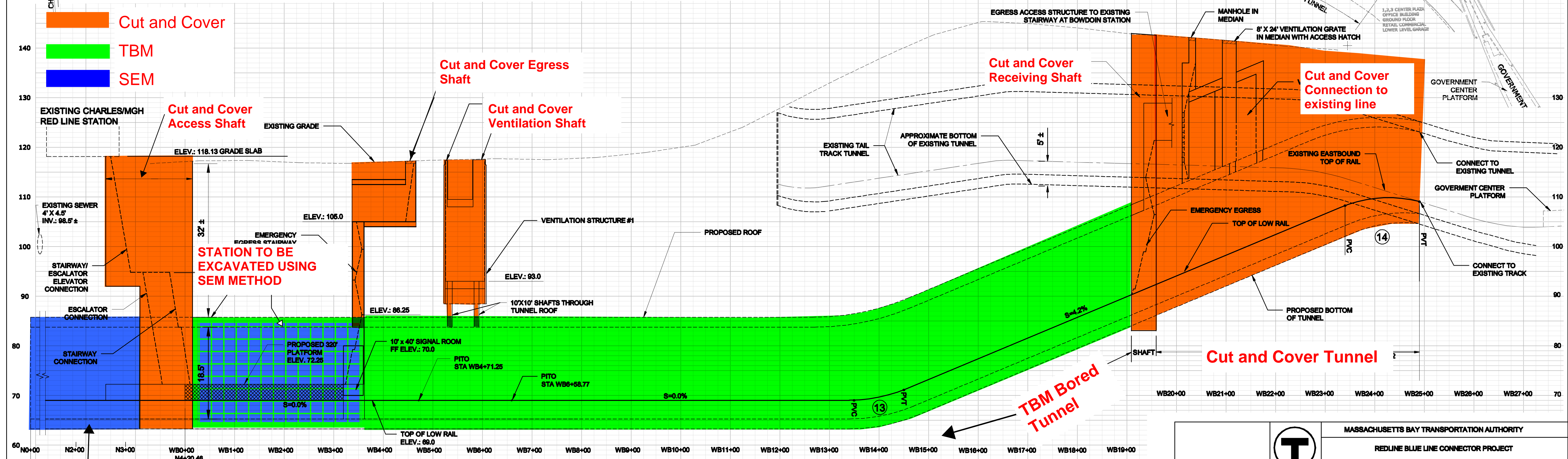
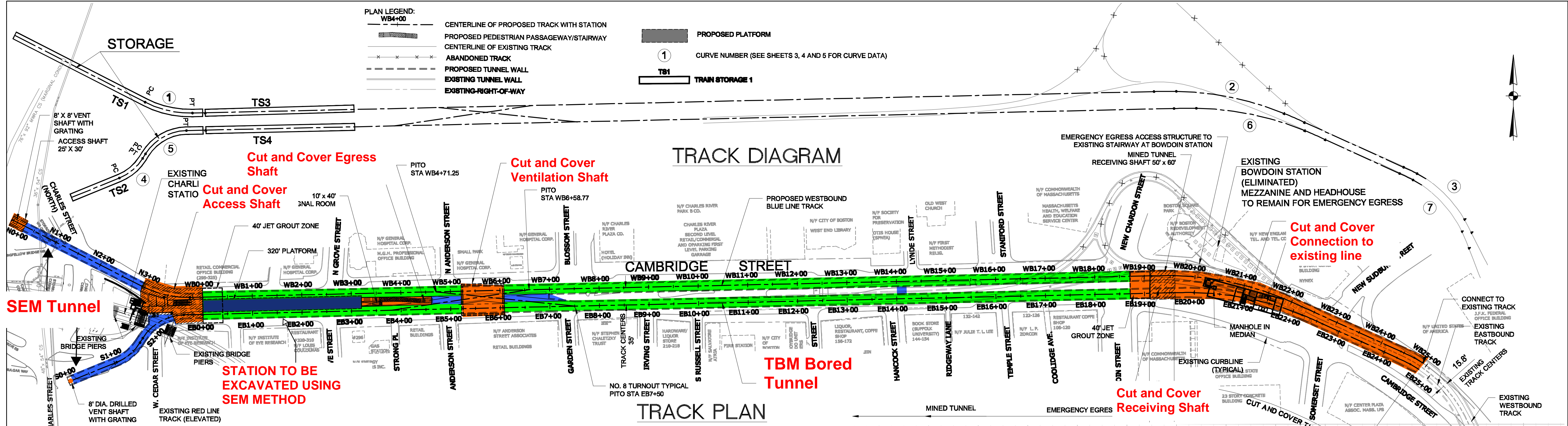


CONSTRUCTABILITY STUDY
RED LINE/BLUE LINE CONNECTOR
BOSTON, MASSACHUSETTS

APPENDIX A

2010 DEIR STUDY

ALTERNATIVE 1 EXCAVATIONS



NOTE:

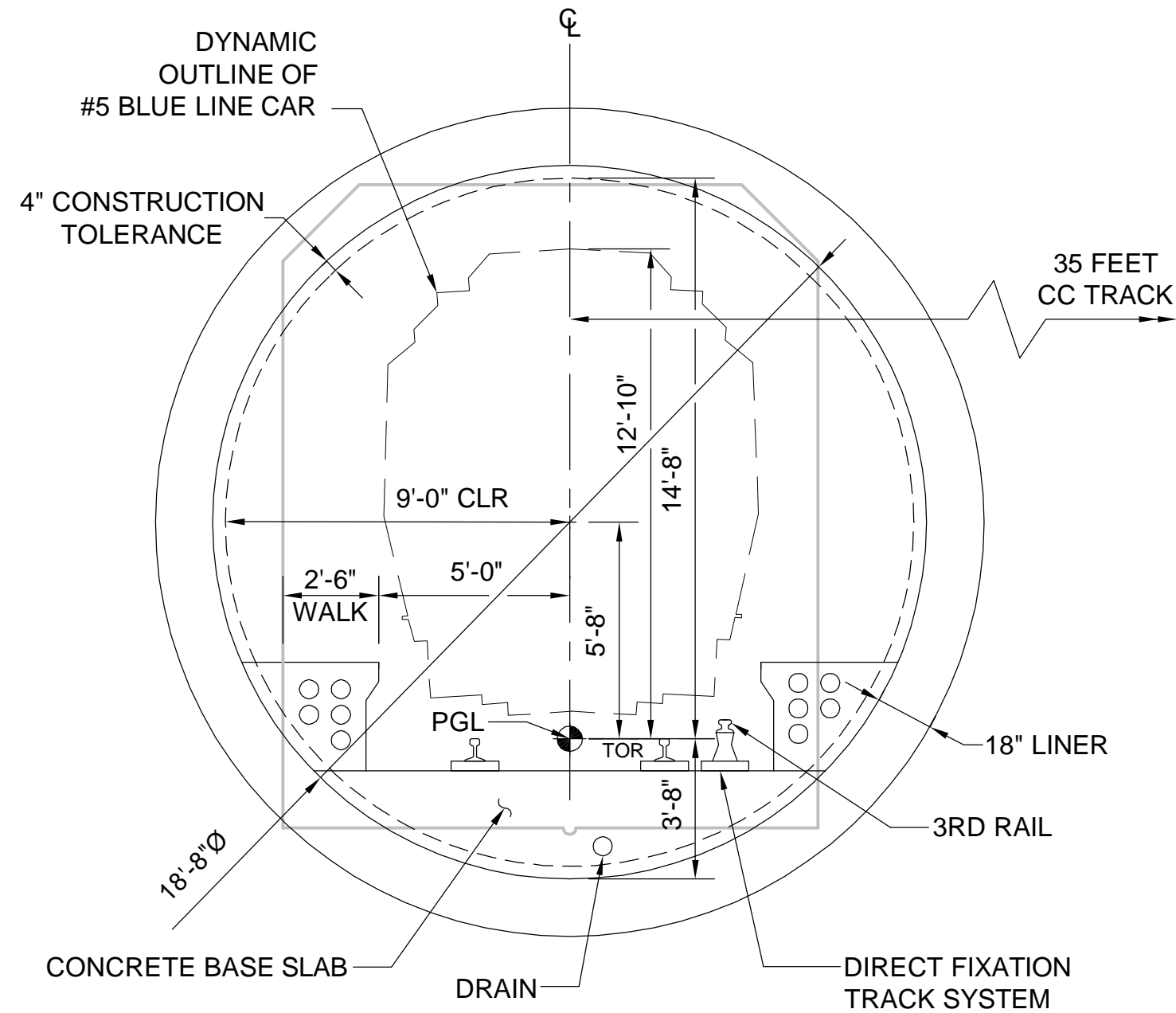
- NO EXISTING UTILITIES ARE SHOWN IN PLAN AND PROFILE EXCEPT FOR SEWER ON CHARLES STREET.
- THE EASTBOUND TRACK PROFILE IS APPROXIMATELY EQUIVALENT TO THE WESTBOUND PROFILE INDICATED ON THIS DRAWING.

DATE	DESCRIPTION	BY	CHKD.	APP.
04				
08				
02				
01				

GRAPHIC SCALE: 0 100' 200' 0 10' 20'

HOR. SCALE: 1" = 100' VERT. SCALE: 1" = 10'

STV Incorporated 321 Summer Street Boston, MA, 02210		EXECUTIVE OFFICE OF TRANSPORTATION APPROVED BY: _____ Project Manager: JOCK Date: MM/DD/YYYY	
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY REDLINE BLUE LINE CONNECTOR PROJECT EOT CONTRACT NO. STV_REDBLU		ALTERNATIVE 1 TRACK PLAN AND PROFILE WITH ELIMINATION OF BOWDOIN STATION	
DATE: 3/30/10		SHEET T-101 OF 53	



NOTE:

1. CONCEPTUAL SECTION DESIGNED AND DRAFTED BY STV.

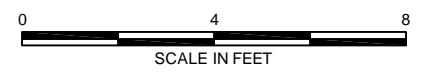
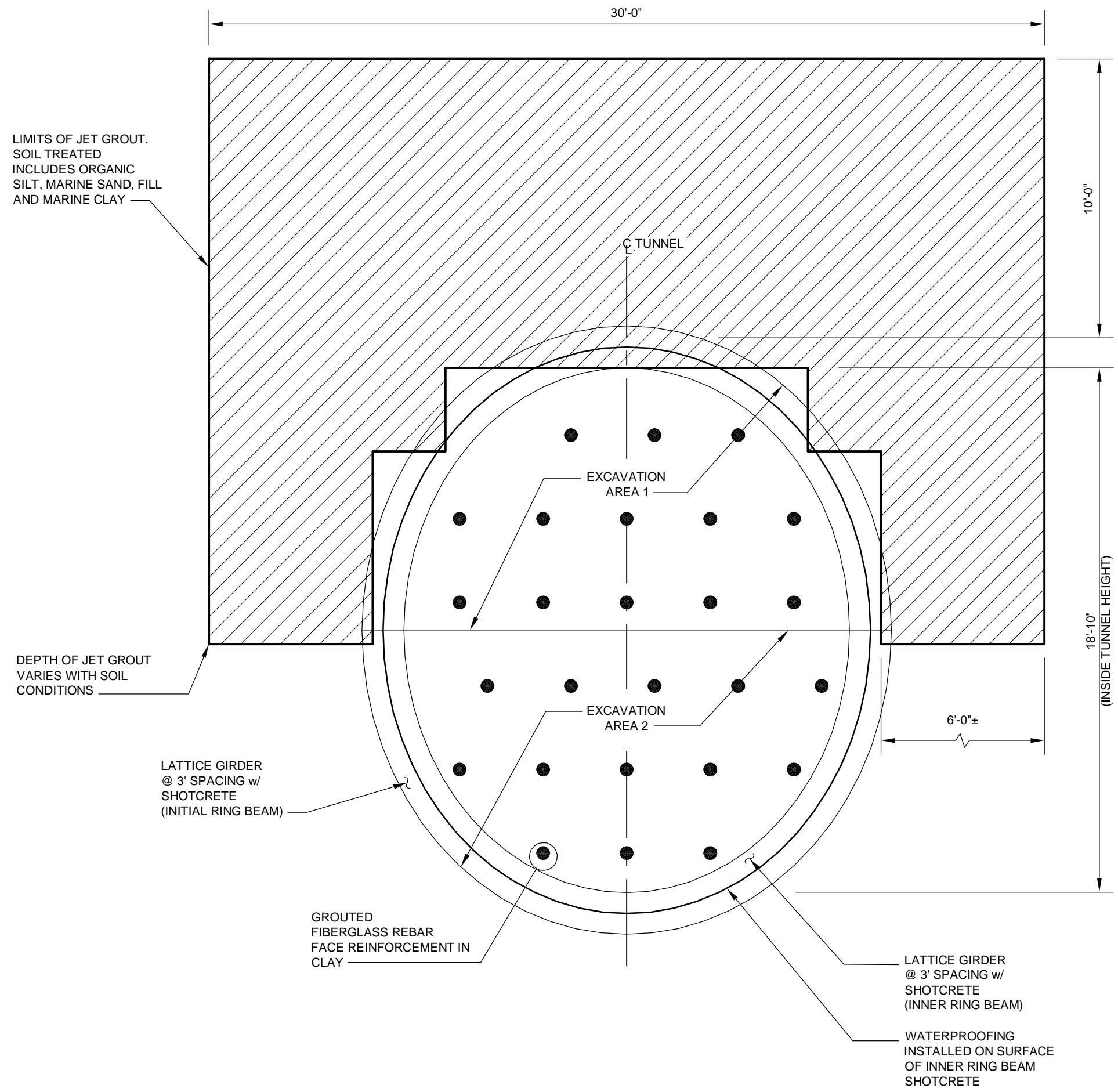


HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

SECTION - TBM TUNNEL

SCALE: AS SHOWN
JANUARY 2010

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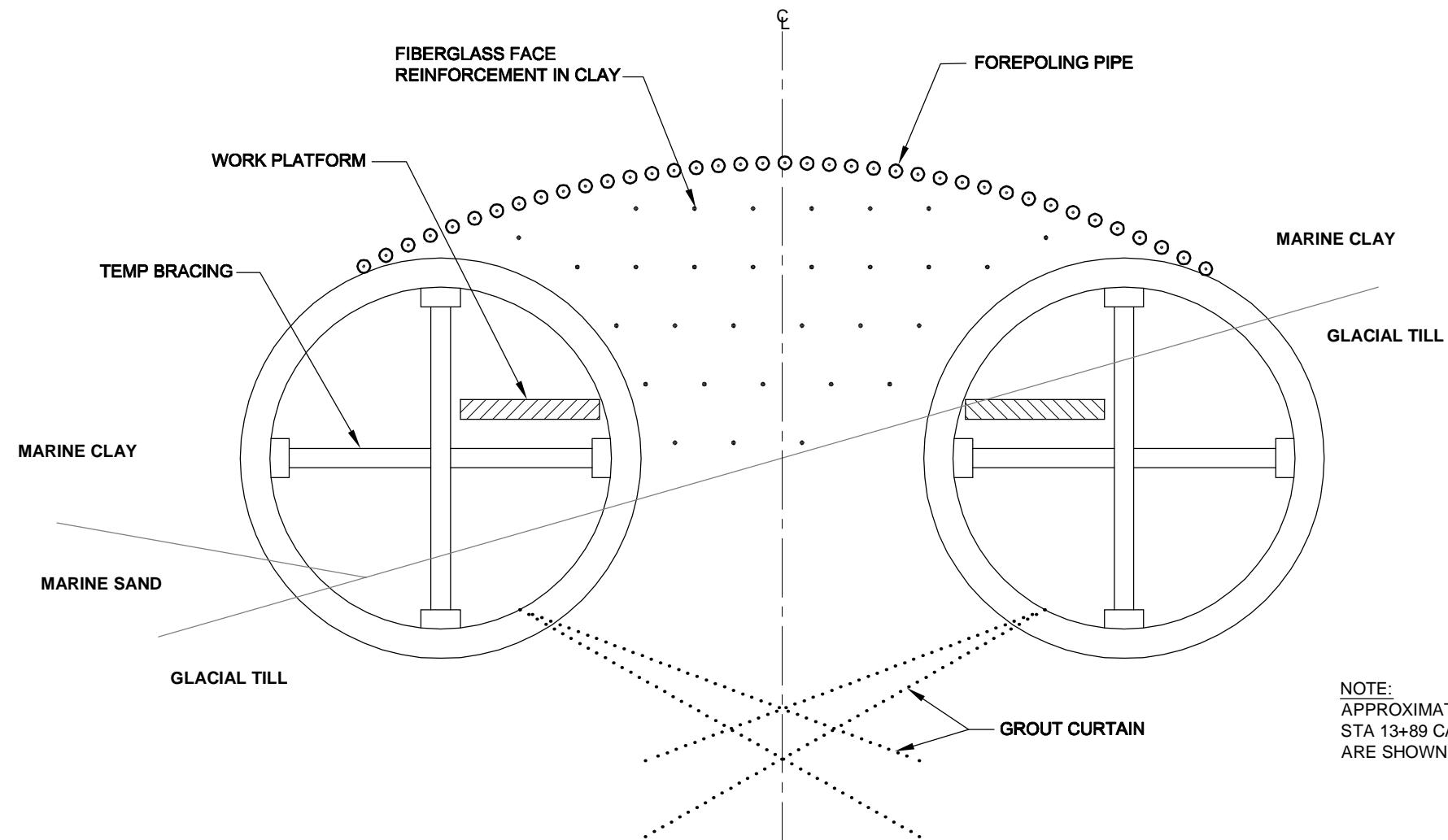


HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

**SECTION - TAIL TRACK
CONSTRUCTION BY SEM**

SCALE: AS SHOWN
JANUARY 2010

FIGURE 10



NOTE:
 APPROXIMATE SOIL CONDITIONS NEAR
 STA 13+89 CAMBRIDGE STREET BASELINE,
 ARE SHOWN.

CONSTRUCTION SEQUENCE

- MINE TBM TUNNELS
- INSTALL GROUT CURTAIN
- INSTALL GROUDED FOREPOLING AND FACE REINFORCEMENT
- INSTALL BRACING AND WORK PLATFORMS

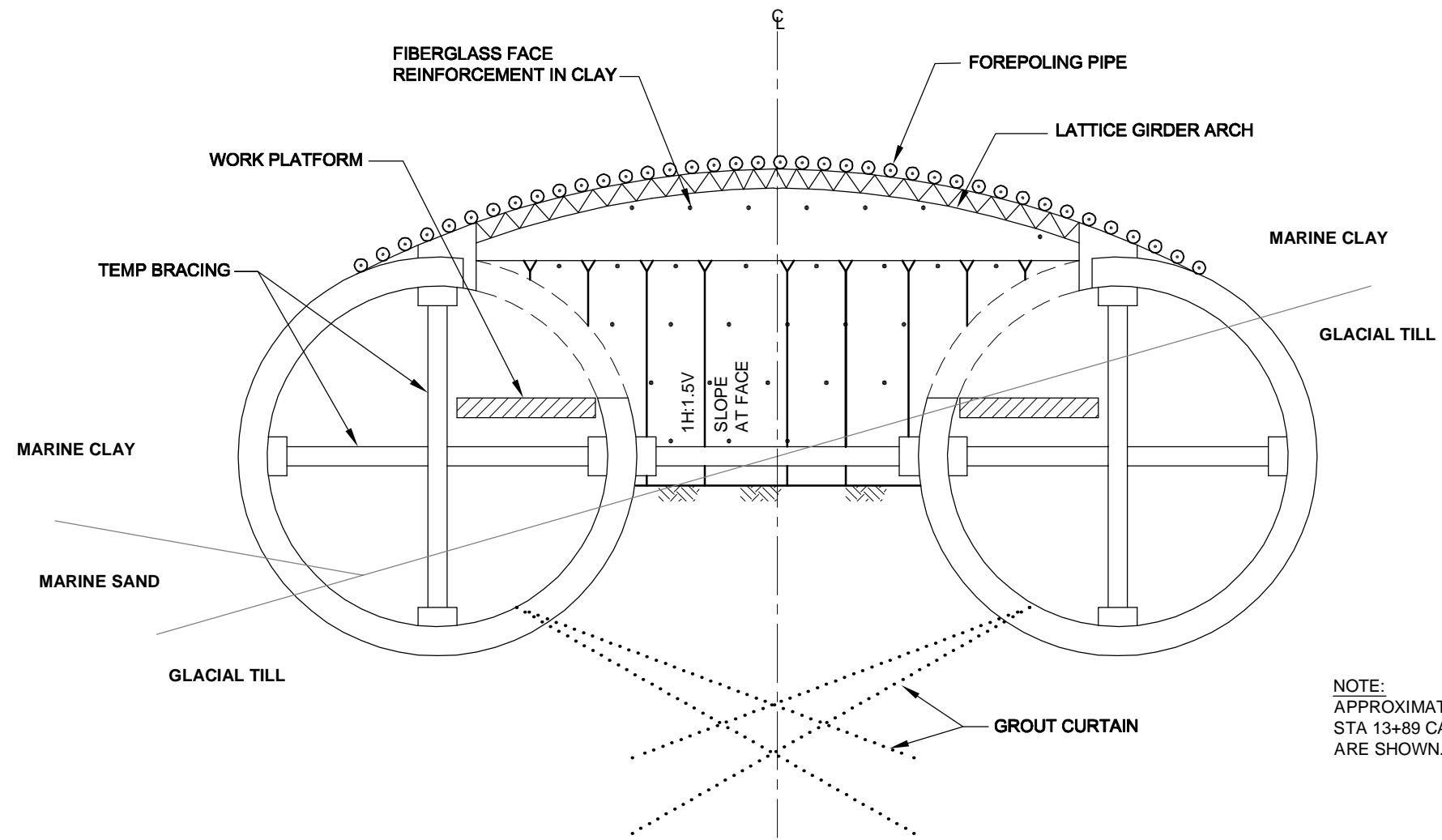
REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.



HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
 CAMBRIDGE STREET
 BOSTON, MASSACHUSETTS

**PLATFORM AREA SEM MINING
 SEQUENCE - PHASE 1**

SCALE: AS SHOWN
 JANUARY 2010



CONSTRUCTION SEQUENCE (CONTINUED)

- EXCAVATE SLOPED HEADING
- INSTALL HORIZONTAL BRACING
- REMOVE SECTIONS OF TBM TUNNEL LINING AS REQUIRED TO INSTALL ARCH
- INSTALL LATTICE GIRDER ARCH AT 3 FT SPACING

REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.

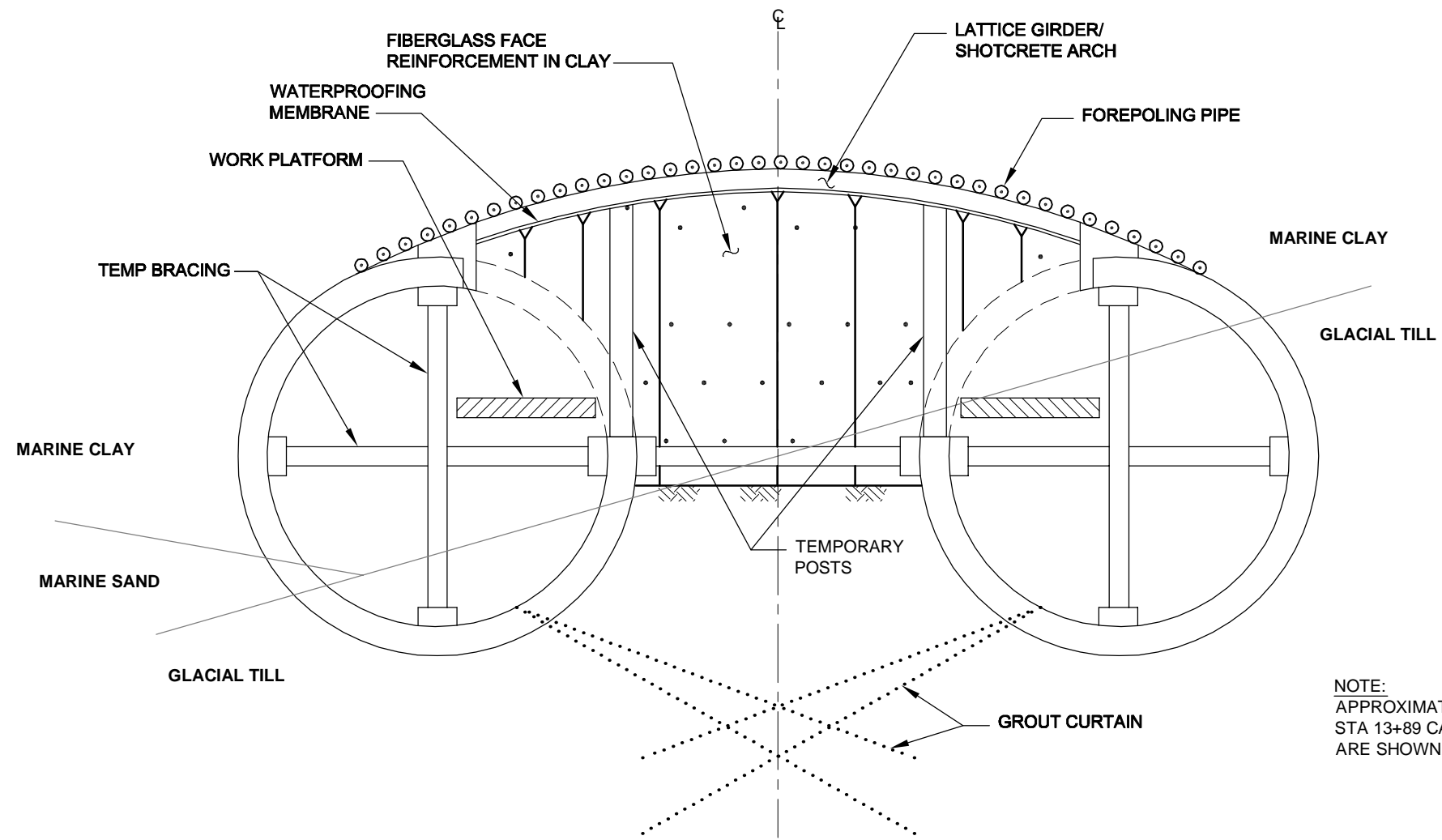
NOTE:
APPROXIMATE SOIL CONDITIONS NEAR
STA 13+89 CAMBRIDGE STREET BASELINE,
ARE SHOWN.



HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

**PLATFORM AREA SEM MINING
SEQUENCE - PHASE 2**

SCALE: AS SHOWN
JANUARY 2010

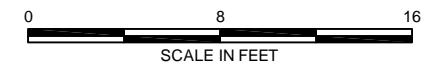


NOTE:
APPROXIMATE SOIL CONDITIONS NEAR
STA 13+89 CAMBRIDGE STREET BASELINE,
ARE SHOWN.

CONSTRUCTION SEQUENCE (CONTINUED)

- INSTALL TEMPORARY POSTS TO SUPPORT LATTICE GIRDERS
- SHOTCRETE LATTICE GIRDER ARCH
- INSTALL WATERPROOFING MEMBRANE

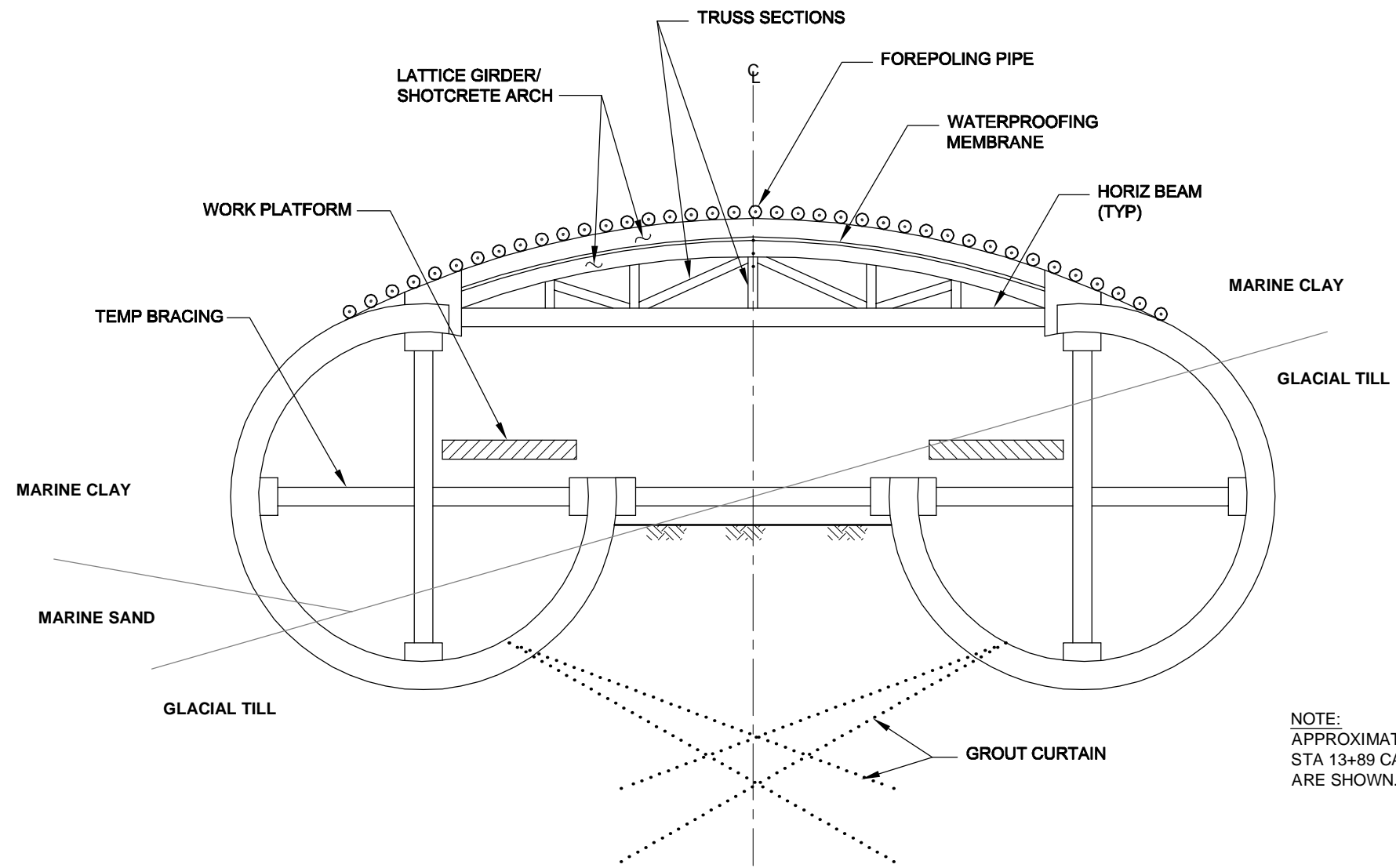
REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.



HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

**PLATFORM AREA SEM MINING
SEQUENCE - PHASE 3**

SCALE: AS SHOWN
JANUARY 2010



NOTE:
APPROXIMATE SOIL CONDITIONS NEAR
STA 13+89 CAMBRIDGE STREET BASELINE,
ARE SHOWN.

CONSTRUCTION SEQUENCE (CONTINUED)

- INSTALL SECOND LAYER OF LATTICE GIRDERS AND SHOTCRETE
- CONSTRUCT TRUSS SECTIONS AND REMOVE TEMPORARY POSTS

REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.

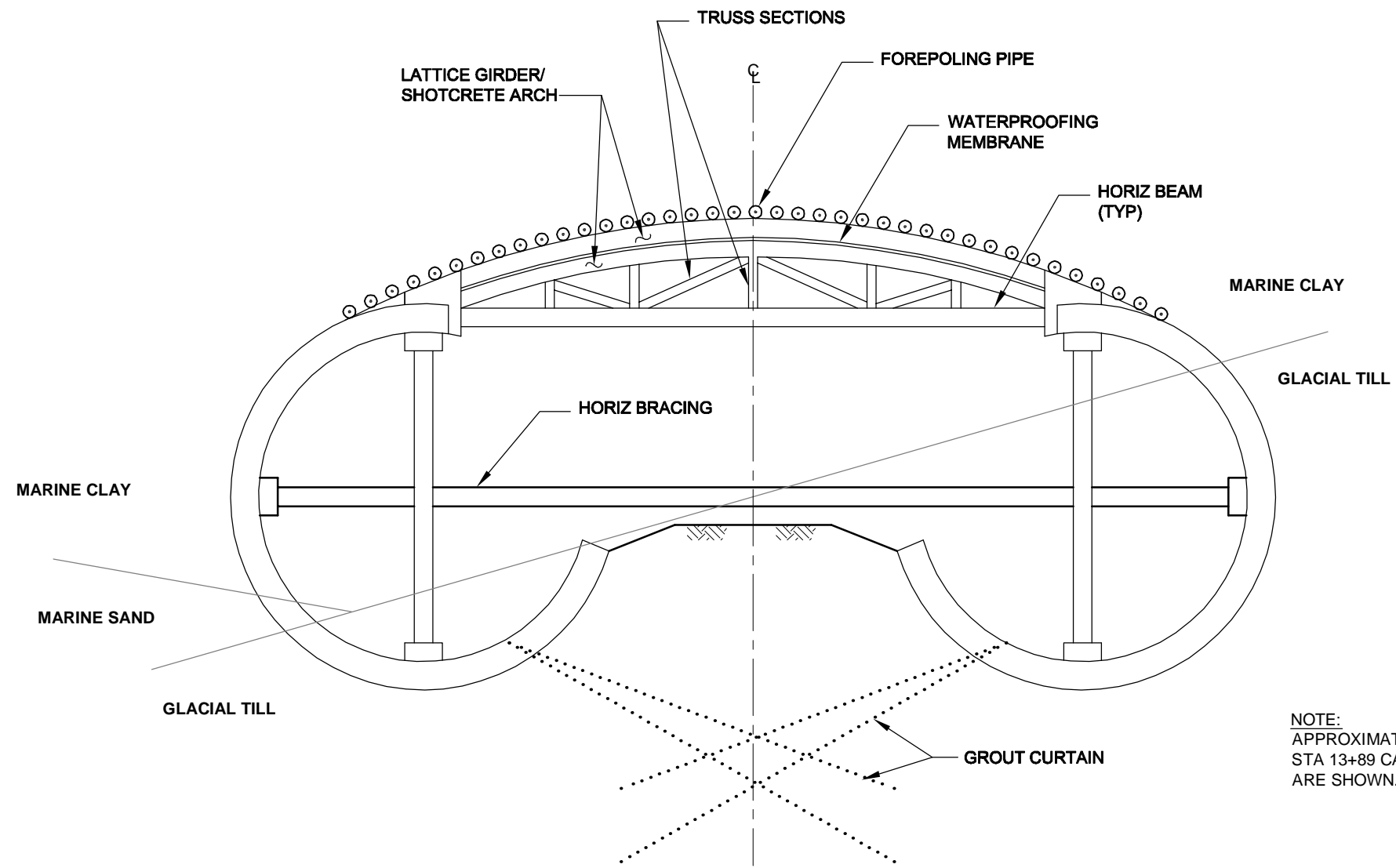


HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

PLATFORM AREA SEM MINING
SEQUENCE - PHASE 4

SCALE: AS SHOWN
JANUARY 2010

FIGURE 26

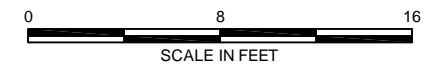


NOTE:
APPROXIMATE SOIL CONDITIONS NEAR
STA 13+89 CAMBRIDGE STREET BASELINE,
ARE SHOWN.

CONSTRUCTION SEQUENCE (CONTINUED)

- REMOVE ADDITIONAL LINER SECTIONS
- INSTALL LONGER HORIZONTAL BRACING

REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.

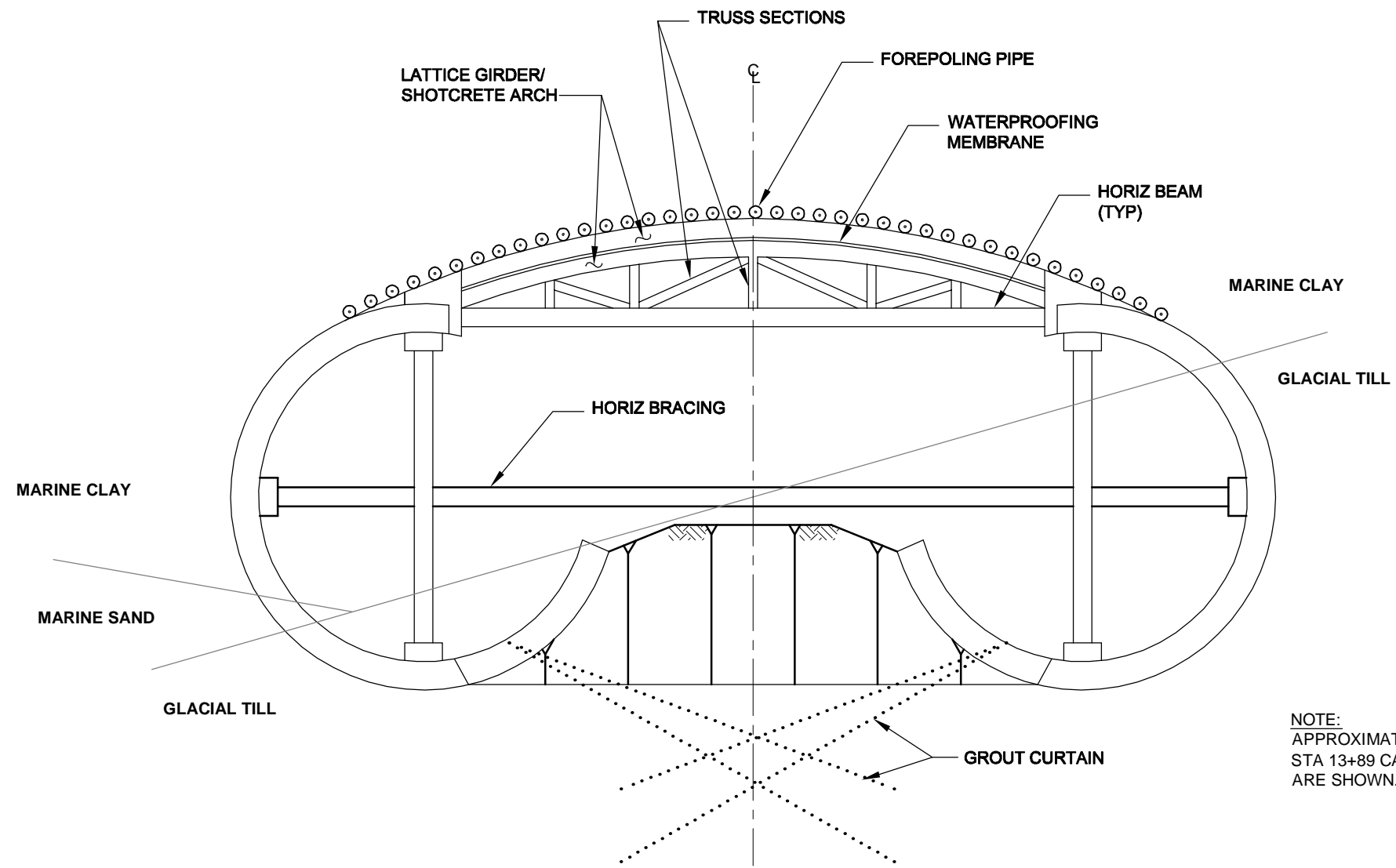


HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

PLATFORM AREA SEM MINING
SEQUENCE - PHASE 5

SCALE: AS SHOWN
JANUARY 2010

FIGURE 27

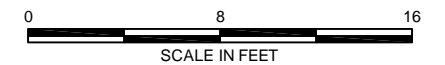


NOTE:
 APPROXIMATE SOIL CONDITIONS NEAR
 STA 13+89 CAMBRIDGE STREET BASELINE,
 ARE SHOWN.

CONSTRUCTION SEQUENCE (CONTINUED)

- EXCAVATE DOWN TO FINAL SUBGRADE ELEVATION

REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.

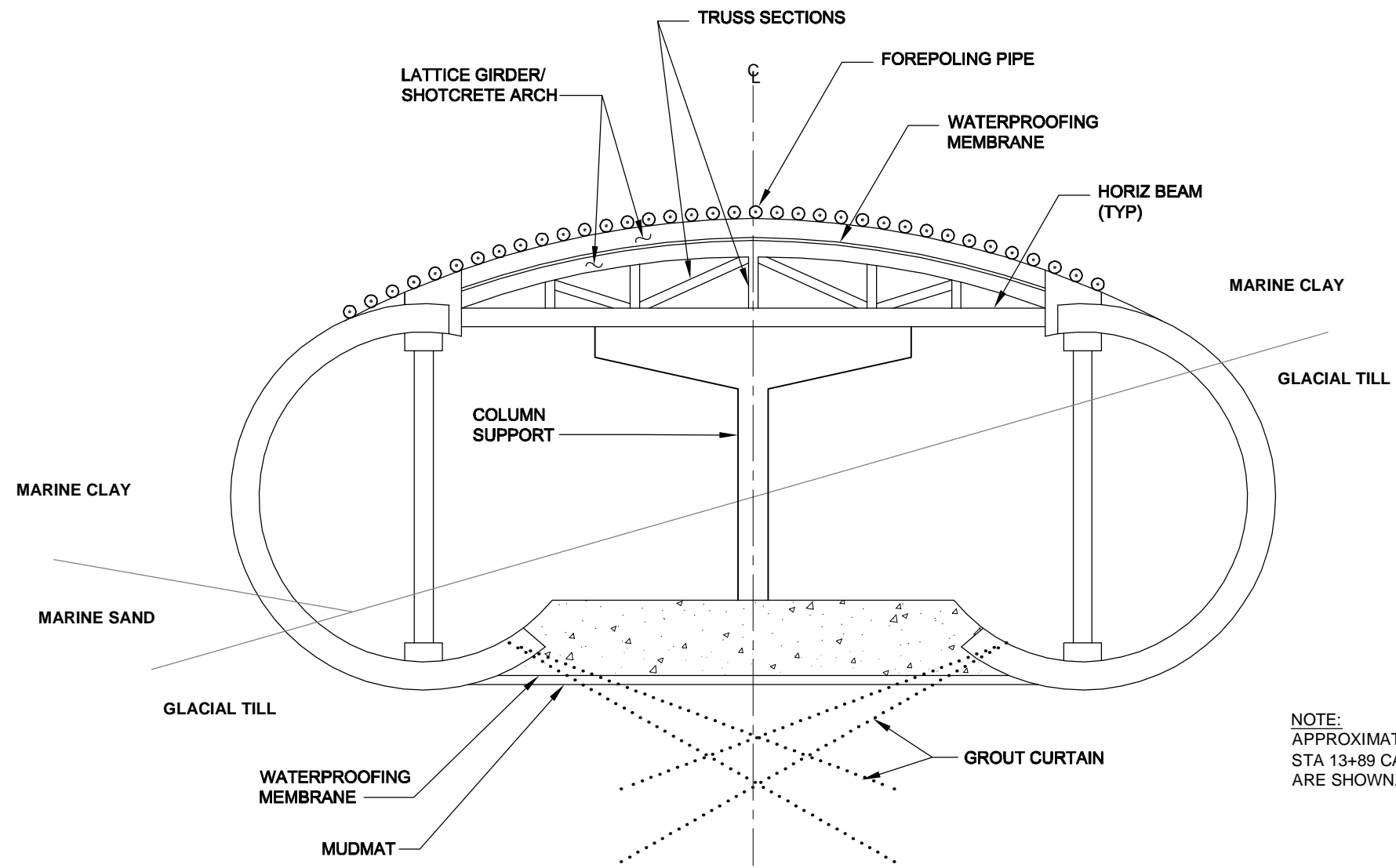


HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
 CAMBRIDGE STREET
 BOSTON, MASSACHUSETTS

PLATFORM AREA SEM MINING
 SEQUENCE - PHASE 6

SCALE: AS SHOWN
 JANUARY 2010

FIGURE 28

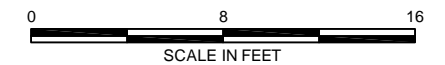


NOTE:
APPROXIMATE SOIL CONDITIONS NEAR
STA 13+89 CAMBRIDGE STREET BASELINE,
ARE SHOWN.

CONSTRUCTION SEQUENCE (CONTINUED)

- INSTALL MUDMAT
- INSTALL WATERPROOFING MEMBRANE
- POUR BASE SLAB
- INSTALL PERMANENT COLUMNS

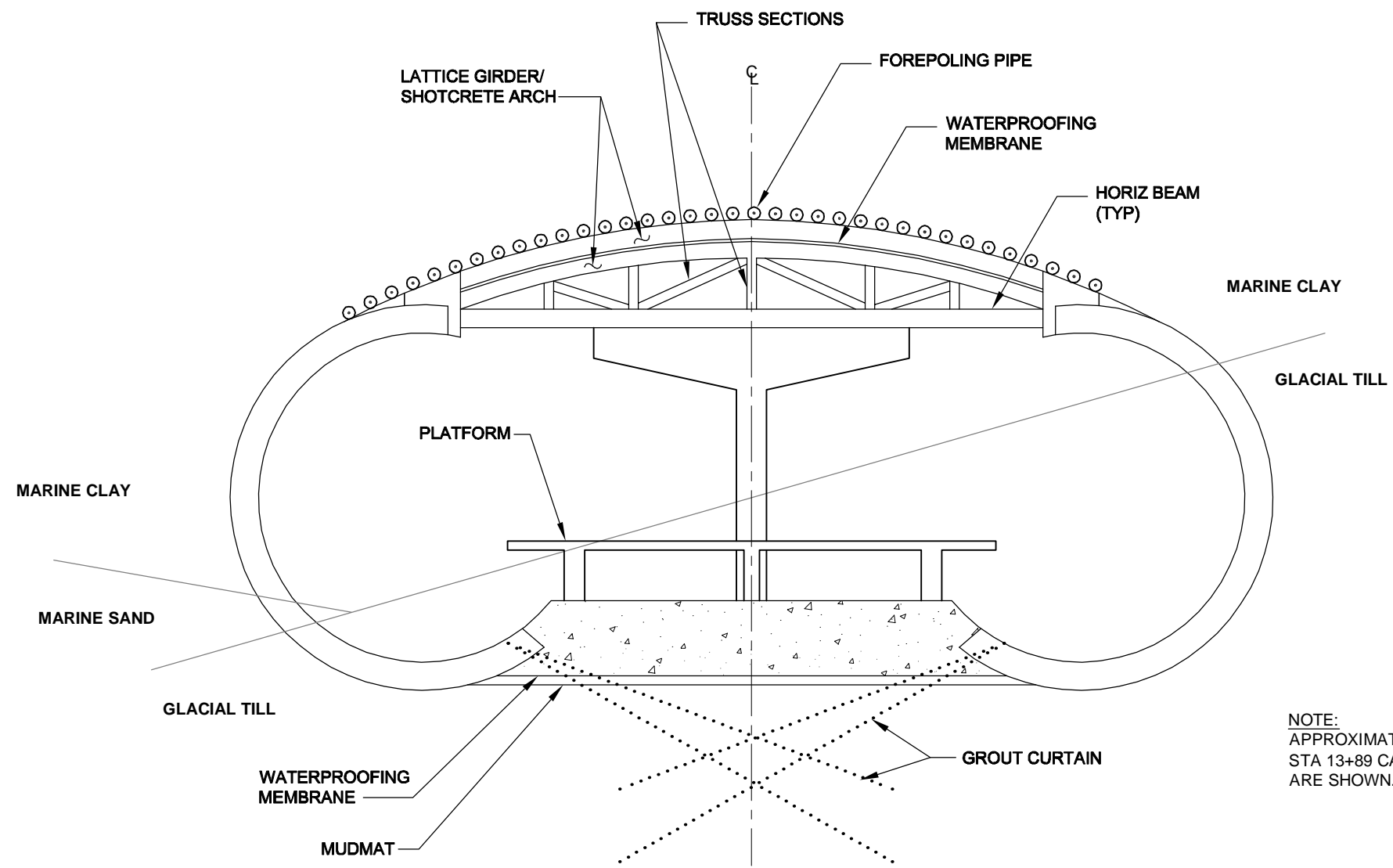
REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.



HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

**PLATFORM AREA SEM MINING
SEQUENCE - PHASE 7**

SCALE: AS SHOWN
JANUARY 2010

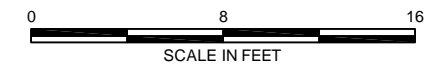


NOTE:
APPROXIMATE SOIL CONDITIONS NEAR
STA 13+89 CAMBRIDGE STREET BASELINE,
ARE SHOWN.

CONSTRUCTION SEQUENCE (CONTINUED)

- CONSTRUCT PLATFORM
- REMOVE TEMPORARY BRACING

REFER TO SECTION 4.7.1 FOR DETAILED SEQUENCE NOTES.

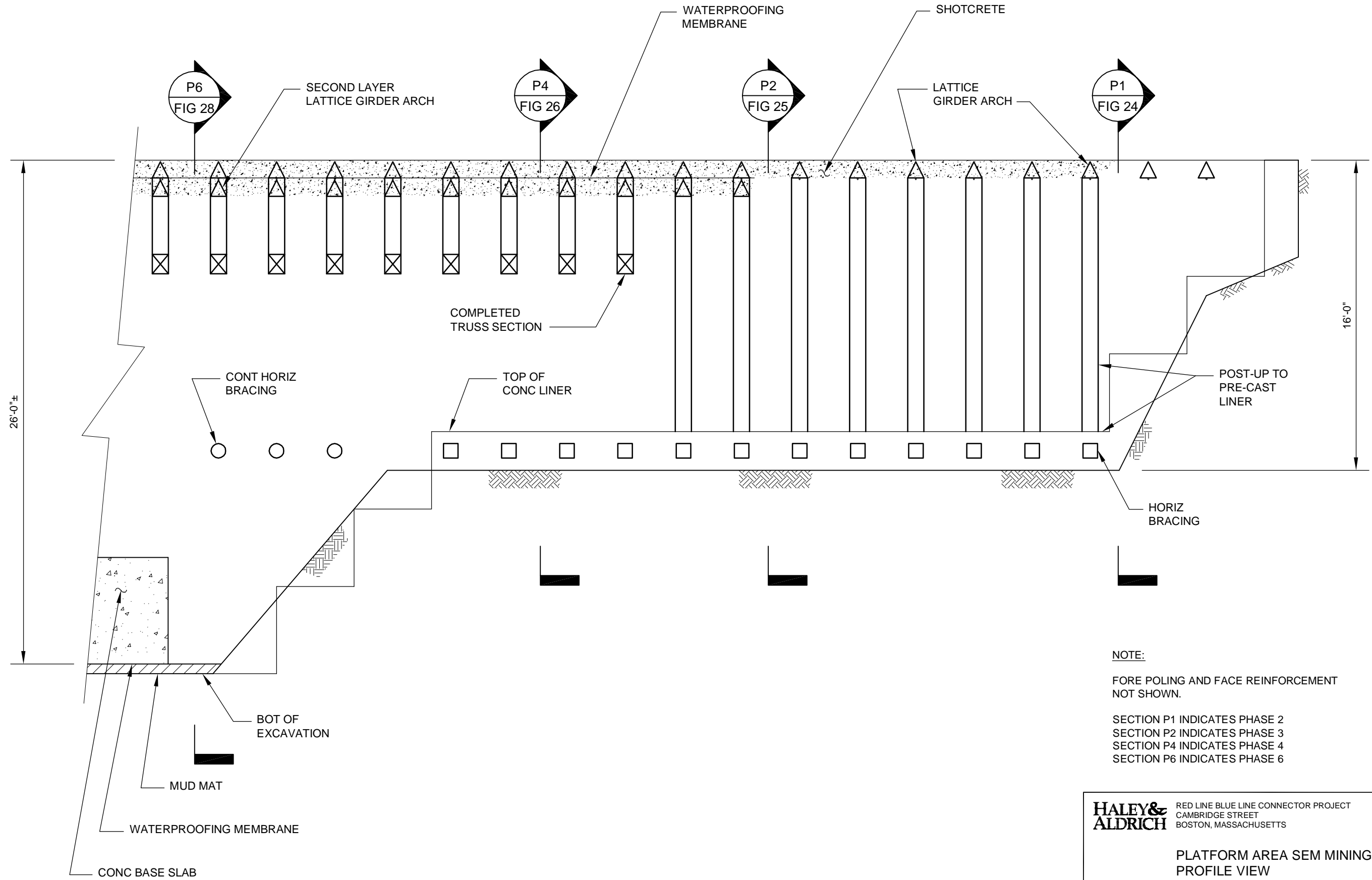


HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
CAMBRIDGE STREET
BOSTON, MASSACHUSETTS

**PLATFORM AREA SEM MINING
SEQUENCE - PHASE 8**

SCALE: AS SHOWN
JANUARY 2010

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NOTE:

FORE POLING AND FACE REINFORCEMENT NOT SHOWN.

SECTION P1 INDICATES PHASE 2
 SECTION P2 INDICATES PHASE 3
 SECTION P4 INDICATES PHASE 4
 SECTION P6 INDICATES PHASE 6

HALEY & ALDRICH RED LINE BLUE LINE CONNECTOR PROJECT
 CAMBRIDGE STREET
 BOSTON, MASSACHUSETTS

**PLATFORM AREA SEM MINING
 PROFILE VIEW**

SCALE: AS SHOWN
 JANUARY 2010

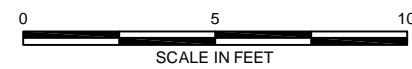


FIGURE 31