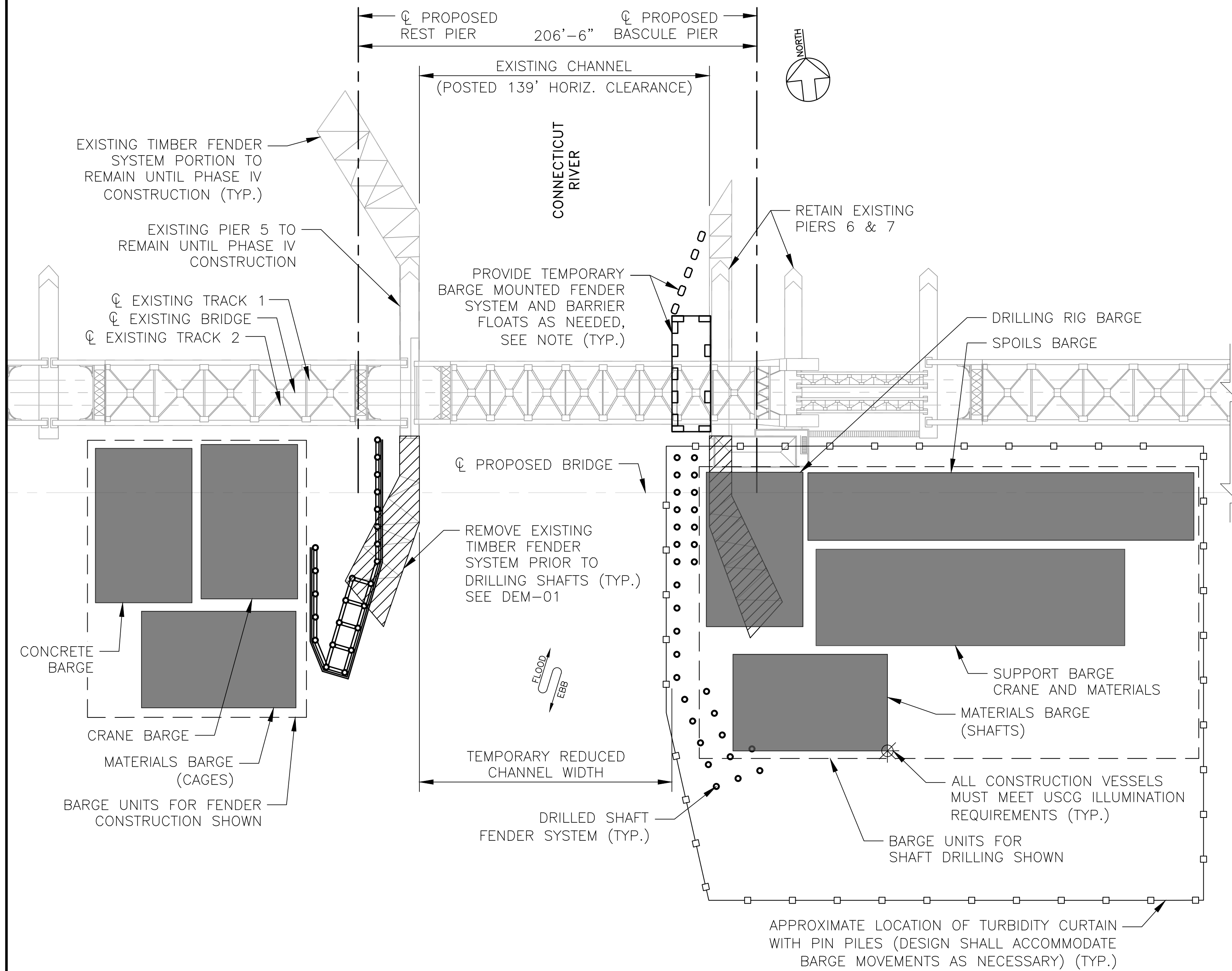
Approved	Date



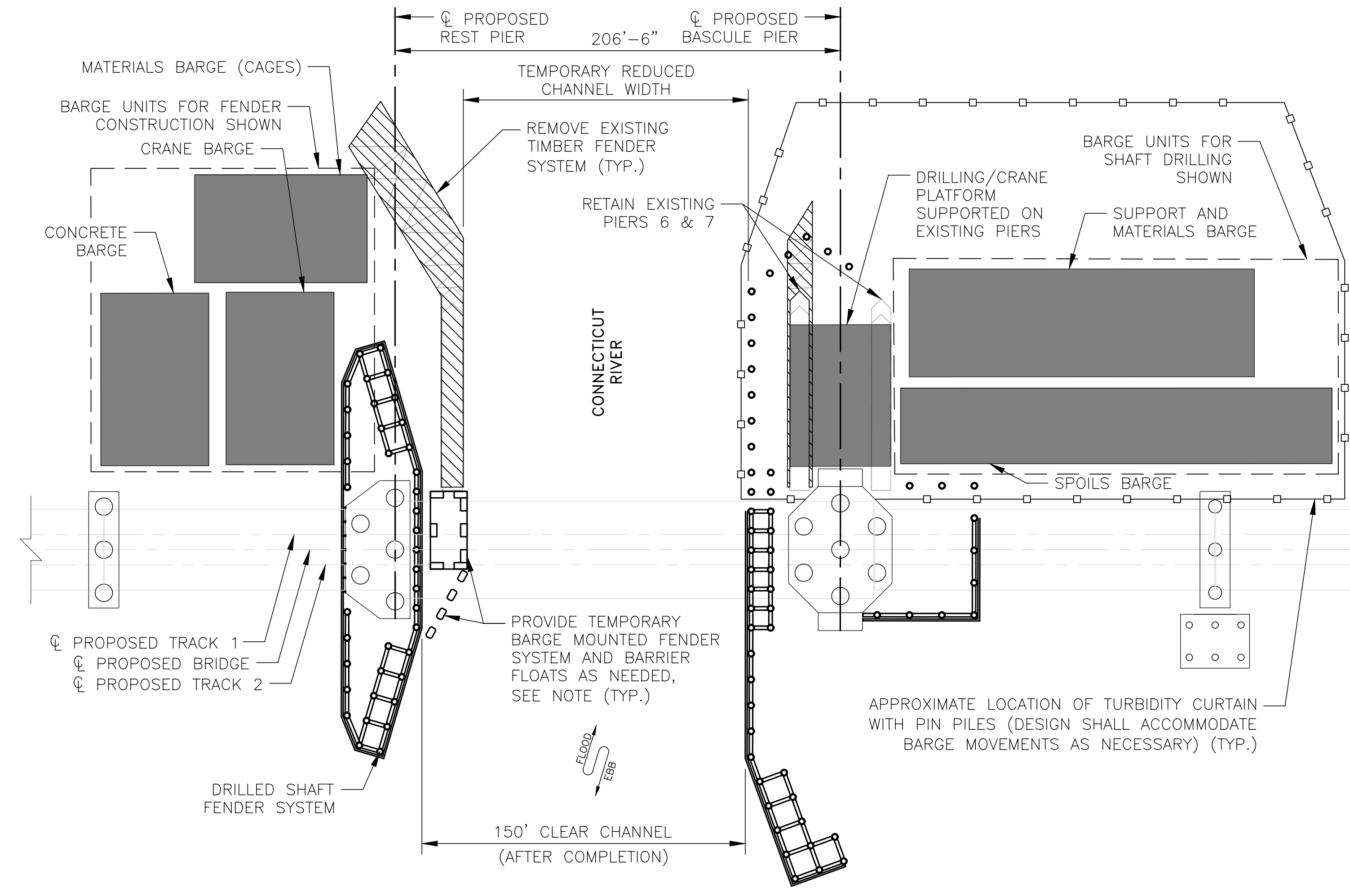
ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

Project Code: XXX XXX	CONNECTION
WBS:	
Sheet No. 132 OF 140	
<b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b>	
<b>BARGE BERTHING 1 - PIER CONSTRUCTION</b>	
Designed BSH	Drawn CBS
Checked BSH	Date 5/2/2023
Dwg. No. SC-02	



FENDER SYSTEM - PHASE IC CONSTRUCTION



FENDER SYSTEM - PHASE IV CONSTRUCTION

NOTE ON FENDER CONSTRUCTION DURING PHASE IV:

EXISTING BRIDGE STRUCTURE DEMOLITION MUST BE COMPLETED BEFORE THE INITIATION OF FENDER CONSTRUCTION. ADDITIONALLY, ALL NEW BRIDGE STRUCTURE CONSTRUCTION MUST BE COMPLETED BEFORE THE INITIATION OF FENDER CONSTRUCTION, INCLUDING SUBSTRUCTURE AND SUPERSTRUCTURE (SUPERSTRUCTURE NOT SHOWN FOR CLARITY).

- THE FENDER CONSTRUCTION SEQUENCE SHOWN IS A CONCEPTUAL BARGE BASED CONSTRUCTION SCHEME FOR IN-WATER WORK ACTIVITIES. SEE DRAWING PH-02 FOR SUGGESTED CONSTRUCTION PHASING.
- BARGE PLACEMENTS ARE CONCEPTUAL AND WILL BE DESIGNED BY THE CONTRACTOR.
- THE IN-WATER WORK ACTIVITIES SHOWN ABOVE ARE NOT INDICATIVE OF PROPOSED CONCURRENT WORK. ALL IN-WATER WORK MUST BE PERFORMED IN ACCORDANCE WITH THE LIMITATIONS IDENTIFIED ON SC-01.
- FENDER CONSTRUCTION IS ANTICIPATED TO REQUIRE 3 GROUPS OF BARGES FOR CONSTRUCTION, SIMILAR TO DRILLED SHAFT PIER CONSTRUCTION. SEE DRAWING SC-02:
  - FENDER DRILLED SHAFT CASING INSTALLATION BARGE CONFIGURATION SIMILAR TO BARGE GROUP A ON SC-02.
  - FENDER DRILLED SHAFT REINFORCING AND CONCRETE INSTALLATION BARGE CONFIGURATION SIMILAR TO BARGE GROUP B ON SC-02.
  - BARGE LAYOUTS FOR FINAL FENDER APPURTENANCE INSTALLATION SIMILAR CONFIGURATION AS BARGE GROUP C ON SC-02. CRANE BARGES FOR SUPPORT ARE ALSO ANTICIPATED.
- NEW FENDER ELEMENTS ARE SHOWN IN VARIOUS STATES OF COMPLETION BASED ON THE CONCEPTUAL SEQUENCES PRESENTED.
- EXISTING FENDER SYSTEM DEMOLITION, SHAFT DRILLING AND FENDER CONSTRUCTION SOUTH OF THE EXISTING BRIDGE SHALL BE PERFORMED DURING PHASE IC. CONSTRUCTION OF THE REMAINING FENDER SYSTEM ELEMENTS SHALL BE PERFORMED AFTER DEMOLITION OF THE EXISTING BRIDGE, DURING PHASE IV. SEE DETAILS ON THIS SHEET FOR SUGGESTED PHASING OF FENDER SYSTEM CONSTRUCTION.
- PROGRESSION OF FENDER CONSTRUCTION WILL BE SUBJECT TO THE FINAL PLAN DEVELOPED BY THE CONTRACTOR, IN ACCORDANCE WITH THE TIME OF THE YEAR RESTRICTIONS ON THE TYPE OF WORK PERMITTED AND AREAS OF THE RIVER THAT MAY BE OCCUPIED. SEE DRAWING SC-01 AND PH-02 FOR ENVIRONMENTAL SAFEGUARDS.
- FENDER SYSTEM CONSTRUCTION SEQUENCING MAY REQUIRE UNIQUE BARGE UNITS AND BARGE BERTHING LOCATIONS TO PERFORM INDIVIDUAL TASKS. MULTIPLE CONSTRUCTION SEQUENCING TASKS MAY BE PERFORMED SIMULTANEOUSLY AT DIFFERENT LOCATIONS WITHIN THE CONSTRUCTION PHASE, AS SHOWN ON THE DETAILS ON THIS SHEET.
- TEMPORARY FENDER SYSTEM SHALL BE INSTALLED AS SHOWN. TEMPORARY FENDER SYSTEM SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE DESIGN AND WORKING DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CONNECTICUT AND SUBMITTED TO THE ENGINEER FOR APPROVAL. TEMPORARY FENDER SYSTEM TO INCLUDE LIGHTING PER USCG STANDARDS.
- FENDER SYSTEM CONSTRUCTION DURING STAGE IV SHOWS CONCEPTUAL DRILLING RIG AND/OR CRANE PLACEMENT ON A PLATFORM SUPPORTED BY EXISTING PIERS TO REMAIN AS A FEASIBLE CONSTRUCTION ALTERNATIVE TO MINIMIZE CHANNEL IMPACTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF PLATFORM AND ALL NECESSARY SHIELDING AND ENVIRONMENTAL CONTROLS.
- THE CONTRACTOR SHALL PROVIDE MEASURES, IN ACCORDANCE WITH THE CONTRACT PLANS, SPECIFICATIONS, AND ENVIRONMENTAL PERMITS TO PROTECT THE WATERWAY DURING EXCAVATION CONSTRUCTION, CONCRETE PLACEMENT AND CURING.
- CONTRACTOR SHALL AVOID SUBMARINE CABLES AND OBSTRUCTIONS WHEN INSTALLING AND REMOVING PIN PILES. THE METHODS USED TO DETERMINE THE LOCATION OF EXISTING CABLES AND OBSTRUCTIONS MUST COMPLY WITH THE PERMITS FOR THE PROJECT. USE NON-INVASIVE METHODS TO LOCATE EXISTING CABLES.
- CONTRACTOR SHALL USE MEANS AND METHODS OF BARGE SPUDDING AND PIN PILE INSTALLATION AND REMOVAL THAT WILL NOT DAMAGE SUBMARINE CABLES.
- TURBIDITY CURTAINS ARE REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ENVIRONMENTAL PERMIT APPROVALS. CT DEEP REQUIRES THAT FULL DEPTH TURBIDITY CURTAINS MUST BE DEPLOYED PRIOR TO SHAFT CASING INSTALLATION.
- PIN PILE SUPPORTED TURBIDITY CURTAIN LIMITS SHOWN ARE APPROXIMATE. TEMPORARY RIVER BOTTOM IMPACTS DUE TO TURBIDITY CURTAIN PIN PILES SHALL BE WITHIN THE TOTAL AREA LIMITS IDENTIFIED ON SUM-01.
- ALL BARGE MOVEMENTS SHALL TAKE PLACE DURING CONDITIONS THAT MINIMIZE OR DO NOT CREATE RIVER BOTTOM DISTURBANCE. DRIVING OF BARGE SPUD PILES IS CONSIDERED A TEMPORARY IMPACT AND INCLUDED IN THE TOTAL TEMPORARY IMPACT AREAS IDENTIFIED ON SUM-01. BARGES NOT LOCATED WITHIN LARGER PIN PILE SUPPORTED TURBIDITY CURTAIN ZONES SHALL BE PROTECTED WITH INDIVIDUAL BARGE MOUNTED CURTAINS.
- NAVIGATIONAL IMPEDIMENTS ARE TO BE MARKED WITH WARNING LIGHTS.
- CONTRACTOR IS RESPONSIBLE FOR THEIR OWN ICE MANAGEMENT PLAN.
- ALL TEMPORARY WORK AND EQUIPMENT SHALL MEET THE REQUIREMENTS OF USCG AND DEEP BOATING.

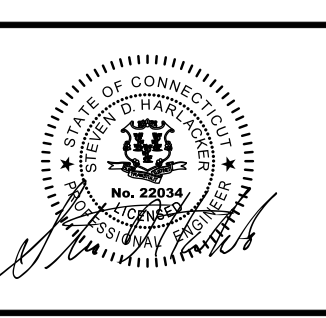
FILE NAME: 2406-SC-03-FENDER-STAGING.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

No.	Revisions	Date	By

**Amtrak®**  
This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

Office of Chief Engineer  
**STRUCTURES**  
 National Railroad Passenger Corporation  
 30th Street Station, Philadelphia, Pennsylvania 19104

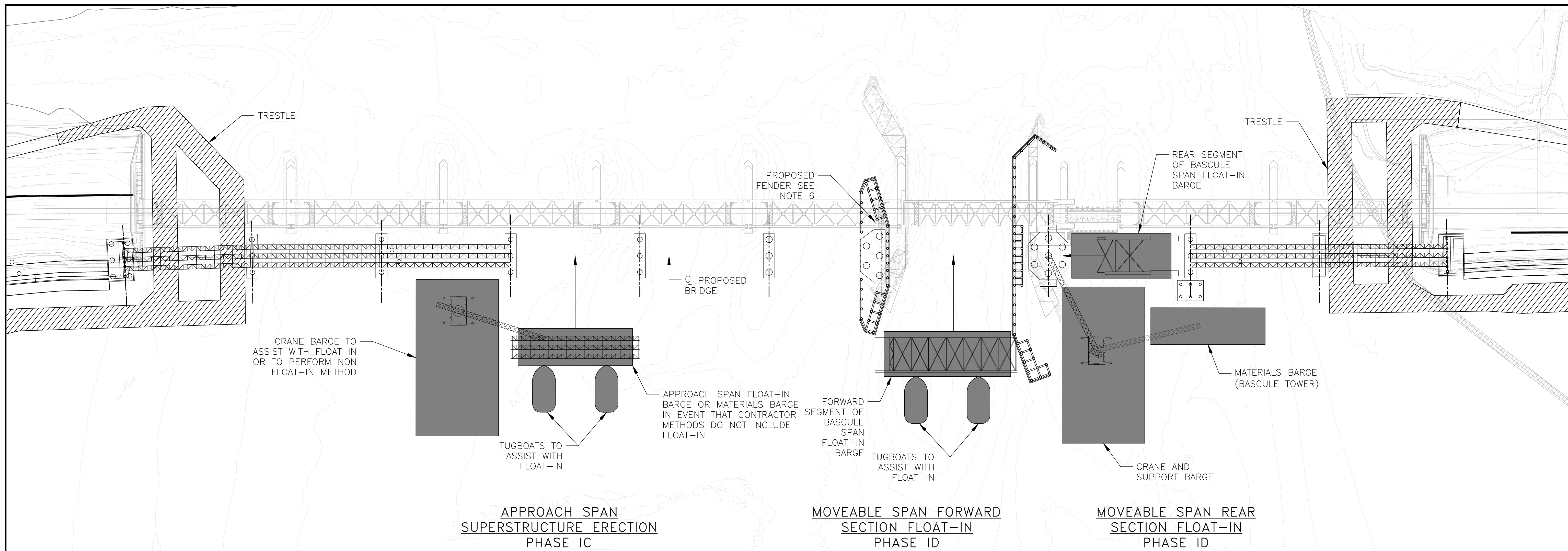
Approved	Date



**HARDESTY & HANOVER, LLC**  
 ENGINEERING  
 1501 Broadway New York, NY 10036

ENVIRONMENTAL PERMIT PLANS  
 PLAN DATE: MAY 2, 2023

OLD SAYBROOK	CONNECTICUT	Project Code: XXX XXX
REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER		WBS:
		Sheet No. 133 OF 140
BARGE BERTHING 2 - FENDER CONSTRUCTION		Dwg. No. <b>SC-03</b>
Designed SRM	Drawn SRM	Checked BNK
Date 5/2/2023		



**BARGE STAGING FOR SUPERSTRUCTURE CONSTRUCTION**



**NOTES**

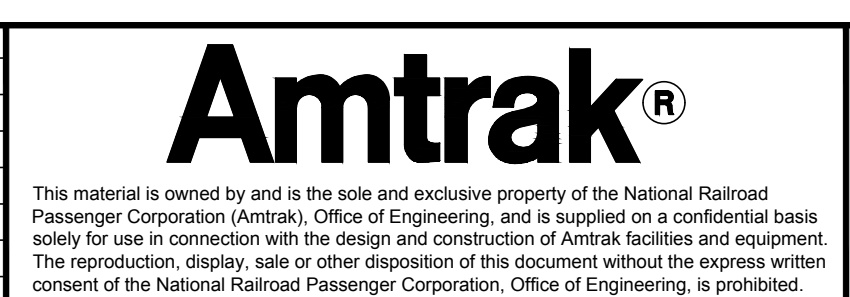
1. THE SUPERSTRUCTURE CONSTRUCTION SEQUENCE SHOWN IS A CONCEPTUAL BARGE BASED CONSTRUCTION SCHEME FOR IN-WATER WORK ACTIVITIES. SEE DRAWING PH-02 FOR SUGGESTED CONSTRUCTION PHASING.
2. BARGE PLACEMENTS ARE CONCEPTUAL AND WILL BE DESIGNED BY THE CONTRACTOR.
3. THE IN-WATER WORK ACTIVITIES SHOWN ABOVE ARE NOT INDICATIVE OF PROPOSED CONCURRENT WORK. ALL IN-WATER WORK MUST BE PERFORMED IN ACCORDANCE WITH THE LIMITATIONS IDENTIFIED ON SC-01.
4. SUPERSTRUCTURE CONSTRUCTION BARGE BASED ACTIVITIES ARE ANTICIPATED TO INCLUDE:
  - 4.1. DELIVERY OF APPROACH SPAN STEEL SUPERSTRUCTURE COMPONENTS.
  - 4.2. BARGE BASED CRANE LIFT-IN OR BARGE FLOAT-IN OF APPROACH SPAN SUPERSTRUCTURE STEEL.
  - 4.3. DELIVERY OF BASCULE PIER TRUNNION TOWERS STEEL COMPONENTS. BARGE BASED CRANE ERECTION OF TRUNNION TOWERS.
  - 4.4. DELIVERY OF BASCULE SPAN REAR SECTION. CONCEPTUAL ERECTION PROCEDURE FOR REAR BOX SHOWN UTILIZES A BARGE TO FLOAT-IN THE PRE-ASSEMBLED STEEL COMPONENTS TO THE REAR OF PIER 7 AND LONGITUDINAL SLIDE THE COMPONENTS INTO PLACE ON THE TRUNNION TOWERS.
  - 4.5. FLOAT-IN OF THE BASCULE SPAN FORWARD TRUSS SECTION. TEMPORARY NAVIGATION CLOSURE REQUIRED FOR THIS ACTIVITY, SEE NOTES THIS SHEET.
5. NEW SUPERSTRUCTURE ELEMENTS ARE SHOWN IN VARIOUS STATES OF COMPLETION BASED ON THE CONCEPTUAL SEQUENCES PRESENTED. A FULLY CONSTRUCTED FENDER SYSTEM IS SHOWN IN THE PLAN VIEW ABOVE, HOWEVER NOTE THAT DURING SUPERSTRUCTURE ERECTION THE FENDER WILL ONLY BE PARTIALLY COMPLETE. SEE SC-03 FOR DETAILS.
6. PROGRESSION OF SUPERSTRUCTURE CONSTRUCTION WILL BE SUBJECT TO THE FINAL PLAN DEVELOPED BY THE CONTRACTOR, IN ACCORDANCE WITH THE TIME OF THE YEAR RESTRICTIONS ON THE TYPE OF WORK PERMITTED AND AREAS OF THE RIVER THAT MAY BE OCCUPIED. SEE DRAWING SC-01 AND PH-02 FOR ENVIRONMENTAL SAFEGUARDS.
7. THESE PLANS DO NOT IDENTIFY AREAS SUITABLE FOR OFFSITE SPAN ERECTION. THE CONTRACTOR SHALL DETERMINE THE METHODS OF CONSTRUCTION AND SHALL MEET ALL FEDERAL, STATE, AND LOCAL LAWS PERTAINING TO THE CONSTRUCTION AND TRANSPORT OF THE SPANS IF CONSTRUCTED IN THIS MANNER.
8. THE CONTRACTOR SHALL PROVIDE MEASURES, IN ACCORDANCE WITH THE CONTRACT PLANS, SPECIFICATIONS, AND ENVIRONMENTAL PERMITS TO PROTECT THE WATERWAY DURING EXCAVATION CONSTRUCTION, CONCRETE PLACEMENT AND CURING.
9. TURBIDITY CURTAINS ARE REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ENVIRONMENTAL PERMIT APPROVALS. CT DEEP REQUIRES THAT FULL DEPTH TURBIDITY CURTAINS MUST BE DEPLOYED PRIOR TO SHAFT CASING INSTALLATION.
10. PIN PILE SUPPORTED TURBIDITY CURTAIN LIMITS SHOWN ARE APPROXIMATE. TEMPORARY RIVER BOTTOM IMPACTS DUE TO TURBIDITY CURTAIN PIN PILES SHALL BE WITHIN THE TOTAL AREA LIMITS IDENTIFIED ON SUM-01.
11. ALL BARGE MOVEMENTS SHALL TAKE PLACE DURING CONDITIONS THAT MINIMIZE OR DO NOT CREATE RIVER BOTTOM DISTURBANCE. DRIVING OF BARGE SPUD PILES IS CONSIDERED A TEMPORARY IMPACT AND INCLUDED IN THE TOTAL TEMPORARY IMPACT AREAS IDENTIFIED ON SUM-01. BARGES NOT LOCATED WITHIN LARGER PIN PILE SUPPORTED TURBIDITY CURTAIN ZONES SHALL BE PROTECTED WITH INDIVIDUAL BARGE MOUNTED CURTAINS.
12. NAVIGATIONAL IMPEDIMENTS ARE TO BE MARKED WITH WARNING LIGHTS.
13. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN ICE MANAGEMENT PLAN.
14. ALL TEMPORARY WORK AND EQUIPMENT SHALL MEET THE REQUIREMENTS OF USCG AND DEEP BOATING.

**NAVIGATION CHANNEL CLOSURE NOTES**

1. A FULL NAVIGATION CHANNEL CLOSURE WILL BE REQUIRED FOR THE FLOAT-IN OF THE BASCULE SPAN FORWARD SECTION. THE ANTICIPATED 10 DAY CHANNEL CLOSURE WILL OCCUR DURING THE OFF-PEAK BOATING SEASON.
2. WORK TO ENABLE THE MOVABLE SPAN TO ROTATE TO THE OPEN POSITION WITHIN 10 DAYS IS EXPECTED TO REQUIRE FULL DAYS AND NIGHTS. NIGHTTIME ILLUMINATION WILL BE REQUIRED AND SHALL NOT BE SCHEDULED DURING SPRING MIGRATORY PERIODS WHEN LIMITATIONS ON ARTIFICIAL LIGHTING ARE IN EFFECT.
3. ADVANCE COORDINATION WITH USCG AND EMERGENCY VESSELS WILL BE CONDUCTED AS TO THE NEED AND PROCEDURES FOR VESSEL PASSAGE DURING FULL CHANNEL CLOSURES.

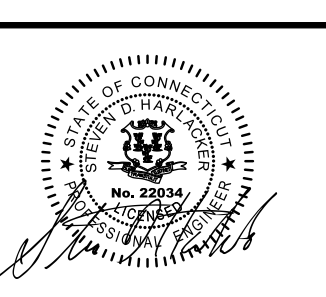
ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

Rev	xxxx	Revisions	MM/DD/YY	BY



**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

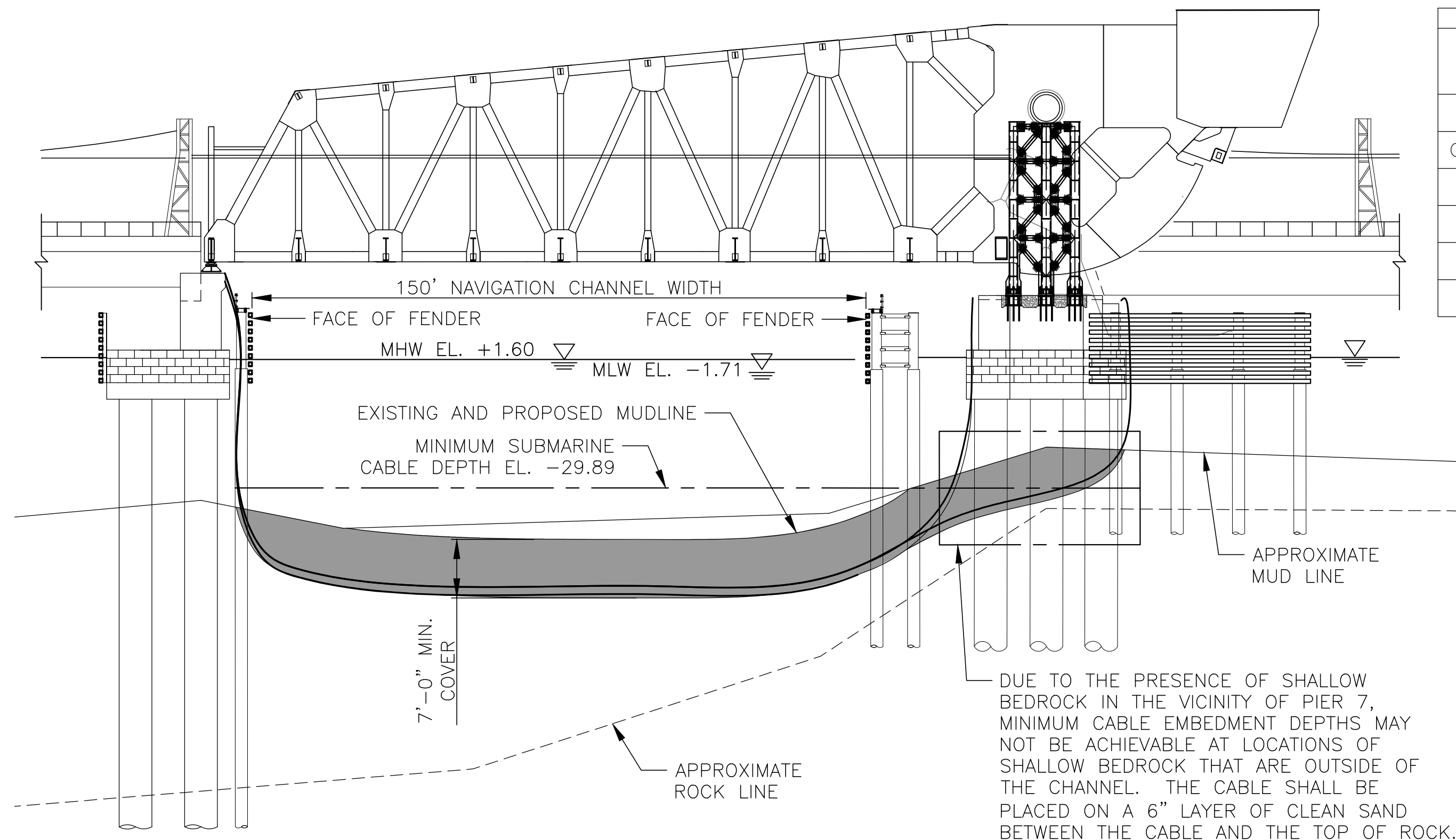
Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK	CONNECTICUT	Project Code: XXX XXX
<b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b>		
<b>BARGE BERTHING 3 - SUPERSTRUCT. CONSTRUCT.</b>		
Designed BSH	Drawn CBS	Checked BSH
Date 5/2/2023		
		Sheet No. 134 OF 140
		Draw. No. SC-04

FILE NAME: PLOT SCALE: XXX STANDARD PEN TABLE: YES



ELEVATION TABLE			
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (MLLW)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.89
CT COASTAL JURISDICTION LINE	CJL	2.90	4.79
HIGH TIDE LINE	HTL	3.04	4.93
MEAN HIGH WATER LINE	MHW	1.60	3.49
MEAN LOW WATER LINE	MLW	-1.71	0.18
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

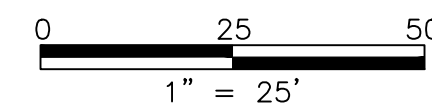
**NAVIGATION CHANNEL CLOSURE NOTES**

- A FULL NAVIGATION CHANNEL CLOSURE WILL BE REQUIRED FOR THE SUBMARINE CABLE CONSTRUCTION AND REMOVAL. THE ANTICIPATED 28 DAY CHANNEL CLOSURE WILL OCCUR WITHIN A SIX (6) WEEK PERIOD DURING THE WINTER MONTHS OF DECEMBER AND JANUARY OUTSIDE OF PEAK BOATING SEASON AND WHEN ENVIRONMENTAL PERMITTING RESTRICTIONS ALLOW. SEE PH-01, PH-02 AND SC-01 FOR SUGGESTED STAGING AND ENVIRONMENTAL CONTROLS AND TIME OF YEAR RESTRICTIONS.
- ADVANCE COORDINATION WITH USCG AND EMERGENCY VESSELS WILL BE CONDUCTED AS TO THE NEED AND PROCEDURES FOR VESSEL PASSAGE DURING FULL CHANNEL CLOSURES.

**NOTES:**

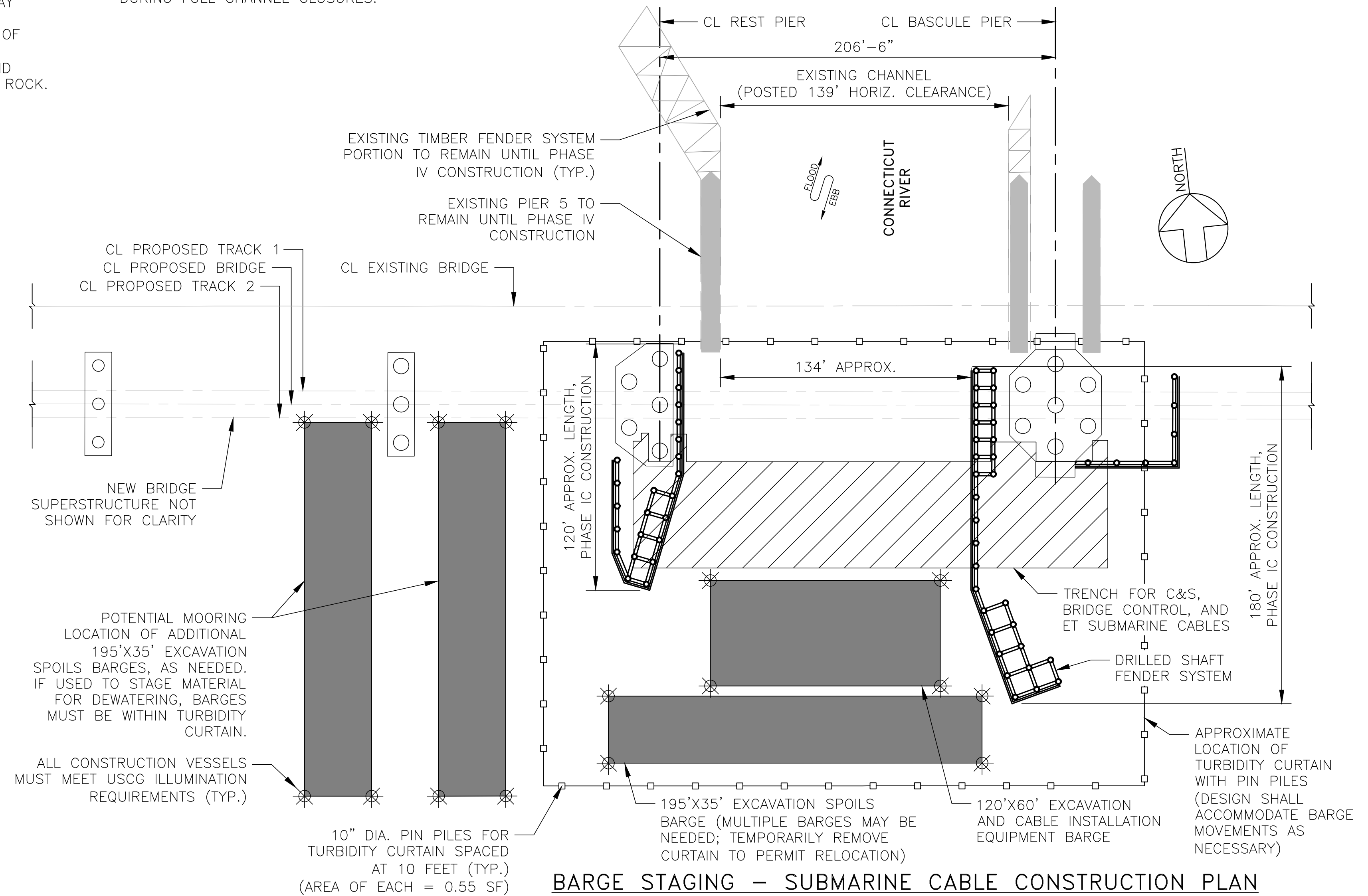
- EXCAVATION AND SUBMARINE CABLE LAYING UTILIZES CONVENTIONAL EXCAVATION TECHNIQUES AND WILL OCCUR DURING A SIX (6) WEEK WINTER PERIOD, WHEN A CHANNEL CLOSURE IS PERMITTED. THE NEW SUBMARINE CABLE LAY IS TO BE PERFORMED DURING THE MONTHS OF DECEMBER AND JANUARY. THE FINAL SUBMARINE CABLE LAYOUT WILL BE DETERMINED BY THE CONTRACTOR TO AVOID OBSTRUCTIONS THAT MAY BE IDENTIFIED DURING PRE-EXCAVATION RIVER SURVEYS.
- CONTRACTOR TO CONFIRM MINIMUM DEPTHS DURING SUBMARINE CABLE INSTALLATION USING A VERIFIABLE MEANS OF RECORDING EMBEDMENT DEPTH. CONTRACTOR TO PROVIDE EMBEDMENT DEPTH DATA AS PART OF THE PROJECT RECORD.
- IF INVASIVE MEANS ARE USED TO PERFORM THE PRE-CABLE LAYING SURVEY, THE WORK MUST BE CONFINED, OR PERFORMED DURING THE APPROPRIATE TIME OF YEAR LIMITS.
- SEE DTL-05 FOR SUBMARINE CABLE TRENCH DETAILS.
- NAVIGATIONAL IMPEDIMENTS ARE TO BE MARKED WITH WARNING LIGHTS.
- CONTRACTOR IS RESPONSIBLE FOR THEIR OWN ICE MANAGEMENT PLAN.
- ALL TEMPORARY WORK AND EQUIPMENT SHALL MEET THE REQUIREMENT OF USCG AND DEEP BOATING.
- BARGE STAGING DETAILS BELOW SHOW CONCEPTUAL STAGING FOR NEW SUBMARINE CABLE INSTALLATION ACTIVITIES. REMOVAL OF EXISTING CABLES ANTICIPATED TO BE PERFORMED IN SIMILAR TURBIDITY CURTAIN LIMITS WITH REDUCED EQUIPMENT NEEDS.
- THE CONTRACTOR SHALL PROVIDE MEASURES, IN ACCORDANCE WITH THE CONTRACT PLANS, SPECIFICATIONS, AND ENVIRONMENTAL PERMITS TO PROTECT THE WATERWAY DURING EXCAVATION CONSTRUCTION, CONCRETE PLACEMENT AND CURING.
- TURBIDITY CURTAINS ARE REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ENVIRONMENTAL PERMIT APPROVALS. CT DEEP REQUIRES THAT FULL DEPTH TURBIDITY CURTAINS MUST BE DEPLOYED PRIOR TO SHAFT CASING INSTALLATION.
- PIN PILE SUPPORTED TURBIDITY CURTAIN LIMITS SHOWN ARE APPROXIMATE. TEMPORARY RIVER BOTTOM IMPACTS DUE TO TURBIDITY CURTAIN PIN PILES SHALL BE WITHIN THE TOTAL AREA LIMITS IDENTIFIED ON SUM-01.
- ALL BARGE MOVEMENTS SHALL TAKE PLACE DURING CONDITIONS THAT MINIMIZE OR DO NOT CREATE RIVER BOTTOM DISTURBANCE. DRIVING OF BARGE SPUD PILES IS CONSIDERED A TEMPORARY IMPACT AND INCLUDED IN THE TOTAL TEMPORARY IMPACT AREAS IDENTIFIED ON SUM-01. BARGES NOT LOCATED WITHIN LARGER PIN PILE SUPPORTED TURBIDITY CURTAIN ZONES SHALL BE PROTECTED WITH INDIVIDUAL BARGE MOUNTED CURTAINS.

**BARGE STAGING – SUBMARINE CABLE CONSTRUCTION ELEVATION**

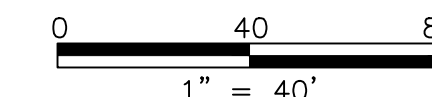


**SUGGESTED CONSTRUCTION PHASING:**

- THE CONTRACTOR SHALL PERFORM A PRE-CABLE LAYING SURVEY (INCLUDING SUBSURFACE PROBES) ALONG THE PROPOSED CABLE CENTERLINE TO IDENTIFY ALL OBSTRUCTIONS THAT MAY PROHIBIT CABLE EMBEDMENT TO THE LIMITS IDENTIFIED ON THIS PLAN. SEE NOTE 4.
- BARGE AND EQUIPMENT MOBILIZATION.
- SPUDDING OF BARGE.
- INSTALLATION OF PIN PILES, CONTAINMENT, DEBRIS BARRIER, TURBIDITY CURTAIN, AND ASSOCIATED PILES.
- EXCAVATION OF TRENCH AND REMOVAL OF CHANNEL BOTTOM MATERIAL FOR REUSE. OBSTRUCTION REMOVAL AS NECESSARY.
  - THE CONTRACTOR SHALL HANDLE THE DREDGED MATERIAL IN ACCORDANCE WITH THE LIMITS OF THE PERMIT. DO NOT USE SIDE-CASTING OR IN-WATER RE-HANDLING OF EXCAVATED OR DREDGED MATERIAL.
  - THE CONTRACTOR SHALL PROVIDE SHIELDING WHICH SHALL INCLUDE, AT A MINIMUM, RIGID SURFACES AND POLYMER SHEETING TO PREVENT SPILLAGE DURING TRANSFER OF EXCAVATED SEDIMENT TO DREDGE SPOILS BARGES AND FROM DREDGE SPOILS BARGES TO TRUCKS FOR HAULING. THE SHIELDING SHALL BE ADEQUATELY SIZED AND CONSTRUCTED FOR THE INTENDED PURPOSE AND SHALL BE MAINTAINED OR REPLACED IN THE EVENT ELEMENTS OF THE SHIELDING BECOME DAMAGED.
  - THE DREDGED MATERIAL SHALL BE DRIED OR OTHERWISE SOLIDIFIED ON-SITE, IN PREPARATION FOR TRANSPORTATION TO A PERMITTED UPLAND LOCATION. THE DREDGED MATERIAL SHALL BE DEWATERED EITHER ON A BARGE OR ON SHORE WITHIN A CONTAINMENT AREA. DEWATERING AND DISPOSAL OF THE DREDGED MATERIALS SHALL BE PERFORMED IN STAGES SUCH THAT THE CAPACITY OF THE DEWATERING SITE WILL NOT BE EXCEEDED UNDER ANY CIRCUMSTANCES.
  - BARGE BASED DEWATERING OF EXCAVATED MATERIAL SHALL BE PERFORMED WITHIN TURBIDITY CURTAINS.
- INSTALL SUBMARINE CABLES.
- AFTER SUBMARINE CABLES HAVE BEEN INSTALLED, THE CONTRACTOR SHALL BACKFILL THE TRENCH WITH SUITABLE GRANULAR BACKFILL CONFORMING TO THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
- BACKFILL MATERIAL SHALL BE PLACED UNDERWATER AT THE BOTTOM OF THE EXCAVATED TRENCH OR REMOVAL AREA BY CLAMSHELL OR OTHER MEANS TO REDUCE SEGREGATION OF THE BACKFILL MATERIAL AND TO MINIMIZE TURBIDITY OF THE WATER.
- REMOVE PIN PILES, DEBRIS BOOMS, AND TURBIDITY CURTAINS.
- NOTE THAT REMOVAL OF EXISTING ABANDONED SUBMARINE CABLES MAY HAPPEN AT ANYTIME DURING THE SEQUENCE, AND WITHIN THE TURBIDITY CURTAIN LIMITS SHOWN, IF POWER AND SIGNALS IS PROVIDED THROUGH TEMPORARY AERIAL CABLES. SEE AC-01.



**BARGE STAGING – SUBMARINE CABLE CONSTRUCTION PLAN**



FILE NAME: 2406-SC-05-SUBCABLE.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

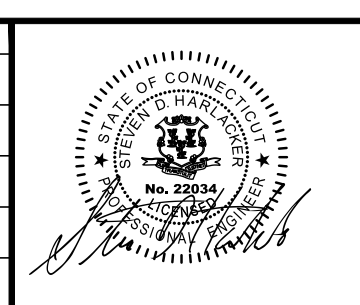
ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
BARGE BERTHING 4 – SUB CABLE CONSTRUCTION  
Designed BSH Drawn SRM Checked BSH Date 5/2/2023

Project Code:	XXX XXX
WBS:	
Sheet No.:	135 OF 140
Dwg. No.:	<b>SC-05</b>

**NOTES:**

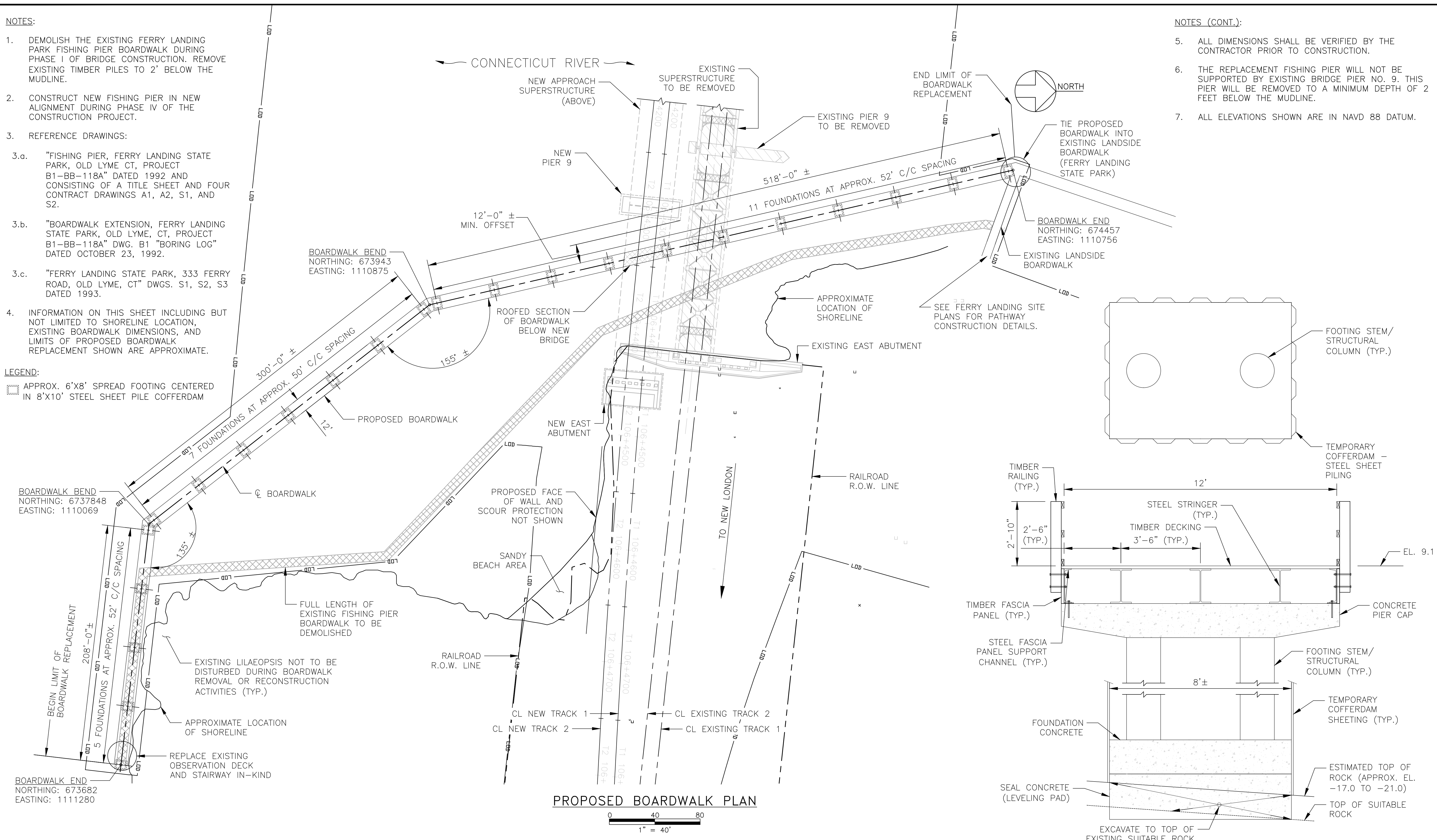
1. DEMOLISH THE EXISTING FERRY LANDING PARK FISHING PIER BOARDWALK DURING PHASE I OF BRIDGE CONSTRUCTION. REMOVE EXISTING TIMBER PILES TO 2' BELOW THE MUDLINE.
2. CONSTRUCT NEW FISHING PIER IN NEW ALIGNMENT DURING PHASE IV OF THE CONSTRUCTION PROJECT.
3. REFERENCE DRAWINGS:
  - 3.a. "FISHING PIER, FERRY LANDING STATE PARK, OLD LYME CT, PROJECT B1-BB-118A" DATED 1992 AND CONSISTING OF A TITLE SHEET AND FOUR CONTRACT DRAWINGS A1, A2, S1, AND S2.
  - 3.b. "BOARDWALK EXTENSION, FERRY LANDING STATE PARK, OLD LYME, CT, PROJECT B1-BB-118A" DWG. B1 "BORING LOG" DATED OCTOBER 23, 1992.
  - 3.c. "FERRY LANDING STATE PARK, 333 FERRY ROAD, OLD LYME, CT" DWGS. S1, S2, S3 DATED 1993.
4. INFORMATION ON THIS SHEET INCLUDING BUT NOT LIMITED TO SHORELINE LOCATION, EXISTING BOARDWALK DIMENSIONS, AND LIMITS OF PROPOSED BOARDWALK REPLACEMENT SHOWN ARE APPROXIMATE.

**LEGEND:**

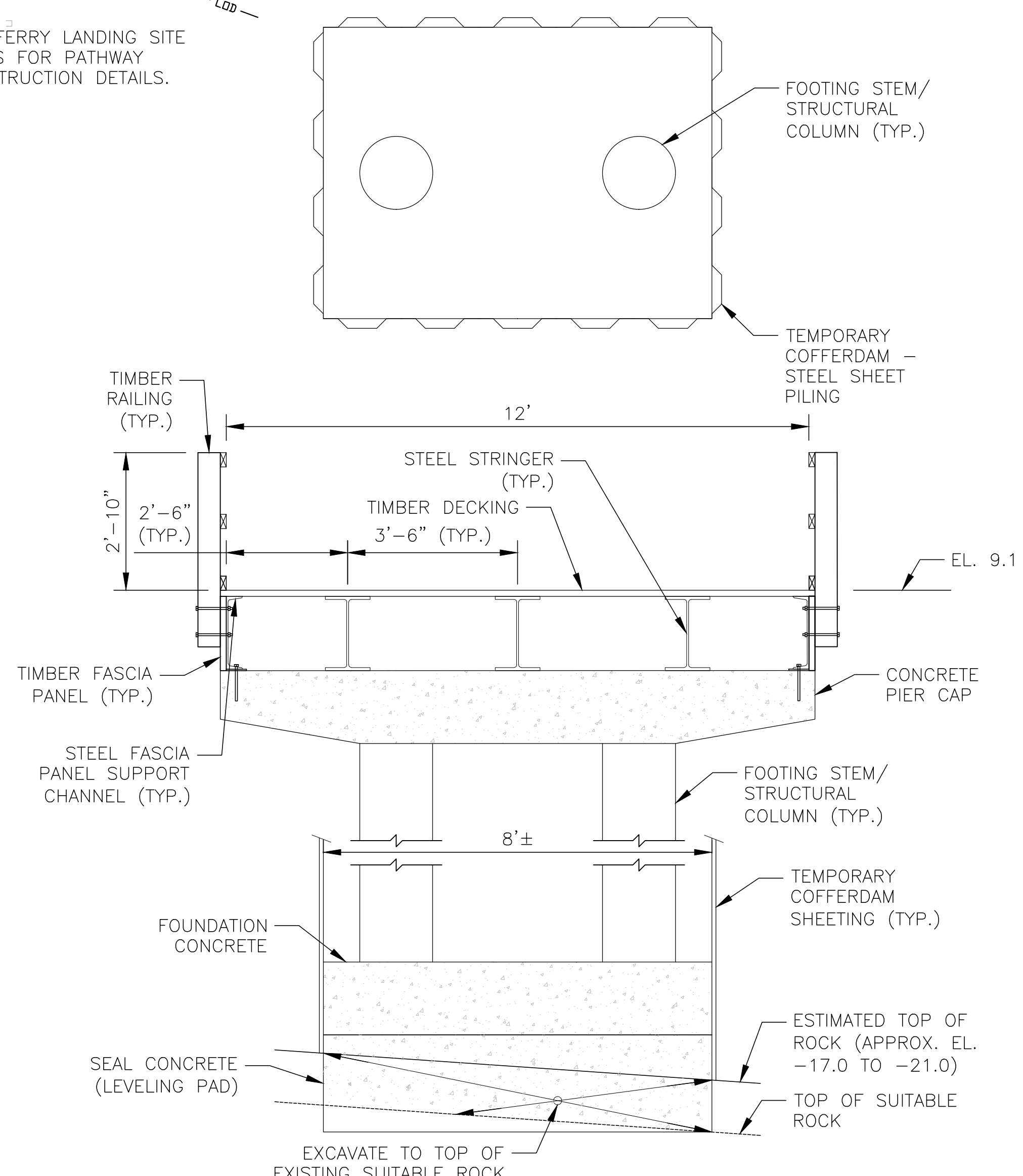
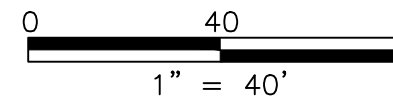
□ APPROX. 6'X8' SPREAD FOOTING CENTERED IN 8'X10' STEEL SHEET PILE COFFERDAM

**NOTES (CONT.):**

5. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. THE REPLACEMENT FISHING PIER WILL NOT BE SUPPORTED BY EXISTING BRIDGE PIER NO. 9. THIS PIER WILL BE REMOVED TO A MINIMUM DEPTH OF 2 FEET BELOW THE MUDLINE.
7. ALL ELEVATIONS SHOWN ARE IN NAVD 88 DATUM.



**PROPOSED BOARDWALK PLAN**



**TYPICAL PLAN AND SECTION**  
N.T.S.

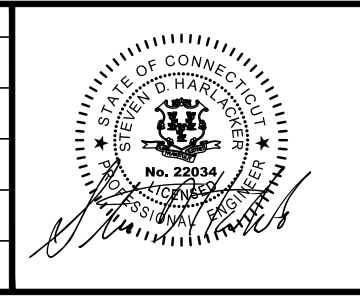
ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



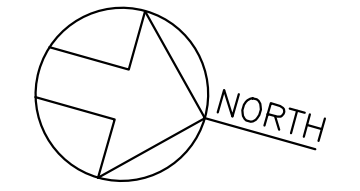
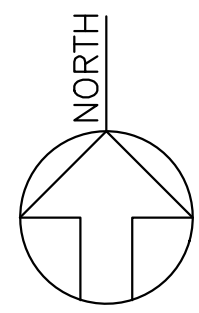
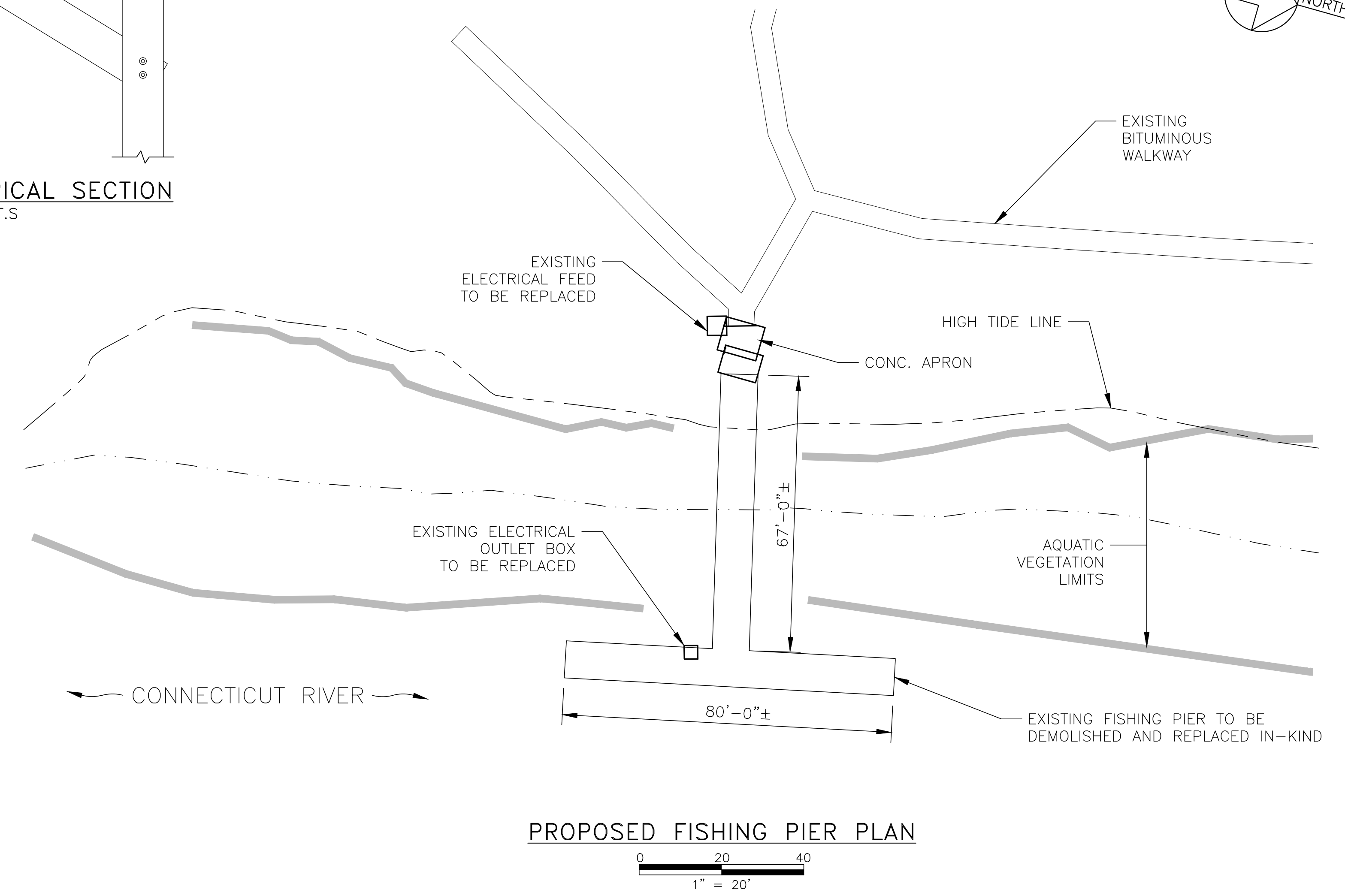
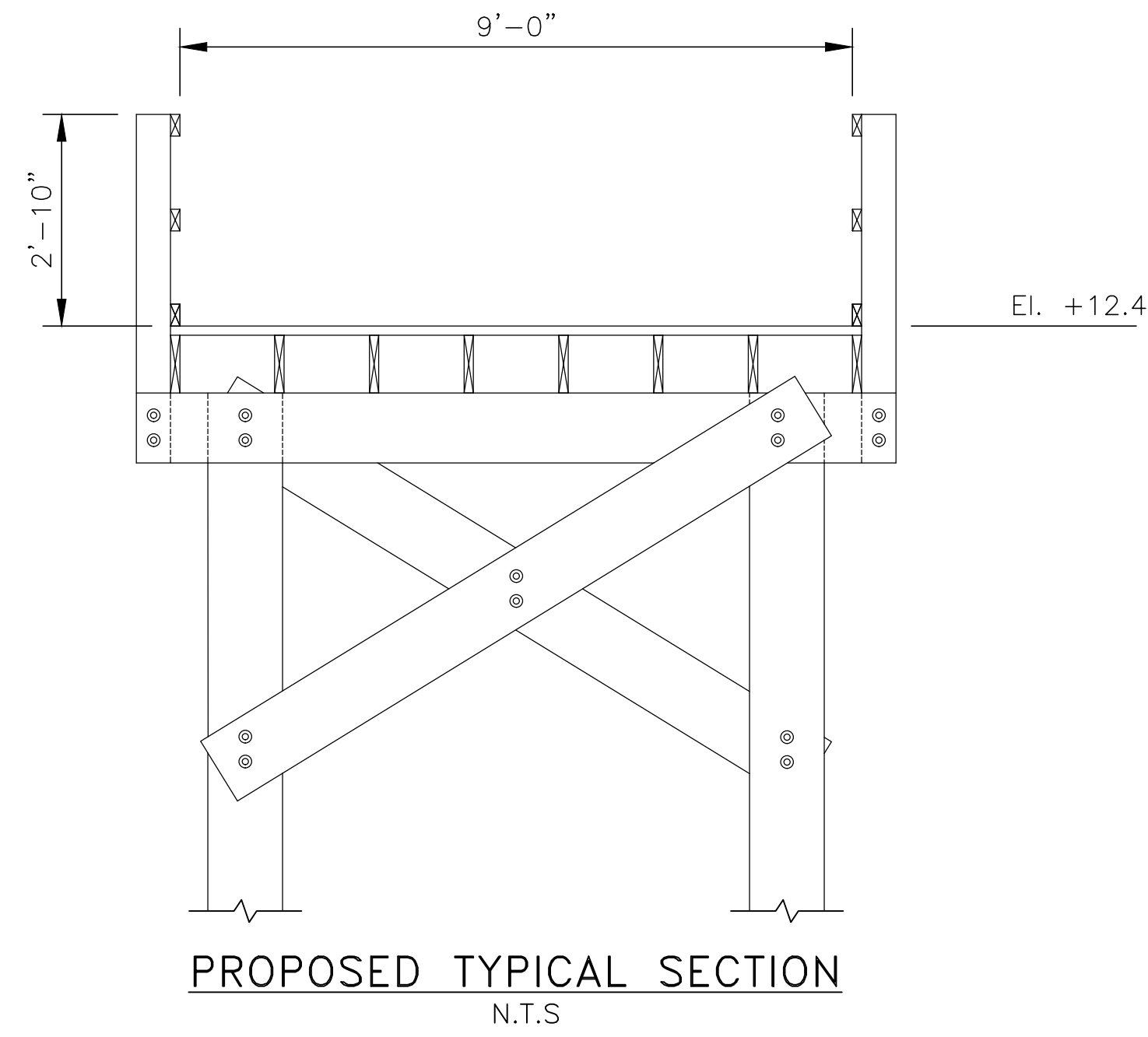
**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

Project Code: XXX XXX
WBS: 136 OF 140
Sheet No. 136 OF 140
Dwg. No. <b>FM-01</b>
Designed DR
Drawn PD
Checked DR
Date 5/2/2023

FILE NAME: S:\06-FM-01-FERRY\_LANDING\_FISHING\_PIER.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

NOTES:

1. DEMOLISH THE EXISTING EAGLE LANDING PIER AND REPLACE IN-KIND WITH NEW MATERIALS.
2. REFERENCE DOCUMENTS:
  - 2.a. "PROPOSED 'T' PIER PERMIT APPLICATION" HADDAM, CONNECTICUT DATED JUNE 25, 1984.
  - 2.b. "TOPOGRAPHIC SURVEY" PREPARED FOR CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, EAGLE LANDING, HADDAM, CONNECTICUT DATED DECEMBER 23, 2008.
3. INFORMATION ON THIS SHEET INCLUDING BUT NOT LIMITED TO TOP OF BANK LOCATION, EXISTING PIER DIMENSIONS, AND LIMITS OF PROPOSED PIER REPLACEMENT SHOWN ARE APPROXIMATE.
4. ELEVATIONS SHOWN ON THIS DRAWING REFERENCE THE NAVD 88 DATUM.



**AERIAL PHOTO OF SITE**  
N.T.S.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By

**Amtrak®**

This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

**Office of Chief Engineer  
STRUCTURES**

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK CONNECTICUT

**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**

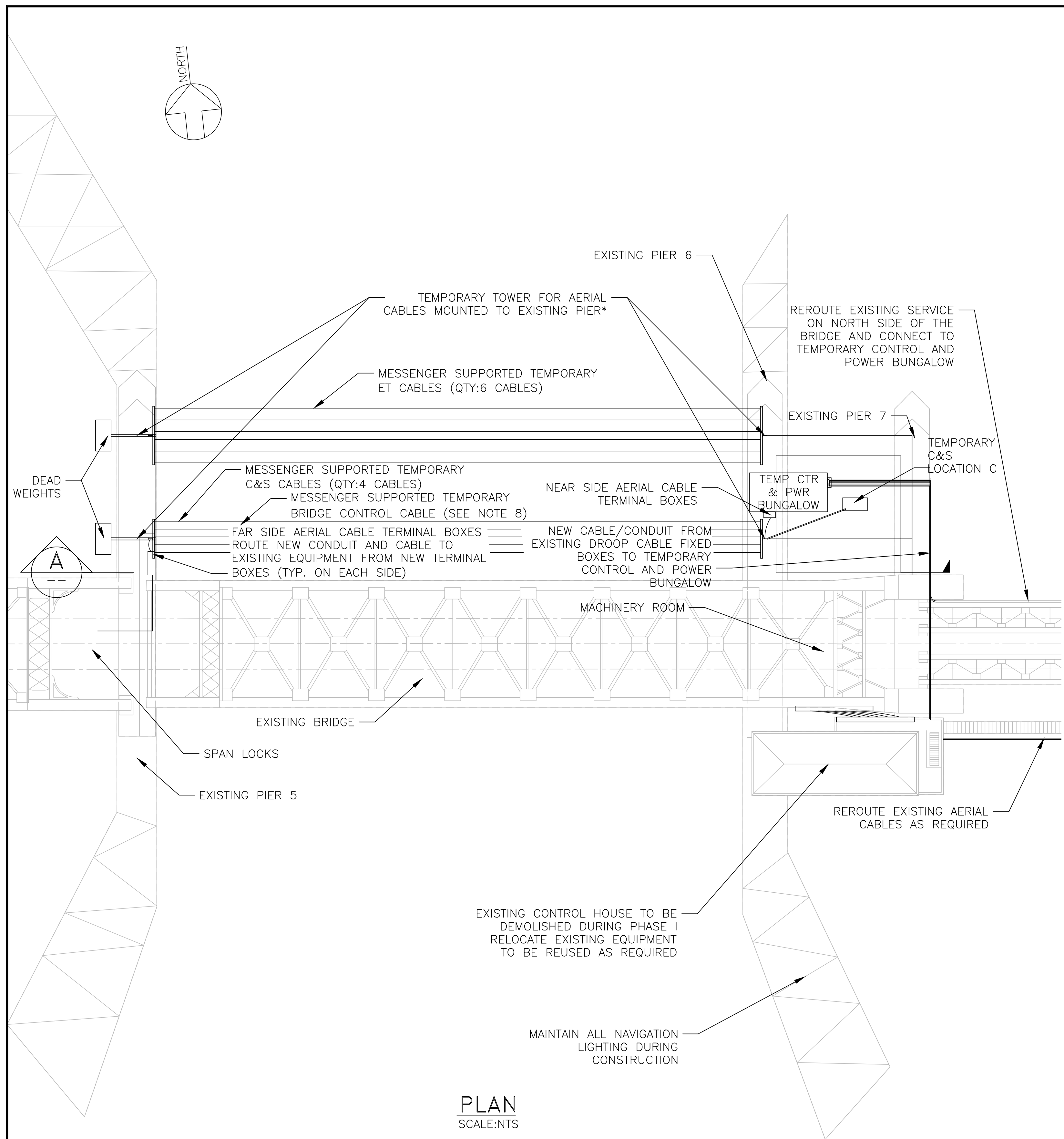
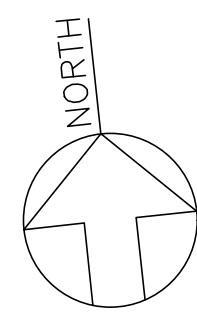
**EAGLE LANDING FISHING PIER**

Designed DR Drawn PD Checked DR Date 5/2/2023

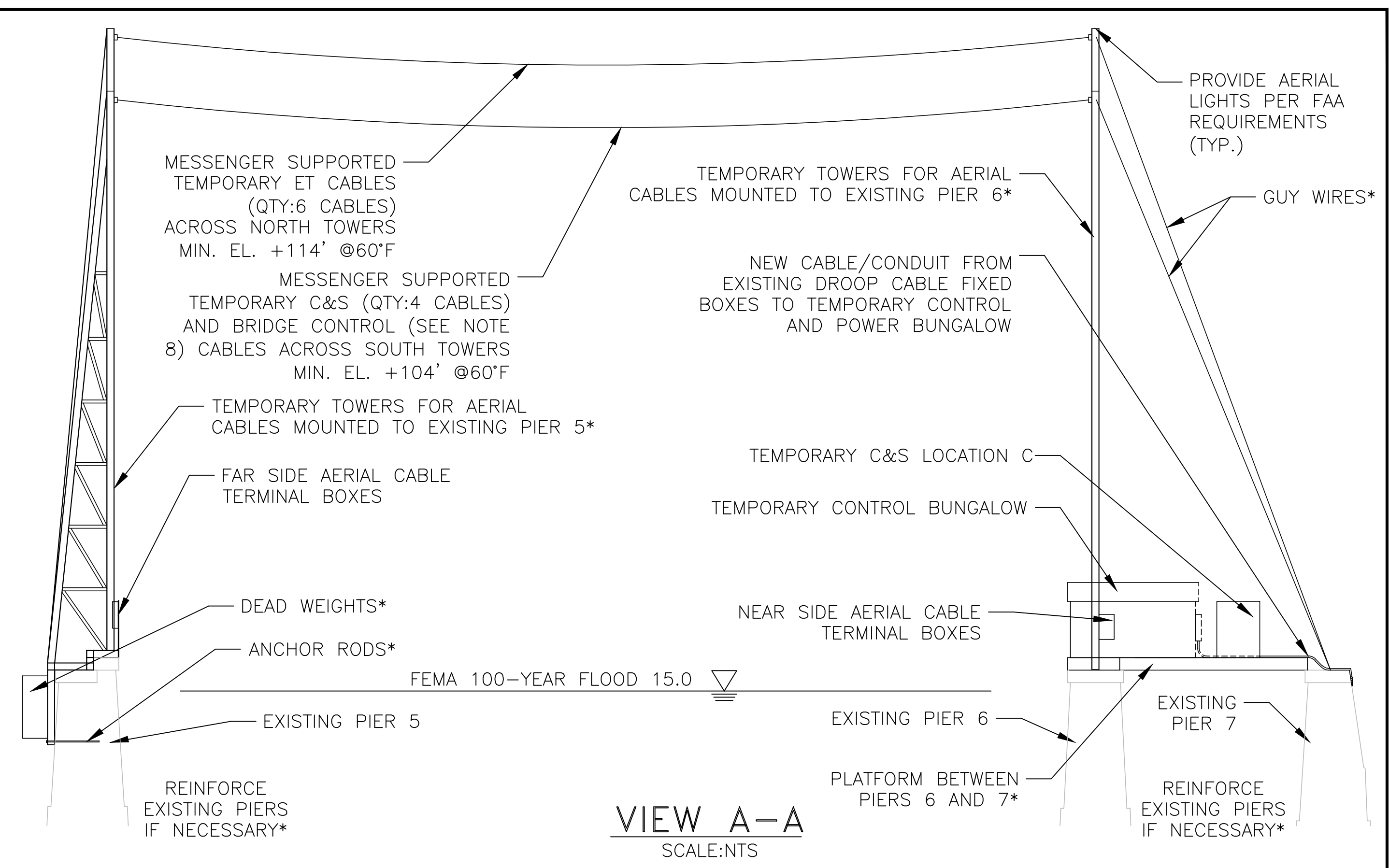
Project Code:	XXX XXX
WBS:	
Sheet No.:	137 OF 140
Dwg. No.:	<b>FM-02</b>

FILE NAME: 3496-FM-02-EAGLE\_LANDING\_FISHING\_PIER.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES





**PLAN**  
SCALE:NTS



**VIEW A-A**  
SCALE:NTS

**NOTES**

1. A TEMPORARY AERIAL CABLE SYSTEM IS PROPOSED AS A FEASIBLE OPTION FOR THE CONTRACTOR TO MAINTAIN RAIL AND NAVIGATION CHANNEL SERVICE WHILE ABANDONING THE EXISTING CABLE SYSTEM AND PRIOR TO INSTALLATION OF THE NEW BRIDGE SUBMARINE CABLES.
2. AERIAL CABLES SHALL BE INSTALLED TO THE MINIMUM ELEVATIONS SHOWN ON THIS SHEET.
3. TEMPORARY AERIAL CABLES FOR THIS PROJECT SHALL MEET THE REQUIREMENTS OF USACE CFR-2011 TITLE 33 VOLUME 3 PART 322.
4. CONTRACTOR SHALL PROVIDE MAINTENANCE FOR ALL TEMPORARY AND EXISTING EQUIPMENT DURING CONSTRUCTION.
5. CONTRACTOR SHALL PROVIDE SECURITY/CAMERA SYSTEM FOR THE EXISTING BRIDGE DURING CONSTRUCTION.
6. CONTRACTOR TO PROVIDE LIGHTING, HEATING, AND AC IN THE TEMPORARY CONTROL AND POWER BUNGALOW.
7. CONTRACTOR SHALL PROVIDE TEMPORARY RESTROOM FACILITIES FOR OPERATOR USE.
8. AERIAL CABLES ALONG WITH MESSENGER CABLES SHALL BE FURNISHED AND INSTALLED FOR CONNECTION OF WIRING ACROSS THE CHANNEL AS SHOWN ON THE PLANS. UTILIZE AVAILABLE STANDARD TRAY CABLE(S) TO INCLUDE THE SAME CONDUCTOR QUANTITY AND SIZING AS THE EXISTING SUBMARINE CABLES.

\*INDICATES TO BE DESIGNED BY BRIDGE CONTRACTOR

SCALE: NTS  
(UNO)

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

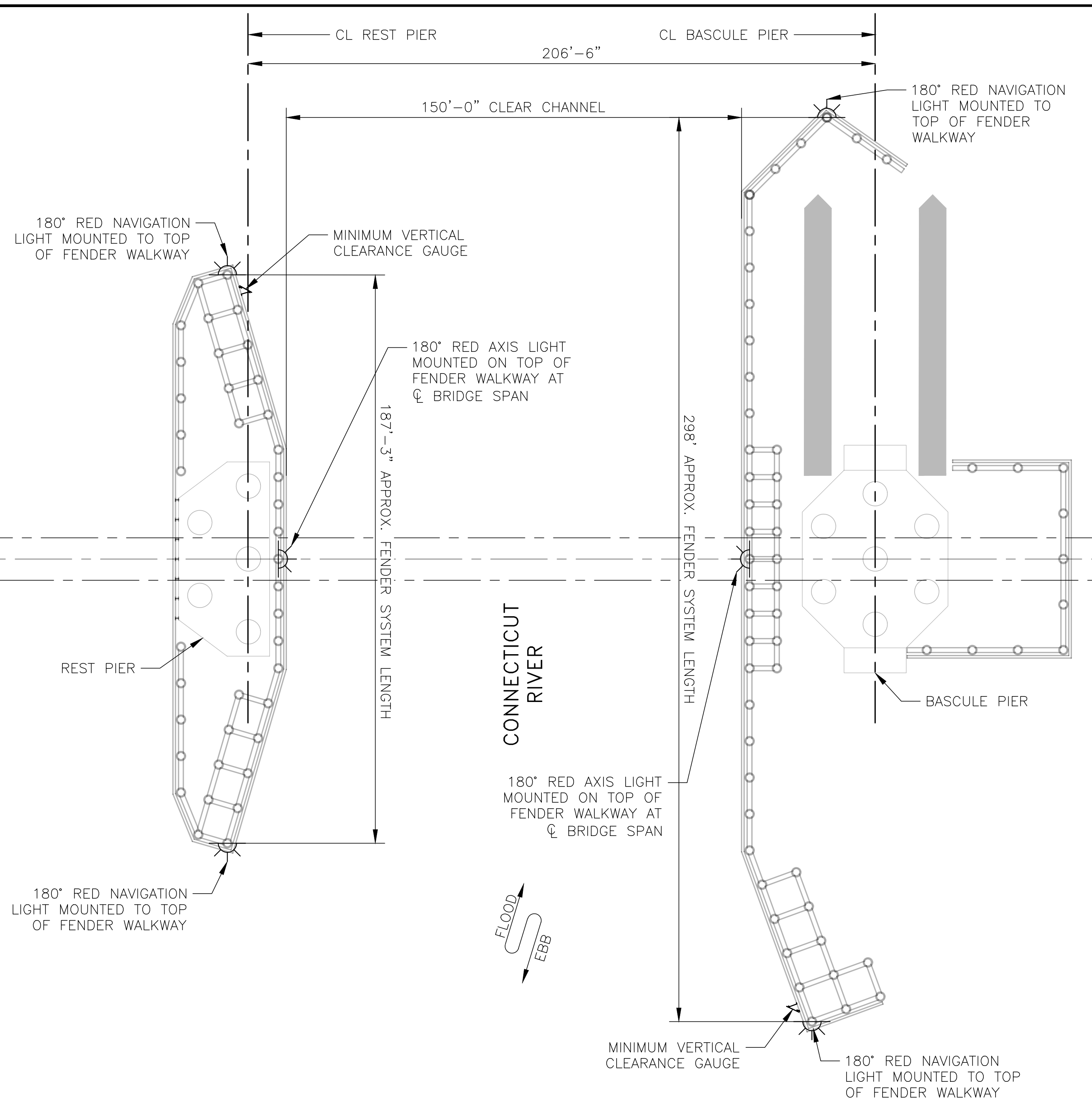


**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

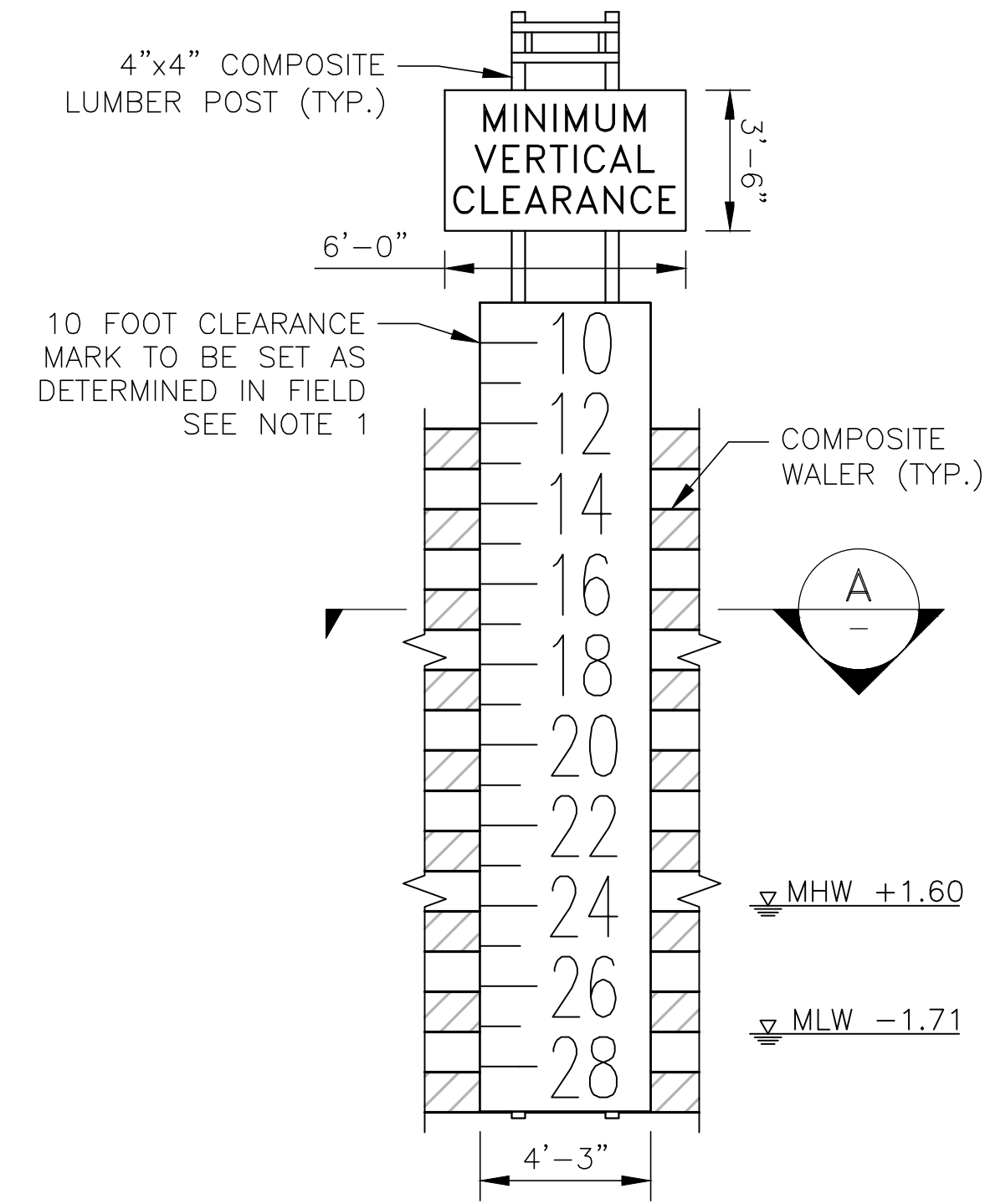
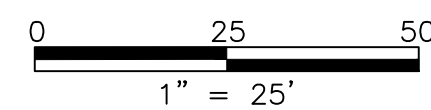
OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
TEMPORARY AERIAL CABLES  
Designed MJT Drawn JVA Checked CS Date 5/2/2023

Project Code: XXX XXX
WBS:
Sheet No. 138 OF 140
Dwg. No. <b>AC-01</b>

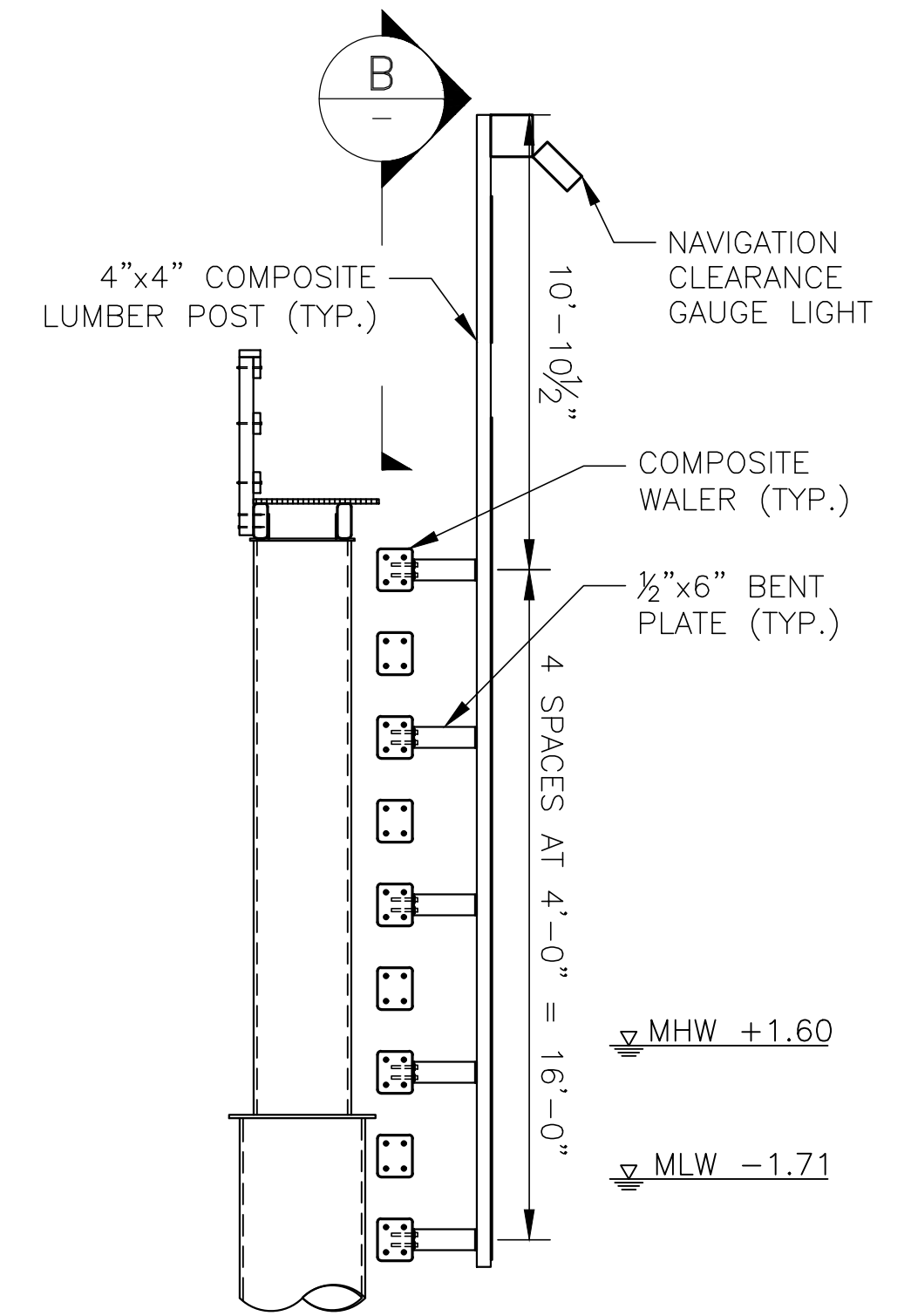
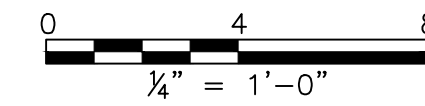
FILE NAME: 1406-AC-01-TEMPORARY\_POWER\_AND\_CONTROL.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES



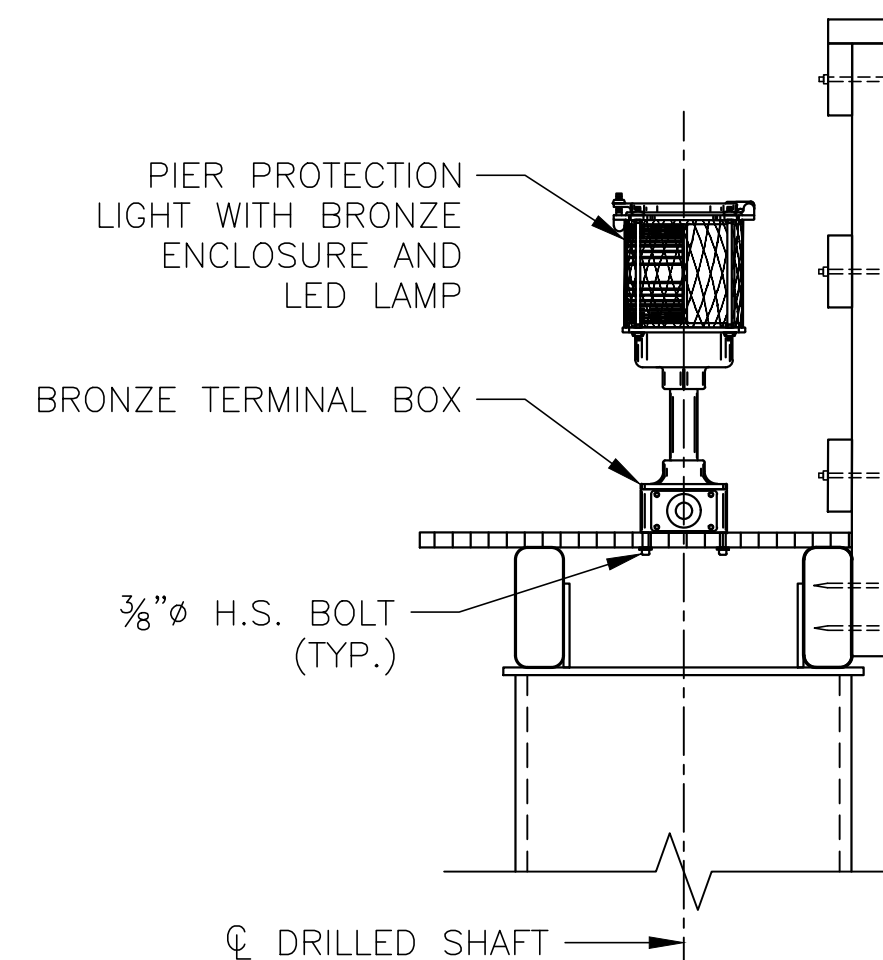
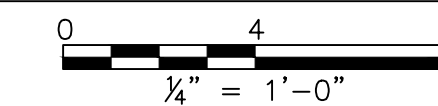
**FENDER NAVIGATIONAL AID PLAN**



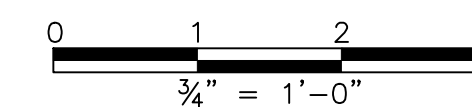
**NAVIGATION CLEARANCE GAUGE ELEVATION**



**NAVIGATION CLEARANCE GAUGE SECTION**



**NAVIGATION LIGHT ELEVATION**



**NAVIGATION LIGHT NOTES:**

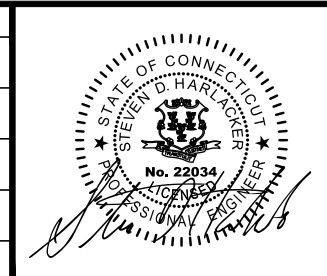
- SEE ELECTRICAL PLANS AND SPECIAL PROVISIONS FOR INFORMATION REGARDING NAVIGATION CLEARANCE GAUGE LIGHT, NAVIGATION LIGHT AND AND ELECTRICAL WORK.

**CLEARANCE GAUGE NOTES:**

- CONTRACTOR TO SURVEY LOW STEEL OVER CHANNEL AT COMPLETION OF BRIDGE CONSTRUCTION, AND SET NAVIGATION CLEARANCE GAUGE WITH CENTER OF MARK AT 10 FEET EXACTLY 10 FEET BELOW LOW STEEL.
- ALL BOLTS, NUTS AND WASHERS USED FOR THE CONNECTION OF THE CLEARANCE GAUGE PANELS TO FRPL POSTS SHALL BE GALVANIZED STEEL IN ACCORDANCE WITH THE TECHNICAL PROVISIONS.
- ALL TEXT FOR CLEARANCE GAUGE SHALL BE IN BLACK ON WHITE BACKGROUND. LETTERS AND NUMBERS SHALL CONFORM TO THE CURRENT MANUAL PER SPECIAL PROVISIONS.
- THE "MINIMUM VERTICAL CLEARANCE" SIGN PANEL FOR BOTH THE NORTH AND SOUTH END OF THE FENDER SYSTEM SHALL BE A 3/16" THICK S.S. PANEL CONFORMING TO ASTM A666, TYPE 316 AND TYPE III REFLECTIVE SHEETING. WHITE BACKGROUND WITH BLACK LETTERING AND NUMBERING.
- THE CLEARANCE GAUGE SIGN PANEL AT BOTH THE NORTH AND SOUTH END OF THE FENDER SYSTEM SHALL BE A 3/16" THICK S.S. PANEL CONFORMING TO ASTM A666, TYPE 316 AND TYPE III REFLECTIVE SHEETING. WHITE BACKGROUND WITH BLACK LETTERING AND NUMBERING.
- SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING SIZING AND PLACEMENT OF LETTERING, NUMBERING AND FOOT MARKS.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

Approved	Date



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

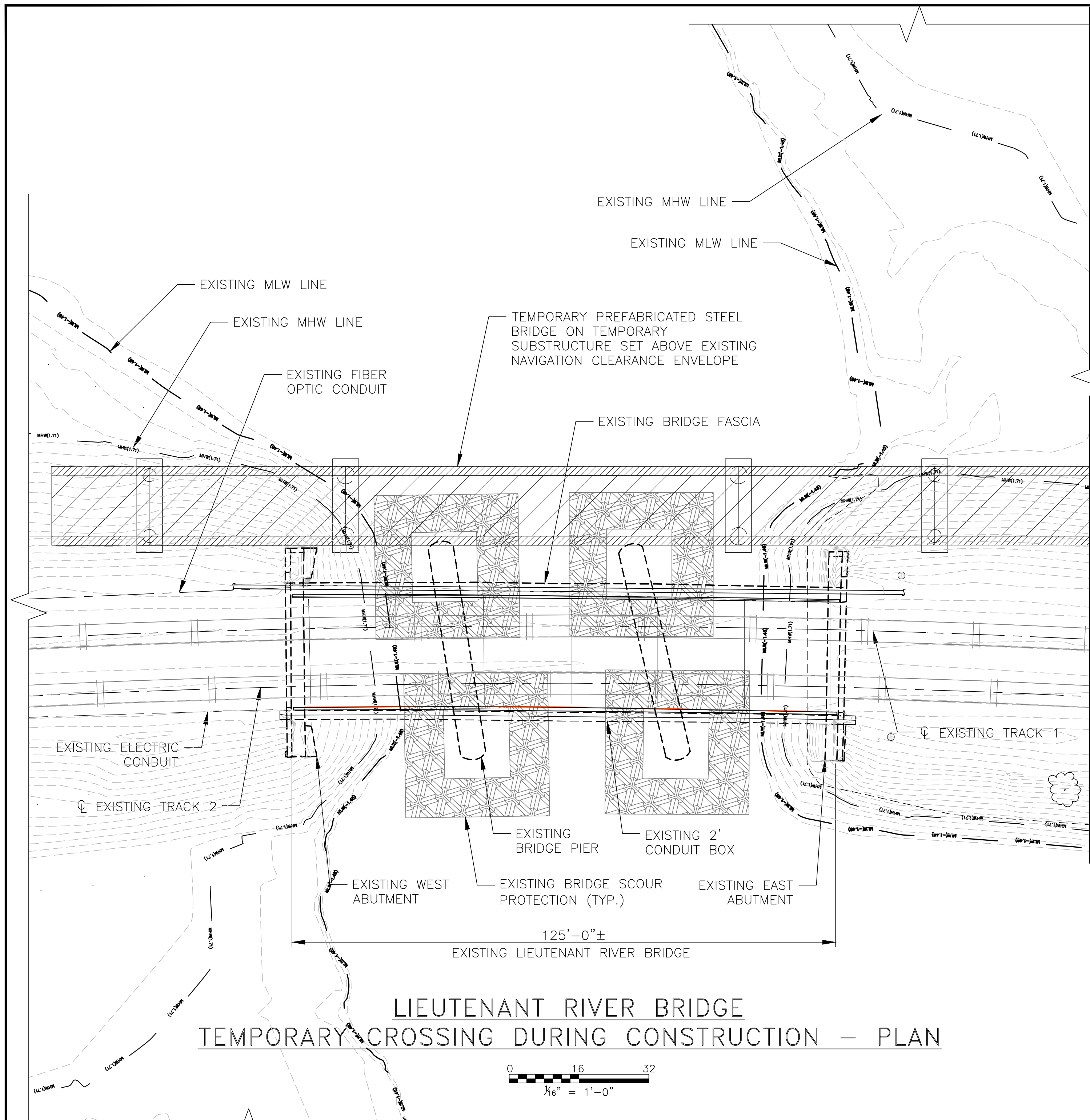
Project Code:	XXX XXX
WBS:	
Sheet No.:	139 OF 140
<b>REPLACEMENT OF MB 106.89 OVER CONNECTICUT RIVER</b>	
<b>FENDER SYSTEM DETAILS</b>	
Designed SRM	Drawn SRM
Checked BNK	Date 5/2/2023

Dwg. No. **FEN-01**

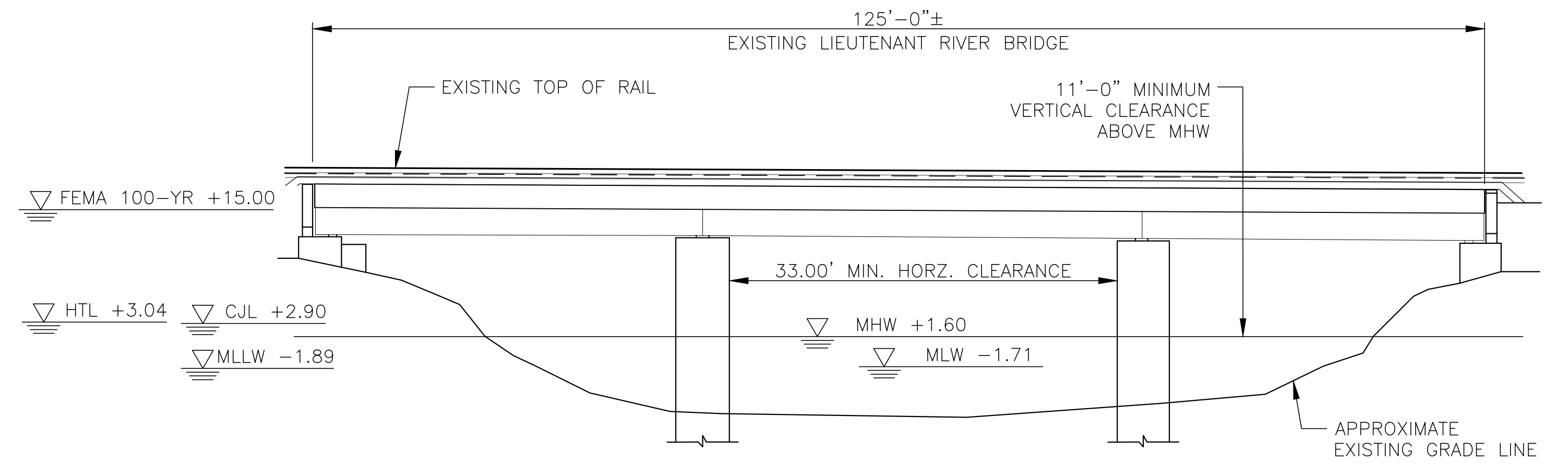
FILE NAME: 2406-FEN-01-FENDER-DETAILS.DWG  
PLOT SCALE: AS NOTED  
STANDARD PEN TABLE: YES

**Amtrak®**  
This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.

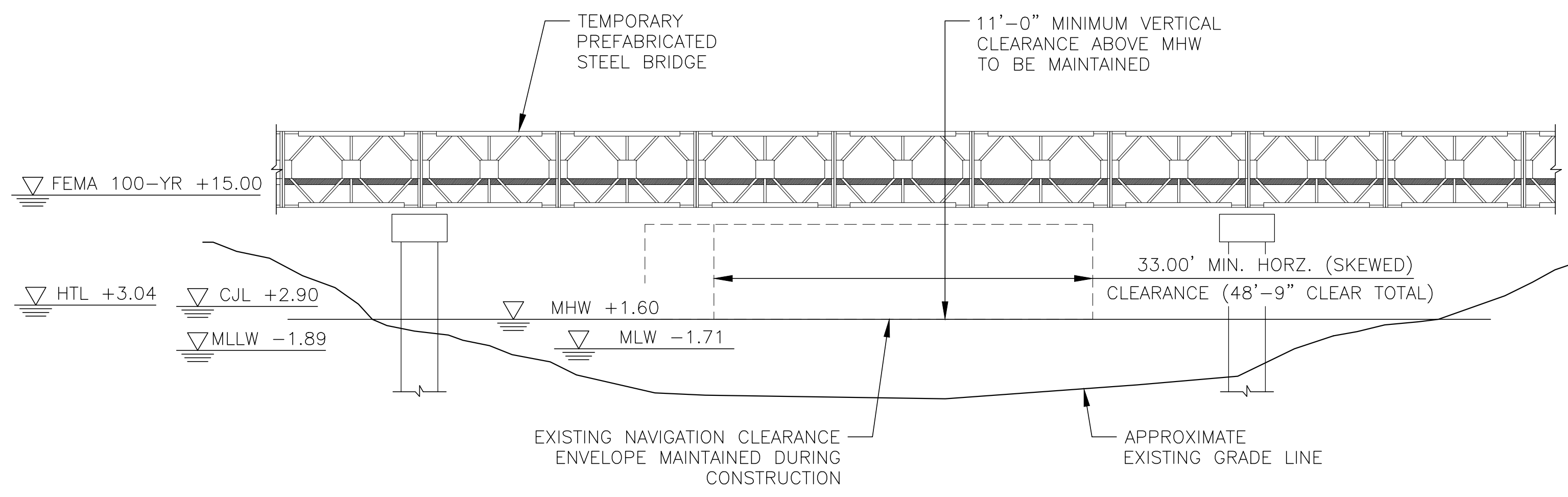
Office of Chief Engineer  
**STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104



**LIEUTENANT RIVER BRIDGE  
TEMPORARY CROSSING DURING CONSTRUCTION – PLAN**



**LIEUTENANT RIVER BRIDGE  
EXISTING BRIDGE ELEVATION**



**LIEUTENANT RIVER BRIDGE  
TEMPORARY CROSSING DURING CONSTRUCTION – ELEVATION**

**NOTES:**

1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING A TEMPORARY BRIDGE ADEQUATE FOR CROSSING THE LIEUTENANT RIVER BRIDGE AND REMOVING THE TEMPORARY BRIDGE WHEN NO LONGER REQUIRED FOR USE.
2. THE TEMPORARY BRIDGE SHALL MEET OR EXCEED THE MINIMUM CLEARANCES SHOWN ON THIS PLAN.
3. THE PREFABRICATED STEEL BRIDGE SYSTEM SHOWN IS A SUGGESTED STRUCTURAL SOLUTION.
4. THE TEMPORARY BRIDGE SHALL HAVE A SOLID FLOOR TO KEEP DEBRIS FROM ENTERING THE RIVER BELOW.
5. INSTALLATION OF TEMPORARY BRIDGE SHALL OCCUR BEHIND TURBIDITY CURTAINS.
6. THE TEMPORARY BRIDGE CROSSING SHALL NOT RESTRICT THE EXISTING LIEUTENANT RIVER NAVIGATION CLEARANCES.
7. TEMPORARY PILES IN THE VICINITY OF THE EXISTING BRIDGE FOUNDATION OR EXISTING SCOUR PROTECTION SHALL BE LOCATED SO AS TO AVOID POTENTIAL CONFLICTS WITH EXISTING PILES AND OTHER OBSTRUCTIONS.
8. SIZE OF PIERS, SPACING, AND DEPTH OF SUPERSTRUCTURE (DEFINING HIGH CHORD) TO BE DESIGNED BY CONTRACTOR. PIER SPACING TO BE NO CLOSER SPACED THAN THOSE SHOWN ON THE PERMIT PLANS.
9. TEMPORARY TRESTLE BRIDGE TO BE REMOVED IN FULL AFTER COMPLETION OF USE FOR CONSTRUCTION ACCESS AND SITE RESTORED TO PRE-EXISTING CONDITIONS.

**NAVIGATION CHANNEL CLOSURE NOTES:**

1. AN ANTICIPATED 7 DAY FULL NAVIGATION CHANNEL CLOSURE WILL BE REQUIRED FOR THE INSTALLATION AND REMOVAL OF THE LIEUTENANT RIVER BRIDGE TEMPORARY CROSSING.
2. ADVANCE COORDINATION WITH USCG AND EMERGENCY VESSELS WILL BE CONDUCTED AS TO THE NEED AND PROCEDURES FOR VESSEL PASSAGE DURING FULL CHANNEL CLOSURES. ALL TEMPORARY WORK AND EQUIPMENT SHALL MEET THE REQUIREMENTS OF USCG AND DEEP BOATING.

ELEVATION TABLE			
DESCRIPTION	CONTOUR	NOAA (NAV88)(FT)	USACE (MLLW)(FT)
FEMA 100-YEAR (ZONE VE)	100 YR	15.00	16.89
CT COASTAL JURISDICTION LINE	CJL	2.90	4.79
HIGH TIDE LINE	HTL	3.04	4.93
MEAN HIGH WATER LINE	MHW	1.60	3.49
MEAN LOW WATER LINE	MLW	-1.71	0.18
MEAN LOWER LOW WATER LINE	MLLW	-1.89	0.00

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: MAY 2, 2023

No.	Revisions	Date	By



**Office of Chief Engineer  
STRUCTURES**  
National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved \_\_\_\_\_ Date \_\_\_\_\_



**HARDESTY & HANOVER, LLC**  
ENGINEERING  
1501 Broadway New York, NY 10036

OLD SAYBROOK CONNECTICUT  
**REPLACEMENT OF MB 106.89  
OVER CONNECTICUT RIVER**  
LIEUTENANT RIVER TEMPORARY CROSSING  
Designed MY Drawn MY Checked SJT Date 5/2/2023

Project Code: XXX XXX  
WBS: \_\_\_\_\_  
Sheet No. 140 OF 140  
Dwg. No. **TB-01**

FILE NAME: R400\_TB-01\_LIEUTENANT\_RIVER.DWG  
PLOT SCALE: 1/32" = 1'-0"  
STANDARD PLOT TABLE: YES