CITY OF PORTLAND
PUBLIC SERVICES DEPARTMENT

CONTRACT DRAWINGS

CONGRESS SQUARE IMPROVEMENTS

WIN: 024293.00

DESIGNED BY:

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER
09/11/2025

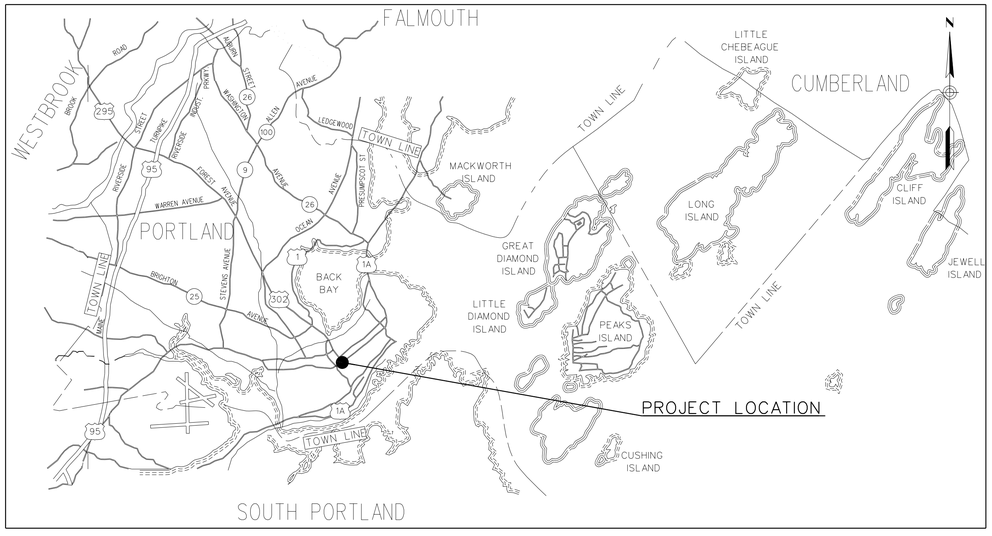
SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

IN ASSOCIATION WITH:

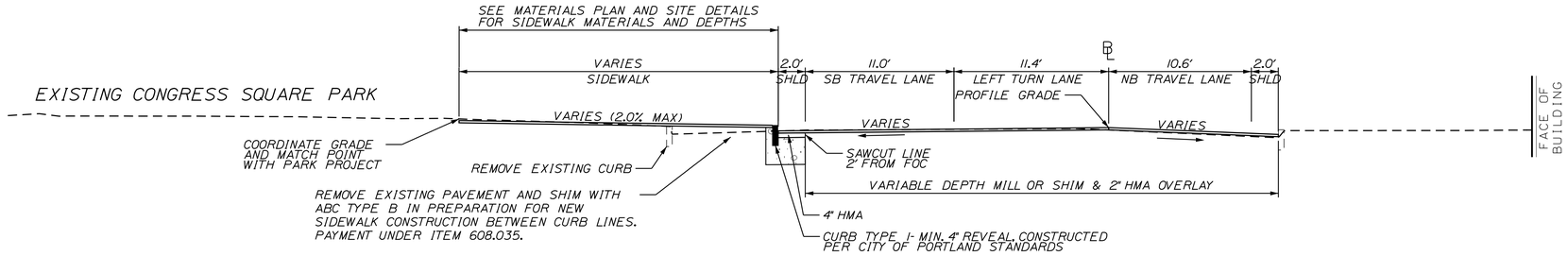
WRT

WRT, LLC
PHILADELPHIA, PA

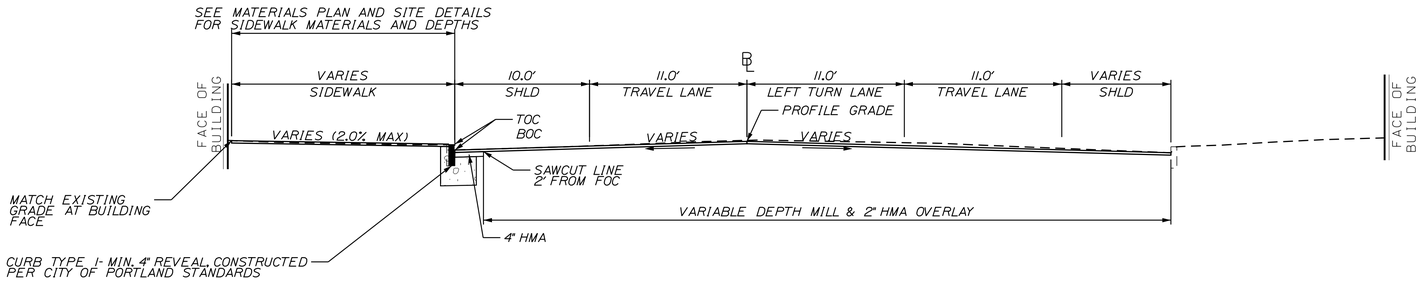
SEPTEMBER 11, 2025



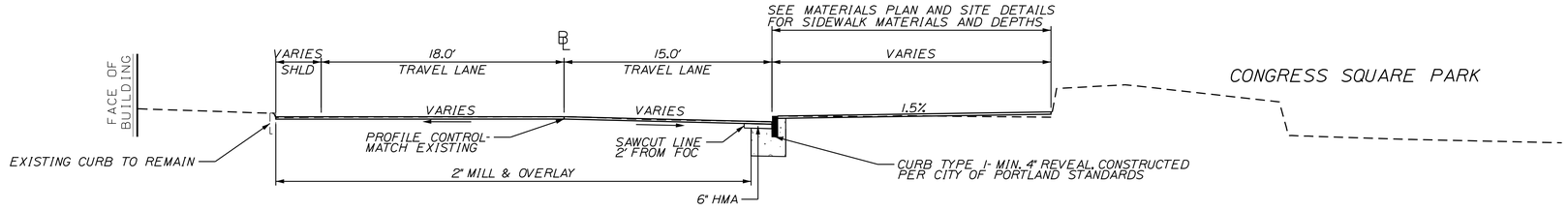
INDEX OF PLANS



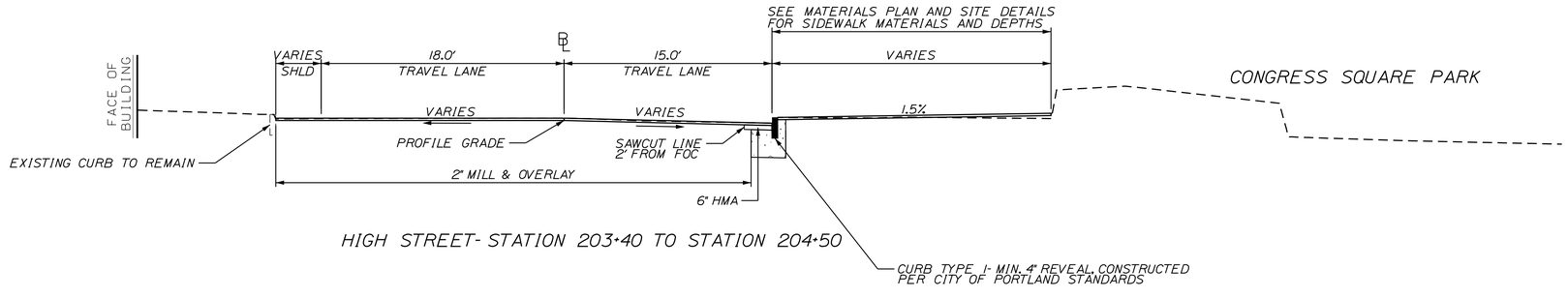
CONGRESS STREET- STATION 103+50 TO STATION 105+75



CONGRESS STREET- STATION 101+65 TO STATION 102+80



HIGH STREET- STATION 200+00 TO STATION 202+62 AND STATION 204+50 TO STATION 205+00



HIGH STREET- STATION 203+40 TO STATION 204+50

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	DATE:
AJR	AJR	BJRL	NTS	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
TYPICAL SECTIONS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET #
2 OF 39
PLAN NUMBER

GENERAL NOTES

1. ALL WORK UNDER THIS CONTRACT TO BE GOVERNED BY THE LATEST REVISION AND UPDATES OF THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, REVISION OF 2020, MAINEDOT'S STANDARD DETAILS REVISION OF 2020 WITH THE LATEST REVISIONS AND UPDATES, AS WELL AS THE CITY OF PORTLAND'S TRANSPORTATION SYSTEMS AND STREET DESIGN STANDARDS.

2. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THESE PLANS AND PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES,(MUTCD), LATEST EDITION. THE CONTRACTOR IS ALSO DIRECTED TO THE REQUIREMENTS SET FORTH FOR TRAFFIC CONTROL AND HOURS OF OPERATION IN THE PROJECT SPECIFICATIONS.

3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION CONTROL & SEDIMENT CONTROL, OCTOBER, 2016.

4. THE LOCATION OF THE EXISTING UTILITIES AND DRAINAGE SHOWN ON THE PLANS WERE COMPILED FROM FIELD SURVEY. LOCATIONS ARE APPROXIMATE AND NOT GUARANTEED TO BE ACCURATE. NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED. THE CONTRACTOR SHALL CONTACT DIG SAFE AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF THE MAINE "DIG SAFE LAW" CHAPTER 718, ENACTED ON 8-11-00. CONTRACTOR SHALL TAKE NOTICE OF THE FOLLOWING RULES:

   A. ENFORCEMENT - THE ADMINISTRATIVE PENALTY FOR VIOLATION OF MAINE DIG SAFE LAW IS AS FOLLOWS:
   FIRST OFFENSE = $500.00
   SUBSEQUENT OFFENCES (WITHIN 12 MONTHS) = $5,000.00

   THE PUC MAY ALSO REQUIRE A PERSON WHO VIOLATES THE MAINE DIG SAFE LAW TO PARTICIPATE, AT THE EXPENSE OF THE VIOLATOR,IN AN EDUCATIONAL PROGRAM DEVELOPED AND CONDUCTED BY DIG SAFE SYSTEM, INC.

   B. EXCAVATION METHODS - IF EXCAVATING WITHIN 18 INCHES OF ANY MARKED UNDERGROUND FACILITY, AN EXCAVATOR MAY NOT USE MECHANICAL MEANS OF EXCAVATION (THE USE OF ANY DEVICE OR TOOL POWERED BY AN ENGINE) UNTIL THE UNDERGROUND FACILITY IS EXPOSED.

   EXCEPTIONS: THIS RULE DOES NOT APPLY IF USING AIR VACUUM METHODS OF EXCAVATION. MECHANICAL MEANS MAY BE USED FOR INITIAL PENETRATION OR REMOVAL OF PAVEMENT, ROCK OR OTHER MATERIAL REQUIRING MACHINERY.

   EMERGENCIES: PREVIOUSLY, AN EXCAVATOR WAS NOT REQUIRED TO NOTIFY DIG SAFE PRIOR TO ANY EMERGENCY EXCAVATION. NOW IN AN EMERGENCY SITUATION, AN EXCAVATOR MAY COMMENCE EXCAVATION AFTER HAVING TAKEN ALL REASONABLE STEPS CONSISTENT WITH THE EMERGENCY AND REMARK THE AREA AS SOON AS POSSIBLE AFTER RECEIVING NOTIFICATION OF THE EMERGENCY.

5. PAVEMENT THICKNESSES SHOWN ON THE TYPICAL SECTIONS ARE INTENDED TO BE NOMINAL.

6. ALL UNSUITABLE EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE.

7. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING (OR MILLING) SHALL BE INCIDENTAL TO THE RELATED PAVING (OR MILLING) ITEMS.

8. CROSS SLOPES FOR NORMAL AND SUPERELEVATED SECTIONS WILL BE STRAIGHT UNLESS OTHERWISE DIRECTED BY THE CITY.

9. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT AND LAYOUT OF WORK BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.

10. STATIONS REFERENCED ARE APPROXIMATE.

11. FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE PAVEMENT MARKING PLAN PROVIDED HEREIN. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.

12. ALL UTILITY FACILITIES SHALL BE ADJUSTED BY THE RESPECTIVE UTILITY UNLESS OTHERWISE NOTED.

13. THE PROPOSED WORK IS IN CLOSE PROXIMITY TO EXISTING UTILITIES. PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION SHALL BE INCIDENTAL TO THE PROJECT.

14. THE CITY OF PORTLAND SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED. THE CITY OF PORTLAND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.

15. IT IS THE CONTRACTORS' RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO BIDDING.

16. PAVEMENT CUT LINES SHALL BE NEAT, CLEAN AND STRAIGHT AS DIRECTED BY THE RESIDENT. PAYMENT FOR CUTTING OF EXISTING PAVEMENT SHALL BE INCIDENTAL TO 403 ITEMS.

17. CUTTING OF EXISTING CURB WILL BE INCIDENTAL TO PAYMENT UNDER OTHER CURB PAY ITEMS OF THE CONTRACT.

18. ALL EXISTING GRANITE CURB SHALL BE STACKED AND DELIVERED TO THE CITY'S PUBLIC WORKS GARAGE.

19. ANY DAMAGE TO EXISTING SLOPES, SIDEWALK AND PAVEMENT AREAS CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.

20. CONTRACTOR SHALL NOT PARK, IMPEDE ACCESS, OR STORE EQUIPMENT/MATERIAL ON ADJACENT CITY OR PRIVATELY OWNED LAND WITHOUT WRITTEN CONSENT FROM THE CITY OR LAND OWNER.

21. PROPERTY LINE AND R.O.W MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE. BY A MAINE PROFESSIONAL LAND SURVEYER.

23. REMOVAL OF EXISTING ROADSIDE SIGNS AND RELOCATION OF ROADSIDE SIGNS/POSTS AS NOTED ON THE SIGNING PLANS OR AS DIRECTED BY THE CITY OR ENGINEER. SHALL BE CONSIDERED INCIDENTAL TO THE 645 PAY ITEMS.

24. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.

25. ALL JOINTS BETWEEN EXISTING AND PROPOSED HOT BITUMINOUS PAVEMENT SHALL BE SAWCUT AND VERTICAL.

26. THE CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED TEMPORARY PAVEMENT MARKINGS ASSOCIATED WITH THE APPROVED TEMPORARY TRAFFIC CONTROL PLANS. REMOVAL METHODS SHALL BE APPROVED BY THE RESIDENT. PAYMENT SHALL BE INCIDENTAL TO THE 627 PAY ITEMS.

27. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAY" U.S.D.O.T.F.H.W.A. LATEST EDITION.

28. ALL PEDESTRIAN RAMPS SHALL BE CONSTRUCTED AS SHOWN ON PLANS.

29. DETECTABLE WARNING FIELDS SHALL BE 24 INCHES WIDE AND EXTEND THE FULL WIDTH OF THE RAMP OPENINGS. ACTUAL PAYMENT FOR ITEM 608.26 SHALL INCLUDE ANY CUTTING OF THE DETECTABLE WARNING FIELDS AND ALL CONCRETE WORK REQUIRED BY THE DETAILS.

30. ALL RAMPS SHALL BE ADA COMPLIANT. SEE PEDESTRIAN RAMP DETAILS FOR MORE INFORMATION.

31. TEST PITS SHALL BE COMPLETED AT ALL LOCATIONS WHERE PROPOSED EQUIPMENT MAY CONFLICT WITH EXISTING UTILITIES. PAYMENT FOR TEST PITS SHALL BE UNDER 803.01 TEST PITS.

32. CONTRACTOR SHALL FOLLOW SPECIAL PROVISION 105, LIMITATIONS OF OPERATIONS. ANY ROAD CLOSURE REQUESTS (BY CITY BLOCK SEGMENTS) WILL REQUIRE CITY APPROVAL.

33. CURB TYPE I SHALL BE INSTALLED IN A CONCRETE BASE (3000 PSI). SEE SPECIAL PROVISION 809. PAYMENT FOR CONCRETE WORK SHALL BE CONSIDERED INCIDENTAL TO THE OTHER CURBING ITEMS.

34. PRIOR TO REPLACEMENT OF SURFACE PAVEMENT. CONTRACTOR SHALL CHECK AND ENSURE POSITIVE DRAINAGE FLOW ALONG THE GUTTER LINES. COORDINATE WITH RESIDENTS ON ANY AREAS OF CONCERN.

35. THE HORIZONTAL DATUM IS NAD 83 ZONE MAINE STATE PLAN COORDINATES WEST. THE VERTICAL DATUM IS NGVD29.

36. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL BUSINESSES DURING CONSTRUCTION.

37. THE CONTRACTOR SHALL MAKE CLEAR PROVISIONS FOR PEDESTRIAN ACCESS THROUGH AND AROUND THE CONSTRUCTION SITE AS PART OF THEIR TRAFFIC CONTROL PLANS.

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	DATE:
SCK	SCK	BJRL	NTS	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER
10/31/2025

CONGRESS SQUARE IMPROVEMENTS
GENERAL NOTES

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

RESURGAM CIVITAS PORTLAND, MAINE

SHEET #
3 OF 39

PLAN NUMBER

POE = STA. 206+06.50
N: 299336.1181 FT.
E: 2926991.7255 FT.

206+00

205+00

N46°09'18.67"W

204+00

CURVE DATA #2
PI = 203+56.55
D = 28°38'52.4"
Δ = 11°12'25.3" Lt.
R = 200.00'
L = 39.12'
T = 19.62'
E = 0.96'

PT = STA. 203+76.04

PC = STA. 203+36.92

CURVE #2

PC = STA. 101+77.97

103+00

CURVE #3

102+00

N67°43'23.41"E

101+00

100+00

POB = STA. 100+00.00
N: 298986.7213 FT
E: 2926925.7734 FT

CURVE DATA #3
PI = 103+09.37
D = 12°27'20.2"
Δ = 31°52'59.2" Lt.
R = 460.00'
L = 255.97'
T = 131.40'
E = 18.40'

CONGRESS ST. STA. 103+08.00 =
HIGH ST. STA. 203+03.87

203+00

N34°56'53.35"W

CONGRESS STREET

104+00

PT = STA. 104+33.94

PI = STA. 105+26.50

105+00

N35°50'24.24"E

N30°25'00.01"E

POE = STA. 105+81.16
N: 299332.6800 FT
E: 2927370.8509 FT

PT = STA. 202+45.23

PC = STA. 201+82.89

CURVE DATA #1
PI = 202+14.31
D = 28°38'52.4"
Δ = 17°51'30.1" Rt.
R = 200.00'
L = 62.34'
T = 31.42'
E = 2.45'

CURVE #1

202+00

HIGH STREET

N52°48'23.42"W

PI = STA. 200+98.30

201+00

POB = STA. 200+00.00
N: 298920.1643 FT.
E: 2927427.3397 FT.

N55°33'38.76"W

200+00

PLAN

20 0 20 40
Scale of Feet

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	SCK
DRAWN BY:	SCK
CHECKED BY:	BRL
SCALE:	1"=20'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
GEOMETRIC PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET #
4 OF 39

PLAN NUMBER

THE WESTIN PORTLAND HARBORVIEW

CONGRESS SQUARE APARTMENTS

HH HAY BUILDING

STATE THEATRE

PORTLAND MUSEUM OF ART

206+00

205+00

204+00

103+00

102+00

101+00

100+00

105+00

104+00

203+00

202+00

201+00

200+00

HIGH STREET

CONGRESS STREET

FREE STREET

26.5'

LIMITS OF WORK HIGH STREET STA. 205+00

LIMITS OF SIDEWALK HIGH STREET STA. 204+96.57 RT EXISTING LINE TO REMAIN

LIMITS OF SIDEWALK CONGRESS STREET STA. 104+76 LT

LIMITS OF WORK CONGRESS STREET STA. 105+66

ADJUST CB TO GRADE

INSTALL CURBSTOP MIN. 6" INSIDE PUBLIC R.O.W.

REMOVE PARKING METERS. REMOVAL TO BE PAID UNDER ITEM #626.36

REMOVE AND SALVAGE BIKE RACK. REMOVAL TO BE PAID UNDER ITEM # 890.07

ADJUST MH TO GRADE

INSTALL NEW 2" WATER SERVICE

HYDRANT TO BE ADJUSTED TO GRADE BY OTHERS (PWD)

CONTRACTOR'S ACTIVITIES TO REMAIN WITHIN THE EXISTING ROW

SAWCUT AROUND RECONSTRUCTION AREA

SLEEVE FOR IRRIGATION SERVICE. VERIFY LOCATION FOR LINE WITH PARK PLANS.

ADJUST CB GRATE TO GRADE

LIMITS OF SIDEWALK HIGH STREET STA. 201+77 RT

ADJUST MH TO GRADE

LIMITS OF WORK CONGRESS STREET STA. 101+65

LIMITS OF SIDEWALK CONGRESS STREET STA. 102+47 RT

LIMITS OF SIDEWALK HIGH STREET STA. 202+27 LT

ADJUST MH TO GRADE

ADJUST MH TO GRADE

LIMITS OF WORK HIGH STREET STA. 200+00

TYPE OF CONSTRUCTION LEGEND

- PAVEMENT, FLUSH CURB, AND/OR CONCRETE ISLAND REMOVAL ASSOCIATED WITH EXISTING ISLANDS, SHIM AND FINE GRADE GRAVEL BASE AND REPAVE (CONGRESS STREET- 6" HMA)
- VARIABLE DEPTH MILL AND 2" HMA OVERLAY
- REMOVE EXISTING SIDEWALK MATERIAL AND SHIM/FINE GRADE GRAVEL BASE. PAYMENT TO BE MADE UNDER ITEM #608.036 REGRADING SIDEWALK
- REMOVE EXISTING PAVEMENT AND SHIM WITH ABC TYPE A IN PREPARATION FOR NEW SIDEWALK CONSTRUCTION BETWEEN CURB LINES. PAYMENT UNDER ITEM 608.035.
- FULL DEPTH RECONSTRUCTION (24" AGGREGATE SUBBASE COURSE GRAVEL TYPE "D" AND 6" HMA)

DETECTABLE WARNING FIELD (608.26)

STATION	
102+75 RT	60 SF
102+75 LT	26 SF
103+55 LT	26 SF
104+30 LT	24 SF
203+55 RT	18 SF
203+55 LT	14 SF

DEMOLITION NOTES:

1. REMOVE AND STACK EXISTING GRANITE CURB. TRANSPORT TO CITY STOCKYARD. STACK AND TRANSPORT TO BE PAID UNDER ITEM #202.61.
2. THE CITY SHALL HAVE FIRST REFUSAL TO ALL BRICK REMOVED FROM THE PROJECT. IF REFUSED, THE USED BRICKS WILL BECOME PROPERTY OF THE CONTRACTOR FOR DISPOSAL.

NOTES:

1. ALL CALLOUTS FOR ADA COMPLIANT GRATES SHALL UTILIZE NEENAH FOUNDRY CATALOG CUT R-4808-A OR AN APPROVED EQUAL WITH SLOPE OPENINGS OF 1/2" OR LESS IN ONE DIRECTION.

PLAN

20 0 20 40

Scale of Feet

LDD PROJECT NAME: CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME: -
FIELD BOOK USED: N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/11/25	SCK	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: SCK
DRAWN BY: SCK
CHECKED BY: BRL
SCALE: 1"=20'
DATE: 01-22-2025

STATE OF MAINE SHANE C. KELLY No. 15681 REGISTERED PROFESSIONAL ENGINEER

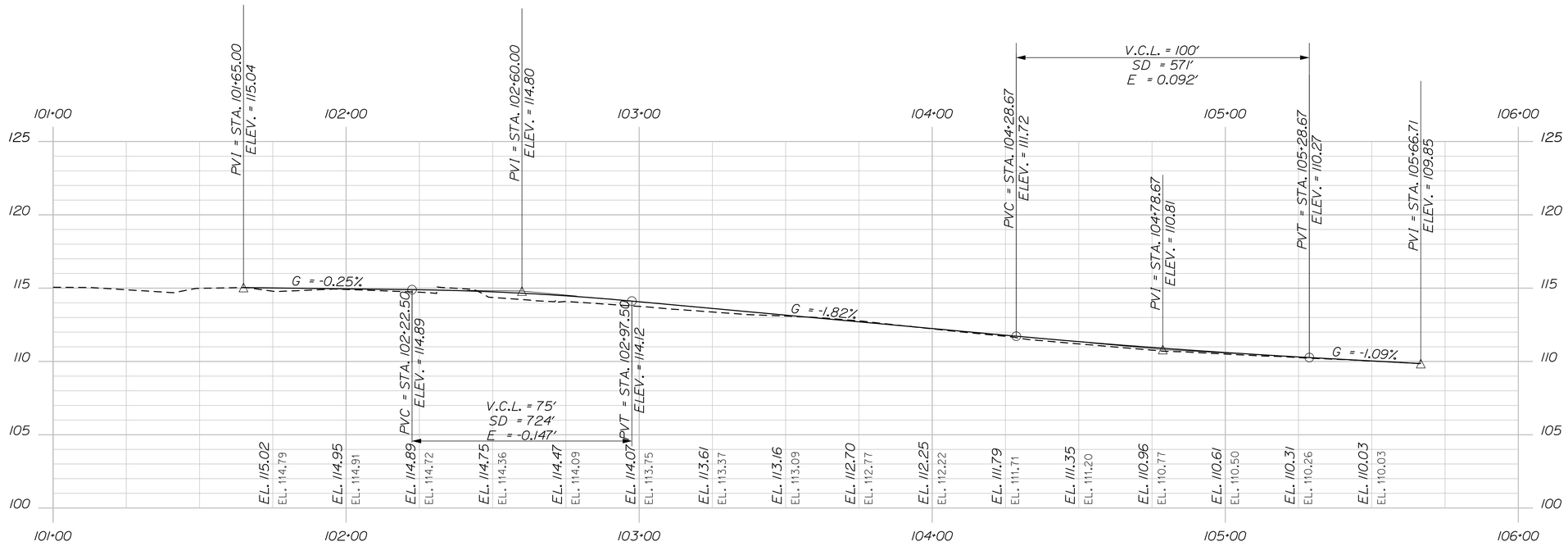
CONGRESS SQUARE IMPROVEMENTS
GENERAL PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

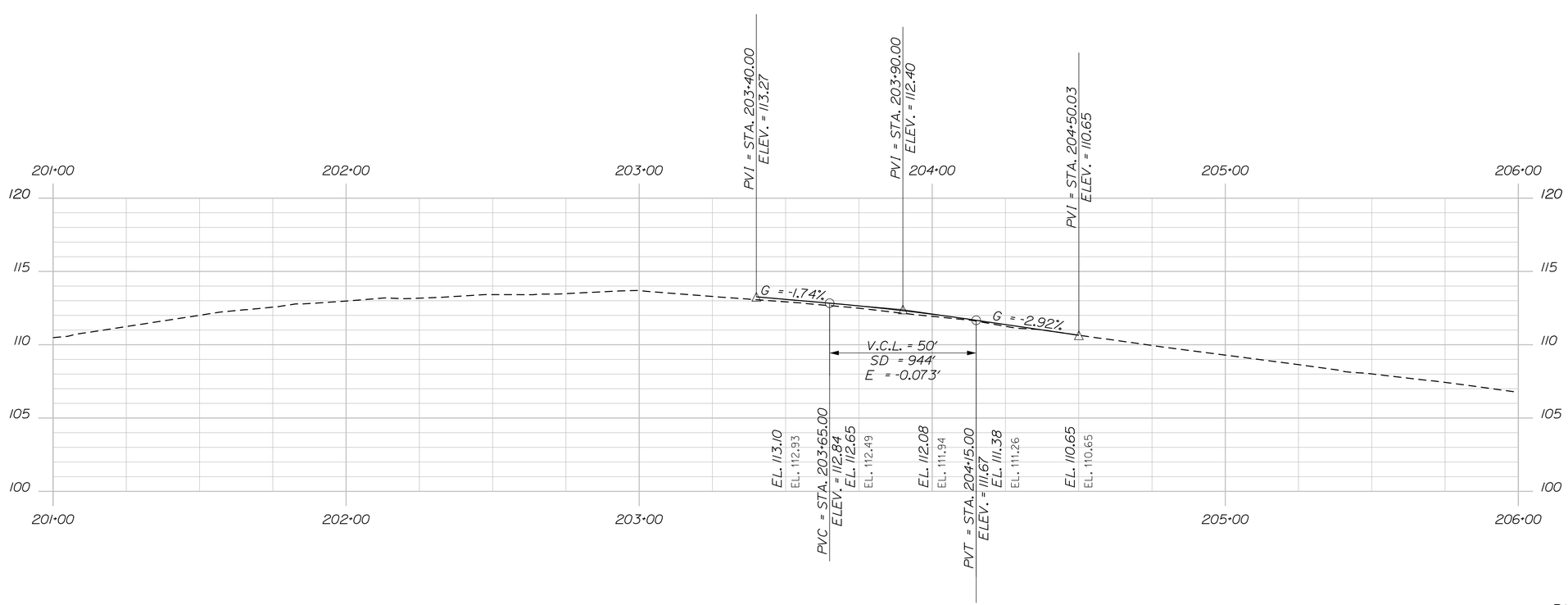
CITY OF PORTLAND, MAINE RESURGAM

SHEET # 5 OF 39

PLAN NUMBER



CONGRESS STREET PROFILE



HIGH STREET PROFILE

PLAN

20 0 20 40

Scale of Feet

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	SCK
DRAWN BY:	SCK
CHECKED BY:	BRL
SCALE:	1"=20'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS

PROFILES

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE
RESURGAM

SHEET # 6 OF 39

PLAN NUMBER

THE WESTIN PORTLAND HARBORVIEW

CONGRESS SQUARE APARTMENTS

HH HAY BUILDING

STATE THEATRE

PORTLAND MUSEUM OF ART

HIGH STREET

CONGRESS STREET

FREE STREET

206+00 205+00 204+00 103+00 102+00 101+00 100+00

105+00 104+00 203+00 202+00 201+00 200+00

DETAIL 1

DETAIL 2

DETAIL 3

DETAIL 4

PLAN

20 0 20 40

Scale of Feet

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	SCK
DRAWN BY:	SCK
CHECKED BY:	BRL
SCALE:	1"=20'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
CURB LAYOUT PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET # 7 OF 39

PLAN NUMBER

CONTROL POINTS FOR CONGRESS SQUARE		
POINT	STATION	OFFSET
100	102+60.36	31.2' RT
101	102+69.06	31.7' RT
102	102+89.88	51.5' RT
103	202+41.13	16.3' LT
104	101+81.88	24.3' LT
105	101+91.49	22.0' LT
106	101+98.92	21.0' LT
107	102+57.38	21.0' LT
108	102+62.79	21.0' LT
109	102+68.42	21.5' LT
110	102+80.93	27.4' LT
111	203+49.04	18.2' LT
112	203+57.48	18.0' LT
113	203+70.60	18.0' LT
114	203+76.04	18.0' LT
115	203+92.84	18.0' LT
116	203+96.44	19.0' LT
117	204+01.56	21.6' LT
118	204+05.98	22.7' LT
119	204+96.57	23.0' RT
120	204+76.70	23.0' RT
121	204+69.69	21.3' RT
122	204+63.33	17.9' RT
123	204+51.65	15.0' RT
124	203+76.04	15.0' RT
125	203+68.30	15.0' RT
126	203+60.34	15.0' RT
127	203+51.65	16.0' RT
129	203+44.02	18.5' RT
130	203+34.37	27.4' RT
131	103+47.83	22.2' LT
132	103+61.17	19.2' LT
132A	103+66.31	19.5' LT
133	103+61.42	20.0' LT
135	103+82.35	21.3' LT
136	104+16.92	23.7' LT
137	104+25.36	23.9' LT
138	104+37.80	24.0' LT
139	104+45.80	24.0' LT
140	104+55.52	26.5' LT
141	104+60.10	29.1' LT
142	104+70.10	31.6' LT
200	202+15.79	25.5' RT
201	202+45.26	25.5' RT
202	103+71.08	22.8' RT
203	103+79.90	27.7' RT
204	103+91.66	37.32' RT
205	104+06.46	50.4' RT
206	104+13.70	57.3' RT
207	104+30.45	80.0' RT
208	104+37.31	77.4' RT

ITEM #609.113 VERTICAL CURB TYPE 1 (ROADWAY) - INSTALL ONLY		
POINT TO POINT	RADIUS (FT)	LENGTH (LF)
104 to 105	-	9.4
106 to 107	439	55.7
111 to 112 (Flush)	-	7.7
113 to 114	182	5.0
114 to 115	-	16.8
116 to 117	-	6.1
119 to 120	-	19.8
121 to 122	-	7.1
123 to 124	-	75.6
124 to 125	215	8.3
126 to 127 (Flush)	-	9.4
132A to 132	-	4.0
133 to 135	-	11.4
135 to 136	-	33.0
137 to 138 (Flush)	-	12.0
140 to 141	-	5.2
200 to 201	174.5	25.7
203 to 204	-	15.8
205 to 206	-	10.6
206 to 207	110	23.6
SHEET SUBTOTAL (LF)		362.2

ITEM #609.2211 TERMINAL CURB TYPE 1 (ROADWAY) - INSTALL ONLY		
POINT TO POINT	RADIUS (FT)	TOTAL (LF)
100 to 101	-	9.3
102 to 103	-	10.8
107 to 108	439	5.1
112 to 113	182	11.9
125 to 126	215	8.5
136 to 137	-	8
138 to 139	-	8
SHEET SUBTOTAL (EA)		61.6

ITEM# 609.222 TERMINAL CURB TYPE 1 (ROADWAY) - CIRCULAR		
POINT TO POINT	RADIUS (FT)	LENGTH (LF)
127 to 129	30	8.6
130 to 131	30	8
132 to 132A	30	4.9
SHEET SUBTOTAL (LF)		21.5

ITEM# 609.12 VERTICAL CURB TYPE 1 (ROADWAY)- CIRCULAR		
POINT TO POINT	RADIUS (FT)	LENGTH (LF)
115 to 116	10	4
117 to 118	10	4
129 to 130	30	13.8
131 to 132	30	13.1
139 to 140	20	10.1
141 to 142	20	10.4
202 to 203	36.5	10.5
207 to 208	28.5	9.8
SHEET SUBTOTAL (LF)		75.7

ITEM# 609.2221 TERMINAL CURB TYPE 1 (ROADWAY) - CIRCULAR - INSTALL ONLY		
POINT TO POINT	RADIUS (FT)	LENGTH (LF)
108 to 109	25	5.4
SHEET SUBTOTAL (LF)		5.4

ITEM# 609.121 VERTICAL CURB TYPE (ROADWAY) - CIRCULAR -INSTALL ONLY		
POINT TO POINT	RADIUS (FT)	LENGTH (LF)
101 to 102 (Flush)	25	32
105 to 106	25	7.2
109 to 110 (Flush)	25	12.2 (FLUSH)
110 to 111	25	20.1
SHEET SUBTOTAL (LF)		59.3

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY: SCK
DRAWN BY: SCK
CHECKED BY: BRL
SCALE: 1"=20'
DATE: 01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS

CURB LAYOUT PLAN

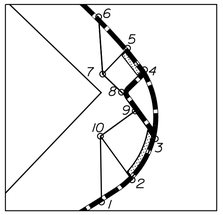
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE RESURGAM

SHEET #
8 OF 39

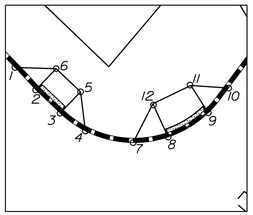
PLAN NUMBER

DETAIL 1



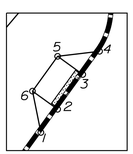
DETAIL 1 SPOT GRADES				
POINT	STATION	OFFSET	ELEV. 1	ELEV. 2
1	102+57.38	21.0' LT	113.85	114.27
2	102+68.41	21.6' LT	113.77	-
3	102+80.93	27.4' LT	113.59	114.01
4	203+49.00	18.2' LT	113.32	113.74
5	203+57.48	18.0' LT	113.22	-
6	203+70.58	18.0' LT	113.02	113.44
7	203+56.39	28.0' LT	-	114.05
8	203+48.00	27.1' LT	-	114.02
9	102+80.77	37.0' LT	-	113.96
10	102+67.73	36.6' LT	-	114.12

DETAIL 2



DETAIL 2 SPOT GRADES				
POINT	STATION	OFFSET	ELEV. 1	ELEV. 2
1	203+68.29	15.0' RT	112.30	112.71
2	203+60.34	15.0' RT	112.40	-
3	203+51.65	16.0' RT	112.58	-
4	203+44.02	18.5' RT	112.66	113.07
5	203+52.55	24.2' RT	-	112.92
6	203+60.92	23.2' RT	-	112.97
7	103+41.76	28.7' RT	112.71	113.13
8	103+48.60	24.3' RT	112.66	-
9	103+61.42	20.3' LT	112.47	-
10	103+70.51	20.0' LT	112.28	112.69
11	103+63.30	28.1' LT	-	113.05
12	103+51.38	31.9' LT	-	113.25

DETAIL 3



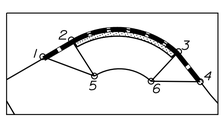
DETAIL 3 SPOT GRADES				
POINT	STATION	OFFSET	ELEV. 1	ELEV. 2
1	104+16.92	23.7' LT	111.48	111.9
2	104+25.36	23.9' LT	111.41	-
3	104+37.80	24.0' LT	111.30	-
4	104+45.80	24.0' LT	111.18	111.46
5	104+37.80	32.6' LT	-	111.85
6	104+25.20	32.6' LT	-	111.93

NOTES:

1. RAMPS HAVE BEEN DESIGNED WITH THE INTENT TO COMPLY WITH MAINEDOT STANDARD DETAIL 801(11) THROUGH 801(26) AND THE CONTRACTOR IS INSTRUCTED TO PAY SPECIAL ATTENTION TO THE MAXIMUM SLOPES PROVIDED IN THAT GUIDANCE.

2. ELEVATION 1 IS PROVIDED FOR ROADWAY ELEVATIONS AND ELEVATION 2 FOR SIDEWALK ELEVATIONS.

DETAIL 4



DETAIL 4 SPOT GRADES				
POINT	STATION	OFFSET	ELEV. 1	ELEV. 2
1	102+60.36	31.2' RT	113.57	111.99
2	102+69.06	31.7' RT	113.60	-
3	102+89.90	51.5' RT	113.25	-
4	102+90.25	62.4' RT	113.2	113.62
5	102+68.84	43.7' RT	-	114.45
6	102+80.00	53.8' RT	-	114.18

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY: SCK
DRAWN BY: SCK
CHECKED BY: BRL
SCALE: 1"=20'
DATE: 01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER
01/22/2025

CONGRESS SQUARE IMPROVEMENTS
ADA RAMP DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE RESURGAM

SHEET #
9 OF 39
PLAN NUMBER

206+00

205+00

MATCH EXISTING PAVEMENT MARKINGS. LIMITS OF ROADWAY WORK STA. 205+00

DSWL

10' TYP.

30' TYP.

HIGH STREET 204+00

15'

18'

R&R

R&S

104+00

CONGRESS STREET

FREE STREET

MATCH EXISTING PAVEMENT MARKINGS. LIMITS OF WORK STA. 105+66

105+00

SSWL

11'

SDYL

13'

SWSL

18'

LANE MARKING DETAILS
NOT TO SCALE

10'-0"

13 SQUARE FEET

11'-6"

25 SQUARE FEET

8'-0"

16 SQUARE FEET

8'-0"

16 SQUARE FEET

11'-6"

25 SQUARE FEET

CROSSWALK BAR PAINT TO BE PREFORMED THERMOPLASTIC OR APPROVED EQUAL. TYP.

103+00

203+00

6'-0"

6'-0"

12 SQUARE FEET

MATCH EXISTING PAVEMENT MARKINGS. LIMITS OF WORK STA. 101+65

R&R

R&S

SWSL

102+00

11'

SDYL

SSWL

SSWL

R&R

101+00

CONGRESS STREET

100+00

11'

11'

SSWL

SSWL

202+00

201+00

HIGH STREET

200+00

10.0'

2'

2'

CROSSWALK DETAIL
(NOT TO SCALE)

MATCH EXISTING PAVEMENT MARKINGS. LIMITS OF WORK STA. 200+00

PLAN

20 0 20 40

Scale of Feet

SIGNING LEGEND

R&S	REMOVE AND SALVAGE
R&R	REMOVE AND RESET

PAVEMENT MARKING LEGEND

SDYL	4" SOLID DOUBLE YELLOW LINE
SSWL	4" SOLID SINGLE WHITE LINE
DSWL	4" DASHED SINGLE WHITE LINE
SWSL	24" SOLID WHITE STOP LINE

PAVEMENT MARKING NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DOT, FHWA, 2009 EDITION, WITH THE LATEST REVISIONS.

2. ALL PAVEMENT MARKING LINES, ARROWS, AND WORD SYMBOLS SHALL BE PAINT AND SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH MAINEDOT STANDARD SPECIFICATION 627.

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY: SCK
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CHECKED BY: BRL
SCALE: 1"=20'
DATE: 01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
REGISTERED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS

PAVEMENT MARKING PLAN

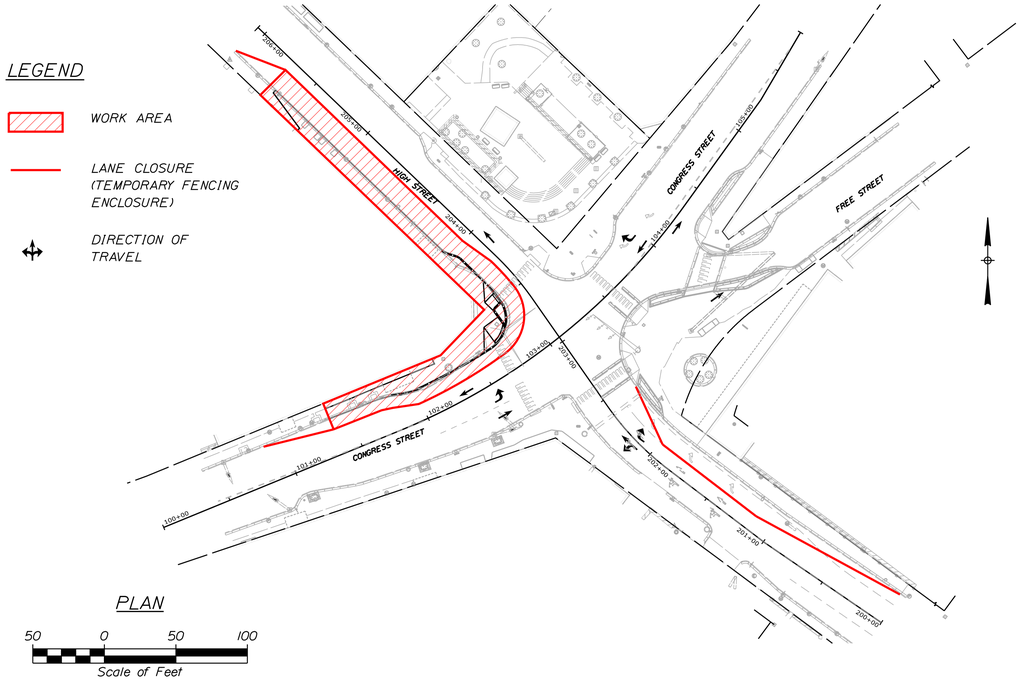
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

RESURGAM, INDE CLIVO
CITY OF PORTLAND, MAINE

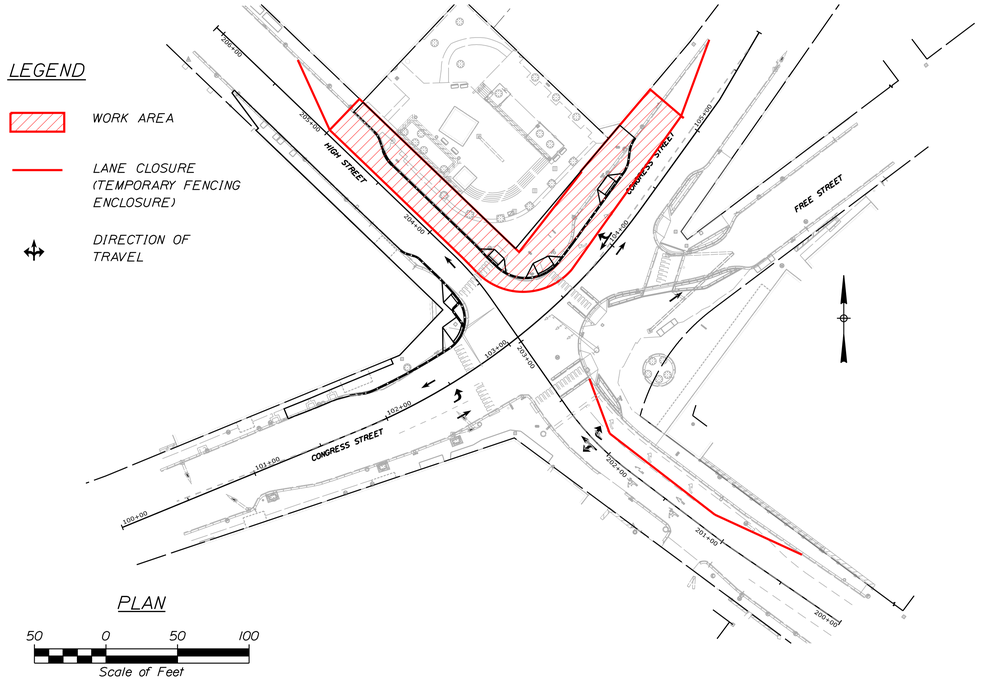
SHEET # 10 OF 39

PLAN NUMBER

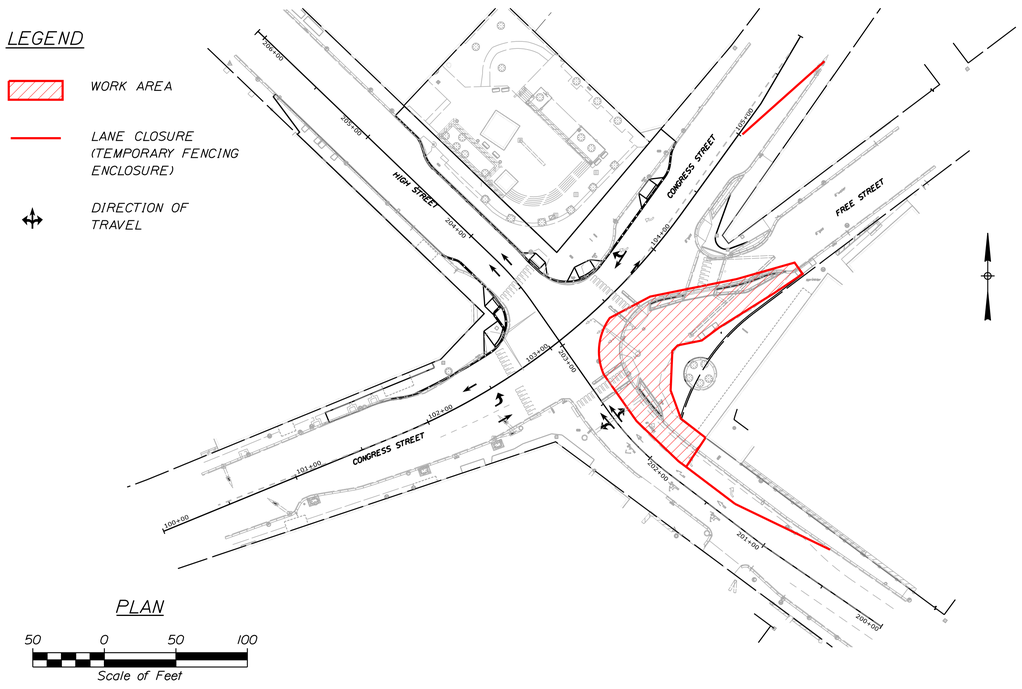
1. NORTHWEST CORNER



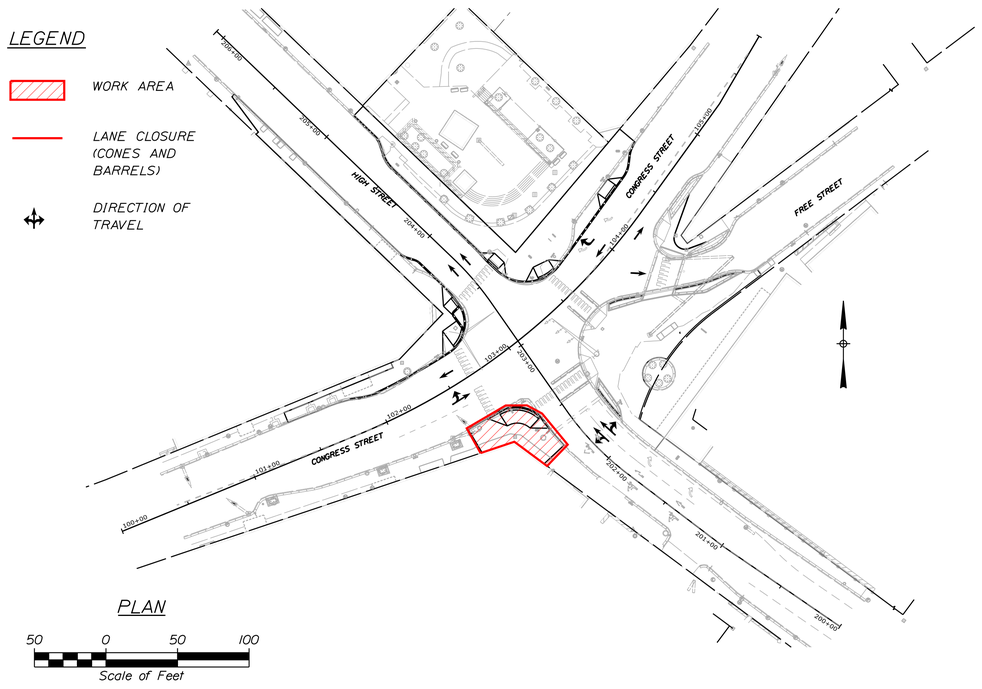
2. NORTHEAST CORNER



3. SOUTHEAST CORNER



4. SOUTHWEST CORNER



LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	SCK
DRAWN BY:	SCK
CHECKED BY:	BRL
SCALE:	1"=50'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
SEQUENCING PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE
RESURGAM

SHEET # 11 OF 39

PLAN NUMBER

CONSTRUCTION SEQUENCING PLAN NOTES

GENERAL:

1. THIS PLAN OUTLINES ONE GENERAL WAY TO SEQUENCE THE CONSTRUCTION FOR COMPLETION. IF THE CONTRACTOR WISHES TO PHASE THE CONSTRUCTION IN A DIFFERENT MANNER THE CONTRACTOR SHALL SUBMIT A REVISED PHASING PLAN TO THE CITY OF PORTLAND AS PART OF THEIR TRAFFIC CONTROL PLAN..

2. ALL WORK SHALL CONFORM TO THE MUTCD, MAINEDOT STANDARD SPECIFICATIONS AND DETAILS, AND SPECIFICATIONS STATED WITHIN THE PROJECT CONTRACT BOOK. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR THE CITY TO REVIEW IN COORDINATION WITH MAINEDOT PRIOR TO CONSTRUCTION.

3. THE TIMETABLE FOR COMPLETION OF THE PROJECT HAS BEEN ESTABLISHED AT XXXXX

4. PEDESTRIAN ROUTES SHALL BE CLEARLY DEMARCATED, FREE OF OBSTRUCTION, OVER HARDSCAPE SURFACES AND WITHIN COMPLIANCE WITH ADA AND MUTCD REQUIREMENTS THROUGHOUT THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A TEMPORARY ADA COMPLIANT CROSSWALK DURING EACH SECTION WITHIN 100' OF THE START OF THE SIDEWALK CLOSURE.

5. EXISTING TRAFFIC SIGNAL INFRASTRUCTURE SHALL REMAIN OPERATIONAL AT ALL TIMES UNTIL THE NEW TRAFFIC SIGNAL INFRASTRUCTURE IS INSTALLED AND OPERATIONAL. THE PHASING PRESENTED ALLOWS FOR THE EXISTING TRAFFIC SIGNALS TO REMAIN OPERATIONAL UNTIL THE NEW INFRASTRUCTURE HAS BEEN INSTALLED. TEMPORARY SIGNALS ARE NOT REQUIRED. IF THE CONTRACTOR DEEMS A TEMPORARY SIGNAL IS NEEDED BASED ON THEIR PROPOSED PHASING THE TEMPORARY SIGNAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

6. UNDERGROUND CONDUITS ACROSS HIGH AND CONGRESS STREETS ARE NOT SPECIFICALLY CALLED OUT. THIS WORK SHALL BE DONE AT THE CONVENIENCE OF THE CONTRACTOR USING LANE CLOSURES.

7. LANE CLOSURES ARE NOT SPECIFICALLY CALLED OUT FOR FINAL PAVING, AND STRIPING. THE CONTRACTOR SHALL SCHEDULE THIS AT THEIR OWN CONVENIENCE USING LANE CLOSURES AS APPROVED BY THE CITY.

8. ARROWS SHOWN ON EACH SEQUENCING PLAN ARE MEANT TO SHOW DIRECTION OF FLOW ONLY AND ARE NOT DEPICTING TEMPORARY STRIPING.

9. EXISTING PAVEMENT MARKINGS SHALL BE REMOVED THAT CONFLICT WITH THE TEMPORARY LANE CLOSURES IN EACH PHASE AND NEW TEMPORARY MARKINGS INSTALLED TO REINFORCE NEW LANE USE OPERATIONS.

10. PLACE 3 PCMS BOARDS EXTERNAL TO THE WORK ZONE AS SHOWN BELOW TO SUGGEST ALTERNATIVE ROUTES DURING THE CONSTRUCTION PERIOD.

1. NORTHWEST CORNER

1. PRIOR TO BEGINNING THIS PHASE, THE MEDIAN ISLAND WITHIN CONGRESS STREET SHALL BE REMOVED IN ORDER TO ALLOW ADEQUATE WIDTH FOR ONE LANE IN EACH DIRECTION ALONG CONGRESS STREET AT ALL TIMES.

2. CONSTRUCTION ENCOMPASSES ALL WORK ALONG THE NORTHWESTERLY CORNER OF THE PROJECT, INCLUDING BUT NOT LIMITED TO:
   - CURB INSTALLATION
   - SIDEWALK AND VARIOUS STREETSCAPE CONSTRUCTION
   - INSTALLATION OF CONDUIT AND FOUNDATIONS FOR TRAFFIC SIGNAL AND LIGHTING.

2. NORTHEAST CORNER

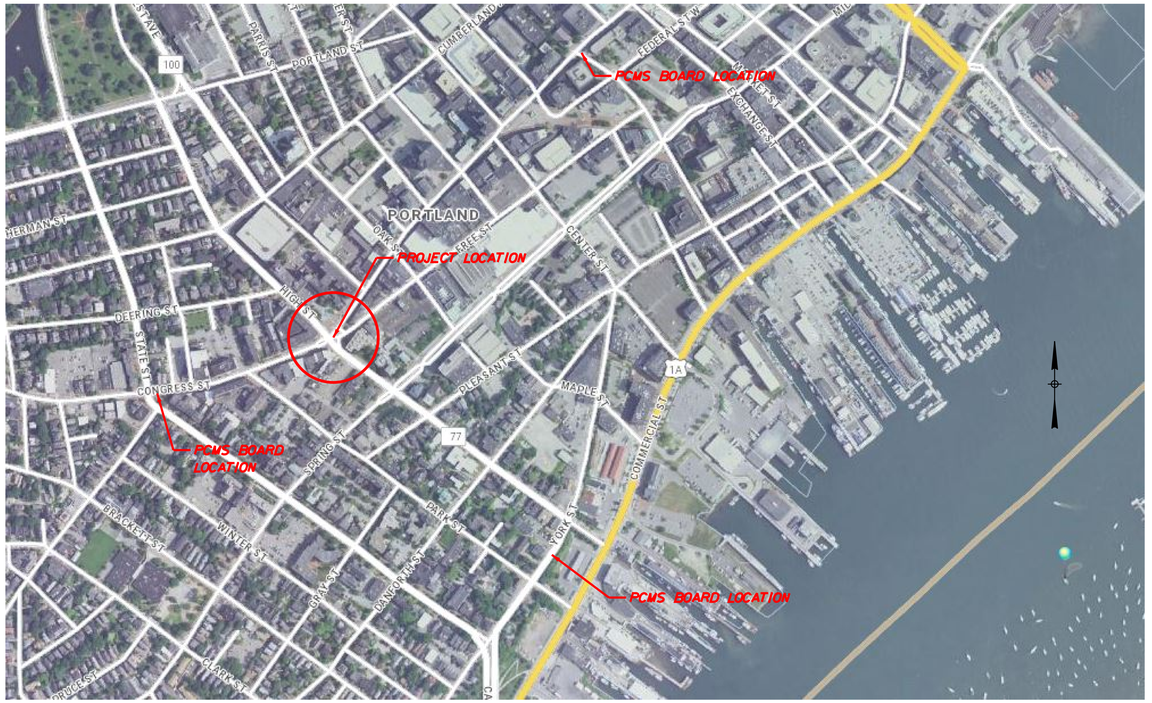
1. ENCOMPASSES ALL WORK ALONG THE NORTHEASTERLY CORNER OF THE PROJECT, INCLUDING BUT NOT LIMITED TO:
   - CURB INSTALLATION
   - SIDEWALK AND VARIOUS STREETSCAPE CONSTRUCTION
   - INSTALLATION OF CONDUIT AND FOUNDATIONS FOR TRAFFIC SIGNAL AND LIGHTING.
   - PLANTINGS

3. SOUTHEAST CORNER

1. CONSTRUCTION ENCOMPASSES ALL WORK ALONG THIS CORNER OF THE PROJECT, INCLUDING BUT NOT LIMITED TO:
   - SIDEWALK AND VARIOUS STREETSCAPE RE-CONSTRUCTION

4. SOUTHWEST CORNER

1. CONSTRUCTION ENCOMPASSES ALL WORK ALONG THE SOUTHWESTERLY CORNER OF THE PROJECT, INCLUDING BUT NOT LIMITED TO:
   - CURB INSTALLATION
   - SIDEWALK AND VARIOUS STREETSCAPE CONSTRUCTION
   - INSTALLATION OF CONDUIT AND FOUNDATIONS FOR TRAFFIC SIGNAL AND LIGHTING.



LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	SCK
DRAWN BY:	SCK
CHECKED BY:	BRL
SCALE:	1"=20'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
REGISTERED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
PHASING PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET #
12 OF 39
PLAN NUMBER

TRAFFIC SIGNAL GENERAL NOTES

1. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN SUCH A MANNER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC.

2. THE CONTRACTOR SHALL MEET ALL UTILITY REQUIREMENTS FOR NEW SERVICE CONNECTIONS.

   CONTRACTOR SHALL COORDINATE WITH THE CITY AND CENTRAL MAINE POWER (CMP) PRIOR TO INSTALLATION OF POWER SERVICE. THE PROJECT HAS AN ESTABLISHED CMP JOB #103006539IO WHICH SHALL BE REFERENCED IN ALL COMMUNICATION WITH CMP.

3. THE CONTRACTOR SHALL PAY SPECIFIC ATTENTION TO THE LIST OF CITY FURNISHED SIGNAL EQUIPMENT DETAILED IN THE SECTION 643 SPECIAL PROVISION. CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL ALL PROVIDED EQUIPMENT. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FURNISHING AND INSTALLING ANY ADDITIONAL MATERIALS AND/OR EQUIPMENT NECESSARY FOR A COMPLETE AND OPERATIONAL SIGNAL SYSTEM.

4. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULES BASED ON THEIR PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.

5. THE LOCATIONS OF ALL EQUIPMENT ARE APPROXIMATE. FINAL LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER.

6. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED.

7 CITY OF PORTLAND SHALL HAVE FIRST RIGHTS TO ALL EQUIPMENT REMOVED OR REPLACED BY THE PROJECT. THE MAINEDOT SHALL HAVE SECOND SALVAGE RIGHTS TO ALL EQUIPMENT NOT CLAIMED BY THE CITY. MAINEDOT WILL SUBMIT A LIST OF SALVAGED MATERIAL TO BE DELIVERED TO THE ELECTRICAL SHOP. LIKEWISE CONTRACTOR SHALL DELIVER REQUESTED SALVAGED MATERIAL TO THE CITY OF PORTLAND. THE CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ALL EQUIPMENT CLAIMED BY EITHER THE CITY OR MAINEDOT AT A CENTRAL LOCATION ON SITE PRIOR TO DELIVERY. THE STORAGE AREA SHALL BE SECURE AND ALL CONTROL EQUIPMENT REMOVED THAT HAS COMPUTER CHIP TECHNOLOGY SHALL BE STORED IN AN INTERIOR HEATED ENVIRONMENT.

   ANY EQUIPMENT NOT CLAIMED BY EITHER THE CITY OR MAINEDOT SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN A MANNER ACCEPTABLE TO THE ENGINEER.

SIGNAL HEADS / MOUNTING

1. VEHICLE SIGNAL HEADS SHALL BE FIX MOUNTED TO MAST ARMS WITH ASTRO-BRACS.

2. THE BOTTOM OF ALL SIGNAL HEAD HOUSINGS SHALL BE A MINIMUM OF 17 FEET BUT NOT MORE THAN 19 FEET ABOVE THE ROADWAY.

3. SIGNALS TO OPERATE WITH COLORS AT ALL TIMES.

4. SIGNALS TO OPERATE IN FLASH MODE FOR EMERGENCIES ONLY.

MAST ARM & SIGNAL STRUCTURE NOTES

1. ALL EQUIPMENT INCLUDING CONTROLLER CABINET, POLES, HAND HOLES, AND CONDUIT SHALL BE PROTECTED AGAINST RODENTS.

2. ALL JUNCTION BOX COVERS SHALL BE LABELED "TRAFFIC".

FIBER OPTIC INTERCONNECT NOTES

1. THE PROPOSED SIGNAL INTERCONNECT SHALL BE 12 STRAND SINGLE-MODE FIBER OPTIC INTERCONNECT CABLE.

2. FIBER OPTIC CABLE TO BE INSTALLED FROM THE PROPOSED TRAFFIC SIGNAL CABINET AT CONGRESS ST/HIGH STREET TO THE EXISTING TRAFFIC SIGNAL CABINETS AT CONGRESS ST/FOREST AVE ~~AND HIGH ST/SPRING ST. INSTALL FIBER PATCH PANEL AND ETHERNEW SWITCH IN EXISTING CABINET AT HIGH ST./SPRING ST.~~ ⚠

3. FUSION SPLICES SHALL BE USED IN ALL LOCATIONS. NO MECHANICAL SPLICES SHALL BE ALLOWED. THE FUSION SPLICER SHALL HAVE AUTOMATIC CORE ALIGNMENT IN THE HORIZONTAL AND VERTICAL PLANES. IT SHALL BE CAPABLE OF SPLICES WITH A TYPICAL LOSS OF 0.02DB FOR SINGLE-MODE FIBER AND IT SHALL BE CAPABLE OF ESTIMATING THE SPLICE LOSS.

4. FIBER OPTIC CABLE SHALL BE FULLY COMPATIBLE WITH THE EXISTING SERVICE PROVIDER'S INFRASTRUCTURE.

5. FIBER OPTIC CABLE SHALL HAVE THE FOLLOWING FEATURES:

   - ALL DIALECTRIC (NON-ARMORED)
   - DIALECTRIC CENTRAL AND OUTER STRENGTH MEMBERS
   - RIPCORD FOR EASY STRIPPING
   - COLOR-CODED FIBERS AND BUFFER TUBES FOR EASY IDENTIFICATION
   - RATED FOR OUTDOOR USE
   - DRY CABLE WITH WATER-BLOCKING DESIGN. GEL-FILLED CABLE SHALL NOT BE ALLOWED.
   - STORAGE AND OPERATING TEMPERATURE OF -40 DEGREES TO 70 DEGREES C (-40 DEGREES TO 158 DEGREES F)
   - 9/125 TYPE SINGLE-MODE CABLE WITH 9UM CORE, 125UM CLAD, AND 245 UM CORING
   - MAXIMUM ATTENUATION OF 0.35 DB PER KM FOR 1310NM, 0.35 DB PER KM FOR 1383NM AND 0.25 DB PER KM FOR 1550 NM
   - SERIAL GIGABIT ETHERNET DISTANCE OF 5000M FOR 1310 NM
   - SERIAL 10 GIGABIT ETHERNET DISTANCE OF 10000M FOR 1310NM AND 40000 FOR 550 NM
   - SINGLE-MODE FIBERS SHALL COMPLY WITH EIA/TIA-492CAA AND ITU RECOMMENDATION G.652

6. CONTRACTOR SHALL LEAVE 15' OF CABLE SLACK IN THE TRAFFIC CONTROL CABINETS.

7. CONTRACTOR SHALL FURNISH AND INSTALL ALL ANCILLARY EQUIPMENT NECESSARY TO PROVIDE A WORKING CONNECTION FROM THE PROPOSED TRAFFIC SIGNAL CONTROL CABINET TO THE EXISTING CITY CENTRAL TRAFFIC SERVER.

VEHICLE DETECTION

1. THE CONTRACTOR SHALL INSTALL CITY FURNISHED NON-INVASIVE STOP LINE VEHICLE DETECTION AS SHOWN ON THE PLANS. THE VEHICLE DETECTORS ARE TO BE CONNECTED TO THE CONTROLLER FOR LOCAL VEHICLE DETECTION AND REMOTELY CONNECTED TO THE CITY'S CENTRAL SERVER TO ALLOW VISUAL CONFIRMATION AND ADJUSTMENT OF THE DETECTION ZONES.

2. LOCATION OF DETECTION DEVICES AND DETECTION ZONES SHOWN ON PLANS ARE APPROXIMATE. LOCATIONS TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER TO ACHIEVE OPTIMAL VEHICLE DETECTION AND COUNTING CAPABILITIES.

3. STOP-LINE VIDEO DETECTION CAMERAS SHALL BE INSTALLED WITH COUNTING CAPABILITIES ENABLED AND IP ACCESSIBLE VIEWING AND CONFIGURATION. VEHICLE COUNTING SHALL BE CONFIGURED TO PROVIDE TURNING MOVEMENT COUNTS FOR ALL MOVEMENTS AT THE INTERSECTION.

PEDESTRIAN SIGNALS AND PUSH BUTTONS

1. INSTALL ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSH BUTTONS - WITH R10-3e PUSH BUTTON SIGNS. SIGNS SHALL BE POSTED AT EACH APS PUSH BUTTON. THE AUDIBLE WALK INDICATION SHALL BE A PERCUSSIVE TONE AT ALL LOCATIONS AND SHALL MEET MUTCD REQUIREMENTS.

2. PEDESTRIAN SIGNALS SHALL BE BLANK DURING FLASHING OPERATION.

3. LOCATOR TONES FOR ALL PUSH BUTTONS ARE REQUIRED. THEIR VOLUME IS TO BE AUTOMATICALLY ADJUSTED TO AMBIENT NOISE LEVELS.

4. PEDESTRIAN PUSH BUTTONS SHALL HAVE A MAXIMUM ALLOWABLE REACH DISTANCE OF 10 INCHES FROM THE ADJACENT WALK SURFACE. EXTENSION BRACKETS TO BE INSTALLED IF DEEMED NECESSARY.

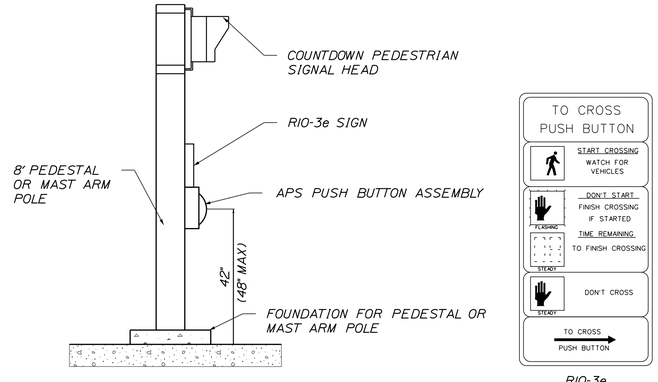
5. PEDESTRIAN PUSH BUTTONS SHALL BE INSTALLED AT A HEIGHT OF APPROXIMATELY 42 INCHES, BUT NO GREATER THAN 48 INCHES, ABOVE THE WALK SURFACE.

START UP AND ACCEPTANCE TESTING

1. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL INITIATE COMMUNICATIONS FROM THE CITY'S ATMS.NOW SERVER TO THE NEW INTERSECTION. THE CONTRACTOR SHALL TEST THE ABILITY TO UPLOAD AND DOWNLOAD THE ENTIRE SIGNAL CONTROLLER DATABASE. REMOTELY ACCESS LOCAL REPORTS, AND PROVIDE REAL TIME INTERSECTION STATUS REPORTS INCLUDING EVENT AND ALARM LOGS. THE CONTRACTOR SHALL DEMONSTRATE THE ABILITY TO REMOTELY VIEW THE DETECTION CAMERAS, INCLUDING THE ABILITY TO REVISE DETECTION ZONES AND RETRIEVE COUNT INFORMATION. THE SYSTEM MUST BE FULLY FUNCTIONAL AND FREE OF COMMUNICATIONS OR EQUIPMENT FAILURES FOR A PERIOD OF SEVEN (7) DAYS. IF PROBLEMS OCCUR, THEY SHALL BE RECTIFIED BY THE CONTRACTOR AND THE START-UP PERIOD RESTARTED FOR ANOTHER SEVEN (7) DAYS.

2. UPON DEMONSTRATING A SUCCESSFUL 7 DAY START UP TEST, THE CITY AND ITS ENGINEER SHALL EVALUATE THE OPERATION OF THE SYSTEM FOR A PERIOD OF 30 DAYS. DURING THIS PERIOD THE ENGINEER WILL DETERMINE IF THE VECHICLE COUNTING ABILITY OF THE CAMERAS IS AT LEAST 90% ACCURATE. SHOULD THE SYSTEM MALFUNCTION DURING THIS PERIOD OR THE ACCURACY OF THE CAMERAS IS DETERMINED TO BE INADEQUATE, THE CONTRACTOR SHALL MAKE ANY REPAIRS OR CORRECTIONS AND THE ACCEPTANCE TEST PERIOD WILL START OVER AGAIN. ACCEPTANCE TESTING MUST DEMONSTRATE TO THE CITY AND ITS ENGINEER THAT ALL HARDWARE AND EQUIPMENT FUNCTION IN ACCORDANCE WITH THESE SPECIFICATIONS, REQUIREMENTS, THROUGH-PUTS AND FUNCTIONALITY.

3. THE CONTRACTOR SHALL WARRANTY ALL WORK AND EQUIPMENT FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.



APS PUSH BUTTON ASSEMBLY
SINGLE MOUNTED DETAIL

R10-3e
9" X 15"

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/11/25	SCX	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: DHC
DRAWN BY: DHC
CHECKED BY: BRL
SCALE: NTS
DATE: 01-22-2025

STATE OF MAINE · DEREK H CALDWELL · 14400 · LICENSED PROFESSIONAL ENGINEER · 09/11/2025

CONGRESS SQUARE IMPROVEMENTS
TRAFFIC SIGNAL NOTES

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE · RESURGAM

SHEET # 13 OF 39

PLAN NUMBER

STRUCTURES LIST

STRUCTURE	DESCRIPTION	STA O/S	FOUNDATION
A-C	CONTROLLER CABINET	104+06.4 31.8 LT	L48"XW36"XH48"
A-MI	25' MAST ARM	103+70.4 24.7 LT	SEE SHEET 48
A-P1	8' PEDESTAL POLE	104+24.2 32.9 LT	24" DIA.
A-P2	8' PEDESTAL POLE	103+50.8 33.1 LT	24" DIA.
A-P3	8' PEDESTAL POLE	103+38.2 48.9 LT	24" DIA.
B-P1	8' PEDESTAL POLE	EXISTING FOUNDATION	
C-P1	8' PEDESTAL POLE	102+78.7 53.8 RT	24" DIA.
CP-2	8' PEDESTAL POLE	102+67.2 43.4 RT	24" DIA.
D-MI	45' MAST ARM	102+84.4 40.6 LT	SEE SHEET 48

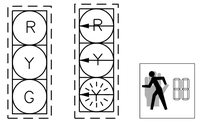
CONDUIT SCHEDULE

FROM	TO	TYPE	LENGTH (FT)	NO. OF RUNS
A-C	STUB	1" PVC SCH. 80	17	3
A-C	A-J3	3" PVC SCH. 80	34	3
A-C	A-J4	3" PVC SCH. 80	12	3
A-J4	A-P1	3" PVC SCH. 80	4	1
~~A-J4~~	~~B-P1~~	~~3" PVC SCH. 80~~	~~60~~	~~1~~
A-J4	A-J5	3" PVC SCH. 80	18	1
A-J3	A-J2	3" PVC SCH. 80	21	3
A-J3	A-MI	3" PVC SCH. 80	16	1
A-J3	A-P2	3" PVC SCH. 80	19	1
A-J2	D-J1	3" PVC SCH. 80	58	3
~~D-J1~~	~~P5~~	~~3" PVC SCH. 80~~	~~6~~	~~1~~
~~D-J1~~	~~P-6~~	~~3" PVC SCH. 80~~	~~6~~	~~1~~
D-J1	D-J2	3" PVC SCH. 80	19	2
D-J1	D-MI	3" PVC SCH. 80	6	1
D-J1	C-J1	3" PVC SCH. 80	90	2
C-J1	C-P1	3" PVC SCH. 80	12	1
C-J1	C-P2	3" PVC SCH. 80	4	1
D-J2	D-J3	3" PVC SCH. 80	30	2
~~E-J1~~	~~E-P1~~	~~3" PVC SCH. 80~~	~~6~~	~~1~~
~~E-J1~~	~~E-MI~~	~~3" PVC SCH. 80~~	~~15~~	~~1~~
~~D-J4~~	~~POLE~~	~~3" PVC SCH. 80~~	~~27~~	~~1~~
A-C	A-J1	3" METALLIC	58	1
A-J1	EXMH	3" METALLIC	130	1

⚠1

NOTE:
1. ONE CONDUIT ON DUAL/TRI RUNS TO BE USED FOR LIGHTING WIRING. SEE LIGHTING PLANS (SHEET 21) FOR ADDITIONAL CONDUIT REQUIRED FOR LIGHTING INSTALL.
2. ALL CONDUITS WHICH ARE TO REMAIN EMPTY SHALL HAVE A NYLON PULLING STRING INSTALLED.
3. ALL STUBBED CONDUIT RUNS SHALL BE CAPPED AND LOCATED IN THE FIELD.
4. WHERE MULTIPLE CONDUITS ARE INSTALLED IN SHARED TRENCH. CONDUIT SHALL BE SEPARATED BY A MIN. OF 3"

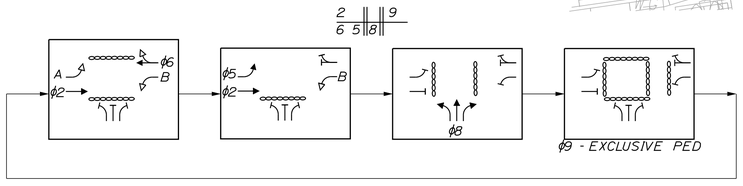
PROPOSED INDICATIONS



A2,A3 E1,E2,E3 — A1 — P1-P8

PREFERENTIAL PHASE SEQUENCE

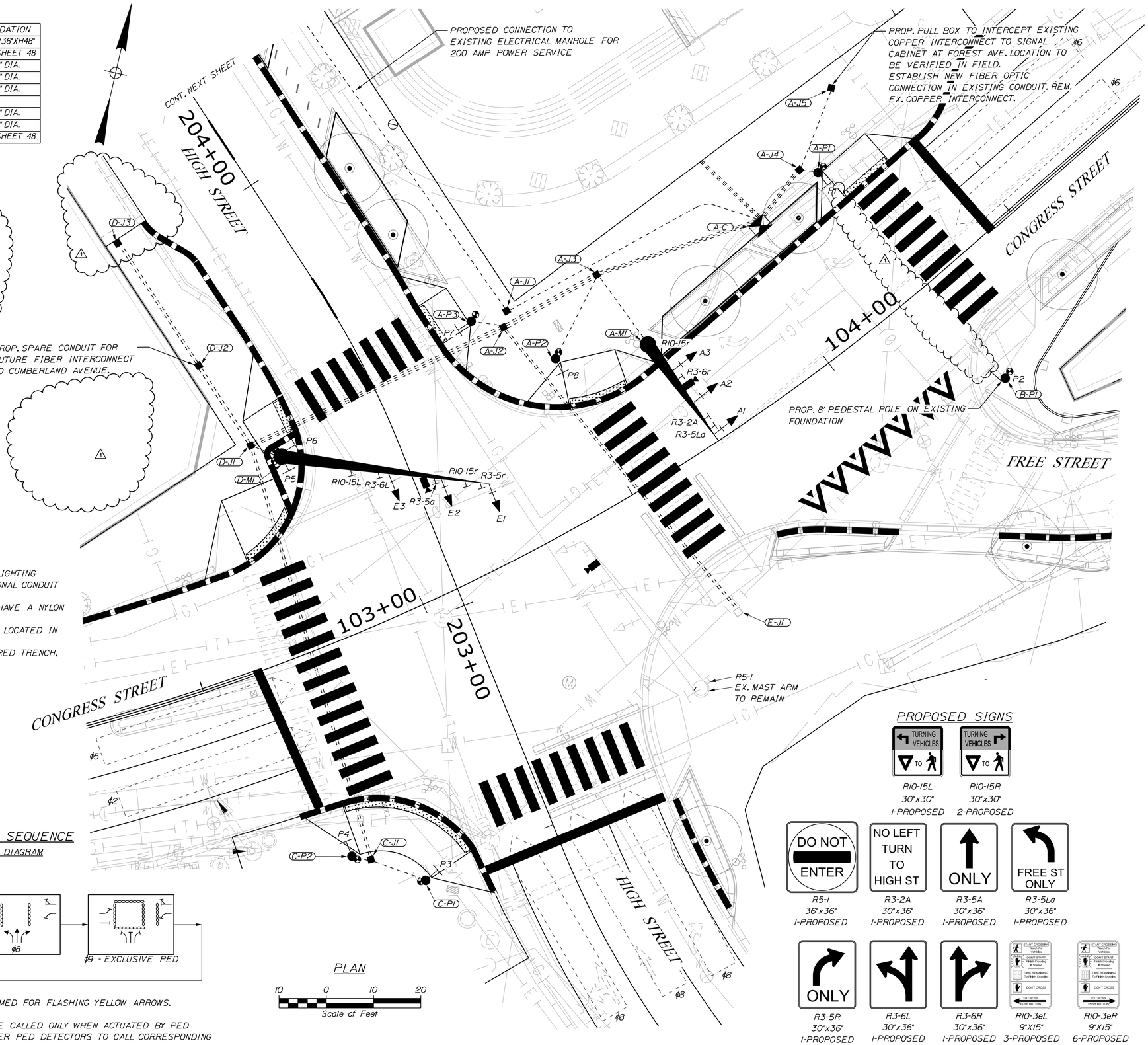
NEMA RING AND BARRIER DIAGRAM



OVERLAP PHASING
OVL A = ϕ6
OVL B = ϕ2

NOTE:
1. OVERLAPS SHALL BE PROGRAMMED FOR FLASHING YELLOW ARROWS.

2. EXCLUSIVE PED PHASE TO BE CALLED ONLY WHEN ACTUATED BY PED DETECTORS AT P1 & P2. ALL OTHER PED DETECTORS TO CALL CORRESPONDING CONCURRENT PED PHASE.



PLAN

10 0 10 20
Scale of Feet

PROPOSED SIGNS

R10-15L 30"x30" 1-PROPOSED — R10-15R 30"x30" 2-PROPOSED

R5-1 36"x36" 1-PROPOSED — R3-2A 30"x36" 1-PROPOSED — R3-5A 30"x36" 1-PROPOSED — R3-5La 30"x36" 1-PROPOSED

R3-5R 30"x36" 1-PROPOSED — R3-6L 30"x36" 1-PROPOSED — R3-6R 30"x36" 1-PROPOSED — R10-3eL 9"X15" 3-PROPOSED — R10-3eR 9"X15" 6-PROPOSED

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/11/25	SCX	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: AJR
DRAWN BY: AJR
CHECKED BY: BRL
SCALE: 1" = 10'
DATE: 01-22-2025

STATE OF MAINE — DEREK H. CALDWELL — 14400 — REGISTERED PROFESSIONAL ENGINEER — 09/11/2025

CONGRESS SQUARE IMPROVEMENTS
TRAFFIC SIGNAL PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE — RESURGAM

SHEET # 14 OF 39

PLAN NUMBER

LIST OF MAJOR ITEMS

EQUIPMENT AND WORK ITEMS (ITEM 643.80)	QTY
INSTALL NEW ATCC MAINEDOT 16 / 24 SPEC TRAFFIC SIGNAL CABINET WITH TRAFFICWARE COMMANDER ATC W/ LATEST FIRMWARE INSTALLED. COMPLETE WITH ALL ANCILLARY EQUIPMENT AND WIRING	1 EA
INSTALL ONE-WAY, 3-SECTION, 12-INCH BLACK TRAFFIC SIGNAL HEADS, WITH LED MODULES, BLACK FOOR TRAFFIC SIGNAL HEADS WITH BLACK TUNNEL VISORS AND 5-INCH LOUVERED BACK PLATES WITH 3-INCH RETROREFLECTIVE BORDERS MOUNTED ON MAST ARMS W/ ASTRO-BRACKETS	8 EA
INSTALL ONE-WAY, 4-SECTION, 12-INCH BLACK TRAFFIC SIGNAL HEADS, WITH LED MODULES, BLACK DOOR TRAFFIC SIGNAL HEADS WITH BLACK TUNNEL VISORS, AND 5-INCH LOUVERED BACK PLATES WITH 3-INCH RETROREFLECTIVITY MOUNTED ON MAST ARMS WITH ASTRO-BRACKETS	1 EA
INSTALL ONE-WAY, 16 X 18-INCH LED, SIDE OF POLE MOUNTED, BLACK PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN INDICATION	1 EA
INSTALL ONE-WAY, 16 X 18-INCH LED, TOP OF POST MOUNTED, BLACK PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN INDICATION	9 EA
INSTALL ADA COMPLIANT ACCESSIBLE PEDESTRIAN SIGNAL (APS) BUTTON WITH 9"X15" R10-3e INFORMATIONAL SIGN	10 EA
FURNISH AND INSTALL PEDESTRIAN PUSH BUTTON 12" EXTENSION BRACKET	1 EA
REMOVE EXISTING SIGNAL EQUIPMENT AND STRUCTURES	1 LS
IMPLEMENT SIGNAL TIMINGS AND PHASING PER PLAN	1 LS
FURNISH AND INSTALL MAST ARM MOUNTED SIGNS	11 EA
FURNISH AND INSTALL STRUCTURE POST MOUNTED SIGNS	2 EA
INSTALL ETHERNET SWITCH W/ MIN. 4 GE SFP PORTS AND FIBER OPTIC MEDIA CONVERTERS	1 EA
EQUIPMENT AND WORK ITEMS (ITEM 643.71)	
FURNISH AND INSTALL ETHERNET SWITCH W/ MIN. 4 GE SFP PORTS AND FIBER OPTIC MEDIA CONVERTERS	1 EA
FURNISH AND INSTALL FIBER OPTIC PATCH PANEL	1 EA
TRAFFICWARE ATMS.NOW LICENSE FOR INTERSECTION OF HIGH ST/SPRING ST	1 EA
FURNISH AND INSTALL 14-INCH PRECAST JUNCTION BOX (ITEM 626.11)	9 EA
FURNISH AND INSTALL NON-METALLIC (3")CONDUIT (ITEM 626.22)	1170 LF
FURNISH AND INSTALL NON-METALLIC (1")CONDUIT (ITEM 626.221)	550 LF
FURNISH AND INSTALL METALLIC CONDUIT (ITEM 626.21)	185 LF
FURNISH AND INSTALL CONTROLLER CABINET FOUNDATION (ITEM 626.35)	1 EA
REMOVE OR MODIFY EXISTING STRUCTURE FOUNDATIONS (ITEM 626.36)	7 EA
FURNISH AND INSTALL 24-INCH DIAMETER FOUNDATION (ITEM 626.421)	49 LF
INSTALL VIDEO (THERMAL) DETECTION SYSTEM (ITEM 643.83) ⚠1	1 LS
FURNISH AND INSTALL INTERCONNECT WIRE BETWEEN CONGRESS STREET AND SPRING STREET (±780') (ITEM 643.90)	1 LS
FURNISH AND INSTALL INTERCONNECT WIRE BETWEEN HIGH STREET AND FOREST AVE (±200') (ITEM 643.90)	1 LS
INSTALL MAST ARM POLE, W/ 25' ARM (ITEM 643.91)	1 EA
INSTALL MAST ARM POLE, W/ 40' ARM (ITEM 643.91)	1 EA
INSTALL MAST ARM POLE, W/ 45' ARM (ITEM 643.91)	1 EA
INSTALL (8-FOOT) PEDESTAL POLE (ITEM 643.92)	9 EA

THE LISTED QUANTITIES ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATION ONLY.

SIGNAL TIMINGS

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9
Min Green	--	10	--	--	5	10	--	10	--
Extension	--	2	--	--	2	2	--	2	--
Max I	--	30	--	--	15	30	--	40	--
Max II	--	33	--	--	10	28	--	40	--
Veh. Clear	--	3.0	--	--	3.0	3.0	--	3.0	2.0
Red Clear	--	4.0	--	--	1.5	4.0	--	1.5	1.0
Walk	--	7	--	--	--	7	--	7	7
Ped Clear	--	9	--	--	--	6	--	10	10
Recall	--	NONE	--	--	NONE	NONE	--	SOFT	--
Flash	--	RED	--	--	RED	RED	--	RED	--
Dual Entry	--	ON	--	--	OFF	ON	--	OFF	--
Detector Memory	--	NONE	--	--	NONE	NONE	--	NONE	--

NOTE:
1. EMERGENCY FLASH ONLY. SIGNAL TO OPERATE ON COLORS AT ALL TIMES.
2. SIGNAL SHALL DISPLAY A 3 SECOND ALL RED AFTER CONFLICT FLASH.

COORDINATION CYCLE/SPLIT/OFFSET SCHEDULES

	PATTERN 1	PATTERN 2
Cycle Length	80	90
Offset	50	46
Split Time ϕ 1	--	--
Split Time ϕ 2	30.0	35.0
Split Time ϕ 3	--	--
Split Time ϕ 4	30.0	35.0
Split Time ϕ 5	10.0	10.0
Split Time ϕ 6	20.0	25.0
Split Time ϕ 7	--	--
Split Time ϕ 8	30.0 (c)	35.0 (c)
Split Time ϕ 9	20.0	20.0

NOTE:
1. OFFSET REFERENCED TO END OF GREEN COORDINATED PHASE.
2. COORDINATION TO OPERATE UNDER FIXED FORCE OFF MODE AND MAX 2 MAXIMUM MODE
3. (C) = COORDINATED PHASE
4. PHASE 4 DUMMY PHASE TO BALANCE RING TIMES

COORDINATION SCHEDULE

WEEK PROGRAMING	DAY OF WEEK						
	SUN	MON	TUE	WED	THU	FRI	SAT
DAY PLAN	2	1	1	1	1	1	1

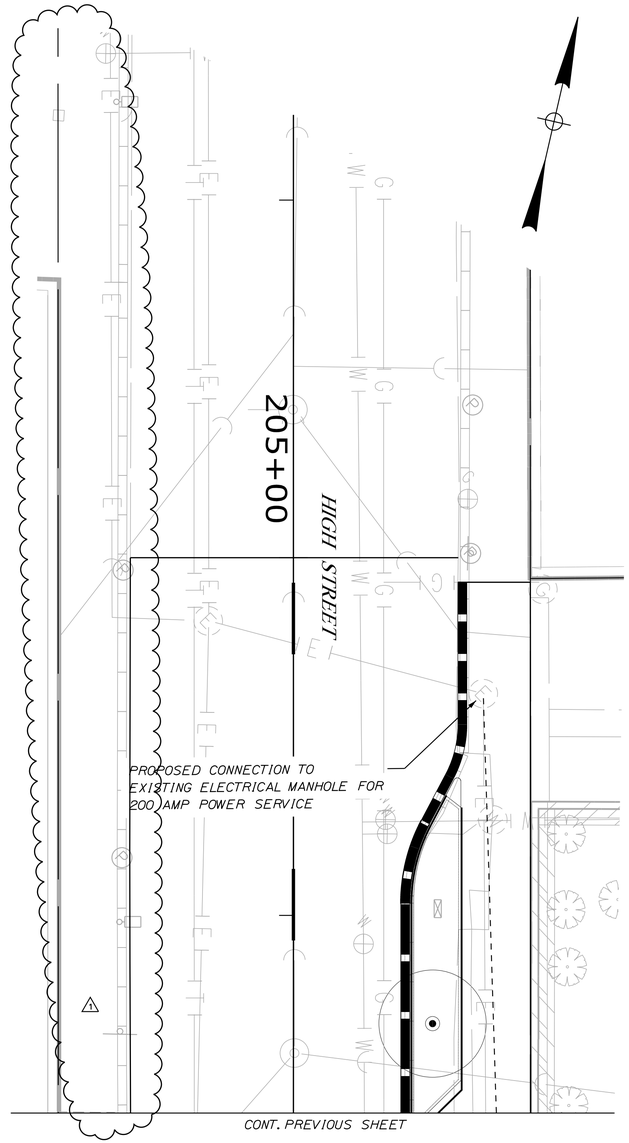
DAY PLAN 1

EVENT	TIME	ACTION
1	00:00	54
2	6:00	1
3	11:45	2
4	19:00	1

DAY PLAN 2

EVENT	TIME	ACTION
1	00:00	54
2	6:00	1

NOTE:
ACTION 54 TO CALL PATTERN 254(FREE), OTHERWISE
ACTION # = PATTERN #



PLAN

10 0 10 20
Scale of Feet

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/11/25	SCK	SCOPE REDUCTION MODIFICATIONS

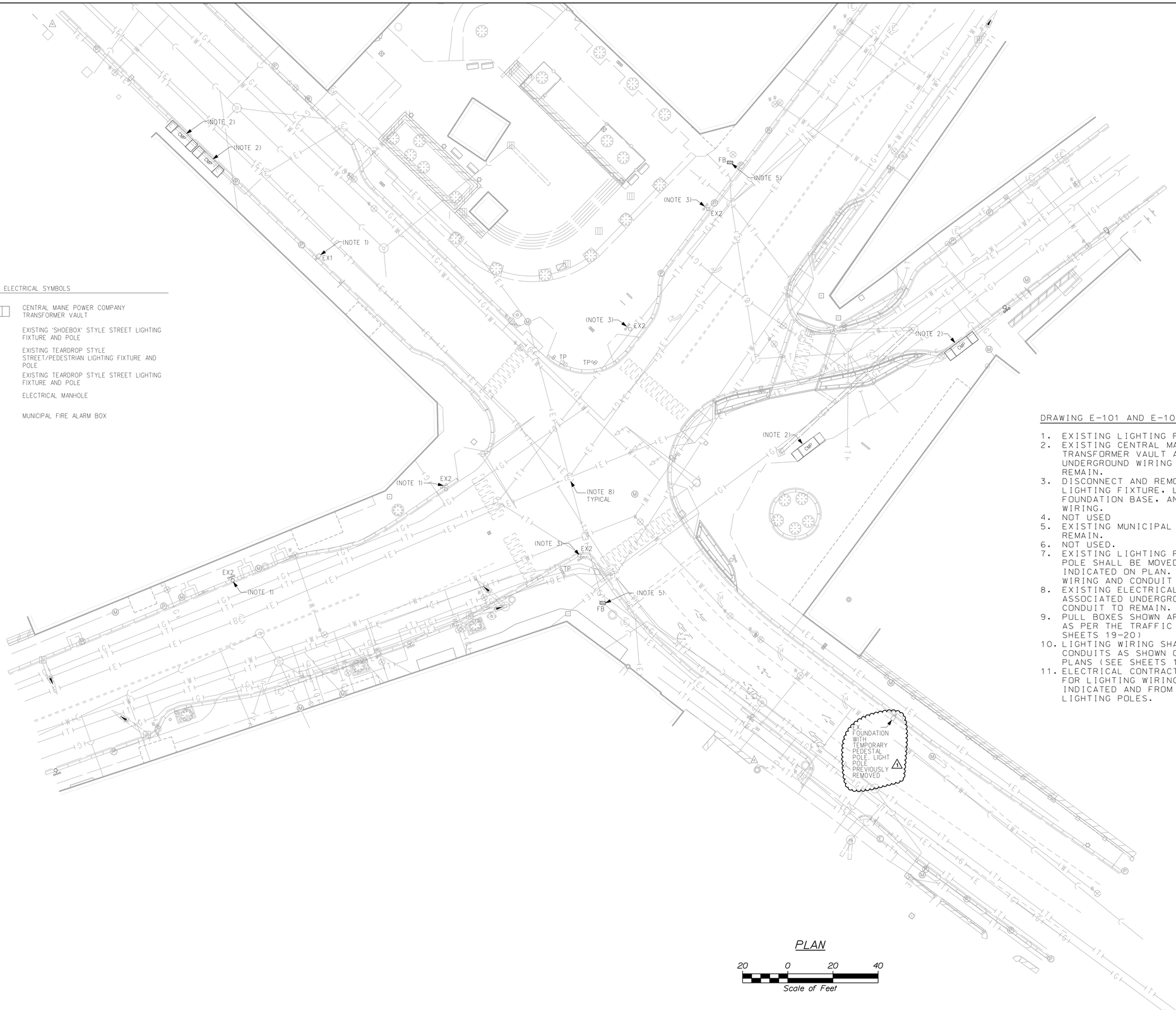
DESIGNED BY: DHC
DRAWN BY: DHC
CHECKED BY: BRL
SCALE: 1" = 10'
DATE: 01-22-2025

STATE OF MAINE DEREK H CALDWELL 14400 LICENSED PROFESSIONAL ENGINEER 09/11/2025

CONGRESS SQUARE IMPROVEMENTS
TRAFFIC SIGNAL PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET # 15 OF 39
PLAN NUMBER



EXISTING ELECTRICAL SYMBOLS

CMP	CENTRAL MAINE POWER COMPANY TRANSFORMER VAULT
EX1	EXISTING 'SHOEBOX' STYLE STREET LIGHTING FIXTURE AND POLE
EX2	EXISTING TEARDROP STYLE STREET/PEDESTRIAN LIGHTING FIXTURE AND POLE
EX3	EXISTING TEARDROP STYLE STREET LIGHTING FIXTURE AND POLE
E	ELECTRICAL MANHOLE
FB	MUNICIPAL FIRE ALARM BOX

DRAWING E-101 AND E-102 NOTES:

1. EXISTING LIGHTING POLE TO REMAIN.
2. EXISTING CENTRAL MAINE POWER COMPANY TRANSFORMER VAULT AND ASSOCIATED UNDERGROUND WIRING AND CONDUIT TO REMAIN.
3. DISCONNECT AND REMOVE EXISITNG LIGHTING FIXTURE, LIGHTING POLE, FOUNDATION BASE, AND ASSOCIATED WIRING.
4. NOT USED
5. EXISTING MUNICIPAL FIRE ALARM TO REMAIN.
6. NOT USED.
7. EXISTING LIGHTING FIXTURE AND LIGHTING POLE SHALL BE MOVED TO LOCATION INDICATED ON PLAN. EXTEND EXISTING WIRING AND CONDUIT AS NECESSARY.
8. EXISTING ELECTRICAL MANHOLES AND ASSOCIATED UNDERGROUND WIRING AND CONDUIT TO REMAIN.
9. PULL BOXES SHOWN ARE TO BE INSTALLED AS PER THE TRAFFIC SIGNAL PLANS (SEE SHEETS 19-20)
10. LIGHTING WIRING SHALL BE RUN IN SPARE CONDUITS AS SHOWN ON TRAFFIC SIGNAL PLANS (SEE SHEETS 14-15)
11. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR LIGHTING WIRING AND CONDUIT WHERE INDICATED AND FROM PULL BOXES TO LIGHTING POLES.

PLAN

20 0 20 40

Scale of Feet

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/11/25	SCK	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: JLC
DRAWN BY: JLC
CHECKED BY: WSB
SCALE: 1"=20'
DATE: 01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER
9/11/2025

CONGRESS SQUARE IMPROVEMENTS
EXISTING ELECTRICAL

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND MAINE RESURGAM

SHEET # 16 OF 39

PLAN NUMBER E-101

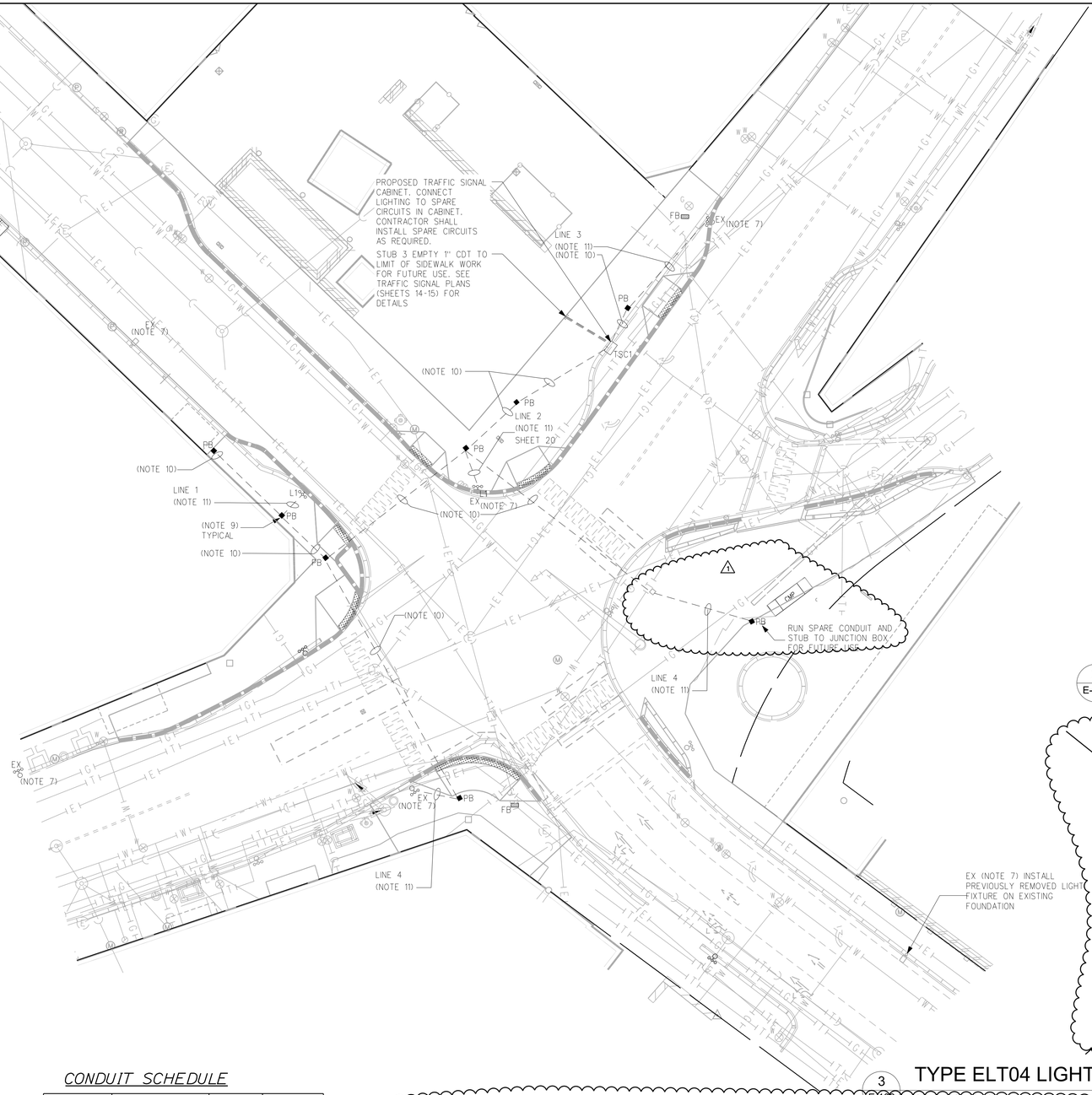
PROPOSED ELECTRICAL SYMBOLS

L1		PROPOSED CITY SUPPLIED STREET LIGHTING POLES, FIXTURES, AND ANCHOR BOLT- SEE CITY OF PORTLAND TECHNICAL MANUAL, FIGURE X-5F DOWNTOWN COMBO FOR DETAILS. CONTRACTOR SHALL SUPPLY AND INSTALL FOUNDATIONS.
ELT04		PROPOSED ELT04 STREET LIGHTING. SEE DETAILS BELOW.
EX		RELOCATED LIGHTING FIXTURE AND POLE- SEE NOTE 7 FOR DETAILS. CONTRACTOR SHALL SUPPLY NEW FOUNDATION AND ANCHOR BOLTS FOR ASSEMBLY OF RELOCATED LIGHTING FIXTURE.
PB	■	PULL BOX (AS SHOWN ON SIGNAL PLANS)
		PROPOSED 1" NON-METALLIC CONDUIT
TSC1	▭	TRAFFIC SIGNAL CABINET

DRAWING E-101 AND E-102 NOTES:

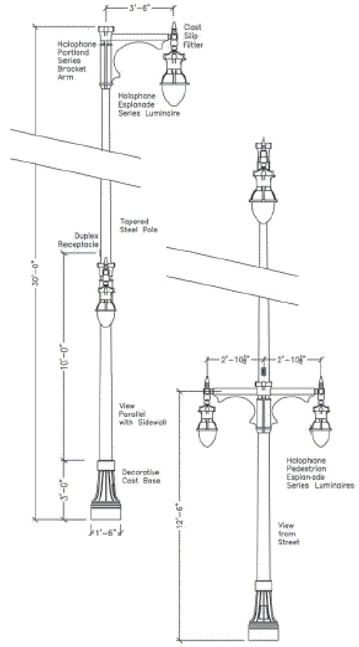
1. EXISTING LIGHTING POLE TO REMAIN.
2. EXISTING CENTRAL MAINE POWER COMPANY TRANSFORMER VAULT AND ASSOCIATED UNDERGROUND WIRING AND CONDUIT TO REMAIN.
3. DISCONNECT AND REMOVE EXISITNG LIGHTING FIXTURE, LIGHTING POLE, FOUNDATION BASE, AND ASSOCIATED WIRING.
4. NOT USED
5. EXISTING MUNICIPAL FIRE ALARM TO REMAIN.
6. NOT USED.
7. EXISTING LIGHTING FIXTURE AND LIGHTING POLE SHALL BE MOVED TO LOCATION INDICATED ON PLAN. EXTEND EXISTING WIRING AND CONDUIT AS NECESSARY.
8. EXISTING ELECTRICAL MANHOLES AND ASSOCIATED UNDERGROUND WIRING AND CONDUIT TO REMAIN.
9. PULL BOXES SHOWN ARE TO BE INSTALLED AS PER THE TRAFFIC SIGNAL PLANS (SEE SHEETS 19-20)
10. LIGHTING WIRING SHALL BE RUN IN SPARE CONDUITS AS SHOWN ON TRAFFIC SIGNAL PLANS (SEE SHEETS 14-15)
11. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR LIGHTING WIRING AND CONDUIT WHERE INDICATED AND FROM PULL BOXES TO LIGHTING POLES.

0 20' 40'
SCALE: 1" = 20'
N



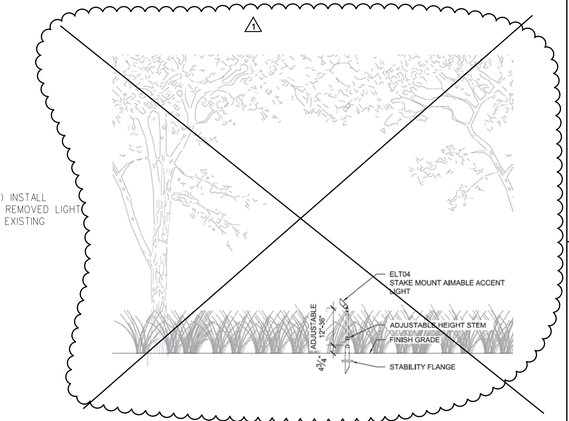
PROPOSED LIGHTING PLAN

1 E-102 SCALE: 1" = 20'-0"



TYPE L1 LIGHTING POLE

2 E-102 SCALE: NOT TO SCALE



TYPE ELT04 LIGHTING FIXTURE SPEC AND INSTALLATION

3 E-102 SCALE: NOT TO SCALE

CONDUIT SCHEDULE

LINE #	TYPE	LENGTH (FT.)	NO. OF RUNS
1	1" PVC SCH. 80	9	1
2	1" PVC SCH. 80	10	1
3	1" PVC SCH. 80	38	1
⚠1 4	1" PVC SCH. 80	34	1

NOTE: CONDUIT LABELED AS NOTE 10 ARE NOT INCLUDED IN THIS CONDUIT TABLE. SEE TRAFFIC SIGNAL PLANS (SHEETS 19-20) FOR TABULATION OF THESE CONDUITS

FIXTURE TYPE/ POLE TYPE	FIXTURE DESCRIPTION	MANUFACTURER'S CATALOG REFERENCE	LIGHT SOURCE QUANTITY	UNITS (EA/LF)	SOURCE WATTAGE	SOURCE TYPE	SOURCE REFERENCE	COMMENTS	EXTENDED WATTAGE (W)	VOLTAGE (V)	DIMMING	POWER SUPPLY (INTEGRAL/REMOTE)
ELT04	STEM MOUNTED ACCENT LIGHTING DESCRIPTION: IP66, UNIBODY DESIGN, WATER-PROOF, WIDE FLOOD 3TOPTIC DIMENSIONS: 7" X 2-1/16 ACCESSORIES: HONEYCOMB BAFFLE, SOFT FOCUS LENS, ASCAP, ADJUSTABLE 12'-36' CUSTOM STEM	LUMINAIRE: BK STAFF STAR 'L' SF-LENGTH-L-LED-e64-WFL-A9-FINISH-12-11-A-MOD MOUNTING: BK LIGHTING PPIBB WITH SF (STABILITY FLANGE) POWER SUPPLY: BK LIGHTING TR-LOAD-VOLTAGE	1	EA	7 W ⚠1	LED	BY MFG/BK 2700K CRI	1) MODIFIED ADJUSTABLE STEM LENGTH	7W	INPUT VOLTAGE 12 V	NON DIM	REMOTE TRANSFORMER

TYPE ELT04 LIGHTING FIXTURE SPEC AND INSTALLATION

3 E-102 SCALE: NOT TO SCALE

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/11/25	SCX	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: JLC
DRAWN BY: JLC
CHECKED BY: VKSB
SCALE: 1"=20'
DATE: 01-22-2025

CONGRESS SQUARE IMPROVEMENTS
PROPOSED ELECTRICAL

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET # 17 OF 39
PLAN NUMBER E-102

THE WESTIN PORTLAND HARBORVIEW

CONGRESS SQUARE APARTMENTS

HH HAY BUILDING

CHILDREN'S MUSEUM & THEATRE OF MAINE

STATE THEATRE

SCHWARTZ BLDG

PORTLAND MUSEUM OF ART

CONGRESS STREET

HIGH STREET

FREE STREET

LIMIT OF WORK

WORK IN THIS AREA LIMITED TO PLANTING AND ASSOCIATED PLANTING MATERIALS

SLOT DRAIN SEE CIVIL DWGS

EXISTING VAULT

EXISTING VAULT

EXISTING SCULPTURE

ROW

automatic door opener

elec. box

fire box

PROPOSED SITE FEATURES LEGEND

- PROJECT LIMIT LINE
- 1 PRECAST CONC. BENCH (1 #23)
- 2 4" HT GRANITE PLANTER CURB (1 #27, 6,7 #27)
- 3 GRANITE BLOCKS (11 #22, 7 #22)
- 4 4"W GRANITE PAVING BAND (4A #27)
- 5 ADA RAMP WITH TRUNCATED DOMES, SEE CIVIL DWGS (1)
- 6 BIKE RACK (6 TOTAL) (10 #22)
- PROPOSED TREE. ALL TREES TO BE SUPPLIED AND INSTALLED BY PARKS DEPARTMENT (1)
- TRAFFIC POLE, SEE CIVIL DWGS
- TRAFFIC LIGHT, SEE CIVIL DWGS
- PEDESTRIAN LIGHT, SEE ELECTRICAL DWGS
- EXISTING LIGHT TO REMAIN, SEE ELECTRICAL DWGS

EXISTING SITE FEATURES LEGEND

- SANITARY MANHOLE
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- TELEPHONE MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNKNOWN MANHOLE
- PARKING METER
- GAS GATE VALVE
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- SIGN
- BOLLARD
- CATCH BASIN

0 20' 40'
SCALE: 1" = 20'

N

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT KEITH S. WILSON No. 4383 STATE OF MAINE

CONGRESS SQUARE IMPROVEMENTS

STREETSCAPE AND LANDSCAPING LAYOUT PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

RESURGAM CIVITAS PORTLANDIA MAINE

SHEET # 18 OF 39

PLAN NUMBER

THE WESTIN PORTLAND HARBORVIEW

CONGRESS SQUARE APARTMENTS

HH HAY BUILDING

CHILDREN'S MUSEUM & THEATRE OF MAINE

PORTLAND MUSEUM OF ART

CONGRESS STREET

HIGH STREET

FREE STREET

LIMIT OF WORK

DIRECTION OF RUNNING BOND PAVING PERPENDICULAR TO FACE OF CURB

DIRECTION OF RUNNING BOND PAVING PERPENDICULAR TO FACE OF BUILDING

DIRECTION OF RUNNING BOND PAVING PERPENDICULAR TO FACE OF PMA BUILDING

SLOT DRAIN SEE CIVIL DWGS

WORK IN THIS AREA LIMITED TO PLANTING AND ASSOCIATED PLANTING MATERIALS

SOLDIER COURSE BRICK PATTERN TO BE INSTALLED BETWEEN EXISTING BRICK AND PROPOSED BRICK. SEE DETAIL 12, SHEET #27.

ROW

TYP.

NOTE:

1. THE CONTRACTOR SHALL INCORPORATE INTO THE PROJECT GRANITE PAVERS FROM A CITY STOCKPILE IN THE FOLLOWING QUANTITIES OF PAVERS:

TYPE B (CALEDONIA GREY) - 1,465 SF

THE PAVERS ARE STOCKPILED AT THE CITY'S DISTRICT ROAD FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RETRIEVING AND TRANSPORTING FROM THE FACILITY AT THE CITY'S CONVENIENCE. CONTRACTOR IS RESPONSIBLE FOR PROCURING AND INSTALLING THE REMAINING QUANTITIES OF PAVERS AS PER THE DRAWINGS AND SPECIFICATION.

NOTE:
SEE CIVIL DRAWING SHEET #7 FOR VARIED SUB BASE CONDITION.

MATERIALS LEGEND

- PROJECT LIMIT LINE
- PROPOSED GRANITE PAVER IN DARK GREY COLOR 6" X 12" x 2" (1/#27)
- PROPOSED BRICK PAVER (1/#27)
- C.I.P. CONCRETE CURB RAMP, SEE CIVIL DWG
- PROPOSED C.I.P. CONCRETE PAVING (2/#27)
- PRECAST CONCRETE BENCH (1/#33)
- PROPOSED GRANITE PLANTER CURB (4/#33)
- PLANTING AREA
- PROPOSED TREE. ALL TREES TO BE SUPPLIED AND INSTALLED BY PARKS DEPARTMENT (1)
- TRAFFIC POLE, SEE CIVIL DWGS
- TRAFFIC LIGHT, SEE CIVIL DWGS
- PEDESTRIAN LIGHT, SEE ELECTRICAL DWGS
- EXISTING LIGHT TO REMAIN, SEE ELECTRICAL DWGS

EXISTING SITE FEATURES LEGEND

- SANITARY MANHOLE
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- TELEPHONE MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNKNOWN MANHOLE
- PARKING METER
- GAS GATE VALVE
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- SIGN
- BOLLARD
- CATCH BASIN

0 20' 40'
SCALE: 1" = 20'

N

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT KEITH SUTHERLAND No. 4383 STATE OF MAINE

CONGRESS SQUARE IMPROVEMENTS

STREETSCAPE AND LANDSCAPING MATERIALS PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET # 19 OF 39

PLAN NUMBER

THE WESTIN PORTLAND HARBORVIEW

CONGRESS SQUARE APARTMENTS

HH HAY BUILDING

CHILDREN'S MUSEUM & THEATRE OF MAINE

STATE THEATRE

PORTLAND MUSEUM OF ART

SCHWARTZ BLDG

CONGRESS STREET

HIGH STREET

FREE STREET

LIMIT OF WORK

WORK IN THIS AREA LIMITED TO PLANTING AND ASSOCIATED PLANTING MATERIALS

SLOT DRAIN
SEE CIVIL DWGS

ROW

1 QB

2 #25

1 #25

PLANTING LEGEND

- PROJECT LIMIT LINE
- PARK PLANTING, SEE PLANTING SCHEDULE
- STREET PLANTING, SEE PLANTING SCHEDULE
- PROPOSED TREE, ALL TREES TO BE SUPPLIED AND INSTALLED BY PARKS DEPARTMENT
- TRAFFIC POLE, SEE CIVIL DWGS
- TRAFFIC LIGHT, SEE CIVIL DWGS
- PEDESTRIAN LIGHT, SEE ELECTRICAL DWGS
- EXISTING LIGHT TO REMAIN, SEE ELECTRICAL DWGS

EXISTING SITE FEATURES LEGEND

- SANITARY MANHOLE
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- TELEPHONE MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNKNOWN MANHOLE
- PARKING METER
- GAS GATE VALVE
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- SIGN
- BOLLARD
- CATCH BASIN

0 20' 40'
SCALE: 1" = 20'

N

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

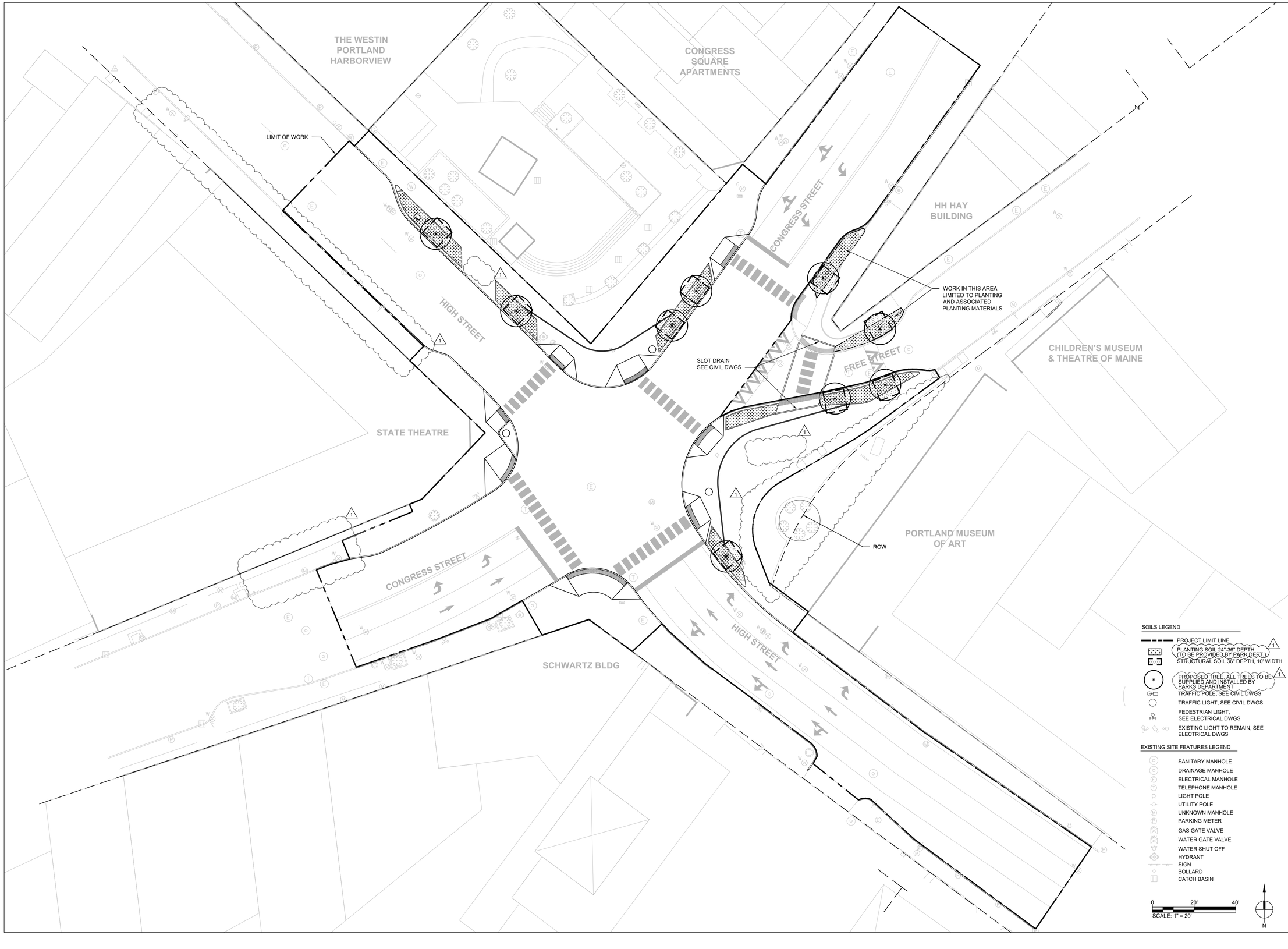
LICENSED LANDSCAPE ARCHITECT
KEITH SUMMERTON
No. 4383
STATE OF MAINE

CONGRESS SQUARE IMPROVEMENTS
PLANTING PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET # 20 OF 39

PLAN NUMBER



LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT KEITH SUTHERLAND No. 4383 STATE OF MAINE

CONGRESS SQUARE IMPROVEMENTS

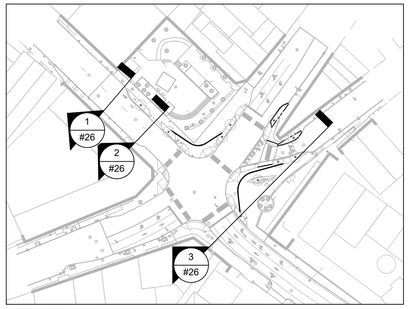
SOIL PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

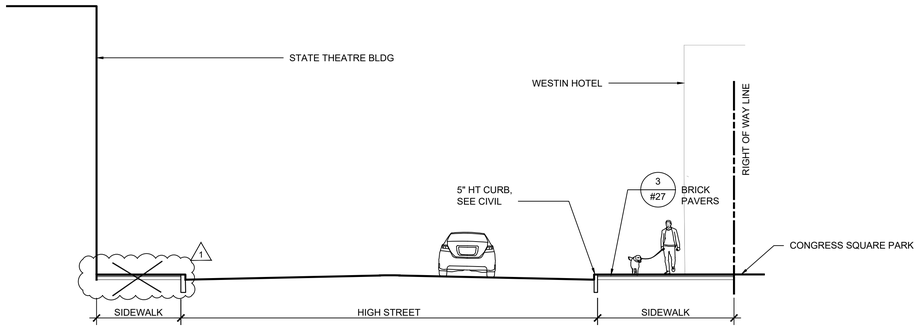
CITY OF PORTLAND, MAINE RESURGAM

SHEET # 21 OF 39

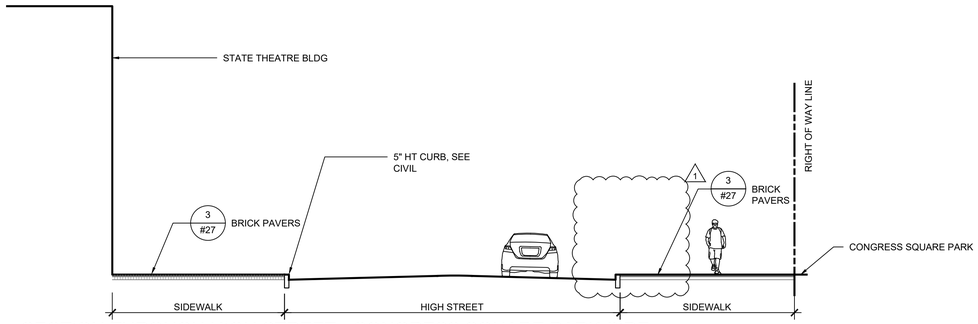
PLAN NUMBER



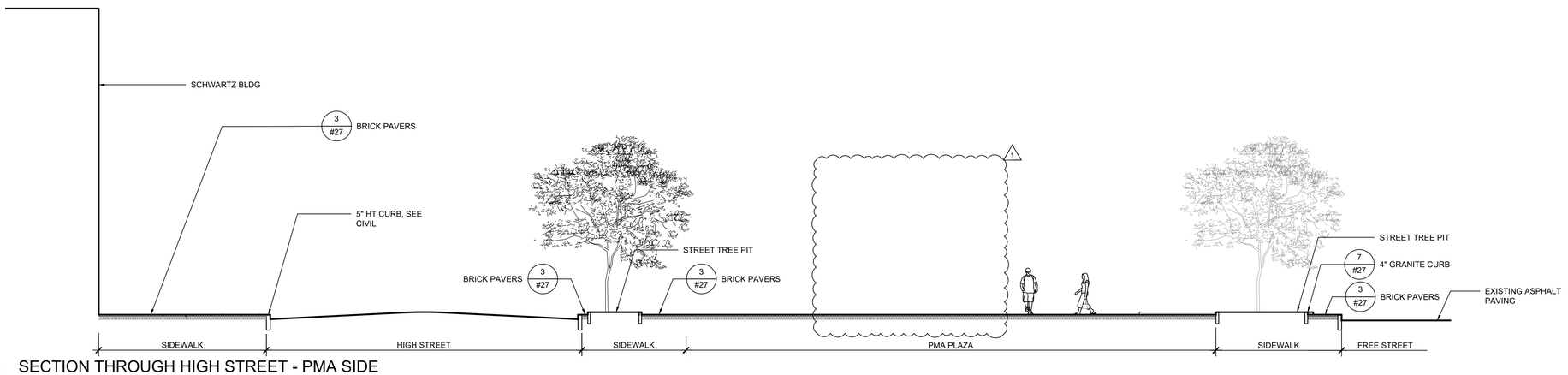
KEY PLAN



1 SECTION THROUGH HIGH STREET - CONGRESS SQUARE PARK SIDE
SCALE: 1/8" = 1'-0"



2 SECTION THROUGH HIGH STREET - CONGRESS SQUARE PARK SIDE
SCALE: 1/8" = 1'-0"



3 SECTION THROUGH HIGH STREET - PMA SIDE
SCALE: 1/8" = 1'-0"

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

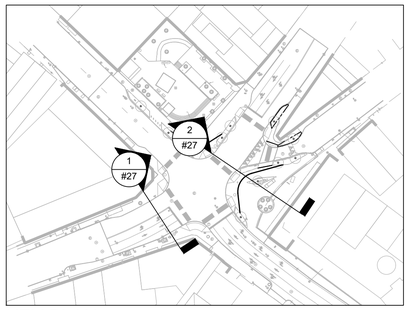
DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT
KEITH SUTHERLAND No. 4383
STATE OF MAINE

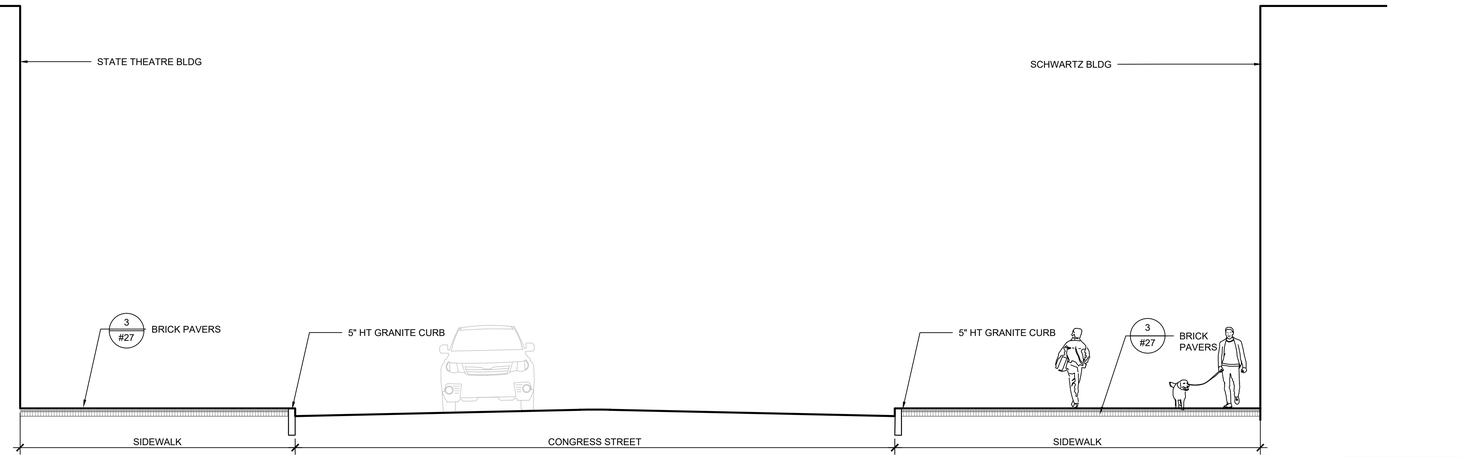
CONGRESS SQUARE IMPROVEMENTS
SECTIONS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET # 22 OF 39
PLAN NUMBER

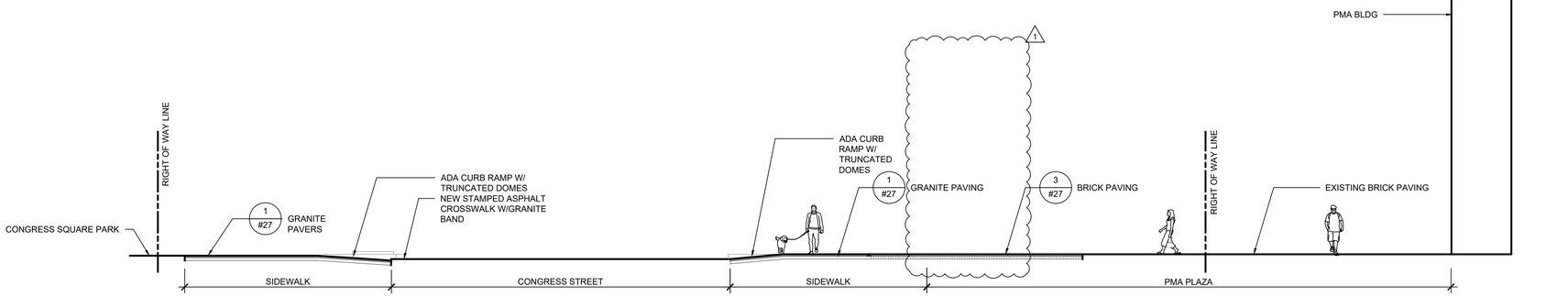


KEY PLAN



1 SECTION THROUGH CONGRESS STREET

SCALE: 3/16" = 1'-0"



2 SECTION THROUGH CONGRESS STREET - PMA SIDE

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

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT KEITH D. SUTHERLAND No. 4383 STATE OF MAINE

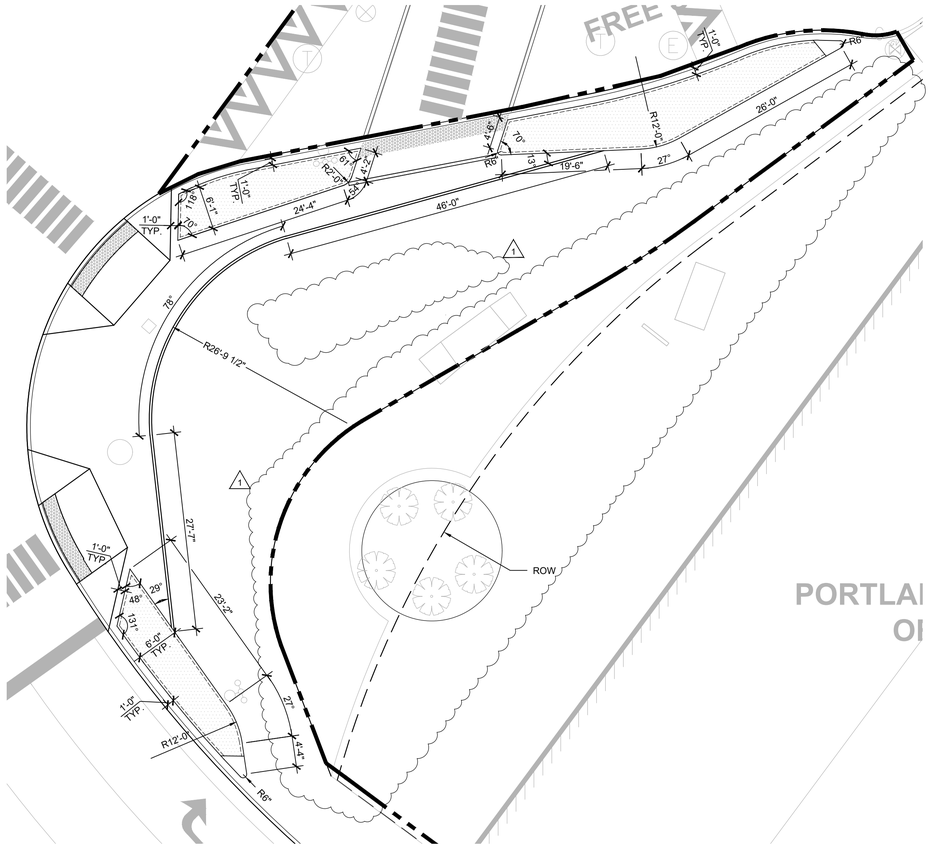
CONGRESS SQUARE IMPROVEMENTS
SECTIONS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

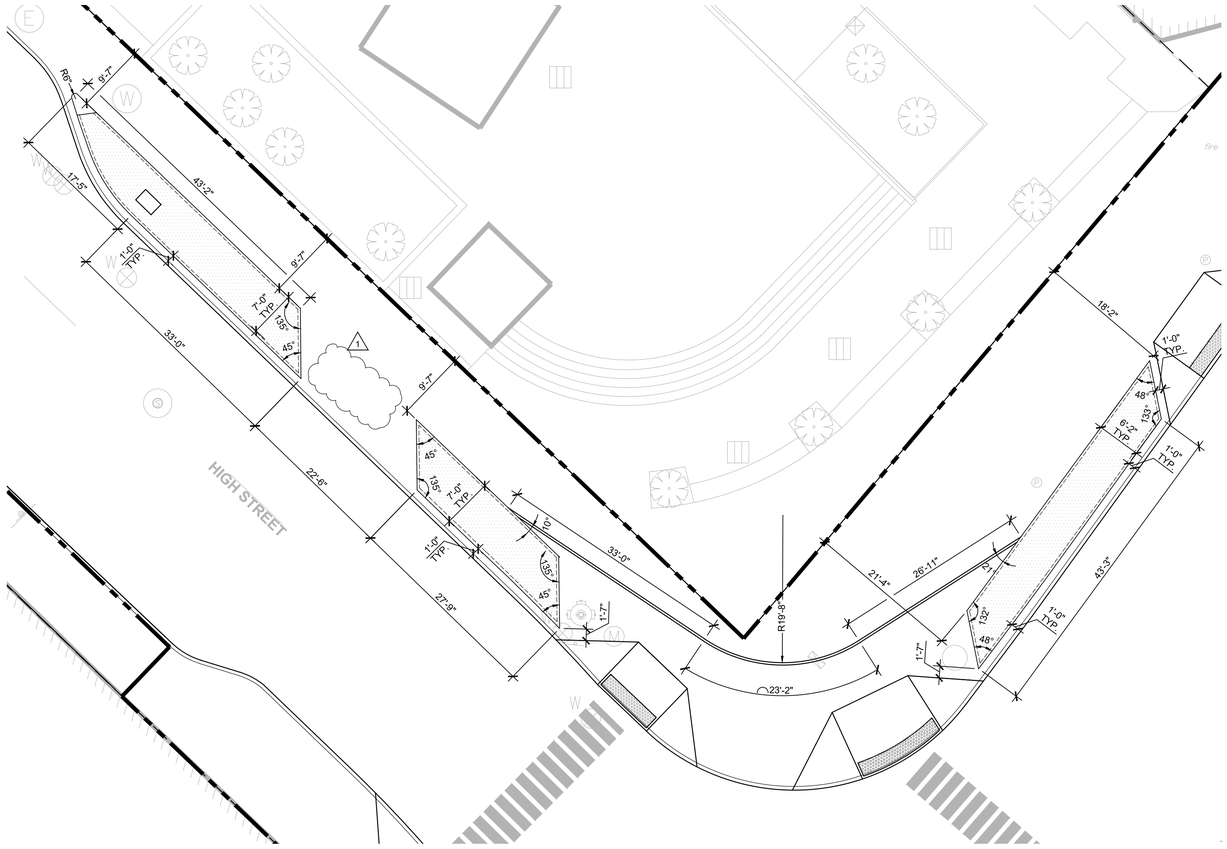
CITY OF PORTLAND, MAINE RESURGAM

SHEET # 23 OF 39

PLAN NUMBER



1 ENLARGEMENT PLAN
SCALE: 1" = 10'



2 ENLARGEMENT PLAN
SCALE: 1" = 10'

0 10' 20'
SCALE: 1" = 10'

N

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

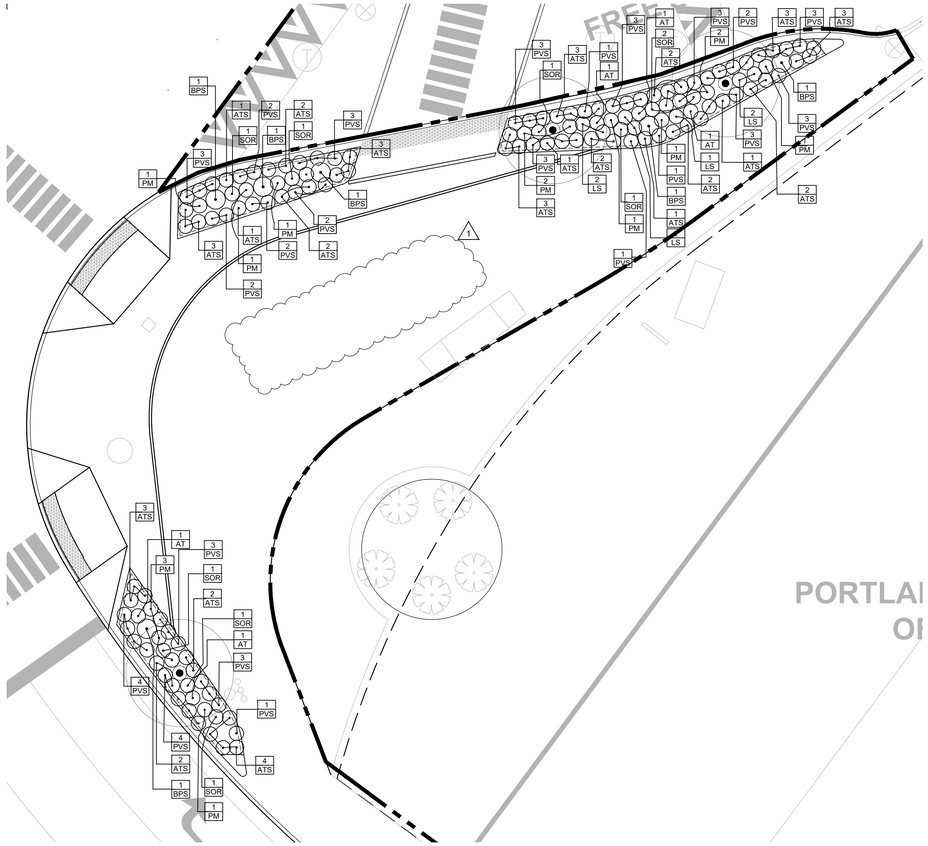
DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT
KEITH N. GOLDEN
No. 4383
STATE OF MAINE

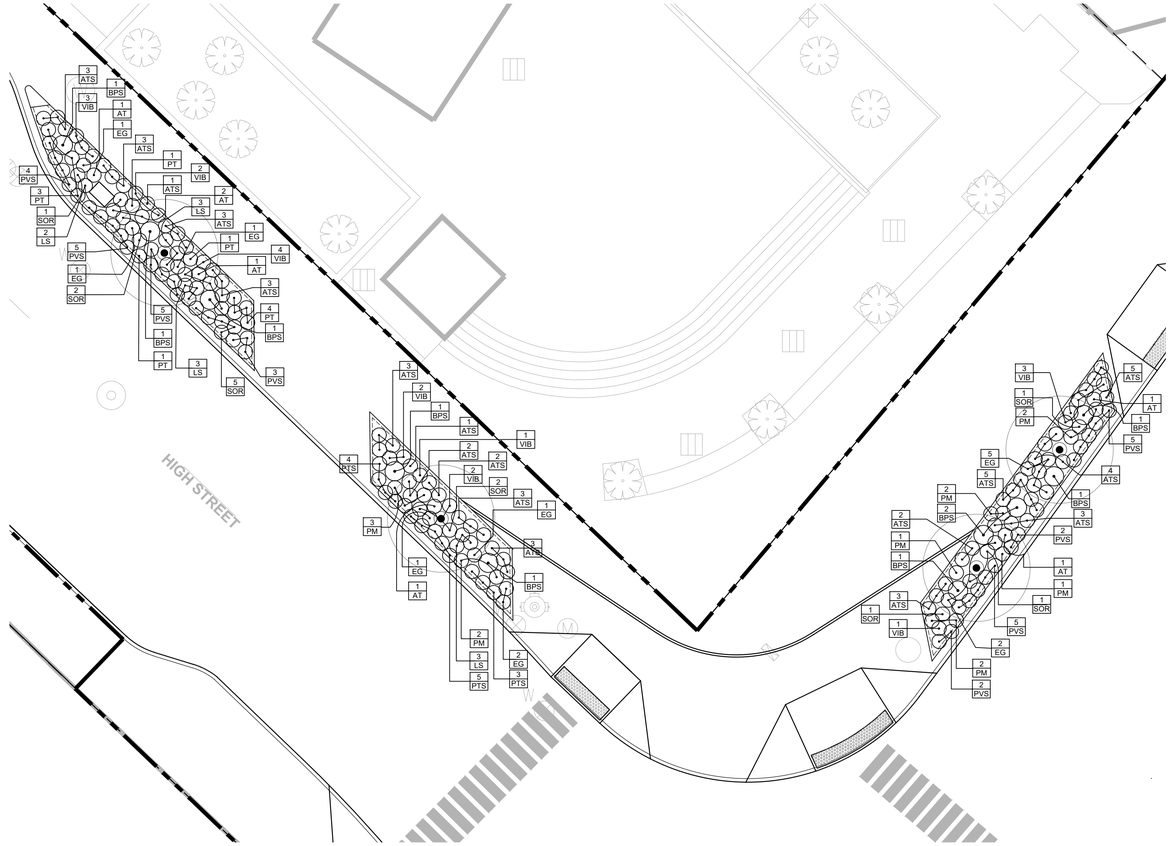
CONGRESS SQUARE IMPROVEMENTS
STREETSCAPE AND LANDSCAPING
ENLARGEMENT PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

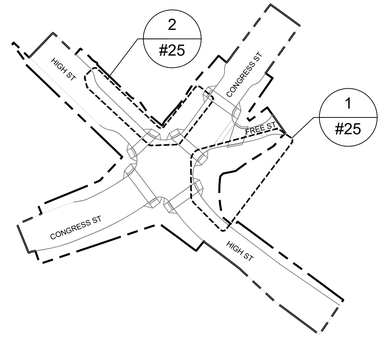
SHEET # 24 OF 39
PLAN NUMBER



1 ENLARGEMENT PLAN
SCALE: 1" = 10'



2 ENLARGEMENT PLAN
SCALE: 1" = 10'



KEY MAP

0 20' 40'
SCALE: 1" = 20'

N

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT
KEITH SUMPTER
No. 4383
STATE OF MAINE

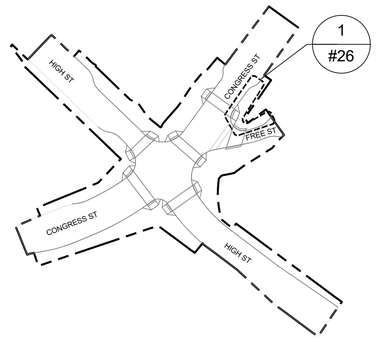
CONGRESS SQUARE IMPROVEMENTS
PLANTING PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

RESURGAM CITY OF PORTLAND, MAINE

SHEET # 25 OF 39
PLAN NUMBER

1 ENLARGEMENT PLAN
SCALE: 1" = 10'



KEY MAP

0 20' 40'
SCALE: 1" = 20'

N

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

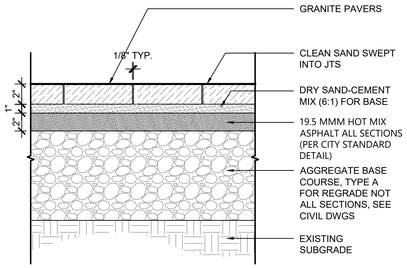
LICENSED LANDSCAPE ARCHITECT
KEITH SUMMERTON
No. 4383
STATE OF MAINE

CONGRESS SQUARE IMPROVEMENTS

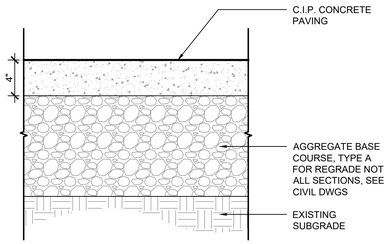
PLANTING PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET # 26 OF 39
PLAN NUMBER

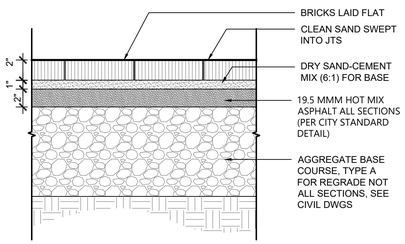


1 PEDESTRIAN GRANITE PAVERS - SECTION
SCALE: 1 1/2" = 1'-0"

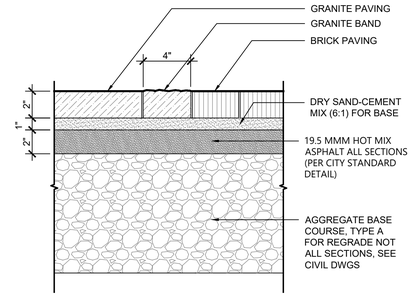


2 C.I.P. CONCRETE PAVING - SECTION
SCALE: 1 1/2" = 1'-0"

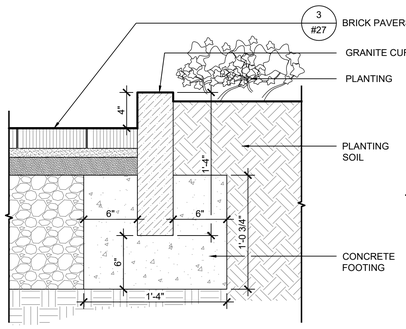
PORTLAND STANDARD BRICKS:
4X8 PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO. MADISON, NORTH CAROLINA. LACHANCE ITEM # 193623, PINE HALL PATHWAY PAVER BRICK



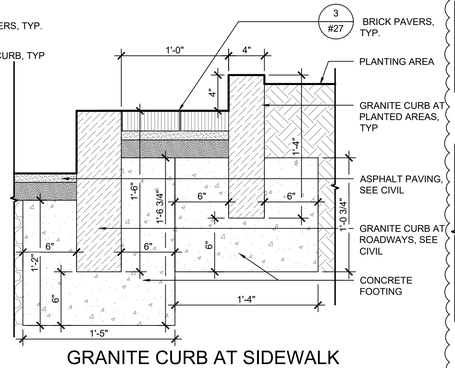
3 BRICK PAVERS - SECTION
SCALE: 1 1/2" = 1'-0"



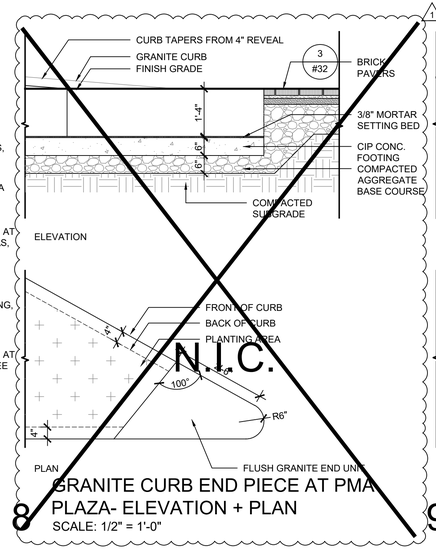
5 BAND AT GRANITE PAVER AND BRICK PAVING - SECTION
SCALE: 2" = 1'-0"



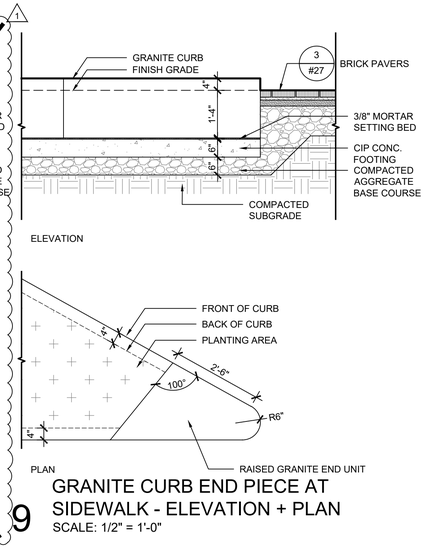
6 GRANITE CURB AT PLANTING AT PMA PLAZA - SECTION
SCALE: 1 1/2" = 1'-0"



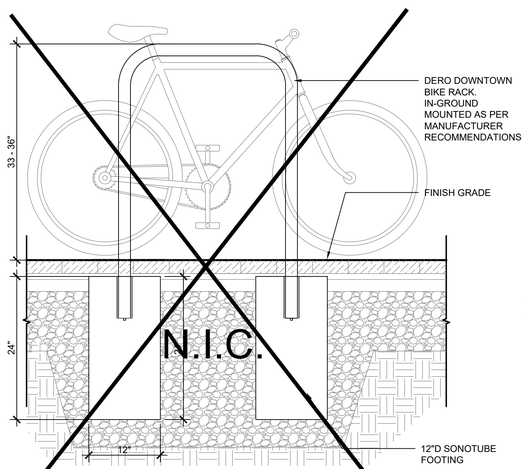
7 GRANITE CURB AT SIDEWALK PLANTING - SECTION
SCALE: 1 1/2" = 1'-0"



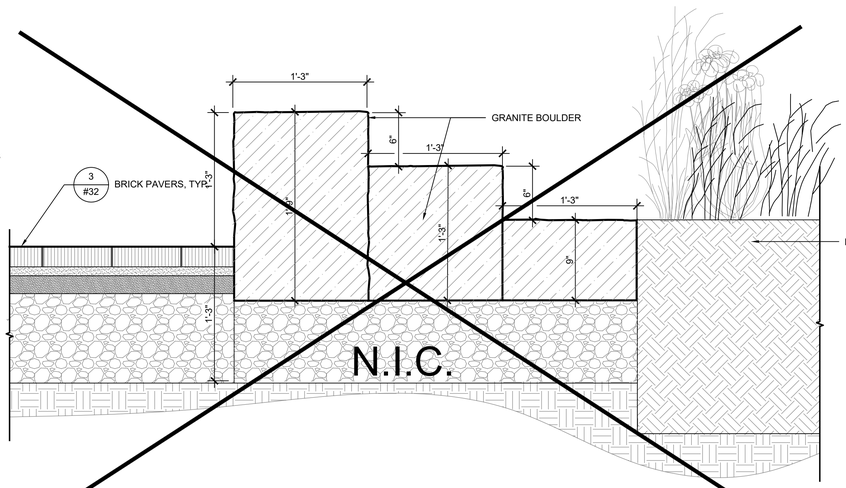
8 GRANITE CURB END PIECE AT PMA PLAZA- ELEVATION + PLAN
SCALE: 1/2" = 1'-0"



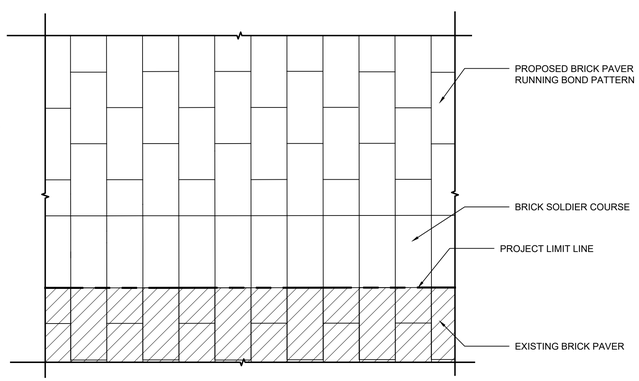
9 GRANITE CURB END PIECE AT SIDEWALK - ELEVATION + PLAN
SCALE: 1/2" = 1'-0"



10 BIKE RACK, TYP - SECTION
SCALE: 1" = 1'-0"



11 STACKED GRANITE BENCH AT PMA PLAZA - SECTION
SCALE: 1 1/2" = 1'-0"



12 BRICK TRANSITION DETAIL AT PMA PLAZA - PLAN
SCALE: 1 1/2" = 1'-0"

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJD
SCALE: 1"=20'
DATE: 09-08-2025

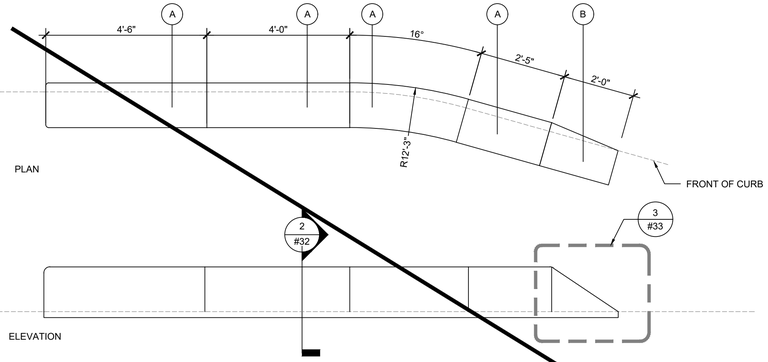
LICENSED LANDSCAPE ARCHITECT
KEITH SUTTON
No. 4383
STATE OF MAINE

CONGRESS SQUARE IMPROVEMENTS
SITE DETAILS

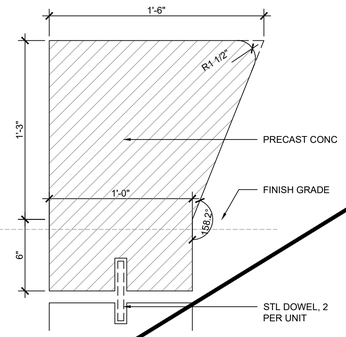
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

RESURGAM CITY OF PORTLAND, MAINE

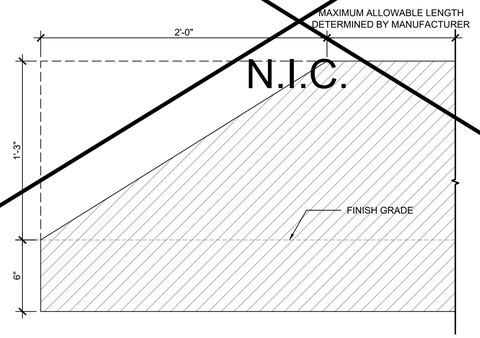
SHEET # 27 OF 39
PLAN NUMBER



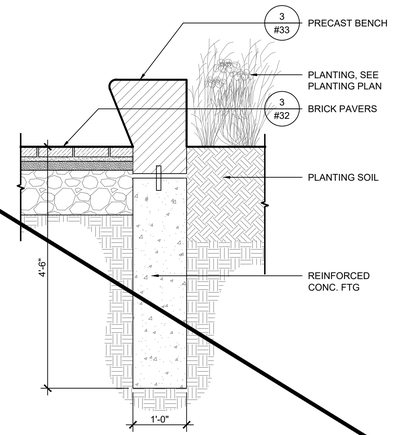
1 PRECAST CONC. BENCH - PLAN AND ELEVATION
SCALE: 1/2" = 1'-0"



2 PRECAST CONC. BENCH TYPE A - SECTION
SCALE: 2" = 1'-0"



3 PRECAST CONC. BENCH - TYPE B - ELEVATION
SCALE: 2" = 1'-0"



4 PRECAST CONC BENCH, TYP - SECTION
SCALE: 3/4" = 1'-0"

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

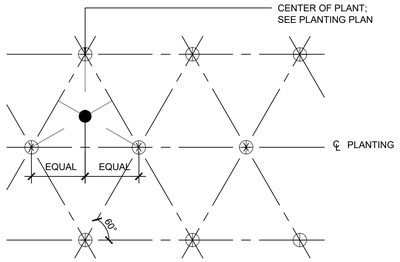
DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJO
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT
KEITH S. MUNSTER
No. 4383
STATE OF MAINE

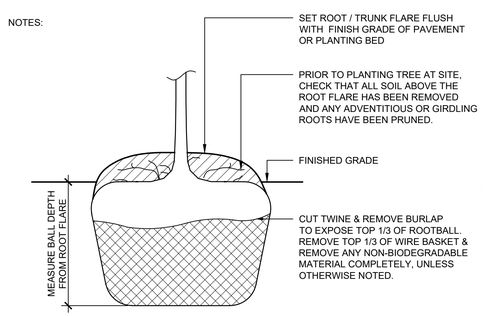
CONGRESS SQUARE IMPROVEMENTS
SITE DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

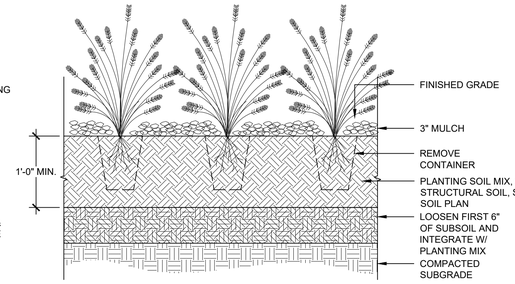
SHEET # 28 OF 39
PLAN NUMBER



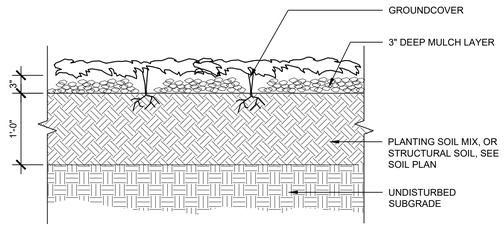
1 PERENNIAL / ORNAMENTAL GRASS PLANTING PLAN, TYP
N.T.S.



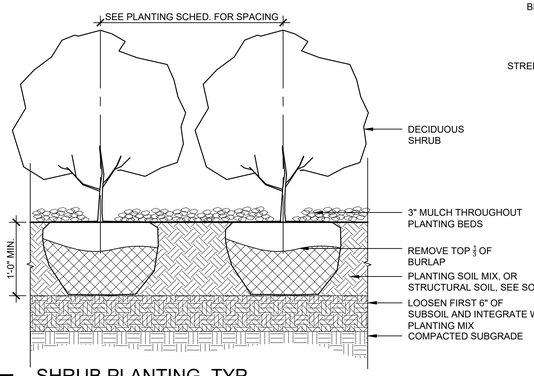
2 ROOT BALL PREPARATION, TYP
N.T.S.



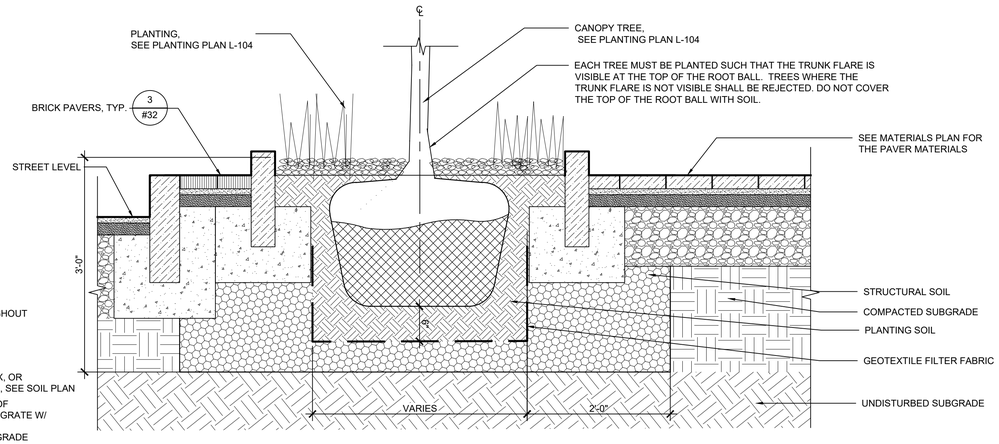
3 PERENNIAL / ORNAMENTAL GRASS PLANTING
SCALE: 1" = 1'-0"



4 GROUNDCOVER / FERNS PLANTING, TYP
SCALE: 1" = 1'-0"



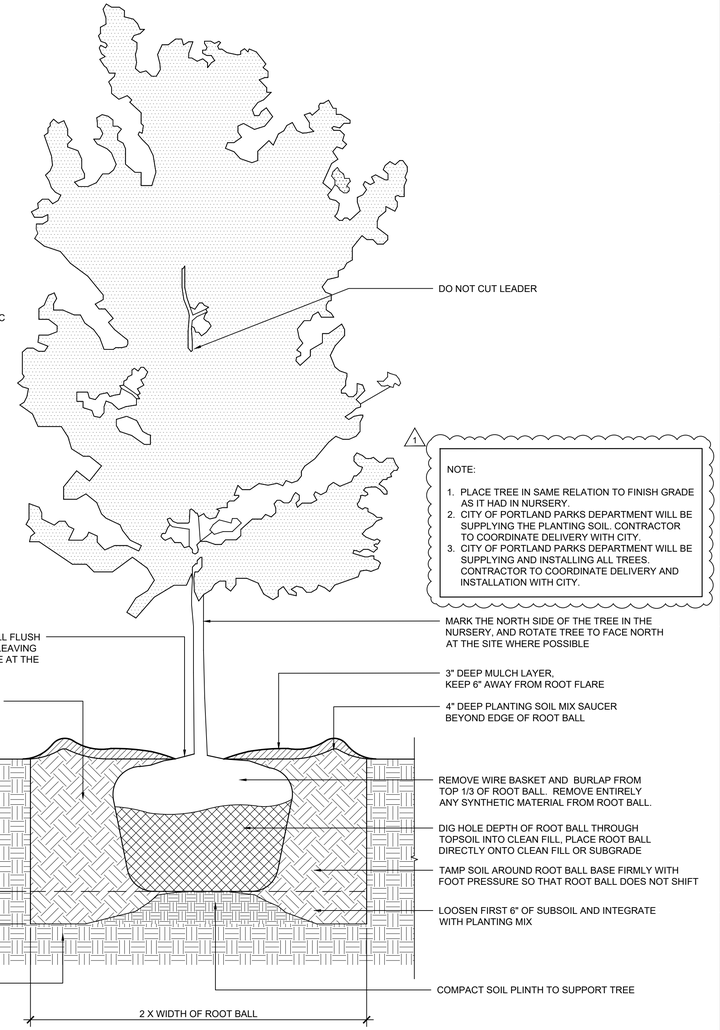
5 SHRUB PLANTING, TYP
N.T.S.



6 DECIDUOUS TREE PLANTING IN STRUCTURAL SOIL AT SIDEWALK - SECTION
SCALE: 1" = 1'-0"

PLANTING SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE AT PLANTING	SIZE AT MATURITY	SPACING	NOTES
LARGE SHADE TREES						
QB	*Quercus bicolor*	SWAMP WHITE OAK	3.5"- 4" CAL.	50-60' HT.	SEE PLAN	B & B
BP	*Betula populifolia*	GREY BIRCH	3.5"- 4" CAL.	20'-40' HT	SEE PLAN	SINGLE STEM, B & B
GRASSES						
PVS	*Panicum virgatum 'Shenandoah'*	SWITCH GRASS	#1 CONT,	36"-64" HT.	36" O.C.	
SSO	*Schizachyrium scoparium 'Standing Ovation'*	LITTLE BLUESTEM	#1 CONT,	24"-48" HT.	18" O.C.	
PERENNIALS						
ATS	*Amsonia tabernaemontana var. salicifolia*	BLUESTAR	#1 CONT,	24"-36" HT.	36" O.C.	
AT	*Asclepias tuberosa*	BUTTERFLY WEED	#1 CONT,	24"-36" HT.	36" O.C.	
AH	*Amsonia hubrichtii*	ARKANSAS AMSONIA	#1 CONT,	24"-36" HT.	36" O.C.	
BPS	*Baptisia 'Purple Smoke'*	FALSE INDIGO	#1 CONT,	36"-48" HT.	36" O.C.	
EG	*Euthamia graminifolia*	FLAT-TOP GOLDENTOP	#1 CONT,	36"-48" HT.	36" O.C.	
LS	*Liatris spicata*	BLAZING STAR	#1 CONT,	24"-48" HT.	36" O.C.	
PM	*Pycnanthemum muticum*	MOUNTAIN MINTS	#1 CONT,	24"-36" HT.	36" O.C.	
PT	*Pycnanthemum tenuifolium*	MOUNTAIN MINTS	#1 CONT,	24"-36" HT.	36" O.C.	
SLB	*Symphyotrichum laeve 'bluebird'*	SMOOTH ASTER	#1 CONT,	24"-36" HT.	36" O.C.	
SOR	*Symphyotrichum oblongifolium 'raydon's favorite'*	AROMATIC ASTER	#1 CONT,	24"-36" HT.	36" O.C.	
VIB	*Vernonia lettermannii 'Iron Butterfly'*	IRONWEED	#1 CONT,	24"-36" HT.	36" O.C.	



7 DECIDUOUS TREE PLANTING IN PLANTING BED - SECTION
SCALE: 1" = 1'-0"

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REVISIONS:

REV.	DATE	BY	STATUS
1	09/08/25	WRT	SCOPE REDUCTION MODIFICATIONS

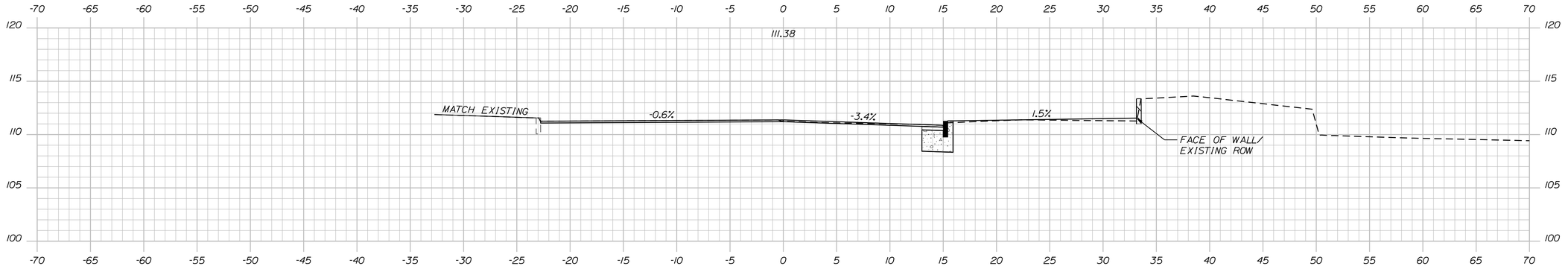
DESIGNED BY: WRT
DRAWN BY: WRT
CHECKED BY: DJD
SCALE: 1"=20'
DATE: 09-08-2025

LICENSED LANDSCAPE ARCHITECT
KEIKO SUMIYA
No. 4383
STATE OF MAINE

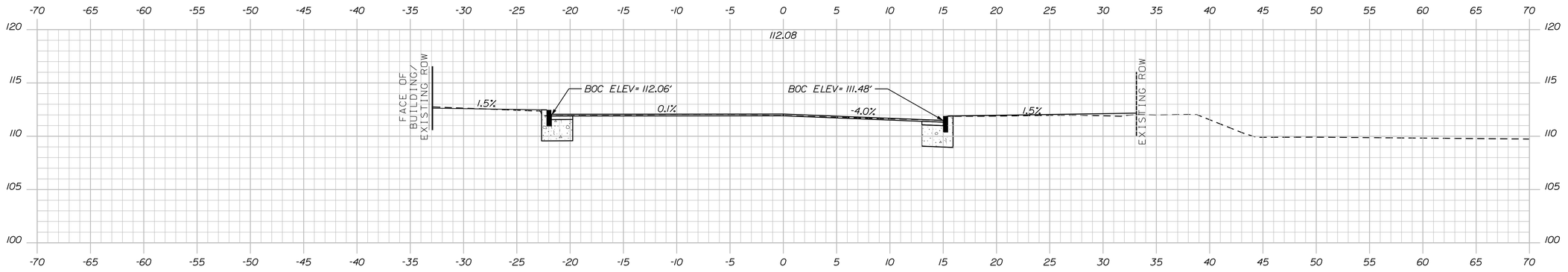
CONGRESS SQUARE IMPROVEMENTS
PLANTING DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

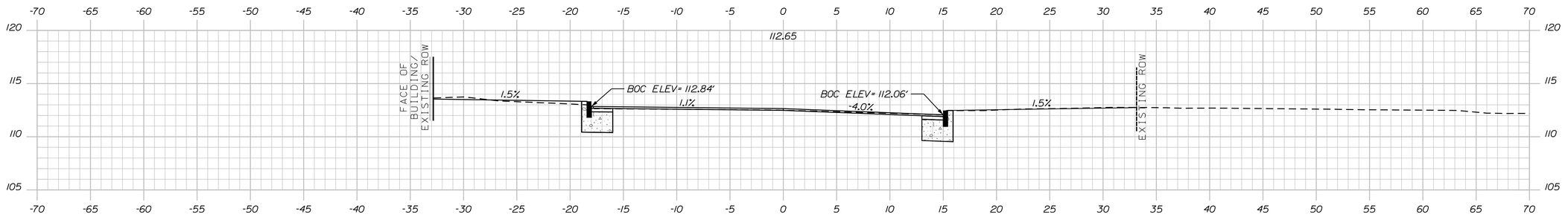
SHEET # 29 OF 39
PLAN NUMBER



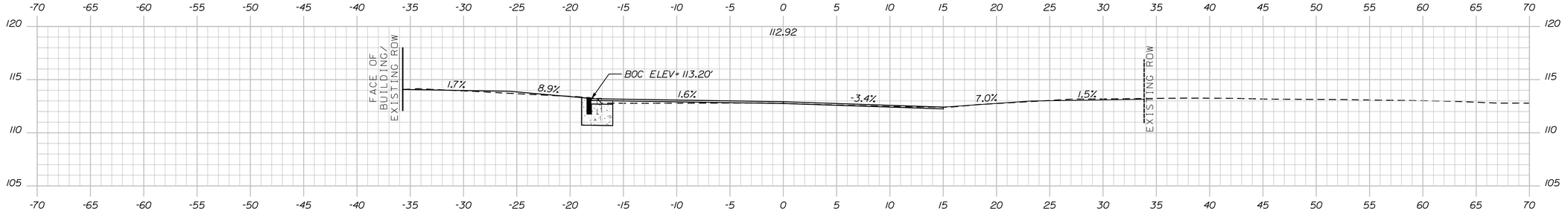
204+25.00



204+00.00 CROSS SLOPE TRANSITION STA. 204+00 TO 204+50 LT FROM -4.0% TO -2.7%



203+75.00



CROSS SLOPE TRANSITION STA. 203+60 TO 204+13 LT FROM 1.6% TO -0.6% 203+60.00

NOTE: CROSS SECTIONS SHOW SURFACE LINE ONLY FOR SIDEWALK AREAS. SEE TYPICALS AND MATERIALS PLAN FOR ADDITIONAL INFORMATION

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	SCK
DRAWN BY:	SCK
CHECKED BY:	SSS
SCALE:	1" = 5'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER
10/20/2025

CONGRESS SQUARE IMPROVEMENTS
CROSS SECTIONS

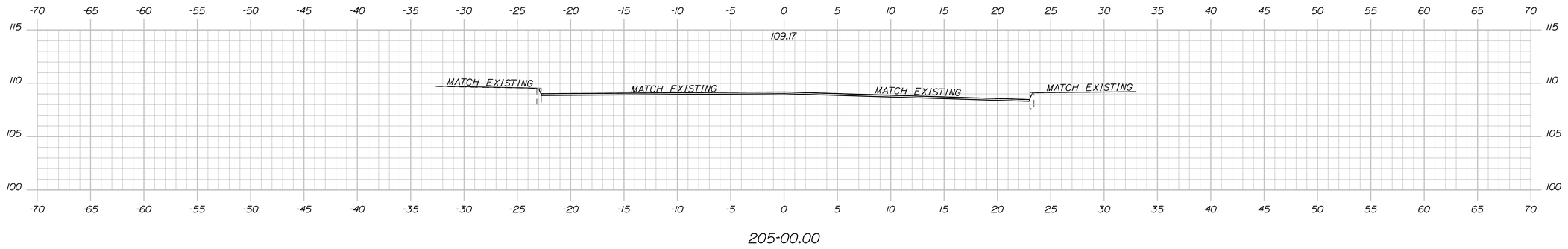
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE RESURGAM

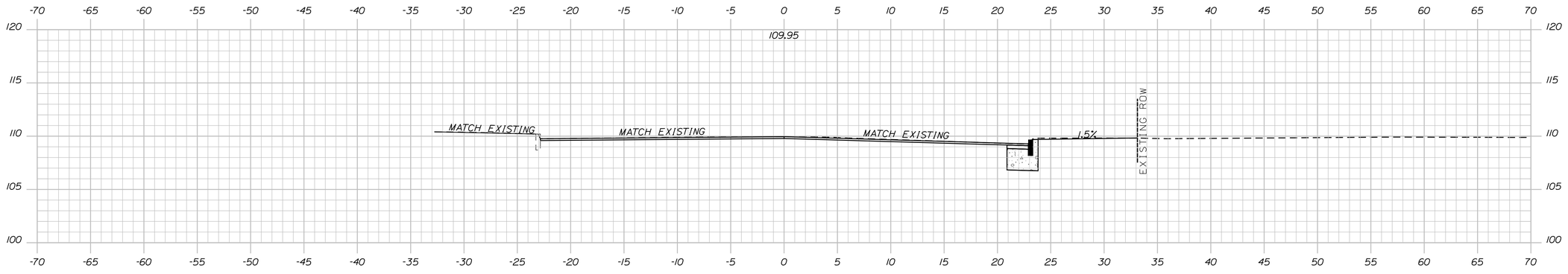
SHEET # 30 OF 39

PLAN NUMBER

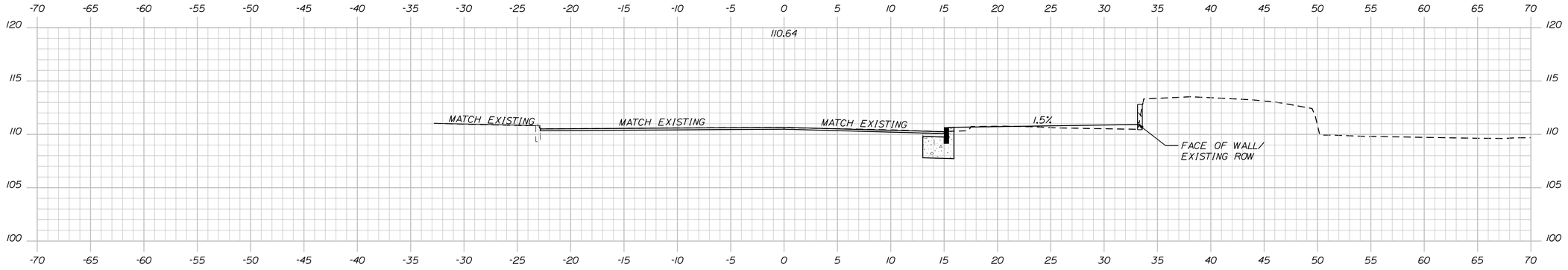
Sta. 203+75.00 to Sta. 204+25.00



205+00.00



204+75.00



204+50.00

NOTE: CROSS SECTIONS SHOW SURFACE LINE ONLY FOR SIDEWALK AREAS. SEE TYPICALS AND MATERIALS PLAN FOR ADDITIONAL INFORMATION

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	SCK
DRAWN BY:	SCK
CHECKED BY:	SSS
SCALE:	1" = 5'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
CROSS SECTIONS

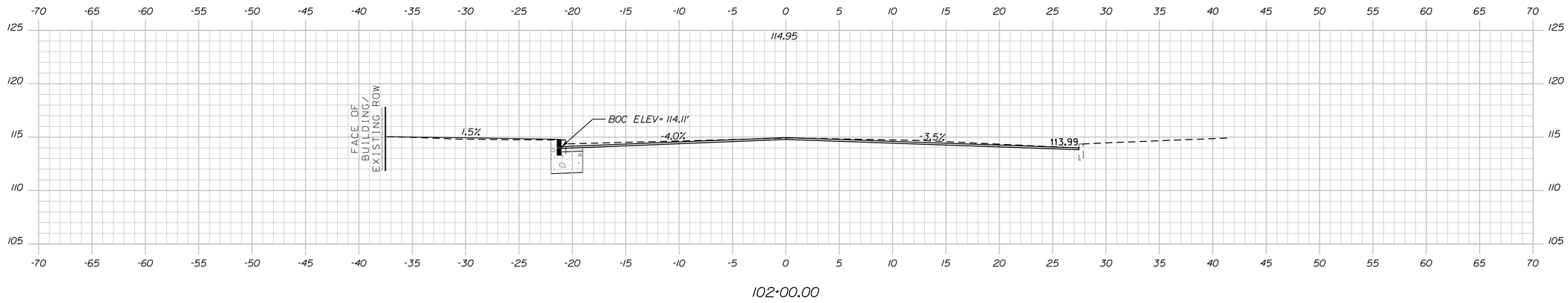
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE
RESURGAM

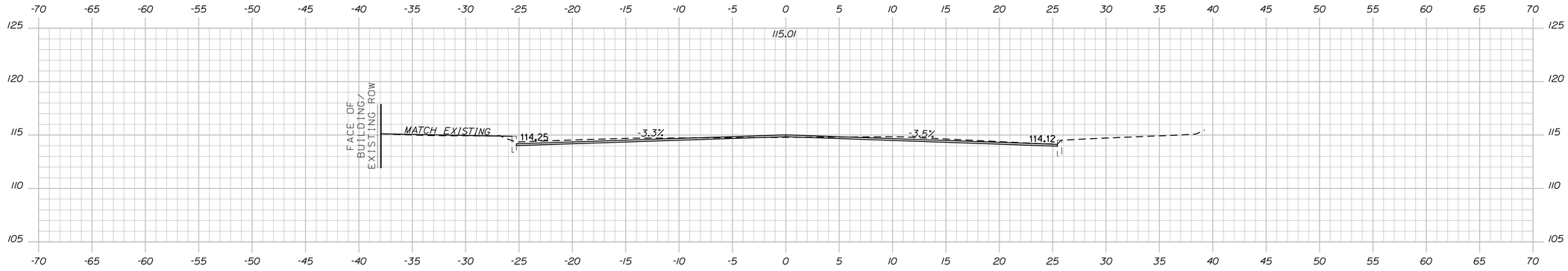
SHEET #
31 OF 39

PLAN NUMBER

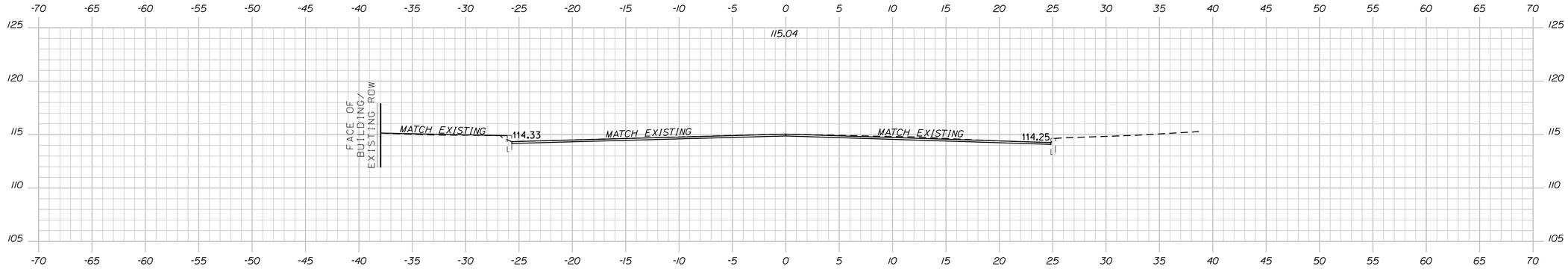
Sta. 204+50.00 to Sta. 205+00.00



102+00.00



101+75.00



CROSS SLOPE TRANSITION STA. 101+65 TO 102+00 LT. FROM -2.7% TO -4.0% 101+65.00 (LIMITS OF OVERLAY WORK - MATCH EXISTING)

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	DATE:
AJR	AJR	BRL	1" = 5'	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

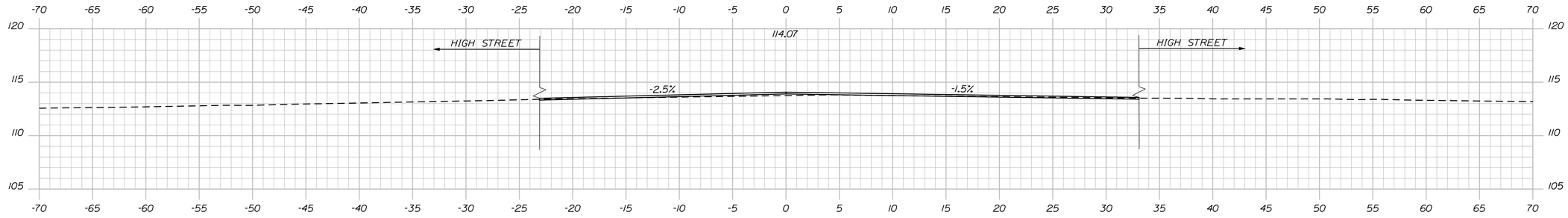
CONGRESS SQUARE IMPROVEMENTS
CROSS SECTIONS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

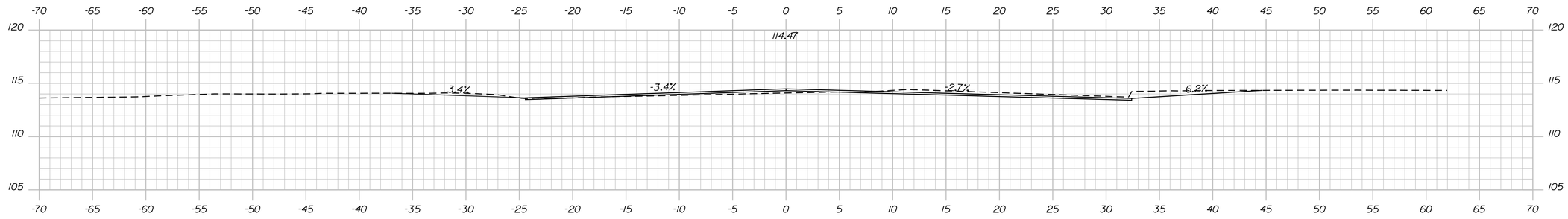
CITY OF PORTLAND, MAINE RESURGAM

SHEET # 32 OF 39
PLAN NUMBER

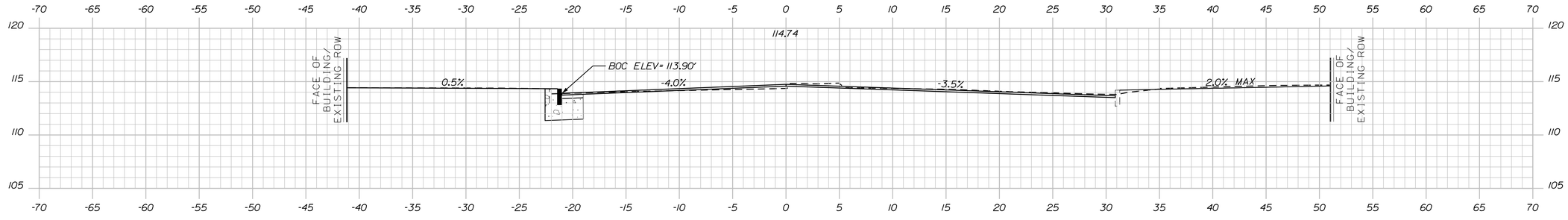
Sta. 101+65.00 to Sta. 102+00.00



103+00.00



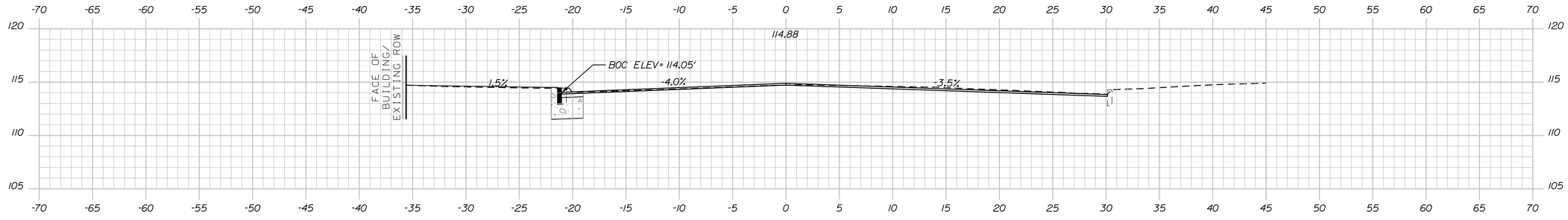
102+75.00 - (RAMP LT. AND RAMP RT.)



CROSS SLOPE TRANSITION STA. 102+60 TO 103+00 LT. FROM -4.0% TO -2.5%

102+50.00

CROSS SLOPE TRANSITION STA. 102+50 TO 103+00 RT. FROM -3.5% TO -1.5%



102+25.00

NOTE: CROSS SECTIONS SHOW SURFACE LINE ONLY FOR SIDEWALK AREAS. SEE TYPICALS AND MATERIALS PLAN FOR ADDITIONAL INFORMATION

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY: AJR
DRAWN BY: AJR
CHECKED BY: BRL
SCALE: 1" = 5'
DATE: 01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
CROSS SECTIONS

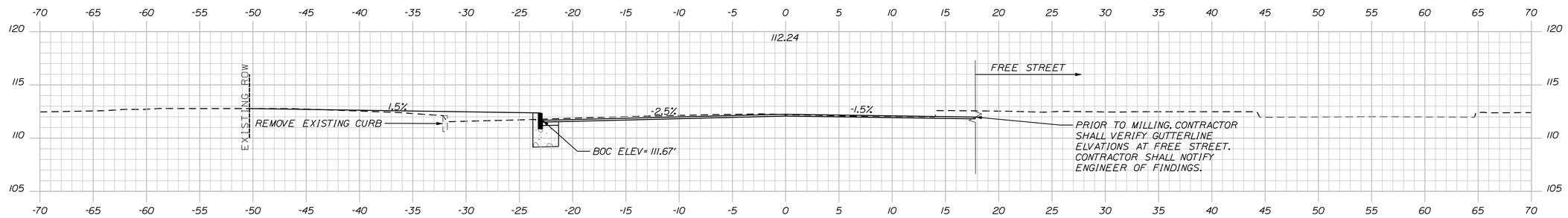
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE
RESURGAM

SHEET # 33 OF 39

PLAN NUMBER

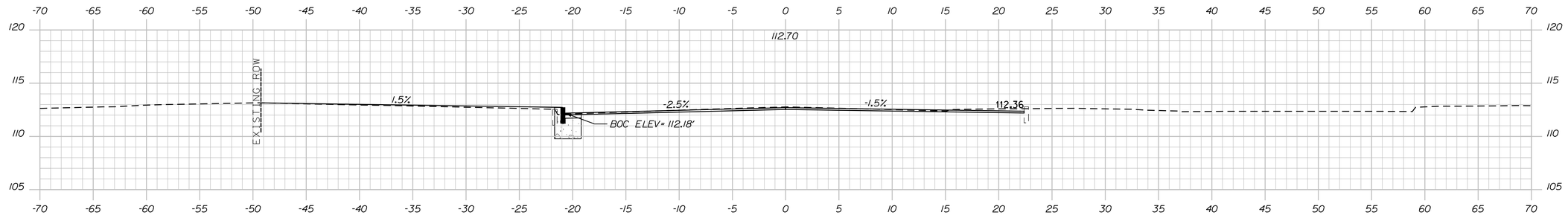
Sta. 102+25.00 to Sta. 103+00.00



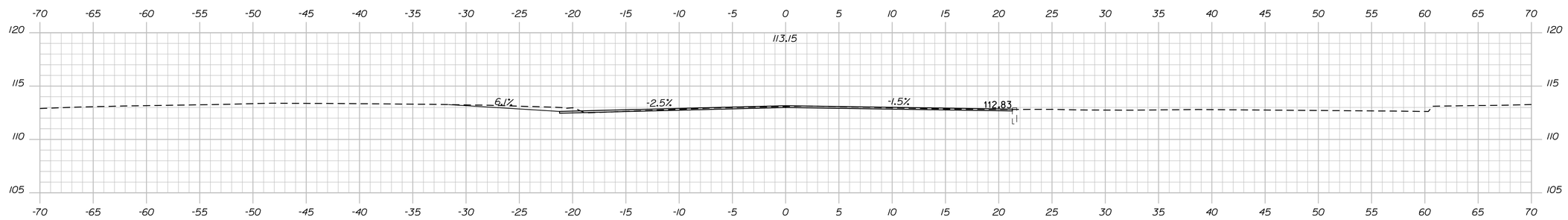
CROSS SLOPE TRANSITION STA. 104+00 TO 104+40 LT. FROM -2.5% TO -1.0%

104+00.00

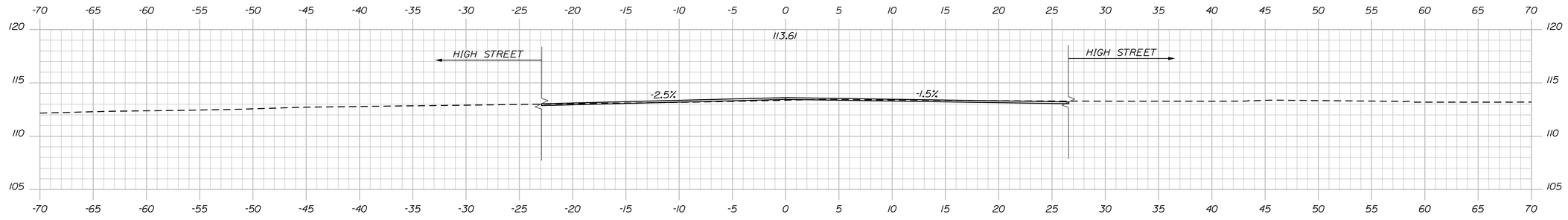
CROSS SLOPE TRANSITION STA. 104+10 TO 104+50 RT. FROM -1.5% TO -4.0%



103+75.00



103+50.00



103+25.00

NOTE: CROSS SECTIONS SHOW SURFACE LINE ONLY FOR SIDEWALK AREAS. SEE TYPICALS AND MATERIALS PLAN FOR ADDITIONAL INFORMATION

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY: AJR
DRAWN BY: AJR
CHECKED BY: BRL
SCALE: 1" = 5'
DATE: 01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
CROSS SECTIONS

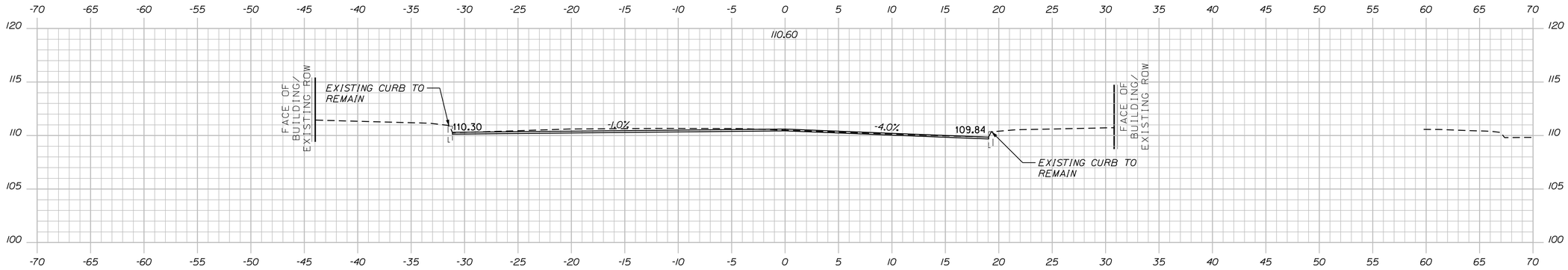
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE
RESURGAM

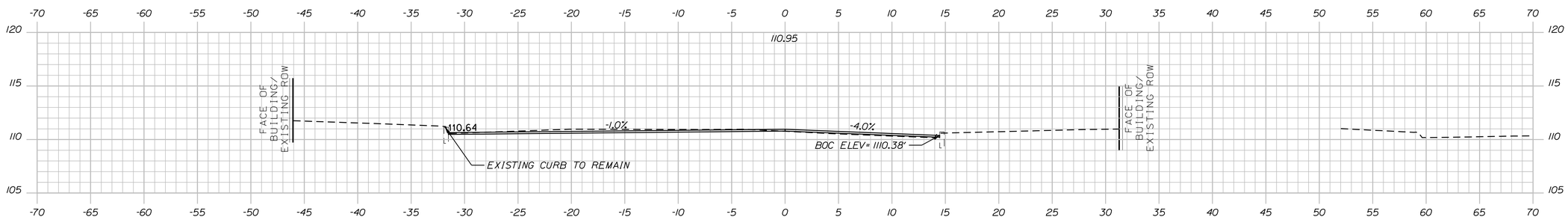
SHEET # 34 OF 39

PLAN NUMBER

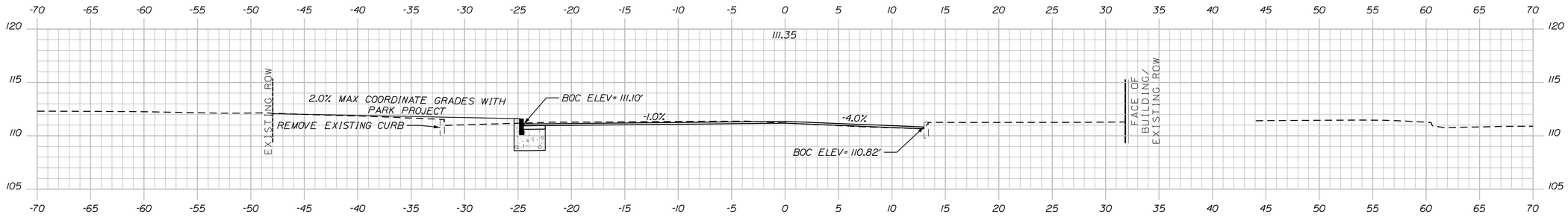
Sta. 103+25.00 to Sta. 104+00.00



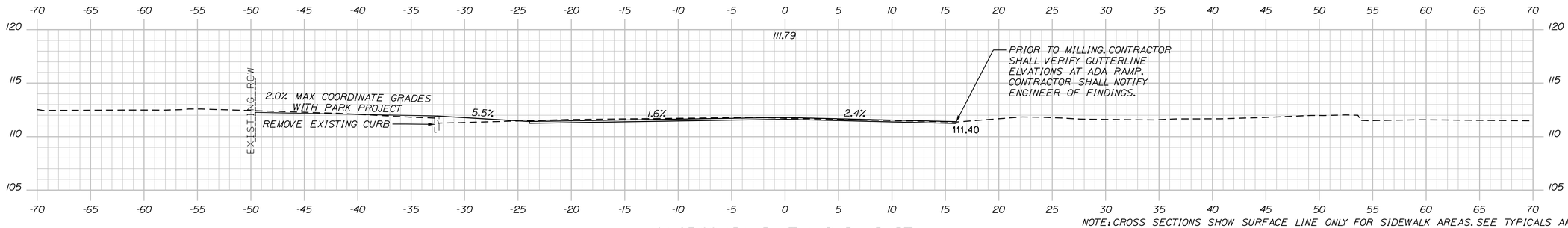
105+00.00



104+75.00



104+50.00



104+25.00 (RAMP LT. AND RAMP RT.)

NOTE: CROSS SECTIONS SHOW SURFACE LINE ONLY FOR SIDEWALK AREAS. SEE TYPICALS AND MATERIALS PLAN FOR ADDITIONAL INFORMATION

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-

FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	DATE:
AJR	AJR	BRL	1" = 5'	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER

CONGRESS SQUARE IMPROVEMENTS
CROSS SECTIONS

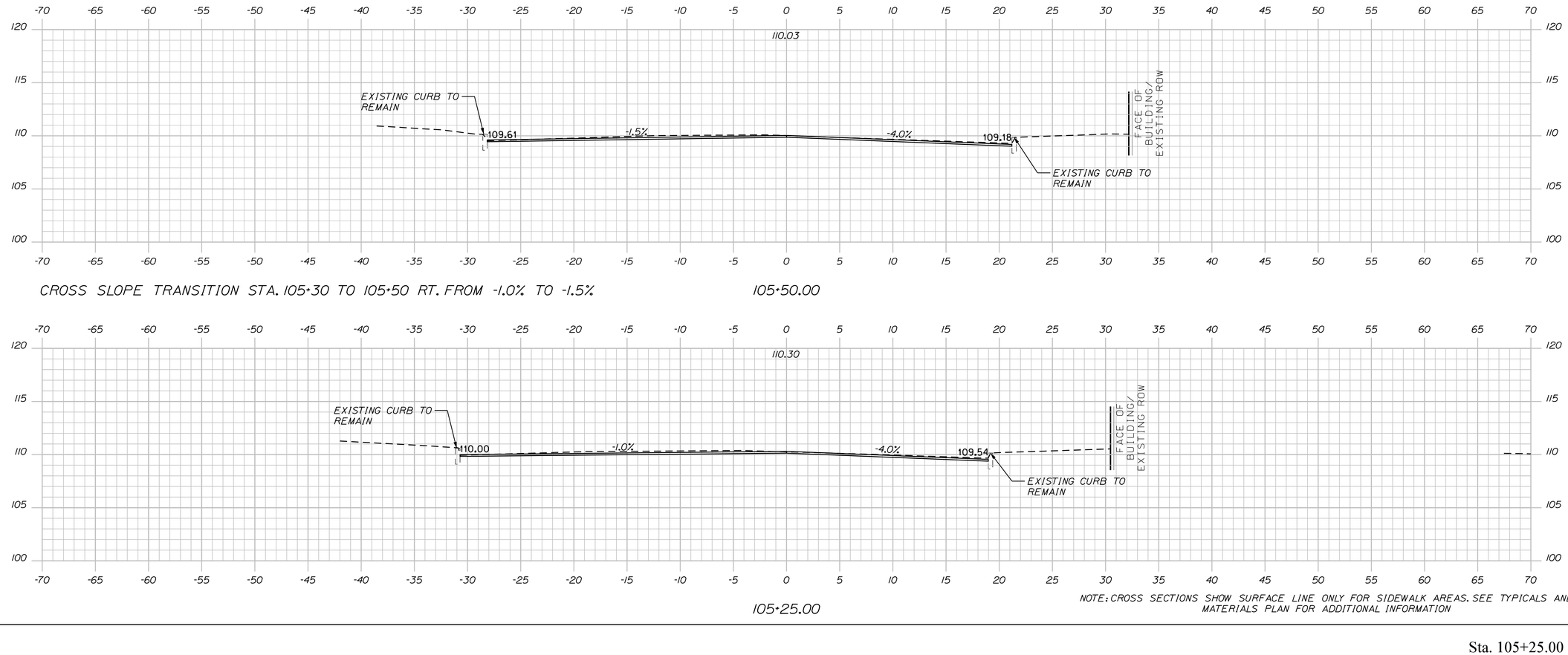
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

RESURGAM CIVITAS PORTLANDIA MAINE

SHEET # 35 OF 39

PLAN NUMBER

Sta. 104+25.00 to Sta. 105+00.00



CROSS SLOPE TRANSITION STA. 105+30 TO 105+50 RT. FROM -1.0% TO -1.5%

105+50.00

105+25.00

NOTE: CROSS SECTIONS SHOW SURFACE LINE ONLY FOR SIDEWALK AREAS. SEE TYPICALS AND MATERIALS PLAN FOR ADDITIONAL INFORMATION

LDD PROJECT NAME:
CONGRESS SQUARE IMPROVEMENTS
DRAWING NAME:
-
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	AJR
DRAWN BY:	AJR
CHECKED BY:	BRL
SCALE:	1" = 5'
DATE:	01-22-2025

STATE OF MAINE
SHANE C. KELLY
No. 15681
LICENSED PROFESSIONAL ENGINEER
01/22/2025

CONGRESS SQUARE IMPROVEMENTS
CROSS SECTIONS

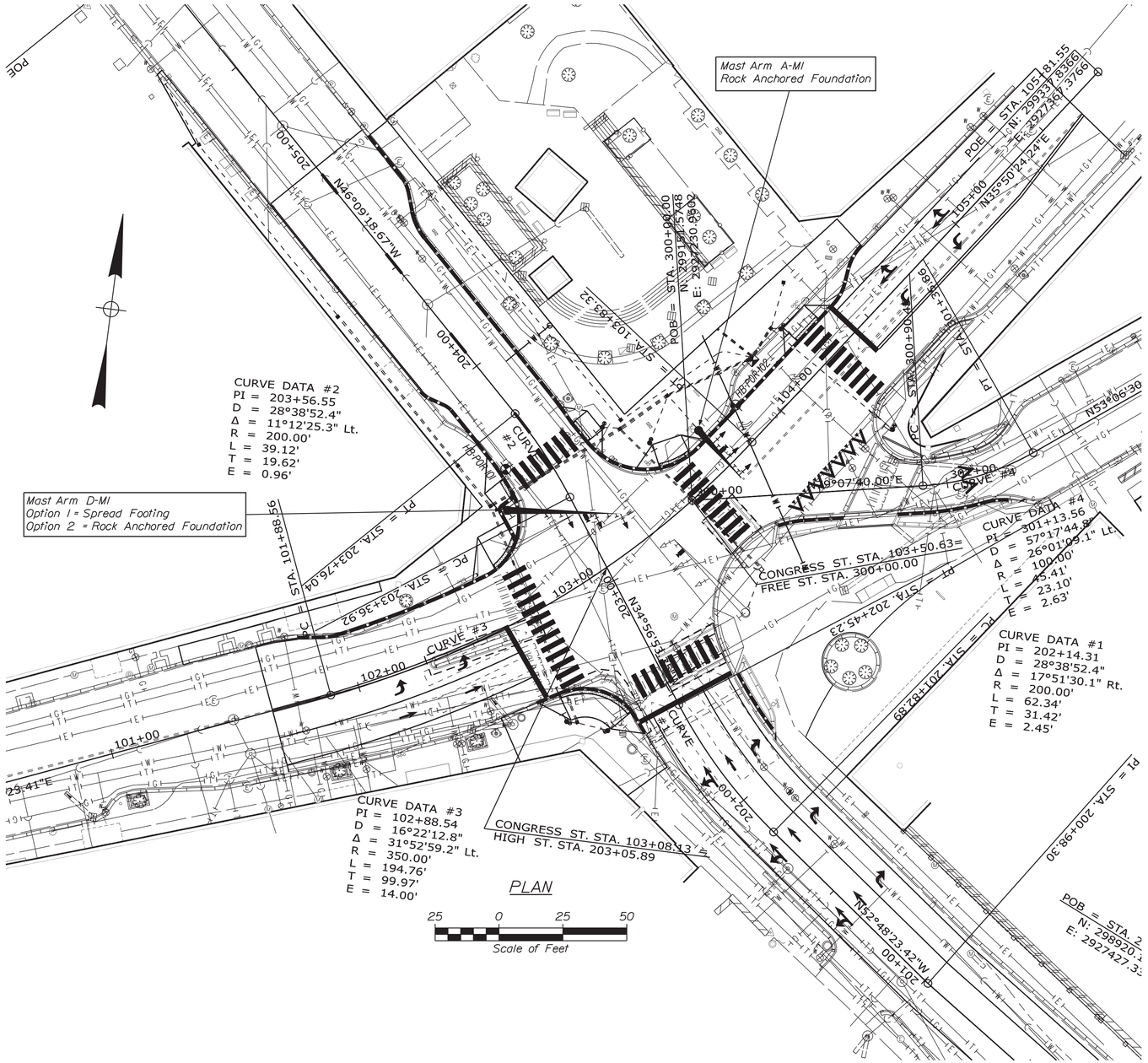
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE
RESURGAM

SHEET # 36 OF 39

PLAN NUMBER

Sta. 105+25.00 to Sta. 105+50.00



Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS	Project: Intersection of Congress Square Including all Approaches Location: Portland, Maine	Boring No.: HB-POR-101 WIN: 24293.00
Driller: MaineDOT	Elevation (ft.): 112.8	Auger ID/OD: 5" Solid Stem
Operator: Doggett	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By: B.Wilder	Rig Type: CME 45C	Hammer Wt./Fall: 140#/30"
Date Start/Finish: 7/13/2020 09:30-11:00	Drilling Method: Cased Wash Boring	Core Barrel: NQ-2"
Boring Location: 102+95.4, 53.8 ft Lt.	Casing ID/OD: NW-5"	Water Level(ft)*: None Observed
Hammer Efficiency Factor: 0.886	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐	

Definitions:
S = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test. PP = Pocket Penetrometer
MV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
MDH = Weight of 140lb. Hammer
MPP = Weight of Rods or Casing
MDP = Weight of One Person
q_u = Peak/Remolded Field Vane Undrained Shear Strength (psf) T_v = Pocket Torvane Shear Strength (psf)
$q_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N=uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%*N-uncorrected
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Pen. Resistance or RQD (%)	N-uncorrected	N60	Casing Blows per ft.	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results: AASHTO and Unified Class
0							SSA	112.2		7" HMA	
											0.6
	10	24/14	1.00 - 3.00	6/8/5/11	13	19				Brown, damp, medium dense, fine to coarse SAND, some gravel, little silt, (Fill).	
								109.3			3.5
	20 B1	2.4/2 60/60	4.50 - 4.70 4.70 - 9.70	40/2.4"/ RQD = 95%	---	---	040 NQ-2	108.1		940 blows for 0.7 ft. Grey, moist, dense, fine to coarse SAND, some silt, trace gravel.	4.7
5										Top of Bedrock at Elev. 108.1 ft. B1: Bedrock: Sulfidic/carbonaceous pelite of the Scarboro and Diamond Island Formations. B1 Core Times (minsec) 4.7-5.7 ft (1:25) 5.7-6.7 ft (1:13) 5.7-7.7 ft (1:07) 5.7-8.7 ft (1:16) 5.7-9.7 ft (1:21) 100% Recovery	
											9.7
10										Bottom of Exploration at 9.7 feet below ground surface.	
15											
20											
25											

Remarks:

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: HB-POR-101

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS	Project: Intersection of Congress Square Including all Approaches Location: Portland, Maine	Boring No.: HB-POR-102 WIN: 24293.00
Driller: MaineDOT	Elevation (ft.): 111.9	Auger ID/OD: 5" Solid Stem
Operator: Doggett	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By: B.Wilder	Rig Type: CME 45C	Hammer Wt./Fall: 140#/30"
Date Start/Finish: 7/13/2020-7/14/2020	Drilling Method: Cased Wash Boring	Core Barrel: NQ-2"
Boring Location: 103+89.5, 14.5 ft Lt.	Casing ID/OD: NW-5"	Water Level(ft)*: None Observed
Hammer Efficiency Factor: 0.886	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐	

Definitions:
S = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test. PP = Pocket Penetrometer
MV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
MDH = Weight of 140lb. Hammer
MPP = Weight of Rods or Casing
MDP = Weight of One Person
q_u = Peak/Remolded Field Vane Undrained Shear Strength (psf) T_v = Pocket Torvane Shear Strength (psf)
$q_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N=uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%*N-uncorrected
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Pen. Resistance or RQD (%)	N-uncorrected	N60	Casing Blows per ft.	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results: AASHTO and Unified Class
0							SSA	111.5		5" HMA	
											0.4
	10 B1	9.6/8 80/40	1.00 - 1.80 Refusal 6.80	9/50/3.6"/ RQD = 28%	---	---	050 NQ-2	110.1		930 blows for 0.8 ft. Brown, damp, dense, fine to coarse SAND, some gravel, trace silt, (Fill).	1.8
5								105.1		Top of Bedrock at Elev. 110.1 ft. B1: Bedrock: Sulfidic/carbonaceous pelite of the Scarboro and Diamond Island Formations. B1: Core Times (minsec) 1.8-2.8 ft (1:22) 2.8-3.8 ft (1:16) 3.8-4.8 ft (1:18) 4.8-5.8 ft (1:07) 5.8-6.8 ft (1:19) 93% Recovery	
											6.8
10										Bottom of Exploration at 6.8 feet below ground surface.	
15											
20											
25											

Remarks:

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: HB-POR-102

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2429300

WIN
24293.00

HIGHWAY PLANS

STATE OF MAINE
Cody A. Russell
15866
LICENSED PROFESSIONAL ENGINEER

Cody A. Russell

BY	DATE
-----	-----
-----	-----
-----	-----
T.WHITE	NOV 2020
K.MAGUIRE	MAY 2024
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-----	-----
-----	-----
-----	-----

SIGNATURE
15866
P.E. NUMBER
1/28/2025
DATE

PROJ. MANAGER	-----	-----
DESIGN-DETAILED	-----	-----
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	K.MAGUIRE	MAY 2024
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	READVERTISE	MAY 2024
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

PORTLAND - CONGRESS SQUARE
SIGNAL IMPROVEMENTS

BORING LOCATION PLAN
WITH BORING LOGS

SHEET NUMBER
37
OF 39

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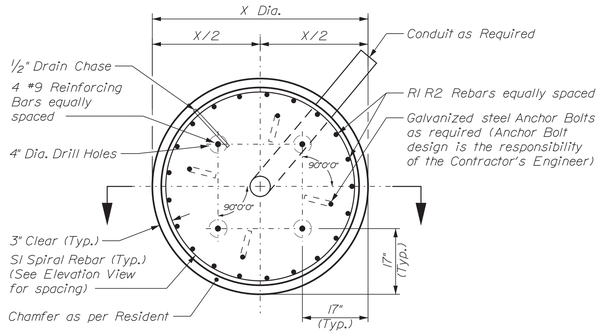
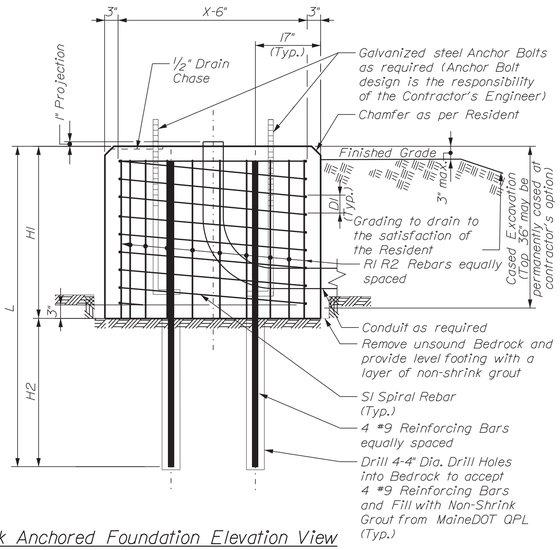


Rock Anchored Foundation Plan View

Not to Scale (See Table below for Rock Anchored Foundation Dimensions & Reinforcement Information)



Rock Anchored Foundation Elevation View

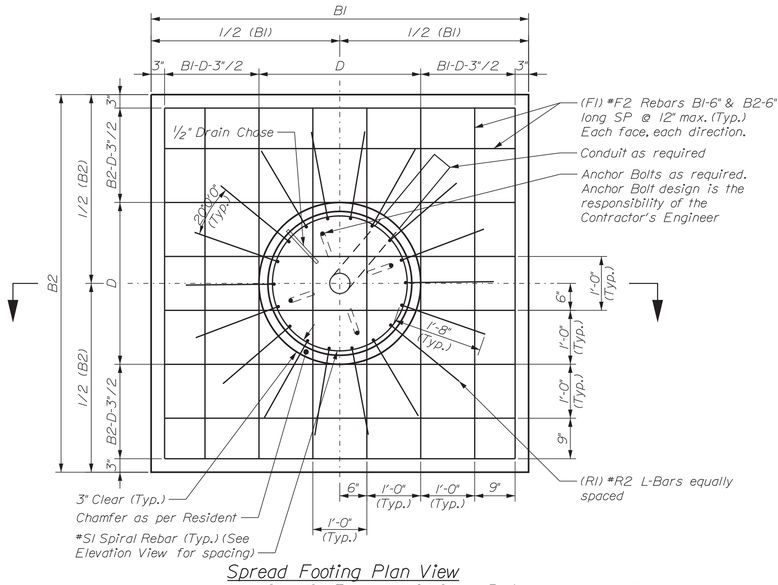
Not to Scale (See Table below for Rock Anchored Foundation Dimensions & Reinforcement Information)

MAST ARMS A-MI & D-MI

(A-MI) Sta. 103+70.4, 24.7' Lt.
(D-MI) Sta. 102+84.4, 40.6' Lt.

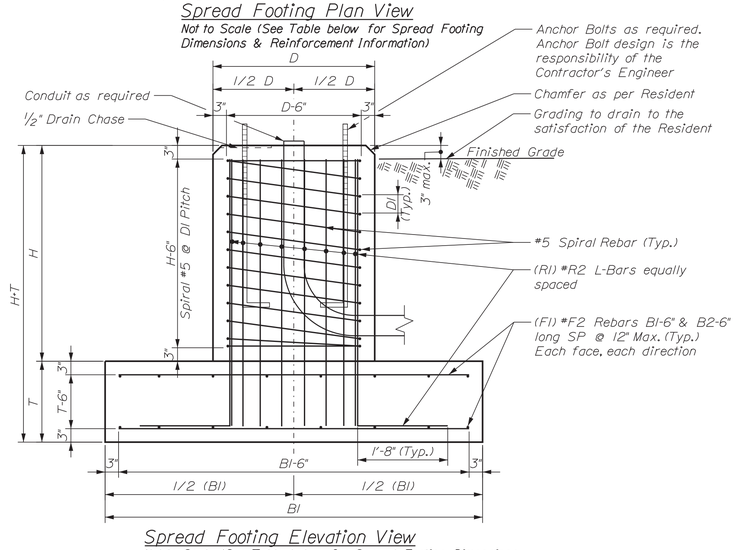
ROCK ANCHORED FOUNDATIONS

Mast Arm	Location	Option #	Total Foundation Length H1+H2 (feet)	Concrete Shaft Dimensions: Concrete Shaft Diameter X (feet)	Concrete Shaft Dimensions: Concrete Shaft Height (Min.) H1 (feet)	Concrete Shaft Reinforcing Steel: Longitudinal Rebars Quantity R1	Concrete Shaft Reinforcing Steel: Longitudinal Rebars Size R2	Concrete Shaft Reinforcing Steel: Spiral Rebars Size S1	Concrete Shaft Reinforcing Steel: Spiral Bar Spacing D1 (inches)	Anchor Rebar Into Bedrock: Drill Hole Diameter (Min.) (inches)	Anchor Rebar Into Bedrock: Anchor Rebar Length Into Bedrock/Drill Hole Length (Min.) H2 (feet)	Anchor Rebar Into Bedrock: Anchor Rebar Minimum Length H1+H2-Cover (feet)	Anchor Rebar Into Bedrock: Anchor Rebar Into Bedrock Quantity	Anchor Rebar Into Bedrock: Anchor Rebar Into Bedrock Size
A-M1	103+70.4, 24.7' LT	Not Applicable	5.0	3.5	2.0	18	#9	#5	4.0	4.0	3.0	4.75	4	#9
D-M1	102+84.4, 40.6' LT	Option 2	8.0	3.5	5.0	18	#9	#5	4.0	4.0	3.0	7.75	4	#9



Spread Footing Plan View

Not to Scale (See Table below for Spread Footing Dimensions & Reinforcement Information)



Spread Footing Elevation View

Not to Scale (See Table below for Spread Footing Dimensions & Reinforcement Information)

MAST ARM D-MI

(D-MI) Sta. 102+84.4, 40.6' Lt.

SPREAD FOOTING FOUNDATION

Mast Arm	Location	Option #	Footing Dimensions: B1 Length (feet)	Footing Dimensions: B2 Length (feet)	Footing Dimensions: T Footing Height (feet)	Shaft Dimensions: H1 Shaft Height (feet)	Shaft Dimensions: D1 Shaft Diameter (feet)	Reinforcing Steel - Footing: F1 Longitudinal Rebars Quantity	Reinforcing Steel - Footing: F2 Longitudinal Rebars Size	Reinforcing Steel - Footing: S2 Maximum Spacing (inches)	Reinforcing Steel - Shaft: R1 Longitudinal Rebars Quantity	Reinforcing Steel - Shaft: R2 Longitudinal Rebars Size	Reinforcing Steel - Shaft: S1 Spiral Rebars Size	Spiral Bar Spacing: D1 (in) 0 to 3 ft	Spiral Bar Spacing: D2 (in) 3 ft to 2L/3 ft	Spiral Bar Spacing: D3 (in) 2L/3 ft to tip
D-M1	102+84.4, 40.6' T	Option 1	9.5	9.5	1.5	3.5	3.5	40	#5	12	18	#9	#5	4	4	12

NOTES:

1. All reinforcing steel shall be grade 60 and conform to MaineDOT Standard Specification requirements along with any project specific Supplementals or Special Provisions.

2. For spread footing foundations, L-Bars shall have a Min. 1'-8" Leg.

3. All rebar shall have 3" cover unless otherwise noted.

4. Should there be a discrepancy between these Details and actual observed field conditions report it to the Resident immediately.

5. Do not proceed with dependent work until any such discrepancy is resolved to the satisfaction of the Resident.

6. Concrete to be Class LP with f'c = 5,000 PSI.

7. For rock anchored foundations, Solid Bars drilled and grouted into bedrock shall be #9 Reinforcing Bars, Grade 60 steel. Reinforcing Bars shall be continuous full height of bedrock socket and shaft with no couplings.

8. For rock anchored foundations, a layer of non-shrink grout shall be placed in the bottom of the excavation prior to drilling the 4" Dia. drill holes to provide a smooth surface for drilling.

9. For rock anchored foundations, centralizers shall be attached to the #9 Reinforcing Bars to maintain cement grout cover on the Reinforcing Bar within the bedrock socket.

10. For rock anchored foundations, bedrock sockets shall be drilled using a minimum 4" outside diameter (OD) diameter diamond core barrel. Air rotary drilling shall not be allowed.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2429300

WIN 024293.00

HIGHWAY PLANS

STATE OF MAINE · Cody A Russell 15866 · LICENSED PROFESSIONAL ENGINEER

Cody A. Russell

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED		
CHECKED-REVIEWED	T. WHITE	NOV 2020
DESIGN2-DETAILED2	K.MAGUIRE	
DESIGN3-DETAILED3		
REVISIONS 1	READVERTISE	MAY 2024
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER 15866
1/28/2025
DATE

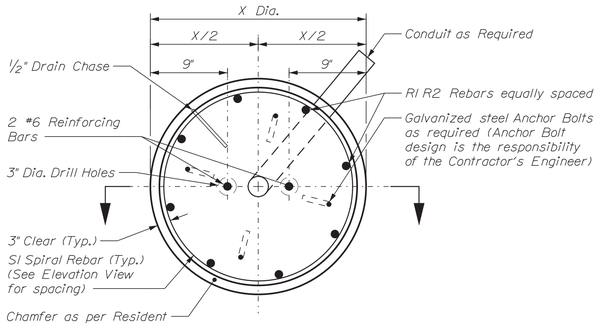
PORTLAND - CONGRESS SQUARE SIGNAL IMPROVEMENTS

MAST ARM FOUNDATIONS

SHEET NUMBER

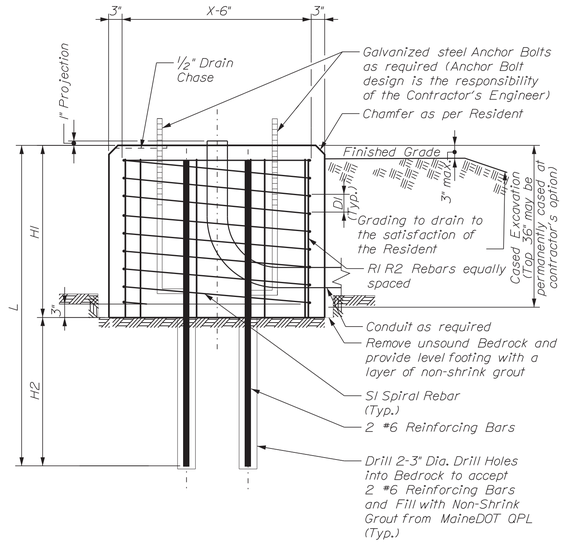
38

OF 39



Rock Anchored Foundation Plan View

Not to Scale (See Table for Rock Anchored Foundation Dimensions & Reinforcement Information)



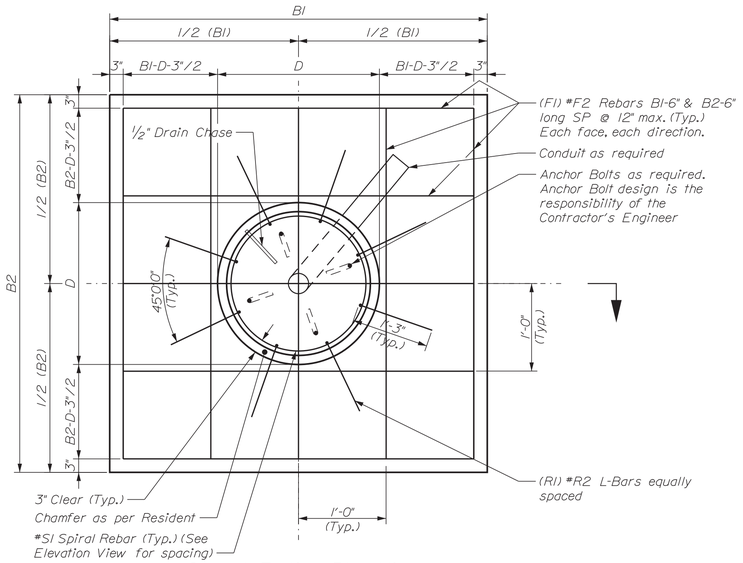
Rock Anchored Foundation Elevation View

Not to Scale (See Table for Rock Anchored Foundation Dimensions & Reinforcement Information)

PEDESTAL POLE FOUNDATION ROCK ANCHOR OPTION

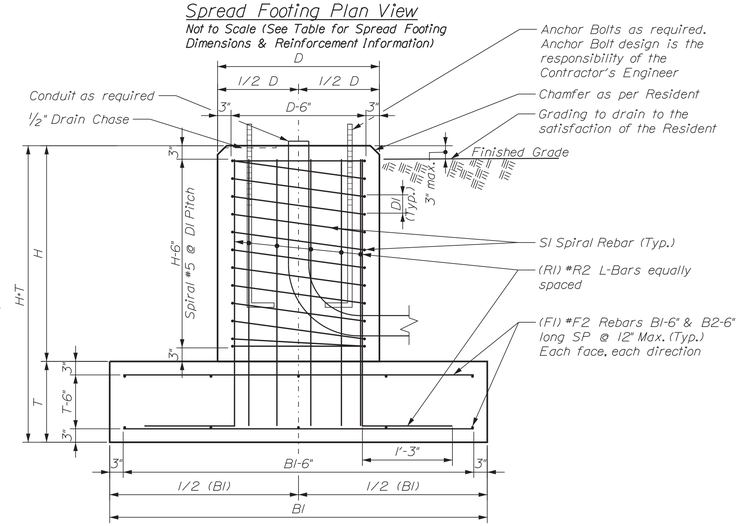
NOTES:

1. Foundation alternatives presented on this sheet shall be used in the event that the presence of shallow bedrock prevents the installation of a Standard Precast 24-inch Diameter Foundation. Use of these foundations shall be approved by the Resident.
2. All reinforcing steel shall be grade 60 and conform to MaineDOT Standard Specification requirements along with any project specific Supplementals or Special Provisions.
3. For spread footing foundations, L-Bars shall have a Min. 1'-3" Leg.
4. All rebar shall have 3" cover unless otherwise noted.
5. Should there be a discrepancy between these Details and actual observed field conditions report it to the Resident immediately.
6. Do not proceed with dependent work until any such discrepancy is resolved to the satisfaction of the Resident.
7. Concrete to be Class LP with f'c = 5,000 PSI.
8. For rock anchored foundations, Solid Bars drilled and grouted into bedrock shall be #6 Reinforcing Bars, Grade 60 steel. Reinforcing Bars shall be continuous full height of bedrock socket and shaft with no couplings.
9. For rock anchored foundations, a layer of non-shrink grout shall be placed in the bottom of the excavation prior to drilling the 3" Dia. drill holes to provide a smooth surface for drilling.
10. For rock anchored foundations, centralizers shall be attached to the #6 Reinforcing Bars to maintain cement grout cover on the Reinforcing Bar within the bedrock socket.
11. For rock anchored foundations, bedrock sockets shall be drilled using a minimum 3" outside diameter (OD) diameter diamond core barrel. Air rotary drilling shall not be allowed.



Spread Footing Plan View

Not to Scale (See Table for Spread Footing Dimensions & Reinforcement Information)



Spread Footing Elevation View

Not to Scale (See Table for Spread Footing Dimensions & Reinforcement Information)

PEDESTAL POLE FOUNDATION SPREAD FOOTING OPTION

ROCK ANCHORED FOUNDATION

	Total Foundation Length	Concrete Shaft Dimensions		Concrete Shaft Reinforcing Steel				Anchor Rebar Into Bedrock				
		Concrete Shaft Diameter	Concrete Shaft Height (Min.)	Longitudinal Rebars Quantity	Longitudinal Rebars Size	Spiral Rebars Size	Sprial Bar Spacing	Drill Hole Diameter (Min.)	Anchor Rebar Length Into Bedrock/Drill Hole Length (Min.)	Anchor Rebar Minimum Length	Anchor Rebar Into Bedrock	Anchor Rebar Into Bedrock
	H1+H2 (feet)	X (feet)	H1 (feet)	R1	R2	S1	D1 (inches)	(inches)	H2 (feet)	H1+H2-Cover (feet)	Quantity	Size
Pedestal Pole Foundation Option if Shallow Bedrock is Encountered	4.0	2.0	2.0	8	#6	#3	8	3.0	2.0	3.75	2	#6

SPREAD FOOTING FOUNDATION

	Footing Dimensions			Shaft Dimensions		Reinforcing Steel - Footing			Reinforcing Steel - Shaft			
	B1	B2	T	H1	D1	F1	F2	S2	R1	R2	S1	D1 (inches)
	Length (feet)	Length (feet)	Footing Height (feet)	Shaft Height (feet)	Shaft Diameter (feet)	Longitudinal Rebars Quantity	Longitudinal Rebars Size	Maximum Spacing (inches)	Longitudinal Rebars Quantity	Longitudinal Rebars Size	Spiral Rebars Size	Spiral Bar Spacing
Pedestal Pole Foundation Option if Shallow Bedrock is Encountered	4.5	4.5	1.5	2.0	2.0	20	#5	12	8	#6	#3	8

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2429300

WIN 024293.00

HIGHWAY PLANS

STATE OF MAINE · Cody A. Russell · 15866 · LICENSED PROFESSIONAL ENGINEER

Cody A. Russell

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	T. WHITE	APR 2021
CHECKED-REVIEWED	K.MAGUIRE	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

15866 P.E. NUMBER

1/28/2025 DATE

PORTLAND - CONGRESS SQUARE
SIGNAL IMPROVEMENTS

ALTERNATIVE PEDESTAL POLE FOUNDATIONS WHERE SHALLOW BEDROCK IS ENCOUNTERED

SHEET NUMBER

39

OF 39