

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

PLAN AND PROFILE OF SEA STREET CORRIDOR IMPROVEMENTS

IN THE CITY OF
QUINCY
NORFOLK COUNTY

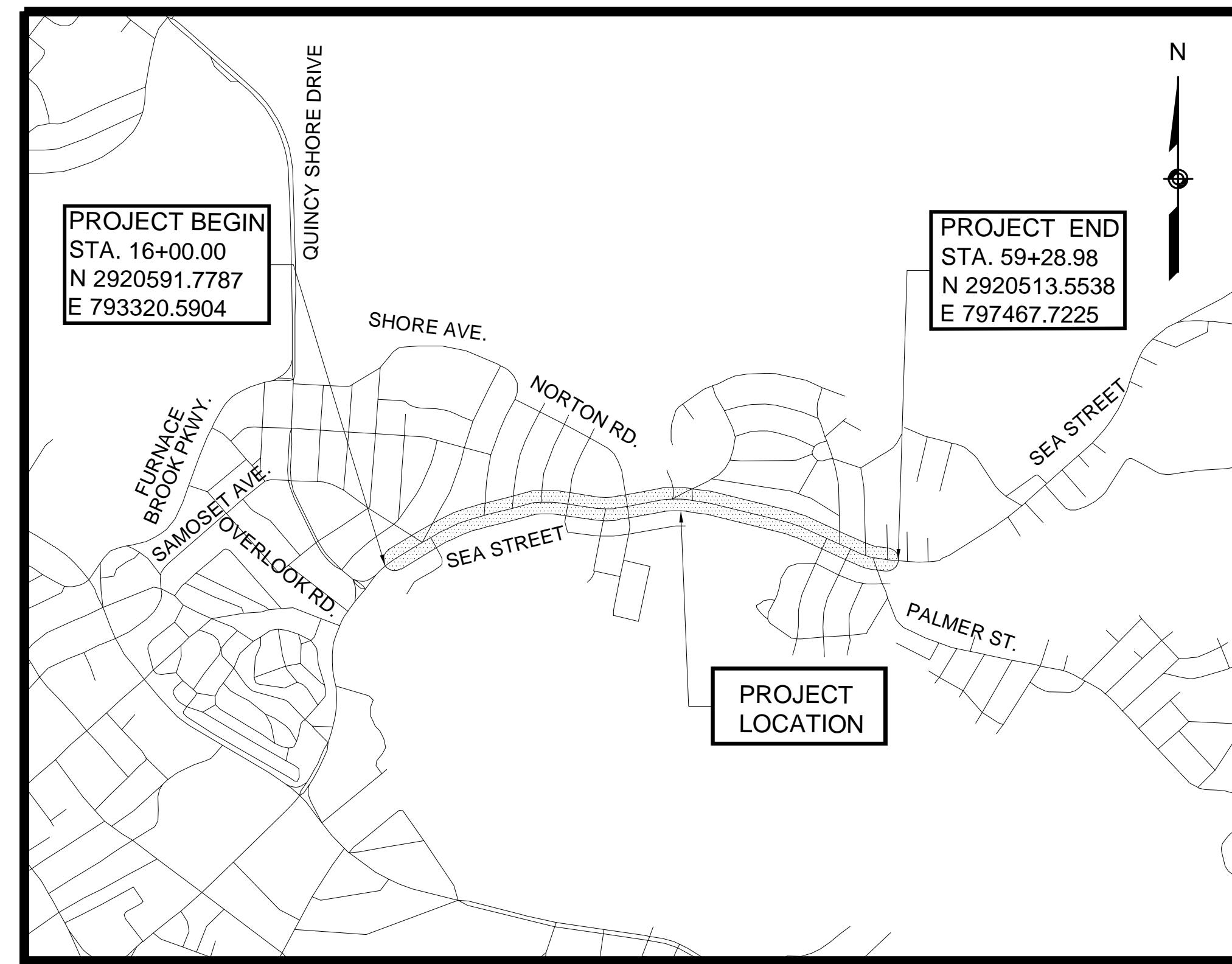
FEDERAL AID PROJECT NO.

75% SUBMITTAL

QUINCY SEA STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		1	146
PROJECT FILE NO.		608707	
TITLE SHEET AND INDEX			

THE 2021 MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, THE 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, WILL GOVERN.

INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET AND INDEX
2	LEGEND AND ABBREVIATIONS
3	KEY PLAN AND BORING PLAN
4	GENERAL NOTES
5-7	TYPICAL SECTIONS
8-16	CONSTRUCTION DETAILS
17-24	CONSTRUCTION PLANS
25-32	PROFILES
33-40	CURB TIE & GRADING PLANS
41-42	SURVEY CONTROL PLANS
43-50	DRAINAGE & UTILITY PLANS
51-58	SIGN AND PAVEMENT MARKING PLANS
59	TRAFFIC SIGN SUMMARY
60-61	TRAFFIC SIGNAL PLAN - LOCATION 1
62	TRAFFIC SIGNAL PLAN - LOCATION 2
63-64	TRAFFIC SIGNAL PLAN - LOCATION 3
65-66	TRAFFIC SIGNAL PLAN - LOCATION 4
67-68	COORDINATION PLANS
69	SYSTEM ARCHITECTURE PLAN
70-72	TEMPORARY TRAFFIC CONTROL PLAN
73-146	CROSS SECTIONS



LENGTH OF PROJECT = 4,328.98 FEET = 0.820 MILES

DESIGN DESIGNATION (SEA STREET)

DESIGN SPEED	35 MPH
ADT (2016)	21,100
ADT (2036)	22,000
K	8.2%
D	67% (WB)
T (PEAK HOUR)	3.6%
T (AVERAGE DAY)	3.6%
DHV	1,800
DDHV	1,200
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL

DATE	DESCRIPTION	REV #
9/7/2021	75% SUBMISSION	1
2/7/2017	25% SUBMISSION	0

PREPARED BY:



www.BETA-inc.com

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE



RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DATE

APPROVED

HIGHWAY ADMINISTRATOR DATE

GENERAL SYMBOLS

Table with columns: EXISTING, PROPOSED, DESCRIPTION. Lists various symbols for utility poles, manholes, fences, and boundaries.

PAVEMENT MARKINGS AND SIGNING SYMBOLS

Table with columns: PROPOSED, DESCRIPTION. Lists pavement marking codes like CW, SL, SWL, SWCHL, etc.

Table with columns: SYMBOL, DESCRIPTION. Lists symbols for SCHOOL ZONE, HANDICAP SYMBOL, and PAVEMENT ARROW.

TRAFFIC SIGNAL SYMBOLS

Table with columns: EXISTING, PROPOSED, DESCRIPTION. Lists traffic signal symbols for cabinet ground, pole mounted, and various signal heads.

TRAFFIC SIGNAL SYSTEMS

Table with columns: CODE, DESCRIPTION. Lists traffic signal system codes like R, Y, G, FR, FY, R-, Y-, G-, etc.

TRAFFIC SIGNAL

Table with columns: CODE, DESCRIPTION. Lists traffic signal codes like CAB, CCE, DW, FDW, FR, etc.

ABBREVIATIONS

Table with columns: GENERAL, DESCRIPTION. Lists general abbreviations like AADT, ABAN, ADJ, APPROX., etc.

QUINCY SEA STREET

Table with columns: STATE, FED. AID PROJ. NO., SHEET NO., TOTAL SHEETS. Shows project details for MA, sheet 2 of 146.

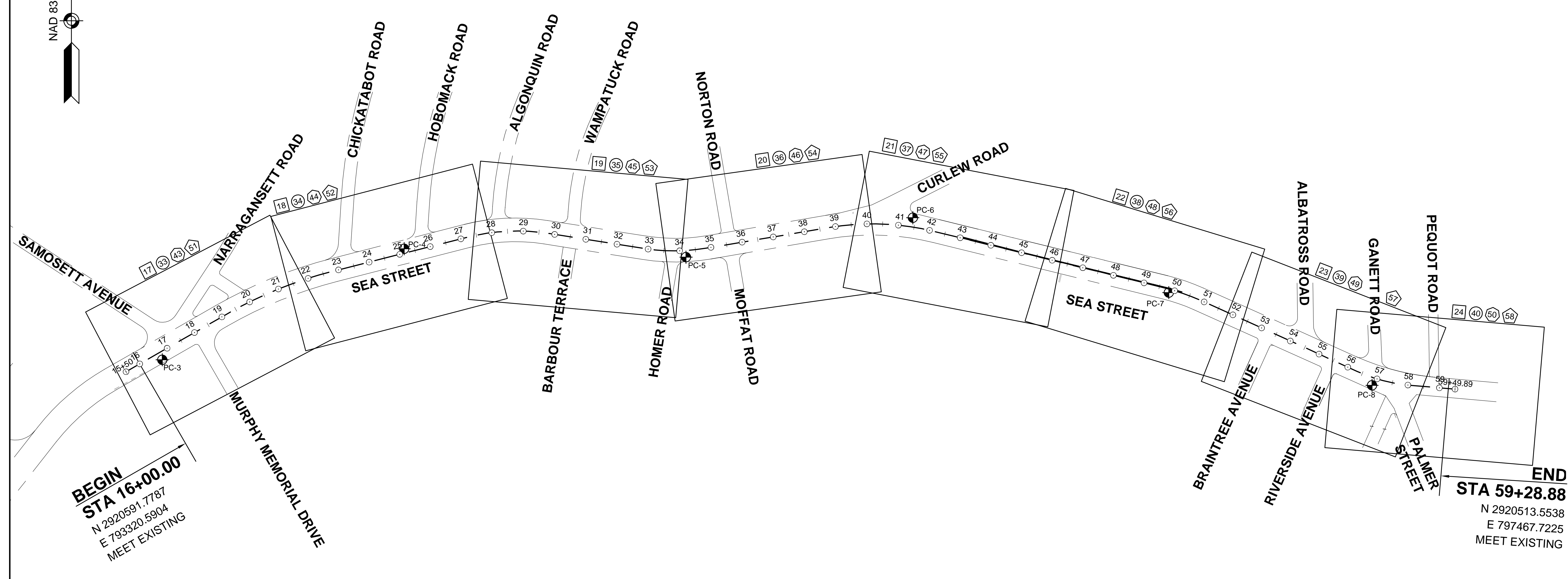
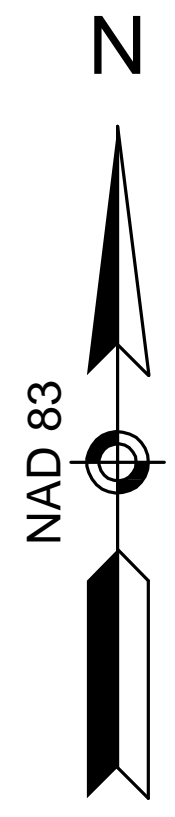
LEGEND AND ABBREVIATIONS

Table with columns: ABBREVIATIONS (cont.), GENERAL, DESCRIPTION. Lists abbreviations for PROJECT, PROPOSED, PLANTABLE SOIL BORROW, etc.

QUINCY
SEA STREET

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KEY PLAN AND BORING PLAN



BEGIN
STA 16+00.00
N 2920591.7787
E 793320.5904
MEET EXISTING

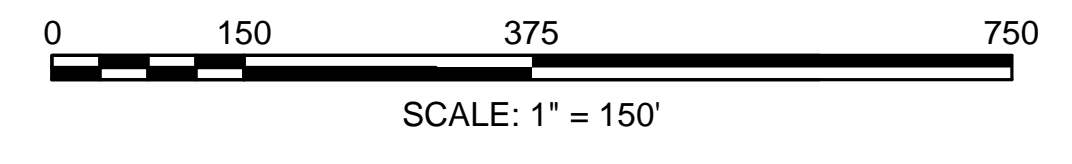
END
STA 59+28.88
N 2920513.5538
E 797467.7225
MEET EXISTING

SHEET NUMBER LEGEND

- ## CONSTRUCTION PLAN
- ## SIGN AND PAVEMENT MARKING PLAN
- ## CURB TIE & GRADING PLAN
- ## DRAINAGE & UTILITY PLAN

LEGEND

- PAVEMENT CORE



GENERAL NOTES

1. THE TERM "PROPOSED" (PROP.) SHALL MEAN WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, REUSING EXISTING MATERIALS. ALL TOPOGRAPHICAL AND/OR PHYSICAL FEATURES IN AREAS AFFECTED BY THE WORK SHALL BE RETAINED UNLESS OTHERWISE NOTED ON THE PLANS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT SURVEYS. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL SURVEYOR, REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS, TO COMPLETE ALL CONSTRUCTION LAYOUT.

3. THE ACCURACY AND COMPLETENESS OF ALL UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN ON THE PLANS IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXACT LOCATION, SIZE, TYPE, DEPTH, ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. ALL CITY-OWNED UTILITY STRUCTURES, WITHIN AREAS AFFECTED BY THE WORK, SHALL BE ADJUSTED OR REMODELED TO NEW LINE AND GRADE AS DIRECTED BY THE ENGINEER. ANY UTILITY AND/GUY POLES, WITHIN AREAS AFFECTED BY THE WORK, SHALL BE REMOVED AND RESET BY THE RESPECTIVE UTILITY COMPANY. ALTERATIONS TO UTILITIES AND UTILITY STRUCTURES NOT OWNED BY THE CITY SHALL BE MADE BY THE RESPECTIVE UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WORK IN ADVANCE WITH THOSE UTILITY OWNERS. THE CONTRACTOR MUST NOTIFY DIG-SAFE AT 1-811-344-7233 OR 1-888-344-7233 PRIOR TO ANY EXCAVATION IN PUBLIC OR PRIVATE WAYS, UTILITY COMPANY RIGHT-OF-WAY OR EASEMENT.

4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY STRUCTURE SHALL BE ACCURATELY DETERMINED AS SOON AS POSSIBLE BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR THE RESOLUTION OF THE CONFLICT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING, BYPASSING AND SUPPORTING ALL EXISTING UTILITIES FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY UTILITIES DAMAGED DURING CONSTRUCTION.

6. ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED ON THE PLANS. ALL DRAINAGE STRUCTURES SHALL BE SUPPORTED WITH A 12 INCH CRUSHED STONE (M2.01.1) FOUNDATION.

7. THE CONTRACTOR SHALL VERIFY EXISTING GRADES. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD, THE CONTRACTOR SHALL NOTIFY AND OBTAIN THE APPROVAL OF THE ENGINEER PRIOR TO PERFORMING THE WORK.

8. ALL TOWN OWNED UTILITY STRUCTURES WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED BUT THE CONTRACTOR UNLESS OTHERWISE NOTED. ALL PRIVATELY OWNED UTILITY STRUCTURES SHALL BE ADJUSTED BY OTHERS.

9. EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION, AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND SHALL BE REMOVED UPON COMPLETION OF ALL THE WORK WHEN ALL DISTURBED AREAS ARE STABILIZED, TO THE SATISFACTION OF THE ENGINEER.

10. FINAL PLACEMENT OF UTILITY POLES TO BE REMOVED AND RESET (R&R) SHALL BE COORDINATED WITH THE CITY OF QUINCY. SEE "DETAILS FOR MINIMUM OFFSET DISTANCES FOR SIDEWALK OBSTRUCTIONS" ON SHEET XX.

11. ALL PROPOSED DRAINAGE STRUCTURES SHALL BE AS PER CITY OF QUINCY STANDARDS UNLESS OTHERWISE NOTED.

12. ALL EXISTING DRAINAGE STRUCTURES SHALL BE RETAINED UNLESS OTHERWISE NOTED ON THE PLANS.

13. ALL EXISTING DRAINAGE LINES TO BE REPLACED SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED. IF ANY EXISTING LINES CONFLICT WITH THE PROPOSED DRAINAGE LINES, THEY SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

14. WHERE DRAINAGE PIPES OR OTHER STRUCTURES ARE ABANDONED IN PLACE, THE CONTRACTOR SHALL MAKE SURE THAT ALL CONNECTING PIPES, INLETS AND OUTLETS ARE PLUGGED. ALL LIVE DRAINAGE LINES SHALL BE CONNECTED TO THE NEW SYSTEM.

15. WHEN A PROPOSED CATCH BASIN INTERFERES WITH ANY OTHER UNDERGROUND UTILITY, A GUTTER INLET SHALL BE USED, AS DIRECTED BY THE ENGINEER.

16. ALL NEW GRANITE CURB SHALL BE MASSDOT HIGHWAY DIVISION TYPE VA-4. ANY NEW CURB TO BE USED AT THE BACK OF THE SIDEWALK SHALL BE MASSDOT HIGHWAY DIVISION TYPE VA-4 AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

17. ANY EXISTING GRANITE CURB THAT CAN BE RE-USED SHALL BE R&R AS DIRECTED BY THE ENGINEER. NEW GRANITE CURB SHALL NOT BE INTERLAYED WITH R&R GRANITE CURB. IF EXISTING CATCH BASINS ARE TO REMAIN IN PLACE WITH GRANITE CURB BEHIND THEM, THE CONTRACTOR SHALL REPLACE THE EXISTING CURB WITH A CURB INLET SECTION, AS DIRECTED BY THE ENGINEER.

18. ALL CURB-TIE DIMENSIONS ARE TO THE FACE OF THE CURB OR EDGE OF TRAVEL WAY.

19. CLEAR AND GRUB ALL AREAS BETWEEN THE EXISTING EDGE OF PAVEMENT AND THE BOTTOM OR TOP OF SLOPE OR BACK OF PROPOSED WALLS UNLESS OTHERWISE NOTED ON THE PLANS. THIS SHALL INCLUDE ALL EXISTING TREES, SHRUBS AND PLANTINGS. ALL OTHER TREES AND SHRUBS OUTSIDE OF THE PROPOSED TOP OR BOTTOM OF SLOPE SHALL BE RETAINED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

20. ALL TREES WITHIN THE LIMITS OF WORK SHALL BE RETAINED UNLESS OTHERWISE NOTED ON THE PLANS. HOWEVER, SOME TREES, IN CRITICAL LOCATIONS, ARE NOTED TO BE RETAINED, FOR CLARITY. THE ENGINEER SHALL OBTAIN THE APPROVAL OF THE CITY TREE WARDEN OR HIS EQUIVALENT OFFICER BEFORE ANY TREE IS REMOVED.

21. TREES AND FOLIAGE TO BE RETAINED, WHICH RESTRICT SIGHT DISTANCE OR RESTRICT HORIZONTAL OR VERTICAL CLEARANCES SHALL BE TRIMMED AS DIRECTED BY THE ENGINEER.

22. UNLESS OTHERWISE NOTED, ALL EXISTING WALLS WITHIN THE PROJECT LIMITS SHALL BE RETAINED.

23. WHEN WORKING NEXT TO EXISTING TREES, WALLS OR FENCES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO DISTURB THE EXISTING WALLS, TREES OR FENCES. IF THE CONTRACTOR DOES DAMAGE ANY EXISTING TREES, WALLS OR FENCES AS A RESULT OF THE CONSTRUCTION PROCESS, IT SHALL BE HIS/HER RESPONSIBILITY (THE CONTRACTOR) TO REPAIR ALL DAMAGES AS DIRECTED BY THE ENGINEER. ALL WORK ASSOCIATED WITH THE REPAIR OR REPLACEMENT OF EXISTING TREES, WALLS OR FENCES SHALL BE CONSIDERED AS INCLUDED IN THE BID PRICE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFORE.

24. EXISTING SIDEWALK, IN AREAS OF STONE, BRICK OR CONCRETE WALLS TO REMAIN, SHALL BE SAW-CUT 12 INCHES FROM THE EXISTING WALL AND EXCAVATED, BY MACHINE, UP TO THAT SAW-CUT LINE. EXCAVATION OF THE REMAINDER OF THE EXISTING SIDEWALK, FROM THE SAW-CUT LINE TO THE EXISTING WALL, SHALL BE DONE BY "HAND-WORK," AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

25. IN AREAS OF NEW SIDEWALK, NEW EDGE OF PAVEMENT OR CURB WITHOUT SIDEWALK OR ANY WORK ADJACENT TO EXISTING GRASS AREAS, EVEN WHEN NO SLOPE-MATCHING OR GRADING IS NECESSARY AND THE EXISTING GRADE IS MET, LOAM AND SEED SHALL BE PROVIDED AS NECESSARY TO REPAIR ANY DAMAGE TO THE GRADE CAUSED BY THE CONSTRUCTION PROCESS, AS DIRECTED BY THE ENGINEER.

26. ALL AREAS OUTSIDE THE LIMITS OF THE PROPOSED WORK THAT HAVE BEEN DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER AND THE PROPERTY OWNER.

27. JOINTS BETWEEN NEW HOT MIX ASPHALT (HMA) ROADWAY PAVEMENT AND SAW-CUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDED.

28. MAILBOXES, FENCES, ETC., THAT NEED TO BE RELOCATED SHALL BE REMOVED AND RESET (R&R) IN THEIR NEW LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE OWNER SHALL BE CONSULTED PRIOR TO THE WORK. ALL FENCES AND HEDGES SHALL BE RETAINED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

29. ALL CROSSWALKS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC PLANS. DETAIL FOR THERMOPLASTIC CROSSWALKS IS SHOWN ON SHEET 11.

30. TRAFFIC CONTROLS FOR CONSTRUCTION OPERATIONS SHALL BE IN ACCORDANCE WITH MASSDOT HIGHWAY DEPARTMENT REQUIREMENTS AND THE 2009 MUTCD WITH LATEST REVISIONS.

31. ON-THE-GROUND SURVEY PROVIDED BY SURVEYING AND MAPPING CONSULTANTS (SMC) AND IS PRESENTED ON A PLAN ENTITLED "EXISTING CONDITIONS SURVEY, SEA STREET, QUINCY, MA", SCALE: 1:20, DATED: JANUARY 19, 2016.

32. COORDINATES, IN U.S. SURVEY FEET, ARE IN THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MCS), MAINLAND ZONE, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83/CORS), BASED ON THE KEYNET GPS VIRTUAL REFERENCE SYSTEM (VRS), USING TRIMBLE R8 GNSS GPS RECEIVERS.

33. ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) FROM A DIFFERENTIAL LEVEL RUN USING MASSDOT BM #6090, 6091 & 6091A.

34. THIS SURVEY HAS BEEN COMPILED FROM MOBILE LIDAR POINT CLOUD DATA AND IMAGERY CAPTURED WITH SMC'S TRIMBLE MX2@ LIDAR AND SPATIAL IMAGERY SYSTEM. THE LIDAR DATA HAS BEEN COMBINED WITH EXISTING DASILVA SURVEYS OF PORTIONS OF SEA STREET AT QUINCY SHORE DRIVE, NARRAGANSETT STREET, CURLEW ROAD AND BRAINTREE AVENUE TO PALMER AVENUE, AND SMC'S EXISTING SURVEY OF SEA STREET AND SUPPLEMENTAL FIELD SURVEYS ALONG THE PROJECT CORRIDOR.

WHEELCHAIR RAMP NOTES

1. ALL WHEELCHAIR RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB), THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE LATEST MASSDOT HIGHWAY DIVISION WHEELCHAIR RAMP STANDARDS.

2. THE LOCATIONS OF THE PROPOSED WHEELCHAIR RAMPS ARE SHOWN ON THE CONSTRUCTION PLANS. ADDITIONAL TYPICAL DETAILS AND WHEELCHAIR RAMP DATA TABLES ARE SHOWN IN THE CONSTRUCTION DETAILS.

3. PROPOSED WHEELCHAIR RAMP SLOPES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE POURING OF CONCRETE, AND ADJUSTED, IF NECESSARY, TO CONFORM TO THE LATEST ADAAG/PROWAG/MAAB STANDARDS, AS DIRECTED BY THE ENGINEER.

4. ALL PROPOSED CURB FOR WHEELCHAIR RAMP TRANSITIONS SHALL BE CUT AND TRANSITIONED AS NECESSARY TO PROVIDE THE CORRECT TRANSITION LENGTHS FOR EACH WHEELCHAIR RAMP, AS SHOWN ON THE WHEELCHAIR RAMP DETAILS OR AS DIRECTED BY THE ENGINEER. ANY EXISTING CURB INLETS IN AREAS OF NEW WHEELCHAIR RAMP TRANSITIONS SHALL BE REMOVED AND REPLACED WITH APPROPRIATE TRANSITION CURB AS DIRECTED BY THE ENGINEER.

5. IN NO CASE, EXCEPT FOR MAXIMUM LENGTH HIGH SIDE TRANSITIONS (SLOPES GREATER THAN 4%) SHALL ANY TRANSITION SLOPE OF ANY WHEELCHAIR RAMP EXCEED 7.5%.

6. WHEN PLACEMENT OF THE PROPOSED WHEELCHAIR RAMP IS SUCH THAT IT IS UNAVOIDABLE FOR EXISTING STRUCTURES, THAT CANNOT BE MOVED OR RESET, TO BE WITHIN THE WHEELCHAIR RAMP, EXTREME CARE SHALL BE TAKEN SUCH THAT THE EXISTING STRUCTURE IS WITHIN THE RAMP TRANSITIONS ONLY, IF POSSIBLE, WHEN THE NEW WHEELCHAIR RAMP IS PLACED AND THAT A FOUR FOOT WIDE (MIN). CLEAR PATH OF TRAVEL EXISTS BETWEEN THE EXISTING STRUCTURE AND EITHER THE CURBLINE OR THE BACK OF SIDEWALK, AS DIRECTED BY THE ENGINEER.

7. IN RARE INSTANCES WHERE AN EXISTING MANHOLE, HANDHOLE OR OTHER EXISTING "SURFACE" TYPE STRUCTURE WHICH CANNOT BE REMOVED AND RESET, IS WITHIN THE ACTUAL WHEELCHAIR RAMP PATH, THE STRUCTURE SHALL BE CAREFULLY ADJUSTED SUCH THAT THE TOPMOST SURFACES OF THE STRUCTURE COVER SHALL BE FLUSH WITH THE NEW RAMP SURFACE AND SHALL MATCH THE SLOPE OF THE NEW WHEELCHAIR RAMP EXACTLY, AS DIRECTED BY THE ENGINEER.

8. ALL WHEELCHAIR RAMPS WITHIN THE PROJECT LIMITS SHALL HAVE DETECTABLE WARNING PANELS INSTALLED IN ACCORDANCE WITH MASSDOT STANDARD DRAWING E 107.6.5R.

QUINCY SEA STREET			
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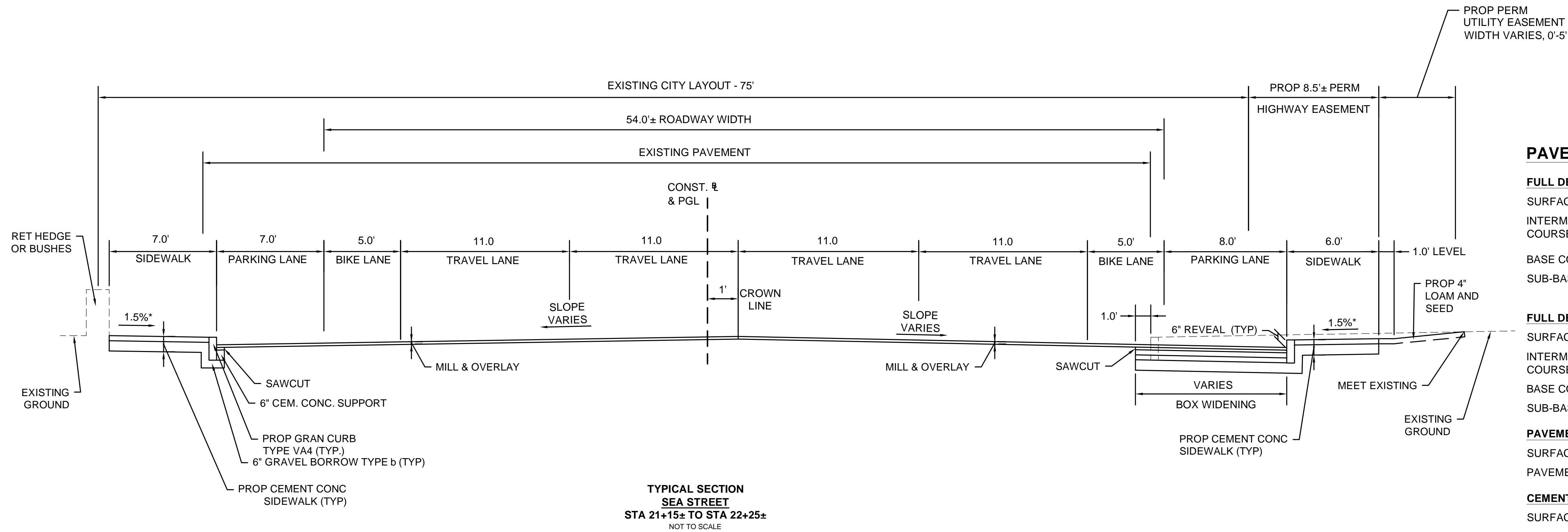
GENERAL NOTES

QUINCY
SEA STREET

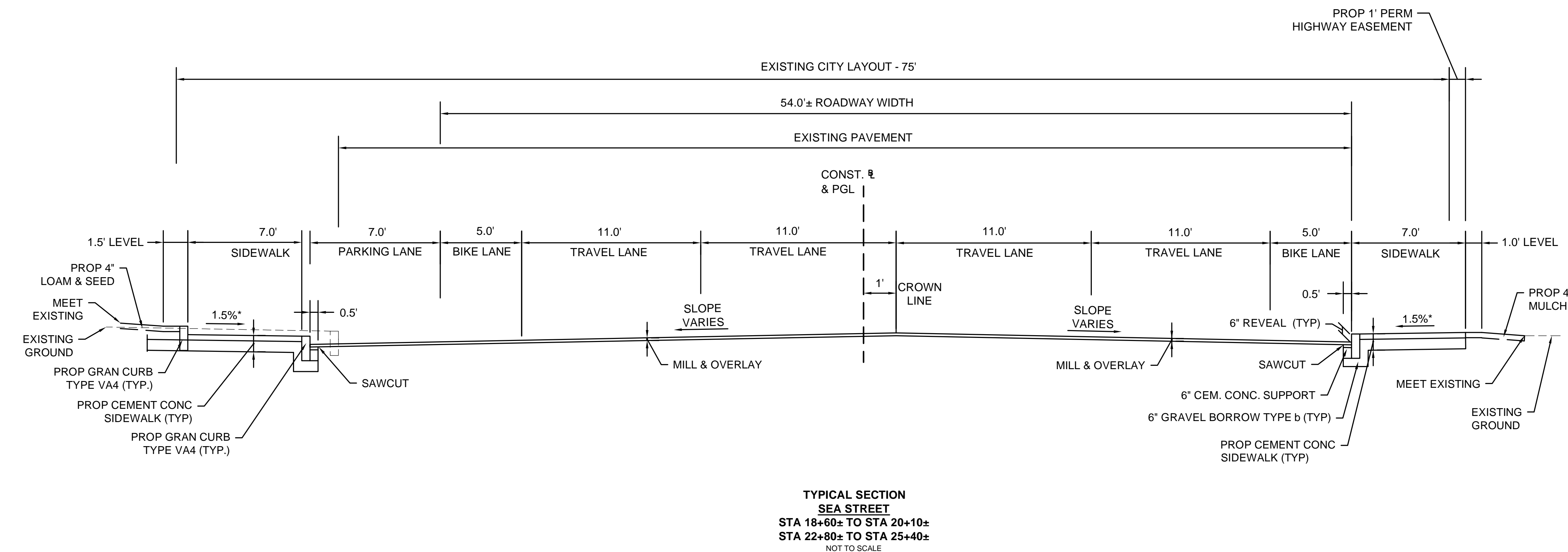
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		5	146

PROJECT FILE NO. 608707

TYPICAL SECTIONS



TYPICAL SECTION
SEA STREET
STA 21+15± TO STA 22+25±
NOT TO SCALE



TYPICAL SECTION
SEA STREET
STA 18+60± TO STA 20+10±
STA 22+80± TO STA 25+40±
NOT TO SCALE

PAVEMENT NOTES

FULL DEPTH PAVEMENT BOX WIDENING

SURFACE COURSE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER
BASE COURSE: 4" SUPERPAVE BASE COURSE 37.0 (SBC-37.0) OVER
SUB-BASE: 4" DENSE GRADED CRUSHED STONE OVER 8" GRAVEL BORROW, TYPE b

FULL DEPTH PAVEMENT BOX WIDENING 54' WIDE

SURFACE COURSE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER
BASE COURSE: 6" HES CEMENT CONCRETE BASE COURSE OVER
SUB-BASE: 8" GRAVEL BORROW, TYPE b

PAVEMENT MILLING AND OVERLAY

SURFACE COURSE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
PAVEMENT MILLING: 2" PAVEMENT MICROMILLING

CEMENT CONCRETE SIDEWALKS AND WHEELCHAIR RAMPS

SURFACE: 4" CEMENT CONCRETE WALK SURFACE
4000 PSI, 3/4", 610 OVER
FOUNDATION: 8" GRAVEL BORROW, TYPE b

HMA WALKS

SURFACE: 1-1/4" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
1-3/4" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER
FOUNDATION: 8" GRAVEL BORROW, TYPE b

CEMENT CONCRETE SIDEWALK AT DRIVEWAYS

SURFACE COURSE: 6" CEMENT CONCRETE SURFACE
4000 PSI, 3/4", 610 OVER
BASE COURSE: 8" GRAVEL BORROW, TYPE b

HMA DRIVEWAYS

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2-1/2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER
FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROJECT TACK COAT NOTES

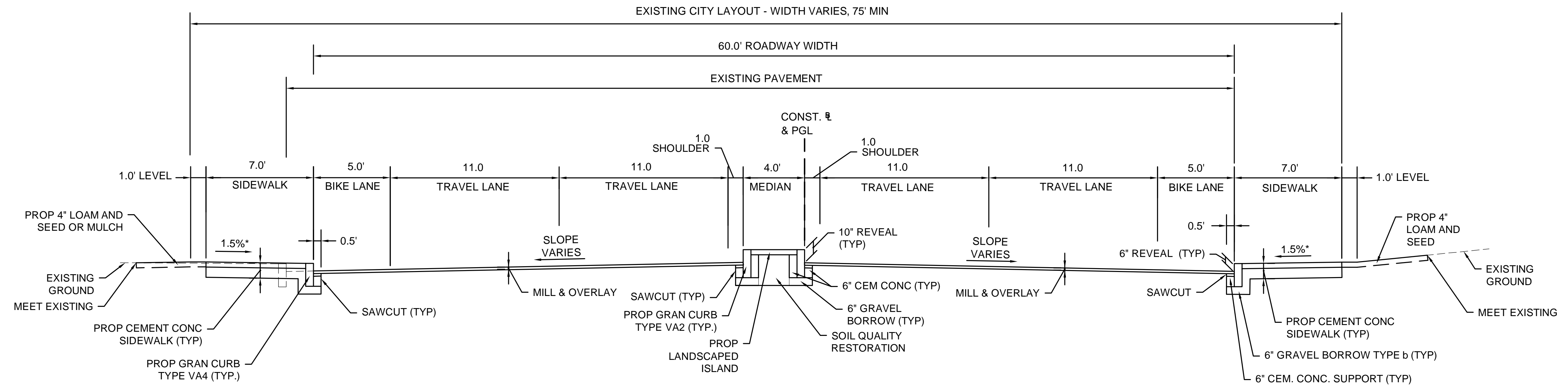
TACK COAT: ASPHALT EMULSION FOR TACK COAT, GRADE RS-1
SHALL BE PLACED AT A RATE OF:
0.07 GALLONS PER SQUARE YARD OVER MILLED SURFACES
0.07 GALLONS PER SQUARE YARD OVER CEMENT CONCRETE
BASE COURSE
0.05 GALLONS PER SQUARE YARD OVER SMOOTH
TIGHT PAVEMENTS PRIOR TO PAVING AN OVERLAY AND
BETWEEN PAVEMENT COURSES.

* TOLERANCE FOR CONSTRUCTION ±0.5%

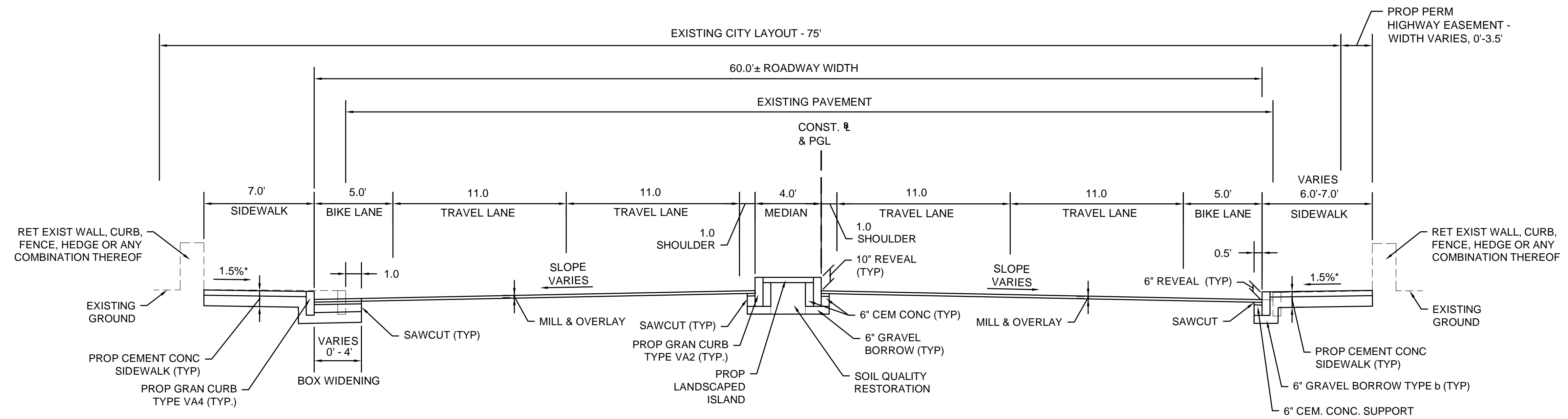
QUINCY
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TYPICAL SECTIONS



TYPICAL SECTION
SEA STREET
STA 36+50± TO STA 42+90±
NOT TO SCALE



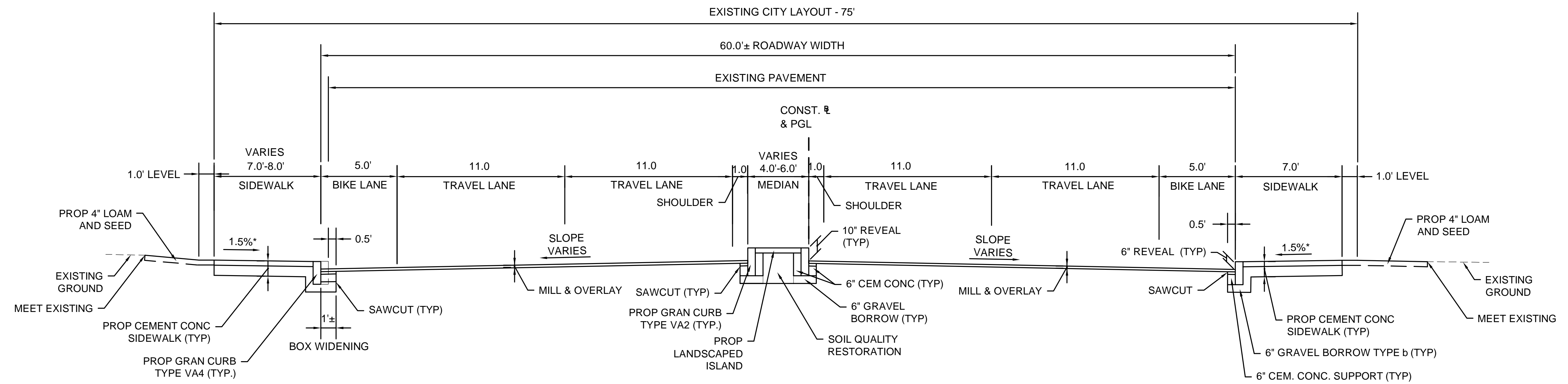
TYPICAL SECTION
SEA STREET
STA 27+20± TO STA 35+25±
NOT TO SCALE

* TOLERANCE FOR CONSTRUCTION ±0.5%

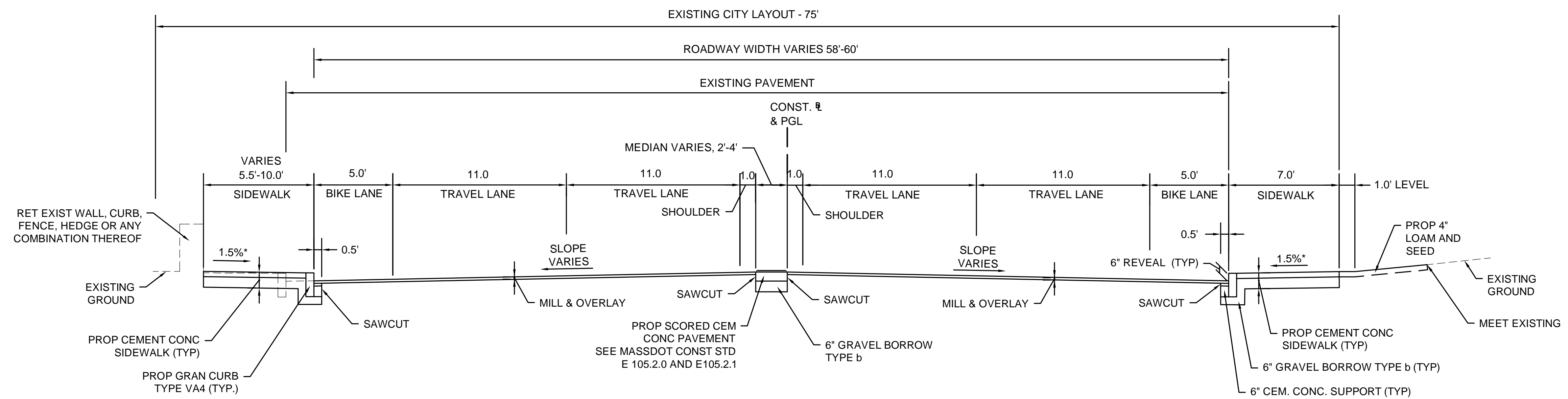
QUINCY
SEA STREET

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TYPICAL SECTIONS



TYPICAL SECTION
SEA STREET
STA 50+20± TO STA 56+15±
NOT TO SCALE

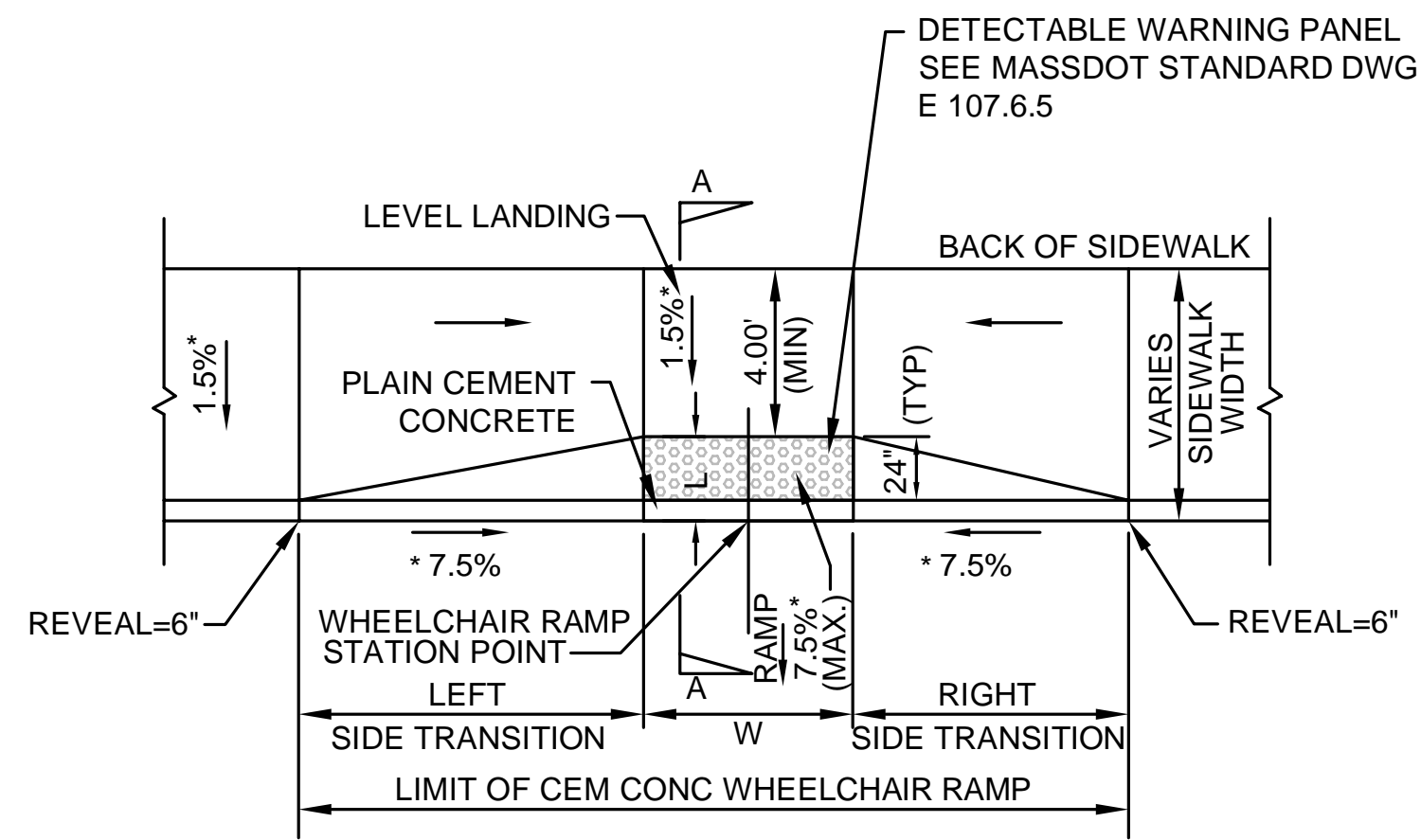


TYPICAL SECTION
SEA STREET
STA 43+00± TO STA 50+20±
NOT TO SCALE

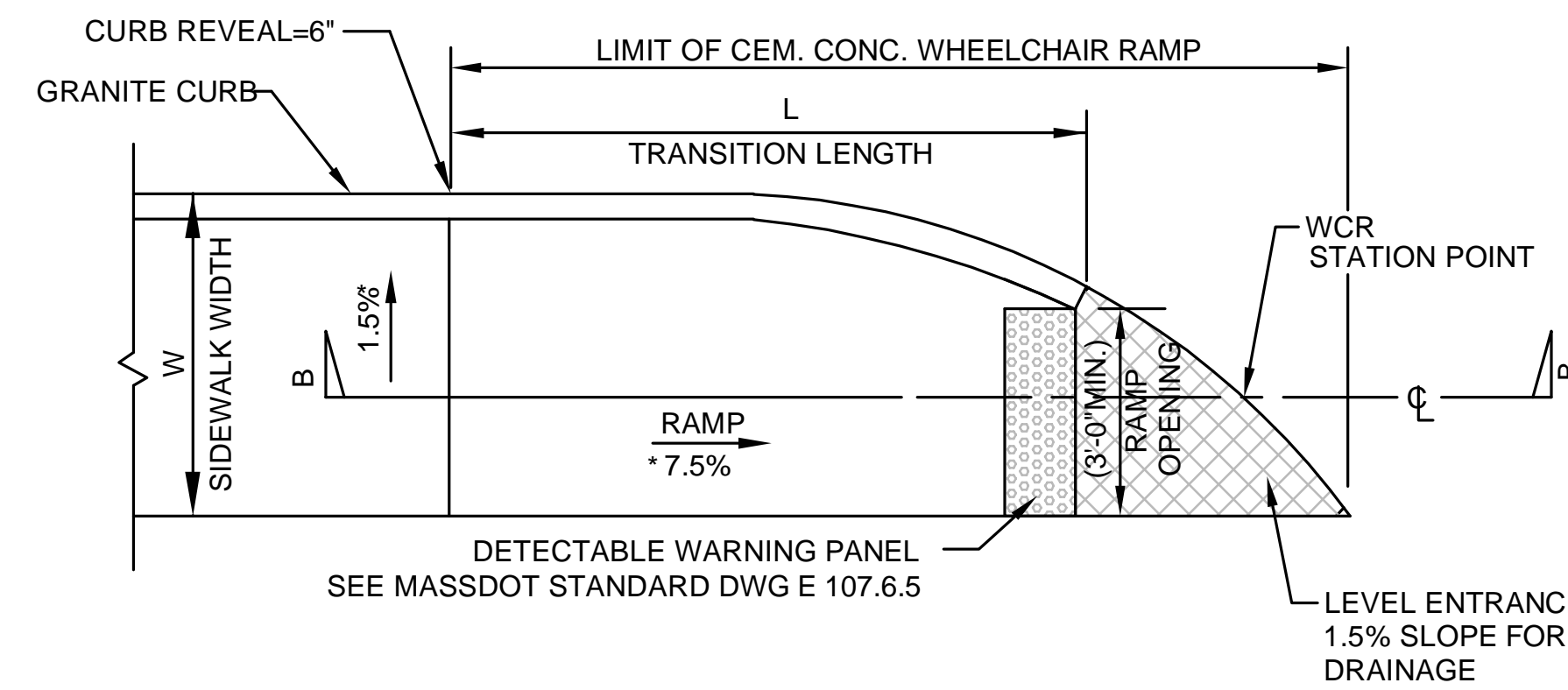
* TOLERANCE FOR CONSTRUCTION ±0.5%

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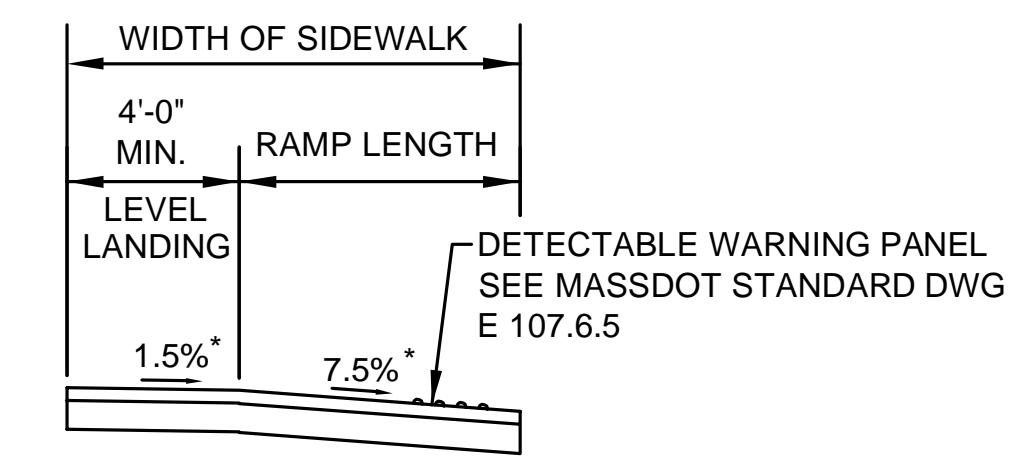
CONSTRUCTION DETAILS



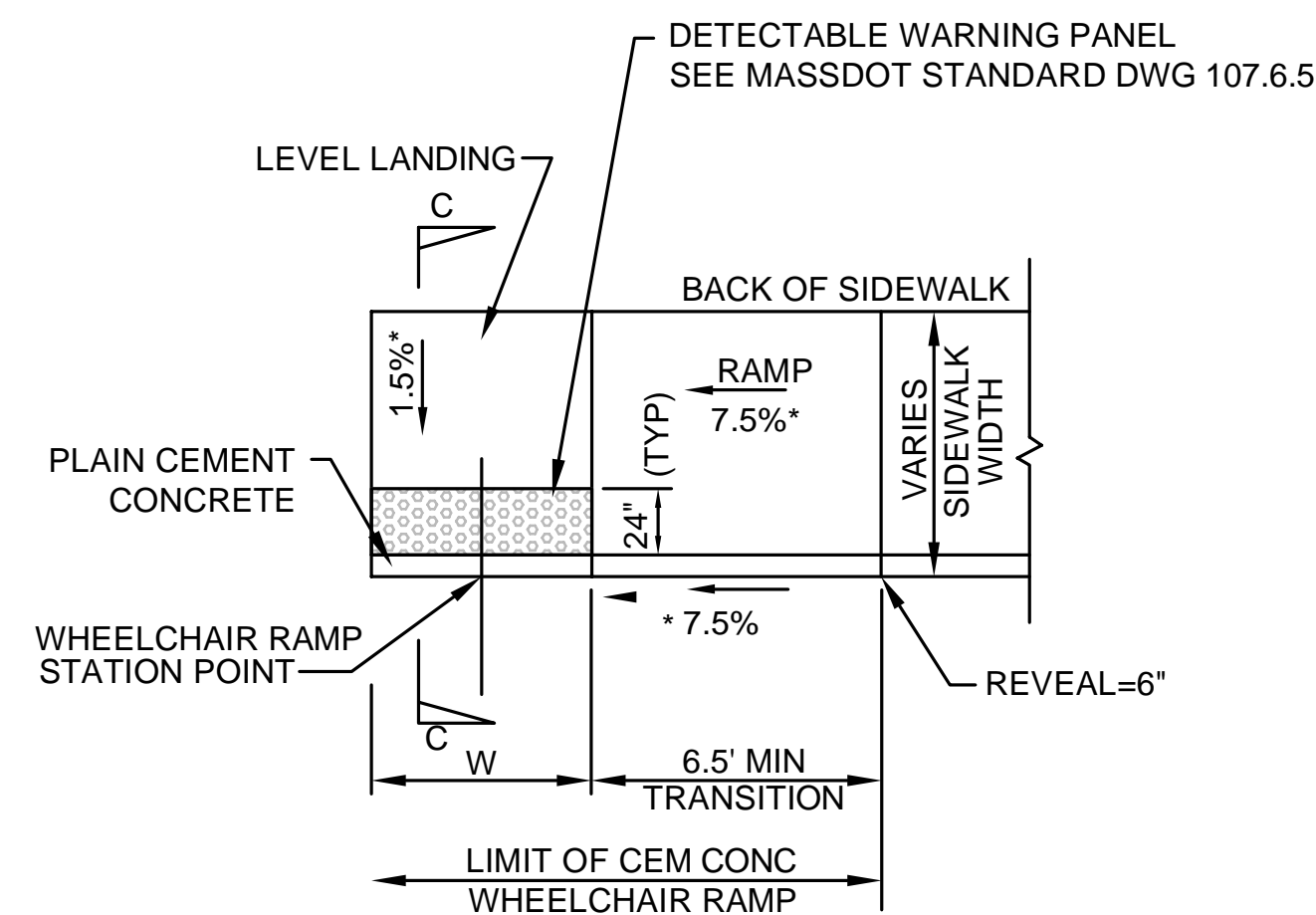
WHEELCHAIR RAMP DETAIL TYPE "A"
NOT TO SCALE



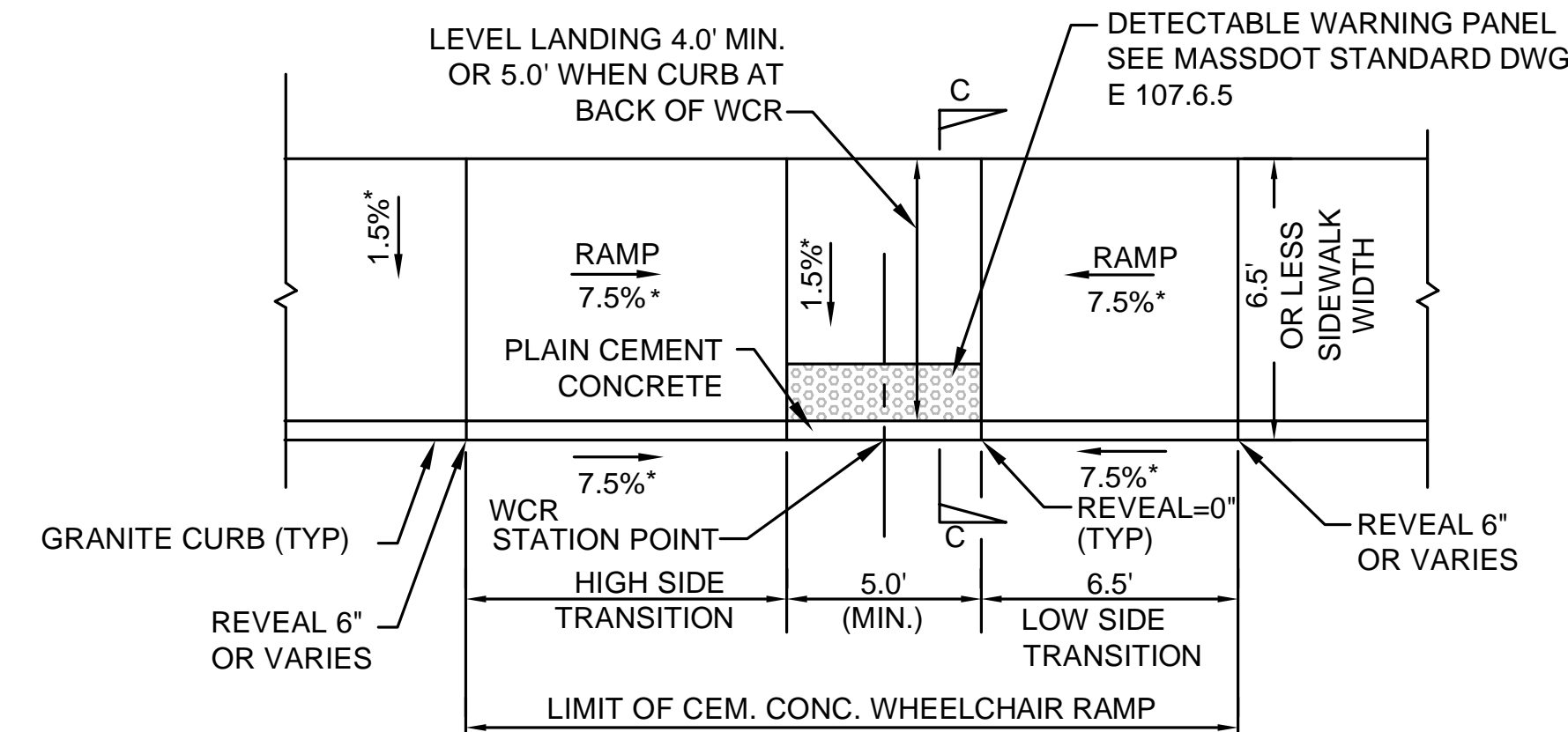
WHEELCHAIR RAMP DETAIL TYPE "B"
NOT TO SCALE



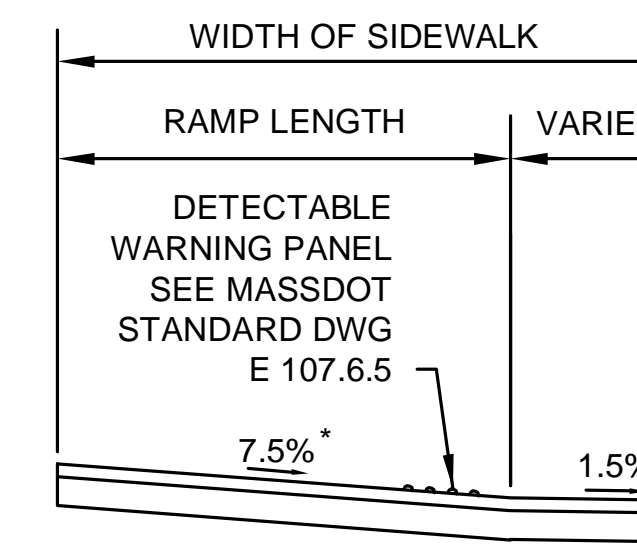
SECTION A-A
NOT TO SCALE



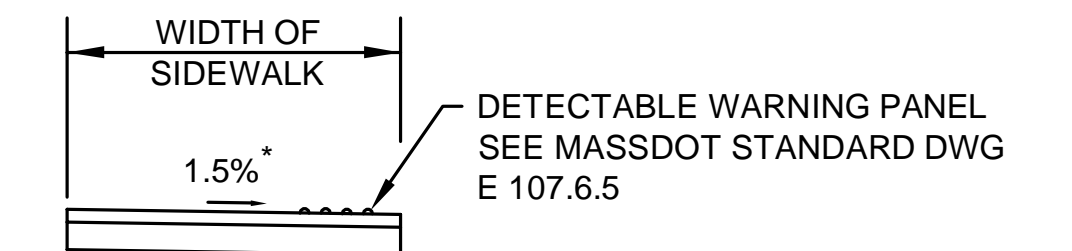
WHEELCHAIR RAMP DETAIL TYPE "C"
NOT TO SCALE



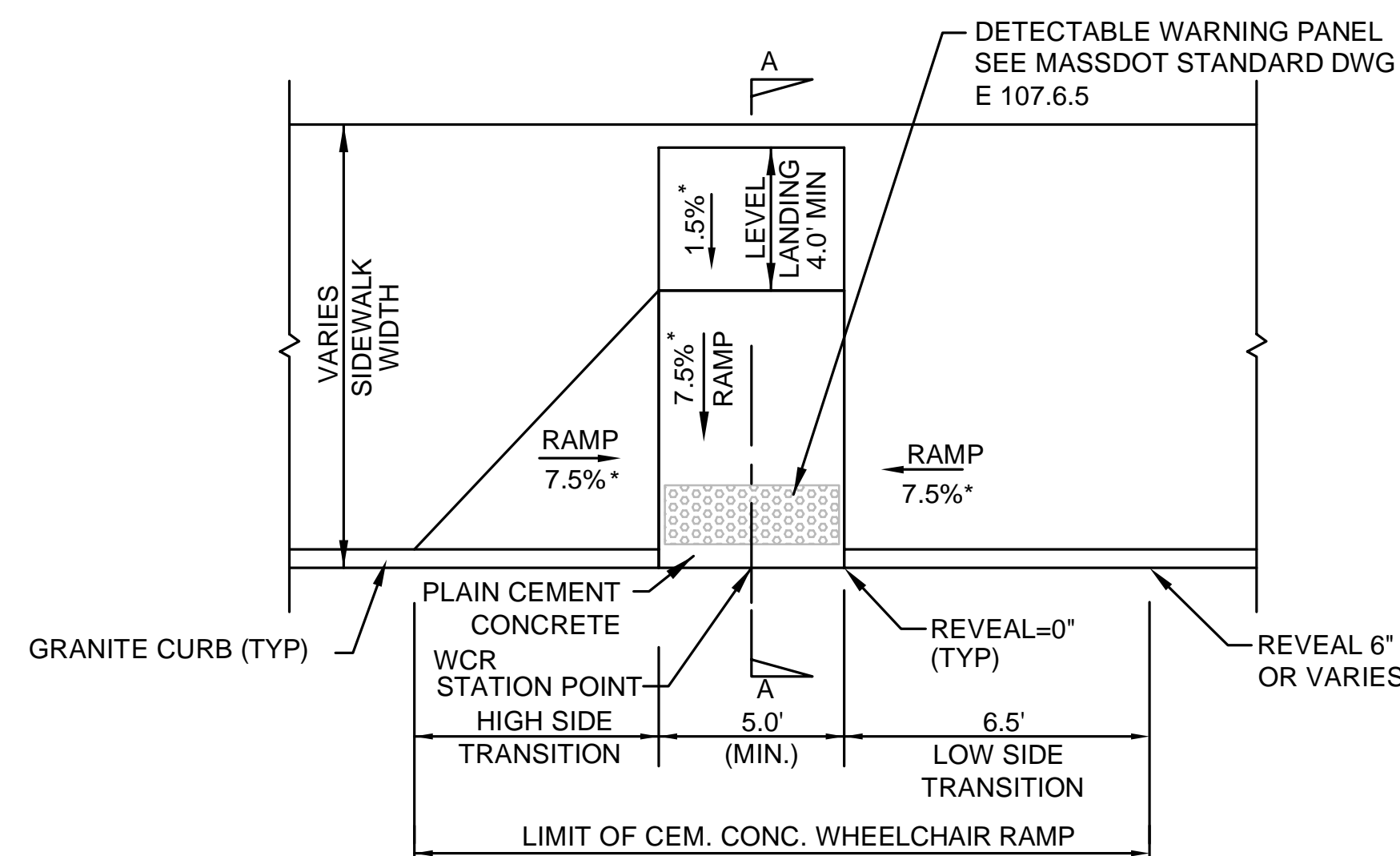
WHEELCHAIR RAMP DETAIL TYPE "D"
NOT TO SCALE



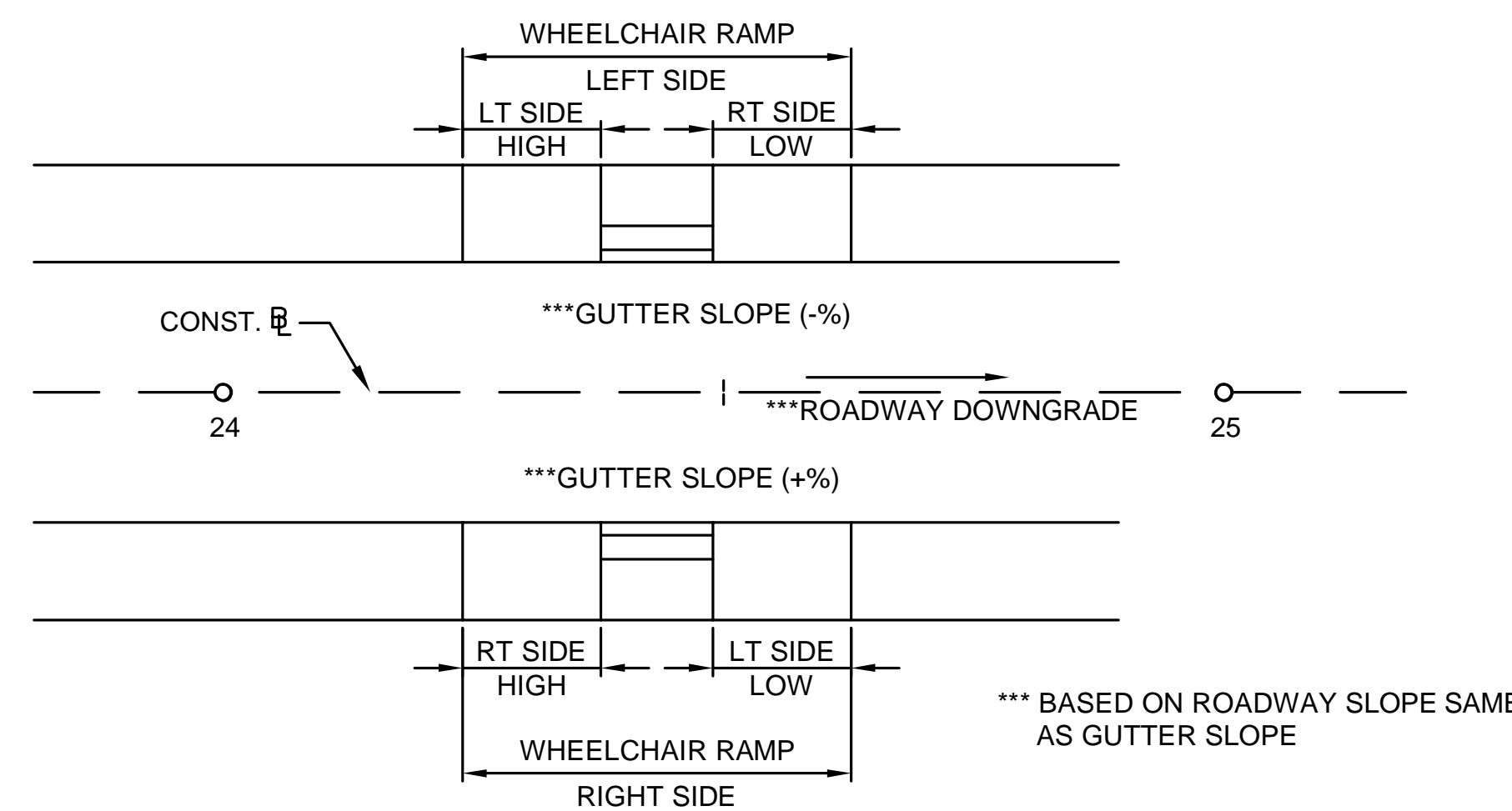
SECTION B-B
NOT TO SCALE



SECTION C-C
NOT TO SCALE



WHEELCHAIR RAMP DETAIL TYPE "E"
NOT TO SCALE



GUTTER SLOPE DIAGRAM
NOT TO SCALE

PROFILE GRADE (%)	HIGH SIDE TRANSITION LENGTH FOR 7.5% DESIGN SLOPE (FEET)
0	6'-6"
>0-1	7'-8"
>1-2	9'-0"
>2-3	11'-0"
>3-4	14'-0"
>4	15'-0" MAX.

WHEELCHAIR RAMP
HIGH SIDE TRANSITION LENGTHS
FIGURES ARE BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".

* TOLERANCE FOR CONSTRUCTION ±0.5%

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		9	146
PROJECT FILE NO.		608707	

CONSTRUCTION DETAILS

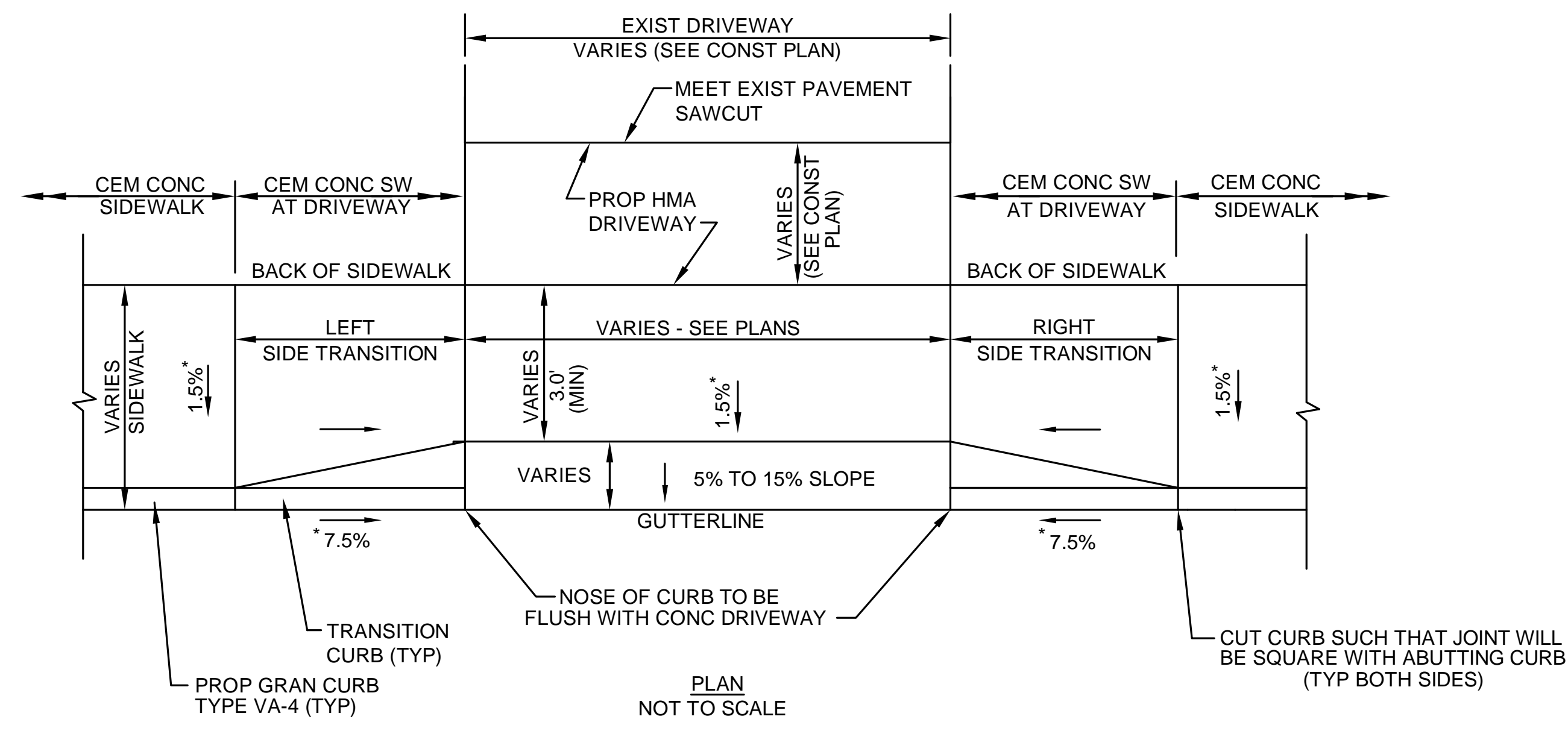
WHEELCHAIR RAMP DATA											
WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE	LENGTH OF PRIMARY RAMP L	WIDTH OF RAMP OPENING W	DEPTH OF LEVEL LANDING (MIN. 4.0')	TRANSITION LENGTH		SIDEWALK WIDTH	WCR TYPE
		STATION	OFFSET					LEFT	RIGHT		
1	SEA ST.	16+67.63'	41.3' LT	0.9%	8.33'	5.0'	4.0'	7.67'	6.5'	16.5'	E
2	SEA ST.	17+32.41'	41.7' LT	0.8%	2.5'	5.0'	4.4'-4.5'	6.5'	7.67'	7.0'	A
3	SEA ST.	17+66.06'	32.7' LT	0.3%	3.0'	5.0'	4.0'	7.67'	6.5'	7.0'	A
4	SEA ST.	17+66.88'	28.0' RT	0.1%	3.3'	5.0'	4.0'	6.5'	7.67'	7.3'	A
5	SEA ST.	17+91.75'	41.0' LT	1.7%	2.5'	5.0'	4.3'-4.5'	9.0'	6.5'	7.0'	A
6	SEA ST.	17+96.72'	35.0' RT	1.8%	2.5'	5.0'	4.3'-4.8'	6.5'	9.0'	7.0'	A
7	SEA ST.	18+38.20'	41.0' LT	1.2%	3.0'	5.0'	4.2'-4.8'	6.5'	9.0'	7.4'	A
8	SEA ST.	18+44.67'	35.2' RT	2.2%	2.5'	5.0'	4.3'-4.5'	11.0'	6.5'	7.0'	C
9	SEA ST.	22+49.88'	33.0' LT	0.7%	2.5'	5.0'	6.45'	3.84' 3" R	6.5'	6.45'	D
10	SEA ST.	22+49.37'	28.0' RT	0.8%	8.33'	5.0'	4.0'	6.5'	7.67'	14.0'	E
11	CHICKATABOT RD.	200+38.96'	29.5' LT	2.2%	3.4'	5.0'	5.0'	11.0'	6.5'	8.4'	A
12	CHICKATABOT RD.	200+43.83'	25.9' RT	0.9%	2.5'	5.0'	4.7'-5.2'	7.67'	6.5'	7.2'-7.8'	A
13	HOBOMACK RD.	250+40.04'	23.1' LT	2.7%	3.5'	5.0'	4.7'-5.0'	11.0'	6.5'	8.2'-8.5'	A
14	HOBOMACK RD.	250+42.53'	22.0' RT	2.7%	3.5'	5.0'	4.0'-5.1'	11.0'	6.5'	7.5'-8.6'	A
15	ALGONQUIN RD.	250+42.53'	22.0' RT	1.6%	3.5'	5.0'	4.5'-4.7'	9.0'	6.5'	8.0'-8.2'	A
16	ALGONQUIN RD.	300+39.22'	21.1' LT	1.3%	3.5'	5.0'	4.5'	9.0'	6.5'	8.0'	A
17	WAMPATUCK RD.	350+41.58'	20.0' LT	1.2%	4.0'	5.0'	5.0'-5.5'	9.0'	6.5'	9.0'-9.5'	A
18	BARBOUR TER.	650+33.12'	16.1' RT	0.9%	7.67'	5.0'	-	-	7.67'	8.0'	B
19	BARBOUR TER.	650+32.79'	16.4' LT	2.3%	6.5'	5.0'	-	6.5'	-	7.7'	B
20	WAMPATUCK RD.	350+38.94'	20.8' RT	0.7%	2.5'	5.0'	4.5'	6.5'	7.67'	7.0'	A
21	HOMER RD.	700+37.76'	15.2' RT	5.0% LT (HOMER) 1.3% RT (SEA)	6.5'	4.5'	-	15.0'	6.5'	8.1'	B
22	HOMER RD.	700+31.52'	12.6' LT	1.1% LT (SEA) 3.4% RT (HOMER)	9.0'	5.0'	-	9.0'	14.0'	7.5'	B
23	SEA ST.	35+18.12'	28.0' RT	0.2%	6.0'	5.0'	6.0'	6.5'	7.67'	6.0'	D
24	SEA ST.	35+19.55'	32.0' LT	0.7%	6.0'	5.0'	6.0'	7.67'	3.25' 3" R	6.0'	D
25	NORTON RD.	400+39.33'	17.6' LT	2.1%	6.1'	5.0'	6.1'	5.5' 3" R	6.5'	6.1'	D
26	MOFFAT RD.	750+38.02'	19.1' RT	5.0%	3.0'	5.0'	4.5'	15.0'	6.5'	7.5'	A
27	NORTON RD.	400+39.55'	17.3' RT	0.6%	6.0'-7.2'	5.0'	6.0'-7.2'	6.5'	3.84' 3" R	6.0'-7.2'	D

WHEELCHAIR RAMP DATA											
WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE	LENGTH OF PRIMARY RAMP L	WIDTH OF RAMP OPENING W	DEPTH OF LEVEL LANDING (MIN. 4.0')	TRANSITION LENGTH		SIDEWALK WIDTH	WCR TYPE
		STATION	OFFSET					LEFT	RIGHT		
28	MOFFAT RD.	750+38.54'	19.7' LT	12.7%	3.5'	5.0'	4.5'	3.25' 3" R	15.0'	8.2'	A
29	SEA ST.	35+98.84'	28.6' RT	4.0%	3.0'	5.0'	4.3'-4.6'	3.25' 3" R	7.5' 3" R	7.0'-8.0'	A
30	SEA ST.	35+99.91'	32.0' LT	2.6%	2.5'	5.0'	4.5'	5.5' 3" R	6.5'	7.0'	A
31	SEA ST.	39+59.39'	36.5' LT	1.1%	6.5'	5.0'	-	6.5'	-	7.0'	B
32	SEA ST.	39+82.65'	36.5' LT	3.5%	14.0'	5.0'	-	-	14.0'	7.0	B
33	CURLEW RD.	450+38.98'	31.1' LT	0.5%	2.5'	5.0'	4.5'	7.67'	6.5'	7.0'	A
34	CURLEW RD.	450+40.64'	30.8' RT	3.6%	3.0'	5.0'	5.0'	6.5'	14.0'	8.0'	A
35	SEA ST.	41+58.79'	32.0' LT	2.6%	3.0'	5.0'	5.0'	6.5'	11.0'	8.0'	A
36	SEA ST.	41+66.00'	28.0' RT	3.0%	4.0'	5.0'	5.2'	14.0'	6.5'	9.2'	A
37	SEA ST.	52+84.72'	34.0' LT	0.6%	2.5'	5.0'	4.0'	6.5'	7.67'	6.5'	A
38	SEA ST.	52+88.22'	28.0' RT	0.7%	2.5'	5.0'	4.0'	3.84' 3" R	6.5'	6.5'	A
39	BRAINTREE AVE.	800+34.94'	16.2' RT	1.6%	6.0'	5.0'	6.0'	9.0'	3.25' 3" R	6.0'	D
40	BRAINTREE AVE.	800+34.94'	16.3' LT	1.6%	2.5'	5.0'	4.5'	6.5'	9.0'	7.0'	A
41	ALBATROSS RD.	500+55.30'	27.9' LT	1.8%	2.5'	5.0'	4.3'-4.7'	4.5' 3" R	6.5'	6.8'-7.2'	A
42	ALBATROSS RD.	500+50.15'	28.8' RT	1.5%	3.5'	5.0'	5.1'	6.5'	9.0'	8.6'	A
43	RIVERSIDE AVE.	850+35.76'	14.6' RT	1.4%	3.5'	5.0'	5.3'-5.6'	9.0'	6.5'	8.8'-9.1'	A
44	RIVERSIDE AVE.	850+35.47'	13.1' LT	3.2%	3.5'	5.0'	4.6'	6.5'	14.0'	8.1'	A
45	GANNET RD.	550+45.91'	28.7' LT	HP	3.0'	5.0'	4.5'	6.5'	6.5'	7.5'	A
46	GANNET RD.	550+43.26'	28.3' RT	2.9%	3.5'	5.0'	4.4'-5.4'	6.5'	11.0'	7.9'-8.9'	A
47	SEA ST.	57+01.04'	27.0' RT	2.1%	3.0'	5.0'	5.0'	11.0'	6.5'	8.0'	A
48	PALMER ST.	900+38.78'	34.0' RT	2.2%	3.0'	5.0'	5.0'	11.0'	6.5'	8.0'	A
49	PALMER ST.	900+32.69'	31.9' LT	0.5%	2.5'	5.0'	4.0'-4.2'	6.5'	7.67'	6.5'-6.7'	A
50	SEA ST.	57+88.38'	29.5' LT	0.4%	4.0'	5.0'	5.5'	6.5'	7.67'	9.5'	A
51	SEA ST.	58+70.96'	29.1' LT	1.4%	9.0'	5.0'	-	9.0'	6.5'	8.5'	B
52	SEA ST.	58+91.26'	29.4' LT	2.2%	11.0'	5.0'	-	6.5'	11.0'	9.4'	B

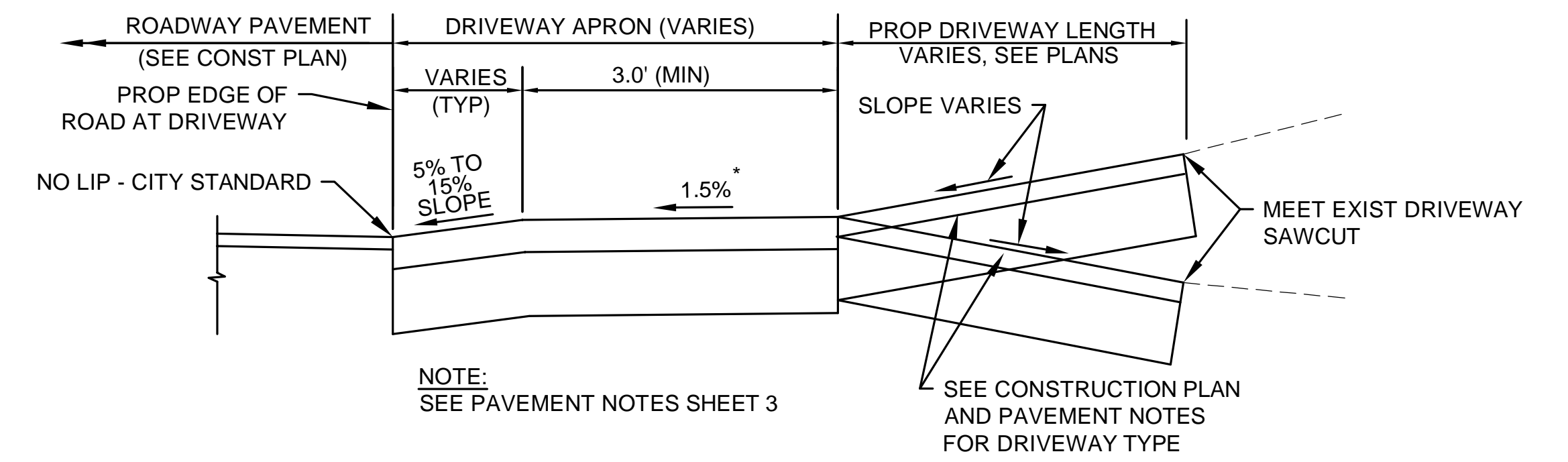
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		10	146
PROJECT FILE NO.		608707	

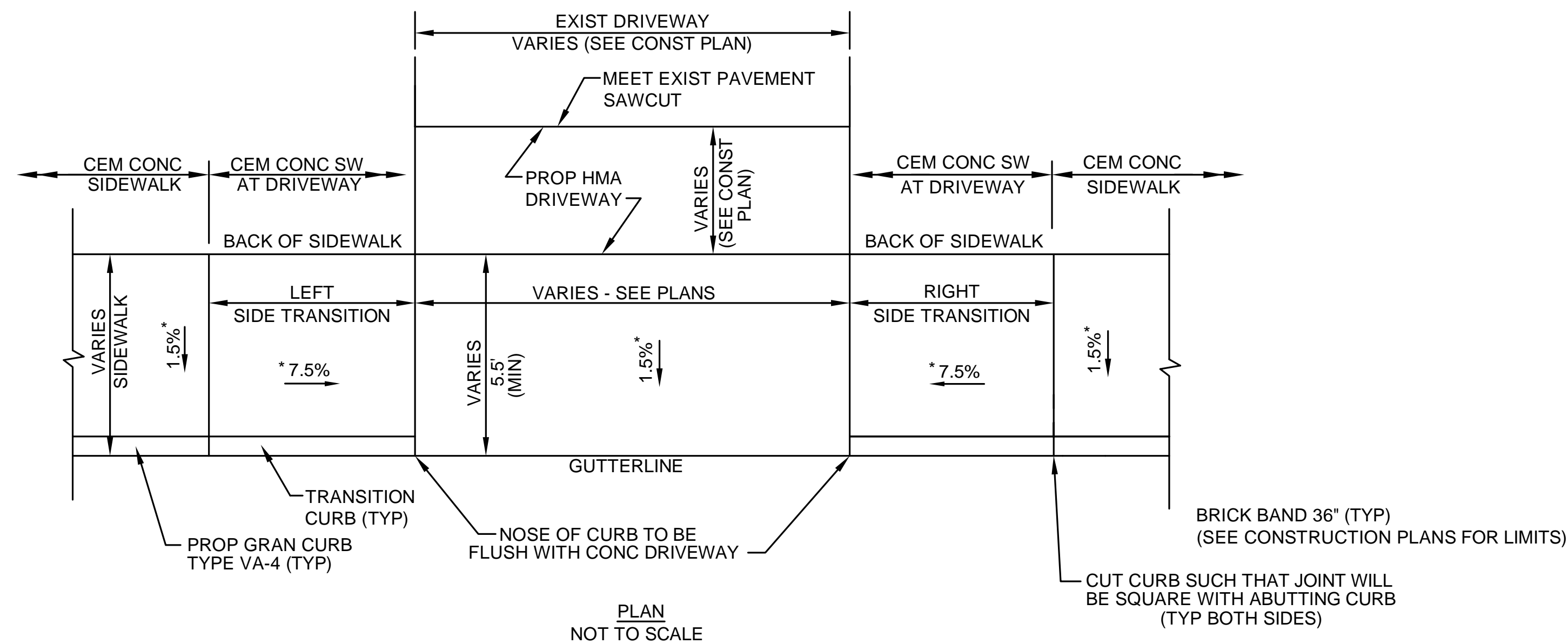
CONSTRUCTION DETAILS



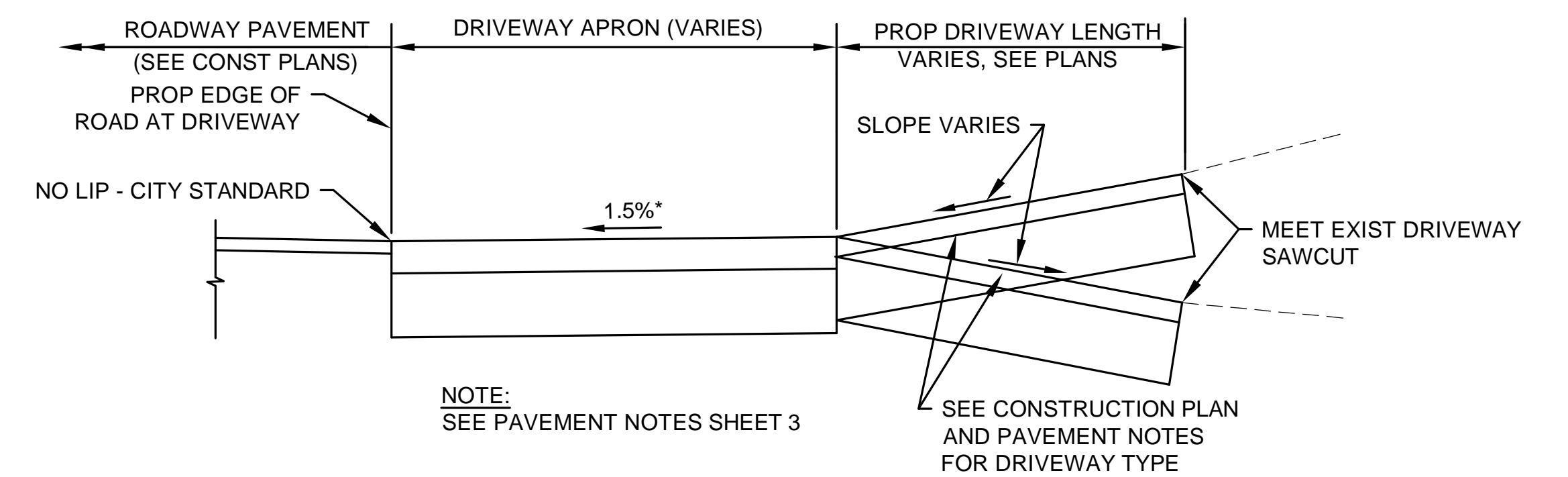
DETAIL FOR TYPICAL DRIVEWAY WITH SIDEWALK - TYPE A
PLAN
NOT TO SCALE



SECTION FOR TYPICAL DRIVEWAY WITH SIDEWALK - TYPE A
NOT TO SCALE



DETAIL FOR DEPRESSED DRIVEWAY WITH SIDEWALK - TYPE B
PLAN
NOT TO SCALE



SECTION FOR DEPRESSED DRIVEWAY WITH SIDEWALK - TYPE B
NOT TO SCALE

* TOLERANCE FOR CONSTRUCTION ±0.5%

DRIVEWAY OPENING DATA									
DWY NO.	LOCATION	€ DRIVEWAY OPENING AT GUTTER		GUTTER PROFILE SLOPE	DEPTH OF GUTTER TO BACK OF SIDEWALK	PATH OF TRAVEL WIDTH ACROSS DRIVEWAY	TRANSITION LENGTH		DW TYPE
		STATION	OFFSET				LEFT	RIGHT	
1	SEA STREET	16+42.33'	28.2' RT	+0.6%	7.1'	4.6'	7.67'	6.5'	A
2	SEA STREET	17+01.92'	28.1' RT	+0.4%	7.0'	4.5'	7.67'	6.5'	A
3	SAMOSSET AVE.	101+11.98'	11.8' RT	+0.4%	VARIES 7.0'-7.2'	VARIES 4.5'-5.0'	6.5'	7.67'	A
4	MURPHY MEMORIAL DR.	600+96.10'	16.0' RT		7.0'	7.0'			B
5	NARRAGANSETT ST	150+68.48'	25.3' LT	-0.8%	SEE SPECIAL DETAIL				
6	SEA STREET	19+76.16'	28.0' RT	+0.1%	7.1'	4.5'	6.5'	7.67'	A
7	SEA STREET	20+40.05'	36.0' RT	+1.2%	6.0'	4.0'	6.5'	9.0'	A
8	SEA STREET	20+92.24'	36.0' RT	+0.7%	6.0'	4.0'	6.5'	7.67'	A
9	SEA STREET	21+11.90'	33.0' LT	-0.7%	VARIES 6.5'-7.2'	VARIES 4.3'-4.6'	6.9' 5" R	6.5'	A
10	SEA STREET	21+58.81'	33.0' LT	-0.7%	VARIES 6.0'-7.0'	VARIES 4.0'-5.0'	7.67'	6.5'	A
11	SEA STREET	22+17.53'	33.0' LT	-0.7%	SEE SPECIAL DETAIL				
12	SEA STREET								
13	SEA STREET	23+15.23'	28.0' RT	+0.7%	7.0'	4.5'	6.5'	7.67'	A
14	CHICKATABOT RD.	200+63.54'	12.2' LT	-0.4%	VARIES 8.0'-8.6'	VARIES 5.5'-6.0'	7.67'	6.5'	A
15	SEA STREET	24+70.63'	28.0' RT	+2.51%	VARIES 7.3'-7.6'	5.0'	6.5'	11.0'	A
16	SEA STREET	25+02.07'	33.0' LT	-2.4%	VARIES 6.3'-7.0'	VARIES 4.0'-4.5'	7.67'	6.5'	A
17	SEA STREET	25+53.01'	28.0' RT	+3.1%	VARIES 6.9'-7.4'	VARIES 4.4'-4.7'	6.5'	14.0'	A
18	SEA STREET	26+86.08'	32.0' LT	-2.6%	8.1'	5.6'	5.5' 3" R	6.5'	A
19	SEA STREET	27+17.31'	28.0' RT	+2.5%	VARIES 5.3'-7.0'	4.4'	6.5'	11.0'	A
20	SEA STREET	27+46.02'	32.0' LT	-2.4%	VARIES 7.1'-8.0'	VARIES 4.8'-5.1'	11.0'	6.5'	A
21	SEA STREET	27+86.69'	28.0' RT	+2.3%	VARIES 7.0'-7.3'	VARIES 4.6'-4.8'	6.5'	11.0'	A
22	SEA STREET	28+96.82'	32.0' LT	-1.2%	VARIES 7.0'-8.1'	VARIES 4.5'-5.7'	9.0'	6.5'	A
23	SEA STREET	29+17.39'	28.0' RT	+0.2%	VARIES 9.0'-9.2'	VARIES 6.6'-6.7'	6.5'	7.67'	A
24	SEA STREET	29+42.94'	32.0' LT	-1.1%	7.3'	VARIES 4.6'-4.7'	7.5' 4" R	6.5'	A
25	SEA STREET	29+75.25'	28.0' RT	-0.1%	VARIES 8.9'-9.2'	VARIES 6.6'-6.7'	7.67'	6.5'	A
26	SEA STREET	31+24.53'	28.0' RT	-0.4%	VARIES 7.0'-8.3'	VARIES 4.5'-5.9'	7.67'	6.5'	A
27	SEA STREET	31+66.88'	28.0' RT	-0.6%	7.0'	4.5'	7.67'	6.5'	A
28	SEA STREET	32+10.08'	28.0' RT	-1.3%	7.0'	4.5'	9.0'	6.5'	A
29	SEA STREET	32+29.60'	32.0' LT	+1.1%	VARIES 6.7'-7.6'	4.2'	6.5'	9.0'	A
30	SEA STREET	32+55.24'	28.0' RT	-1.5%	VARIES 7.0'-8.6'	VARIES 4.5'-6.1'	9.0'	6.5'	A
31	SEA STREET	32+80.47'	32.0' LT	+1.6%	7.4'	4.9'	6.5'	9.0'	A
32	SEA STREET	33+32.89'	32.0' LT	+1.6%	VARIES 7.1'-7.3'	5.1'	6.5'	9.0'	A
33	SEA STREET	33+85.49'	32.0' LT	+1.0%	VARIES 6.5'-6.9'	4.6'	6.5'	9.0'	A
34	SEA STREET	34+31.04'	28.0' RT	-0.4%	6.5'	4.0'	7.67'	6.5'	A
35	SEA STREET	34+37.48'	32.0' LT	+0.9%	VARIES 6.4'-7.1'	VARIES 4.2'-4.6'	6.5'	7.67'	A
36	SEA STREET	36+25.57'	28.0' RT	+2.2%	7.0'	4.5'	6.5'	5.5' 3" R	A
37	SEA STREET	36+41.90'	32.0' LT	-2.7%	7.0'	4.5'	5.5' 3" R	6.5'	A
38	SEA STREET	37+24.16'	32.0' LT	-2.4%	7.0'	4.5'	11.0'	6.5'	A
39	SEA STREET	37+85.26'	32.0' LT	-0.7%	7.0'	4.5'	7.67'	6.5'	A

DWY NO.	LOCATION	€ DRIVEWAY OPENING AT GUTTER		GUTTER PROFILE SLOPE	DEPTH OF GUTTER TO BACK OF SIDEWALK	PATH OF TRAVEL WIDTH ACROSS DRIVEWAY	TRANSITION LENGTH		DW TYPE
		STATION	OFFSET				LEFT	RIGHT	
40	SEA STREET	38+38.24'	28.0' RT	-0.8%	7.0'	4.5'	7.67'	6.5'	A
41	SEA STREET	38+70.00'	32.0' LT	+0.9%	7.0'	4.5'	6.5'	7.67'	A
42	SEA STREET	40+27.27'	32.0' LT	+3.2%	7.0'	5.0'	6.5'	14.0'	A
43	CURLEW RD.	450+73.30'	19.9' LT	-2.4%	7.0'	5.0'	11.0'	6.5'	A
44	SEA STREET	40+94.01'	28.0' RT	-2.3%	VARIES 7.7'-8.8'	5.3'	11.0'	6.5'	A
45	CURLEW RD.	451+15.07'	16.6' LT	-2.2%	VARIES 5.0'-5.3'	VARIES 3.0'-3.3'	5.5' 3" R	6.5'	A
46	SEA STREET	42+31.58'	32.0' LT	+2.5%	VARIES 7.9'-8.2'	VARIES 5.4'-5.5'	6.5'	5.5' 3" R	A
47	SEA STREET	42+57.45'	28.0' RT	-1.7%	VARIES 8.4'-9.1'	VARIES 5.9'-6.6'	4.5' 3" R	6.5'	A
48	SEA STREET	42+99.89'	31.9' LT	+1.5%	VARIES 7.9'-8.1'	VARIES 5.4'-5.6'	3.25' 3" R	4.5' 3" R	A
49	SEA STREET	43+28.64'	31.6' LT	+0.3%	VARIES 5.9'-8.0'	VARIES 3.3'-5.0'	3.25' 3" R	3.84' 3" R	A
50	SEA STREET	43+34.11'	28.0' RT	AT HP	VARIES 6.6'-8.4'	VARIES 4.2'-6.0'	6.5'	3.25' 3" R	A
51	SEA STREET	43+55.99'	31.4' LT	AT HP	VARIES 5.8'-6.0'	3.4'	6.5'	6.5'	A
52	SEA STREET	44+09.85'	28.0' RT	+0.9%	VARIES 7.4'-7.6'	VARIES 4.9'-5.1'	6.5'	7.67'	A
53	SEA STREET	44+34.23'	-30.6' LT	-1.0%	VARIES 6.9'-7.0'	VARIES 4.3'-4.5'	7.67'	6.5'	A
54	SEA STREET	44+69.20'	28.0' RT	+0.7%	VARIES 7.2'-7.7'	VARIES 4.8'-5.2'	6.5'	7.67'	A
55	SEA STREET	45+22.52'	30.0' LT	-1.0%	VARIES 6.9'-7.1'	VARIES 4.5'-4.6'	7.67'	6.5'	A
56	SEA STREET	45+58.38'	28.0' RT	+1.0%	7.1'	4.6'	6.5'	9.0'	A
57	SEA STREET	46+21.11'	30.0' LT	-0.9%	VARIES 6.9'-7.4'	VARIES 4.4'-4.9'	7.67'	6.5'	A
58	SEA STREET	46+84.29'	30.2' LT	+0.7%	VARIES 7.4'-8.0'	VARIES 5.0'-5.5'	6.5'	7.67'	A
59	SEA STREET	47+46.23'	30.4' LT	+0.7%	8.0'	5.5'	6.5'	7.67'	A
60	SEA STREET	47+49.14'	28.0' RT	-0.6%	7.0'	4.5'	7.67'	6.5'	A
61	SEA STREET	47+97.31'	30.1' LT	+1.2%	VARIES 8.0'-8.5'	5.5'	6.5'	4.5' 3" R	A
62	SEA STREET	48+39.17'	30.7' LT	+1.2%	VARIES 8.8'-9.8'	VARIES 6.7'-7.3'	3.25' 3" R	9.0'	A
63	SEA STREET	48+54.92'	28.0' RT	-0.5%	7.0'	4.5'	7.67'	6.5'	A
64	SEA STREET	48+82.07'	30.8' LT	+1.1%	9.9'	7.4'	6.5'	7.67'	A
65	SEA STREET	49+60.84'	31.0' LT	-0.7%	VARIES 8.5'-8.9'	VARIES 6.2'-6.4'	6.5'	7.67'	A
66	SEA STREET	50+04.74'	31.6' LT	-1.1%	VARIES 8.3'-8.8'	VARIES 5.9'-6.3'	9.0'	6.5'	A
67	SEA STREET	50+14.39'	28.0' RT	+0.4%	VARIES 6.6'-6.8'	VARIES 4.6'-4.8'	6.5'	7.67'	A
68	SEA STREET	50+86.78'	32.7' LT	-1.1%	VARIES 6.9'-7.2'	VARIES 4.4'-4.7'	9.0'	6.5'	A
69	SEA STREET	51+18.21'	28.0' RT	+0.7%	VARIES 6.1'-6.2'	VARIES 4.1'-4.2'	7.31'	7.67'	A
70	SEA STREET	51+47.99'	33.2' LT	-0.9%	6.8'	4.3'	7.67'	6.5'	A
71	SEA STREET	52+06.98'	28.0' RT	+0.6%	6.0'	4.0'	6.5'	7.67'	A
72	SEA STREET	52+13.76'	33.7' LT	+0.5%	VARIES 6.5'-6.6'	4.1'	6.5'	7.67'	A
73	SEA STREET	52+54.86'	28.0' RT	-0.7%	VARIES 6.1'-6.6'	4.1'	7.67'	6.5'	A
74	SEA STREET	53+68.62'	34.1' LT	+1.4%	VARIES 6.5'-6.6'	VARIES 3.9'-4.1'	6.5'	3.84' 3" R	A
75	SEA STREET	54+05.04'	27.6' RT	-1.0%	7.0'	5.0'	6.5'	9.0'	A
76	RIVERSIDE AVENUE	850+77.58'	11.6' LT	+0.8%	VARIES 7.5'-8.2'	VARIES 5.0'-5.6'	6.5'	7.67'	A
77	GANNETT ROAD	550+88.74'	12.5' RT	+6.3%	VARIES 6.0'-6.5'	VARIES 4.1'-4.3'	6.5'	15.0'	A
78	SEA STREET	58+25.60'	25.7' LT	+0.7%	VARIES 8.0'-8.8'	VARIES 4.5'-4.8'	6.5'	7.67'	A

** SEE GRADING DETAIL FOR DW-13 ON SHEET 9 FOR JUSTIFICATION OF RIGHT TRANSITION
 SEE GRADING DETAIL FOR DW-19 ON SHEET 9 SHOWING A 2 TIER TRANSITION
 SEE GRADING DETAIL FOR DW-20 ON SHEET 9 SHOWING A 2 TIER TRANSITION

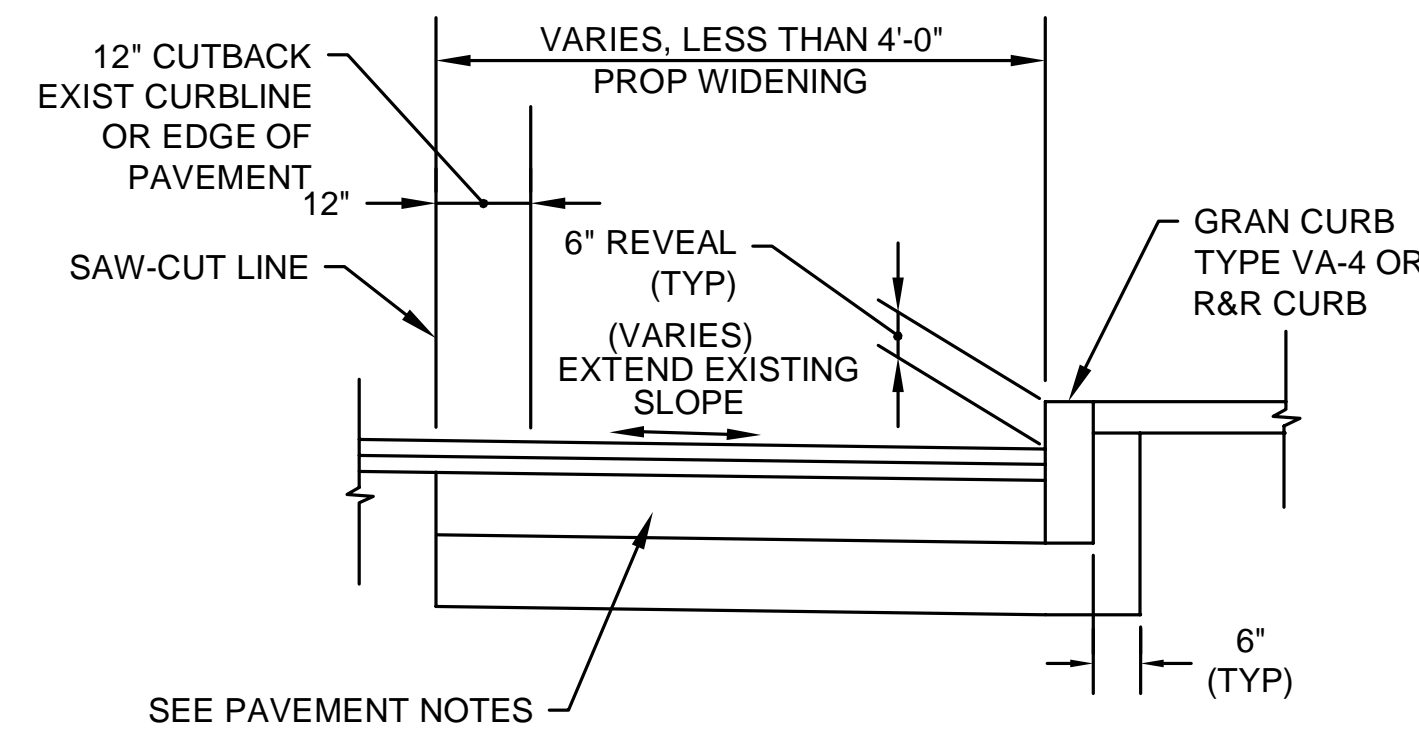
QUINCY SEA STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		11	146
PROJECT FILE NO.		608707	

CONSTRUCTION DETAILS

QUINCY
SEA STREET

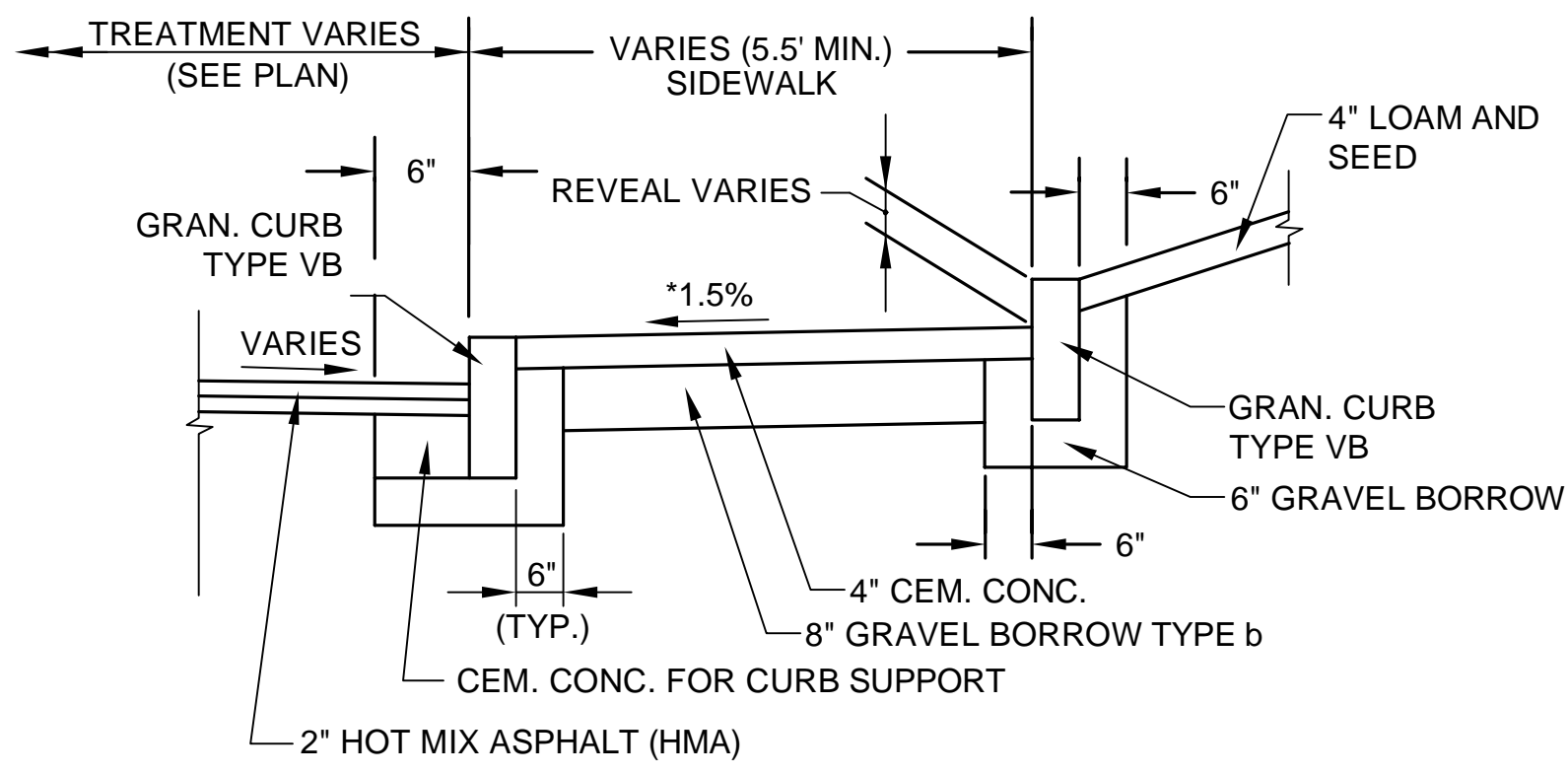
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		12	146
PROJECT FILE NO. 608707			

CONSTRUCTION DETAILS

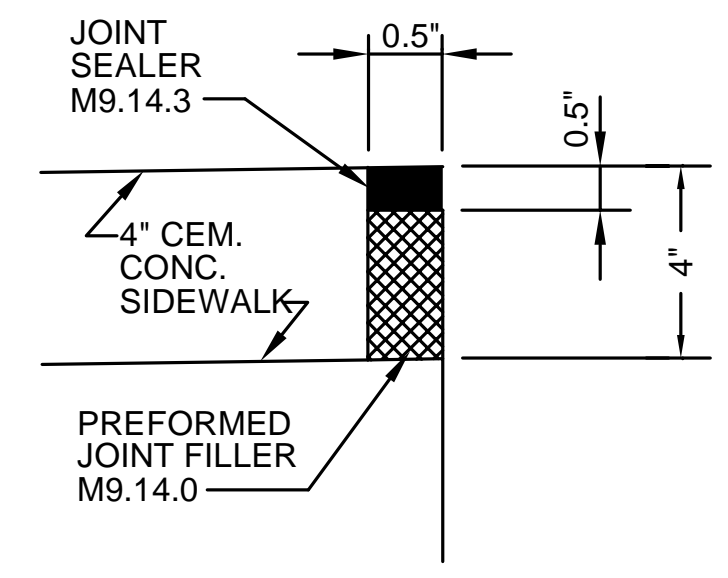


NOTE:
SEE PAVEMENT NOTES SHEET 5

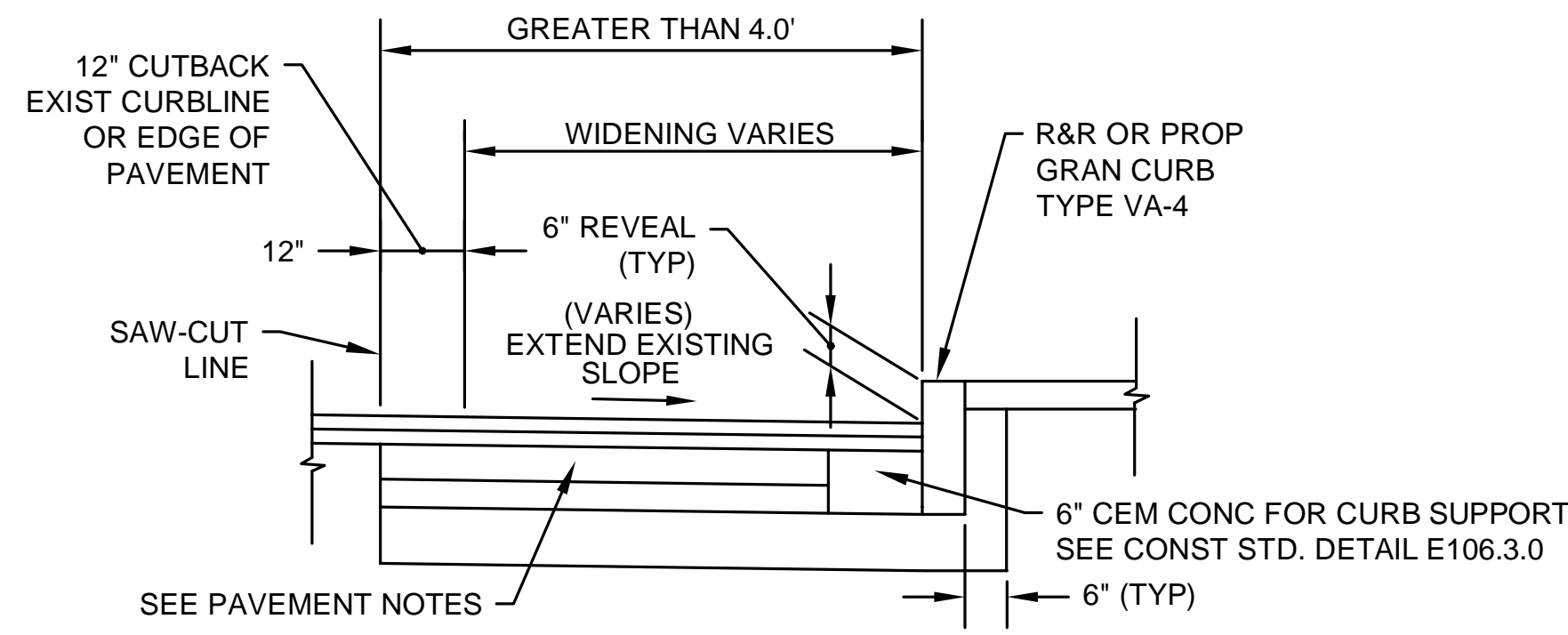
DETAIL FOR BOX WIDENING 4.0' OR LESS
NOT TO SCALE



DETAIL FOR GRANITE CURB AT BACK OF SIDEWALK
NOT TO SCALE

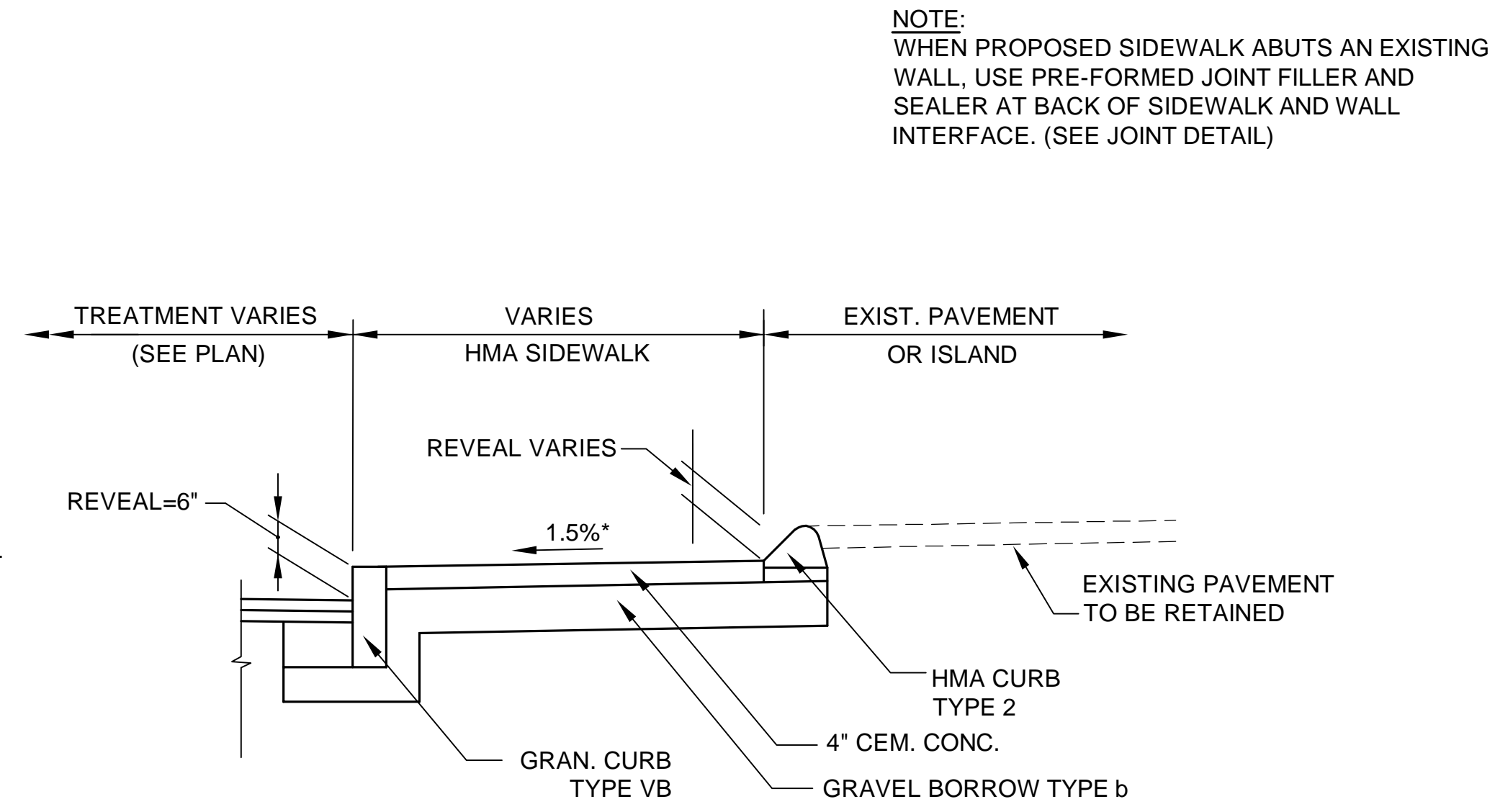


DETAIL FOR PREFORMED JOINT FILLER AND SEALER
NOT TO SCALE

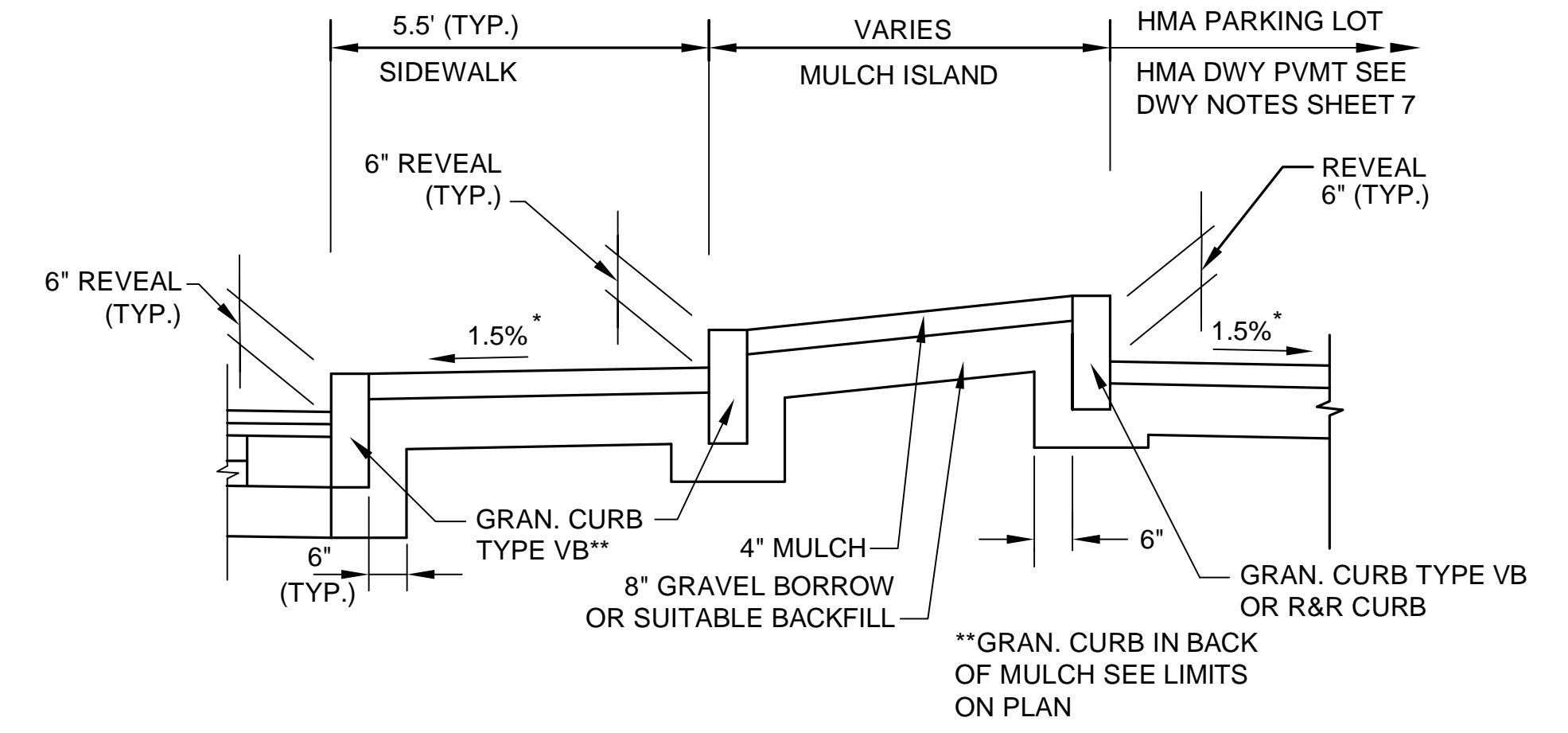


NOTE:
SEE PAVEMENT NOTES SHEET 5

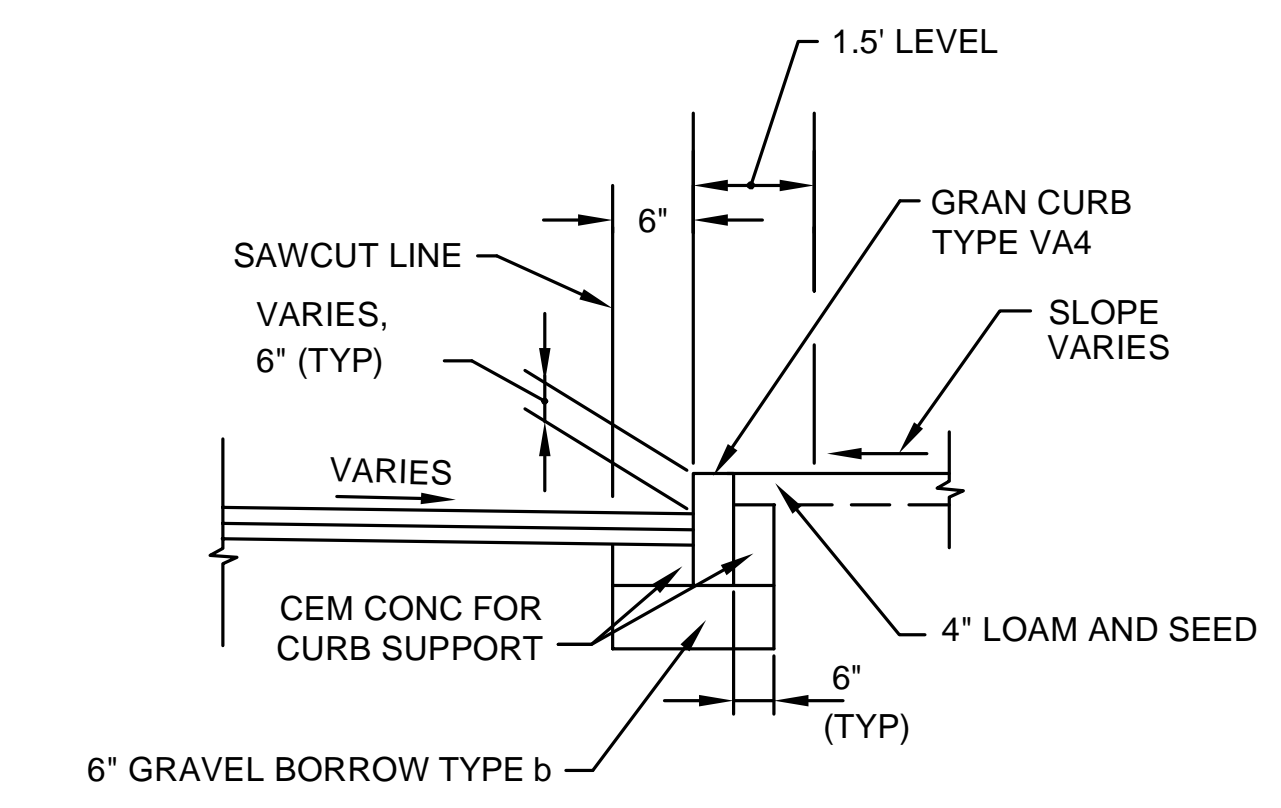
DETAIL FOR BOX WIDENING GREATER THAN 4.0'
NOT TO SCALE



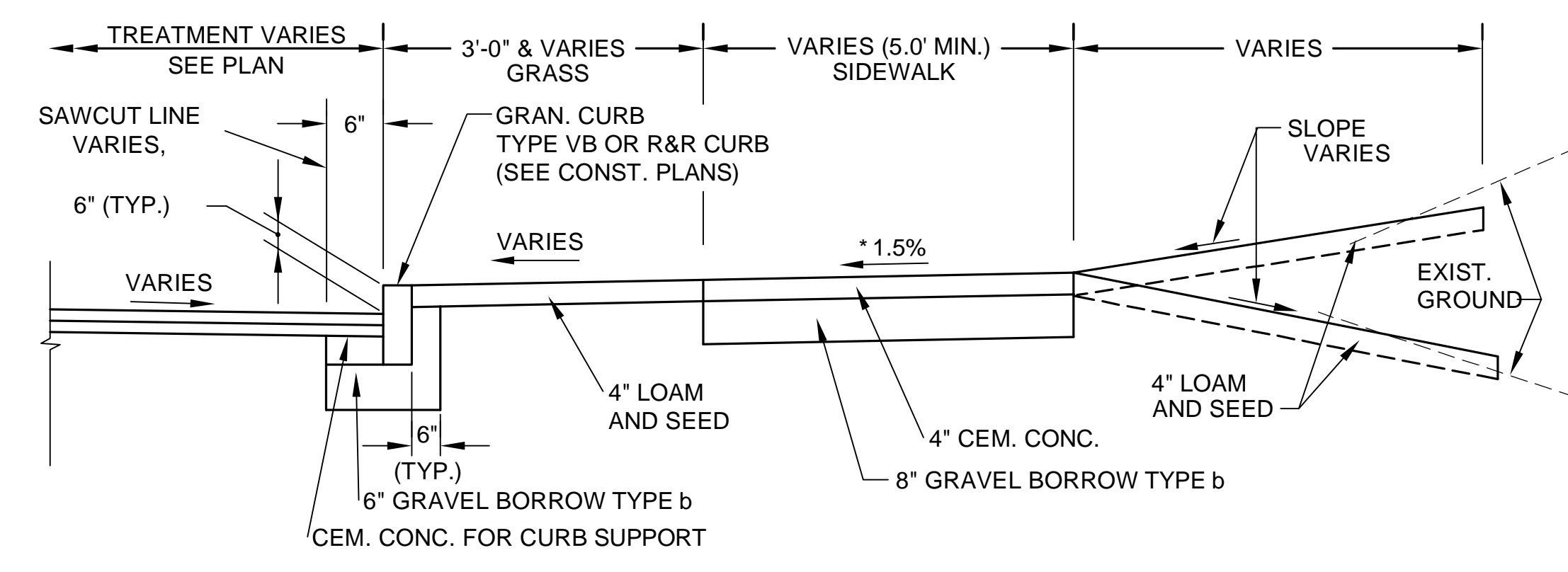
DETAIL FOR HMA CURB AT BACK OF SIDEWALK
NOT TO SCALE



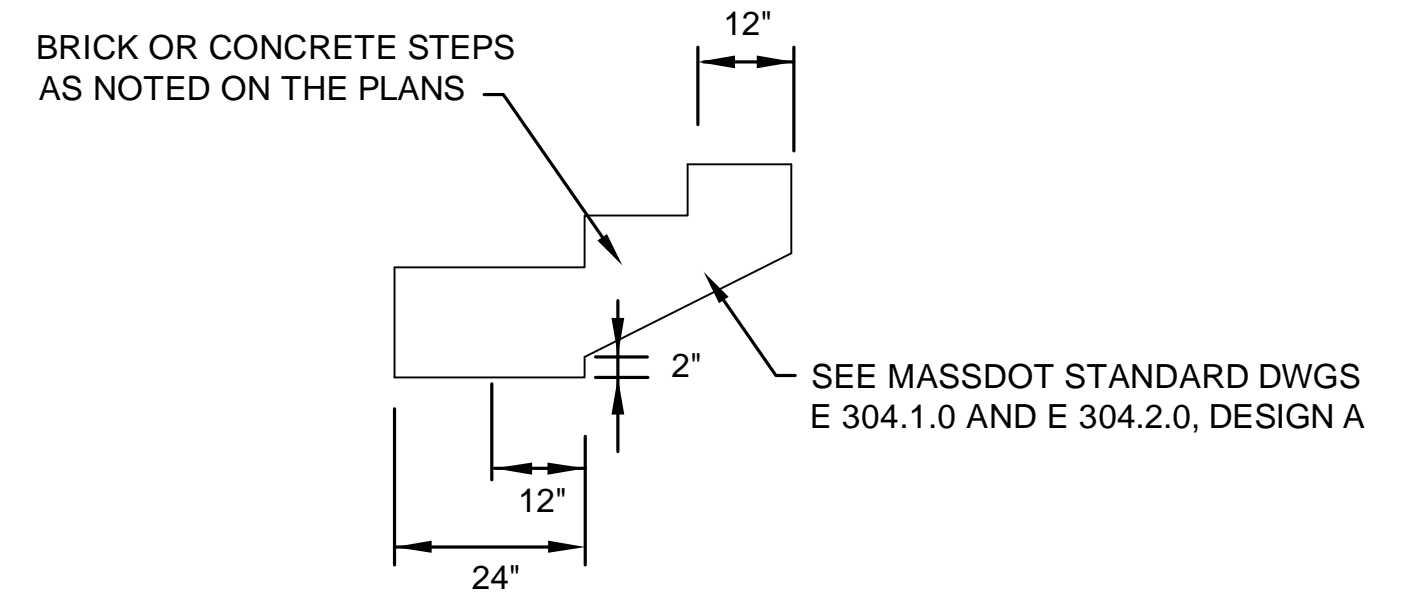
DETAIL FOR MULCH ISLAND AT BACK OF SIDEWALK
NOT TO SCALE



DETAIL FOR GRANITE CURB WITHOUT SIDEWALK IN MILLING AREA
NOT TO SCALE



DETAIL FOR GRANITE CURB WITH SIDEWALK AND GRASS STRIP
NOT TO SCALE



BRICK STEP DETAIL
NOT TO SCALE

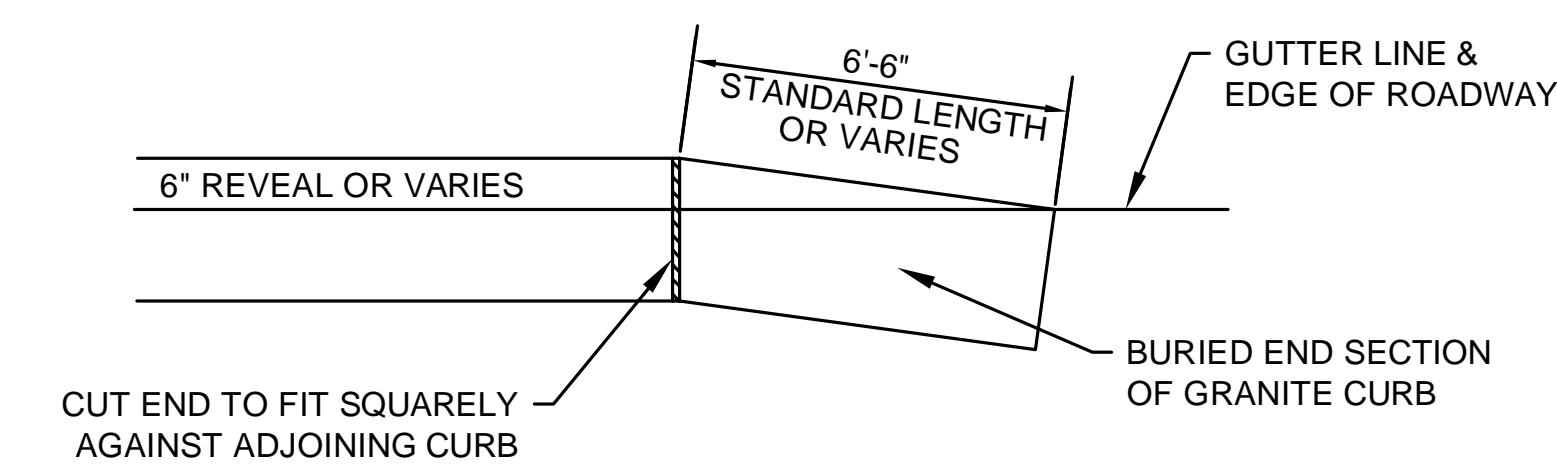
* TOLERANCE FOR CONSTRUCTION ±0.5%

QUINCY
SEA STREET

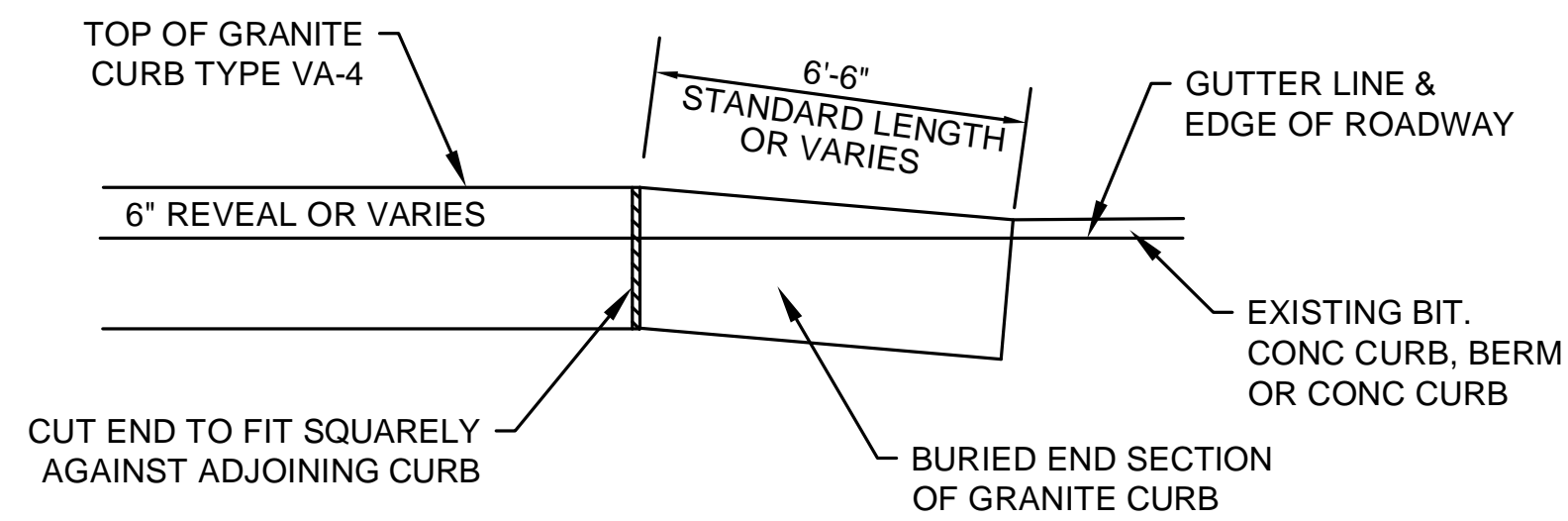
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		13	146
PROJECT FILE NO.		608707	

CONSTRUCTION DETAILS

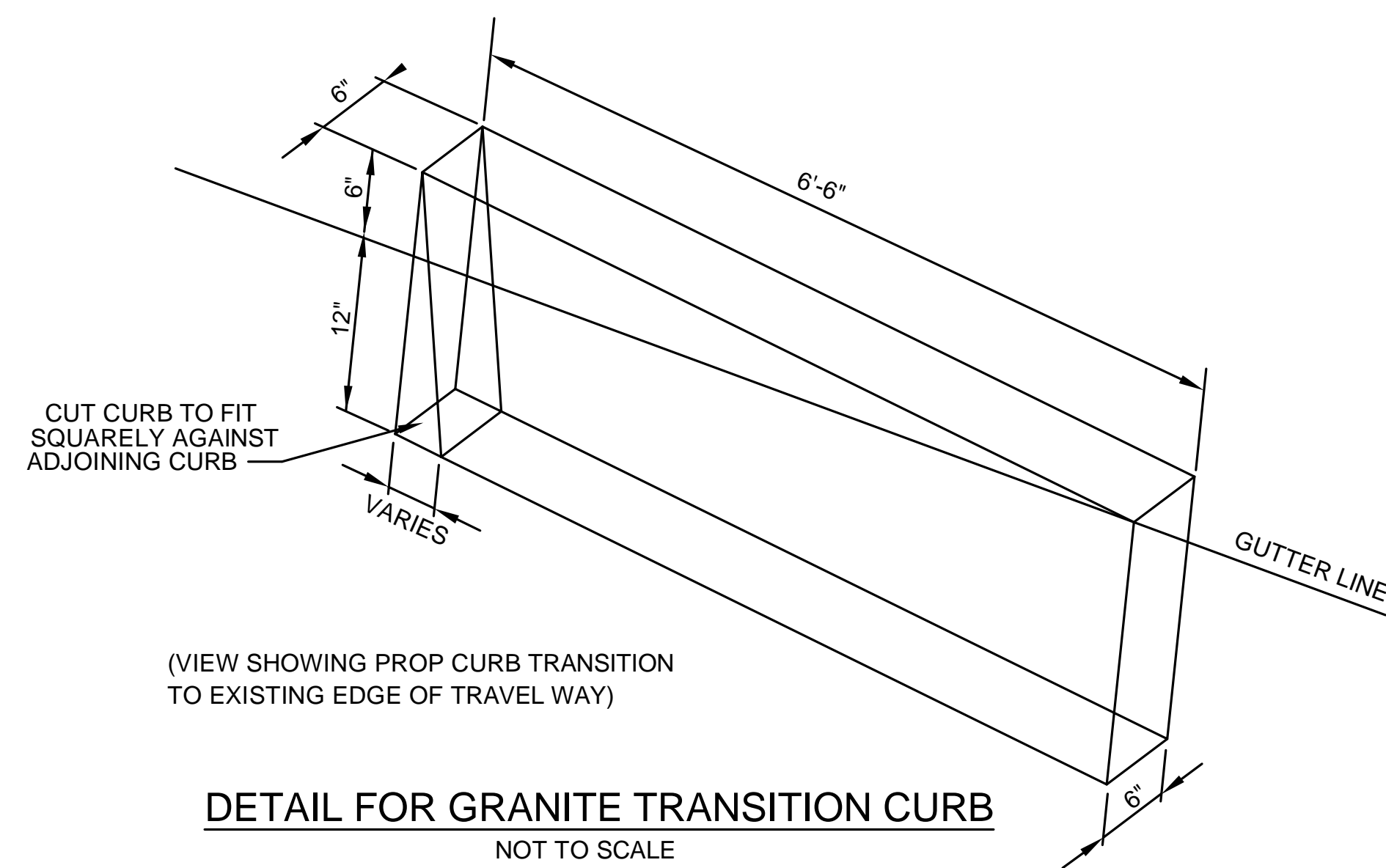
608707_HD(657_13 DETAILS).DWG Plotted on 7-Sep-21 10:06 AM



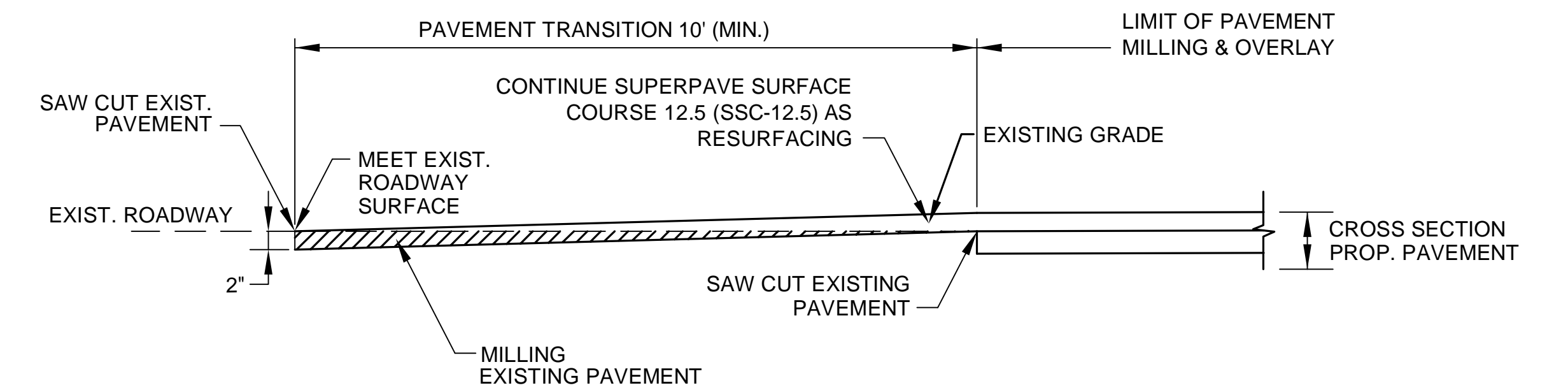
**DETAIL FOR TRANSITION CURB
PROP CURB TO EXISTING EDGE OF TRAVEL WAY**
NOT TO SCALE



**DETAIL FOR TRANSITION CURB
TRANSITION CURB - PROP CURB TO EXISTING CURB**
NOT TO SCALE



DETAIL FOR GRANITE TRANSITION CURB
NOT TO SCALE

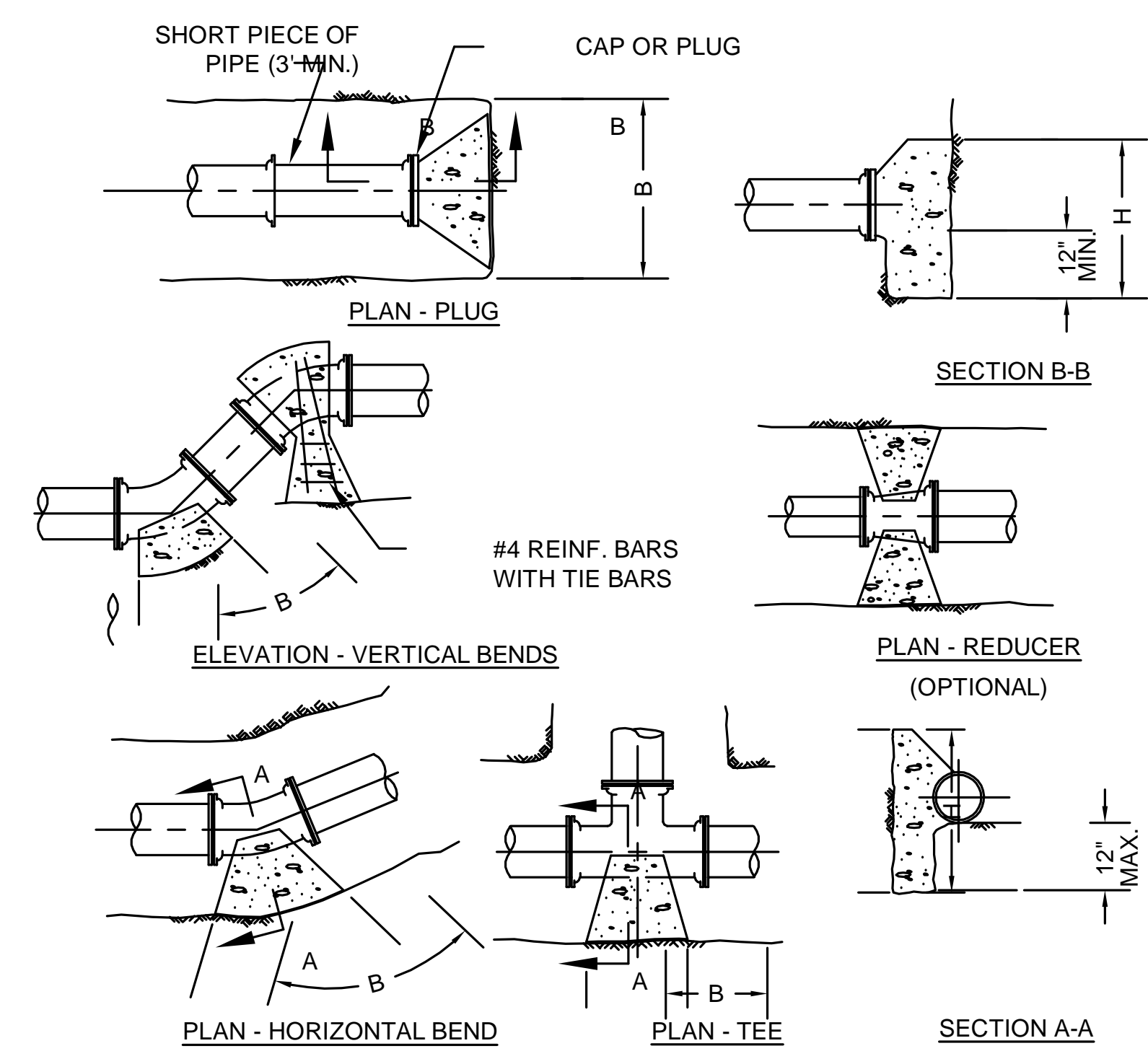


DETAIL FOR PAVEMENT TRANSITION AT LIMIT OF WORK
NOT TO SCALE

* TOLERANCE FOR CONSTRUCTION ±0.5%

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		14	146
PROJECT FILE NO. 608707			

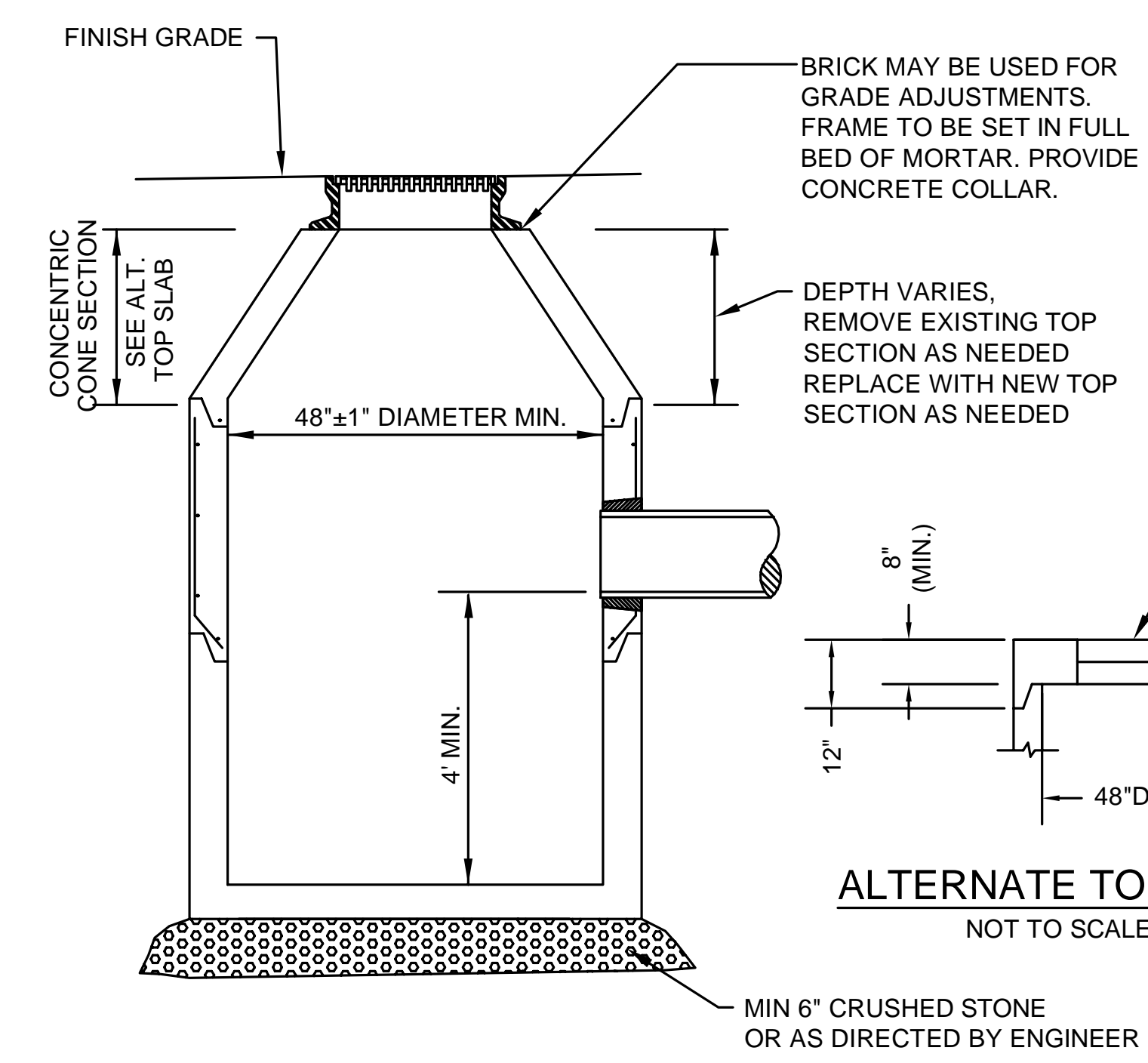
CONSTRUCTION DETAILS



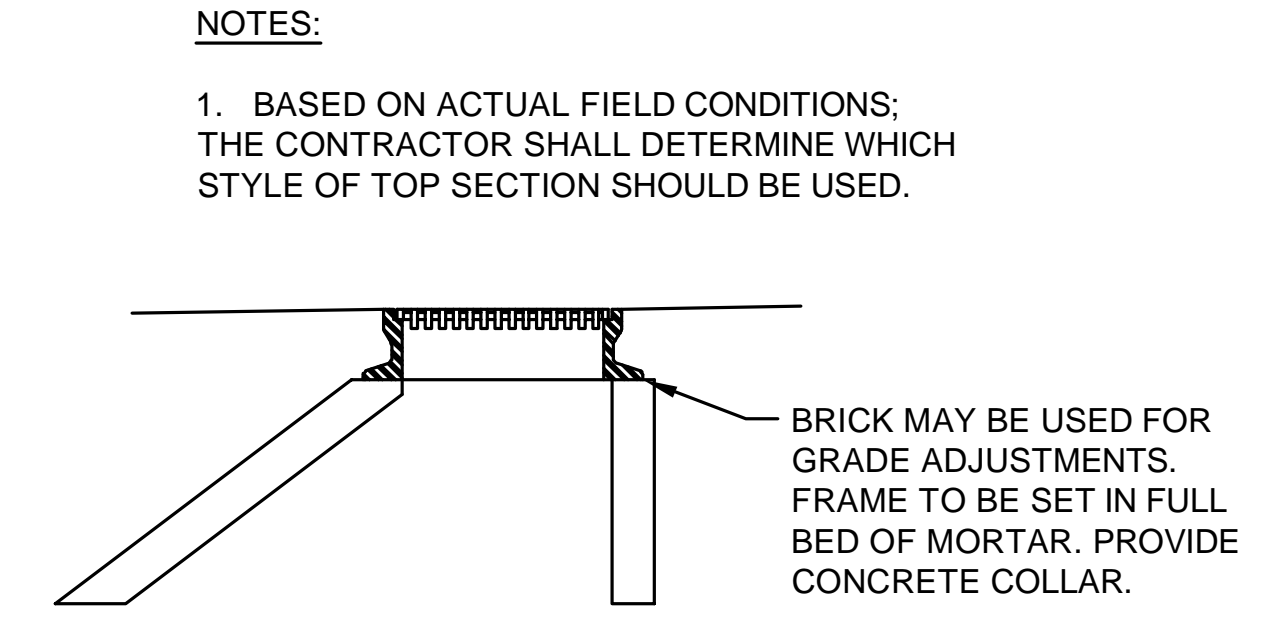
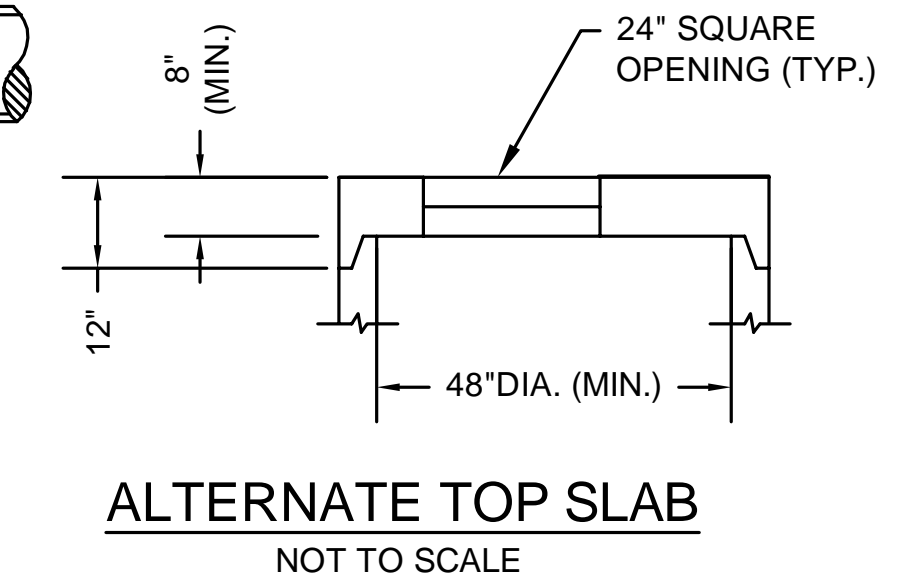
CONCRETE ANCHORAGE DETAILS
NOT TO SCALE

CONCRETE ANCHORAGE THRUST BLOCK REQUIREMENTS	
FITTING	MIN. BEARING AREA (H X B)
6" - 1/8 BEND	32" x 32"
8" - 1/8 BEND	24" x 24"
8" x 6" TEE	20" x 20"
12" - 1/8 BEND	32" x 32"
12" x 12" TEE	24" x 24"
12" x 6" TEE	24" x 24"
12" x 8" TEE	32" x 32"
16" x 12" TEE	24" x 24"
HYDRANT	24" x 24"
8" PLUG	32" x 32"
150 mm PLUG	24" x 24"
8" x 6" REDUCER	24" x 24"
8" - 1/16 BEND	20" x 20"
12" x 8" REDUCER	24" x 24"

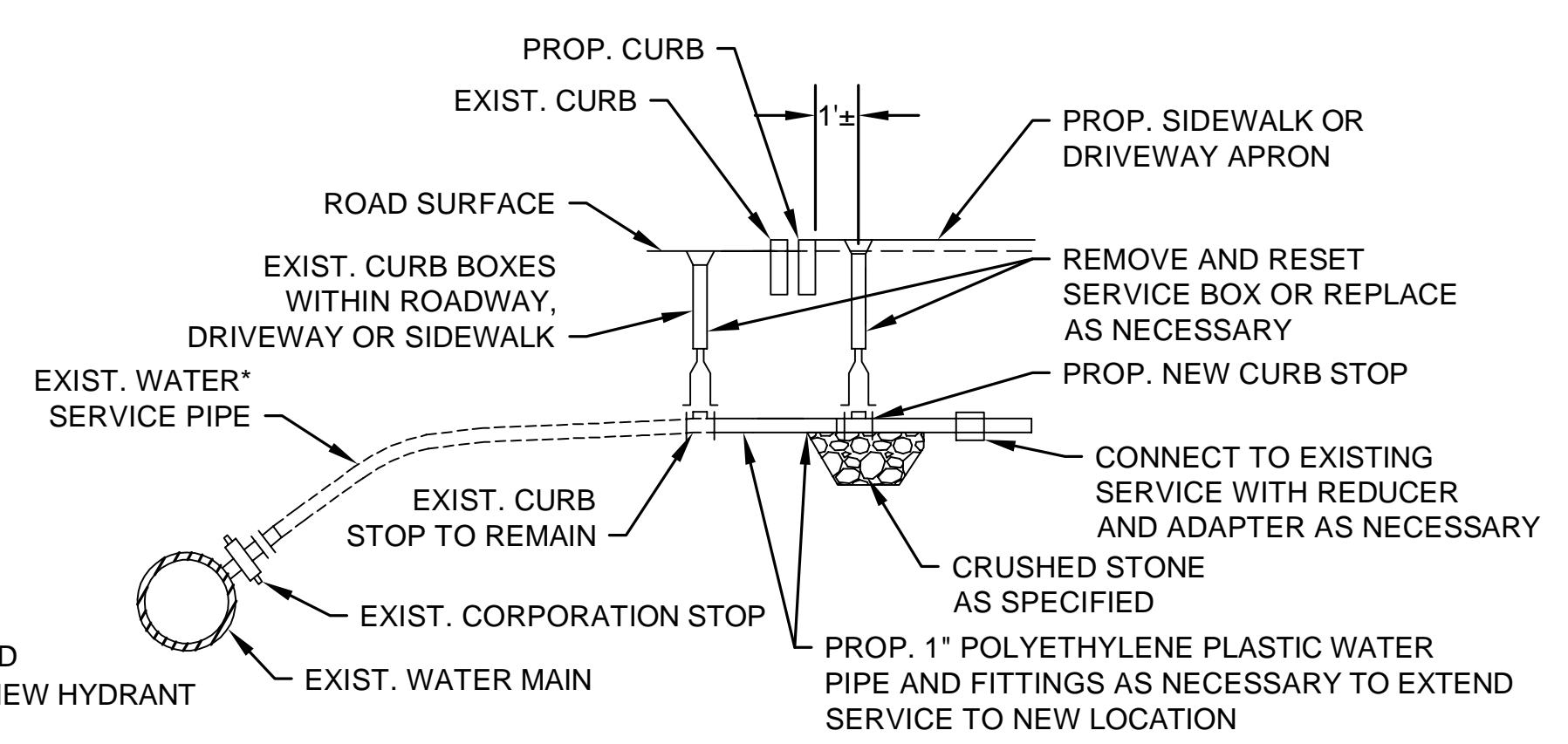
NOTE:
ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH



PRECAST CONCRETE CATCH BASIN WITH DEEP SUMP
NOT TO SCALE

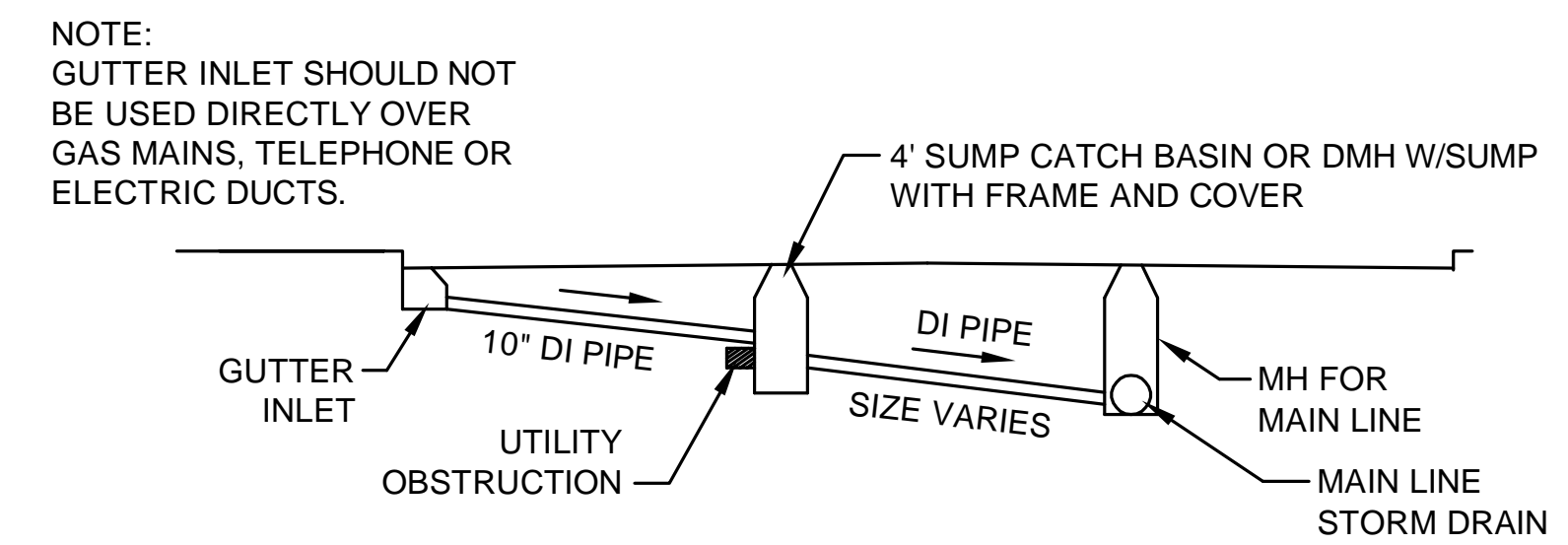


ALTERNATE ECCENTRIC CONE SECTION
NOT TO SCALE

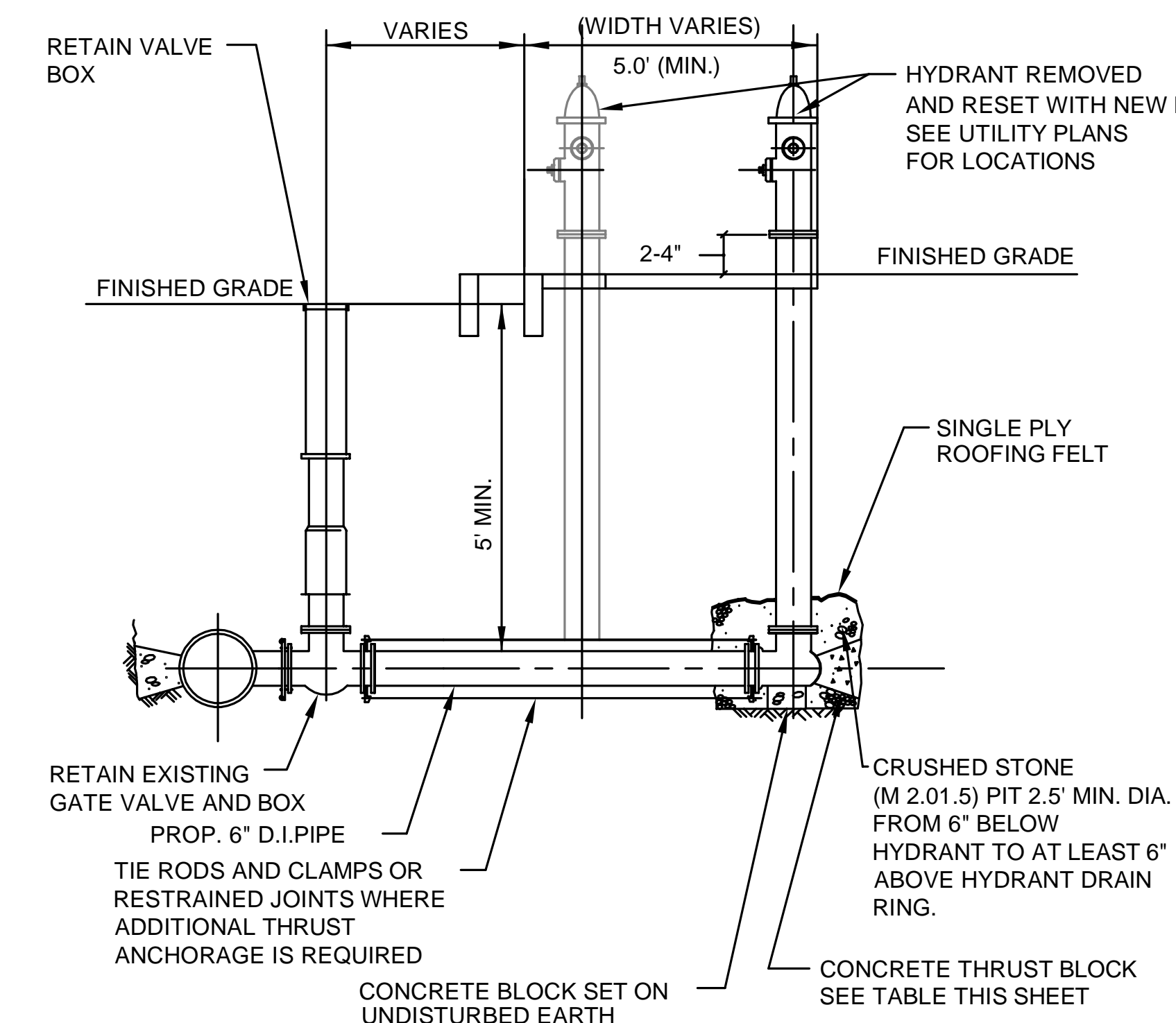


* IF EXISTING WATER SERVICE LINES IS NOT PLASTIC, CONTRACTOR SHALL INFORM EASTON WATER DEPARTMENT. NO CONNECTION SHALL BE MADE UNTIL THE EASTON WATER DEPARTMENT DETERMINES IF THE EXISTING LINE IS SUITABLE TO BE EXTENDED OR MUST BE REPLACE TO THE MAIN.

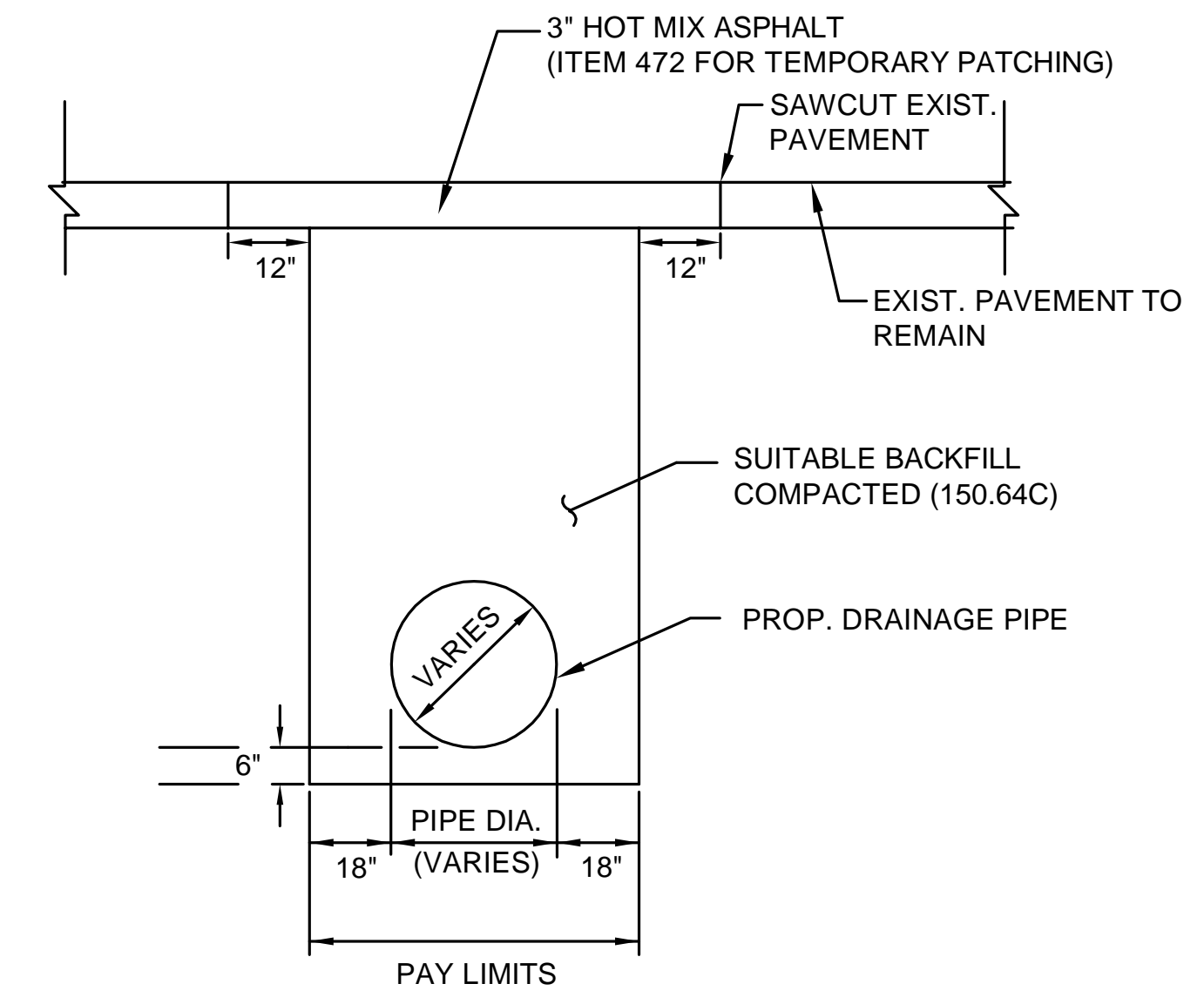
CURB STOP/SERVICE BOX RELOCATION DETAIL
NOT TO SCALE



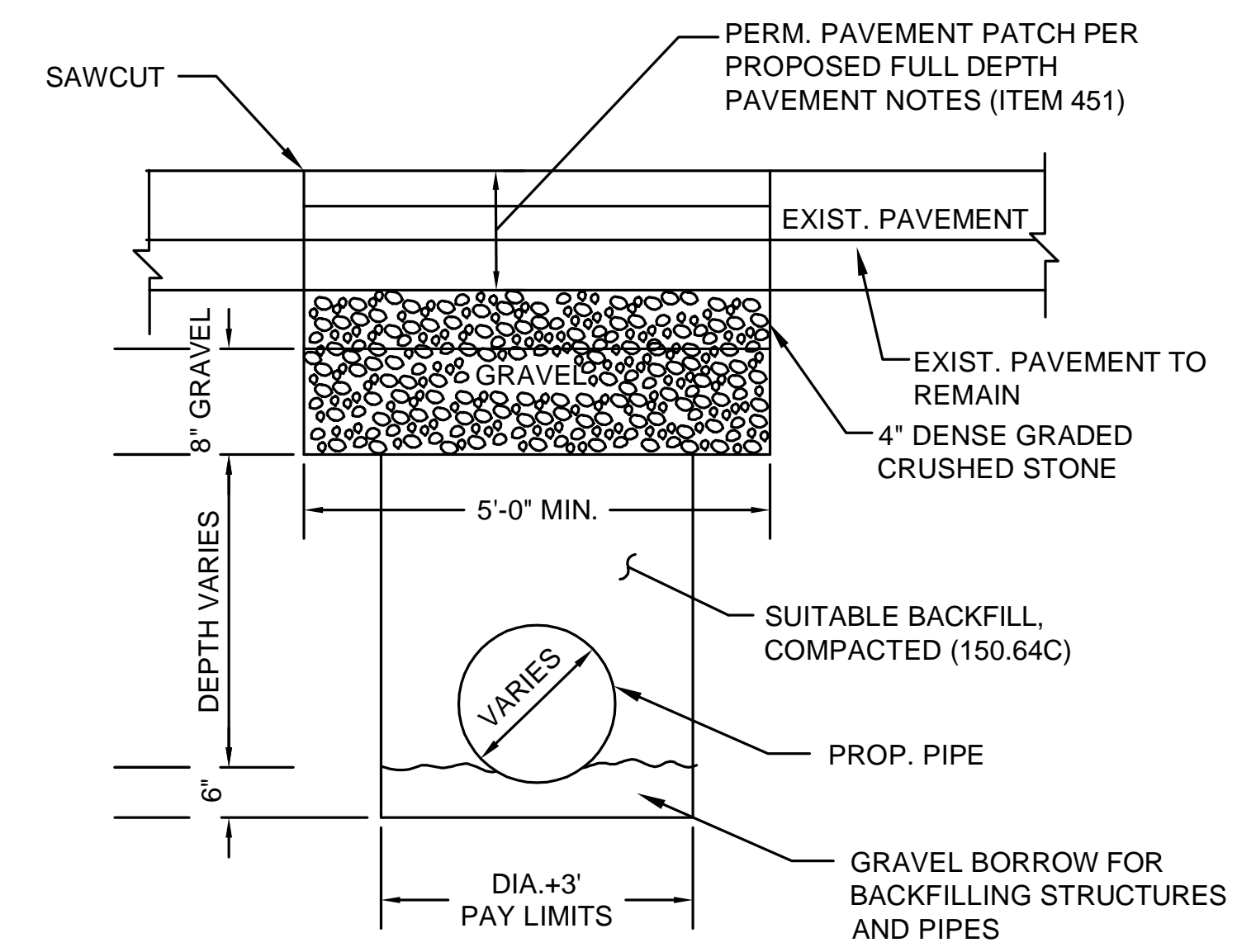
CONTINGENCY DETAIL FOR STORM DRAIN LATERAL LINES
(USE ONLY IF OBSTRUCTION IS ENCOUNTERED)
NOT TO SCALE



DETAIL FOR HYDRANT REMOVED & RESET
NOT TO SCALE



DETAIL FOR TEMPORARY DRAINAGE PIPE TRENCH IN FULL DEPTH AREAS
NOT TO SCALE



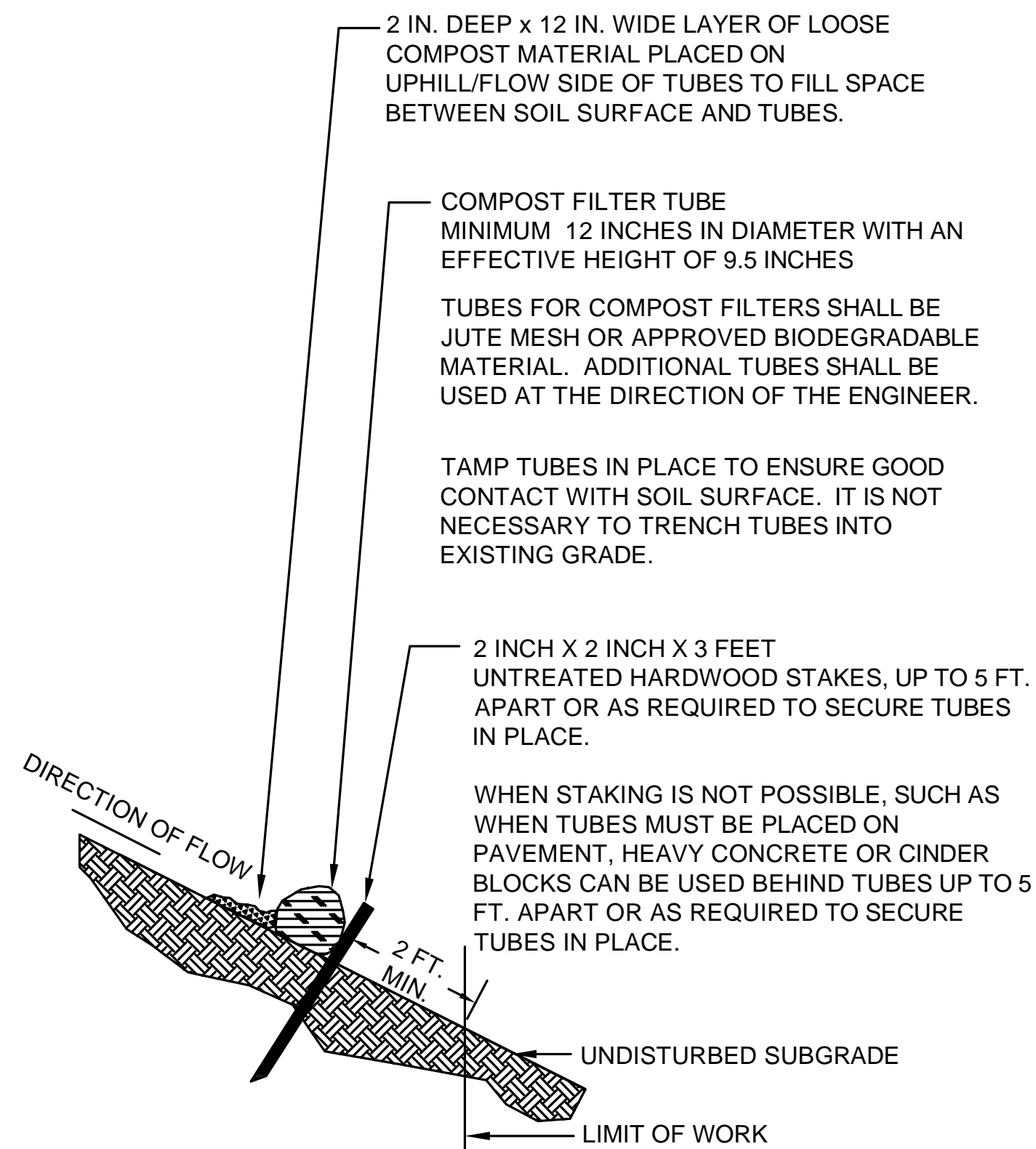
PERMANENT TRENCH PATCH DETAIL IN MILLED AREAS
NOT TO SCALE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		15	146
PROJECT FILE NO.		608707	

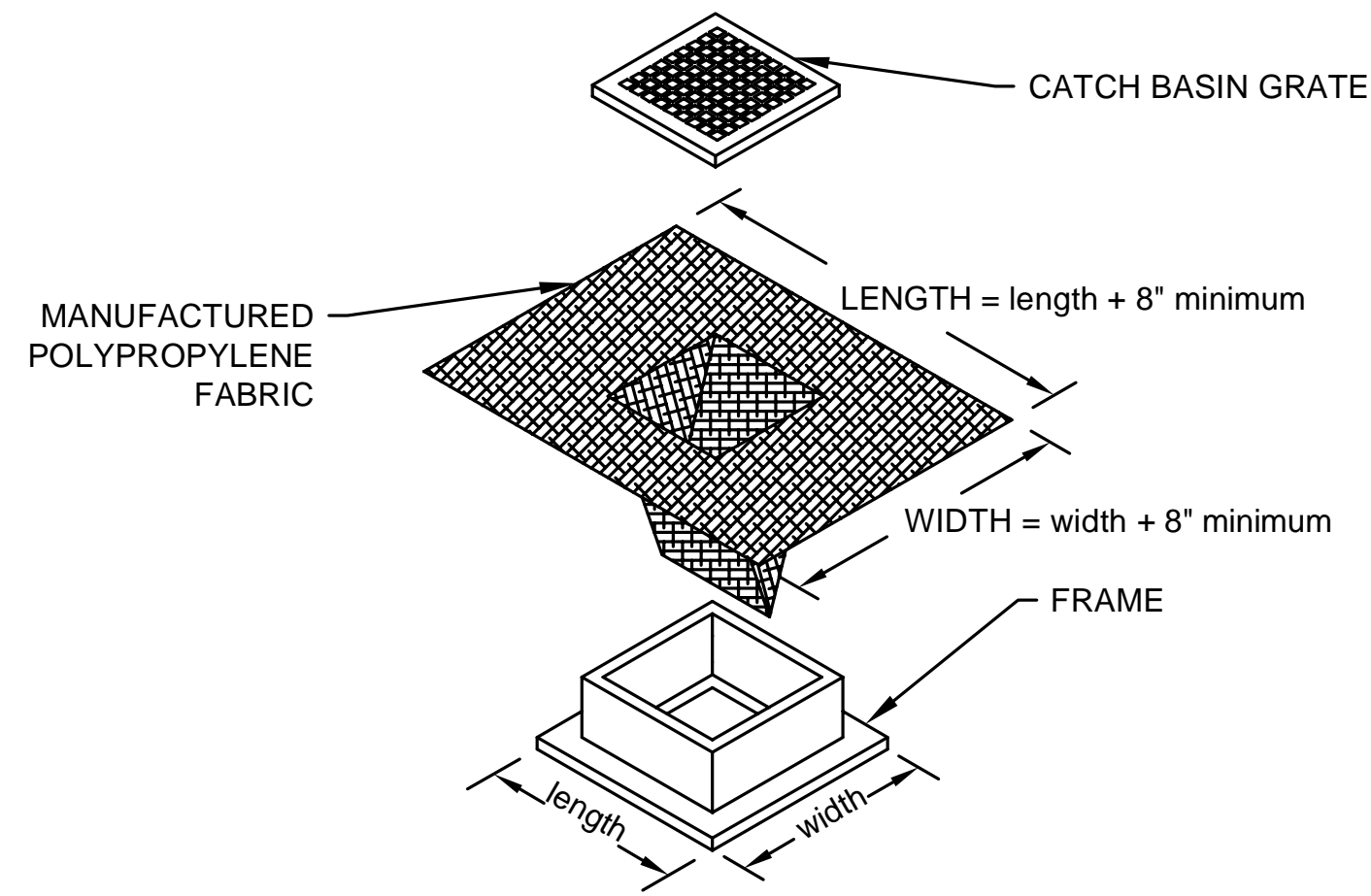
CONSTRUCTION DETAILS

GENERAL NOTES:

1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES (300mm) FOR SLOPES UP TO 50 FEET (15.24m) IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. INSTALL ONLY IN UPLAND AREAS.
4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.



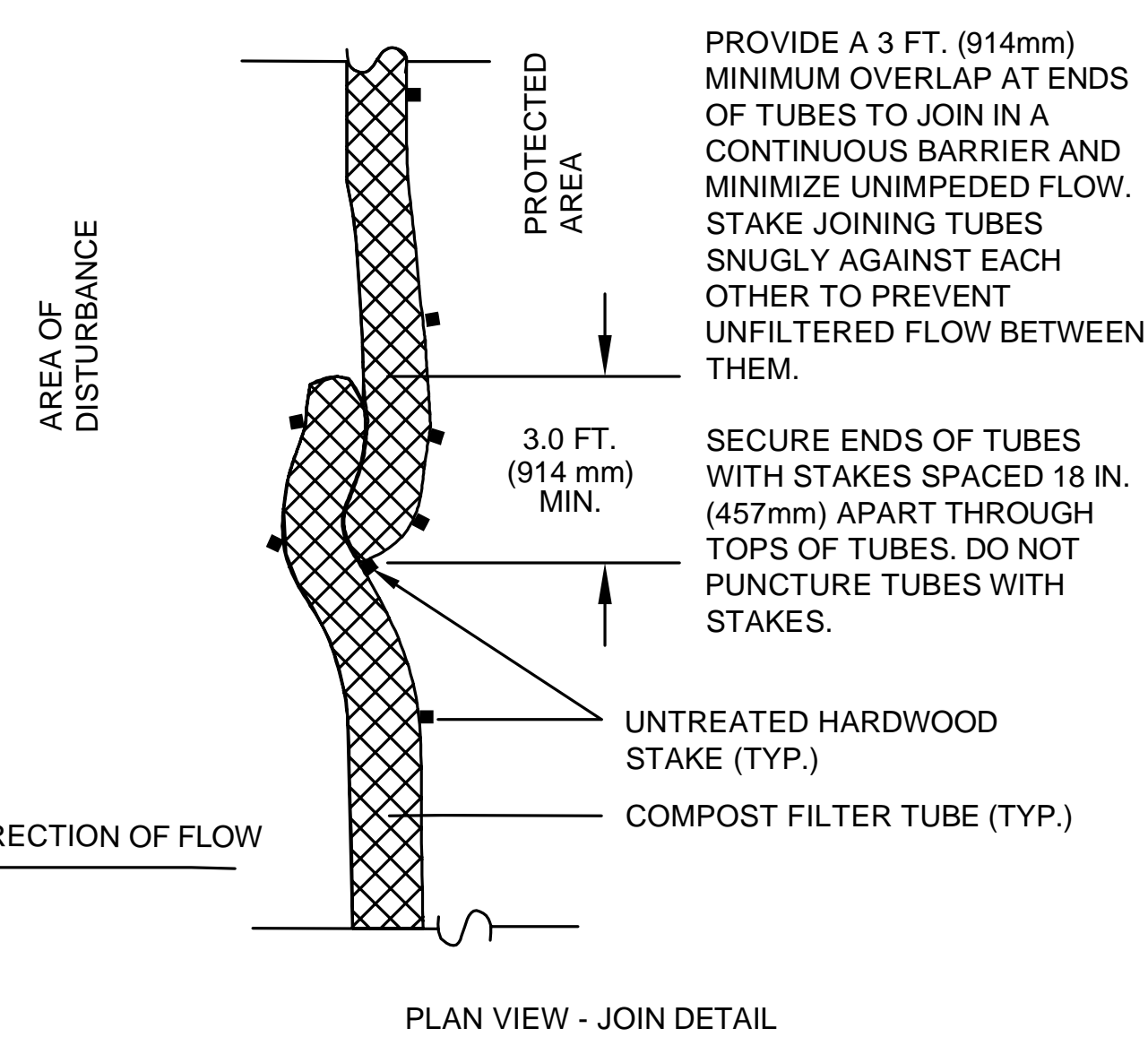
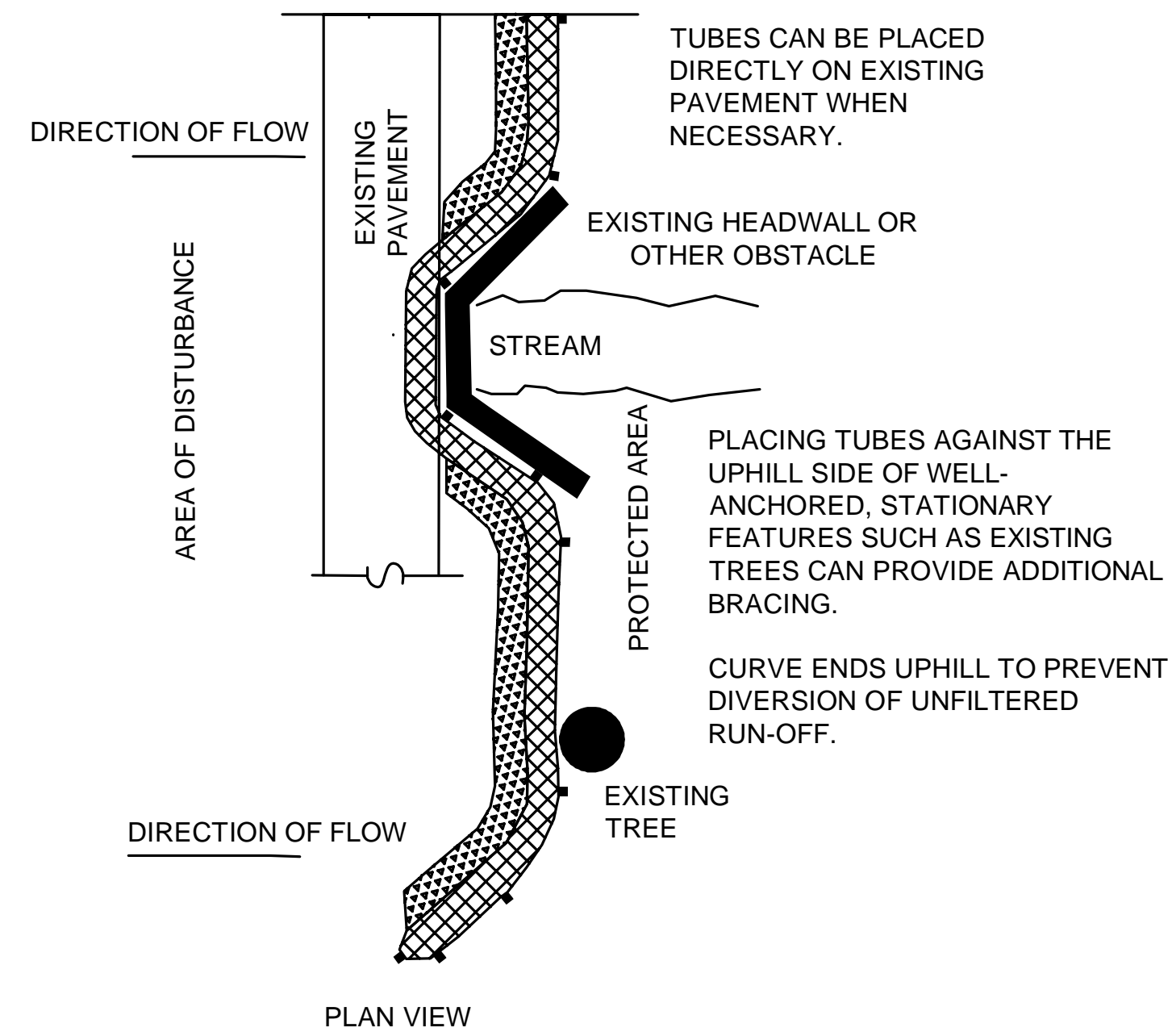
SINGLE COMPOST FILTER TUBE DETAIL FOR EROSION CONTROL
NOT TO SCALE



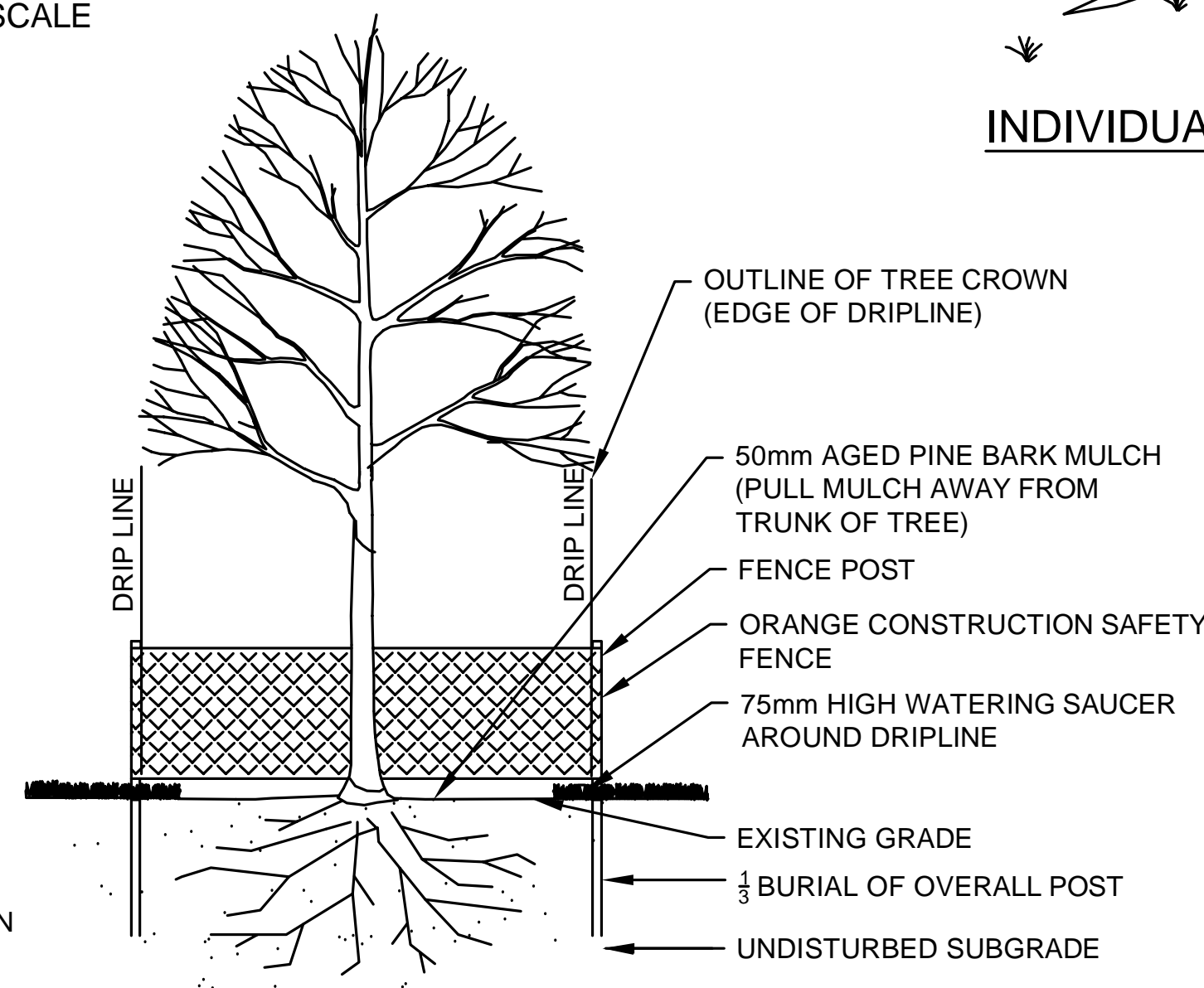
NOTES

1. LENGTH AND WIDTH OF POLYPROPYLENE FABRIC MUST EXCEED EXISTING CATCH BASIN FRAME DIMENSIONS BY A MINIMUM OF 8".
2. REMOVE CATCH BASIN GRATE AND INSTALL POLYPROPYLENE FABRIC OVER CATCH BASIN FRAME. REPLACE CATCH BASIN GRATE TO SECURE POLYPROPYLENE FABRIC IN PLACE.

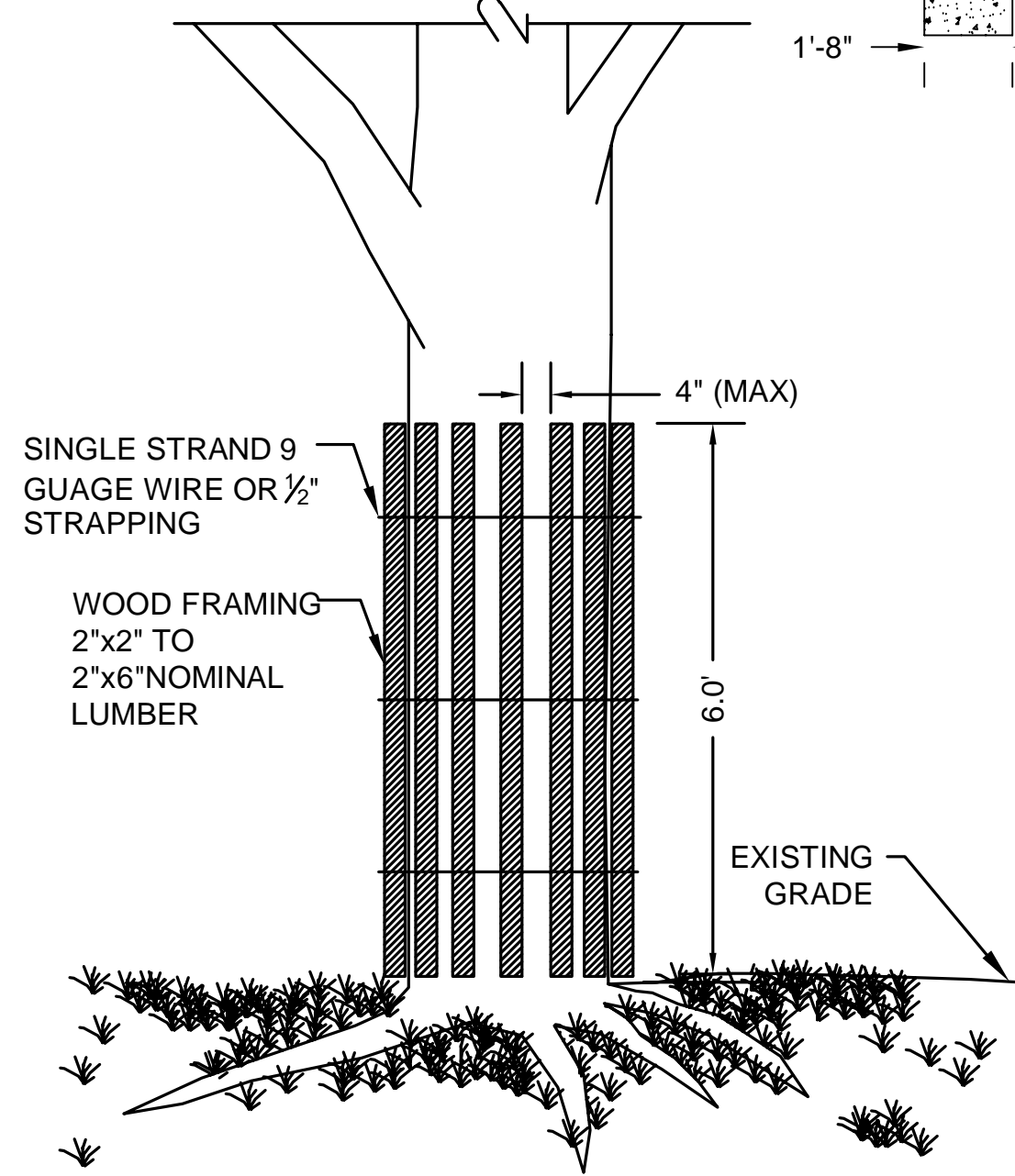
CATCH BASIN EROSION CONTROL PROTECTION (TYP)
NOT TO SCALE



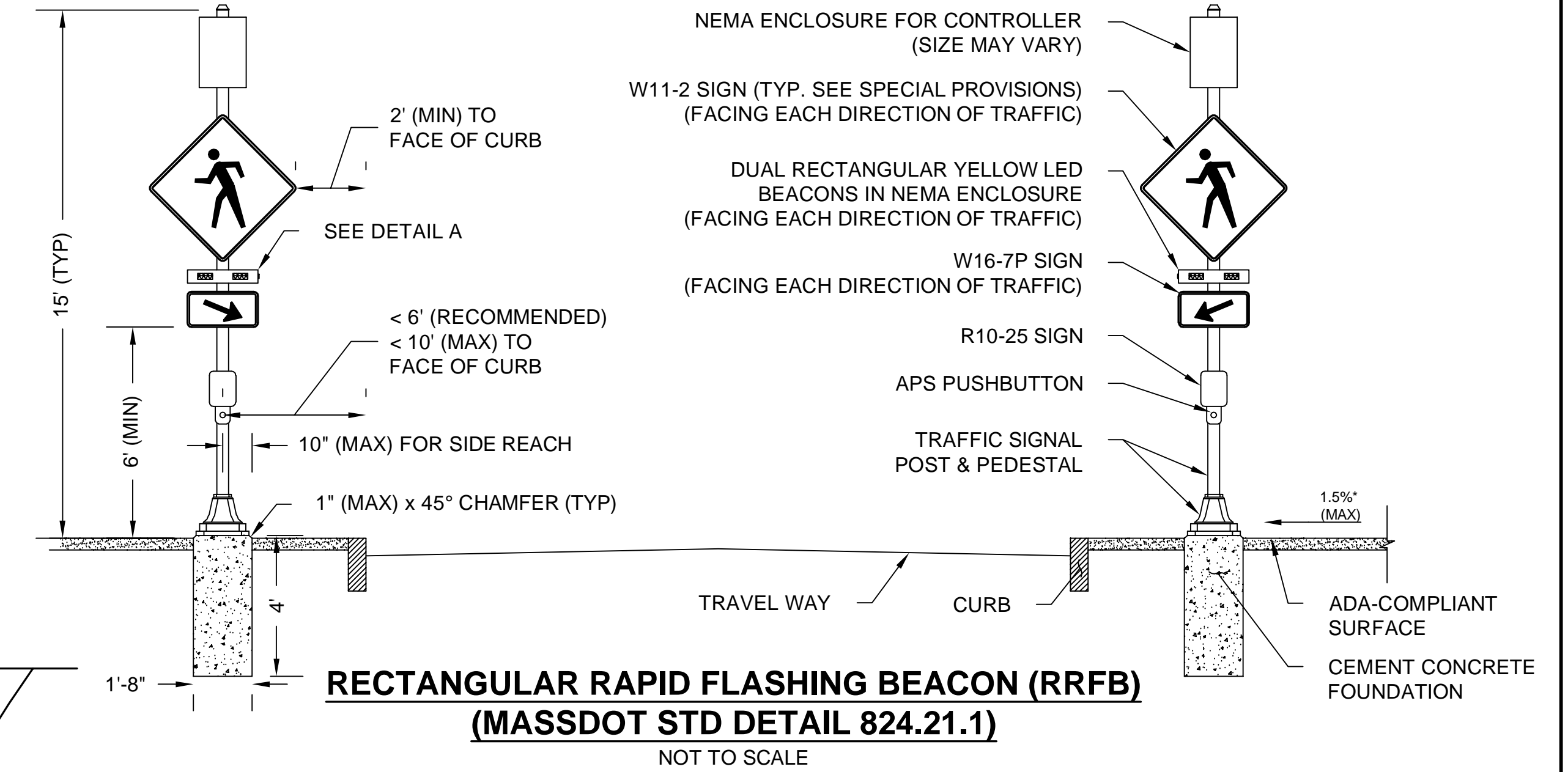
PLAN VIEW - JOIN DETAIL



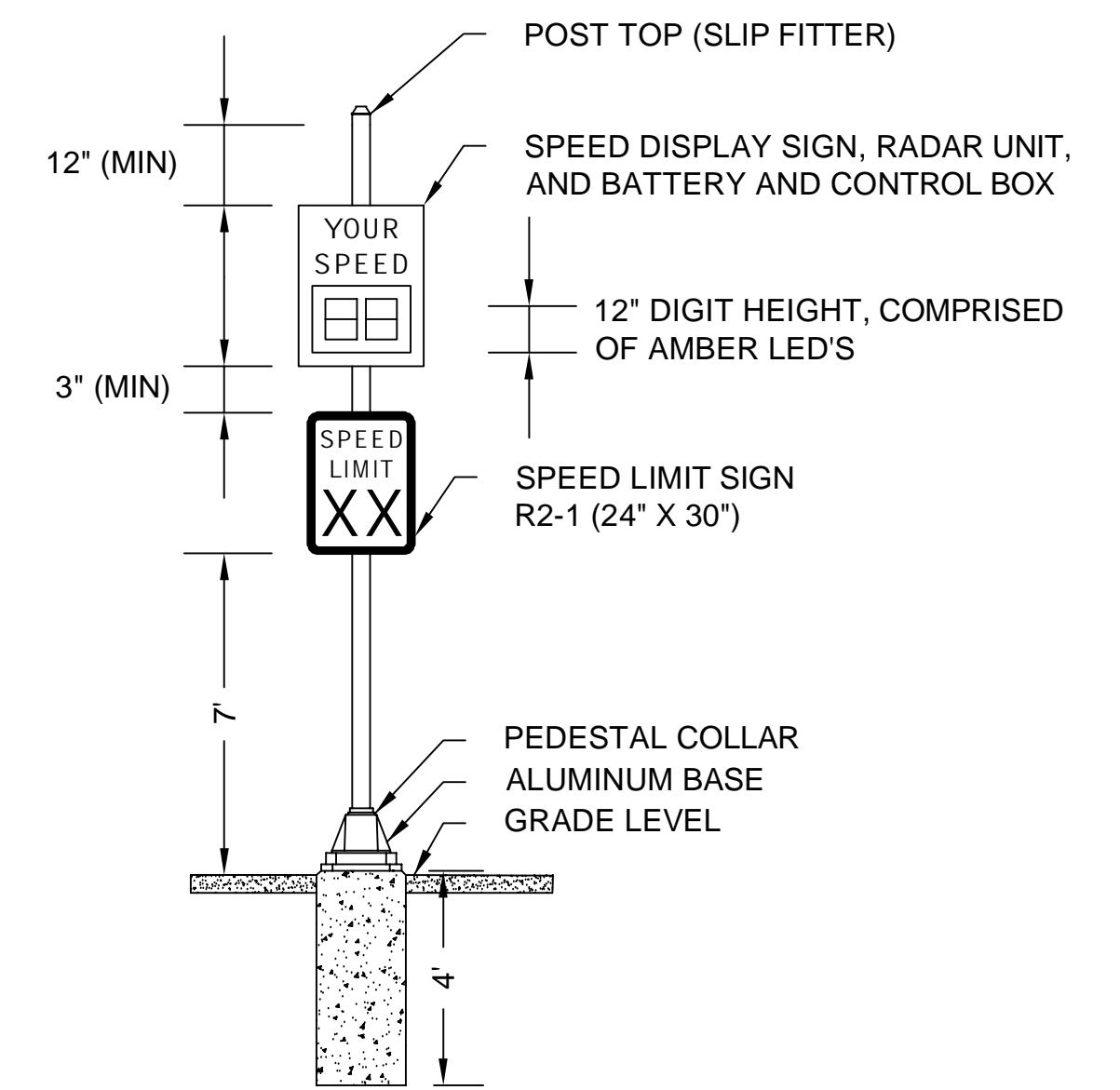
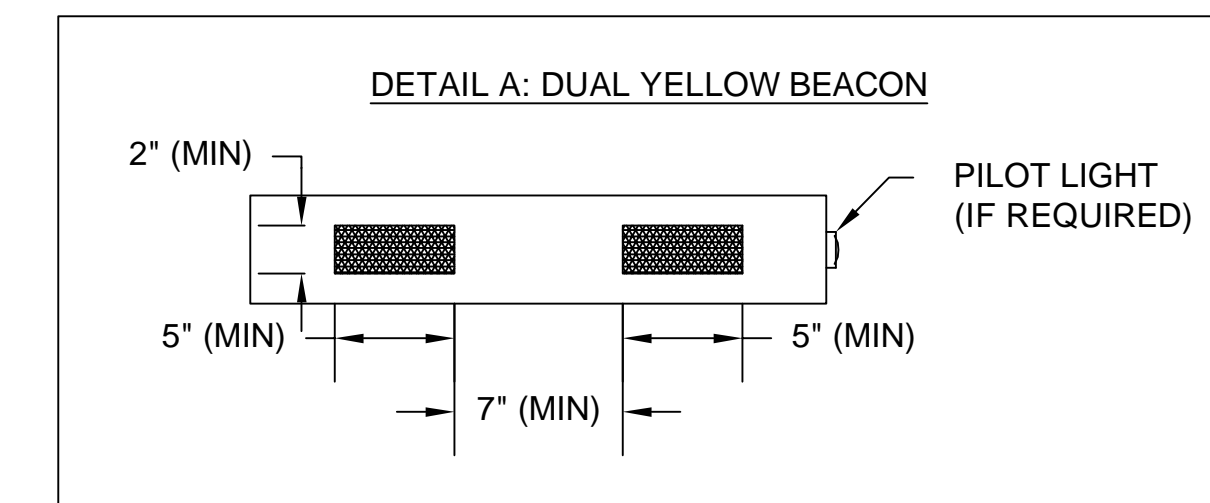
TEMPORARY TREE PROTECTION FENCE
NOT TO SCALE



INDIVIDUAL TREE PROTECTION DETAIL
NOT TO SCALE



RECTANGULAR RAPID FLASHING BEACON (RRFB) (MASSDOT STD DETAIL 824.21.1)
NOT TO SCALE

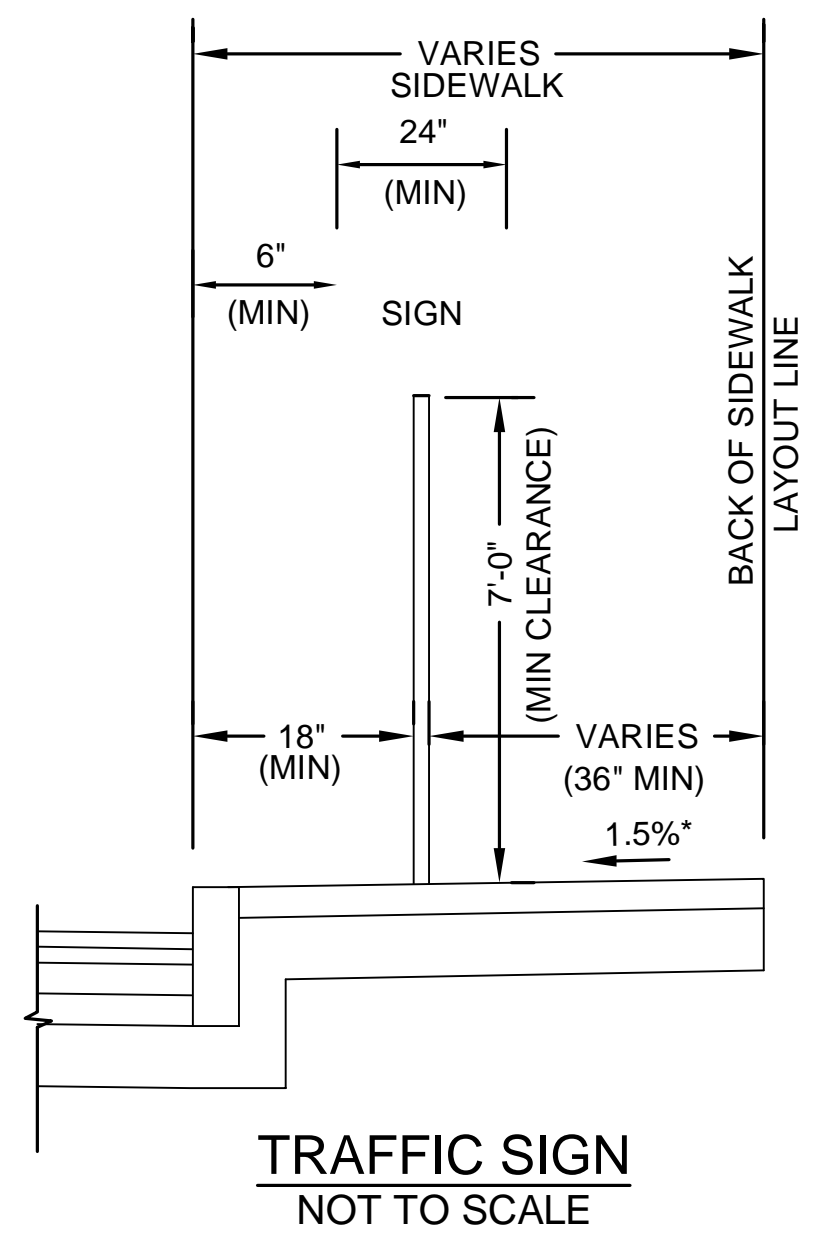


RADAR SPEED FEEDBACK SIGN FRONT VIEW
NOT TO SCALE

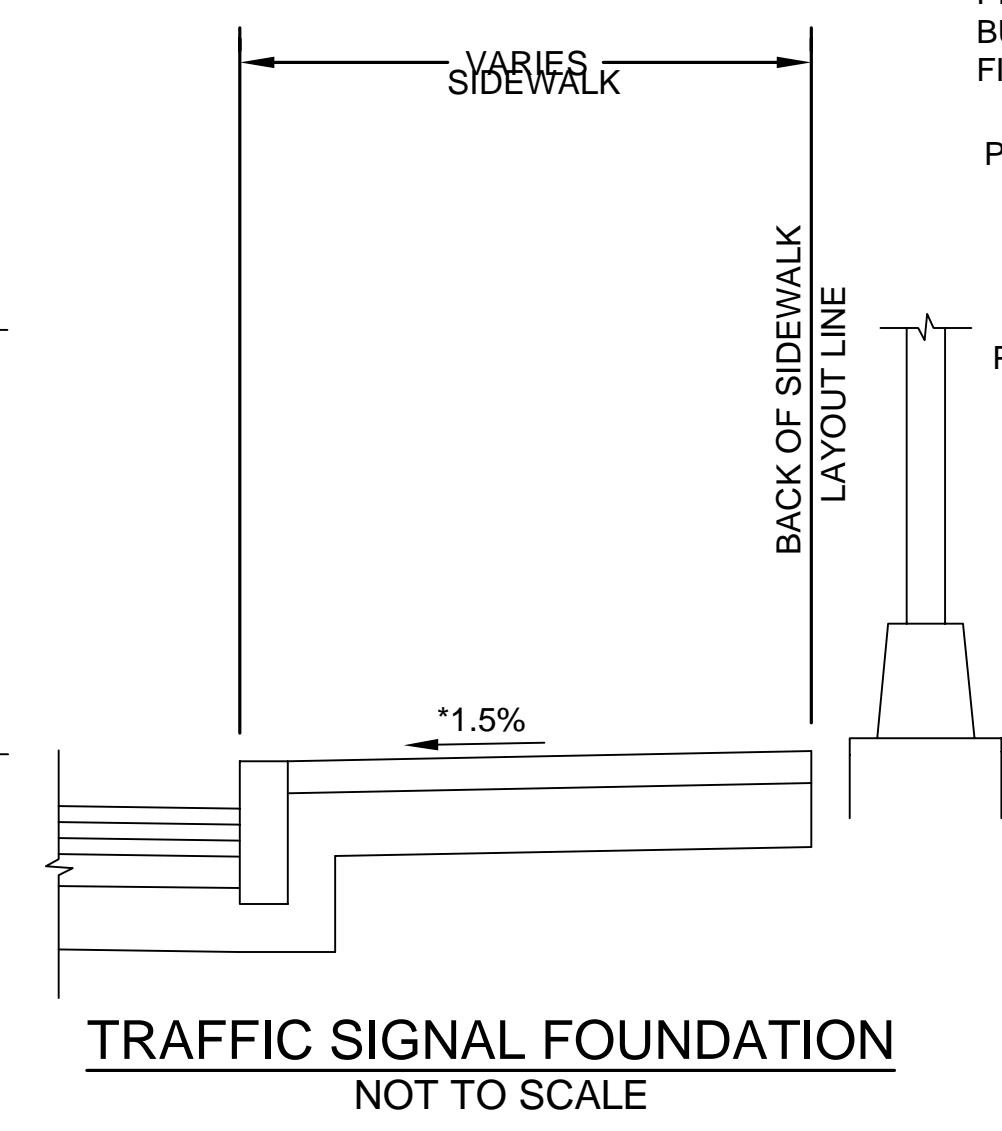
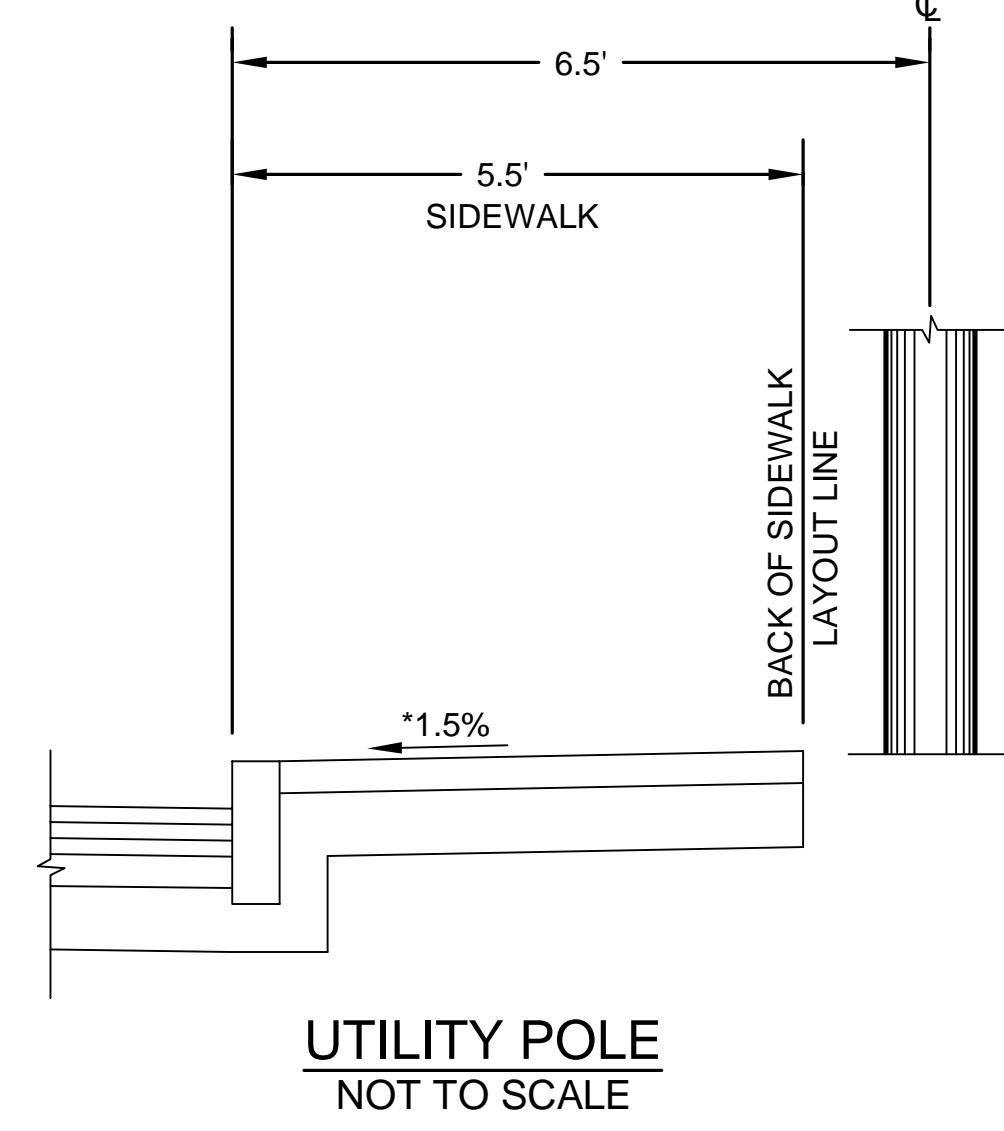
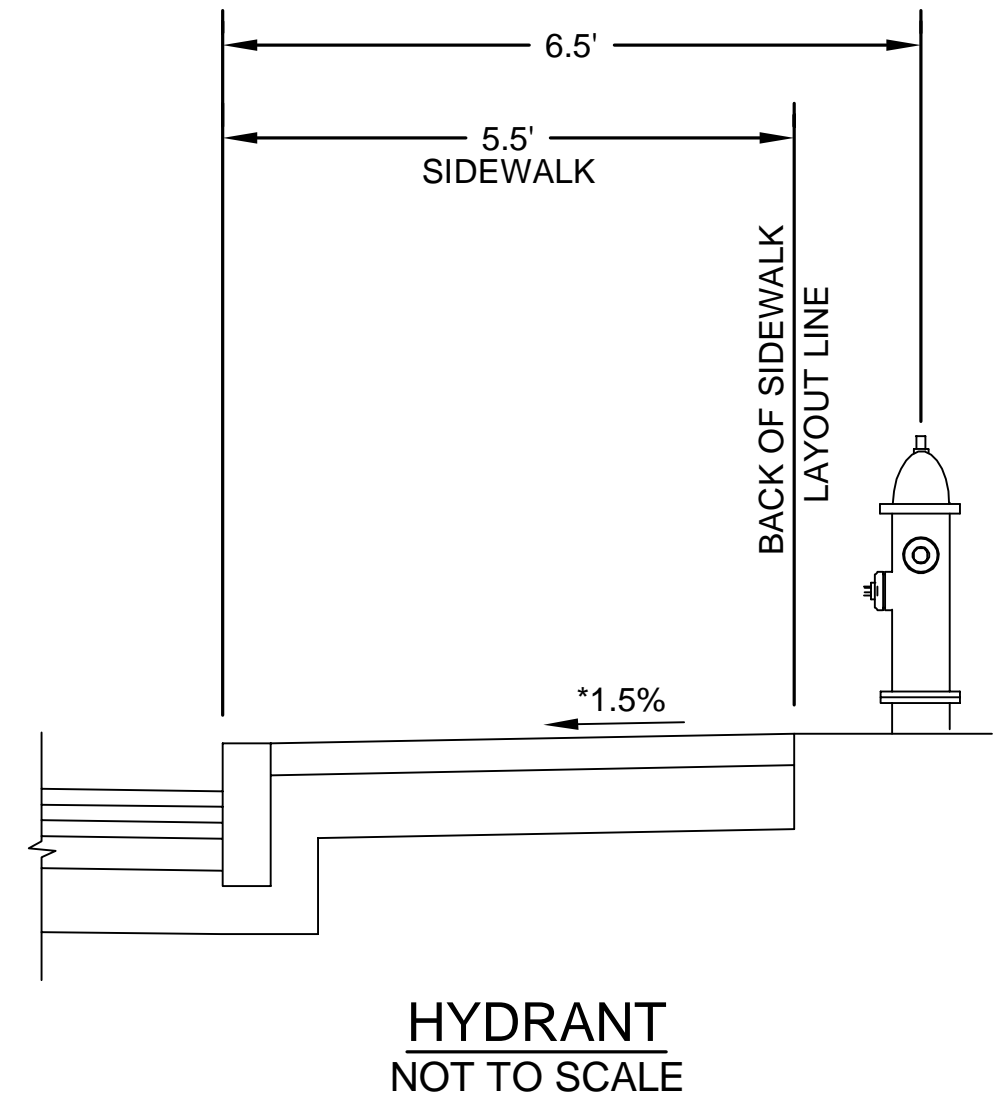
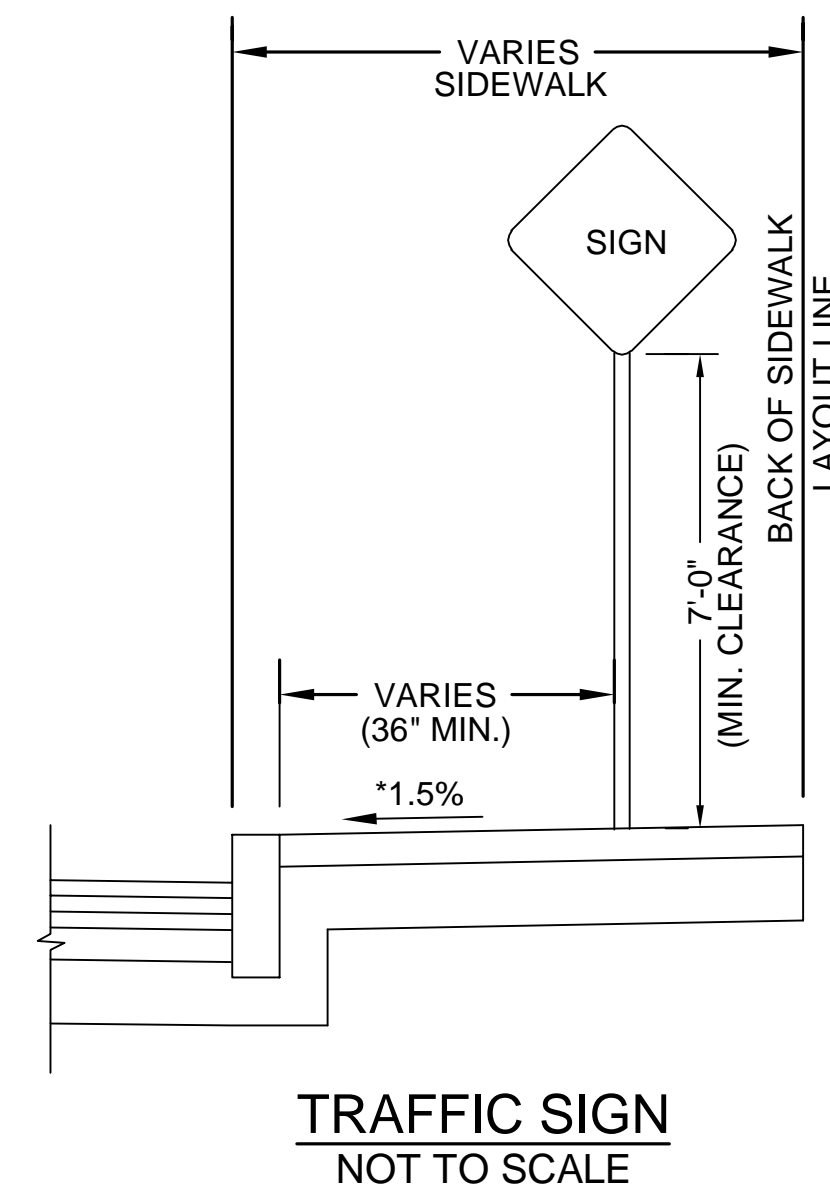
QUINCY SEA STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		16	146
PROJECT FILE NO. 608707			

CONSTRUCTION DETAILS

- NOTES:
- SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE UNLESS OTHERWISE APPROVED BY MASSDOT.
 - CONTROL DENSITY FILL SHALL MEET THE REQUIREMENTS OF SUBSECTION M4.08.0
 - WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.

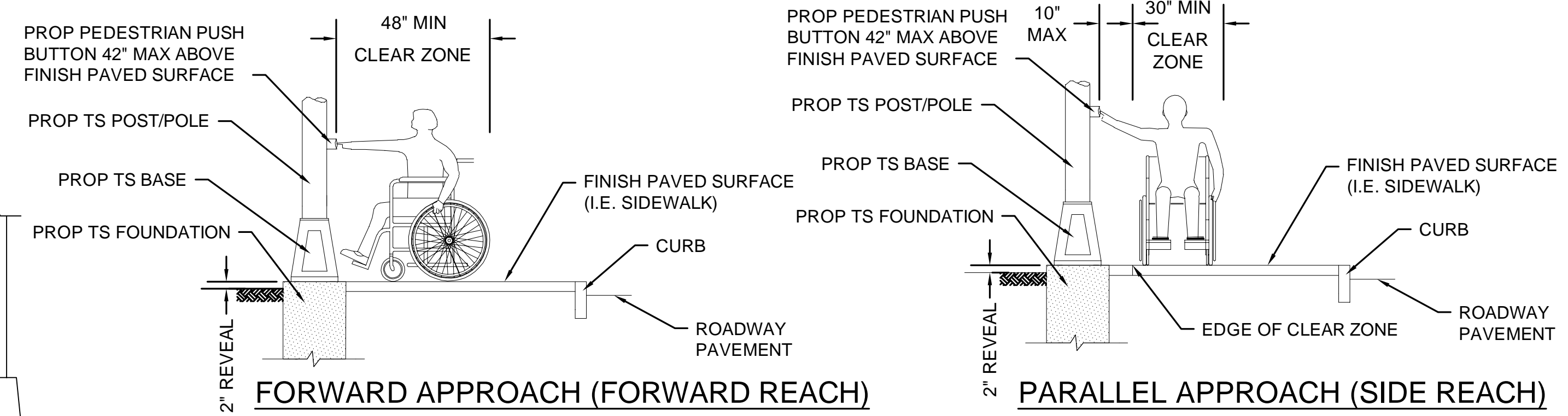
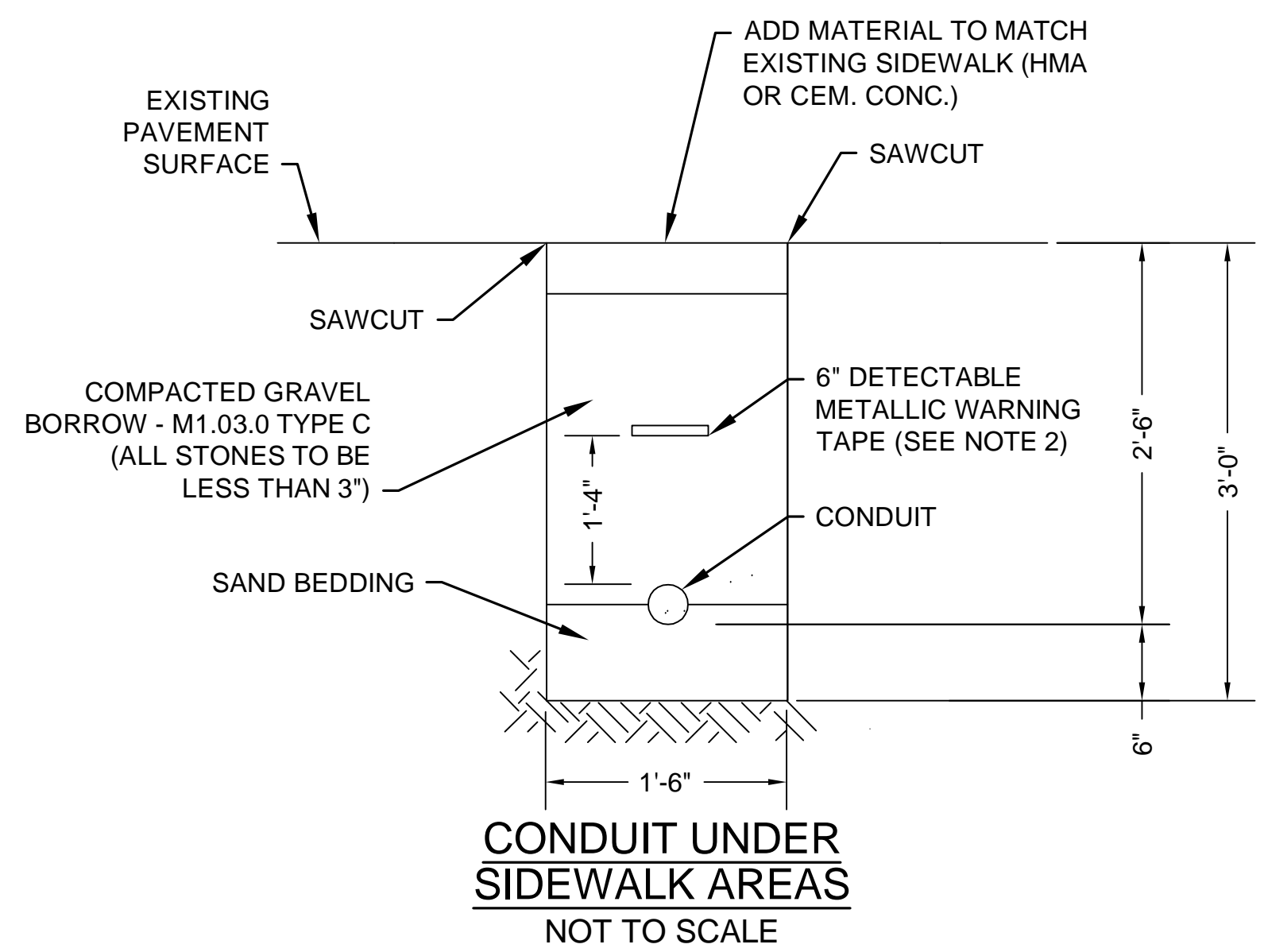
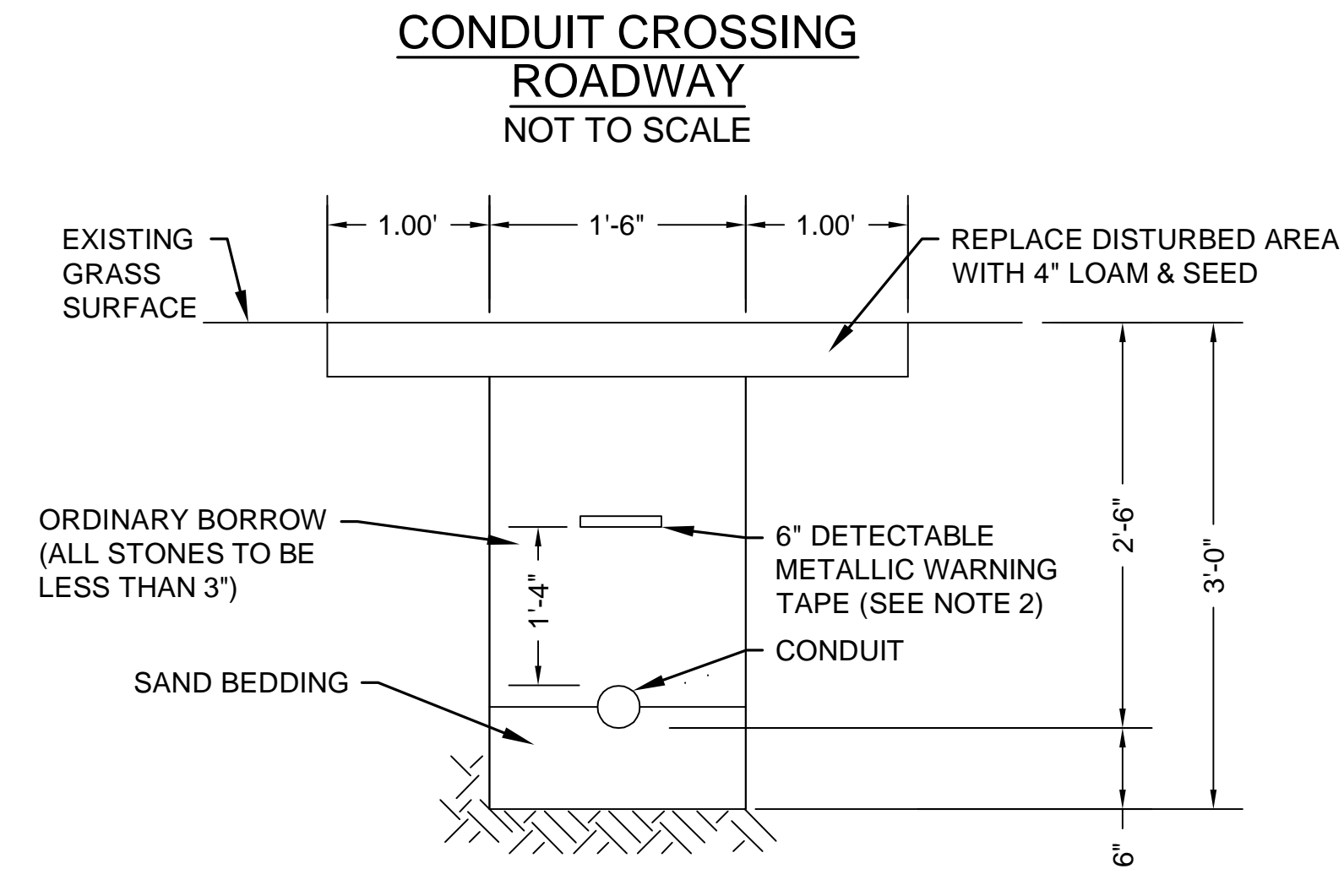
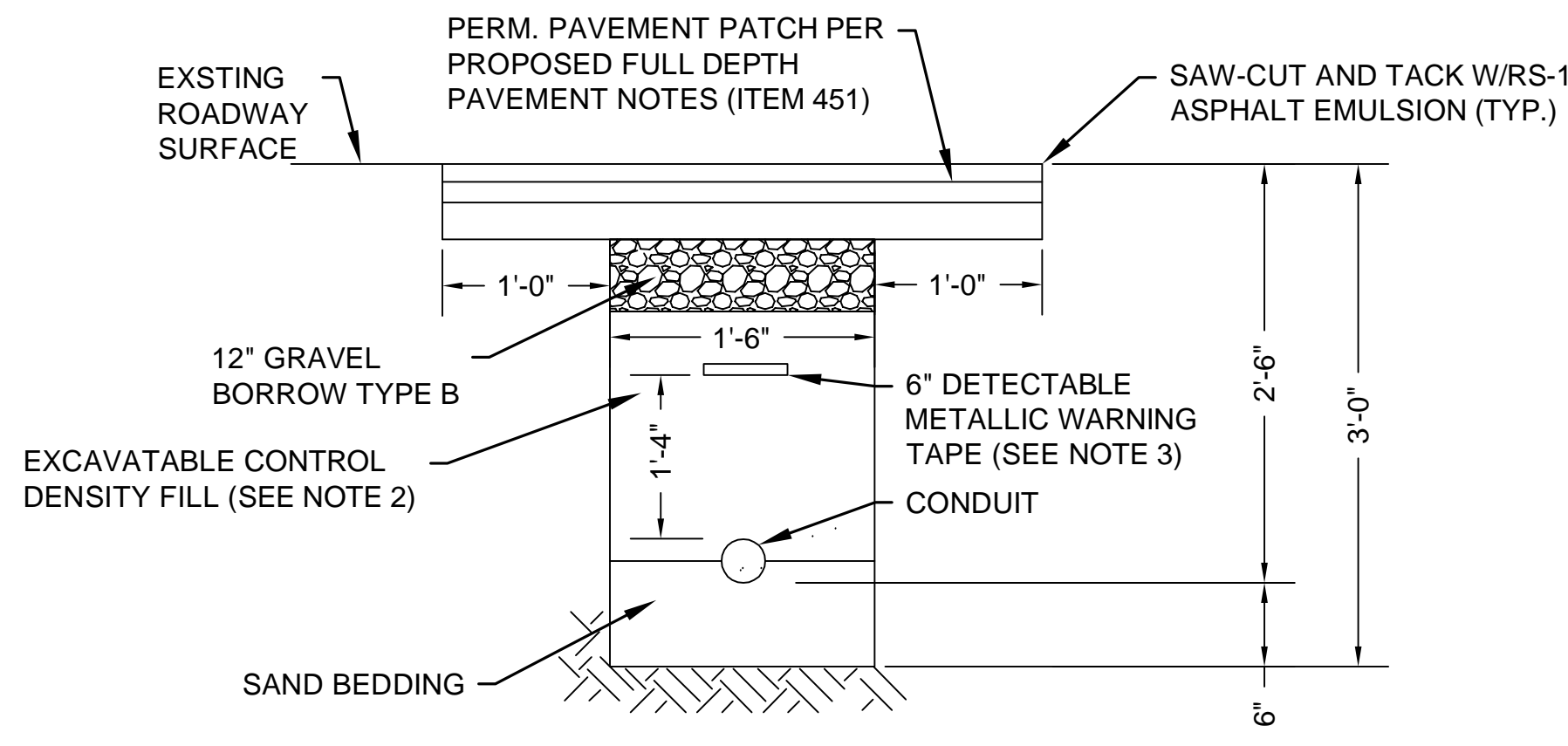


- NOTES:
- MINIMUM CLEAR PATH ON ALL SIDEWALKS SHALL BE 36 INCHES, EXCLUDING THE CURB.
 - CONTRACTOR SHALL VERIFY LOCATION OF ALL OBJECTS (SIGNS, POLES ETC.) TO BE SET WITHIN SIDEWALK PRIOR TO FINAL PLACEMENT TO PROVIDE A MINIMUM CLEAR PATH OF 36 INCHES NOT INCLUDING CURB. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY LOCATION WHICH CANNOT MEET THE CLEARANCE REQUIREMENTS.



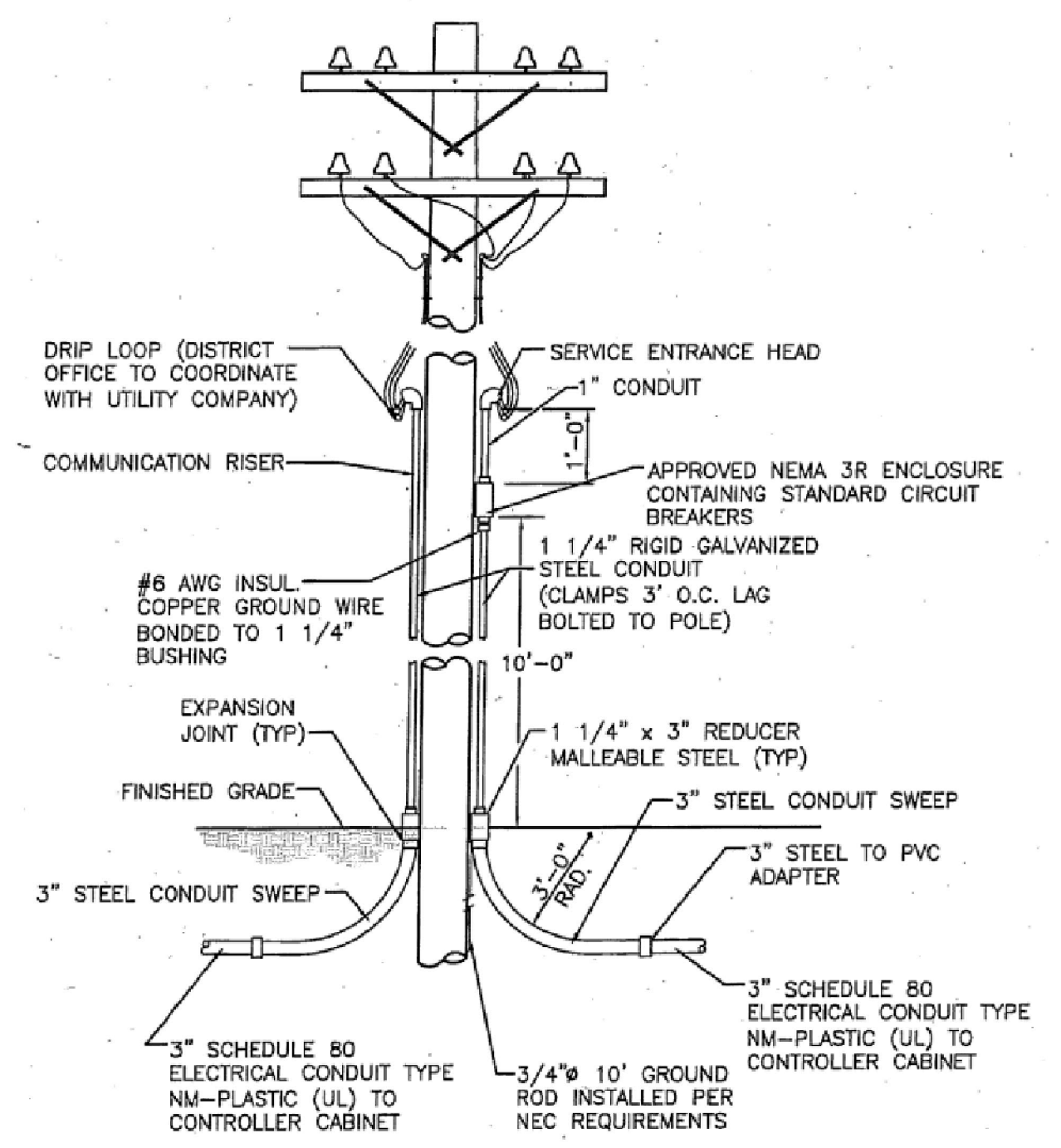
* TOLERANCE FOR CONSTRUCTION ±0.5%

DETAILS SHOWING SIDEWALK CLEARANCES



NOTE:
A CLEAR GROUND SPACE SHALL CONSIST OF A STABLE AND FIRM AREA, COMPLYING WITH 521 CMR 6.5 (FORWARD REACH) OR 521 CMR 6.6 (SIDE REACH) AND SHALL BE PROVIDED AT EACH OF THE PEDESTRIAN PUSH BUTTONS.

- WHERE A FORWARD APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL ABUT AND BE CENTERED ON THE CLEAR GROUND SPACE.
- WHERE A PARALLEL APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL BE WITHIN TEN INCHES (10") HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.



NOTE:
SPECIFIC ATTACHMENT AND CONNECTION REQUIREMENTS MAY VARY. COORDINATION WITH THE LOCAL UTILITY COMPANY IS REQUIRED BY THE CONTRACTOR.

TRAFFIC SIGNAL SERVICE CONNECTION - OVERHEAD NOT TO SCALE



SAMOSETT AVENUE

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
SEE SHEET 32

WATER SUPPLY ALTERATIONS
NONE

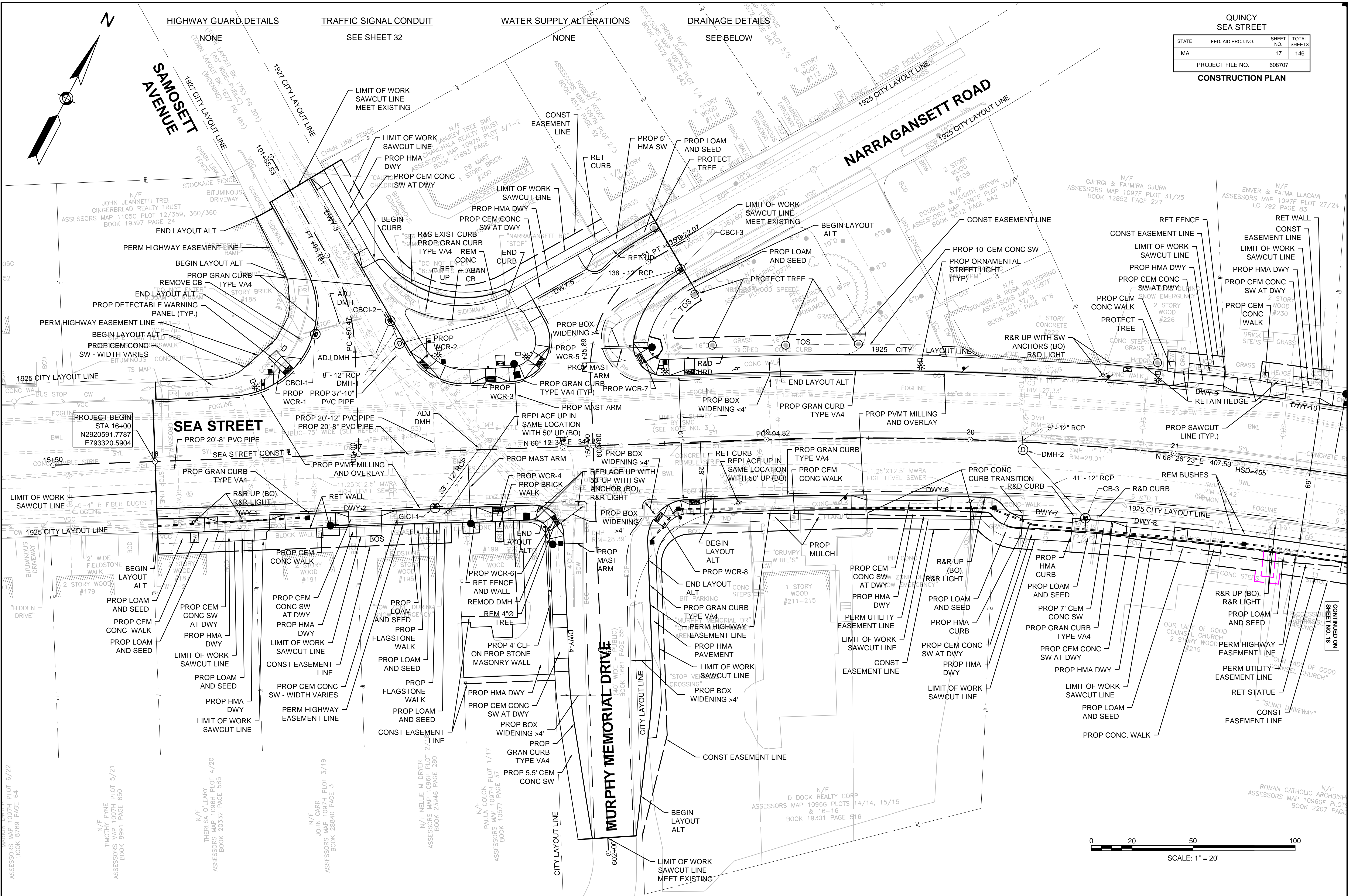
DRAINAGE DETAILS
SEE BELOW

QUINCY
SEA STREET

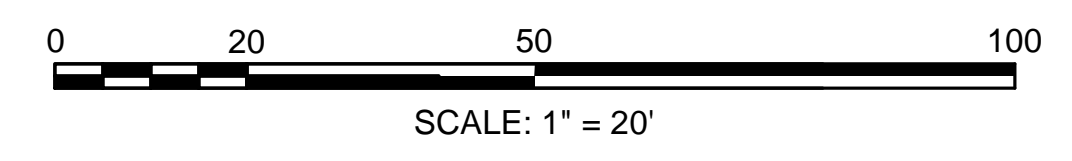
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		17	146

PROJECT FILE NO. 608707

CONSTRUCTION PLAN



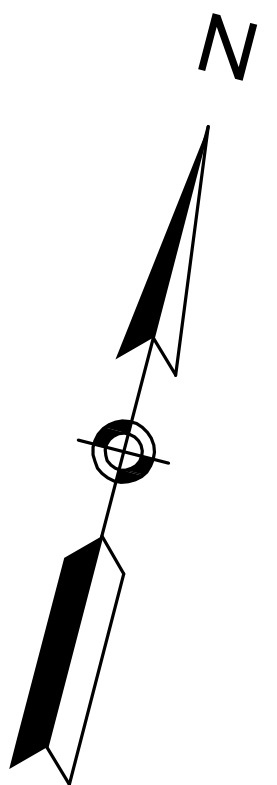
PROJECT BEGIN
STA 16+00
N2920591.7787
E793320.5904



ASSASSORS MAP 1097H PLOT 6/22 BOOK 8789 PAGE 64
 N/F TIMOTHY PINE PLOT 5/21 ASSASSORS MAP 1097E PLOT 650 BOOK 8991 PAGE 60
 N/F THERESA O'LEARY PLOT 4/20 ASSASSORS MAP 1093J PLOT 585 BOOK 20332 PAGE 585
 N/F JOHN CARR ASSASSORS MAP 1097H PLOT 3/19 BOOK 28840 PAGE 3
 N/F NELLIE M. DRYER ASSASSORS MAP 1096H PLOT 280 BOOK 23946 PAGE 280
 N/F PAULA COLON ASSASSORS MAP 1097H PLOT 3/17 BOOK 10577 PAGE 37
 N/F D DOCK REALTY CORP ASSASSORS MAP 1096G PLOTS 14/14, 15/15 & 16-16 BOOK 19301 PAGE 516
 N/F ROMAN CATHOLIC ARCHBISHOP ASSASSORS MAP 1096G PLOTS 2207 PAGE

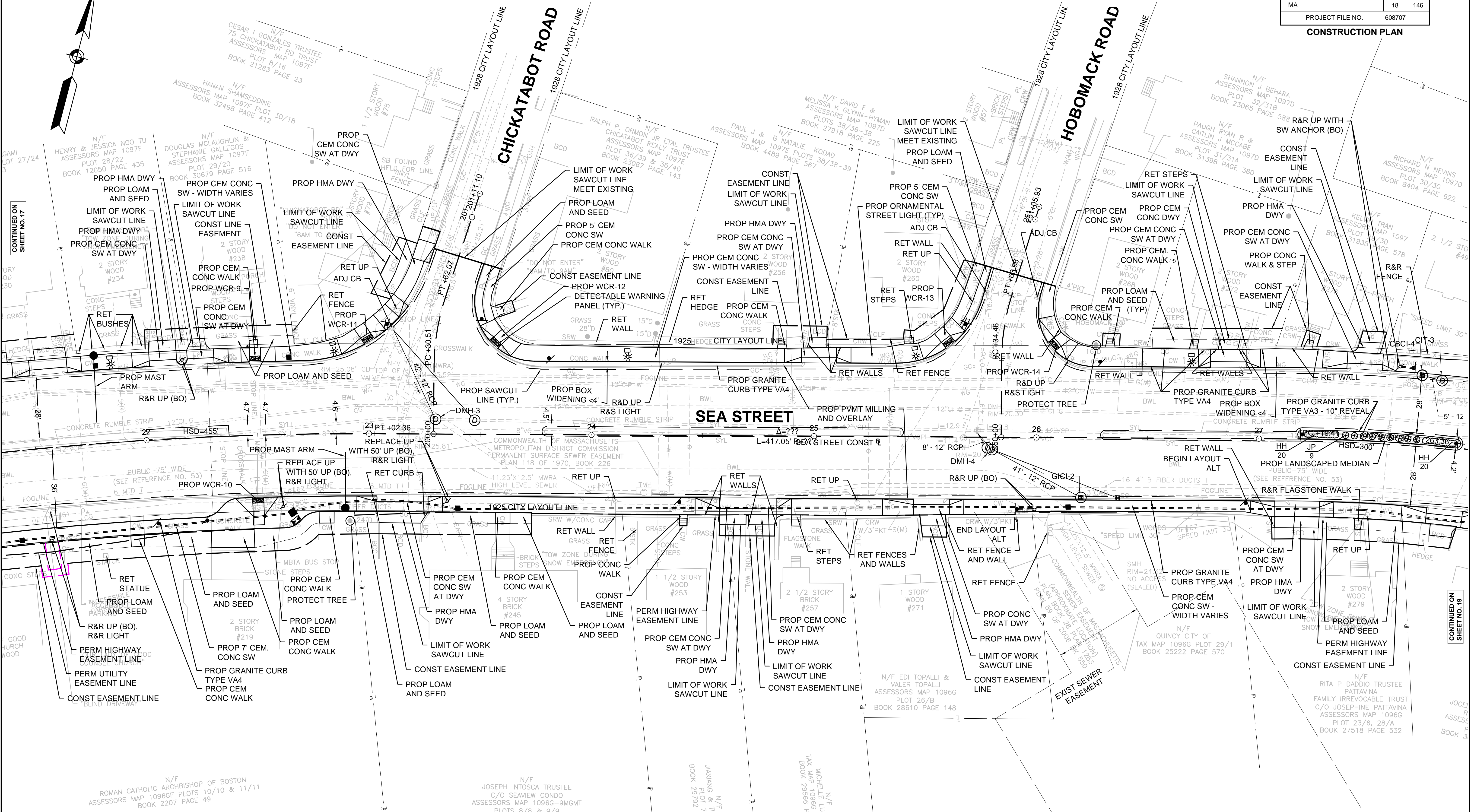
CONTINUED ON SHEET NO. 18

608707_HD4667_13_CONSTD.DWG Printed on 7-Sep-21 10:06 AM



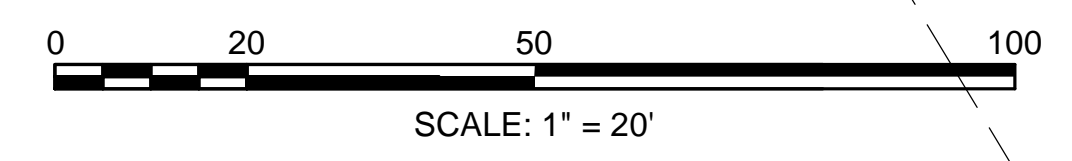
HIGHWAY GUARD DETAILS NONE
 TRAFFIC SIGNAL CONDUIT SEE SHEET 34
 WATER SUPPLY ALTERATIONS NONE
 DRAINAGE DETAILS SEE BELOW

QUINCY SEA STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		18	146
PROJECT FILE NO. 608707			
CONSTRUCTION PLAN			



PLANT LIST - THIS SHEET

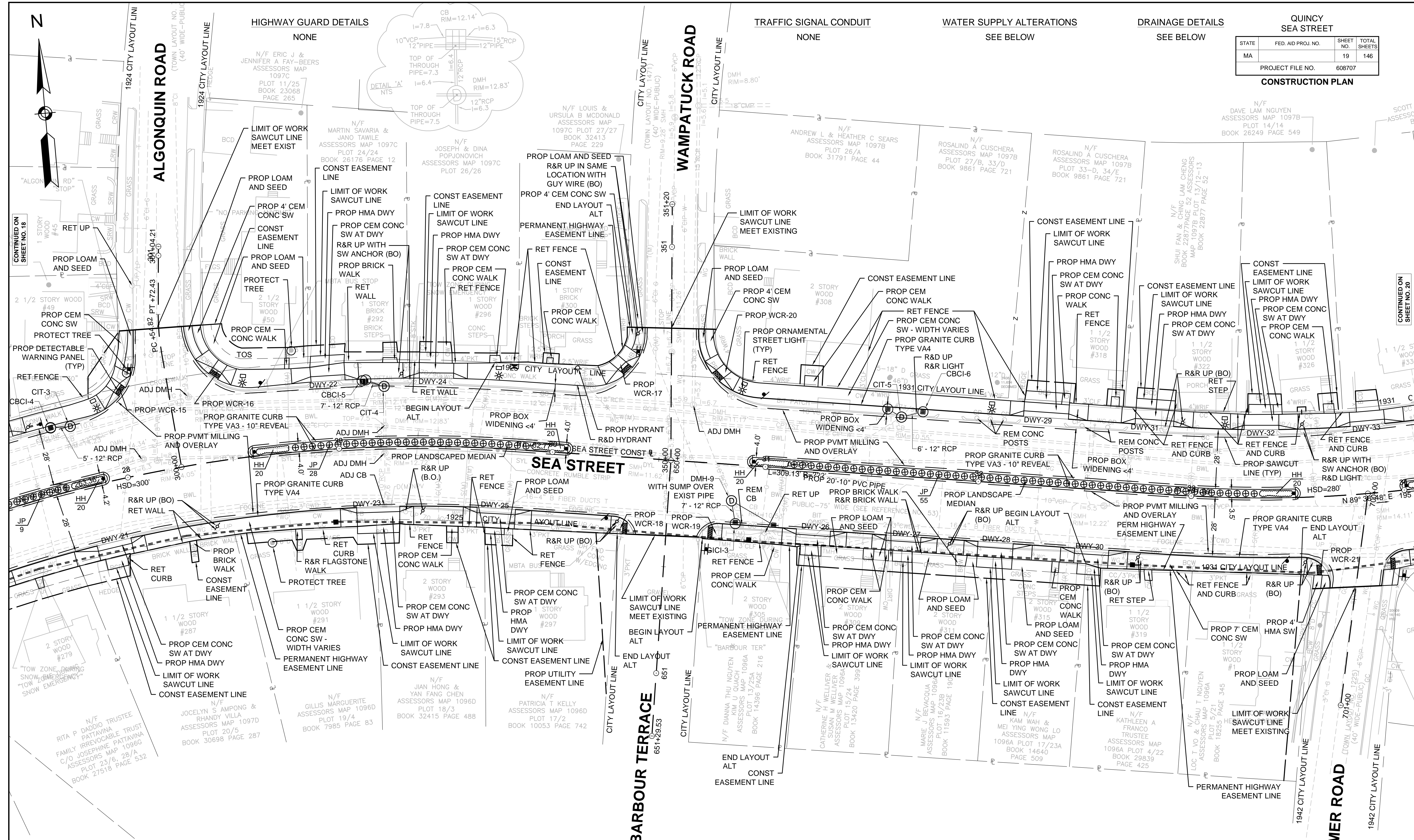
KEY	QU.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
SHRUBS						
JP	43	JUNIPERUS PROCUMBENS 'NANA'	JUNIPER - JAPANESE GARDEN	24 -30"	CONT.	4' O.C.
ORNAMENTAL GRASS & PERENNIALS						
HH	20	HEMEROCALIS 'HAPPY RETURNS'	DAYLILY - 'HAPPY RETURNS'	1 GAL.	CONT.	18" O.C.



CONTINUED ON SHEET NO. 17

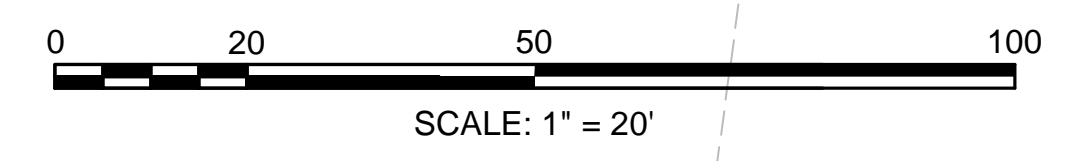
CONTINUED ON SHEET NO. 19

QUINCY SEA STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		19	146
PROJECT FILE NO.		608707	
CONSTRUCTION PLAN			



PLANT LIST - THIS SHEET

KEY	QU.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
SHRUBS						
JP	92	JUNIPERUS PROCUMBENS 'NANA'	JUNIPER - JAPANESE GARDEN	24 - 30"	CONT.	4' O.C.
ORNAMENTAL GRASS & PERENNIALS						
HH	100	HEMEROCALIS 'HAPPY RETURNS'	DAYLILY - 'HAPPY RETURNS'	1 GAL.	CONT.	18" O.C.



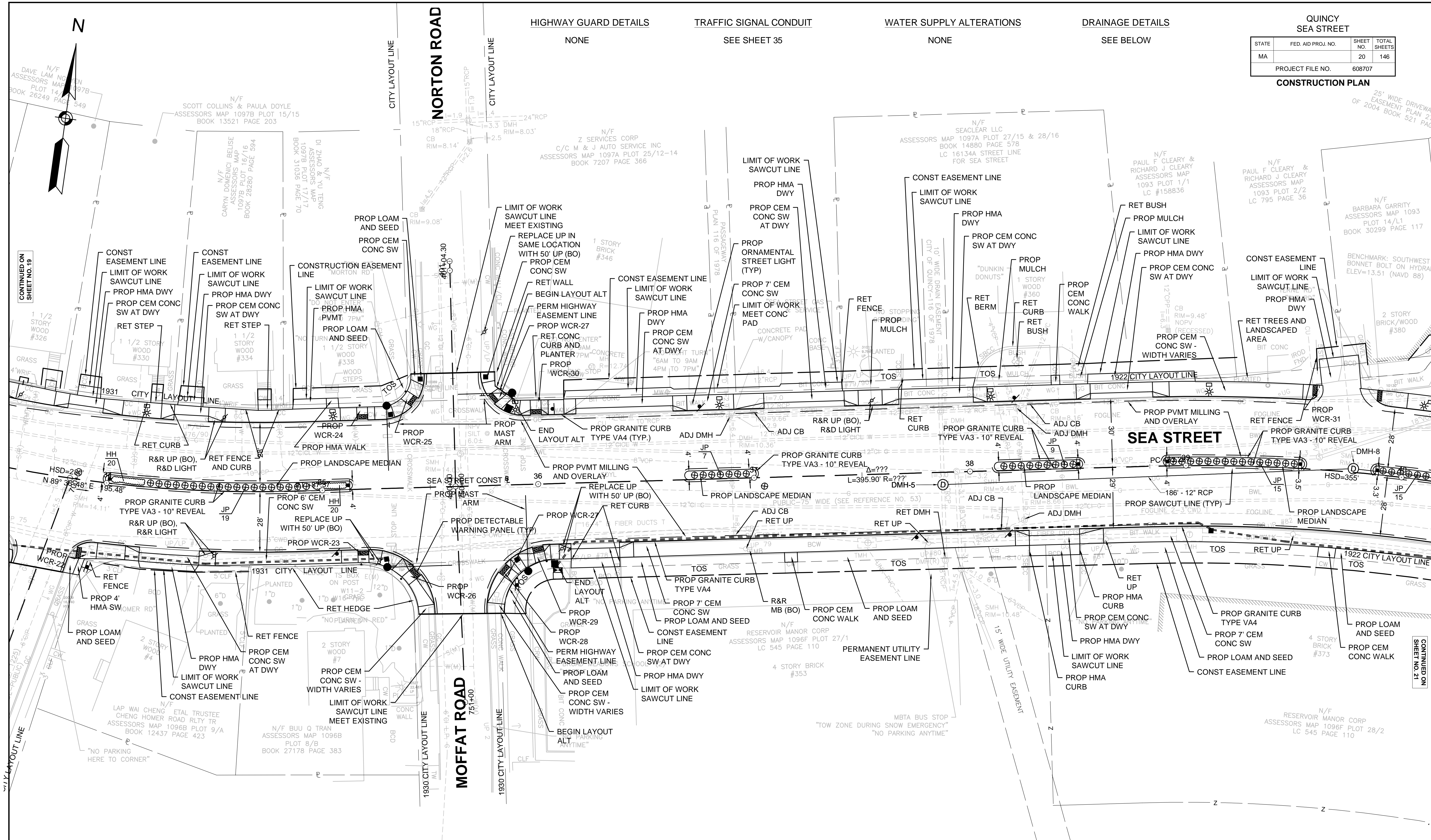
©SMH
RIM=21.74'

608707_HD4657_13_CONSTDWG

Printed on 7-Sep-21 10:06 AM

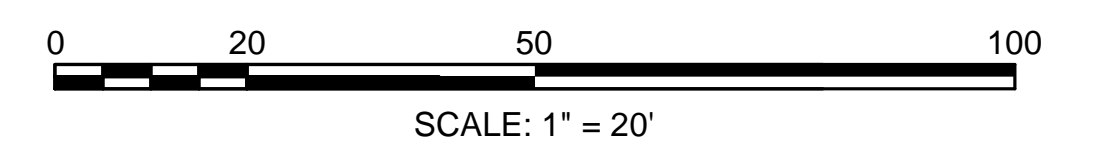
QUINCY SEA STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		20	146
PROJECT FILE NO. 608707			
CONSTRUCTION PLAN			

HIGHWAY GUARD DETAILS NONE
 TRAFFIC SIGNAL CONDUIT SEE SHEET 35
 WATER SUPPLY ALTERATIONS NONE
 DRAINAGE DETAILS SEE BELOW



PLANT LIST - THIS SHEET

KEY	QU.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
SHRUBS						
JP	65	JUNIPERUS PROCUMBENS 'NANA'	JUNIPER - JAPANESE GARDEN	24 -30"	CONT.	4' O.C.
ORNAMENTAL GRASS & PERENNIALS						
HH	40	HEMEROCALIS 'HAPPY RETURNS'	DAYLILY - 'HAPPY RETURNS'	1 GAL.	CONT.	18" O.C.



CONTINUED ON SHEET NO. 19

CONTINUED ON SHEET NO. 21

N

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

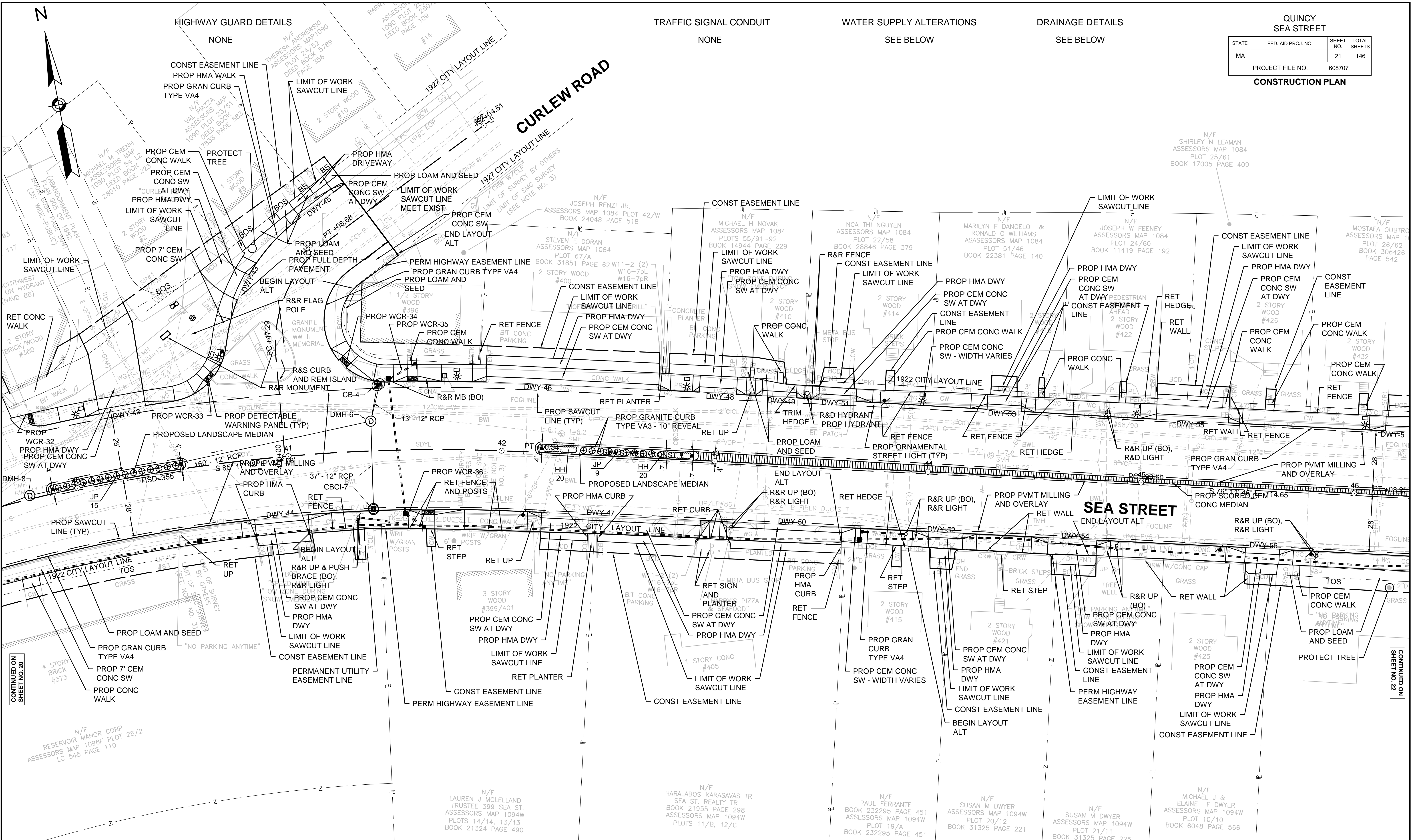
WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE BELOW

QUINCY
SEA STREET

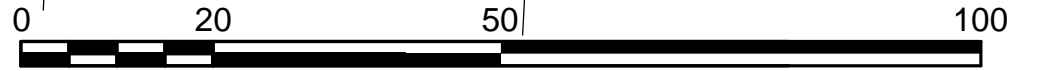
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		21	146
PROJECT FILE NO. 608707			

CONSTRUCTION PLAN



PLANT LIST - THIS SHEET

KEY	QU.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
SHRUBS						
JP	24	JUNIPERUS PROCUMBENS 'NANA'	JUNIPER - JAPANESE GARDEN	24-30"	CONT.	4' O.C.
ORNAMENTAL GRASS & PERENNIALS						
HH	40	HEMEROCALIS 'HAPPY RETURNS'	DAYLILY - 'HAPPY RETURNS'	1 GAL.	CONT.	18" O.C.

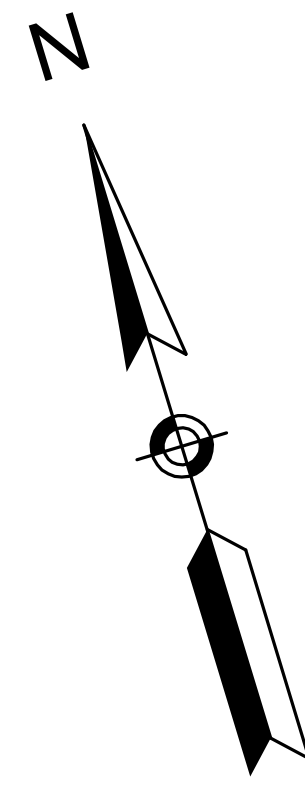


SCALE: 1" = 20'

CONTINUED ON SHEET NO. 20

CONTINUED ON SHEET NO. 22

608707_HDW667_13_CONST.DWG Plotted on 7-Sep-21 10:06 AM



HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

DRAINAGE DETAILS

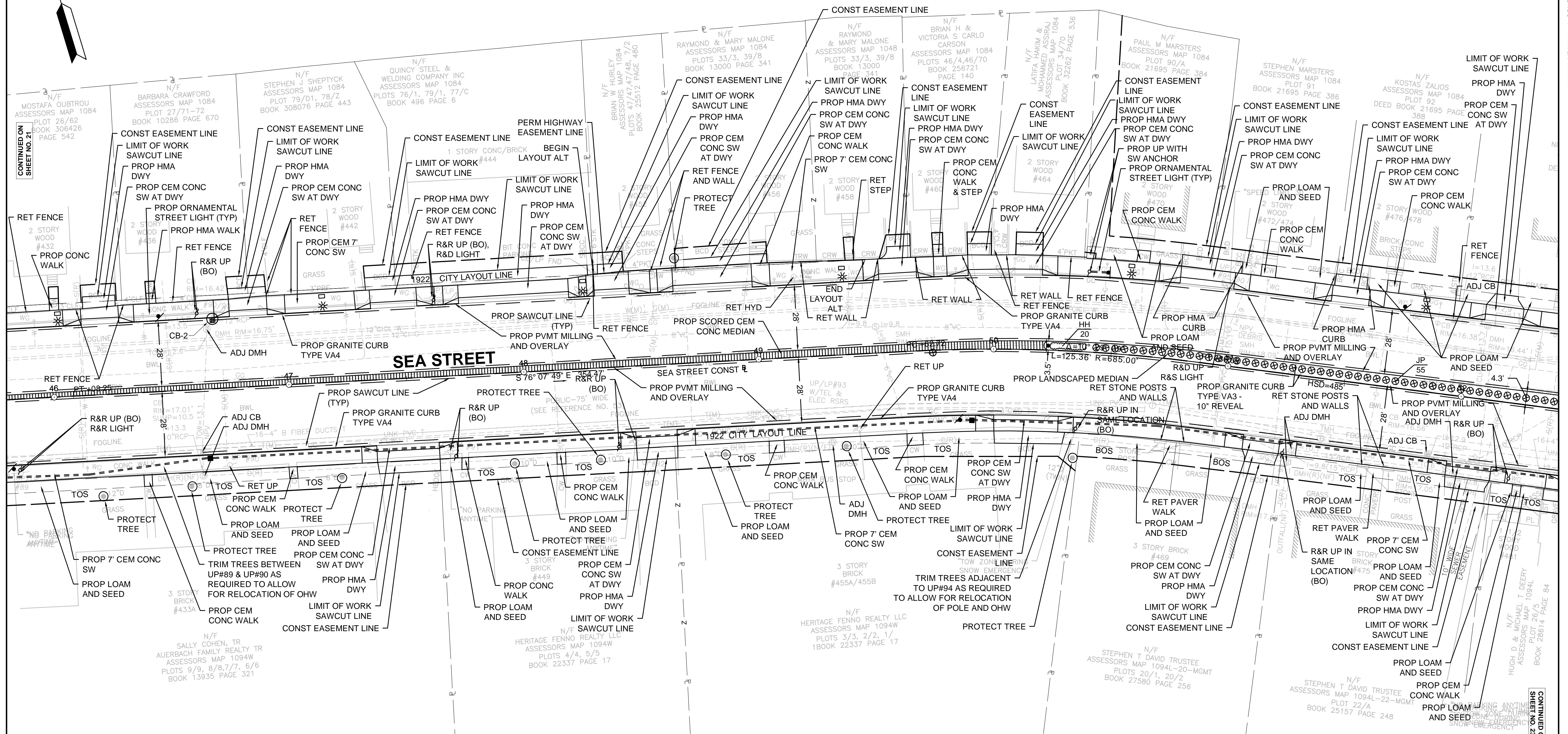
SEE BELOW

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		22	146

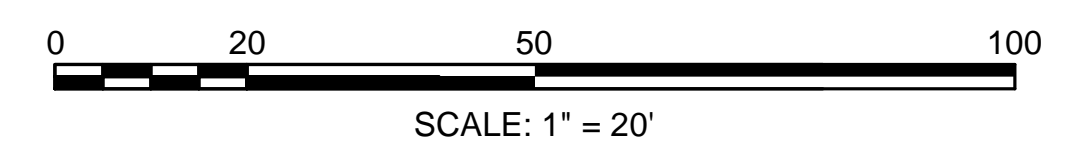
PROJECT FILE NO. 608707

CONSTRUCTION PLAN



PLANT LIST - THIS SHEET

KEY	QU.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
SHRUBS						
JP	55	JUNIPERUS PROCUMBENS 'NANA'	JUNIPER - JAPANESE GARDEN	24 -30"	CONT.	4' O.C.
ORNAMENTAL GRASS & PERENNIALS						
HH	20	HEMEROCALIS 'HAPPY RETURNS'	DAYLILY - 'HAPPY RETURNS'	1 GAL.	CONT.	18" O.C.



608707_HD\667_13_CONST.DWG Plotted on 7-Sep-21 10:06 AM

CONTINUED ON SHEET NO. 23

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		24	146
PROJECT FILE NO.		608707	

CONSTRUCTION PLAN

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

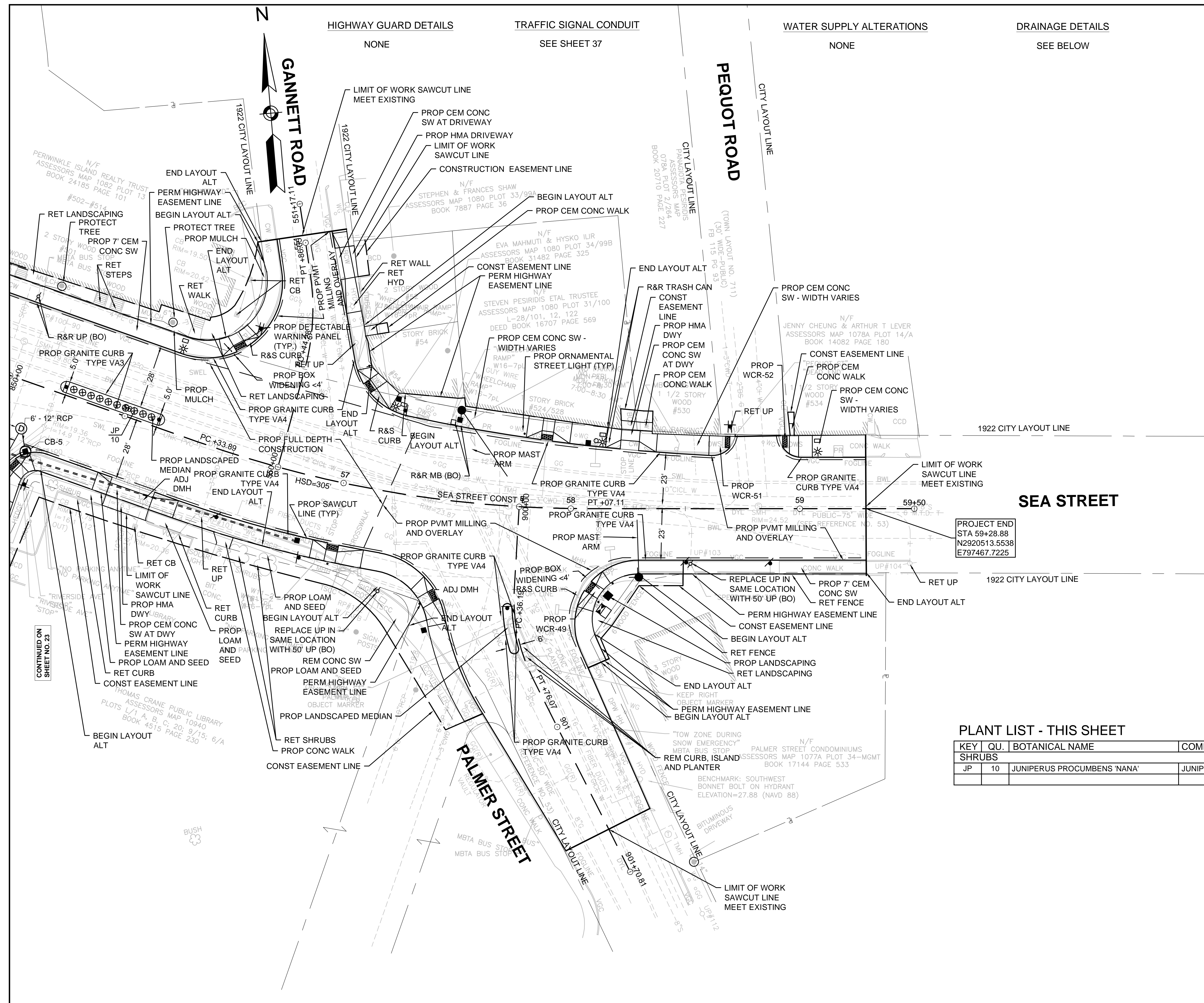
SEE SHEET 37

WATER SUPPLY ALTERATIONS

NONE

DRAINAGE DETAILS

SEE BELOW

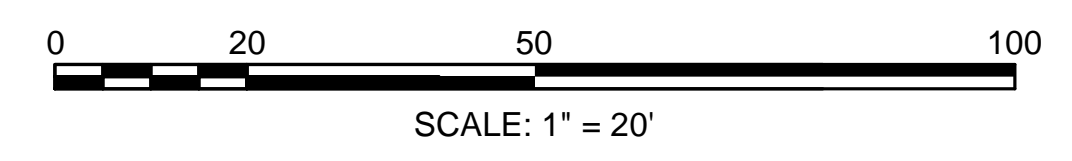


SEA STREET

PROJECT END
STA 59+28.88
N2920513.5538
E797467.7225

PLANT LIST - THIS SHEET

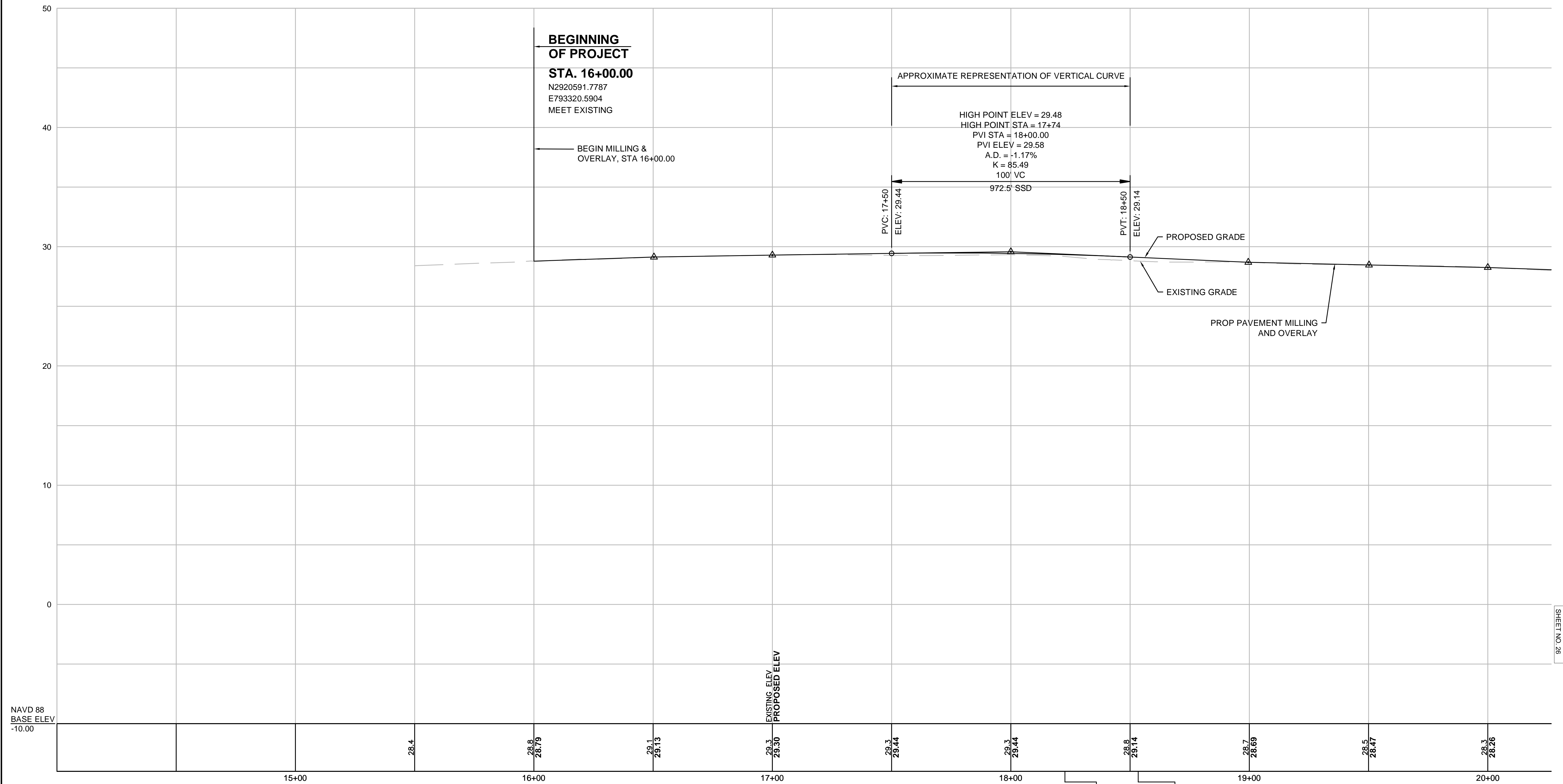
KEY	QU.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
SHRUBS						
JP	10	JUNIPERUS PROCUMBENS 'NANA'	JUNIPER - JAPANESE GARDEN	24-30"	CONT.	4' O.C.



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		25	146
PROJECT FILE NO.		608707	

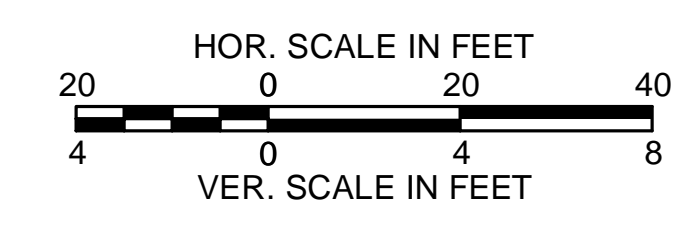
PROFILE



Temp Benchmark
 Mag Nail Set
 Elevation = 28.43
 Sta. 18+22.66, 36.17' LT

Benchmark
 Bonnet Bolt on Hydrant
 Elevation = 31.57
 Sta. 18+53.36, 44.21' LT

FOR CONSTRUCTION PLANS:
 SEE SHEET NO. 8

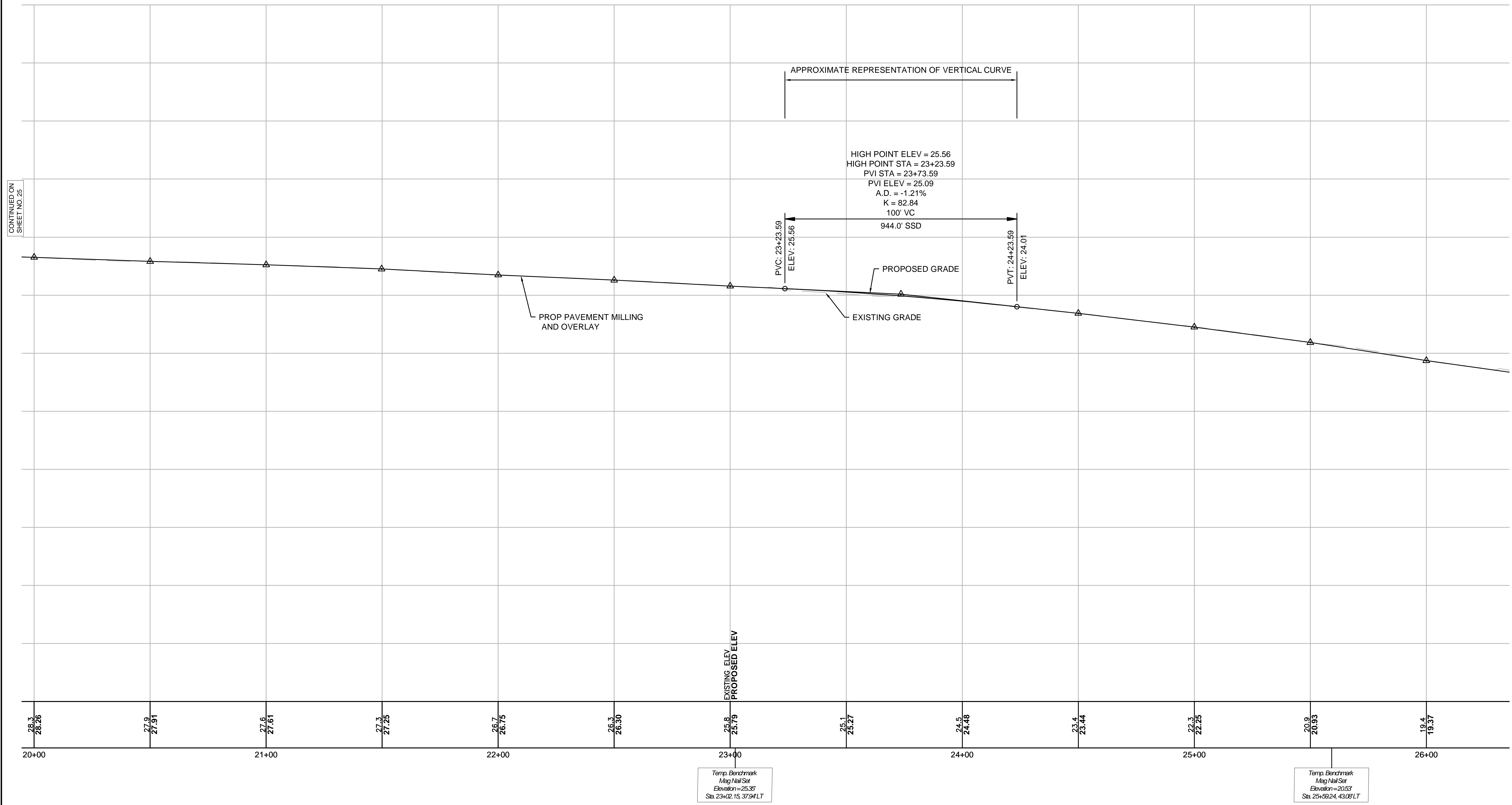


CONTINUED ON
 SHEET NO. 26

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		26	146
PROJECT FILE NO.		608707	

PROFILE



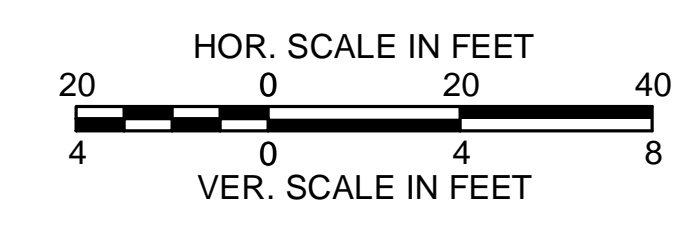
CONTINUED ON
SHEET NO. 25

CONTINUED ON
SHEET NO. 27

Temp. Benchmark
Mag Nail Set
Elevation = 25.36
Sta. 23+02.15, 37.94 LT

Temp. Benchmark
Mag Nail Set
Elevation = 20.53
Sta. 25+59.24, 43.08 LT

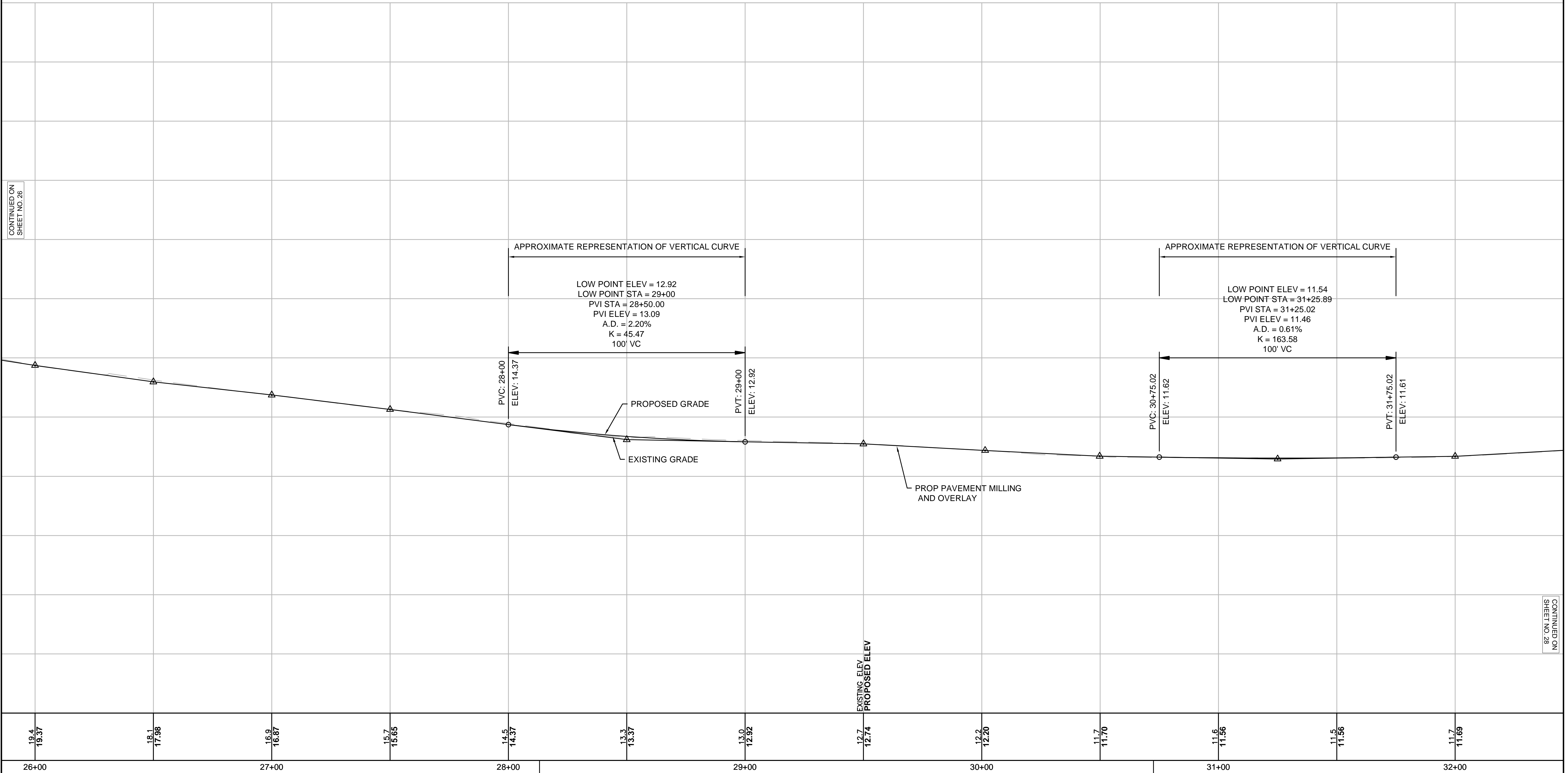
FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 8-9



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		27	146
PROJECT FILE NO.		608707	

PROFILE



APPROXIMATE REPRESENTATION OF VERTICAL CURVE

LOW POINT ELEV = 12.92
LOW POINT STA = 29+00
PVI STA = 28+50.00
PVI ELEV = 13.09
A.D. = 2.20%
K = 45.47
100' VC

APPROXIMATE REPRESENTATION OF VERTICAL CURVE

LOW POINT ELEV = 11.54
LOW POINT STA = 31+25.89
PVI STA = 31+25.02
PVI ELEV = 11.46
A.D. = 0.61%
K = 163.58
100' VC

PROPOSED GRADE
EXISTING GRADE

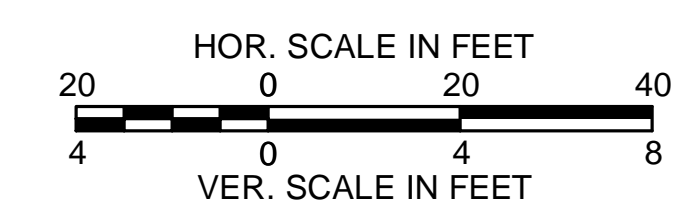
PROP PAVEMENT MILLING AND OVERLAY

EXISTING ELEV
PROPOSED ELEV

Temp. Benchmark
Mag Nail Set
Elevation = 12.95
Sta. 28+13.14, 24.64 RT

Temp. Benchmark
Mag Nail Set
Elevation = 11.17
Sta. 30+72.56, 32.53 LT

FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 9-10



CONTINUED ON
SHEET NO. 26

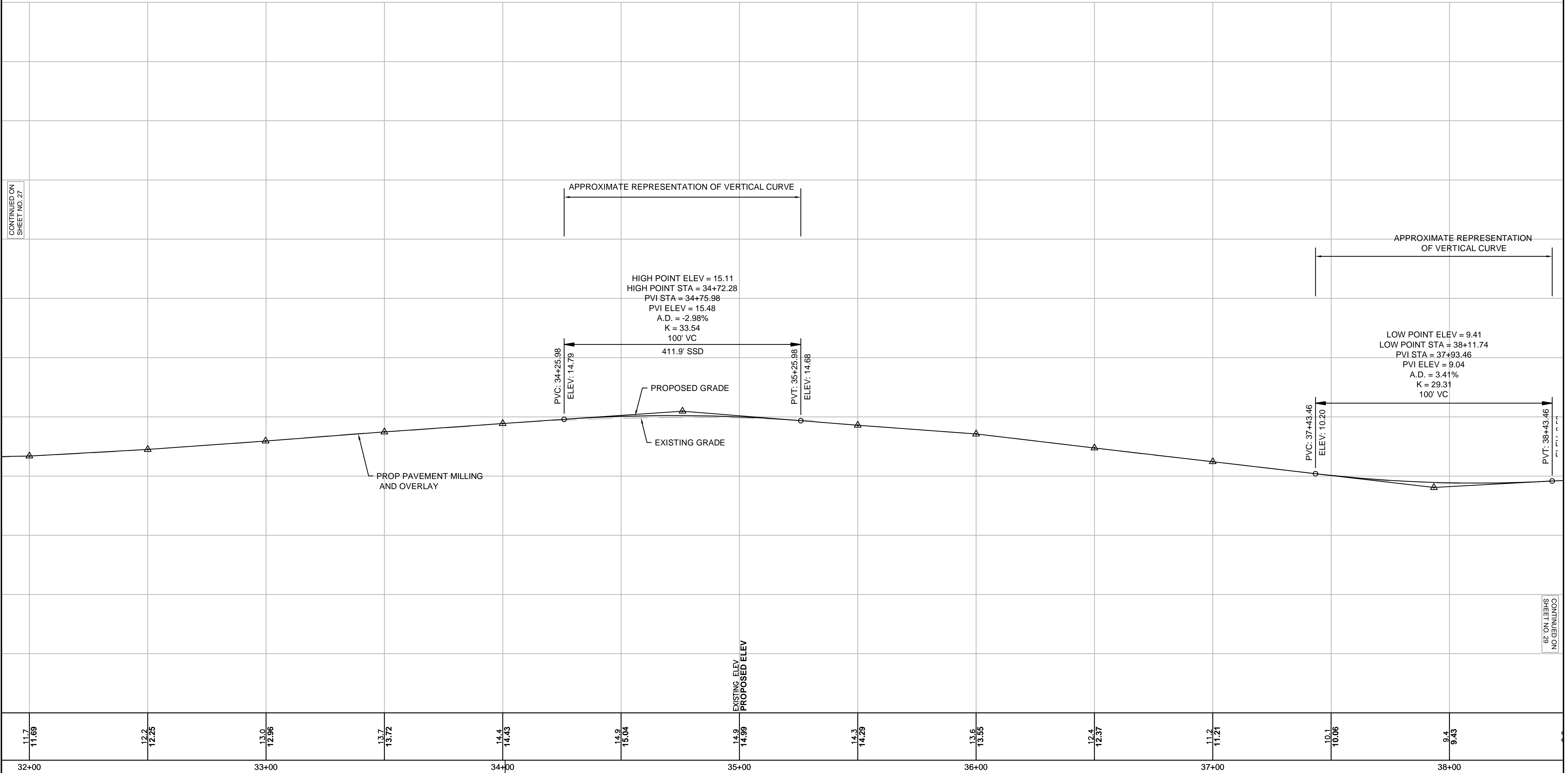
CONTINUED ON
SHEET NO. 28

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		28	146
PROJECT FILE NO. 608707			

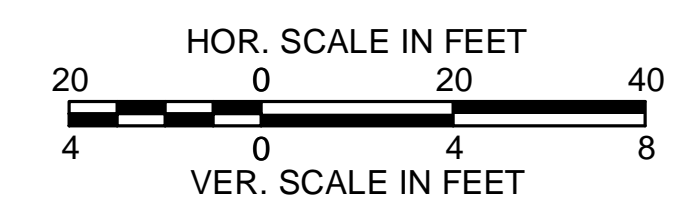
PROFILE

CONTINUED ON
SHEET NO. 27



Temp. Benchmark
Mag Nail Set
Elevation = 13.73
Sta. 24+01.02, 27.19, LT

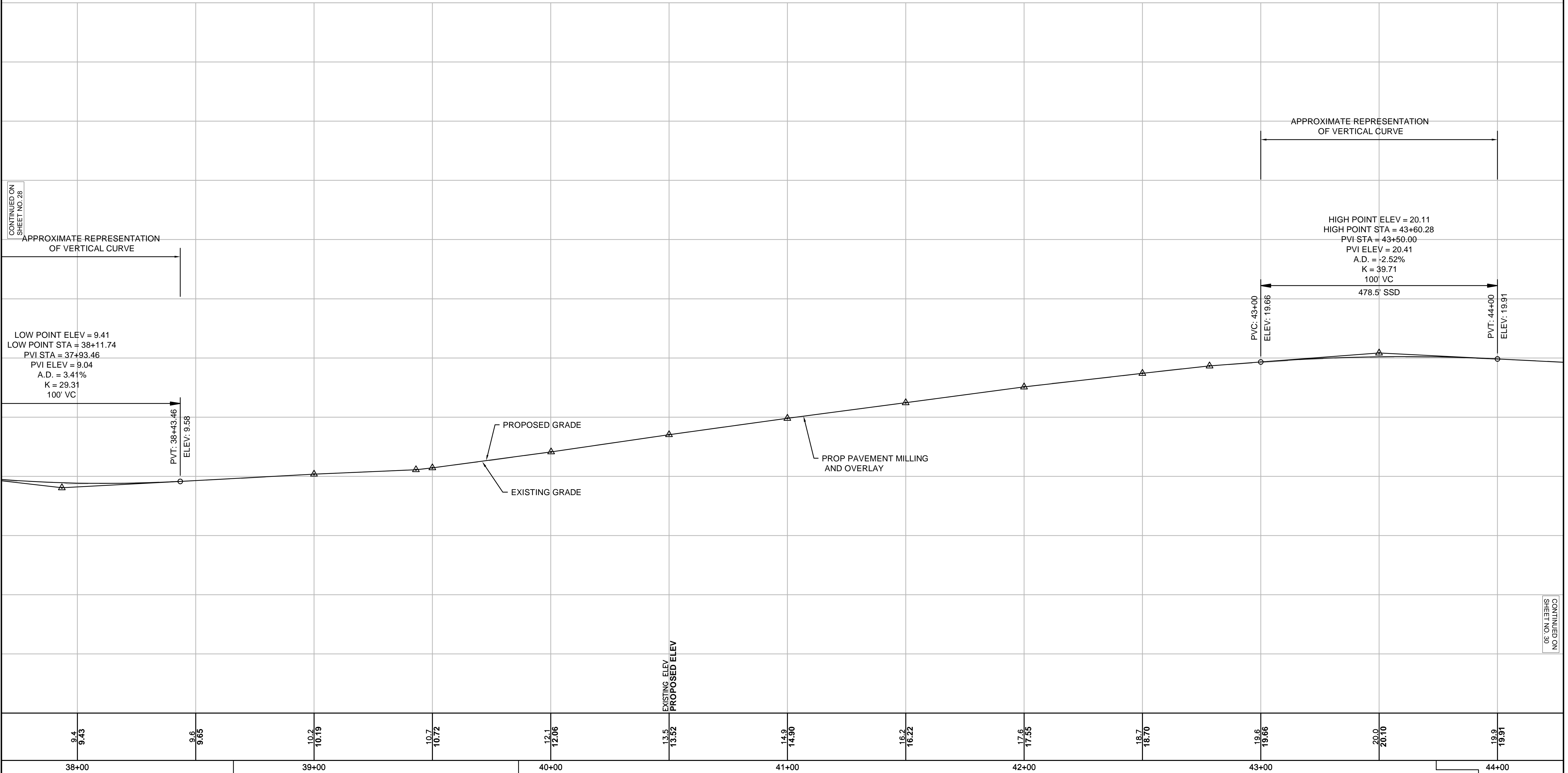
FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 10-11



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		29	146
PROJECT FILE NO.		608707	

PROFILE



CONTINUED ON
SHEET NO. 28

CONTINUED ON
SHEET NO. 30

LOW POINT ELEV = 9.41
LOW POINT STA = 38+11.74
PVI STA = 37+93.46
PVI ELEV = 9.04
A.D. = 3.41%
K = 29.31
100' VC

HIGH POINT ELEV = 20.11
HIGH POINT STA = 43+60.28
PVI STA = 43+50.00
PVI ELEV = 20.41
A.D. = -2.52%
K = 39.71
100' VC

PVT: 38+43.46
ELEV: 9.58

PVC: 43+00
ELEV: 19.66

PVT: 44+00
ELEV: 19.91

PROPOSED GRADE
EXISTING GRADE

PROP PAVEMENT MILLING
AND OVERLAY

EXISTING ELEV
PROPOSED ELEV

9.4
9.43
38+00

9.6
9.65
39+00

10.2
10.19
39+00

10.7
10.72
39+00

12.1
12.06
40+00

13.5
13.52
40+00

14.9
14.90
41+00

16.2
16.22
41+00

17.6
17.55
42+00

18.7
18.70
42+00

19.6
19.66
43+00

20.0
20.10
43+00

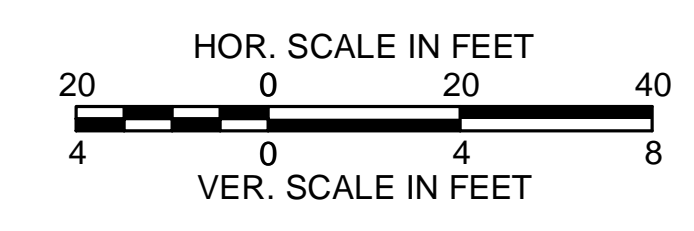
19.9
19.91
44+00

Temp. Benchmark
Mag Nail Set
Elevation = 9.19
Sta. 38+65.91, 24.79/RT

Benchmark
Bonnet Bolt on Hydrant
Elevation = 13.51 (MVD 88)
Sta. 39+66.40, 39.79/LT

Temp. Benchmark
Mag Nail Set
Elevation = 19.75
Sta. 43+74.17, 34.16/LT

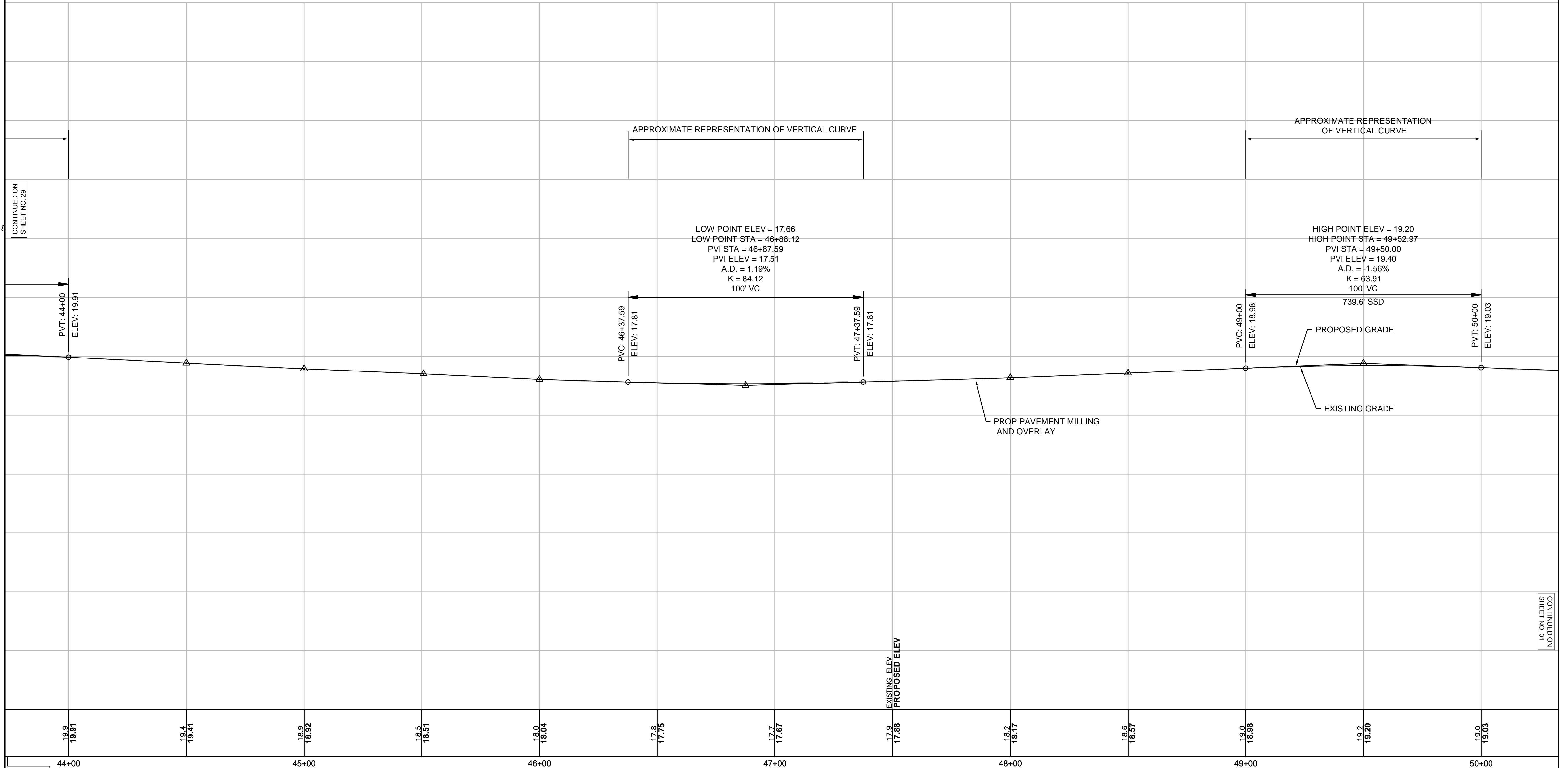
FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 11-12



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		30	146
PROJECT FILE NO. 608707			

PROFILE

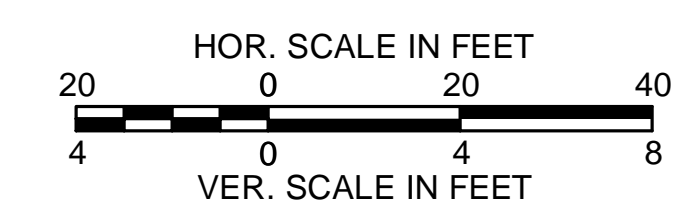


CONTINUED ON
SHEET NO. 29

CONTINUED ON
SHEET NO. 31

Temp. Benchmark
Mag Nail Set
Elevation = 19.75
Sta. 43+74.17, 34.16 LT

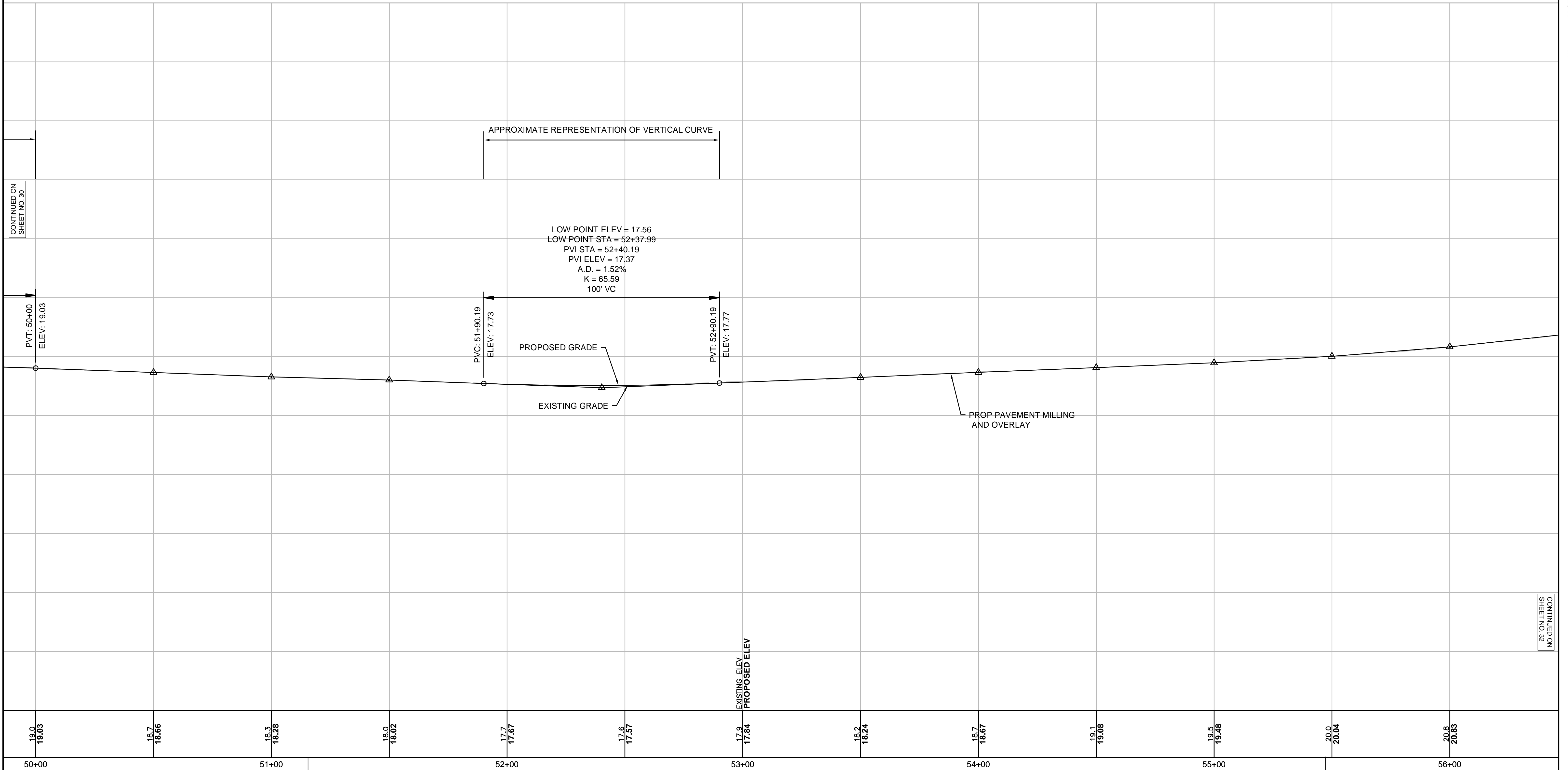
FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 12-13



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		31	146
PROJECT FILE NO.		608707	

PROFILE



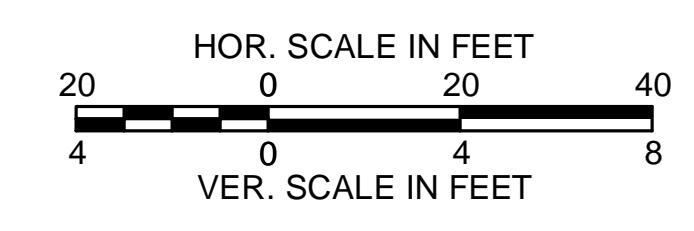
CONTINUED ON SHEET NO. 30

CONTINUED ON SHEET NO. 32

Temp. Benchmark
Mag Nail Set
Elevation = 17.37
Sta. 51+15.57, 27.98 LT

Temp. Benchmark
Mag Nail Set
Elevation = 21.48
Sta. 55+47.30, 106.63 RT

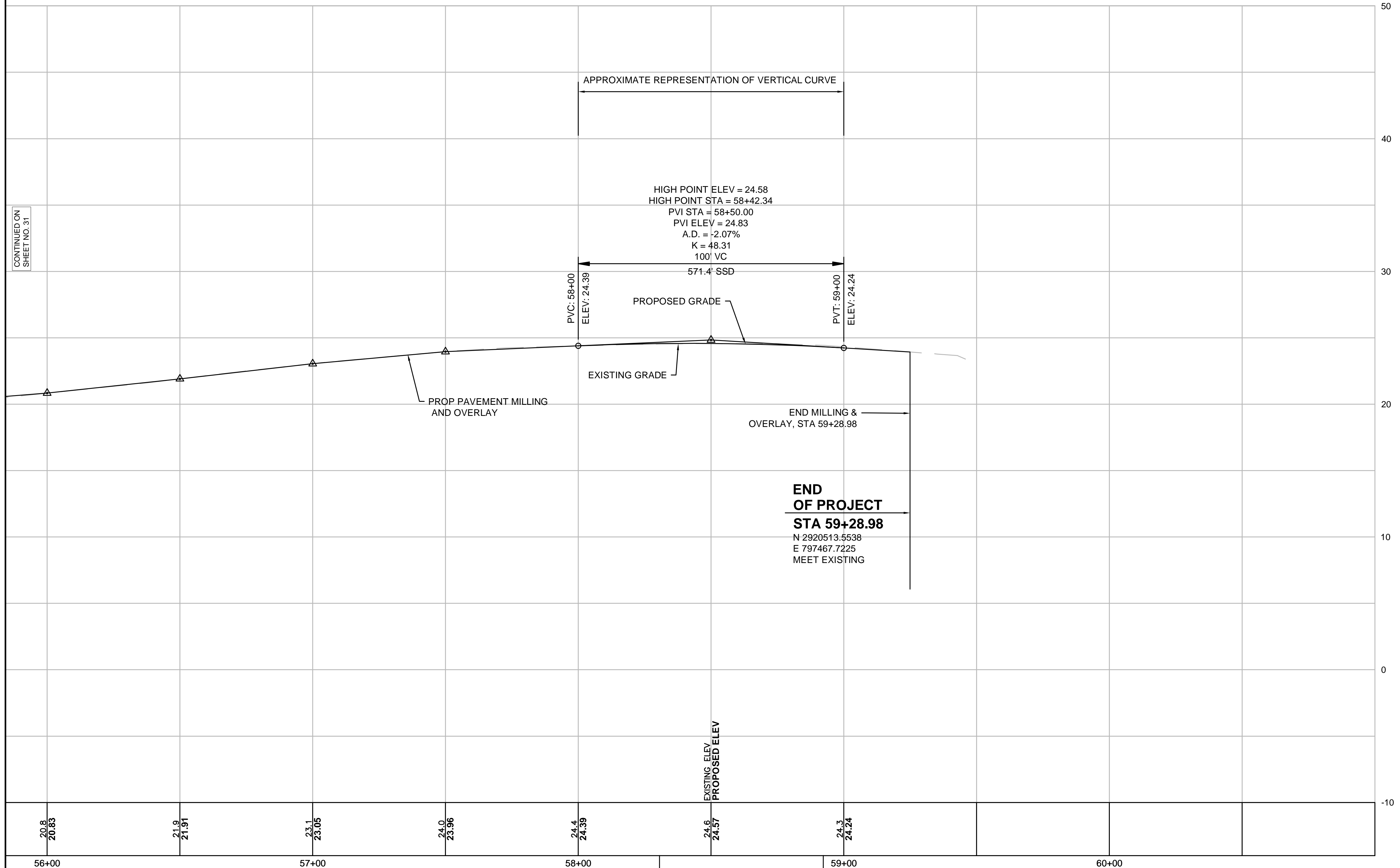
FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 13-15



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		32	146
PROJECT FILE NO.		608707	

PROFILE



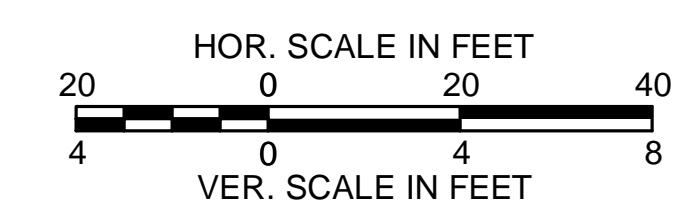
CONTINUED ON
SHEET NO. 31

**END
OF PROJECT**
STA 59+28.98
N 2920513.5538
E 797467.7225
MEET EXISTING

Benchmark
Bonnet Bolt on Hydrant
Elevation = 27.85' (NAVD'88)
Sta. 58+30.57, 117.92' RT

Temp. Benchmark
Mag Nail Set
Elevation = 23.95'
Sta. 58+62.22, 22.04' LT

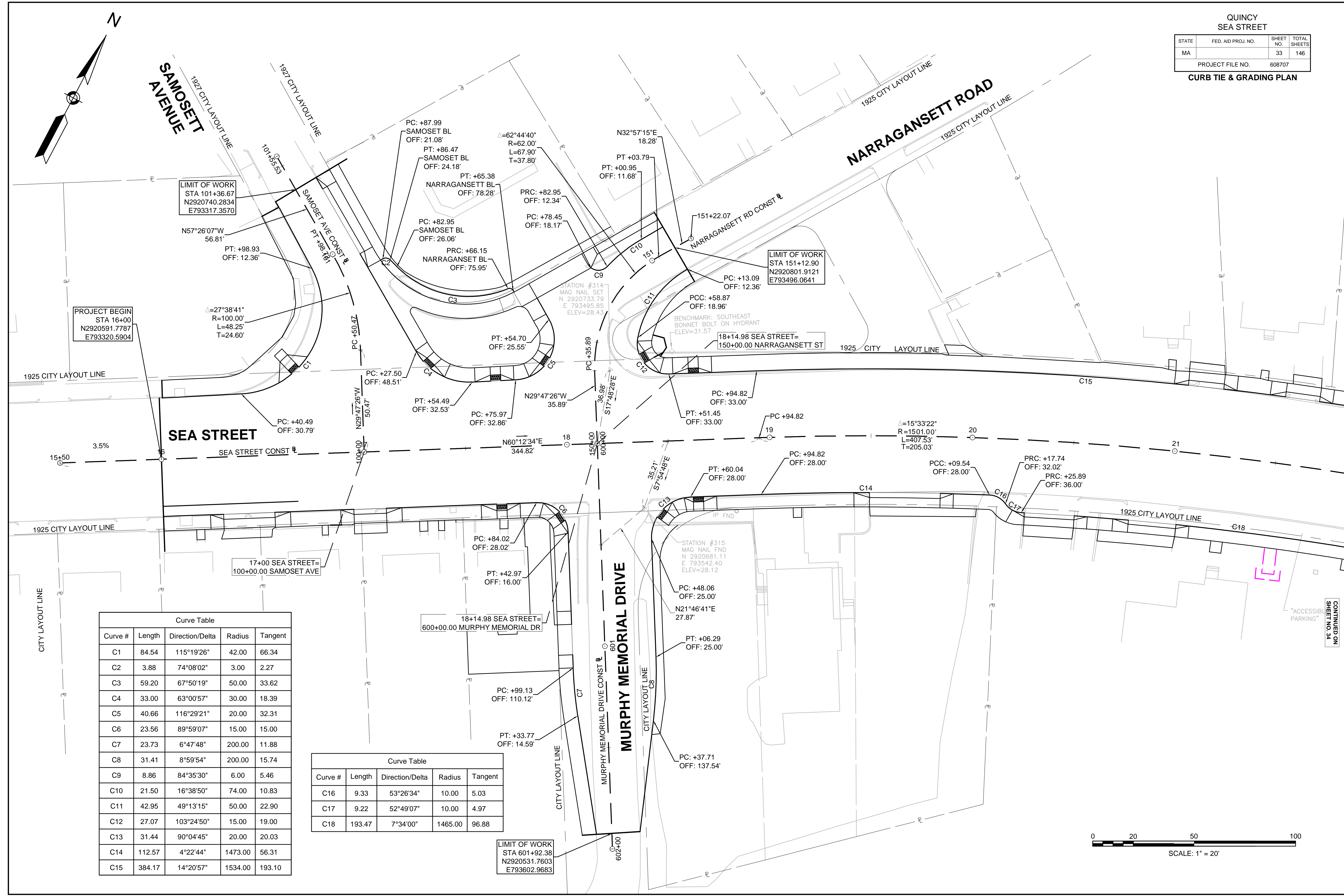
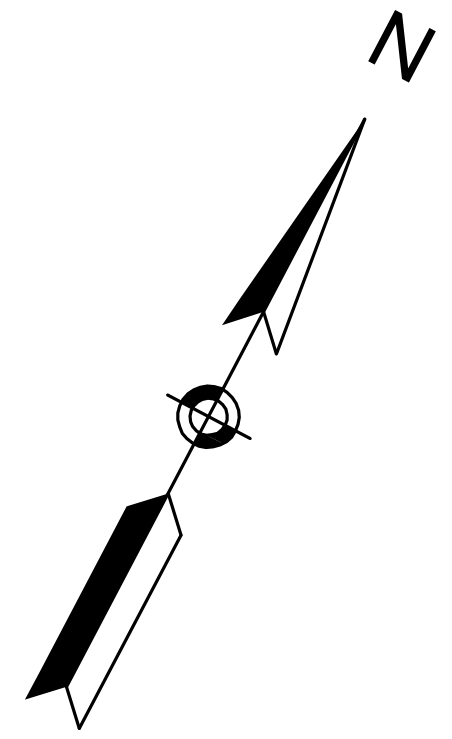
FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 12-13



QUINCY
SEA STREET

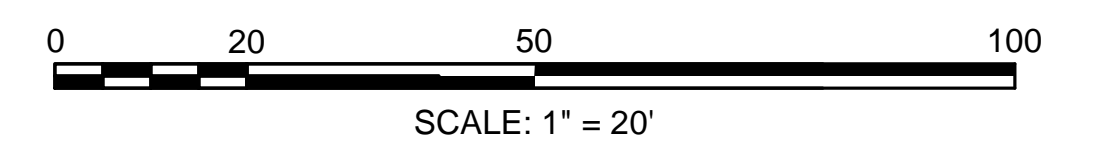
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		33	146

PROJECT FILE NO. 608707
CURB TIE & GRADING PLAN



Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C1	84.54	115°19'26"	42.00	66.34
C2	3.88	74°08'02"	3.00	2.27
C3	59.20	67°50'19"	50.00	33.62
C4	33.00	63°00'57"	30.00	18.39
C5	40.66	116°29'21"	20.00	32.31
C6	23.56	89°59'07"	15.00	15.00
C7	23.73	6°47'48"	200.00	11.88
C8	31.41	8°59'54"	200.00	15.74
C9	8.86	84°35'30"	6.00	5.46
C10	21.50	16°38'50"	74.00	10.83
C11	42.95	49°13'15"	50.00	22.90
C12	27.07	103°24'50"	15.00	19.00
C13	31.44	90°04'45"	20.00	20.03
C14	112.57	4°22'44"	1473.00	56.31
C15	384.17	14°20'57"	1534.00	193.10

Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C16	9.33	53°26'34"	10.00	5.03
C17	9.22	52°49'07"	10.00	4.97
C18	193.47	7°34'00"	1465.00	96.88

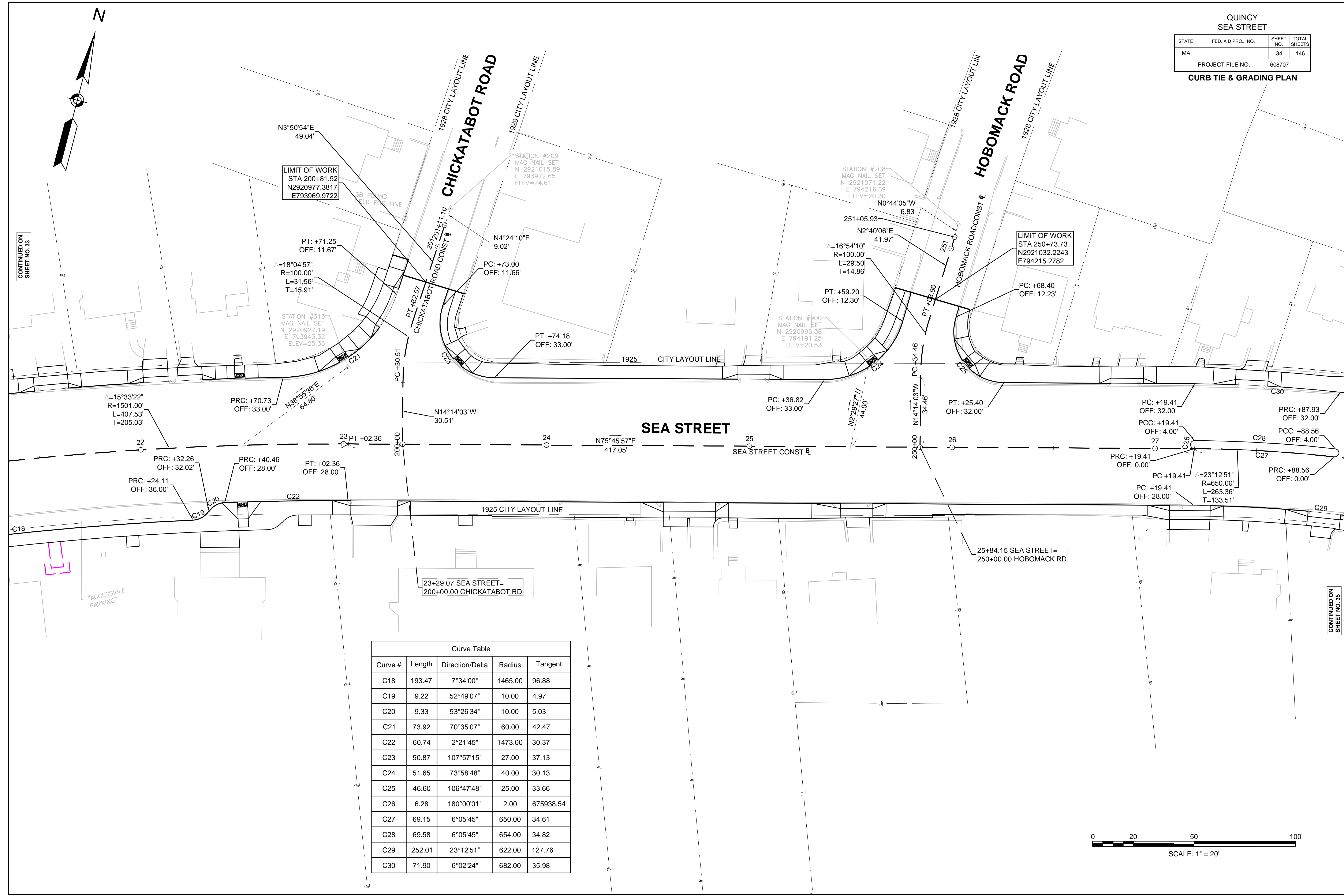


CONTINUED ON
SHEET NO. 34

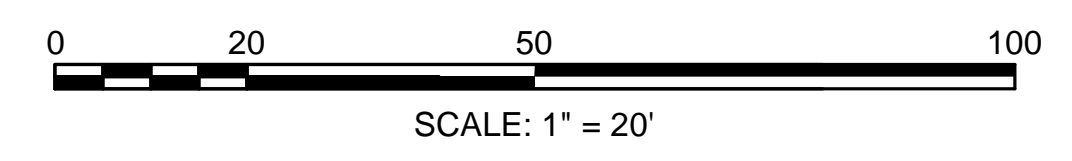
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		34	146
PROJECT FILE NO.		608707	

CURB TIE & GRADING PLAN



Curve #	Length	Direction/Delta	Radius	Tangent
C18	193.47	7°34'00"	1465.00	96.88
C19	9.22	52°49'07"	10.00	4.97
C20	9.33	53°26'34"	10.00	5.03
C21	73.92	70°35'07"	60.00	42.47
C22	60.74	2°21'45"	1473.00	30.37
C23	50.87	107°57'15"	27.00	37.13
C24	51.65	73°58'48"	40.00	30.13
C25	46.60	106°47'48"	25.00	33.66
C26	6.28	180°00'01"	2.00	675938.54
C27	69.15	6°05'45"	650.00	34.61
C28	69.58	6°05'45"	654.00	34.82
C29	252.01	23°12'51"	622.00	127.76
C30	71.90	6°02'24"	682.00	35.98



CONTINUED ON
SHEET NO. 33

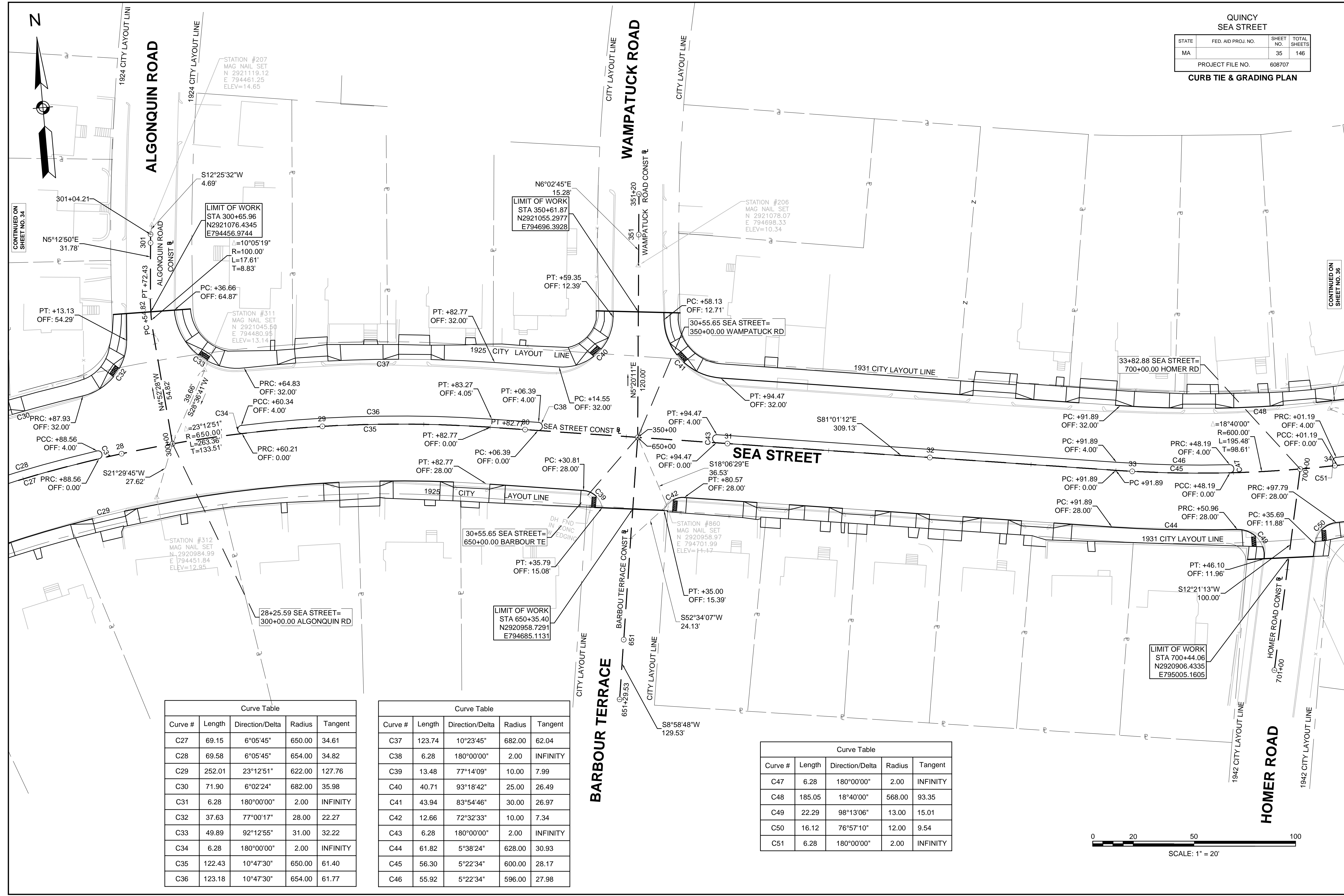
CONTINUED ON
SHEET NO. 35

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		35	146

PROJECT FILE NO. 608707

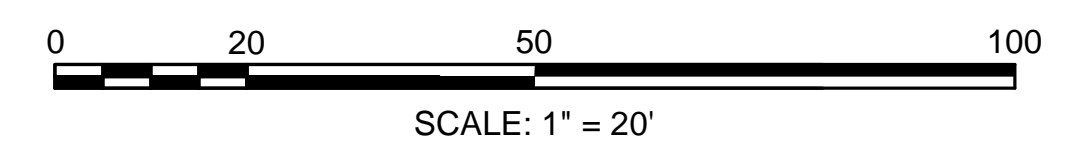
CURB TIE & GRADING PLAN



Curve #	Length	Direction/Delta	Radius	Tangent
C27	69.15	6°05'45"	650.00	34.61
C28	69.58	6°05'45"	654.00	34.82
C29	252.01	23°12'51"	622.00	127.76
C30	71.90	6°02'24"	682.00	35.98
C31	6.28	180°00'00"	2.00	INFINITY
C32	37.63	77°00'17"	28.00	22.27
C33	49.89	92°12'55"	31.00	32.22
C34	6.28	180°00'00"	2.00	INFINITY
C35	122.43	10°47'30"	650.00	61.40
C36	123.18	10°47'30"	654.00	61.77

Curve #	Length	Direction/Delta	Radius	Tangent
C37	123.74	10°23'45"	682.00	62.04
C38	6.28	180°00'00"	2.00	INFINITY
C39	13.48	77°14'09"	10.00	7.99
C40	40.71	93°18'42"	25.00	26.49
C41	43.94	83°54'46"	30.00	26.97
C42	12.66	72°32'33"	10.00	7.34
C43	6.28	180°00'00"	2.00	INFINITY
C44	61.82	5°38'24"	628.00	30.93
C45	56.30	5°22'34"	600.00	28.17
C46	55.92	5°22'34"	596.00	27.98

Curve #	Length	Direction/Delta	Radius	Tangent
C47	6.28	180°00'00"	2.00	INFINITY
C48	185.05	18°40'00"	568.00	93.35
C49	22.29	98°13'06"	13.00	15.01
C50	16.12	76°57'10"	12.00	9.54
C51	6.28	180°00'00"	2.00	INFINITY



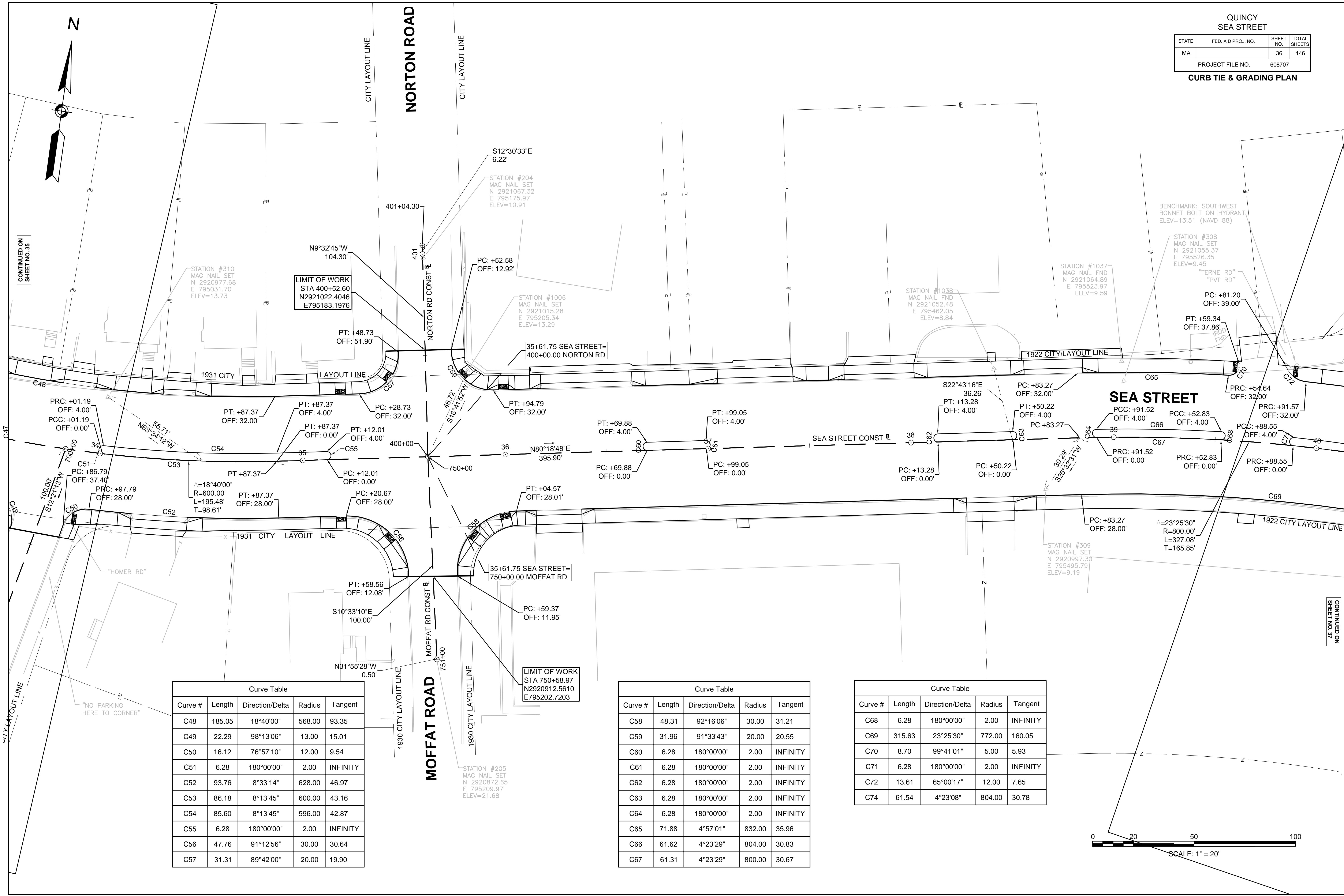
CONTINUED ON
SHEET NO. 34

CONTINUED ON
SHEET NO. 36

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		36	146
PROJECT FILE NO. 608707			

CURB TIE & GRADING PLAN



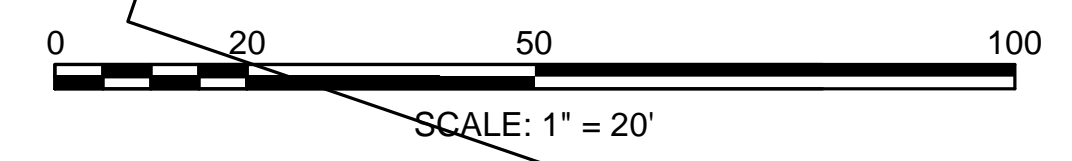
CONTINUED ON
SHEET NO. 35

CONTINUED ON
SHEET NO. 37

Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C48	185.05	18°40'00"	568.00	93.35
C49	22.29	98°13'06"	13.00	15.01
C50	16.12	76°57'10"	12.00	9.54
C51	6.28	180°00'00"	2.00	INFINITY
C52	93.76	8°33'14"	628.00	46.97
C53	86.18	8°13'45"	600.00	43.16
C54	85.60	8°13'45"	596.00	42.87
C55	6.28	180°00'00"	2.00	INFINITY
C56	47.76	91°12'56"	30.00	30.64
C57	31.31	89°42'00"	20.00	19.90

Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C58	48.31	92°16'06"	30.00	31.21
C59	31.96	91°33'43"	20.00	20.55
C60	6.28	180°00'00"	2.00	INFINITY
C61	6.28	180°00'00"	2.00	INFINITY
C62	6.28	180°00'00"	2.00	INFINITY
C63	6.28	180°00'00"	2.00	INFINITY
C64	6.28	180°00'00"	2.00	INFINITY
C65	71.88	4°57'01"	832.00	35.96
C66	61.62	4°23'29"	804.00	30.83
C67	61.31	4°23'29"	800.00	30.67

Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C68	6.28	180°00'00"	2.00	INFINITY
C69	315.63	23°25'30"	772.00	160.05
C70	8.70	99°41'01"	5.00	5.93
C71	6.28	180°00'00"	2.00	INFINITY
C72	13.61	65°00'17"	12.00	7.65
C74	61.54	4°23'08"	804.00	30.78



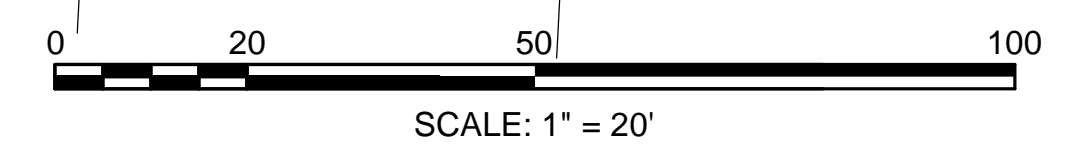
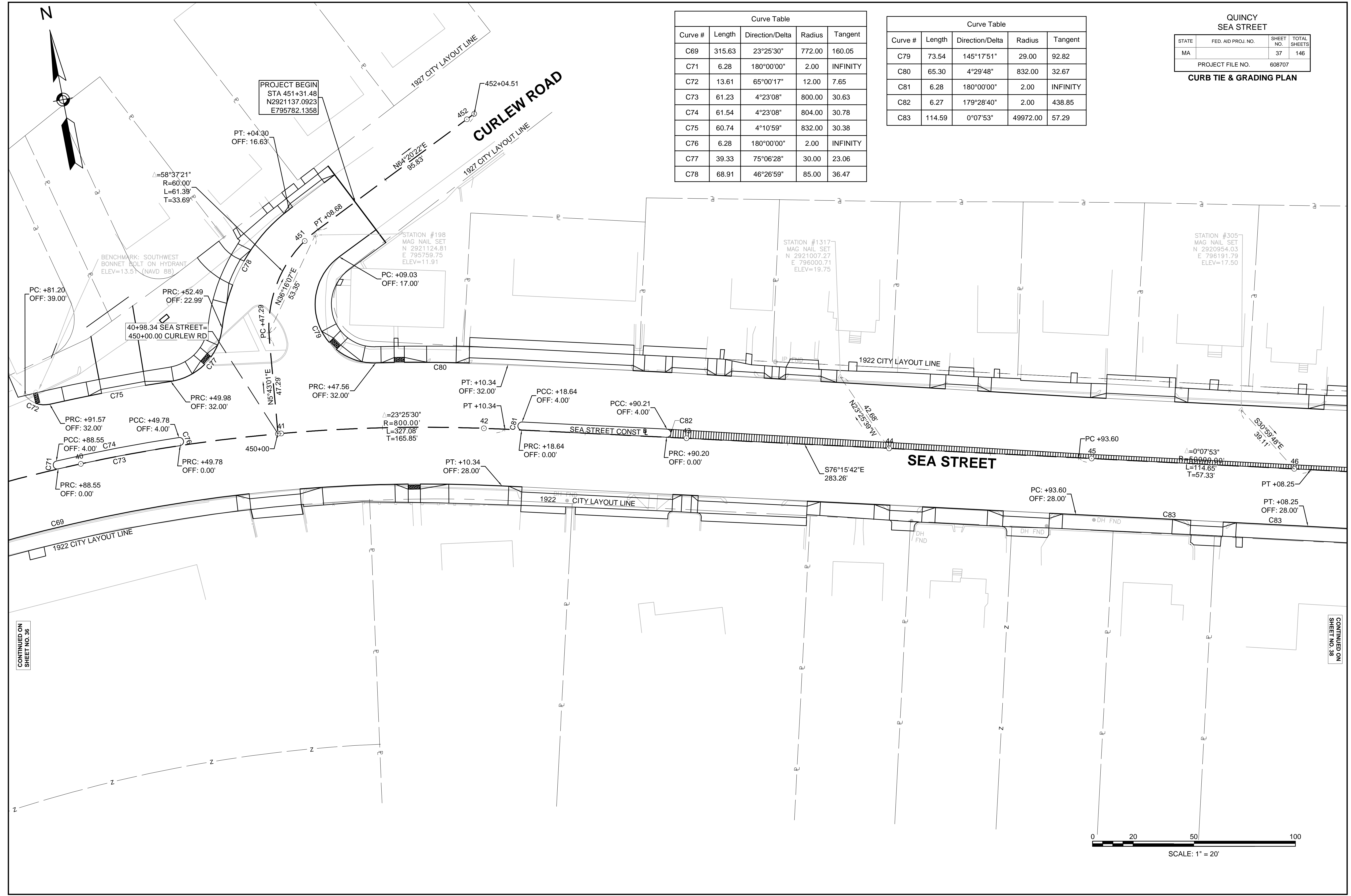
QUINCY
SEA STREET
CURB TIE & GRADING PLAN

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		37	146

PROJECT FILE NO. 608707

Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C69	315.63	23°25'30"	772.00	160.05
C71	6.28	180°00'00"	2.00	INFINITY
C72	13.61	65°00'17"	12.00	7.65
C73	61.23	4°23'08"	800.00	30.63
C74	61.54	4°23'08"	804.00	30.78
C75	60.74	4°10'59"	832.00	30.38
C76	6.28	180°00'00"	2.00	INFINITY
C77	39.33	75°06'28"	30.00	23.06
C78	68.91	46°26'59"	85.00	36.47

Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C79	73.54	145°17'51"	29.00	92.82
C80	65.30	4°29'48"	832.00	32.67
C81	6.28	180°00'00"	2.00	INFINITY
C82	6.27	179°28'40"	2.00	438.85
C83	114.59	0°07'53"	49972.00	57.29



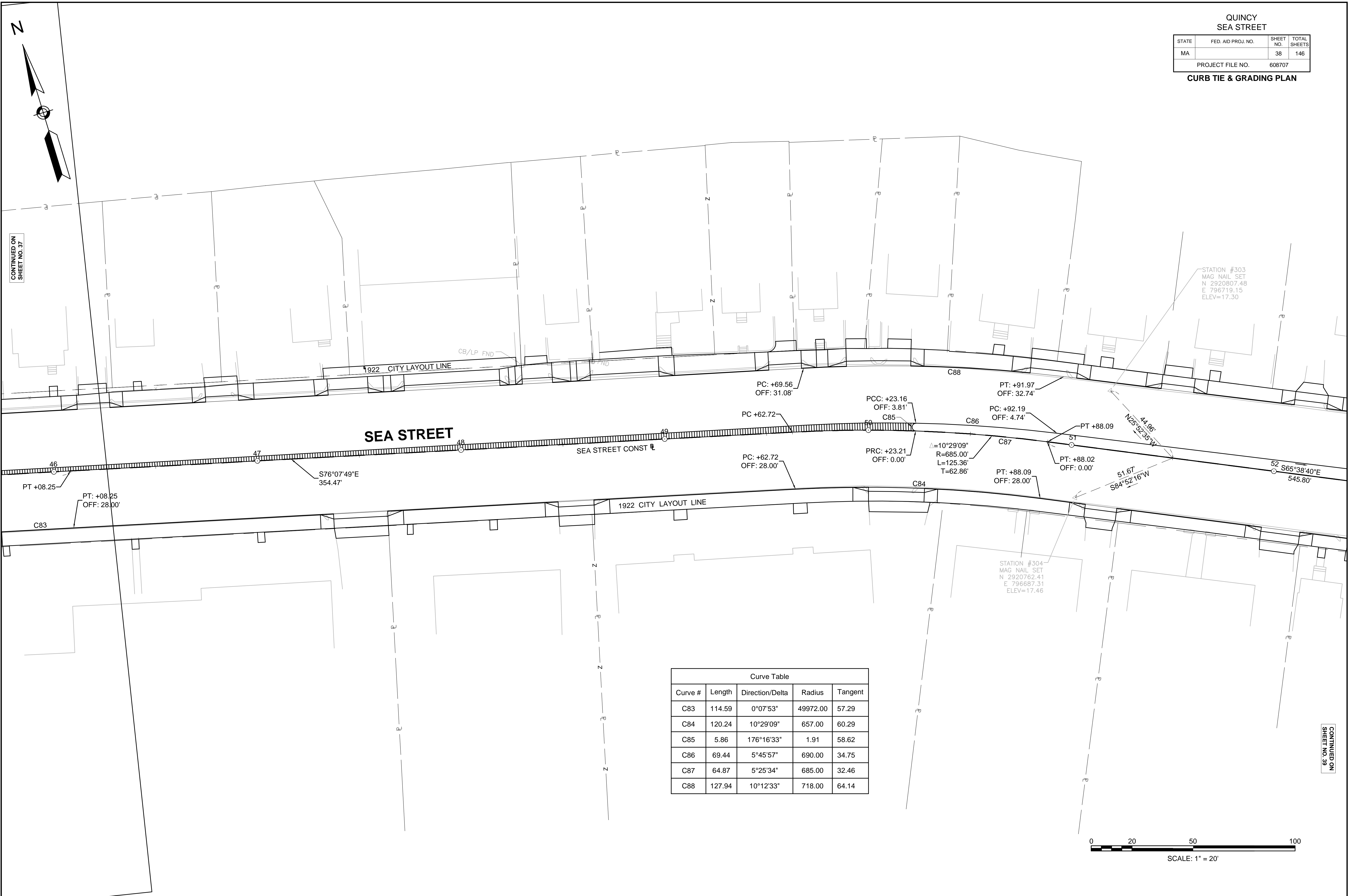
CONTINUED ON
SHEET NO. 36

CONTINUED ON
SHEET NO. 38

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		38	146
PROJECT FILE NO.		608707	

CURB TIE & GRADING PLAN



Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C83	114.59	0°07'53"	49972.00	57.29
C84	120.24	10°29'09"	657.00	60.29
C85	5.86	176°16'33"	1.91	58.62
C86	69.44	5°45'57"	690.00	34.75
C87	64.87	5°25'34"	685.00	32.46
C88	127.94	10°12'33"	718.00	64.14

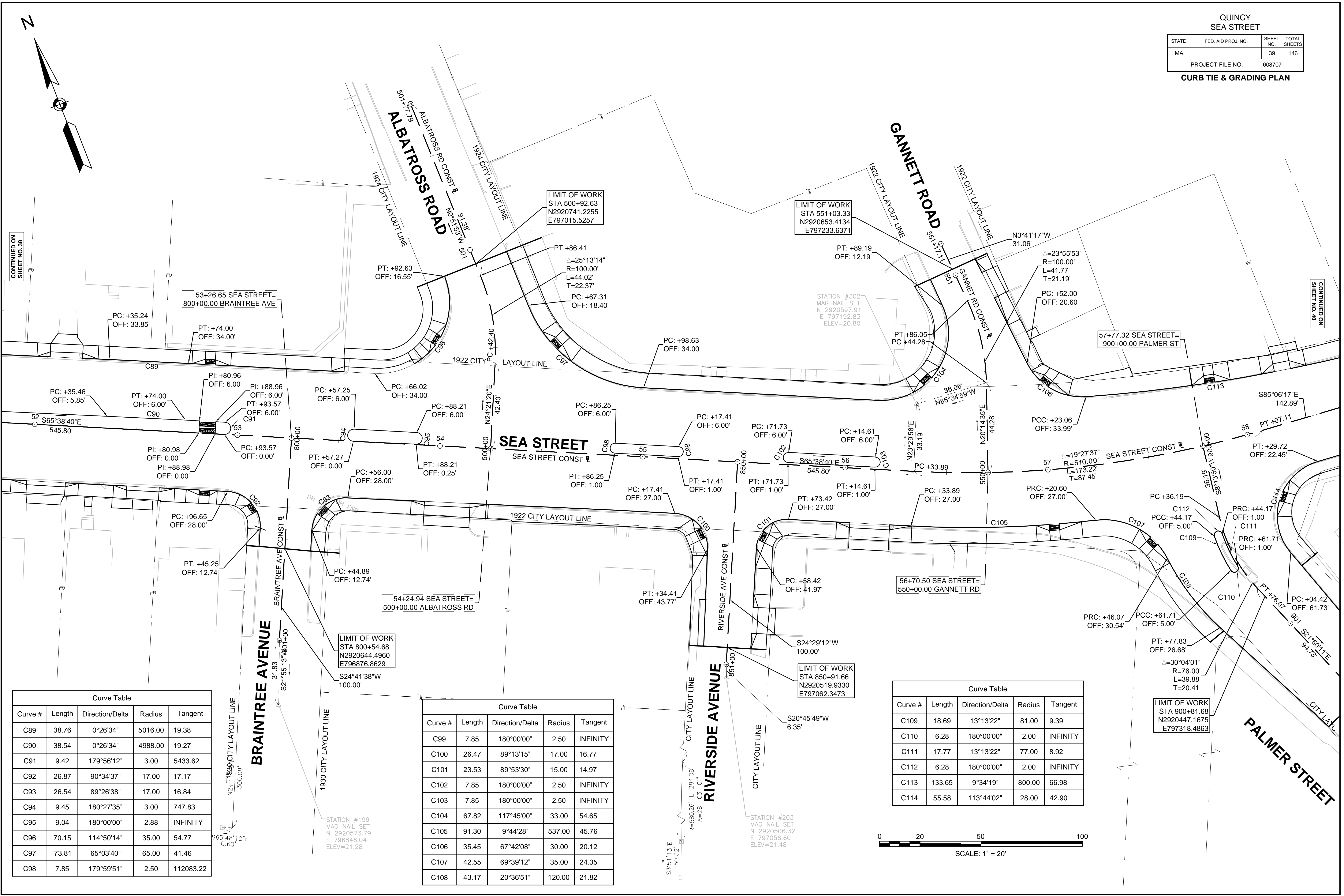
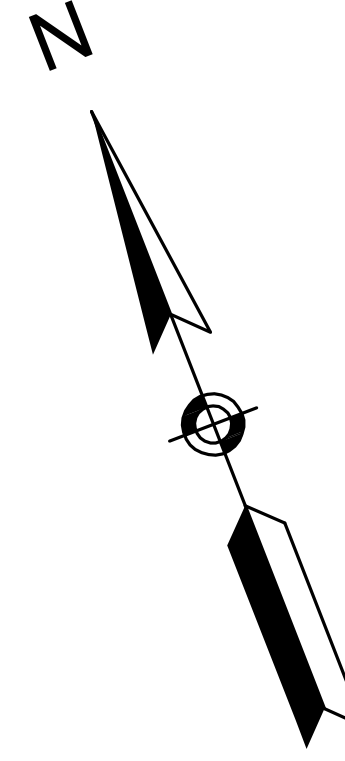
CONTINUED ON
SHEET NO. 37

CONTINUED ON
SHEET NO. 39

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		39	146

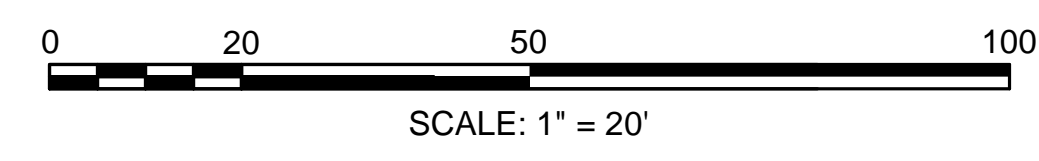
PROJECT FILE NO. 608707
CURB TIE & GRADING PLAN



Curve #	Length	Direction/Delta	Radius	Tangent
C89	38.76	0°26'34"	5016.00	19.38
C90	38.54	0°26'34"	4988.00	19.27
C91	9.42	179°56'12"	3.00	5433.62
C92	26.87	90°34'37"	17.00	17.17
C93	26.54	89°26'38"	17.00	16.84
C94	9.45	180°27'35"	3.00	747.83
C95	9.04	180°00'00"	2.88	INFINITY
C96	70.15	114°50'14"	35.00	54.77
C97	73.81	65°03'40"	65.00	41.46
C98	7.85	179°59'51"	2.50	112083.22

Curve #	Length	Direction/Delta	Radius	Tangent
C99	7.85	180°00'00"	2.50	INFINITY
C100	26.47	89°13'15"	17.00	16.77
C101	23.53	89°53'30"	15.00	14.97
C102	7.85	180°00'00"	2.50	INFINITY
C103	7.85	180°00'00"	2.50	INFINITY
C104	67.82	117°45'00"	33.00	54.65
C105	91.30	9°44'28"	537.00	45.76
C106	35.45	67°42'08"	30.00	20.12
C107	42.55	69°39'12"	35.00	24.35
C108	43.17	20°36'51"	120.00	21.82

Curve #	Length	Direction/Delta	Radius	Tangent
C109	18.69	13°13'22"	81.00	9.39
C110	6.28	180°00'00"	2.00	INFINITY
C111	17.77	13°13'22"	77.00	8.92
C112	6.28	180°00'00"	2.00	INFINITY
C113	133.65	9°34'19"	800.00	66.98
C114	55.58	113°44'02"	28.00	42.90



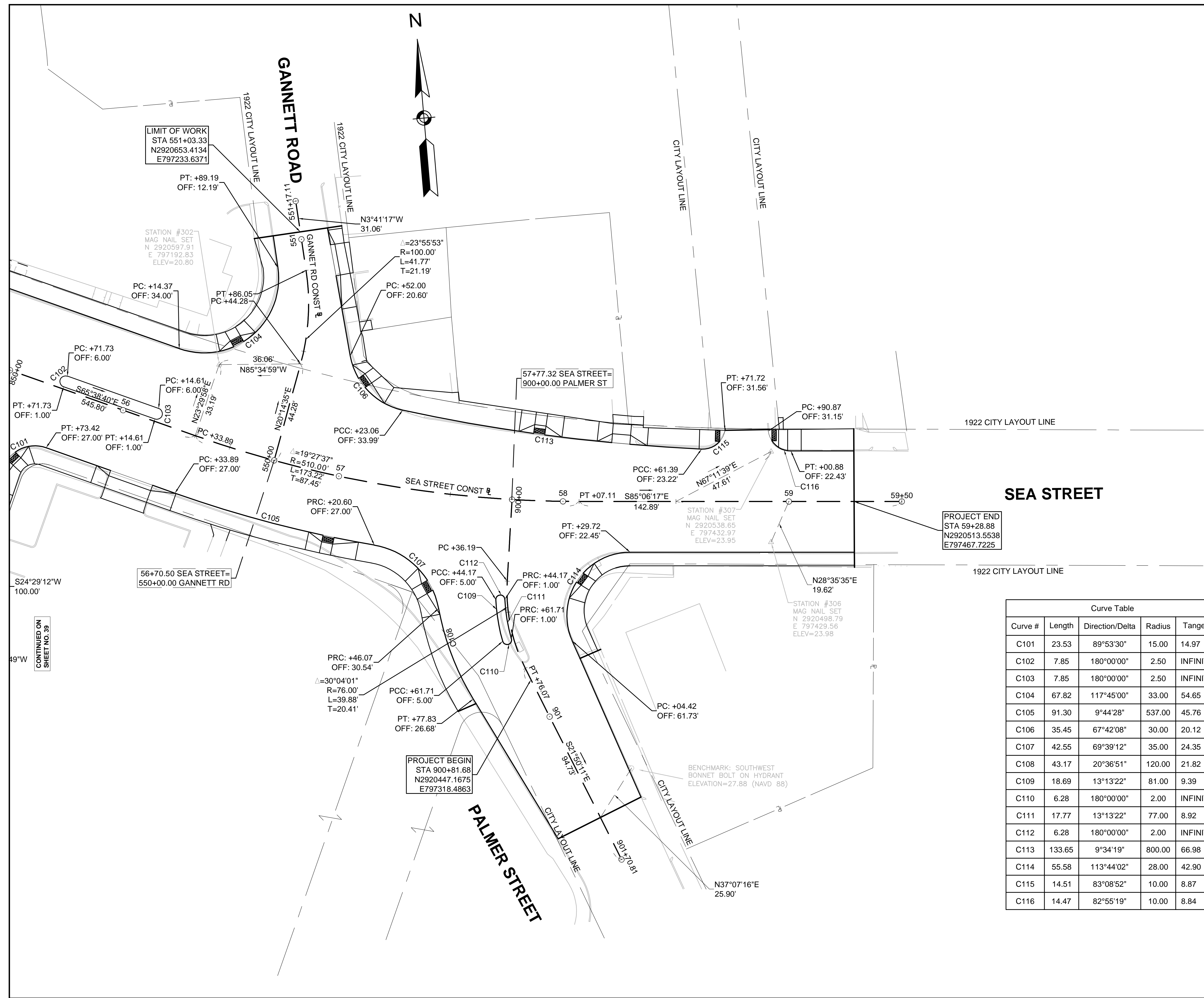
CONTINUED ON SHEET NO. 38

CONTINUED ON SHEET NO. 40

QUINCY
SEA STREET

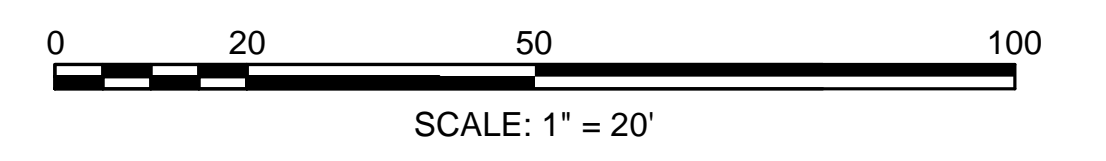
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		40	146
PROJECT FILE NO. 608707			

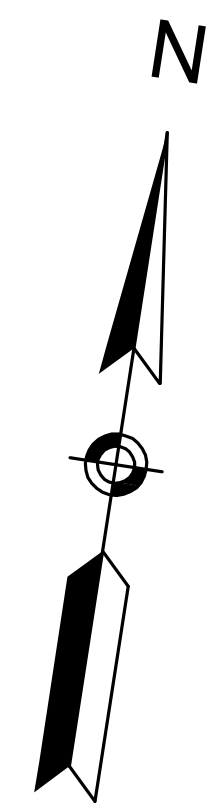
CURB TIE & GRADING PLAN



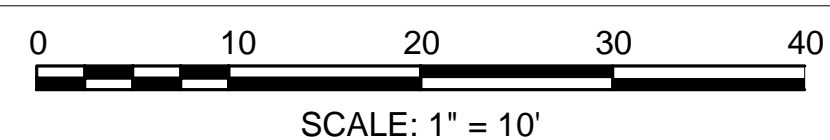
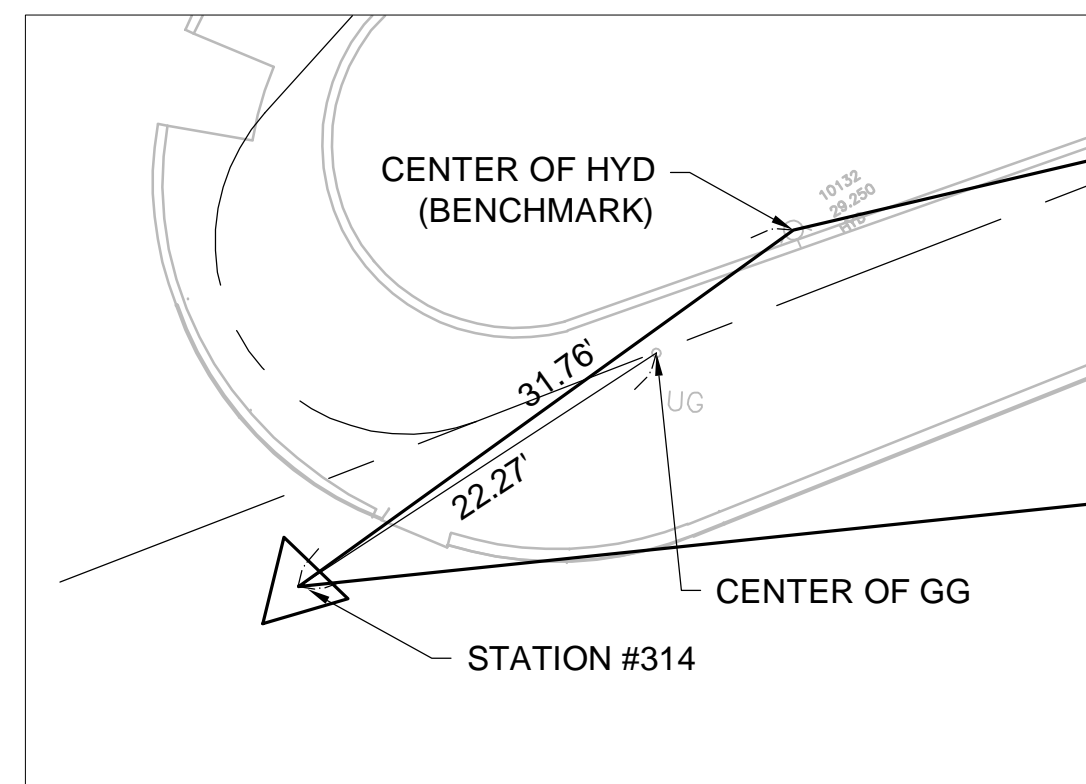
SEA STREET

Curve Table				
Curve #	Length	Direction/Delta	Radius	Tangent
C101	23.53	89°53'30"	15.00	14.97
C102	7.85	180°00'00"	2.50	INFINITY
C103	7.85	180°00'00"	2.50	INFINITY
C104	67.82	117°45'00"	33.00	54.65
C105	91.30	9°44'28"	537.00	45.76
C106	35.45	67°42'08"	30.00	20.12
C107	42.55	69°39'12"	35.00	24.35
C108	43.17	20°36'51"	120.00	21.82
C109	18.69	13°13'22"	81.00	9.39
C110	6.28	180°00'00"	2.00	INFINITY
C111	17.77	13°13'22"	77.00	8.92
C112	6.28	180°00'00"	2.00	INFINITY
C113	133.65	9°34'19"	800.00	66.98
C114	55.58	113°44'02"	28.00	42.90
C115	14.51	83°08'52"	10.00	8.87
C116	14.47	82°55'19"	10.00	8.84

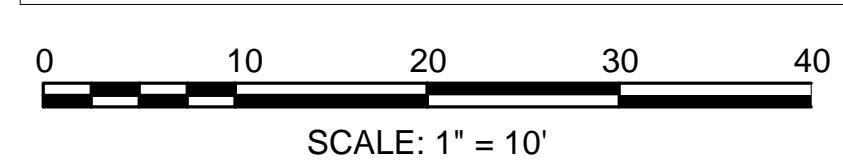
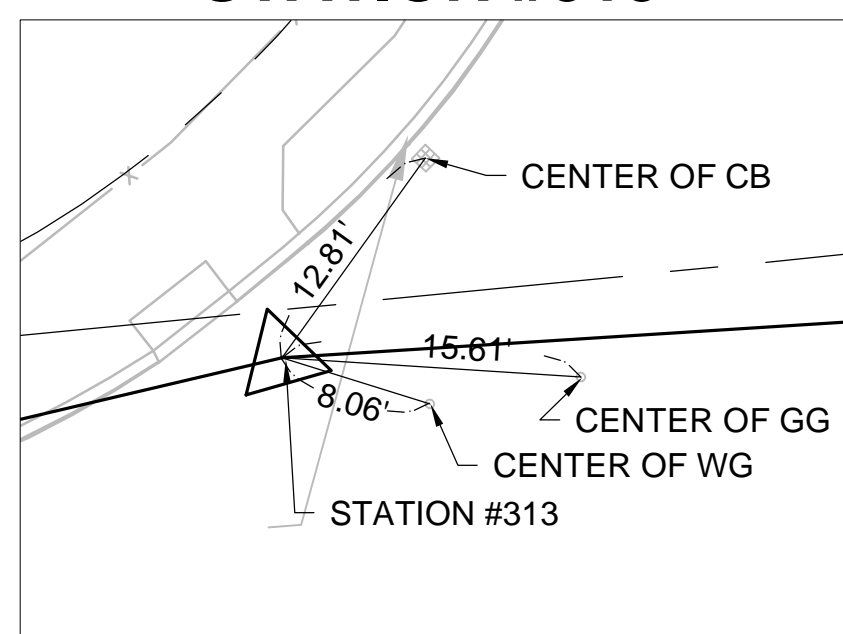




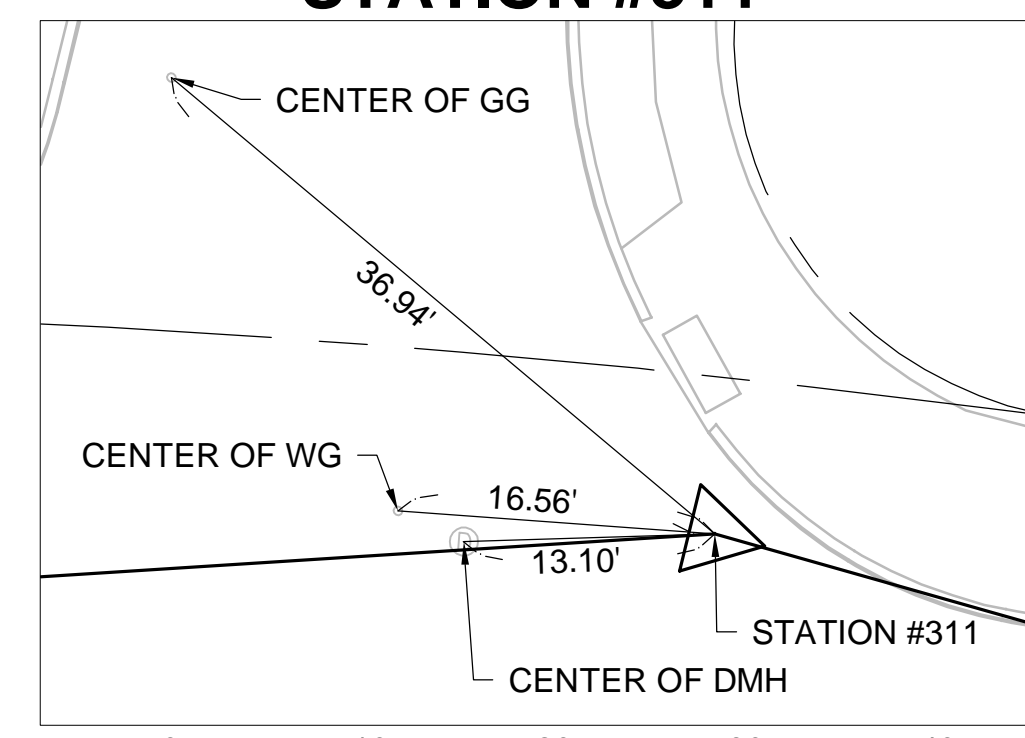
STATION #314



STATION #313



STATION #311



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		41	146

PROJECT FILE NO. 608707

SURVEY CONTROL PLAN

BENCHMARK: SOUTHEAST BONNET BOLT ON HYDRANT
ELEV=31.57

STATION #314
MAG NAIL SET
N 2920733.79
E 793495.85
ELEV=28.43

STATION #209
MAG NAIL SET
N 2921015.89
E 793972.65
ELEV=24.61

STATION #313
MAG NAIL SET
N 2920927.19
E 793943.32
ELEV=25.35

STATION #208
MAG NAIL SET
N 2921071.22
E 794216.69
ELEV=20.30

STATION #900
MAG NAIL SET
N 2920995.38
E 794191.25
ELEV=20.53

STATION #207
MAG NAIL SET
N 2921119.12
E 794461.25
ELEV=14.65

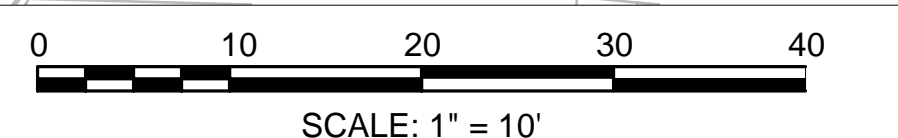
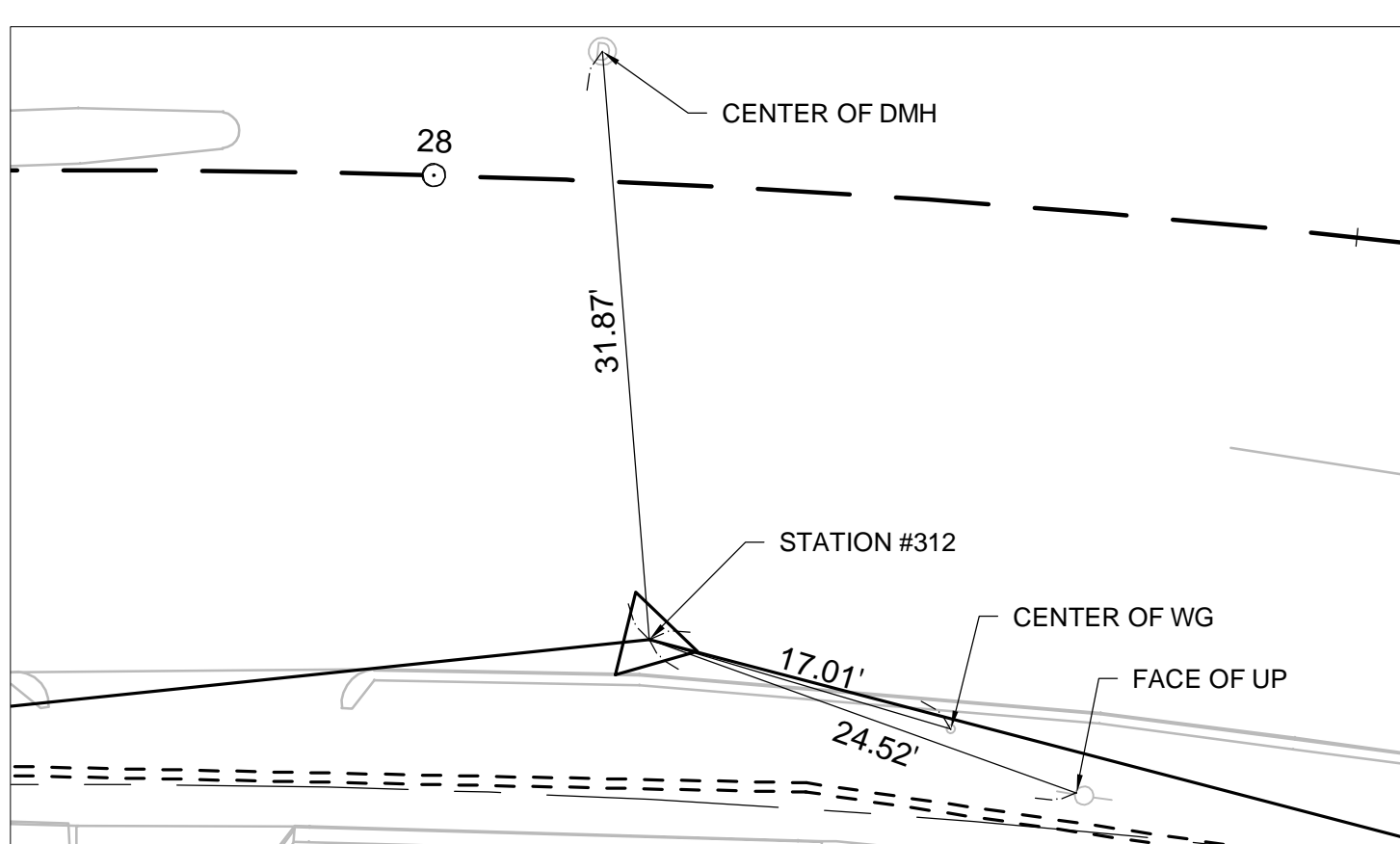
STATION #311
MAG NAIL SET
N 2921045.50
E 794480.95
ELEV=13.14

STATION #206
MAG NAIL SET
N 2921078.07
E 794698.33
ELEV=10.34

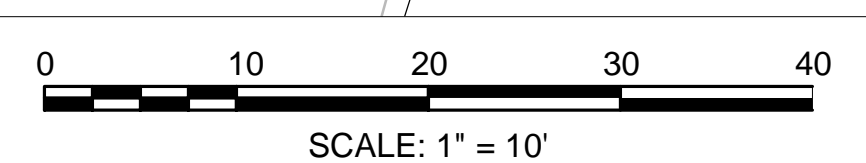
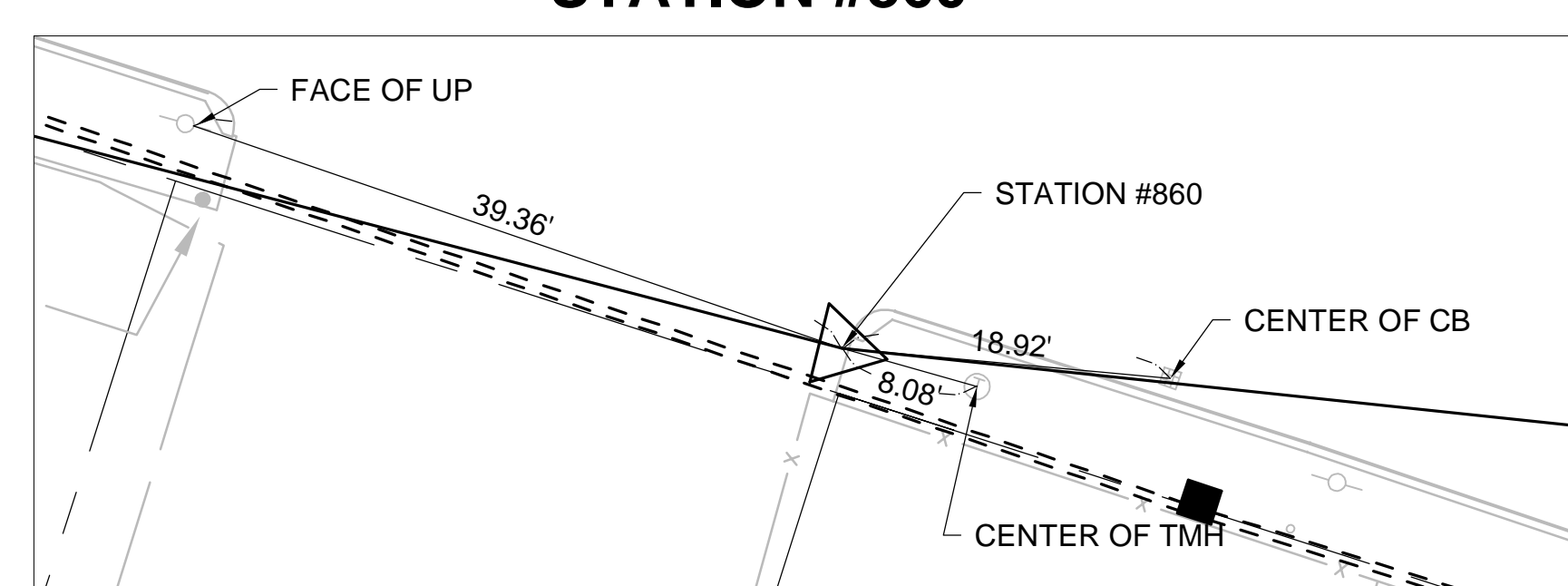
STATION #310
MAG NAIL SET
N 2920977.68
E 795031.70
ELEV=13.73

STATION #315
MAG NAIL FND
N 2920681.11
E 793542.40
ELEV=28.12

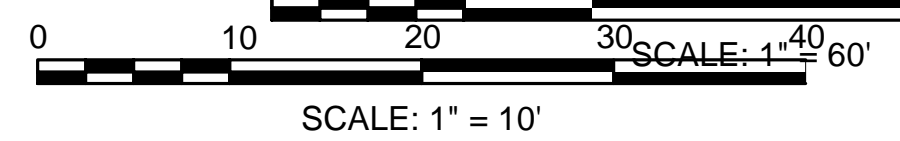
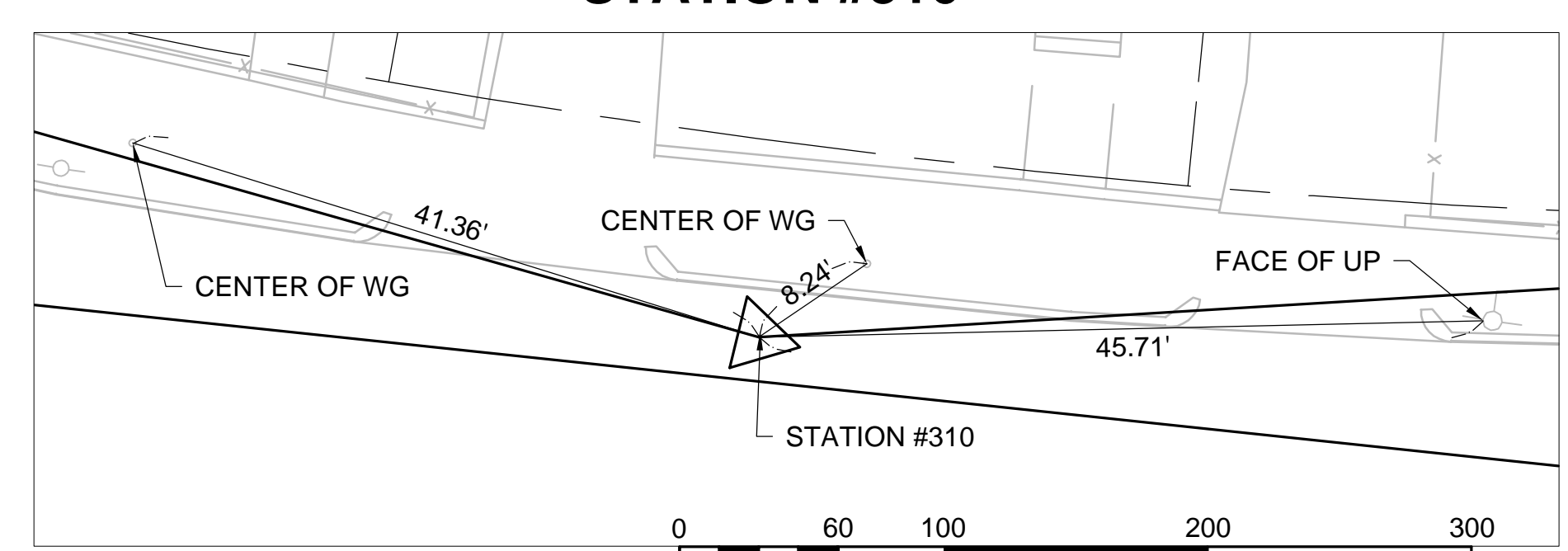
STATION #312



STATION #860

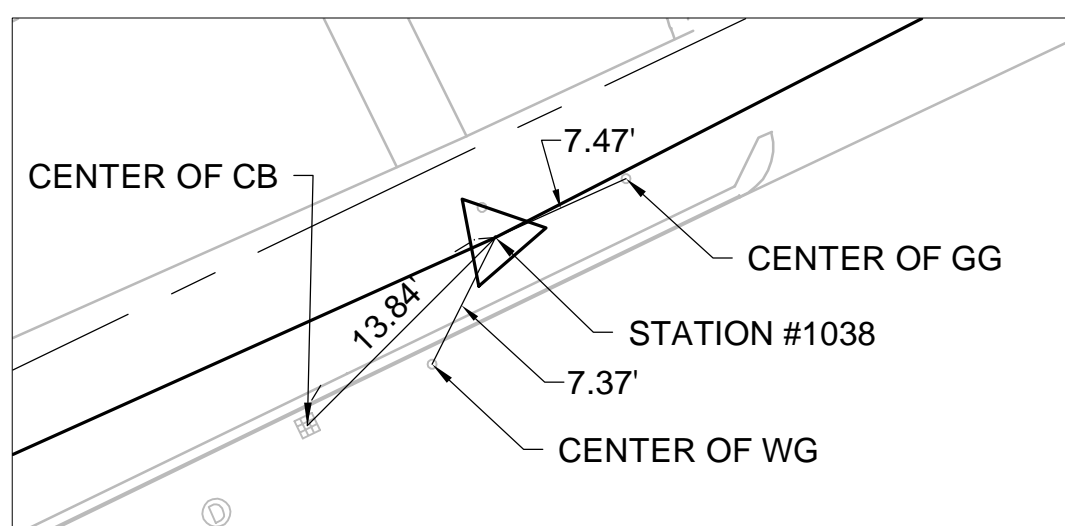


STATION #310

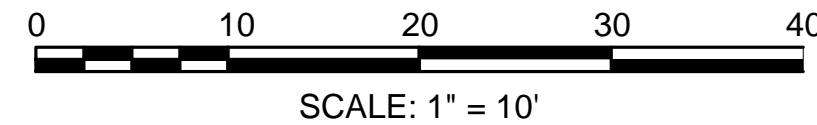
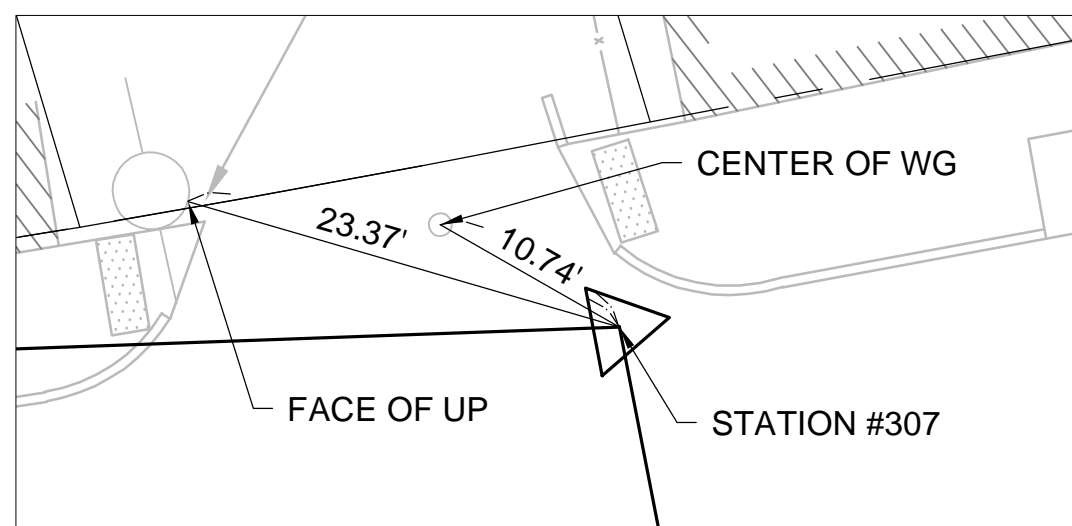


CONTINUED ON
SHEET NO. 42

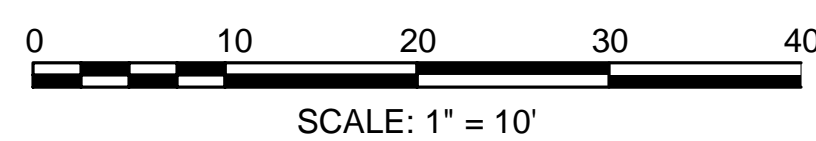
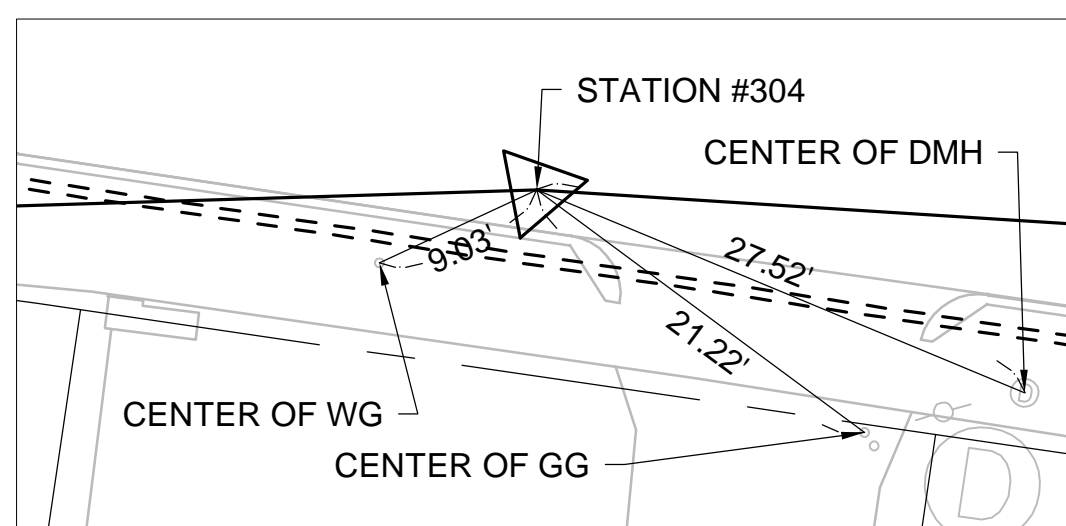
STATION #1038



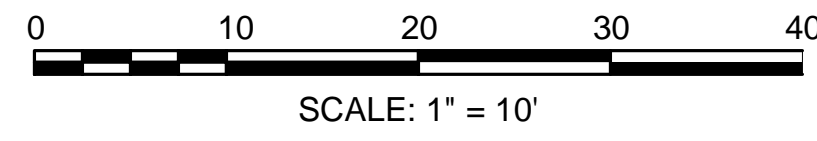
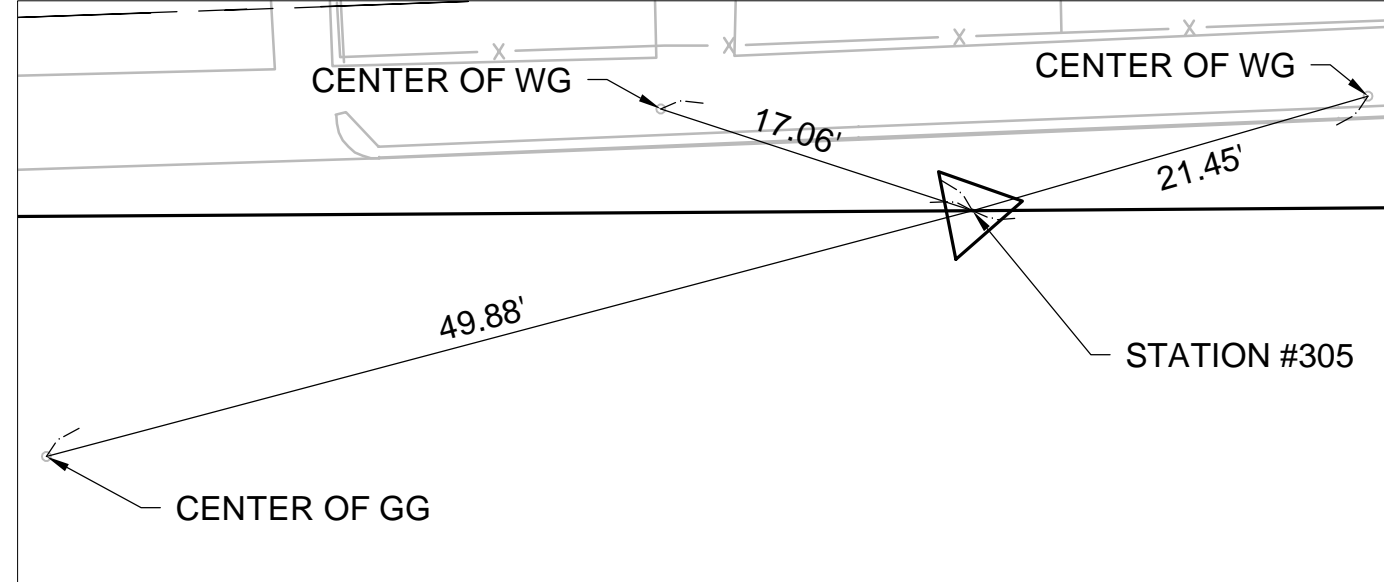
STATION #307



STATION #304



STATION #305

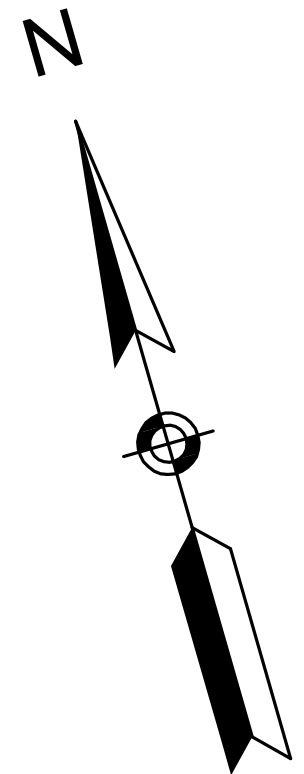


QUINCY
SEA STREET

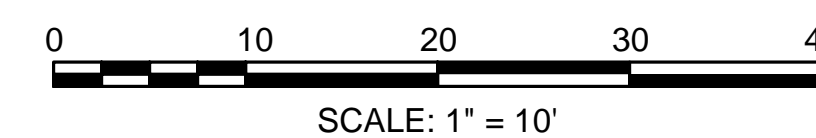
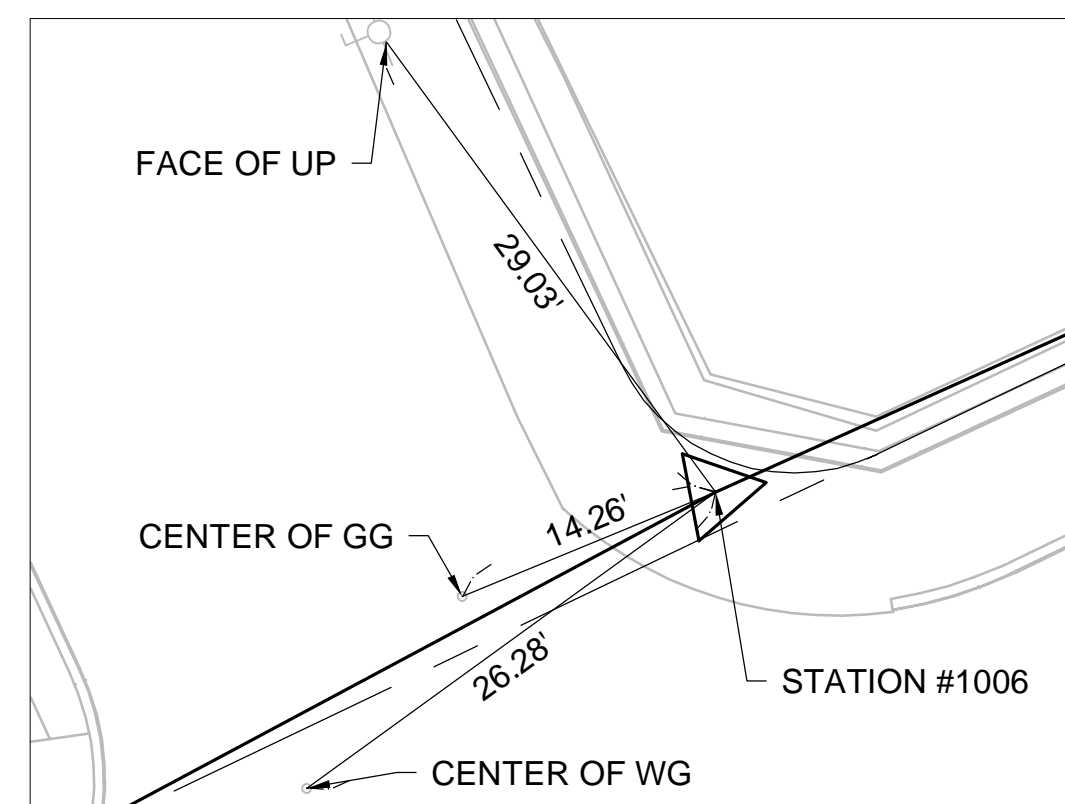
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		42	146

PROJECT FILE NO. 608707

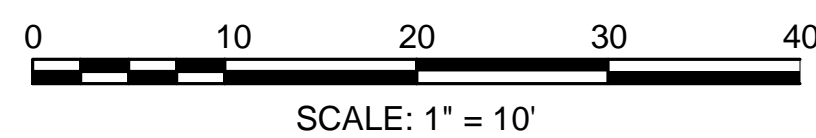
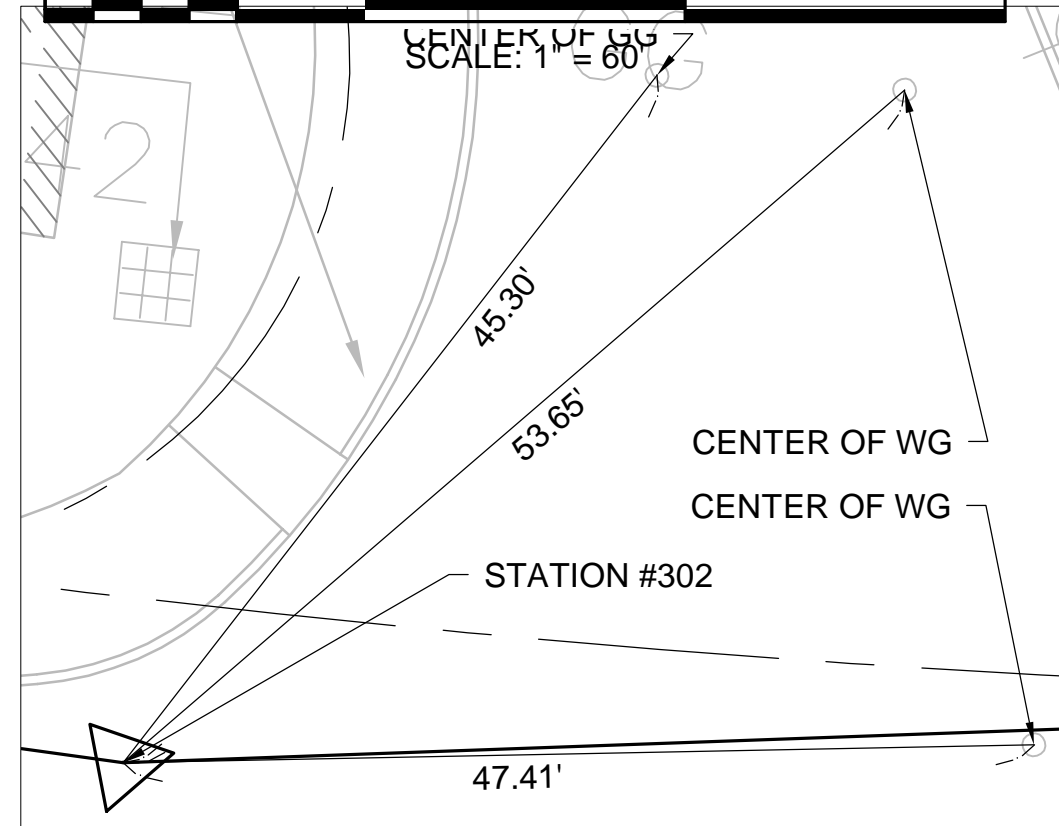
SURVEY CONTROL PLAN



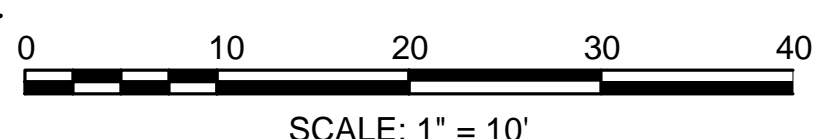
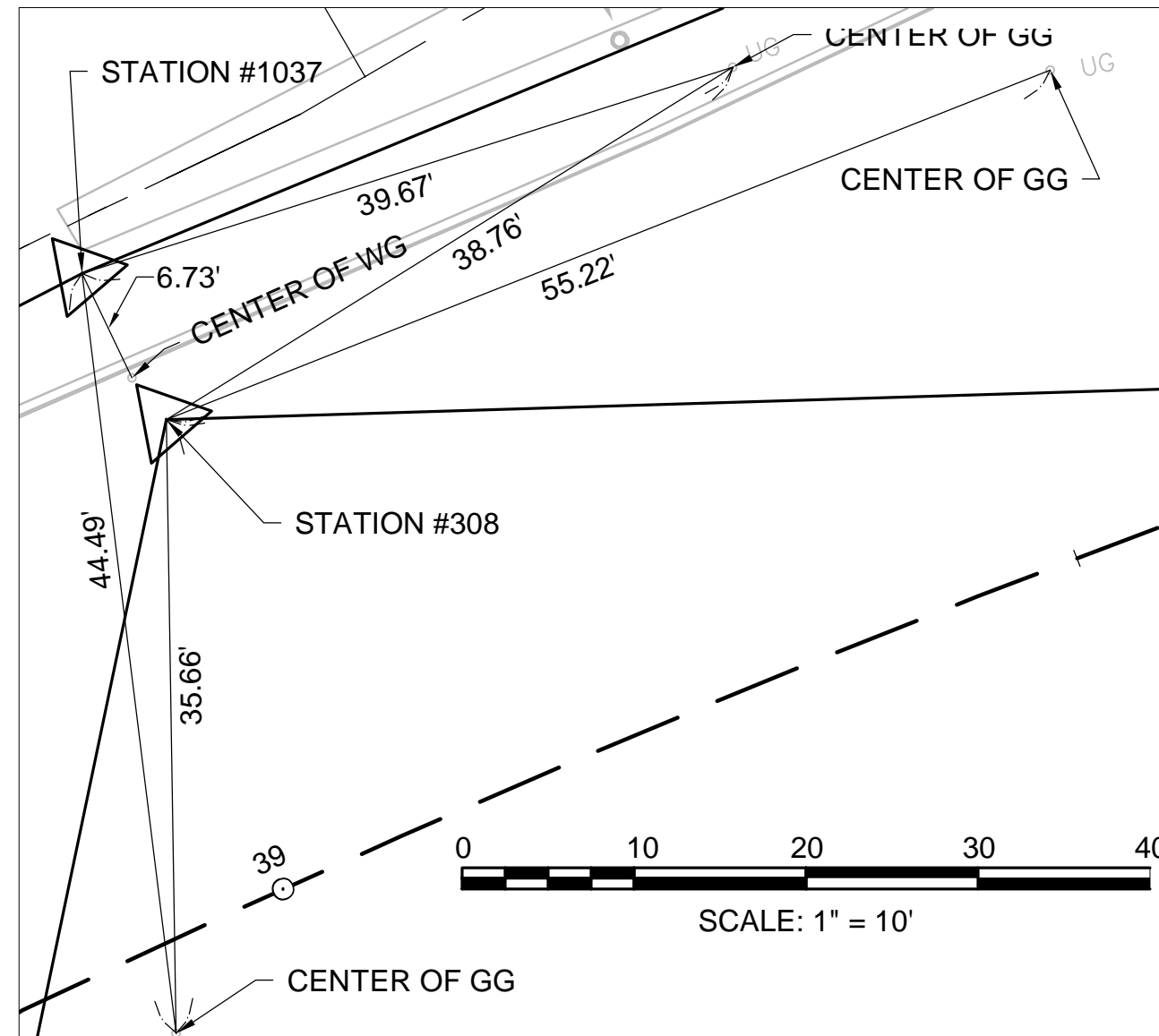
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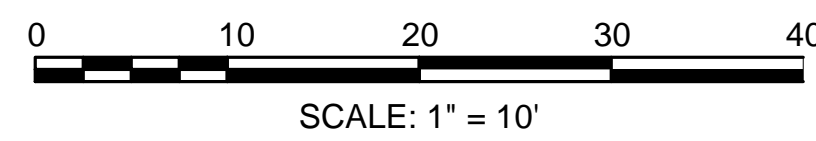
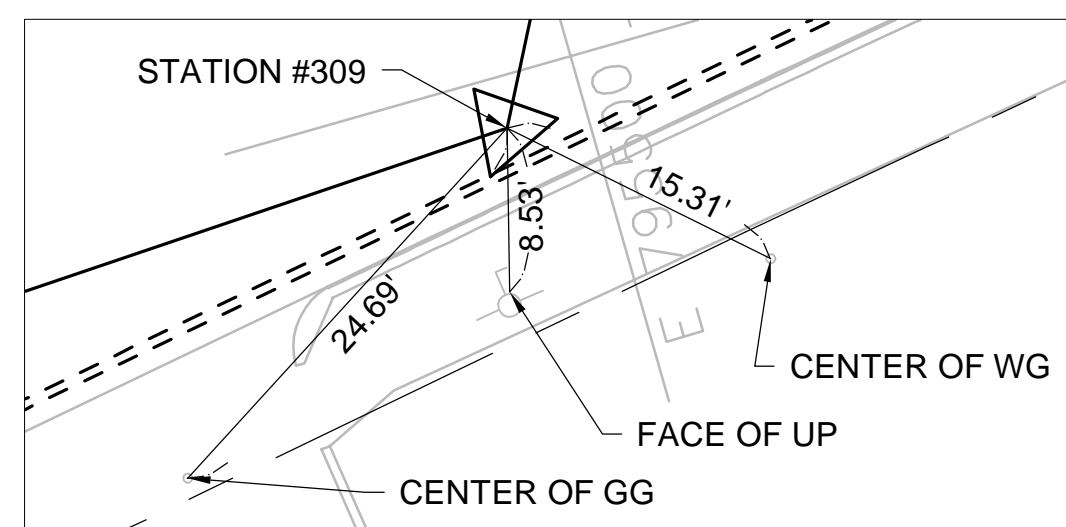
STATION #302



STATION #1037 & STATION #308



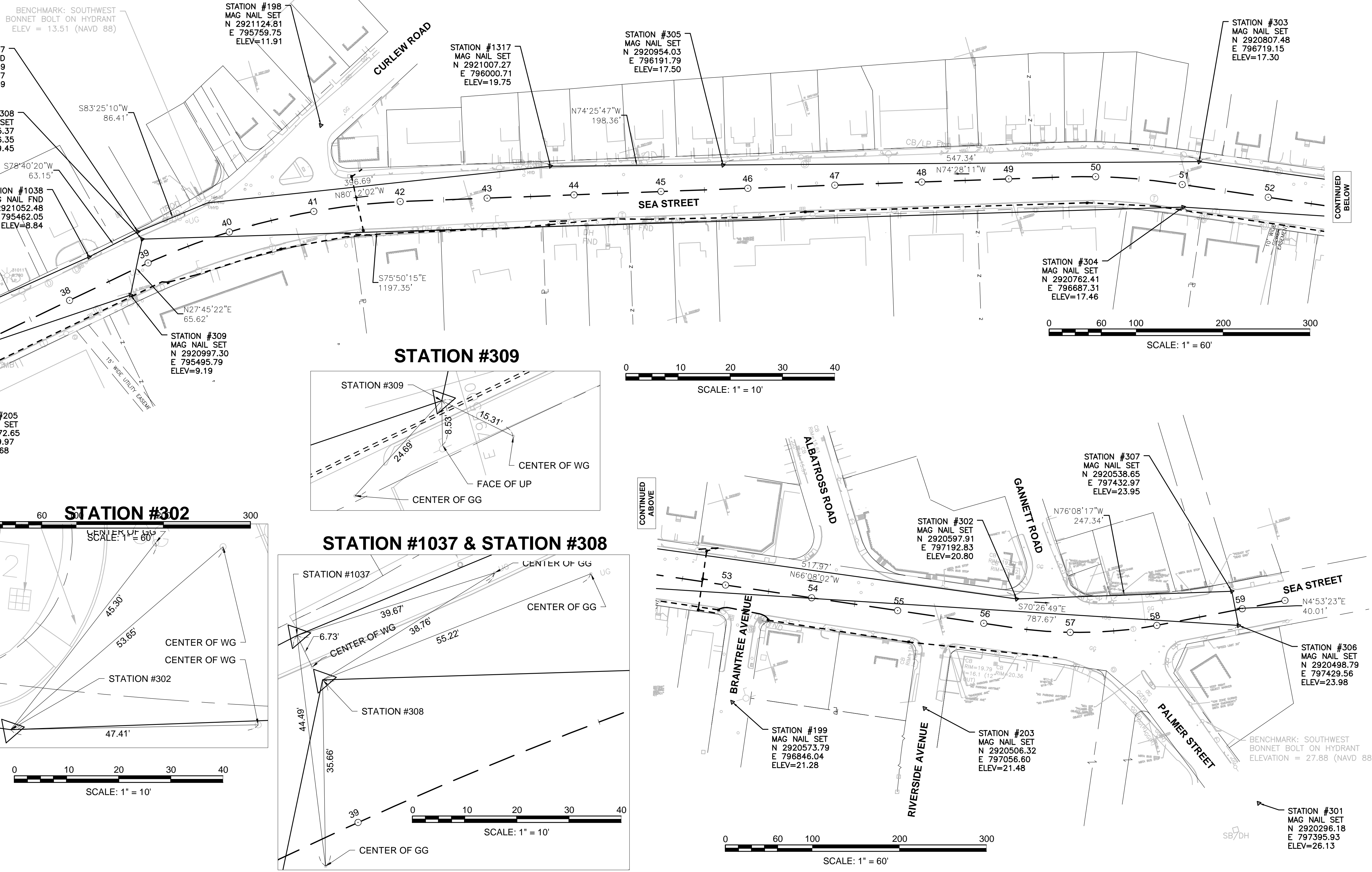
STATION #309



CONTINUED ON SHEET NO. 41

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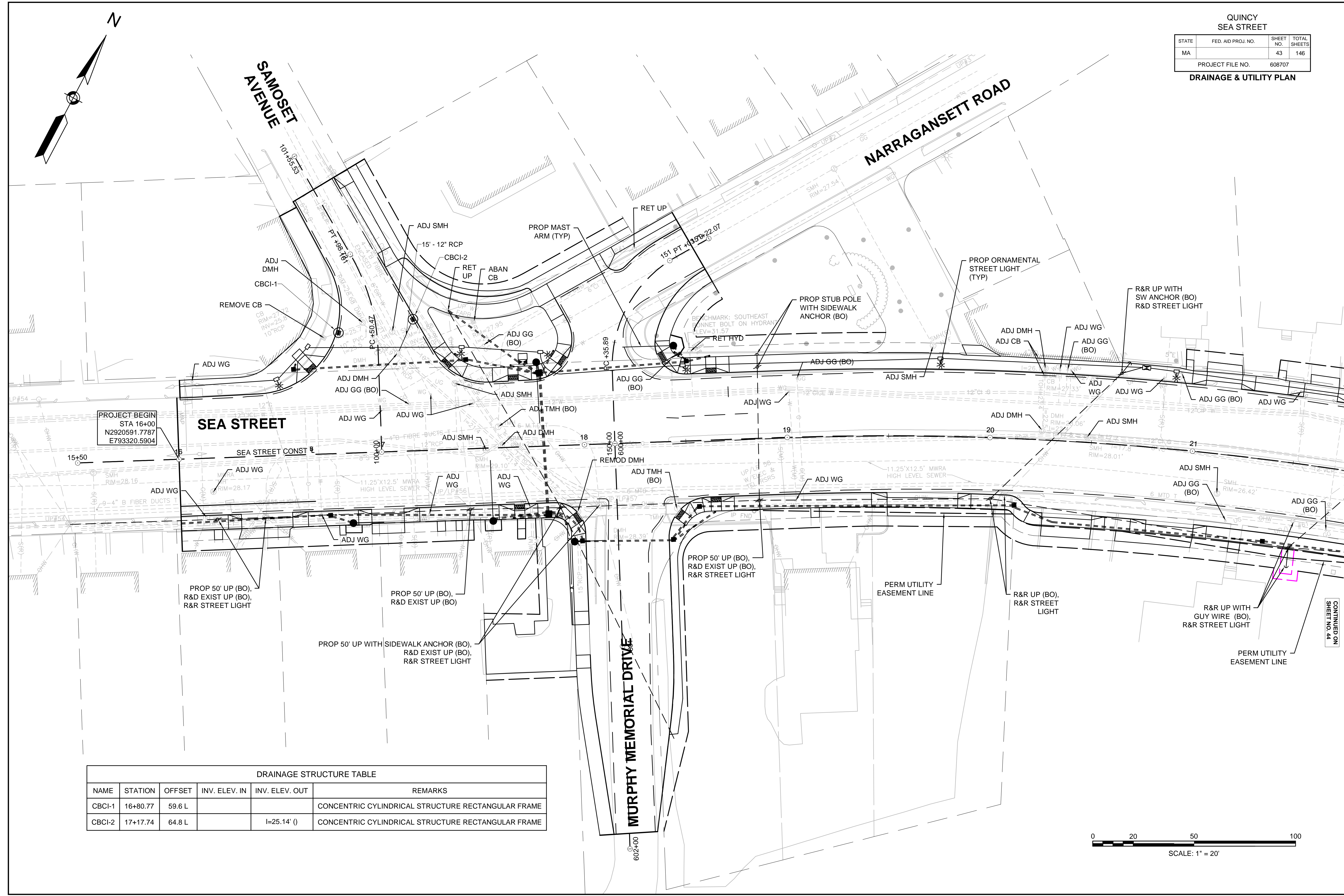
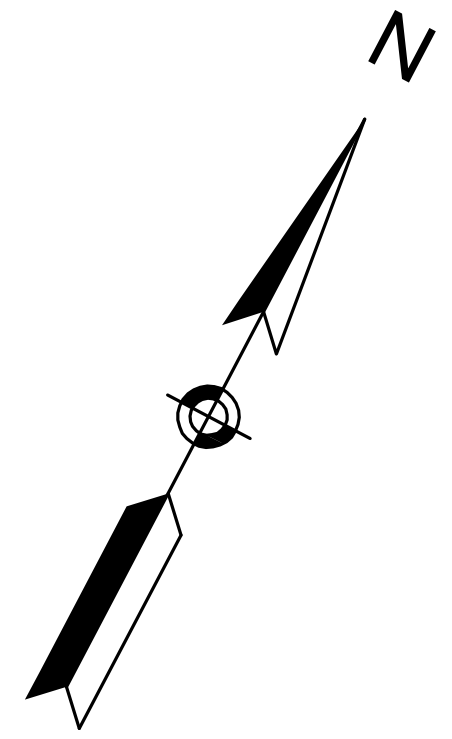
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QUINCY
SEA STREET

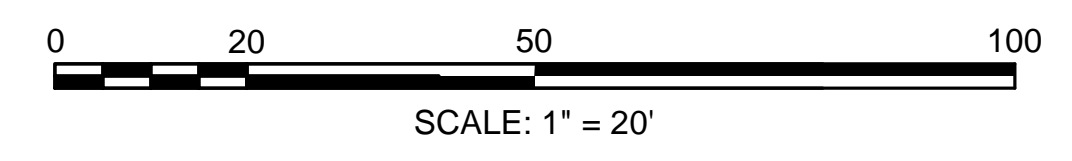
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		43	146
PROJECT FILE NO. 608707			

DRAINAGE & UTILITY PLAN



PROJECT BEGIN
STA 16+00
N2920591.7787
E793320.5904

DRAINAGE STRUCTURE TABLE					
NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CBCI-1	16+80.77	59.6 L			CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
CBCI-2	17+17.74	64.8 L		I=25.14' ()	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME

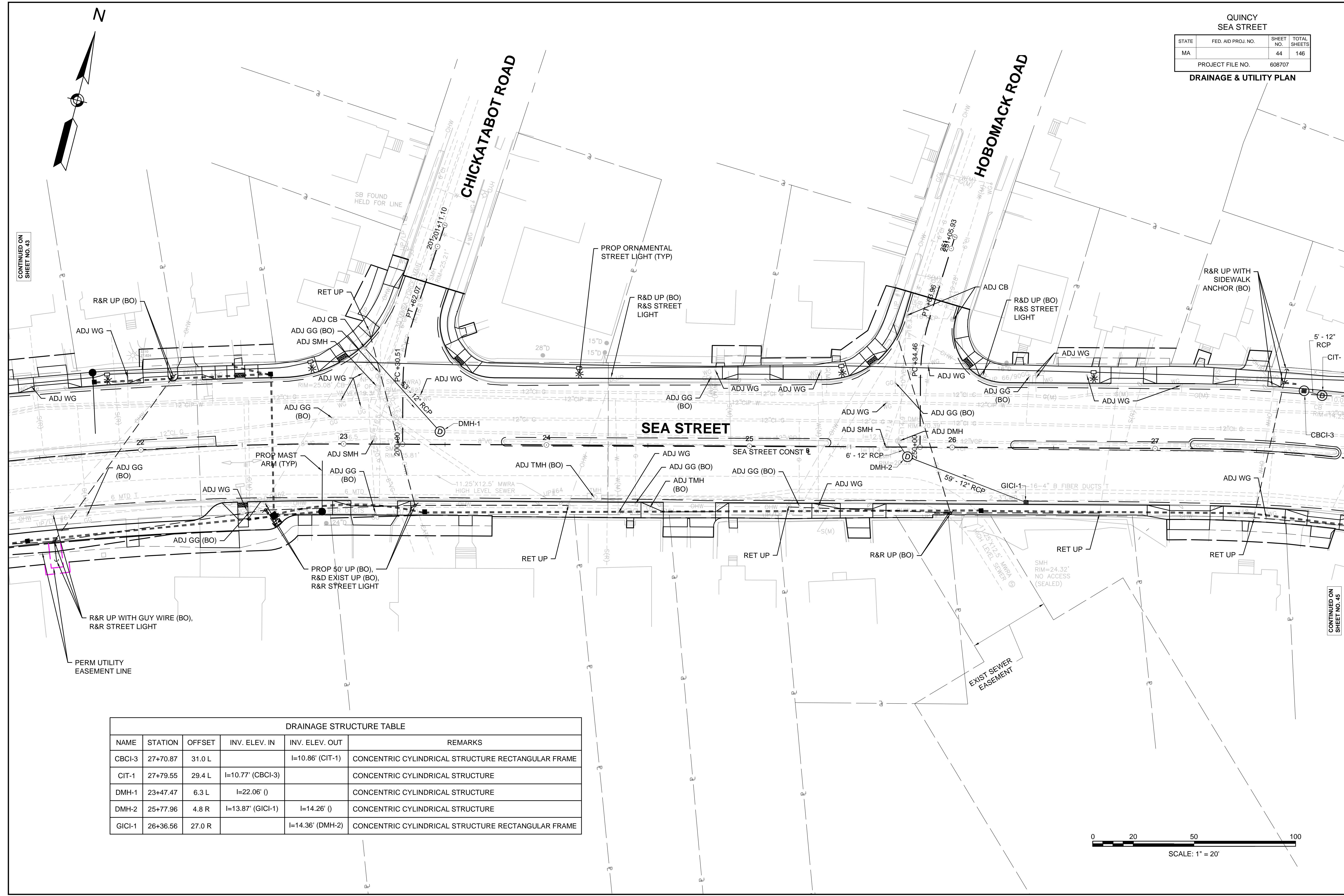


CONTINUED ON
SHEET NO. 44

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		44	146
PROJECT FILE NO. 608707			

DRAINAGE & UTILITY PLAN

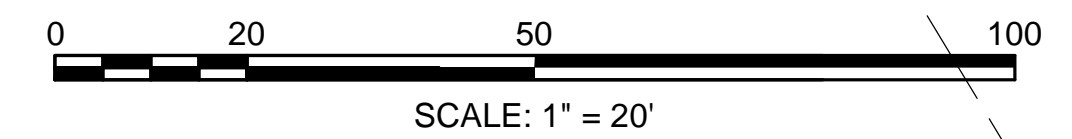


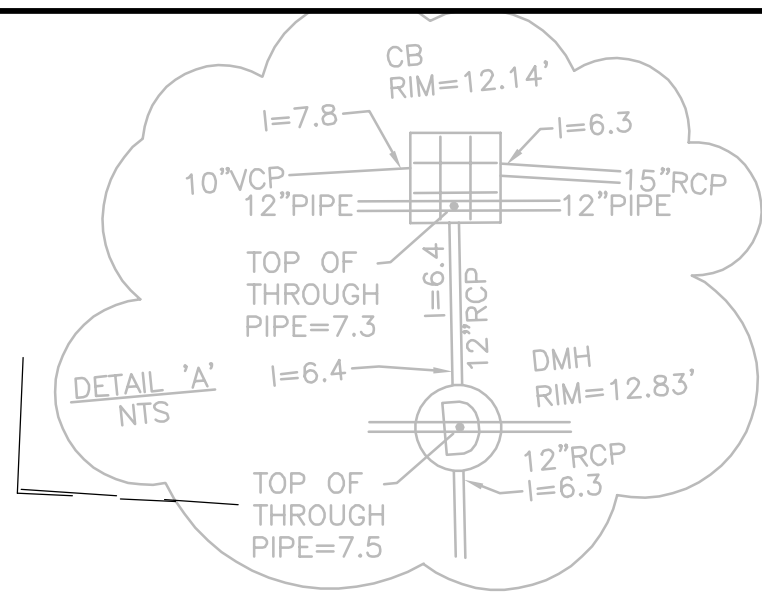
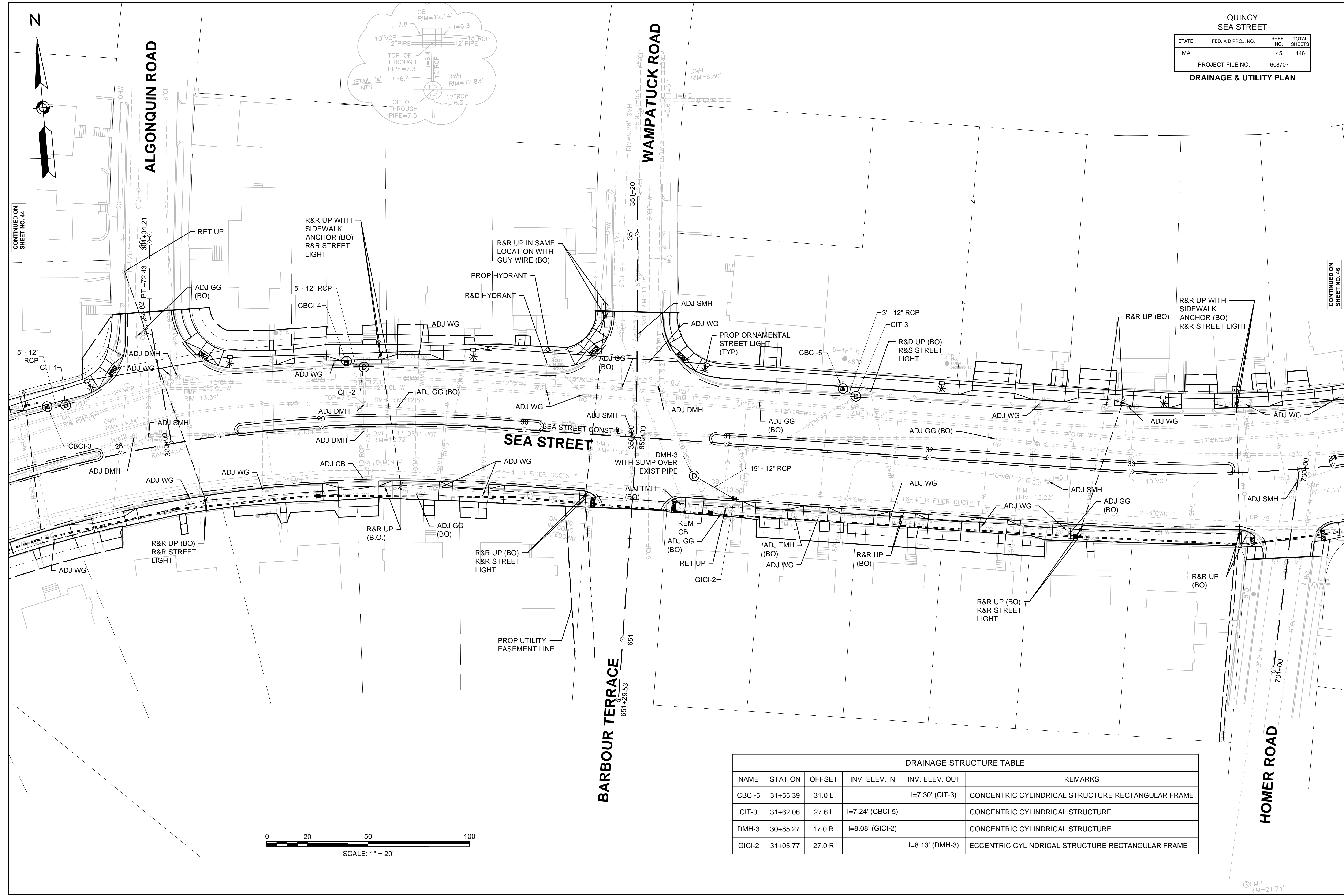
CONTINUED ON
SHEET NO. 43

CONTINUED ON
SHEET NO. 45

DRAINAGE STRUCTURE TABLE

NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CBCI-3	27+70.87	31.0 L		I=10.86' (CIT-1)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
CIT-1	27+79.55	29.4 L	I=10.77' (CBCI-3)		CONCENTRIC CYLINDRICAL STRUCTURE
DMH-1	23+47.47	6.3 L	I=22.06' ()		CONCENTRIC CYLINDRICAL STRUCTURE
DMH-2	25+77.96	4.8 R	I=13.87' (GICI-1)	I=14.26' ()	CONCENTRIC CYLINDRICAL STRUCTURE
GICI-1	26+36.56	27.0 R		I=14.36' (DMH-2)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME

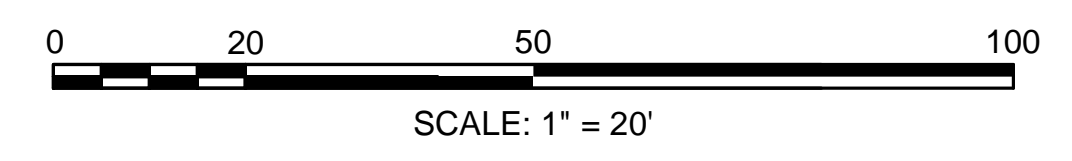




CONTINUED ON
SHEET NO. 44

CONTINUED ON
SHEET NO. 46

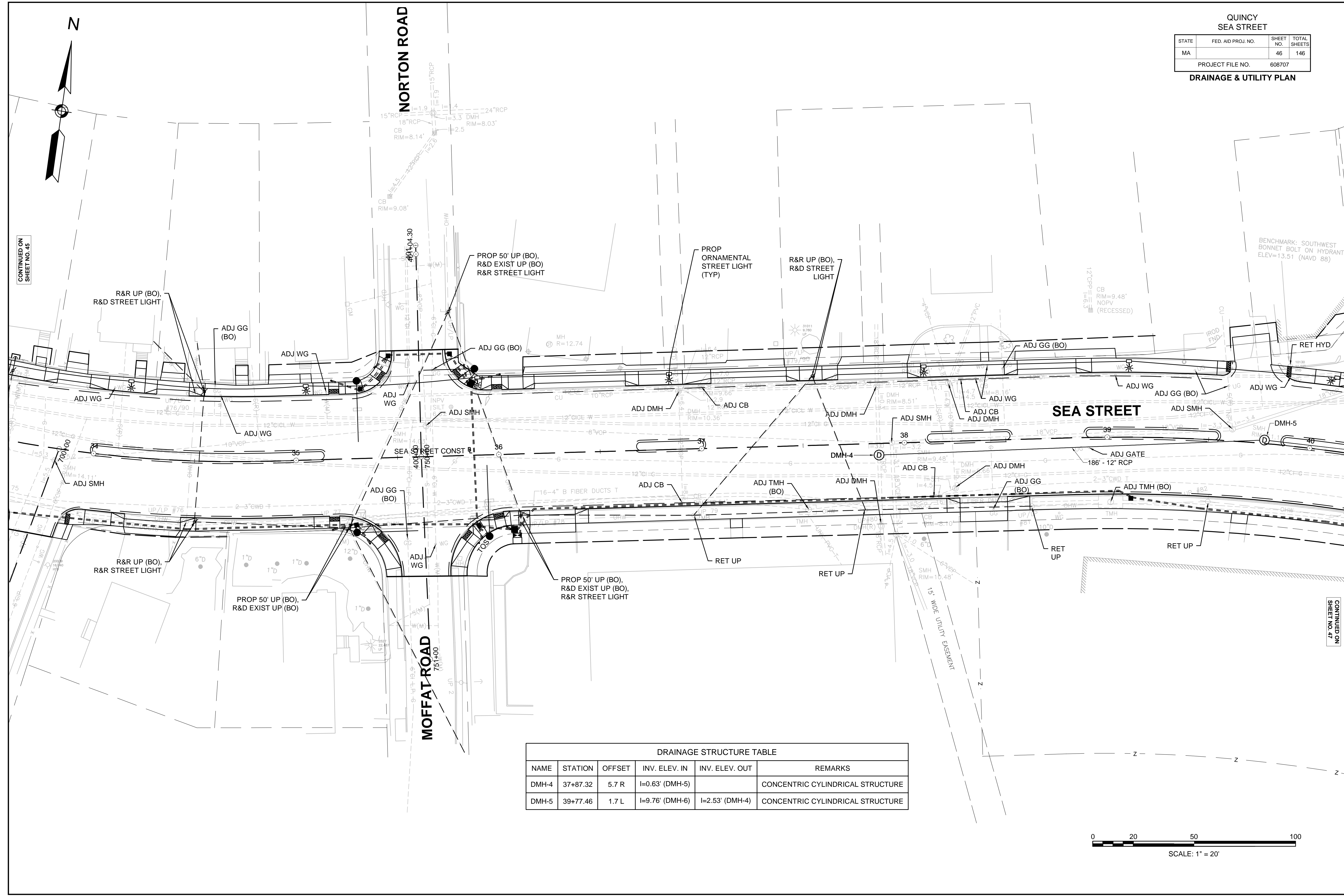
DRAINAGE STRUCTURE TABLE					
NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CBCI-5	31+55.39	31.0 L		I=7.30' (CIT-3)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
CIT-3	31+62.06	27.6 L	I=7.24' (CBCI-5)		CONCENTRIC CYLINDRICAL STRUCTURE
DMH-3	30+85.27	17.0 R	I=8.08' (GICI-2)		CONCENTRIC CYLINDRICAL STRUCTURE
GICI-2	31+05.77	27.0 R		I=8.13' (DMH-3)	ECCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME



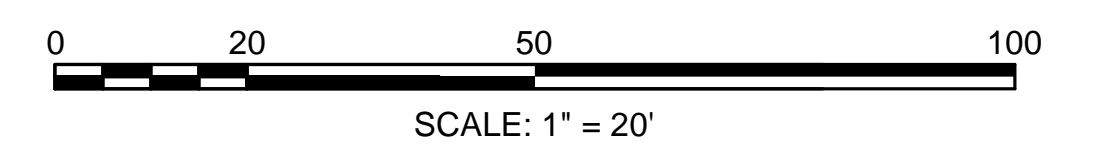
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		46	146

PROJECT FILE NO. 608707
DRAINAGE & UTILITY PLAN



DRAINAGE STRUCTURE TABLE					
NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
DMH-4	37+87.32	5.7 R	I=0.63' (DMH-5)		CONCENTRIC CYLINDRICAL STRUCTURE
DMH-5	39+77.46	1.7 L	I=9.76' (DMH-6)	I=2.53' (DMH-4)	CONCENTRIC CYLINDRICAL STRUCTURE



CONTINUED ON
SHEET NO. 45

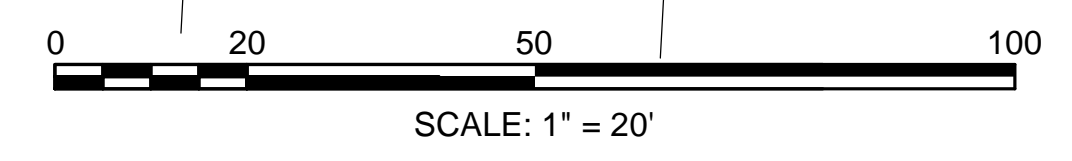
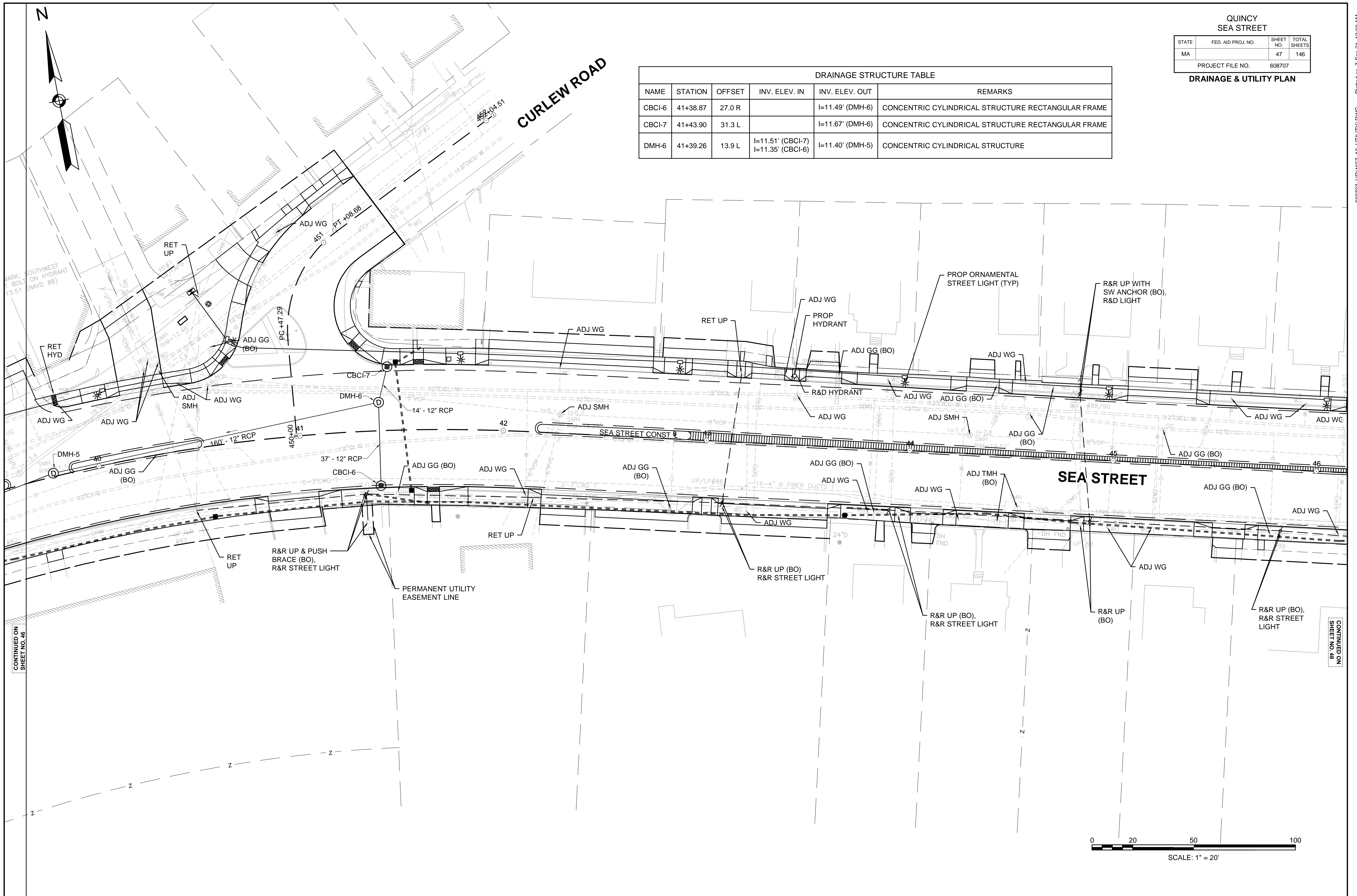
CONTINUED ON
SHEET NO. 47

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		47	146

PROJECT FILE NO. 608707
DRAINAGE & UTILITY PLAN

DRAINAGE STRUCTURE TABLE					
NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CBCI-6	41+38.87	27.0 R		I=11.49' (DMH-6)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
CBCI-7	41+43.90	31.3 L		I=11.67' (DMH-6)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
DMH-6	41+39.26	13.9 L	I=11.51' (CBCI-7) I=11.35' (CBCI-6)	I=11.40' (DMH-5)	CONCENTRIC CYLINDRICAL STRUCTURE



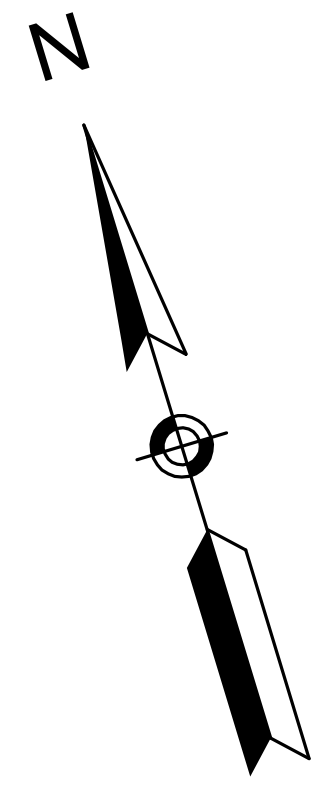
CONTINUED ON
SHEET NO. 46

CONTINUED ON
SHEET NO. 48

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		48	146
PROJECT FILE NO. 608707			

DRAINAGE & UTILITY PLAN

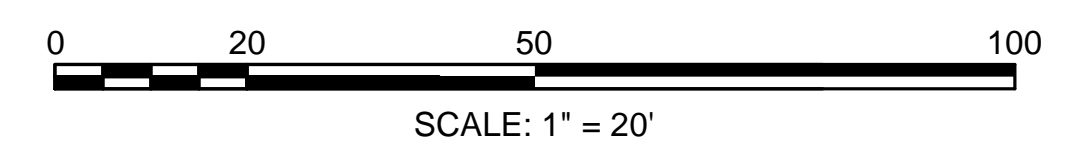


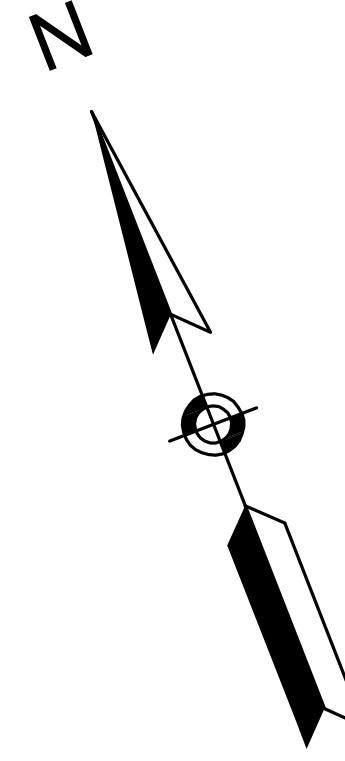
CONTINUED ON
SHEET NO. 47



CONTINUED ON
SHEET NO. 49

DRAINAGE STRUCTURE TABLE					
NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-8	46+68.93	29.7 L			ECCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME





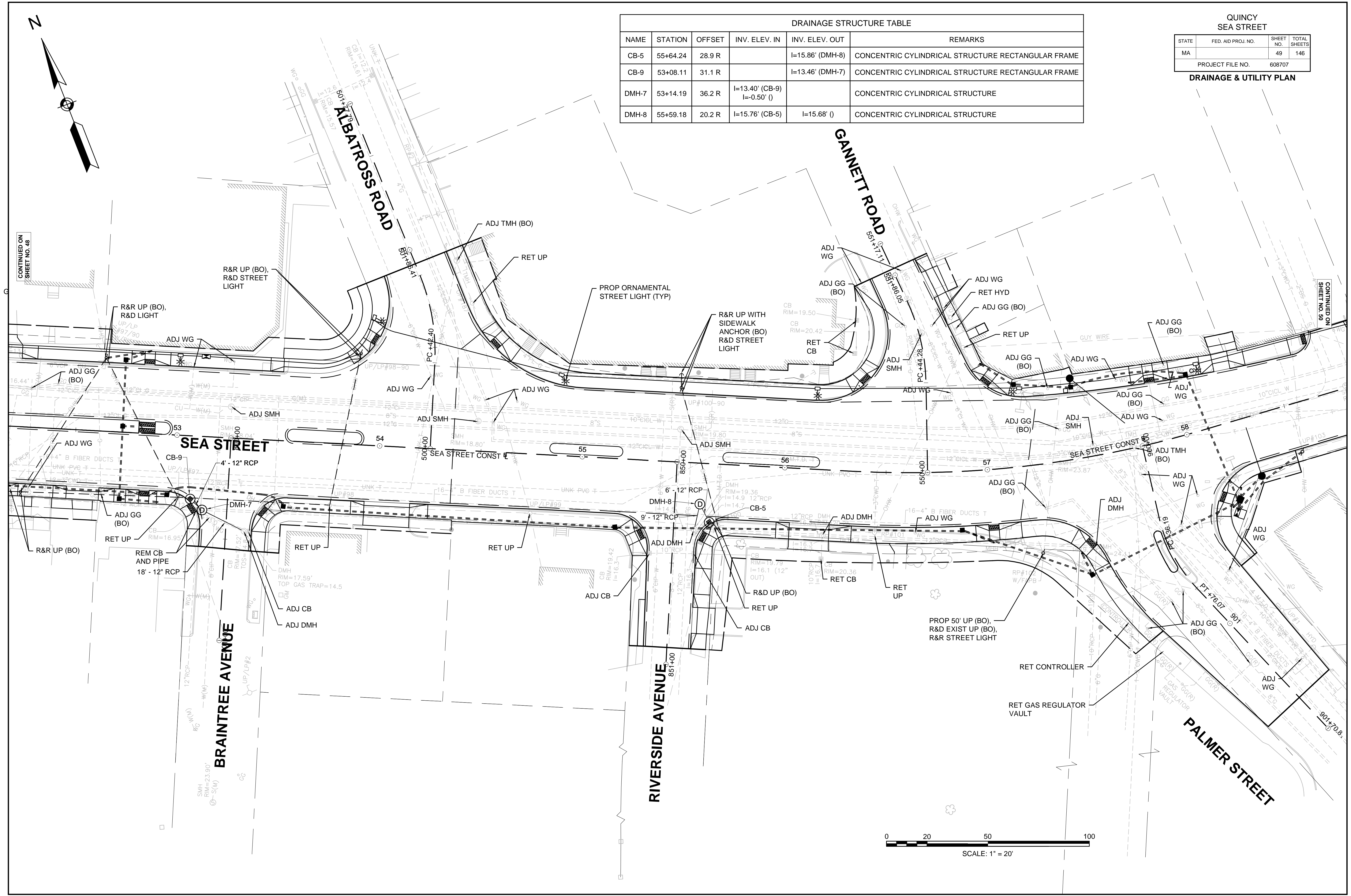
DRAINAGE STRUCTURE TABLE					
NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-5	55+64.24	28.9 R		I=15.86' (DMH-8)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
CB-9	53+08.11	31.1 R		I=13.46' (DMH-7)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
DMH-7	53+14.19	36.2 R	I=13.40' (CB-9) I=-0.50' (I)		CONCENTRIC CYLINDRICAL STRUCTURE
DMH-8	55+59.18	20.2 R	I=15.76' (CB-5)	I=15.68' (I)	CONCENTRIC CYLINDRICAL STRUCTURE

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		49	146

PROJECT FILE NO. 608707

DRAINAGE & UTILITY PLAN



CONTINUED ON SHEET NO. 48

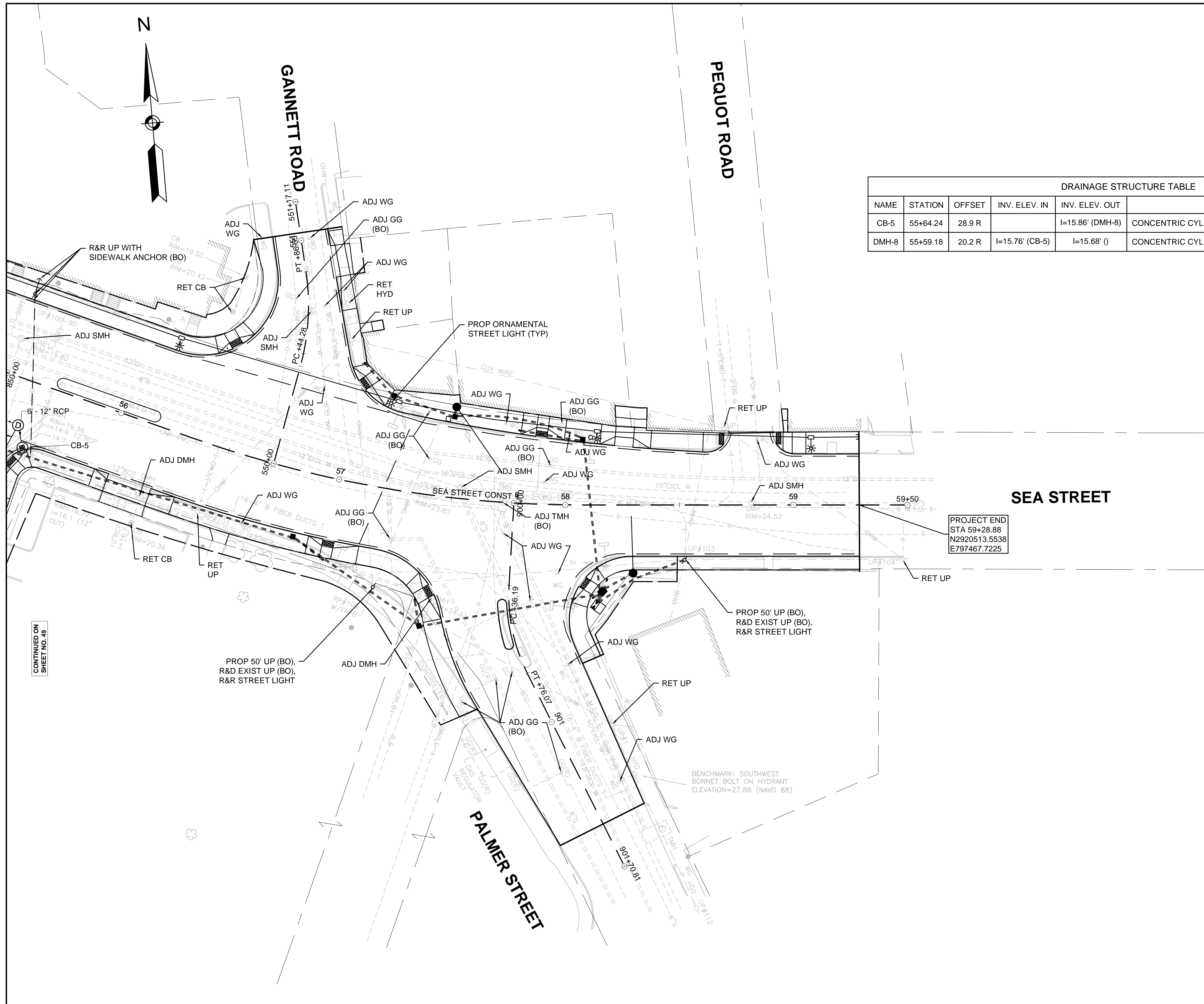
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QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		50	146
PROJECT FILE NO.		608707	

DRAINAGE & UTILITY PLAN

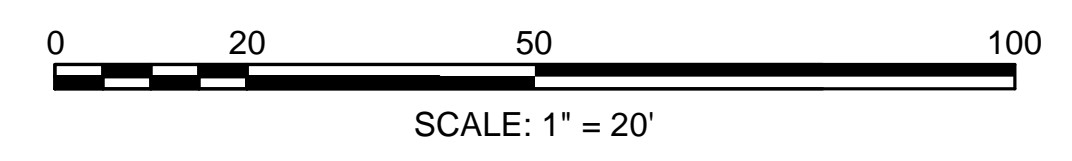
DRAINAGE STRUCTURE TABLE					
NAME	STATION	OFFSET	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-5	55+64.24	28.9 R		I=15.86' (DMH-8)	CONCENTRIC CYLINDRICAL STRUCTURE RECTANGULAR FRAME
DMH-8	55+59.18	20.2 R	I=15.76' (CB-5)	I=15.68' ()	CONCENTRIC CYLINDRICAL STRUCTURE

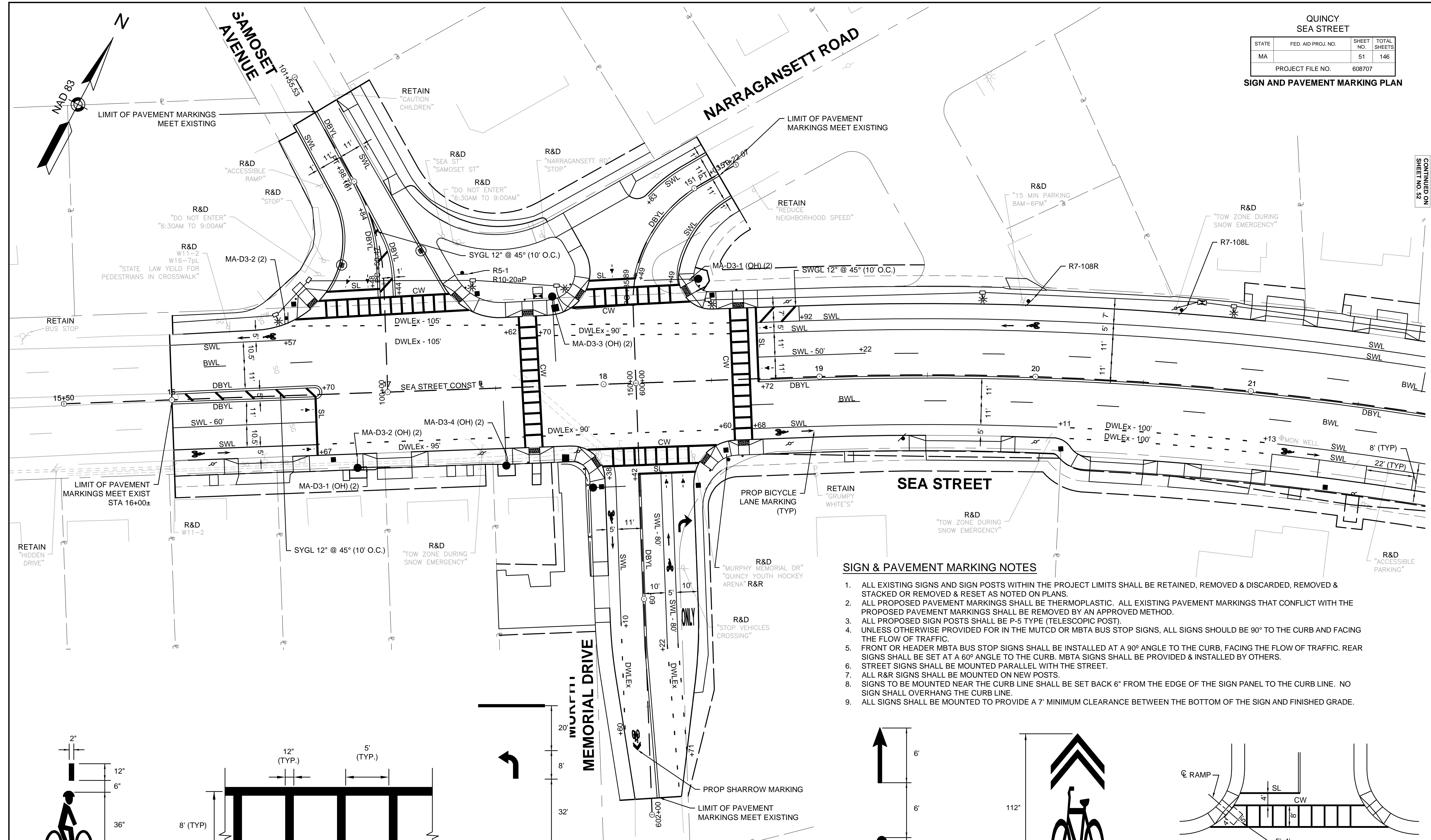


SEA STREET

PROJECT END
STA 59+28.88
N2920513.5538
E797467.7225

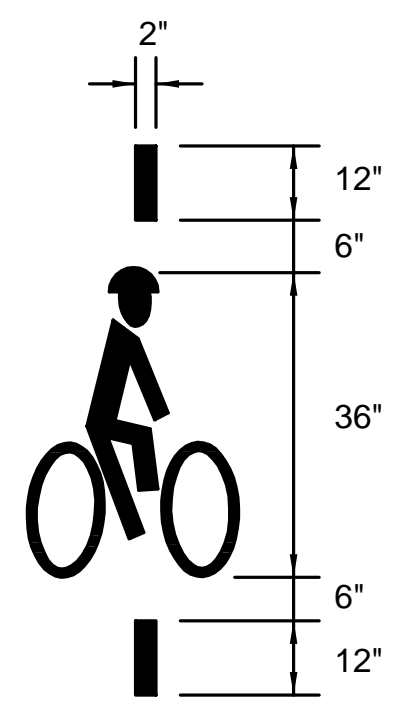
CONTINUED ON
SHEET NO. 49



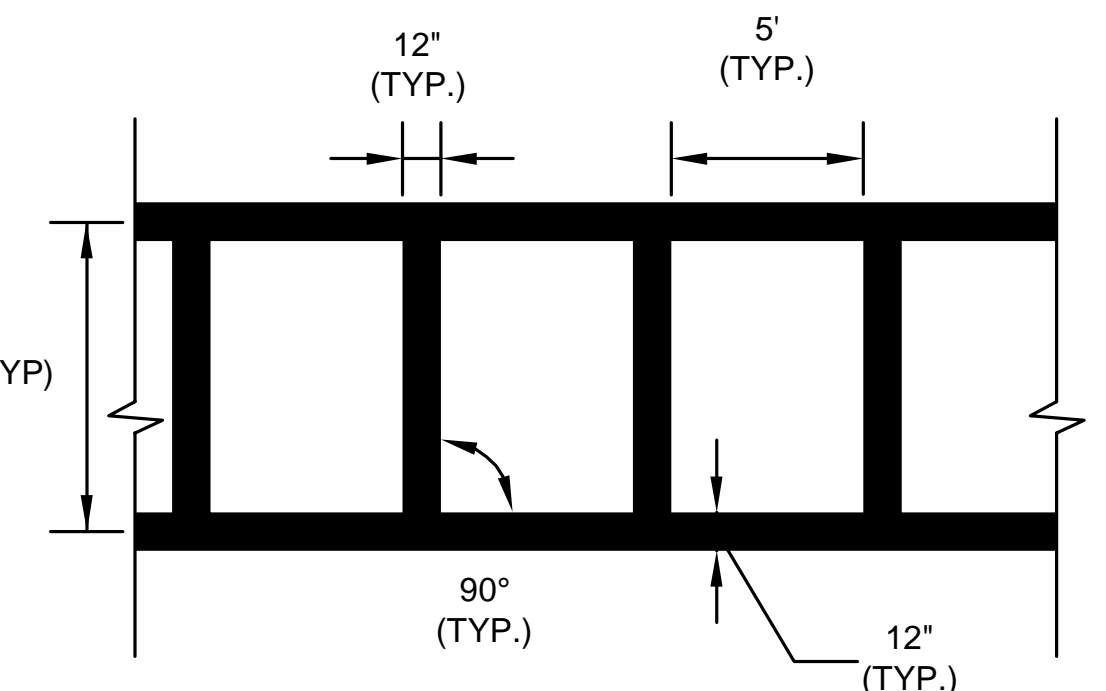


SIGN & PAVEMENT MARKING NOTES

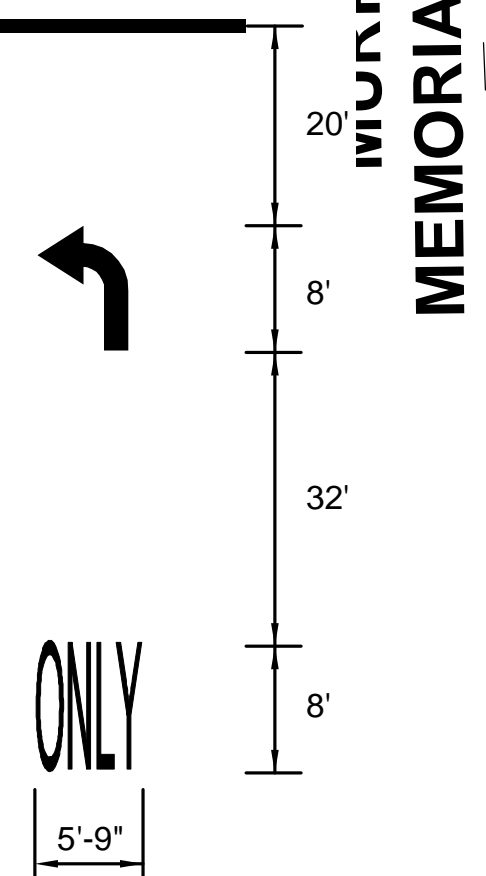
1. ALL EXISTING SIGNS AND SIGN POSTS WITHIN THE PROJECT LIMITS SHALL BE RETAINED, REMOVED & DISCARDED, REMOVED & STACKED OR REMOVED & RESET AS NOTED ON PLANS.
2. ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED BY AN APPROVED METHOD.
3. ALL PROPOSED SIGN POSTS SHALL BE P-5 TYPE (TELESCOPIC POST).
4. UNLESS OTHERWISE PROVIDED FOR IN THE MUTCD OR MBTA BUS STOP SIGNS, ALL SIGNS SHOULD BE 90° TO THE CURB AND FACING THE FLOW OF TRAFFIC.
5. FRONT OR HEADER MBTA BUS STOP SIGNS SHALL BE INSTALLED AT A 90° ANGLE TO THE CURB, FACING THE FLOW OF TRAFFIC. REAR SIGNS SHALL BE SET AT A 60° ANGLE TO THE CURB. MBTA SIGNS SHALL BE PROVIDED & INSTALLED BY OTHERS.
6. STREET SIGNS SHALL BE MOUNTED PARALLEL WITH THE STREET.
7. ALL R&R SIGNS SHALL BE MOUNTED ON NEW POSTS.
8. SIGNS TO BE MOUNTED NEAR THE CURB LINE SHALL BE SET BACK 6" FROM THE EDGE OF THE SIGN PANEL TO THE CURB LINE. NO SIGN SHALL OVERHANG THE CURB LINE.
9. ALL SIGNS SHALL BE MOUNTED TO PROVIDE A 7' MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE SIGN AND FINISHED GRADE.



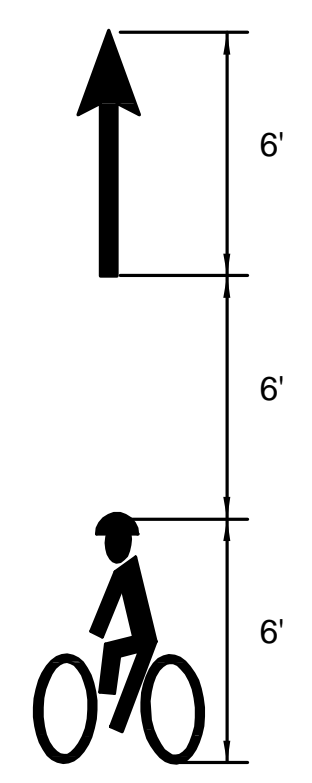
BICYCLE DETECTOR PAVEMENT MARKING DETAIL
NOT TO SCALE



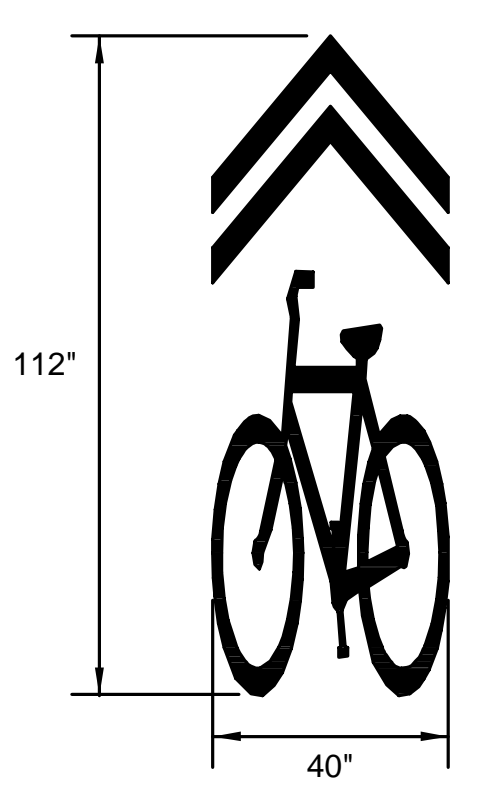
THERMOPLASTIC CROSSWALK DETAIL
NOT TO SCALE



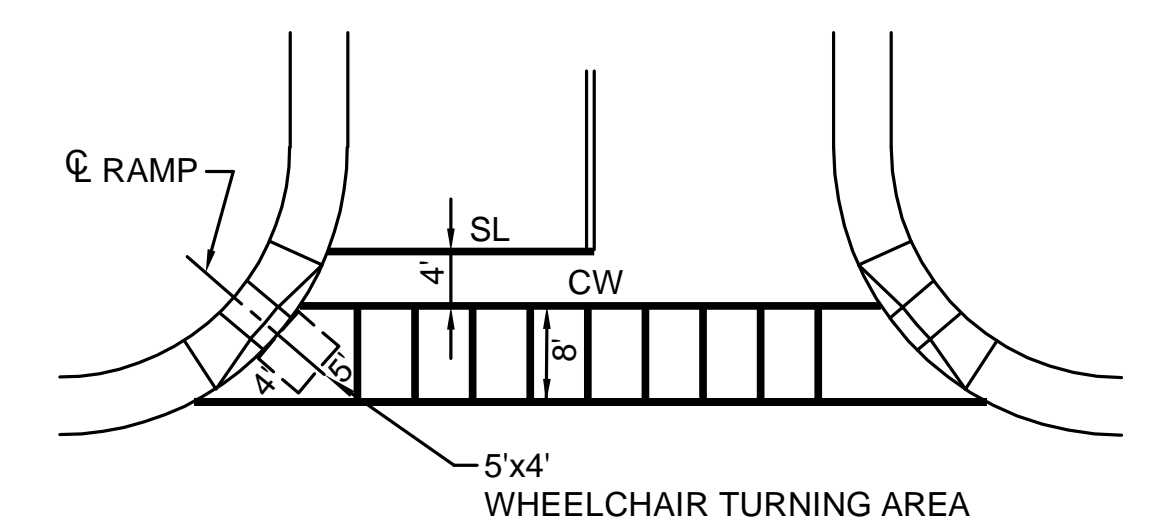
ARROW & "ONLY" DETAIL
NOT TO SCALE



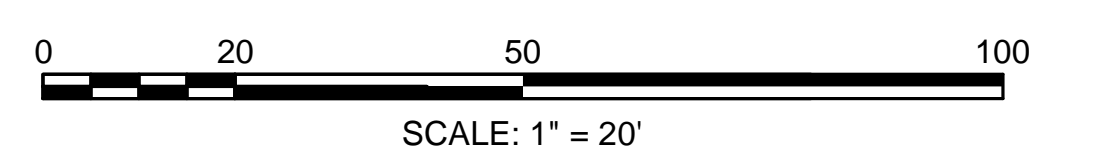
BICYCLE LANE MARKING DETAIL
NOT TO SCALE



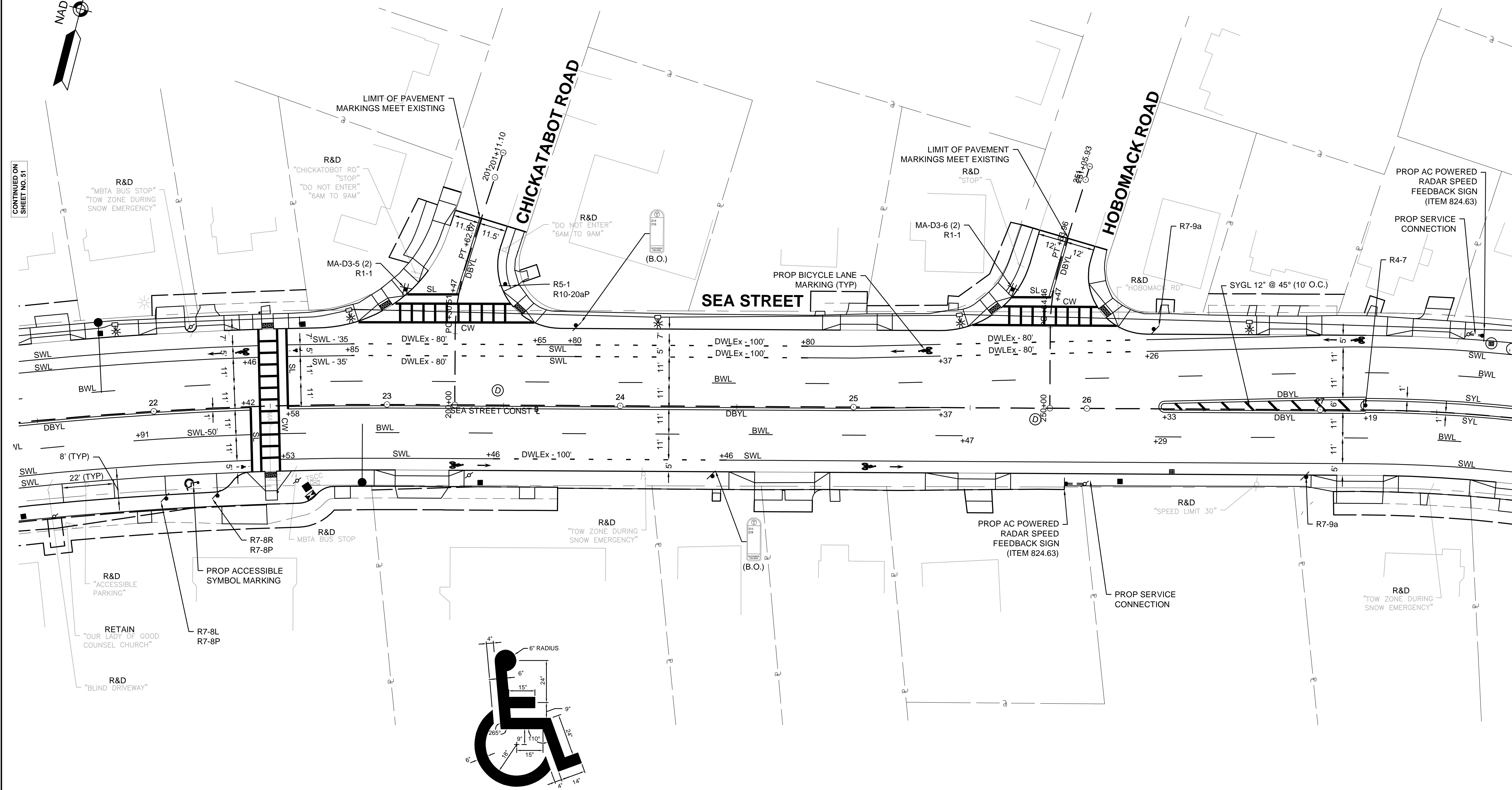
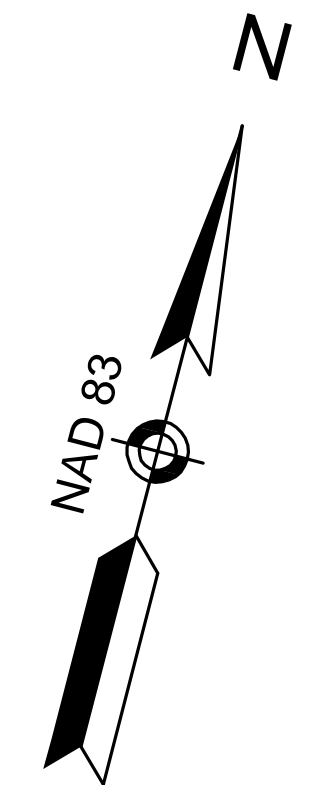
SHARROW DETAIL
NOT TO SCALE



CROSSWALK LOCATION DETAIL
NOT TO SCALE
*SEE DETAIL FOR THERMOPLASTIC CROSSWALK

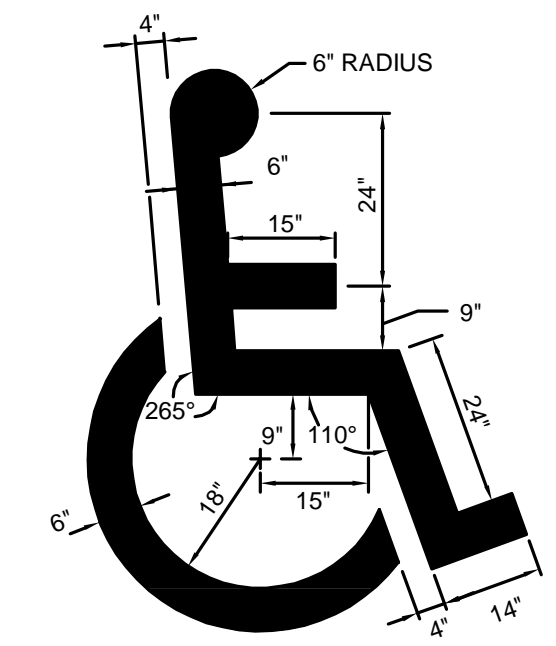


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SHEET NO. 52



CONTINUED ON SHEET NO. 51

CONTINUED ON SHEET NO. 53

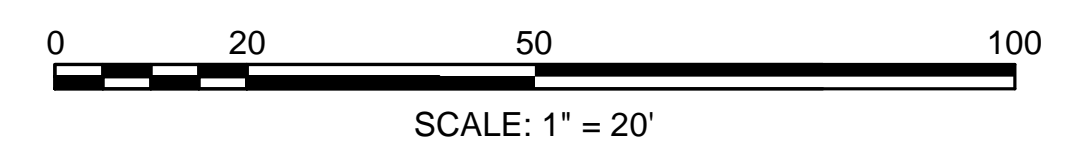


NOTES:

1. ACCESSIBLE SYMBOLS SHALL BE WHITE THERMOPLASTIC.
2. ACCESSIBLE SYMBOLS SHALL BE INSTALLED, ORIENTATED AS SHOWN IN EACH LOCATION AND CENTERED IN THE PARKING STALL.

**DETAIL FOR ACCESSIBLE SYMBOL
PAVEMENT MARKING**

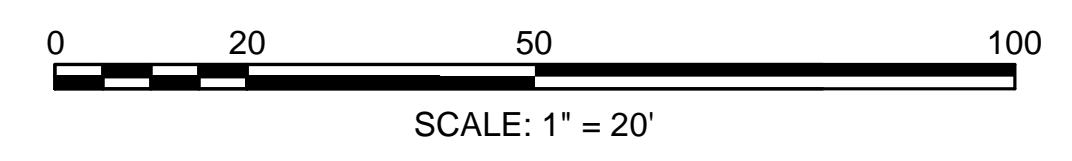
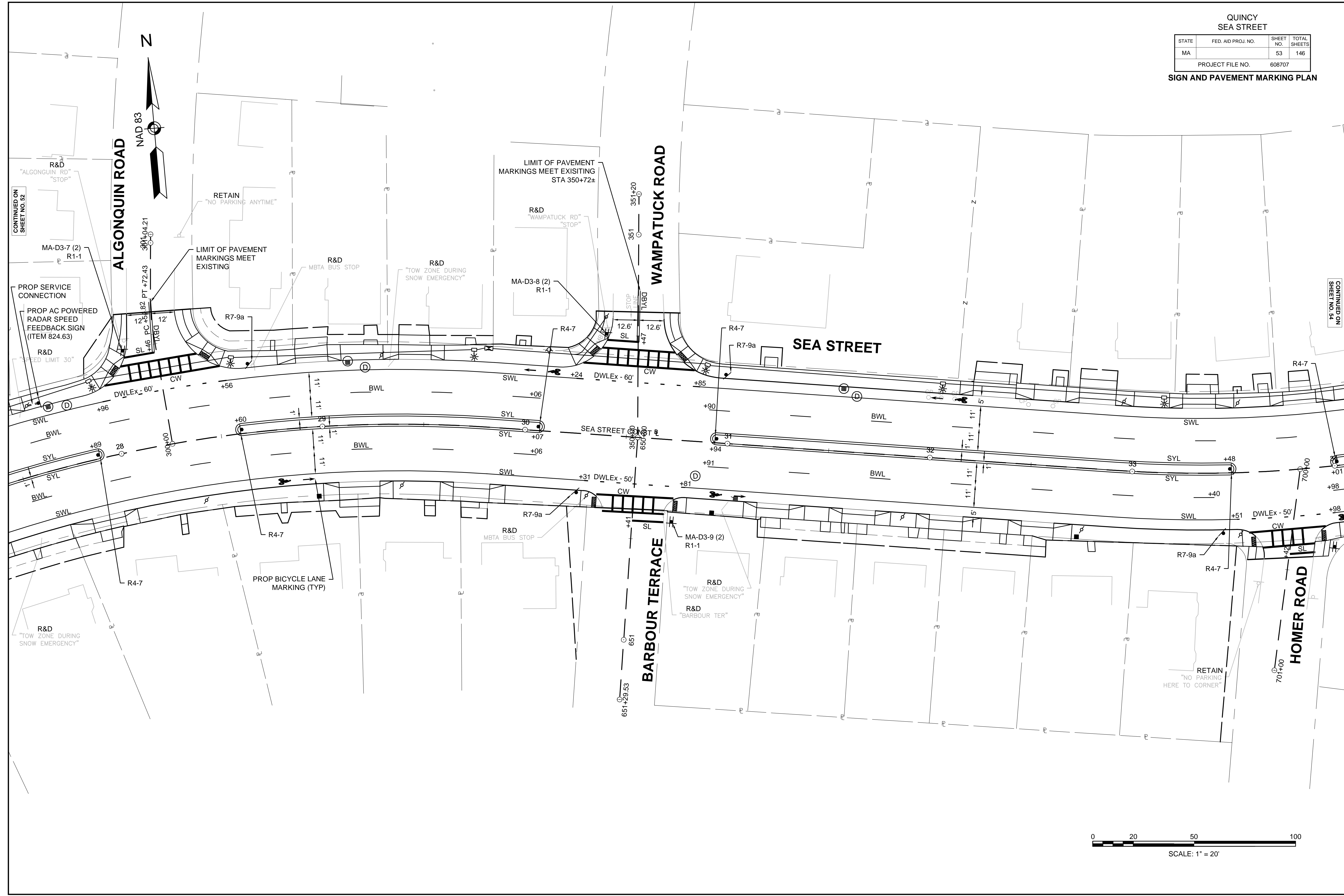
NOT TO SCALE



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		53	146
PROJECT FILE NO.		608707	

SIGN AND PAVEMENT MARKING PLAN



CONTINUED ON SHEET NO. 52

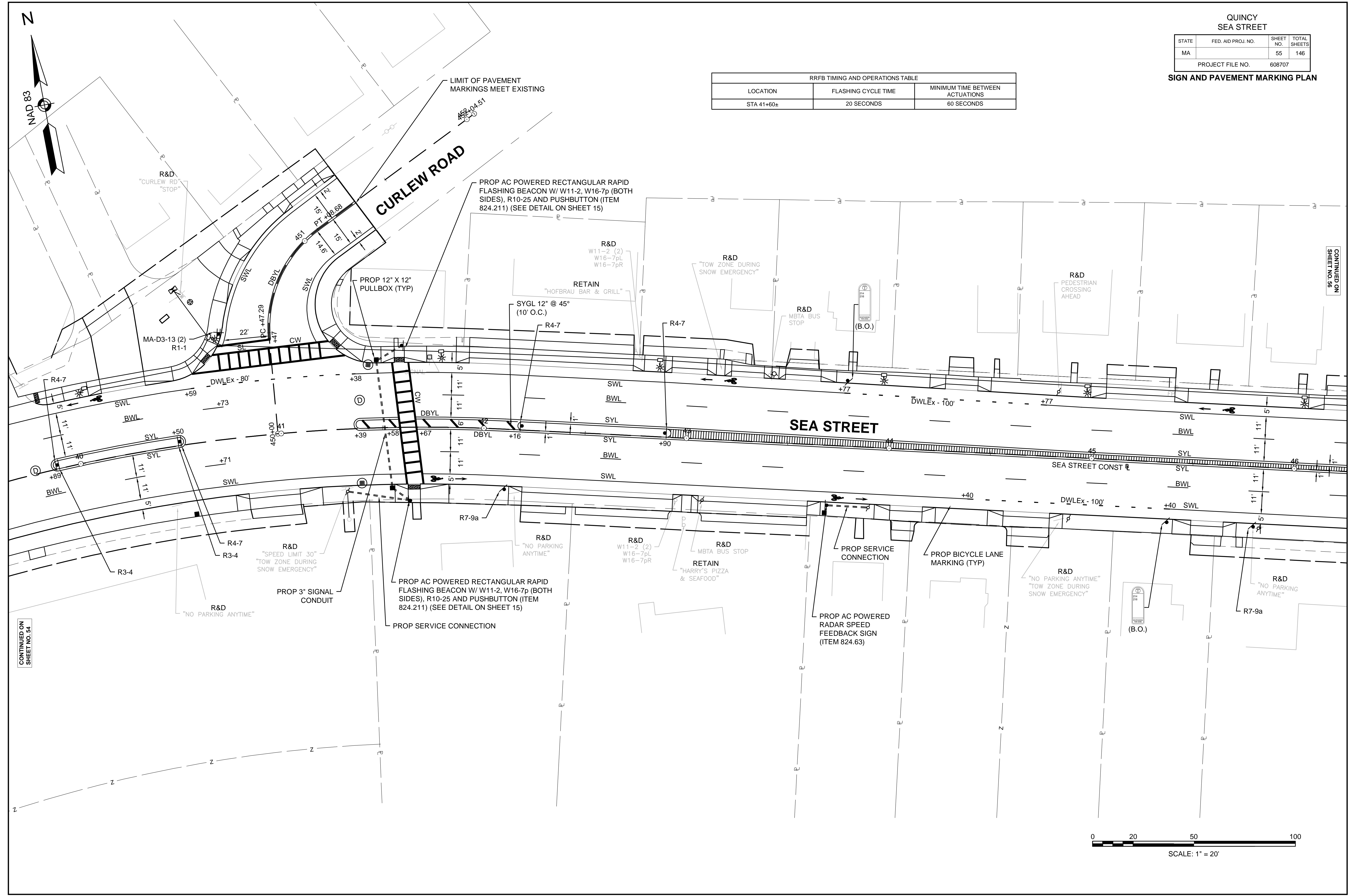
CONTINUED ON SHEET NO. 54

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		55	146
PROJECT FILE NO. 608707			

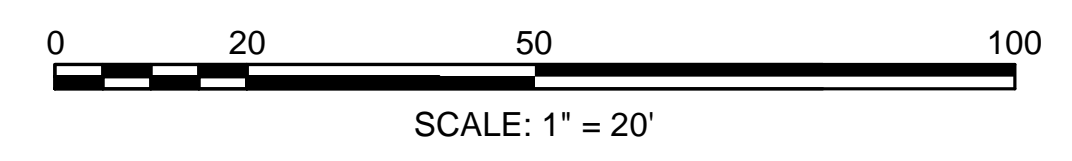
SIGN AND PAVEMENT MARKING PLAN

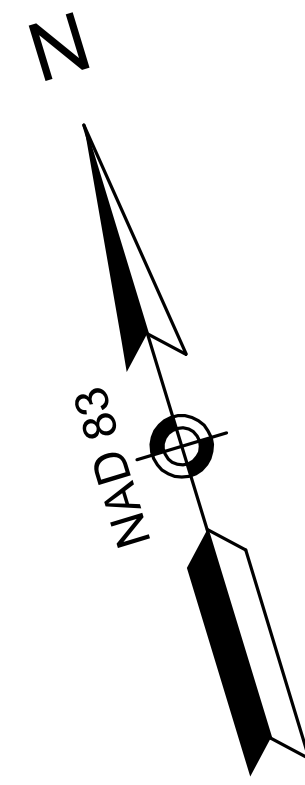
RRFB TIMING AND OPERATIONS TABLE		
LOCATION	FLASHING CYCLE TIME	MINIMUM TIME BETWEEN ACTUATIONS
STA 41+60±	20 SECONDS	60 SECONDS



CONTINUED ON
SHEET NO. 54

CONTINUED ON
SHEET NO. 56





**QUINCY
SEA STREET**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		56	146

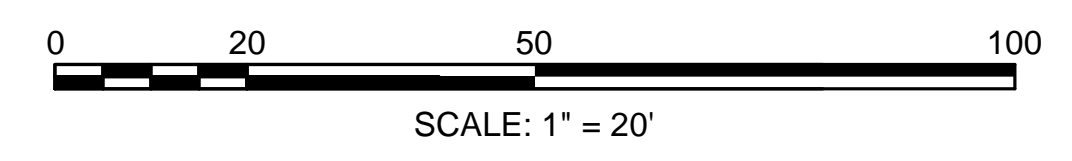
PROJECT FILE NO. 608707

SIGN AND PAVEMENT MARKING PLAN

CONTINUED ON
SHEET NO. 55



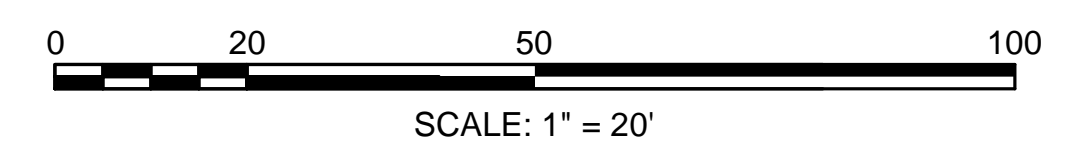
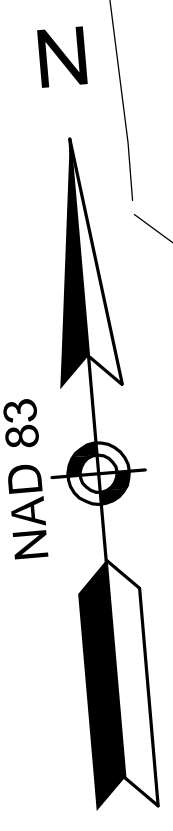
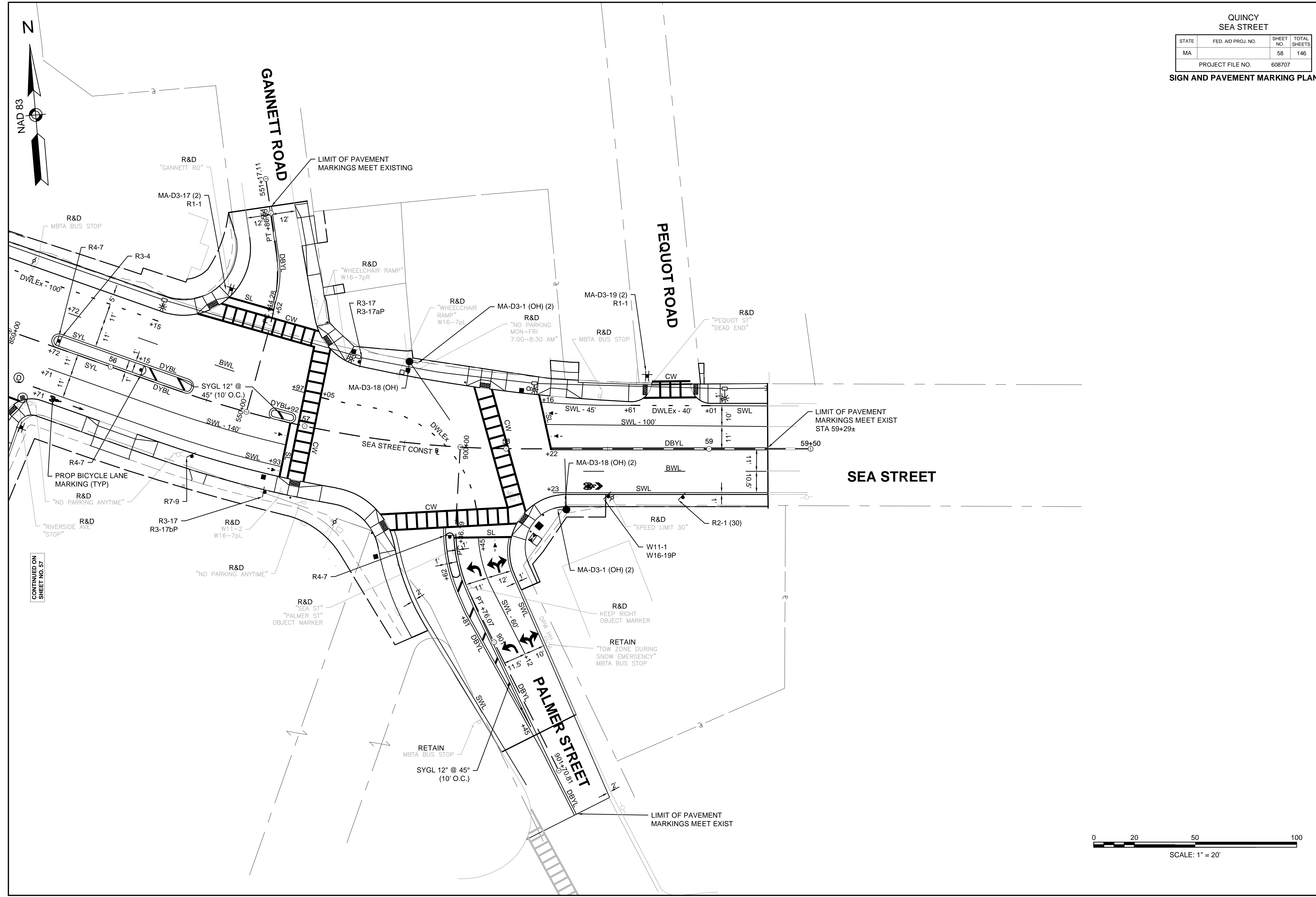
CONTINUED ON
SHEET NO. 57



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		58	146
PROJECT FILE NO.		608707	

SIGN AND PAVEMENT MARKING PLAN



CONTINUED ON
SHEET NO. 57

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	BACK-GROUND	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW			LEGEND	BORDER				
R1-1	30 in	30 in					12	RED	WHITE	WHITE	P-5 12	6.25	75.0	
R2-1 (30)	18 in	24 in					1	WHITE	BLACK	BLACK	P-5 1	3.0	3.0	
R3-1	24 in	24 in					1	WHITE	BLACK	BLACK	P-5 1	4.0	4.0	
R3-4	36 in	36 in					7	WHITE	BLACK	BLACK	MOUNT W/ R4-7	9.0	63.0	
R3-17	24 in	18 in					2	WHITE	BLACK	BLACK	P-5 2	3.0	6.0	
R3-17aP	24 in	8 in					1	WHITE	BLACK	BLACK	MOUNT W/ R3-17	1.4	1.4	
R3-17bP	24 in	8 in					1	WHITE	BLACK	BLACK	MOUNT W/ R3-17	1.4	1.4	
R4-7	24 in	30 in					24	WHITE	BLACK	BLACK	P-5 24	5.0	120.0	
R5-1	30 in	30 in					3	RED	WHITE	WHITE	P-5 1	6.25	18.8	
R7-8L	12 in	18 in					1	WHITE	GREEN/ BLUE	GREEN	P-5 1	1.5	1.5	
R7-8R	12 in	18 in					1	WHITE	GREEN/ BLUE	GREEN	P-5 1	1.5	1.5	
R7-8P	18 in	9 in					2	WHITE	GREEN	GREEN	MOUNT 1 W/ R7-8L 1 W/ R7-8R	1.2	2.3	
R7-9a	12 in	18 in					14	WHITE	RED/ BLACK	RED	P-5 14	1.5	21.0	
R7-108L	12 in	18 in					1	WHITE	GREEN	GREEN	P-5 1	1.5	1.5	
R7-108R	12 in	18 in					1	WHITE	GREEN	GREEN	P-5 1	1.5	1.5	
R10-11b	36 in	36 in					3	WHITE	BLACK	BLACK	MOUNT 3 ON MA	9.0	27.0	
R20-10aP	30 in	12 in					2	WHITE	BLACK	BLACK	MOUNT W/ R5-1	2.5	5.0	
R20-10bP	30 in	18 in					3	WHITE	BLACK	BLACK	1 W/ R3-1 1 W/ R5-1 1 ON MA SHAFT	3.75	11.3	
R10-25	9 in	12 in					4	WHITE	BLACK	BLACK	MOUNT W/ RRFB	--	--	
W11-1	30 in	30 in					1	FYG	BLACK	BLACK	P5 1	6.25	6.25	
W11-2	30 in	30 in					8	FYG	BLACK	BLACK	MOUNT W/ RRFB	--	--	
W16-7pL	24 in	12 in					4	FYG	BLACK	BLACK	MOUNT W/ RRFB	--	--	
W16-7pR	24 in	12 in					4	FYG	BLACK	BLACK	MOUNT W/ RRFB	--	--	
MA-W16-19P	24 in	18 in					4	FYG	BLACK	BLACK	MOUNT W/ W11-1	3.0	3.0	

SEE 2009 MUTCD STANDARDS

NOTES:

- HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING CONFORMING TO SECTION M9:30.0, TYPE III OR IV, OF THE MASSDOT STANDARD SPECIFICATIONS SHALL BE USED FOR ALL SIGNS.
- ALL P5 POSTS SHALL BE TELESCOPIC, RECTANGULAR TYPE POSTS, CONFORMING TO THE DIMENSIONS AND REQUIREMENTS OF THE MASSDOT "STANDARD DRAWINGS FOR SIGNS AND SUPPORTS" (LATEST EDITION).
- SEE THE 2009 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND "STANDARD HIGHWAY SIGNS" FOR THE LATEST SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR. (ALSO SEE SECTION M9:30.0 TYPE III MASSDOT STANDARD SPECIFICATION, THE "MASSACHUSETTS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES," AND "GUIDE SIGN POLICY FOR SECONDARY STATE HIGHWAYS" (LATEST EDITIONS) BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION).
- STREET NAME (D3) SIGNS SHALL BE PAINTED ONE SIDE AND SHALL USE TWO SIGNS MOUNTED BACK TO BACK WITH BOLT-THROUGH METHOD. SEE SPECIAL PROVISIONS.

QUINCY SEA STREET			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		59	146
PROJECT FILE NO. 608707			

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK-GROUND	LEGEND	BORDER			
MA-D3-1 (OH)	36 in	18 in	Sea St	8/5.33D	5 5		12	GREEN	WHITE	WHITE	MOUNT ON MAST ARM SHAFT	EACH	EACH
MA-D3-2	48 in	12 in	Samoset Ave	6/4D	3 3		2				P-5 1		
MA-D3-2 (OH)	66 in	18 in	Samoset Ave	8/5.33D	5 5		2				MOUNT ON MAST ARM SHAFT		
MA-D3-3 (OH)	84 in	18 in	Narragansett Rd	8/5.33D	5 5		2				MOUNT ON MAST ARM SHAFT		
MA-D3-4 (OH)	108 in	18 in	Murphy Memorial Dr	8/5.33D	5 5		2				MOUNT ON MAST ARM SHAFT		
MA-D3-5	60 in	12 in	Chickatabot Rd	6/4D	3 3		2				MOUNT W/ R1-1		
MA-D3-6	48 in	12 in	Hoboback Rd	6/4D	3 3		2				MOUNT W/ R1-1		
MA-D3-7	48 in	12 in	Algonquin Rd	6/4D	2.75 3.25		2				MOUNT W/ R1-1		
MA-D3-8	54 in	12 in	Wampatuck Rd	6/4D	2.75 3.25		2				MOUNT W/ R1-1		
MA-D3-9	48 in	12 in	Barbour Ter	6/4D	3 3		2				MOUNT W/ R1-1		
MA-D3-10	36 in	12 in	Homer Rd	6/4D	3 3		2				MOUNT W/ R1-1		
MA-D3-11 (OH)	54 in	18 in	Norton Rd	8/5.33D	5 5		2				MOUNT ON MAST ARM SHAFT		
MA-D3-12 (OH)	54 in	18 in	Moffat Rd	8/5.33D	5 5		2				MOUNT ON MAST ARM SHAFT		
MA-D3-13	36 in	12 in	Curlew Rd	6/4D	3 3		2				MOUNT W/ R1-1		
MA-D3-14	48 in	12 in	Braintree Rd				2				MOUNT W/ R1-1		
MA-D3-15	48 in	12 in	Albatross Rd				2				MOUNT W/ R1-1		
MA-D3-16	48 in	12 in	Riverside Ave				2				MOUNT W/ R1-1		
MA-D3-17	42 in	12 in	Gannett Rd				2				MOUNT W/ R1-1		
MA-D3-18 (OH)	54 in	18 in	Palmer St	8/5.33D	5 5		4				MOUNT ON MAST ARM SHAFT		
MA-D3-19	42 in	12 in	Pequot Rd	6/4D	2.75 3.25		2				MOUNT W/ R1-1		

QUINCY
SEA STREET

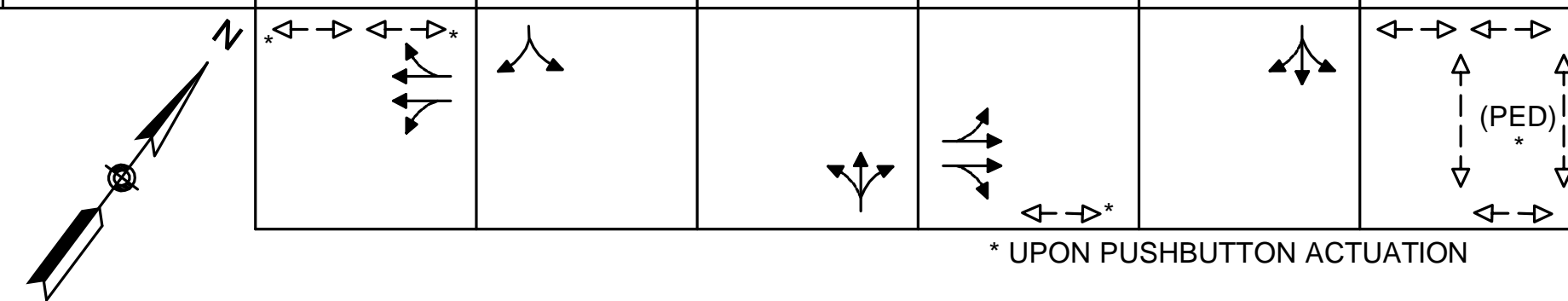
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		61	146
PROJECT FILE NO. 608707			

TRAFFIC SIGNAL PLAN - LOCATION 1
SEA STREET AT SAMOSET AVENUE/
NARRAGANSETT ROAD/
MURPHY MEMORIAL DRIVE

SEQUENCE AND TIMING FOR FULLY ACTUATED TRAFFIC SIGNAL CONTROL (COORDINATED)																					
PHASE		Ø2			Ø3			Ø4			Ø6			Ø8			Ø9			FLASH OPER.	
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
SEA STREET	EB	A, B	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
SEA STREET	WB	C, D	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
NARRAGANSETT ROAD	SB	E, F	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
MURPHY MEM. DRIVE	NB	G, H	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FR
SAMOSET AVENUE	SEB	J, K, L	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR

TIMING IN SECONDS																					
MINIMUM GREEN		10			6			6			10			6							
VEHICLE EXTENSION		3			3			3			3			3							
MAXIMUM GREEN I (ALL OTHER TIMES)		50			8			15			50			8							
MAXIMUM GREEN II (6 AM - 10 AM WEEKDAYS)		55			11			10			55			10							
CLEARANCE INTERVAL			4	6			3	6				4	6			4	6				
WALK/CLEARANCE/BUFFER INTERVAL		7	14	3							7	14	3					7	14	4	
DETECTOR MEMORY		NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			LOCK				
RECALL SWITCH		SOFT			OFF			OFF			SOFT			OFF							

COORDINATION DATA			COORDINATION SPLIT TIMING (SECONDS)					
TIMING PLAN	CYCLE LENGTH	OFFSET	Ø2	Ø3	Ø4	Ø6	Ø8	Ø9
PLAN 1	120	5	60	17	18	60	18	25
PLAN 2	110	109	50	17	18	50	18	25



TRAFFIC SIGNAL NOTES:

- IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
- IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT TRAFFIC MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.
- FLASHING OPERATION IS FOR EMERGENCY OPERATION ONLY. THE SIGNAL SHALL PROVIDE STOP AND GO OPERATION 24 HOURS DAILY.
- PHASE 9 TO BE ACTIVATED BY PEDESTRIAN PUSHBUTTON P7, P8, P9, AND P10 ONLY.
- OPTICAL DETECTORS SHALL BE LOCATED FOR OPTIMUM SIGHT DISTANCE.
- PEDESTRIAN PUSHBUTTONS AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FIG. 4E-4) AND POINTED PARALLEL TO THE CROSSWALK.

COORDINATION NOTES

- LOCATIONS 1 THROUGH 4 SHALL BE HARD WIRE INTERCONNECTED.
- LOCATIONS 1, 3, AND 4 SHALL BE COORDINATED.
- OFFSET TO BEGINNING OF Ø2 & Ø6 GREEN.
- ALL COORDINATION SPLIT TIMES INCLUDE YELLOW AND RED CLEARANCE TIME.
- PHASE 2 & 6 DETECTORS SHALL BE DISABLED DURING COORDINATION.
- COORDINATION MODE SHALL BE YIELD. FIXED FORCE OFFS SHALL BE IN EFFECT DURING COORDINATION.
- INHIBIT MAX TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
- OFFSET SEEKING SHALL BE THE SHORTWAY METHOD.

VIDEO DETECTOR DATA

DETECTION ZONE NO.	NO. SECTION/ SIZE	OPERATIONS	CALL DELAY (SECONDS)	CALL PHASE	EXTEND PHASE
1	1 - 6'x50'	PRESENCE/BICYCLE	0	Ø6	Ø6
2	1 - 6'x50'	PRESENCE	0	Ø6	Ø6
3	1 - 3'x6'	BICYCLE	0	Ø6	Ø6
4	1 - 6'x50'	PRESENCE/BICYCLE	0	Ø2	Ø2
5	1 - 6'x50'	PRESENCE	0	Ø2	Ø2
6	1 - 3'x6'	BICYCLE	0	Ø2	Ø2
7	1 - 15'x15'	PRESENCE/BICYCLE	5	Ø8	Ø8
8	1 - 9'x25'	PRESENCE	0	Ø8	Ø8
9	1 - 6'x30'	PRESENCE	0	Ø4	Ø4
10	1 - 3'x6'	BICYCLE	0	Ø4	Ø4
11	1 - 6'x30'	PRESENCE/BICYCLE	5	Ø4	Ø4
12	1 - 6'x15'	PRESENCE/BICYCLE	0	Ø3	Ø3
13	1 - 6'x15'	PRESENCE	5	Ø3	Ø3
14	1 - 6'x15'	PRESENCE/BICYCLE	5	Ø3	Ø3

MAST ARM FOUNDATIONS

MAST ARM POLE	LOCATION		ARM LENGTH	FOUNDATION SIZE			
	STATION	OFFSET		DIAMETER	DEPTH	VERT. BARS	TIE BARS
MA 1-1	17+53.95	33.85' RT	30'	3'-0"			
MA 1-2	17+77.68	41.47' LT	30'	3'-0"			
MA 1-3	17+93.44	47.61' RT	15'	3'-0"			
MA 1-4	18+45.51	47.21' LT	25'	3'-0"			
MA 1-5	16+71.02	33.99' RT	20'	3'-0"			

- MAST ARM POLE FOUNDATION TO BE VERIFIED PENDING SOIL EXPLORATION.
- IF BEDROCK IS ENCOUNTERED BEFORE FOUNDATION DEPTH IS ACHIEVED, CONTRACTOR TO EXTEND FOUNDATION 5'-0" INTO COMPETENT ROCK, OR TO FOUNDATION DEPTH LISTED IN THE TABLE ABOVE, WHICHEVER IS GREATER.

MASTER SCHEDULE

	PLAN 1	PLAN 2	FREE
MONDAY - FRIDAY	0600-1100	1100-1900	0000-0600 1900-0000
SATURDAY			ALL DAY
SUNDAY			ALL DAY

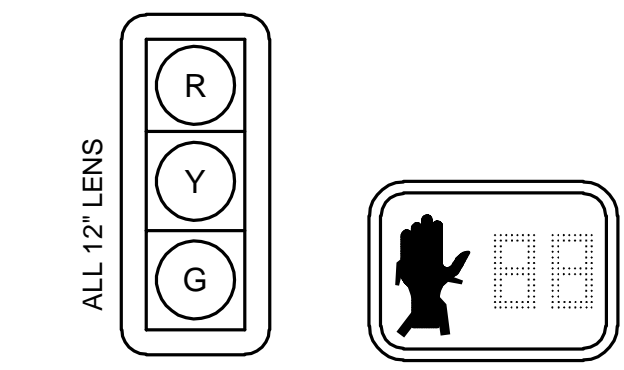
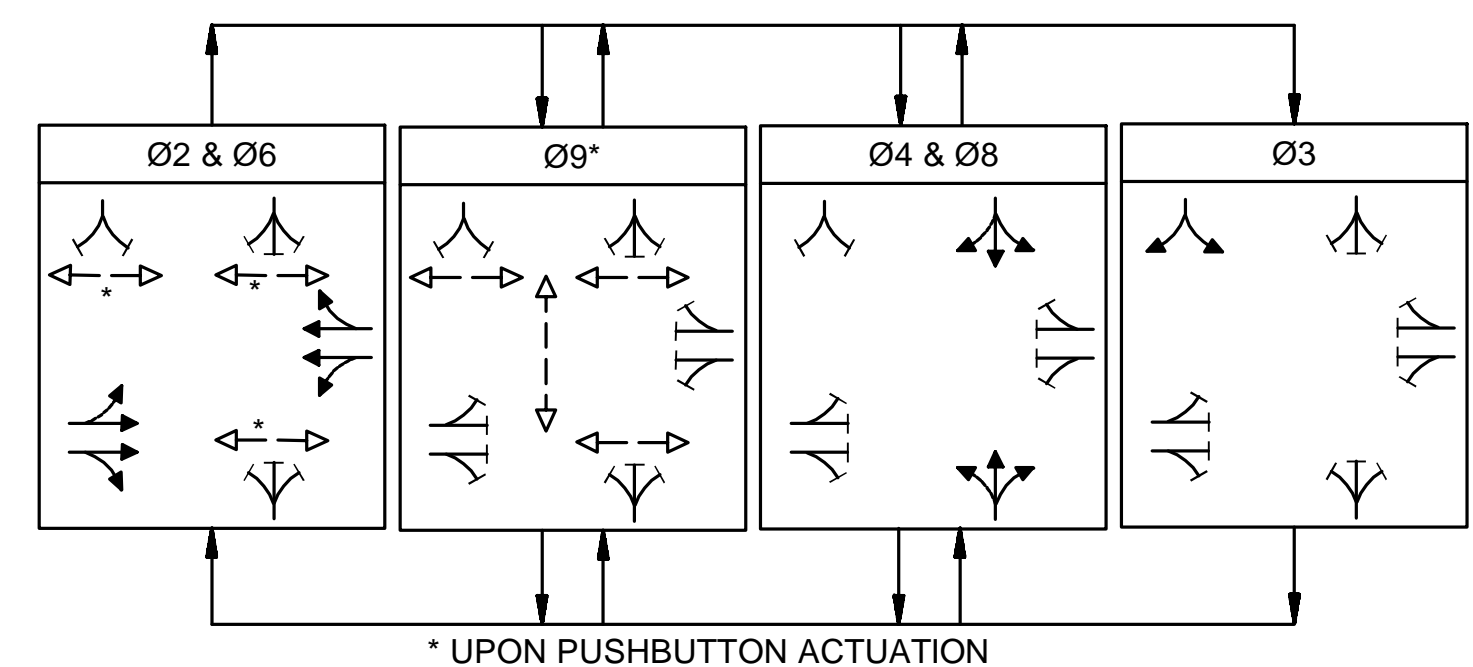
PRE-EMPTION PHASING & PRIORITY

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENT
R1	1	EB	Ø6
R2	2	WB	Ø2
R3	3	SB	Ø8
R4	4	NB	Ø4
R5	5	SEB	Ø3

EMERGENCY PREEMPTION NOTES:

- UPON PREEMPTION ACTIVATION, PHASE(S) BEING SERVICED SHALL IMMEDIATELY BEGIN CLEARANCE (I.E., YELLOW AND ALL RED) AS DESIGNED, EXCEPT FOR WHEN PHASE(S) CALLED BY PREEMPTION ARE CURRENTLY IN SERVICE. WHEN PHASE(S) CURRENTLY IN SERVICE MATCH PHASE(S) CALLED BY PREEMPTION, SIGNAL INDICATIONS ARE MAINTAINED. HOWEVER, PREEMPTION OPERATION (I.E. TIMING) SUPERCEDES NORMAL TRAFFIC SIGNAL CONTROL.
- AFTER THE PREEMPTION SEQUENCE HAS TERMINATED, THE SIGNAL SHALL RETURN TO THE BEGINNING OF Ø2 & Ø6.
- THE PREEMPTION STROBE SHALL BE ILLUMINATED ONLY WHEN THE PREEMPTED PHASE IS DISPLAYING A GREEN INDICATION.
- EMERGENCY PREEMPTION SHALL COME ON A FIRST-COME FIRST-SERVED BASIS.

PREFERENTIAL PHASING SEQUENCE

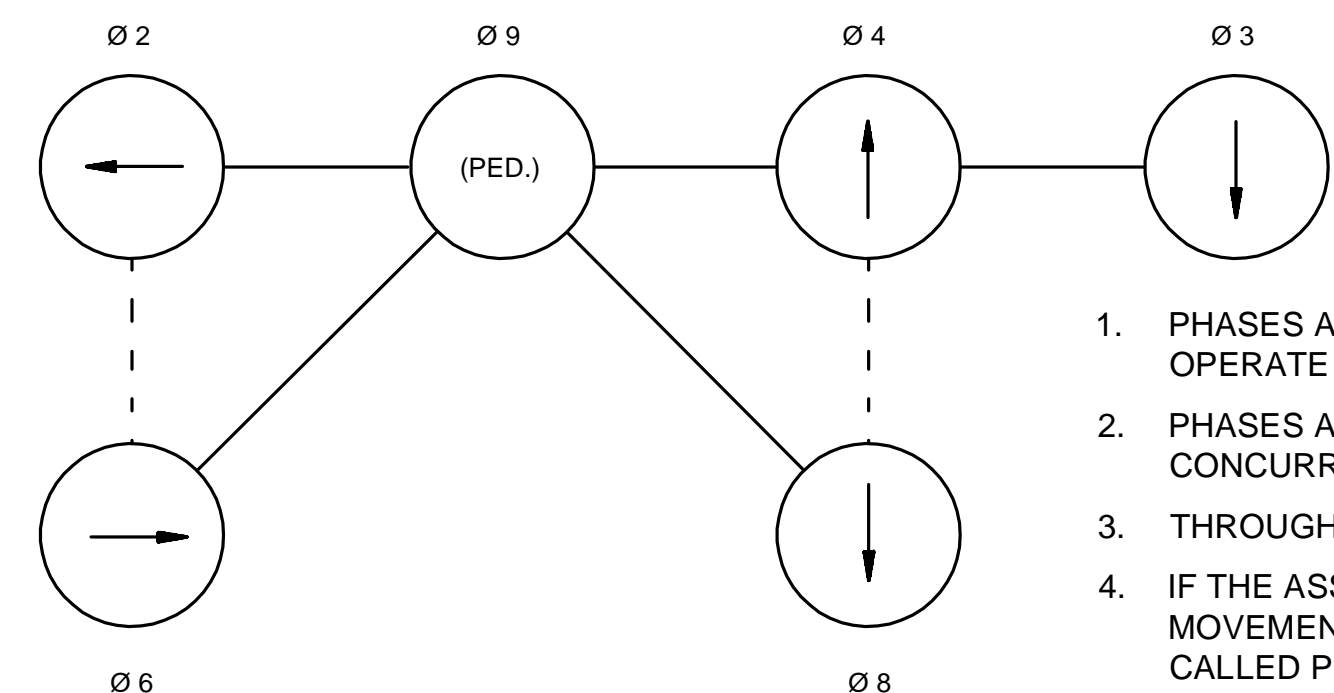


SIGNAL HEAD DESIGNATIONS
NOT TO SCALE

SIGNAL HEAD NOTES

- ALL SIGNAL HEADS SHALL HAVE BACKPLATES AND TUNNEL VISORS.
- ALL SIGNAL BACKPLATES SHALL BE 5" LOUVERED WITH 2" YELLOW RETROREFLECTIVE BORDER.
- ALL SIGNAL LENSES SHALL BE 12" DIA. LED.
- ALL PEDESTRIAN SIGNAL HEADS SHALL DISPLAY INTERNATIONAL SYMBOLS - (HAND)/(PERSON WALKING) WITH COUNTDOWN DISPLAYS.
- ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE 16" LED LENSES AND SUN VISORS.
- ALL SIGNAL HEADS SHALL BE FIXED MOUNTED.

NEMA DUAL RING PHASING NOTES:



- PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
- THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
- IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

MAJOR ITEMS LIST - LOCATION 1		
PAY ITEM	QUANTITY	ITEM DESCRIPTION
	1	TRAFFIC SIGNAL CONTROLLER (ATC-NEMA), LOCATED IN BASE MOUNTED CABINET, WITH FOUNDATION & CONCRETE PAD
	2	30' MAST ARM, TYPE II, STEEL MONOLEVER WITH FOUNDATION
	1	25' MAST ARM, TYPE II, STEEL MONOLEVER WITH FOUNDATION
	2	15' MAST ARM, TYPE II, STEEL MONOLEVER WITH FOUNDATION
	10	TRAFFIC SIGNAL POST AND BASE STANDARD - 8' STEEL
	11	SIGNAL HEAD, 1-WAY, 3 SECTION, 12" LENSES
	11	5" 3-SECTION BACKPLATE WITH 2" YELLOW RETROREFLECTIVE YELLOW BORDER
	10	PEDESTRIAN SIGNAL HEAD, 1-WAY, 1 SECTION, 16" WITH COUNTDOWN
	10	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSHBUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
	1	SINGLE POINT VIDEO DETECTION CAMERA SYSTEM
	5	OPTICAL DETECTOR, UNIDIRECTIONAL, SINGLE CHANNEL
	1	2 CHANNEL PHASE SELECTOR
	1	4 CHANNEL PHASE SELECTOR
	1	CARD RACK
	2	EMERGENCY PRE-EMPTION CONFIRMATION STROBE (WHITE)
	2*	FIELD MONITORING UNIT
	1	SERVICE CONNECTION (UNDERGROUND)
	1	MAINTENANCE OF TRAFFIC SIGNALS DURING CONSTRUCTION
	6	R10-3e SIGN (LEFT ARROW)
	4	R10-3e SIGN (RIGHT ARROW)
811.31	7	PULL BOX - 12" X 12" (SD2.031)
811.23	2	PULL BOX - 24" X 24" (SD2.023)
814.	1	ADAPTIVE SIGNAL CONTROL PROCESSOR
813.79	3*	ETHERNET OVER COPPER CONVERTER
	2*	ENVIRONMENTALLY HARDENED ETHERNET SWITCH

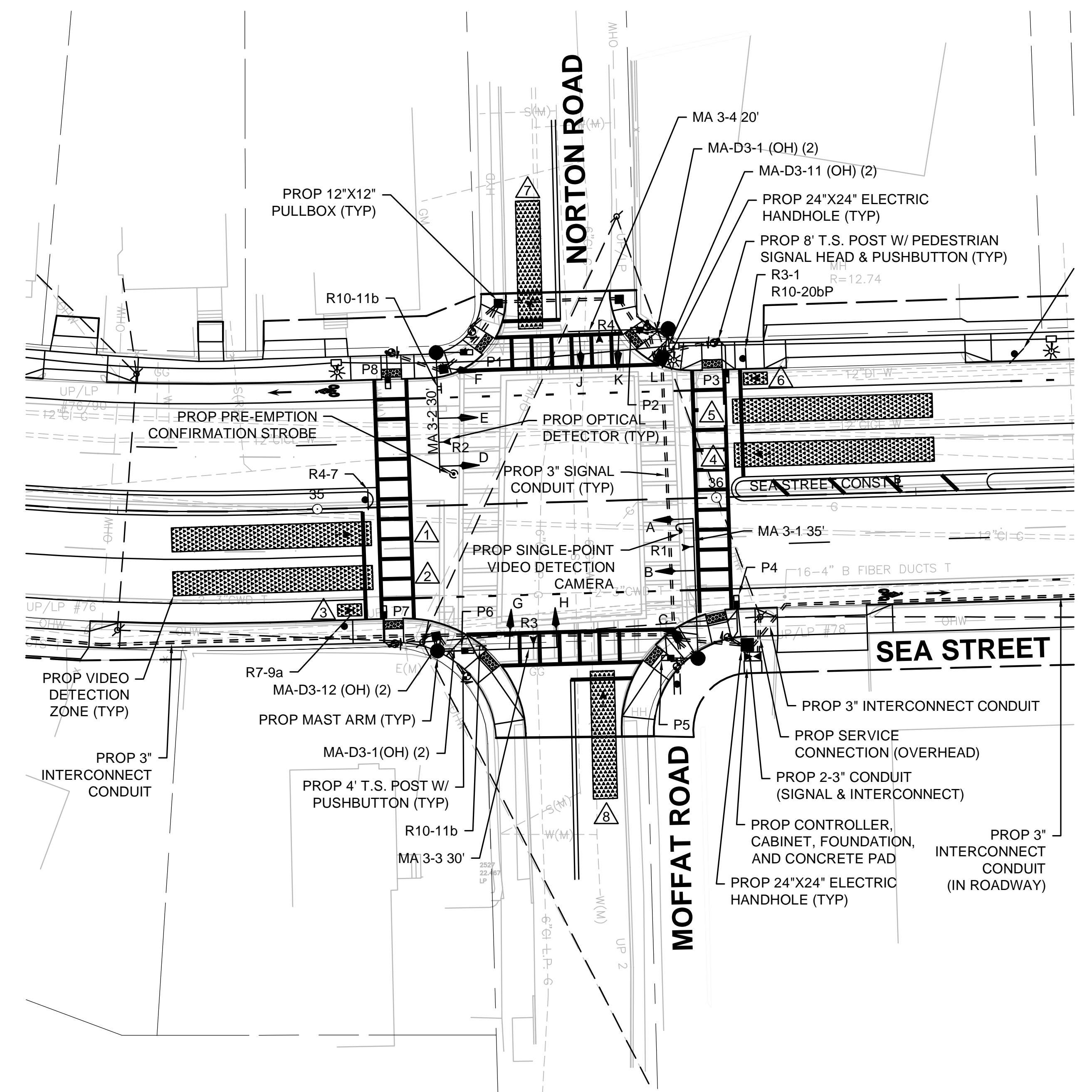
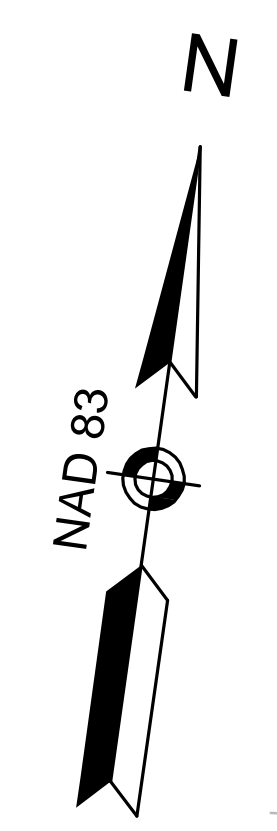
PLUS ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL.

*ONE FIELD MONITORING UNIT, ONE ETHERNET OVER COPPER SWITCH AND ONE ENVIRONMENTALLY HARDENED ETHERNET SWITCH SHALL BE INSTALLED IN TRAFFIC SIGNAL CABINET AT THE SEA STREET AND QUINCY SHORE DRIVE INTERSECTION.

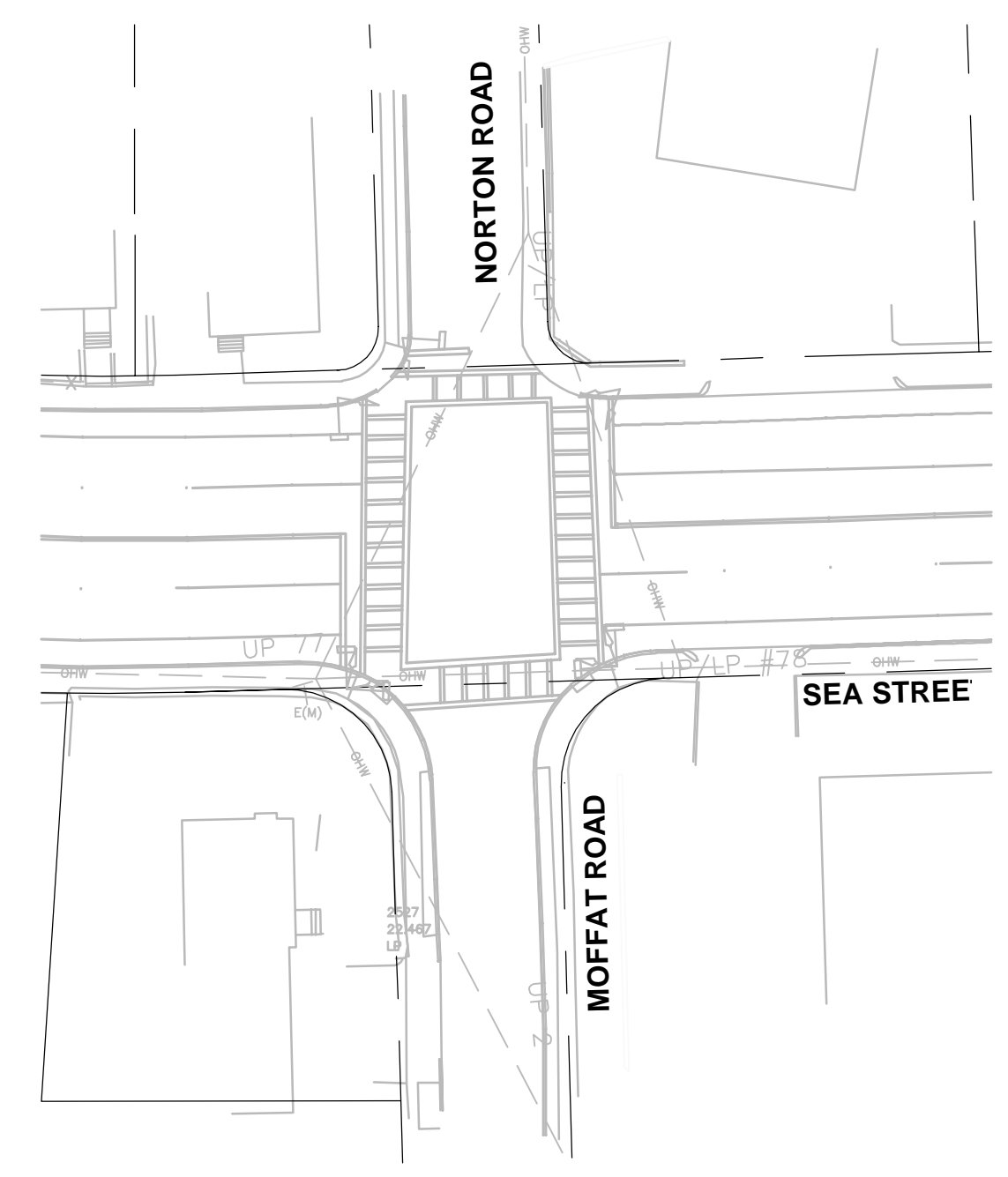
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		63	146
PROJECT FILE NO.		608707	

TRAFFIC SIGNAL PLAN - LOCATION 3
SEA STREET AT NORTON ROAD/
MOFFAT ROAD



PROPOSED TRAFFIC SIGNAL LAYOUT
0 20 50 100
SCALE: 1" = 20'



EXISTING TRAFFIC SIGNAL LAYOUT
(ALL EXISTING EQUIPMENT TO BE R&S)
0 40 100 160
SCALE: 1" = 40'

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		64	146
PROJECT FILE NO. 608707			

TRAFFIC SIGNAL PLAN - LOCATION 3
SEA STREET AT NORTON ROAD/
MOFFAT ROAD

SEQUENCE AND TIMING FOR FULLY ACTUATED TRAFFIC SIGNAL CONTROL (COORDINATED)																									
PHASE			Ø2			Ø4			Ø5			Ø6			Ø8			Ø9		FLASH OPER.					
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18					
SEA STREET	EB	A, B, C	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY				
SEA STREET	WB	D	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY				
SEA STREET	WB	E, F	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY				
NORTON ROAD	SB	G, H	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR				
MOFFAT ROAD	NB	J, K, L	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR				
PEDESTRIAN			P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OFF			
TIMING IN SECONDS																									
MINIMUM GREEN			10			8			8			10			8										
VEHICLE EXTENSION			3			3			3			3													
MAXIMUM GREEN I (ALL OTHER TIMES)			35			20			10			25			20										
MAXIMUM GREEN II (6 AM - 10 AM WEEKDAYS)			65			20			15			50			20										
CLEARANCE INTERVAL				4	2.5		5	2.5		4	2.5		4	2.5		5	2.5								
WALK/CLEARANCE/BUFFER INTERVAL																		7	14	4					
DETECTOR MEMORY			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			LOCK							
RECALL SWITCH			SOFT			OFF			OFF			SOFT			OFF			OFF							
COORDINATION DATA																									
TIMING PLAN			CYCLE LENGTH			OFFSET			Ø2			Ø3			Ø4			Ø6			Ø8		Ø9		
PLAN 1			120			34			11			65			19			76			19			25	
PLAN 2			110			37			11			53			21			64			21			25	

TRAFFIC SIGNAL NOTES:

- IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
- IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT TRAFFIC MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.
- FLASHING OPERATION IS FOR EMERGENCY OPERATION ONLY. THE SIGNAL SHALL PROVIDE STOP AND GO OPERATION 24 HOURS DAILY.
- PHASE 9 TO BE ACTIVATED BY PEDESTRIAN PUSH-BUTTON ONLY.
- OPTICAL DETECTORS SHALL BE LOCATED FOR OPTIMUM SIGHT DISTANCE.
- PEDESTRIAN PUSHBUTTONS AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FIG. 4E-4) AND POINTED PARALLEL TO THE CROSSWALK.

VIDEO DETECTOR DATA

DETECTION ZONE NO.	NO. SECTION/ SIZE	OPERATIONS	CALL DELAY (SECONDS)	CALL PHASE	EXTEND PHASE
1	1 - 6'x50'	PRESENCE/BICYCLE	0	Ø6	Ø6
2	1 - 6'x50'	PRESENCE	0	Ø6	Ø6
3	1 - 3'x6'	BICYCLE	0	Ø6	Ø6
4	1 - 6'x50'	PRESENCE/BICYCLE	0	Ø5	Ø2
5	1 - 6'x50'	PRESENCE	0	Ø2	Ø2
6	1 - 3'x6'	BICYCLE	0	Ø2	Ø2
7	1 - 6'x30'	PRESENCE/BICYCLE	0	Ø8	Ø8
8	1 - 6'x30'	PRESENCE/BICYCLE	0	Ø4	Ø4

MASTER SCHEDULE

	PLAN 1	PLAN 2	FREE
MONDAY - FRIDAY	0600-1100	1100-1900	0000-0600 1900-0000
SATURDAY			ALL DAY
SUNDAY			ALL DAY

MAST ARM FOUNDATIONS

MAST ARM POLE	LOCATION		ARM LENGTH	FOUNDATION SIZE			
	STATION	OFFSET		DIAMETER	DEPTH	VERT. BARS	TIE BARS
MA 3-1	35+94.42	40.94' RT	35'	3'-6"			
MA 3-2	35+36.05	38.87' LT	30'	3'-0"			
MA 3-3	35+29.40	36.15' RT	30'	3'-0"			
MA 3-4	35+86.76	39.23' LT	20'	3'-0"			

- MAST ARM POLE FOUNDATION TO BE VERIFIED PENDING SOIL EXPLORATION.
- IF BEDROCK IS ENCOUNTERED BEFORE FOUNDATION DEPTH IS ACHIEVED, CONTRACTOR TO EXTEND FOUNDATION 5'-0" INTO COMPETENT ROCK, OR TO FOUNDATION DEPTH LISTED IN THE TABLE ABOVE, WHICHEVER IS GREATER.

COORDINATION NOTES

- LOCATIONS 1 THROUGH 4 SHALL BE HARD WIRE INTERCONNECTED.
- LOCATIONS 1, 3, AND 4 SHALL BE COORDINATED.
- OFFSET TO BEGINNING OF Ø2 & Ø6 GREEN.
- ALL COORDINATION SPLIT TIMES INCLUDE YELLOW AND RED CLEARANCE TIME.
- PHASE 2 & 6 DETECTORS SHALL BE DISABLED DURING COORDINATION.
- COORDINATION MODE SHALL BE YIELD. FIXED FORCE OFFS SHALL BE IN EFFECT DURING COORDINATION.
- INHIBIT MAX TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
- OFFSET SEEKING SHALL BE THE SHORTWAY METHOD.

SIGNAL HEAD NOTES

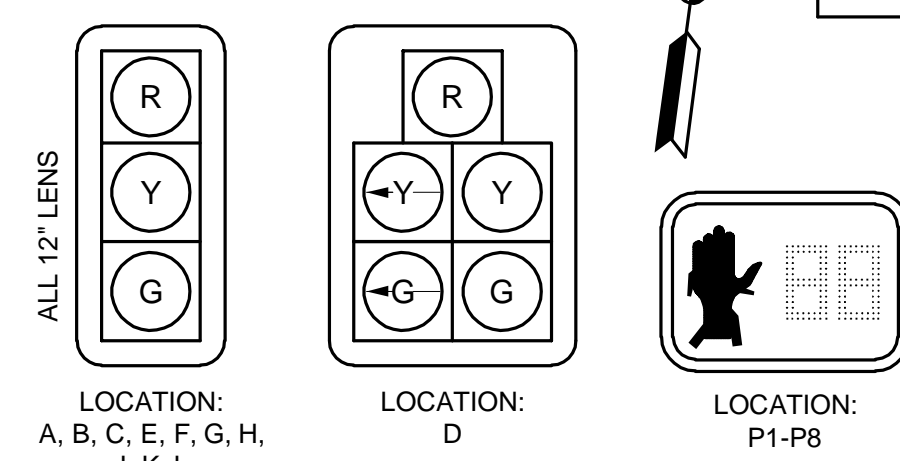
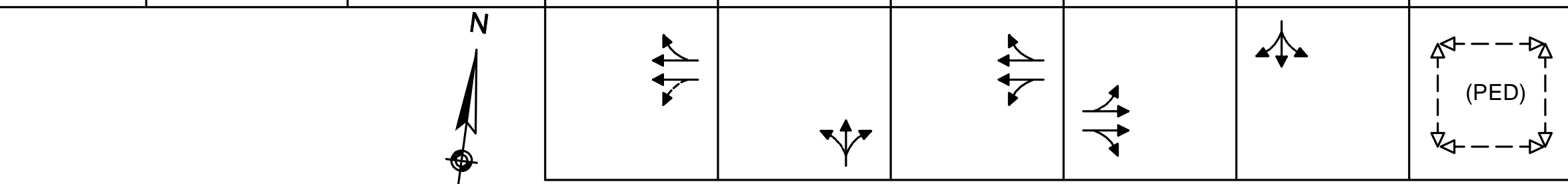
- ALL SIGNAL HEADS SHALL HAVE BACKPLATES AND TUNNEL VISORS.
- ALL SIGNAL BACKPLATES SHALL BE 5" LOUVERED WITH 3" YELLOW RETROREFLECTIVE BORDER.
- ALL SIGNAL LENSES SHALL BE 12" DIA. LED.
- ALL PEDESTRIAN SIGNAL HEADS SHALL DISPLAY INTERNATIONAL SYMBOLS - (HAND)/(PERSON WALKING) WITH COUNTDOWN DISPLAYS.
- ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE 16" LED LENSES AND SUN VISORS.
- ALL SIGNAL HEADS SHALL BE FIXED MOUNTED.

PRE-EMPTION PHASING & PRIORITY

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENT
R1	1	EB	Ø6
R2	2	WB	Ø2
R3	3	SB	Ø8
R4	4	NB	Ø4

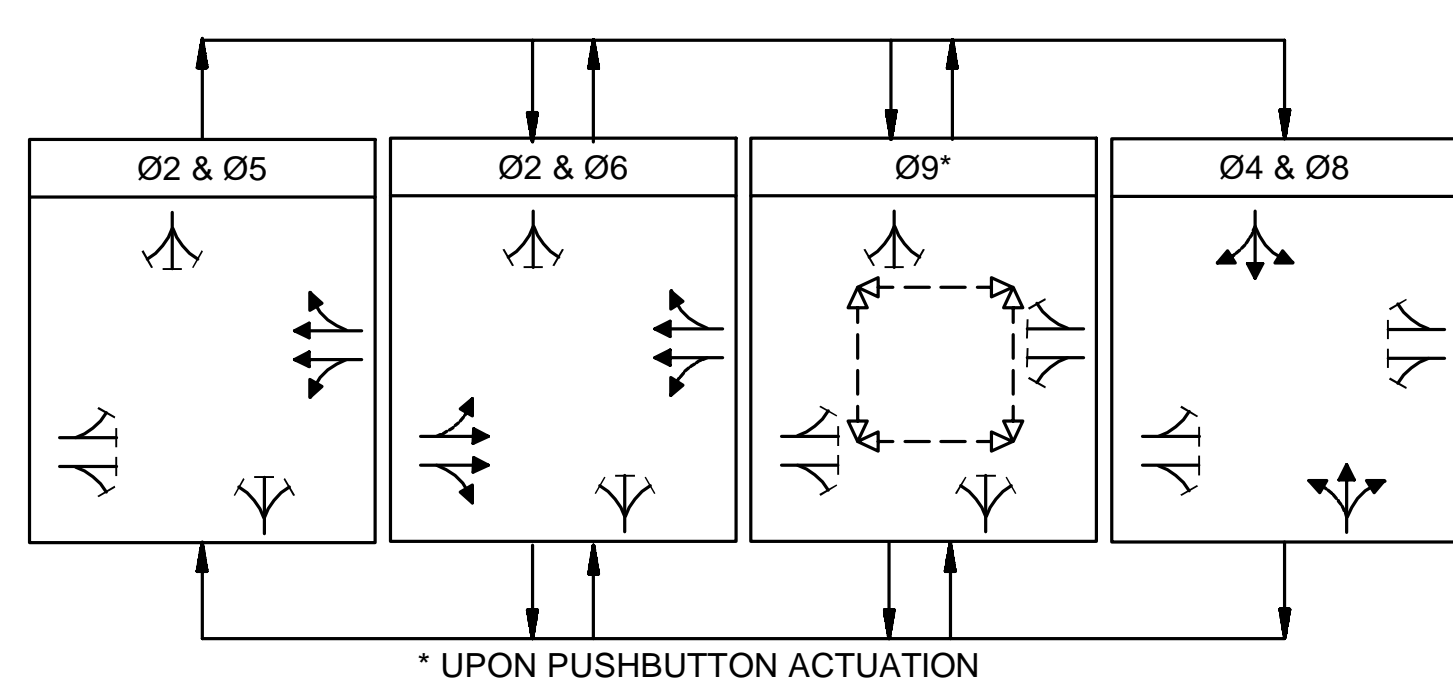
EMERGENCY PREEMPTION NOTES:

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- AFTER THE PREEMPTION SEQUENCE HAS TERMINATED, THE SIGNAL SHALL RETURN TO THE BEGINNING OF Ø2 & Ø6.
- THE PREEMPTION STROBE SHALL BE ILLUMINATED ONLY WHEN THE PREEMPTED PHASE IS DISPLAYING A GREEN INDICATION.
- EMERGENCY PREEMPTION SHALL COME ON A FIRST-COME FIRST-SERVED BASIS.

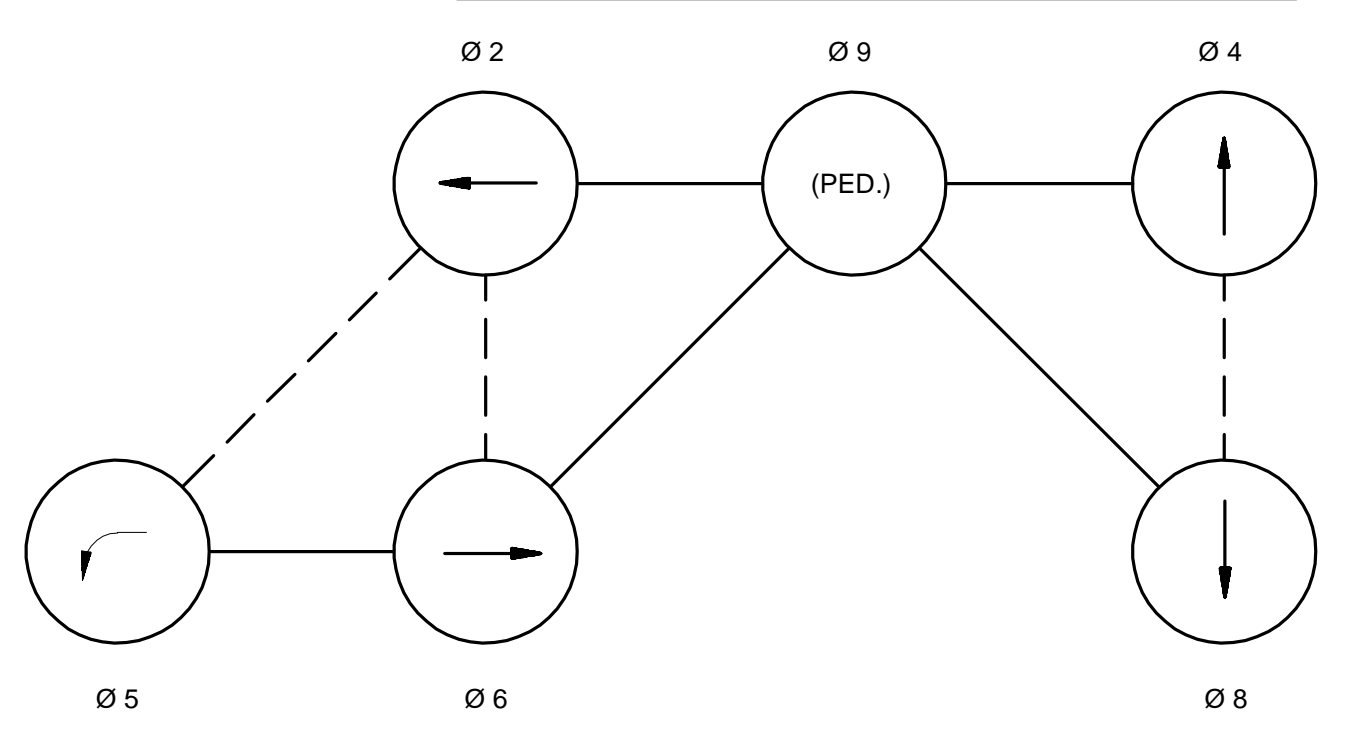


SIGNAL HEAD DESIGNATIONS
NOT TO SCALE

PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:

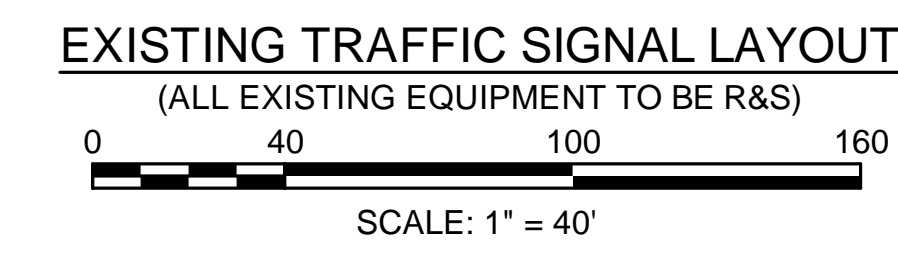
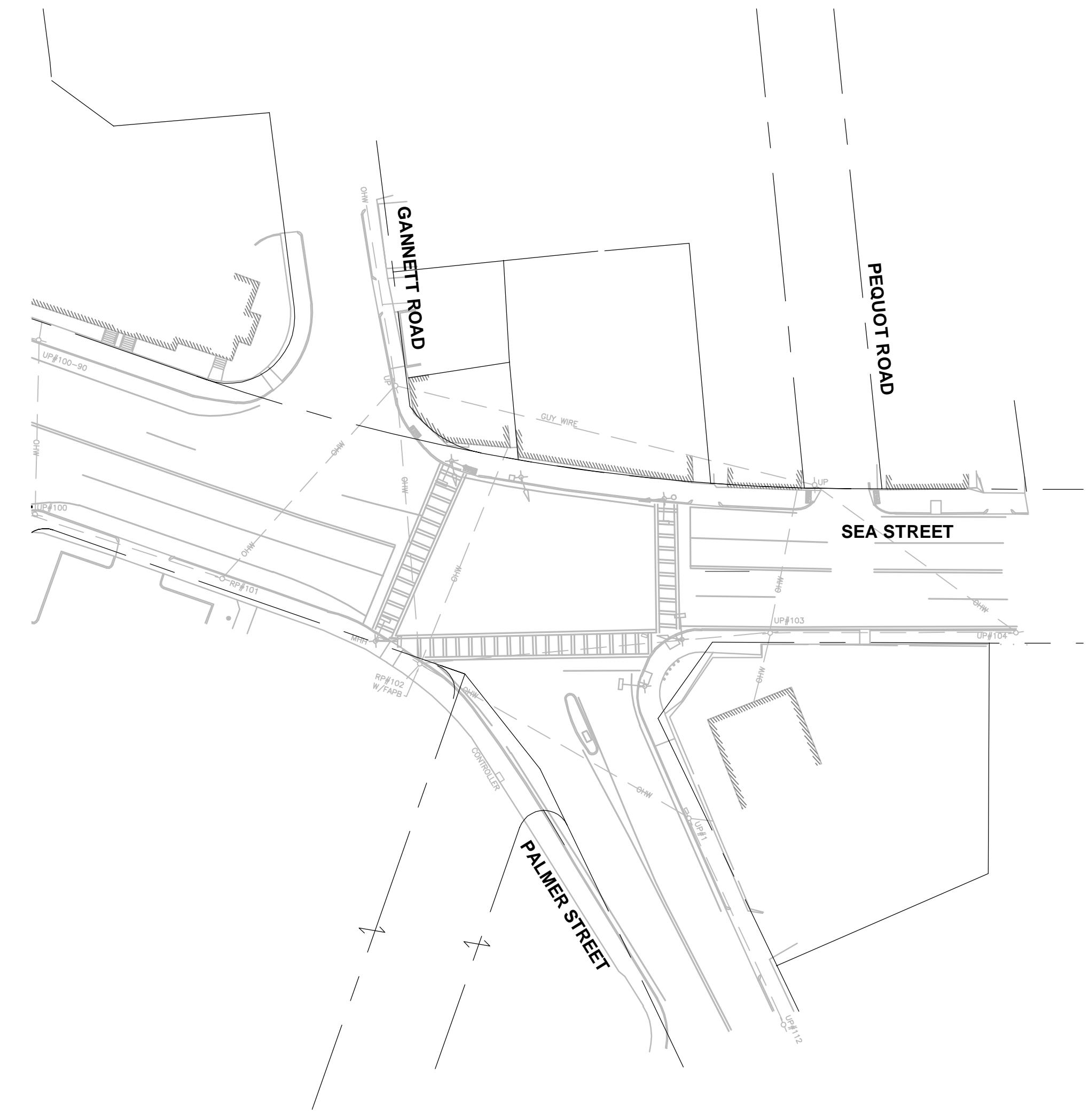
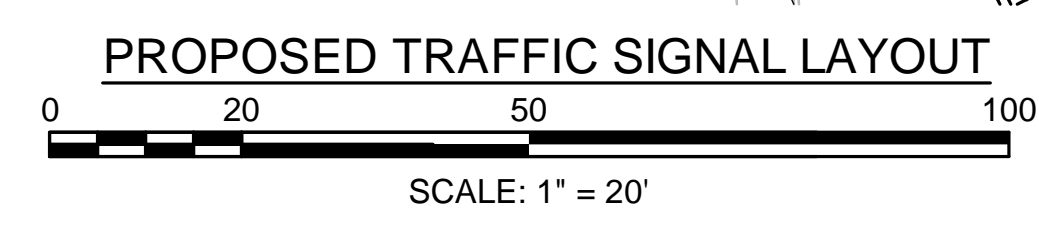
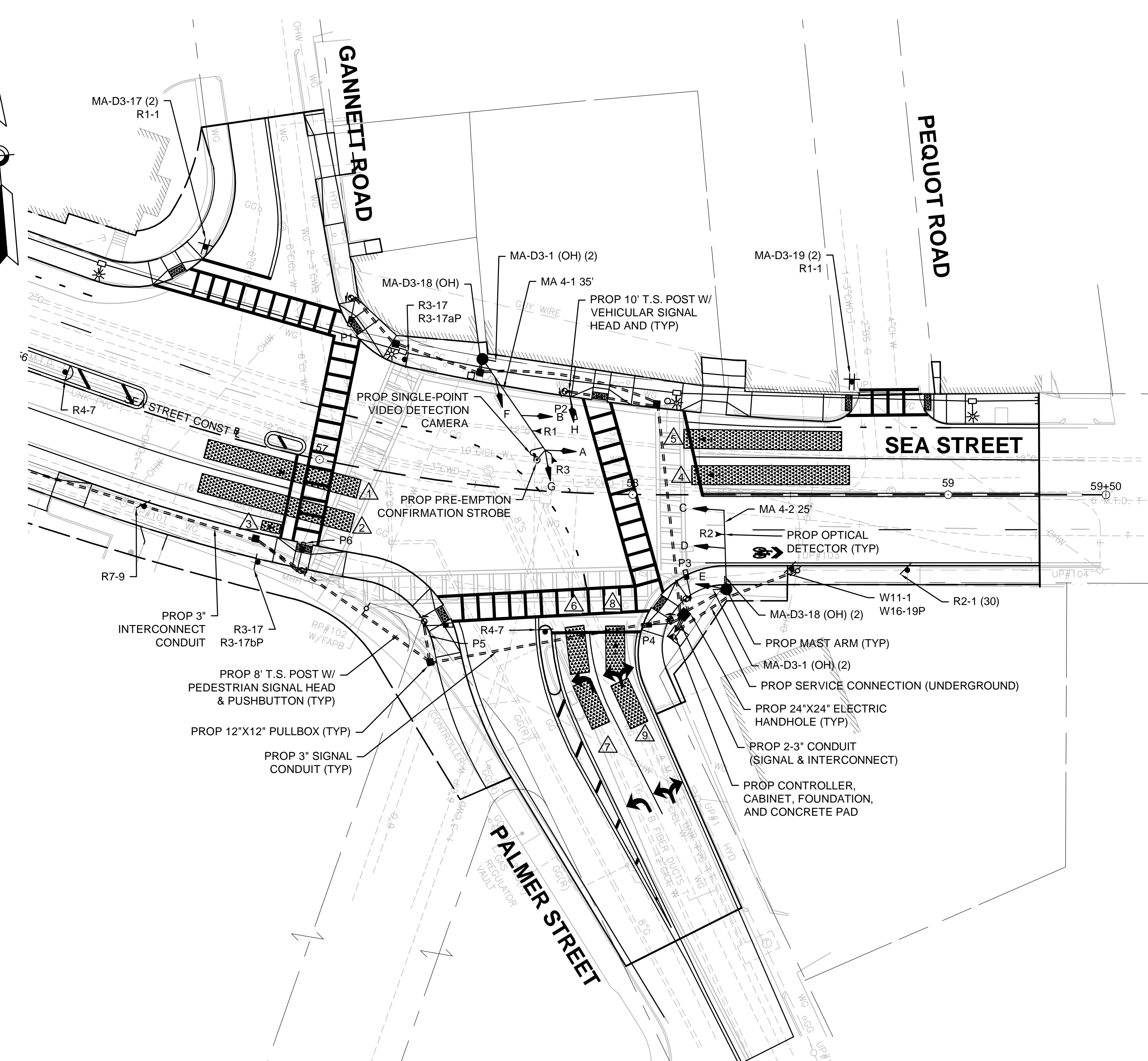
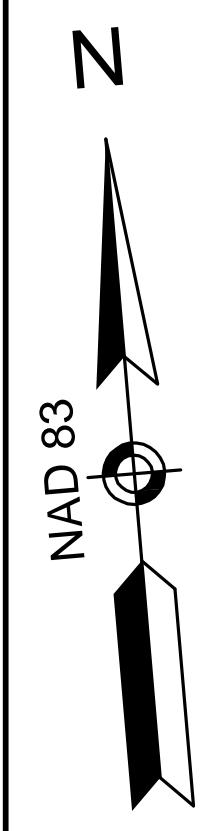


- PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
- THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
- IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		65	146
PROJECT FILE NO.		608707	

TRAFFIC SIGNAL PLAN - LOCATION 4
SEA STREET AT PALMER STREET



QUINCY
SEA STREET

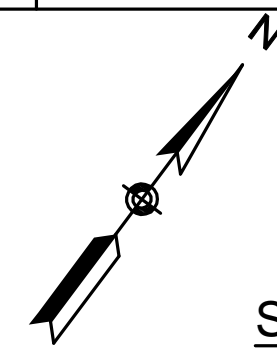
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		66	146
PROJECT FILE NO.		608707	

TRAFFIC SIGNAL PLAN - LOCATION 4
SEA STREET AT PALMER STREET

SEQUENCE AND TIMING FOR FULLY ACTUATED TRAFFIC SIGNAL CONTROL (COORDINATED)															
PHASE			Ø2			Ø4			Ø6			Ø9			FLASH OPER.
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	
SEA STREET	WB	A, B	G	Y	R	R	R	R	R	R	R	R	R	R	FY
SEA STREET	EB	C, D, E	R	R	R	R	R	R	G	Y	R	R	R	R	FY
PALMER STREET	SB	F, G, H	R	R	R	G	Y	R	R	R	R	R	R	R	FR
PEDESTRIAN		P1-P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OFF

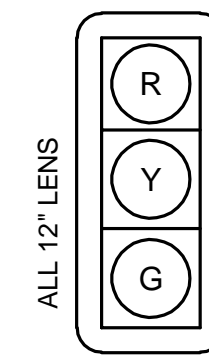
TIMING IN SECONDS						
MINIMUM GREEN			10			
VEHICLE EXTENSION			3			
MAXIMUM GREEN I (ALL OTHER TIMES)			45		15	45
MAXIMUM GREEN II (6 AM - 10 AM WEEKDAYS)			45		25	45
CLEARANCE INTERVAL				4	3	
WALK/CLEARANCE/BUFFER INTERVAL						7 18 4
DETECTOR MEMORY			NON-LOCK	NON-LOCK	NON-LOCK	LOCK
RECALL SWITCH			SOFT	OFF	SOFT	OFF

COORDINATION DATA			COORDINATION SPLIT TIMING (SECONDS)			
TIMING PLAN	CYCLE LENGTH	OFFSET	Ø2	Ø4	Ø6	Ø9
PLAN 1	120	0	60	35	60	25
PLAN 2	110	0	63	22	63	25

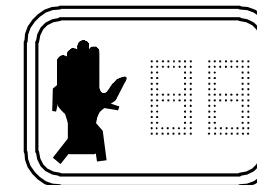


SIGNAL HEAD NOTES

- ALL SIGNAL HEADS SHALL HAVE BACKPLATES AND TUNNEL VISORS.
- ALL SIGNAL BACKPLATES SHALL BE 5" LOUVERED WITH 2" YELLOW RETROREFLECTIVE BORDER.
- ALL SIGNAL LENSES SHALL BE 12" DIA. LED.
- ALL PEDESTRIAN SIGNAL HEADS SHALL DISPLAY INTERNATIONAL SYMBOLS - (HAND)/(PERSON WALKING) WITH COUNTDOWN DISPLAYS.
- ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE 16" LED LENSES AND SUN VISORS.
- ALL SIGNAL HEADS SHALL BE FIXED MOUNTED.



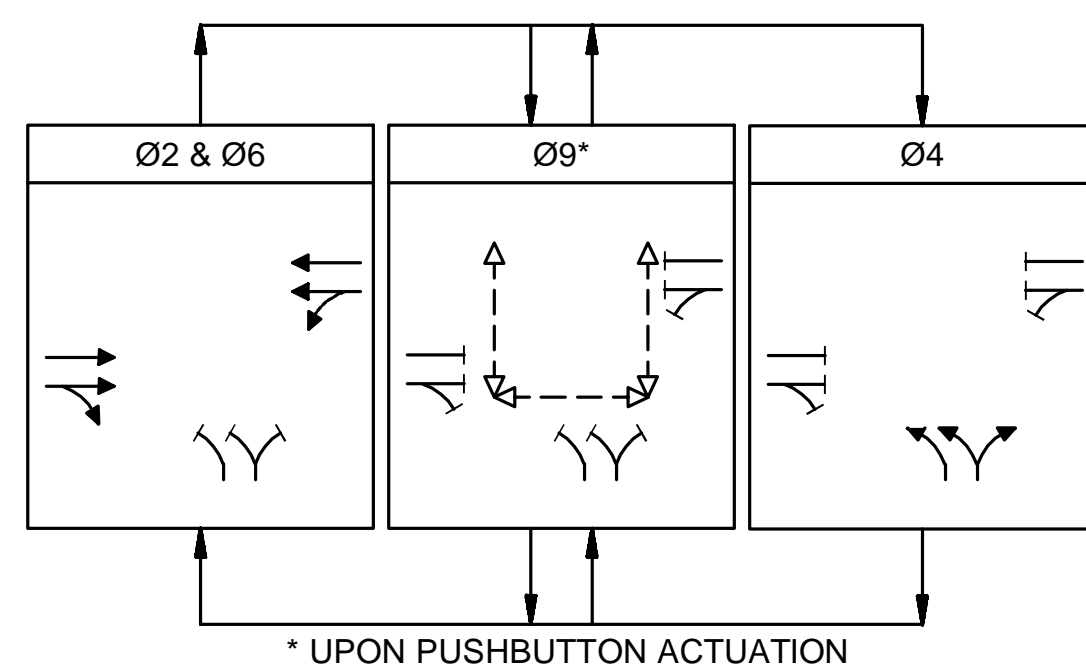
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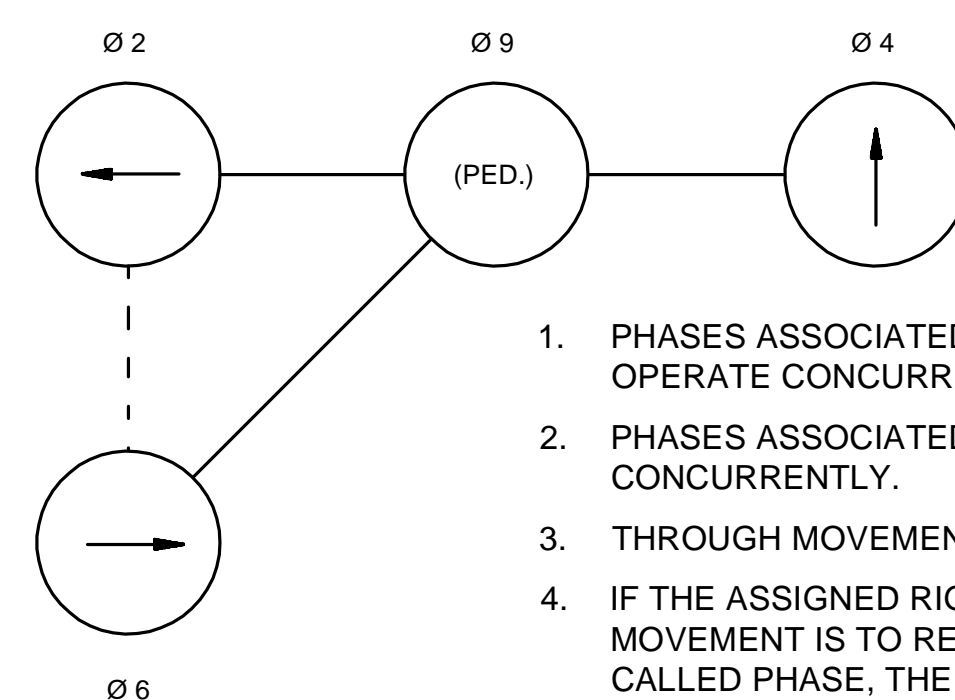
LOCATION: P1-P6

SIGNAL HEAD DESIGNATIONS
NOT TO SCALE

PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:



- PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
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TRAFFIC SIGNAL NOTES:

- IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
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- FLASHING OPERATION IS FOR EMERGENCY OPERATION ONLY. THE SIGNAL SHALL PROVIDE STOP AND GO OPERATION 24 HOURS DAILY.
- PEDESTRIAN PHASE TO BE ACTIVATED BY PEDESTRIAN PUSH-BUTTON ONLY.
- OPTICAL DETECTORS SHALL BE LOCATED FOR OPTIMUM SIGHT DISTANCE.
- PEDESTRIAN PUSHBUTTONS AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FIG. 4E-4) AND POINTED PARALLEL TO THE CROSSWALK.

MASTER SCHEDULE

	PLAN 1	PLAN 2	FREE
MONDAY - FRIDAY	0600-1100	1100-1900	0000-0600 1900-0000
SATURDAY			ALL DAY
SUNDAY			ALL DAY

COORDINATION NOTES

- LOCATIONS 1 THROUGH 4 SHALL BE HARD WIRE INTERCONNECTED.
- LOCATIONS 1, 3, AND 4 SHALL BE COORDINATED.
- OFFSET TO BEGINNING OF Ø2 & Ø6 GREEN.
- ALL COORDINATION SPLIT TIMES INCLUDE YELLOW AND RED CLEARANCE TIME.
- PHASE 2 & 6 DETECTORS SHALL BE DISABLED DURING COORDINATION.
- COORDINATION MODE SHALL BE YIELD. FIXED FORCE OFFS SHALL BE IN EFFECT DURING COORDINATION.
- INHIBIT MAX TERMINATION SHALL BE IN EFFECT DURING COORDINATION.
- OFFSET SEEKING SHALL BE THE SHORTWAY METHOD.

PRE-EMPTION PHASING & PRIORITY

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENT
R1	1	WB	Ø2
R2	2	EB	Ø6
R3	3	NB	Ø4

EMERGENCY PREEMPTION NOTES:

- UPON PREEMPTION ACTIVATION, PHASE(S) BEING SERVICED SHALL IMMEDIATELY BEGIN CLEARANCE (I.E., YELLOW AND ALL RED) AS DESIGNED, EXCEPT FOR WHEN PHASE(S) CALLED BY PREEMPTION ARE CURRENTLY IN SERVICE. WHEN PHASE(S) CURRENTLY IN SERVICE MATCH PHASE(S) CALLED BY PREEMPTION, SIGNAL INDICATIONS ARE MAINTAINED. HOWEVER, PREEMPTION OPERATION (I.E. TIMING) SUPERCEDES NORMAL TRAFFIC SIGNAL CONTROL.
- AFTER THE PREEMPTION SEQUENCE HAS TERMINATED, THE SIGNAL SHALL RETURN TO THE BEGINNING OF Ø2 & Ø6.
- THE PREEMPTION STROBE SHALL BE ILLUMINATED ONLY WHEN THE PREEMPTED PHASE IS DISPLAYING A GREEN INDICATION.
- EMERGENCY PREEMPTION SHALL COME ON A FIRST-COME FIRST-SERVED BASIS.

VIDEO DETECTOR DATA

DETECTION ZONE NO.	NO. SECTION/ SIZE	OPERATIONS	CALL DELAY (SECONDS)	CALL PHASE	EXTEND PHASE
1	1 - 6'x50'	PRESENCE/BICYCLE	0	Ø6	Ø6
2	1 - 6'x50'	PRESENCE	0	Ø6	Ø6
3	1 - 3'x6'	BICYCLE	0	Ø6	Ø6
4	1 - 6'x50'	PRESENCE/BICYCLE	0	Ø2	Ø2
5	1 - 6'x50'	PRESENCE/BICYCLE	0	Ø2	Ø2
6	1 - 6'x15'	PRESENCE	0	Ø4	Ø4
7	1 - 6'x15'	PRESENCE	0	Ø4	Ø4
8	1 - 6'x15'	PRESENCE/BICYCLE	0	Ø4	Ø4
9	1 - 6'x15'	PRESENCE	0	Ø4	Ø4

MAST ARM FOUNDATIONS

MAST ARM POLE	LOCATION		ARM LENGTH	FOUNDATION SIZE			
	STATION	OFFSET		DIAMETER	DEPTH	VERT. BARS	TIE BARS
MA 4-1	57+47.90	40.27' LT	35'	3'-6"			
MA 4-2	58+29.81	29.89' RT	25'	3'-0"			

- MAST ARM POLE FOUNDATION TO BE VERIFIED PENDING SOIL EXPLORATION.
- IF BEDROCK IS ENCOUNTERED BEFORE FOUNDATION DEPTH IS ACHIEVED, CONTRACTOR TO EXTEND FOUNDATION 5'-0" INTO COMPETENT ROCK, OR TO FOUNDATION DEPTH LISTED IN THE TABLE ABOVE, WHICHEVER IS GREATER.

MAJOR ITEMS LIST - LOCATION 4

PAY ITEM	QUANTITY	ITEM DESCRIPTION
816.04	1	TRAFFIC SIGNAL CONTROLLER (ATC-NEMA), LOCATED IN BASE MOUNTED CABINET, WITH FOUNDATION & CONCRETE PAD
	1	TRAFFIC SIGNAL CONTROLLER (ATC-NEMA) - MASTER
	1	35' MAST ARM, TYPE II, STEEL MONOLEVER WITH FOUNDATION
	1	25' MAST ARM, TYPE II, STEEL MONOLEVER WITH FOUNDATION
	1	TRAFFIC SIGNAL POST AND BASE STANDARD - 10' STEEL
	6	TRAFFIC SIGNAL POST AND BASE STANDARD - 8' STEEL
	8	SIGNAL HEAD, 1-WAY, 3 SECTION, 12" LENSES
	8	5" 3-SECTION BACKPLATE WITH 2" YELLOW RETROREFLECTIVE YELLOW BORDER
	6	PEDESTRIAN SIGNAL HEAD, 1-WAY, 1 SECTION, 16" WITH COUNTDOWN
	6	AUDIBLE & VIBRO-TACTILE PEDESTRIAN PUSHBUTTON INTEGRATED SIGN & SADDLE WITH LED CONFIRMATION LIGHT
	1	SINGLE POINT VIDEO DETECTION CAMERA SYSTEM
	3	OPTICAL DETECTOR, UNIDIRECTIONAL, SINGLE CHANNEL
	1	4 CHANNEL PHASE SELECTOR
	1	CARD RACK
	1	EMERGENCY PRE-EMPTION CONFIRMATION STROBE (WHITE)
	1	FIELD MONITORING UNIT
	1	SERVICE CONNECTION (UNDERGROUND)
	1	MAINTENANCE OF TRAFFIC SIGNALS DURING CONSTRUCTION
	1	R10-3e SIGN (LEFT ARROW)
	5	R10-3e SIGN (RIGHT ARROW)
811.31	5	PULL BOX - 12" X 12" (SD2.031)
811.23	1	PULL BOX - 24" X 24" (SD2.023)
814.	1	ADAPTIVE SIGNAL CONTROL PROCESSOR
813.79	1	ETHERNET OVER COPPER CONVERTER
	1	ENVIRONMENTALLY HARDENED ETHERNET SWITCH

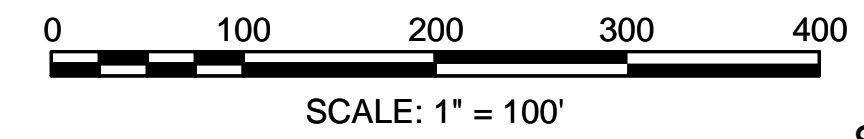
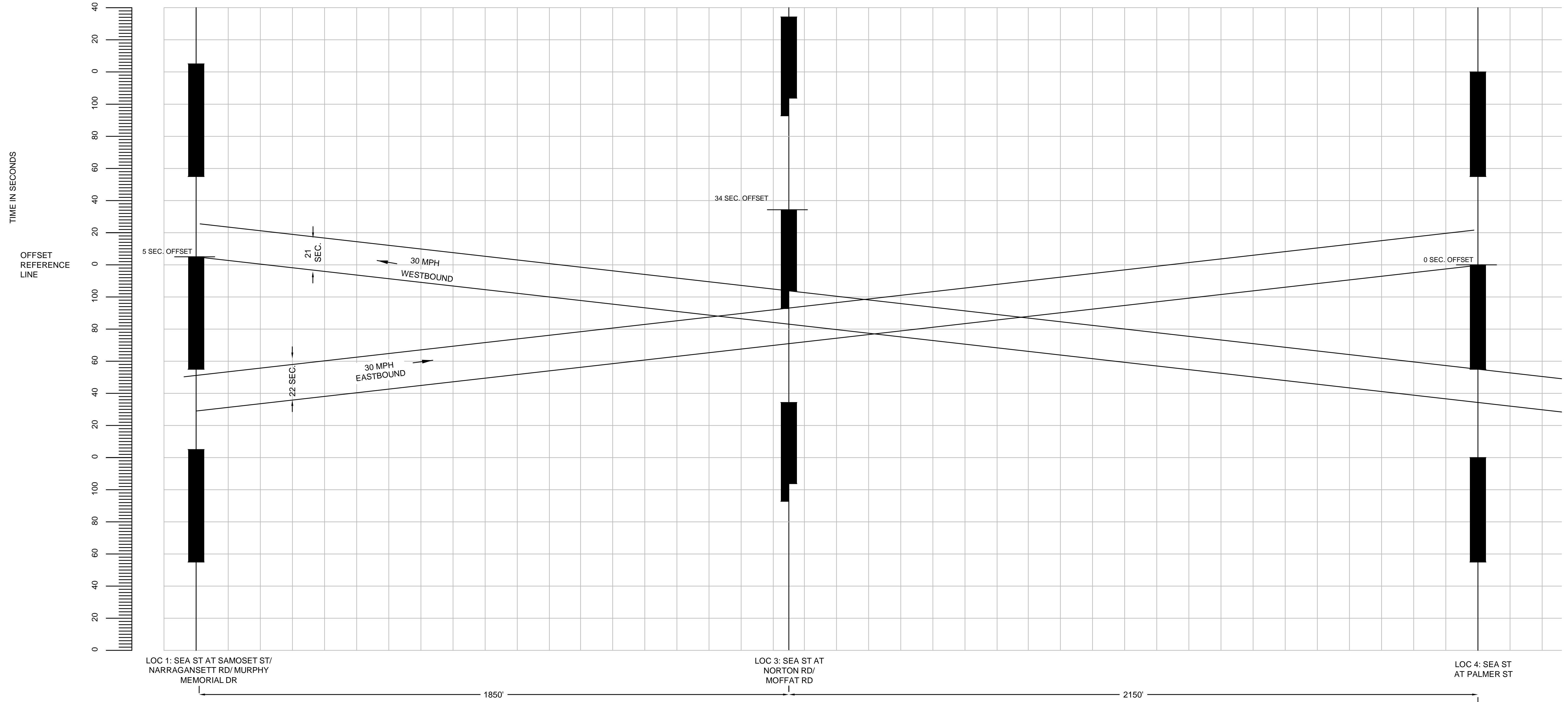
PLUS ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A COMPLETE OPERATING TRAFFIC CONTROL SIGNAL.

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		67	146
PROJECT FILE NO.		608707	

COORDINATION PLAN

PLAN 1
120 SECOND CYCLE



LEGEND:
 □ COORDINATED PHASES GREEN TIME
 ■ NON-COORDINATED PHASES GREEN TIME
 // INTERSECTION TO INTERSECTION GREEN BAND

LOCATION 1
SEA ST AT SAMOSET ST/ NARRAGANSETT RD/ MURPHY MEMORIAL DR

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 1
CYCLE LENGTH	120
OFFSET	5
SPLIT Ø2	60
SPLIT Ø3	17
SPLIT Ø4	18
SPLIT Ø6	60
SPLIT Ø8	18
SPLIT Ø9 (PED)	25
COORDINATED PHASE	Ø2 & Ø6

LOCATION 3
SEA ST AT NORTON RD/ MOFFAT RD

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 1
CYCLE LENGTH	120
OFFSET	34
SPLIT Ø1	11
SPLIT Ø2	65
SPLIT Ø4	19
SPLIT Ø6	76
SPLIT Ø8	19
SPLIT Ø9 (PED)	25
COORDINATED PHASE	Ø2 & Ø6

LOCATION 4
SEA ST AT PALMER ST

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

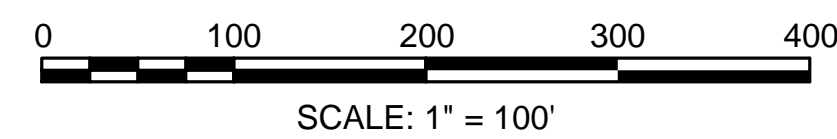
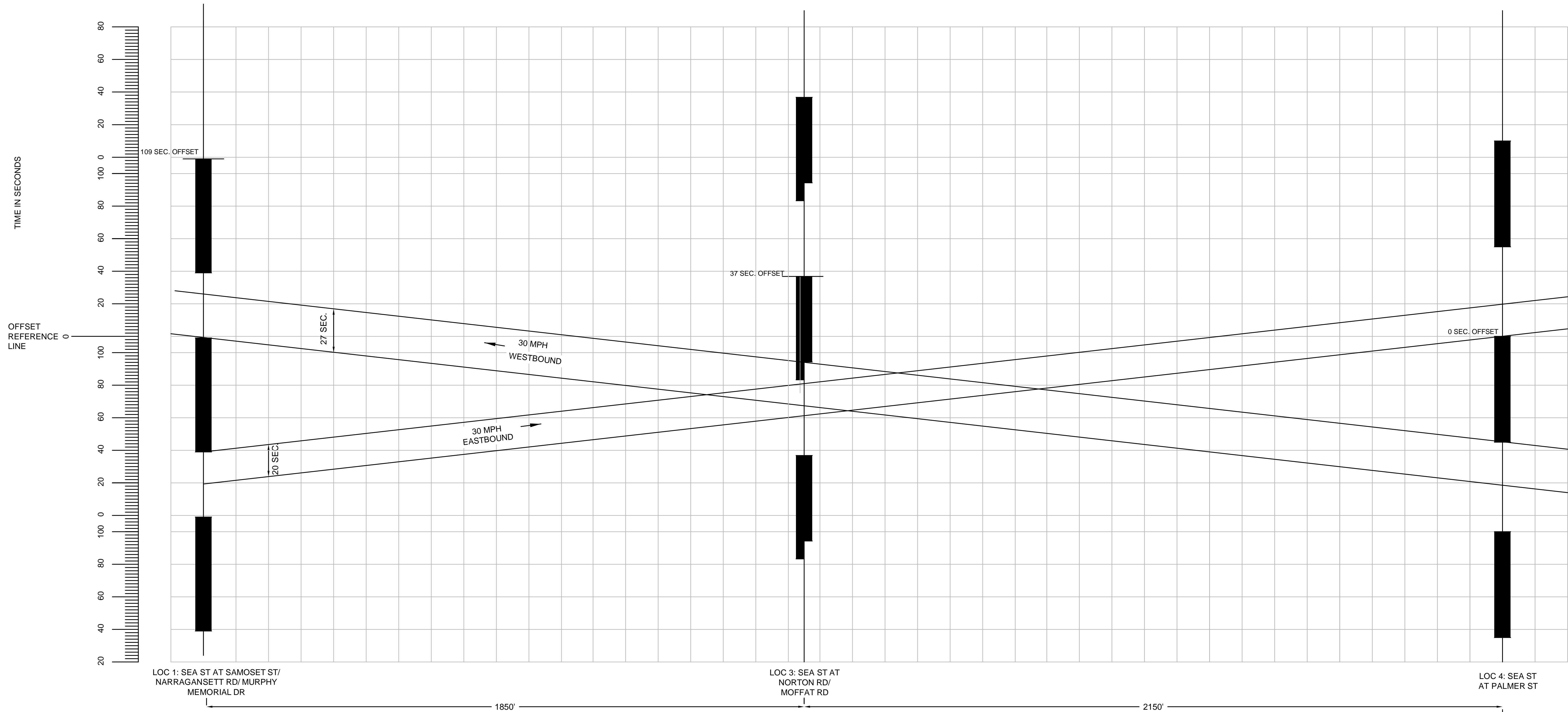
	PLAN 1
CYCLE LENGTH	120
OFFSET	0
SPLIT Ø2	60
SPLIT Ø4	35
SPLIT Ø6	60
SPLIT Ø9 (PED)	25
COORDINATED PHASE	Ø2 & Ø6

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		68	146
PROJECT FILE NO.		608707	

COORDINATION PLAN

PLAN 2
110 SECOND CYCLE



LEGEND:

- COORDINATED PHASES GREEN TIME
- NON-COORDINATED PHASES GREEN TIME
- INTERSECTION TO INTERSECTION GREEN BAND

LOCATION 1
SEA ST AT SAMOSET ST/ NARRAGANSETT RD/
MURPHY MEMORIAL DR

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 2
CYCLE LENGTH	110
OFFSET	109
SPLIT Ø2	50
SPLIT Ø3	17
SPLIT Ø4	18
SPLIT Ø6	50
SPLIT Ø8	18
SPLIT Ø9 (PED)	25
COORDINATED PHASE	Ø2 & Ø6

LOCATION 3
SEA ST AT
NORTON RD/ MOFFAT RD

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 2
CYCLE LENGTH	110
OFFSET	37
SPLIT Ø1	11
SPLIT Ø2	53
SPLIT Ø4	21
SPLIT Ø6	64
SPLIT Ø8	21
SPLIT Ø9 (PED)	25
COORDINATED PHASE	Ø2 & Ø6

LOCATION 4
SEA ST
AT PALMER ST

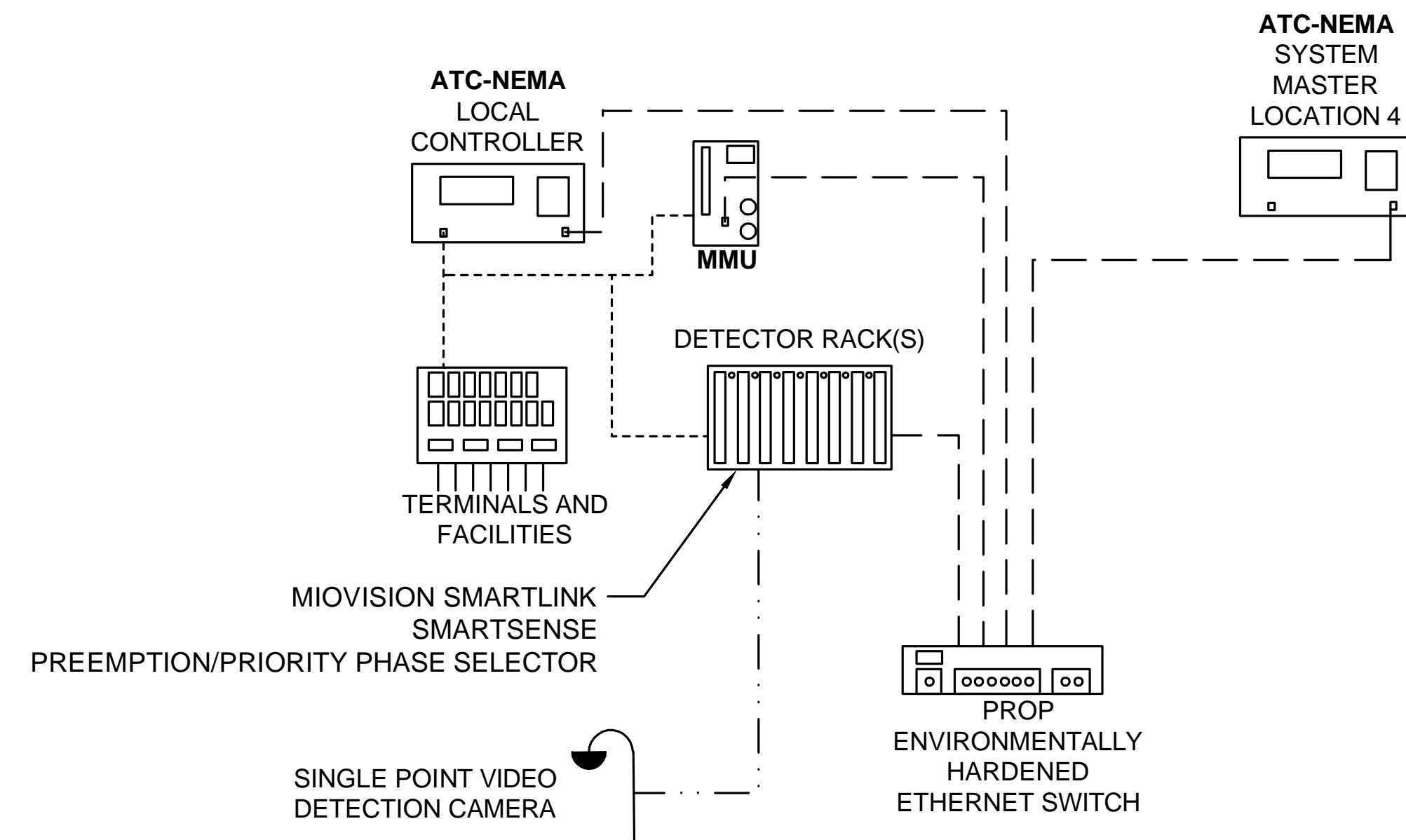
COORDINATION DATA
(ALL ENTRIES IN SECONDS)

	PLAN 2
CYCLE LENGTH	110
OFFSET	0
SPLIT Ø2	63
SPLIT Ø4	22
SPLIT Ø6	63
SPLIT Ø9 (PED)	25
COORDINATED PHASE	Ø2 & Ø6

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		69	146
PROJECT FILE NO.		608707	

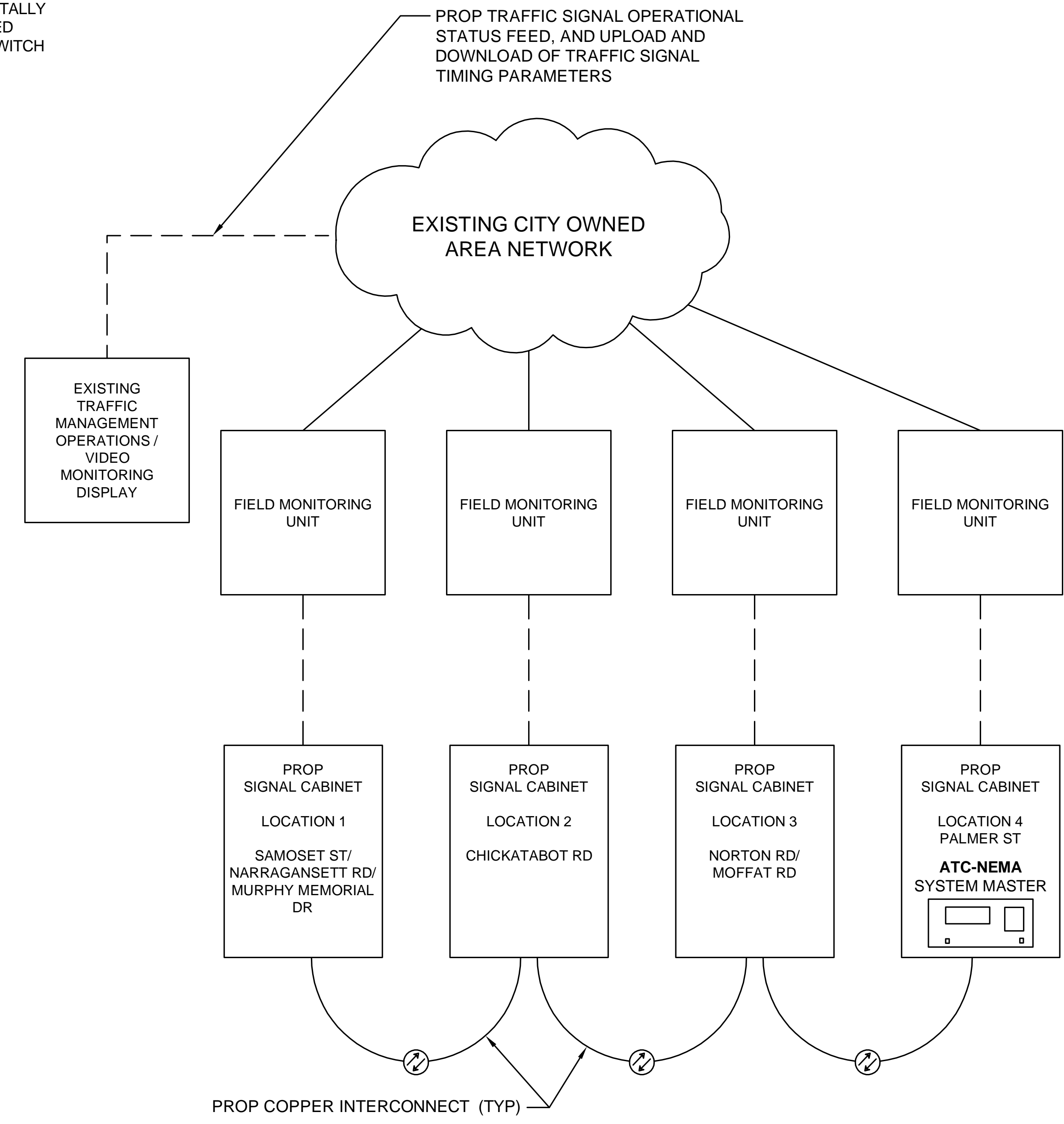
SYSTEM ARCHITECTURE PLAN

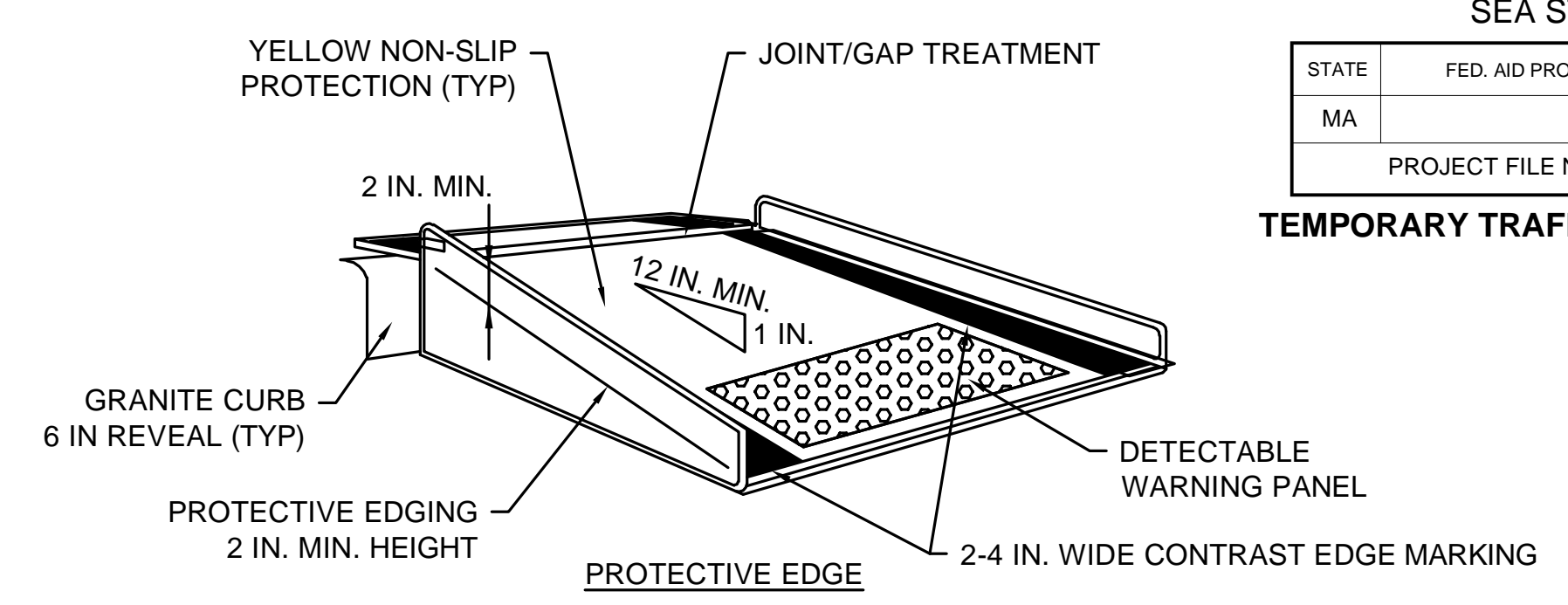
TYPICAL SIGNAL CABINET EQUIPMENT CONNECTION DETAIL



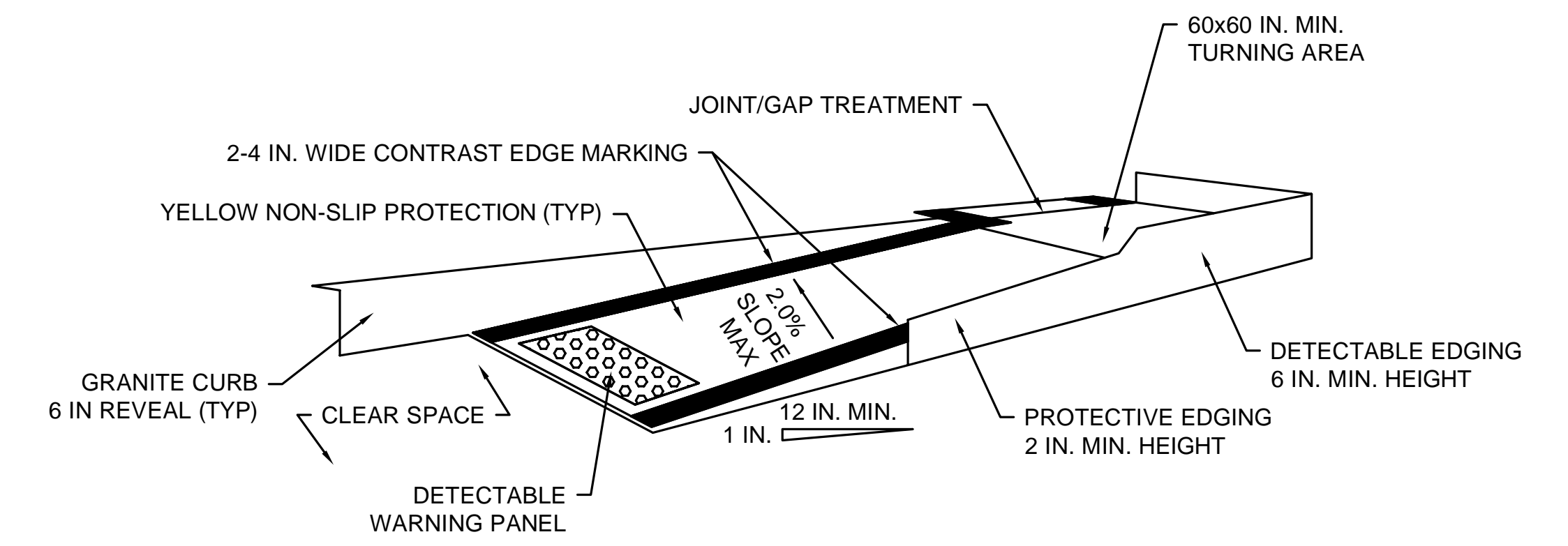
LEGEND

PROPOSED COPPER	
ETHERNET CABLE	
SDLC	
COAX	
NETWORK CONNECTION	





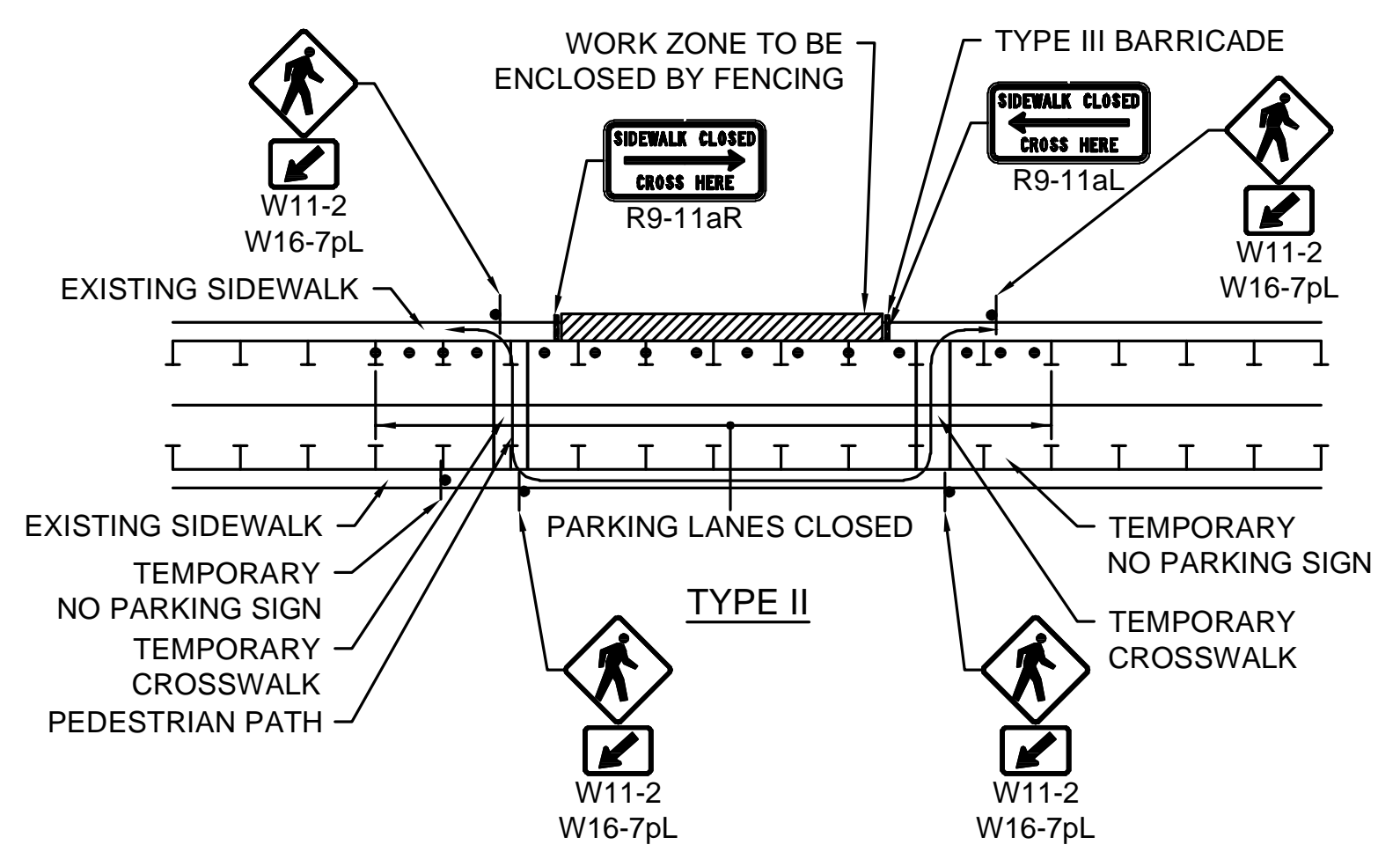
TEMPORARY CURB RAMP-PERPENDICULAR TO CURB
NOT TO SCALE



TEMPORARY CURB RAMP-PARALLEL TO CURB
NOT TO SCALE

NOTES:

- CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
- PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
- DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
- CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
- CLEAR SPACE OF 48x48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.
- IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.



PEDESTRIAN BYPASS DETAILS
NOT TO SCALE

NOTES:

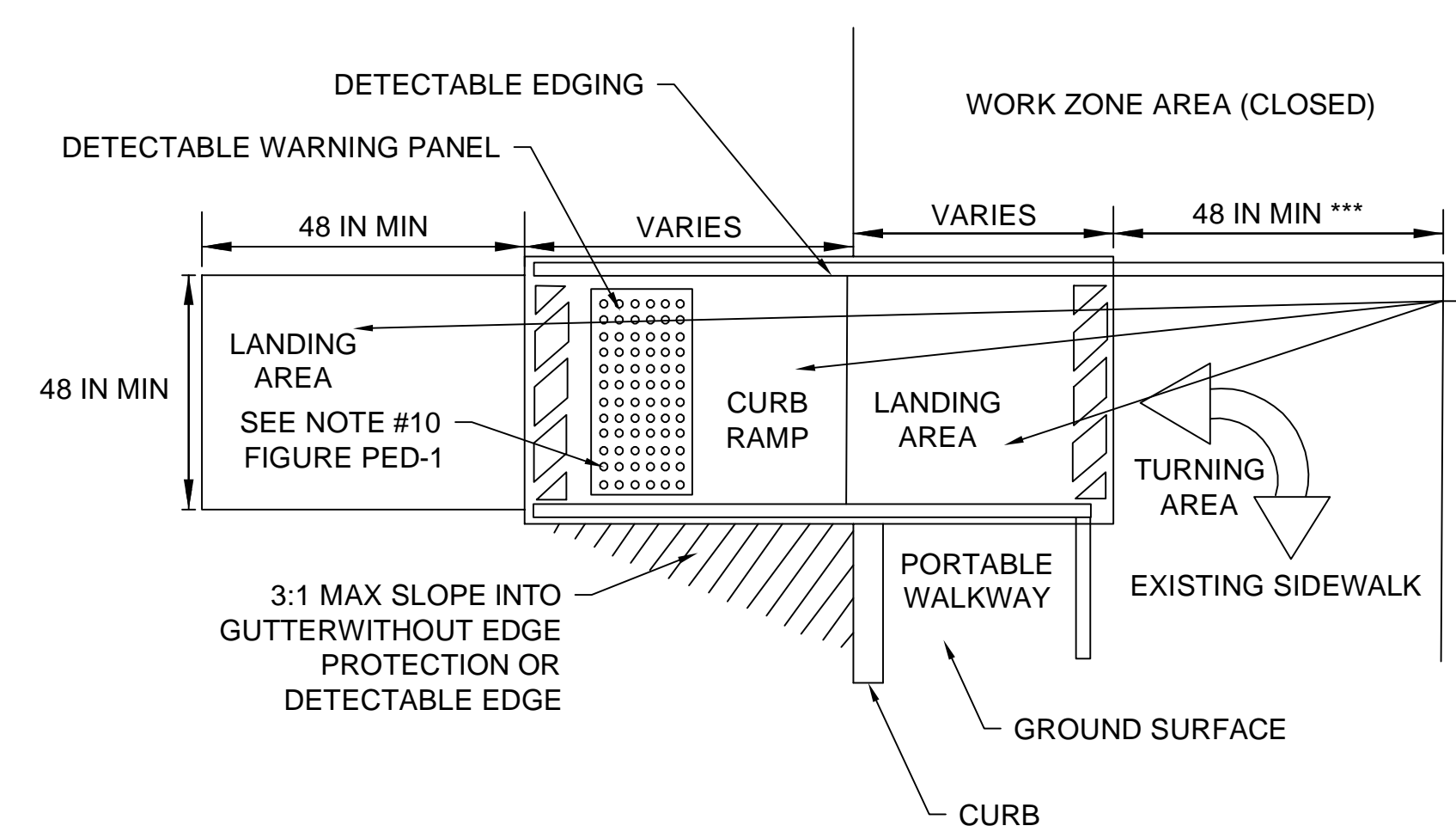
- ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
- CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.
- STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
- IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHOULD BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS, AND AS DIRECTED BY THE ENGINEER. TEMPORARY CURB RAMPS WILL BE REQUIRED AT ALL TEMPORARY CROSSWALK LOCATIONS.
- BYPASS IS TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE ENGINEER.
- THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE.

NOTES:

- DETAIL I IS CONSIDERED AN EXAMPLE OF A SHORT TERM CLOSURE AND PEDESTRIAN ASSISTANCE (PERSONEL) TO NAVIGATE AROUND THE CLOSURE/WORK AREA COULD BE CONSIDERED AS AN OPTION IN PLACE OF PROVIDING ADA/AAB DEVICES. DETAIL II IS CONSIDERED AN EXAMPLE OF A LONG TERM CLOSURE THAT WOULD REQUIRE ADDITIONAL ADA/AAB COMPLIANT DEVICES. IF A SIDEWALK CLOSURE OR RESTRICTION LASTS FOR MORE THAN ONE (1) WORK SHIFT THEN ADA/AAB COMPLIANCE SHALL BE FOLLOWED.
- WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TTC ZONE, TEMPORARY FACILITIES SHALL BE PROVIDED AND THEY SHALL BE DETECTABLE AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.
- A PEDESTRIAN CHANNELIZING DEVICE THAT IS DETECTABLE BY A PERSON WITH A VISUAL DISABILITY TRAVELING WITH THE AID OF A LONG CANE SHALL BE PLACED ACROSS THE FULL WIDTH OF THE CLOSED SIDEWALK.
- WHEN USED, TEMPORARY RAMPS SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT (SEE FIGURES).
- THE ALTERNATE PATHWAY SHOULD HAVE A SMOOTH CONTINUOUS HARD SURFACE FOR THE ENTIRE LENGTH OF THE TEMPORARY PEDESTRIAN FACILITY.
- THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THE SIDEWALK EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE SHALL BE PROVIDED.
- THE PROTECTIVE REQUIREMENTS OF A TTC WORK ZONE MAY HAVE AN IMPACT IN DETERMINING THE NEED FOR TEMPORARY TRAFFIC BARRIERS AND THEIR USE IN PROVIDING PEDESTRIAN DELINEATION SHOULD BE BASED ON ENGINEERING JUDGMENT.
- CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN; VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE. THESE DETAILS ARE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DETERMINED BY THE ENGINEER.
- AUDIBLE INFORMATION DEVICES SHOULD BE CONSIDERED WHERE MIDBLOCK CLOSINGS AND CHANGED CROSSWALK AREAS CAUSE INADEQUATE COMMUNICATION TO BE PROVIDED TO PEDESTRIANS WHO HAVE VISUAL DISABILITIES.
- EXISTING AUDIBLE DEVICES NO LONGER APPLICABLE DUE TO CONSTRUCTION SHALL BE DISABLED.

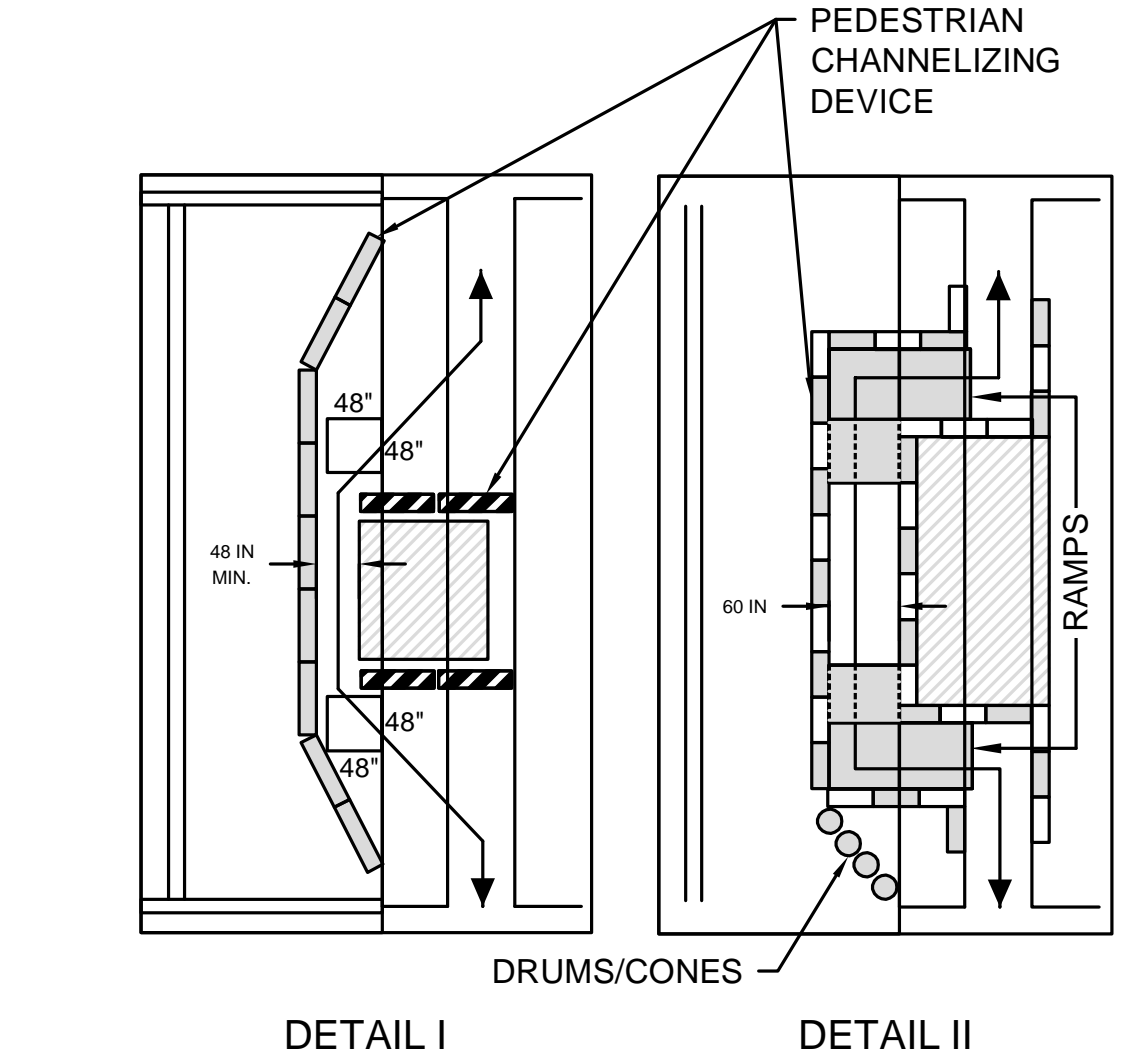
AUDIBLE DEVICES:

- FOR LONG TERM SIDEWALK CLOSURES (AT A MINIMUM OVERNIGHT) A FORM OF SPEECH MESSAGING FOR PEDESTRIANS WITH VISUAL DISABILITIES SHALL BE PROVIDED. AUDIBLE INFORMATION DEVICES SUCH AS DETECTABLE BARRIERS OR BARRICADES AND OTHER PASSIVE PEDESTRIAN ACTIVATION (MOTION ACTIVATED) DEVICES SHOULD BE CONSIDERED FOR THESE CASES. THESE AUDIBLE DEVICES CAN BE MOUNTABLE OR STAND ALONE.

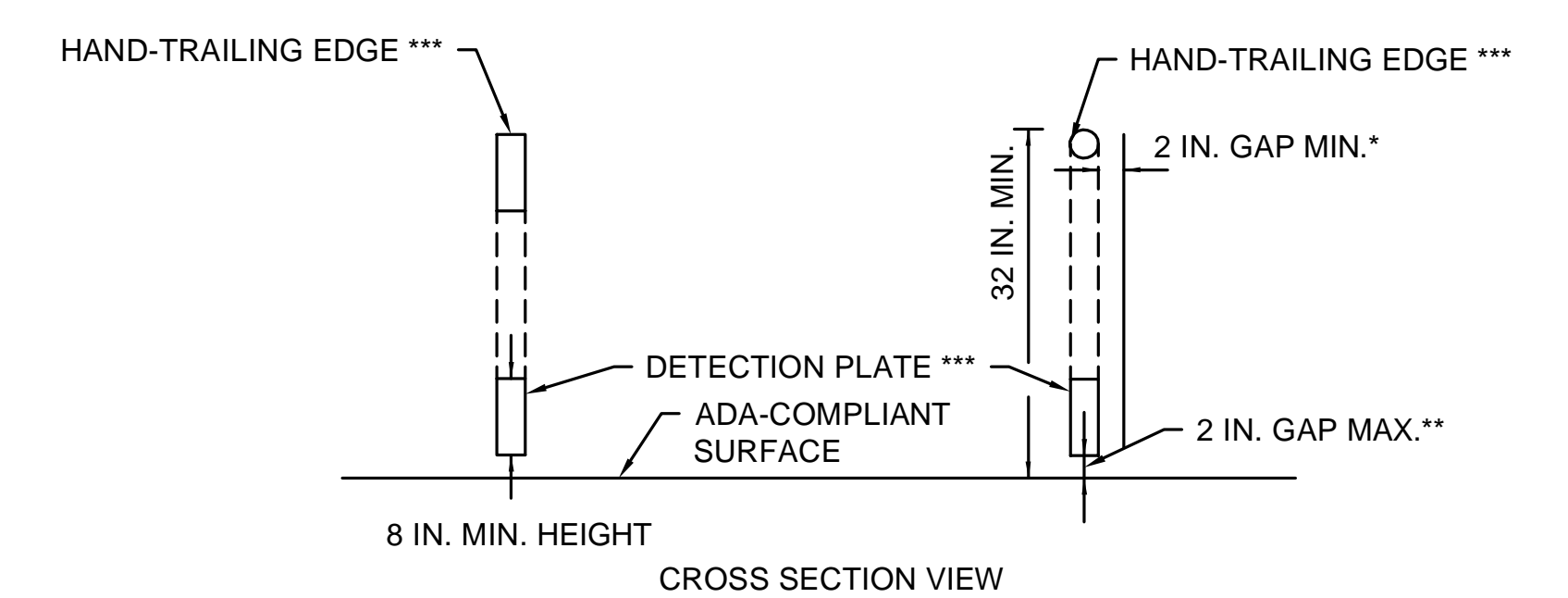
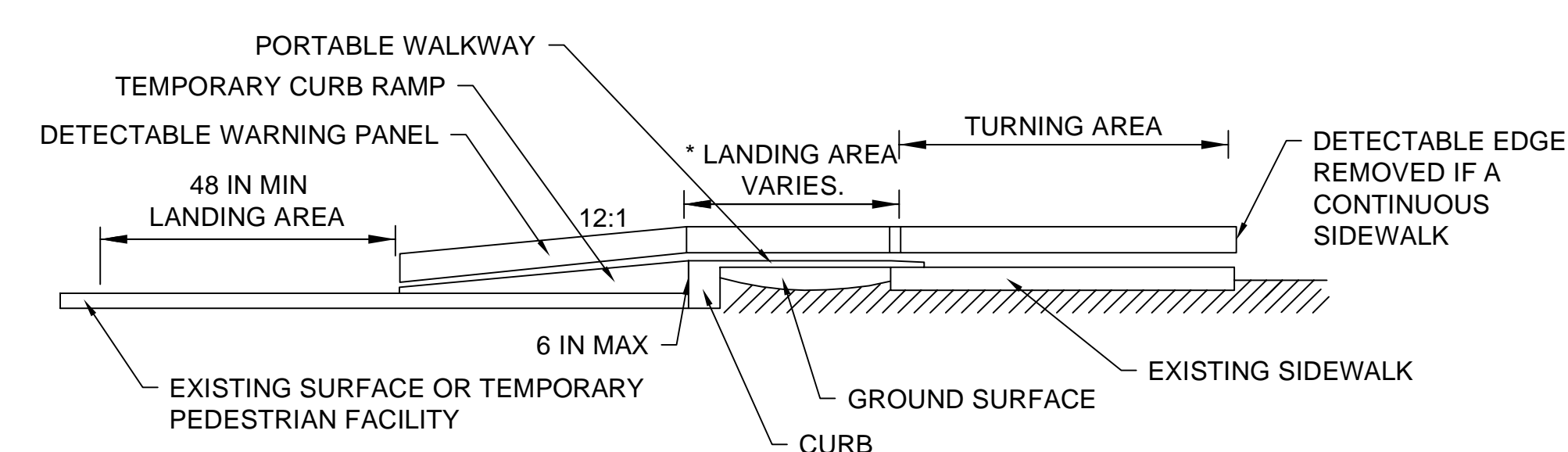


TEMPORARY CURB RAMP
NOT TO SCALE

- * LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES.
- ** DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK.
- *** 60 IN. IF AN OBSTRUCTION IS AT BACK OF SIDEWALK



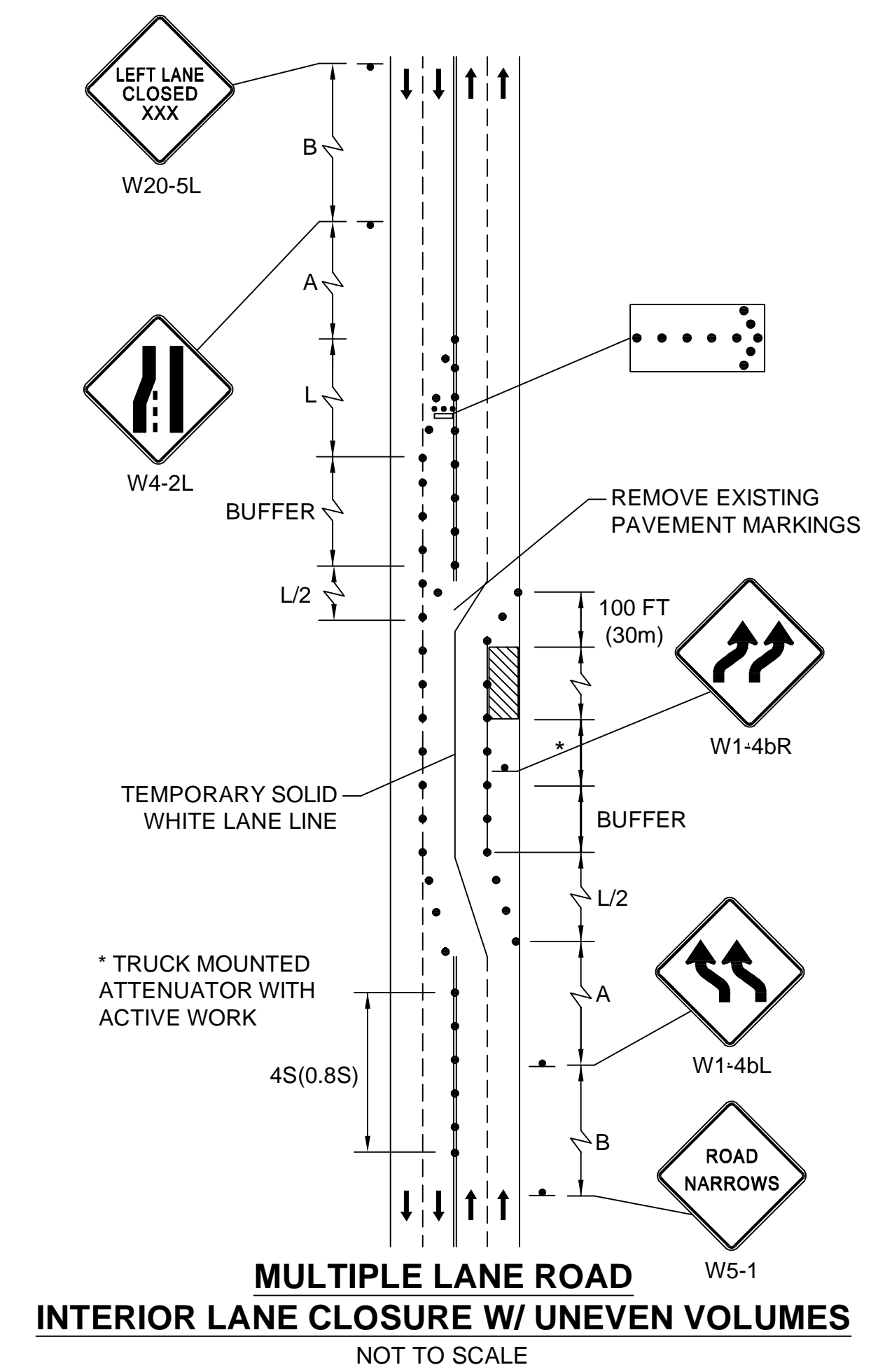
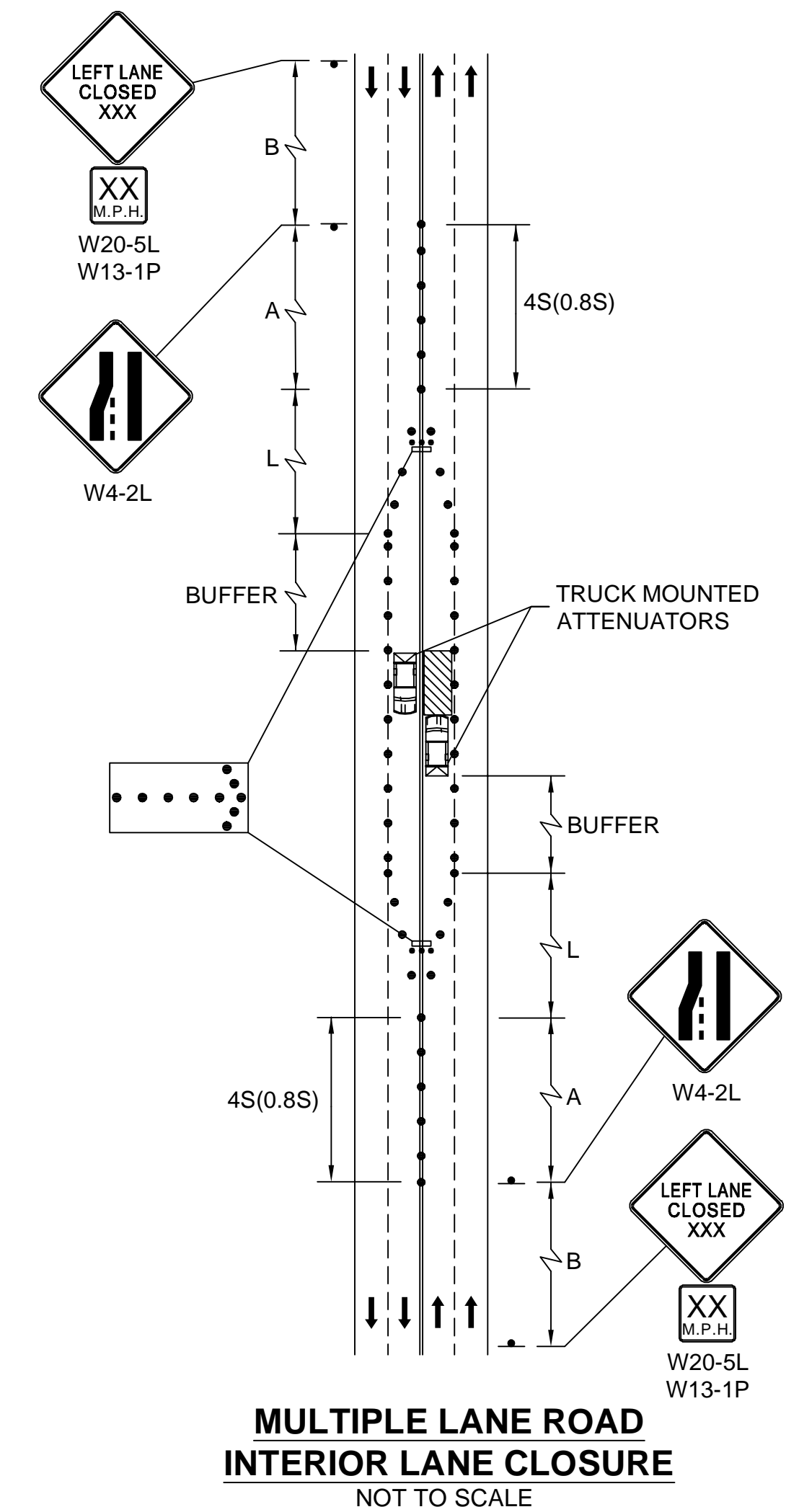
DETAIL I
DETAIL II



PEDESTRIAN CHANNELIZING DEVICE
NOT TO SCALE

NOTES:

- * THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.
- ** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.
- *** THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.

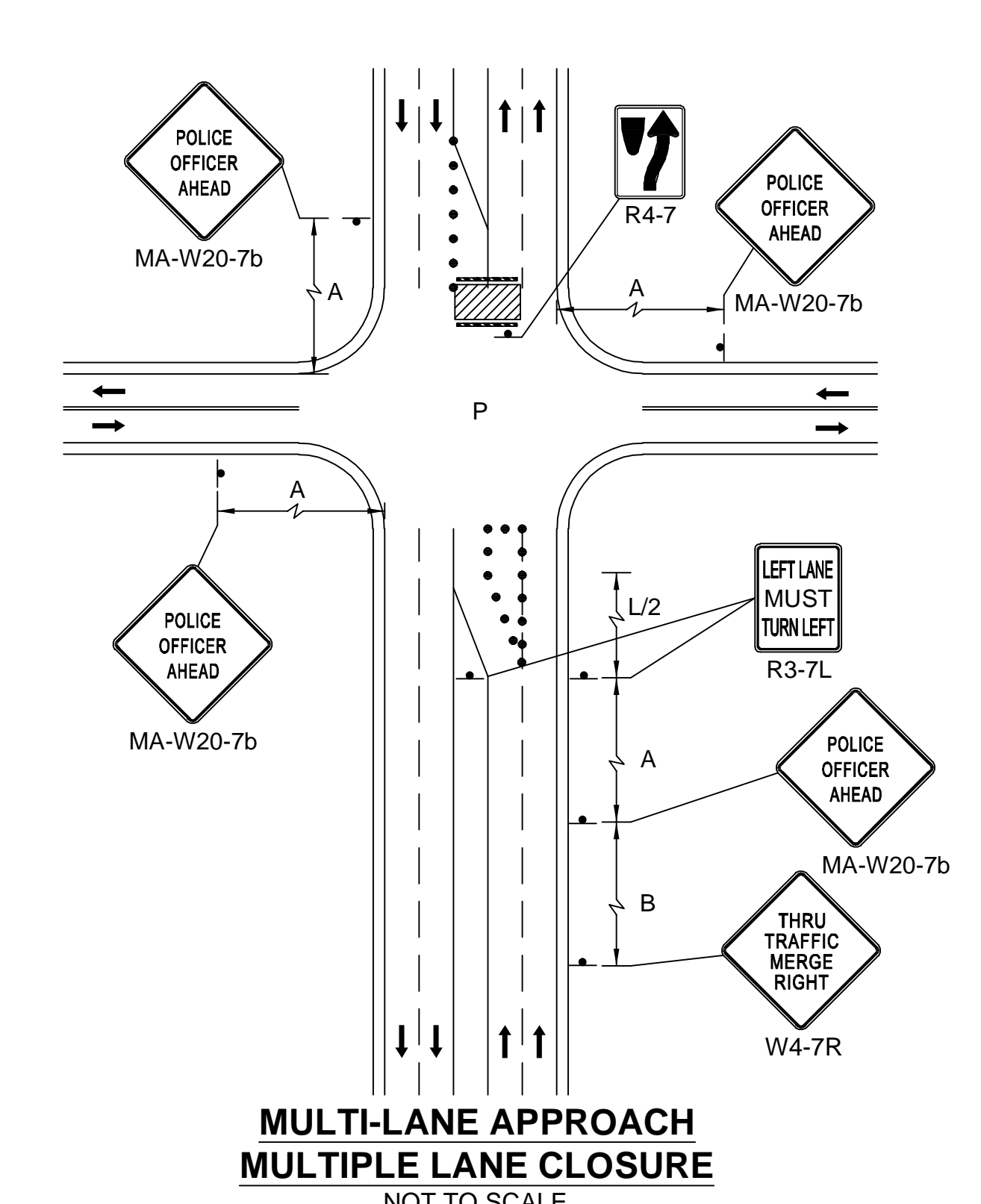
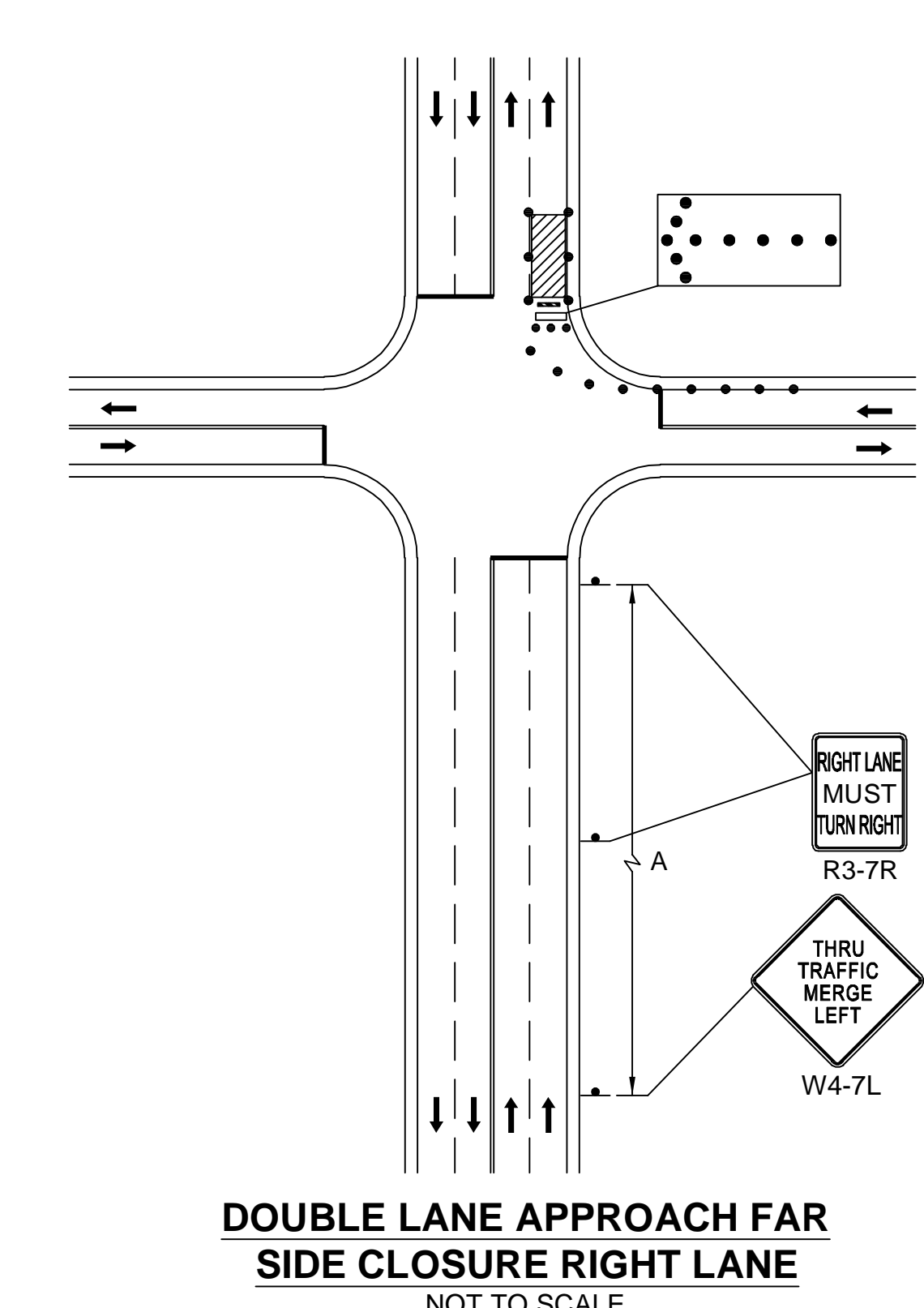
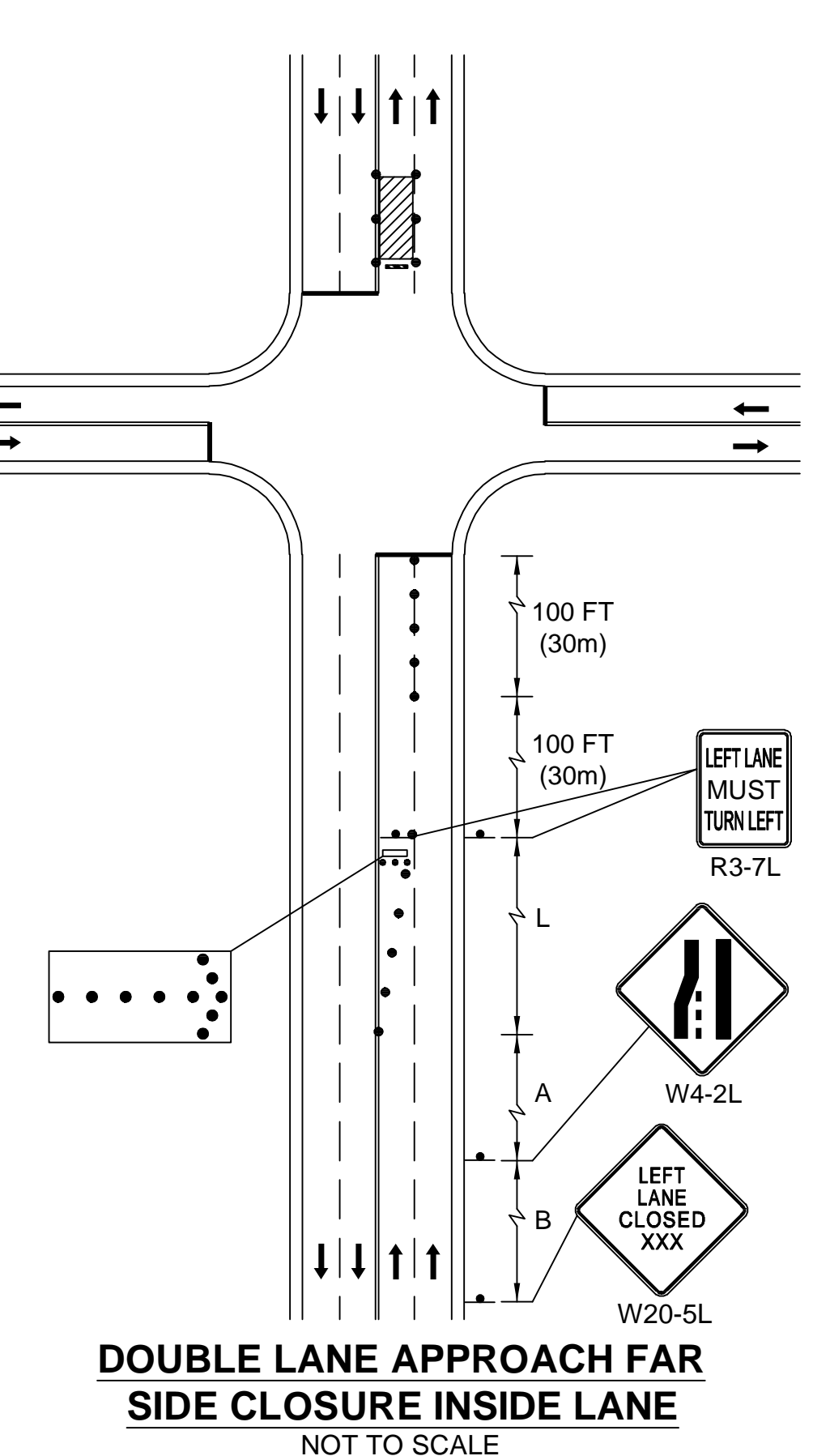
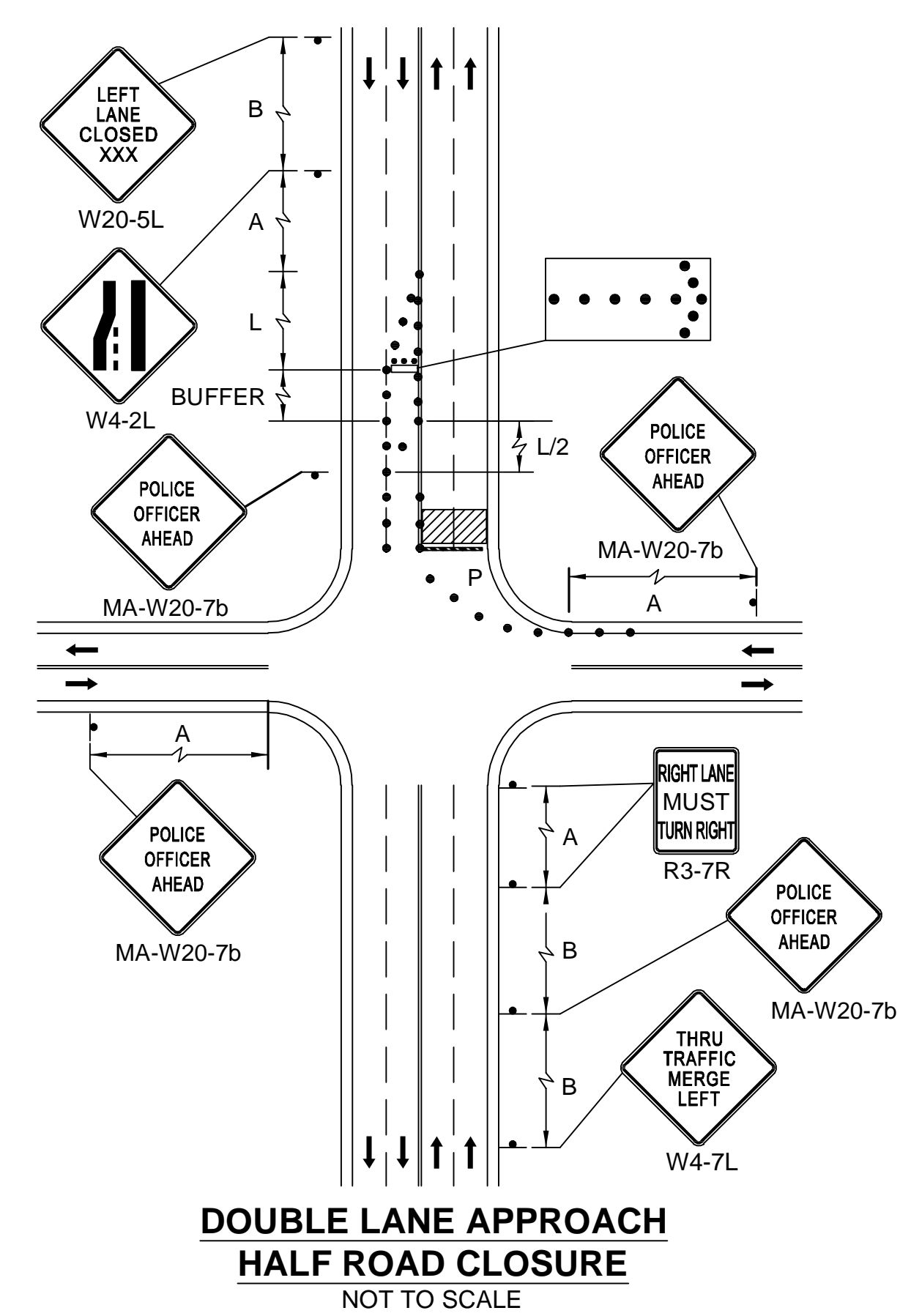


SAFETY SIGNING FOR CONSTRUCTION OPERATIONS						
LEGEND	TYPE		UNIT AREA	NO. SIGNS*	TOTAL AREA	POSTS
END ROAD WORK	MA-R2-10e	36" x 48"	12 SF	17	204 SF	P-5: 17
WORK ZONE SPEEDING FINES	MA-R2-10a	36" x 48"	12 SF	17	204 SF	P-5: 17
LEFT LANE MUST TURN LEFT	R3-7L	30" x 30"	6.3 SF	2	12.5 SF	P-5: 2
RIGHT LANE MUST TURN RIGHT	R3-7R	30" x 30"	6.3 SF	2	12.5 SF	P-5: 2
KEEP RIGHT	R4-7	24" x 30"	5 SF	1	5 SF	P-5: 1
SIDEWALK CLOSED	R9-9	24" x 12"	2 SF	2	4 SF	P-5: 2
SIDEWALK CLOSED CROSS HERE	R9-11a	24" x 12"	2 SF	2	4 SF	P-5: 2
SHIFT LEFT	W1-4L	36" x 36"	9 SF	2	18 SF	P-5: 2
SHIFT RIGHT	W1-4R	36" x 36"	9 SF	2	18 SF	P-5: 2
SHIFT LEFT (2 LANE)	W1-4bL	36" x 36"	9 SF	2	18 SF	P-5: 2
SHIFT RIGHT (2 LANE)	W1-4bR	36" x 36"	9 SF	2	18 SF	P-5: 2
LEFT LANE ENDS	W4-2L	36" x 36"	9 SF	2	18 SF	P-5: 2
RIGHT LANE ENDS	W4-2R	36" x 36"	9 SF	2	18 SF	P-5: 2
THRU TRAFFIC MERGE LEFT	W4-7L	36" x 36"	9 SF	1	9 SF	P-5: 1
THRU TRAFFIC MERGE RIGHT	W4-7R	36" x 36"	9 SF	1	9 SF	P-5: 1
ROAD NARROWS	W5-1	36" x 36"	9 SF	2	18 SF	P-5: 2
ROUGH ROAD	W8-8	36" x 36"	9 SF	2	18 SF	P-5: 2
GRAPHICS	W11-2	36" x 36"	9 SF	4	36 SF	P-5: 4
ADVISORY SPEED	W13-1P	24" x 24"	4 SF	2	8 SF	P-5: 0
GRAPHICS	W16-7P	24" x 12"	2 SF	4	8 SF	P-5: 0
ROAD WORK 1500 FT	W20-1B	36" x 36"	9 SF	3	27 SF	P-5: 3
ROAD WORK AHEAD	W20-1C	36" x 36"	9 SF	14	126 SF	P-5: 14
ONE LANE ROAD 1000 FT	W20-4	36" x 36"	9 SF	2	18 SF	P-5: 2
LEFT LANE CLOSED XXX FT	W20-5L	36" x 36"	9 SF	3	27 SF	P-5: 3
RIGHT LANE CLOSED XXX FT	W20-5R	36" x 36"	9 SF	3	27 SF	P-5: 3
FLAGGER	W20-7	36" x 36"	9 SF	2	18 SF	P-5: 2
POLICE OFFICER AHEAD	MA-W20-7b	36" x 36"	9 SF	2	18 SF	P-5: 2
				TOTAL AREA OF SIGNS	925 SF	TOTAL: 94

* NO. OF SIGNS ARE ESTIMATED FOR BIDDING PURPOSES ONLY

ADVANCE SIGN SPACING			
ROADS	A	B	C
SEA STREET & PALMER STREET	500 FEET	500 FEET	500 FEET
ALL OTHER STREETS	350 FEET	350 FEET	350 FEET

S = 30 MPH
L = 245 FEET



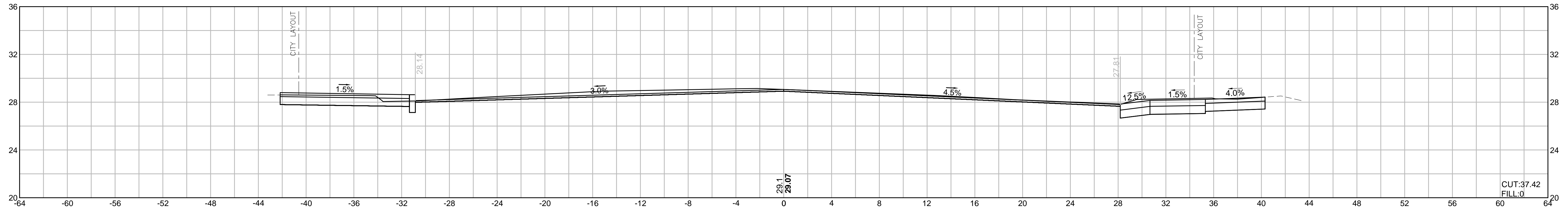
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		73	146

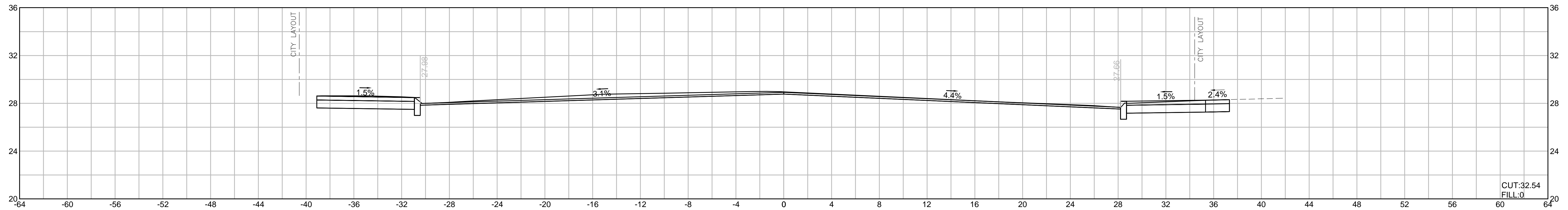
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CROSS SECTIONS

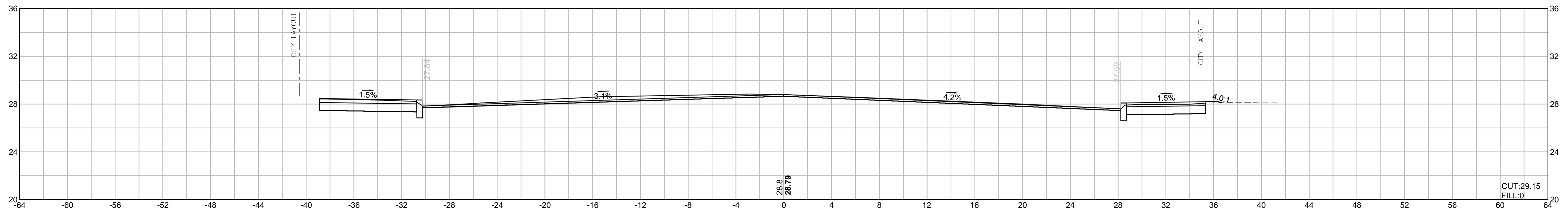
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16+18.09



16+00



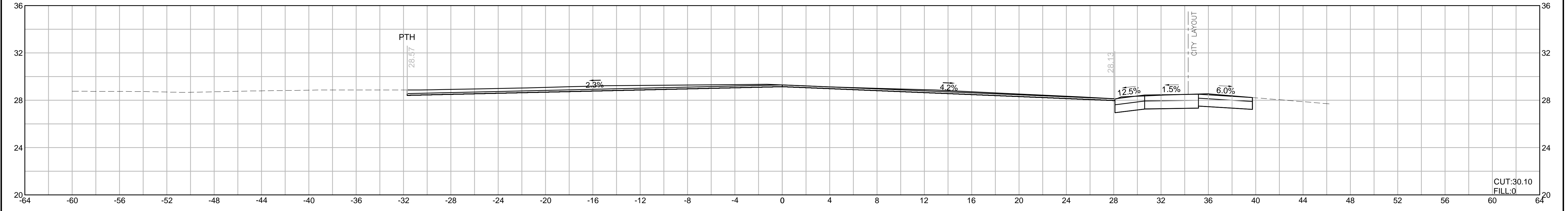
QUINCY
SEA STREET

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MA		74	146

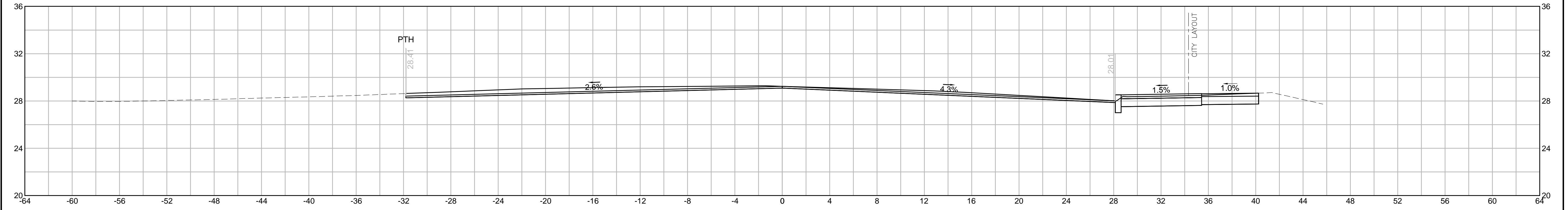
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CROSS SECTIONS

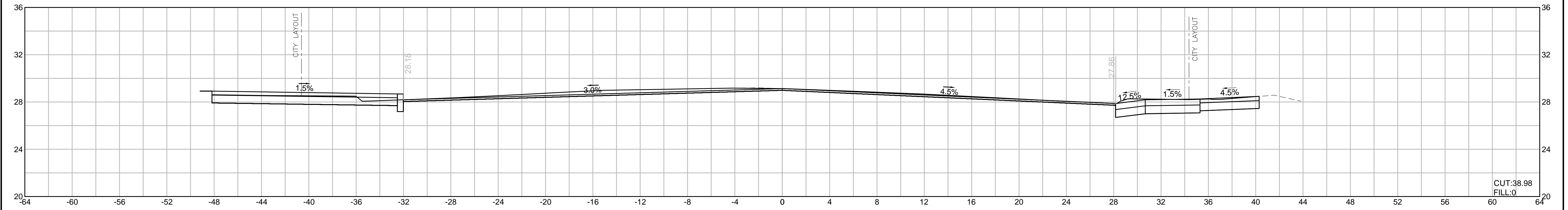
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16+79.46



16+50



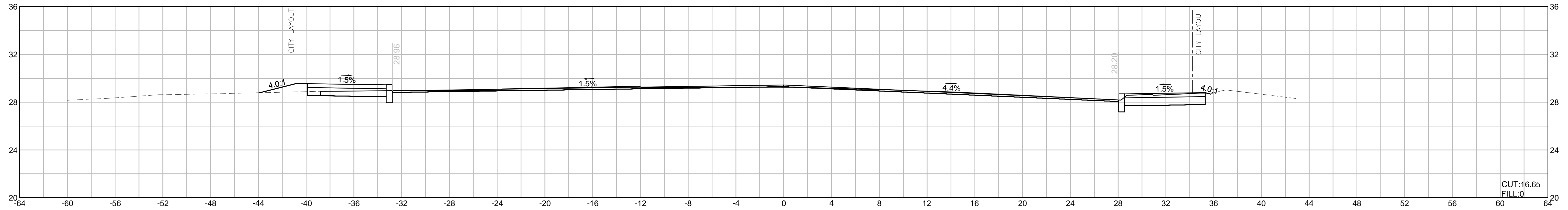
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		75	146

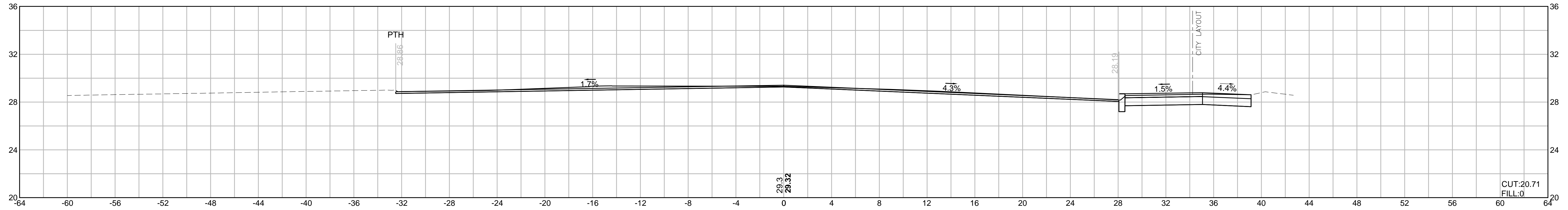
PROJECT FILE NO. 608707

CROSS SECTIONS

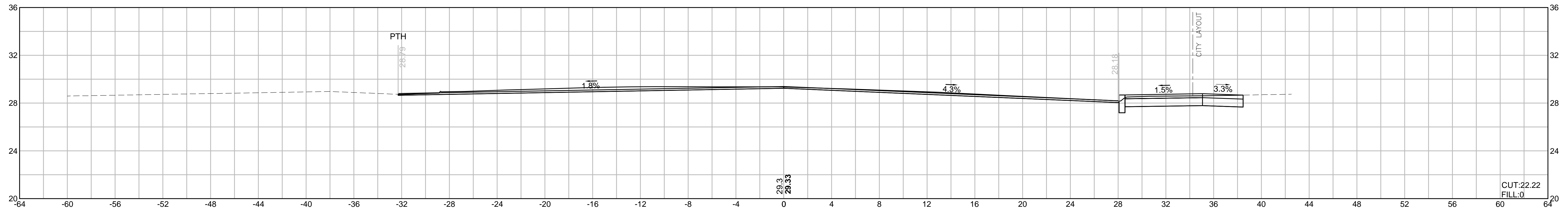
17+50



17+36.79



17+28.06

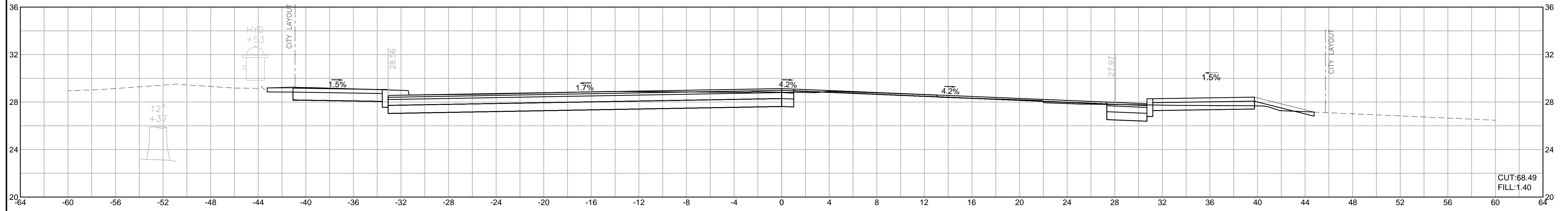


QUINCY
SEA STREET

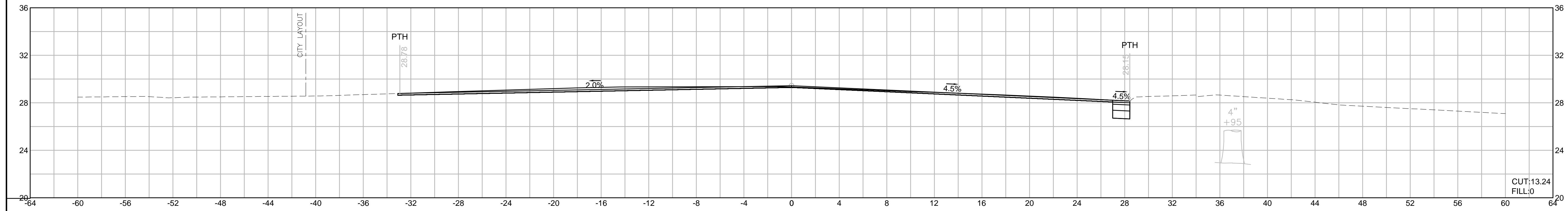
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		76	146
PROJECT FILE NO. 608707			

CROSS SECTIONS

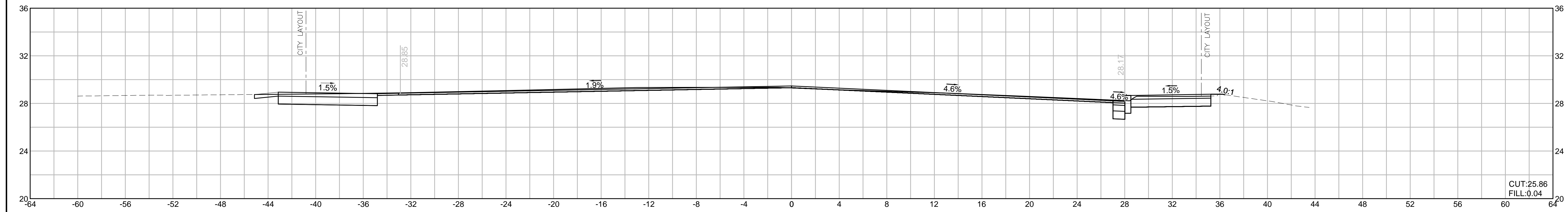
18+50



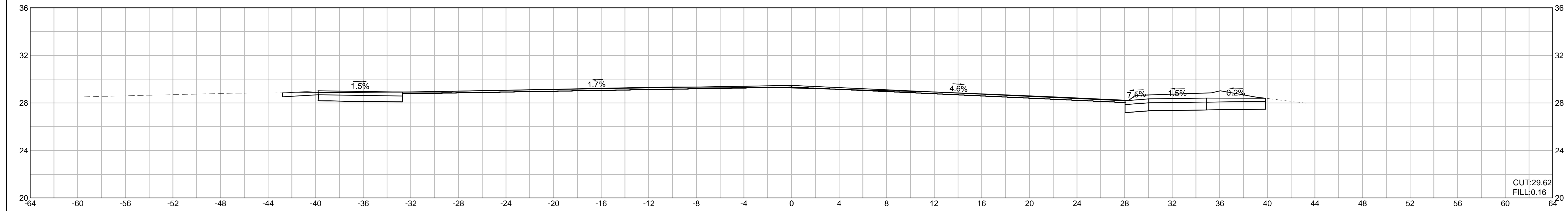
18+00



17+84.33



17+67.51



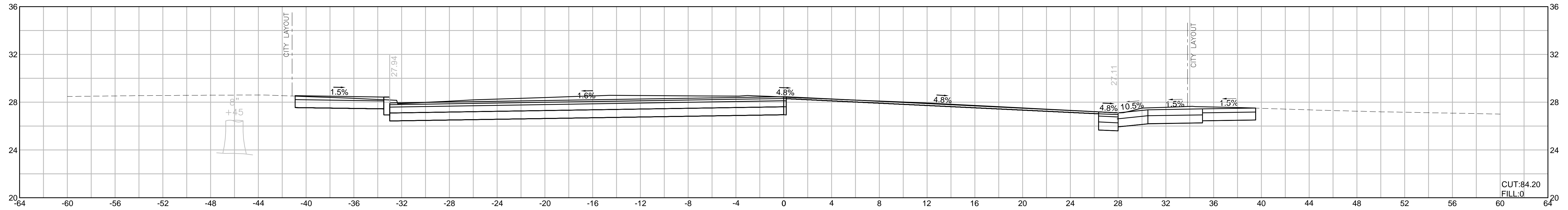
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		77	146

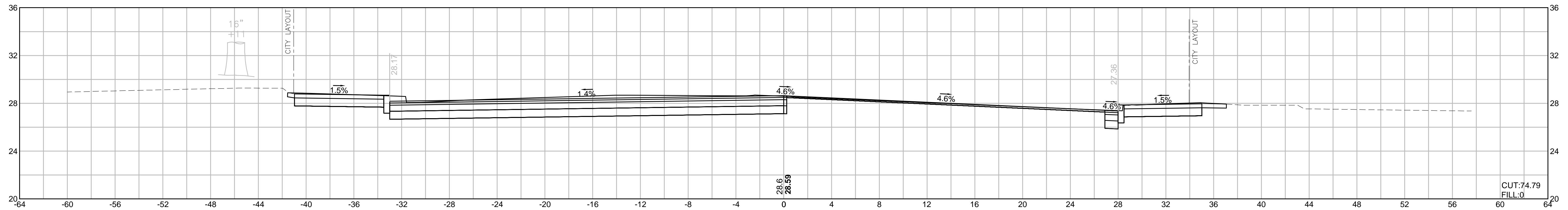
PROJECT FILE NO. 608707

CROSS SECTIONS

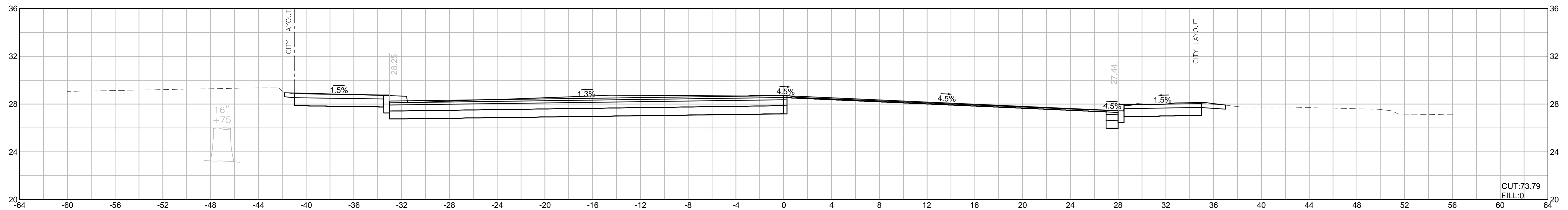
19+50



19+12.83



19+00



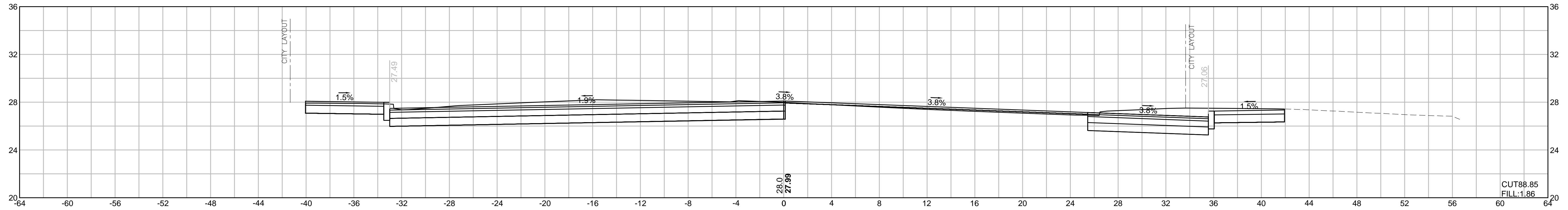
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		78	146

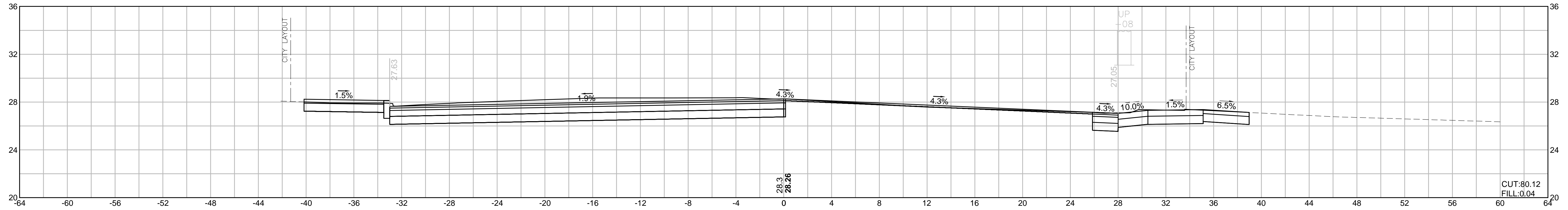
PROJECT FILE NO. 608707

CROSS SECTIONS

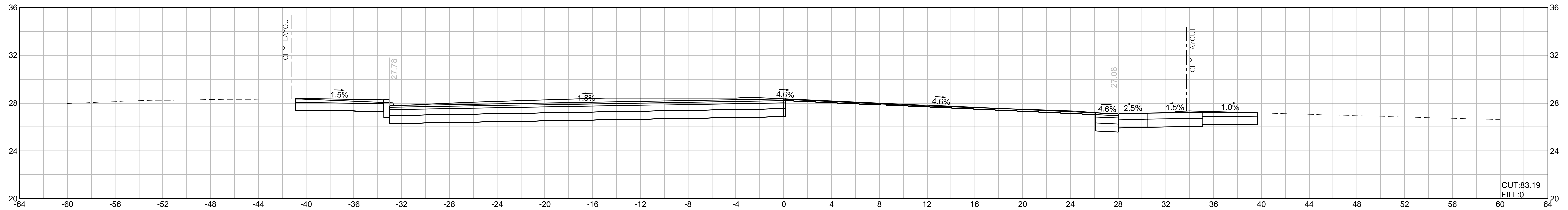
20+22.91



20+00



19+76.18



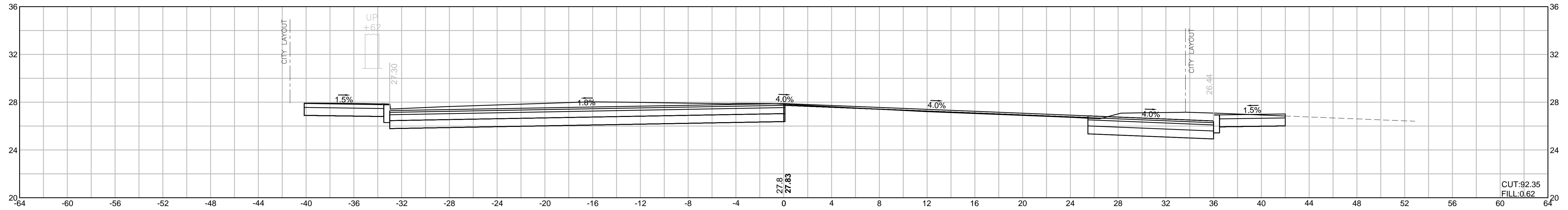
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		79	146

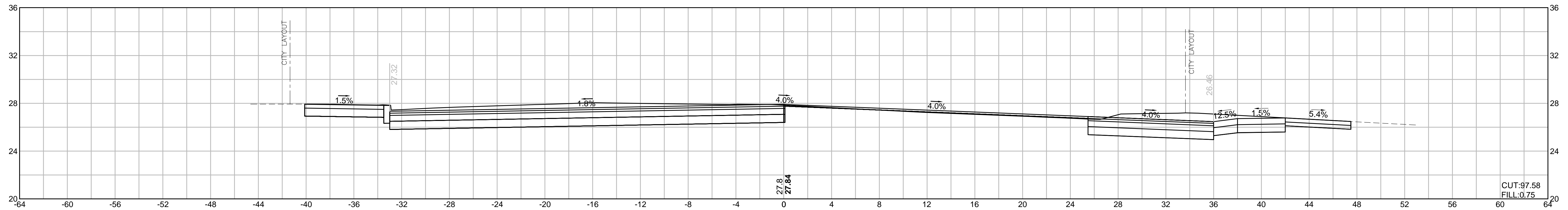
PROJECT FILE NO. 608707

CROSS SECTIONS

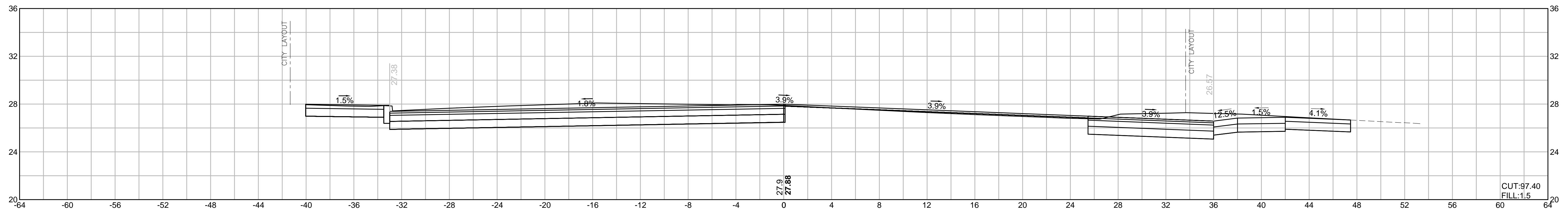
20+52.95



20+50



20+40.06



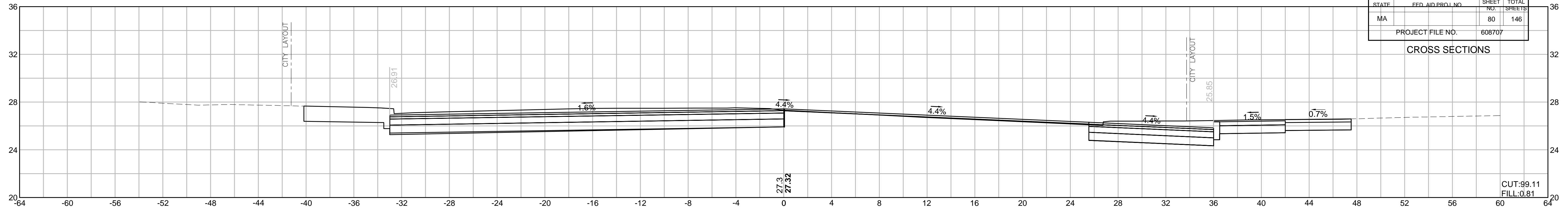
21+25.60

QUINCY
SEA STREET

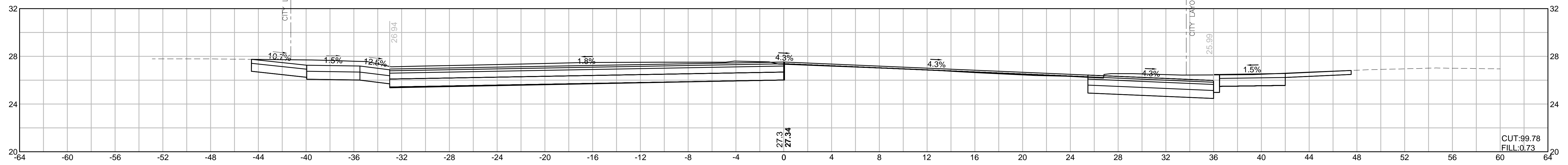
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		80	146

PROJECT FILE NO. 608707

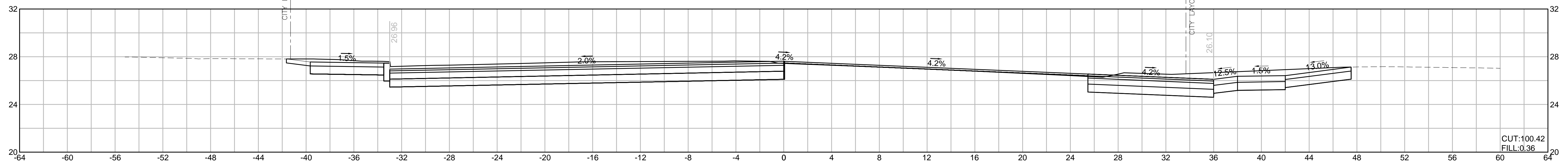
CROSS SECTIONS



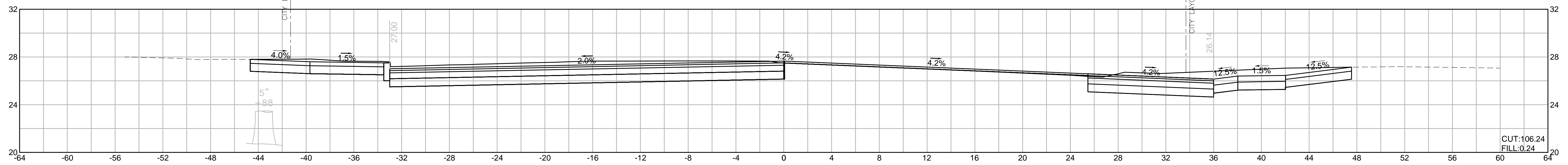
21+11.90



21+00



20+94.57



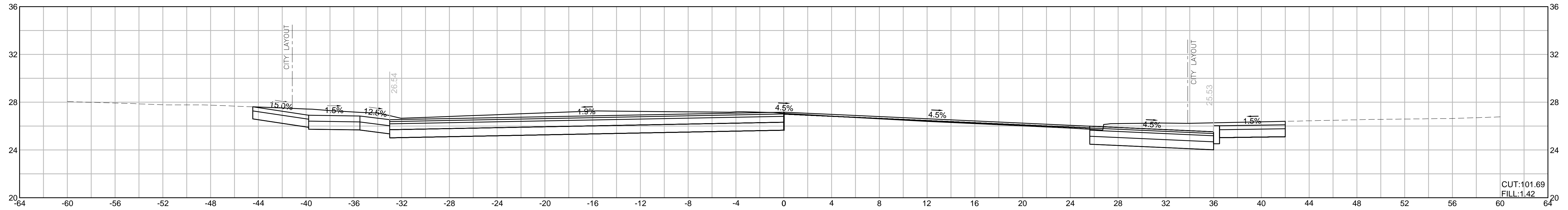
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		81	146

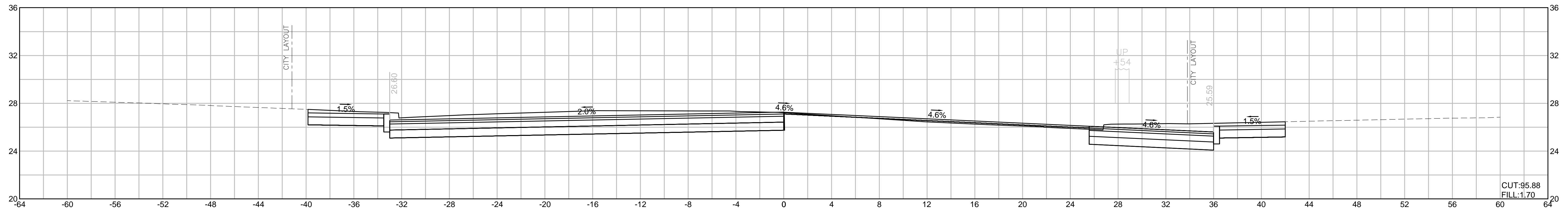
PROJECT FILE NO. 608707

CROSS SECTIONS

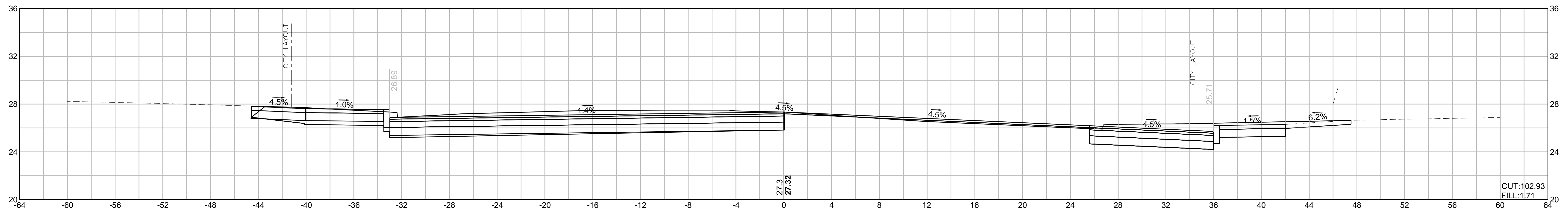
21+58.81



21+50



21+39.31



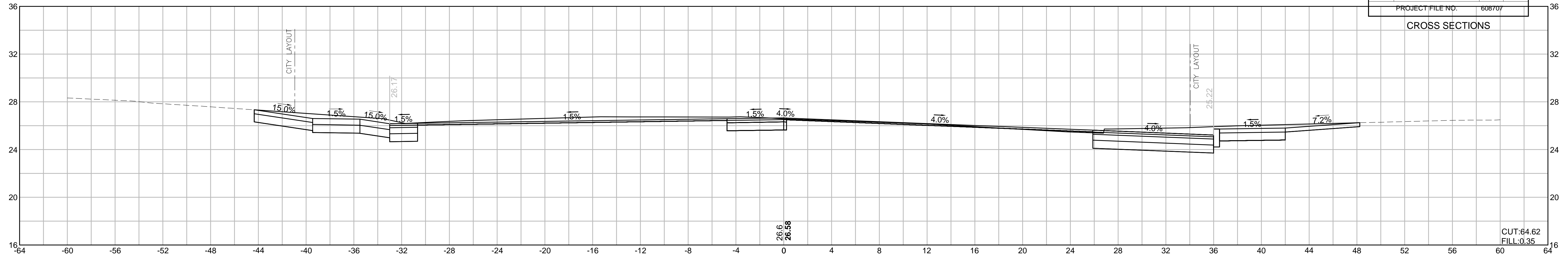
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		82	146

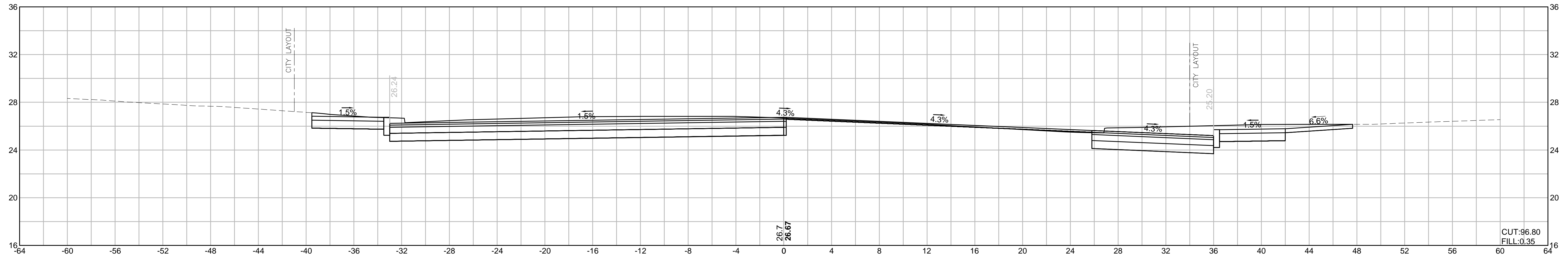
PROJECT FILE NO. 608707

CROSS SECTIONS

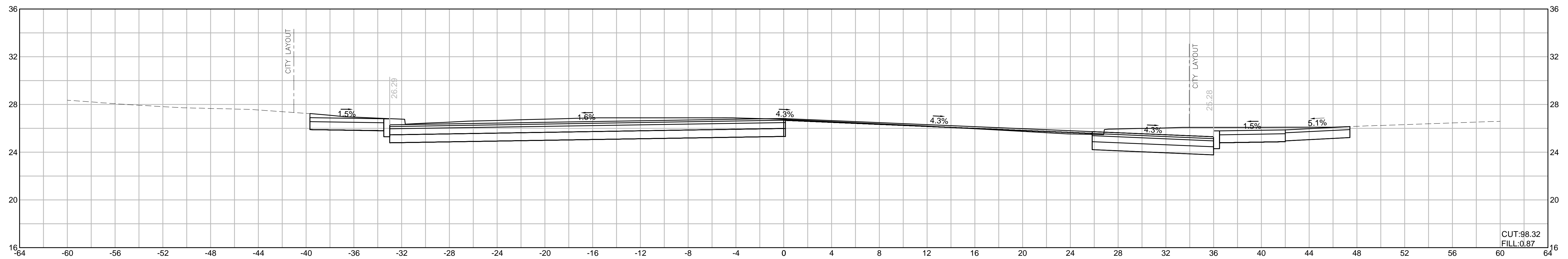
22+09.31



22+00



21+92.96

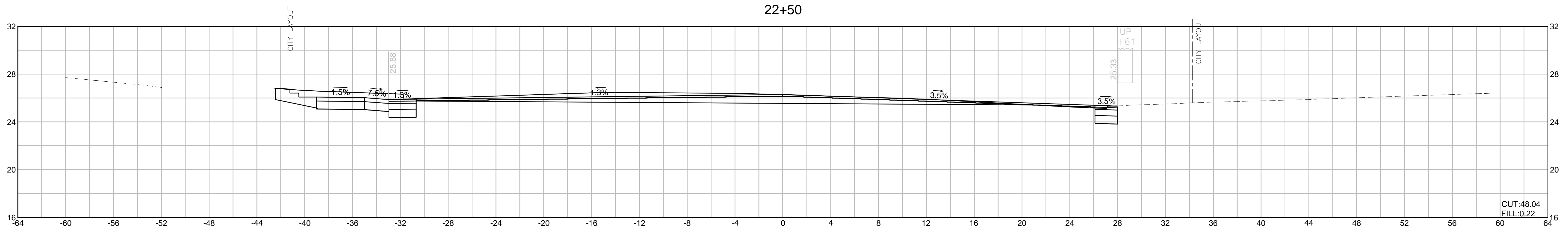


QUINCY
SEA STREET

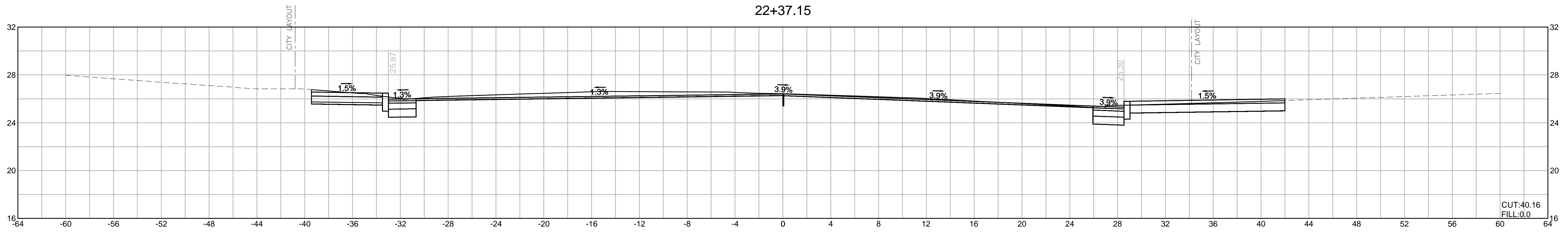
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		83	146

PROJECT FILE NO. 608707
CROSS SECTIONS

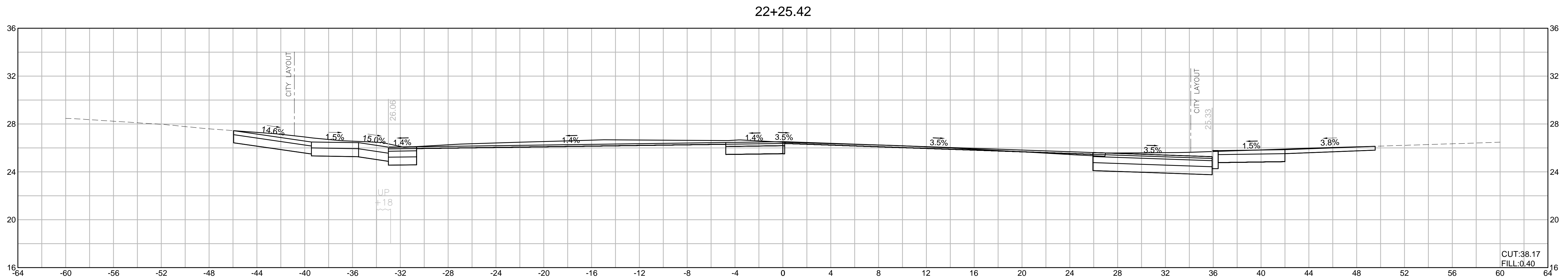
22+50



22+37.15



22+25.42



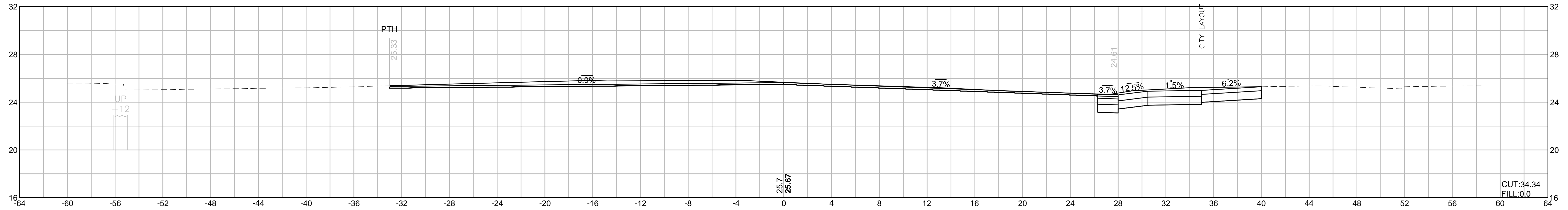
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		84	146

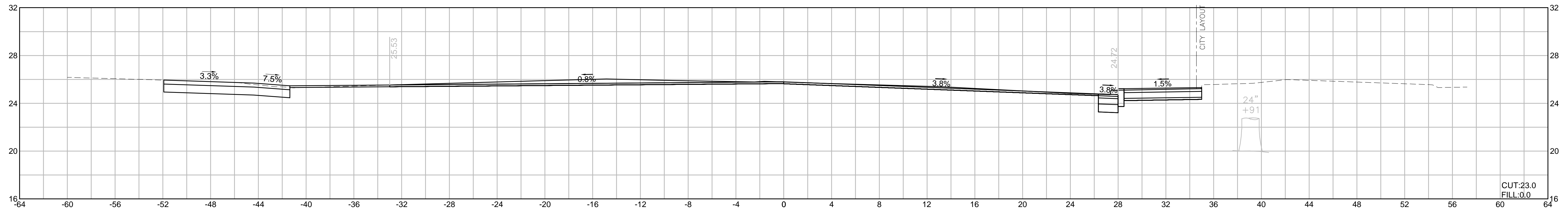
PROJECT FILE NO. 608707

CROSS SECTIONS

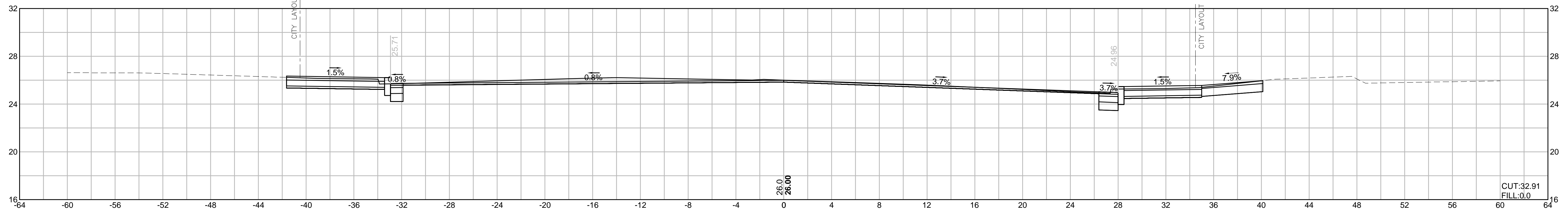
23+15.23



23+00



22+80.63



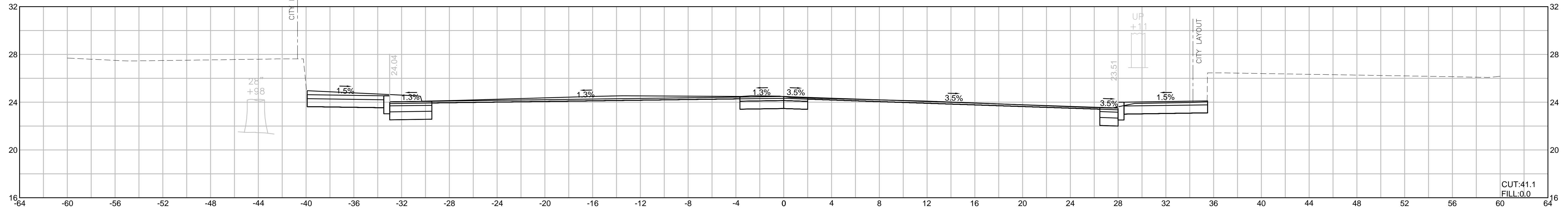
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		85	146

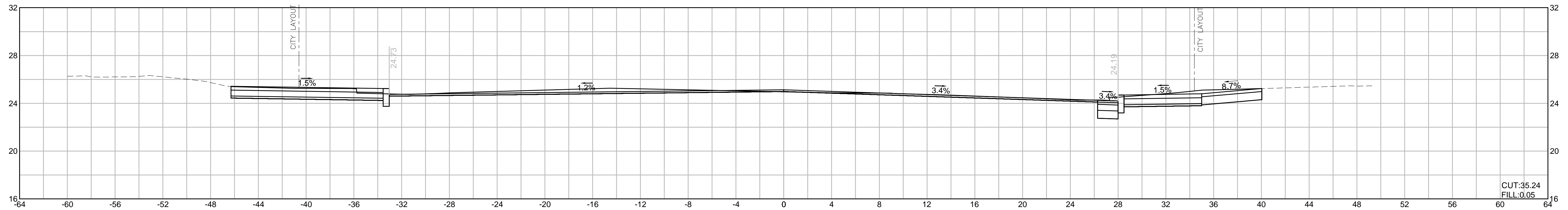
PROJECT FILE NO. 608707

CROSS SECTIONS

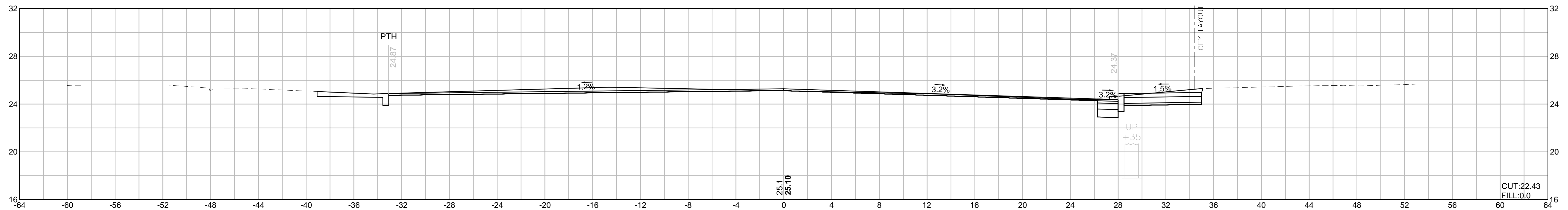
24+00



23+60.30



23+50



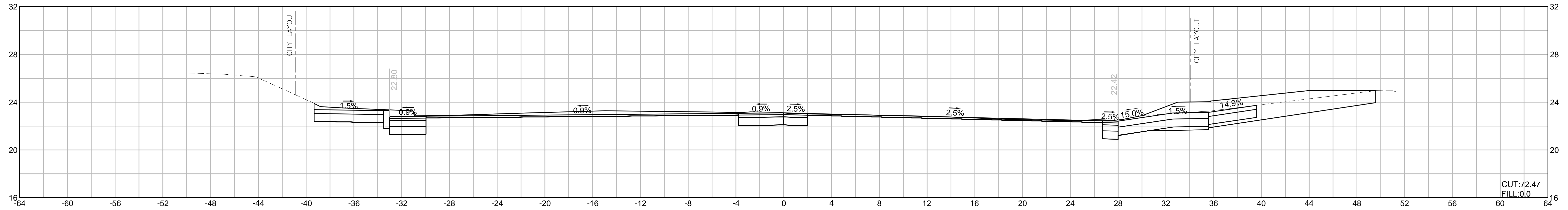
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		86	146

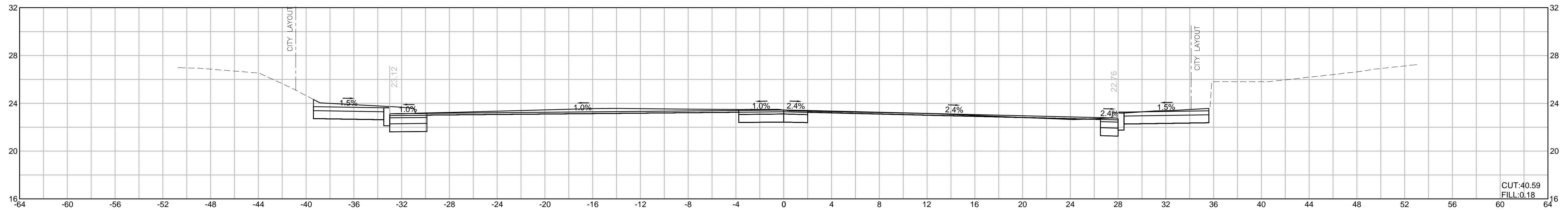
PROJECT FILE NO. 608707

CROSS SECTIONS

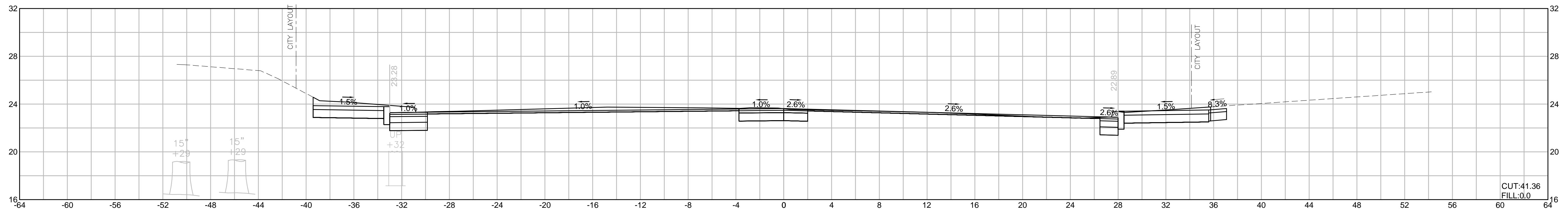
24+63.69



24+50



24+41.46



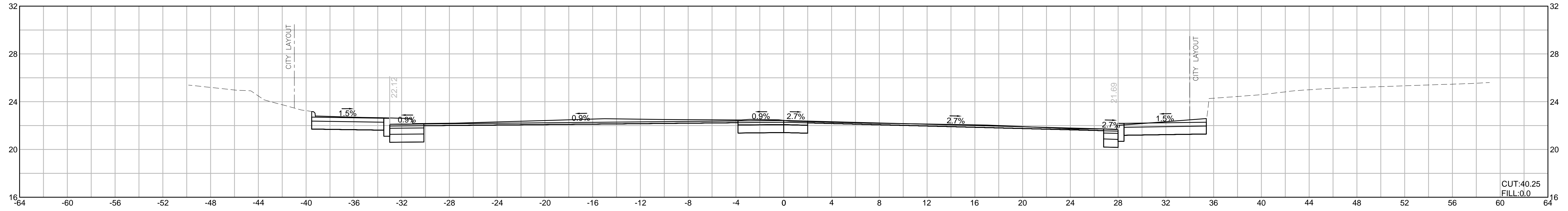
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		87	146

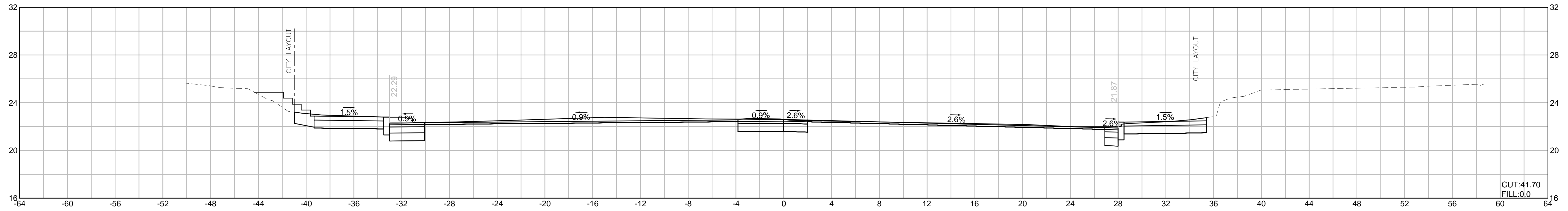
PROJECT FILE NO. 608707

CROSS SECTIONS

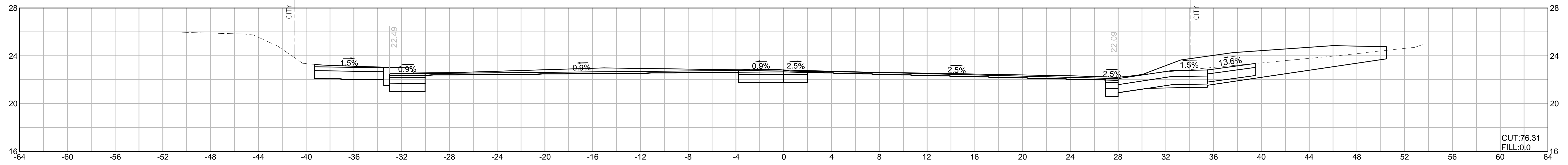
24+92.35



24+85.52



24+76.78



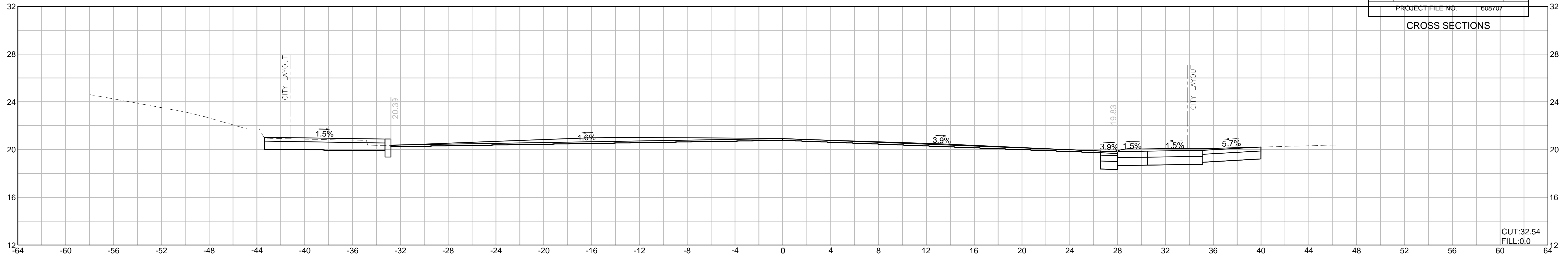
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		88	146

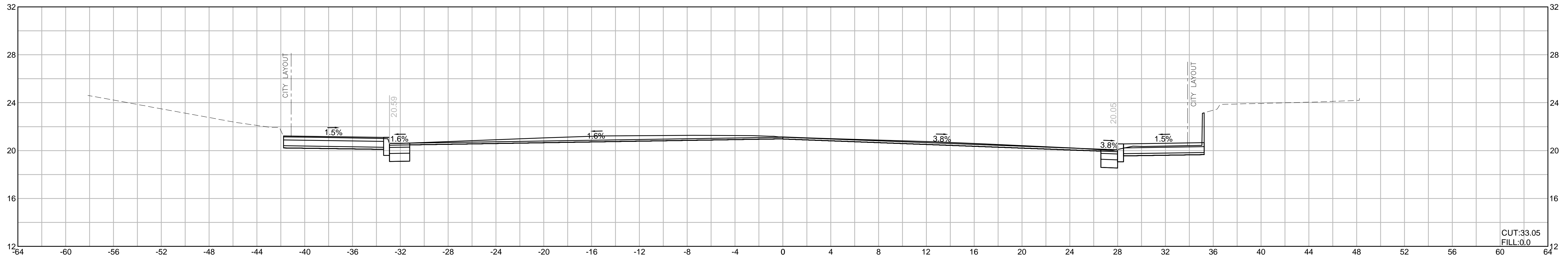
PROJECT FILE NO. 608707

CROSS SECTIONS

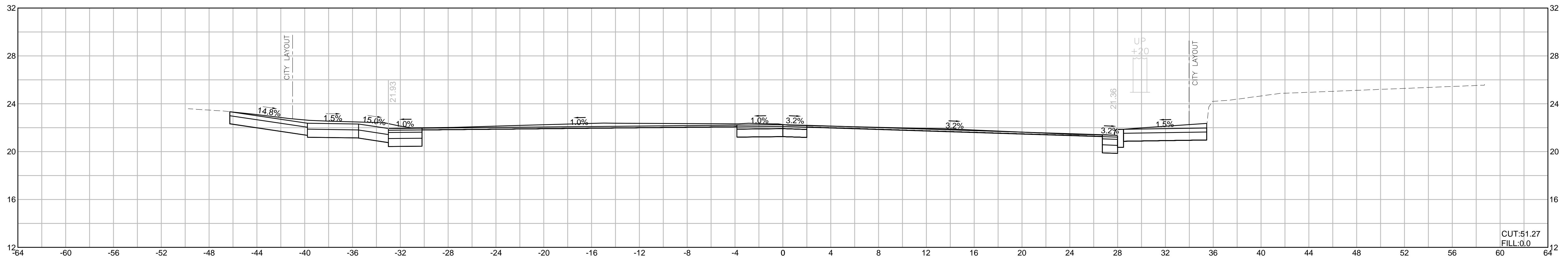
25+50



25+42.65



25+00

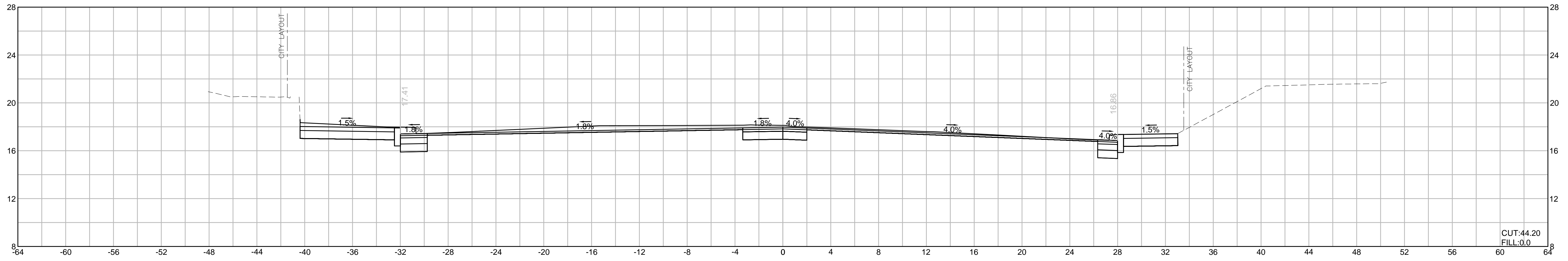


QUINCY
SEA STREET

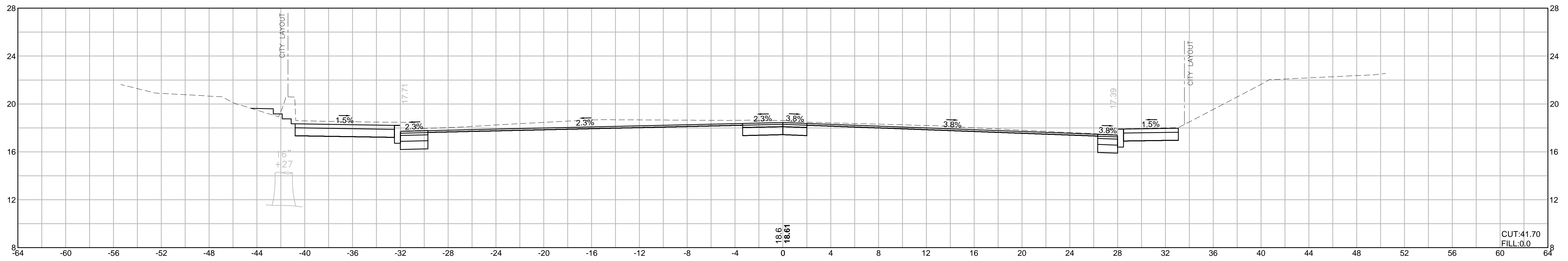
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		89	146
PROJECT FILE NO. 608707			

CROSS SECTIONS

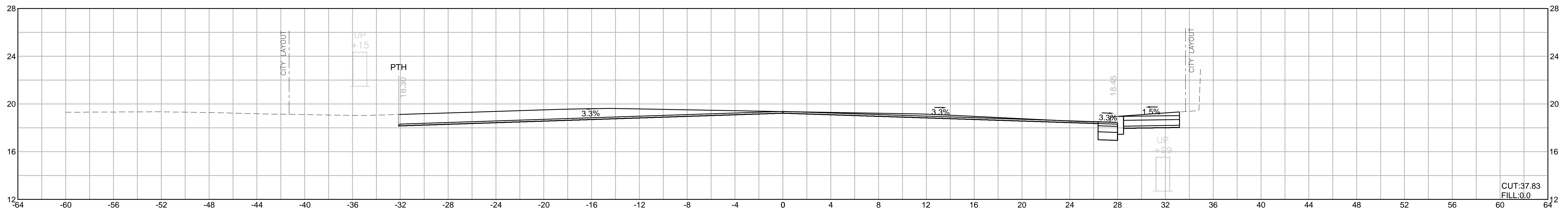
26+50



26+33.21



26+00



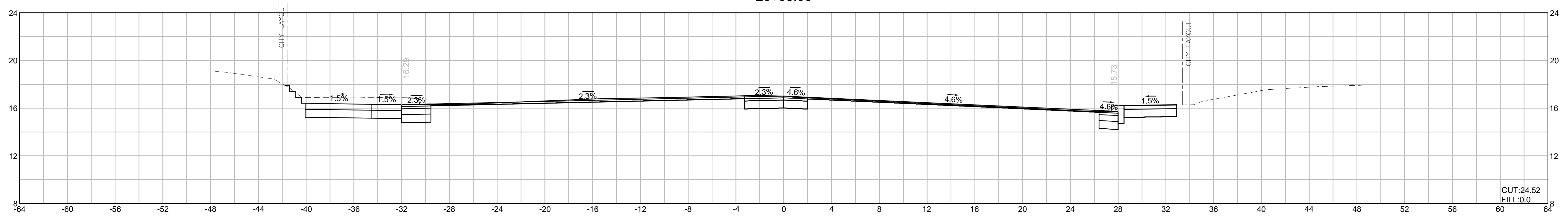
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		90	146

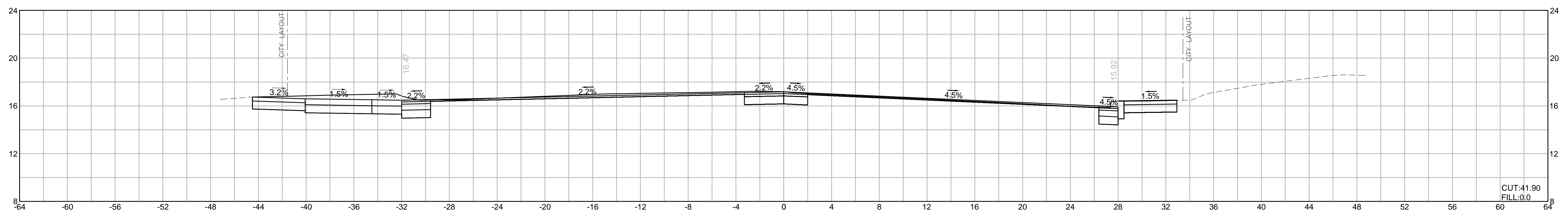
PROJECT FILE NO. 608707

CROSS SECTIONS

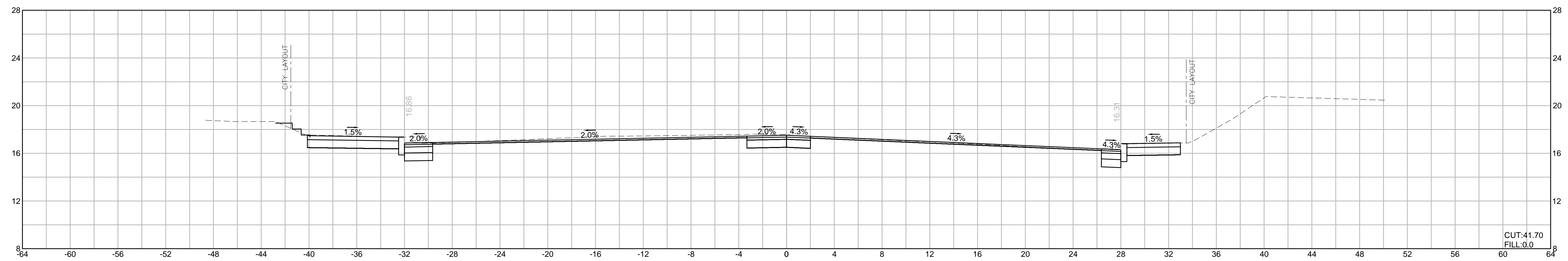
26+93.06



26+86.07



26+71.16



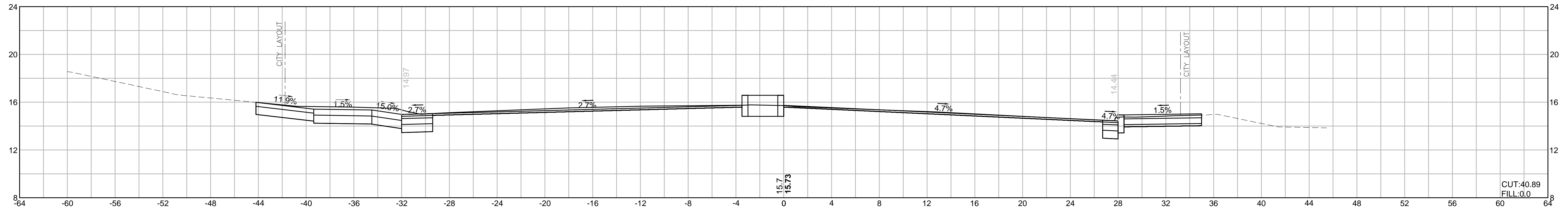
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		91	146

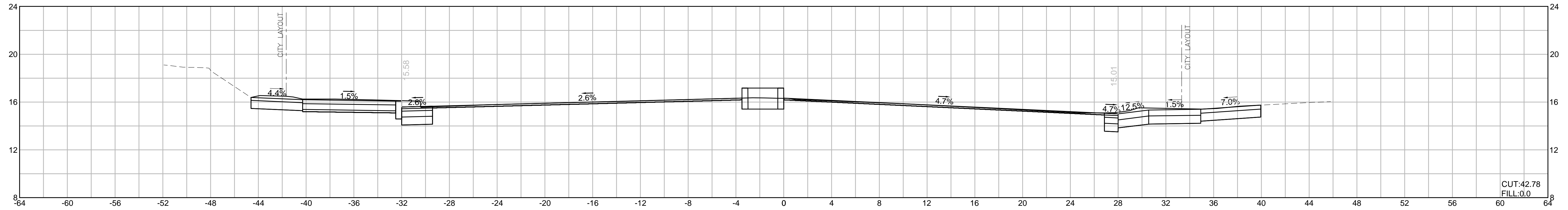
PROJECT FILE NO. 608707

CROSS SECTIONS

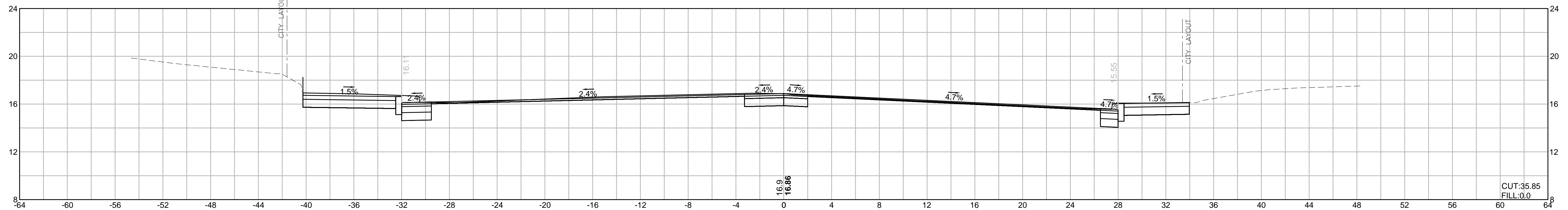
27+46.23



27+22.18



27+00



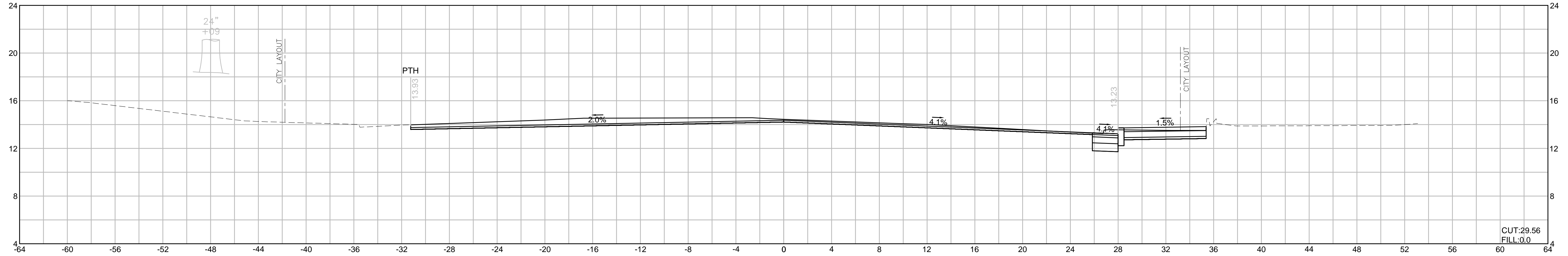
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		92	146

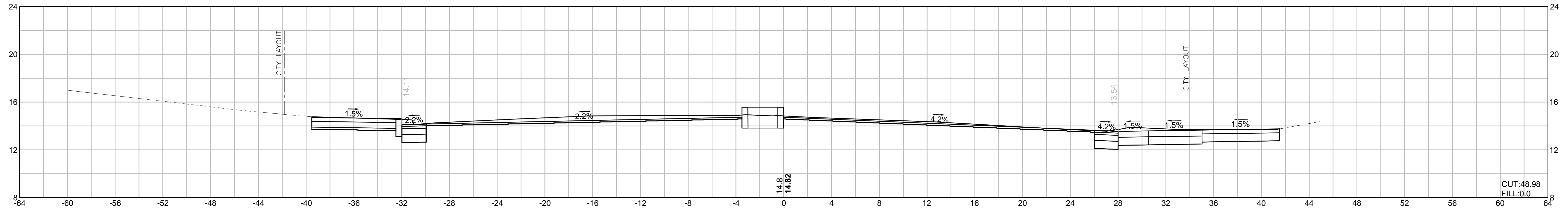
PROJECT FILE NO. 608707

CROSS SECTIONS

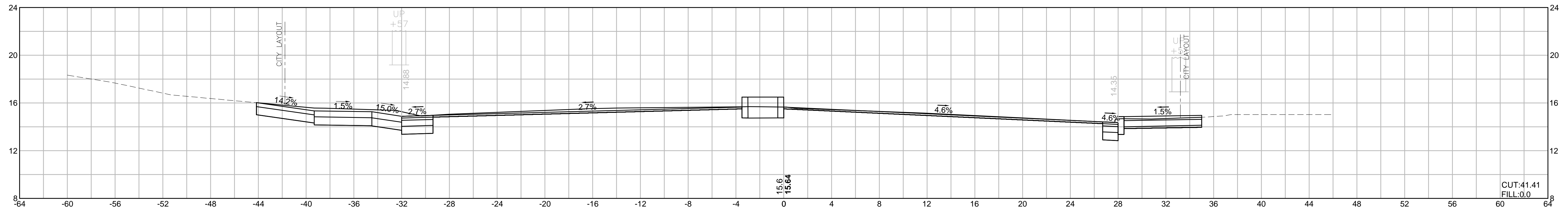
28+00



27+85.95



27+50



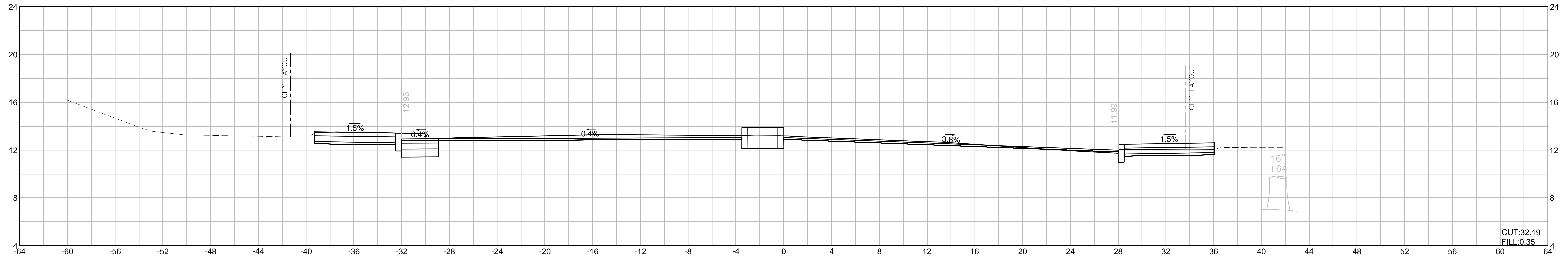
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		93	146

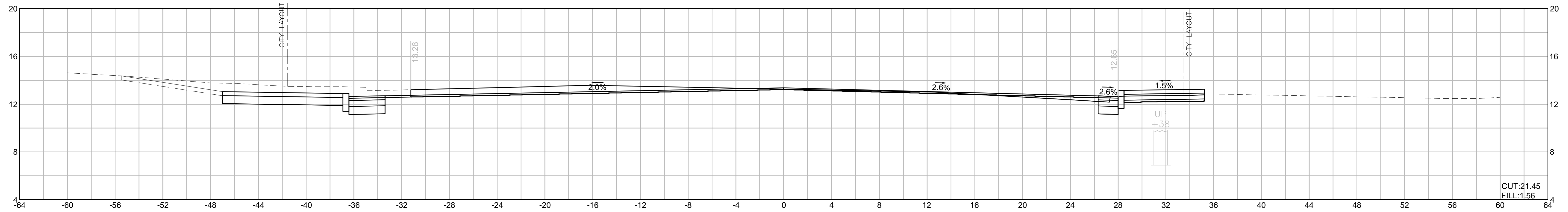
PROJECT FILE NO. 608707

CROSS SECTIONS

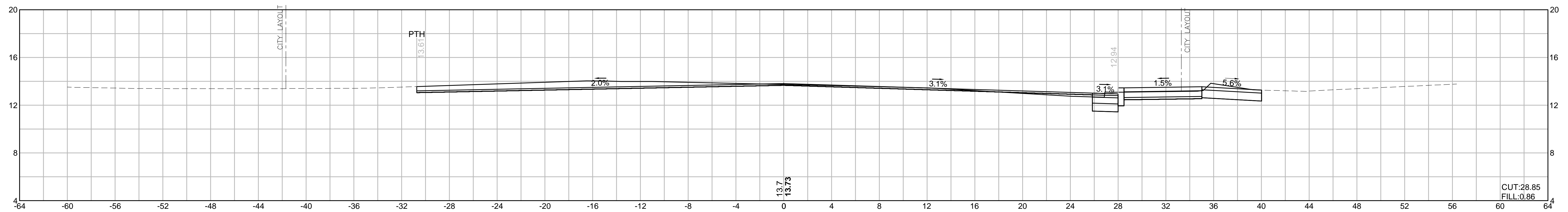
28+77.43



28+50



28+24.63



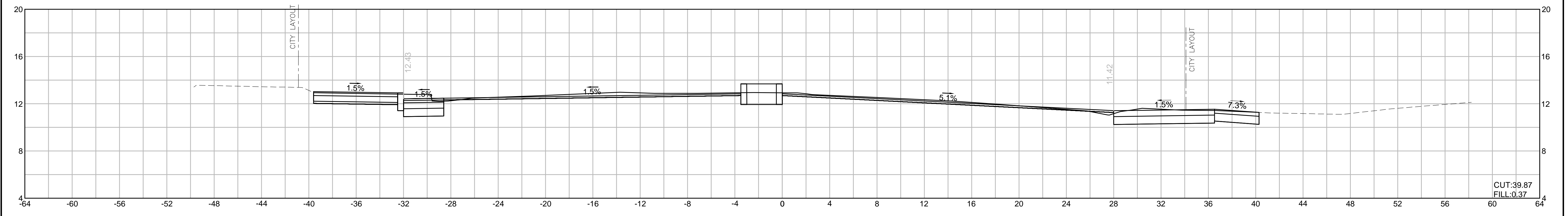
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		94	146

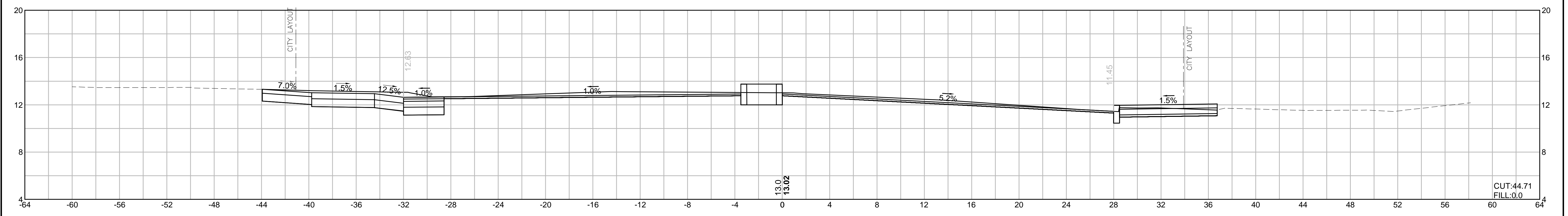
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CROSS SECTIONS

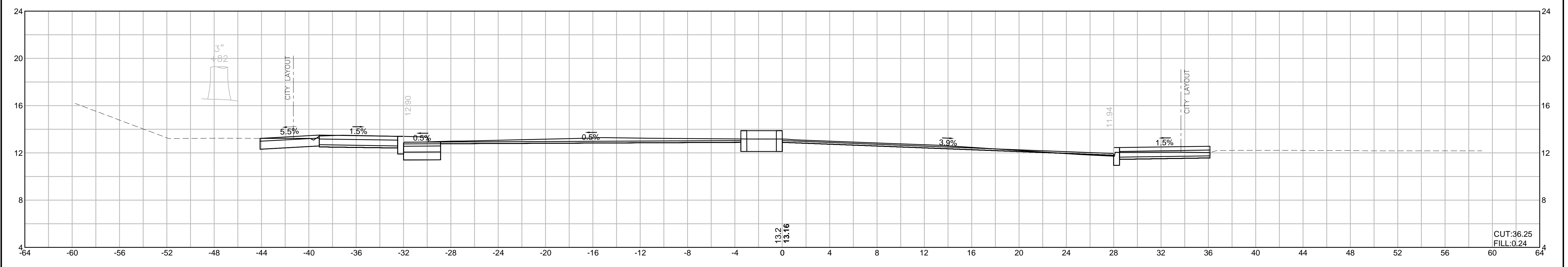
29+17.38



29+00



28+79.43



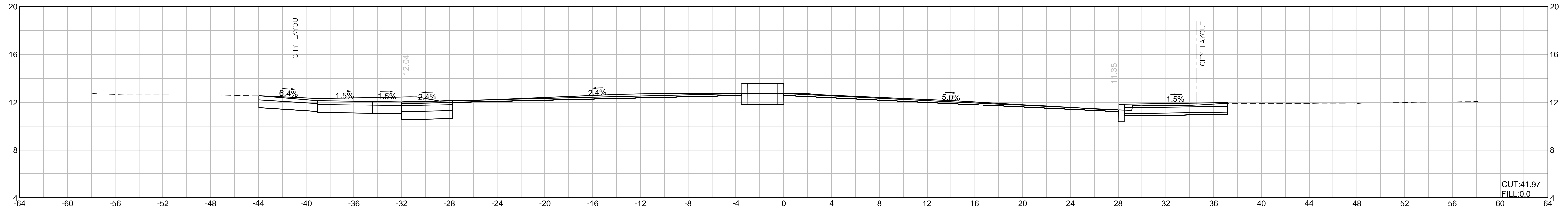
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		95	146

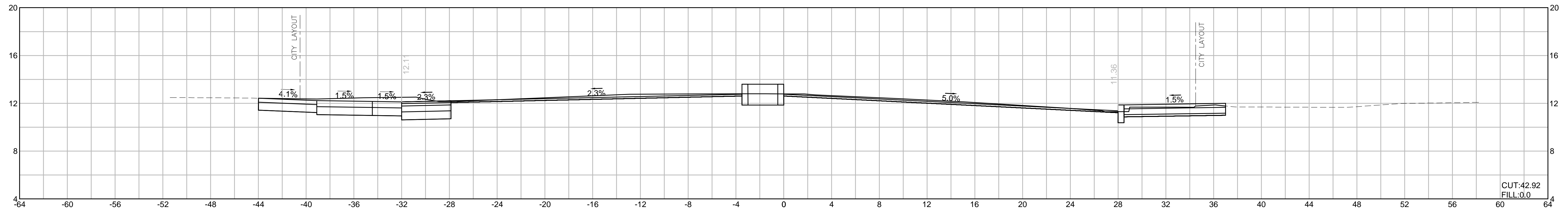
PROJECT FILE NO. 608707

CROSS SECTIONS

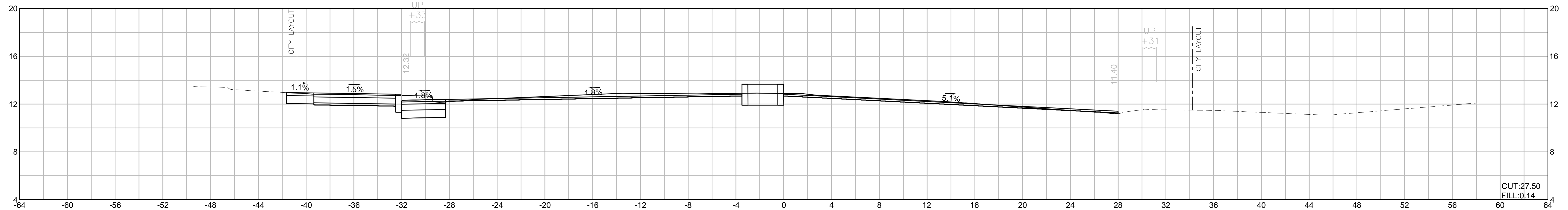
29+50



29+43.80



29+26.28

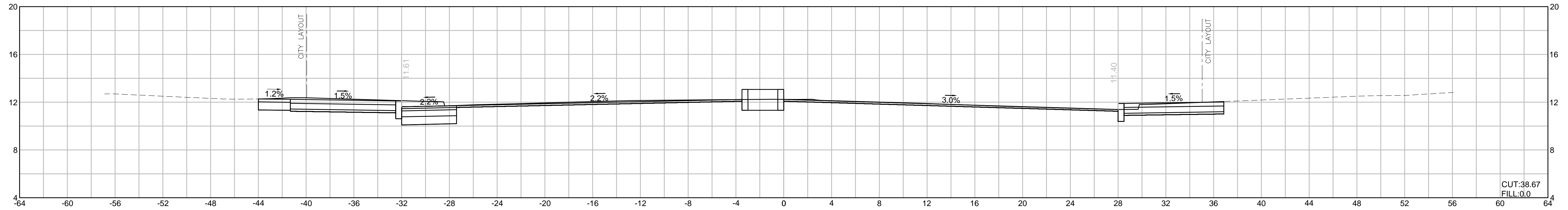


QUINCY
SEA STREET

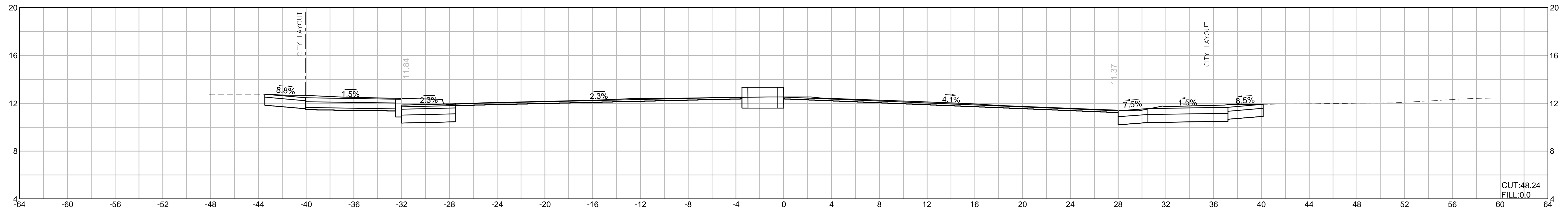
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		96	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

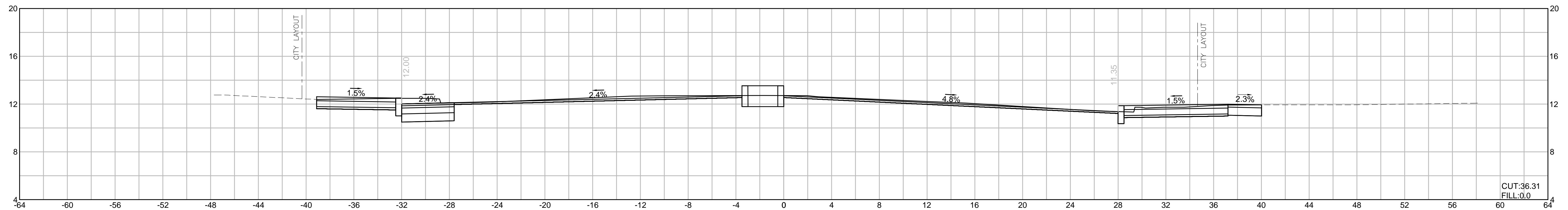
29+95.97



29+70.83



29+54.05

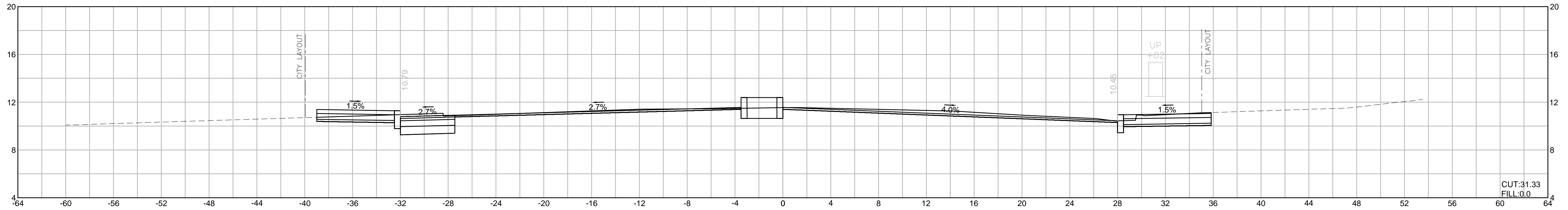


QUINCY
SEA STREET

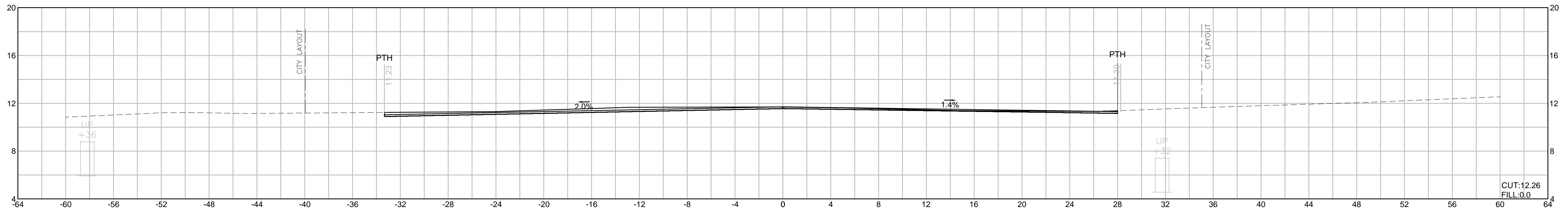
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		97	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

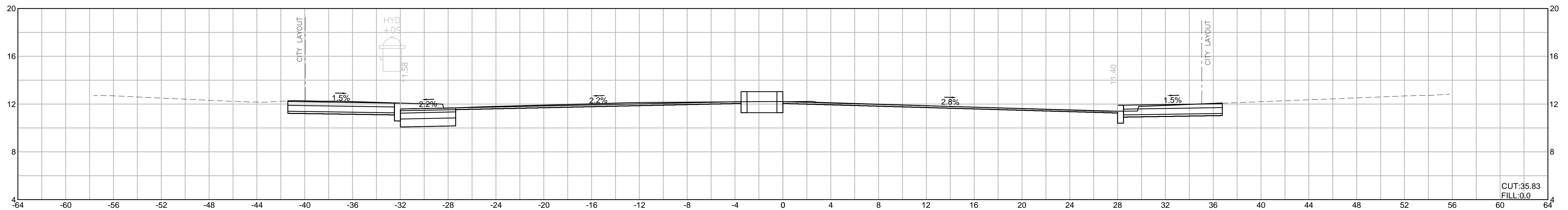
31+00



30+50



30+00



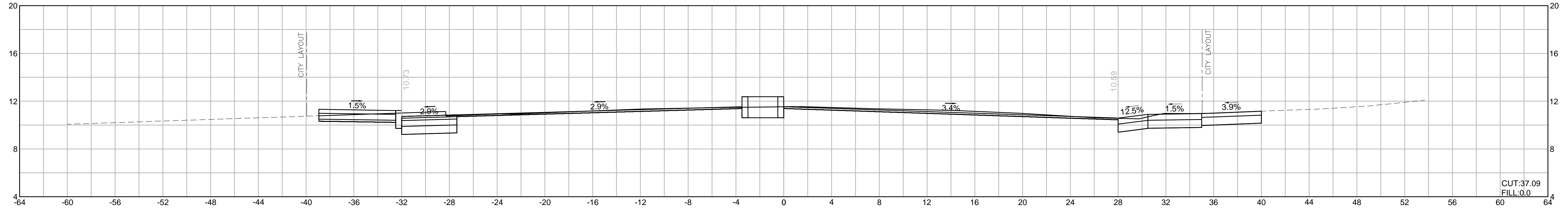
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		98	146

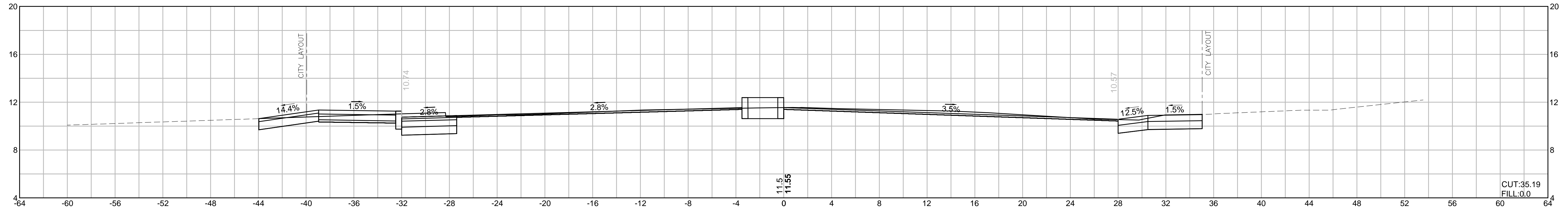
PROJECT FILE NO. 608707

CROSS SECTIONS

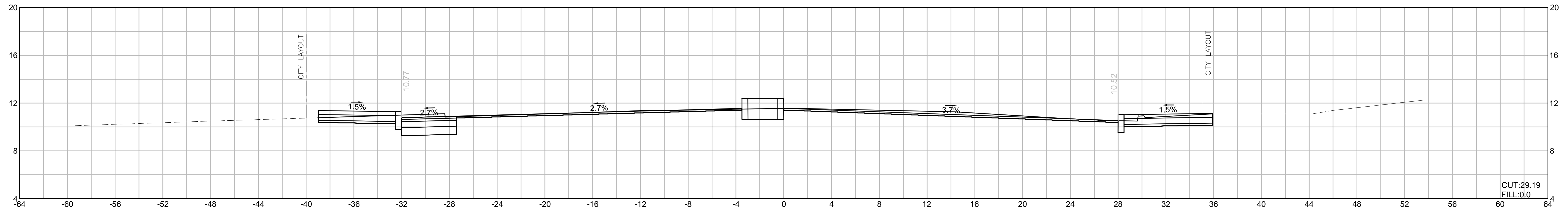
31+24.53



31+18.73



31+07.85



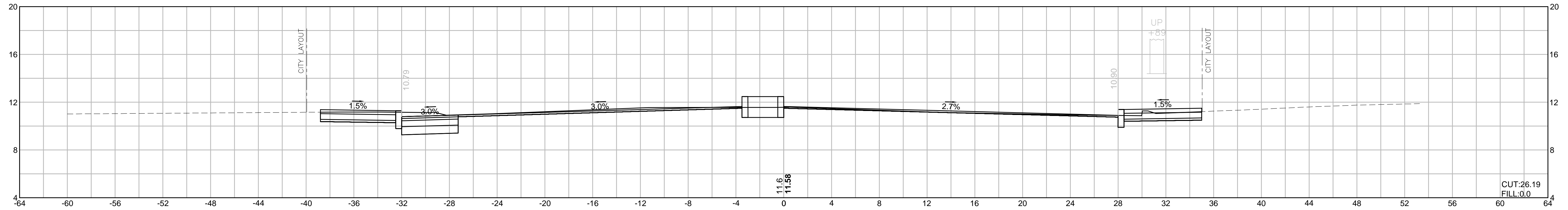
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		99	146

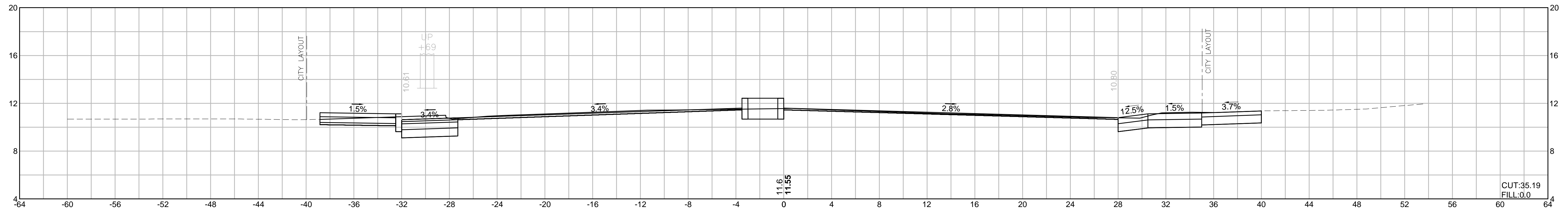
PROJECT FILE NO. 608707

CROSS SECTIONS

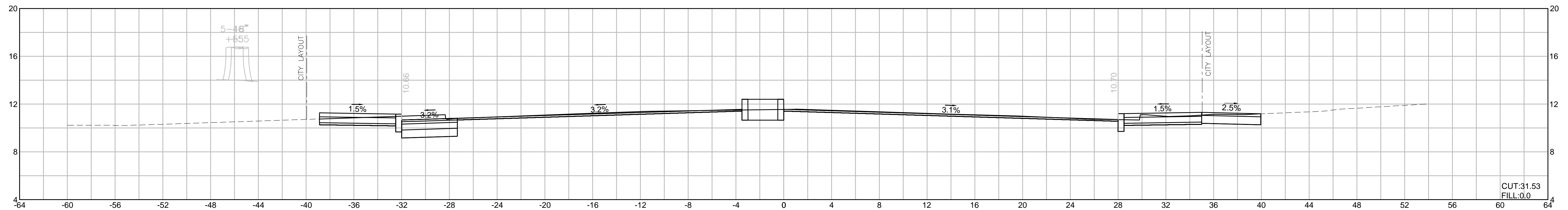
31+85.10



31+66.88



31+50



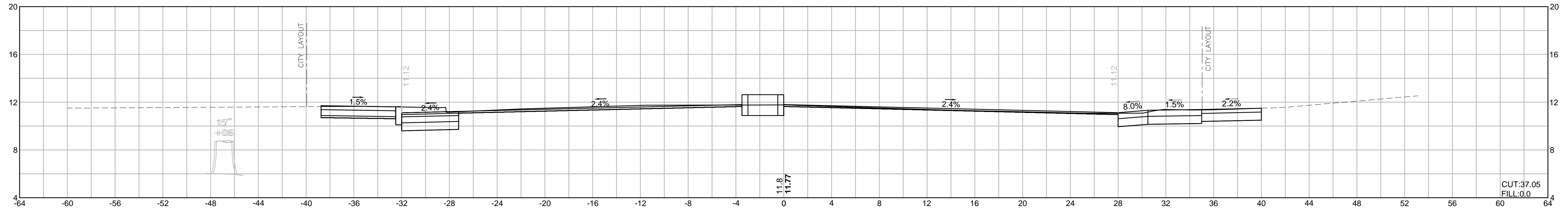
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		100	146

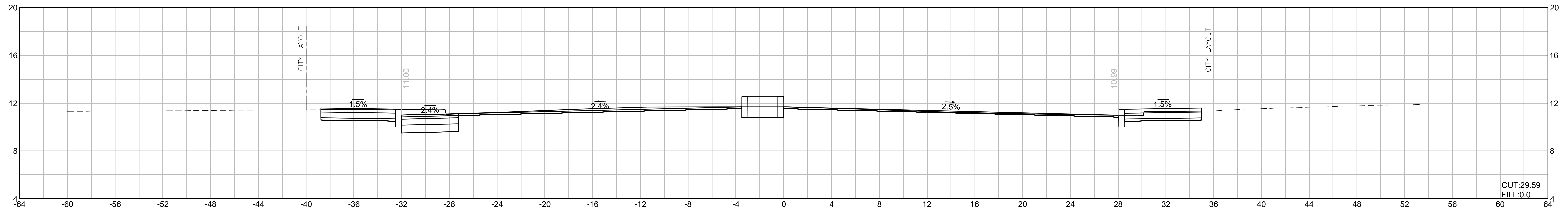
PROJECT FILE NO. 608707

CROSS SECTIONS

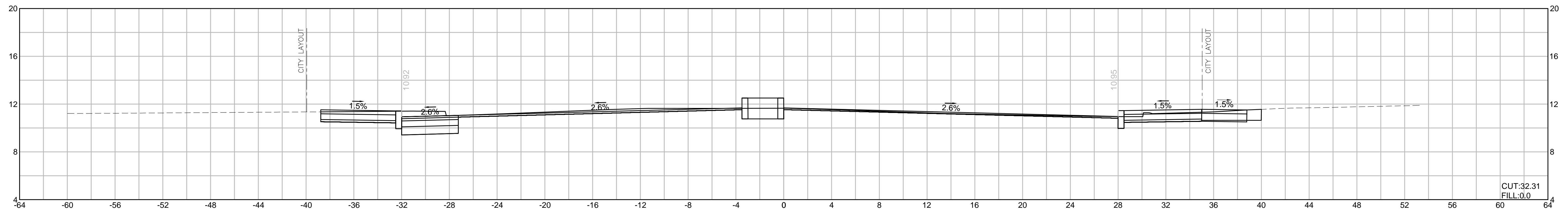
32+10.08



32+00



31+94.41



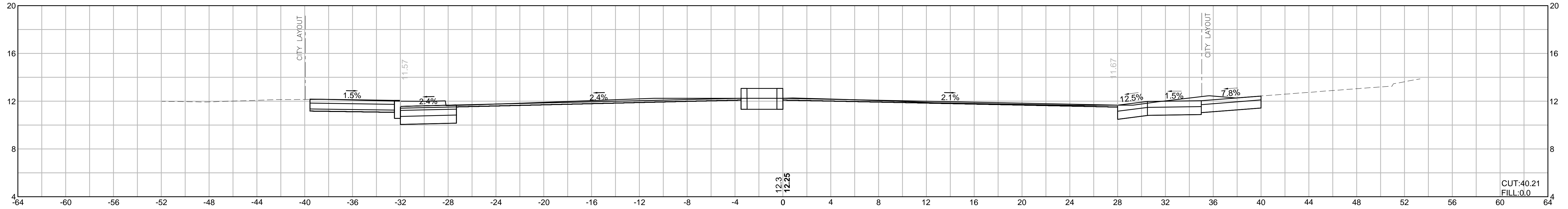
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		101	146

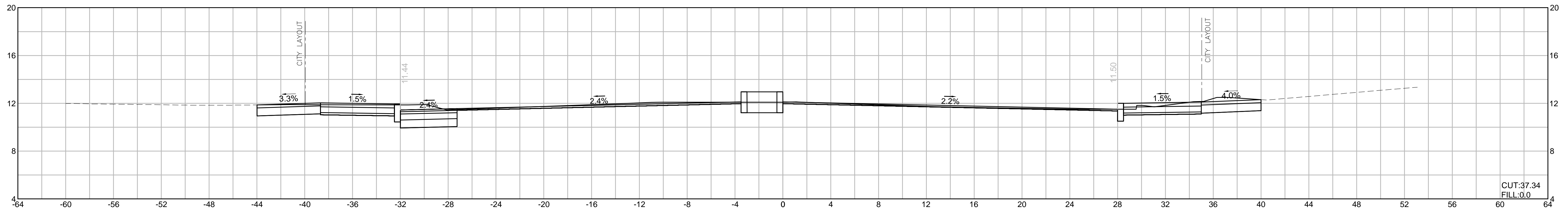
PROJECT FILE NO. 608707

CROSS SECTIONS

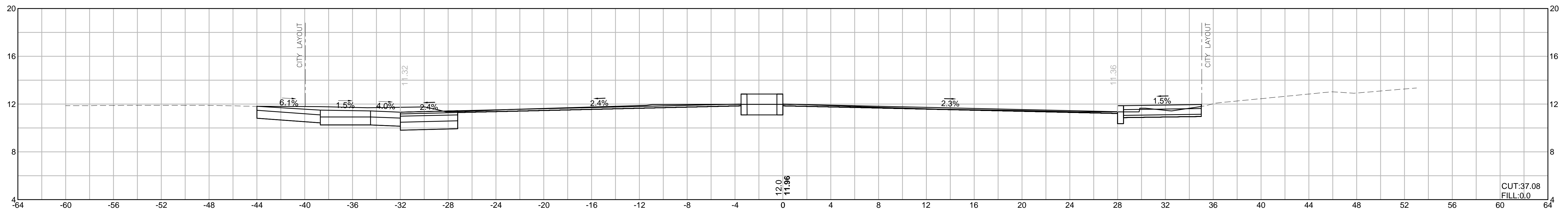
32+50



32+38.51



32+27.76

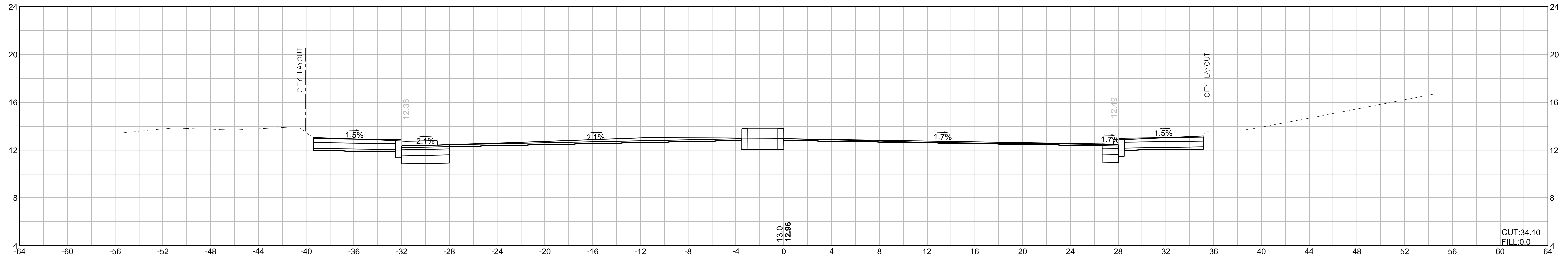


QUINCY
SEA STREET

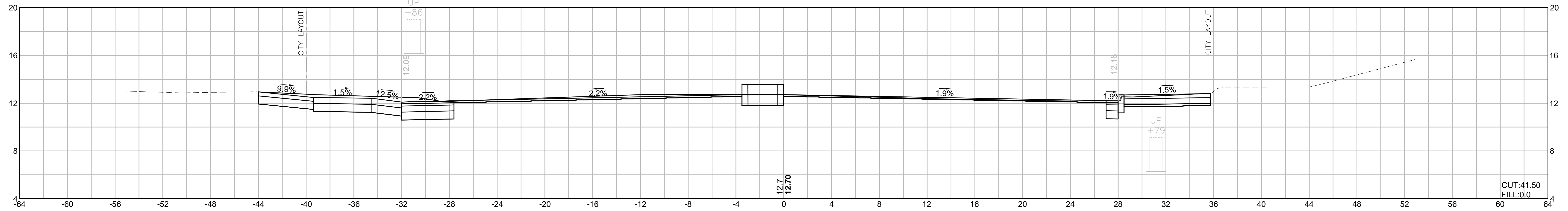
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		102	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

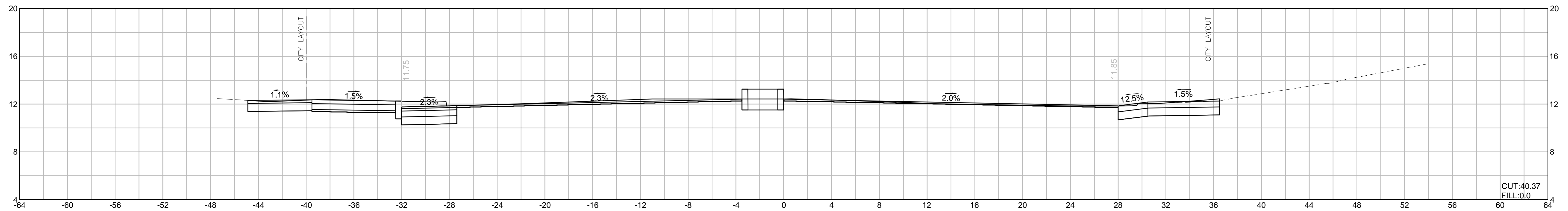
33+00



32+82.79



32+61.48



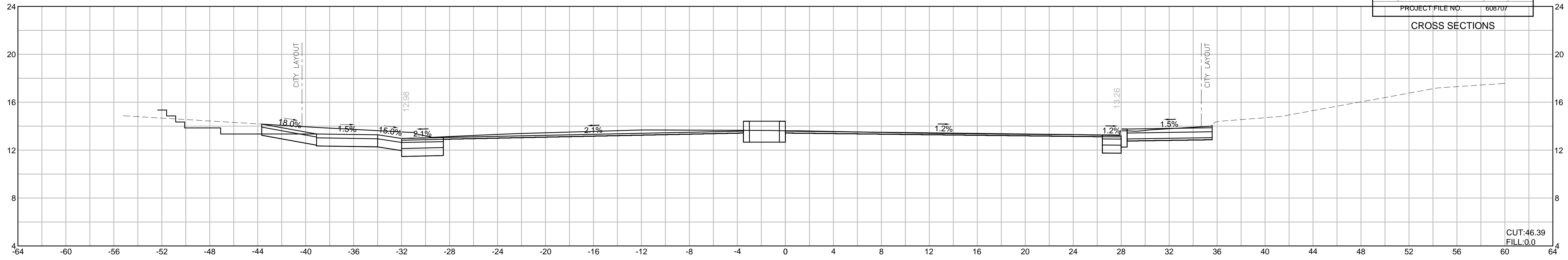
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		103	146

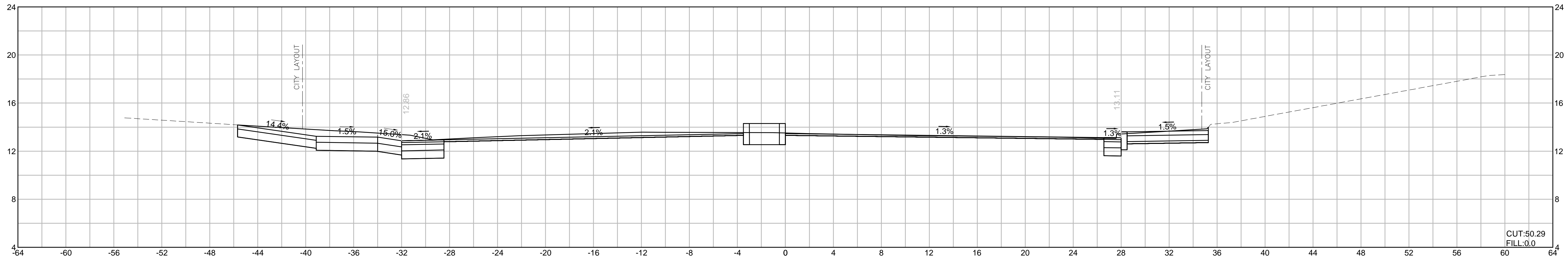
PROJECT FILE NO. 608707

CROSS SECTIONS

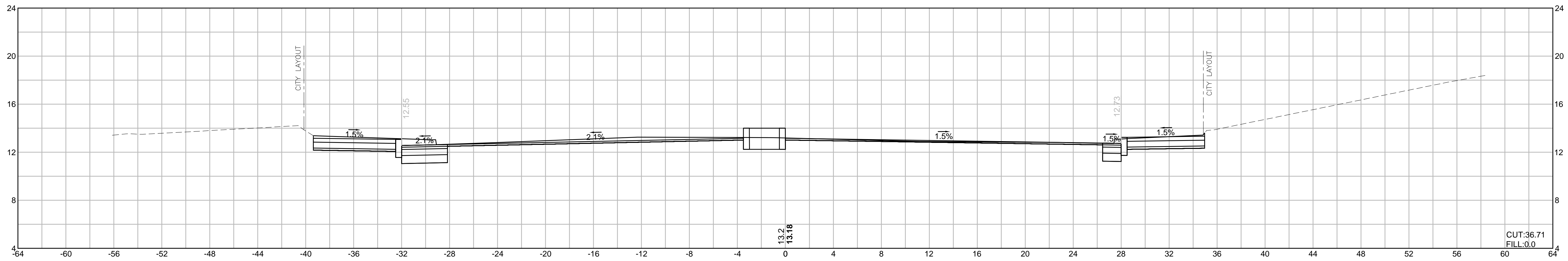
33+41



33+32.92



33+12.79



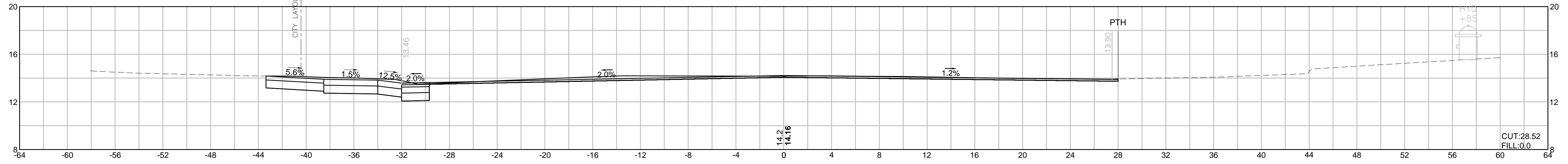
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		104	146

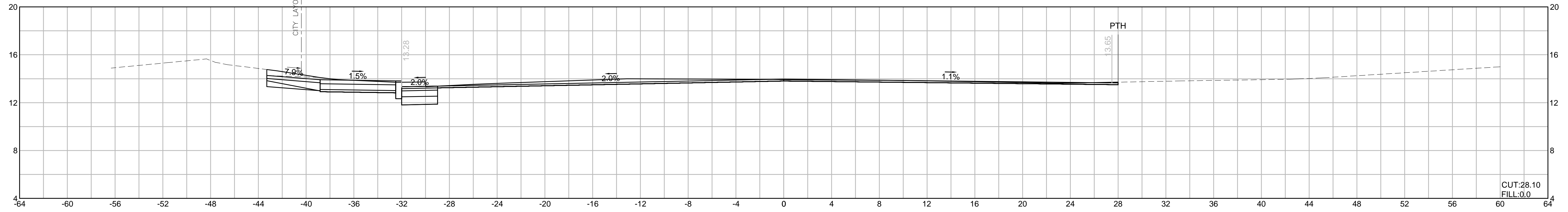
PROJECT FILE NO. 608707

CROSS SECTIONS

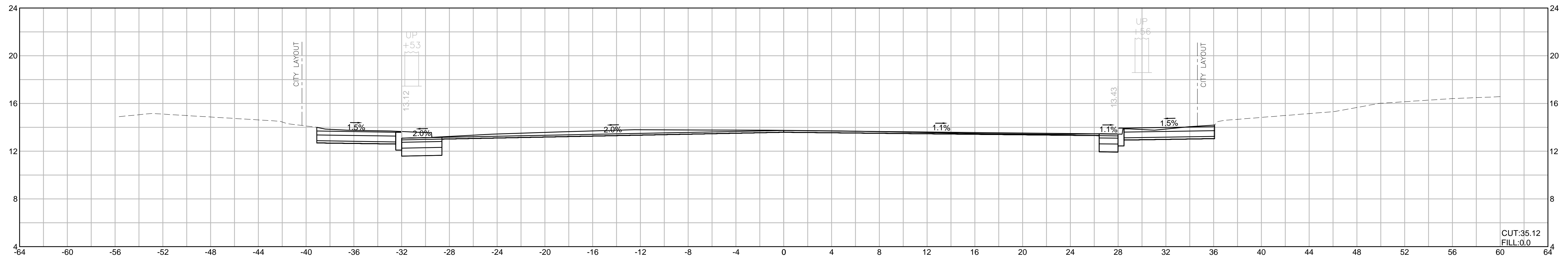
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33+66.68



33+50

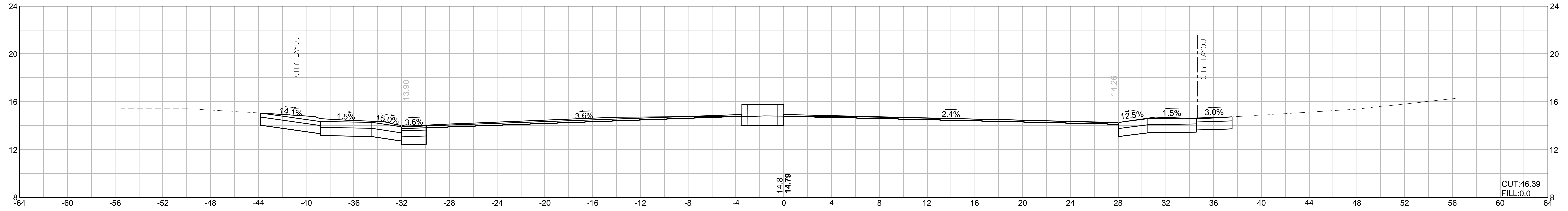


QUINCY
SEA STREET

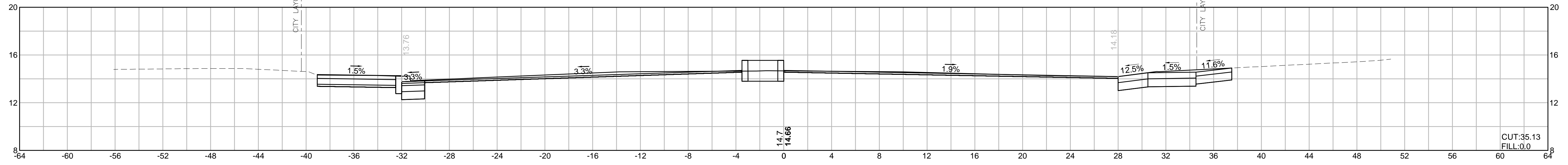
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		105	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

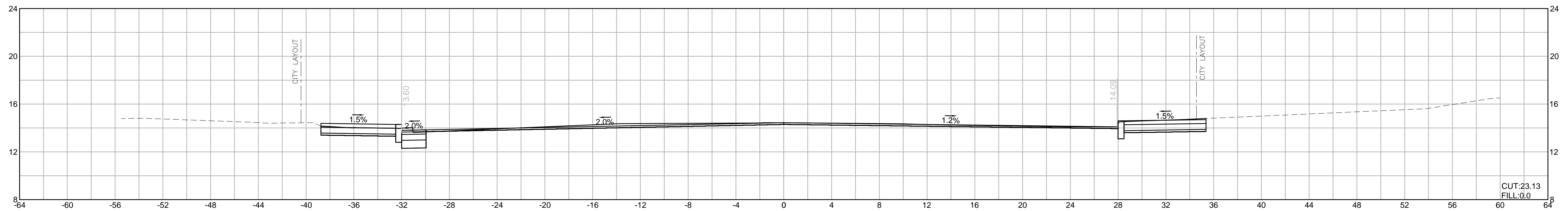
34+37.50



34+19.82



34+00

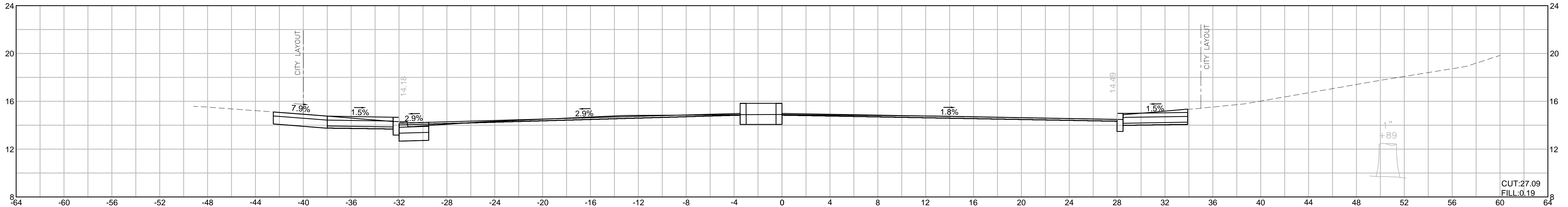


QUINCY
SEA STREET

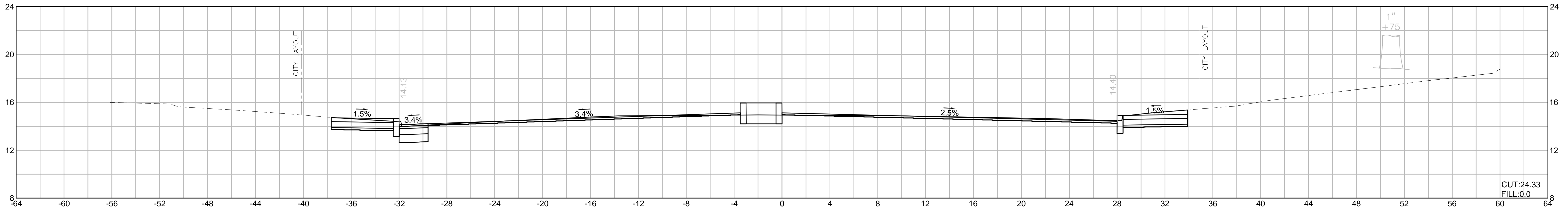
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		106	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

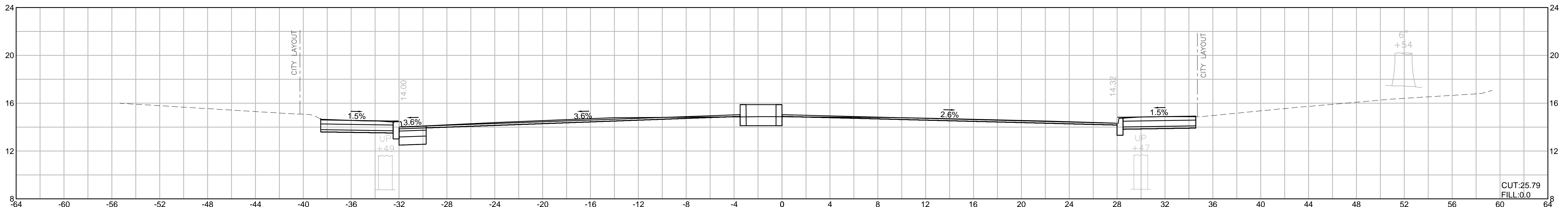
35+00



34+73.49



34+50



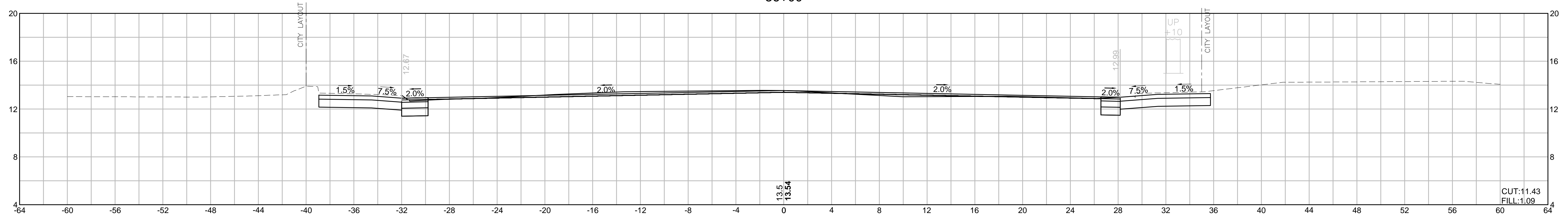
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		107	146

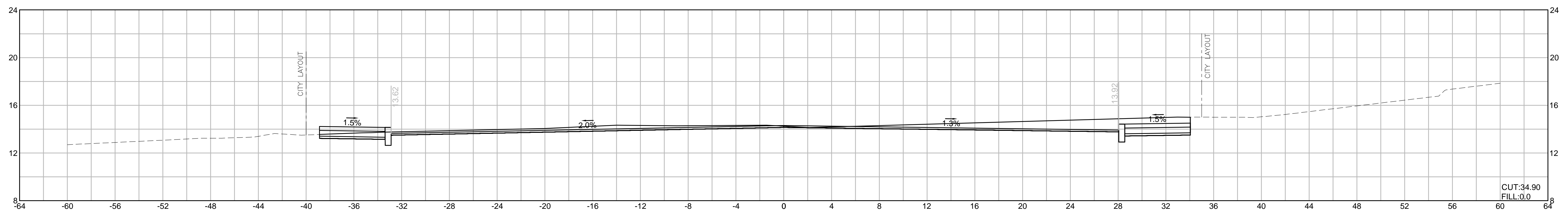
PROJECT FILE NO. 608707

CROSS SECTIONS

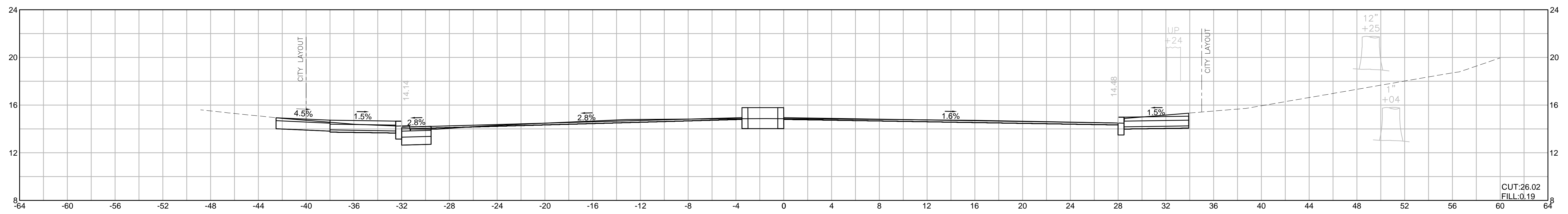
36+00



35+50



35+05.81



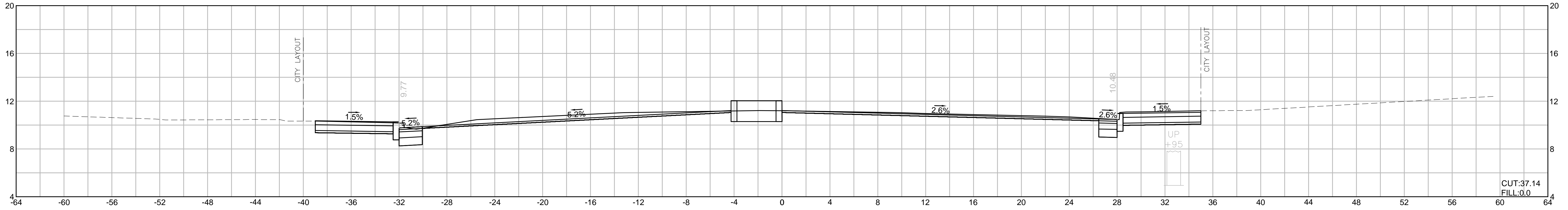
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		108	146

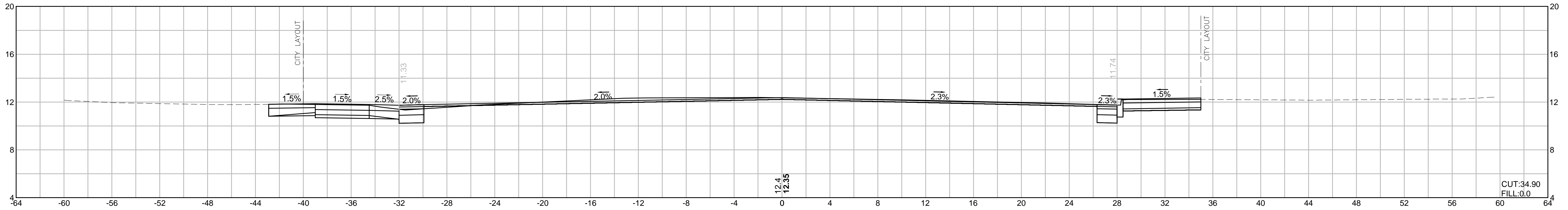
PROJECT FILE NO. 608707

CROSS SECTIONS

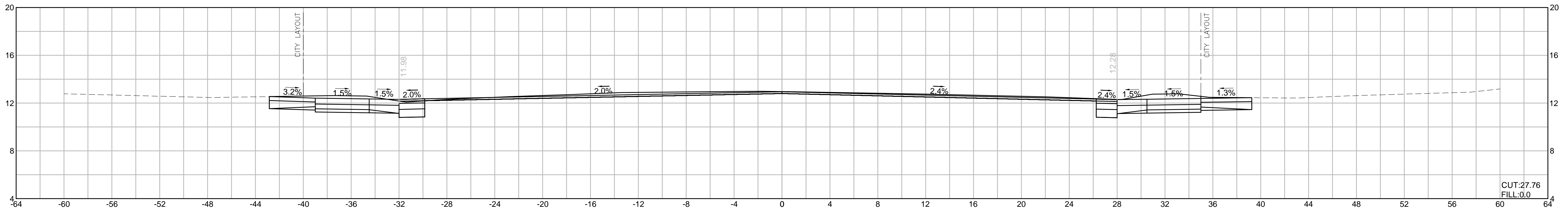
37+00



36+50



36+25.66



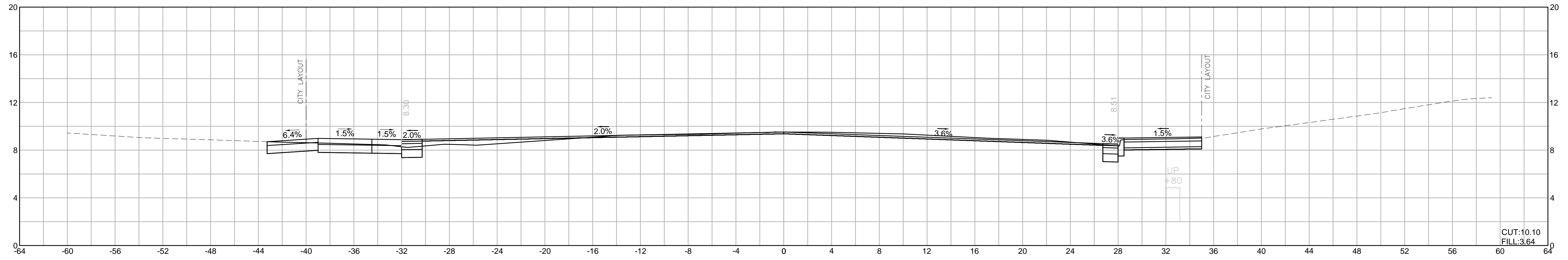
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		109	146

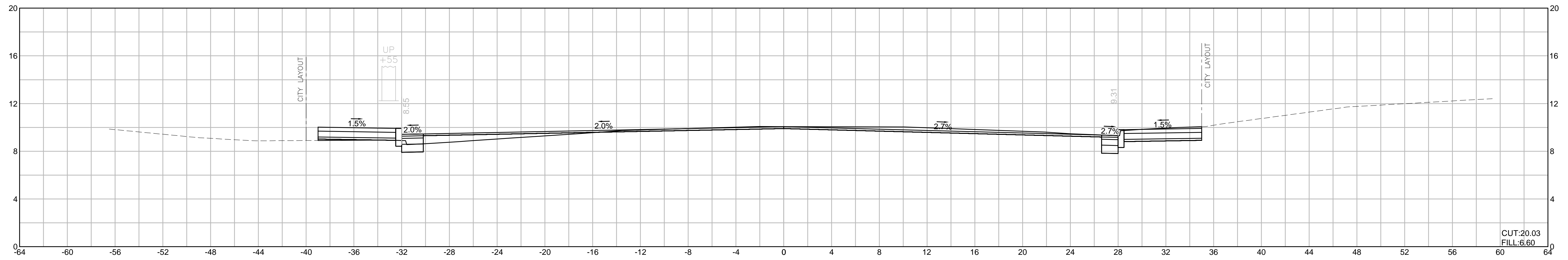
PROJECT FILE NO. 608707

CROSS SECTIONS

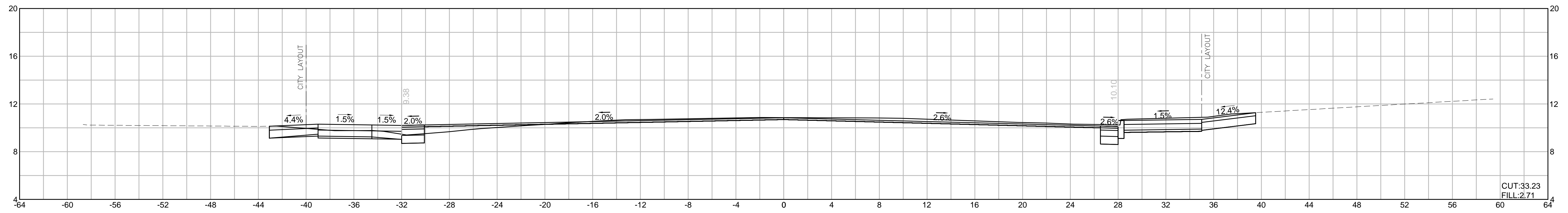
37+85.26



37+50



37+16.06



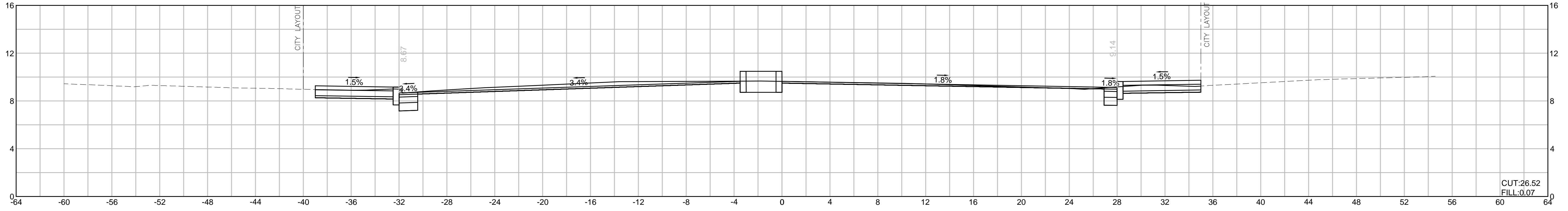
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		110	146

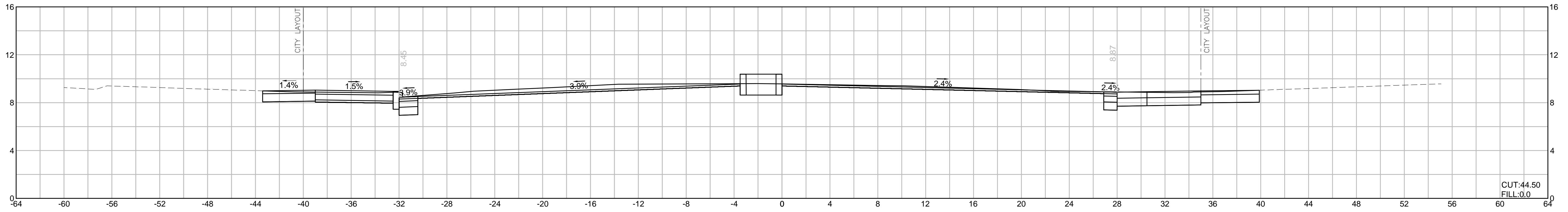
PROJECT FILE NO. 608707

CROSS SECTIONS

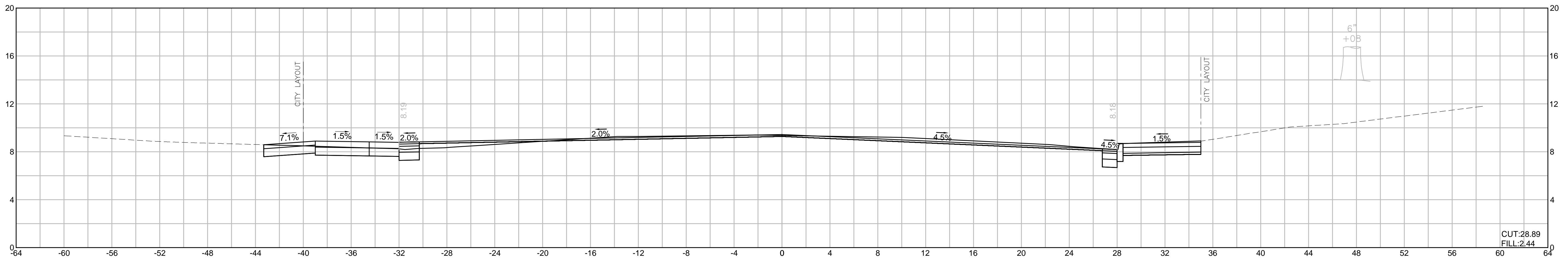
38+50



38+40.73



38+00

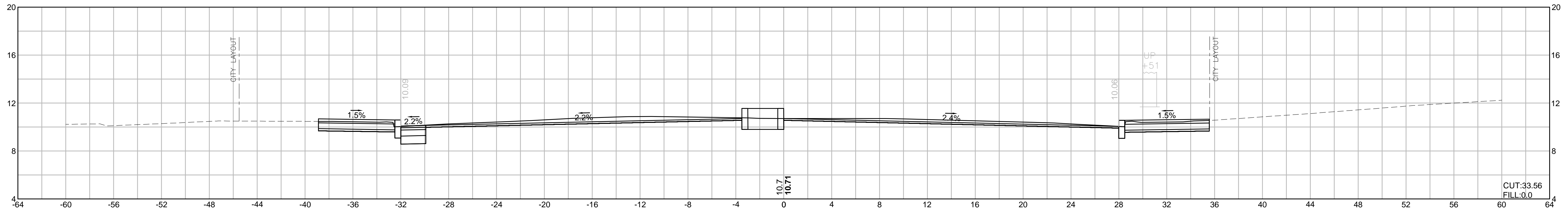


QUINCY
SEA STREET

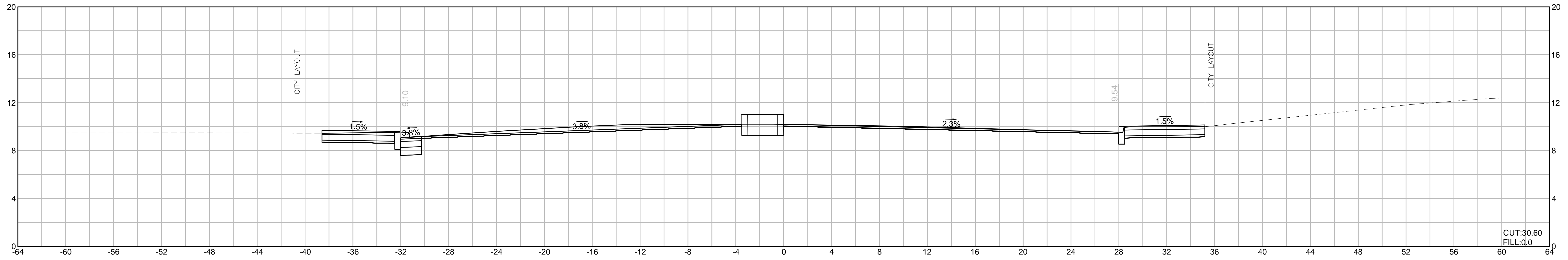
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		111	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

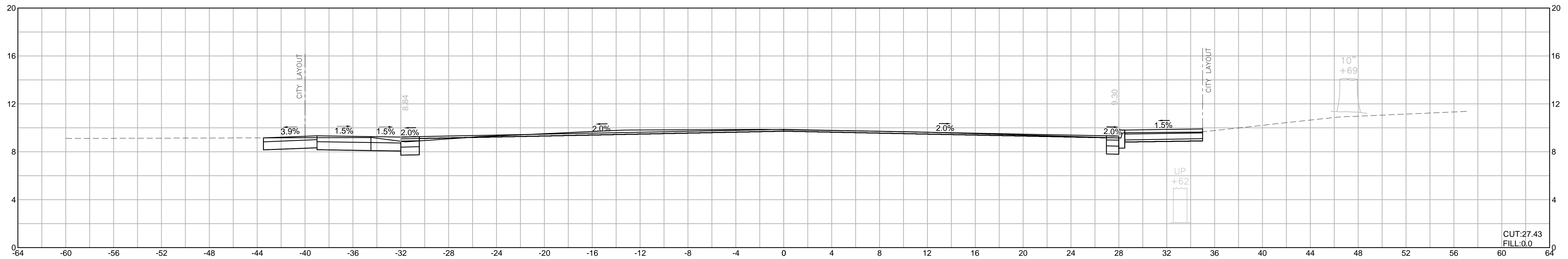
39+50



39+00



38+69.99



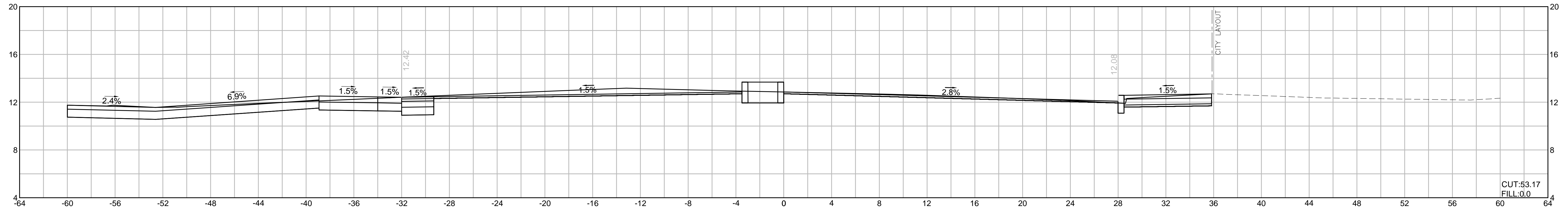
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		112	146

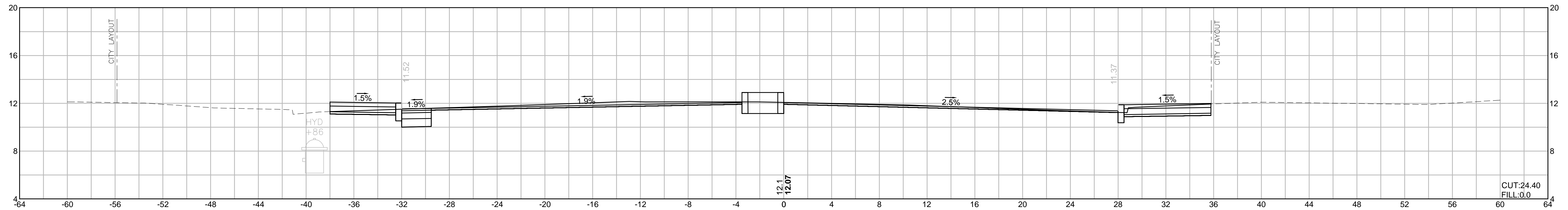
PROJECT FILE NO. 608707

CROSS SECTIONS

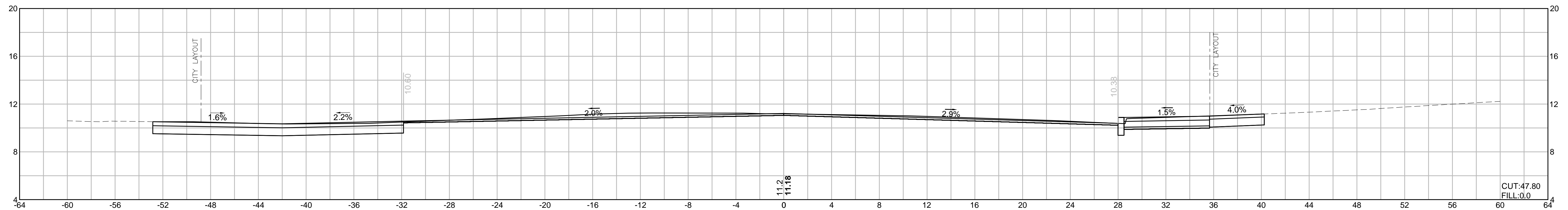
40+27.28



40+00



39+67.94

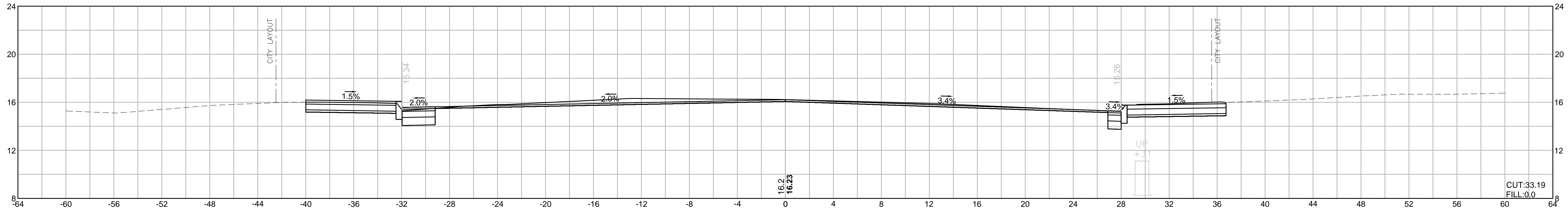


QUINCY
SEA STREET

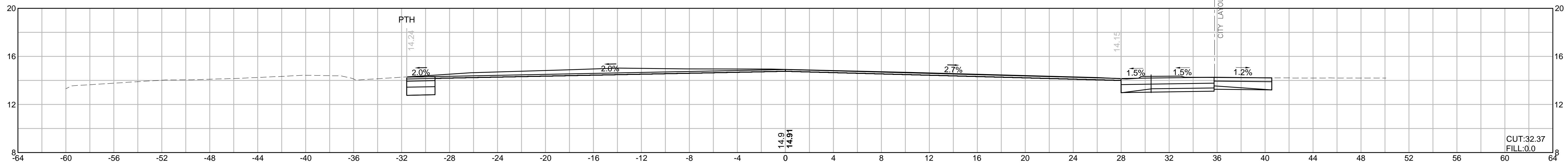
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		113	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

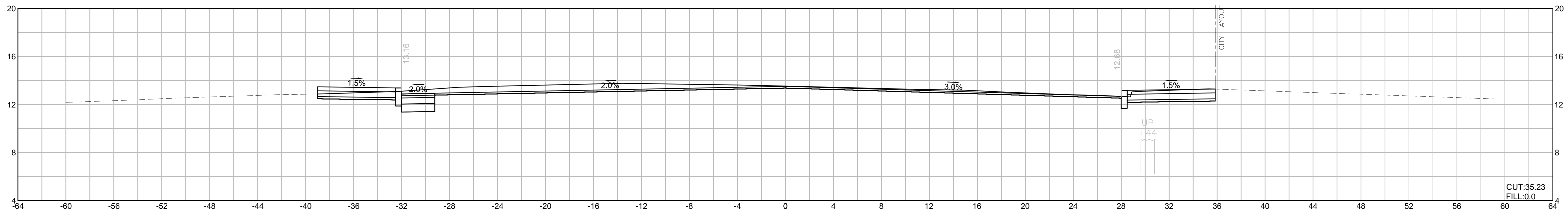
41+50



41+00



40+50



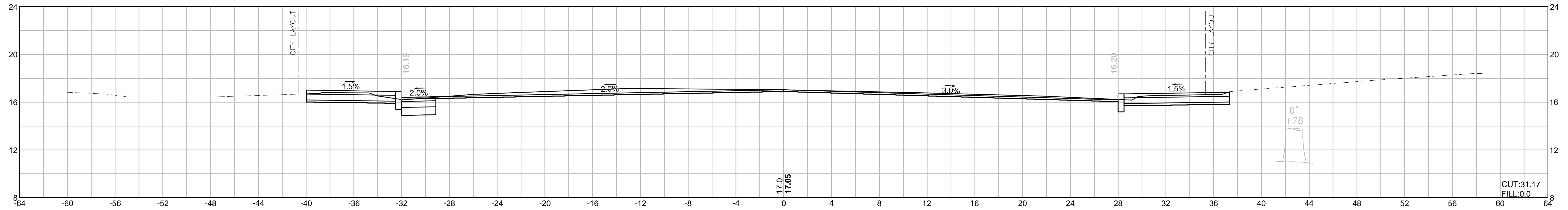
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		114	146

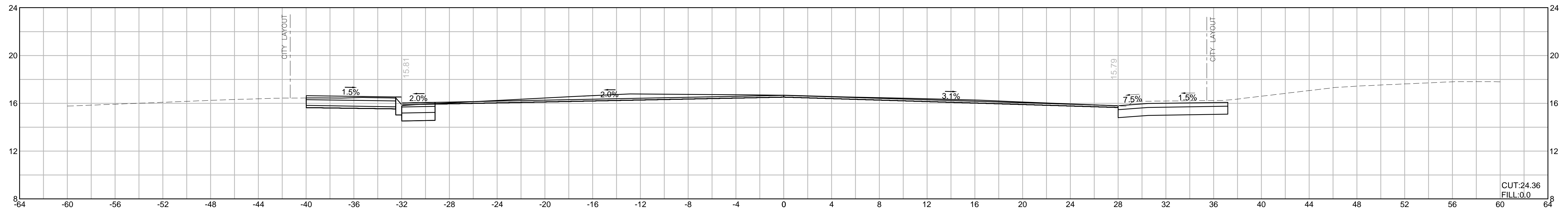
PROJECT FILE NO. 608707

CROSS SECTIONS

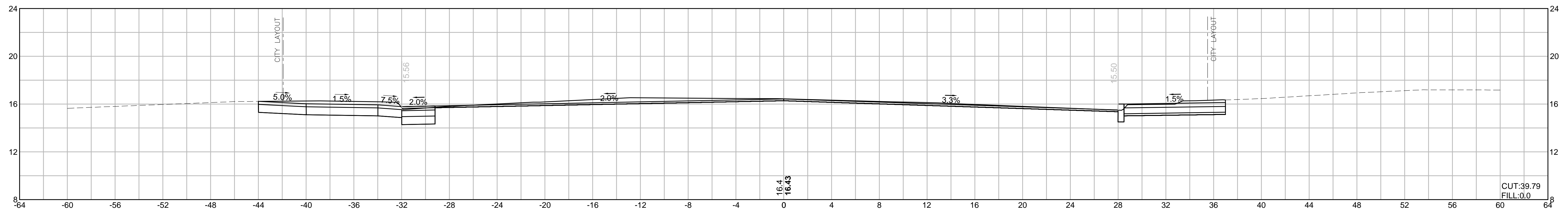
41+80.89



41+66.52



41+57.38



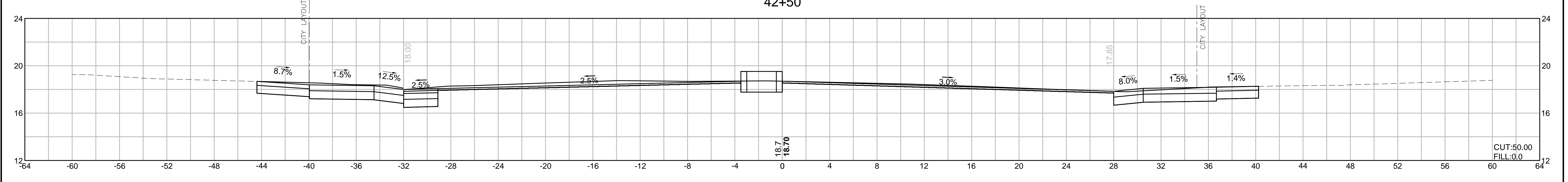
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		115	146

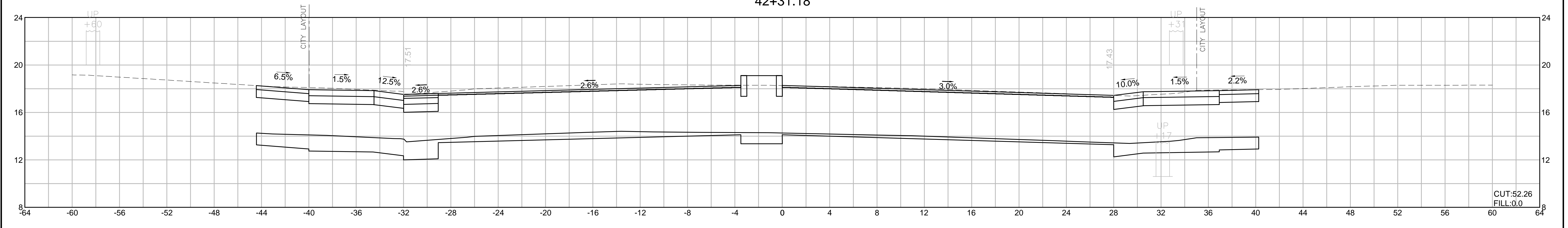
PROJECT FILE NO. 608707

CROSS SECTIONS

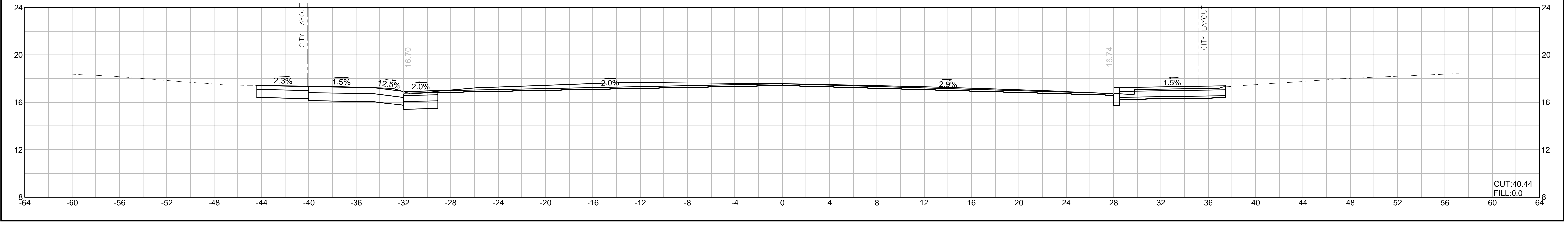
42+50



42+31.18



42+00



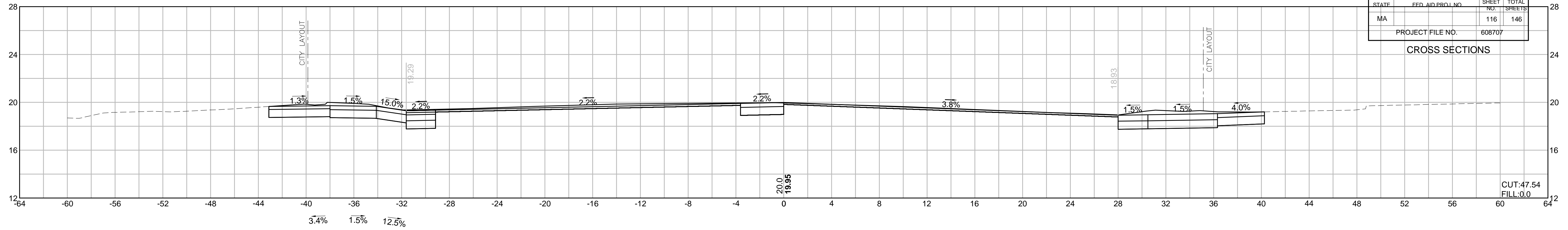
43+28.76

QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		116	146

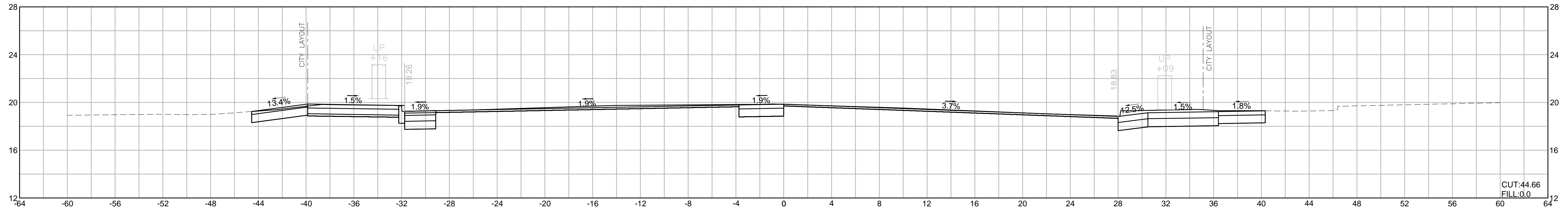
PROJECT FILE NO. 608707

CROSS SECTIONS



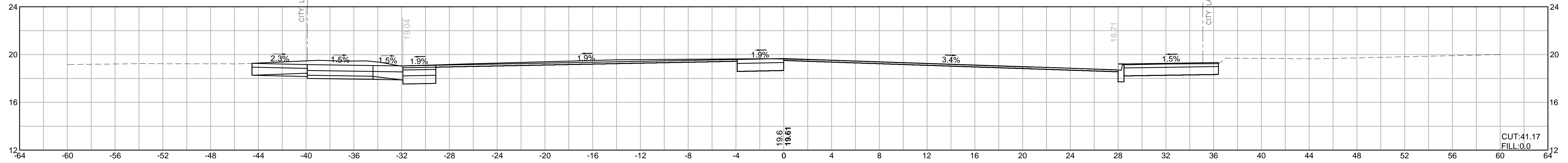
CUT:47.54
FILL:0.0

43+15.57



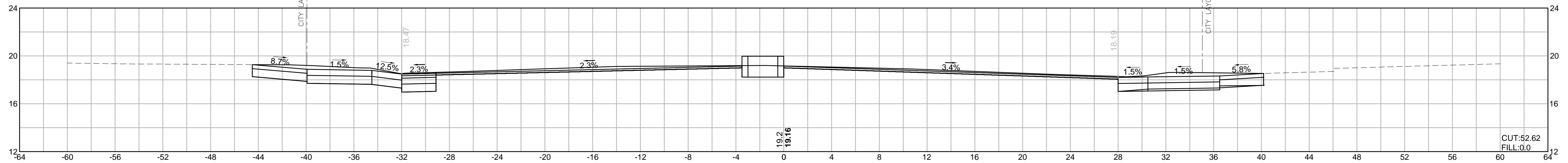
CUT:44.66
FILL:0.0

43+00



CUT:41.17
FILL:0.0

42+69.90



CUT:52.62
FILL:0.0

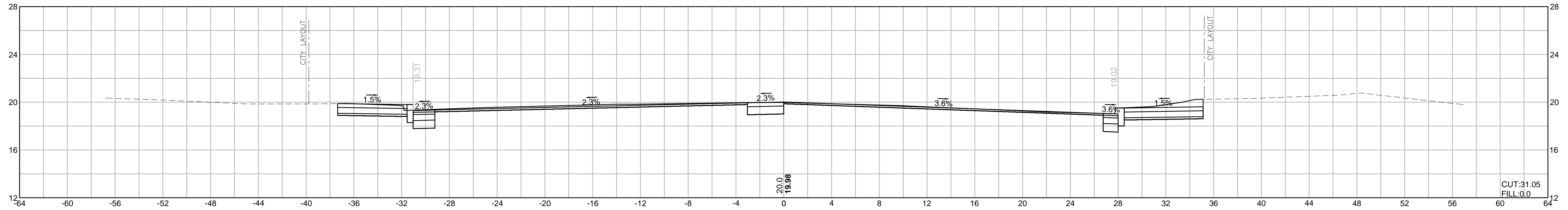
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		117	146

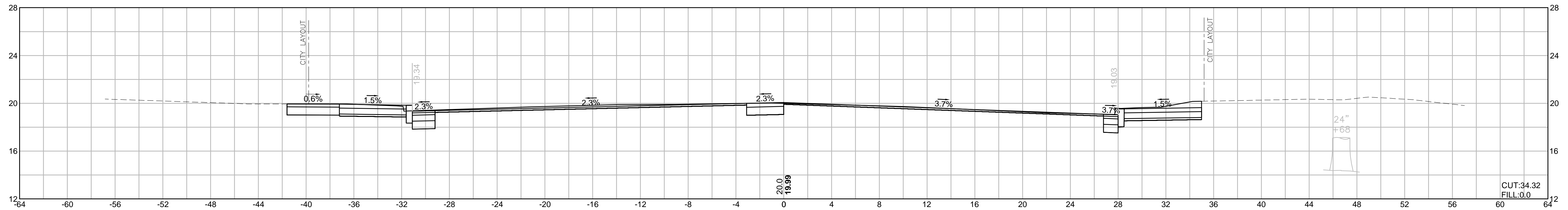
PROJECT FILE NO. 608707

CROSS SECTIONS

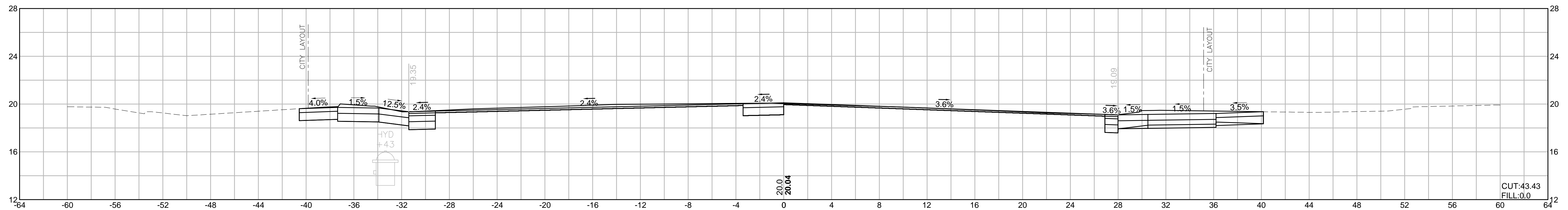
43+87.29



43+80.13



43+50

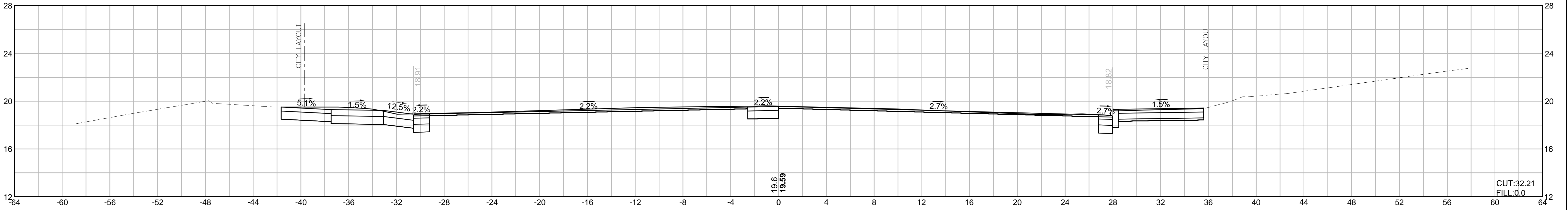


QUINCY
SEA STREET

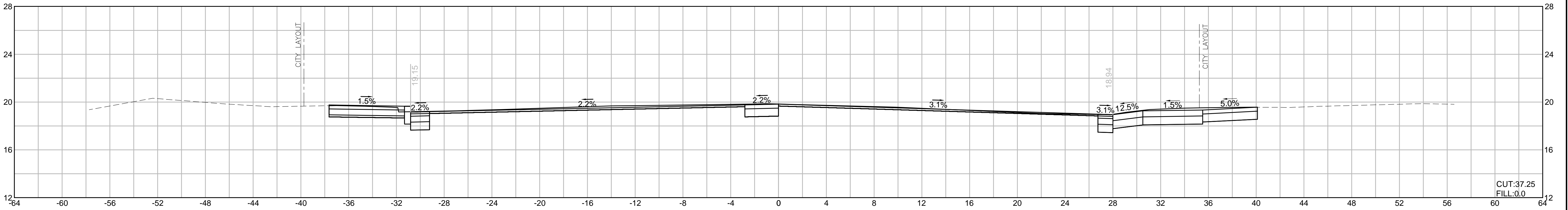
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		118	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

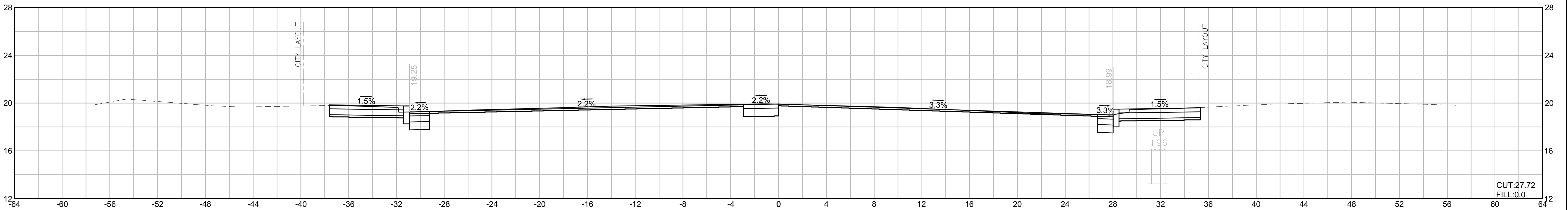
44+34.28



44+09.85



44+00



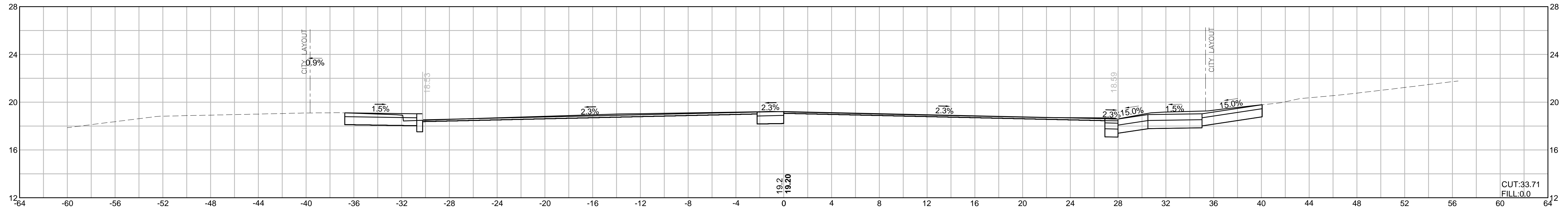
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		119	146

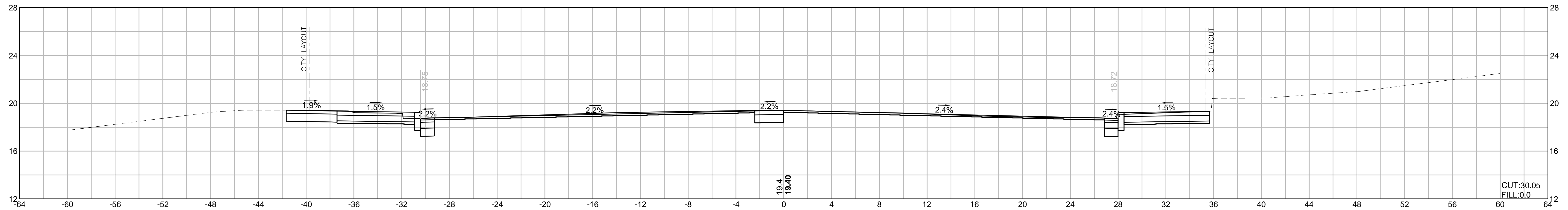
PROJECT FILE NO. 608707

CROSS SECTIONS

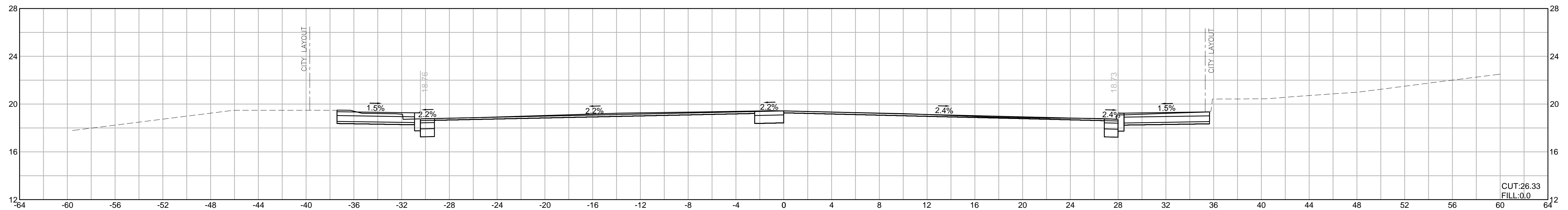
44+69.20



44+51.18



44+50



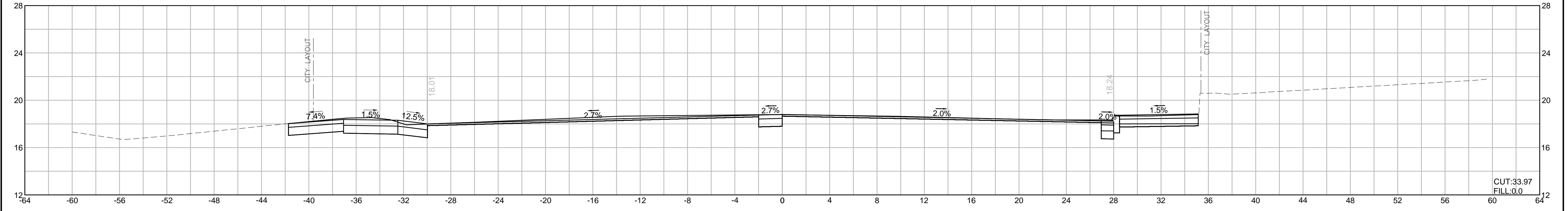
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		120	146

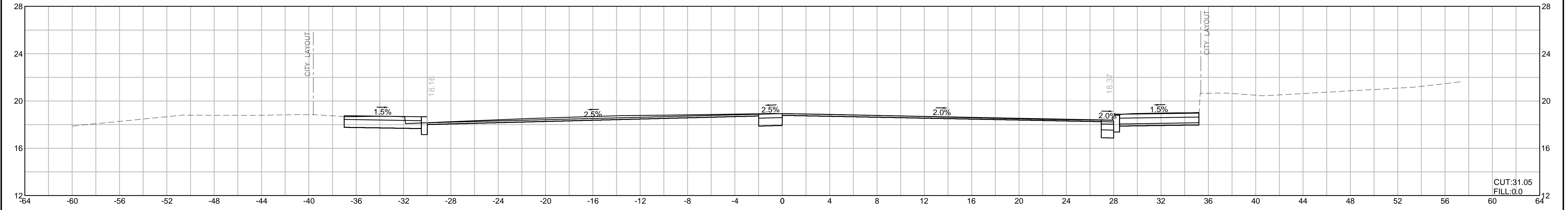
PROJECT FILE NO. 608707

CROSS SECTIONS

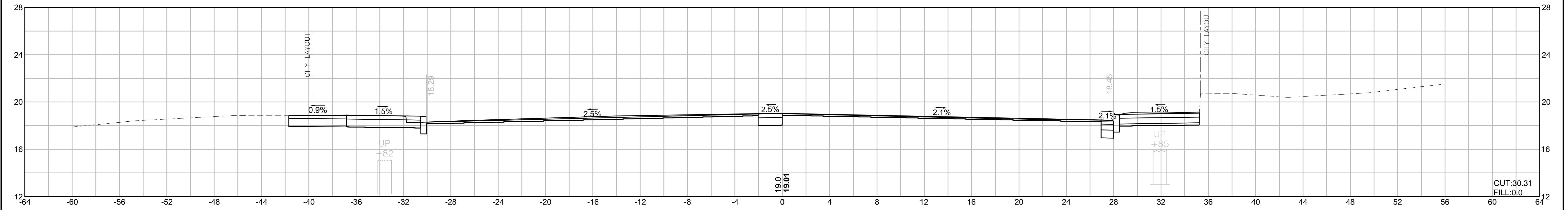
45+14.36



45+00



44+89.34

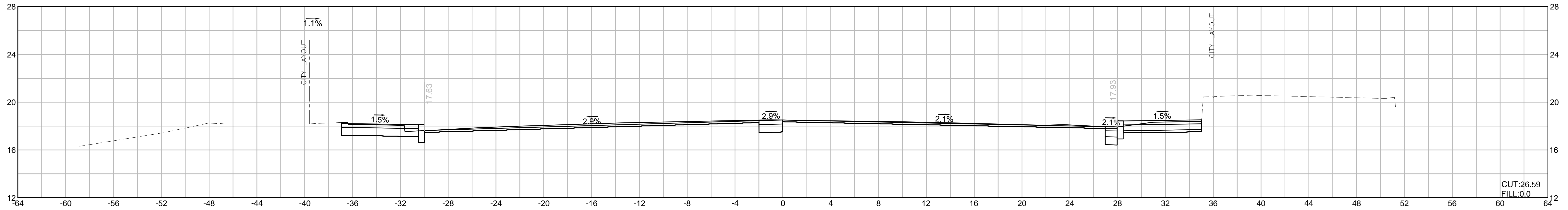


QUINCY
SEA STREET

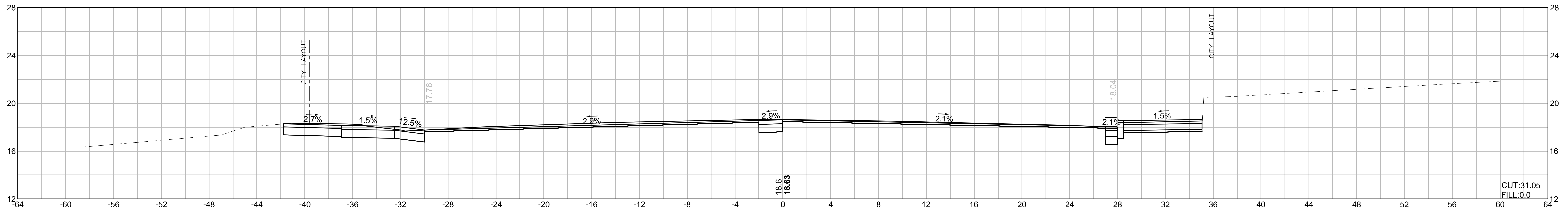
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		121	146

PROJECT FILE NO. 608707
CROSS SECTIONS

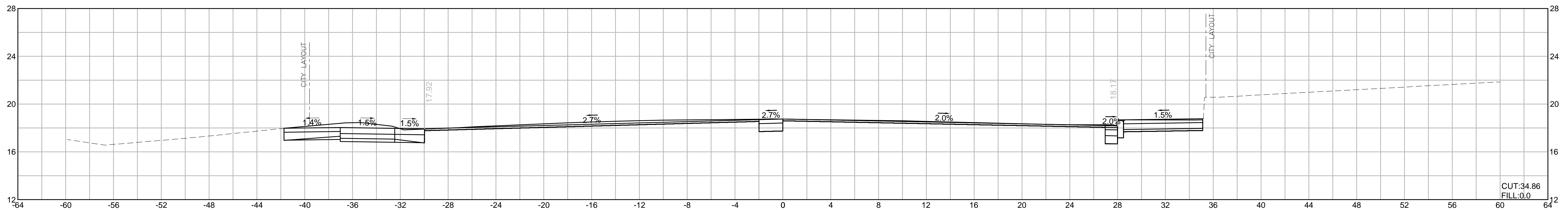
45+50



45+37.89



45+22.52



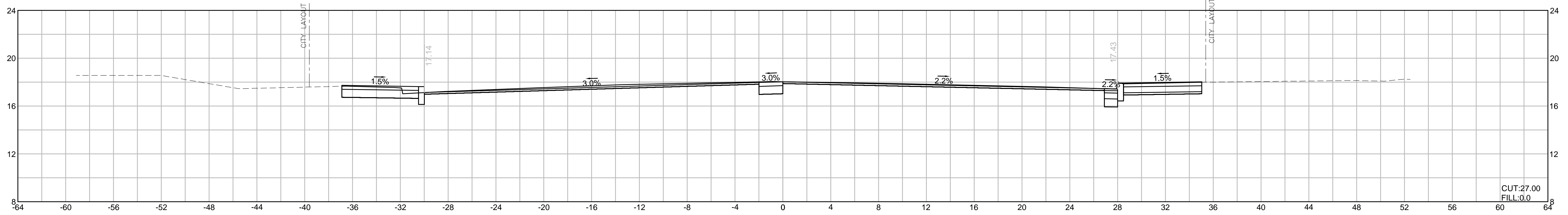
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		122	146

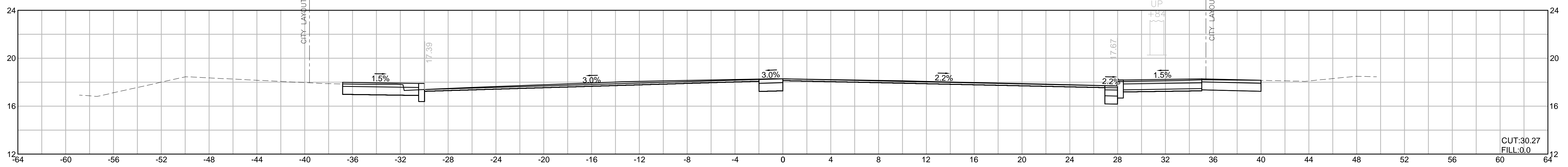
PROJECT FILE NO. 608707

CROSS SECTIONS

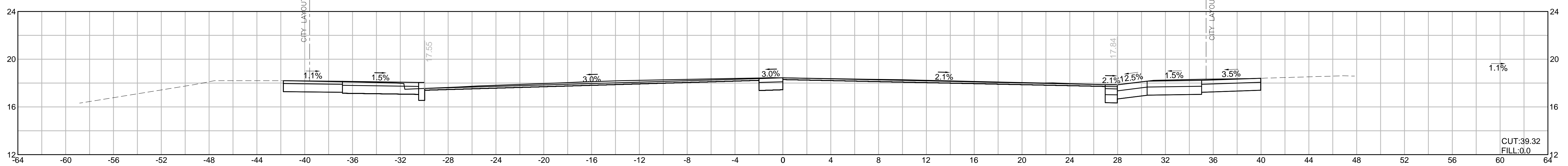
46+00



45+74.84



45+58.52



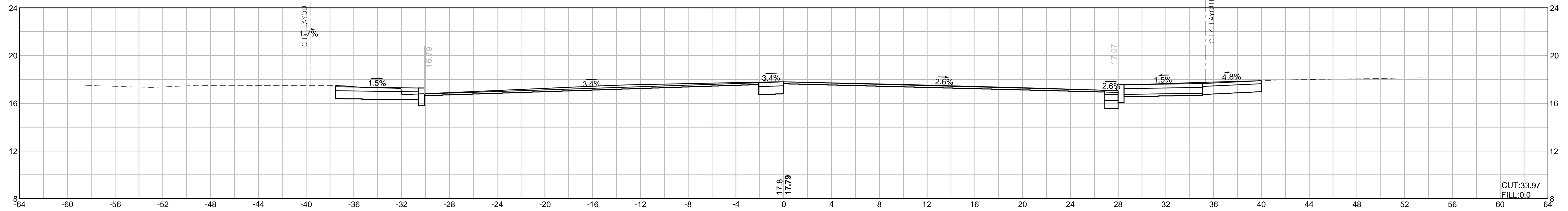
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		123	146

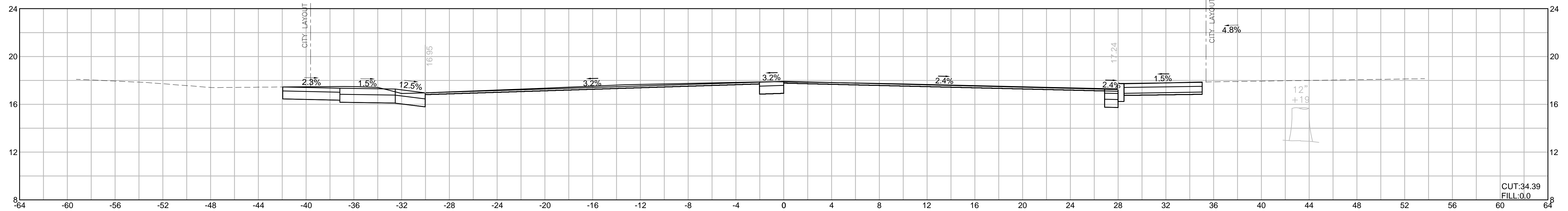
PROJECT FILE NO. 608707

CROSS SECTIONS

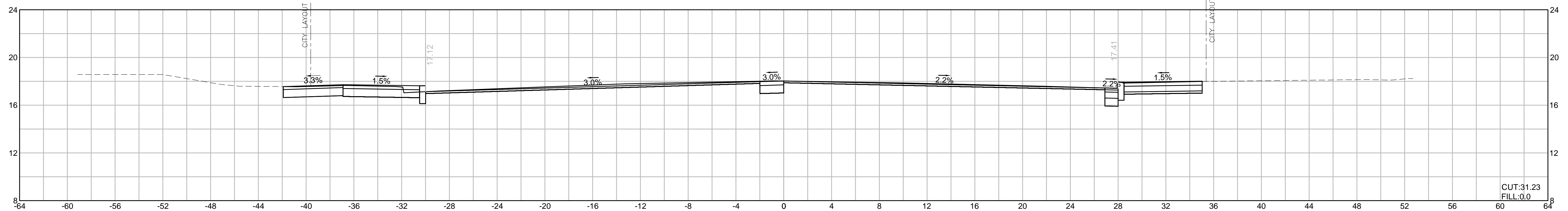
46+39.45



46+21.10



46+02.03



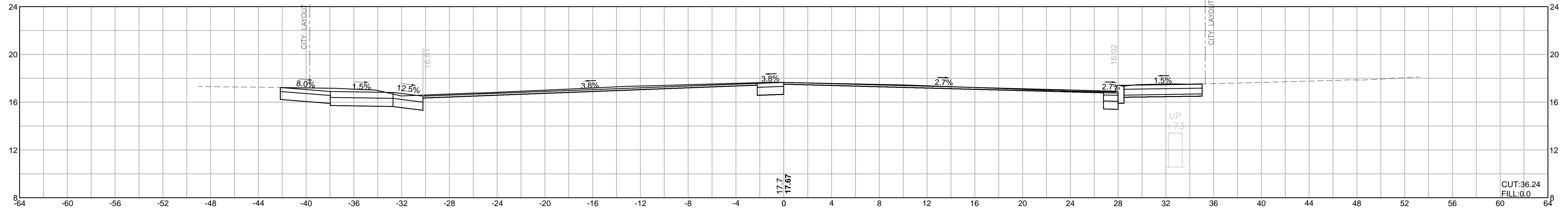
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		124	146

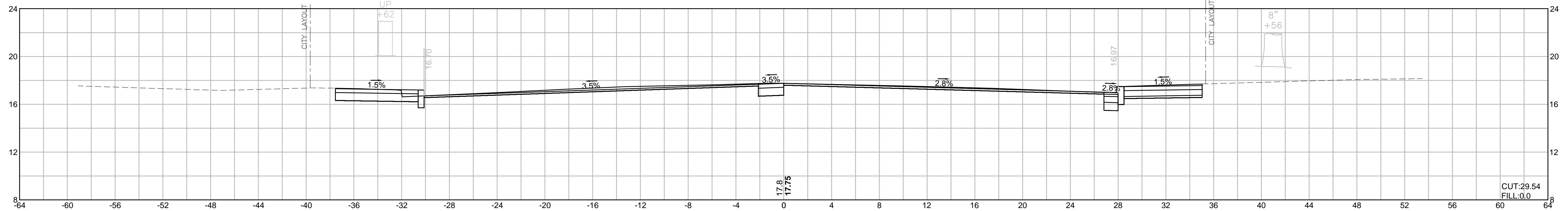
PROJECT FILE NO. 608707

CROSS SECTIONS

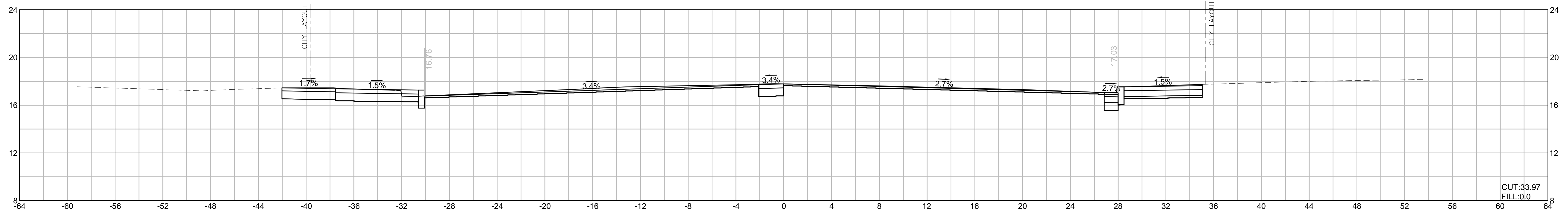
46+84.28



46+50



46+43.25



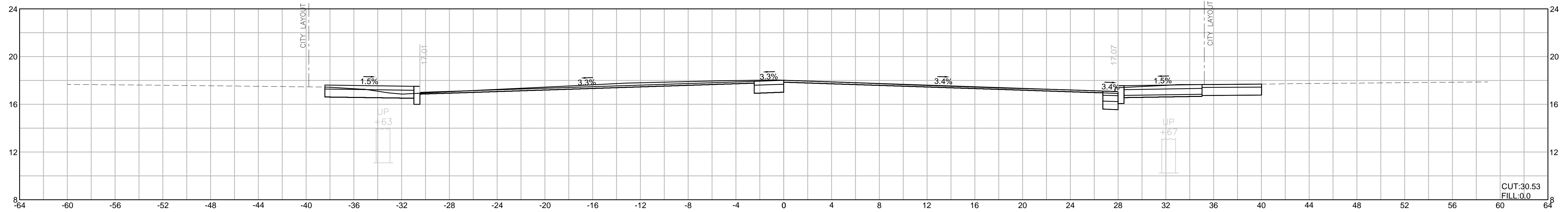
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		125	146

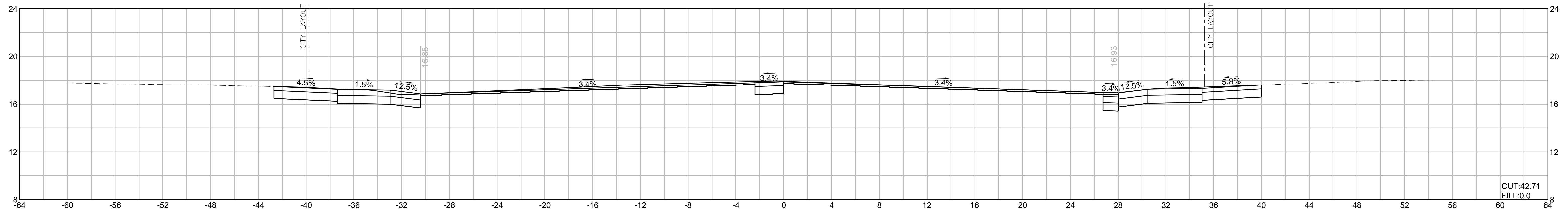
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CROSS SECTIONS

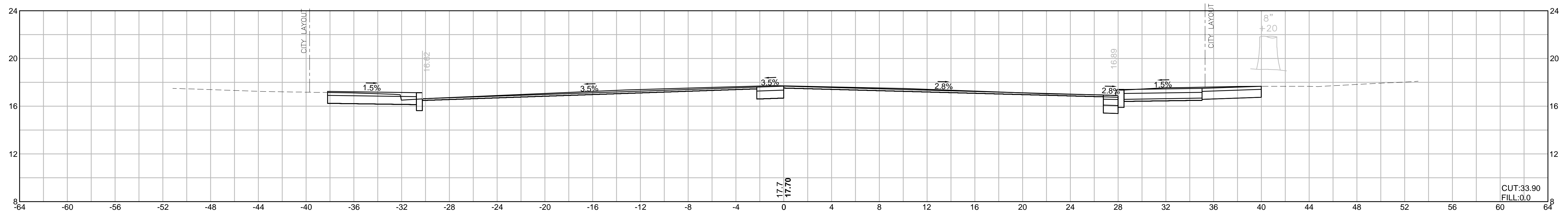
47+72.93



47+50



47+00



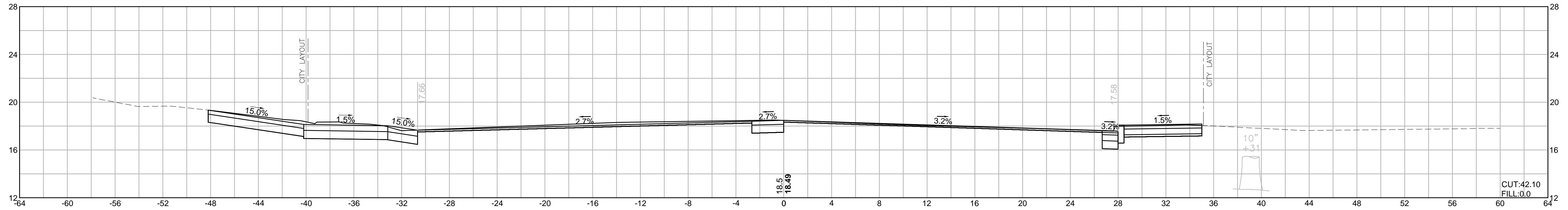
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		126	146

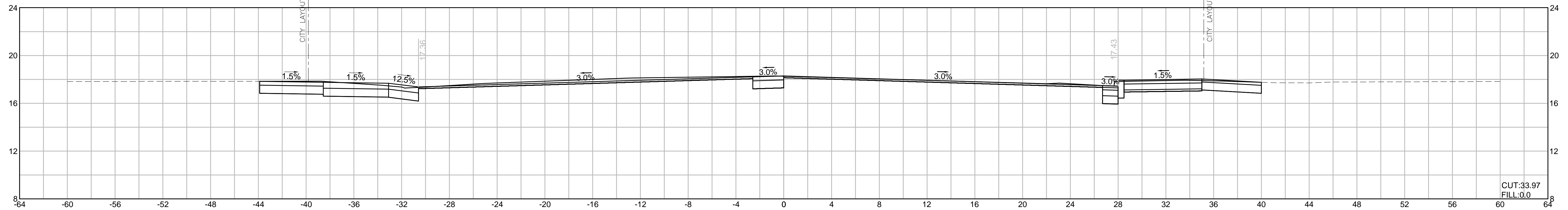
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CROSS SECTIONS

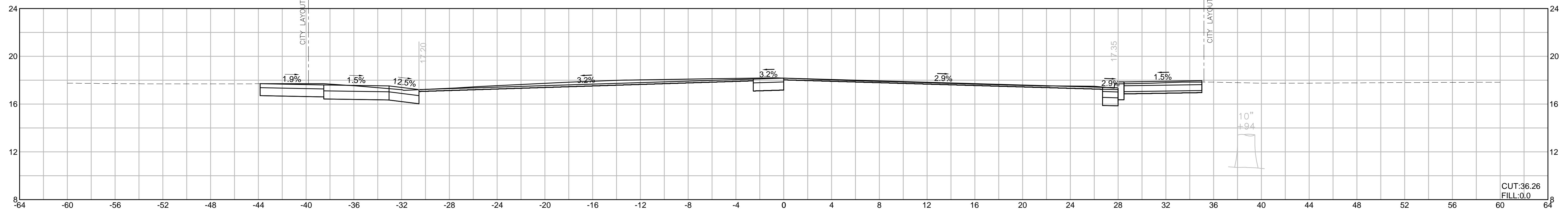
48+39.16



48+13.92



48+00



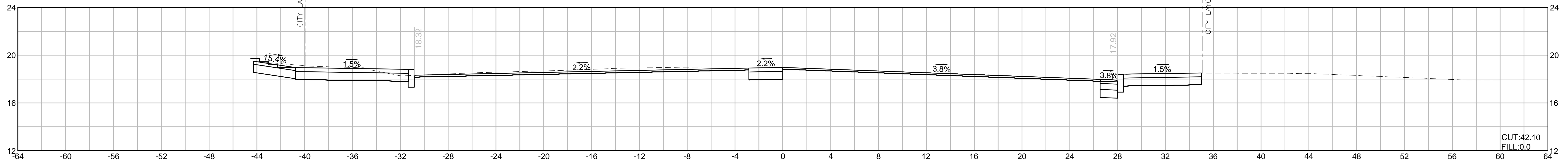
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		127	146

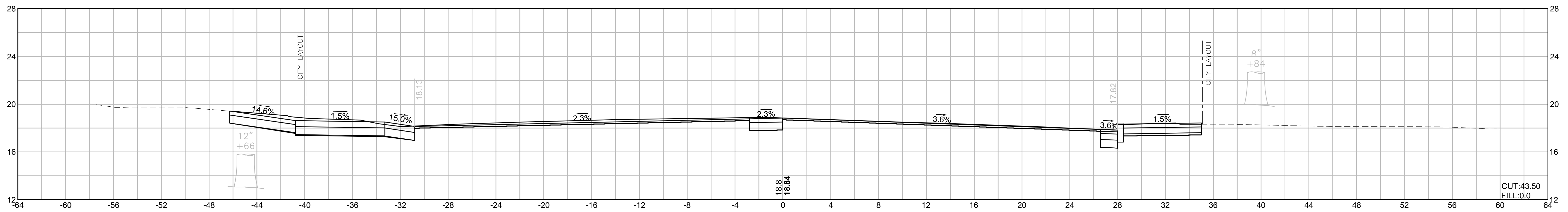
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CROSS SECTIONS

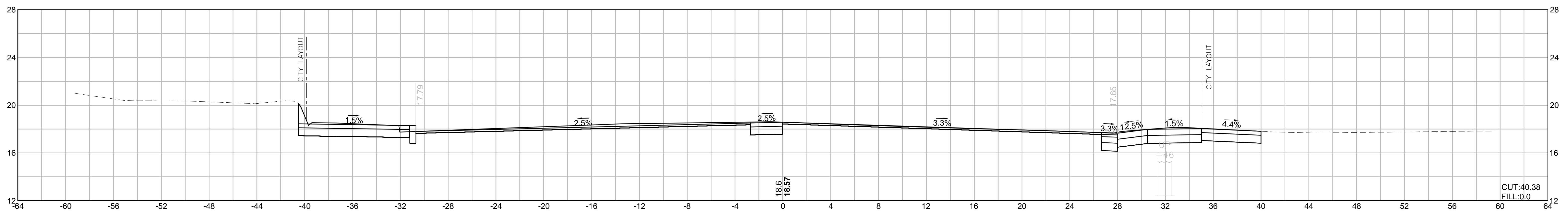
49+00



48+82.06



48+50



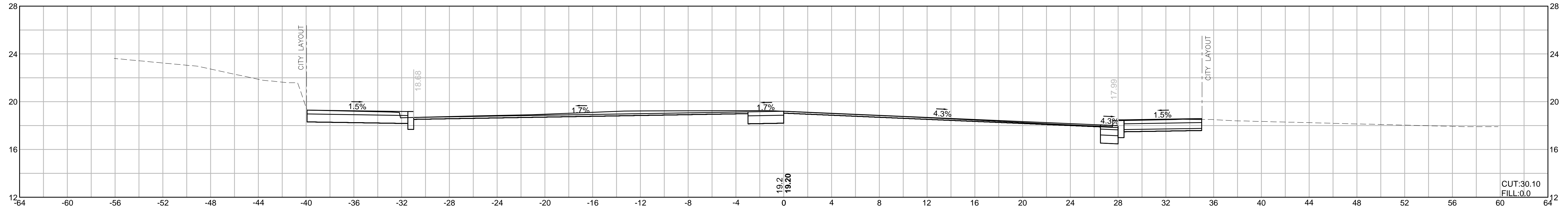
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		128	146

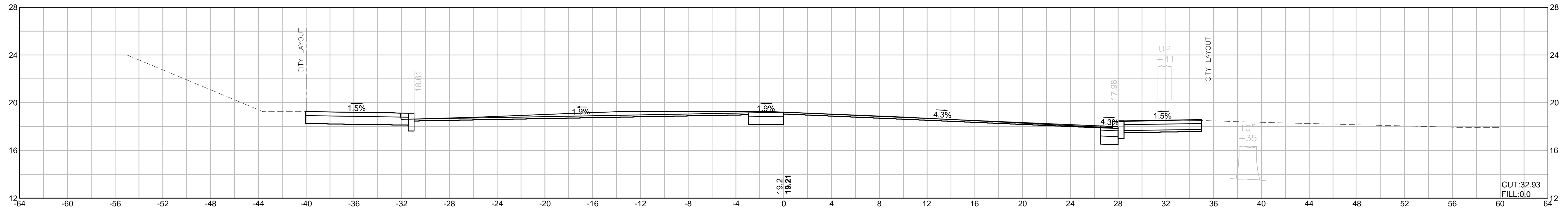
PROJECT FILE NO. 608707

CROSS SECTIONS

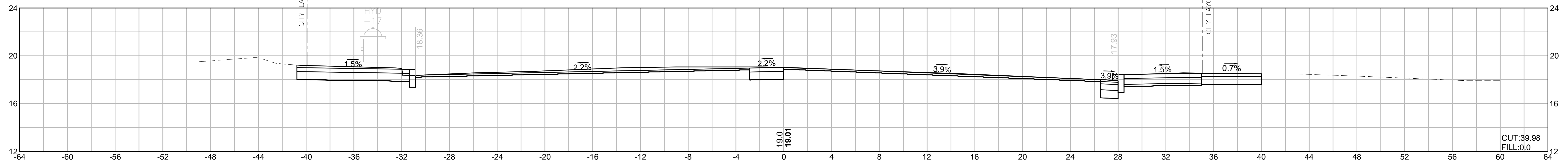
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49+40.74



49+05.65



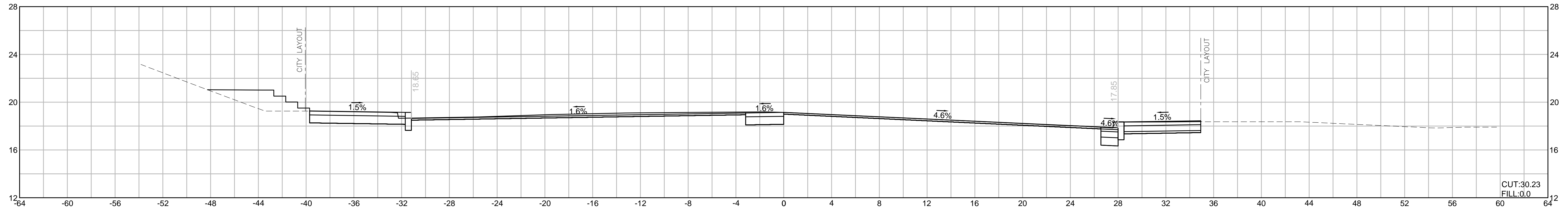
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		129	146

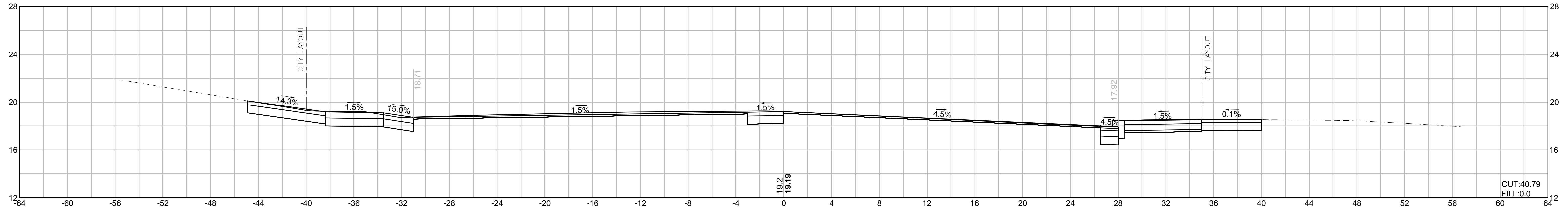
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CROSS SECTIONS

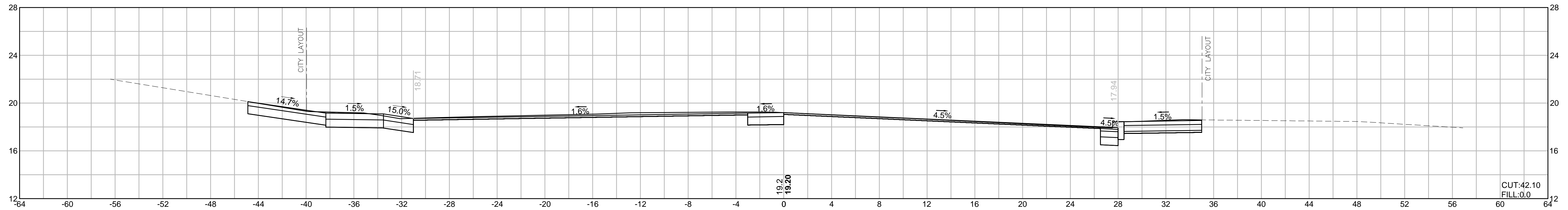
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49+64.69



49+60.84

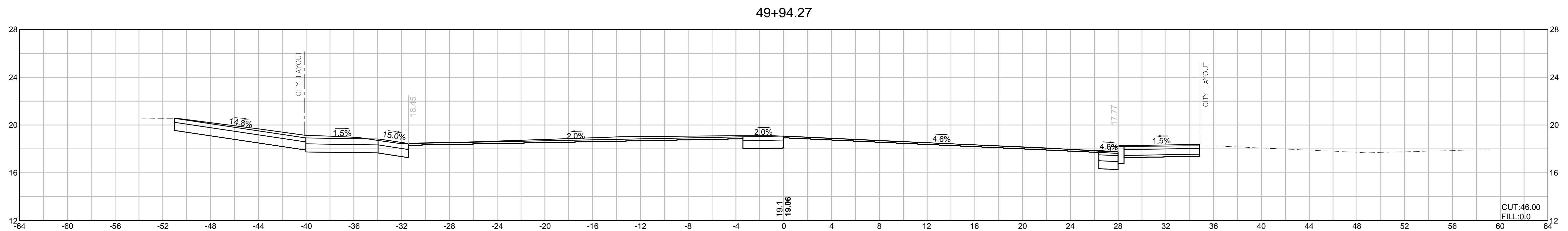
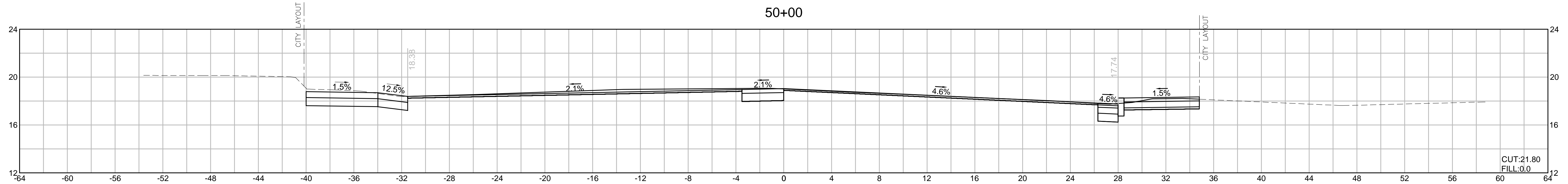
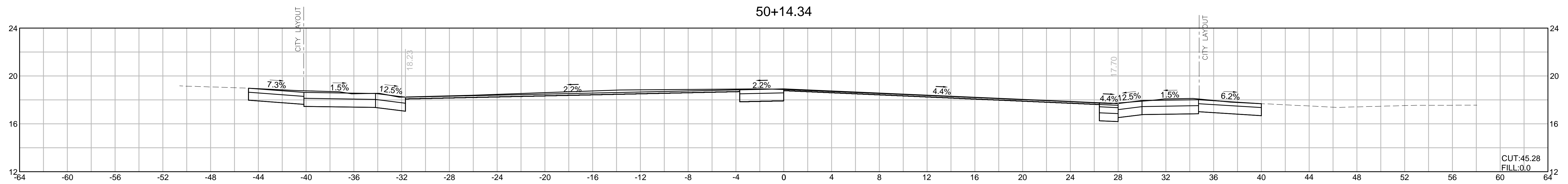


QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		130	146

PROJECT FILE NO. 608707

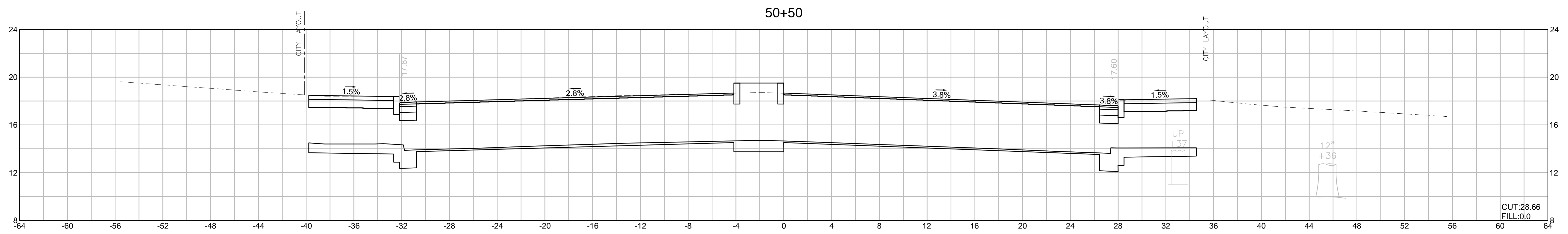
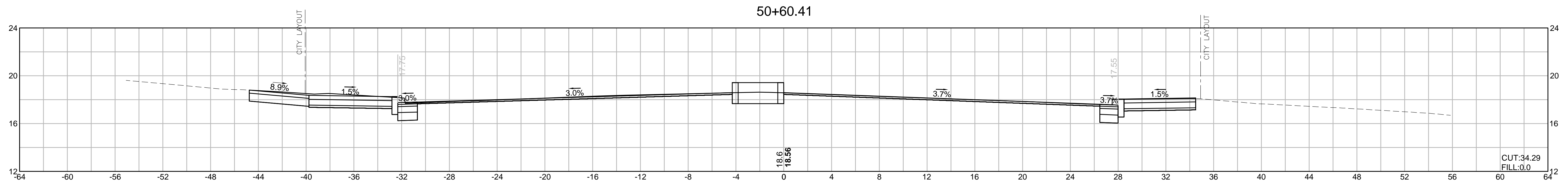
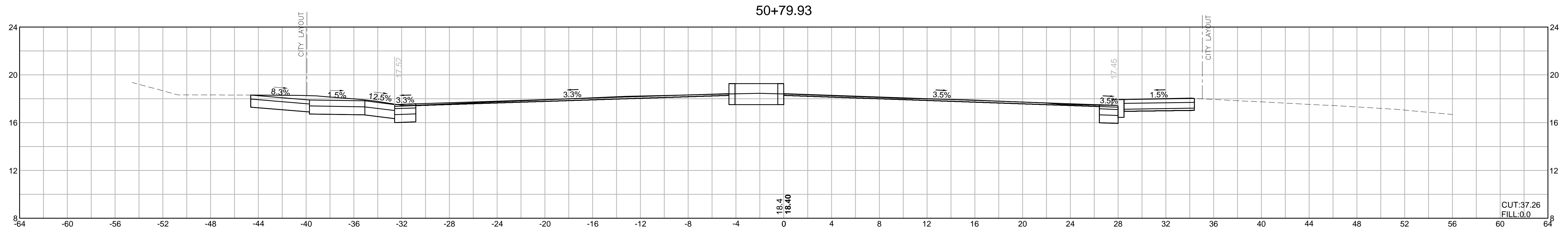
CROSS SECTIONS



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		131	146
PROJECT FILE NO.		608707	

CROSS SECTIONS



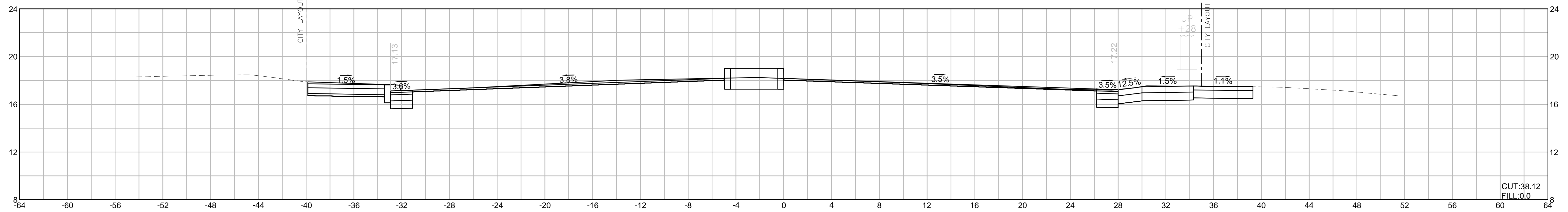
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		132	146

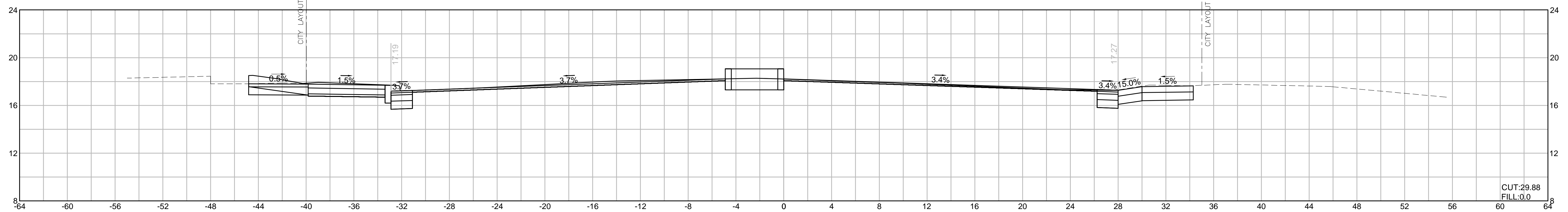
PROJECT FILE NO. 608707

CROSS SECTIONS

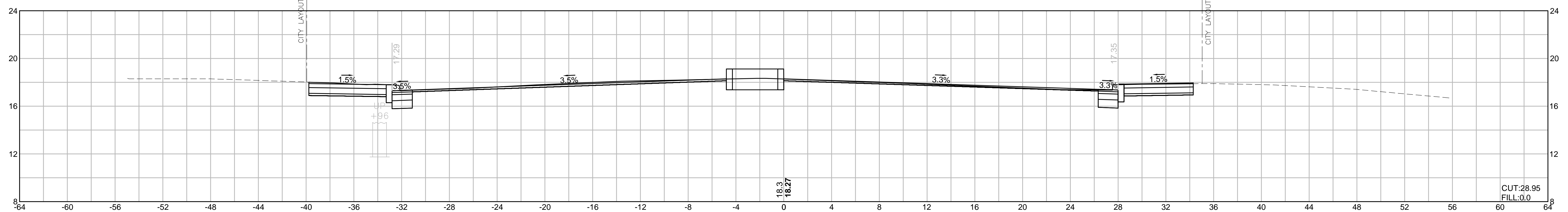
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51+11.97



51+00



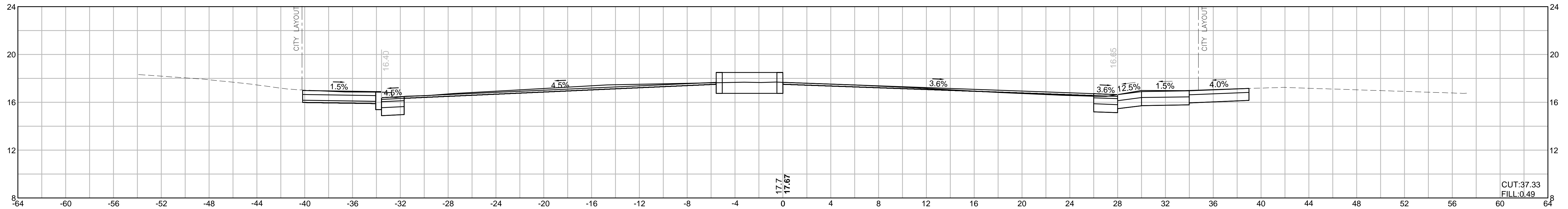
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		133	146

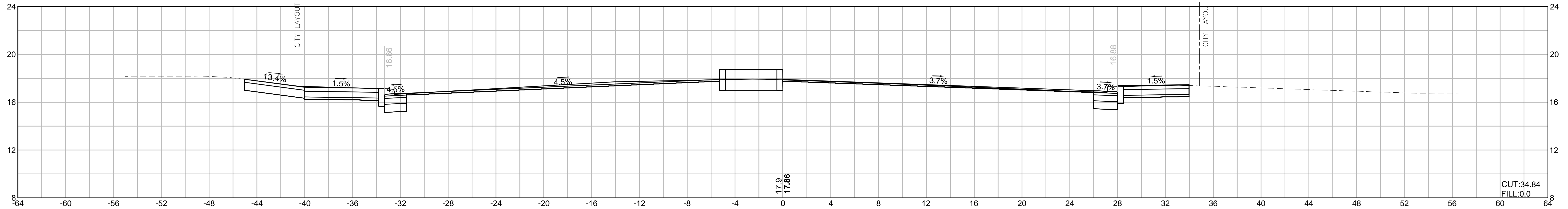
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CROSS SECTIONS

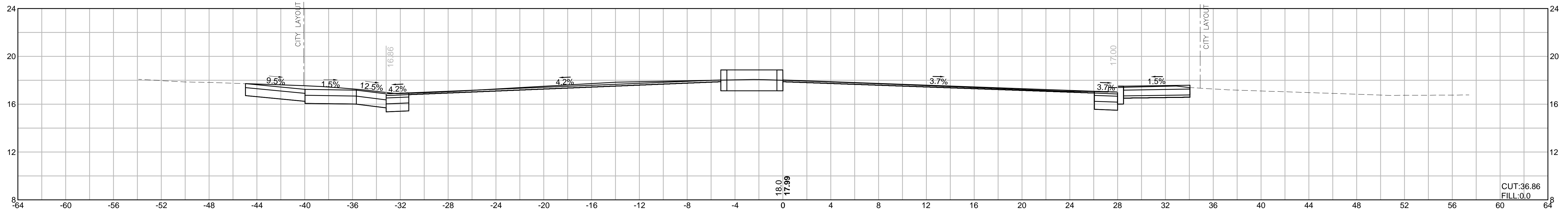
52+00



51+66.53



51+50



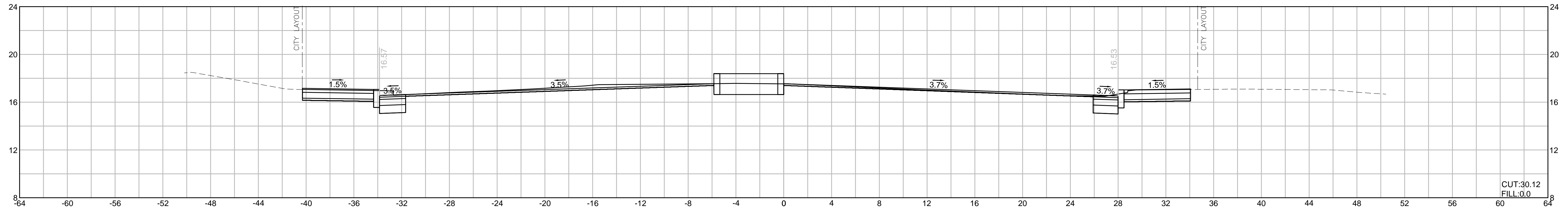
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		134	146

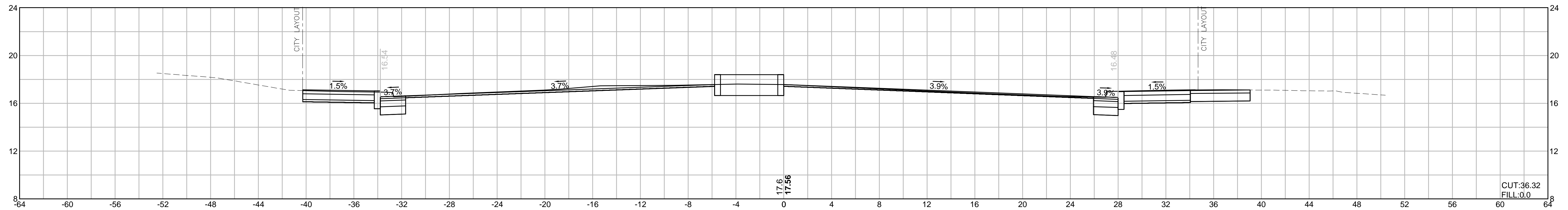
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CROSS SECTIONS

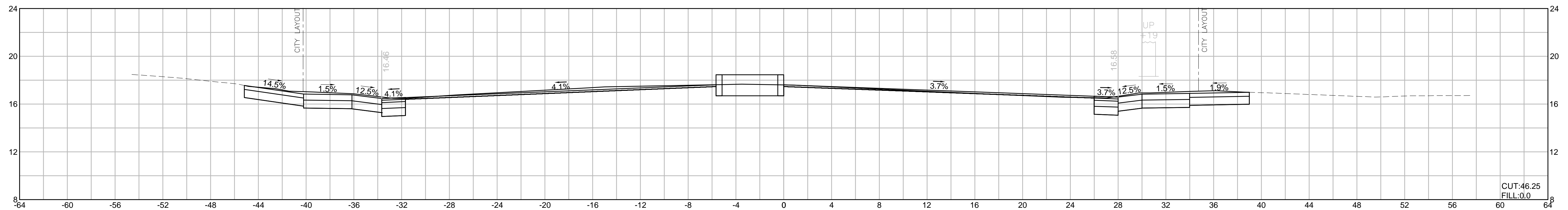
52+35.83



52+28.36



52+12.27



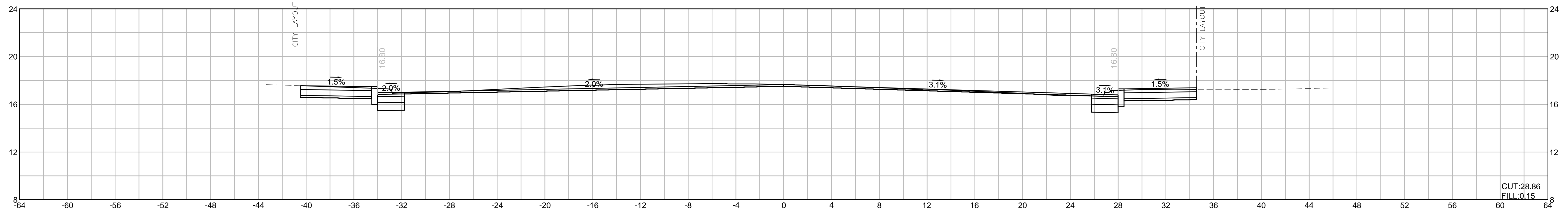
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		135	146

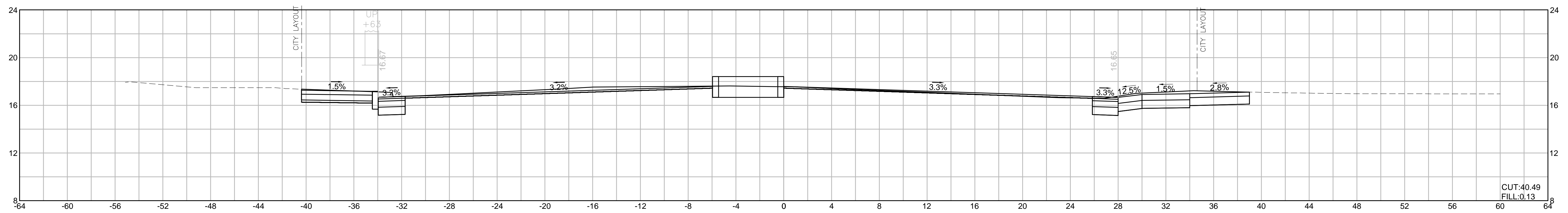
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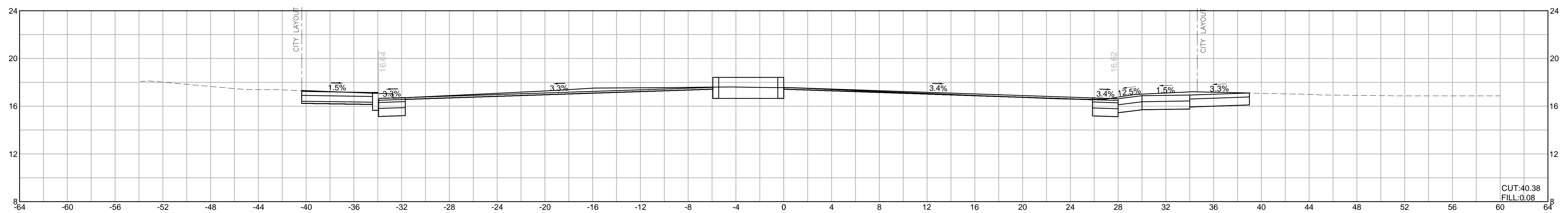
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52+54.85



52+50



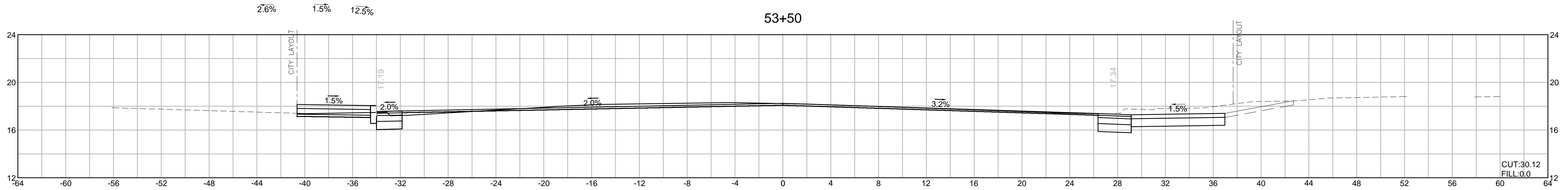
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SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		136	146

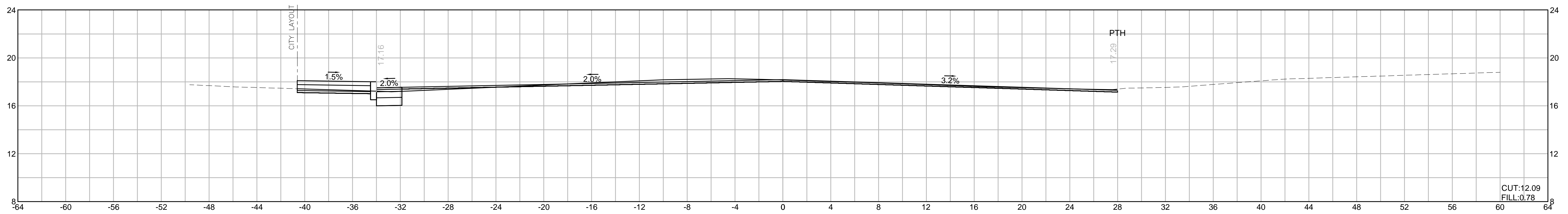
PROJECT FILE NO. 608707

CROSS SECTIONS

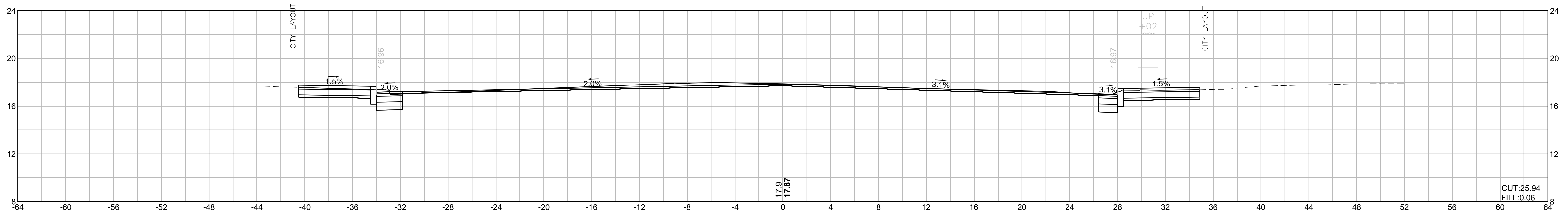
53+50



53+42.48



53+00



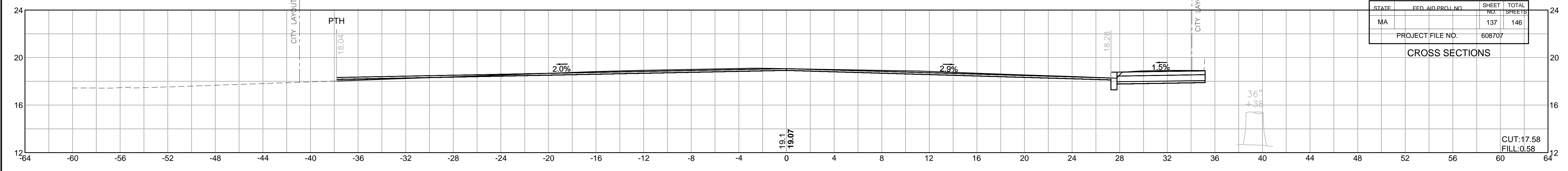
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SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		137	146

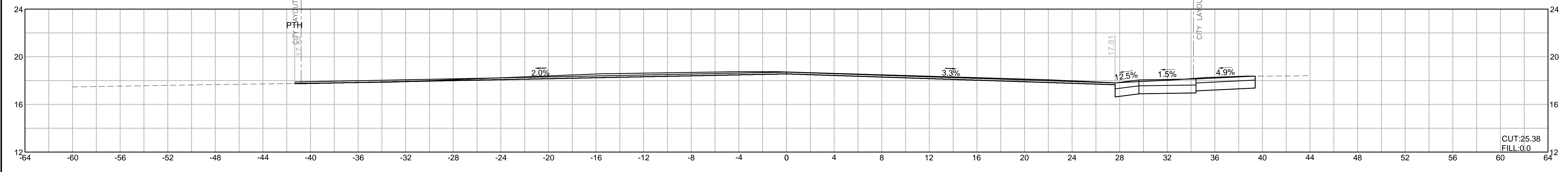
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CROSS SECTIONS

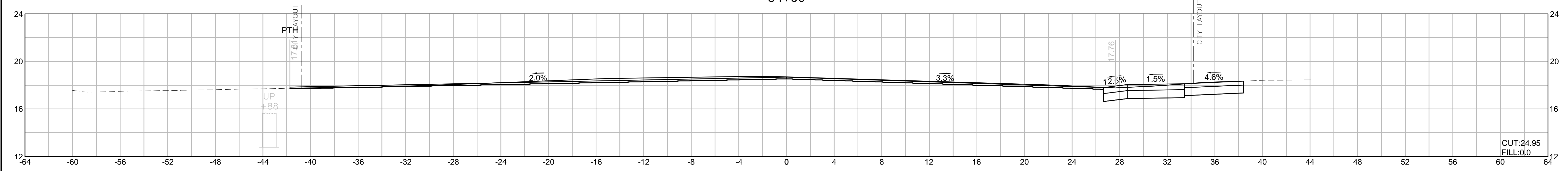
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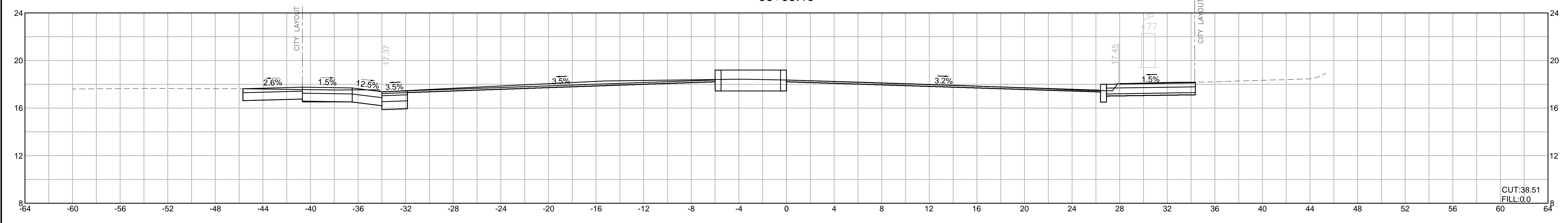
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54+00



53+63.15



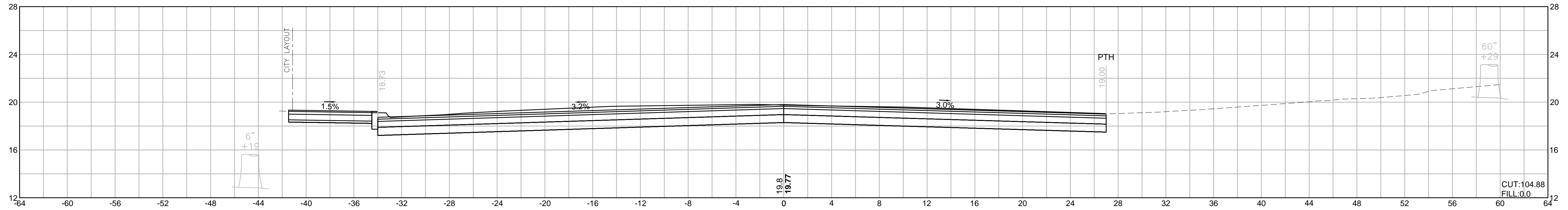
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		138	146

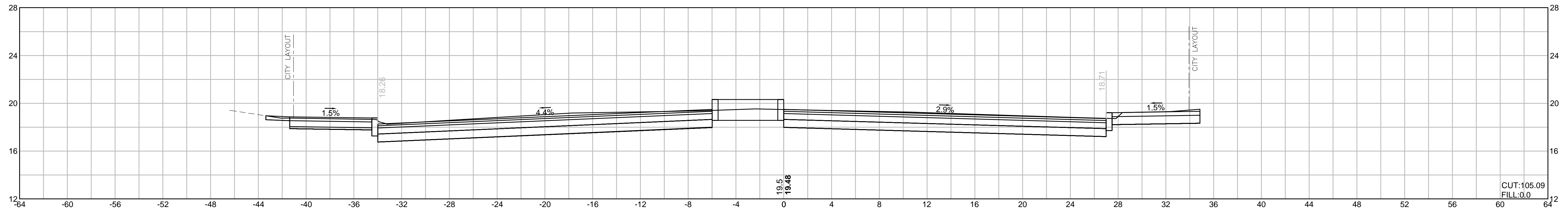
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CROSS SECTIONS

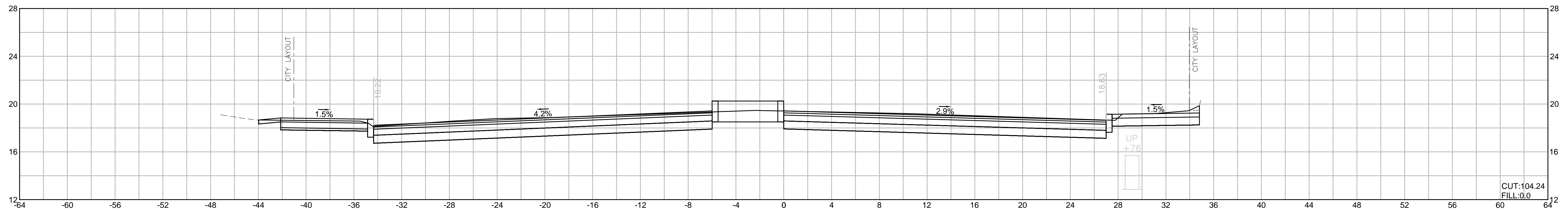
55+29.23



55+00



54+91.80



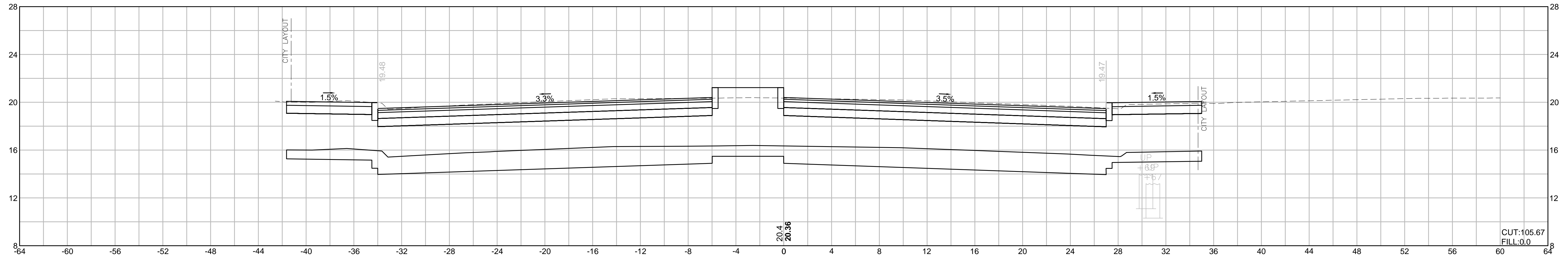
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		139	146

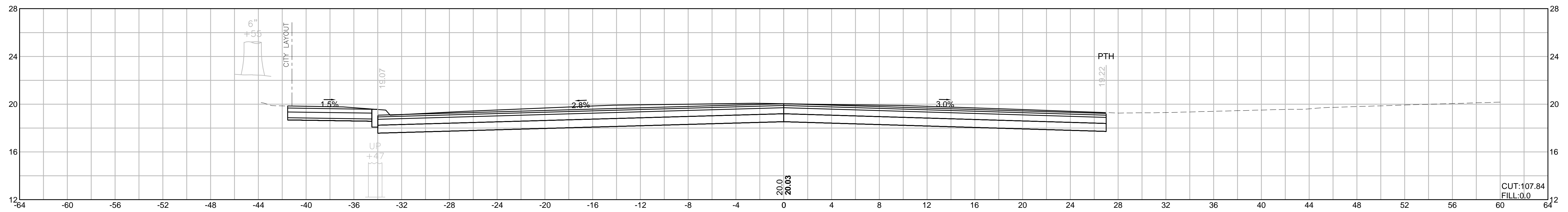
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CROSS SECTIONS

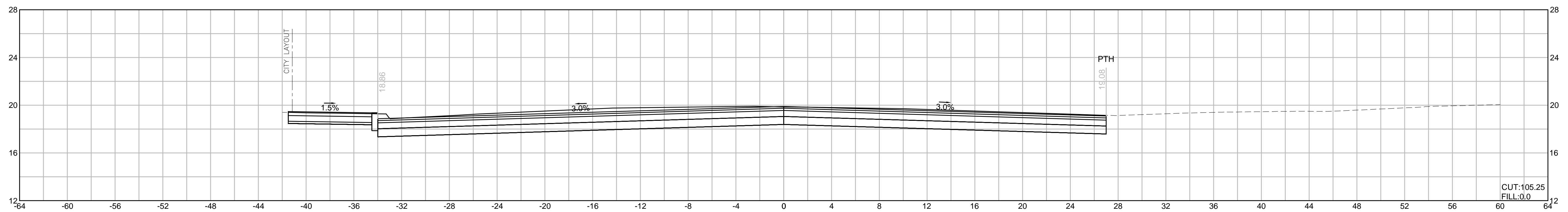
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55+50



55+36.74



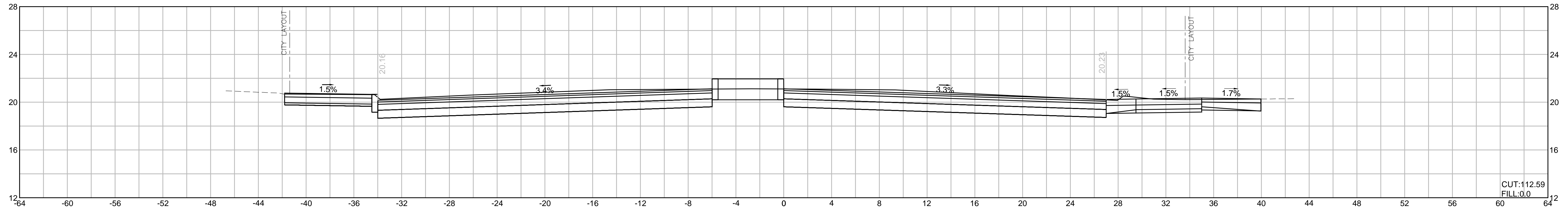
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		140	146

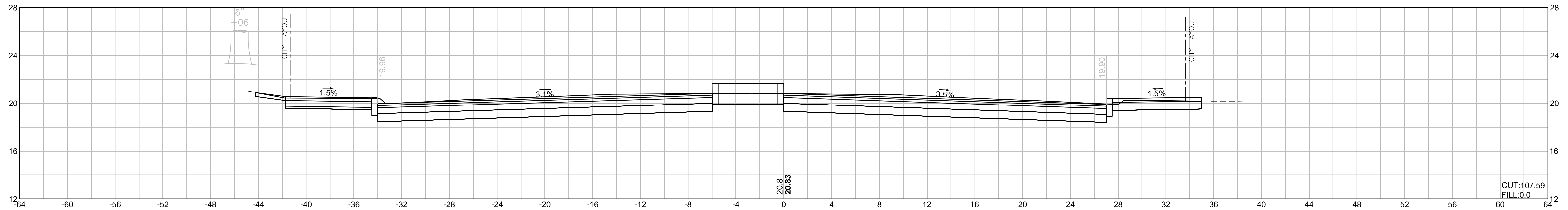
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CROSS SECTIONS

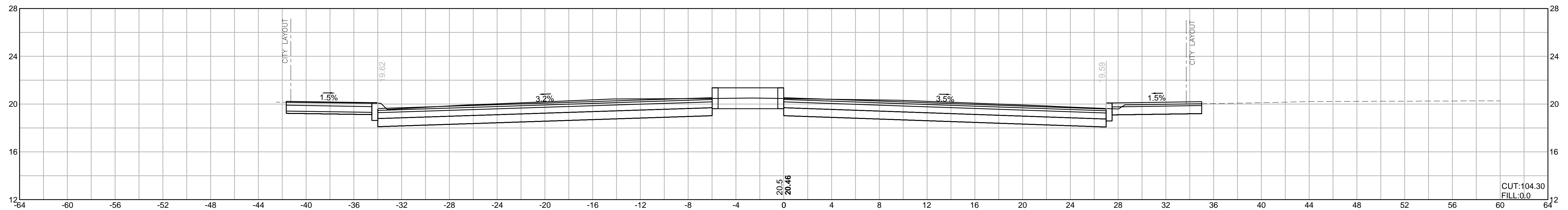
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56+00



55+80.64



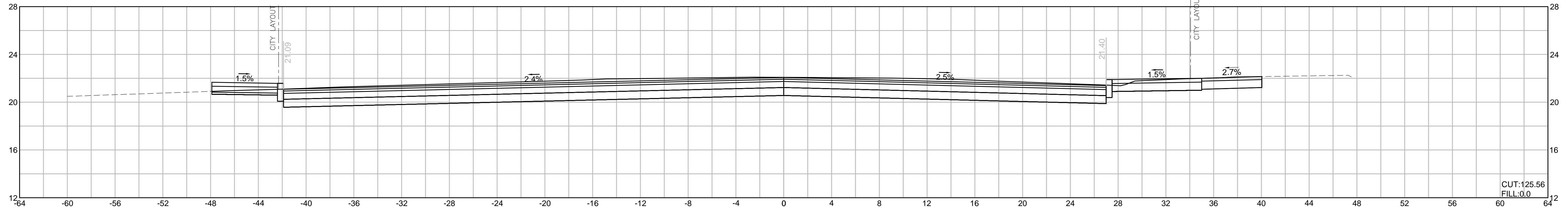
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		141	146

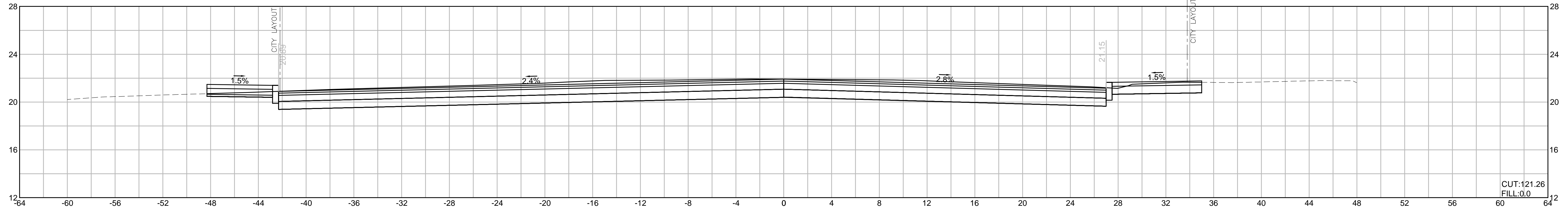
PROJECT FILE NO. 608707

CROSS SECTIONS

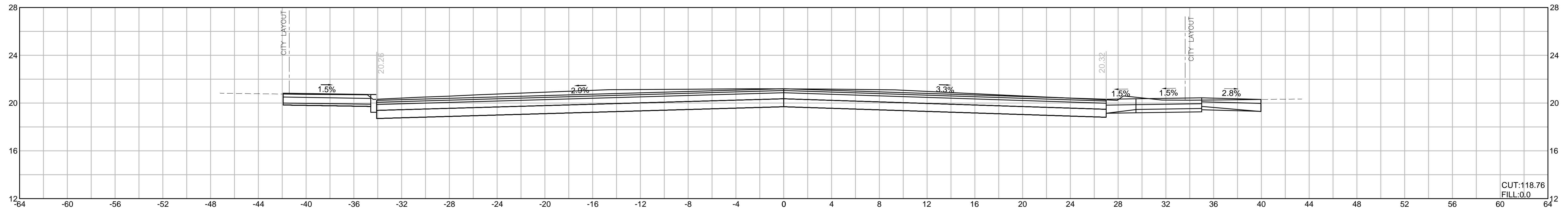
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56+50



56+16.92



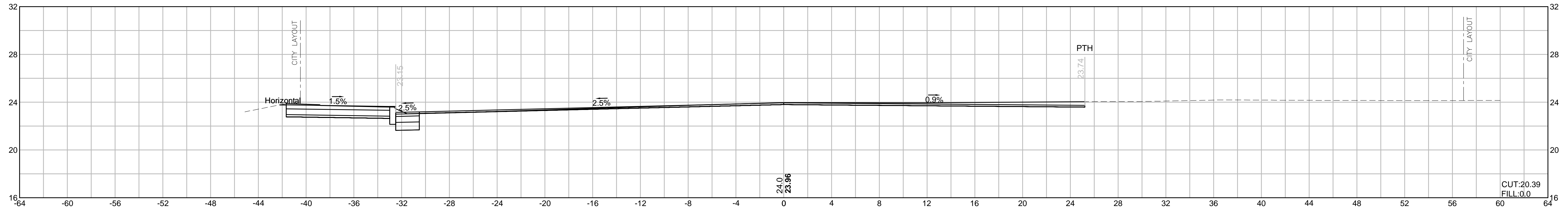
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		142	146

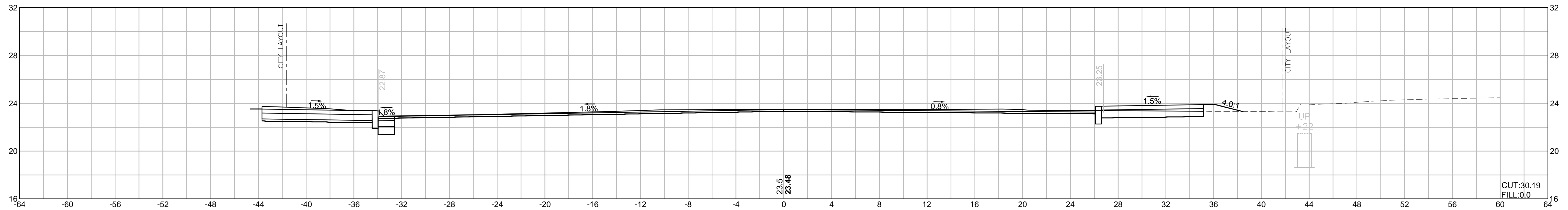
PROJECT FILE NO. 608707

CROSS SECTIONS

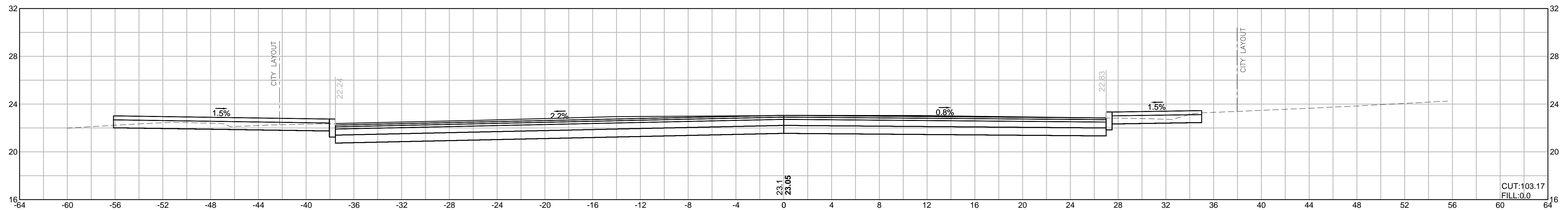
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57+23.18



57+00

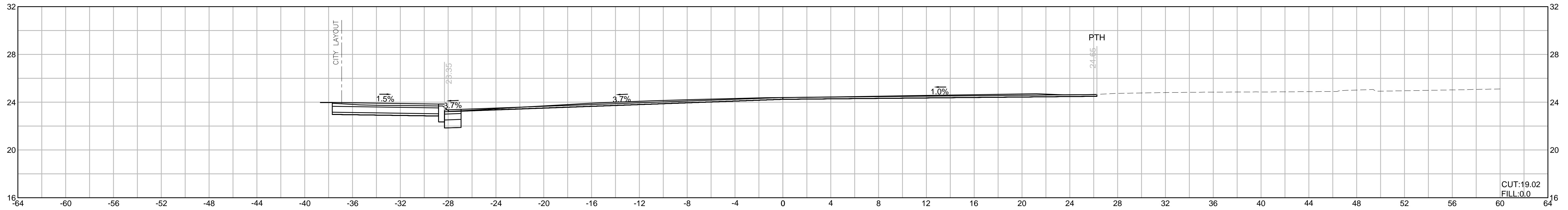


QUINCY
SEA STREET

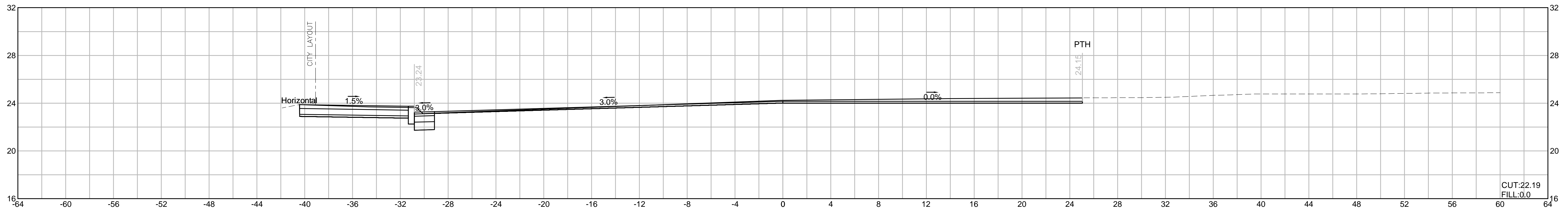
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		143	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

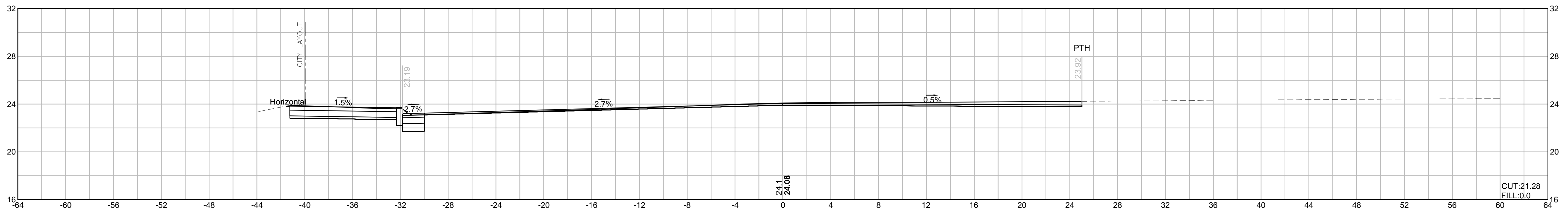
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57+72.68



57+59.86



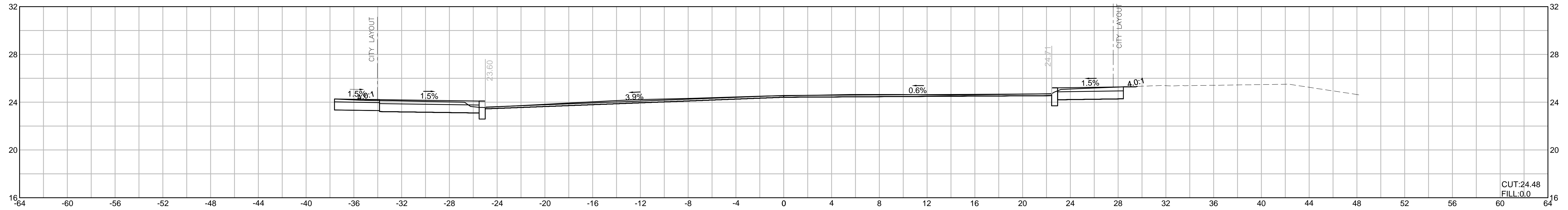
QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		144	146

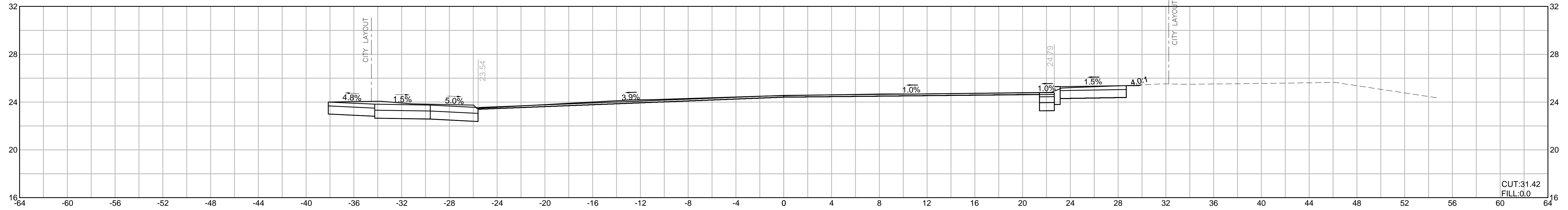
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CROSS SECTIONS

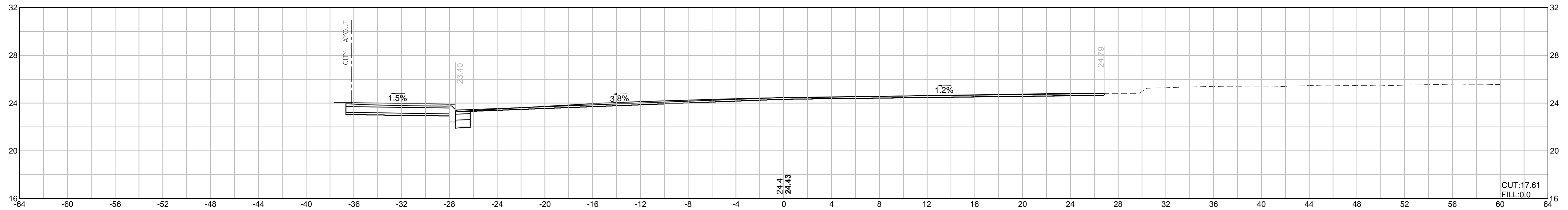
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58+26.32



58+07.70

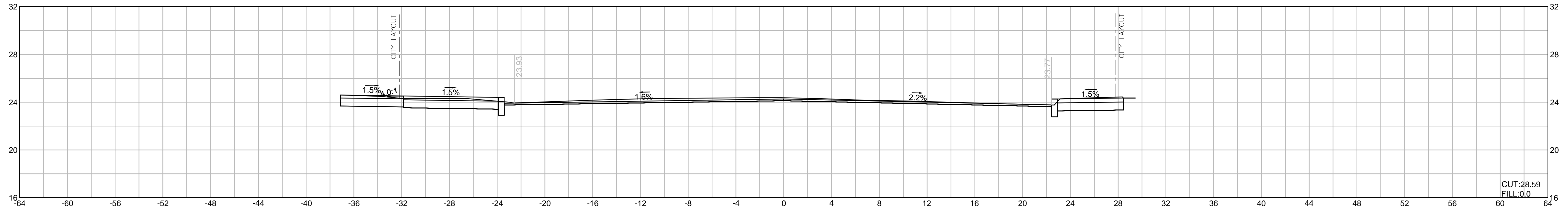


QUINCY
SEA STREET

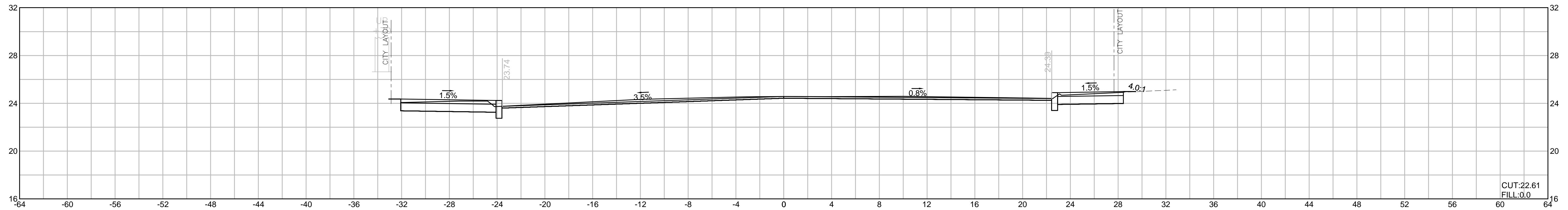
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		145	146
PROJECT FILE NO.		608707	

CROSS SECTIONS

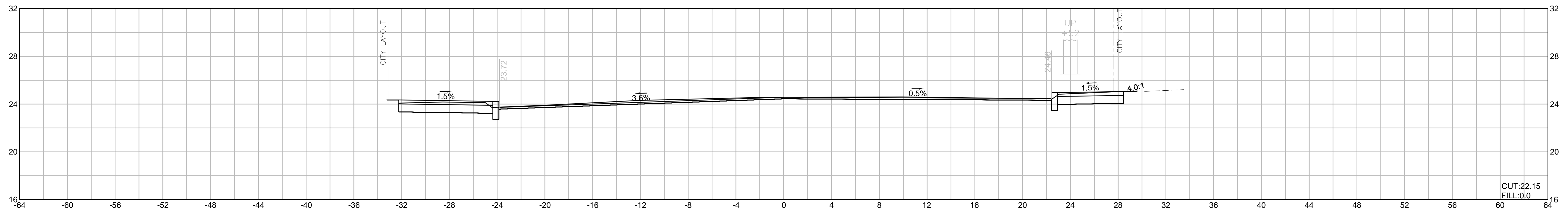
58+96.37



58+54.56



58+50



QUINCY
SEA STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA		146	146

PROJECT FILE NO. 608707

CROSS SECTIONS

59+00

