



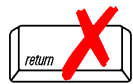
WPA Form 8A – Request for Certificate of Compliance

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Project Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Upon completion of the work authorized in an Order of Conditions, the property owner must request a Certificate of Compliance from the issuing authority stating that the work or portion of the work has been satisfactorily completed.

1. This request is being made by:

Roch D. Larochelle, PE

Name

99 High Street, Suite 2300

Mailing Address

Boston

City/Town

MA

State

02110

Zip Code

617-357-7759

Phone Number

2. This request is in reference to work regulated by a final Order of Conditions issued to:

Peter Debruin

Applicant

May 20, 2021

Dated

006-1785

DEP File Number

3. The project site is located at:

Chelsea Street/41 Medford Street

Street Address

Boston

City/Town

N/A

Assessors Map/Plat Number

0202732000 / 0202733000

Parcel/Lot Number

4. The final Order of Conditions was recorded at the Registry of Deeds for:

City of Boston Parks and Recreation Department, Attn: Ryan Woods

Property Owner (if different)

Suffolk

County

65525

Book

216

Page

Certificate (if registered land)

5. This request is for certification that (check one):

the work regulated by the above-referenced Order of Conditions has been satisfactorily completed.

the following portions of the work regulated by the above-referenced Order of Conditions have been satisfactorily completed (use additional paper if necessary).

the above-referenced Order of Conditions has lapsed and is therefore no longer valid, and the work regulated by it was never started.



WPA Form 8A – Request for Certificate of Compliance

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Project Information (cont.)

6. Did the Order of Conditions for this project, or the portion of the project subject to this request, contain an approval of any plans stamped by a registered professional engineer, architect, landscape architect, or land surveyor?

Yes If yes, attach a written statement by such a professional certifying substantial compliance with the plans and describing what deviation, if any, exists from the plans approved in the Order.

No

B. Submittal Requirements

Requests for Certificates of Compliance should be directed to the issuing authority that issued the final Order of Conditions (OOC). If the project received an OOC from the Conservation Commission, submit this request to that Commission. If the project was issued a Superseding Order of Conditions or was the subject of an Adjudicatory Hearing Final Decision, submit this request to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>).



November 16, 2022

Boston Conservation Commission
City of Boston Environmental Department
1 City Hall Square, Room 709
Boston, MA 02201

Attn: Kate Oetheimer, Conservation Agent

RE: M666-C1 - Charlestown Harborwalk /Barry Field Connector
DEP File No. 006-1785

Subject: Request for Certificate of Compliance

Dear Ms. Oetheimer:

In accordance with General Condition 12 of Order of Conditions (Order) dated May 20, 2021 for the above-noted project we are hereby requesting a Certificate of Compliance for the completed project. We have attached a completed request form (WPA Form 8A).

This letter will serve as certification by the registered Professional Engineer in responsible charge and having sealed the plans that the project has been completed in substantial compliance with the approved plans and the conditions of the Order.

The attached as-built plans have been certified by the Engineer of Record and reflect modifications that were made during construction as indicated with the cloud pattern around the changes. These changes were not significant or impactful relative to the WPA resource areas, their functions or protection thereof. Specific modifications made during construction are found on the following sheets as noted in the table below.

Sheet No.	Sheet Name	Sheet Title	Description of change
6 of 30	C-101	General Plan and Profile	Minor as-built elevation mods
7 of 30	C-102	Grading Plan	Minor as-built elevation mods
10 of 30	TR-01	Traffic Signal Plan 1 of 2	Minor conduit & pull box location mods
20 of 30	S-009	Foundation Plan	As-built pile location coordinate table
22 of 30	S-011	Slab Layout	Cast in place vs. precast stairs
23 of 30	S-012	Proposed Wall Elevations 1	Minor as-built elevation mods
24 of 30	S-013	Proposed Wall Elevations 2	Minor as-built elevation mods
26 of 30	S-015	Proposed Precast Slab details 2	Changed cast iron grate to BTB composite
27 of 30	S-016	Proposed Precast Slab details 3	Vehicle barrier reinforcing detail mods
29 of 30	S-018	Miscellaneous Details	Added cast-in-place landing
30 of 30	S-019	Handrail Details	Added cast-in-place landing



If you should have any questions or need additional information, don't hesitate to contact me directly at 617-603-6344 or by email at roch.laroche@hdrinc.com.

Very truly yours,

HDR Engineering, Inc.

A handwritten signature in blue ink, reading 'Roch D. Laroche'.

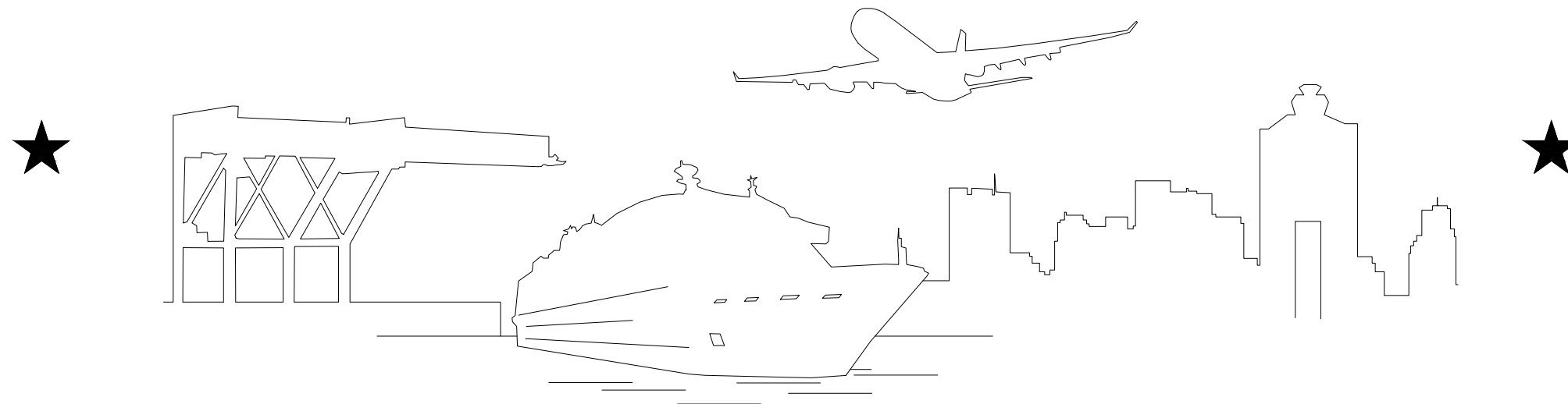
Roch D. Laroche, P.E. (MA Reg #47453)
Associate | Senior Project Manager

Attachments

Cc: Amy Blake-Baldwin, Massport

RDL:rdl

MASSACHUSETTS PORT AUTHORITY



MASSACHUSETTS PORT AUTHORITY
 CAPITAL PROGRAMS DEPARTMENT
 ONE HARBORSIDE DRIVE, SUITE 209S
 EAST BOSTON, MASSACHUSETTS 02128

CHARLESTOWN COMMUNITY PATH BARRY FIELD CONNECTOR (COMPONENT 1) CHARLESTOWN, MASSACHUSETTS MPA PROJECT NO. M666-C1 NOVEMBER 2022

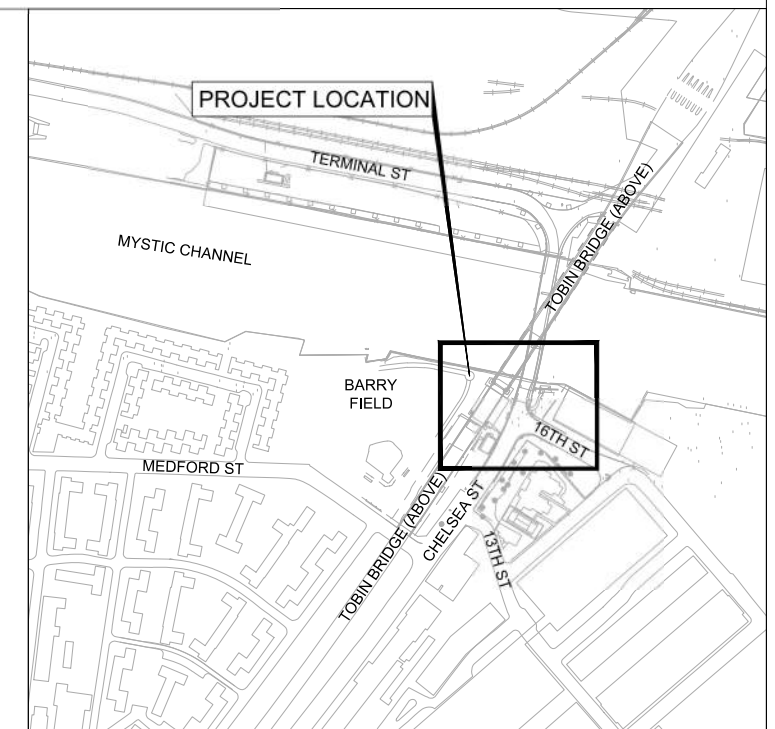
RECORD DRAWING
 I HEREBY CERTIFY THAT TO THE BEST OF MY
 KNOWLEDGE, BASED UPON CONSTRUCTION
 RECORDS PROVIDED BY THE CONTRACTOR,
 THAT ALL WORK SHOWN ON THIS DRAWING
 HAS BEEN COMPLETED AS SHOWN.

SIGNED *Robert W. [Signature]*
 NOTE: WORDING CONTAINED HEREON IS
 UNDERSTOOD TO BE PAST TENSE.

HDR
 HDR ENGINEERING, INC.
 99 HIGH STREET, SUITE 2300
 BOSTON, MA 02110-2378

LIST OF DRAWINGS:

SHEET NUMBER	DRAWING NAME	SHEET TITLE
1	T-01	TITLE SHEET
2	G-001	GENERAL NOTES
3	G-002	LEGEND AND ABBREVIATIONS
4	G-003	KEY AND ALIGNMENT PLAN
5	C-001	CIVIL DETAILS
6	C-101	GENERAL PLAN AND PROFILE
7	C-102	GRADING PLAN
8	C-103	PAVEMENT MARKING PLAN
9-10	TR-01-02	TRAFFIC SIGNAL PLANS
11	TM-001	TRAFFIC MANAGEMENT PLANS
12	S-001	GENERAL NOTES
13	S-002	EXISTING CONDITIONS PLAN
14	S-003	EXISTING RETAINING WALL CONDITIONS
15	S-004	DEMOLITION PLAN
16	S-005	EXCAVATION PLAN
17	S-006	DEMOLITION DETAILS
18-19	S-007 - 008	PROPOSED ENDPOST DETAILS
20	S-009	PROPOSED FOUNDATION PLAN
21	S-010	PROPOSED WALL LAYOUT FOR RAMP
22	S-011	PROPOSED PRECAST SLAB LAYOUT
23-24	S-012 - 013	PROPOSED WALL ELEVATIONS
25-27	S-014 - 016	PROPOSED PRECAST SLAB DETAILS
28	S-017	LIGHTING AND SIGNAL ANCHORAGE DETAILS
29	S-018	MISCELLANEOUS DETAILS
30	S-019	HANDRAIL DETAILS



GENERAL NOTES

GENERAL

1. THE CONTRACTOR SHALL NOTIFY "DIG-SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WITHIN THE PROJECT AREA.
2. ALL EXISTING FEATURES WHICH ARE "TO REMAIN" AND WHICH ARE DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE, INCLUDING BUT NOT LIMITED TO EXISTING CURB, SIDEWALK, ROADWAY LIGHTING, CATENARY POLES, BOUNDS OR PROPERTY MARKERS, HYDRANTS AND UTILITIES.
3. EXCAVATIONS SHALL BE PROTECTED AT THE END OF EACH WORK PERIOD. A STEEL PLATE OR DECKING SHALL BE TEMPORARILY PLACED IN ACCORDANCE WITH TRENCH EXCAVATION REQUIREMENTS OVER ALL EXCAVATIONS WHEN NOT ACTIVELY IN USE.
4. THE CONTRACTOR SHALL EMPLOY DUST CONTROL MEASURES IN ACCORDANCE WITH THE CONTRACTOR'S SITE SPECIFIC HEALTH AND SAFETY PLAN.
5. ALL SITE FEATURES WHICH ARE TO BE DISPOSED OF, INCLUDING EXISTING PAVEMENT AND CONCRETE, SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
6. THE CONTRACTOR SHALL REMOVE ALL PAVEMENT, GRASSED AREAS, GRANITE CURB, AND OTHER EXISTING FEATURES NOT DESIGNATED TO REMAIN WITHIN THE PROPOSED RECONSTRUCTION AREA.
7. PRIOR TO THE INSTALLATION OF PROPOSED UTILITIES, THE CONTRACTOR SHALL EXCAVATE TEST PITS AT LOCATION OF UTILITY CROSSINGS TO VERIFY DEPTHS OF EXISTING PIPES, CONDUIT OR OTHER FACILITIES AS REQUIRED BY ENGINEER.
8. CONTRACTOR SHALL VERIFY ALL OUTLET GRADES OF DRAINAGE STRUCTURES PRIOR TO CONSTRUCTING THE DRAINAGE IMPROVEMENTS.
9. WHERE A NEW PAVEMENT SHALL MEET EXISTING PAVEMENT, THE JOINT SHALL BE SAWCUT TO A NEW VERTICAL LINE.
10. EXCEPT AS NOTED, ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
11. ALL WHEELCHAIR RAMPS SHALL BE CONSTRUCTED TO COMPLY WITH LATEST MASSDOT STANDARDS, AND CMR 521 MA, AAS, AND ADA REQUIREMENTS AS AMENDED.

EXISTING CONDITIONS

1. THE HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AS DETERMINED WITH RESPECT TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MAINLAND ZONE).
2. ELEVATIONS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. DUE TO ONGOING CONCURRENT CONSTRUCTION AND DEMOLITION CONTRACTS BEING EXECUTED BY THE AUTHORITY AND MASSDOT AND OTHERS, EXISTING CONDITIONS MAY VARY FROM WHAT IS SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE EXISTING CONDITIONS WITHIN THE PROJECT AREA AND NOTIFY THE ENGINEER OF DISCREPANCIES WHICH ARE FOUND.
4. EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN COMPILED FROM INFORMATION RECEIVED FROM THE VARIOUS UTILITY COMPANIES; FROM DESIGN AND AS-BUILT PLANS BY MASSPORT AND MWRA, BWSC GIS AND BY MASSPORT SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES BETWEEN ACTUAL EXISTING CONDITIONS AND INFORMATION SHOWN ON THE PLAN TO THE ENGINEER, PRIOR TO PROCEEDING WITH CONSTRUCTION.

UTILITIES

1. ALL UTILITY OWNERS SHALL HAVE ACCESS TO THEIR EXISTING MANHOLES AND STRUCTURES AT ALL TIMES.

SUPPORT OF EXISTING UTILITIES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING TEMPORARY SUPPORT SYSTEMS FOR EXISTING UTILITIES TO REMAIN. THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS, TOGETHER WITH DESIGN CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS AND MATERIAL SPECIFICATIONS FOR APPROVAL BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE WORKING DRAWINGS SHALL INCLUDE THE ENTIRE PROPOSED SUPPORT SYSTEM.
2. SUBSURFACE UTILITY LINES AND FEATURES, AS SHOWN HEREON, WERE COMPILED FROM FIELD EVIDENCE AND/OR AVAILABLE RECORD INFORMATION AND SURVEY 2515-01.DWG DATED 3/31/2021, AND THEIR LOCATIONS ARE ONLY APPROXIMATE. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
3. IN ADDITION TO EXISTING UTILITIES WHICH CROSS NEW EXCAVATIONS, THE CONTRACTOR SHALL SUPPORT AND PROTECT IN PLACE EXISTING AND NEW UTILITIES WITHIN A HORIZONTAL DISTANCE EQUAL TO TWICE THE EXCAVATION DEPTH FROM THE EDGE OF THE EXCAVATION.
4. UTILITIES SHALL NOT BE RIGIDLY CONNECTED TO, OR IN DIRECT CONTACT WITH THE EXCAVATION SUPPORT SYSTEM.
5. THE MAXIMUM DISTANCE BETWEEN PIPE, CONDUIT OR DUCTBANK SUPPORTS SHALL NOT EXCEED THAT LENGTH WHICH MAY BE SAFELY ACHIEVED WITHOUT DETRIMENTAL EFFECT TO THE UTILITY, AS DETERMINED BY THE UTILITY OWNER.
6. EXISTING MATERIALS UNSUITABLE FOR TEMPORARY SUPPORT, SUCH AS BRICK SEWERS OR OTHER CONDUITS OF NON-HOMOGENOUS MATERIALS; OR EXISTING UTILITIES FOUND TO BE IN TOO POOR A CONDITION TO BE SUPPORTED AS AUTHORIZED BY THE ENGINEER, MUST BE REPLACED AS AUTHORIZED BY THE ENGINEER WITH NEW MATERIALS AS APPROVED BY THE ENGINEER THAT CAN BE SUPPORTED. PAYMENT FOR SUCH WORK WILL BE AT THE UNIT PRICE FOR THE ITEM BEING INSTALLED.
7. UTILITIES SHALL BE LATERALLY CONSTRAINED. CONSTRAINTS MUST NOT INTERFERE WITH EXISTING OR PROPOSED UTILITIES.
8. STRUCTURAL STEEL DESIGN FOR TEMPORARY UTILITY SUPPORTS SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS.
9. THE SUFFIX (R) DENOTES SUBSURFACE UTILITIES WHICH WERE COMPILED FROM RECORD INFORMATION.

MAINTENANCE OF TRAFFIC

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING CITY OF BOSTON POLICE DETAILS, AS REQUIRED AND AS AUTHORIZED BY THE ENGINEER, WHILE CONDUCTING CONSTRUCTION OPERATIONS ON STREETS AND ROADWAYS OPEN TO PUBLIC TRAVEL.
2. ALL EXISTING PAVEMENT MARKINGS AND/OR SIGNAGE AFFECTED BY CONSTRUCTION OPERATIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE AUTHORITY.
3. THE CONTRACTOR SHALL SUBMIT A DETAILED WORKPLAN TWO-WEEKS IN ADVANCE OF ANY ANTICIPATED LANE SHIFTS SHOWING THE MAINTENANCE OF TRAFFIC IN EXISTING ROADWAYS DURING THE WORK. THE WORKPLAN SHALL DETAIL THE LOCATIONS OF REFLECTORIZED BARRELS, BARRIERS, ARROW PANELS, VARIABLE MESSAGE BOARDS, TEMPORARY SIGNAGE AND MARKINGS AND POLICE DETAILS AS MAY BE NEEDED FOR CONTRACTOR TO EXECUTE THE WORK.
4. THE CONTRACTOR ASSUMES MAINTENANCE RESPONSIBILITY OF THE TRAFFIC SIGNAL SYSTEM AT THE START OF EXCAVATION OR DEMOLITION THAT IS PERFORMED AT A SPECIFIC LOCATION. THE START DATE OF MAINTENANCE RESPONSIBILITY SHALL BE DOCUMENTED AND BE ON FILE WITH BOSTON TRANSPORTATION DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC SIGNALS UNTIL SUCH TIME AS FINAL APPROVAL AND ASSUMPTION OF MAINTENANCE BY BOSTON TRANSPORTATION DEPARTMENT (SEE DIVISION 3, SPECIAL PROVISION SECTION 01 56 00 - MAINTENANCE OF TRAFFIC FOR ADDITIONAL INFORMATION).

CONSTRUCTION CONTRACT COORDINATION

1. SEE DIVISION 2, SPECIAL PROVISIONS, ARTICLE II - COORDINATION WITH ADJACENT ACTIVITIES AND CONSTRUCTION CONTRACTS FOR ADDITIONAL INFORMATION.



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1 LOCATION CODE:

PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED 

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:

HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:

M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

GENERAL NOTES

DISCIPLINE:
CIVIL

DRAWN BY: CWA	CHECKED BY: RDL	APPROVED BY: RDL
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SCALE: N/A	DATE: MAY 2021
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DRAWING NAME: SHEET 2 OF 30

G-001



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1 LOCATION CODE:

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob [Signature]*

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	12/13/21	CONTROL POINT CHANGES	BEF
2	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

KEY AND ALIGNMENT PLAN

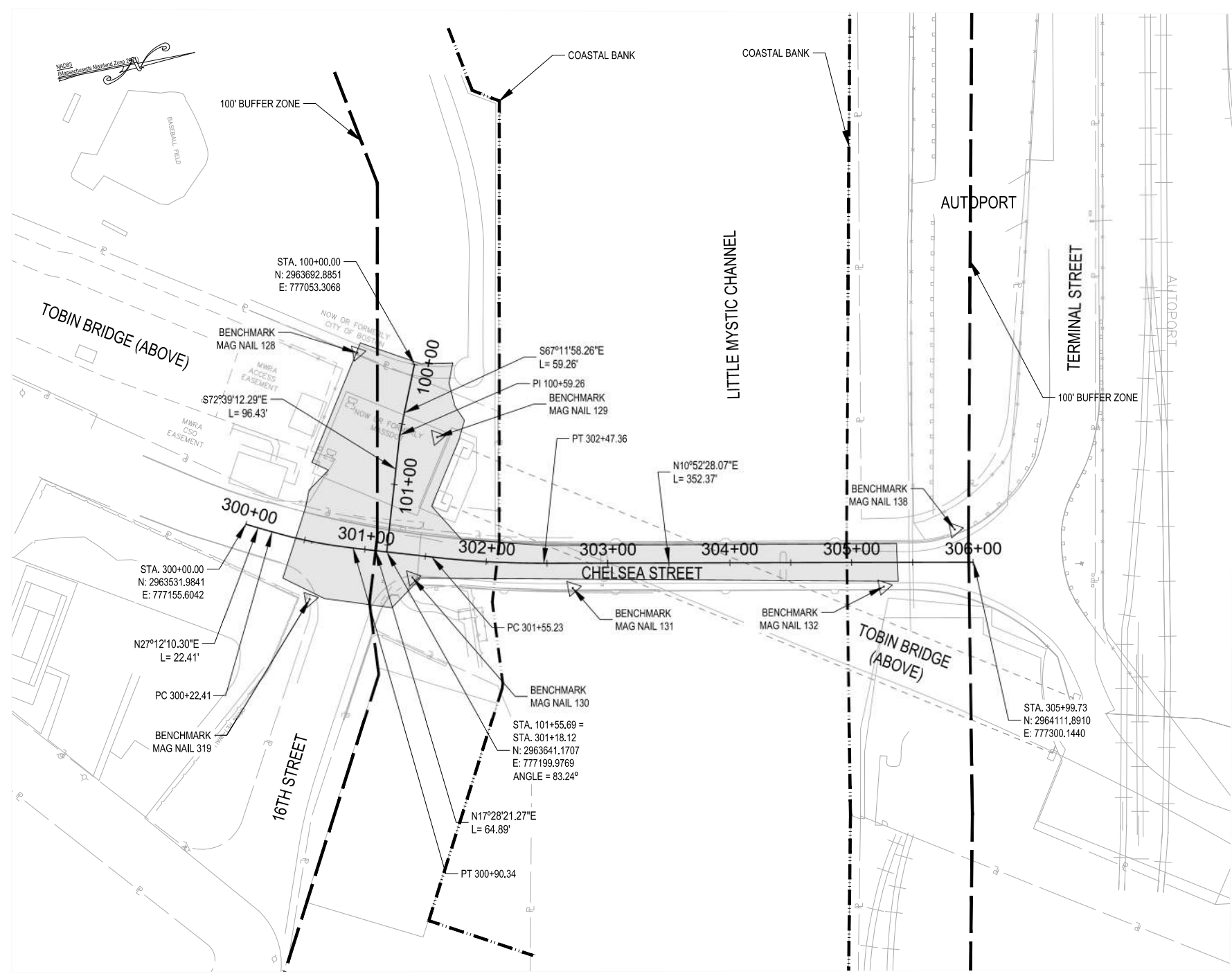
DISCIPLINE:
CIVIL

DRAWN BY: CWA CHECKED BY: RDL APPROVED BY: RDL

SCALE: AS NOTED DATE: MAY 2021

DRAWING NAME: SHEET 4 OF 30

G-003



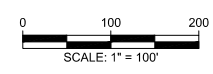
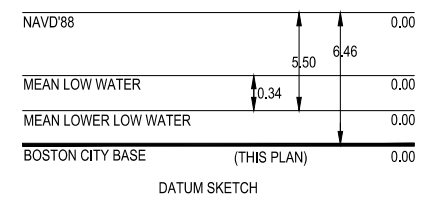
BENCHMARK/CONTROL POINT TABLE

BENCHMARK	DESCRIPTION	ELEV.	NORTHING/EASTING
128	MAG NAIL	10.35'	N2963648.6500', E777035.0200'
129	MAG NAIL	12.45'	N2963699.8000', E777115.4600'
130	MAG NAIL	21.43'	N2963657.8300', E777224.6500'
131	MAG NAIL	22.96'	N2963785.2700', E777258.1600'
132	MAG NAIL	19.22'	N2964035.9500', E777305.7600'
138	MAG NAIL	16.18'	N2964102.1000', E777270.8100'
319	MAG NAIL	19.65'	N2963571.7700', E777225.9900'

CURVE DATA

PI STATION	NORTHING	EASTING	DELTA	RADIUS	LENGTH	BEARING BACK	BEARING AHEAD
300+56.46	2963582.1986	777181.4141	170°16'11"	400'	67.93'	N27°12'10"E	N17°28'21"E
302+01.35	2963720.5595	777224.9663	173°24'07"	800'	92.13'	N17°28'21"E	N10°52'28"E

- LEGEND
- CONTROL POINT/BENCHMARK
 - APPROXIMATE LIMIT OF WORK
 - 100' BUFFER ZONE
 - COASTAL BANK



NOTES:
1. ALL BASELINES SHOWN ARE INDEPENDENT FROM ANY PRIOR WORK OR HISTORICAL PROJECTS.



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
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SIGNED: *Rob [Signature]*
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PRIMARY:
HDR
HDR ENGINEERING, INC.
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CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
CIVIL DETAILS

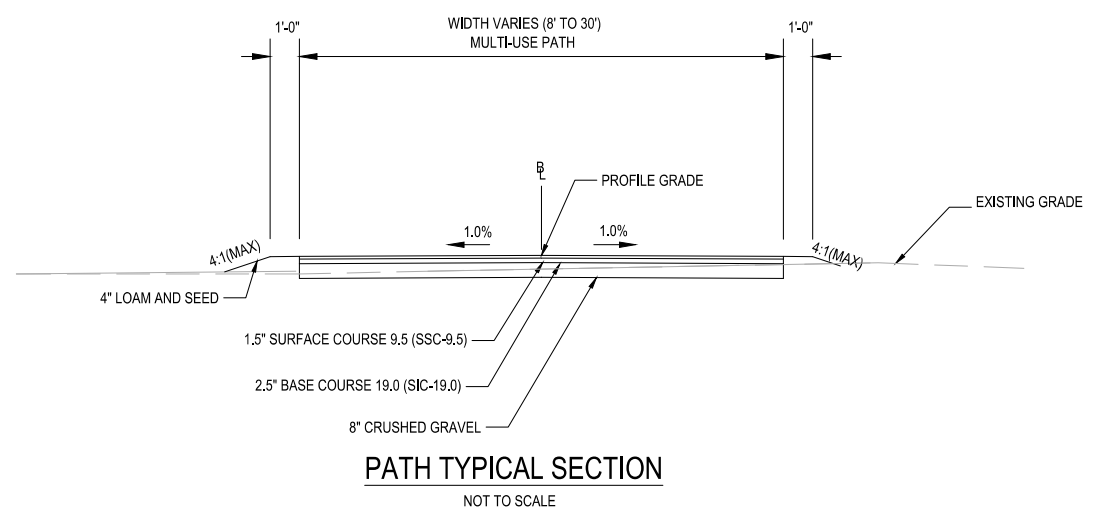
DISCIPLINE:
CIVIL

DRAWN BY: CWA	CHECKED BY: RDL	APPROVED BY: RDL
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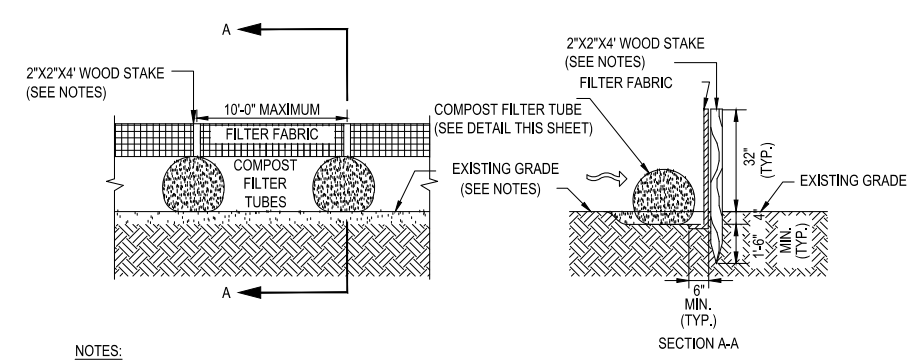
SCALE: N/A	DATE: MAY 2021
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DRAWING NAME: SHEET 5 OF 30

C-001

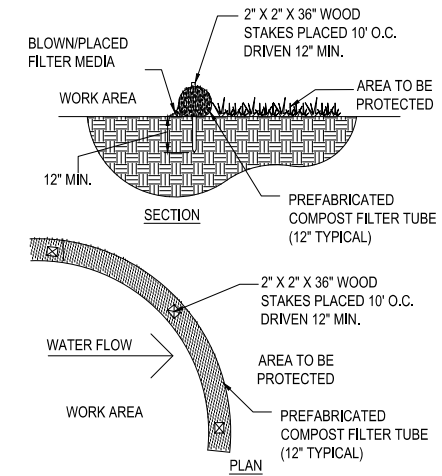


PATH TYPICAL SECTION
NOT TO SCALE



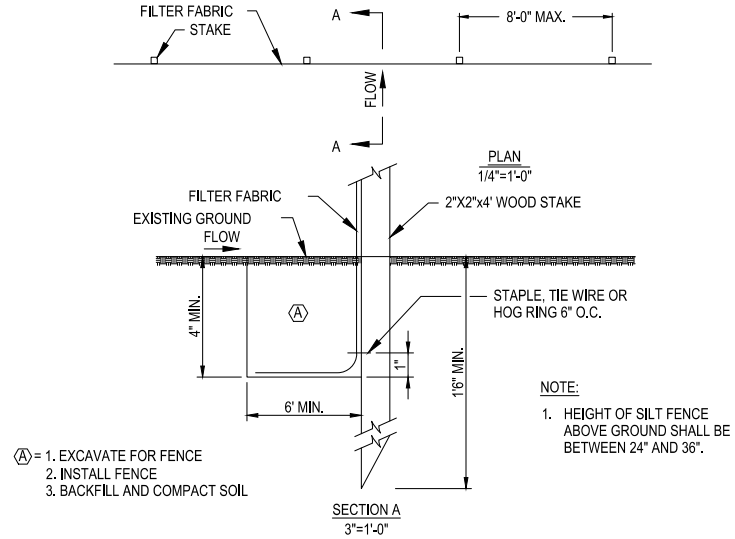
- NOTES:
- FABRIC TO BE UV RESISTANT POLYPROPYLENE WITH A MINIMUM WEIGHT OF 2.5 OZ./S.Y.
 - FABRIC TO BE ATTACHED TO STAKES WITH STAPLES.
 - USE SILT FENCE AND COMPOST FILTER TUBES WHERE INDICATED OR AS DIRECTED BY THE ENGINEER.
 - INSTALL COMPOST FILTER TUBES PER DETAIL THIS SHEET.
 - A MINIMUM OF (2) WOOD OR METAL STAKES PER HAYBALE, DRIVE STAKES A MINIMUM OF 12" INTO GROUND.
 - REMOVE SILT FENCE AND COMPOST FILTER TUBE AT THE DIRECTION OF THE OWNER.

COMPOST FILTER TUBES AND SILT FENCE FOR EROSION CONTROL
NOT TO SCALE



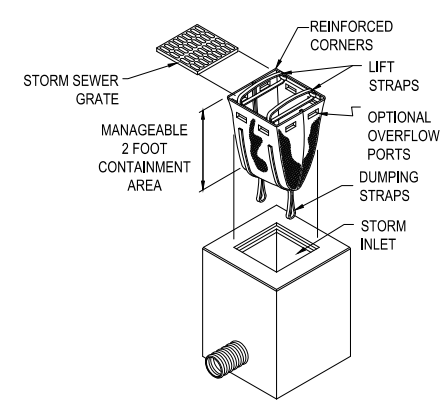
- NOTES:
- COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

COMPOST FILTER TUBE
NOT TO SCALE



- NOTE:
- HEIGHT OF SILT FENCE ABOVE GROUND SHALL BE BETWEEN 24" AND 36".

SILT FENCE
NOT TO SCALE



- NOTES:
- INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
 - GRATE TO BE PLACED OVER SILTSACK.
 - SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILTSACK
NOT TO SCALE

SACK SPECIFICATIONS

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV HFDS-SO
GRAB TENSILE STRENGTH	ASTM D 4632	kN (LBS)	1.62 (365) x 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 x 10
PUNCTURE STRENGTH	ASTM D 4833	kN (LBS)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (PSI)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (LBS)	0.51 (115) x 0.33 (75)
UV RESISTENCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	Mm (US STD SIEVE)	0.425 (40)
FLOW RATE	ASTM D 4491	1/MIN/M ² (GAL/MIN/FT ²) ²	5907 (145)
PERMITTIVITY	ASTM D 4491	SEC ⁻¹	2.1

RFDS-B REGULAR FLOW SACK (BLACK)
HFDS-SO HI-FLOW SACK (SAFETY ORANGE)
NOTE: THE CURB SACK WILL BE MANUFACTURED FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE MANUFACTURER'S SPECIFICATIONS.
*NOTE: SACKS CAN BE ORDERED WITH OPTIONAL OIL ABSORBENT PILLOWS



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamrick*
NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	9/28/21	ADDED BENT B-13 TO BASEPLAN	
2	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
GENERAL PLAN AND PROFILE

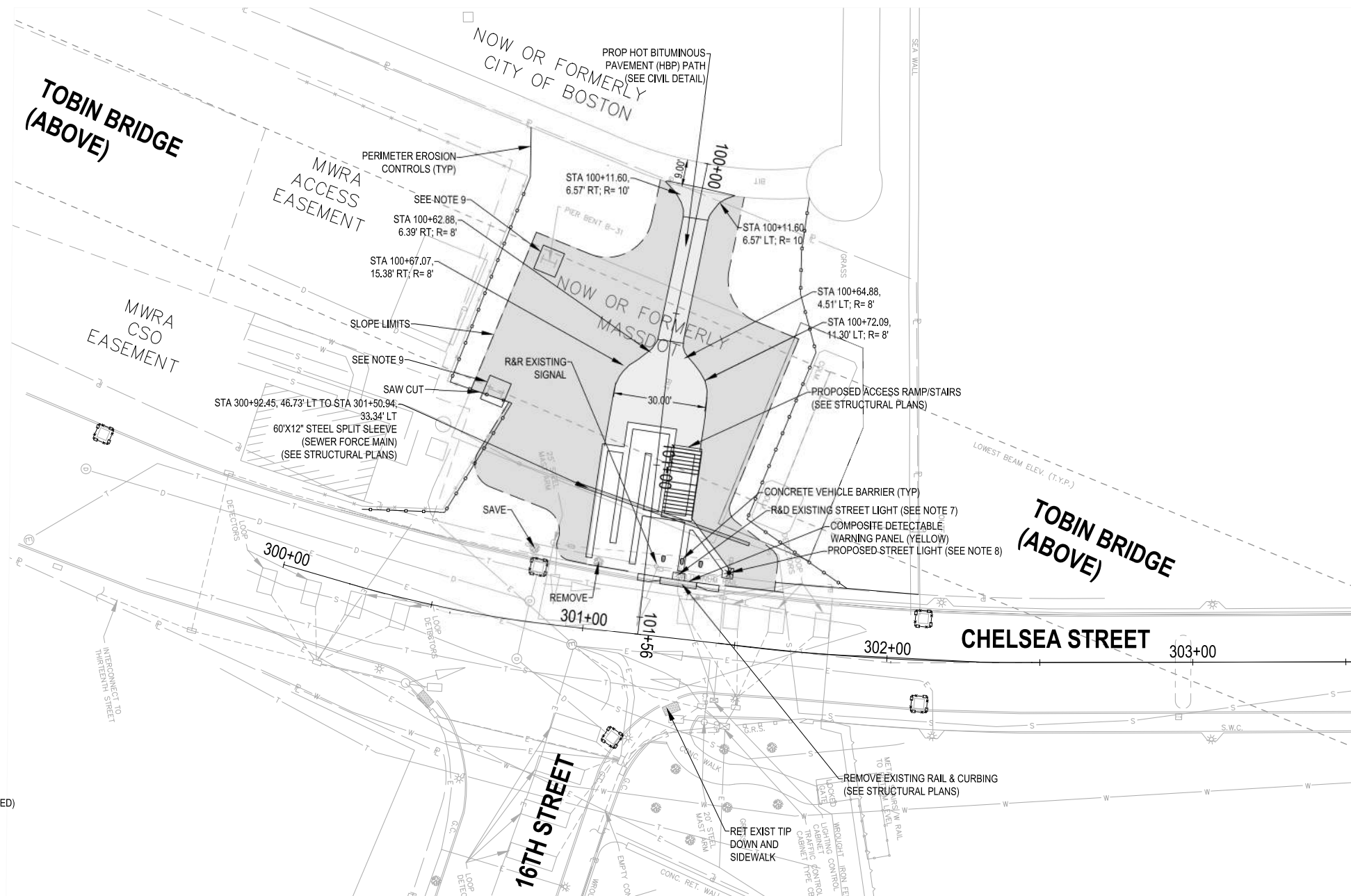
DISCIPLINE:
CIVIL

DRAWN BY: CWA	CHECKED BY: RDL	APPROVED BY: RDL
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SCALE: AS NOTED	DATE: MAY 2021
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DRAWING NAME: SHEET 6 OF 30

C-101



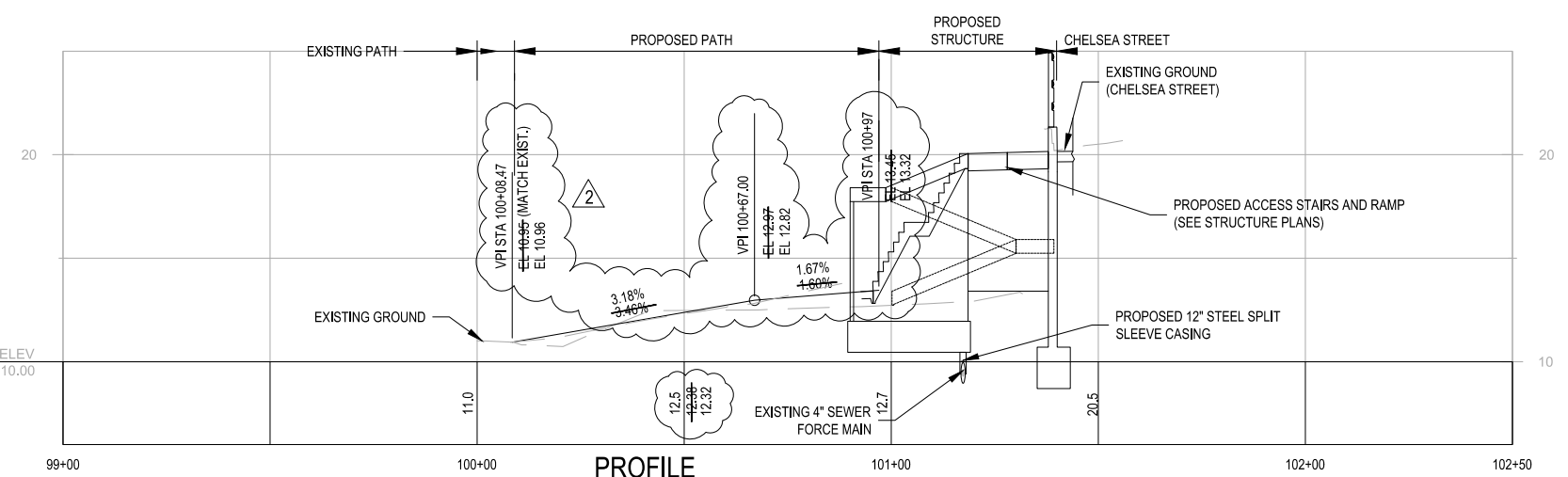
PLAN

LEGEND

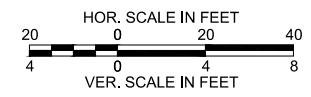
- REMOVE EXISTING ASPHALT (4" ASSUMED)
4" LOAM AND SEED
- HBP PATH (SEE CIVIL DETAILS)
- PERIMETER EROSION CONTROLS
- CATCH BASIN SILT SACK

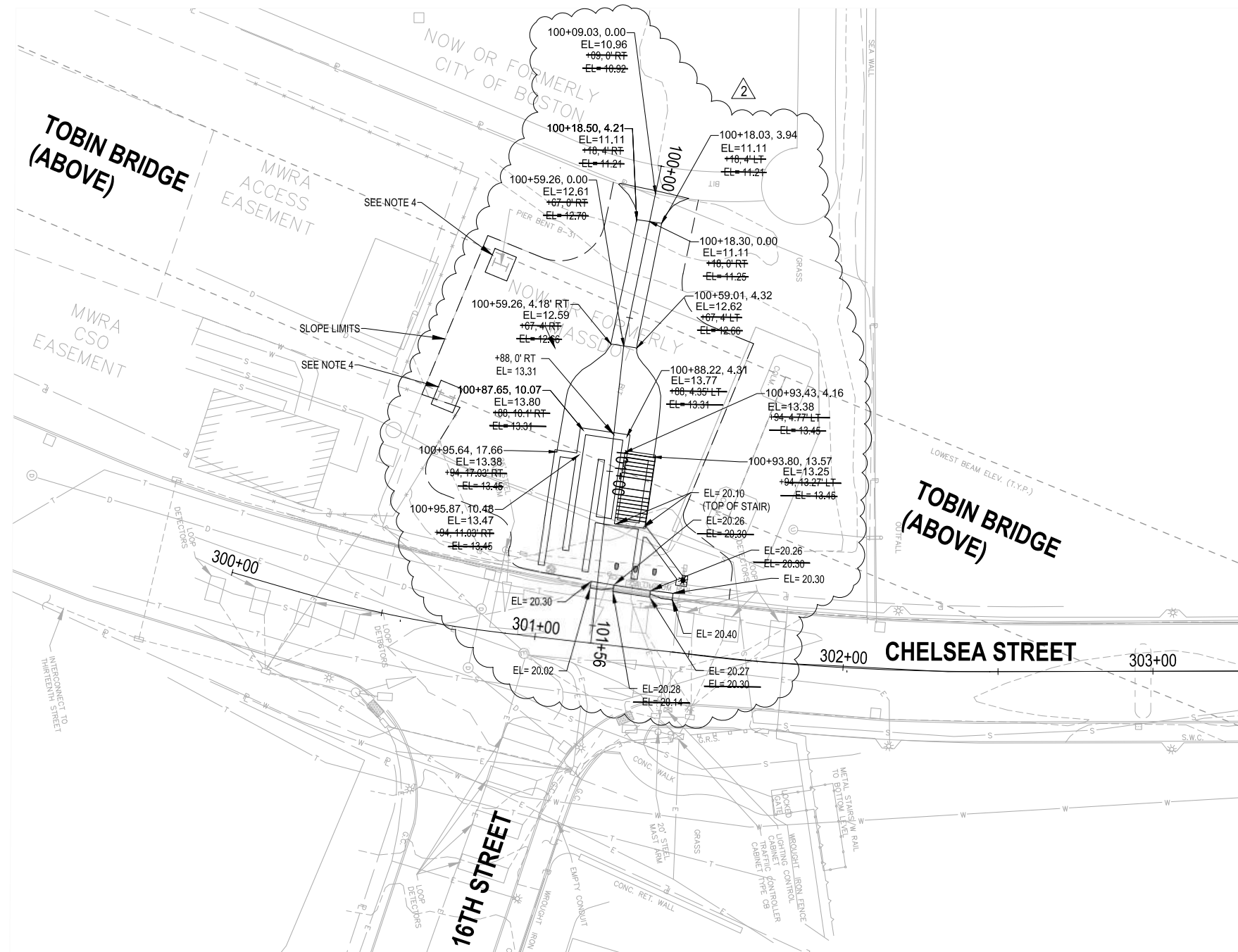
NOTES:

1. SEE KEY AND ALIGNMENT PLAN FOR LAYOUT INFORMATION.
2. SEE GRADING AND PAVEMENT MARKING PLAN FOR ADDITIONAL INFORMATION.
3. SEE STRUCTURE PLANS FOR RAMP/STAIR INFORMATION AND DEMOLITION LIMITS.
4. SEE SIGNAL PLANS FOR CONDUIT, LIGHTING WITH SIGNAL LOCATIONS.
5. SEE EROSION AND SEDIMENT CONTROL DETAILS FOR PERIMETER AND CATCH BASIN SEDIMENT CONTROLS.
6. SEE CIVIL DETAILS FOR TYPICAL PATH SECTION.
7. EXISTING CONCRETE STREET LIGHT POLE TO BE REMOVED AND DISPOSED OF BY CONTRACTOR. EXISTING LUMINAIRE SHALL BE SALVAGED TO THE CITY OF BOSTON STREET LIGHT DEPARTMENT (INCIDENTAL).
8. PROPOSED STREET LIGHT POLE AND LUMINAIRE ARE TO BE PROVIDED AND INSTALLED BY THE CITY OF BOSTON STREET LIGHT DEPARTMENT.
9. THE PROPOSED FINISHED GROUND ELEVATION AT BENT (B-31) SHALL NOT EXCEED THE EXISTING TOP OF PAVEMENT AROUND EACH CONCRETE PEDESTAL.




PROFILE





NOTES:

1. SEE KEY AND ALIGNMENT PLAN FOR LAYOUT INFORMATION.
2. SEE GENERAL PLANS FOR PROPOSED LAYOUT INFORMATION.
3. SEE STRUCTURAL PLANS FOR ADDITIONAL INFORMATION ON STAIRS AND RAMPS.
4. THE PROPOSED FINISHED GROUND ELEVATION AT BENT (B-31) SHALL NOT EXCEED THE EXISTING TOP OF PAVEMENT AROUND EACH CONCRETE PEDESTAL. 



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1 LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: 
NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	9/28/21	ADDED BENT B-13 TO BASEPLAN	
2	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
GRADING PLAN

DISCIPLINE:
CIVIL

DRAWN BY: CWA	CHECKED BY: RDL	APPROVED BY: RDL
SCALE: AS NOTED		DATE: MAY 2021

DRAWING NAME: SHEET 7 OF 30



C-102



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: LOCATION CODE:
M666 - C1

PROJECT SUBMISSION PHASE:
RECORD DRAWING

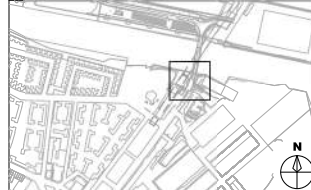
REGISTRATION STAMP:
RECORD DRAWING

I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED *Rob Hamblett*

NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

CONSULTANT:

HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

PROJECT NUMBER AND TITLE:

M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

PAVEMENT MARKING PLAN

DISCIPLINE:

CIVIL

DRAWN BY: CHECKED BY: APPROVED BY:

CWA RDL RDL

SCALE: DATE:

AS NOTED MAY 2021

DRAWING NAME: SHEET 8 OF 30

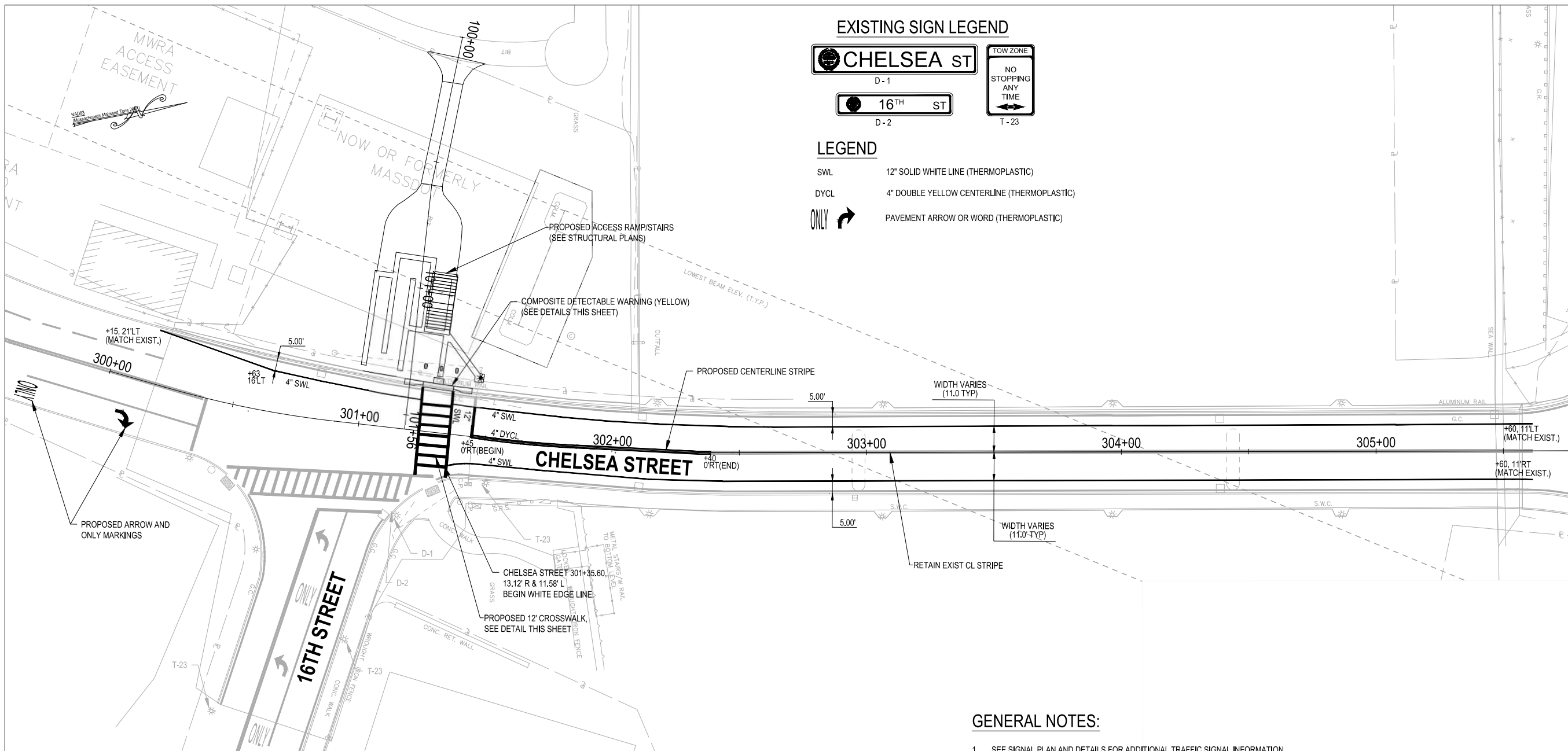
C-103

EXISTING SIGN LEGEND



LEGEND

- SWL 12" SOLID WHITE LINE (THERMOPLASTIC)
- DYCL 4" DOUBLE YELLOW CENTERLINE (THERMOPLASTIC)
- ONLY PAVEMENT ARROW OR WORD (THERMOPLASTIC)



GENERAL NOTES:

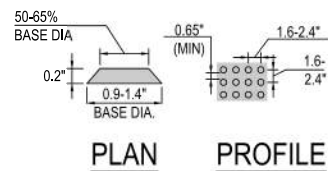
- SEE SIGNAL PLAN AND DETAILS FOR ADDITIONAL TRAFFIC SIGNAL INFORMATION
- THE FINAL LOCATIONS OF THE SIGNS MAY BE ADJUSTED IN THE FIELD AS APPROVED BY THE ENGINEER.
- ALL PAVEMENT MARKING LINES, WORDS AND ARROWS SHALL BE RETROREFLECTIVE THERMOPLASTIC.
- PROPOSED PAVEMENT MARKINGS (LEGENDS AND ARROWS) SHALL BE INSTALLED IN ACCORDANCE WITH THE MUTCD & MASSDOT CONSTRUCTION AND TRAFFIC DETAILS.
- SEE SITE LAYOUT AND KEY PLAN FOR LAYOUT INFORMATION.

ACCESS CURB RAMP CONSTRUCTION NOTES

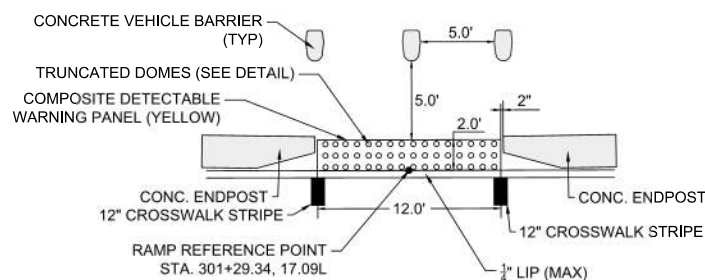
- CURB RAMP SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) RULES AND REGULATIONS (521 CMR).
- THE RUNNING SLOPE OF CURB RAMP SHALL NOT BE GREATER THAN 1:12. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE GREATER THAN 1:20. THE CROSS SLOPE OF CURB RAMP AND WALKING SURFACES SHALL NOT BE GREATER THAN 1:50 OR LESS THAN 1:100.
- DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES AND BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.

CROSSWALK DETAIL NOTES

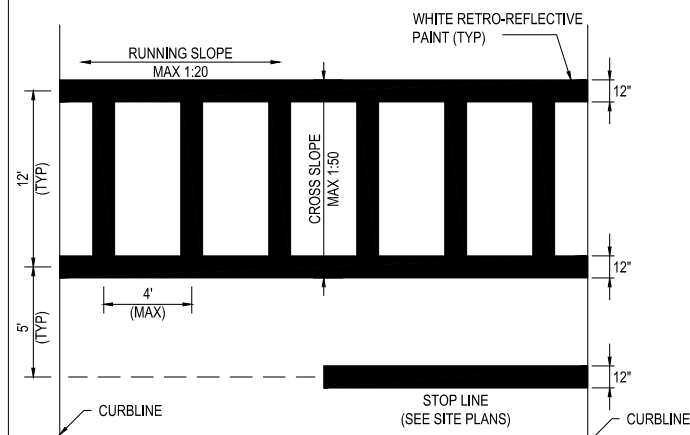
- CROSSWALKS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) RULES AND REGULATIONS (521 CMR).
- THE RUNNING SLOPE (SLOPE THAT IS PARALLEL TO THE DIRECTION OF TRAVEL) SHALL NOT BE GREATER THAN 1:20.
- THE CROSS SLOPE (SLOPE THAT IS PERPENDICULAR TO THE DIRECTION OF TRAVEL) SHALL NOT BE GREATER THAN 1:50 OR LESS THAN 1:100.
- TWELVE INCH (12") THERMO-PLASTIC LINES SHALL BE APPLIED IN ONE APPLICATION. NO COMBINATION OF LINES WILL BE ACCEPTED.
- LAYOUT OF CROSSWALKS SHALL BE APPROVED BY A BRA/EDIC ENGINEER PRIOR TO THERMO-PLASTIC BEING APPLIED.



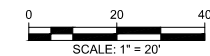
TRUNCATED DOMES
NOT TO SCALE



PEDESTRIAN ACCESS RAMP
NOT TO SCALE



CROSSWALK
NOT TO SCALE

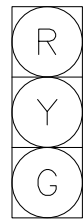


STREET/DIRECTION/FACE		TIMING AND SEQUENCE CHART									OPERATION FLASHING FY FY FR OFF							
		Ø1			Ø2			Ø3										
		GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL		
CHELSEA ST/NB/2A,2B		G	Y	R	R	R	R	R	R	R								
CHELSEA ST/SB/5A,6A,6B		G	Y	R	R	R	R	R	R	R								
SIXTEENTH ST/WB/6C,7A		R	R	R	R	R	R	G	Y	R								
CROSSWALK/N-S/3E-5E		DW	DW	DW	W	FWD	DW											
CROSSWALK/E-W/4E-7E		DW	DW	DW	W	FWD	DW											
I N S E C O N D I T I O N S	MINIMUM GREEN	8						8										
	VEHICLE EXTENSION	2						2										
	MAXIMUM 1 GREEN	25						25										
	MAXIMUM 2 GREEN	30						30										
	YELLOW CLEARANCE		3						3									
	RED CLEARANCE			3			4			2								
	WALK INTERVAL				7													
	PED. CLEARANCE					15												
MEMORY	NON-LOCK			-			NON-LOCK											
RECALL (VEH./PED.)	OFF			OFF			OFF											
PROGRAM/COORDINATION																		
PHASE SPLITS IN SECONDS																		
CYCLE NO.	CYCLE LENGTH	OFFSET (SEC.)	Ø1			Ø2			Ø3			HOURS OF OPERATION						
1	-	-	-	-	-	-	-	-	-	-	-							
2	-	-	-	-	-	-	-	-	-	-	-							
3	-	-	-	-	-	-	-	-	-	-	-							
COORDINATED OPERATION																		

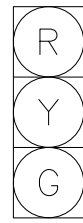
PROGRAMMED FLASH																		
EMERGENCY ONLY																		
LOOP DETECTOR DATA									CLEARANCES					TECHNICAL NOTES				
IDENT.	QTY.	SIZE	SPLICE	TURNS	MODE	ØCALL	ØEXT.	CHNL.	FROM	TO				1. MAX 1: DURING FREE OPERATION. 2. MAX 2: 3PM-7PM, MON-FRI				
Ø1	4	E	E	3	PRES.	1	E	-	G	G	R	DW						
Ø2	4	E	E	3	PRES.	1	E	-	G	G	Y	-						
Ø3	4	E	E	3	PRES.	3	E	-	W	-	-	FDW						

S/P = SERIES/PARALLEL
E = EXISTING
PRES = PRESENCE

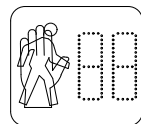
SIGNAL DISPLAY
PER BTD SPECIFICATIONS



2A, 2B, 5A
6A, 6B, 6C, 7A



7A

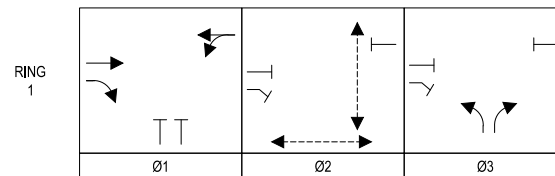


3E-5E



4E-7E

PHASING DIAGRAM



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1 LOCATION CODE:

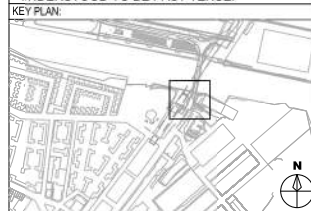
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Robert D. ...*

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	10/31/22	RECORD DRAWINGS	

CONSULTANT:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
CHELSEA STREET AT
SIXTEENTH STREET
TRAFFIC SIGNAL PLAN - 2 OF 2

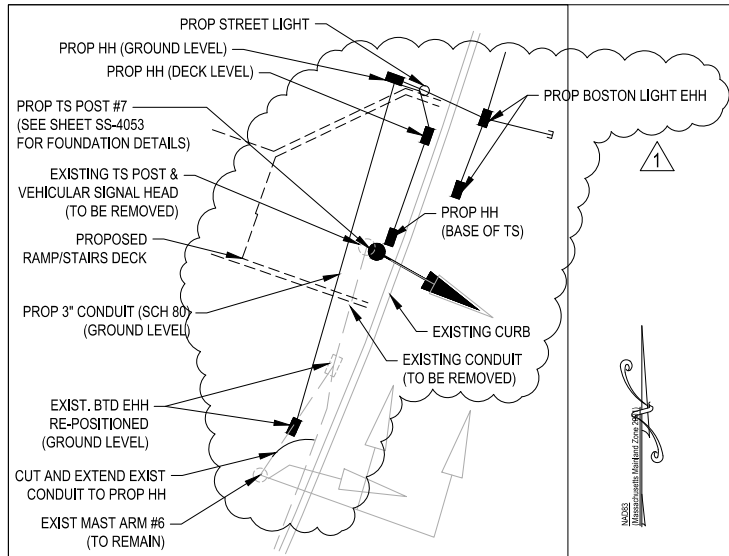
DISCIPLINE:
CIVIL

DRAWN BY: CWA CHECKED BY: RP APPROVED BY: RP

SCALE: N/A DATE: MAY 2021

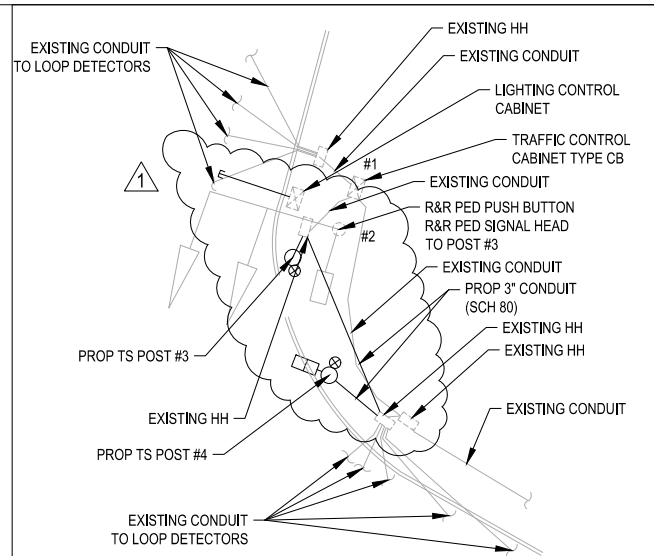
DRAWING NAME: SHEET 10 OF 30

TR-02



CONDUIT CONFIGURATION PLAN

NOT TO SCALE
 (NOTE: SEE CONDUIT CONFIGURATION PROFILE BELOW FOR ADDITIONAL DETAIL AT CONCRETE RAMPS/STAIRS)



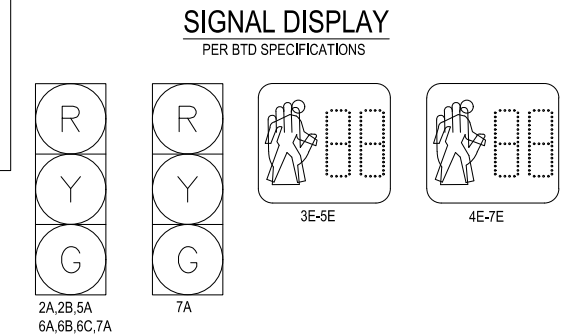
CONDUIT CONFIGURATION PLAN

NOT TO SCALE

MAJOR ITEMS REQUIRED

QUANTITY	MAJOR ITEMS REQUIRED
2	8' SIGNAL POST, BASE, PEDESTAL & FOUNDATION
1	10' SIGNAL POST, BASE, PEDESTAL & FOUNDATION
1	12"- 3 SECTION (R,Y,G) L.E.D. VEHICLE SIGNAL INDICATION
2	16"- PEDESTRIAN L.E.D. SIGNAL COUNTDOWN INDICATION
4	APS PEDESTRIAN PUSHBUTTON
4	12" X 24" HAND HOLE WITH FRAME & COVER
60'	3" DIAMETER CONDUIT, NM, SCHEDULE 80

PLUS ALL MISCELLANEOUS EQUIPMENT, WIRING, CABLE AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL.

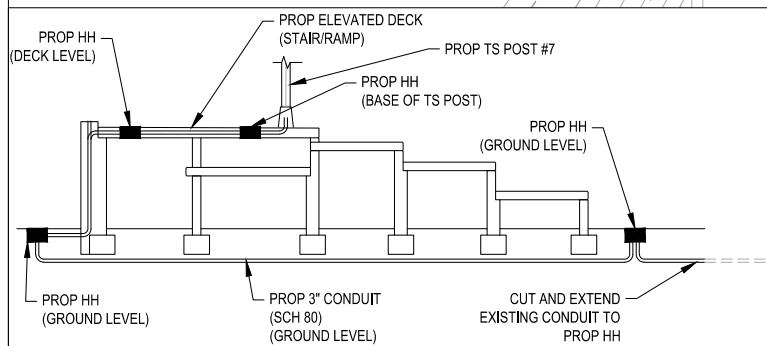


GENERAL NOTES:

1. ALL VEHICLE INDICATIONS SHALL BE 12" L.E.D. AND SHALL BE EQUIPPED WITH TUNNEL VISORS.
2. ALL PEDESTRIAN INDICATIONS SHALL BE 16" L.E.D. AND SHALL COUNTDOWN AND BE EQUIPPED WITH SUN CAP VISORS.
3. ALL VEHICLE INDICATIONS MOUNTED ON MAST ARMS SHALL BE RIGID MOUNTED AND BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES.
4. PEDESTRIAN WALK AND DON'T WALK SYMBOLS SHALL BE SOLID-TYPE L.E.D.
5. SEE PAVEMENT MARKING PLAN C-103 FOR ADDITIONAL DETAILS.
6. ALL TRAFFIC SIGNAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH BTS SPECIFICATIONS.

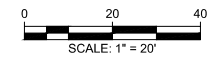
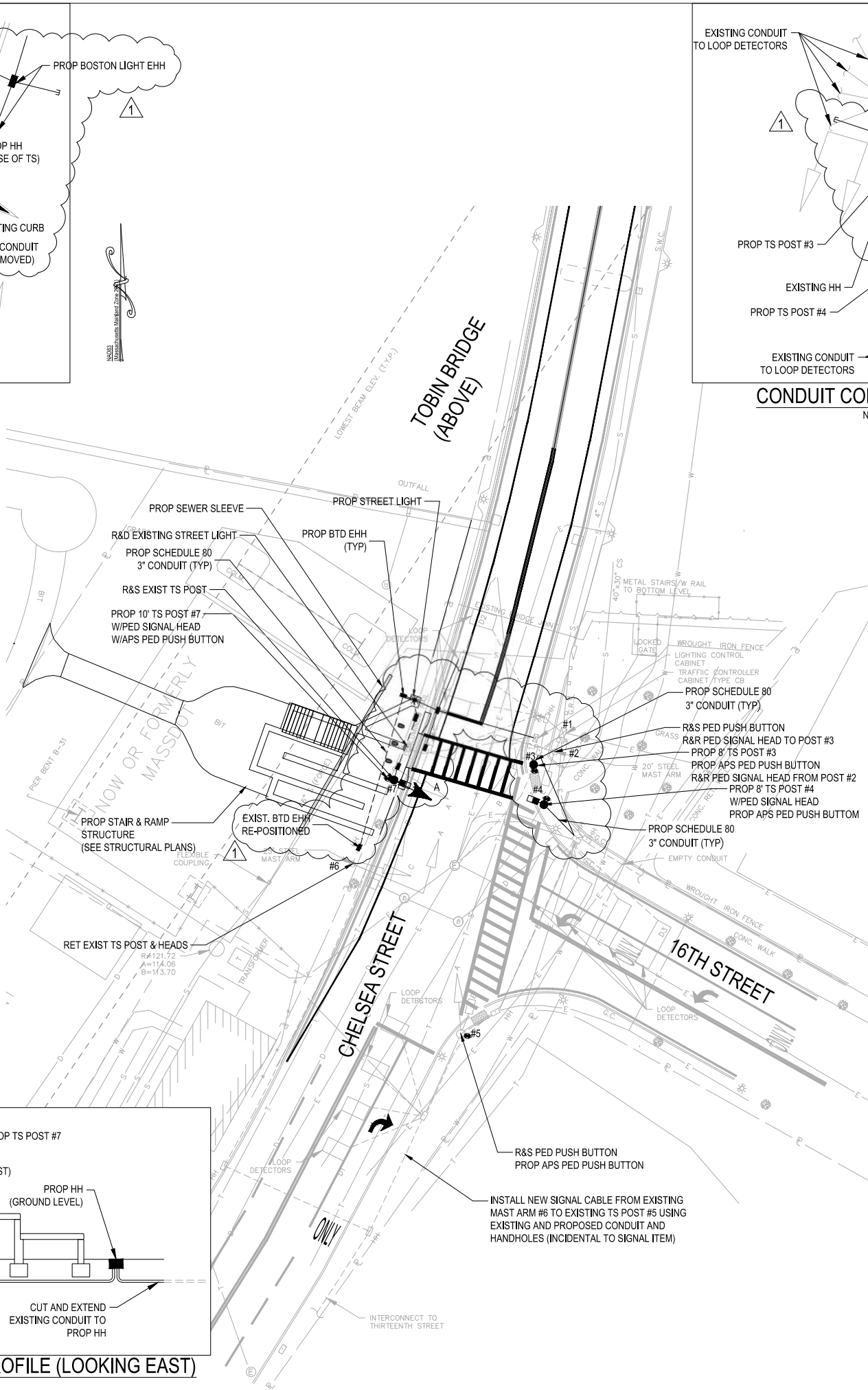
CONSTRUCTION NOTES:

1. PULL BOXES SHALL BE ADJACENT TO CURB UNLESS OTHERWISE NOTED AND SHALL NOT BE LOCATED IN WHEELCHAIR RAMPS.
2. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC.
3. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, THEY SHOULD BE REMOVED BY AN APPROVED METHOD.
4. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
5. TS POST/POLE WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10' MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.



CONDUIT CONFIGURATION PROFILE (LOOKING EAST)

NOT TO SCALE



MASSACHUSETTS PORT AUTHORITY
 EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
 CHARLESTOWN COMMUNITY PATH -
 COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
 LOCATION CODE:

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
 I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Robert D. ...*
 NOTE: WORDING CONTAINED HEREIN IS UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
 HDR ENGINEERING, INC.
 99 HIGH STREET, SUITE 2300
 BOSTON, MA 02110-2378
 (617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
 CHARLESTOWN
 COMMUNITY PATH IMPROVEMENTS
 BARRY FIELD CONNECTION
 (COMPONENT 1)

SHEET TITLE:
 CHELSEA STREET AT
 SIXTEENTH STREET
 TRAFFIC SIGNAL PLAN - 1 OF 2

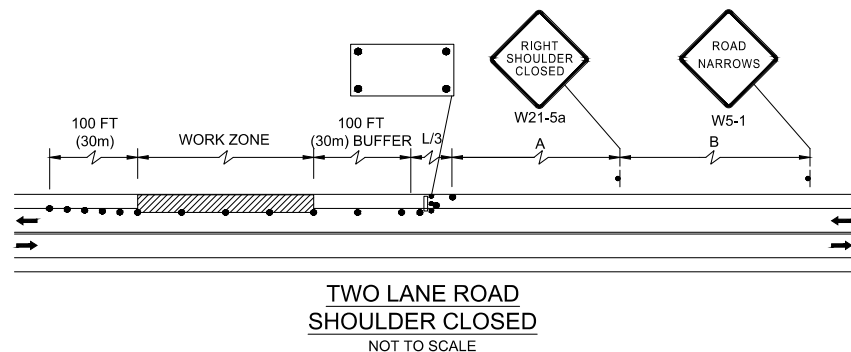
DISCIPLINE:
 CIVIL

DRAWN BY: CWA	CHECKED BY: RP	APPROVED BY: RP
SCALE: AS NOTED	DATE: MAY 2021	

DRAWING NAME: TR-01
 SHEET 9 OF 30

NOTES:

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
- THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A SEQUENTIAL FLASHING LIGHTS.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.



STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED

SPEED* (mph)	DISTANCE (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

*POSTED SPEED, OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED

THESE VALUES MAY BE USED TO DETERMINE THE LENGTH OF LONGITUDINAL BUFFER SPACES.

THE DISTANCES IN THE ABOVE CHART REPRESENT THE MINIMAL VALUES FOR BUFFER SPACING.

Source: Table 6C-2 MUTCD LATEST EDITION

CONVENTIONAL ROADWAY- A STREET OR HIGHWAY OTHER THAN A LOW-VOLUME ROAD, EXPRESSWAY, OR FREEWAY.

EXPRESSWAY- A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.

FREEWAY- A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

LOW-VOLUME ROAD- A FACILITY LYING OUTSIDE OF BUILT-UP AREAS OF CITIES, TOWNS, AND COMMUNITIES, AND IT SHALL HAVE A TRAFFIC VOLUME OF LESS THAN 400 AADT. IT SHALL NOT BE A FREEWAY, EXPRESSWAY, INTERCHANGE RAMP, FREEWAY SERVICE ROAD OR A ROAD ON A DESIGNATED STATE HIGHWAY SYSTEM.

Source: MUTCD LATEST EDITION

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L)*
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN. 100 FT MAX.
DOWNSTREAM TAPER	50 FT MIN. 100 FT MAX. PER LANE

Source: Table 6C-3 MUTCD LATEST EDITION

FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH (L) FEET
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

WHERE: L = TAPER LENGTH IN FEET

W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

Source: Table 6C-4 MUTCD LATEST EDITION

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- CHANGEABLE MESSAGE SIGN
- ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

THE IDEAL CAPACITY OF A MAJOR HIGHWAY IS GENERALLY CONSIDERED TO BE 1900 PASSENGER CARS PER HOUR PER LANE (PCPHPL). IN WORK ZONES ON A MULT-LANE DIVIDED HIGHWAY, THE FOLLOWING VOLUME GUIDELINES HAVE BEEN SUGGESTED:

MEASURED AVERAGE WORK ZONE CAPACITIES

NORMAL (EXISTING)	OPEN (TO TRAFFIC)	NUMBER OF STUDIES	AVERAGE CAPACITY	
			VPH	VPHPL
3	1	7	1,170	1,170
2	1	8	1,340	1,340
5	2	8	2,740	1,370
4	2	4	2,960	1,480
3	2	9	2,980	1,490
4	3	4	4,560	1,520

Source: Dudek, C., Notes on Work Zone Capacity and Level of Service. Texas Transportation Institute, Texas A&M University, College Station, Texas (1984)

BY OBTAINING HOURLY TRAFFIC COUNTS FOR A PARTICULAR ROADWAY (WITH A MINIMUM OF A 48-HOUR AUTOMATIC TRAFFIC RECORDER (ATR) COUNT), THIS WILL HELP TO DETERMINE AT WHAT TIMES OF THE DAY OR NIGHT A CERTAIN NUMBER OF LANES MAY BE CLOSED.

SUGGESTED WORK ZONE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS ** (FT)		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350	350	350
MOST OTHER ROADWAYS*	500	500	500
FREEWAYS AND EXPRESSWAYS*	1,000	1,500	2,640

* ROAD TYPE TO BE DETERMINED BY MASSDOT OFFICE OF TRANSPORTATION PLANNING.

** DISTANCES ARE SHOWN IN FEET. THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/ TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)

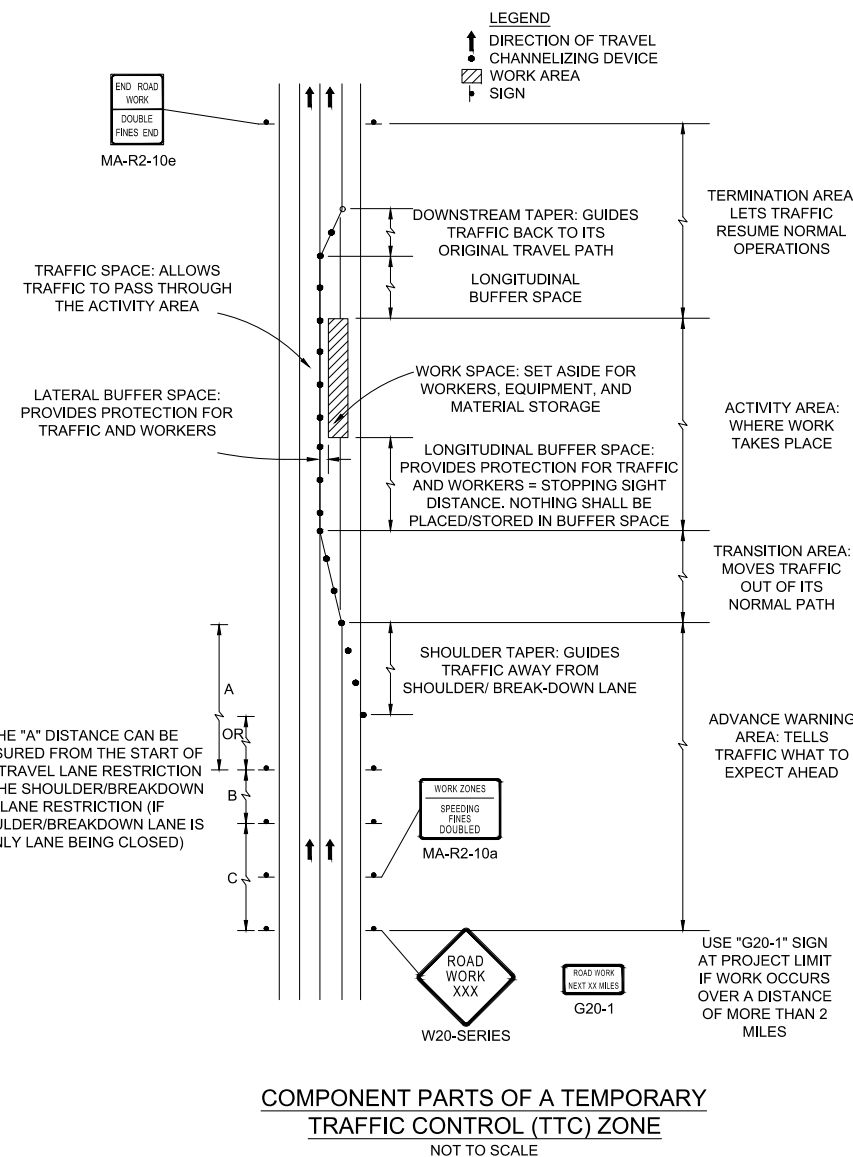
THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCE WARNING" SIGN ON THE TTC SETUPS. THESE ADVANCE WARNING SIGNS ARE LOCATED PRIOR TO THE PROJECT LIMITS ON ALL APPROACHES (i.e. THE W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT. ADDITIONAL SIGNS (i.e. "RIGHT LANE CLOSED 1 MILE" AND "LEFT LANE CLOSED 1 MILE") HAVE BEEN SHOWN IN SOME FIGURES AS EXAMPLES OF REINFORCEMENT SIGN PLACEMENT BUT ARE USED IN RARE OCCASIONS.

THE FIRST AND SECOND WARNING SIGNS ABOVE ARE REFERRED TO AS THE OPERATIONAL (DAY-TO-DAY) WORK ZONE SIGNS AND MAY BE MOVED DEPENDING ON WHERE THE SPECIFIC ROADWAY WORK FOR THAT DAY IS LOCATED.

MA-R2-10a SIGNS SHALL BE PLACED BETWEEN THE SECOND AND THIRD SIGNS AS DESCRIBED ABOVE.

MA-R2-10a, MA-R2-10e, AND W20-1 SERIES SIGNS ARE TO BE INCLUDED ON ALL DETAILS/TYPICAL SETUPS.

Based on: Table 6C-1 MUTCD LATEST EDITION



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.:

M666 - C1

LOCATION CODE:

PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:

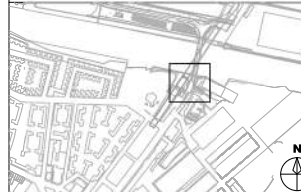
RECORD DRAWING

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:

HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:

M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

TRAFFIC MANAGEMENT PLANS

DISCIPLINE:

CIVIL

DRAWN BY:

CWA

CHECKED BY:

RDL

APPROVED BY:

RDL

SCALE:

N/A

DATE:

MAY 2021

DRAWING NAME:

TM-001

SHEET 11 OF 30

GENERAL NOTES:






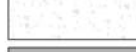


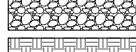

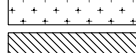
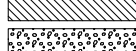
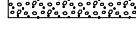
DESIGN SPECIFICATIONS, STANDARDS, AND GUIDELINES:

1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, 2017.
2. MASSDOT 2013 LRFD BRIDGE MANUAL, INCLUDING ALL INTERIM REVISIONS.
3. INTERNATIONAL BUILDING CODE (IBC) 2015.
4. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-19).
5. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 2015, INCLUDING ALL INTERIM REVISIONS.
6. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-10).

GENERAL:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL PERFORM SURVEY OF PROJECT LOCATION IN SUFFICIENT DETAIL TO PERFORM THE WORK, THE SURVEY SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO START OF CONSTRUCTION.
2. EXISTING RETAINING WALL DETAILS, INCLUDING RAILING, CURBS, AND ELEVATIONS SHOWN ON THE PLANS HAVE BEEN COMPILED FROM THE JULY 3, 1982 AS-BUILT PLANS OF BRIDGE B-16-384. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES BETWEEN ACTUAL EXISTING CONDITIONS AND INFORMATION SHOWN ON THE PLAN TO THE ENGINEER, PRIOR TO PROCEEDING WITH WORK.
3. ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
4. COORDINATES SHOWN HEREON REFER TO THE NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) IN U.S. SURVEY FEET, MASSACHUSETTS MAINLAND ZONE.
5. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL ENSURE UTILITIES ARE PROTECTED IN PLACE AS CALLED FOR ON THE PLANS AND IN THE PROJECT SPECIFICATION.
6. THE CONTRACTOR SHALL EXCAVATE TO FULLY EXPOSE THE SEWER FORCEMAIN AND INSTALL A 12" SPLIT SLEEVE.

LEGEND

- | | |
|---|---|
| 1. REMOVAL OF EXISTING AL-3 RAIL: |  |
| 2. REMOVAL OF REINFORCED CONCRETE: |  |
| 3. REMOVAL OF EXISTING PAVEMENT: |  |
| 4. GENERAL EXCAVATION: |  |
| 5. EXCAVATION AROUND SEWER FORCE MAIN: |  |
| 6. EXISTING REINFORCED CONCRETE: |  |
| 7. PROPOSED REINFORCED C.I.P. CONCRETE: |  |
| 8. PROPOSED PRECAST CONCRETE: |  |
| 9. PROPOSED CRUSHED STONE: |  |
| 10. PROPOSED BACKFILL: |  |
| 11. PROPOSED COMPRESSIBLE FOAM: |  |
| 12. PROPOSED RIGID FOAM: |  |
| 13. PROPOSED PAVEMENT: |  |

MATERIALS:

CONCRETE:

- | | |
|---|-----------|
| 1. STRENGTH (MINIMUM REQUIREMENT): | 28-DAY |
| A. CAST-IN-PLACE CONCRETE CURB AND END POST | 5,000 PSI |
| B. CAST-IN-PLACE CONCRETE WALLS AND GRADE BEAMS | 4,000 PSI |
| C. PRECAST PANELS | 4,000 PSI |

PRECAST

1. PRECAST PANELS SHALL BE HANDLED AND ERECTED USING LIFTERS ONLY. THE MINIMUM SLING ANGLE SHALL BE 60 DEGREES FROM THE HORIZONTAL. PRECAST PANELS SHALL BE STORED & TRANSPORTED WITH TIMBER SUPPORTS.

REINFORCING STEEL

1. ALL REINFORCING STEEL AND SUPPORTING DEVICES SHALL BE EPOXY COATED IN CONFORMANCE WITH THE REQUIREMENTS OF AASHTO M284, EXCEPT AS OTHERWISE NOTED.
2. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60. ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS	#7 BARS
A. NONE	21"	26"	31"	39"
B. 12" OF CONCRETE BELOW BAR	29"	36"	43"	55"
C. COATED BARS, COVER < 3db, OR CLEAR SPACING < 6db	31"	39"	47"	59"
D. COATED BARS, ALL OTHER CASES	25"	31"	37"	47"
E. CONDITION B AND C	35"	44"	53"	66"
F. CONDITION B AND D	34"	43"	52"	66"

IF THE ABOVE BARS ARE SPACED 6" OR MORE ON CENTER, THE LAP LENGTH SHALL BE 80% OF THE LAP LENGTH GIVEN ABOVE. ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

3. CONCRETE COVER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO FOR EXPOSURE TO DEICING SALTS FOR ALL ELEMENTS. OTHERWISE, CONCRETE COVER SHALL BE AS LISTED BELOW OR AS IDENTIFIED ON THE DRAWINGS:

CAST-IN-PLACE CONCRETE CURB -	3" CLEAR
CAST-IN-PLACE CONCRETE END POST -	2" CLEAR
CAST-IN-PLACE WALLS AND GRADE BEAMS -	3" CLEAR

4. ALL DIMENSIONS RELATING TO REINFORCING BARS SPACING ARE TO THE CENTER OF BARS UNLESS NOTED OTHERWISE.

PILE AND FOUNDATION

1. FINAL DESIGN OF THE HELICAL PILES WOULD BE PERFORMED BY THE SPECIALTY SUBCONTRACTOR THAT INSTALLS THE PILES, USING A PERFORMANCE-BASED DESIGN-BUILD SPECIFICATION.
2. PILES ARE DESIGNED WITH AN ALLOWABLE SERVICE LOAD CAPACITY OF 30 KIPS. IF THIS LOAD CAPACITY CAN NOT BE ACHIEVED ADDITIONAL PILES MAY BE REQUIRED.
3. HELICAL PILES SHALL BE GALVANIZED FOR CORROSION PROTECTION
4. TO PREVENT FROST HEAVE, 1'-0" OF CRUSHED STONE SHALL BE PLACED BELOW THE GRADE BEAMS.

EXISTING AL-3 RAILING

1. ALL COMPONENTS USED TO FASTEN THE RAILING TO THE END POST SHALL MATCH THE MATERIAL AND GEOMETRY OF THE EXISTING END POST CONNECTION (FROM JULY 3, 1982 BRIDGE B-16-384 PLANS) UNLESS OTHERWISE NOTED.

ALUMINUM

CLAMP BARS - ASTM B-221 ALLOY 6061

ABBREVIATIONS

A.L.	ABOVE SLAB BEARING LEDGE	FOUND.	FOUNDATION
Ⓡ	BASELINE	FTG.	FOOTING
BIT.	BITUMINOUS	GALV.	GALVANIZED
B.L.	BELOW SLAB BEARING LEDGE	HORIZ.	HORIZONTAL
BRG.	BEARING	JT.	JOINT
C.I.P.	CAST IN PLACE	MAX.	MAXIMUM
⊕	CENTERLINE	MIN.	MINIMUM
CL.	CLR.	N.T.S.	NOT TO SCALE
	CLEARANCE	O.C.	ON CENTER
CONC.	CONCRETE	PC	PRE-CAST CONCRETE
CONSTR.	CONSTRUCTION	PROP.	PROPOSED
DIA.	DIAMETER	R&D	REMOVE AND DISPOSE
DWG.	DRAWING	R&R	REMOVE AND REPLACE
EA.	EACH	STA.	STATION
EL.	ELEV.	TYP.	TYPICAL
E.F.	ELEVATION	UNO	UNLESS NOTED OTHERWISE
EXP.	EXPANSION	WP	WORK POINT

STRUCTURAL STEEL

1. ALL ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 105 AND GALVANIZED UNLESS NOTED OTHERWISE.
2. ALL HOLLOW STRUCTURAL TUBE SECTIONS SHALL BE ASTM A-500 GRADE B.

HANDRAIL

1. HANDRAIL SHALL BE GALVANIZED AND PAINTED. CHIP COLOR SHALL BE PROVIDED BY THE OWNER.




MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1 LOCATION CODE:

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: 
NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.



REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
GENERAL NOTES

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF	CHECKED BY: PCM	APPROVED BY: RX
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SCALE: N/A	DATE: MAY 2021
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DRAWING NAME: SHEET 12 OF 30

S-001



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamblett*
NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	9/15/21	ADDED BENT B-31 TO BASEPLAN	ML
2	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

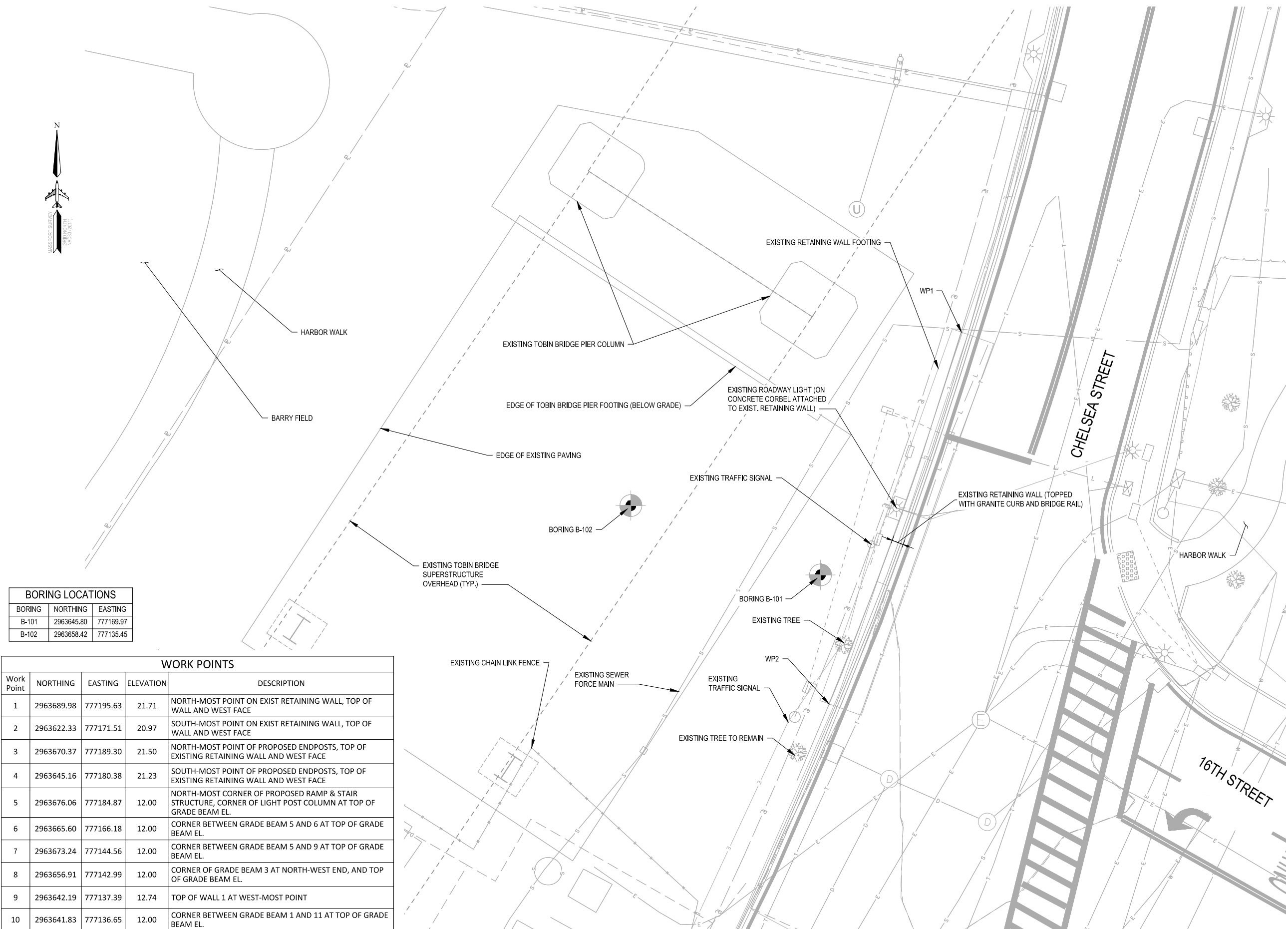
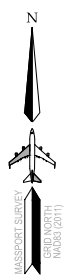
SHEET TITLE:
M666_S002 - EXISTING PLAN

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF	CHECKED BY: PCM	APPROVED BY: RX
SCALE: AS NOTED	DATE: MAY 2021	

DRAWING NAME: SHEET 13 OF 30

S-002



BORING LOCATIONS

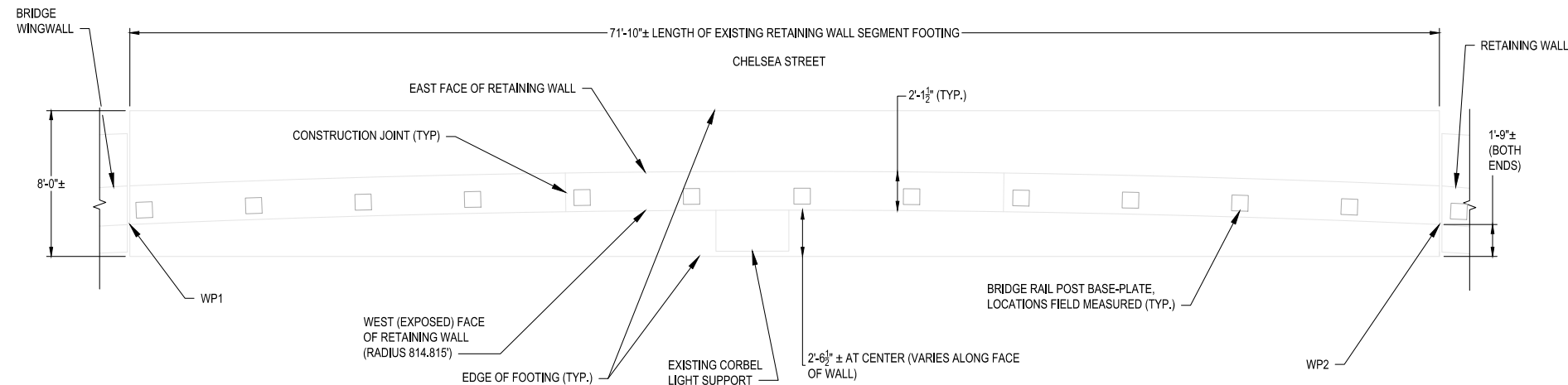
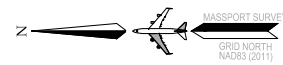
BORING	NORTHING	EASTING
B-101	2963645.80	777169.97
B-102	2963658.42	777135.45

WORK POINTS

Work Point	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2963689.98	777195.63	21.71	NORTH-MOST POINT ON EXIST RETAINING WALL, TOP OF WALL AND WEST FACE
2	2963622.33	777171.51	20.97	SOUTH-MOST POINT ON EXIST RETAINING WALL, TOP OF WALL AND WEST FACE
3	2963670.37	777189.30	21.50	NORTH-MOST POINT OF PROPOSED ENDPOSTS, TOP OF EXISTING RETAINING WALL AND WEST FACE
4	2963645.16	777180.38	21.23	SOUTH-MOST POINT OF PROPOSED ENDPOSTS, TOP OF EXISTING RETAINING WALL AND WEST FACE
5	2963676.06	777184.87	12.00	NORTH-MOST CORNER OF PROPOSED RAMP & STAIR STRUCTURE, CORNER OF LIGHT POST COLUMN AT TOP OF GRADE BEAM EL.
6	2963665.60	777166.18	12.00	CORNER BETWEEN GRADE BEAM 5 AND 6 AT TOP OF GRADE BEAM EL.
7	2963673.24	777144.56	12.00	CORNER BETWEEN GRADE BEAM 5 AND 9 AT TOP OF GRADE BEAM EL.
8	2963656.91	777142.99	12.00	CORNER OF GRADE BEAM 3 AT NORTH-WEST END, AND TOP OF GRADE BEAM EL.
9	2963642.19	777137.39	12.74	TOP OF WALL 1 AT WEST-MOST POINT
10	2963641.83	777136.65	12.00	CORNER BETWEEN GRADE BEAM 1 AND 11 AT TOP OF GRADE BEAM EL.

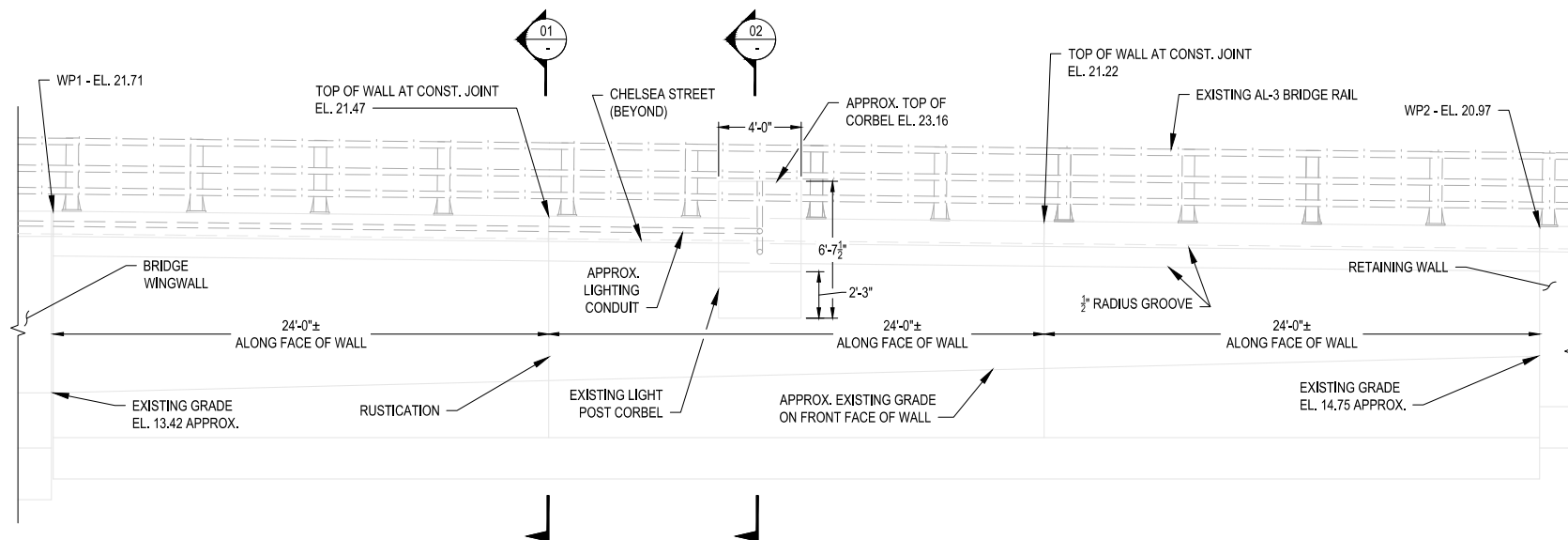
NOTES:
WORK POINTS SHOWN IN TABLE ABOVE APPLY TO ALL STRUCTURAL SHEETS, MOST STRUCTURAL SHEETS WILL NOT HAVE ALL WORK POINTS SHOWN, ONLY THE WORK POINTS RELEVANT TO THAT SHEET.

EXISTING PLAN
SCALE: 1/8" = 1'-0"



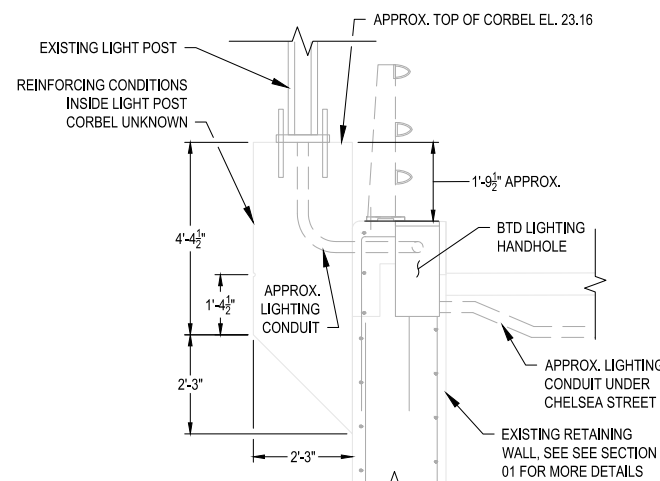
EXISTING RETAINING WALL PLAN

SCALE: 1/4" = 1'-0"



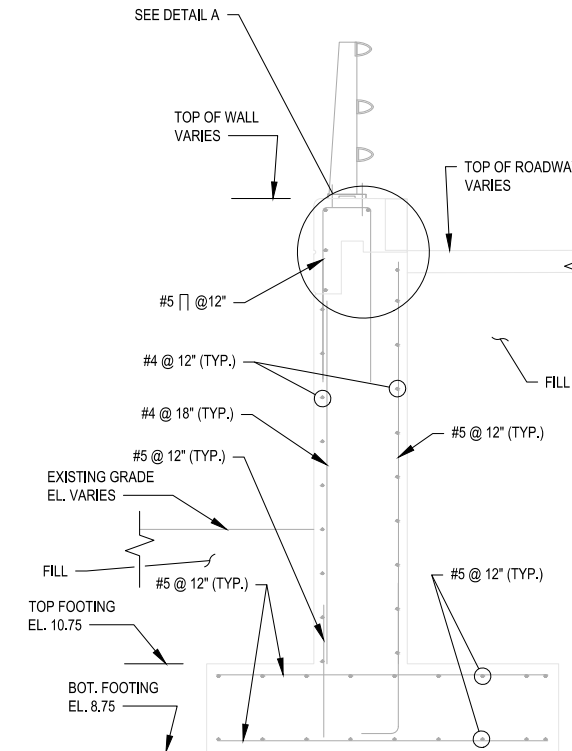
EXISTING RETAINING WALL WEST ELEVATION

SCALE: 1/2" = 1'-0"



EXISTING LIGHT POST CORBEL

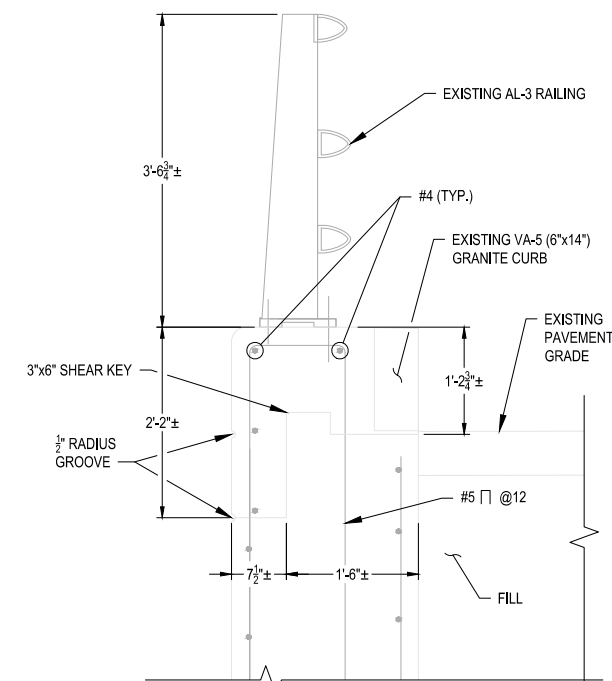
SCALE: 1/2" = 1'-0"



EXISTING RETAINING WALL

SCALE: 1/2" = 1'-0"

01



DETAIL A - EXISTING RAIL

SCALE: 1" = 1'-0"

NOTES:

- FOR FURTHER INFORMATION ON WORK POINTS (WP) SEE SHEET S-002
- SEE GENERAL NOTE 2 ON SHEET S-001 FOR ORIGIN OF INFORMATION REGARDING EXISTING STRUCTURES SHOWN.
- EXISTING DIMENSIONS ARE TAKEN FROM AS-BUILT PLANS OF BRIDGE B-16-384 AND SURVEY. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO THE START OF WORK.
- ALL EXISTING CONDUIT RUNS FOR LIGHT-POSTS ARE ASSUMED BASED ON CONVERSATIONS WITH BTD PERSONNEL. GENERAL AREA OF CONDUIT HAS BEEN DETERMINED, BUT EXACT ELEVATIONS ARE UNKNOWN. CONTRACTOR TO VERIFY ALL ACTUAL CONDUIT LOCATIONS PRIOR TO ANY WORK RELATING TO SAID CONDUIT.



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

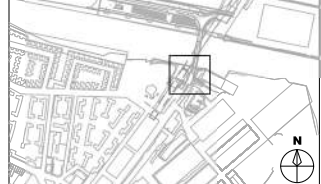
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob [Signature]*

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
M666_S003 - EXISTING RETAINING WALL CONDITIONS

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF
CHECKED BY: PCM
APPROVED BY: RX

SCALE: AS NOTED
DATE: MAY 2021

DRAWING NAME: SHEET 14 OF 30

S-003



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamblett*
NOTE: WORDING CONTAINED HEREON IS
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REV NO.	DATE	DESCRIPTION	BY:
1	9/15/21	ADDED BENT B-31 TO BASEPLAN	ML
2	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
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CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

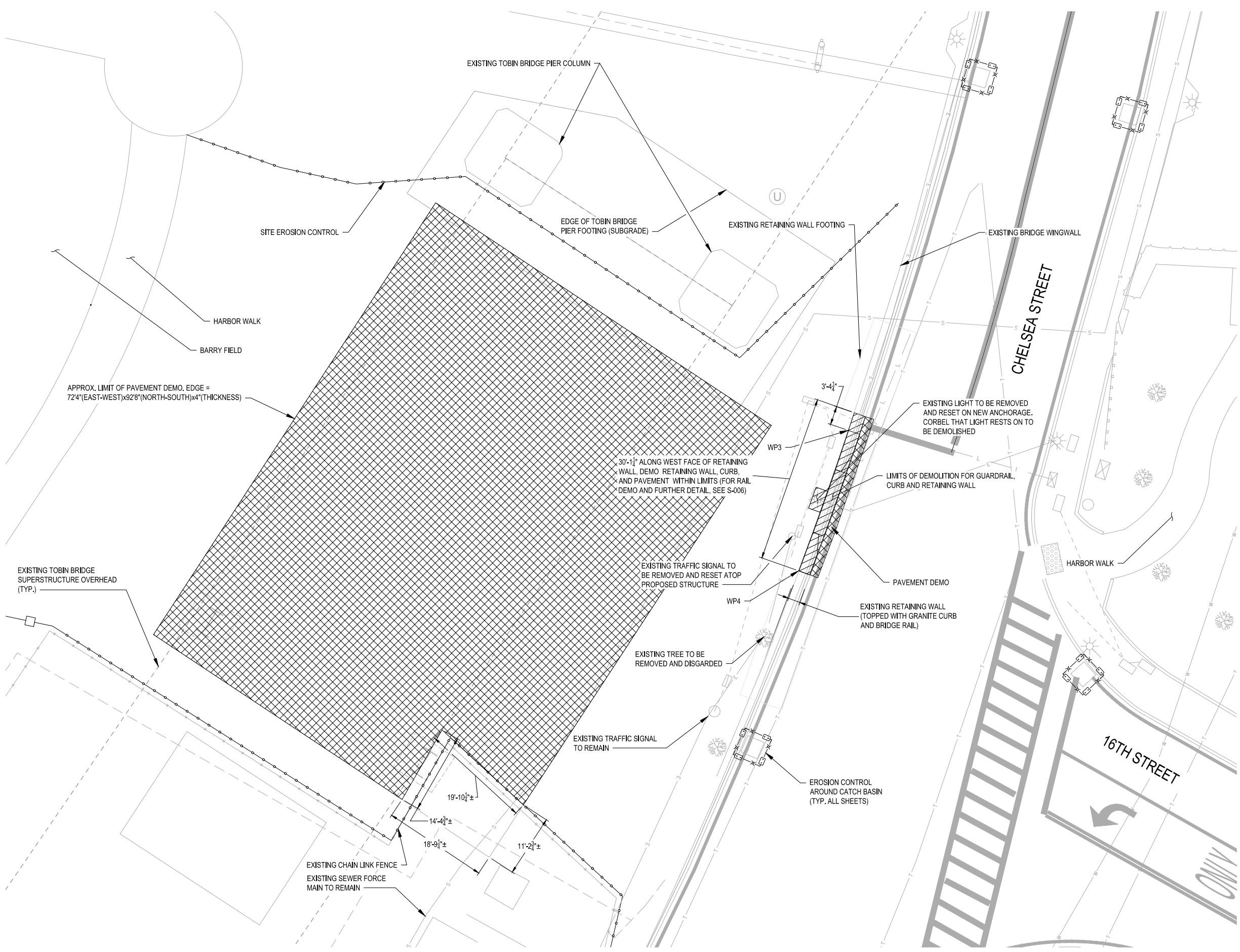
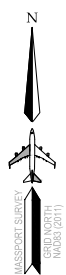
SHEET TITLE:
M666_S004 - DEMOLITION PLAN

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF	CHECKED BY: PCM	APPROVED BY: RX
SCALE: AS NOTED	DATE: MAY 2021	

DRAWING NAME: SHEET 15 OF 30

S-004



NOTES:
FOR FURTHER INFORMATION ON WORKING POINTS (WP) SEE SHEET S-002

DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamblett*
NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.



REV NO.	DATE	DESCRIPTION	BY:
1	9/15/21	ADDED BENT B-31 TO BASEPLAN	ML
2	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

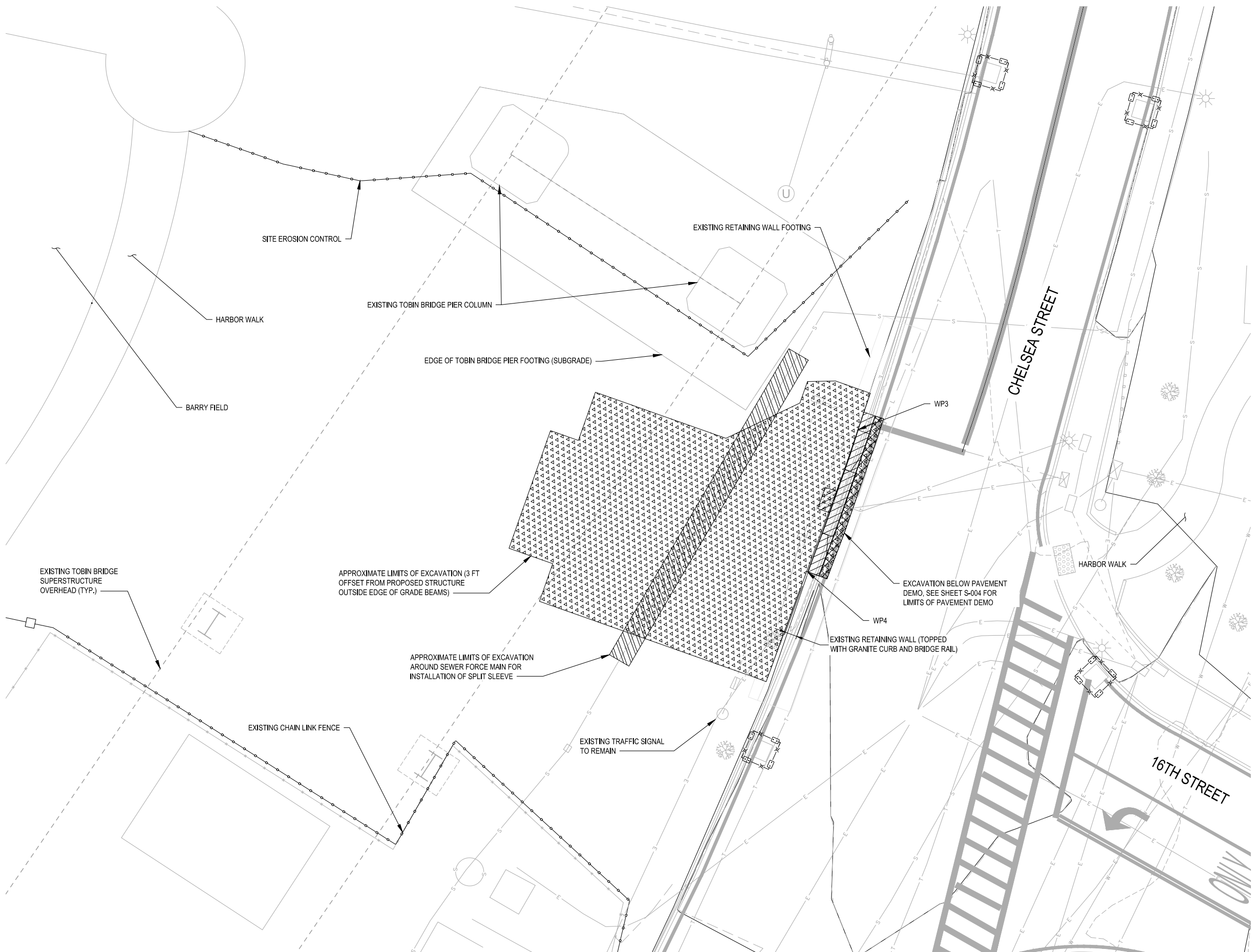
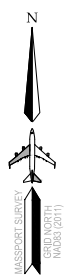
SHEET TITLE:
M666_S005 - EXCAVATION PLAN

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF	CHECKED BY: PCM	APPROVED BY: RX
SCALE: AS NOTED	DATE: MAY 2021	

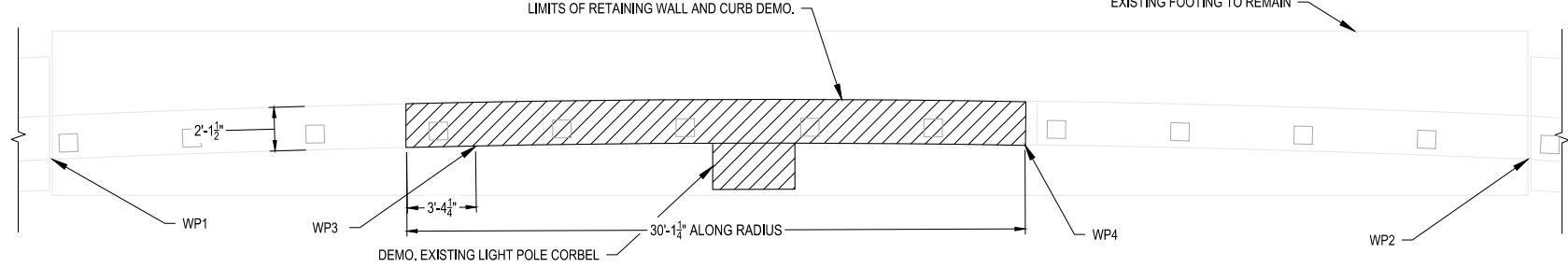
DRAWING NAME: SHEET 16 OF 30

S-005



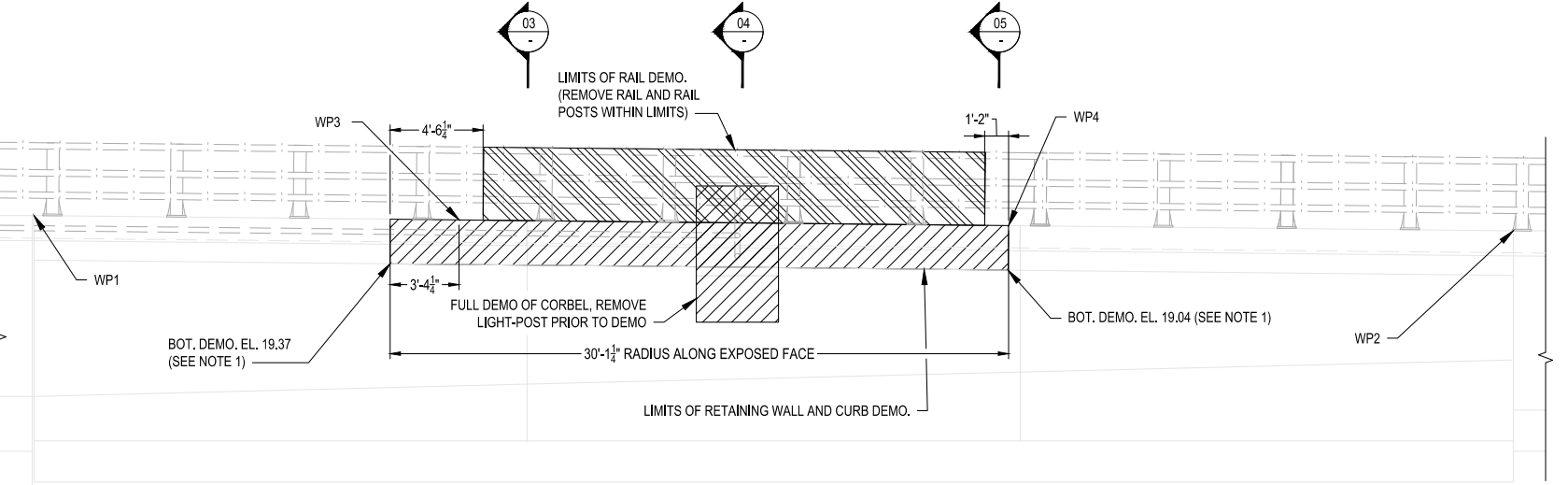
NOTES:
FOR FURTHER INFORMATION ON WORK POINTS (WP) SEE SHEET S-002

EXCAVATION PLAN
SCALE: 1/8" = 1'-0"



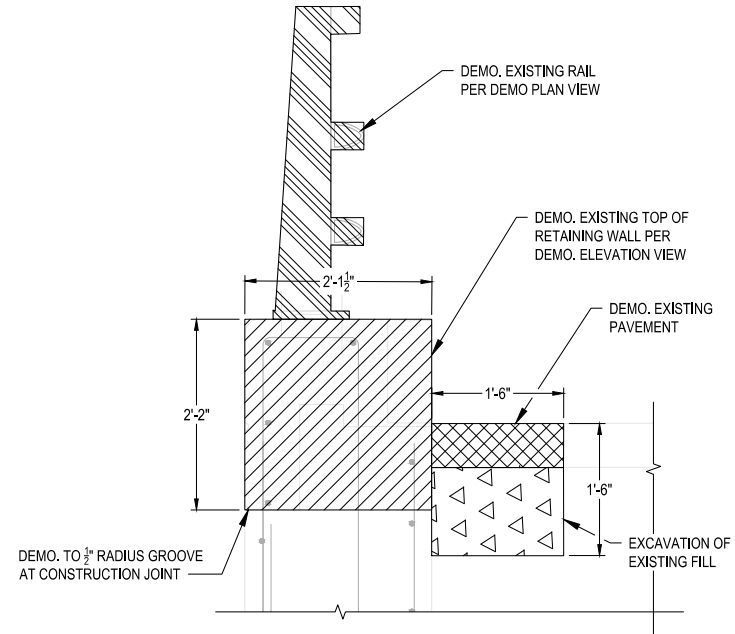
RETAINING WALL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"



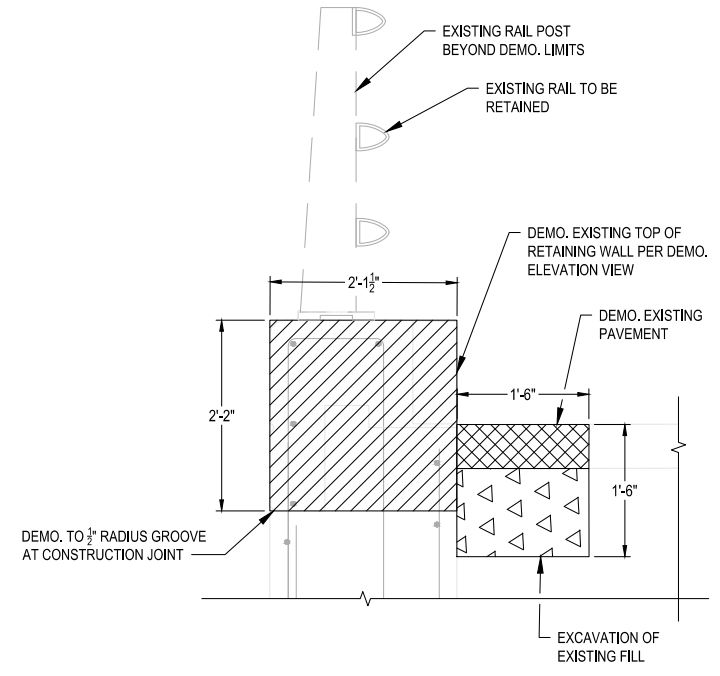
RETAINING WALL DEMOLITION ELEVATION

SCALE: 1/4" = 1'-0"



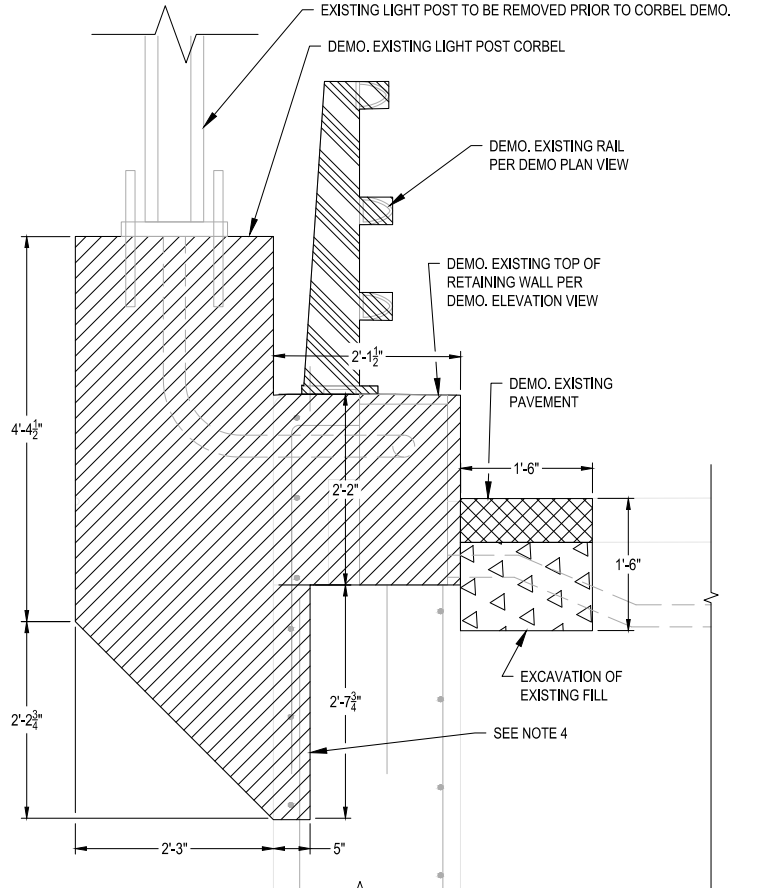
BRIDGE RAIL DEMOLITION 03

SCALE: 1" = 1'-0"



RETAINING WALL AND CURB DEMOLITION 05

SCALE: 1" = 1'-0"



LIGHT POST CORBEL DEMOLITION 04

SCALE: 1" = 1'-0"

- NOTE:**
1. BOTTOM OF EXISTING RETAINING WALL DEMO. ELEVATION TO MATCH THE GROOVE ON THE EXPOSED FACE OF THE WALL.
 2. THE EXISTING GRADE SHOWN ON THESE PLANS IS SCALED OFF AVAILABLE PLANS.
 3. FOR FURTHER INFORMATION ON WORK POINTS (WP) SEE SHEET S-002
 4. EXISTING REINFORCING CONDITIONS INSIDE CORBEL ARE UNKNOWN. THE POTENTIAL EXISTS THAT THERE IS NO REINFORCING CONNECTING THE CORBEL TO THE RETAINING WALL IN THE BOTTOM PART OF THE CORBEL. SHOULD THIS BE THE CASE, ADDITIONAL DEMO OF THE RETAINING WALL IS UNNECESSARY. IF REINFORCING BARS DO EXIST BETWEEN THE CORBEL AND RETAINING WALL TO REMAIN, DEMO. APPROX. 5" INTO EXISTING RETAINING WALL BEHIND CORBEL. EXISTING RETAINING WALL REINFORCING TO REMAIN, CORBEL REINFORCING TO BE CUT AT DEMO LIMITS AND PATCH APPLIED.



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Robert D. ...*

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
M666_S006 - DEMOLITION DETAILS

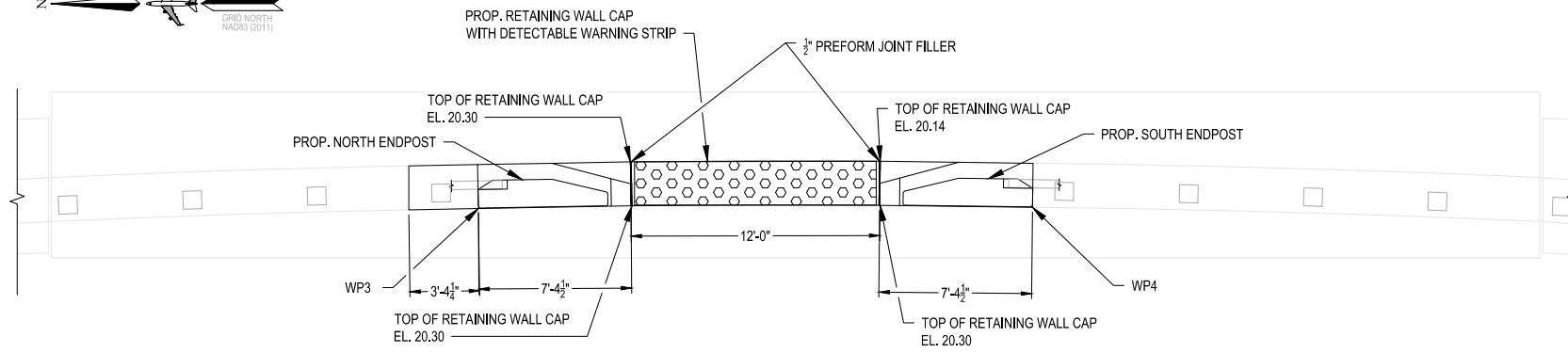
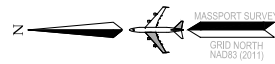
DISCIPLINE:
STRUCTURES

DRAWN BY: BEF
CHECKED BY: PCM
APPROVED BY: RX

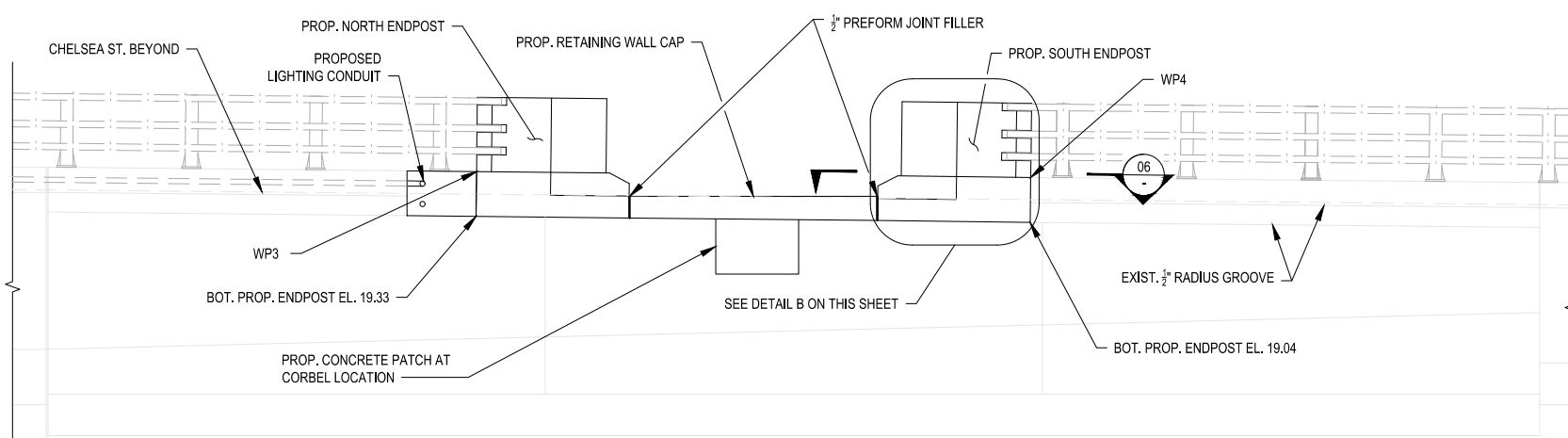
SCALE: AS NOTED
DATE: MAY 2021

DRAWING NAME: S-006
SHEET 17 OF 30

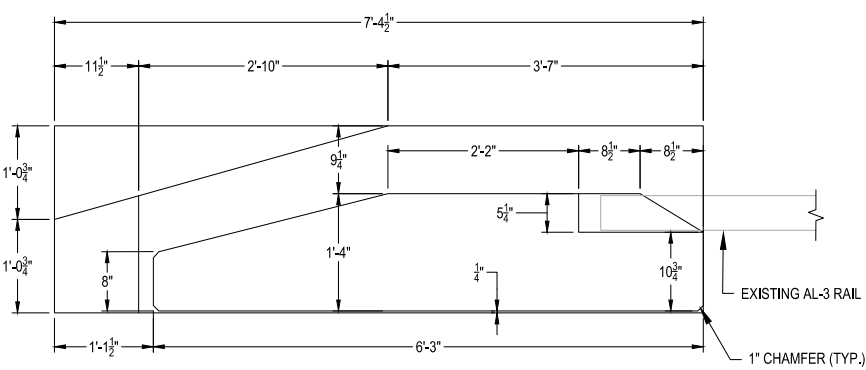
S-006



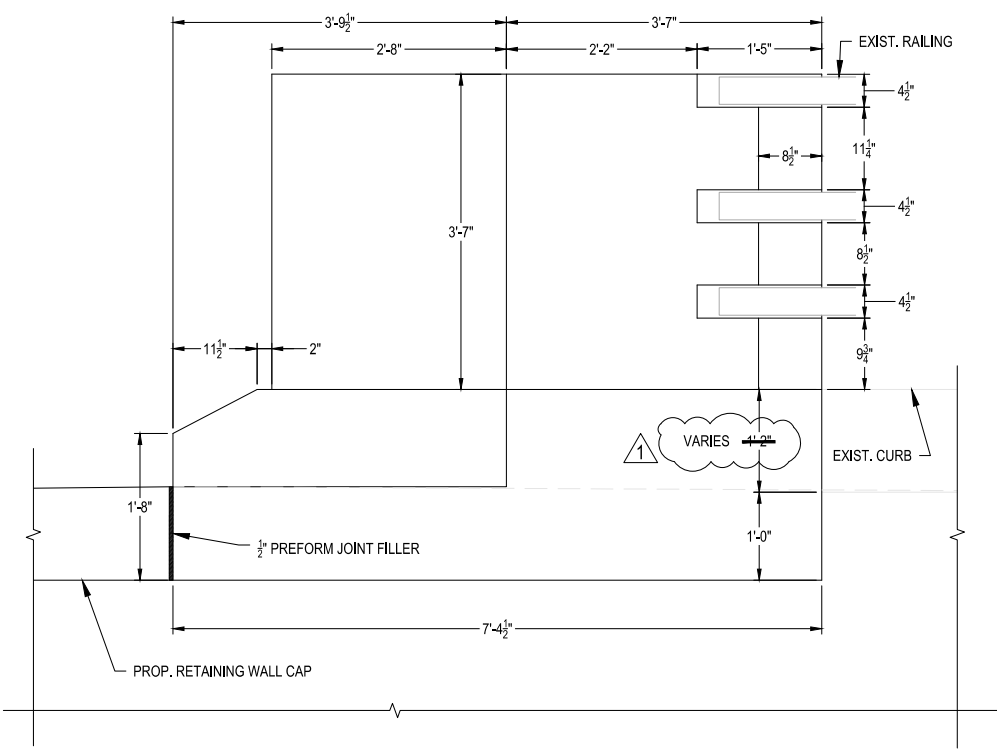
PROPOSED ENDPOST PLAN
SCALE: 1/4" = 1'-0"



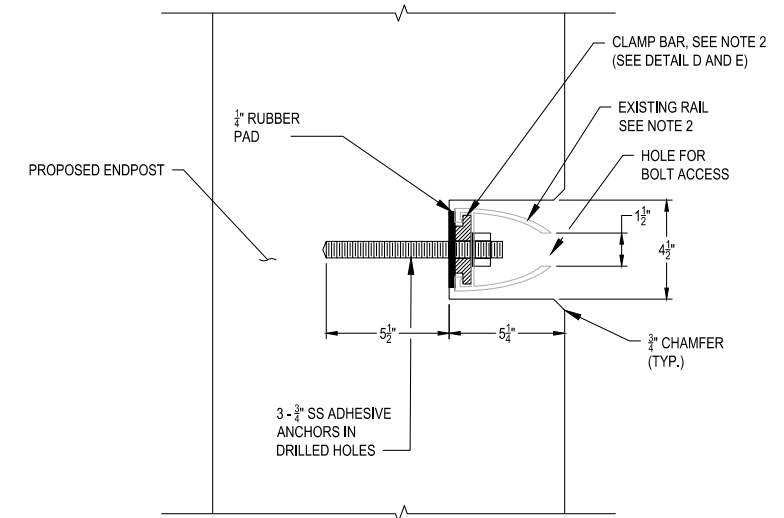
PROPOSED ENDPOST ELEVATION (LOOKING EAST)
SCALE: 1/4" = 1'-0"



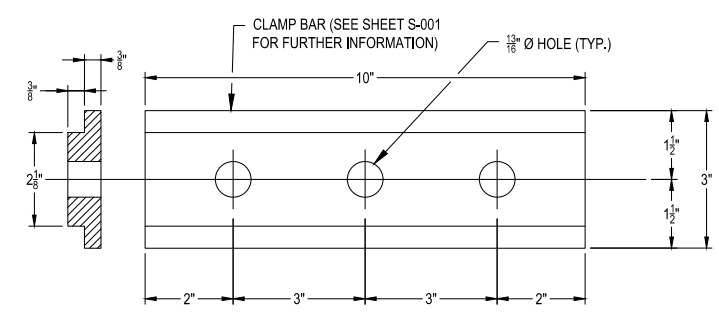
PROPOSED ENDPOST GEOMETRY 06
SCALE: 1" = 1'-0"



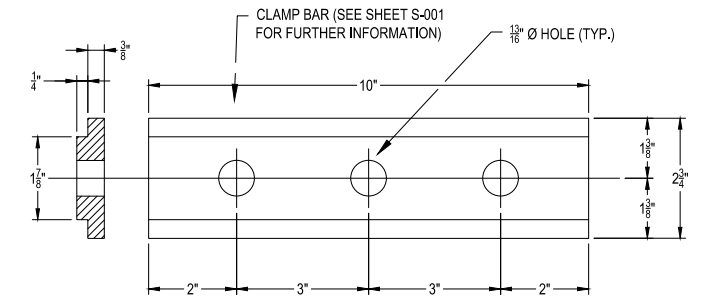
DETAIL B - PROPOSED ENDPOST GEOMETRY
SCALE: 1" = 1'-0"



DETAIL C - CLAMP BAR AND ANCHORAGE FOR RAIL CONNECTION
SCALE: 3" = 1'-0"



DETAIL D - CLAMP BAR FOR BOTTOM AND MIDDLE RAILS
SCALE: 6" = 1'-0"



DETAIL E - CLAMP BAR FOR TOP RAIL
SCALE: 6" = 1'-0"

- NOTES:
- FOR FURTHER INFORMATION ON WORKING POINTS (WP) SEE SHEET S-002
 - BRIDGE RAIL CONSISTS OF 2 DIFFERENT SIZE ALUMINUM RAILS. THE TOP RAIL (REFERRED TO AS "HAND RAIL" IN RECORD PLANS) IS SLIGHTLY SMALLER THAN THE MIDDLE AND BOTTOM RAIL. DETAIL D IS THE CLAMP BAR SIZED FOR THE MIDDLE AND BOTTOM RAILS, AND DETAIL E IS THE CLAMP BAR SIZED FOR THE TOP RAIL



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: LOCATION CODE:
M666 - C1

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob [Signature]*

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.



REV NO.	DATE	DESCRIPTION	BY
1	11/28/22	RECORD DRAWINGS	

CONSULTANT:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
M666_S007 - PROPOSED
ENDPOST DETAILS (1 OF 2)

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF	CHECKED BY: PCM	APPROVED BY: RX
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SCALE: AS NOTED	DATE: MAY 2021
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DRAWING NAME: SHEET 18 OF 30

S-007



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

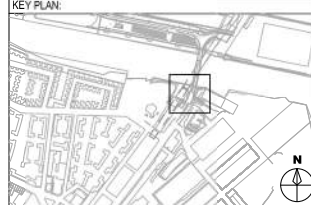
PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: LOCATION CODE:
M666 - C1

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
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RECORDS PROVIDED BY THE CONTRACTOR,
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HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamrick*
NOTE: WORDING CONTAINED HEREIN IS
UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

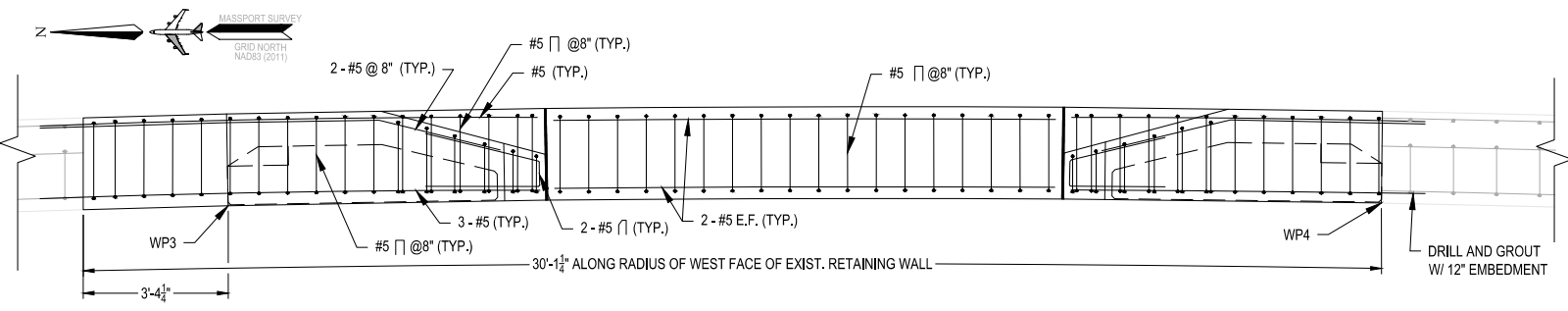
SHEET TITLE:
**M666_S008 - PROPOSED
ENDPOST DETAILS (2 OF 2)**

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF	CHECKED BY: PCM	APPROVED BY: RX
SCALE: AS NOTED	DATE: MAY 2021	

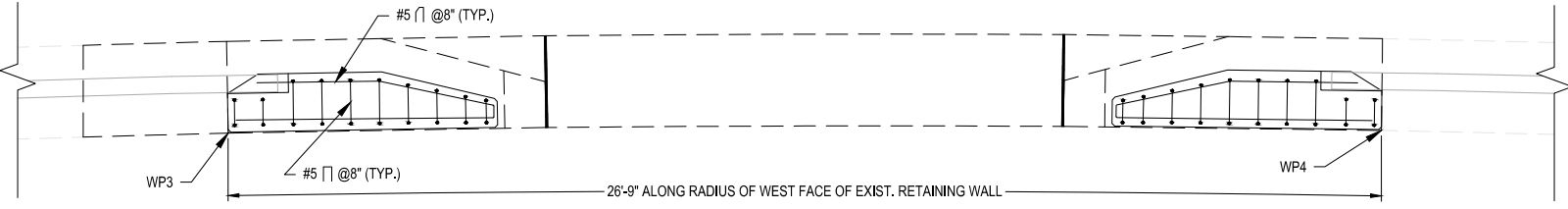
DRAWING NAME: SHEET 19 OF 30

S-008



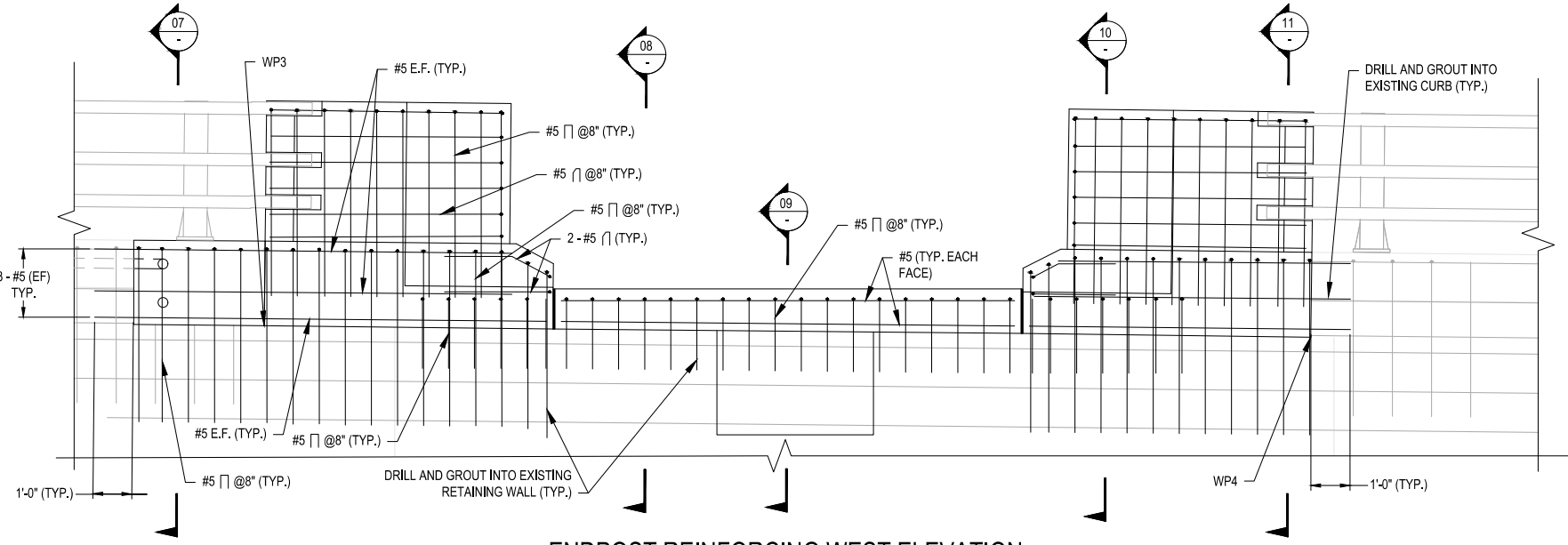
RETAINING WALL CAP AND CURB REINFORCING PLAN

SCALE: 1/2" = 1'-0"



ENDPOST REINFORCING PLAN

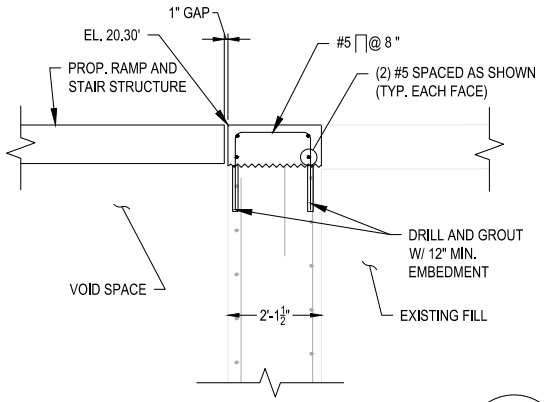
SCALE: 1/2" = 1'-0"



ENDPOST REINFORCING WEST ELEVATION

SCALE: 1/2" = 1'-0"

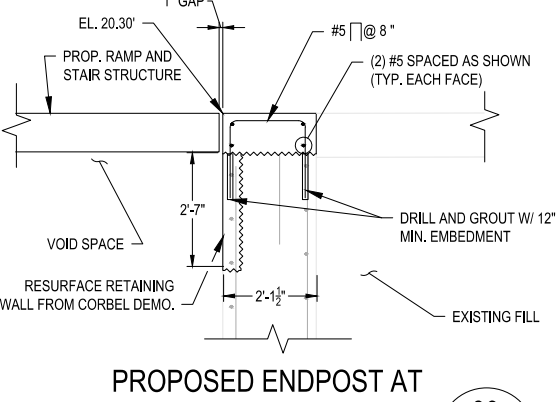
NOTES:
FOR FURTHER INFORMATION ON WORKING POINTS (WP) SEE
SHEET S-002



PROPOSED RETAINING WALL CAP

08

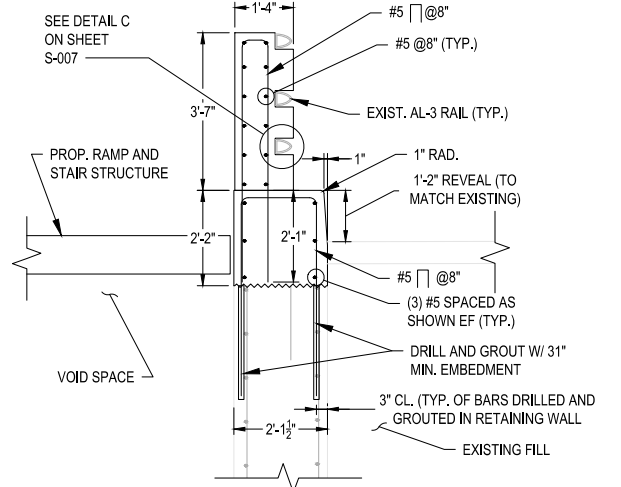
SCALE: 1/2" = 1'-0"



**PROPOSED ENDPOST AT
DEMOLISHED CORBEL**

09

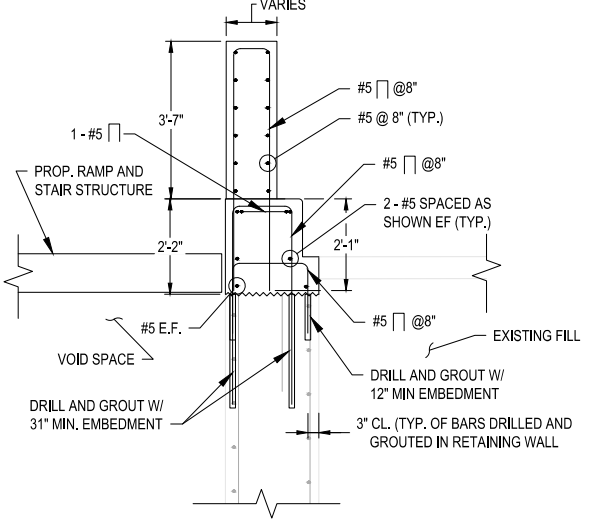
SCALE: 1/2" = 1'-0"



**PROPOSED ENDPOST AT
RAILING CONNECTION**

11

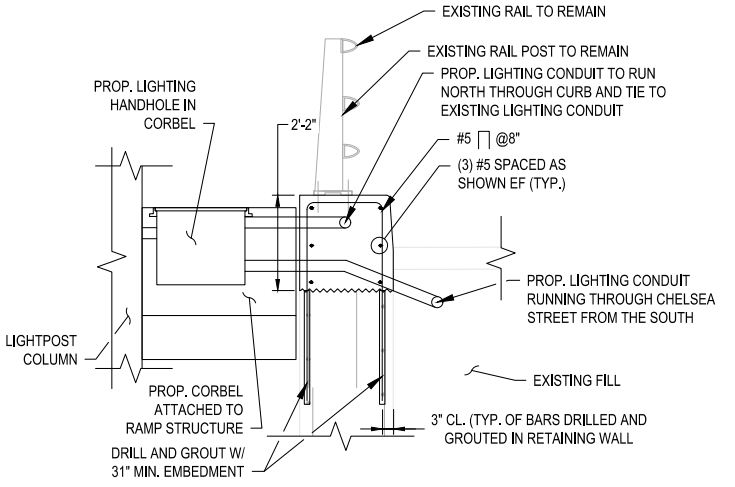
SCALE: 1/2" = 1'-0"



PROPOSED ENDPOST

10

SCALE: 1/2" = 1'-0"



PROPOSED ENDPOST

07

SCALE: 1/2" = 1'-0"



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

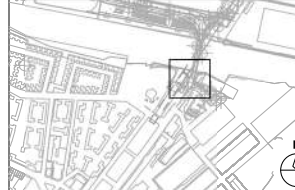
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Robert D. ...*

NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/04/21	DIMENSION CHANGES	BEF
2	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
**M666_S009 - PROPOSED
FOUNDATION PLAN**

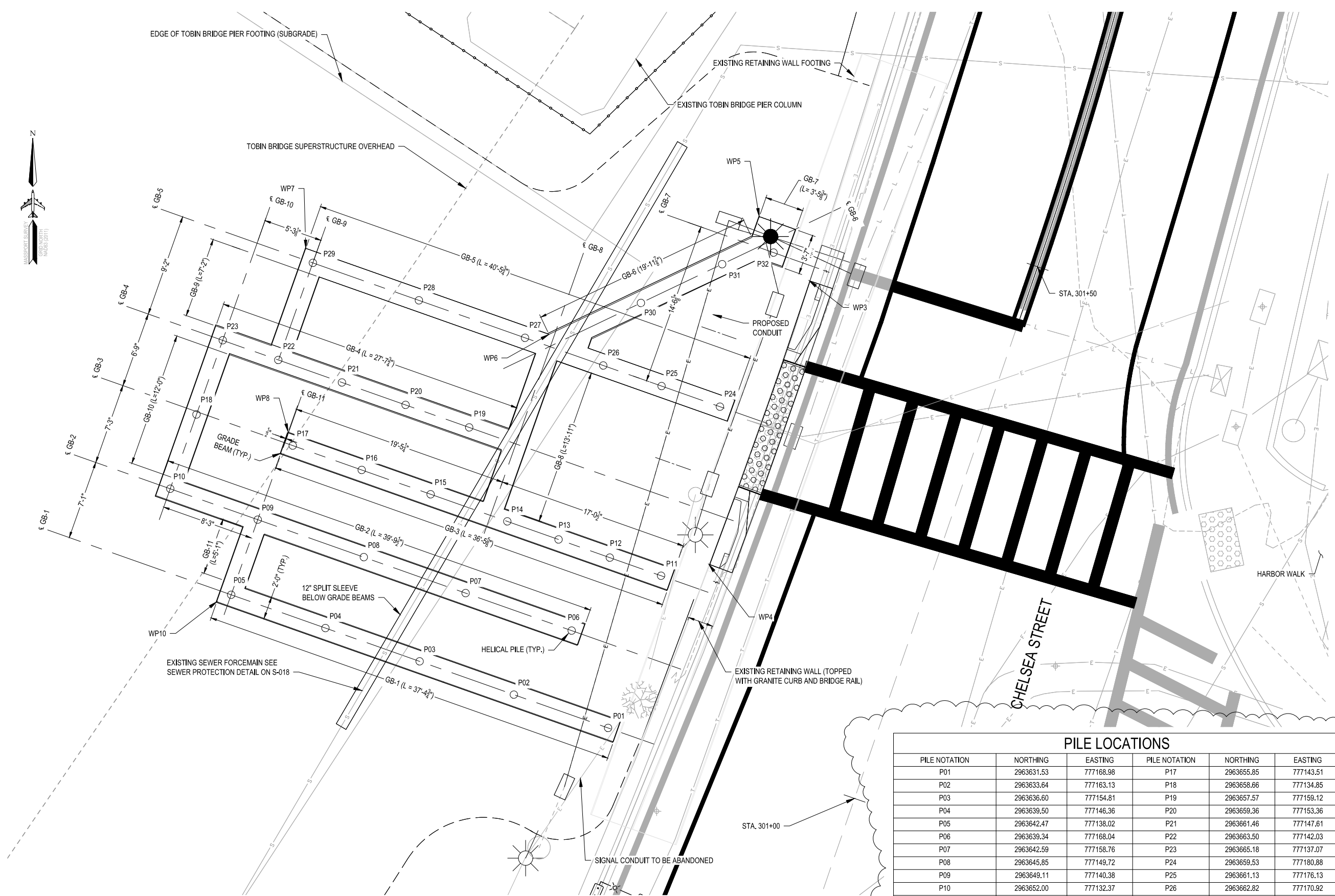
DISCIPLINE:
STRUCTURES

DRAWN BY: DD
CHECKED BY: PCM
APPROVED BY: RX

SCALE: AS NOTED
DATE: MAY 2021

DRAWING NAME: SHEET 20 OF 30

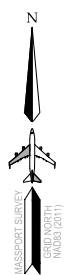
S-009



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

PILE LOCATIONS					
PILE NOTATION	NORTHING	EASTING	PILE NOTATION	NORTHING	EASTING
P01	2963631.53	777168.98	P17	2963655.85	777143.51
P02	2963633.64	777163.13	P18	2963658.66	777134.85
P03	2963636.60	777154.81	P19	2963657.57	777159.12
P04	2963639.50	777146.36	P20	2963659.36	777153.36
P05	2963642.47	777138.02	P21	2963661.46	777147.61
P06	2963639.34	777168.04	P22	2963663.50	777142.03
P07	2963642.59	777158.76	P23	2963665.18	777137.07
P08	2963645.85	777149.72	P24	2963659.53	777180.88
P09	2963649.11	777140.38	P25	2963661.13	777176.13
P10	2963652.00	777132.37	P26	2963662.82	777170.92
P11	2963643.94	777176.10	P27	2963665.01	777164.08
P12	2963646.17	777170.08	P28	2963668.56	777154.59
P13	2963647.65	777166.26	P29	2963672.02	777145.18
P14	2963649.00	777162.46	P30	2963668.58	777174.40
P15	2963651.65	777155.65	P31	2963671.87	777181.17
P16	2963653.66	777149.64	P32	2963672.90	777186.21

NOTES:
FOR FURTHER INFORMATION ON WORK POINTS (WP) SEE SHEET S-002





MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
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HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamrick*

NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
M666_S010 - PROPOSED WALL
LAYOUT FOR RAMP

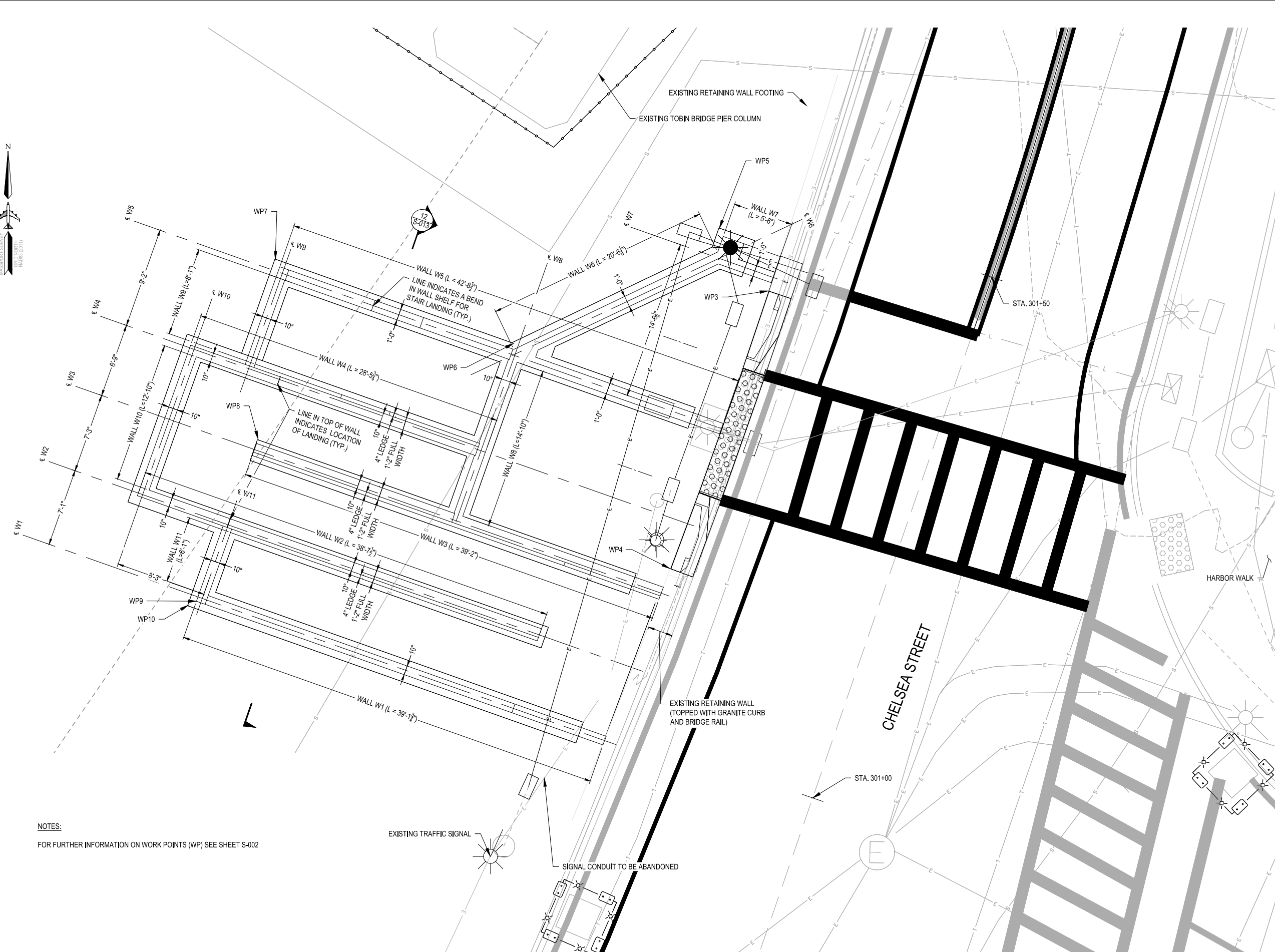
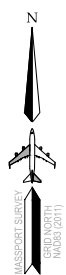
DISCIPLINE:
STRUCTURES

DRAWN BY: DD CHECKED BY: PCM APPROVED BY: RX

SCALE: AS NOTED DATE: MAY 2021

DRAWING NAME: SHEET 21 OF 30

S-010



NOTES:
FOR FURTHER INFORMATION ON WORK POINTS (WP) SEE SHEET S-002

WALL LAYOUT PLAN
SCALE: 1/4" = 1'-0"



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
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RECORDS PROVIDED BY THE CONTRACTOR,
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HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamblett*
NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.



REV NO.	DATE	DESCRIPTION	BY
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

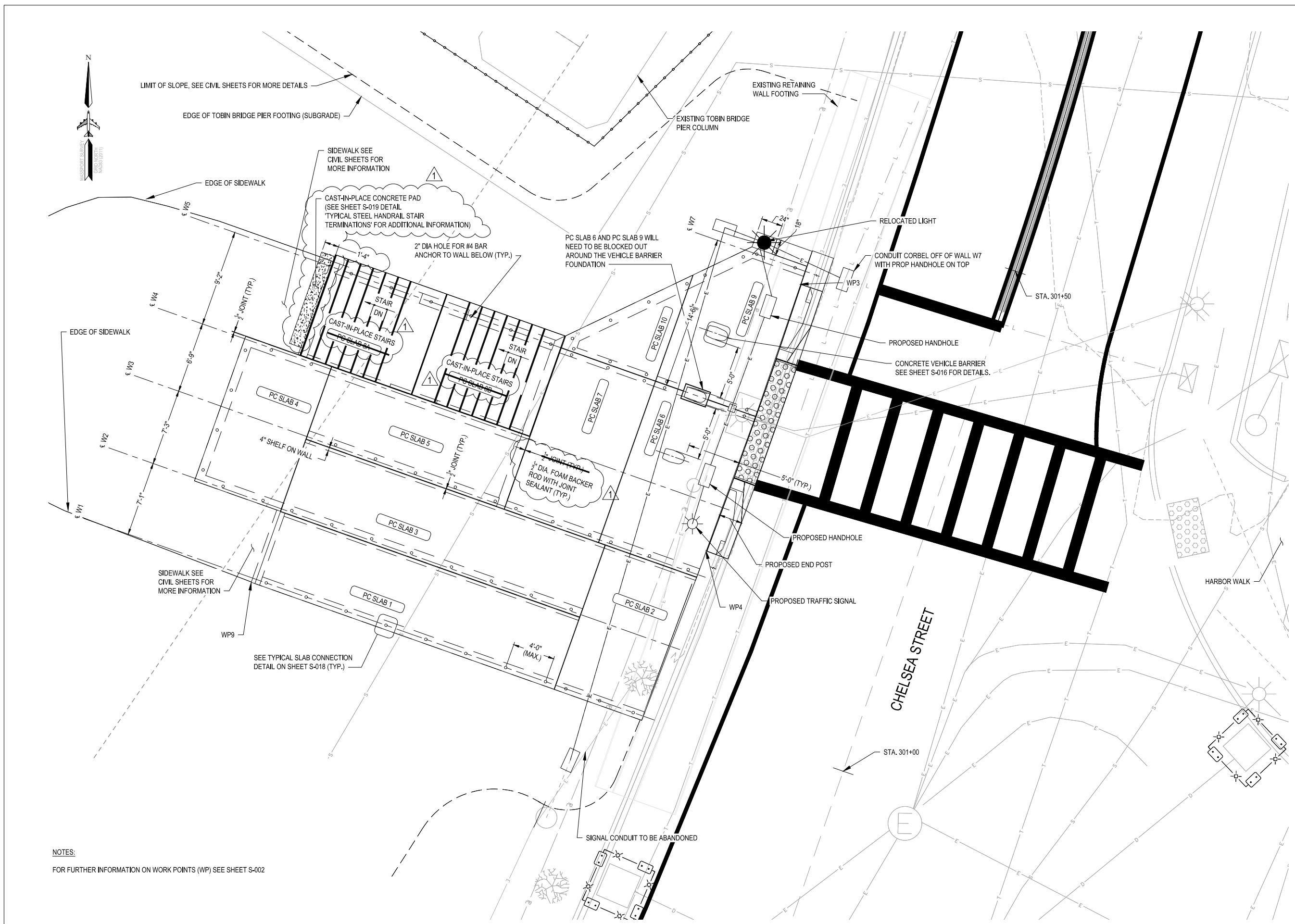
SHEET TITLE:
**M666_S011 - PROPOSED PRECAST
SLAB LAYOUT**

DISCIPLINE:
STRUCTURES

DRAWN BY: DD	CHECKED BY: PCM	APPROVED BY: RX
SCALE: AS NOTED	DATE: MAY 2021	

DRAWING NAME: SHEET 22 OF 30

S-011



PRECAST SLAB LAYOUT PLAN
SCALE: 1/4" = 1'-0"

NOTES:
FOR FURTHER INFORMATION ON WORK POINTS (WP) SEE SHEET S-002



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: LOCATION CODE:

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING

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RECORDS PROVIDED BY THE CONTRACTOR,
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HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Robert D. ...*

NOTE: WORDING CONTAINED HEREIN IS
UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REV. NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:

M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

M666_S012 - PROPOSED WALL
ELEVATIONS 1

DISCIPLINE:

STRUCTURES

DRAWN BY: CHECKED BY: APPROVED BY:

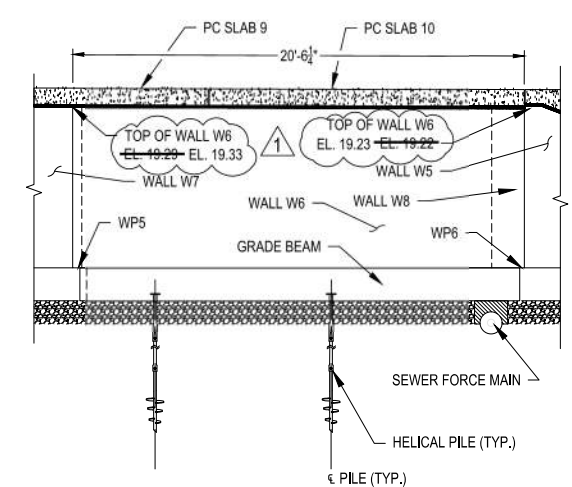
BEF PCM RX

SCALE: DATE:

AS NOTED MAY 2021

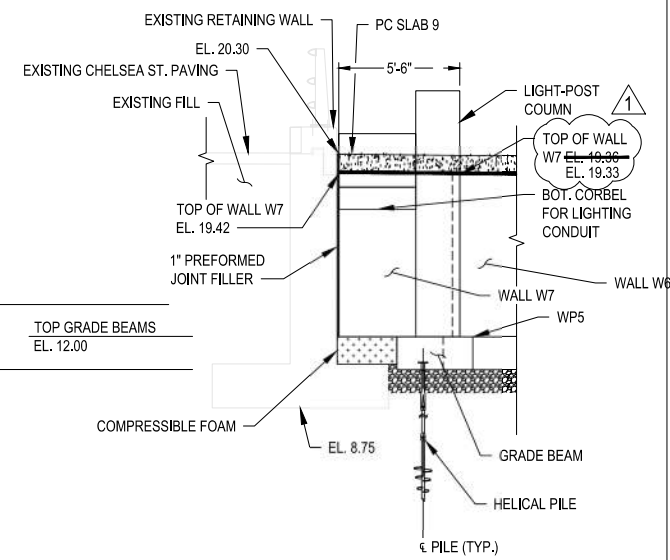
DRAWING NAME: SHEET 23 OF 30

S-012



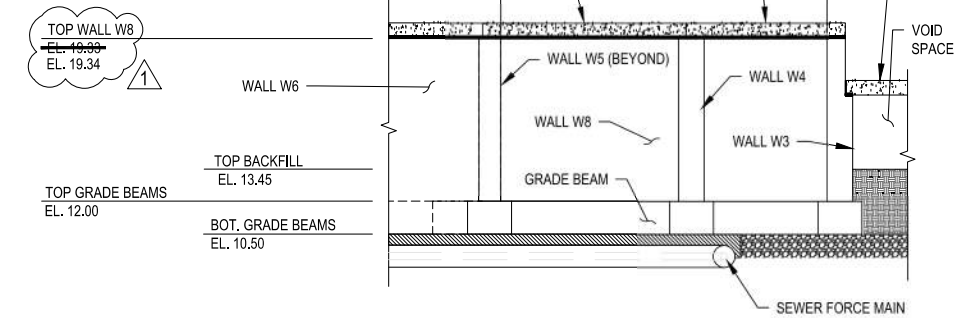
WALL W6 - SOUTH-WEST ELEVATION

SCALE: 1/4" = 1'-0"



WALL W7 - NORTH ELEVATION

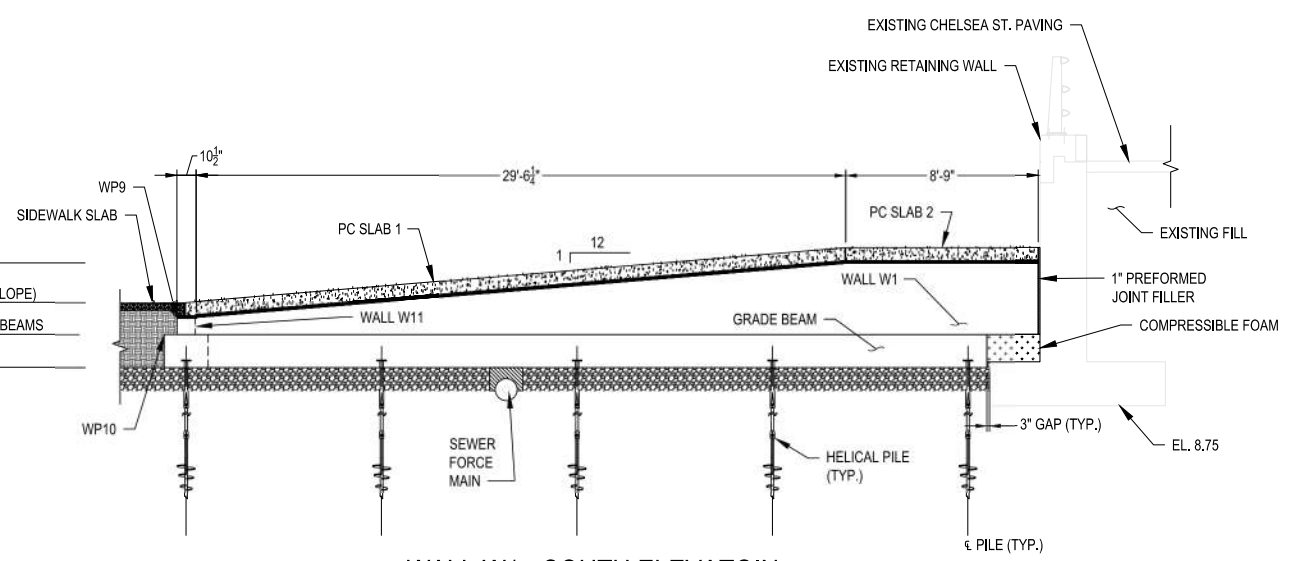
SCALE: 1/4" = 1'-0"



WALL W8 - WEST ELEVATION

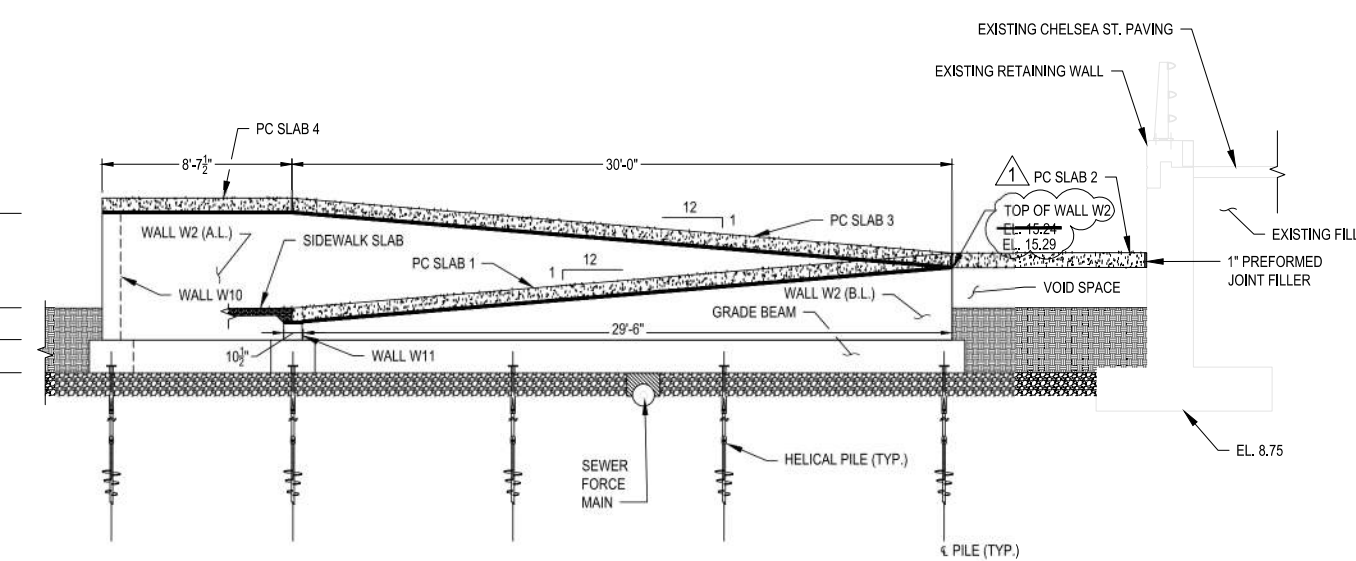
SCALE: 1/4" = 1'-0"

- NOTES:
- TOP OF WALL SLOPES SHALL MATCH TOP OF PRECAST SLAB SLOPES.
 - FOR PILE LOCATIONS, SEE SHEET S-009.
 - TOP OF EXISTING RETAINING WALL VARIES, SEE ENDPOST SHEETS S-003 & S-007 FOR ELEVATIONS.
 - SLAB THICKNESS IS AS FOLLOWS:
 - PC SLAB 1-5 = 8"
 - PC SLAB 6, 7, 9, 10 = 10"
 - PC SLAB 8A & 8B (STAIR SLABS) = 8"
 - PRECAST SLABS TO SIT ATOP 1/2" GROUT PAD. FOR TOP OF SLAB ELEVATIONS, ADD THICKNESS OF SLAB AND 1/2" (FOR GROUT) TO WALL ELEVATIONS GIVEN.
 - FOR MORE INFORMATION REGARDING WORK POINTS, SEE SHEET S-002.
 - DIMENSIONS ON ELEVATIONS DRAWN TO GRADE CHANGES ON WALLS.
 - THERE IS A 3/8" GAP (TO BE FILLED WITH PREFORMED FILLER) BETWEEN ALL ABUTTING PRECAST SLABS.
 - WALL THICKNESS VARIES WALL TO WALL. AREA OF WALL ABOVE SLAB LEDGE IS TYPICALLY 10" AND BELOW IS TYPICALLY 1'-2" (LEDGE HAS 4" WIDTH FOR SLAB BEARING). SEE WALL PLAN ON SHEET S-010 FOR FURTHER CALLOUTS OF WALL THICKNESS.



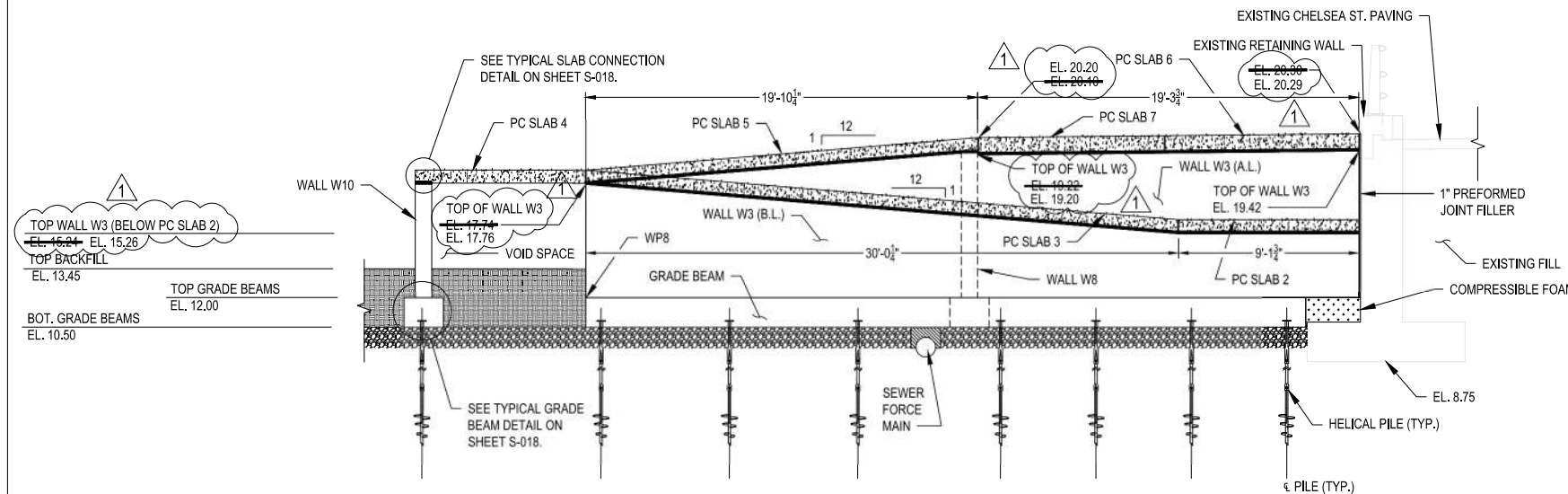
WALL W1 - SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



WALL W2 - SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



WALL W3 - SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Robert D. ...*
NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

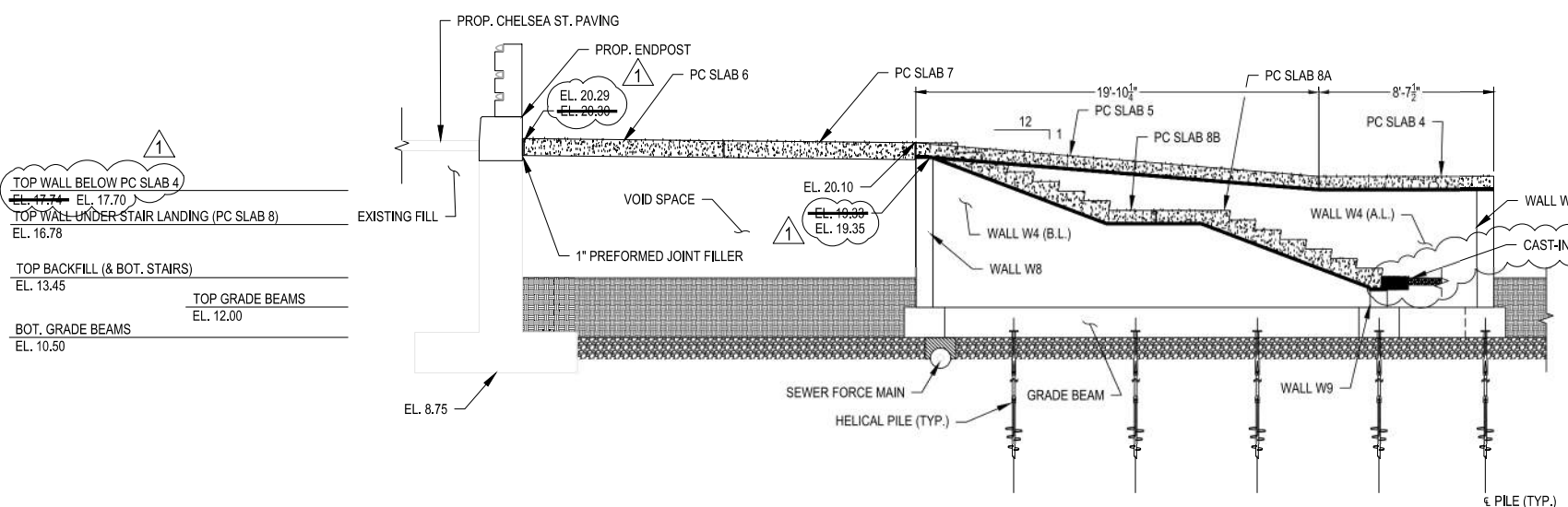
PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
M666_S013 - PROPOSED WALL
ELEVATIONS 2

DISCIPLINE:
STRUCTURES

DRAWN BY: BEF	CHECKED BY: PCM	APPROVED BY: RX
SCALE: AS NOTED	DATE: MAY 2021	

DRAWING NAME: SHEET 24 OF 30
S-013



WALL W4 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

TOP WALL BELOW PC SLAB 4
EL. 17.74
EL. 17.70
EL. 16.78

TOP BACKFILL (& BOT. STAIRS)
EL. 13.45

TOP GRADE BEAMS
EL. 12.00

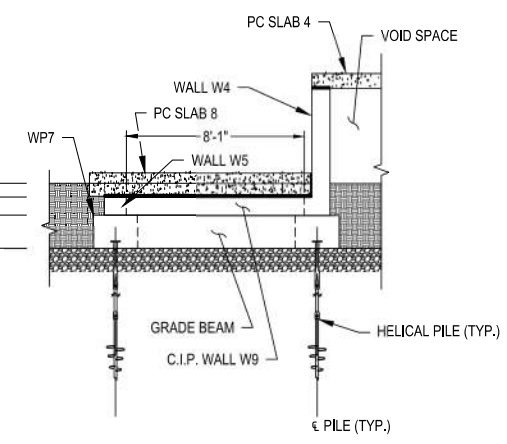
BOT. GRADE BEAMS
EL. 10.50

TOP BACKFILL (& BOT. STAIRS)
EL. 13.45

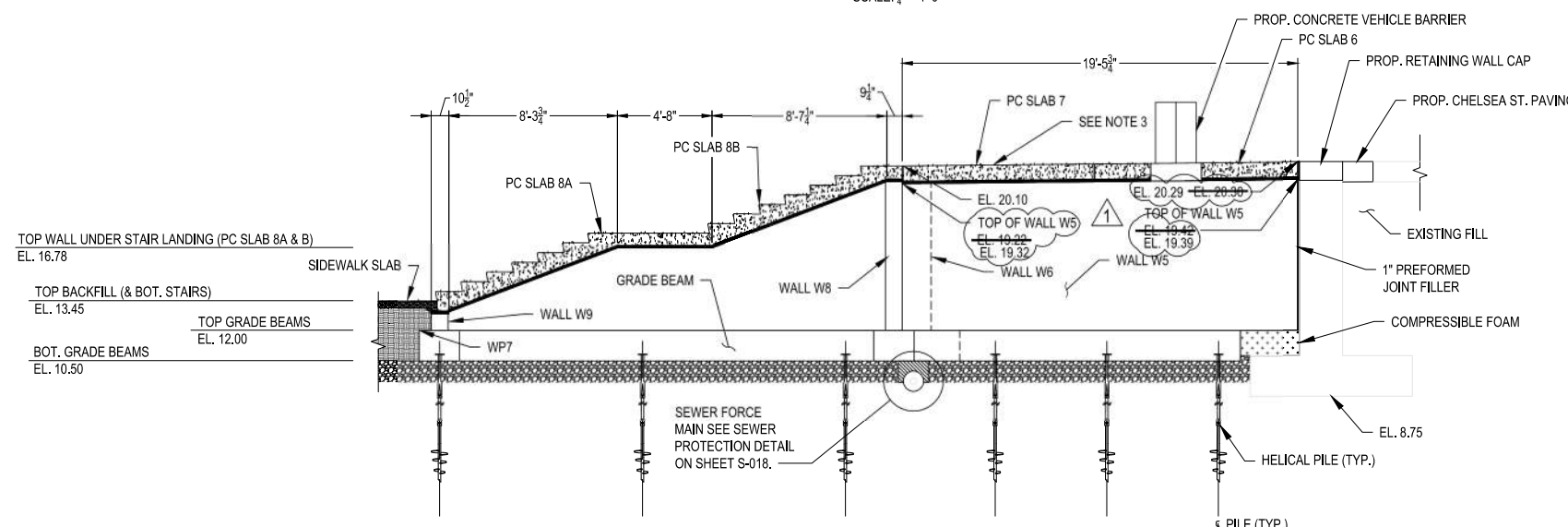
TOP WALL W9
EL. 12.77
EL. 12.77

TOP GRADE BEAMS
EL. 12.00

BOT. GRADE BEAMS
EL. 10.50



WALL W9 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



WALL W5 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

TOP WALL UNDER STAIR LANDING (PC SLAB 8A & B)
EL. 16.78

TOP BACKFILL (& BOT. STAIRS)
EL. 13.45

TOP GRADE BEAMS
EL. 12.00

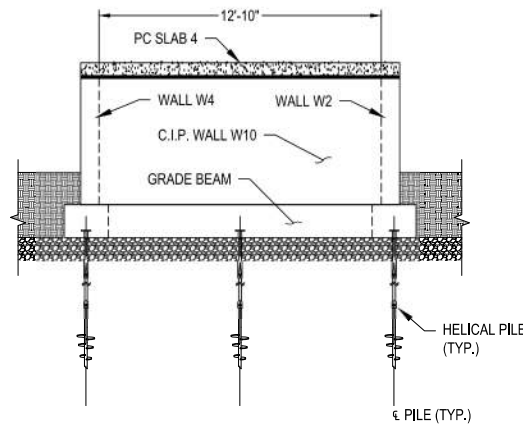
BOT. GRADE BEAMS
EL. 10.50

TOP WALL W10
EL. 17.74
EL. 17.65

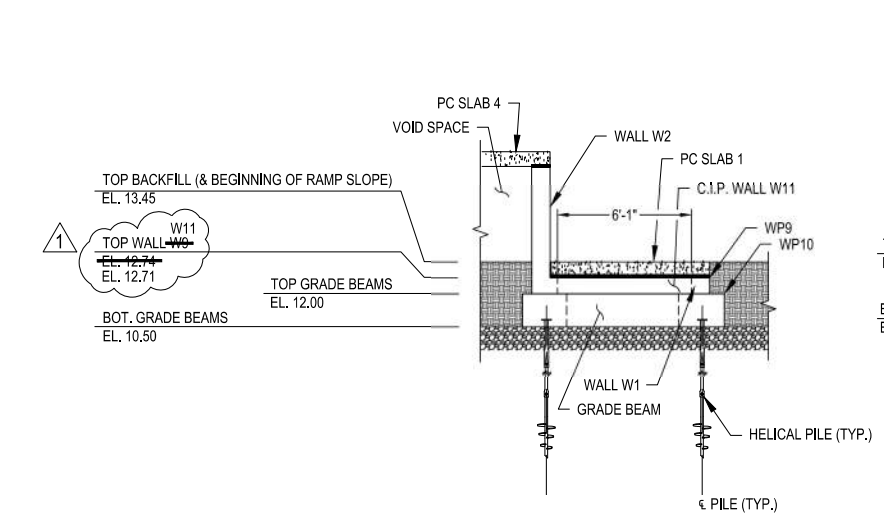
TOP BACKFILL (& BOT. STAIRS)
EL. 13.45

TOP GRADE BEAMS
EL. 12.00

BOT. GRADE BEAMS
EL. 10.50



WALL W10 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



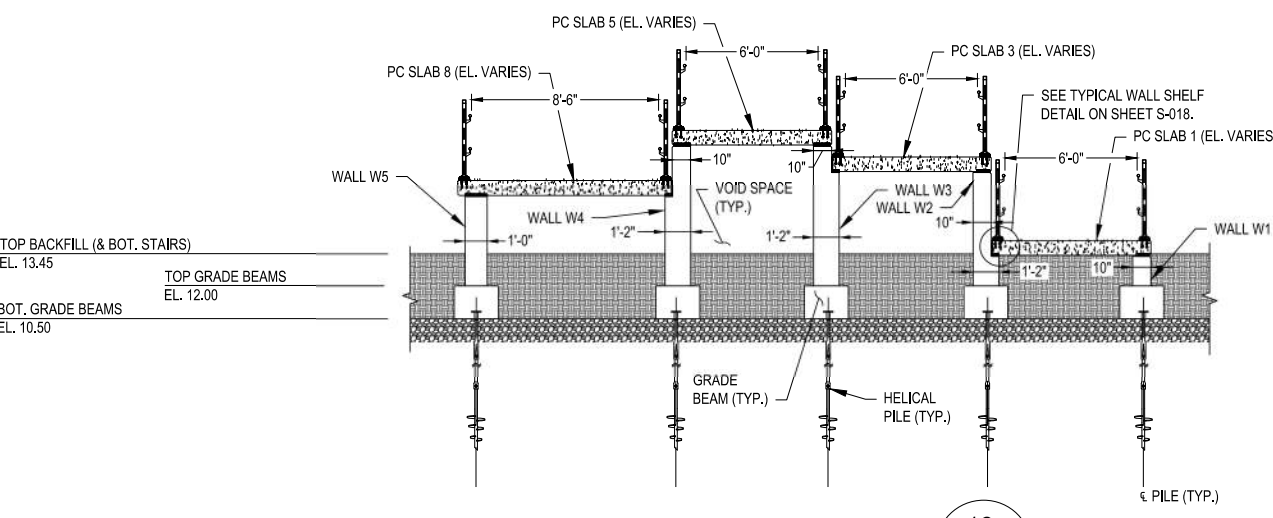
WALL W11 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

TOP BACKFILL (& BEGINNING OF RAMP SLOPE)
EL. 13.45

TOP WALL W11
EL. 12.74
EL. 12.71

TOP GRADE BEAMS
EL. 12.00

BOT. GRADE BEAMS
EL. 10.50



TYPICAL SECTION 12 S-010
SCALE: 1/4" = 1'-0"

- NOTES:
- SEE APPLICABLE NOTES ON SHEET S-012.
 - FOR PC SLAB 8A & 8B (STAIR SLAB) DIMENSIONS AND DETAILS, SEE SHEET S-015.
 - A JOINT RUNS ALONG THE CL OF WALL W5 BETWEEN PC SLABS 7 AND 10, AND PC SLABS 6 AND 9. PC SLABS 10 AND 9 ARE NOT SHOWN FOR CLARITY.
 - FOR MORE INFORMATION REGARDING WORK POINTS, SEE SHEET S-002.



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1 LOCATION CODE:

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING

I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
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HAS BEEN COMPLETED AS SHOWN.

SIGNED *Rob O'Sullivan*

NOTE: WORDING CONTAINED HEREIN IS
UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	10/19/21	DIMENSION ISSUES	BEF
2	11/29/22	RECORD DRAWINGS	

PRIMARY:

HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:

M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

M666_S014 - PROPOSED PRECAST
SLAB DETAILS 1

DISCIPLINE:

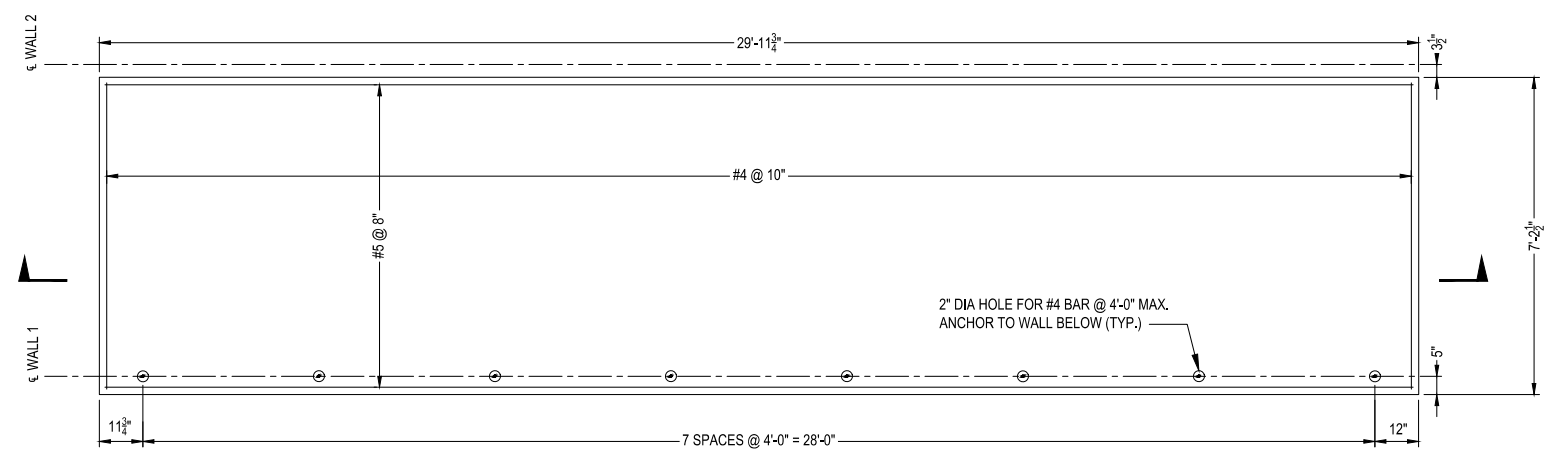
STRUCTURES

DRAWN BY:	CHECKED BY:	APPROVED BY:
DD	PCM	RX

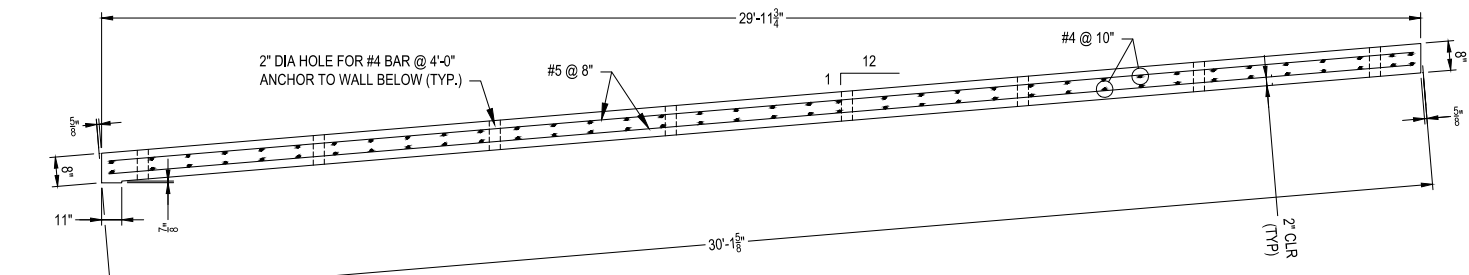
SCALE:	DATE:
AS NOTED	MAY 2021

DRAWING NAME: SHEET 25 OF 30

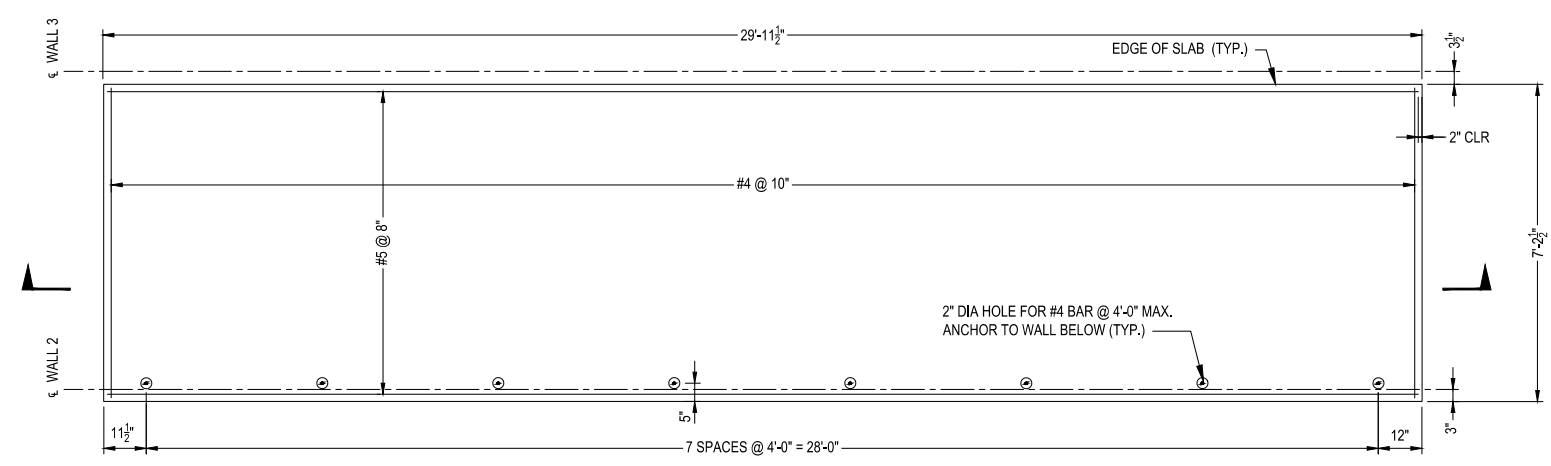
S-014



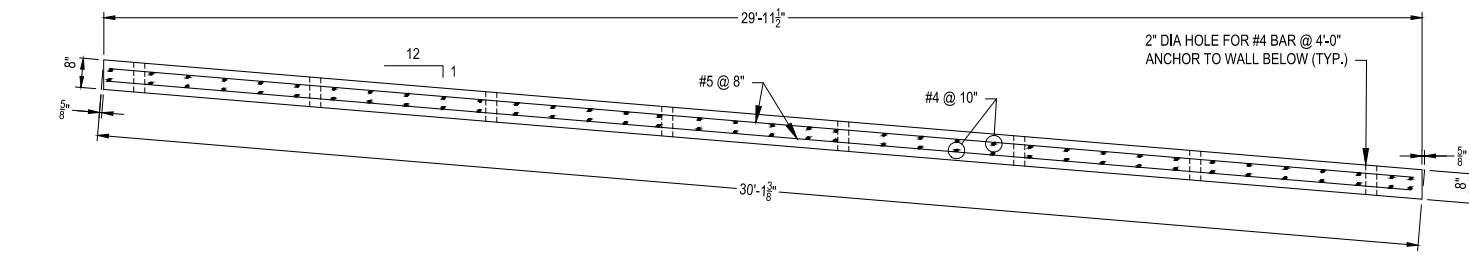
PRECAST SLAB 1 PLAN
SCALE: 1/2" = 1'-0"



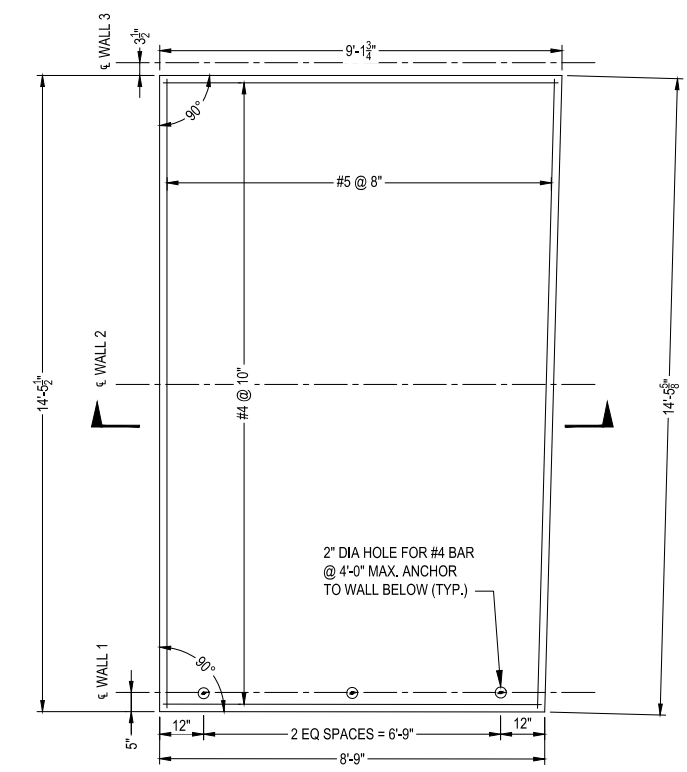
PRECAST SLAB 1 SECTION
SCALE: 1/2" = 1'-0"



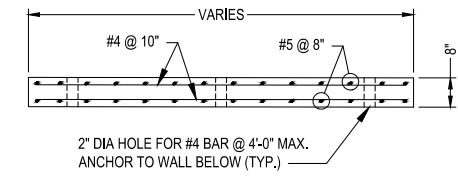
PRECAST SLAB 3 PLAN
SCALE: 1/2" = 1'-0"



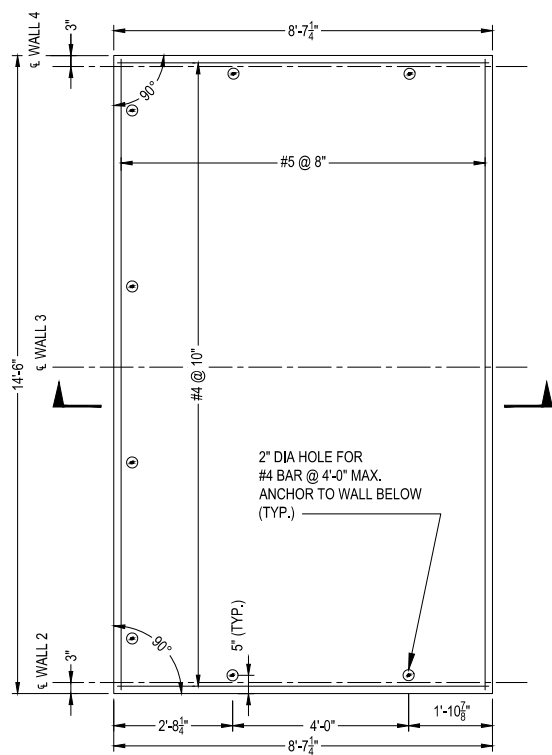
PRECAST SLAB 3 SECTION
SCALE: 1/2" = 1'-0"



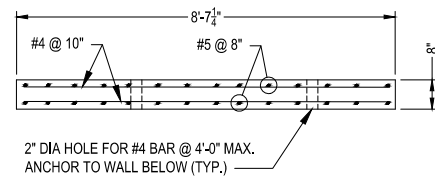
PRECAST SLAB 2 PLAN
SCALE: 1/2" = 1'-0"



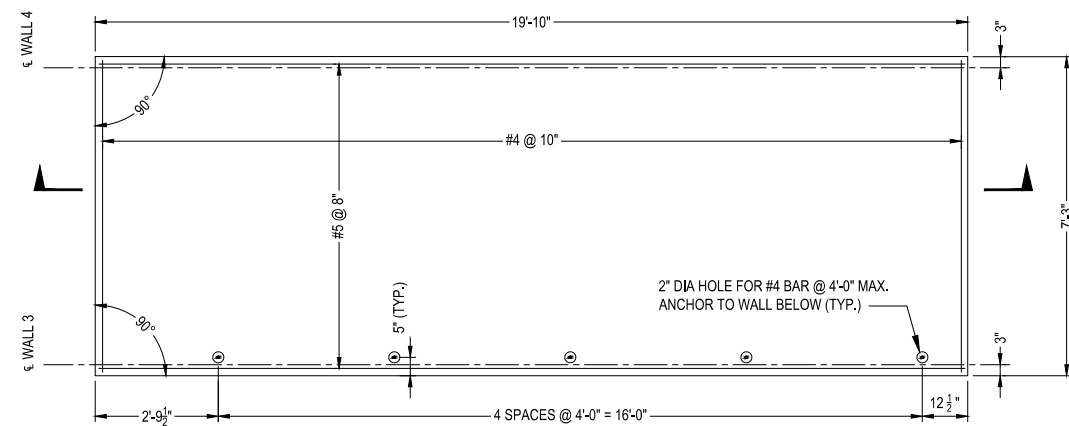
PRECAST SLAB 2 SECTION
SCALE: 1/2" = 1'-0"



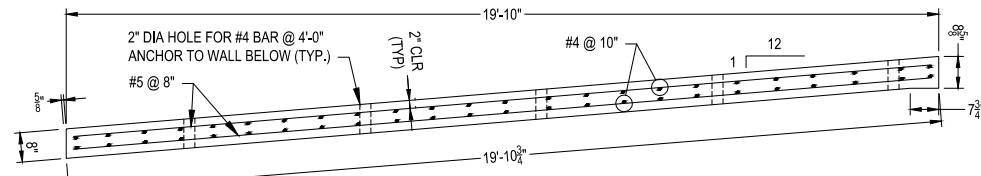
PRECAST SLAB 4 PLAN
SCALE: 1/2" = 1'-0"



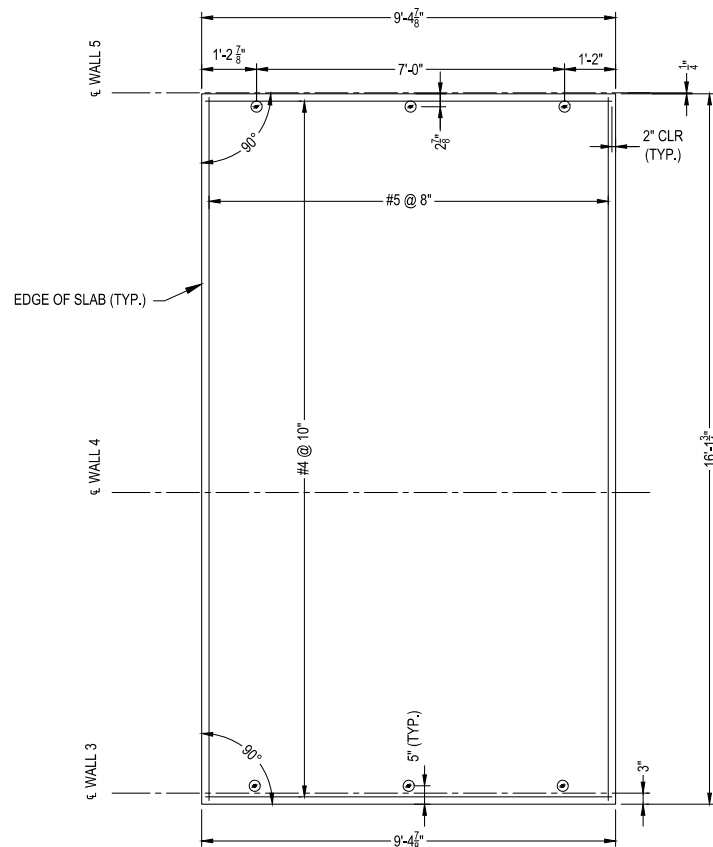
PRECAST SLAB 4 SECTION
SCALE: 1/2" = 1'-0"



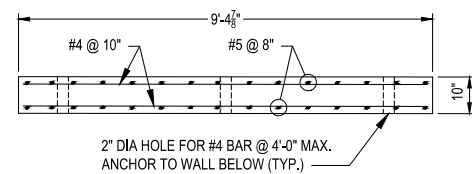
PRECAST SLAB 5 PLAN
SCALE: 1/2" = 1'-0"



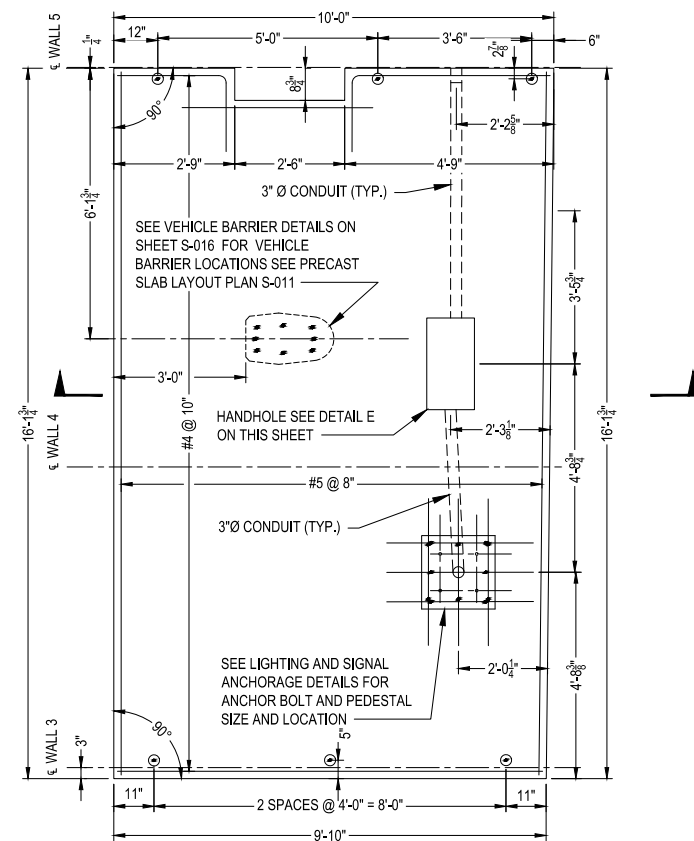
PRECAST SLAB 5 SECTION
SCALE: 1/2" = 1'-0"



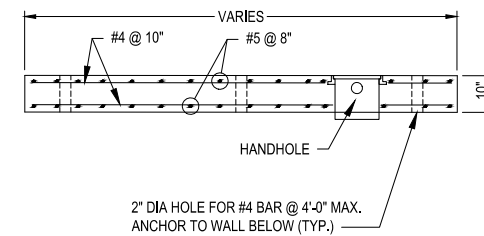
PRECAST SLAB 7 PLAN
SCALE: 1/2" = 1'-0"



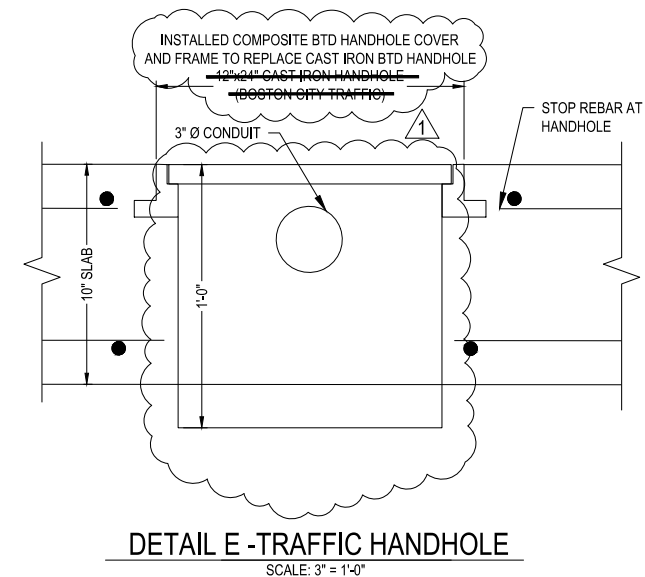
PRECAST SLAB 7 SECTION
SCALE: 1/2" = 1'-0"



PRECAST SLAB 6 PLAN
SCALE: 1/2" = 1'-0"



PRECAST SLAB 6 SECTION
SCALE: 1/2" = 1'-0"



DETAIL E - TRAFFIC HANDHOLE
SCALE: 3" = 1'-0"



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
I HEREBY CERTIFY THAT TO THE BEST OF MY
KNOWLEDGE, BASED UPON CONSTRUCTION
RECORDS PROVIDED BY THE CONTRACTOR,
THAT ALL WORK SHOWN ON THIS DRAWING
HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob [Signature]*
NOTE: WORDING CONTAINED HEREON IS
UNDERSTOOD TO BE PAST TENSE.



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/20/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
M666_S015 - PROPOSED PRECAST
SLAB DETAILS 2

DISCIPLINE:
STRUCTURES

DRAWN BY: DD	CHECKED BY: PCM	APPROVED BY: RX
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SCALE: AS NOTED	DATE: MAY 2021
--------------------	-------------------

DRAWING NAME: SHEET 26 OF 30

S-015



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1
LOCATION CODE:
PROJECT SUBMISSION PHASE:

RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
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SIGNED: *Rob [Signature]*

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KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY
1	8/12/21	SLAB 10 EMAIL 8/11/21	PCM
2	10/19/21	DIMENSION CHANGE	BEF
3	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:

M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

M666_S016 - PROPOSED PRECAST
SLAB DETAILS 3

DISCIPLINE:

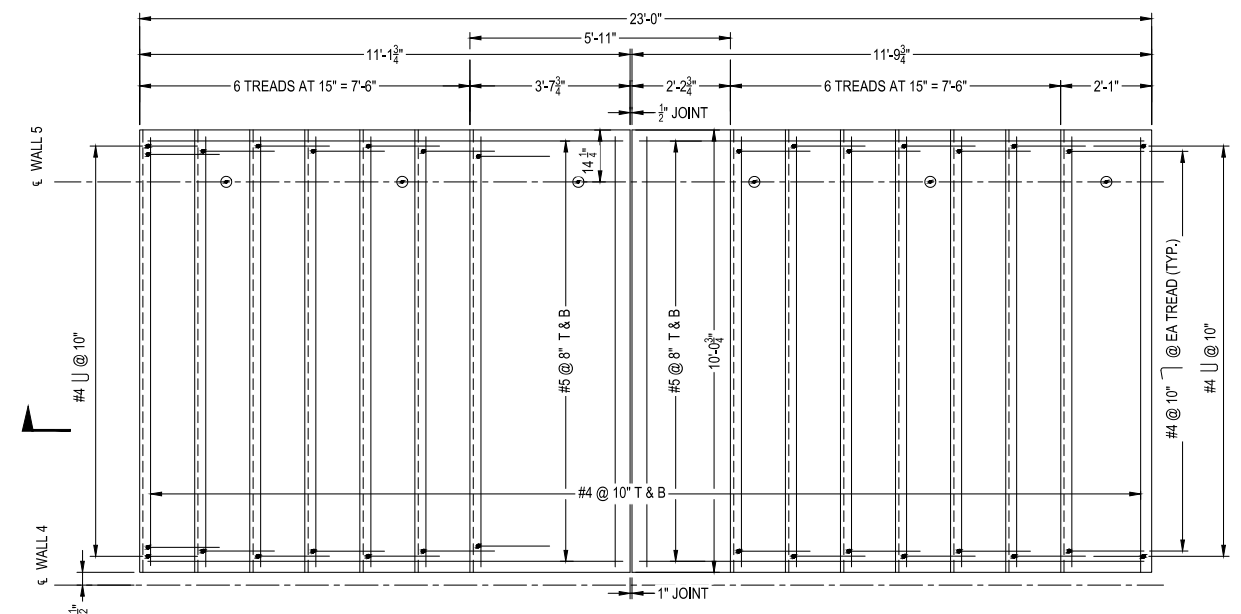
STRUCTURES

DRAWN BY: DD CHECKED BY: PCM APPROVED BY: RX

SCALE: AS NOTED DATE: MAY 2021

DRAWING NAME: SHEET 27 OF 30

S-016

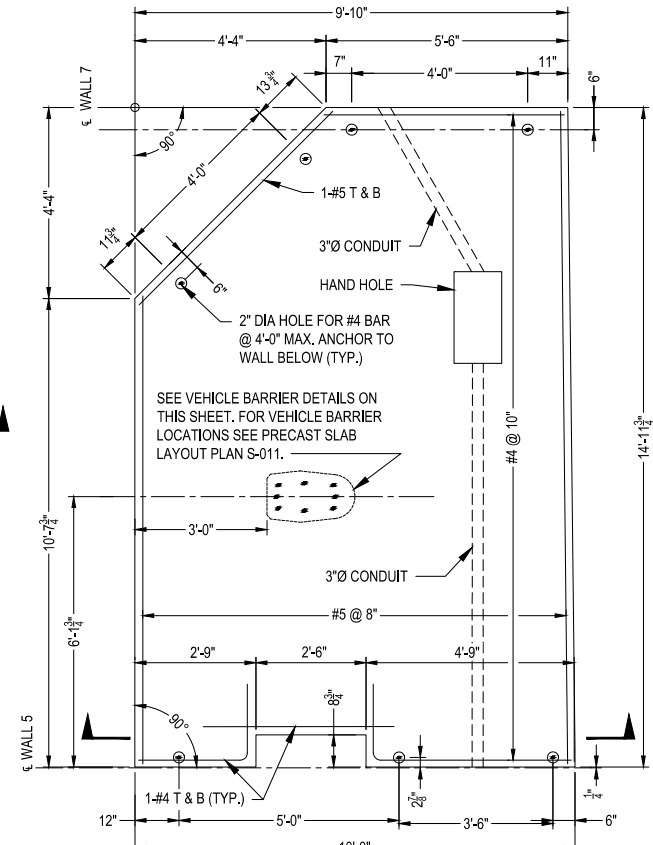


PRECAST STAIR 8A PLAN

SCALE: 1/2" = 1'-0"

PRECAST STAIR 8B PLAN

SCALE: 1/2" = 1'-0"

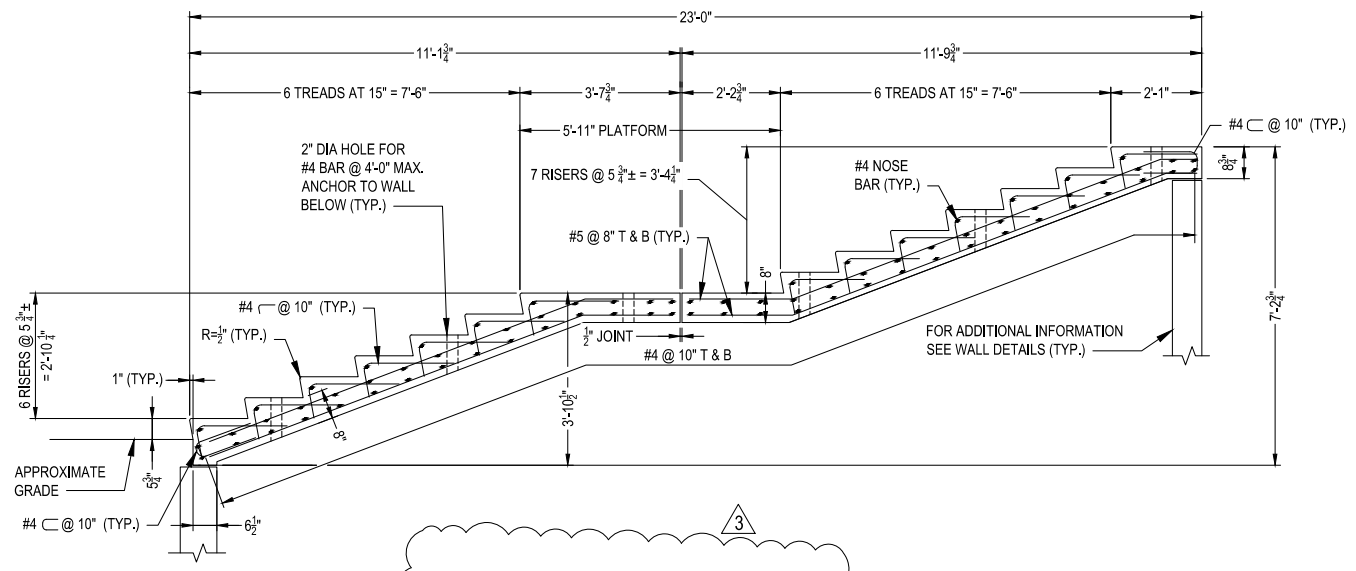


PRECAST SLAB 9 PLAN

SCALE: 1/2" = 1'-0"

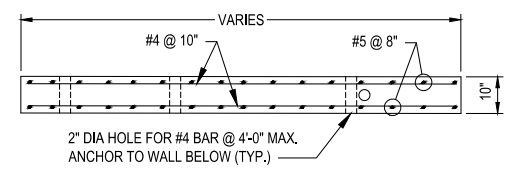
PRECAST SLAB 10 PLAN

SCALE: 1/2" = 1'-0"



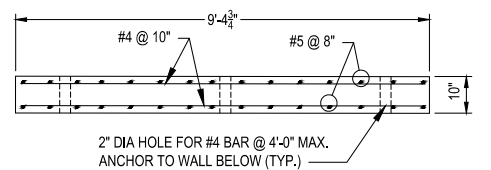
CAST-IN-PLACE STAIR SECTION

SCALE: 1/2" = 1'-0"



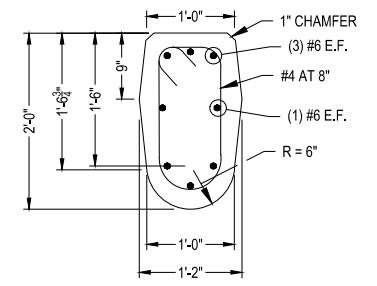
PRECAST SLAB 9 SECTION

SCALE: 1/2" = 1'-0"



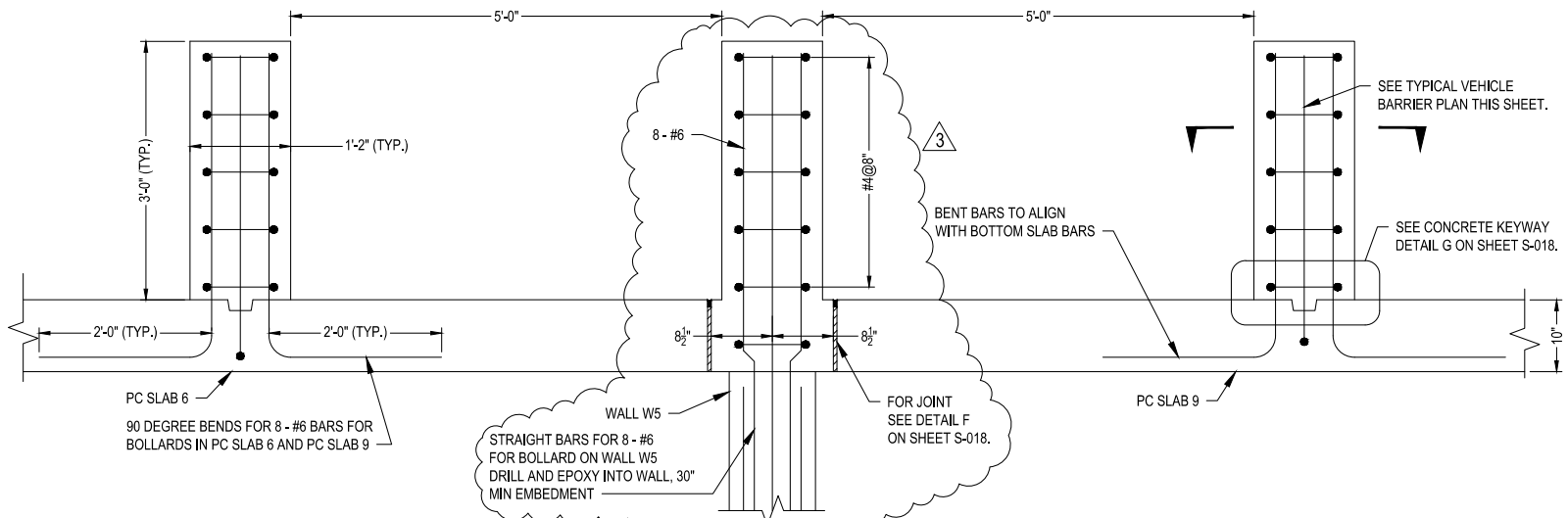
PRECAST SLAB 10 SECTION

SCALE: 1/2" = 1'-0"



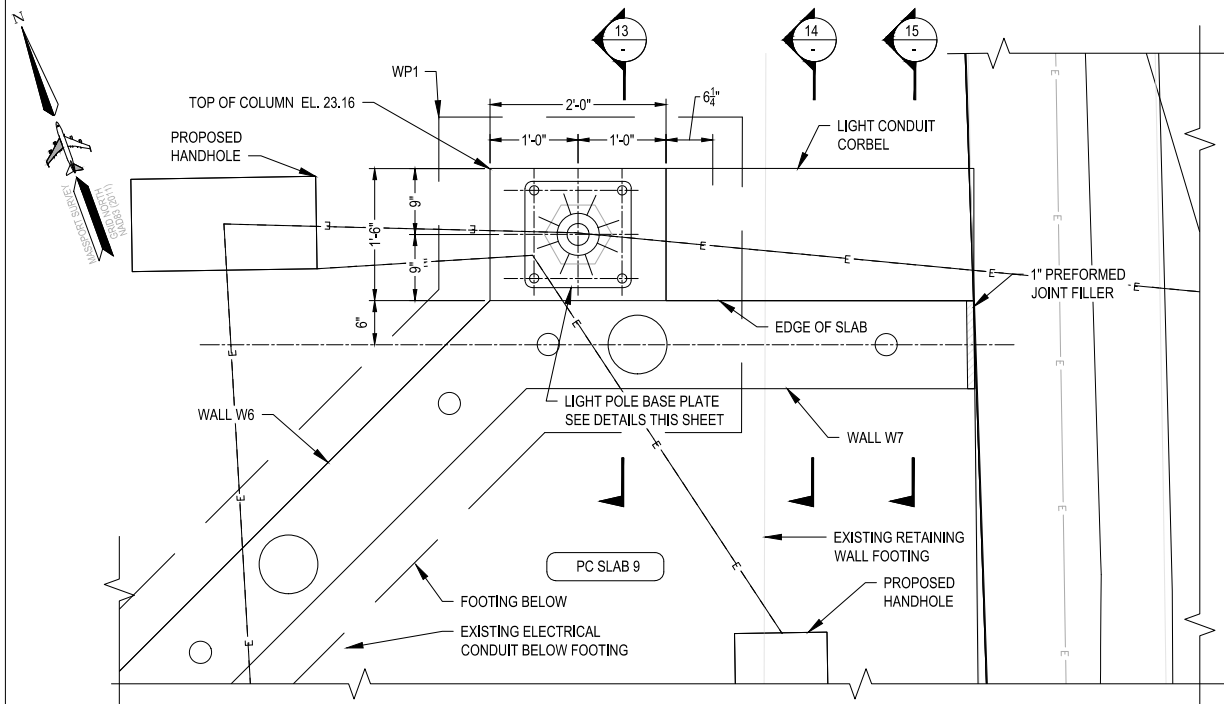
TYPICAL VEHICLE BARRIER SECTION

SCALE: 1" = 1'-0"



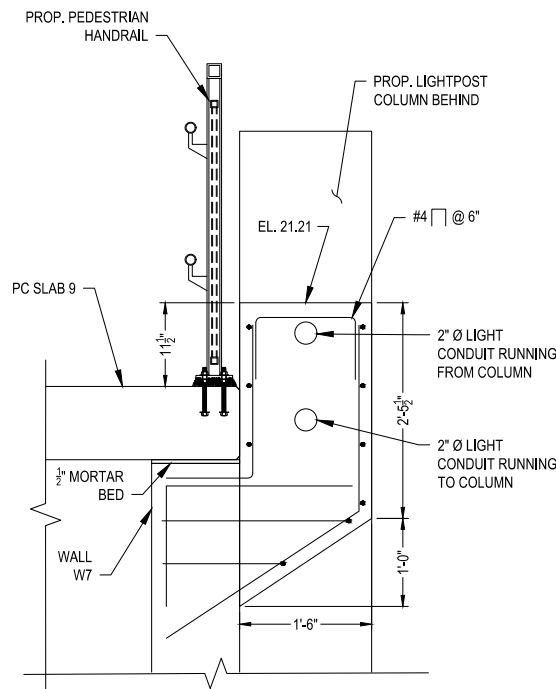
TYPICAL VEHICLE BARRIER ELEVATION

SCALE: 1" = 1'-0"



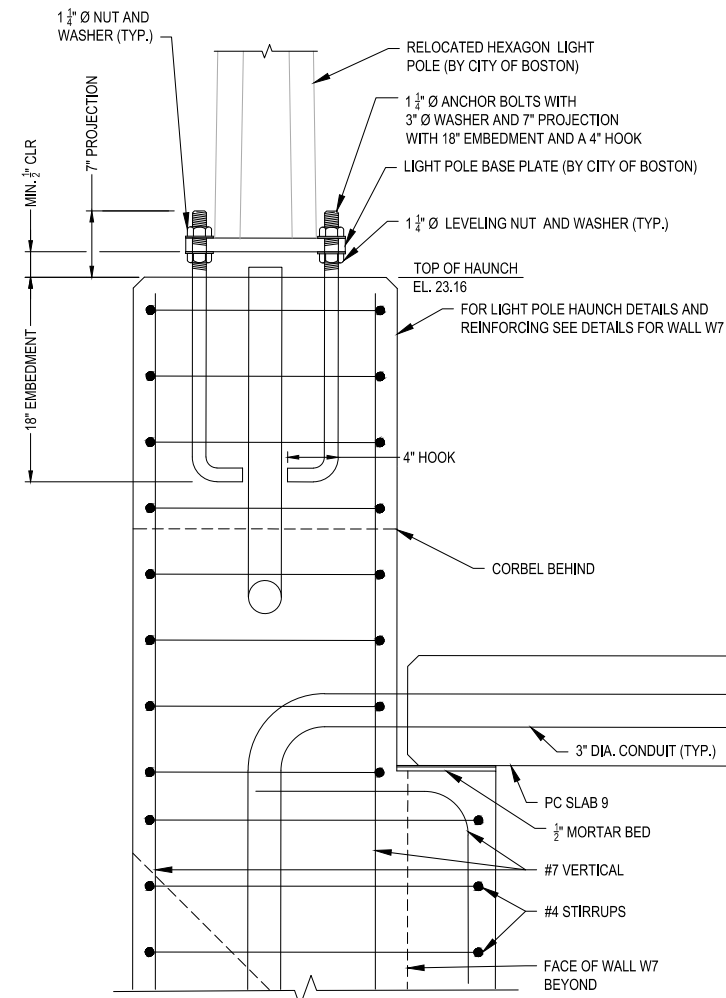
PART PLAN AT LIGHT POLE

SCALE: 1" = 1'-0"



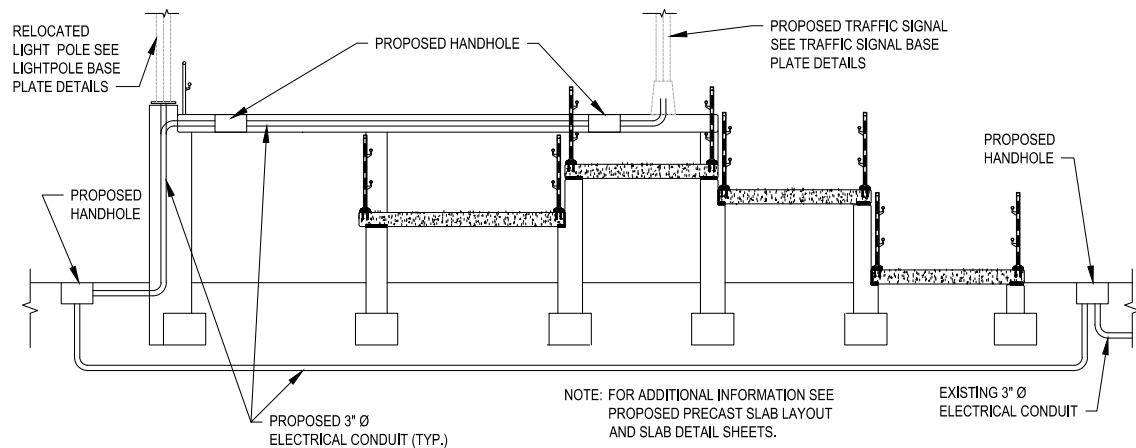
PROP. LIGHTING CONDUIT CORBEL 15

SCALE: 1" = 1'-0"



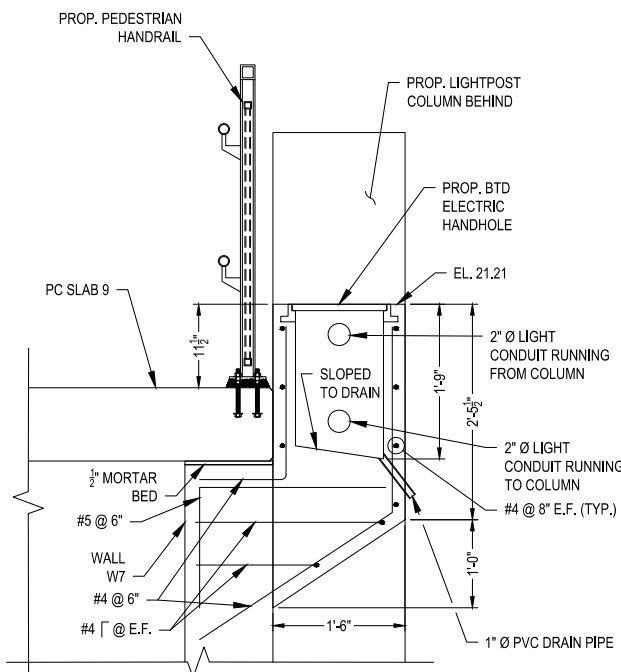
LIGHT POLE COLUMN AND BASE PLATE 13

SCALE: 1 1/2" = 1'-0"



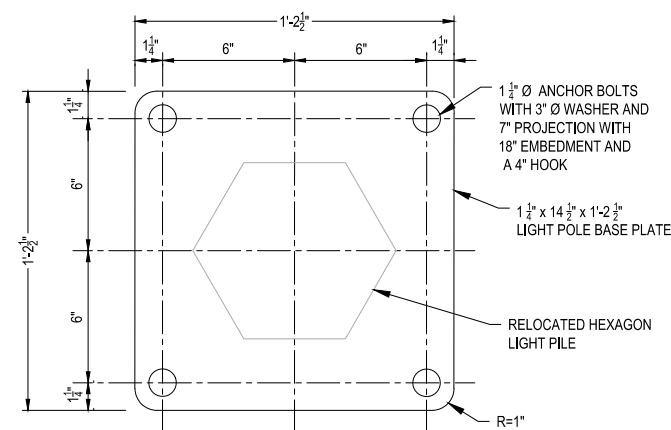
SCHEMATIC CONDUIT SECTION (LOOKING EAST)

NOT TO SCALE



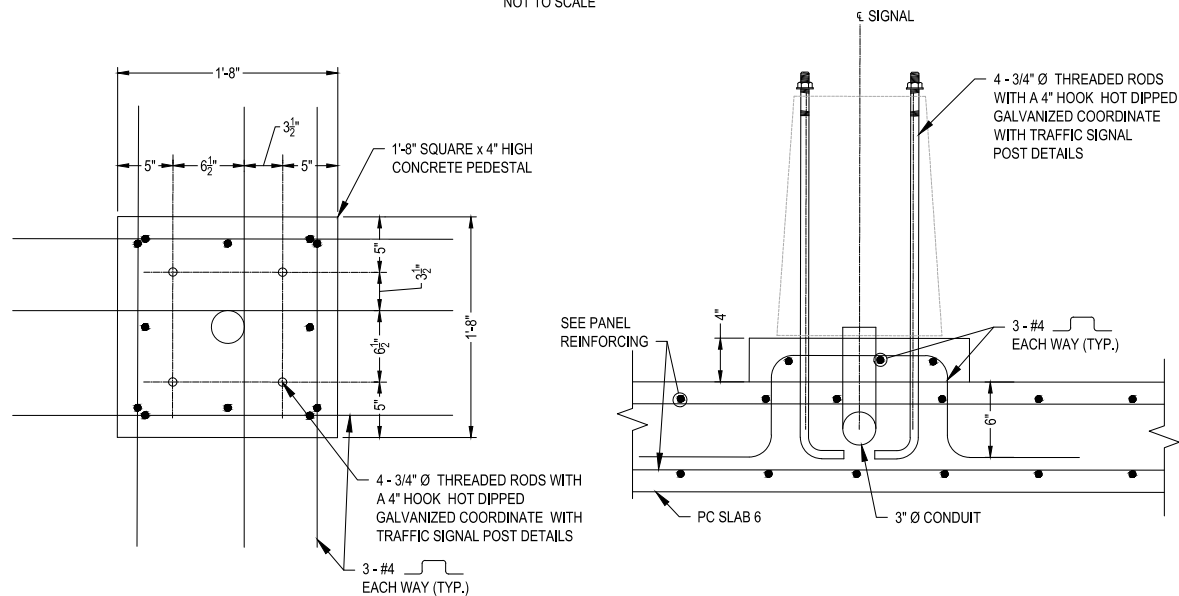
PROP. LIGHTING CONDUIT CORBEL - THROUGH HANDHOLE 14

SCALE: 1" = 1'-0"



EXISTING LIGHT POLE BASE PLATE PLAN

SCALE: 3" = 1'-0"



TRAFFIC SIGNAL BASE PLAN

SCALE: 1 1/2" = 1'-0"

TRAFFIC SIGNAL BASE SECTION

SCALE: 1 1/2" = 1'-0"



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.:
M666 - C1

LOCATION CODE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING
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SIGNED: *Rob [Signature]*

NOTE: WORDING CONTAINED HEREON IS
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KEY PLAN:



REV NO.	DATE	DESCRIPTION	BY
1	11/28/22	RECORD DRAWINGS	

PRIMARY:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:
**M666_S017 - LIGHTING AND SIGNAL
ANCHORAGE DETAILS**

DISCIPLINE:
STRUCTURES

DRAWN BY: DD	CHECKED BY: PCM	APPROVED BY: RX
SCALE: AS NOTED	DATE: MAY 2021	

DRAWING NAME: SHEET 28 OF 30

S-017



REV NO.	DATE	DESCRIPTION	BY
1	11/28/22	RECORD DRAWINGS	

CONSULTANT:
HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

PROJECT NUMBER AND TITLE:
M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

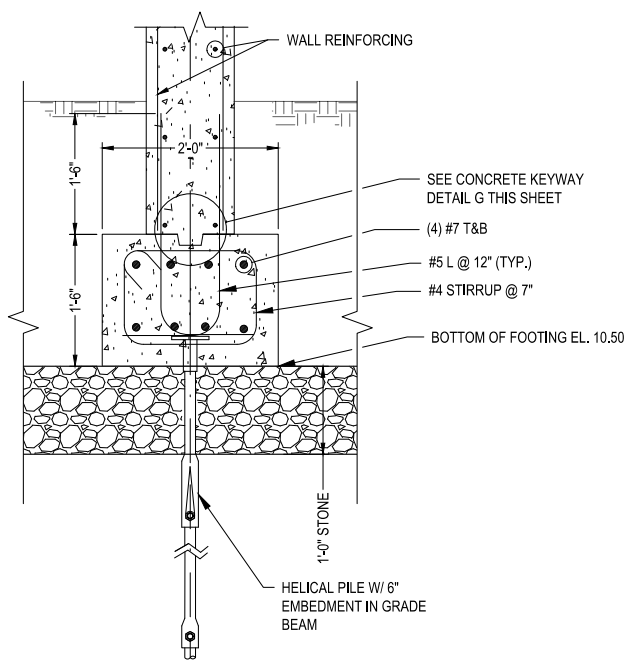
SHEET TITLE:
M666_S018 - MISCELLANEOUS
DETAILS

DISCIPLINE:
STRUCTURES

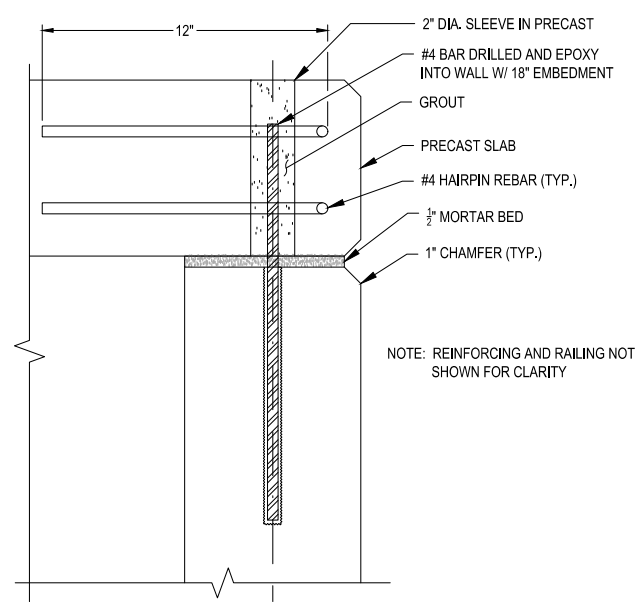
DRAWN BY: BEF CHECKED BY: PCM APPROVED BY: RX

SCALE: AS NOTED DATE: MAY 2021

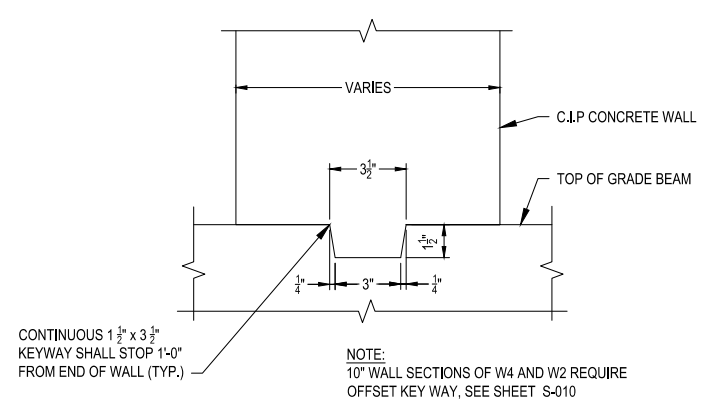
DRAWING NAME: SHEET 29 OF 30



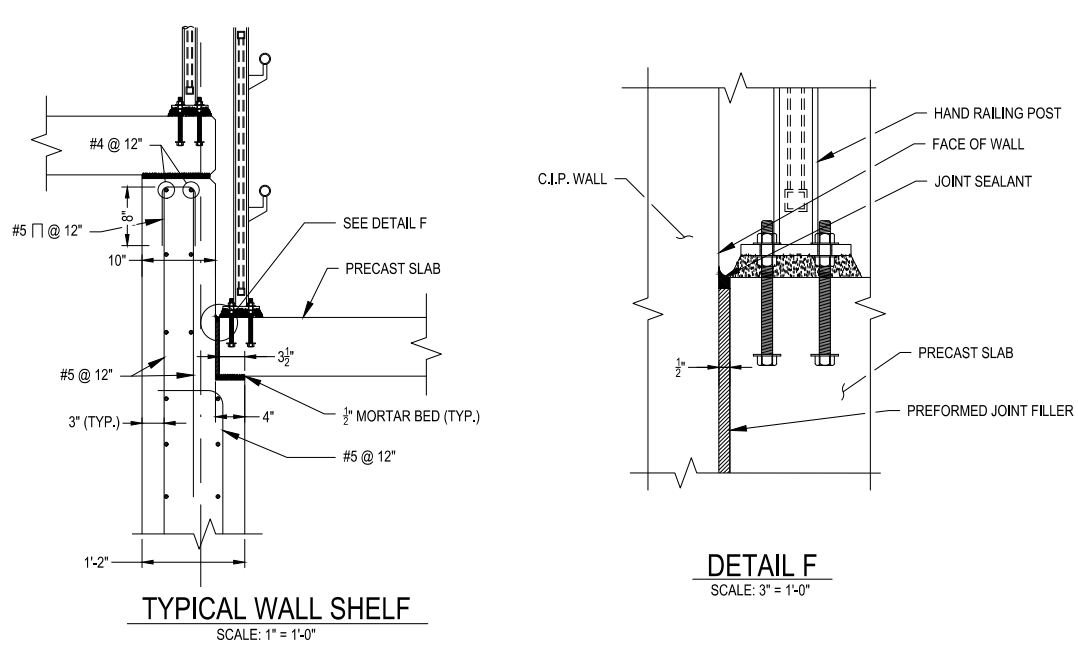
TYPICAL GRADE BEAM
SCALE: 1" = 1'-0"



TYPICAL SLAB CONNECTION
SCALE: 3" = 1'-0"

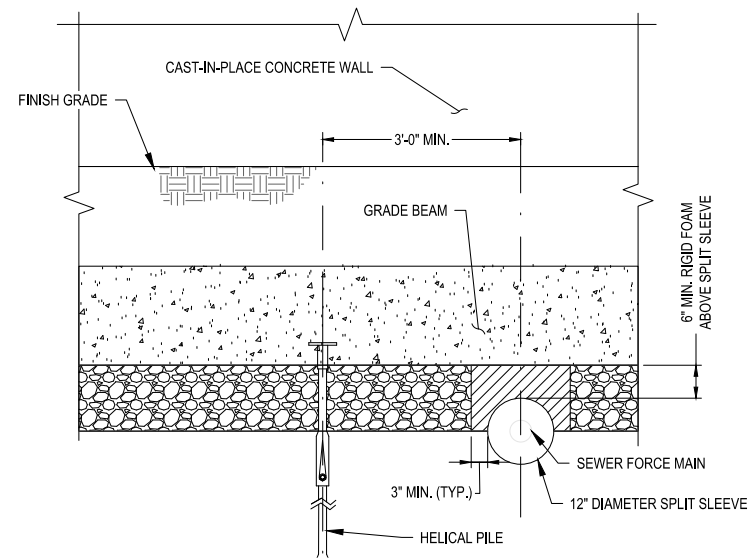


DETAIL G - CONCRETE KEYWAY
SCALE: 3" = 1'-0"

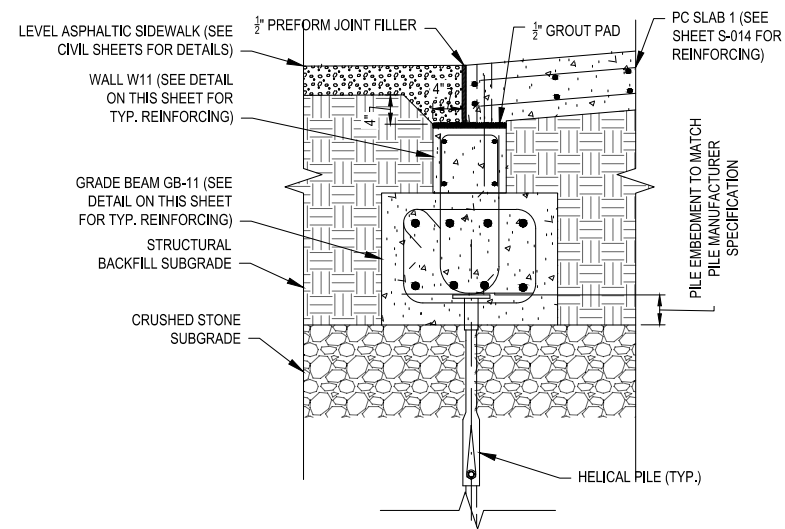


TYPICAL WALL SHELF
SCALE: 1" = 1'-0"

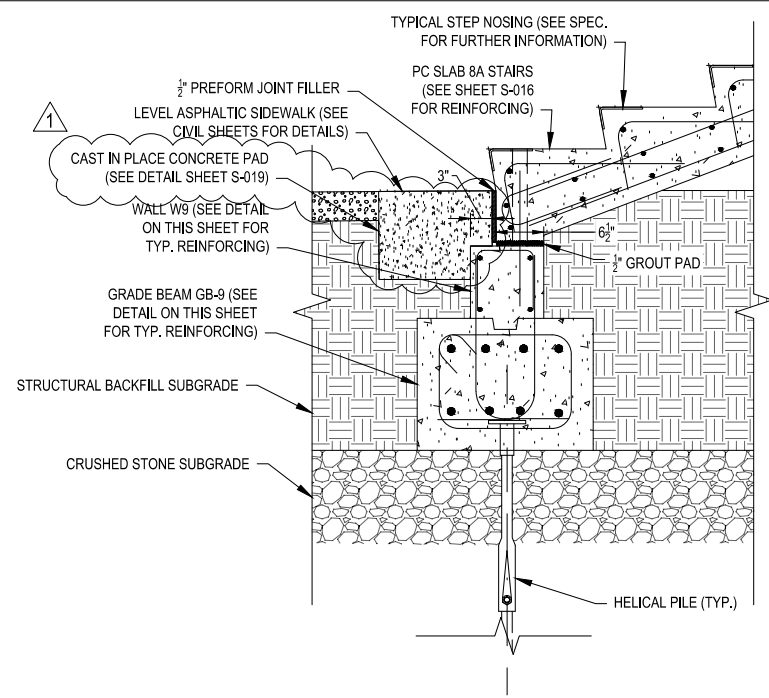
DETAIL F
SCALE: 3" = 1'-0"



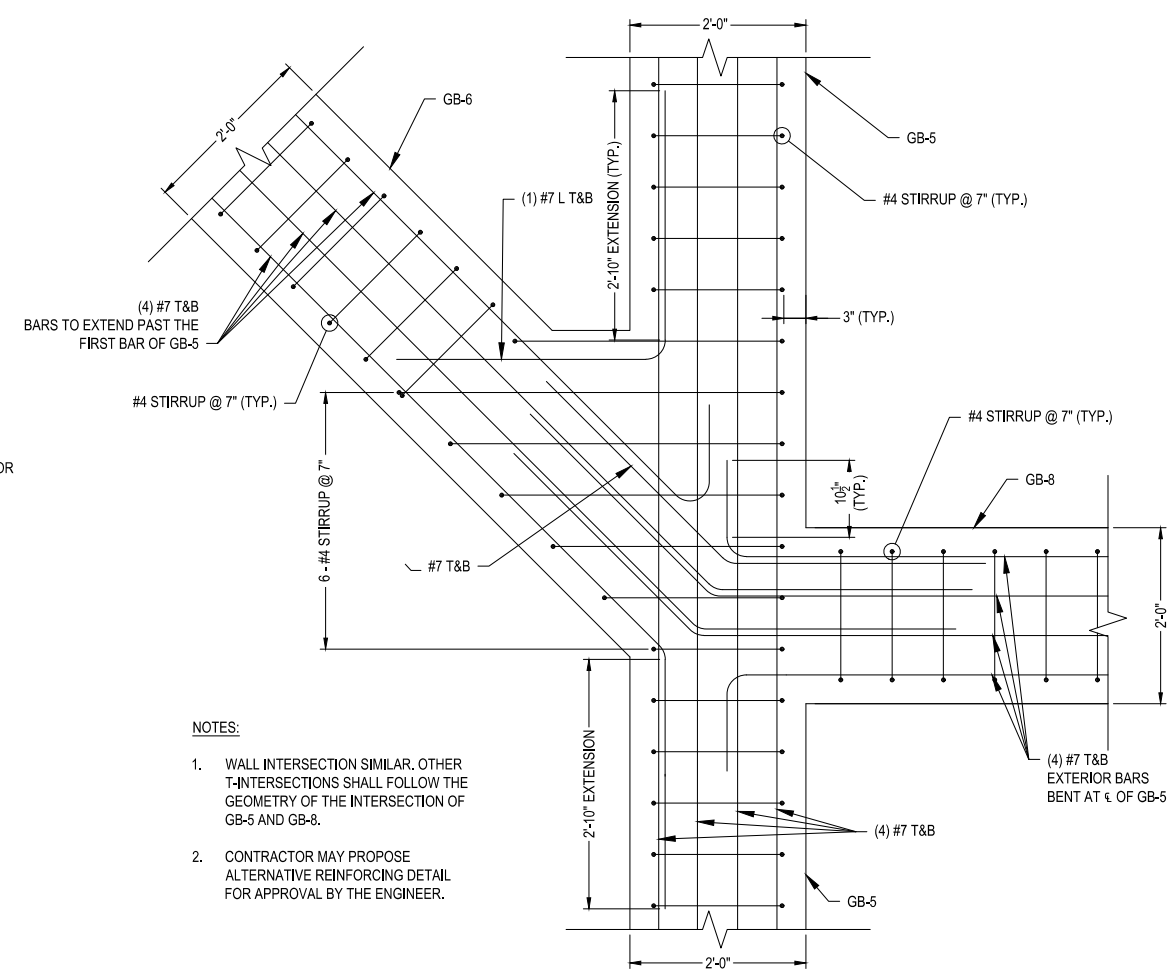
SEWER PROTECTION
SCALE: 3/4" = 1'-0"



DETAIL H - RAMP BOTTOM TERMINATION
SCALE: 1" = 1'-0"

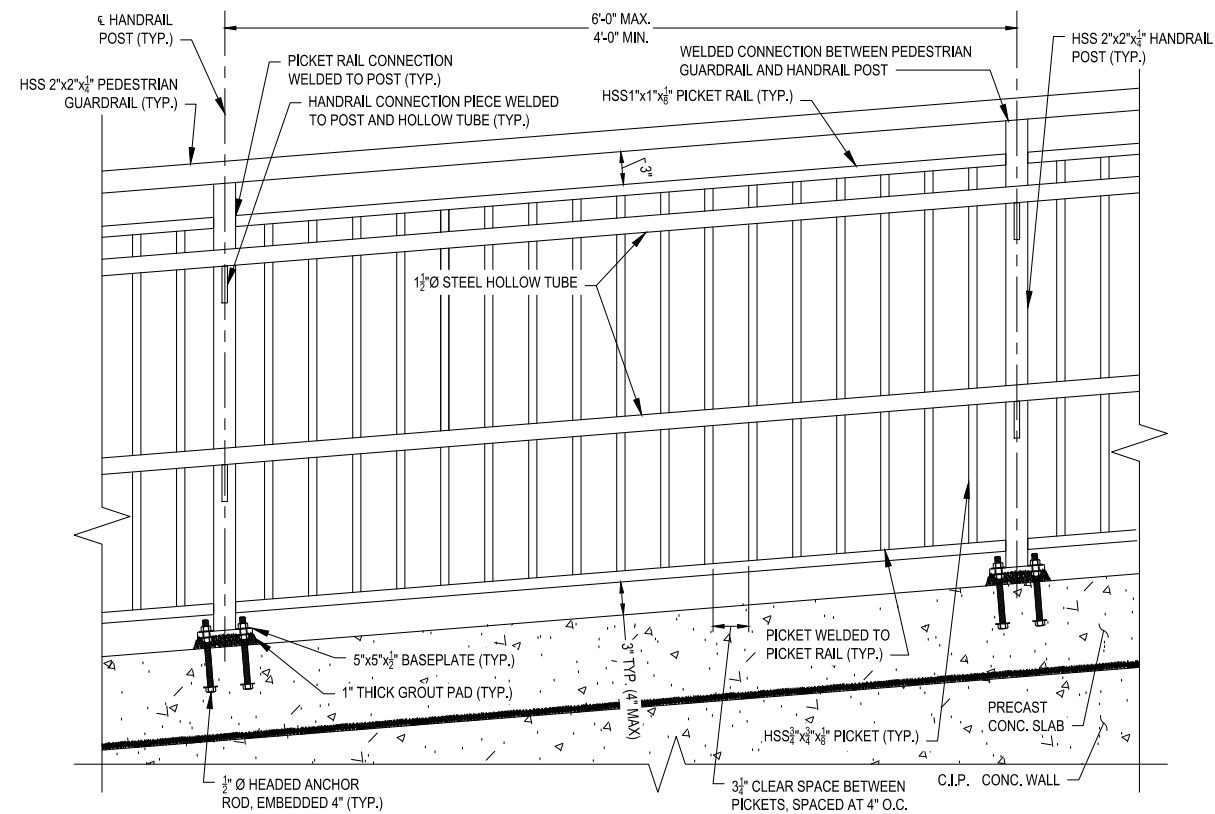


DETAIL I - STAIR BOTTOM TERMINATION
SCALE: 1" = 1'-0"



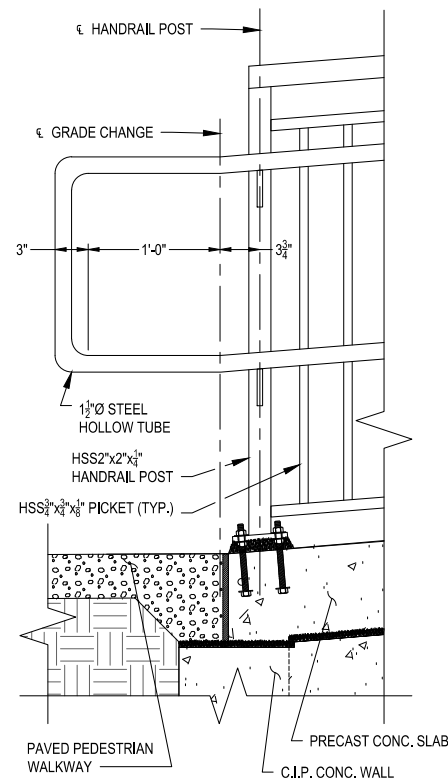
INTERSECTION OF GB-5 / GB-6 / GB-8
(WALL DETAIL SIMILAR)
SCALE: 1" = 1'-0"

- NOTES:**
1. WALL INTERSECTION SIMILAR, OTHER T-INTERSECTIONS SHALL FOLLOW THE GEOMETRY OF THE INTERSECTION OF GB-5 AND GB-8.
 2. CONTRACTOR MAY PROPOSE ALTERNATIVE REINFORCING DETAIL FOR APPROVAL BY THE ENGINEER.



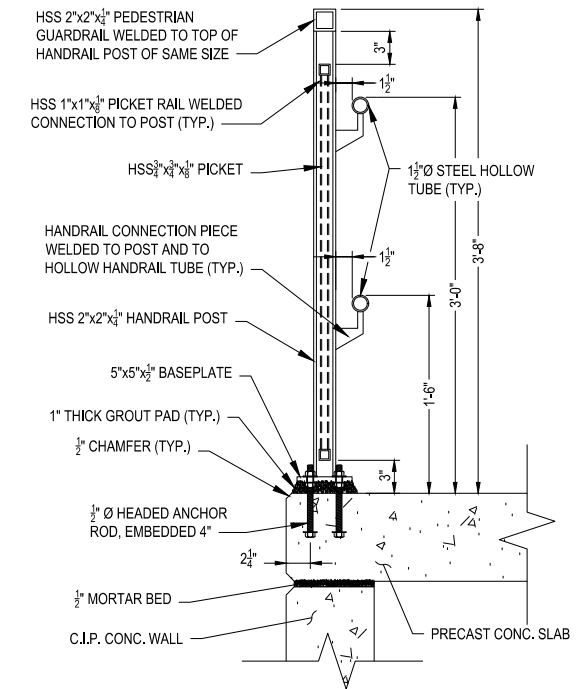
TYPICAL STEEL HANDRAIL ELEVATION

SCALE: 1 1/2" = 1'-0"



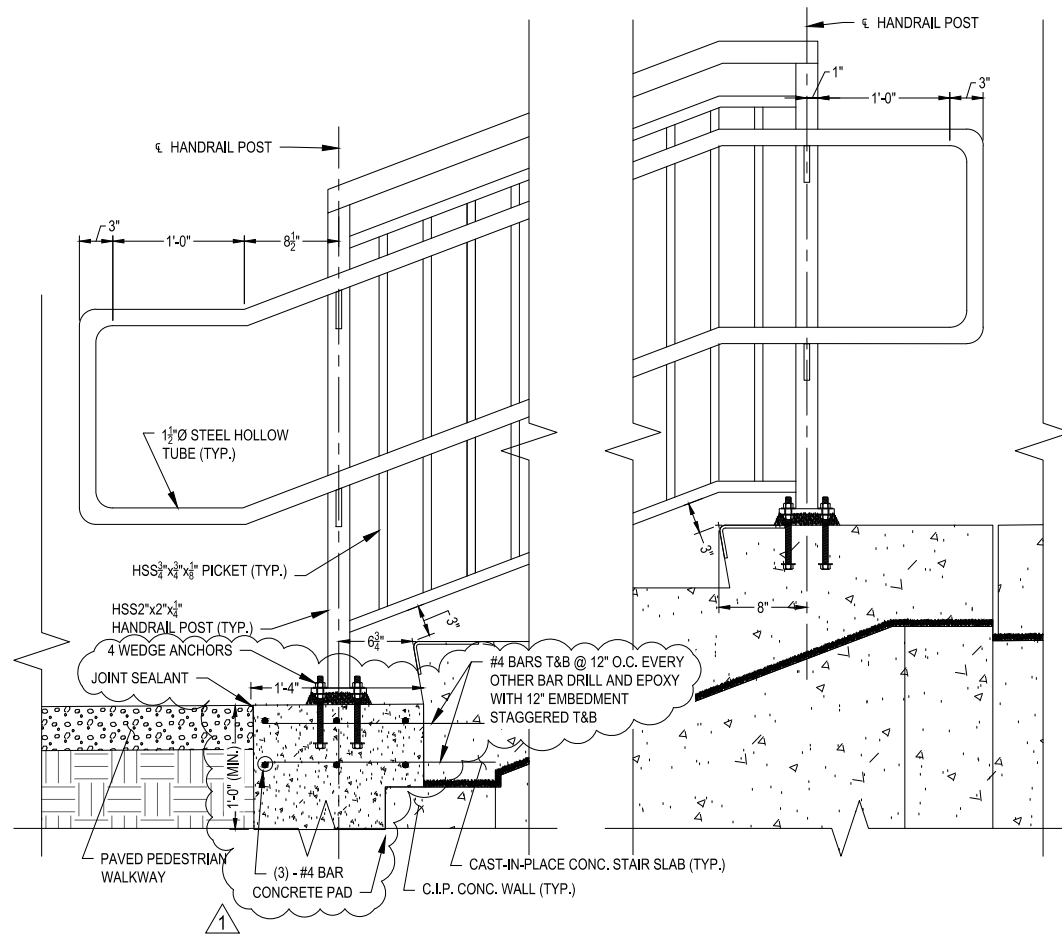
TYPICAL STEEL HANDRAIL TERMINATION DETAIL

SCALE: 1 1/2" = 1'-0"



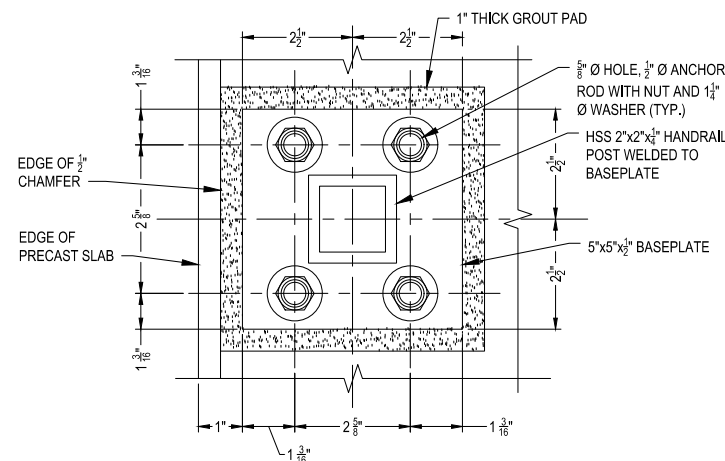
TYPICAL STEEL HANDRAIL SECTION

SCALE: 1 1/2" = 1'-0"



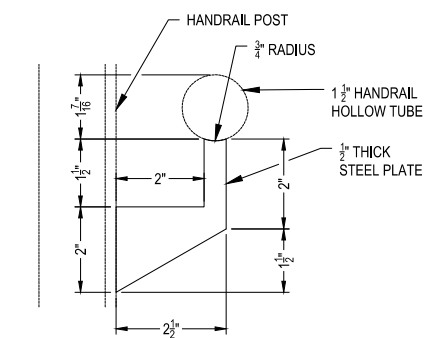
TYPICAL STEEL HANDRAIL STAIR TERMINATIONS

SCALE: 1 1/2" = 1'-0"



TYPICAL BASE PLATE DETAIL

SCALE: 6" = 1'-0"



TYPICAL HANDRAIL CONNECTION PLATE DETAIL

SCALE: 6" = 1'-0"



MASSACHUSETTS PORT AUTHORITY
EAST BOSTON, MASSACHUSETTS 02128

PROJECT LOCATION:
CHARLESTOWN COMMUNITY PATH -
COMPONENT 1 BARRY FIELD CONNECTOR

MPA CONTRACT NO.: M666 - C1 LOCATION CODE:

PROJECT SUBMISSION PHASE:
RECORD DRAWING

REGISTRATION STAMP:
RECORD DRAWING

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BASED UPON CONSTRUCTION RECORDS PROVIDED BY THE CONTRACTOR, THAT ALL WORK SHOWN ON THIS DRAWING HAS BEEN COMPLETED AS SHOWN.

SIGNED: *Rob Hamblett*

NOTE: WORDING CONTAINED HEREON IS UNDERSTOOD TO BE PAST TENSE.

KEY PLAN:



REVISIONS:

REV NO.	DATE	DESCRIPTION	BY:
1	11/28/22	RECORD DRAWINGS	

PRIMARY:

HDR
HDR ENGINEERING, INC.
99 HIGH STREET, SUITE 2300
BOSTON, MA 02110-2378
(617) 357-7700 www.hdrinc.com

CONSULTANT:

PROJECT NUMBER AND TITLE:

M666-C1
CHARLESTOWN
COMMUNITY PATH IMPROVEMENTS
BARRY FIELD CONNECTION
(COMPONENT 1)

SHEET TITLE:

M666_S019 - HANDRAIL DETAILS

DISCIPLINE:

STRUCTURES

DRAWN BY: DD	CHECKED BY: PCM	APPROVED BY: RX
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SCALE: AS NOTED	DATE: MAY 2021
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DRAWING NAME: SHEET 30 OF 30

S-019