MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	1	420
PROJECT FILE NO.	608051		

TITLE SHEET & INDEX

PLAN AND PROFILE OF

ROUTE 38 (MAIN STREET)

W-38-003 (C99), W-38-011 (CVE), W-38-002 (2NQ)

IN THE TOWN OF

WILMINGTON

MIDDLESEX COUNTY

FEDERAL AID PROJECT NO. STP/CMQ/HSI-0034(030)X

THESE PLANS ARE SUPPLEMENTED BY THE LATEST EDITIONS OF THE FOLLOWING PUBLICATIONS, AS IDENTIFIED IN THE CONTRACT SPECIAL PROVISIONS: THE MASSDOT CONSTRUCTION STANDARD DETAILS, THE MASSDOT STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE MASSDOT STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE MASSDOT OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, THE MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, AND THE ANSI AMERICAN STANDARD FOR NURSERY STOCK.

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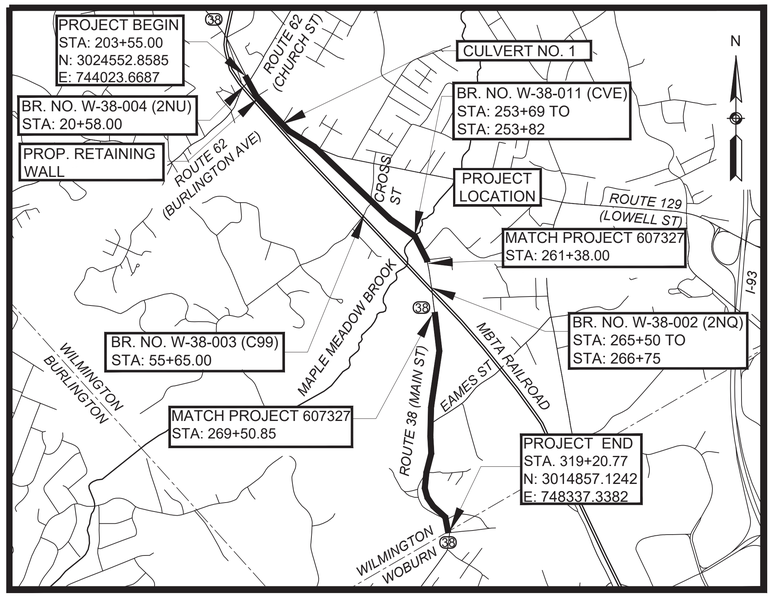

0 1500 3000 4500 6000

SCALE: 1" = 1500'

LENGTH OF PROJECT = 10850.00 FEET = 2.055 MILES

DESIGN DESIGNATION - (ROUTE 38/MAIN STREET)

DESIGN SPEED

40 MPH - PROJECT BEGIN TO STA. 236+60

45 MPH - STA. 236+60 TO 300+00

30 MPH - STA. 300+00 TO PROJECT END

	800 FEET NORTH OF LOWELL STREET	700 FEET SOUTH OF CROSS STREET	450 FEET SOUTH OF EAMES STREET
ADT (2016)	21,383	12,490	14,954
ADT (2036)	26091	15240	18247
K	7.5	9.1	9.0
D	72.9%	78	67.9%
T (PEAK HOUR)	6.0%	9.2%	4.1%
T (AVERAGE DAY)	6.2	10.1%	8.0%
DHV	1957	1387	1642
DDHV	1427	1090	1115
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL	URBAN PRINCIPAL ARTERIAL	URBAN PRINCIPAL ARTERIAL

COMMONWEALTH OF MASSACHUSETTS
DENNIS A. VERTIYEV
CIVIL
No. 56113
REGISTERED PROFESSIONAL ENGINEER

Dennis Vertiyev Digitally signed by Dennis Vertiyev Date: 2025.12.04 13:44:46 -05'00'

DATE	DESCRIPTION	REV #

massDOT
Massachusetts Department of Transportation
Highway Division

PREPARED BY:

Green International Affiliates, Inc.
A Lochner Company
100 Ames Pond Drive, Suite 200, Tewksbury, MA 01876

APPROVED

Carrie Lavallee, P.E. Digitally signed by Carrie Lavallee, P.E. Date: 2025.12.04 14:29:28 -05'00'

12/04/2025

CHIEF ENGINEER **DATE**

608051_HD01(TITLE).DWG Plotted on 2-Dec-2025 1:20 PM

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 YEAR FLOOD PLAIN
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		50 FT NO BUILD
		15 FT NO DISTURB
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		CONC RETAINING WALL
		SEDIMENT CONTROL BARRIER
		COIR LOG
	x	FLOATING SILT FENCE
		STONE FOR PIPE ENDS
		MODIFIED ROCK FILL

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
1	1	CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
	*	EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
RRSG	RRSG	RAILROAD SIGNAL
OR		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
	20'	MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
	20'	MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT
		VIDEO VEHICLE DETECTION ZONE
		VIDEO BICYCLE DETECTION ZONE
		WIRE LOOP DETECTOR WITH BICYCLE DETECTION (6' x 23' TYP UNLESS OTHERWISE SPECIFIED)

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE
	CW	CROSSWALK
	SWL	6" SOLID WHITE LINE
	SYL	6" SOLID YELLOW LINE
	BWL	6" BROKEN WHITE LINE (10' LINE SEGMENT, 30' GAP)
	BYL	6" BROKEN YELLOW LINE (10' LINE SEGMENT, 30' GAP)
	DWL	6" DOTTED WHITE LINE (3' LINE SEGMENT, 9' GAP)
	DYL	6" DOTTED YELLOW LINE (3' LINE SEGMENT, 9' GAP)
	DWLEx	6" DOTTED WHITE LINE EXTENSION (2' LINE SEGMENT, 6' GAP)
	DYLEx	6" DOTTED YELLOW LINE EXTENSION (2' LINE SEGMENT, 6' GAP)
	DBWL	6" DOUBLE WHITE LINE
	DBYL	6" DOUBLE YELLOW LINE
	RWT	RECESSED ALL-WEATHER THERMOPLASTIC

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CB W/F&C	CATCH BASIN WITH FRAME AND COVER
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
CTE	CONNECT TO EXISTING
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ECC	ECCENTRIC
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LSA	LANDSCAPED AREA
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NG	NATIONAL GRID
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY

ABBREVIATIONS (cont.)

GENERAL

PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
R&R UP	REMOVE AND REPLACE UTILITY POLE
R&R	REMOVE AND RESET
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
RMD	REMODEL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
VP	VENT PIPE
VZ	VERIZON
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL

CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY DON'T WALK
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR AMBER
FYL	FLASHING AMBER LEFT ARROW
FYR	FLASHING AMBER RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILE, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR AMBER
YL	STEADY AMBER LEFT ARROW

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	2	420
PROJECT FILE NO.	608051		

LEGEND & ABBREVIATIONS

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GENERAL NOTES

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES; AND FOR SAFETY PRECAUTIONS AND PROGRAMS REQUIRED FOR THE WORK UNDER THIS CONTRACT. THE CONTRACTOR SHALL COMPLY WITH OSHA REQUIREMENTS.
2. ALL TREE REMOVALS AND TREE TRIMMING SHALL BE APPROVED BY THE RESIDENT ENGINEER. ANY TREES IMPACTED BY PROPOSED WORK, THAT ARE NOT MARKED TO BE REMOVED ON THE PLAN SHALL BE EVALUATED BY A MASSACHUSETTS CERTIFIED ARBORIST. ALL TREE TRIMMING SHALL BE OVERSEEN BY A MASSACHUSETTS CERTIFIED ARBORIST.
3. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
4. MINIMUM CLEAR PATH ON THE SIDEWALK SHALL BE 3'-0" EXCLUDING THE SURFACE OF THE CURB. THE CONTRACTOR SHALL FIELD VERIFY TO CONFIRM ALL SIDEWALK CLEAR PATH WIDTH MEETS THE AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE AROUND ALL EXISTING AND PROPOSED UTILITY POLES, MAILBOXES, AND VERTICAL OBSTRUCTIONS.
5. CURB RAMPS SHALL CONFORM TO THE LATEST ADA/AAB STANDARDS.
6. TRANSITION CURB AT PROJECT LIMITS TO MATCH EXISTING ELEVATIONS (PAVEMENT OR EXISTING CURB). WITHIN ABUTTING PROPERTIES, UNLESS NOTED OTHERWISE. WHEN RETAINING THESE ITEMS IS NOT PRACTICAL IN THE OPINION OF THE ENGINEER, THE CONTRACTOR SHALL REMOVE, STOCKPILE, PROTECT AND RESET THE ITEMS. THE CONTRACTOR SHALL REPLACE ITEMS DAMAGED DURING REMOVAL, STOCKPILING, OR RESETTING DUE TO NEGLIGENCE, CARELESSNESS, OR MISHANDLING WITH EQUIVALENT NEW ITEMS AT NO COST TO THE OWNER.
7. ALL TREES CALLED OUT TO BE RETAINED ON THE CONSTRUCTION PLANS SHALL HAVE TREE PROTECTION - INDIVIDUAL AND TREE PROTECTION - TEMPORARY FENCE.
8. ROCKS AND BOULDERS IDENTIFIED R&R ON THE PLANS SHALL BE REMOVED DURING CONSTRUCTION AND RESET AS DIRECTED PER THE ENGINEER.
9. MILLED LONGITUDINAL RUMBLE STRIP SHALL BE INSTALLED ACCORDING TO ENGINEERING DIRECTIVE E20-007.
10. THE CONTRACTOR SHALL FIELD VERIFY ALL MAILBOXES ARE INSTALLED PER MASSDOT STANDARD DETAIL 715.0.1, AND MEETS ADA REQUIREMENTS.
11. TIMBER BACKING INSTALLED FOR STEEL POST ADJACENT TO SIDEWALK SHALL BE INCIDENTAL TO THE GUARDRAIL ITEMS AND IN ACCORDANCE TO MASSDOT STANDARD DETAIL 601.0.4.
12. THE CONTRACTOR SHALL FOLLOW THE DRIVEWAY ROUNDING DETAIL FOR DRIVEWAYS STEEPER THAN 12% GRADE.
13. THE CONTRACTOR SHALL COORDINATE WITH THE MBTA TO IDENTIFY AND LOCATE ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS AT THE MBTA STATION. ALL CONDUIT WORK WITHIN MBTA PROPERTY SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED WORK AND PAID FOR UNDER THE RESPECTIVE CONTRACT ITEM.
14. BUTTERS ROW IS CURRENTLY UNDER CONSTRUCTION. EXISTING CONDITIONS SHOWN IN THE PLANS MAY NOT ACCURATELY REFLECT THE CURRENT STATE OF CONSTRUCTION. IF DISCREPANCIES ARE ENCOUNTERED THAT PREVENT THE WORK FROM BEING PERFORMED AS SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

SURVEY NOTES

1. THE EXISTING CONDITIONS SHOWN ON THIS BASE MAP ARE THE RESULT OF AN ON THE GROUND INSTRUMENT SURVEY PERFORMED BETWEEN OCTOBER 11, 2016 AND DECEMBER 7, 2016 BY GREEN INTERNATIONAL AFFILIATES, INC. (GREEN). SEE FIELD NOTES IN MASSDOT DISTRICT 4 FIELD BOOK 41142.
2. HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED BY GREEN ON OCTOBER 28, 2016 WITH STATIC GPS VECTORS CALCULATED BY NATIONAL GEODETIC SURVEY'S OPUS SERVICE, IN MASSDOT DISTRICT 4 FIELD BOOK 41142, PAGE 84. HORIZONTAL DATUM IS BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, NAD83 (2011) EPOCH 2010.0000, VERTICAL DATUM IS NAVD 88 (COMPUTED USING GEOID12B) USING THE FOLLOWING CONTROL POINTS:

POINT	GRID NORTHING	GRID EASTING	ELEVATION	COMBINED GROUND TO GRID SCALE FACTOR
2-MDHL	3024249.8723	744113.8185	108.896	0.99998182
28-MMAG	3014918.9153	748357.2529	91.352	0.99998006

THE UNIT OF MEASUREMENTS IS US FEET. THE PROJECT COMBINED SCALE FACTOR IS 0.99998094.

3. THE RIGHT OF WAY LINES SHOWN ON THIS BASE MAP ARE THE DIRECT RESULT OF AN INSTRUMENT SURVEY PERFORMED ON THE GROUND BY GREEN, WITH A TRAVERSE CLOSURE OF 1 IN 92,559 AND FROM PLANS AND DEEDS OF RECORD. PRIVATE PROPERTY LINES HAVE NOT BEEN SURVEYED, THEY ARE COMPILED FROM GIS & RECORD PLAN INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE SAID PARCELS SHOWN HEREON ARE SUBJECT TO RIGHTS AND EASEMENTS AS CONTAINED IN THE VARIOUS DEEDS OF RECORD DESCRIBING SAID PREMISES. THE LOCATIONS AND EXTENT OF SAID RIGHTS AND EASEMENTS ARE NOT SUBJECT TO THE SURVEY.
4. WETLANDS WERE DELINEATED AND FIELD LOCATED BY GREEN IN NOVEMBER, 2016.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE / EARTHWORK ACTIVITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR, REPLACEMENT AND MAINTENANCE OF ALL SEDIMENTATION / EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED.

UTILITY NOTES

1. ALL UNDERGROUND UTILITIES AS SHOWN WERE COMPILED USING FIELD SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION.
2. RECORD UTILITY INFORMATION FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD. IN ADDITION, ANY UTILITIES NORMALLY LOCATED IN THE STREETS AND NOT SHOWN ON THESE PLANS SHALL BE ANTICIPATED BY THE CONTRACTOR IN ALL HIS OPERATIONS.
3. SUBSURFACE UTILITY LOCATIONS HAVE BEEN PLOTTED TO MEET UTILITY QUALITY LEVEL "C" AS DESCRIBED IN ASCE STANDARD 38-02 AND SUMMARIZED BELOW. THE UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS BASED ON ABOVE-GROUND FIELD OBSERVATION AND EXISTING RECORD INFORMATION RECEIVED FROM UTILITY STAKE-HOLDERS.

   SUMMARY OF UTILITY MAPPING QUALITY LEVELS:

   THE FOLLOWING IS A SUMMARY OF THE SURVEY MAPPING LEVELS FOR UTILITIES AS DESCRIBED IN ASCE STANDARD 38-02, "STANDARD GUIDELINE FOR THE DEPICTION OF EXISTING SUBSURFACE UTILITY DATA". THESE GUIDELINES ARE MORE FULLY DESCRIBED IN THE ASCE STANDARD.

   - UTILITY QUALITY LEVEL A:
     PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. MINIMALLY INTRUSIVE EXCAVATION EQUIPMENT IS TYPICALLY USED TO MINIMIZE THE POTENTIAL FOR UTILITY DAMAGE. A PRECISE HORIZONTAL AND VERTICAL LOCATION, AS WELL AS OTHER UTILITY ATTRIBUTES, IS SHOWN ON PLAN DOCUMENTS. ACCURACY IS TYPICALLY SET TO 15-MM VERTICAL AND TO APPLICABLE HORIZONTAL SURVEY AND MAPPING ACCURACY AS DEFINED OR EXPECTED BY THE PROJECT OWNER.
   - UTILITY QUALITY LEVEL B:
     INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. QUALITY LEVEL B DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT AND REDUCED ONTO PLAN DOCUMENTS.
   - UTILITY QUALITY LEVEL C:
     INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.
   - UTILITY QUALITY LEVEL D:
     INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.
4. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE MUST BE NOTIFIED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN, (SEE CHAPTER 370, ACTS OF 1963, MASSACHUSETTS) PRIOR TO EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORING OR REPAVING.
5. THE LOCATION OF EXISTING PIPES OR OTHER UNDERGROUND STRUCTURES ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES OR STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL CALL "DIG SAFE" (1-888-344-7233) 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS. MUNICIPALITIES, THE STATE AND THE MBTA ARE NOT MEMBERS OF DIG-SAFE AND SHALL BE CONTACTED INDIVIDUALLY BY THE CONTRACTOR.
6. THE EXISTING INVERTS ARE SHOWN FOR BIDDING PURPOSES ONLY. ACTUAL INVERT ELEVATIONS SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING STRUCTURES.
7. THE CONTRACTOR SHALL INVESTIGATE ALL UNKNOWN MANHOLES TO DETERMINE OWNERSHIP AND CONTACT THE APPROPRIATE UTILITY AGENCIES TO COORDINATE WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY MANHOLES DETERMINED TO BE PART OF SEWER, DRAIN OR WATER SYSTEMS.
8. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
9. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN EXCAVATING NEAR AND BACKFILLING IN THE VICINITY OF EXISTING UTILITIES. CONTRACTOR SHALL USE HAND EXCAVATION WHERE APPROPRIATE TO PROTECT EXISTING UTILITIES.
10. UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE AT ALL TIMES. IF THE CONTRACTOR DAMAGES UTILITY SYSTEMS, THEY SHALL IMMEDIATELY NOTIFY THE RESPECTIVE UTILITY COMPANY AND SHALL REPAIR/REPLACE THE AFFECTED SYSTEM AT HIS OWN EXPENSE.
11. THE CONTRACTOR SHALL COORDINATE WITH PRIVATE UTILITY COMPANIES AND MAKE ARRANGEMENTS FOR ADJUSTMENTS, ALTERATIONS, AND REPLACEMENT OF PRIVATE UTILITIES WHICH ARE TO BE DONE BY THE UTILITY COMPANY.
12. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER, SEWER, DRAINAGE SURFACE CASTINGS, TRAFFIC SIGNALS, PUBLIC ELECTRICAL ITEMS, AND PRIVATE LIGHTING (ETC.) WITHIN THE LIMITS OF CONSTRUCTION TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M4.05.2. IF AN EXISTING UTILITY STRUCTURE WITHIN IN THE PROJECT LIMITS IS WITHIN A PROPOSED ACCESSIBLE SURFACE, THE STRUCTURE SHALL BE CAREFULLY ADJUSTED SUCH THAT THE TOPMOST SURFACES OR THE STRUCTURE COVER SHALL BE FLUSH WITH THE SURFACE.
13. THE CONTRACTOR SHALL CONSIDER THE INDIVIDUAL SERVICE LINES TO EACH BUILDING FROM ALL UTILITIES, WHETHER MARKED OUT OR NOT, WHEN PROCEEDING WITH EXCAVATION.
14. SURPLUS MATERIALS OBTAINED FROM ANY TYPE OF EXCAVATION, AND ALL EXISTING AND OTHER MATERIALS NOT REQUIRED TO BE REMOVED AND STACKED OR NEEDED FOR USE ON THE PROJECT, AS DETERMINED BY THE ENGINEER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF SUBJECT TO THE REGULATIONS AND REQUIREMENTS OF LOCAL AUTHORITIES GOVERNING THE DISPOSAL OF SUCH MATERIALS, AT NO ADDITIONAL COMPENSATION.
15. THE CONTRACTOR SHALL SUPPORT AND PROTECT EXISTING UTILITIES IN AND AROUND EXCAVATIONS, AND, IN PARTICULAR, WHEN CROSSING UNDER OR OVER ANY DUCT OR PIPE. ALL PROTECTIVE MEASURES AND SUPPORTS SHALL BE CONSIDERED INCIDENTAL WORK AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM BEING INSTALLED.
16. A MINIMUM 24-INCHES OF SEPARATION IS REQUIRED BETWEEN THE HIGH PRESSURE GAS MAIN AND DRAINAGE LINE AND ALSO BETWEEN THE HIGH PRESSURE GAS MAIN AND WATER MAIN.
17. PROPOSED WATER MAIN SHALL BE INSTALLED WITH VERTICAL BENDS TO CROSS UNDER EXISTING WATER MAIN TO AVOID CONFLICTS AND CONNECTION FOR THE HYDRANTS.
18. GUTTER INLETS AND CATCH BASINS WITH FRAME AND COVER ARE PROPOSED DUE TO CONFLICTS WITH EXISTING UTILITIES. IN LOCATIONS WHERE THE CONTRACTOR HAS DETERMINED NO SUCH CONFLICTS EXIST, THE CONTRACTOR SHALL USE MASSDOT STANDARD CATCH BASINS.
19. THE CONTRACTOR SHALL PROTECT PRIVATE IRRIGATION SYSTEM TO EACH PRIVATE PROPERTY, WHETHER MARKED OUT OR NOT, WHEN PROCEEDING WITH EXCAVATION AND GRADING. REPAIR TO DAMAGED IRRIGATION SYSTEM SHALL BE INCIDENTAL TO THE WORK PERFORMED AND INCLUDED IN THE UNIT PRICE BID FOR THE ITEM BEING INSTALLED.
20. CONTRACTOR SHALL VERIFY ALL MANHOLE COVERS WITHIN PROPOSED SIDEWALK SURFACE MEETS ADA STANDARDS.
21. THE CONTRACTOR SHALL COORDINATE ALL GAS UTILITY WORK WITH NATIONAL GRID WITHIN THE PROJECT LIMITS. SUCH COORDINATION SHALL INCLUDE THE RELOCATION OF GAS MAINS AT THE DUBLIN AVENUE CULVERT AND THE MAPLE MEADOW BROOK BRIDGE, AS SPECIFIED IN THE SPECIAL PROVISIONS. ANY DISRUPTION TO GAS SERVICE SHALL BE LIMITED TO THE PERIOD BETWEEN APRIL 15TH AND NOVEMBER 1ST AND SHALL BE SUBJECT TO ADVANCE COORDINATION AND APPROVAL BY NATIONAL GRID.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	3	420
PROJECT FILE NO.	608051		

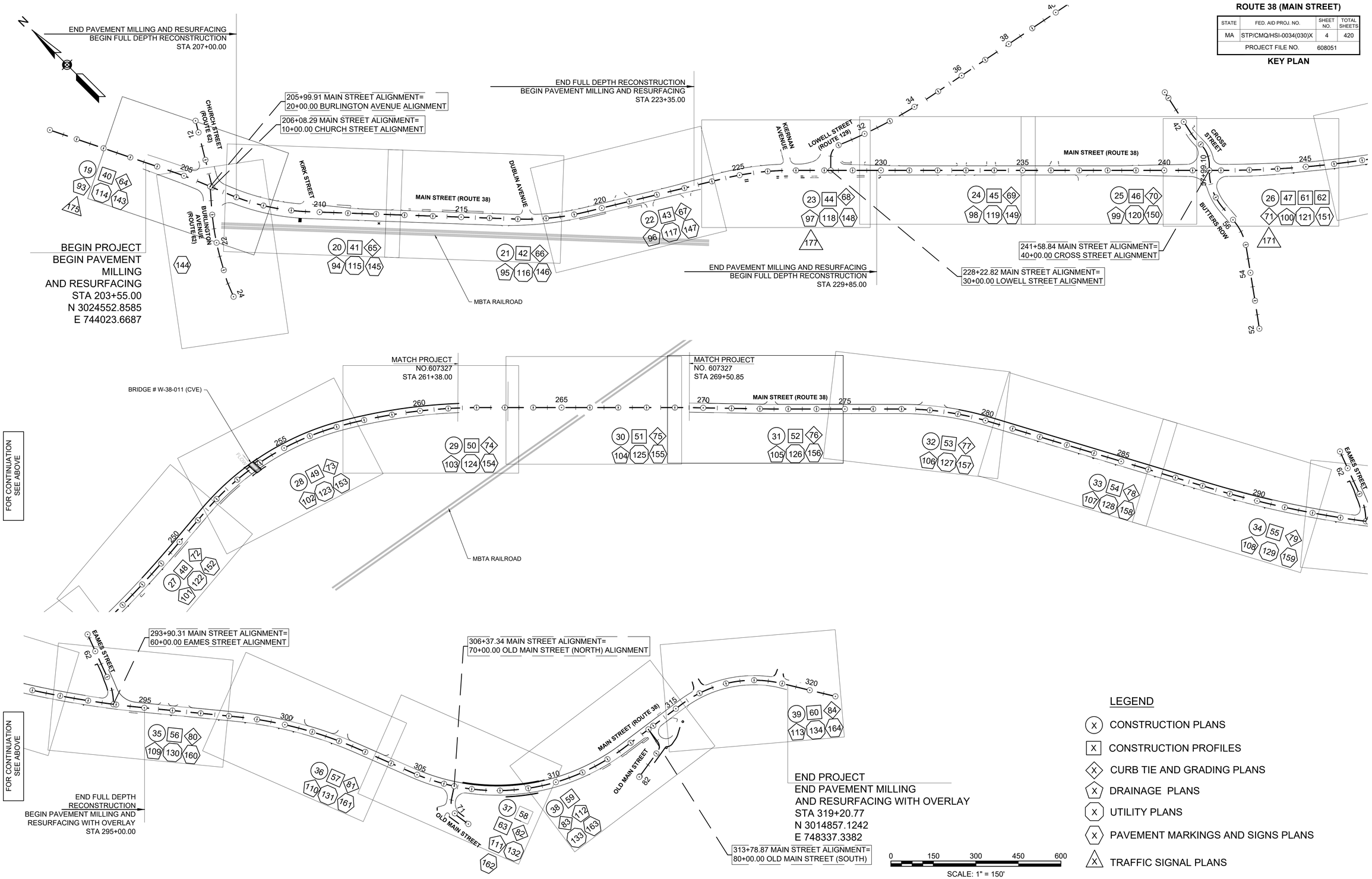
GENERAL NOTES

608051_HD03(GENERAL NOTES).DWG Plotted on 2-Dec-2025 1:20 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	4	420
PROJECT FILE NO.	608051		

KEY PLAN



LEGEND

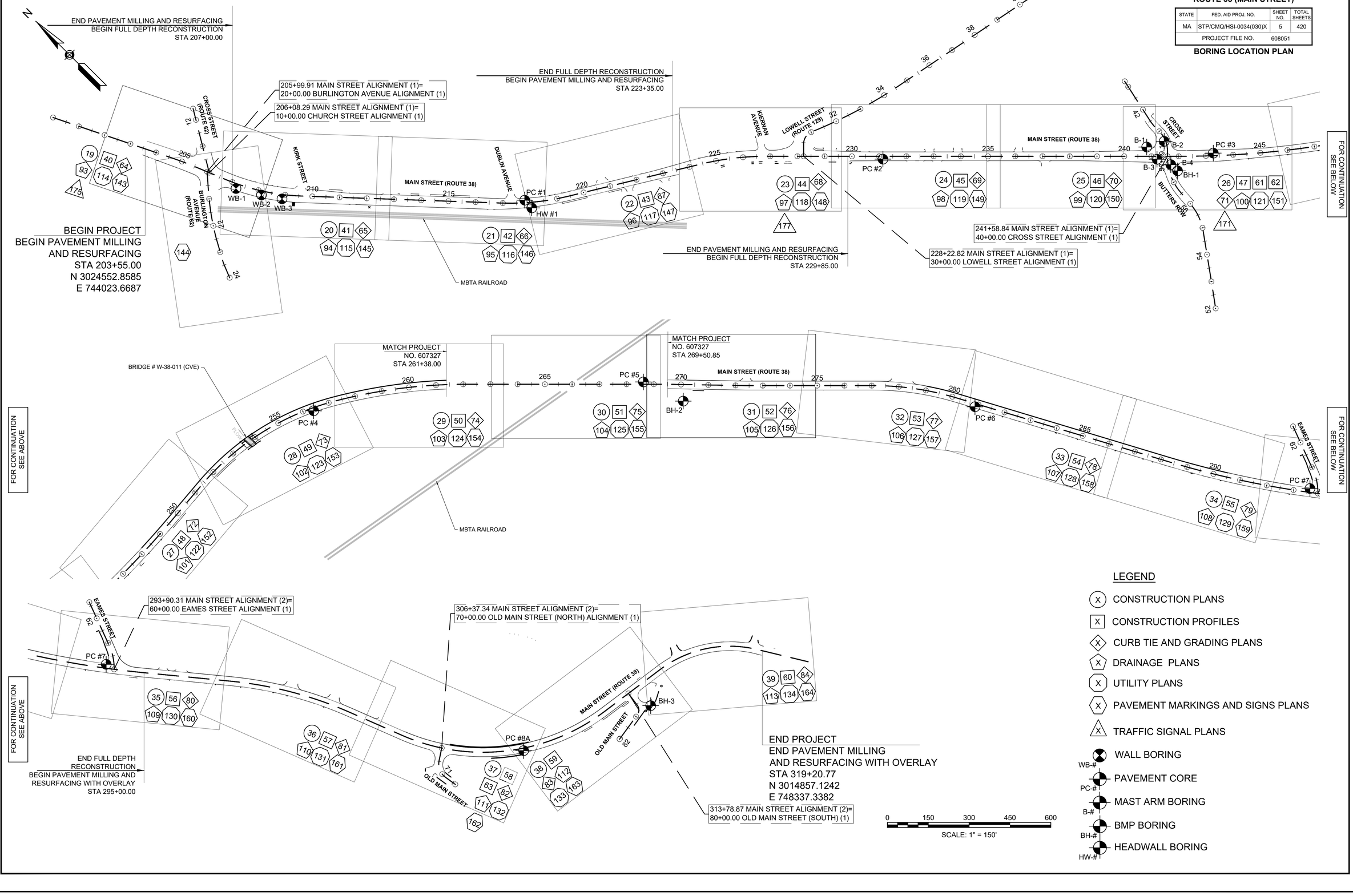
- (X) CONSTRUCTION PLANS
- [X] CONSTRUCTION PROFILES
- ◇X◇ CURB TIE AND GRADING PLANS
- ⬡X⬡ DRAINAGE PLANS
- ⬡X⬡ UTILITY PLANS
- ⬡X⬡ PAVEMENT MARKINGS AND SIGNS PLANS
- ⚠X⚠ TRAFFIC SIGNAL PLANS

608051_HD04(KEY PLAN).DWG Plotted on 2-Dec-2025 1:20 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	5	420
PROJECT FILE NO.	608051		

BORING LOCATION PLAN



LEGEND

- (X) CONSTRUCTION PLANS
- [X] CONSTRUCTION PROFILES
- ◇X◇ CURB TIE AND GRADING PLANS
- ⬠X⬠ DRAINAGE PLANS
- ⬡X⬡ UTILITY PLANS
- ⬠X⬠ PAVEMENT MARKINGS AND SIGNS PLANS
- △X△ TRAFFIC SIGNAL PLANS
- WB-# WALL BORING
- PC-# PAVEMENT CORE
- B-# MAST ARM BORING
- BH-# BMP BORING
- HW-# HEADWALL BORING

608051_HD05(BORING LOCATION PLAN).DWG Plotted on 2-Dec-2025 1:21 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	6	420
PROJECT FILE NO.	608051		

BORING LOGS - 1

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

massDOT Highway — Boring Log

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Lamsoneng@msn.com

Boring No. WB-1 (Retaining Wall Boring) — Page 1/2
Scale: 1" = 5'

City/Town: Wilmington | Bridge No.: - | Project File No.: 608051 | Contract No.: -
Location: State Route 38 (Main Street) | Date & Time Started: 1/7/20 9:15 a.m. | Total Hours:
Groundwater Depth (Feet): 14' Date & Time: 1/7/20 3:00 p.m. | Date & Time Completed: 1/7/20 3:15 p.m. | 6
Coordinates: *N 3,024,208 *E 744,149 | Ground Elevation (Feet): *103.8' | Inspector's Name: Weijie Dong
Drilling Company: Northern Drill Services, Inc. | Driller's Name: Zac Nader | Helper's Name: Justin Stevens

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
				Asphalt	9"
S-1	1' - 3'	11 11 21 21	18"	Dry, dense, brown, FINE TO COARSE SAND, some fine gravel, trace inorganic silt.	
S-2	4' - 6'	15 8 8 5	8"	Dry, medium dense, brown, FINE TO COARSE SAND, some fine gravel, trace inorganic silt.	
S-3	9' - 11'	4 4 6 12	10"	Dry, medium dense, brown, FINE SAND, trace fine gravel, trace inorganic silt.	
S-4	14' - 16'	8 22 42 52	13"	Wet, very dense, brown, FINE TO COARSE SAND, some fine to coarse gravel, trace inorganic silt.	16'6"
				Pockets of Cobbles	18'4"
S-5	19' - 19'7"	62 60/1"	0"	No Recovery (Sand & Gravel from wash)	19'7"
				Cobble 20'2"	
S-6	24' - 26'	11 9 10 14	4"	Wet, medium dense, brown, FINE TO COARSE SAND AND FINE TO COARSE GRAVEL, some inorganic silt.	
				Top of Bedrock @ 27'6"	27'6"
				Rollerbit to 28' and begin coring.	

Notes: - Core bit "2 series" was used to core bedrock.
* Moved boring 3'± South & 3'± West of original location due to underground gas line. New coordinates and elevation are estimated.

Arrow-Board: N/A | Signs: 2 | Cones: 14
Protective Device Stand: - Box: - | Well Depth: - Solid Pipe: - | Stick Up Pipe: - Screen Pipe: -
Type of Drill Rig: ATV D-25
Hammer Weight: 140 lbs Fall: 30"
Casing Types: HW NW | Size: 4" 3" | Depth: 14' 28'
Sampler Type: S/S Size: 1 ⅜" ID | Automatic Hammer Weight: 140 lbs | Safety Hammer Weight: | Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

massDOT Highway — Boring Log

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Lamsoneng@msn.com

Boring No. WB-1 (Retaining Wall Boring) — Page 2/2
Scale: 1" = 5'

City/Town: Wilmington | Bridge No.: - | Project File No.: 608051 | Contract No.: -
Location: State Route 38 (Main Street) | Date & Time Started: 1/7/20 9:15 a.m. | Total Hours:
Groundwater Depth (Feet): 14' Date & Time: 1/7/20 3:00 p.m. | Date & Time Completed: 1/7/20 3:15 p.m. | 6
Coordinates: *N 3,024,208 *E 744,149 | Ground Elevation (Feet): *103.8' | Inspector's Name: Weijie Dong
Drilling Company: Northern Drill Services, Inc. | Driller's Name: Zac Nader | Helper's Name: Justin Stevens

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
C-1	28' - 33'	7 7 7 8 8	48"	Fresh, hard, gray, GRANITE. Percent Recovery = 80% RQD = 44"/60" = 73%	
C-2	33' - 36'	9 10 10	32"	Fresh, hard, gray, GRANITE. Percent Recovery = 89% RQD = 22"/36" = 61% Core barrel is jammed at 36", RQD value is not representative.	36'
				Bottom of Exploration @ 36'	

Notes: - Core bit "2 series" was used to core bedrock.
* Moved boring 3'± South & 3'± West of original location due to underground gas line. New coordinates and elevation are estimated.

Arrow-Board: N/A | Signs: 2 | Cones: 14
Protective Device Stand: - Box: - | Well Depth: - Solid Pipe: - | Stick Up Pipe: - Screen Pipe: -
Type of Drill Rig: ATV D-25
Hammer Weight: 140 lbs Fall: 30"
Casing Types: HW NW | Size: 4" 3" | Depth: 14' 28'
Sampler Type: S/S Size: 1 ⅜" ID | Automatic Hammer Weight: 140 lbs | Safety Hammer Weight: | Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

WB-1

massDOT Highway — Boring Log

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Lamsoneng@msn.com

Boring No. WB-2 (Retaining Wall Boring) — Page 1/1
Scale: 1" = 5'

City/Town: Wilmington | Bridge No.: - | Project File No.: 608051 | Contract No.: -
Location: State Route 38 (Main Street) | Date & Time Started: 1/8/20 9:15 a.m. | Total Hours:
Groundwater Depth (Feet): 13' Date & Time: 1/9/20 11:00 a.m. | Date & Time Completed: 1/8/20 11:30 a.m. | 7.75
Coordinates: N 3,024,137 E 744,200 | Ground Elevation (Feet): 97.6' | Inspector's Name: Weijie Dong
Drilling Company: Northern Drill Services, Inc. | Driller's Name: Zac Nader | Helper's Name: Justin Stevens

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
				Asphalt	9"
S-1	1' - 3'	6 23 21 19	6"	Dry, dense, brown, FINE TO COARSE SAND, some fine gravel, trace inorganic silt.	
S-2	4' - 6'	4 3 3 4	11"	Dry, loose, brown, FINE SAND, trace fine gravel, trace inorganic silt.	
S-3	9' - 11'	3 3 2 3	8"	Dry, loose, brown, FINE SAND, trace fine gravel, trace inorganic silt.	12'
				Pockets of Cobbles	13'8"
S-4	14' - 16'	9 19 18 18	10"	Wet, dense, gray, FINE TO COARSE SAND, some fine to coarse gravel, some inorganic silt.	
S-5	19' - 20'9"	15 13 9 120/3"	9"	Wet, medium dense, gray, FINE TO COARSE SAND, some fine to coarse gravel, some inorganic silt.	
				Top of Bedrock @ 20'9"	20'9"
				Rollerbit to 21' and begin coring.	
C-1	21' - 23'	60 64	10"	Fresh, hard, gray, GRANITE/QUARTZ. Percent Recovery = 42% RQD = 10"/24" = 42%	
*C-2	23' - 26'	4 4 3	35"	Fresh, hard, gray, GRANITE/QUARTZ. Percent Recovery = 97% RQD = 35"/36" = 97%	
*C-3	26' - 31'	4 5 5 8 8	57"	Fresh, hard, gray, GRANITE/QUARTZ. Percent Recovery = 95% RQD = 57"/60" = 95%	
				Bottom of Exploration @ 31'	31'

Notes:
* Switched to much better "6 series" core bit from "2 series" core bit on 1/9/2020 to core bedrock. Core rate is, thus, reduced.

Arrow-Board: N/A | Signs: 2 | Cones: 14
Protective Device Stand: - Box: - | Well Depth: - Solid Pipe: - | Stick Up Pipe: - Screen Pipe: -
Type of Drill Rig: ATV D-25
Hammer Weight: 140 lbs Fall: 30"
Casing Types: HW NW | Size: 4" 3" | Depth: 14' 21'
Sampler Type: S/S Size: 1 ⅜" ID | Automatic Hammer Weight: 140 lbs | Safety Hammer Weight: | Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

WB-2

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: ⊕ WB-1 AND WB-2
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 1/7/2020 AND 1/8/2020.
7. BORING CONTRACTOR NORTHERN DRILL SERVICE, INC.
8. BORING SAMPLES ARE STORED AT A STORAGE FACILITY LOCATED ON ROUTE 114 (219 WINTHROP AVE.) IN LAWRENCE, MA. THE CONTRACTOR MAY EXAMINE THE SOIL AND ROCK SAMPLES BY CONTACTING THE MASSDOT GEOTECHNICAL SECTION AT 10 PARK PLAZA, BOSTON MA.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	7	420
PROJECT FILE NO.	608051		

BORING LOGS - 2

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

massDOT Highway — Boring Log

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Lamsoneng@msn.com

Boring No. WB-3 (Retaining Wall Boring) | Page 1/1
Scale: 1" = 5'

City/Town: Wilmington | Bridge No.: - | Project File No.: 608051 | Contract No.: -
Location: State Route 38 (Main Street) | Date & Time Started: 1/6/20 9:30 a.m. | Total Hours: 5
Groundwater Depth (Feet): 12.4' Date & Time: 1/6/20 1:30 p.m. | Date & Time Completed: 1/6/20 2:30 p.m.
Coordinates: N 3,024,063 E 744,254 | Ground Elevation (Feet): 92.3' | Inspector's Name: Weijie Dong
Drilling Company: Northern Drill Services, Inc. | Driller's Name: Zac Nader | Helper's Name: Justin Stevens

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
				Asphalt	9"
S-1	1' - 3'	10 11 13 11	11"	Dry, medium dense, brown, FINE SAND, trace fine gravel, trace inorganic silt.	
S-2	4' - 6'	4 3 2 4	14"	Wet, loose, brown, FINE SAND, trace fine gravel, trace inorganic silt.	8'6"
S-3	9' - 11'	31 25 28 25	5"	Wet, very dense, brown, FINE TO COARSE SAND AND FINE TO COARSE GRAVEL, trace inorganic silt.	11'2"
				Pockets of Cobbles	13'6"
S-4	14' - 16'	17 19 27 43	10"	Wet, dense, gray, FINE TO COARSE SAND, some inorganic silt, trace fine gravel.	
S-5	19' - 21'	23 35 35 50	10"	Wet, very dense, gray, FINE TO COARSE SAND, some inorganic silt, trace fine gravel.	
				Top of Bedrock @ 22'	22'
				Rollerbit to 23'6" and begin coring.	
C-1	23'6" - 28'6"	4 3 3 3 4	52"	Fresh, slightly fractured, gray, GRANITE GNEISS. Percent Recovery = 87% RQD = 30"/60" = 50%	
C-2	28'6" - 33'6"	3 3 3 3 3	60"	Slight weathered, slightly fractured, gray, GRANITE GNEISS. Percent Recovery = 100% RQD = 32"/60" = 53%	33'6"
				Bottom of Exploration @ 33'6"	

Notes: - Core bit "2 series" was used to core bedrock.

Arrow-Board: N/A | Signs: 2 | Cones: 14
Protective Device Stand: - Box: - | Well Depth: - Solid Pipe: - | Stick Up Pipe: - Screen Pipe: -

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

Type of Drill Rig: ATV D-25
Hammer Weight: 140 lbs Fall: 30"
Casing Types: HW NW
Size: 4" 3"
Depth: 19' 23'6"
Sampler Type: S/S Size: 1 ⅜" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

WB-3

massDOT Highway — Boring Log

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E Mail: Lamsoneng@msn.com

Boring No. HW-1 | Page 1 of 1
Scale: 1" = 5'

City/Town: Wilmington | Bridge No.: N/A | Project File No.: 608051 | Contract No.: -
Location: Route 38 (Main Street) | Date & Time Started: 8/14/20 7:00 am | Total Hours: 8
Groundwater Depth (Feet): 5' Date & Time: 8/14/20 2:00 pm | Date & Time Completed: 8/14/20 3:00 pm
Coordinates: N 3,023,388 E 744,870 | Ground Elevation (Feet): 88.0 | Inspector's Name: Jun Jie Li
Drilling Company: New England Boring Contractors | Driller's Name: Patrick Scofield | Helper's Name: Arthur Cummings

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
				Asphalt	10"
S-1	1' - 3'	3 2 2 2	11"	Moist, loose, dark-brown, FINE TO COARSE SAND, some fine to coarse gravel	4'
S-2	4' - 6'	4 3 3 4	5"	Wet, loose, brown, FINE TO COARSE SAND	8'
S-3	9' - 11'	21 33 36 27	9"	Wet, very dense, gray, FINE TO COARSE SAND AND FINE TO COARSE GRAVEL, some weathered bedrock, trace inorganic silt.	
				Top of bedrock, roller bit to 14' and core	13.5'
C-1	14' - 19'	5 4 3 2 2	35"	Moderately weathered, highly fractured, grey, GRANITE-GNEISS, REC=35/60 =58%, RQD=25/60=42%	
C-2	19' - 21'	3 9	24"	Moderately weathered, highly fractured, grey, GRANITE-GNEISS, REC=24/24 =100%, RQD=8/24=33%	21'
				Bottom of Exploration @ 21'	

Remarks: Boring is terminated at 21' due to core barrel jammed and out of water.

Arrow-Board: - | Signs: - | Cones: 12
Protective Device - Stand: -Box: - | Well Depth: - Solid Pipe: - | Stick Up Pipe: - Screen Pipe: -

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

Type of Drill Rig: Mobile B-48
Hammer Weight: 300 lbs Fall: 30"
Casing Type: HW Casing Type:
Size: 4" Size:
Depth: 14' Depth:
Sampler Type: S/S Size: 1 3/8" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

HW-1

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: ⊕ WB-3 AND HW-1
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 1/6/2020 AND 8/14/2020.
7. BORING CONTRACTOR NORTHERN DRILL SERVICE, INC. AND NEW ENGLAND BORING CONTRACTORS.
8. BORING SAMPLES ARE STORED AT A STORAGE FACILITY LOCATED ON ROUTE 114 (219 WINTHROP AVE.) IN LAWRENCE, MA. THE CONTRACTOR MAY EXAMINE THE SOIL AND ROCK SAMPLES BY CONTACTING THE MASSDOT GEOTECHNICAL SECTION AT 10 PARK PLAZA, BOSTON MA

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	8	420
PROJECT FILE NO.	608051		

BORING LOGS - 3

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

massDOT Highway — **Boring Log**

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Lamsoneng@msn.com

Boring No. BH-1 (BMP Boring) — Page 1/1
Scale: 1" = 3'

City/Town: Wilmington | Bridge No.: - | Project File No.: 608051 | Contract No.: -
Location: State Route 38 (Main Street) | Date & Time Started: 8/12/20 8:30 a.m. | Total Hours:
Groundwater Depth (Feet): 10' | Date & Time: 8/12/20 11:30 a.m. | Date & Time Completed: 8/12/20 12:00 p.m. | 3.5
Coordinates: N 3,021,757 E 746,635 | Ground Elevation (Feet): 94.5' | Inspector's Name: Weijie Dong
Drilling Company: New England Boring Contractors | Driller's Name: Manlea Thompson | Helper's Name: Will Sebigny

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
				Grass O Layer 1"	A Layer
				Dry, loose, dark brown, LOAMY SAND, some vegetation. 4"	
				Dry, medium dense, brown, FINE SAND, some fine to medium gravel, trace inorganic silt.	B Layer
S-2	2' - 2'5"	120/5"	3"	Dry, loose, brown, FINE SAND, trace inorganic silt.	2'5"
				Boulder	3'7"
S-3	4' - 6'	1 1 3 3	12"	Dry, loose, brown, FINE SAND, trace inorganic silt.	
S-4	6' - 8'	7 6 7 9	9"	Dry, medium dense, brown, FINE SAND, trace inorganic silt.	
S-5	8' - 10'	12 11 11 11	12"	Dry, medium dense, brown, FINE SAND, trace inorganic silt.	B Layer
S-6	10' - 12'	6 17 21 16	11"	Wet, dense, brown, FINE TO COARSE SAND, some fine to coarse gravel, trace inorganic silt.	
S-7	12' - 13'6"	23 20 125	14"	Wet, dense, brown, FINE TO COARSE SAND, some fine to coarse gravel, trace inorganic silt.	13'
				Top of Possible Bedrock @ 13'6"	13'6" C Layer
				Rollerbit into possible bedrock.	R Layer 15'
				Bottom of Exploration @ 15'	

Legend:
O Layer = Organic Surface Layer C Layer = Substratum
A Layer = Surface Layer R Layer = Bedrock
B Layer = Subsoil

Notes:
Arrow-Board: N/A Signs: - Cones: 12
Protective Device Well Depth: - Stand: - Box: - Solid Pipe: - Stick Up Pipe: - Screen Pipe: -
Type of Drill Rig: ATV Mobile B-57
Hammer Weight: 140 lbs Fall: 30"
Casing Types: HW
Size: 4" Depth: 12'
Sampler Type: S/S Size: 1 ⅜" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: - Size: -

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

BH-1

massDOT Highway — **Boring Log**

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Lamsoneng@msn.com

Boring No. BH-2 (BMP Boring) — Page 1/1
Scale: 1" = 3'

City/Town: Wilmington | Bridge No.: - | Project File No.: 608051 | Contract No.: -
Location: State Route 38 (Main Street) | Date & Time Started: 8/11/20 11:45 a.m. | Total Hours:
Groundwater Depth (Feet): - | Date & Time: - | Date & Time Completed: 8/11/20 3:15 p.m. | 3.5
Coordinates: N 3,019,553 E 747,966 | Ground Elevation (Feet): 94.4' | Inspector's Name: Weijie Dong
Drilling Company: New England Boring Contractors | Driller's Name: Manlea Thompson | Helper's Name: Will Sebigny

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
				Asphalt & Sub-base Layer.	8"
S-1	1' - 3'	3 14 14 15	15"	Dry, medium dense, brown, FINE SAND, some fine to medium gravel, trace inorganic silt.	
S-2	3' - 5'	16 12 11 9	8"	Dry, medium dense, brown, FINE SAND, some fine to medium gravel, trace inorganic silt.	
S-3	5' - 7'	4 7 9 9	14"	Dry, medium dense, brown, FINE SAND, some fine gravel, trace inorganic silt.	B Layer
S-4	7' - 7'6"	42 120/0"	6"	Dry, very dense, brown, FINE SAND, some fine gravel, trace inorganic silt.	7'6"
				Top of Bedrock @ 7'6"	
				Rollerbit to 10' and begin coring.	
C-1	10' - 15'	3 3 4 5 5	38"	Moderately weathered, fractured, gray, GRANITE GNEISS. Percent Recovery = 63%, RQD = 24"/60" = 24%	R Layer 15'
				Bottom of Exploration @ 15'	

Legend:
O Layer = Organic Surface Layer C Layer = Substratum
A Layer = Surface Layer R Layer = Bedrock
B Layer = Subsoil

Notes:
Arrow-Board: N/A Signs: - Cones: 12
Protective Device Well Depth: - Stand: - Box: - Solid Pipe: - Stick Up Pipe: - Screen Pipe: -
Type of Drill Rig: ATV Mobile B-57
Hammer Weight: 140 lbs Fall: 30"
Casing Types: HW
Size: 4" Depth: 9'
Sampler Type: S/S Size: 1 ⅜" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

BH-2

massDOT Highway — **Boring Log**

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Lamsoneng@msn.com

Boring No. BH-3 (BMP Boring) — Page 1/1
Scale: 1" = 3'

City/Town: Wilmington | Bridge No.: - | Project File No.: 608051 | Contract No.: -
Location: State Route 38 (Main Street) | Date & Time Started: 8/11/20 8:15 a.m. | Total Hours:
Groundwater Depth (Feet): 9' | Date & Time: 8/11/20 9:30 a.m. | Date & Time Completed: 8/11/20 11:15 p.m. | 3.0
Coordinates: N 3,015,232 E 748,080 | Ground Elevation (Feet): 89.7' | Inspector's Name: Weijie Dong
Drilling Company: New England Boring Contractors | Driller's Name: Manlea Thompson | Helper's Name: Will Sebigny

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
				Grass O Layer 1"	
S-1	0' - 2'	2 3 7 8	10"	Dry, medium dense, dark brown, LOAMY SAND, trace vegetation.	A Layer
S-2	2' - 4'	7 18 18 11	14"	Dry, dense, brown, FINE SAND, some fine to medium gravel, trace inorganic silt.	2'4"
S-3	4' - 6'	22 52 65 76	12"	Dry, very dense, brown, FINE TO COARSE SAND, some fine to medium gravel, trace inorganic silt.	
S-4	6' - 8'	80 81 62 90	20"	Dry, very dense, brown, FINE TO COARSE SAND & FINE TO COARSE GRAVEL, trace inorganic silt.	
S-5	8' - 10'	20 21 23 29	9"	Moist, dense, brown, FINE TO COARSE SAND & FINE TO COARSE GRAVEL, trace inorganic silt.	B Layer
S-6	10' - 12'	13 33 42 25	17"	Wet, very dense, brown, FINE TO COARSE SAND & FINE TO COARSE GRAVEL, trace inorganic silt.	
S-7	12' - 14'	31 29 15 17	12"	Wet, dense, brown, FINE TO COARSE SAND & FINE TO COARSE GRAVEL, trace inorganic silt.	
S-8	14' - 16'	34 14 22 17	9"	Wet, dense, brown, FINE TO COARSE SAND & FINE TO COARSE GRAVEL, trace inorganic silt.	
				Bottom of Exploration @ 16'	16'

Legend:
O Layer = Organic Surface Layer C Layer = Substratum
A Layer = Surface Layer R Layer = Bedrock
B Layer = Subsoil

Notes:
Arrow-Board: N/A Signs: - Cones: 12
Protective Device Well Depth: - Stand: - Box: - Solid Pipe: - Stick Up Pipe: - Screen Pipe: -
Type of Drill Rig: ATV Mobile B-57
Hammer Weight: - Fall: -
Augers: HSA
Size: 4.25" Depth: 14'
Sampler Type: S/S Size: 1 ⅜" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: - Size: -

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

BH-3

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: ⊕ BH-1, BH-2, AND BH-3
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 8/11/2020 AND 8/12/2020.
7. BORING CONTRACTOR NEW ENGLAND BORING CONTRACTORS.
8. BORING SAMPLES ARE STORED AT A STORAGE FACILITY LOCATED ON ROUTE 114 (219 WINTHROP AVE.) IN LAWRENCE, MA. THE CONTRACTOR MAY EXAMINE THE SOIL AND ROCK SAMPLES BY CONTACTING THE MASSDOT GEOTECHNICAL SECTION AT 10 PARK PLAZA, BOSTON MA

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-1
Page 1 OF 1

File #:
Date Started: 6/28/17
Date Completed: 6/28/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: 4.2'

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-10.75"	10.75"	10.75"	core		C-1: 5.5" top coat, 2.5" base coat, 2.75" of 1.25" - 2" granite gravel with liquid tar base.
S-1	1'-2'	12"	10"	42-39		S-1: Very dense brown / black coarse gravel with some med gravel and med sand, trace fine sand
S-2	2'-4'	24"	7"	11-4-1-1		S-2: Loose brown med sand, some med gravel, trace coarse gravel
S-3	4'-6'	24"	9"	8-11-8-9		S-3: Med Dense dark brown fine sand and silt, some med gravel - wet -
						Bottom of Exploration 6' - 0"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-1

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-2
Page 1 OF 1

File #:
Date Started: 6/27/17
Date Completed: 6/27/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: n/a

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-12"	12"	12"	core		C-1: 5.75" top coat, 4.25" base coat, 2" of 1.25" - 2" granite gravel with liquid tar base.
S-1	1'-2'	12"	9"	21-29		S-1: Very dense brown coarse gravel with some med gravel and med sand
S-2	2'-4'	24"	11"	9-6-3-3		S-2: Loose brown fine sand, some silt, trace fine gravel
S-3	4'-5'	12"	4"	2-2		S-3: loose dark brown fine sand and silt, trace fine gravel
						Bottom of Exploration 5' - 0"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-2

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: ⊕ PC-1 AND PC-2
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 6/27/2017 AND 6/28/2017.
7. BORING CONTRACTOR NORTHERN DRILL SERVICE, INC..

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-3
Page 1 OF 1

File #:
Date Started: 6/28/17
Date Completed: 6/28/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: n/a

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-12"	12"	12"	core		C-1: 5.25" top coat, 2.5" base coat, 4.25" of 1.25" - 2" granite gravel with liquid tar base.
S-1	1'-2'	12"	9"	30-47		S-1: Very dense light brown coarse gravel with some med gravel and med sand
S-2	2'-4'	24"	13"	90-78-84-100		S-2: Very Dense coarse gravel, little med and coarse sand
S-3	4'-4.1'	.5"	.5"	50 for 1/2"		S-3: Very dense rock fragments Auger refusal at 4'-2"
						Bottom of Exploration 4'-2"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-3

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-4
Page 1 OF 1

File #:
Date Started: 6/27/17
Date Completed: 6/27/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: n/a

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-8"	8"	8"	core		C-1: 5.25" top coat, 2.75" base coat
S-1	8"-20"	12"	7"	23-27		S-1: Dense brown medium gravel with some coarse sand, little med sand, trace fine gravel
S-2	20" - 44"	24"	13"	12-14-14-10		S-2: Mediun dense brown fine sand, trace coarse gravel, little fine gravel
S-3	44" - 60"	16"	16"	7-5-3		S-3: loose dark brown fine sand and silt, trace fine gravel
						Bottom of Exploration 5' - 0"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-4

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-5
Page 1 OF 1

File #:
Date Started: 6/28/17
Date Completed: 6/28/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: n/a

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-12"	12"	8.25"	core		C-1: 5.25" top coat, 2.25" base coat, 4.5" of 1.25" - 2" granite gravel with liquid tar base.
S-1	1'-2'	12"	11"	43-58		S-1: Very dense brown coarse gravel with some med gravel and med sand, trace coarse sand
S-2	2'-4'	24"	19"	48-43-28-15		S-2: Very Dense brown med and fine sand, some med gravel, trace coarse gravel
S-3	4'-6'	24"	21"	13-10-11-24		S-3: Med Dense brown med sand and fine sand, some coarse gravel
						Bottom of Exploration 6' - 0"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-5

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: ⊕ PC-3, PC-4, AND PC-5
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 6/27/2017 AND 6/28/2017.
7. BORING CONTRACTOR NORTHERN DRILL SERVICE, INC..

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-6
Page 1 OF 1

File #:
Date Started: 6/27/17
Date Completed: 6/27/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: n/a

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-12"	12"	7.5"	core		C-1: 5" top coat, 2.5" base coat, 4.5" of 1" - 2" compacted stone base
S-1	1'-2'	12"	9"	43-49		S-1: Very dense brown coarse gravel with some med gravel trace coarse and medium sand
S-2	2'-4'	24"	20"	21-26-25-28		S-2: Very Dense brown med and fine sand, some med gravel, trace coarse gravel
S-3	4'-6'	24"	21"	29-23-16-16		S-3: Dense brown med sand and fine sand, some medium gravel trace coarse gravel Bottom of Exploration 6' - 0"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-6

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-7
Page 1 OF 1

File #:
Date Started: 6/28/17
Date Completed: 6/28/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: n/a

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-12"	12"	8.25"	core		C-1: 3.75" top coat, 2.25" base coat, 4.25" of 1.25" - 2" granite gravel with liquid tar
S-1	1'-2'	12"	7"	67-46		S-1: Very dense black coarse gravel with some med gravel , little medium sand, trace coarse sand
S-2	2'-4'	24"	14"	8-6-4-5		S-2: Loose brown med and fine sand, some med gravel, trace coarse gravel
S-3	4'-6'	24"	12"	10-9-15-19		S-3: Medium dense brown med sand and fine sand, some medium gravel trace coarse gravel Bottom of Exploration 6' - 0"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-7

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: Route 38 - Main Street
Location: Wilmington, MA

Boring # PC-8A
Page 1 OF 1

File #:
Date Started: 6/27/17
Date Completed: 6/27/17
Driller: Carl Bierholm
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE		S/S	
SIZE		2"	
HAMMER		140	
FALL		30"	

Ground Water level: n/a

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
C-1	0'-12"	12"	12"	core		C-1: 7" top coat, 1.5" base coat, 3.5" of 1.25" - 2" granite gravel with liquid tar
S-1	1'-2'	12"	8"	41-38		S-1: Very dense gray coarse gravel with some brown med gravel , little medium sand, trace coarse sand
S-2	2'-3' -2"	14"	7"	13-15-100/2"		S-2: Very dense brown med and fine sand, some med gravel, trace coarse gravel Refusal at 3'-2" Bottom of Exploration 3' - 2"

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

PC-8A

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: ⊕ PC-6, PC-7, PC-8A
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 6/27/2017 AND 6/28/2017.
7. BORING CONTRACTOR NORTHERN DRILL SERVICE, INC..

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	12	420
PROJECT FILE NO.	608051		

BORING LOGS - 7

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: MassDOT Route 38 Mast Arms
Location: Rt 38 & Cross St., Wilmington, MA

Boring # B-1
Page 1 OF 1

File #:
Date Started: 1/14/2020
Date Completed: 1/17/2020
Driller: Justin Stevens
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE	HW	S/S	NX
SIZE	4"	2"	1-7/8"
HAMMER		140	
FALL		30"	

Ground Water level: 6'

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
S-1	.5'-2'	24"	11"	2-2-2-2		S-1: Loose dark brown fine sand with little medium to coarse gravel, trace fine gravel.
S-2	4'-6'	24"	5"	3-15-14-11	BOULDER 7.5'-9.5'	S-2: Medium dense dark brown coarse gravel, some medium gravel, trace medium to fine sand.
S-3	9.5-11.5'	4"	0"	100/4"	BOULDER 10'-13'	S-3: NO RECOVERY. CORED BOULDER 10'-13'
S-4	14'-16'	11"	3"	27-100/5"		S-4: Very dense gray medium gravel some medium to coarse sand, little fine gravel.
C-1	17'-22'	60"	55.5"	RQD: 73%		C-1: GRANITE
C-2	22'-27'	60"	43"	RQD: 62%		C-2: GRANITE
						Bottom of Exploration = 27'

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

B-1

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: MassDOT Route 38 Mast Arms
Location: Rt 38 & Cross St., Wilmington, MA

Boring # B-2
Page 1 OF 1

File #:
Date Started: 1/13/2020
Date Completed: 1/14/2020
Driller: Justin Stevens
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE	HW	S/S	NX
SIZE	4"	2"	1-7/8"
HAMMER		140	
FALL		30"	

Ground Water level: 7.5'

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
S-1	.5'-2'	24"	18"	18-15-17-29		S-1: Dense tan fine sand some coarse gravel and little fine gravel.
S-2	4'-6'	24"	15"	35-62-67-64	BOULDER 6'-7'	S-2: Very dense tan coarse and medium gravel, some medium to fine sand, trace silt.-glacial till-
S-3	9-11'	24"	13"	26-24-41-85	ROCK AT 13.5'	S-3: Very dense tan fine to medium sand, trace silt, Little medium to fine gravel.
C-1	14.5'-19.5'	60"	55"	RQD:82%		C-1:GRANITE
C-2	19.5'-24.5'	60"	53"	RQD:85%		C-2:GRANITE
						Bottom of Exploration = 24.5'

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

B-2

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: MassDOT Route 38 Mast Arms
Location: Rt 38 & Cross St., Wilmington, MA

Boring # B-3
Page 1 OF 1

File #:
Date Started: 1/17/2020
Date Completed: 1/17/2020
Driller: CARL BEIRHOLM
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE	HW	S/S	
SIZE	4"	2"	
HAMMER		140	
FALL		30"	

Ground Water level: 9.87'

SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
						Asphalt = 6"
S-1	.5'-2'	18"	13"	9-21-17		S-1: Dense tan/brown medium sand with some fine sand. Little medium to coarse gravel.
S-2	4'-6'	24"	11"	5-5-7-6		S-2: Medium dense tan fine sand with little medium gravel, trace fine gravel
S-3	9-11'	24"	12"	26-41-45-60		S-3: Very dense gray coarse gravel, some fine sand, trace fine gravel, trace silt. -glacial till-
S-4	14'-16'	24"	9"	27-27-41-53	boulder 16.5'-18'	S-4: Very dense tan coarse gravel, some fine sand, little fine gravel, trace silt.
S-5	19'-20.5'	14"	7"	36-53-100/2"	3"-6" cobbles	S-5: very dense tan medium gravel, some fine gravel, little fine sand, trace silt
S-6	24'-24.7"	7"	5"	65-100/1"		S-6: Very dense medium to coarse gravel, some fine gravel, little fine sand, trace silt
						Spoon Refusal at 24'-7". Roller bit to 26.5'. Possible boulder or bedrock
						Bottom of Exploration = 26.5'

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

B-3

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: ⊕ B-1, B-2, AND B-3
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 1/14/2020 AND 1/17/2020.
7. BORING CONTRACTOR NORTHERN DRILL SERVICE, INC..
8. BORING SAMPLES ARE STORED AT A STORAGE FACILITY LOCATED ON ROUTE 114 (219 WINTHROP AVE.) IN LAWRENCE, MA. THE CONTRACTOR MAY EXAMINE THE SOIL AND ROCK SAMPLES BY CONTACTING THE MASSDOT GEOTECHNICAL SECTION AT 10 PARK PLAZA, BOSTON MA

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	13	420
PROJECT FILE NO.	608051		

BORING LOGS - 8

608051_HD06\BORING LOGS\.DWG Plotted on 2-Dec-2025 1:21 PM

Northern Drill Service, Inc.
130 East Main Street, Northborough, MA 01532
TEL 508-393-6900 FAX 508-393-6901

Client: Green International Affiliates, Inc.
Project: MassDOT Route 38 Mast Arms
Location: Rt 38 & Cross St., Wilmington, MA

Boring # B-4
Page 1 OF 1

File #:
Date Started: 1/9/2020
Date Completed: 1/13/2020
Driller: Justin Stevens
Site Rep.:

	CASING	SAMPLER	CORE BARREL
TYPE	HW	S/S	NX
SIZE	4"	2"	1-7/8
HAMMER		140	
FALL		30"	

Ground Water level: 10.4'

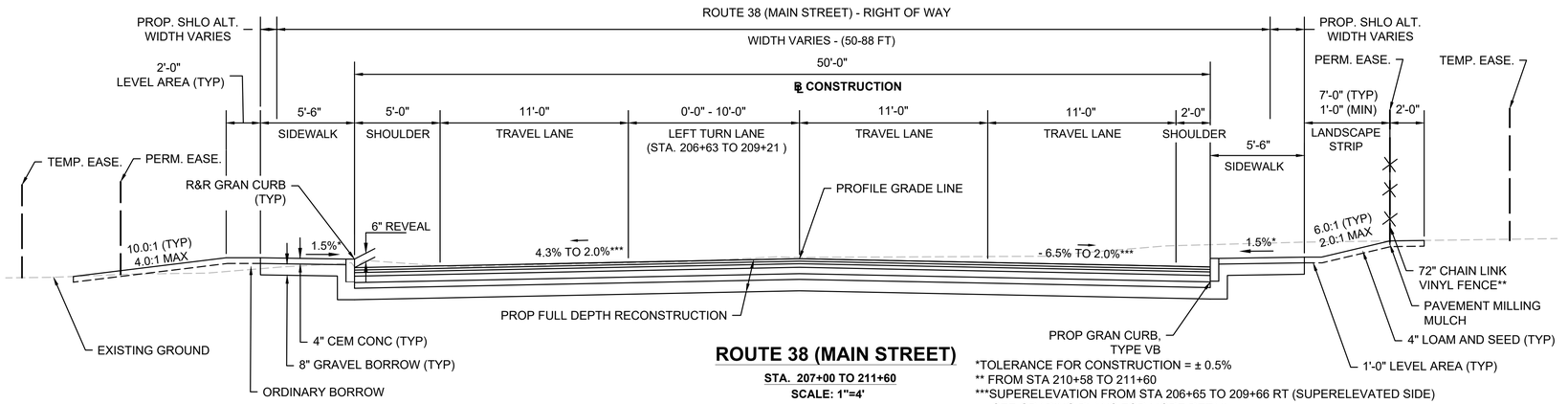
SAMPLE No.	Depth	Pen. In.	Rec. In.	Blows/6"	Strata Change	SAMPLE DESCRIPTION
S-1	0"-2'	24"	13"	4-6-5-8		S-1: Loose medium and fine sand, some fine gravel, little coarse gravel.
					Boulder 2.9'-3.7'	
S-2	4'-6'	24"	6"	25-23-15-15		S-2: Dense dark brown coarse gravel, some fine sand and silt, little fine gravel - Glacial Till-
					Boulder 6.1'-7.3'	
S-3	9-11'	22"	15"	18-29-37-100/4"		S-3: Very dense tan fine sand and medium gravel, little coarse gravel, trace silt - Glacial Till-
					Boulder 12'-13.2	
S-4	14'-16'	24"	10"	27-54-50-55		S-4: Very dense tan medium sand, some fine gravel, little coarse gravel trace fine sand and silt - Glacial Till-
C-1	19.5'-24.5'	60"	47"	RQD:32%		C-1: GRANITE
						Bottom of Exploration = 24.5'

Cohesionless Density Blows/ft: 0-10 Loose 10-30 Medium-Dense 30-50 Dense 50+ Very Dense

B-4

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: B-4
2. BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES TO THE LEFT OF COLUMNS INDICATE DEPTH BELOW SURFACE AT BORING POINT.
5. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
6. BORING SAMPLE TAKEN 1/13/2020.
7. BORING CONTRACTOR NORTHERN DRILL SERVICE, INC..
8. BORING SAMPLES ARE STORED AT A STORAGE FACILITY LOCATED ON ROUTE 114 (219 WINTHROP AVE.) IN LAWRENCE, MA. THE CONTRACTOR MAY EXAMINE THE SOIL AND ROCK SAMPLES BY CONTACTING THE MASSDOT GEOTECHNICAL SECTION AT 10 PARK PLAZA, BOSTON MA

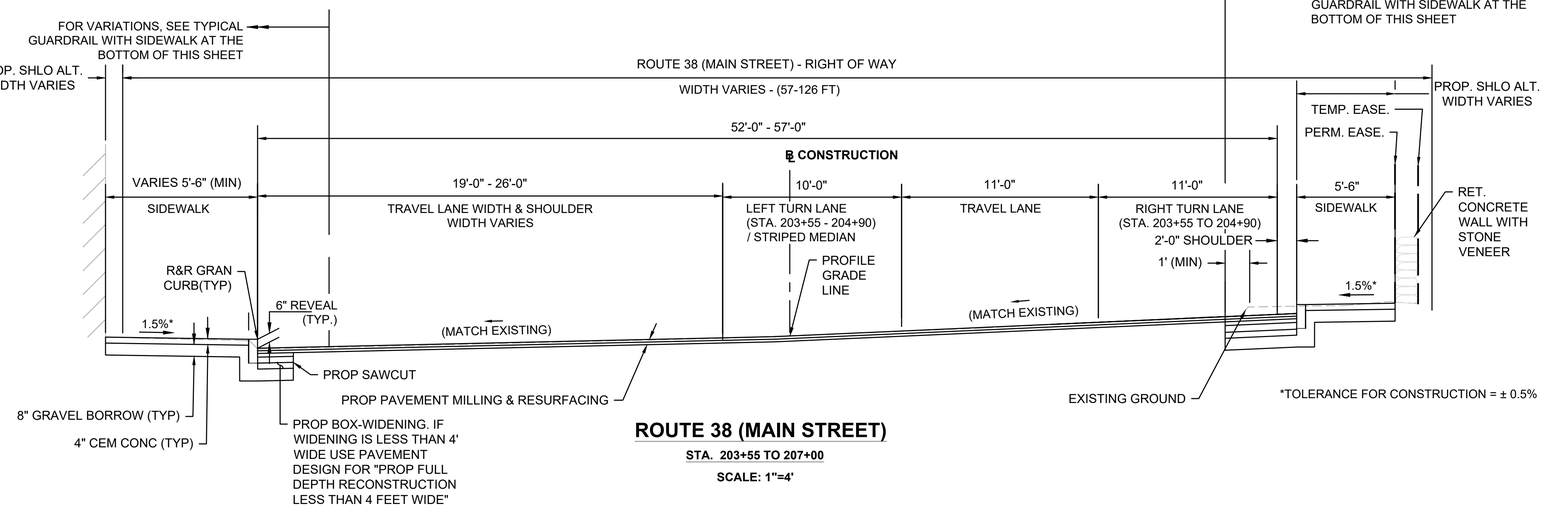


ROUTE 38 (MAIN STREET)

STA. 207+00 TO 211+60

SCALE: 1"=4'

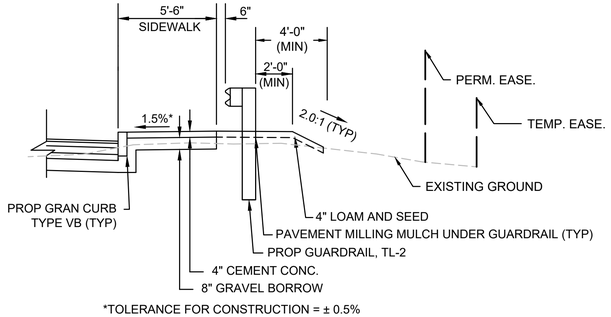
*TOLERANCE FOR CONSTRUCTION = ± 0.5%
** FROM STA 210+58 TO 211+60
***SUPERELEVATION FROM STA 206+65 TO 209+66 RT (SUPERELEVATED SIDE)
SEE GRADING PLANS FOR MORE DETAIL



ROUTE 38 (MAIN STREET)

STA. 203+55 TO 207+00

SCALE: 1"=4'



*TOLERANCE FOR CONSTRUCTION = ± 0.5%

TYPICAL GUARDRAIL WITH SIDEWALK

STA. 205+63 RT - 205+92 RT
STA. 206+12 LT - 206+21 LT
STA. 206+84 RT - 209+09 RT
STA. 253+24 RT - 253+54 RT
STA. 316+37 LT - 317+79 LT
STA. 317+94 LT - 318+64 LT

SCALE: 1"=4'

PAVEMENT NOTES

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	14	420
PROJECT FILE NO.	608051		

TYPICAL SECTIONS - 1

PROPOSED FULL DEPTH RECONSTRUCTION/BOX WIDENING OVER 4 FEET WIDE

SURFACE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER 1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 POLYMER (SIC-12.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER

INTERMEDIATE COURSE: 2.5" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER

BASE COURSE: 4.5" SUPERPAVE BASE COURSE 37.5 (SBC-37.5) PLACED IN ONE COURSE

SUBBASE: 4" DENSE GRADED CRUSHED STONE FOR SUBBASE (COMPACTED) OVER 8" GRAVEL BORROW (TYPE B)(COMPACTED)

PROPOSED BRIDGE PAVEMENT

SURFACE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER 4.25" SUPERPAVE INTERMEDIATE COURSE 12.5 POLYMER (SIC-12.5-P) (IN TWO LIFTS)

BASE COURSE: OVER SUPERPAVE BASE COURSE 37.5 (SBC-37.5)(DEPTH VARIES)

PROPOSED PAVEMENT MILLING & RESURFACING

SURFACE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER 1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 POLYMER (SIC-12.5-P) OVER

ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER MILLED SURFACE.

MILLING: 3.5" PAVEMENT FINE MILLING

PROPOSED MILLING & STRUCTURAL OVERLAY

SURFACE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER 1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 POLYMER (SIC-12.5-P) OVER

ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER MILLED SURFACE.

MILLING: 3" PAVEMENT FINE MILLING

PROPOSED FULL DEPTH RECONSTRUCTION LESS THAN 4 FEET WIDE

SURFACE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER 1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 POLYMER (SIC-12.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) OVER

BASE COURSE: 6" HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE OVER

SUBBASE: 8" GRAVEL BORROW (TYPE B)

PROPOSED TEMPORARY & PERMANENT TRENCH PATCHES

REFER TO THE CONSTRUCTION DETAILS

PROPOSED CEMENT CONCRETE WALK/ WHEELCHAIR RAMP

SURFACE: 4" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, 3/4", 610)

FOUNDATION: 8" GRAVEL BORROW (TYPE B)

PROPOSED HMA DRIVEWAY

SURFACE: 4" SUPERPAVE (1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER 2.5" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5))

SUBBASE: 8" GRAVEL BORROW (TYPE B)

PROPOSED HMA WALK SURFACE

SURFACE: 3" SUPERPAVE (1.25" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER 1.75" SUPER PAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5))

SUBBASE: 8" GRAVEL BORROW (TYPE B)

NOTE:

1. TACK COAT SHALL BE APPLIED BETWEEN PAVEMENT LAYERS AT A RATE PER THE LATEST MASSDOT STANDARD SPECIFICATION SUBSECTION 450.
2. TEMPORARY TRENCH PATCHES ARE PAID UNDER ITEM 472 TEMPORARY ASPHALT PATCHING.
3. THE SURFACE COURSE FOR EACH OF THE PAVEMENT SECTIONS SHALL BE PLACED IN ONE CONTINUOUS LAYER UNLESS OTHERWISE SPECIFIED.
4. FOR PEDESTRIAN CURB RAMP LOCATIONS AND LIMITS SEE CONSTRUCTION PLANS.
5. THE METHOD OF ROUNDING CUT AND FILL SLOPES FOR THE PROPOSED ROADWAY SHALL CONFORM TO MASSDOT STANDARD DETAIL 150.0.1
6. HMA JOINT SEALANT SHALL BE APPLIED TO ALL PAVEMENT JOINTS AND ALONG ADJOINING EDGES SUCH AS CURB AND CASTINGS PER MASSDOT STANDARD SPECIFICATION SUBSECTION 450.

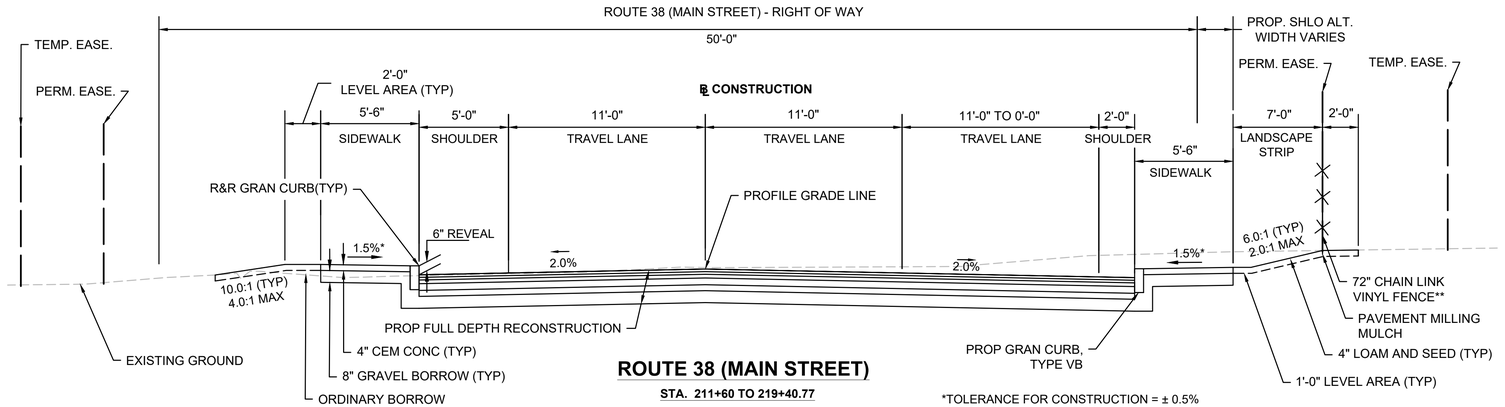
608051_HD05(TYPICAL SECTIONS).DWG Plotted on 2-Dec-2025 1:22 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	15	420
PROJECT FILE NO.	608051		

TYPICAL SECTIONS - 2

608051_HD05(TYPICAL SECTIONS).DWG Plotted on 2-Dec-2025 1:22 PM

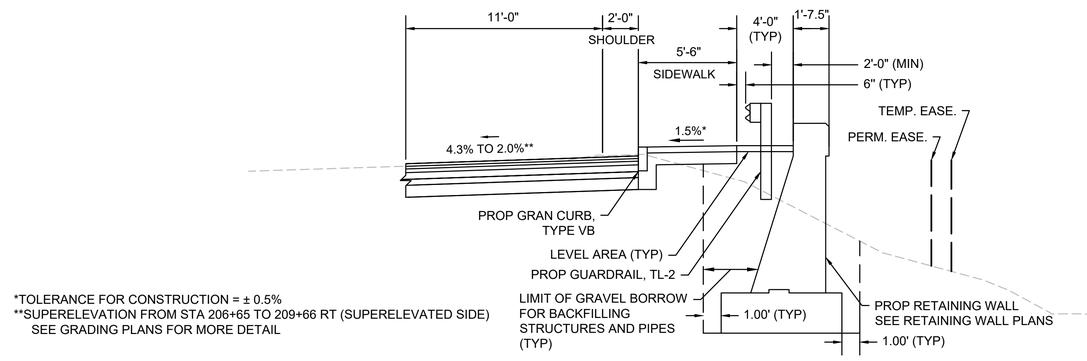


ROUTE 38 (MAIN STREET)

STA. 211+60 TO 219+40.77

SCALE: 1"=4'

*TOLERANCE FOR CONSTRUCTION = ± 0.5%
**FROM STA. 211+60 TO 218+35

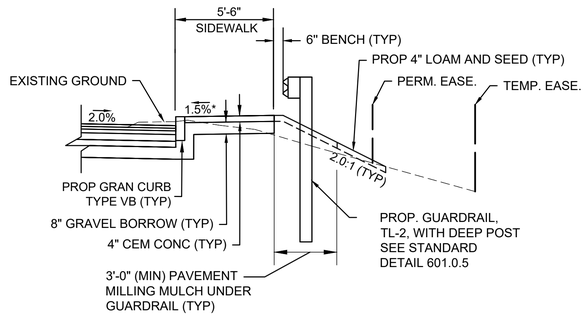


*TOLERANCE FOR CONSTRUCTION = ± 0.5%
**SUPERELEVATION FROM STA 206+65 TO 209+66 RT (SUPERELEVATED SIDE)
SEE GRADING PLANS FOR MORE DETAIL

ROUTE 38 (MAIN STREET)

STA. 207+22 TO 209+00

SCALE: 1"=4'



TYPICAL GUARDRAIL WITH DEEP POST AND SIDEWALK

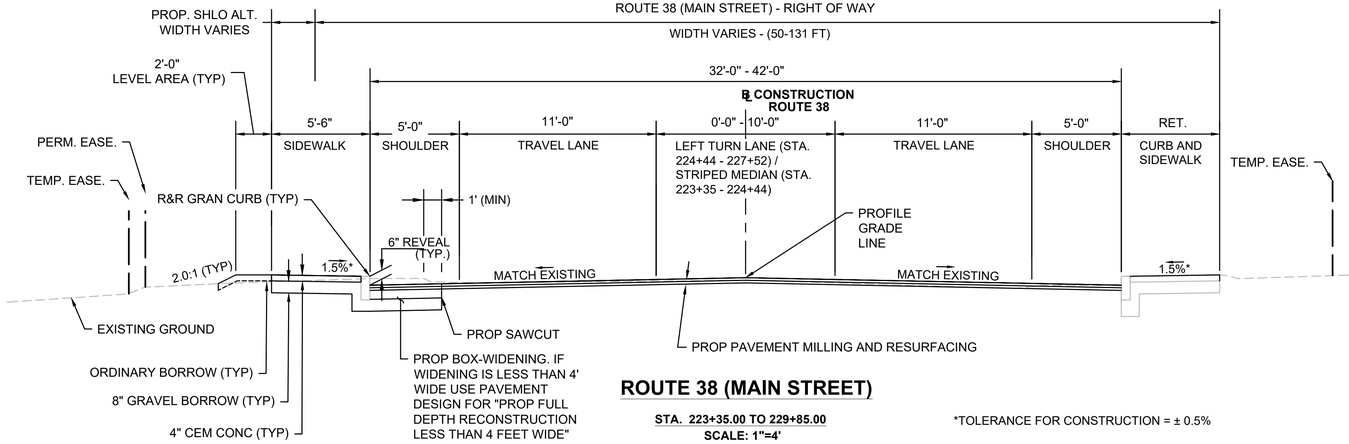
STA. 216+75 TO 218+34 RT
STA. 217+58 TO 218+47 LT
STA. 237+25 TO 241+39 RT
STA. 254+07 TO 257+92 RT
SCALE: 1"=4'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	16	420
PROJECT FILE NO.	608051		

TYPICAL SECTIONS - 3

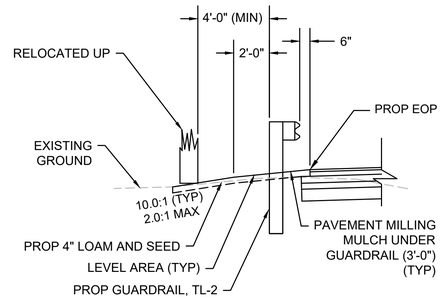
608051_HD05(TYPICAL SECTIONS).DWG Plotted on 2-Dec-2025 1:22 PM



ROUTE 38 (MAIN STREET)

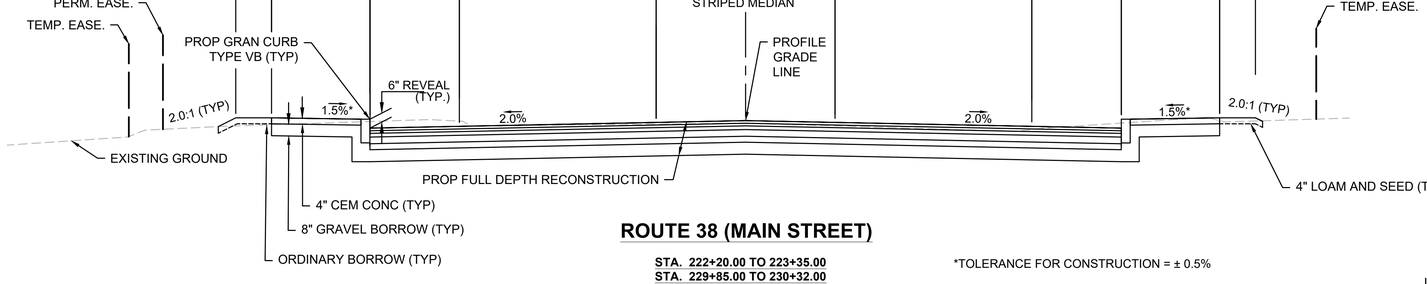
STA. 223+35.00 TO 229+85.00
SCALE: 1"=4'

*TOLERANCE FOR CONSTRUCTION = ± 0.5%



TYPICAL GUARDRAIL AT EOP

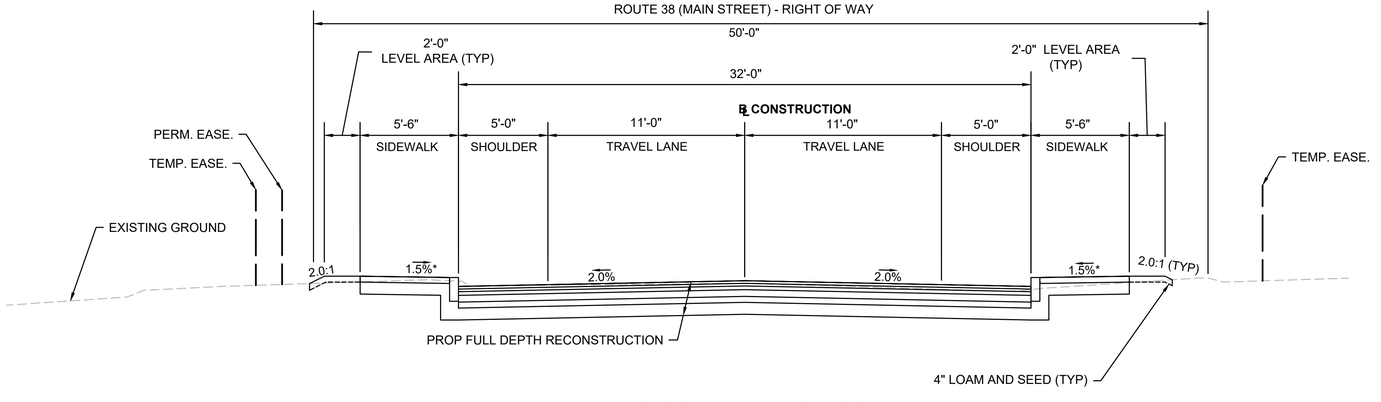
STA 248+24 TO 253+47 LT
STA 253+98 TO 255+50 LT
STA 260+14 TO 261+38 LT
SCALE: 1"=4'



ROUTE 38 (MAIN STREET)

STA. 222+20.00 TO 223+35.00
STA. 229+85.00 TO 230+32.00
STA. 238+50.00 TO 245+00.00
SCALE: 1"=4'

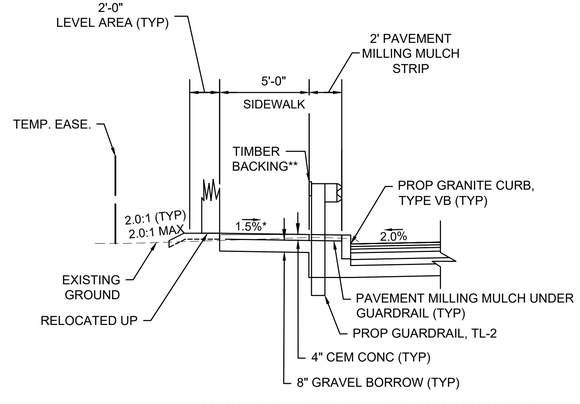
*TOLERANCE FOR CONSTRUCTION = ± 0.5%



ROUTE 38 (MAIN STREET)

STA. 219+40.77 TO 222+20.00
STA. 230+32.00 TO 238+50.00
STA. 245+00.00 TO 248+18.00
SCALE: 1"=4'

*TOLERANCE FOR CONSTRUCTION = ± 0.5%



**SEE MASSDOT CONSTRUCTION STANDARD DETAILS 601.0.4

TYPICAL GUARDRAIL AT FACE OF CURB

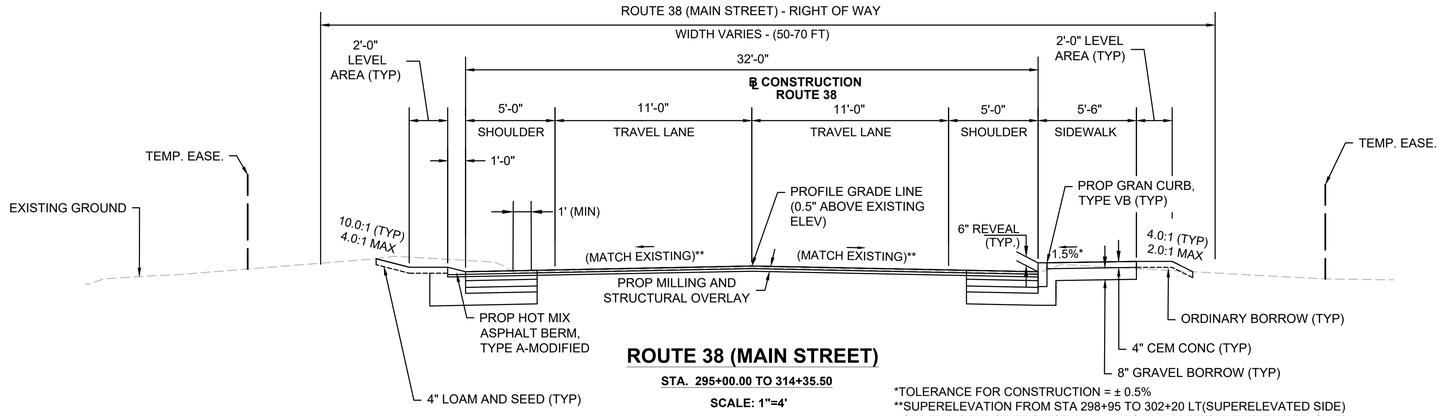
STA. 236+36 TO 238+83 LT
STA. 239+16 TO 240+69 LT
STA. 274+80 TO 276+14 RT
SCALE: 1"=4'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	17	420
PROJECT FILE NO.	608051		

TYPICAL SECTIONS - 4

608051_HD05(TYPICAL SECTIONS).DWG Plotted on 2-Dec-2025 1:22 PM

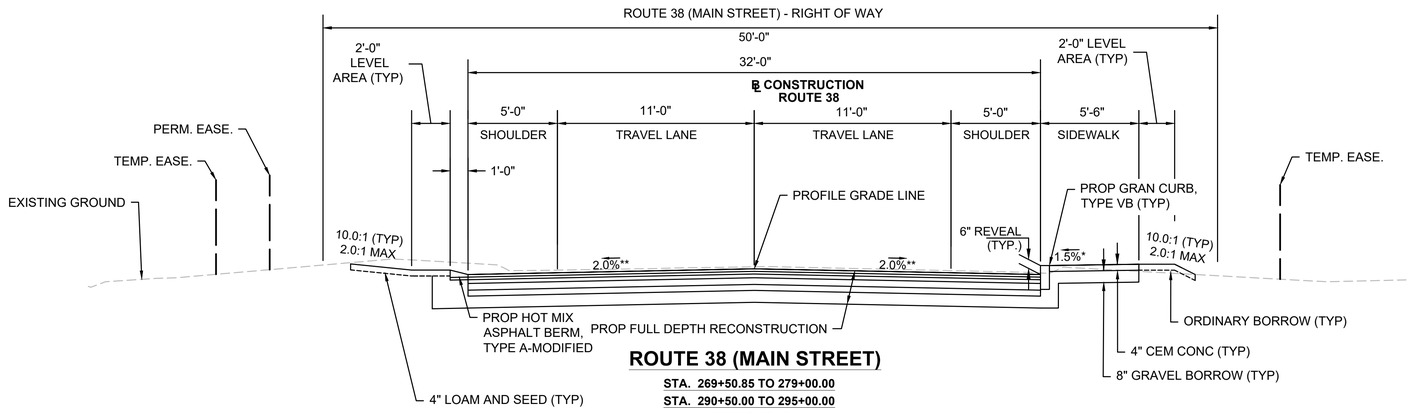


ROUTE 38 (MAIN STREET)

STA. 295+00.00 TO 314+35.50

SCALE: 1"=4'

*TOLERANCE FOR CONSTRUCTION = ± 0.5%
**SUPERELEVATION FROM STA 298+95 TO 302+20 LT(SUPERELEVATED SIDE)
SUPERELEVATION FROM STA 304+75 TO 312+20 RT(SUPERELEVATED SIDE)

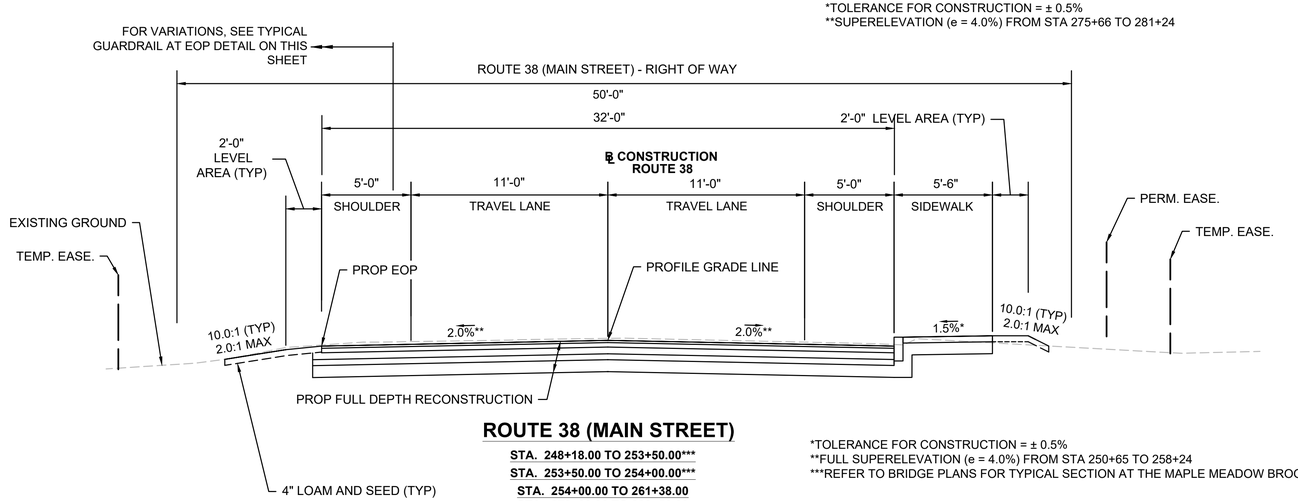


ROUTE 38 (MAIN STREET)

STA. 269+50.85 TO 279+00.00
STA. 290+00.00 TO 295+00.00

SCALE: 1"=4'

*TOLERANCE FOR CONSTRUCTION = ± 0.5%
**SUPERELEVATION (e = 4.0%) FROM STA 275+66 TO 281+24

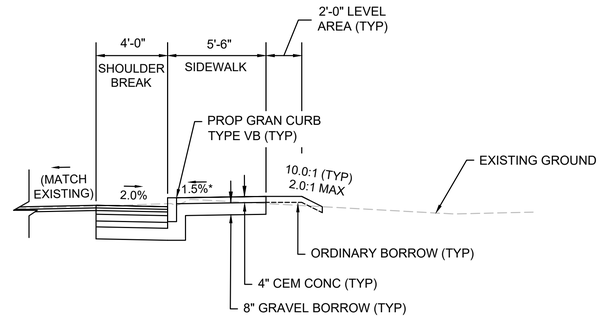


ROUTE 38 (MAIN STREET)

STA. 248+18.00 TO 253+50.00***
STA. 253+50.00 TO 254+00.00***
STA. 254+00.00 TO 261+38.00
STA. 279+00.00 TO 290+50.00

SCALE: 1"=4'

*TOLERANCE FOR CONSTRUCTION = ± 0.5%
**FULL SUPERELEVATION (e = 4.0%) FROM STA 250+65 TO 258+24
***REFER TO BRIDGE PLANS FOR TYPICAL SECTION AT THE MAPLE MEADOW BROOK BRIDGE



TYPICAL SHOULDER BREAK IN SUPERELEVATED SECTION

STA 298+95 TO 302+20 LT (NO SIDEWALK)
STA 302+75 TO 312+20 RT
STA 313+90 TO 318+70 LT

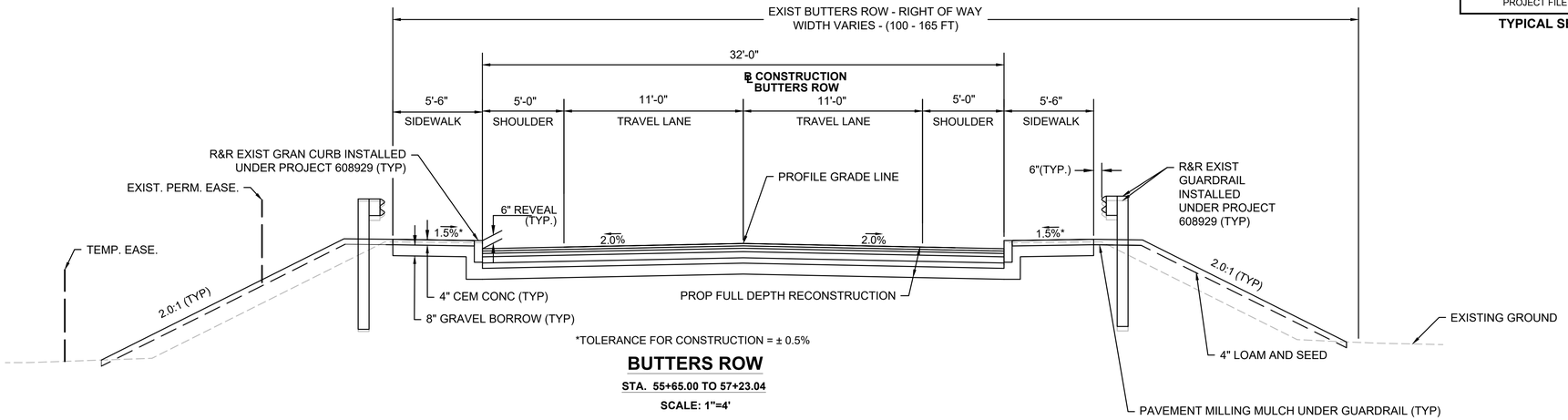
SCALE: 1"=4'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	18	420
PROJECT FILE NO.	608051		

TYPICAL SECTIONS - 5

608051_HD05(TYPICAL SECTIONS).DWG Plotted on 2-Dec-2025 1:22 PM

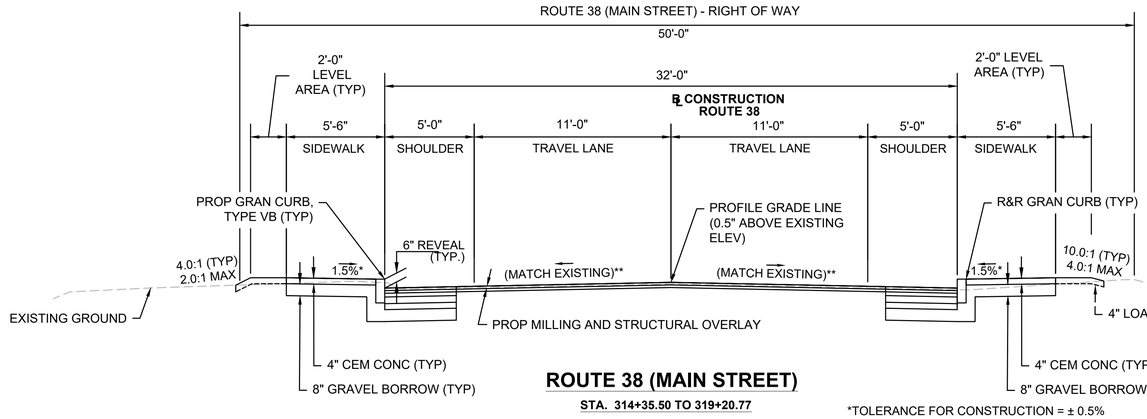


*TOLERANCE FOR CONSTRUCTION = ± 0.5%

BUTTERS ROW

STA. 55+65.00 TO 57+23.04

SCALE: 1"=4'

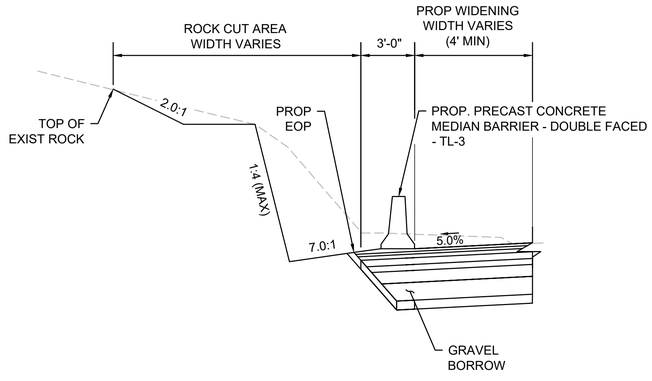


ROUTE 38 (MAIN STREET)

STA. 314+35.50 TO 319+20.77

SCALE: 1"=4'

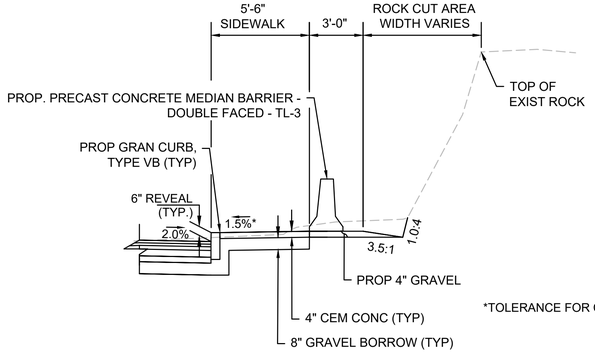
*TOLERANCE FOR CONSTRUCTION = ± 0.5%
**SUPERELEVATION FROM STA 313+90 TO 318+70 LT(SUPERELEVATED SIDE)



TYPICAL ROCK CUT SELECTION LEFT

STA. 306+65 TO 309+40 LT

SCALE: 1"=4'



*TOLERANCE FOR CONSTRUCTION = ± 0.5%

TYPICAL ROCK CUT SELECTION RIGHT

STA. 308+20 TO 309+30 RT

SCALE: 1"=4'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	19	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 1

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:24 PM

HIGHWAY GUARD DETAILS

STA. 206+11 LT - STA. 206+12 LT TRAILING ANCHORAGE
STA. 206+12 LT - STA. 206+21 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 206+21 LT - STA. 206+22 LT TRAILING ANCHORAGE
STA. 206+34 LT - STA. 206+35 LT TRAILING ANCHORAGE
STA. 206+84 RT - STA. 207+18 RT TRANSITION TO NCRHP 350 GUARDRAIL
STA. 207+18 RT - STA. 209+00 RT GUARDRAIL, TL-2 (SINGLE FACED)

TRAFFIC SIGNAL CONDUIT

SEE SHEET 175

WATER SUPPLY ALTERATIONS

SEE SHEET 114

DRAINAGE DETAILS

SEE SHEET 93

BEGIN PROJECT
STA. 203+55.00
MEET EXISTING
N3024552.8585
E744023.6687

PROP SAWCUT & MATCH EXISTING

LOUIS VALENTI
PARCEL ID 42-20
BOOK 15294 PAGE 161
424 MAIN ST

414-418 MAIN STREET
REALTY TRUST
PARCEL ID 42-19
BOOK 21033 PAGE 248
414-418 MAIN ST

2 STORY VINYL

1923 STATE HIGHWAY
LAYOUT LOCATION LINE
(NO. 2122)

MAIN STREET (ROUTE 38)

CONTINUED BELOW

203
(PUBLIC - 1923 STATE HIGHWAY LAYOUT-1997 ALTERATION)

S 26° 04' 58" E 457.68'

204

PC +57.68

PROP PAVEMENT FINE MILLING & RESURFACING

PROP BOX-WIDENING (TYP)

PROP SAWCUT (TYP)

R&R GRAN CURB (TYP)

1997 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 7255)

MEET EXISTING

MASS BAY TRANSIT AUTHORITY
BOOK 10373 PAGE 276
PARCEL ID 42-22
375 MAIN ST

R&D EXIST CURB CORNER (TYP)

PROP TEMP EASEMENT (TYP)

PROP SAWCUT (TYP)

PROP TAKING (TYP)

PROP HMA DWY (TYP)

PROP CEM CONC SW AT DWY

PARTEL MANAGEMENT, LLC
PARCEL ID 42-22-F
BOOK 31258 PAGE 98
433 MAIN ST

PROP 6.0' CEM CONC SW (TYP)

R&D EXISTING SW

RET EXIST RETAINING WALL

REM CONTROL CABINET

REM PED

205

Δ=3° 54' 06"
L=91.93' R=1350.00'

PT +49.62

PROP GRAN CURB TYPE VB

R&D EXIST CURVED GRAN CURB

6'-0"

CHURCH STREET
(1901 COUNTY LAYOUT - 60' WIDE)

LOCATION LINE OF 1901 COUNTY LAYOUT

MACMULLIN FAMILY
REALTY TRUST III
PARCEL ID 42-21
BOOK 27960 PAGE 33
428-438 MAIN ST

MEET EXISTING

PROP TAKING

PROP CEM CONC PCR (TYP)

MEET EXISTING

RET EXISTING SW

RET EXIST CURB

R&R CURB

PROP CEM CONC SW WIDTH VARIES (5.5' MIN) (TYP)

LIMIT OF WORK
END FINE PAVEMENT MILLING AND RESURFACING
STA. 12+28.00

1 CHURCH STREET
REALTY TRUST
PARCEL ID 41-110
BOOK 24436 PAGE 46
1 CHURCH ST

STEDMAN 442, LLC
PARCEL ID 41-111
BOOK 22652 PAGE 51
442 MAIN ST

MEET EXISTING

STA. 205+99.90 ROUTE 38 (MAIN STREET) ℄ =
STA 20+00.00 BURLINGTON AVENUE ℄

R&D EXIST GUARDRAIL

R&R SB

STA. 206+08.29 ROUTE 38 (MAIN STREET) ℄ =
STA 10+00.00 CHURCH STREET ℄

PROP GUARDRAIL

R&R SB

REM STRAIN POLE (RET)

R&D EXIST SIDEWALK

PROP LOAM & SEED

RET EXIST GUARDRAIL

R&R GRAN CURB (TYP)

S 22° 10' 52" E 122.39'

206

PC +72.00

207

PROP ROUTE 38 CONST BL

PROP SPAN WIRE

S 41° 15' 15" W 68.32'

PC +68.32

21

PROP. SAWCUT (TYP.)

PROP SAWCUT & MATCH EXISTING

REM STRAIN POLE

R&R EXIST GUARDRAIL

MEET EXISTING

RAILROAD SIDELINE

LIMIT OF WORK
END PAVEMENT MILLING AND RESURFACING
STA. 20+58.00

MASSACHUSETTS BAY TRANSIT AUTHORITY
BOOK 13117 PAGE 113
PARCEL ID 42-22
375 MAIN ST

1997 ALTERATION LOCATION LINE OF SHLD NO. 7255

BURLINGTON AVENUE
(PUBLIC - 1997 ALTERATION)

Δ=10° 42' 43"
L=177.96' R=951.90'
BRIDGE ID W-38-004 (2NU)

COMMONWEALTH OF MASSACHUSETTS
1997 ALTERATION LINE OF SHLD NO. 7255

END PAVEMENT FINE MILLING & RESURFACING

BEGIN PROP FULL DEPTH RECONSTRUCTION
STA. 207+00.00

C & B
REALTY TRUST
PARCEL ID 41-112
BOOK 10882 PAGE 295
446 MAIN ST

PROP CEM CONC SW - WIDTH VARIES (5.5' MIN)

PROP PERM EASEMENT (TYP)

PROP TEMP EASEMENT (TYP)

PROP HMA DWY (TYP)

PROP SAWCUT (TYP)

PROP CEM CONC SW AT DWY

456 MAIN STREET
REALTY TRUST
PARCEL ID 41-113
BOOK 23689 PAGE 3
456 MAIN ST

3' WIDE PASSAGEWAY
BOOK 10882 PAGE 295

RIGHT OF WAY
BOOK 1675 PAGE 60

CONC PAD
2 STORY VINYL

ADJ-BO
L=288.55' R=800.00'
Δ=20° 39' 57"
208

PROP FULL DEPTH RECONSTRUCTION

95.0'

CONTINUED ON SHEET NO. 20

R&D BIT BERM (TYP)

PROP LOAM & SEED (TYP)

PROP TEMP EASEMENT (TYP)

PROP WALL STRUCTURE NO.1
(SEE RETAINING WALL DETAILS ON SHEETS 229 - 231)

TOWN OF READING
PARCEL ID 41-142
BOOK 1675 PAGE 178
435 MAIN ST

PROP GUARDRAIL

RTN 3-21846

MASSACHUSETTS BAY TRANSIT AUTHORITY
BOOK 13117 PAGE 113
PARCEL ID 41-141

PROP SLOPE LIMIT (TYP)

R&D EXISTING GUARDRAIL

PROP CLEARING & GRUBBING

RAILROAD ROW

RET CONC WALL

R&D EXIST SW

PROP CEM CONC PCR (TYP)

PROP TAKING

MEET EXISTING

CONTINUED ABOVE

MAIN STREET (ROUTE 38)

200+00
201
202

(PUBLIC - 1923 STATE HIGHWAY LAYOUT-1997 ALTERATION)

0 20 50 100
SCALE: 1" = 20'

FOR PROFILE:
SEE SHEET NO. 40

HIGHWAY GUARD DETAILS

STA. 206+84 RT - STA. 207+18 RT TRANSITION TO NCRHP 350 GUARDRAIL
STA. 207+18 RT - STA. 209+00 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 209+00 RT - STA. 209+09 RT TRAILING ANCHORAGE

TRAFFIC SIGNAL CONDUIT

N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 115

DRAINAGE DETAILS

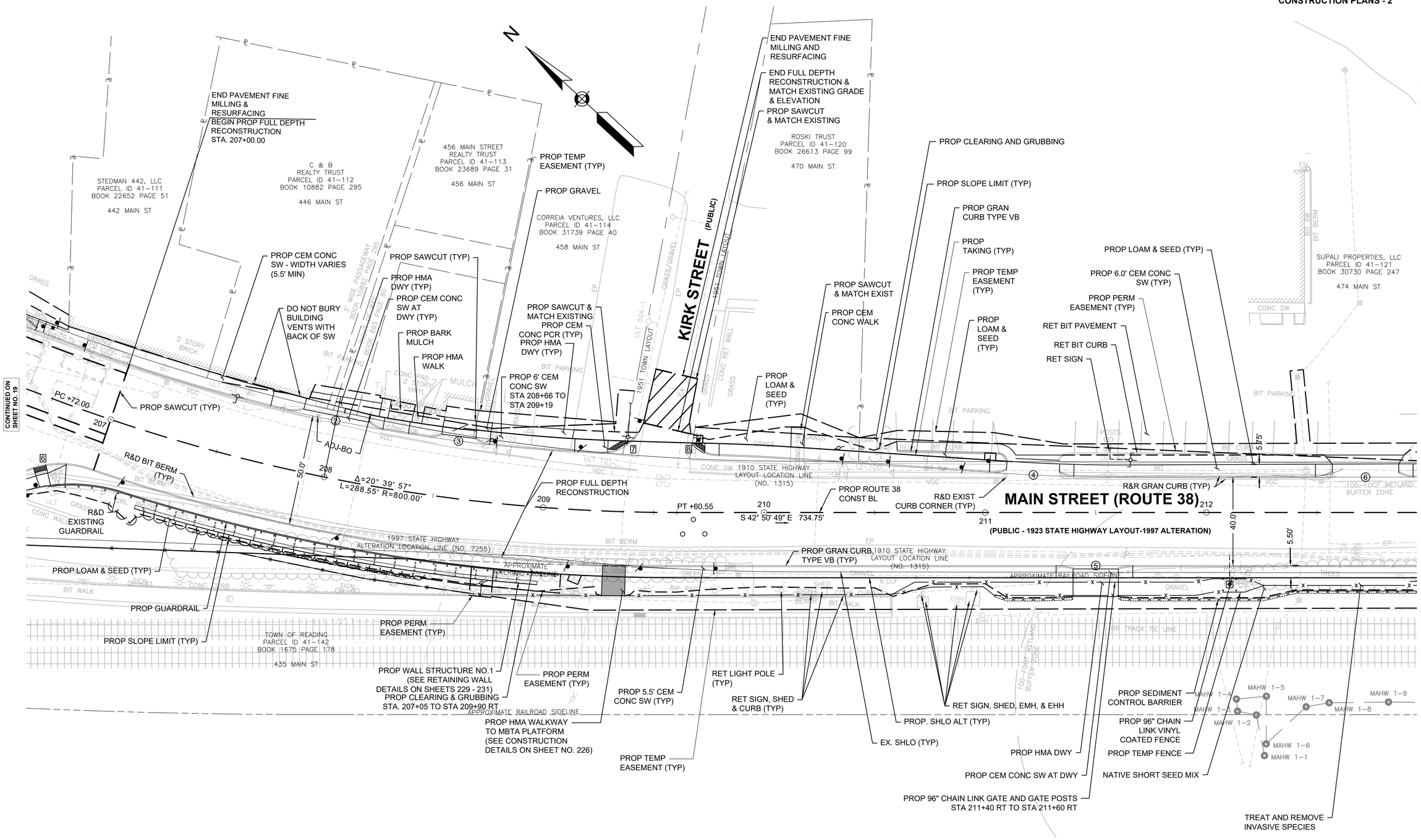
SEE SHEET 94

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	20	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PLANS - 2

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:24 PM



FOR PROFILE:
SEE SHEET NO. 41

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	21	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 3

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:24 PM

HIGHWAY GUARD DETAILS

STA. 216+75 RT - STA. 217+12 RT GUARDRAIL TANGENT END TREATMENT, TL-2
STA. 217+12 RT - STA. 218+25 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 218+25 RT - STA. 218+34 RT TRAILING ANCHORAGE
STA. 217+58 LT - STA. 217+68 LT TRAILING ANCHORAGE
STA. 217+68 LT - STA. 218+22 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 218+22 LT - STA. 218+47 LT GUARDRAIL TANGENT END TREATMENT, TL-2

TRAFFIC SIGNAL CONDUIT

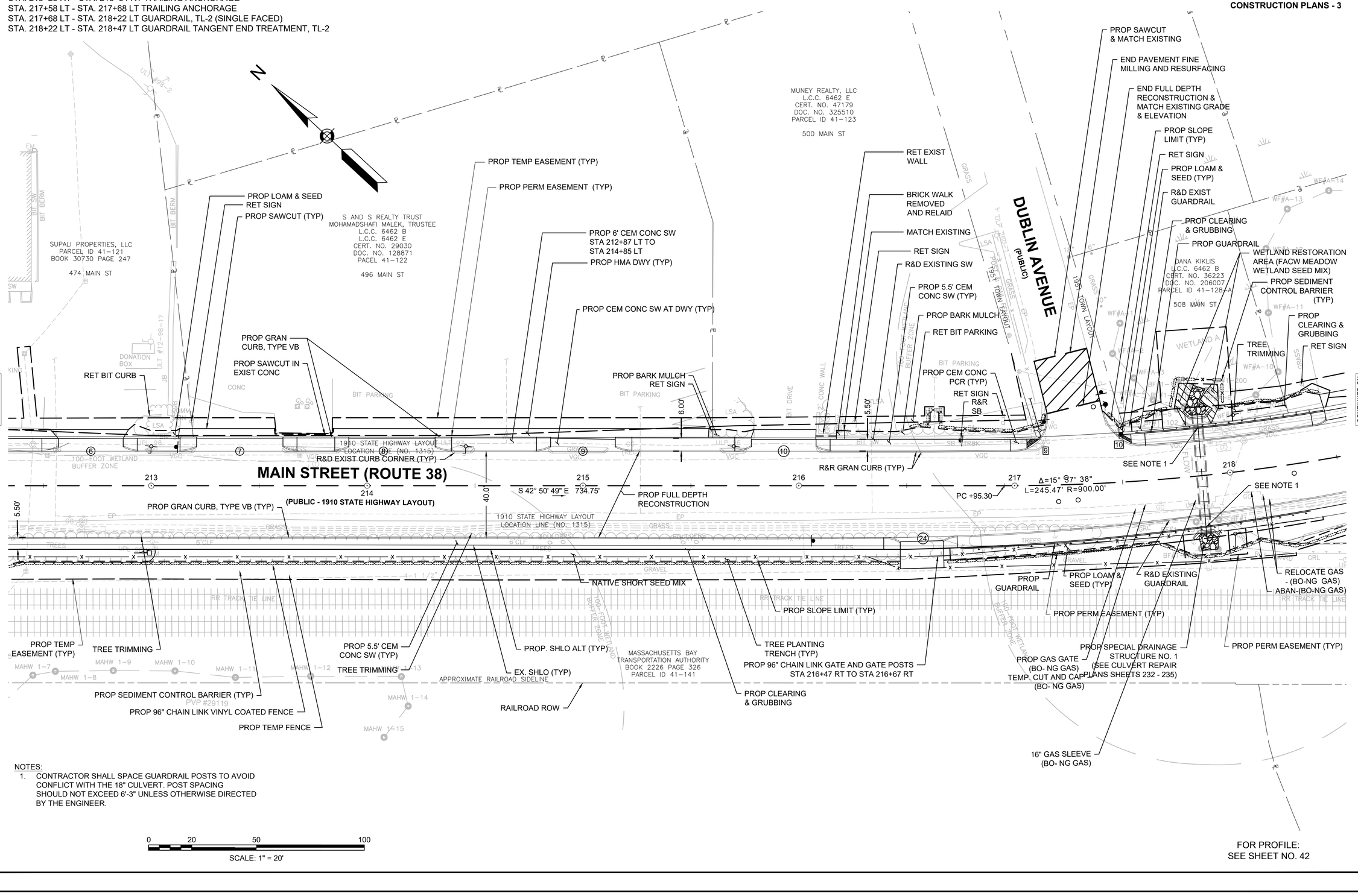
N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 116

DRAINAGE DETAILS

SEE SHEET 95



NOTES:
1. CONTRACTOR SHALL SPACE GUARDRAIL POSTS TO AVOID CONFLICT WITH THE 18" CULVERT. POST SPACING SHOULD NOT EXCEED 6'-3" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

0 20 50 100
SCALE: 1" = 20'

FOR PROFILE:
SEE SHEET NO. 42

HIGHWAY GUARD DETAILS

STA. 217+12 RT - STA. 218+25 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 218+25 RT - STA. 218+34 RT TRAILING ANCHORAGE
STA. 217+68 LT - STA. 218+22 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 218+22 LT - STA. 218+47 LT GUARDRAIL TANGENT END TREATMENT, TL-2

TRAFFIC SIGNAL CONDUIT

N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 117

DRAINAGE DETAILS

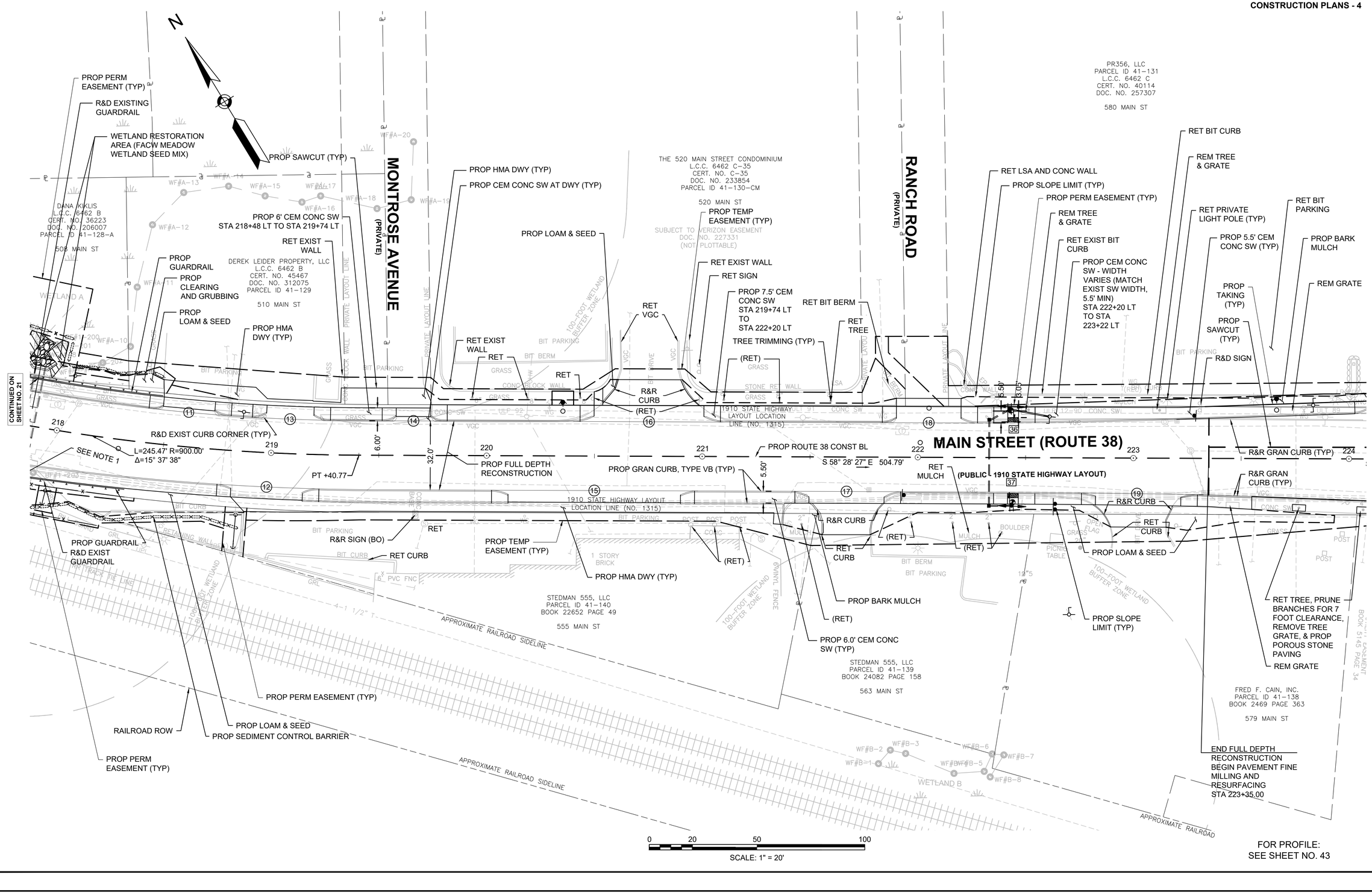
SEE SHEET 96

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	22	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 4

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:24 PM



FOR PROFILE: SEE SHEET NO. 43

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	23	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 5

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	SEE SHEET 177	SEE SHEET 118	SEE SHEET 97

CONTINUED ON SHEET NO. 22

CONTINUED ON SHEET NO. 24

N

KIERNAN AVENUE (PUBLIC)

1955 TOWN LAYOUT

1958 TOWN LAYOUT

MEET EXISTING

PROP TEMP EASEMENT (TYP)

PROP PERM EASEMENT (TYP)

PROP SLOPE LIMIT (TYP)

PROP HMA

PROP 6.0' CEM CONC SW (TYP)

3" REVEAL

R&D EXIST BIT CURB

TREE TRIMMING (TYP)

(REM)

REM TREE & GRATE

RET PRIVATE LIGHT POLE

R&R GRAN CURB (TYP)

PROP BARK MULCH

R&R PAVER WALK

PROP SAWCUT (TYP)

R&D TIMBER CURB

PROP TEMP EASEMENT (TYP)

PROP SAWCUT (TYP)

PROP TAKING (TYP)

PROP CEM CONC SW AT DWY (TYP)

PROP HMA DWY (TYP)

RET EXIST BIT CURB

RET EXIST CONC WALL

RET PRIVATE LIGHT POLE

REM GRATE

PATRICIA A. SULLIVAN, TRUSTEE OF THE PATRICIA A. SULLIVAN REVOCABLE TRUST L.C.C. 6462 B CERT. NO. 45142 DOC. NO. 308372 PARCEL ID 41–132 600 MAIN ST

TOWN OF WILMINGTON PARCEL ID 41–136 LAND COURT CASE NO. 6462 600 MAIN ST

ONE LOWELL STREET REALTY, LLC BOOK 33724 PAGE 207 PARCEL ID 41–137–A

2 LOWELL ST

END PAVEMENT FINE MILLING AND RESURFACING

PROP SAWCUT & MATCH EXISTING

RET CURB

MEET EXISTING

(RET)

RTN 3-3548

MEET EXISTING

RET TRAFFIC SIGNAL

RET MAST ARM

RET TRAFFIC CONTROL BOX

1950 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 3755)

PROP BARK MULCH

(RET)

PROP SAWCUT & MATCH EXISTING

LIMIT OF WORK
END PAVEMENT FINE MILLING & RESURFACING
STA. 31+10.00

LOCATION LINE OF 1951 COUNTY LAYOUT

PRC +02.47

LOWELL STREET (ROUTE 129)

Δ=11° 53' 25"
L=364.20' R=1755.00'

(1950 COUNTY LAYOUT - VARIABLE WIDTH)

Δ=8° 05' 09" R=348.00'
L=57.04'

PROP TAKING ON BEHALF OF THE TOWN OF WILMINGTON

RET PRIVATE LIGHT POLE

PROP TEMP EASEMENT (TYP)

RET BERM

RET SIGN

PC +45.44

MAIN STREET (ROUTE 38)

Δ=13° 37' 04"
L=237.68' R=1000.00'

PC +45.56

S 58° 28' 27" E 504.79'

PROP FINE MILLING AND RESURFACING

RET EXIST GRAN CURB 223+50.00 - 226+31.50 RT

(PUBLIC - 1910 STATE HIGHWAY LAYOUT-1950 ALTERATION)

1910 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 1315)

PT +83.23

RET GRAN CURB 226+37.50 - 227+55.50

R&R GRAN CURB (TYP)
PROP BOX-WIDENING (TYP)

REM EXIST SCORED CONC STA 30+41 TO 30+45 REPLACE WITH PERM TRENCH PATCH

S 44° 51' 23" E 1523.01'

PROP ROUTE 38 CONST BL

MEET EXISTING

N 45° 05' 06" E 45.44'

RET EXIST GRAN CURB 227+75 - 229+25 RT

REM GRATE

PROP 6.0' CEM CONC SW & MEET EXISTING

RET SIGN

PROP GRAN CURB TYPE VB (TYP)

PROP BOLLARD

PROP TEMP EASEMENT (TYP)

ADJ PULL BOX

MEET EXISTING

PROP GRAN CURB, TYPE VB (TYP.)

PROP CEM CONC PCR

PROP HMA DRIVEWAY

PROP SAWCUT & MATCH EXIST

PROP TEMP PATCH (REFER TO DRAIN DETAIL)

R&R GRANITE CURB (TYP)

PROP TEMP EASEMENT (TYP)

REM GRATE, RECONSTRUCT CEM CONC SIDEWALK PANEL MEETING EXISTING CEM CONC SW ON EITHER SIDE

RET EXIST SIDEWALK

PROP CEM CONC DRIVEWAY

R&R GRAN CURB

PROP 6.0' CEM CONC SW & MEET EXISTING

APPROXIMATE BIT LOCATION OF RIGHT OF WAY

10' WIDE RIGHT OF WAY PLAN BK 113 PG 92

R&R GRAN CURB (TYP)

PROP TEMP EASEMENT (TYP)

REM GRATE

RET TREE & REMOVE TREE GRATE - PROP POROUS STONE PAVING

TOWN OF WILMINGTON UTILITY EASEMENT BOOK 5145 PAGE 34

TOWN OF WILMINGTON DRAINAGE EASEMENT (BOOK 17005, PAGE 65)

STA. 228+22.82 ROUTE 38 (MAIN STREET) B = STA 30+00.00 ROUTE 129 (LOWELL STREET) B

PROP TEMP EASEMENT (TYP)

FRED F. CAIN, INC. PARCEL ID 41–138 BOOK 2469 PAGE 363 579 MAIN ST

TARANTO REALTY TRUST PARCEL ID 41–138–B BOOK 18317 PAGE 280 581 MAIN ST

TARANTO REALTY TRUST PARCEL ID 41–138–C BOOK 21859 PAGE 293 585 MAIN ST

EVONA, LLC PARCEL ID 41–138–A BOOK 24618 PAGE 150 603 MAIN ST

609 MAIN STREET NOMINEE TRUST PARCEL ID 40–4 BOOK 24253 PAGE 297 609 MAIN ST

611 MAIN STREET NOMINEE TRUST PARCEL ID 40–3 BOOK 24254 PAGE 8 611 MAIN ST

0 20 50 100

SCALE: 1" = 20'

FOR PROFILE: SEE SHEET NO. 44

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:25 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	24	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 6

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:25 PM

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	N/A	SEE SHEET 119	SEE SHEET 98

CONTINUED ON SHEET NO. 24

CONTINUED ON SHEET NO.26

PROP HMA DWY (TYP)
PROP CEM CONC SW AT DWY (TYP)
PROP SAWCUT (TYP)
PROP HMA BERM, TYPE A-MODIFIED SEE DETAIL ON SHEET 226
R&S BOULDERS (TYP)
PROP TEMP EASEMENT (TYP)
PROP SLOPE LIMIT (TYP)
PROP LOAM & SEED
PROP 6' CEM CONC SW STA 231+75 LT TO STA 236+33.50 LT
RET EXIST BIT BERM
PROP HMA BERM, TYPE A-MODIFIED SEE DETAIL ON SHEET 226
R&S BOULDERS (TYP)
PROP GRAVEL
RET PRIVATE LIGHT POLE
PROP 6' CEM CONC SW STA 229+41 LT TO STA 229+85 LT
PROP PERM EASEMENT (TYP)
SUBJECT TO VERIZON EASEMENT BOOK 11541 PAGE 327 (NOT PLOTTABLE)
PROP BARK MULCH
RET EXIST BIT BERM
GTY MA/NH LEASING, INC. PARCEL ID 40–5 BOOK 24895 PAGE 204
586 MAIN ST
PROP CEM CONC SW - WIDTH VARIES (MATCH EXISTING BACK OF SW LIMIT, 5.5' MIN) STA 229+85 LT TO STA 231+75 LT
RET EXIST BIT BERM
PROP BARK MULCH
COLONIAL PARK MALL CONDOMINIUM PARCEL ID 40–6–A L.C.C. 29466 B CERT. NO. C–20 DOC. NO. 120308
25 LOWELL ST
RET EXIST BIT BERM
PROP HMA BERM, TYPE A-MODIFIED SEE DETAIL ON SHEET 226
PROP GRAVEL
GEORGE KAMOUZIS AND WILLIAM KAMOUZIS, TRUSTEES OF GLOBE REALTY TRUST PARCEL ID 40–6 L.C.C. 29466 B CERT. NO. 34101 DOC. NO. 181185
35 LOWELL ST
PROP PERM EASEMENT (TYP)
100–FOOT WETLAND BUFFER ZONE
RET EXIST BIT BERM
PROP GRAN CURB, TYPE VB (TYP)
R&D EXIST BIT BERM
1910 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 1315)
R&D EXIST BIT BERM
PROP FULL DEPTH RECONSTRUCTION
R&D EXIST BIT BERM (TYP)
PROP CURB COVER AT EXIST TMH SEE DETAIL ON SHEET226

MAIN STREET (ROUTE 38)

(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

S 44° 51' 23" E 1523.01'

3" REVEAL
PROP GRAN CURB, TYPE VB (TYP)

PROP ROUTE 38 CONST BL

230 231 232 233 234 235

32.0'

6.00'

5.50'

PROP BOLLARD
PROP SAWCUT (TYP)
RET TREES
RET TREE
RET PRIVATE LIGHT POLE
REM POSTS
RET BOULDER
PROP 6.0' CEM CONC SW (TYP)
END PAVEMENT FINE MILLING & RESURFACING BEING FULL DEPTH RECONSTRUCTION STA 229+95.00
RET SIGN
RET ROCKS (TYP)
PROP CEM CONC SW AT DWY (TYP)
PROP HMA DWY (TYP)
PROP SAWCUT (TYP)
PROP TEMP EASEMENT (TYP)
RET EXIST CONC CURB
PROP LOAM & SEED (TYP)
PROP SLOPE LIMIT (TYP)
RET EXIST SIDEWALK

ACCESS EASEMENT BOOK 2517 PAGE 128
DRIVEWAY EASEMENT BOOK 34278 PAGE 198
SIGN EASEMENT BOOK 34278 PAGE 198

REET
UST
0–3
PAGE 8
ST

615 MAIN STREET NOMINEE TRUST
AKA THE 615 MAIN STREET NOMINEE TRUST
PARCEL ID 40–2–C
BOOK 24254 PAGE 17
615 MAIN ST

WILMINGTON PROPERTY MANAGEMENT LLC
PARCEL ID 40–2–B
BOOK 37684 PAGE 48
619 MAIN ST

MMJMJ LLC
BOOK 36016 PAGE 250
PARCEL ID 40–2–A
625 MAIN ST

635 MAIN STREET OWNER LLC
AKA 635 MAIN STREET OWNER, LLC
BOOK 34786 PAGE 182
PARCEL ID 40–1
635 MAIN ST

0 20 50 100
SCALE: 1" = 20'

FOR PROFILE: SEE SHEET NO. 45

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	25	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 7

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:25 PM

HIGHWAY GUARD DETAILS

STA. 237+26 RT - STA. 237+63 RT GUARDRAIL TANGENT END TREATMENT, TL-2
STA. 237+63 RT - STA. 240+91 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 236+36 LT - STA. 236+45 LT TRAILING ANCHORAGE
STA. 236+45 LT - STA. 238+46 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 238+46 LT - STA. 238+83 LT GUARDRAIL TANGENT END TREATMENT, TL-2
STA. 239+16 LT - STA. 239+25 LT TRAILING ANCHORAGE
STA. 239+25 LT - STA. 240+31 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 240+31 LT - STA. 240+69 LT GUARDRAIL TANGENT END TREATMENT, TL-2

RUMBLE STRIP DETAILS

STA. 235+70 - STA. 241+12 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL

TRAFFIC SIGNAL CONDUIT

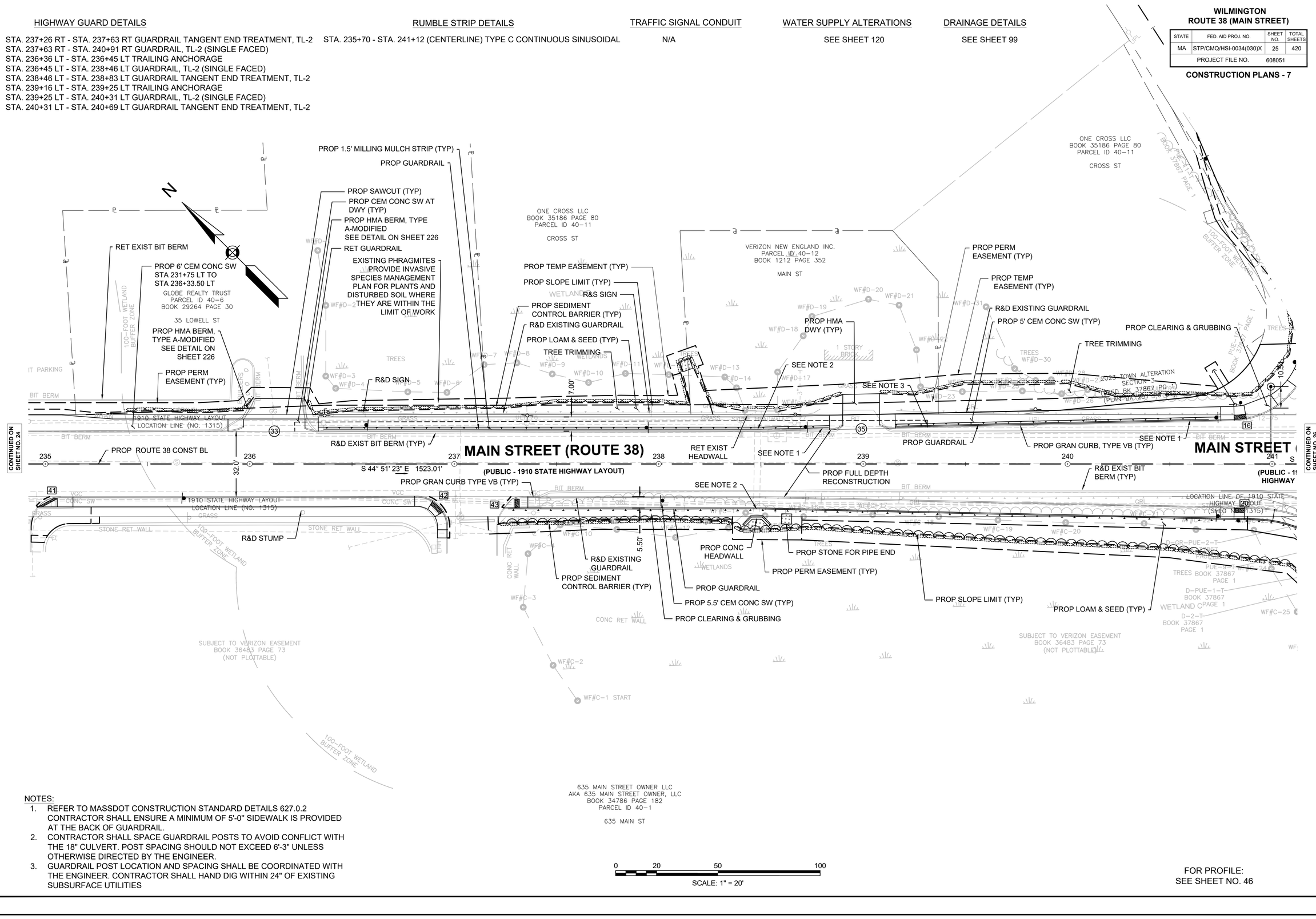
N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 120

DRAINAGE DETAILS

SEE SHEET 99



NOTES:

1. REFER TO MASSDOT CONSTRUCTION STANDARD DETAILS 627.0.2 CONTRACTOR SHALL ENSURE A MINIMUM OF 5'-0" SIDEWALK IS PROVIDED AT THE BACK OF GUARDRAIL.
2. CONTRACTOR SHALL SPACE GUARDRAIL POSTS TO AVOID CONFLICT WITH THE 18" CULVERT. POST SPACING SHOULD NOT EXCEED 6'-3" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. GUARDRAIL POST LOCATION AND SPACING SHALL BE COORDINATED WITH THE ENGINEER. CONTRACTOR SHALL HAND DIG WITHIN 24" OF EXISTING SUBSURFACE UTILITIES

0 20 50 100
SCALE: 1" = 20'

FOR PROFILE:
SEE SHEET NO. 46

HIGHWAY GUARD DETAILS

STA. 237+26 RT - STA. 240+91 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 239+25 LT - STA. 240+31 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 240+31 LT - STA. 240+69 LT GUARDRAIL TANGENT END TREATMENT, TL-2
STA. 240+91 RT - STA. 241+39 RT GUARDRAIL - CURVED, TL-2 (SINGLE FACED)
STA. 241+39 RT - STA 56+57 LT GUARDRAIL, TL-2 (SINGLE FACED)

TRAFFIC SIGNAL CONDUIT
SEE SHEET 171

WATER SUPPLY ALTERATIONS
SEE SHEET 121

DRAINAGE DETAILS
SEE SHEET 100

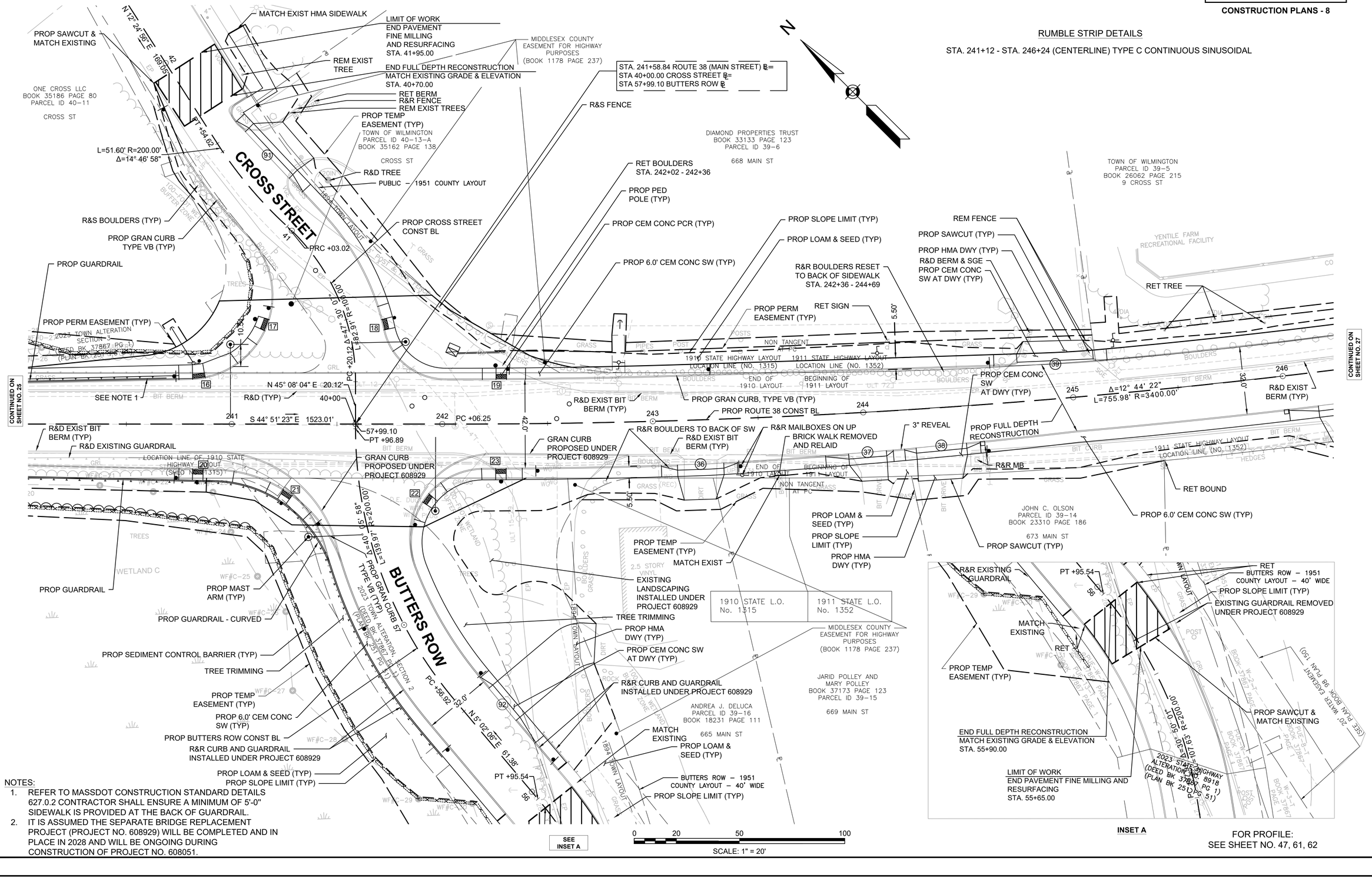
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	26	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 8

RUMBLE STRIP DETAILS

STA. 241+12 - STA. 246+24 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL



INSET A

FOR PROFILE:
SEE SHEET NO. 47, 61, 62

NOTES:
1. REFER TO MASSDOT CONSTRUCTION STANDARD DETAILS 627.0.2 CONTRACTOR SHALL ENSURE A MINIMUM OF 5'-0" SIDEWALK IS PROVIDED AT THE BACK OF GUARDRAIL.
2. IT IS ASSUMED THE SEPARATE BRIDGE REPLACEMENT PROJECT (PROJECT NO. 608929) WILL BE COMPLETED AND IN PLACE IN 2028 AND WILL BE ONGOING DURING CONSTRUCTION OF PROJECT NO. 608051.

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:25 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	27	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PLANS - 9

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:26 PM

HIGHWAY GUARD DETAILS

STA. 248+24 LT - STA. 248+33 LT TRAILING ANCHORAGE
STA. 248+33 LT - STA. 253+12 LT GUARDRAIL, TL-2 (SINGLE FACED)
NOTE: GUARDRAIL POSTS MUST BE 5 FEET FROM HIGH PRESSURE GAS MAIN

RUMBLE STRIP DETAILS

STA. 246+24 - STA. 251+88 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL

TRAFFIC SIGNAL CONDUIT

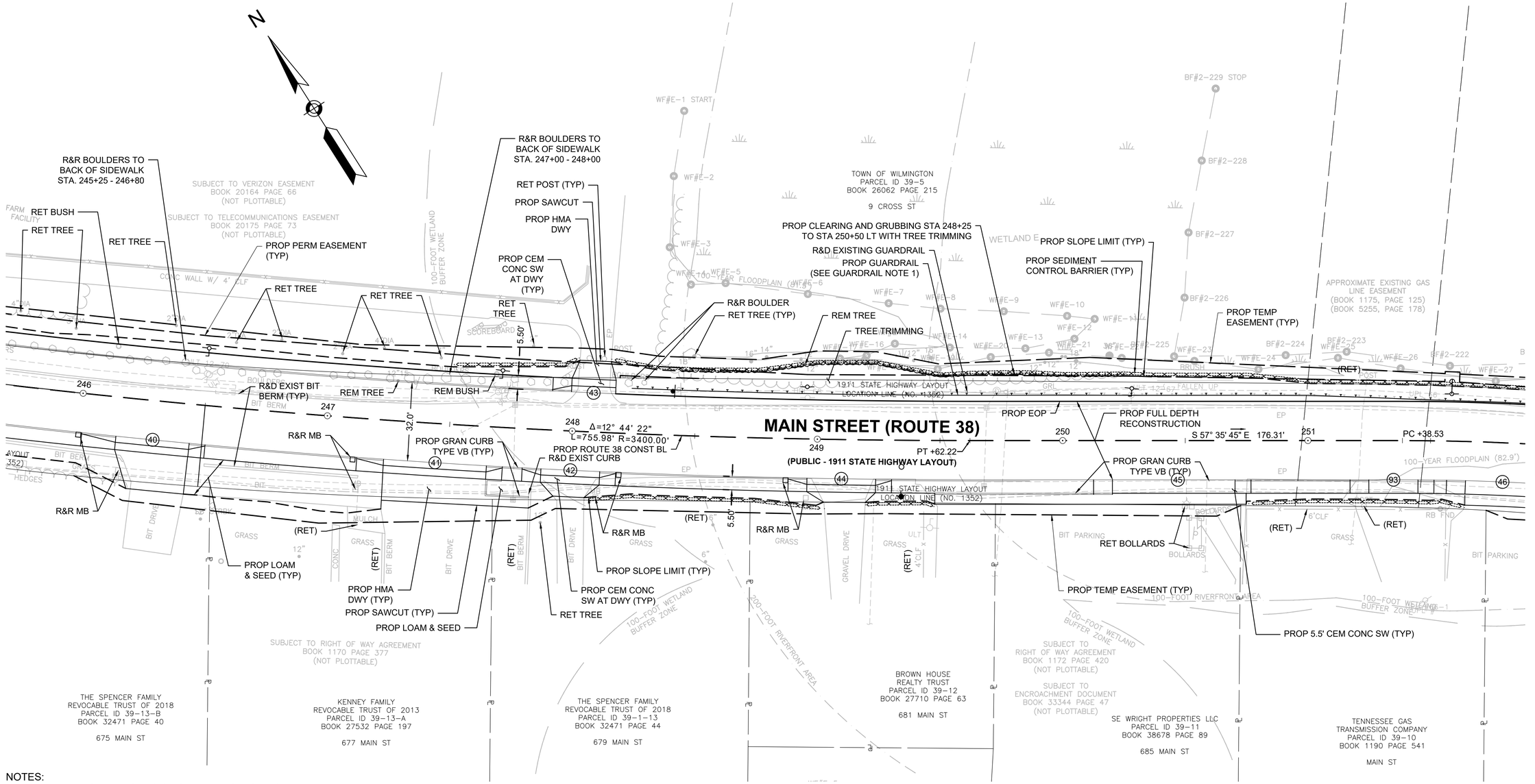
N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 122

DRAINAGE DETAILS

SEE SHEET 101



NOTES:

1. A MINIMUM OF 24 INCHES OF SEPARATION IS REQUIRED BETWEEN THE HIGH PRESSURE GAS MAIN AND DRAINAGE LINE AND ALSO BETWEEN THE HIGH PRESSURE GAS MAIN AND WATER MAIN. SEE PROFILE ON THIS SHEET FOR CROSSING OF EXISTING AND PROPOSED UTILITIES.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

FOR PROFILE:
SEE SHEET NO. 48

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	28	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 10

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:26 PM

HIGHWAY GUARD DETAILS

STA. 248+33 LT - STA. 253+20 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 253+20 LT - STA. 253+53 LT TRANSITION TO BRIDGE RAIL (SEE NOTE 2)
STA. 253+90 LT - STA. 254+23 LT TRANSITION TO BRIDGE RAIL (SEE NOTE 2)
STA. 254+23 LT - STA. 255+13 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 255+13 LT - STA. 255+50 LT GUARDRAIL TANGENT END TREATMENT, TL-2

STA. 253+24 RT - STA. 253+45 RT PERMANENT IMPACT ATTENUATOR, REDIRECTIVE, TL-2
STA. 253+45 RT - STA. 253+58 RT THRIE BEAM PANEL (NESTED)
STA. 253+99 RT - STA. 254+34 RT TRANSITION TO BRIDGE RAIL (SEE NOTE 2)
STA. 254+34 RT - STA. 257+83 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 257+83 RT - STA. 257+92 RT TRAILING ANCHORAGE

TRAFFIC SIGNAL CONDUIT

N/A

WATER SUPPLY ALTERATIONS

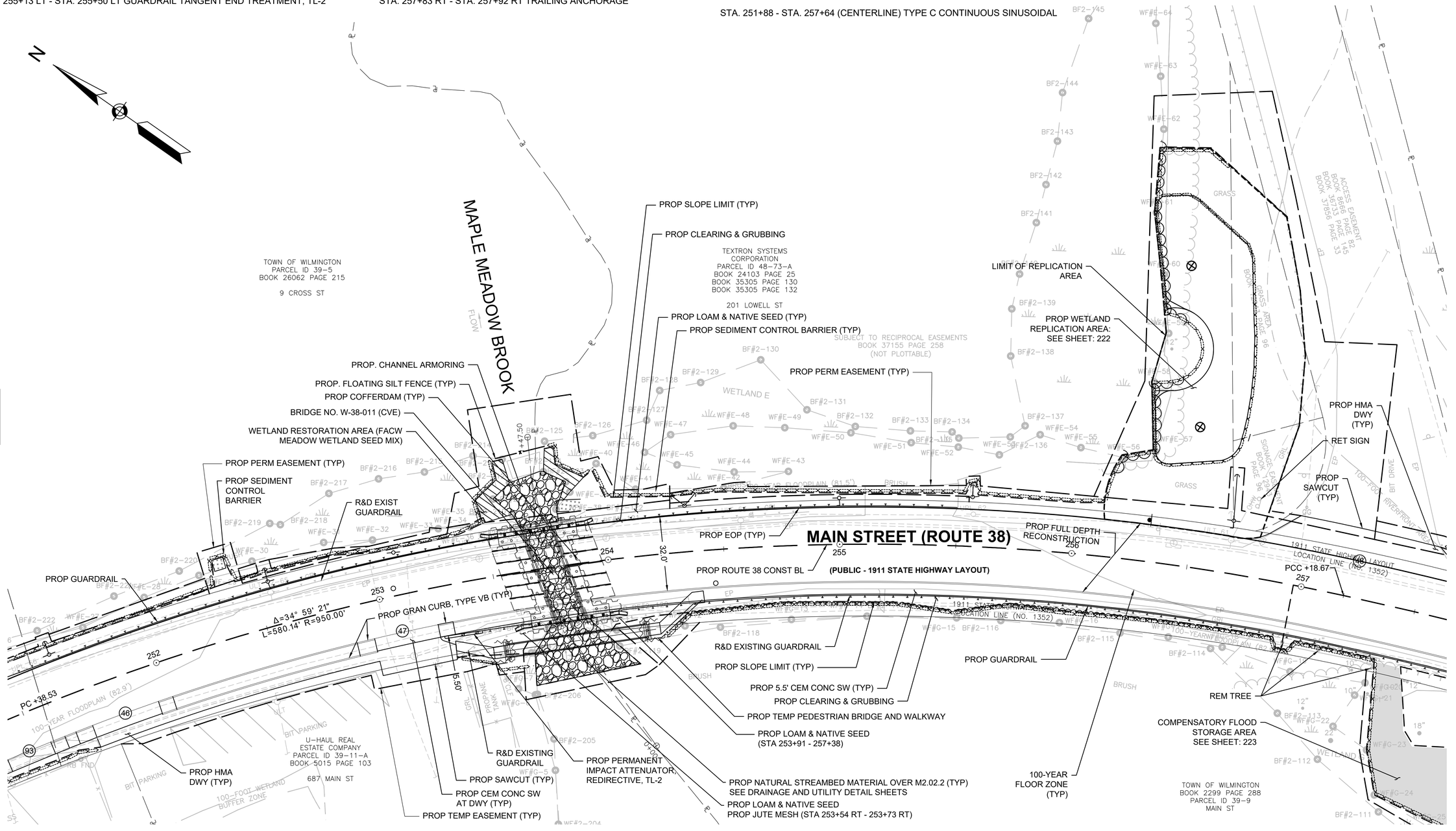
SEE SHEET 123

DRAINAGE DETAILS

SEE SHEET 102

RUMBLE STRIP DETAILS

STA. 251+88 - STA. 257+64 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL


N
MAPLE MEADOW BROOK
FLOW
TOWN OF WILMINGTON
PARCEL ID 39-5
BOOK 26062 PAGE 215
9 CROSS ST
TEXTRON SYSTEMS CORPORATION
PARCEL ID 48-73-A
BOOK 24103 PAGE 25
BOOK 35305 PAGE 130
BOOK 35305 PAGE 132
201 LOWELL ST
SUBJECT TO RECIPROCAL EASEMENTS
BOOK 37155 PAGE 258
(NOT PLOTTABLE)
U-HAUL REAL ESTATE COMPANY
PARCEL ID 39-11-A
BOOK 5015 PAGE 103
687 MAIN ST
TOWN OF WILMINGTON
BOOK 2299 PAGE 288
PARCEL ID 39-9
MAIN ST
ACCESS EASEMENT
BOOK 8666 PAGE 82
BOOK 36733 PAGE 145
BOOK 37856 PAGE 33
MAIN STREET (ROUTE 38)
(PUBLIC - 1911 STATE HIGHWAY LAYOUT)
1911 STATE HIGHWAY LAYOUT
LOCATION LINE (NO. 1352)
100-YEAR FLOODPLAIN (82.9')
100-FOOT WETLAND BUFFER ZONE
100-FOOT RIVERFRONT AREA
WETLAND E
BRUSH
GRASS
BIT. PARKING
BIT. DRIVE
PROPANE TANK
SIGNAGE EASEMENT
BOOK 9661 PAGE 96
Δ=34° 59' 21"
L=580.14' R=950.00'
PC +38.53
PCC +18.67
CONTINUED ON SHEET NO.27
CONTINUED ON SHEET NO. 29
PROP. CHANNEL ARMORING
PROP. FLOATING SILT FENCE (TYP)
PROP COFFERDAM (TYP)
BRIDGE NO. W-38-011 (CVE)
WETLAND RESTORATION AREA (FACW MEADOW WETLAND SEED MIX)
PROP PERM EASEMENT (TYP)
PROP SEDIMENT CONTROL BARRIER
R&D EXIST GUARDRAIL
PROP GUARDRAIL
PROP HMA DWY (TYP)
PROP SAWCUT (TYP)
PROP CEM CONC SW AT DWY (TYP)
PROP TEMP EASEMENT (TYP)
R&D EXISTING GUARDRAIL
PROP PERMANENT IMPACT ATTENUATOR, REDIRECTIVE, TL-2
PROP GRAN CURB, TYPE VB (TYP)
PROP SLOPE LIMIT (TYP)
PROP CLEARING & GRUBBING
PROP LOAM & NATIVE SEED (TYP)
PROP SEDIMENT CONTROL BARRIER (TYP)
PROP PERM EASEMENT (TYP)
PROP EOP (TYP)
PROP ROUTE 38 CONST BL
PROP TEMP PEDESTRIAN BRIDGE AND WALKWAY
PROP LOAM & NATIVE SEED (STA 253+91 - 257+38)
PROP NATURAL STREAMBED MATERIAL OVER M2.02.2 (TYP) SEE DRAINAGE AND UTILITY DETAIL SHEETS
PROP LOAM & NATIVE SEED
PROP JUTE MESH (STA 253+54 RT - 253+73 RT)
R&D EXISTING GUARDRAIL
PROP SLOPE LIMIT (TYP)
PROP 5.5' CEM CONC SW (TYP)
PROP CLEARING & GRUBBING
PROP FULL DEPTH RECONSTRUCTION
PROP GUARDRAIL
100-YEAR FLOOR ZONE (TYP)
LIMIT OF REPLICATION AREA
PROP WETLAND REPLICATION AREA: SEE SHEET: 222
PROP HMA DWY (TYP)
RET SIGN
PROP SAWCUT (TYP)
REM TREE
COMPENSATORY FLOOD STORAGE AREA SEE SHEET: 223
252
253
254
255
256
257
32.0'
5.50'
+47.50
BF#2-130
BF#2-129
BF#2-128
BF#2-127
BF#2-126
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WF#G-9
WF#G-8
WF#G-7
WF#G-6
WF#G-5
WF#G-4
WF#G-3
WF#G-2
WF#G-1
WF#100-YEAR FLOODPLAIN 182
WF#100-YEAR FLOODPLAIN (81.5')
WF#100-YEAR FLOODPLAIN (82.9')
WF#100-YEAR FLOODPLAIN (83.3')
WF#100-YEAR FLOODPLAIN (84.1')
WF#100-YEAR FLOODPLAIN (84.9')
WF#100-YEAR FLOODPLAIN (85.7')
WF#100-YEAR FLOODPLAIN (86.5')
WF#100-YEAR FLOODPLAIN (87.3')
WF#100-YEAR FLOODPLAIN (88.1')
WF#100-YEAR FLOODPLAIN (88.9')
WF#100-YEAR FLOODPLAIN (89.7')
WF#100-YEAR FLOODPLAIN (90.5')
WF#100-YEAR FLOODPLAIN (91.3')
WF#100-YEAR FLOODPLAIN (92.1')
WF#100-YEAR FLOODPLAIN (92.9')
WF#100-YEAR FLOODPLAIN

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	29	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 11

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:26 PM

HIGHWAY GUARD DETAILS

STA. 254+41 RT - STA. 257+83 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 257+83 RT - STA. 257+92 RT TRAILING ANCHORAGE
STA. 260+14 LT - STA. 260+23 LT TRAILING ANCHORAGE
STA. 260+23 LT - STA. 261+38 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 260+78 RT - STA. 261+38 RT GUARDRAIL, TL-2 (SINGLE FACED)

RUMBLE STRIP DETAILS

STA. 257+64 - STA. 263+48 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL

TRAFFIC SIGNAL CONDUIT

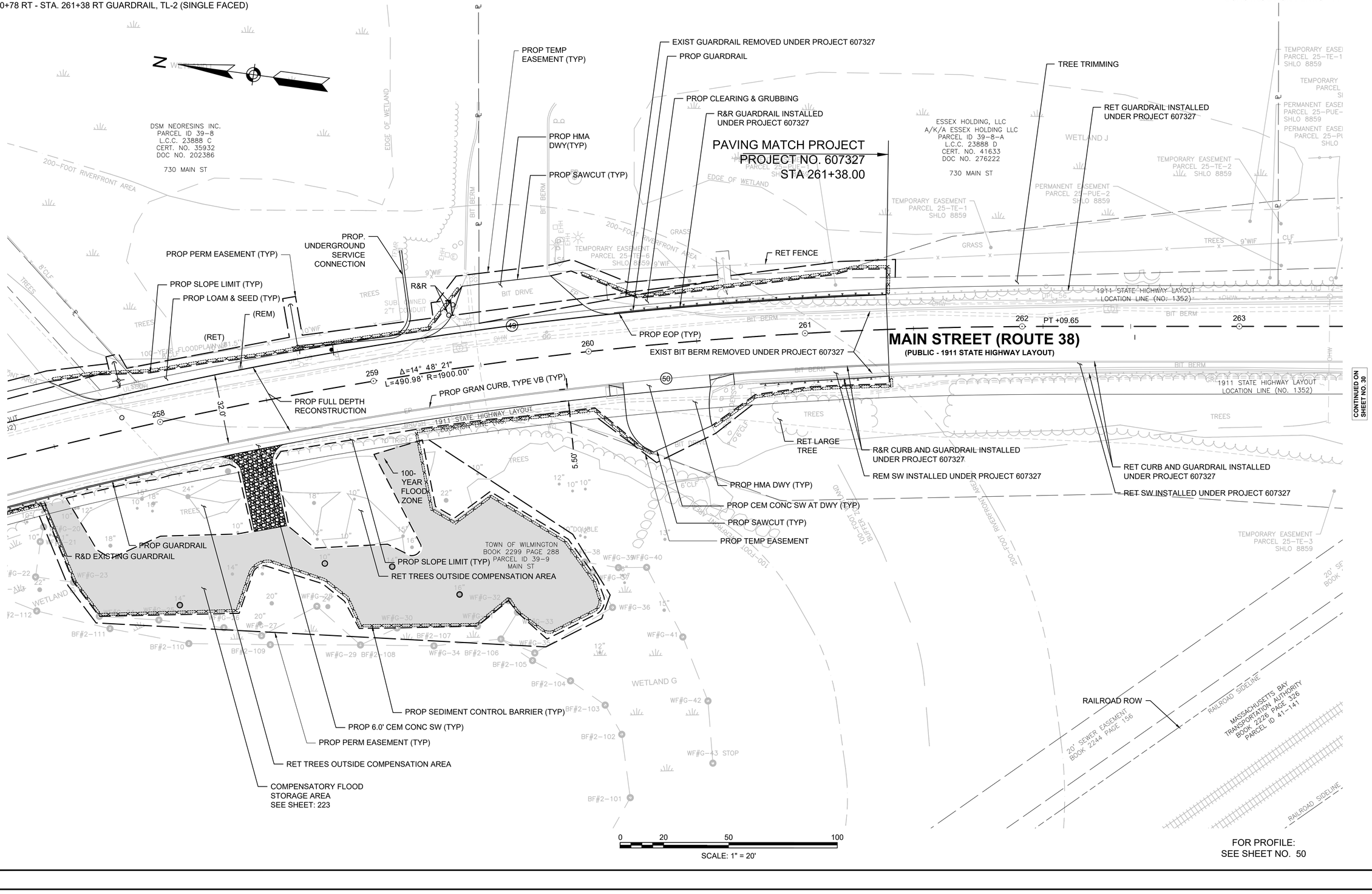
N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 124

DRAINAGE DETAILS

SEE SHEET 103



WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	30	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 12

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:26 PM

HIGHWAY GUARD DETAILS

NONE

RUMBLE STRIP DETAILS

STA. 263+48 - STA. 269+22 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL

TRAFFIC SIGNAL CONDUIT

N/A

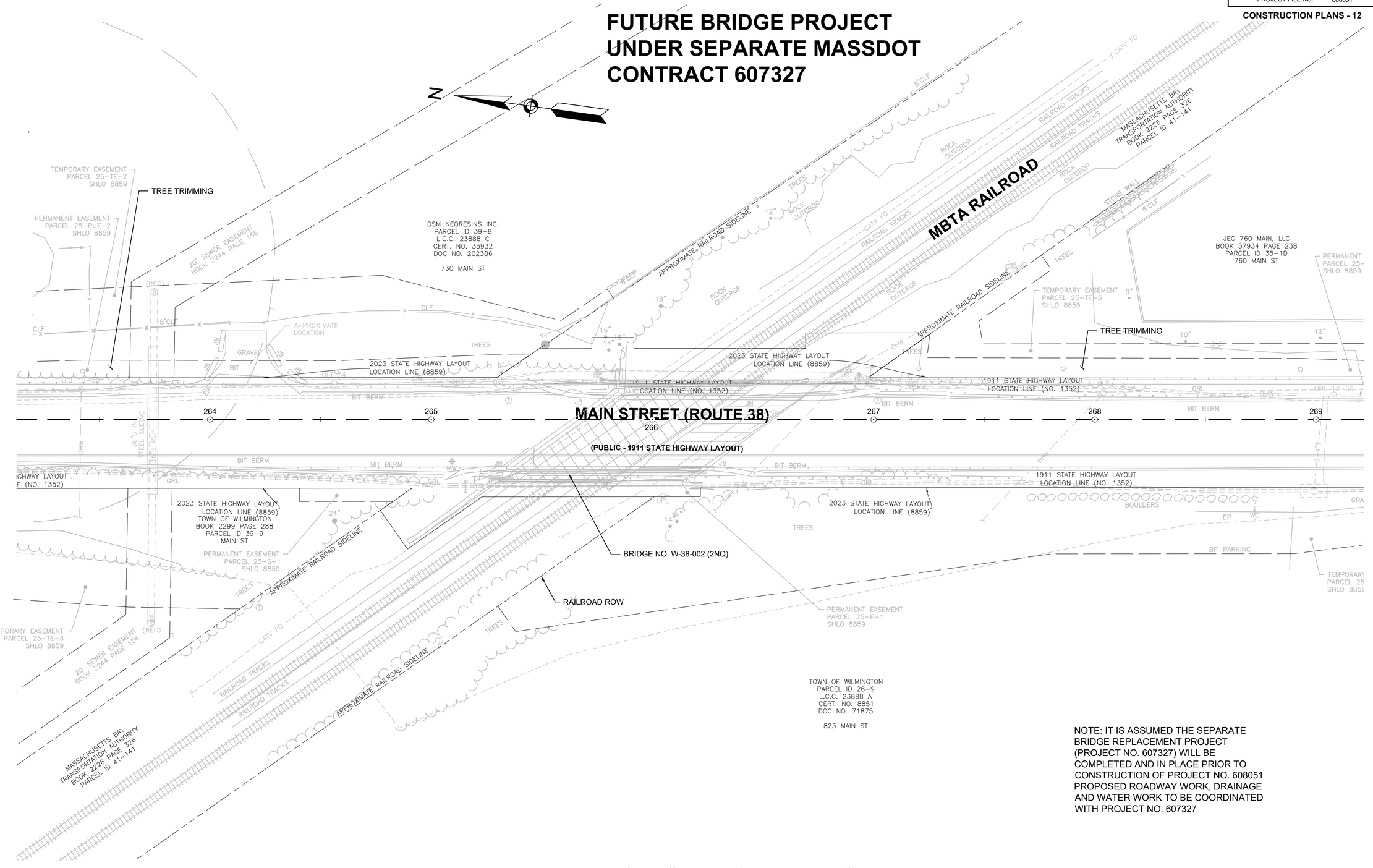
WATER SUPPLY ALTERATIONS

SEE SHEET 125

DRAINAGE DETAILS

SEE SHEET 104

FUTURE BRIDGE PROJECT UNDER SEPARATE MASSDOT CONTRACT 607327



CONTINUED ON SHEET NO. 29

CONTINUED ON SHEET NO. 31

NOTE: IT IS ASSUMED THE SEPARATE BRIDGE REPLACEMENT PROJECT (PROJECT NO. 607327) WILL BE COMPLETED AND IN PLACE PRIOR TO CONSTRUCTION OF PROJECT NO. 608051 PROPOSED ROADWAY WORK, DRAINAGE AND WATER WORK TO BE COORDINATED WITH PROJECT NO. 607327

0 20 50 100

SCALE: 1" = 20'

FOR PROFILE: SEE SHEET NO. 51

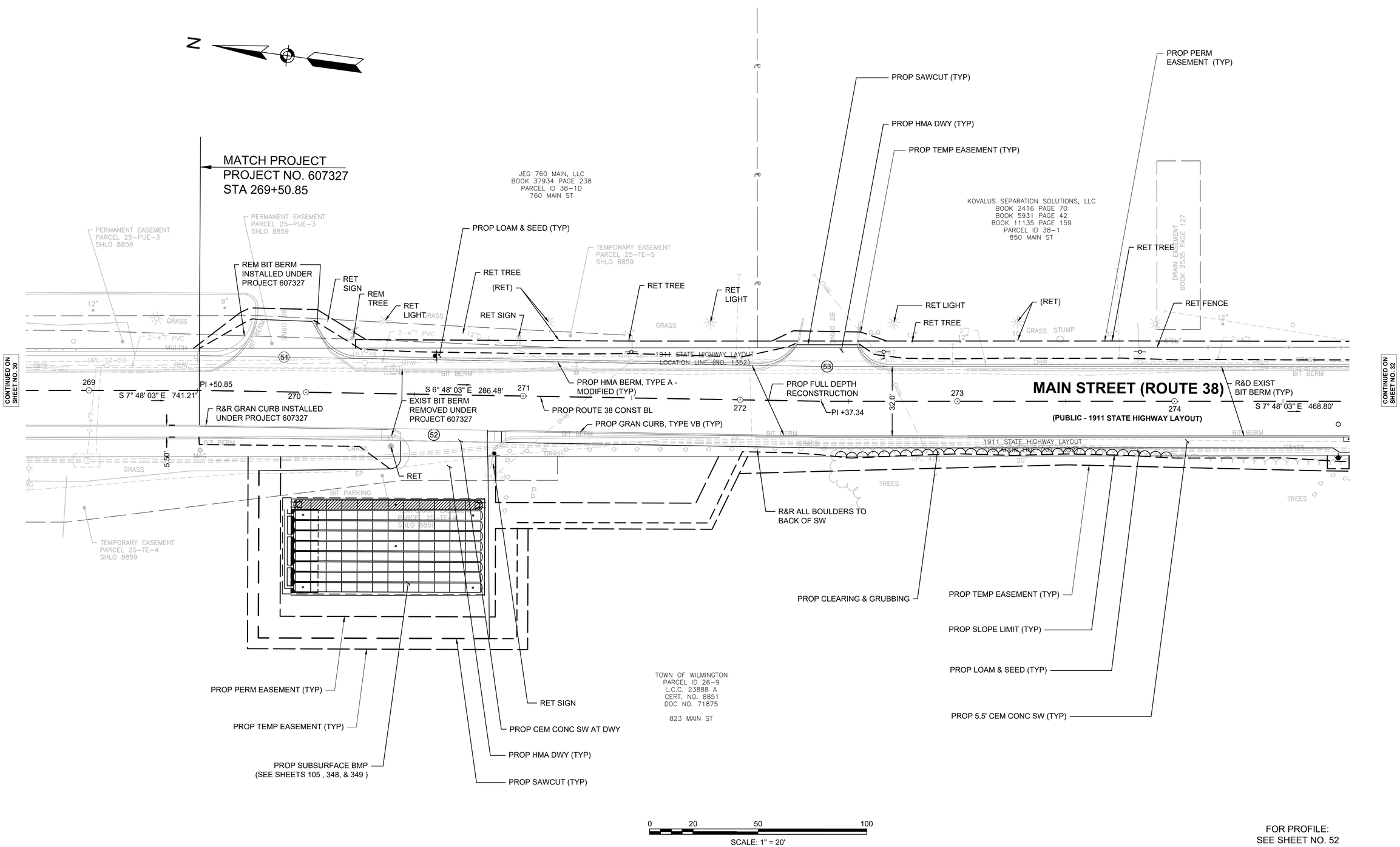
HIGHWAY GUARD DETAILS	RUMBLE STRIP DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	STA. 269+22 - STA. 274+81 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL	N/A	SEE SHEET 126	SEE SHEET 105

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	31	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 13

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:26 PM



FOR PROFILE:
SEE SHEET NO. 52

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	32	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 14

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:27 PM

HIGHWAY GUARD DETAILS

STA. 274+80 RT - STA. 275+17 RT GUARDRAIL TANGENT END TREATMENT, TL-2
STA. 275+17 RT - STA. 276+05 RT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 276+05 RT - STA. 276+14 RT TRAILING ANCHORAGE

RUMBLE STRIP DETAILS

STA. 274+81 - STA. 280+66 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL

TRAFFIC SIGNAL CONDUIT

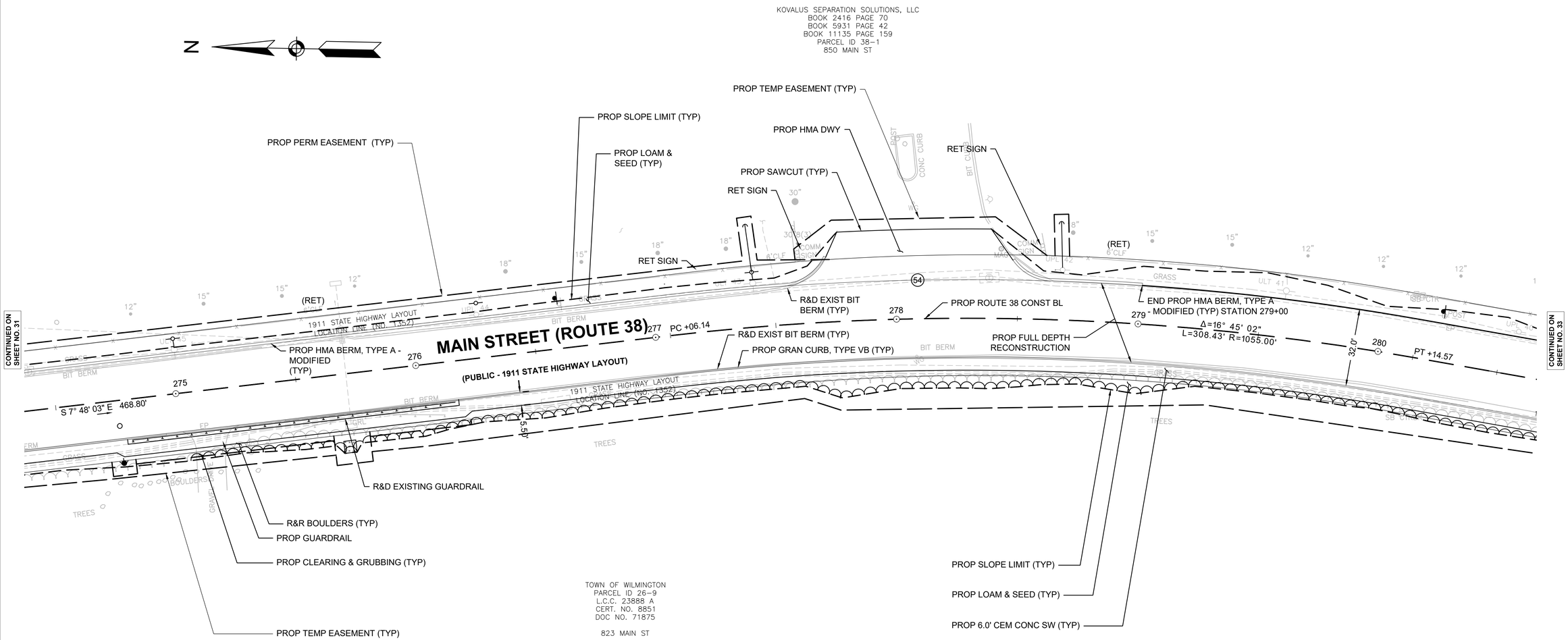
N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 127

DRAINAGE DETAILS

SEE SHEET 106



0 20 50 100
SCALE: 1" = 20'

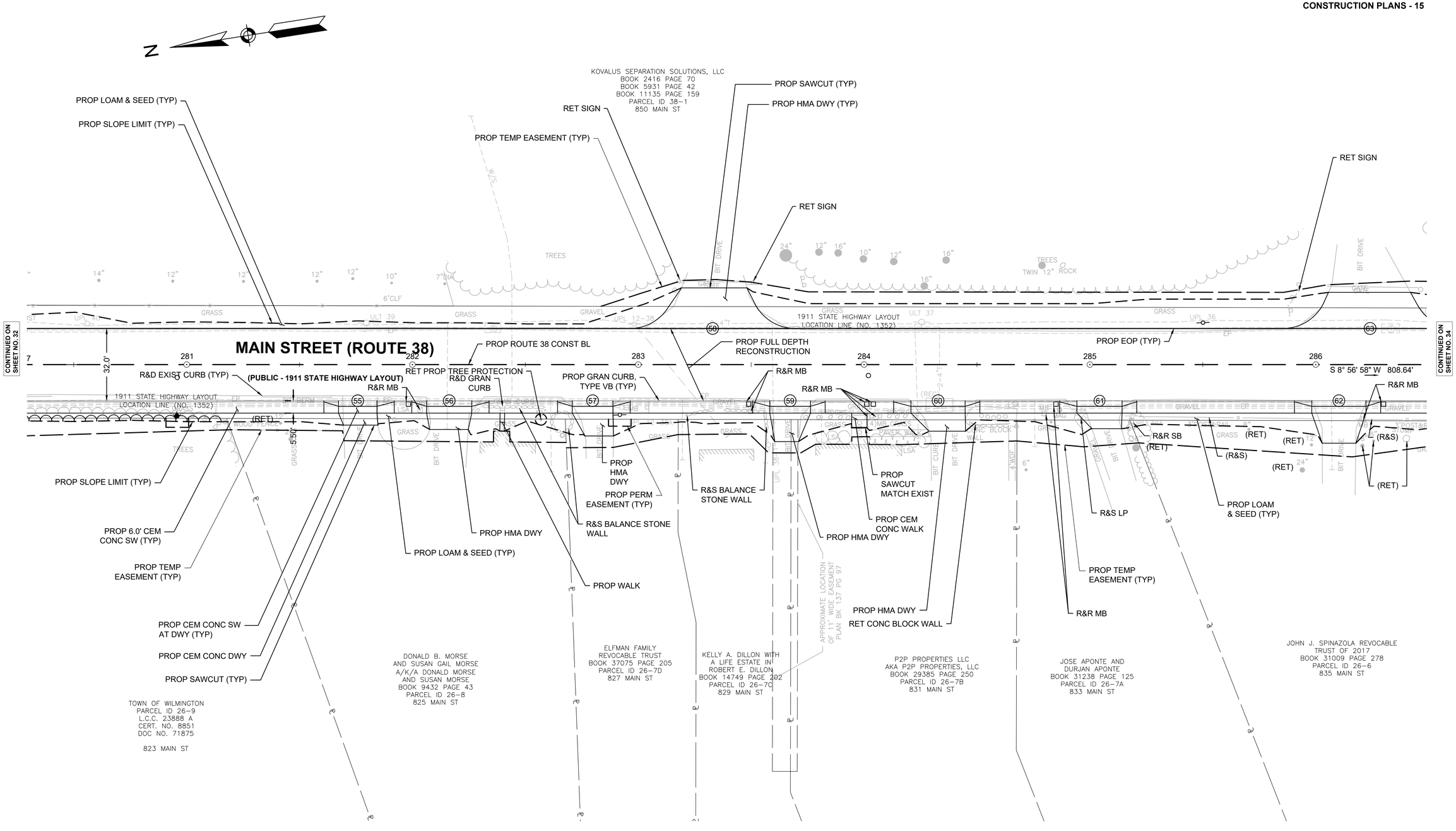
FOR PROFILE:
SEE SHEET NO. 53

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	33	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 15

HIGHWAY GUARD DETAILS	RUMBLE STRIP DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	STA. 280+66 - STA. 286+49 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL	N/A	SEE SHEET 128	SEE SHEET 107



FOR PROFILE:
SEE SHEET NO. 54

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:27 PM

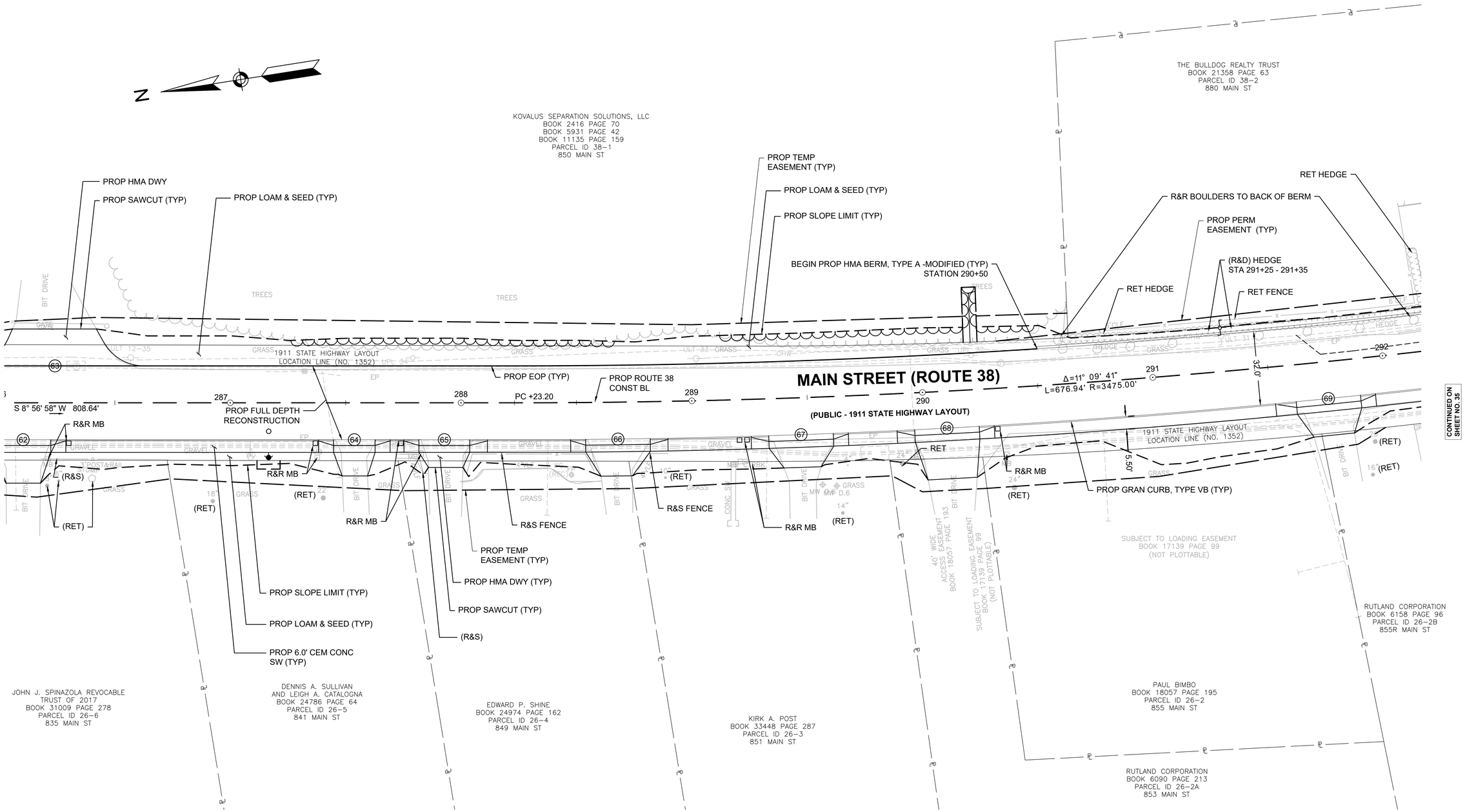
HIGHWAY GUARD DETAILS	RUMBLE STRIP DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	STA. 286+49 - STA. 292+17 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL	N/A	SEE SHEET 129	SEE SHEET 108

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	34	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 16

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:27 PM



FOR PROFILE:
SEE SHEET NO. 55

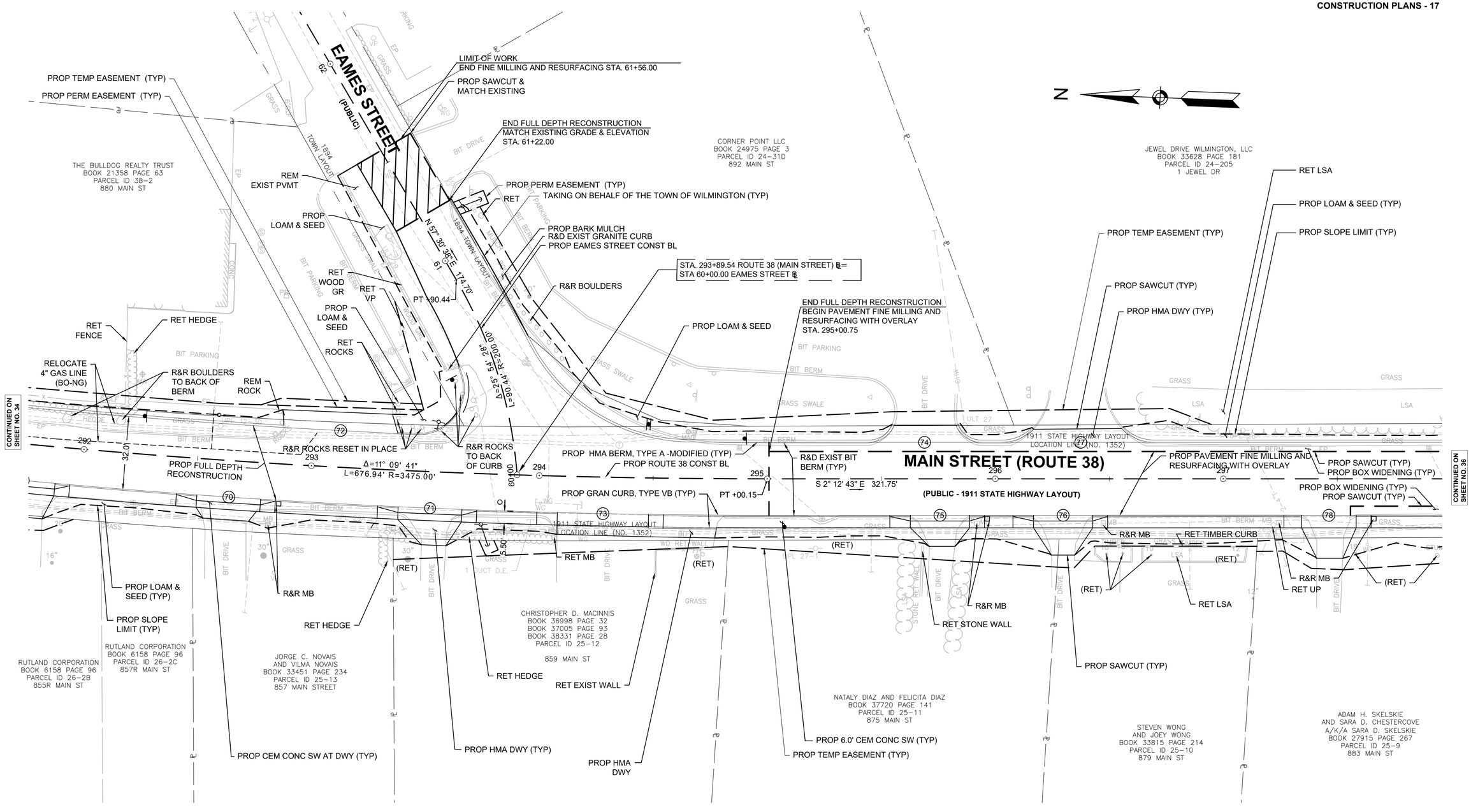
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	35	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 17

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:28 PM

HIGHWAY GUARD DETAILS	RUMBLE STRIP DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	STA. 292+17 - STA. 297+96 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL	N/A	SEE SHEET 130	SEE SHEET 109



FOR PROFILE:
SEE SHEET NO. 56

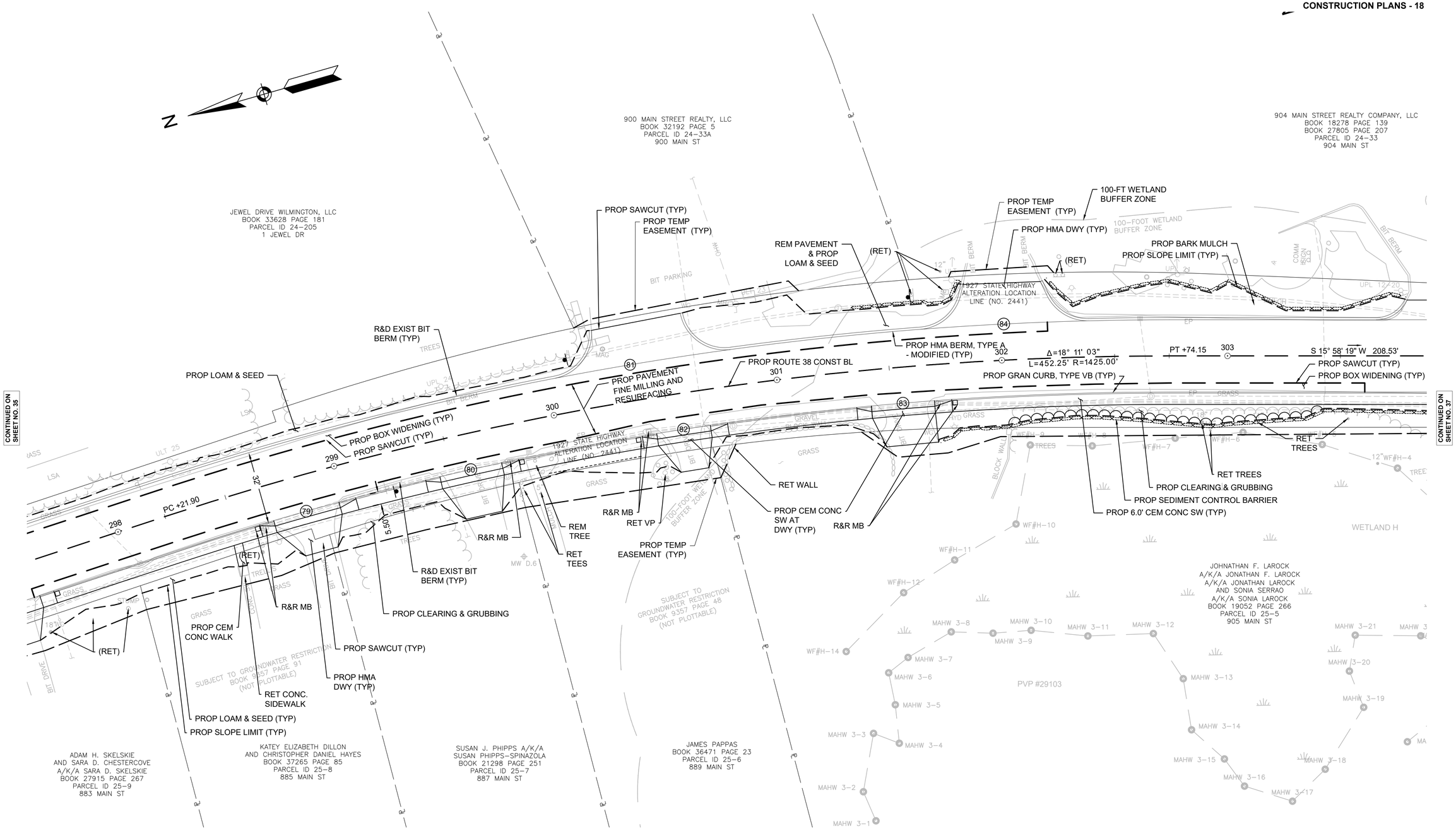
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	36	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 18

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:28 PM

HIGHWAY GUARD DETAILS	RUMBLE STRIP DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	STA. 297+96 - STA. 303+88 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL	N/A	SEE SHEET 131	SEE SHEET 110



FOR PROFILE:
SEE SHEET NO. 57

HIGHWAY GUARD DETAILS

NONE

RUMBLE STRIP DETAILS

STA. 303+88 - STA. 306+00 (CENTERLINE) TYPE C CONTINUOUS SINUSOIDAL

TRAFFIC SIGNAL CONDUIT

N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 132

DRAINAGE DETAILS

SEE SHEET 111

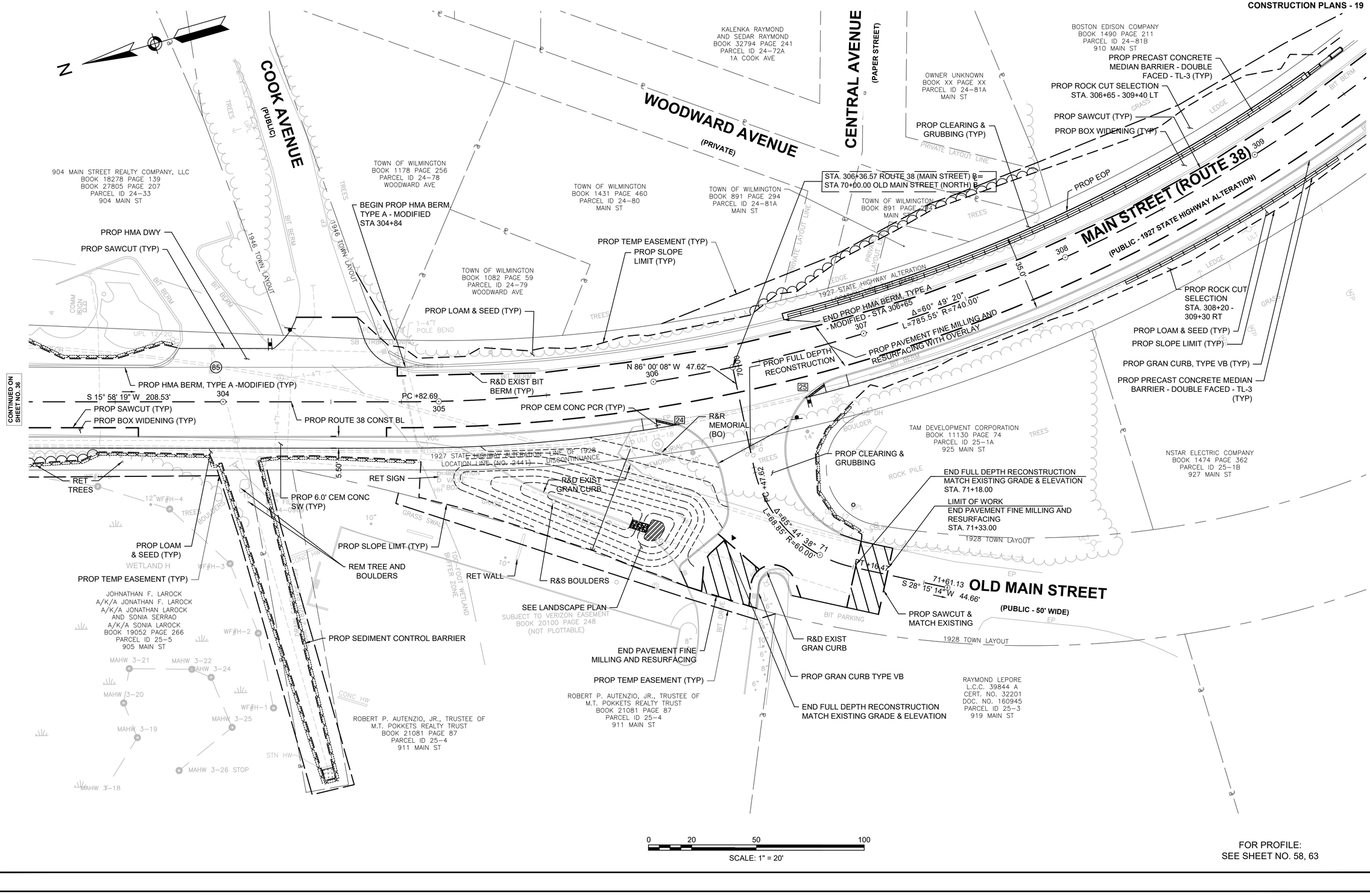
SEE SHEET 224 FOR PLANTING IN BIORETENTION AREA.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	37	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 19

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:28 PM



FOR PROFILE:
SEE SHEET NO. 58, 63

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	38	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 20

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:28 PM

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	N/A	SEE SHEET 133	SEE SHEET 112

CONTINUED ON SHEET NO. 37

PROP TEMP EASEMENT (TYP)

PROP PRECAST CONCRETE MEDIAN BARRIER - DOUBLE FACED - TL-3 (TYP)

PROP PERMANENT IMPACT ATTENUATOR, REDIRECTIVE, TL-2

BEGIN PROP HMA BERM, TYPE A -MODIFIED (TYP) STATION 309+40

PROP LOAM & SEED (TYP)

NSTAR ELECTRIC COMPANY
BOOK 1474 PAGE 362
PARCEL ID 25-1B
927 MAIN ST

R&D EXIST BIT BERM (TYP)

PROP SLOPE LIMIT (TYP)

PROP AGED PINE PARK MULCH
STA 310+52 TO 311+24 RT

PROP 5.5' CEM CONC SW (TYP)

TAM DEVELOPMENT CORPORATION
DOC NO. 257711
PARCEL ID 25-1
MAIN ST

NSTAR ELECTRIC COMPANY
BOOK 1490 PAGE 211
PARCEL ID 24-81B
910 MAIN ST

OWNER UNKNOWN
BOOK XX PAGE XX
PARCEL ID 24-81
MAIN ST

PROP CLEARING & GRUBBING

PROP LOAM & SEED (TYP)

PROP SLOPE LIMIT (TYP)

PROP SAWCUT (TYP)

PROP BOX WIDENING (TYP)

PROP GRAN CURB, TYPE VB (TYP)

PROP CEM CONC SW AT DWY (TYP)

PROP HMA DWY (TYP)

PROP HMA DWY(TYP)

PROP SAWCUT (TYP)

TAM DEVELOPMENT CORPORATION
DOC NO. 257711
PARCEL ID 12-1
943 MAIN ST

945 MAIN STREET NOMINEE REALTY TRUST
BOOK 37409
PAGE 251
PARCEL ID 12-2
945 MAIN ST

BERWICK AVENUE

GRAVEL LAYOUT LANE (PRIVATE)

PRIVATE DAYOUT LANE

MAIN STREET (ROUTE 38)

(PUBLIC - 1927 STATE HIGHWAY ALTERATION)

1927 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 2441)

1928 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 2441)

OLD MAIN STREET

(PUBLIC - 50' WIDE)

1928 TOWN LAYOUT

PT +68.23

S 44° 51' 01" E 256.34'

N 61° 40' 41" W 110.55'

82+02.57

STA. 313+78.10 ROUTE 38 (MAIN STREET) ℄=
STA 80+00.00 OLD MAIN STREET (SOUTH) ℄

OWNER UNKNOWN
BOOK XX PAGE XX
PARCEL ID 24-86
MAIN ST

PROP 5.5' CEM CONC SW (TYP)

PROP CLEARING & GRUBBING

TREE TRIMMING

PROP ROUTE 38 CONST BL

PROP PAVEMENT FINE MILLING AND RESURFACING WITH OVERLAY

PROP CEM CONC PCR (TYP)

3" REVEAL

PROP HMA DWY

PROP 3' CEM CONC ISLAND (TYP)

PROP GRAN CURB (SEE NOTE)

PROP CEM CONC SW

REM EXIST GRAN CURB (TYP)

PROP LOAM & SEED (TYP)

PROP SLOPE LIMIT (TYP)

PROP CLEARING & GRUBBING

PROP TEMP EASEMENT (TYP)

PROP GRAN CURB (TYP) (SEE NOTE)

SEE LANDSCAPE PLAN

PROP GRAN CURB, TYPE VB (TYP)

REM TREE

RET HYD

RET TREES (TYP)

PROP HMA DWY

PROP SAWCUT & MATCH EXISTING

LIMIT OF WORK
STA. 80+73.00

TOWN OF WILMINGTON
BOOK 2025 PAGE 94
PARCEL ID 12-18
955 MAIN ST

LINE OF 1928 DISCONTINUANCE

(REM)

(RET)

NOTE:
CONTRACTOR TO PLACE 3" PVC SLEEVE TO PROTECT DRAINAGE CHAMBER

0 20 50 100
SCALE: 1" = 20'

FOR PROFILE:
SEE SHEET NO. 59

CONTINUED ON SHEET NO. 39

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	39	420
PROJECT FILE NO.	608051		

CONSTRUCTION PLANS - 21

608051_HD06(CONST-PLANS).DWG Plotted on 2-Dec-2025 1:28 PM

HIGHWAY GUARD DETAILS

STA. 316+37 LT - STA. 316+48 LT TRAILING ANCHORAGE
STA. 316+48 LT - STA. 317+67 LT GUARDRAIL, TL-2 (SINGLE FACED)
STA. 317+67 LT - STA. 317+79 LT GUARDRAIL TANGENT END TREATMENT, TL-2

TRAFFIC SIGNAL CONDUIT

N/A

WATER SUPPLY ALTERATIONS

SEE SHEET 134

DRAINAGE DETAILS

SEE SHEET 113

CONTINUED ON SHEET NO. 38

BORDER AVENUE (PRIVATE)
FLORENCE AVENUE (PRIVATE)
BREED AVENUE (PRIVATE)
WOBURN WILMINGTON
MAIN STREET (ROUTE 38)
(PUBLIC - 1927 STATE HIGHWAY ALTERATION)
(PUBLIC - 1912 STATE HIGHWAY LAYOUT)

END PAVEMENT FINE MILLING AND RESURFACING
PROP SAWCUT & MATCH EXISTING
END FULL DEPTH RECONSTRUCTION & MATCH EXISTING GRADE & ELEVATION
PROP SAWCUT (TYP)
R&R SIGN
PROP BOX WIDENING (TYP)
TREE TRIMMING
PROP TEMP EASEMENT (TYP)
PROP CEM CONC PCR (TYP)
PROP GRAN CURB, TYPE VB (TYP)
PROP ROUTE 38 CONST BL
PC +24.57
PROP TEMP EASEMENT (TYP)
REM
PROP SLOPE LIMIT (TYP)
REM STONE RETAINING WALL
R&D EXISTING GUARDRAIL
PROP GUARDRAIL
RET
(RET)
R&D EXIST BIT BERM (TYP)
PROP ROUTE 38 CONST BL
R&R EXIST CURB (TYP)
RET STONE WALL
PROP 6.0" CEM CONC SW (TYP)
PROP SLOPE LIMIT (TYP)
PROP LOAM & SEED (TYP)
PROP CEM CONC SW AT DWY (TYP)
PROP TEMP EASEMENT (TYP)
PROP SAWCUT (TYP)
PROP HMA DWY (TYP)
PROP 3' CONCRETE ISLAND (TYP)
PROP CEM CONC SW AT DWY
PROP HMA DWY
PROP PERM EASEMENT (TYP)
PROP LOAM & SEED (TYP)
PROP 5.5'CEM CONC SW (TYP)
R&R MB
RET WALL & BOULDERS
R&D GRL
PROP GRAN CURB, TYPE VB (TYP)
PROP PERM EASEMENT (TYP)
PROP TEMP EASEMENT (TYP)
RET BLOCK WALL
RET BOULDER
PROP 3" REVEAL
PROP TEMP EASEMENT (TYP)
PROP CEM CONC SW - WIDTH VARIES (5.5' MIN) (TYP)
PROP OUTFALL
PROP PERM EASEMENT (TYP)
PROP TEMP EASEMENT (TYP)
RET BIT BERM
RET SIGNS
PROP TEMP EASEMENT (TYP)
MEET EXISTING
RET HEDGES
RET
ROCKS
REM TREE
PROP PERM EASEMENT (TYP)
PROP LOAM & SEED (TYP)

1927 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 2441)
1912 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 1403)
1912 BASELINE
1912 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 1403)
1928 TOWN LAYOUT
PRIVATE LAYOUT LINE
CITY LINE
TOWN LINE
NON TANGENT AT PCC
MERGE INTO 1911 LAYOUT
END OF 1927 ALTERATION
S 5° 45' 03" W 193.24'
Δ=50° 36' 03"
L=375.34' R=425.00'
PT +99.91
320+93.16

316 317 318 319 320 315

ROBERT HOLMES AND LAURA HOLMES
L.C.C. 22159 B
CERT. NO. 41929
DOC NO. 278979
PARCEL ID 24-87
9 BORDER AVE

OWNER UNKNOWN
BOOK XX PAGE XX
PARCEL ID 24-86
MAIN ST

SKYE GRAMS AND VALERIE GRAMS
BOOK 29847 PAGE 270
PARCEL ID 24-117
1 BORDER AVE

GILLIS FAMILY PROPERTIES LLC
A/K/A GILLIS FAMILY PROPERTIES, LLC
BOOK 60339 PAGE 389
PARCEL ID 24-120
4-6 BREED AVE

GILLIS FAMILY PROPERTIES LLC
A/K/A GILLIS FAMILY PROPERTIES, LLC
BOOK 26570 PAGE 103 (NORTH MIDDLESEX)
BOOK 60339 PAGE 393 (SOUTH MIDDLESEX)
PARCEL ID 03-04-01
4 BREED AVE

GILLIS FAMILY PROPERTIES LLC
A/K/A GILLIS FAMILY PROPERTIES, LLC
BOOK 26570 PAGE 103 (NORTH MIDDLESEX)
BOOK 60339 PAGE 393 (SOUTH MIDDLESEX)
PARCEL ID 24-120
960 MAIN ST

HENRY P. GARDNER
BOOK 37422 PAGE 274
PARCEL ID 12-3
967 MAIN ST

P.J.S REALTY CORP.
BOOK 52024 PAGE 87
PARCEL ID 03-07-01
3 BREED AVE

DARWIN T. CIAVARDONE AND KIMBERLY GRIFFITHS
BOOK 58169 PAGE 211
PARCEL ID 03-07-02
1091 MAIN ST

DARWIN T. CIAVARDONE AND KIMBERLY GRIFFITHS
BOOK 58169 PAGE 211
PARCEL ID 03-07-03
1091 MAIN ST

HENRY P. GARDNER
BOOK 80792 PAGE 409
PARCEL ID 03-03-03
MAIN ST

LORRAINE A. MACARIO
BOOK 66087 PAGE 128
PARCEL ID 03-03-02
1100 MAIN ST

END PROJECT
STA. 319+20.77
MEET EXISTING
N3014857.1242
E748337.3382

0 20 50 100
SCALE: 1" = 20'

FOR PROFILE:
SEE SHEET NO. 60

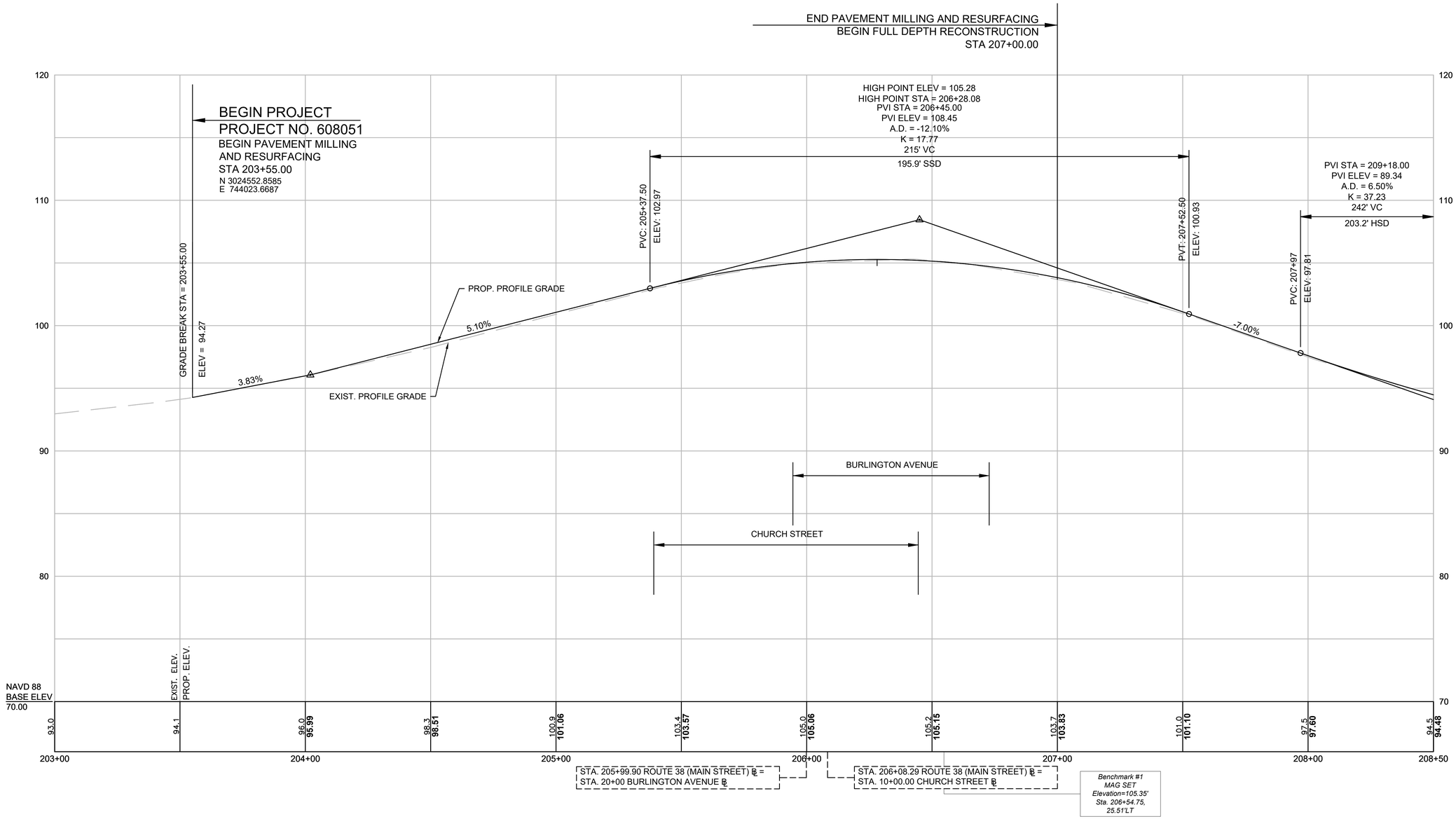
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	40	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 1

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:29 PM

MAIN STREET



CONTINUED ON SHEET NO. 41

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

NOTE:
THE PROPOSED PROFILE IN MILLING AND RESURFACING SECTIONS HAS BEEN SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL MAINTAIN EXISTING PROFILE GRADES AT THE EXISTING ROADWAY CROWN.

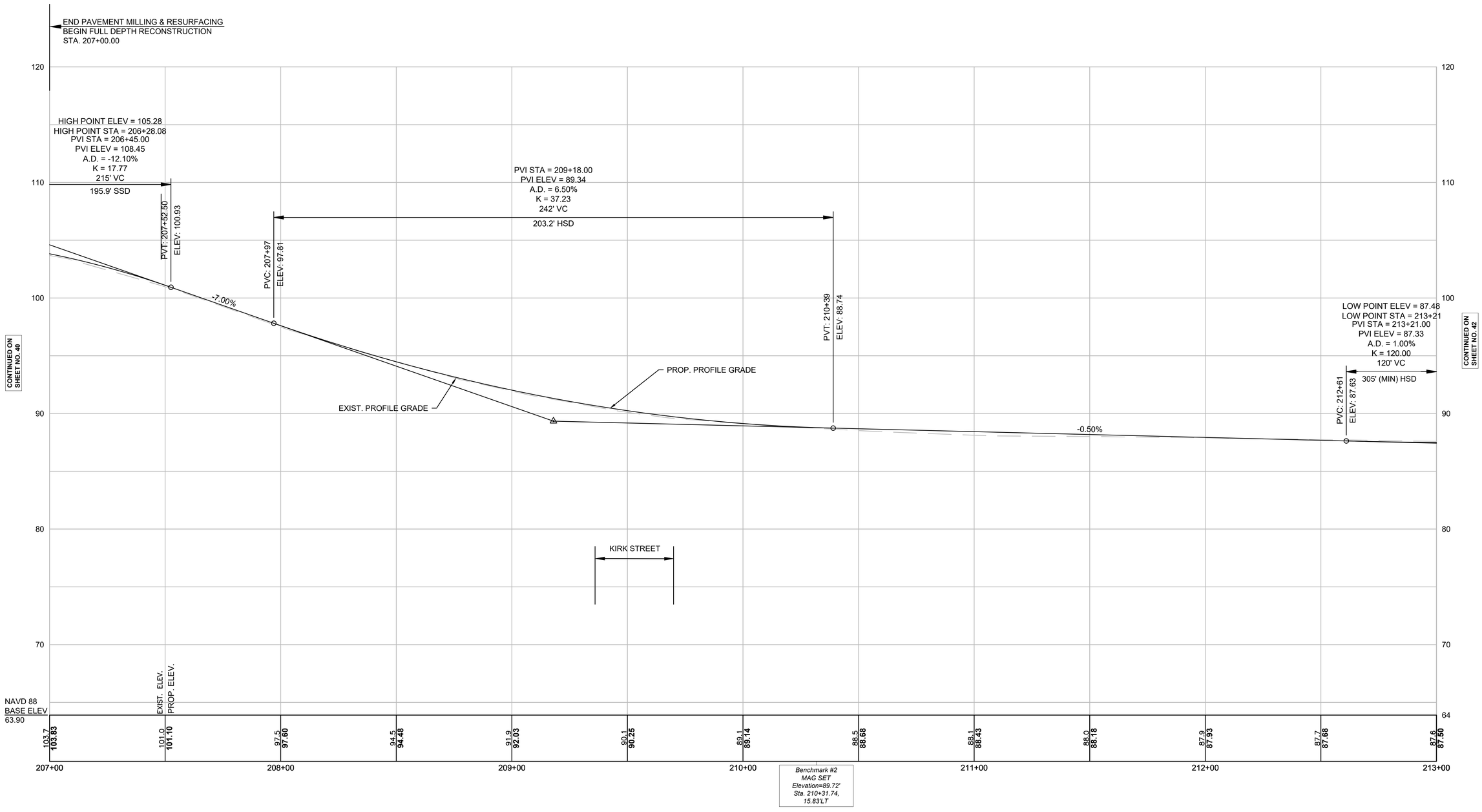
FOR CONSTRUCTION PLANS
SEE SHEET NO. 19

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	41	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 2

MAIN STREET



FOR CONSTRUCTION PLANS
SEE SHEETS NO. 20

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:29 PM

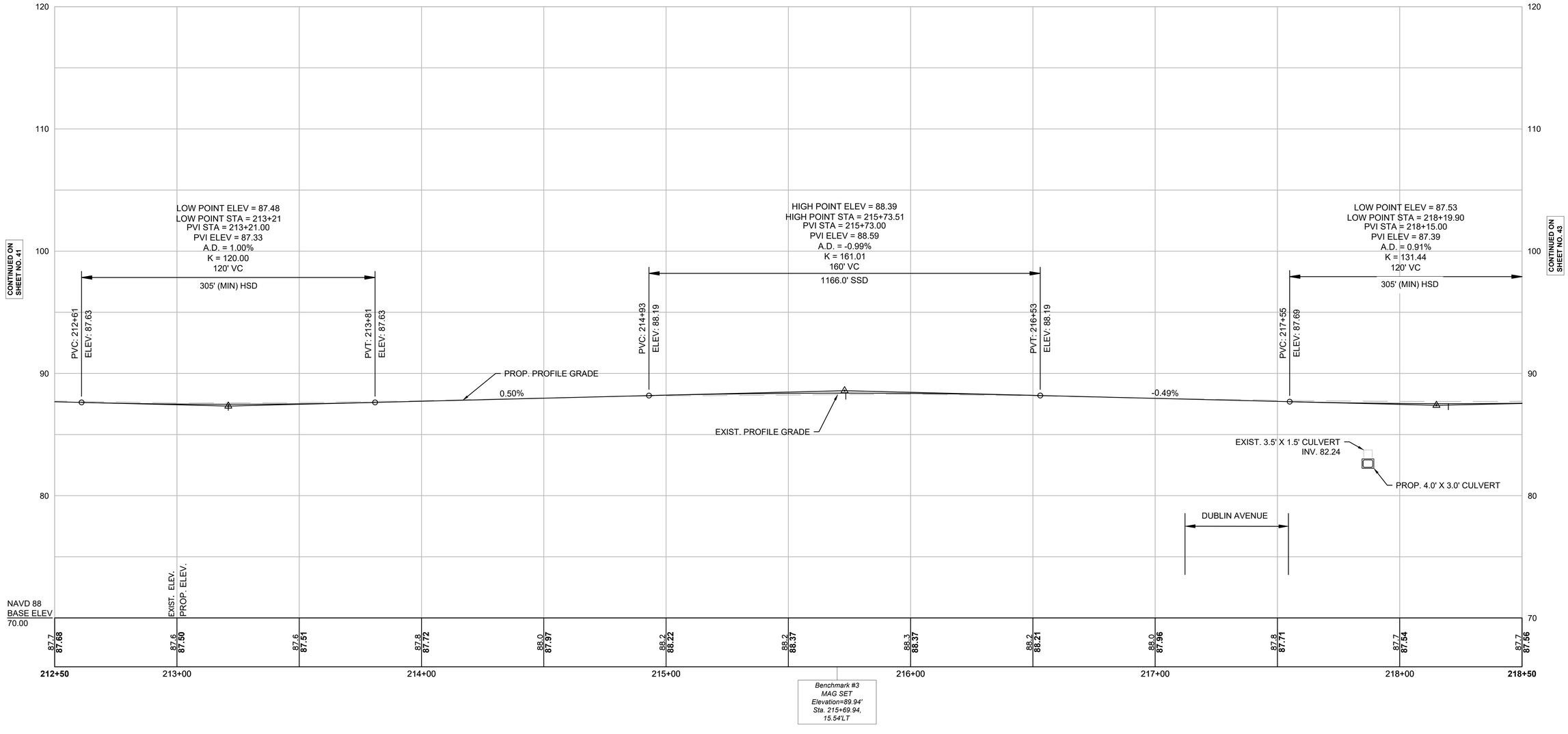
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	42	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 3

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:29 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEETS NO. 21

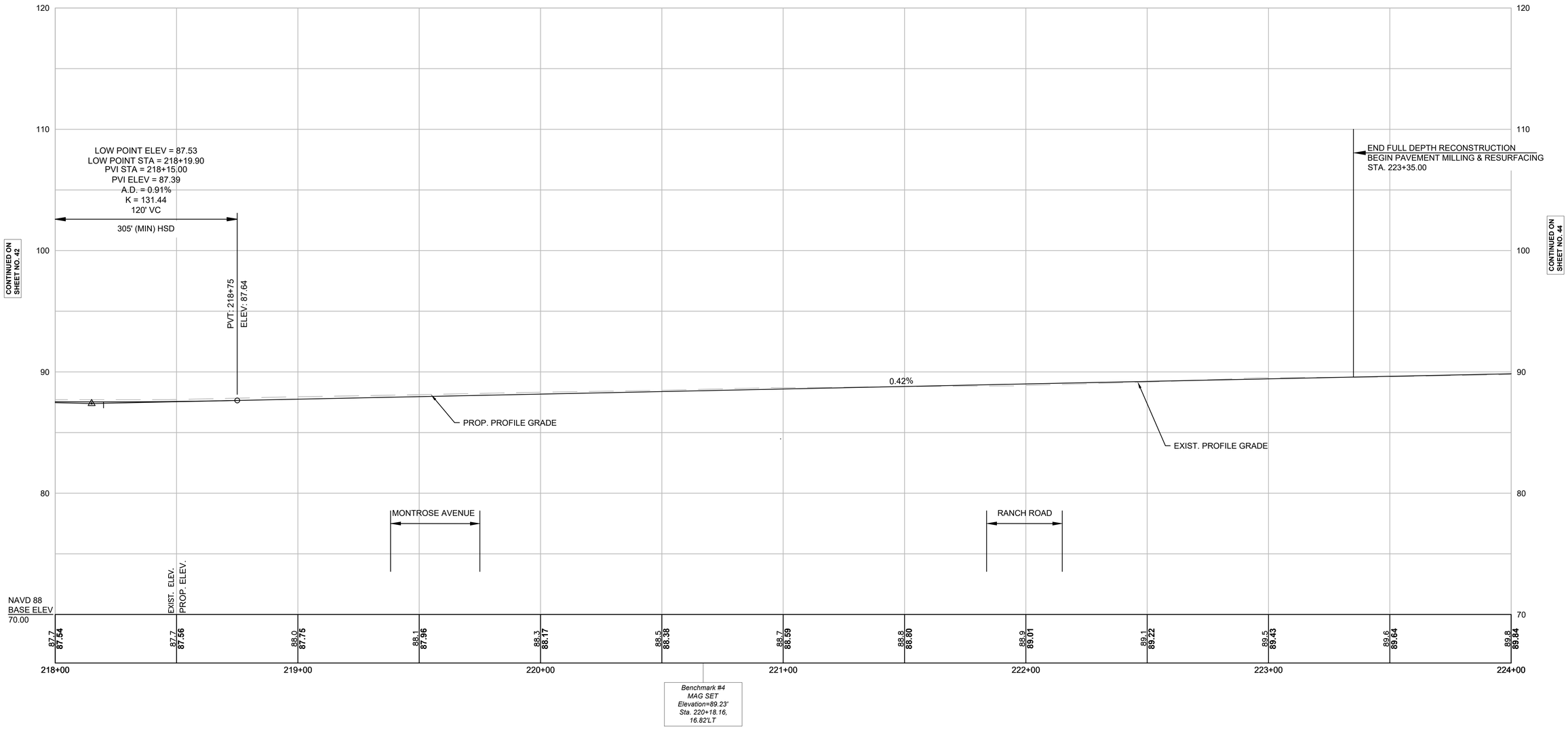
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	43	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 4

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:30 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40

VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 22

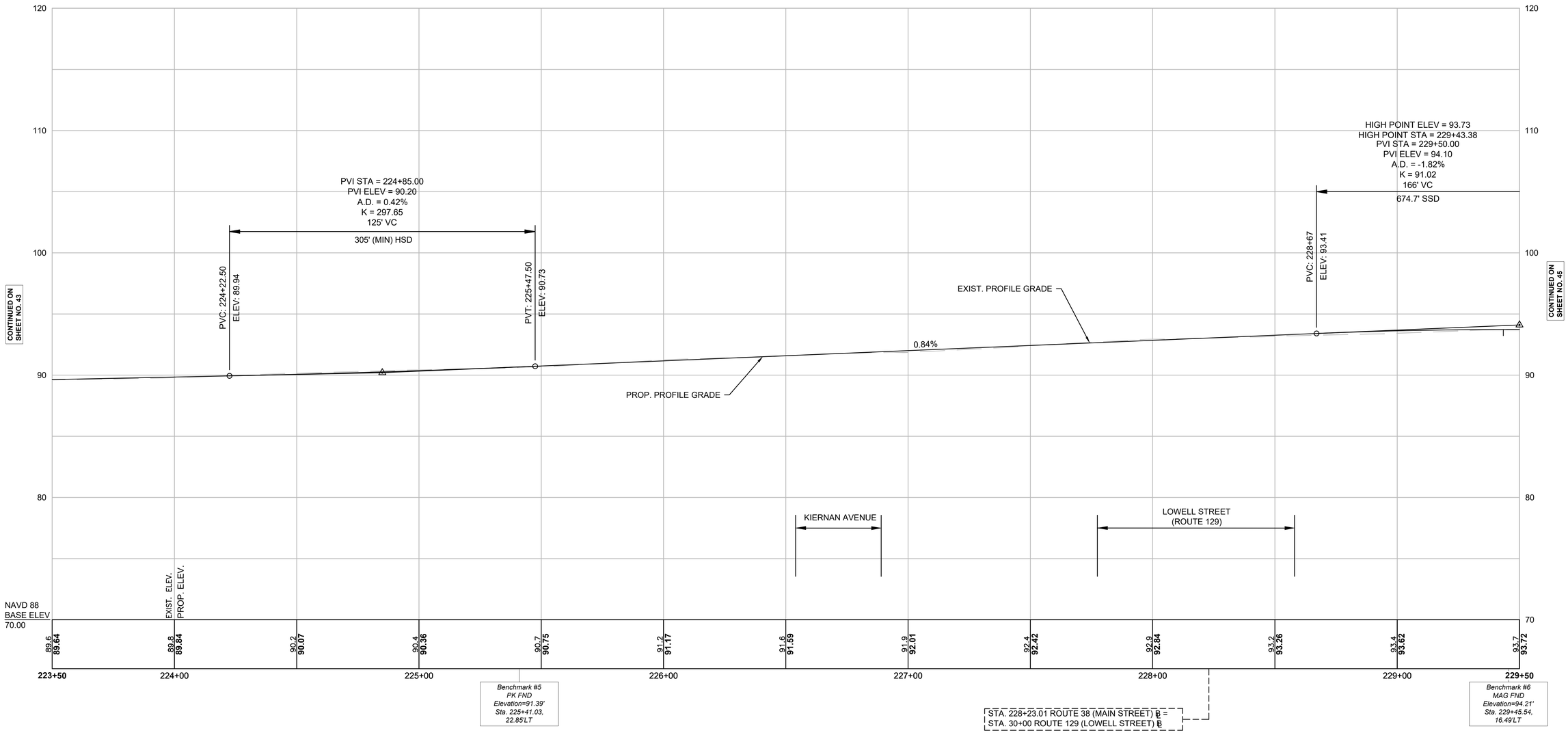
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	44	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 5

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:30 PM

MAIN STREET



NOTE:
THE PROPOSED PROFILE IN MILLING AND RESURFACING SECTIONS HAS BEEN SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL MAINTAIN EXISTING PROFILE GRADES AT THE EXISTING ROADWAY CROWN.

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 23

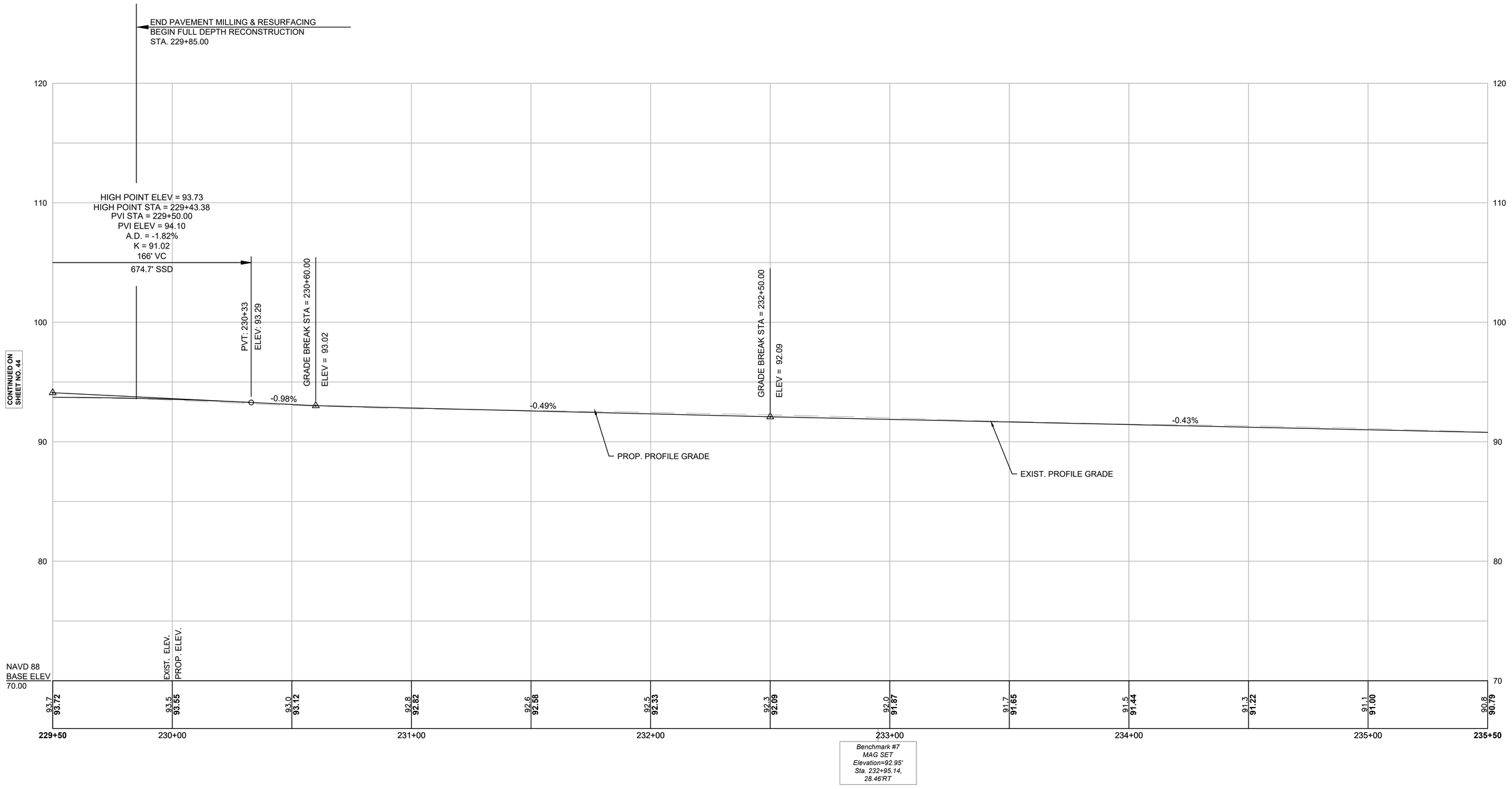
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	45	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 6

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:30 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 24

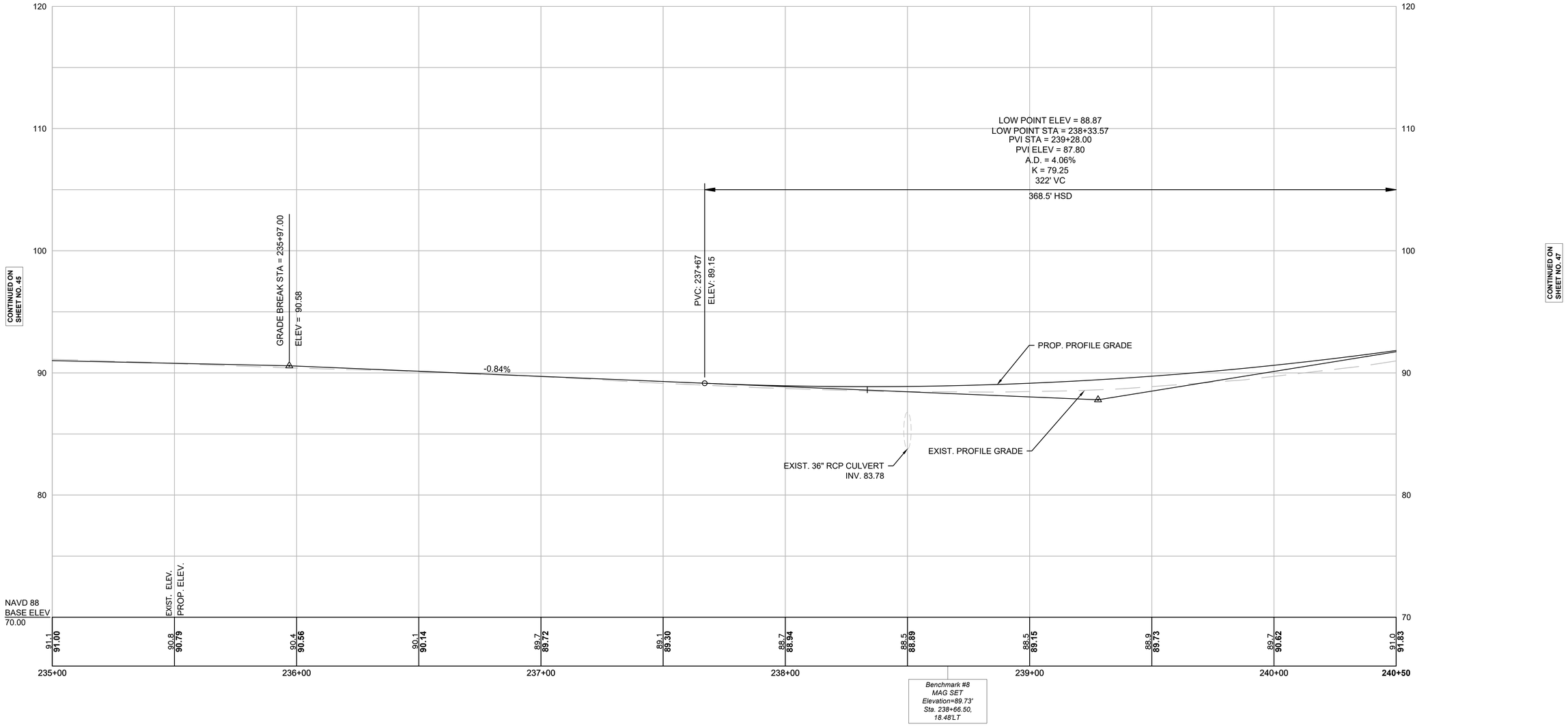
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	46	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 7

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:30 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 25

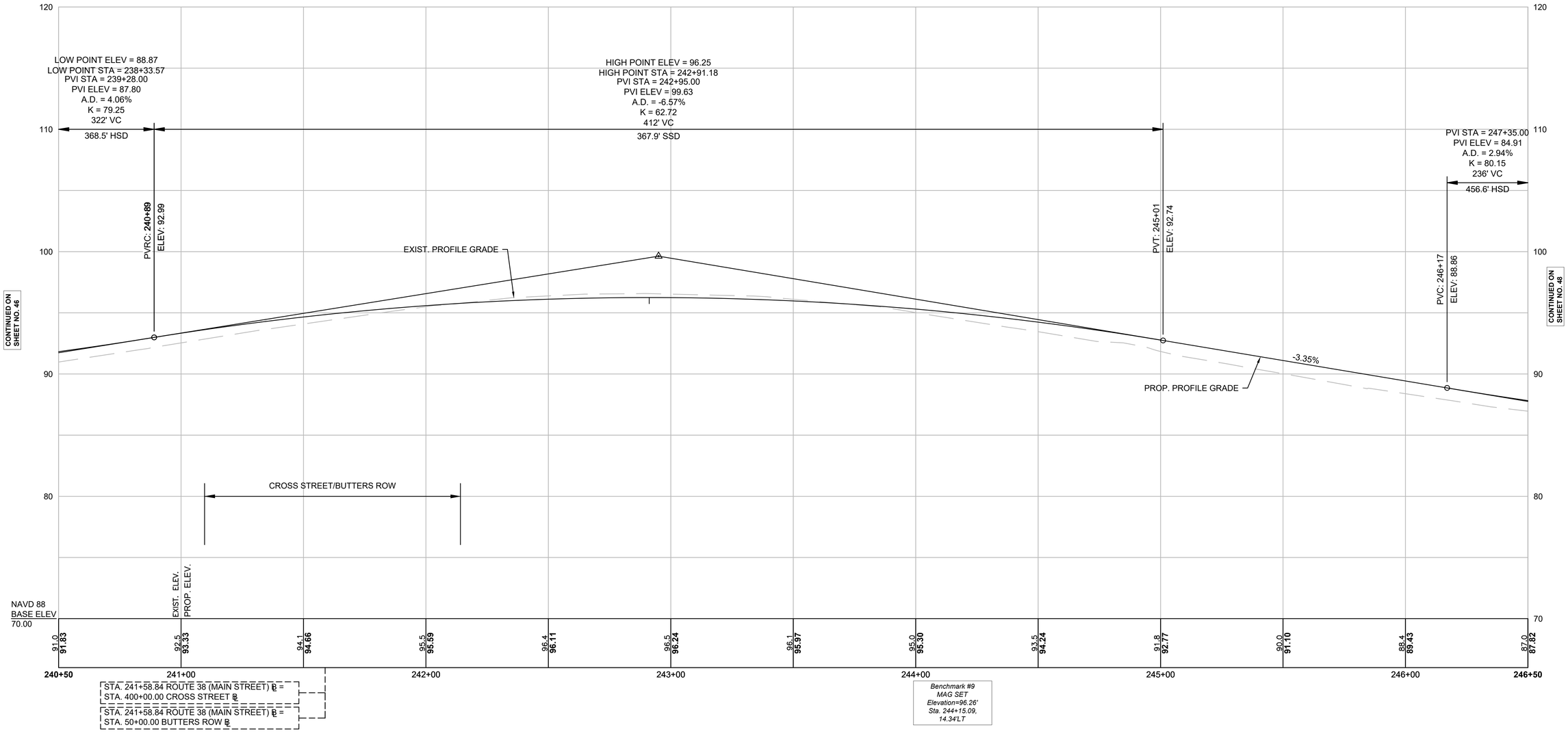
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	47	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 8

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:30 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

FOR CONSTRUCTION PLANS
SEE SHEET NO. 26

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	48	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 9

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:30 PM

MAIN STREET

CONTINUED ON SHEET NO. 47

PVI STA = 247+35.00
PVI ELEV = 84.91
A.D. = 2.94%
K = 80.15
236' VC
456.6' HSD

PVC: 246+17
ELEV: 88.86

PVT: 248+53
ELEV: 84.44

PROP. PROFILE GRADE

EXIST. PROFILE GRADE

-0.40%

CONTINUED ON SHEET NO. 49

NAVD 88
BASE ELEV
70.00

	246+00	247+00	248+00	249+00	250+00	251+00	252+00
EXIST. ELEV.	87.0	85.8	85.0	84.6	84.4	84.2	84.0	83.8	83.6	83.4	83.2	83.0
PROP. ELEV.	87.82	86.51	85.51	84.83	84.45	84.25	84.05	83.85	83.65	83.45	83.25	83.05
	89.43											

Benchmark #10
MAG SET
Elevation=84.78'
Sta. 249+46.49,
33.99'RT

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 27

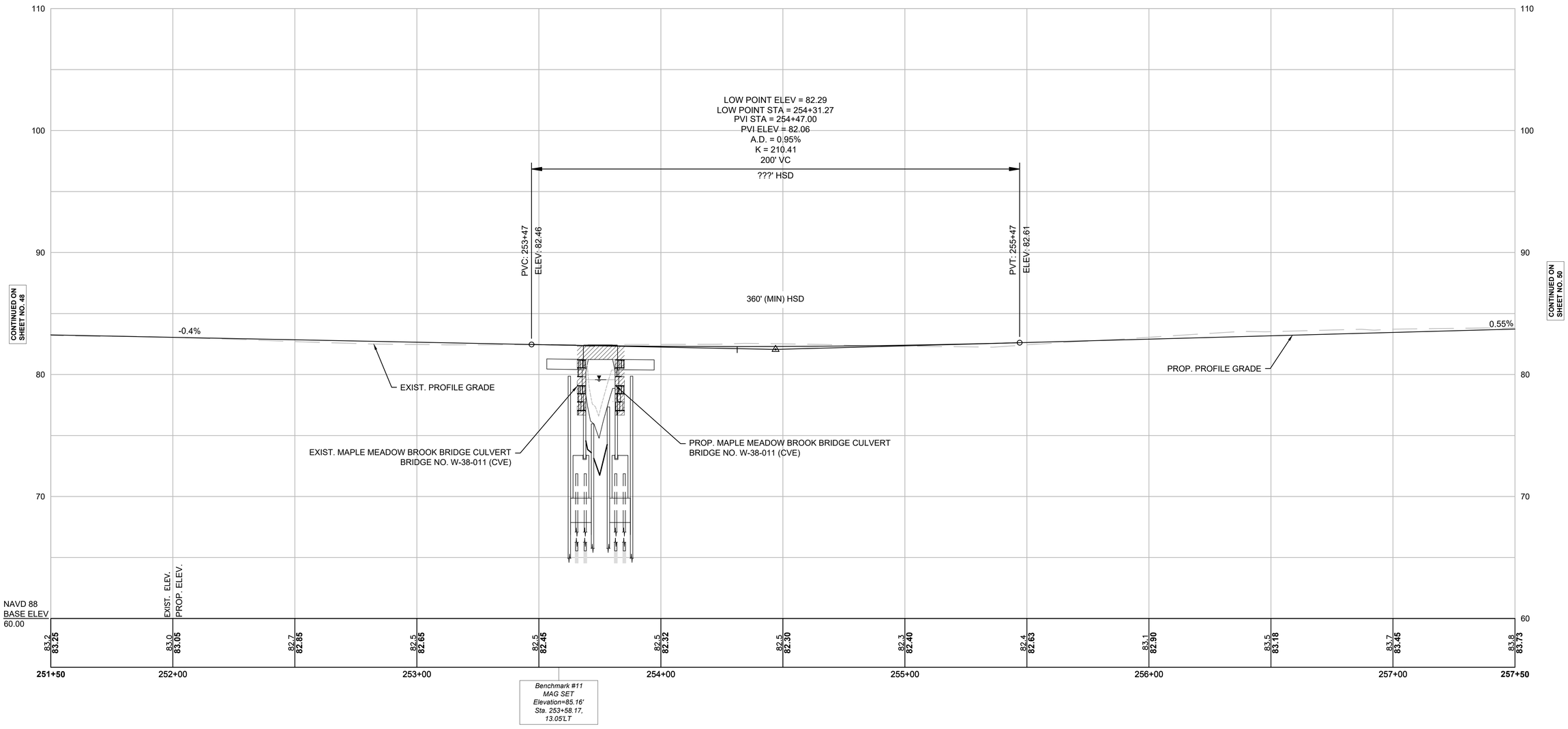
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	49	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 10

608051_HD07\CONST PROFILES\.DWG Plotted on 2-Dec-2025 1:30 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

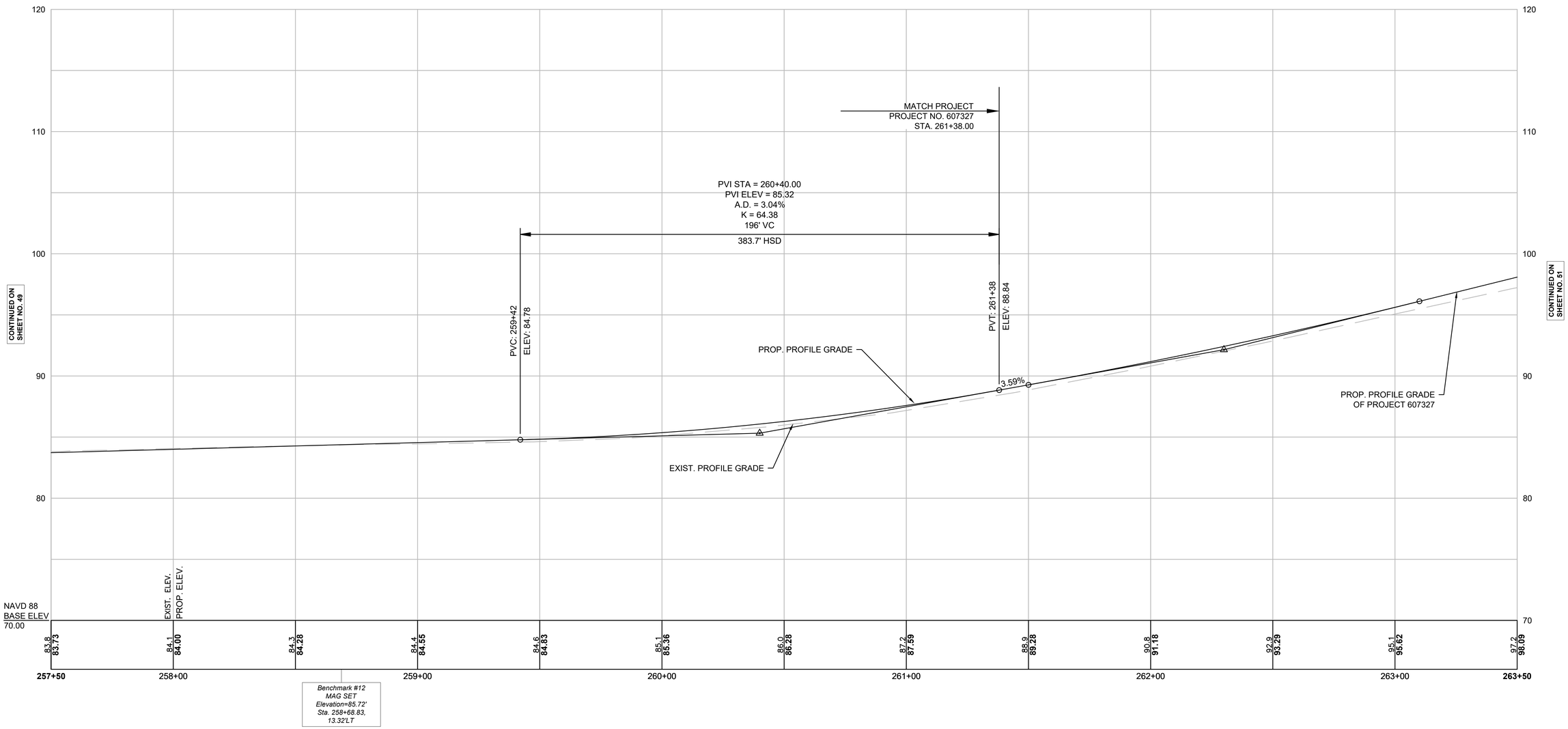
FOR CONSTRUCTION PLANS
SEE SHEET NO. 28

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	50	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 11

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 29

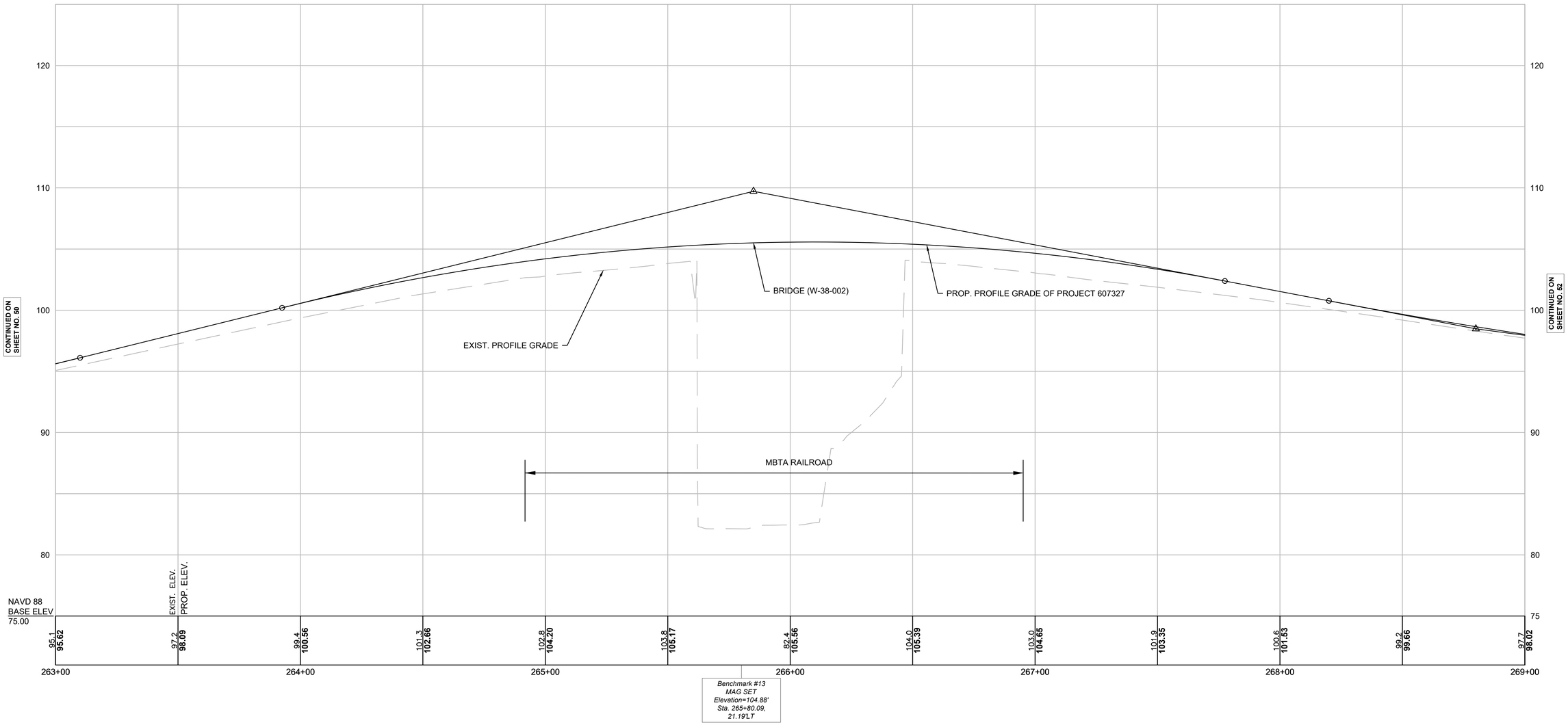
608051_HD07\CONST PROFILES\.DWG Plotted on 2-Dec-2025 1:30 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	51	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 12

MAIN STREET



NOTE:
PROFILE IS FOR GRAPHICAL PURPOSES ONLY.THE ROADWAY WILL BE RECONSTRUCTED UNDER MASSDOT PROJECT 607327.

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 30

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:30 PM

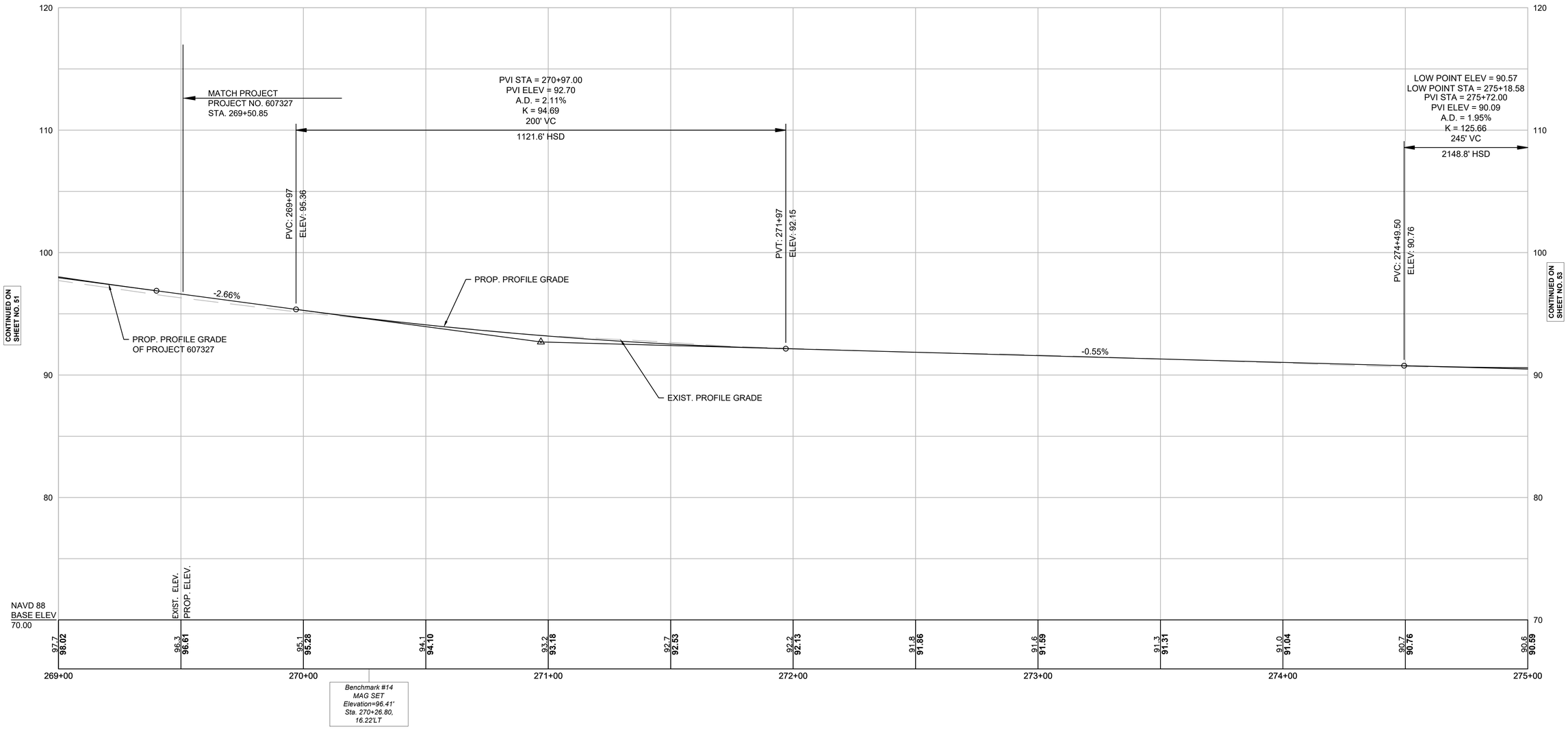
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	52	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 13

608051_HD07\CONST PROFILES\.DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

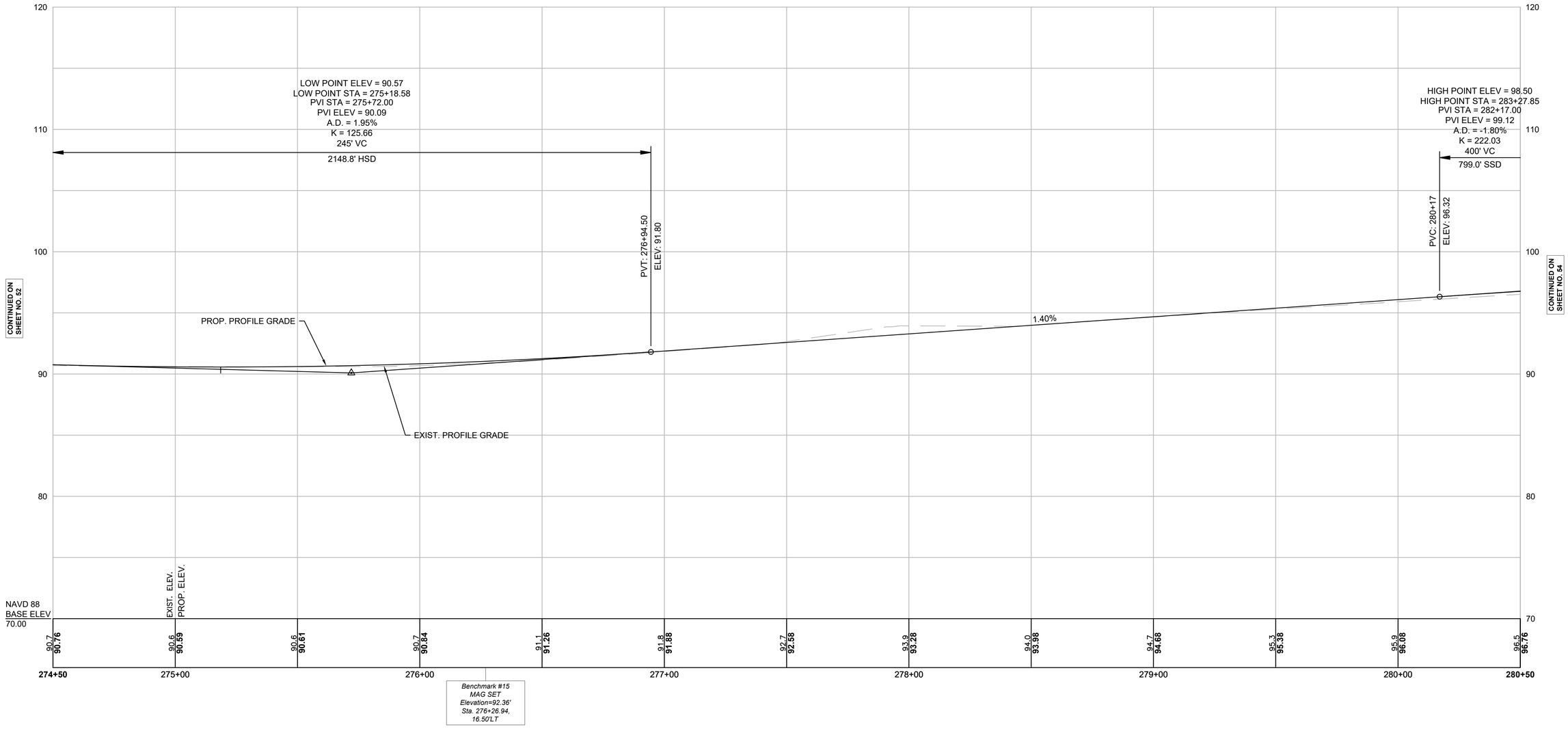
FOR CONSTRUCTION PLANS
SEE SHEET NO. 31

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	53	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 14

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

FOR CONSTRUCTION PLANS
SEE SHEET NO. 32

608051_HD07\CONST PROFILES\.DWG Plotted on 2-Dec-2025 1:31 PM

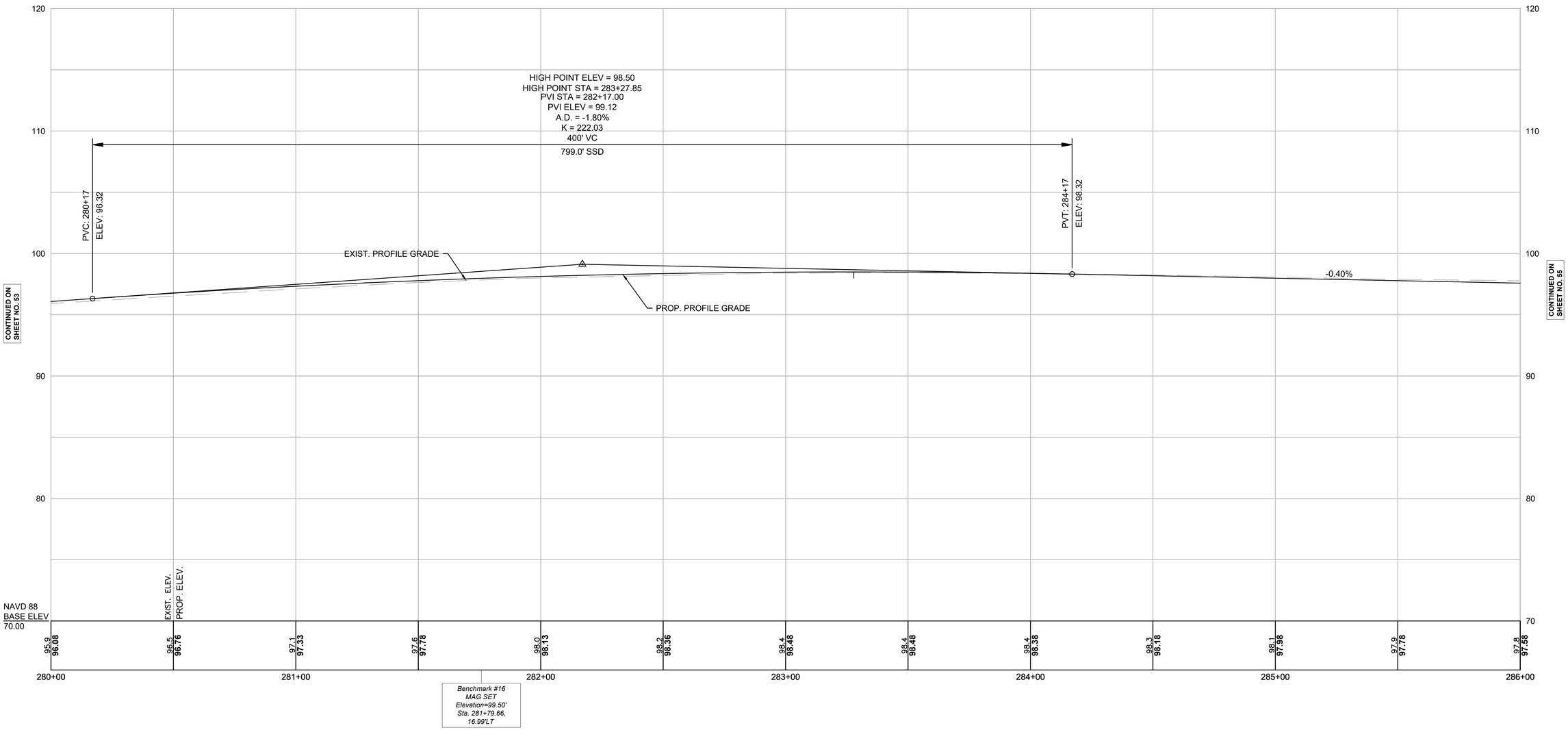
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	54	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 15

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 33

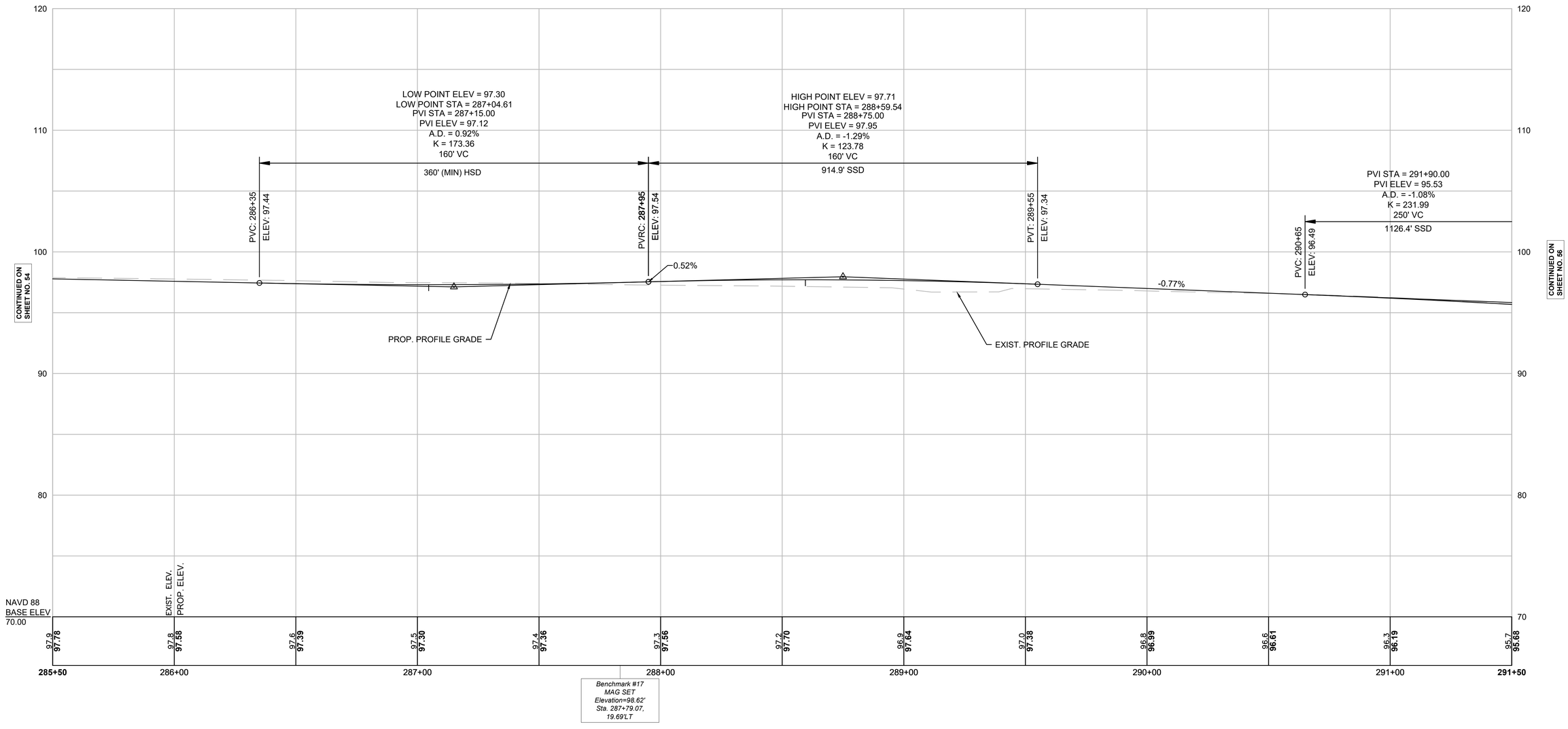
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	55	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 16

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

FOR CONSTRUCTION PLANS
SEE SHEET NO. 34

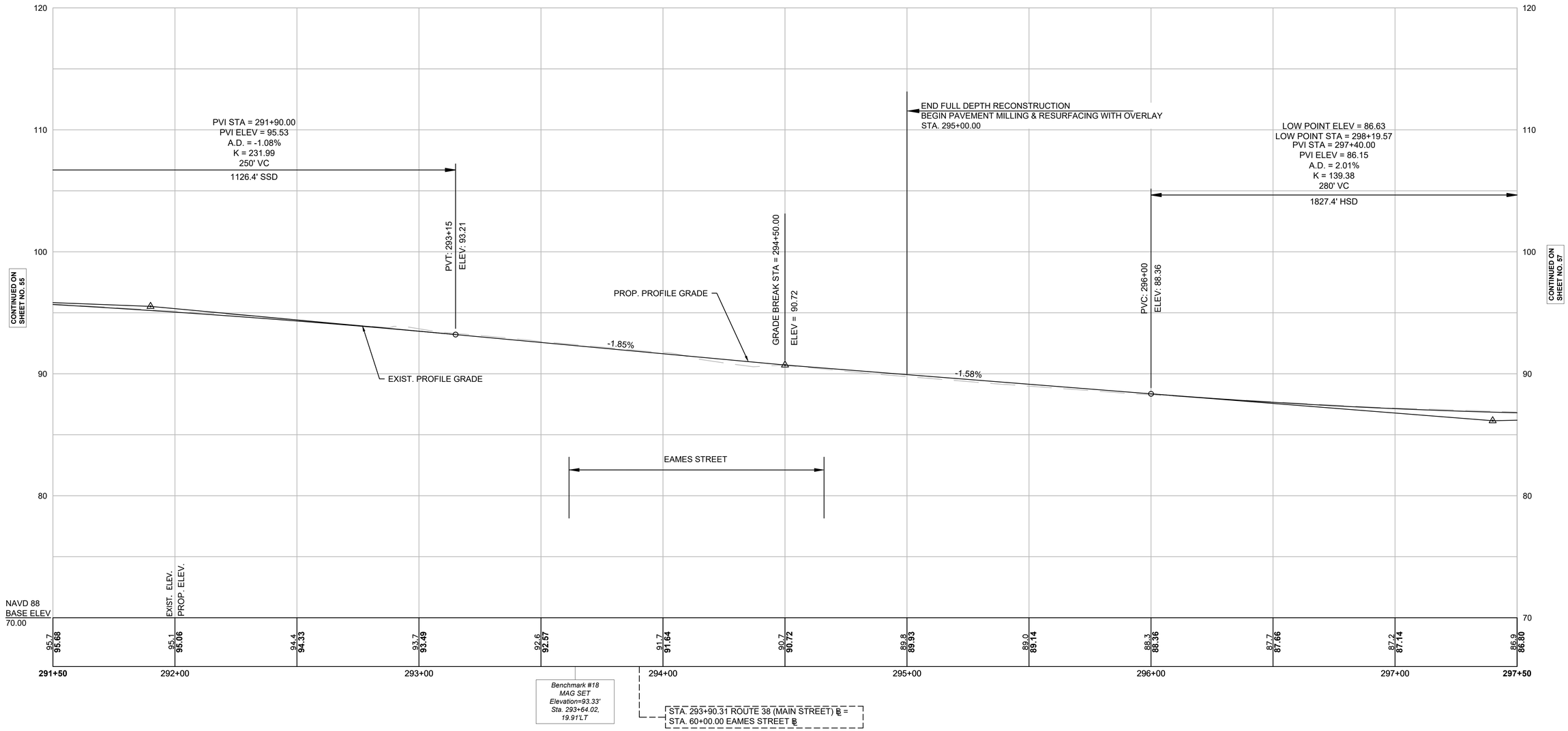
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	56	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 17

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



NOTE:
THE PROPOSED PROFILE IN MILLING AND RESURFACING SECTIONS HAS BEEN SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL MILL 3" AND REPLACE WITH 3.5" OF PAVEMENT. SEE TYPICAL SECTIONS FOR DETAIL.

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 35

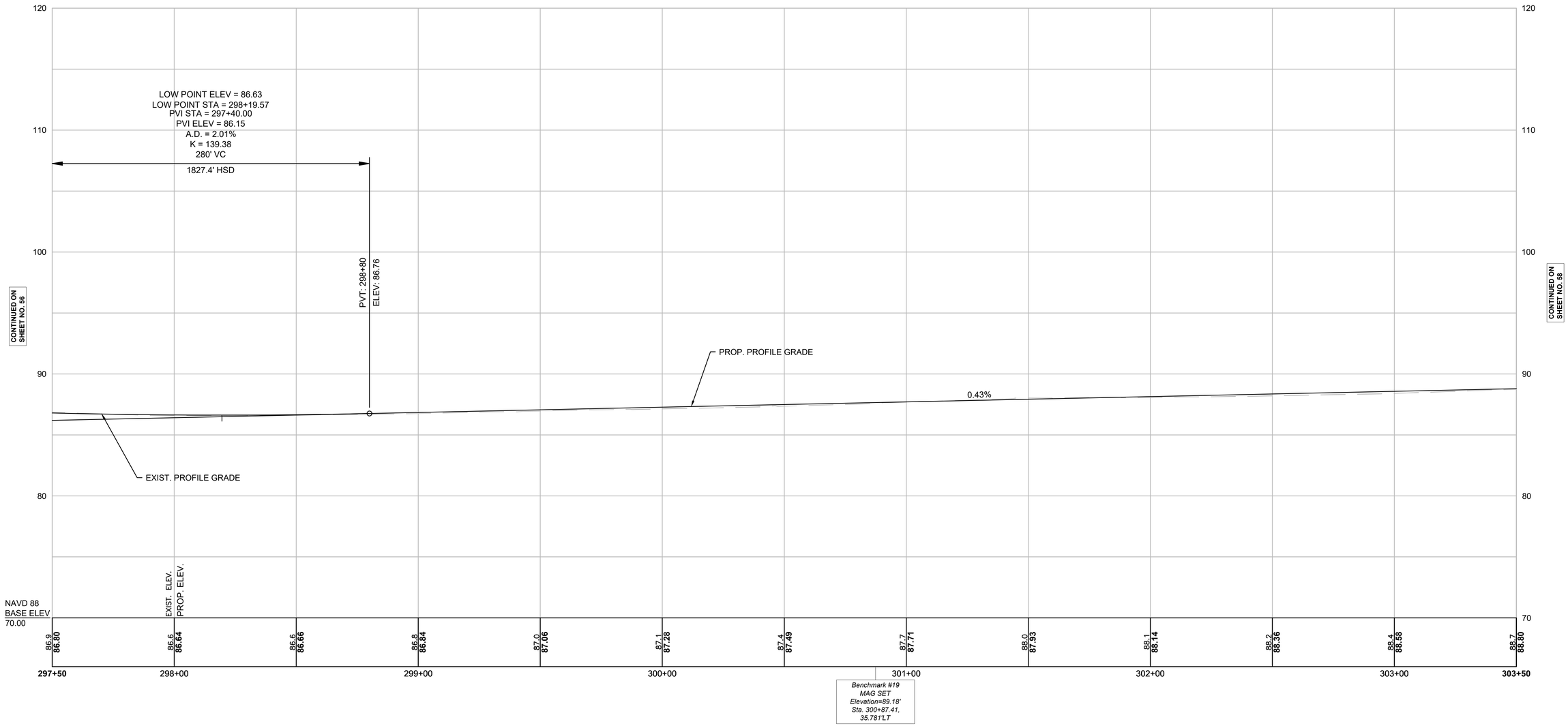
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	57	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 18

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



NOTE:
THE PROPOSED PROFILE IN MILLING AND RESURFACING SECTIONS HAS BEEN SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL MILL 3" AND REPLACE WITH 3.5" OF PAVEMENT. SEE TYPICAL SECTIONS FOR DETAILS.

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 36

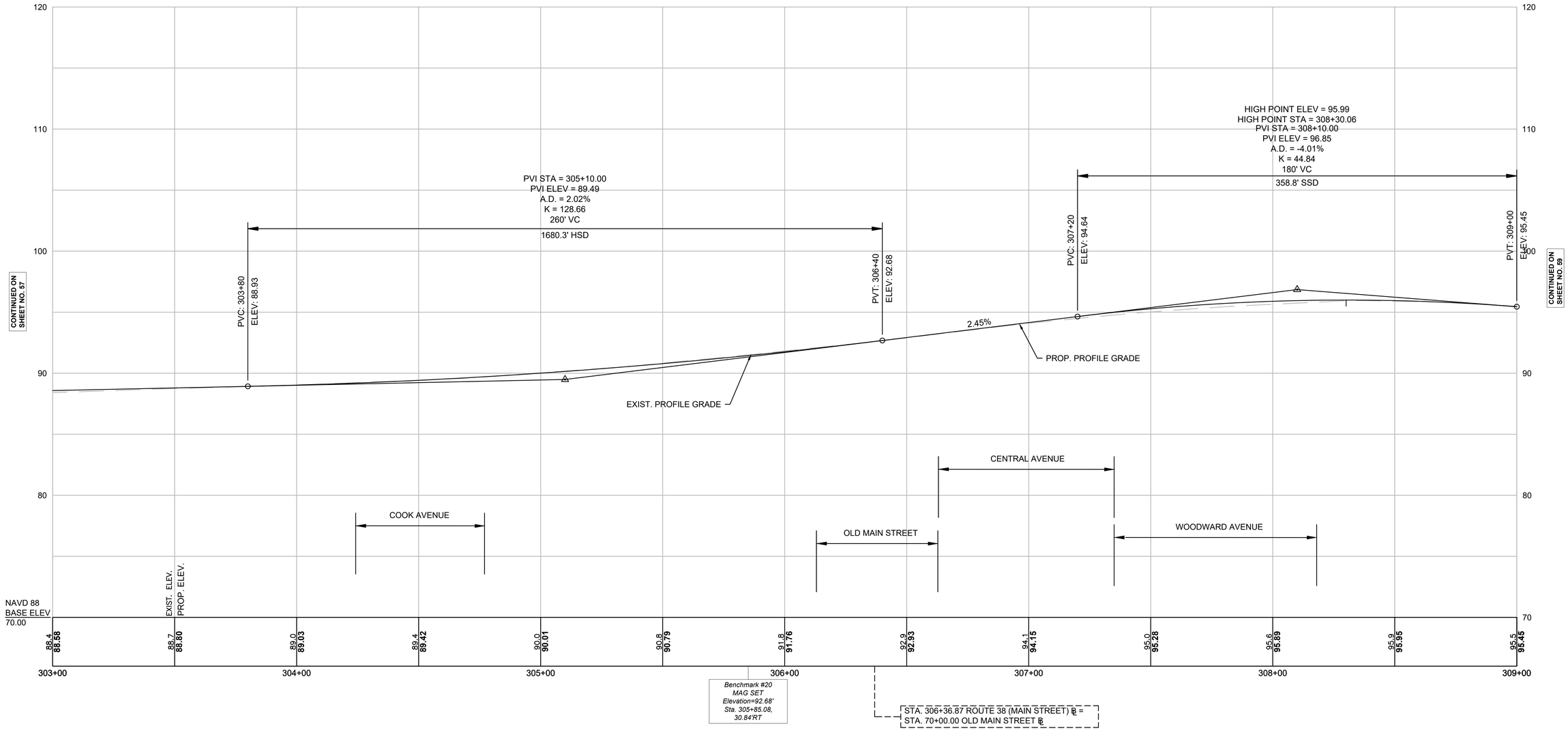
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	58	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 19

608051_HD07\(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



NOTE:
THE PROPOSED PROFILE IN MILLING AND RESURFACING SECTIONS HAS BEEN SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL MILL 3" AND REPLACE WITH 3.5" OF PAVEMENT. SEE TYPICAL SECTIONS FOR DETAILS.

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 37

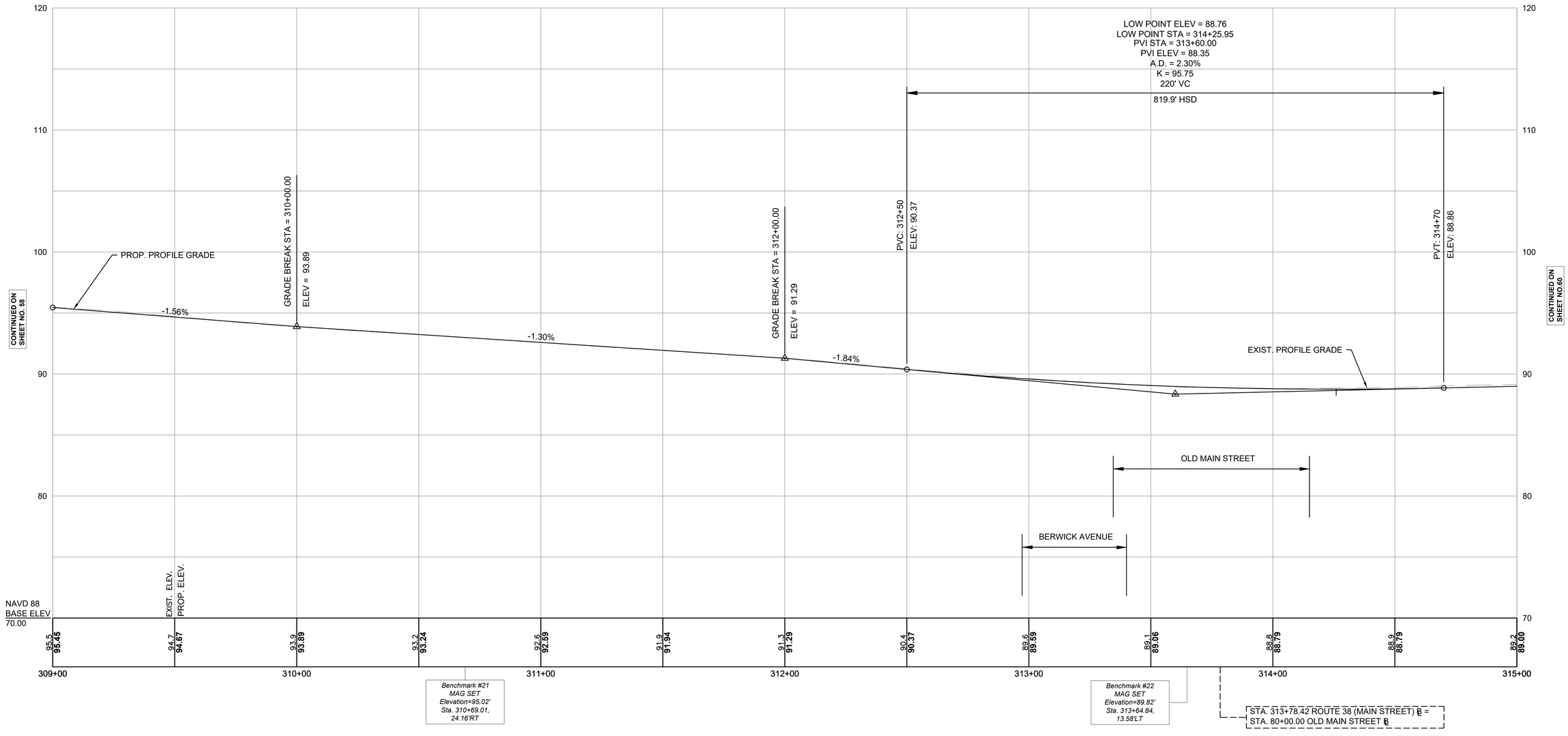
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	59	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 20

608051_HD07\CONST PROFILES\.DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



NOTE:
THE PROPOSED PROFILE IN MILLING AND RESURFACING SECTIONS HAS BEEN SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL MILL 3" AND REPLACE WITH 3.5" OF PAVEMENT. SEE TYPICAL SECTIONS FOR DETAILS.

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 38

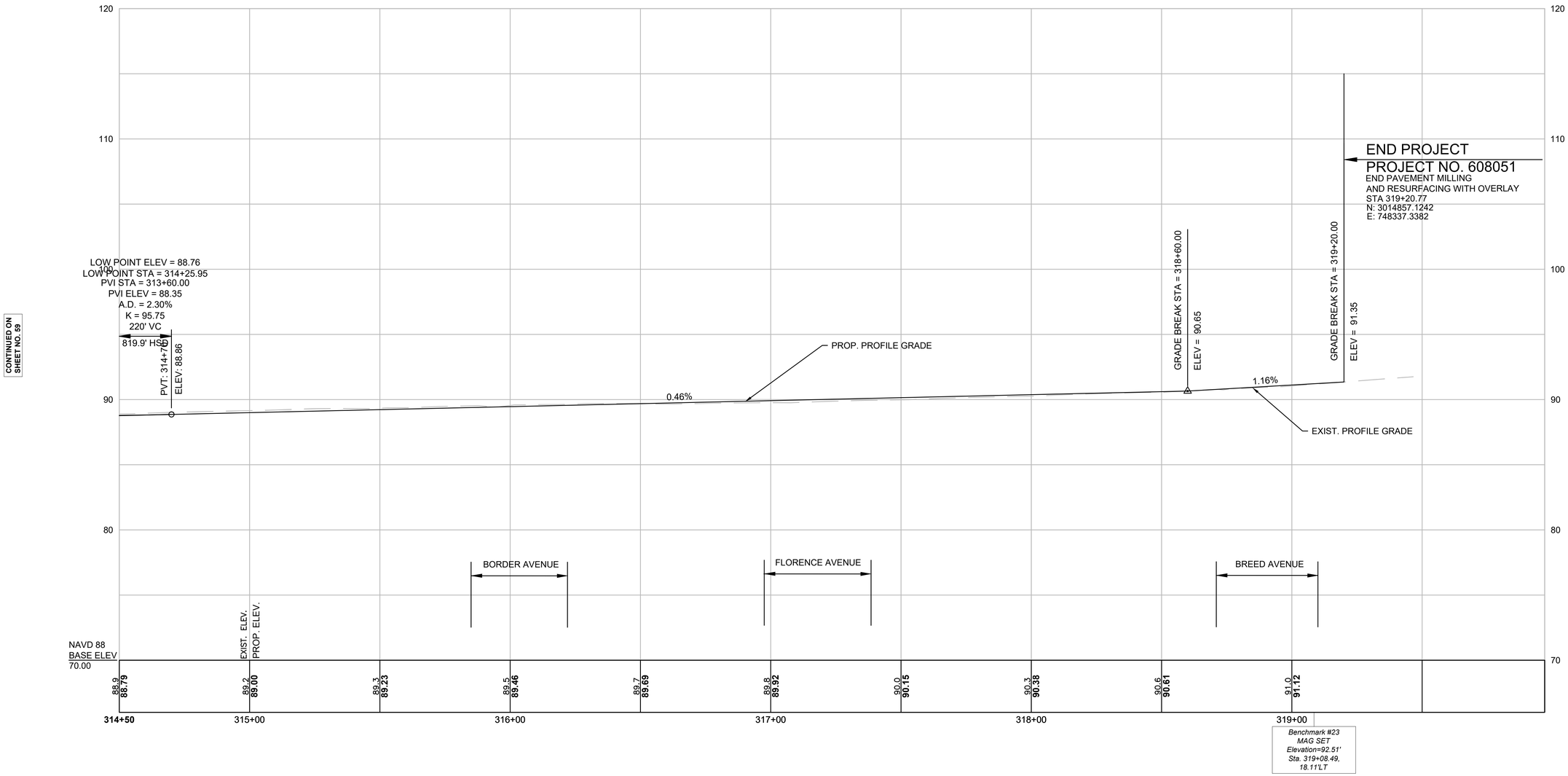
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	60	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 21

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:31 PM

MAIN STREET



CONTINUED ON SHEET NO. 59

NOTE:
THE PROPOSED PROFILE IN MILLING AND RESURFACING SECTIONS HAS BEEN SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL MILL 3" AND REPLACE WITH 3.5" OF PAVEMENT. SEE TYPICAL SECTIONS FOR DETAILS.

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

FOR CONSTRUCTION PLANS
SEE SHEET NO. 39

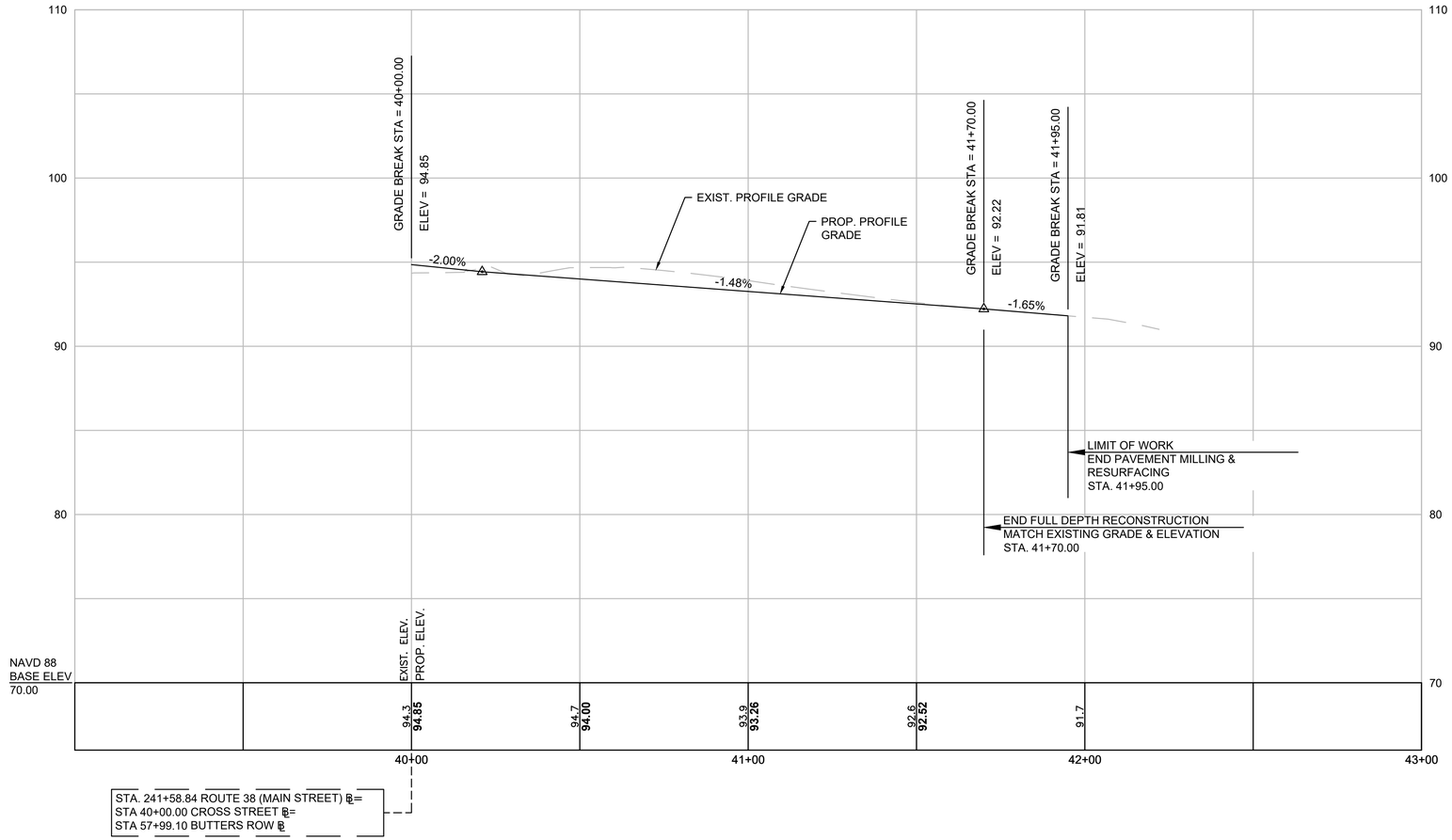
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	61	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 22

608051_HD07(CONST PROFILES).DWG Plotted on 2-Dec-2025 1:32 PM

CROSS STREET



HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

FOR CONSTRUCTION PLANS
SEE SHEET NO. 26

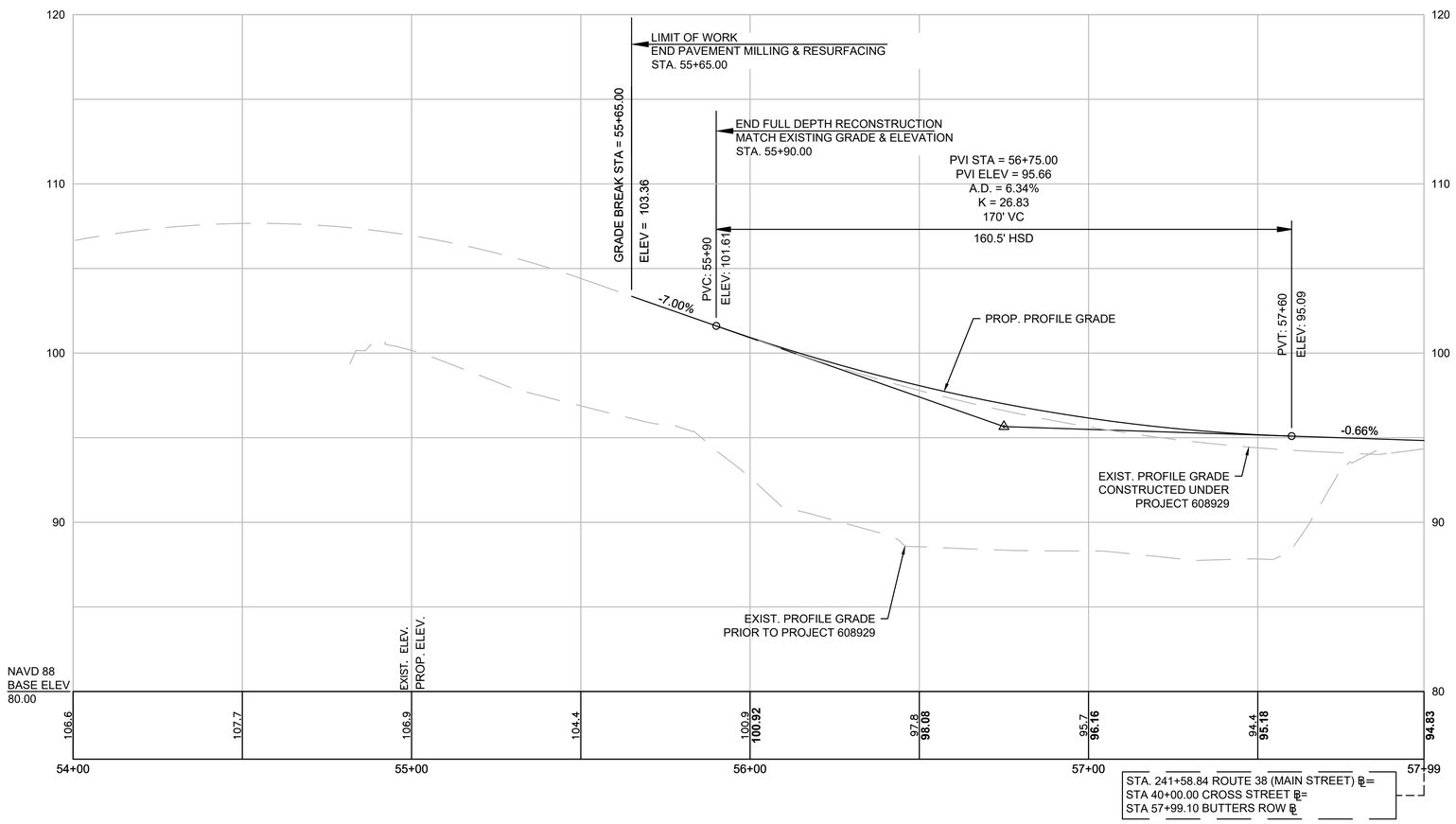
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	62	420
PROJECT FILE NO.	608051		

CONSTRUCTION PROFILES - 23

608051_HD07\CONST PROFILES\.DWG Plotted on 2-Dec-2025 1:32 PM

PROPOSED BUTTERS ROW



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 26

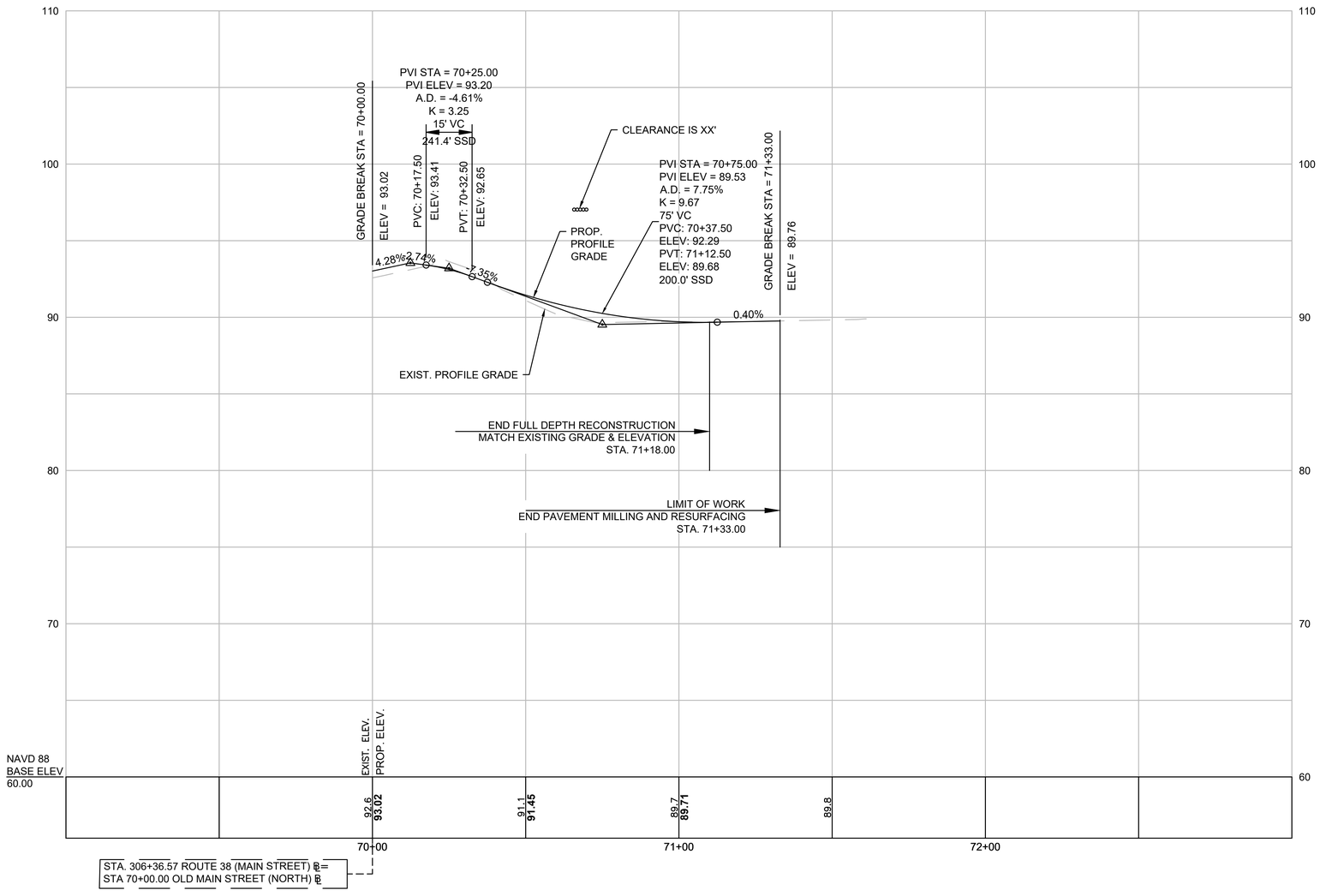
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	63	420
	PROJECT FILE NO. 608051		

CONSTRUCTION PROFILES - 24

608051_HD07\CONST PROFILES.DWG Plotted on 2-Dec-2025 1:32 PM

OLD MAIN STREET (NORTH)



HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

FOR CONSTRUCTION PLANS
SEE SHEET NO. 37

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	64	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 1

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:33 PM

BEGIN PROJECT
STA. 203+55.00
MEET EXISTING
N3024552.8585
E744023.6687

MAIN STREET (ROUTE 38)

203
(PUBLIC - 1923 STATE HIGHWAY LAYOUT-1997 ALTERATION)

1923 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 2122)

1997 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 7255)

MATCH EXISTING GRADE

CHURCH STREET
(1901 COUNTY LAYOUT - 60' WIDE)

LOCATION LINE OF 1901 COUNTY LAYOUT

LOUIS VALENTI
PARCEL ID 42-20
BOOK 15294 PAGE 161
424 MAIN ST

414-418 MAIN STREET REALTY TRUST
PARCEL ID 42-19
BOOK 21033 PAGE 248
414-418 MAIN ST

MACMULLIN FAMILY REALTY TRUST III
PARCEL ID 42-21
BOOK 27960 PAGE 33
428-438 MAIN ST

1 CHURCH STREET REALTY TRUST
PARCEL ID 41-110
BOOK 24436 PAGE 46
1 CHURCH ST

STEDMAN 442, LLC
PARCEL ID 41-111
BOOK 22652 PAGE 51
442 MAIN ST

C & B REALTY TRUST
PARCEL ID 41-112
BOOK 10882 PAGE 295
446 MAIN ST

456 MAIN STREET REALTY TRUST
PARCEL ID 41-113
BOOK 23689 PAGE 31
456 MAIN ST

3" WIDE PASSAGEWAY BOOK 10882 PAGE 295

RIGHT OF WAY BOOK 865 PAGE 60

BOC: 100.00 TOC: 100.50
BOC: 99.62 TOC: 100.12
BOC: 99.42 TOC: 99.92
BOC: 99.12 TOC: 99.62
BOC: 99.63 TOC: 100.13
BOC: 100.00 TOC: 100.50
BOC: 100.32 TOC: 100.82
BOC: 101.32 TOC: 101.82

1 N: 3024541.361' E: 744067.157' EL: 95.092' DH

2 N: 3024249.872' E: 744113.818' EL: 108.896' DH

BOC: 105.40
TOC: 105.90
+97.71

BOC: 106.09
TOC: 106.59

BOC: 106.71

BOC: 107.21

BEGIN WALL STRUCTURE NO. 1

BOC: 109.30
TOC: 109.80

MASSACHUSETTS BAY TRANSIT AUTHORITY
BOOK 13117 PAGE 113
PARCEL ID 42-22
375 MAIN ST

MASSACHUSETTS BAY TRANSIT AUTHORITY
BOOK 13117 PAGE 113
PARCEL ID 41-141

BURLINGTON AVENUE
(PUBLIC - 1997 ALTERATION)

1997 ALTERATION LOCATION LINE OF SHLG NO. 7255

APPROXIMATE RAILROAD SIDELINE

PROP ROUTE 38 CONST BL

PC +57.68
PT +49.62
PC +72.00

CONTINUED ON SHEET NO. 65

PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L3	200+00.00	3024871.7015	743867.5880		S26°04'58"E 457.68'	204+57.68	3024460.6293	744068.8169
C2	204+57.68	3024460.6293	744068.8169	R=1350.00' Δ=3°54'06" L=91.93' T=45.98'		205+49.62	3024376.7473	744106.3952
L7	205+49.62	3024376.7473	744106.3952		S22°10'52"E 122.39'	206+72.00	3024263.4164	744152.6009
C-5	206+72.00	3024263.4164	744152.6009	R=800.00' Δ=20°39'57" L=288.55' T=145.86'		209+60.55	3024021.4096	744306.8595

CHURCH STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L29	10+00.00	3024322.4156	744128.5466		N30°59'46"E 242.29'	12+42.29	3024530.1063	744253.3204

BURLINGTON AVENUE ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L30	20+00.00	3024330.1724	744125.3841		S41°15'15"W 68.32'	20+68.32	3024278.8090	744080.3330
C-72	20+68.32	3024278.8090	744080.3330	R=951.90' Δ=10°42'43" L=177.96' T=89.24'		22+46.29	3024134.8567	743976.1359

Curve Table			
Curve #	Delta	Radius	Length
C-27	64°32'28"	38.00	42.81
C-28	126°10'36"	18.00	39.64
C-29	52°16'38"	50.00	45.62
C-68	54°03'47"	40.00	37.74
C-108	2°18'11"	1322.50	53.16
C-109	6°55'27"	774.00	93.54
C-110	18°46'21"	824.50	270.14

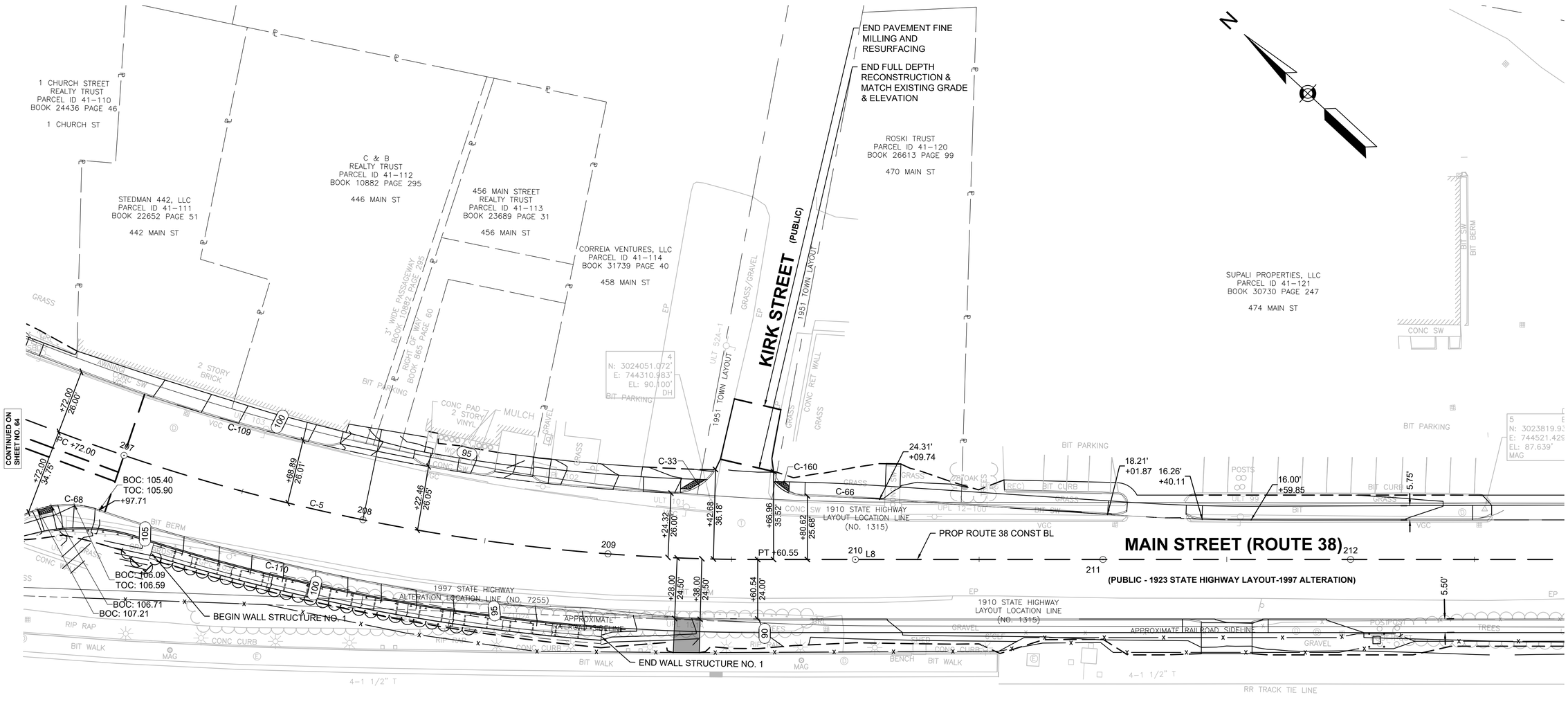
0 20 50 100
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	65	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 2

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:33 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-5	206+72.00	3024263.4164	744152.6009	R=800.00' Δ=20°39'57" L=288.55' T=145.86'		209+60.55	3024021.4096	744306.8595
L8	209+60.55	3024021.4096	744306.8595		S42°50'49"E 734.75'	216+95.30	3023482.7132	744806.5190

Curve Table			
Curve #	Delta	Radius	Length
C-33	61°15'25"	20.00	21.38
C-66	2°08'59"	777.00	29.15
C-160	68°14'43"	15.00	17.87

0 20 50 100

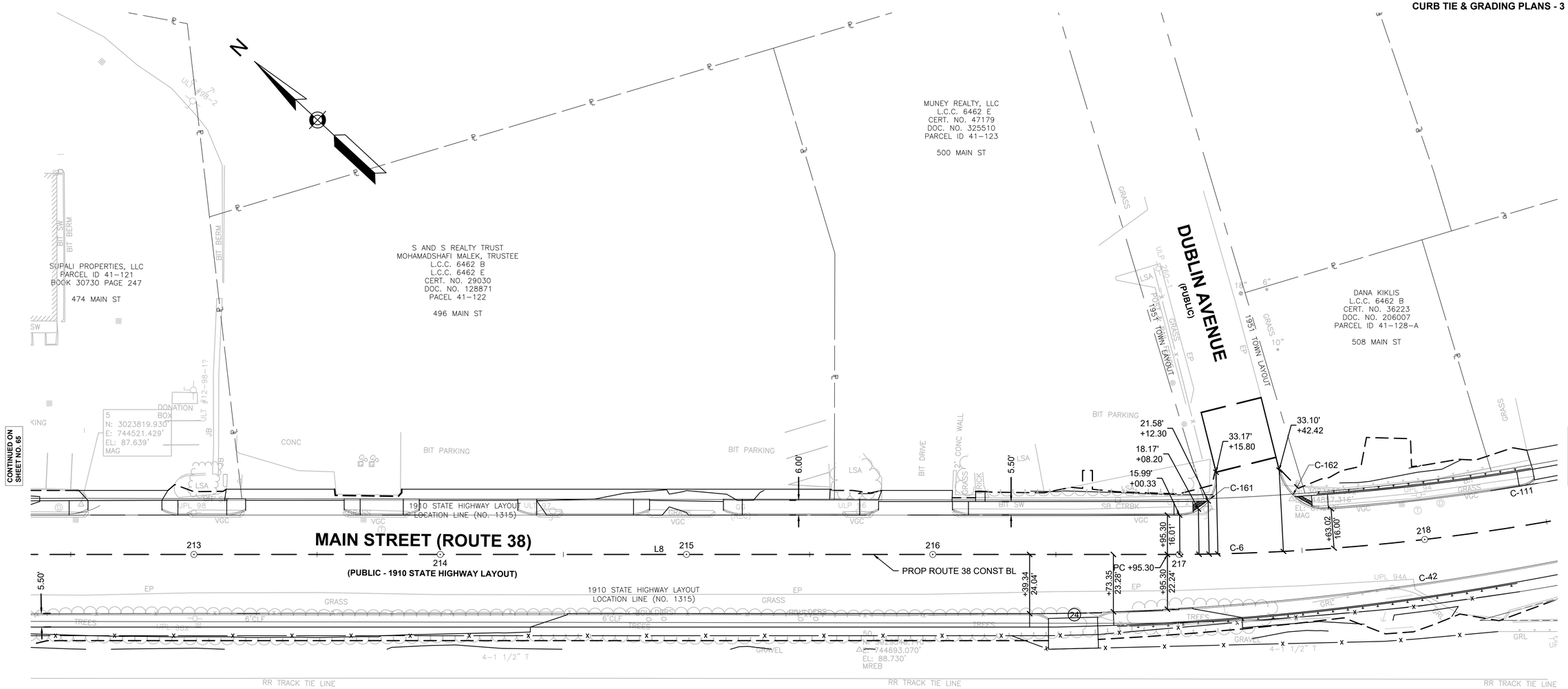
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	66	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 3

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:34 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L8	209+60.55	3024021.4096	744306.8595		S42°50'49"E 734.75'	216+95.30	3023482.7132	744806.5190
C-6	216+95.30	3023482.7132	744806.5190	R=900.00' Δ=15°37'38" L=245.47' T=123.50'		219+40.77	3023327.5874	744995.7799

Curve Table			
Curve #	Delta	Radius	Length
C–161	99°11'01"	15.00	25.97
C–162	80°18'38"	20.00	28.03

0 20 50 100

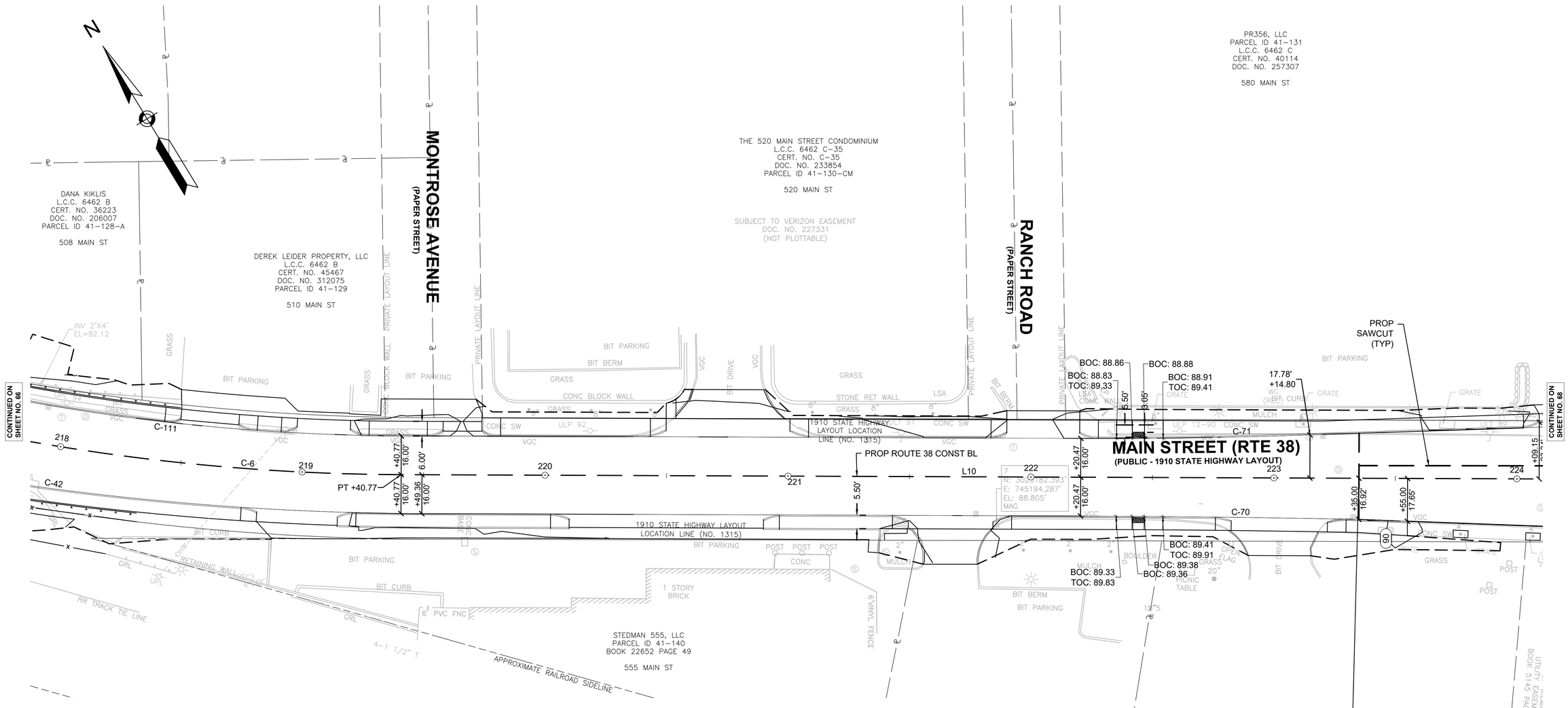
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	67	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 4

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:34 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-6	216+95.30	3023482.7132	744806.5190	R=900.00' Δ=15°37'38" L=245.47' T=123.50'		219+40.77	3023327.5874	744995.7799
L10	219+40.77	3023327.5874	744995.7799		S58°28'27"E 504.79'	224+45.56	3023063.6441	745426.0613

Curve Table			
Curve #	Delta	Radius	Length
C–42	14°05'59"	1200.00	295.30
C–70	0°52'32"	7495.00	114.54
C–71	2°10'00"	2495.00	94.35
C–111	3°03'13"	884.00	47.11

0 20 50 100

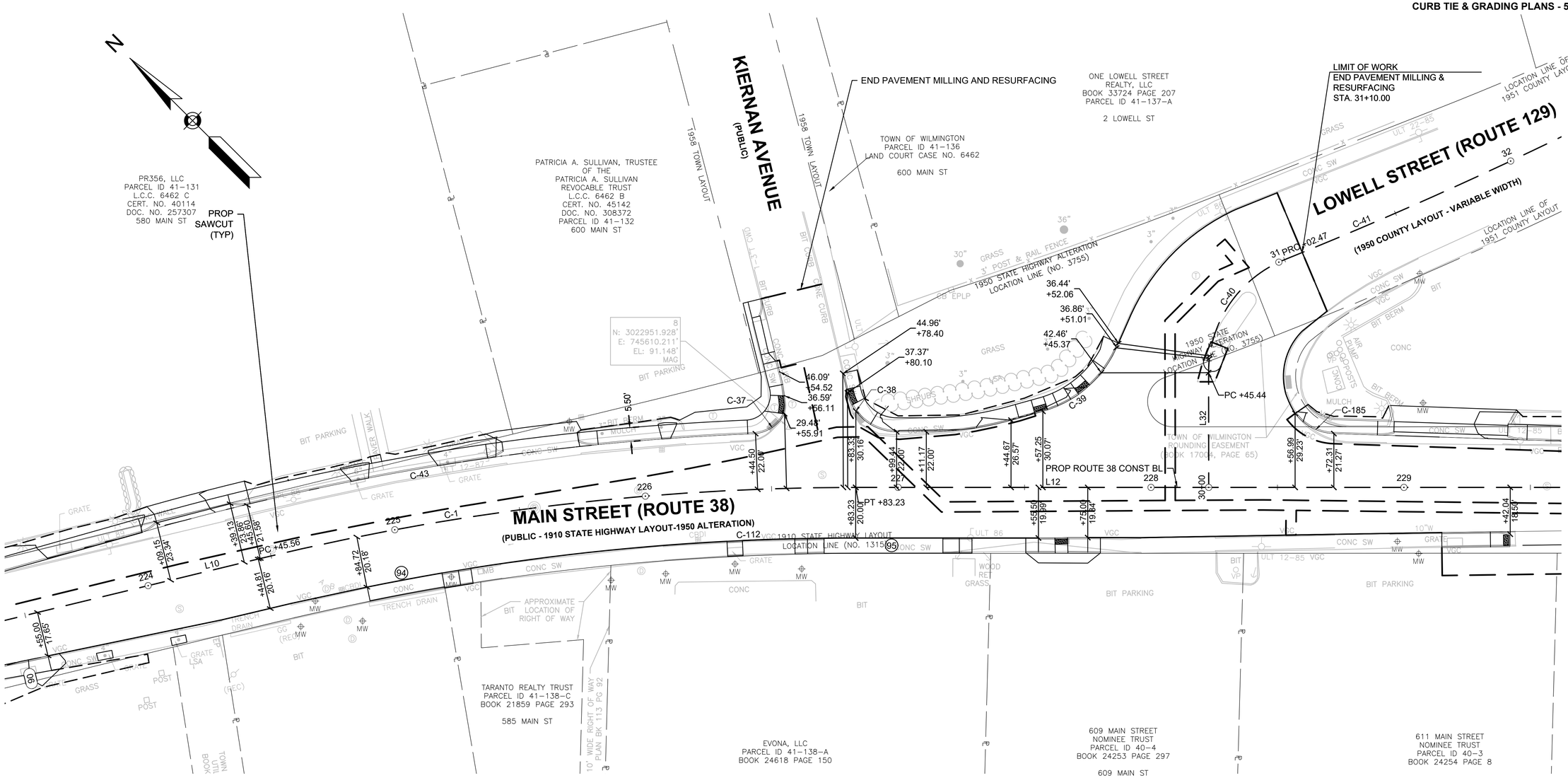
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	68	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 5

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:35 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	219+40.77	3023327.5874	744995.7799		S58°28'27"E 504.79'	224+45.56	3023063.6441	745426.0613
C-1	224+45.56	3023063.6441	745426.0613	R=1000.00' Δ=13°37'04" L=237.68' T=119.40'		226+83.23	3022916.5719	745612.0554
L12	226+83.23	3022916.5719	745612.0554		S44°51'23"E 1523.01'	242+06.25	3021836.9437	746686.2859

LOWELL STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L32	30+00.00	3022817.6189	745710.5136		N45°05'06"E 45.44'	30+45.44	3022849.6988	745742.6887
C-40	30+45.44	3022849.6988	745742.6887	R=48.00' Δ=68°05'09" L=57.04' T=32.43'		31+02.47	3022859.8354	745795.4661
C-41	31+02.47	3022859.8354	745795.4661	R=1755.00' Δ=11°53'25" L=364.20' T=182.76'		34+66.68	3022752.1750	746142.7084

Curve Table			
Curve #	Delta	Radius	Length
C–37	55°10'34"	15.00	14.45
C–38	76°36'31"	20.00	26.74
C–39	50°38'07"	45.00	39.77
C–43	13°33'55"	1022.00	241.97
C–112	11°35'12"	962.00	194.54
C–185	51°08'37"	20.00	17.85

0 20 50 100

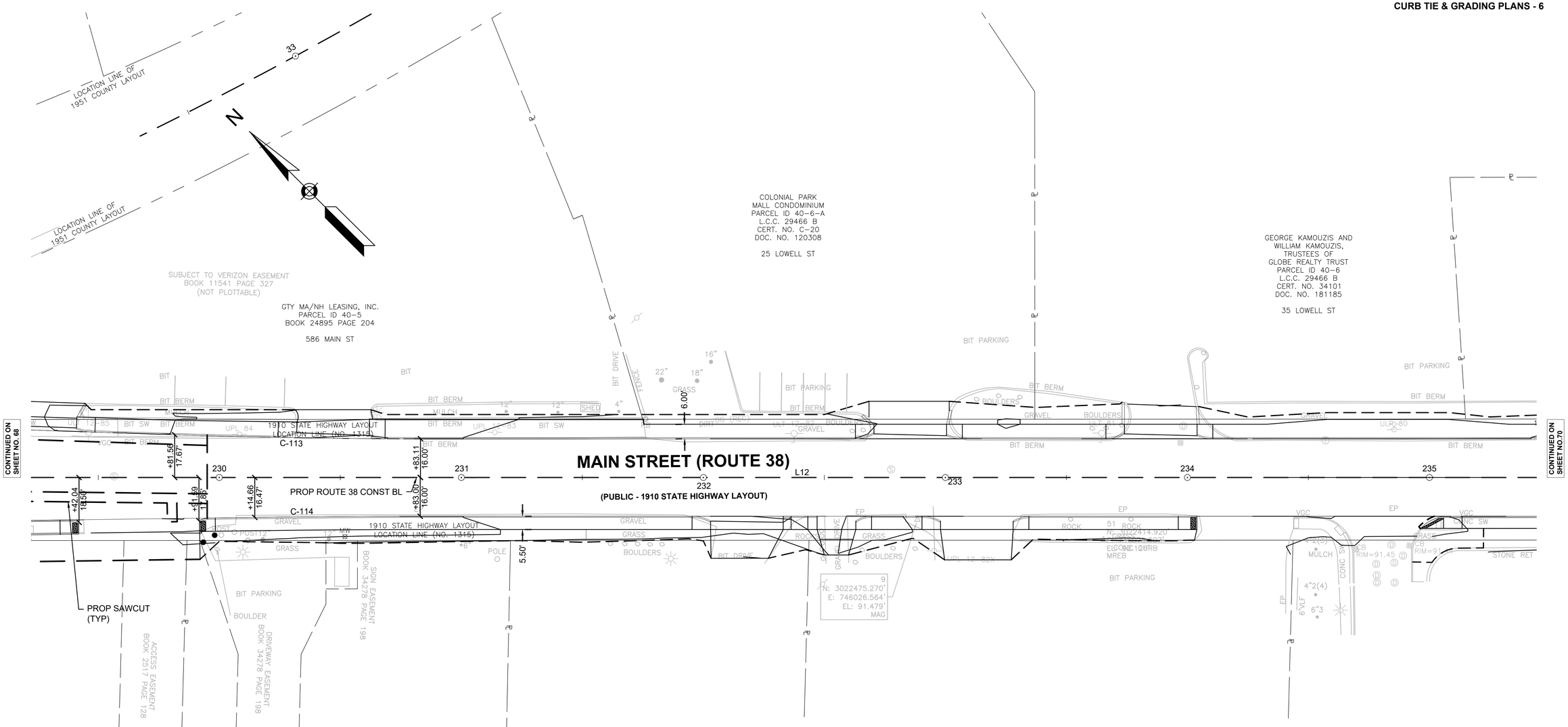
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	69	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 6

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:35 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L12	226+83.23	3022916.5719	745612.0554		S44°51'23"E 1523.01'	242+06.25	3021836.9437	746686.2859

Curve Table			
Curve #	Delta	Radius	Length
C-113	0°56'12"	3085.00	50.43
C-114	0°46'59"	5000.00	68.34

0 20 50 100

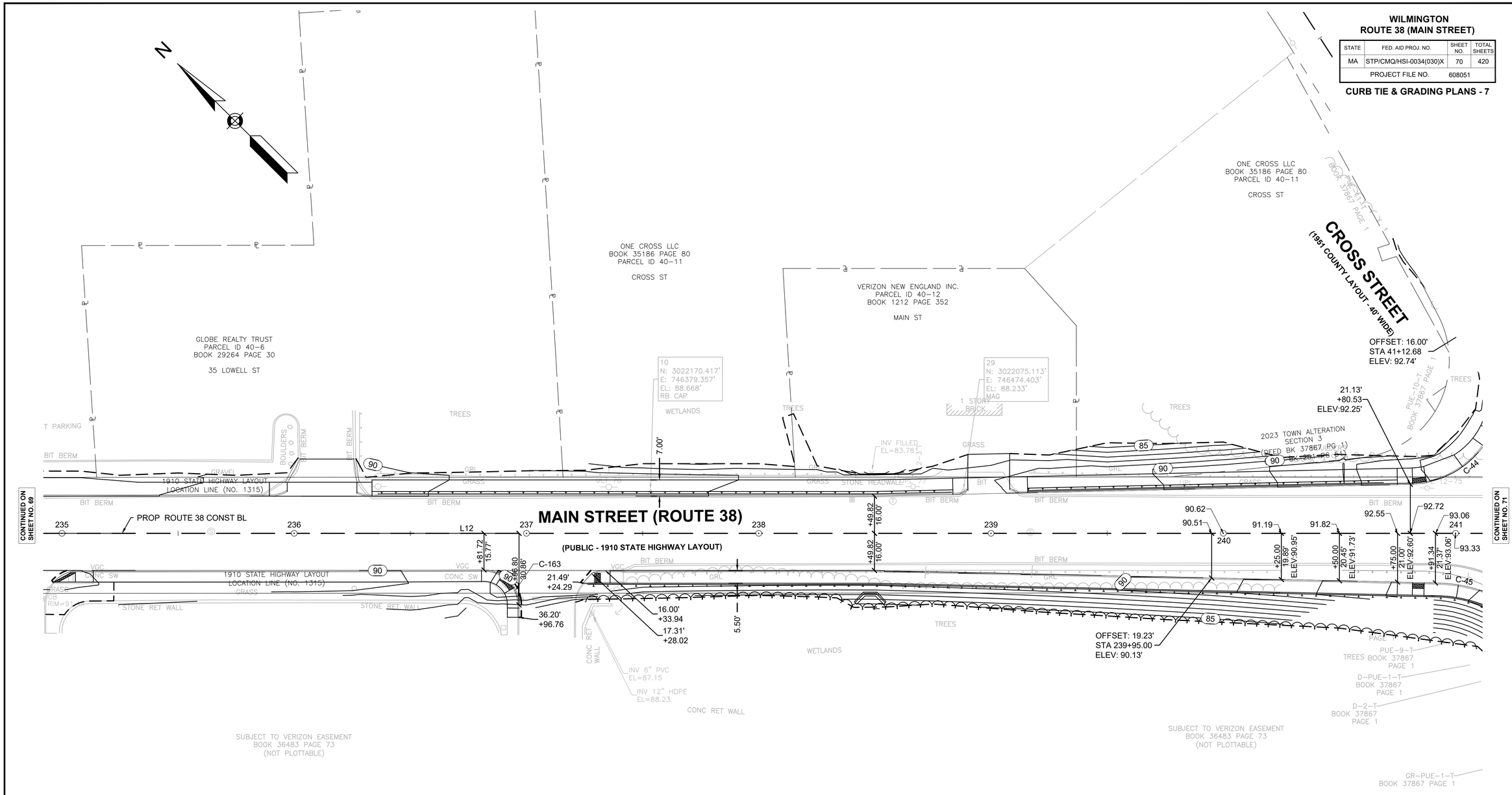
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	70	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 7

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:36 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L12	226+83.23	3022916.5719	745612.0554		S44°51'23"E 1523.01'	242+06.25	3021836.9437	746686.2859

Curve Table			
Curve #	Delta	Radius	Length
C-45	71°17'35"	65.00	80.88
C-163	90°40'59"	15.00	23.74

0 20 50 100

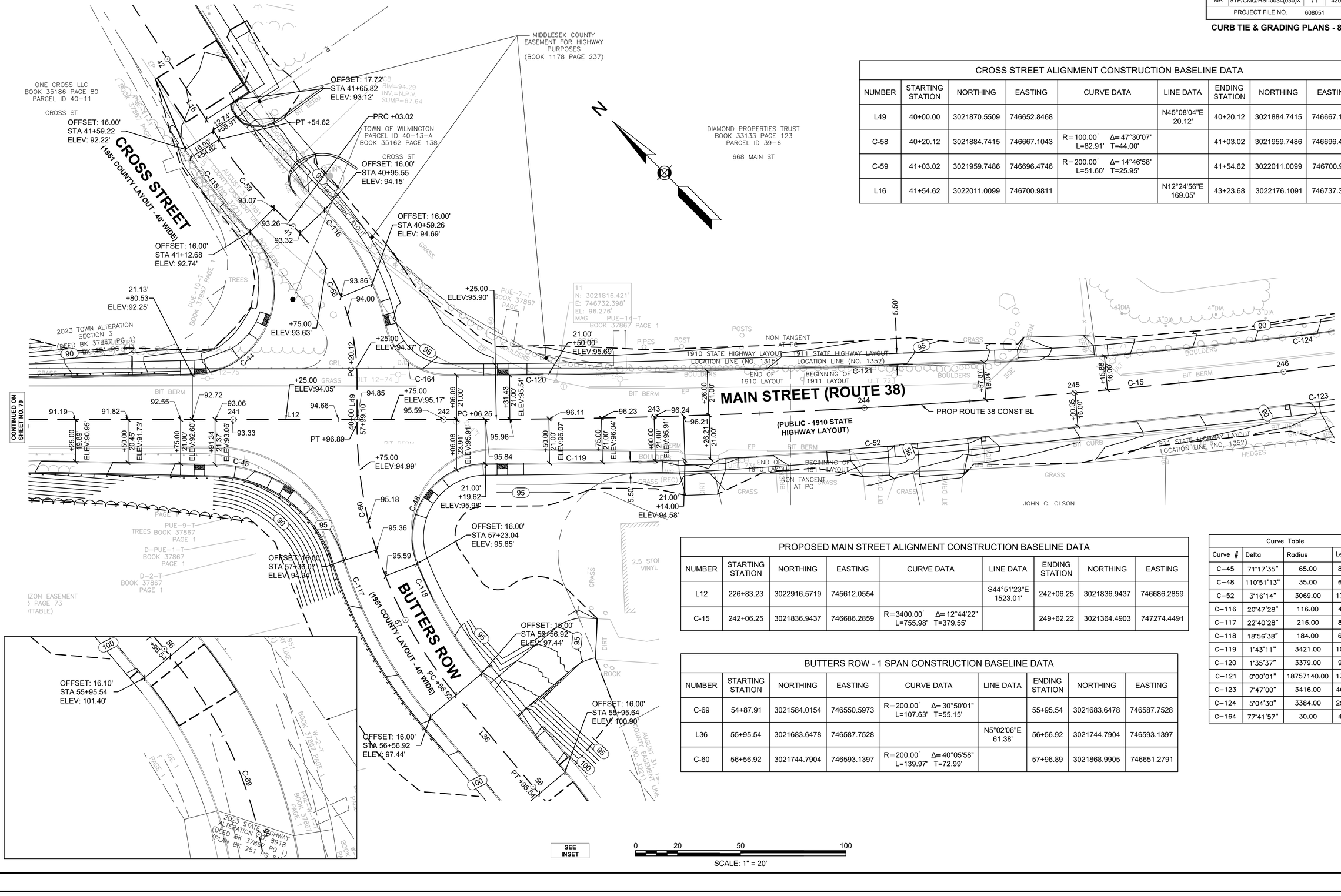
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	71	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 8

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:37 PM



CROSS STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L49	40+00.00	3021870.5509	746652.8468		N45°08'04"E 20.12'	40+20.12	3021884.7415	746667.1043
C-58	40+20.12	3021884.7415	746667.1043	R=100.00' Δ=47°30'07" L=82.91' T=44.00'		41+03.02	3021959.7486	746696.4746
C-59	41+03.02	3021959.7486	746696.4746	R=200.00' Δ=14°46'58" L=51.60' T=25.95'		41+54.62	3022011.0099	746700.9811
L16	41+54.62	3022011.0099	746700.9811		N12°24'56"E 169.05'	43+23.68	3022176.1091	746737.3278

PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA							
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L12	226+83.23	3022916.5719	745612.0554		S44°51'23"E 1523.01'	242+06.25	3021836.9437	746686.2859
C-15	242+06.25	3021836.9437	746686.2859	R=3400.00' Δ=12°44'22" L=755.98' T=379.55'		249+62.22	3021364.4903	747274.4491

BUTTERS ROW - 1 SPAN CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-69	54+87.91	3021584.0154	746550.5973	R=200.00' Δ=30°50'01" L=107.63' T=55.15'		55+95.54	3021683.6478	746587.7528
L36	55+95.54	3021683.6478	746587.7528		N5°02'06"E 61.38'	56+56.92	3021744.7904	746593.1397
C-60	56+56.92	3021744.7904	746593.1397	R=200.00' Δ=40°05'58" L=139.97' T=72.99'		57+96.89	3021868.9905	746651.2791

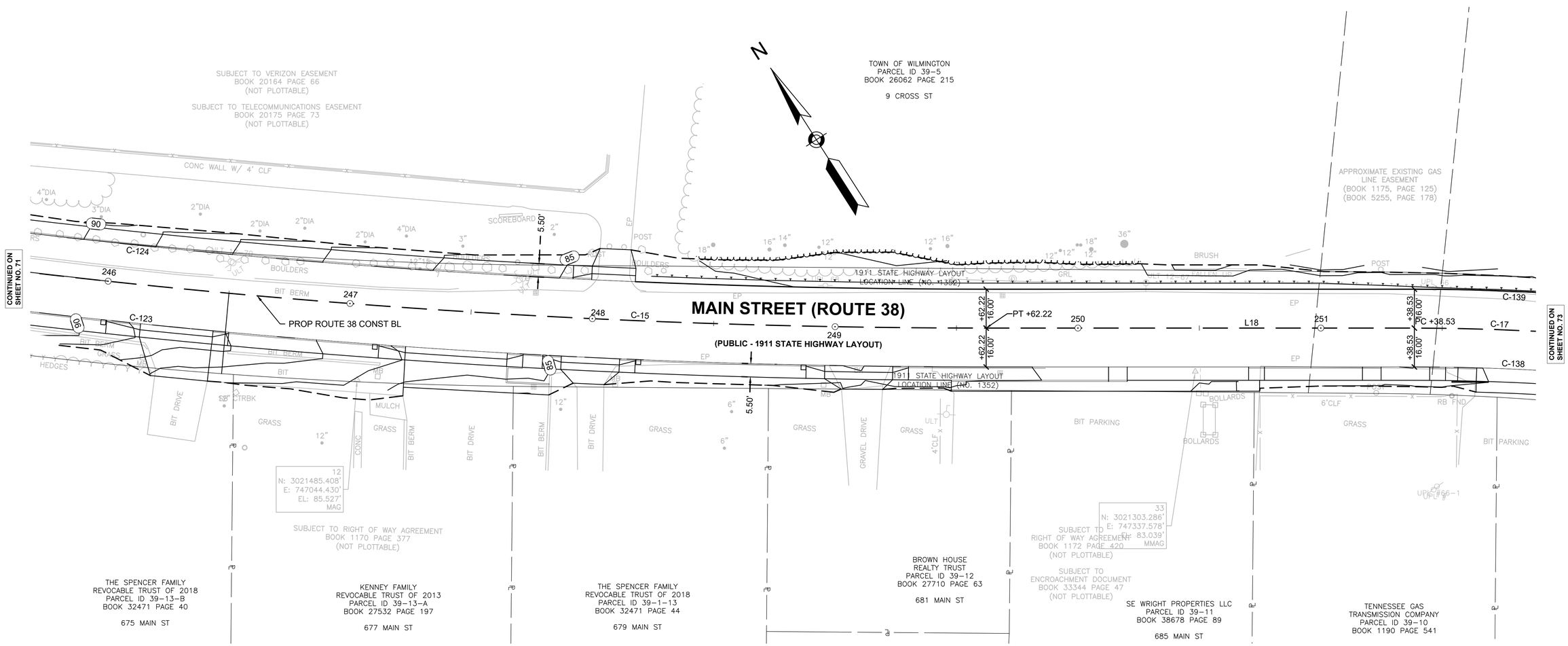
Curve Table			
Curve #	Delta	Radius	Length
C-45	71°17'35"	65.00	80.88
C-48	110°51'13"	35.00	67.72
C-52	3°16'14"	3069.00	175.18
C-116	20°47'28"	116.00	42.09
C-117	22°40'28"	216.00	85.48
C-118	18°56'38"	184.00	60.84
C-119	1°43'11"	3421.00	102.67
C-120	1°35'37"	3379.00	93.99
C-121	0°00'01"	18757140.00	131.12
C-123	7°47'00"	3416.00	464.04
C-124	5°04'30"	3384.00	299.74
C-164	77°41'57"	30.00	40.68

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	72	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 9

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:37 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-15	242+06.25	3021836.9437	746686.2859	R=3400.00' Δ=12°44'22" L=755.98' T=379.55'		249+62.22	3021364.4903	747274.4491
L18	249+62.22	3021364.4903	747274.4491		S57°35'45"E 176.31'	251+38.53	3021270.0099	747423.3028
C-17	251+38.53	3021270.0099	747423.3028	R=950.00' Δ=34°59'21" L=580.14' T=299.43'		257+18.67	3020833.1188	747791.2165

Curve Table			
Curve #	Delta	Radius	Length
C-123	7°47'00"	3416.00	464.04
C-124	5°04'30"	3384.00	299.74
C-138	34°59'21"	934.00	570.37
C-139	34°59'21"	966.00	589.91

0 20 50 100

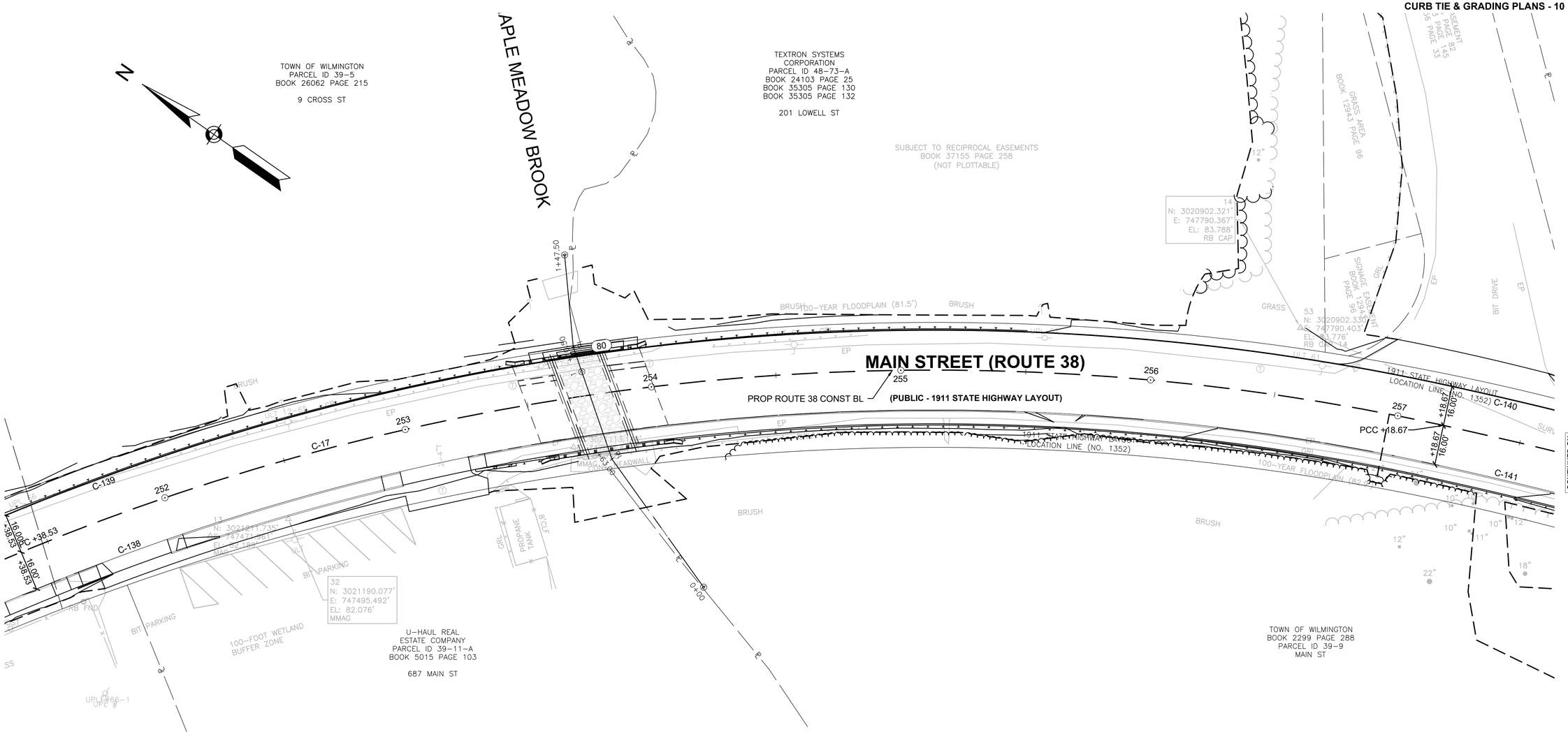
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	73	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 10

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:37 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-17	251+38.53	3021270.0099	747423.3028	R=950.00' Δ=34°59'21" L=580.14' T=299.43'		257+18.67	3020833.1188	747791.2165

Curve Table			
Curve #	Delta	Radius	Length
C-138	34°59'21"	934.00	570.37
C-139	34°59'21"	966.00	589.91
C-140	12°38'43"	1916.00	422.86
C-141	14°48'21"	1884.00	486.84

0 20 50 100

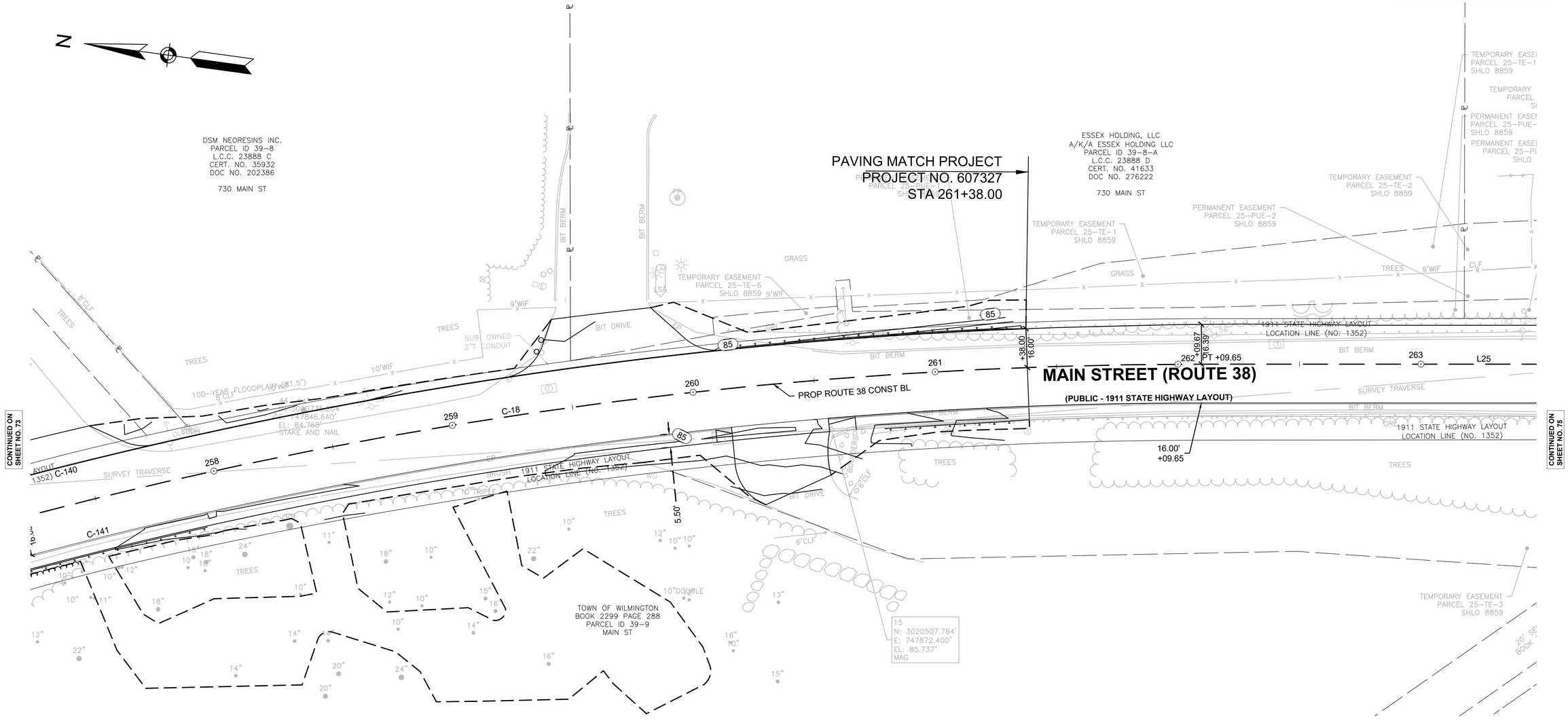
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	74	420
	PROJECT FILE NO. 608051		

CURB TIE & GRADING PLANS - 11

608051_HD06(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:38 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-18	257+18.67	3020833.1188	747791.2165	R=1900.00' Δ=14°48'21" L=490.98' T=246.86'		262+09.65	3020360.6421	747919.6196
L25	262+09.65	3020360.6421	747919.6196		S7°48'03"E 741.21'	269+50.85	3019626.2962	748020.2250

Curve Table			
Curve #	Delta	Radius	Length
C-140	12°38'43"	1916.00	422.86
C-141	14°48'21"	1884.00	486.84

0 20 50 100

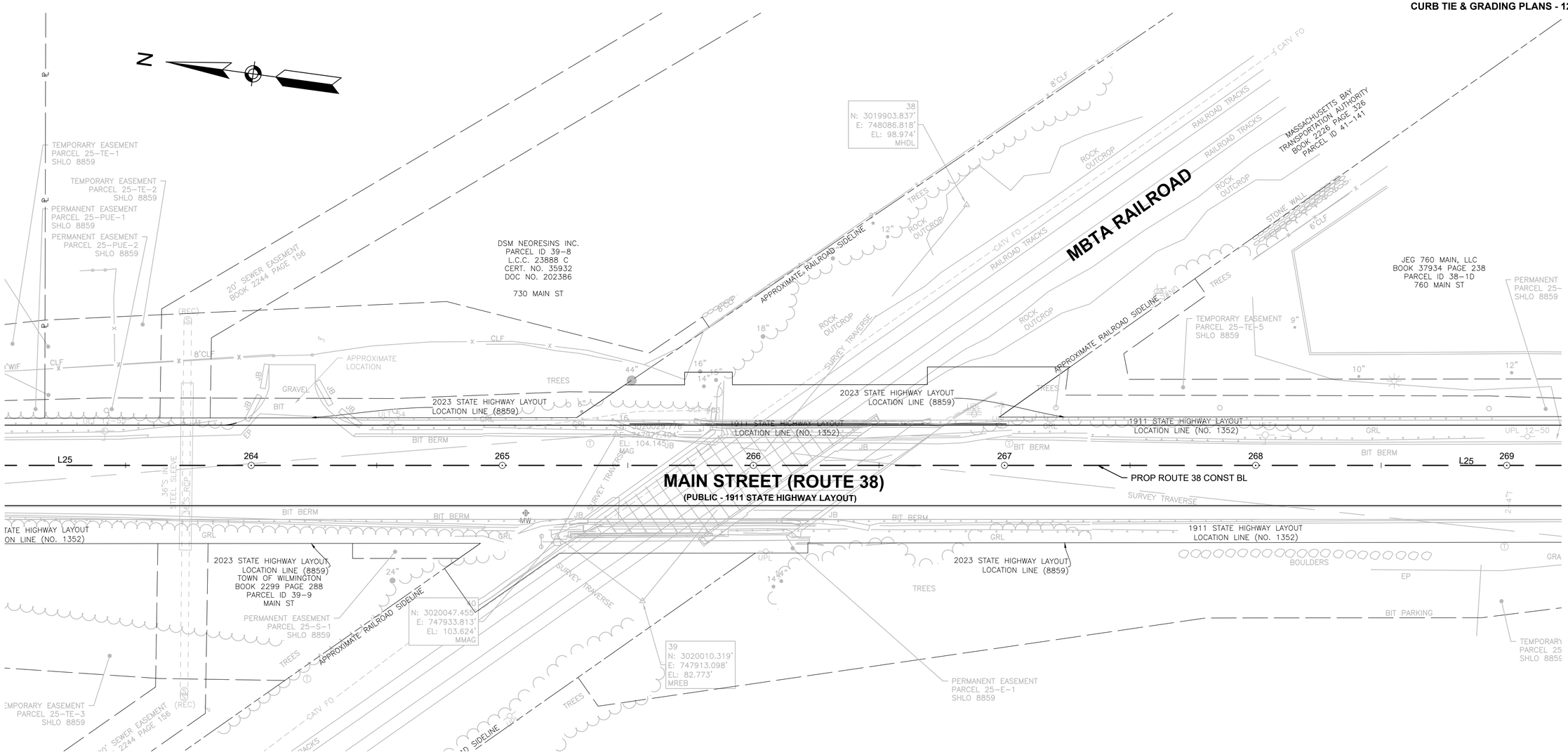
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	75	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 12

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:38 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L25	262+09.65	3020360.6421	747919.6196		S7°48'03"E 741.21'	269+50.85	3019626.2962	748020.2250

0 20 50 100

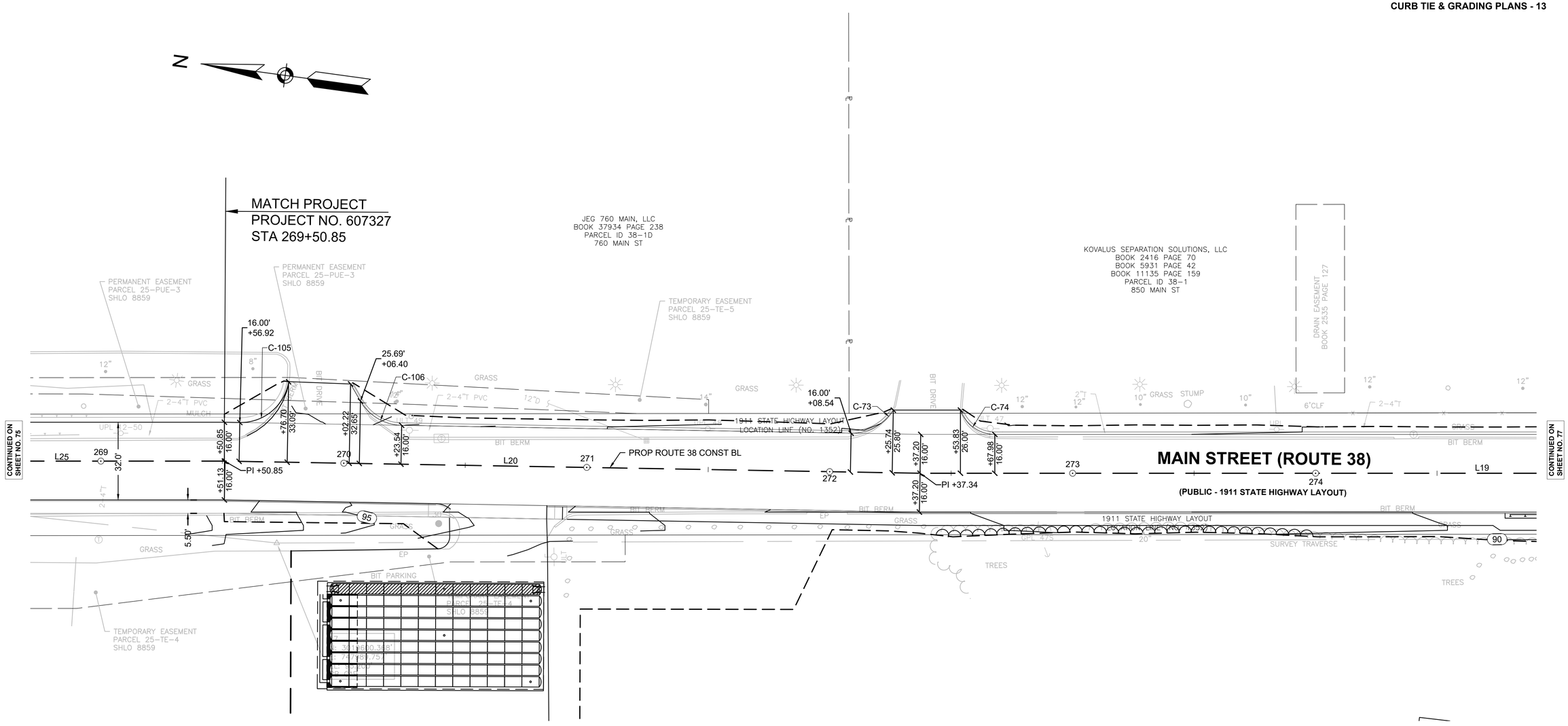
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	76	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 13

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:39 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L20	269+50.85	3019626.2962	748020.2250		S6°48'03"E 286.48'	272+37.34	3019341.8286	748054.1504
L19	272+37.34	3019341.8286	748054.1504		S7°48'03"E 468.80'	277+06.14	3018877.3681	748117.7815
L25	262+09.65	3020360.6421	747919.6196		S7°48'03"E 741.21'	269+50.85	3019626.2962	748020.2250

Curve Table			
Curve #	Delta	Radius	Length
C-73	59°20'07"	20.00	20.71
C-74	70°31'44"	15.00	18.46
C-105	81°37'57"	20.00	28.50
C-106	58°58'29"	20.00	20.59

0 20 50 100

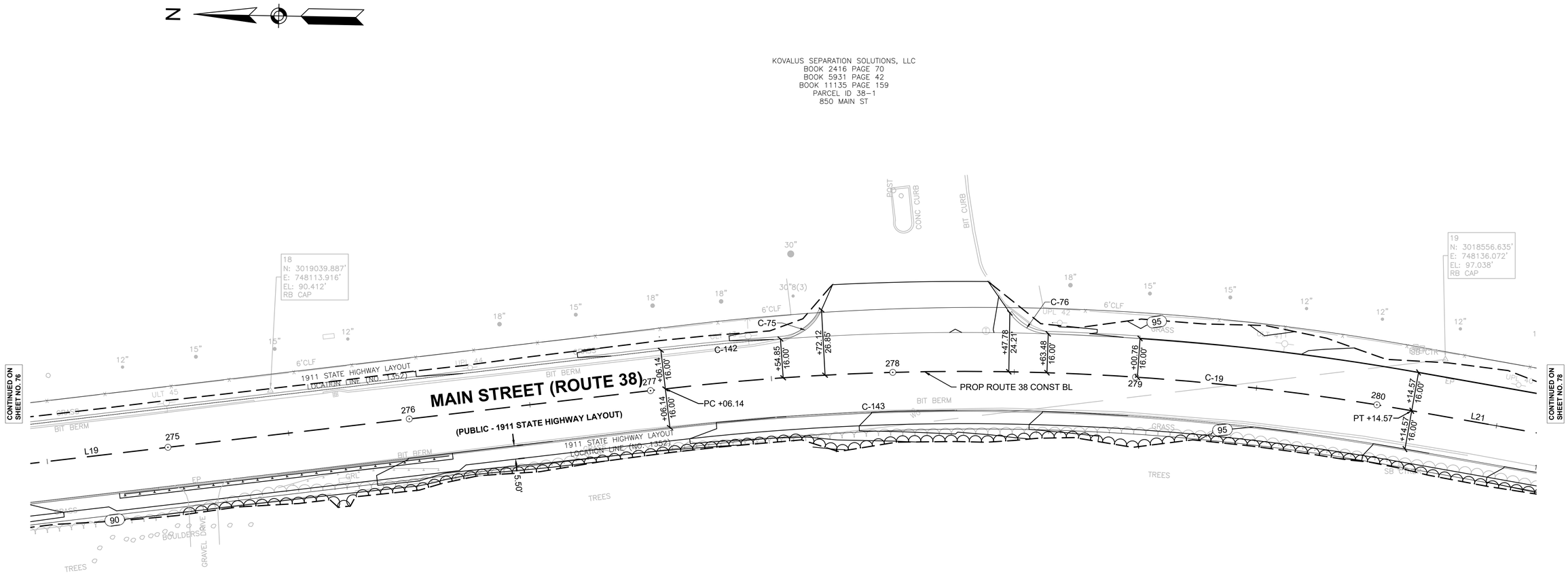
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	77	420
	PROJECT FILE NO.	608051	

CURB TIE & GRADING PLANS - 14

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:39 PM



TOWN OF WILMINGTON
PARCEL ID 26-9
L.C.C. 23888 A
CERT. NO. 8851
DOC NO. 71875

823 MAIN ST

PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-19	277+06.14	3018877.3681	748117.7815	R=1055.00' Δ=16°45'02" L=308.43' T=155.32'		280+14.57	3018570.0508	748114.7012
L21	280+14.57	3018570.0508	748114.7012		S8°56'58"W 808.64'	288+23.20	3017771.2581	747988.9064
L19	272+37.34	3019341.8286	748054.1504		S7°48'03"E 468.80'	277+06.14	3018877.3681	748117.7815

Curve Table			
Curve #	Delta	Radius	Length
C-75	62°17'28"	20.00	21.74
C-76	53°27'00"	20.00	18.66
C-142	2°38'44"	1071.00	49.45
C-143	16°45'02"	1039.00	303.75

0 20 50 100

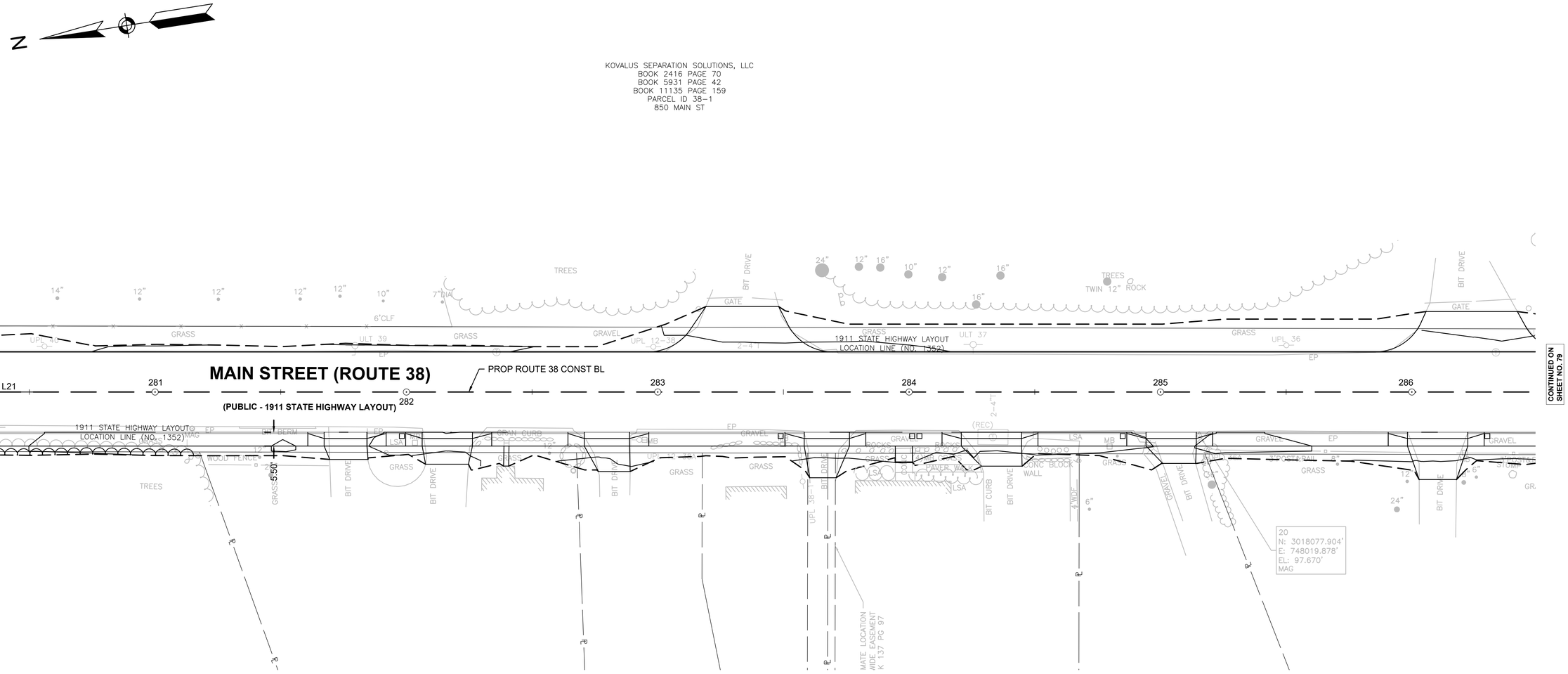
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	78	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 15

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:39 PM



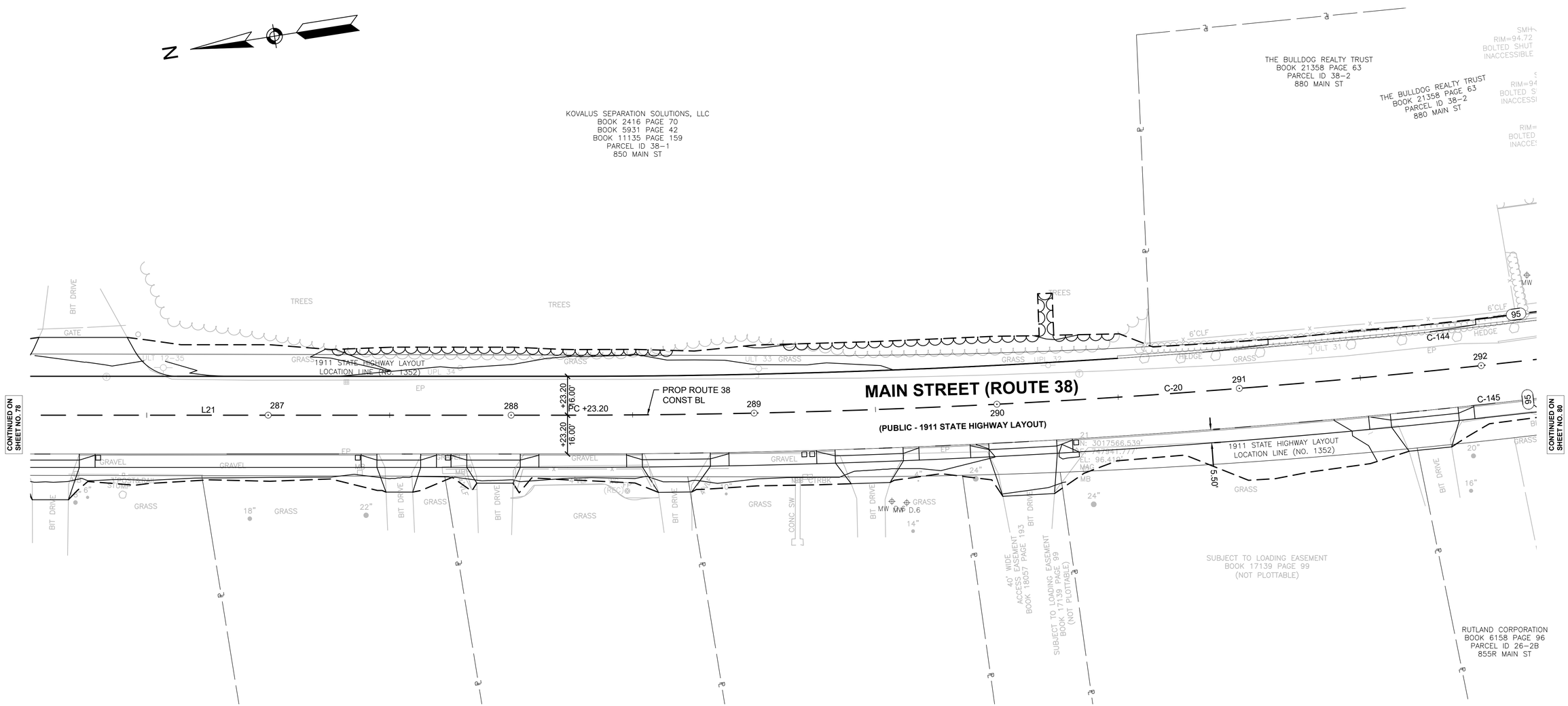
PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L21	280+14.57	3018570.0508	748114.7012		S8°56'58"W 808.64'	288+23.20	3017771.2581	747988.9064

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	79	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 16

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:40 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L21	280+14.57	3018570.0508	748114.7012		S8°56'58"W 808.64'	288+23.20	3017771.2581	747988.9064
C-20	288+23.20	3017771.2581	747988.9064	R=3475.00' Δ=11°09'41" L=676.94' T=339.55'		295+00.15	3017096.5515	747949.1905

Curve Table			
Curve #	Delta	Radius	Length
C-144	3°53'34"	3459.00	235.00
C-145	11°09'41"	3491.00	680.06

0 20 50 100

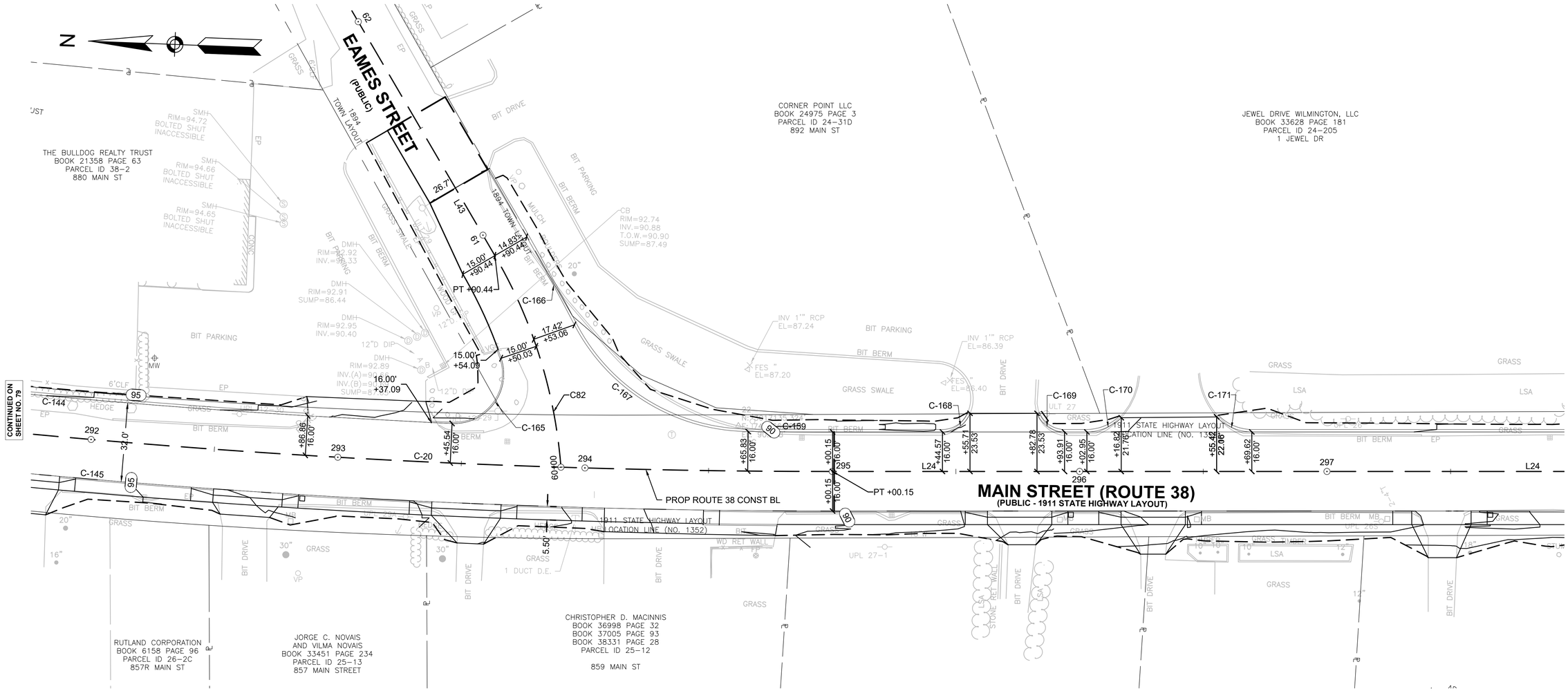
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	80	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 17

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:40 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-20	288+23.20	3017771.2581	747988.9064	R=3475.00' Δ=11°09'41" L=676.94' T=339.55'		295+00.15	3017096.5515	747949.1905
L24	295+00.15	3017096.5515	747949.1905		S2°12'43"E 321.75'	298+21.90	3016775.0416	747961.6088

EAMES STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C82	60+00.00	3017206.3605	747946.6863	R=200.00' Δ=25°54'28" L=90.44' T=46.00'		60+90.44	3017236.3445	748031.1914
L43	60+90.44	3017236.3445	748031.1914		N57°30'38"E 174.70'	62+65.14	3017330.1841	748178.5494

Curve Table			
Curve #	Delta	Radius	Length
C-144	3°53'34"	3459.00	235.00
C-145	11°09'41"	3491.00	680.06
C-165	111°15'03"	20.00	38.83
C-166	2°59'15"	1000.00	52.14
C-167	62°08'39"	80.00	86.77
C-168	68°08'34"	12.00	14.27
C-169	68°08'14"	12.00	14.27
C-170	44°59'47"	20.00	15.71
C-171	44°51'03"	20.00	15.66

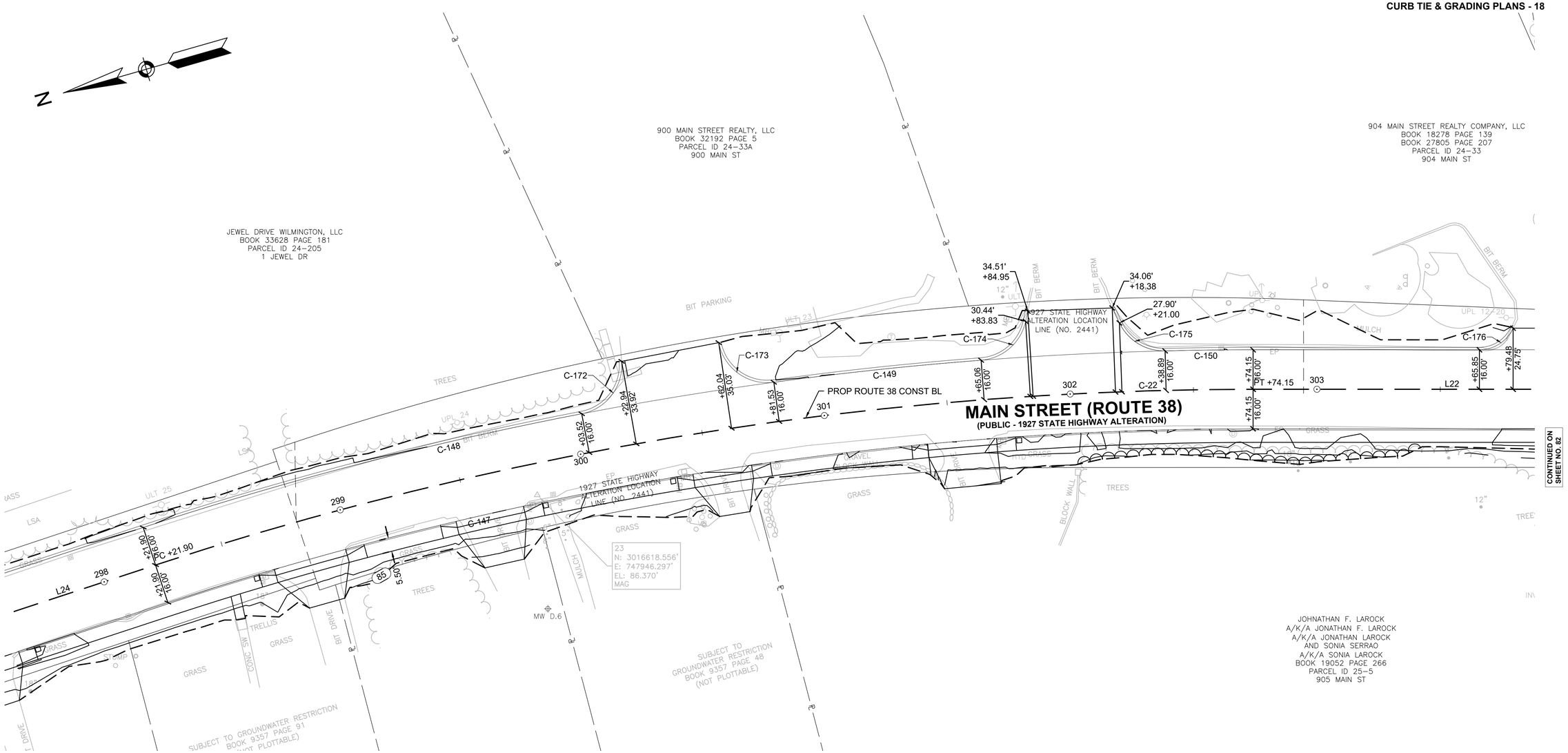
0 20 50 100
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	81	420
	PROJECT FILE NO. 608051		

CURB TIE & GRADING PLANS - 18

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:41 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L24	295+00.15	3017096.5515	747949.1905		S2°12'43"E 321.75'	298+21.90	3016775.0416	747961.6088
C-22	298+21.90	3016775.0416	747961.6088	R=1425.00' Δ=18°11'03" L=452.25' T=228.04'		302+74.15	3016327.9261	747907.6598
L22	302+74.15	3016327.9261	747907.6598		S15°58'19"W 208.53'	304+82.69	3016127.4421	747850.2776

Curve Table			
Curve #	Delta	Radius	Length
C-147	18°11'03"	1409.00	447.18
C-148	7°18'09"	1441.00	183.66
C-149	3°21'30"	1441.00	84.46
C-150	1°25'04"	1441.00	35.66
C-172	83°38'26"	20.00	29.20
C-173	86°50'17"	20.00	30.31
C-174	73°28'08"	20.00	25.65
C-175	65°29'05"	20.00	22.86
C-176	65°22'29"	15.00	17.12

0 20 50 100

SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

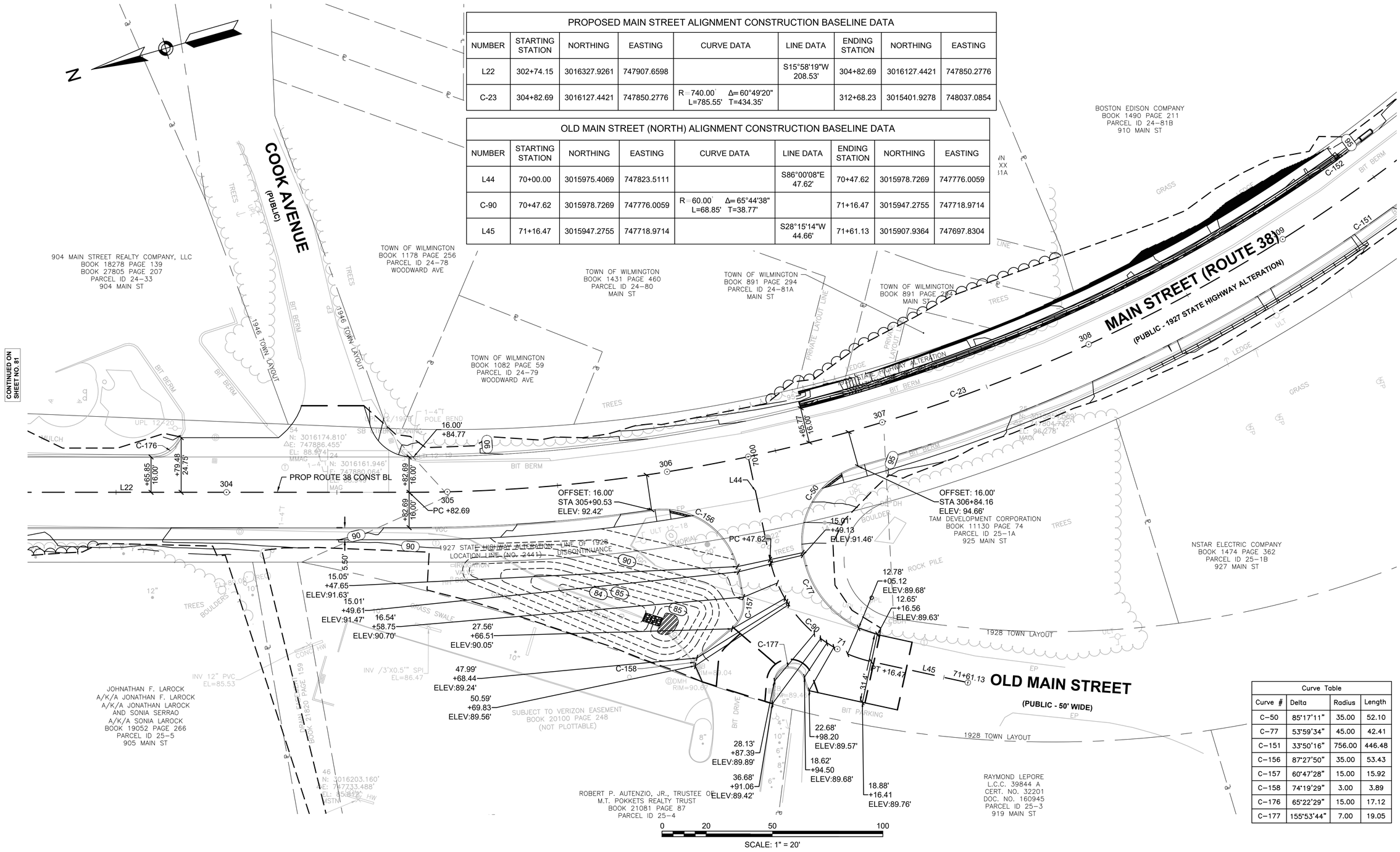
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	82	420
	PROJECT FILE NO. 608051		

CURB TIE & GRADING PLANS - 19

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:41 PM

PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L22	302+74.15	3016327.9261	747907.6598		S15°58'19"W 208.53'	304+82.69	3016127.4421	747850.2776
C-23	304+82.69	3016127.4421	747850.2776	R=740.00' Δ=60°49'20" L=785.55' T=434.35'		312+68.23	3015401.9278	748037.0854

OLD MAIN STREET (NORTH) ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L44	70+00.00	3015975.4069	747823.5111		S86°00'08"E 47.62'	70+47.62	3015978.7269	747776.0059
C-90	70+47.62	3015978.7269	747776.0059	R=60.00' Δ=65°44'38" L=68.85' T=38.77'		71+16.47	3015947.2755	747718.9714
L45	71+16.47	3015947.2755	747718.9714		S28°15'14"W 44.66'	71+61.13	3015907.9364	747697.8304



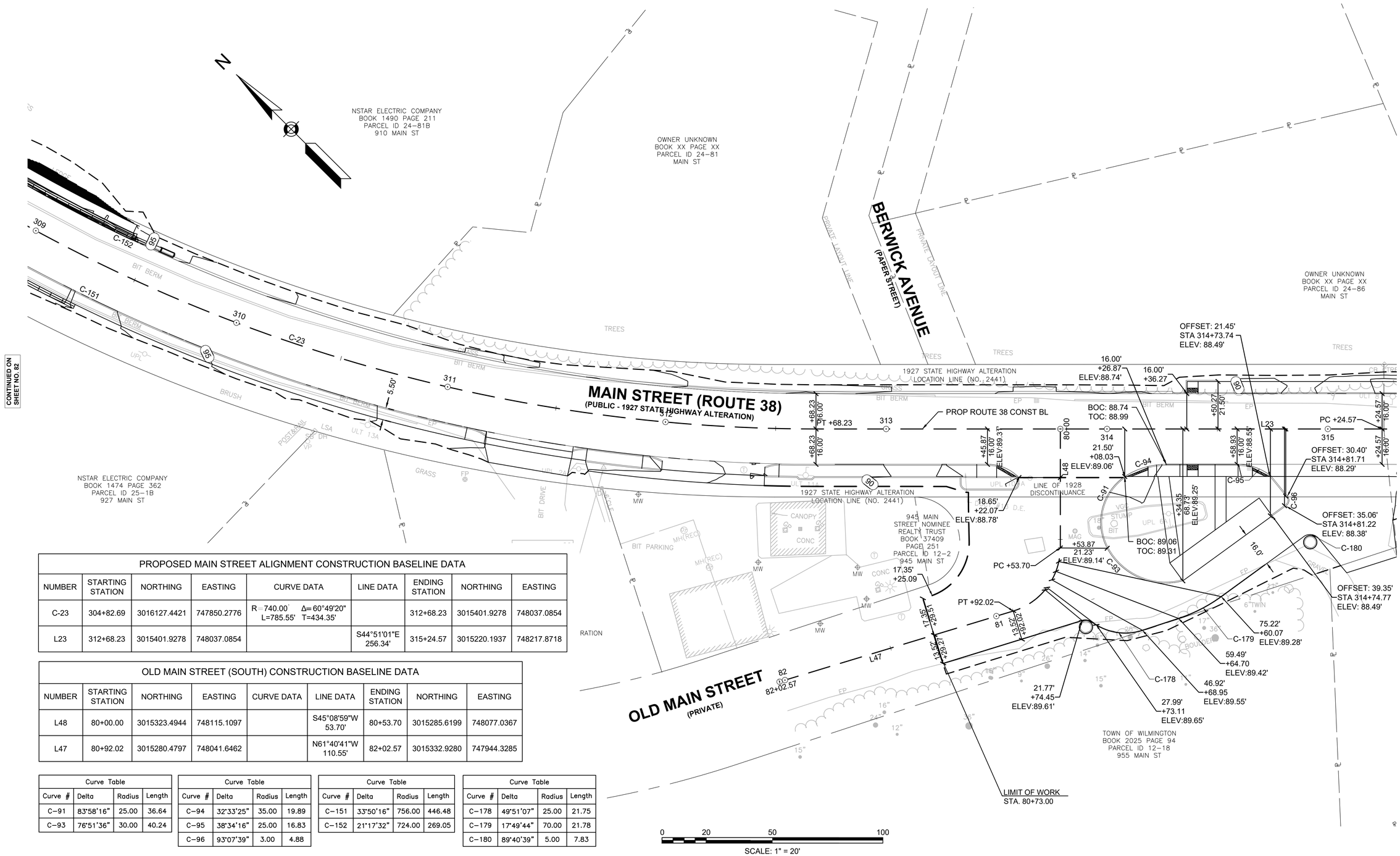
Curve Table			
Curve #	Delta	Radius	Length
C–50	85°17'11"	35.00	52.10
C–77	53°59'34"	45.00	42.41
C–151	33°50'16"	756.00	446.48
C–156	87°27'50"	35.00	53.43
C–157	60°47'28"	15.00	15.92
C–158	74°19'29"	3.00	3.89
C–176	65°22'29"	15.00	17.12
C–177	155°53'44"	7.00	19.05

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	83	420
PROJECT FILE NO.	608051		

CURB TIE & GRADING PLANS - 20

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:42 PM



PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-23	304+82.69	3016127.4421	747850.2776	R=740.00' Δ=60°49'20" L=785.55' T=434.35'		312+68.23	3015401.9278	748037.0854
L23	312+68.23	3015401.9278	748037.0854		S44°51'01"E 256.34'	315+24.57	3015220.1937	748217.8718

OLD MAIN STREET (SOUTH) CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L48	80+00.00	3015323.4944	748115.1097		S45°08'59"W 53.70'	80+53.70	3015285.6199	748077.0367
L47	80+92.02	3015280.4797	748041.6462		N61°40'41"W 110.55'	82+02.57	3015332.9280	747944.3285

Curve Table			
Curve #	Delta	Radius	Length
C-91	83°58'16"	25.00	36.64
C-93	76°51'36"	30.00	40.24

Curve Table			
Curve #	Delta	Radius	Length
C-94	32°33'25"	35.00	19.89
C-95	38°34'16"	25.00	16.83
C-96	93°07'39"	3.00	4.88

Curve Table			
Curve #	Delta	Radius	Length
C-151	33°50'16"	756.00	446.48
C-152	21°17'32"	724.00	269.05

Curve Table			
Curve #	Delta	Radius	Length
C-178	49°51'07"	25.00	21.75
C-179	17°49'44"	70.00	21.78
C-180	89°40'39"	5.00	7.83

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	84	420
PROJECT FILE NO.		608051	

CURB TIE & GRADING PLANS - 21

608051_HD08(CURB TIE & GRADING PLANS).DWG Plotted on 2-Dec-2025 1:42 PM

N

SKYE GRAMS AND VALERIE GRAMS
BOOK 29847 PAGE 270
PARCEL ID 24-117
1 BORDER AVE

ROBERT HOLMES AND
LAURA HOLMES
L.C.C. 22159 B
CERT. NO. 41929
DOC NO. 278979
PARCEL ID 24-87
9 BORDER AVE

GILLIS FAMILY PROPERTIES LLC
A/K/A GILLIS FAMILY PROPERTIES, LLC
BOOK 26570 PAGE 103 (NORTH MIDDLESEX)
BOOK 60339 PAGE 393 (SOUTH MIDDLESEX)
PARCEL ID 24-120
960 MAIN ST

P.J.S REALTY CORP.
BOOK 52024 PAGE 87
PARCEL ID 03-07-01
3 BREED AVE

DARWIN T. CIAVARDONE AND
KIMBERLY GRIFFITHS
BOOK 58169 PAGE 211
PARCEL ID 03-07-02
1091 MAIN ST

DARWIN T. CIAVARDONE AND
KIMBERLY GRIFFITHS
BOOK 58169 PAGE 211
PARCEL ID 03-07-03
1091 MAIN ST

OWNER UNKNOWN
BOOK XX PAGE XX
PARCEL ID 24-86
MAIN ST

HENRY P. GARDNER
BOOK 37422 PAGE 274
PARCEL ID 12-3
967 MAIN ST

HENRY P. GARDNER
BOOK 80792 PAGE 409
PARCEL ID 03-03-03
MAIN ST

LORRAINE A. MACARIO
BOOK 66087 PAGE 128
PARCEL ID 03-03-02
1100 MAIN ST

FLORENCE AVENUE (PRIVATE)

BREED AVENUE (PUBLIC)

WOBURN
WILMINGTON

CITY LINE
TOWN LINE

MAIN STREET (ROUTE 38)
(PUBLIC - 1927 STATE HIGHWAY ALTERATION)

MAIN STREET (ROUTE 38)
(PUBLIC - 1912 STATE HIGHWAY LAYOUT)

1927 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 2441)

1912 BASELINE

PROP ROUTE 38 CONST BL
318

PC +24.57

PT +99.91

317

316

315

319

320

27
N: 3015158.146'
E: 748290.554'
EL: 90.073'
MAG

28
N: 3014918.915'
E: 748357.253'
EL: 91.352'
MAG

BOC: 91.36
TOC: 91.36

BOC: 91.09
TOC: 91.09

BOC: 90.54
TOC: 90.54

BOC: 91.00
TOC: 91.00

OFFSET: 49.83'
STA 314+95.24
ELEV: 89.27'

OFFSET: 48.75'
STA 314+88.28
ELEV: 88.85'

OFFSET: 30.40'
STA 314+80.94
ELEV: 88.70'

OFFSET: 35.09'
STA 314+80.64
ELEV: 88.38'

END PROJECT
STA. 319+20.77
MEET EXISTING
N3014857.1242
E748337.3382

CONTINUED ON SHEET NO. 83

PROPOSED MAIN STREET ALIGNMENT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C-25	315+24.57	3015220.1937	748217.8718	R=425.00' Δ=50°36'03" L=375.34' T=200.90'		318+99.91	3014877.8747	748339.4279

Curve Table			
Curve #	Delta	Radius	Length
C-95	38°34'16"	25.00	16.83
C-96	93°07'39"	3.00	4.88
C-153	51°32'33"	15.00	13.49
C-154	44°57'20"	409.00	320.91
C-155	29°10'54"	441.00	224.61
C-181	42°40'06"	20.00	14.89
C-182	43°15'11"	20.00	15.10
C-183	44°06'57"	20.05	15.44
C-184	51°21'07"	20.00	17.93

0 20 50 100

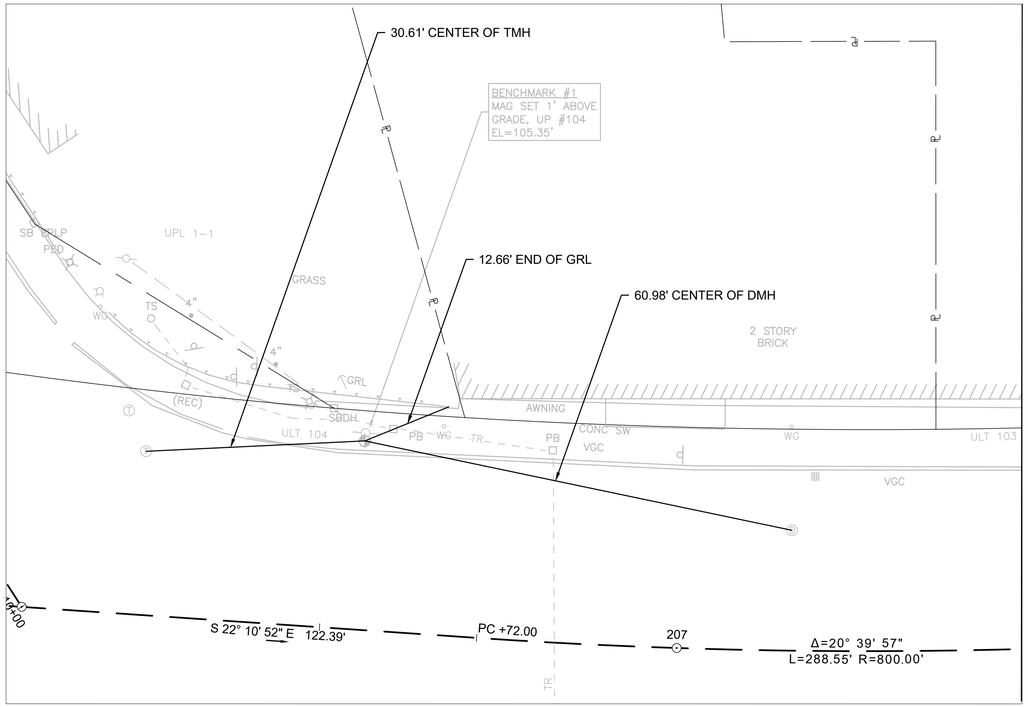
SCALE: 1" = 20'

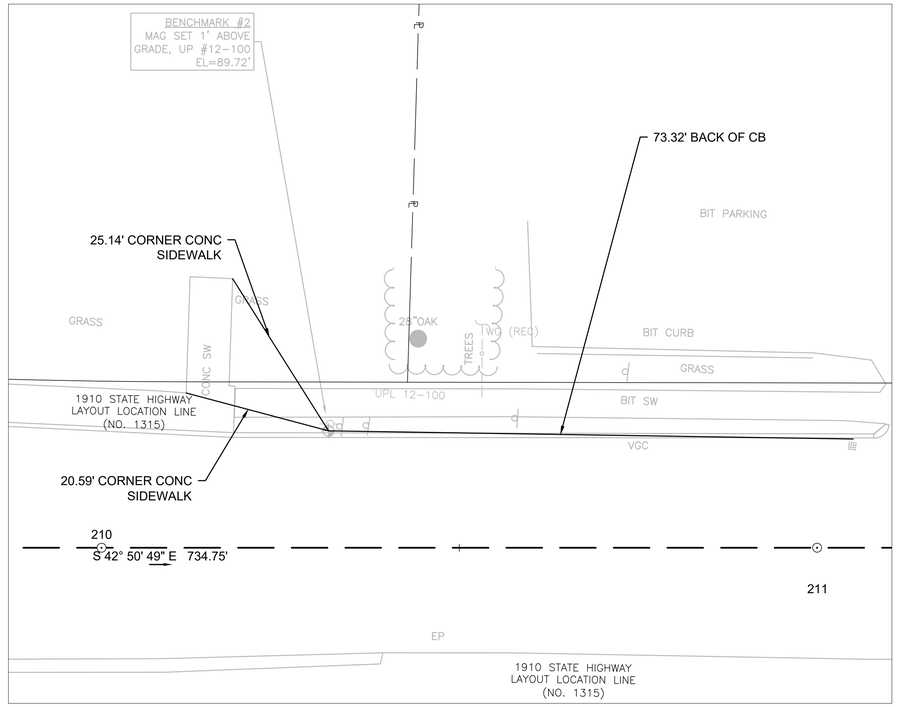
WILMINGTON
ROUTE 38 (MAIN STREET)

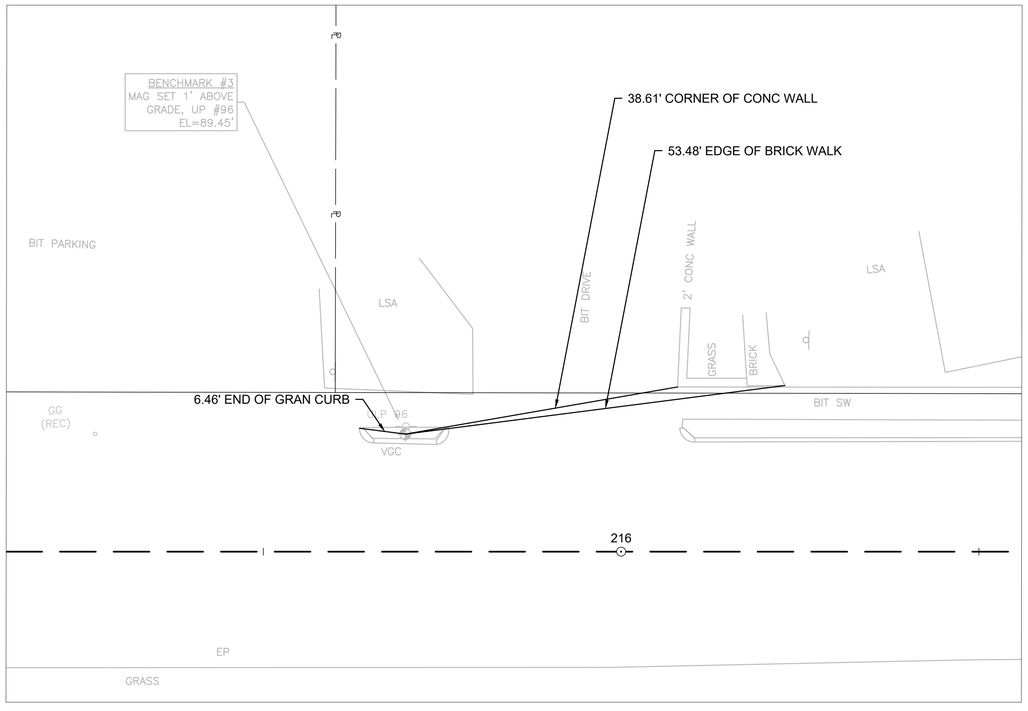
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	85	420
PROJECT FILE NO.	608051		

BASELINE TIES & SKETCHES PLANS - 1

608051_HD09\BASELINE TIES & SKETCHES PLANS\.DWG Plotted on 2-Dec-2025 1:43 PM



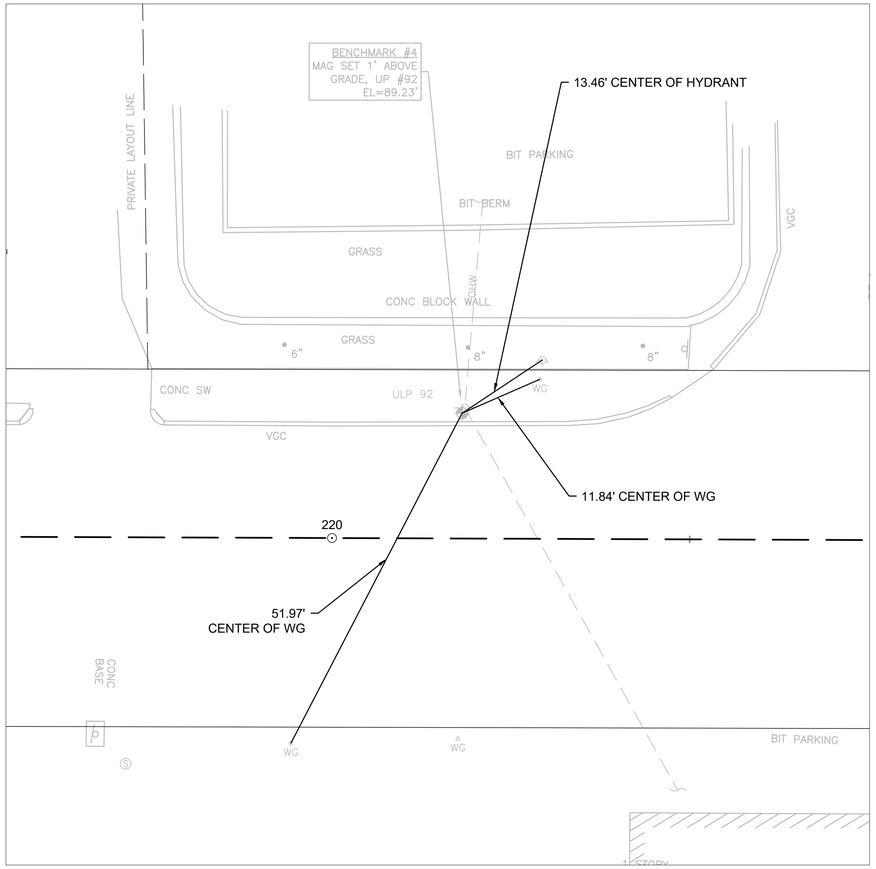


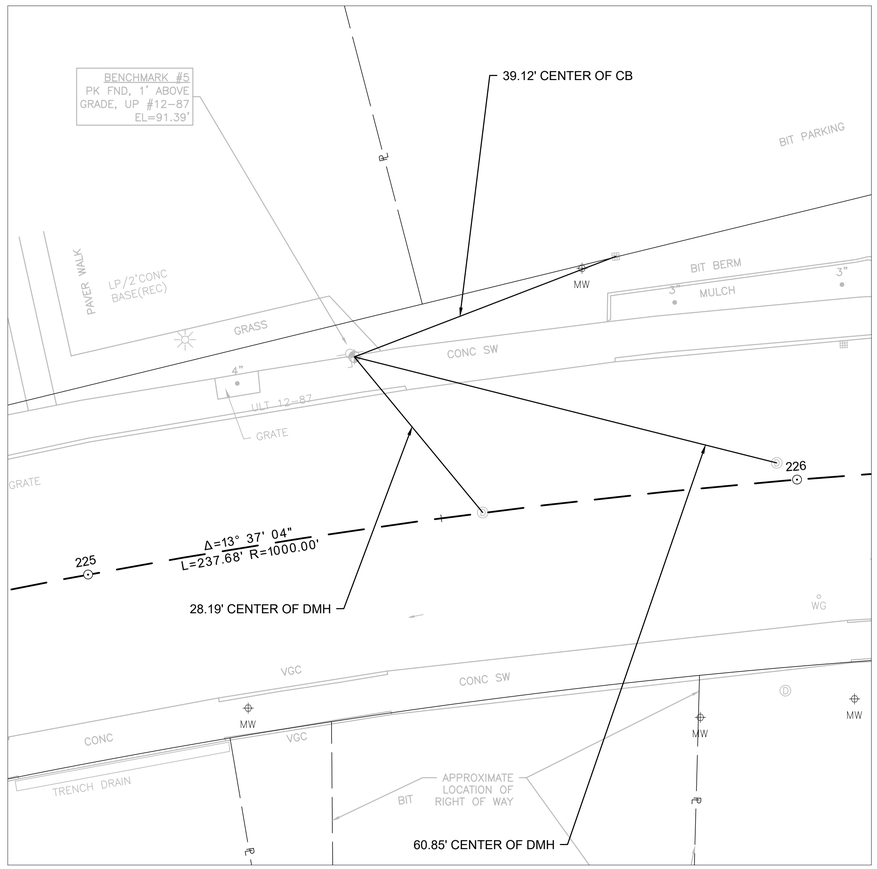


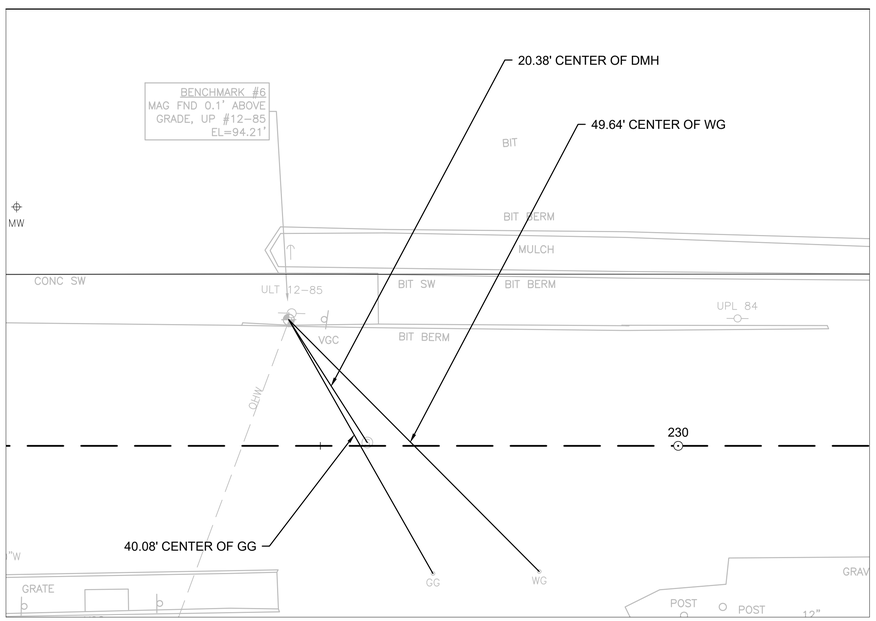
0 10 20 30 40

SCALE: 1" = 10'

TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
1	3024289.552	744170.461	105.350	MAG SET
2	3023980.339	744367.244	89.720	MAG SET
3	3023585.871	744733.251	89.450	MAG SET







0 10 20 30 40

SCALE: 1" = 10'

TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
4	3023302.077	745070.871	89.230	MAG SET
5	3023029.015	745519.484	91.390	PK FND
6	3022743.036	745809.604	94.210	MAG FND

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	86	420
PROJECT FILE NO.	608051		

BASELINE TIES & SKETCHES PLANS - 2

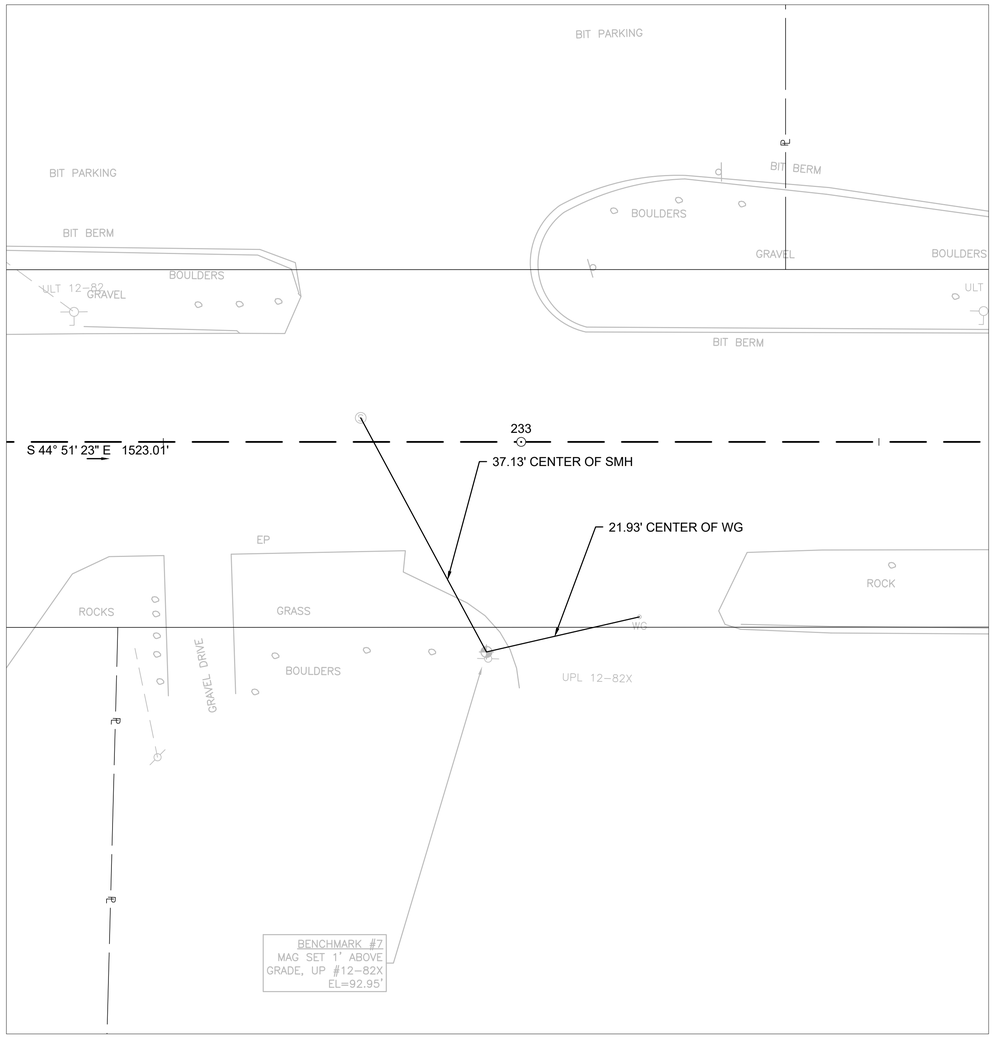
608051_HD09\BASELINE TIES & SKETCHES PLANS\.DWG Plotted on 2-Dec-2025 1:43 PM

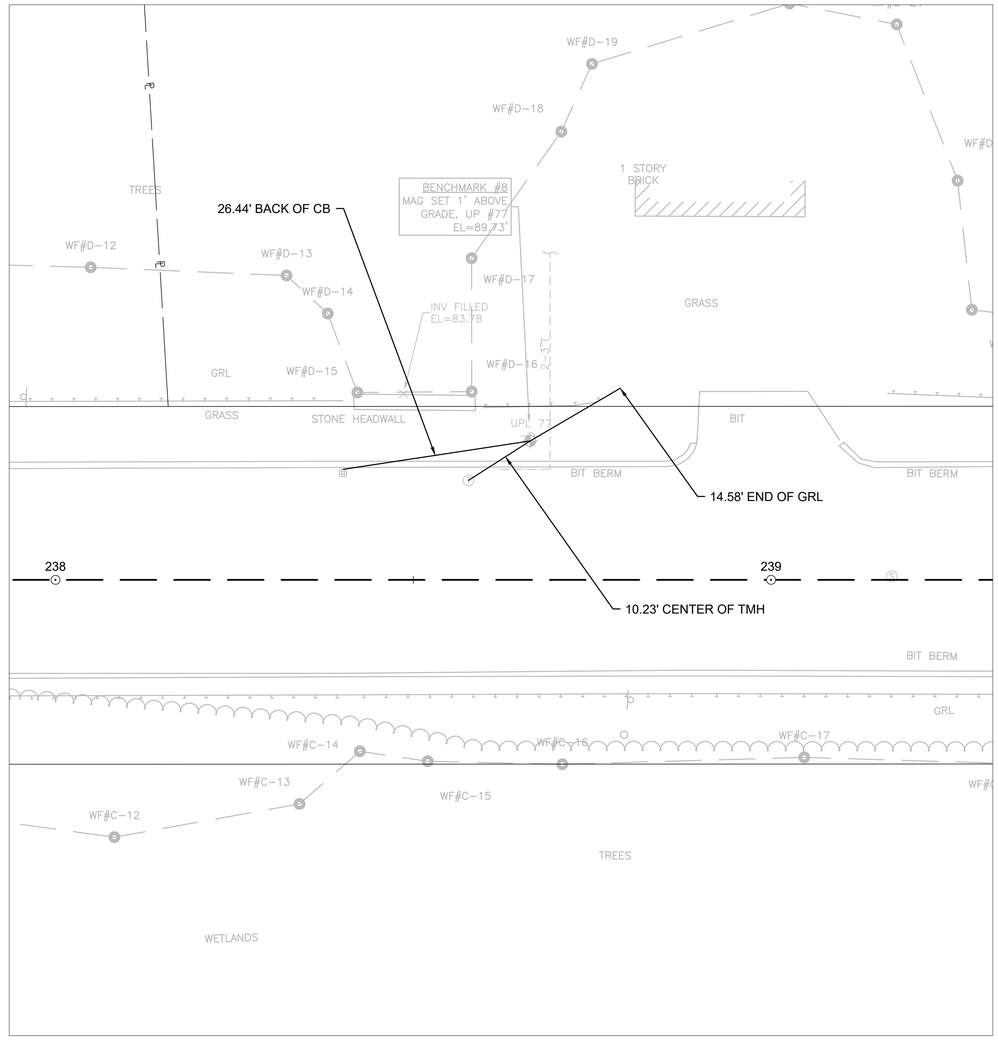
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	87	420
	PROJECT FILE NO. 608051		

BASELINE TIES & SKETCHES PLANS - 3

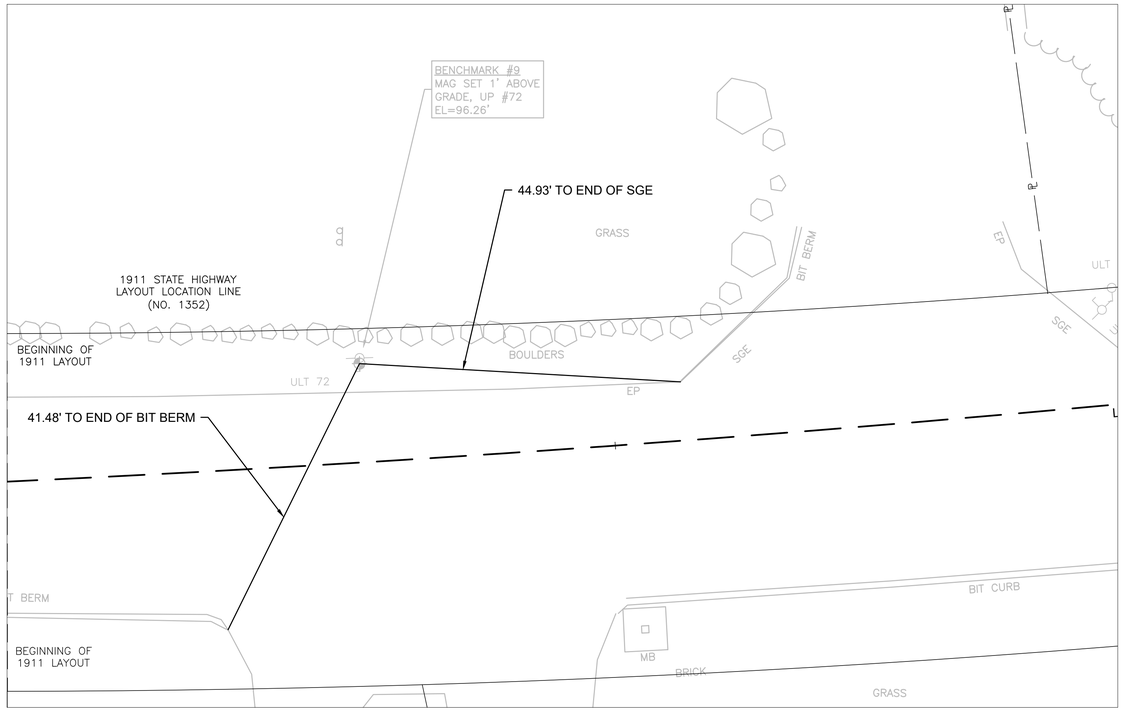
608051_HD09\BASELINE TIES & SKETCHES PLANS\.DWG Plotted on 2-Dec-2025 1:43 PM

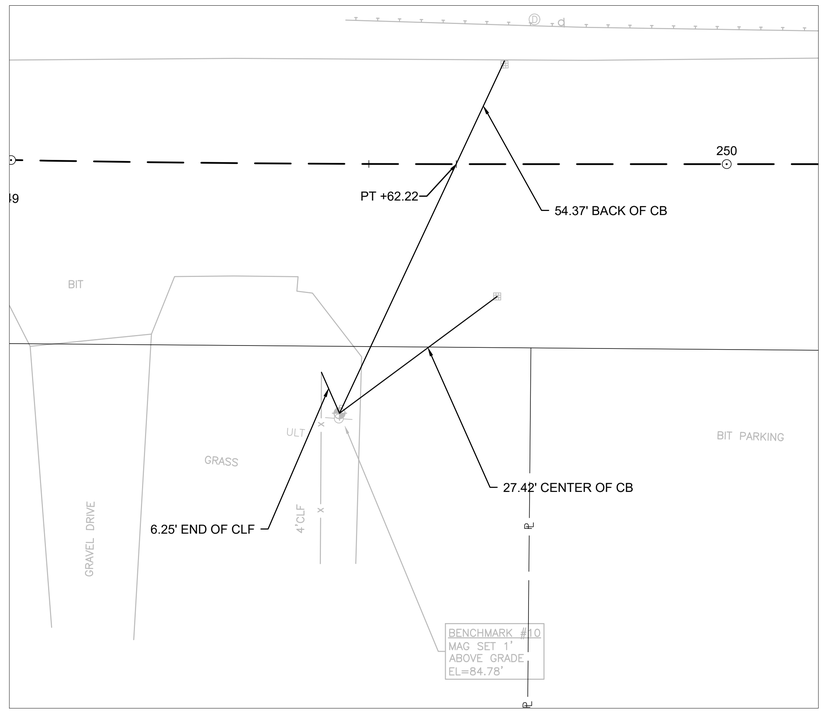


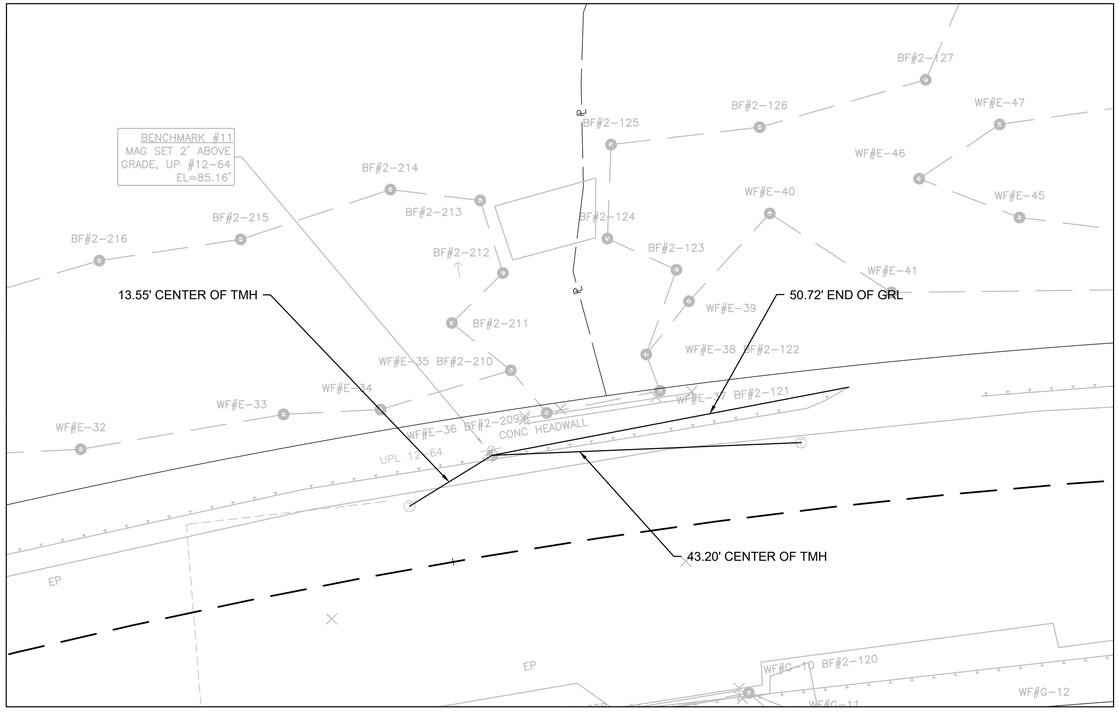


TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
7	3022462.086	746022.846	92.950	MAG SET
8	3022091.593	746460.304	89.730	MAG SET

0 10 20 30 40
SCALE: 1" = 10'







0 10 20 30 40

SCALE: 1" = 10'

TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
9	3021703.893	746847.162	96.260	MAG SET
10	3021343.847	747242.012	84.780	MAG SET
11	3021141.893	747603.142	85.160	MAG SET

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	88	420
PROJECT FILE NO.	608051		

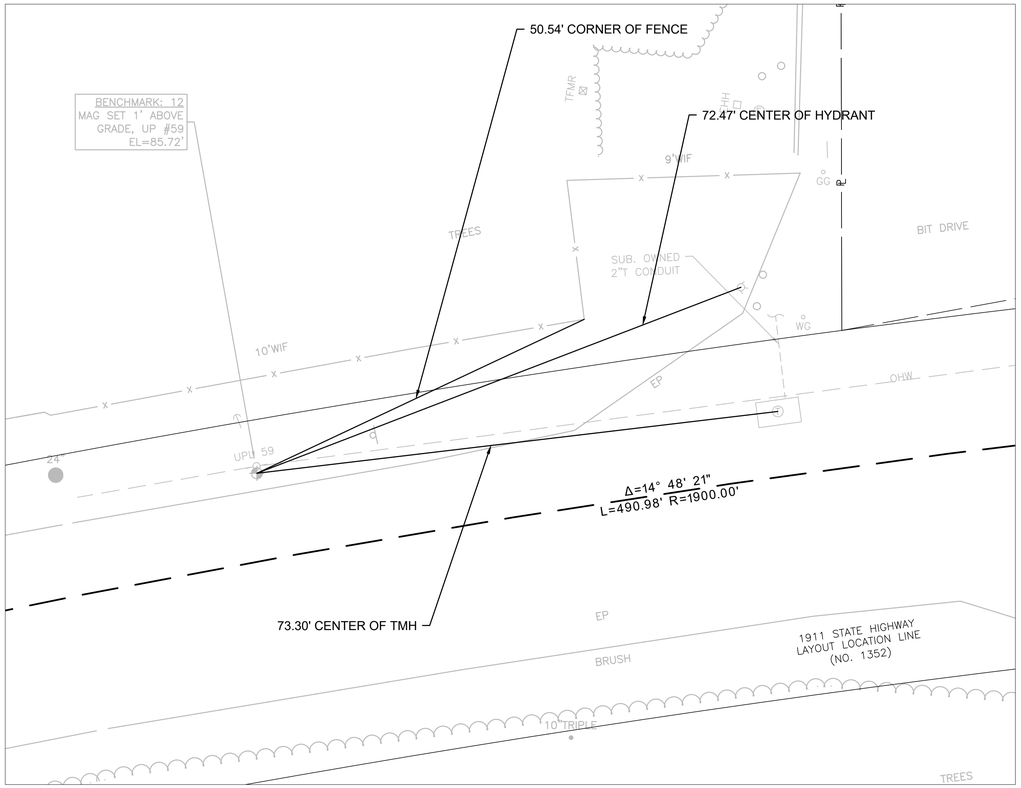
BASELINE TIES & SKETCHES PLANS - 4

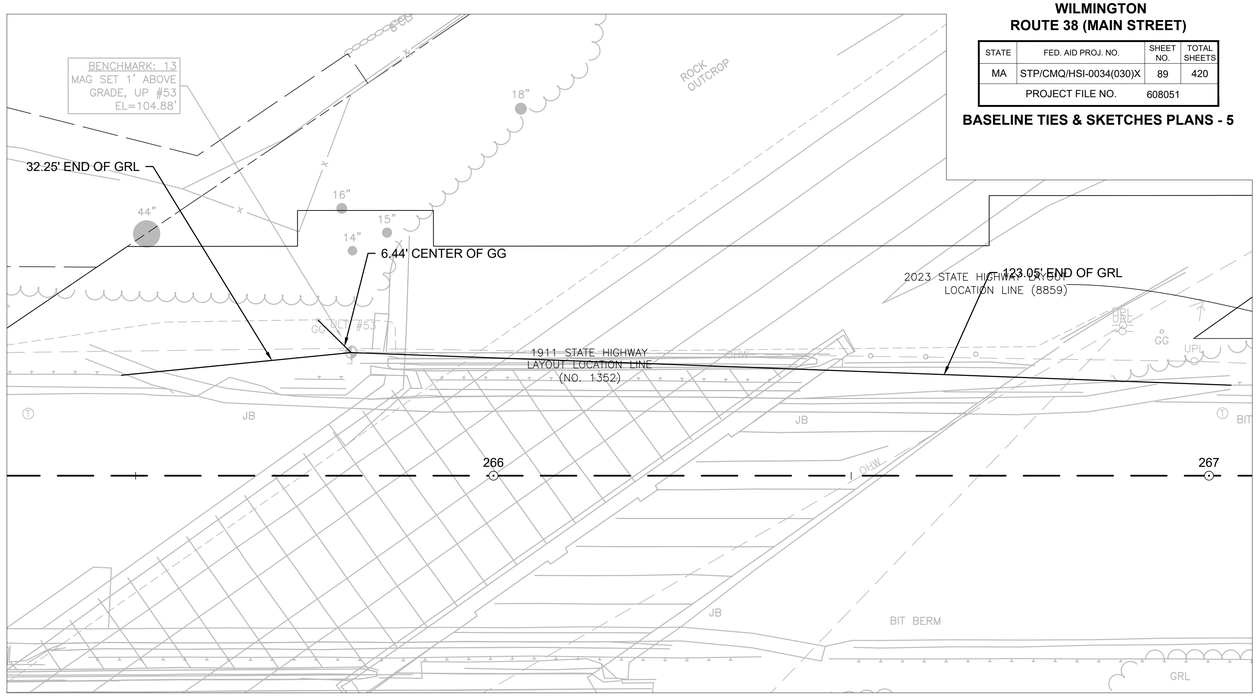
608051_HD09(BASELINE TIES & SKETCHES PLANS).DWG Plotted on 2-Dec-2025 1:44 PM

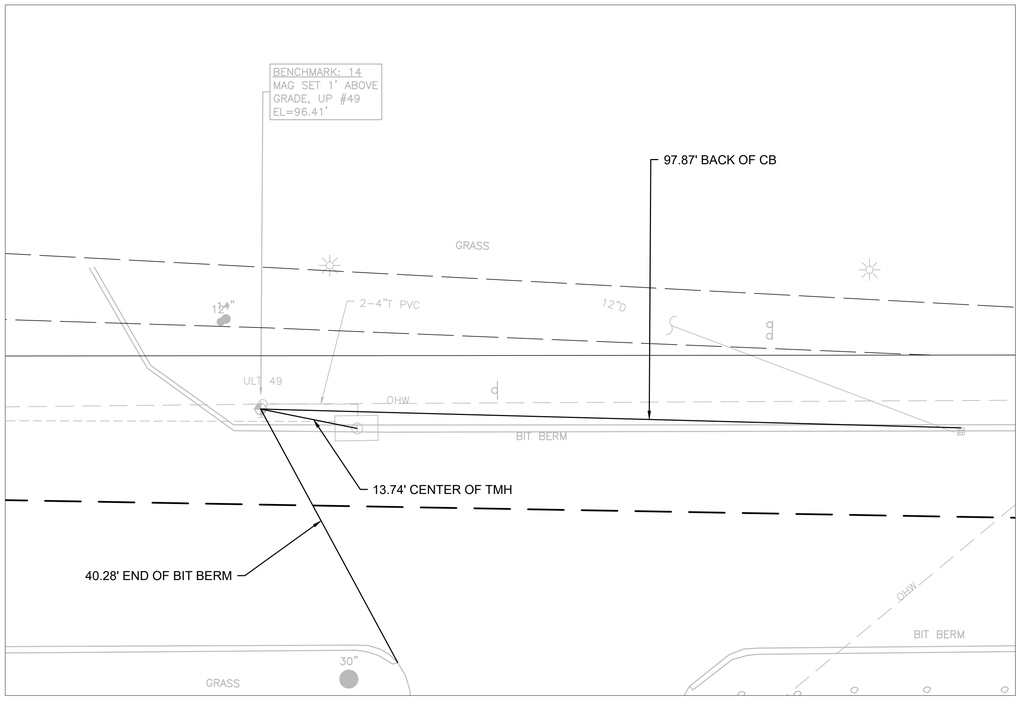
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	89	420
	PROJECT FILE NO. 608051		

BASELINE TIES & SKETCHES PLANS - 5







0 10 20 30 40

SCALE: 1" = 10'

TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
12	3020696.346	747854.891	85.720	MAG SET
13	3019995.946	747986.950	104.880	MAG SET
14	3019552.760	748042.441	96.410	MAG SET

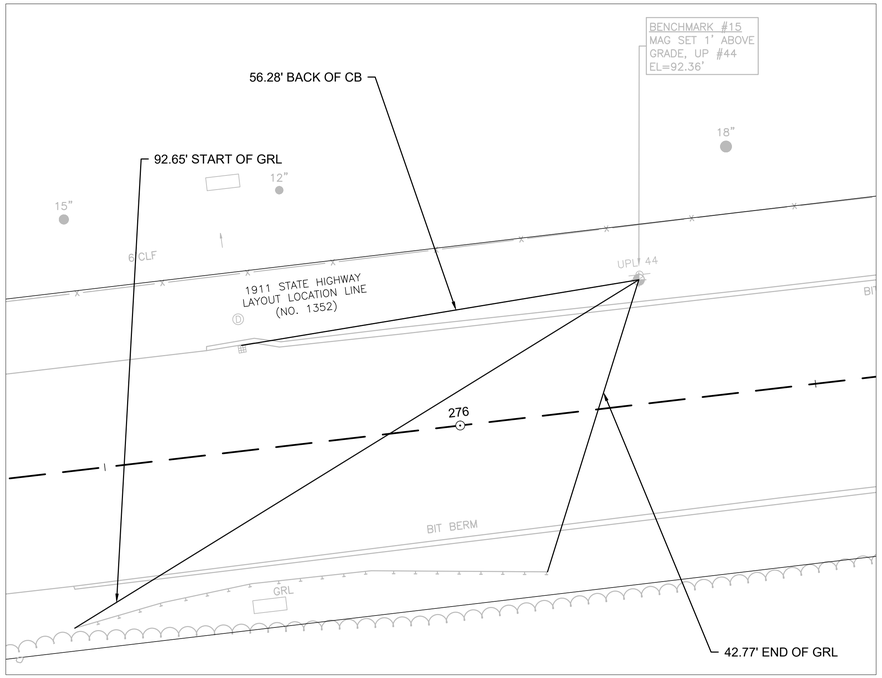
608051_HD09\BASELINE TIES & SKETCHES PLANS\.DWG Plotted on 2-Dec-2025 1:44 PM

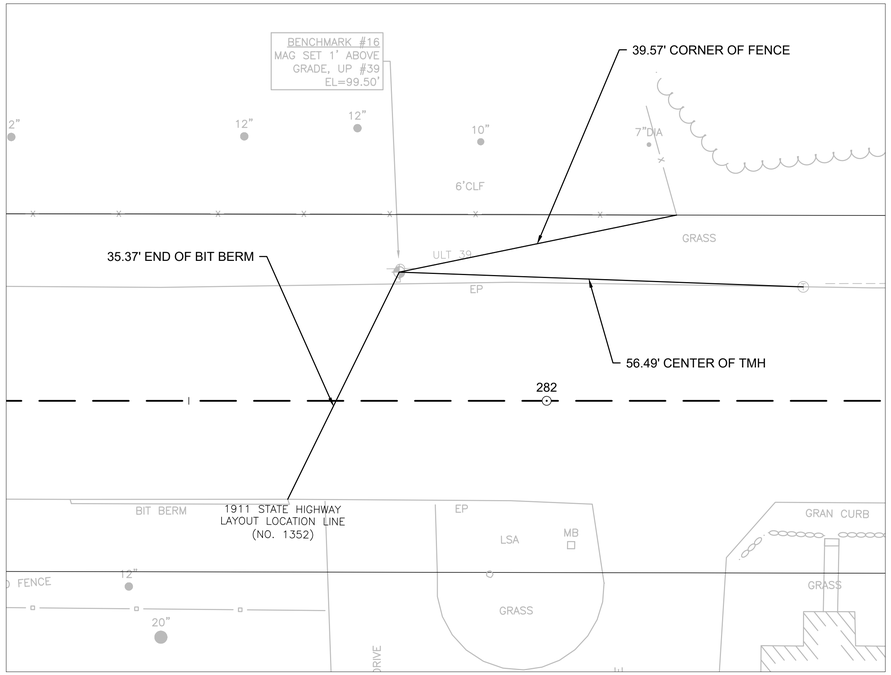
WILMINGTON
ROUTE 38 (MAIN STREET)

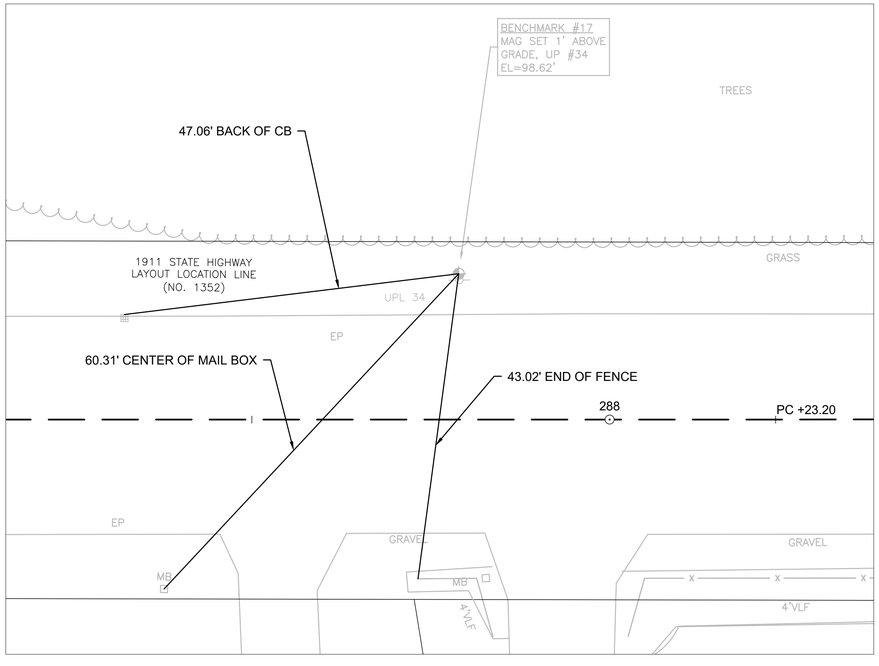
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	90	420
PROJECT FILE NO.	608051		

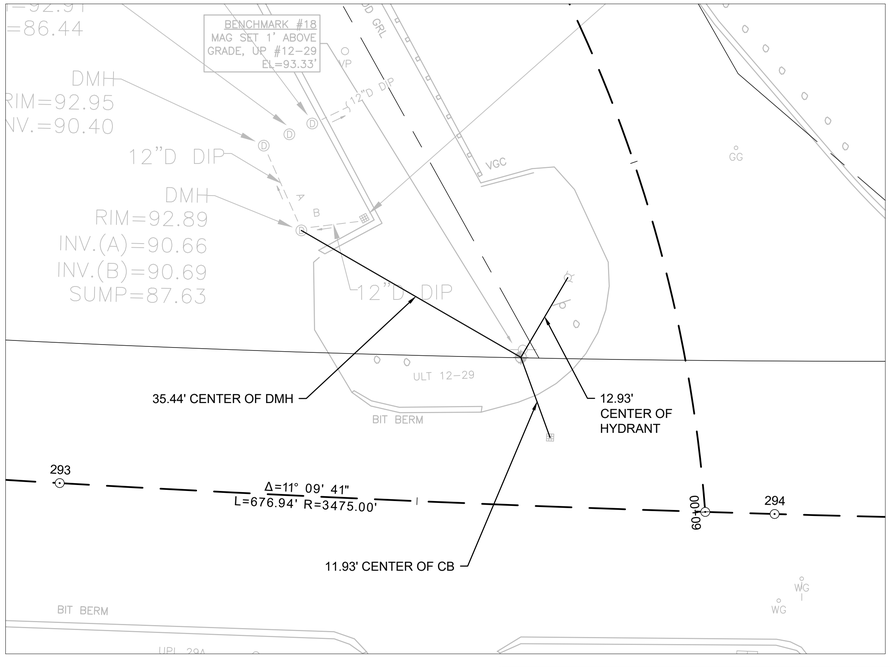
BASELINE TIES & SKETCHES PLANS - 6

608051_HD09(BASELINE TIES & SKETCHES PLANS).DWG Plotted on 2-Dec-2025 1:45 PM









0 10 20 30 40

SCALE: 1" = 10'

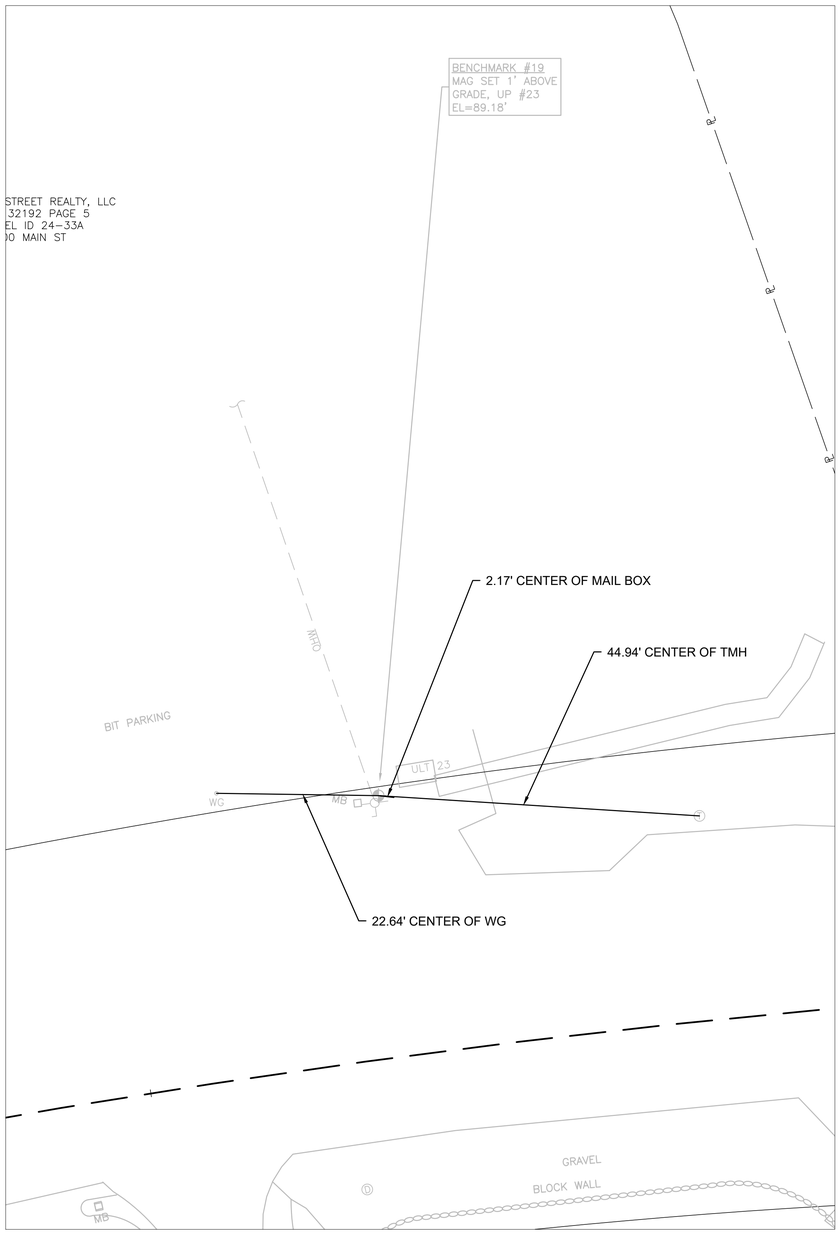
TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
15	3018957.957	748124.224	92.360	MAG SET
16	3018404.430	748106.828	99.500	MAG SET
17	3017811.847	748015.933	98.620	MAG SET
18	3017232.940	747967.283	93.330	MAG SET

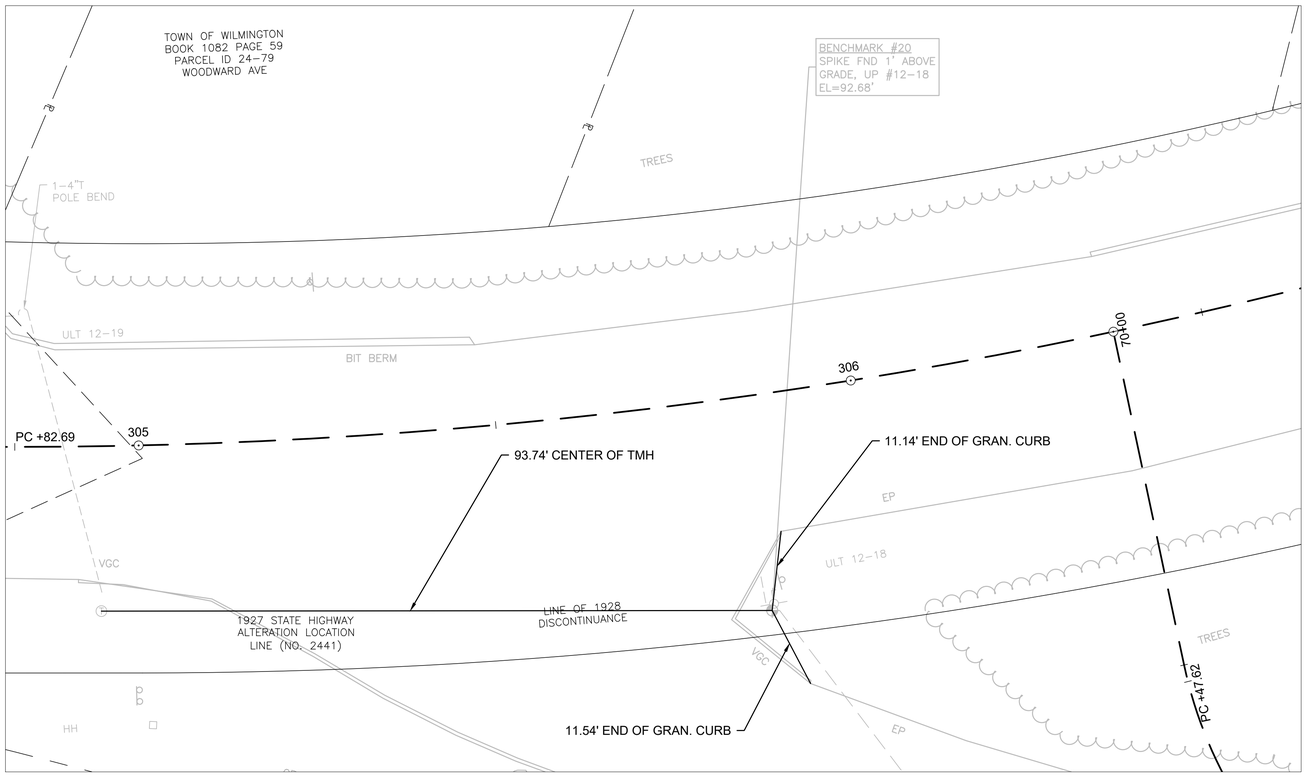
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	91	420
PROJECT FILE NO.	608051		

BASELINE TIES & SKETCHES PLANS - 7

608051_HD09(BASELINE TIES & SKETCHES PLANS).DWG Plotted on 2-Dec-2025 1:46 PM





TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
19	3016505.356	747983.414	89.180	MAG SET
20	3016031.968	747799.171	92.680	SPIKE FND

0 10 20 30 40

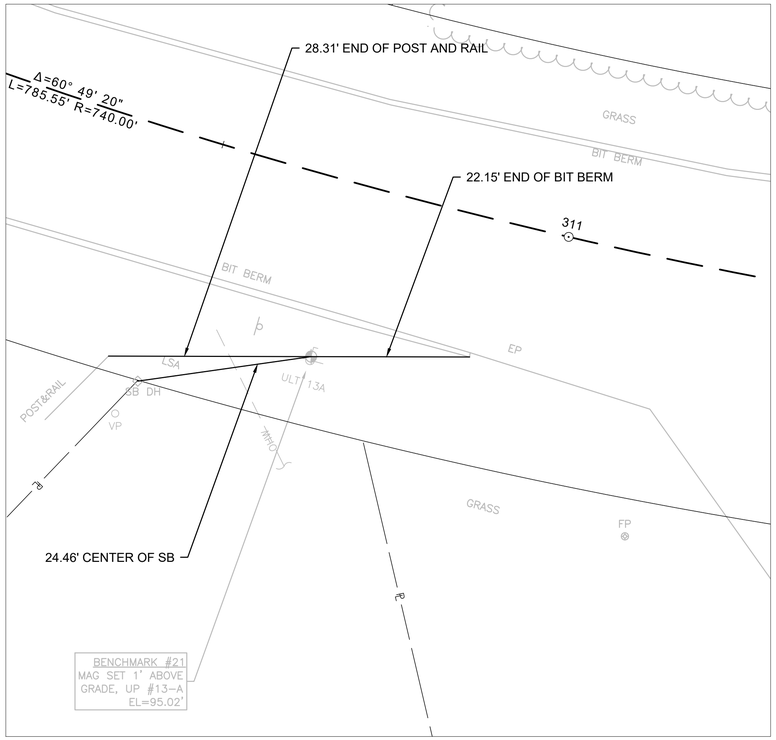
SCALE: 1" = 10'

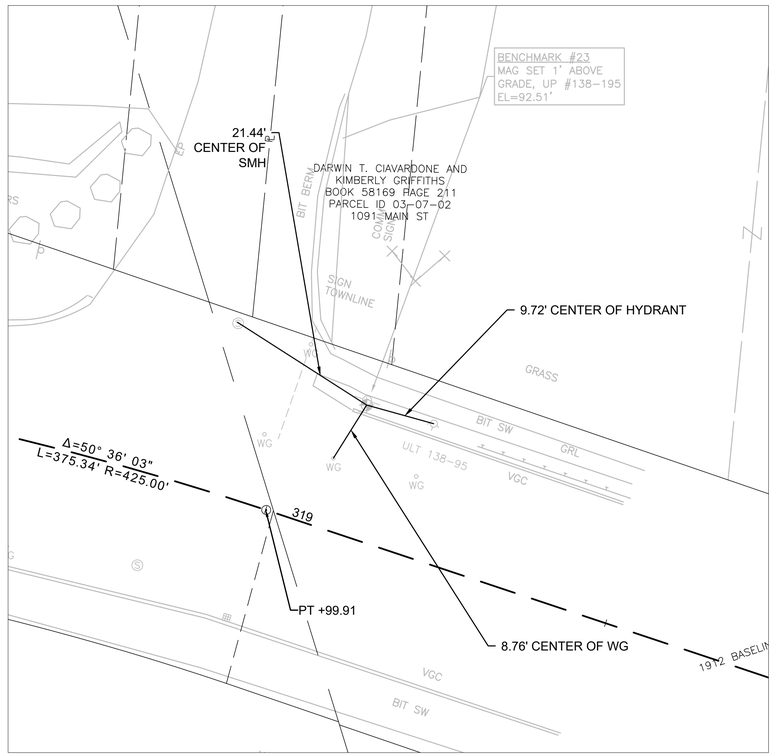
WILMINGTON
ROUTE 38 (MAIN STREET)

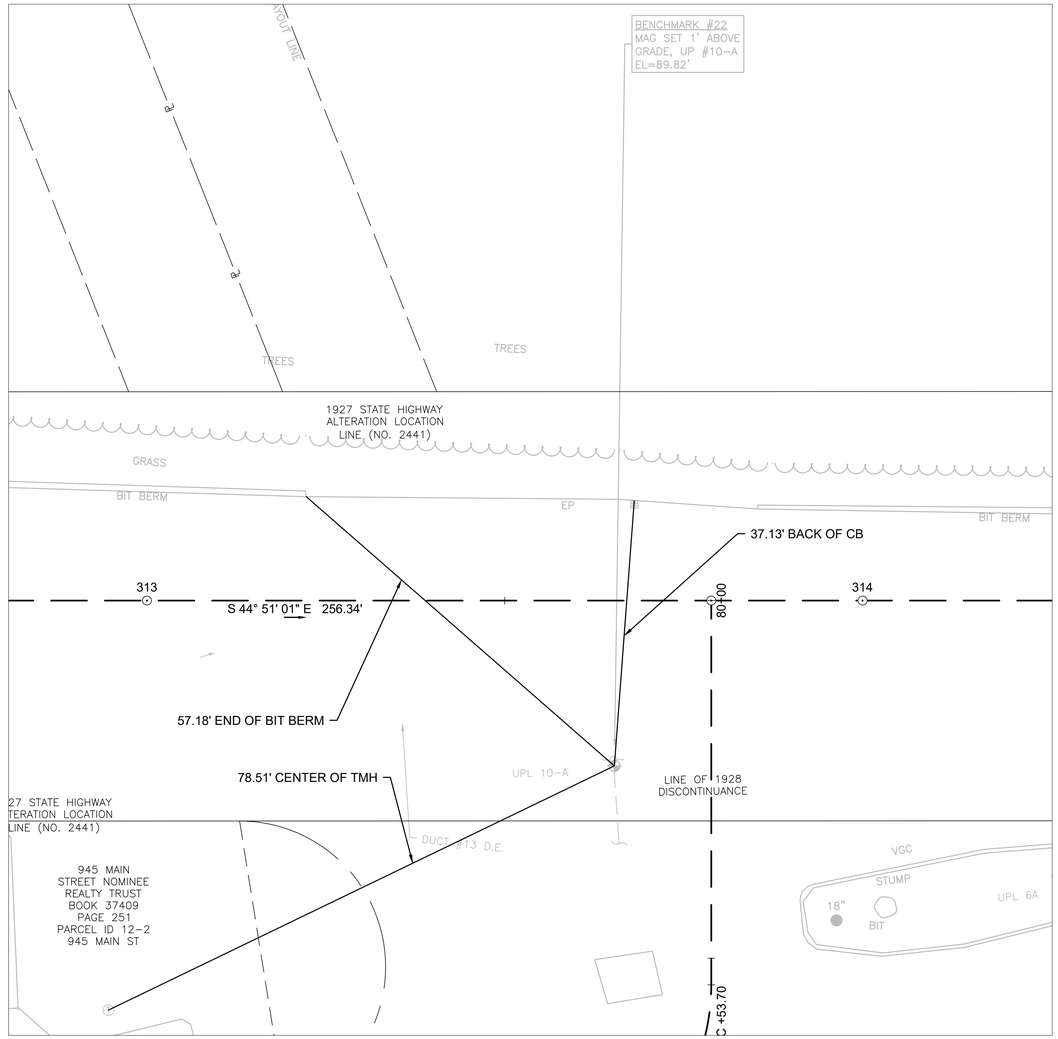
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	92	420
PROJECT FILE NO.	608051		

BASELINE TIES & SKETCHES PLANS - 8

608051_HD09(BASELINE TIES & SKETCHES PLANS).DWG Plotted on 2-Dec-2025 1:46 PM







0 10 20 30 40

SCALE: 1" = 10'

TIE INFORMATION				
#	NORTH	EAST	ELEVATION	DESCRIPTION
21	3015547.318	747895.719	95.020	MAG SET
22	3015316.803	748089.176	89.820	MAG SET
23	3014867.309	748356.812	92.510	MAG SET

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS	UTILITY PLAN
SEE SHEET 33	NONE	SEE SHEET 133	SEE BELOW	SEE SHEET 109

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	93	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 1

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:46 PM

BEGIN PROJECT
STA. 203+55.00
MEET EXISTING
N3024552.8585
E744023.6687

N

CHURCH STREET
(1901 COUNTY LAYOUT - 60' WIDE)

BURLINGTON AVENUE
(PUBLIC - 1997 ALTERATION)

ROUTE 38 (MAIN STREET)
(PUBLIC - 1923 STATE HIGHWAY LAYOUT-1997 ALTERATION)

PROP ROUTE 38 BASELINE

6 LF - 12" DRAINAGE PIPE - OPTION @ 1.2%

PROP. CB (0-01)

LOUIS VALENTI
PARCEL ID 42-20
BOOK 15294 PAGE 161
424 MAIN ST

MACMULLIN FAMILY
REALTY TRUST III
PARCEL ID 42-21
BOOK 27960 PAGE 33
428-438 MAIN ST

414-418 MAIN STREET
REALTY TRUST
PARCEL ID 42-19
BOOK 21033 PAGE 248
414-418 MAIN ST

1 CHURCH
REALTY TRUST
PARCEL ID 41-110
BOOK 24436 PAGE 46
1 CHURCH ST

STEDMAN 442, LLC
PARCEL ID 41-111
BOOK 22652 PAGE 51
442 MAIN ST

C & B
REALTY TRUST
PARCEL ID 41-112
BOOK 10882 PAGE 295
446 MAIN ST

456 MAIN STREET
REALTY TRUST
PARCEL ID 41-113
BOOK 23689 PAGE 31
456 MAIN ST

MASS BAY TRANSPORTATION AUTHORITY
BOOK 10373 PAGE 276
PARCEL ID 42-22
375 MAIN ST

PARTEL MANAGEMENT, LLC
PARCEL ID 42-22-F
BOOK 31258 PAGE 98
433 MAIN ST

TOWN OF READING
PARCEL ID 41-142
BOOK 1675 PAGE 178
435 MAIN ST

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
BOOK 2226 PAGE 326
PARCEL ID 41-141

CB
RIM=109.89
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY N.P.V.
BOOK 2226 PAGE 326 T.O.S.=109.89
PARCEL ID 42-22
375 MAIN ST

DMH
RIM=95.85
INV.(A)=89.26
INV.(B)=89.33
INV.(C)=89.28
SUMP=89.37

DMH
RIM=104.25
BENT RIM,
INACCESSIBLE
CB
RIM=106.73
INV.=102.07
SUMP=101.53

CB
RIM=94.90
INV.=92.40
SUMP=92.40

SMH
RIM=99.46
INV.(A)=87.93
INV.(B)=88.21
SUMP=88.06

CB
RIM=101.86
INV.=99.58
SUMP=99.58

DMH
RIM=102.27
INV.(A)=99.07
INV.(B)=99.17
SUMP=99.07

5'x11' BT STRUCTURE
4'x10' BT STRUCTURE

1923 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 2122)

1997 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 7255)

RAILROAD SIDELINE

3/4"W TAPS
12" WATER - TOWN OF WILMINGTON
(20) 3 1/2" TELECOM - VERIZON
(3) 4" TELECOM - VERIZON
(4) 4" TELECOM - VERIZON
(9) 3.5" TELECOM - VERIZON
(4) 3.5" TELECOM - VERIZON
8" WATER - TOWN OF WILMINGTON
8" CS GAS - NGRID
6" CS GAS - NGRID
8" WATER - TOWN OF WILMINGTON
10" WATER - TOWN OF WILMINGTON
1"W C
1-4"T
UPL 1-1"
12"D RCP
10"S PVC
8"G CL 1962
10.75"G LP CS 1969
18"D CMP (ABAN)
18"D CMP
8"W (ABAN)
8" CL GAS - NGRID
8" WATER - TOWN OF WILMINGTON
+68.32
0+00.02
10+00
20+00
95
96
97
98
99
100
101
203
204
205
206
207
208
210
211

LEGEND - UTILITIES

- EXIST OVERHEAD WIRE
- PROP OVERHEAD WIRE
- PROP OVERHEAD WIRE UNDER SEPARATE PROJECT
- EXIST GAS-OIL-STEAM
- EXIST COMMUNICATION/CATV
- PROP COMMUNICATION/CATV
- EXIST SEWER
- PROP SEWER
- EXIST DRAINAGE
- PROP DRAINAGE
- EXIST POTABLE WATER
- PROP POTABLE WATER

0 20 50 100
SCALE: 1" = 20'

CONTINUED ON SHEET NO. 94

FOR UTILITY PLAN: SEE SHEET NO. 109

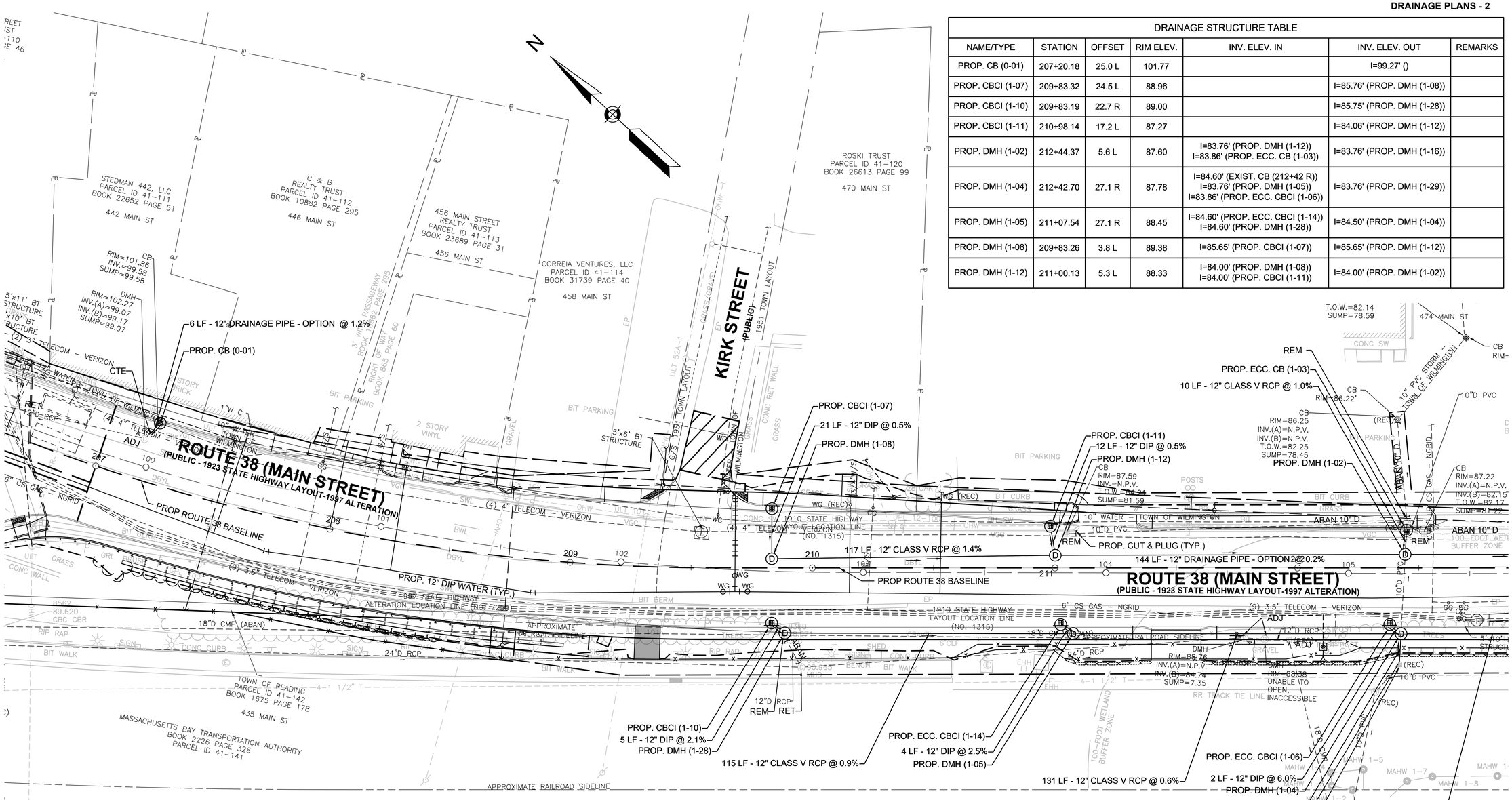
HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS	UTILITY PLAN
SEE SHEET 33	NONE	SEE SHEET 133	SEE BELOW	SEE SHEET 110

DRAINAGE PLANS
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	94	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 2

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:47 PM



DRAINAGE STRUCTURE TABLE					
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT
PROP. CB (0-01)	207+20.18	25.0 L	101.77		I=99.27' ()
PROP. CBCI (1-07)	209+83.32	24.5 L	88.96		I=85.76' (PROP. DMH (1-08))
PROP. CBCI (1-10)	209+83.19	22.7 R	89.00		I=85.75' (PROP. DMH (1-28))
PROP. CBCI (1-11)	210+98.14	17.2 L	87.27		I=84.06' (PROP. DMH (1-12))
PROP. DMH (1-02)	212+44.37	5.6 L	87.60	I=83.76' (PROP. DMH (1-12)) I=83.86' (PROP. ECC. CB (1-03))	I=83.76' (PROP. DMH (1-16))
PROP. DMH (1-04)	212+42.70	27.1 R	87.78	I=84.60' (EXIST. CB (212+42 R)) I=83.76' (PROP. DMH (1-05)) I=83.86' (PROP. ECC. CBCI (1-06))	I=83.76' (PROP. DMH (1-29))
PROP. DMH (1-05)	211+07.54	27.1 R	88.45	I=84.60' (PROP. ECC. CBCI (1-14)) I=84.60' (PROP. DMH (1-28))	I=84.50' (PROP. DMH (1-04))
PROP. DMH (1-08)	209+83.26	3.8 L	89.38	I=85.65' (PROP. CBCI (1-07))	I=85.65' (PROP. DMH (1-12))
PROP. DMH (1-12)	211+00.13	5.3 L	88.33	I=84.00' (PROP. DMH (1-08)) I=84.00' (PROP. CBCI (1-11))	I=84.00' (PROP. DMH (1-02))

DRAINAGE STRUCTURE TABLE					
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT
PROP. DMH (1-28)	209+88.64	26.8 R	89.41	I=85.65' (PROP. CBCI (1-10))	I=85.65' (PROP. DMH (1-05))
PROP. ECC. CB (1-03)	212+44.94	15.5 L	87.40		I=83.96' (PROP. DMH (1-02))
PROP. ECC. CBCI (1-06)	212+38.01	24.0 R	87.26		I=83.96' (PROP. DMH (1-04))
PROP. ECC. CBCI (1-14)	211+02.37	24.0 R	87.94		I=84.70' (PROP. DMH (1-05))

0 20 50 100
SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 111

DRAINAGE PLANS
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	95	420
	PROJECT FILE NO. 608051		

DRAINAGE PLANS - 3

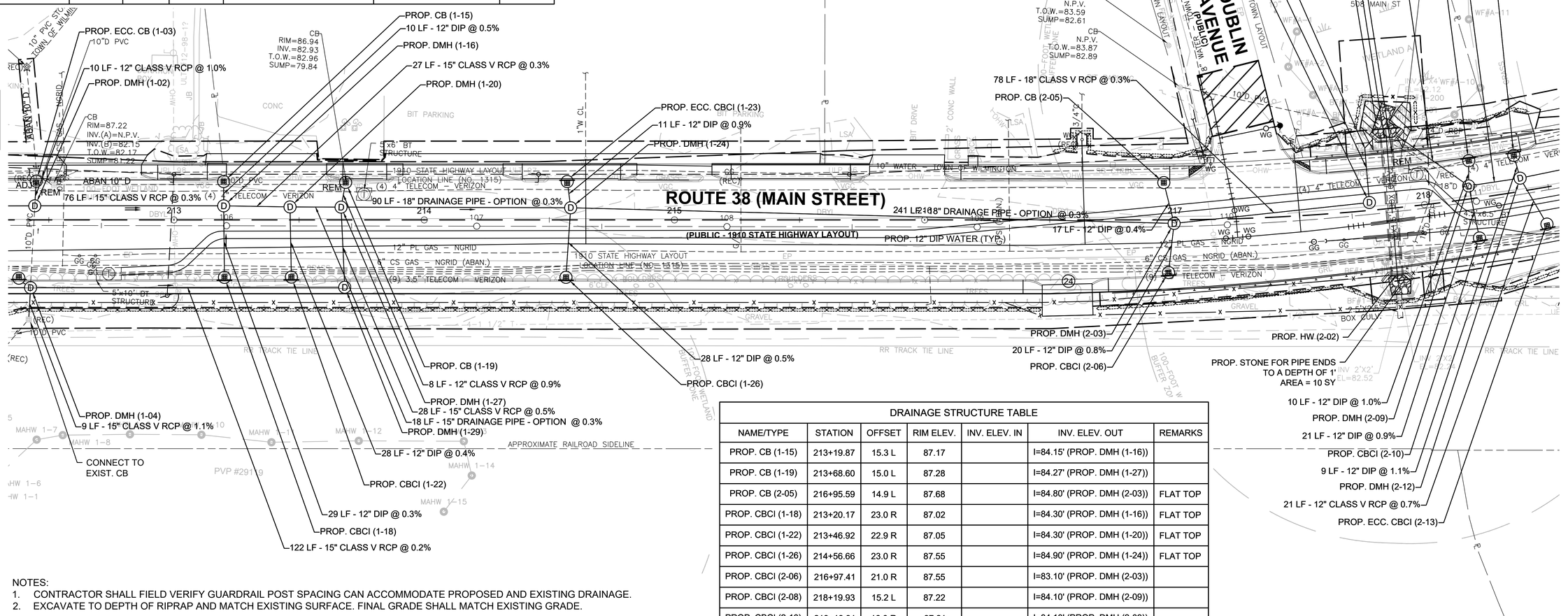
608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:49 PM

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (1-02)	212+44.37	5.6 L	87.60	I=83.76' (PROP. DMH (1-12)) I=83.86' (PROP. ECC. CB (1-03))	I=83.76' (PROP. DMH (1-16))	
PROP. DMH (1-04)	212+42.70	27.1 R	87.78	I=84.60' (EXIST. CB (212+42 R)) I=83.76' (PROP. DMH (1-05)) I=83.86' (PROP. ECC. CBCI (1-06))	I=83.76' (PROP. DMH (1-29))	
PROP. DMH (1-05)	211+07.54	27.1 R	88.45	I=84.60' (PROP. ECC. CBCI (1-14)) I=84.60' (PROP. DMH (1-28))	I=84.50' (PROP. DMH (1-04))	
PROP. DMH (1-16)	213+19.88	5.6 L	87.36	I=83.54' (PROP. DMH (1-02)) I=84.10' (PROP. CB (1-15)) I=84.20' (PROP. CBCI (1-18))	I=83.54' (PROP. DMH (1-20))	
PROP. DMH (1-20)	213+46.38	5.2 L	87.40	I=83.47' (PROP. DMH (1-16)) I=84.20' (PROP. CBCI (1-22))	I=83.47' (PROP. DMH (1-27))	
PROP. DMH (1-24)	214+58.54	4.9 L	87.92	I=84.75' (PROP. CBCI (1-26)) I=83.12' (PROP. DMH (1-27)) I=84.64' (PROP. ECC. CBCI (1-23))	I=83.12' (PROP. DMH (2-03))	
PROP. DMH (1-27)	213+66.78	5.1 L	87.47	I=83.41' (PROP. DMH (1-20)) I=84.20' (PROP. CB (1-19)) I=83.41' (PROP. DMH (1-29))	I=83.41' (PROP. DMH (1-24))	
PROP. DMH (1-29)	213+68.25	26.9 R	87.63	I=83.53' (PROP. DMH (1-04))	I=83.56' (PROP. DMH (1-27))	
PROP. DMH (2-02)	217+78.14	3.2 L	87.53	I=82.17' (PROP. DMH (2-03))	I=82.17' ()	
PROP. DMH (2-03)	216+99.68	1.4 R	87.93	I=84.74' (PROP. CB (2-05)) I=82.39' (PROP. DMH (1-24)) I=82.95' (PROP. CBCI (2-06))	I=82.39' (PROP. DMH (2-02))	

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (2-12)	218+39.42	5.2 L	87.45	I=84.00' (PROP. ECC. CBCI (2-13)) I=83.40' (PROP. CBCI (2-11)) I=82.36' (PROP. DMH (2-15))	I=82.36' (PROP. DMH (2-09))	
PROP. ECC. CB (1-03)	212+44.94	15.5 L	87.40		I=83.96' (PROP. DMH (1-02))	
PROP. ECC. CBCI (1-06)	212+38.01	24.0 R	87.26		I=83.96' (PROP. DMH (1-04))	FLAT TOP
PROP. ECC. CBCI (1-23)	214+57.13	16.0 L	87.69		I=84.74' (PROP. DMH (1-24))	FLAT TOP
PROP. ECC. CBCI (2-13)	218+46.95	14.6 R	87.26		I=84.15' (PROP. DMH (2-12))	
PROP. HW (2-01)	217+87.51	26.9 L	85.95	I=82.12' ()		
PROP. HW (2-02)	217+86.35	26.1 R	0.00			



DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (1-15)	213+19.87	15.3 L	87.17		I=84.15' (PROP. DMH (1-16))	
PROP. CB (1-19)	213+68.60	15.0 L	87.28		I=84.27' (PROP. DMH (1-27))	
PROP. CB (2-05)	216+95.59	14.9 L	87.68		I=84.80' (PROP. DMH (2-03))	FLAT TOP
PROP. CBCI (1-18)	213+20.17	23.0 R	87.02		I=84.30' (PROP. DMH (1-16))	FLAT TOP
PROP. CBCI (1-22)	213+46.92	22.9 R	87.05		I=84.30' (PROP. DMH (1-20))	FLAT TOP
PROP. CBCI (1-26)	214+56.66	23.0 R	87.55		I=84.90' (PROP. DMH (1-24))	FLAT TOP
PROP. CBCI (2-06)	216+97.41	21.0 R	87.55		I=83.10' (PROP. DMH (2-03))	
PROP. CBCI (2-08)	218+19.93	15.2 L	87.22		I=84.10' (PROP. DMH (2-09))	
PROP. CBCI (2-10)	218+19.91	16.0 R	87.21		I=84.10' (PROP. DMH (2-09))	
PROP. CBCI (2-11)	218+38.37	14.6 L	86.61		I=83.50' (PROP. DMH (2-12))	

NOTES:
1. CONTRACTOR SHALL FIELD VERIFY GUARDRAIL POST SPACING CAN ACCOMMODATE PROPOSED AND EXISTING DRAINAGE.
2. EXCAVATE TO DEPTH OF RIPRAP AND MATCH EXISTING SURFACE. FINAL GRADE SHALL MATCH EXISTING GRADE.

0 20 50 100
SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

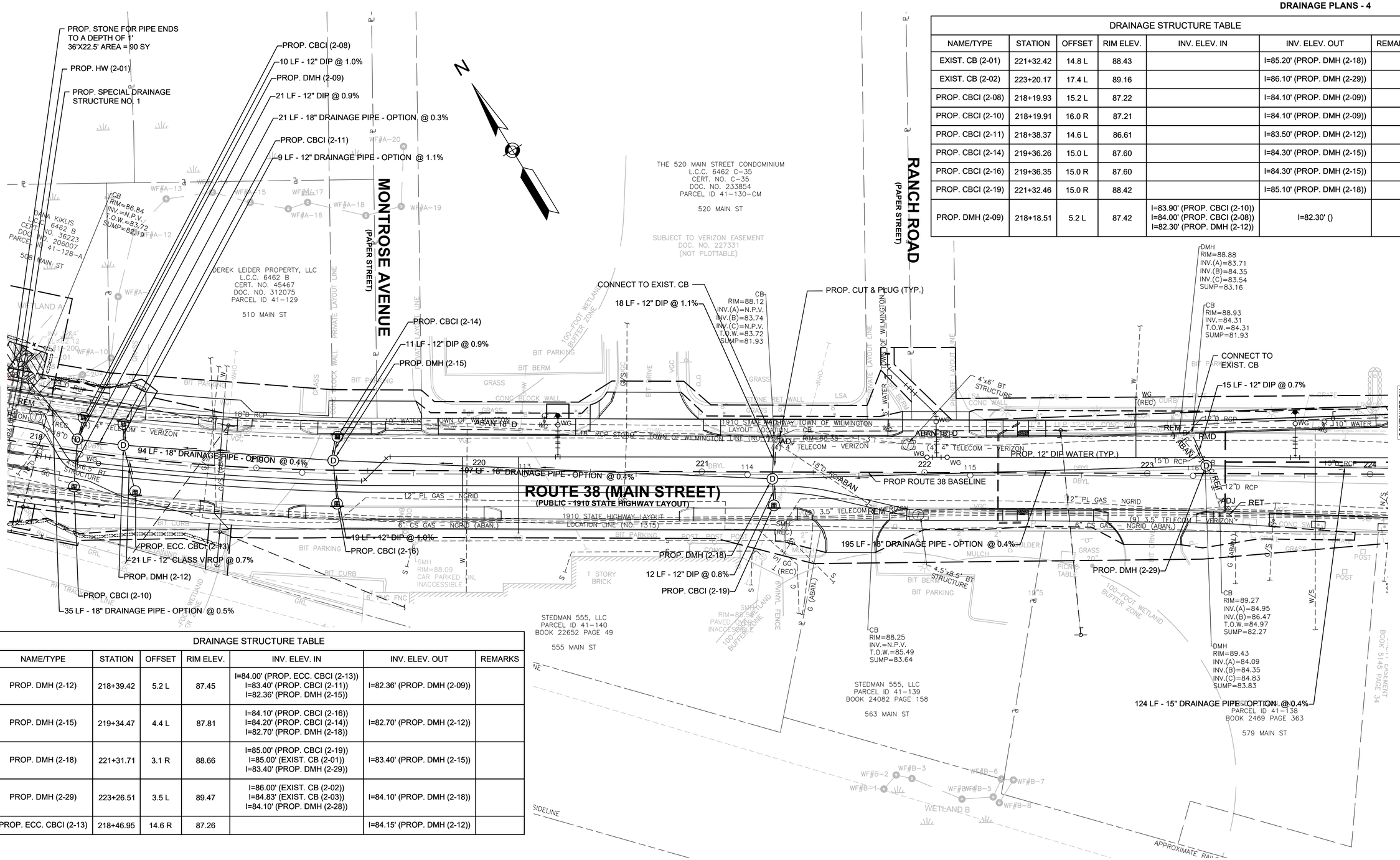
SEE SHEET 112

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	96	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 4

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:53 PM



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
EXIST. CB (2-01)	221+32.42	14.8 L	88.43		I=85.20' (PROP. DMH (2-18))	
EXIST. CB (2-02)	223+20.17	17.4 L	89.16		I=86.10' (PROP. DMH (2-29))	
PROP. CBCI (2-08)	218+19.93	15.2 L	87.22		I=84.10' (PROP. DMH (2-09))	
PROP. CBCI (2-10)	218+19.91	16.0 R	87.21		I=84.10' (PROP. DMH (2-09))	
PROP. CBCI (2-11)	218+38.37	14.6 L	86.61		I=83.50' (PROP. DMH (2-12))	
PROP. CBCI (2-14)	219+36.26	15.0 L	87.60		I=84.30' (PROP. DMH (2-15))	
PROP. CBCI (2-16)	219+36.35	15.0 R	87.60		I=84.30' (PROP. DMH (2-15))	
PROP. CBCI (2-19)	221+32.46	15.0 R	88.42		I=85.10' (PROP. DMH (2-18))	
PROP. DMH (2-09)	218+18.51	5.2 L	87.42	I=83.90' (PROP. CBCI (2-10)) I=84.00' (PROP. CBCI (2-08)) I=82.30' (PROP. DMH (2-12))	I=82.30' ()	

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (2-12)	218+39.42	5.2 L	87.45	I=84.00' (PROP. ECC. CBCI (2-13)) I=83.40' (PROP. CBCI (2-11)) I=82.36' (PROP. DMH (2-15))	I=82.36' (PROP. DMH (2-09))	
PROP. DMH (2-15)	219+34.47	4.4 L	87.81	I=84.10' (PROP. CBCI (2-16)) I=84.20' (PROP. CBCI (2-14)) I=82.70' (PROP. DMH (2-18))	I=82.70' (PROP. DMH (2-12))	
PROP. DMH (2-18)	221+31.71	3.1 R	88.66	I=85.00' (PROP. CBCI (2-19)) I=85.00' (EXIST. CB (2-01)) I=83.40' (PROP. DMH (2-29))	I=83.40' (PROP. DMH (2-15))	
PROP. DMH (2-29)	223+26.51	3.5 L	89.47	I=86.00' (EXIST. CB (2-02)) I=84.83' (EXIST. CB (2-03)) I=84.10' (PROP. DMH (2-18))	I=84.10' (PROP. DMH (2-18))	
PROP. ECC. CBCI (2-13)	218+46.95	14.6 R	87.26		I=84.15' (PROP. DMH (2-12))	

NOTES:
1. CONTRACTOR SHALL FIELD VERIFY GUARDRAIL POST SPACING CAN ACCOMMODATE PROPOSED AND EXISTING DRAINAGE.
2. EXCAVATE TO DEPTH OF RIPRAP AND MATCH EXISTING SURFACE. FINAL GRADE SHALL MATCH EXISTING GRADE.

0 20 50 100
SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

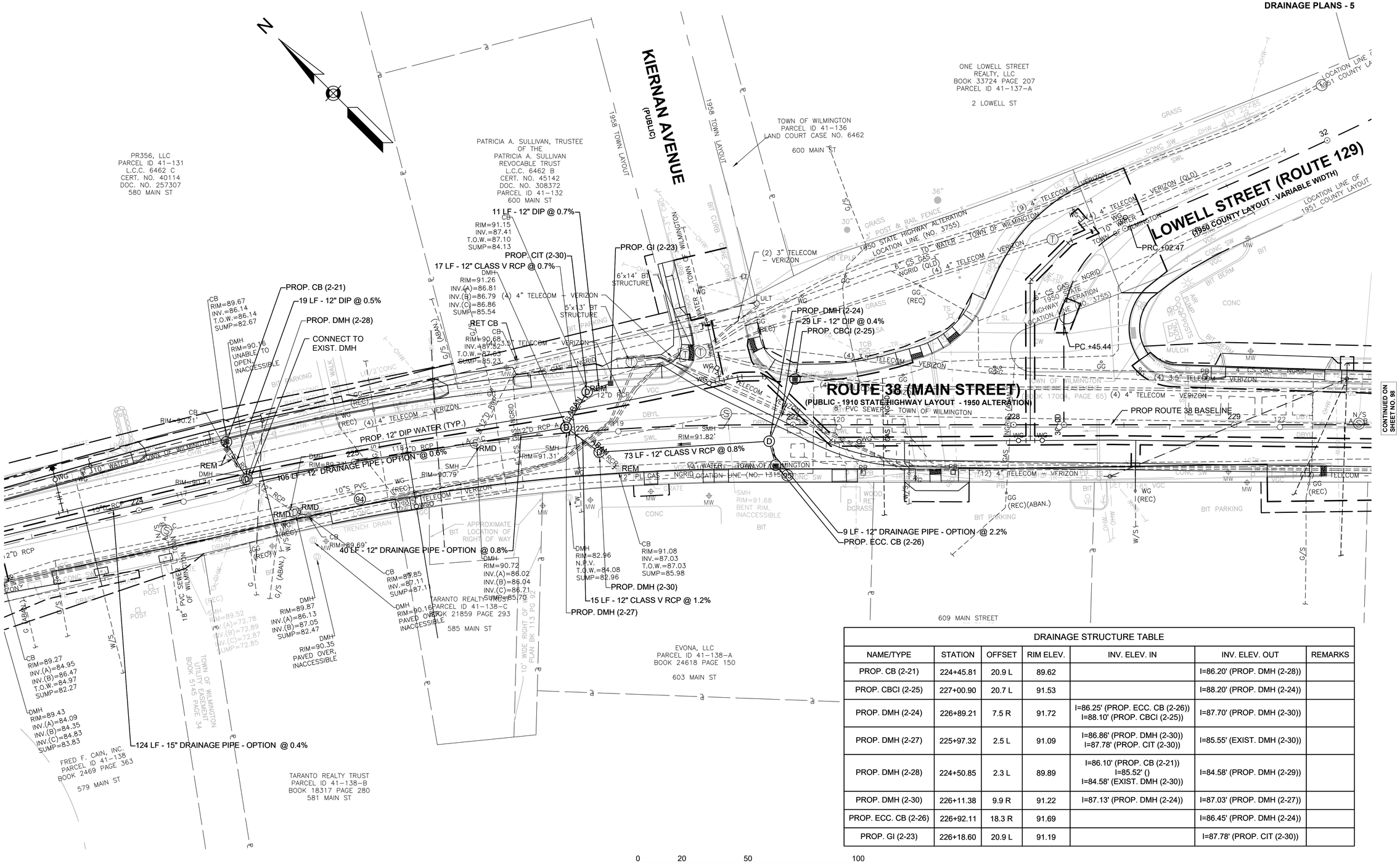
SEE SHEET 113

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	97	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 5

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:54 PM



DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (2-21)	224+45.81	20.9 L	89.62		I=86.20' (PROP. DMH (2-28))	
PROP. CBCI (2-25)	227+00.90	20.7 L	91.53		I=88.20' (PROP. DMH (2-24))	
PROP. DMH (2-24)	226+89.21	7.5 R	91.72	I=86.25' (PROP. ECC. CB (2-26)) I=88.10' (PROP. CBCI (2-25))	I=87.70' (PROP. DMH (2-30))	
PROP. DMH (2-27)	225+97.32	2.5 L	91.09	I=86.86' (PROP. DMH (2-30)) I=87.78' (PROP. CIT (2-30))	I=85.55' (EXIST. DMH (2-30))	
PROP. DMH (2-28)	224+50.85	2.3 L	89.89	I=86.10' (PROP. CB (2-21)) I=85.52' () I=84.58' (EXIST. DMH (2-30))	I=84.58' (PROP. DMH (2-29))	
PROP. DMH (2-30)	226+11.38	9.9 R	91.22	I=87.13' (PROP. DMH (2-24))	I=87.03' (PROP. DMH (2-27))	
PROP. ECC. CB (2-26)	226+92.11	18.3 R	91.69		I=86.45' (PROP. DMH (2-24))	
PROP. GI (2-23)	226+18.60	20.9 L	91.19		I=87.78' (PROP. CIT (2-30))	

0 20 50 100

SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 114

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	98	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 6

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:54 PM

CONTINUED ON SHEET NO. 97

CONTINUED ON SHEET NO.99

ROUTE 38 (MAIN STREET)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

PROP ROUTE 38 BASELINE

COLONIAL PARK MALL CONDOMINIUM
PARCEL ID 40-6-A
L.C.C. 29466 B
CERT. NO. C-20
DOC. NO. 120308

25 LOWELL ST

GTY MA/NH LEASING, INC.
PARCEL ID 40-5
BOOK 24895 PAGE 204

586 MAIN ST

SUBJECT TO VERIZON EASEMENT
BOOK 11541 PAGE 327
(NOT PLOTTABLE)

GEORGE KAMOUZIS AND WILLIAM KAMOUZIS, TRUSTEES OF GLOBE REALTY TRUST
PARCEL ID 40-6
L.C.C. 29466 B
CERT. NO. 34101
DOC. NO. 181185

35 LOWELL ST

615 MAIN STREET NOMINEE TRUST
AKA THE 615 MAIN STREET NOMINEE TRUST
PARCEL ID 40-2-C
BOOK 24254 PAGE 17

615 MAIN ST

WILMINGTON PROPERTY MANAGEMENT LLC
PARCEL ID 40-2-B
BOOK 37684 PAGE 48
619 MAIN ST

PROP. CB (3-17)
19 LF - 12" DIP @ 1.6%
PROP. DMH (3-18)
10 LF - 12" DIP @ 3.1%
PROP. CB (3-19)
242 LF - 12" CLASS V RCP @ 0.7%
PROP. CBCI (3-12)
21 LF - 12" DIP @ 1.0%
PROP. CUT & PLUG (TYP.)
PROP. 12" DIP WATER (TYP.)
219 LF - 12" CLASS V RCP @ 0.7%
PROP. DMH (3-14)
11 LF - 12" DIP @ 0.9%
PROP. CBCI (3-16)

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (3-17)	231+21.98	14.7 L	92.42		I=89.90' (PROP. DMH (3-18))	
PROP. CB (3-19)	231+22	14.7 R	92.42		I=89.92' (PROP. DMH (3-18))	
PROP. CBCI (3-12)	233+56.71	15.0 L	91.32		I=88.50' (PROP. DMH (3-14))	FLAT TOP
PROP. CBCI (3-16)	233+62.39	14.9 R	91.30		I=88.40' (PROP. DMH (3-14))	FLAT TOP
PROP. DMH (3-14)	233+64.32	4.5 R	91.50	I=88.30' (PROP. CBCI (3-16)) I=88.30' (PROP. CBCI (3-12)) I=88.00' (PROP. DMH (3-18))	I=88.00' (PROP. DMH (3-09))	
PROP. DMH (3-18)	231+21.98	4.4 R	92.63	I=89.60' (PROP. CB (3-19)) I=89.60' (PROP. CB (3-17))	I=89.60' (PROP. DMH (3-14))	

0 20 50 100

SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

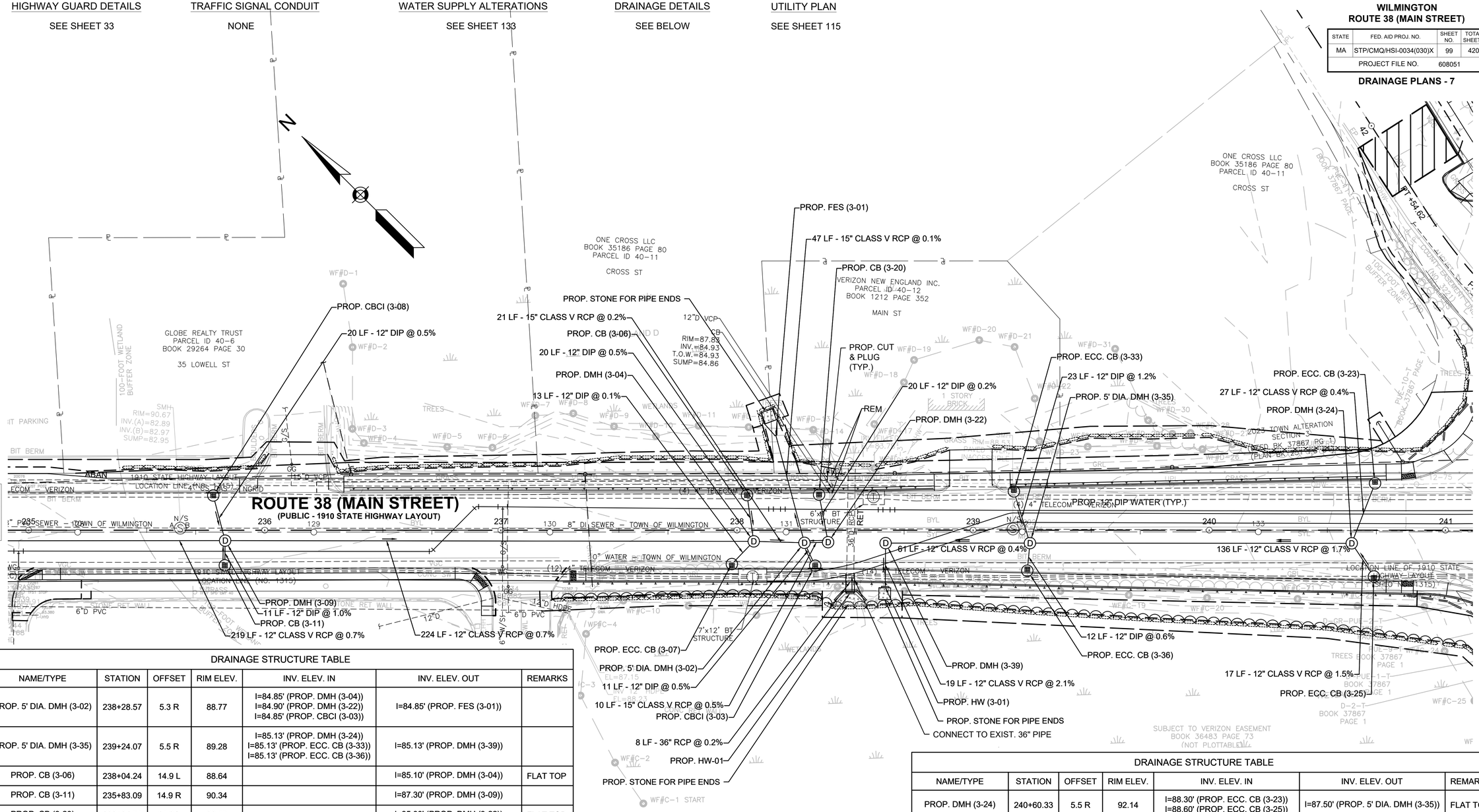
SEE SHEET 115

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	99	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 7

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:55 PM



DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. 5' DIA. DMH (3-02)	238+28.57	5.3 R	88.77	I=84.85' (PROP. DMH (3-04)) I=84.90' (PROP. DMH (3-22)) I=84.85' (PROP. CBCI (3-03))	I=84.85' (PROP. FES (3-01))	
PROP. 5' DIA. DMH (3-35)	239+24.07	5.5 R	89.28	I=85.13' (PROP. DMH (3-24)) I=85.13' (PROP. ECC. CB (3-33)) I=85.13' (PROP. ECC. CB (3-36))	I=85.13' (PROP. DMH (3-39))	
PROP. CB (3-06)	238+04.24	14.9 L	88.64		I=85.10' (PROP. DMH (3-04))	FLAT TOP
PROP. CB (3-11)	235+83.09	14.9 R	90.34		I=87.30' (PROP. DMH (3-09))	
PROP. CB (3-20)	238+34.75	15.0 L	88.57		I=85.00' (PROP. DMH (3-22))	FLAT TOP
PROP. CBCI (3-03)	238+33.11	15.1 R	88.32		I=84.90' (PROP. 5' DIA. DMH (3-02))	
PROP. CBCI (3-08)	235+78.19	14.7 L	90.37		I=87.50' (PROP. DMH (3-09))	FLAT TOP
PROP. DMH (3-04)	238+07.09	4.7 R	88.83	I=85.00' (PROP. DMH (3-09)) I=84.90' (PROP. ECC. CB (3-07)) I=85.00' (PROP. CB (3-06))	I=84.90' (PROP. 5' DIA. DMH (3-02))	
PROP. DMH (3-09)	235+83.23	4.4 R	90.55	I=86.55' (PROP. DMH (3-14)) I=87.40' (PROP. CBCI (3-08)) I=87.20' (PROP. CB (3-11))	I=86.55' (PROP. DMH (3-04))	
PROP. DMH (3-22)	238+38.58	5.1 R	88.78	I=84.96' (PROP. CB (3-20))	I=84.95' (PROP. 5' DIA. DMH (3-02))	

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (3-24)	240+60.33	5.5 R	92.14	I=88.30' (PROP. ECC. CB (3-23)) I=88.60' (PROP. ECC. CB (3-25))	I=87.50' (PROP. 5' DIA. DMH (3-35))	FLAT TOP
PROP. ECC. CB (3-07)	237+97.82	14.3 R	88.64		I=84.92' (PROP. DMH (3-04))	FLAT TOP
PROP. ECC. CB (3-23)	240+70.21	19.9 L	91.98		I=88.40' (PROP. DMH (3-24))	FLAT TOP
PROP. ECC. CB (3-25)	240+69.72	19.6 R	92.42		I=88.85' (PROP. DMH (3-24))	
PROP. ECC. CB (3-33)	239+17.25	16.4 L	88.99		I=85.40' (PROP. 5' DIA. DMH (3-35))	FLAT TOP
PROP. ECC. CB (3-36)	239+22.92	17.2 R	88.77		I=85.20' (PROP. 5' DIA. DMH (3-35))	FLAT TOP
PROP. FES (3-01)	238+16.47	40.2 L	86.25	I=84.80' (PROP. 5' DIA. DMH (3-02))		
PROP. HW-01	238+47.90	26.6 R	85.65		I=84.00' ()	
PROP. HW (3-01)	238+62.78	24.1 R	86.17	I=84.50' (PROP. DMH (3-39))		

NOTES:
1. CONTRACTOR SHALL FIELD VERIFY GUARDRAIL POST SPACING CAN ACCOMMODATE PROPOSED AND EXISTING DRAINAGE.

0 20 50 100
SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS
SEE SHEET 20

TRAFFIC SIGNAL CONDUIT
SEE SHEET 171

WATER SUPPLY ALTERATIONS
SEE SHEET 120

DRAINAGE DETAILS
SEE BELOW

UTILITY PLAN
SEE SHEET 116

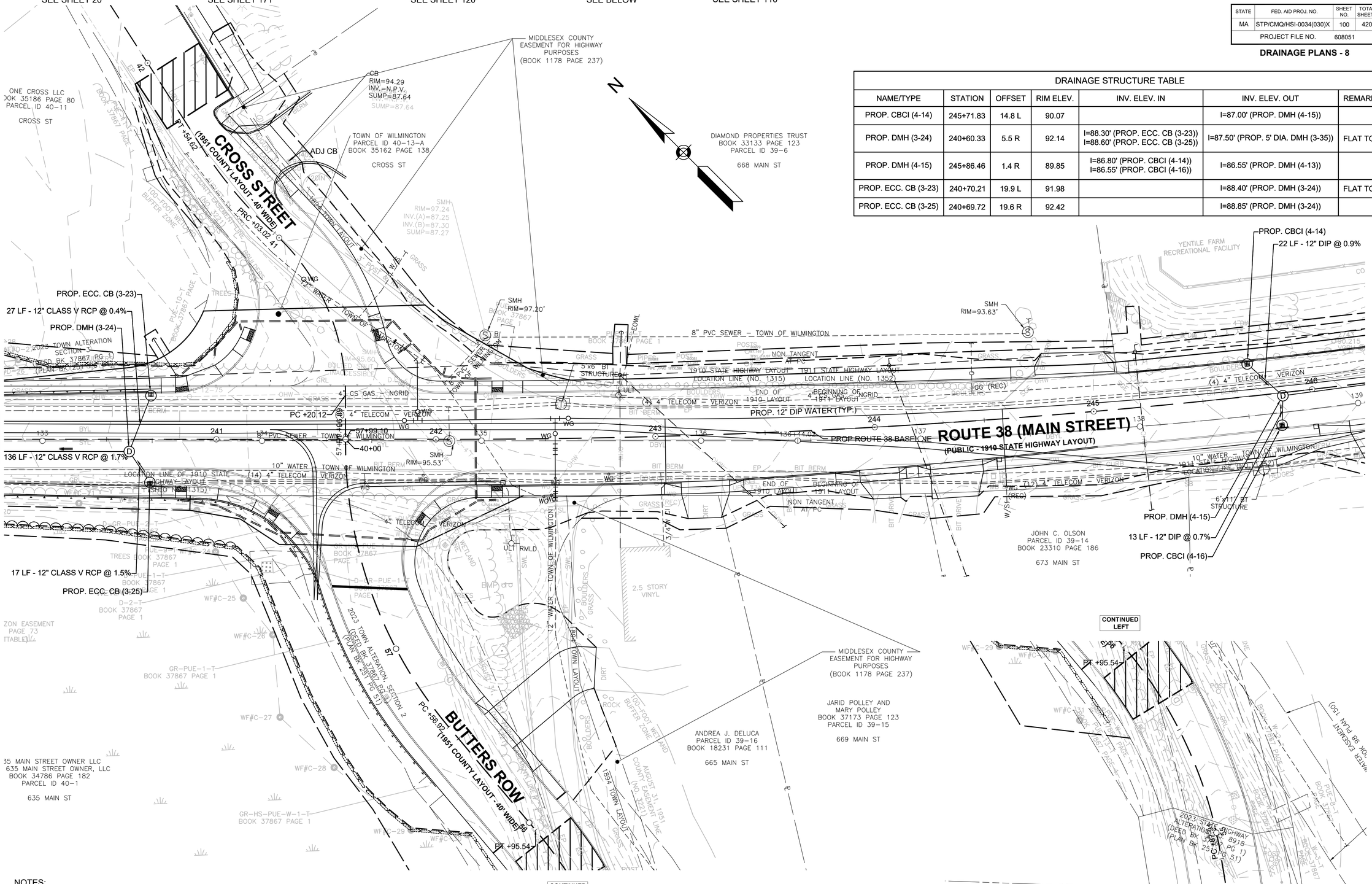
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	100	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 8

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CBCI (4-14)	245+71.83	14.8 L	90.07		I=87.00' (PROP. DMH (4-15))	
PROP. DMH (3-24)	240+60.33	5.5 R	92.14	I=88.30' (PROP. ECC. CB (3-23)) I=88.60' (PROP. ECC. CB (3-25))	I=87.50' (PROP. 5' DIA. DMH (3-35))	FLAT TOP
PROP. DMH (4-15)	245+86.46	1.4 R	89.85	I=86.80' (PROP. CBCI (4-14)) I=86.55' (PROP. CBCI (4-16))	I=86.55' (PROP. DMH (4-13))	
PROP. ECC. CB (3-23)	240+70.21	19.9 L	91.98		I=88.40' (PROP. DMH (3-24))	FLAT TOP
PROP. ECC. CB (3-25)	240+69.72	19.6 R	92.42		I=88.85' (PROP. DMH (3-24))	



NOTES:
1. ALL DRAINAGE STRUCTURES AND BMP 1 ON BUTTERS ROW TO BE INSTALLED UNDER PROJECT 608929.

FOR UTILITY PLAN:
SEE SHEET NO. 109

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:56 PM

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 117

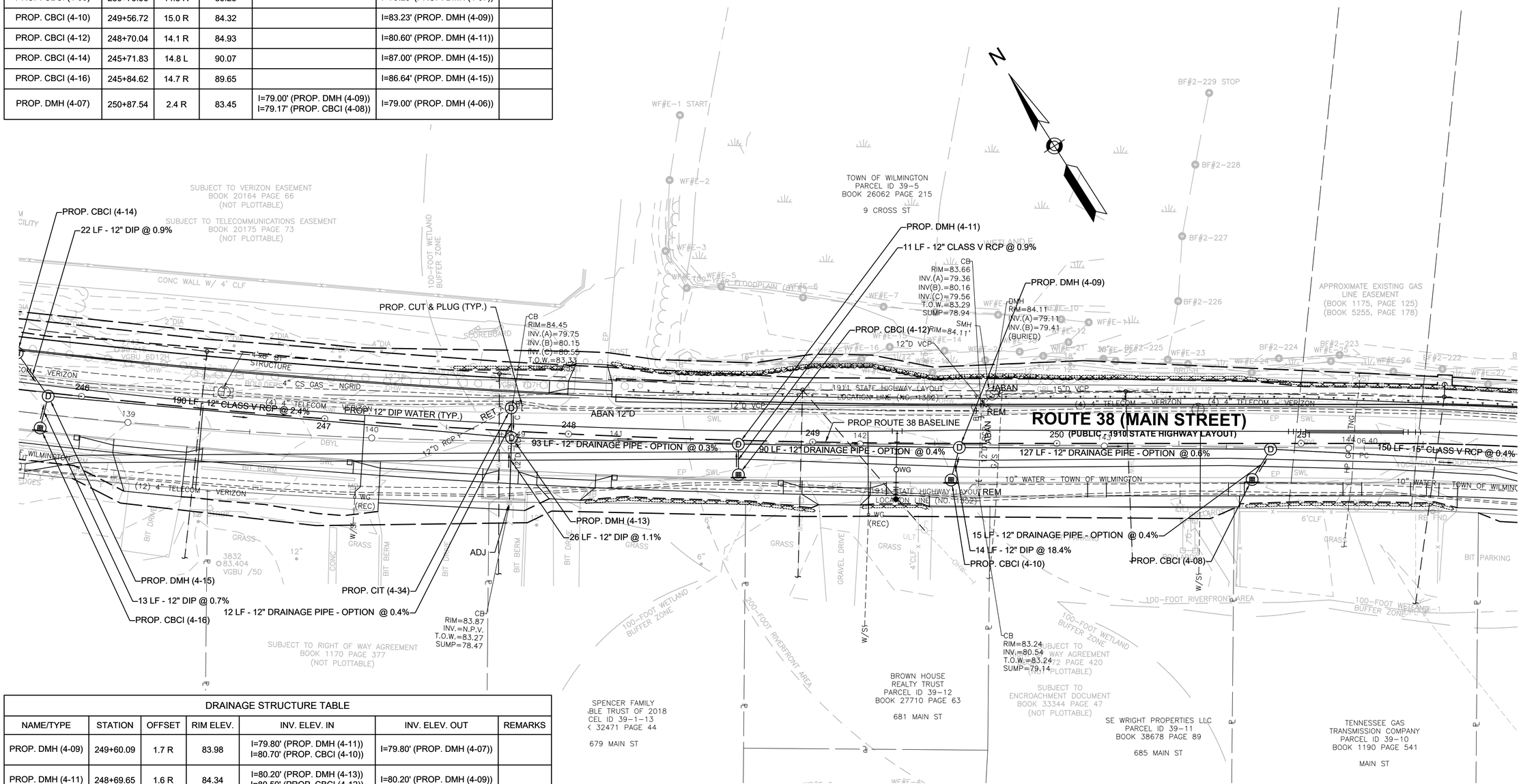
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	101	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 9

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:56 PM

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
EXIST. CB (247+12 R)	247+77.40	29.2 R	84.49		I=81.30' (PROP. DMH (4-13))	
PROP. CBCI (4-08)	250+79.96	14.8 R	83.23		I=79.23' (PROP. DMH (4-07))	
PROP. CBCI (4-10)	249+56.72	15.0 R	84.32		I=83.23' (PROP. DMH (4-09))	
PROP. CBCI (4-12)	248+70.04	14.1 R	84.93		I=80.60' (PROP. DMH (4-11))	
PROP. CBCI (4-14)	245+71.83	14.8 L	90.07		I=87.00' (PROP. DMH (4-15))	
PROP. CBCI (4-16)	245+84.62	14.7 R	89.65		I=86.64' (PROP. DMH (4-15))	
PROP. DMH (4-07)	250+87.54	2.4 R	83.45	I=79.00' (PROP. DMH (4-09)) I=79.17' (PROP. CBCI (4-08))	I=79.00' (PROP. DMH (4-06))	



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (4-09)	249+60.09	1.7 R	83.98	I=79.80' (PROP. DMH (4-11)) I=80.70' (PROP. CBCI (4-10))	I=79.80' (PROP. DMH (4-07))	
PROP. DMH (4-11)	248+69.65	1.6 R	84.34	I=80.20' (PROP. DMH (4-13)) I=80.50' (PROP. CBCI (4-12))	I=80.20' (PROP. DMH (4-09))	
PROP. DMH (4-13)	247+76.84	2.7 R	85.05	I=81.90' (PROP. DMH (4-15)) I=81.00' (EXIST. CB (247+12 R)) I=80.50' (PROP. CIT (4-34))	I=80.50' (PROP. DMH (4-11))	
PROP. DMH (4-15)	245+86.46	1.4 R	89.85	I=86.80' (PROP. CBCI (4-14)) I=86.55' (PROP. CBCI (4-16))	I=86.55' (PROP. DMH (4-13))	

NOTES:
1. A MINIMUM OF 24 INCHES OF SEPARATION IS REQUIRED BETWEEN THE HIGH PRESSURE GAS MAIN AND DRAINAGE LINE AND ALSO BETWEEN THE HIGH PRESSURE GAS MAIN AND WATER MAIN. SEE PROFILE ON SHEET 127 FOR CROSSING OF EXISTING AND PROPOSED UTILITIES.

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

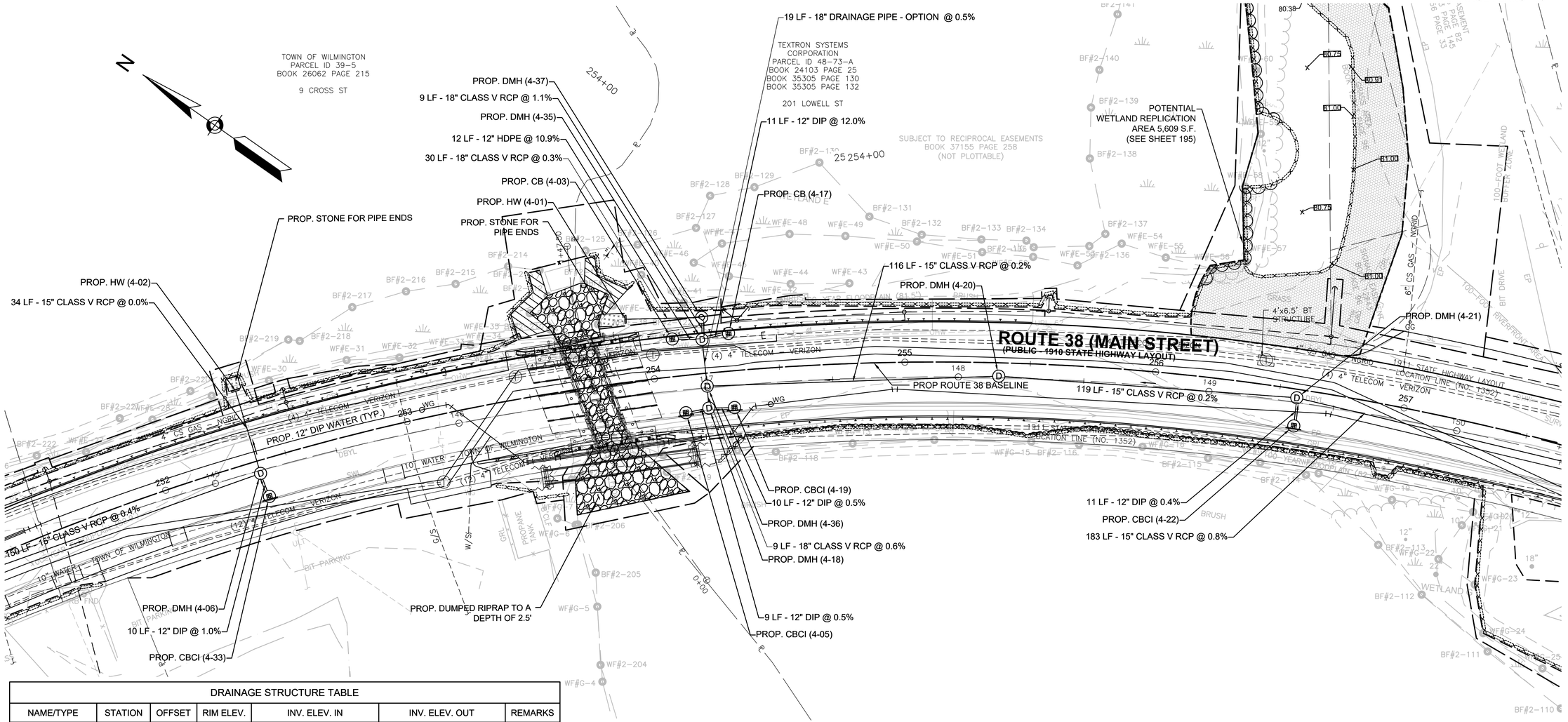
SEE SHEET 118

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	102	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 10

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 1:58 PM



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (4-20)	255+37.54	5.3 R	82.38	I=78.92' (PROP. DMH (4-21))	I=78.92' (PROP. DMH (4-36))	
PROP. DMH (4-21)	256+57.15	3.4 R	83.10	I=79.10' (PROP. CBCI (4-22)) I=79.26' (PROP. DMH (4-24))	I=79.10' (PROP. DMH (4-20))	
PROP. DMH (4-35)	254+20.43	13.5 L	82.69	I=78.20' (PROP. DMH (4-36)) I=78.10' (PROP. CB (4-03)) I=78.10' (PROP. CB (4-17))	I=78.20' (PROP. DMH (4-37))	
PROP. DMH (4-36)	254+20.67	5.2 R	82.12	I=78.40' (PROP. DMH (4-18)) I=78.67' (PROP. DMH (4-20))	I=78.30' (PROP. DMH (4-35))	
PROP. DMH (4-37)	254+21.11	22.3 L	82.40	I=78.10' (PROP. DMH (4-35))	I=79.44' (PROP. HW (4-01)) I=78.10' ()	
PROP. HW (4-01)	253+91.64	25.0 L	81.07	I=79.40' (PROP. DMH (4-37))		
PROP. HW (4-02)	252+38	29.3 L	80.14	I=78.20' (PROP. DMH (4-06))		

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (4-03)	254+08.81	14.9 L	82.67		I=79.40' (PROP. DMH (4-35))	
PROP. CB (4-17)	254+30.98	15.0 L	82.65		I=79.40' (PROP. DMH (4-35))	
PROP. CBCI (4-05)	254+11.04	14.8 R	81.79		I=78.50' (PROP. DMH (4-18))	
PROP. CBCI (4-19)	254+30.81	14.7 R	81.78		I=78.58' (PROP. DMH (4-18))	
PROP. CBCI (4-22)	256+57.67	14.7 R	82.71		I=79.15' (PROP. DMH (4-21))	
PROP. CBCI (4-33)	252+38.95	14.9 R	82.37		I=79.30' (PROP. DMH (4-06))	
PROP. DMH (4-06)	252+38.17	5.1 R	82.72	I=78.40' (PROP. DMH (4-07)) I=79.20' (PROP. CBCI (4-33))	I=78.21' (PROP. HW (4-02))	
PROP. DMH (4-18)	254+20.47	13.9 R	81.81	I=78.53' (PROP. CBCI (4-19)) I=78.45' (PROP. CBCI (4-05))	I=78.45' (PROP. DMH (4-36))	

NOTES:
1. CONTRACTOR SHALL FIELD VERIFY GUARDRAIL POST SPACING CAN ACCOMMODATE PROPOSED AND EXISTING DRAINAGE.
2. EXCAVATE TO DEPTH OF RIPRAP AND MATCH EXISTING SURFACE. FINAL GRADE SHALL MATCH EXISTING GRADE.

0 20 50 100
SCALE: 1" = 20'

FOR UTILITY PLAN: SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

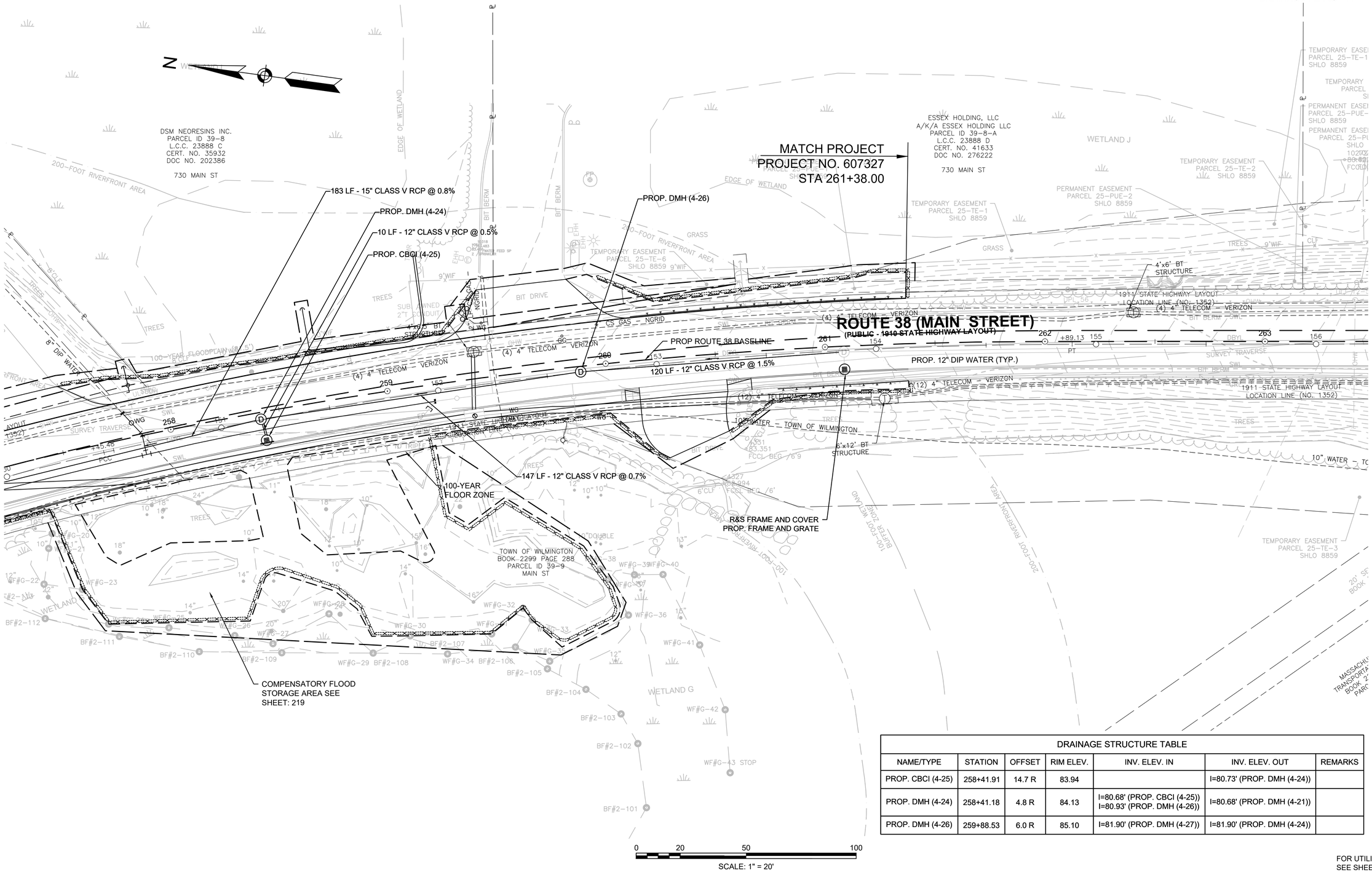
UTILITY PLAN

SEE SHEET 119

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	103	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 11



CONTINUED ON SHEET NO. 102

CONTINUED ON SHEET NO. 104

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CBCI (4-25)	258+41.91	14.7 R	83.94		I=80.73' (PROP. DMH (4-24))	
PROP. DMH (4-24)	258+41.18	4.8 R	84.13	I=80.68' (PROP. CBCI (4-25)) I=80.93' (PROP. DMH (4-26))	I=80.68' (PROP. DMH (4-21))	
PROP. DMH (4-26)	259+88.53	6.0 R	85.10	I=81.90' (PROP. DMH (4-27))	I=81.90' (PROP. DMH (4-24))	

FOR UTILITY PLAN:
SEE SHEET NO. 109

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:01 PM

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

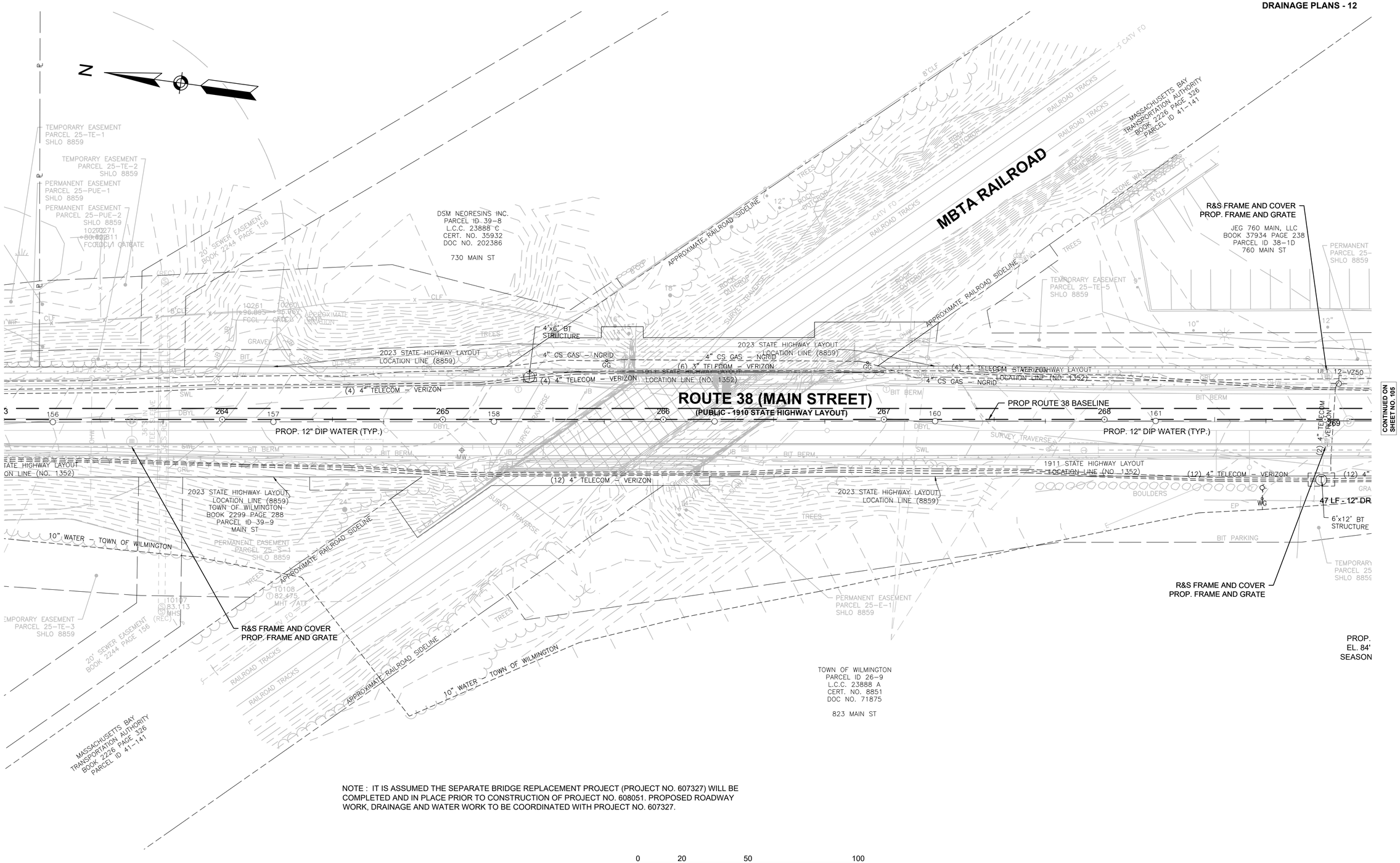
SEE SHEET 120

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	104	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 12

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:01 PM



NOTE : IT IS ASSUMED THE SEPARATE BRIDGE REPLACEMENT PROJECT (PROJECT NO. 607327) WILL BE COMPLETED AND IN PLACE PRIOR TO CONSTRUCTION OF PROJECT NO. 608051. PROPOSED ROADWAY WORK, DRAINAGE AND WATER WORK TO BE COORDINATED WITH PROJECT NO. 607327.

0 20 50 100

SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

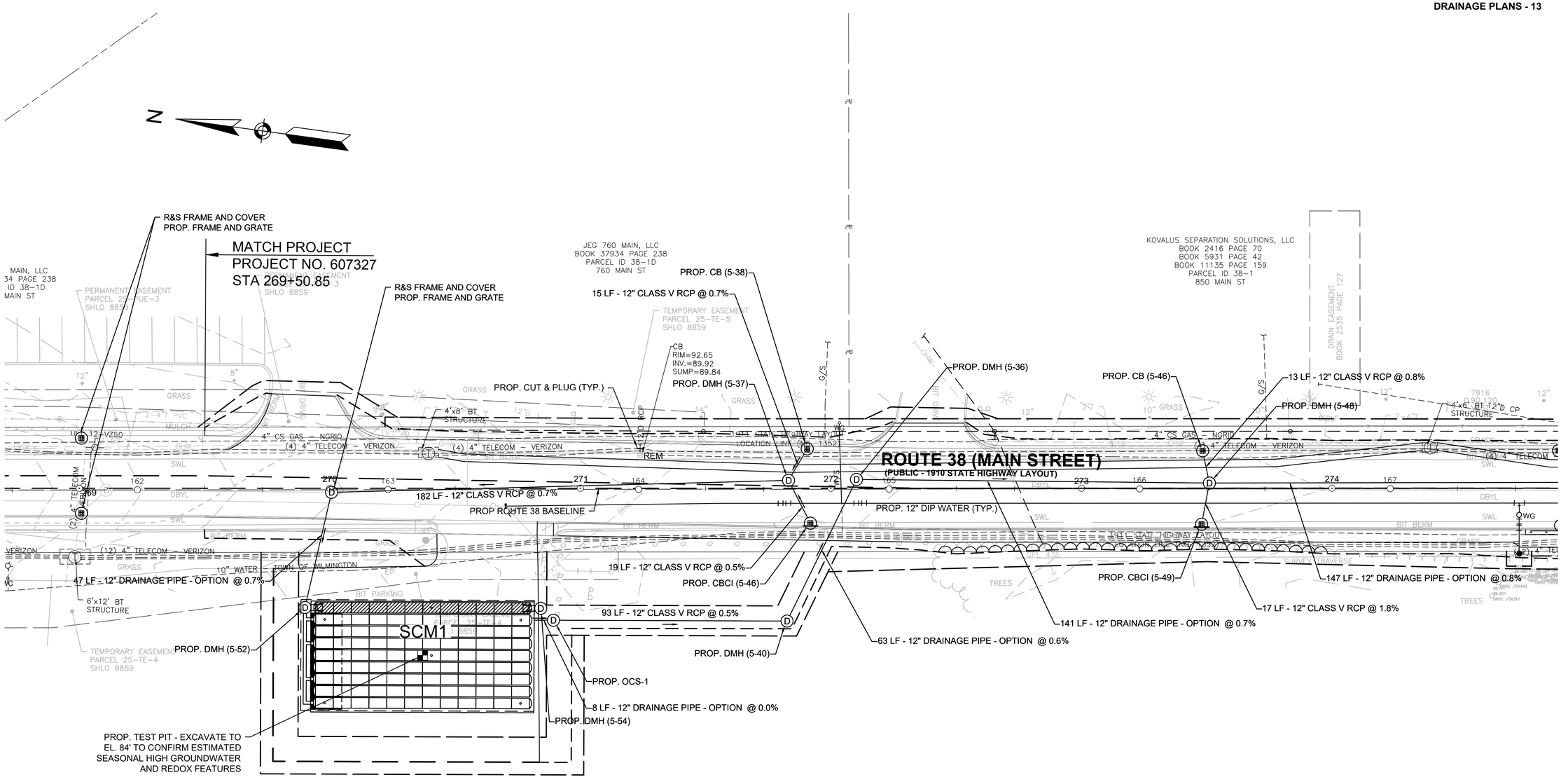
HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS	UTILITY PLAN
SEE SHEET 33	NONE	SEE SHEET 133	SEE BELOW	SEE SHEET 121

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	105	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 13

608051_UT03\DRAINAGE-PLANS\.DWG Plotted on 2-Dec-2025 2:02 PM



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (5-40)	271+84.22	53.9 R	92.83	I=88.50' (PROP. OCS-1)	I=86.50' (PROP. DMH (5-36))	
PROP. DMH (5-48)	273+51.83	2.1 L	91.26	I=85.10' (PROP. DMH (5-36)) I=87.90' (PROP. CB (5-46)) I=87.20' (PROP. CBCI (5-49))	I=85.10' (PROP. DMH (5-31))	
PROP. OCS-1	270+90.97	55.2 R	92.62	I=88.10' (SCM1)	I=89.00' (PROP. DMH (5-40))	

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (5-38)	271+91.05	14.9 L	91.89		I=88.70' (PROP. DMH (5-37))	FLAT TOP
PROP. CB (5-46)	273+49.14	15.0 L	91.02		I=88.00' (PROP. DMH (5-48))	
PROP. CBCI (5-46)	271+92.83	14.7 R	91.89		I=88.70' (PROP. DMH (5-37))	
PROP. CBCI (5-49)	273+48.72	14.4 R	91.03		I=87.50' (PROP. DMH (5-48))	
PROP. DMH (5-36)	272+10.91	3.1 L	92.01	I=86.10' (PROP. DMH (5-40))	I=86.10' (PROP. DMH (5-48))	
PROP. DMH (5-37)	271+83.81	2.2 L	92.20	I=88.60' (PROP. CB (5-38)) I=88.60' (PROP. CBCI (5-46))	I=88.60' (PROP. DMH (5-41))	

0 20 50 100

SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

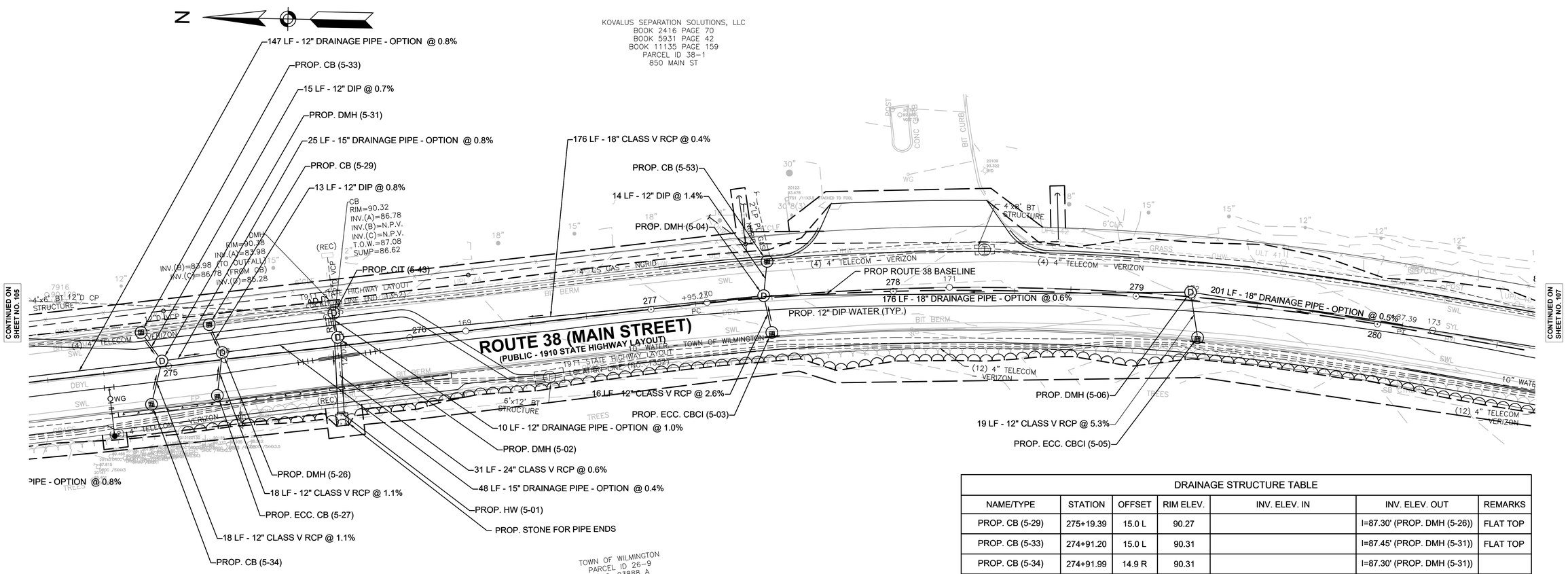
HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS	UTILITY PLAN
SEE SHEET 33	NONE	SEE SHEET 133	SEE BELOW	SEE SHEET 122

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	106	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 14

608051_UT03\DRAINAGE-PLANS\.DWG Plotted on 2-Dec-2025 2:03 PM



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. ECC. CBCI (5-03)	277+49.63	14.4 R	92.00		I=88.90' (PROP. DMH (5-04))	
PROP. ECC. CBCI (5-05)	279+27.56	15.0 R	94.47		I=91.00' (PROP. DMH (5-06))	
PROP. HW (5-01)	275+69.12	27.4 R	86.05	I=83.40' (PROP. DMH (5-02))		

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (5-29)	275+19.39	15.0 L	90.27		I=87.30' (PROP. DMH (5-26))	FLAT TOP
PROP. CB (5-33)	274+91.20	15.0 L	90.31		I=87.45' (PROP. DMH (5-31))	FLAT TOP
PROP. CB (5-34)	274+91.99	14.9 R	90.31		I=87.30' (PROP. DMH (5-31))	
PROP. CB (5-53)	277+49.89	15.0 L	93.00		I=89.00' (PROP. DMH (5-04))	
PROP. DMH (5-02)	275+71.25	3.6 L	90.62	I=83.60' (PROP. DMH (5-26)) I=86.70' (PROP. DMH (5-04)) I=86.70' (PROP. CIT (5-43))	I=83.60' (PROP. HW (5-01))	
PROP. DMH (5-04)	277+47.43	1.0 L	92.59	I=88.80' (PROP. CB (5-53)) I=88.50' (PROP. ECC. CBCI (5-03)) I=87.40' (PROP. DMH (5-06))	I=87.40' (PROP. DMH (5-02))	
PROP. DMH (5-06)	279+22.97	3.4 L	95.14	I=88.40' (PROP. DMH (5-10)) I=90.00' (PROP. ECC. CBCI (5-05))	I=88.40' (PROP. DMH (5-04))	
PROP. DMH (5-26)	275+23.41	2.9 L	90.52	I=83.80' (PROP. DMH (5-31)) I=87.20' (PROP. CB (5-29)) I=87.10' (PROP. ECC. CB (5-27))	I=83.80' (PROP. DMH (5-02))	
PROP. DMH (5-31)	274+98.37	2.4 L	90.54	I=84.00' (PROP. DMH (5-48)) I=87.10' (PROP. CB (5-34)) I=87.35' (PROP. CB (5-33))	I=84.00' (PROP. DMH (5-26))	
PROP. ECC. CB (5-27)	275+19.35	14.4 R	90.29		I=87.30' (PROP. DMH (5-26))	FLAT TOP

0 20 50 100
SCALE: 1" = 20'

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 123

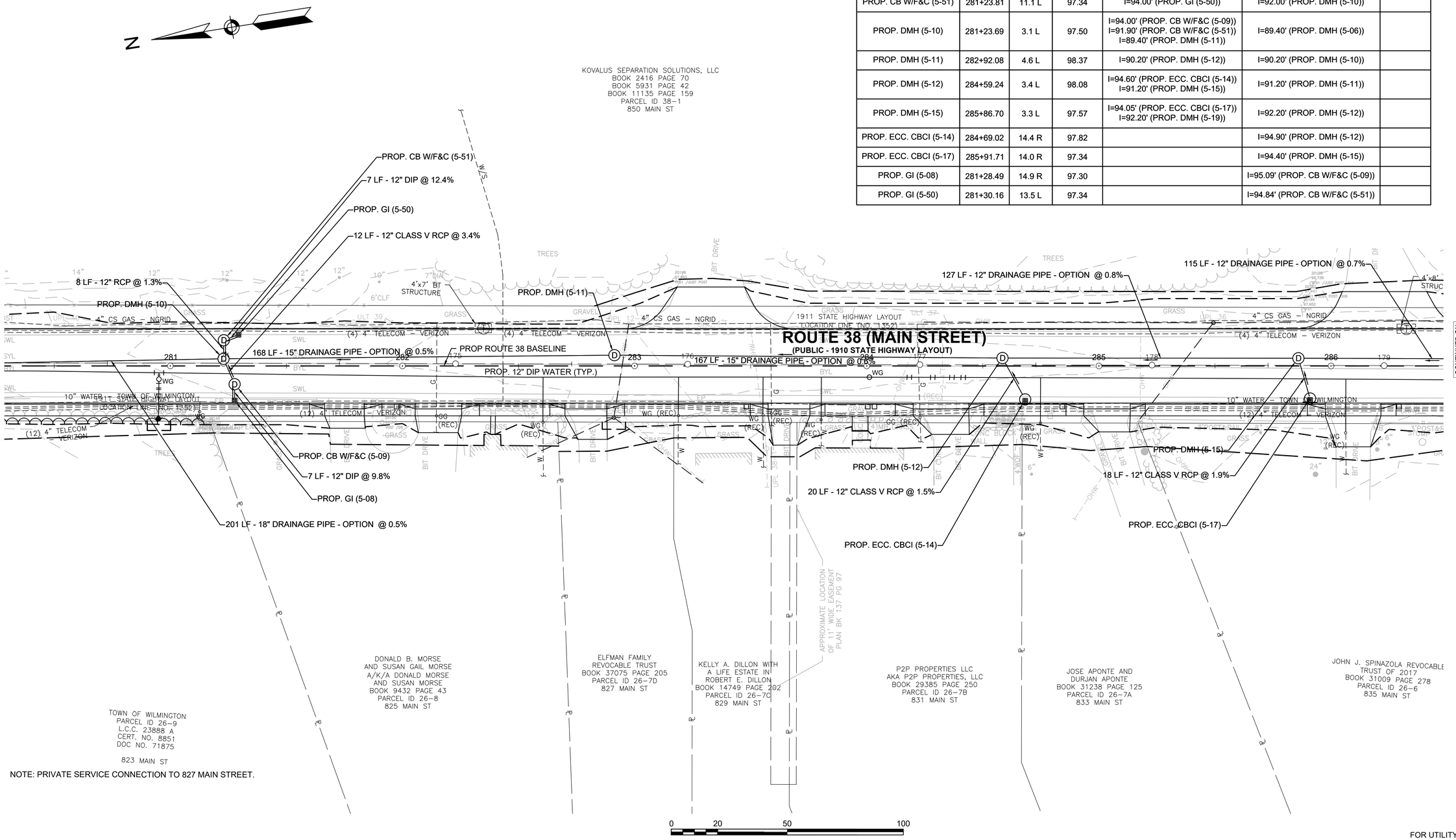
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	107	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 15

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB W/F&C (5-09)	281+28.47	7.9 R	97.44	I=94.40' (PROP. GI (5-08))	I=94.40' (PROP. DMH (5-10))	
PROP. CB W/F&C (5-51)	281+23.81	11.1 L	97.34	I=94.00' (PROP. GI (5-50))	I=92.00' (PROP. DMH (5-10))	
PROP. DMH (5-10)	281+23.69	3.1 L	97.50	I=94.00' (PROP. CB W/F&C (5-09)) I=91.90' (PROP. CB W/F&C (5-51)) I=89.40' (PROP. DMH (5-11))	I=89.40' (PROP. DMH (5-06))	
PROP. DMH (5-11)	282+92.08	4.6 L	98.37	I=90.20' (PROP. DMH (5-12))	I=90.20' (PROP. DMH (5-10))	
PROP. DMH (5-12)	284+59.24	3.4 L	98.08	I=94.60' (PROP. ECC. CBCI (5-14)) I=91.20' (PROP. DMH (5-15))	I=91.20' (PROP. DMH (5-11))	
PROP. DMH (5-15)	285+86.70	3.3 L	97.57	I=94.05' (PROP. ECC. CBCI (5-17)) I=92.20' (PROP. DMH (5-19))	I=92.20' (PROP. DMH (5-12))	
PROP. ECC. CBCI (5-14)	284+69.02	14.4 R	97.82		I=94.90' (PROP. DMH (5-12))	
PROP. ECC. CBCI (5-17)	285+91.71	14.0 R	97.34		I=94.40' (PROP. DMH (5-15))	
PROP. GI (5-08)	281+28.49	14.9 R	97.30		I=95.09' (PROP. CB W/F&C (5-09))	
PROP. GI (5-50)	281+30.16	13.5 L	97.34		I=94.84' (PROP. CB W/F&C (5-51))	



FOR UTILITY PLAN:
SEE SHEET NO. 109

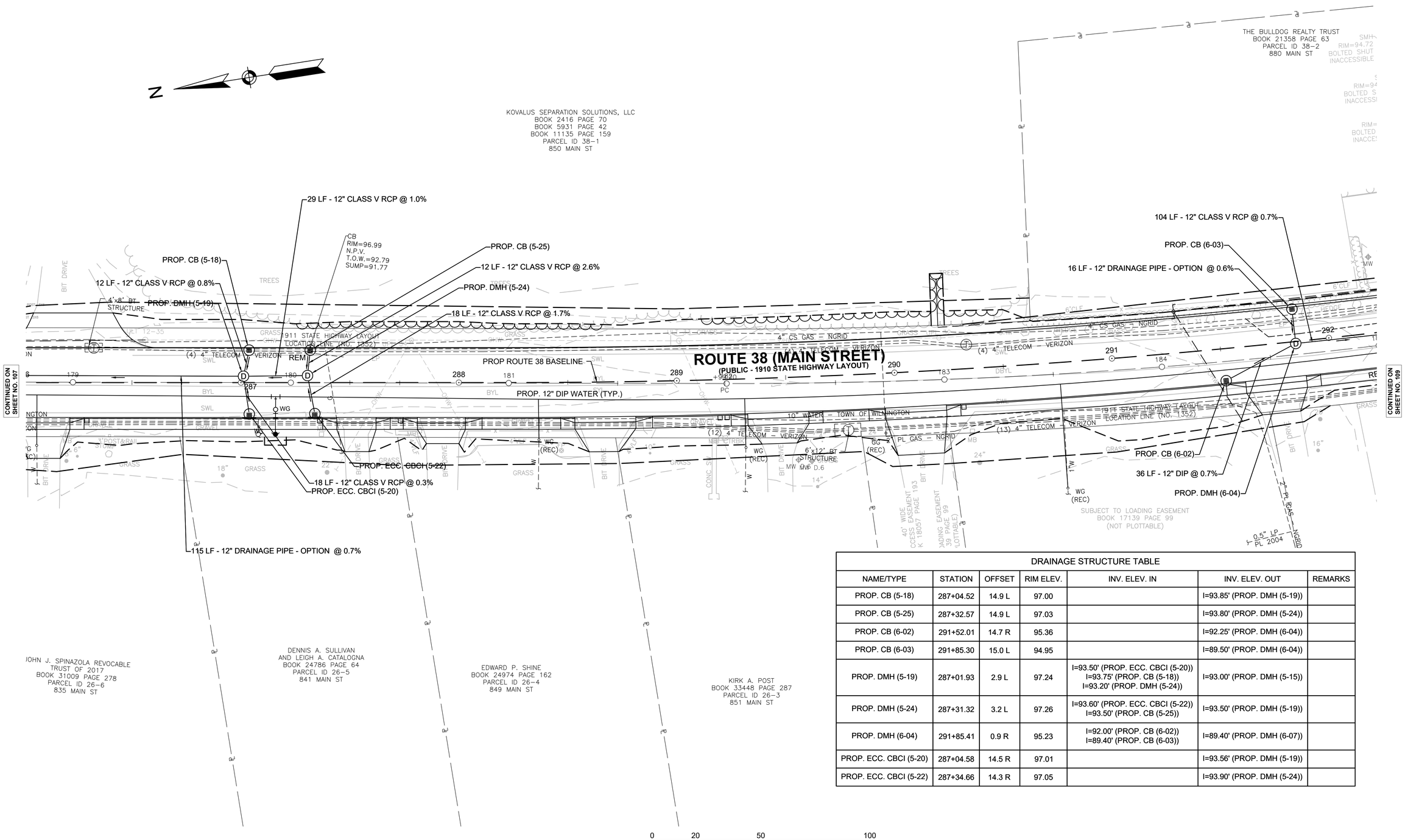
608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:03 PM

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS	UTILITY PLAN
SEE SHEET 33	NONE	SEE SHEET 133	SEE BELOW	SEE SHEET 124

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	108	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 16



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (5-18)	287+04.52	14.9 L	97.00		I=93.85' (PROP. DMH (5-19))	
PROP. CB (5-25)	287+32.57	14.9 L	97.03		I=93.80' (PROP. DMH (5-24))	
PROP. CB (6-02)	291+52.01	14.7 R	95.36		I=92.25' (PROP. DMH (6-04))	
PROP. CB (6-03)	291+85.30	15.0 L	94.95		I=89.50' (PROP. DMH (6-04))	
PROP. DMH (5-19)	287+01.93	2.9 L	97.24	I=93.50' (PROP. ECC. CBCI (5-20)) I=93.75' (PROP. CB (5-18)) I=93.20' (PROP. DMH (5-24))	I=93.00' (PROP. DMH (5-15))	
PROP. DMH (5-24)	287+31.32	3.2 L	97.26	I=93.60' (PROP. ECC. CBCI (5-22)) I=93.50' (PROP. CB (5-25))	I=93.50' (PROP. DMH (5-19))	
PROP. DMH (6-04)	291+85.41	0.9 R	95.23	I=92.00' (PROP. CB (6-02)) I=89.40' (PROP. CB (6-03))	I=89.40' (PROP. DMH (6-07))	
PROP. ECC. CBCI (5-20)	287+04.58	14.5 R	97.01		I=93.56' (PROP. DMH (5-19))	
PROP. ECC. CBCI (5-22)	287+34.66	14.3 R	97.05		I=93.90' (PROP. DMH (5-24))	

FOR UTILITY PLAN:
SEE SHEET NO. 109

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:04 PM

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 125

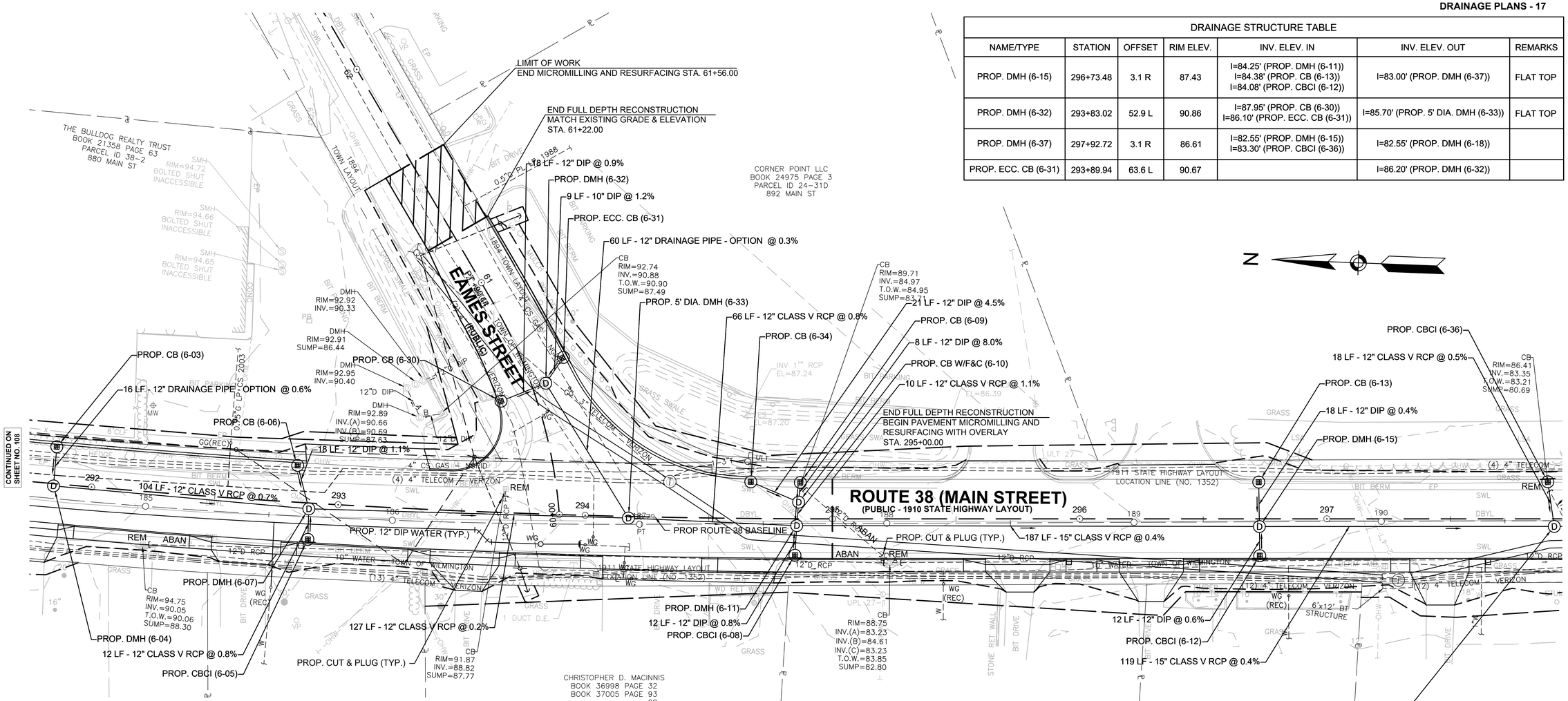
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	109	420
	PROJECT FILE NO. 608051		

DRAINAGE PLANS - 17

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:05 PM

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (6-15)	296+73.48	3.1 R	87.43	I=84.25' (PROP. DMH (6-11)) I=84.38' (PROP. CB (6-13)) I=84.08' (PROP. CBCI (6-12))	I=83.00' (PROP. DMH (6-37))	FLAT TOP
PROP. DMH (6-32)	293+83.02	52.9 L	90.86	I=87.95' (PROP. CB (6-30)) I=86.10' (PROP. ECC. CB (6-31))	I=85.70' (PROP. 5' DIA. DMH (6-33))	FLAT TOP
PROP. DMH (6-37)	297+92.72	3.1 R	86.61	I=82.55' (PROP. DMH (6-15)) I=83.30' (PROP. CBCI (6-36))	I=82.55' (PROP. DMH (6-18))	
PROP. ECC. CB (6-31)	293+89.94	63.6 L	90.67		I=86.20' (PROP. DMH (6-32))	



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB W/F&C (6-10)	294+87.10	6.7 L	90.00	I=87.00' (PROP. CB (6-09)) I=87.00' (PROP. CB (6-34))	I=87.00' (PROP. DMH (6-11))	
PROP. CBCI (6-05)	292+89.38	14.7 R	93.38		I=90.30' (PROP. DMH (6-07))	
PROP. CBCI (6-08)	294+85.67	14.8 R	89.86		I=86.75' (PROP. DMH (6-11))	
PROP. CBCI (6-12)	296+73.62	14.9 R	87.20		I=84.15' (PROP. DMH (6-15))	FLAT TOP
PROP. CBCI (6-36)	297+90.12	15.0 L	86.50		I=83.40' (PROP. DMH (6-37))	
PROP. DMH (6-04)	291+85.41	0.9 R	95.23	I=92.00' (PROP. CB (6-02)) I=89.40' (PROP. CB (6-03))	I=89.40' (PROP. DMH (6-07))	
PROP. DMH (6-07)	292+89.03	2.3 R	93.63	I=88.70' (PROP. DMH (6-04)) I=90.20' (PROP. CBCI (6-05)) I=87.70' (PROP. CB (6-06))	I=87.60' (PROP. 5' DIA. DMH (6-33))	
PROP. DMH (6-11)	294+86.36	2.8 R	90.09	I=85.00' (PROP. 5' DIA. DMH (6-33)) I=86.90' (PROP. CB W/F&C (6-10)) I=86.65' (PROP. CBCI (6-08))	I=85.00' (PROP. DMH (6-15))	

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. 5' DIA. DMH (6-33)	294+18.28	0.6 R	91.29	I=87.40' (PROP. DMH (6-07)) I=85.50' (PROP. DMH (6-32))	I=85.50' (PROP. DMH (6-11))	
PROP. CB (6-02)	291+52.01	14.7 R	95.36		I=92.25' (PROP. DMH (6-04))	
PROP. CB (6-03)	291+85.30	15.0 L	94.95		I=89.50' (PROP. DMH (6-04))	
PROP. CB (6-06)	292+83.44	14.9 L	93.48		I=87.90' (PROP. DMH (6-07))	
PROP. CB (6-09)	294+87.77	14.7 L	89.83		I=87.64' (PROP. CB W/F&C (6-10))	
PROP. CB (6-13)	296+73.21	14.9 L	87.44		I=84.45' (PROP. DMH (6-15))	FLAT TOP
PROP. CB (6-30)	293+64.96	45.0 L	91.14		I=88.10' (PROP. DMH (6-32))	
PROP. CB (6-34)	294+67.62	14.8 L	90.14		I=87.95' (PROP. CB W/F&C (6-10))	

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 126

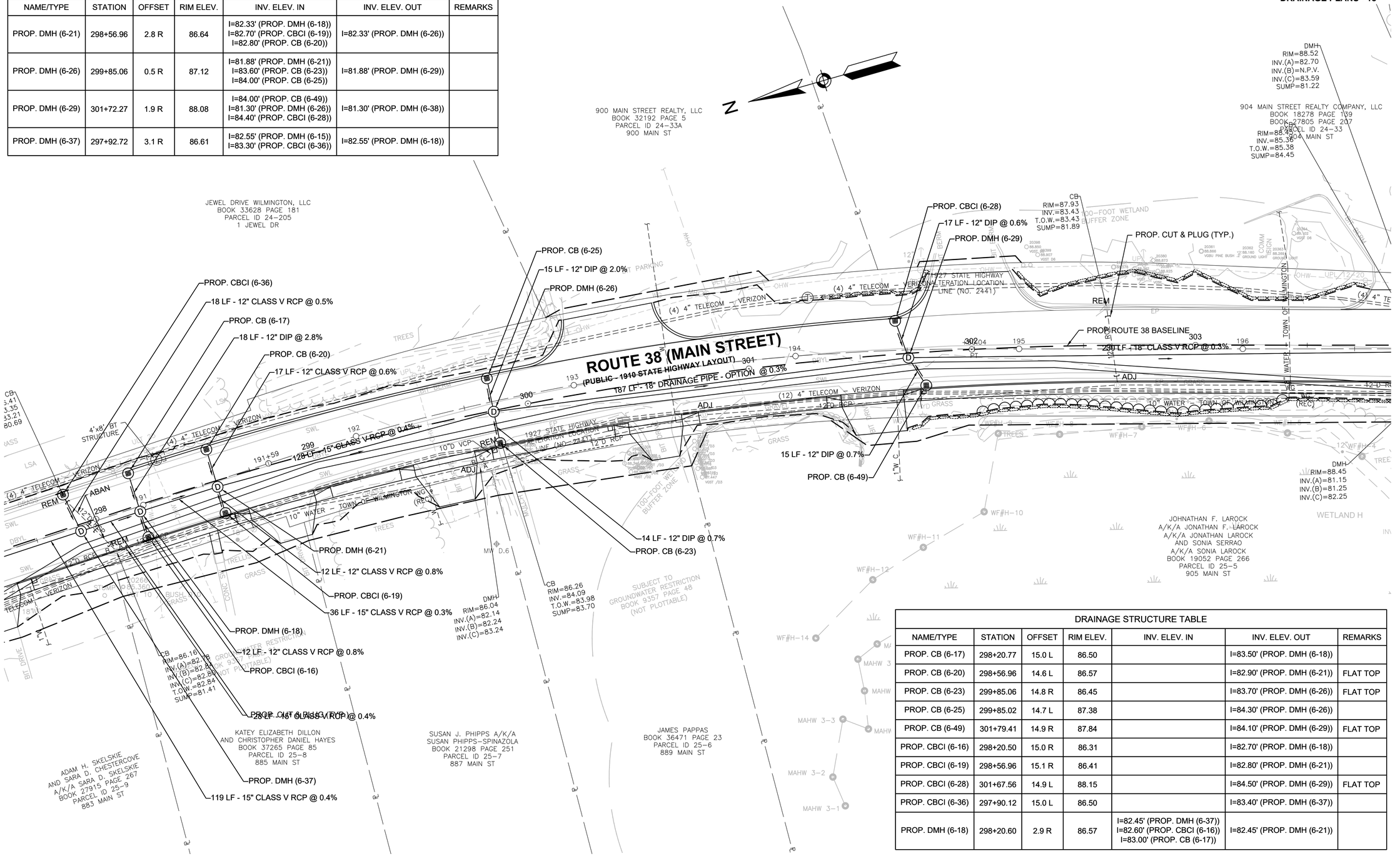
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	110	420
	PROJECT FILE NO. 608051		

DRAINAGE PLANS - 18

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:06 PM

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (6-21)	298+56.96	2.8 R	86.64	I=82.33' (PROP. DMH (6-18)) I=82.70' (PROP. CBCI (6-19)) I=82.80' (PROP. CB (6-20))	I=82.33' (PROP. DMH (6-26))	
PROP. DMH (6-26)	299+85.06	0.5 R	87.12	I=81.88' (PROP. DMH (6-21)) I=83.60' (PROP. CB (6-23)) I=84.00' (PROP. CB (6-25))	I=81.88' (PROP. DMH (6-29))	
PROP. DMH (6-29)	301+72.27	1.9 R	88.08	I=84.00' (PROP. CB (6-49)) I=81.30' (PROP. DMH (6-26)) I=84.40' (PROP. CBCI (6-28))	I=81.30' (PROP. DMH (6-38))	
PROP. DMH (6-37)	297+92.72	3.1 R	86.61	I=82.55' (PROP. DMH (6-15)) I=83.30' (PROP. CBCI (6-36))	I=82.55' (PROP. DMH (6-18))	



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CB (6-17)	298+20.77	15.0 L	86.50		I=83.50' (PROP. DMH (6-18))	
PROP. CB (6-20)	298+56.96	14.6 L	86.57		I=82.90' (PROP. DMH (6-21))	FLAT TOP
PROP. CB (6-23)	299+85.06	14.8 R	86.45		I=83.70' (PROP. DMH (6-26))	FLAT TOP
PROP. CB (6-25)	299+85.02	14.7 L	87.38		I=84.30' (PROP. DMH (6-26))	
PROP. CB (6-49)	301+79.41	14.9 R	87.84		I=84.10' (PROP. DMH (6-29))	FLAT TOP
PROP. CBCI (6-16)	298+20.50	15.0 R	86.31		I=82.70' (PROP. DMH (6-18))	
PROP. CBCI (6-19)	298+56.96	15.1 R	86.41		I=82.80' (PROP. DMH (6-21))	
PROP. CBCI (6-28)	301+67.56	14.9 L	88.15		I=84.50' (PROP. DMH (6-29))	FLAT TOP
PROP. CBCI (6-36)	297+90.12	15.0 L	86.50		I=83.40' (PROP. DMH (6-37))	
PROP. DMH (6-18)	298+20.60	2.9 R	86.57	I=82.45' (PROP. DMH (6-37)) I=82.60' (PROP. CBCI (6-16)) I=83.00' (PROP. CB (6-17))	I=82.45' (PROP. DMH (6-21))	

FOR UTILITY PLAN:
SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 127

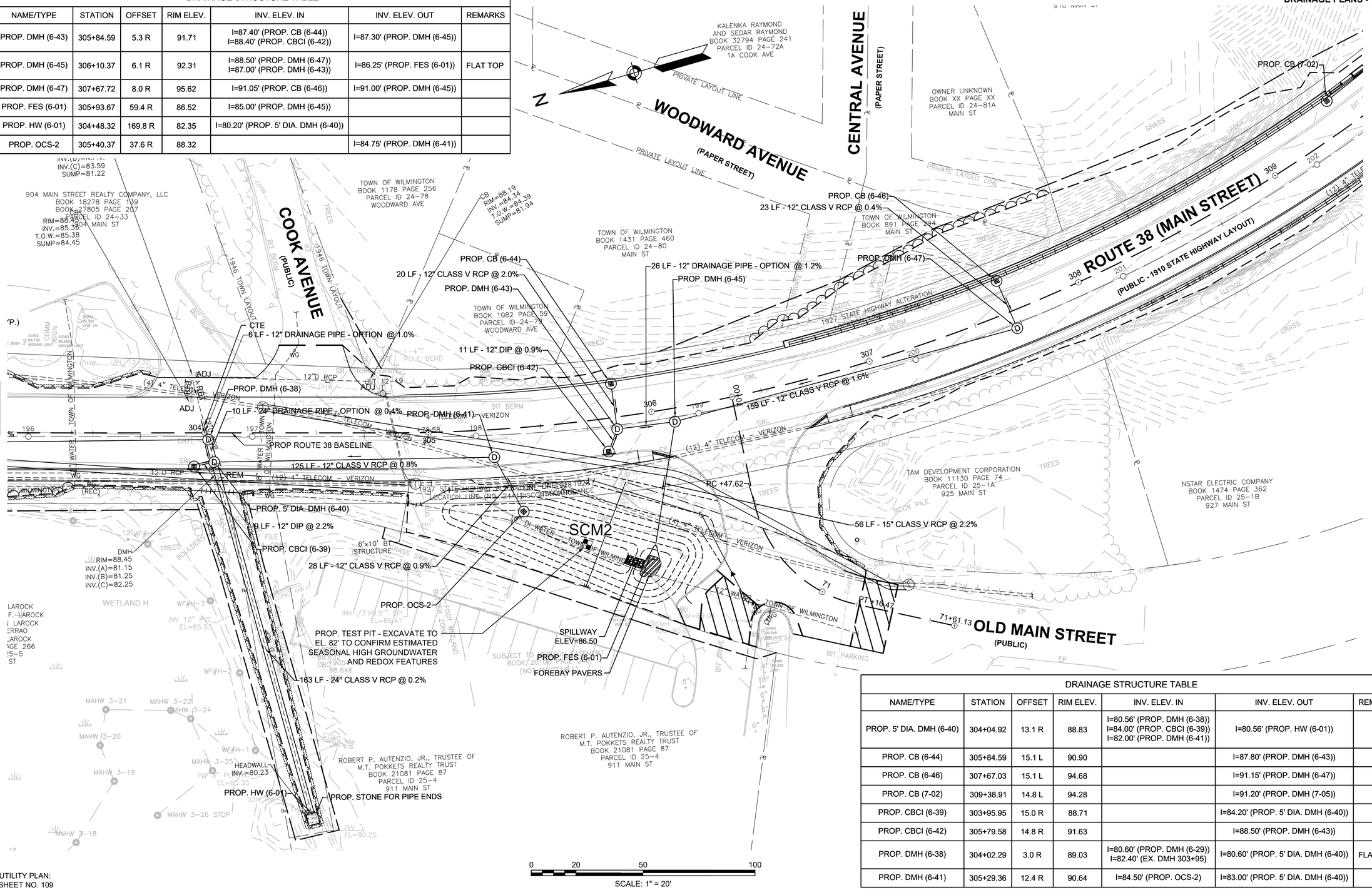
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	111	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 19

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:06 PM

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (6-43)	305+84.59	5.3 R	91.71	I=87.40' (PROP. CB (6-44)) I=88.40' (PROP. CBCI (6-42))	I=87.30' (PROP. DMH (6-45))	
PROP. DMH (6-45)	306+10.37	6.1 R	92.31	I=88.50' (PROP. DMH (6-47)) I=87.00' (PROP. DMH (6-43))	I=86.25' (PROP. FES (6-01))	FLAT TOP
PROP. DMH (6-47)	307+67.72	8.0 R	95.62	I=91.05' (PROP. CB (6-46))	I=91.00' (PROP. DMH (6-45))	
PROP. FES (6-01)	305+93.67	59.4 R	86.52	I=85.00' (PROP. DMH (6-45))		
PROP. HW (6-01)	304+48.32	169.8 R	82.35	I=80.20' (PROP. 5' DIA. DMH (6-40))		
PROP. OCS-2	305+40.37	37.6 R	88.32		I=84.75' (PROP. DMH (6-41))	



DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. 5' DIA. DMH (6-40)	304+04.92	13.1 R	88.83	I=80.56' (PROP. DMH (6-38)) I=84.00' (PROP. CBCI (6-39)) I=82.00' (PROP. DMH (6-41))	I=80.56' (PROP. HW (6-01))	
PROP. CB (6-44)	305+84.59	15.1 L	90.90		I=87.80' (PROP. DMH (6-43))	
PROP. CB (6-46)	307+67.03	15.1 L	94.68		I=91.15' (PROP. DMH (6-47))	
PROP. CB (7-02)	309+38.91	14.8 L	94.28		I=91.20' (PROP. DMH (7-05))	
PROP. CBCI (6-39)	303+95.95	15.0 R	88.71		I=84.20' (PROP. 5' DIA. DMH (6-40))	
PROP. CBCI (6-42)	305+79.58	14.8 R	91.63		I=88.50' (PROP. DMH (6-43))	
PROP. DMH (6-38)	304+02.29	3.0 R	89.03	I=80.60' (PROP. DMH (6-29)) I=82.40' (EX. DMH 303+95)	I=80.60' (PROP. 5' DIA. DMH (6-40))	FLAT TOP
PROP. DMH (6-41)	305+29.36	12.4 R	90.64	I=84.50' (PROP. OCS-2)	I=83.00' (PROP. 5' DIA. DMH (6-40))	

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 128

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	112	420
PROJECT FILE NO.	608051		

DRAINAGE PLANS - 20

608051_UT03(DRAINAGE-PLANS).DWG Plotted on 2-Dec-2025 2:07 PM

DRAINAGE STRUCTURE TABLE

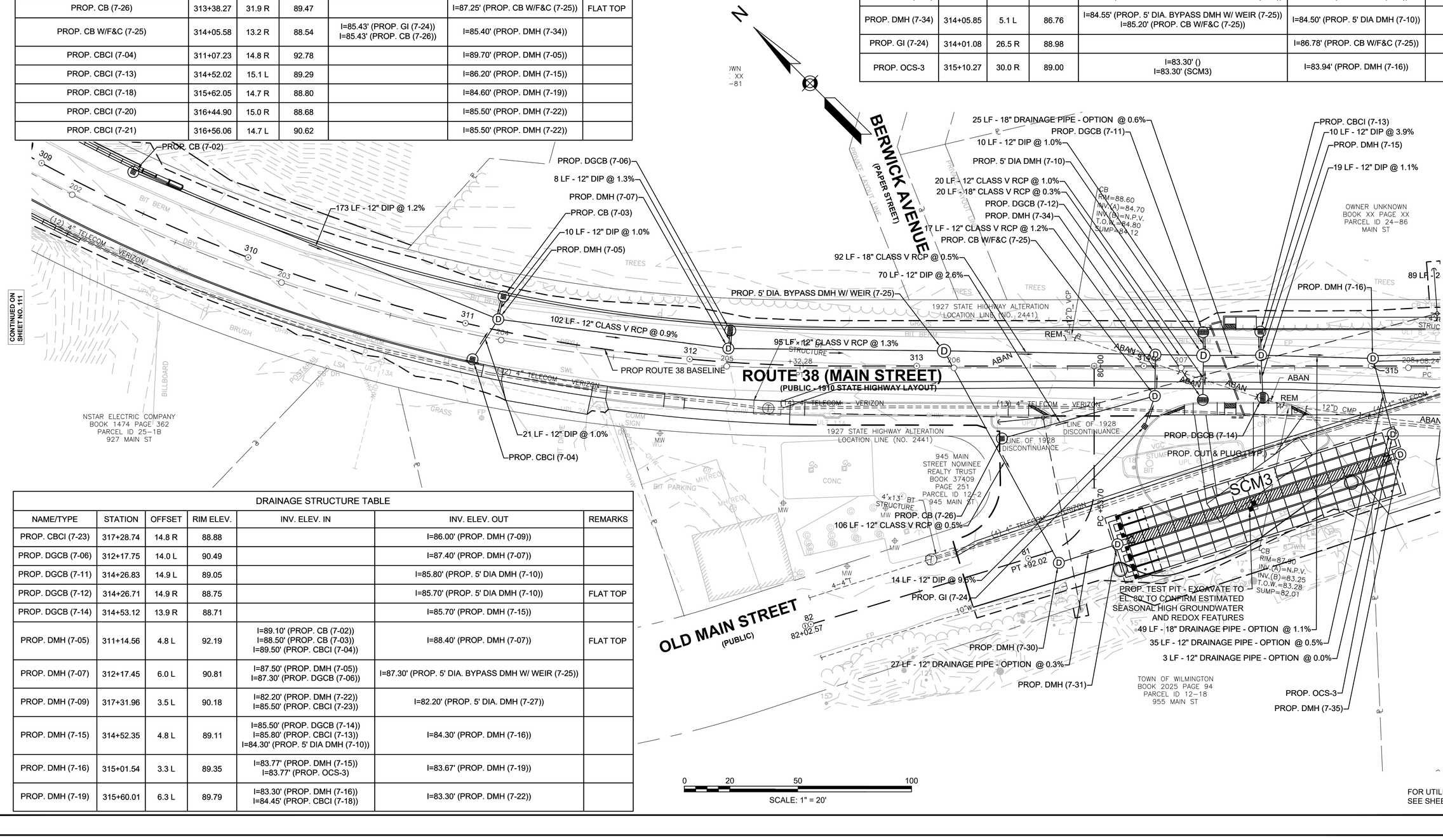
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. 5' DIA DMH (7-10)	314+26.93	4.7 L	88.98	I=84.45' (PROP. DMH (7-34)) I=85.50' (PROP. DGCB (7-12)) I=85.70' (PROP. DGCB (7-11))	I=84.45' (PROP. DMH (7-15))	
PROP. 5' DIA. BYPASS DMH W/ WEIR (7-25)	313+12.81	6.7 L	89.40	I=86.10' (PROP. DMH (7-07))	I=85.00' (PROP. DMH (7-34)) I=84.00' (PROP. DMH (7-30))	
PROP. CB (7-02)	309+38.91	14.8 L	94.28		I=91.20' (PROP. DMH (7-05))	
PROP. CB (7-03)	311+14.76	15.1 L	91.65		I=88.60' (PROP. DMH (7-05))	
PROP. CB (7-26)	313+38.27	31.9 R	89.47		I=87.25' (PROP. CB W/F&C (7-25))	FLAT TOP
PROP. CB W/F&C (7-25)	314+05.58	13.2 R	88.54	I=85.43' (PROP. GI (7-24)) I=85.43' (PROP. CB (7-26))	I=85.40' (PROP. DMH (7-34))	
PROP. CBCI (7-04)	311+07.23	14.8 R	92.78		I=89.70' (PROP. DMH (7-05))	
PROP. CBCI (7-13)	314+52.02	15.1 L	89.29		I=86.20' (PROP. DMH (7-15))	
PROP. CBCI (7-18)	315+62.05	14.7 R	88.80		I=84.60' (PROP. DMH (7-19))	
PROP. CBCI (7-20)	316+44.90	15.0 R	88.68		I=85.50' (PROP. DMH (7-22))	
PROP. CBCI (7-21)	316+56.06	14.7 L	90.62		I=85.50' (PROP. DMH (7-22))	

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. DMH (7-22)	316+48.15	2.4 L	89.92	I=82.75' (PROP. CBCI (7-21)) I=85.40' (PROP. CBCI (7-20)) I=82.75' (PROP. DMH (7-19))	I=82.75' (PROP. DMH (7-09))	
PROP. DMH (7-30)	313+63.33	86.6 R	89.66	I=83.42' (PROP. 5' DIA. BYPASS DMH W/ WEIR (7-25))	I=83.39' (PROP. DMH (7-31))	
PROP. DMH (7-34)	314+05.85	5.1 L	86.76	I=84.55' (PROP. 5' DIA. BYPASS DMH W/ WEIR (7-25)) I=85.20' (PROP. CB W/F&C (7-25))	I=84.50' (PROP. 5' DIA DMH (7-10))	
PROP. GI (7-24)	314+01.08	26.5 R	88.98		I=86.78' (PROP. CB W/F&C (7-25))	
PROP. OCS-3	315+10.27	30.0 R	89.00	I=83.30' () I=83.30' (SCM3)	I=83.94' (PROP. DMH (7-16))	

DRAINAGE STRUCTURE TABLE

NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. CBCI (7-23)	317+28.74	14.8 R	88.88		I=86.00' (PROP. DMH (7-09))	
PROP. DGCB (7-06)	312+17.75	14.0 L	90.49		I=87.40' (PROP. DMH (7-07))	
PROP. DGCB (7-11)	314+26.83	14.9 L	89.05		I=85.80' (PROP. 5' DIA DMH (7-10))	
PROP. DGCB (7-12)	314+26.71	14.9 R	88.75		I=85.70' (PROP. 5' DIA DMH (7-10))	FLAT TOP
PROP. DGCB (7-14)	314+53.12	13.9 R	88.71		I=85.70' (PROP. DMH (7-15))	
PROP. DMH (7-05)	311+14.56	4.8 L	92.19	I=89.10' (PROP. CB (7-02)) I=88.50' (PROP. CB (7-03)) I=89.50' (PROP. CBCI (7-04))	I=88.40' (PROP. DMH (7-07))	FLAT TOP
PROP. DMH (7-07)	312+17.45	6.0 L	90.81	I=87.50' (PROP. DMH (7-05)) I=87.30' (PROP. DGCB (7-06))	I=87.30' (PROP. 5' DIA. BYPASS DMH W/ WEIR (7-25))	
PROP. DMH (7-09)	317+31.96	3.5 L	90.18	I=82.20' (PROP. DMH (7-22)) I=85.50' (PROP. CBCI (7-23))	I=82.20' (PROP. 5' DIA. DMH (7-27))	
PROP. DMH (7-15)	314+52.35	4.8 L	89.11	I=85.50' (PROP. DGCB (7-14)) I=85.80' (PROP. CBCI (7-13)) I=84.30' (PROP. 5' DIA DMH (7-10))	I=84.30' (PROP. DMH (7-16))	
PROP. DMH (7-16)	315+01.54	3.3 L	89.35	I=83.77' (PROP. DMH (7-15)) I=83.77' (PROP. OCS-3)	I=83.67' (PROP. DMH (7-19))	
PROP. DMH (7-19)	315+60.01	6.3 L	89.79	I=83.30' (PROP. DMH (7-16)) I=84.45' (PROP. CBCI (7-18))	I=83.30' (PROP. DMH (7-22))	



FOR UTILITY PLAN: SEE SHEET NO. 109

HIGHWAY GUARD DETAILS

SEE SHEET 33

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 133

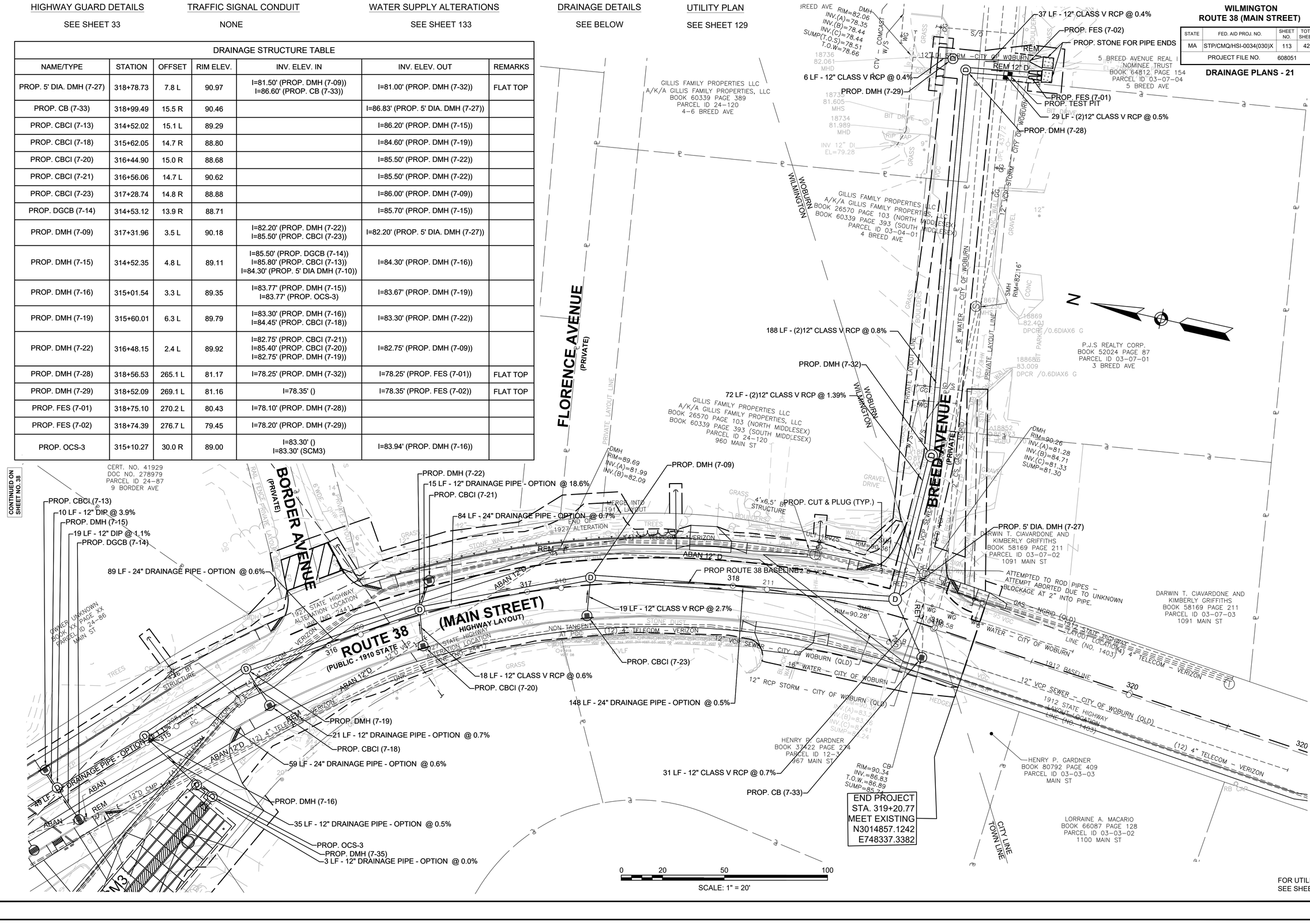
DRAINAGE DETAILS

SEE BELOW

UTILITY PLAN

SEE SHEET 129

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
PROP. 5' DIA. DMH (7-27)	318+78.73	7.8 L	90.97	I=81.50' (PROP. DMH (7-09)) I=86.60' (PROP. CB (7-33))	I=81.00' (PROP. DMH (7-32))	FLAT TOP
PROP. CB (7-33)	318+99.49	15.5 R	90.46		I=86.83' (PROP. 5' DIA. DMH (7-27))	
PROP. CBCI (7-13)	314+52.02	15.1 L	89.29		I=86.20' (PROP. DMH (7-15))	
PROP. CBCI (7-18)	315+62.05	14.7 R	88.80		I=84.60' (PROP. DMH (7-19))	
PROP. CBCI (7-20)	316+44.90	15.0 R	88.68		I=85.50' (PROP. DMH (7-22))	
PROP. CBCI (7-21)	316+56.06	14.7 L	90.62		I=85.50' (PROP. DMH (7-22))	
PROP. CBCI (7-23)	317+28.74	14.8 R	88.88		I=86.00' (PROP. DMH (7-09))	
PROP. DGCB (7-14)	314+53.12	13.9 R	88.71		I=85.70' (PROP. DMH (7-15))	
PROP. DMH (7-09)	317+31.96	3.5 L	90.18	I=82.20' (PROP. DMH (7-22)) I=85.50' (PROP. CBCI (7-23))	I=82.20' (PROP. 5' DIA. DMH (7-27))	
PROP. DMH (7-15)	314+52.35	4.8 L	89.11	I=85.50' (PROP. DGCB (7-14)) I=85.80' (PROP. CBCI (7-13)) I=84.30' (PROP. 5' DIA DMH (7-10))	I=84.30' (PROP. DMH (7-16))	
PROP. DMH (7-16)	315+01.54	3.3 L	89.35	I=83.77' (PROP. DMH (7-15)) I=83.77' (PROP. OCS-3)	I=83.67' (PROP. DMH (7-19))	
PROP. DMH (7-19)	315+60.01	6.3 L	89.79	I=83.30' (PROP. DMH (7-16)) I=84.45' (PROP. CBCI (7-18))	I=83.30' (PROP. DMH (7-22))	
PROP. DMH (7-22)	316+48.15	2.4 L	89.92	I=82.75' (PROP. CBCI (7-21)) I=85.40' (PROP. CBCI (7-20)) I=82.75' (PROP. DMH (7-19))	I=82.75' (PROP. DMH (7-09))	
PROP. DMH (7-28)	318+56.53	265.1 L	81.17	I=78.25' (PROP. DMH (7-32))	I=78.25' (PROP. FES (7-01))	FLAT TOP
PROP. DMH (7-29)	318+52.09	269.1 L	81.16	I=78.35' ()	I=78.35' (PROP. FES (7-02))	FLAT TOP
PROP. FES (7-01)	318+75.10	270.2 L	80.43	I=78.10' (PROP. DMH (7-28))		
PROP. FES (7-02)	318+74.39	276.7 L	79.45	I=78.20' (PROP. DMH (7-29))		
PROP. OCS-3	315+10.27	30.0 R	89.00	I=83.30' () I=83.30' (SCM3)	I=83.94' (PROP. DMH (7-16))	



HIGHWAY GUARD DETAILS

SEE SHEET 13

TRAFFIC SIGNAL CONDUIT

SEE SHEET 170

WATER SUPPLY ALTERATIONS

SEE BELOW

DRAINAGE DETAILS

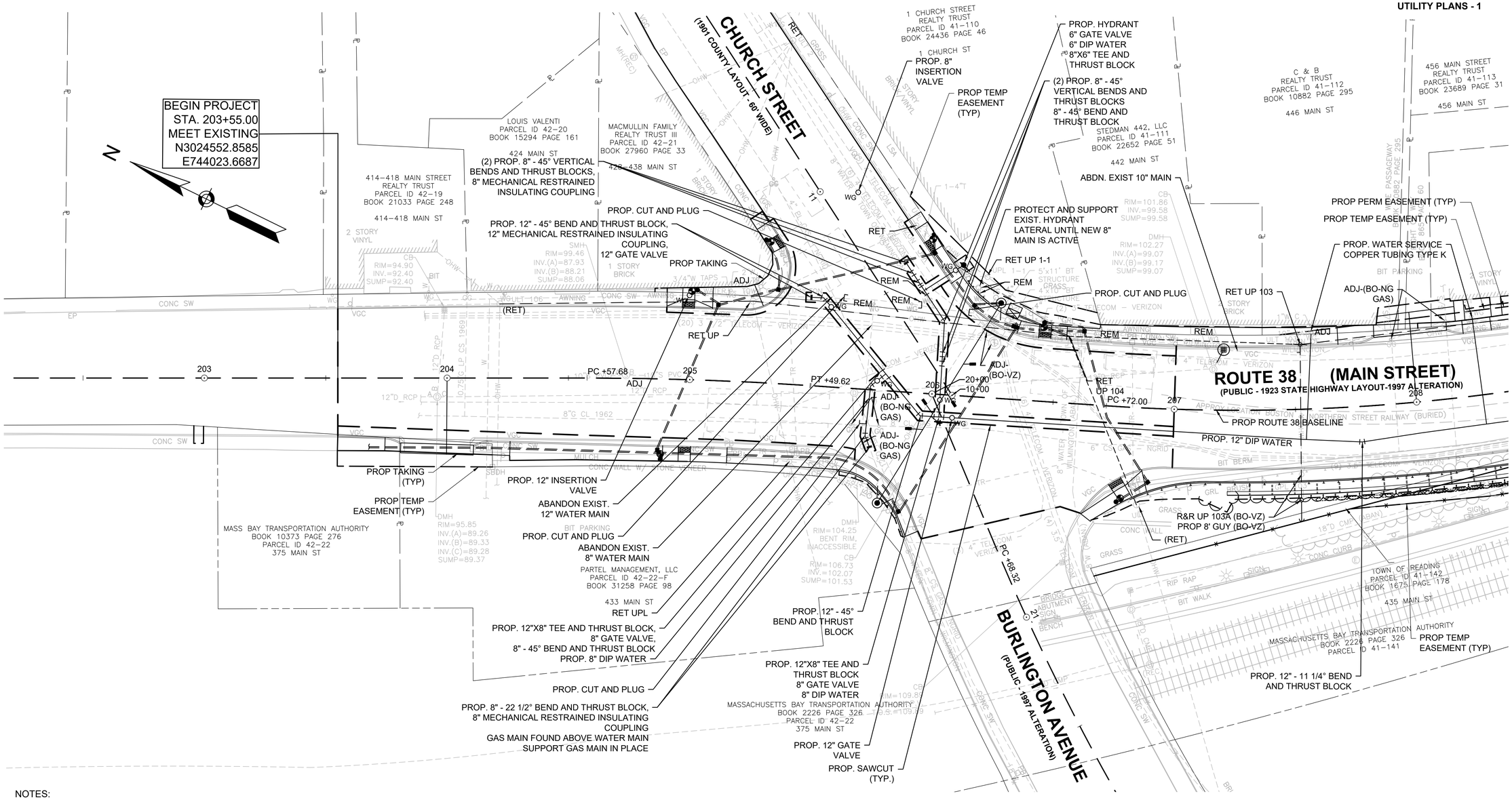
SEE SHEET 93

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	114	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 1

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:08 PM



NOTES:

1. EXISTING LIGHTING IN THE MBTA YARD IS TO BE MAINTAINED.
2. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
3. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

0 20 50 100

SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	115	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 2

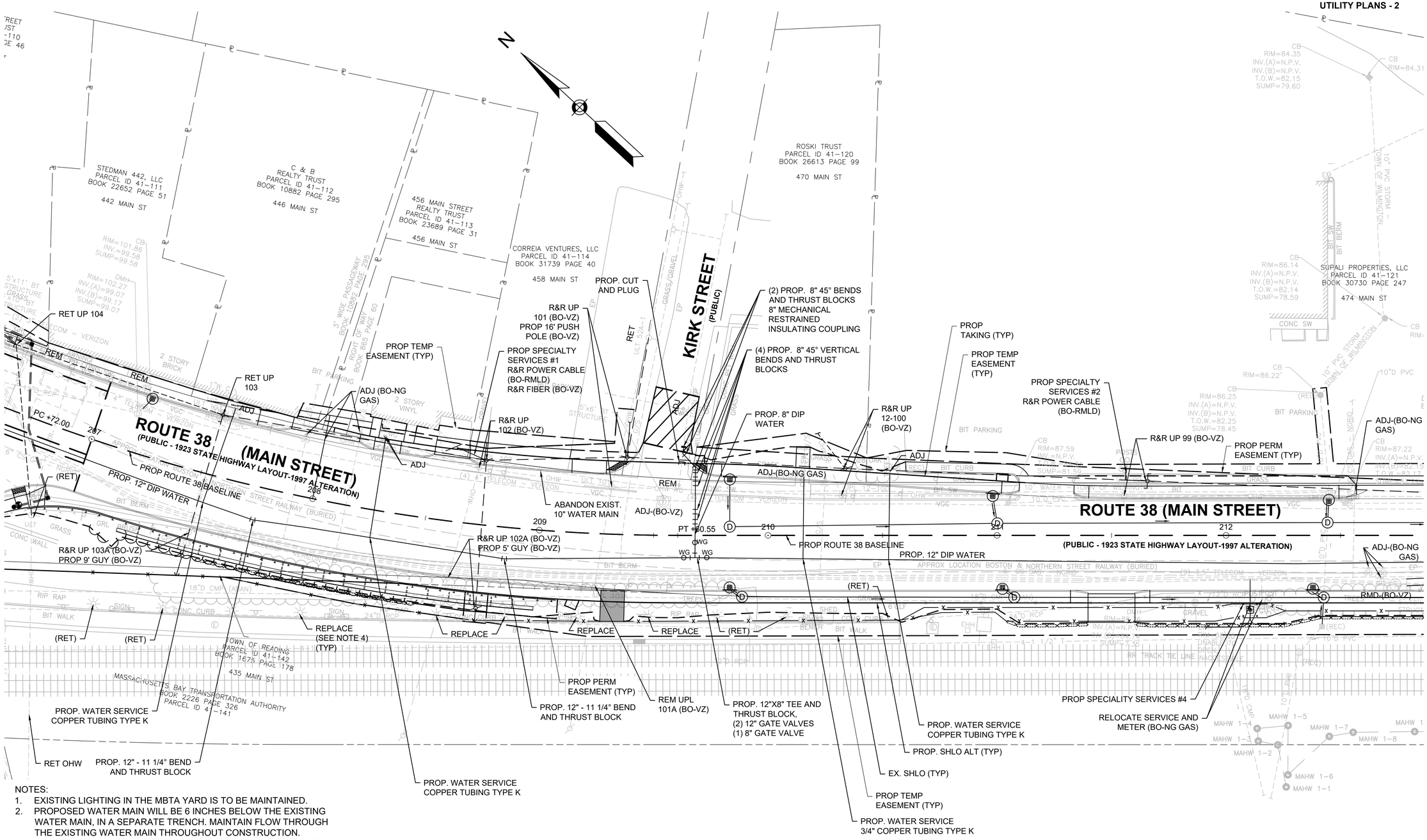
608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:08 PM

HIGHWAY GUARD DETAILS
SEE SHEET 14

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 94



NOTES:
1. EXISTING LIGHTING IN THE MBTA YARD IS TO BE MAINTAINED.
2. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
3. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.
4. PROP SPECIALITY SERVICES #3. CONTRACTOR SHALL COORDINATE WITH THE MBTA FOR LIGHT POLES, LUMINARIES, AND POLE BASES REPLACEMENT.

0 20 50 100
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	116	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 3

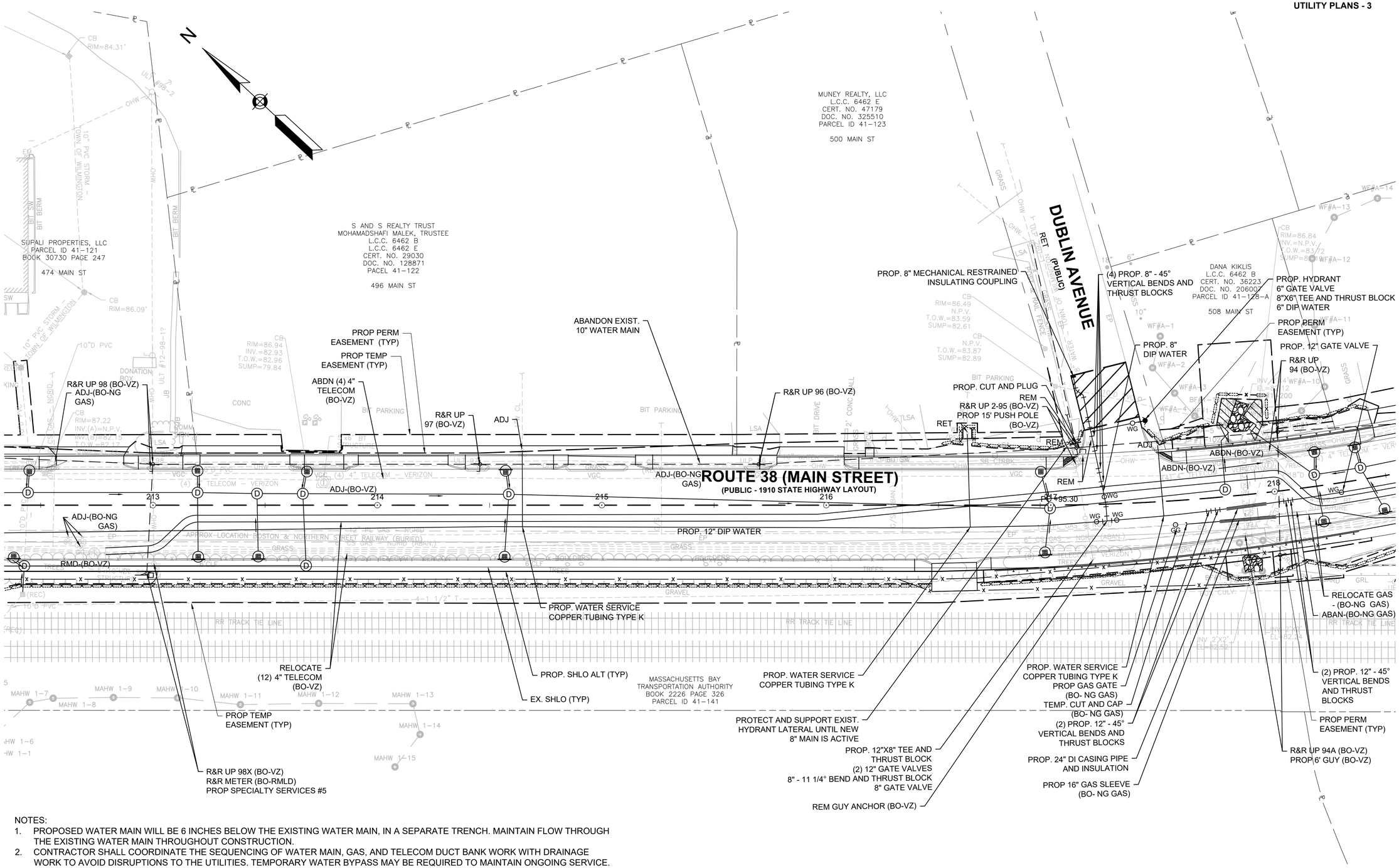
608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:08 PM

HIGHWAY GUARD DETAILS
SEE SHEET 15

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 95



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN, GAS, AND TELECOM DUCT BANK WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE UTILITIES. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.
3. CONTRACTOR SHALL COORDINATE EXCAVATION AT THE CULVERT WITH NATIONAL GRID TO FACILITATE THE EXCAVATION AND INSTALLATION OF THE GAS SLEEVE AND GAS RELOCATION. SUPPORT OF EXCAVATION FOR THE CULVERT AND ASSOCIATED UTILITIES WORK ARE DESIGNED AND COORDINATED BY THE CONTRACTOR.

0 20 50 100
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	117	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 4

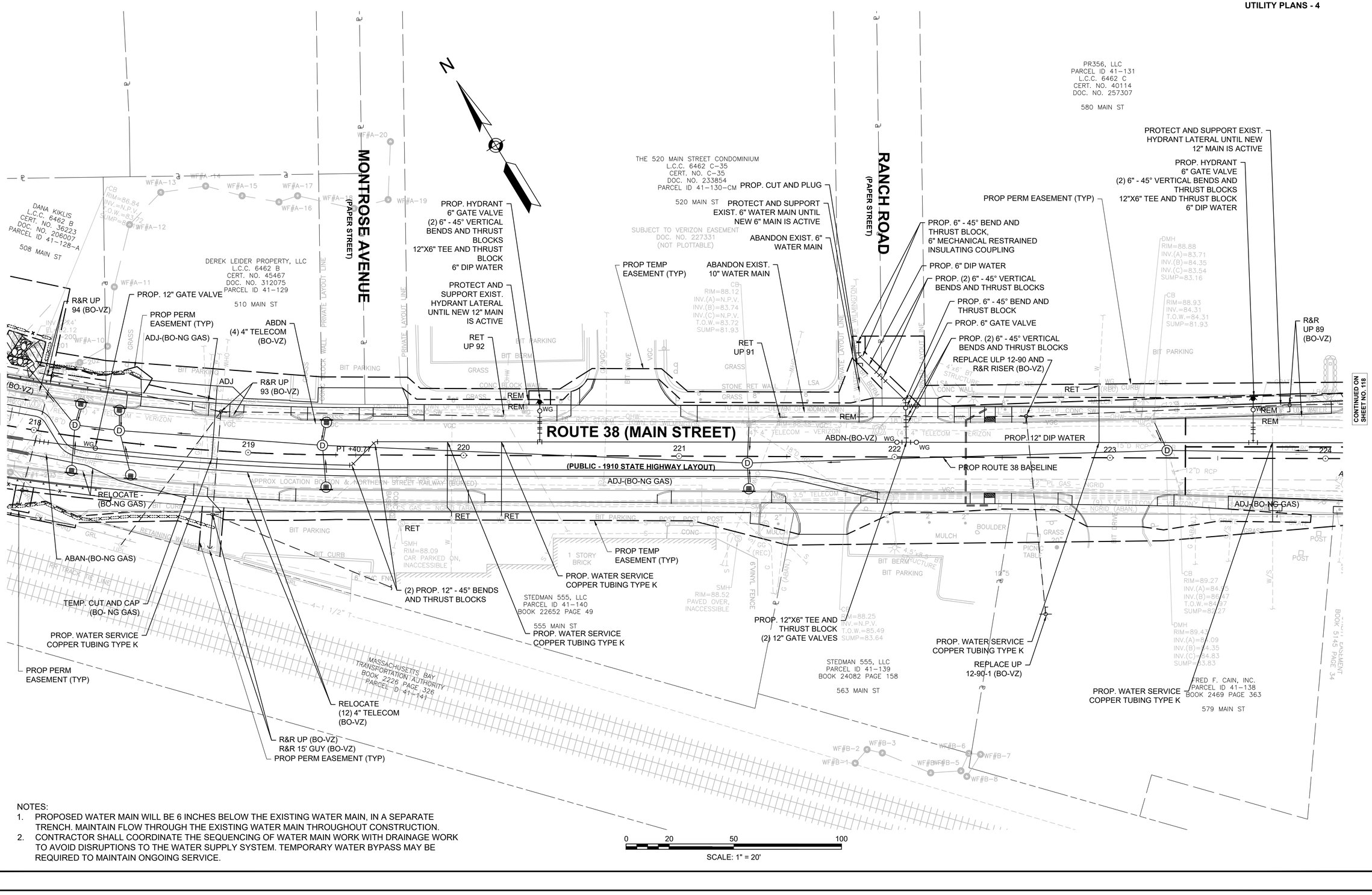
608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:09 PM

HIGHWAY GUARD DETAILS
SEE SHEET 16

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 96



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

0 20 50 100
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	118	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 5

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:09 PM

HIGHWAY GUARD DETAILS
NONE

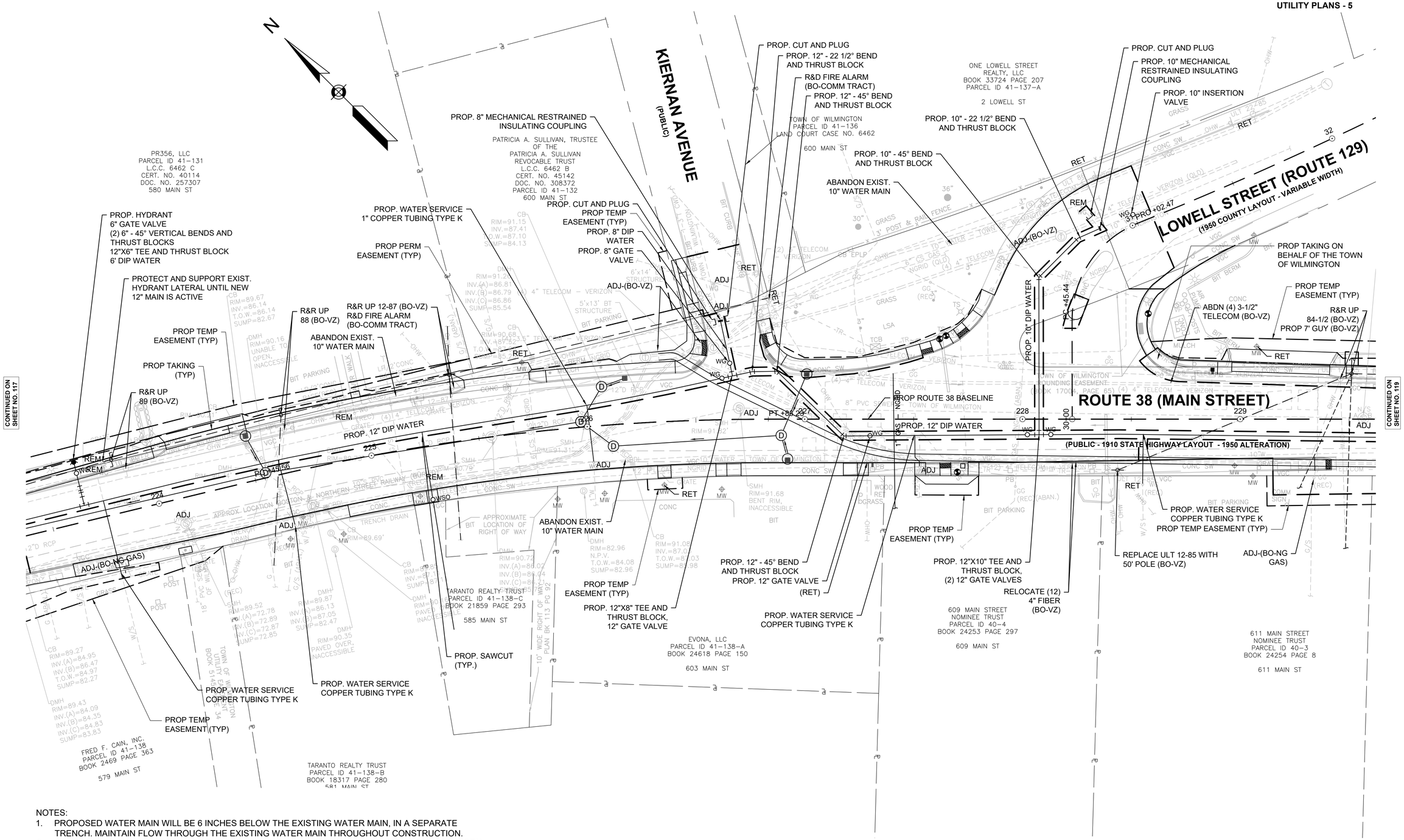
TRAFFIC SIGNAL CONDUIT
SEE SHEET 172

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 97

CONTINUED ON SHEET NO. 117

CONTINUED ON SHEET NO. 119



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	119	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 6

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:09 PM

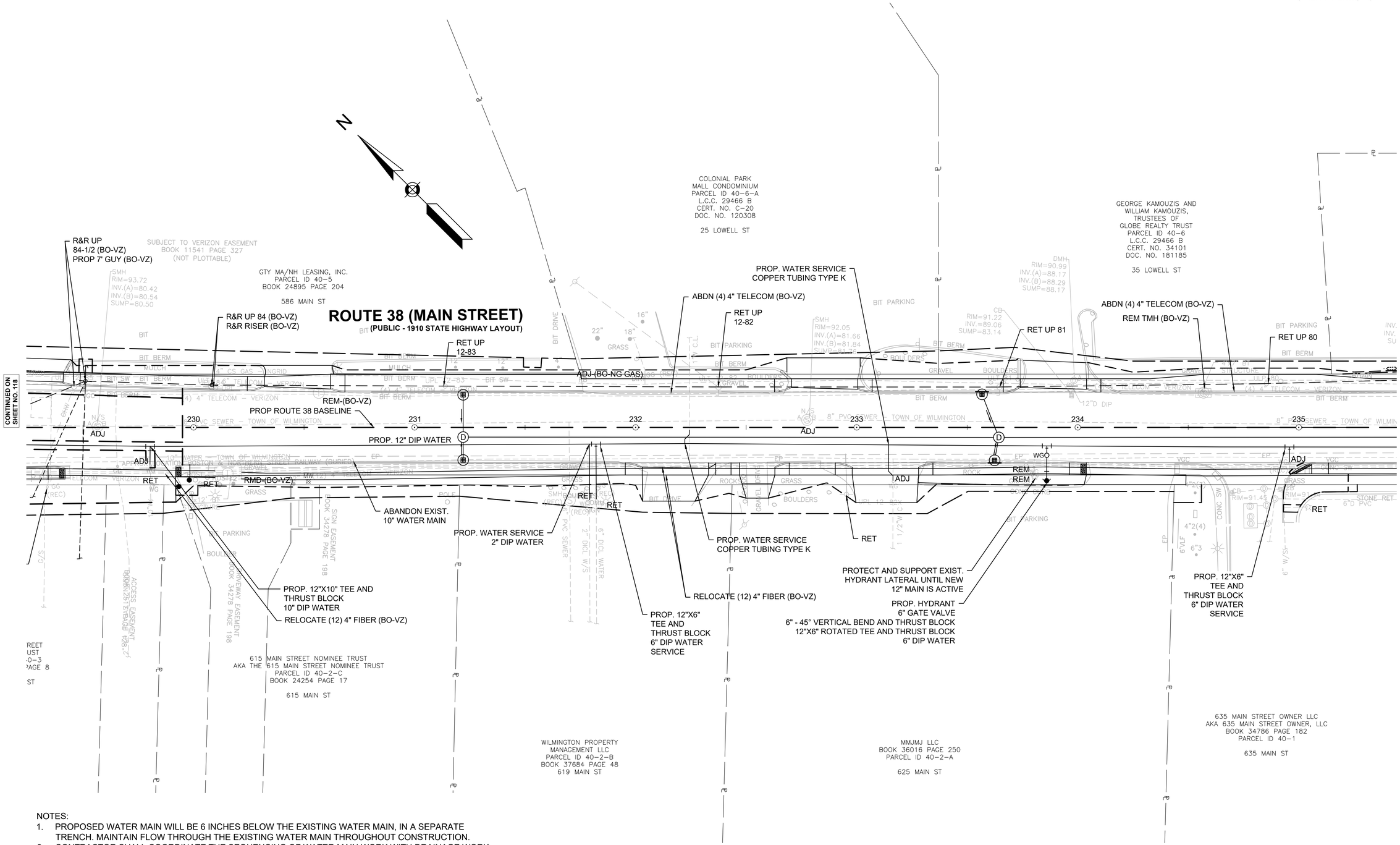
HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 98

ROUTE 38 (MAIN STREET)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

0 20 50 100
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	120	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 7

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:09 PM

HIGHWAY GUARD DETAILS
SEE SHEET 19

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 99

ROUTE 38 (MAIN STREET)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

CROSS STREET
(1951 COUNTY LAYOUT - 40' WIDE)

RET UP

PT +54.62

ONE CROSS LLC
BOOK 35186 PAGE 80
PARCEL ID 40-11
CROSS ST

GUARDRAIL POST LOCATION AND SPACING SHALL BE COORDINATED WITH THE ENGINEER. CONTRACTOR SHALL HAND DIG WITHIN 24" OF EXISTING SUBSURFACE UTILITIES

VERIZON NEW ENGLAND INC.
PARCEL ID 40-12
BOOK 1212 PAGE 352
MAIN ST

GLOBE REALTY TRUST
PARCEL ID 40-6
BOOK 29264 PAGE 30
35 LOWELL

ABDN (4) 4" TELECOM (BO-VZ)
PROP. 12"X6" TEE
6" DIP WATER SERVICE
RELOCATE 4" GAS LINE (BO-NG)
PROP TEMP EASEMENT (TYP)
PROP PERM EASEMENT (TYP)
(2) PROP. 12" - 45° BENDS AND THRUST BLOCKS
R&R UP 79 (BO-VZ)
R&R UP 78 (BO-VZ)
R&R UP 77 (BO-VZ)
R&R UP 76 (BO-VZ)
R&R UP 12-75 & 20' GUY(BO-VZ)
ADJ-(BO-NG GAS)
RMD-(BO-NP)
RMD-(BO-VZ)
PROP. 12" DIP WATER
ADJ
RET
(4) PROP. 12" - 45° VERTICAL BENDS AND THRUST BLOCKS
PROP PERM EASEMENT (TYP)
ABANDON EXIST. 10" WATER MAIN
RELOCATE (14) 4" FIBER (BO-VZ)
RELOCATE (12) 4" FIBER (BO-VZ)

CONTINUED ON SHEET NO. 119

CONTINUED ON SHEET NO. 121

SUBJECT TO VERIZON EASEMENT
BOOK 36483 PAGE 73
(NOT PLOTTABLE)

635 MAIN STREET OWNER LLC
AKA 635 MAIN STREET OWNER, LLC
BOOK 34786 PAGE 182
PARCEL ID 40-1

635 MAIN ST

NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. THE WATER MAIN WILL CROSS BENEATH THE EXISTING 36 INCH CULVERT. IT IS ANTICIPATED THAT ROCK EXCAVATION AND LEDGE REMOVAL WILL BE REQUIRED.
3. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

0 20 50 100
SCALE: 1" = 20'

HIGHWAY GUARD DETAILS
SEE SHEET 20

TRAFFIC SIGNAL CONDUIT
SEE SHEET 171

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 100

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	121	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 8

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:10 PM

CONTINUED ON SHEET NO. 120

CONTINUED ON SHEET NO. 122

MIDDLESEX COUNTY EASEMENT FOR HIGHWAY PURPOSES (BOOK 1178 PAGE 237)

PROP. 12" - 45° BEND AND THRUST BLOCK
PROP. 12" - 11 1/4° BEND AND THRUST BLOCK
12" MECHANICAL RESTRAINED INSULATING COUPLING

PROP. CUT AND PLUG

PROP. 12" DIP WATER

PROP. 12"X12" TEE AND THRUST BLOCK, (2) 12" GATE VALVES

PROP TEMP EASEMENT (TYP)
TOWN OF WILMINGTON PARCEL ID 40-13-A BOOK 35162 PAGE 138

CROSS ST

ONE CROSS LLC
BOOK 35186 PAGE 80
PARCEL ID 40-11

CROSS ST

TAKING ON BEHALF OF THE TOWN

CROSS STREET
(1951 COUNTY LAYOUT - 40' WIDE)

PT +54.62

PRC +03.02

PROP. 12" INSERTION VALVE

R&R UP 12-75 & 20' GUY(BO-VZ)

PC +20.12

PROP. 12" DIP WATER

RETAIN ULT 12-74 RELOCATED UNDER PROJECT 608929

ABDN (4) 4" TELECOM (BO)

PROP. 12"X12" TEE AND THRUST BLOCK (2) 12" GATE VALVES

R&R UP 73 & 20' GUY (BO-VZ)
R&R RISER (BO-VZ)

PROP. WATER SERVICE 3/4"COPPER TUBING TYPE K

3" PVC SEWER — TOWN OF WILMINGTON

ADJ-(BO-VZ)

PC +06.25

57+99.10
PT +96.89

ADJ

PROP. 12" DIP WATER

PROP. WATER SERVICE 1" COPPER TUBING TYPE K

PROP PERM EASEMENT (TYP)

R&R UP 72 (BO-VZ)

ADJ-(BO-NG GAS)

R&R UP 71 (BO-VZ)

PROP ROUTE 38 BASELINE

ROUTE 38 (MAIN STREET)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

APPROX LOCATION BOSTON & NORTHERN STREET RAILWAY (BURIED)

10" WATER — TOWN OF WILMINGTON

ABANDON EXIST. 10" WATER MAIN

RMD-(BO-VZ)

ABDN (4) 4" TELECOM (BO-VZ)

RELOCATE (12) 4" FIBER (BO-VZ)

R&R UP 73A (BO-VZ)

PROP TEMP EASEMENT (TYP)

TOWN OF WILMINGTON
PARCEL ID 39-5
BOOK 26062 PAGE 215
9 CROSS ST

YENTILE FARM RECREATIONAL FACILITY

DIAMOND PROPERTIES TRUST
BOOK 33133 PAGE 123
PARCEL ID 39-6

668 MAIN ST

JOHN C. OLSON
PARCEL ID 39-14
BOOK 23310 PAGE 186

673 MAIN ST

JARID POLLEY AND MARY POLLEY
BOOK 37173 PAGE 123
PARCEL ID 39-15

669 MAIN ST

ANDREA J. DELUCA
PARCEL ID 39-16
BOOK 18231 PAGE 111

665 MAIN ST

MIDDLESEX COUNTY EASEMENT FOR HIGHWAY PURPOSES (BOOK 1178 PAGE 237)

PROP. 12" DIP WATER AND (4) 12" - 45° VERTICAL BENDS AND THRUST BLOCKS

CONNECT TO EXIST. WATER INSTALLED UNDER PROJECT 60892 WITH 12" MECHANICAL RESTRAINED INSULATING COUPLING

ADJUST THH INSTALLED UNDER PROJECT 608929 (BO-VZ)

EXIST. WATER REMOVED UNDER PROJECT 60892

BUTTERS ROW
(1951 COUNTY LAYOUT - 40' WIDE)

AUGUST 31, 1951 COUNTY EASEMENT LINE (NO. 322)

PC +56.92

PT +95.64

RELOCATE (14) 4" FIBER (BO-VZ)

HYDRANT REMOVED UNDER PROJECT 60892

RETAIN UP 29 RELOCATED UNDER PROJECT 608929

PROP TEMP EASEMENT (TYP)

RETAIN HYDRANT INSTALLED UNDER PROJECT 60892

RETAIN UP 28 RELOCATED UNDER PROJECT 608929

35 MAIN STREET OWNER LLC
635 MAIN STREET OWNER, LLC
BOOK 34786 PAGE 182
PARCEL ID 40-1

635 MAIN ST

CONTINUED RIGHT

CONTINUED LEFT

PROP TEMP EASEMENT (TYP)

PC 18+53.1

NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.
3. GUARDRAIL POST LOCATION AND SPACING SHALL BE COORDINATED WITH THE ENGINEER TO AVOID UTILITY CONFLICT.

0 20 50 100
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	122	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 9

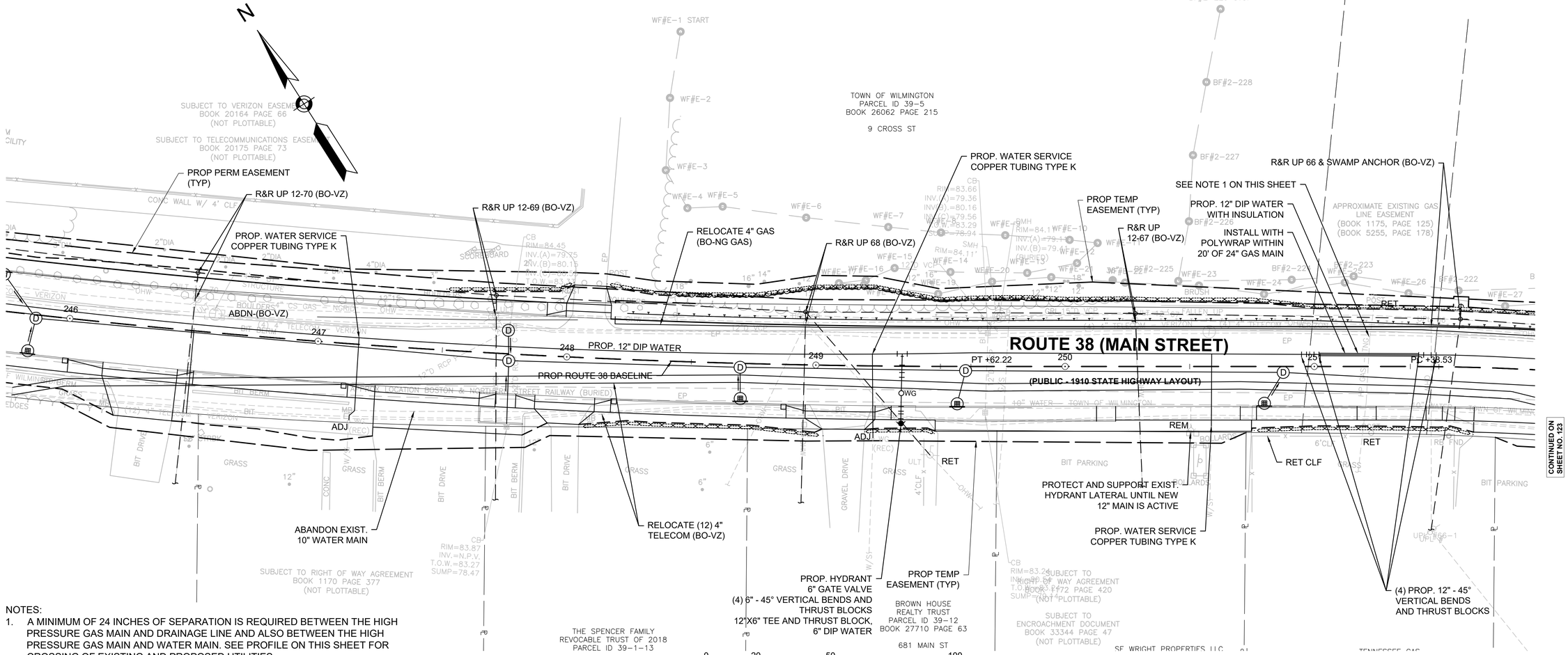
608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:10 PM

HIGHWAY GUARD DETAILS
SEE SHEET 21

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 101

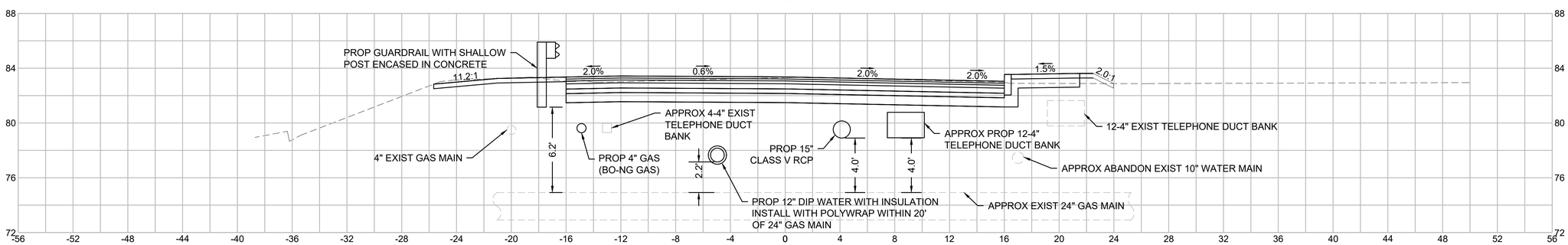


CONTINUED ON SHEET NO. 121

CONTINUED ON SHEET NO. 123

NOTES:
1. A MINIMUM OF 24 INCHES OF SEPARATION IS REQUIRED BETWEEN THE HIGH PRESSURE GAS MAIN AND DRAINAGE LINE AND ALSO BETWEEN THE HIGH PRESSURE GAS MAIN AND WATER MAIN. SEE PROFILE ON THIS SHEET FOR CROSSING OF EXISTING AND PROPOSED UTILITIES.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

251+21.50



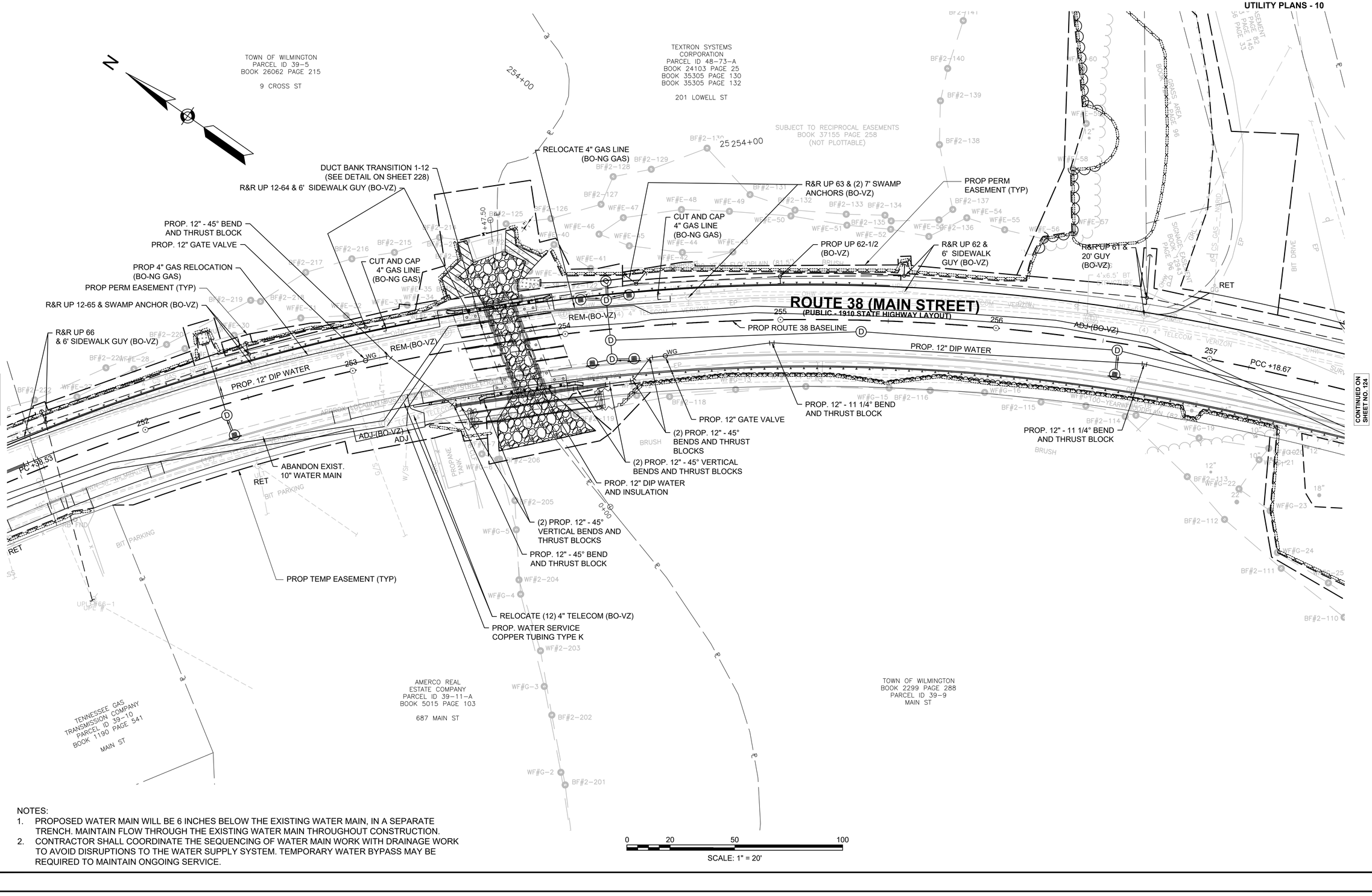
HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
SEE SHEET 22	NONE	SEE BELOW	SEE SHEET 102

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	123	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 10

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:10 PM



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	124	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 11

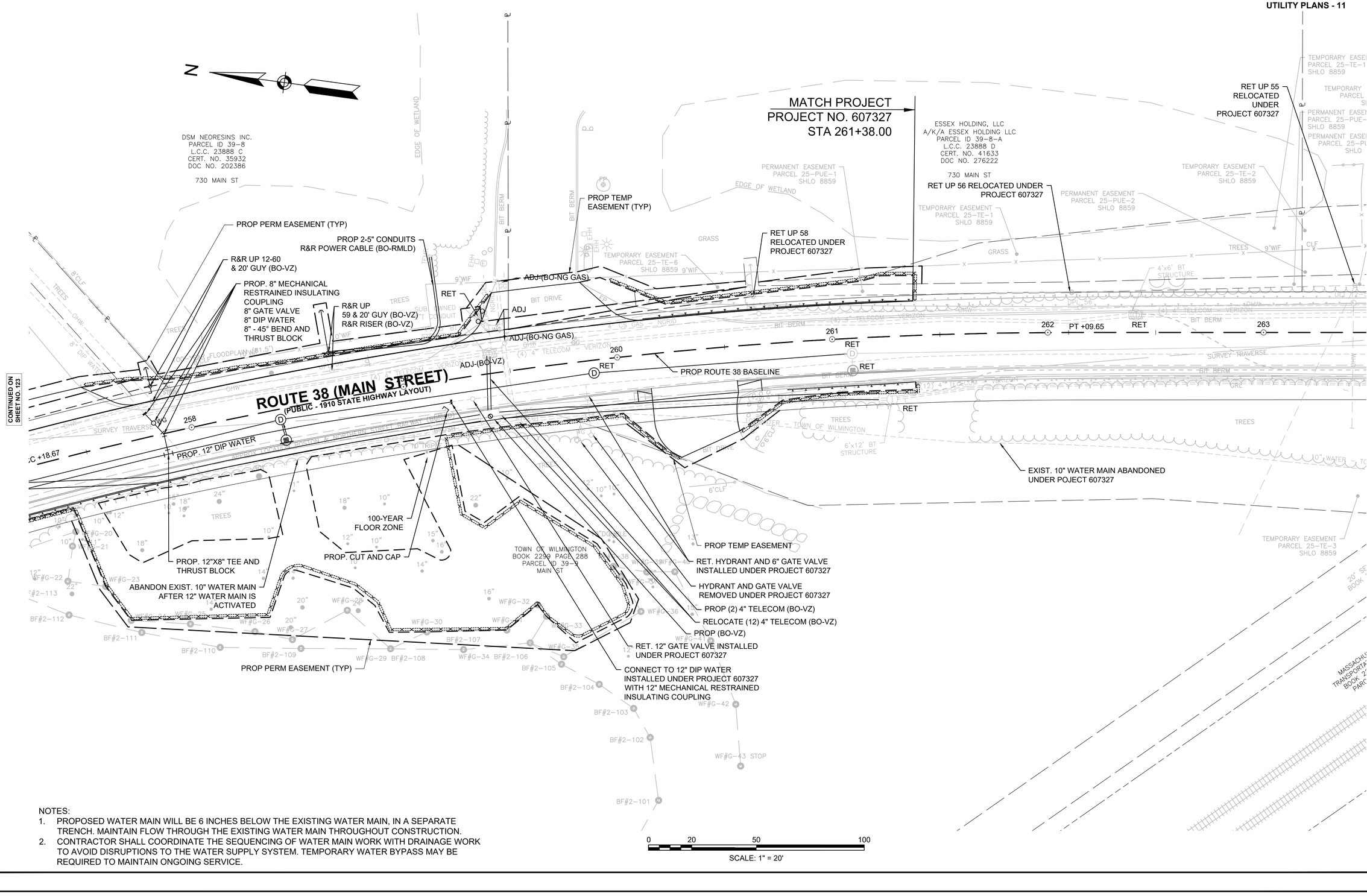
608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:10 PM

HIGHWAY GUARD DETAILS
SEE SHEET 23

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 97



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	125	420
PROJECT FILE NO.	608051		

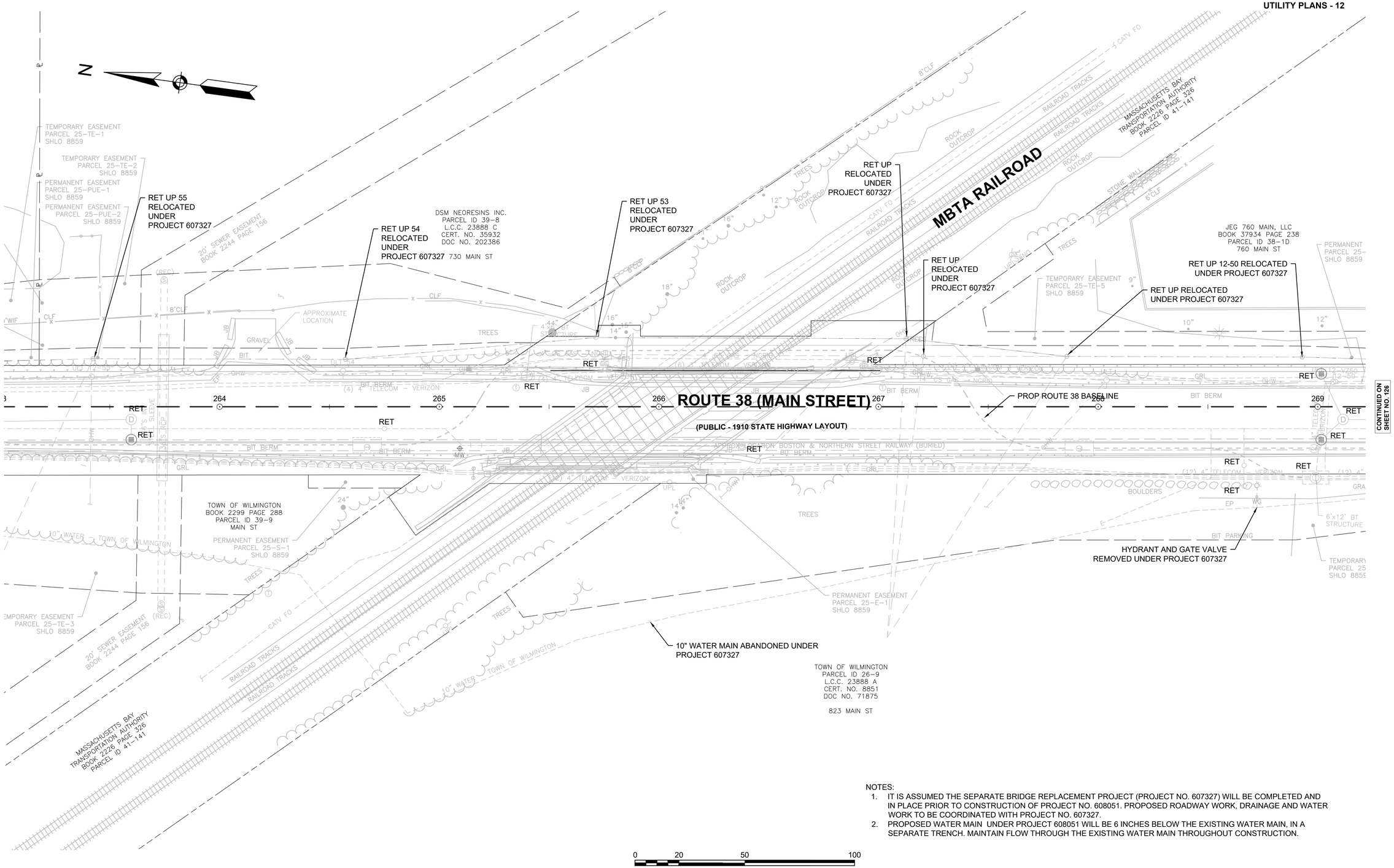
UTILITY PLANS - 12

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 98



NOTES:
1. IT IS ASSUMED THE SEPARATE BRIDGE REPLACEMENT PROJECT (PROJECT NO. 607327) WILL BE COMPLETED AND IN PLACE PRIOR TO CONSTRUCTION OF PROJECT NO. 608051. PROPOSED ROADWAY WORK, DRAINAGE AND WATER WORK TO BE COORDINATED WITH PROJECT NO. 607327.
2. PROPOSED WATER MAIN UNDER PROJECT 608051 WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.

0 20 50 100
SCALE: 1" = 20'

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:10 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	126	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 13

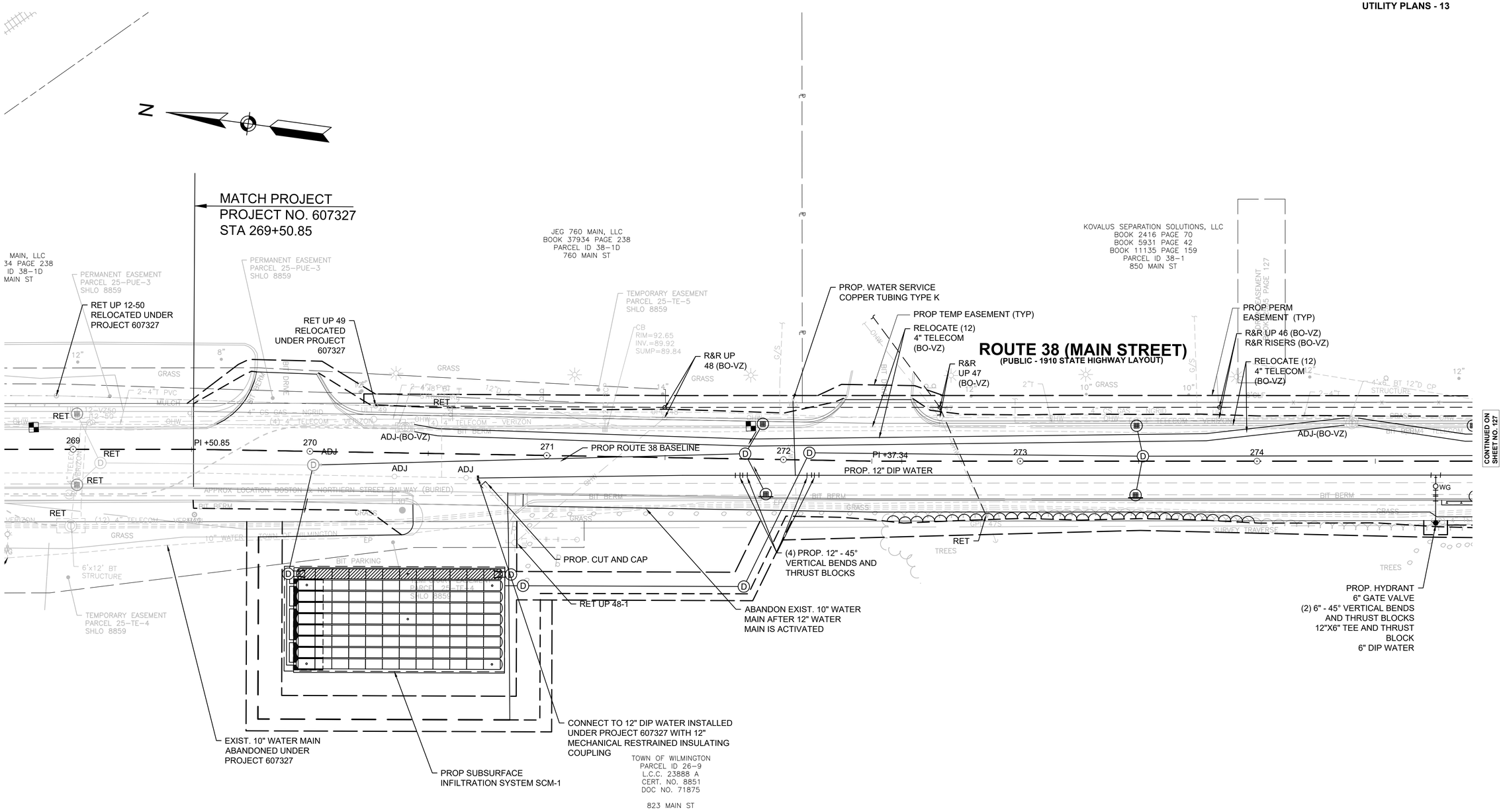
608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:11 PM

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 99



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

0 20 50 100
SCALE: 1" = 20'

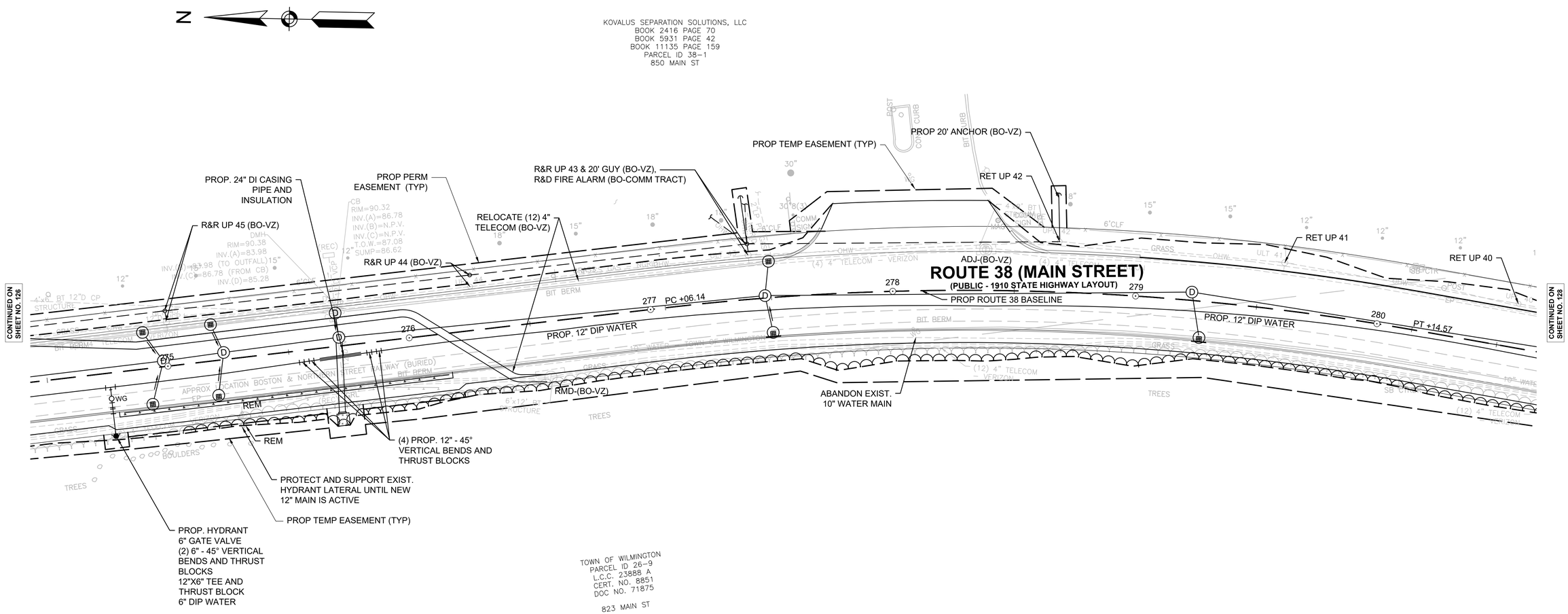
HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
SEE SHEET 26	NONE	SEE BELOW	SEE SHEET 100

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	127	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 14

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:11 PM



NOTES:

1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.
3. GUARDRAIL POST LOCATION AND SPACING SHALL BE COORDINATED WITH THE ENGINEER. CONTRACTOR SHALL HAND DIG WITHIN 24" OF EXISTING SUBSURFACE UTILITIES.

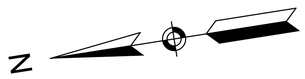
WILMINGTON
ROUTE 38 (MAIN STREET)

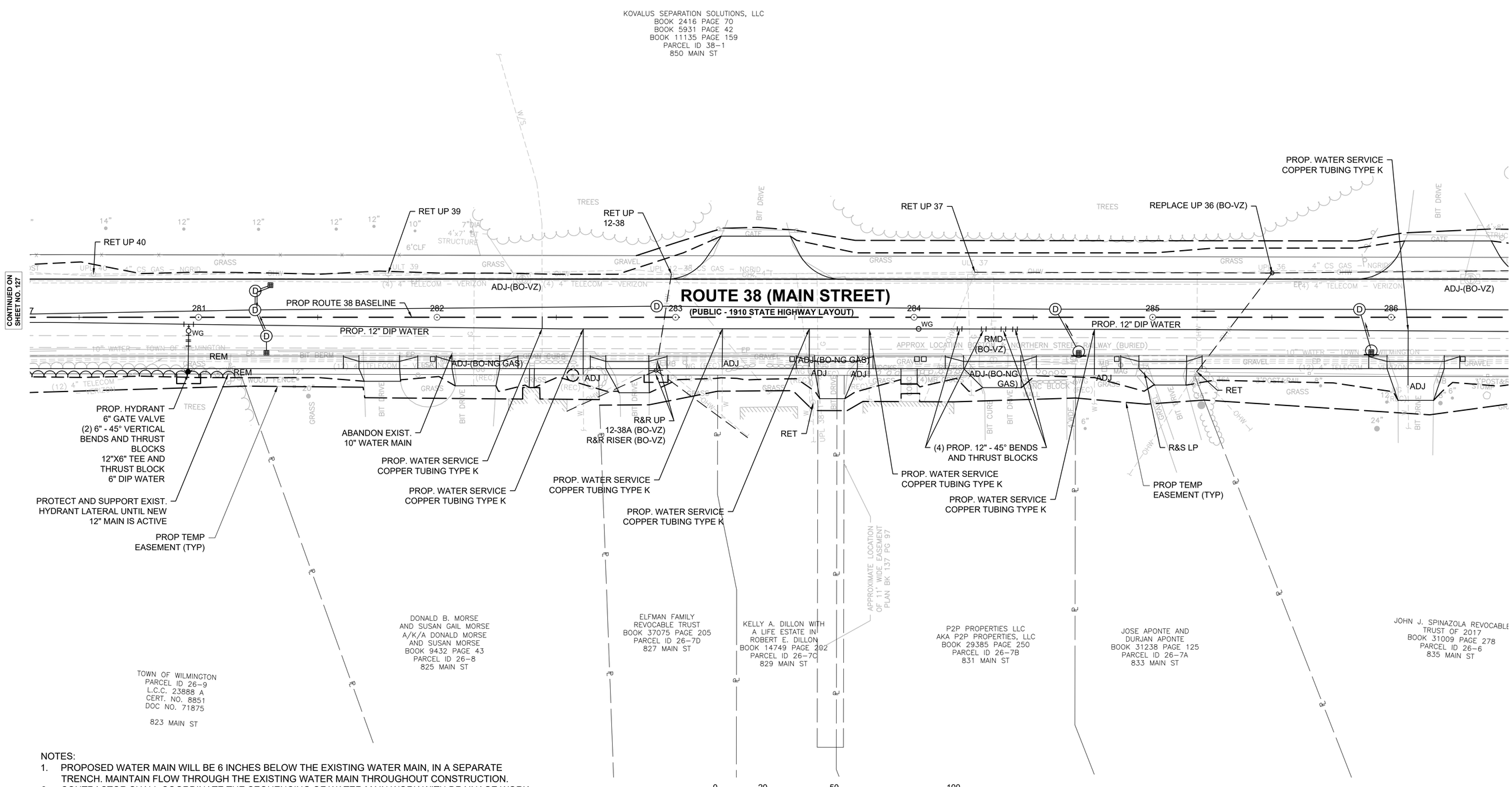
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	128	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 15

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:11 PM

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	NONE	SEE BELOW	SEE SHEET 101





NOTES:

1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

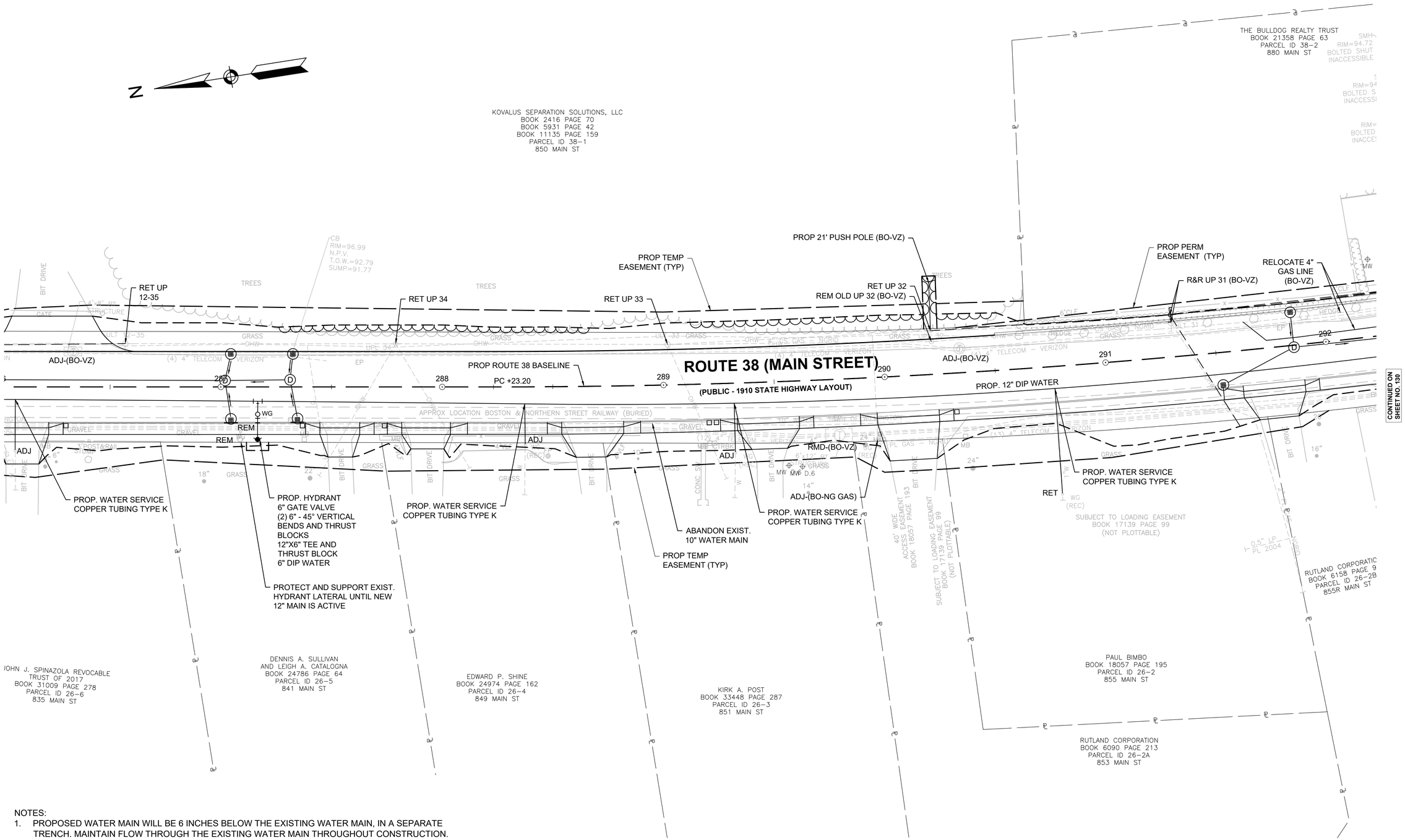
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	129	420
	PROJECT FILE NO. 608051		

UTILITY PLANS - 16

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:11 PM

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	NONE	SEE BELOW	SEE SHEET 102



NOTES:
1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	130	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 17

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:12 PM

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

SEE BELOW

DRAINAGE DETAILS

SEE SHEET 103

ROUTE 38 (MAIN STREET)

(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

EAMES STREET (PUBLIC)

PT 60+44

PROP. UP 29S & 6' GUY (BO-VZ)

PROP PERM EASEMENT (TYP)

TAKING ON BEHALF OF THE TOWN OF WILMINGTON (TYP)

RET

RELOCATE (12) 4" TELECOM (BO-VZ)

PROP TEMP EASEMENT (TYP)

PROP PERM EASEMENT (TYP)

ADJ-(BO-NG GAS)

RELOCATE 4" GAS LINE (BO-NG)

R&R UP 12-30 (BO-VZ)

R&R UP 12-29 (BO-VZ)

RET GG

REM

ADJ

PROP TEMP EASEMENT (TYP)

RELOCATE (12) 4" TELECOM (BO-VZ)

RET UP 27

RET UP 28

RET UP

ADJ-(BO-VZ)

PROP ROUTE 38 BASELINE

PT +00.15

ADJ

PROP. 12" DIP WATER

WG

RET UP 29-1

(2) PROP. 12" - 45° BENDS AND THRUST BLOCKS

PROP. WATER SERVICE COPPER TUBING TYPE K

PROP. UP 29S & 10' ANCHOR (BO-VZ)

PROP. CUT AND PLUG

PROP. 12" MECHANICAL RESTRAINED INSULATING COUPLING

PROP. 12" GATE VALVE

ABANDON EXIST. 10" WATER MAIN

PROP TEMP EASEMENT (TYP)

RET UP 26

RET UP 26S

RELOCATE (12) 4" FIBER (BO-VZ)

RMD-(BO-VZ)

CONTINUED ON SHEET NO. 129

CONTINUED ON SHEET NO. 131

THE BULLDOG REALTY TRUST
BOOK 21358 PAGE 63
PARCEL ID 38-2
880 MAIN ST

CORNER POINT LLC
BOOK 24975 PAGE 3
PARCEL ID 24-31D
892 MAIN ST

JEWEL DRIVE WILMINGTON, LLC
BOOK 33628 PAGE 181
PARCEL ID 24-205
1 JEWEL DR

RUTLAND CORPORATION
BOOK 6158 PAGE 96
PARCEL ID 26-2C
857R MAIN ST

RUTLAND CORPORATION
BOOK 6158 PAGE 96
PARCEL ID 26-2B
855R MAIN ST

JORGE C. NOVAIS
AND VILMA NOVAIS
BOOK 33451 PAGE 234
PARCEL ID 25-13
857 MAIN STREET

CHRISTOPHER D. MACINNIS
BOOK 36998 PAGE 32
BOOK 37005 PAGE 93
BOOK 38331 PAGE 28
PARCEL ID 25-12
859 MAIN ST

NATALY DIAZ AND FELICITA DIAZ
BOOK 37720 PAGE 141
PARCEL ID 25-11
875 MAIN ST

STEVEN WONG
AND JOEY WONG
BOOK 33815 PAGE 214
PARCEL ID 25-10
879 MAIN ST

ADAM H. SKELSKIE
AND SARA D. CHESTERCOVE
A/K/A SARA D. SKELSKIE
BOOK 27915 PAGE 267
PARCEL ID 25-9
883 MAIN ST

NOTES:

1. PROPOSED WATER MAIN WILL BE 6 INCHES BELOW THE EXISTING WATER MAIN, IN A SEPARATE TRENCH. MAINTAIN FLOW THROUGH THE EXISTING WATER MAIN THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WATER MAIN WORK WITH DRAINAGE WORK TO AVOID DISRUPTIONS TO THE WATER SUPPLY SYSTEM. TEMPORARY WATER BYPASS MAY BE REQUIRED TO MAINTAIN ONGOING SERVICE.

0 20 50 100

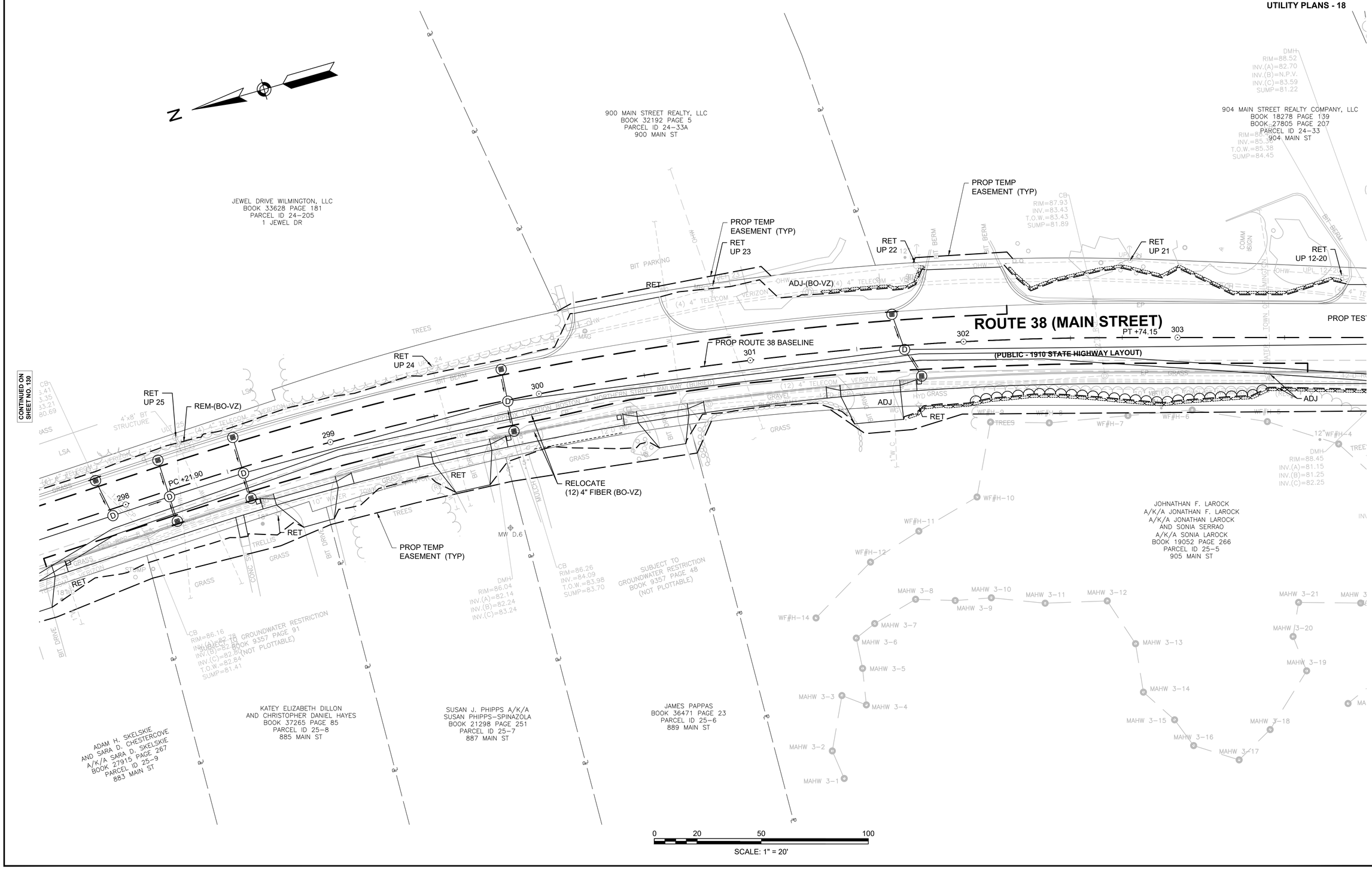
SCALE: 1" = 20'

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	131	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 18

HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	NONE	SEE BELOW	SEE SHEET 104



608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:12 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	132	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 19

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:12 PM

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 105

CONTINUED ON SHEET NO. 131

CONTINUED ON SHEET NO. 133

N

WOODWARD AVENUE
(PAPER STREET)

CENTRAL AVENUE
(PAPER STREET)

COOK AVENUE
(PUBLIC)

ROUTE 38 (MAIN STREET)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

OLD MAIN STREET
(PUBLIC)

PRIVATE LAYOUT LINE

KALENKA RAYMOND
AND SEDAR RAYMOND
BOOK 32794 PAGE 241
PARCEL ID 24-72A
1A COOK AVE

NSTAR ELECTRIC COMPANY
BOOK 1490 PAGE 211
PARCEL ID 24-81B
910 MAIN ST

OWNER UNKNOWN
BOOK XX PAGE XX
PARCEL ID 24-81A
MAIN ST

904 MAIN STREET REALTY COMPANY, LLC
BOOK 18278 PAGE 139
BOOK 27805 PAGE 207
PARCEL ID 24-33
904 MAIN ST

TOWN OF WILMINGTON
BOOK 1178 PAGE 256
PARCEL ID 24-78
WOODWARD AVE

TOWN OF WILMINGTON
BOOK 1431 PAGE 460
PARCEL ID 24-80
MAIN ST

TOWN OF WILMINGTON
BOOK 891 PAGE 294
MAIN ST

TOWN OF WILMINGTON
BOOK 1082 PAGE 59
PARCEL ID 24-79
WOODWARD AVE

TAM DEVELOPMENT CORPORATION
BOOK 11130 PAGE 74
PARCEL ID 25-1A
925 MAIN ST

NSTAR ELECTRIC COMPANY
BOOK 1474 PAGE 362
PARCEL ID 25-1B
927 MAIN ST

RAYMOND LEPORE
L.C.C. 39844 A
CERT. NO. 32201
DOC. NO. 160945
PARCEL ID 25-3
919 MAIN ST

ROBERT P. AUTENZIO, JR., TRUSTEE OF
M.T. POKKETS REALTY TRUST
BOOK 21081 PAGE 87

RET UP 12-20
ADJ
RET UP 12-19
RELOCATE (12) 4" TELECOM (BO-VZ)
PROP TEST PIT
ADJ-(BO-VZ)
PROP ROUTE 38 BASELINE
PC 1+82.02
ADJ
ADJ-(BO-VZ)
LINE OF 1928 DISCONTINUANCE
PROP. 10" MECHANICAL RESTRAINED INSULATING COUPLING
RELOCATE (12) 4" FIBER (BO-VZ)
PROP. 10" DIP WATER
PROP TEMP EASEMENT (TYP)
(4) PROP. 45° VERTICAL BENDS AND THRUST BLOCKS
PROP. 10" MECHANICAL RESTRAINED INSULATING COUPLING
PROP. 10" - 45° BEND AND THRUST BLOCK
PROP. 10" - 22 1/2° BEND AND THRUST BLOCK
PROP. 10" - 22 1/2° BEND AND THRUST BLOCK
RET UP 12-18
PROP 50' GUY
PROP. 10" DIP WATER
REM EXIST. 10" WATER MAIN
PROP. 10" - 45° BEND AND THRUST BLOCK
PROP. 12" TO 10" REDUCER
PROP. 12" DIP WATER
PROP TEMP EASEMENT (TYP)
PROP. 12" MECHANICAL RESTRAINED INSULATING COUPLING
PROP. 12" - 45° BEND AND THRUST BLOCK
PROP TEMP EASEMENT (TYP)
OVERHEAD WIRE CLEARANCE: 18'-0" MIN.
RET UP 15A
RET UP 16A
RET UP 17A
R&R OHW (BO-VZ)
(RET)
(RET)
ADJ-(BO-VZ)
PT 71+16.47
71+61.13
SUBJECT TO VERIZON EASEMENT BOOK 20100 PAGE 248 (NOT PLOTTABLE)

304 305 306 307 308 309 71

0 20 50 100
SCALE: 1" = 20'

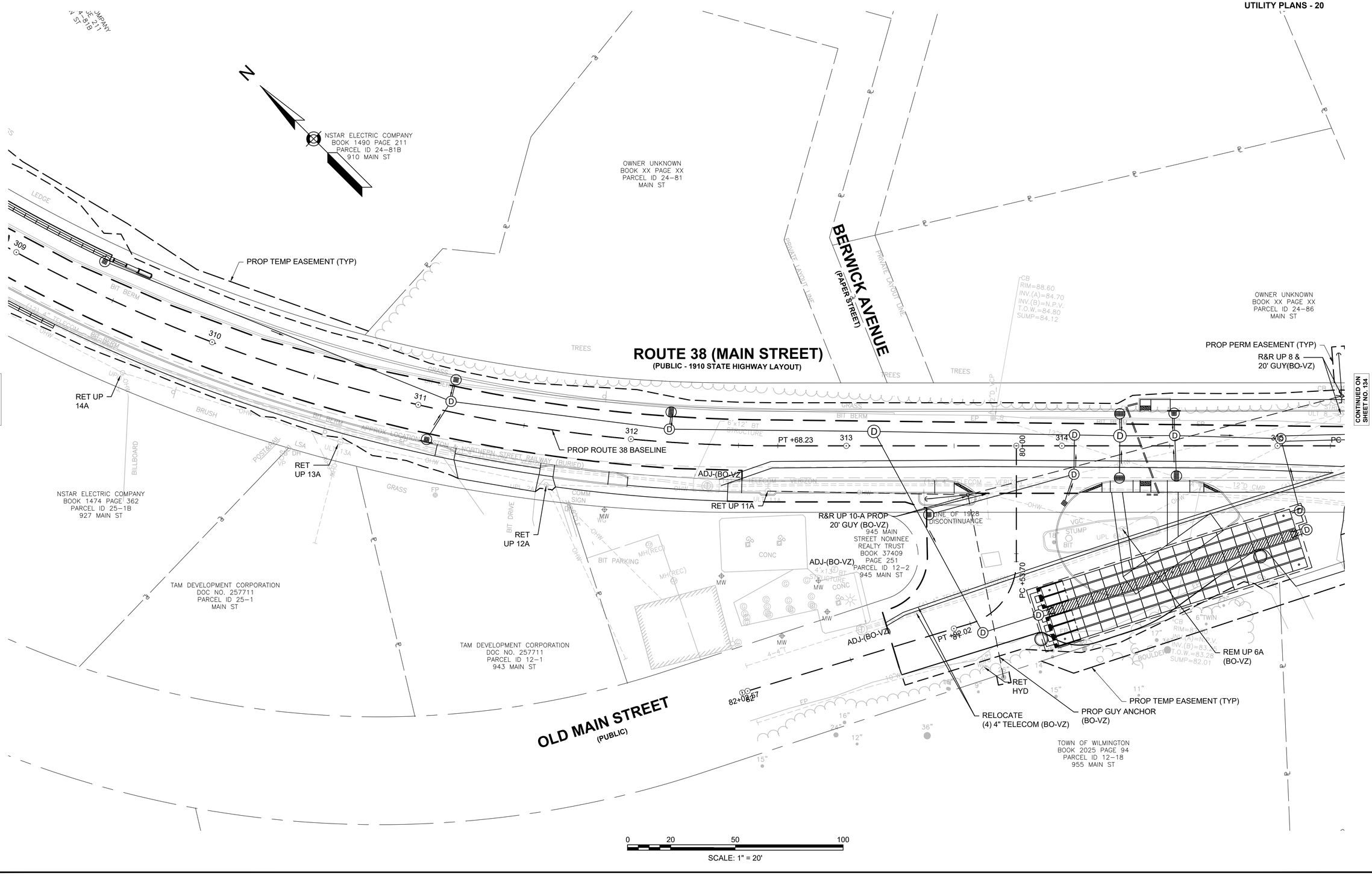
HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	NONE	SEE BELOW	SEE SHEET 112

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	133	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 20

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:12 PM



WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	134	420
PROJECT FILE NO.	608051		

UTILITY PLANS - 21

608051_UT01(UTILITY-PLANS).DWG Plotted on 2-Dec-2025 2:12 PM

HIGHWAY GUARD DETAILS
SEE SHEET 39

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 113

CONTINUED ON SHEET NO. 133

ROBERT HOLMES AND LAURA HOLMES
L.C.C. 22159 B
CERT. NO. 41929
DOC NO. 278979
PARCEL ID 24–87
9 BORDER AVE

SKYE GRAMS AND VALERIE GRAMS
BOOK 29847 PAGE 270
PARCEL ID 24–117
1 BORDER AVE

GILLIS FAMILY PROPERTIES LLC
A/K/A GILLIS FAMILY PROPERTIES, LLC
BOOK 60339 PAGE 389
PARCEL ID 24–120
4–6 BREED AVE

GILLIS FAMILY PROPERTIES LLC
A/K/A GILLIS FAMILY PROPERTIES, LLC
BOOK 26570 PAGE 103 (NORTH MIDDLESEX)
BOOK 60339 PAGE 393 (SOUTH MIDDLESEX)
PARCEL ID 03–04–01
4 BREED AVE

GILLIS FAMILY PROPERTIES LLC
A/K/A GILLIS FAMILY PROPERTIES, LLC
BOOK 26570 PAGE 103 (NORTH MIDDLESEX)
BOOK 60339 PAGE 393 (SOUTH MIDDLESEX)
PARCEL ID 24–120
960 MAIN ST

5 BREED AVENUE REAL NOMINEE TRUST
BOOK 64812 PAGE 154
PARCEL ID 03–07–04
5 BREED AVE

P.J.S REALTY CORP.
BOOK 52024 PAGE 87
PARCEL ID 03–07–01
3 BREED AVE

DARWIN T. CIAVARDONE AND KIMBERLY GRIFFITHS
BOOK 58169 PAGE 211
PARCEL ID 03–07–02
1091 MAIN ST

DARWIN T. CIAVARDONE AND KIMBERLY GRIFFITHS
BOOK 58169 PAGE 211
PARCEL ID 03–07–03
1091 MAIN ST

HENRY P. GARDNER
BOOK 37422 PAGE 274
PARCEL ID 12–3
967 MAIN ST

HENRY P. GARDNER
BOOK 80792 PAGE 409
PARCEL ID 03–03–03
MAIN ST

LORRAINE A. MACARIO
BOOK 66087 PAGE 128
PARCEL ID 03–03–02
1100 MAIN ST

OWNER UNKNOWN
BOOK XX PAGE XX
PARCEL ID 24–86
MAIN ST

BORDER AVENUE (PRIVATE)

FLORENCE AVENUE (PRIVATE)

BREED AVENUE (PRIVATE)

WOBURN
WILMINGTON

CITY LINE
TOWN LINE

ROUTE 38 (MAIN STREET)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

1912 BASELINE

PROP ROUTE 38 BASELINE

APPROXIMATE LOCATION OF 5' WIDE DRAINAGE EASEMENT PLAN BK 170 PG 109

PRIVATE LAYOUT LINE

RET UP

RET

PROP TEMP EASEMENT (TYP)

PROP PERM EASEMENT (TYP)

R&R UP 6 (BO-VZ)

R&R UP 5 & PROP 10' GUY ANCHOR (BO-VZ)

R&R UP 7 & 20' GUY (BO-VZ)

R&R UP 8 & 20' GUY (BO-VZ)

R&R UP 138-95 (BO-EVERSOURCE) R&R STREET LIGHT

ADJ-(BO-VZ)

PC=24+57 ADJ-(BO-VZ)

ADJ

RELOCATE (16) 4" FIBER (BO-VZ)

RELOCATE (4) 4" TELECOM (BO-VZ)

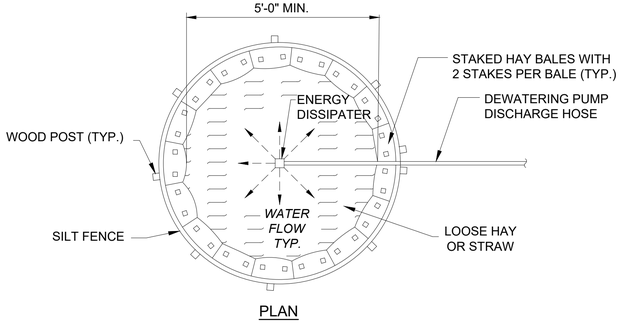
RELOCATE (12) 4" FIBER (BO-VZ)

PROP TEMP EASEMENT (TYP)

END PROJECT
STA. 319+20.77
MEET EXISTING
N3014857.1242
E748337.3382

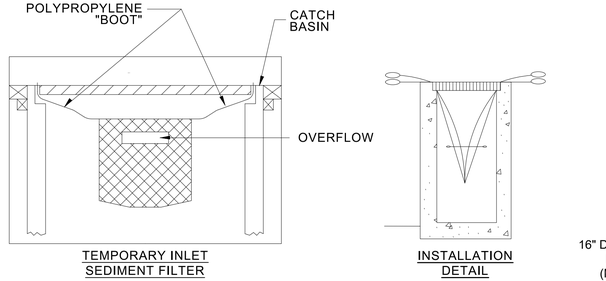
0 20 50 100
SCALE: 1" = 20'

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM



NOTE:
THIS DETAIL SHOWS ONE METHOD OF SEDIMENTATION CONTROL DURING DEWATERING.

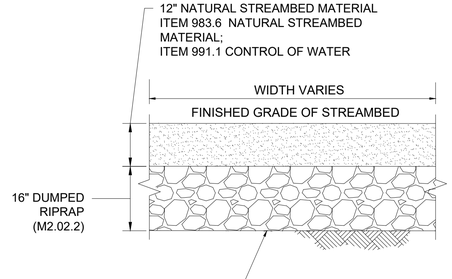
DEWATERING SEDIMENTATION BASIN DETAIL
NOT TO SCALE



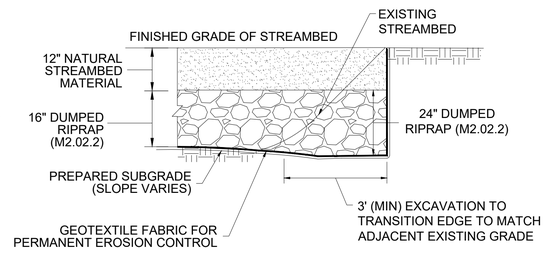
NOTE:

1. INSTALL INLET PROTECTION IN EXISTING CATCH BASIN, BEFORE COMMENCING WORK.
2. GRATE TO BE PLACED OVER INLET PROTECTION.
3. INLET PROTECTION SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

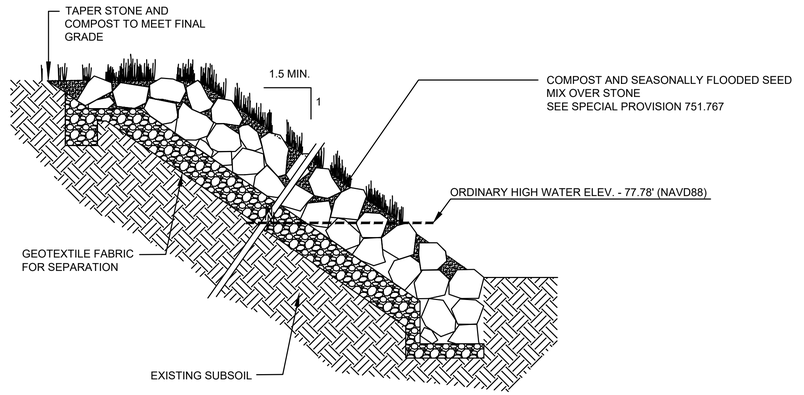
INLET PROTECTION FILTER BAG
NOT TO SCALE



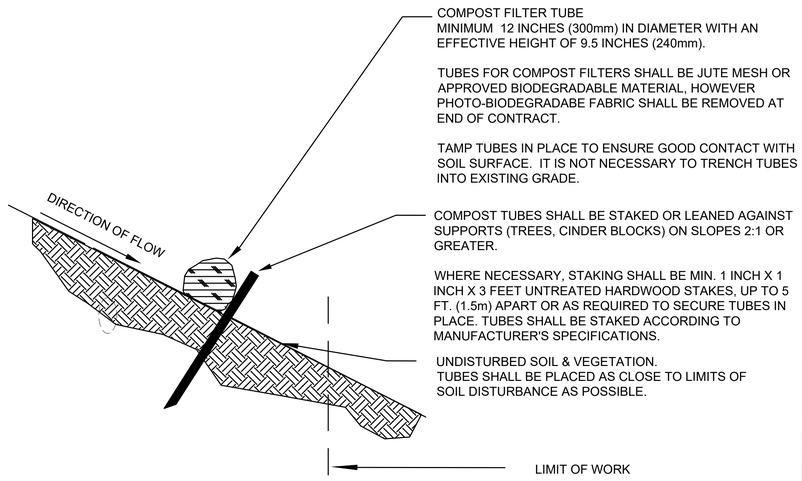
CHANNEL ARMORING
NOT TO SCALE



RIPRAP ARMORING END TRANSITION
NOT TO SCALE

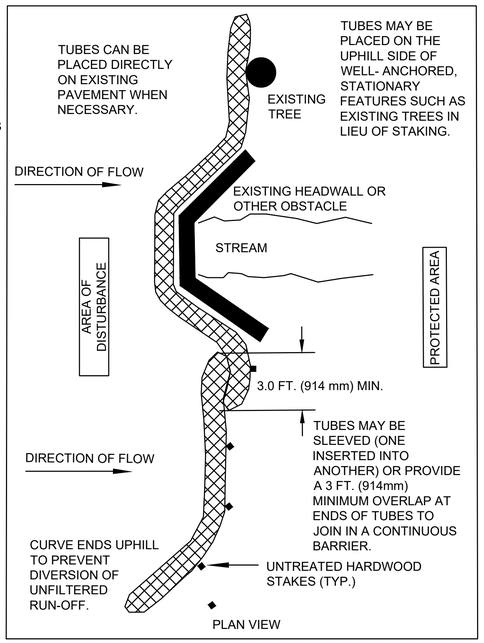


COMPOST AND SEASONALLY FLOODED SEED MIX OVER STONE
NOT TO SCALE



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. TUBE LOCATION MAY BE SHIFTED TO ADJUST TO LANDSCAPE FEATURES, BUT SHALL PROTECT UNDISTURBED AREA AND VEGETATION TO MAXIMUM EXTENT POSSIBLE.
4. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
5. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
6. ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINEER.



TYPICAL COMPOST FILTER TUBE DETAIL
NOT TO SCALE

EROSION AND SEDIMENT CONTROLS

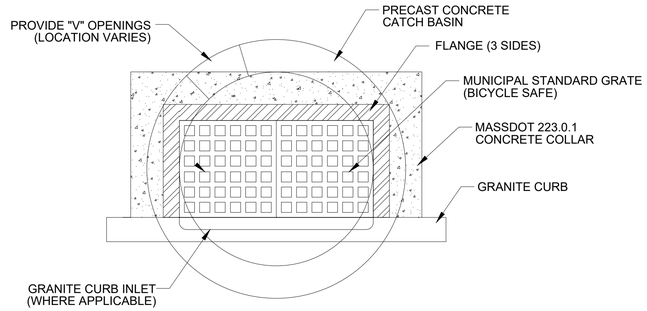
1. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING THE EROSION AND SEDIMENT DURING THE CONSTRUCTION PROCESS. SITE SPECIFIC CONDITIONS MAY REQUIRE MODIFICATIONS IN THE FIELD, BUT THE CONTRACTOR MUST ENSURE THAT THE CHANGES MEET THE MINIMUM REQUIREMENTS OF THIS PLAN AND ARE APPROVED BY THE ENGINEER.
2. IN ORDER TO MINIMIZE EROSION AND SEDIMENT RUNOFF FROM THE SITE, THE CONTRACTOR SHALL MAINTAIN EXISTING VEGETATION WHERE POSSIBLE AND STABILIZE THE DISTURBED PORTIONS OF THE SITE AS QUICKLY AS POSSIBLE. THIS MAY INCLUDE PHASING THE PROJECT AS NEEDED TO MINIMIZE THE SIZE OF THE DISTURBED AREAS ON THE SITE. THE COST OF PHASING THE PROJECT IS INCIDENTAL TO THE CONTRACT.
3. THE CONTRACTOR MUST ALSO ANTICIPATE INCREASED RUNOFF FROM STEEPER SLOPES AND DURING HIGH GROUNDWATER CONDITIONS. THIS MAY OCCUR DURING THE WET SEASON (TYPICALLY MARCH THROUGH APRIL) OR AFTER SIGNIFICANT PRECIPITATION EVENTS.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SILT FENCES, DRAINAGE SWALES, EARTH DIKES, TEMPORARY SETTLING BASINS, CHECK DAMS AND TEMPORARY SEDIMENT BASINS. THESE PRACTICES INCLUDE DIVERTING FLOWS FROM EXPOSED SOILS, LIMITING RUNOFF AND LIMITING THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE TO THE MAXIMUM EXTENT PRACTICABLE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
5. ALL DISTURBED SURFACES SHALL BE STABILIZED WITHIN 14 DAYS AFTER CONSTRUCTION IN ANY PORTION OF THE SITE THAT HAS BEEN COMPLETED OR WHERE CONSTRUCTION HAS TEMPORARILY CEASED.
6. THE CONTRACTOR SHALL, AT ALL TIMES, HAVE A STOCKPILE OF COMPOST FILTER TUBES AND SILT FENCE ADEQUATE TO REINFORCE/REPLACE EROSION AND SEDIMENT CONTROL AS NEEDED.
7. IF REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL PERMITS ASSOCIATED WITH DEWATERING ACTIVITIES AT NO ADDITIONAL COST TO THE TOWN.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

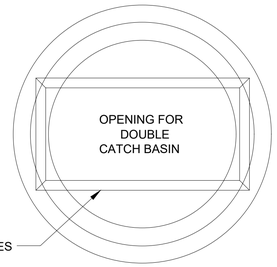
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	136	420
PROJECT FILE NO.	608051		

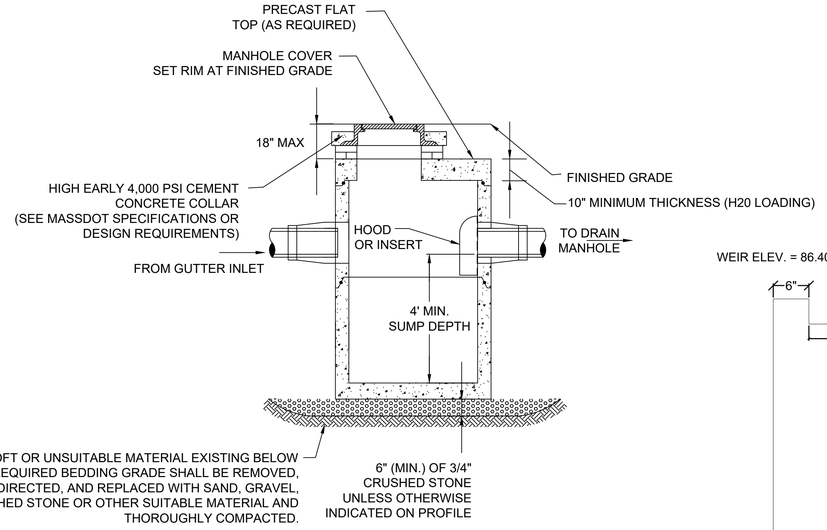
DRAINAGE & UTILITY DETAILS - 2

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM



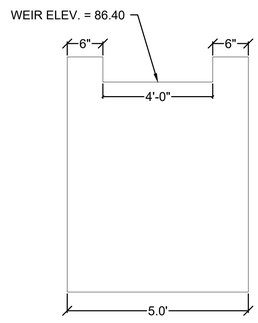
PLAN





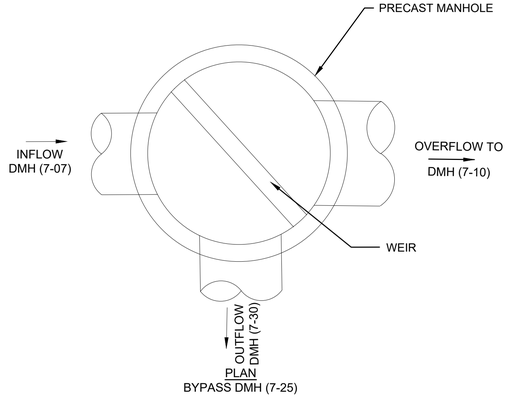
CATCH BASIN WITH FRAME AND COVER

NOT TO SCALE



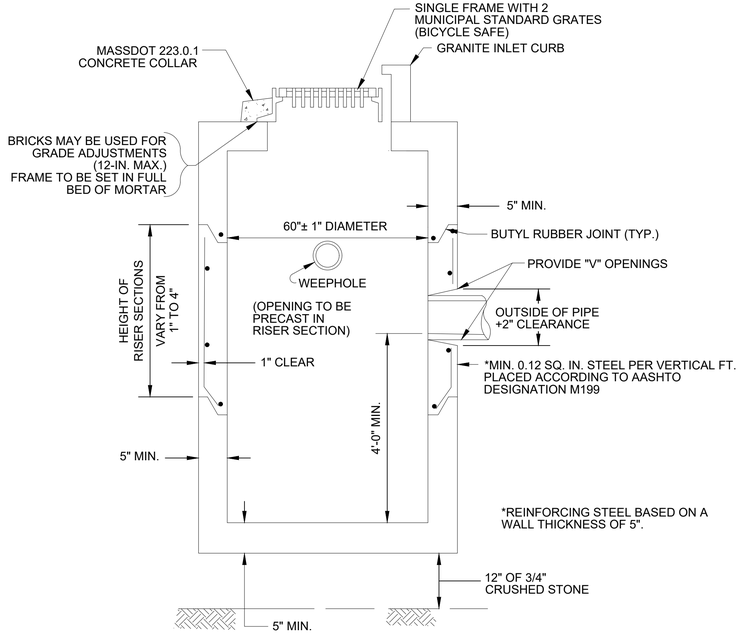
CONCRETE WEIR PROFILE

NOT TO SCALE



PLAN

BYPASS DMH (7-25)

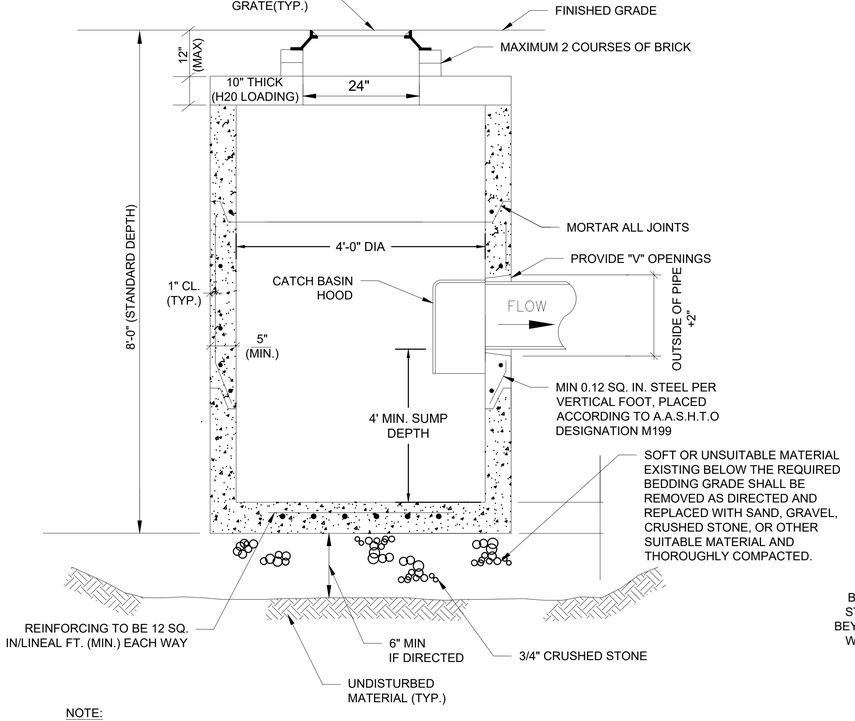


DOUBLE GRATE CATCH BASIN

NOT TO SCALE

NOTE:

1. FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
2. FRAME SHALL BE EQUAL TO EJUSA 0MA544000001
3. ALL CONCRETE TO BE AIR ENTRAINED.
4. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE SPECIFICATIONS.

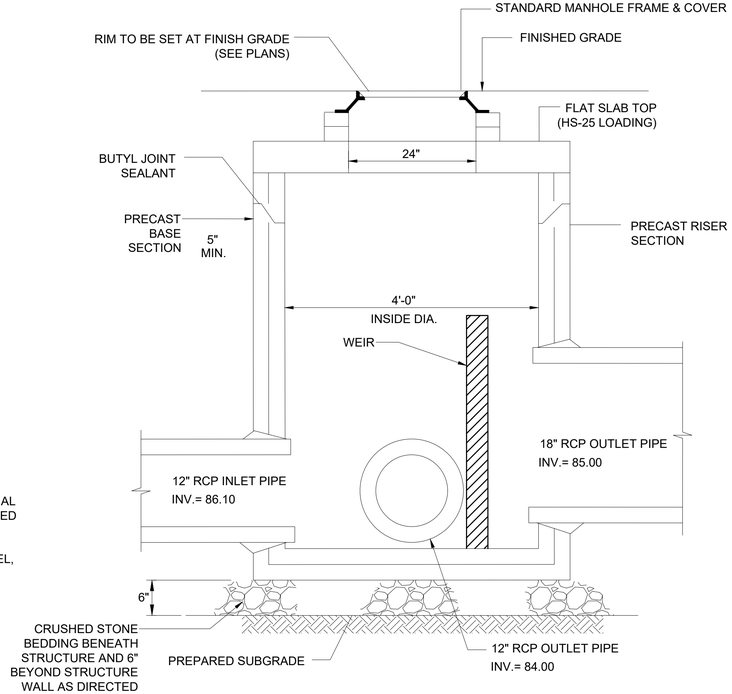


NOTE:

4" HEAVY DUTY FRAME AND GRATE TO BE USED FOR FLAT TOP DRAINAGE STRUCTURES WHERE DISTANCE BETWEEN TOP OF PIPE AND GROUND IS 2 FEET OR LESS.

TYPICAL FLAT TOP SLAB CATCH BASIN DETAIL

NOT TO SCALE



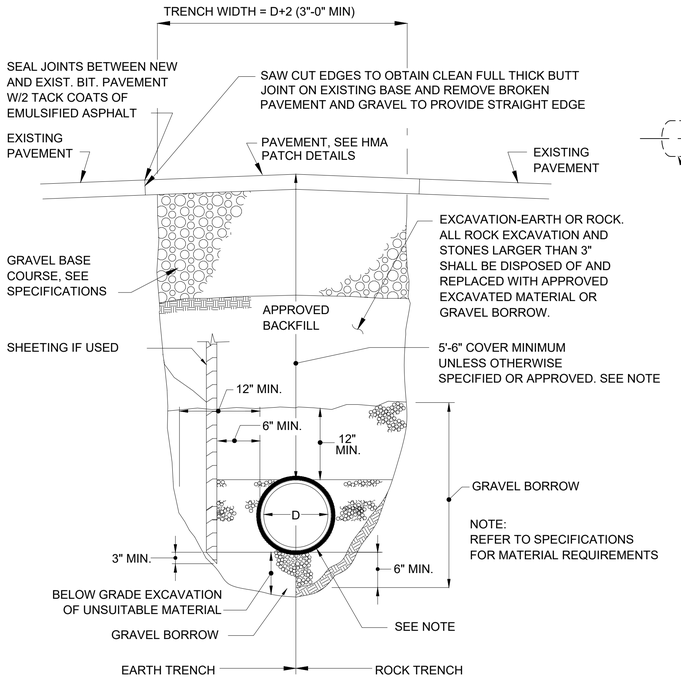
NOTES:

1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185

5' DIAMETER BYPASS DMH WITH WEIR (7-25)

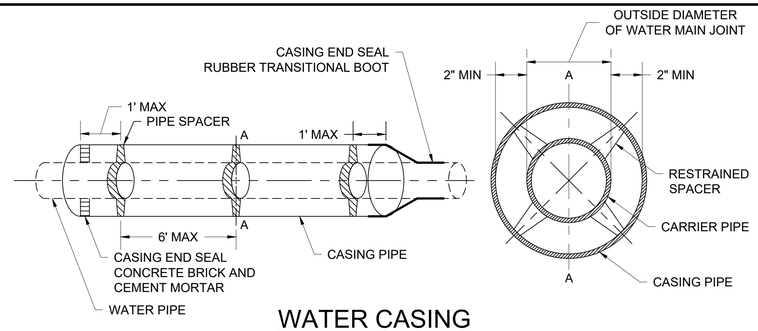
NOT TO SCALE

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM



NOTE: FURNISH AND INSTALL CLOSED CELL GLASS INSULATION, 2" THICK FOAMGLASS ONE BY PITTSBURG CORNING OR EQUAL, WITH PITTWRAPP AA JACKETING BY PITTSBURG CORNING OR EQUAL WHEN WATER MAIN CANNOT BE INSTALLED AT OR BELOW THE BURIAL DEPTH OF FIVE (5) FEET BELOW GRADE.

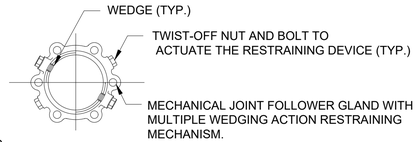
WATER TRENCH SECTION
NOT TO SCALE



WATER CASING
NOT TO SCALE

NOTE:

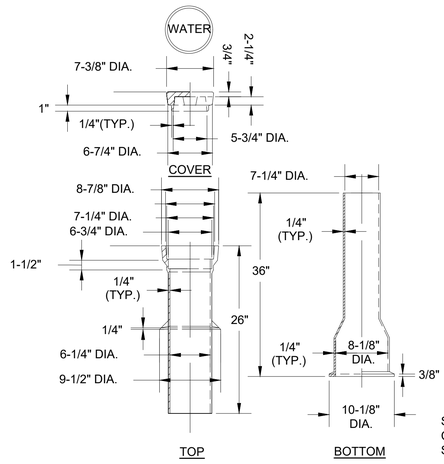
1. CARRIER PIPE MUST BE REMOVABLE FROM CASING IN EITHER DIRECTION.
2. SPACERS ARE REQUIRED FOR ALL USES OF CASING PIPE.
3. SPACER TO BE INSTALLED WITHIN TWO FEET OF SPIGOT END OF PIPE.
4. ADJUSTABLE CASING SPACERS ARE ALLOWED FOR ADJUSTMENT OF CARRIER PIPE SLOPE.
5. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE SPECIFICATIONS.



NOTES:

1. GLANDS SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A 536-80 STEEL.
2. DIMENSIONS OF THE GLAND SHALL BE SUCH THAT IT CAN BE USED WITH THE STANDARDIZED MECHANICAL JOINT BELL AND TEE-HEAD BOLTS CONFORMING TO A.N.S.I./A.W.W.A. A 21.11 AND A.N.S.I./A.W.W.A. C 153/A 21.53 OF LATEST REVISION.
3. LENGTH OF RESTRAINED PIPE SHALL BE IN ACCORDANCE WITH "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA).

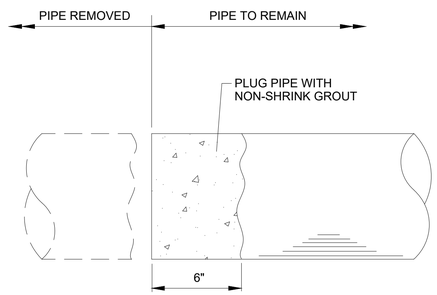
MECHANICAL JOINT RESTRAINT
NOT TO SCALE



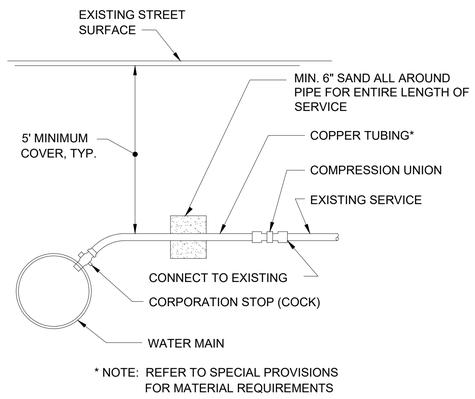
SAND BORROW MEETING CWD CONSTRUCTION STANDARDS SECTION 3.05 AND 3.06

1. ALL VALVES SHALL BE PROVIDED WITH STANDARD VALVE BOXES AND COVERS OF THE SLIDING TYPE.
2. DUCTILE IRON MAY BE SUBSTITUTED FOR CAST IRON VALVE BOXES.
3. MECHANICAL JOINTS, AFTER PIPE GASKETS AND FOLLOWER GLAND HAVE BEEN ASSEMBLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS, SHALL HAVE BOLTS INSERTED AND TIGHTENED BY HAND UNTIL ALL ARE EVEN. A RATCHET WRENCH IS THEN USED TO COMPLETE TIGHTENING OF THE BOLTS AND NUTS WITH CARE BEING TAKEN TO TIGHTEN THE OPPOSITE NUTS SO AS TO KEEP GLAND SQUARE WITH SOCKET AND BOLT STRESS EVENLY DISTRIBUTED.
4. DIRECTION OF VALVE OPENING TO BE IN ACCORDANCE WITH TOWN OF WILMINGTON REQUIREMENTS.

STANDARD VALVE BOX AND COVER
NOT TO SCALE

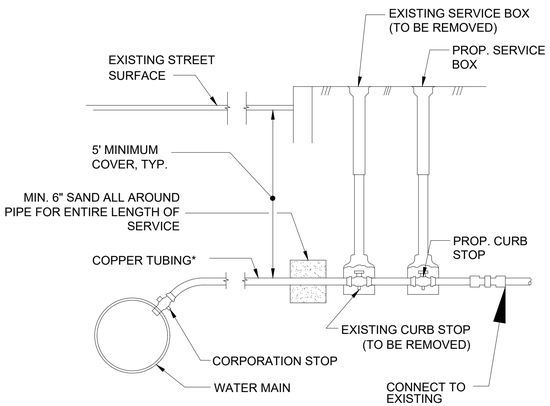


TYPICAL PIPE PLUGGING DETAIL
NOT TO SCALE



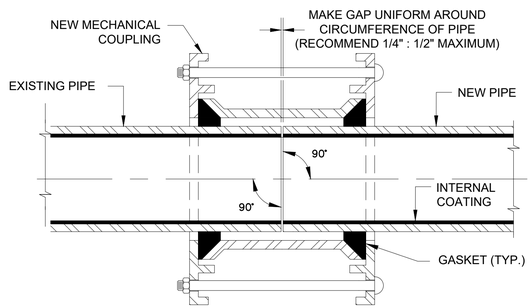
* NOTE: REFER TO SPECIAL PROVISIONS FOR MATERIAL REQUIREMENTS

WATER SERVICE CONNECTION
NOT TO SCALE



*NOTE: FOR USE ONLY AREAS DESCRIBED IN GENERAL NOTE 8. REFER TO SPECIAL PROVISIONS FOR MATERIAL REQUIREMENTS.

WATER SERVICE CONNECTION WITH NEW CURB STOP
NOT TO SCALE



MECHANICAL COUPLING (NON-INSULATING)

NOTES:

1. CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF ALL EXISTING AND PROPOSED PIPES FOR SIZING COUPLINGS.
2. TRANSITION COUPLINGS WITH LARGER GASKETS OR REDUCING MIDDLE RINGS AS REQUIRED BY MANUFACTURER TO SPAN PIPES WITH DIFFERENT SIZE OUTSIDE DIAMETERS. A REDUCING MIDDLE RING SHALL BE USED AT LOCATIONS WHERE OUTSIDE DIAMETERS DIFFER BY 1-INCH OR MORE.
3. MECHANICAL COUPLINGS AND ALL HARDWARE SHALL BE COMPLETELY WRAPPED WITH WAX-TAPE COATING SYSTEM.
4. MECHANICAL COUPLINGS AND ALL HARDWARE SHALL BE INSTALLED AND TESTED AS PER MANUFACTURER'S STANDARDS AND INSTALLATION GUIDELINES.

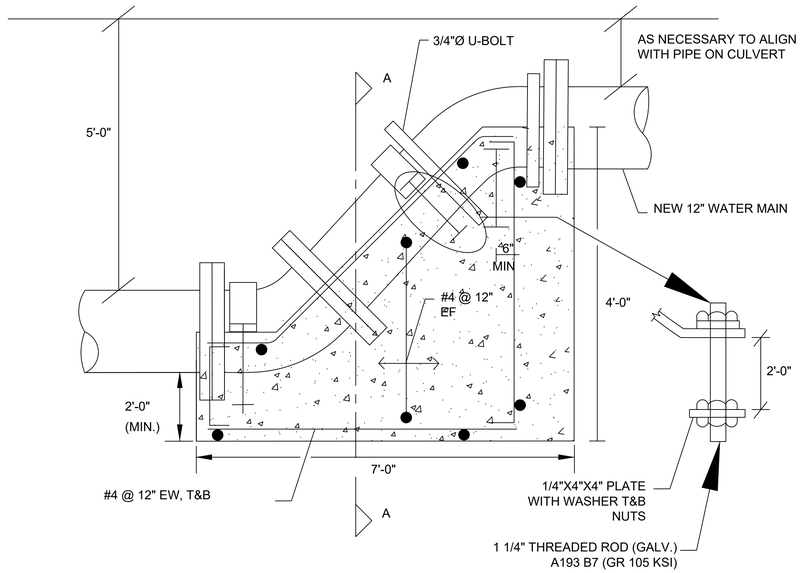
MECHANICAL COUPLINGS
NOT TO SCALE

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

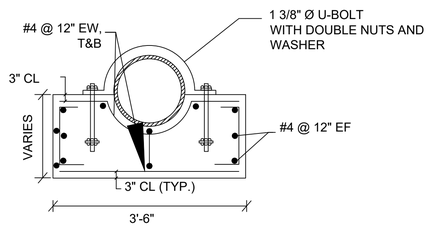
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	138	420
PROJECT FILE NO.	608051		

DRAINAGE & UTILITY DETAILS - 5

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM



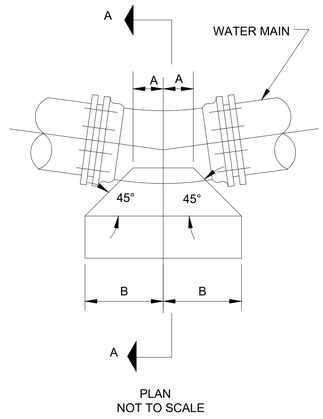
ELEVATION



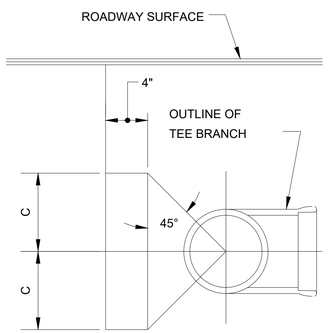
SECTION A-A

THRUST BLOCK DETAIL - VERTICAL BENDS AT MAPLE MEADOW BROOK CULVERT

NOT TO SCALE



PLAN
NOT TO SCALE



SECTION A-A
NOT TO SCALE

HORIZONTAL THRUST BLOCK SCHEDULE
TABLE OF DIMENSIONS IN INCHES

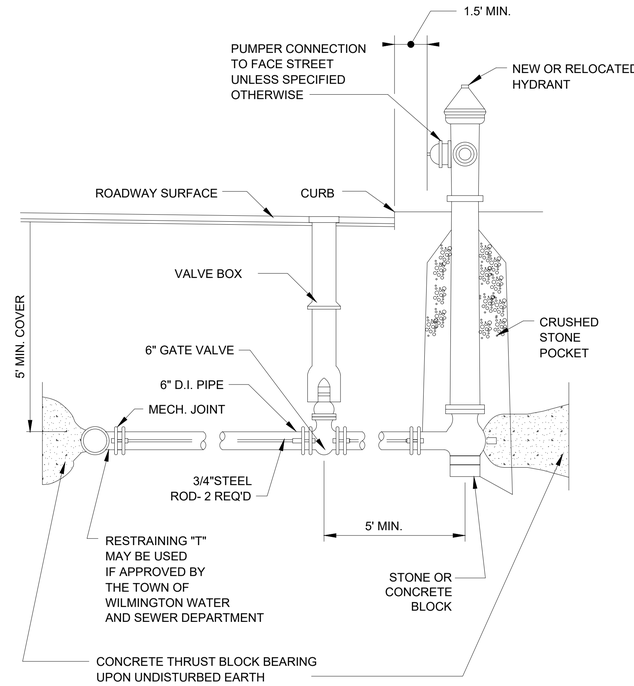
		A	B	C
6", 8" BEND				
	11 1/4°, 22 1/2°	6"	10"	10"
	45°	6"	14"	14"
	90°	9"	19"	19"
10", 12" BEND				
	11 1/4°, 22 1/2°	6"	14"	14"
	45°	6"	20"	20"
	90°	9"	27"	27"
	TEE (BRANCH)/CAP			
	6"	6"	15"	15"
	8"	9"	16"	16"
	10"	9"	19"	19"
	12"	9"	23"	23"

NOTE : REFER TO SPECIFICATIONS FOR MATERIAL REQUIREMENTS

SUBJECT TO FIELD MODIFICATION BY ENGINEER

THRUST BLOCK DETAIL

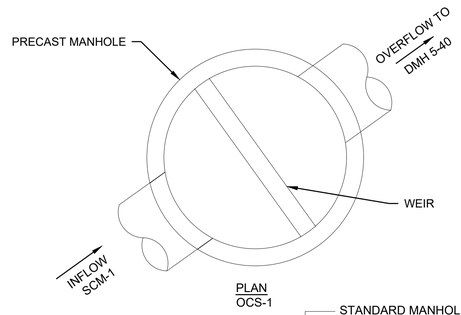
NOT TO SCALE



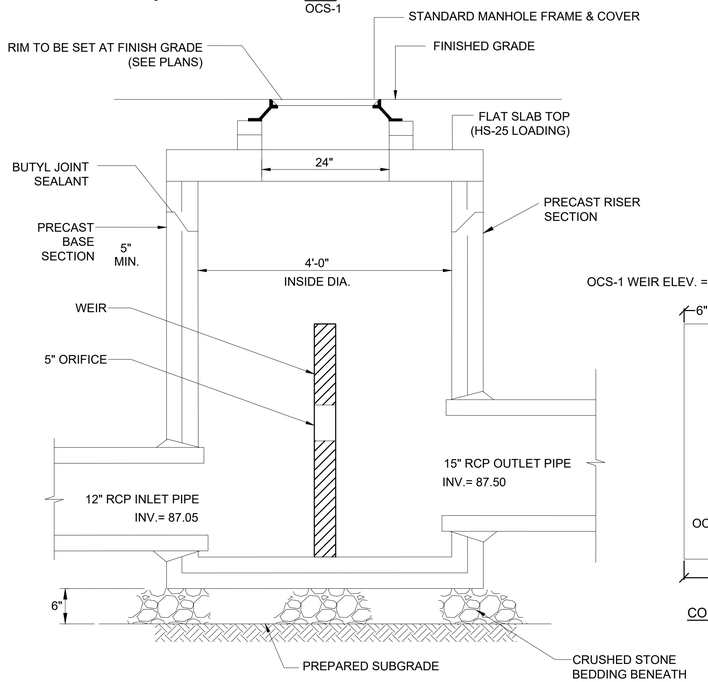
FIRE HYDRANT DETAIL

NOT TO SCALE

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM



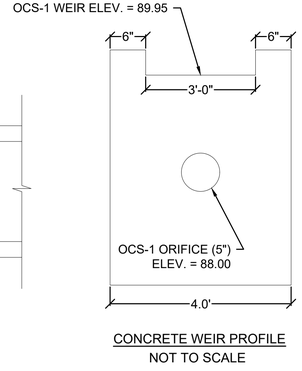
PLAN
OCS-1



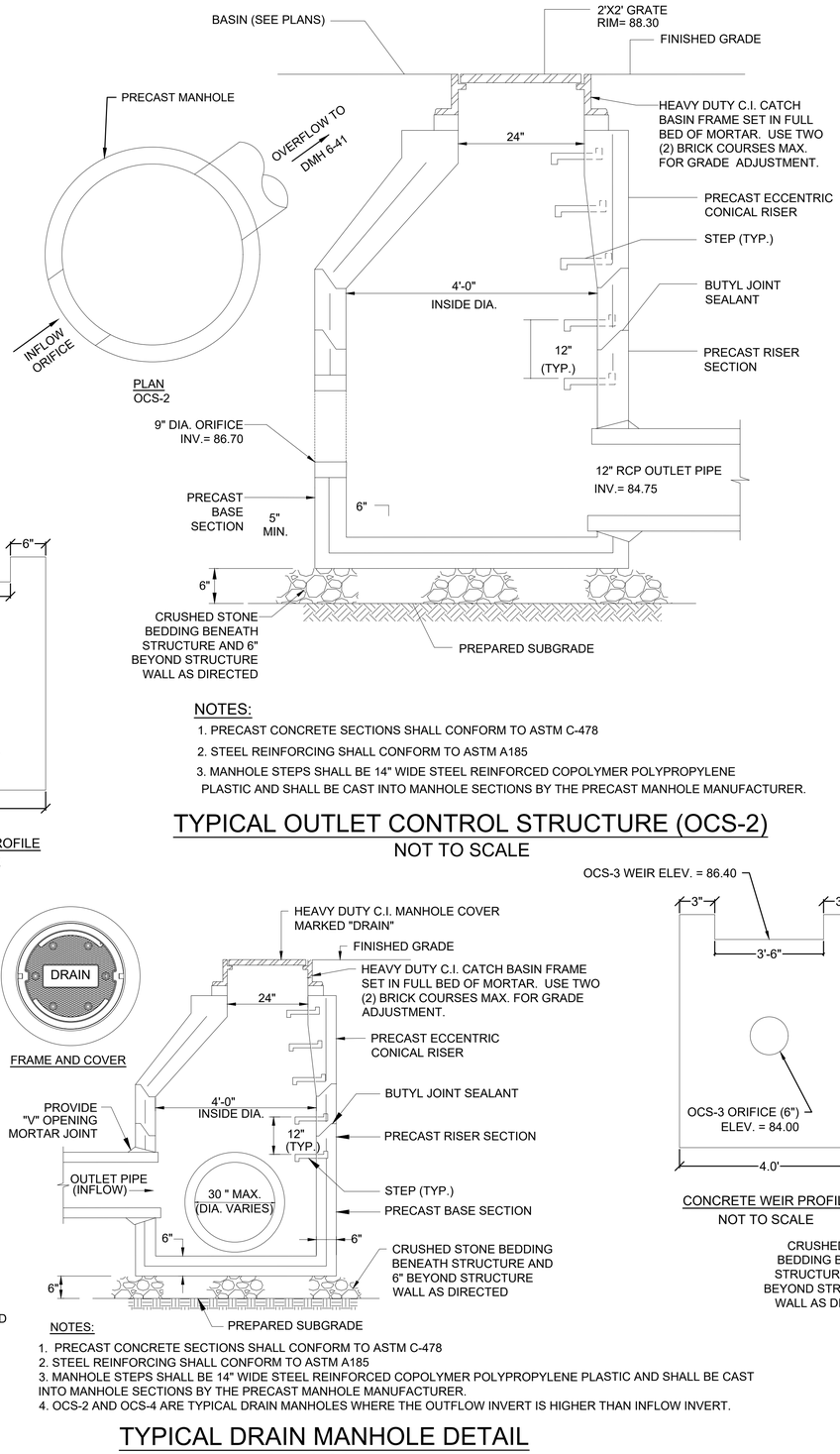
NOTES:

1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185

TYPICAL OUTLET CONTROL STRUCTURE (OCS-1)
NOT TO SCALE



CONCRETE WEIR PROFILE
NOT TO SCALE

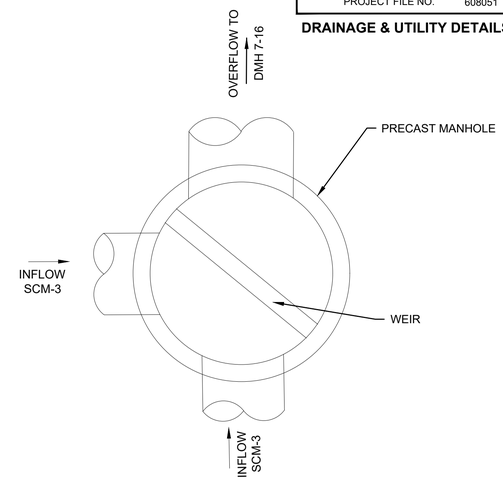


PLAN
OCS-2

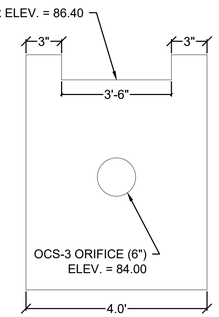
NOTES:

1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185
3. MANHOLE STEPS SHALL BE 14" WIDE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC AND SHALL BE CAST INTO MANHOLE SECTIONS BY THE PRECAST MANHOLE MANUFACTURER.

TYPICAL OUTLET CONTROL STRUCTURE (OCS-2)
NOT TO SCALE



PLAN
OCS-3

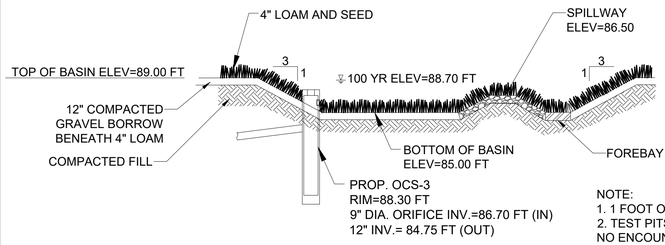


CONCRETE WEIR PROFILE
NOT TO SCALE

NOTES:

1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185

TYPICAL OUTLET CONTROL STRUCTURE (OCS-3)
NOT TO SCALE



NOTE:
1. 1 FOOT OF FREEBOARD IS PROVIDED.
2. TEST PITS WITHIN THE BASIN INDICATED NO ENCOUNTER WITH GROUNDWATER

TYPICAL SECTION
INFILTRATION BASIN (SCM-2)
NOT TO SCALE

FRAME AND COVER

NOTES:

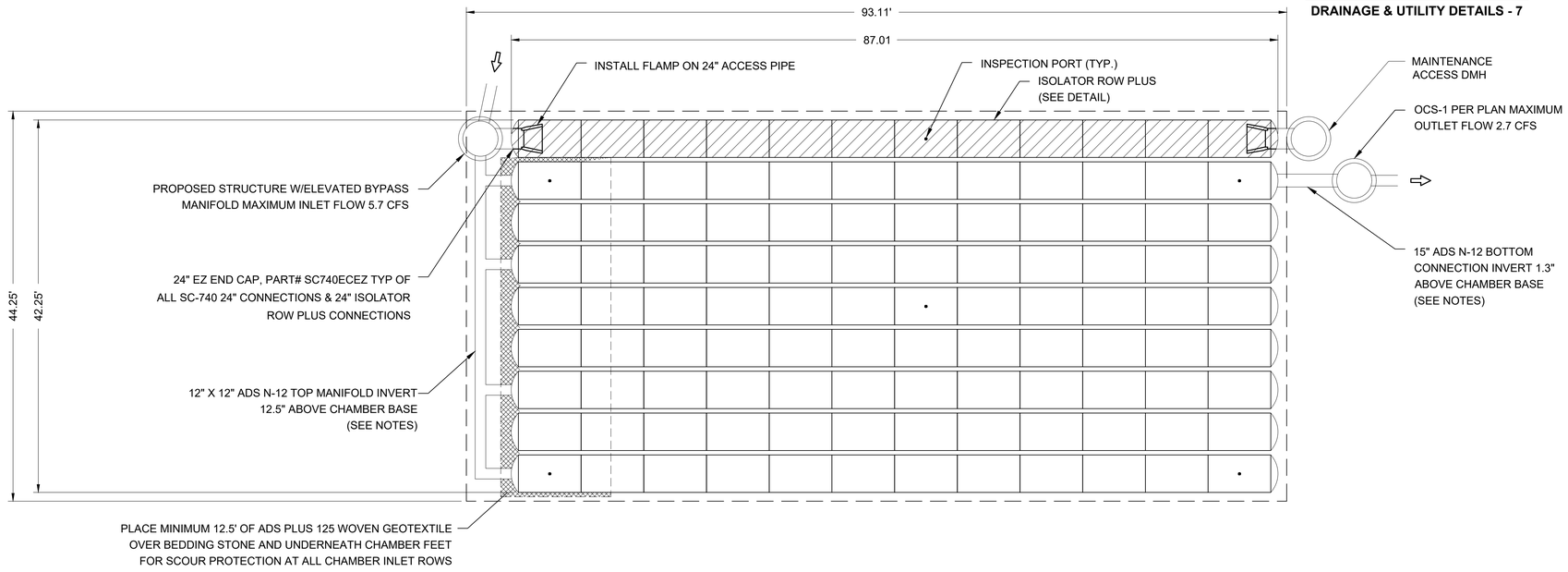
1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C-478
2. STEEL REINFORCING SHALL CONFORM TO ASTM A185
3. MANHOLE STEPS SHALL BE 14" WIDE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC AND SHALL BE CAST INTO MANHOLE SECTIONS BY THE PRECAST MANHOLE MANUFACTURER.
4. OCS-2 AND OCS-4 ARE TYPICAL DRAIN MANHOLES WHERE THE OUTFLOW INVERT IS HIGHER THAN INFLOW INVERT.

TYPICAL DRAIN MANHOLE DETAIL
NOT TO SCALE

PROPOSED LAYOUT (SCM1)	
108	STORMTECH SC-740 CHAMBERS
18	STORMTECH SC-740 END CAPS
12	STONE ABOVE (in)
6	STONE BELOW (in)
30	% STONE VOID
8,418	**INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)**
4120	SYSTEM AREA (ft²)
275	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS (SCM2)	
97.55	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
91.55	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
91.05	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
91.05	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
91.05	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
90.55	TOP OF STONE
89.55	TOP OF SC-740 CHAMBER
88.09	12" TOP MANIFOLD INVERT
87.06	15" BOTTOM CONNECTION INVERT
87.06	24" ISOLATOR ROW PLUS CONNECTION INVERT
87.05	BOTTOM OF SC-740 CHAMBER
86.55	BOTTOM OF STONE

NOTES
- SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.

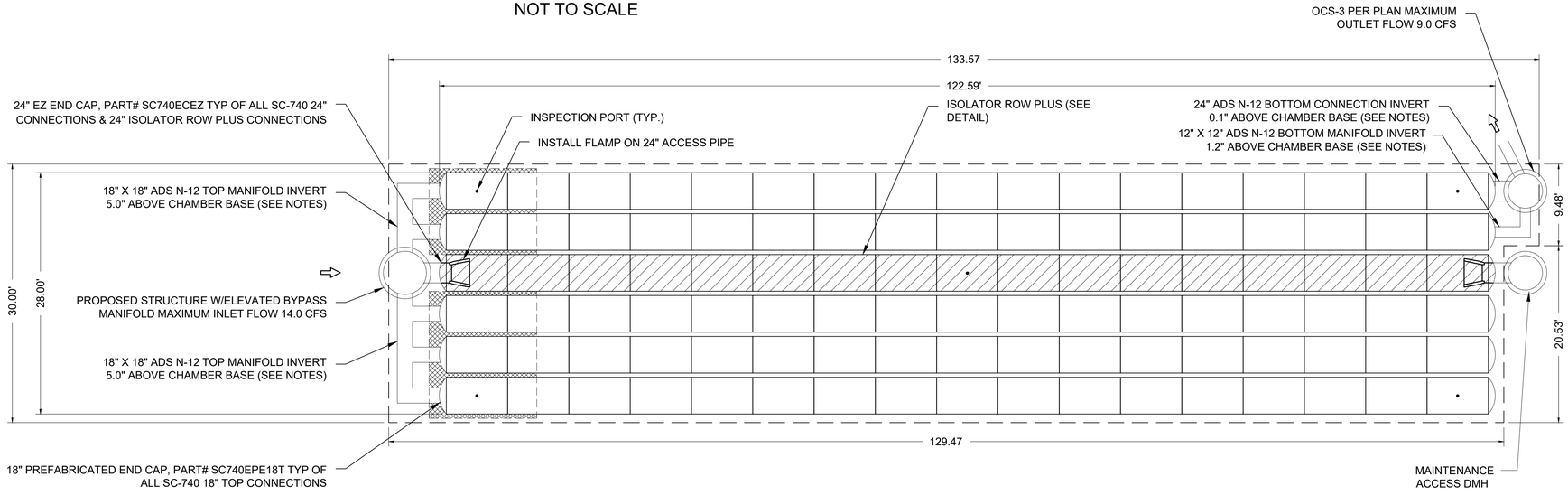


SUBSURFACE INFILTRATION SYSTEM (SCM-1) (STORMTECH SC-740 OR APPROVED EQUAL)

NOT TO SCALE

PROPOSED LAYOUT (SCM3)	
102	STORMTECH SC-740 CHAMBERS
12	STORMTECH SC-740 END CAPS
12	STONE ABOVE (in)
6	STONE BELOW (in)
30	% STONE VOID
7,988	**INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)**
3923	SYSTEM AREA (ft²)
327	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS (SCM3)	
93.70	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
87.70	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
87.20	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
87.20	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
87.20	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
86.70	TOP OF STONE
85.70	TOP OF SC-740 CHAMBER
83.62	18" TOP MANIFOLD INVERT
83.30	12" BOTTOM CONNECTION INVERT
83.21	24" BOTTOM CONNECTION INVERT
83.21	24" ISOLATOR ROW PLUS CONNECTION INVERT
83.20	BOTTOM OF SC-740 CHAMBER
82.70	BOTTOM OF STONE



SUBSURFACE INFILTRATION SYSTEM (SCM-3) (STORMTECH SC-740 OR APPROVED EQUAL)

NOT TO SCALE

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	140	420
PROJECT FILE NO.	608051		

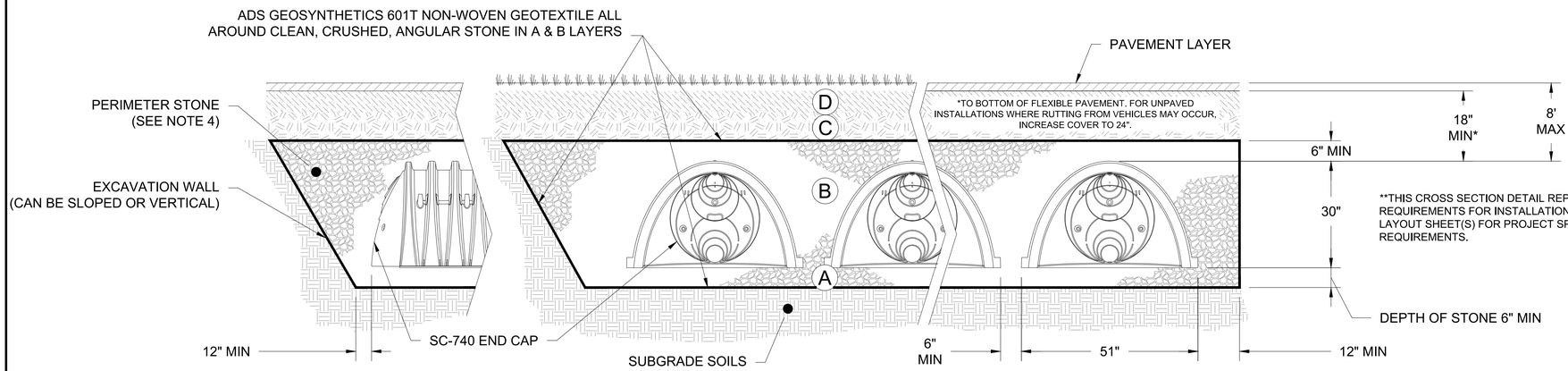
DRAINAGE & UTILITY DETAILS - 7

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM

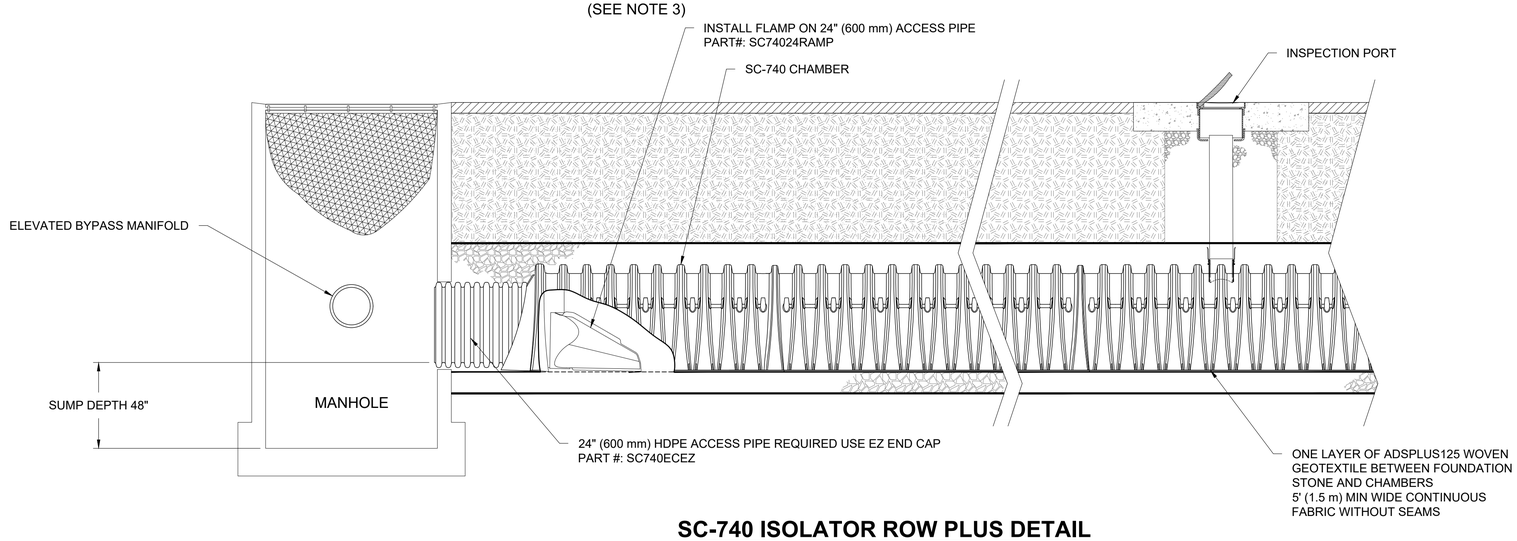
ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



**THIS CROSS SECTION DETAIL REPRESENTS MINIMUM REQUIREMENTS FOR INSTALLATION. PLEASE SEE THE LAYOUT SHEET(S) FOR PROJECT SPECIFIC REQUIREMENTS.



SC-740 ISOLATOR ROW PLUS DETAIL

NTS

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	141	420
	PROJECT FILE NO. 608051		

DRAINAGE & UTILITY DETAILS - 8

NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, A) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. AND B) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

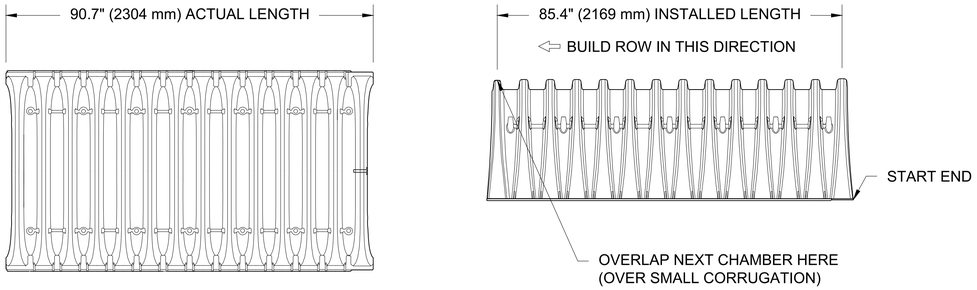
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	142	420
PROJECT FILE NO.	608051		

DRAINAGE & UTILITY DETAILS - 9

608051_UT02(DRAINAGE-DETAILS).DWG Plotted on 2-Dec-2025 2:13 PM

SC-740 TECHNICAL SPECIFICATION

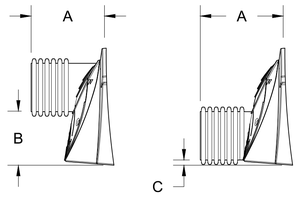
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	143	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 1

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:14 PM

ROUTE 62 (CHURCH STREET)
(1901 COUNTY LAYOUT - 66' WIDE)
ROUTE 38 (MAIN STREET)
1923 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 2122)
(PUBLIC - 1923 STATE HIGHWAY LAYOUT-1997 ALTERATION)
1997 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 7255)
ROUTE 62 (BURLINGTON AVE)
(PUBLIC - 1997 ALTERATION)
LOCATION LINE OF 1901 COUNTY LAYOUT
LOCATION LINE OF 1997 ALTERATION SHLD NO. 7255
LOCATION LINE OF 1997 ALTERATION SHLD NO. 7225
DWLEx (35')
DWLEx (100')
DYLEx (109')
DYLEx (186')
MATCH EXISTING
PROP. R7-1R
LIMIT OF WORK
END FINE PAVEMENT MILLING AND RESURFACING
STA. 12+28.00
PROP. R3-7L
PROP. R7-1L
PROP. M3-1
PROP. MA-M1-5 (38)
RETAIN ANY EXISTING PARKING SIGNS IF PRESENT
PROP. MA-D3-1_12R
PROP. MA-D3-1_12L
PROP. MA-D3-1_10
PROP. MA-D1-6-3
PROP. MA-D1-5-3
PROP. MA-D10-2b MILE 12.5
PROP. MA-D1-6-4
PROP. MA-D1-5-4
PROP. R7-1R
END PAVEMENT FINE MILLING & RESURFACING
BEGIN PROP FULL DEPTH RECONSTRUCTION
STA. 207+00.00
PROP. R3-7L
PROP. R10-7
PROP. R3-2
PROP. MA-D1-6-1
PROP. MA-D1-5-1
PROP. MA-D10-2b (12.6)
PROP. MA-D1-6-2
PROP. MA-D1-5-2
PROP. MA-D3-1_13L
PROP. MA-D3-1_13R
PROP. MA-D3-1_10
LIMIT OF WORK
END PAVEMENT MILLING AND RESURFACING
STA. 20+58.00
EPOXY PAINT PAVEMENT MARKING ON BRIDGE
PROP. R7-1
PROP. R7-1L
PROP. MA-D1-6-5
PROP. MA-D1-5-5
LIMIT OF WORK
STA. 200+62 LT
MATCH EXISTING
SYGL (TYP)
SWL (480')
SWL (150')
SWL (465')
SWL (260')
SWL (255')
SWL (215')
SWL (182')
SWL (157')
SWL (136')
SWL (102')
SWL (67')
DBYL (304')
DBYL (143')
PC 57.68
PT +49.62
PC +72.00
PC +68.32
CONTINUED BELOW
CONTINUED ON SHEET NO. 145
CONTINUED ABOVE
CONTINUED ON SHEET NO. 144
NAD 83

GENERAL NOTE:
ALL MARKINGS SHALL BE UNRECESSED REFLECTIVE THERMOPLASTIC UNLESS OTHERWISE INDICATED IN THESE PAVEMENT MARKING PLANS

0 20 50 100
SCALE: 1" = 20'

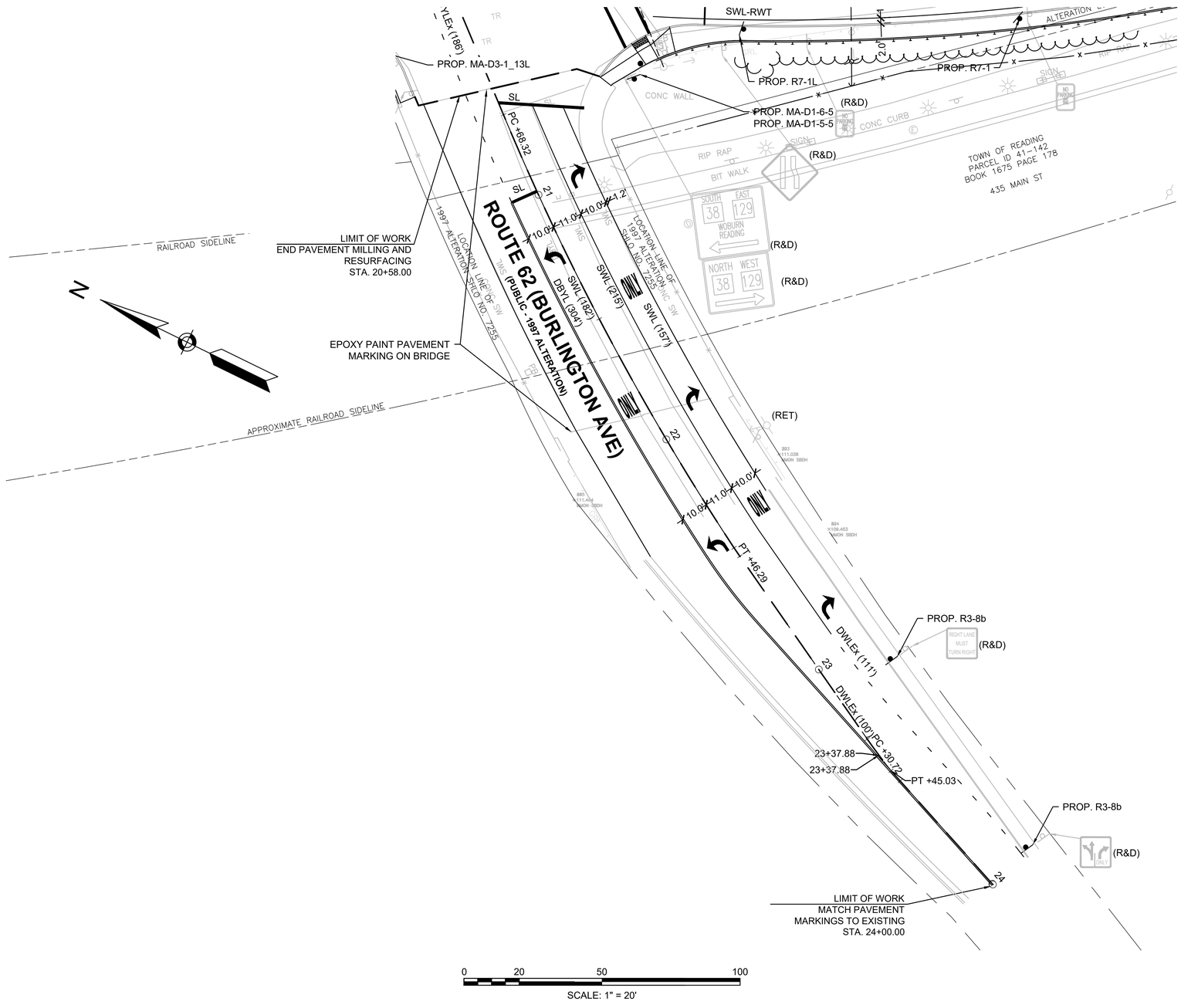
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	144	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 2

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:14 PM

CONTINUED ON SHEET NO. 143



WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	145	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 3

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:14 PM

CONTINUED ON SHEET NO. 143

CONTINUED ON SHEET NO. 146

N

C & B
REALTY TRUST
PARCEL ID 41–112
BOOK 10882 PAGE 295
446 MAIN ST

456 MAIN STREET
REALTY TRUST
PARCEL ID 41–113
BOOK 23689 PAGE 31
456 MAIN ST

CORREIA VENTURES, LLC
PARCEL ID 41–114
BOOK 31739 PAGE 40
458 MAIN ST

ROSKI TRUST
PARCEL ID 41–120
BOOK 26613 PAGE 99
470 MAIN ST

SUPALI PROPERTIES, L
PARCEL ID 41–121
BOOK 30730 PAGE 2
474 MAIN ST

TOWN OF READING
PARCEL ID 41–142
BOOK 1675 PAGE 178
435 MAIN ST

KIRK STREET
1951 TOWN LAYOUT

END PAVEMENT FINE MILLING AND RESURFACING

END FULL DEPTH RECONSTRUCTION & MATCH EXISTING GRADE & ELEVATION

PROP. R7-1L
PROP. R1-1
PROP. MA-D3-1_8
PROP. M3-1
PROP.MA-M1-5(38)
PROP. W14-1
PROP . R3-7L
PROP. R7-1L
PROP. MA-D1-6-6
PROP. MA-D1-5-6
PROP. D3-2
PROP. R7-1L
PROP. R7-1
PROP. MA-D1-7a_5
PROP. M2-1
PROP. MA-M1-5a (RTE129)
PROP. R7-1R
PROP. W4-2R
PROP HMA WALKWAY TO MBTA PLATFORM (SEE CONSTRUCTION DETAILS ON SHEET NO. 208)

(R&D) SIGN POST

(R&R)
(R&D)
(RET)

62 WEST BURLINGTON BEDFORD NEXT LEFT
62 EAST N. READING NEXT RIGHT
CHURCH ST. BURLINGTON AVE NEXT SIGNAL
LEFT LANE MUST TURN LEFT
NO PARKING HERE
129 EAST

1997 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 7255)
1910 STATE HIGHWAY LAYOUT LOCATION LINE (NO. 1315)
APPROXIMATE RAILROAD SIDELINE
RR TRACK TIE LINE

8' CW
DWLEx (55')
DWLEx (236)
PT +60.55

ROUTE 38 (MAIN STREET)
(PUBLIC - 1923 STATE HIGHWAY LAYOUT-1997 ALTERATION)

SWL-RWT
DBYL-RWT
BWL
SWL-RWT

209 210 211 212

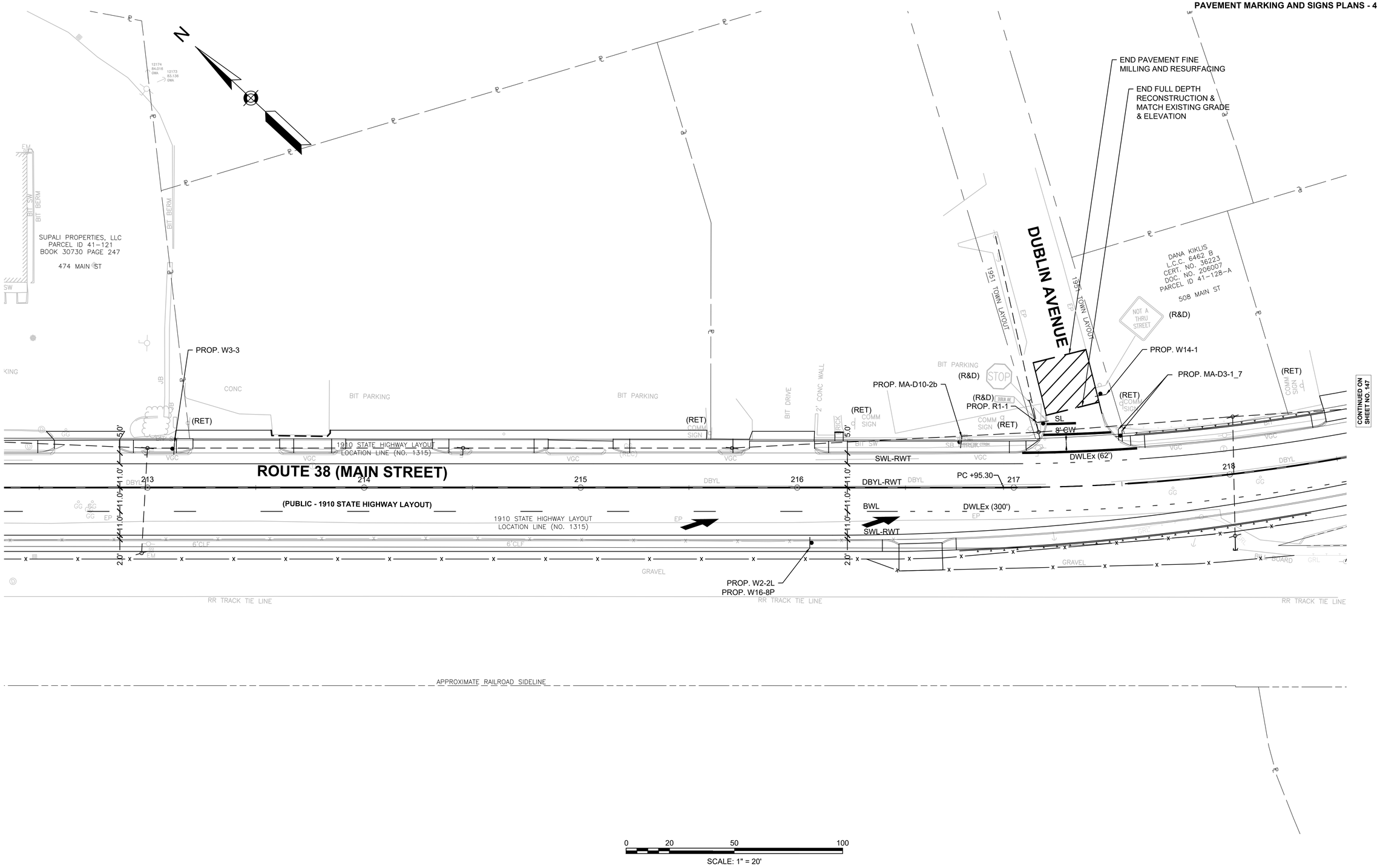
0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	146	420
	PROJECT FILE NO. 608051		

PAVEMENT MARKING AND SIGNS PLANS - 4

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:15 PM

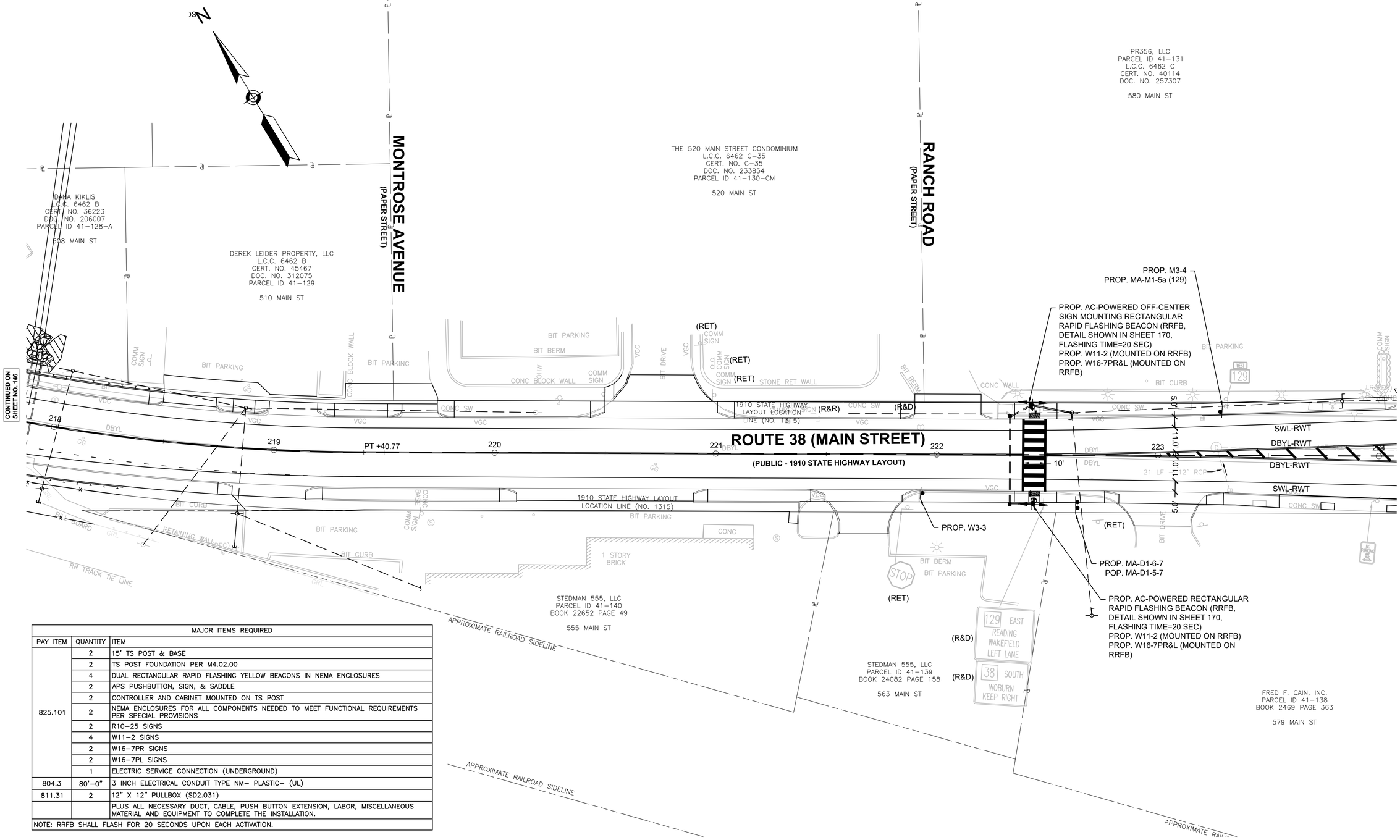


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	147	420
PROJECT FILE NO.		608051	

PAVEMENT MARKING AND SIGNS PLANS - 5

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:15 PM



MAJOR ITEMS REQUIRED		
PAY ITEM	QUANTITY	ITEM
825.101	2	15' TS POST & BASE
	2	TS POST FOUNDATION PER M4.02.00
	4	DUAL RECTANGULAR RAPID FLASHING YELLOW BEACONS IN NEMA ENCLOSURES
	2	APS PUSHBUTTON, SIGN, & SADDLE
	2	CONTROLLER AND CABINET MOUNTED ON TS POST
	2	NEMA ENCLOSURES FOR ALL COMPONENTS NEEDED TO MEET FUNCTIONAL REQUIREMENTS PER SPECIAL PROVISIONS
	2	R10–25 SIGNS
	4	W11–2 SIGNS
	2	W16–7PR SIGNS
	2	W16–7PL SIGNS
	1	ELECTRIC SERVICE CONNECTION (UNDERGROUND)
804.3	80'–0"	3 INCH ELECTRICAL CONDUIT TYPE NM– PLASTIC– (UL)
811.31	2	12" X 12" PULLBOX (SD2.031)
		PLUS ALL NECESSARY DUCT, CABLE, PUSH BUTTON EXTENSION, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION.
NOTE: RRFB SHALL FLASH FOR 20 SECONDS UPON EACH ACTIVATION.		

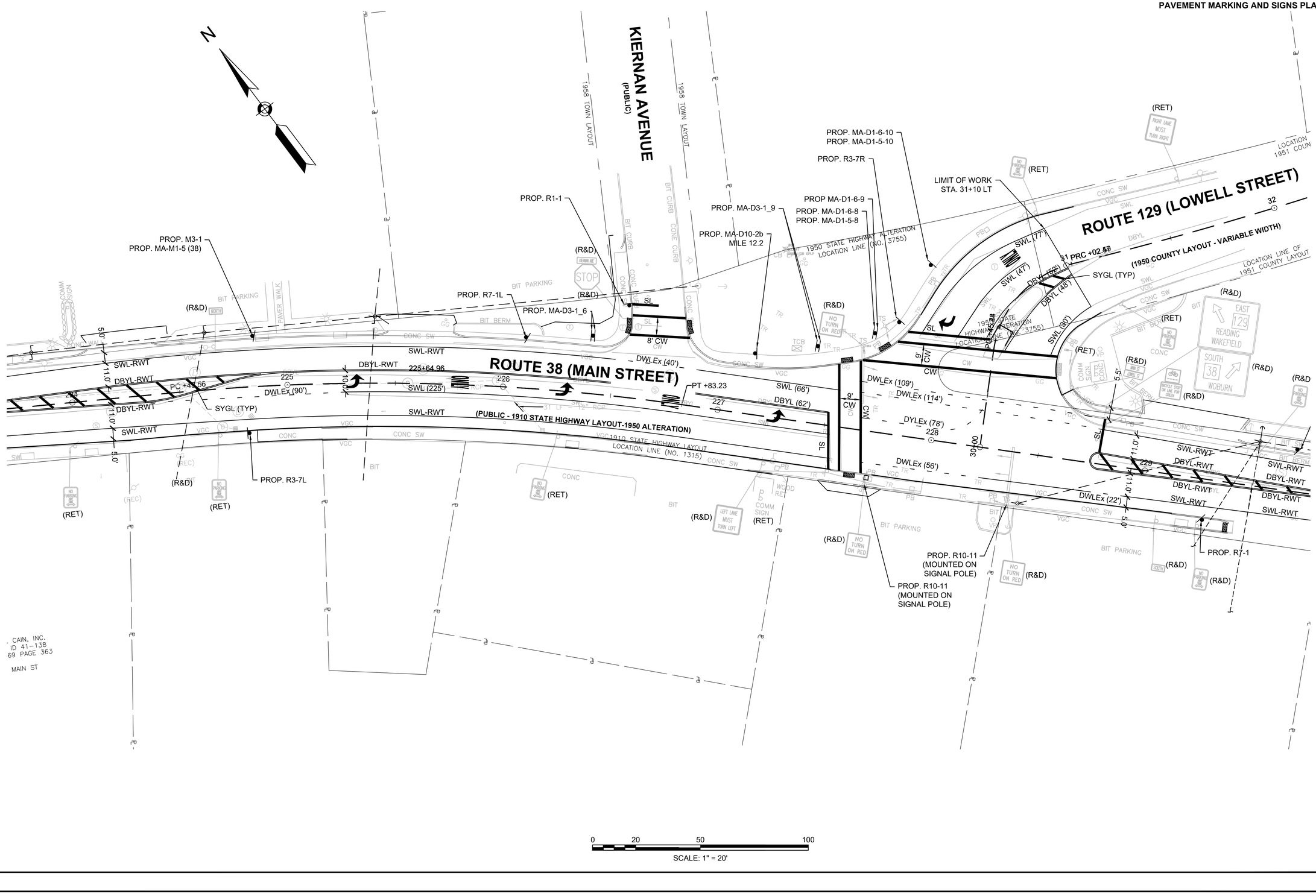
GENERAL NOTE:
1. **EQUIPMENT GROUNDING SHALL BE PAID FOR SEPARATELY UNDER THE RESPECTIVE PAY ITEM.**
2. **APS PUSHBUTTONS SHALL BE POSITIONED TO MEET ALL ADA/AAB REQUIREMENTS.**

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	148	420
	PROJECT FILE NO.	608051	

PAVEMENT MARKING AND SIGNS PLANS - 6

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:15 PM

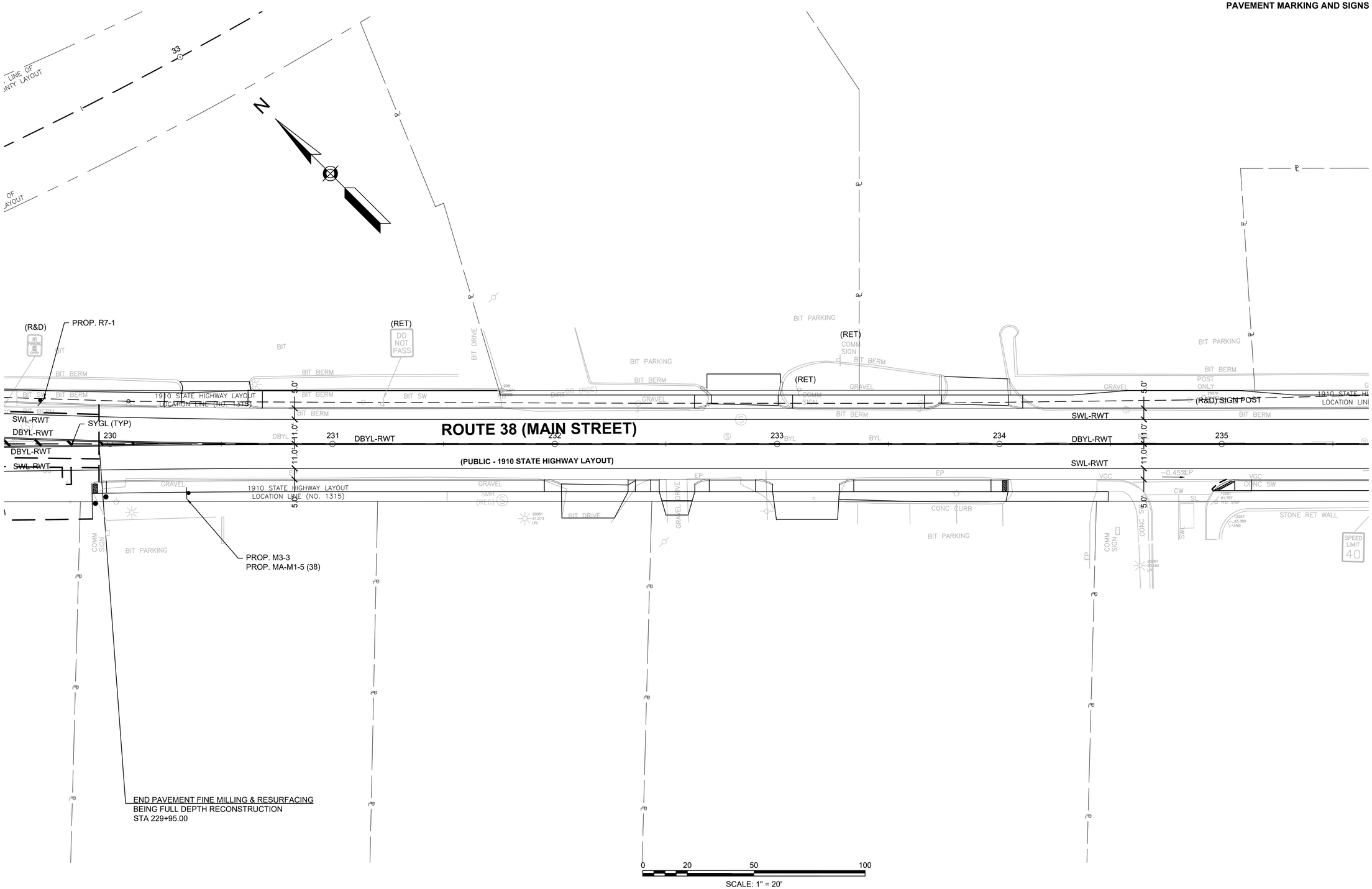


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	149	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 7

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:15 PM

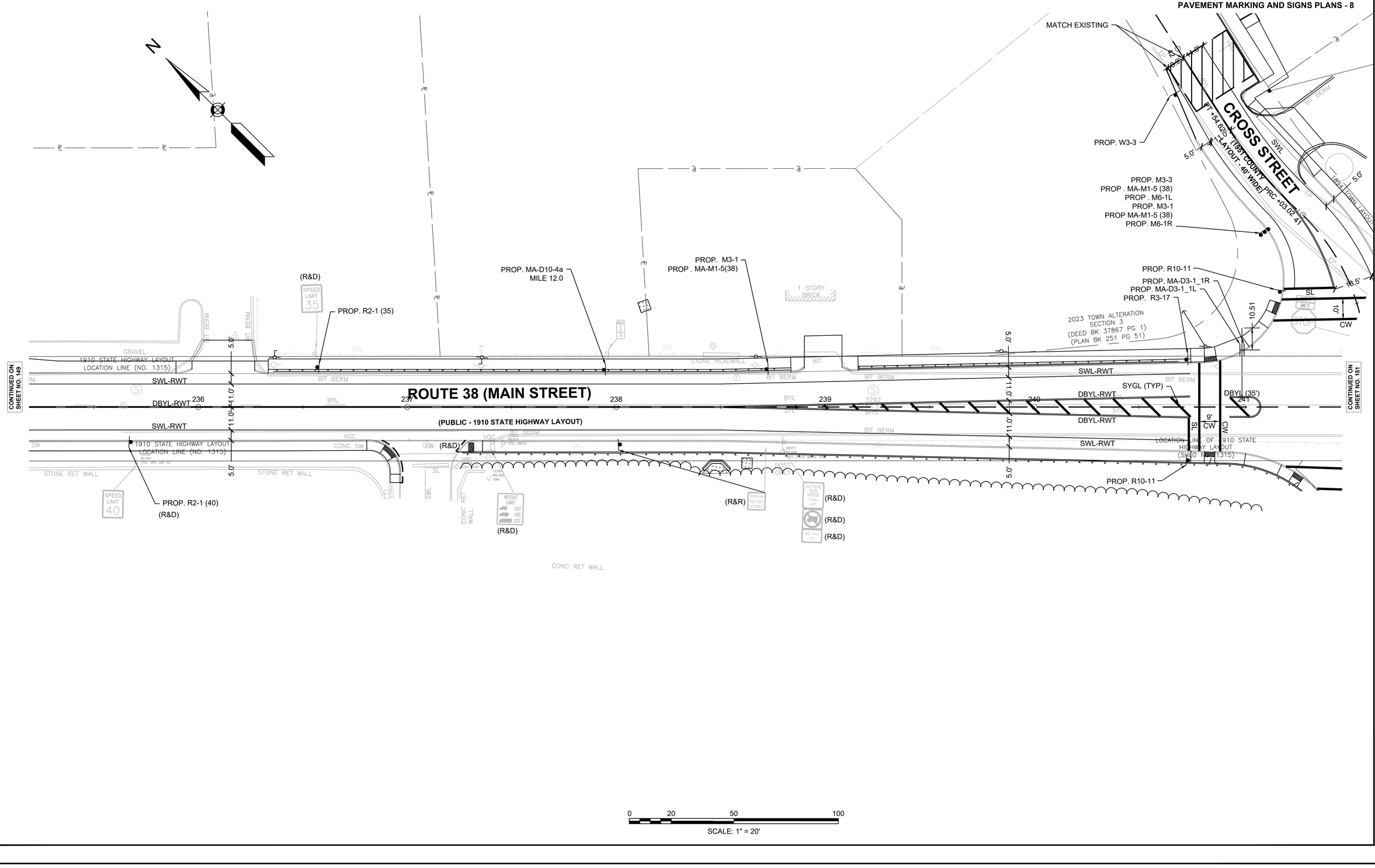


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	150	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 8

Plotted on 2-Dec-2025 2:15 PM
608051_TR01(PAVEMENT MARKING-PLANS).DWG



WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	151	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 9

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:16 PM

MATCH EXISTING

LIMIT OF WORK
END PAVEMENT
FINE MILLING
AND RESURFACING
STA. 41+95.00

END FULL DEPTH RECONSTRUCTION
MATCH EXISTING GRADE & ELEVATION
STA. 40+70.00

MIDDLESEX COUNTY
EASEMENT FOR HIGHWAY
PURPOSES
(BOOK 1178 PAGE 237)

ONE CROSS LLC
BOOK 35186 PAGE 80
PARCEL ID 40-11

CROSS ST

PROP. W3-3

PROP. M3-3
PROP . MA-M1-5 (38)
PROP . M6-1L
PROP. M3-1
PROP MA-M1-5 (38)
PROP. M6-1R

PROP. R10-11

PROP. MA-D3-1_1R
PROP. MA-D3-1_1L
PROP. R3-17

2023 TOWN ALTERATION
SECTION 3
(DEED BK 37867 PG 1)
(PLAN BK 251 PG 51)

CROSS STREET
(1957 COUNTY LAYOUT - 40 WIDE)

PT +54.62
PRC +03.02
41

TOWN OF WILMINGTON
PARCEL ID 40-13-A
BOOK 35162 PAGE 138

CROSS ST

1894 TOWN LAYOUT

DIAMOND PROPERTIES TRUST
BOOK 33133 PAGE 123
PARCEL ID 39-6

668 MAIN ST

TOWN OF WILMINGTON
PARCEL ID 39-5
BOOK 26062 PAGE 215
9 CROSS ST

YENTILE FARM
RECREATIONAL FACILITY

PROP. R10-11

PROP. R3-8

PROP. R3-7L

(RET)

NON TANGENT
AT PC

1910 STATE HIGHWAY LAYOUT
LOCATION LINE (NO. 1315)

1911 STATE HIGHWAY LAYOUT
LOCATION LINE (NO. 1352)

END OF
1910 LAYOUT

BEGINNING OF
1911 LAYOUT

(R&D-x3)

PC +20.12

SWL-RWT

SEE NOTE 1

SYGL (TYP)

DBYL-RWT

DBYL (35')

DWLEx (174')

SWL (88')

PC +06.25

242
243
244
245
246

CONTINUED ON
SHEET NO. 150

CONTINUED ON
SHEET NO. 152

LOCATION LINE OF 1910 STATE
HIGHWAY LAYOUT
(SHEET NO. 1315)

PROP. R10-11

PROP. MA-D3-1_2L
PROP. MA-D3-1_2R

PROP. R3-17

PROP. R2-1(40)

END OF
1910 LAYOUT

BEGINNING OF
1911 LAYOUT

NON TANGENT
AT PC

1911 STATE HIGHWAY LAYOUT
LOCATION LINE (NO. 1352)

PROP. M3-3
PROP. MA-M1-5 (38)

JOHN C. OLSON
PARCEL ID 39-14
BOOK 23310 PAGE 186

673 MAIN ST

PROP. R12-5

PROP. R12-1

2023 TOWN ALTERATION SECTION 2
(DEED BK 37867 PG 1)
(PLAN BK 251 PG 51)

BUTTERS ROW

PROP.
R10-11

PROP. W3-3

PROP. R12-1

PROP. R2-1 (25)

PC +56.92

2.5 STORY
VINYL

JARID POLLEY AND
MARY POLLEY
BOOK 37173 PAGE 123
PARCEL ID 39-15

669 MAIN ST

ANDREA J. DELUCA
PARCEL ID 39-16
BOOK 18231 PAGE 111

665 MAIN ST

CONTINUED
LEFT

PROP. R2-1 (25)

END DBYL AND BEGIN
TAPERING ROAD
WIDTH TO 17'

END FULL DEPTH RECONSTRUCTION
MATCH EXISTING GRADE & ELEVATION
STA. 55+90.00

LIMIT OF WORK
END PAVEMENT FINE MILLING AND
RESURFACING
STA. 55+65.00

2023 STATE HIGHWAY
ALTERATION (NO. 8918)
(DEED BK 37867 PG 1)
(PLAN BK 251 PG 51)

CONTINUED
RIGHT

NOTE:
SEE SHEET 171 FOR SIGNAL-RELATED SIGNS

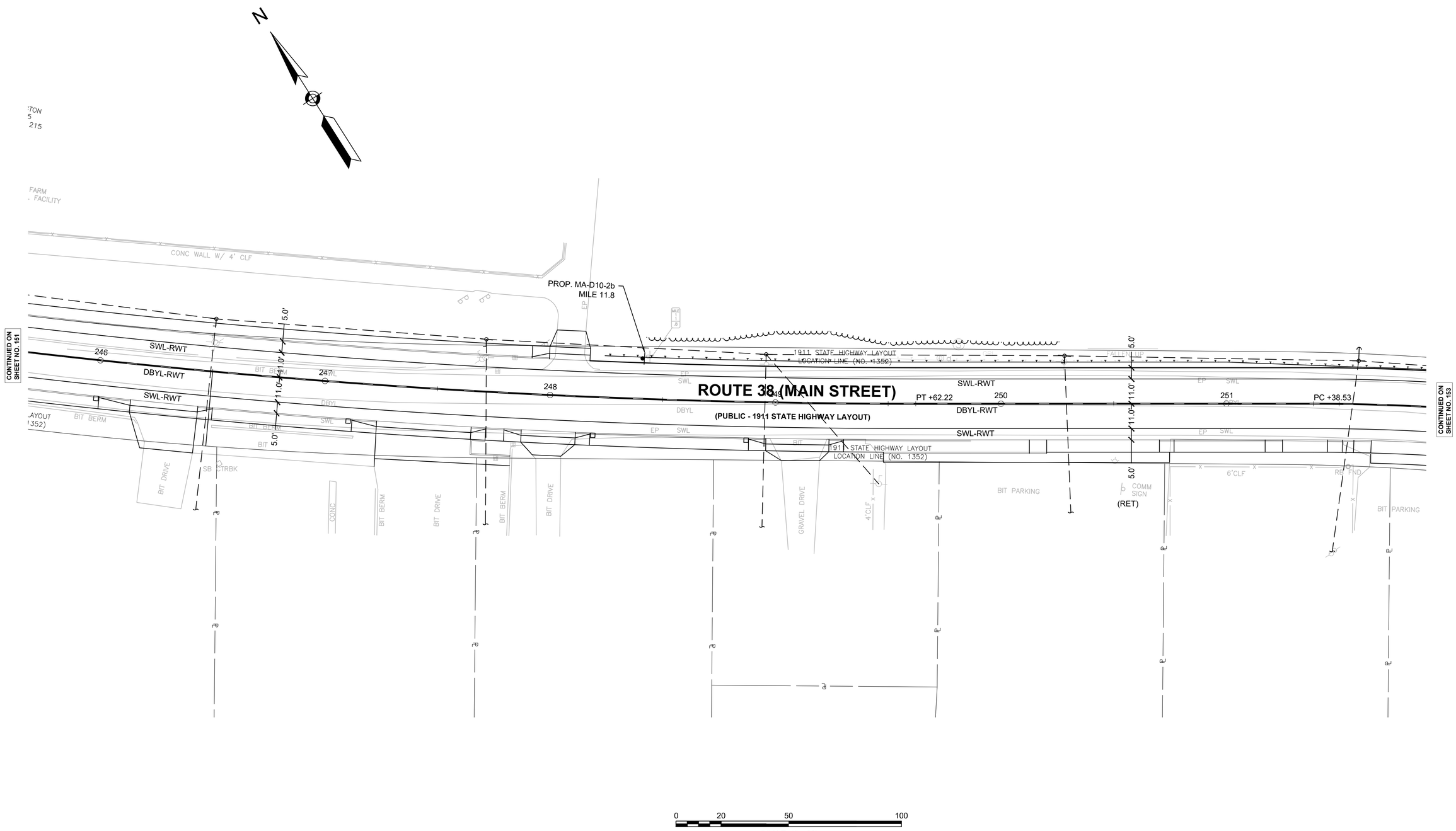
0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	152	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 10

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:16 PM



WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	153	420
	PROJECT FILE NO. 608051		

PAVEMENT MARKING AND SIGNS PLANS - 11

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:16 PM

N

MAPLE MEADOW BROOK

ROUTE 38 (MAIN STREET)
(PUBLIC - 1911 STATE HIGHWAY LAYOUT)

1911 STATE HIGHWAY LAYOUT
LOCATION LINE (NO. 1352)

1+47.50

PROP. M3-1
PROP. MA-M1-5 (38)
(R&D)
(R&D)

(RET)
(RET)

PC +38.53

PCC +18.67

SWL-RWT
DBYL-RWT
SWL-RWT
SWL-RWT
DBYL-RWT
SWL-RWT

5.0'
11.0'
11.0'
5.0'
11.0'
11.0'
5.0'

252
253
254
255
256
257

CONC SEAWALL

8'CLF

BIT PARKING
BIT PARKING
BIT DRIVE

RIP RAP

100-FOOT WETLAND
BUFFER ZONE

STOP

R 0.50
R 0.50
R 0.50
R 0.50

CONTINUED ON SHEET NO.152
CONTINUED ON SHEET NO. 154

0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	154	420
	PROJECT FILE NO. 608051		

PAVEMENT MARKING AND SIGNS PLANS - 12

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:16 PM

N

PAVING MATCH PROJECT
PROJECT NO. 607327
STA 261+38.00

PAVEMENT MARKINGS MATCH PROJECT
PROJECT NO. 607327
STA 262+50.46

ROUTE 38 (MAIN STREET)
(PUBLIC - 1911 STATE HIGHWAY LAYOUT)

ROUTE 38 CONST BL

1911 STATE HIGHWAY LAYOUT
LOCATION LINE (NO. 1352)

BIT DRIVE
BIT BERM
DBYL
SWL
CHW
CLF
EHH
TPWR
SBDH
EP
ORL
8'CLF
9'WIF
10'WIF
6'CLF

258
259
260
261
262
263
PT +09.65
C +18.67

ROAD NARROWS

CONTINUED ON SHEET NO. 153

CONTINUED ON SHEET NO. 155

BEGIN PROJECT
TOWN OF WILMINGTON
STA 258+85.00
N 3020676.9701
E 747848.3553

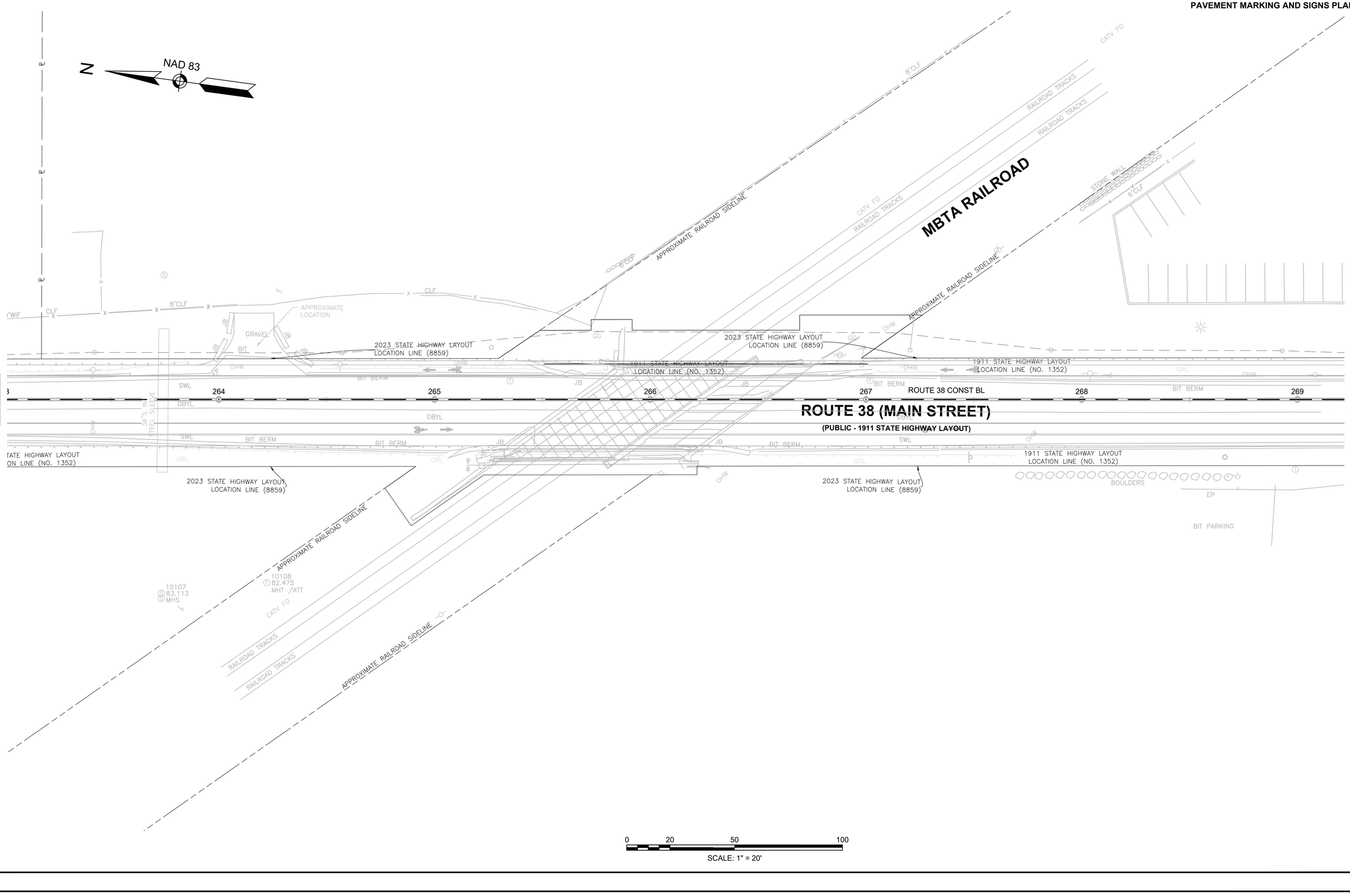
0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	155	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 13

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:17 PM

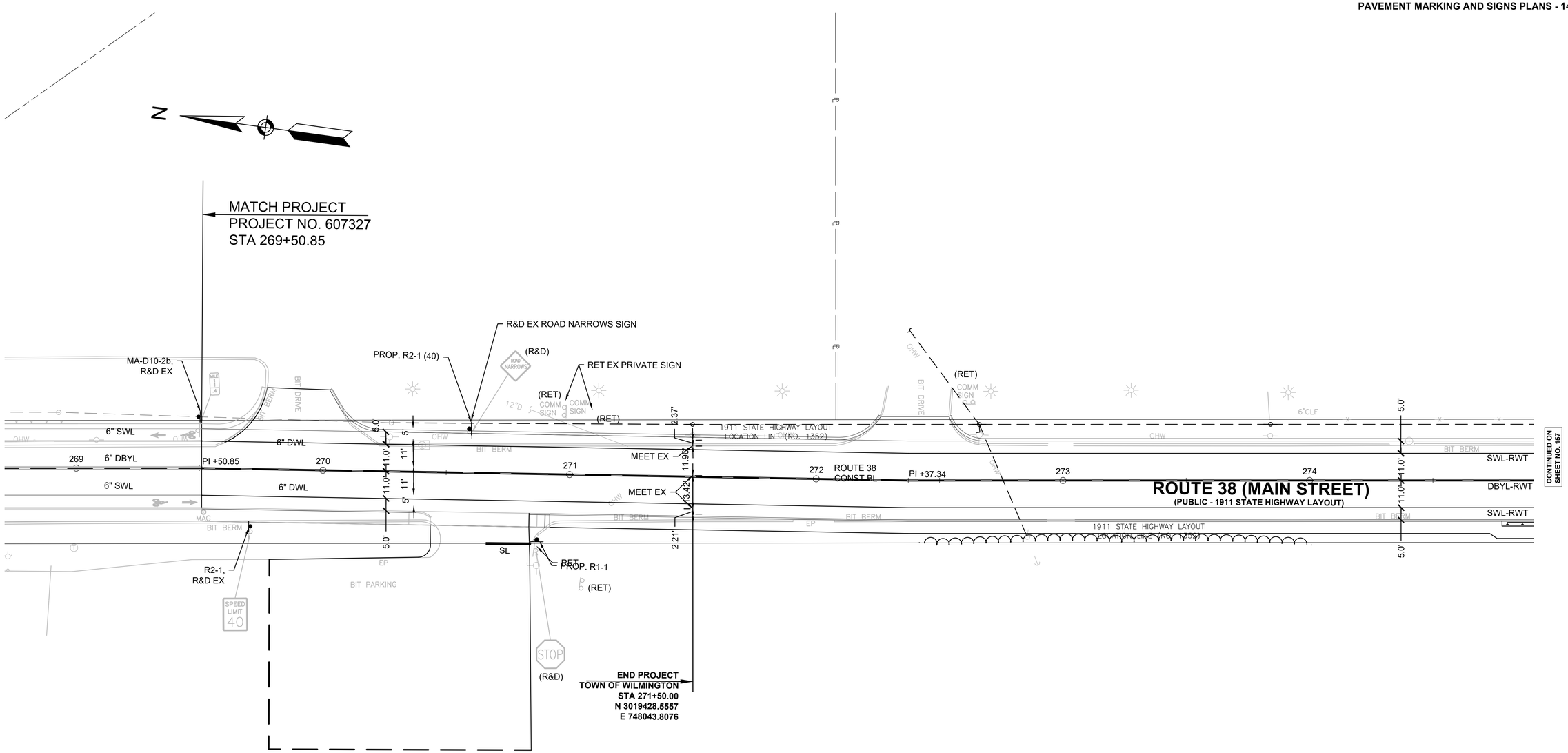


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	156	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 14

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:17 PM



WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	157	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 15

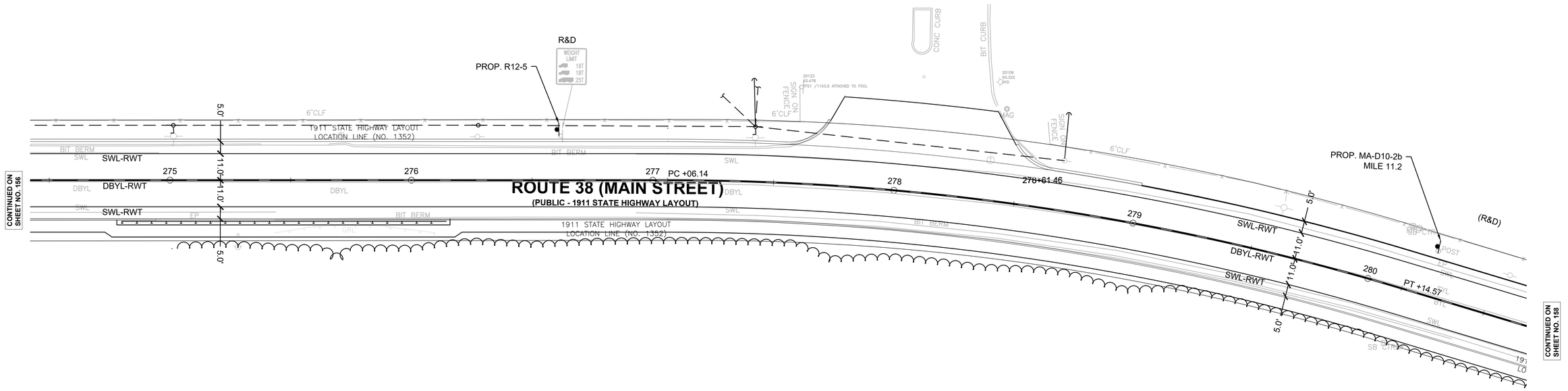
608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:17 PM

N

KOVALUS SEPARATION SOLUTIONS, LLC
BOOK 2416 PAGE 70
BOOK 5931 PAGE 42
BOOK 11135 PAGE 159
PARCEL ID 38-1
850 MAIN ST

TOWN OF WILMINGTON
PARCEL ID 26-9
L.C.C. 23888 A
CERT. NO. 8851
DOC NO. 71875
823 MAIN ST

ROUTE 38 (MAIN STREET)
(PUBLIC - 1911 STATE HIGHWAY LAYOUT)



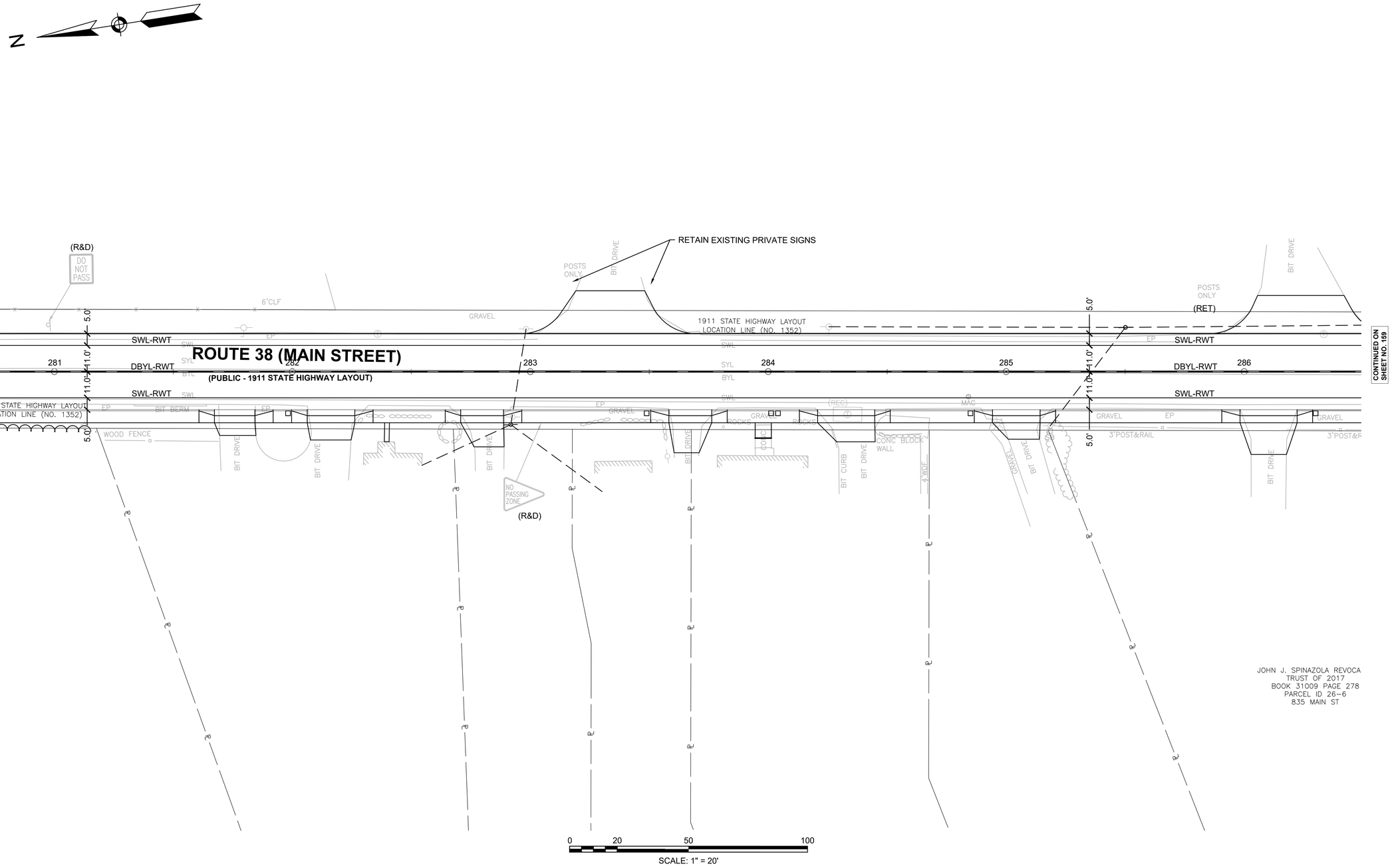
0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	158	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 16

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:17 PM

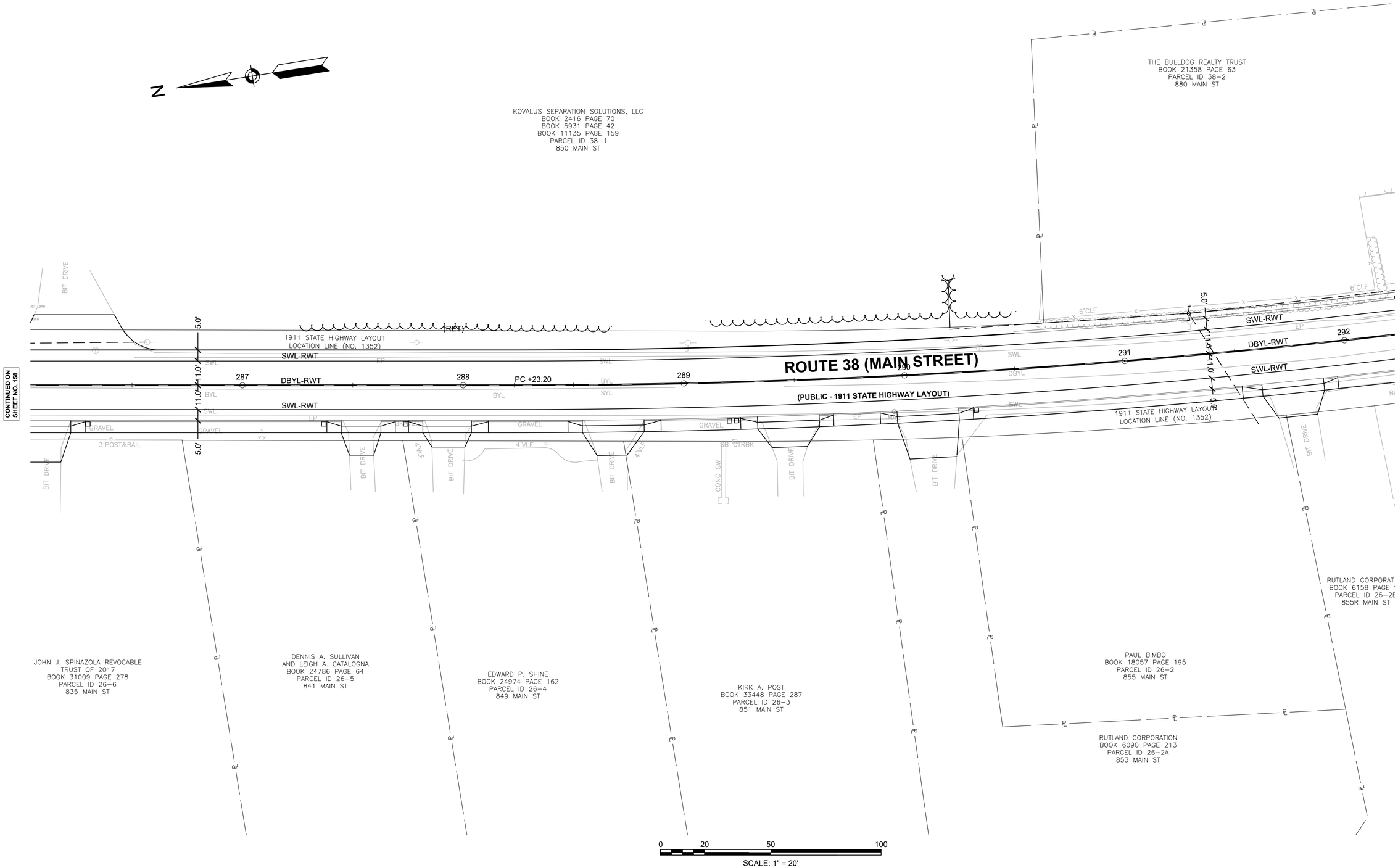


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	159	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 17

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:17 PM

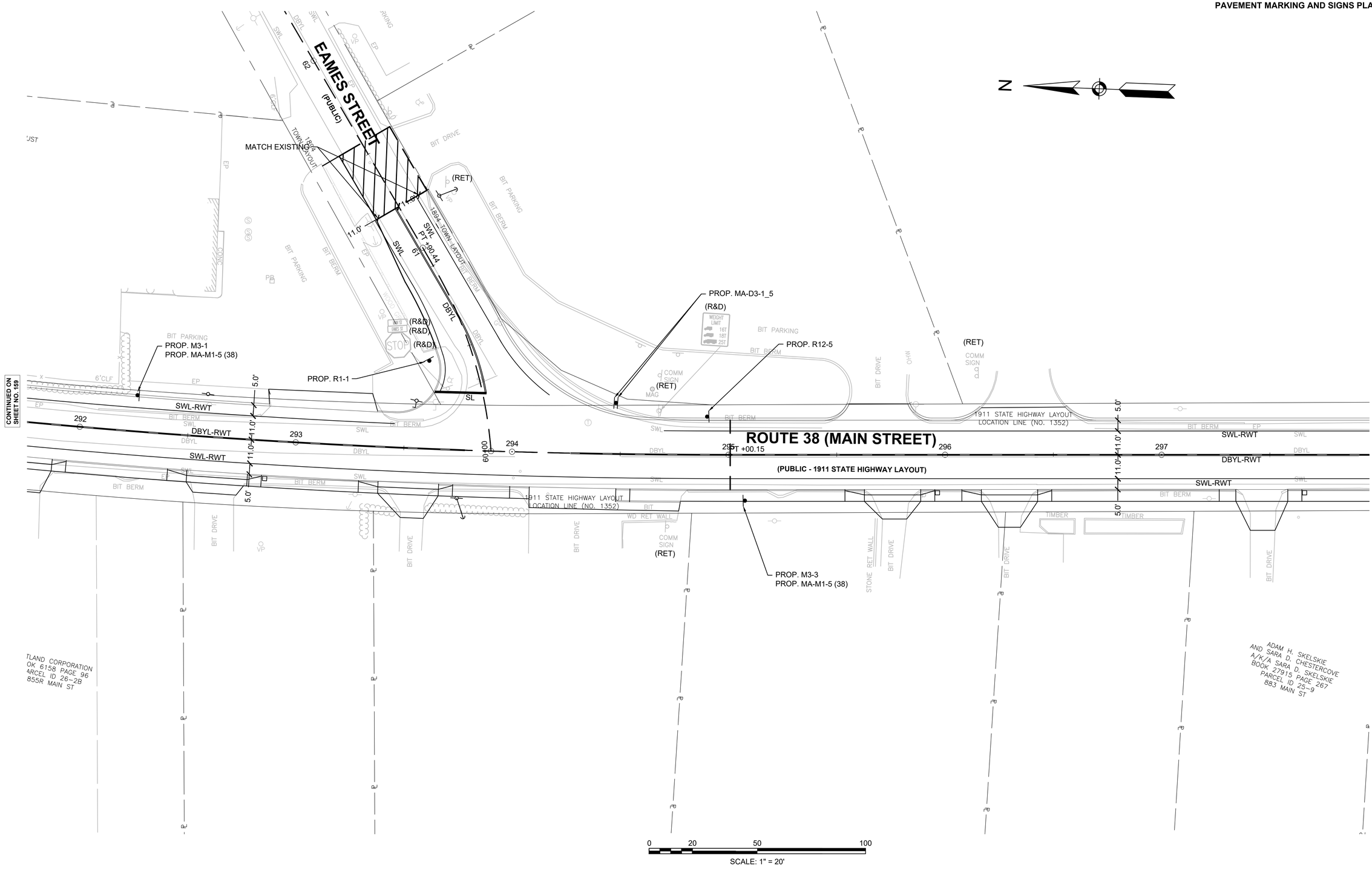


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	160	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 18

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:18 PM



WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	161	420
	PROJECT FILE NO. 608051		

PAVEMENT MARKING AND SIGNS PLANS - 19

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:18 PM

N

900 MAIN STREET REALTY, LLC
BOOK 32192 PAGE 5
PARCEL ID 24-33A
900 MAIN ST

904 MAIN STREET REALTY COMPANY, LLC
BOOK 18278 PAGE 139
BOOK 27805 PAGE 207
PARCEL ID 24-33
904 MAIN ST

JEWEL DRIVE WILMINGTON, LLC
BOOK 33628 PAGE 181
PARCEL ID 24-205
1 JEWEL DR

PROP. MA-D10-2b
MILE 10.8

(R&D)

(RET)

1927 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 2441)

BIT BERM

BIT PARKING

OHW

COMM SIGN

20362 88.16© GROUND LIGHT

20363 88.28© GROUND LIGHT

ONE WAY DO NOT ENTER

(R&D) SPEED LIMIT 40

PROP. R2-1(40)

MAG

300+49.94

ROUTE 38 (MAIN STREET)

(PUBLIC - 1927 STATE HIGHWAY ALTERATION)

PT +74.15

302

303

301

300

299

298

PC +21.90

EP

SWL

DBYL

SWL-RWT

DBYL-RWT

5.0'

11.0'

11.0'

5.0'

CONTINUED ON SHEET NO. 160

CONTINUED ON SHEET NO. 162

(R&D) WWW 38

(R&D)

1927 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 2441)

BIT DRIVE

BIT

PLOW WELL

DRIVE

VB

MULCH

TRELLIS

CONC SW

SPEED LIMIT 30

(R&D)

PROP. R2-1(30)

WW 2.6

JOHNATHAN F. LAROCK
A/K/A JONATHAN F. LAROCK
A/K/A JONATHAN LAROCK
AND SONIA SERRAO
A/K/A SONIA LAROCK
BOOK 19052 PAGE 266
PARCEL ID 25-5
905 MAIN ST

ADAM H. SKELSKIE
AND SARA D. CHESTERCOVE
A/K/A SARA D. SKELSKIE
BOOK 27915 PAGE 267
PARCEL ID 25-9
883 MAIN ST

KATEY ELIZABETH DILLON
AND CHRISTOPHER DANIEL HAYES
BOOK 37265 PAGE 85
PARCEL ID 25-8
885 MAIN ST

SUSAN J. PHIPPS A/K/A
SUSAN PHIPPS-SPINAZOLA
BOOK 21298 PAGE 251
PARCEL ID 25-7
887 MAIN ST

JAMES PAPPAS
BOOK 36471 PAGE 23
PARCEL ID 25-6
889 MAIN ST

0 20 50 100

SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	162	420
	PROJECT FILE NO. 608051		

PAVEMENT MARKING AND SIGNS PLANS - 20

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:18 PM

CONTINUED ON SHEET NO. 161

CONTINUED ON SHEET NO. 163

N

COOK AVENUE (PUBLIC)

WOODWARD AVENUE (PAPER STREET)

CENTRAL AVENUE (PAPER STREET)

904 MAIN STREET REALTY COMPANY, LLC
BOOK 18278 PAGE 139
BOOK 27805 PAGE 207
PARCEL ID 24–33
904 MAIN ST
(RET)

F. LAROCK
AN F. LAROCK
'HAN LAROCK
A. SERRAO
IIA LAROCK
2 PAGE 266
ID 25–5
AIN ST

ROUTE 38 (MAIN STREET)
(PUBLIC - 1927 STATE HIGHWAY ALTERATION)

1927 STATE HIGHWAY ALTERATION
LINE OF 1928 DISCONTINUANCE
1927 STATE HIGHWAY ALTERATION LOCATION LINE (NO. 2441)

1946 TOWN LAYOUT

PROP. R1-1
PROP. MA-D3-1_11
PROP. MA-D3-1_4
SL
(R&D)
(RET)

5.0'
SWL-RWT
11.0'
DBYL-RWT
11.0'
SWL-RWT
5.0'

DWLEx (118')
DBYL-RWT (114')
DWLEx (81')
8' CW
PC +82.69
PC +47.62
PT +16.42
70+00
71
71+61.13

304 305 306 307 308 309

OLD MAIN STREET
(PUBLIC - 50' WIDE)

END FULL DEPTH RECONSTRUCTION
MATCH EXISTING GRADE & ELEVATION
STA. 71+18.00

LIMIT OF WORK
END PAVEMENT FINE MILLING AND RESURFACING
STA. 71+33.00

PROP SAWCUT & MATCH EXISTING

END PAVEMENT FINE MILLING AND RESURFACING

END FULL DEPTH RECONSTRUCTION
MATCH EXISTING GRADE & ELEVATION

SIGN DEP FILE #344–0969

BIT BERM
BIT DRIVE
BIT PARKING
SB TREE LEADING
POST ONLY
ONE WAY DO NOT ENTER
WATCH CHILDREN
COMM SIGN
GROUND LIGHT
SWL
DBYL
VGC
EP
OHW
CB DH

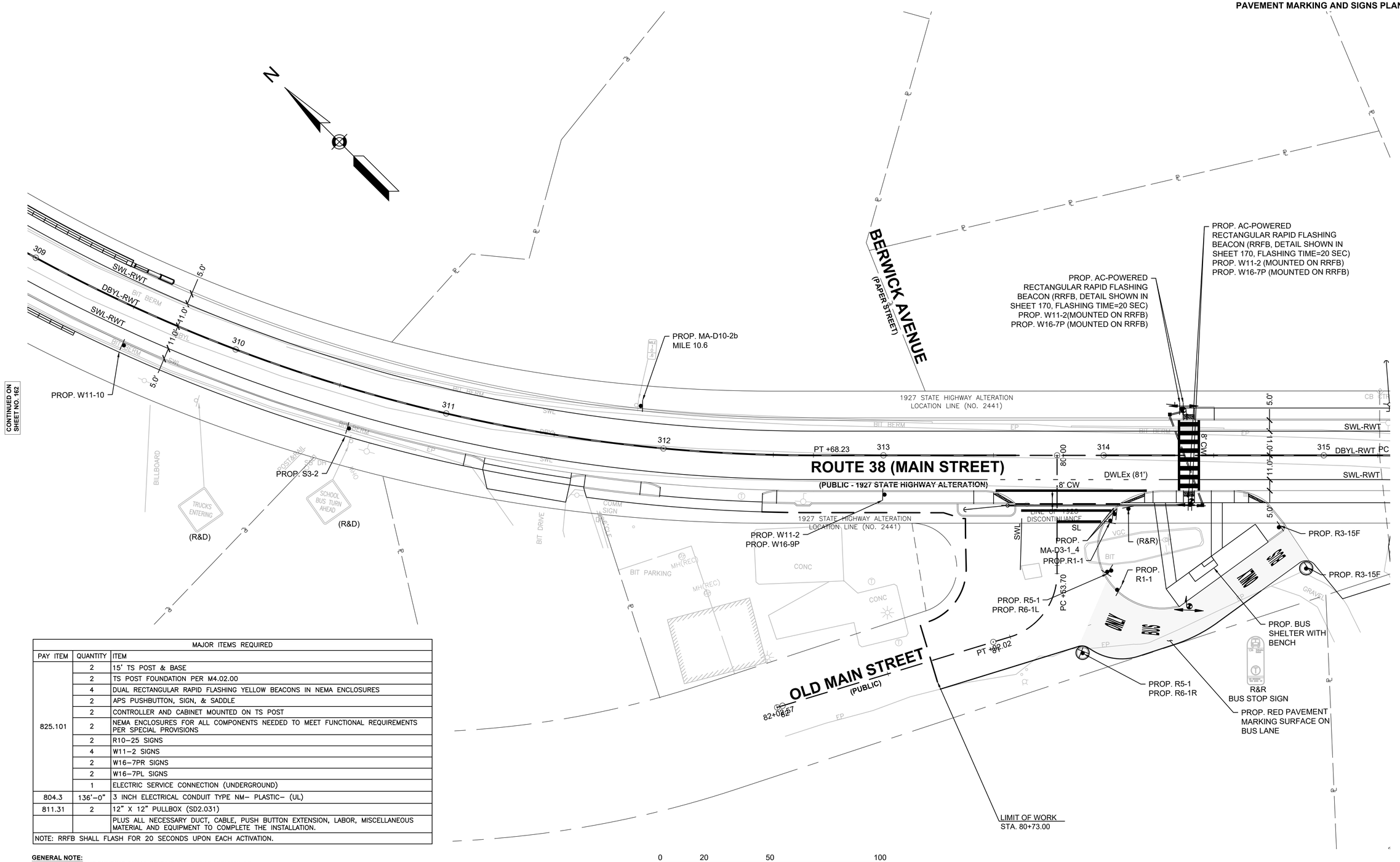
0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	163	420
	PROJECT FILE NO. 608051		

PAVEMENT MARKING AND SIGNS PLANS - 21

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:18 PM



MAJOR ITEMS REQUIRED		
PAY ITEM	QUANTITY	ITEM
825.101	2	15' TS POST & BASE
	2	TS POST FOUNDATION PER M4.02.00
	4	DUAL RECTANGULAR RAPID FLASHING YELLOW BEACONS IN NEMA ENCLOSURES
	2	APS PUSHBUTTON, SIGN, & SADDLE
	2	CONTROLLER AND CABINET MOUNTED ON TS POST
	2	NEMA ENCLOSURES FOR ALL COMPONENTS NEEDED TO MEET FUNCTIONAL REQUIREMENTS PER SPECIAL PROVISIONS
	2	R10–25 SIGNS
	4	W11–2 SIGNS
	2	W16–7PR SIGNS
	2	W16–7PL SIGNS
	1	ELECTRIC SERVICE CONNECTION (UNDERGROUND)
804.3	136'–0"	3 INCH ELECTRICAL CONDUIT TYPE NM– PLASTIC– (UL)
811.31	2	12" X 12" PULLBOX (SD2.031)
		PLUS ALL NECESSARY DUCT, CABLE, PUSH BUTTON EXTENSION, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION.
NOTE: RRFB SHALL FLASH FOR 20 SECONDS UPON EACH ACTIVATION.		

GENERAL NOTE:
1. **EQUIPMENT GROUNDING SHALL BE PAID FOR SEPARATELY UNDER THE RESPECTIVE PAY ITEM.**
2. **APS PUSHBUTTONS SHALL BE POSITIONED TO MEET ALL ADA/AAB REQUIREMENTS.**

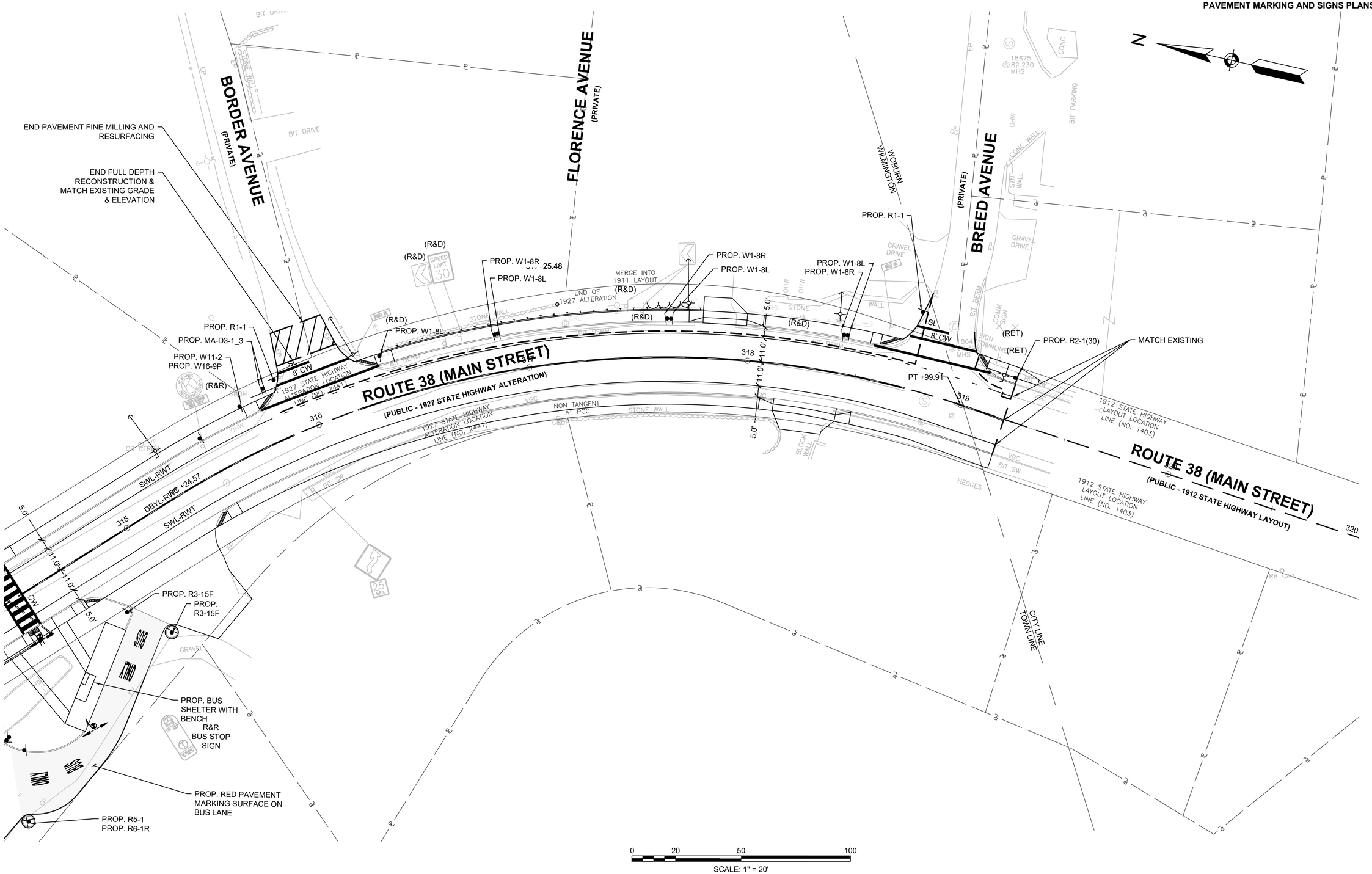
0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	164	420
PROJECT FILE NO.	608051		

PAVEMENT MARKING AND SIGNS PLANS - 22

608051_TR01(PAVEMENT MARKING-PLANS).DWG Plotted on 2-Dec-2025 2:18 PM



TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE MKR	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	TOTAL AREA IN SQUARE FEET
MA-D1-6-1 MA-D1-5-1	60" 60"	64" 54"	62 WEST Burlington Bedford NEXT RIGHT 62 EAST N. Reading NEXT LEFT	SEE SIGN DETAILS ON SHEET 168			1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	26.67 22.50	49.17(2)
MA-D1-6-2 MA-D1-5-2	60" 60"	66" 54"	62 WEST Burlington Bedford → 62 EAST N. Reading ←				1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	27.50 22.50	50.00(2)
MA-D1-6-3 MA-D1-5-3	66" 66"	78" 54"	SOUTH EAST 38 129 Woburn Reading → NORTH WEST 38 129 ←				1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	35.75 24.75	60.50(2)
MA-D1-6-4 MA-D1-5-4	60" 60"	66" 54"	62 WEST Burlington Bedford ← 62 EAST N. Reading →				1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	27.50 22.50	50.00(2)
MA-D1-6-5 MA-D1-5-5	66" 66"	78" 54"	SOUTH EAST 38 129 Woburn Reading ← NORTH WEST 38 129 →				1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	35.75 24.75	60.50(2)
MA-D1-6-6 MA-D1-5-6	60" 60"	66" 54"	62 WEST Burlington Bedford NEXT LEFT 62 EAST N. Reading NEXT RIGHT	SEE SIGN DETAILS ON SHEET 169			1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	27.50 22.50	50.00(2)
MA-D1-6-7 MA-D1-5-7	66" 60"	66" 54"	129 EAST Reading Wakefield NEXT LEFT 38 SOUTH Woburn NEXT RIGHT				1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	30.25 22.50	52.75(2)
MA-D1-5-8	54"	48"	SOUTH 38 ↑ Woburn				1 (MOUNTED BELOW MA-D1-6-8)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNTED ON MA-D1-6-8)	18.00	18.00(2)
MA-D1-6-8 MA-D1-6-9	54" 54"	66" 66"	EAST 129 Reading Wakefield 129 EAST Reading Wakefield →				1 1 (MOUNTED REVERSE SIDE OF MA-D1-6-8)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	24.75	24.75(2)
MA-D1-6-10 MA-D1-5-10	54" 54"	54" 54"	38 SOUTH Woburn ← 38 NORTH Tewksbury →				1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1(8) 1(8)	20.25 20.25	40.50(2)
MA-D3-1_1L	84"	18"	← Butters Row	SEE SIGN DETAILS ON SHEET 167			1 (MOUNTED REVERSE SIDE OF BELOW)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE		10.5	10.50(3)
MA-D3-1_1R	84"	18"	Butters Row →				1 (MOUNTED REVERSE SIDE OF ABOVE)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNTED ON MAST ARM)		
MA-D3-1_2L	66"	18"	← Cross St				1 (MOUNTED REVERSE SIDE OF BELOW)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNTED ON MAST ARM)	8.25	8.25(3)
MA-D3-1_2R	66"	18"	Cross St →				1 (MOUNTED REVERSE SIDE OF ABOVE)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNTED ON MAST ARM)		
MA-D3-1_3	51"	12"	Border Ave				2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 2	4.25	8.50(3)
MA-D3-1_4	51"	12"	Old Main St				4	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 4	4.25	8.50(3)
MA-D3-1_5	45"	12"	Eames St				2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 2	3.75	7.50(3)
MA-D3-1_6	54"	12"	Kiernan Ave				2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 2	4.50	9.00(3)

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	165	420
PROJECT FILE NO.	604123		

SIGN SUMMARY (1 of 5)

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE MKR	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	TOTAL AREA IN SQUARE FEET
MA-D3-1_7	48"	12"	Dublin Ave	SEE SIGN DETAILS ON SHEET 167			2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 2	4.00	8.00(3)
MA-D3-1_8	36"	12"	Kirk St				2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 1	3.00	6.00(3)
MA-D3-1_9	45"	12"	Lowell St				2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 2	3.75	7.50(3)
MA-D3-1_10	39"	12"	Main St				2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 1	3.25	6.50(3)
MA-D3-1_11	42"	12"	Cook Ave				2	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 1	3.50	7.00(3)
MA-D3-1_12L	72"	18"	← Church St				1 (MOUNTED REVERSE SIDE OF BELOW)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNT ON SPAN POLE)	9.00	9.00(3)
MA-D3-1_12R	72"	18"	Church St →				1 (MOUNTED REVERSE SIDE OF ABOVE)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNT ON SPAN POLE)		
MA-D3-1_13L	90"	18"	← Burlington Ave				1 (MOUNTED REVERSE SIDE OF BELOW)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNT ON SPAN POLE)	11.25	11.25(3)
MA-D3-1_13R	90"	18"	Burlington Ave →				1 (MOUNTED REVERSE SIDE OF ABOVE)	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	0 (MOUNT ON SPAN POLE)		
MA-D10-2b	24"	30"	MILE XX .x	SEE MASSDOT STD. SIGN BOOK			9	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	9	5.00	45.00
MA-D10-4a	18"	36"	NORTH 38 MILE 12				1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	1	4.50	4.50
MA-M1-5	24"	24"	38				11	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 0 (MOUNT W/ M3-1 OR M3-3 OR R7-1R)	4.00	44.00
MA-M1-5a	30"	24"	129				2	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 0 (MOUNT W/ M3-2 OR M3-4)	5.00	10.00
D3-2	66"	42"	Church St Burlington Ave NEXT SIGNAL	SEE SIGN DETAILS ON SHEET 167			1	RETRO-FLECTIVE GREEN	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 2	19.25	19.25
M3-1	24"	12"	NORTH	SEE MUTCD STD. DETAIL			7	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 6 (1 MOUNT W/ M1-5 AND R7-1R)	2.00	14.00
M3-3	24"	12"	SOUTH				4	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 4	2.00	8.00
M3-4	24"	12"	WEST				1	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 1	2.00	2.00
M6-1L	21"	15"	←				1	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 0 (MOUNT W/ M3-3)	2.19	2.19
M6-1R	21"	15"	→				1	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 0 (MOUNT W/ M3-3)	2.19	2.19
R1-1	30"	30"	STOP				11	RETRO-FLECTIVE RED	RETRO-FLECTIVE WHITE	RETRO-FLECTIVE WHITE	P-5 11	6.25	68.75
R2-1	24"	30"	SPEED LIMIT 15				2	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 2	5.00	10.00
R2-1	24"	30"	SPEED LIMIT 30				2	RETRO-FLECTIVE WHITE	BLACK	BLACK	P-5 2	5.00	10.00

608051_TR05(SIGN SUMMARY).DWG Plotted on 30-Oct-25 10:00 AM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	166	420
PROJECT FILE NO.	604123		

SIGN SUMMARY (2 of 5)

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE MKR	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND	COLOR BORDER	P-5 (1) POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	TOTAL AREA IN SQUARE FEET
R2-1	24"	30"	SPEED LIMIT 35	SEE MUTCD STD. DETAIL			1	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 1	5.00	5.00
R2-1	24"	30"	SPEED LIMIT 40				4	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 4	5.00	20.00
R3-7L	30"	30"	LEFT LANE MUST TURN LEFT				5	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 5	6.25	31.25
R3-7R	30"	30"	RIGHT LANE MUST TURN RIGHT				1	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 1	6.25	6.25
R3-8b	48"	30"	ONLY ONLY ONLY				2	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 2	10.00	20.00
R3-8	30"	30"	ONLY				1	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 1	6.25	6.25
R3-2	30"	30"					1	RETRORE-FLECTIVE WHITE	BLACK AND REFLEC-TIVE RED	BLACK	P-5 1	6.25	6.25
R5-1	30"	30"	DO NOT ENTER				2	RETRORE-FLECTIVE WHITE	REFLEC-TIVE RED	REFLEC-TIVE RED	P-5 0 (MOUNT W/ R6-1)	6.25	12.50
R6-1L	36"	12"	ONE WAY				1	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 1	3.00	3.00
R6-1R	36"	12"	ONE WAY				1	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 1	3.00	3.00
R7-1	12"	18"	NO PARKING ANY TIME				3	RETRORE-FLECTIVE WHITE	REFLEC-TIVE RED AND GREEN	REFLEC-TIVE RED AND GREEN	P-5 5	1.50	7.50
R7-1L	12"	18"	NO PARKING ANY TIME				5	RETRORE-FLECTIVE WHITE	REFLEC-TIVE RED AND GREEN	REFLEC-TIVE RED AND GREEN	P-5 5	1.50	7.50
R7-1R	12"	18"	NO PARKING ANY TIME				4	RETRORE-FLECTIVE WHITE	REFLEC-TIVE RED AND GREEN	REFLEC-TIVE RED AND GREEN	P-5 4	1.50	6.00
R10-7	24"	30"	DO NOT BLOCK INTERSECTION				1	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 1	5.00	5.00
R10-11	24"	30"	NO TURN ON RED				8	RETRORE-FLECTIVE WHITE	BLACK AND REFLE-CTIVE RED	BLACK	4 (2 MOUNT W/ SPAN WIRE AND MAST ARM)	5.00	40.00
R12-1	24"	30"	WEIGHT LIMIT XX TONS				2	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 2	5.00	10.00
R12-5	24"	36"	WEIGHT LIMIT OT OOT OOT				3	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 3	6.00	18.00

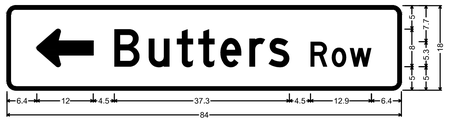
NOTES:
1. UNLESS OTHERWISE NOTED, ALL POSTS TO BE P-5.
2. SEE THE 2009 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND REVISIONS, MASSDOT MASSACHUSETTS AMENDMENTS TO THE 2009 MUTCD, 1990 MASSDOT HIGHWAY DIVISION STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, 2012 SUPPLEMENT TO THE 2004 STANDARD HIGHWAY SIGNS, AND MASSDOT STANDARD SIGN BOOK.
3. SIGNS LOCATED IN OR ADJACENT TO THE SIDEWALK SHALL BE MOUNTED SO THAT THE BOTTOM OF THE SIGN IS NO LESS THAN 7'-0" ABOVE THE SIDEWALK FINISHED GRADE.
4. SIGNS UNDER (2) TO BE PAID FOR UNDER ITEM 831.
5. SIGNS UNDER (3) TO BE PAID FOR UNDER ITEM 874.
6. RETROREFLECTIVE SHEETING ON ALL TRAFFIC SIGNS SHALL CONFORM TO MASSDOT STANDARD SPECIFICATION M9.30.0
7. POST SHALL BE ITEM 841.1 SUPPORTS FOR GUIDE SIGN (D6 W/D8-5 INCH TUBULAR POST) STEEL.

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE MKR	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND	COLOR BORDER	P-5 (1) POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	TOTAL AREA IN SQUARE FEET
R3-15F	42"	36"	BUS LANE ONLY	SEE SIGN DETAILS ON SHEET 167			2	RETRORE-FLECTIVE WHITE	BLACK	BLACK	P-5 2	10.50	21.00
S3-2	30"	30"	SCHOOL BUS TURN AHEAD	SEE MUTCD STD. DETAIL			1	RETRORE-FLECTIVE YELLOW	BLACK	BLACK	P-5 1	6.25	6.25
W1-8L	18"	24"					4	RETRORE-FLECTIVE YELLOW	BLACK	BLACK	P-5 4	3.00	12.00
W1-8R	18"	24"					4	RETRORE-FLECTIVE YELLOW-GREEN	BLACK	BLACK	P-5 4	3.00	12.00
W2-2L	30"	30"					1	RETRORE-FLECTIVE YELLOW	BLACK	BLACK	P-5 0 (MOUNT W/ W16-8P)	6.25	6.25
W3-3	30"	30"					4	RETRORE-FLECTIVE YELLOW	RETRORE-FLECTIVE RED-GREEN	BLACK	P-5 4	6.25	25.00
W4-2R	36"	36"					1	RETRORE-FLECTIVE YELLOW	BLACK	BLACK	P-5 1	9.00	9.00
W11-2	30"	30"					18	RETRORE-FLECTIVE YELLOW-GREEN	BLACK	BLACK	P-5 10 RRFB 8	6.25	62.50 50.00(4)
W11-10	30"	30"					1	RETRORE-FLECTIVE YELLOW	BLACK	BLACK	P-5 1	6.25	6.25
W14-1	30"	30"	DEAD END				2	RETRORE-FLECTIVE YELLOW	BLACK	BLACK	P-5 2	6.25	12.50
W16-7PR	24"	12"					8	RETRORE-FLECTIVE YELLOW-GREEN	BLACK	BLACK	P-5 0 (MOUNT W/ W11-2)	2.00	8.00 8.00(4)
W16-7PL	24"	12"					8	RETRORE-FLECTIVE YELLOW-GREEN	BLACK	BLACK	P-5 0 (MOUNT W/ W11-2)	2.00	8.00 8.00(4)
W16-9P	24"	12"	AHEAD				2	RETRORE-FLECTIVE YELLOW-GREEN	BLACK	BLACK	P-5 0 (MOUNT W/ W11-2)	2.00	4.00
W16-8P	36"	8"	Dublin Ave	SEE SIGN DETAILS ON SHEET 168			1	RETRORE-FLECTIVE YELLOW	BLACK	BLACK	P-5 0 (MOUNT W/ W2-2L)	2.00	2.00

ITEM 825.101	66.00
ITEM 831.11	456.17
ITEM 832.	545.63
ITEM 874.	107.00

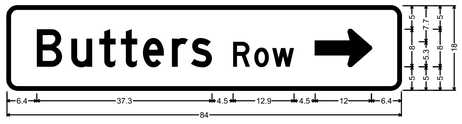
60805I_TR05(SIGN SUMMARY).DWG Plotted on 30-Oct-25 10:00 AM



1.9" Radius, 0.8" Border, White on Green;
Arrow Custom - 12.0° 180°; "Butters", D 80% spacing; "Row", D 80% spacing;
Table of letter and object lefts

← 6.4	B 22.9	u 30.2	t 36.2	t 40.8	e 45.5	r 51.6	s 55.7	R 64.7	o 69.2	w 73.0

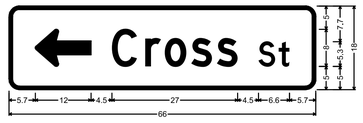
MA-D3-1_1L



2.3" Radius, 0.8" Border, White on Green;
"Butters", D 80% spacing; "Row", D 80% spacing; Arrow Custom - 12.0° 0°;
Table of letter and object lefts

B 6.4	u 13.7	t 19.7	t 24.3	e 29.0	r 35.1	s 39.2	R 48.2	o 52.7	w 56.5	→ 65.6

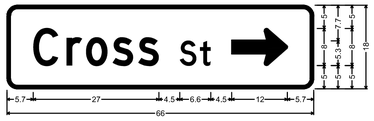
MA-D3-1_1R



2.3" Radius, 0.8" Border, White on Green;
Arrow Custom - 12.0° 180°; "Cross", D 80% spacing; "St", D 80% spacing;
Table of letter and object lefts

← 5.7	C 22.2	r 29.3	o 33.5	s 39.2	s 44.7	S 53.7	t 58.0	

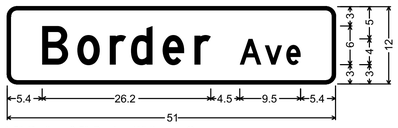
MA-D3-1_2L



2.3" Radius, 0.8" Border, White on Green;
"Cross", D 80% spacing; "St", D 80% spacing; Arrow Custom - 12.0° 0°;
Table of letter and object lefts

C 5.7	r 12.8	o 17.0	s 22.7	s 28.2	S 37.2	t 41.5	→ 48.3	

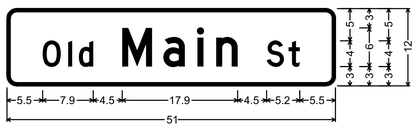
MA-D3-1_2R



1.5" Radius, 0.5" Border, White on, Green;
"Border", D; "Ave", D;
Table of letter and object lefts

B 5.4	o 10.9	r 15.9	d 19.2	e 24.1	r 29.1	A 36.1	v 40.0	e 43.3

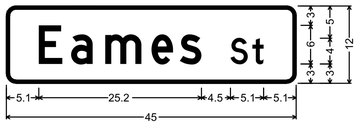
MA-D3-1_3



1.5" Radius, 0.5" Border, White on, Green;
"Old", D; "Main", D; "St", D;
Table of letter and object lefts

O 5.5	l 9.5	d 11.2	M 17.9	a 24.3	i 29.6	n 32.5	S 40.3	t 43.7

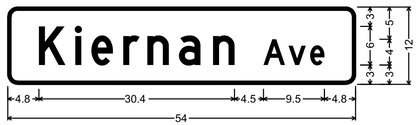
MA-D3-1_4



1.5" Radius, 0.5" Border, White on, Green;
"Eames", D; "St", D;
Table of letter and object lefts

E 5.1	a 10.1	m 15.4	e 22.5	s 27.0	S 34.8	t 38.2	

MA-D3-1_5



1.5" Radius, 0.5" Border, White on, Green;
"Kiernan", D; "Ave", D;
Table of letter and object lefts

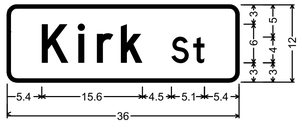
K 4.8	i 10.5	e 13.0	r 17.9	n 21.7	a 26.6	n 31.9	A 39.7	v 43.6	e 46.9	

MA-D3-1_6

1.5" Radius, 0.5" Border, White on, Green;
"Dublin", D; "Ave", D;
Table of letter and object lefts

D 4.5	u 10.2	b 15.5	l 20.4	i 23.3	n 26.2	A 34.1	v 37.9	e 41.3	

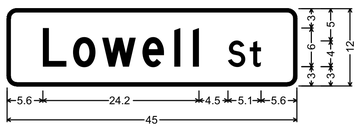
MA-D3-1_7



1.5" Radius, 0.5" Border, White on, Green;
"Kirk", D; "St", D;
Table of letter and object lefts

K 5.4	i 11.0	r 13.9	k 17.6	S 25.5	t 28.9	

MA-D3-1_8



1.5" Radius, 0.5" Border, White on, Green;
"Lowell", D; "St", D;
Table of letter and object lefts

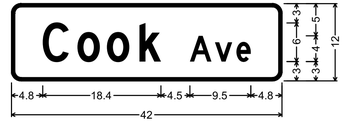
L 5.6	o 10.3	w 14.8	e 21.0	l 26.0	l 28.9	S 34.3	t 37.7

MA-D3-1_9

1.5" Radius, 0.5" Border, White on, Green;
"Main", D; "St", D;
Table of letter and object lefts

M 5.7	a 12.1	i 17.4	n 20.3	S 28.1	t 31.5	

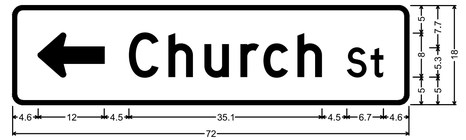
MA-D3-1_10



1.5" Radius, 0.5" Border, White on, Green;
"Cook", D; "Ave", D;
Table of letter and object lefts

C 4.8	o 10.2	o 14.8	k 19.9	A 27.7	v 31.6	e 34.9	

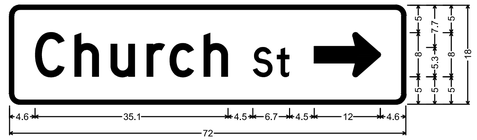
MA-D3-1_11



1.9" Radius, 0.8" Border, White on Green;
Arrow Custom - 12.0° 180°; "Church", D 80% spacing; "St", D 80% spacing;
Table of letter and object lefts

← 4.6	C 21.1	h 28.3	u 34.8	r 41.4	c 45.6	h 51.7	S 60.7	t 65.0

MA-D3-1_12L



1.9" Radius, 0.8" Border, White on Green;
"Church", D 80% spacing; "St", D 80% spacing; Arrow Custom - 12.0° 0°;
Table of letter and object lefts

C 4.6	h 11.8	u 18.3	r 24.9	c 29.1	h 35.2	S 44.2	t 48.5	→ 55.4	

MA-D3-1_12R

1.9" Radius, 0.8" Border, White on Green;
Arrow Custom - 12.0° 180°; "Burlington", C 80% spacing; "Ave", C 80% spacing;
Table of letter and object lefts

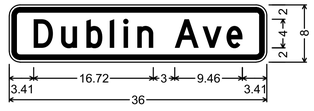
← 5.4	B 21.9	u 28.1	r 34.1	l 38.3	i 41.4	n 44.5	g 50.1	t 55.5	o 59.7	n 65.4	A 73.8	v 77.7	e 81.5		

MA-D3-1_13L

1.9" Radius, 0.8" Border, White on Green;
"Burlington", C 80% spacing; "Ave", C 80% spacing; Arrow Custom - 12.0° 0°;
Table of letter and object lefts

B 5.6	u 11.9	r 17.8	l 22.0	i 25.2	n 28.3	g 33.8	t 39.2	o 43.5	n 49.1	A 57.6	v 61.4	e 65.3	→ 72.4		

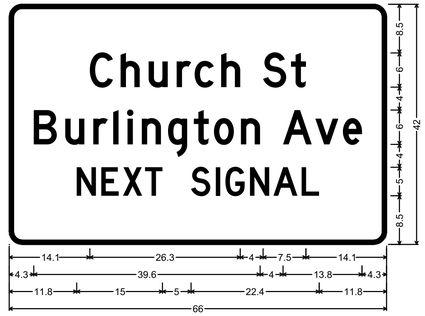
MA-D3-1_13R



1.50" Radius, 0.63" Border, 0.38" Indent, Black on Yellow;
"Dublin", D; "Ave", D;
Table of letter and object lefts

D 3.41	u 7.24	b 10.77	l 14.05	i 15.97	n 17.90		
A 23.13	v 27.02	e 30.36					

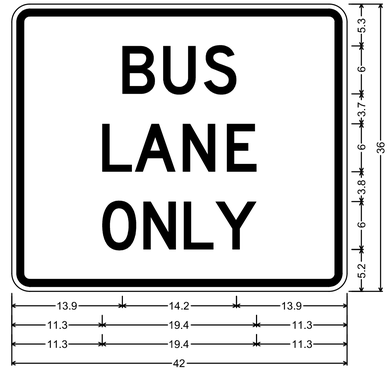
W16-8P



2.3" Radius, 0.8" Border, White on Green;
"Church", D 80% spacing; "St", D 80% spacing;
"Burlington", D 80% spacing; "Ave", D 80% spacing;
"NEXT SIGNAL", D 80% spacing;
Table of letter and object lefts

C 14.1	h 19.5	u 24.4	r 29.3	c 32.4	h 37.1	S 44.4	t 49.3								
B 4.3	u 9.8	r 14.7	l 18.2	i 20.7	n 23.2	g 27.8	t 32.3	o 35.8	n 40.5	A 47.9	v 53.5	e 58.4			
N 11.8	E 16.1	X 19.9	T 23.8	S 31.8	I 36.1	G 37.8	N 42.1	A 46.2	L 51.2						

D3-2



2.3" Radius, 0.9" Border, 0.6" Indent, Black on, White;
"BUS", D 2K specified length; "LANE", D 2K specified length;
"ONLY", D 2K specified length;
Table of widths and spaces

13.9	B 4.0	1.1	U 4.0	1.1	S 4.0	13.9									
11.3	L 3.8	0.3	A 5.1	0.9	N 4.1	1.4	E 3.8	11.3							
11.3	O 4.3	0.9	N 4.1	0.9	L 3.8	0.2	Y 5.2	11.3							

R3-15F

NOTES:
1. MA-D3-1_1L AND MA-D3-1R SHALL BE MOUNTED BACK TO BACK ON THE SIGN PANEL.
2. MA-D3-1_2L AND MA-D3-1_2R SHALL BE MOUNTED BACK-TO-BACK ON THE SAME SIGN PANEL..
3. MA-D3-1_12L AND MA-D3-1_12R SHALL BE MOUNTED BACK-TO-BACK ON THE SAME SIGN PANEL.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	167	420
	PROJECT FILE NO. 604123		

SIGN SUMMARY (3 of 5)

608051_TR05(SIGN SUMMARY).DWG Plotted on 30-Oct-25 10:00 AM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

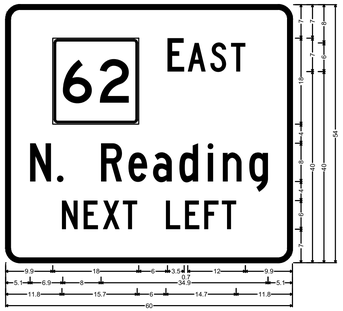
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	168	420
PROJECT FILE NO.	604123		

SIGN SUMMARY (4 of 5)

608051_TR05(SIGN SUMMARY).DWG Plotted on 30-Oct-25 10:00 AM

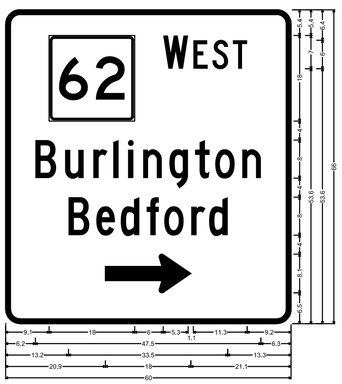
3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "WEST", C; "Burlington", C 80% spacing;
"Bedford", C 80% spacing; "NEXT RIGHT", C;
Table of letter and object lefts

MA-D1-6-1



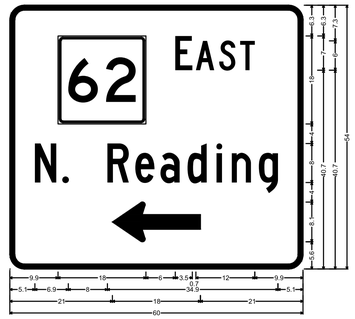
3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "EAST", C; "N. Reading", C 80% spacing; "NEXT LEFT", C;
Table of letter and object lefts

MA-D1-5-1



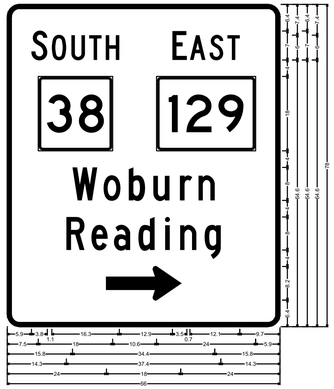
3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "WEST", C; "Burlington", C 80% spacing;
"Bedford", C 80% spacing; Standard Arrow Custom 18.0" X 8.1" 0";
Table of letter and object lefts

MA-D1-6-2



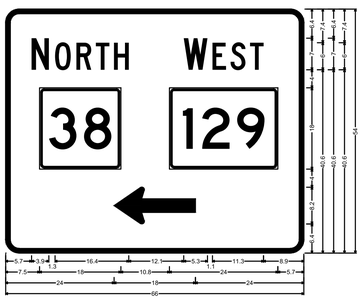
3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "EAST", C; "N. Reading", C 80% spacing;
Standard Arrow Custom 18.0" X 8.1" 180";
Table of letter and object lefts

MA-D1-5-2



3.0" Radius, 1.0" Border, White on Green;
"SOUTH", C; "EAST", C; State Highway 38 M1-5; State Highway 129 M1-5; "Woburn", C;
"Reading", C; Standard Arrow Custom 18.0" X 8.1" 0";
Table of letter and object lefts

MA-D1-6-3

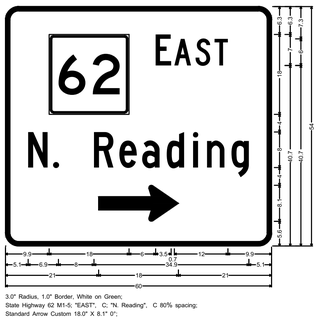


3.0" Radius, 1.0" Border, White on Green;
"NORTH", C; "WEST", C; State Highway 38 M1-5; State Highway 129 M1-5;
Standard Arrow Custom 18.0" X 8.1" 180";
Table of letter and object lefts

MA-D1-5-3

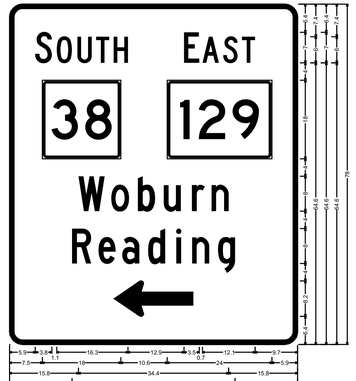
3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "WEST", C; "Burlington", C 80% spacing;
"Bedford", C 80% spacing; Standard Arrow Custom 18.0" X 8.1" 180";
Table of letter and object lefts

MA-D1-6-4



3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "EAST", C; "N. Reading", C 80% spacing;
Standard Arrow Custom 18.0" X 8.1" 0";
Table of letter and object lefts

MA-D1-5-4



3.0" Radius, 1.0" Border, White on Green;
"SOUTH", C; "EAST", C; State Highway 38 M1-5; State Highway 129 M1-5; "Woburn", C;
"Reading", C; Standard Arrow Custom 18.0" X 8.1" 180";
Table of letter and object lefts

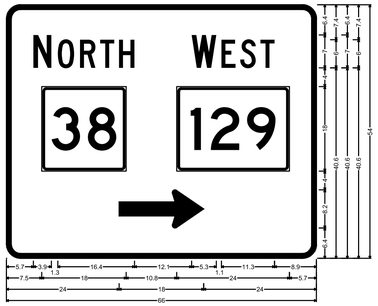
MA-D1-6-5

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	169	420
PROJECT FILE NO.	604123		

SIGN SUMMARY (5 of 5)

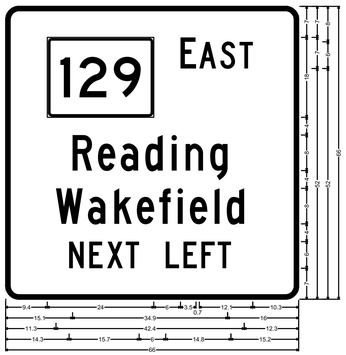
608051_TR05(SIGN SUMMARY).DWG Plotted on 30-Oct-25 10:00 AM



3.0" Radius, 1.0" Border, White on Green;
"NORTH", C; "WEST", C; State Highway 38 M1-5; State Highway 129 M1-5;
Standard Arrow Custom 18.0" X 8.1" 0°;
Table of letter and object lefts

N 5.7	O 10.9	E 15.7	30.0	W 24.0	d 39.4	f 45.8	h 49.8	n 54.1
1 7.5	2 30.3							
24.0								

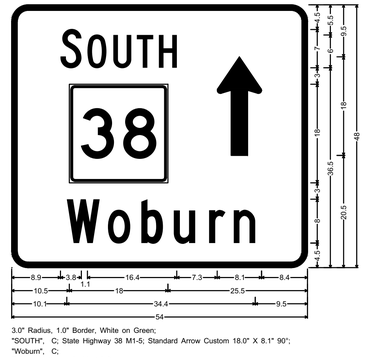
MA-D1-5-5



3.0" Radius, 1.0" Border, White on Green;
State Highway 129 M1-5; "EAST", C; "Reading", C 80% spacing; "Wakefield", C 80% spacing;
"NEXT LEFT", C;
Table of letter and object lefts

1 7.4	E 39.4	A 43.6	S 48.4	50.7			
F 15.1	A 20.5	R 25.8	E 31.5	37.4	40.5	N 46.1	
W 11.0	A 18.9	K 24.8	E 29.6	S 54.6	38.8	41.5	T 47.1	S 49.8
W 14.3	E 18.8	R 22.9	T 27.0	N 36.0	C 40.3	F 44.1	T 47.8	

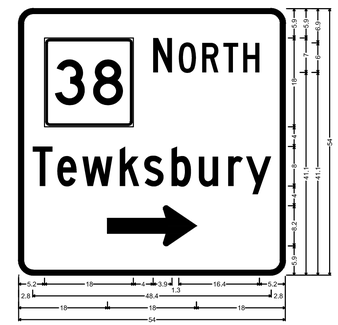
MA-D1-6-7



3.0" Radius, 1.0" Border, White on Green;
"SOUTH", C; State Highway 38 M1-5; Standard Arrow Custom 18.0" X 8.1" 90°;
"Woburn", C;
Table of letter and object lefts

S 8.9	O 13.8	U 18.6	T 22.9	H 26.9	37.5	
1 10.5						
W 10.1	O 17.6	N 23.7	E 29.6	F 36.0	N 40.6	

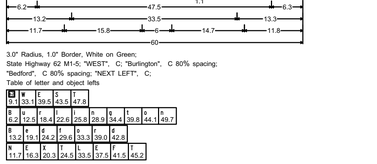
MA-D1-5-8



3.0" Radius, 1.0" Border, White on Green;
State Highway 38 M1-5; "NORTH", C; "Tewksbury", C 80% spacing;
Standard Arrow Custom 18.0" X 8.1" 0°;
Table of letter and object lefts

1 5.2	N 27.2	O 32.4	R 37.2	T 41.5	H 45.5		
T 2.8	E 7.8	W 12.9	A 20.5	S 25.4	N 31.0	E 36.5	R 42.4	V 46.1
18.0								

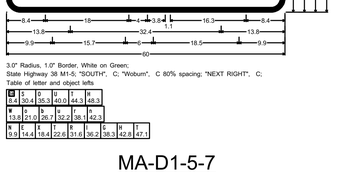
MA-D1-5-10



3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "WEST", C; "Burlington", C 80% spacing;
"Bedford", C 80% spacing; "NEXT LEFT", C;
Table of letter and object lefts

1 9.1	W 33.1	E 39.5	S 43.5	T 47.8			
R 6.2	N 12.5	T 18.4	H 22.6	I 25.8	N 28.9	G 34.4	L 39.8	O 44.1	N 49.7
S 13.2	R 19.1	D 24.2	R 29.6	S 33.3	39.0	A 42.8			
N 11.7	E 16.3	S 20.3	T 24.5	L 33.5	E 37.5	F 41.5	T 45.2		

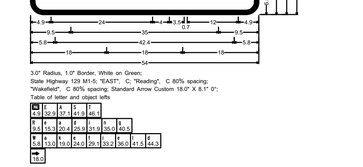
MA-D1-6-6



3.0" Radius, 1.0" Border, White on Green;
State Highway 38 M1-5; "SOUTH", C; "Woburn", C 80% spacing; "NEXT RIGHT", C;
Table of letter and object lefts

1 8.4	S 30.4	O 35.3	R 40.0	T 44.3	H 48.3		
F 13.8	R 21.6	N 26.7	S 32.2	38.1	R 42.3		
N 9.9	E 14.4	W 18.4	A 22.6	S 31.6	36.2	C 38.3	H 42.8	T 47.1

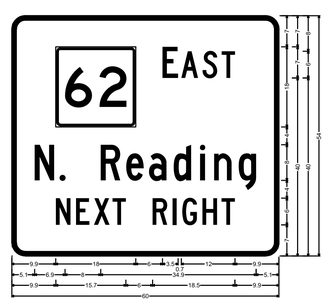
MA-D1-5-7



3.0" Radius, 1.0" Border, White on Green;
State Highway 129 M1-5; "EAST", C; "Reading", C 80% spacing;
"Wakefield", C 80% spacing; Standard Arrow Custom 18.0" X 8.1" 0°;
Table of letter and object lefts

1 4.1	S 32.3	A 37.1	41.5	46.1			
R 8.8	H 15.0	A 20.4	E 25.9	31.9	N 36.6	50.5	
F 5.4	R 13.0	R 19.2	E 24.6	29.1	33.2	T 36.6	41.5	44.3
18.0								

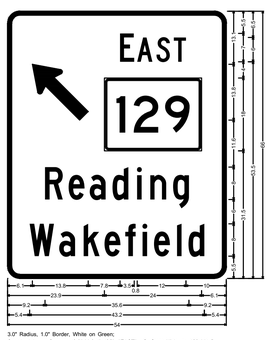
MA-D1-6-9



3.0" Radius, 1.0" Border, White on Green;
State Highway 62 M1-5; "EAST", C; "N. Reading", C 80% spacing; "NEXT RIGHT", C;
Table of letter and object lefts

1 9.9	33.9	38.1	42.9	47.1			
R 6.1	10.8	20.0	25.7	30.8	36.4	42.3	45.4	51.0
N 9.9	E 14.4	R 18.4	T 22.6	R 31.6	36.2	G 38.3	H 42.8	T 47.1

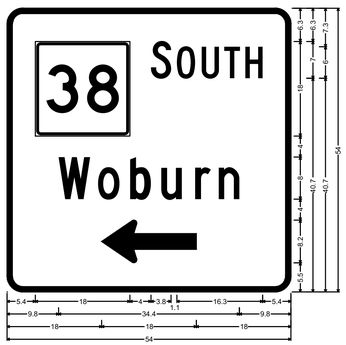
MA-D1-5-6



3.0" Radius, 1.0" Border, White on Green;
Standard Arrow Custom 18.0" X 8.1" 135°; "EAST", C; State Highway 129 M1-5;
"Reading", C 80% spacing; "Wakefield", C 80% spacing;
Table of letter and object lefts

1 9.2	27.7	32.0	36.7	41.0			
22.0							
R 9.2	15.0	N 20.3	E 25.9	32.0	R 36.2	40.9	
W 5.4	R 12.7	A 18.8	S 23.9	E 29.1	33.3	R 36.1	41.8	44.7

MA-D1-6-8



3.0" Radius, 1.0" Border, White on Green;
State Highway 38 M1-5; "SOUTH", C; "Woburn", C;
Standard Arrow Custom 18.0" X 8.1" 180°;
Table of letter and object lefts

1 5.4	S 27.4	O 32.3	R 37.0	T 41.3	N 45.3	
W 9.8	O 17.3	N 23.4	E 29.3	R 35.8	N 40.3	
18.0						

MA-D1-6-10

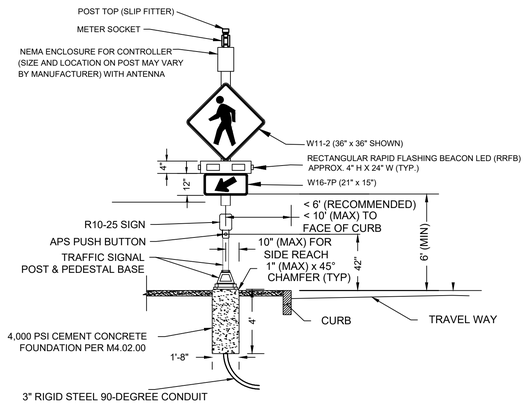
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	170	420
PROJECT FILE NO.	608051		

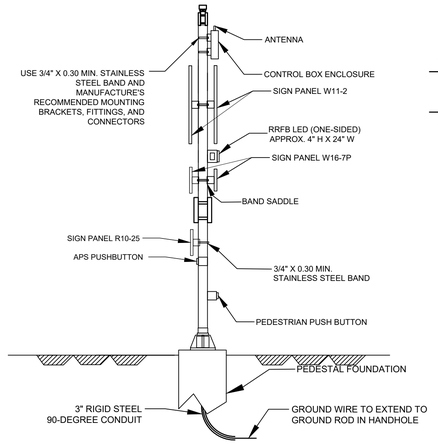
PAVEMENT MARKING DETAILS

2-Dec-2025

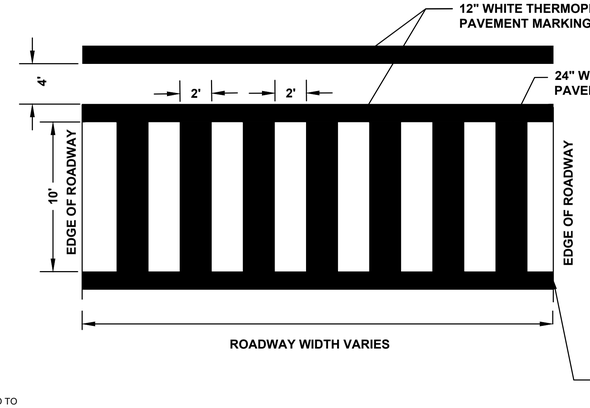
608051_HDXX (PAVEMENT MARKING DETAIL).DWG



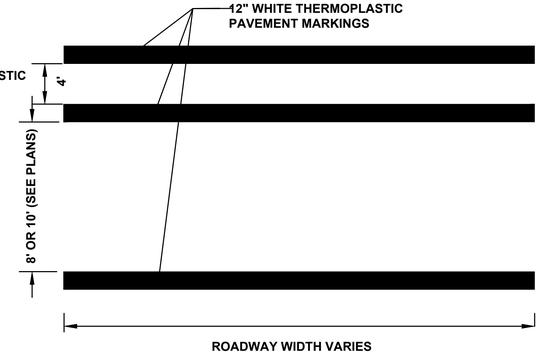
AC POWERED RECTANGULAR RAPID FLASHING BEACON - FRONT VIEW
NOT TO SCALE



AC POWERED RAPID RECTANGULAR FLASHING BEACON - SIDE VIEW
NOT TO SCALE



STOP LINE AND LADDER STYLE CROSSWALK DETAIL
NOT TO SCALE

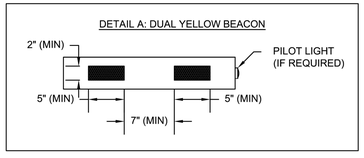


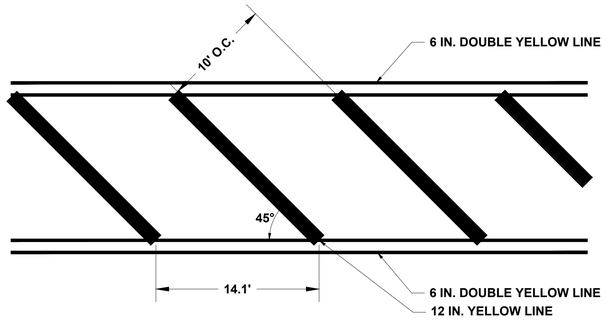
TWIN TRANSVERSE STYLE CROSSWALK DETAIL
NOT TO SCALE

RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM DETAILS
NOT TO SCALE

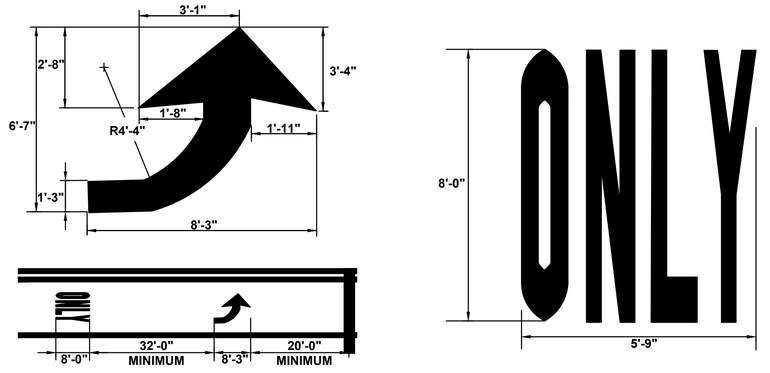
NOTES:

1. CROSSWALK AND ADA-COMPLIANT RAMPS NOT SHOWN. SEE PLANS FOR LOCATIONS.
2. REFER TO THE SPECIAL PROVISIONS FOR SIGN DIMENSIONS.
3. ALL CONDUIT, PULL BOXES, SERVICE CONNECTIONS, AND EQUIPMENT GROUNDING REQUIRED FOR AC POWER IS NOT SHOWN IN THIS DETAIL AND SHALL BE PAID FOR SEPARATELY UNDER THEIR RESPECTIVE PAY ITEMS.
4. ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAB COMPLIANT.
5. *0.5% CONSTRUCTION TOLERANCE FOR CROSS-SLOPE.
6. FLASHING DURATION OF RRFB UNITS AT STA. 222+45 = 20 SEC
   FLASHING DURATION OF RRFB UNITS AT STA. 314+40 = 20 SEC





MEDIAN STRIPING DETAIL
NOT TO SCALE



ARROW & ONLY = APPROX. 46 Sq. Ft OF Paint

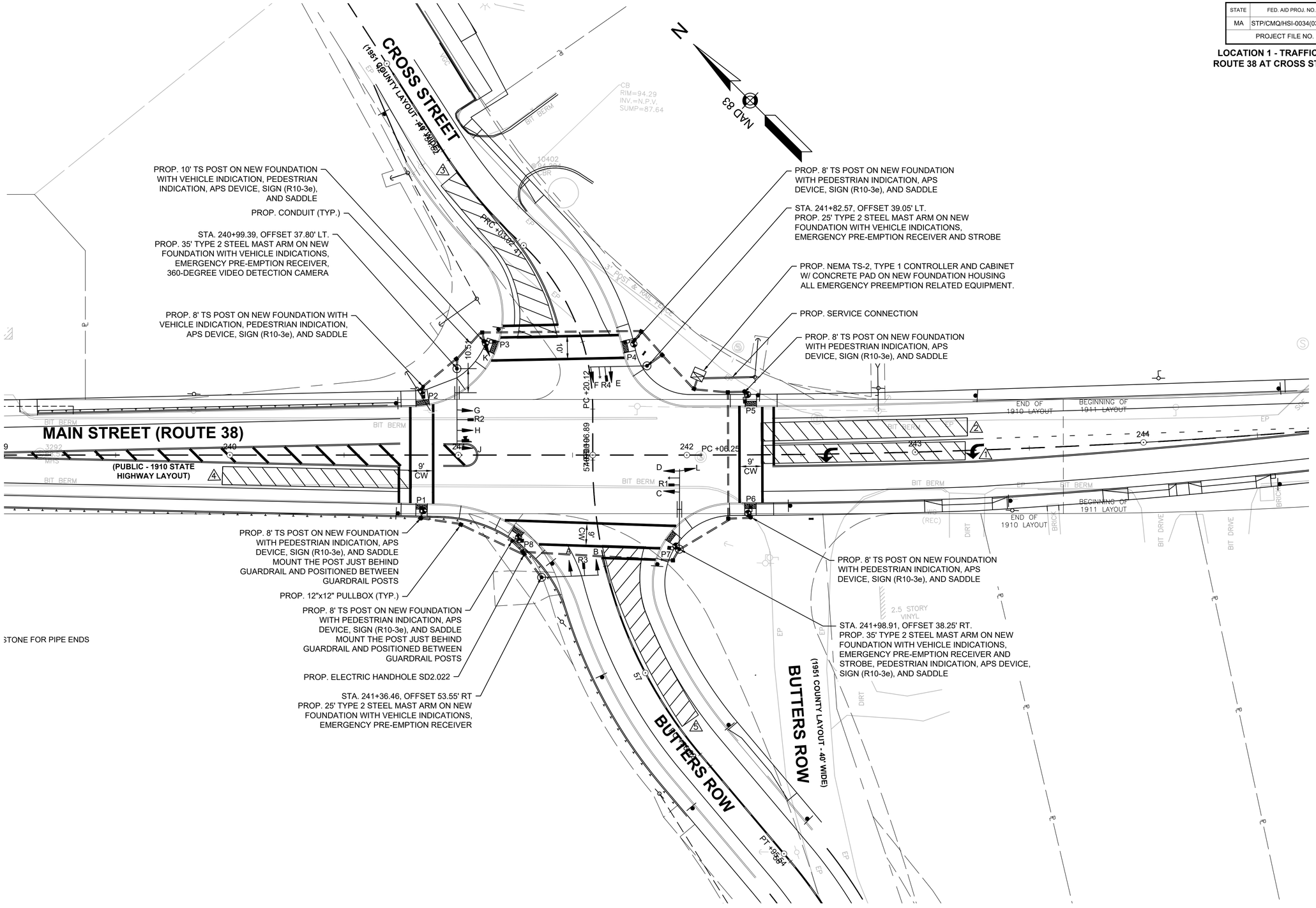
ARROW / ONLY SYMBOLS
NOT TO SCALE

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	171	420
PROJECT FILE NO.	608051		

LOCATION 1 - TRAFFIC SIGNAL PLANS
ROUTE 38 AT CROSS ST/ BUTTERS ROW

608051_TR02(SIGNAL-PLANS).DWG Plotted on 2-Dec-2025 2:21 PM



NOTE OF CAUTION - DRILLING FOR FOUNDATION AND INSTALLATION OF POLES SHALL NOT DISTURB ADJACENT OVERHEAD POWER AND TELECOMMUNICATION LINES. INSTALLED OVERHEAD TRAFFIC SIGNAL EQUIPMENT SHALL BE SITUATED A MINIMUM OF 10 FEET FROM ELECTRICAL CABLES AND WIRING AND SHALL BE SITUATED A MINIMUM OF 3 FEET FROM TELECOMMUNICATIONS CABLES AND WIRING.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	172	420
	PROJECT FILE NO. 608051		

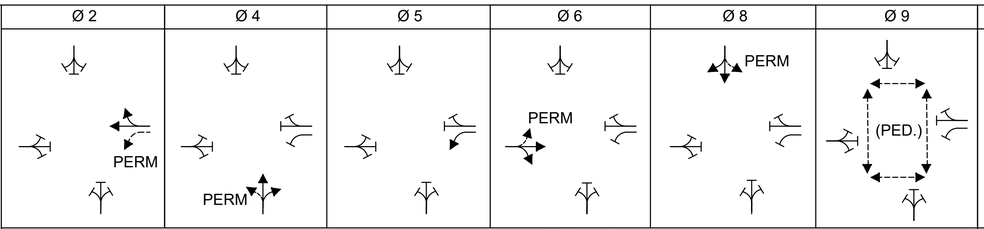
LOCATION 1 - TRAFFIC SIGNAL SEQUENCE & TIMING PLANS ROUTE 38 AT CROSS ST / BUTTERS ROW

608051_TR03\SIGNAL TIMING PLANS\.DWG Plotted on 2-Dec-2025 2:21 PM

APPROX. NORTH

SEQUENCE & TIMING
FOR
FULL ACTUATED CONTROL
(COORDINATED)

MAIN STREET (ROUTE 38)
AT
BUTTERS ROW /
CROSS STREET



APPROACH	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	16	17	18	19	20	21	FLASHING OPERATION
			INTERVALS																		
CROSS STREET	SB	A,B	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
ROUTE 38 (MAIN STREET)	EB	C,D	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
BUTTERS ROW	NB	E,F,K	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
ROUTE 38 (MAIN STREET)	WB	G,H	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
ROUTE 38 (MAIN STREET)	WBL	J,L	~~FY~~	~~SY~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~SY~~	~~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	OUT
			TIMING IN SECONDS																		
MINIMUM GREEN			10			5			5			10			5						EMERGENCY ONLY
MAX GREEN 1			65			22			**			65			22						
MAX GREEN 2			43			19			6			30			19						
VEHICLE EXTENSION			3			3			3			3			3						
YELLOW CLEARANCE				4			3.5			3.5			4			3.5					
RED CLEARANCE					2			2			2			2			2				
PED WALK INTERVAL																		7	16	4	
RECALL			MIN			NONE			NONE			MIN			NONE			NONE			
COORDINATION DATA			COORDINATION PHASE TIMING *																		
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	Ø 2			Ø 4			Ø 5			Ø 6			Ø 8			Ø 9			
M-F 7:00 AM - 9:00 AM	125 SEC	5 SEC.	71			27			***			71			27			27			
M-F 4:00 PM - 6:00 PM	100 SEC.	4 SEC.	49			24			13			36			24			27			

* SPLIT = GREEN + YELLOW + ALL RED TIME FOR PHASE

** PHASE NOT ACTIVE DURING INTERVAL 1

NOTES:

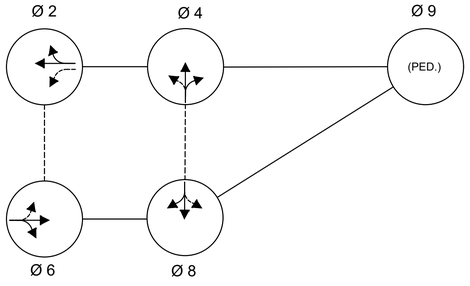
1. STANDARD NEMA CLEARANCES SHALL APPLY.
2. MAXIMUM GREEN 2 SHALL BE IN EFFECT ON WEEKDAYS FROM 4:00 PM TO 6:00 PM.
3. MAXIMUM GREEN 1 SHALL BE IN EFFECT AT ALL OTHER TIMES.
4. INTERSECTION TO BE COORDINATED WITH THE INTERSECTION OF MAIN STREET (ROUTE 38) AND LOWELL STREET (ROUTE 129). Ø2 IS THE COORDINATED PHASES AT THE START OF GREEN. COORDINATED OFFSETS ARE REFERENCED TO THE START OF GREEN OF THE COORDINATED PHASE (2)
5. ALL UNUSED TIME WITHIN CYCLE SHALL BE REALLOCATED TO THE COORDINATED PHASE (2) AND TO 6.
6. SIGNAL SHALL OPERATE FREELY AT ALL OTHER TIMES

MAJOR ITEMS REQUIRED

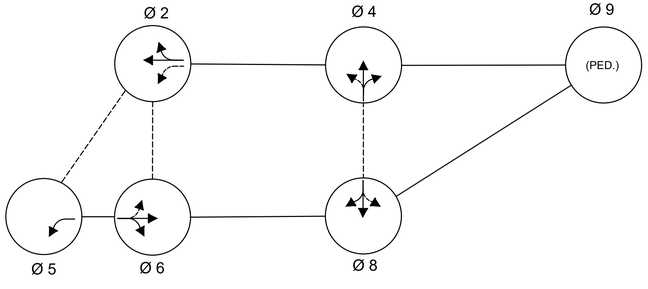
ITEM NUMBER	QUANTITY	ITEM
811.31	10	12" x 12" PULLBOX
815.1	1	SERVICE CONNECTION (OVERHEAD)
	1	CONTROLLER NEMA 8 PHASE TS-2 (TYPE-1), SIDE CAB. & FDN.
	2	25 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY, BASE & FDN
	2	35 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY, BASE & FDN
	1	SIGNAL POLE AND BASE STANDARD, 10 FT. W / FOUNDATION
	6	SIGNAL POLE AND BASE STANDARD, 8 FT. W / FOUNDATION
	9	12 INCH 1 WAY 3-SECTION LED VEHICLE SIGNAL INDICATION
	2	12 INCH 1 WAY 4-SECTION LED VEHICLE SIGNAL INDICATION
	8	16 INCH LED PEDESTRIAN INDICATION WITH COUNTDOWN
	8	PED. PUSH BUTTON W / SIGN AND SADDLE (APS)
	1	PREEMPTION PHASE SELECTOR MODULE-FOUR CHANNEL
	1	PREEMPTION CARD RACK
	1	EMERGENCY PRE-EMPTION INDICATOR (STROBE) LIGHT
	4	EMERGENCY PRE-EMPTION RECEIVER (DETECTOR) - ONE WAY
	1	VIDEO DETECTION SYSTEM
	1	GPS SYSTEM FOR CLOCK SYNCHRONIZATION REFRENCE
804.3	410	3 INCH ELECTRICAL CONDUIT TYPE NM- PLASTIC- (UL)

PLUS ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION OF A FULLY OPERATIONAL SIGNAL SYSTEM AS INTENDED ON THESE PLANS

NEMA DUAL RING PHASING NOTES (MAX GREEN 1)

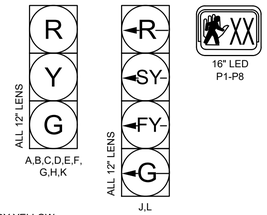


NEMA DUAL RING PHASING NOTES (MAX GREEN 2)



1. PHASE 5 SHALL BE OMITTED DURING MAXIMUM GREEN 1.
2. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
3. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
4. 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.
5. PEDESTRIAN PHASE SHALL BE ACTIVATED UPON PUSHBUTTON ONLY.

SIGNAL IDENTIFICATION

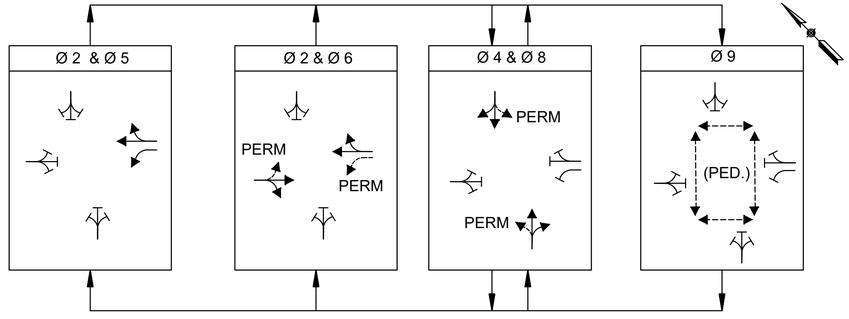


SY - STEADY YELLOW
FY - FLASHING YELLOW

NOTES:

1. ALL VEHICLE LENSES SHALL BE LED TYPE.
2. ALL VEHICLE SIGNAL HEADS SHALL BE 12 INCHES.
3. ALL HOUSINGS TO BE PROVIDED WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATES WITH 3-INCH RETROREFLECTIVE BORDER.
4. ALL HOUSINGS TO BE FIXED MOUNTED.

PREFERENTIAL PHASING SEQUENCE



VIDEO DETECTION DATA

DETECTOR NO.	PHASE CALLED	PHASE EXT.	OPERATIONS	DELAY TIME	EXT. TIME
1	Ø2(Ø5)**	Ø2(Ø5)**	PRESENCE	-	-
2	Ø2	Ø2	PRESENCE	-	-
3	Ø8	Ø8	PRESENCE	-	-
4	Ø6	Ø6	PRESENCE	-	-
5	Ø4	Ø4	PRESENCE	-	-

** PHASE 5 ACTIVE DURING INTERVAL 1.
PHASE 2 ACTIVE AT ALL TIMES.

FIRE PRE-EMPTION SCHEDULE

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	APPROACH AND MOVEMENT	VEHICLE PHASE ASSIGNMENT	NEXT PHASE CALLED	TIME (SEC)
R1	1	EB	Ø 6	Ø 2 + Ø 6	MIN. 10 MAX. 60
R2	2	WB	Ø 2	Ø 2 + Ø 6	MIN. 10 MAX. 60
R3	2	SB	Ø 8	Ø 4 + Ø 8	MIN. 10 MAX. 60
R4	3	NB	Ø 4	Ø 4 + Ø 8	MIN. 10 MAX. 60

NOTES:

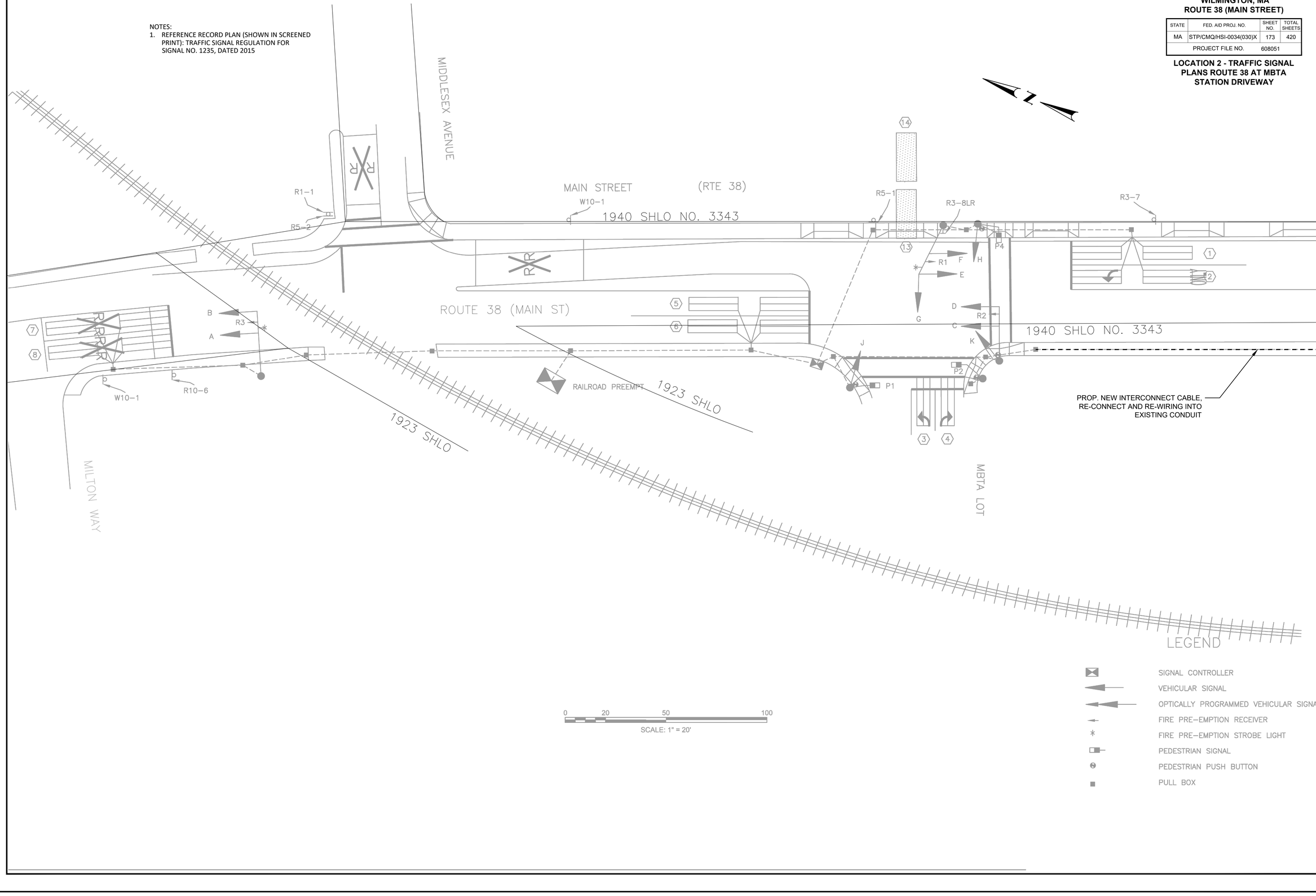
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE TRANSMITTED BY OPTICAL AND INFRARED EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY RECEIVERS LOCATED AT THE INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: R1, R2, R3, THEN R4.
3. MINIMUM GREEN, NORMAL VEHICLE AND PEDESTRIAN CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.

NOTES:
1. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): TRAFFIC SIGNAL REGULATION FOR SIGNAL NO. 1235, DATED 2015

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	173	420
PROJECT FILE NO.	608051		

LOCATION 2 - TRAFFIC SIGNAL PLANS ROUTE 38 AT MBTA STATION DRIVEWAY



608051_TR02(SIGNAL-PLANS).DWG Plotted on 2-Dec-2025 2:22 PM

NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): TRAFFIC SIGNAL REGULATION FOR SIGNAL NO. 1235, DATED 2015

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	174	420
	PROJECT FILE NO. 608051		

LOCATION 2 - TRAFFIC SIGNAL SEQUENCE & TIMING PLANS ROUTE 38 - MBTA DRIVEWAY

APPROX. NORTH

RAILROAD PREEMPTION

ø 1	ø 2	ø 3	ø 4	ø 5	ø 6	ø 7	ø 8	ø 9 TRACK GREEN	ø 10 TRACK DWELL
NOT USED		NOT USED				NOT USED			

SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	FLASH OVER
MAIN STREET	SB	A,B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	SB	C,D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	FY
MAIN STREET	NB	E	R	R	R	←FY→	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	NB	F	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
STATION DRIVEWAY	EB	G	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
STATION DRIVEWAY	EB	H	R	R	R	R	R	R	R	R	R	-G→	Y	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	-G→	Y	R	FR
#374 MAIN ST DRIVEWAY	WB	J,K	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FR
PEDESTRIAN	NB/SB	P1-2	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
PEDESTRIAN	EB/WB	P3-4	DW	DW	DW	DW	DW	DW	DW	DW	DW	W FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
TIMING IN SECONDS																																	
MINIMUM GREEN (INITIAL)						10						5			5			10						5			5						
PASSAGE TIME (VEHICLE EXTENSION)						2						2			2			2						2			1						
MAXIMUM 1 (4:00 PM - 6:00 PM, M-F)*						40						24			7			28						24			20						
MAXIMUM 2 (7:00 AM - 9:00 AM, M-F)*						40						24			9			26						24									
MAXIMUM 3 (ALL OTHER TIMES)						50						18			7			36						18									
YELLOW CLEARANCE							3.5						3			3			3.5						3						3.5		
RED CLEARANCE								2						3.5			2			2						3.5							3
WALK (W)												7						7															
PEDESTRIAN CLEARANCE												16						16															
RECALL						MIN						OFF			OFF			MIN						OFF			OFF				OFF		
MEMORY						NON-LOCKING						NON-LOCKING			NON-LOCKING			NON-LOCKING						LOCKING			LOCKING				LOCKING		

DWELL 'B' — EMERGENCY ONLY

* TIMES SHOWN ARE FOR TOTAL PHASE LENGTH

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
	FOR SIGNAL TIMING CHANGES, ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETE THE SIGNAL TIMING WORK SHALL BE CONSIDERED INCIDENTAL TO PAYMENT ITEM 816.02

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø1, ø3 AND ø7 NOT USED.

NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. 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.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

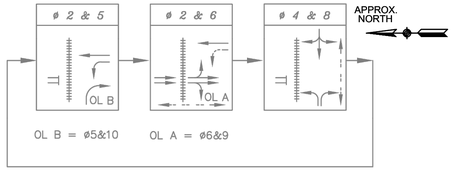
SIGNAL IDENTIFICATION NOTES:

1. ALL SIGNAL HEADS SHALL HAVE 5" BACKPLATES.

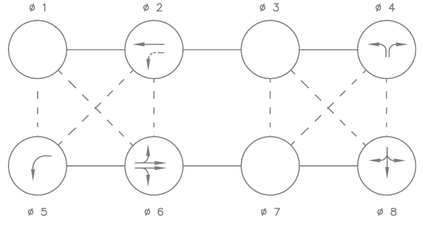
EMERGENCY PRE-EMPTION DATA NOTES:

1. RAILROAD PREEMPTION SHALL RESULT IN THE IMMEDIATE CLEARANCE OF THE CURRENT PHASE, FOLLOWED BY PHASE TRACK GREEN. IN THE EVENT TRACK GREEN "GAPS OUT" THE RAILROAD SEQUENCE SHALL PROCEED TO THE TRACK DWELL 'A' PHASE. UPON GAP OUT OR MAX OUT OF TRACK DWELL 'A' THE SEQUENCE SHALL PROCEED TO TRACK DWELL 'B' FOR THE REMAINDER OF THE PREEMPTION CALL. ONCE THE CALL IS DROPPED FROM THE RAILROAD CIRCUIT THE TRAFFIC CONTROLLER SHALL RETURN TO THE BEGINNING OF THE CYCLE.
2. RAILROAD PREEMPTION SHALL OVERRIDE ALL EMERGENCY PREEMPTION AND ANY COORDINATION PROGRAMMING.
3. RAILROAD PREEMPTION SHALL ACTIVATE THE CLEARANCE PHASE APPROXIMATELY 20 SECONDS BEFORE THE RAILROAD FLASHERS AND BELLS ARE ACTIVATED.

PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:



CONSTRUCTION NOTES

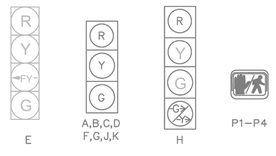
1. UPDATE TIMINGS, CLEARANCES, PED TIMES AND COORDINATION SPLIT TIMES.

EMERGENCY PRE-EMPTION DATA

APPROACH		PHASE	TIME* (SEC)
ROUTE 38	NB	ø2 & ø5	MIN. 15 MAX. 199
ROUTE 38	SB	ø6	MIN. 15 MAX. 199
STATION DRIVEWAY	EB	ø4	MIN. 15 MAX. 199
FUNERAL HOME DRIVE	WB	ø8	MIN. 15 MAX. 199

* EXISTING TIMING WILL BE MAINTAINED.

SIGNAL IDENTIFICATION



NOTES:
1. ALL SIGNAL HEADS SHALL BE EQUIPED WITH 12" LENS AND L.E.D. MODULES.

LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	2	6'X20'	EXISTING	ø2	ø2	PRESENCE	0	0
2	2	6'X20'	EXISTING	ø5	ø5	"	0	0
3	2	6'X20'	EXISTING	ø4	ø4	"	0	0
4	2	6'X20'	EXISTING	ø4	ø4	"	0	0
5	2	6'X20'	EXISTING	ø6	ø6	"	0	0
6	2	6'X20'	EXISTING	ø6	ø6	"	0	0
7	2	6'X6'	EXISTING	ø6	ø6	"	0	0
8	1			ø6	ø6	"	0	0
13	1		VIDEO	ø8	ø8	"	0	0
14	1		VIDEO	ø8	ø8	"	0	0

SYSTEM COORDINATION DATA
LOCATION 2: ROUTE 38 (MAIN STREET) AT STATION DRIVEWAY

(ALL ENTRIES IN SECONDS)

	PLAN 1	PLAN 2
CYCLE LENGTH	75	75
PERIOD OF OPERATION	4 PM - 6PM M-F	7AM - 9 AM M-F
SPLIT: PHASE 2 + PHASE 5	12	14
SPLIT: PHASE 2 + PHASE 6	33	31
SPLIT: PHASE 4 + PHASE 8	30	30
COORDINATED ø	2	2
OFFSET:	74	78

NOTE:
- OFFSET REFERENCE TO PHASE 2 START OF GREEN
- FREE OPERATION DURING ALL OTHER TIMES

RECORD PLANS FROM PRINTED AUGUST 2015

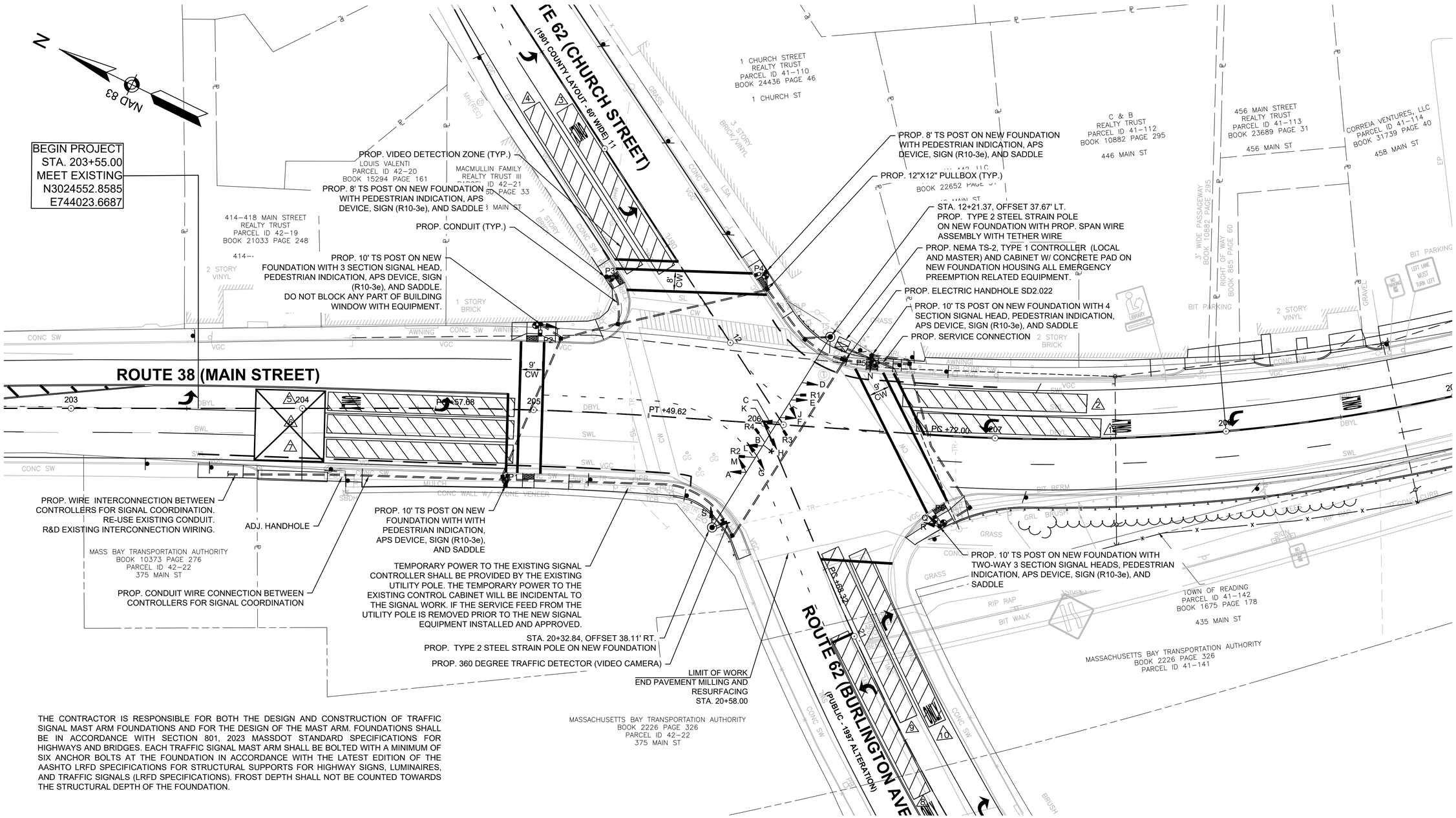
608051_TR03(SIGNAL TIMING PLANS).DWG Plotted on 2-Dec-2025 2:22 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	175	420
PROJECT FILE NO.	608051		

LOCATION 3 - TRAFFIC SIGNAL PLANS ROUTE 62 AT ROUTE 38

608051_TR02(SIGNAL-PLANS).DWG Plotted on 2-Dec-2025 2:23 PM



THE CONTRACTOR IS RESPONSIBLE FOR BOTH THE DESIGN AND CONSTRUCTION OF TRAFFIC SIGNAL MAST ARM FOUNDATIONS AND FOR THE DESIGN OF THE MAST ARM. FOUNDATIONS SHALL BE IN ACCORDANCE WITH SECTION 801, 2023 MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES. EACH TRAFFIC SIGNAL MAST ARM SHALL BE BOLTED WITH A MINIMUM OF SIX ANCHOR BOLTS AT THE FOUNDATION IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS (LRFD SPECIFICATIONS). FROST DEPTH SHALL NOT BE COUNTED TOWARDS THE STRUCTURAL DEPTH OF THE FOUNDATION.

STRAIN POLE FOUNDATION INFORMATION
STA. 20+32.84 RT - 4'-0" DIAMETER, 14'-0" DEEP
STA. 12+21.37 LT - 4'-0" DIAMETER, 14'-0" DEEP

NOTE OF CAUTION - DRILLING FOR FOUNDATION AND INSTALLATION OF POLES SHALL NOT DISTURB ADJACENT OVERHEAD POWER AND TELECOMMUNICATION LINES. INSTALLED OVERHEAD TRAFFIC SIGNAL EQUIPMENT SHALL BE SITUATED A MINIMUM OF 10 FEET FROM ELECTRICAL CABLES AND WIRING AND SHALL BE SITUATED A MINIMUM OF 3 FEET FROM TELECOMMUNICATIONS CABLES AND WIRING.

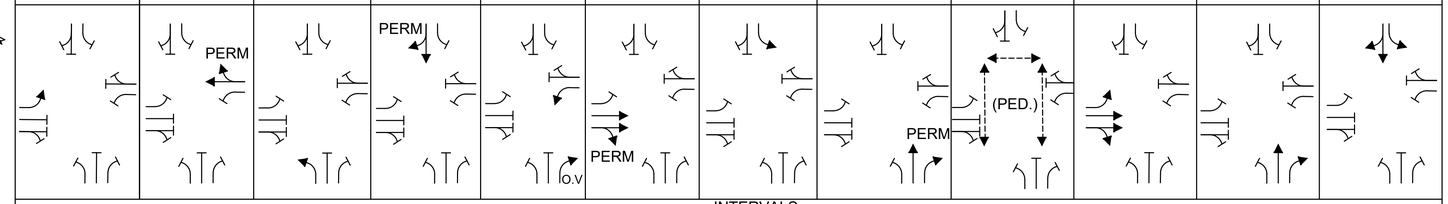
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	176	420
PROJECT FILE NO.	608051		

LOCATION 3 - TRAFFIC SIGNAL SEQUENCE & TIMING PLANS ROUTE 38-ROUTE 62

SEQUENCE & TIMING
FOR
FULL ACTUATED CONTROL
(COORDINATED)
MAIN STREET (ROUTE 38)
AT
BURLINGTON AVENUE /
CHRUCH STREET (ROUTE 62)

APPROX. NORTH



APPROACH	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	FLASHING OPERATION
			INTERVALS																																					
ROUTE 38 (MAIN STREET)	NB	D,E,T	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
ROUTE 38 (MAIN STREET)	NBL	F	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	G	Y	R	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	R	~~FR~~
ROUTE 38 (MAIN STREET)	SBL	C	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~FR~~
ROUTE 38 (MAIN STREET)	SB	A,B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	FY
ROUTE 62 (BURLINGTON STREET)	EBL	G	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~FR~~
ROUTE 62 (BURLINGTON STREET)	EB	H,R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	FR
ROUTE 62 (BURLINGTON STREET)	EB/EBR	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G / ~~G~~	Y	R	R	R	R	R	R	R	G /~~G~~	Y	R	R	R	FR
ROUTE 62 (BURLINGTON STREET)	EBR	J	R	R	R	R	R	R	R	R	R	R	R	R	G /~~G~~	Y/~~Y~~	R	R	R	R	R	R	R	G / ~~G~~	Y / ~~Y~~	R	R	R	R	R	R	R	G /~~G~~	Y / ~~Y~~	R	R	R	R	FR
ROUTE 62 (CHURCH STREET)	WBL	K,Q	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~FR~~
ROUTE 62 (CHURCH STREET)	WB	L,M,S	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
PEDESTRIAN		P1-P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
			TIMING IN SECONDS																																				
MINIMUM GREEN			5			6			6			6			6			6			6			6						5			5			6			EMERGENCY ONLY
MAX GREEN 1			6			54			7			27			14			48			10			25						1									
MAX GREEN 2			6			55			8			25			10			53			7			27						20			15			15			
VEHICLE EXTENSION			3			3			3			3			3			3			3			3						3			3			3			
YELLOW CLEARANCE				3.5			3			3			3			3			3.5			3			3						3			3			3		
RED CLEARANCE					5			3			6.5			2.5			3.5			3			5			2.5					3				3			2.5	
PED WALK INTERVAL																											7	17	4										
RECALL			NONE			MIN			NONE			NONE			NONE			MIN			NONE			NONE			NONE			NONE			NONE			NONE			

COORDINATION DATA																																							
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	Ø 1			Ø 2			Ø 3			Ø 4			Ø 5			Ø 6			Ø 7			Ø 8			Ø 9												
M-F 7:00 AM - 9:00 AM	150 SEC	0 SEC.	14			60			16			32			20			54			18			30			28												
M-F 4:00 PM - 6:00 PM	150 SEC.	0 SEC.	14			61			17			30			16			59			15			32			28												

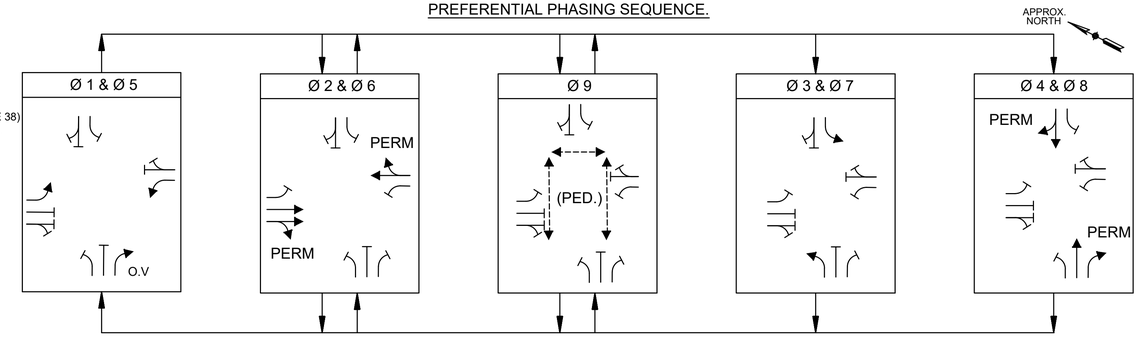
* SPLIT = GREEN + YELLOW + ALL RED TIME FOR PHASE

** PHASE NOT ACTIVE DURING INTERVAL 1

NOTES:

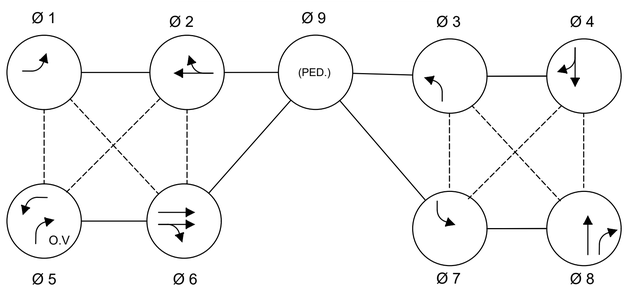
1. STANDARD NEMA CLEARANCES SHALL APPLY.
2. MAXIMUM GREEN 2 SHALL BE IN EFFECT ON WEEKDAYS FROM 4:00 PM TO 6:00 PM.
3. MAXIMUM GREEN 1 SHALL BE IN EFFECT AT ALL OTHER TIMES.
4. INTERSECTION TO BE COORDINATED WITH THE LOCATION 2 - INTERSECTION OF MAIN STREET (ROUTE 38) AND THE MBTA PARKING LOT VIA HARDWARE ALONG THE SOUTHBOUND DIRECTION OF MAIN STREET. Ø2 IS THE COORDINATED PHASE AT THE START OF GREEN. COORDINATED OFFSETS ARE REFERENCED TO THE START OF GREEN OF THE COORDINATED PHASE (Ø2). THE PROPOSED CONTROLLER AT THE MAIN STREET/CHURCH STREET INTERSECTION IS THE MASTER CONTROLLER.
5. ALL UNUSED TIME WITHIN CYCLE SHALL BE REALLOCATED TO THE COORDINATED PHASE (Ø2) AND TO Ø6.
6. SIGNAL OPERATES FREELY AT ALL OTHER TIMES.

PREFERENTIAL PHASING SEQUENCE.



PERM: PERMISSIVE PHASE
O.V: OVERLAP PHASE

NEMA DUAL RING PHASING NOTES:



1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. 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.
4. PEDESTRIAN PHASE SHALL BE ACTIVATED UPON PUSHBUTTON ONLY.

MAJOR ITEMS REQUIRED

ITEM NUMBER	QUANTITY	ITEM
804.3	694	3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC -(UL)
811.22	1	ELECTRIC HANDHOLE - SD2.022
	ALL	R&D OLD PULL BOX AND ELECTRIC HANDHOLE & FOUNDATION
811.31	9	12" x 12" PULLBOX
816.03	1	SERVICE CONNECTION (OVERHEAD)
	1	LOCAL CONTROLLER NEMA 8 PHASE TS-2 (TYPE-1)
	1	MASTER CONTROLLER NEMA 8 PHASE TS-2 (TYPE-1)
	3	SIGNAL POLE AND BASE STANDARD, 8 FT. W / FOUNDATION
	3	SIGNAL POLE AND BASE STANDARD, 10 FT. W / FOUNDATION
	2	STRAIN POLE W / FOUNDATION
	15	12 INCH 1 WAY 3-SECTION LED VEHICLE SIGNAL INDICATION
	1	12 INCH 1 WAY 4-SECTION LED VEHICLE SIGNAL INDICATION
	1	12 INCH 1 WAY 5-SECTION LED VEHICLE SIGNAL INDICATION
	6	16 INCH LED PEDESTRIAN INDICATION WITH COUNTDOWN
	6	PED. PUSH BUTTON W/ SIGN AND SADDLE (APS)
	1	PREEMPTION CARD RACK
	1	EMERGENCY PRE-EMPTION INDICATOR (STROBE) LIGHT
	4	EMERGENCY PRE-EMPTION RECEIVER (DETECTOR) - ONE WAY
	1	PREEMPTION PHASE SELECTOR MODULE-FOUR CHANNEL
	1	VIDEO DETECTION SYSTEM
	ALL	R&S OF EXISTING SIGNAL EQUIPMENT AND POLES

PLUS ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION OF A FULLY OPERATIONAL SIGNAL SYSTEM AS INTENDED ON THESE PLANS

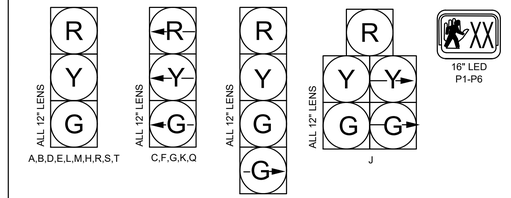
VIDEO DETECTION DATA

DETECTOR NO.	PHASE CALLED	PHASE EXT.	OPERATIONS	DELAY TIME	EXT. TIME
1	Ø5	Ø5	PRESENCE	-	-
2	Ø2	Ø2	PRESENCE	-	-
3	Ø7	Ø7	PRESENCE	-	-
4	Ø4	Ø4	PRESENCE	-	-
5	Ø1	Ø1	PRESENCE	-	-
6	Ø6	Ø6	PRESENCE	-	-
7	Ø6	Ø6	PRESENCE	-	-
8	Ø3	Ø3	PRESENCE	-	-
9	Ø8	Ø8	PRESENCE	-	-
10	Ø8	Ø8	PRESENCE	-	-

NOTES:

1. RAILROAD PREEMPTION SHALL RESULT IN THE IMMEDIATE CLEARANCE OF THE CURRENT PHASE, FOLLOWED BY PHASE TRACK GREEN. IN THE EVENT PHASE TRACK GREEN "GAPS OUT" THE RAILROAD SEQUENCE SHALL PROCEED TO THE TRACK DWELL 'A' PHASE. UPON GAP OUT OR MAX OUT OF TRACK DWELL 'A' THE SEQUENCE SHALL PROCEED TO TRACK DWELL 'B' FOR THE REMAINDER OF THE PREEMPTION CALL. ONCE THE CALL IS DROPPED FROM THE RAILROAD CIRCUIT THE TRAFFIC CONTROLLER SHALL RETURN TO THE BEGINNING OF THE CYCLE.
2. RAILROAD PREEMPTION SHALL OVERRIDE ALL EMERGENCY PREEMPTION AND ANY COORDINATION PROGRAMMING.
3. RAILROAD PREEMPTION SHALL ACTIVATE THE CLEARANCE PHASE APPROXIMATELY 20 SECONDS BEFORE THE RAILROAD FLASHERS AND BELLS ARE ACTIVATED.

SIGNAL IDENTIFICATION



NOTES:
1. ALL VEHICLE LENSES SHALL BE LED TYPE.
2. ALL VEHICLE SIGNAL HEADS SHALL BE 12 INCHES.
3. ALL HOUSINGS TO BE PROVIDED WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATES WITH 3-INCH RETROREFLECTIVE BORDER.

APPROX. NORTH

FIRE PRE-EMPTION SCHEDULE

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	APPROACH AND MOVEMENT	VEHICLE PHASE ASSIGNMENT	NEXT PHASE CALLED	TIME (SEC)
R1	1	NB	Ø 2 + Ø 5	Ø 2 + Ø 6	MIN. 15 MAX. 199
R2	2	SB	Ø 1 + Ø 6	Ø 2 + Ø 6	MIN. 15 MAX. 199
R3	3	EB	Ø 3 + Ø 8	Ø 2 + Ø 6	MIN. 15 MAX. 199
R4	4	WB	Ø 4 + Ø 7	Ø 2 + Ø 6	MIN. 15 MAX. 199

NOTES:
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE TRANSMITTED BY OPTICAL OR INFRARED EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY RECEIVERS LOCATED AT THE INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: R1, R2, R3, THEN R4.
3. MINIMUM GREEN, NORMAL VEHICLE AND PEDESTRIAN CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
4. EXISTING PRE-EMPTION TIMINGS WILL BE MAINTAINED.

608051_TR03(SIGNAL TIMING PLANS).DWG Plotted on 2-Dec-2025 2:23 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	177	420
	PROJECT FILE NO. 608051		

LOCATION 4 - TRAFFIC SIGNAL
PLANS ROUTE 38 AT ROUTE 129

608051_TR02(SIGNAL-PLANS).DWG Plotted on 2-Dec-2025 2:24 PM

KIERNAN AVENUE (PUBLIC)

LOWELL (ROUTE 129) STREET

31 PRC +02.59

(1950 COUNTY LAYOUT - VARIABLE WIDTH)

ROUTE 38 (MAIN STREET)

PROP. PEDESTRIAN INDICATIONS, APS DEVICES, SIGNS (R10-3e), SADDLES AND DETECTION CAMERA ON EXISTING MAST ARM POLE

PROP. PEDESTRIAN INDICATION, APS DEVICE, SIGN (R10-3e), AND SADDLE ON EXISTING TS POST

REMOVE AND RESET EXISTING PULL BOX
RECONNECT & REWIRING THE LEAD-IN CABLE TO EXISTING PULL BOX.

PROP. PEDESTRIAN INDICATIONS, APS DEVICES, SIGNS (R10-3e), AND SADDLES ON EXISTING MAST ARM POLE

SUBJECT TO VERIZON EASEMENT
BOOK 11541 PAGE 327
(NOT PLOTTABLE)

TOWN OF WILMINGTON ROUNDING EASEMENT (BOOK 17004, PAGE 65)

ACCESS EASEMENT BOOK 2317 PAGE 128

DRIVEWAY EASEMENT BOOK 34278 PAGE 198

SIGN EASEMENT BOOK 34278 PAGE 198

10' WIDE RIGHT OF WAY PLAN BK 113 PG 92

APPROXIMATE LOCATION OF RIGHT OF WAY

NAD 83

NOTE:
THE CONTRACTOR SHALL DETERMINE AND VERIFY THE FIELD LOCATION OF EXISTING HAND HOLES IN ORDER TO PROVIDE LOOP DETECTOR CONNECTION TO CABINET.

0 20 50 100
SCALE: 1" = 20'

NOTE:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT. EXISTING SETTINGS AND TIMINGS SHOWN IN GRAY SHALL BE RETAINED.

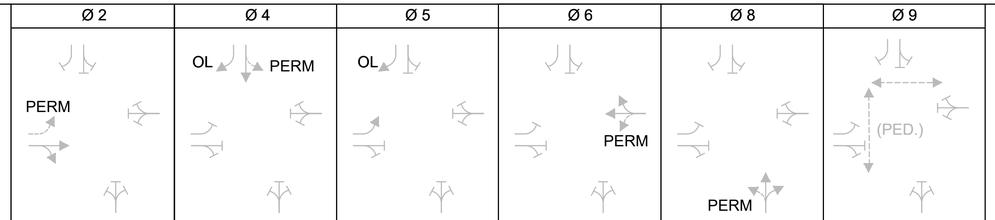
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	178	420
PROJECT FILE NO.	608051		

LOCATION 4 - TRAFFIC SIGNAL SEQUENCE & TIMING PLANS ROUTE 38- ROUTE 129

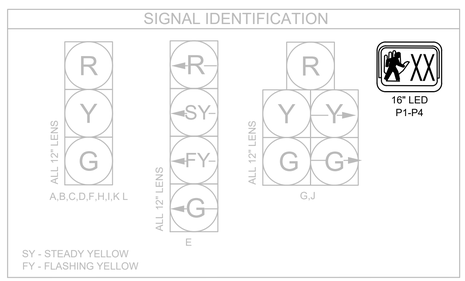
SEQUENCE & TIMING
FOR
FULL ACTUATED CONTROL
(COORDINATED)
MAIN STREET (ROUTE 38)
AT
LOWELL STREET (ROUTE 129)

APPROX. NORTH



APPROACH	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	7	8	9	FLASHING OPERATION
			INTERVALS																		
ROUTE 38 (MAIN STREET)	NB	A,B	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
DRIVEWAY	EB	C,D	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
ROUTE 38 (MAIN STREET)	SBL	E	~~FY►~~ / G	~~SY►~~ / Y	R	R	R	R	~~◄G~~ / G	~~◄SY~~ / Y	R	R	R	R	R	R	R	R	R	R	FR
ROUTE 38 (MAIN STREET)	SB	F,L	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
ROUTE 129 (LOWELL STREET)	WB	H,K	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
ROUTE 129 (LOWELL STREET)	WBR	G,J	R	R	R	G / ~~G►~~	Y / ~~Y►~~	R	G / ~~G►~~	Y / ~~Y►~~	R	R	R	R	R	R	R	R	R	R	FR
PEDESTRIAN		P1-P4	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT
			TIMING IN SECONDS																		
MINIMUM GREEN			10			10			6			10			5						EMERGENCY ONLY
MAX GREEN 1			61			11			20			36			6						
MAX GREEN 2			36			11			12			19			6						
VEHICLE EXTENSION			3			3			3			3			3						
YELLOW CLEARANCE				3.5			3			3.5			3.5			3					
RED CLEARANCE					2			3.5			2			2			2				
PED WALK INTERVAL																		7	20	4	
RECALL			MIN			NONE			NONE			MIN			NONE			NONE			
COORDINATION DATA			COORDINATION PHASE TIMING *																		
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	Ø 2			Ø 4			Ø 5			Ø 6			Ø 8			Ø 9			
M-F 7:00 AM - 9:00 AM	125 SEC	0 SEC.	66			17			25			41			11			31			
M-F 4:00 PM - 6:00 PM	100 SEC.	0 SEC.	41			17			17			24			11			31			

SIGNAL IDENTIFICATION

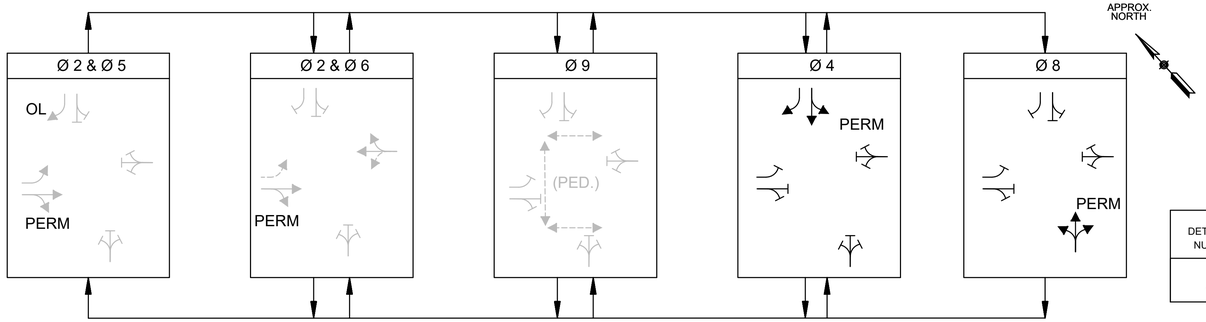


NOTES:
1. ALL VEHICLE LENSES SHALL BE LED TYPE.
2. ALL VEHICLE SIGNAL HEADS SHALL BE 12 INCHES.
3. ALL HOUSINGS TO BE PROVIDED WITH TUNNEL VISORS AND 5-INCH LOUVERED BACKPLATES WITH 3-INCH RETROREFLECTIVE BORDER.
4. ALL HOUSINGS TO BE FIXED MOUNTED.

NOTES:

1. STANDARD NEMA CLEARANCES SHALL APPLY.
2. MAXIMUM GREEN 2 SHALL BE IN EFFECT ON WEEKDAYS FROM 4:00 PM TO 6:00 PM.
3. MAXIMUM GREEN 1 SHALL BE IN EFFECT AT ALL OTHER TIMES.
4. THIS INTERSECTION (MASTER INTERSECTION) TO BE COORDINATED WITH THE LOCATION 1 - INTERSECTION OF MAIN STREET (ROUTE 38), CROSS STREET AND BUTTER'S ROW. Ø2 IS THE COORDINATED PHASE AT THE START OF GREEN. COORDINATED OFFSETS ARE REFERENCED TO THE START OF PHASE (2).
5. ALL UNUSED TIME WITHIN CYCLE SHALL BE REALLOCATED TO THE COORDINATED PHASE (2) AND TO 6.
6. SIGNAL SHALL OPERATE FREELY AT ALL OTHER TIMES. SIGNAL SHALL OPERATE FREELY AT ALL OTHER TIMES.

PREFERENTIAL PHASING SEQUENCE

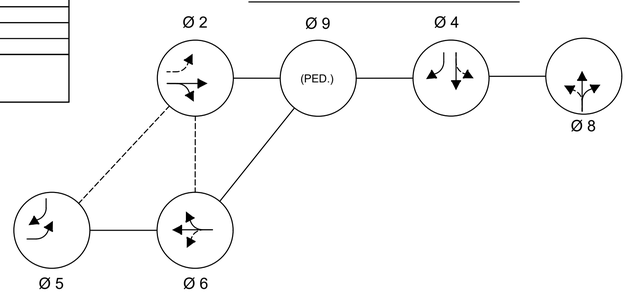


PERM: PERMISSIVE PHASE
O.V: OVERLAP PHASE

VIDEO DETECTOR DATA

DETECTOR NUMBER	Ø CALLED	Ø EXT.	OPERATIONS	DELAY TIME	EXT. TIME
7	8	8	PRESENCE	-	-

NEMA DUAL RING PHASING NOTES:



1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. 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.
4. PEDESTRIAN PHASE SHALL BE ACTIVATED UPON PUSHBUTTON ONLY.

LOOP DETECTOR DATA

DETECTOR NUMBER	LOOP SIZE	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	6'X23'	6	6	B	0	-
2	6'X12'	4	4	B	0	-
3	6'X12'	5	4,5	B	0	-
4	6'X23'	5	5	B	0	-
5	6'X23'	2	2	B	0	-
6	6'X23'	2 (OMIT OVERLAP)	2	B	5	-

FIRE PRE-EMPTION SCHEDULE

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	APPROACH AND MOVEMENT	VEHICLE PHASE ASSIGNMENT	NEXT PHASE CALLED	TIME (SEC)
R1	1	SB	Ø 2	Ø 2 + Ø 6	MIN. 10 MAX. 60
R2	2	NB	Ø 6	Ø 2 + Ø 6	MIN. 10 MAX. 60
R3	2	WB	Ø 4	Ø 4 + Ø 8	MIN. 10 MAX. 60

NOTES:
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE TRANSMITTED BY OPTICAL AND INFRARED EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY RECEIVERS LOCATED AT THE INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: R1, R2, THEN R3.
3. MINIMUM GREEN, NORMAL VEHICLE AND PEDESTRIAN CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.

MAJOR ITEMS REQUIRED

ITEM NUMBER	QUANTITY	ITEM
816.04	1	5 INCH LOUVERED BACKPLATE WITH 3 INCH RETROREFLECTIVE BORDER (SIGNAL J)
	9	3 INCH RETROREFLECTIVE BORDER TAPE
	10	TYPE Q ROADWAY STANDARD QUADREPOLE LOOP DETECTORS (6' X 23')
	4	16 INCH LED PEDESTRIAN INDICATION WITH COUNTDOWN
	4	PED. PUSH BUTTON W/ SIGN AND SADDLE (APS)
	1	GPS SYSTEM FOR CLOCK SYNCHRONIZATION REFRENCE
	1	VIDEO DETECTION SYSTEM

PLUS ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION OF A FULLY OPERATIONAL SIGNAL SYSTEM AS INTENDED ON THESE PLANS

608051_TR03(SIGNAL TIMING PLANS).DWG Plotted on 2-Dec-2025 2:25 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

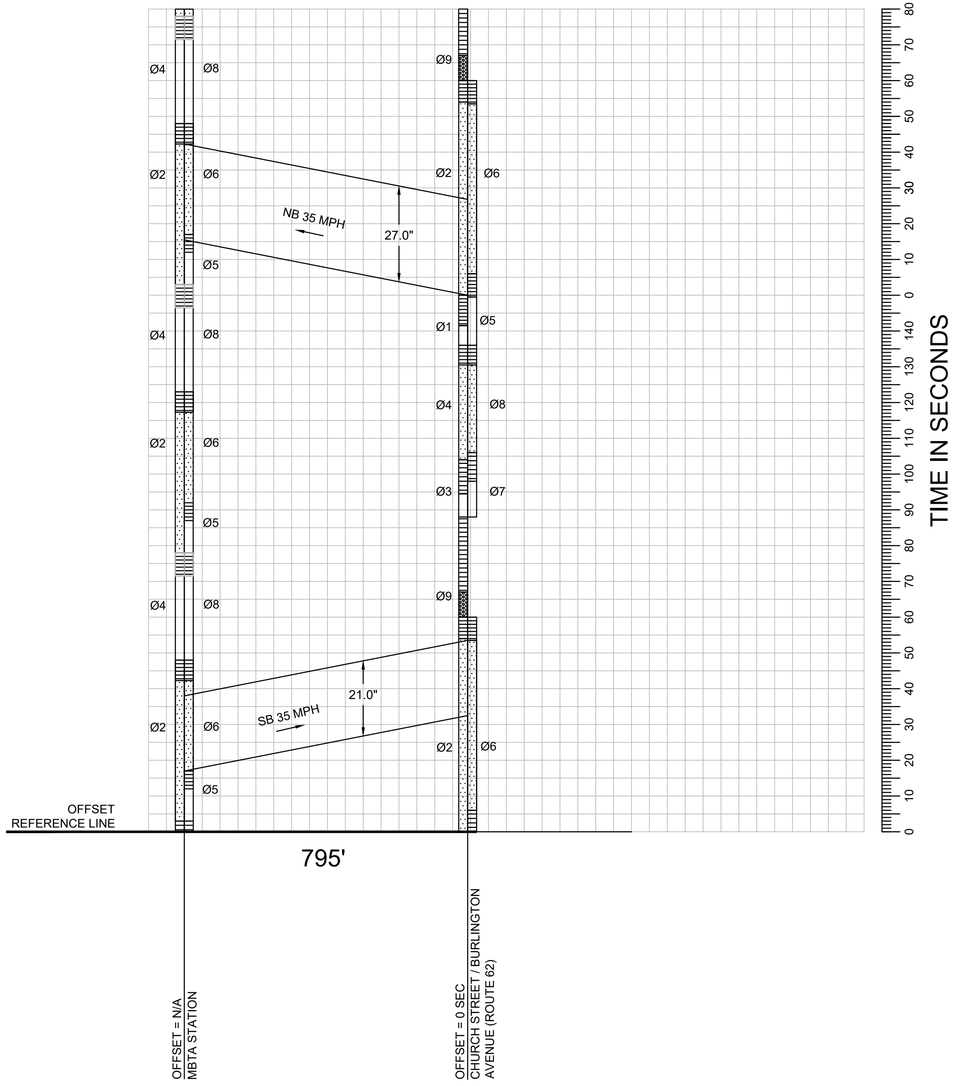
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	179	420
	PROJECT FILE NO. 608051		

TIME-SPACE DIAGRAM - AM PEAK HOUR

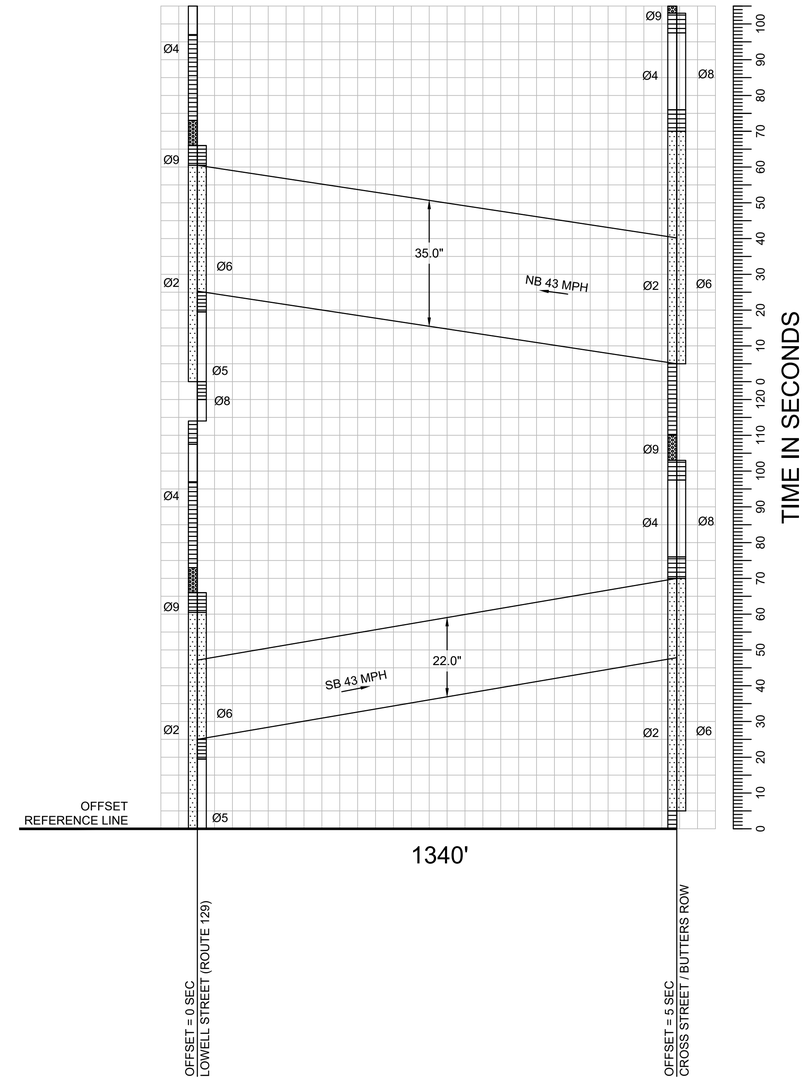
608051_TR03\SIGNAL TIMING PLANS\.DWG Plotted on 2-Dec-2025 2:25 PM

MAIN STREET (ROUTE 38)

75/150 SECOND CYCLE (AM)



120 SECOND CYCLE (AM)



LEGEND

- YELLOW/RED CLEARANCE INTERVAL
- ØX GREEN TIME FOR COORDINATED PHASE
- ØX GREEN TIME FOR NON-COORDINATED PHASE

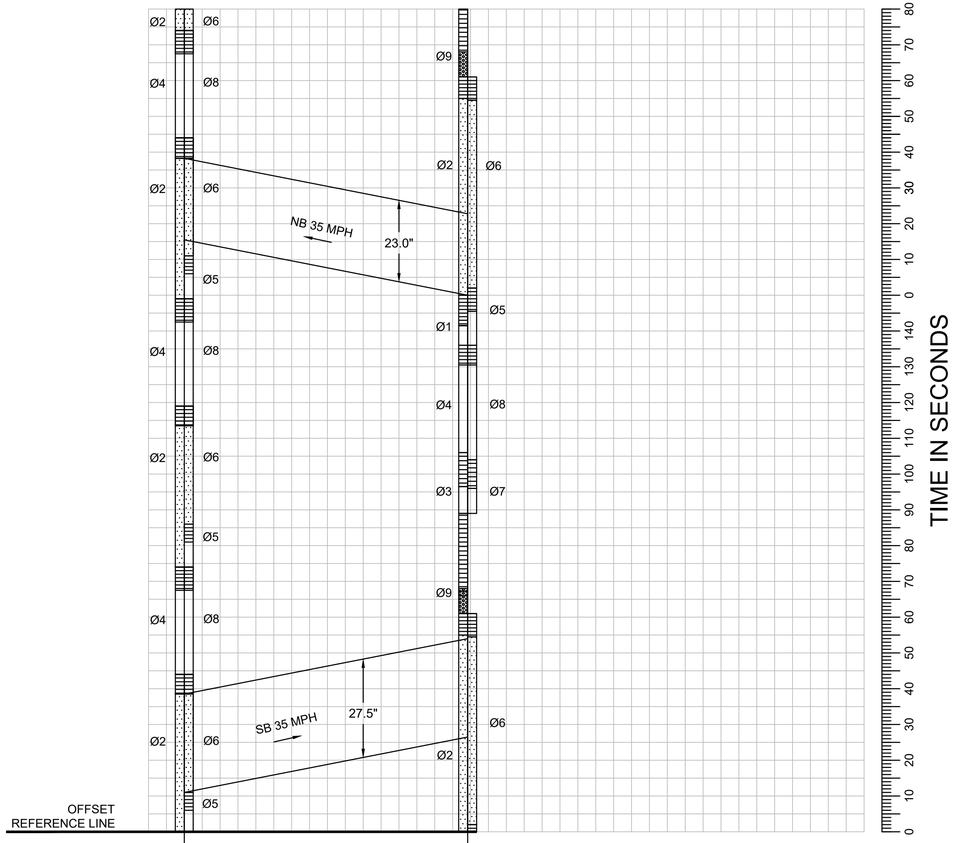
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	180	420
PROJECT FILE NO.	608051		

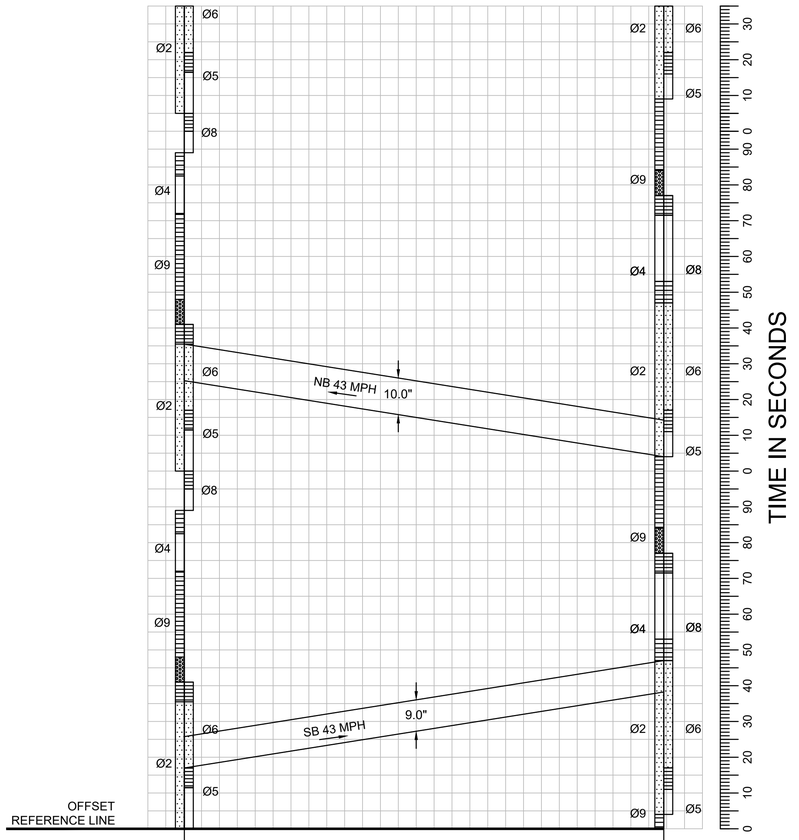
TIME-SPACE DIAGRAM - PM PEAK HOUR

MAIN STREET (ROUTE 38)

75/150 SECOND CYCLE (PM)



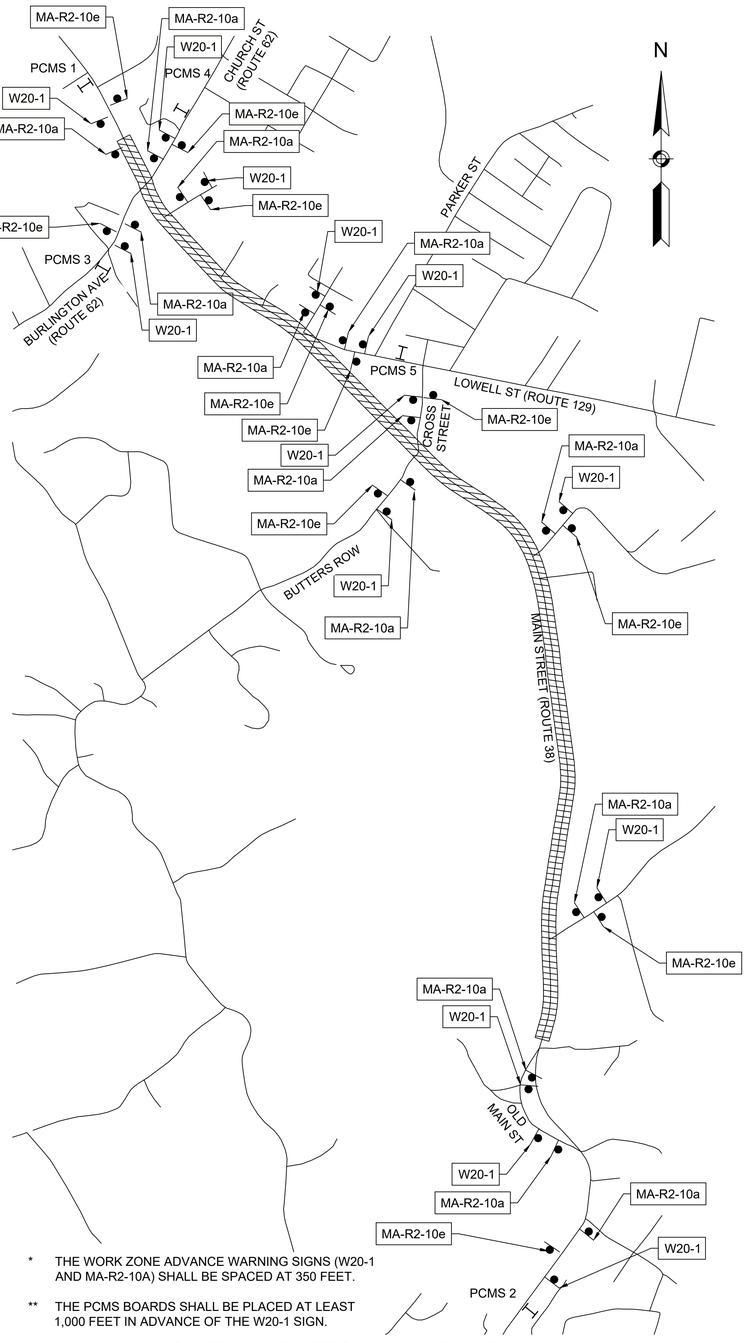
95 SECOND CYCLE (PM)



LEGEND

- YELLOW/RED CLEARANCE INTERVAL
- ØX GREEN TIME FOR COORDINATED PHASE
- ØX GREEN TIME FOR NON-COORDINATED PHASE

608051_TR03\SIGNAL TIMING PLANS\.DWG Plotted on 2-Dec-2025 2:25 PM



* THE WORK ZONE ADVANCE WARNING SIGNS (W20-1 AND MA-R2-10A) SHALL BE SPACED AT 350 FEET.

** THE PCMS BOARDS SHALL BE PLACED AT LEAST 1,000 FEET IN ADVANCE OF THE W20-1 SIGN.

OVERALL TRAFFIC MANAGEMENT PLAN

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- TEMPORARY BARRIER
- TEMPORARY BARRIER - LIMITED DEFLECTION

TEMPORARY TRAFFIC CONTROL NOTES:

1. THESE PLANS ARE NOT INTENDED TO LIMIT THE CONTRACTOR'S APPROACH TO SCHEDULE THE WORK BUT TO OUTLINE ONE WAY OF PROGRESSING. THE CONTRACTOR IS EXPECTED TO USE KNOWLEDGE AND EXPERIENCE TO PERFORM THE WORK IN THE MOST EFFICIENT AND SAFE MANNER IN COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS AND MEETING THE REQUIREMENTS OF THE ABUTTERS AND APPLICABLE STATE AND LOCAL AGENCIES.
2. THE CONTRACTOR MAY ELECT TO PROVIDE ALTERNATE METHODS TO MAINTAIN TRAFFIC. ALTERNATE METHODS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO MASSDOT FOR REVIEW AND APPROVAL.
3. THE CONTRACTOR SHALL COORDINATE APPROVAL OF ALL CHANGES TO THE TEMPORARY TRAFFIC CONTROL PLAN WITH MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) PRIOR TO CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL ALSO NOTIFY MASSDOT AND THE TOWN OF WILMINGTON THREE (3) WEEKS IN ADVANCE OF PLACING TEMPORARY TRAFFIC CONTROL SIGNS.
4. MINIMUM LANE WIDTH OF 11 FEET SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE SHOWN ON THESE PLANS.
5. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY MUST PASS THE CRITERIA SET FORTH IN THE NHCRP 350 REPORT AND THE CRITERIA SET FORTH IN THE "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
6. ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD),"STANDARD HIGHWAY SIGNS" CURRENT EDITION, 2012 MASSDOT AMENDMENTS TO THE MUTCD, AND 2016 MASSDOT STANDARD SIGN BOOK.
7. PLACE ALL SAFETY DEVICES AND CONSTRUCTION SIGNING BEFORE ACTUAL CONSTRUCTION WORK BEGINS. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED BASED ON FIELD CONDITIONS WITH THE DIRECTION AND APPROVAL OF ENGINEER.
8. USE FLAGS ON ADVANCED WARNING SIGNS. FLAGS SHALL BE AT LEAST 16" X16".
9. ALL SIGNS NOT APPLICABLE TO THE CURRENT TRAFFIC SETUP SHALL BE REMOVED AND RESET UPON COMPLETION OF CONSTRUCTION OR COVERED.
10. A LONGITUDINAL BUFFER SPACE SHALL BE UTILIZED IN ADVANCE OF WORK AREAS. REFER TO PART VI OF THE 2009 MUTCD FOR GUIDELINES AND DETAILS.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING REASONABLE ACCESS/EGRESS AT ALL CURB CUTS, BUSINESS ENTRANCES, RESIDENTIAL ENTRANCES LOCATED WITHIN THE WORK ZONES.
12. CONTRACTOR SHALL PROVIDE AND MAINTAIN A TEMPORARY ADA AND AAB COMPLIANT ACCESSIBLE PEDESTRIAN ROUTE AROUND OBSTRUCTIONS TO AN EXISTING PEDESTRIAN ROUTE (E.G. SIDEWALKS, CROSSWALKS, PEDESTRIAN CURB RAMPS, ETC.). ALL TEMPORARY WHEELCHAIR RAMPS SHALL MEET MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) AND AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS. OBSTRUCTIONS INCLUDE, BUT ARE NOT LIMITED TO CONSTRUCTION WORK, EXCAVATIONS, EQUIPMENT AND VEHICLES, TEMPORARY UTILITY LINES PLACED ON THE SURFACE, TRAFFIC DIVERTERS, ETC. PROVIDE TEMPORARY FENCING OR BARRIERS AS NECESSARY TO MAINTAIN SAFE PEDESTRIAN PASSAGE AT ALL TIMES. THE TEMPORARY PEDESTRIAN PASSAGEWAYS AROUND/THROUGH THE CONSTRUCTION ZONE SHALL BE PROVIDED AT ALL TIMES AND COMPLY WITH 521 CMR.
13. THE TEMPORARY PAVEMENT MARKINGS INSTALLED DURING CONSTRUCTION SHALL BE 6 INCH.
14. THE CONTRACTOR SHALL MAINTAIN EMERGENCY PASSAGE AT ALL TIMES TO BUILDINGS WITHIN AND ADJACENT TO THE PROJECT LIMITS, AS WELL AS A LARGER AREA IF AFFECTED BY CONSTRUCTION CONDITIONS, WITHOUT INTERFERING WITH THE REASONABLE ACCESS OF ABUTTERS TO THEIR PROPERTIES. THE CONTRACTOR SHALL ALSO MAINTAIN 24-HOUR EMERGENCY VEHICLE ACCESS TO CONSTRUCTION AREAS, WHILE ENSURING THAT ABUTTERS HAVE REASONABLE ACCESS TO THEIR PROPERTY.
15. CONTRACTOR SHALL COORDINATE WITH ABUTTERS FOR THE PROPOSED WORK AND SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF THE WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS OR LOSS OF SERVICE (I.E. WATER SHUTDOWN).
16. SAFETY SIGNS PROPOSED FOR LOCATIONS OTHER THAN ERECTED ON TEMPORARY BARRICADES SHALL BE CONSTRUCTED WITH THEIR OWN SUPPORTS OR SIGN POSTS.
17. TEMPORARY CONSTRUCTION SIGNING, BARRICADES AND ALL OTHER NECESSARY WORK ZONE TRAFFIC DEVICES SHALL BE REMOVED FROM THE ROADWAY WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
18. UNLESS OTHERWISE NOTED, ALL PAVEMENT MARKINGS, SIGNS AND OTHER TRAFFIC EQUIPMENT REMOVED OR DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN CONFORMANCE WITH THE STANDARDS OF APPLICABLE STATE AND LOCAL AGENCIES.
19. CONTRACTOR IS RESPONSIBLE FOR ERADICATING CONFLICTING TEMPORARY PAVEMENT MARKINGS INSTALLED DURING THE CONSTRUCTION PHASES. ERADICATING TEMPORARY PAVEMENT MARKINGS SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE TEMPORARY PAVEMENT MARKING ITEM.

PCMS ADVANCE NOTIFICATION MESSAGE	
MESSAGE 1	MESSAGE 2
ONE LANE ROUTE 38	MMM/DDD

PCMS MESSAGES DURING CULVERT OR BRIDGE WORK	
MESSAGE 1	MESSAGE 2
ONE LANE ROUTE 38	SIGNAL AHEAD

NOTE:

IMPLEMENT PCMS WHEN THE SETUPS DEPICTED ON SHEETS 203-206 FOR REPLACEMENT OF THE MAPLE MEADOW BROOK BRIDGE AND 207-210 FOR REPLACEMENT OF THE CULVERT AT DUBLIN AVENUE.

ROAD TYPE	DISTANCE			
	A	B	C	D
URBAN (30 MPH OR LESS)	100 FEET	100 FEET	100 FEET	100 FEET
URBAN (35 MPH OR GREATER)	350 FEET	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET	500 FEET
EXPRESSWAY / FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET	500 FEET

TRAFFIC MANAGEMENT PLAN SIGN SPACING

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	181	420
PROJECT FILE NO.	608051		

TEMPORARY TRAFFIC CONTROL PLANS - 1

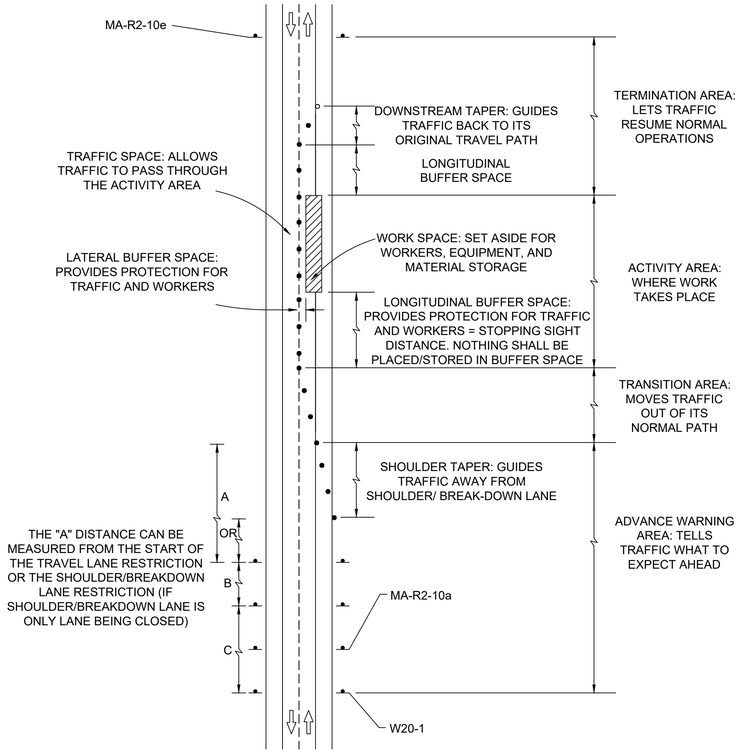
20. CONTRACTOR SHALL INSTALL, RENEW AND MAINTAIN ALL TRAFFIC CONTROL DEVICES AS SHOWN ON THE DRAWINGS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS REQUIRED BY APPLICABLE STATE AND LOCAL AGENCIES.
21. THE CONTRACTOR SHALL LOCATE ALL TEMPORARY BARRIERS (IF USED) SO THERE ARE NO EXPOSED BLUNT ENDS WHICH WILL CAUSE HAZARDOUS CONDITIONS TO TRAFFIC. IN SUCH CASES, THE CONTRACTOR SHALL PROVIDE AND LOCATE BARRIER TAPERED END SECTIONS WITH IMPACT ATTENUATORS TO PROTECT VEHICULAR TRAFFIC AND THE WORK AREA.
22. THE FIRST TEN DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING LIGHTS. SEE FIGURE GEN-1 OF THE MASSDOT TTCP.
23. THE CONTRACTOR SHALL COORDINATE WITH ANY ABUTTING PROJECTS.
24. ALL WORK AREAS AND CONSTRUCTION ENTRANCES SHALL BE SECURED AT ALL TIMES.
25. GRADE SEPARATIONS IN EXCESS OF 2-INCHES DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
26. EXCAVATION EDGES IN EXCESS OF 4 INCHES DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS BY BACKFILLING WITH A WEDGE OF COMPACTED GRAVEL BORROW AT A 4:1 SLOPE PER THE DETAIL IN THE PLANS. EXCAVATIONS IN EXCESS OF 3 FEET SHOULD BE PROTECTED BY A MASSDOT APPROVED TEMPORARY CONCRETE BARRIER WITH A MINIMUM LEVEL LATERAL OFFSET OF 3 FEET FROM THE EDGE OF EXCAVATION. BARRIER PLACED WITH LESS THAN THE RECOMMENDED LATERAL OFFSET TO THE EDGE OF EXCAVATION SHALL BE ANCHORED/RESTRAINED TO PREVENT LATERAL MOVEMENT WHEN STRUCK BY ERRANT VEHICLES TRAVELING AT THE POSTED SPEED.
27. THE CONTRACTOR SHALL PROVIDE TEMPORARY IMPACT ATTENUATORS TO PROTECT ALL BLUNT-ENDS OF TEMPORARY CONCRETE BARRIER OR AS REQUIRED ON THE TRAFFIC MANAGEMENT PLANS. TEMPORARY IMPACT ATTENUATORS SHALL BE DESIGNED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF WORK. ALL TEMPORARY IMPACT ATTENUATORS SHALL BE DESIGNED FOR TEST LEVEL 2 (TL-2), UNLESS OTHERWISE NOTED. IMPACT ATTENUATOR DEVICES SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS. IMPACT ATTENUATOR DEVICES SHALL CONFORM TO MASSDOT ENGINEERING DIRECTIVE E-20-004.
28. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
29. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
30. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
31. ALL TAPERS OF BARRIERS, DRUMS AND CONES SHALL MEET THE LENGTH REQUIREMENTS OF MUTCD.
32. ALL PERMANENT SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED. , TURNED AND/OR LAID FLAT SUCH THAT THE MOTORING PUBLIC CANNOT READ THESE SIGNS.

PHASING NOTES:

1. THE CONTRACTOR SHALL PROVIDE THE MINIMUM TRAVEL LANE WIDTH SHOWN FOR EACH PHASE IN EACH SECTION AS SHOWN ON THE TRAFFIC SEQUENCE PLANS. AT NO TIME SHALL TRAVEL LANES BE LESS THAN 11-FEET WIDE UNLESS OTHERWISE SHOWN ON THESE PLANS.
2. ALL LANES SHALL BE PAVED BY 3:00 PM ON FRIDAY AND SHALL REMAIN PAVED UNTIL 6:00 PM ON SUNDAY. LANE CLOSURES SHALL ONLY BE PERMITTED WHEN REQUIRED TO COMPLETE THE WORK, IN THE OPINION OF THE ENGINEER. ALL LANE CLOSURES MUST BE APPROVED BY THE ENGINEER. LANE CLOSURES SHALL NOT BE IMPLEMENTED DURING PEAK HOUR TRAFFIC FROM 6 AM - 9 AM AND 3 PM - 6 PM. LANE SHIFTS OR CLOSURES REQUIRING THE USE OF RIGID BARRIERS (E.G. ONE-LANE ALTERNATING TRAFFIC FLOW AT BRIDGE OR CULVERT REPLACEMENTS) MAY BE PERMITTED TO CONTINUE OUTSIDE NORMAL WORKING HOURS IF A GIVEN SETUP IS ASSOCIATED SIGNAL TIMING INSTALLATIONS OR CHANGES DEPICTED IN THE PLANS ARE IMPLEMENTED, OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL PROVIDE ACCESS AND PASSAGE FOR EMERGENCY VEHICLES AT ALL TIMES.
4. IF THE CONTRACTOR IS ACTIVELY WORKING AT THE SAME SPOT, STEEL PLATES CAN BE USED FOR TEMPORARY TRAFFIC. ONCE THE TRENCH WORK IS COMPLETE. ALL TRENCHES IN AREAS OF PUBLIC TRAVEL SHALL BE BACKFILLED AND PAVED, OR COVERED WITH STEEL PLATES AT THE END OF WORK EACH DAYS. STEEL PLATES SHALL BE APPROVED BY MASSDOT PRIOR TO CONSTRUCTION. THE SURFACE SHALL BE PAVED WITH HOT MIX ASPHALT PRIOR TO OPENING TO TRAFFIC. TRENCHES WITHIN PAVED SURFACES SHALL BE PAVED WITH HOT MIX ASPHALT PRIOR TO OPENING TRAVEL LANES TO TRAFFIC.
5. THE CONTRACTOR SHALL HAVE A WATER TRUCK OR CALCIUM CHLORIDE ON SITE AT ALL TIMES AND SHALL APPLY WATER AND DUST CONTROL MEASURES AT THE DIRECTION OF THE ENGINEER.
6. REMOVAL OF THE CONCRETE BASE, EXCAVATION AND INSTALLATION OF THE GRAVEL BORROW AND DENSE GRADED CRUSHED STONE SHALL NOT EXCEED ONE FULL DAYS WORK. BACKFILLING AND COMPACTION OF THE SUBBASE SHALL BE COMPLETED PRIOR TO OPENING THE LANE TO TRAFFIC.
7. THE EXPOSED SUBBASE SHALL NOT BE EXPOSED FOR MORE THAN 5 DAYS AND SHALL NOT BE EXPOSED OVER THE WEEKEND. NO EXTRA PAYMENT WILL BE MADE FOR GRADING AND COMPACTING THE SUBBASE DUE TO RUTTING CAUSED BY TRAFFIC, WEATHER OR OTHER UNFORESEEN CIRCUMSTANCES.
8. THE SUPERPAVE BASE COURSE SHALL BE PAVED OVER WITH NEW INTERMEDIATE COURSE, GRANITE CURBS SHALL BE INSTALLED IN LOCATIONS OF NEW ASPHALT AND CATCH BASIN FRAMES AND GRATES SHALL BE SET FLUSH WITH THE PAVEMENT BY NOVEMBER 15 OF EACH CONSTRUCTION SEASON.
9. THE CONTRACTOR SHALL NOT HAVE MORE THAN ONE ALTERNATING TRAFFIC PATTERN SET-UP WITHIN 1,500 FEET OF EACH OTHER WITHIN THE PROJECT AREA AT ANY ONE TIME, EXCEPT FOR BRIDGE WORK THAT IS PERFORMED BEHIND THE BARRIER AND DOES NOT RESTRICT TRAFFIC.
10. NIGHT WORK, AND SETUP FOR NIGHT WORK, SHALL BE LIMITED TO BETWEEN 9:00 PM TO 5:00 AM.
11. THE CONTRACTOR SHALL NOTIFY THE AFFECTED ABUTTERS TWO WEEKS IN ADVANCE OF ANY NIGHT WORK.
12. NIGHT WORK WILL BE LIMITED TO PAVEMENT AND SLAB REMOVAL, PAVING, DRAINAGE CONSTRUCTION, STRIPING, AND SIGNAL WORK.
13. ALL DETOURS AND LANE CLOSURES SHALL BE COORDINATED WITH MASSDOT AND THE TOWN OF WILMINGTON AT LEAST TWO WEEKS IN ADVANCE.

608051_TR04(TYPICAL TMP DETAILS).DWG Plotted on 2-Dec-2025 2:25 PM

608051_TR04(TYPICAL TMP DETAILS).DWG Plotted on 2-Dec-2025 2:25 PM



COMPONENT PARTS OF A TEMPORARY TRAFFIC CONTROL (TTC) ZONE

NOT TO SCALE

NOTE:
MA-R2-10a, W20-1, AND MA-R2-10e SIGNAGE SHALL BE INSTALLED UPSTREAM OR DOWNSTREAM AS DEPICTED ABOVE OF OTHER SIGNAGE PROPOSED ON THE OTHER TYPICAL SETUPS.

FORMULAS FOR DETERMINING TAPER LENGTHS

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

L = TAPER LENGTH IN FEET

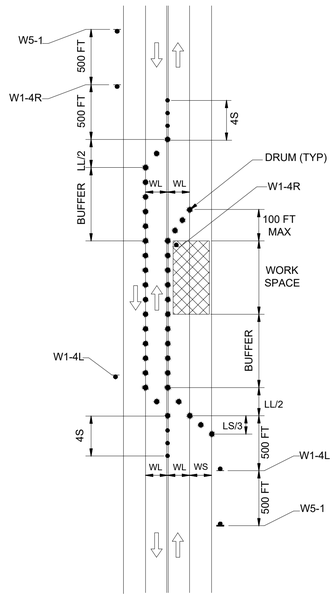
W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED LIMIT IN MPH

ROAD TYPE	DISTANCE BETWEEN SIGNS (FEET)		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS	350	350	350
MOST OTHER ROADWAYS	500	500	500
FREEWAYS AND EXPRESSWAYS	1000	1,500	2,640

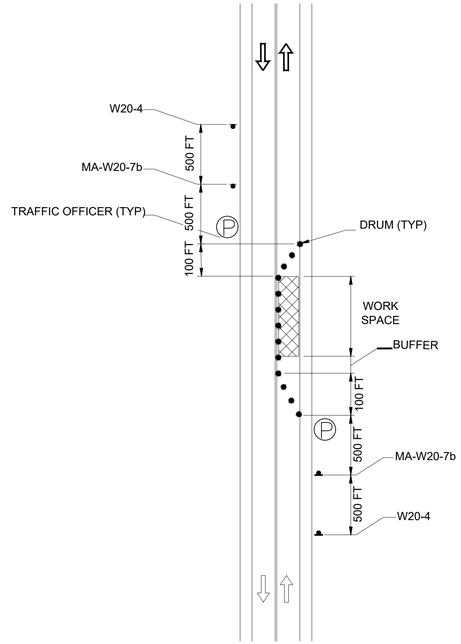
MINIMUM LENGTH OF LONGITUDINAL BUFFER IS EQUAL TO THE STOPPING SIGHT DISTANCE AT THE POSTED SPEED LIMIT AND CAN BE DETERMINED FROM THE FOLLOWING TABLE:

STOPPING SIGHT DISTANCE	
SPEED (MPH)	DISTANCE (FEET)
25	155
30	200
35	250
40	305
45	360



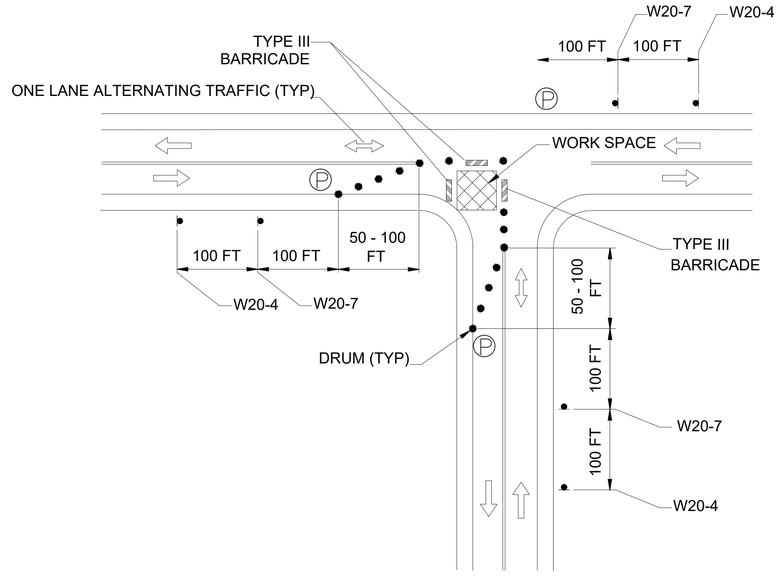
TYPICAL APPLICATION - TWO LANE ROAD SHOULDER AND TRAVEL LANE CLOSURE (852.5.4)

NOT TO SCALE



TYPICAL APPLICATION - TWO LANE ROAD ONE LANE ALTERNATING TRAFFIC (852.4.4)

NOT TO SCALE



LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- TEMPORARY BARRIER
- TEMPORARY BARRIER - LIMITED DEFLECTION

NOTE:
1. USE SIMILAR TRAFFIC SETUP FOR WORK AT OPPOSITE SIDE OF INTERSECTION.
2. USE SIMILAR TRAFFIC SETUP FOR WORK AT FOUR-LEG INTERSECTIONS.

TYPICAL APPLICATION - SINGLE LANE APPROACH ONE QUADRANT CLOSURE AT T-INTERSECTION (852.10.2- T INTERSECTION VERSION)

NOT TO SCALE

TYPICAL APPLICATION - TWO LANE ROAD SHOULDER CLOSURE (852.5.3)

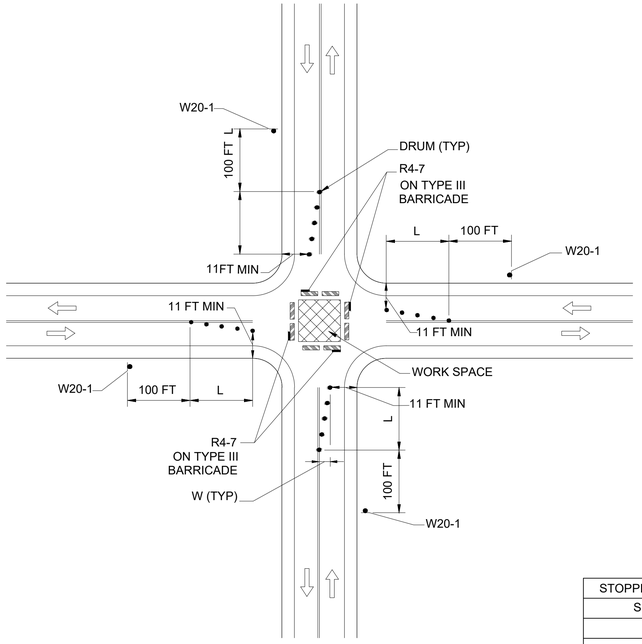
NOT TO SCALE

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	183	420
PROJECT FILE NO.	608051		

TEMPORARY TRAFFIC CONTROL PLANS - 3

608051_TR04(TYPICAL TMP DETAILS).DWG Plotted on 2-Dec-2025 2:25 PM



NOTE:
1. USE SIMILAR TRAFFIC SETUP FOR WORK AT OPPOSITE SIDE OF INTERSECTION.
2. USE SIMILAR TRAFFIC SETUP FOR WORK AT FOUR-LEG INTERSECTIONS.

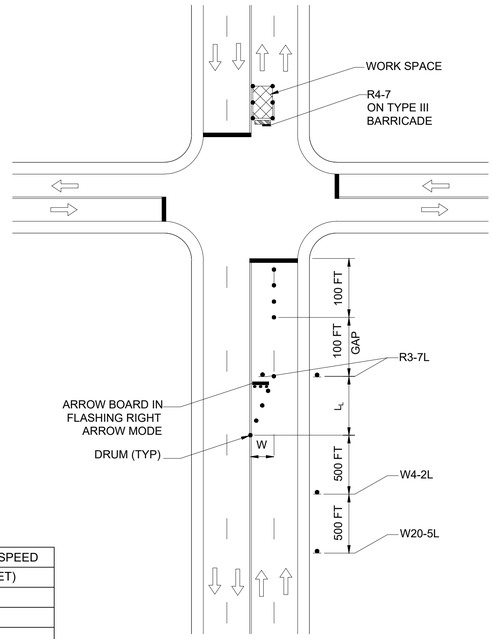
TYPICAL APPLICATION - SINGLE LANE APPROACH CENTER CLOSURE (852.10.1)

NOT TO SCALE

STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED	
SPEED (MPH)	DISTANCE (FEET)
25	155
30	200
35	250
50	425

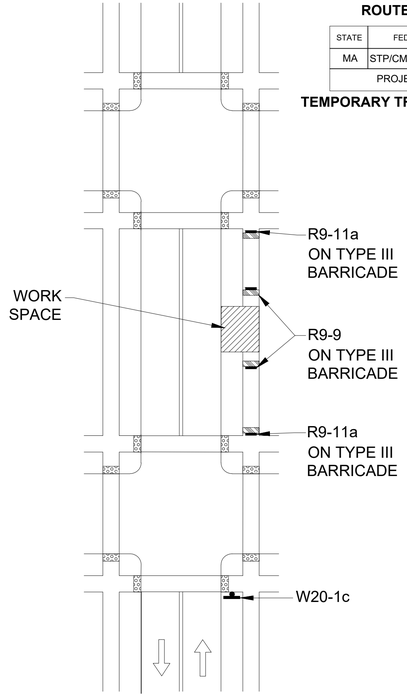
NOTE:

* REFER TO BUFFER STOPPING SIGHT DISTANCE CHART FOR BUFFER LENGTHS FOR POSTED SPEED LIMITS OF 25,30,35, AND 50 MPH.



TYPICAL APPLICATION - TWO LANE APPROACH FAR SIDE CLOSURE INSIDE LANE (852.10.3)

NOT TO SCALE



TYPICAL APPLICATION - SIDEWALK WORK BETWEEN CLOSELY SPACED INTERSECTIONS (852.1.1)

NOT TO SCALE

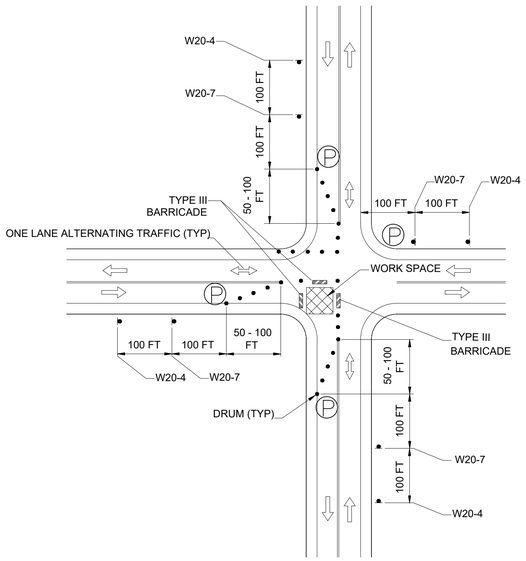
FORMULAS FOR DETERMINING TAPER LENGTHS

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

L = TAPER LENGTH IN FEET

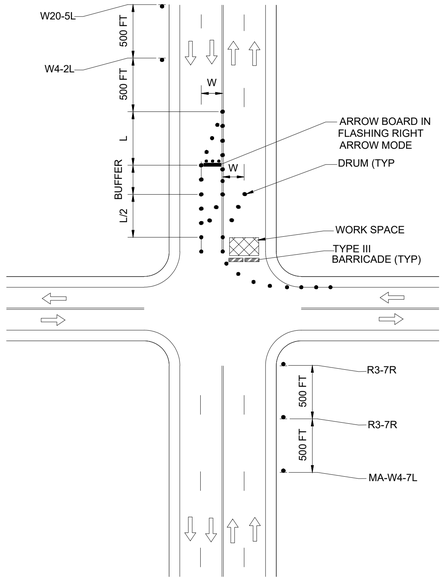
W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED LIMIT IN MPH



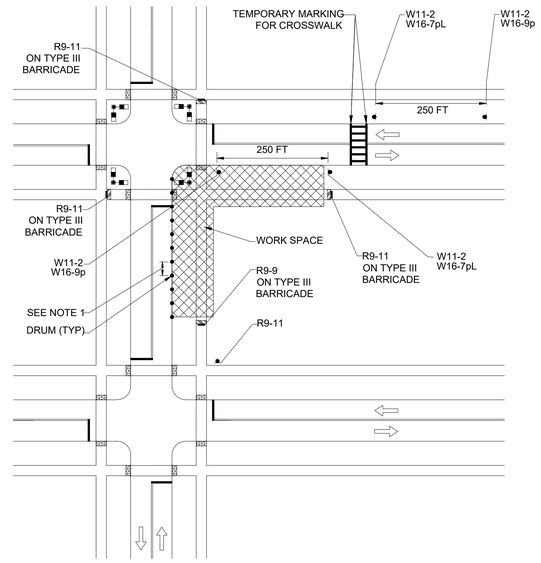
TYPICAL APPLICATION - TWO LANE ROAD QUADRANT CLOSURE AT INTERSECTION (852.10.2)

NOT TO SCALE



TYPICAL APPLICATION - TWO LANE APPROACH HALF ROAD CLOSURE (852.10.5)

NOT TO SCALE



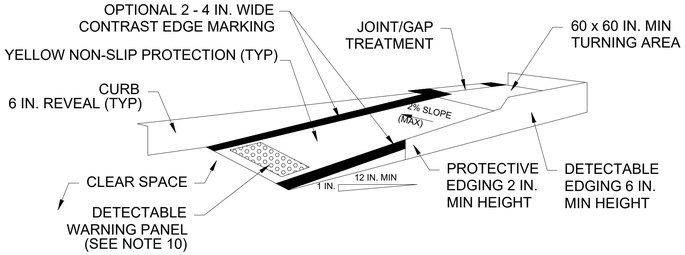
TYPICAL APPLICATION - SIDEWALK WORK QUADRANT CLOSURE (852.1.3)

NOT TO SCALE

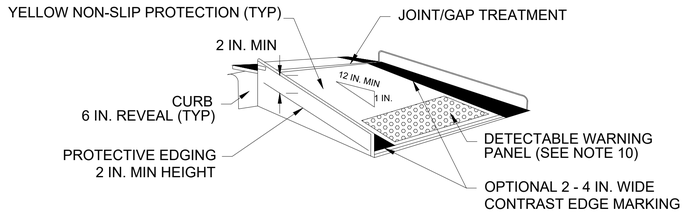
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	184	420
PROJECT FILE NO.	608051		

TEMPORARY TRAFFIC CONTROL PLANS - 4

608051_TR04(TYPICAL TMP DETAILS).DWG Plotted on 2-Dec-2025 2:25 PM

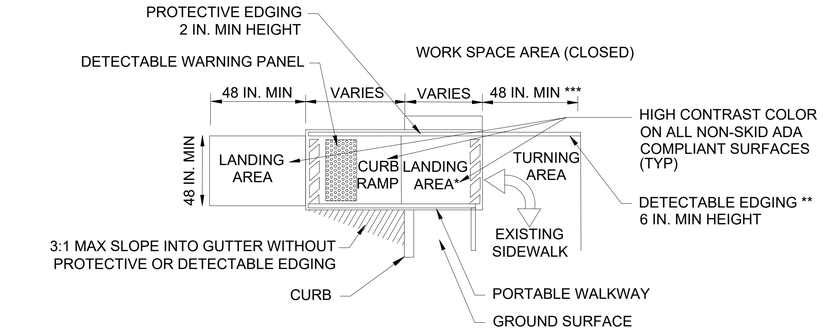


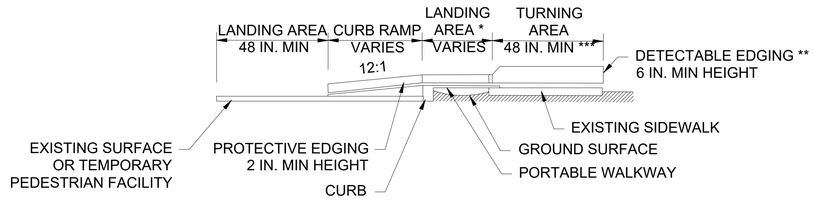
TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP - PERPENDICULAR TO CURB (850.1.1)

NOT TO SCALE





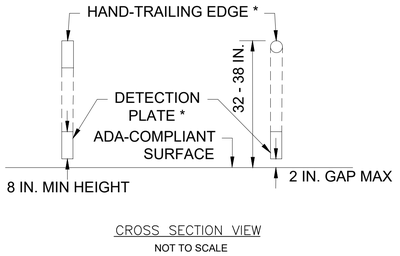
TEMPORARY CURB RAMP-TYPE 2 (850.1.2)

NOT TO SCALE

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

NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. 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.
3. DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 60x60 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
9. 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.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PANEL 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 DETECTABLE WARNING PANEL SHALL NOT BE INSTALLED ON THE RAMP.



CROSS SECTION VIEW

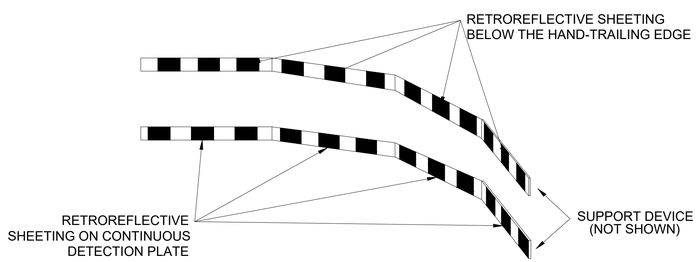
NOT TO SCALE

PEDESTRIAN CHANNELIZING DEVICE (851.3.1)

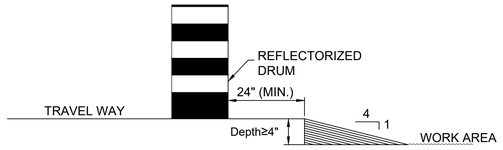
NOTES:

* 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.

STANDARD RETROREFLECTIVE LAYOUT FOR PEDESTRIAN CHANNELIZING DEVICES

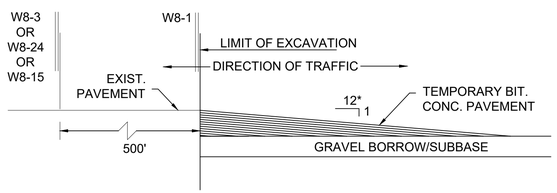


ISOMETRIC VIEW



LATERAL DROP-OFF DETAIL

NOT TO SCALE



LONGITUDINAL DROP-OFF DETAIL

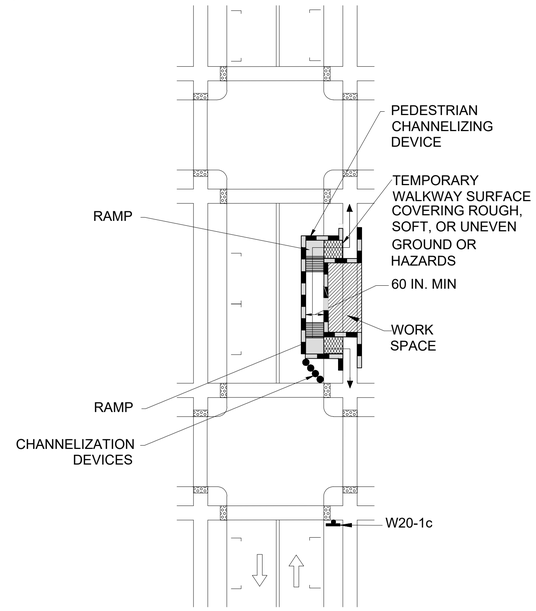
NOT TO SCALE

NOTE:

* REFER TO BUFFER STOPPING SIGHT DISTANCE CHART FOR BUFFER LENGTHS FOR POSTED SPEED LIMITS OF 25,30,35, AND 50 MPH.

NOTES:

1. A MAXIMUM 2-INCH GAP BETWEEN THE BOTTOM OF THE CONTINUOUS DETECTION PLATE AND THE WALKWAY SURFACE MAY BE USED TO PROVIDE DRAINAGE.
2. HAND-TRAILING EDGE AND DETECTION PLATE ARE OPTIONAL FOR CONTINUOUS WALLS.
3. SUPPORT DEVICE FOR CONTINUOUS DETECTION PLATE AND CONTINUOUS HAND-TRAILING EDGE NOT SHOWN ON THE PLAN.
4. STRIPING ON SHEETING PANELS MAY BE EITHER VERTICAL OR AT A 45-DEGREE ANGLE.
5. RETROREFLECTIVE AREAS CAN BE DISTRIBUTED IN A MANNER THAT ENSURES VISIBILITY AND DETECTION WITHOUT NECESSITATING A SINGLE CONTINUOUS APPLICATION.



PEDESTRIAN BYPASS (852.1.2)

NOT TO SCALE

NOTES:

1. 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.
2. A PEDESTRIAN CHANNELIZATION DEVICE THAT IS DETECTABLE BY A PERSON WITH A VISUAL DISABILITY TRAVELING WITH THE AID OF A LONG CANE SHALL BE PLACED ALONG THE LENGTH OF THE TEMPORARY PEDESTRIAN ROUTE.
3. WHEN USED, TEMPORARY RAMPS SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT.
4. THE ALTERNATE PATHWAY SHOULD HAVE A SMOOTH CONTINUOUS HARD SURFACE FOR THE ENTIRE LENGTH OF THE TEMPORARY PEDESTRIAN FACILITY.
5. THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THE SIDEWALK EXCEEDS 200 FEET THEN A 5-FOOT BY 5-FOOT PASSING ZONE SHALL BE PROVIDED NEAR THE MIDPOINT OF THE CLOSURE.
6. THE PROTECTIVE REQUIREMENTS OF A TTC SITUATION 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.
7. ON-DEMAND PEDESTRIAN ASSISTANCE PERSONNEL TO ASSIST WITH NAVIGATION AROUND THE CLOSURE/WORK AREA MAY BE CONSIDERED AS AN OPTION IN PLACE OF PROVIDING ADA/AAB DEVICES FOR WORK CLOSURES LASTING 4 HOURS OR LESS.
8. 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.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	185	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 62 (CHURCH ST) - STAGE 1

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:27 PM

N

CONTINUED ON PLAN BELOW

W1-4L

W1-4L

414–418 MAIN STREET
REALTY TRUST
PARCEL ID 42–19
BOOK 21033 PAGE 248

414–418 MAIN ST

LOUIS VALENTI
PARCEL ID 42–20
BOOK 15294 PAGE 161

424 MAIN ST

MACMULLIN FAMILY
REALTY TRUST III
PARCEL ID 42–21
BOOK 27960 PAGE 33

428–438 MAIN ST

1 CHURCH S
REALTY TR.
PARCEL ID 41
BOOK 24436 PA

1 CHURCH S

CHURCH STREET
(1901 COUNTY LAYOUT - 60' WIDE)

LOCATION LINE OF 1901 COUNTY LAYOUT

W1-4L

R9-10
SIDEWALK CLOSED
USE OTHER SIDE

POLICE OFFICER AHEAD

MA-W20-7b

MA-W20-7b

W1-4R

W5-1
ROAD NARROWS

M4-9bR
DETOUR

500' 500' 500'

1923 STATE HIGHWAY
LAYOUT LOCATION LINE
(NO. 2122)

MAIN STREET (ROUTE 38)
(PUBLIC - 1923 STATE HIGHWAY LAYOUT-1997 ALTERATION)

11.0' 11.0'

DBYL

SWL

201 202 203 204 205 206 207

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11L

FLARE RATIO 1:4

1997 STATE HIGHWAY
ALTERATION LOCATION LINE
(NO. 7245)

115' SHIFTING TAPER

250' BUFFER

BURLINGTON AVENUE
(PUBLIC - 1997 ALTERATION)

LOCATION LINE OF 1997 ALTERATION SHLO NO. 7255

LOCATION LINE OF 1997 ALTERATION SHLO NO. 7252

11.0' 1.0' 11.0'

W1-4R

115' SHIFTING TAPER

W1-4R

M4-9bR
DETOUR

350' 350'

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11R

THRU TRAFFIC MERGE RIGHT
MA-W4-7R

W20-5R
RIGHT LANE CLOSED AHEAD

W4-2R

500' 500'

225' MERGING TAPER

115' TANGENT

115' SHIFTING TAPER

CONTINUED ON PLAN ABOVE

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- TEMPORARY BARRIER - TL 3
- TEMPORARY BARRIER - LIMITED DEFLECTION - TL 3
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

STAGING NOTES:

1. THE SOUTHBOUND LEFT/THRU (PHASE 1) AND EASTBOUND RIGHT SIGNAL PHASE (OVERLAP PHASE 5) SHALL BE OMITTED DURING THIS CONSTRUCTION STAGE. SEE NEXT SHEET FOR THE ADJUSTED SIGNAL TIMING PLAN DURING THIS STAGE.
2. IT IS ANTICIPATED THAT WORK AT LOCATIONS AT THIS INTERSECTION OCCURRING OUTSIDE OF THE WORK ZONE AREA DEPICTED ON THIS SHEET WILL UTILIZE THE TYPICAL TEMPORARY TRAFFIC CONTROL SETUPS SHOWN ON SHEETS 182-184
3. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

PHASE NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING TO MATCH EXISTING.
CONSTRUCT ADA COMPLIANT SIDEWALK AND CURBING. CONSTRUCT GUARDRAIL AND RETAINING WALL ALONG MAIN STREET (ROUTE 38). FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE NARROWS TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT BURLINGTON ST/ CHURCH ST
NORTHWEST CORNER CLOSURE

0 20 50 100

SCALE: 1" = 20'

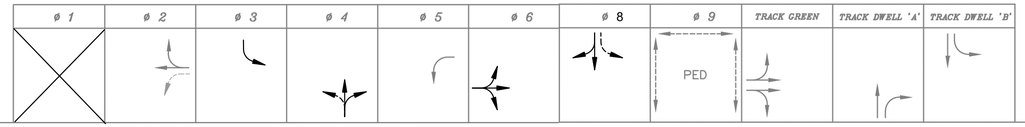
NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): TRAFFIC SIGNAL REGULATION FOR SIGNAL NO. 0197, DATED 2015

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	186	420
PROJECT FILE NO.	608051		

CONSTRUCTION SIGNAL SEQUENCE & TIMING PLANS ROUTE 38-ROUTE 62 - STAGE 1

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY–ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	PHASE ORDER
MAIN STREET	SB	A,I	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	Y	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
MAIN STREET	SB	B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G/⟲G	Y	R	G	Y	R	R	R	R	G/⟲G	Y	R	R	R	R	R	R	R	FY
MAIN STREET	NB	D,J	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	NB	C	⟲R	⟲R	⟲R	⟲G	Y	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲G	Y	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	FY
BURLINGTON AVENUE	EB	G	R	R	R	R	R	R	R	R	R	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	H	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	L	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	R	R	R	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	-R>	-R>	-R>	FR
CHURCH STREET	WB	E,K	R	R	R	R	R	R	⟲G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	⟲G	Y	R	FR
CHURCH STREET	WB	F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	
PEDESTRIAN	ALL	P1–P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
TIMING IN SECONDS																																				
MINIMUM GREEN (INITIAL)						10			5			5			5			10			5						5			D	5		D	5		EMERGENCY ONLY
PASSAGE TIME (VECHICLE EXTENSION)						2			2			2			2			2			2						1			W			W			
MAXIMUM 1 (6:00 AM- 9:00 AM, M-F)*						62			8			32			8			48			46						20			E	15		E	15		
MAXIMUM 2 (ALL OTHER TIMES)*						78			5			29			6			67			40									L			L			
YELLOW CLEARANCE					4			4			4			4			4			4			3						L	4		L	4		
RED CLEARANCE							2			2			2			2			2			2			1					2			2		
WALK (W)																								4												
PEDESTRIAN CLEARANCE																									17	4										
RECALL			OFF			MAX			MAX			MAX			MAX			MAX			MAX			OFF			OFF			OFF			OFF			
MEMORY			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			LOCKING			LOCKING			LOCKING			LOCKING			

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
	Plus all necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø7 AND ø8 NOT USED.

NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. 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.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

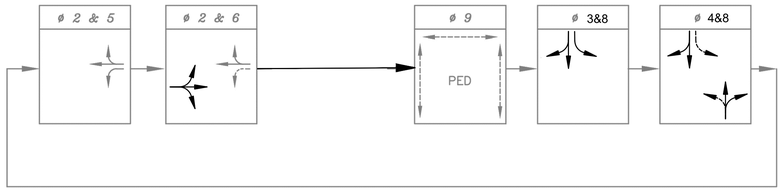
SIGNAL IDENTIFICATION NOTES:

1. ALL SIGNAL HEADS SHALL HAVE 5" BACKPLATES.

EMERGENCY PRE–EMPTION DATA NOTES:

1. RAILROAD PREEMPTION SHALL RESULT IN THE IMMEDIATE CLEARANCE OF THE CURRENT PHASE, FOLLOWED BY PHASE TRACK GREEN. IN THE EVENT TRACK GREEN "GAPS OUT" THE RAILROAD SEQUENCE SHALL PROCEED TO THE TRACK DWELL 'A' PHASE. UPON GAP OUT OR MAX OUT OF TRACK DWELL 'A' THE SEQUENCE SHALL PROCEED TO TRACK DWELL 'B' FOR THE REMAINDER OF THE PREEMPTION CALL. ONCE THE CALL IS DROPPED FROM THE RAILROAD CIRCUIT THE TRAFFIC CONTROLLER SHALL RETURN TO THE BEGINNING OF THE CYCLE.
2. RAILROAD PREEMPTION SHALL OVERRIDE ALL EMERGENCY PREEMPTION AND ANY COORDINATION PROGRAMMING.
3. RAILROAD PREEMPTION SHALL ACTIVATE THE CLEARANCE PHASE APPROXIMATELY 20 SECONDS BEFORE THE RAILROAD FLASHERS AND BELLS ARE ACTIVATED.

PREFERENTIAL PHASING SEQUENCE



EMERGENCY PRE–EMPTION DATA

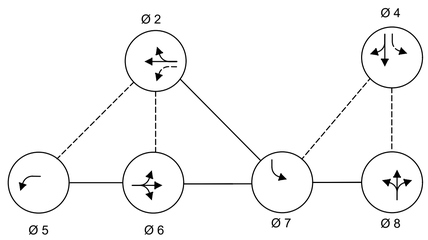
APPROACH		PHASE	TIME (SEC)
ROUTE 38	NB	ø2 & ø5	MIN. 15 MAX. 199
ROUTE 38	SB	ø1 & ø6	MIN. 15 MAX. 199
BURLINGTON AVENUE	EB	ø4	MIN. 15 MAX. 199
CHURCH STREET	WB	ø3	MIN. 15 MAX. 199

LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	2	6'X20'	EXISTING	ø1,6	ø1,6	PRESENCE	5	0
2	2	6'X20'	EXISTING	ø6	ø6	"	0	0
3	2	6'X20'	EXISTING	ø2	ø2	"	0	0
4	2	6'X20'	EXISTING	ø5	ø5	"	0	0
5	NOT IN	WORKING RACK						
6	NOT IN	WORKING RACK						
7	1		VIDEO	ø3	ø3	"	8	0
8	1		VIDEO	ø3	ø3	"	0	0
9	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	0
10	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	5

NOTE:
- THE TRAFFIC SIGNAL AT THE INTERSECTION WILL OPERATE IN PRE-TIMED MODE WITH ADJUSTED SIGNAL TIMINGS WHILE THE LOOP DETECTORS ARE DEACTIVATED DURING CONSTRUCTION.
- TEMPORARY DETECTION DEVICES TO BE PROVIDED IF THE TRAFFIC CONDITIONS ARE SEVERELY AFFECTED ESPECIALLY DURING COMMUTE HOURS.

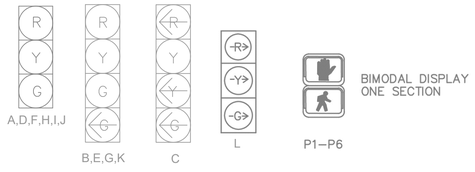
NEMA DUAL RING PHASING NOTES:



CONSTRUCTION NOTES

1. UPDATE TIMINGS, CLEARANCES, PED TIMES AND COORDINATION SPLIT TIMES.
2. TURN OFF THE PEDESTRIAN EXTENSION TIME SO THE 4 SECONDS OF CLEARANCE ONLY TIMES THROUGH THE RED.
3. IN VEHICLE PHASE 9 (PED) ENTER FULL WALK + CLEARANCE. IN SPLITS ENTER 10. DUE TO THE LOW PED COUNTS WE WILL HAVE THIS INTERSECTION DROP OUT OF COORDINATION WHEN IT RECEIVES A PED CALL AND COME BY VIA SHORT WAY. OTHERWISE, ANY UNUSED PED TIME GETS ADDED TO THE COORDINATED PHASE.

SIGNAL IDENTIFICATION



NOTES:
1. ALL SIGNAL HEADS SHALL BE EQUIPED WITH 12" LENS AND L.E.D. MODULES.

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:27 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	187	420
PROJECT FILE NO.	608051		

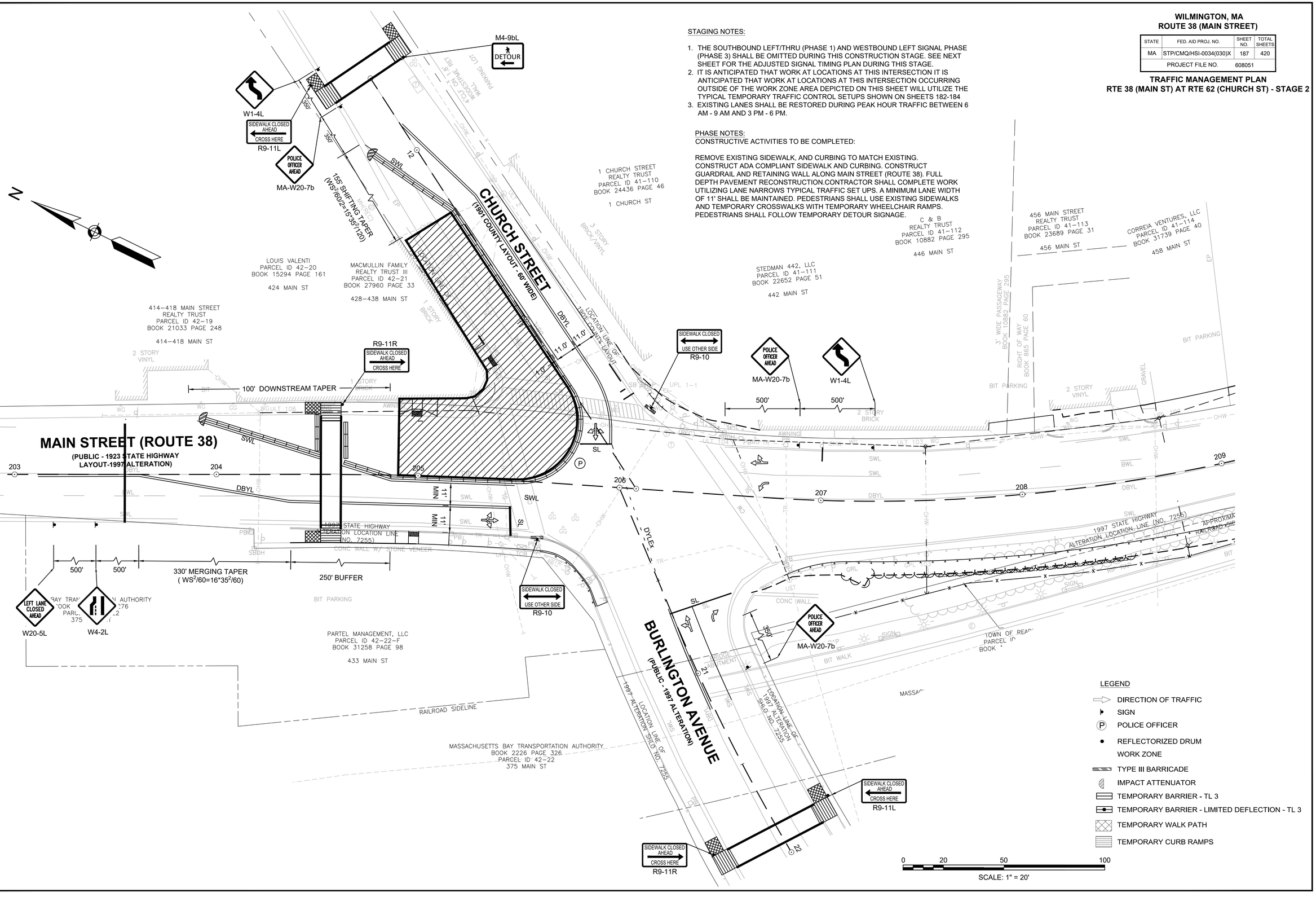
TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 62 (CHURCH ST) - STAGE 2

STAGING NOTES:

1. THE SOUTHBOUND LEFT/THRU (PHASE 1) AND WESTBOUND LEFT SIGNAL PHASE (PHASE 3) SHALL BE OMITTED DURING THIS CONSTRUCTION STAGE. SEE NEXT SHEET FOR THE ADJUSTED SIGNAL TIMING PLAN DURING THIS STAGE.
2. IT IS ANTICIPATED THAT WORK AT LOCATIONS AT THIS INTERSECTION IT IS ANTICIPATED THAT WORK AT LOCATIONS AT THIS INTERSECTION OCCURRING OUTSIDE OF THE WORK ZONE AREA DEPICTED ON THIS SHEET WILL UTILIZE THE TYPICAL TEMPORARY TRAFFIC CONTROL SETUPS SHOWN ON SHEETS 182-184
3. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

PHASE NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING TO MATCH EXISTING. CONSTRUCT ADA COMPLIANT SIDEWALK AND CURBING. CONSTRUCT GUARDRAIL AND RETAINING WALL ALONG MAIN STREET (ROUTE 38). FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE NARROWS TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.



LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- (P) POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- TEMPORARY BARRIER - TL 3
- TEMPORARY BARRIER - LIMITED DEFLECTION - TL 3
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:27 PM

NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): TRAFFIC SIGNAL REGULATION FOR SIGNAL NO. 0197, DATED 2015

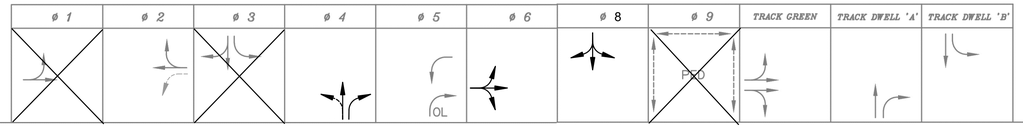
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	188	420
PROJECT FILE NO.	608051		

CONSTRUCTION SIGNAL SEQUENCE & TIMING PLANS ROUTE 38-ROUTE 62 - STAGE 2

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:27 PM

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY–ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	FLASH OPER.
MAIN STREET	SB	A,I	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
MAIN STREET	SB	B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	G/⟲G	Y	R	R	R	R	R	R	R	G/⟲G	Y	R	R	R	R	R	R	R	FY
MAIN STREET	NB	D,J	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	NB	C	⟲R	⟲R	⟲R	⟲G	Y	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲G	Y	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	FY
BURLINGTON AVENUE	EB	G	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	H	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	L	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	-G>	-Y>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	-R>	-R>	-R>	FR
CHURCH STREET	WB	E,K	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	⟲G	Y	R	FR
CHURCH STREET	WB	F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	
PEDESTRIAN	ALL	P1–P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
TIMING IN SECONDS																																				
MINIMUM GREEN (INITIAL)						10						5			5			10			5						5			DWELL 'A'	5		DWELL 'B'	5		EMERGENCY ONLY
PASSAGE TIME (VECHICLE EXTENSION)						2						2			2			2			2						1									
MAXIMUM 1 (6:00 AM- 9:00 AM, M-F)*						84						54			12			66			54						20				15			15		
MAXIMUM 2 (ALL OTHER TIMES)*						69						39			9			54			39															
YELLOW CLEARANCE							4						4			4			4			4			3						4			4		
RED CLEARANCE								2						2			2			2			2			1									2	
WALK (W)																								4												
PEDESTRIAN CLEARANCE																									17	4										
RECALL			OFF			MAX			OFF			MAX			OFF			MAX			MAX			OFF			OFF			OFF			OFF			
MEMORY			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			LOCKING			LOCKING			LOCKING			LOCKING			

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
	Plus all necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø7 AND ø8 NOT USED.

NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. 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.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

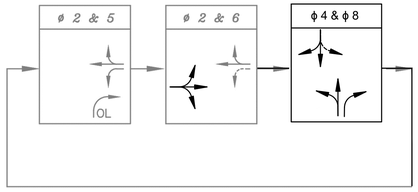
SIGNAL IDENTIFICATION NOTES:

1. ALL SIGNAL HEADS SHALL HAVE 5" BACKPLATES.

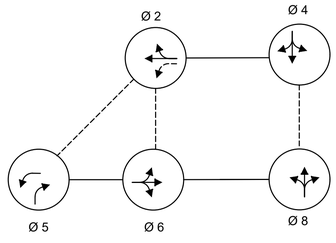
EMERGENCY PRE–EMPTION DATA NOTES:

1. RAILROAD PREEMPTION SHALL RESULT IN THE IMMEDIATE CLEARANCE OF THE CURRENT PHASE, FOLLOWED BY PHASE TRACK GREEN. IN THE EVENT TRACK GREEN "GAPS OUT" THE RAILROAD SEQUENCE SHALL PROCEED TO THE TRACK DWELL 'A' PHASE. UPON GAP OUT OR MAX OUT OF TRACK DWELL 'A' THE SEQUENCE SHALL PROCEED TO TRACK DWELL 'B' FOR THE REMAINDER OF THE PREEMPTION CALL. ONCE THE CALL IS DROPPED FROM THE RAILROAD CIRCUIT THE TRAFFIC CONTROLLER SHALL RETURN TO THE BEGINNING OF THE CYCLE.
2. RAILROAD PREEMPTION SHALL OVERRIDE ALL EMERGENCY PREEMPTION AND ANY COORDINATION PROGRAMMING.
3. RAILROAD PREEMPTION SHALL ACTIVATE THE CLEARANCE PHASE APPROXIMATELY 20 SECONDS BEFORE THE RAILROAD FLASHERS AND BELLS ARE ACTIVATED.

PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:



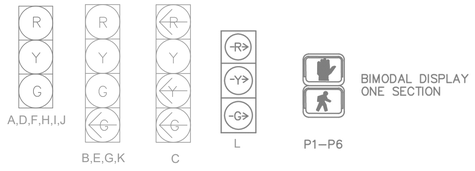
CONSTRUCTION NOTES

1. UPDATE TIMINGS, CLEARANCES, PED TIMES AND COORDINATION SPLIT TIMES.
2. TURN OFF THE PEDESTRIAN EXTENSION TIME SO THE 4 SECONDS OF CLEARANCE ONLY TIMES THROUGH THE RED.
3. IN VEHICLE PHASE 9 (PED) ENTER FULL WALK + CLEARANCE. IN SPLITS ENTER 10. DUE TO THE LOW PED COUNTS WE WILL HAVE THIS INTERSECTION DROP OUT OF COORDINATION WHEN IT RECEIVES A PED CALL AND COME BY VIA SHORT WAY. OTHERWISE, ANY UNUSED PED TIME GETS ADDED TO THE COORDINATED PHASE.

EMERGENCY PRE–EMPTION DATA

APPROACH		PHASE	TIME (SEC)
ROUTE 38	NB	ø2 & ø5	MIN. 15 MAX. 199
ROUTE 38	SB	ø1 & ø6	MIN. 15 MAX. 199
BURLINGTON AVENUE	EB	ø4	MIN. 15 MAX. 199
CHURCH STREET	WB	ø3	MIN. 15 MAX. 199

SIGNAL IDENTIFICATION



NOTES:
1. ALL SIGNAL HEADS SHALL BE EQUIPED WITH 12" LENS AND L.E.D. MODULES.

LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	2	6'X20'	EXISTING	ø1,6	ø1,6	PRESENCE	5	0
2	2	6'X20'	EXISTING	ø6	ø6	"	0	0
3	2	6'X20'	EXISTING	ø2	ø2	"	0	0
4	2	6'X20'	EXISTING	ø5	ø5	"	0	0
5	NOT IN	WORKING RACK						
6	NOT IN	WORKING RACK						
7	1		VIDEO	ø3	ø3	"	8	0
8	1		VIDEO	ø3	ø3	"	0	0
9	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	0
10	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	5

DETECTION SYSTEM NOTES:

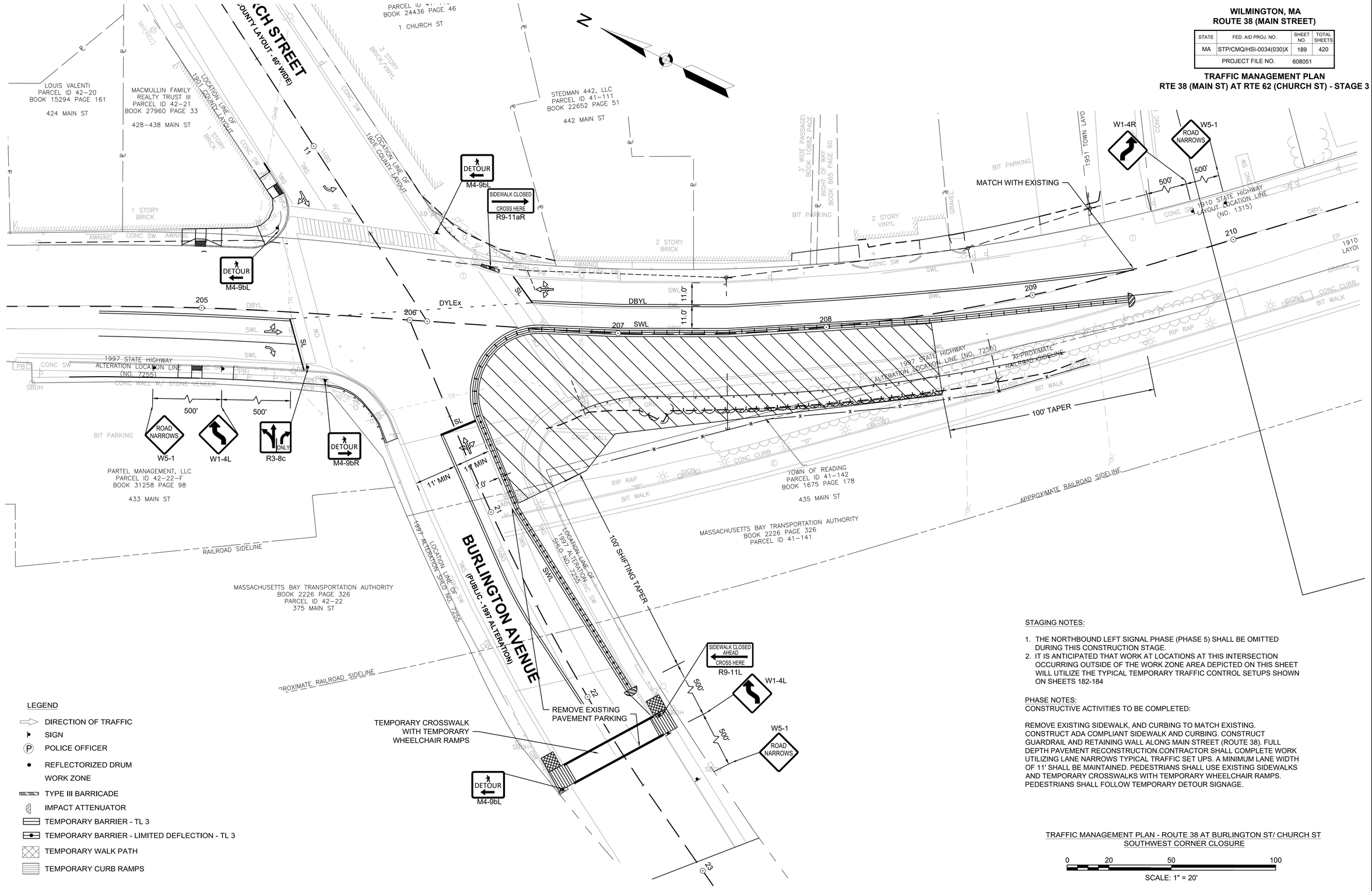
1. THE CONTRACTOR SHALL COORDINATE WITH THE MASSDOT PRIOR TO CONSTRUCTION. THE LOOP DETECTORS MAY BE DEACTIVATED DURING CONSTRUCTION. DURING THIS TIME, THE TRAFFIC SIGNAL AT THE INTERSECTION WILL OPERATE IN PRE-TIMED MODE WITH ADJUSTED SIGNAL TIMINGS.
2. ANY TRAFFIC SIGNAL EQUIPMENT OR DETECTION LOOPS DAMAGED DURING WORK SHALL BE REPLACED IN-KIND. TEMPORARY DETECTION IS TO BE PROVIDED THROUGHOUT WORK UNTIL LOOPS ARE BACK OPERATING.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	189	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 62 (CHURCH ST) - STAGE 3

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:28 PM



LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- TEMPORARY BARRIER - TL 3
- TEMPORARY BARRIER - LIMITED DEFLECTION - TL 3
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

STAGING NOTES:

1. THE NORTHBOUND LEFT SIGNAL PHASE (PHASE 5) SHALL BE OMITTED DURING THIS CONSTRUCTION STAGE.
2. IT IS ANTICIPATED THAT WORK AT LOCATIONS AT THIS INTERSECTION OCCURRING OUTSIDE OF THE WORK ZONE AREA DEPICTED ON THIS SHEET WILL UTILIZE THE TYPICAL TEMPORARY TRAFFIC CONTROL SETUPS SHOWN ON SHEETS 182-184

PHASE NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING TO MATCH EXISTING. CONSTRUCT ADA COMPLIANT SIDEWALK AND CURBING. CONSTRUCT GUARDRAIL AND RETAINING WALL ALONG MAIN STREET (ROUTE 38). FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE NARROWS TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT BURLINGTON ST/ CHURCH ST
SOUTHWEST CORNER CLOSURE

0 20 50 100

SCALE: 1" = 20'

NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): TRAFFIC SIGNAL REGULATION FOR SIGNAL NO. 0197, DATED 2015

SIGNAL SYSTEM NOTES:
1. EXISTING LOOP DETECTORS SHALL BE DISABLED DURING CONSTRUCTION STAGES, THE SIGNAL TIMINGS WILL BE SET TO BE PRE-TIMED.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	190	420
PROJECT FILE NO.	608051		

CONSTRUCTION SIGNAL SEQUENCE & TIMING
PLANS ROUTE 38-ROUTE 62 - STAGE 3

APPROX. NORTH

ø 1	ø 2	ø 3	ø 4	ø 5	ø 6	ø 8	ø 9	TRACK GREEN	TRACK DWELL 'A'	TRACK DWELL 'B'
							FDO			

SEQUENCE AND TIMING FOR FULLY–ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	FLASH DISP.
MAIN STREET	SB	A,I	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
MAIN STREET	SB	B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G/⟲G	Y	R	R	R	R	R	R	R	G/⟲G	Y	R	R	R	R	R	R	R	FY
MAIN STREET	NB	D,J	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	NB	C	⟲R	⟲R	⟲R	⟲G	Y	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	⟲R	FY
BURLINGTON AVENUE	EB	G	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	H	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	L	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	-R>	-R>	-R>	FR
CHURCH STREET	WB	E,K	R	R	R	R	R	R	⟲G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	⟲G	Y	R	FR
CHURCH STREET	WB	F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	
PEDESTRIAN	ALL	P1–P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
TIMING IN SECONDS																																				
MINIMUM GREEN (INITIAL)						10			5			5						10			5						5			DWELL 'A'	5		DWELL 'B'	5		EMERGENCY ONLY
PASSAGE TIME (VECHICLE EXTENSION)						2						2						2			2						1									
MAXIMUM 1 (6:00 AM- 9:00 AM, M-F)*						15			5			7						15			19						20				15			15		
MAXIMUM 2 (ALL OTHER TIMES)*						64			12			26						64			44															
YELLOW CLEARANCE					4			4			4						4			4				3						4			4		
RED CLEARANCE							2			2				2						2			2			1					2				2	
WALK (W)																								4												
PEDESTRIAN CLEARANCE																									17	4										
RECALL			OFF			MAX			OFF			MAX			OFF			MAX			MAX			OFF			OFF			OFF			OFF			
MEMORY			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			NON–LOCKING			LOCKING			LOCKING			LOCKING			LOCKING			

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
	Plus all necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. ø7 AND ø8 NOT USED.

NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. 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.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

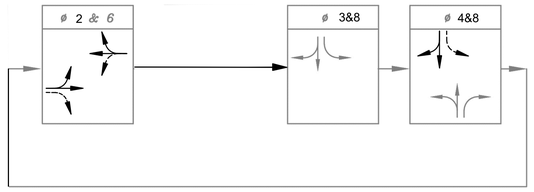
SIGNAL IDENTIFICATION NOTES:

1. ALL SIGNAL HEADS SHALL HAVE 5" BACKPLATES.

EMERGENCY PRE–EMPTION DATA NOTES:

1. RAILROAD PREEMPTION SHALL RESULT IN THE IMMEDIATE CLEARANCE OF THE CURRENT PHASE, FOLLOWED BY PHASE TRACK GREEN. IN THE EVENT TRACK GREEN "GAPS OUT" THE RAILROAD SEQUENCE SHALL PROCEED TO THE TRACK DWELL 'A' PHASE. UPON GAP OUT OR MAX OUT OF TRACK DWELL 'A' THE SEQUENCE SHALL PROCEED TO TRACK DWELL 'B' FOR THE REMAINDER OF THE PREEMPTION CALL. ONCE THE CALL IS DROPPED FROM THE RAILROAD CIRCUIT THE TRAFFIC CONTROLLER SHALL RETURN TO THE BEGINNING OF THE CYCLE.
2. RAILROAD PREEMPTION SHALL OVERRIDE ALL EMERGENCY PREEMPTION AND ANY COORDINATION PROGRAMMING.
3. RAILROAD PREEMPTION SHALL ACTIVATE THE CLEARANCE PHASE APPROXIMATELY 20 SECONDS BEFORE THE RAILROAD FLASHERS AND BELLS ARE ACTIVATED.

PREFERENTIAL PHASING SEQUENCE



EMERGENCY PRE–EMPTION DATA

APPROACH		PHASE	TIME (SEC)
ROUTE 38	NB	ø2 & ø5	MIN. 15 MAX. 199
ROUTE 38	SB	ø1 & ø6	MIN. 15 MAX. 199
BURLINGTON AVENUE	EB	ø4	MIN. 15 MAX. 199
CHURCH STREET	WB	ø3	MIN. 15 MAX. 199

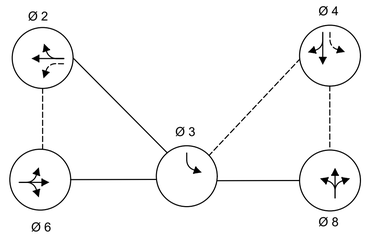
LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	2	6'X20'	EXISTING	ø1,6	ø1,6	PRESENCE	5	0
2	2	6'X20'	EXISTING	ø6	ø6	"	0	0
3	2	6'X20'	EXISTING	ø2	ø2	"	0	0
4	2	6'X20'	EXISTING	ø5	ø5	"	0	0
5	NOT IN	WORKING RACK						
6	NOT IN	WORKING RACK						
7	1		VIDEO	ø3	ø3	"	8	0
8	1		VIDEO	ø3	ø3	"	0	0
9	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	0
10	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	5

DETECTION SYSTEM NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH THE MASSDOT PRIOR TO CONSTRUCTION. THE LOOP DETECTORS MAY BE DEACTIVATED DURING CONSTRUCTION. DURING THIS TIME, THE TRAFFIC SIGNAL AT THE INTERSECTION WILL OPERATE IN PRE-TIMED MODE WITH ADJUSTED SIGNAL TIMINGS.
2. ANY TRAFFIC SIGNAL EQUIPMENT OR DETECTION LOOPS DAMAGED DURING WORK SHALL BE REPLACED IN-KIND. TEMPORARY DETECTION IS TO BE PROVIDED THROUGHOUT WORK UNTIL LOOPS ARE BACK OPERATING.

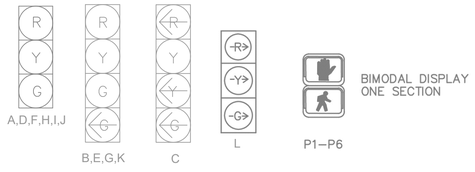
NEMA DUAL RING PHASING NOTES:



CONSTRUCTION NOTES

1. UPDATE TIMINGS, CLEARANCES, PED TIMES AND COORDINATION SPLIT TIMES.
2. TURN OFF THE PEDESTRIAN EXTENSION TIME SO THE 4 SECONDS OF CLEARANCE ONLY TIMES THROUGH THE RED.
3. IN VEHICLE PHASE 9 (PED) ENTER FULL WALK + CLEARANCE. IN SPLITS ENTER 10. DUE TO THE LOW PED COUNTS WE WILL HAVE THIS INTERSECTION DROP OUT OF COORDINATION WHEN IT RECEIVES A PED CALL AND COME BY VIA SHORT WAY. OTHERWISE, ANY UNUSED PED TIME GETS ADDED TO THE COORDINATED PHASE.

SIGNAL IDENTIFICATION



NOTES:
1. ALL SIGNAL HEADS SHALL BE EQUIPED WITH 12" LENS AND L.E.D. MODULES.

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:28 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
STP/CMQ/HSI-0034(030)X	191	420
PROJECT FILE NO.	608051	

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 62 (CHURCH ST) - STAGE 4

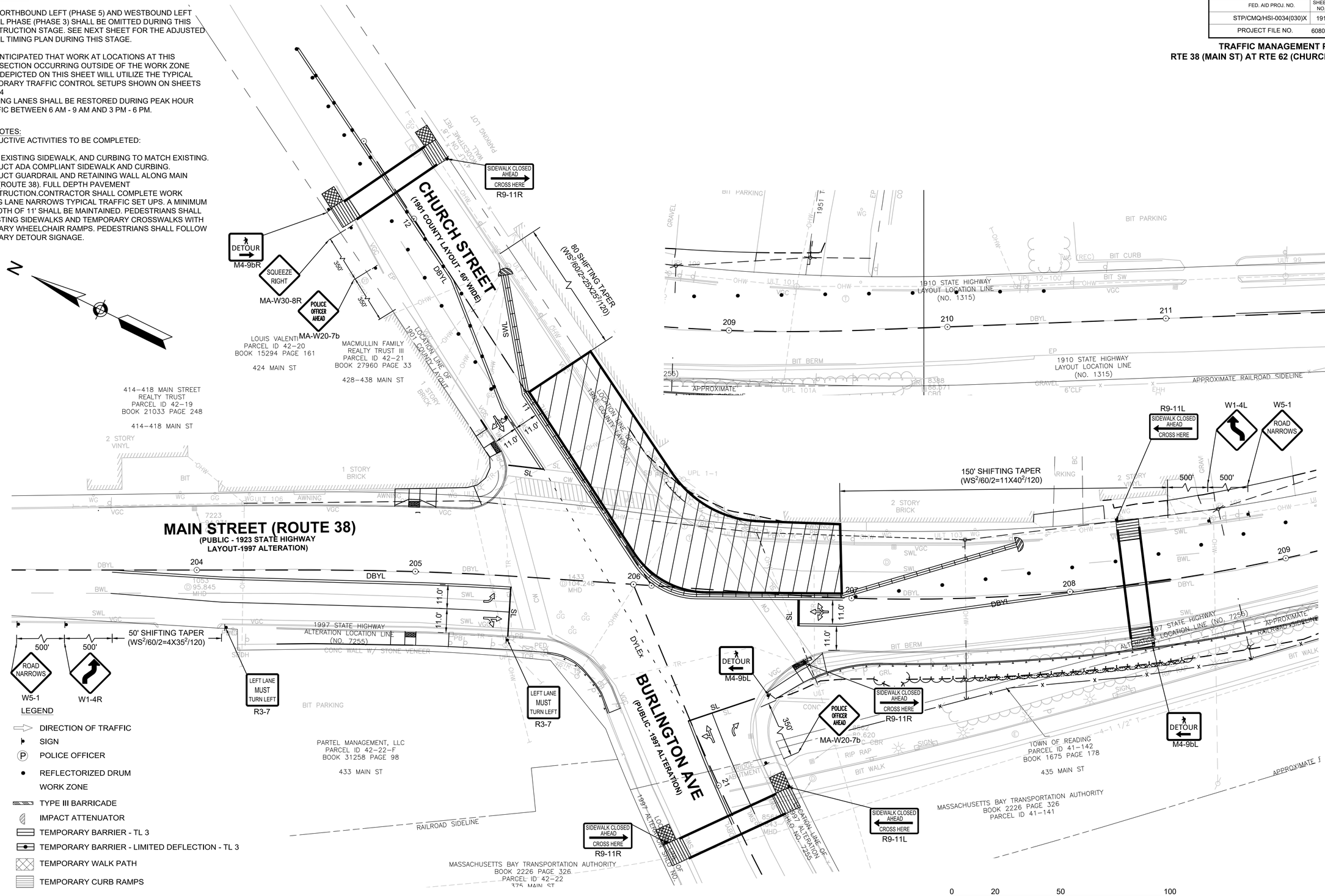
608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:28 PM

STAGING NOTES:

1. THE NORTHBOUND LEFT (PHASE 5) AND WESTBOUND LEFT SIGNAL PHASE (PHASE 3) SHALL BE OMITTED DURING THIS CONSTRUCTION STAGE. SEE NEXT SHEET FOR THE ADJUSTED SIGNAL TIMING PLAN DURING THIS STAGE.
2. IT IS ANTICIPATED THAT WORK AT LOCATIONS AT THIS INTERSECTION OCCURRING OUTSIDE OF THE WORK ZONE AREA DEPICTED ON THIS SHEET WILL UTILIZE THE TYPICAL TEMPORARY TRAFFIC CONTROL SETUPS SHOWN ON SHEETS 182-184
3. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

PHASE NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING TO MATCH EXISTING. CONSTRUCT ADA COMPLIANT SIDEWALK AND CURBING. CONSTRUCT GUARDRAIL AND RETAINING WALL ALONG MAIN STREET (ROUTE 38). FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE NARROWS TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.



NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): TRAFFIC SIGNAL REGULATION FOR SIGNAL NO. 0197, DATED 2015

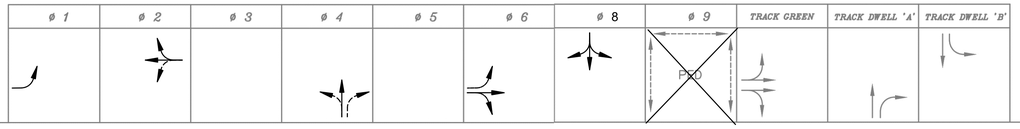
SIGNAL SYSTEM NOTES:
1. EXISTING LOOP DETECTORS SHALL BE DISABLED DURING CONSTRUCTION STAGES, THE SIGNAL TIMINGS WILL BE SET TO BE PRE-TIMED.
2. ANY TRAFFIC SIGNAL EQUIPMENT OR DETECTION LOOPS DAMAGED DURING WORK SHALL BE REPLACED IN-KIND. TEMPORARY DETECTION IS TO BE PROVIDED THROUGHOUT WORK UNTIL LOOPS ARE BACK OPERATING.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	192	420
PROJECT FILE NO.	608051		

CONSTRUCTION SIGNAL SEQUENCE & TIMING PLANS ROUTE 38-ROUTE 62 - SE CORNER

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY–ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	PHASE DATA
MAIN STREET	SB	A,I	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
MAIN STREET	SB	B	⟲G⟳	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	G⟲G⟳	Y	R	R	R	R	R	R	R	G⟲G⟳	Y	R	R	R	R	R	R	R	FY
MAIN STREET	NB	D,J	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
MAIN STREET	NB	C	⟲R⟳	⟲R⟳	⟲R⟳	⟲G⟳	Y	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	⟲R⟳	FY
BURLINGTON AVENUE	EB	G	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	H	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
BURLINGTON AVENUE	EB	L	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-R>	-G>	-Y>	-R>	-R>	-R>	-R>	FR
CHURCH STREET	WB	E,K	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R	⟲G⟳	Y	R	FR
CHURCH STREET	WB	F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	
PEDESTRIAN	ALL	P1–P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OUT
TIMING IN SECONDS																																				
MINIMUM GREEN (INITIAL)			5			10						5						10			5						5			DWELL 'A'	5		DWELL 'B'	5		EMERGENCY ONLY
PASSAGE TIME (VECHICLE EXTENSION)						2						2						2			2						1									
MAXIMUM 1 (6:00 AM- 9:00 AM, M-F)*			5			17						20						28			20						20				15			15		
MAXIMUM 2 (ALL OTHER TIMES)*			5			77						50						88			50															
YELLOW CLEARANCE				3.5			4						4						4			4			3						4			4		
RED CLEARANCE					2.5			2						2						2			2			1					2				2	
WALK (W)																								4													
PEDESTRIAN CLEARANCE																									17	4											
RECALL			OFF			MAX			OFF			MAX			OFF			MAX			MAX			OFF			OFF			OFF			OFF			
MEMORY			NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	NON–LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	LOCKING	

MAJOR ITEMS REQUIRED

QUANTITY	ITEM
	Plus all necessary duct, cable, labor, miscellaneous
	material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:
1. ø7 AND ø8 NOT USED.

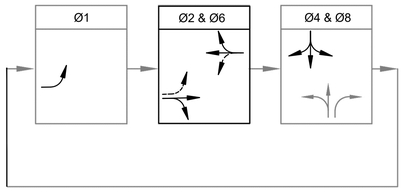
NEMA DUAL RING PHASING NOTES:
1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT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

LOOP DETECTOR NOTES:
1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.
2. DELAY AND EXTENSION TIMES ARE IN SECONDS.
3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

SIGNAL IDENTIFICATION NOTES:
1. ALL SIGNAL HEADS SHALL HAVE 5" BACKPLATES.

EMERGENCY PRE–EMPTION DATA NOTES:
1. RAILROAD PREEMPTION SHALL RESULT IN THE IMMEDIATE CLEARANCE OF THE CURRENT PHASE, FOLLOWED BY PHASE TRACK GREEN. IN THE EVENT TRACK GREEN "GAPS OUT" THE RAILROAD SEQUENCE SHALL PROCEED TO THE TRACK DWELL 'A' PHASE. UPON GAP OUT OR MAX OUT OF TRACK DWELL 'A' THE SEQUENCE SHALL PROCEED TO TRACK DWELL 'B' FOR THE REMAINDER OF THE PREEMPTION CALL. ONCE THE CALL IS DROPPED FROM THE RAILROAD CIRCUIT THE TRAFFIC CONTROLLER SHALL RETURN TO THE BEGINNING OF THE CYCLE.
2. RAILROAD PREEMPTION SHALL OVERRIDE ALL EMERGENCY PREEMPTION AND ANY COORDINATION PROGRAMMING.
3. RAILROAD PREEMPTION SHALL ACTIVATE THE CLEARANCE PHASE APPROXIMATELY 20 SECONDS BEFORE THE RAILROAD FLASHERS AND BELLS ARE ACTIVATED.

PREFERENTIAL PHASING SEQUENCE



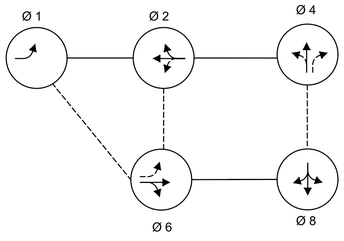
EMERGENCY PRE–EMPTION DATA

APPROACH		PHASE	TIME (SEC)
ROUTE 38	NB	ø2 & ø5	MIN. 15 MAX. 199
ROUTE 38	SB	ø1 & ø6	MIN. 15 MAX. 199
BURLINGTON AVENUE	EB	ø4	MIN. 15 MAX. 199
CHURCH STREET	WB	ø3	MIN. 15 MAX. 199

LOOP DETECTOR DATA

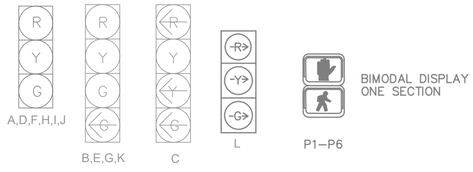
DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	ø CALLED	ø EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	2	6'X20'	EXISTING	ø1,6	ø1,6	PRESENCE	5	0
2	2	6'X20'	EXISTING	ø6	ø6	"	0	0
3	2	6'X20'	EXISTING	ø2	ø2	"	0	0
4	2	6'X20'	EXISTING	ø5	ø5	"	0	0
5	NOT IN	WORKING RACK						
6	NOT IN	WORKING RACK						
7	1		VIDEO	ø3	ø3	"	8	0
8	1		VIDEO	ø3	ø3	"	0	0
9	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	0
10	2	6'X20'	EXISTING	ø4	ø4	PRESENCE	0	5

NEMA DUAL RING PHASING NOTES:



CONSTRUCTION NOTES
1. UPDATE TIMINGS, CLEARANCES, PED TIMES AND COORDINATION SPLIT TIMES.
2. TURN OFF THE PEDESTRIAN EXTENSION TIME SO THE 4 SECONDS OF CLEARANCE ONLY TIMES THROUGH THE RED.
3. IN VEHICLE PHASE 9 (PED) ENTER FULL WALK + CLEARANCE. IN SPLITS ENTER 10. DUE TO THE LOW PED COUNTS WE WILL HAVE THIS INTERSECTION DROP OUT OF COORDINATION WHEN IT RECEIVES A PED CALL AND COME BY VIA SHORT WAY. OTHERWISE, ANY UNUSED PED TIME GETS ADDED TO THE COORDINATED PHASE.

SIGNAL IDENTIFICATION



NOTES:
1. ALL SIGNAL HEADS SHALL BE EQUIPED WITH 12" LENS AND L.E.D. MODULES.

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:28 PM

PHASE I NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING. CONSTRUCT ADA-COMPLIANT 6' CONCRETE CEMENT SIDEWALK AND CURBING. FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE CLOSURE AND LANE SHIFTING TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

STAGING NOTES:

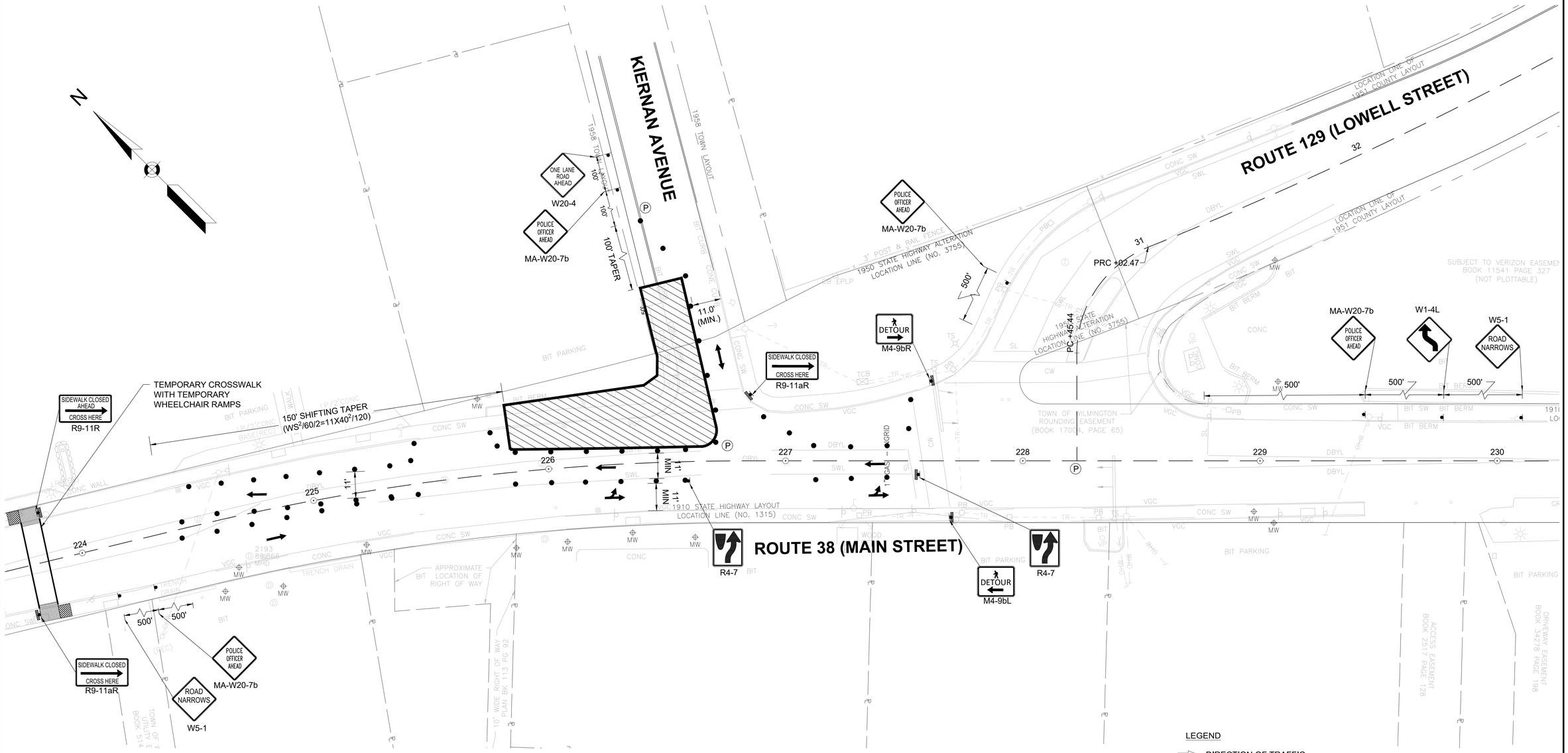
1. THE SOUTHBOUND LEFT TURN (PHASE 5) SHALL BE OMITTED DURING THIS STAGE. THE EXISTING SIGNAL HEAD FOR THIS MOVEMENT WILL BE DEACTIVATED, AND THE SIGNAL TIMING AND PHASING WILL BE ADJUSTED ACCORDINGLY.
2. AT DISCRETION OF THE POLICE DETAIL THE TRAFFIC SIGNALS MAY BE SET TO FLASHING OPERATION DURING WORK HOURS WITH POLICE DETAIL DIRECTING TRAFFIC.
3. TRAFFIC SIGNALS SHALL BE RESTORED TO NORMAL OPERATION DURING NON-WORK HOURS.
4. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	193	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 129 (LOWELL ST) - STAGE 1

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:29 PM



TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT LOWELL ST
STAGE 1- NORTHEAST CORNER CLOSURE

0 20 50 100
SCALE: 1" = 20'

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- (P) POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): "WILMINGTON-REHABILITATION, ROUTE 129 (LOWELL STREET) FROM ROUTE 38 (MAIN STREET) TO WOBURN STREET, INCLUDES BR# W-38-024" BY GREEN INTERNATIONAL AFFILIATES, INC. DATED 2004, MASSDOT PROJECT NO. 601732
3. ANY TRAFFIC SIGNAL EQUIPMENT OR DETECTION LOOPS DAMAGED DURING WORK SHALL BE REPLACED IN-KIND. TEMPORARY DETECTION IS TO BE PROVIDED THROUGHOUT WORK UNTIL LOOPS ARE BACK OPERATING.
4. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	194	420
PROJECT FILE NO.	608051		

CONSTRUCTION SIGNAL TIMING PLAN
RTE 38 (MAIN ST) AT RTE 129 (LOWELL ST) - STAGE 1 & STAGE 4

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:29 PM

	Ø 2	Ø 4		Ø 6	Ø OL A	Ø 8	ØPED	ØPRE-EMPT 1	ØPRE-EMPT 2	ØPRE-EMPT 3

SIGNAL SEQUENCE AND TIMING CHART

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	FLASHING OPERATION
MINIMUM GREEN			10			10						10						3															
VEHICLE EXTENSION			3			3						3						3															
MAXIMUM GREEN 1			79			31						44						31															
MAXIMUM GREEN 2			58			18						29						18															
YELLOW CLEARANCE				3			3						3			3			3					3			3			3			EMERGENCY ONLY
ALL RED CLEARANCE					3			3						3			3			3			2			3			3			3	
WALK INTERVAL																					4												
PED CLEARANCE INTERVAL																						20											
STREET	DIRECTION	HOUSING																															
DRIVEWAY	EB	J,K	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
LOWELL STREET	WB	G,H	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
LOWELL STREET	WB	E,F	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
MAIN STREET	NB	C,D	R	R	R	R	R	R	R	R	R	C	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	C	Y	R	FY
MAIN STREET	SB-TH	B,L	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
PEDESTRIAN	N-S	ALL	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FWD	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
RECALL SWITCH			OFF			OFF			OFF			OFF			OFF			OFF			OFF			OFF			OFF			OFF			
DETECTOR			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			LOCK			NON-LOCK			NON-LOCK			NON-LOCK			

SIGNAL IDENTIFICATION

NOTES:
MAXIMUM GREEN 1 SHALL BE IN EFFECT AT ALL OTHER TIMES.
MAXIMUM GREEN 2 SHALL BE IN EFFECT FROM WEEKDAY 5:00 PM TO 9:00 PM.

PREFERENTIAL PHASING SEQUENCE

* SIGNAL HEAD A WILL BE SHUT DOWN DURING CONSTRUCTION

ITEM 815.82 TRAFFIC CONTROL SIGNAL TYPE BDW

LIST OF MAJOR ITEMS REQUIRED

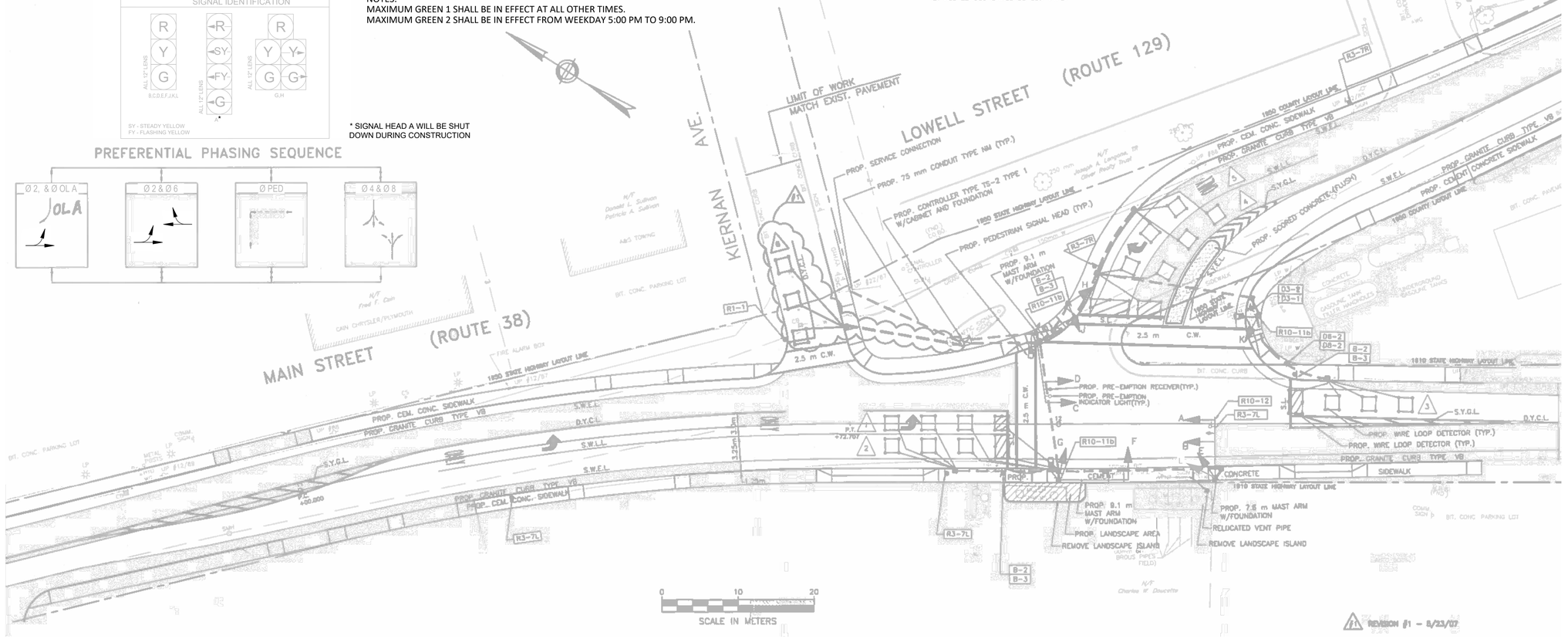
QUANTITY	DESCRIPTION
1	CONTROLLER TYPE TS-2, TYPE 1, CABINET & FOUNDATION
1	7.6 m MAST ARM W/FOUNDATION
2	9.1 m MAST ARM W/FOUNDATION
2	SIGNAL HEAD - 1 WAY, 5 SECTIONS - A & G
7	SIGNAL HEAD - 1 WAY, 3 SECTIONS - B,C,D,E,F,J & K
1	SIGNAL HEAD - 2 WAY, 3 SECTIONS & 5 SECTIONS - H
4	300 mm LED SYMBOLIC TYPE PEDESTRIAN SIGNAL HEAD
4	PEDESTRIAN PUSH BUTTON W/SIGN & SADDLE
20	WIRE LOOP DETECTOR
9	PULL BOX - 300 mm X 300 mm (STD. 2.03)
7	LOOP DETECTOR AMPLIFIER - 2 CHANNEL W/DELAY TMING
1	OPTICOM 4 PHASE SELECTOR
3	EMERGENCY PRE-EMPTION RECEIVER
1	SERVICE CONNECTION - OVERHEAD
2	PRE-EMPTION INDICATOR LIGHT (WHITE)
	ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NEEDED TO
	COMPLETE PROPER INSTALLATION AND 2 SPARE BUS
	INTERFACE UNITS.

NOTE :
1. BICYCLE LEGEND SHALL BE INSTALLED IN ALL LANES WHERE NEW LOOP DETECTORS ARE TO BE INSTALLED SEE SHEET NO. 33 FOR DETAILS.
2. ALL LENSES SHALL BE LED TYPE.

LOOP DETECTOR DATA

DETECTOR NO.	NO. SECTION/ SIZE (m)	NO. OF TURNS	OPERATIONS	CALL DELAY	CALL PHASE	LOOP CONNECTION
1	1-1.8x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#5	SERIES/ PARALLEL
2	1-3.0x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#2	SERIES/ PARALLEL
3	1-3.0x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#8	SERIES/ PARALLEL
4	1-3.0x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#4	SERIES/ PARALLEL
5	1-5.0x1.8 (D-2) 1-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#7	SERIES/ PARALLEL
6	3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#6	SERIES/ PARALLEL

DETECTION SYSTEM NOTE:
THE CONTRACTOR SHALL COORDINATE WITH THE MASSDOT PRIOR TO CONSTRUCTION. THE LOOP DETECTORS MAY BE DEACTIVATED DURING CONSTRUCTION. DURING THIS TIME, THE TRAFFIC SIGNAL AT THE INTERSECTION WILL OPERATE IN PRE-TIMED MODE WITH ADJUSTED SIGNAL TIMINGS.



REVISION #1 - 8/23/07

PHASE 2 NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING. CONSTRUCT ADA-COMPLIANT CONCRETE CEMENT SIDEWALK AND CURBING. FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE SHIFTING AND ALTERNATING TRAFFIC TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

STAGING NOTES:

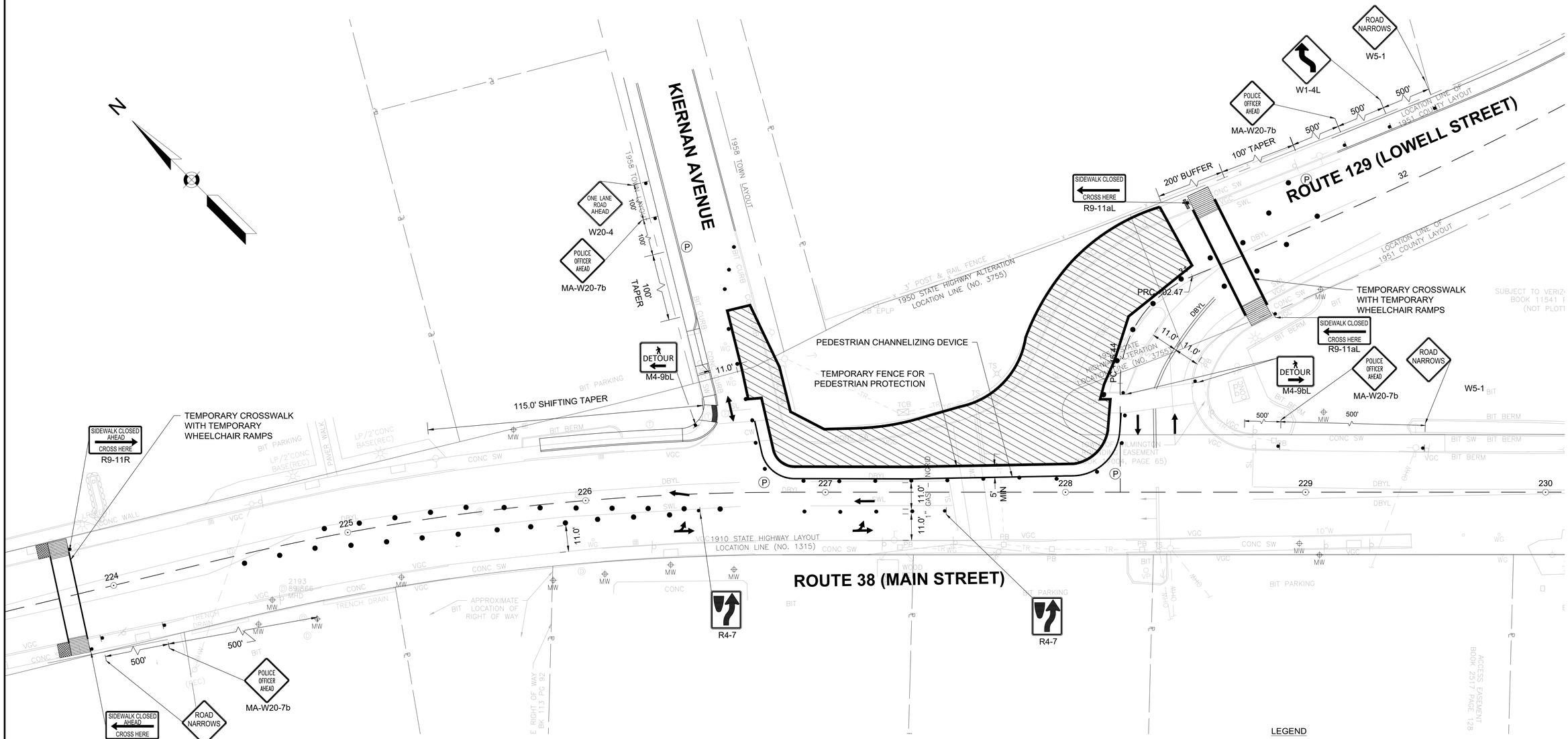
1. AT DISCRETION OF THE POLICE DETAIL THE TRAFFIC SIGNALS MAY BE SET TO FLASHING OPERATION DURING WORK HOURS WITH POLICE DETAIL DIRECTING TRAFFIC.
2. TRAFFIC SIGNALS SHALL BE RESTORED TO NORMAL OPERATION DURING NON-WORK HOURS.
3. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	195	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 129 (LOWELL ST) - STAGE 2

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:29 PM



TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT LOWELL ST
STAGE 2- EAST SIDE CLOSURE

0 20 50 100
SCALE: 1" = 20'

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- (P) POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS
- TEMPORARY PEDESTRIAN CHANNELIZING DEVICE AND FENCE

PHASE 3 NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING. CONSTRUCT ADA-COMPLIANT CONCRETE CEMENT SIDEWALK AND CURBING. FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE SHIFTING AND ALTERNATING TRAFFIC TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

STAGING NOTES:

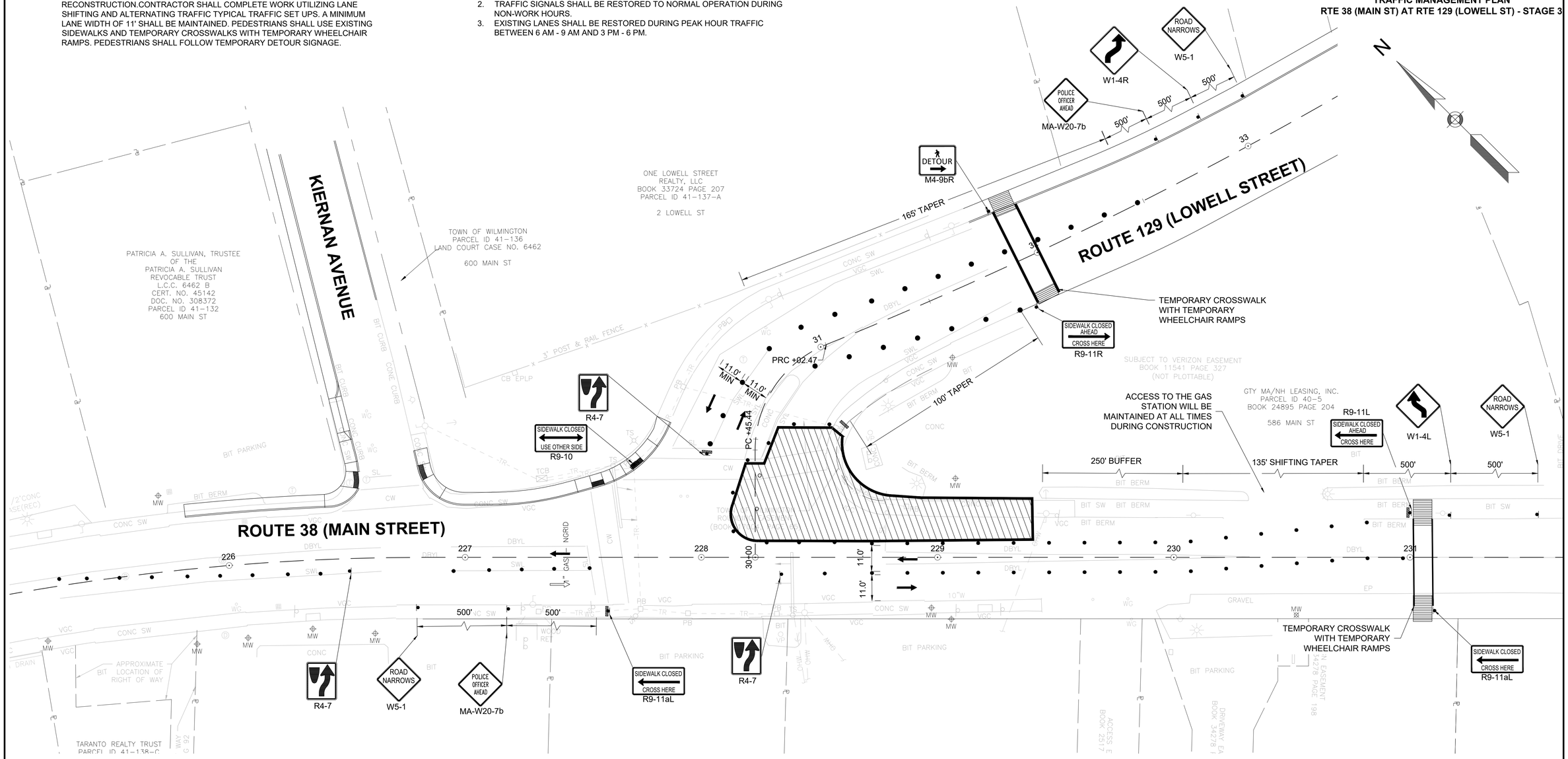
1. AT DISCRETION OF THE POLICE DETAIL THE TRAFFIC SIGNALS MAY BE SET TO FLASHING OPERATION DURING WORK HOURS WITH POLICE DETAIL DIRECTING TRAFFIC.
2. TRAFFIC SIGNALS SHALL BE RESTORED TO NORMAL OPERATION DURING NON-WORK HOURS.
3. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	196	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 129 (LOWELL ST) - STAGE 3

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:29 PM



TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT LOWELL ST
STAGE 3 - SOUTHEAST CORNER CLOSURE

LEGEND
- DIRECTION OF TRAFFIC
- SIGN
- POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

0 20 50 100
SCALE: 1" = 20'

NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): "WILMINGTON-REHABILITATION, ROUTE 129 (LOWELL STREET) FROM ROUTE 38 (MAIN STREET) TO WOBURN STREET, INCLUDES BR# W-38-024" BY GREEN INTERNATIONAL AFFILIATES, INC. DATED 2004, MASSDOT PROJECT NO. 601732
3. ANY TRAFFIC SIGNAL EQUIPMENT OR DETECTION LOOPS DAMAGED DURING WORK SHALL BE REPLACED IN-KIND. TEMPORARY DETECTION IS TO BE PROVIDED THROUGHOUT WORK UNTIL LOOPS ARE BACK OPERATING.
4. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	197	420
PROJECT FILE NO.	608051		

CONSTRUCTION SIGNAL TIMING PLAN
RTE 38 (MAIN ST) AT RTE 129 (LOWELL ST) - STAGE 2 & STAGE 3

NOTES:
1. PROPOSED WORK SHOWN IN DARK BLACK PRINT
2. REFERENCE RECORD PLAN (SHOWN IN SCREENED PRINT): "WILMINGTON-REHABILITATION, ROUTE 129 (LOWELL STREET) FROM ROUTE 38 (MAIN STREET) TO WOBURN STREET, INCLUDES BR# W-38-024" BY GREEN INTERNATIONAL AFFILIATES, INC. DATED 2004, MASSDOT PROJECT NO. 601732

	Ø2	Ø4	Ø6	Ø8	ØPED	ØPRE-EMPT 1	ØPRE-EMPT 2	ØPRE-EMPT 3

SIGNAL SEQUENCE AND TIMING CHART

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
MINIMUM GREEN			10			10						10						3															FLASHING OPERATION
VEHICLE EXTENSION			3			3						3						3															
MAXIMUM GREEN 1			53			31						53						31															
MAXIMUM GREEN 2			57			20						57						20															
YELLOW CLEARANCE				3			3						3						3						3				3				EMERGENCY ONLY
ALL RED CLEARANCE					3			3						3						3			2			3			3			3	
WALK INTERVAL																					4												
PED CLEARANCE INTERVAL																						20											
STREET	DIRECTION	HOUSING																															
DRIVEWAY	EB	J,K	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
LOWELL STREET	WB	E,F	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	FR
MAIN STREET	NB	C,D	R	R	R	R	R	R	R	R	C	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	C	Y	R			FY
MAIN STREET	SB+TH	B,L	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	FY
PEDESTRIAN	N-S	ALL	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FWD	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
RECALL SWITCH			OFF			OFF			OFF			OFF			OFF			OFF			OFF			OFF			OFF			OFF			
DETECTOR			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK			LOCK			NON-LOCK			NON-LOCK			NON-LOCK			

SIGNAL IDENTIFICATION

NOTES:
MAXIMUM GREEN 1 SHALL BE IN EFFECT AT ALL OTHER TIMES.
MAXIMUM GREEN 2 SHALL BE IN EFFECT FROM WEEKDAY 5:00 PM TO 9:00 PM.

* SIGNAL HEAD A WILL BE SHUT DOWN DURING CONSTRUCTION

PREFERENTIAL PHASING SEQUENCE

ITEM 815.82 TRAFFIC CONTROL SIGNAL TYPE BDW

LIST OF MAJOR ITEMS REQUIRED

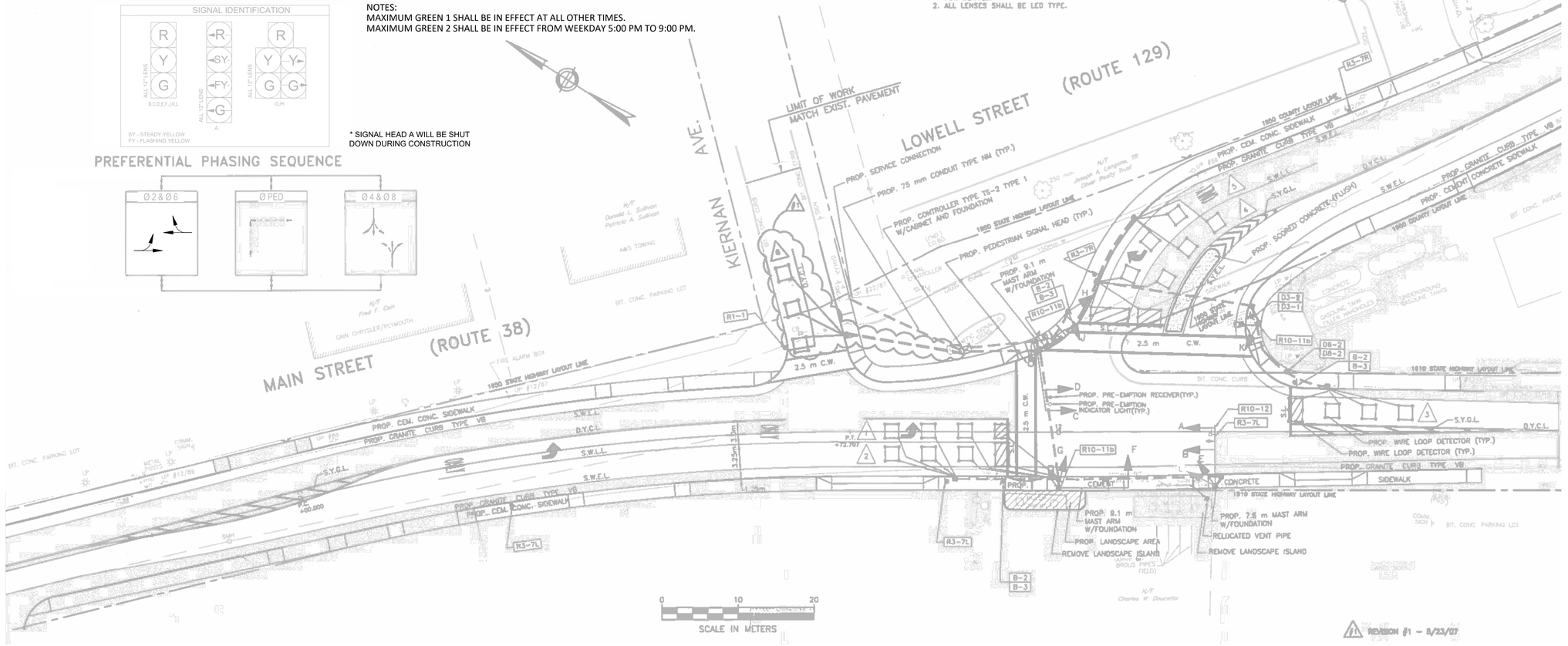
QUANTITY	DESCRIPTION
1	CONTROLLER TYPE TS-2, TYPE 1, CABINET & FOUNDATION
1	7.6 m MAST ARM W/FOUNDATION
2	9.1 m MAST ARM W/FOUNDATION
2	SIGNAL HEAD - 1 WAY, 5 SECTIONS - A & G
7	SIGNAL HEAD - 1 WAY, 3 SECTIONS - B,C,D,E,F,J & K
1	SIGNAL HEAD - 2 WAY, 3 SECTIONS & 5 SECTIONS - H
4	300 mm LED SYMBOLIC TYPE PEDESTRIAN SIGNAL HEAD
4	PEDESTRIAN PUSH BUTTON W/SIGN & SADDLE
20	WIRE LOOP DETECTOR
9	PULL BOX - 300 mm X 300 mm (STD. 2.03)
7	LOOP DETECTOR AMPLIFIER - 2 CHANNEL W/DELAY TIMING
1	OPTICOM 4 PHASE SELECTOR
3	EMERGENCY PRE-EMPTION RECEIVER
1	SERVICE CONNECTION - OVERHEAD
2	PRE-EMPTION INDICATOR LIGHT (WHITE)
	ALL MISCELLANEOUS EQUIPMENT AND MATERIAL NEEDED TO
	COMPLETE PROPER INSTALLATION AND 2 SPARE BUS
	INTERFACE UNITS.

NOTE :
1. BICYCLE LEGEND SHALL BE INSTALLED IN ALL LANES WHERE NEW LOOP DETECTORS ARE TO BE INSTALLED SEE SHEET NO. 33 FOR DETAILS.
2. ALL LENSES SHALL BE LED TYPE.

LOOP DETECTOR DATA

DETECTOR NO.	NO. SECTION/ SIZE (m)	NO. OF TURNS	OPERATIONS	CALL DELAY	CALL PHASE	LOOP CONNECTION
1	1-1.8x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#5	SERIES/ PARALLEL
2	1-3.0x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#2	SERIES/ PARALLEL
3	1-3.0x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#6	SERIES/ PARALLEL
4	1-3.0x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#4	SERIES/ PARALLEL
5	1-5.0x1.8 (D-2) 3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#7	SERIES/ PARALLEL
8	3-1.8x1.8	SEE SHEET NO. 33 3	PRESENCE	0 SEC	#8	SERIES/ PARALLEL

DETECTION SYSTEM NOTE:
THE CONTRACTOR SHALL COORDINATE WITH THE MASSDOT PRIOR TO CONSTRUCTION. THE LOOP DETECTORS MAY BE DEACTIVATED DURING CONSTRUCTION. DURING THIS TIME, THE TRAFFIC SIGNAL AT THE INTERSECTION WILL OPERATE IN PRE-TIMED MODE WITH ADJUSTED SIGNAL TIMINGS.



REVISION #1 - 8/23/07

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:30 PM

PHASE 4 NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING. CONSTRUCT ADA-COMPLIANT CONCRETE CEMENT SIDEWALK AND CURBING. FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE SHIFTING AND ALTERNATING TRAFFIC TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

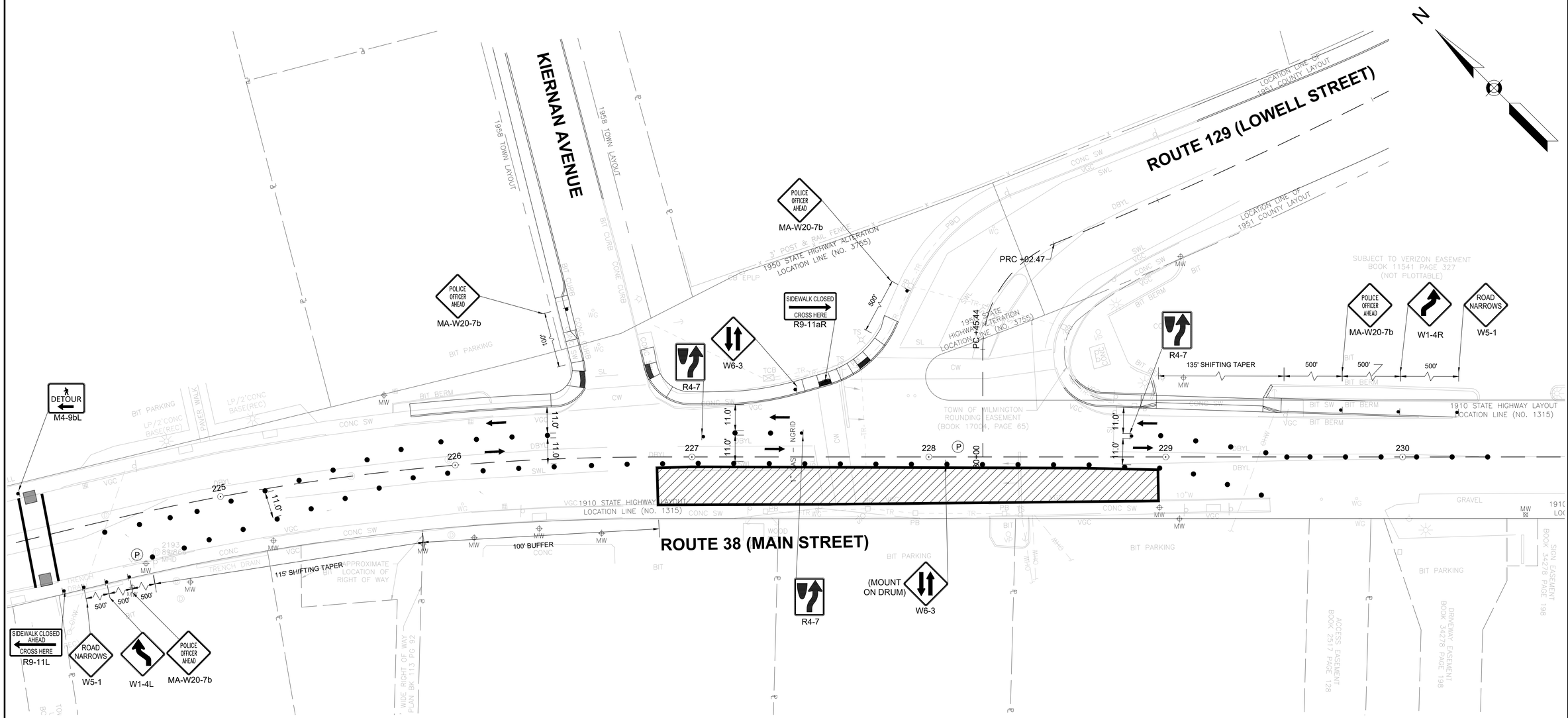
STAGING NOTES:

1. AT DISCRETION OF THE POLICE DETAIL THE TRAFFIC SIGNALS MAY BE SET TO FLASHING OPERATION DURING WORK HOURS WITH POLICE DETAIL DIRECTING TRAFFIC.
2. TRAFFIC SIGNALS SHALL BE RESTORED TO NORMAL OPERATION DURING NON-WORK HOURS.
3. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	198	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 129 (LOWELL ST) - STAGE 4



TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT LOWELL ST
STAGE 4 - WEST SIDE SHOULDER AND TRAVEL LANE CLOSURE

0 20 50 100
SCALE: 1" = 20'

LEGEND
- DIRECTION OF TRAFFIC
- SIGN
- POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

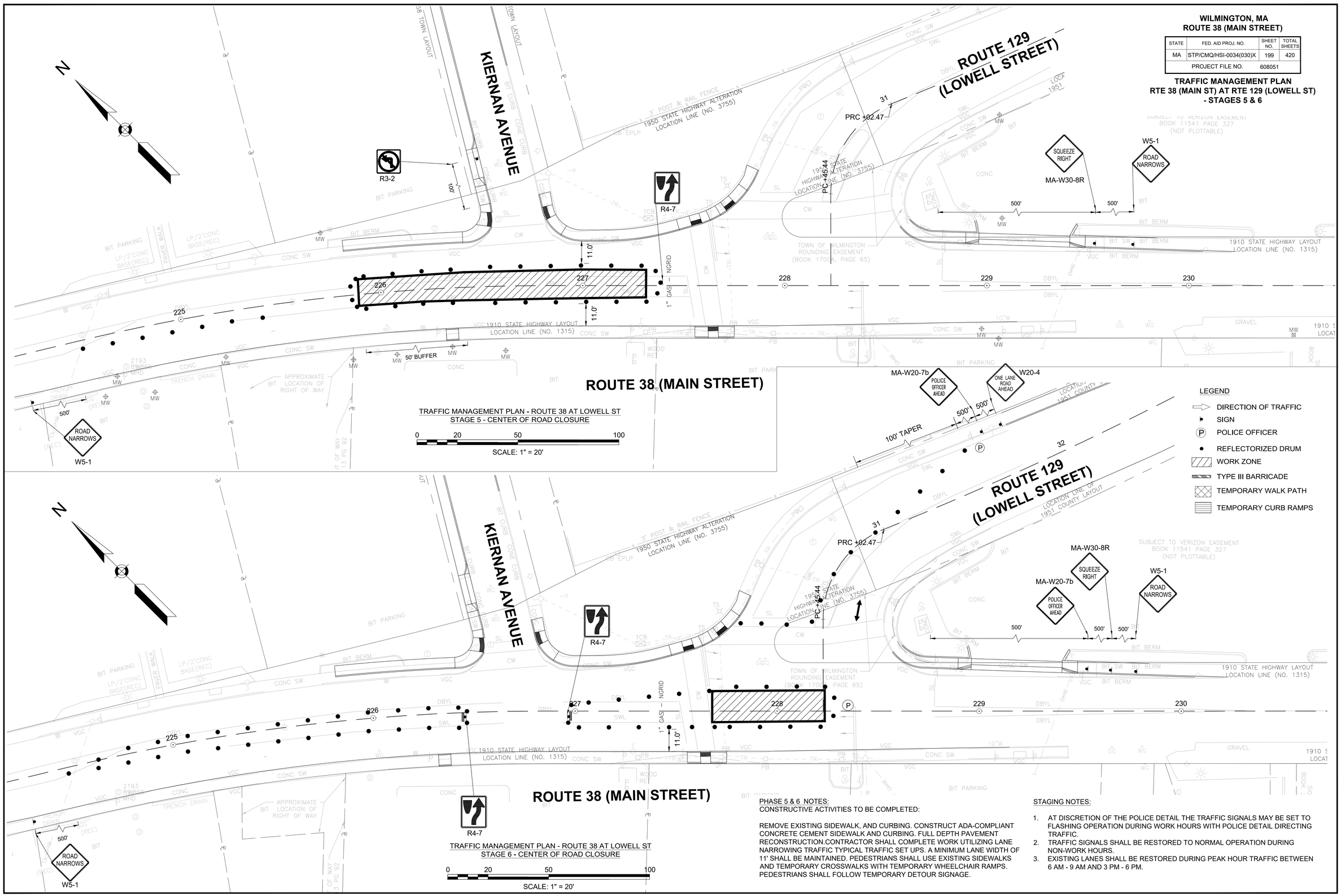
608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:30 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	199	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT RTE 129 (LOWELL ST)
- STAGES 5 & 6

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:30 PM



TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT LOWELL ST
STAGE 5 - CENTER OF ROAD CLOSURE

0 20 50 100

SCALE: 1" = 20'

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT LOWELL ST
STAGE 6 - CENTER OF ROAD CLOSURE

0 20 50 100

SCALE: 1" = 20'

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- (P) POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

PHASE 5 & 6 NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

REMOVE EXISTING SIDEWALK, AND CURBING. CONSTRUCT ADA-COMPLIANT CONCRETE CEMENT SIDEWALK AND CURBING. FULL DEPTH PAVEMENT RECONSTRUCTION.CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE NARROWING TRAFFIC TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL USE EXISTING SIDEWALKS AND TEMPORARY CROSSWALKS WITH TEMPORARY WHEELCHAIR RAMPS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

STAGING NOTES:

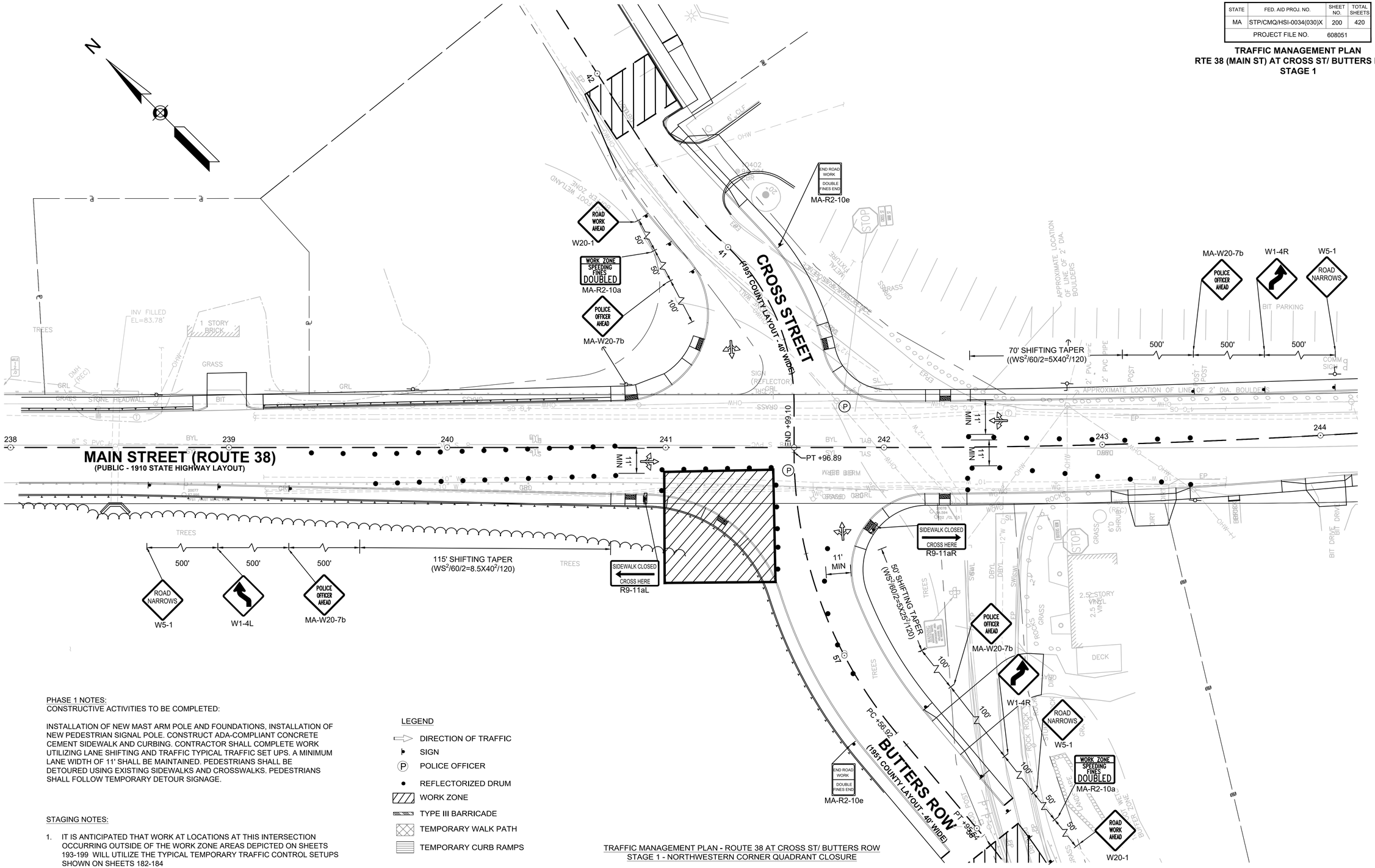
1. AT DISCRETION OF THE POLICE DETAIL THE TRAFFIC SIGNALS MAY BE SET TO FLASHING OPERATION DURING WORK HOURS WITH POLICE DETAIL DIRECTING TRAFFIC.
2. TRAFFIC SIGNALS SHALL BE RESTORED TO NORMAL OPERATION DURING NON-WORK HOURS.
3. EXISTING LANES SHALL BE RESTORED DURING PEAK HOUR TRAFFIC BETWEEN 6 AM - 9 AM AND 3 PM - 6 PM.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	200	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT CROSS ST/ BUTTERS ROW - STAGE 1

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:31 PM



PHASE 1 NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

INSTALLATION OF NEW MAST ARM POLE AND FOUNDATIONS, INSTALLATION OF NEW PEDESTRIAN SIGNAL POLE. CONSTRUCT ADA-COMPLIANT CONCRETE CEMENT SIDEWALK AND CURBING. CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE SHIFTING AND TRAFFIC TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL BE DETOURED USING EXISTING SIDEWALKS AND CROSSWALKS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

STAGING NOTES:

1. IT IS ANTICIPATED THAT WORK AT LOCATIONS AT THIS INTERSECTION OCCURRING OUTSIDE OF THE WORK ZONE AREAS DEPICTED ON SHEETS 193-199 WILL UTILIZE THE TYPICAL TEMPORARY TRAFFIC CONTROL SETUPS SHOWN ON SHEETS 182-184
2. POLICE DETAIL WILL BE USED TO DIRECT TRAFFIC .

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- (P) POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT CROSS ST/ BUTTERS ROW
STAGE 1 - NORTHWESTERN CORNER QUADRANT CLOSURE

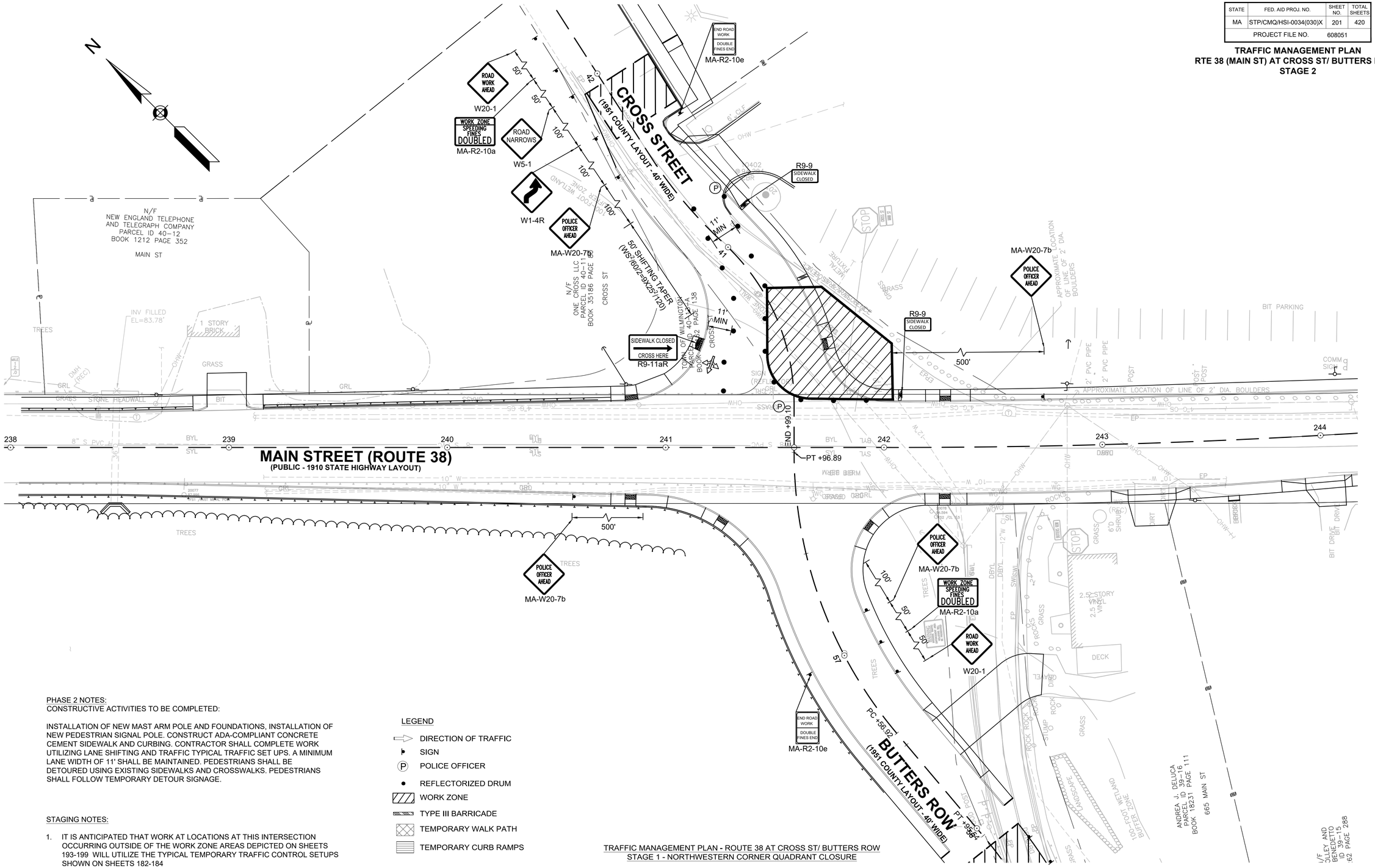
0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	201	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT CROSS ST/ BUTTERS ROW - STAGE 2

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:31 PM



PHASE 2 NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

INSTALLATION OF NEW MAST ARM POLE AND FOUNDATIONS, INSTALLATION OF NEW PEDESTRIAN SIGNAL POLE. CONSTRUCT ADA-COMPLIANT CONCRETE CEMENT SIDEWALK AND CURBING. CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE SHIFTING AND TRAFFIC TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL BE DETOURED USING EXISTING SIDEWALKS AND CROSSWALKS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

STAGING NOTES:

1. IT IS ANTICIPATED THAT WORK AT LOCATIONS AT THIS INTERSECTION OCCURRING OUTSIDE OF THE WORK ZONE AREAS DEPICTED ON SHEETS 193-199 WILL UTILIZE THE TYPICAL TEMPORARY TRAFFIC CONTROL SETUPS SHOWN ON SHEETS 182-184
2. POLICE DETAIL WILL BE USED TO DIRECT TRAFFIC .

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- (P) POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT CROSS ST/ BUTTERS ROW
STAGE 1 - NORTHWESTERN CORNER QUADRANT CLOSURE

0 20 50 100
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	202	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
RTE 38 (MAIN ST) AT CROSS ST/ BUTTERS ROW - STAGE 3

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:32 PM

N

CROSS STREET
(1951 COUNTY LAYOUT - 40' WIDE)

END ROAD WORK
DOUBLE FINES END
MA-R2-10e

ROAD WORK AHEAD
W20-1

WORK ZONE SPEEDING FINES DOUBLED
MA-R2-10a

ROAD NARROWS
W5-1

POLICE OFFICER AHEAD
MA-W20-7b

50' 50' 100' 100'

MAIN STREET (ROUTE 38)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

238 239 240 241 242 243 244

11' MIN 11' MIN 11' MIN

PT +96.89

80' SHIFTING TAPER
($WS^2/60/2=10X40^2/120$)

SIDEWALK CLOSED
CROSS HERE
R9-11aR

135' SHIFTING TAPER
($WS^2/60/2=10X40^2/120$)

500' 500' 500'

ROAD NARROWS
W5-1

W1-4L

POLICE OFFICER AHEAD
MA-W20-7b

SIDEWALK CLOSED
CROSS HERE
R9-11aL

50' SHIFTING TAPER
($WS^2/60/2=5X25^2/120$)

PC +56.92

BUTTERS ROW
(1951 COUNTY LAYOUT - 40' WIDE)

PT +95.84

MA-W20-7b W1-4L W5-1
POLICE OFFICER AHEAD
ROAD NARROWS
500' 500' 500'

APPROXIMATE LOCATION OF LINE OF 2' DIA. BOULDERS

PARKING

2" PVC PIPE

POST

TREES

INV FILLED EL=83.78'

1 STORY BRICK

GRASS

STONE HEADWALL

DMH (REC)

8" S PVC

36" RCP

10" W

12" W

6" GAS

6" ELE

OHW

WETLAND 10' BUFFER ZONE

STONE WALL

METAL FIXTURE

SCRUB

ROCKS

2.5 STORY VINYL

DECK

DIRT

6'D SHRUB

BIT DRIVE

CONC

BIT

GRL

EP

WHO

SL

DBL

SWL

W

G

OHW

M

PHASE 3 NOTES:
CONSTRUCTIVE ACTIVITIES TO BE COMPLETED:

INSTALLATION OF NEW MAST ARM POLE AND FOUNDATIONS, INSTALLATION OF NEW PEDESTRIAN SIGNAL POLE. CONSTRUCT ADA-COMPLIANT CONCRETE CEMENT SIDEWALK AND CURBING. CONTRACTOR SHALL COMPLETE WORK UTILIZING LANE SHIFTING AND TRAFFIC TYPICAL TRAFFIC SET UPS. A MINIMUM LANE WIDTH OF 11' SHALL BE MAINTAINED. PEDESTRIANS SHALL BE DETOURED USING EXISTING SIDEWALKS AND CROSSWALKS. PEDESTRIANS SHALL FOLLOW TEMPORARY DETOUR SIGNAGE.

STAGING NOTES:

1. POLICE DETAIL WILL BE USED TO DIRECT TRAFFIC .

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- (P) POLICE OFFICER
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY WALK PATH
- TEMPORARY CURB RAMPS

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT CROSS ST/ BUTTERS ROW
STAGE 1 - SOUTHWESTERN CORNER QUADRANT CLOSURE

0 20 50 100

SCALE: 1" = 20'

NOTE:

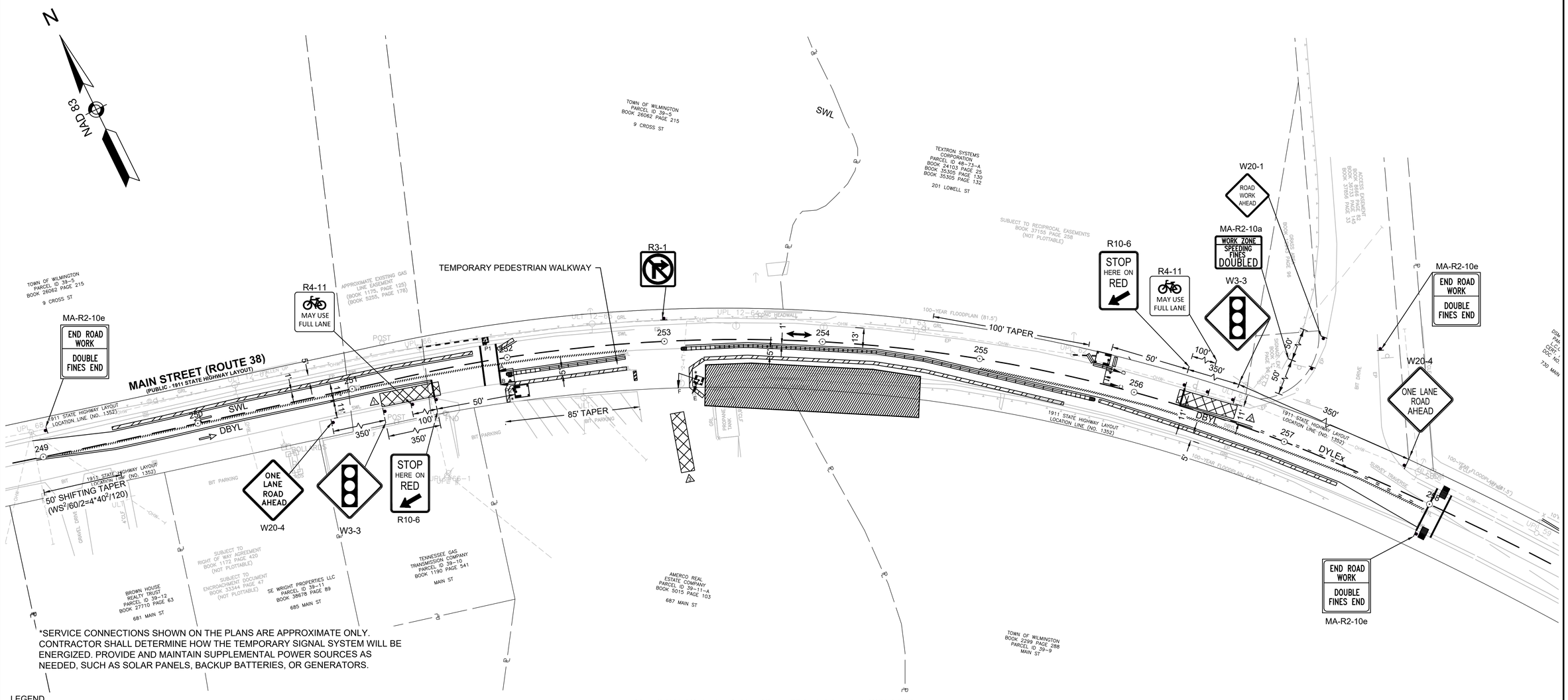
1. ACCESS TO/FROM BOTH DRIVEWAYS FOR 687 MAIN STREET SHALL BE MAINTAINED DURING DURATION OF WORK.
2. IF THE CONSTRUCTION ON DUBLIN AVE AND MAPLE MEADOW BROOK OCCUR AT THE SAME TIME, WORK SHALL BE COORDINATED SUCH THAT CONSTRUCTION IS PERFORMED ON THE SAME SIDE OF THE ROAD FOR BOTH LOCATIONS.
3. A TEMPORARY SPEED FEEDBACK TRAILER SHALL BE IMPLEMENTED ON THE CROSS STREET UPON ACTIVATION OF THE TEMPORARY SIGNAL SETUPS.
4. TEMPORARY SPEED HUMPS MAP BE IMPLEMENTED UNDER THE DIRECTION OF TOWN OF WILMINGTON.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	203	420
PROJECT FILE NO.	608051		

MAPLE MEADOW BROOK
WORK ZONE PRE-STAGE 1

608051_TR04(TMP MEADOW BROOK).DWG Plotted on 2-Dec-2025 2:33 PM



*SERVICE CONNECTIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL DETERMINE HOW THE TEMPORARY SIGNAL SYSTEM WILL BE ENERGIZED. PROVIDE AND MAINTAIN SUPPLEMENTAL POWER SOURCES AS NEEDED, SUCH AS SOLAR PANELS, BACKUP BATTERIES, OR GENERATORS.

LEGEND

- WORK ZONE
- TEMPORARY BARRIER - TL-3
- TEMPORARY BARRIER - LIMITED DEFLECTION - TL-3
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SIGN
- TEMPORARY IMPACT ATTENUATOR - TL-3 END TREATMENT
- PROPOSED DIRECTION OF TRAFFIC
- EXISTING PAVEMENT MARKING REMOVAL
- TYPE III BARRICADE
- RECOMMENDED CONDUIT FOR POWER CONNECTION

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT MAPLE MEADOW BROOK
PRE-STAGE 1 - WEST SIDE CLOSURE FOR TEMPORARY PEDESTRIAN BRIDGE CONSTRUCTION

0 30 60 100

SCALE: 1" = 30'

NOTE:

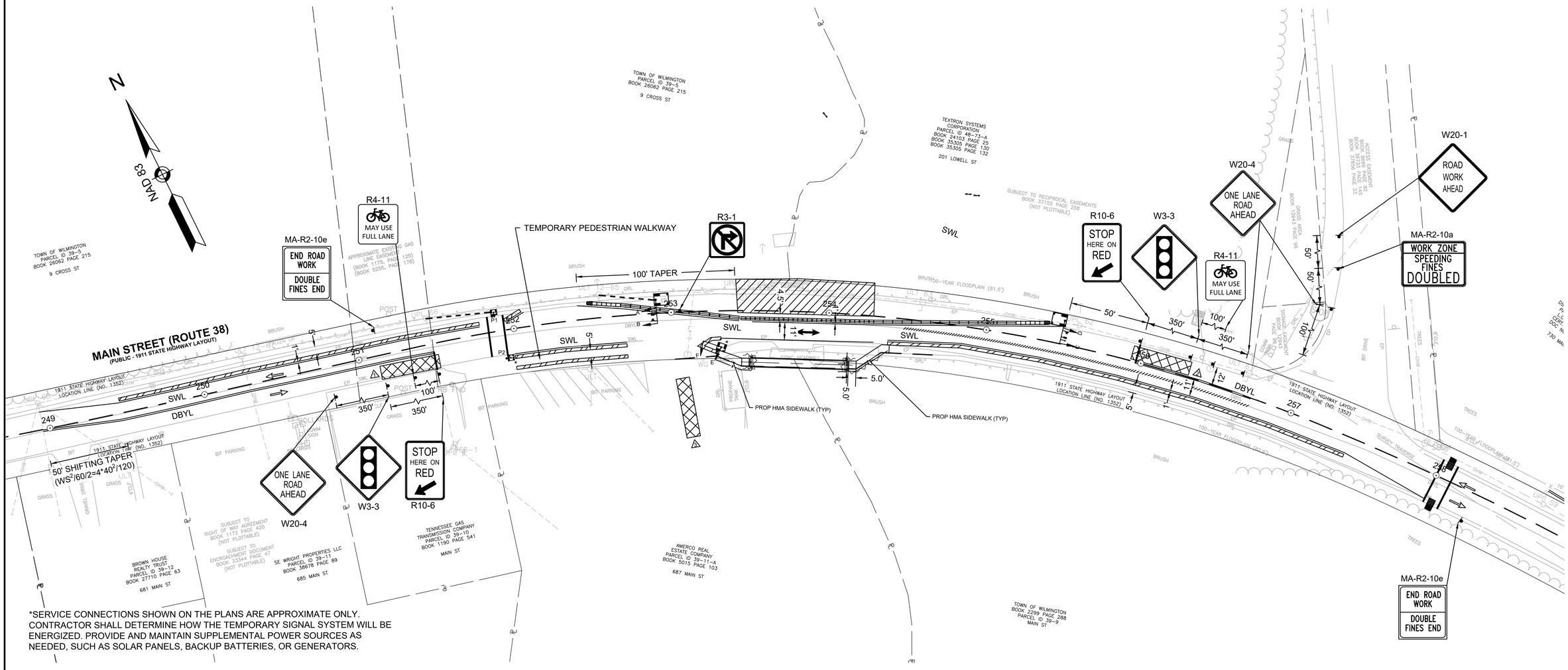
1. ACCESS TO/FROM BOTH DRIVEWAYS FOR 687 MAIN STREET SHALL BE MAINTAINED DURING DURATION OF WORK.
2. IF THE CONSTRUCTION ON DUBLIN AVE AND MAPLE MEADOW BROOK OCCUR AT THE SAME TIME, WORK SHALL BE COORDINATED SUCH THAT CONSTRUCTION IS PERFORMED ON THE SAME SIDE OF THE ROAD FOR BOTH LOCATIONS.
3. A TEMPORARY SPEED FEEDBACK TRAILER SHALL BE IMPLEMENTED ON THE CROSS STREET UPON ACTIVATION OF THE TEMPORARY SIGNAL SETUPS.
4. TEMPORARY SPEED HUMPS MAP BE IMPLEMENTED UNDER THE DIRECTION OF TOWN OF WILMINGTON.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	204	420
PROJECT FILE NO.	608051		

MAPLE MEADOW BROOK
WORK ZONE STAGE 1

608051_TR04(TMP MEADOW BROOK).DWG Plotted on 2-Dec-2025 2:33 PM



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LEGEND

- WORK ZONE
- TEMPORARY BARRIER - TL-3
- TEMPORARY BARRIER - LIMITED DEFLECTION - TL-3
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SIGN
- TEMPORARY IMPACT ATTENUATOR - TL-3 END TREATMENT
- PROPOSED DIRECTION OF TRAFFIC
- EXISTING PAVEMENT MARKING REMOVAL
- TYPE III BARRICADE
- RECOMMENDED CONDUIT FOR POWER CONNECTION

TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT MAPLE MEADOW BROOK
STAGE 1 - EAST SIDE CLOSURE

0 30 60 100

SCALE: 1" = 30'

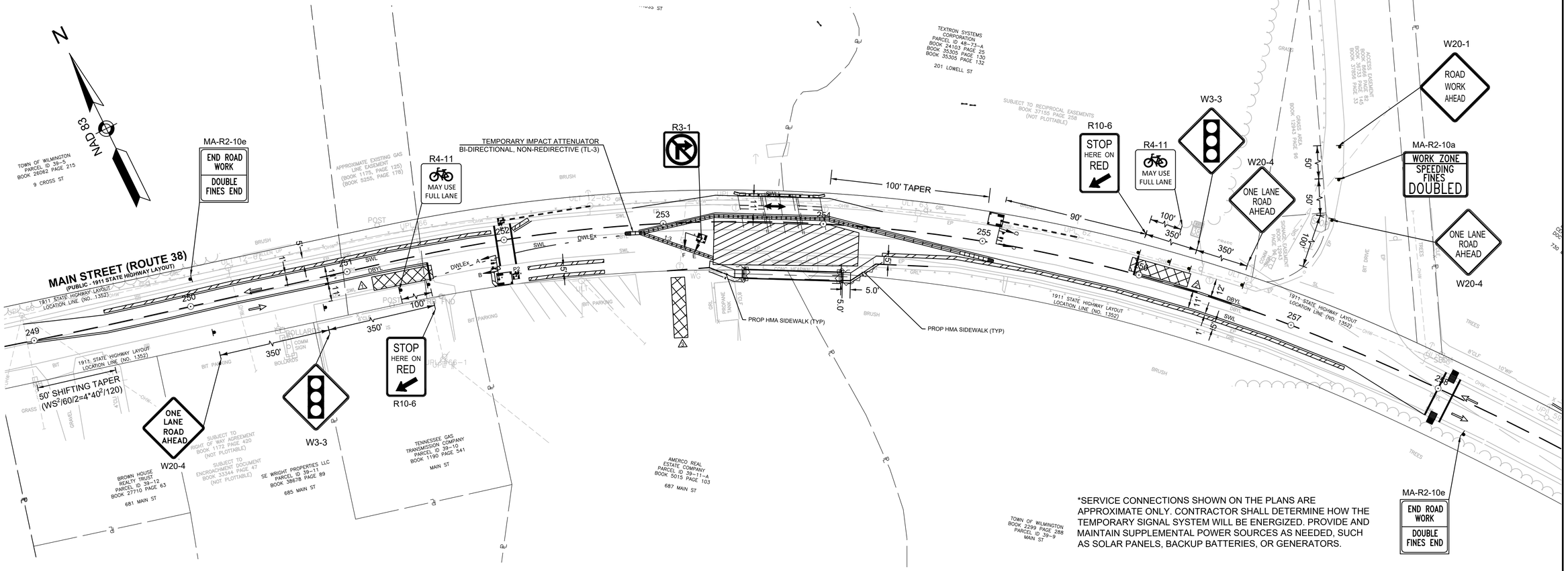
NOTE:

1. ACCESS TO/FROM BOTH DRIVEWAYS FOR 687 MAIN STREET SHALL BE MAINTAINED DURING DURATION OF WORK.
2. IF THE CONSTRUCTION ON DUBLIN AVE AND MAPLE MEADOW BROOK OCCUR AT THE SAME TIME, WORK SHALL BE COORDINATED SUCH THAT CONSTRUCTION IS PERFORMED ON THE SAME SIDE OF THE ROAD FOR BOTH LOCATIONS.
3. A TEMPORARY SPEED FEEDBACK TRAILER SHALL BE IMPLEMENTED ON THE CROSS STREET UPON ACTIVATION OF THE TEMPORARY SIGNAL SETUPS.
4. TEMPORARY SPEED HUMPS MAP BE IMPLEMENTED UNDER THE DIRECTION OF TOWN OF WILMINGTON.

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	205	420
PROJECT FILE NO.	608051		

MAPLE MEADOW BROOK
WORK ZONE STAGE 2



TRAFFIC MANAGEMENT PLAN - ROUTE 38 AT MAPLE MEADOW BROOK
STAGE 2 - WEST SIDE CLOSURE

0 30 60 100

SCALE: 1" = 30'

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LEGEND

- WORK ZONE
- TEMPORARY BARRIER - TL-3
- TEMPORARY BARRIER - LIMITED DEFLECTION - TL-3
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SIGN
- TEMPORARY IMPACT ATTENUATOR - TL-3 END TREATMENT
- PROPOSED DIRECTION OF TRAFFIC
- EXISTING PAVEMENT MARKING REMOVAL
- TYPE III BARRICADE
- RECOMMENDED CONDUIT FOR POWER CONNECTION

608051_TR04(TMP MEADOW BROOK).DWG Plotted on 2-Dec-2025 2:33 PM

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	206	420
PROJECT FILE NO.	608051		

MAPLE MEADOW BROOK
TEMPORARY TRAFFIC SIGNAL PLAN

608051_TR04(TMP MEADOW BROOK).DWG Plotted on 2-Dec-2025 2:33 PM

LOCATION

SEQUENCE & TIMING FOR FULL ACTUATED CONTROL

MAIN STREET AT MEADOW BROOK BRIDGE

FLASHING OPERATION

APPROACH	DIRECTION	HOUSINGS	INTERVALS 1	2	3	4	5	6	7	8	9	10	11	12	FLASHING OPERATION
MA ROUTE 38 (MAIN STREET)	SB	A, B	R	R	R	G	Y	R	R	R	R	R	R	R	FR
MA ROUTE 38 (MAIN STREET)	NB	C, D	G	Y	R	R	R	R	R	R	R	R	R	R	FR
U-HAUL DRIVEWAY	EBL	E, F	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~	~~R~~	FR
PEDESTRIAN	E - W	P1, P2	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT
TIMING IN SECONDS															
MINIMUM GREEN (INITIAL)			10			10			6						EMERGENCY ONLY
MAX GREEN 1			19			69			6						
MAX GREEN 2			62			26			6						
VEHICLE EXTENSION			3			3			3						
YELLOW CLEARANCE				3			3			3					
RED CLEARANCE					28			28			6				
PED WALK INTERVAL												7	5	4	
RECALL				MIN			MIN			NONE			NONE		
DETECTION (MEMORY)				NON-LOCK			NON-LOCK			NON-LOCK			NON-LOCK		

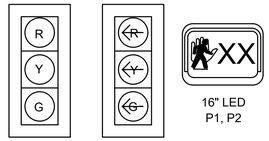
NOTES:
1. STANDARD NEMA CLEARANCES SHALL APPLY.
2. MAXIMUM GREEN 1 SHALL BE IN EFFECT AT ALL TIMES UNLESS OTHERWISE SPECIFIED BELOW.
3. MAXIMUM GREEN 2 SHALL BE IN EFFECT ON WEEKDAYS FROM 3 PM - 7 PM.
4. PEDESTRIAN PHASE UPON ACTUATION ONLY.

MA ROUTE 38 (MAIN STREET) AT MEADOW BROOK BRIDGE
MAJOR ITEMS LIST

3	TEMPORARY SIGNAL TRAILER W/ CONTROLLER
2	PORTABLE PEDESTRIAN SIGNAL TRAILER W/ PUSH BUTTON
6	12 INCH 1 WAY 3-SECTION LED VEHICLE SIGNAL INDICATION
1	VIDEO DETECTION SYSTEM
1	EMERGENCY PREEMPTION INDICATOR (STROBE) LIGHT (WHITE)
2	EMERGENCY PREEMPTION RECEIVER (DETECTOR) - ONE WAY

ALL CABLE, LABOR, MISCELLANEOUS MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE INSTALLATION OF A FULLY OPERATIONAL SIGNAL SYSTEM AS INTENDED ON TRAFFIC SIGNAL PLAN

SIGNAL IDENTIFICATION



A, B, C, D E, F 16" LED P1, P2

NOTES:
1. ALL VEHICLE SIGNAL HEADS SHALL BE LED TYPE
2. ALL VEHICLE SIGNAL HEADS SHALL BE 12 INCHES
3. ALL HOUSINGS TO BE PROVIDED WITH TUNNEL VISORS AND 5-INCH NON-LOUVERED BACKPLATES WITH 3-INCH RETROREFLECTIVE BORDERS.

VIDEO DETECTION DATA

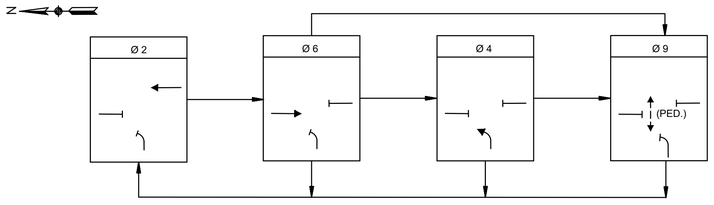
VIDEO CAMERA	DETECTOR NO.	PHASE CALLED	PHASE EXT.	OPERATIONS	DELAY TIME	EXT. TIME	DIMENSION (FEET)
V1	1	Ø6	Ø6	PRESENCE	–	–	6X40
V2	2	Ø2	Ø2	PRESENCE	–	–	6X40
V3	3	Ø4	Ø4	PRESENCE	–	–	6X40

FIRE PRE-EMPTION SCHEDULE

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	APPROACH AND MOVEMENT	VEHICLE PHASE ASSIGNMENT	NEXT PHASE CALLED
R1	1	SB →	Ø 6	Ø 2
R2	2	NB ←	Ø 2	Ø 6

NOTES:
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE TRANSMITTED BY OPTICAL AND INFRARED EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY RECEIVERS LOCATED AT THE INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: (R1, R2, THEN R3).
3. MINIMUM GREEN, NORMAL VEHICLE AND PEDESTRIAN CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.

PREFERENTIAL PHASING SEQUENCE

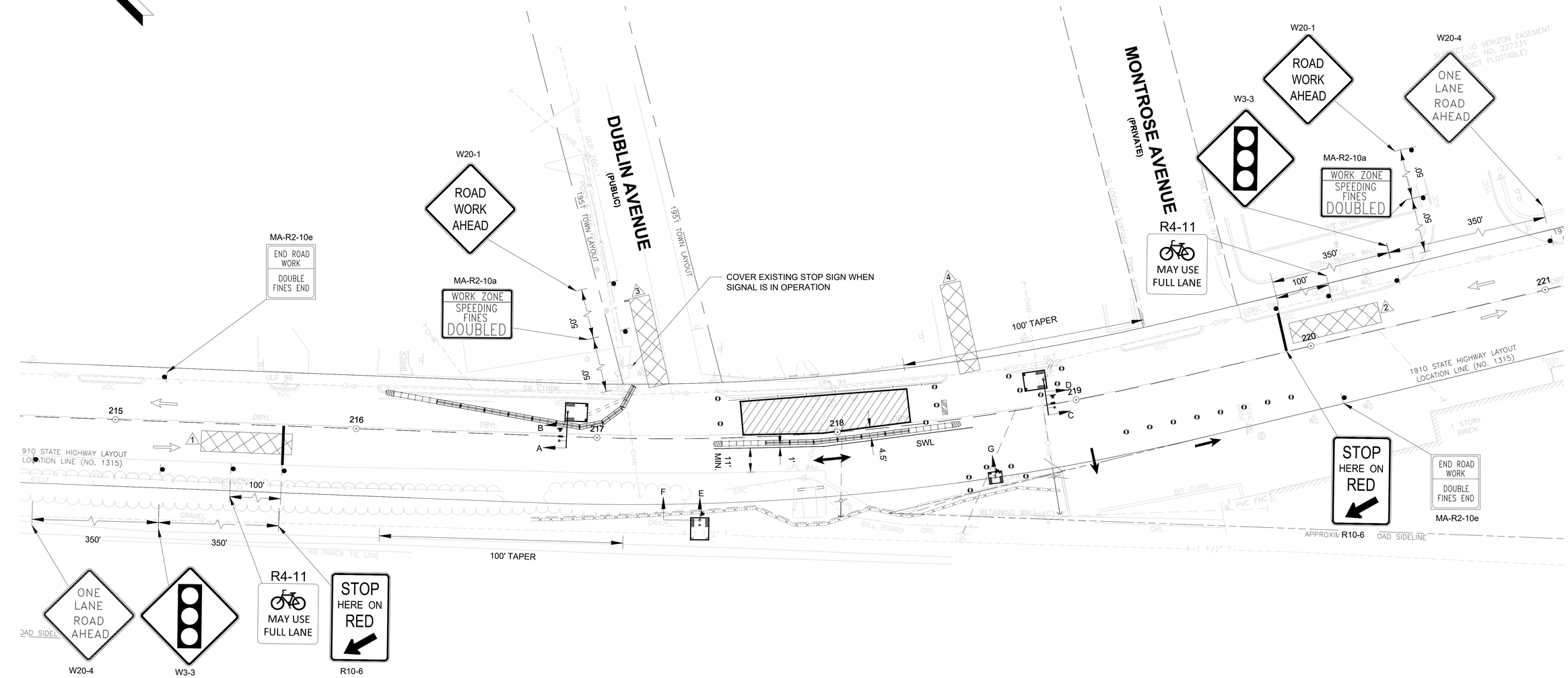


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	207	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
CULVERT REPLACEMENT AT DUBLIN AVE

608051_TR04(TMP)_DUBLIN AVE CULVERT.DWG Plotted on 2-Dec-2025 2:35 PM



TRAFFIC MANAGEMENT PLAN - PRESTAGE 1

0 20 50 100

SCALE: 1" = 20'

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CONSTRUCTION NOTE:

1. CONTRACTOR SHALL COORDINATE WITH THE ABUTTERS FOR THE CONSTRUCTION WORK AND SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF THE WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS.
2. ACCESS TO DRIVEWAYS AND ON-STREET RESIDENT PARKING SHALL BE MAINTAINED DURING CONSTRUCTION.

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	208	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
CULVERT REPLACEMENT AT DUBLIN AVE

608051_TR04(TMP)_DUBLIN AVE CULVERT.DWG Plotted on 2-Dec-2025 2:36 PM

TEMPORARY PEDESTRIAN PATH AND CURB RAMPS (TYP.)

W20-1 ROAD WORK AHEAD

MA-R2-10e END ROAD WORK / DOUBLE FINES END

MA-R2-10a WORK ZONE SPEEDING FINES DOUBLED

COVER EXISTING STOP SIGN WHEN SIGNAL IS IN OPERATION

N AVENUE (PUBLIC)

DANA KIKLIS
L.C.C. 6462 B
CERT. NO. 36223
DOC. NO. 206007
PARCEL ID 41-128-A
508 MAIN ST

STOP HERE ON RED

SWL

11' MIN

100' TAPER

450'

ONE WAY R6-1R

DO NOT ENTER R5-1

R9-11L SIDEWALK CLOSED AHEAD / CROSS HERE

LOWELL ST (ROUTE 129)

TOWN OF WILMINGTON ROUNDING EASEMENT (BOOK 17004, PAGE 65)

MAIN ST (ROUTE 38)

R9-11R SIDEWALK CLOSED AHEAD / CROSS HERE

W20-4 ONE LANE ROAD AHEAD

W3-3

R4-11 MAY USE FULL LANE

R10-6 STOP HERE ON RED

TROSE AVENUE (PRIVATE)

MAIN STREET (ROUTE 38)
(PUBLIC - 1910 STATE HIGHWAY LAYOUT)

DETOUR

MA-R2-10e END ROAD WORK / DOUBLE FINES END

STEDMAN 555, LLC

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CONSTRUCTION NOTE:

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2. ACCESS TO DRIVEWAYS AND ON-STREET RESIDENT PARKING SHALL BE MAINTAINED DURING CONSTRUCTION.

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE

TRAFFIC MANAGEMENT PLAN - STAGE 1

0 20 50 100

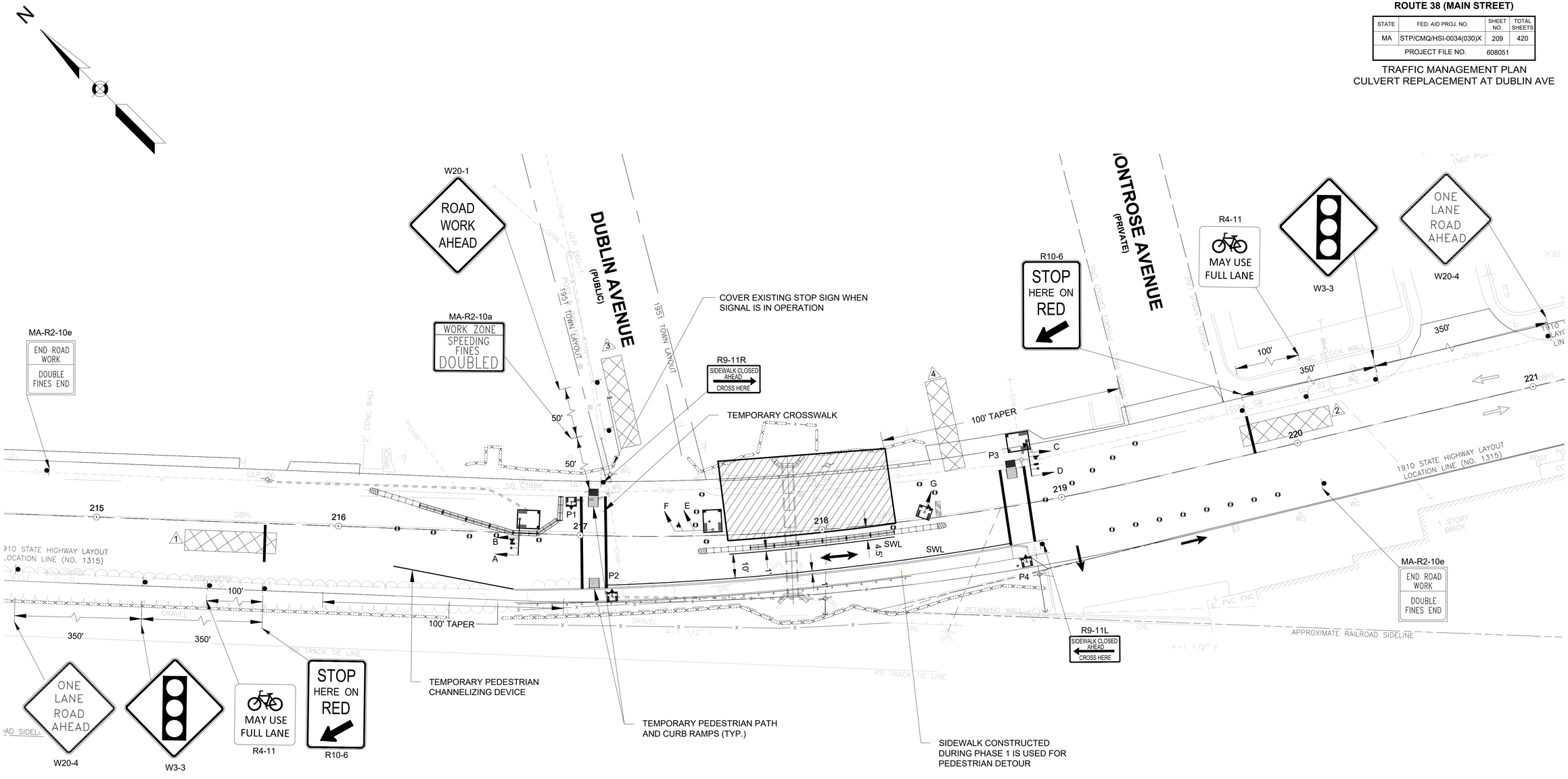
SCALE: 1" = 20'

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	209	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
CULVERT REPLACEMENT AT DUBLIN AVE

608051_TR04(TMP)_DUBLIN AVE CULVERT.DWG Plotted on 2-Dec-2025 2:36 PM



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CONSTRUCTION NOTE:

1. CONTRACTOR SHALL COORDINATE WITH THE ABUTTERS FOR THE CONSTRUCTION WORK AND SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF THE WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS.
2. ACCESS TO DRIVEWAYS AND ON-STREET RESIDENT PARKING SHALL BE MAINTAINED DURING CONSTRUCTION.

TRAFFIC MANAGEMENT PLAN - STAGE 2

0 20 50 100

SCALE: 1" = 20'

LEGEND

- DIRECTION OF TRAFFIC
- SIGN
- REFLECTORIZED DRUM
- WORK ZONE
- TYPE III BARRICADE

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	210	420
PROJECT FILE NO.	608051		

TRAFFIC MANAGEMENT PLAN
CULVERT REPLACEMENT AT DUBLIN AVE

608051_TR04(TMP)_DUBLIN AVE CULVERT.DWG Plotted on 2-Dec-2025 2:36 PM

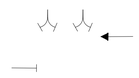
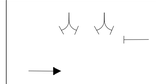
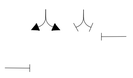
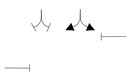
LOCATION

SEQUENCE & TIMING FOR FULL ACTUATED CONTROL

MAIN STREET

AT

CULVERT NEAR DUBLIN AVENUE

	Ø 2	Ø 6	Ø 4	Ø 8	Ø 9	
					(PED.)	FLASHING OPERATION
INTERVALS						
APPROACH / DIRECTION / HOUSINGS	1 2 3	4 5 6	7 8 9	10 11 12	13 14 15	
MA ROUTE 38 (MAIN STREET) / SB / A, B	R R R	G Y R	R R R	R R R	R R R	FR
MA ROUTE 38 (MAIN STREET) / NB / C, D	G Y R	R R R	R R R	R R R	R R R	FR
DUBLIN AVE / WB / E, F	R R R	R R R	G Y R	R R R	R R R	FR
MASONRY DRIVEWAY / WB / G	R R R	R R R	R R R	G Y R	R R R	FR
PEDESTRIAN / E - W / P1-P4	DW DW DW	DW DW DW	DW DW DW	DW DW DW	W FDW DW	OUT
TIMING IN SECONDS						
MINIMUM GREEN (INITIAL)	10	10	8	8		EMERGENCY ONLY
MAX GREEN 1	30	53	8	8		
MAX GREEN 2	45	40	8	8		
VEHICLE EXTENSION	3	3	3	3		
YELLOW CLEARANCE	3	3	3	3		
RED CLEARANCE	25	25	11	11.5		
PED WALK INTERVAL					7 9 4	
RECALL	MIN	MIN	NONE	NONE	NONE	
DETECTION (MEMORY)	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	

NOTES:
1. STANDARD NEMA CLEARANCES SHALL APPLY.
2. MAXIMUM GREEN 1 SHALL BE IN EFFECT AT ALL TIMES UNLESS OTHERWISE SPECIFIED BELOW.
3. MAXIMUM GREEN 2 SHALL BE IN EFFECT ON WEEKDAYS FROM 3 PM - 7 PM.
4. PEDESTRIAN PHASE UPON ACTUATION ONLY.

VIDEO DETECTION DATA

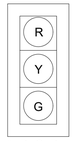
VIDEO CAMERA	DETECTOR NO.	PHASE CALLED	PHASE EXT.	OPERATIONS	DELAY TIME	EXT. TIME	DIMENSION (FEET)
V1	1	Ø6	Ø6	PRESENCE	–	–	6X40
V2	2	Ø2	Ø2	PRESENCE	–	–	6X40
V3	3	Ø4	Ø4	PRESENCE	–	–	6X40
V4	4	Ø8	Ø8	PRESENCE	–	–	6X20

MA ROUTE 38 (MAIN STREET) AT CULVERT NEAR DUBLIN AVENUE
MAJOR ITEMS LIST

4	TEMPORARY SIGNAL TRAILER W/ CONTROLLER
3	PORTABLE PEDESTRIAN SIGNAL TRAILER
4	PEDESTRIAN SIGNAL HEAD
7	12 INCH 1 WAY 3-SECTION LED VEHICLE SIGNAL INDICATION
1	VIDEO DETECTION SYSTEM
2	EMERGENCY PREEMPTION INDICATOR (STROBE) LIGHT (WHITE)
2	EMERGENCY PREEMPTION RECEIVER (DETECTOR) - ONE WAY

ALL CABLE, LABOR, MISCELLANEOUS MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE INSTALLATION OF A FULLY OPERATIONAL SIGNAL SYSTEM AS INTENDED ON TRAFFIC SIGNAL PLAN (SHEET 13).

SIGNAL IDENTIFICATION



A, B, C, D, E, F, G

16" LED
P1, P2, P3, P4

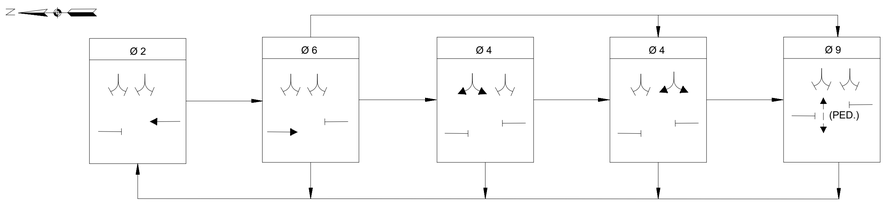
NOTES:
1. ALL VEHICLE SIGNAL HEADS SHALL BE LED TYPE
2. ALL VEHICLE SIGNAL HEADS SHALL BE 12 INCHES
3. ALL HOUSINGS TO BE PROVIDED WITH TUNNEL VISORS AND 5-INCH NON-LOUVERED BACKPLATES WITH 3-INCH RETROREFLECTIVE BORDERS.

FIRE PRE-EMPTION SCHEDULE

RECEIVER AND PRIORITY	PRE-EMPT PHASE ASSIGNMENT	APPROACH AND MOVEMENT	VEHICLE PHASE ASSIGNMENT	NEXT PHASE CALLED
R1	1	SB →	Ø 6	Ø 2
R2	2	NB ←	Ø 2	Ø 6

NOTES:
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE TRANSMITTED BY OPTICAL AND INFRARED EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY RECEIVERS LOCATED AT THE INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH RECEIVERS ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: (R1, R2, THEN R3)
3. MINIMUM GREEN, NORMAL VEHICLE AND PEDESTRIAN CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.

PREFERENTIAL PHASING SEQUENCE



TEMPORARY TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		TEXT	TEXT DIMENSION (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND BUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR		BACKGROUND	LEGEND	BORDER			
MA-R2-10a	36.00	48.00	WORK ZONE SPEEDING FINES DOUBLED	SEE MASSDOT STD. SIGN BOOK			11	FLUORESCENT ORANGE, RETROREFLECTIVE WHITE	BLACK	BLACK	MASSDOT SPEC. MOUNT ON POST	12.00	132.00
MA-R2-10e	48.00	36.00	END ROAD WORK / DOUBLE FINES END				13	FLUORESCENT ORANGE, RETROREFLECTIVE WHITE	BLACK	BLACK		12.00	156.00
MA-W4-7L	36.00	36.00	THRU TRAFFIC MERGE LEFT				1	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
MA-W4-7R	36.00	36.00	THRU TRAFFIC MERGE RIGHT				1	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
MA-W20-7b	36.00	36.00	POLICE OFFICER AHEAD				4	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	36.00
MA-W30-8R	36.00	36.00	SQUEEZE RIGHT				1	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
M4-9bL	30.00	24.00	DETOUR	SEE MUTCD STD. DETAIL			2	RETROREFLECTIVE ORANGE	BLACK	BLACK		5.00	10.00
M4-9bR	30.00	24.00	DETOUR				2	RETROREFLECTIVE ORANGE	BLACK	BLACK		5.00	10.00
R3-1	24.00	24.00					1	RETROREFLECTIVE WHITE	BLACK AND REFLECTIVE RED	BLACK		4.00	4.00
R3-2	24.00	24.00					1	RETROREFLECTIVE WHITE	BLACK AND REFLECTIVE RED	BLACK		4.00	4.00
R3-7L	30.00	30.00	LEFT LANE MUST TURN LEFT				2	RETROREFLECTIVE WHITE	BLACK	BLACK		6.25	12.50
R3-7R	30.00	30.00	RIGHT LANE MUST TURN RIGHT				2	RETROREFLECTIVE WHITE	BLACK	BLACK		6.25	12.50
R3-8	30.00	30.00	ONLY				2	RETROREFLECTIVE WHITE	BLACK	BLACK		6.25	12.50
R4-7	24.00	30.00					4	RETROREFLECTIVE WHITE	BLACK	BLACK		5.00	20.00
R5-1	30.00	30.00	DO NOT ENTER				1	RETROREFLECTIVE WHITE	BLACK	BLACK		6.25	6.25
R6-1R	36.00	12.00	ONE WAY				1	RETROREFLECTIVE WHITE	BLACK	BLACK		3.00	3.00
R9-8	36.00	18.00	PEDESTRIAN CROSSWALK				3	RETROREFLECTIVE WHITE	BLACK	BLACK		4.50	13.50
R9-9	24.00	12.00	SIDEWALK CLOSED				3	RETROREFLECTIVE WHITE	BLACK	BLACK		2.00	6.00
R9-10	24.00	12.00	SIDEWALK CLOSED → CROSS HERE				2	RETROREFLECTIVE WHITE	BLACK	BLACK		2.00	4.00
R9-11L	24.00	12.00	SIDEWALK CLOSED AHEAD ← CROSS HERE				2	RETROREFLECTIVE WHITE	BLACK	BLACK		2.00	4.00
R9-11R	24.00	12.00	SIDEWALK CLOSED AHEAD → CROSS HERE				2	RETROREFLECTIVE WHITE	BLACK	BLACK		2.00	4.00
R10-6	24.00	36.00	STOP HERE ON RED				2	RETROREFLECTIVE WHITE	BLACK	BLACK		6.00	12.00
W1-4L	36.00	36.00					2	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	18.00
W1-4R	36.00	36.00		SEE MUTCD STD. DETAIL			2	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	18.00
W3-3	36.00	36.00					2.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	18.00
W4-2L	36.00	36.00					1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W4-2R	36.00	36.00					1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W5-1	36.00	36.00	ROAD NARROWS				4.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	36.00
W6-3	36.00	36.00					2.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	18.00
W8-1	36.00	36.00	BUMP				1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W8-3	36.00	36.00	PAVEMENT ENDS				1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W8-15	36.00	36.00	GROOVED PAVEMENT				1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W8-15aP	24.00	18.00					1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		3.00	3.00
W8-24	36.00	36.00	STEEL PLATE AHEAD				1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W11-2	30.00	30.00					6.00	RETROREFLECTIVE YELLOW GREEN	BLACK	BLACK		6.25	37.50
W13-1P	24.00	24.00	XX MPH				2.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		4.00	8.00
W16-7P	21.00	15.00					4.00	RETROREFLECTIVE YELLOW GREEN	BLACK	BLACK		2.19	8.75
W16-9P	24.00	12.00	AHEAD				2.00	RETROREFLECTIVE YELLOW GREEN	BLACK	BLACK		2.00	4.00
W20-1	36.00	36.00	ROAD WORK AHEAD				13.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	117.00
W20-4	36.00	36.00	ONE LANE ROAD AHEAD				4.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	36.00
W20-5L	36.00	36.00	LEFT LANE CLOSED AHEAD				1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W20-5R	36.00	36.00	RIGHT LANE CLOSED AHEAD				1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
W21-5a	36.00	36.00	RIGHT SHOULDER CLOSED				1.00	RETROREFLECTIVE ORANGE	BLACK	BLACK		9.00	9.00
												TOTAL	892.50

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	211	420
PROJECT FILE NO.	608051		

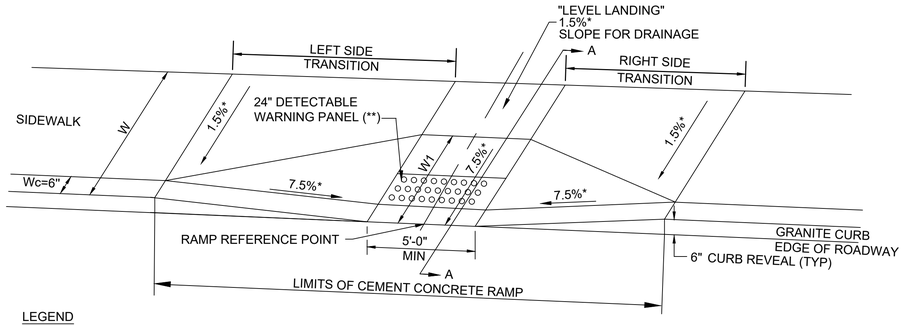
CONSTRUCTION SIGN SUMMARY

NOTES:
1. SIGN SUPPORTS SHALL BE AS SET FORTH IN THE NCHRP 350 REPORT. AND THE CRITERIA SET FORTH IN THE "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
2. SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2009 EDITION AND ALL REVISIONS, THE 2012 MASSACHUSETTS AMENDMENTS TO THE 2009 MUTCD, THE 2016 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SIGN BOOK, AND THE STANDARD MUNICIPAL TRAFFIC CODE FOR LATEST SPECIFICATION ON TEXT DIMENSIONS AND COLOR. ALSO REFER TO 2025 MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SUBSECTION M9.30.0.

608051_TR04(TMP)_RECOVER.DWG Plotted on 2-Dec-2025 2:37 PM

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS - 1

608051_HD10(WHEELCHAIR RAMP & DRIVEWAY DETAILS).DWG Plotted on 2-Dec-2025 2:37 PM



LEGEND

CC = CEMENT CONCRETE

HSL = HIGH SIDE FRONT TRANSITION LENGTH (SEE MASSDOT STANDARD DRAWING NO. E 701.2.8)

W = SIDEWALK WIDTH

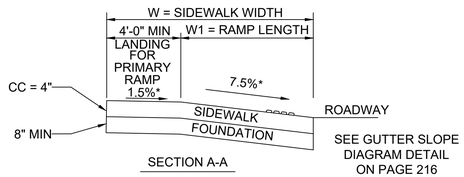
W_1 = LENGTH OF PRIMARY RAMP

Wc = CURB WIDTH

* = TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = W-Wc

RAMP LENGTH, W1 = W-4'-0" MIN



SECTION A-A

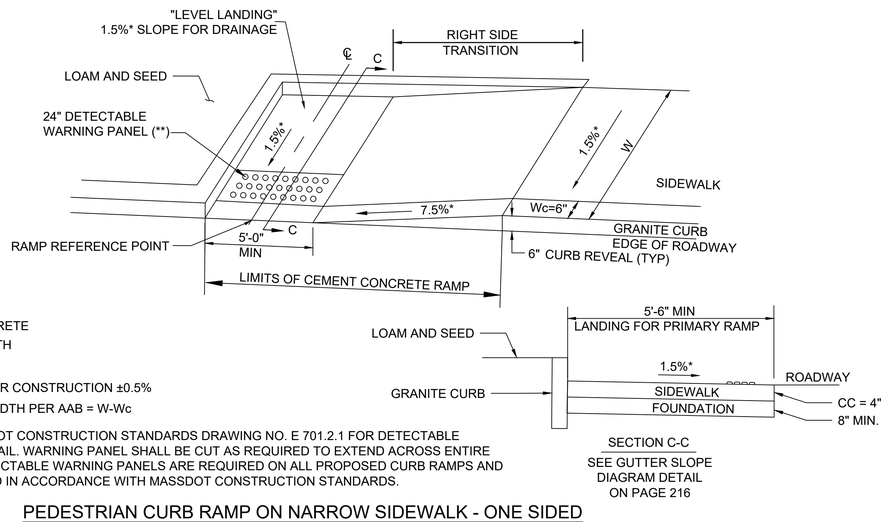
(**) REFER TO MASSDOT CONSTRUCTION STANDARDS DRAWING NO. E 701.2.1 FOR DETECTABLE WARNING PANEL DETAIL. WARNING PANEL SHALL BE CUT AS REQUIRED TO EXTEND ACROSS ENTIRE RAMP OPENING. DETECTABLE WARNING PANELS ARE REQUIRED ON ALL PROPOSED CURB RAMPS AND ARE TO BE INSTALLED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARDS.

PEDESTRIAN CURB RAMP WITH LESS THAN 12'-4" SIDEWALK

NOT TO SCALE

CURB CUT RAMP DETAIL TABLE								
PEDESTRIAN CURB RAMP #	STATION (ROUTE 38)	OFFSET	LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP (MIN. 5'-0")	ROADWAY GUTTER SLOPE (%)	LEFT SIDE TRANSITION LENGTH	RIGHT SIDE TRANSITION LENGTH
1	204+98.53	29.46' LT	5'-0"	8'-0" - 10'-0"	5'-0"	4.70% LT/-0.80% RT	6'-4"	7'-6"****
6	206+77.15	30.44' RT	4'-0"	9'-6"	5'-0"	7.00%	6'-6"	15'-0"

NOTE:
*** = 3" CURB REVEAL
† = NO TRANSITION PANEL, SEE PLANS FOR PLACEMENT OF GRANITE CURB.



LEGEND

CC = CEMENT CONCRETE

W = SIDEWALK WIDTH

Wc = CURB WIDTH

* = TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = W-Wc

(**) REFER TO MASSDOT CONSTRUCTION STANDARDS DRAWING NO. E 701.2.1 FOR DETECTABLE WARNING PANEL DETAIL. WARNING PANEL SHALL BE CUT AS REQUIRED TO EXTEND ACROSS ENTIRE RAMP OPENING. DETECTABLE WARNING PANELS ARE REQUIRED ON ALL PROPOSED CURB RAMPS AND ARE TO BE INSTALLED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARDS.

SECTION C-C

SEE GUTTER SLOPE DIAGRAM DETAIL ON PAGE 216

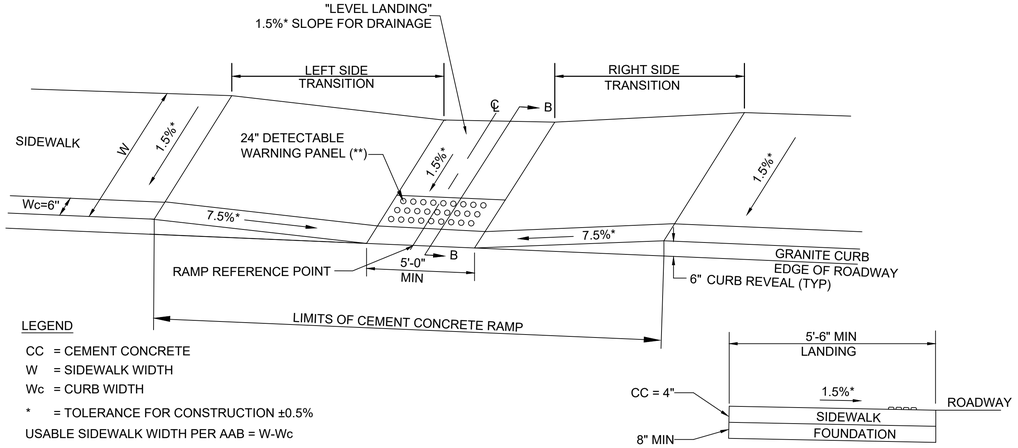
PEDESTRIAN CURB RAMP ON NARROW SIDEWALK - ONE SIDED

NOT TO SCALE

CURB CUT RAMP DETAIL TABLE							
PEDESTRIAN CURB RAMP #	STATION (ROUTE 38)	OFFSET	LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP (MIN. 5'-0")	ROADWAY GUTTER SLOPE (%)	RIGHT SIDE TRANSITION LENGTH
29	314+38.78	16.00' LT	5'-6"	5'-6"	5'-0"	1.62%	9'-0"

NOTE:

TRANSITION LENGTH REFERS TO THE LENGTH OF THE TRANSITION AT THE BACK OF SIDEWALK



LEGEND

CC = CEMENT CONCRETE

W = SIDEWALK WIDTH

Wc = CURB WIDTH

* = TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = W-Wc

(**) REFER TO MASSDOT CONSTRUCTION STANDARDS DRAWING NO. E 701.2.1 FOR DETECTABLE WARNING PANEL DETAIL. WARNING PANEL SHALL BE CUT AS REQUIRED TO EXTEND ACROSS ENTIRE RAMP OPENING. DETECTABLE WARNING PANELS ARE REQUIRED ON ALL PROPOSED CURB RAMPS AND ARE TO BE INSTALLED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARDS.

SECTION B-B

SEE GUTTER SLOPE DIAGRAM DETAIL ON PAGE 216

PEDESTRIAN CURB RAMP ON NARROW SIDEWALK

NOT TO SCALE

CURB CUT RAMP DETAIL TABLE								
PEDESTRIAN CURB RAMP #	STATION (ROUTE 38)	OFFSET	LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP (MIN. 5'-0")	ROADWAY GUTTER SLOPE (%)	LEFT SIDE TRANSITION LENGTH	RIGHT SIDE TRANSITION LENGTH
2	205+34.64	59.23' LT	N/A	6'-3"	5'-0"	-5.70%	7'-5"****	6'-6"
3	205+94.08	59.76' LT	N/A	5'-6"	5'-0"	5.10%	6'-5"	15'-0"
4	206+44.73	26.00' LT	N/A	5'-6"	5'-0"	-0.90%	7'-8"	6'-6"
5	204+98.73	27.50' RT	N/A	6'-4"	5'-0"	-4.20%	15'-0"	6'-6"
11	226+56.41	32.82' LT	N/A	6'-0"	5'-0"	-0.80%	7'-8"	3'-3"****
12	226+80.59	35.59' LT	N/A	5'-6"	5'-0"	0.80%	6'-6"	7'-8"
13	227+56.63	29.90' LT	N/A	5'-6"	5'-0"	0.80%	6'-6"	3'-10"****
14	227+73.69	38.61' LT	N/A	5'-6"	5'-0"	0.80%	3'-3"****	7'-8"
15	227+64.50	19.90' RT	N/A	5'-6"	5'-0"	-0.80%	7'-8"	6'-6"
16	240+84.48	21.41' LT	N/A	5'-6"	5'-0"	3.22%	6'-6"	14'-0"
17	241+16.99	46.80' LT	N/A	5'-6"	5'-0"	-0.50%	6'-6"	7'-8"
18	241+71.65	47.11' LT	N/A	5'-6"	5'-0"	1.80%	6'-6"	9'-0"
19	242+28.17	21.10' LT	N/A	5'-6"	5'-0"	1.20%	6'-6"	9'-0"
20	240+83.98	21.20' RT	N/A	5'-6"	5'-0"	-3.22%	14'-0"	6'-6"
21	241+26.79	32.28' RT	N/A	5'-6"	5'-0"	-2.60%	11'-0"	6'-6"
22	241+91.95	34.90' RT	N/A	5'-6"	5'-0"	0.40%	6'-6"	7'-8"
23	242+27.73	21.00' RT	N/A	5'-6"	5'-0"	-0.90%	7'-8"	6'-6"
28	314+38.77	16.00' RT	N/A	5'-6"	5'-0"	-0.20%	3'-6"****	6'-6"
36	222+44.32	16.11' LT	N/A	7'-6"	5'-0"	0.41%	6'-6"	7'-8"
37	222+44.21	16.05' RT	N/A	5'-6"	5'-0"	0.43%	7'-8"	6'-6"
42	236+92.43	20.17' RT	N/A	4'-6"	6'-3"	-1.51%	6'-6"	6'-6"

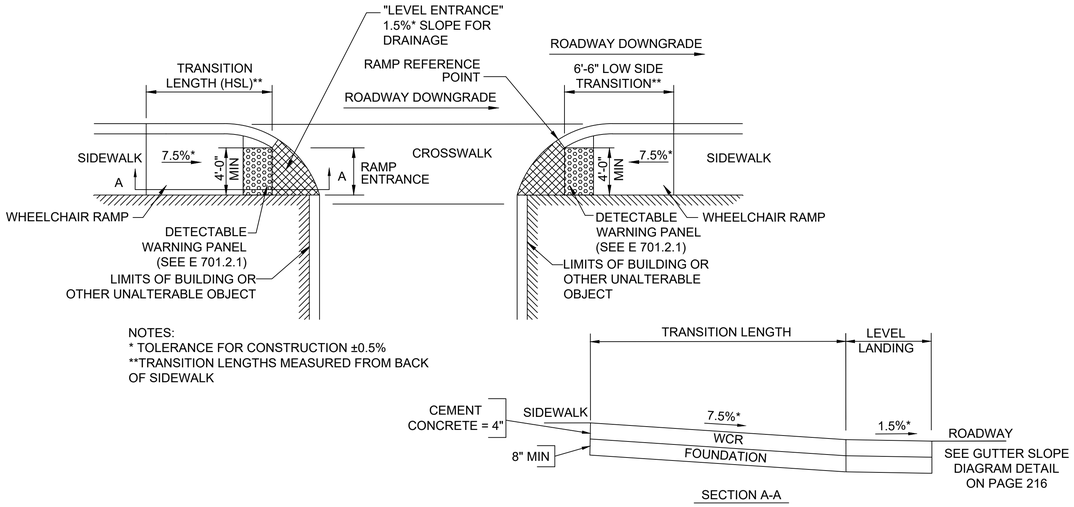
NOTE:
*** = 3" CURB REVEAL

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	213	420
PROJECT FILE NO.	608051		

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS - 2

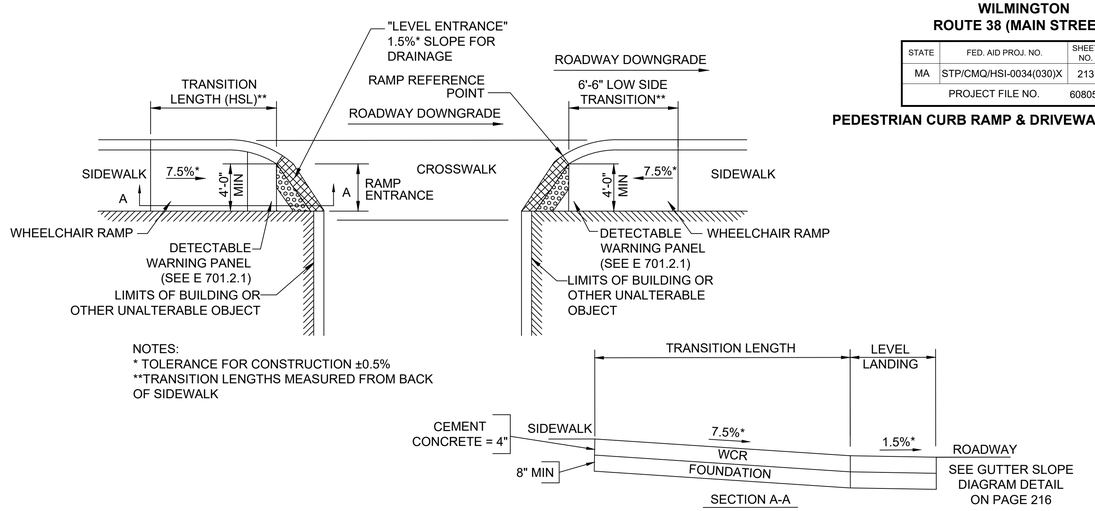
608051_HD10(WHEELCHAIR RAMP & DRIVEWAY DETAILS).DWG Plotted on 2-Dec-2025 2:37 PM



PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL

NOT TO SCALE

CURB CUT RAMP DETAIL TABLE								
PEDESTRIAN CURB RAMP #	STATION (ROUTE 38)	OFFSET	LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE (MIN. 4'-0")	ROADWAY GUTTER SLOPE (%)	LEFT SIDE TRANSITION LENGTH	RIGHT SIDE TRANSITION LENGTH
7	209+36.51	29.71' LT	N/A	6'-0"	4'-0" (MIN)	-3.40%	15'-0"	-
8	209+68.66	29.71' LT	N/A	5'-6"	4'-0" (MIN)	-1.40%	-	6'-6"
9	217+10.61	19.71' LT	N/A	5'-6"	4'-0" (MIN)	-0.49%	7'-8"	-
26	313+56.50	19.06' RT	N/A	5'-6"	4'-0" (MIN)	1.10%	-	9'-0"
32	315+84.46	19.08' LT	N/A	5'-6"	4'-0" (MIN)	-1.90%	9'-0"	6'-6"
33	316+27.55	19.08' LT	N/A	5'-6"	4'-0" (MIN)	1.30%	6'-6"	7'-8"
38	229+41.90	20.96' RT	N/A	5'-6"	4'-0" (MIN)	0.35%	7'-8"	-
39	229+91.87	20.28' RT	N/A	5'-6"	4'-0" (MIN)	0.50%	-	6'-6"
43	237+26.79	18.97'RT	N/A	5'-0"	4'-0" (MIN)	-3.15%	-	6'-8"

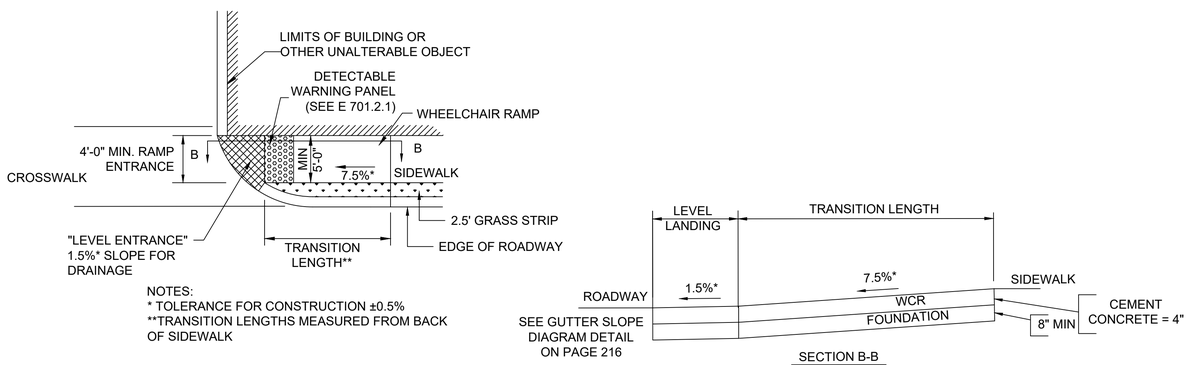


PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL

NOT TO SCALE

CURB CUT RAMP DETAIL TABLE								
PEDESTRIAN CURB RAMP #	STATION (ROUTE 38)	OFFSET	LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE (MIN. 4'-0")	ROADWAY GUTTER SLOPE (%)	LEFT SIDE TRANSITION LENGTH	RIGHT SIDE TRANSITION LENGTH
24	306+04.23	19.05' RT	N/A	5'-6"	4'-0" (MIN)	-2.20%	-	6'-6"
25	306+70.18	19.20' RT	N/A	5'-6"	4'-0" (MIN)	-2.45%	11'-0"	-
27	314+11.42	19.59' RT	N/A	5'-6"	4'-0" (MIN)	-2.40%	3'-10"***	-
30	314+70.77	18.98' RT	N/A	5'-0"	4'-0" (MIN)	2.38%	6'-6"	-
31	315+38.08	18.88' RT	N/A	5'-0"	4'-0" (MIN)	-0.12%	-	5'-8"
34	318+63.78	18.90' LT	N/A	5'-6"	4'-0" (MIN)	-3.56%	4'-6"	-
41	234+99.98	18.08' RT	N/A	4'-6"	4'-0" (MIN)	0.12%	-	7'-8"

NOTE:
*** = 3" CURB REVEAL

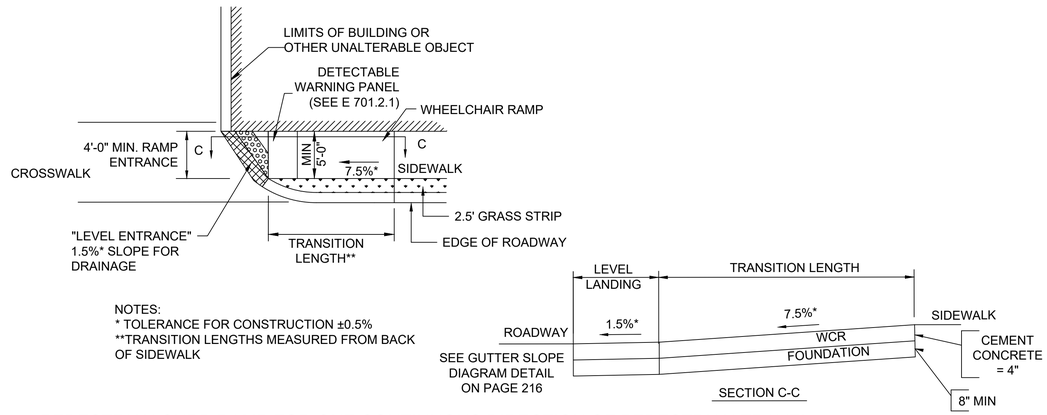


PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL

NOT TO SCALE

CURB CUT RAMP DETAIL TABLE								
PEDESTRIAN CURB RAMP #	STATION (ROUTE 38)	OFFSET	LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE (MIN. 4'-0")	ROADWAY GUTTER SLOPE (%)	LEFT SIDE TRANSITION LENGTH	RIGHT SIDE TRANSITION LENGTH
10	217+51.12	19.67' LT	N/A	5'-6"	4'-0" (MIN)	-0.60%	-	6'-6"

CURB CUT RAMP DETAIL TABLE								
PEDESTRIAN CURB RAMP #	STATION (ROUTE 38)	OFFSET	LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE (MIN. 4'-0")	ROADWAY GUTTER SLOPE (%)	LEFT SIDE TRANSITION LENGTH	RIGHT SIDE TRANSITION LENGTH
35	319+02.28	21.95' LT	N/A	5'-0"	4'-0" (MIN)	6.79%	-	9'-0"



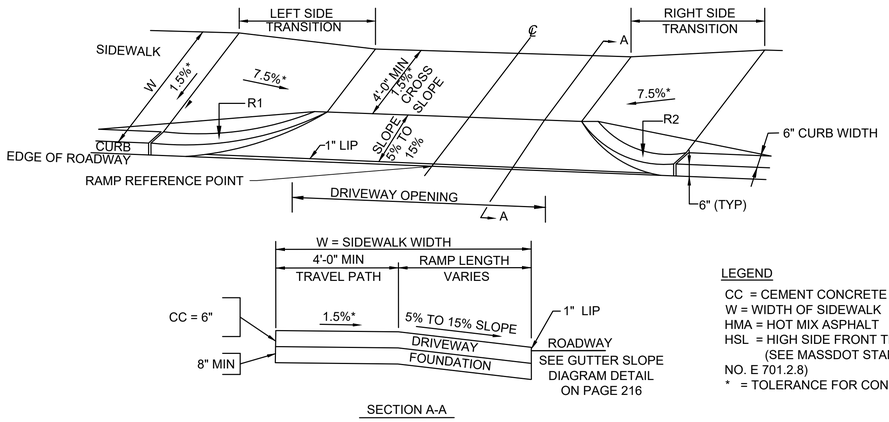
PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL

NOT TO SCALE

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	214	420
PROJECT FILE NO.	608051		

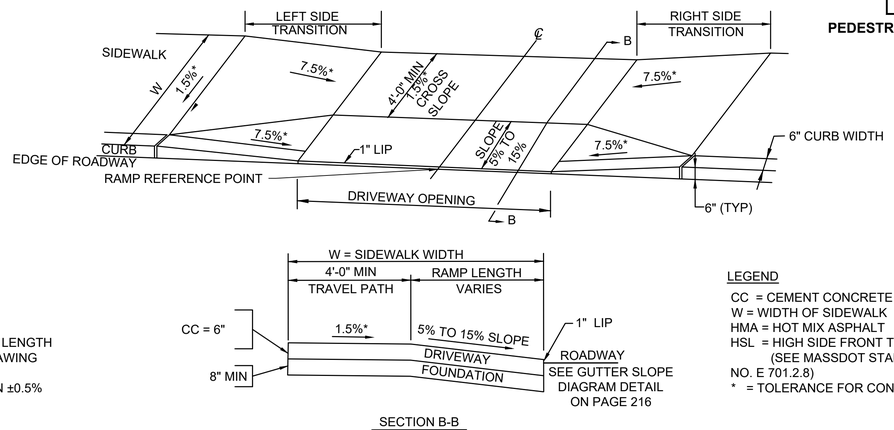
PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS - 3



SECTION A-A

LEGEND
CC = CEMENT CONCRETE
W = WIDTH OF SIDEWALK
HMA = HOT MIX ASPHALT
HSL = HIGH SIDE FRONT TRANSITION LENGTH (SEE MASSDOT STANDARD DRAWING NO. E 701.2.8)
* = TOLERANCE FOR CONSTRUCTION ±0.5%

CEMENT CONCRETE DRIVEWAY WITH SIDEWALK CURB RADII
NOT TO SCALE



SECTION B-B

LEGEND
CC = CEMENT CONCRETE
W = WIDTH OF SIDEWALK
HMA = HOT MIX ASPHALT
HSL = HIGH SIDE FRONT TRANSITION LENGTH (SEE MASSDOT STANDARD DRAWING NO. E 701.2.8)
* = TOLERANCE FOR CONSTRUCTION ±0.5%

CEMENT CONCRETE DRIVEWAY WITH SIDEWALK
NOT TO SCALE

CURB CUT DRIVEWAY DETAIL TABLE								
DRIVEWAY #	STATION	OFFSET	WIDTH OF SIDEWALK	WIDTH OF TRAVEL PATH ACROSS OPENING	LEFT SIDE TRANSITION LEGNTH	RIGHT SIDE TRANSITION LENGTH	ROADWAY GUTTER SLOPE (%)	RADIUS 1	RADIUS 2
1	203+96.01	25.19 RT	5'-6"	4'-0" (MIN)	15'-0"	6'-6"	5.10%	25'	25'
2	208+00.00	26.00 LT	5'-6" TO 7'-6"	4'-0" (MIN)	15'-0"	6'-6"	-6.81%	25'	25'
3	208+58.25	26.00 LT	5'-6"	4'-0" (MIN)	15'-0"	6'-6"	-5.23%	30'	30'
5	211+50.00	24.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.50%	30'	30'
11	218+60.22	16.00 LT	6'-0"	4'-0" (MIN)	6'-6"	7'-8"	0.31%	30'	30'
14	219+66.00	16.00 LT	6'-0"	4'-0" (MIN)	6'-6"	7'-8"	0.42%	30'	30'
20	224+24.18	21.78 LT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.16%	25'	25'
22	226+51.34	61.55 LT	5'-6"	4'-0" (MIN)	3'-10" ***	6'-6"	0.22%	-	30'
23	229+18.48	19.75 LT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.78%	18'	18'
24	216+56.89	23.82 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.42%	25'	25'
25	230+46.98	16.21 LT	6'-6" TO 8'-0"	4'-0" (MIN)	7'-8"	6'-6"	-0.98%	25'	25'
26	232+18.00	16.00 RT	5'-6"	4'-0" (MIN)	3'-3" ***	7'-8"	0.49%	-	25'
28	232+85.50	16.00 LT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.43%	25'	25'
30	233+89.00	16.00 LT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.43%	25'	25'
31	234+23.62	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.43%	30'	25'
32	235+37.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.43%	25'	25'
39	244+92.85	16.50 LT	5'-6"	4'-0" (MIN)	11'-0"	6'-6"	-2.80%	18'	25'

NOTE:
*** = 3" CURB REVEAL

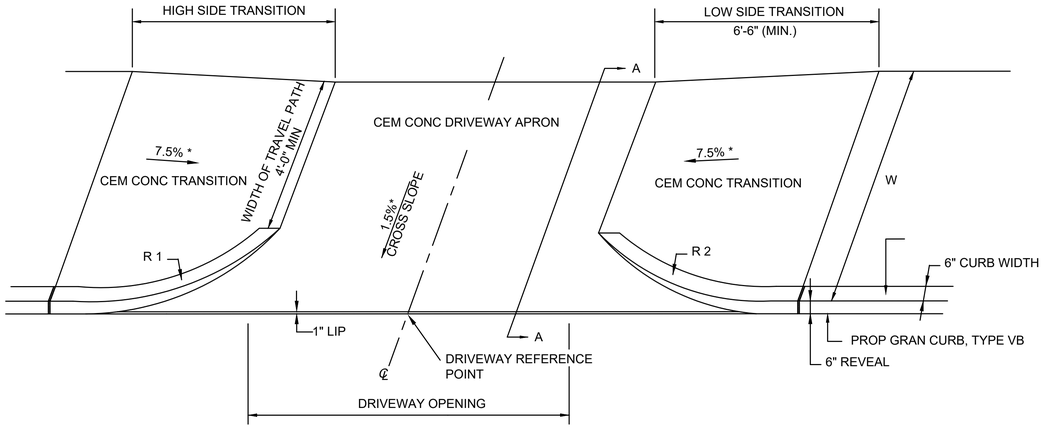
CURB CUT DRIVEWAY DETAIL TABLE							
DRIVEWAY #	STATION	OFFSET	WIDTH OF SIDEWALK	WIDTH OF TRAVEL PATH ACROSS OPENING	LEFT SIDE TRANSITION LEGNTH	RIGHT SIDE TRANSITION LENGTH	ROADWAY GUTTER SLOPE (%)
36	243+22.00	21.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	1.75%
37	244+00.93	18.97 RT	5'-6"	4'-0" (MIN)	3'-3" ***	11'-0"	2.25%
38	244+35.93	17.95 RT	5'-6"	4'-0" (MIN)	6'-6"	5'-6" ***	2.26%
40	246+30.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	14'-0"	3.12%
41	247+45.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	11'-0"	2.62%
42	248+00.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.41%
43	248+08.00	16.00 LT	5'-6"	4'-0" (MIN)	7'-8"	-	-0.85%
44	249+10.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
55	281+75.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.74%
56	282+15.50	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.56%
57	282+79.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.26%
59	283+66.50	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.12%
60	284+32.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
61	285+03.50	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
62	286+09.50	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
64	287+53.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	6'-6"	0.08%
65	287+92.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.24%
66	288+67.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.11%
67	289+46.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.35%
68	290+09.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.77%
69	291+74.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.49%
70	292+64.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.55%
71	293+52.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.85%
75	295+75.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.30%
76	296+29.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.33%
82	300+55.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.43%
89	317+88.76	15.89 LT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	-0.60%
91	41+36.14	16.08 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	-1.48%
92	56+40.74	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	15'-0"	-5.16%

608051_HD10(WHEELCHAIR RAMP & DRIVEWAY DETAILS).DWG Plotted on 2-Dec-2025 2:37 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	215	420
PROJECT FILE NO.	608051		

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS - 4

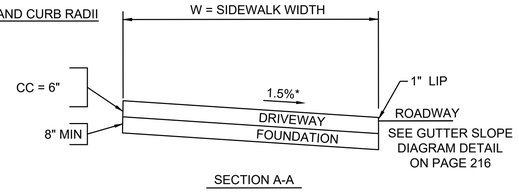


DEPRESSED CEM CONC DRIVEWAY WITH SIDEWALK AND CURB RADII

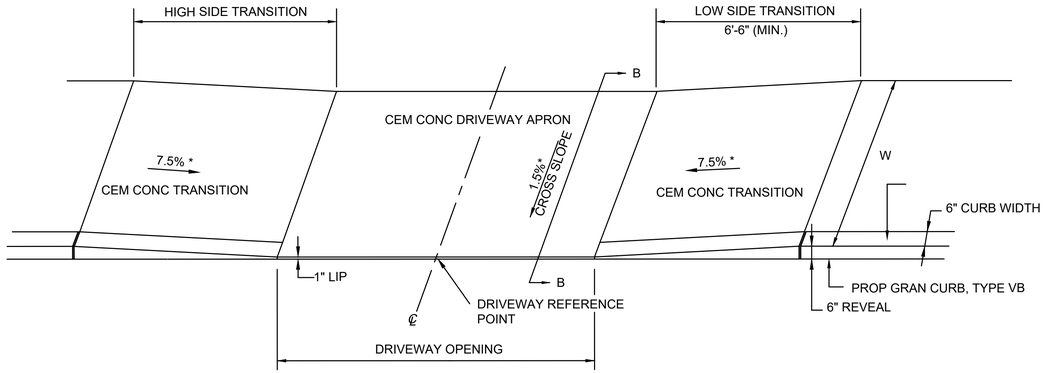
NOT TO SCALE

LEGEND

* = TOLERANCE FOR CONSTRUCTION ±0.5%
CC = CEMENT CONCRETE
W = WIDTH OF SIDEWALK
HMA = HOT MIX ASPHALT
HSL = HIGH SIDE FRONT TRANSITION LENGTH
(SEE MASSDOT STANDARD DRAWING NO. E 701.2.8)



SECTION A-A

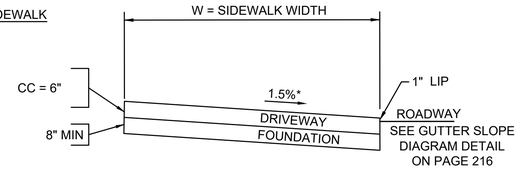


DEPRESSED CEM CONC DRIVEWAY WITH SIDEWALK

NOT TO SCALE

LEGEND

* = TOLERANCE FOR CONSTRUCTION ±0.5%
CC = CEMENT CONCRETE
W = WIDTH OF SIDEWALK
HMA = HOT MIX ASPHALT
HSL = HIGH SIDE FRONT TRANSITION LENGTH
(SEE MASSDOT STANDARD DRAWING NO. E 701.2.8)



SECTION B-B

CURB CUT DRIVEWAY DETAIL TABLE

DRIVEWAY #	STATION	OFFSET	WIDTH OF SIDEWALK	WIDTH OF TRAVEL PATH ACROSS OPENING	LEFT SIDE TRANSITION LEGNTH	RIGHT SIDE TRANSITION LENGTH	ROADWAY GUTTER SLOPE (%)	RADIUS 1	RADIUS 2
4	211+21.78	17.00 LT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.50%	12'	12'
6	212+72.00	16.00 LT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.83%	25'	25'
7	213+41.00	16.00 LT	6'-0"	4'-0" (MIN)	7'-8"	6'-6"	-0.23%	18'	25'
8	214+07.50	16.00 LT	6'-0"	4'-0" (MIN)	6'-6"	7'-8"	-0.50%	18'	18'
9	215+00.00	16.00 LT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.35%	25'	18'
10	215+93.00	16.00 LT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.20%	25'	25'
12	218+98.64	15.63 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.42%	25'	18'
13	219+08.20	16.00 LT	6'-0"	4'-0" (MIN)	6'-6"	7'-8"	-0.42%	12'	12'
15	220+50.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.42%	18'	18'
16	220+75.25	16.00 LT	7'-6"	4'-0" (MIN)	6'-6"	7'-8"	-0.42%	20'	20'
17	221+67.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.42%	25'	25'
18	222+05.00	16.00 LT	7'-6"	4'-0" (MIN)	6'-6"	7'-8"	-0.42%	25'	25'
19	223+00.00	16.46 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.42%	25'	25'
21	225+61.32	22.00 LT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	-0.84%	25'	25'
27	232+55.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	3'-10" ***	0.43%	10'	-
29	233+13.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.43%	25'	25'
33	236+12.00	16.00 LT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	-0.84%	25'	25'
35	238+99.11	17.10 LT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.75%	10'	10'
52	270+63.58	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.74%	-	25'
86	311+40.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.30%	18'	18'
87	312+19.00	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.84%	18'	18'
88	315+10.03	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.46%	25'	25'

CURB CUT DRIVEWAY DETAIL TABLE

DRIVEWAY #	STATION	OFFSET	WIDTH OF SIDEWALK	WIDTH OF TRAVEL PATH ACROSS OPENING	LEFT SIDE TRANSITION LEGNTH	RIGHT SIDE TRANSITION LENGTH	ROADWAY GUTTER SLOPE (%)
45	255+44.29	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
46	251+80.04	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
47	253+09.33	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
50	260+33.86	16.00 RT	5'-6"	4'-0" (MIN)	11'-0"	6'-6"	-2.05%
73	294+27.49	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	9'-0"	1.85%
78	297+45.50	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.92%
79	298+82.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.43%
80	299+58.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.43%
83	301+54.00	16.00 RT	5'-6"	4'-0" (MIN)	7'-8"	6'-6"	0.43%
90	318+28.00	16.00 RT	5'-6" TO 7'-0"	4'-0" (MIN)	7'-8"	6'-6"	0.43%
93	251+34.88	16.00 RT	5'-6"	4'-0" (MIN)	6'-6"	7'-8"	0.40%
94	225+00.15	20.14 RT	5'-6"	4'-0" (MIN)	6'-6"	-	0.71%
95	227+94.33	20.13 RT	5'-6"	4'-0" (MIN)	6'-6"	6'-6"	0.35%

NOTES:
1. *** = 3" CURB REVEAL
2. TRANSITION LENGTHS ARE MEASURED FROM BACK OF SIDEWALK

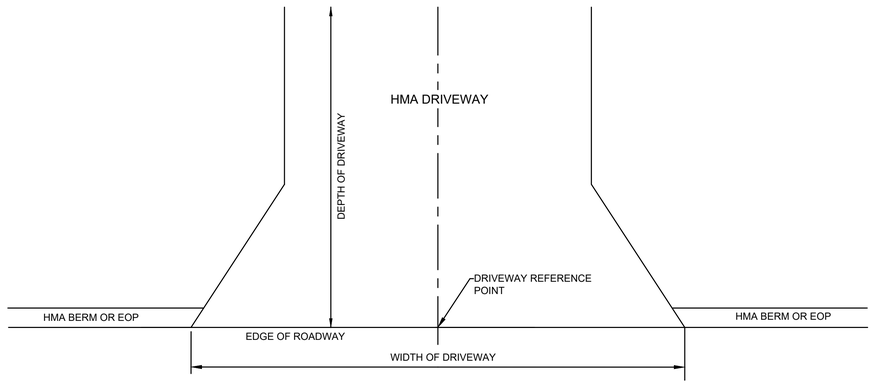
608051_HD10(WHEELCHAIR RAMP & DRIVEWAY DETAILS).DWG Plotted on 2-Dec-2025 2:38 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	216	420
PROJECT FILE NO.	608051		

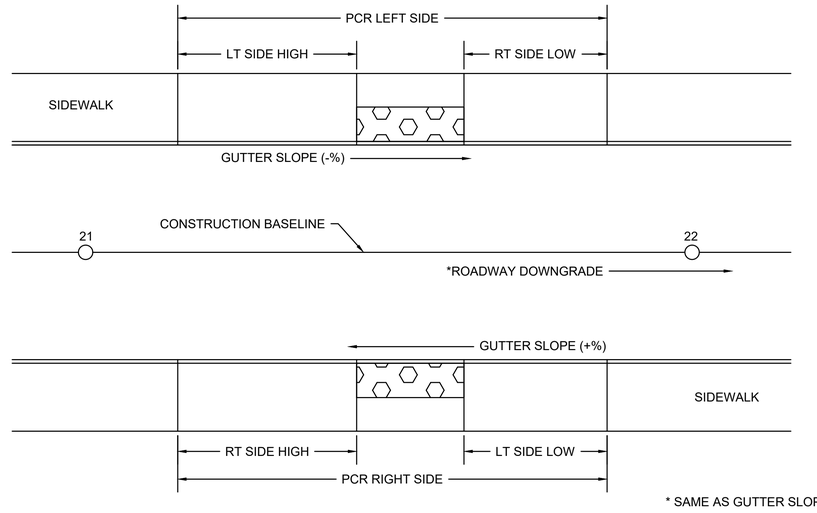
PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS - 5

608051_HD10\WHEELCHAIR RAMP & DRIVEWAY DETAILS.DWG Plotted on 2-Dec-2025 2:38 PM



HMA DRIVEWAY WITHOUT SIDEWALK

NOT TO SCALE

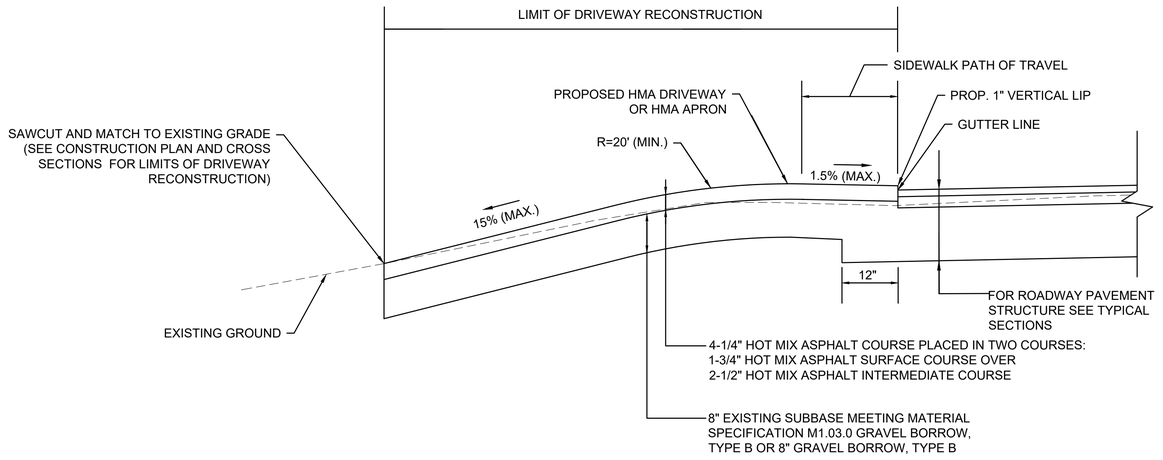


* SAME AS GUTTER SLOPE

GUTTER SLOPE DIAGRAM

NOT TO SCALE

CURB CUT DRIVEWAY DETAIL TABLE				
DRIVEWAY #	STATION	OFFSET	WIDTH OF DRIVEWAY	DEPTH OF DRIVEWAY
48	257+21.01	16.00 LT	110'-0"	14'-0"
49	259+65.94	16.00 LT	95'-0"	24'-0"
51	269+89.80	16.00 LT	71'-0"	9'-6"
53	272+39.23	16.00 LT	60'-0"	10'-0"
54	278+07.34	16.00 LT	110'-0"	21'-0"
58	283+32.15	16.00 LT	73'-0"	18'-0"
63	286+24.70	16.00 LT	77'-0"	16'-0"
72	293+12.64	16.09 LT	50'-0"	8'-3"
74	295+68.49	16.00 LT	50'-0"	7'-6"
77	296+35.50	16.00 LT	66'-6"	6'-0"
81	300+41.73	16.00 LT	78'-9"	19'-0"
84	302+00.00	16.00 LT	77'-6"	18'-0"
85	304+00.00	16.00 LT	117'-0"	8'-9"



TYPICAL HMA DRIVEWAY/HMA APRON FOR STEEP DRIVEWAYS

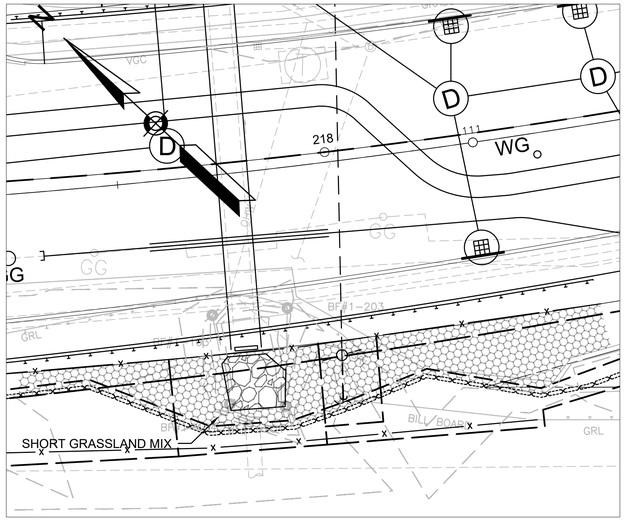
NOT TO SCALE

WILMINGTON
ROUTE 38 (MAIN STREET)

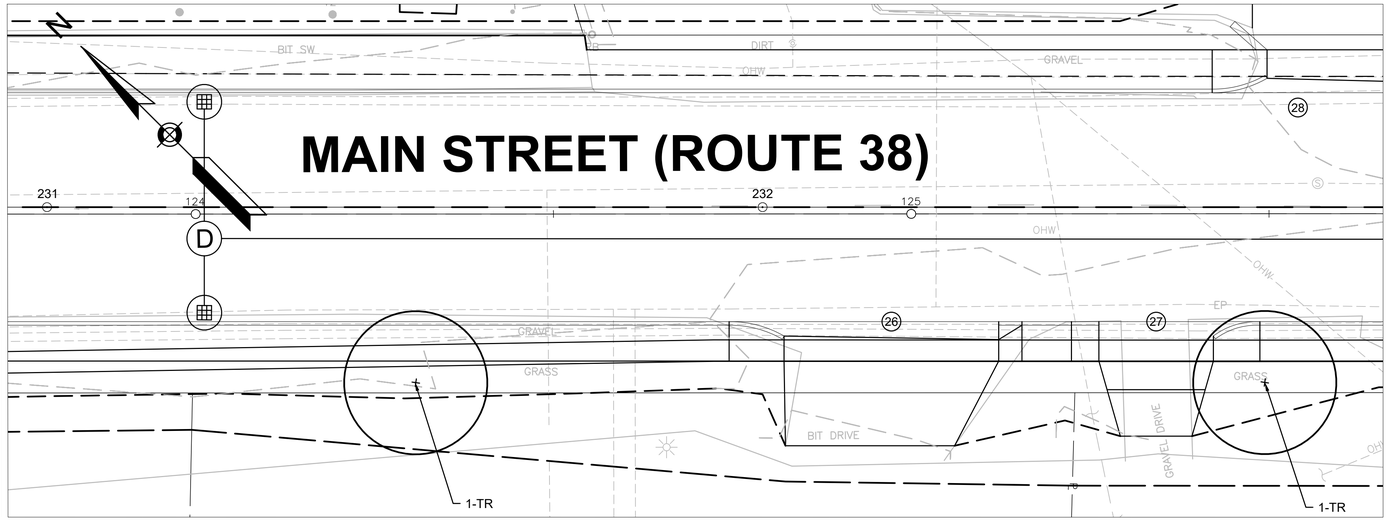
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	217	420
PROJECT FILE NO.	608051		

LANDSCAPING PLANS - 1

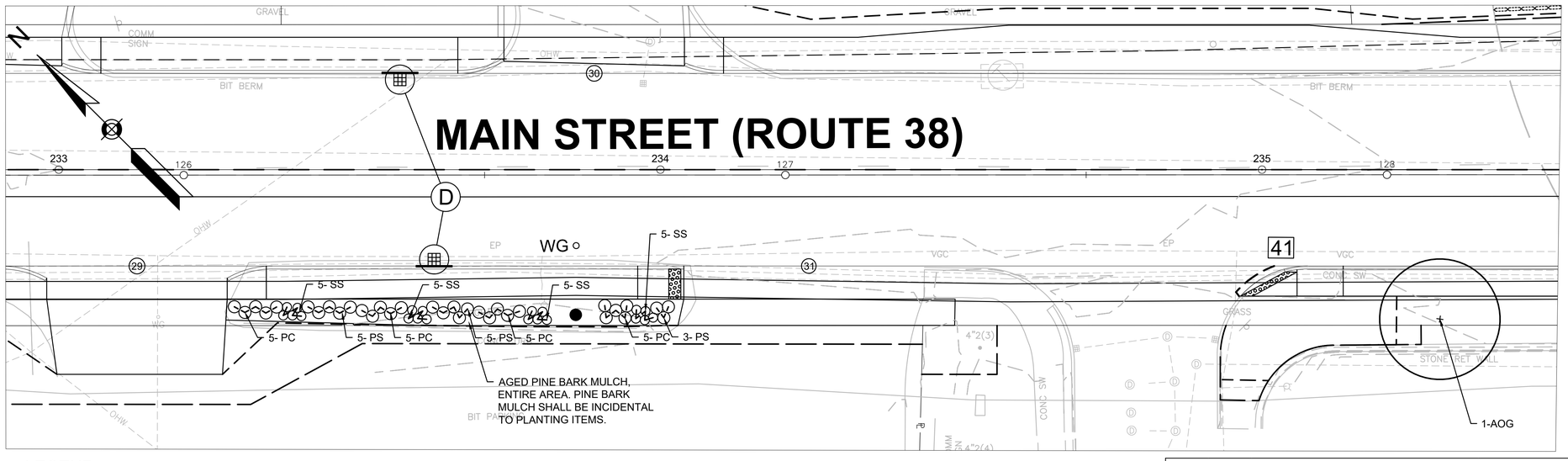
608051_LD02 (LANDSCAPING PLANS).DWG Plotted on 2-Dec-2025 2:39 PM



STATION 218 RT PLANTING PLAN



STATION 231 TO STATION 233 LT PLANTING PLAN



STATION 233 TO STATION 235 RT PLANTING PLAN

LEGEND

COMPOST BLANKET & PART SHADE ROADSIDE MIX

4" LOAM, COMPOST BLANKET AND SHORT GRASSLAND MIX

NOTE: ANY DISTURBED AREAS NOT DESIGNATED FOR NATIVE SEED MIX SHALL BE LOAM AND SEED

SEE LANDSCAPE PLANS - 2 FOR PLANTING, WATERING AND UPLAND NATIVE SEEDING NOTES.

0 10 20 30 40

SCALE: 1" = 10'

PLANT LIST - SHEET 1

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	ROOT
		DECIDUOUS TREES				
AOG	1	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2-2.5" CAL		B&B
TR	2	TILIA AMERICANA 'REMOND'	REDMOND LINDEN	2-2.5" CAL		B&B
		ORNAMENTAL GRASSES				
PC	20	PANICUM VIRGATUM 'CLOUD NINE'	CLOUD NINE SWITCH GRASS		24" SP	#1 CONT.
PS	13	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS		24" SP	#1 CONT.
SS	20	SCHIZACHYRIUM SCOPARIUM 'THE BLUES'	THE BLUES LITTLE BLUESTEM		18" SP	#1 CONT.

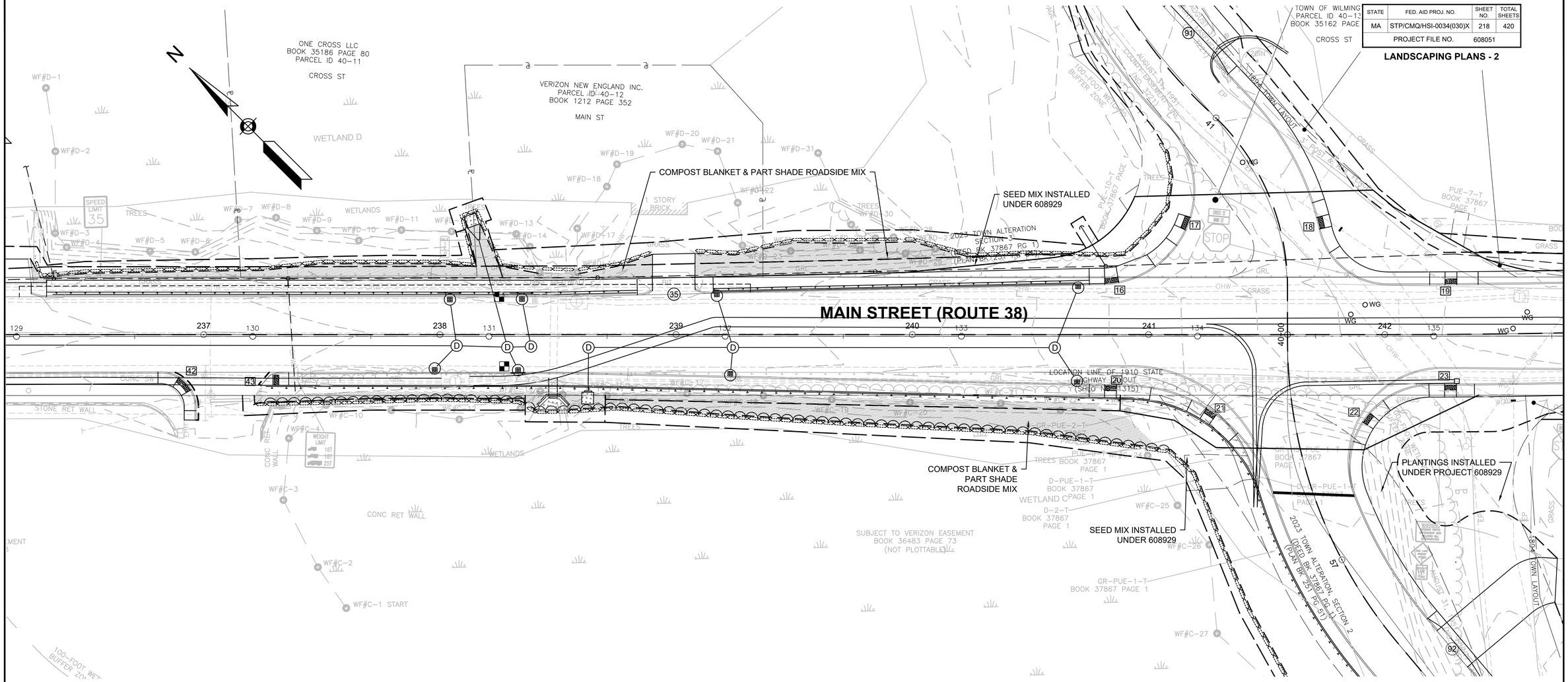
NOTE: MASSDOT LANDSCAPE ARCHITECT SHALL BE ON SITE FOR ALL PLANTING.

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	218	420
PROJECT FILE NO.	608051		

LANDSCAPING PLANS - 2

608051_LD02 (LANDSCAPING PLANS).DWG Plotted on 2-Dec-2025 2:39 PM



STATION 237 TO STATION 241 PLANTING PLAN

0 20 50 100

SCALE: 1" = 20'

LEGEND

COMPOST BLANKET & PART SHADE ROADSIDE MIX

4" LOAM, COMPOST BLANKET AND SHORT GRASSLAND MIX

NOTE: ANY DISTURBED AREAS NOT DESIGNATED FOR NATIVE SEED MIX SHALL BE LOAM AND SEED

PLANTING NOTES

1. CONTRACTOR SHALL HAVE ALL SUBSURFACE UTILITIES MARKED PRIOR TO THE START OF WORK.
2. PLANT LOCATIONS ARE APPROXIMATE. PRIOR TO PLANTING, LOCATION OF ALL PLANT MATERIAL WILL BE APPROVED BY THE RESIDENT ENGINEER AND THE LANDSCAPE ARCHITECT.
3. ALL PLANT MATERIAL WILL HAVE TAGS INDICATING COMMON NAME, BOTANICAL NAME, CULTIVAR, & SIZE.
4. IMMEDIATELY AFTER ACCEPTANCE OF PLANTING, TAGS AND RIBBONS SHALL BE REMOVED.
5. ALL PLANTS WILL BE MULCHED PER PLANS AND SPECIFICATIONS.
6. ALL SHRUB AND PERENNIAL BEDS WILL BE WEEDED AND OTHERWISE NEATLY MAINTAINED FOR THE DURATION OF THE CONTRACT.
7. PLANTS AND PLANTING BEDS SHALL BE THOROUGHLY WATERED AS NECESSARY AND PER SPECIFICATIONS.

WATERING NOTES

1. IRRIGATION BAGS MAY BE USED FOR STREETSCAPE AND PARK PLANTINGS ONLY.
2. A SCHEDULE FOR FILLING AND REMOVAL SHALL BE SUBMITTED TO THE ENGINEER.
3. USE AND SCHEDULE MUST BE APPROVED BY THE MASSDOT LANDSCAPE ARCHITECT.
4. A MINIMUM OF 2 BAGS PER TREE SHALL BE USED. BAGS SHALL BE ATTACHED TO STAKES.
5. NO BAGS SHALL BE PLACED AROUND THE TREE TRUNK.
6. BAGS SHALL BE MAINTAINED FULL JUNE 1 - OCTOBER 1 OR AS APPROVED.
7. BAGS SHALL BE REMOVED AT THE END OF THE SEASON.

UPLAND NATIVE SEEDING NOTES

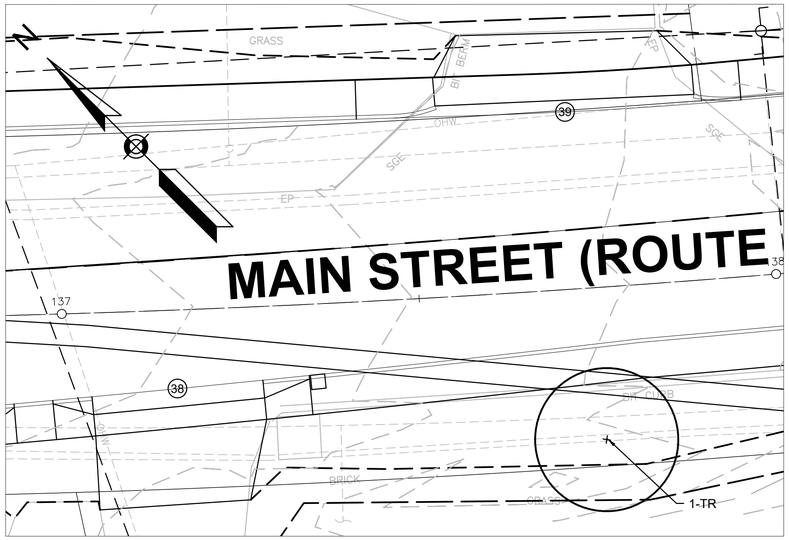
1. SEEDING SHALL BE BROADCAST METHOD ONLY (NOT HYDROSEED) UNLESS APPROVED OTHERWISE BY THE MASSDOT LANDSCAPE ARCHITECT.
2. SEEDING AND SUBMITTALS SHALL BE PER THE SPECIAL PROVISIONS.
3. SUBMITTALS FOR SEED MIXES SHALL BE APPROVED BY THE ENGINEER AND LANDSCAPE ARCHITECT PRIOR TO SEED APPLICATION.
4. SITE PREPARATION SHALL BE PER SPECIFICATIONS AND APPROVED BY THE ENGINEER PRIOR TO SEEDING.
5. WHEN SEEDING OUT OF SEASON APPLICATION RATE SHALL BE INCREASED BY 50%.

WILMINGTON
ROUTE 38 (MAIN STREET)

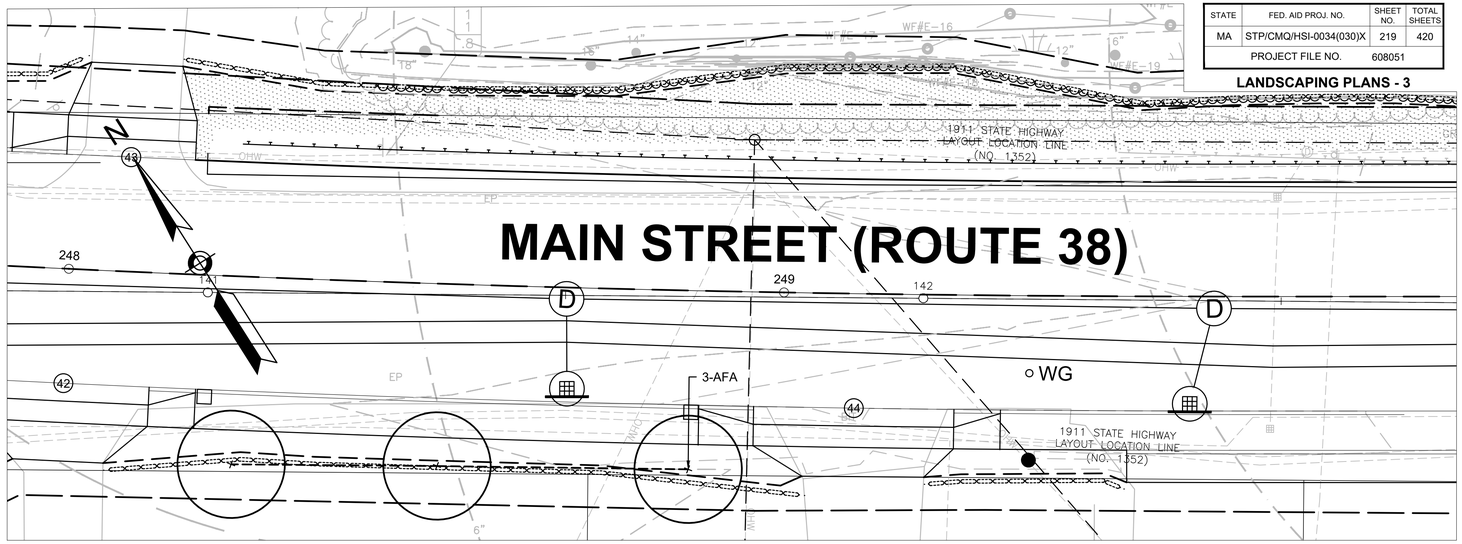
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	219	420
PROJECT FILE NO.	608051		

LANDSCAPING PLANS - 3

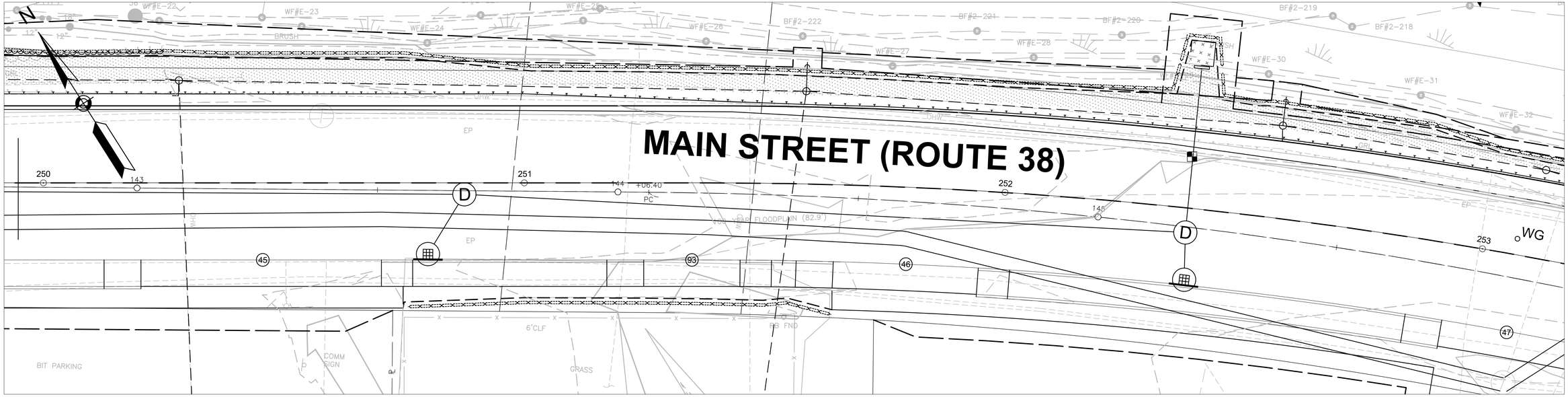
608051_LD02 (LANDSCAPING PLANS).DWG Plotted on 2-Dec-2025 2:40 PM



STATION 244 TO STATION 245 RT PLANTING PLAN



STATION 248 TO STATION 249 RT PLANTING PLAN



STATION 250 TO STATION 253 LT PLANTING PLAN

0 10 20 30 40

SCALE: 1" = 10'

LEGEND

COMPOST BLANKET & PART SHADE ROADSIDE MIX

4" LOAM, COMPOST BLANKET AND SHORT GRASSLAND MIX

NOTE: ANY DISTURBED AREAS NOT DESIGNATED FOR NATIVE SEED MIX SHALL BE LOAM AND SEED

SEE LANDSCAPE PLANS - 2 FOR PLANTING, WATERING AND UPLAND NATIVE SEEDING NOTES.

PLANT LIST - SHEET 3

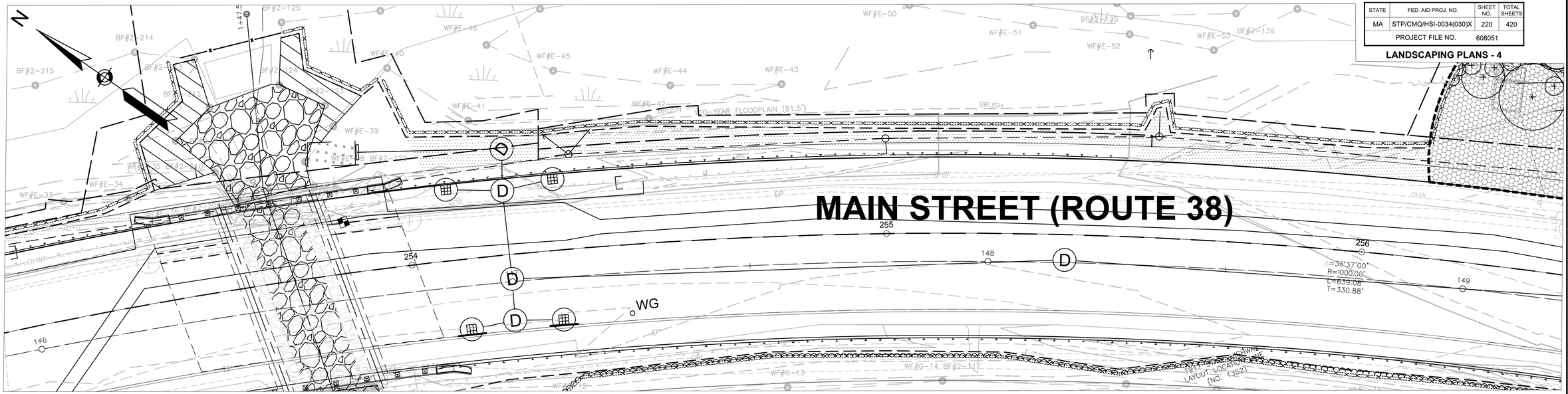
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
		DECIDUOUS TREES			
TR	1	TILIA AMERICANA 'REMOND'	REDMOND LINDEN	2-2.5" CAL	B&B
AFA	3	ACER X FREEMANII 'ARMSTRONG'	ARMSTRONG MAPLE	2-2.5" CAL	B&B

NOTE: MASSDOT LANDSCAPE ARCHITECT SHALL BE ON SITE FOR ALL PLANTING.

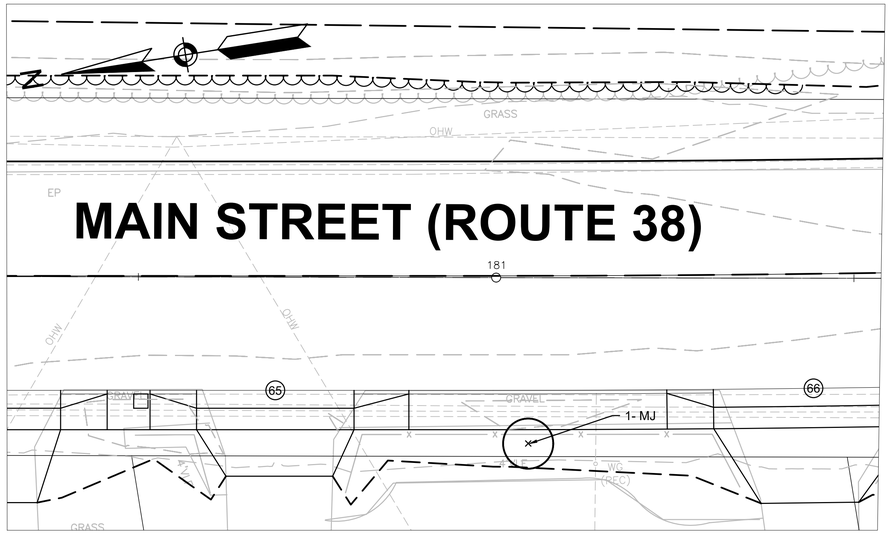
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	220	420
PROJECT FILE NO.	608051		

LANDSCAPING PLANS - 4



STATION 254 TO STATION 256 LT PLANTING PLAN



STATION 288 PLANTING PLAN

LEGEND

COMPOST BLANKET & PART SHADE ROADSIDE MIX

4" LOAM, COMPOST BLANKET AND SHORT GRASSLAND MIX

NOTE: ANY DISTURBED AREAS NOT DESIGNATED FOR NATIVE SEED MIX SHALL BE LOAM AND SEED

SEE LANDSCAPE PLANS - 2 FOR PLANTING, WATERING AND UPLAND NATIVE SEEDING NOTES.

0 10 20 30 40

SCALE: 1" = 10'

PLANT LIST - SHEET 4

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
		DECIDUOUS TREES			
MJ	1	MALUS 'JFS KW214MX' PP 31076	IVORY SPEAR CRABAPPLE	1.5-2" CAL	B&B

NOTE: MASSDOT LANDSCAPE ARCHITECT SHALL BE ON SITE FOR ALL PLANTING.

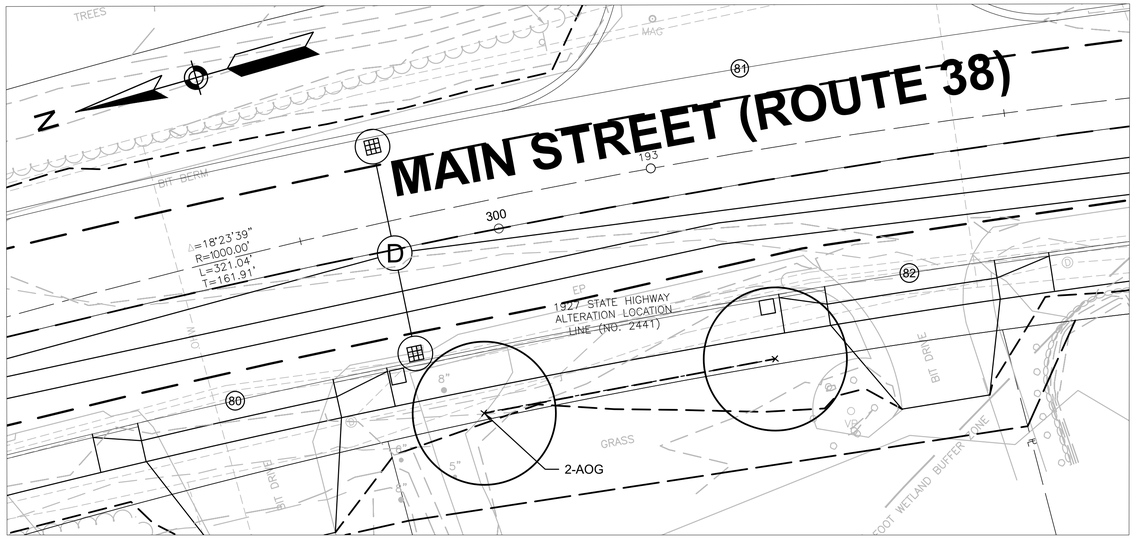
608051_LD02 (LANDSCAPING PLANS).DWG Plotted on 2-Dec-2025 2:40 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	221	420
PROJECT FILE NO.	608051		

LANDSCAPING PLANS - 5

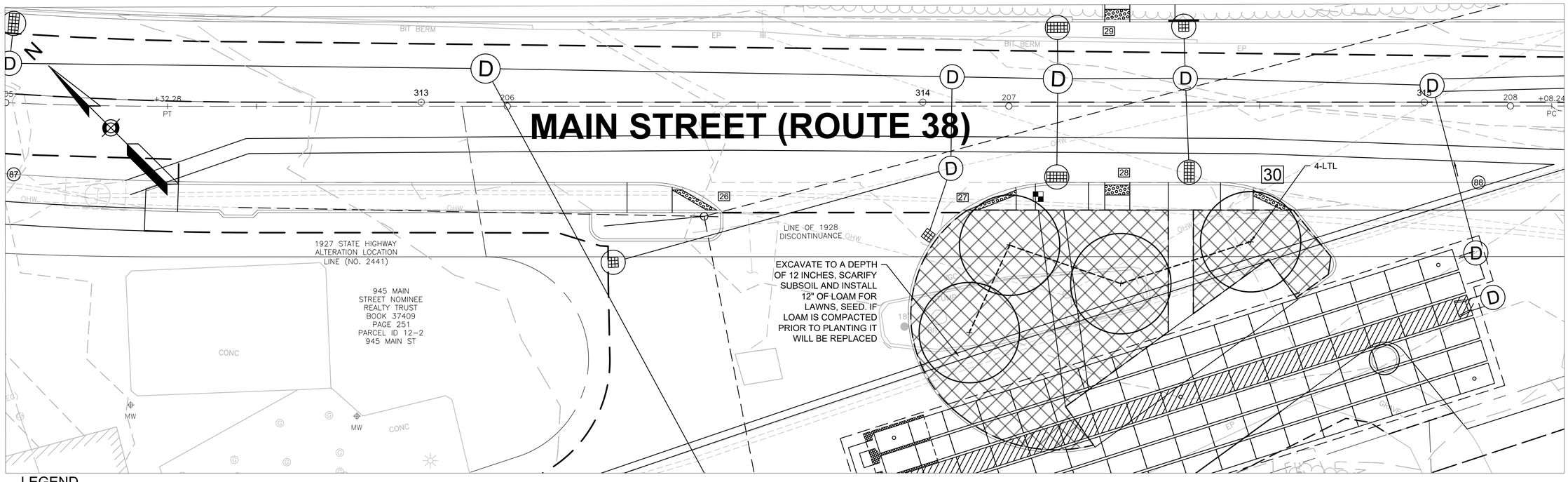
608051_LD02 (LANDSCAPING PLANS).DWG Plotted on 2-Dec-2025 2:40 PM



STATION 300 PLANTING PLAN

PLANT LIST - SHEET 5					
KEY	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**ROOT**
		DECIDUOUS TREES			
AOG	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2-2.5" CAL	B&B
LTL	4	LIRODENDRON TULIPIFERA	TULIP TREE	2-2.5" CAL	B&B

NOTE: MASSDOT LANDSCAPE ARCHITECT SHALL BE ON SITE FOR ALL PLANTING.



STATION 314 TO 315 PLANTING PLAN

0 10 20 30 40

SCALE: 1" = 10'

LEGEND

COMPOST BLANKET & PART SHADE ROADSIDE MIX

4" LOAM, COMPOST BLANKET AND SHORT GRASSLAND MIX

NOTE: ANY DISTURBED AREAS NOT DESIGNATED FOR NATIVE SEED MIX SHALL BE LOAM AND SEED

SEE LANDSCAPE PLANS - 2 FOR PLANTING, WATERING AND UPLAND NATIVE SEEDING NOTES.

LEGEND

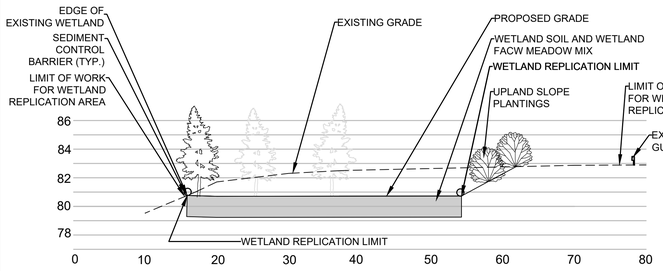
- LIMIT OF WORK
- SEDIMENT CONTROL BARRIER
- 595 — PROPOSED CONTOUR
- 595 — EXISTING CONTOUR
- 124.694 — PROPOSED SPOT GRADE
- 124.694 — EXISTING SPOT GRADE
- 4" LOAM AND COMPOST BLANKET & SHORT GRASSLAND MIX
- WETLAND SOIL AND WETLAND FACW MEADOW MIX
- COMPOST BLANKET & PART SHADE ROADSIDE MIX
- PROPOSED SHRUB
- PROPOSED TREE
- PROPOSED SHRUB WITHIN WETLAND REPLICATION
- PROPOSED TREE WITHIN WETLAND REPLICATION

FACW MEADOW MIX = 3,510 S.F.

NATIVE SHORT GRASSLAND MIX = 5,441 S.F.

NOTES:

1. FINAL GRADES TO BE SET APPROXIMATELY 6-12 INCHES ABOVE GROUNDWATER ELEVATION. MINOR ADJUSTMENTS IN FINAL GRADES SHALL BE MADE IN THE FIELD BY THE WETLAND SPECIALIST.
2. REPLICATION AREA SHALL BE EXCAVATED TO A DEPTH BETWEEN TWELVE (12) AND EIGHTEEN (18) INCHES BELOW THE FINAL DESIGN ELEVATIONS. THE SALVAGED TOPSOIL MATERIAL AND B-HORIZON SUBSOIL MATERIAL EXCAVATED FROM THE WETLAND IMPACT AREAS SHALL BE PLACED IN SEPARATE STOCKPILES TO BE REUSED IN THE PROPOSED REPLICATION AREA IF SUITABLE.
3. REPLICATION AREA GRADING SHOULD MATCH THE ELEVATIONS OF THE ABUTTING WETLAND TO MAINTAIN A HYDROLOGIC CONNECTION. WETLAND SPECIALIST SHALL INSPECT THE SUB-GRADE OF THE REPLICATION AREA TO ENSURE THAT THE PROPER HYDROLOGY HAS BEEN ESTABLISHED. MINOR MODIFICATIONS TO THIS GRADING PLAN MAY BE MADE IN THE FIELD BY THE QUALIFIED WETLAND SPECIALIST IN RESPONSE TO SUBSURFACE HYDROLOGIC CONDITIONS.
4. TREES AND SHRUBS IN THE REPLICATION AREA SHALL BE FIELD LOCATED BY THE WETLAND SPECIALIST.
5. MASSDOT LANDSCAPE ARCHITECT SHALL BE ON SITE FOR PLANTING OF THE UPLAND AREA.



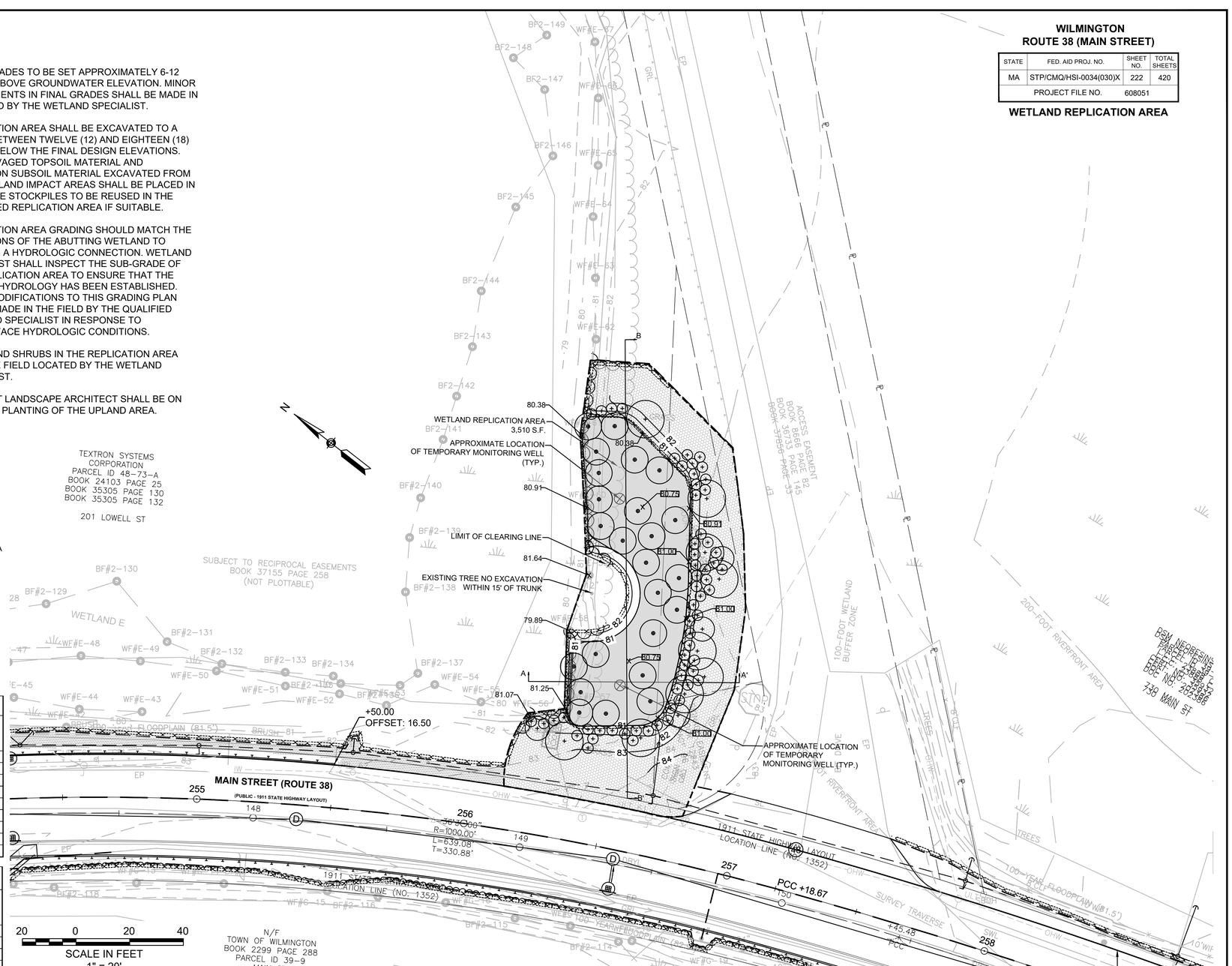
SECTION (A-A')
(HOR. SCALE 1" = 10' , VERT. SCALE 1" = 5')

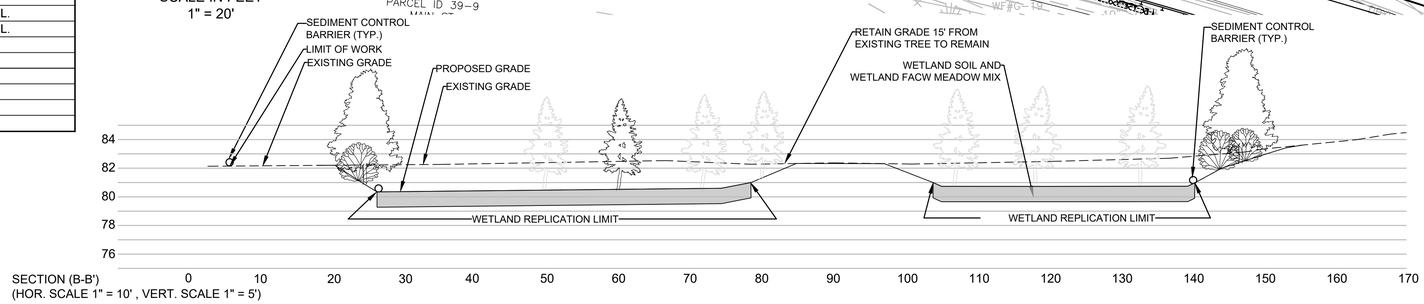
PLANT LIST - WETLAND REPLICATION PAID UNDER ITEM 755.35

KEY	QTY	WETLAND STATUS	BOTANICAL NAME	COMMON NAME	PLANT SIZE
DECIDUOUS TREES IN REPLICATION AREA- 24 TOTAL					
AR	2	FAC	ACER RUBRUM	RED MAPLE	4-6' HT
AS	10	FACW	ACER SACCHARINUM	SILVER MAPLE	4-6' HT
QB	4	FACW	QUERCUS BICOLOR	SWAMP WHITE OAK	4-6' HT
SN	8	OBL	SALIX NIGRA	BLACK WILLOW	4-6' HT
HERBACEOUS					
	-	-	WETLAND FACW MEADOW MIX		20 LBS PER ACRE
	-	-	SHORT GRASSLAND MIX		20 LBS PER ACRE

PLANT LIST - UPLAND PAID UNDER ITEM 775.141 - 796.459

KEY	QTY	WETLAND STATUS	BOTANICAL NAME	COMMON NAME	PLANT SIZE
DECIDUOUS TREES IN UPLAND AREA					
AC	4	FAC	AMELANCHIER CANADENSIS	SERVICEBERRY	4-5' HT
LT	4	FACU	LIRODENDRON TULIPIFERA	TULIP TREE	1-1.5" CAL.
QC	5	FACU	QUERCUS COCCINEA	SCARLET OAK	1-1.5" CAL.
DECIDUOUS SHRUBS IN UPLAND AREA					
CP	15	UPL	COMPTONIA PEREGRINA	SWEETFERN	24" SP
CR	15	FAC	CORNUS RACEMOSA	GRAY DOGWOOD	2-3' HT
RA	15	UPL	RHUS AROMATICA (NO CULTIVARS)	FRAGRANT SUMAC	2-3' HT
VD	15	FAC	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2-3' HT





SECTION (B-B')
(HOR. SCALE 1" = 10' , VERT. SCALE 1" = 5')

608051_EV(P-REPLICATION).DWG Plotted on 2-Dec-2025 2:43 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	223	420
PROJECT FILE NO.	608051		

COMPENSATORY FLOOD STORAGE PLAN

608051_EVI(P-COMPENSATORY FLOOD).DWG Plotted on 2-Dec-2025 2:44 PM

GEOTEXTILE FABRIC AND STONE. REMOVE AFTER CONSTRUCTION IS COMPLETED AND INSTALL LOAM AND COMPOST BLANKET & PART SHADE ROADSIDE MIX

TEMPORARY CONSTRUCTION ENTRANCE WITH GEOTEXTILE FOR TEMPORARY SOIL PROTECTION

TREE CARE PRUNING AS NEEDED FOR ACCESS

R&D TREE

SELECT WOODY DEBRIS TO REMAIN SEE NOTE.

TREE PROTECTION FENCE

FFL (82.9)

AREAS TO BE EXCAVATED FOR FLOOD COMPENSATION (TYP.)

REMOVE MOUND AND CONSTRUCT AN EVEN SLOPE BETWEEN PROPOSED CONTOUR 82 AND THE WORK LIMIT

TREE TO REMAIN AS SNAG SEE NOTE

TREE PROTECTION FENCE

TREE TO REMAIN AS SNAG SEE NOTE

COMPOST FILTER TUBES AND SEDIMENTATION FENCE AT THE EDGE OF COMPENSATION AREA

UPSTREAM COMPENSATORY FLOOD STORAGE AREA.
CUT = 4161 CF

TREE TO REMAIN AS SNAG SEE NOTE

TREE TO REMAIN AS SNAG SEE NOTE

1911 STATE HIGHWAY LAYOUT LOCATION LINE

TOWN OF WILMINGTON
BOOK 2599, PAGE 288
PARCEL ID 39-9
MAIN ST

100 YEAR FLOODPLAIN (81.5')

WETLAND G

WETLAND

SURVEY TRAVERSE

N: 302073.5
E: 787846.640'
EL: 84.768'
STAKE AND NAIL

PCC +18.67

+50.10 PCC

+45.48 PCC

L=12°39'20"
R=2008.54'
L=443.65'
T=222.73'

LEGEND

- LIMIT OF WORK
- AREAS TO BE EXCAVATED
- COMPOST FILTER TUBE
- TREE PROTECTION FENCE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- FFL
- SNAG TREE
- COMPOST BLANKET AND WETLAND SEASONALLY FLOODED MIX

NOTE:
1. THE WETLAND SPECIALIST SHALL MARK TREES TO BE CONVERTED TO SNAGS, SELECT COURSE WOODY DEBRIS TO BE RETAINED FOR RE-USE, AND SELECT ROCKS OR OTHER ELEMENTS TO BE USED FOR HABITAT FEATURES.
2. COURSE WOODY MATERIAL, SELECT ROCKS AND OTHER ELEMENTS TO BE RETAINED SHALL BE NEATLY PILED OR ARRANGED ON SITE AS DIRECTED BY THE WETLAND SPECIALIST.

403 LF LENGTH OF COMPOST FILTER TUBE
8787 SQ FT AREA OF SEEDING - WETLAND SEASONALLY FLOODED MIX

10 0 10 20
SCALE IN FEET
1" = 10'

TABLE1 - Upstream Compensatory Flood Storage
Volume to be Compensated (100-yr Flood Elevation = 82.9)

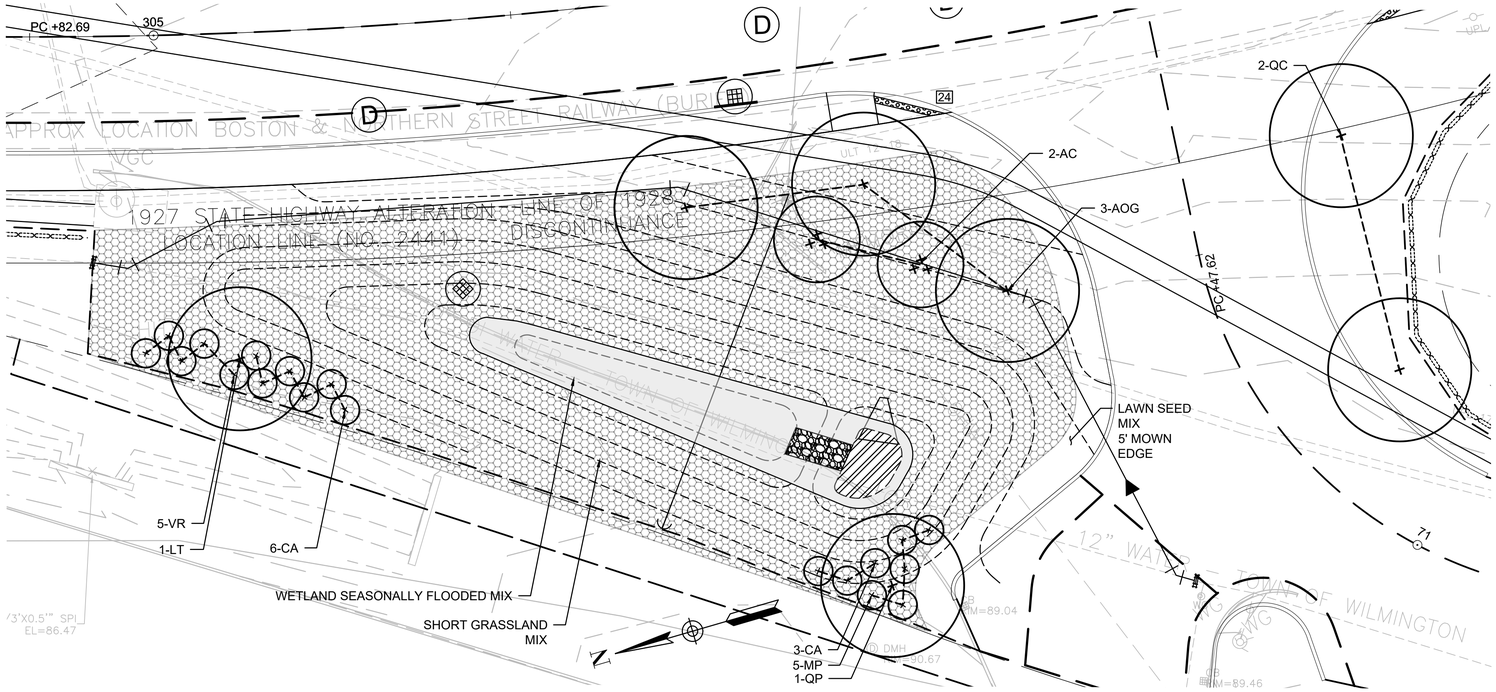
Elevation	Cut Volume (CF)	Fill Volume (CF)	Incremental Net Cut/Fill Volume (CF)
79-80	0	0	0
80-81	147	7	-140
81-82	1804	925	-879
82-82.9	2210	1222	-988
Total	**4161**	**2154**	**-2007**

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	224	420
PROJECT FILE NO.	608051		

INFILTRATION BASIN PLAN

608051_LD01(LANDSCAPE DETAILS).DWG Plotted on 2-Dec-2025 2:46 PM



LEGEND

4" LOAM, COMPOST BLANKET AND SHORT GRASSLAND MIX

COMPOST BLANKET AND WETLAND SEASONALLY FLOODED MIX

INFILTRATION BASIN AT OLD MAIN STREET - PLANTING DESIGN PLAN

PLANT LIST - INFILTRATION BASIN PLAN

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
		DECIDUOUS TREES			
LT	1	LIRODENDRON TULIPIFERA	TULIP TREE	1-1.5" CAL	B&B
QP	1	QUERCUS PALUSTIS	PIN OAK	1-1.5" CAL	B&B
		DECIDUOUS SHRUBS			
CA	9	CORNUS SERICEA	REDTWIG DOGWOOD	2-3' HT	#3 CONT.
MP	5	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	2-3' HT	#3 CONT.
VR	5	VIBURNUM RECOGNITUM	NORTHERN ARROWWOOD	2-3' HT	#3 CONT.

PLANT LIST - UPLAND

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
		DECIDUOUS TREES			
AOG	3	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2-2.5" CAL	B&B
QC	2	QUERCUS COCCINEA	SCARLET OAK	2-2.5" CAL	B&B
AC	2	AMELANCHIER CANADENSIS	SERVICEBERRY	4-5' MULTI-STEMMED	B&B

0 10 20 30 40

SCALE: 1" = 10'

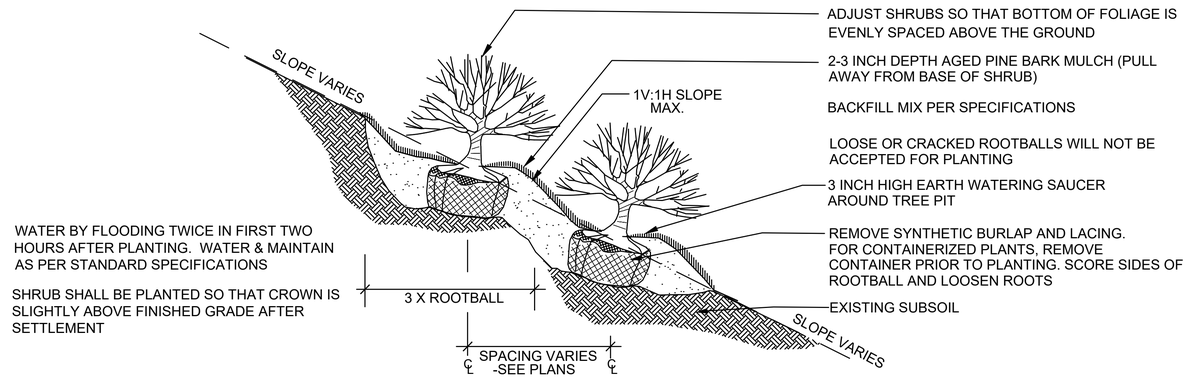
PLANT LIST - UPLAND PROJECT TOTAL PAID UNDER ITEM 775.141 - 796.459

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	ROOT
		DECIDUOUS TREES				
AFA	3	ACER X FREEMANII 'ARMSTRONG'	ARMSTRONG MAPLE	2-2.5" CAL		B&B
AC	6	AMELANCHIER CANADENSIS	SERVICEBERRY	4-5' MULTI-STEMMED		B&B
AOG	6	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2-2.5" CAL		B&B
LT	5	LIRODENDRON TULIPIFERA	TULIP TREE	1-1.5" CAL		B&B
LTL	4	LIRODENDRON TULIPIFERA	TULIP TREE	2-2.5" CAL		B&B
QC	7	QUERCUS COCCINEA	SCARLET OAK	2-2.5" CAL		B&B
QP	1	QUERCUS PALUSTIS	PIN OAK	1-1.5" CAL		B&B
TR	3	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	2-2.5" CAL		B&B
MJ	1	MALUS 'JFS KW214MX' PP 31076	IVORY SPEAR CRABAPPLE	1.5-2" CAL		B&B
		DECIDUOUS SHRUBS				
CA	9	CORNUS SERICEA	RED TWIG DOGWOOD	2-3' HT		#3 CONT.
CP	15	COMPTONIA PEREGRINA	SWEETFERN		24" SP	#1 CONT.
CR	15	CORNUS RACEMOSA	GRAY DOGWOOD	2-3' HT		#3 CONT.
RA	15	RHUS AROMATICA (NO CULTIVARS)	FRAGRANT SUMAC	2-3' HT		#3 CONT.
MP	5	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	2-3' HT		#3 CONT.
VD	15	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2-3' HT		#3 CONT.
VR	5	VIBURNUM RECOGNITUM	NORTHERN ARROWWOOD	2-3' HT		#3 CONT.
		ORNAMENTAL GRASSES				
PC	20	PANICUM VIRGATUM 'CLOUD NINE'	CLOUD NINE SWITCH GRASS		24" SP	#1 CONT.
PS	13	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS		24" SP	#1 CONT.
SS	20	SCHIZACHYRIUM SCOPARIUM 'THE BLUES'	THE BLUES LITTLE BLUESTEM		18" SP	#1 CONT.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	225	420
PROJECT FILE NO.	608051		

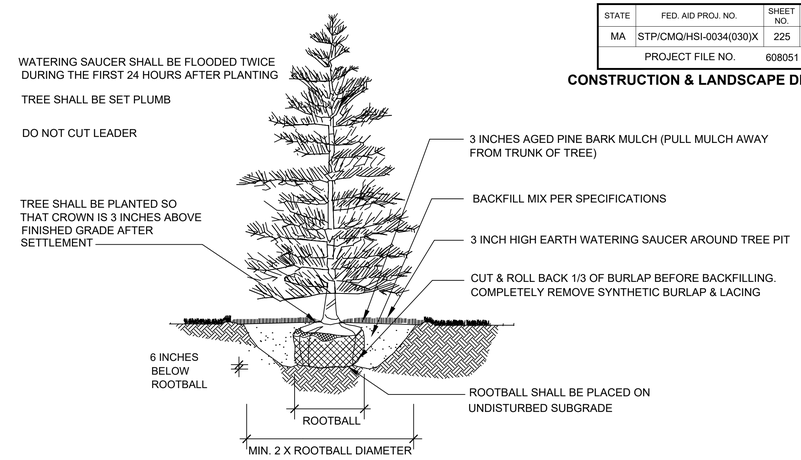
CONSTRUCTION & LANDSCAPE DETAILS - 1

608051_HD11(CONSTRUCTION DETAILS).DWG Plotted on 2-Dec-2025 2:46 PM



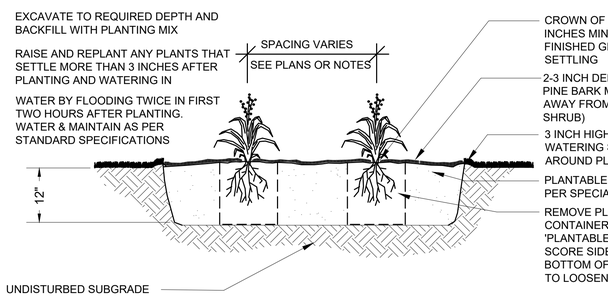
1 CONTAINERIZED SHRUB PLANTING (SLOPE) DETAIL

NOT TO SCALE



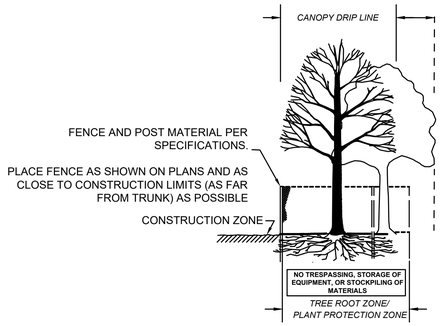
2 EVERGREEN TREE PLANTING

NOT TO SCALE

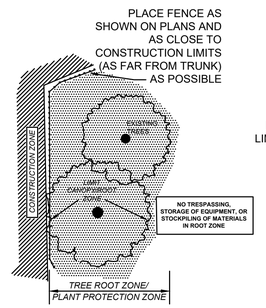


3 ORNAMENTAL GRASS PLANTING

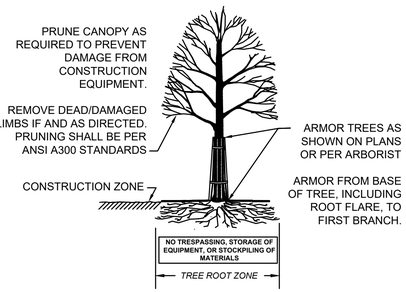
NOT TO SCALE



SECTION - FENCE PROTECTION OF ROOT ZONE



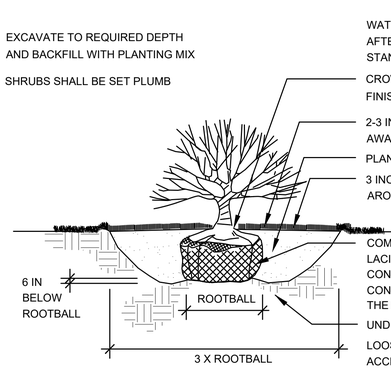
PLAN VIEW - FENCE PROTECTION OF ROOT ZONE



SECTION - TRUNK ARMORING & PRUNING

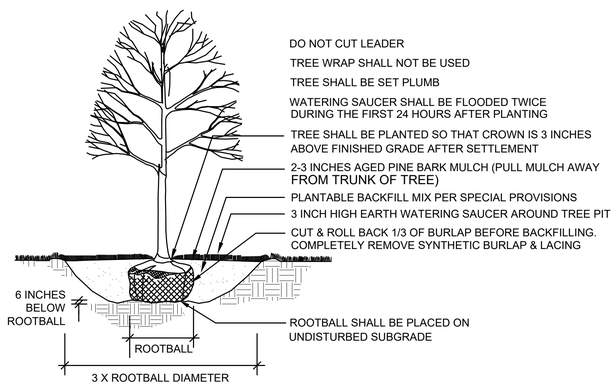
4 TREE PROTECTION DETAILS

NOT TO SCALE



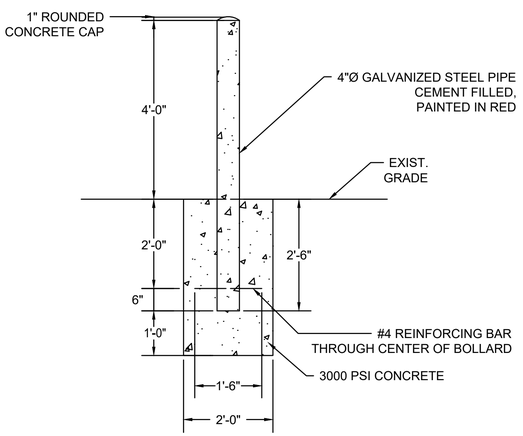
5 SHRUB PLANTING

NOT TO SCALE



6 TREE PLANTING

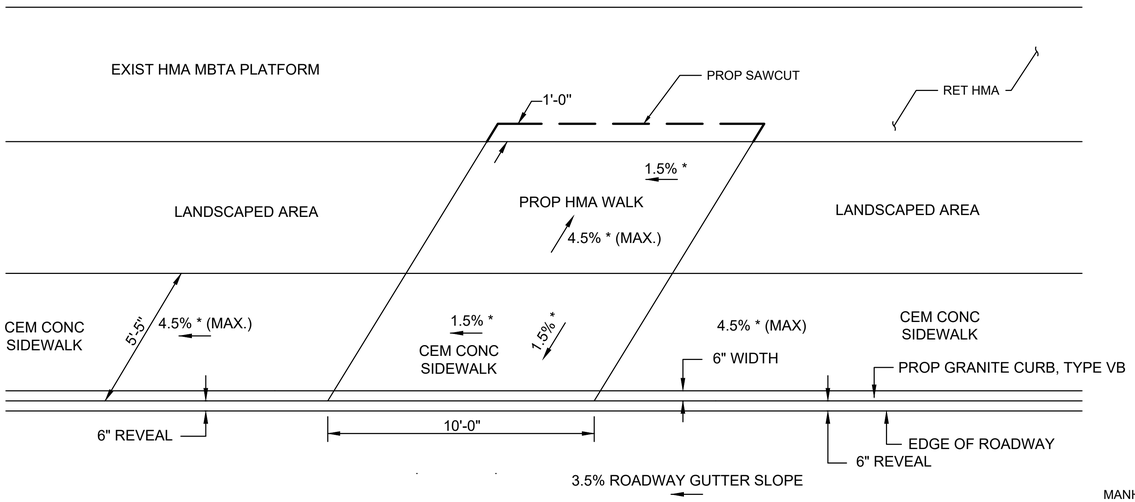
NOT TO SCALE



TYPICAL STEEL BOLLARD DETAIL

NOT TO SCALE

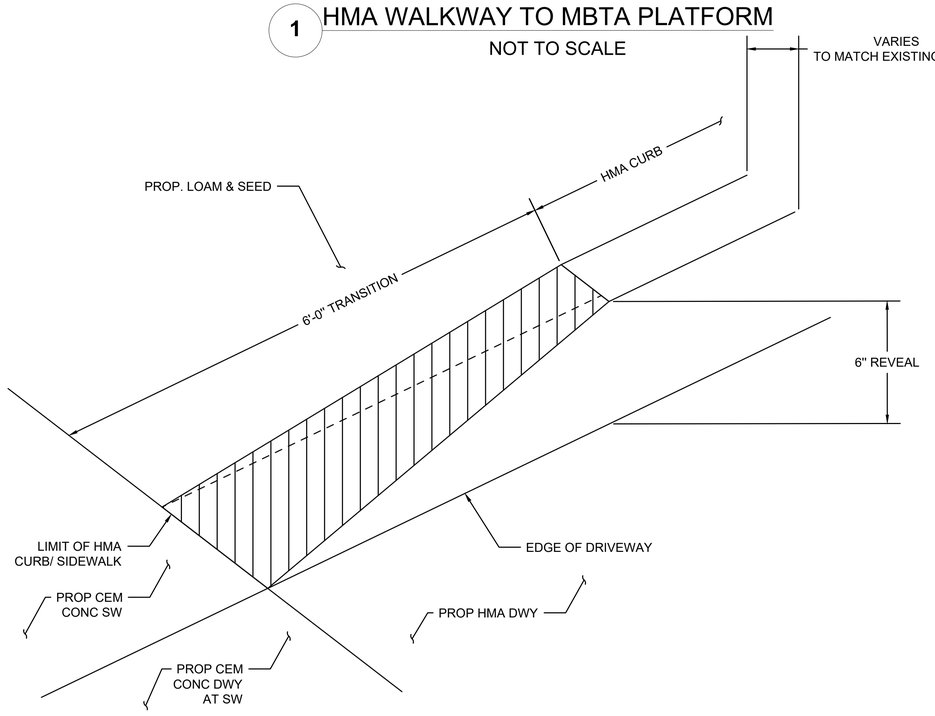
608051_HD11(CONSTRUCTION DETAILS).DWG Plotted on 2-Dec-2025 2:46 PM



NOTES:
* CONSTRUCTION TOLERANCE ± 0.5%
- CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR CONSTRUCTING RAMPS COMPLIANT WITH ADA/AAB RULES, REGULATIONS AND STANDARDS. CONTRACTOR SHALL VERIFY RAMPS ARE ADA/AAB COMPLIANT BEFORE POURING CEMENT CONCRETE.

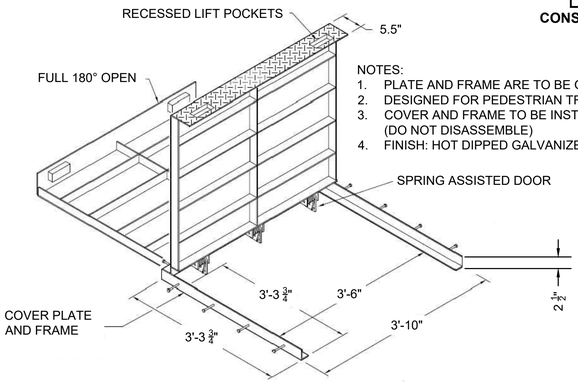
1 HMA WALKWAY TO MBTA PLATFORM

NOT TO SCALE

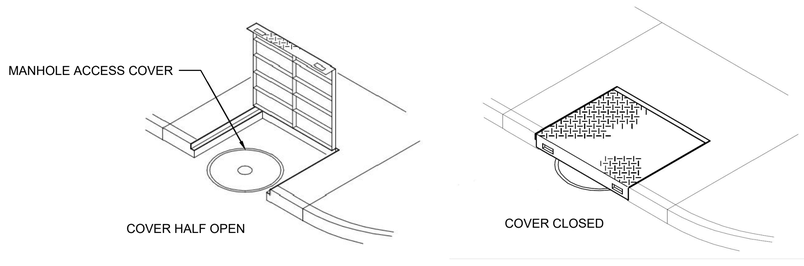


3 HMA CURB TRANSITION TO BACK OF SIDEWALK

NOT TO SCALE

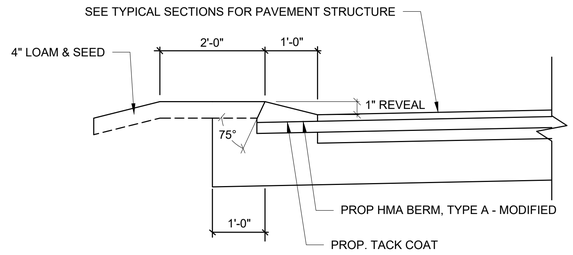


NOTES:
1. PLATE AND FRAME ARE TO BE GALVANIZED STEEL
2. DESIGNED FOR PEDESTRIAN TRAFFIC ONLY
3. COVER AND FRAME TO BE INSTALLED AS ONE UNIT (DO NOT DISASSEMBLE)
4. FINISH: HOT DIPPED GALVANIZED



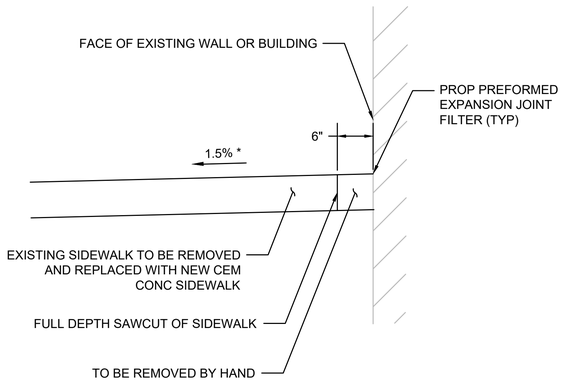
2 CURB COVER AND FRAME

NOT TO SCALE



4 HMA BERM, TYPE A - MODIFIED

NOT TO SCALE

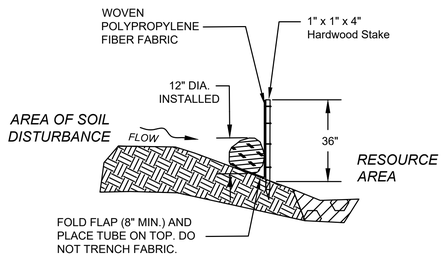


5 EXCAVATION ADJACENT TO WALL OR BUILDING DETAIL

NOT TO SCALE

NOTES:
* CONSTRUCTION TOLERANCE ± 0.5%

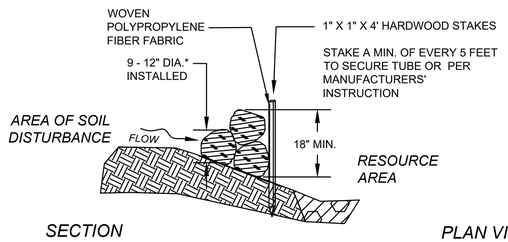
608051_HD11(CONSTRUCTION DETAILS).DWG Plotted on 2-Dec-2025 2:46 PM



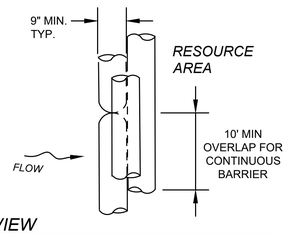
SECTION

COMPOST FILTER TUBE & SILT FENCE

NOT TO SCALE



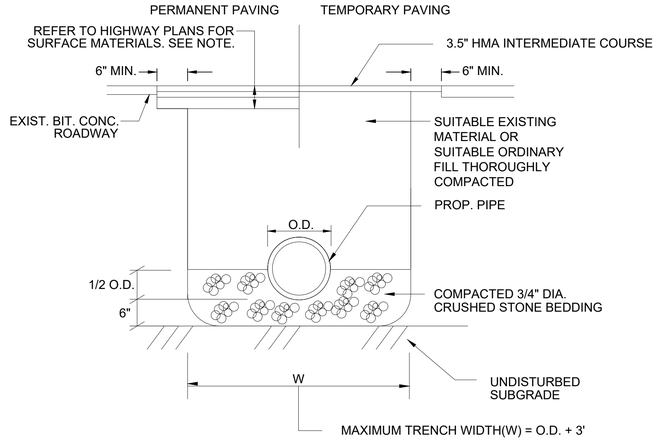
SECTION



PLAN VIEW

COMPOST FILTER TUBE BERM (SLOPES 2:1 OR STEEPER)

NOT TO SCALE

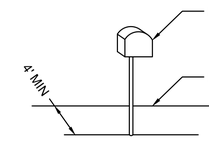


2 TYPICAL PIPE TRENCH

NOT TO SCALE

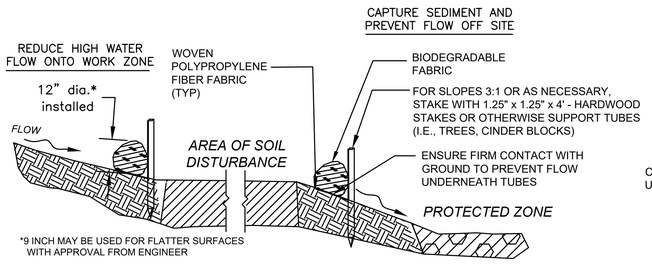
NOTE:

1. PERMANENT PAVING TO BE USED IN ALL AREAS OF MILL AND OVERLAY. MATERIALS SHALL MATCH CORRESPONDING FULL DEPTH SECTION. REFER TO TYPICAL ROADWAY SECTIONS.
2. HMA FOR PATCHING TO BE USED IN AREAS OF FUTURE FULL DEPTH CONSTRUCTION.
3. PERMANENT PATCHING IN EXISTING AREAS OF HMA WITH THICKNESS GREATER THAN 10.5" SHALL GO TO THE EXISTING DEPTH OF HMA.

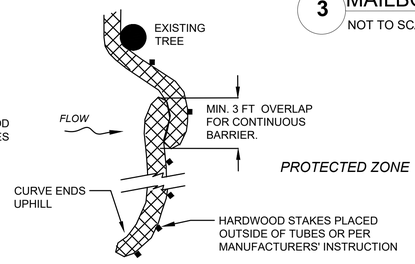


3 MAILBOX

NOT TO SCALE



SECTION



PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

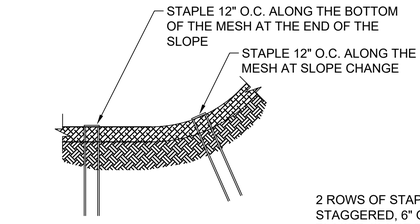
PLAN VIEW

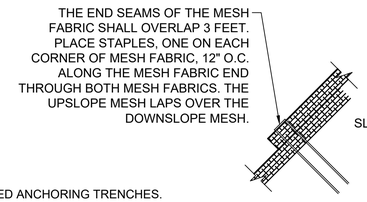
SEDIMENT CONTROL BARRIER

NOT TO SCALE

1 SEDIMENT CONTROL BARRIER

NOT TO SCALE

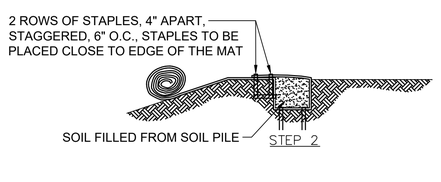


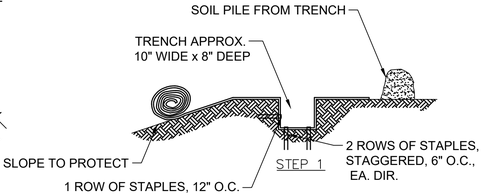


NOTE:

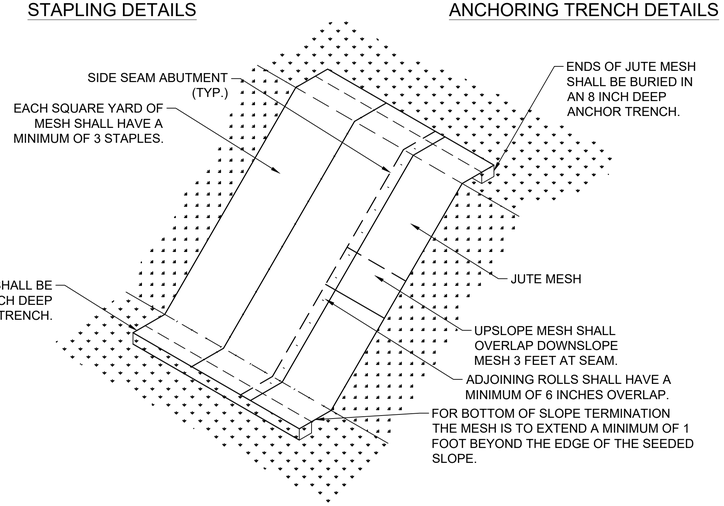
1. RESEED ANCHORING TRENCHES.

STAPLING DETAILS





ANCHORING TRENCH DETAILS



JUTE MESH FABRIC ON SLOPE

NOTES:

1. SEE MANUFACTURER'S STAPLE PATTERN GUIDE FOR DETAILS.
2. INSTALL JUTE MESH ON SLOPES GREATER THAN 3 FEET HORIZONTAL TO 1 FOOT VERTICAL AND WHERE ADDED STABILIZATION FOR EROSION CONTROL IS NEEDED.
3. JUTE MESH SHALL BE INSTALLED WITH CONTINUOUS CONTACT WITH THE SOIL.
4. AREAS WITH JUTE MESH SHALL BE SEEDED PRIOR TO THE INSTALLATION OF THE JUTE MESH.
5. STAPLES SHALL BE DRIVEN IN UNTIL THEIR TOPS ARE FLUSH WITH THE SOIL.
6. STAPLES SHALL BE 11 GAUGE STEEL 6 OR 9 INCHES IN LENGTH. IN AREAS THAT WILL BE MOWN FREQUENTLY EIGHT INCH WOOD STAKES SHALL BE USED TO ANCHOR MESH.
7. JUTE MESH SHALL BE BIODEGRADABLE.

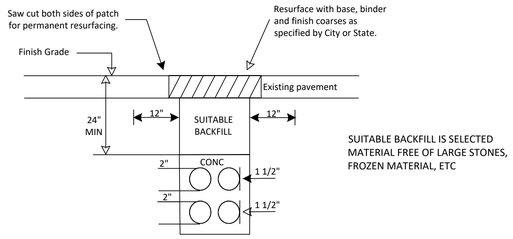
4 JUTE MESH

NOT TO SCALE

608051_HD11(CONSTRUCTION DETAILS).DWG Plotted on 2-Dec-2025 2:46 PM

VERIZON CONDUIT REQUIREMENT

- 4" PVC – SCHEDULE 40
- 3" SEPARATION IN COMMON TRENCH WITH SEPARATE POURS
- PIPES (GAS,OIL, WATER, ETC) 6" WHEN CROSSING; 12" WHEN PARALLEL (SEE-NESC 320 B 2)
- 2500 lb. 3/8" CONCRETE



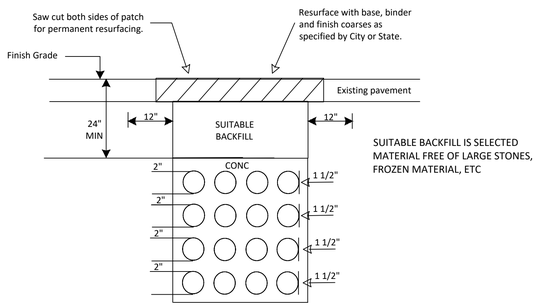
Typical Verizon duct bank cross section

TYPICAL VERIZON DUCT BANK - 2X2 CONFIGURATION

NOT TO SCALE

VERIZON CONDUIT REQUIREMENT

- 4" PVC – SCHEDULE 40
- 3" SEPARATION IN COMMON TRENCH WITH SEPARATE POURS
- PIPES (GAS,OIL, WATER, ETC) 6" WHEN CROSSING; 12" WHEN PARALLEL (SEE-NESC 320 B 2)
- 2500 lb. 3/8" CONCRETE



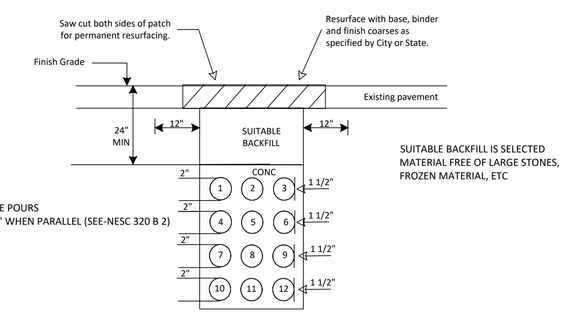
Typical Verizon duct bank cross section

TYPICAL VERIZON DUCT BANK - 4X4 CONFIGURATION

NOT TO SCALE

VERIZON CONDUIT REQUIREMENT

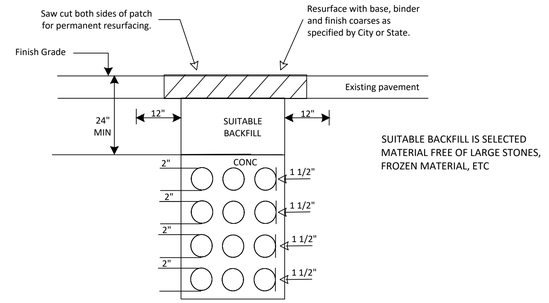
- 4" PVC – SCHEDULE 40
- 3" SEPARATION IN COMMON TRENCH WITH SEPARATE POURS
- PIPES (GAS,OIL, WATER, ETC) 6" WHEN CROSSING; 12" WHEN PARALLEL (SEE-NESC 320 B 2)
- 2500 lb. 3/8" CONCRETE



Typical Verizon duct bank cross section

VERIZON CONDUIT REQUIREMENT

- 4" PVC – SCHEDULE 40
- 3" SEPARATION IN COMMON TRENCH WITH SEPARATE POURS
- PIPES (GAS,OIL, WATER, ETC) 6" WHEN CROSSING; 12" WHEN PARALLEL (SEE-NESC 320 B 2)
- 2500 lb. 3/8" CONCRETE



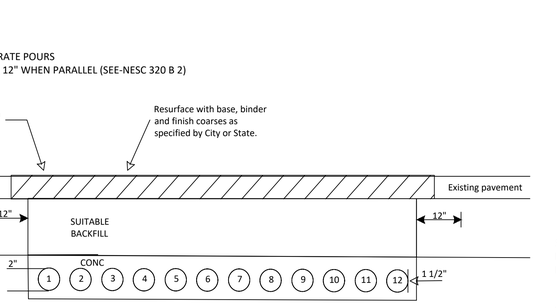
Typical Verizon duct bank cross section

TYPICAL VERIZON DUCT BANK - 3X3 CONFIGURATION

NOT TO SCALE

VERIZON CONDUIT REQUIREMENT

- 4" PVC – SCHEDULE 40
- 3" SEPARATION IN COMMON TRENCH WITH SEPARATE POURS
- PIPES (GAS,OIL, WATER, ETC) 6" WHEN CROSSING; 12" WHEN PARALLEL (SEE-NESC 320 B 2)
- 2500 lb. 3/8" CONCRETE



Typical Verizon duct bank cross section

TYPICAL VERIZON DUCT BANK - 3X4 CONFIGURATION

NOT TO SCALE

VERIZON CONDUIT REQUIREMENT

- 4" PVC – SCHEDULE 40
- 3" SEPARATION IN COMMON TRENCH WITH SEPARATE POURS
- PIPES (GAS,OIL, WATER, ETC) 6" WHEN CROSSING; 12" WHEN PARALLEL (SEE-NESC 320 B 2)
- 2500 lb. 3/8" CONCRETE

Typical Verizon duct bank cross section

TYPICAL VERIZON DUCT BANK TRANSITION- 1X12 CONFIGURATION

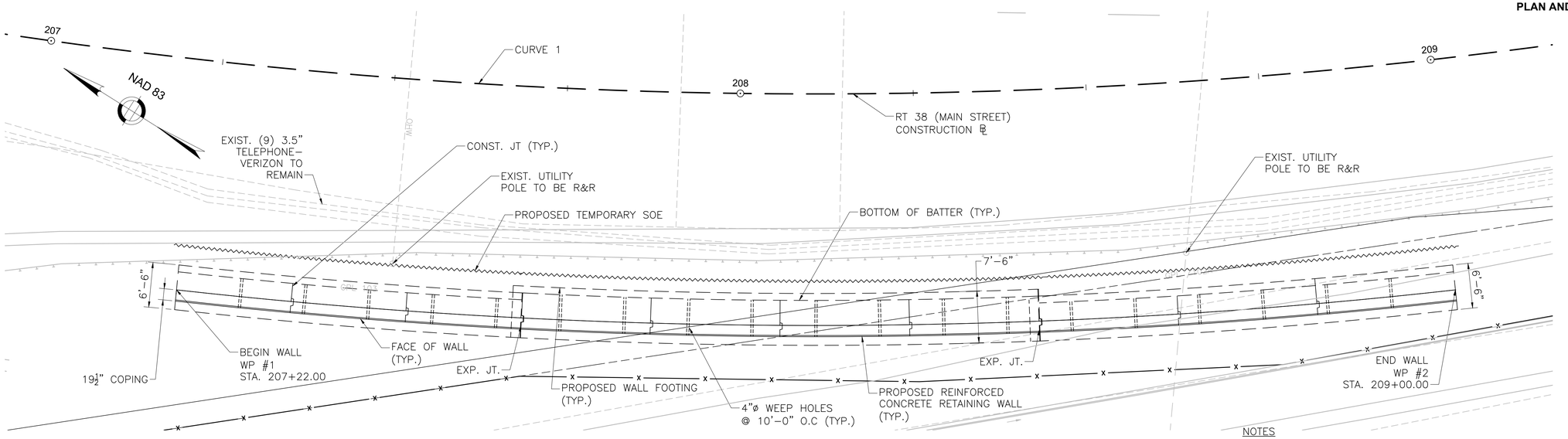
NOT TO SCALE

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	229	420
	PROJECT FILE NO. 608051		

RETAINING WALL
PLAN AND ELEVATION

608051_HDXX(RET WALL GPE).DWG Plotted on 2-Dec-2025 2:47 PM



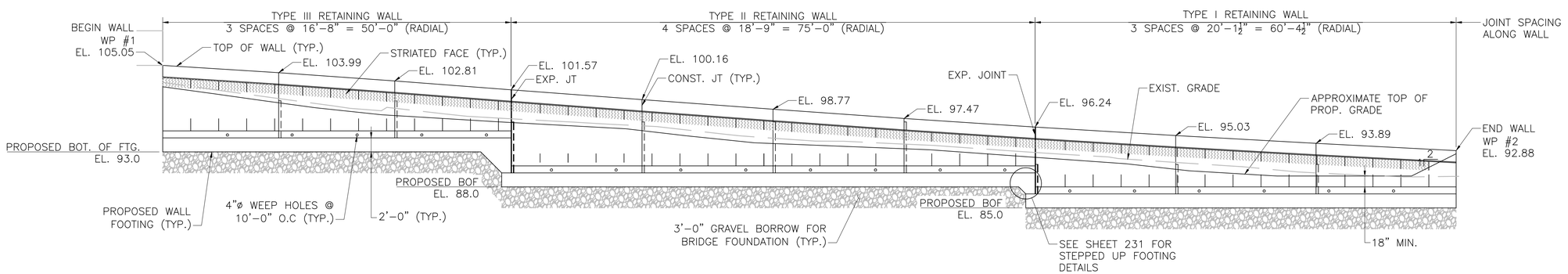
WALL STRUCTURE, WALL NO. 1 PLAN

SCALE: ⅛" = 1'–0"

RETAINING WALL STRUCTURE NO. 1 WORKING POINT TABLE					
WORKING POINT	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
WP #1	BEGIN WALL	207+22.00	33.50	3024203.1703	744142.7443
WP #2	END WALL	209+00.00	33.50	3224046.5799	744241.1101

NOTES

1. REFER TO TYPICAL WALL CROSS SECTION ON SHEET 230, AND HIGHWAY CROSS SECTIONS FOR ADDITIONAL INFORMATION.
2. TEMPORARY SUPPORT OF EXCAVATION SHALL BE PROVIDED AT THE BACK OF THE WALL, COVERED BY ITEM 950.5. TEMPORARY SUPPORT OF EXCAVATION THAT PROTRUDES BELOW WALL FOUNDATION IS TO BE CUT AT TOP OF FOOTING ELEVATION AND LEFT IN PLACE.
3. SEE SHEETS 19 AND 20 FOR CONSTRUCTION ALIGNMENT DETAILS.
4. CONTRACTOR TO VERIFY TOP OF PROPOSED WALL ELEVATIONS IN THE FIELD BEFORE ORDERING ANY MATERIAL.
5. CURVE DATA IS FOR RETAINING WALL ALIGNMENT.
6. SUPPORT FOR UTILITY POLES AND UNDERGROUND UTILITIES IS INCIDENTAL TO WORK.



WALL STRUCTURE, WALL NO. 1 ELEVATION

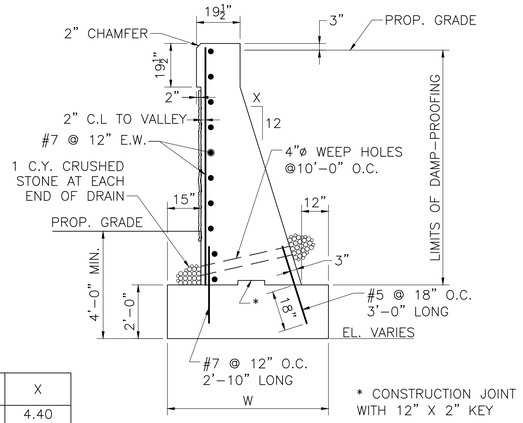
SCALE: ⅛" = 1'–0"

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	230	420
PROJECT FILE NO.	608051		

RETAINING WALL SECTION AND DETAILS

608051_HDXX(RET WALL SECT & DET).DWG Plotted on 2-Dec-2025 2:47 PM



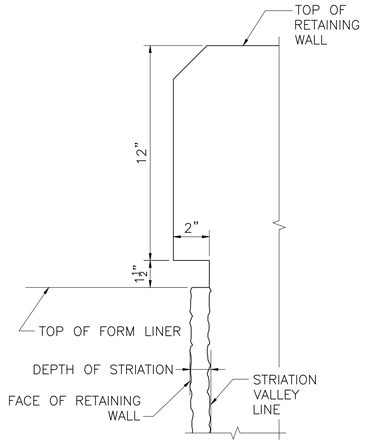
WALL TYPE	W	X
TYPE I	6'–6"	4.40
TYPE II	7'–6"	4.58
TYPE III	6'–6"	3.98

TYPICAL RETAINING WALL SECTION
SCALE: $\frac{3}{8}$" = 1'–0"

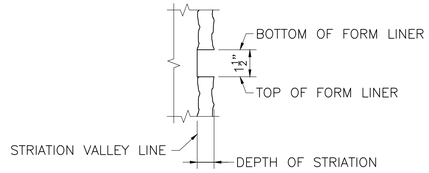
NOTES

1. 4" ø WEEP HOLES 10'–0" O.C. (JUST ABOVE PROTECTIVE COURSE). PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT EACH END OF WEEP HOLE.
2. ALL CONCRETE SHALL BE 5000 PSI HP CONCRETE.
3. SEE TABLES BELOW FOR FACTORED BEARING PRESSURES AND FACTORED BEARING RESISTANCES FOR ALL WALL TYPES. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.55.
4. REFER TO SOILS AND FOUNDATIONS REPORT FOR PROPOSED RETAINING WALL, DATED AUGUST 2025, PREPARED BY LAMSON ENGINEERING CORPORATION.
5. HEIGHT OF RETAINING WALL VARIES.

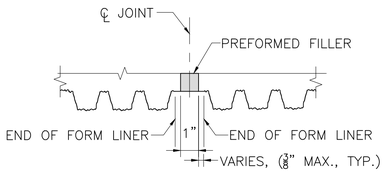
SUMMARY OF BEARING PRESSURES AND RESISTANCES			
WALL TYPE	MAXIMUM FACTORED BEARING PRESSURE (KSF)	CONTROLLING LOAD CASE	FACTORED BEARING RESISTANCE (KSF)
TYPE I	3.19	STRENGTH I	6.49
TYPE II	3.84	STRENGTH I	4.88
TYPE III	3.65	STRENGTH I	5.18



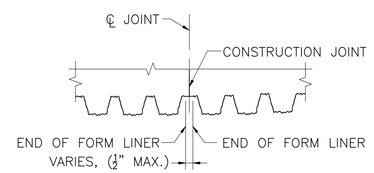
DETAIL AT TOP OF WALL
SCALE: 3" = 1'–0"



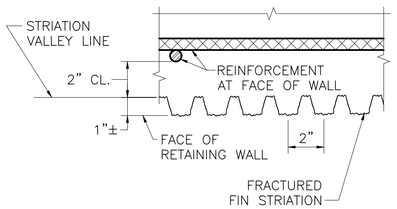
HORIZONTAL PANEL JOINT
SCALE: 3" = 1'–0"



EXPANSION JOINT
SCALE: 3" = 1'–0"



CONSTRUCTION JOINT
SCALE: 3" = 1'–0"



NOTES:

1. THE CONTRACTOR SHALL MAKE SURE THAT THE STRIATION FINS ARE PLUMB AND LINED UP VERTICALLY FROM PANEL TO PANEL FOR THE FULL HEIGHT OF THE WALL.
2. THE HORIZONTAL JOINT MAY BE OMITTED IF THE CONTRACTOR CAN DEMONSTRATE THAT THE FORM LINER PANELS CAN BE INSTALLED END TO END WITHOUT CREATING A VISIBLE SEAM IN THE FINAL CAST CONCRETE.

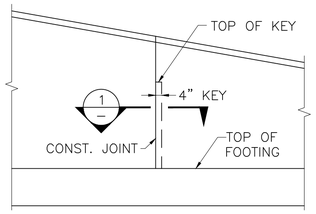
TYPICAL STRIATION DETAILS
SCALE: 3" = 1'–0"

WILMINGTON
ROUTE 38 (MAIN STREET)

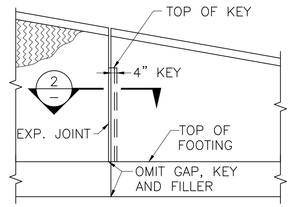
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	231	420
	PROJECT FILE NO. 608051		

RETAINING WALL DETAILS

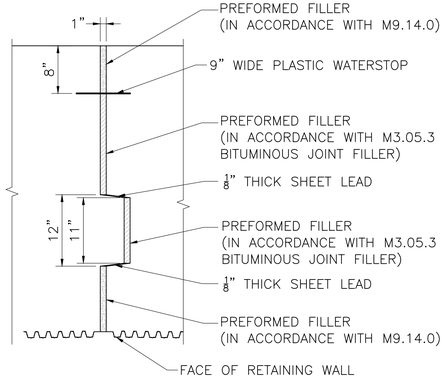
608051_HDXX(RET WALL SECT & DET).DWG Plotted on 2-Dec-2025 2:47 PM



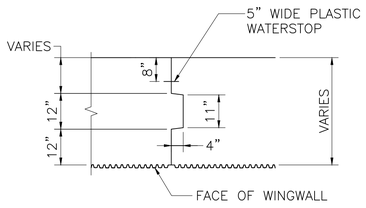
WINGWALL ELEVATION AT CONSTRUCTION JOINT
NOT TO SCALE



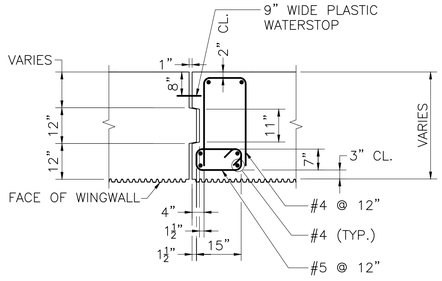
WINGWALL ELEVATION AT EXPANSION JOINT
NOT TO SCALE



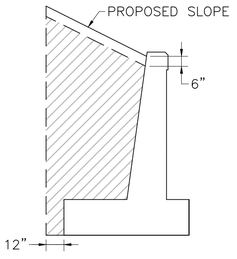
LIMITS OF PREFORMED FILLER
SCALE: 1" = 1'–0"



SECTION 1
SCALE: ½" = 1'–0"

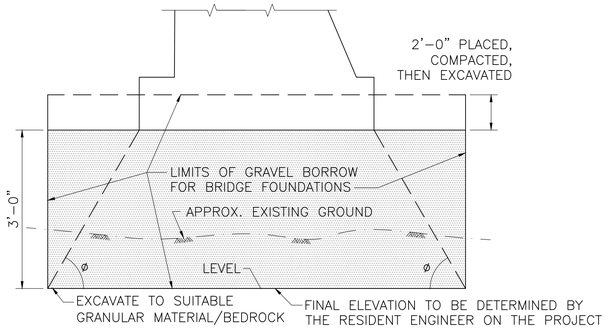


SECTION 2
SCALE: ½" = 1'–0"



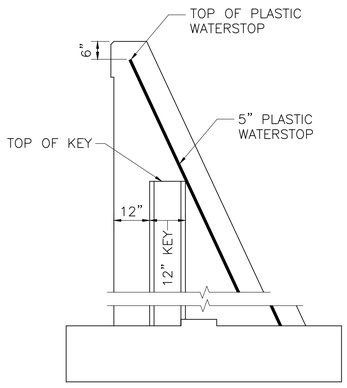
NOTE:
HATCHED AREA INDICATES LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES.

LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES
SCALE: ¼" = 1'–0"



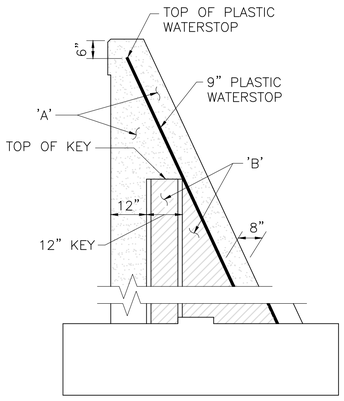
NOTES:
1. ø = 45° FOR DEPTH OF 5'–0" OR LESS.
   ø = 60° FOR DEPTH OVER 5'–0".
2. SAME TREATMENT IS TO BE USED AT ENDS OF WALLS.

LIMITS OF GRAVEL BORROW FOR BRIDGE FOUNDATIONS
NOT TO SCALE



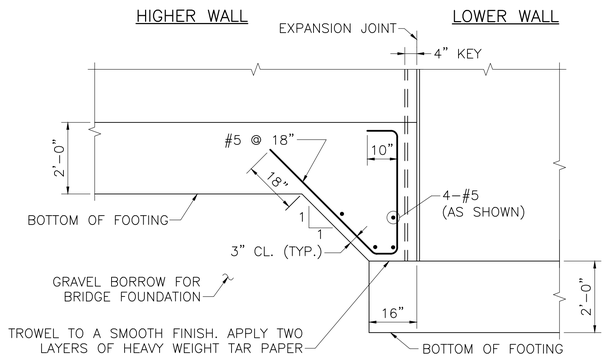
NOTE:
REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

VERTICAL SECTION THROUGH RETAINING WALL CONSTRUCTION JOINT
NOT TO SCALE



NOTES:
1. LONGITUDINAL REINFORCEMENT SHALL END 2" CLEAR OF EXPANSION JOINT.
2. 'A' – PREFORMED FILLER (IN ACCORDANCE WITH M9.14.0).
   'B' – PREFORMED FILLER (IN ACCORDANCE WITH M3.05.3 BITUMINOUS JOINT FILLER).
3. FILLER MATERIAL SHALL BE FASTENED SECURELY TO ONE SIDE OF JOINT.

VERTICAL SECTION THROUGH RETAINING WALL EXPANSION JOINT
NOT TO SCALE



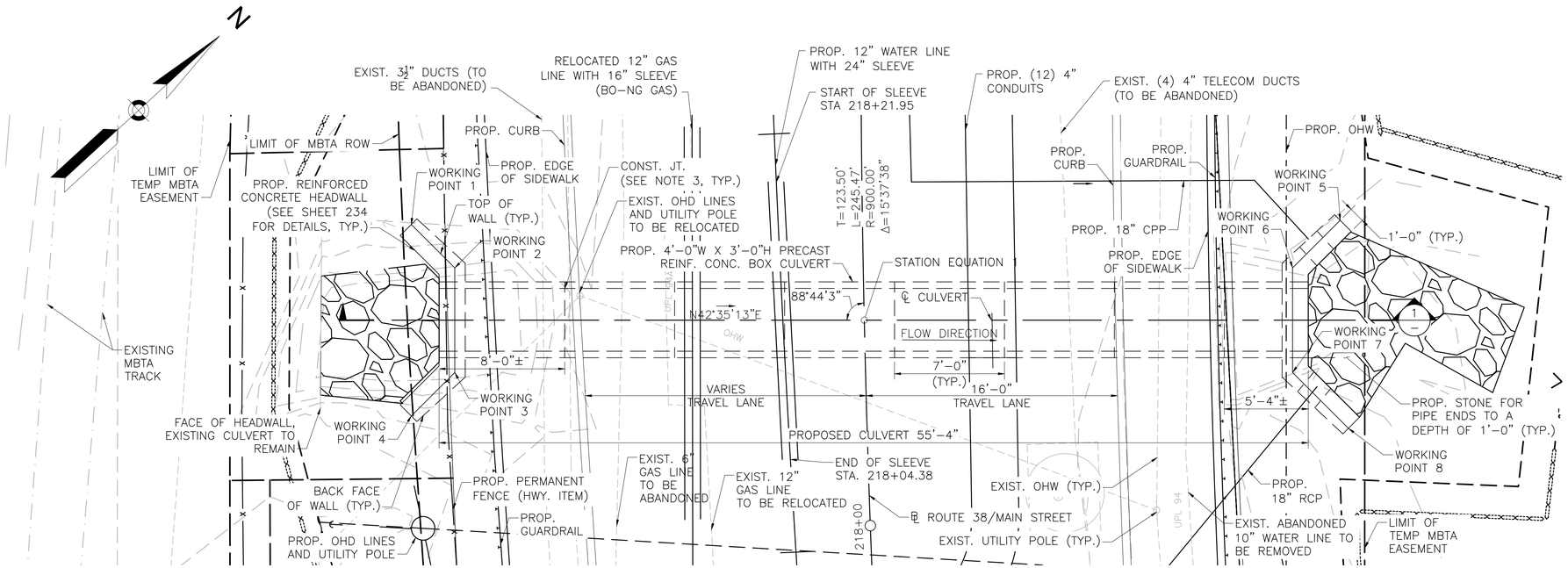
STEPPED–UP FOOTING DETAIL
SCALE: ½" = 1'–0"

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	232	420
	PROJECT FILE NO. 608051		

SPECIAL DRAINAGE STRUCTURE NO. 1 PLAN AND ELEVATION

6080051_BR01.DWG Plotted on 2-Dec-2025 2:48 PM



SPECIAL DRAINAGE STRUCTURE NO. 1 PLAN

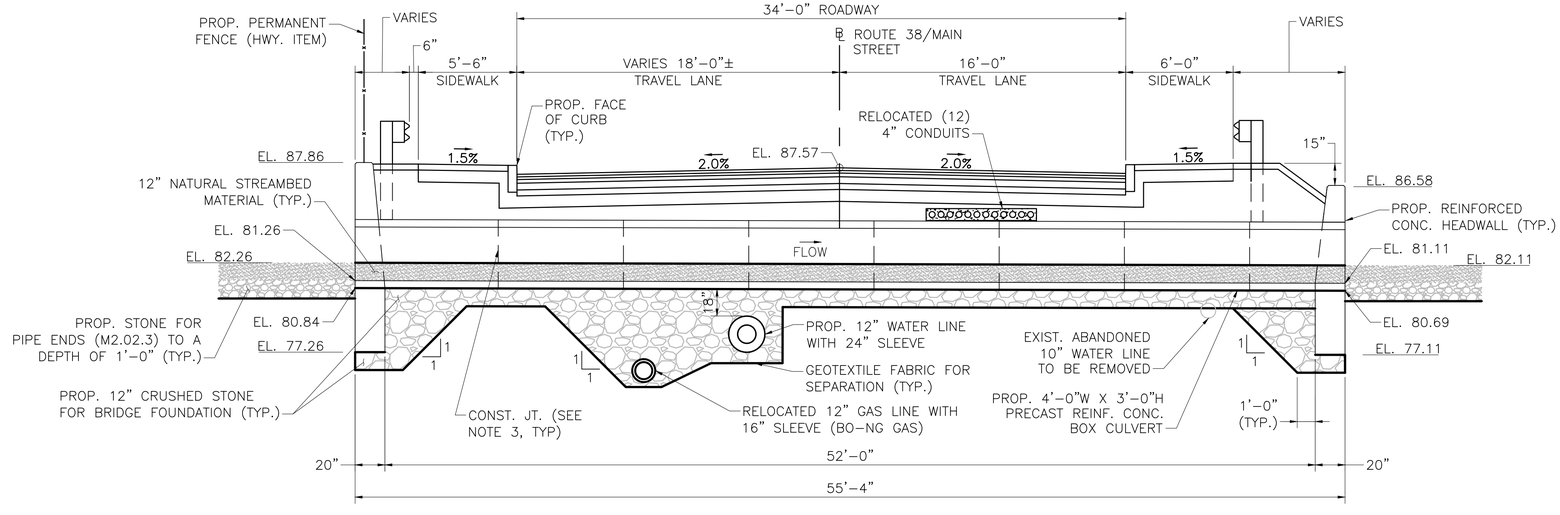
SCALE: ¼" = 1'–0"

WORKING POINT	STA.	OFFSET R, FT	NORTHING	EASTING
1	217+80.39	28.72	3023401.72	744848.12
2	217+83.11	26.00	3023401.89	744852.03
3	217+89.59	26.15	3023397.38	744856.93
4	217+92.20	28.99	3023393.47	744857.10
5	217+81.02	–30.42	3023445.45	744887.95
6	217+84.10	–27.33	3023441.16	744888.13
7	217+90.97	–27.18	3023436.66	744893.03
8	217+94.74	–30.63	3023436.87	744898.06

STATION EQUATION 1: RT 38 CONSTRUCTION ℄ STA. 217+86.85 = CULVERT CENTERLINE

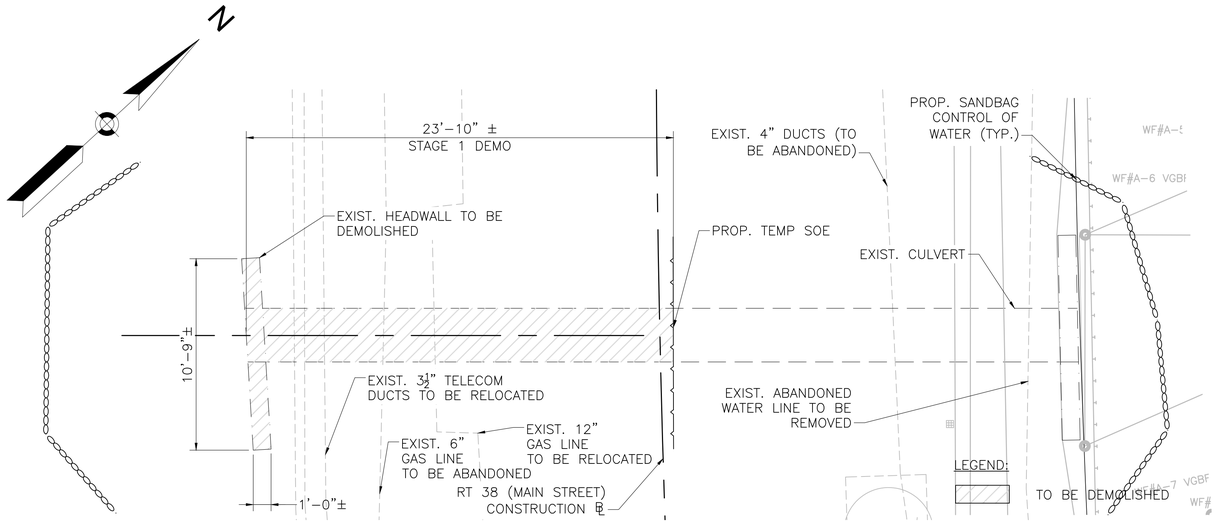
NOTES:

1. GUARDRAIL WILL SPAN OVER PROPOSED CULVERT SECTION.
2. SEE SHEETS 14 – 18 FOR TYPICAL APPROACH/ROADWAY CROSS SECTION AT CULVERT LOCATION.
3. PRECAST REINFORCED CONCRETE CULVERT CONSTRUCTION JOINT SPACING WILL VARY PER PRECASTER UP TO 7'–0" MAXIMUM SPACING.



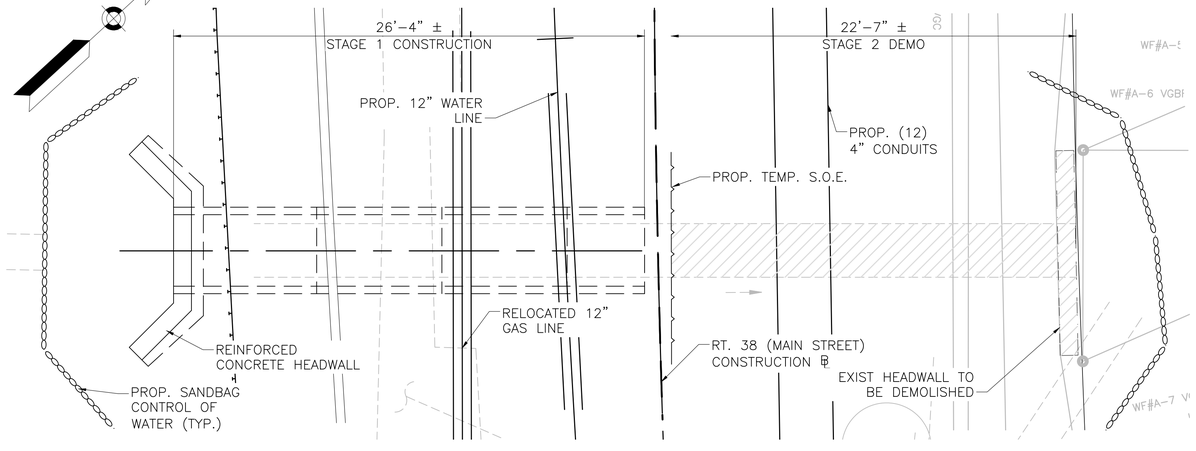
SECTION (DOWNSTATION) 1/–

SCALE: ¼" = 1'–0"



STAGE 1 DEMOLITION PLAN

SCALE: ¼" = 1'-0"



STAGE 1 CONSTRUCTION & STAGE 2 DEMOLITON PLAN

SCALE: ¼" = 1'-0"

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	233	420
PROJECT FILE NO. 608051			

CULVERT DEMOLITION PLAN

GENERAL STAGE CONSTRUCTION NOTES:

1. THE SUPPORT OF EXCAVATION IS DESIGNED AS A TEMPORARY STRUCTURE.
2. SURCHARGES AND STOCKPILES SHALL BE LIMITED TO 250 PSF.
3. LOCATE ALL UTILITIES, EXISTING, AND PROPOSED STRUCTURES PRIOR TO THE START OF WORK.
4. INSTALL SUPPORT OF EXCAVATION (SOE) TO THE REQUIRED DEPTHS AS DESIGNED BY THE CONTRACTOR.
5. UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
6. VERIFY NEARBY STRUCTURES WILL NOT BE AFFECTED BY PROPOSED WORK.

SUGGESTED SEQUENCE OF CONSTRUCTION:

1. INSTALL SANDBAG CONTROL OF WATER AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE CULVERT. INSTALL SOE LONGITUDINALLY ALONG CULVERT. SOE SHALL BE PLACED TO MAINTAIN ON THE EXISTING CULVERT A MINIMUM OF AN 11'–0" LANE WITH 1'–0" SHOULDERS, LIMITED DEFLECTION BARRIER (TL–3) AND DEFLECTION SPACE, AND A 4'–0" SIDEWALK.
2. EXCAVATE AND REMOVE EXISTING CULVERT TO STAGE 1 LIMITS SHOWN. EXISTING UTILITIES TO BE ABANDONED SHALL BE REMOVED FOR THE LIMITS OF THE NEW CULVERT IN COORDINATION WITH THE UTILITY OWNERS AND THE ENGINEER. NO EXISTING UTILITY SERVICES TO BE IMPACTED BY THIS WORK WITHOUT APPROVAL FROM THE UTILITY OWNER AND ENGINEER.
3. INSTALL PROPOSED 12" WATER LINE AND RELOCATE EXISTING 12" GAS LINE TO PROPOSED LOCATIONS.
4. CONSTRUCT STAGE 1 PORTION OF PROPOSED CULVERT. PROPOSED CULVERT WIDTH SHALL ACCOMMODATE A MINIMUM OF AN 11'–0" LANE WITH 1'–0" SHOULDERS, LIMITED DEFLECTION BARRIER (TL–3) AND DEFLECTION SPACE, AND A 5'–6" SIDEWALK.
5. EXCAVATE AND REMOVE EXISTING CULVERT TO STAGE 2 LIMITS SHOWN. REMOVE EXISTING ABANDONED WATER LINE.
6. REMOVE TEMPORARY SOE. REMOVAL OF SOE MUST NOT RESULT IN SETTLEMENT OF ANY PROPOSED WORK. CONTRACTOR TO PROVIDE MEANS TO ENSURE SOIL SUPPORTING THE PROPOSED STAGE 1 ROADWAY IS RETAINED THROUGHOUT STAGE 2 DEMOLITION AND CONSTRUCTION.
7. CONSTRUCT STAGE 2 PORTION OF PROPOSED CULVERT. CONSTRUCT PROPOSED CONDUITS ABOVE STAGE 2 PORTION OF PROPOSED CULVERT.

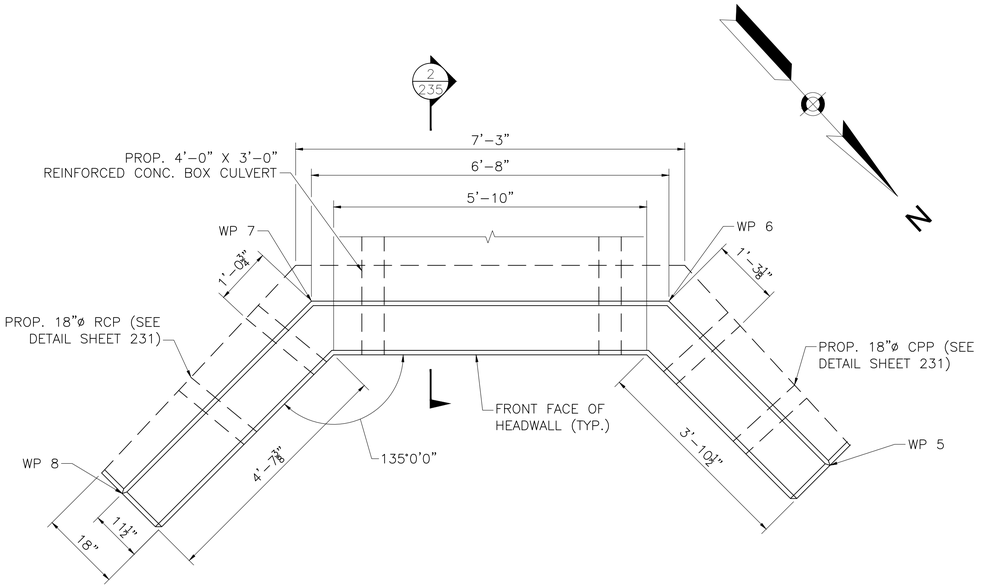
608051_BR03_RECOVER.DWG Plotted on 2-Dec-2025 2:50 PM

WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	234	420
PROJECT FILE NO.	608051		

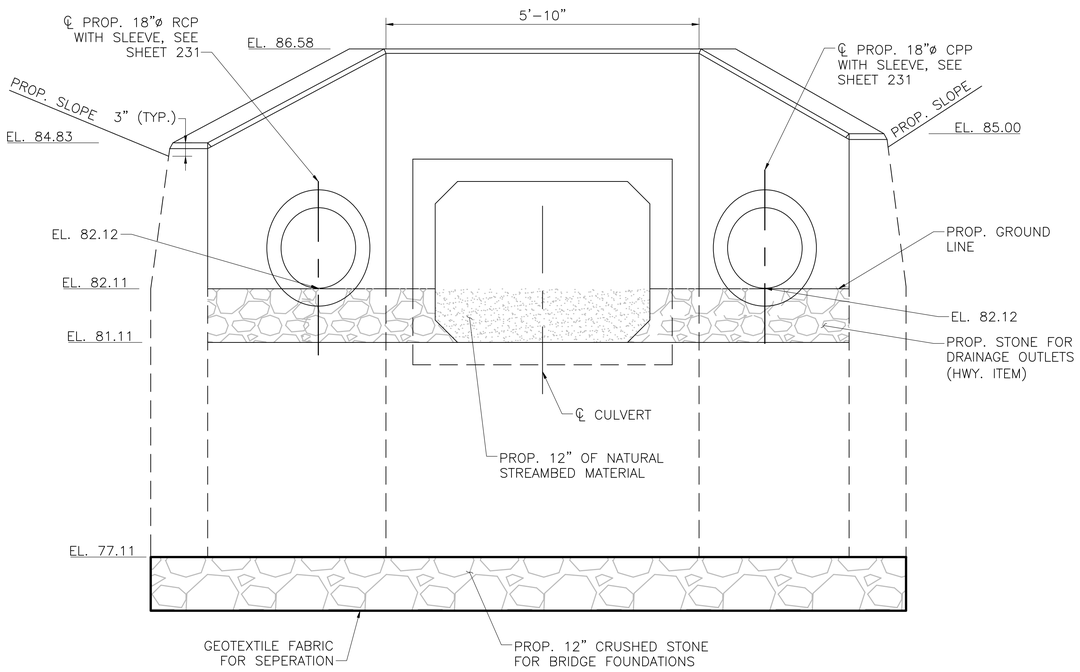
SPECIAL DRAINAGE STRUCTURE NO. 1 DETAILS

6080051_BR02.DWG Plotted on 2-Dec-2025 2:50 PM



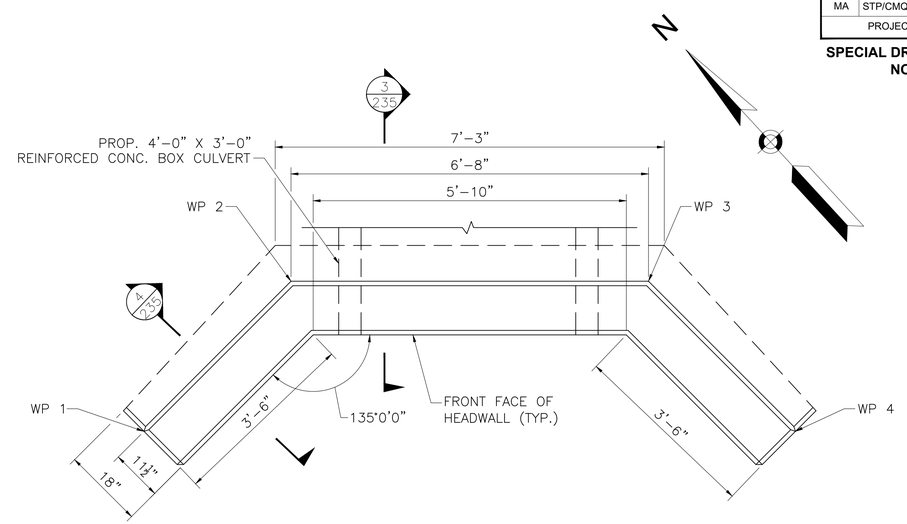
NORTH HEADWALL PLAN

SCALE: ¾" = 1'-0"



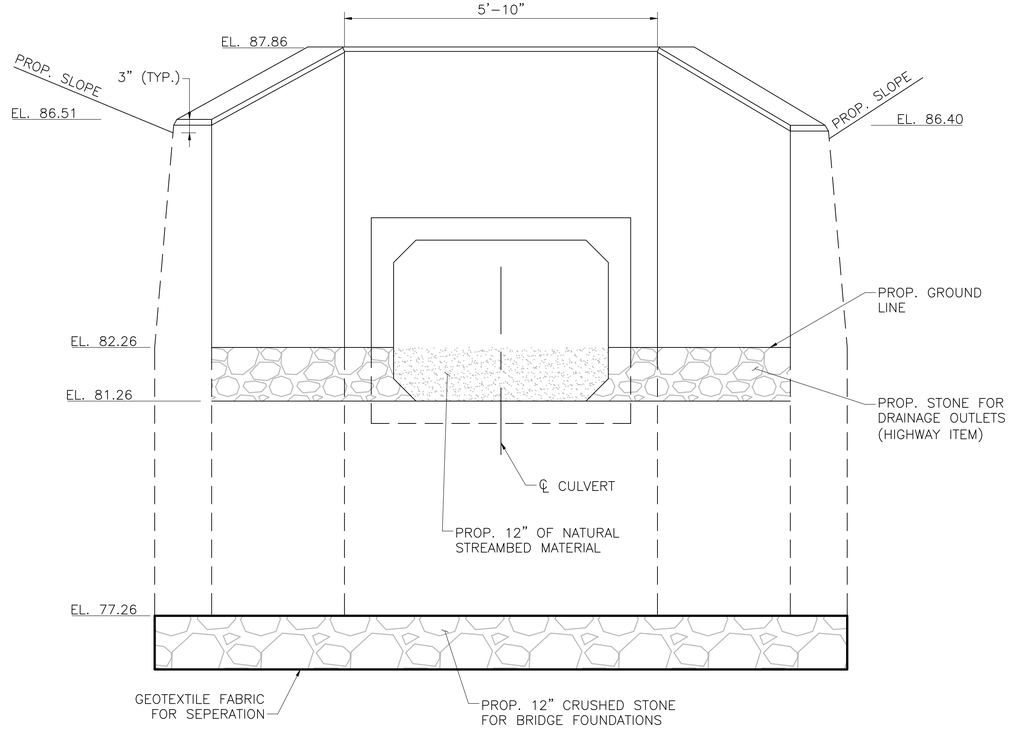
NORTH HEADWALL ELEVATION

SCALE: ¾" = 1'-0"



SOUTH HEADWALL PLAN

SCALE: ¾" = 1'-0"



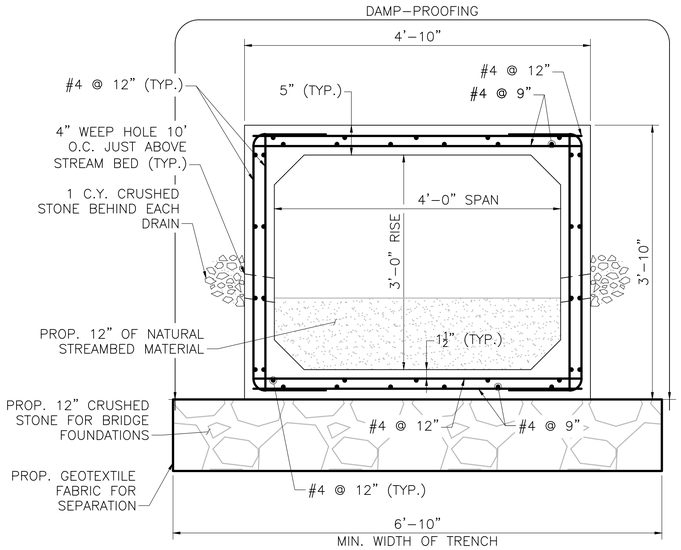
SOUTH HEADWALL ELEVATION

SCALE: ¾" = 1'-0"

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	235	420
PROJECT FILE NO.	608051		

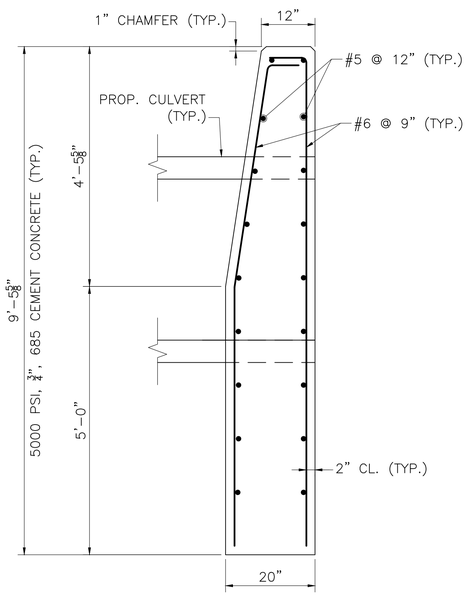
SPECIAL DRAINAGE STRUCTURE NO. 1 DETAILS

6080051_BR04.DWG Plotted on 2-Dec-2025 2:50 PM

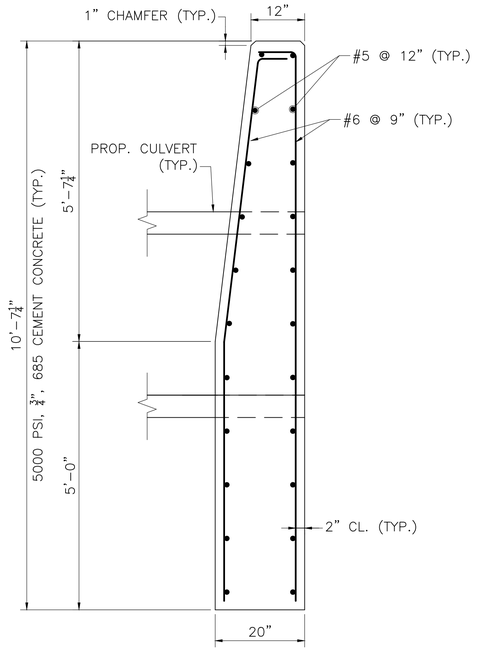


NOTES:
1. THE MAXIMUM FACTORED BEARING PRESSURE IS 2.02 KSF AS PER AASHTO LRFD BRIDGE SPECIFICATION STRENGTH 1 LOAD COMBINATION. FACTORED BEARING RESISTANCE IS 9.3 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE OF 20.7 AND A RESISTANCE FACTOR OF 0.45.
2. REFER TO GEOTECHNICAL REPORT, DATED OCTOBER 2020, PREPARED BY LAMSON ENGINEERING CORPORATION.
3. TRANSVERSE REINFORCING SHALL BE PLACED NORMAL TO THE ℄ OF THE CULVERT.
4. PRECAST CONCRETE CULVERT TO BE 5000 PSI, ¾ INCH, 685 HP CEMENT CONCRETE.

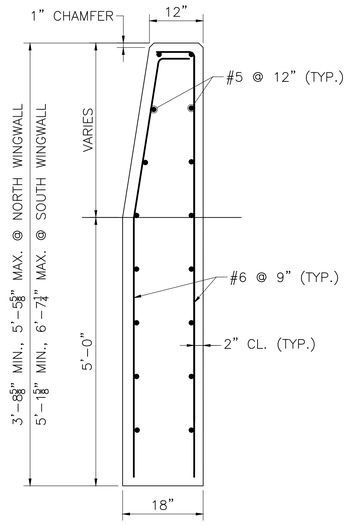
CULVERT REINFORCEMENT
SCALE: 1" = 1'-0"



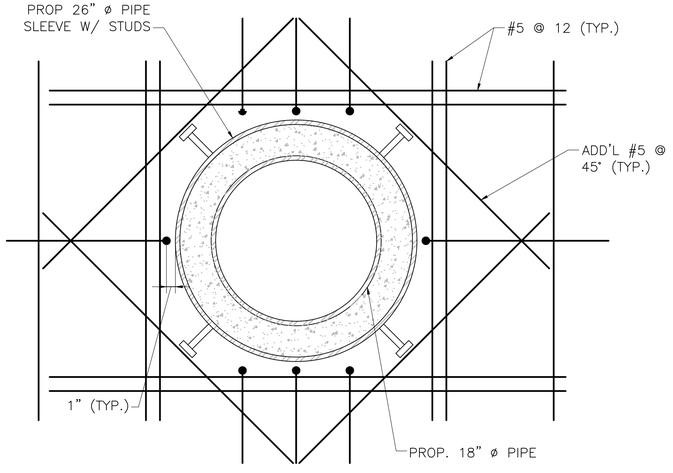
SECTION 2 (234)
SCALE: ¾" = 1'-0"



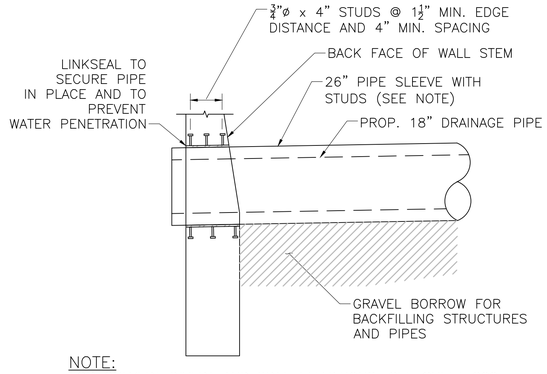
SECTION 3 (234)
SCALE: ¾" = 1'-0"



SECTION 4 (234)
SCALE: ¾" = 1'-0"

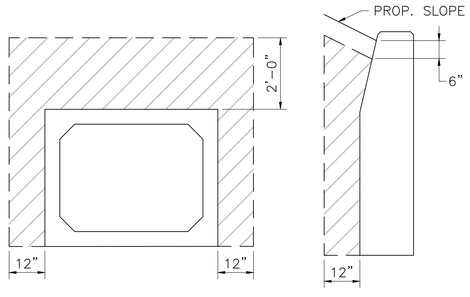


PIPE OPENING DETAIL
SCALE: 1½" = 1'-0"



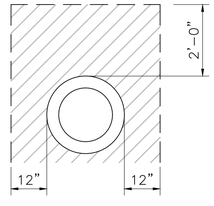
NOTE:
FOR CULVERT INVERT AND WALL ELEVATIONS, SEE SHEET 209.

TYPICAL CULVERT WALL PENETRATION DETAIL
SCALE: ½" = 1'-0"



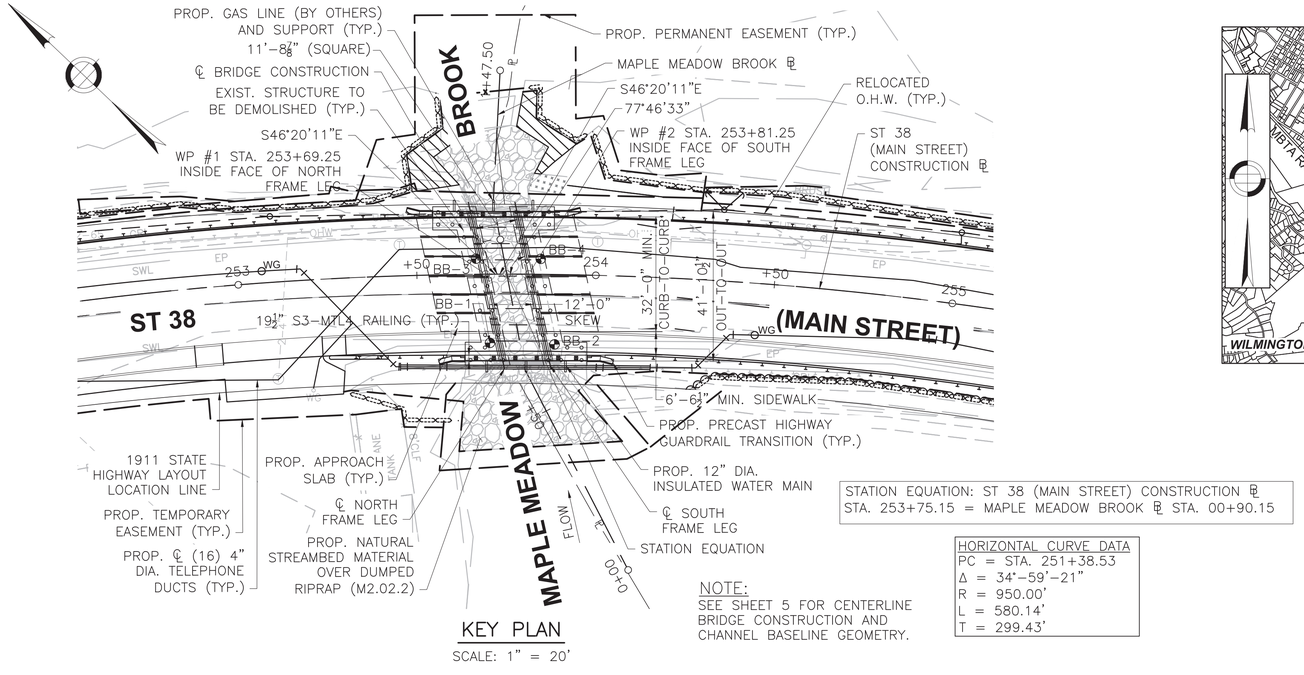
NOTE:
HATCHED AREA INDICATES LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES

LIMITS OF GRAVEL BORROW FOR BACK FILLING STRUCTURES AND PIPES
SCALE: ½" = 1'-0"



NOTE:
HATCHED AREA INDICATES LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES.

LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES
NOT TO SCALE

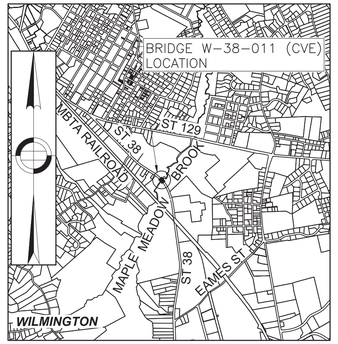


STATION EQUATION: ST 38 (MAIN STREET) CONSTRUCTION ℄ STA. 253+75.15 = MAPLE MEADOW BROOK ℄ STA. 00+90.15

HORIZONTAL CURVE DATA
PC = STA. 251+38.53
Δ = 34°-59'-21"
R = 950.00'
L = 580.14'
T = 299.43'

NOTE:
SEE SHEET 5 FOR CENTERLINE BRIDGE CONSTRUCTION AND CHANNEL BASELINE GEOMETRY.

KEY PLAN
SCALE: 1" = 20'



LOCUS
SCALE: 1" = 2000'

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	236	420
	PROJECT FILE NO. 608051		

KEY PLAN, PROFILE, AND LOCUS

INDEX OF DRAWINGS

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BORING LOGS 2 OF 2	4
GENERAL PLAN AND ELEVATION	5
STAGE 1A DEMOLITION AND CONSTRUCTION PLAN AND SECTION	6
STAGE 1B CONSTRUCTION PLAN AND SECTION	7
STAGE 1C CONSTRUCTION AND STAGE 2 DEMOLITION PLAN AND SECTION	8
STAGE 2 CONSTRUCTION PLAN AND SECTION	9
TEMPORARY PEDESTRIAN BRIDGE PLAN AND ELEVATION	10
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MICROPILE LAYOUT PLAN	12
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TRANSVERSE SECTION AND DETAILS	20
APPROACH SLAB DETAILS	21
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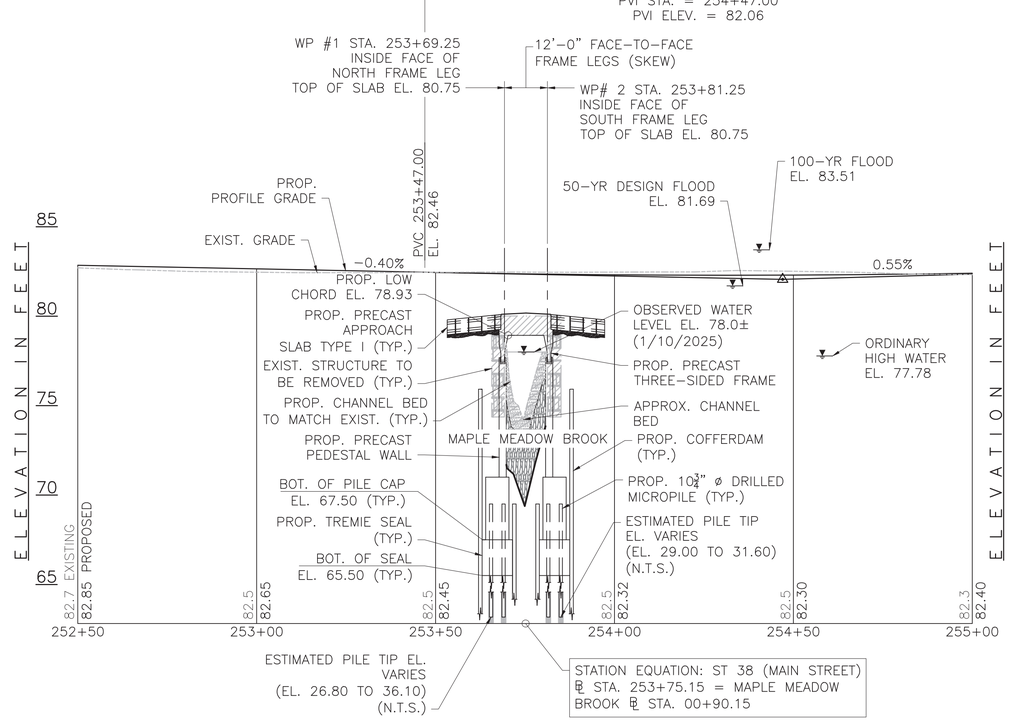
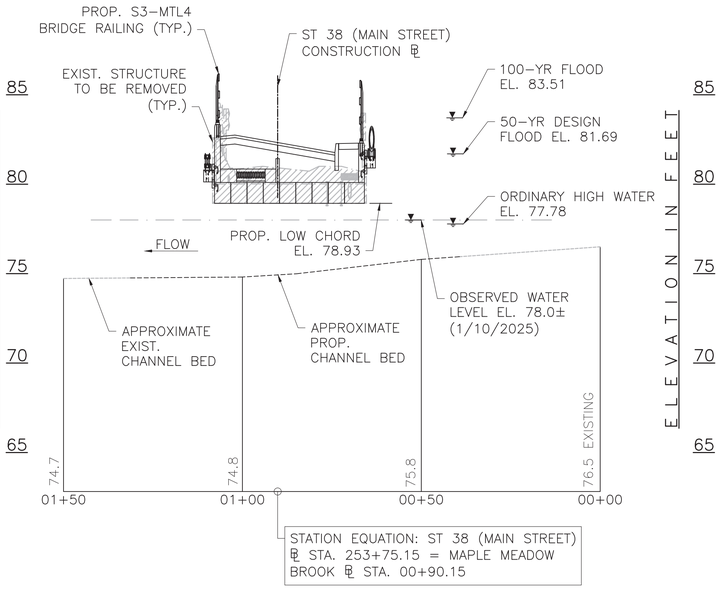
PRECAST TOLERANCES	23
HIGHWAY GUARDRAIL TRANSITION DETAILS 1 OF 2	24
HIGHWAY GUARDRAIL TRANSITION DETAILS 2 OF 2	25
S3-MTL4 BRIDGE RAILING	26



STATION EQUATION: ST 38 (MAIN STREET) ℄ STA. 253+75.15 = MAPLE MEADOW BROOK ℄ STA. 00+90.15

PROFILE – ST 38 (MAIN STREET)
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'



STATION EQUATION: ST 38 (MAIN STREET) ℄ STA. 253+75.15 = MAPLE MEADOW BROOK ℄ STA. 00+90.15

PROFILE – MAPLE MEADOW BROOK
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'

COMMONWEALTH OF MASSACHUSETTS
TIFFANY CARD
CIVIL
No. 53717
REGISTERED PROFESSIONAL ENGINEER

Tiffany Card Digitally signed by Tiffany Card Date: 2025.12.04 13:34:57 -05'00'

09/13/2025	ISSUED FOR CONSTRUCTION

MassDOT Massachusetts Department of Transportation Highway Division

PROPOSED BRIDGE
WILMINGTON
ST 38 (MAIN STREET)
OVER MAPLE MEADOW BROOK

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

GREEN A Lochner Company
Green International Affiliates, Inc.
100 Ames Pond Drive, Suite 200, Tewksbury, MA 01876
T: (978) 923-0400 | www.greenintl.com

Alexander K. Bardow, P.E. — Digitally signed by Alexander K. Bardow, P.E. Date: 2025.12.04 13:55:20 -05'00'
STATE BRIDGE ENGINEER

Carrie Lavallee, P.E. — Digitally signed by Carrie Lavallee, P.E. Date: 2025.12.04 14:32:03 -05'00'
CHIEF ENGINEER

SHEET 1 OF 26 SHEETS BRIDGE NO. W-38-011 (CVE)

608051_BR01.DWG Plotted on 3-Dec-2025 10:45 AM
Final Structural Submittal (SF) 10-November-2025
Z:\Shared\Engineering\Projects\2013\33533\133331DX - Wilmington Route 38\608051\DWG\BR\DGE\100%\608051_BR01.dwg

GENERAL NOTES

DESIGN:
IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS, 10TH EDITION, 2024, FOR HL-93 LOADING.

MASSDOT BENCH MARK:
BENCHMARK: 253+57.81 – 13.77'LT
NORTHING: 3021141.893
EASTING: 747603.142
ELEVATION: 85.16'

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

DATE:
TO BE PLACED ON THE INSIDE FACE OF THE NORTHEAST AND SOUTHWEST HIGHWAY GUARDRAIL TRANSITIONS. A SHEET SHOWING SIZE AND CHARACTER OF NUMERALS WILL BE FURNISHED. THE DATE USED SHALL BE THE LATEST YEAR OF CONTRACT COMPLETION AS OF THE DATE THE FIRST HIGHWAY GUARDRAIL TRANSITION IS CONSTRUCTED. BOTH HIGHWAY GUARDRAIL TRANSITIONS SHALL FEATURE THE SAME DATE.

MASSDOT SURVEY:
THE EXISTING CONDITIONS SHOWN ON THE BASEMAP ARE THE RESULT OF THE ORIGINAL SURVEY PERFORMED IN OCTOBER, 2016 BY GREEN INTERNATIONAL AFFILIATES, INC. (GREEN), AND SUPPLEMENTED BY ADDITIONAL ON THE GROUND INSTRUMENT SURVEY PERFORMED BETWEEN OCTOBER, 2016 AND NOVEMBER, 2020. AN ELECTRONIC COPY OF THE SURVEY BASEMAP CAN BE OBTAINED FROM MASSDOT BY THE CONTRACTOR UPON REQUEST.

SCALES:
SCALES NOTED ON THE PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALES BY 2 FOR HALF-SIZE PRINTS (A3).

FOUNDATIONS:
FOUNDATIONS MAY BE ALTERED, IF NECESSARY, TO SUIT CONDITIONS ENCOUNTERED DURING CONSTRUCTION, WITH THE APPROVAL OF THE ENGINEER.

UNSUITABLE MATERIAL:
ALL UNSUITABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE FOUNDATIONS OF THE STRUCTURE, AS DIRECTED BY THE ENGINEER.

GEOTECHNICAL REPORT:
REFER TO GEOTECHNICAL REPORT FOR BRIDGE W-38-011, DATED NOVEMBER 3, 2025, PREPARED BY LAMSON ENGINEERING CORPORTATION.

EXISTING CONDITIONS:
DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM FIELD SURVEY, AND ARE NOT GUARANTEED.

CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENTS AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF, AND SHALL NOT ORDER ANY MATERIAL OR COMMENCE ANY FABRICATION UNTIL HE/SHE HAS MADE THE REQUIRED MEASUREMENTS AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

CONCRETE:
UNLESS OTHERWISE SPECIFIED, ALL CONCRETE SHALL BE 5000 HP CONCRETE.

ALL CIP AND PRECAST CONCRETE POURS SHOWN ON THESE CONSTRUCTION DRAWINGS WHERE ALL VOLUMETRIC DIMENSIONS ARE 4 FEET OR GREATER SHALL BE CONSIDERED TO BE MASS CONCRETE PLACEMENTS AND SHALL REQUIRE A HEAT OF HYDRATION ANALYSIS AND THERMAL CONTROL PLAN, AS SPECIFIED IN THE MASSDOT STANDARD SPECIFICATIONS.

REINFORCEMENT:
REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. ALL BARS SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	17"	21"
2. 12" OF CONCRETE BELOW BAR	18"	22"	27"
3. EPOXY COATED BARS, COVER < $3D_b$, OR CLEAR SPACING < $6D_b$	21"	26"	31"
4. COATED BARS, ALL OTHER CASES	17"	21"	25"
5. CONDITION 2. AND 3.	23"	29"	35"
6. CONDITION 2. AND 4.	21"	27"	32"

ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

ESTIMATED QUANTITIES (NOT GUARANTEED)

ITEM NO.	ITEM	QTY.	UNIT
114.1	DEMOLITION OF SUPERSTRUCTURE OF BRIDGE NO. W-38-011 (CVE)	1	LS
140	BRIDGE EXCAVATION	700	CY
144	CLASS B ROCK EXCAVATION	310	CY
151.2	GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	280	CY
160.3	CONTROLLED LOW-STRENGTH MATERIAL (> 300 PSI)	30	CY
748.1	EMERGENCY RESPONSE	4	EA
853.33	TEMPORARY BARRIER – LIMITED DEFLECTION (TL-3)	100	FT
853.331	TEMPORARY BARRIER – LIMITED DEFLECTION (TL-3) REMOVED AND RESET	100	FT
945.1	DRILLED MICROPILE	1600	FT
948.6	MICROPILE VERIFICATION LOAD TEST	1	EA
948.61	MICROPILE PROOF LOAD TEST	2	EA
953.1	TEMPORARY SUPPORT OF EXCAVATION BRIDGE NO. W-38-011	1	LS
953.12	TEMPORARY STABILIZATION OF EXISTING MASONRY ABUTMENTS	1	LS
990.1	COFFERDAM STRUCTURE NO. 1	1	LS
990.2	COFFERDAM STRUCTURE NO. 2	1	LS
991.1	CONTROL OF WATER – STRUCTURE NO. W-38-011 (CVE)	1	LS
993.2	TEMPORARY PEDESTRIAN BRIDGE	1	LS
994.01	TEMPORARY PROTECTIVE SHIELDING BRIDGE NO. W-38-011 (CVE)	1	LS
995.01	BRIDGE STRUCTURE, BRIDGE NO. W-38-011 (CVE)	1	LS

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	237	420
	PROJECT FILE NO. 608051		

GENERAL NOTES AND ESTIMATED QUANTITIES

TRAFFIC DATA

	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR	2036	
AVERAGE DAILY TRAFFIC – PRESENT	12,490	
AVERAGE DAILY TRAFFIC – DESIGN YEAR	15,240	
DESIGN HOURLY VOLUME	9.1%	
DIRECTIONAL DISTRIBUTION	78.0%	
TRUCK PERCENTAGE – AVERAGE DAY	10.1%	
TRUCK PERCENTAGE – PEAK HOUR	9.2%	
DESIGN SPEED	45MPH	
DIRECTIONAL DESIGN HOURLY VOLUME	1090	

SEISMIC DESIGN CRITERIA

DESIGN RETURN PERIOD:	1,000
DESIGN SPECTRA	
As	0.200g
SDs	0.400g
SD1	0.140g
SITE CLASS	E
SEISMIC DESIGN CATEGORY (SDC)	A

HYDRAULIC DESIGN FLOOD (HDF) DATA

DRAINAGE AREA (SQ. MILES)	4.1
HDF DISCHARGE (C.F.S.)	784
HDF FREQUENCY (YEARS)	50
HDF VELOCITY (F.P.S.)	9.88
HDF ELEVATION (FEET, NAVD, UPSTREAM)	81.69
BASE (100-YEAR) FLOOD DATA	
BASE FLOOD DISCHARGE (C.F.S.)	956
BASE FLOOD ELEVATION (FEET, NAVD, UPSTREAM)	83.51
SCOUR DESIGN FLOOD (SDF) EVENT DATA	
SDF EVENT FREQUENCY (YEARS)	100
SDF ELEVATION (FEET, NAVD, UNDER BRIDGE)	78.93
SDF TOTAL SCOUR DEPTH AT ABUTMENT (FEET)	8.88
SDF TOTAL SCOUR DEPTH AT PIERS (FEET)	N/A
SCOUR CHECK FLOOD (SCF) EVENT DATA	
SCF EVENT FREQUENCY (YEARS)	200
SCF ELEVATION (FEET, NAVD, UNDER BRIDGE)	78.93
SCF TOTAL SCOUR DEPTH AT ABUTMENT (FEET)	8.88
SCF TOTAL SCOUR DEPTH AT PIERS (FEET)	N/A
FLOOD OF RECORD	
DISCHARGE (C.F.S.)	UNK
FREQUENCY (IF KNOWN, YEARS)	UNK
MAXIMUM ELEVATION (FEET, NAVD)	UNK
DATE (MM/YYYY)	UNK
HISTORY OF ICE FLOES	UNK
EVIDENCE OF SCOUR AND EROSION	UNK

TEMPORARY WATER CONTROL DESIGN DATA

DESIGN FLOOD DISCHARGE (C.F.S.)	171
DESIGN FLOOD FREQUENCY (YEARS)	5
DESIGN FLOOD VELOCITY (F.P.S.)	5.62
DESIGN FLOOD ELEVATION (FEET, NAVD)	81.79

DATE	DESCRIPTION
09/13/2025	ISSUED FOR CONSTRUCTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

608051_BR02.DWG Plotted on 4-Dec-2025 2:26 PM
Final Structural Submittal (SF) 10-November-2025
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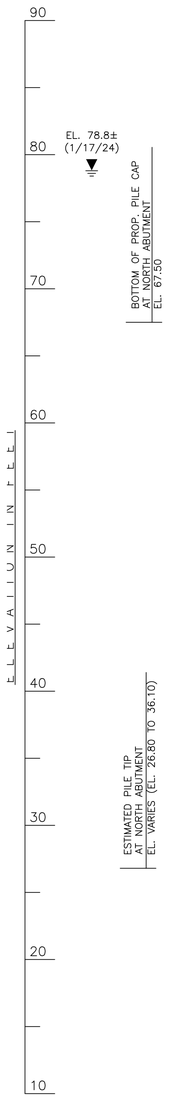


LAMSON ENGINEERING CORPORATION
437 Cherry Street, Suite #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Klam@lamsonengineering.com

massDOT Highway — **Boring Log**

Boring No. BB-1 (Bridge Boring) — Page 1/1 — Scale: 1" = 5'

City/Town: Wilmington, MA	Bridge No.: W-38-011	Project File No.: 608051	Contract No.: -
Location: ST Route 38 (Main Street) over Maple Meadow Brook		Date & Time Started: 1/12/24 11:00 AM	Total Hours:
Groundwater Depth (Feet): 2.3' Date & Time: 1/17/24 10:25 AM		Date & Time Completed: 1/17/24 2:00 PM	**9.5
Coordinates: *N 3,021,112.8 *E 747,590.9	Ground Elevation (Feet): *81.1'	Inspector's Name: James Gu	
Drilling Company: New England Boring Contractors	Driller's Name: Ken Smith	Helper's Name: Rick Larhette	

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes
S-1	1' - 3'	17 4 3 2	2"	Dry, loose, brown, FINE TO COARSE SAND, some fine gravel, trace inorganic silt (with ASPHALT pieces on top).	
S-2	4' - 6'	9 4 4 3	0"	Wet, no recovery.	
S-3	9' - 11'	1 3 5 4	2"	Wet, loose, brown, FINE TO COARSE SAND, trace inorganic silt.	
S-4	14' - 16'	3 6 5 3	10"	Wet, loose, brown, FINE TO COARSE SAND, trace inorganic silt.	18'
S-5	19' - 21'	2 1 1 1	9"	Wet, very loose, gray, FINE SAND AND INORGANIC SILT.	
S-6	24' - 26'	2 3 4 4	11"	Wet, loose, gray, FINE SAND AND INORGANIC SILT.	
S-7	29' - 31'	2 3 3 4	10"	Wet, loose, gray, FINE SAND AND INORGANIC SILT.	
S-8	34' - 36'	1 1 1 3	10"	Wet, very loose, gray, FINE SAND AND INORGANIC SILT.	37'
C-1	37' - 42'	3 4 11 9 2.5	20"	Hard, slightly fractured, gray, DIORITE Recovery = 20"/ 60" = 33% RQD = 12"/ 60" = 20%	
C-2	42' - 43'2"	3 6/ 2"	6"	Hard, high fractured, gray, DIORITE Recovery = 6"/ 14" = 33% RQD = 0"/ 14" = 0% Core barrel jammed. RQD value is not representative. Boring terminated at 43'2". Bottom of Exploration @ 43'2"	43'2"

Notes: * Moved BB-1 4' toward drive way due to underground gas pipe.
**1/12/24 11:00 AM to 3:00 PM, 1/17/24 8:30AM to 2:00 PM
Wilmington PD: 1/12/24 Louis Martignetti #153, Paul Jepson #142
1/17/24 Brian Moon #161, Chris Dindo #170

Arrow-Board: -
Signs: 2
Cones: 11

Protective Device Stand: - Box: -
Well Depth: - Solid Pipe: -
Stick Up Pipe: - Screen Pipe: -

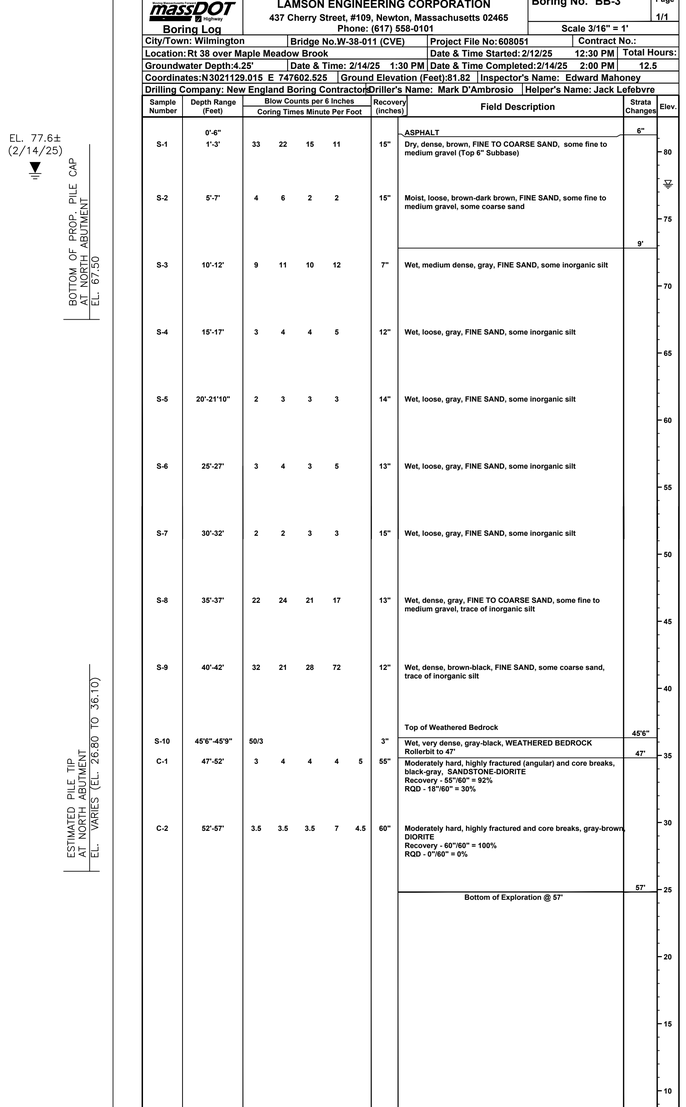
Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

Type of Drill Rig: GT8 GtechDrill
Hammer Weight: 140 lbs Fall: 30"
Casing Types: HW NW
Size: 4" 3"
Depth: 34' 37'
Sampler Type: S/S Size: 1 3/8" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

BB–1
SCALE: 3/16" = 1'–0"



LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101

massDOT Highway — **Boring Log**

Boring No. BB-3 — Page 1/1 — Scale 3/16" = 1'

City/Town: Wilmington	Bridge No.W-38-011 (CVE)	Project File No:608051	Contract No.:
Location:Rt 38 over Maple Meadow Brook		Date & Time Started: 2/12/25 12:30 PM	Total Hours:
Groundwater Depth:4.25'	Date & Time: 2/14/25 1:30 PM	Date & Time Completed:2/14/25 2:00 PM	12.5
Coordinates:N3021129.015 E 747602.525	Ground Elevation (Feet):81.82	Inspector's Name: Edward Mahoney	
Drilling Company: New England Boring Contractors	Driller's Name: Mark D'Ambrosio	Helper's Name: Jack Lefebvre	

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot	Recovery (inches)	Field Description	Strata Changes	Elev.
	0'-6"			ASPHALT	6"	
S-1	1'-3'	33 22 15 11	15"	Dry, dense, brown, FINE TO COARSE SAND, some fine to medium gravel (Top 6" Subbase)		80
S-2	5'-7'	4 6 2 2	15"	Moist, loose, brown-dark brown, FINE SAND, some fine to medium gravel, some coarse sand		75
S-3	10'-12'	9 11 10 12	7"	Wet, medium dense, gray, FINE SAND, some inorganic silt	9'	70
S-4	15'-17'	3 4 4 5	12"	Wet, loose, gray, FINE SAND, some inorganic silt		65
S-5	20'-21'10"	2 3 3 3	14"	Wet, loose, gray, FINE SAND, some inorganic silt		60
S-6	25'-27'	3 4 3 5	13"	Wet, loose, gray, FINE SAND, some inorganic silt		55
S-7	30'-32'	2 2 3 3	15"	Wet, loose, gray, FINE SAND, some inorganic silt		50
S-8	35'-37'	22 24 21 17	13"	Wet, dense, gray, FINE TO COARSE SAND, some fine to medium gravel, trace of inorganic silt		45
S-9	40'-42'	32 21 28 72	12"	Wet, dense, brown-black, FINE SAND, some coarse sand, trace of inorganic silt		40
				Top of Weathered Bedrock	45'6"	
S-10	45'6"-45'9"	50/3	3"	Wet, very dense, gray-black, WEATHERED BEDROCK Rollerbit to 47'	47'	35
C-1	47'-52'	3 4 4 4 5	55"	Moderately hard, highly fractured (angular) and core breaks, black-gray, SANDSTONE-DIORITE Recovery - 55"/60" = 92% RQD - 18"/60" = 30%		30
C-2	52'-57'	3.5 3.5 3.5 7 4.5	60"	Moderately hard, highly fractured and core breaks, gray-brown, DIORITE Recovery - 60"/60" = 100% RQD - 0"/60" = 0%		25
				Bottom of Exploration @ 57'	57'	20
						15
						10
						5

Notes: 2-Wilmington police details on 2/13/25 & 2/14/25

Arrow Board:-
Signs:-
Cones:- 10

Protective Device Stand:- Box:-
Well Depth:- Solid Pipe:-
Stick Up Pipe:- Screen Pipe:-

Penetration Resistance (N) Guide:

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and=40-50%,some=10-40%,trace=10% or less

Type of Drill Rig: GT8 (Truck)
Hammer Weight: 140 lbs Fall: 30"
Casing Types: Drive Spin
Size: 4" 3"
Depth: 40' 47'
Sampler Type: SS Size: 1 3/8" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15"

BB–3
SCALE: 3/16" = 1'–0"

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	238	420
	PROJECT FILE NO. 608051		

BORING LOGS 1 OF 2

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS: BB–#
2. BORINGS ARE TAKEN FOR PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE A 1 3/8" I.D. SPLIT SPOON SAMPLER 6" USING A 140 POUND WEIGHT FALLING 30".
5. BORING SAMPLES ARE STORED AT A STORAGE FACILITY LOCATED ON ROUTE 114 (219 WINTHROP AVE.) IN LAWRENCE, MA. THE CONTRACTOR MAY EXAMINE THE SOIL AND ROCK SAMPLES BY CONTACTING THE MASSDOT GEOTECHNICAL SECTION AT 10 PARK PLAZA, BOSTON, MA.
6. BORINGS BB–1 AND BB–2 WERE MADE IN JANUARY 2024. BORINGS BB–3 AND BB–4 WERE MADE IN FEBRUARY 2025.
7. BORINGS WERE MADE BY NEW ENGLAND BORING CONTRACTORS, 40 FORDWAY STREET, DERRY, NH, 03038.
8. THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

Plotted on 4-Dec-2025 2:27 PM
608051_BR03.DWG
Final Structural Submittal (SF) 10-November-2025
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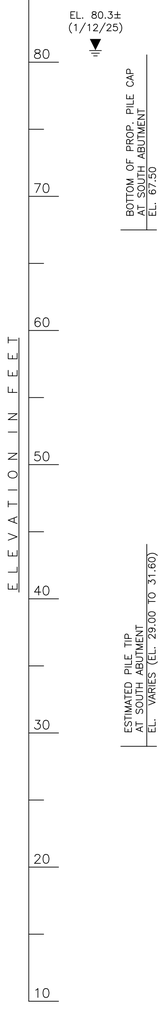

massDOT Highway — **Boring Log**

LAMSON ENGINEERING CORPORATION
437 Cherry Street, Suite #109, Newton, Massachusetts 02465
Phone: (617) 558-0101 E-Mail: Klam@lamsonengineering.com

Boring No. BB-2 (Bridge Boring) — Page 1/1
Scale: 3/16" = 1'

City/Town: Wilmington, MA	Bridge No.: W-38-011 (CVE)	Project File No.: 608051	Contract No.: -
Location: ST Route 38 (Main Street) over Maple Meadow Brook		Date & Time Started: 1/5/24 8:30 AM	Total Hours:
Groundwater Depth (Feet): 1.75' Date & Time: 1/12/24 9:15 AM		Date & Time Completed: 1/12/24 11:00 AM	**11.5
Coordinates: *N 3,021,101.4 *E 747,605.0	Ground Elevation (Feet): *82.0'	Inspector's Name: James Gu	
Drilling Company: New England Boring Contractors	Driller's Name: Ken Smith	Helper's Name: Rick Larhette	

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot				Recovery (inches)	Field Description	Strata Changes
							Vacuumed and hit ground water stop at 1'-9", no utility found.	
S-1	3' - 5'	6	4	1	1	2"	Wet, loose, brown, FINE TO COARSE SAND, some fine gravel, trace inorganic silt.	6.5'
							Roller bit through COBBLE/BOULDER from 6.5' to 9'.	9'
							Core through footing from 9' to 10', 7" recovery.	10'
S-2	10' - 12'	5	7	9	9	17"	Wet, medium dense, gray, FINE TO COARSE SAND, some inorganic silt, trace fine gravel.	11.5'
							Bottom 4", gray, FINE SAND AND INORGANIC SILT.	
S-3	14' - 16'	2	2	2	4	16"	Wet, loose, gray, FINE SAND AND INORGANIC SILT.	
S-4	19' - 21'	2	2	4	3	16"	Wet, loose, gray, FINE SAND AND INORGANIC SILT.	
S-5	24' - 26'	2	2	3	4	16"	Wet, loose, gray, FINE SAND AND INORGANIC SILT.	28'
S-6	29' - 31'	34	17	25	88	10"	Wet, dense, gray, FINE TO COARSE SAND, some fine to coarse gravel, trace inorganic silt.	
S-7	34' - 36'	40	48	34	27	13"	Wet, very dense, gray, FINE TO COARSE SAND, some fine to coarse gravel, trace inorganic silt.	
S-8	39' - 41'	29	19	42	71	9"	Wet, very dense, gray, FINE TO COARSE SAND, some fine to coarse gravel, trace inorganic silt.	44'
S-9	44' - 44'2"	120/ 2"				2"	Wet, Refusal, WEATHERED BEDROCK	45'
C-1	45' - 50'	2.5	2.5	2.5	2.5	3 58"	Hard, slightly fractured, white-gray, GRANITE Recovery = 58"/ 60" = 97% RQD = 30"/ 60" = 50%	
C-2	50' - 55'	2.5	2.5	2.5	2.5	3 60"	Hard, slightly fractured, white-gray, GRANITE Recovery = 60"/ 60" = 100% RQD = 50"/ 60" = 83%	55'
							Bottom of Exploration @ 55'	

Notes: * Moved BB-2 6'10" toward drive way due to underground gas pipe.
**Driller: Garrett Peacock, Helper: Matt Feden on 1/5/24 8:30 AM to 11:00 AM, Rig stop work. Driller: Ken Smith, Helper: Rick Larhette on 1/11/24 8:30 AM to 3:00 PM, 1/12/24 8:30AM to 11:00 AM.
Wilmington PD: 1/5/24 Daryl Ceruolo, John Fortes, 1/11/24 Brian Moon #161, Chris Dindo #170, 1/12/24 Louis Martignetti #153, Paul Jepson #142

Arrow-Board: - Signs: 2 Cones: 11
Protective Device Stand: - Box: - Well Depth: - Solid Pipe: - Stick Up Pipe: - Screen Pipe: -
Type of Drill Rig: GT8 GtechDrill
Hammer Weight: 140 lbs Fall: 30" Casing Types: HW NW Size: 4" 3" Depth: 44' 45'
Sampler Type: S/S Size: 1 3/8" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15" ID

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and = 40-50%, some = 10-40%, trace = 10% or less

BB–2
SCALE: 3/16" = 1'–0"

massDOT Highway — **Boring Log**

LAMSON ENGINEERING CORPORATION
437 Cherry Street, #109, Newton, Massachusetts 02465
Phone: (617) 558-0101

Boring No. BB-4 — Page 1/1
Scale 1" = 5 '

City/Town: Wilmington	Bridge No.W-38-011	Project File No:608051	Contract No.:
Location: Rt 38 over Maple Meadow Brook		Date & Time Started: 2/11/25 9:30 AM	Total Hours:
Groundwater Depth:8.25'	Date & Time: 2/12/25 12:00 PM	Date & Time Completed:2/12/25 12:30PM	8.5
Coordinates:N3021115.870 E 747615.106	Ground Elevation (Feet):82.64	Inspector's Name: Edward Mahoney	
Drilling Company: New England Boring Contractors	Driller's Name: Mark D'Ambrosio	Helper's Name: Tyler Vigeant	

Sample Number	Depth Range (Feet)	Blow Counts per 6 Inches — Coring Times Minute Per Foot				Recovery (inches)	Field Description	Strata Changes	Elev.
	0'-6"						ASPHALT	6"	
S-1	1'-3'	74	53	26	18	16"	Moist, very dense (frozen), brown, FINE TO COARSE SAND, some fine to coarse gravel (Top 6" Subbase)		
S-2	5'-7'	3	1	2	1	19"	Wet, very loose, brown-dark brown, FINE SAND, trace of fine gravel, (Pockets of Peat and Wood)	7'	
							Peat in wash		
S-3	10'-12'	4	10	11	7	17"	Wet, medium dense, gray, FINE SAND (Top 6" brown Peat)	10'6"	
S-4	15'-17'	4	6	5	5	13"	Wet, medium dense, gray, FINE SAND, some inorganic silt		
S-5	20'-22'	3	4	4	4	14"	Wet, loose, gray, FINE SAND, some inorganic silt		
S-6	25'-27'	3	3	3	2	14"	Wet, loose, gray, FINE SAND, some inorganic silt		
S-7	30'-32'	2	2	6	11	10"	Wet, loose, gray, FINE SAND, some inorganic silt		
S-8	35'-37'	22	29	15	14	7"	Wet, dense, gray, FINE TO COARSE SAND, trace of fine to medium gravel, trace of inorganic silt		
S-9	40'-40'6"	38	60/0			6"	Wet, very dense, gray, FINE TO COARSE SAND, some fine to coarse gravel, some inorganic silt Top of Bedrock Rollerbit to 43'	40'6"	
C-1	43'-48'	3.5	3.5	3.5	4	5 60"	Hard, slight angular fractures and core breaks, gray-white, DIORITE Recovery - 60"/60" = 100% RQD - 57"/60" = 95%		
C-2	48'-53'	3	2.5	3	3	5 60"	Hard, highly fractured and core breaks, gray-white, DIORITE Recovery - 58"/60" = 97% RQD - 25"/60" = 42%		
							Bottom of Exploration @ 53'	53'	

Notes: Changed location from N:3021115.870 E:747603.305 to N: E: due to culvert & overhead wires
2-Wilmington police details on 2/11/25 & 2/12/25 Helper - Garrett

Arrow Board:- Signs:- Cones:- 10
Protective Device Stand:- Box:- Well Depth:- Solid Pipe:- Stick Up Pipe:- Screen Pipe:-
Type of Drill Rig: GT8 (Truck)
Hammer Weight: 140 lbs Fall: 30" Casing Types: Drive Spin Size: 4" 3" Depth: 40' 43'
Sampler Type: SS Size: 1 3/8" ID
Automatic Hammer Weight: 140 lbs
Safety Hammer Weight:
Donut Hammer Weight: Fall: 30"
Core Barrel Type: NX Size: 2.15"

Cohesionless Soils (Sands, Gravels)		Cohesive Soils (Silts, Clays)	
Relative Density	Penetration Resistance	Consistency	Penetration Resistance
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Medium Dense	10 - 30	Medium Stiff	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Over 50	Very Stiff	15 - 30
N=Sum of Second and Third 6" Blow Counts		Hard	Over 30

Terms Used for Second Entry of Descriptions: and=40-50%,some=10-40%,trace=10% or less

BB–4
SCALE: 3/16" = 1'–0"

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	239	420
	PROJECT FILE NO. 608051		

BORING LOGS 2 OF 2

BORING NOTES:
1. SEE SHEET 3 FOR BORING NOTES.

DATE	DESCRIPTION
09/13/2025	ISSUED FOR CONSTRUCTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
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Plotted on 4-Dec-2025 2:27 PM
608051_BR04.DWG
Final Structural Submittal (SF) 10-November-2025
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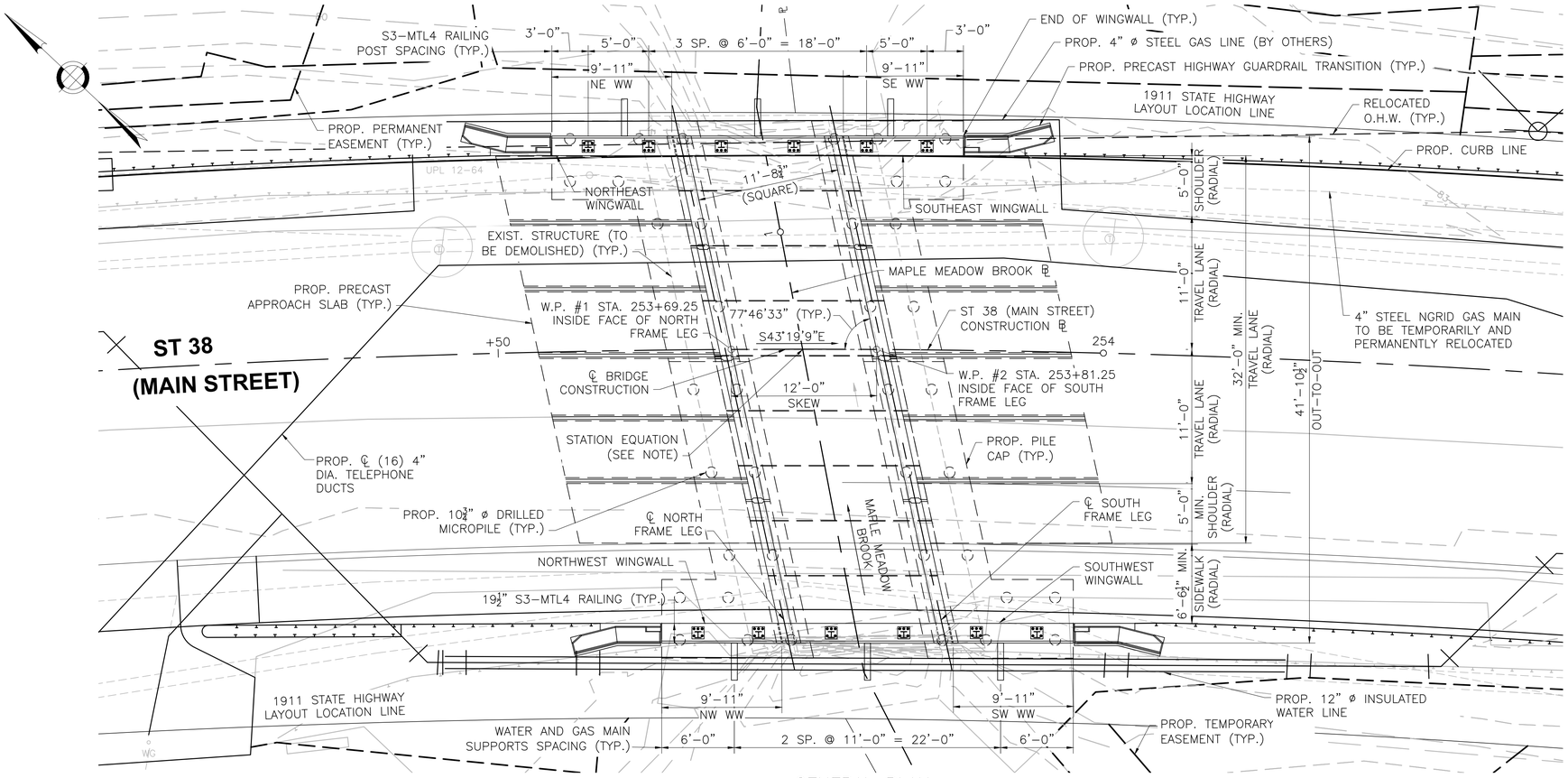
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	240	420
PROJECT FILE NO.	608051		

GENERAL PLAN AND ELEVATION

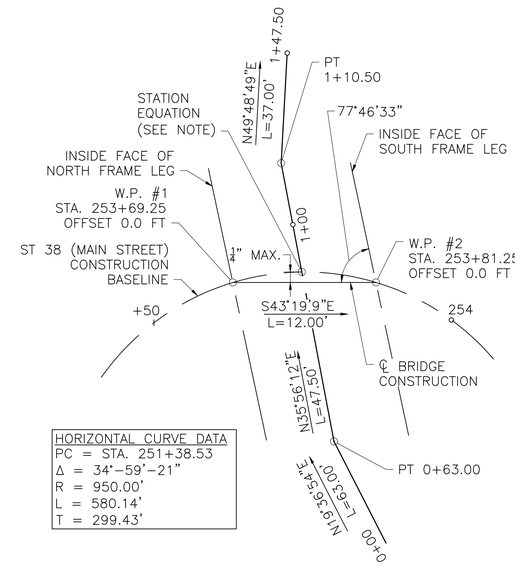


GENERAL PLAN

SCALE: $\frac{3}{16}$" = 1'-0"

NOTE:

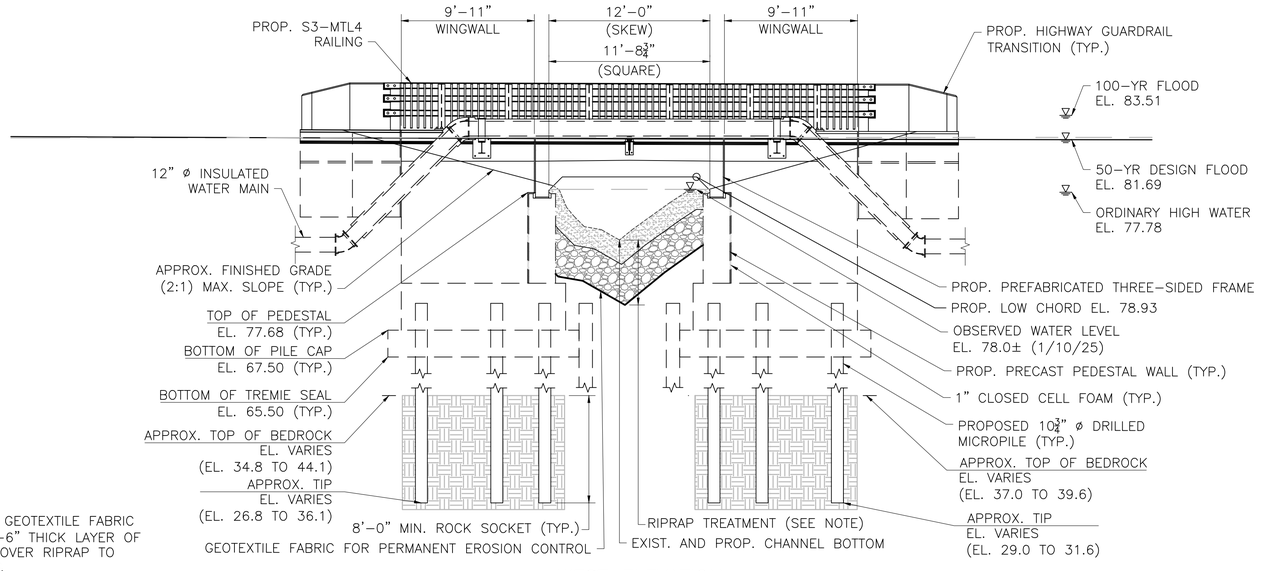
STATION EQUATION: ROUTE 38 (MAIN STREET) CONSTRUCTION ℄ STA. 253+75.15 = MAPLE MEADOW BROOK ℄ STA. 00+90.15



HORIZONTAL CURVE DATA
PC = STA. 251+38.53
Δ = 34°-59'-21"
R = 950.00'
L = 580.14'
T = 299.43'

℄ BRIDGE CONSTRUCTION TIE PLAN

NOT TO SCALE



WEST ELEVATION

SCALE: $\frac{3}{16}$" = 1'-0"

NOTE:

2'-6" DUMPED RIPRAP (M2.02.2) OVER GEOTEXTILE FABRIC FOR PERMANENT EROSION CONTROL, 1'-6" THICK LAYER OF NATURAL STREAMBED MATERIAL PLACED OVER RIPRAP TO MATCH EXISTING STREAMBED ELEVATIONS.

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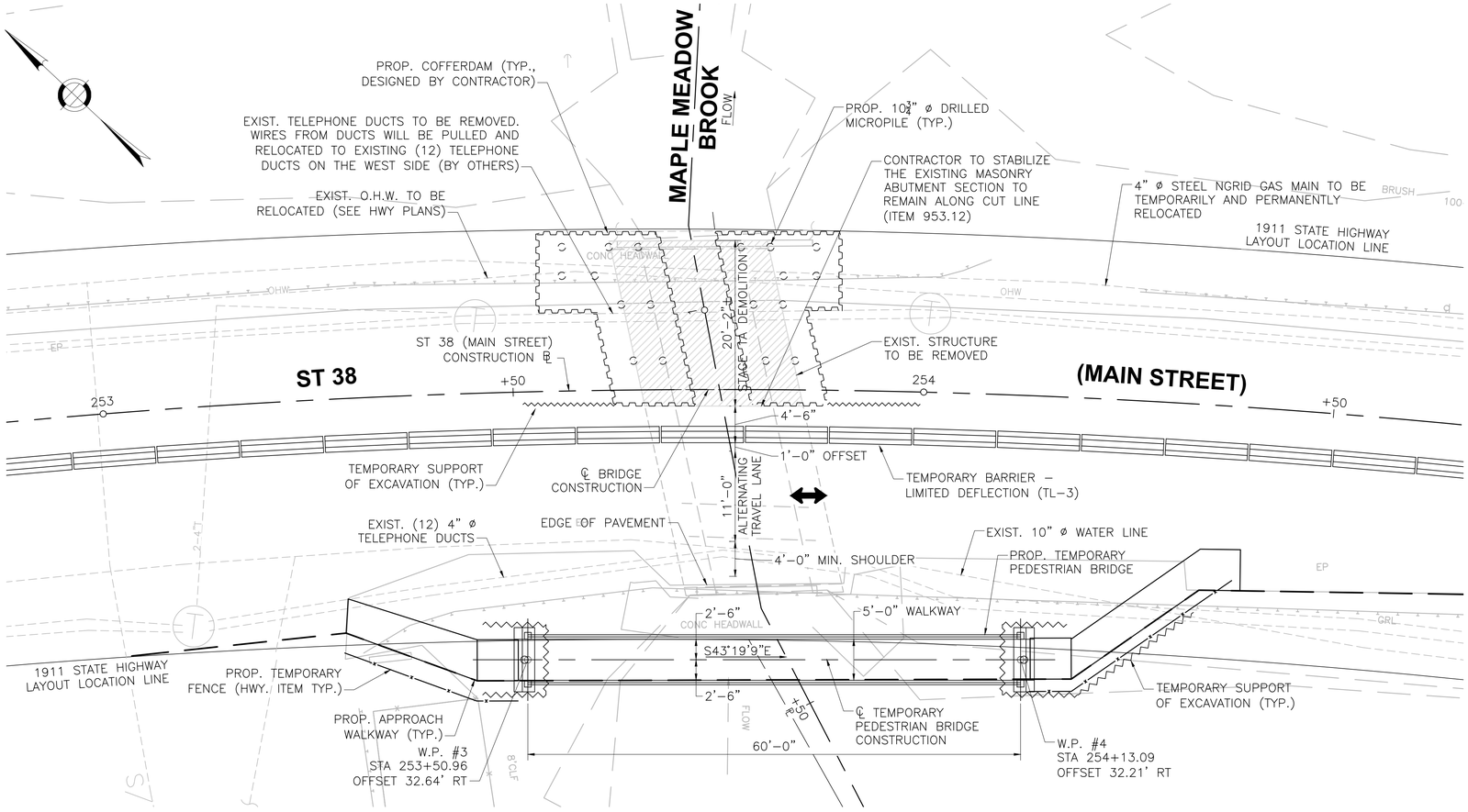
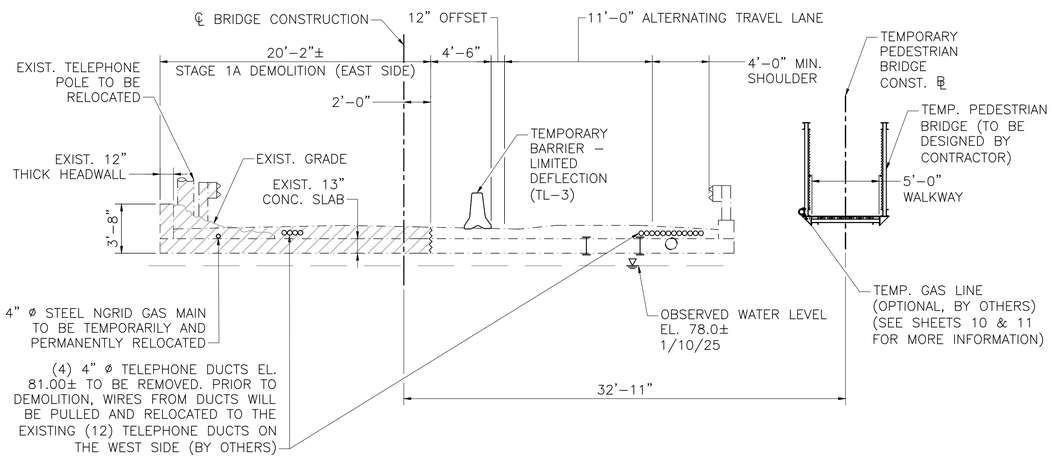


STAGE 1A DEMOLITION AND CONSTRUCTION PLAN

SCALE: ⅛" = 1'-0"



STAGE 1A DEMOLITION AND CONSTRUCTION SECTION

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

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	241	420
PROJECT FILE NO.	608051		

STAGE 1A DEMOLITION AND CONSTRUCTION PLAN AND SECTION

GENERAL STAGE CONSTRUCTION NOTES:

1. SEE HIGHWAY PLANS FOR ADDITIONAL TRAFFIC MANAGEMENT REQUIREMENTS.
2. ALL DIMENSIONS GIVEN ARE SQUARE, EXCEPT AS NOTED.
3. ALL TEMPORARY BARRIERS PLACED ON THE BRIDGE ARE TO BE LIMITED DEFLECTION (TL-3).
4. TEMPORARY BARRIER (TL-3) ON THE ROADWAY AND TEMPORARY BARRIER – LIMITED DEFLECTION (TL-3) ON THE BRIDGE TO MEET CRASH TEST LEVEL 3 STANDARDS.
5. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF TEMPORARY PEDESTRIAN BRIDGE SUPERSTRUCTURE, SEE SHEETS 10 AND 11 FOR DETAILS AND CONSTRUCTION SEQUENCE NOTES.
6. TEMPORARY GAS LINE SHOWN IS OPTIONAL AND DEPENDENT ON COORDINATION WITH UTILITY OWNER AND CONTRACTOR FOR MEANS AND METHODS AND TIME OF YEAR RESTRICTIONS ON SERVICE CONTINUITY. SEE SHEETS 10 AND 11 FOR MORE INFORMATION.
7. ALTERNATIVE JOINT SPACING FOR THE PRECAST FRAME AND PRECAST PEDESTAL WALL MAY BE PROPOSED BY THE CONTRACTOR AS PART OF THE SHOP DRAWING REVIEW PROCESS FOR REVIEW AND APPROVAL BY THE ENGINEER.

SUGGESTED SEQUENCE OF DEMOLITION AND CONSTRUCTION – STAGE 1A

1. INSTALL TEMPORARY SUPPORT OF EXCAVATION AND FOUNDATIONS FOR THE TEMPORARY PEDESTRIAN BRIDGE USING A PRE-STAGE 1A SINGLE LANE ALTERNATING CONDITION.
2. INSTALL THE TEMPORARY PEDESTRIAN BRIDGE SUPERSTRUCTURE. A SHORT DURATION FULL CLOSURE OF ROUTE 38 IS PERMISSIBLE FOR THIS ACTIVITY PENDING COORDINATION BETWEEN MASSDOT, WILMINGTON, ABUTTERS, AND THE CONTRACTOR.
3. INSTALL AND CONNECT THE TEMPORARY GAS LINE TO BE CARRIED ON THE TEMPORARY PEDESTRIAN BRIDGE. COMPLETE TEMPORARY PEDESTRIAN DETOUR APPROACH WORK.
4. PRIOR TO DEMOLITION OF STAGE 1A LIMITS, THE EXISTING TELEPHONE WIRES ON THE EAST SIDE SHALL BE PULLED OUT OF THEIR DUCTS AND RELOCATED TO THE EXISTING DUCTS ON THE WEST SIDE. THE OVERHEAD WIRES AND POLES ON THE WEST SIDE SHALL ALSO BE RELOCATED. THESE WORK ACTIVITIES CAN OCCUR DURING THE TRAFFIC MANAGEMENT CONDITIONS IN THE PREVIOUS WORK ACTIVITIES IF POSSIBLE.
5. INSTALL TEMPORARY BARRIER AND IMPLEMENT THE ONE LANE ALTERNATING CONDITION. INSTALL TEMPORARY SHIELDING.
6. REMOVE THE BRIDGE SUPERSTRUCTURE FOR STAGE 1A DEMOLITION LIMITS. INSTALL THE TEMPORARY SUPPORT OF EXCAVATION ALONG THE STAGE LINE IN THE APPROACHES.
7. INSTALL THE PROPOSED COFFERDAMS, INSTALL MICROPILES, TREMIE SEAL, AND DE-WATER THOSE LIMITS. INSTALL TEMPORARY STABILIZATION MEASURES FOR THE EXISTING ABUTMENTS (ITEM 953.12) ADJACENT TO THE PROPOSED CUT LINE.
8. REMOVE EXISTING SUBSTRUCTURE FOR STAGE 1A LIMITS.

LEGEND

- LIMITS OF DEMOLITION
- COFFERDAM
- TEMPORARY SUPPORT OF EXCAVATION

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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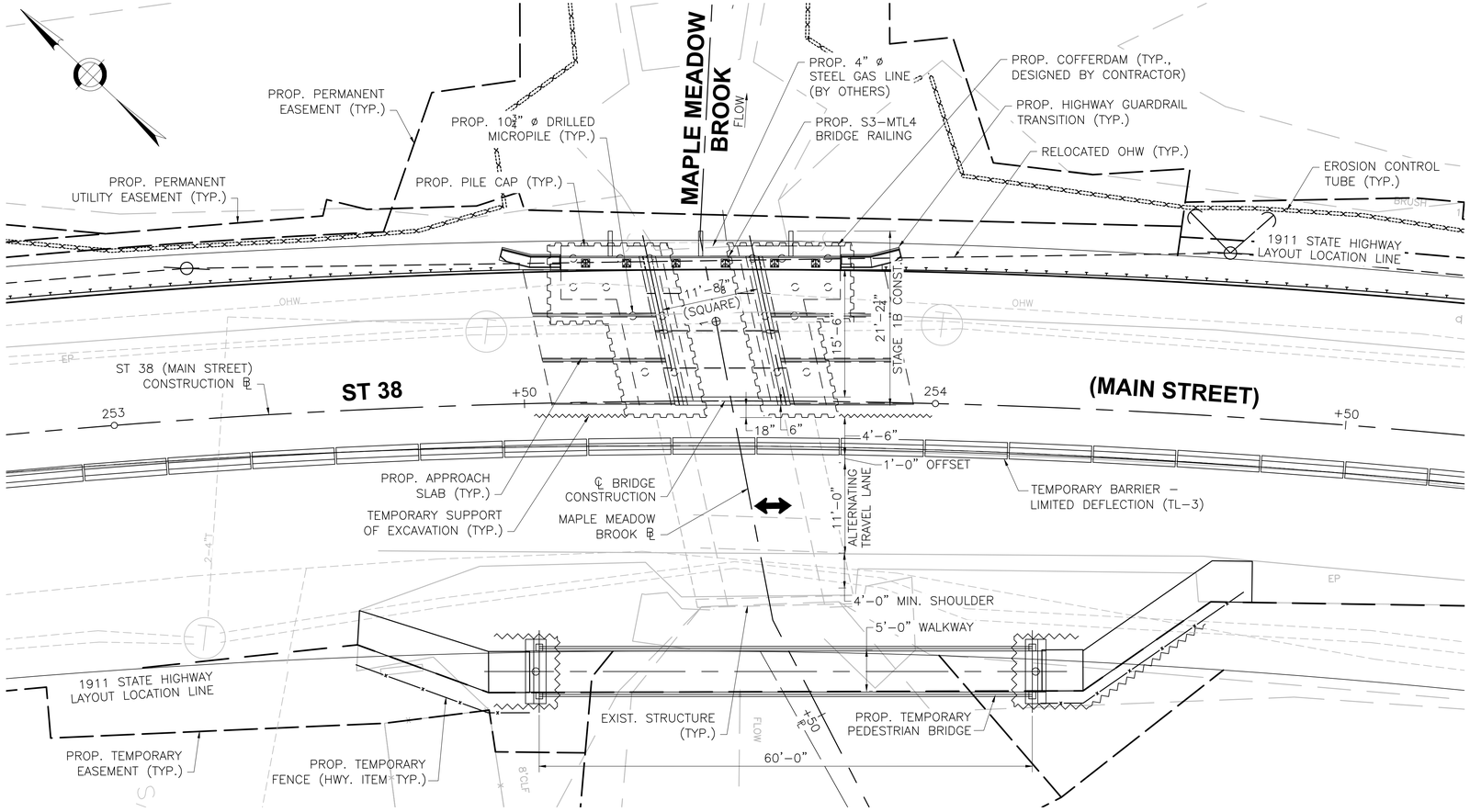
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

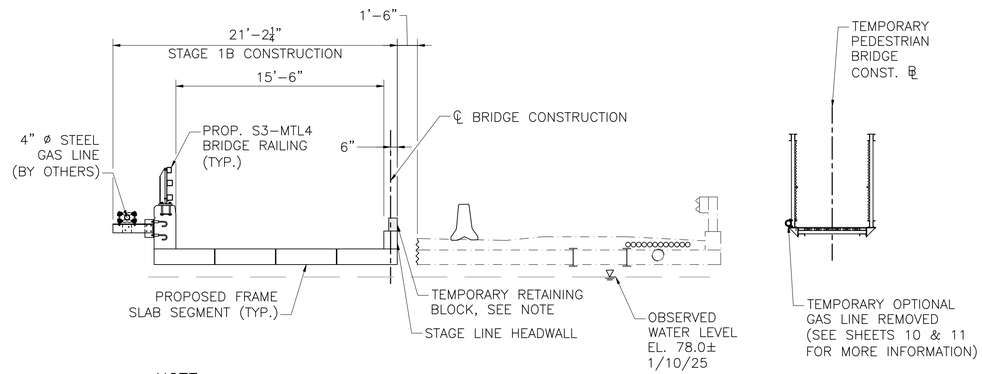
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	242	420
PROJECT FILE NO.	608051		

STAGE 1B CONSTRUCTION PLAN AND SECTION



STAGE 1B CONSTRUCTION PLAN

SCALE: ⅛" = 1'-0"



NOTE:

TEMPORARY RETAINING BLOCK WITH REBAR EXTENSION FOR RIGID CONNECTION ALONG STAGE LINE. OPTION SHOWN FOR 12" CMU BLOCK AND VOIDS FILLED WITH CONTROLLED DENSITY FILL - EXCAVATABLE AT REBAR LOCATIONS. CONTRACTOR'S APPROACH TO THE TEMPORARY RETAINER BLOCK TO BE INCLUDED IN THE TEMPORARY SUPPORT OF EXCAVATION SUBMITTAL FOR REVIEW AND APPROVAL BY THE ENGINEER.

STAGE 1B CONSTRUCTION OF EAST SIDE

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

GENERAL STAGE CONSTRUCTION NOTES:

1. REFER TO SHEET 6 FOR GENERAL CONSTRUCTION NOTES.
2. REFER TO SHEET 10 FOR MORE DETAILED CONSTRUCTION SEQUENCE NOTES ON THE TEMPORARY PEDESTRIAN BRIDGE.

SUGGESTED SEQUENCE OF CONSTRUCTION - STAGE 1B

1. CUT MICROPILES TO ELEVATION, INSTALL PROPOSED PILE CAPS, AND SET PRECAST PEDESTAL WALL SECTIONS.
2. IMPLEMENT DE-WATERING MEASURES, CUT DOWN COFFERDAM WALLS ON CHANNEL SIDE TO FINAL ELEVATION AND INSTALL PROPOSED CHANNEL RIPRAP. INSTALL PRECAST FRAME SEGMENTS AND NATURAL STREAMBED MATERIAL. THESE ACTIVITIES TO BE PERFORMED DURING LOW FLOOD PERIOD AND CONTRACTOR SHALL HAVE CONTINGENCY PLANS IN PLACE FOR A HIGH WATER EVENT DURING THIS ACCELERATED WORK IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
3. INSTALL APPROACH SLABS, PROPOSED BRIDGE RAILING, STAGE LINE HEADWALL, TEMPORARY RETAINING BLOCK, AND CANTILEVER GAS LINE SUPPORTS. GAS LINE TO BE INSTALLED BY UTILITY OWNERS IN COORDINATION WITH MASSDOT AND CONTRACTOR.
4. COORDINATE WITH GAS LINE OWNER TO REMOVE TEMPORARY GAS LINE FROM THE TEMPORARY PEDESTRIAN BRIDGE.

LEGEND

- LIMITS OF DEMOLITION
- COFFERDAM
- TEMPORARY SUPPORT OF EXCAVATION

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608051_BR07.DWG Plotted on 4-Dec-2025 2:29 PM
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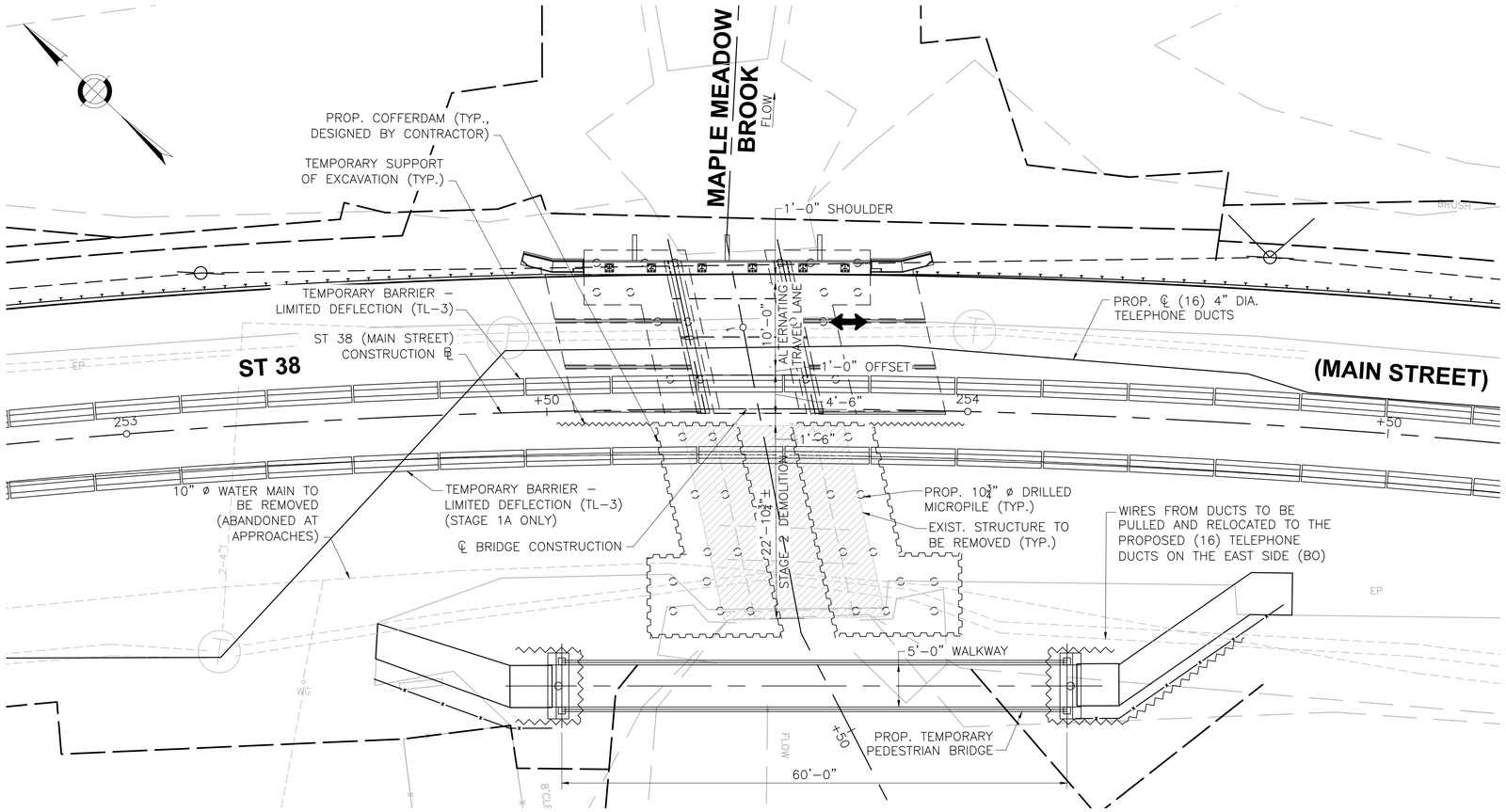
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	243	420
PROJECT FILE NO.	608051		

STAGE 1C CONSTRUCTION AND STAGE 2 DEMOLITION PLAN AND SECTION



STAGE 1C CONSTRUCTION AND STAGE 2 DEMOLITION PLAN AND SECTION

SCALE: ⅛" = 1'–0"

GENERAL STAGE CONSTRUCTION NOTES:

1. REFER TO SHEET 6 FOR GENERAL CONSTRUCTION NOTES.
2. REFER TO SHEET 10 FOR MORE DETAILED CONSTRUCTION SEQUENCE NOTES ON THE TEMPORARY PEDESTRIAN BRIDGE.

SUGGESTED SEQUENCE OF CONSTRUCTION – STAGE 1C

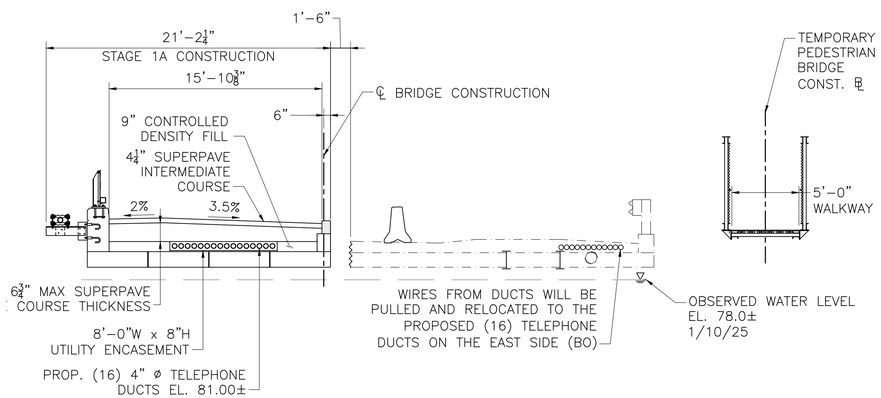
1. INSTALL (16) TELEPHONE DUCTS (BY OTHERS) AND UTILITY ENCASEMENT. VERIZON TO PULL WIRES FROM DUCTS AND RELOCATE TO PROPOSED (16) TELEPHONE DUCTS ON THE EASTERN SIDE. ANY DETOUR NEEDED FOR RELOCATION OF THE CONDUITS SHALL BE IN COORDINATION WITH MASSDOT, WILMINGTON, VERIZON AND THE CONTRACTOR.
2. INSTALL CONTROLLED DENSITY FILL, PAVEMENT BASE COURSE, AND 4¼" SUPERPAVE INTERMEDIATE COURSE FOR THE LIMITS SHOWN OF THE NEWLY CONSTRUCTED PORTION OF BRIDGE UNDER STAGE 1B.

SUGGESTED SEQUENCE OF CONSTRUCTION – STAGE 2

1. REMOVE TEMPORARY BARRIER – LIMITED DEFLECTION (TL–3) FROM THE EXISTING WESTERN PORTION OF THE BRIDGE AND RELOCATE TO EAST SIDE AS SHOWN
2. RELOCATE ST 38 (MAIN STREET) ONE–WAY ALTERNATING TRAFFIC TO EASTERN NEWLY CONSTRUCTED PORTION OF THE BRIDGE.
3. REMOVE 10" ø WATER MAIN.
4. REMOVE (12) 4" ø TELEPHONE DUCTS.
5. REMOVE THE BRIDGE SUPERSTRUCTURE FOR STAGE 2 DEMOLITION LIMITS. INSTALL THE TEMPORARY SUPPORT OF EXCAVATION ALONG THE STAGE LINE IN THE APPROACHES.
6. INSTALL PROPOSED COFFERDAM SHEETING AND REMOVE EXISTING SUBSTRUCTURE.
7. COMPLETE INSTALLATION OF COFFERDAM WITH TREMIE SEAL, DEWATERING, AND INSTALL MICROPILES.

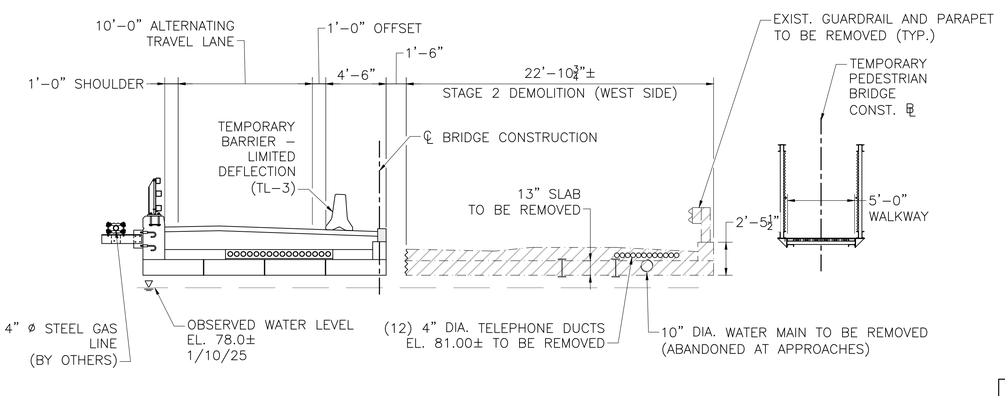
LEGEND

- LIMITS OF DEMOLITION
- COFFERDAM
- TEMPORARY SUPPORT OF EXCAVATION



STAGE 1C – VERIZON TELEPHONE LINES RELOCATION

SCALE: 3/16" = 1'–0"



STAGE 2 – DEMOLITION OF WEST SIDE

SCALE: 3/16" = 1'–0"

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WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

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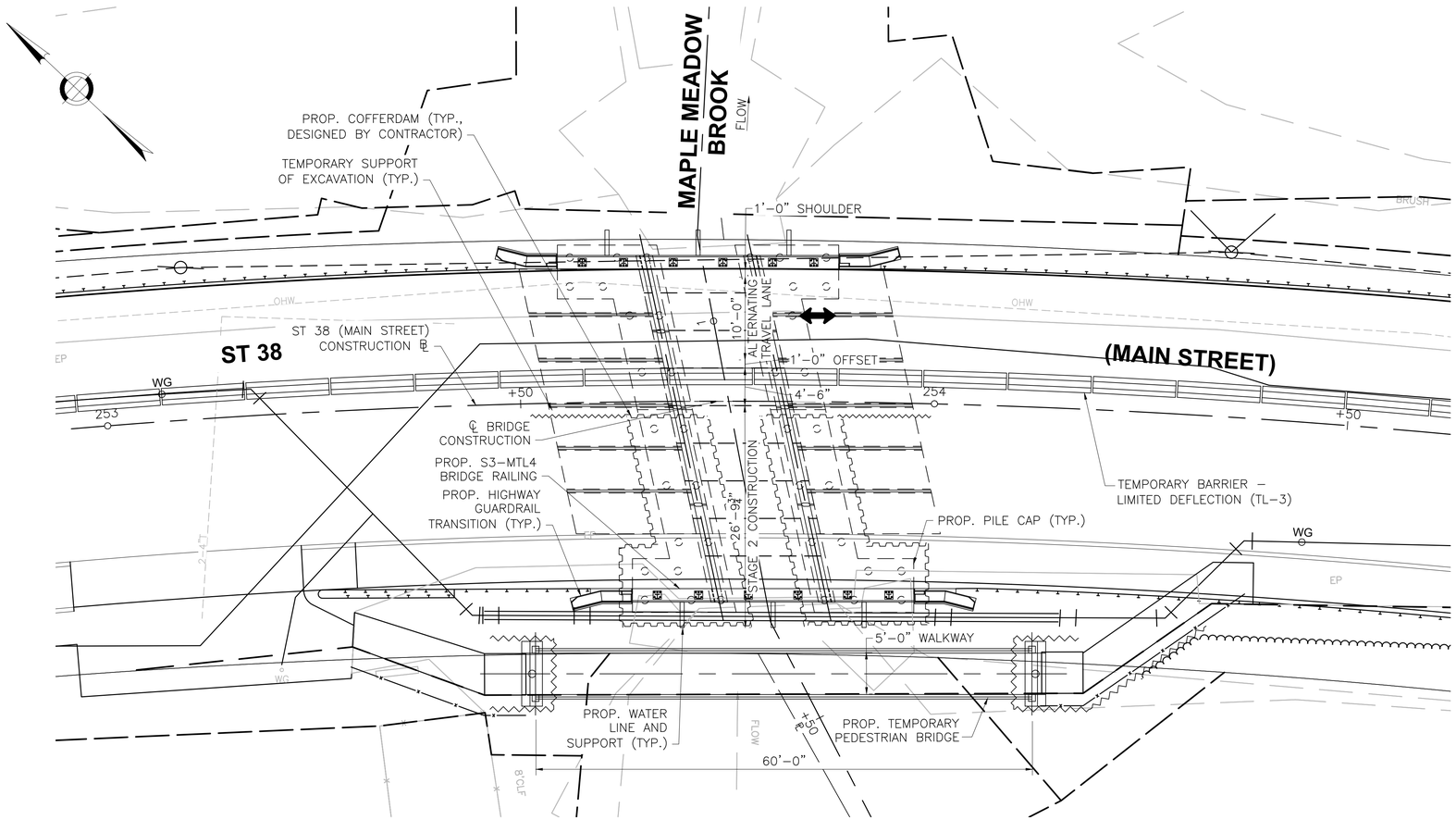
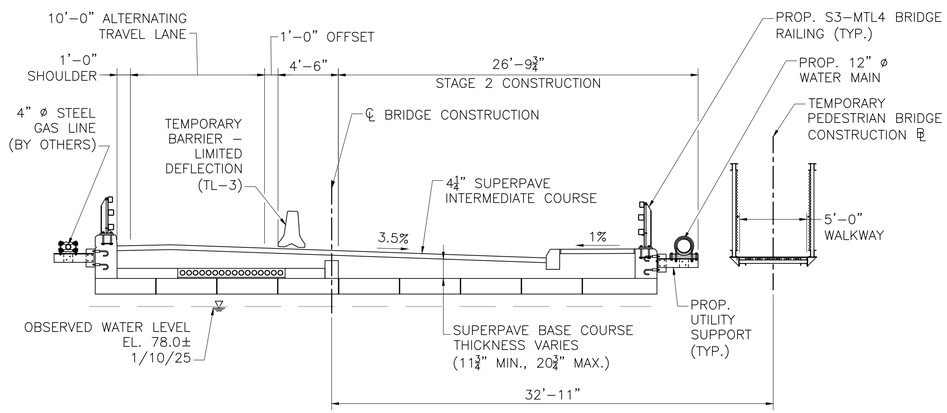
MA	STP/CMQ/HSI-0034(030)X	244	420
PROJECT FILE NO.	608051		

STAGE 2 CONSTRUCTION PLAN AND SECTION

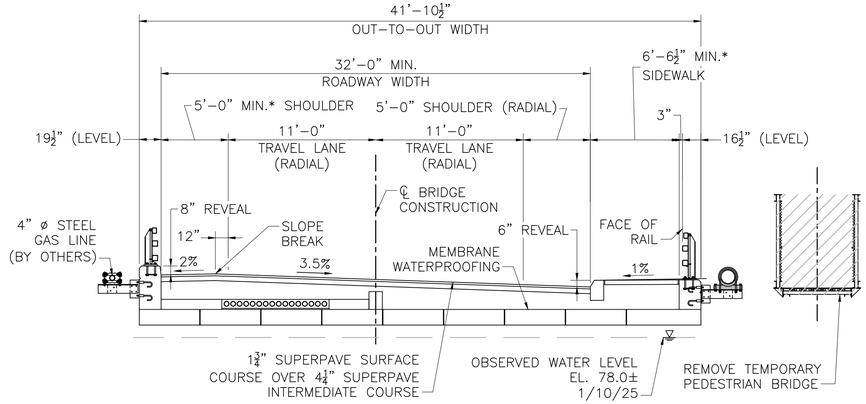


STAGE 2 CONSTRUCTION PLAN

SCALE: ⅛" = 1'-0"



CONSTRUCTION OF WEST SIDE



NOTE:

* INDICATES DIMENSIONS THAT VARY SLIGHTLY DUE TO HORIZONTAL CURVE GEOMETRY.

FINAL SECTION

STAGE 2 CONSTRUCTION SECTIONS

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

GENERAL STAGE CONSTRUCTION NOTES:

1. REFER TO SHEET 6 FOR GENERAL CONSTRUCTION NOTES.
2. REFER TO SHEET 10 FOR MORE DETAILED CONSTRUCTION SEQUENCE NOTES ON THE TEMPORARY PEDESTRIAN BRIDGE.

SUGGESTED SEQUENCE OF CONSTRUCTION – STAGE 2

1. CUT MICROPILES TO ELEVATION, INSTALL PROPOSED PILE CAPS, AND SET PRECAST PEDESTAL WALL SECTIONS.
2. IMPLEMENT DE-WATERING MEASURES, CUT DOWN COFFERDAM WALLS ON CHANNEL SIDE TO FINAL ELEVATION AND INSTALL PROPOSED CHANNEL RIPRAP. INSTALL PRECAST FRAME SEGMENTS AND NATURAL STREAMBED MATERIAL. THESE ACTIVITIES TO BE PERFORMED DURING LOW FLOOD PERIOD AND CONTRACTOR SHALL HAVE CONTINGENCY PLANS IN PLACE FOR A HIGH WATER EVENT DURING THIS ACCELERATED WORK IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
3. INSTALL APPROACH SLABS AND FILL MATERIAL OVER THE FRAME. INSTALL PROPOSED BRIDGE RAILING, SIDEWALK, AND CANTILEVER WATER LINE SUPPORTS. WATER LINE TO BE INSTALLED BY THE CONTRACTOR.
4. INSTALL 4¼" SUPERPAVE INTERMEDIATE COURSE FOR THE LIMITS OF THE STAGE 2 CONSTRUCTION.
5. REMOVE TEMPORARY BARRIER – LIMITED DEFLECTION (TL-3).
6. AFTER CONSTRUCTION OF THE WORK SHOWN UNDER THE STAGE 2 LIMITS, INSTALL THE FINAL 1¾" SUPERPAVE SURFACE COURSE FOR THE FULL WIDTH OF THE STRUCTURE.
7. REMOVE THE TEMPORARY PEDESTRIAN BRIDGE. A DETOUR OF ROUTE 38 IS PERMISSIBLE FOR THIS ACTIVITY PENDING COORDINATION BETWEEN MASSDOT, WILMINGTON, ABUTTERS AND THE CONTRACTOR. REMOVE THE TEMPORARY ABUTMENTS AND CUT DOWN THE MICROPILES AND TEMPORARY SUPPORT OF EXCAVATION DOWN TO THE BOTTOM OF ABUTMENT ELEVATION.

LEGEND

- LIMITS OF DEMOLITION
- COFFERDAM
- TEMPORARY SUPPORT OF EXCAVATION

DATE	DESCRIPTION
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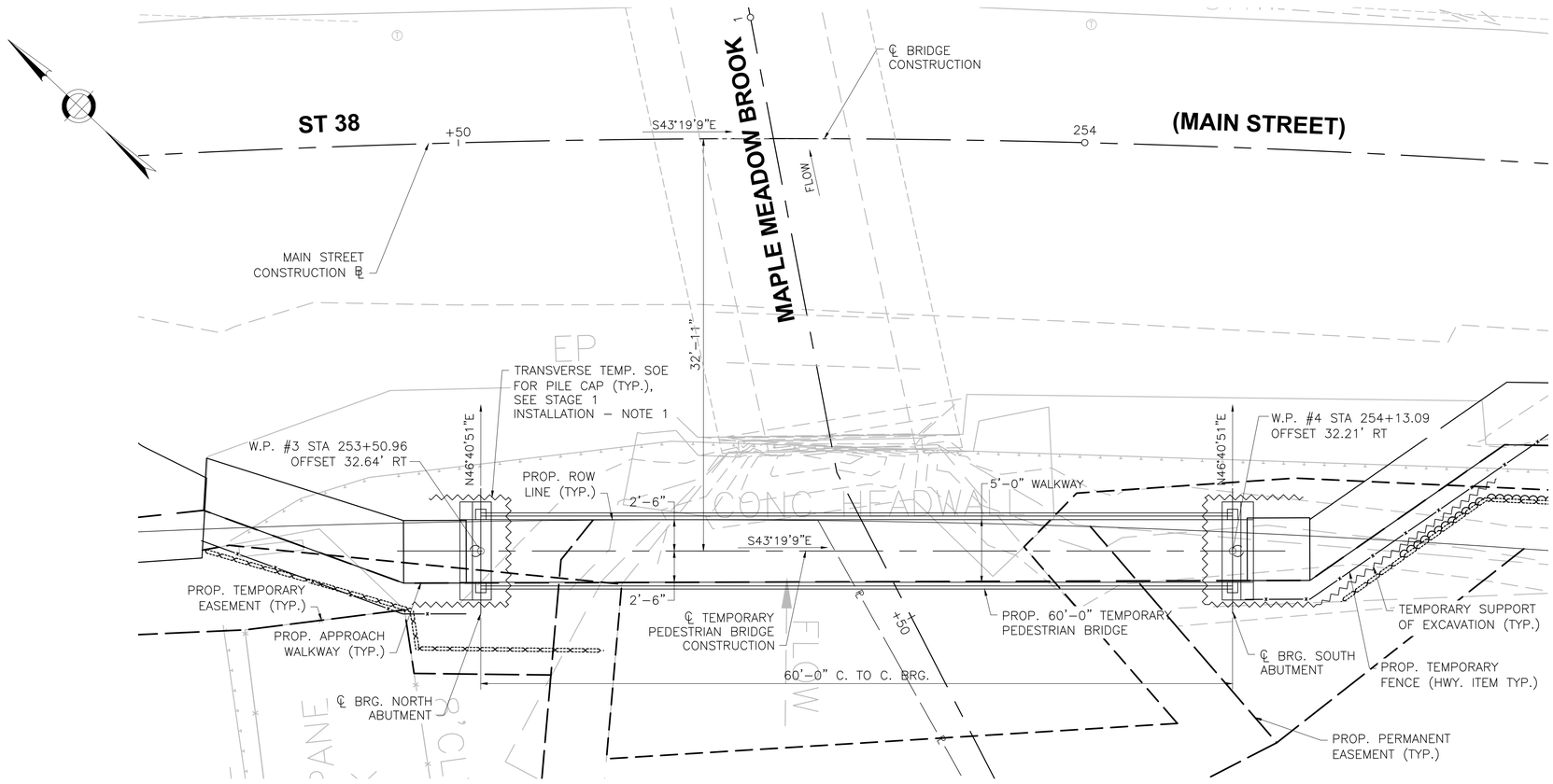
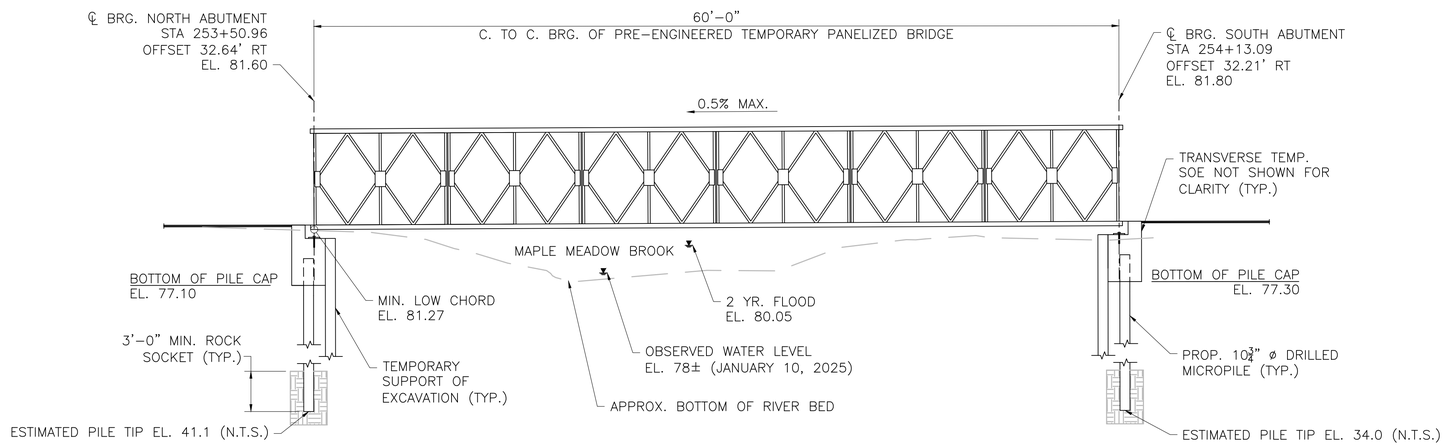


NOTE:

CHANNEL ARMORING NOT SHOWN FOR CLARITY.

TEMPORARY PEDESTRIAN BRIDGE PLAN

SCALE: $\frac{3}{16}$" = 1'-0"



TEMPORARY PEDESTRIAN BRIDGE ELEVATION

SCALE: $\frac{3}{16}$" = 1'-0"

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

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MA	STP/CMQ/HSI-0034(030)X	245	420
PROJECT FILE NO.	608051		

TEMPORARY PEDESTRIAN BRIDGE PLAN AND SECTION

NOTES:

1. PRE–ENGINEERED TEMPORARY PANELIZED BRIDGE SHOWN. ACTUAL BRIDGE TYPE TO BE DETERMINED AND DESIGNED BY CONTRACTOR TO MEET SPAN, WIDTH AND LOW CHORD REQUIREMENTS.
2. THE TEMPORARY PEDESTRIAN BRIDGE SHALL BE DESIGNED ACCORDING TO THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, THE LATEST EDITION OF THE AASHTO GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES AND THE FOLLOWING MINIMUM DESIGN LOAD:

   PEDESTRIAN LIVE LOAD: 90 PSF
   WIND LOAD: PER ABOVE AASHTO GUIDELINES

   THE PROPOSED TEMPORARY PEDESTRIAN BRIDGE IS NOT DESIGNED FOR VEHICULAR LIVE LOADING, INCLUDING SNOW REMOVAL VEHICLES. MORE DETAILED REQUIREMENTS IS PROVIDED IN SPECIAL PROVISION ITEM NO. 993.2 TEMPORARY PEDESTRIAN BRIDGE.
3. THE PROPOSED PRE–ENGINEERED STRUCTURE SHALL HAVE MAXIMUM FACTORED REACTION PER ABUTMENT OF 69 KIPS IN ACCORDANCE WITH AASHTO LRFD STRENGTH I LOADING.
4. AFTER THE CONSTRUCTION AND OPENING OF THE PROPOSED VEHICULAR BRIDGE, THE TEMPORARY PEDESTRIAN BRIDGE, INCLUDING ABUTMENTS AND OTHER RELATED ITEMS SHALL BE REMOVED, AND THE AREA RESTORED TO ITS EXISTING OR PROPOSED CONDITION.
5. SEE SPECIAL PROVISIONS FOR OTHER REQUIREMENTS FOR THE TEMPORARY PEDESTRIAN BRIDGE.
6. CONCRETE FOR THE SUBSTRUCTURE OF TEMPORARY PEDESTRIAN BRIDGE SHALL BE 5000 PSI, ¾ IN, 685 CEMENT CONCRETE.
7. CONTRACTOR TO COORDINATE WITH DIG–SAFE FOR ANY UNDERGROUND UTILITIES TO AVOID CONFLICT BEFORE PLACEMENT OF CRUSHED STONE FOR SLOPE TREATMENT AND TEMPORARY ABUTMENT.

TEMPORARY PEDESTRIAN BRIDGE SUGGESTED SEQUENCE OF CONSTRUCTION:

STAGE 1 INSTALLATION:

1. TEMPORARY SUPPORT OF EXCAVATION SHALL BE INSTALLED FOR THE LIMITS SHOWN. SHEETING ALONG TRANSVERSE SIDES OF PILE CAPS SHALL BE USED AS FORMWORK WITH THE CONCRETE POURED DIRECTLY AGAINST THE SHEETING FOR ADDITIONAL LATERAL RESTRAINT REQUIRED FOR PILE DESIGN. SHEETING SHALL HAVE A MINIMUM EMBEDMENT BELOW THE CAP OF 5–FT WITH NO OFFSET FROM THE CAP.
2. MICROPILES TO BE INSTALLED.
3. PROPOSED TEMPORARY ABUTMENT CAPS TO BE INSTALLED.
4. PRE–ENGINEERED TEMPORARY PANELIZED BRIDGE TO BE INSTALLED. IT IS ANTICIPATED TO BE SET IN A SINGLE SHIFT USING A CRANE AND A SHORT DURATION ROAD CLOSURE COORDINATED WITH MASSDOT, WILMINGTON, ABUTTERS AND THE CONTRACTOR.
5. COORDINATE WITH NATIONAL GRID TO INSTALL OPTIONAL TEMPORARY GAS LINE ON THE TEMPORARY PEDESTRIAN BRIDGE. SEE SHEET 11 FOR MORE INFORMATION.
6. FINISH DECK SURFACE ON THE PRE–ENGINEERED TEMPORARY PANELIZED BRIDGE AND CONSTRUCT TEMPORARY APPROACH WALKWAY SECTIONS.

STAGE 2 REMOVAL:

1. REMOVE THE TEMPORARY APPROACH WALKWAY.
2. DETACH THE PRE–ENGINEERED TEMPORARY PANELIZED BRIDGE FROM THE SUBSTRUCTURE AND REMOVE WITH CRANE DURING SHORT DURATION ROAD CLOSURE COORDINATED WITH MASSDOT, WILMINGTON, ABUTTERS AND THE CONTRACTOR.
3. REMOVE THE ABUTMENTS AND CUT OFF THE MICROPILES AND SUPPORT OF EXCAVATION TO THE BOTTOM OF THE REMOVED PILE CAP ELEVATION. TEMPORARY SUPPORT OF EXCAVATION OUTSIDE THE LIMITS OF THE TEMPORARY PEDESTRIAN BRIDGE ABUTMENT SHALL BE CUT DOWN TO 2'–0" BELOW FIND GRADE.

DATE	DESCRIPTION
09/13/2025	ISSUED FOR CONSTRUCTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

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608051_BR10.DWG Plotted on 4-Dec-2025 2:33 PM
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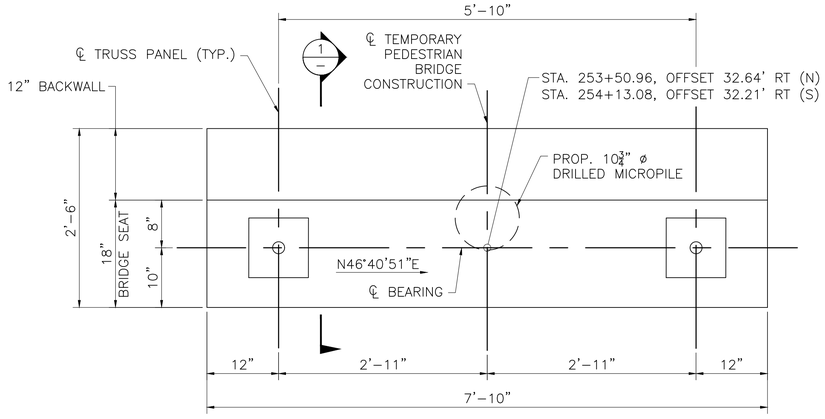
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	246	420
PROJECT FILE NO.	608051		

TEMPORARY PEDESTRIAN BRIDGE PILE CAP DETAILS

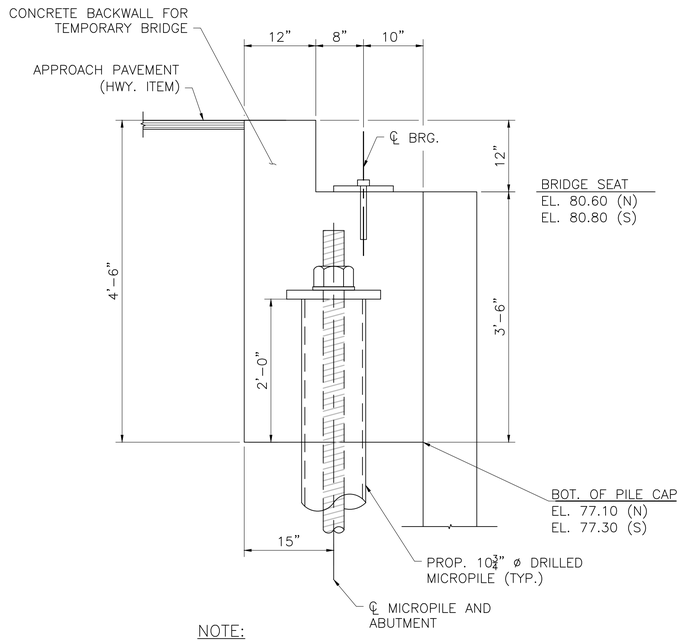


NOTE:

NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR.

TEMPORARY PEDESTRIAN BRIDGE ABUTMENT PLAN

SCALE: 1" = 1'–0"

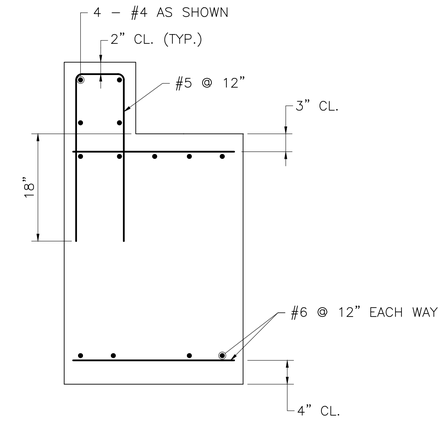


NOTE:

NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR.

TEMPORARY PEDESTRIAN BRIDGE ABUTMENT SECTION

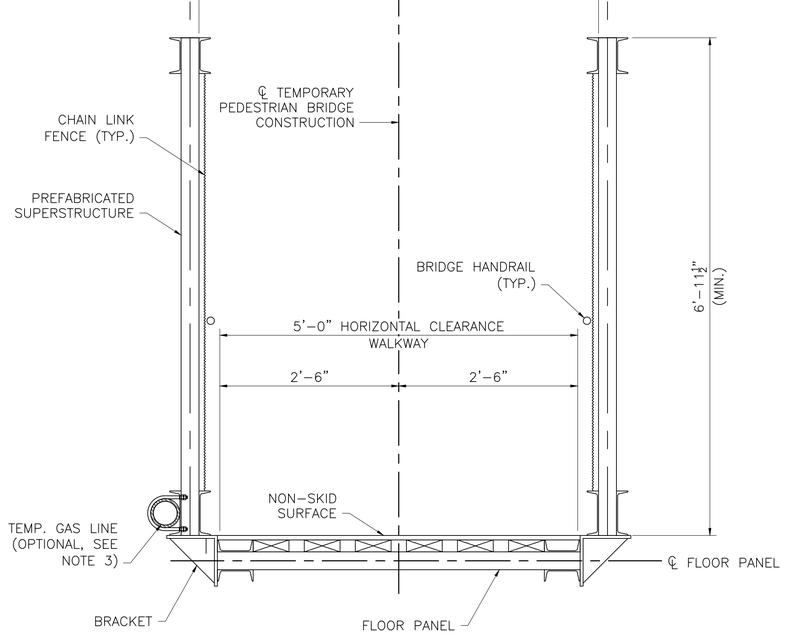
SCALE: 1" = 1'–0"



NOTES:

1. NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR
2. BARS TO BE ADJUSTED AS NEEDED TO ACCOMMODATE MICROPILES

SECTION 1 / SCALE: 1" = 1'–0"



TEMPORARY PEDESTRIAN BRIDGE TRANSVERSE SECTION

SCALE: 1" = 1'–0"

TEMPORARY PEDESTRIAN BRIDGE NOTES:

1. TEMPORARY PEDESTRIAN BRIDGE SUPERSTRUCTURE DETAILS SHOWN ARE CONCEPTUAL ONLY. THE SUPERSTRUCTURE IS TO BE PREFABRICATED AND DESIGNED AND DETAILED BY THE MANUFACTURER. THIS INCLUDES TEMPORARY GAS LINE SUPPORT ELEMENTS WHICH SHALL BE IN COMPLIANCE WITH NATIONAL GRID REQUIREMENTS
2. TEMPORARY BRIDGE FOUNDATION DESIGN AND DETAILS SHOWN ON THIS SHEET MUST BE CONFIRMED DURING THE SHOP DRAWING REVIEW PROCESS. THE PROPOSED SUBSTRUCTURE DESIGN AND DETAILS MAY REQUIRE ADJUSTMENT BASED ON THE TEMPORARY PEDESTRIAN BRIDGE SUPERSTRUCTURE SHOP DRAWING SUBMITTAL. ALL CHANGES SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
3. TEMPORARY GAS LINE SHOWN IS OPTIONAL BASED ON COORDINATION WITH NATIONAL GRID REGARDING TIME OF YEAR RESTRICTIONS FOR SERVICE CONTINUITY. 4" DIAMETER SHOWN, FINAL DIAMETER TO BE DETERMINED IN COORDINATION WITH OWNER.

PILE NOTES:

1. FACTORED AXIAL DESIGN LOAD PER MICROPILE PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
   - STRENGTH I LIMIT STATE
     FACTORED AXIAL DESIGN LOAD = 64.0 KIPS.
2. THE FACTORED STRUCTURAL PILE RESISTANCE IS 264.0 KIPS AND IS THE PRODUCT OF THE NOMINAL STRUCTURAL RESISTANCE OF 352.0 KIPS AND A RESISTANCE FACTOR OF 0.75.
3. THE FACTORED GEOTECHNICAL PILE RESISTANCE IS 77.0 KIPS AND IS THE PRODUCT OF THE NOMINAL GEOTECHNICAL RESISTANCE OF 140.0 KIPS AND A RESISTANCE FACTOR OF 0.55.
4. THE ESTIMATED PILE TIP ELEVATION VARIES (EL. 41.1 AT NORTH ABUTMENT AND EL. 34.0 AT SOUTH ABUTMENT).
5. SEE SHEET 13 FOR MICROPILE DETAILS WHICH ARE APPLICABLE FOR THE TEMPORARY PEDESTRIAN BRIDGE MICROPILES.

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AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
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608051_BR11.DWG Plotted on 4-Dec-2025 2:33 PM
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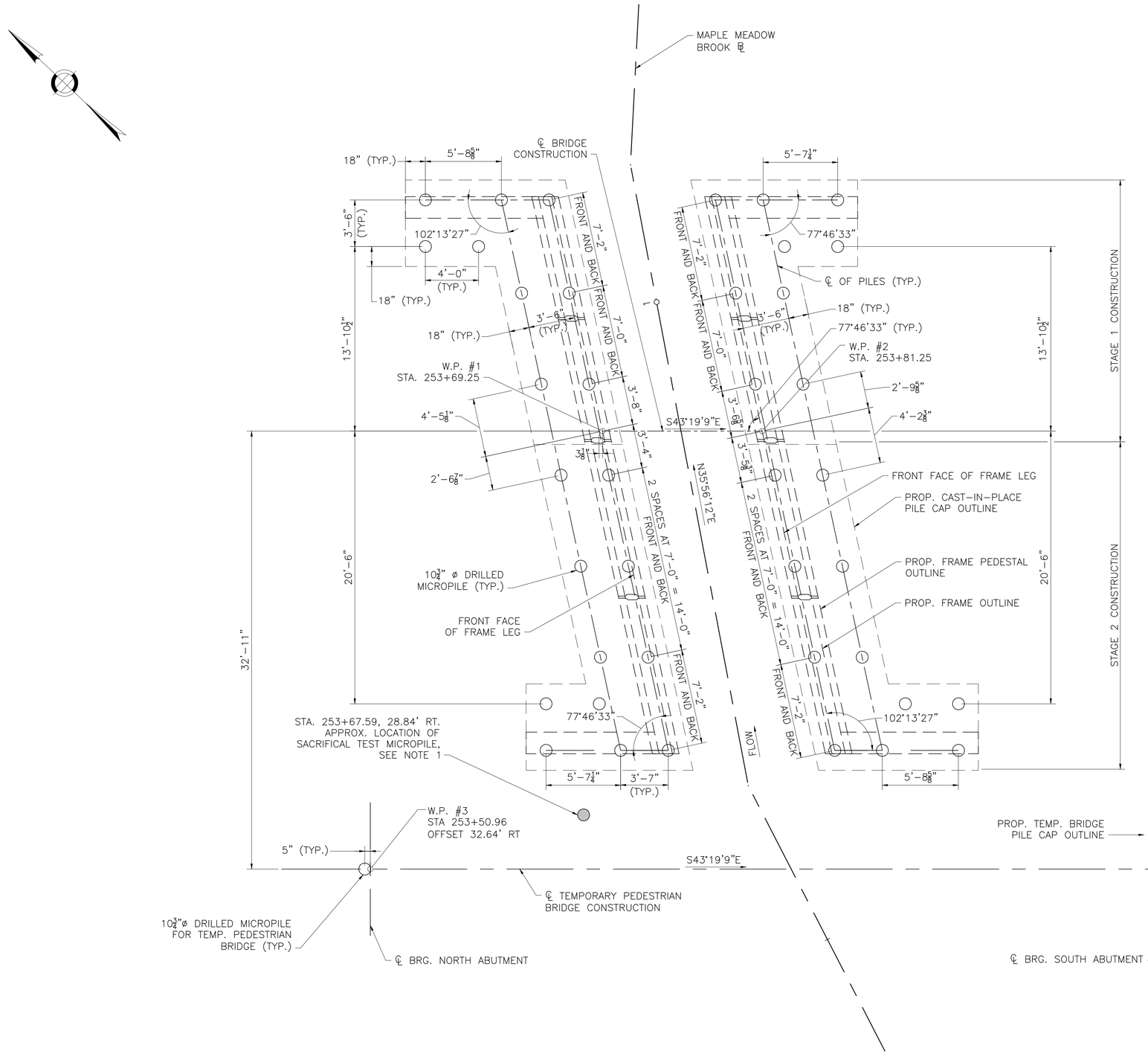
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	247	420
PROJECT FILE NO.	608051		

MICROPILE LAYOUT PLAN



MICROPILE LAYOUT PLAN

SCALE: ¼" = 1'-0"

NOTES:

1. THE VERIFICATION TEST MICROPILE SHALL BE A SACRIFICIAL MICROPILE. THE VERIFICATION TEST SHALL BE PERFORMED PRIOR TO CONSTRUCTION OF THE PRODUCTION MICROPILES, AND THE VERIFICATION TEST LOCATION IS APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL SELECT THE EXACT LOCATION OF THE VERIFICATION TEST MICROPILE WITH APPROVAL FROM THE ENGINEER.
2. SEE SHEET 14 FOR PILE CAP LAYOUT.
3. MICROPILES FOR THE TEMPORARY PEDESTRIAN BRIDGE TO BE INSTALLED DURING STAGE 1 CONSTRUCTION AT LOCATIONS SHOWN.
4. TWO MICROPILE PROOF LOAD TESTS SHALL BE PERFORMED, ONE TEST ON EACH OF THE FIRST PRODUCTION PILES AT THE NORTH ABUTMENT AND THE SOUTH ABUTMENT.

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
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USE ONLY PRINTS OF LATEST DATE	

608051_BR12.DWG Plotted on 4-Dec-2025 2:33 PM
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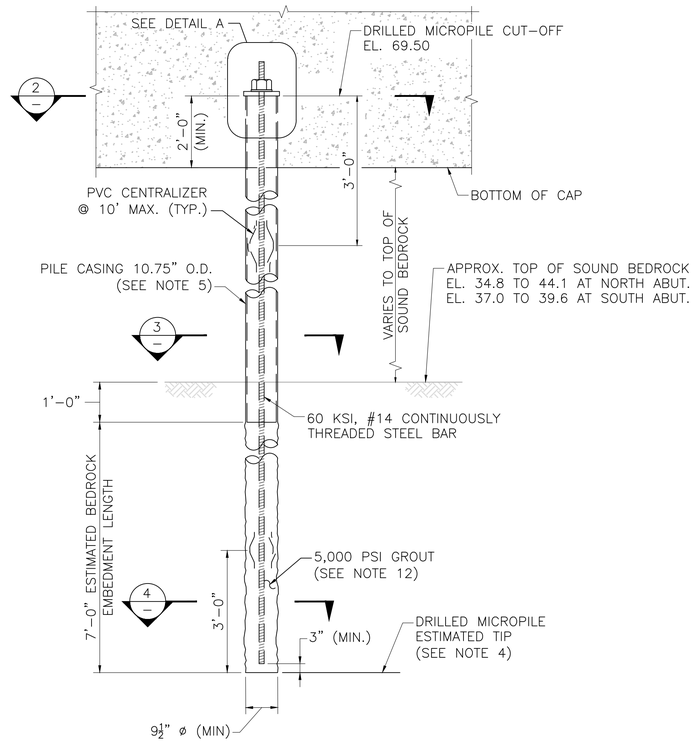
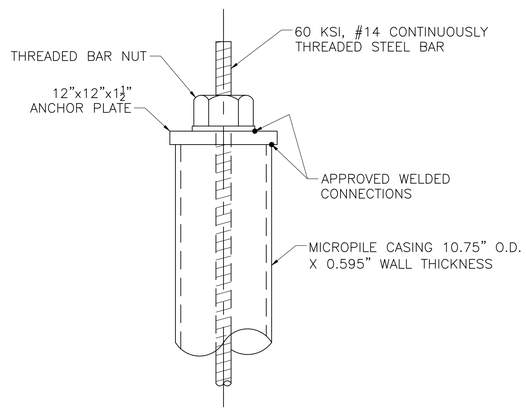


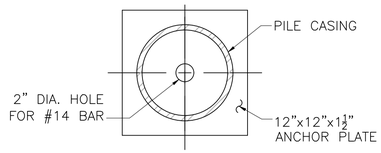
VERTICAL SECTION THROUGH PILE

SCALE: ½" = 1'–0"



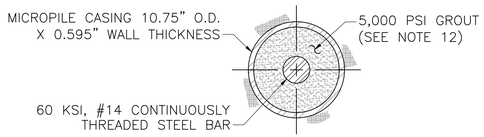
DETAIL A

SCALE: 1½" = 1'–0"



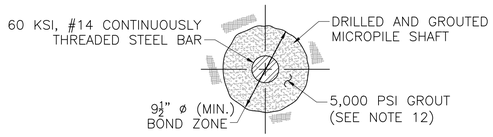
SECTION 2

SCALE: 1½" = 1'–0"



SECTION 3

SCALE: 1½" = 1'–0"



SECTION 4

SCALE: 1½" = 1'–0"

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	248	420
PROJECT FILE NO.	608051		

MICROPILE DETAILS

NOTES:

1. FACTORED AXIAL DESIGN LOAD PER MICROPILE PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
   - STRENGTH I LIMIT STATE
     FACTORED AXIAL DESIGN LOAD = 195.3 KIPS.
2. THE FACTORED STRUCTURAL PILE RESISTANCE IS 264.0 KIPS AND IS THE PRODUCT OF THE NOMINAL STRUCTURAL RESISTANCE OF 352.0 KIPS AND A RESISTANCE FACTOR OF 0.75.
3. THE FACTORED GEOTECHNICAL PILE RESISTANCE IS 270.0 KIPS AND IS THE PRODUCT OF THE NOMINAL GEOTECHNICAL RESISTANCE OF 491.0 KIPS AND A RESISTANCE FACTOR OF 0.55.
4. THE ESTIMATED PILE TIP ELEVATION VARIES (EL. 26.8 TO 36.1 FEET AT NORTH PILE CAP AND WINGWALLS AND EL. 29.0 TO 31.6 FEET AT SOUTH PILE CAP AND WINGWALLS).
5. STEEL CASING SHALL BE PRIME STEEL AND MEET THE REQUIREMENTS OF API 5L PSL1 GRADE 52 WITH SR 15 SUPPLEMENTAL REQUIREMENTS.
6. THREADED STEEL BAR SHALL BE CONTINUOUSLY THREADED FOR THE ENTIRE BAR LENGTH CONFORMING TO AASHTO M31, HAVING A MINIMUM YIELD STRENGTH OF 60 KSI.
7. THREADED CASING JOINTS ARE NOT ALLOWED WITHIN 3'–0" OF THE PILE CAP.
8. NUT AND BAR COUPLING SHALL BE PROVIDED FROM THE SAME MANUFACTURER AS THE THREADED STEEL BAR.
9. BAR COUPLING SHALL BE FULLY ENGAGED ON THE THREADED STEEL BAR AND SHALL NOT BE LOCATED IN THE TOP THIRD OF THE MICROPILE LENGTH.
10. ANCHOR PLATE SHALL MEET THE REQUIREMENTS OF AASHTO M270 GRADE 50.
11. GROUT SHALL HAVE A MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 5000 PSI AND CEMENT SHALL CONFORM TO AASHTO M85 TYPE I OR II.
12. GROUT SHALL BE PLACED USING TREMIE METHODS.
13. THE CONTRACTOR SHALL SUBMIT A MICROPILE SCHEDULE, MICROPILE INSTALLATION, AND MICROPILE TESTING PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER.
14. SEE SPECIAL PROVISION ITEM 945.10 DRILLED MICROPILES, ITEM 948.60 MICROPILE VERIFICATION LOAD TEST, AND ITEM 948.61 MICROPILE PROOF LOAD TEST FOR ADDITIONAL MICROPILE SPECIFICATIONS.

09/13/2025	ISSUED FOR CONSTRUCTION
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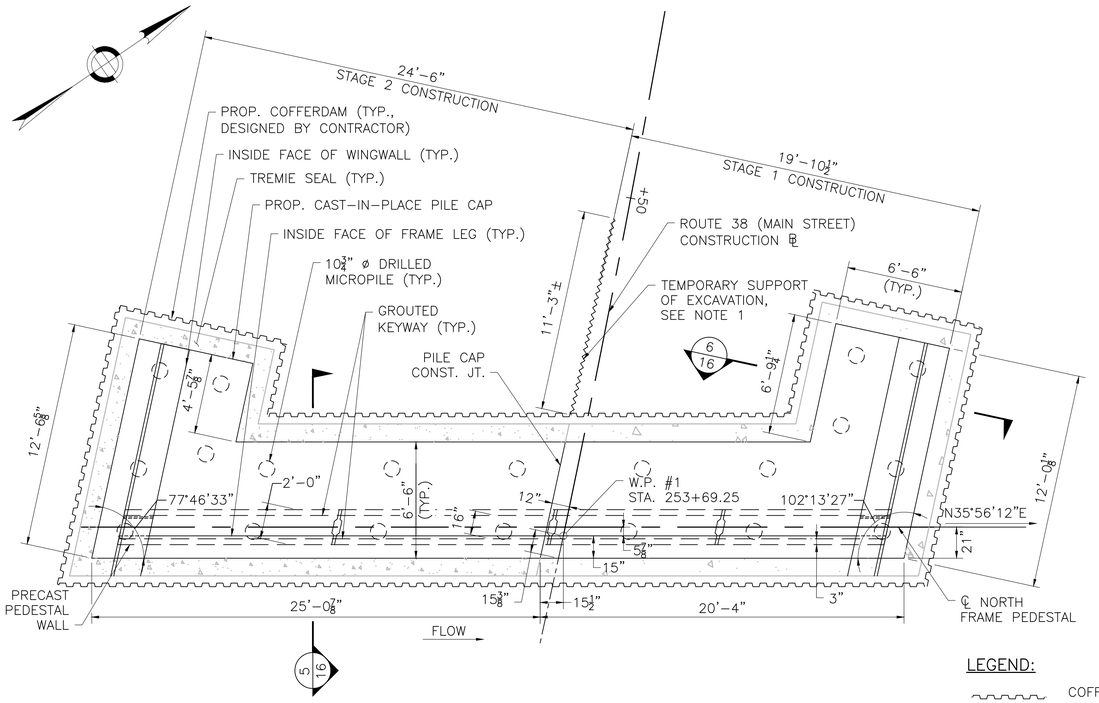
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

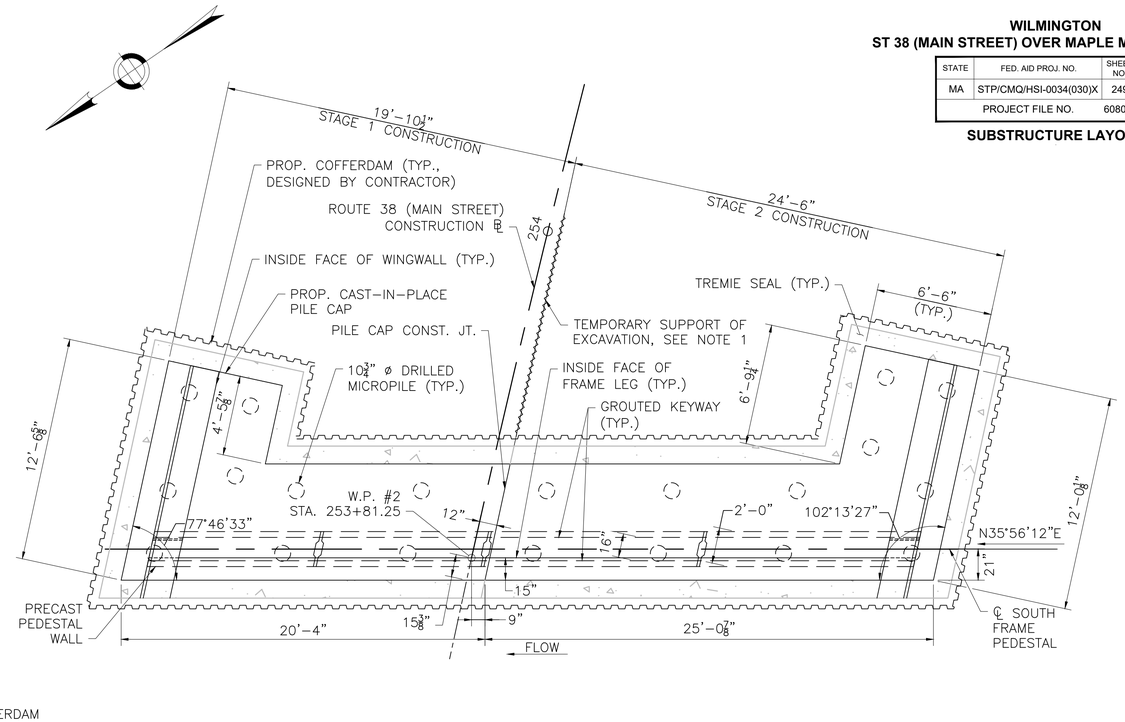
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	249	420
PROJECT FILE NO.	608051		

SUBSTRUCTURE LAYOUT



PLAN – NORTH PILE CAP AND PEDESTAL WALL

SCALE: ¼" = 1'–0"

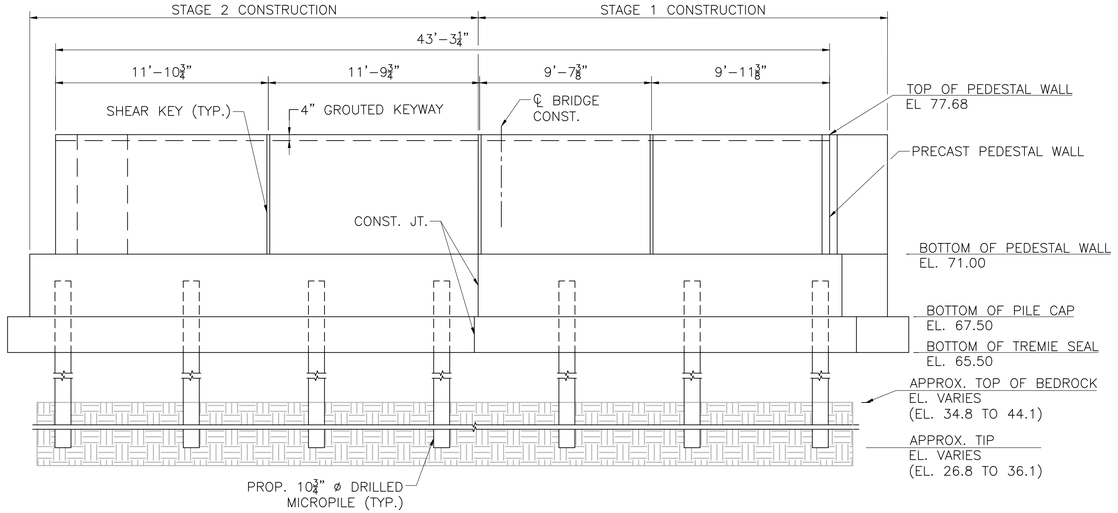


PLAN – SOUTH PILE CAP AND PEDESTAL WALL

SCALE: ¼" = 1'–0"

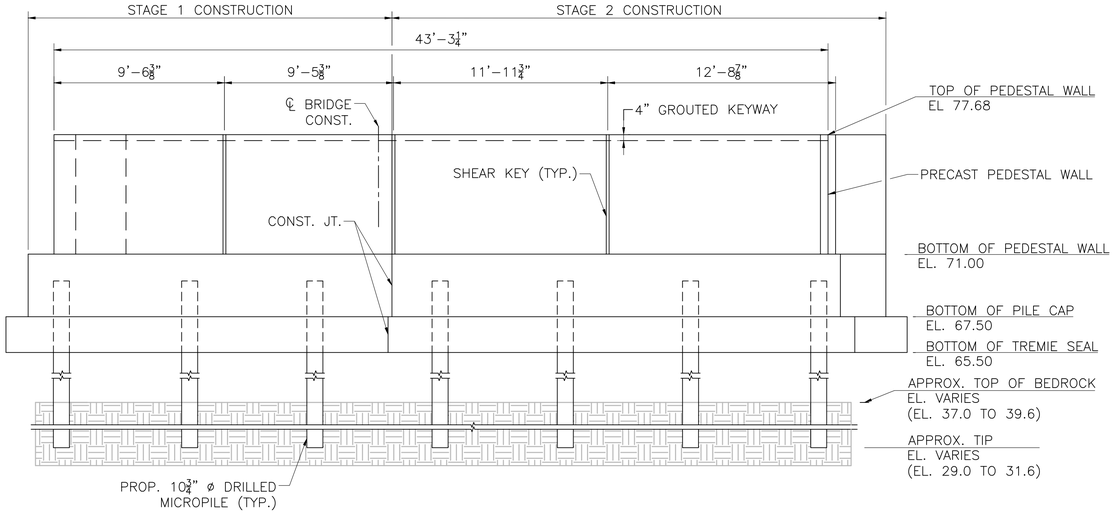
LEGEND:

- COFFERDAM
- TEMPORARY SUPPORT OF EXCAVATION
- TREMIE SEAL CONCRETE



ELEVATION – NORTH PILE CAP AND PEDESTAL WALL

SCALE: ¼" = 1'–0"



ELEVATION – SOUTH PILE CAP AND PEDESTAL WALL

SCALE: ¼" = 1'–0"

NOTES:

1. TEMPORARY SUPPORT OF EXCAVATION SHOWN IS CONCEPTUAL AND SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH SPECIAL PROVISION ITEM NO. 953.1 AND THE TRAFFIC CONTROL REQUIREMENT.
2. SEE SHEET 12 FOR MICROPILE LAYOUT.
3. PRECAST PEDESTAL WALL DIMENSIONS ARE PRELIMINARY AND SHALL BE FINALIZED WITH CONTRACTOR'S FINAL DESIGN.

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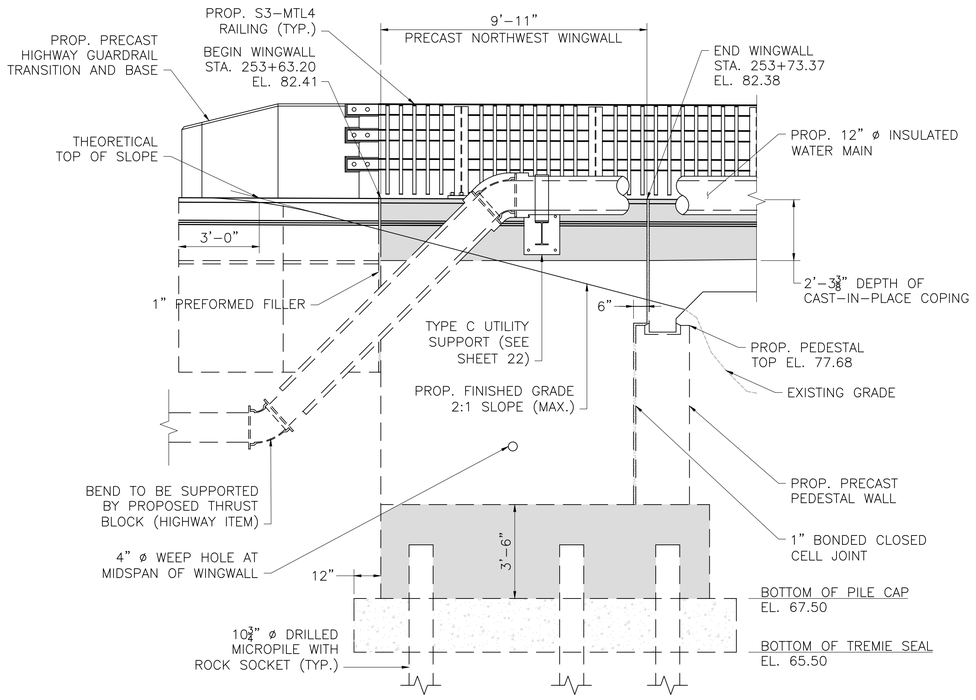
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

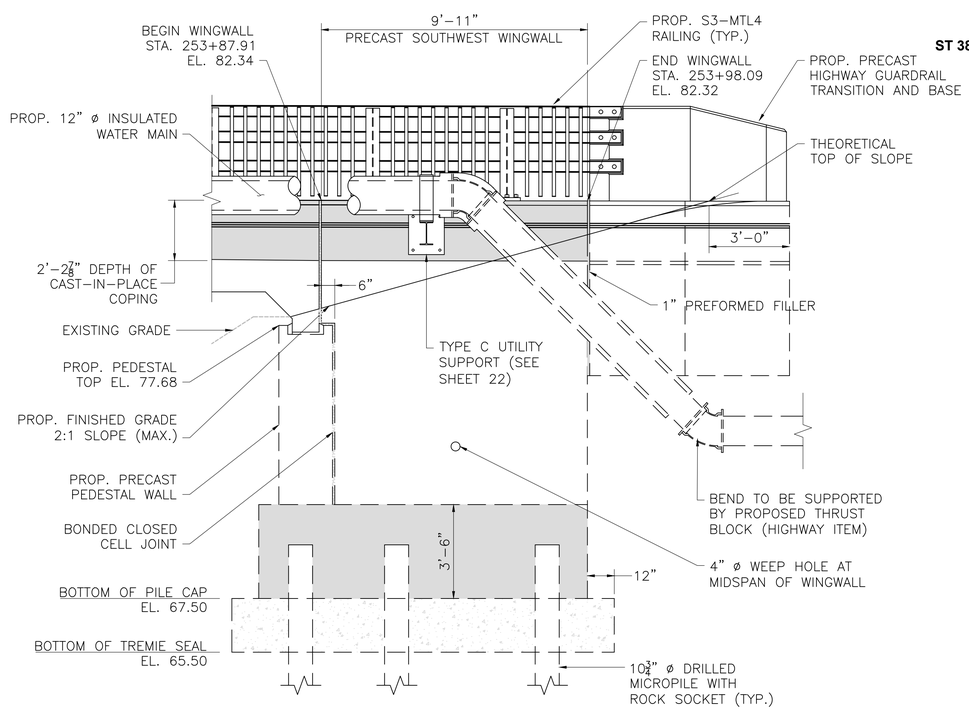
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	250	420
PROJECT FILE NO.	608051		

WINGWALL ELEVATIONS



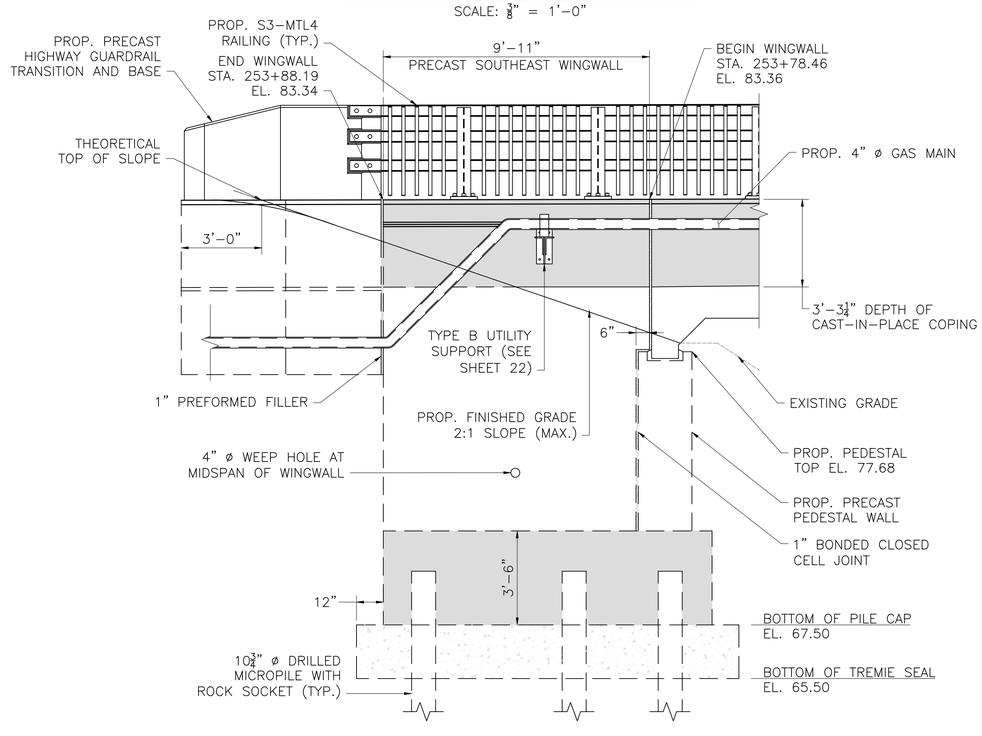
NORTHWEST WINGWALL ELEVATION

SCALE: 3/8" = 1'-0"



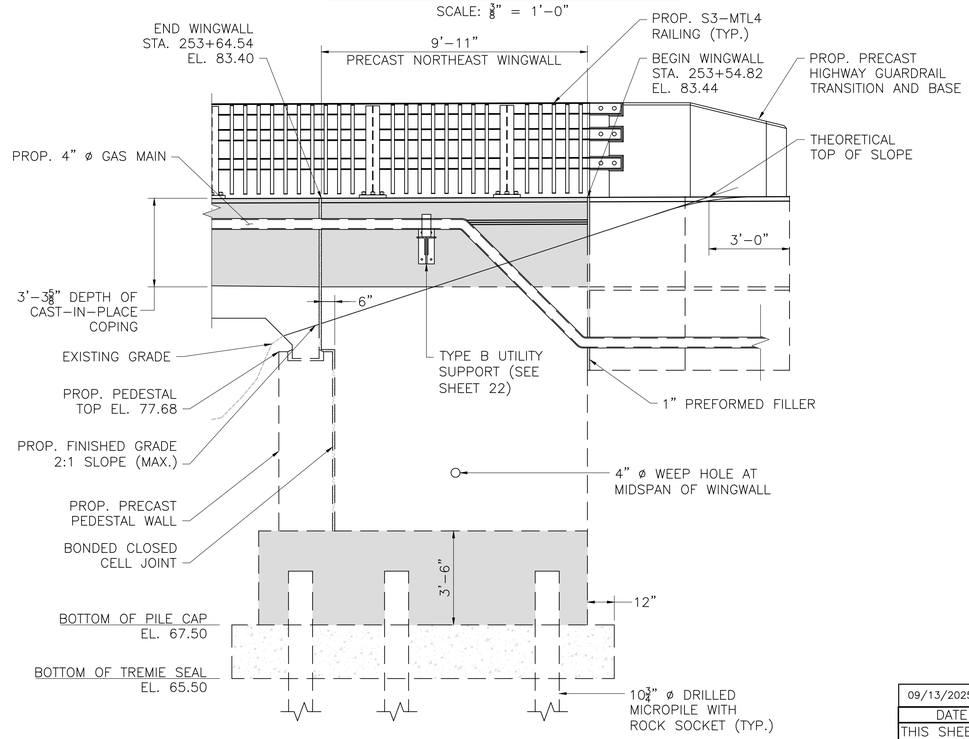
SOUTHWEST WINGWALL ELEVATION

SCALE: 3/8" = 1'-0"



SOUTHEAST WINGWALL ELEVATION

SCALE: 3/8" = 1'-0"



NORTHEAST WINGWALL ELEVATION

SCALE: 3/8" = 1'-0"

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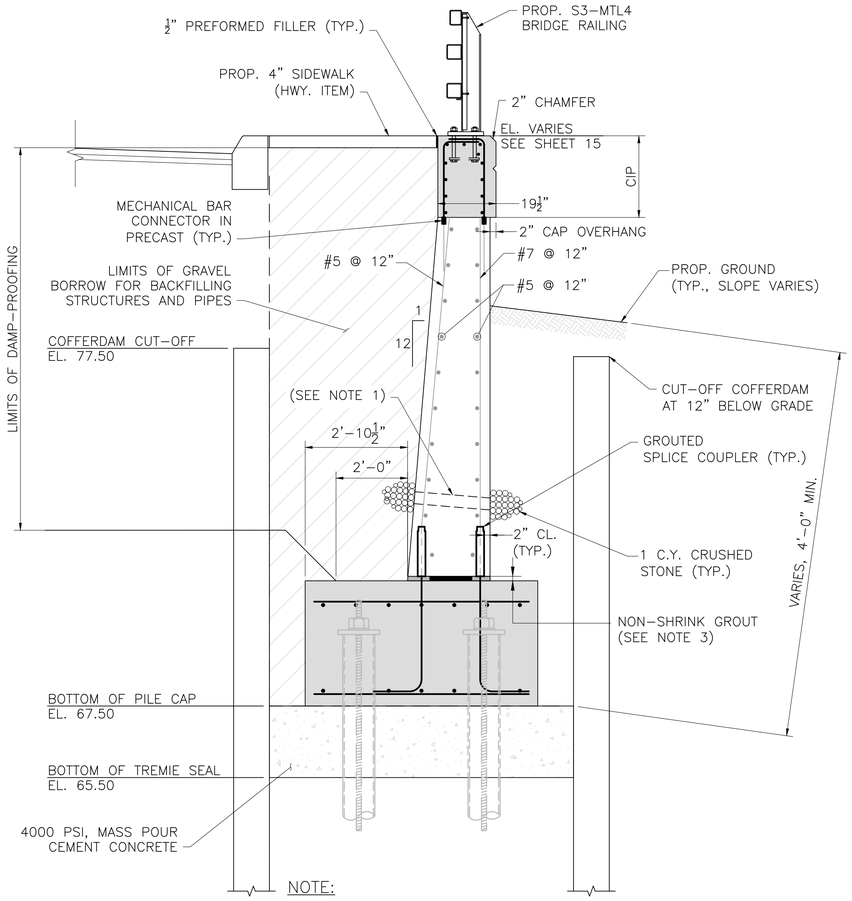
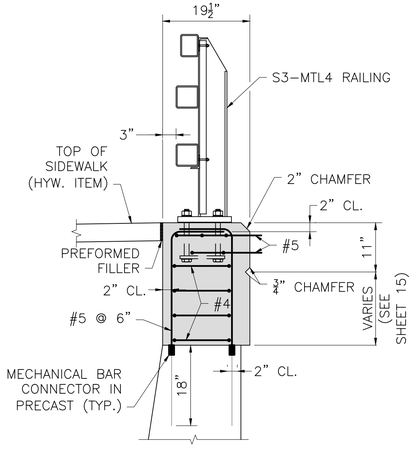


NOTE:

WINGWALL AT SAFETY CURB IS SIMILAR AND UTILITY SUPPORT NOT SHOWN FOR CLARITY

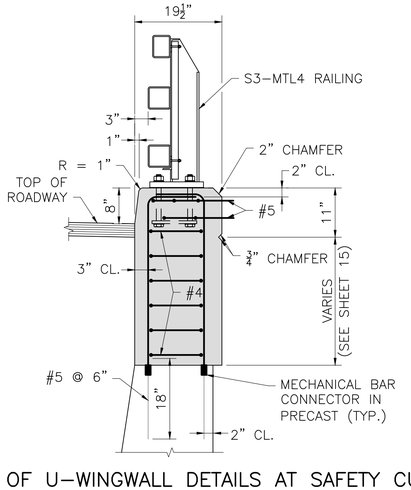
VERTICAL SECTION THRU U–WING WALL

SCALE: ½" = 1'–0"



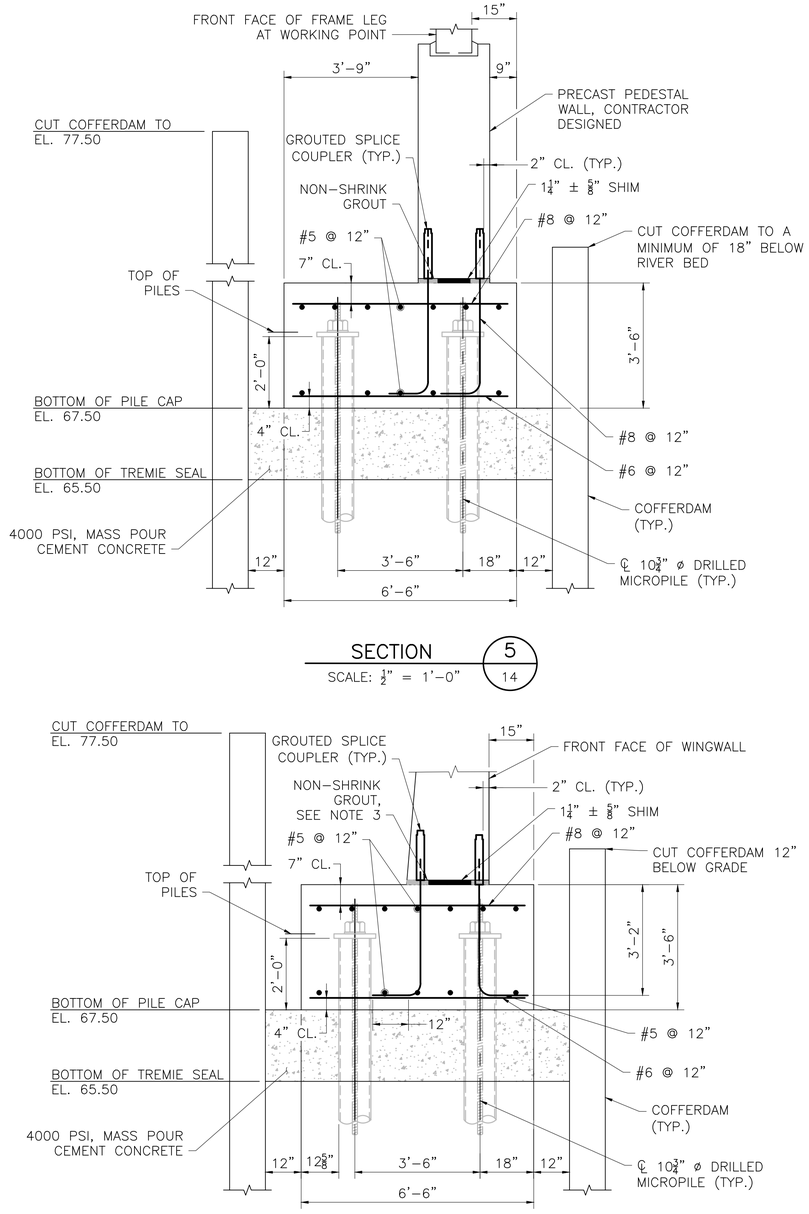
TOP OF U–WINGWALL DETAILS AT SIDEWALK

SCALE: 1" = 1'–0"



TOP OF U–WINGWALL DETAILS AT SAFETY CURB

SCALE: 1" = 1'–0"



SECTION 5/14

SCALE: ½" = 1'–0"

SECTION 6/14

SCALE: ½" = 1'–0"

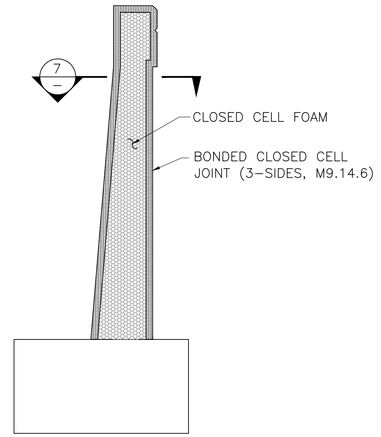
NOTES:

1. 4" ø WEEP HOLES AT MIDSPAN OF WINGWALL SECTIONS LOCATED 26" ABOVE THE HEEL OF THE FOOTING, SLOPING 1" PER FOOT TOWARDS THE FRONT FACE. PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT EACH END OF WEEP HOLE.
2. SHEAR KEYS SHALL HAVE AN EXPOSED AGGREGATE FINISH AND SHALL BE CLEANED AND SURFACE SATURATED DRY PRIOR TO PLACING CLOSURE POUR CONCRETE.
3. PRE–BED PREFABRICATED ELEMENT WITH NON–SHRINK GROUT WITH THICKNESS MORE THAN SHIM STACK.

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

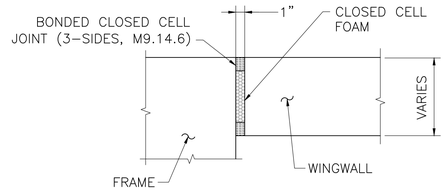
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	251	420
PROJECT FILE NO.	608051		

SUBSTRUCTURE DETAILS



EXPANSION JOINT BETWEEN WINGWALL AND STRUCTURE

SCALE: ⅜" = 1'–0"



SECTION 7/–

SCALE: ¾" = 1'–0"

LEGEND:

CAST–IN–PLACE

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

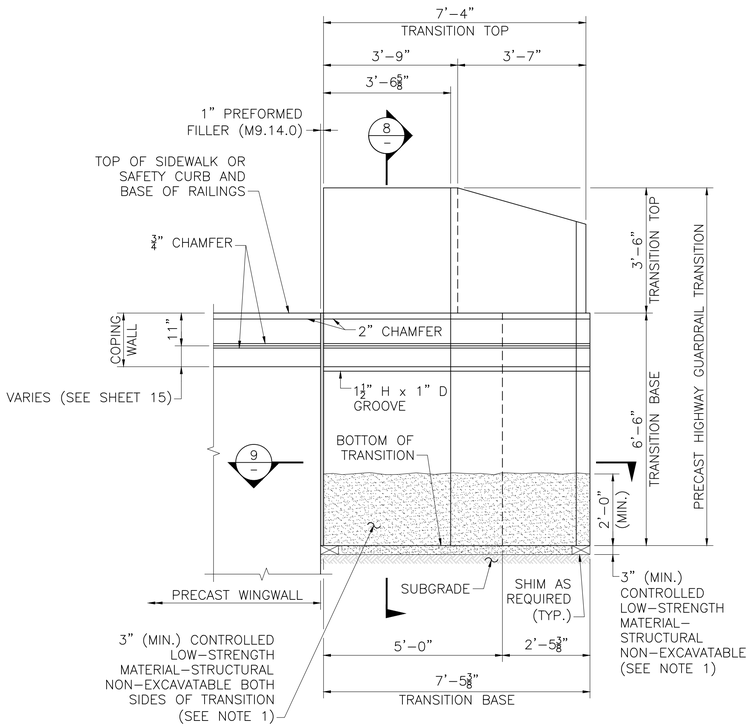
USE ONLY PRINTS OF LATEST DATE

Plotted on 4-Dec-2025 2:33 PM
608051_BR16.DWG
Final Structural Submittal (SF) 10-November-2025
Z:\Sheets\Engineering\Projects\2013\13033\13033_15X - Wilmington Route 38\608051\DWG\BRIDGE\100%\608051_BR16.dwg

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

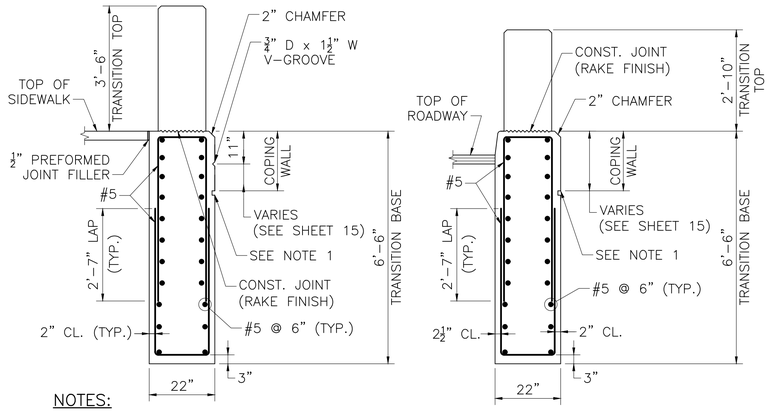
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	252	420
	PROJECT FILE NO. 608051		

GUARDRAIL TRANSITION BASE DETAILS



PRECAST GUARDRAIL TRANSITION ELEVATION

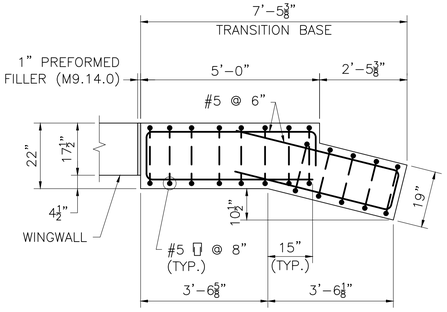
SCALE: ½" = 1'-0"



NOTES:

1. 1½" H x 1" D GROOVE. ALIGN WITH GROOVE AT TOP OF STRIATIONS.
2. REINFORCEMENT OF THE TRANSITION TOP IS NOT SHOWN FOR CLARITY.

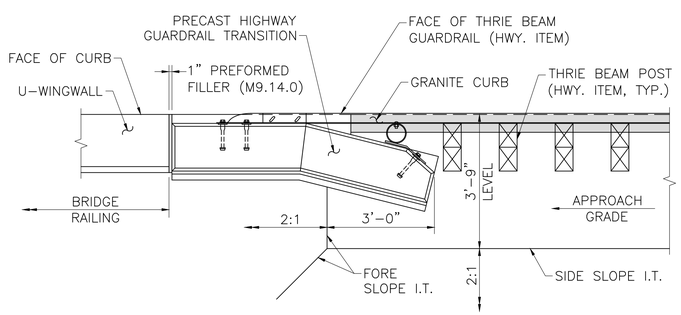
SECTION 8
SCALE: ½" = 1'-0"



NOTE:

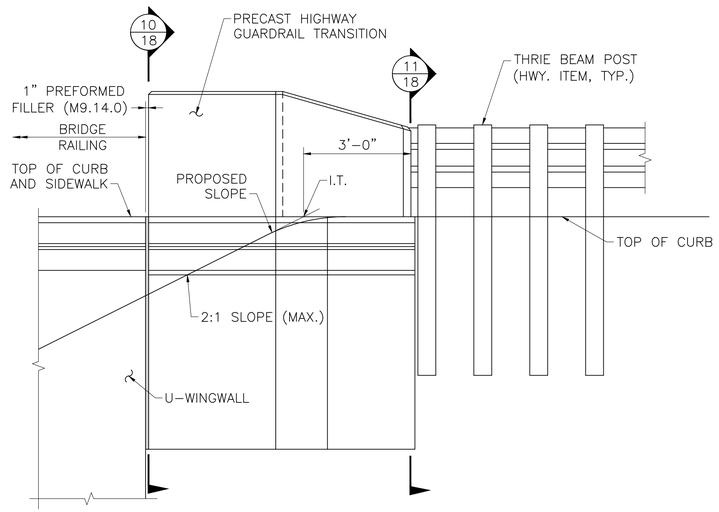
WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY.

SECTION 9
SCALE: ½" = 1'-0"



GRADING REQUIREMENTS PLAN

SCALE: ½" = 1'-0"



GRADING REQUIREMENTS ELEVATION

SCALE: ½" = 1'-0"

NOTES:

1. THE SOIL SHALL BE EXCAVATED TO THE GRADE OF 3" (MIN.) BELOW THE INTENDED BOTTOM OF THE GUARDRAIL TRANSITION BASE AND TO A HEIGHT OF 2'-0" (MIN.) ON ALL SIDES OF THE TRANSITION BASE TO FORM A TRENCH IN WHICH TO SET THE TRANSITION.
2. CONTRACTOR SHALL SET THE PRECAST GUARDRAIL TRANSITION TO THE REQUIRED ELEVATION AND ALIGNMENT, AND BACKFILL GUARDRAIL TRANSITION WITH CONTROLLED LOW-STRENGTH MATERIAL-NON-EXCAVATABLE TO THE ELEVATION SHOWN.
3. BACKFILL THE REMAINDER OF EXCAVATION WITH GRAVEL BORROW, WHICH SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS.

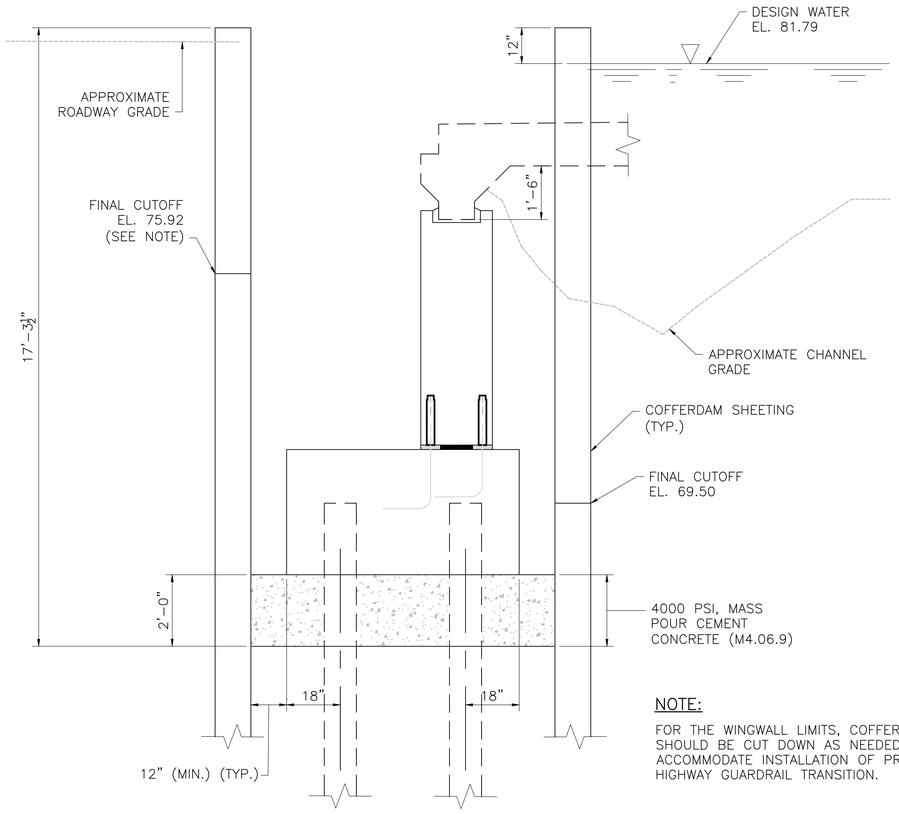
09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	

608051_BR17.DWG Plotted on 4-Dec-2025 2:33 PM
Final Structural Submittal (SF) 10-November-2025
Z:\Shared\Engineering\Projects\20191313\0313_19X - Wilmington Route 38\608051\DWG\BRIDGE\100%\608051_BR17.dwg

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	253	420
PROJECT FILE NO.	608051		

MISCELLANEOUS SUBSTRUCTURE DETAILS

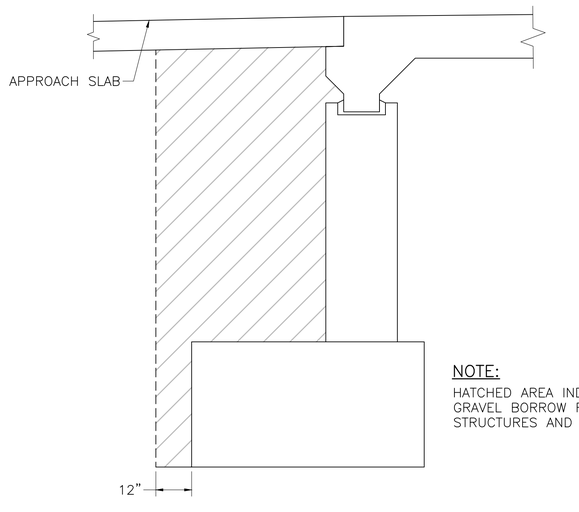


NOTE:

FOR THE WINGWALL LIMITS, COFFERDAM SHOULD BE CUT DOWN AS NEEDED TO ACCOMMODATE INSTALLATION OF PRECAST HIGHWAY GUARDRAIL TRANSITION.

SEAL FOR COFFERDAM

SCALE: ½" = 1'-0"

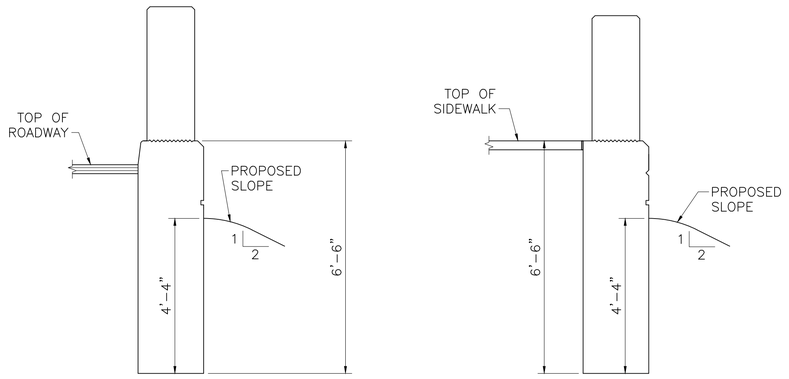


NOTE:

HATCHED AREA INDICATES LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES.

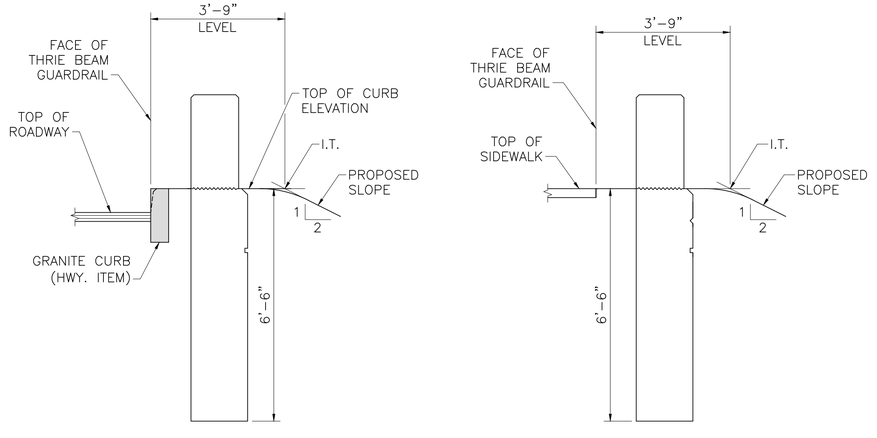
LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES

SCALE: ½" = 1'-0"



SECTION 10

SCALE: ½" = 1'-0"



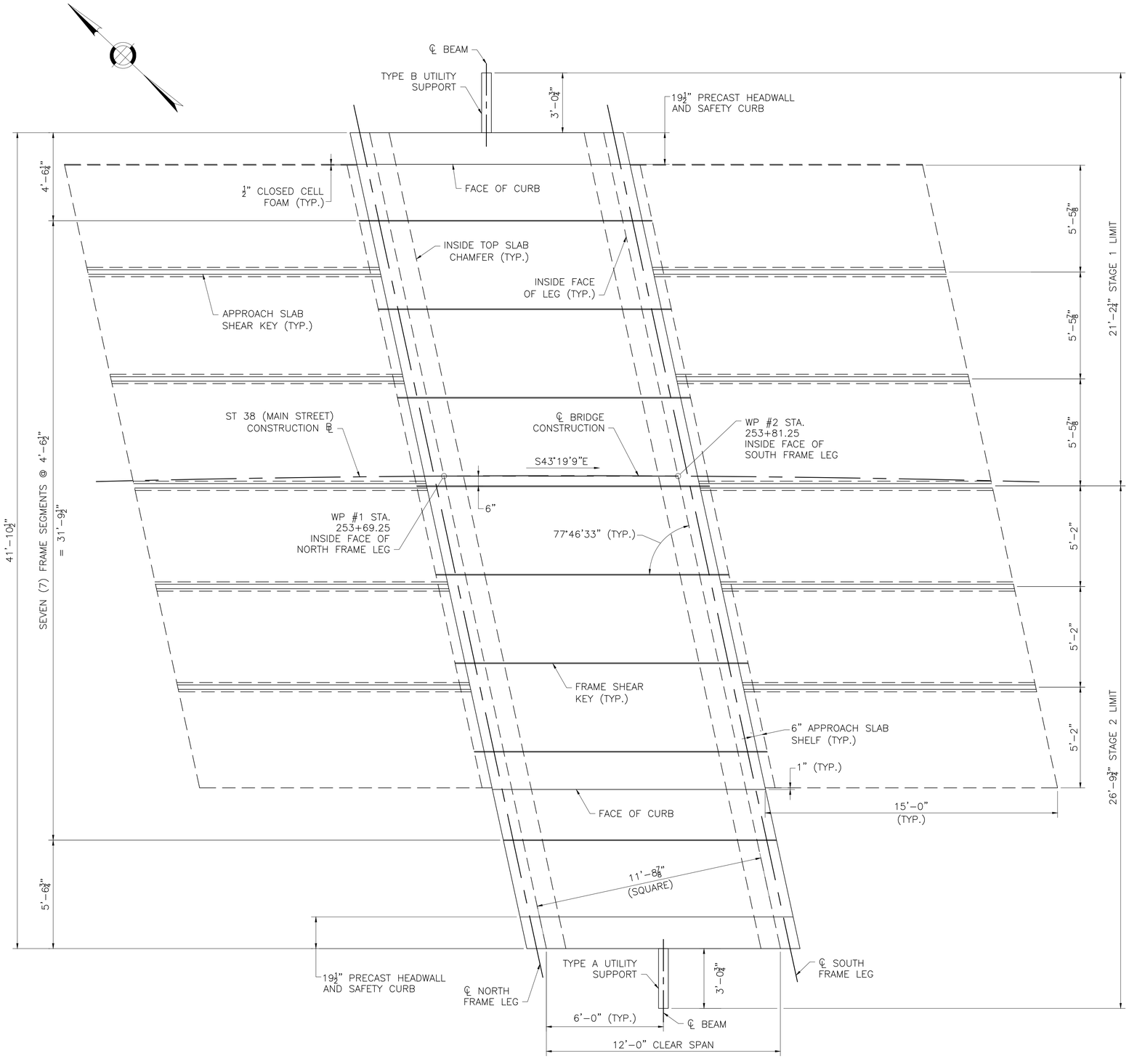
SECTION 11

SCALE: ½" = 1'-0"

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

608051_BR18.DWG Plotted on 4-Dec-2025 2:33 PM
Final Structural Submittal (SF) 10-November-2025
Z:\Shared\Engineering\Projects\2018\13033\13033.18X - Wilmington Route 38\608051\DWG\BRIDGE\100%\608051_BR18.dwg



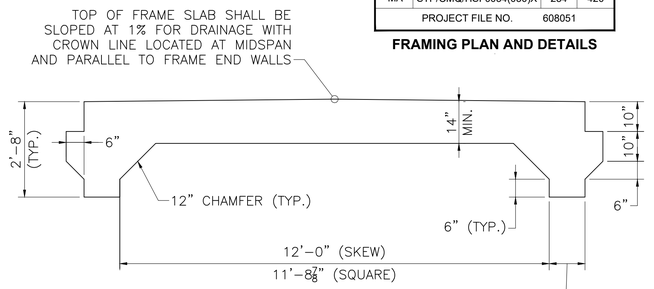
FRAMING PLAN

SCALE: ⅜" = 1'-0"

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	254	420
PROJECT FILE NO.	608051		

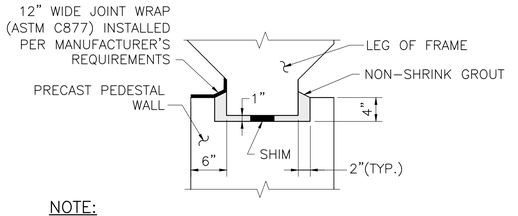
FRAMING PLAN AND DETAILS



NOTE:
FRAME THICKNESS SHOWN IS PRELIMINARY AND SHALL BE FINALIZED WITH CONTRACTOR'S FINAL DESIGN.

FRAME SECTION

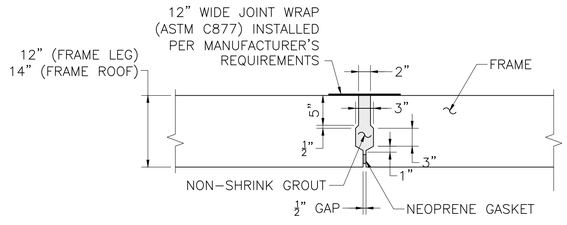
SCALE: ½" = 1'-0"



NOTE:
DETAILS AND DIMENSIONS ARE CONCEPTUAL AND MAY BE ALTERED BY THE FABRICATOR TO SUIT THEIR OPERATIONS, HOWEVER THE FUNCTION AND INTENT OF THE DETAIL MUST BE MET.

GROUTED KEYWAY

SCALE: 1" = 1'-0"



NOTE:
DETAILS AND DIMENSIONS ARE CONCEPTUAL AND MAY BE ALTERED BY THE FABRICATOR TO SUIT THEIR OPERATIONS, HOWEVER THE FUNCTION AND INTENT OF THE DETAIL MUST BE MET.

FRAME SHEAR KEY

SCALE: 1" = 1'-0"

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

608051_BR19.DWG Plotted on 4-Dec-2025 2:34 PM
Final Structural Submittal (SF) 10-November-2025
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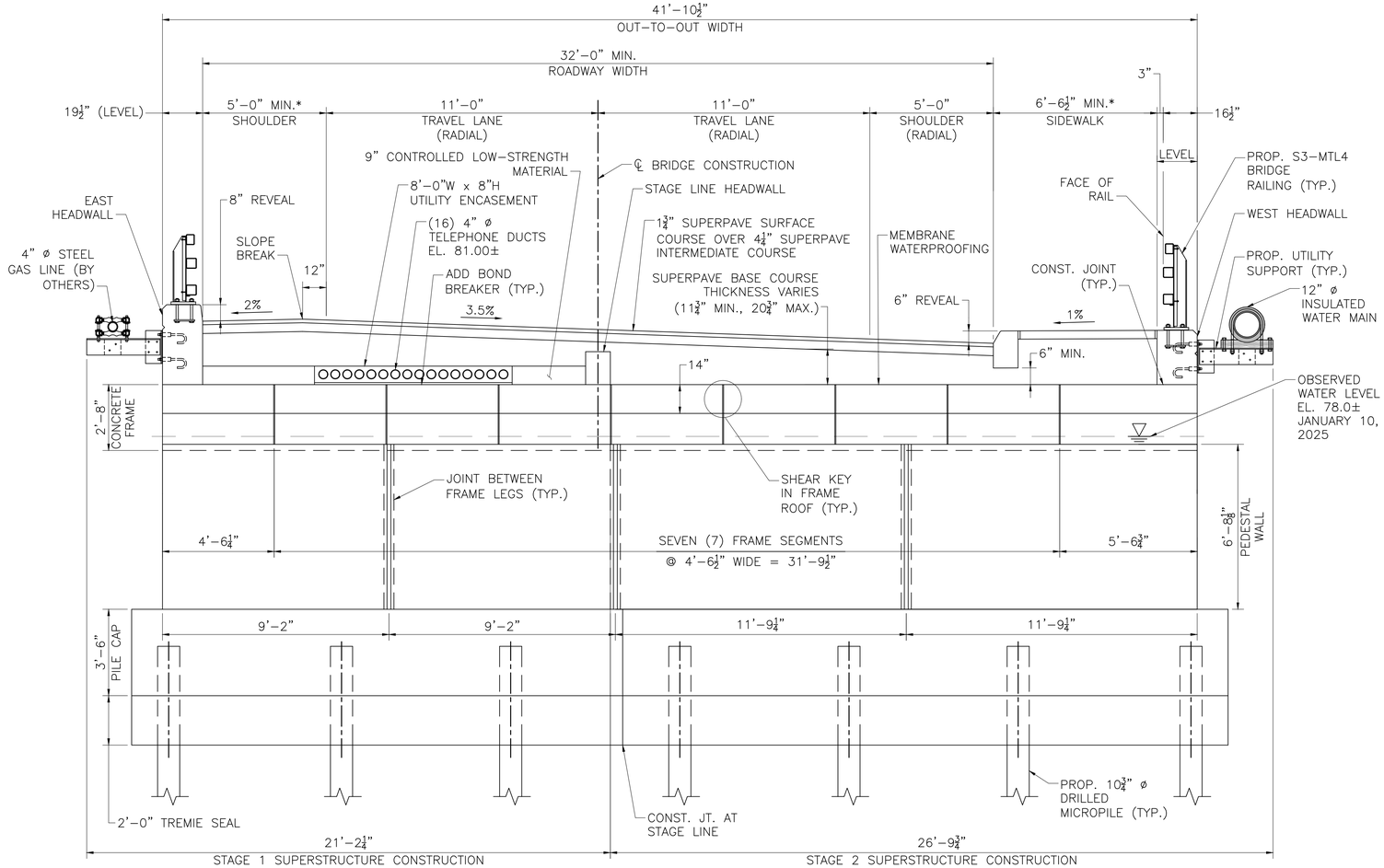
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	255	420
PROJECT FILE NO.	608051		

TRANSVERSE SECTION AND DETAILS

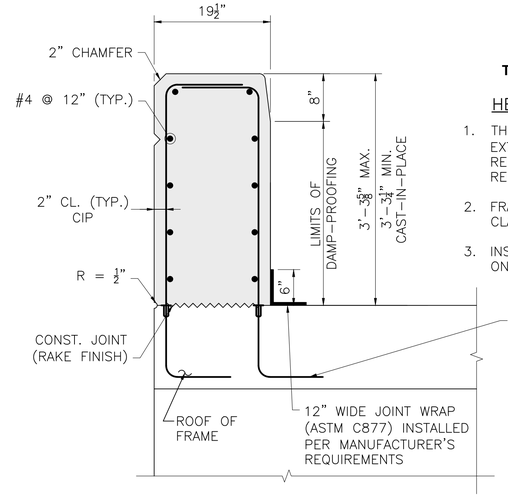


NOTE:

* INDICATES DIMENSIONS THAT VARY SLIGHTLY DUE TO HORIZONTAL CURVE GEOMETRY

TYPICAL BRIDGE SECTION

SCALE: ⅜" = 1'–0"



EAST HEADWALL DETAILS

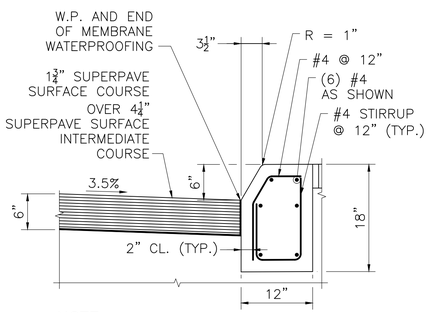
SCALE: 1" = 1'–0"

WEST HEADWALL DETAILS

SCALE: 1" = 1'–0"

NOTES:

1. REBAR EXTENDING FROM HEADWALL TO BE USED TO PLACE TEMPORARY RETAINING BLOCK. LOCATIONS TO BE ADJUSTED BASED ON TEMPORARY RETAINER BLOCK USED, WHILE MAINTAINING THE MINIMUM SPACING REQUIRED. REBAR TO BE CUT DOWN FLUSH WITH TOP OF HEADWALL IN FINAL CONDITION AND TOUCH UP EPOXY COATING TO BE APPLIED TO ENDS.
2. FOR ADDITIONAL STAGE LINE HEADWALL DETAILS SEE SHEET 7.

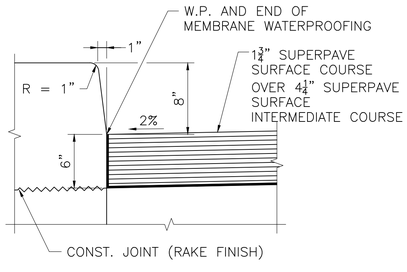


NOTE:

CAST–IN–PLACE CONCRETE CURB FOR BRIDGE LIMITS TO BE 5000 PSI HP CONCRETE AND INCLUDED UNDER ITEM NO. 995.01.

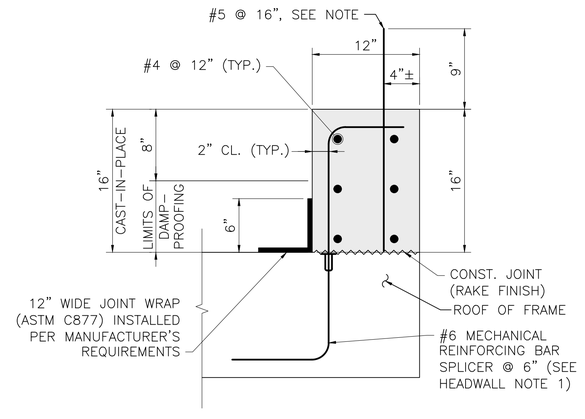
FACE OF SIDEWALK CURB DETAILS

SCALE: 1" = 1'–0"



FACE OF SAFETY CURB DETAILS

SCALE: 1½" = 1'–0"



STAGE LINE HEADWALL DETAILS

SCALE: 1½" = 1'–0"

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

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608051_BR20.DWG Plotted on 4-Dec-2025 2:34 PM
Final Structural Submittal (SF) 10-November-2025
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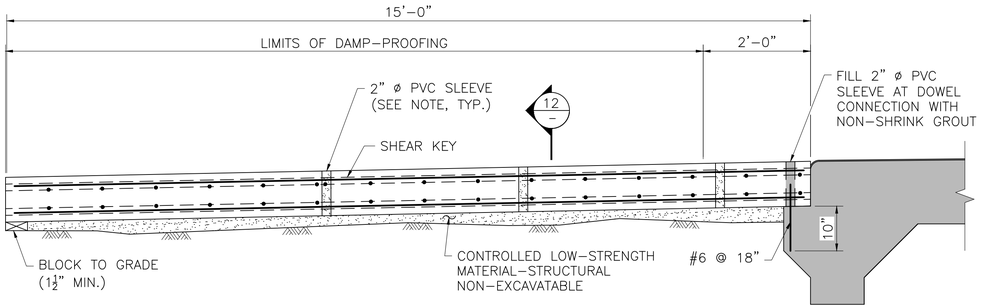
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	256	420
PROJECT FILE NO.	608051		

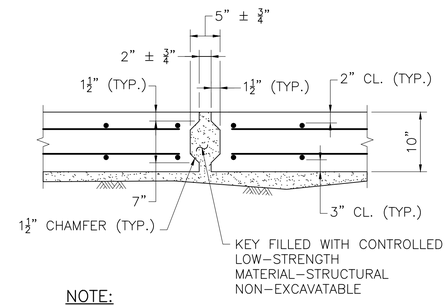
APPROACH SLAB DETAILS



NOTE:
PVC SLEEVES TO BE INCLUDED IN APPROACH SLABS TO FACILITATE PLACEMENT OF CONTROLLED LOW–STRENGTH MATERIAL–STRUCTURAL NON–EXCAVATABLE.

APPROACH SLAB DETAILS

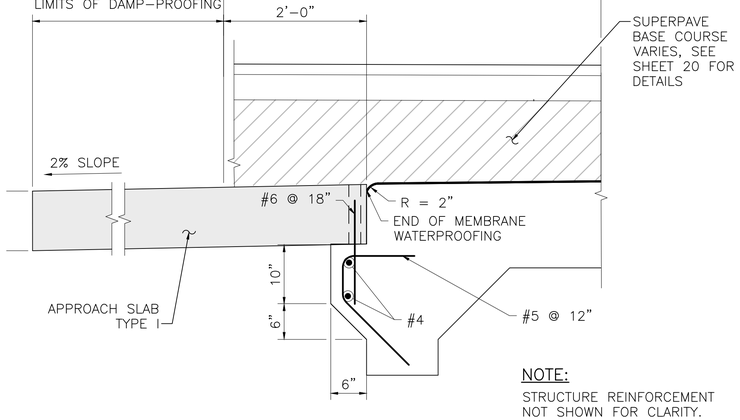
SCALE: ¾" = 1'–0"



NOTE:
ALL SHEAR KEYS SHALL HAVE AN EXPOSED AGGREGATE FINISH.

SECTION 12 / –

SCALE: ¾" = 1'–0"



NOTE:
STRUCTURE REINFORCEMENT NOT SHOWN FOR CLARITY.

APPROACH SLAB SHELF

SCALE: 1" = 1'–0"

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

608051_BR21.DWG Plotted on 4-Dec-2025 2:34 PM
Final Structural Submittal (SF) 10-November-2025
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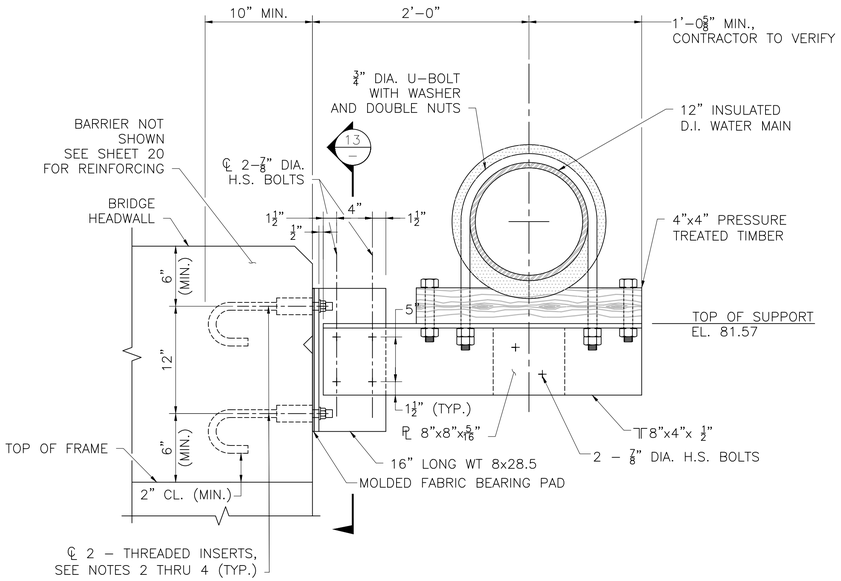
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

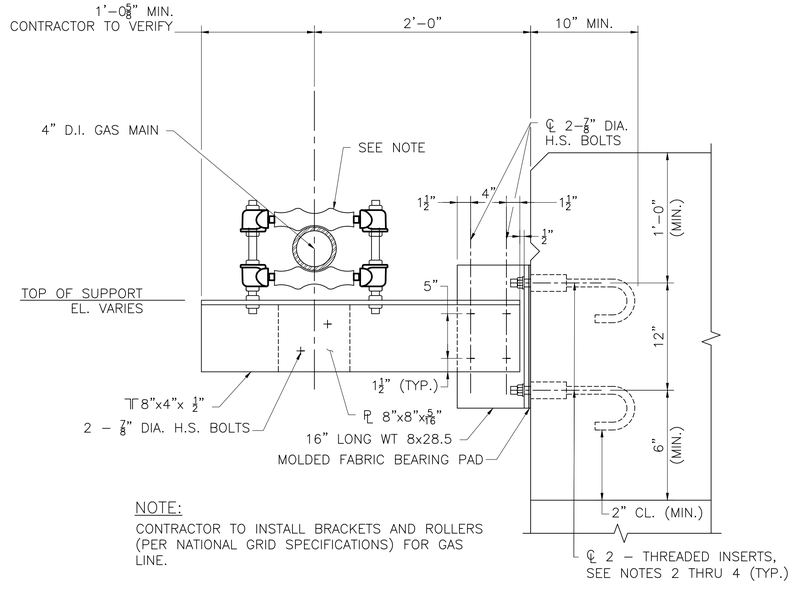
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	257	420
PROJECT FILE NO.	608051		

UTILITY SUPPORT DETAILS



TYPE "A" UTILITY SUPPORT DETAIL – WATER MAIN

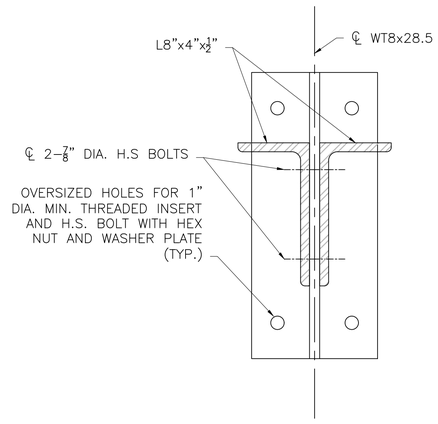
SCALE: 1½" = 1'–0"



NOTE:
CONTRACTOR TO INSTALL BRACKETS AND ROLLERS (PER NATIONAL GRID SPECIFICATIONS) FOR GAS LINE.

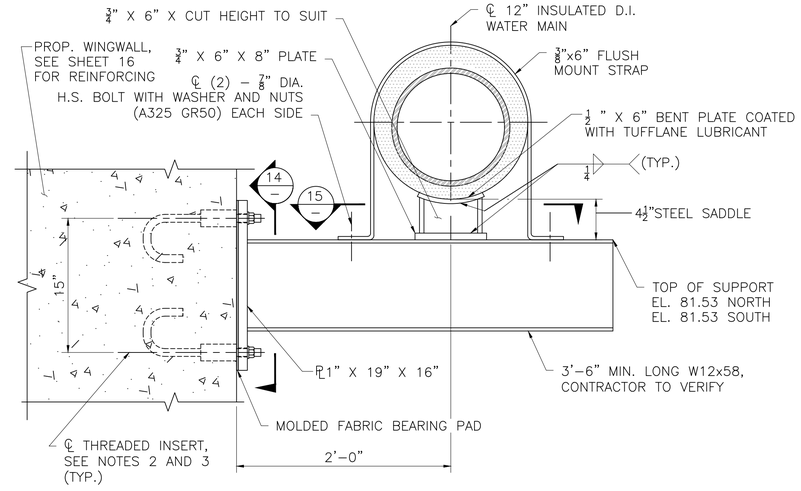
TYPE "B" UTILITY SUPPORT DETAIL – WATER MAIN

SCALE: 1½" = 1'–0"



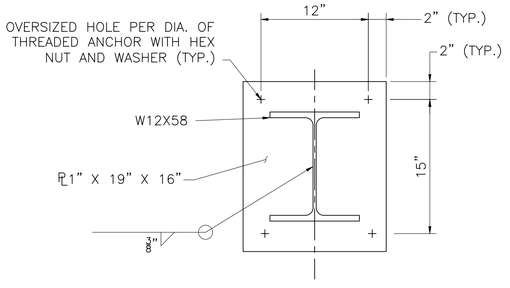
SECTION 13 –

SCALE: 3" = 1'–0"



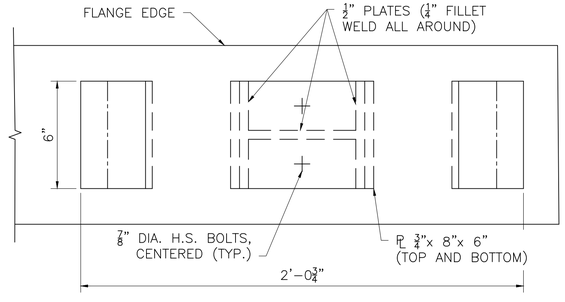
TYPE "C" WATER MAIN SUPPORT DETAIL

SCALE: 1½" = 1'–0"



SECTION 14 –

SCALE: 1½" = 1'–0"



SECTION 15 –

SCALE: 1½" = 1'–0"

NOTES:

1. ALL PROPOSED UTILITY SUPPORT STEEL AND HARDWARE SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.
2. THE CONCRETE THREADED INSERTS FOR THE WATERLINE SUPPORTS SHALL PROVIDE A MINIMUM OF 31 KIPS TENSILE CAPACITY AND 8 KIPS SHEAR CAPACITY BASED ON THE STRENGTH OF THE CONCRETE THEY ARE CAST INTO.
3. THE CONTRACTOR SHALL SIZE THE THREADED INSERTS, INCLUDING DIAMETER, MINIMUM LENGTH, RADII, AND EMBEDMENT (7" MIN.), BASED ON THE MANUFACTURER'S RECOMMENDATIONS TO PROVIDE THE MINIMUM TENSILE AND SHEAR CAPACITY VALUES REQUIRED IN NOTE 3.
4. REFER TO SHEET 5 – GENERAL PLAN AND ELEVATION FOR PENETRATION LOCATIONS IN THE WEST WALL.
5. MOLDED FABRIC BEARING PAD SHALL COMPLY WITH MASSDOT STANDARD SPECIFICATION SECTION M.9.16.2.

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

608051_BR22.DWG Plotted on 4-Dec-2025 2:34 PM
Final Structural Submittal (SF) 10-November-2025
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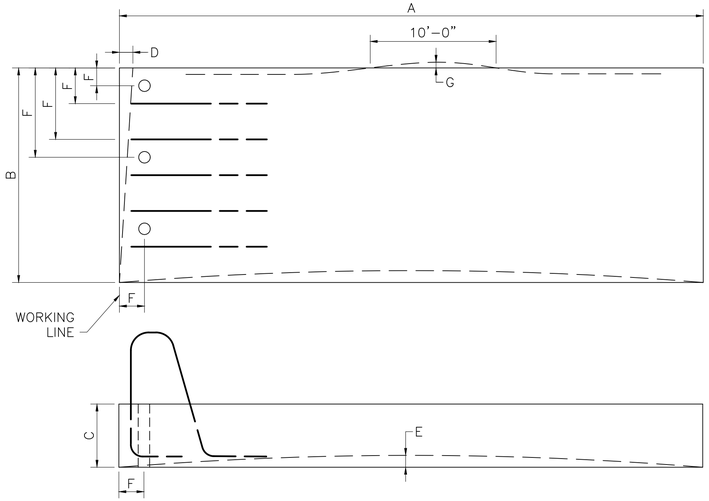
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	258	420
PROJECT FILE NO.	608051		

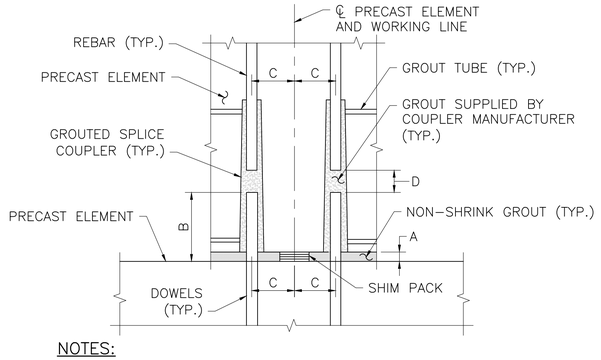
PRECAST TOLERANCES



A	LENGTH (OVERALL)	±¼"
B	WIDTH (OVERALL)	±¼"
C	DEPTH (OVERALL)	±¼"
D	VARIATION FROM SPECIFIED PLAN END SQUARENESS OR SKEW	±½"
E	SWEEP OVER MEMBER LENGTH	±⅜"
F	LOCATION OF SLEEVE FOR DOWELS OR PROJECTING REINFORCEMENT MEASURED FROM A WORKING LINE	±½"
G	LOCAL SMOOTHNESS OF ANY SURFACE	±¼" IN 10 FEET

APPROACH SLAB FABRICATION TOLERANCES

NOT TO SCALE



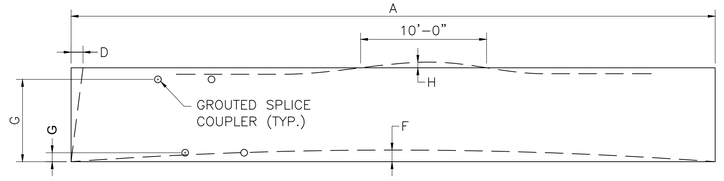
NOTES:

1. USE MATCHING TEMPLATES FOR THE LOCATION OF REINFORCEMENT AND GROUTED SPLICE COUPLER PLACEMENT WITHIN THE ELEMENTS TO CONTROL THE CRITICAL DIMENSION "C".
2. CONSULT MANUFACTURER OF THE GROUTED SPLICE COUPLER FOR PROPER DIMENSIONS "B" AND "D" AND FOR TOLERANCES ON THESE AND ALL DIMENSIONS.
3. BEFORE EXECUTING GROUTED SPLICE COUPLER ASSEMBLIES, ALWAYS SEEK INSTALLATION RECOMMENDATIONS FROM THE MANUFACTURER OF THE GROUTED SPLICE COUPLER USED.

A	SHIM PACK HEIGHT	1¼" ± ⅝"
B	DOWEL HEIGHT	CONSULT MANUFACTURER
C	LOCATION OF REINFORCING, GROUTED SPLICE COUPLER, AND DOWELS MEASURED FROM A WORKING LINE	±¼"
D	GAP BETWEEN DOWELS AND REINFORCING	CONSULT MANUFACTURER

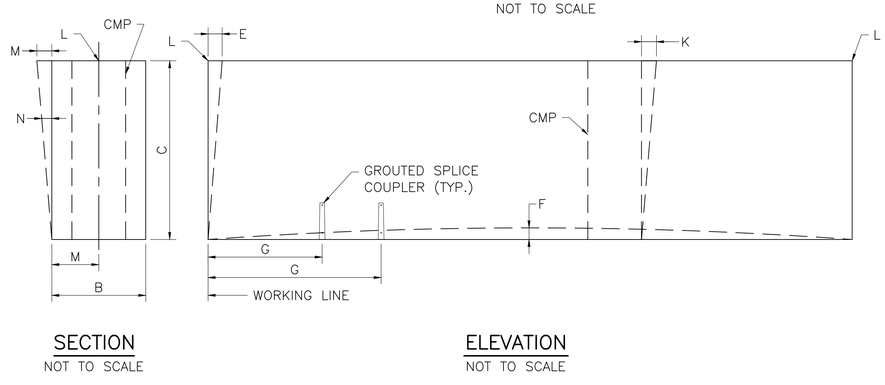
GROUTED SPLICE COUPLERS INSTALLATION TOLERANCES

NOT TO SCALE



PLAN

NOT TO SCALE



SECTION

NOT TO SCALE

ELEVATION

NOT TO SCALE

WALL ELEMENTS ERECTION TOLERANCES

L	ACTUAL ELEVATION FROM SPECIFIED ELEVATION MAXIMUM LOW MAXIMUM HIGH	 ½" ¼"
M	MAXIMUM PLUMB VARIATION OVER HEIGHT OF PANEL	½"
N	PLUMB IN ANY 10 FEET OF PANEL HEIGHT	¼"

WALL ELEMENTS FABRICATION TOLERANCES

A	LENGTH (OVERALL)	±¼"
B	WIDTH (OVERALL)	±¼"
C	DEPTH (OVERALL)	±¼"
D	VARIATION FROM SPECIFIED PLAN END SQUARENESS OR SKEW	±⅛"PER 12 INCH WIDTH ±½"MAXIMUM
E	VARIATION FROM SPECIFIED ELEVATION END SQUARENESS OR SKEW	±⅛"PER 12 INCH WIDTH ±½"MAXIMUM
F	SWEEP OVER MEMBER LENGTH	±⅜"
G	LOCATION OF GROUTED SPLICE COUPLER MEASURED FROM A WORKING LINE	±¼"
H	LOCAL SMOOTHNESS OF ANY SURFACE	±¼" IN 10 FEET
J	LOCATION OF BLOCKOUT FOR PILES OR VOIDS	±1"
K	MAXIMUM PLUMB VARIATION OVER HEIGHT OF CMP VOID	±½"

WALL ELEMENTS

NOT TO SCALE

09/13/2025	ISSUED FOR CONSTRUCTION
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608051_BR23.DWG Plotted on 4-Dec-2025 2:34 PM
Final Structural Submittal (SF) 10-November-2025
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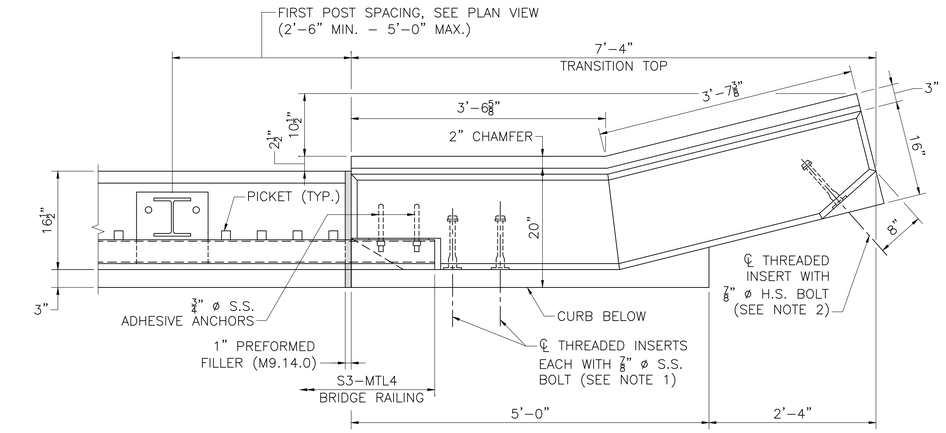
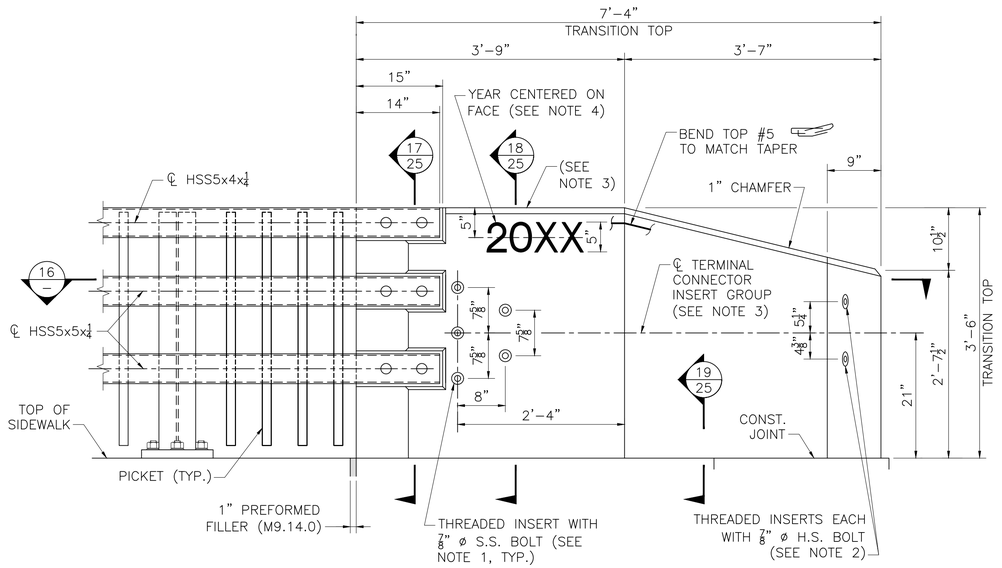


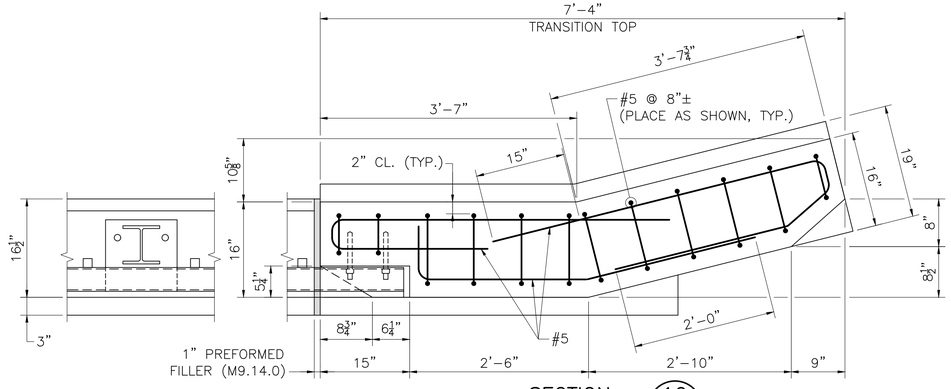
PLAN AT SAFETY CURB

SCALE: 1" = 1'-0"



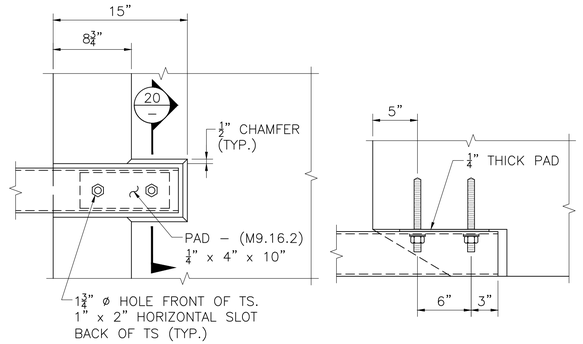
ELEVATION AT SIDEWALK

SCALE: 1" = 1'-0"



SECTION 16 / –

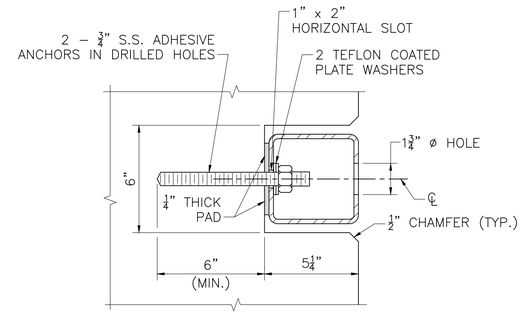
SCALE: 1" = 1'-0"



ELEVATION PLAN

RAIL ATTACHMENT

SCALE: 1½" = 1'-0"



SECTION 20 / –

SCALE: 3" = 1'-0"

NOTES:

1. THREADED INSERTS SHALL BE PREQUALIFIED BY THE MANUFACTURER AS BEING CAPABLE OF DEVELOPING A NOMINAL SHEAR RESISTANCE OF 20 KIPS PER ⅞" ø S.S. (STAINLESS STEEL) BOLT. S.S. BOLTS SHALL BE ⅞" ø x 1½" LONG FULLY THREADED CONFORMING TO ASTM F593D WITH AISI TYPE 304N S.S. WASHERS. INSERTS FOR ¾" S.S. BOLTS SHALL BE GALVANIZED AND CAST INTO THE TRANSITION.

2. ⅞" ø HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F3125 AND BE GALVANIZED. USE ADDITIONAL WASHERS AS REQUIRED TO PROPERLY ENGAGE THE BOLTS.

3. FOR AN APPROACH GRADE IN EXCESS OF 3%, THE TRANSITION TOP AND THE TOP OF CURB SHALL FOLLOW THE APPROACH GRADE. THE HEIGHT OF THE TRANSITION TOP SHALL VARY PROVIDED THAT THE MINIMUM DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE MET. THE BOTTOM OF THE TRANSITION BASE SHALL BE SET LEVEL WITH THE MINIMUM EMBEDMENT DEPTH SHOWN. THE TERMINAL CONNECTOR INSERT GROUP SHALL BE SLOPED TO FOLLOW THE APPROACH GRADE.

   FOR AN APPROACH GRADE UP TO 3%, THE TRANSITION MAY BE CAST SQUARE AND SET PLUMB WITH THE MINIMUM EMBEDMENT DEPTH SHOWN. THE TERMINAL CONNECTOR INSERT GROUP SHALL BE SQUARE TO THE POST.

4. USE LATEST CONTRACT COMPLETION YEAR IN EFFECT WHEN THE FIRST GUARDRAIL TRANSITION IS CAST. USE THIS YEAR FOR ALL GUARDRAIL TRANSITIONS.

5. ALL CONCRETE FOR THE PRECAST HIGHWAY GUARDRAIL TRANSITION SHALL BE 5000 HP CEMENT CONCRETE.

6. LIFTING DEVICES (NOT SHOWN), INCLUDING THEIR NUMBER AND LOCATION, SHALL BE DESIGNED AND DETAILED BY THE PRECASTER. THEY SHALL BE GALVANIZED AND SHALL BE PLACED AND RECESSED IN POCKETS TO PROVIDE 1½" CLEAR COVER TO THE FACE OF THE TRANSITION CONCRETE. THESE DEVICES SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS ALONG WITH ALL SUPPORTING CALCULATIONS AND/OR CATALOG CUTS. ONCE THE PRECAST TRANSITION IS SET IN PLACE, THE LIFTING DEVICE POCKETS SHALL BE FILLED WITH A NON-SHRINK GROUT THAT MATCHES THE COLOR OF THE TRANSITION CONCRETE WHEN CURED AND THE FILLED POCKETS SHALL BE RUBBED WITH A CORUNDUM STONE TO BLEND OUT THE JOINTS.

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	259	420
PROJECT FILE NO.	608051		

HIGHWAY GUARDRAIL TRANSITION DETAILS 1 OF 2

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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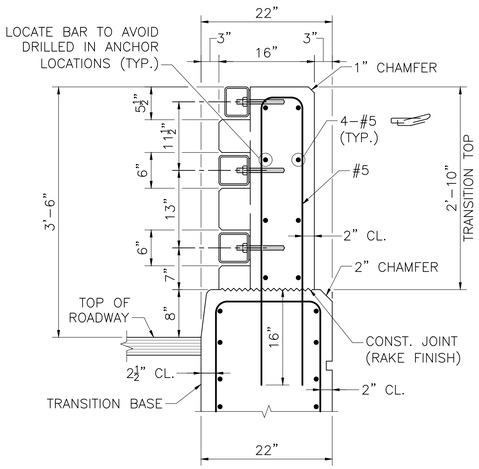
WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

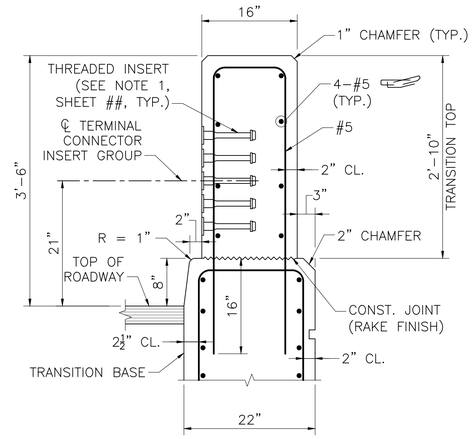
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	260	420
PROJECT FILE NO.	608051		

HIGHWAY GUARDRAIL TRANSITION DETAILS 2 OF 2



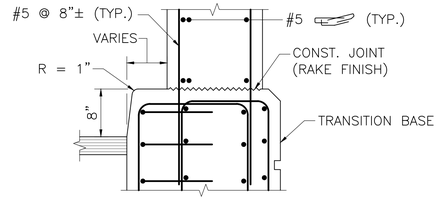
SECTION AT SAFETY CURB

SECTION 17 / 24
SCALE: 1" = 1'-0"



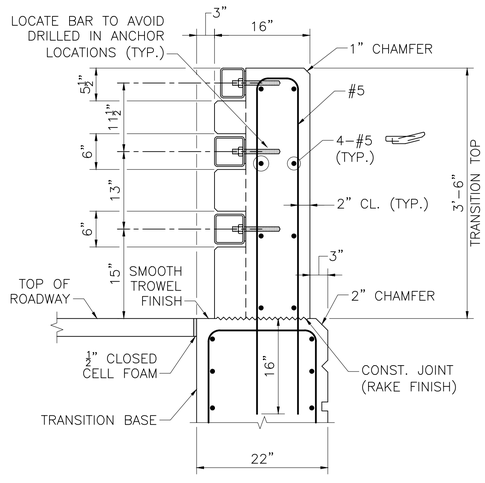
SECTION AT SAFETY CURB

SECTION 18 / 24
SCALE: 1" = 1'-0"



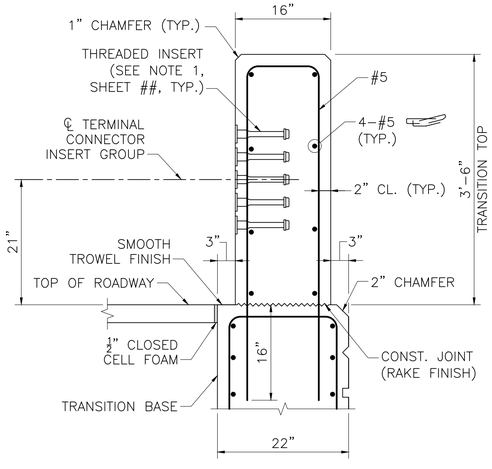
SECTION AT SAFETY CURB

SECTION 19 / 24
SCALE: 1" = 1'-0"



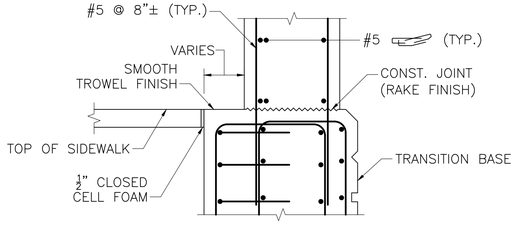
SECTION AT SIDEWALK

SECTION 17 / 24
SCALE: 1" = 1'-0"



SECTION AT SIDEWALK

SECTION 18 / 24
SCALE: 1" = 1'-0"



SECTION AT SIDEWALK

SECTION 19 / 24
SCALE: 1" = 1'-0"

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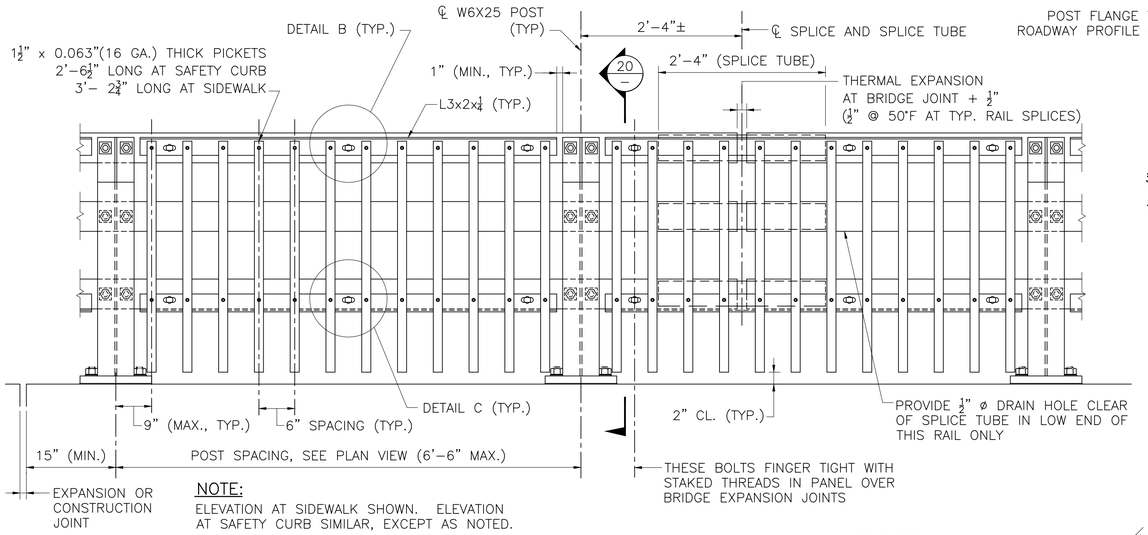
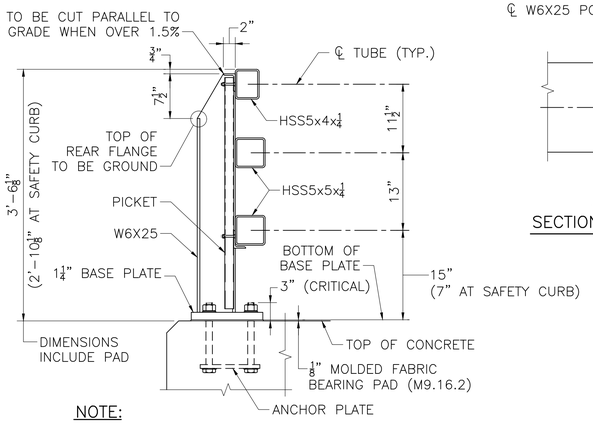


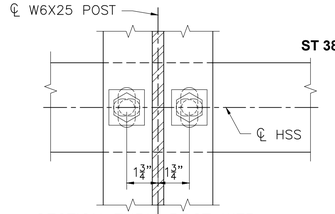
NOTE:
ELEVATION AT SIDEWALK SHOWN. ELEVATION AT SAFETY CURB SIMILAR, EXCEPT AS NOTED.

BRIDGE RAILING ELEVATION

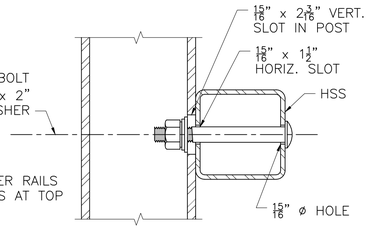
SCALE: 1" = 1'-0"



NOTE:
SECTION AT SIDEWALK SHOWN. SECTION AT SAFETY CURB SIMILAR, EXCEPT AS NOTED.



SECTION THRU POST WEB

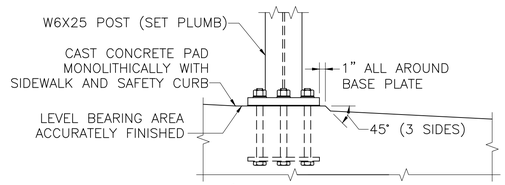


NOTE:
CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

SECTION THRU RAIL

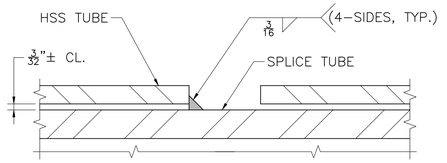
TYPICAL RAIL TO POST CONNECTIONS

SCALE: 3" = 1'-0"



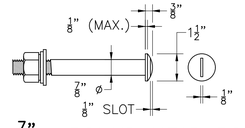
SETTING OF POSTS (PROFILE GRADE OVER 1.5%)

SCALE: 1" = 1'-0"



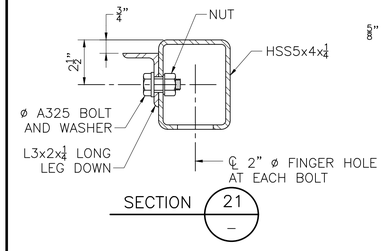
SPLICE DETAIL

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

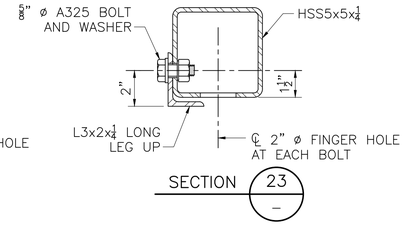


⅞" ø ROUND HEAD BOLT

SCALE: 3" = 1'-0"



SECTION 21



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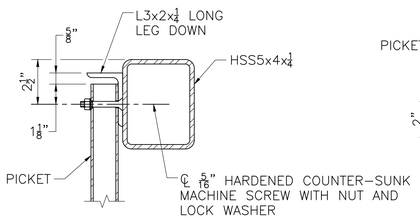

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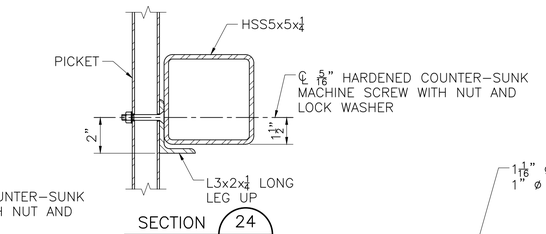
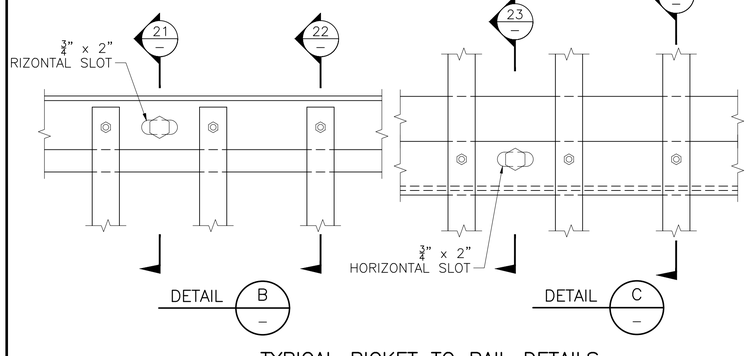
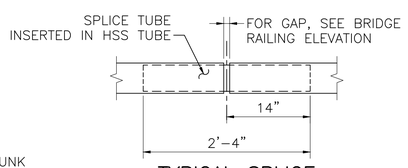


SECTION 24



TYPICAL PICKET TO RAIL DETAILS

SCALE: 3" = 1'-0"



TYPICAL SPLICE

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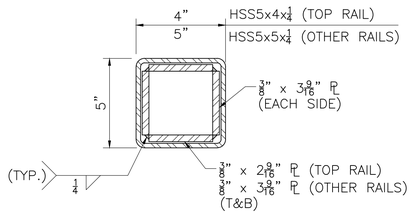
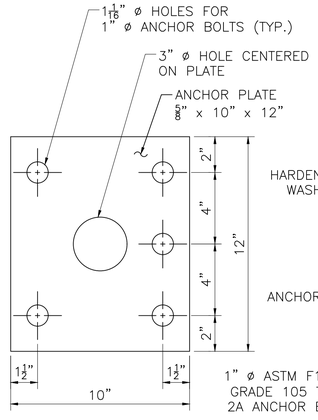


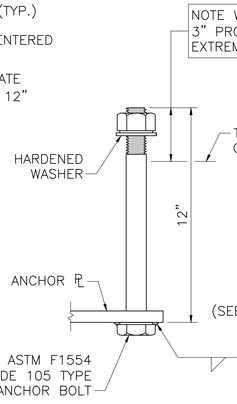
SPLICE TUBE DETAILS

SCALE: 3" = 1'-0"



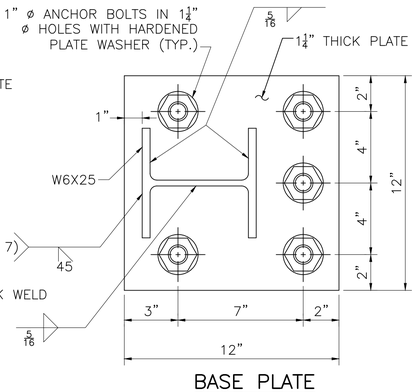
ANCHOR PLATE

SCALE: 3" = 1'-0"



ANCHOR BOLT

SCALE: 3" = 1'-0"



BASE PLATE

SCALE: 3" = 1'-0"

RAILING NOTES:

1. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING (HSS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 500 WITH A CERTIFIED Fy = 50 KSI MINIMUM. THE MINIMUM HORIZONTAL BENDING RADII OF THE HSS TUBING SHALL BE 8 FEET. PICKET CARRIER ANGLES, ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 36. PICKET TUBING SHALL CONFORM TO ASTM A 513 WITH Fy = 36 KSI MIN. OR A 500 GRADE B.
2. ALL STEEL (EXCEPT THE ⅝" ANCHOR PLATE AND FASTENERS) SHALL BE GALVANIZED AND PAINTED DARK BRONZE (FEDERAL STD. 595B COLOR NO. 10045). ANCHOR PLATE SHALL BE GALVANIZED ONLY. HEADS OF ⅞" ø ROUND HEAD BOLTS SHALL BE PAINTED TO MATCH RAIL.
3. ANCHOR BOLTS SHALL BE SET WITH TEMPLATES. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN AFTER STEEL IS IN PLACE.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF FOUR (4) POSTS WITHOUT SPLICES WHERE POSSIBLE. IN ADDITION SPLICES SHALL ALSO BE LOCATED IN RAILS OVER BRIDGE EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. ALL POSTS TO BE PLUMB WHEN PROFILE GRADE EXCEEDS 1.5%. FOR PROFILE GRADES LESS THAN 1.5%, POSTS SHALL BE SET PERPENDICULAR TO GRADE.
7. POST TO FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING. BEVEL OUTSIDE FLANGES OF POST. FIT POST TO BASE PLATE. WELD 5/16" FILLET ON INSIDE OF FLANGE AND WEB. BACKGOUGE OUTSIDE OF FLANGE TO SOUND METAL. COMPLETE GROOVE WELD WITH MINIMUM OF ⅛" REINFORCEMENT. WELD IS THE SAME ON BOTH FLANGES.
8. ⅞" ø ROUND HEAD BOLTS SHALL CONFORM TO THE CHEMICAL AND PHYSICAL REQUIREMENTS OF ASTM F3125 GRADE 325 TYPE 1 GALVANIZED.

WILMINGTON
ST 38 (MAIN STREET) OVER MAPLE MEADOW BROOK

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	261	420
	PROJECT FILE NO. 608051		

S3-MTL4 BRIDGE RAILING

09/13/2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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608051_BR26.DWG Plotted on 4-Dec-2025 2:34 PM
Final Structural Submittal (SF) 10-November-2025

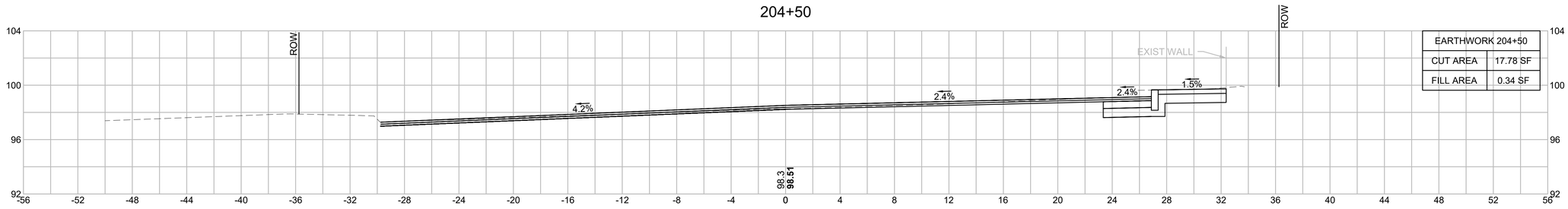
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	262	420
	PROJECT FILE NO. 608051		

CROSS SECTIONS - 1

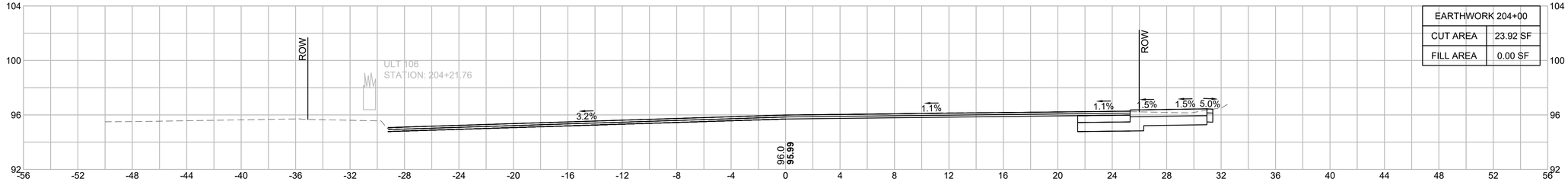
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:51 PM

204+50



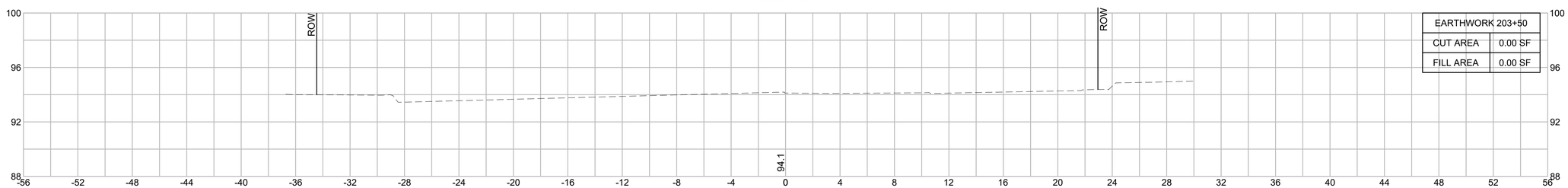
EARTHWORK 204+50	
CUT AREA	17.78 SF
FILL AREA	0.34 SF

204+00



EARTHWORK 204+00	
CUT AREA	23.92 SF
FILL AREA	0.00 SF

203+50



EARTHWORK 203+50	
CUT AREA	0.00 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

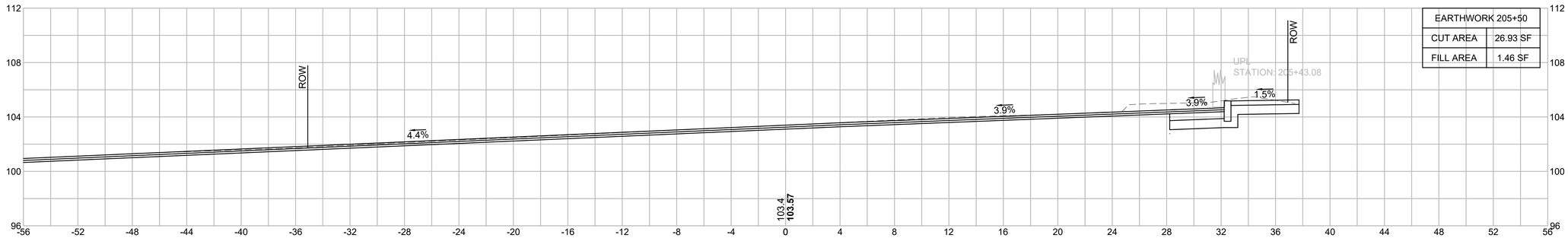
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	263	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 2

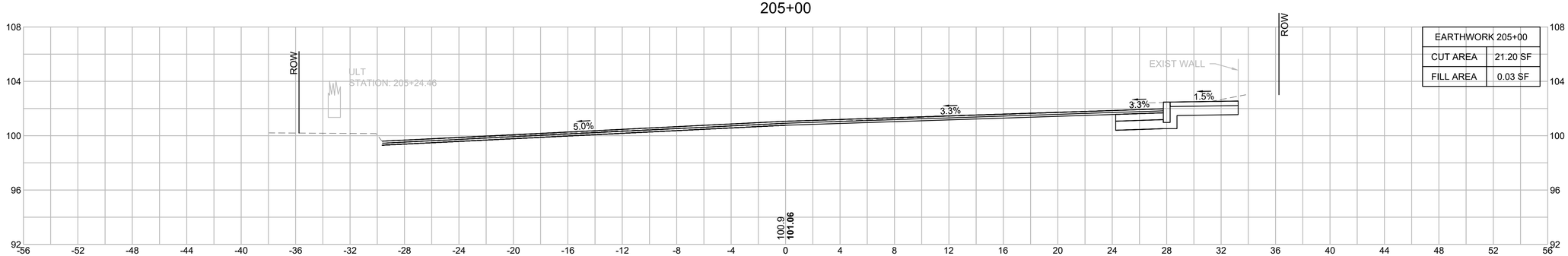
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:51 PM

205+50



EARTHWORK 205+50	
CUT AREA	26.93 SF
FILL AREA	1.46 SF

205+00



EARTHWORK 205+00	
CUT AREA	21.20 SF
FILL AREA	0.03 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

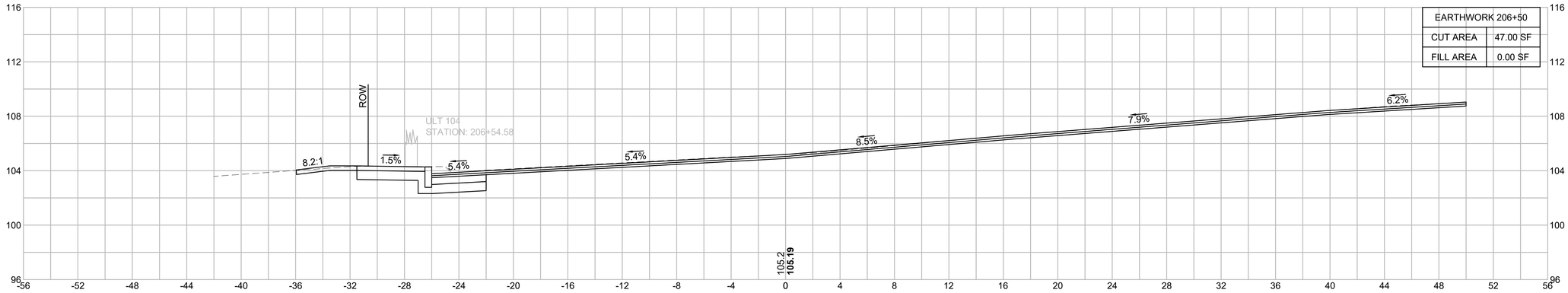
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	264	420
PROJECT FILE NO.	608051		

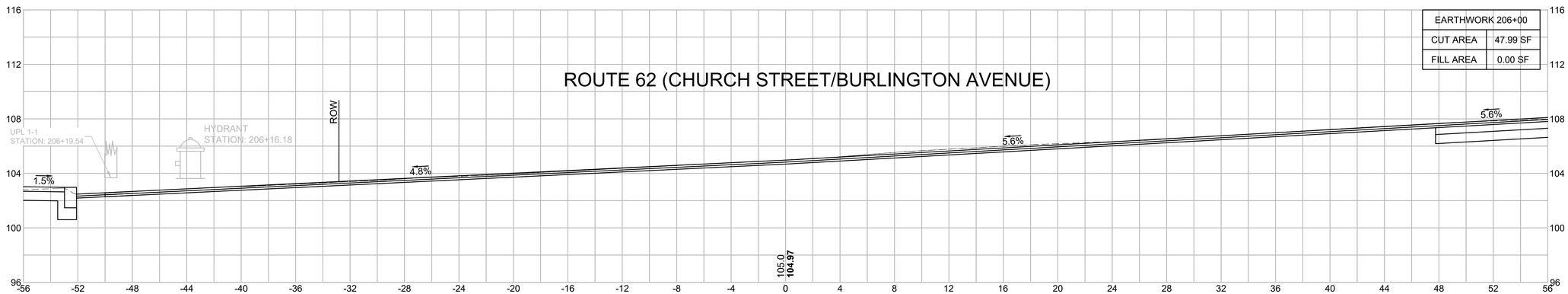
CROSS SECTIONS - 3

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:52 PM

206+50



206+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

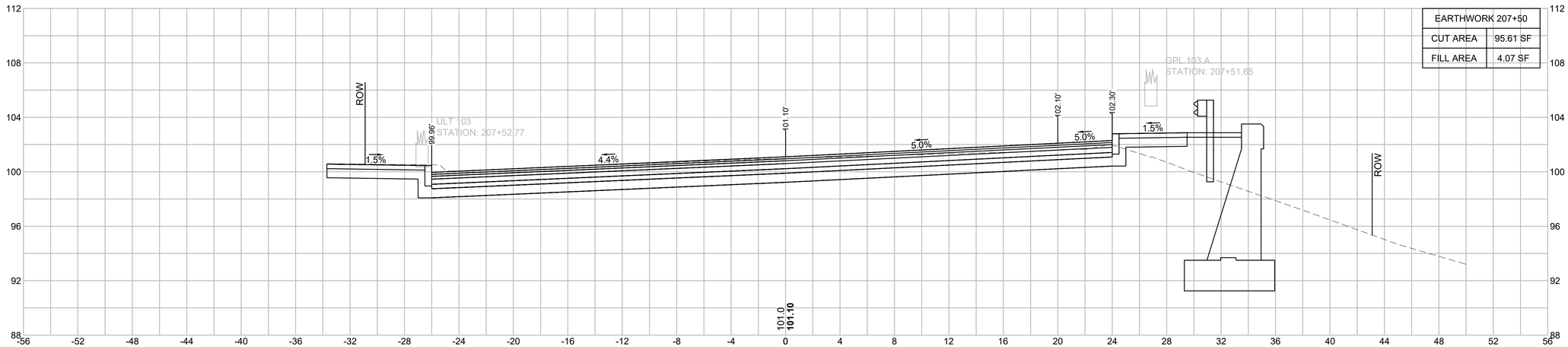
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	265	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 4

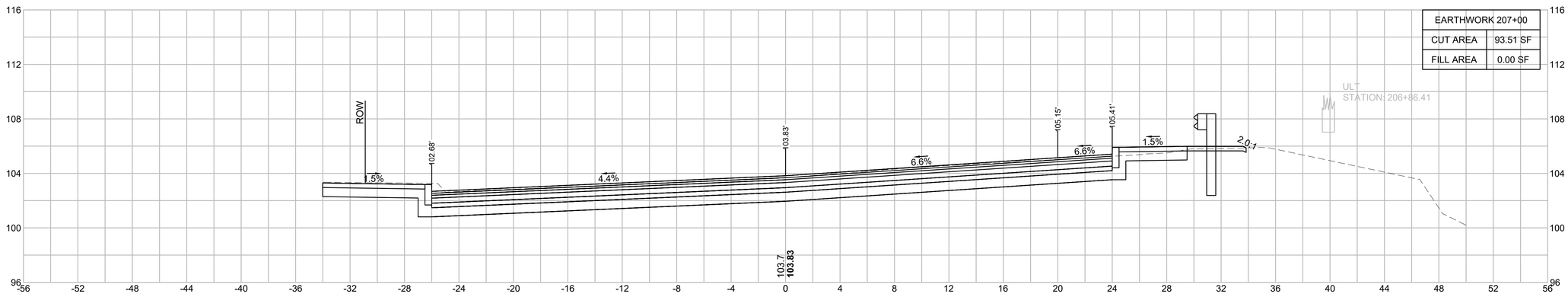
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:52 PM

207+50



EARTHWORK 207+50	
CUT AREA	95.61 SF
FILL AREA	4.07 SF

207+00



EARTHWORK 207+00	
CUT AREA	93.51 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

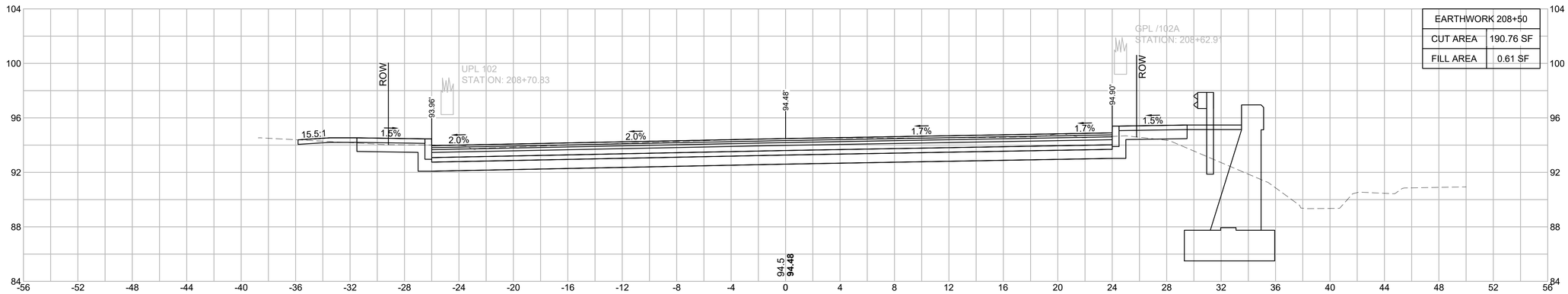
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	266	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 5

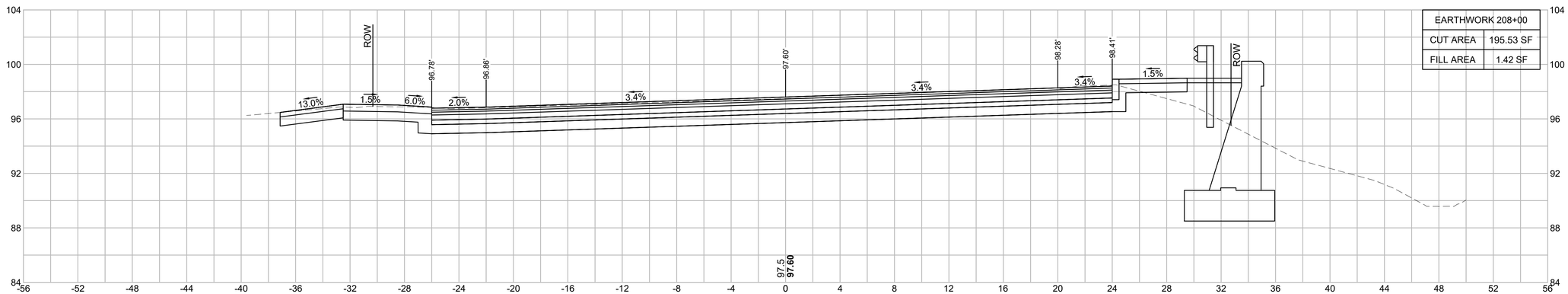
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:52 PM

208+50



EARTHWORK 208+50	
CUT AREA	190.76 SF
FILL AREA	0.61 SF

208+00



EARTHWORK 208+00	
CUT AREA	195.53 SF
FILL AREA	1.42 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

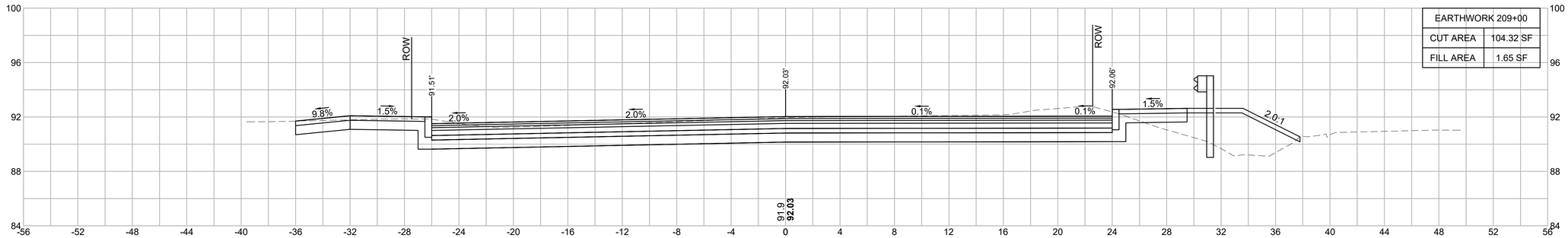
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	267	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 6

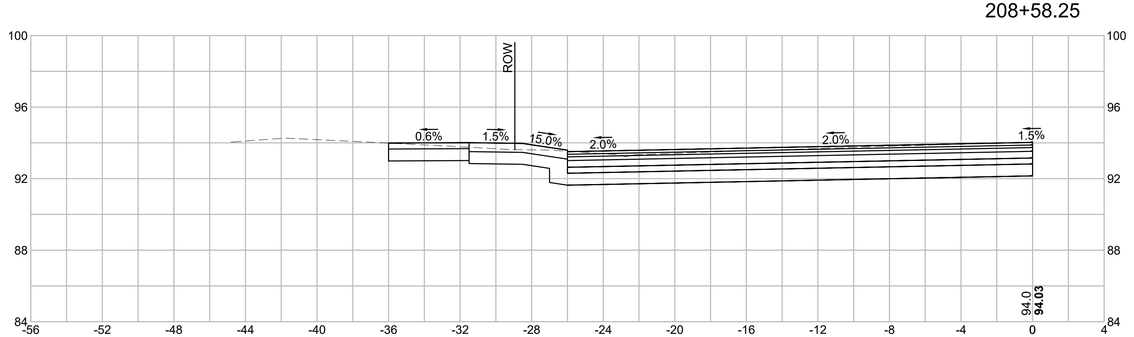
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:53 PM

209+00



EARTHWORK 209+00	
CUT AREA	104.32 SF
FILL AREA	1.65 SF

208+58.25



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

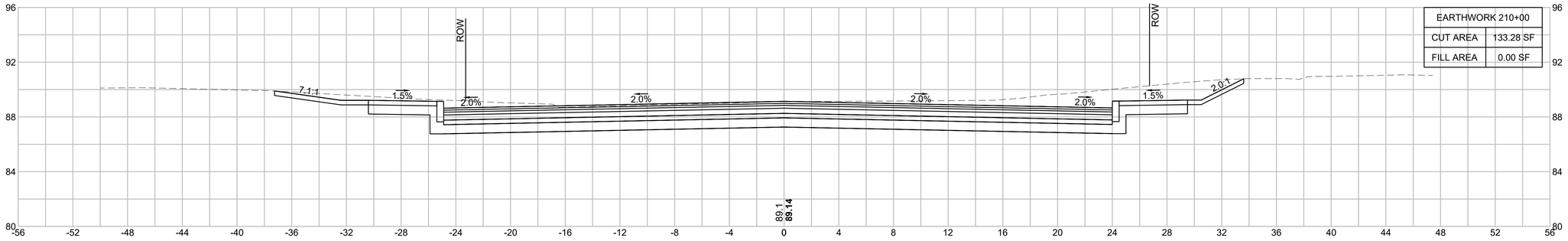
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	268	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 7

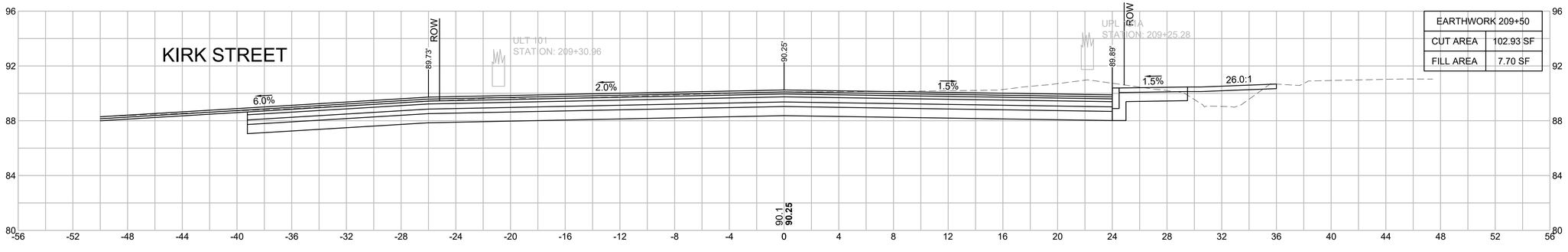
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:53 PM

210+00



EARTHWORK 210+00	
CUT AREA	133.28 SF
FILL AREA	0.00 SF

209+50



EARTHWORK 209+50	
CUT AREA	102.93 SF
FILL AREA	7.70 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

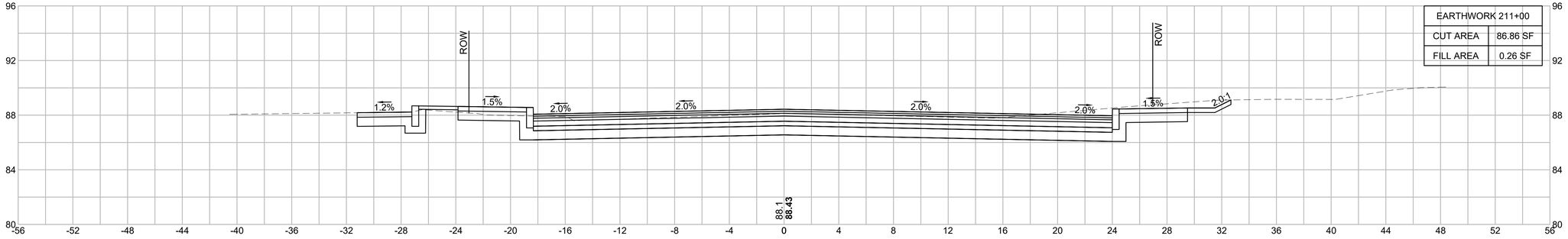
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	269	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 8

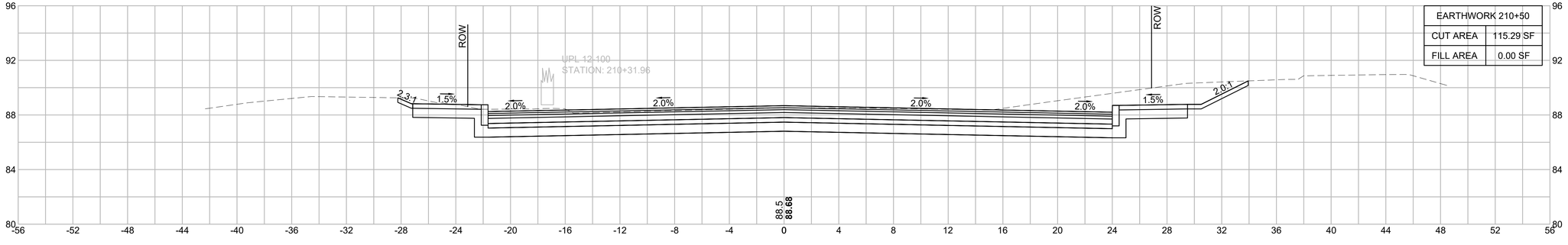
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:53 PM

211+00



EARTHWORK 211+00	
CUT AREA	86.86 SF
FILL AREA	0.26 SF

210+50



EARTHWORK 210+50	
CUT AREA	115.29 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

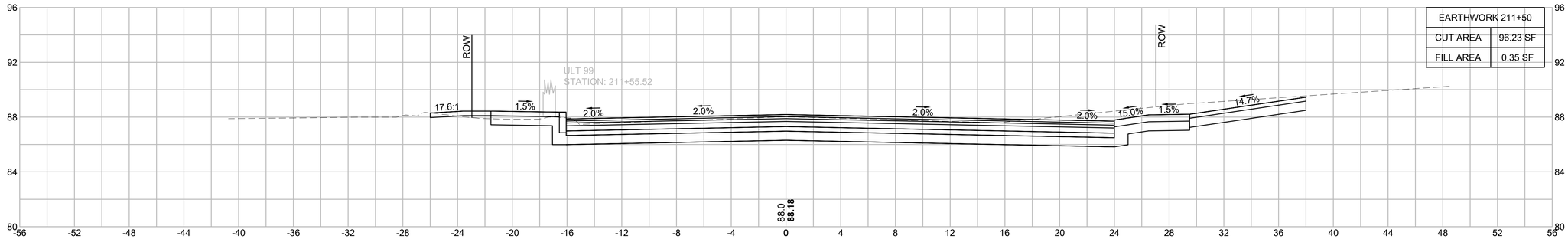
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	270	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 9

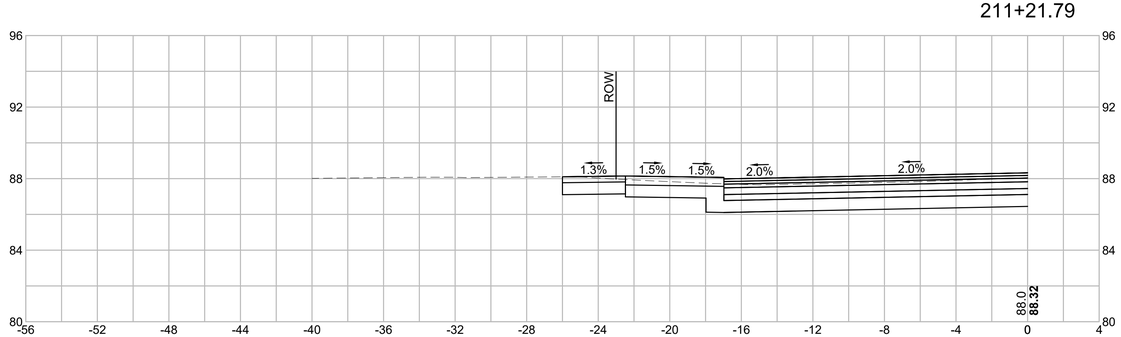
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:53 PM

211+50



EARTHWORK 211+50	
CUT AREA	96.23 SF
FILL AREA	0.35 SF

211+21.79



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

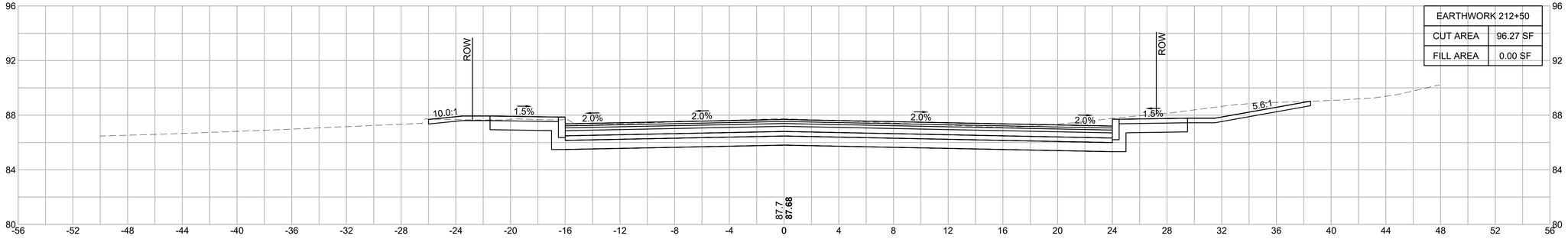
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	271	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 10

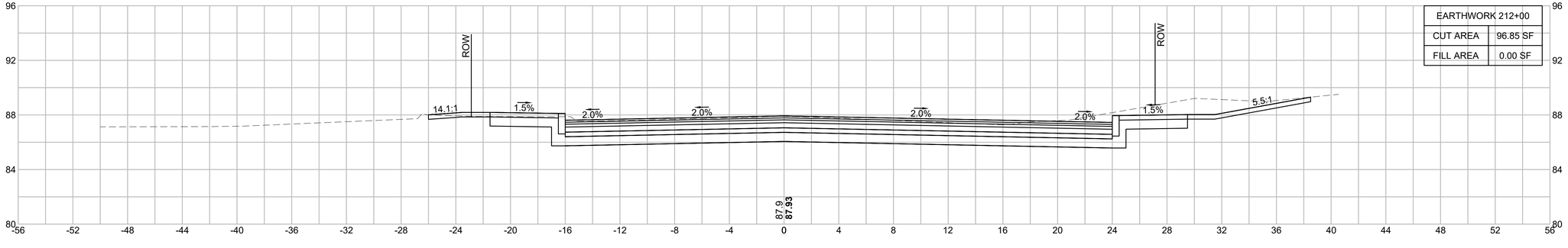
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:54 PM

212+50



EARTHWORK 212+50	
CUT AREA	96.27 SF
FILL AREA	0.00 SF

212+00



EARTHWORK 212+00	
CUT AREA	96.85 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

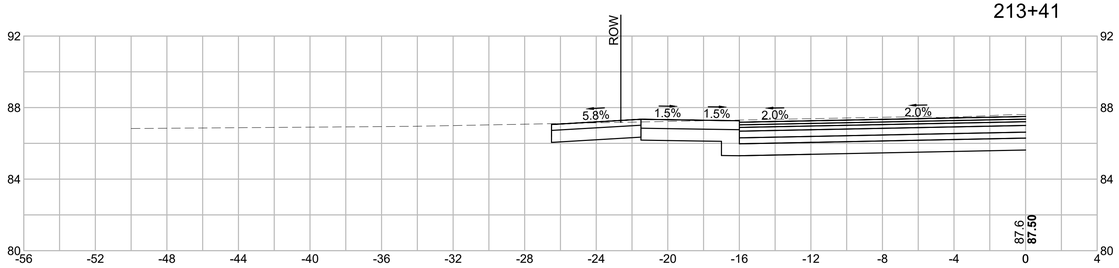
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	272	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 11

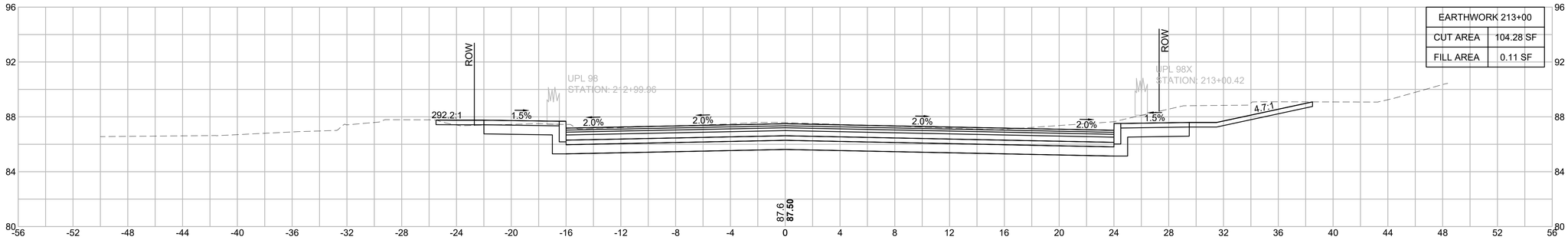
608051_HD12(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 2:54 PM

213+41

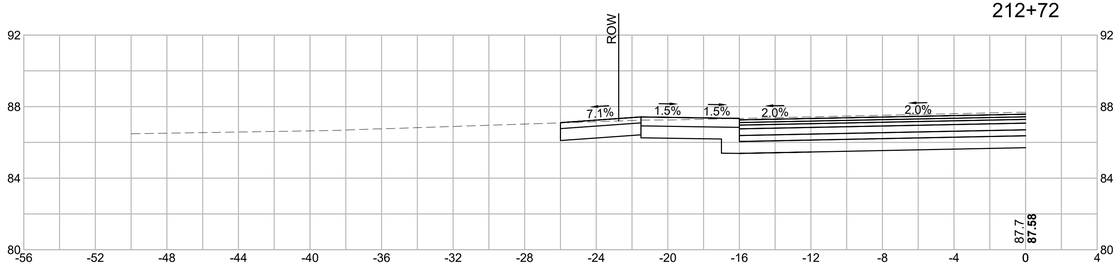


213+00

EARTHWORK 213+00	
CUT AREA	104.28 SF
FILL AREA	0.11 SF



212+72



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

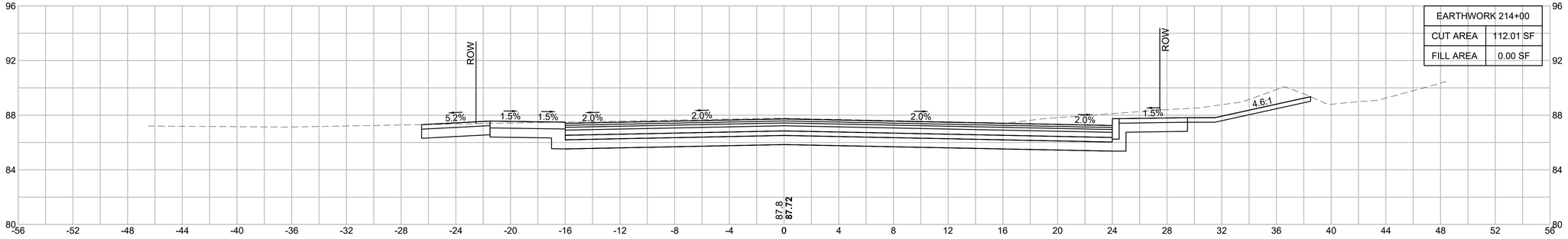
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	273	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 12

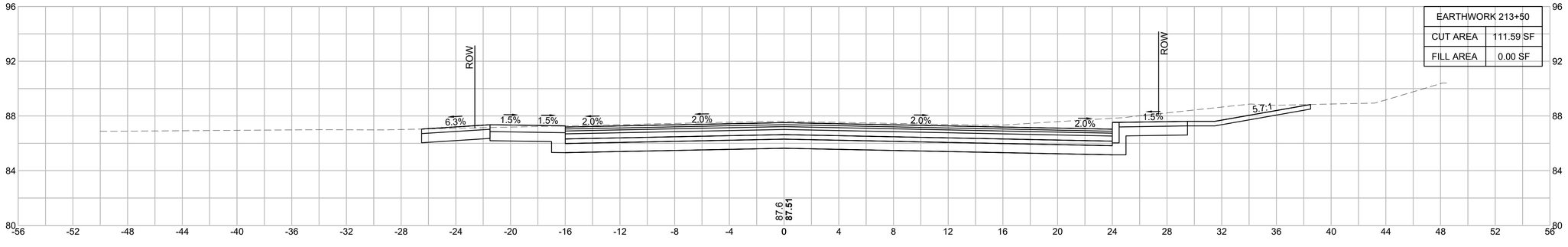
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:54 PM

214+00



EARTHWORK 214+00	
CUT AREA	112.01 SF
FILL AREA	0.00 SF

213+50



EARTHWORK 213+50	
CUT AREA	111.59 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

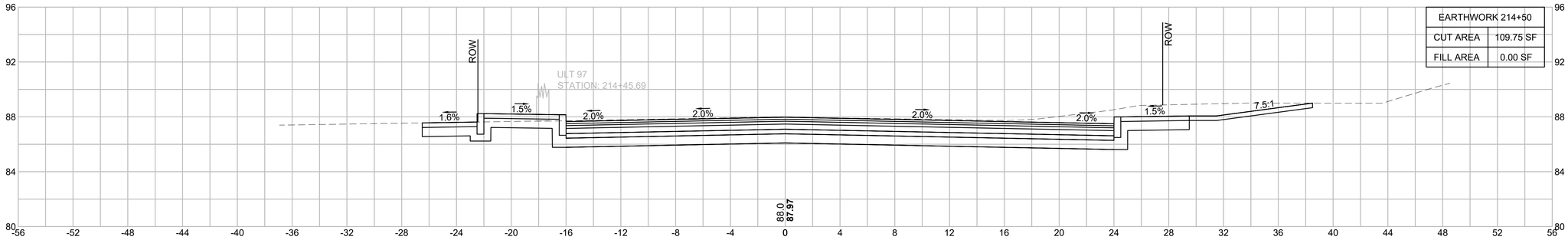
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	274	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 13

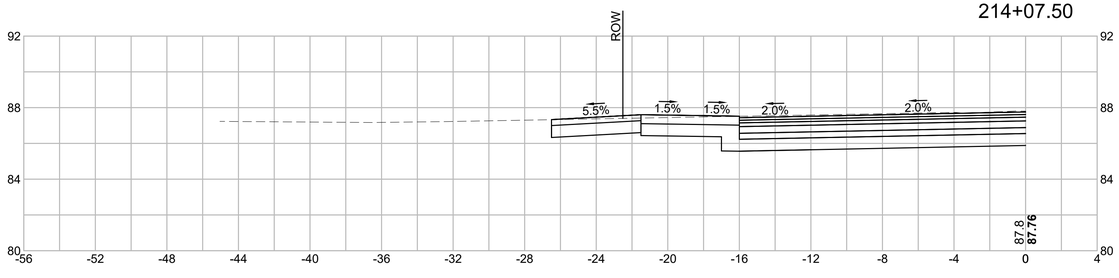
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:55 PM

214+50



EARTHWORK 214+50	
CUT AREA	109.75 SF
FILL AREA	0.00 SF

214+07.50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

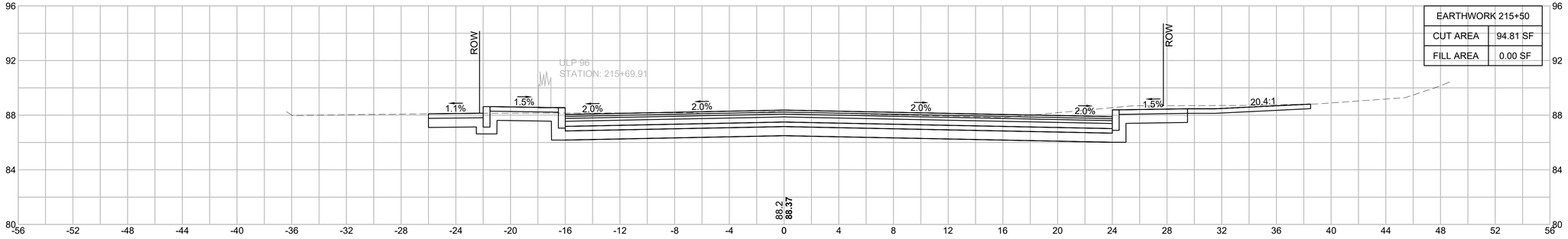
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	275	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 14

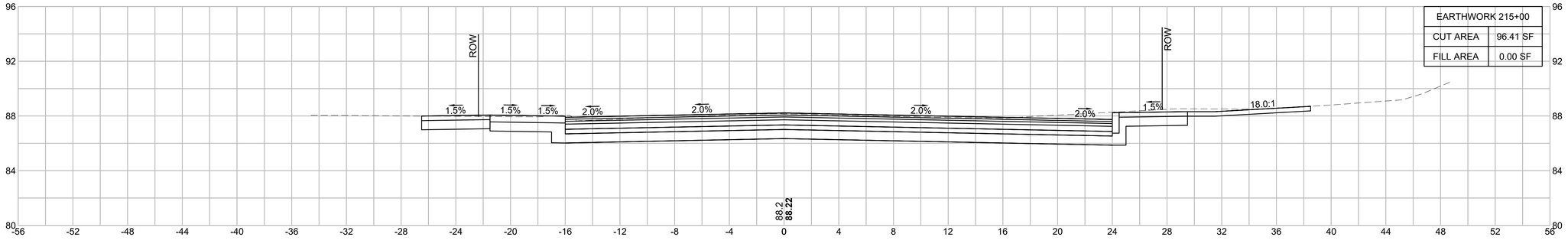
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:55 PM

215+50



EARTHWORK 215+50	
CUT AREA	94.81 SF
FILL AREA	0.00 SF

215+00



EARTHWORK 215+00	
CUT AREA	96.41 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

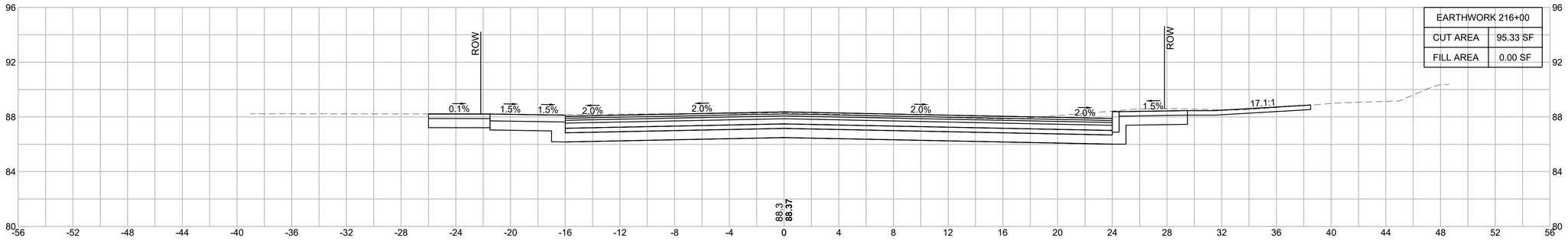
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	276	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 15

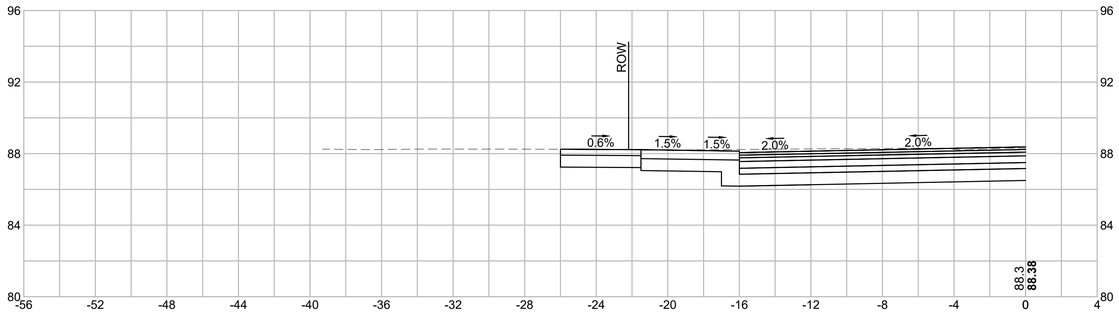
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:55 PM

216+00



EARTHWORK 216+00	
CUT AREA	95.33 SF
FILL AREA	0.00 SF

215+93



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

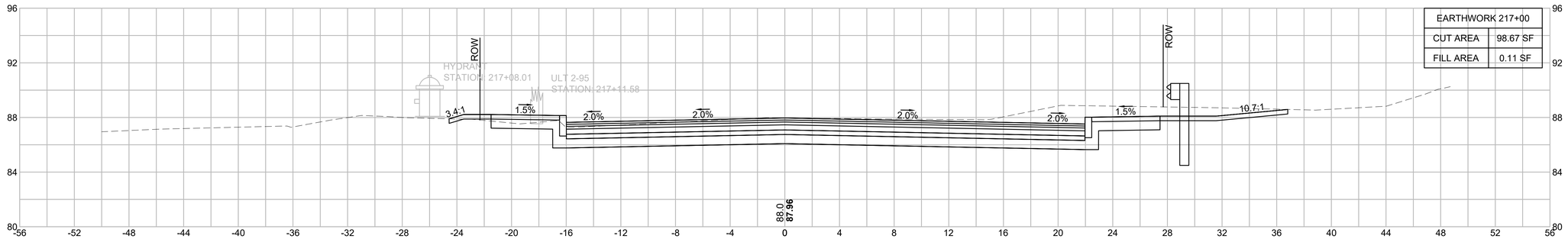
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	277	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 16

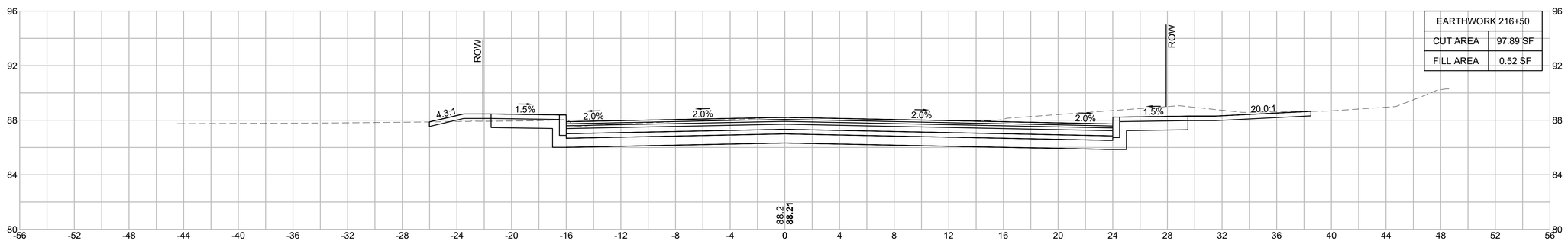
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:55 PM

217+00



EARTHWORK 217+00	
CUT AREA	98.67 SF
FILL AREA	0.11 SF

216+50



EARTHWORK 216+50	
CUT AREA	97.89 SF
FILL AREA	0.52 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

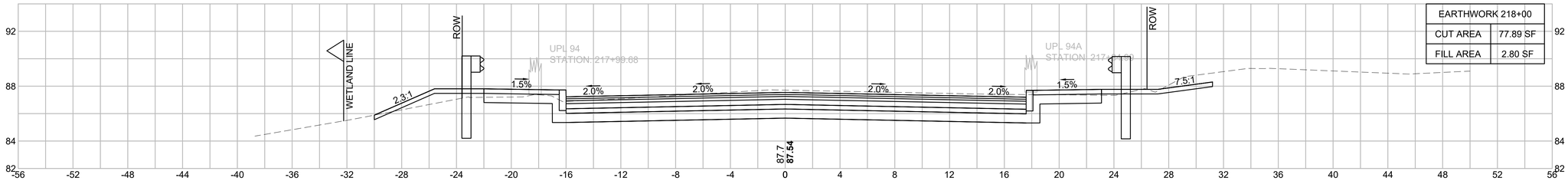
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	278	420
	PROJECT FILE NO. 608051		

CROSS SECTIONS - 17

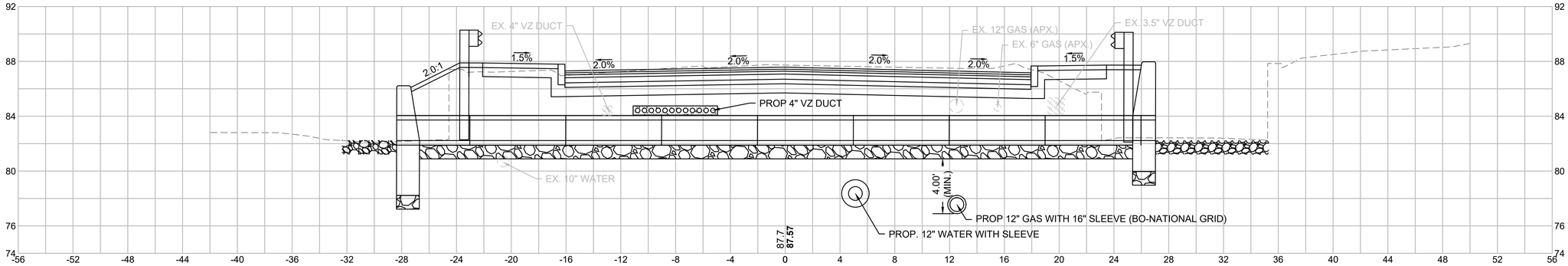
608051_HD12(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 2:56 PM

218+00

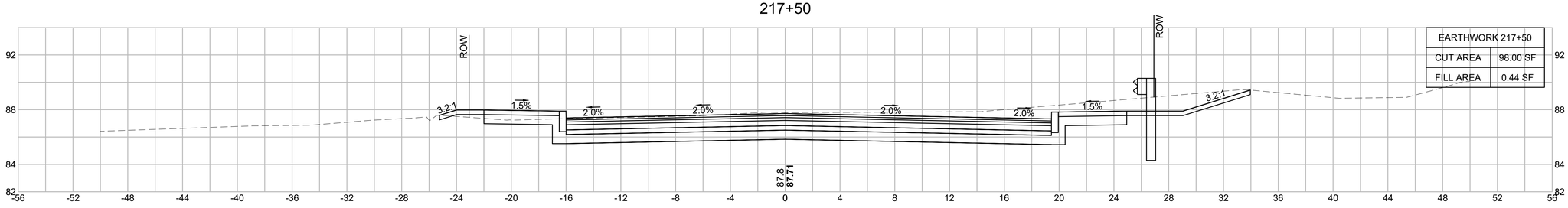


EARTHWORK 218+00	
CUT AREA	77.89 SF
FILL AREA	2.80 SF

217+87



217+50



EARTHWORK 217+50	
CUT AREA	98.00 SF
FILL AREA	0.44 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

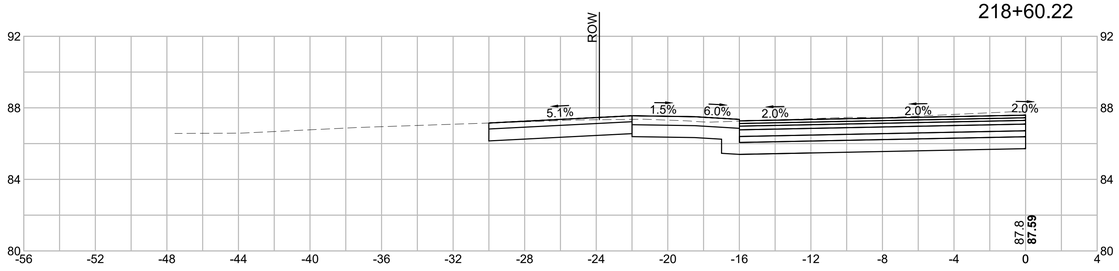
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	279	420
PROJECT FILE NO.	608051		

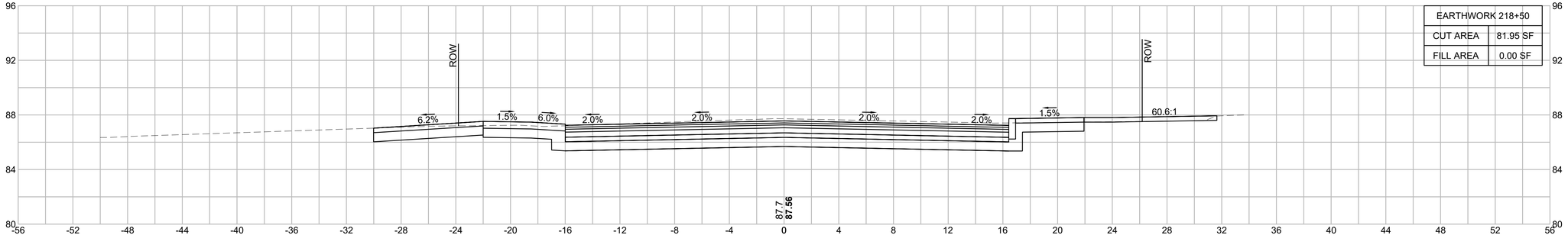
CROSS SECTIONS - 18

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:56 PM

218+60.22



218+50



EARTHWORK 218+50	
CUT AREA	81.95 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

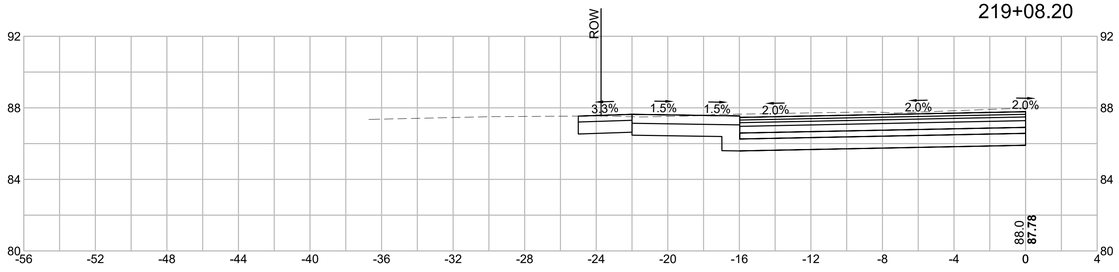
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	280	420
PROJECT FILE NO.	608051		

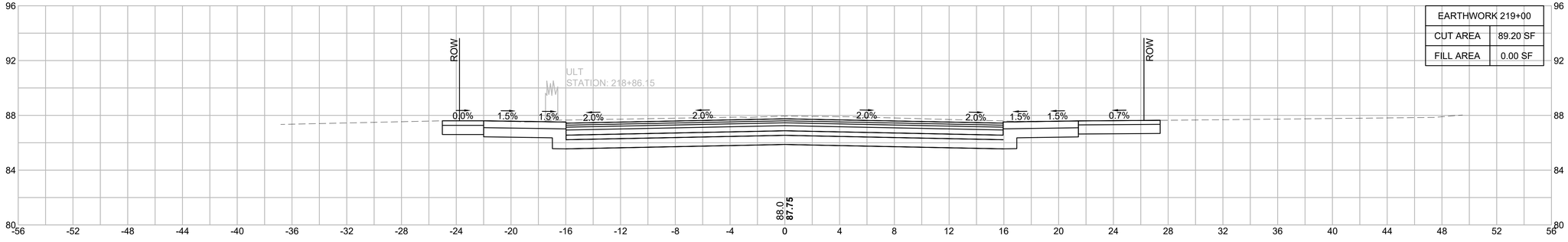
CROSS SECTIONS - 19

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:56 PM

219+08.20



219+00



EARTHWORK 219+00	
CUT AREA	89.20 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

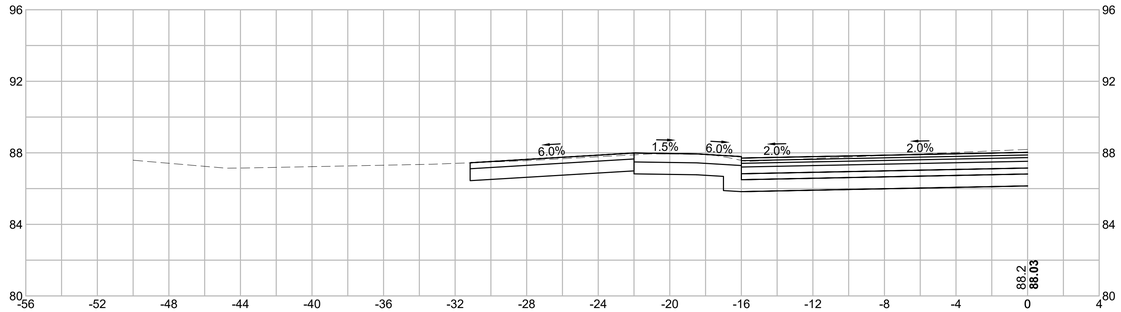
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	281	420
PROJECT FILE NO.	608051		

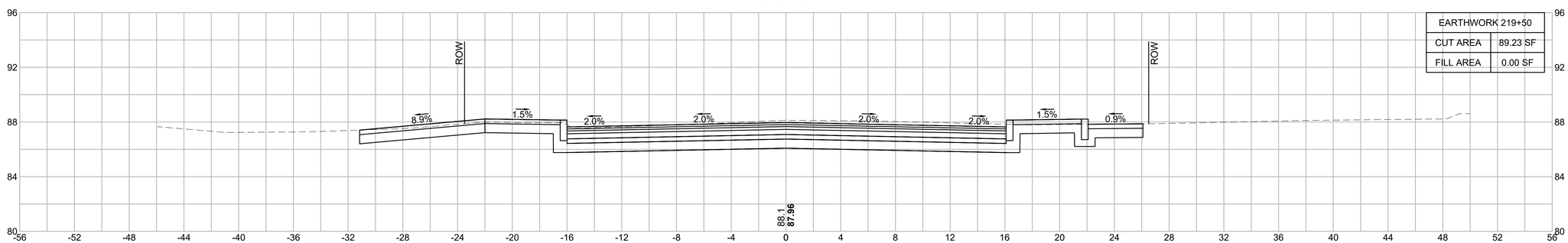
CROSS SECTIONS - 20

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:57 PM

219+66



219+50



EARTHWORK 219+50	
CUT AREA	89.23 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

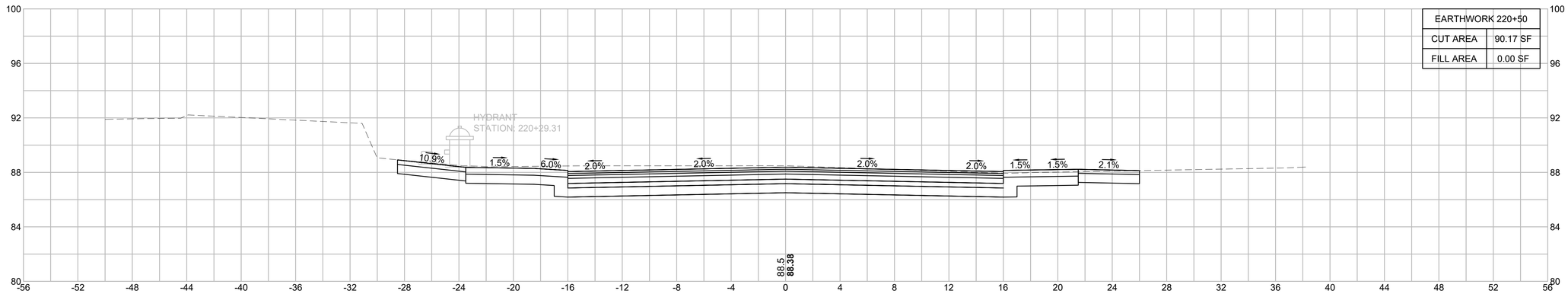
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	282	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 21

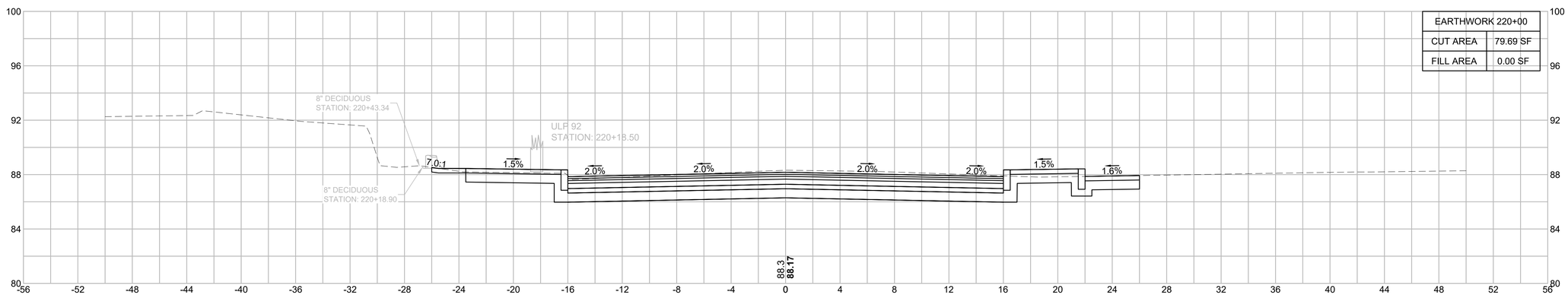
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:57 PM

220+50



EARTHWORK 220+50	
CUT AREA	90.17 SF
FILL AREA	0.00 SF

220+00



EARTHWORK 220+00	
CUT AREA	79.69 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

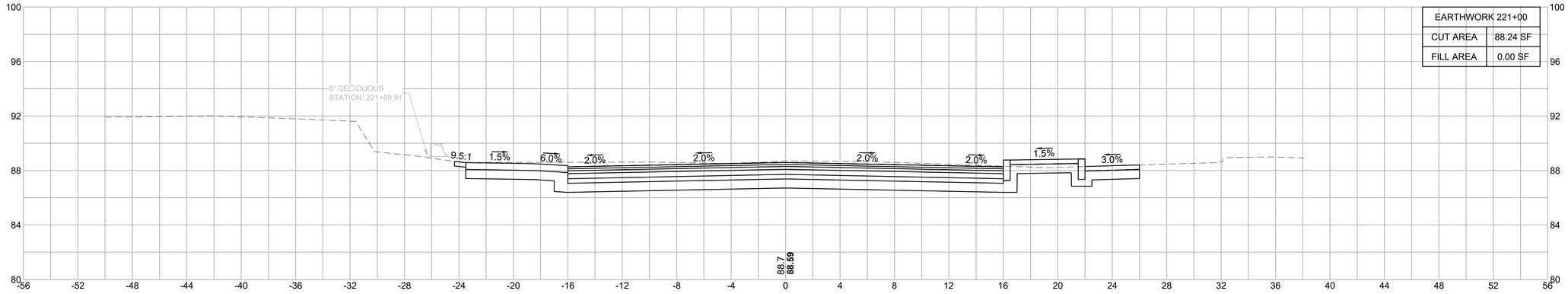
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	283	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 22

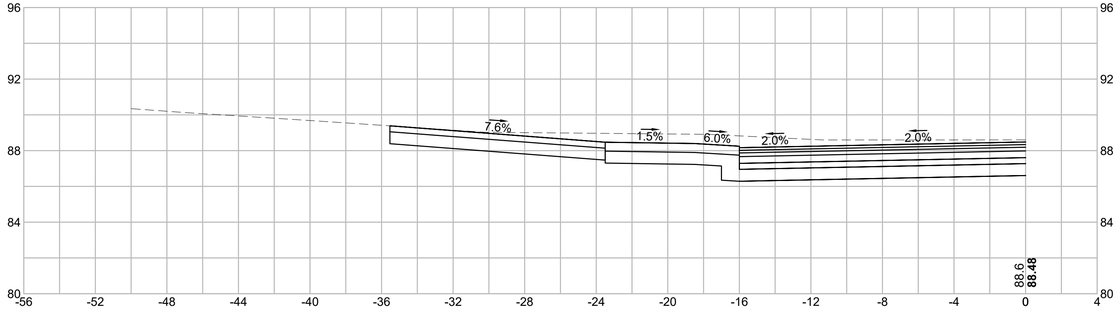
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:57 PM

221+00

EARTHWORK 221+00	
CUT AREA	88.24 SF
FILL AREA	0.00 SF



220+75.25



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

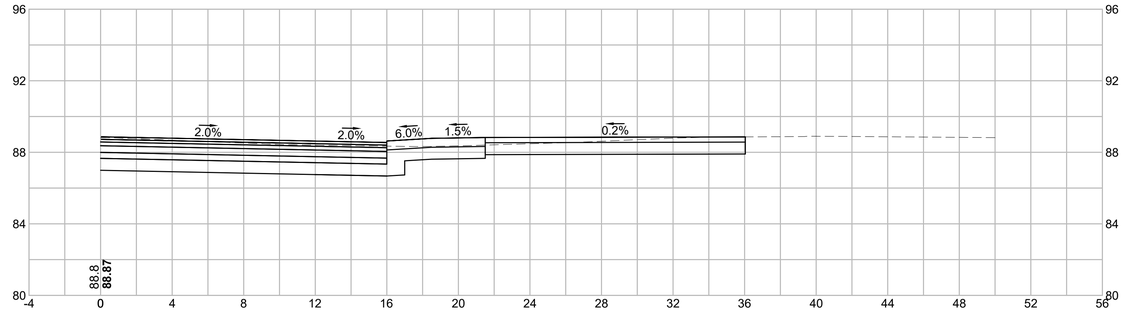
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	284	420
PROJECT FILE NO.	608051		

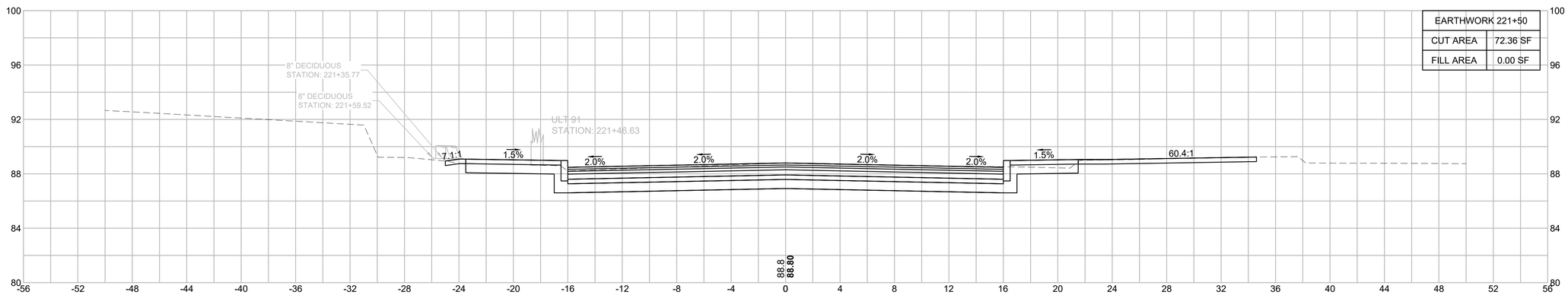
CROSS SECTIONS - 23

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:57 PM

221+67



221+50



EARTHWORK 221+50	
CUT AREA	72.36 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

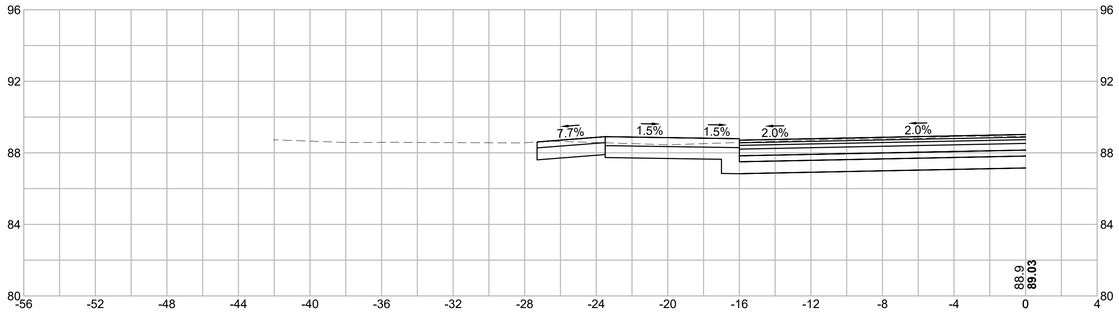
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	285	420
PROJECT FILE NO.	608051		

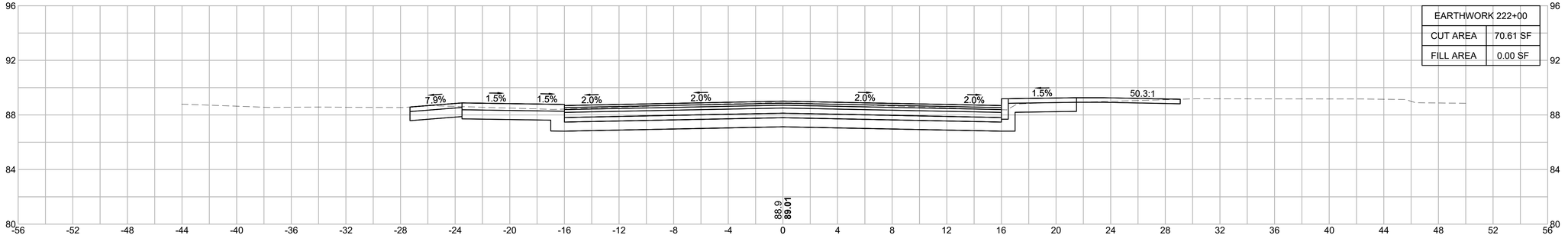
CROSS SECTIONS - 24

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:58 PM

222+05



222+00



EARTHWORK 222+00	
CUT AREA	70.61 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

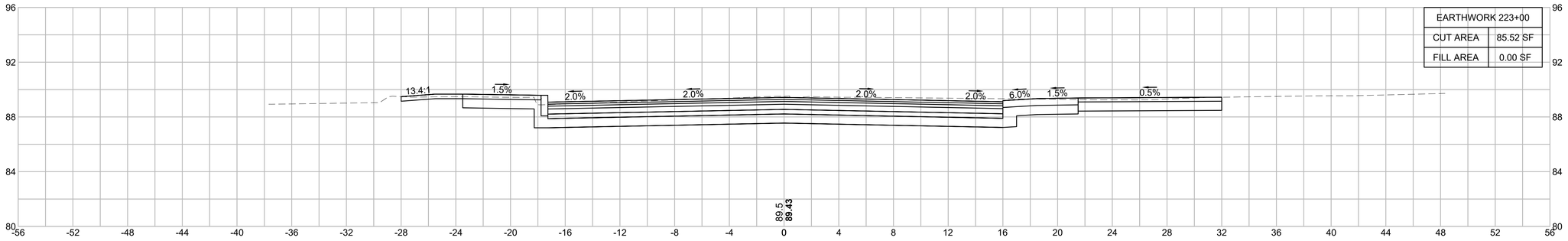
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	286	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 25

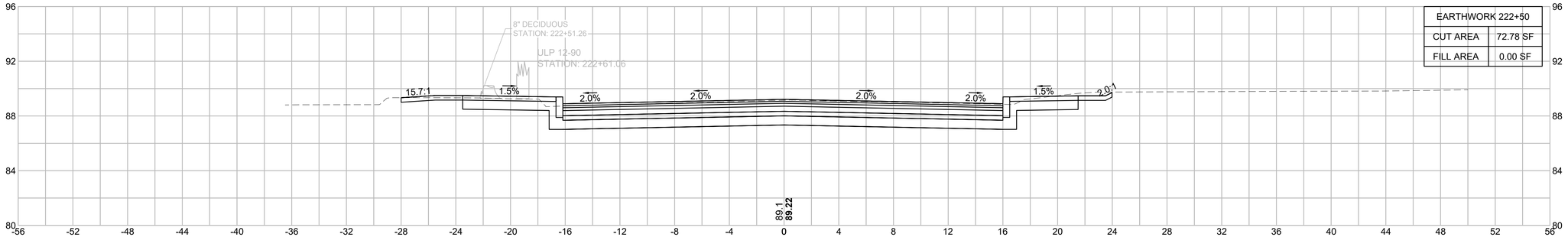
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:58 PM

223+00



EARTHWORK 223+00	
CUT AREA	85.52 SF
FILL AREA	0.00 SF

222+50



EARTHWORK 222+50	
CUT AREA	72.78 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

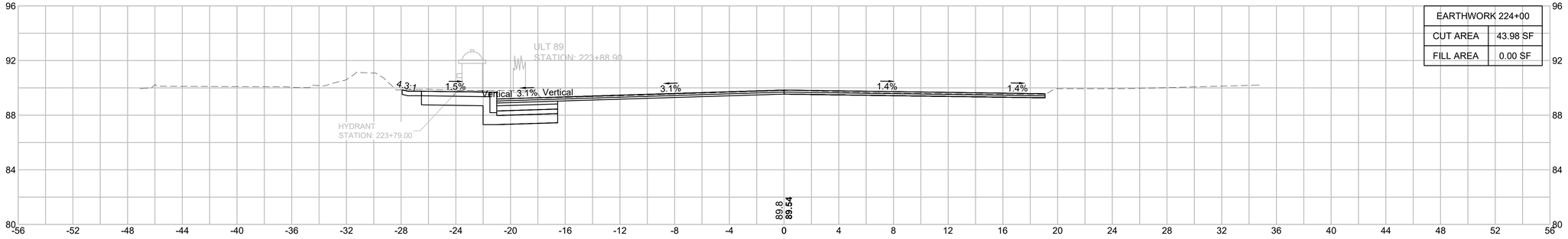
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	287	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 26

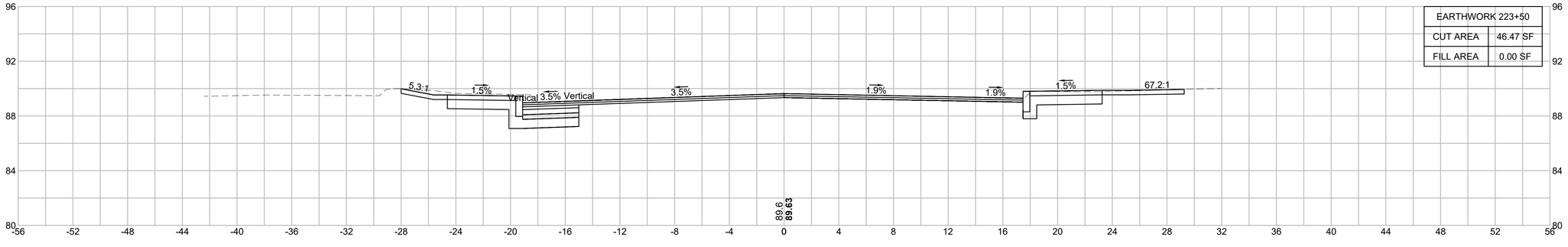
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:58 PM

224+00



EARTHWORK 224+00	
CUT AREA	43.98 SF
FILL AREA	0.00 SF

223+50



EARTHWORK 223+50	
CUT AREA	46.47 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

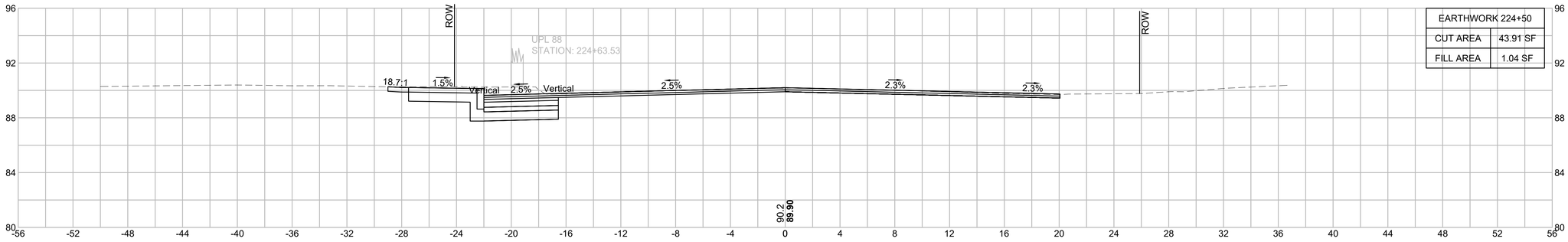
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	288	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 27

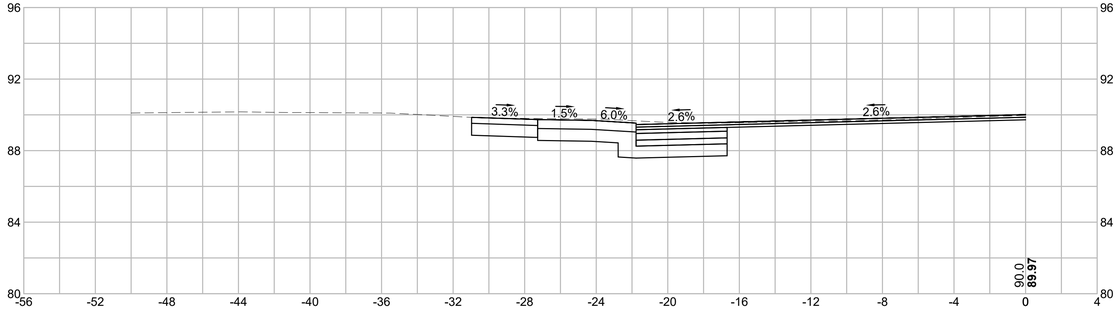
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:59 PM

224+50



EARTHWORK 224+50	
CUT AREA	43.91 SF
FILL AREA	1.04 SF

224+24.18



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

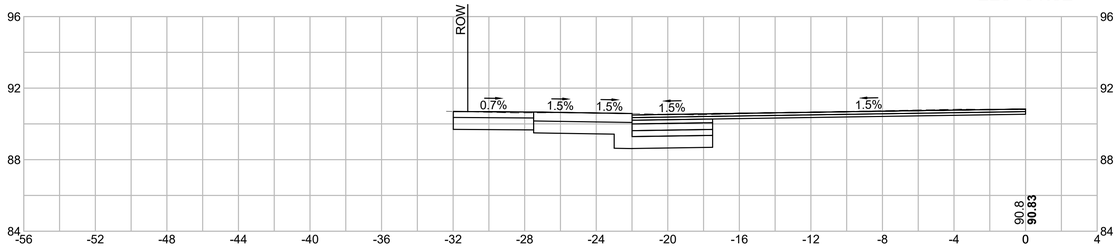
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	289	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 28

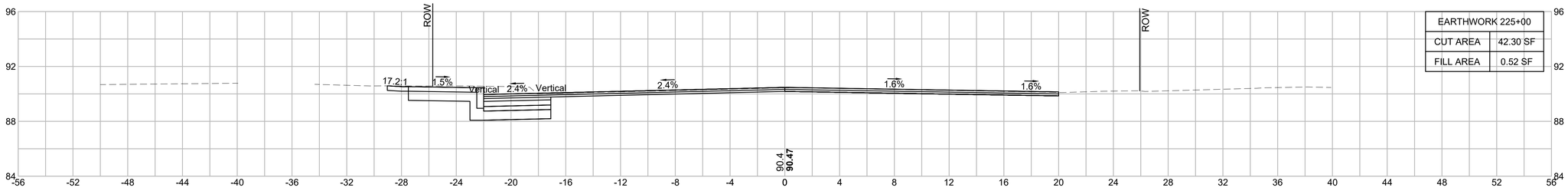
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:59 PM

225+61.32



225+50

225+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

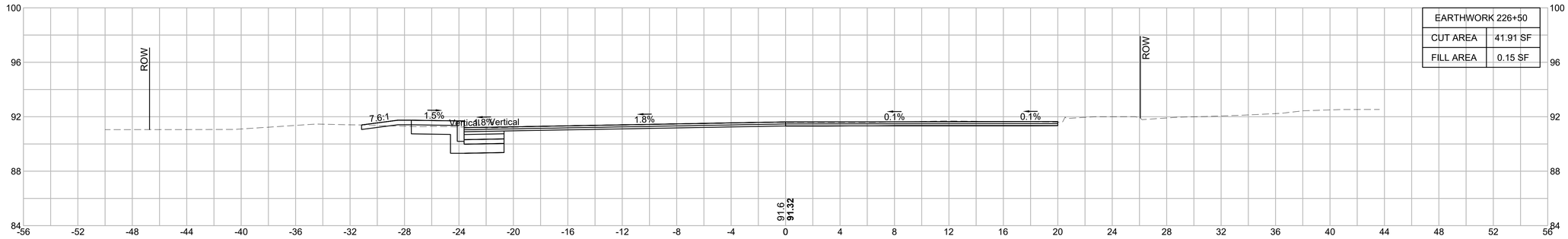
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	290	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 29

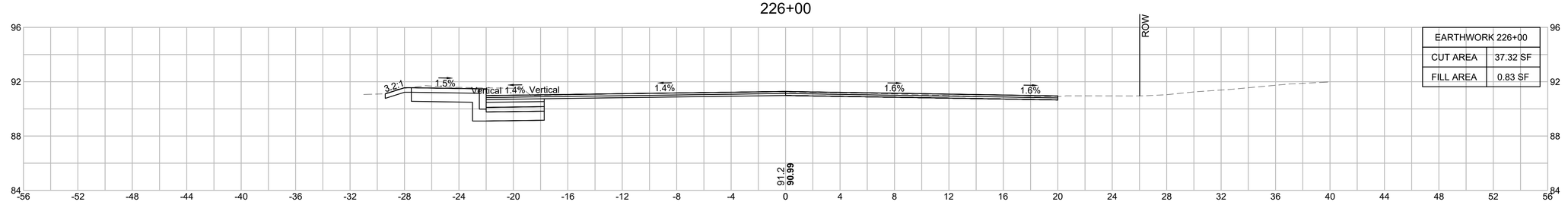
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:59 PM

226+50



EARTHWORK 226+50	
CUT AREA	41.91 SF
FILL AREA	0.15 SF

226+00



EARTHWORK 226+00	
CUT AREA	37.32 SF
FILL AREA	0.83 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

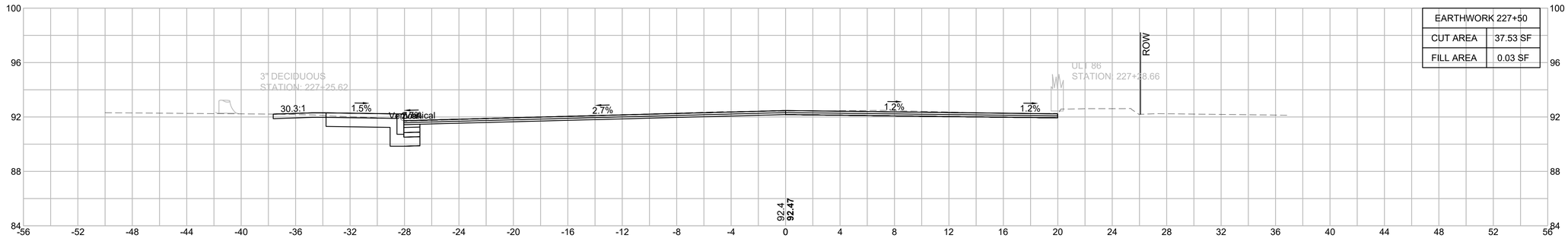
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	291	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 30

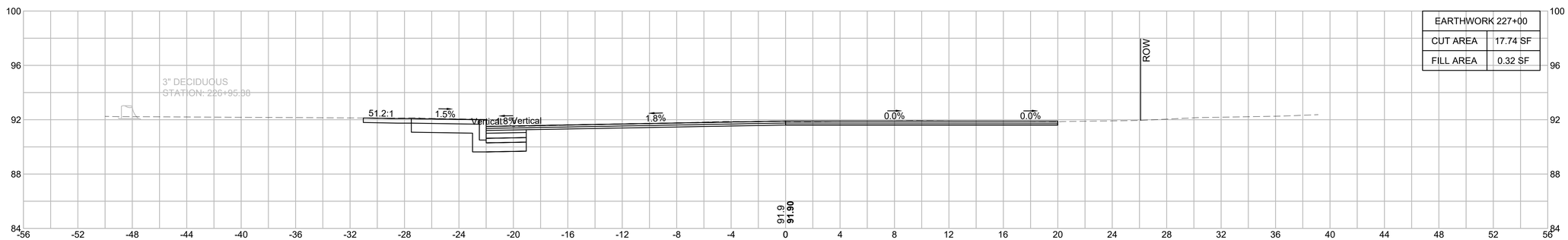
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 2:59 PM

227+50



EARTHWORK 227+50	
CUT AREA	37.53 SF
FILL AREA	0.03 SF

227+00



EARTHWORK 227+00	
CUT AREA	17.74 SF
FILL AREA	0.32 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

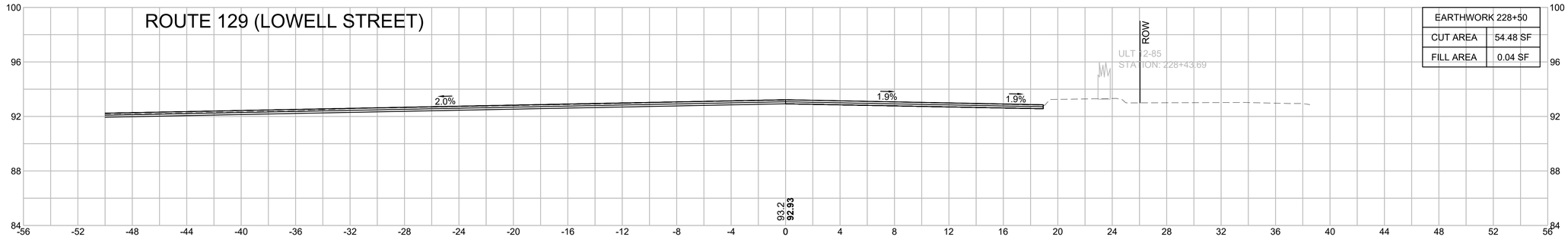
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	292	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 31

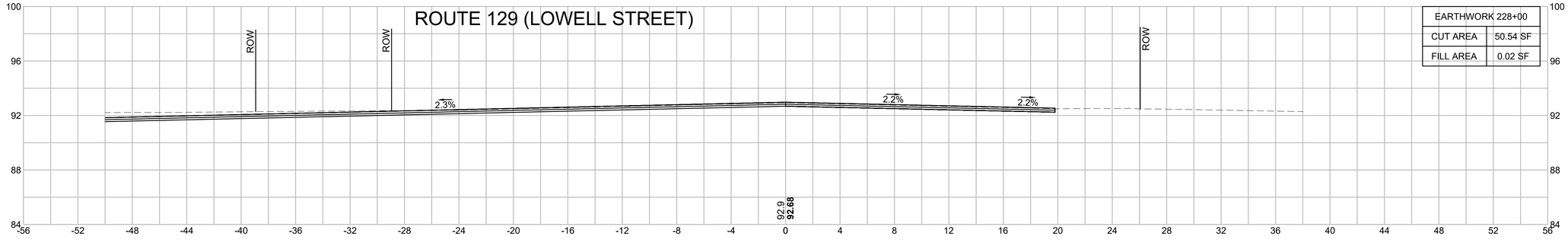
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:00 PM

228+50



EARTHWORK 228+50	
CUT AREA	54.48 SF
FILL AREA	0.04 SF

228+00



EARTHWORK 228+00	
CUT AREA	50.54 SF
FILL AREA	0.02 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

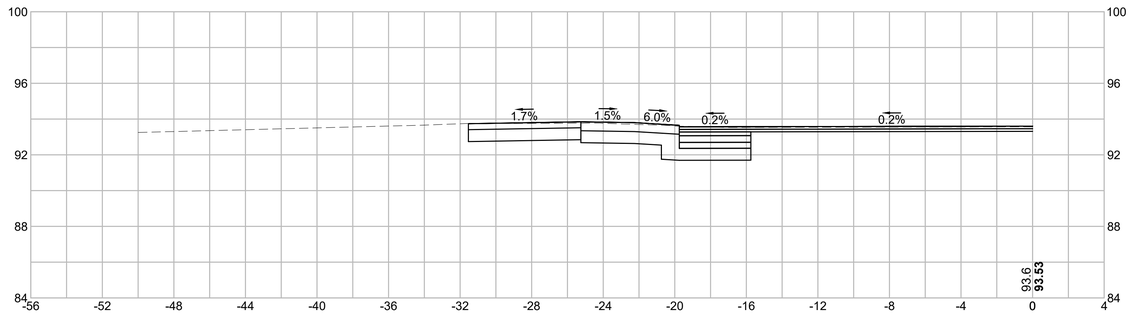
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	293	420
PROJECT FILE NO.	608051		

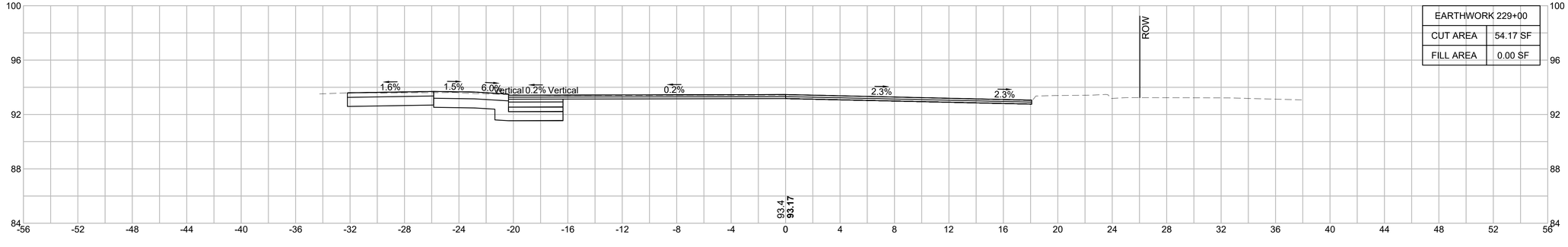
CROSS SECTIONS - 32

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:00 PM

229+18.48



229+00



EARTHWORK 229+00	
CUT AREA	54.17 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

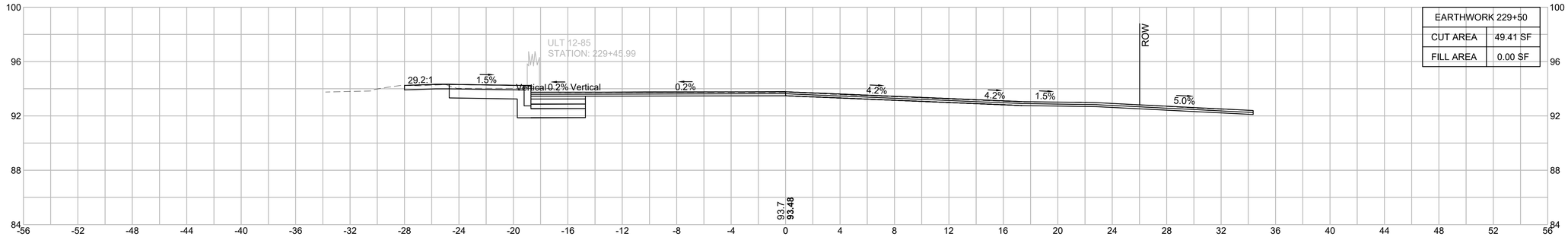
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	294	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 33

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:00 PM

229+50



EARTHWORK 229+50	
CUT AREA	49.41 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

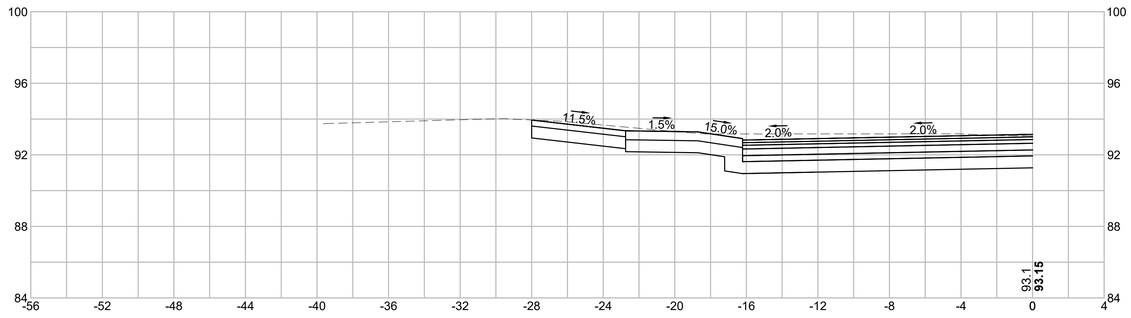
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	295	420
PROJECT FILE NO.	608051		

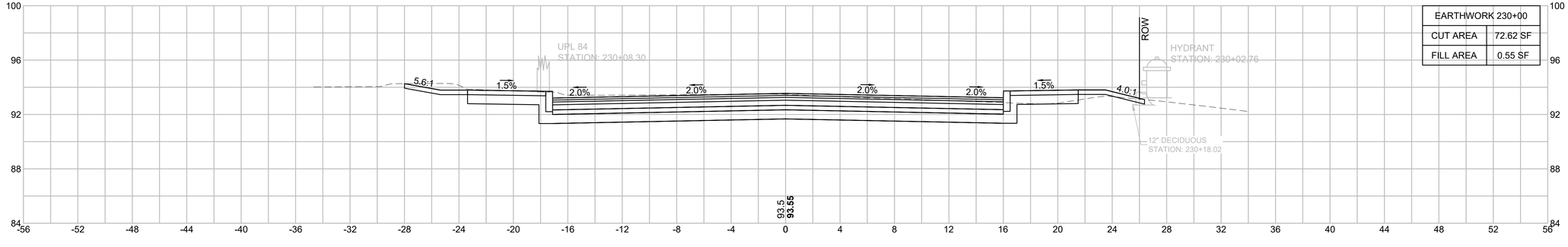
CROSS SECTIONS - 34

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:01 PM

230+47



230+00



EARTHWORK 230+00	
CUT AREA	72.62 SF
FILL AREA	0.55 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

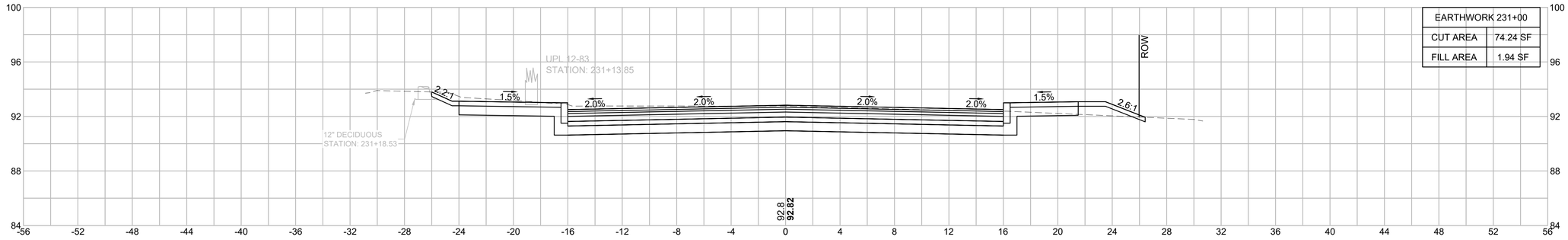
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	296	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 35

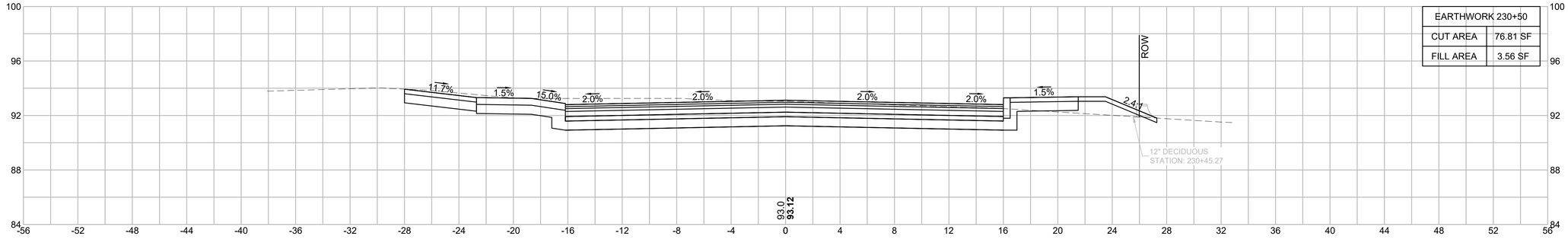
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:01 PM

231+00



EARTHWORK 231+00	
CUT AREA	74.24 SF
FILL AREA	1.94 SF

230+50



EARTHWORK 230+50	
CUT AREA	76.81 SF
FILL AREA	3.56 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

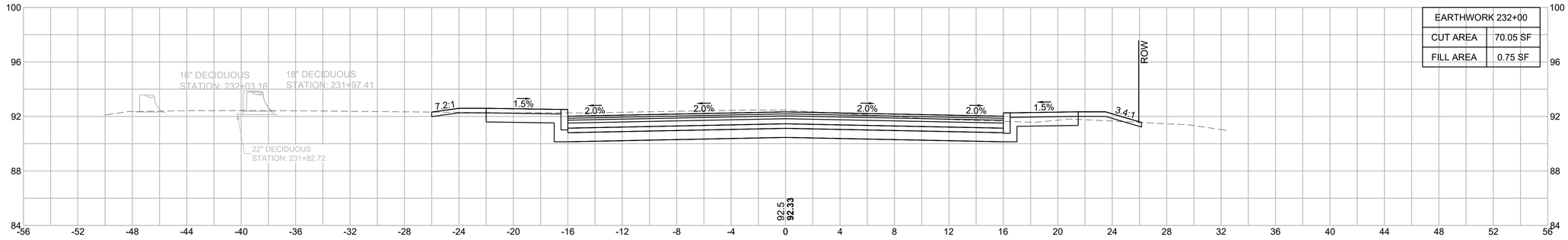
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	297	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 36

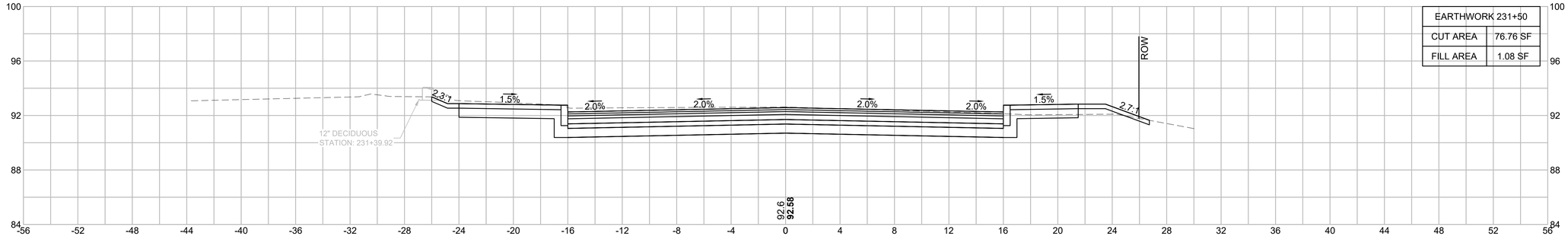
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:02 PM

232+00



EARTHWORK 232+00	
CUT AREA	70.05 SF
FILL AREA	0.75 SF

231+50



EARTHWORK 231+50	
CUT AREA	76.76 SF
FILL AREA	1.08 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

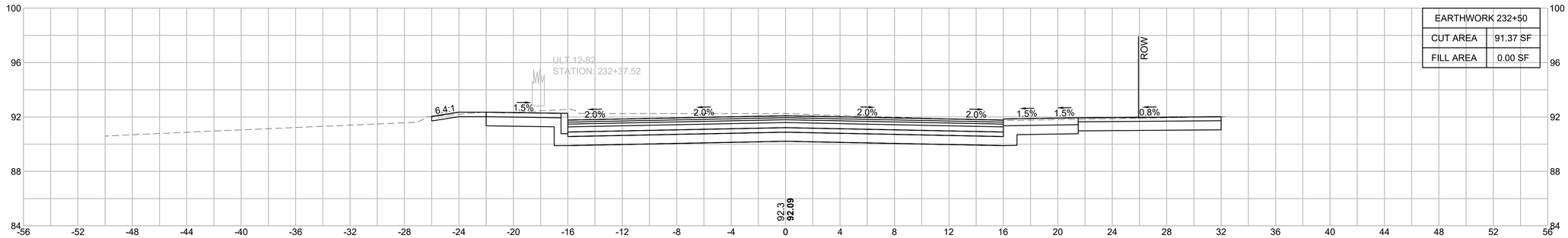
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	298	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 37

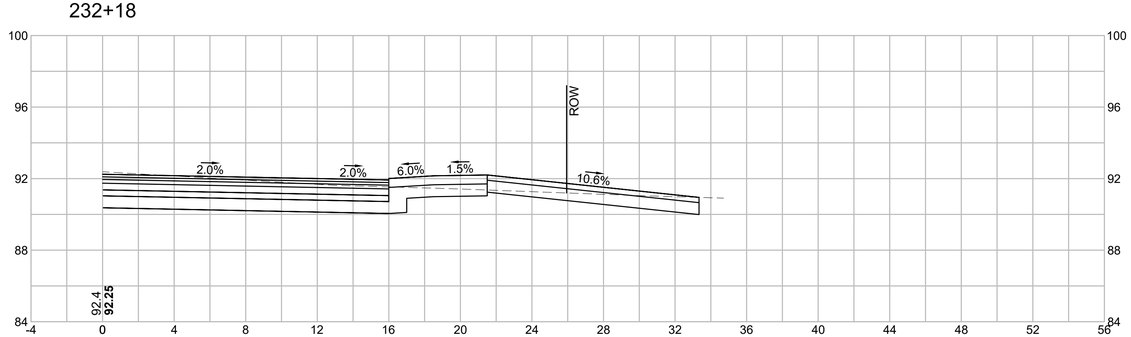
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:02 PM

232+50



EARTHWORK 232+50	
CUT AREA	91.37 SF
FILL AREA	0.00 SF

232+18



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

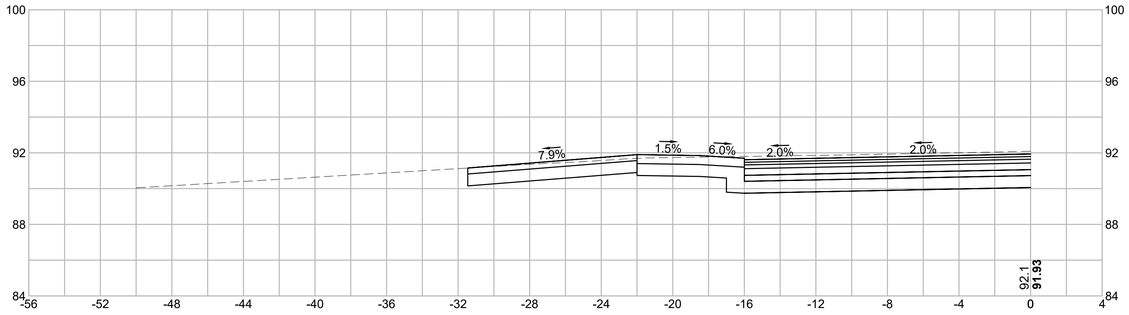
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	299	420
PROJECT FILE NO.	608051		

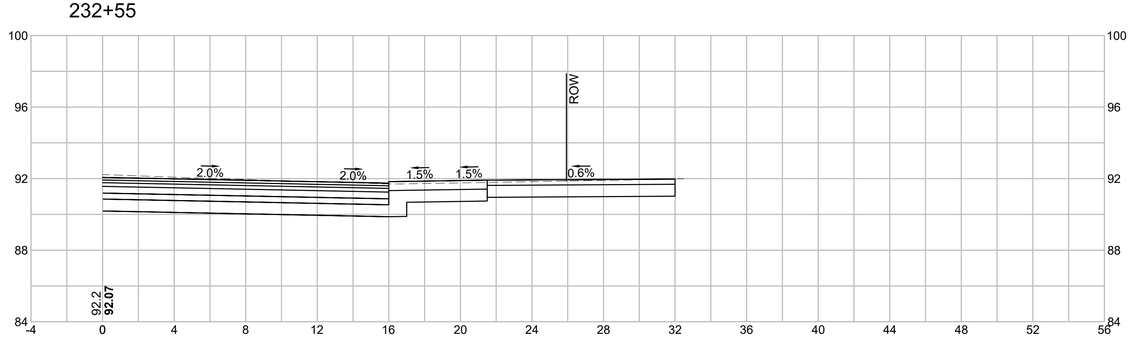
CROSS SECTIONS - 38

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:02 PM

232+85.50



232+55



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

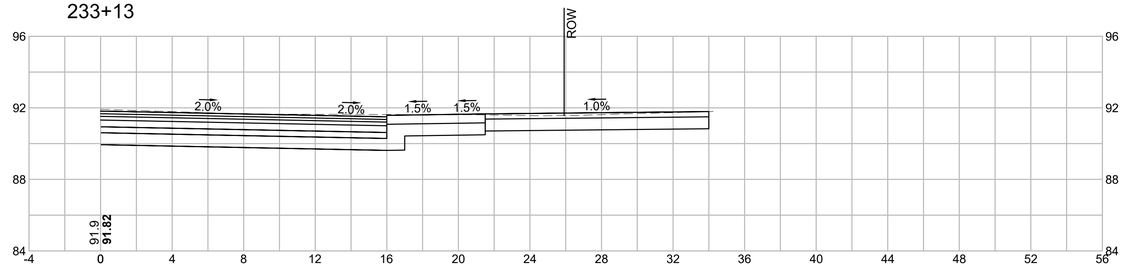
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	300	420
PROJECT FILE NO.	608051		

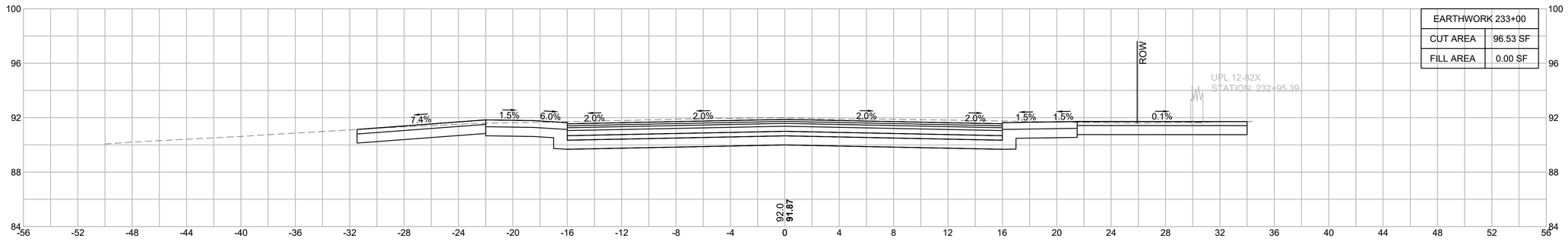
CROSS SECTIONS - 39

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:03 PM

233+13



233+00



UPL 12-32X
STATION: 232+95.39

EARTHWORK 233+00	
CUT AREA	96.53 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

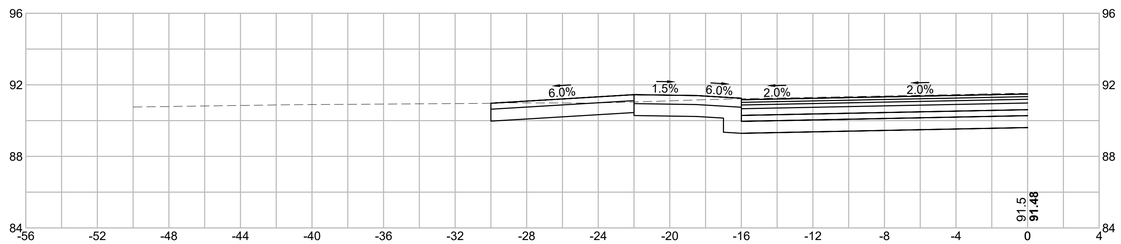
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	301	420
PROJECT FILE NO.	608051		

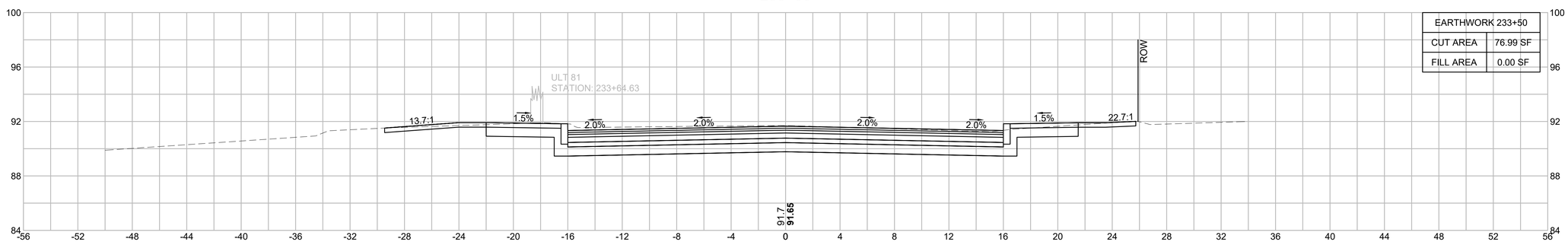
CROSS SECTIONS - 40

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:03 PM

233+89



233+50



EARTHWORK 233+50	
CUT AREA	76.99 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

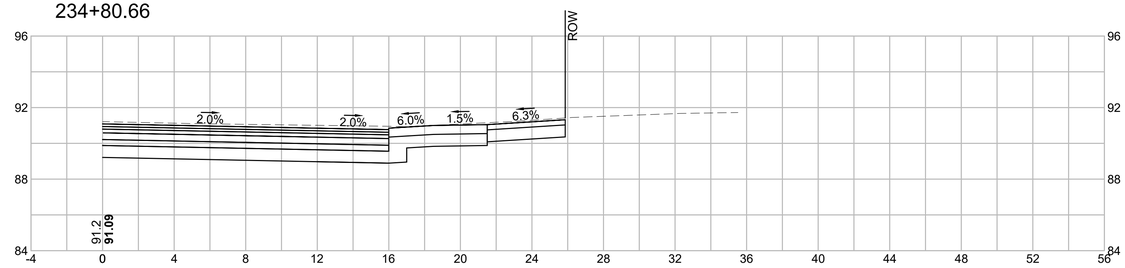
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	302	420
PROJECT FILE NO.	608051		

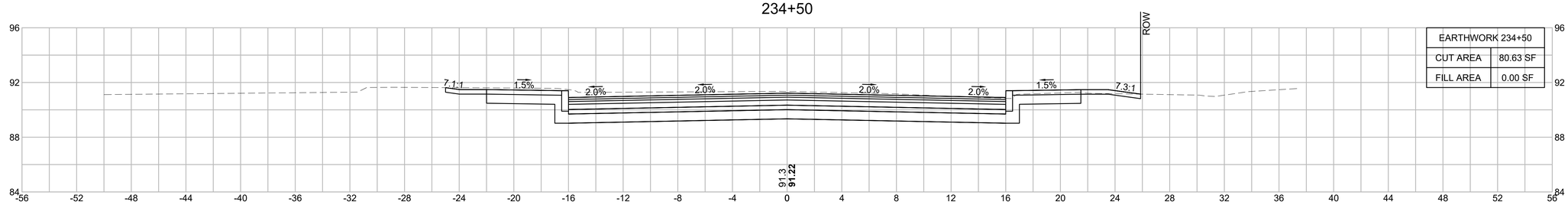
CROSS SECTIONS - 41

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:03 PM

234+80.66

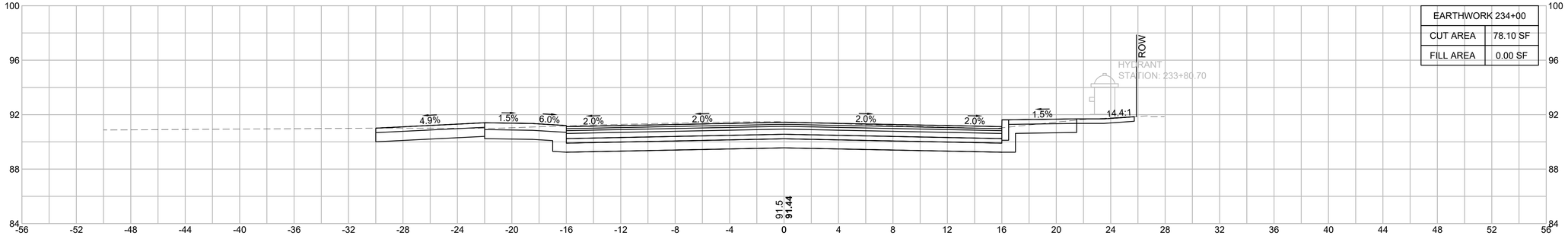


234+50



EARTHWORK 234+50	
CUT AREA	80.63 SF
FILL AREA	0.00 SF

234+00



EARTHWORK 234+00	
CUT AREA	78.10 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

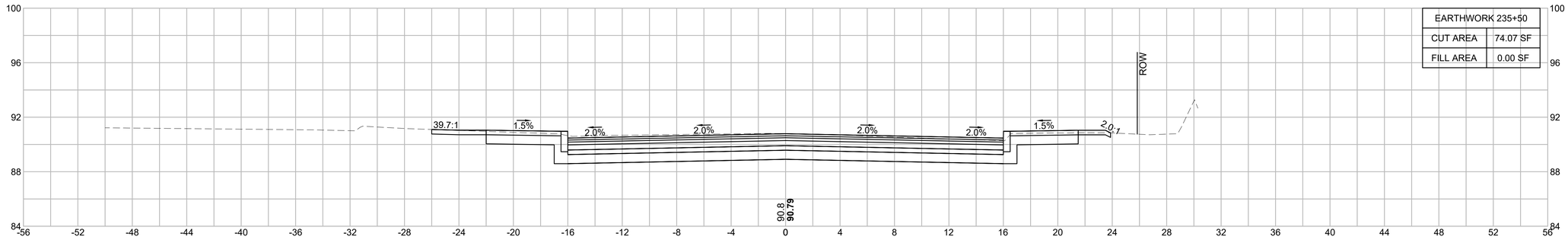
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	303	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 42

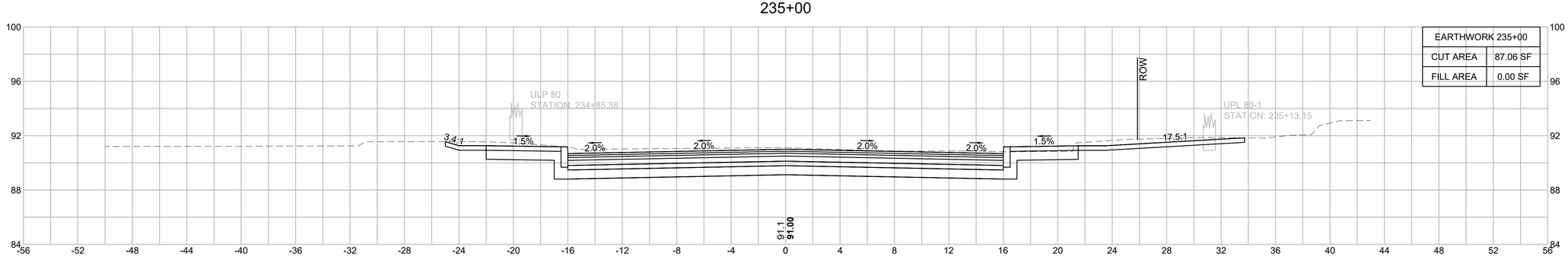
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:04 PM

235+50



EARTHWORK 235+50	
CUT AREA	74.07 SF
FILL AREA	0.00 SF

235+00



EARTHWORK 235+00	
CUT AREA	87.06 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

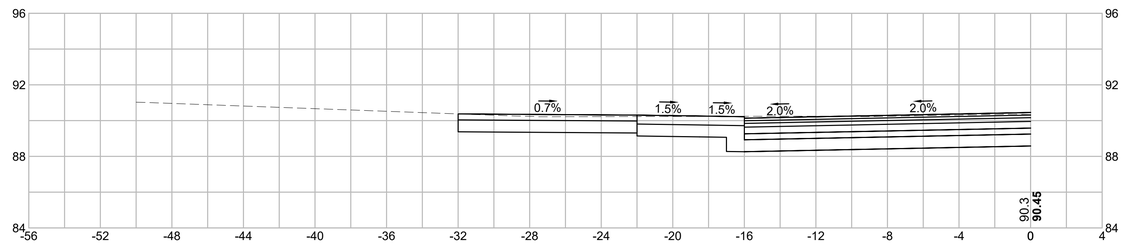
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	304	420
PROJECT FILE NO.	608051		

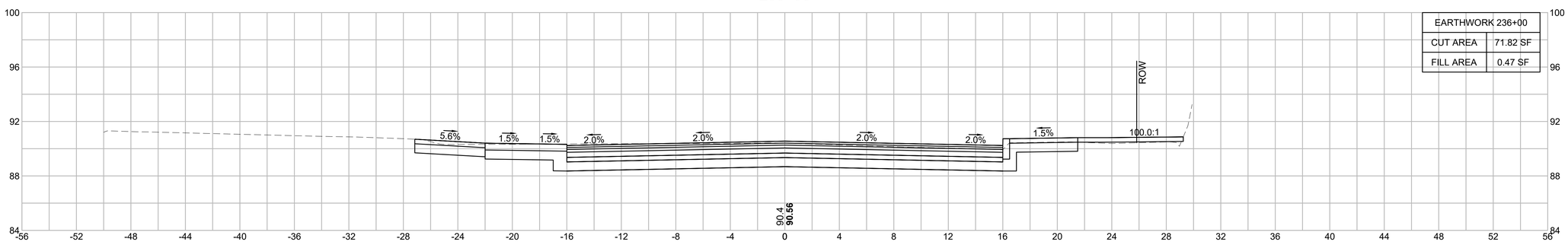
CROSS SECTIONS - 43

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:04 PM

236+12



236+00



EARTHWORK 236+00	
CUT AREA	71.82 SF
FILL AREA	0.47 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

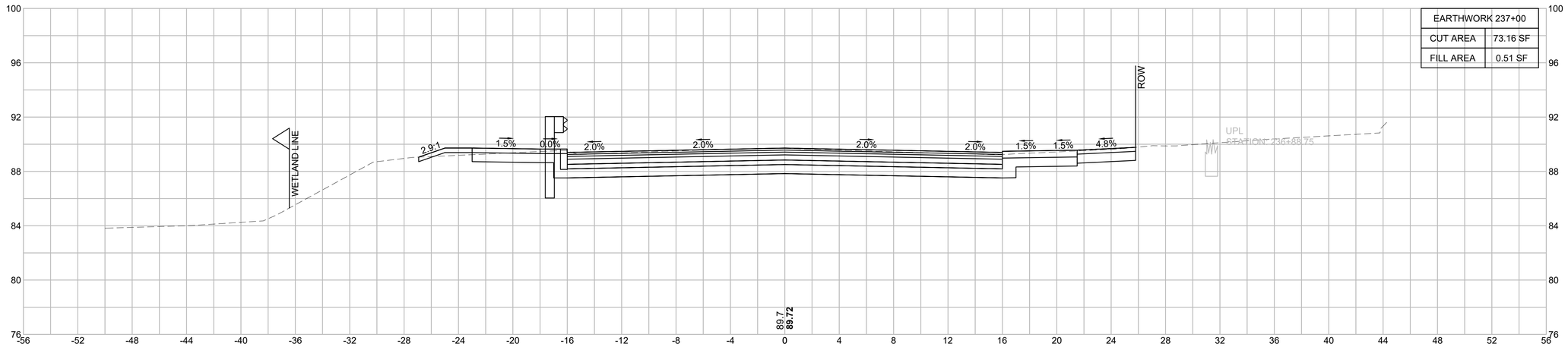
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	305	420
PROJECT FILE NO.	608051		

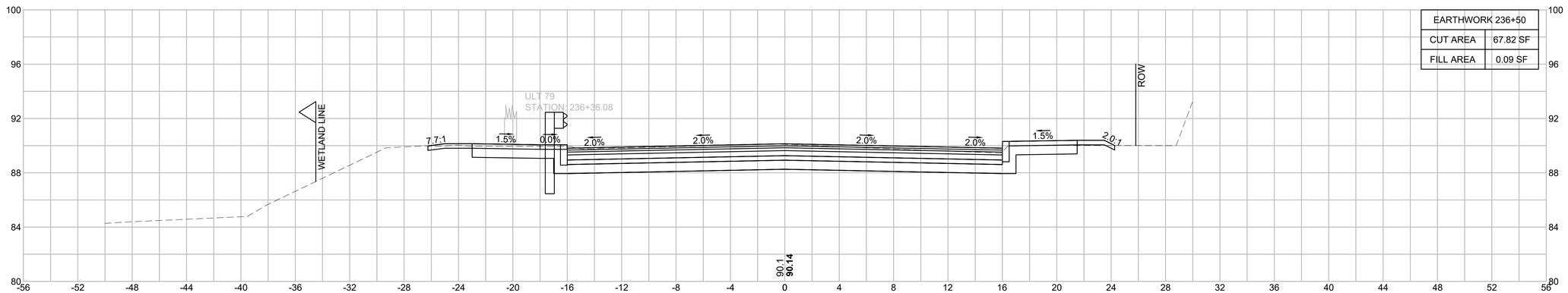
CROSS SECTIONS - 44

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:05 PM

237+00



236+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

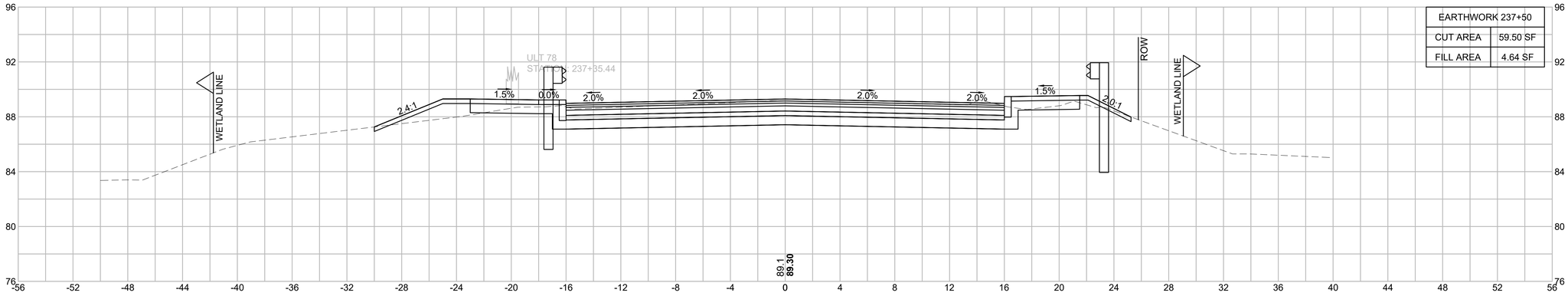
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	306	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 45

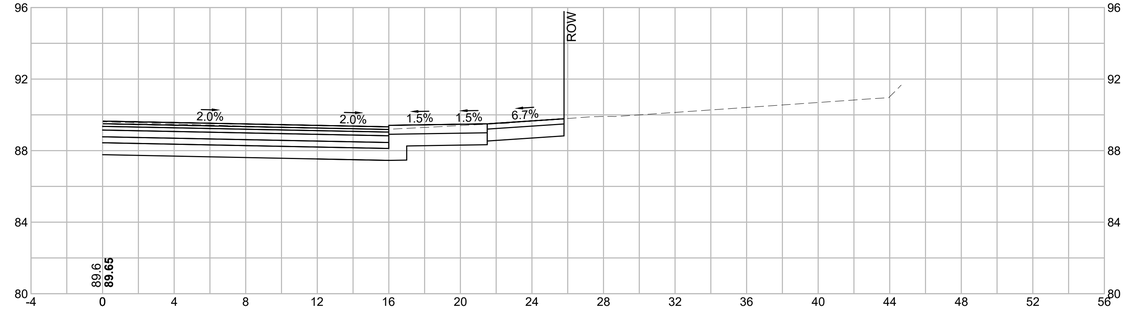
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:05 PM

237+50



EARTHWORK 237+50	
CUT AREA	59.50 SF
FILL AREA	4.64 SF

237+07.78



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

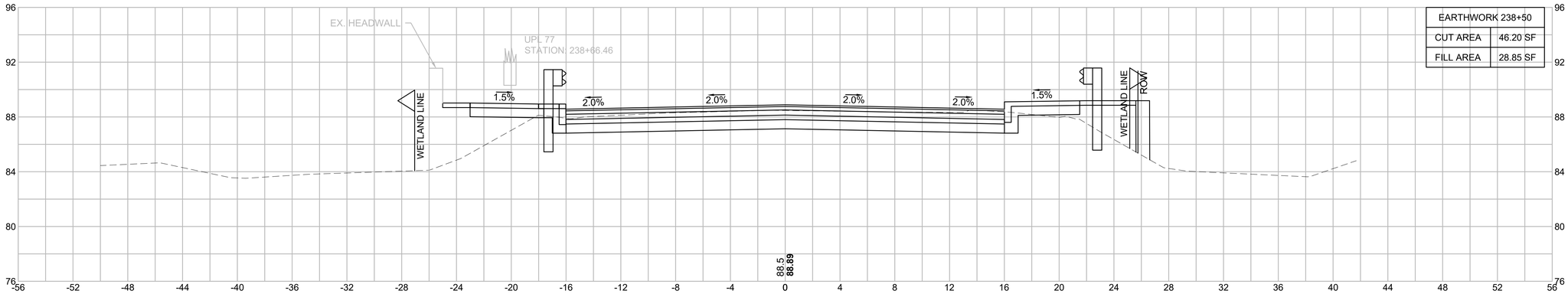
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	307	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 46

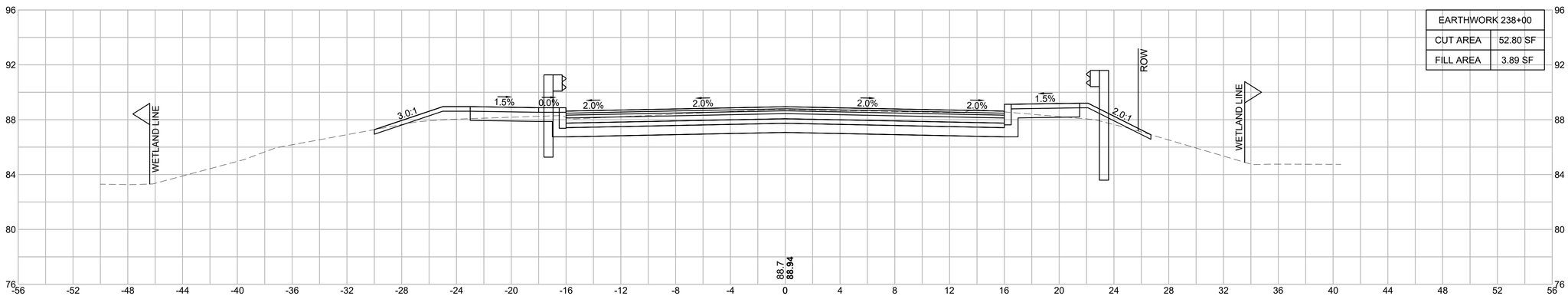
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:05 PM

238+50



EARTHWORK 238+50	
CUT AREA	46.20 SF
FILL AREA	28.85 SF

238+00



EARTHWORK 238+00	
CUT AREA	52.80 SF
FILL AREA	3.89 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

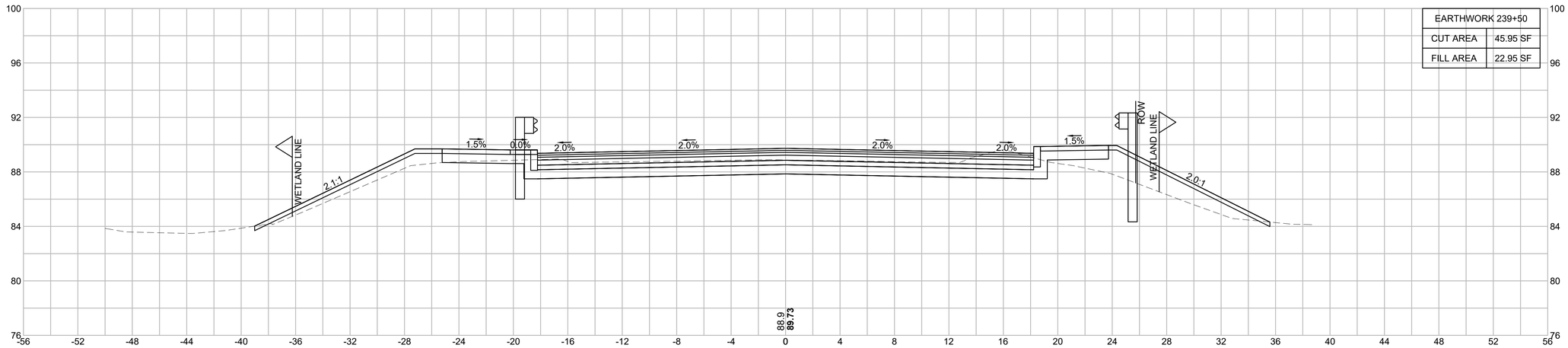
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	308	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 47

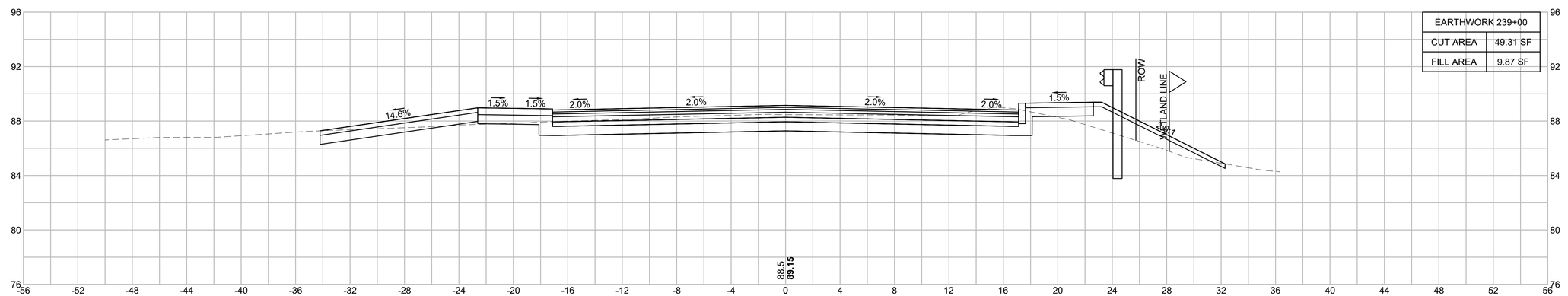
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:06 PM

239+50



EARTHWORK 239+50	
CUT AREA	45.95 SF
FILL AREA	22.95 SF

239+00



EARTHWORK 239+00	
CUT AREA	49.31 SF
FILL AREA	9.87 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

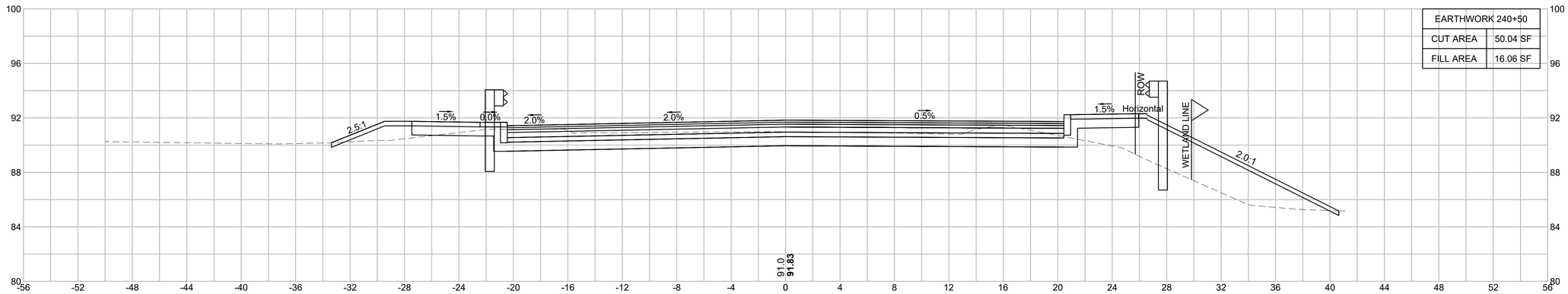
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	309	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 48

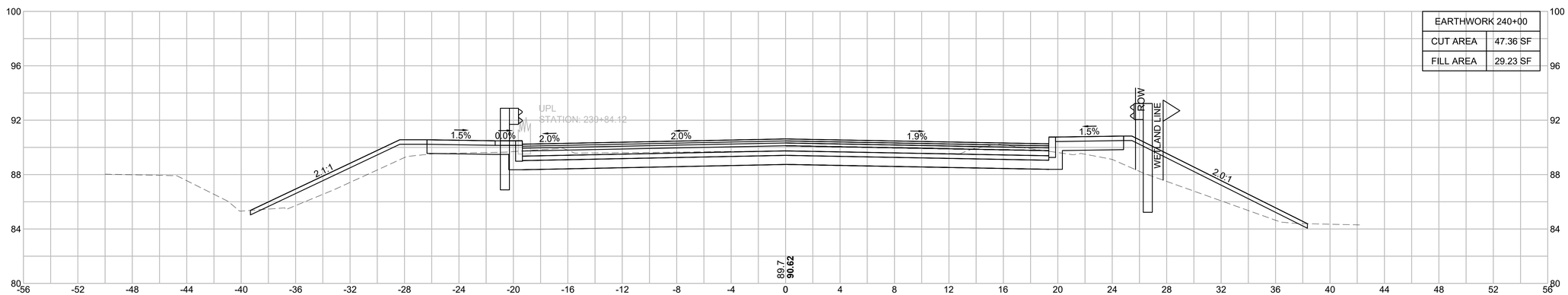
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:06 PM

240+50



EARTHWORK 240+50	
CUT AREA	50.04 SF
FILL AREA	16.06 SF

240+00



EARTHWORK 240+00	
CUT AREA	47.36 SF
FILL AREA	29.23 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

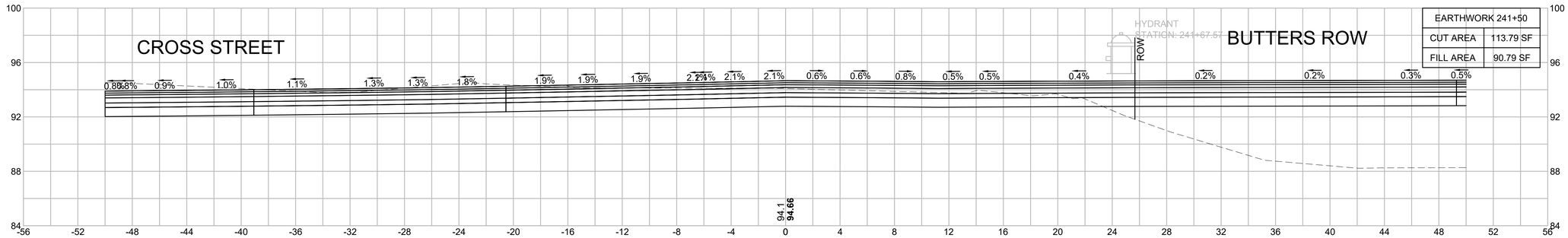
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	310	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 49

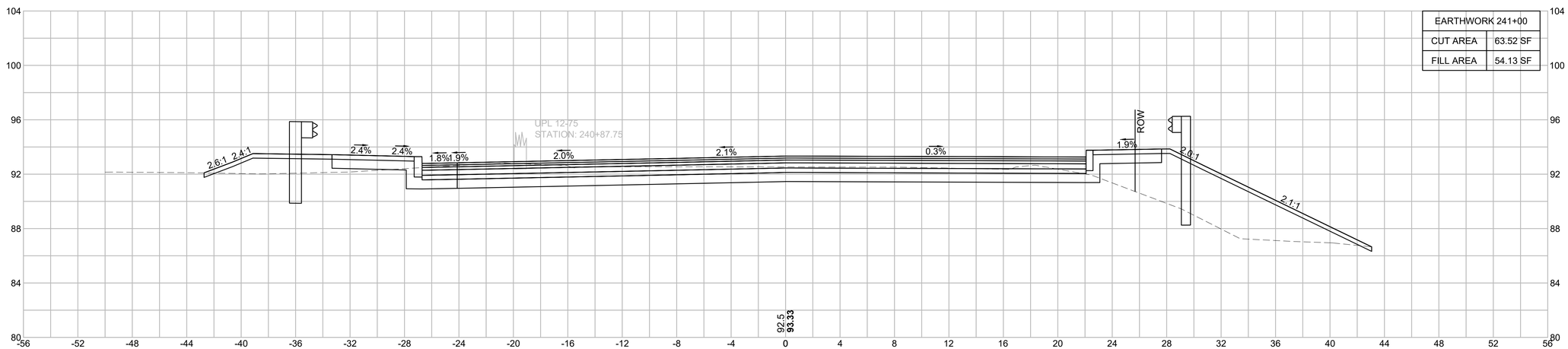
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:07 PM

241+50



EARTHWORK 241+50	
CUT AREA	113.79 SF
FILL AREA	90.79 SF

241+00



EARTHWORK 241+00	
CUT AREA	63.52 SF
FILL AREA	54.13 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

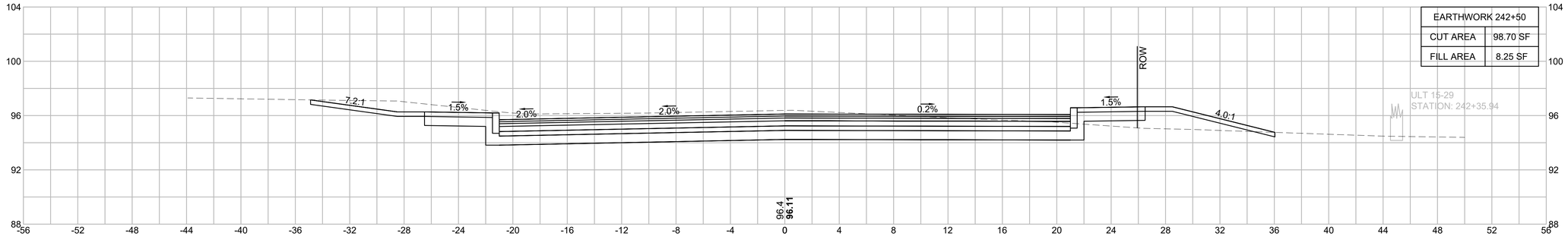
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	311	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 50

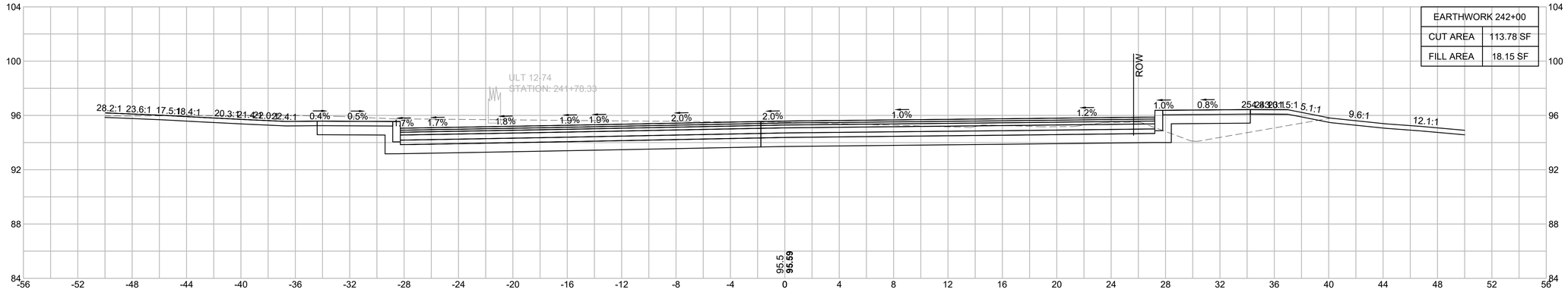
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:07 PM

242+50



EARTHWORK 242+50	
CUT AREA	98.70 SF
FILL AREA	8.25 SF

242+00



EARTHWORK 242+00	
CUT AREA	113.78 SF
FILL AREA	18.15 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

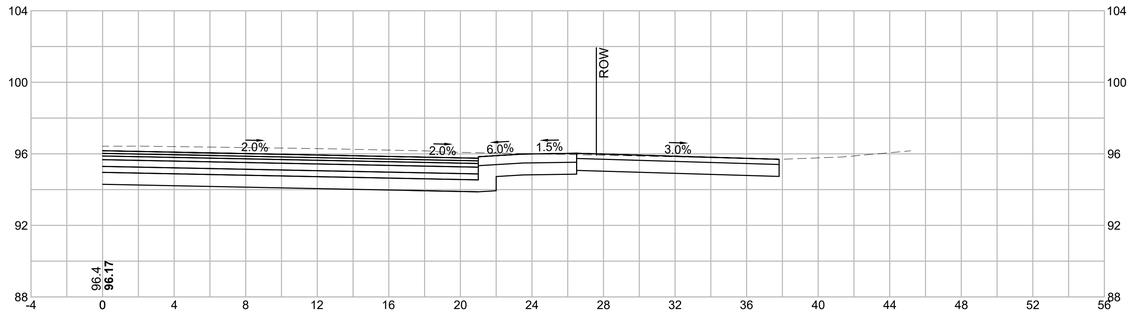
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	312	420
PROJECT FILE NO.	608051		

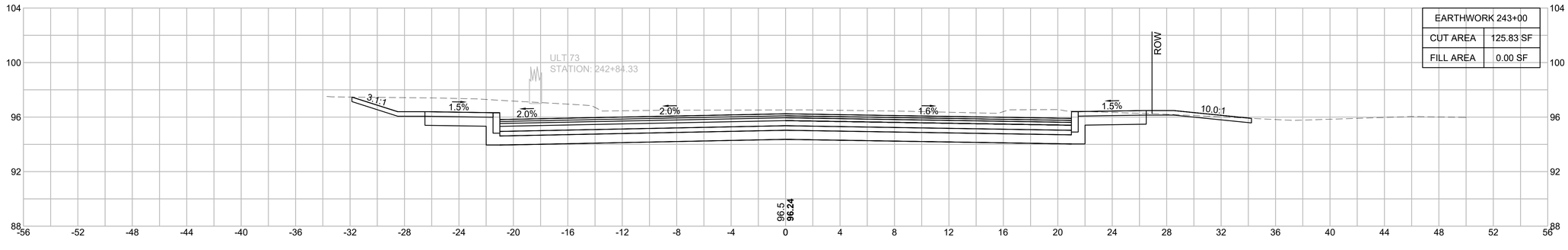
CROSS SECTIONS - 51

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:07 PM

243+22



243+00



EARTHWORK 243+00	
CUT AREA	125.83 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

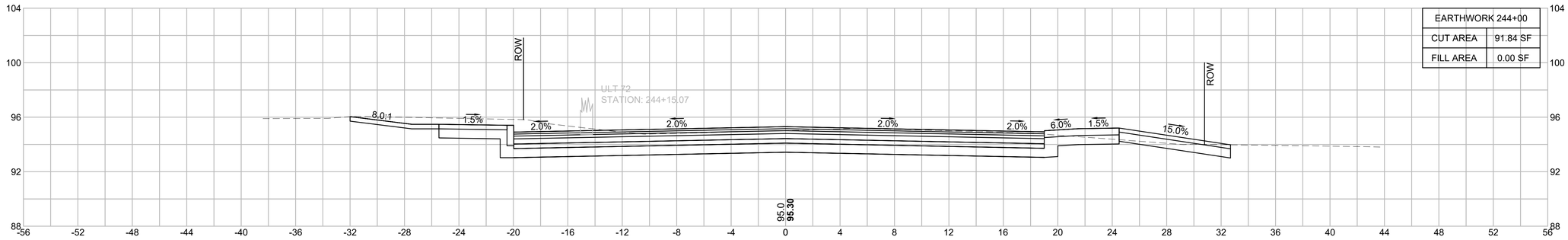
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	313	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 52

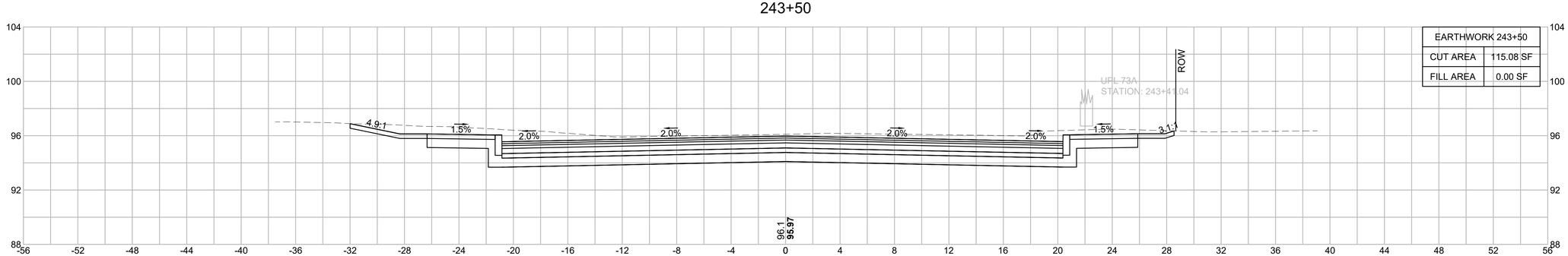
608051_HD12\(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:08 PM

244+00



EARTHWORK 244+00	
CUT AREA	91.84 SF
FILL AREA	0.00 SF

243+50



EARTHWORK 243+50	
CUT AREA	115.08 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

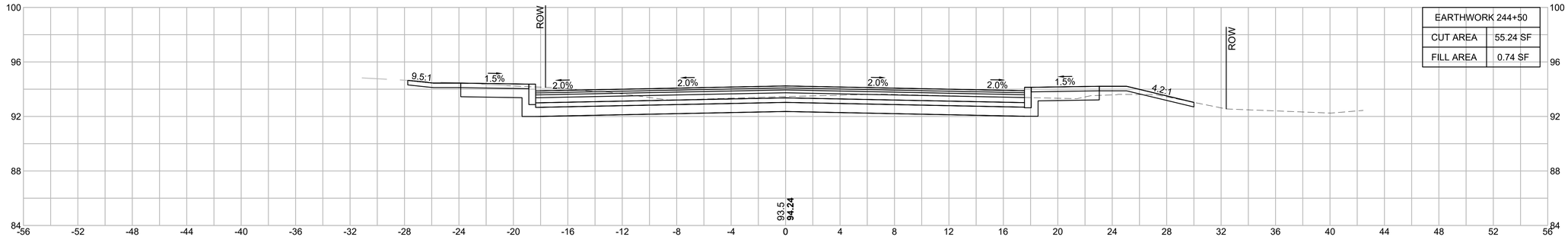
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	314	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 53

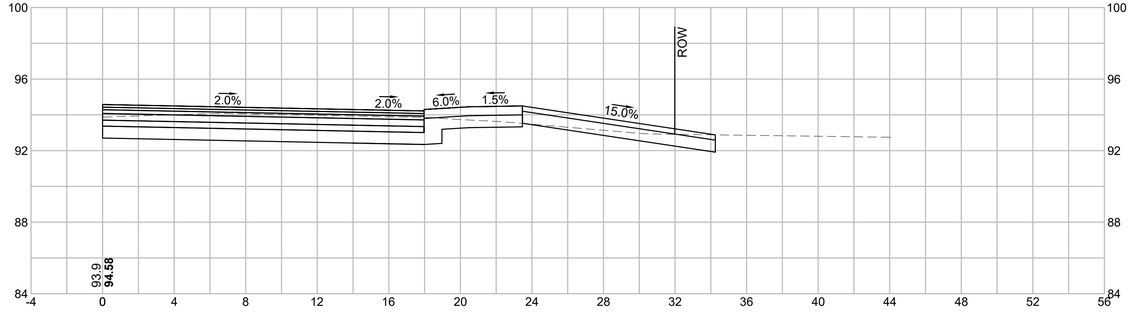
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:08 PM

244+50



EARTHWORK 244+50	
CUT AREA	55.24 SF
FILL AREA	0.74 SF

244+35.93



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

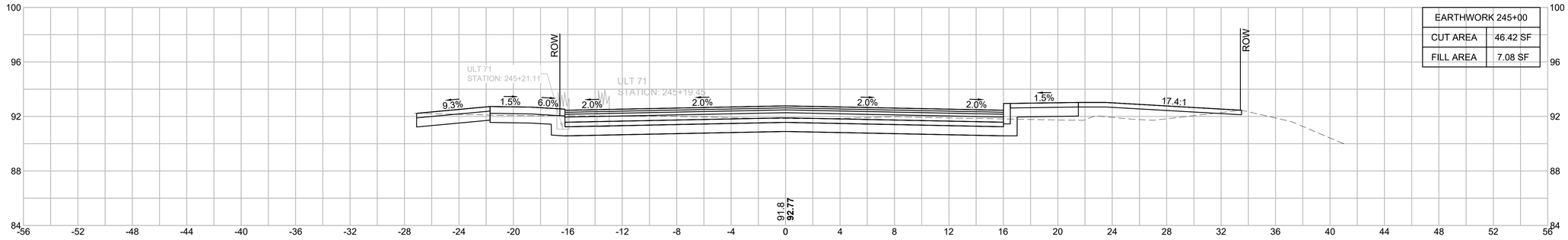
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	315	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 54

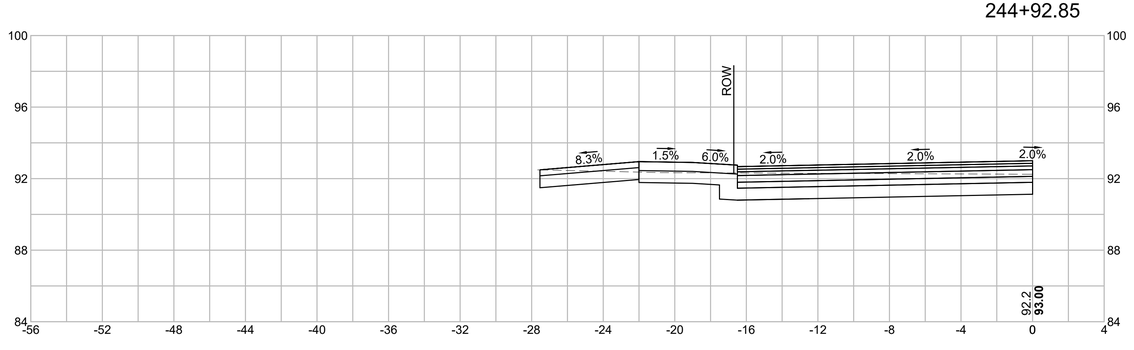
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:08 PM

245+00



EARTHWORK 245+00	
CUT AREA	46.42 SF
FILL AREA	7.08 SF

244+92.85



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

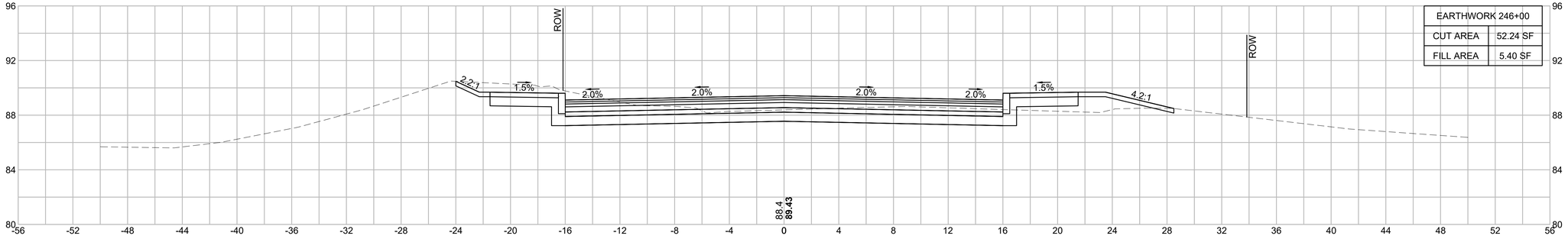
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	316	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 55

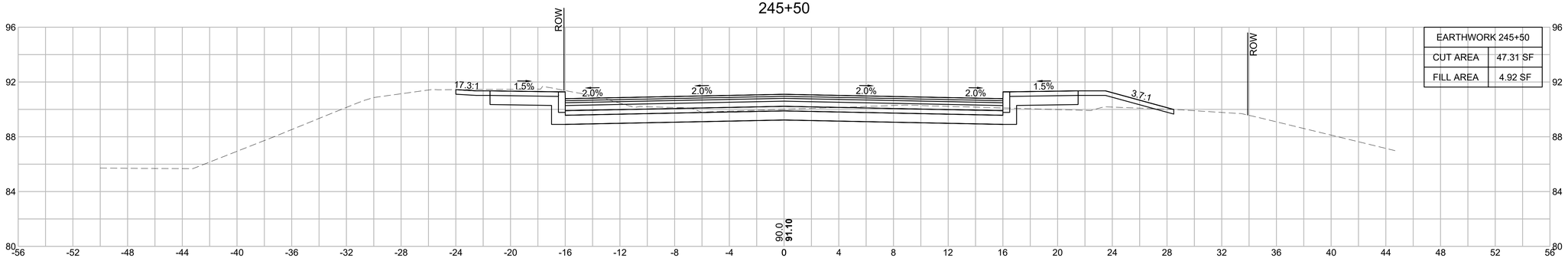
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:09 PM

246+00



EARTHWORK 246+00	
CUT AREA	52.24 SF
FILL AREA	5.40 SF

245+50



EARTHWORK 245+50	
CUT AREA	47.31 SF
FILL AREA	4.92 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

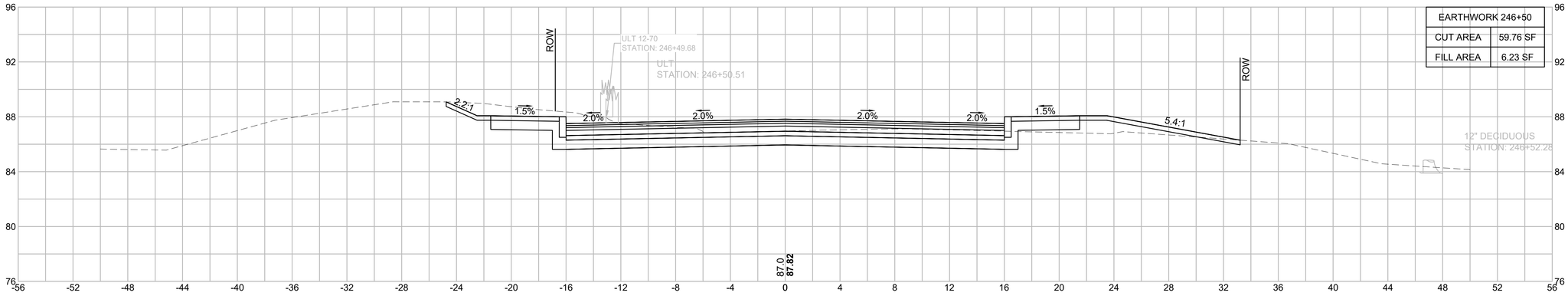
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	317	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 56

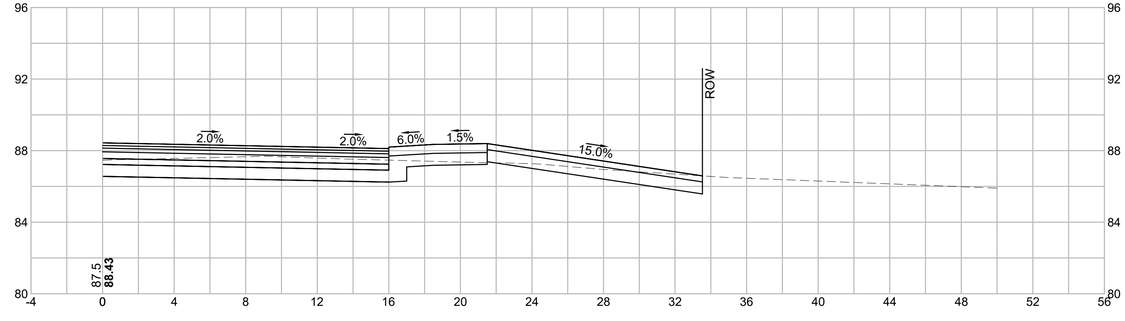
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:09 PM

246+50



EARTHWORK 246+50	
CUT AREA	59.76 SF
FILL AREA	6.23 SF

246+30



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

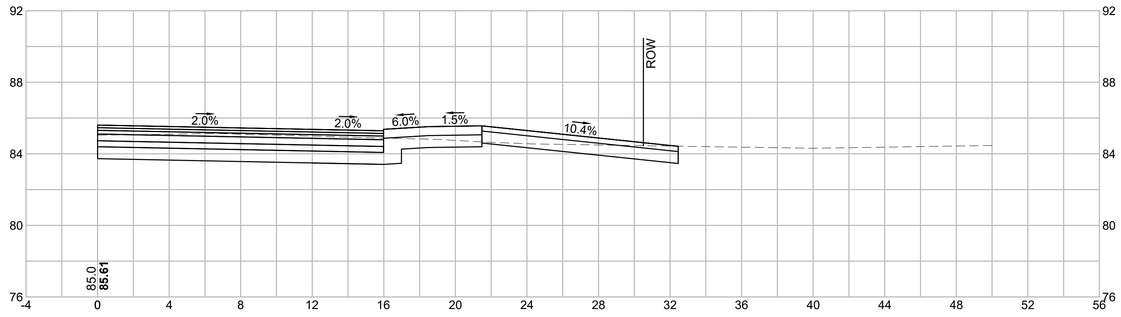
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	318	420
PROJECT FILE NO.	608051		

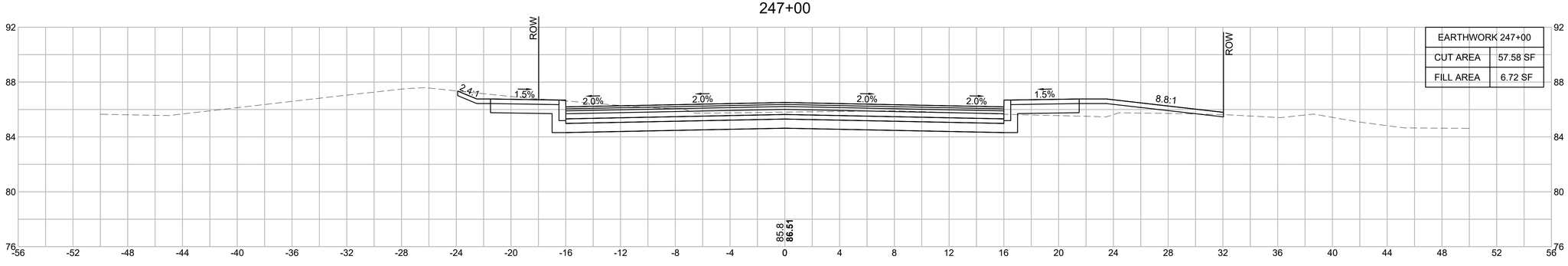
CROSS SECTIONS - 57

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:09 PM

247+45



247+00



EARTHWORK 247+00	
CUT AREA	57.58 SF
FILL AREA	6.72 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

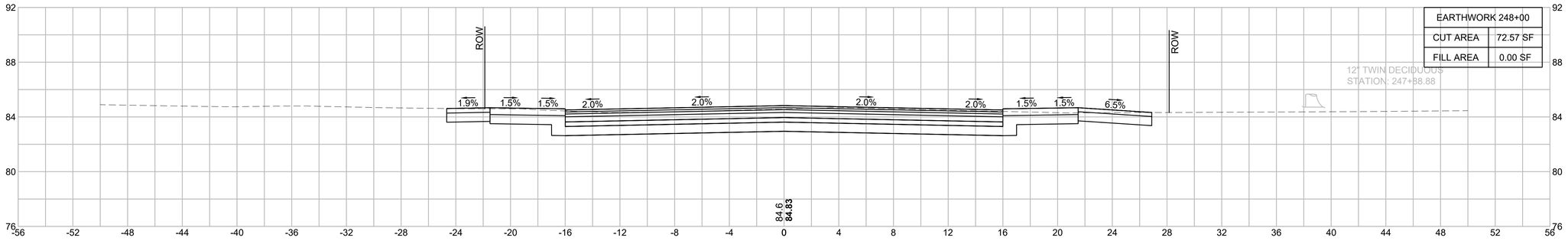
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	319	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 58

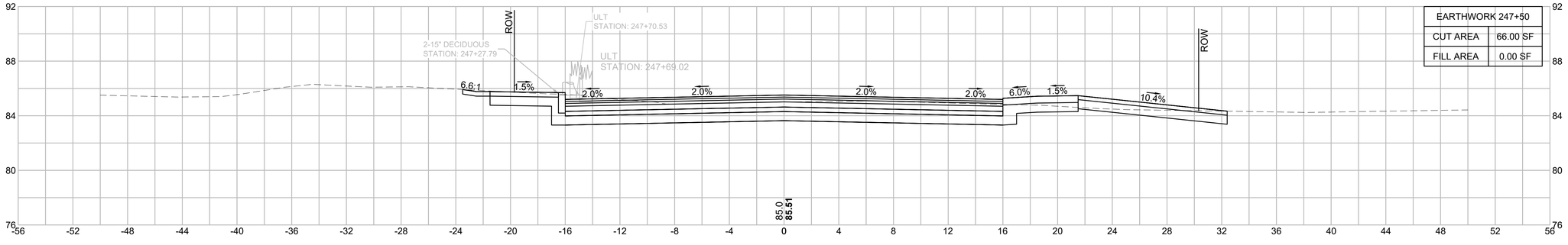
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:10 PM

248+00



EARTHWORK 248+00	
CUT AREA	72.57 SF
FILL AREA	0.00 SF

247+50



EARTHWORK 247+50	
CUT AREA	66.00 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

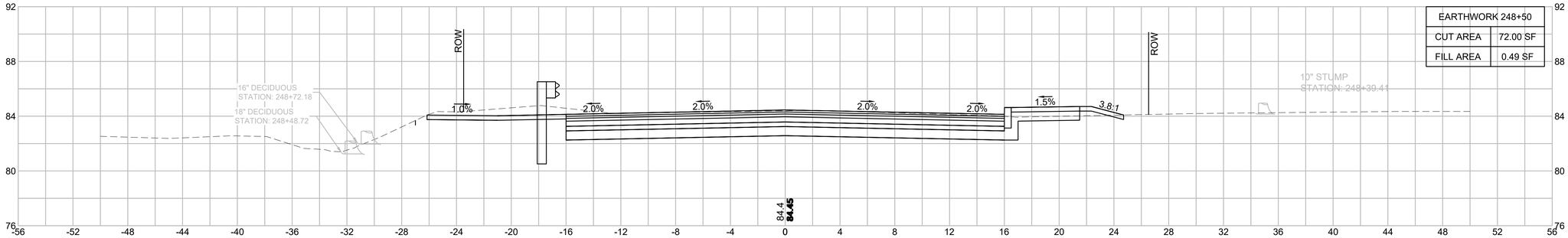
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	320	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 59

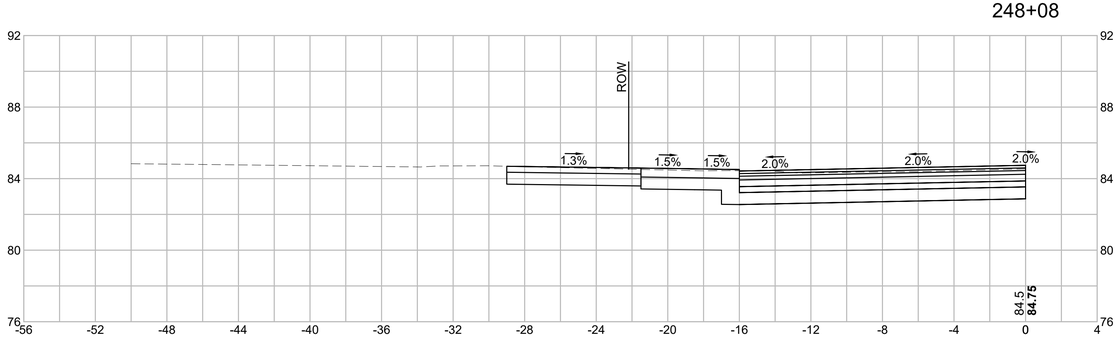
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:10 PM

248+50



EARTHWORK 248+50	
CUT AREA	72.00 SF
FILL AREA	0.49 SF

248+08



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

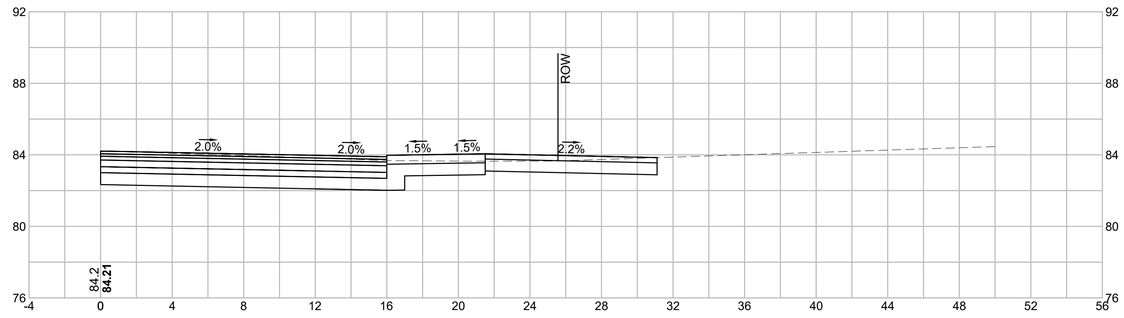
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	321	420
PROJECT FILE NO.	608051		

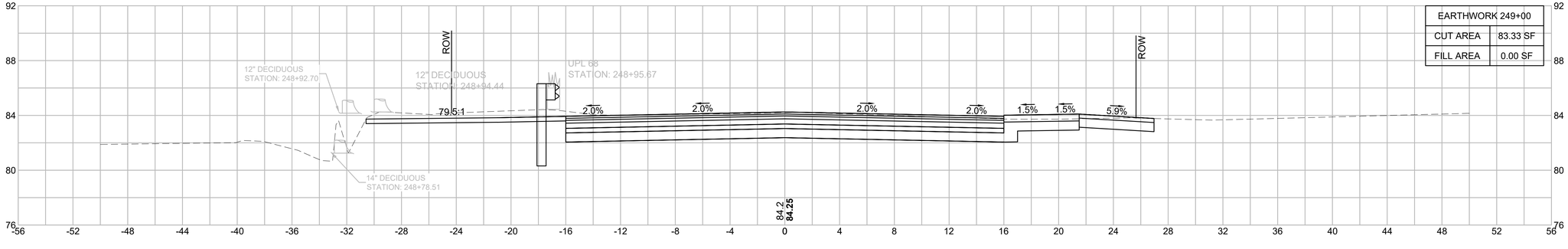
CROSS SECTIONS - 60

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:10 PM

249+10



249+00



EARTHWORK 249+00	
CUT AREA	83.33 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

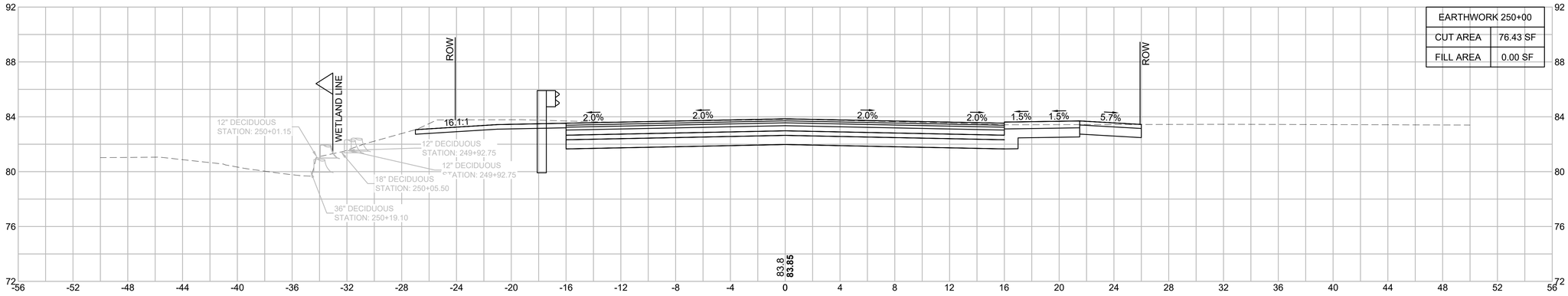
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	322	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 61

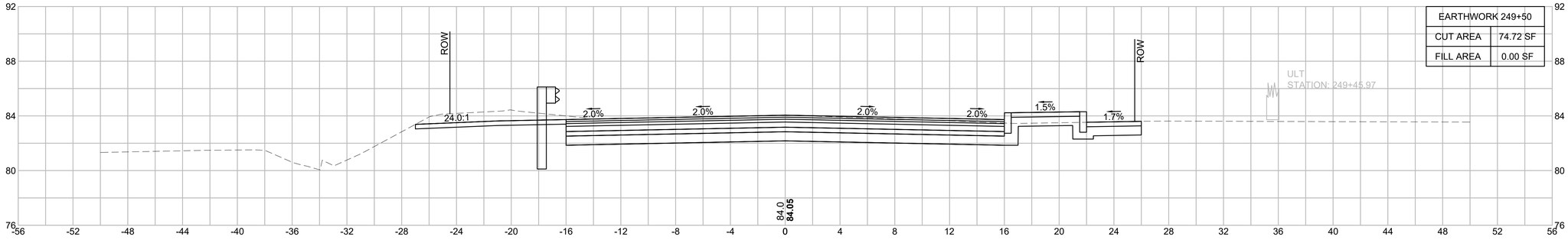
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:11 PM

250+00



EARTHWORK 250+00	
CUT AREA	76.43 SF
FILL AREA	0.00 SF

249+50



EARTHWORK 249+50	
CUT AREA	74.72 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

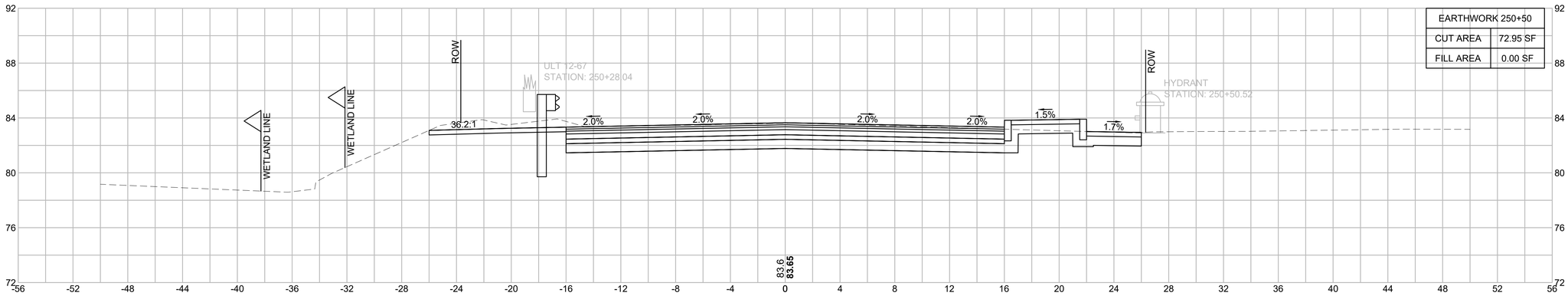
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	323	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 62

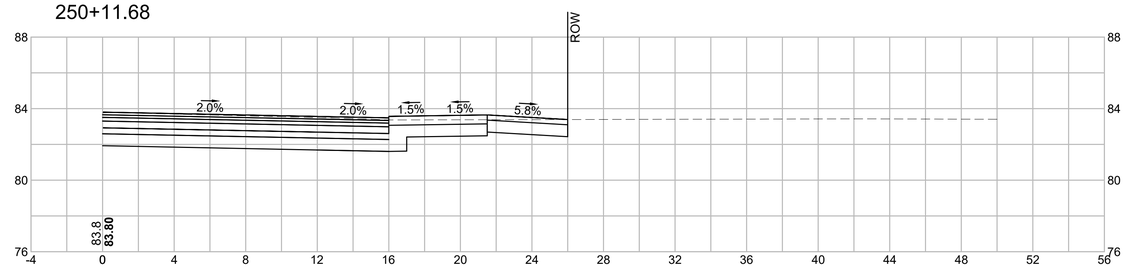
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:11 PM

250+50



EARTHWORK 250+50	
CUT AREA	72.95 SF
FILL AREA	0.00 SF

250+11.68



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

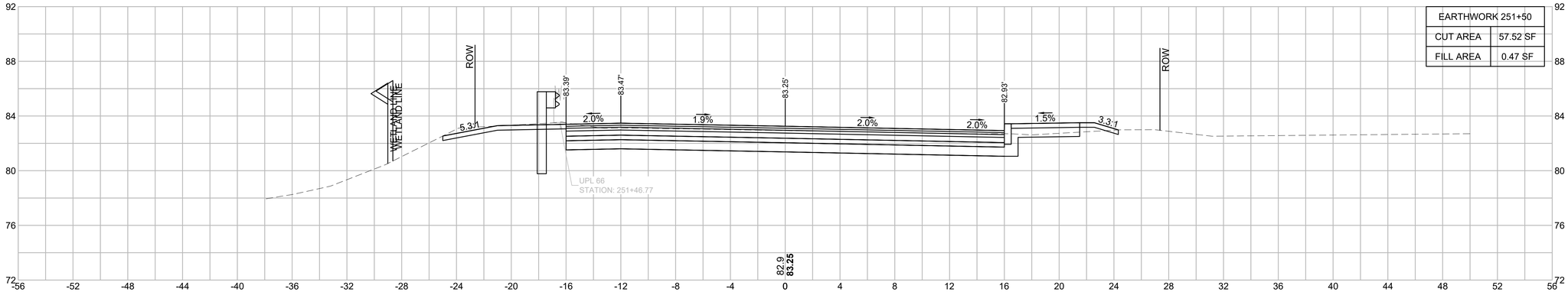
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	324	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 63

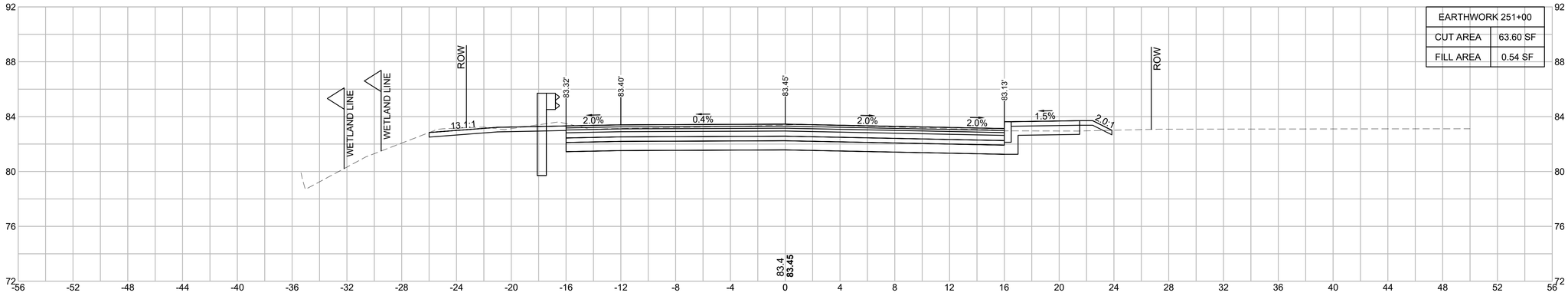
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:11 PM

251+50



EARTHWORK 251+50	
CUT AREA	57.52 SF
FILL AREA	0.47 SF

251+00



EARTHWORK 251+00	
CUT AREA	63.60 SF
FILL AREA	0.54 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

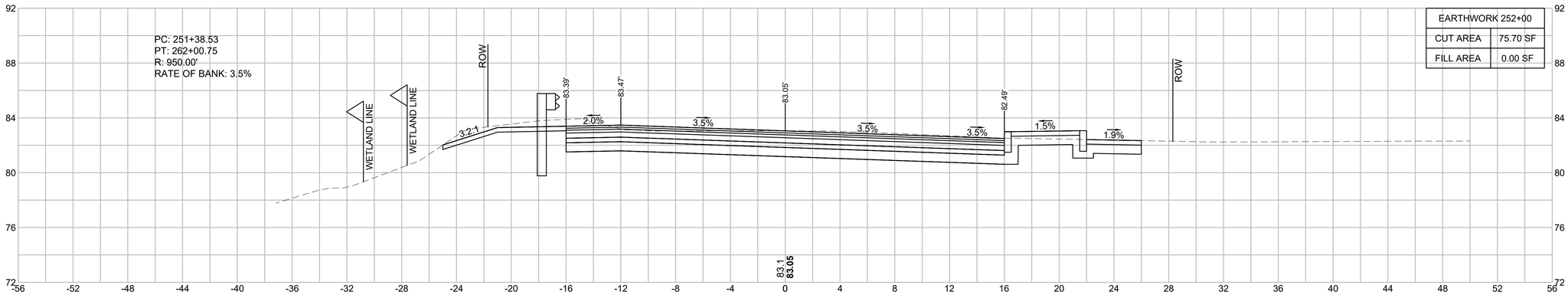
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	325	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 64

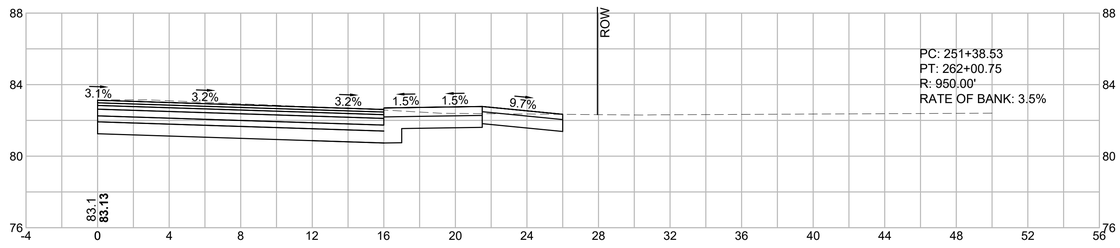
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:11 PM

252+00



EARTHWORK 252+00	
CUT AREA	75.70 SF
FILL AREA	0.00 SF

251+80.04



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

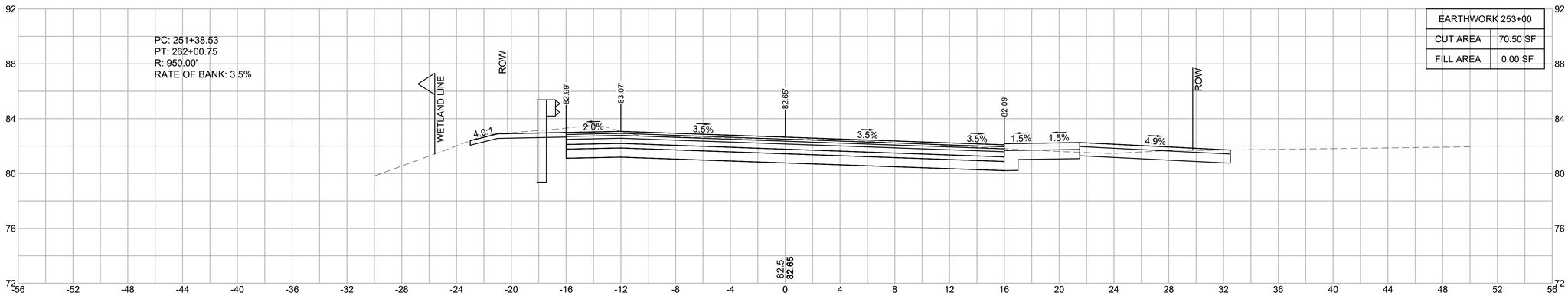
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	326	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 65

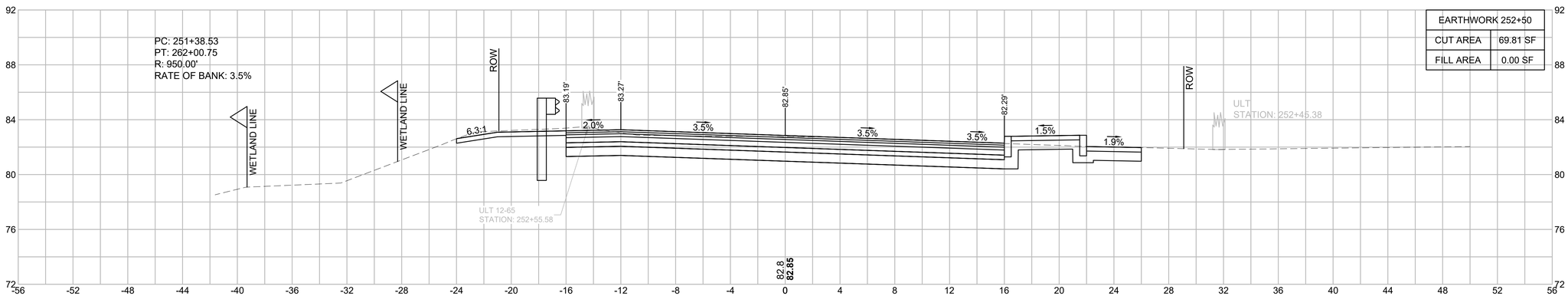
608051_HD12\(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:12 PM

253+00



EARTHWORK 253+00	
CUT AREA	70.50 SF
FILL AREA	0.00 SF

252+50



EARTHWORK 252+50	
CUT AREA	69.81 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

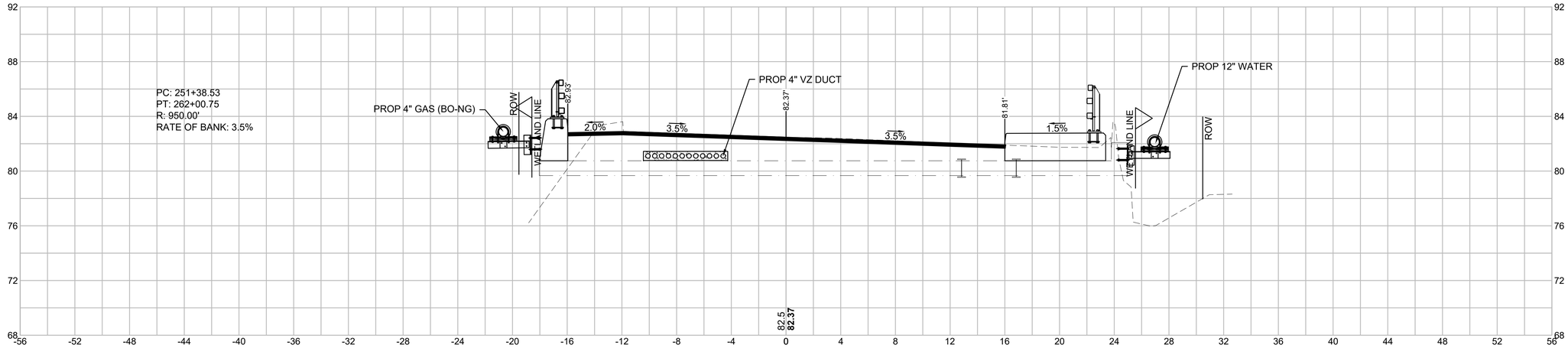
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	327	420
PROJECT FILE NO.	608051		

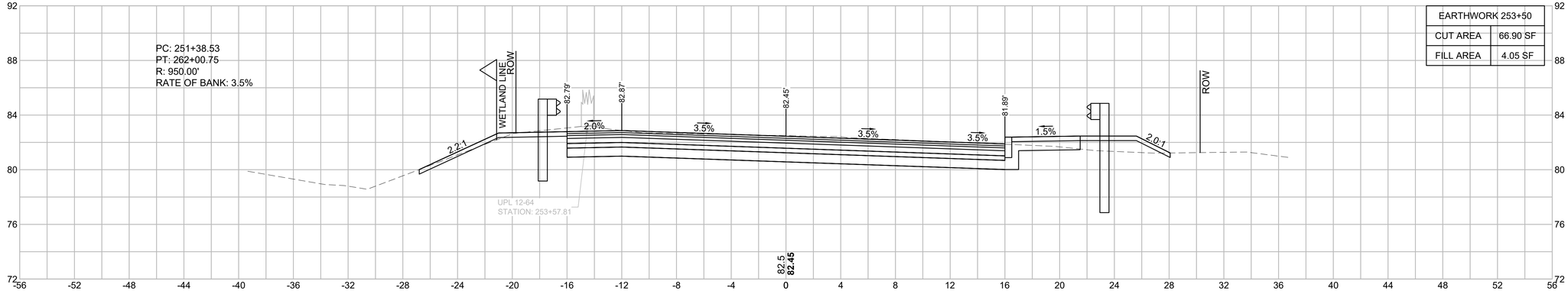
CROSS SECTIONS - 66

608051_HD12(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:12 PM

253+75

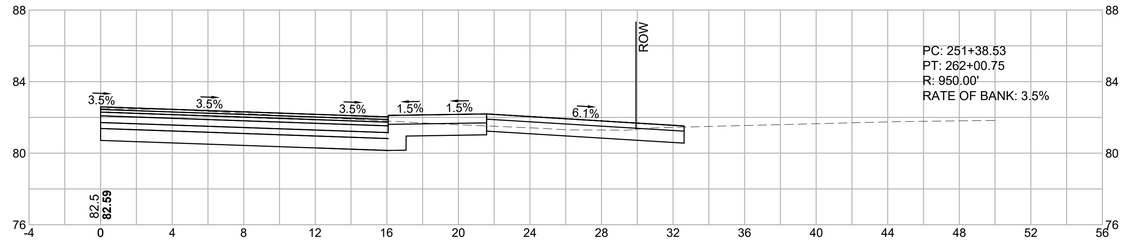


253+50



EARTHWORK 253+50	
CUT AREA	66.90 SF
FILL AREA	4.05 SF

253+15.33



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

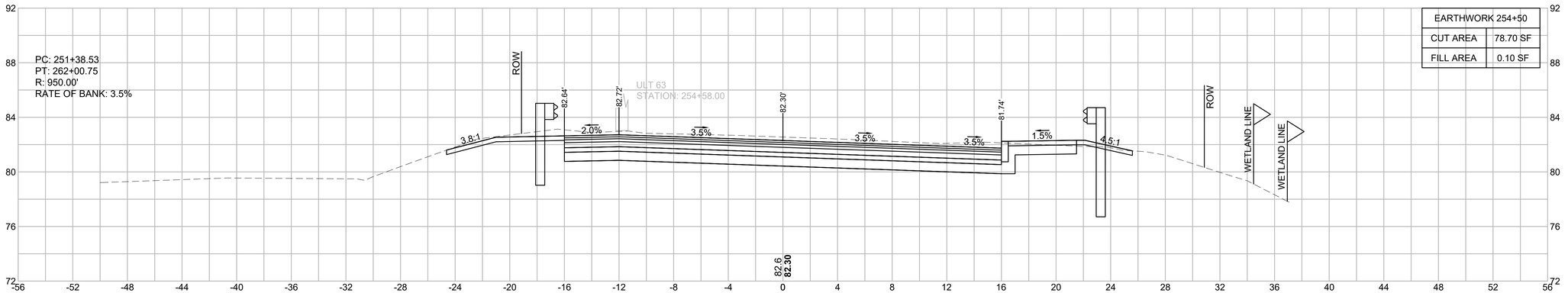
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	328	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 67

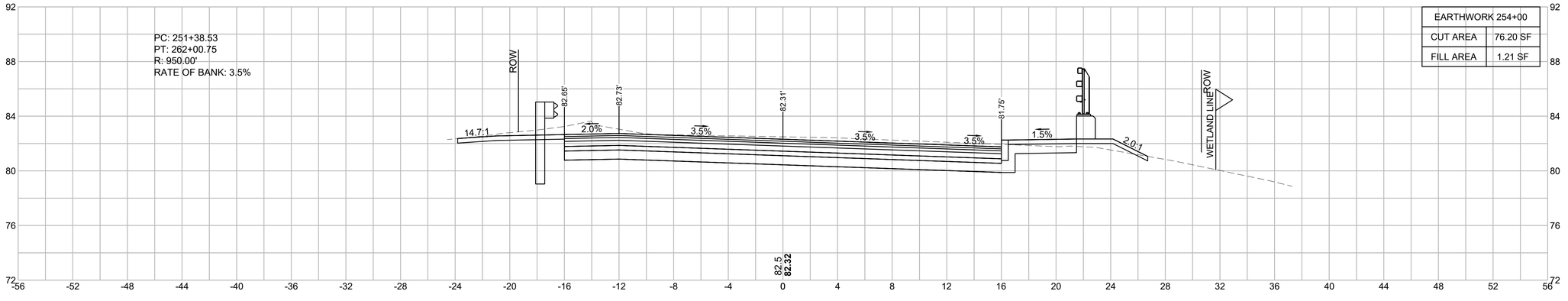
608051_HD12\(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:12 PM

254+50



EARTHWORK 254+50	
CUT AREA	78.70 SF
FILL AREA	0.10 SF

254+00



EARTHWORK 254+00	
CUT AREA	76.20 SF
FILL AREA	1.21 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

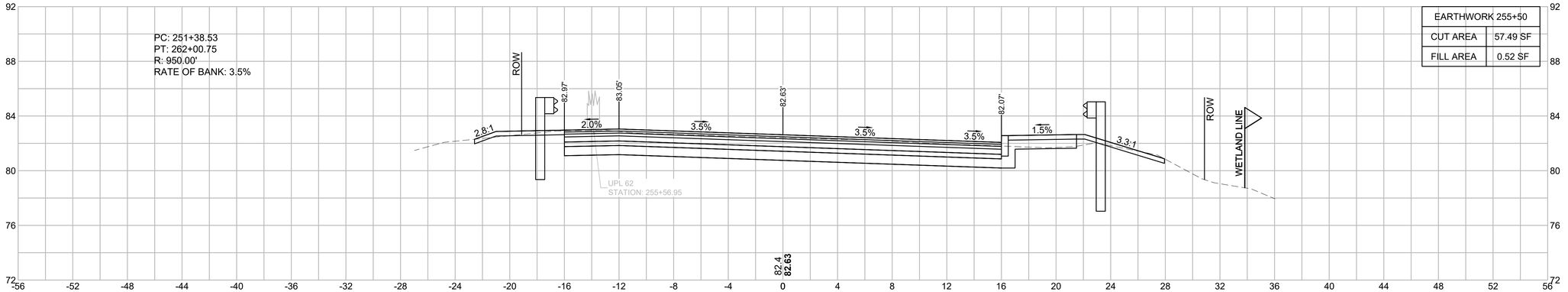
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	329	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 68

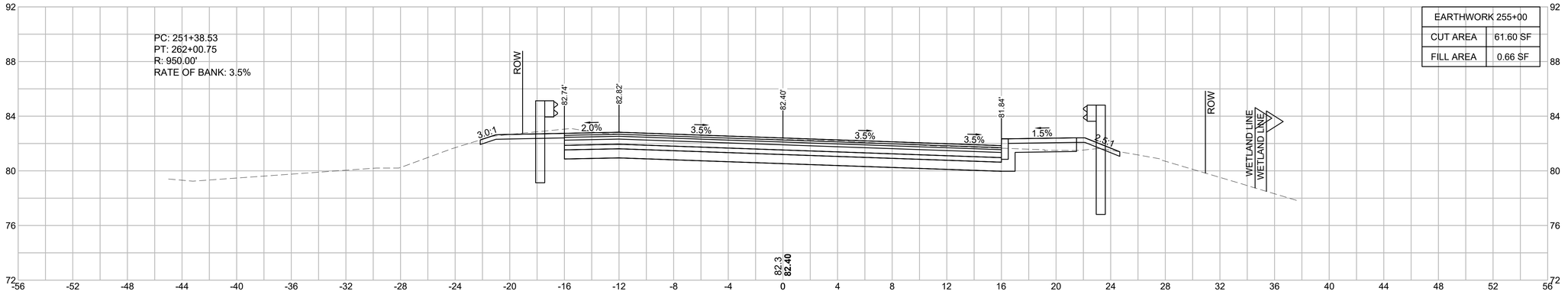
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:13 PM

255+50



EARTHWORK 255+50	
CUT AREA	57.49 SF
FILL AREA	0.52 SF

255+00



EARTHWORK 255+00	
CUT AREA	61.60 SF
FILL AREA	0.66 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

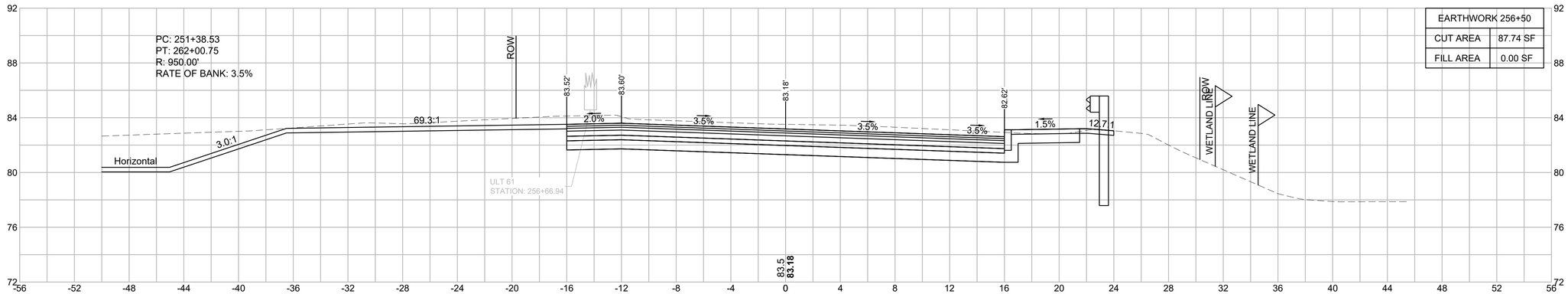
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	330	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 69

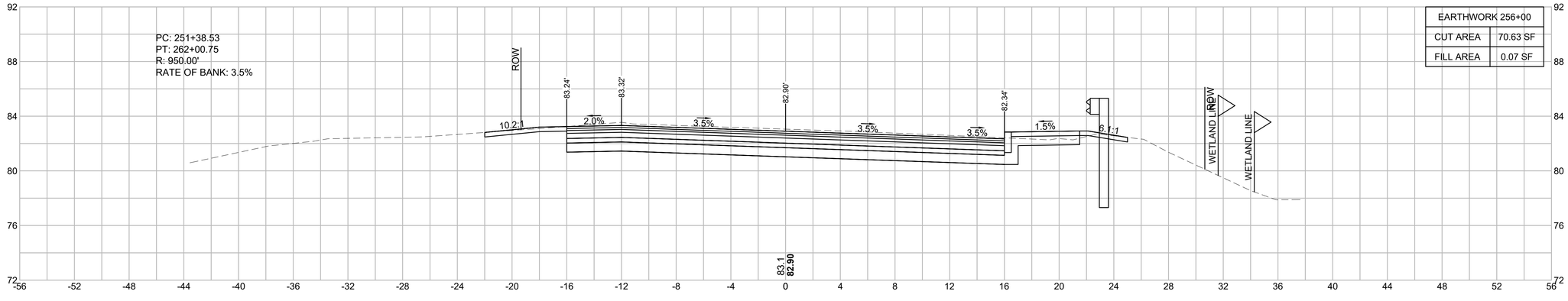
608051_HD12\(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:13 PM

256+50



EARTHWORK 256+50	
CUT AREA	87.74 SF
FILL AREA	0.00 SF

256+00



EARTHWORK 256+00	
CUT AREA	70.63 SF
FILL AREA	0.07 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

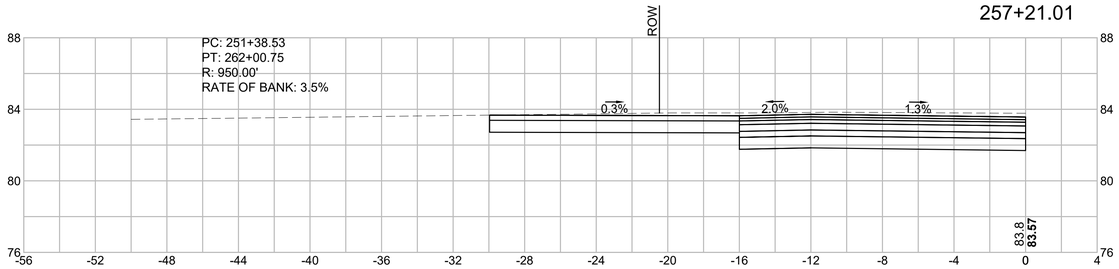
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	331	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 70

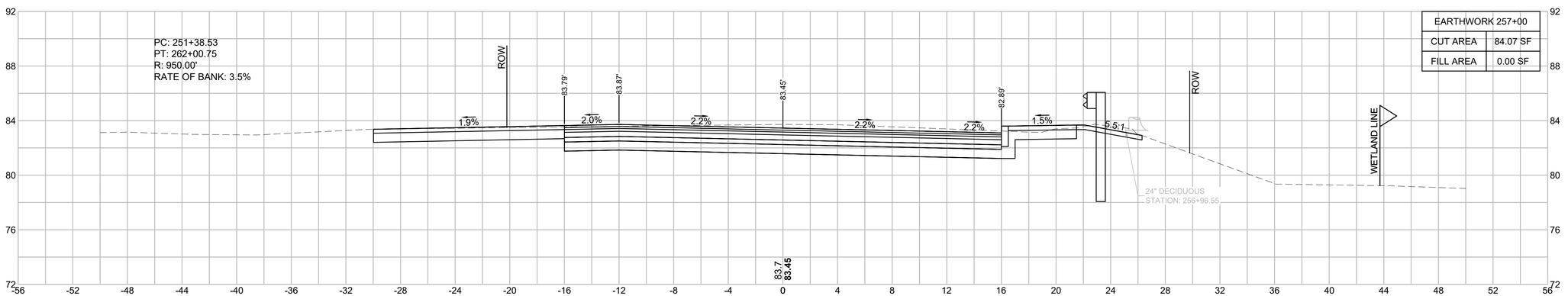
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:13 PM

257+21.01



257+00

EARTHWORK 257+00	
CUT AREA	84.07 SF
FILL AREA	0.00 SF



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

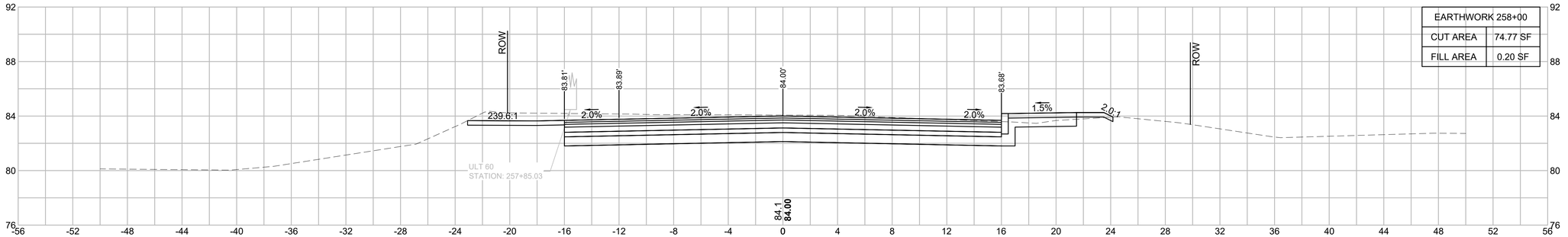
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	332	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 71

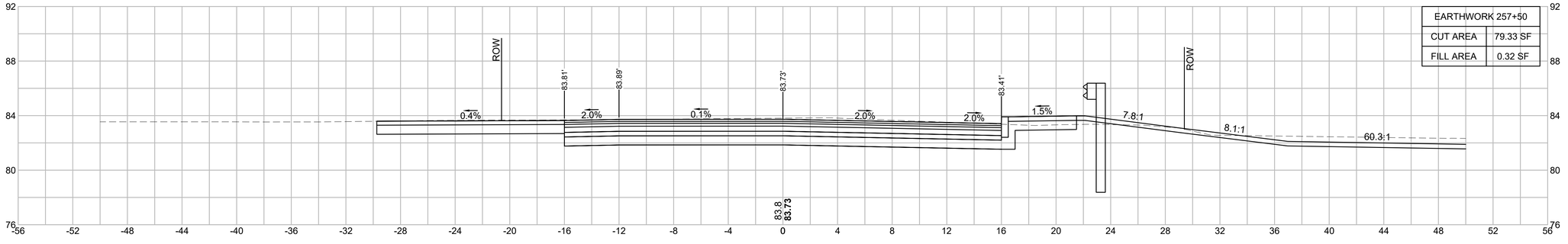
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:14 PM

258+00



EARTHWORK 258+00	
CUT AREA	74.77 SF
FILL AREA	0.20 SF

257+50



EARTHWORK 257+50	
CUT AREA	79.33 SF
FILL AREA	0.32 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

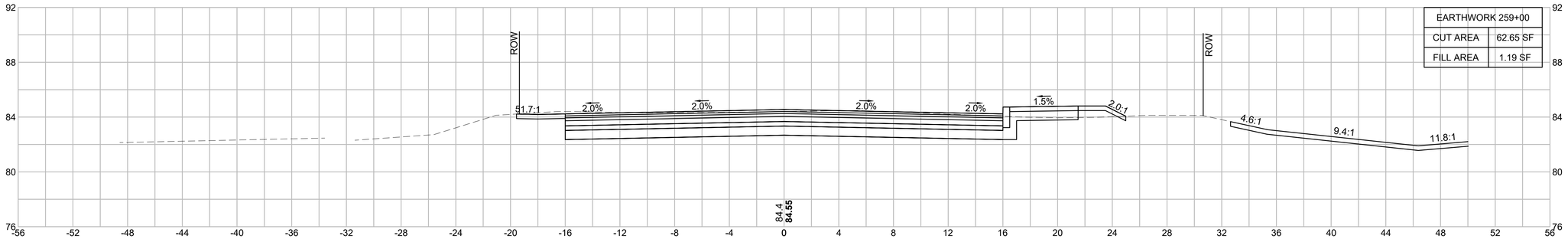
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	333	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 72

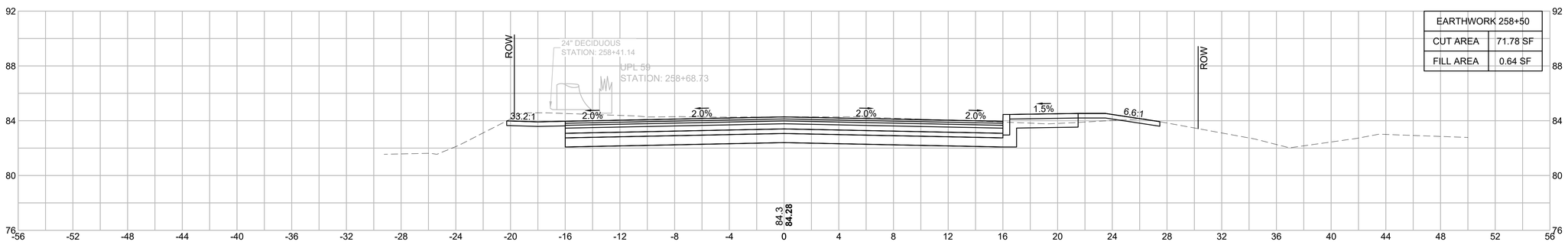
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:14 PM

259+00



EARTHWORK 259+00	
CUT AREA	62.65 SF
FILL AREA	1.19 SF

258+50



EARTHWORK 258+50	
CUT AREA	71.78 SF
FILL AREA	0.64 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

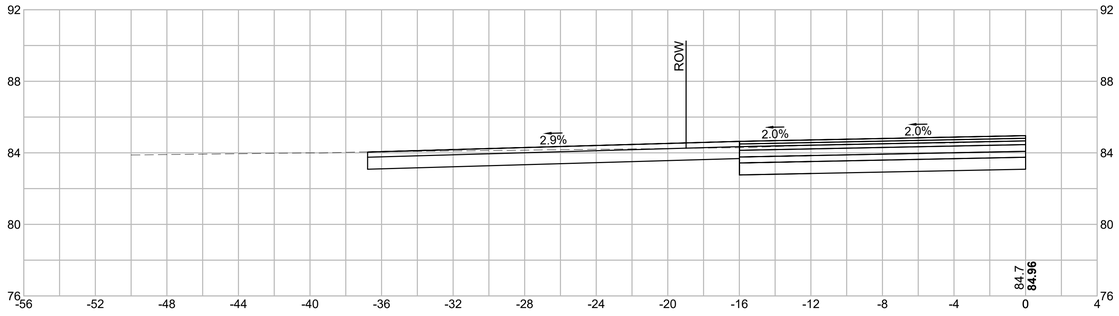
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	334	420
PROJECT FILE NO.	608051		

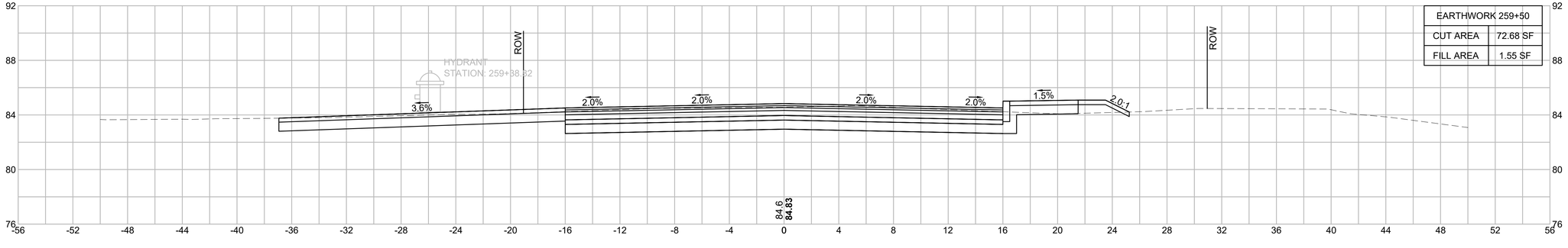
CROSS SECTIONS - 73

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:14 PM

259+65.94



259+50



EARTHWORK 259+50	
CUT AREA	72.68 SF
FILL AREA	1.55 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

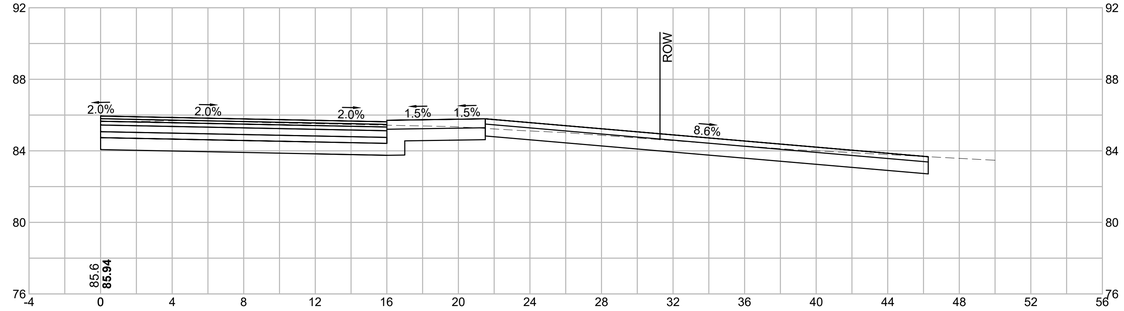
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	335	420
PROJECT FILE NO.	608051		

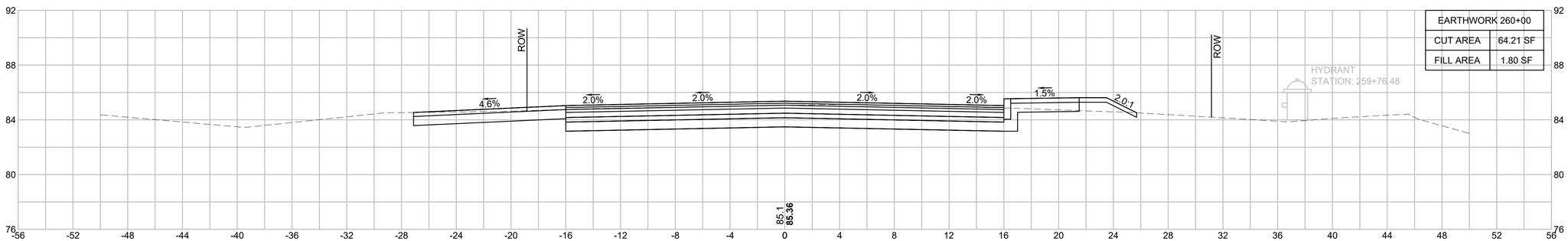
CROSS SECTIONS - 74

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:15 PM

260+33.86



260+00



EARTHWORK 260+00	
CUT AREA	64.21 SF
FILL AREA	1.80 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	336	420
PROJECT FILE NO.	608051		

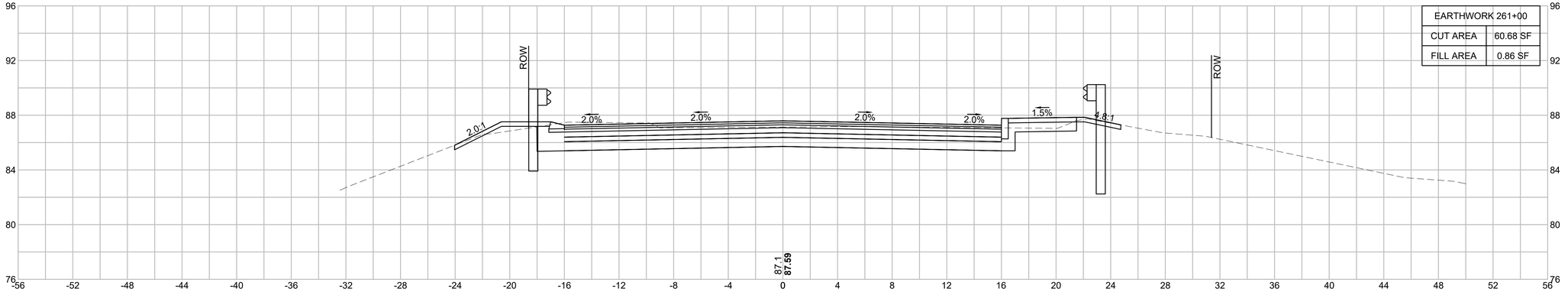
CROSS SECTIONS - 75

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:15 PM

261+00

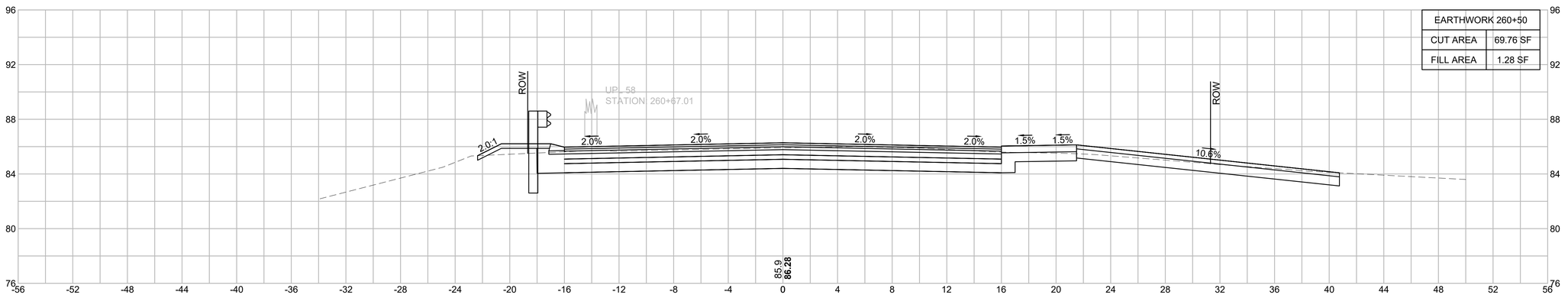
NOTE: BEGIN MAIN STREET BRIDGE PROJECT NO 607327 STA 261.38.00

EARTHWORK 261+00	
CUT AREA	60.68 SF
FILL AREA	0.86 SF



260+50

EARTHWORK 260+50	
CUT AREA	69.76 SF
FILL AREA	1.28 SF



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

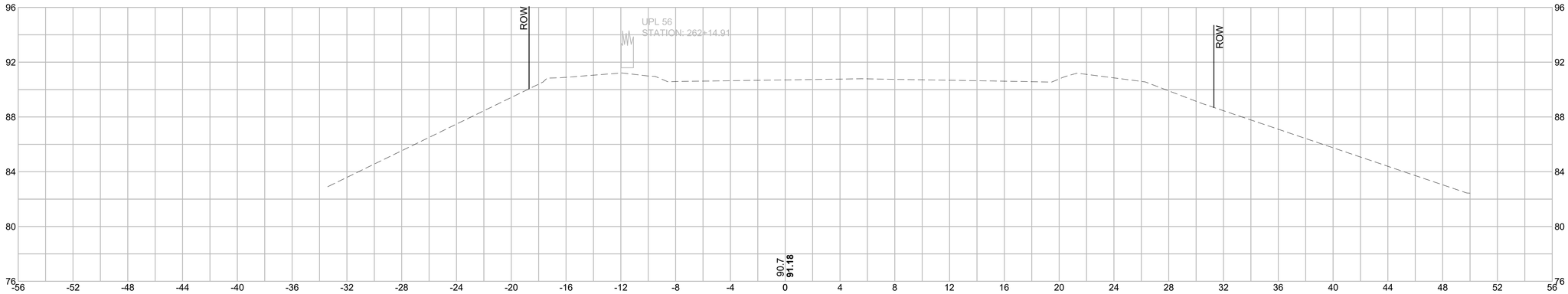
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	337	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 76

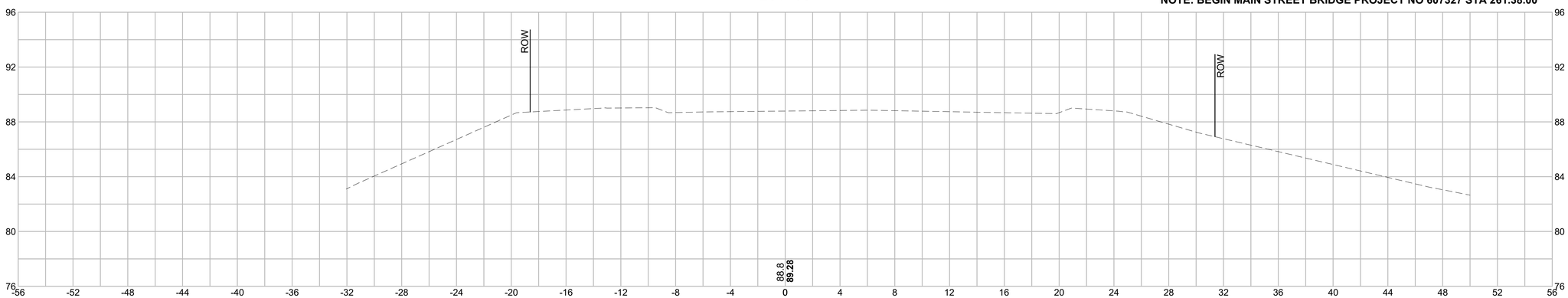
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:15 PM

262+00



261+50

NOTE: BEGIN MAIN STREET BRIDGE PROJECT NO 607327 STA 261.38.00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

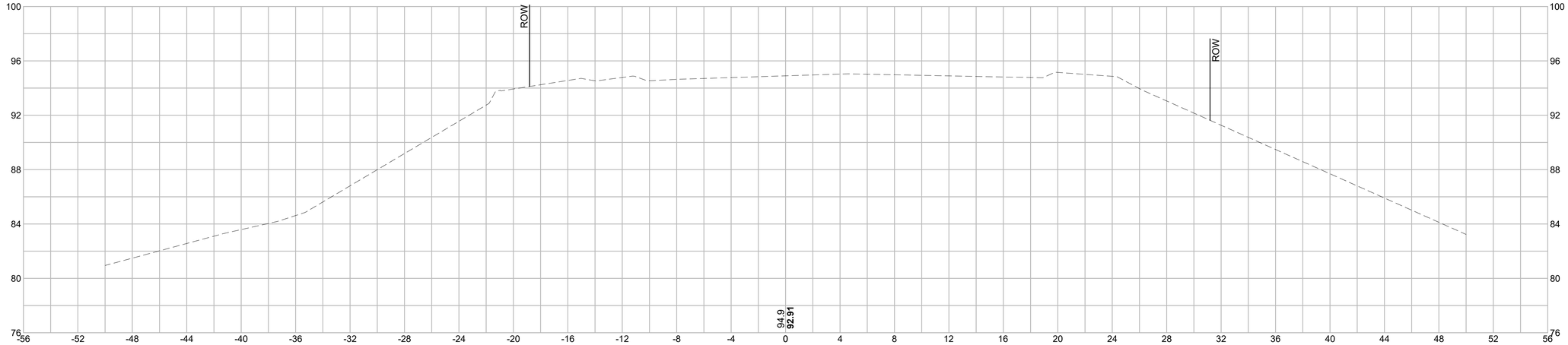
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	338	420
PROJECT FILE NO.	608051		

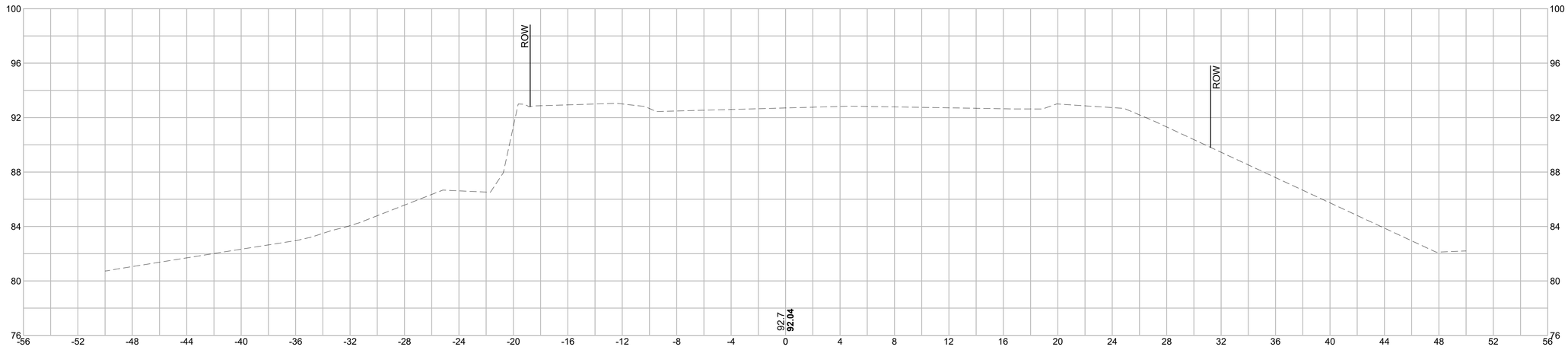
CROSS SECTIONS - 77

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:16 PM

263+00



262+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

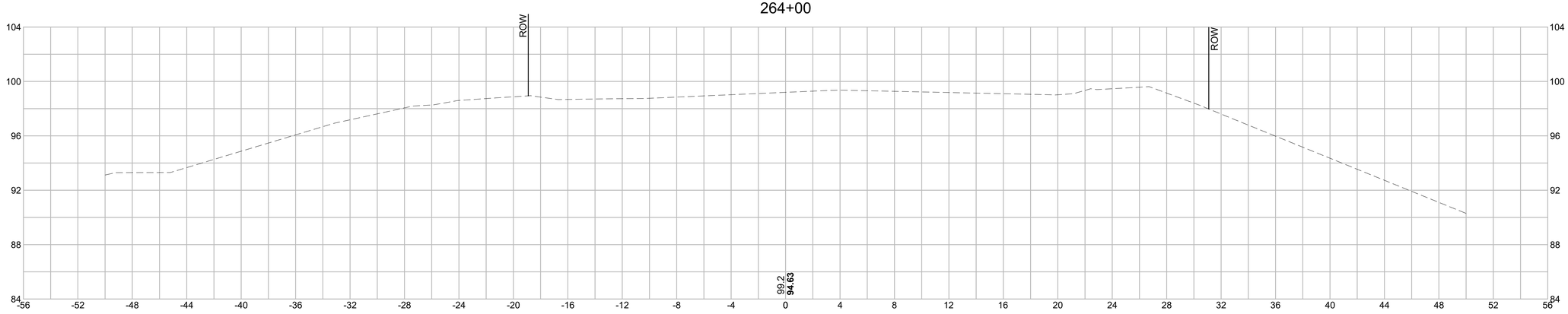
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	339	420
PROJECT FILE NO.	608051		

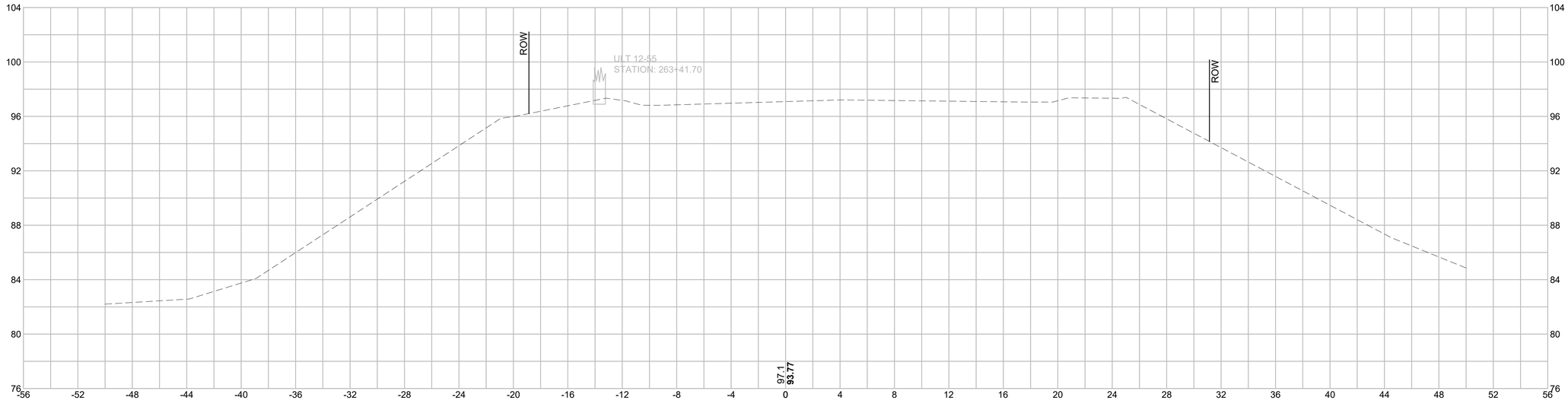
CROSS SECTIONS - 78

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:16 PM

264+00



263+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

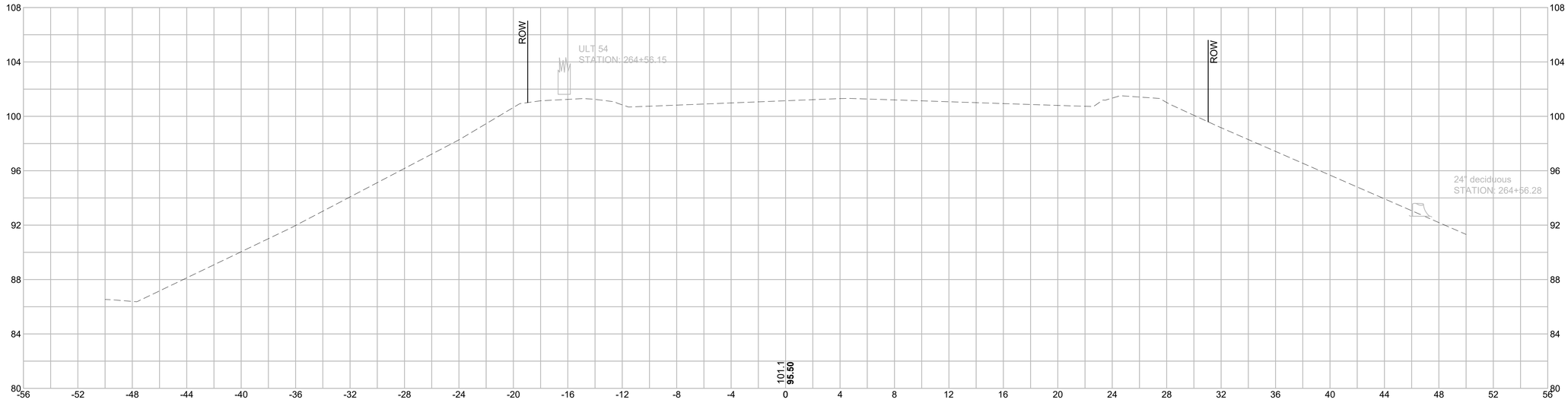
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	340	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 79

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:16 PM

264+50



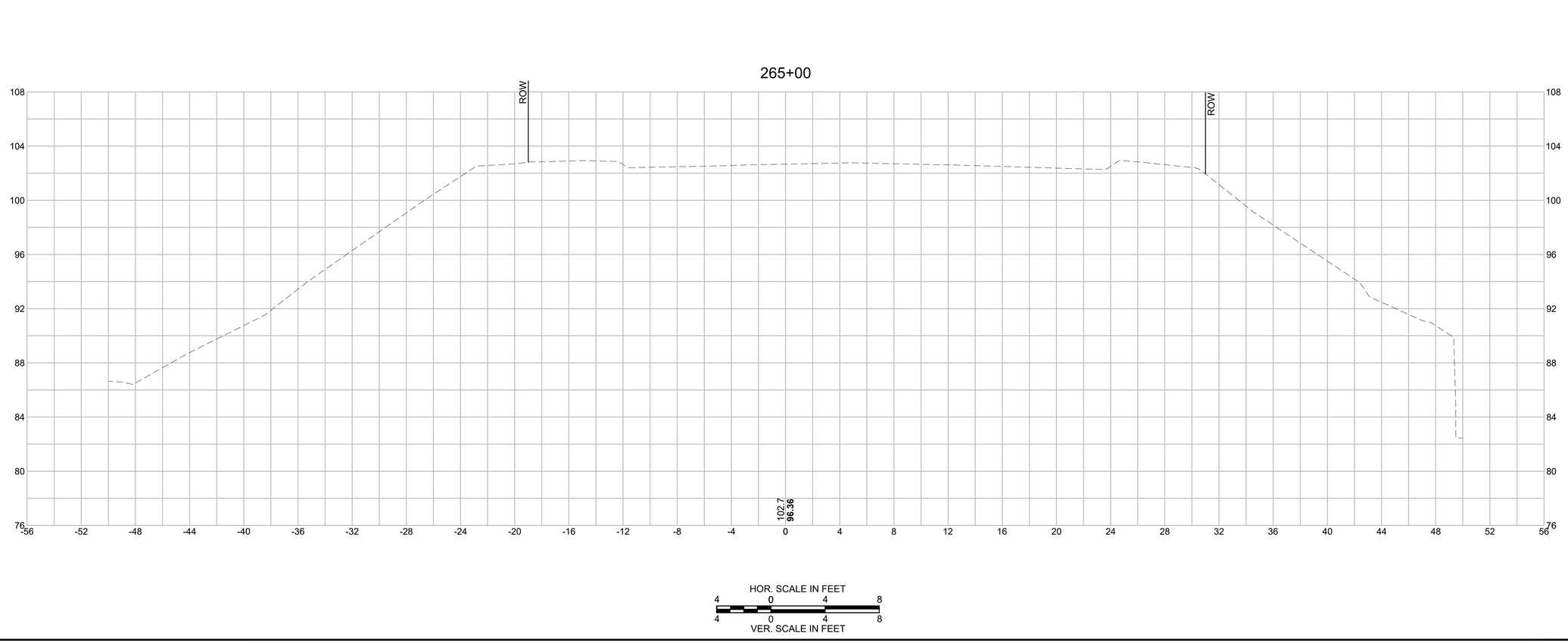
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	341	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 80

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:17 PM

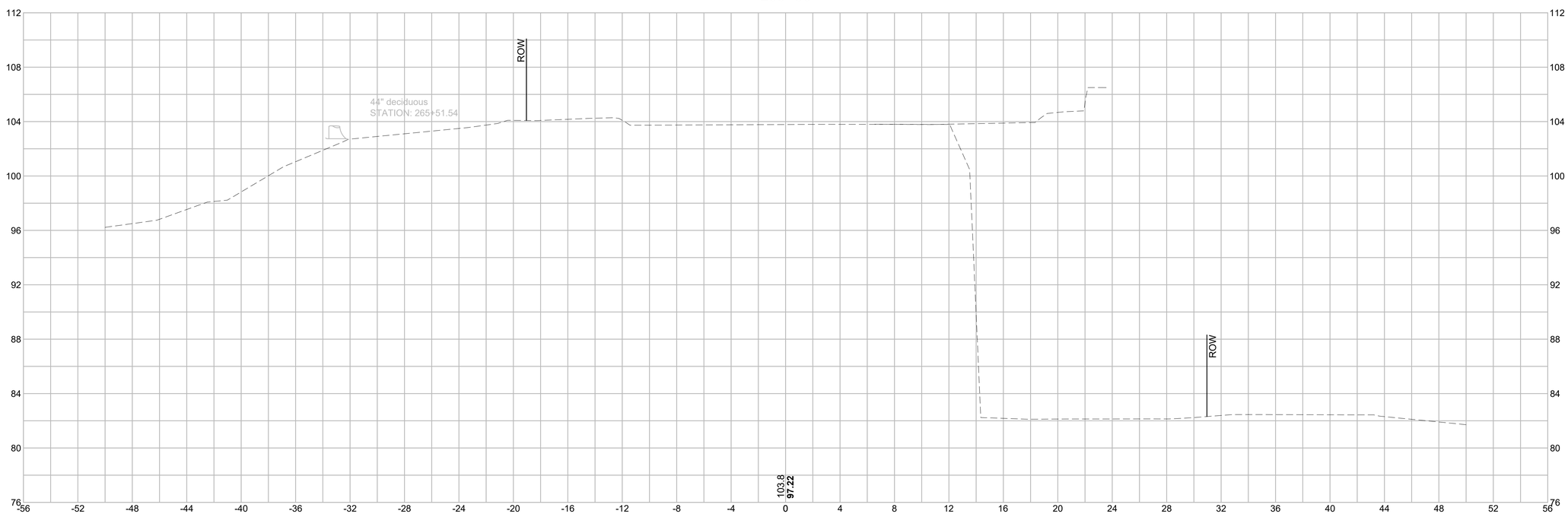


WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	342	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 81

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:17 PM



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

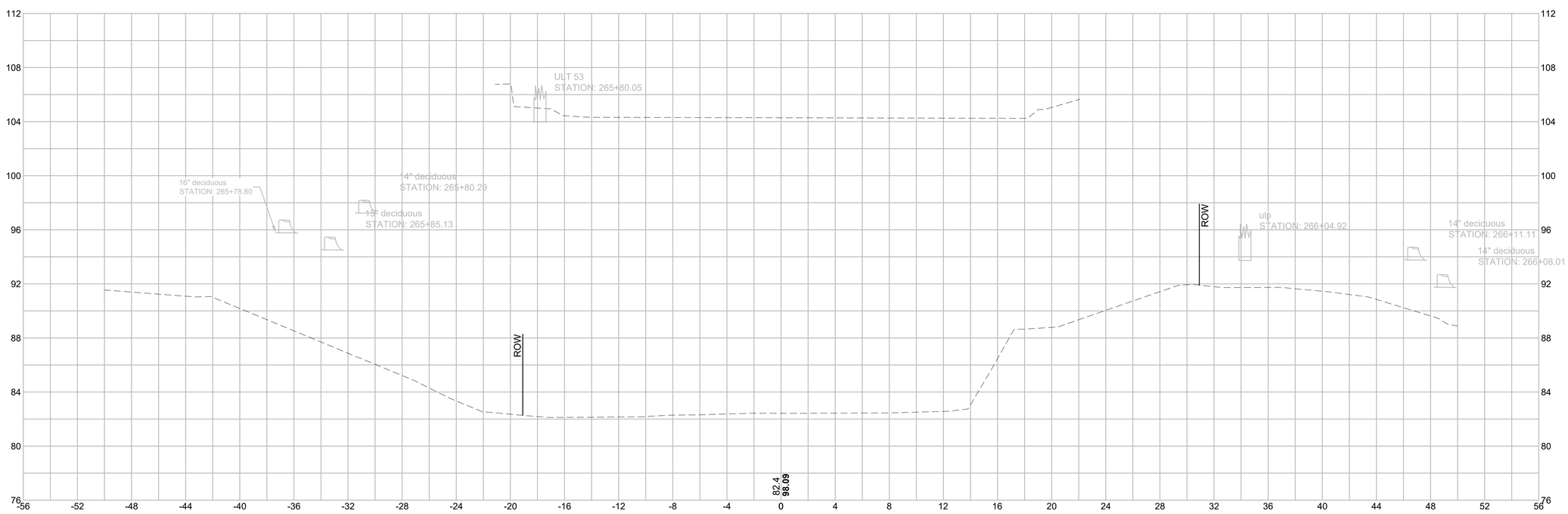
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	343	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 82

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:18 PM

266+00



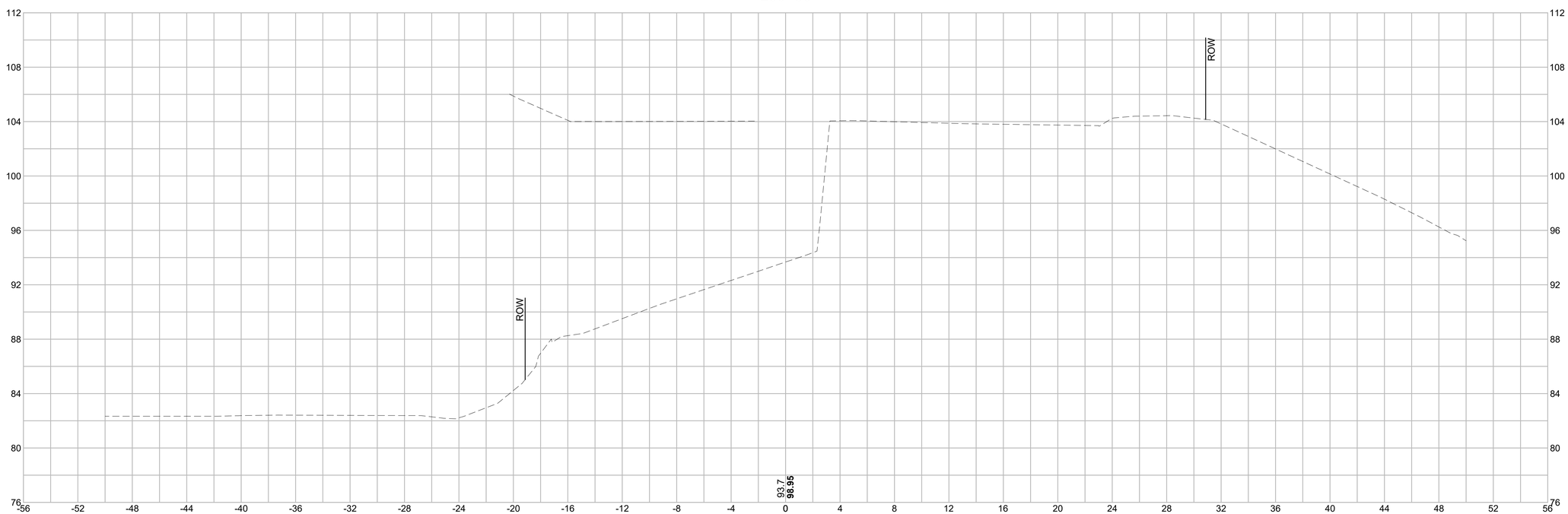
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	344	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 83

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:18 PM



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

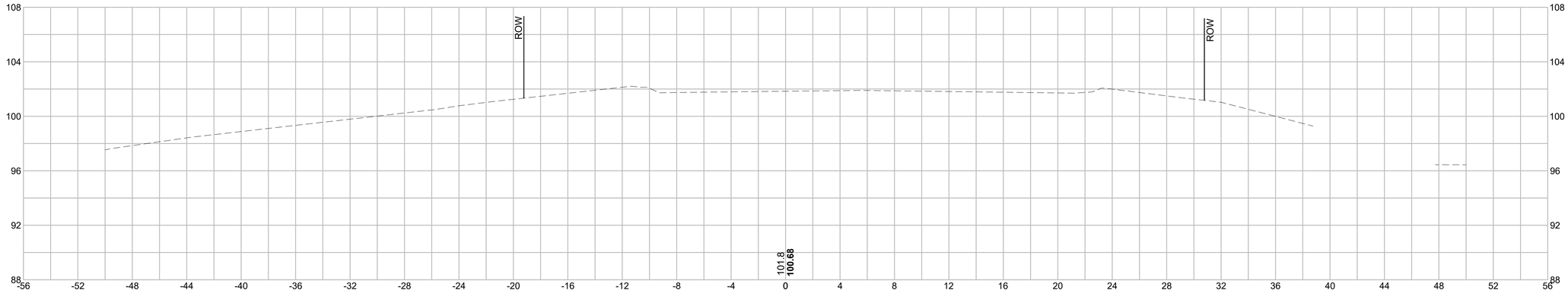
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	345	420
PROJECT FILE NO.	608051		

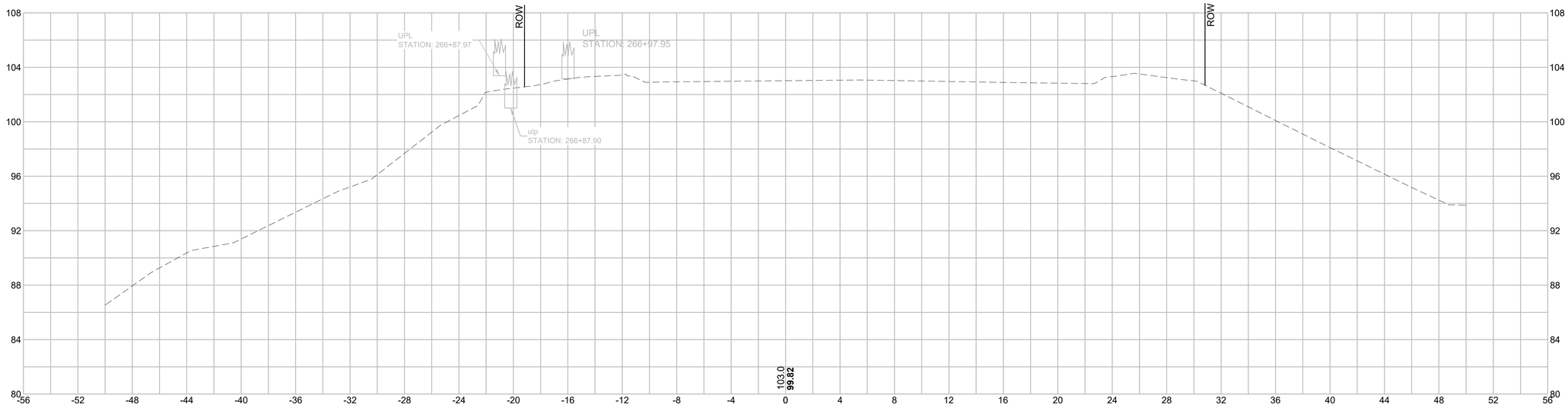
CROSS SECTIONS - 84

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:18 PM

267+50



267+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

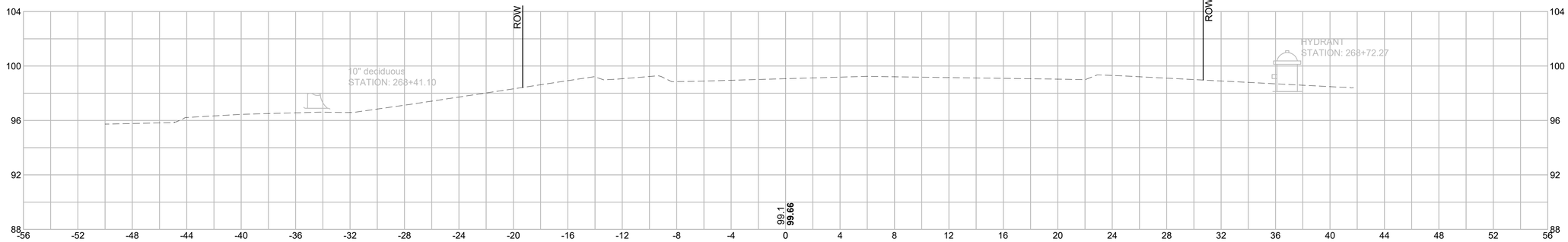
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	346	420
PROJECT FILE NO.	608051		

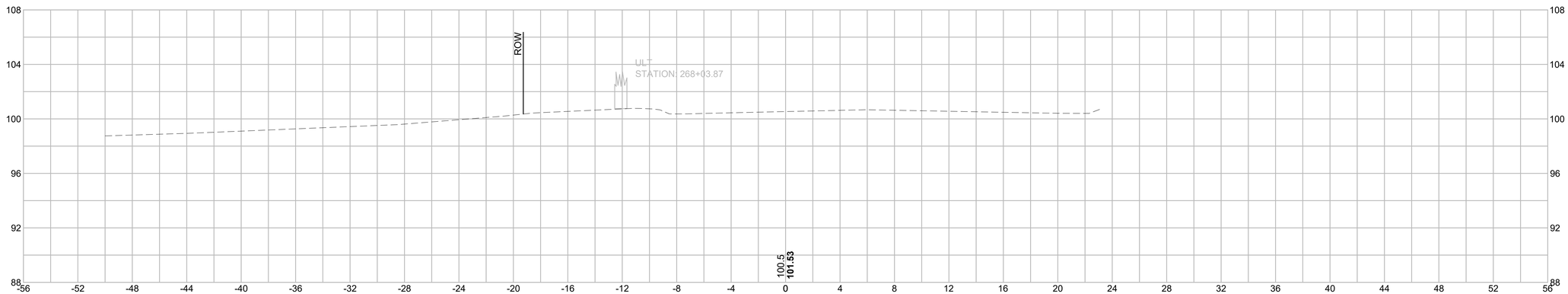
CROSS SECTIONS - 85

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:19 PM

268+50



268+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

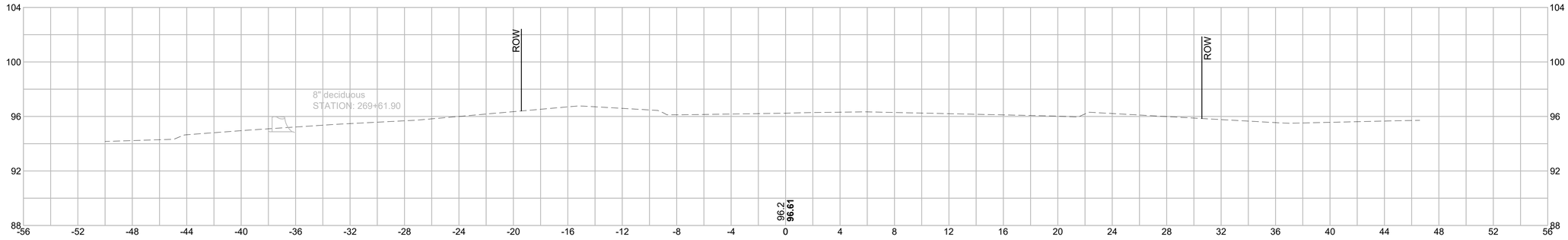
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	347	420
PROJECT FILE NO.	608051		

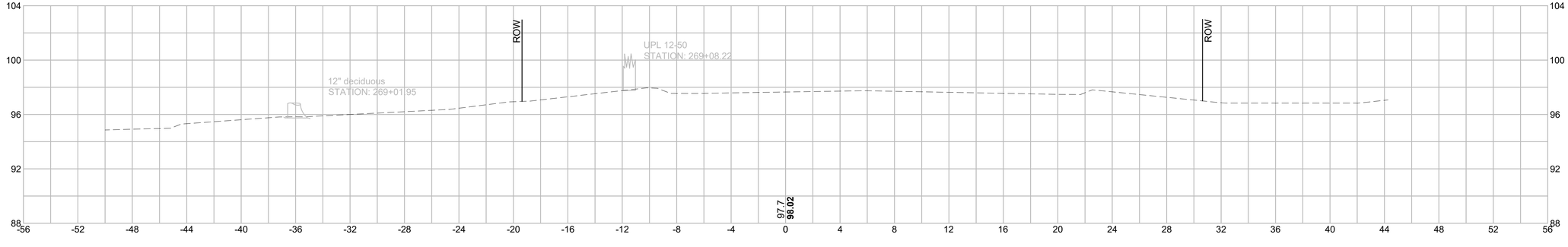
CROSS SECTIONS - 86

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:19 PM

269+50



269+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

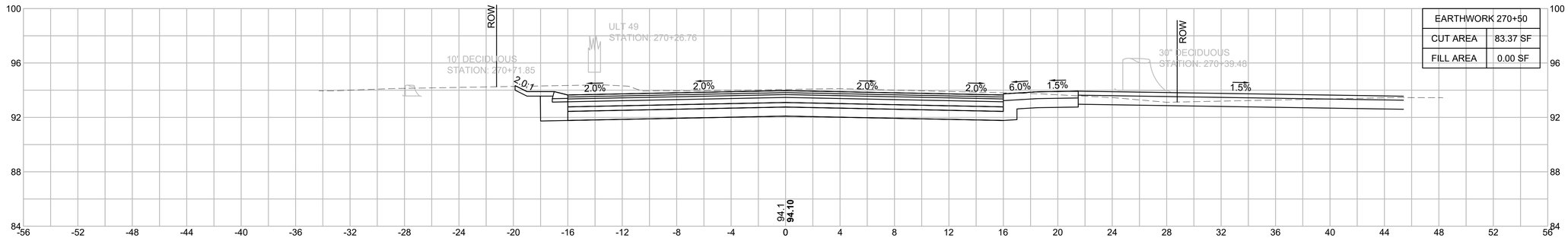
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	348	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 87

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:19 PM

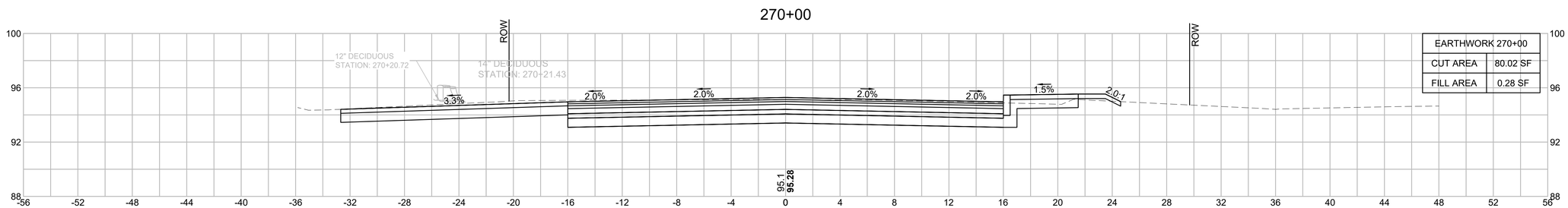
NOTE: END MAIN STREET BRIDGE PROJECT NO 607327 STA 269+50.85

270+50



EARTHWORK 270+50	
CUT AREA	83.37 SF
FILL AREA	0.00 SF

270+00



EARTHWORK 270+00	
CUT AREA	80.02 SF
FILL AREA	0.28 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

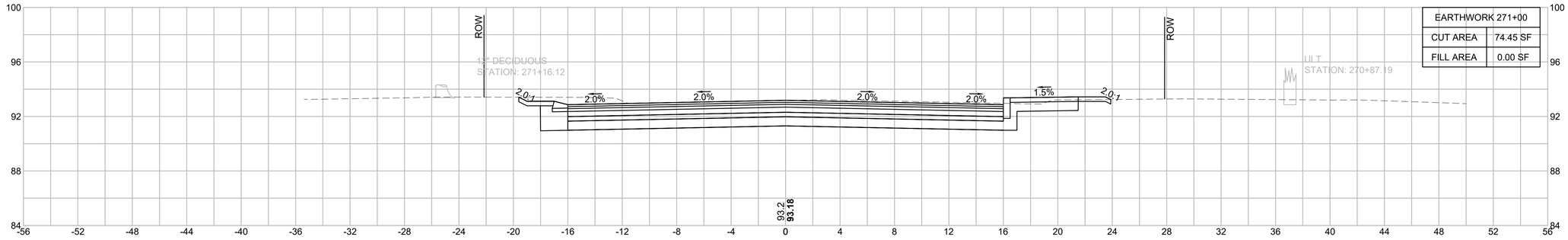
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	349	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 88

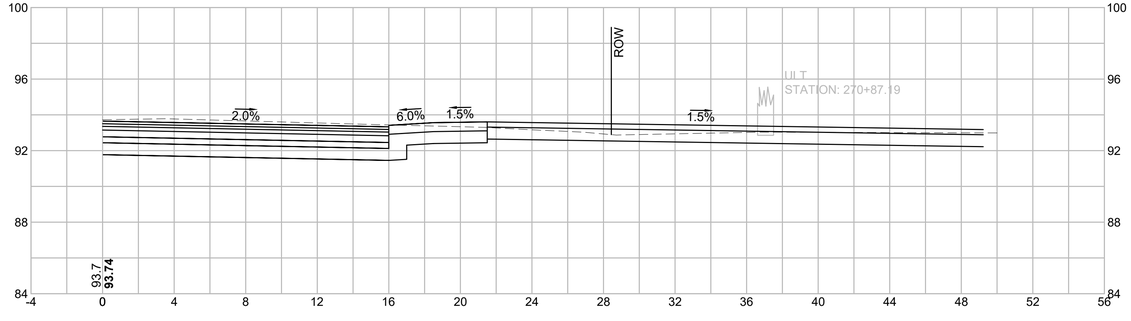
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:20 PM

271+00



EARTHWORK 271+00	
CUT AREA	74.45 SF
FILL AREA	0.00 SF

270+68.10



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

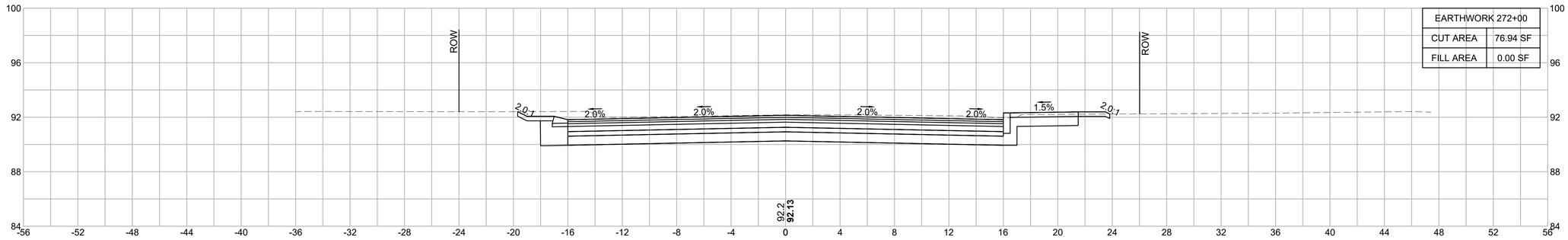
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	350	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 89

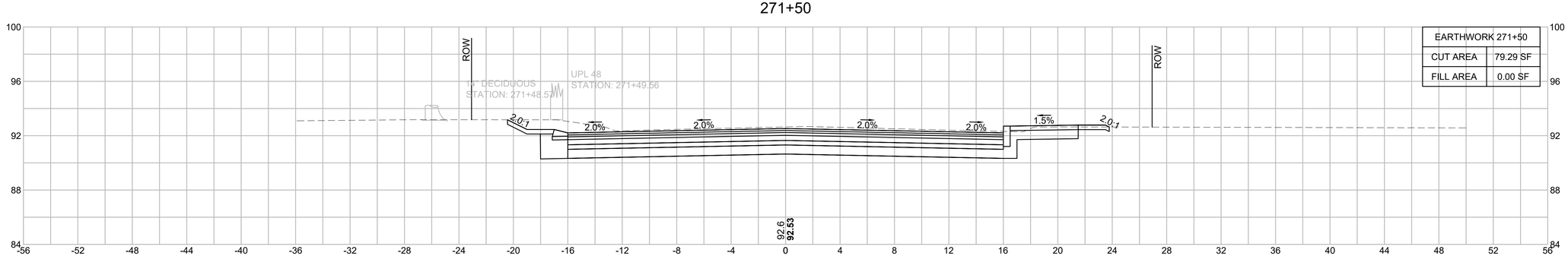
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:20 PM

272+00



EARTHWORK 272+00	
CUT AREA	76.94 SF
FILL AREA	0.00 SF

271+50



EARTHWORK 271+50	
CUT AREA	79.29 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

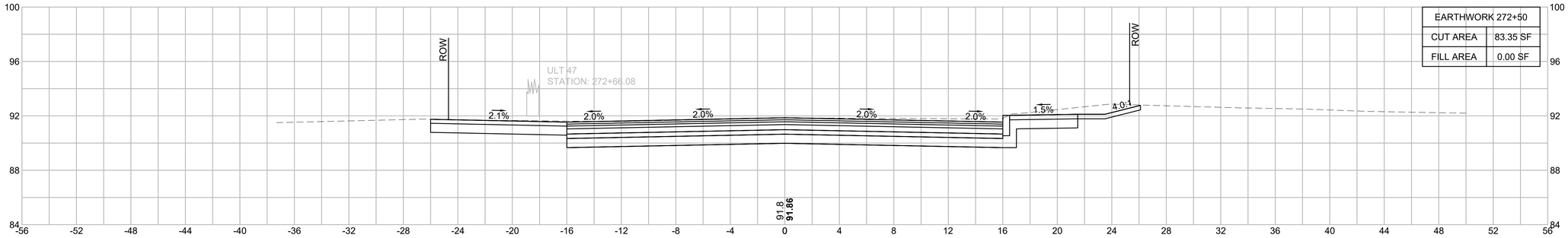
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	351	420
PROJECT FILE NO.	608051		

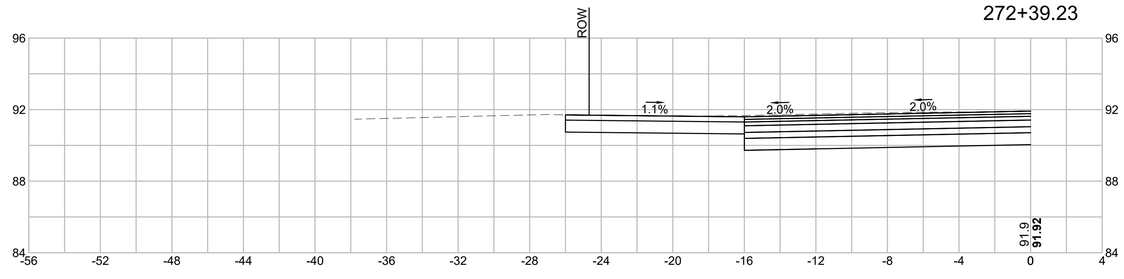
CROSS SECTIONS - 90

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:20 PM

272+50



272+39.23



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

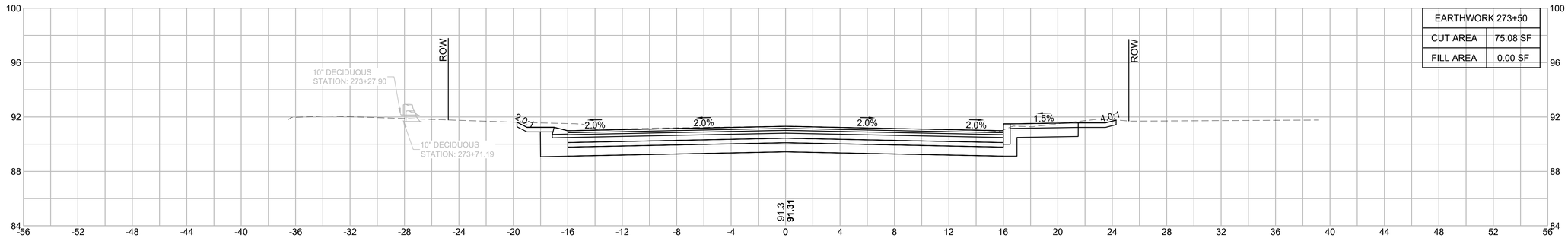
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	352	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 91

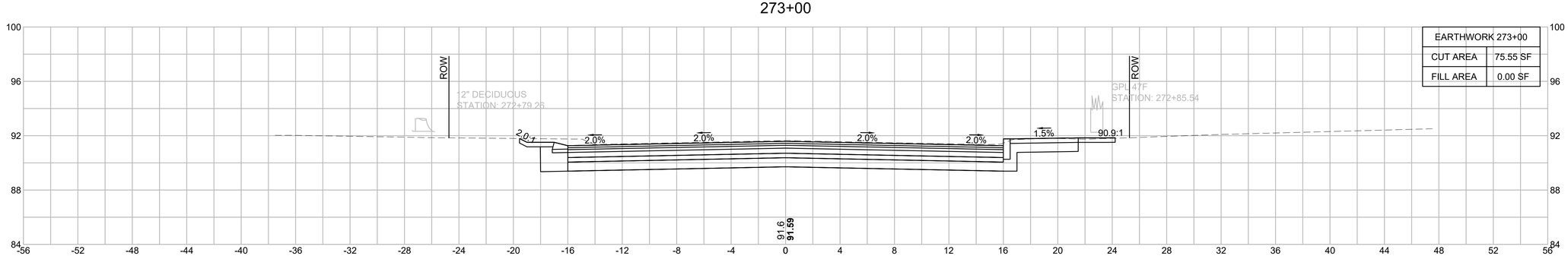
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:21 PM

273+50



EARTHWORK 273+50	
CUT AREA	75.08 SF
FILL AREA	0.00 SF

273+00



EARTHWORK 273+00	
CUT AREA	75.55 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

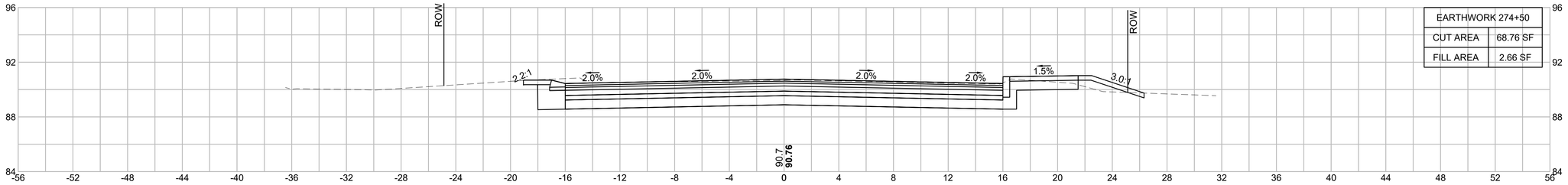
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	353	420
PROJECT FILE NO.	608051		

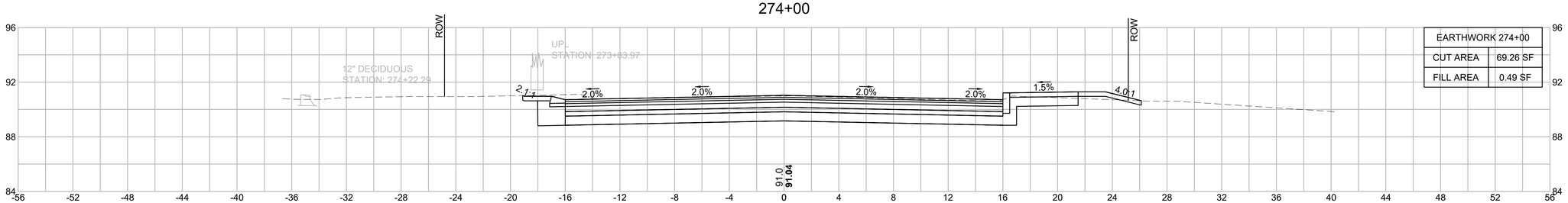
CROSS SECTIONS - 92

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:21 PM

274+50



274+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

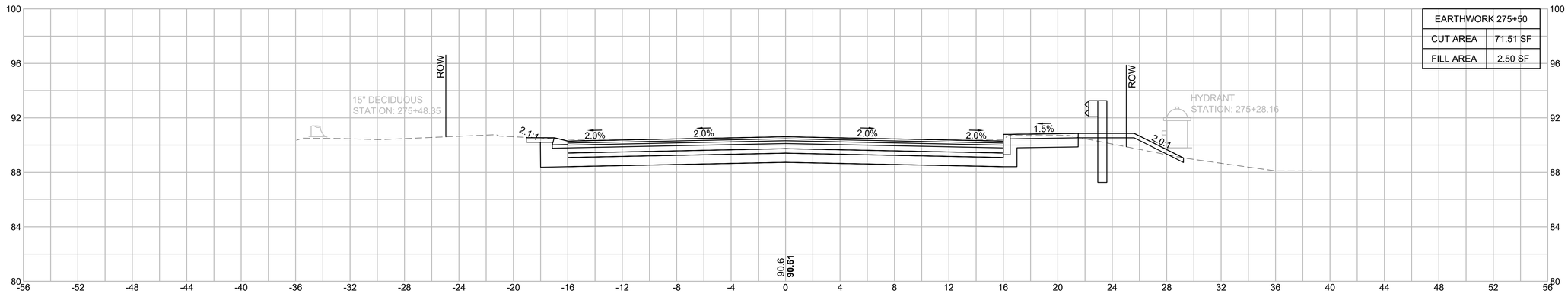
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	354	420
	PROJECT FILE NO. 608051		

CROSS SECTIONS - 93

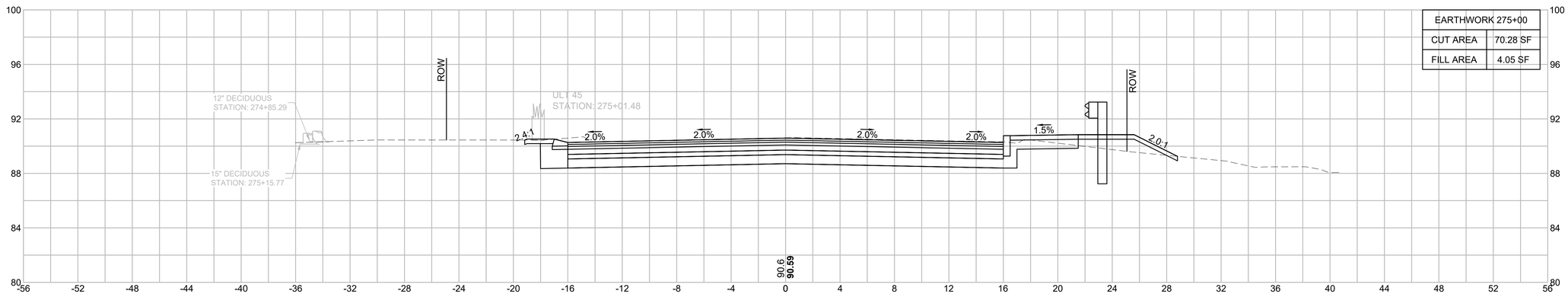
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:21 PM

275+50



EARTHWORK 275+50	
CUT AREA	71.51 SF
FILL AREA	2.50 SF

275+00



EARTHWORK 275+00	
CUT AREA	70.28 SF
FILL AREA	4.05 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

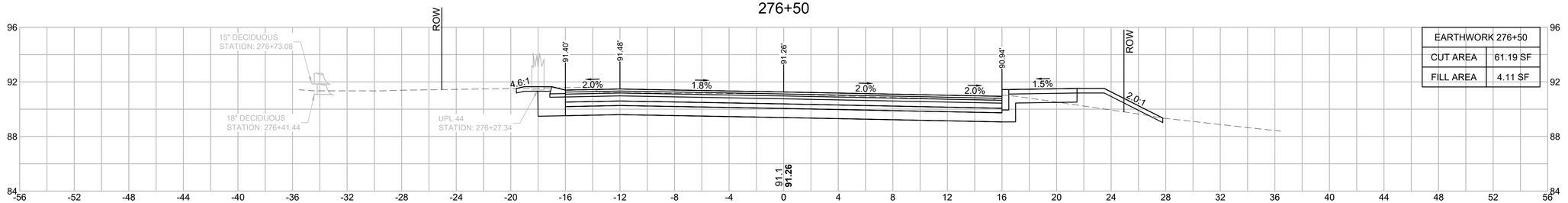
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	355	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 94

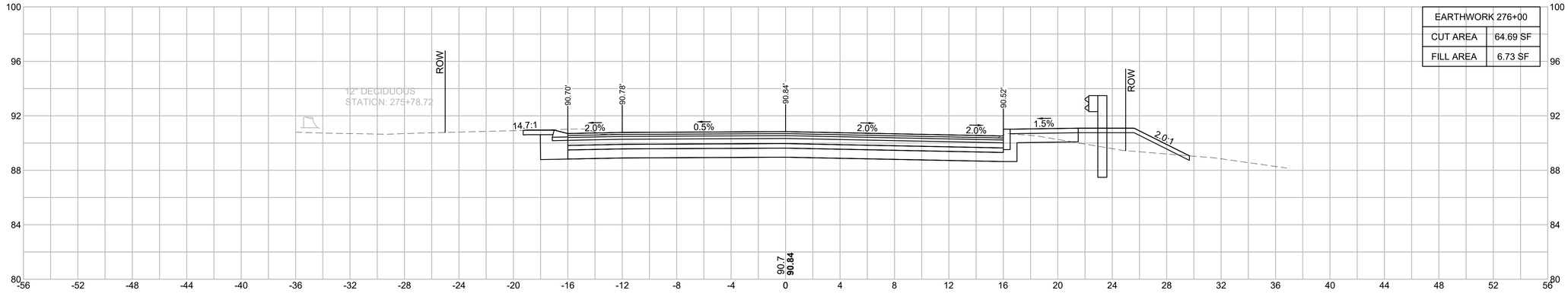
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:22 PM

276+50



EARTHWORK 276+50	
CUT AREA	61.19 SF
FILL AREA	4.11 SF

276+00



EARTHWORK 276+00	
CUT AREA	64.69 SF
FILL AREA	6.73 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

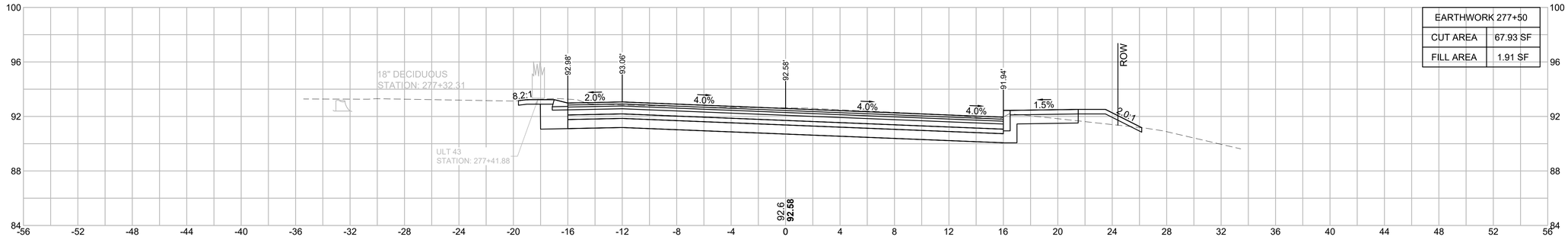
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	356	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 95

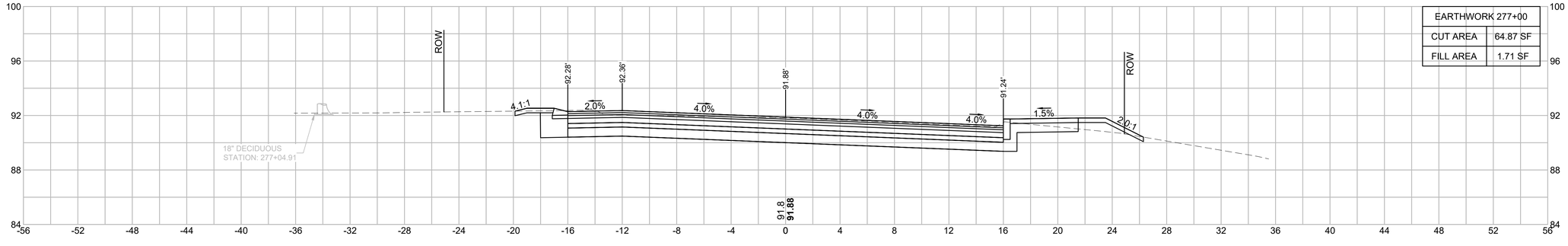
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:22 PM

277+50



EARTHWORK 277+50	
CUT AREA	67.93 SF
FILL AREA	1.91 SF

277+00



EARTHWORK 277+00	
CUT AREA	64.87 SF
FILL AREA	1.71 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

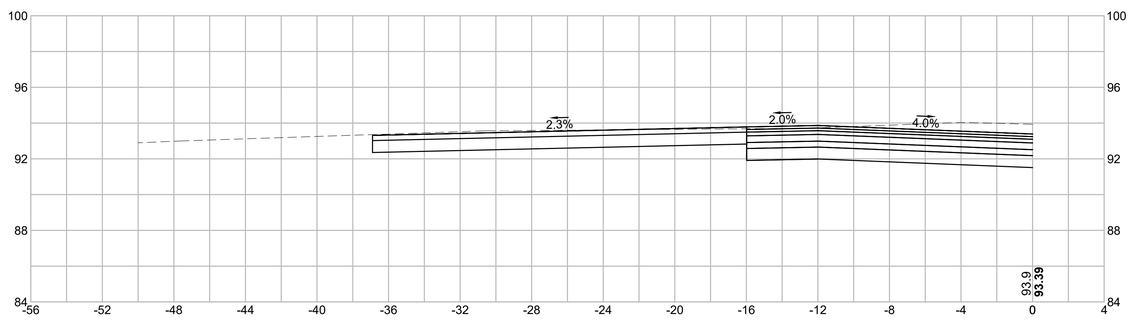
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	357	420
PROJECT FILE NO.	608051		

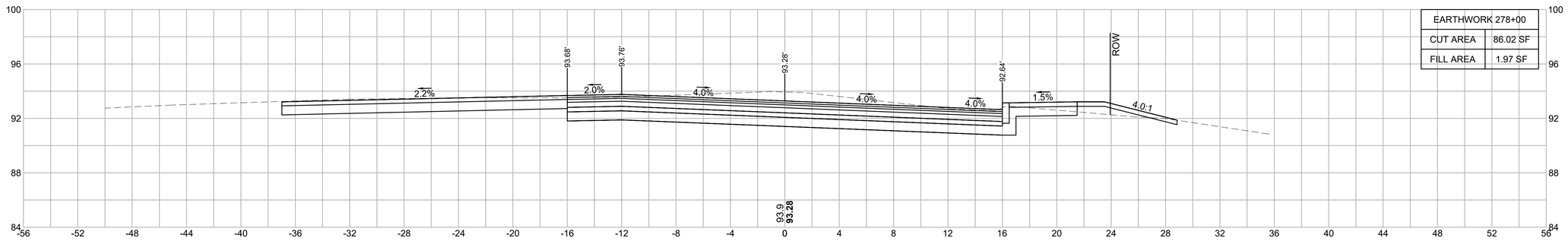
CROSS SECTIONS - 96

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:22 PM

278+07.34



278+00



EARTHWORK 278+00	
CUT AREA	86.02 SF
FILL AREA	1.97 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

WILMINGTON, MA
ROUTE 38 (MAIN STREET)

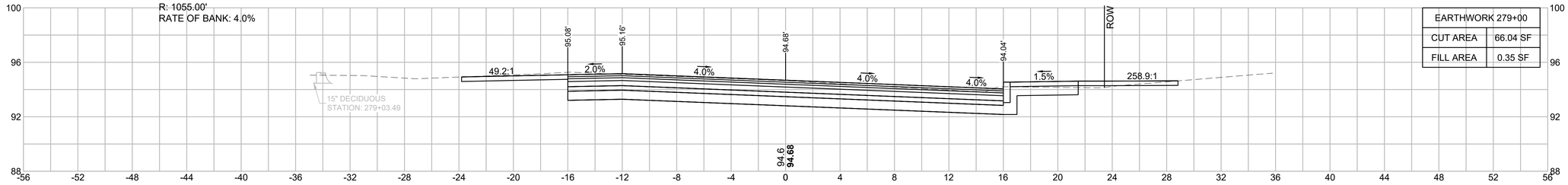
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	358	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 97

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:23 PM

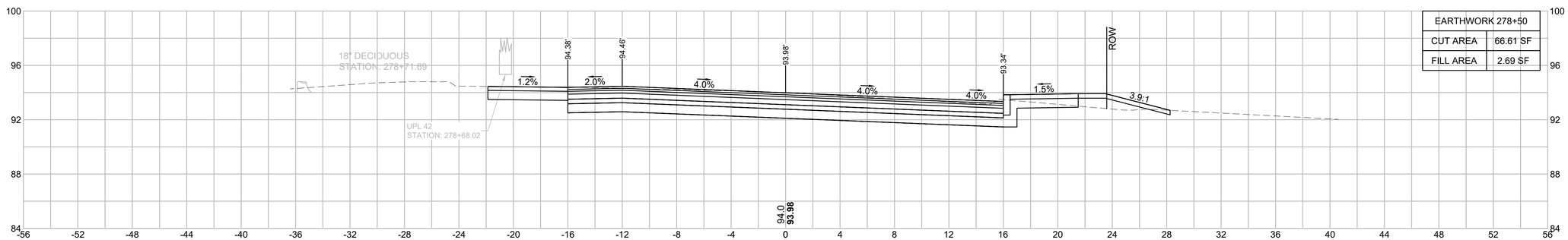
279+00

PC: 277+05.37
PT: 280+13.80
R: 1055.00'
RATE OF BANK: 4.0%



EARTHWORK 279+00	
CUT AREA	66.04 SF
FILL AREA	0.35 SF

278+50



EARTHWORK 278+50	
CUT AREA	66.61 SF
FILL AREA	2.69 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

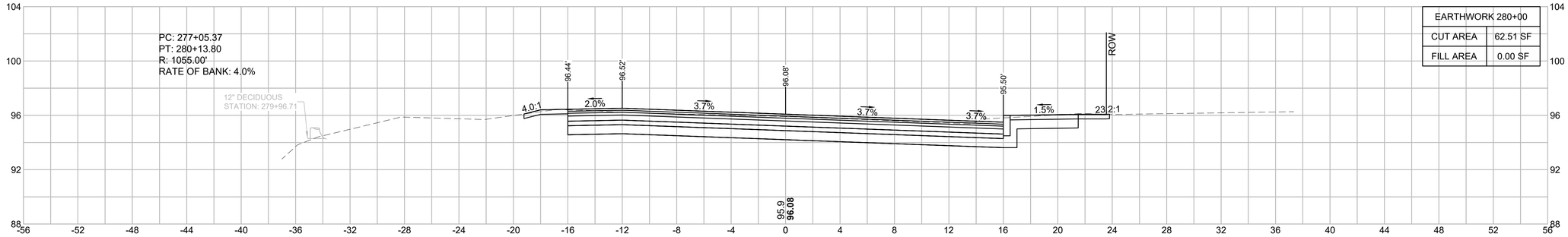
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	359	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 98

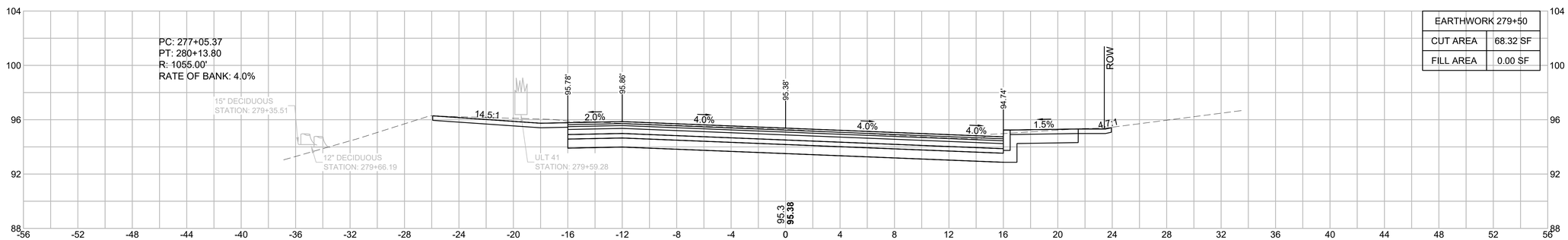
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:23 PM

280+00



EARTHWORK 280+00	
CUT AREA	62.51 SF
FILL AREA	0.00 SF

279+50



EARTHWORK 279+50	
CUT AREA	68.32 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

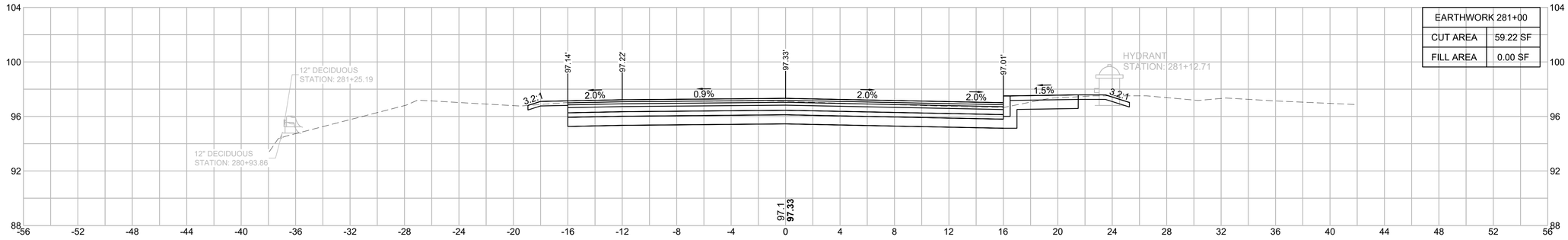
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	360	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 99

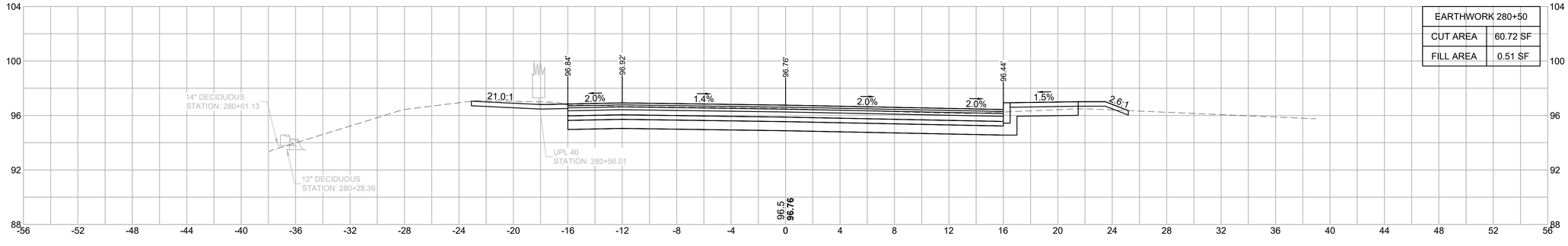
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:23 PM

281+00



EARTHWORK 281+00	
CUT AREA	59.22 SF
FILL AREA	0.00 SF

280+50



EARTHWORK 280+50	
CUT AREA	60.72 SF
FILL AREA	0.51 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

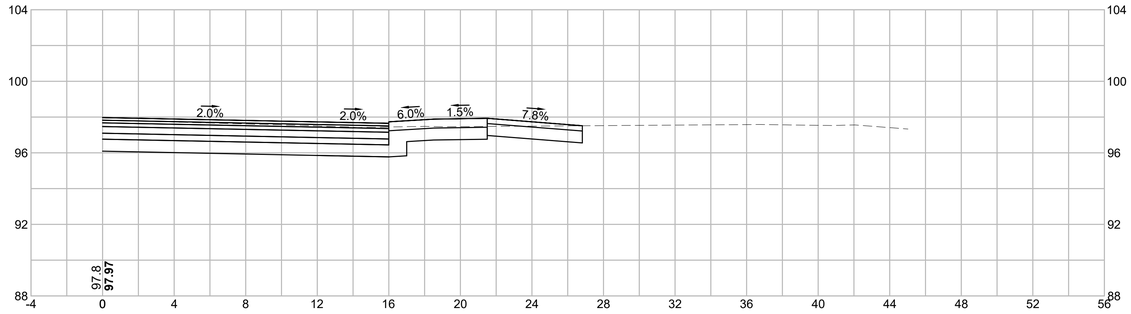
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	361	420
PROJECT FILE NO.	608051		

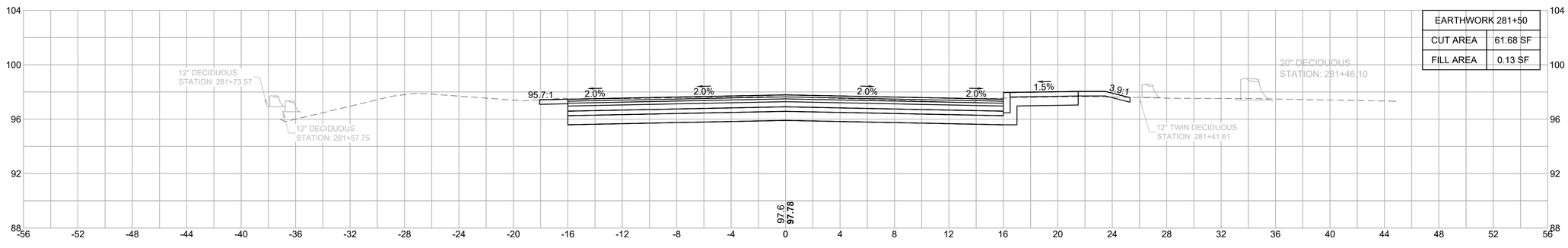
CROSS SECTIONS - 100

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:24 PM

281+75



281+50



EARTHWORK 281+50	
CUT AREA	61.68 SF
FILL AREA	0.13 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

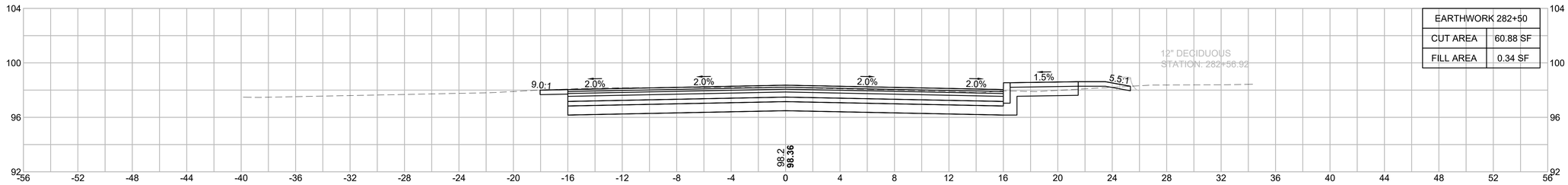
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	362	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 101

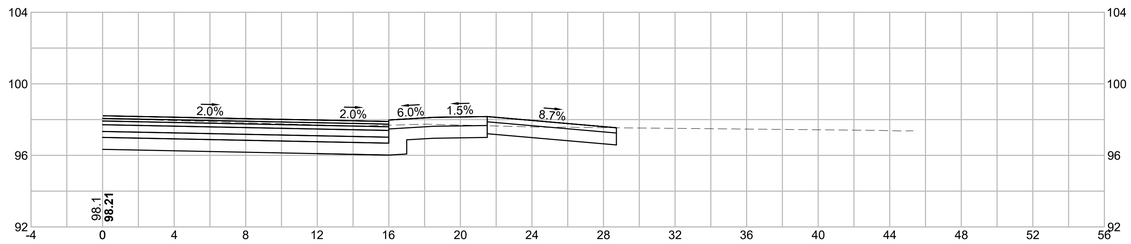
608051_HD12(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:24 PM

282+50

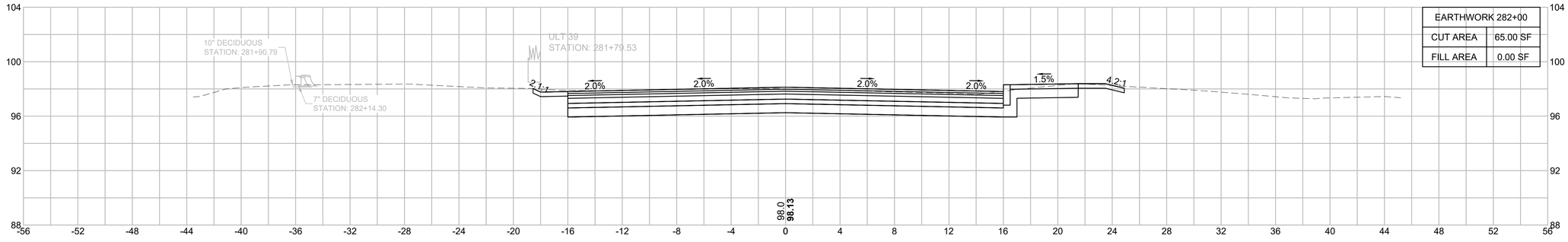


EARTHWORK 282+50	
CUT AREA	60.88 SF
FILL AREA	0.34 SF

282+15.50



282+00



EARTHWORK 282+00	
CUT AREA	65.00 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

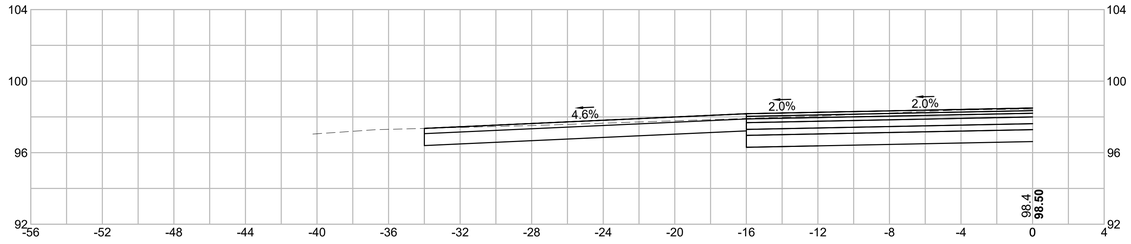
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	363	420
PROJECT FILE NO.	608051		

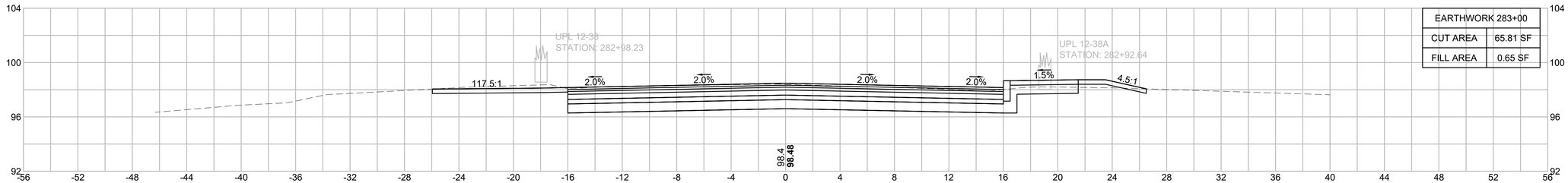
CROSS SECTIONS - 102

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:24 PM

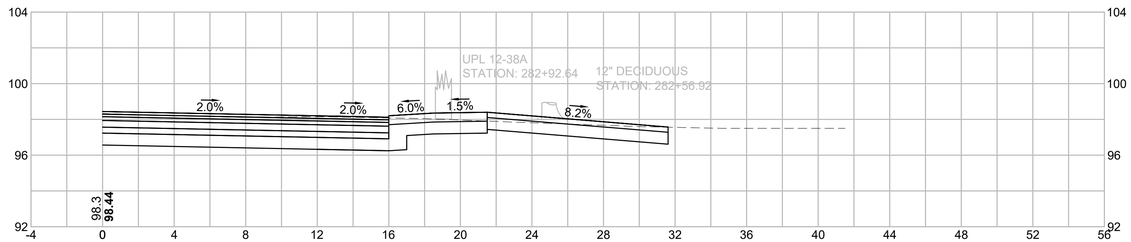
283+32.15



283+00



282+79



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

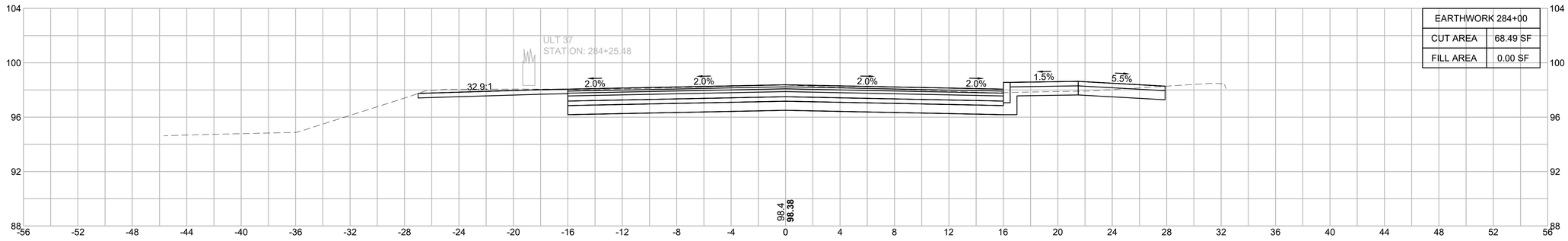
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	364	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 103

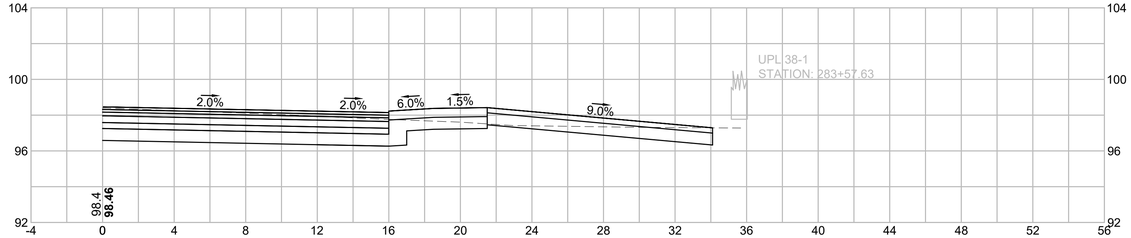
608051_HD12(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:25 PM

284+00

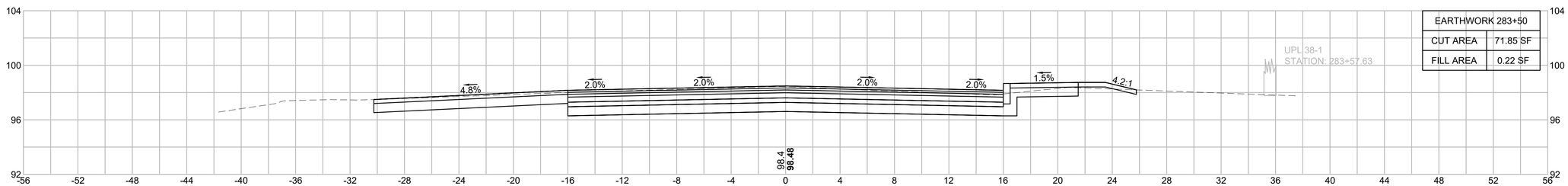


EARTHWORK 284+00	
CUT AREA	68.49 SF
FILL AREA	0.00 SF

283+66.50



283+50



EARTHWORK 283+50	
CUT AREA	71.85 SF
FILL AREA	0.22 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

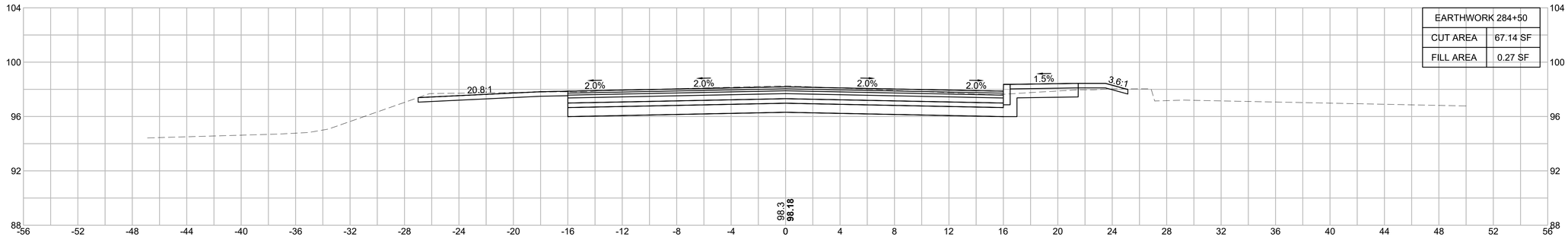
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	365	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 104

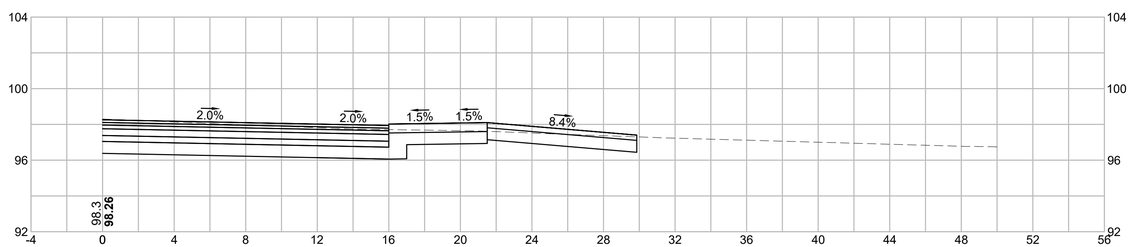
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:25 PM

284+50



EARTHWORK 284+50	
CUT AREA	67.14 SF
FILL AREA	0.27 SF

284+32



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

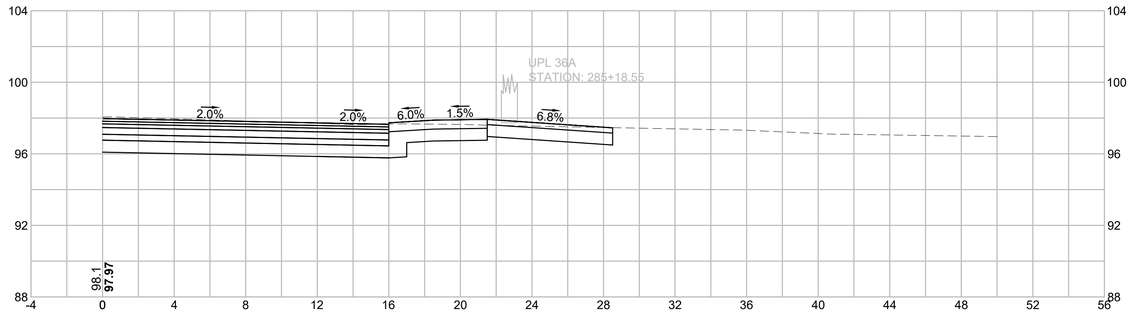
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	366	420
PROJECT FILE NO.	608051		

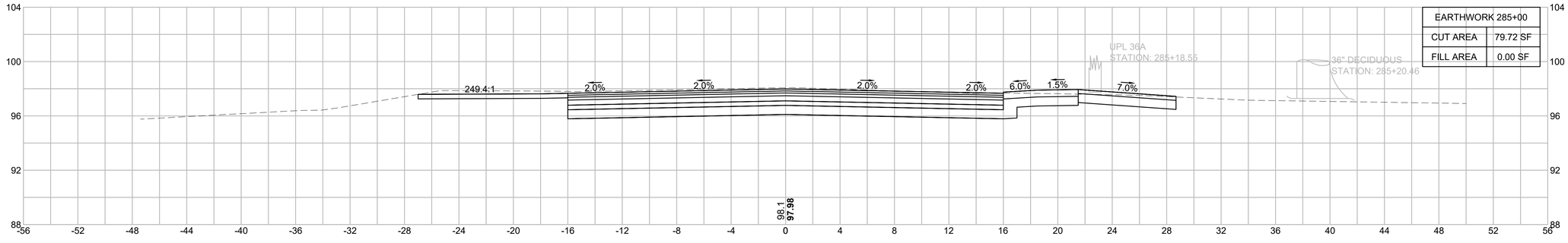
CROSS SECTIONS - 105

608051_HD12\(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:26 PM

285+03.50



285+00



EARTHWORK 285+00	
CUT AREA	79.72 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

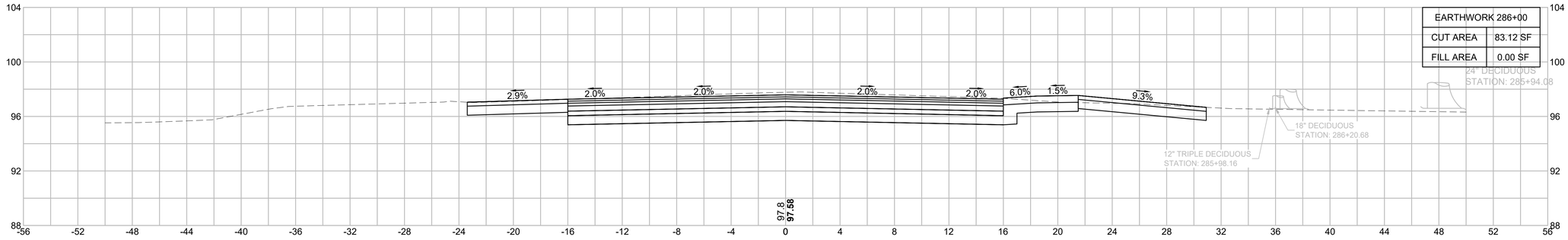
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	367	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 106

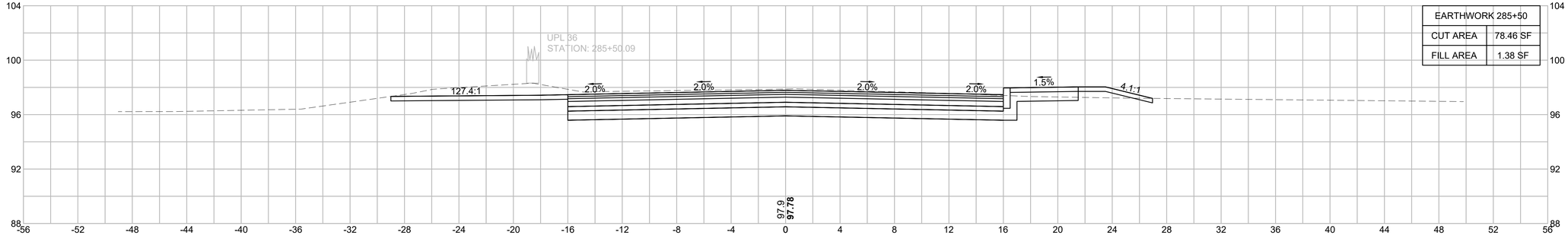
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:26 PM

286+00



EARTHWORK 286+00	
CUT AREA	83.12 SF
FILL AREA	0.00 SF

285+50



EARTHWORK 285+50	
CUT AREA	78.46 SF
FILL AREA	1.38 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

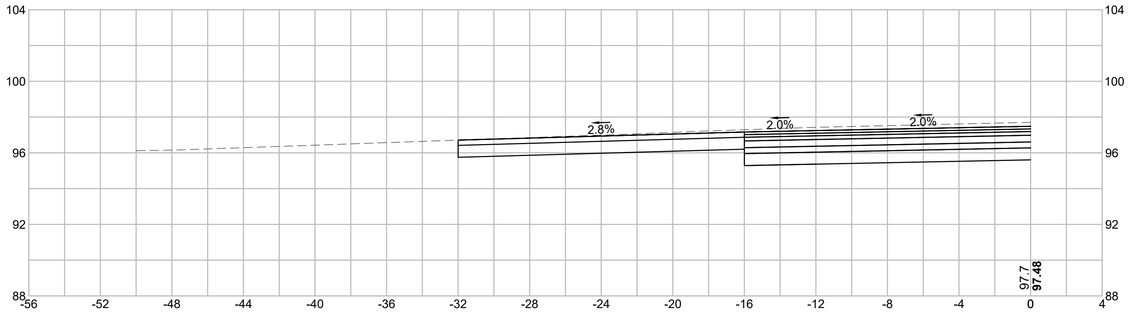
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	368	420
PROJECT FILE NO.	608051		

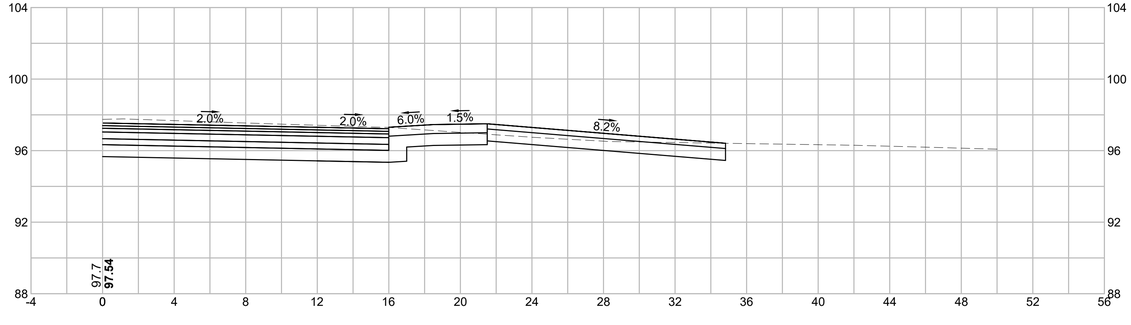
CROSS SECTIONS - 107

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:26 PM

286+24.70



286+09.50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

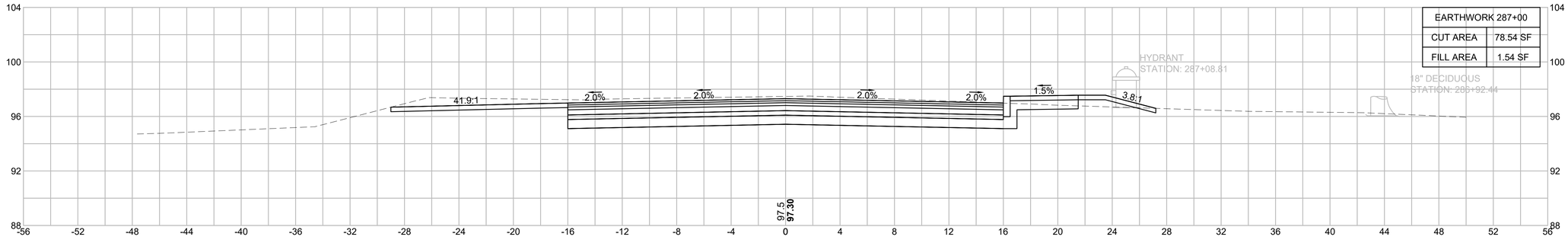
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	369	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 108

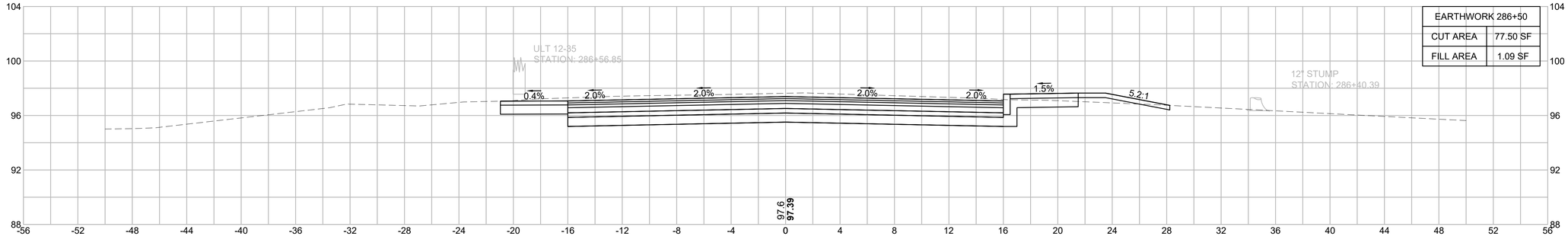
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:27 PM

287+00



EARTHWORK 287+00	
CUT AREA	78.54 SF
FILL AREA	1.54 SF

286+50



EARTHWORK 286+50	
CUT AREA	77.50 SF
FILL AREA	1.09 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

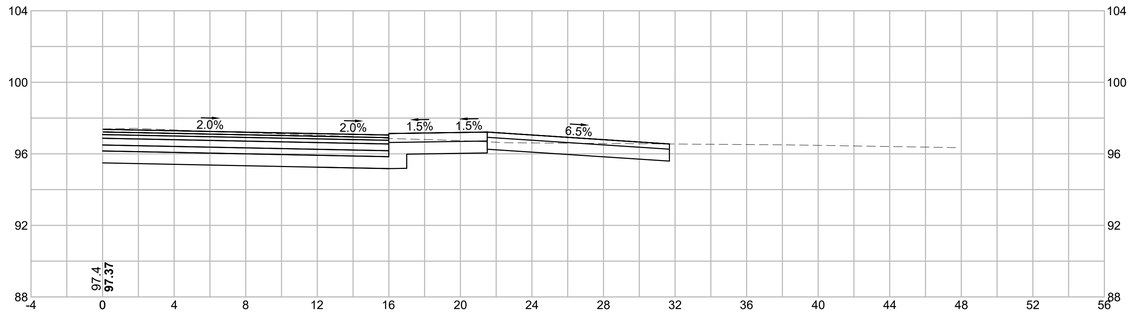
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	370	420
PROJECT FILE NO.	608051		

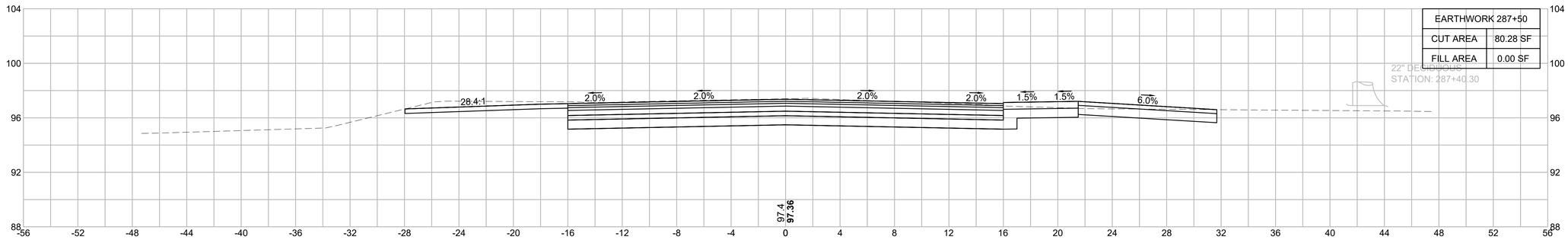
CROSS SECTIONS - 109

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:27 PM

287+53



287+50



EARTHWORK 287+50	
CUT AREA	80.28 SF
FILL AREA	0.00 SF

22" DECIDUOUS
STATION: 287+40.30

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

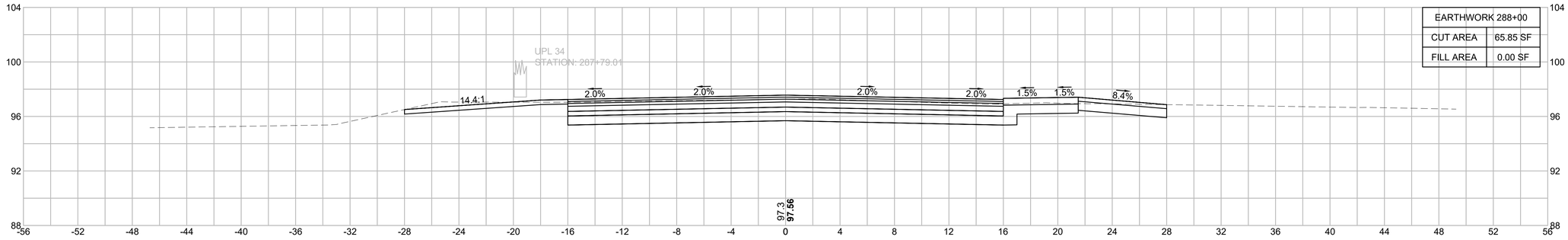
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	371	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 110

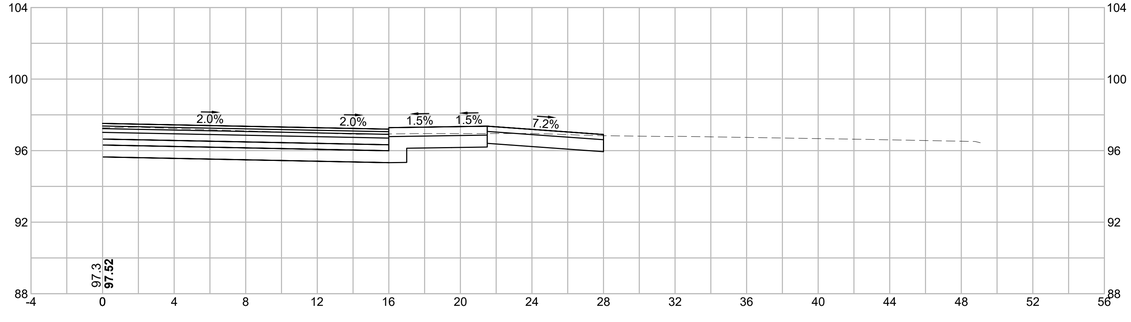
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:27 PM

288+00



EARTHWORK 288+00	
CUT AREA	65.85 SF
FILL AREA	0.00 SF

287+92



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

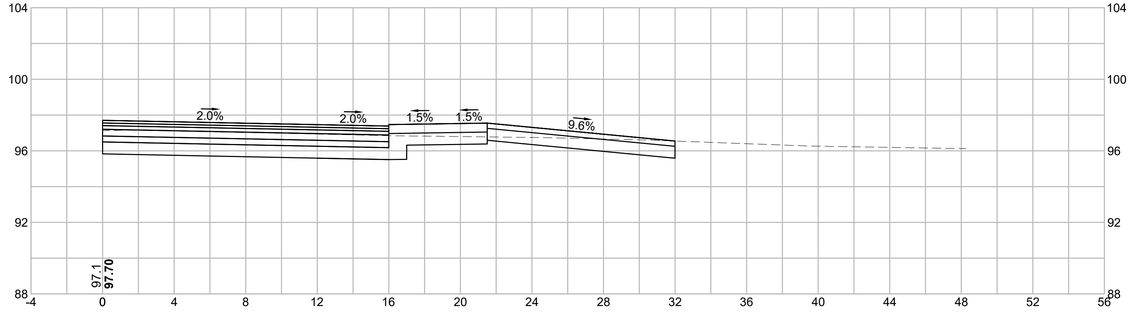
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	372	420
PROJECT FILE NO.	608051		

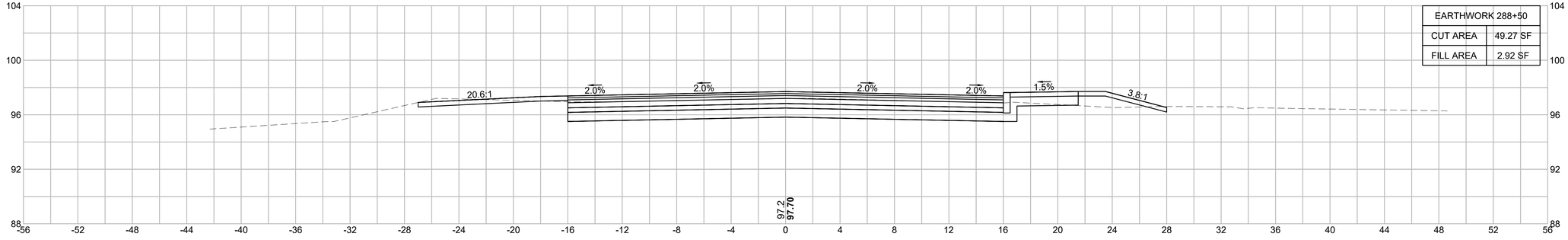
CROSS SECTIONS - 111

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:28 PM

288+67



288+50



EARTHWORK 288+50	
CUT AREA	49.27 SF
FILL AREA	2.92 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

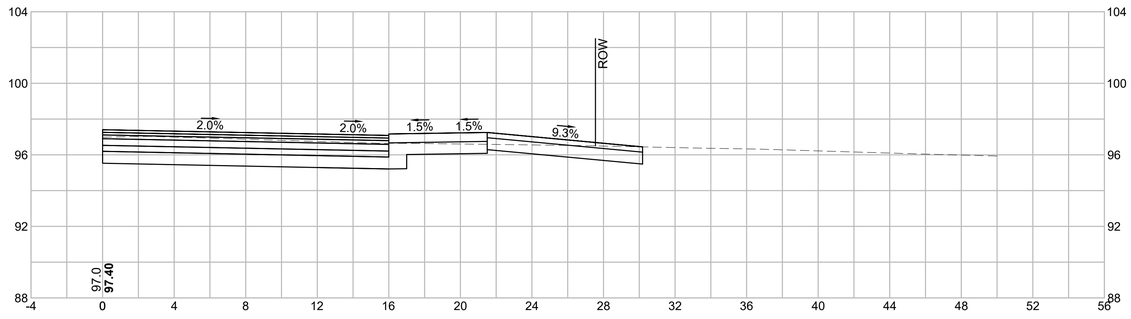
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	373	420
PROJECT FILE NO.	608051		

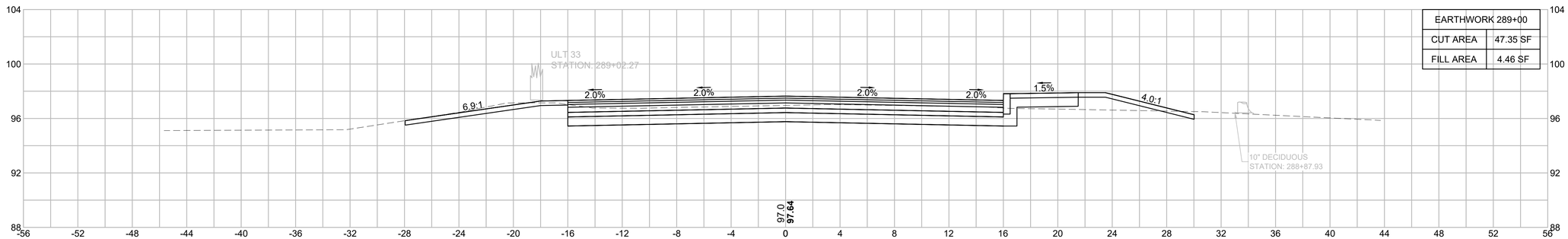
CROSS SECTIONS - 112

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:28 PM

289+46



289+00



EARTHWORK 289+00	
CUT AREA	47.35 SF
FILL AREA	4.46 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

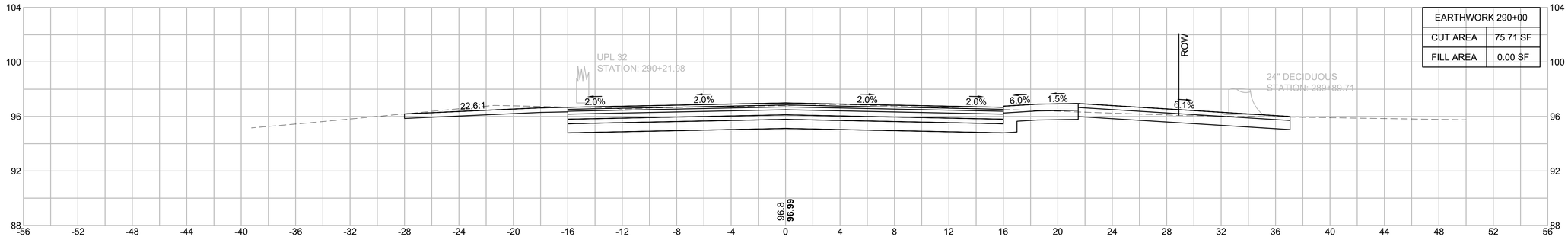
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	374	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 113

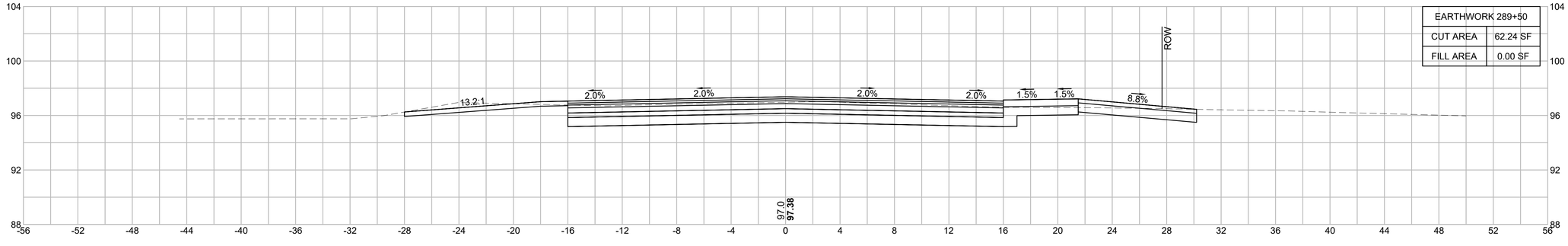
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:28 PM

290+00



EARTHWORK 290+00	
CUT AREA	75.71 SF
FILL AREA	0.00 SF

289+50



EARTHWORK 289+50	
CUT AREA	62.24 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

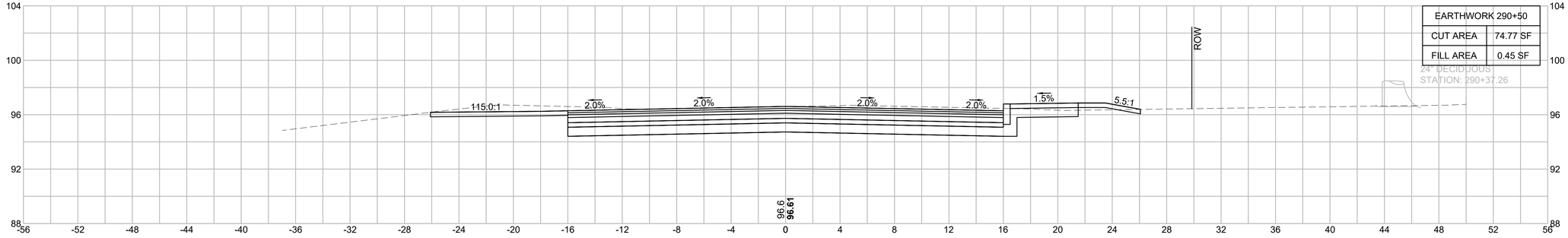
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	375	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 114

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:29 PM

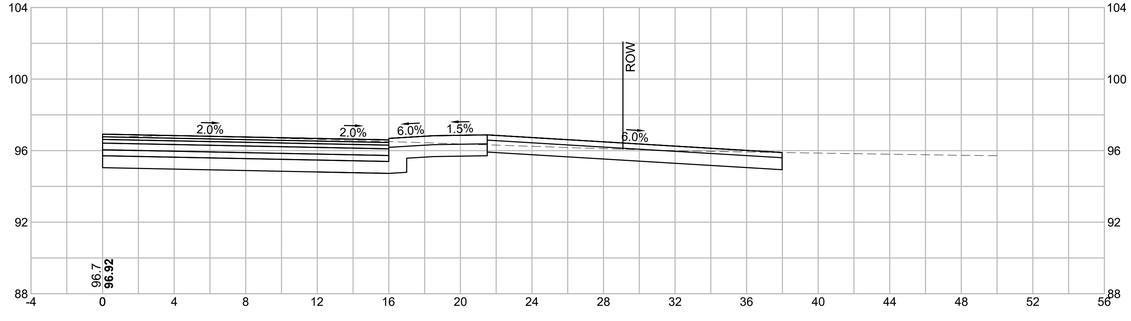
290+50



EARTHWORK 290+50	
CUT AREA	74.77 SF
FILL AREA	0.45 SF

24" DECIDUOUS
STATION: 290+37.26

290+09



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

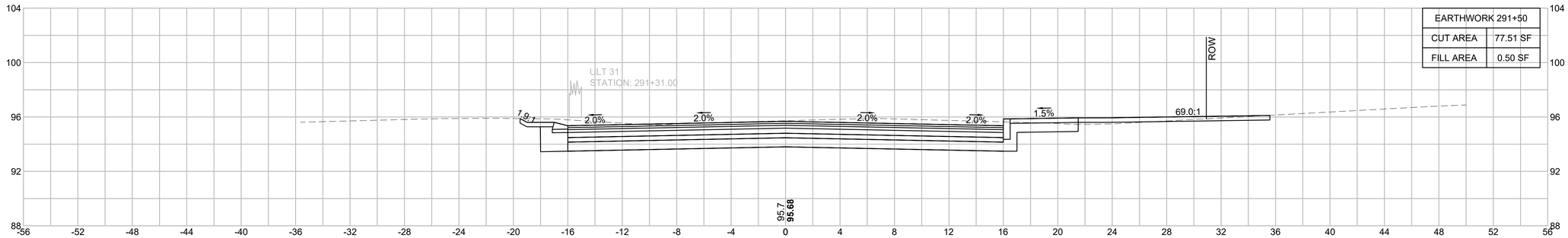
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	376	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 115

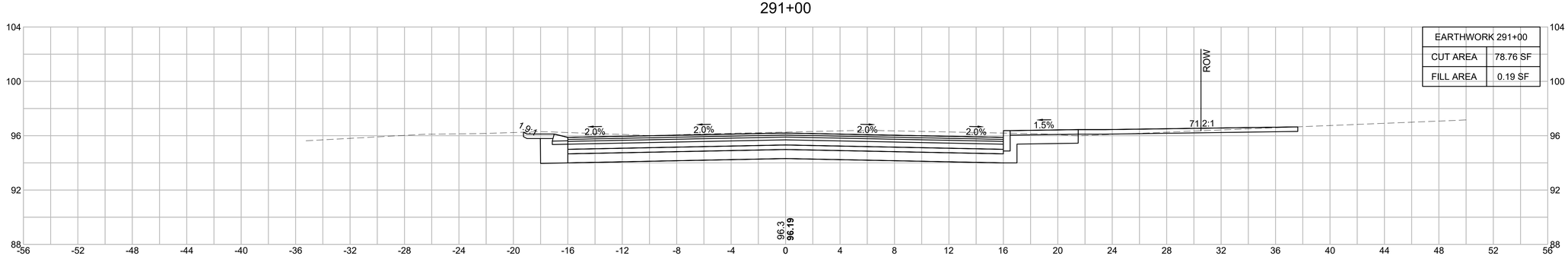
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:29 PM

291+50



EARTHWORK 291+50	
CUT AREA	77.51 SF
FILL AREA	0.50 SF

291+00



EARTHWORK 291+00	
CUT AREA	78.76 SF
FILL AREA	0.19 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

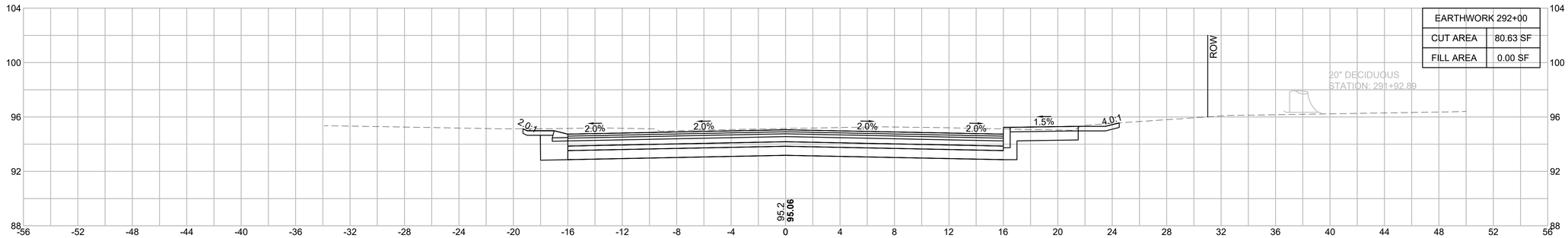
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	377	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 116

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:29 PM

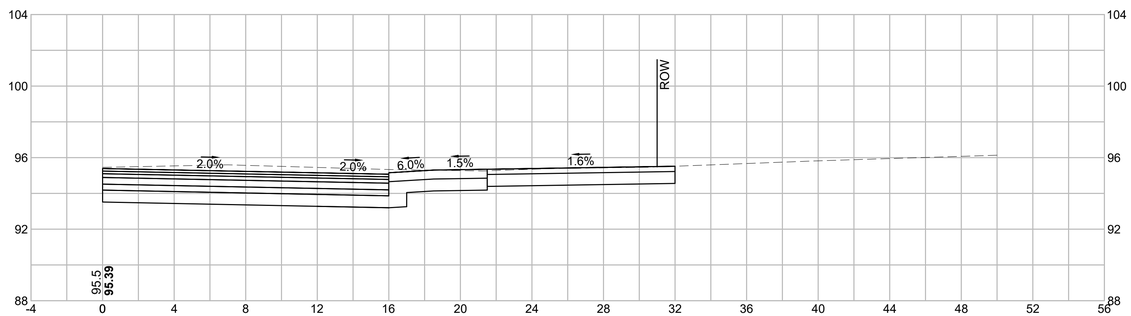
292+00



EARTHWORK 292+00	
CUT AREA	80.63 SF
FILL AREA	0.00 SF

20" DECIDUOUS
STATION: 291+92.89

291+74



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

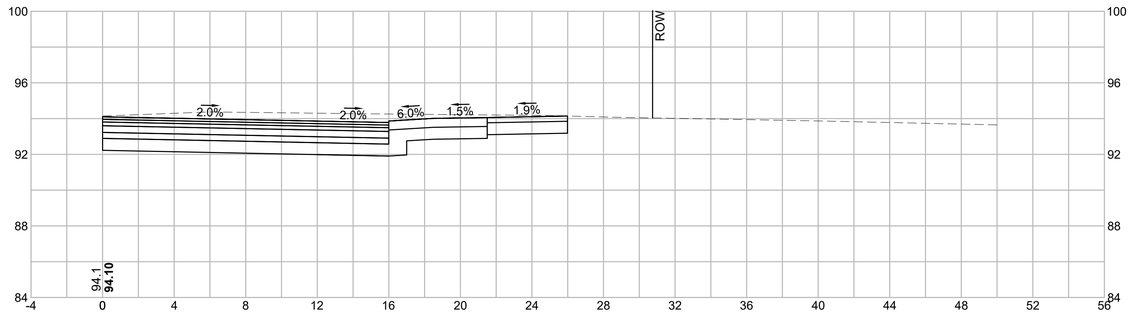
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	378	420
PROJECT FILE NO.	608051		

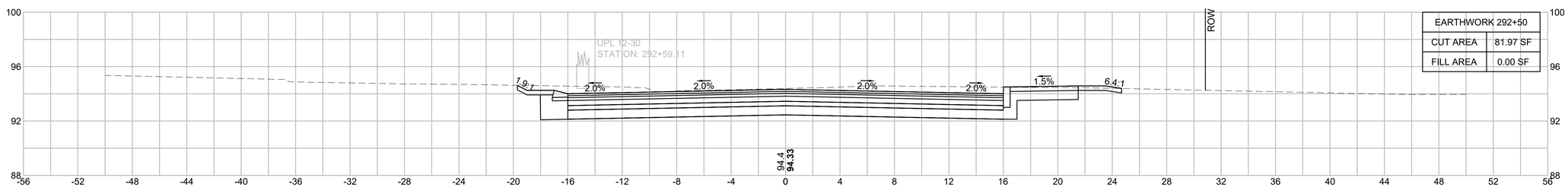
CROSS SECTIONS - 117

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:30 PM

292+64



292+50



EARTHWORK 292+50	
CUT AREA	81.97 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

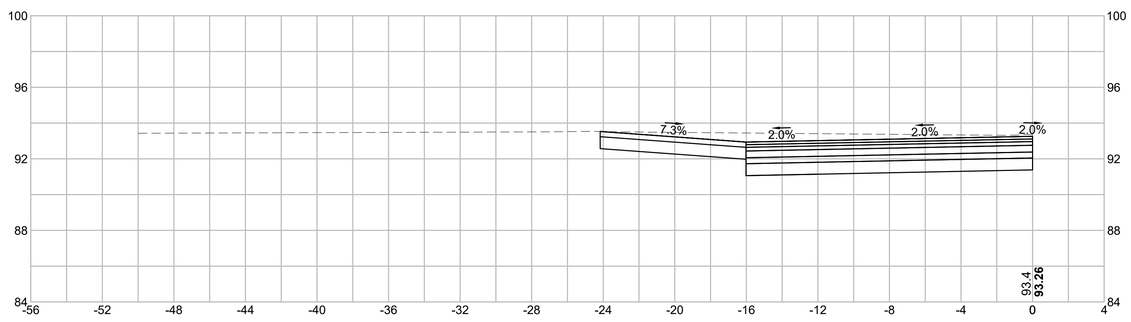
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	379	420
PROJECT FILE NO.	608051		

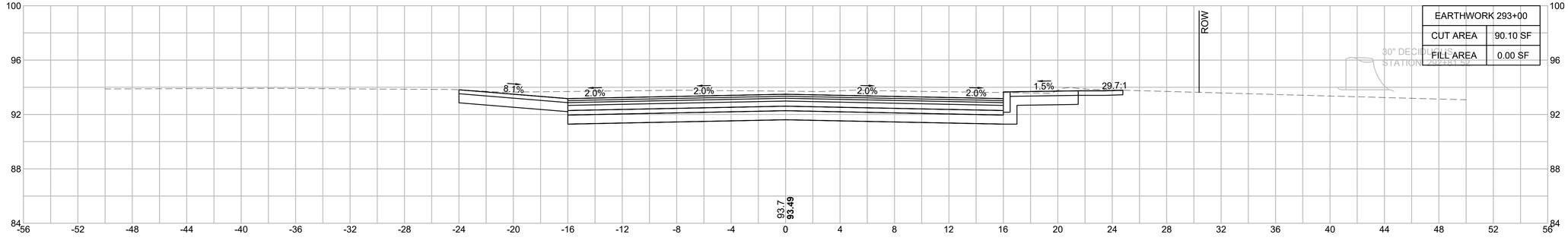
CROSS SECTIONS - 118

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:30 PM

293+12.64



293+00



EARTHWORK 293+00	
CUT AREA	90.10 SF
FILL AREA	0.00 SF

30" DECIDUOUS TREE
STATION 293+31.92

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

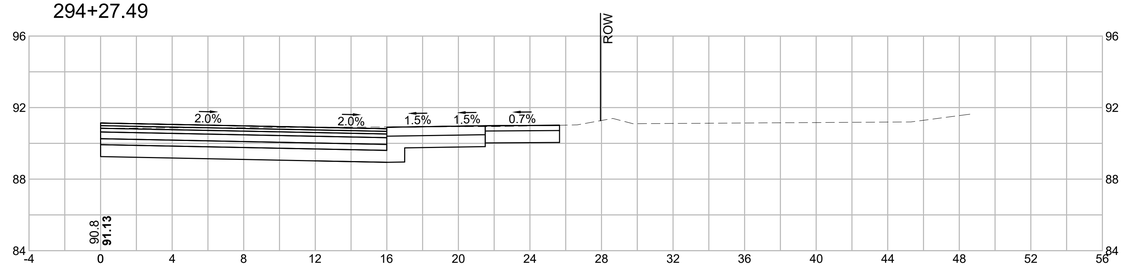
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	380	420
	PROJECT FILE NO. 608051		

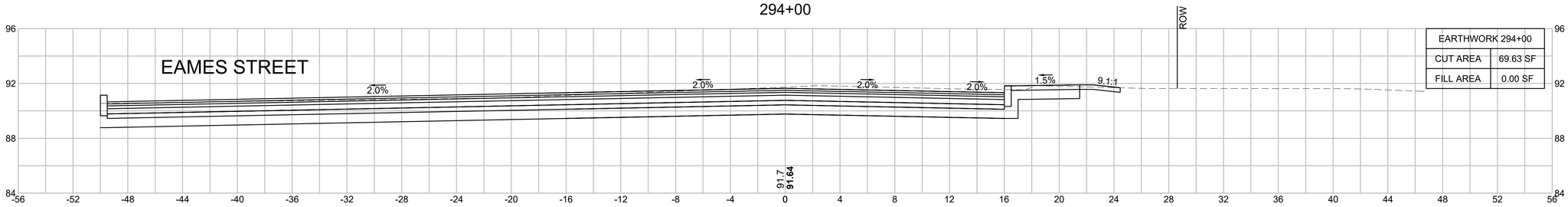
CROSS SECTIONS - 119

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:30 PM

294+27.49

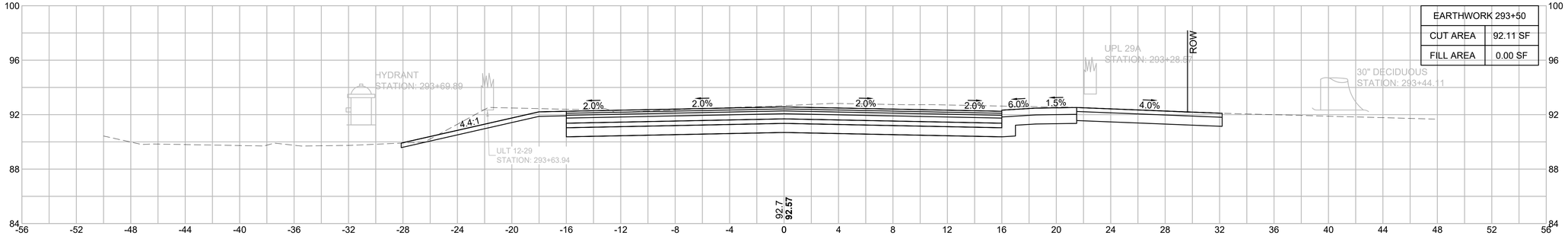


294+00



EARTHWORK 294+00	
CUT AREA	69.63 SF
FILL AREA	0.00 SF

293+50



EARTHWORK 293+50	
CUT AREA	92.11 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

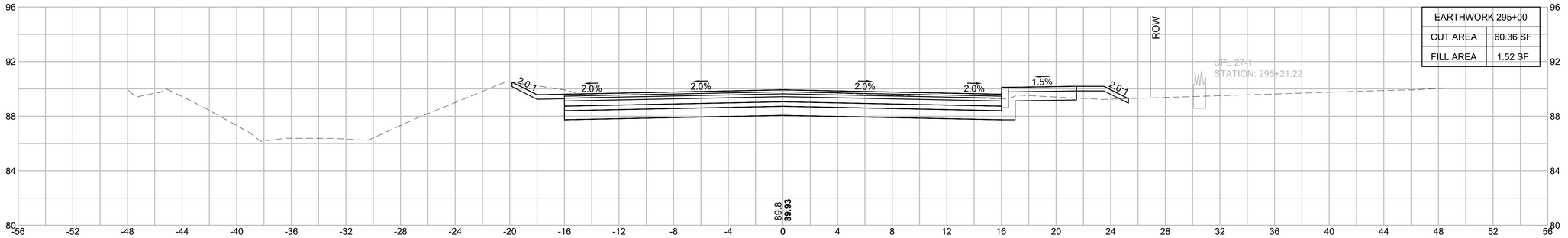
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	381	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 120

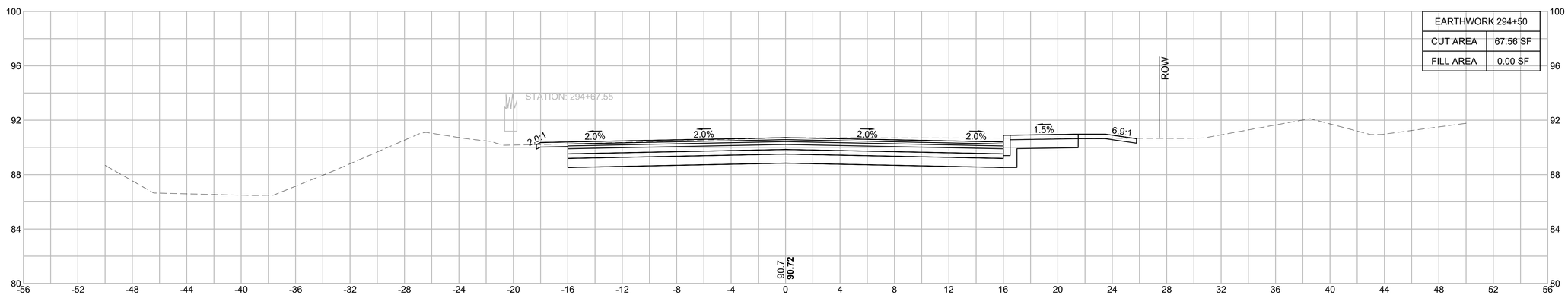
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:31 PM

295+00



EARTHWORK 295+00	
CUT AREA	60.36 SF
FILL AREA	1.52 SF

294+50



EARTHWORK 294+50	
CUT AREA	67.56 SF
FILL AREA	0.00 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

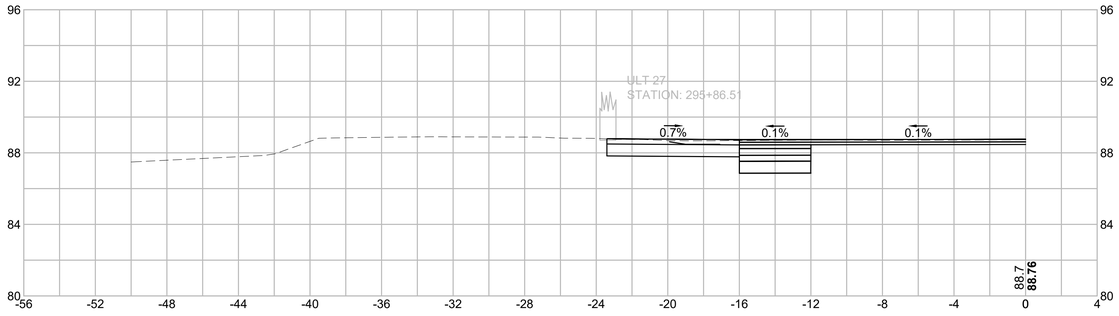
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	382	420
PROJECT FILE NO.	608051		

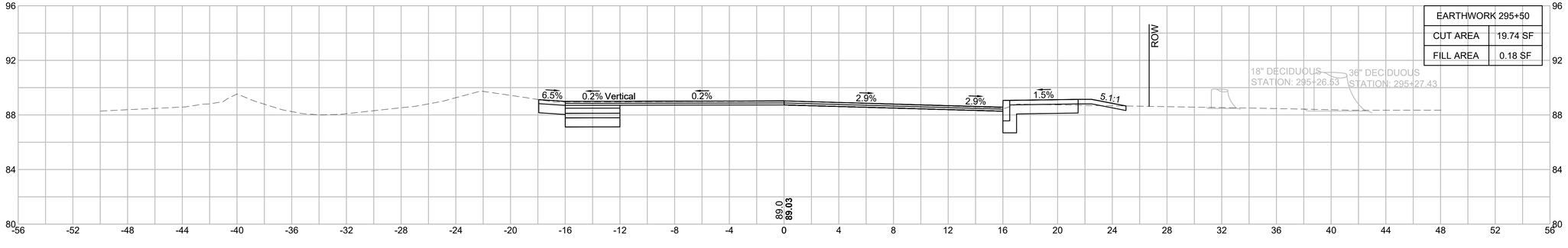
CROSS SECTIONS - 121

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:31 PM

295+68.49



295+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

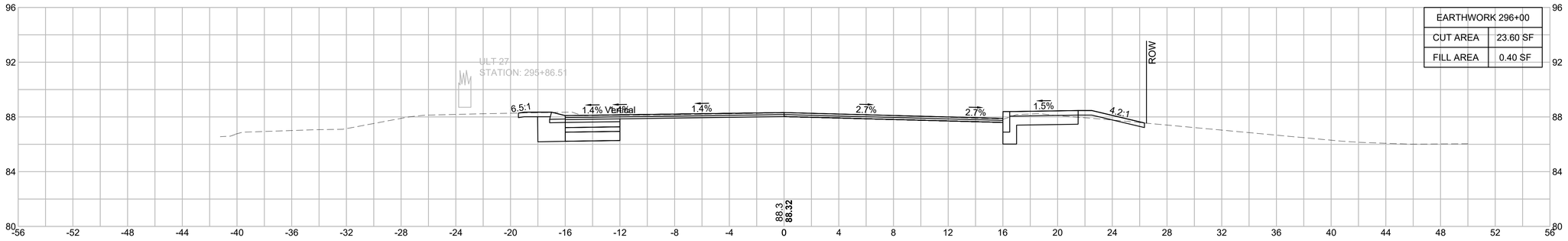
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	383	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 122

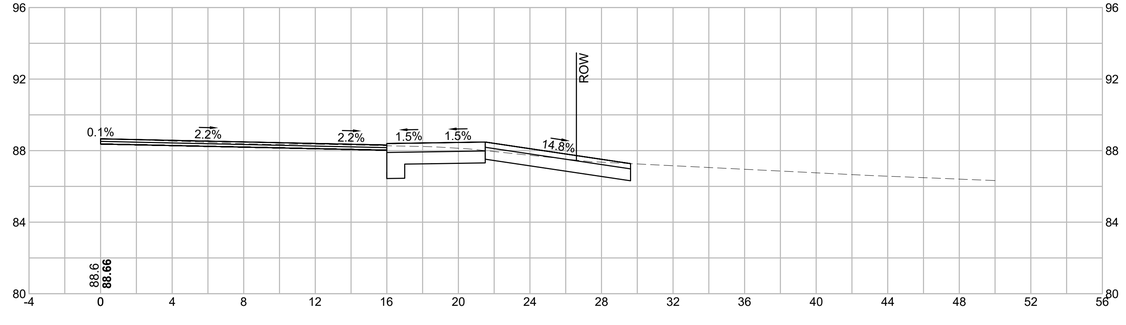
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:31 PM

296+00



EARTHWORK 296+00	
CUT AREA	23.60 SF
FILL AREA	0.40 SF

295+75



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

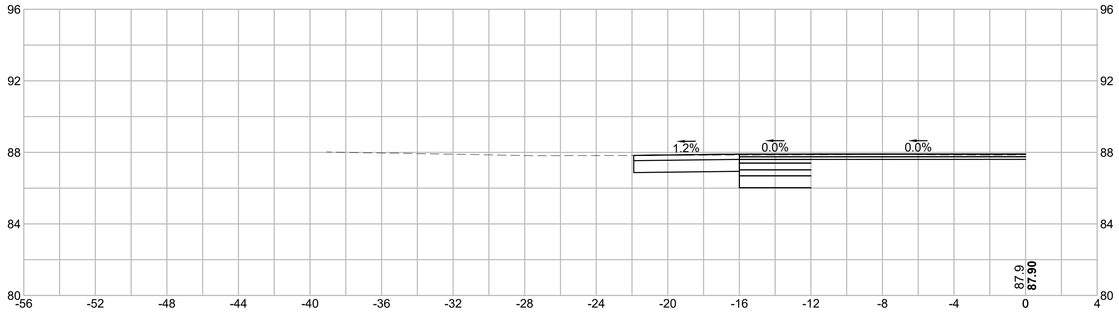
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	384	420
PROJECT FILE NO.	608051		

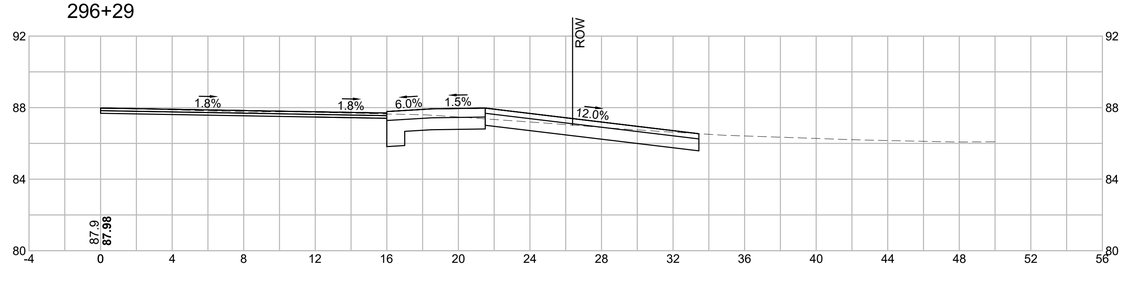
CROSS SECTIONS - 123

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:32 PM

296+35.50



296+29



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

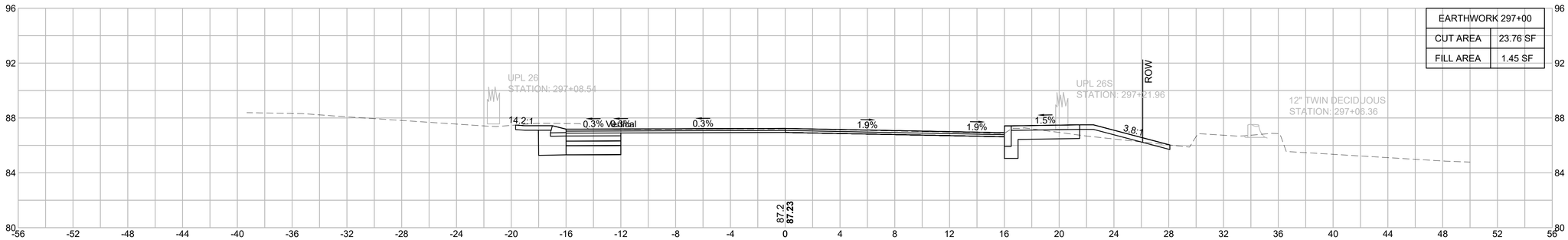
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	385	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 124

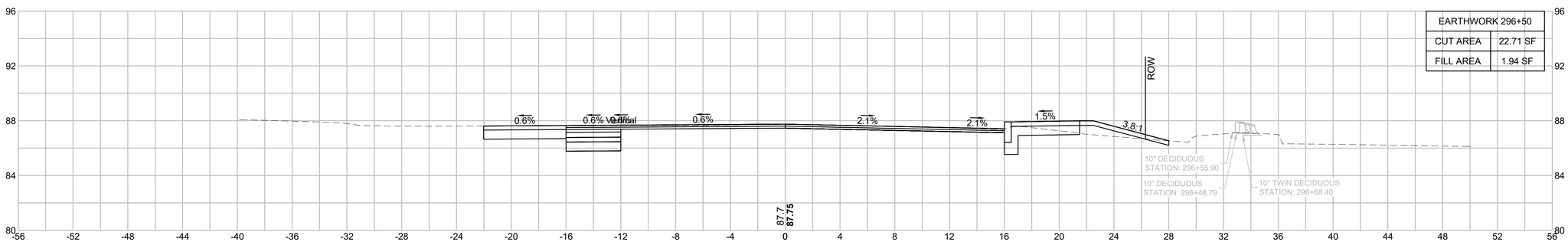
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:32 PM

297+00



EARTHWORK 297+00	
CUT AREA	23.76 SF
FILL AREA	1.45 SF

296+50



EARTHWORK 296+50	
CUT AREA	22.71 SF
FILL AREA	1.94 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

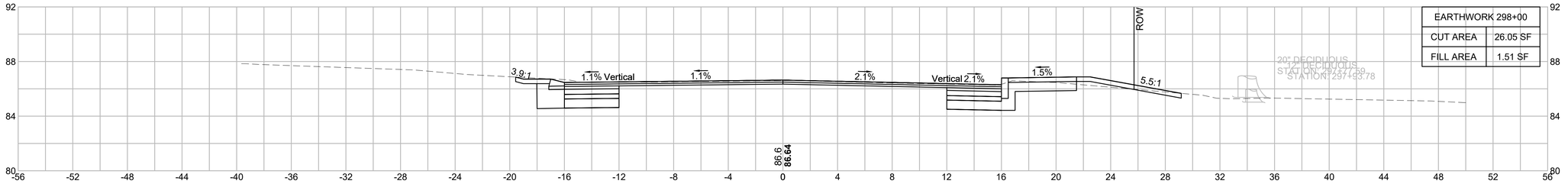
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	386	420
	PROJECT FILE NO.	608051	

CROSS SECTIONS - 125

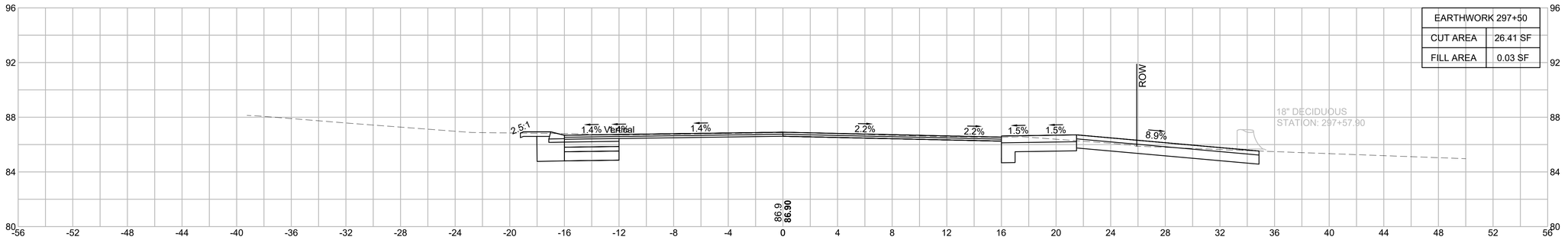
608051_HD12(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:32 PM

298+00



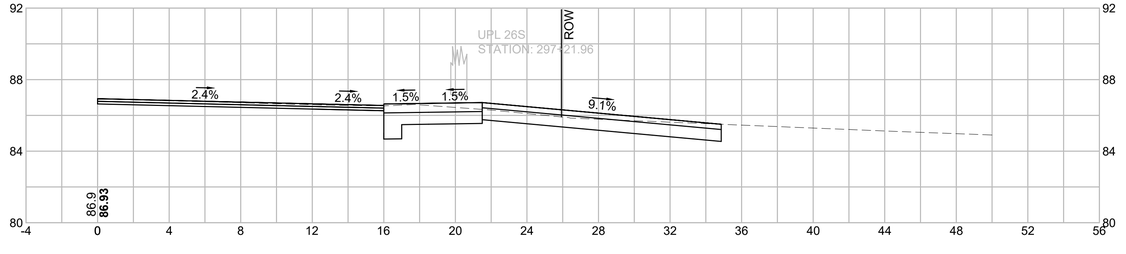
EARTHWORK 298+00	
CUT AREA	26.05 SF
FILL AREA	1.51 SF

297+50



EARTHWORK 297+50	
CUT AREA	26.41 SF
FILL AREA	0.03 SF

297+45.50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

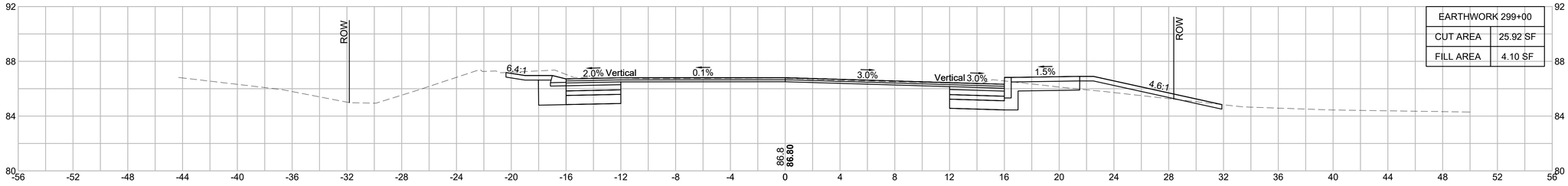
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	387	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 126

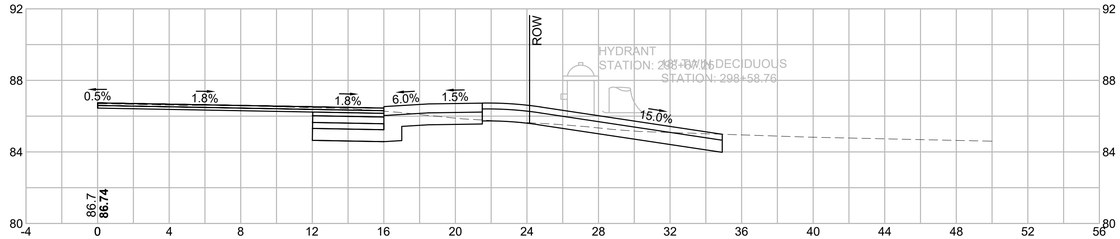
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:33 PM

299+00

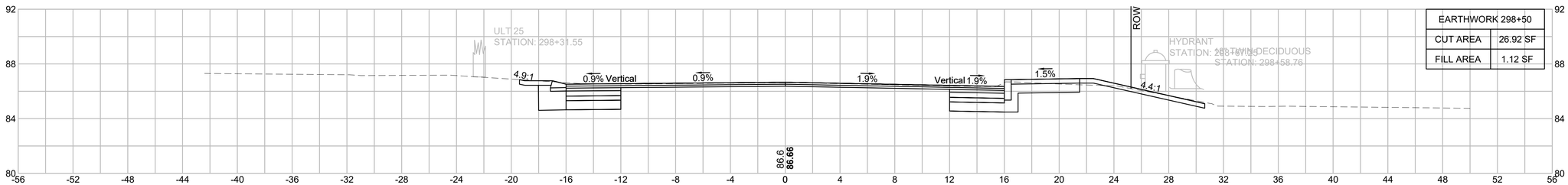


EARTHWORK 299+00	
CUT AREA	25.92 SF
FILL AREA	4.10 SF

298+82



298+50



EARTHWORK 298+50	
CUT AREA	26.92 SF
FILL AREA	1.12 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

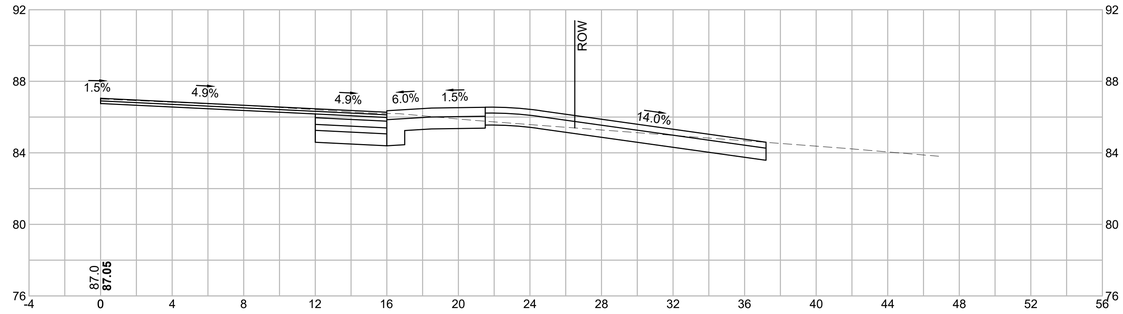
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	388	420
PROJECT FILE NO.	608051		

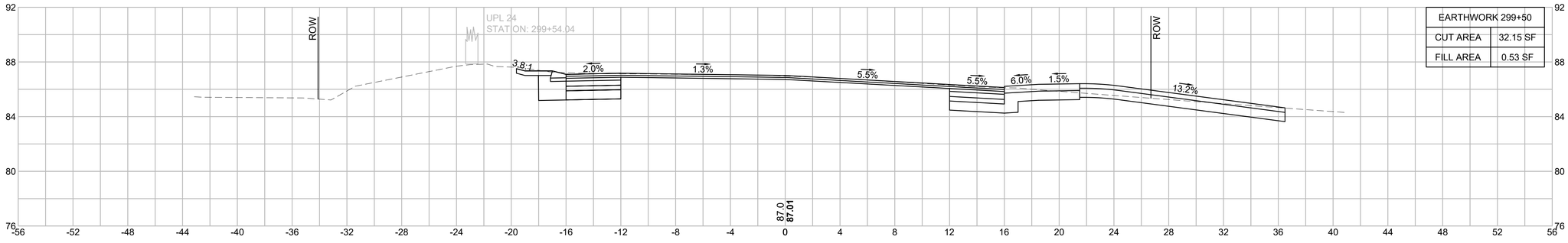
CROSS SECTIONS - 127

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:33 PM

299+58



299+50



EARTHWORK 299+50	
CUT AREA	32.15 SF
FILL AREA	0.53 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

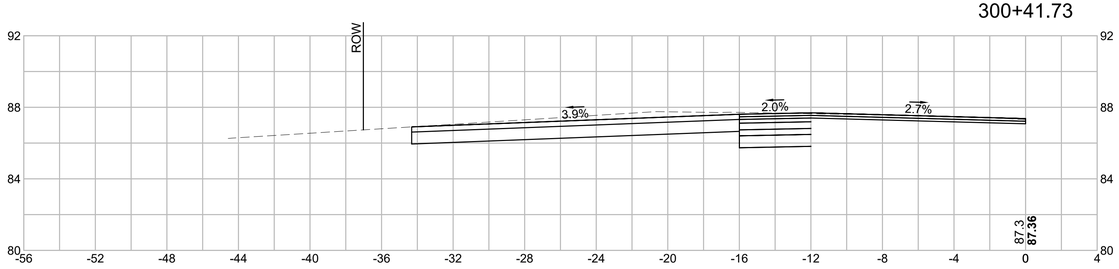
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	389	420
PROJECT FILE NO.	608051		

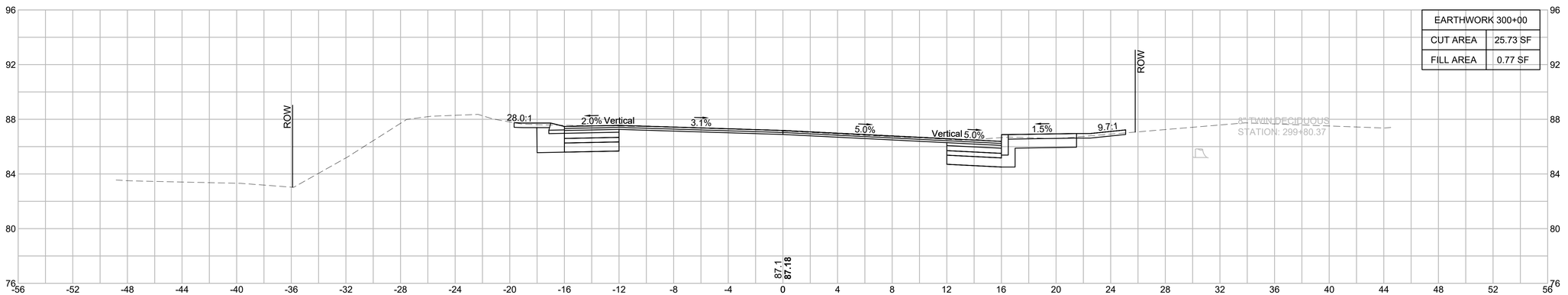
CROSS SECTIONS - 128

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:33 PM

300+41.73



300+00



EARTHWORK 300+00	
CUT AREA	25.73 SF
FILL AREA	0.77 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

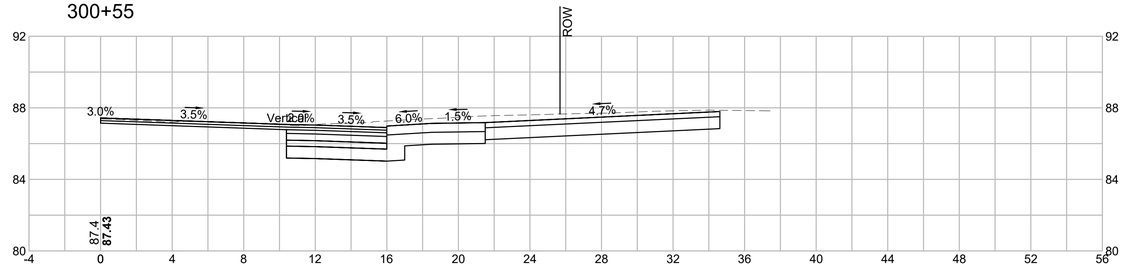
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	390	420
PROJECT FILE NO.	608051		

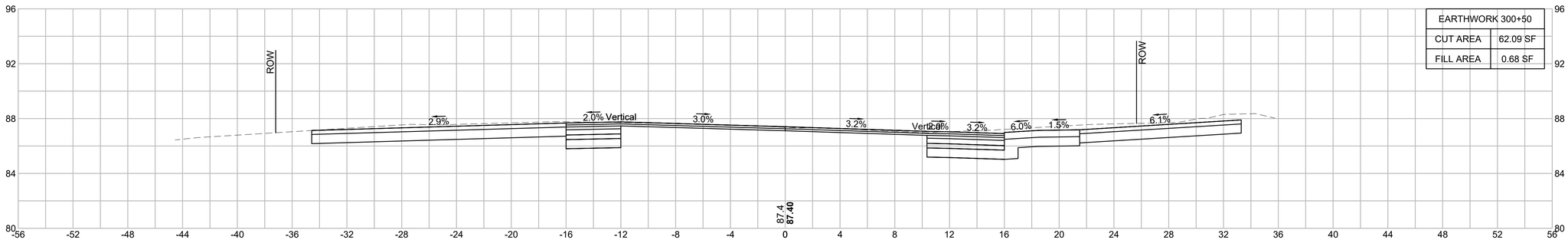
CROSS SECTIONS - 129

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:34 PM

300+55



300+50



EARTHWORK 300+50	
CUT AREA	62.09 SF
FILL AREA	0.68 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

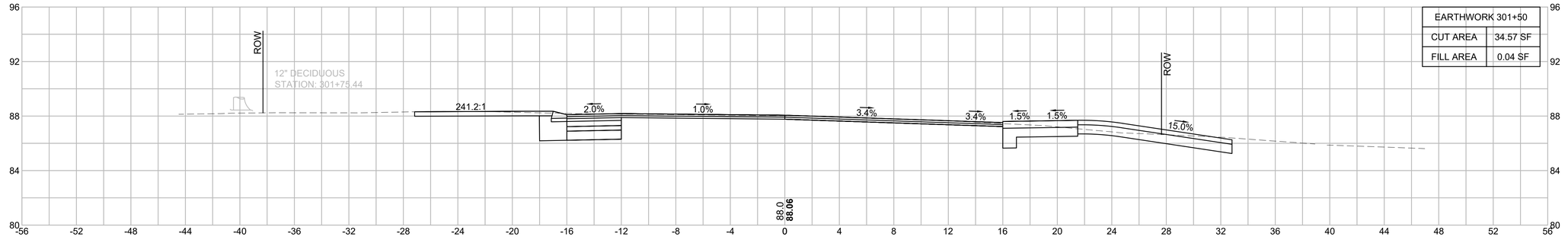
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	391	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 130

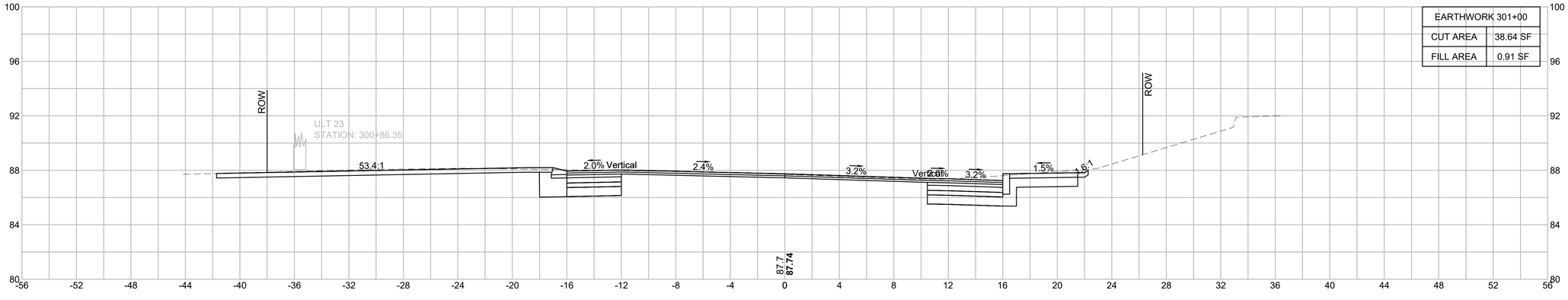
608051_HD12\(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:34 PM

301+50



EARTHWORK 301+50	
CUT AREA	34.57 SF
FILL AREA	0.04 SF

301+00



EARTHWORK 301+00	
CUT AREA	38.64 SF
FILL AREA	0.91 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

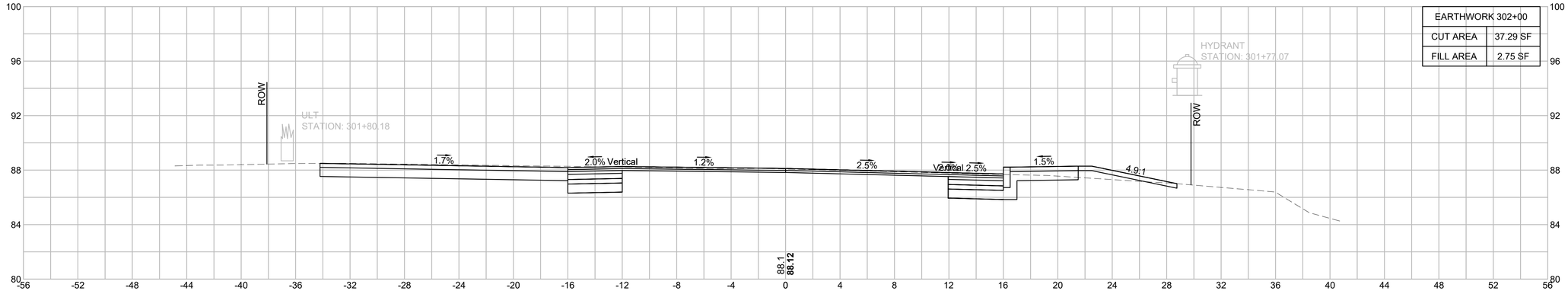
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	392	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 131

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:34 PM

302+00



EARTHWORK 302+00	
CUT AREA	37.29 SF
FILL AREA	2.75 SF

301+54

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

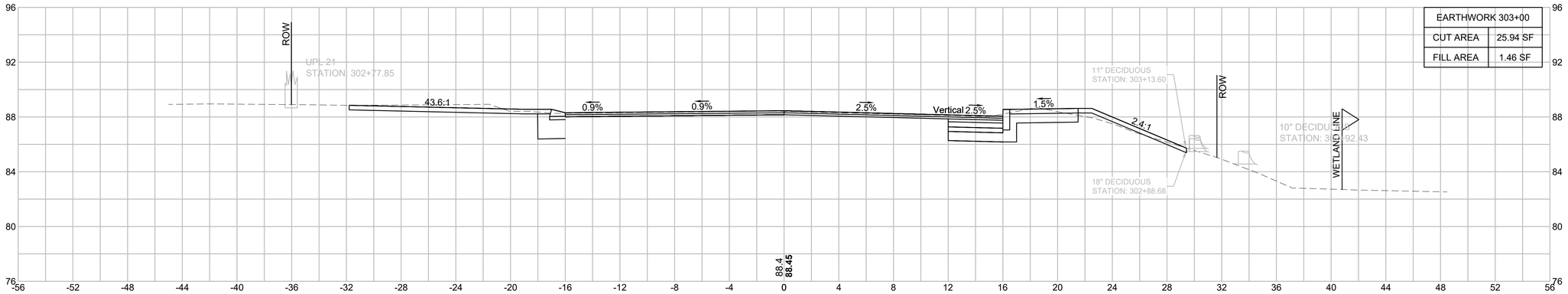
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	393	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 132

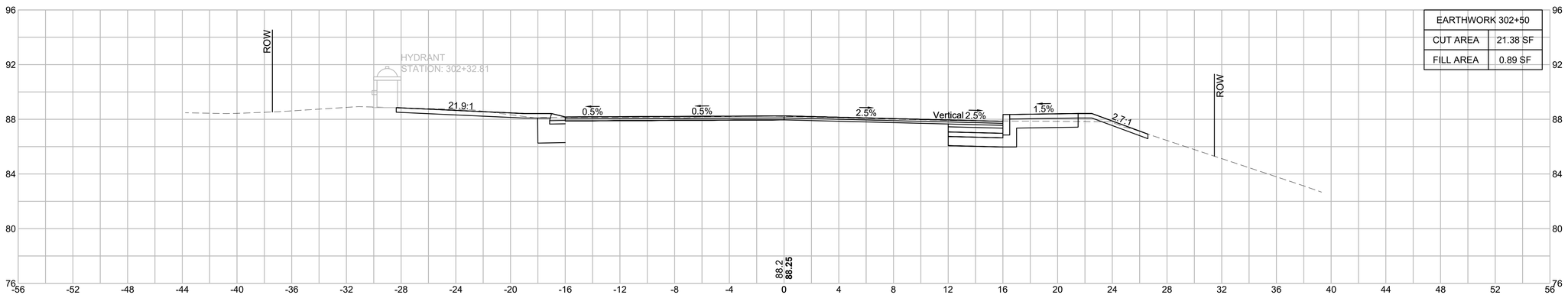
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:35 PM

303+00



EARTHWORK 303+00	
CUT AREA	25.94 SF
FILL AREA	1.46 SF

302+50



EARTHWORK 302+50	
CUT AREA	21.38 SF
FILL AREA	0.89 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

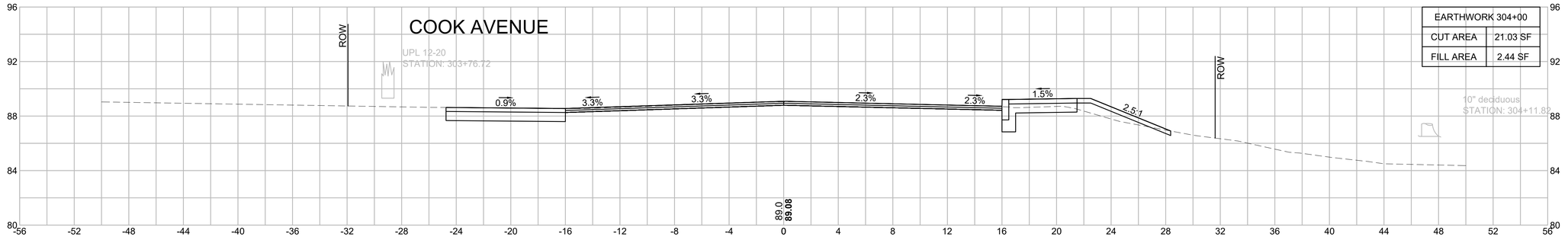
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	394	420
PROJECT FILE NO.	608051		

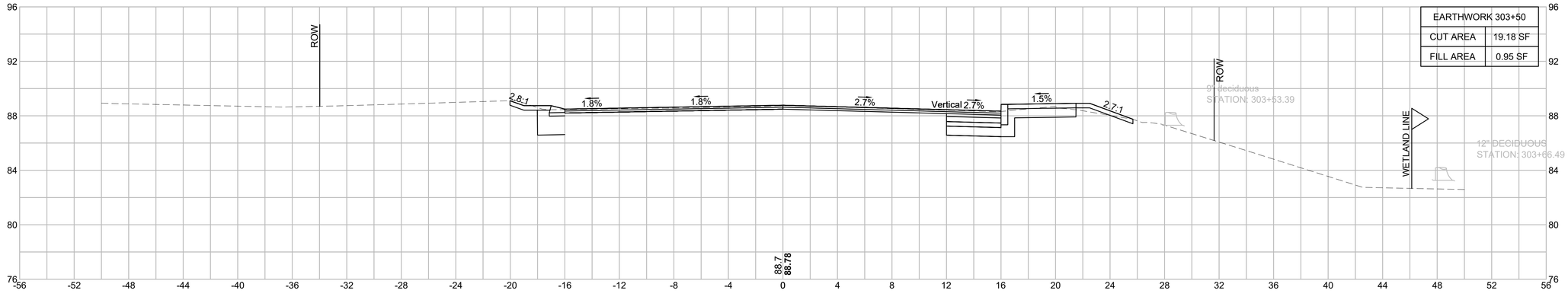
CROSS SECTIONS - 133

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:35 PM

304+00



303+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

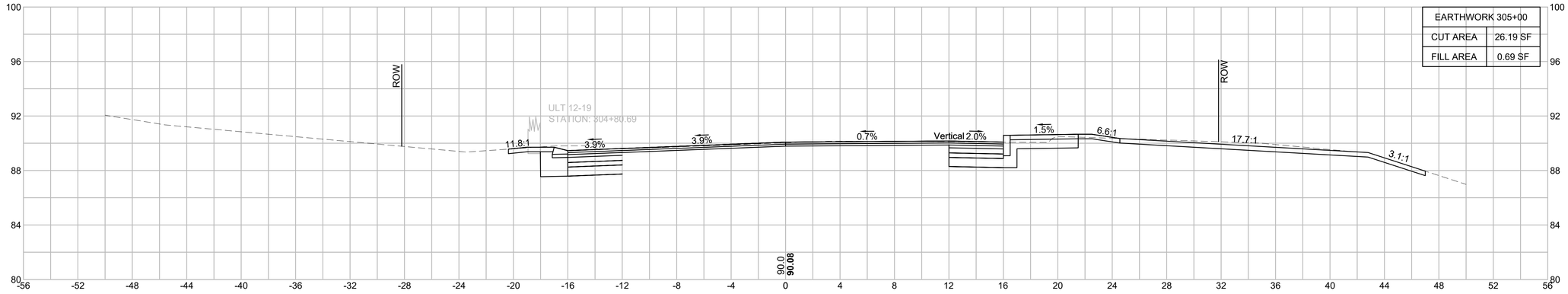
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	395	420
PROJECT FILE NO.	608051		

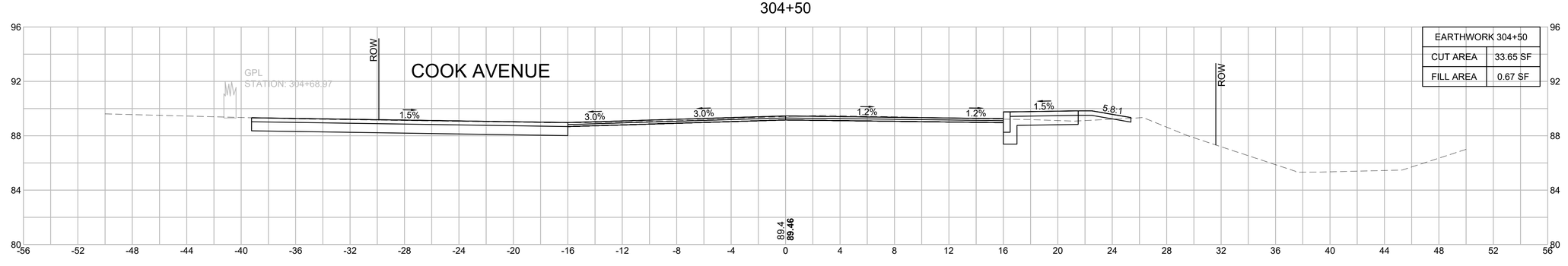
CROSS SECTIONS - 134

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:35 PM

305+00



304+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

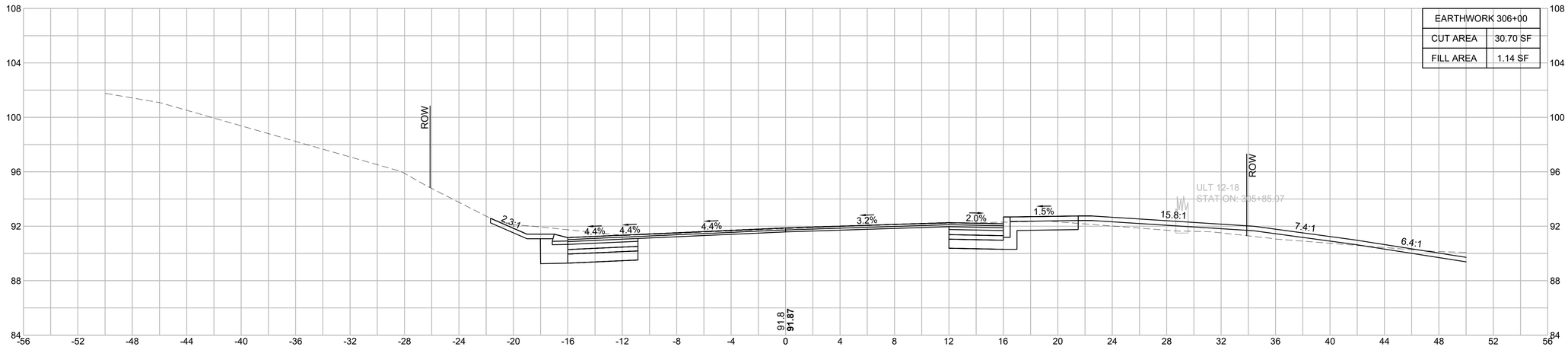
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	396	420
PROJECT FILE NO.	608051		

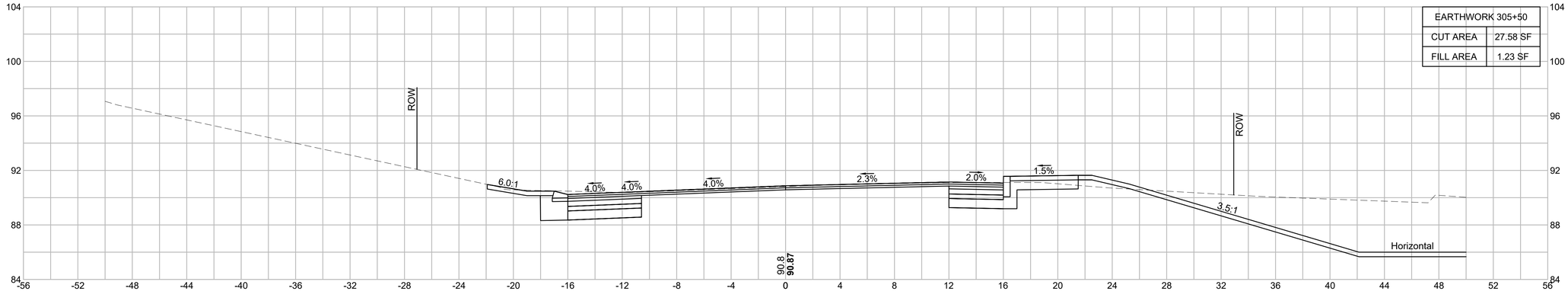
CROSS SECTIONS - 135

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:36 PM

306+00



305+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

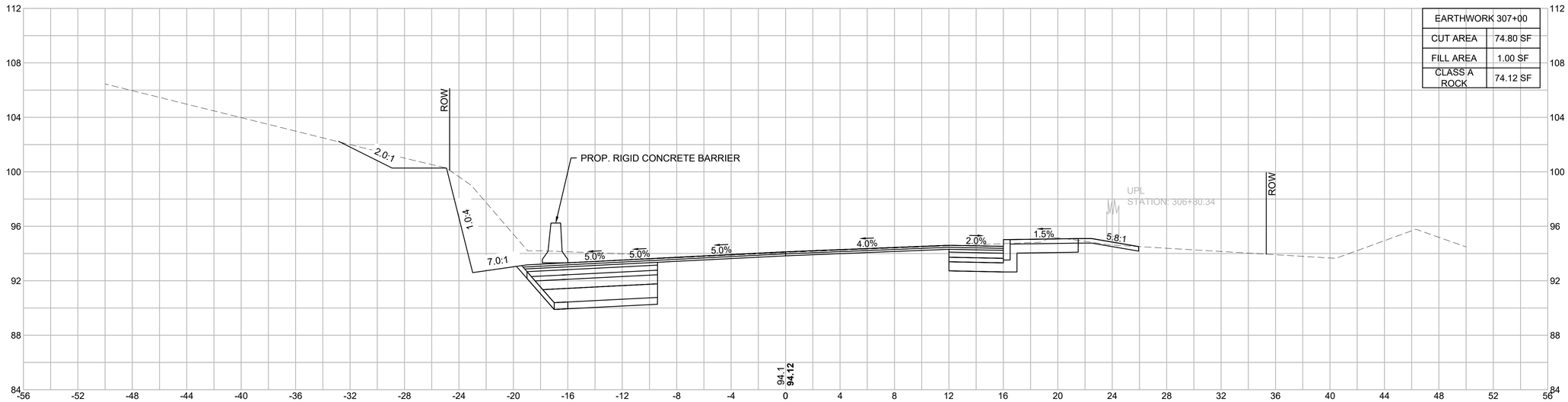
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	397	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 136

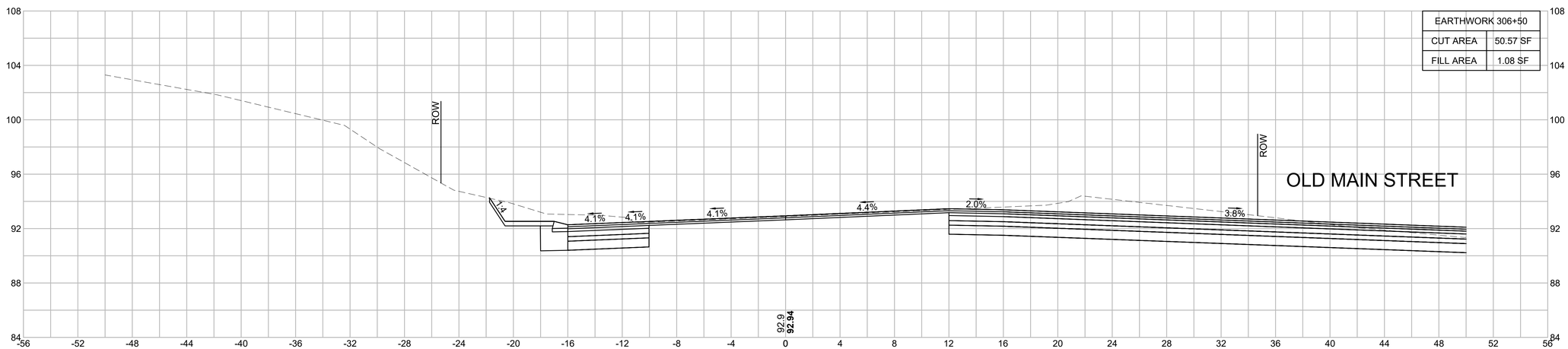
608051_HD12(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:36 PM

307+00



EARTHWORK 307+00	
CUT AREA	74.80 SF
FILL AREA	1.00 SF
CLASS A ROCK	74.12 SF

306+50



EARTHWORK 306+50	
CUT AREA	50.57 SF
FILL AREA	1.08 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

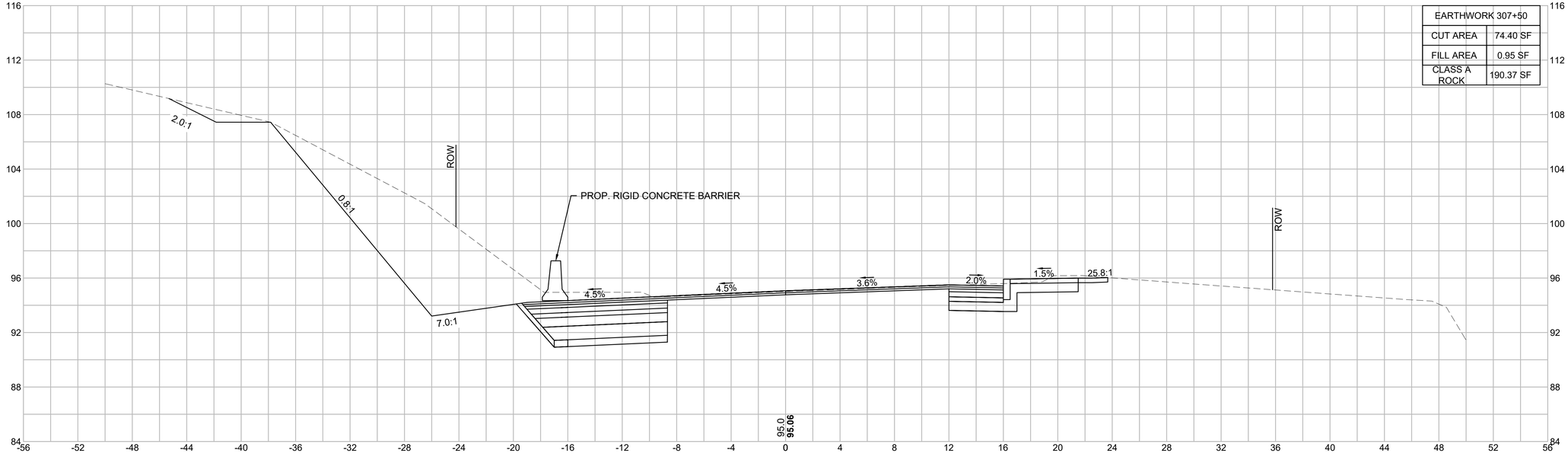
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	398	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 137

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:36 PM

307+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

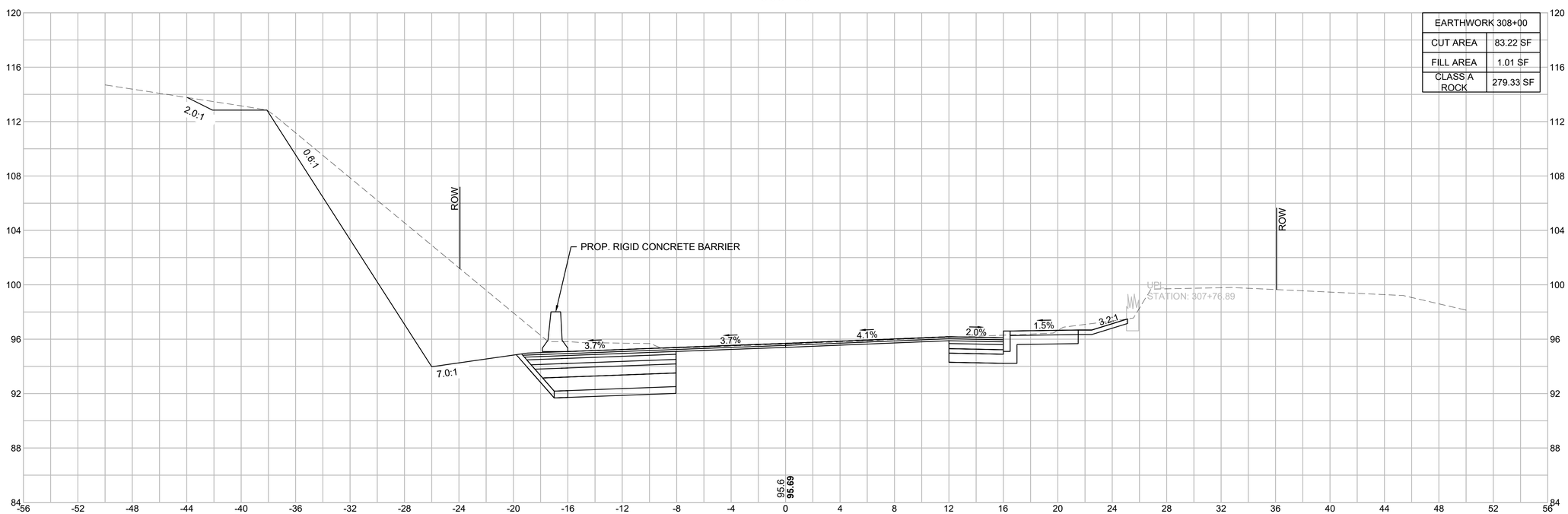
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	399	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 138

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:37 PM

308+00



EARTHWORK 308+00	
CUT AREA	83.22 SF
FILL AREA	1.01 SF
CLASS A ROCK	279.33 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

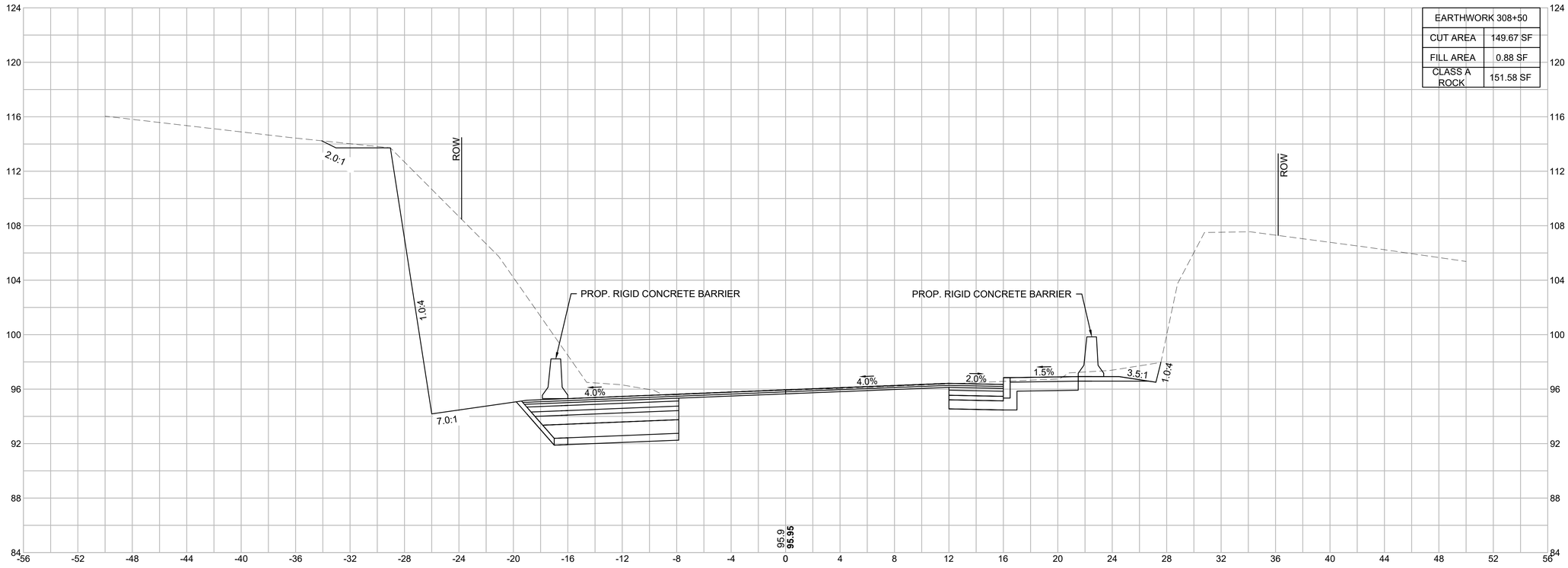
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	400	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 139

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:37 PM

308+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

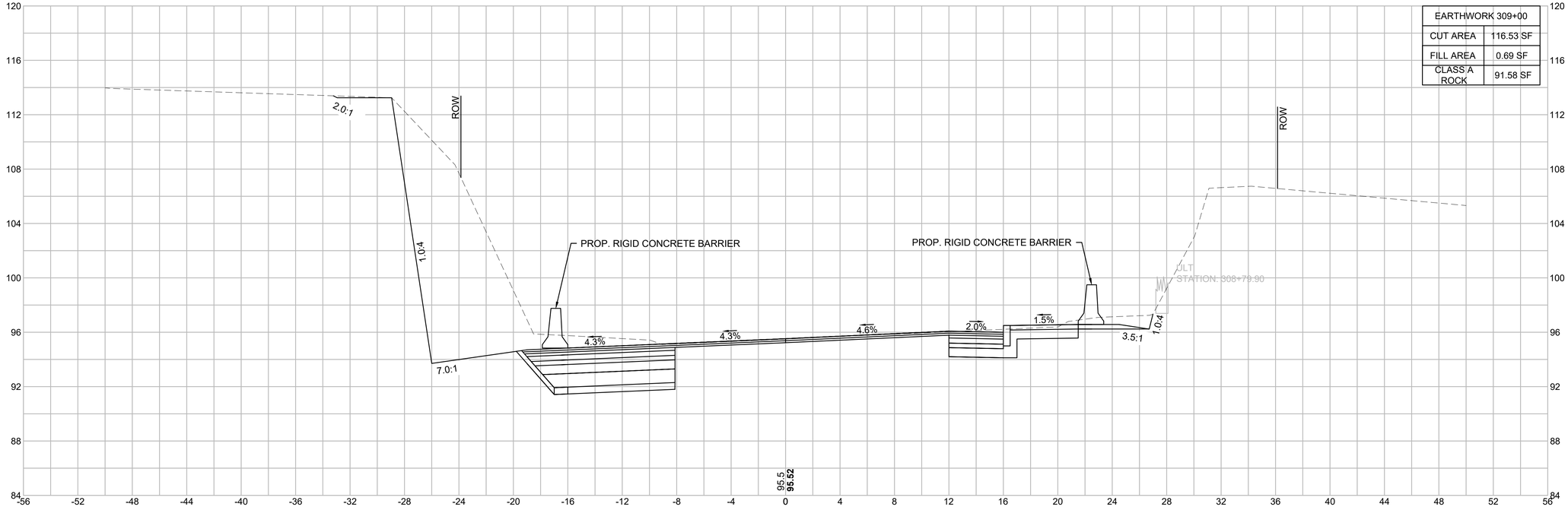
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	401	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 140

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:37 PM

309+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

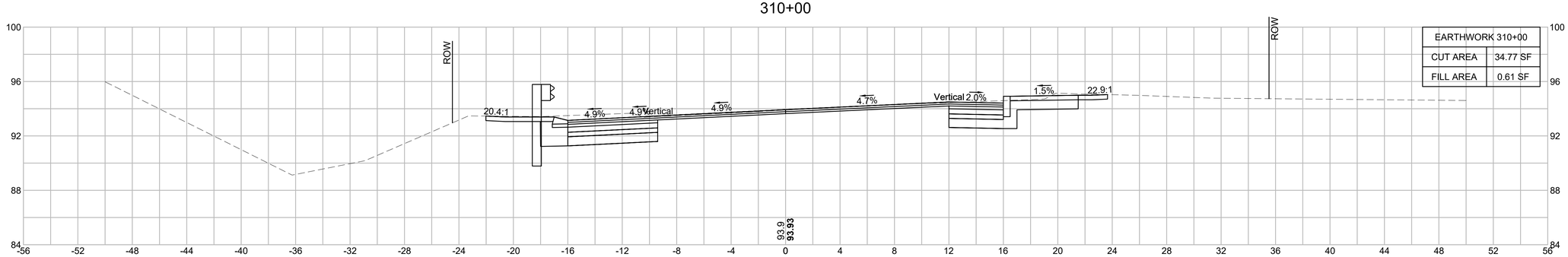
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	402	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 141

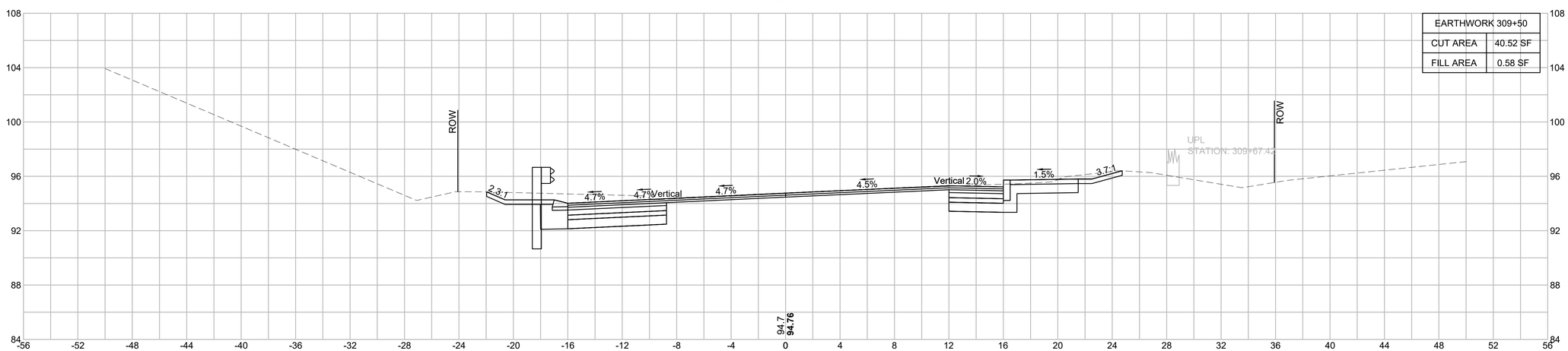
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:38 PM

310+00



EARTHWORK 310+00	
CUT AREA	34.77 SF
FILL AREA	0.61 SF

309+50



EARTHWORK 309+50	
CUT AREA	40.52 SF
FILL AREA	0.58 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

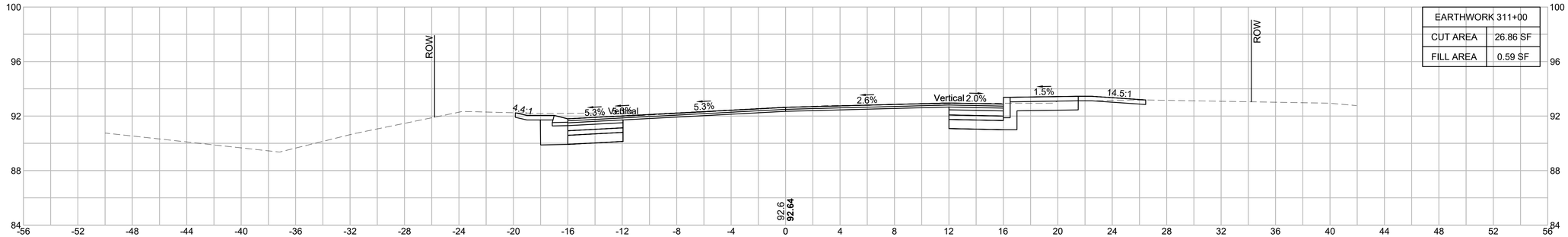
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	403	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 142

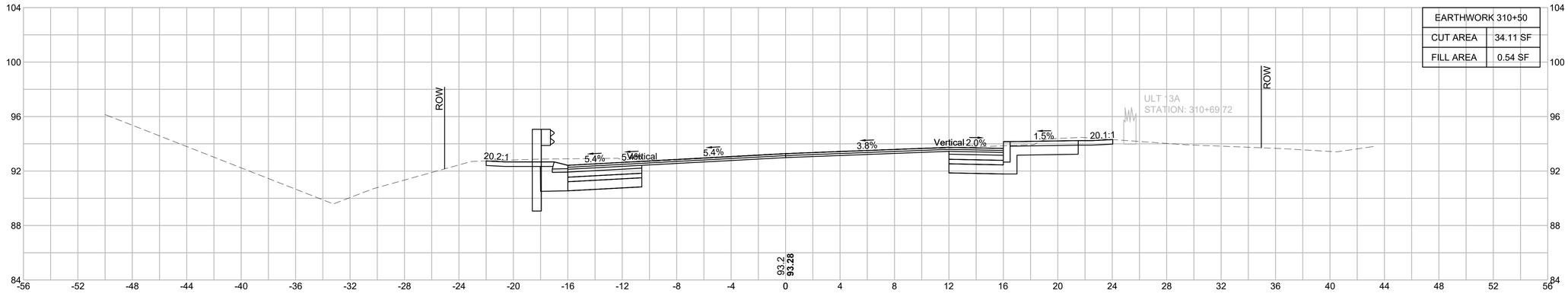
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:38 PM

311+00



EARTHWORK 311+00	
CUT AREA	26.86 SF
FILL AREA	0.59 SF

310+50



EARTHWORK 310+50	
CUT AREA	34.11 SF
FILL AREA	0.54 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

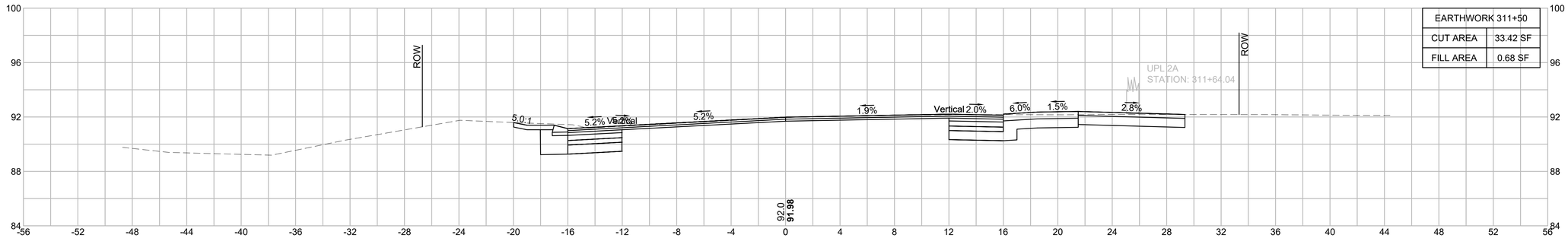
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	404	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 143

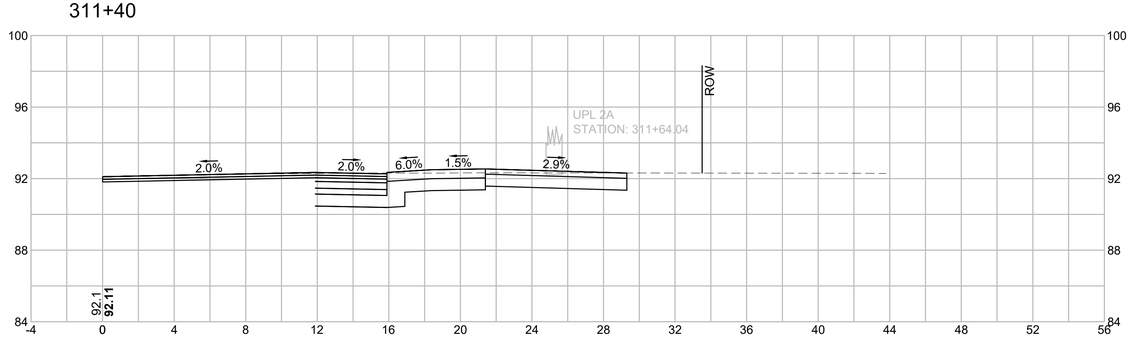
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:38 PM

311+50



EARTHWORK 311+50	
CUT AREA	33.42 SF
FILL AREA	0.68 SF

311+40



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

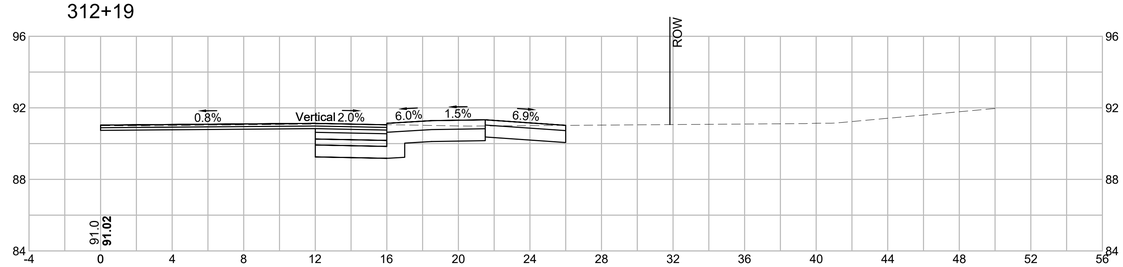
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	405	420
PROJECT FILE NO.	608051		

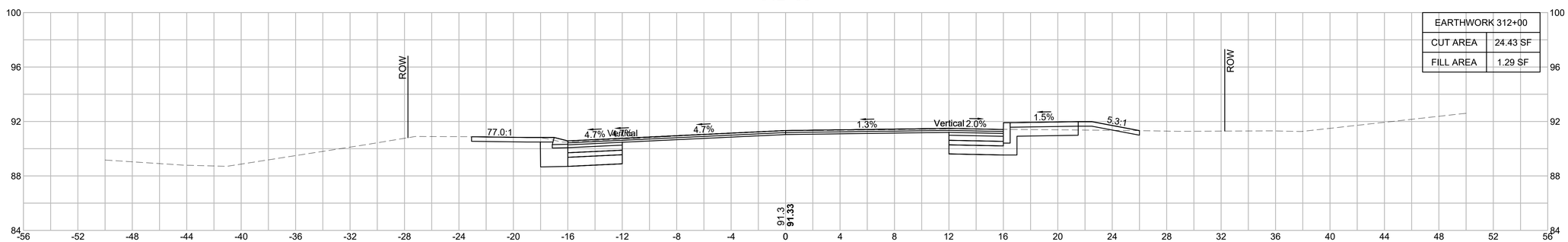
CROSS SECTIONS - 144

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:39 PM

312+19



312+00



EARTHWORK 312+00	
CUT AREA	24.43 SF
FILL AREA	1.29 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

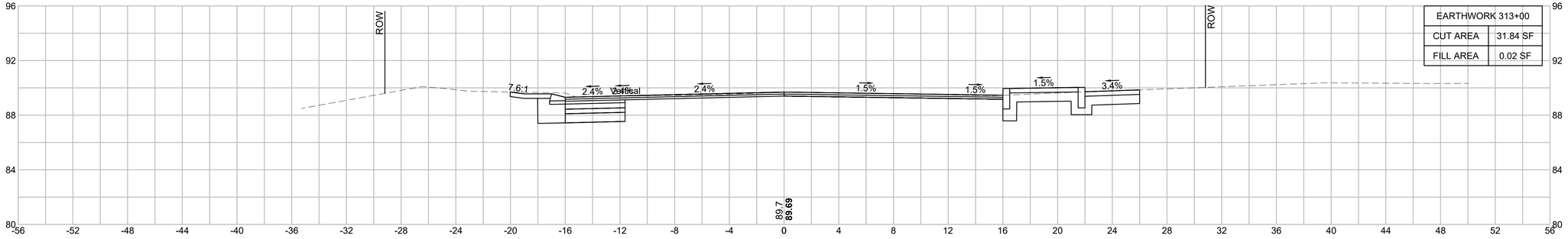
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	406	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 145

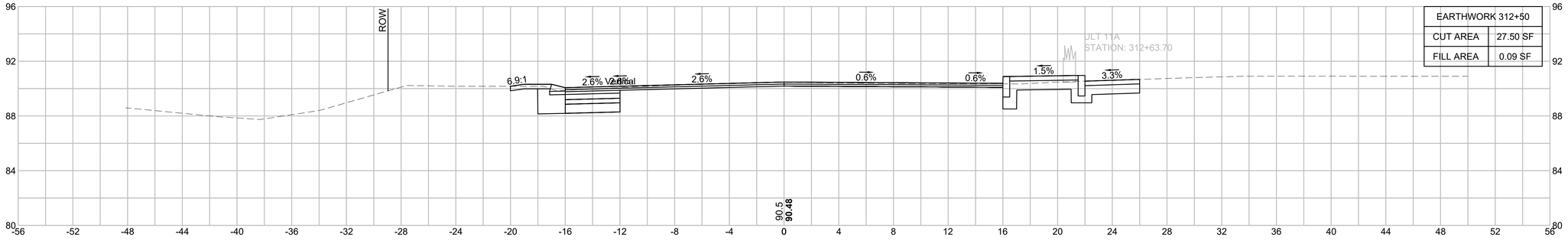
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:39 PM

313+00



EARTHWORK 313+00	
CUT AREA	31.84 SF
FILL AREA	0.02 SF

312+50



EARTHWORK 312+50	
CUT AREA	27.50 SF
FILL AREA	0.09 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

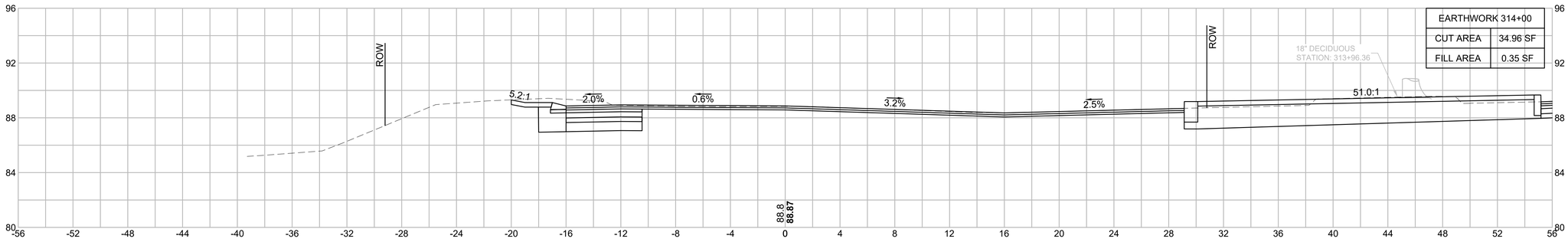
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	407	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 146

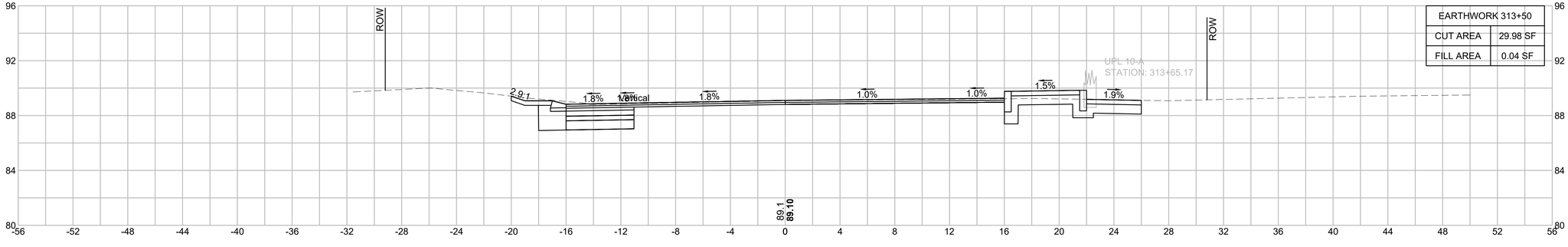
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:39 PM

314+00



EARTHWORK 314+00	
CUT AREA	34.96 SF
FILL AREA	0.35 SF

313+50



EARTHWORK 313+50	
CUT AREA	29.98 SF
FILL AREA	0.04 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

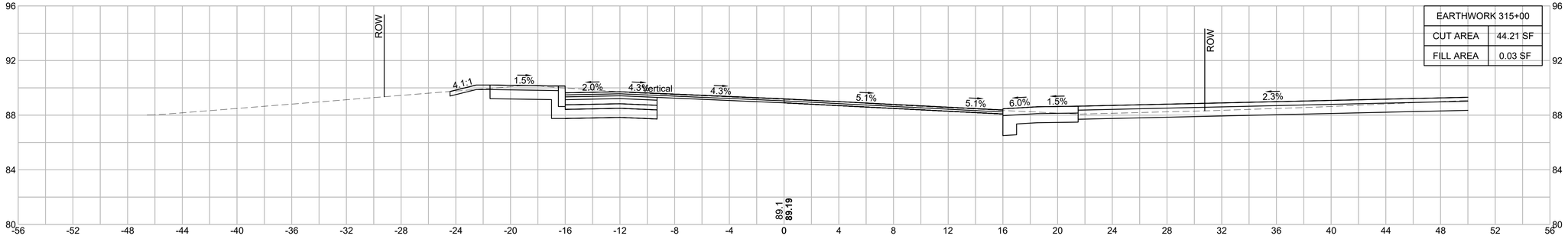
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	408	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 147

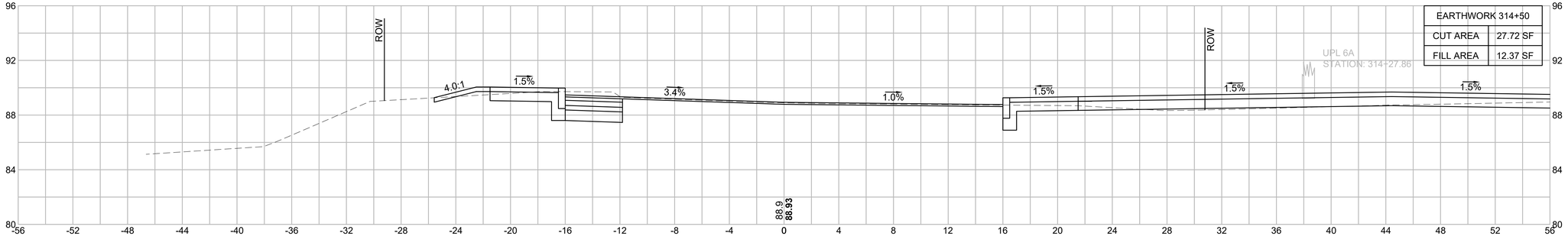
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:40 PM

315+00



EARTHWORK 315+00	
CUT AREA	44.21 SF
FILL AREA	0.03 SF

314+50



EARTHWORK 314+50	
CUT AREA	27.72 SF
FILL AREA	12.37 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

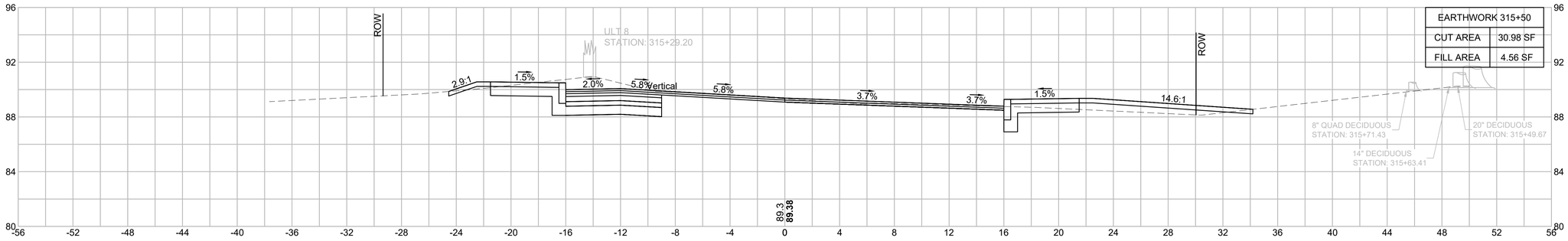
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	409	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 148

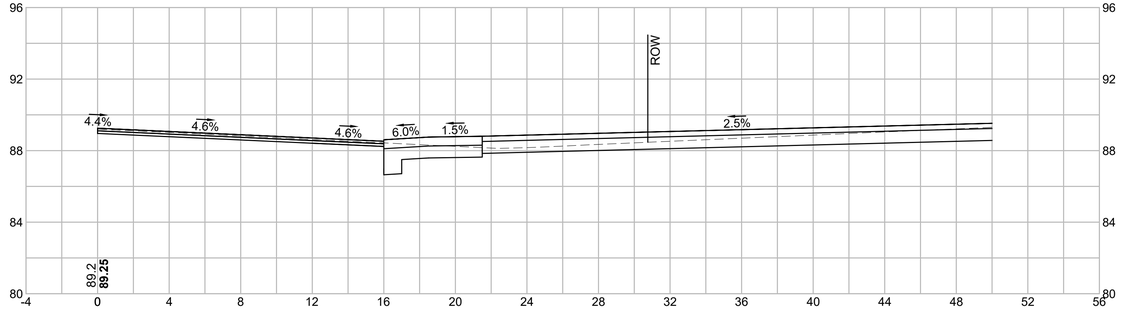
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:40 PM

315+50



EARTHWORK 315+50	
CUT AREA	30.98 SF
FILL AREA	4.56 SF

315+10.03



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

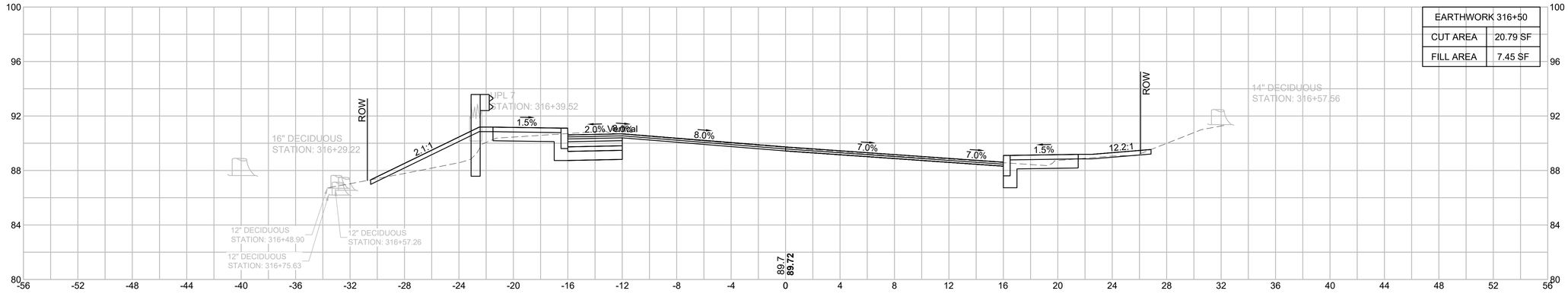
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	410	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 149

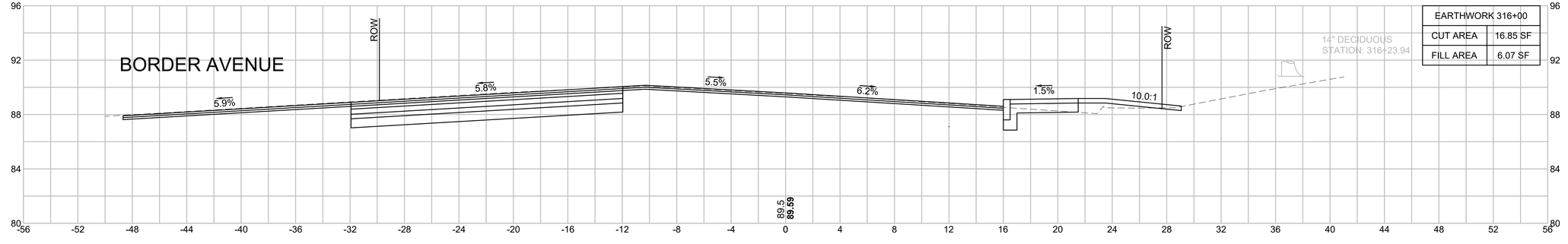
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:40 PM

316+50



EARTHWORK 316+50	
CUT AREA	20.79 SF
FILL AREA	7.45 SF

316+00



EARTHWORK 316+00	
CUT AREA	16.85 SF
FILL AREA	6.07 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

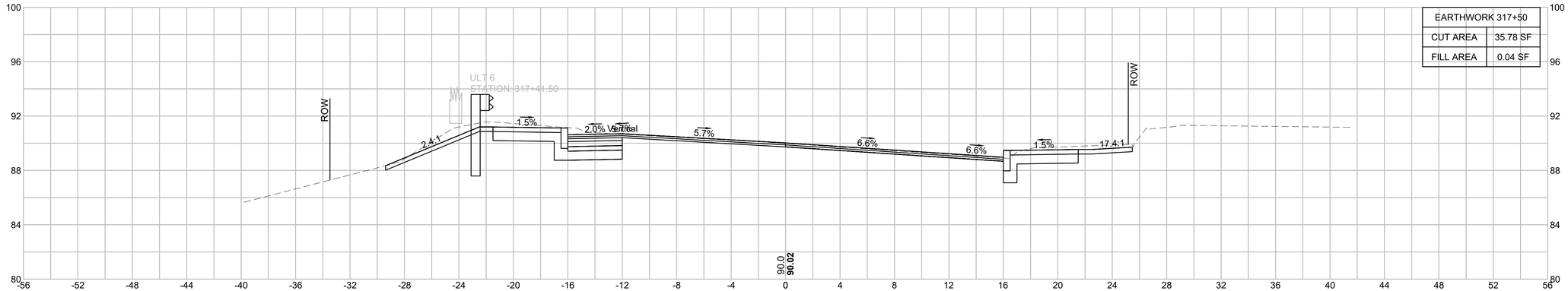
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	411	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 150

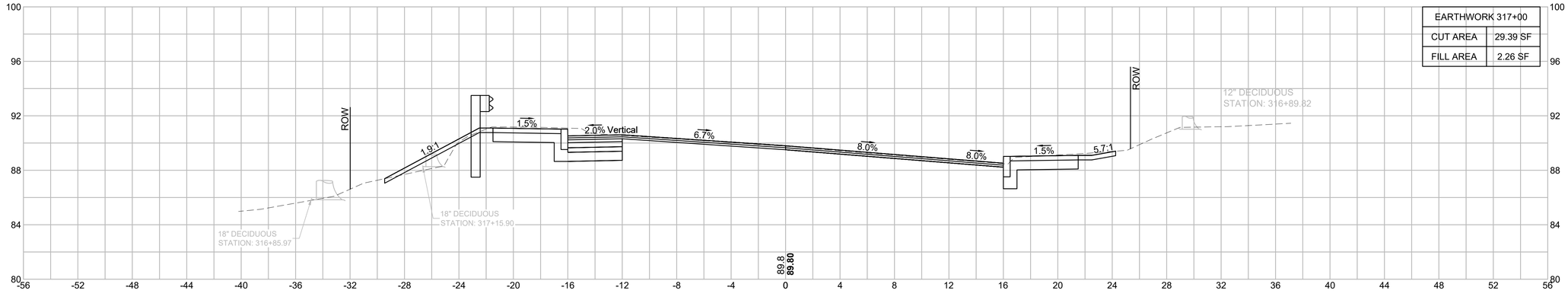
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:41 PM

317+50



EARTHWORK 317+50	
CUT AREA	35.78 SF
FILL AREA	0.04 SF

317+00



EARTHWORK 317+00	
CUT AREA	29.39 SF
FILL AREA	2.26 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

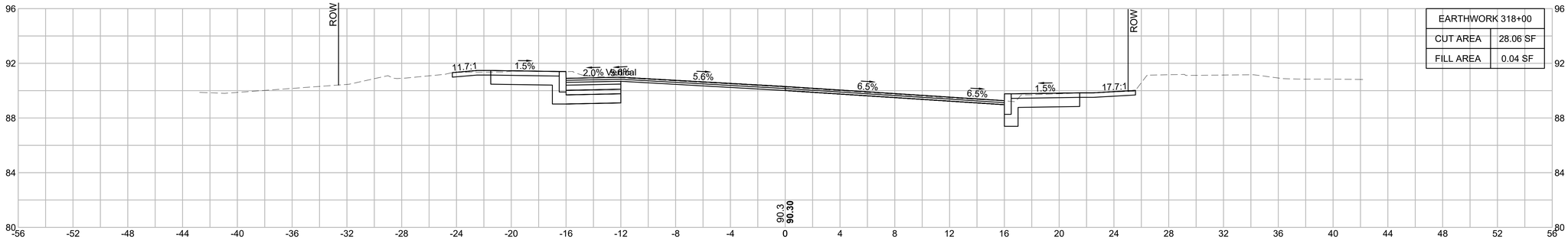
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	412	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 151

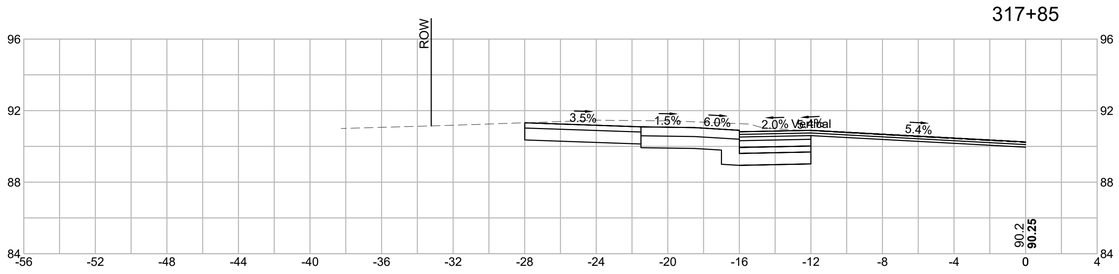
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:41 PM

318+00



EARTHWORK 318+00	
CUT AREA	28.06 SF
FILL AREA	0.04 SF

317+85



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

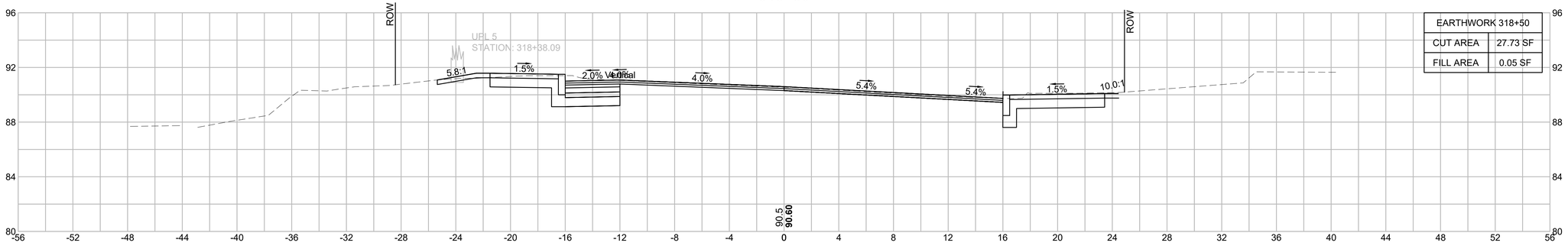
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	413	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 152

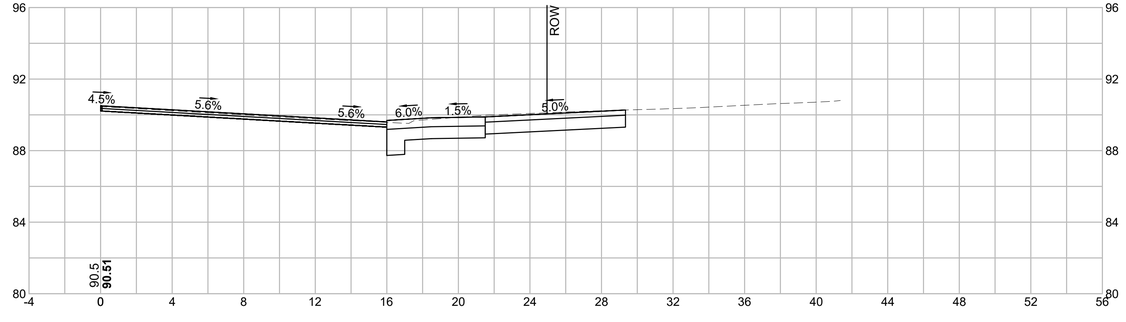
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:41 PM

318+50



EARTHWORK 318+50	
CUT AREA	27.73 SF
FILL AREA	0.05 SF

318+28



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

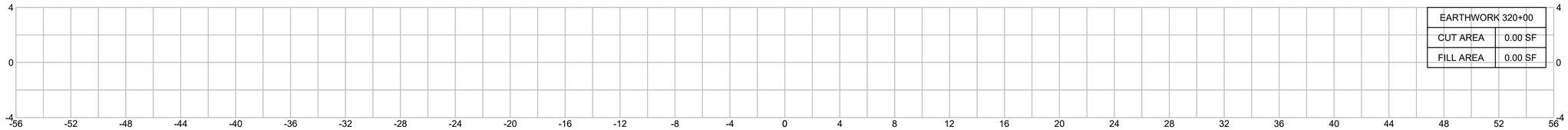
WILMINGTON, MA
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	414	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 153

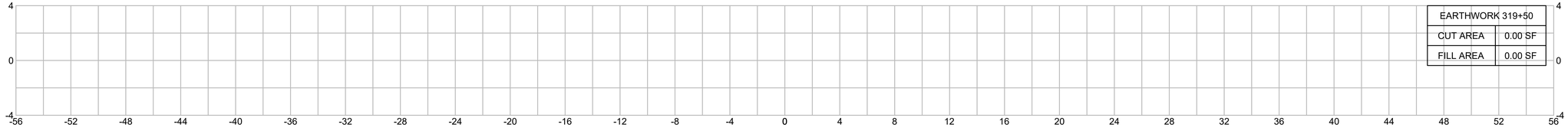
608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:42 PM

320+00



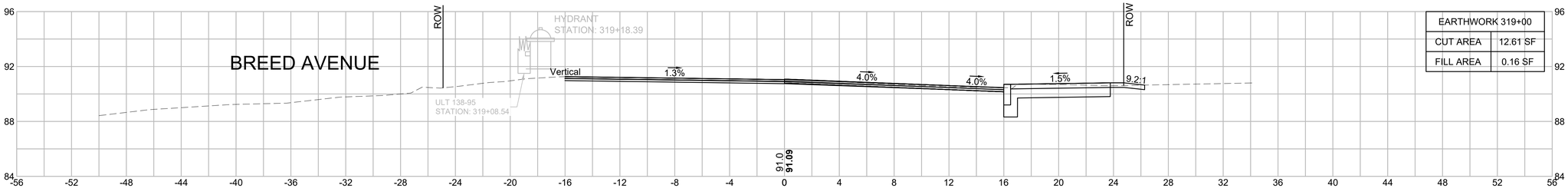
EARTHWORK 320+00	
CUT AREA	0.00 SF
FILL AREA	0.00 SF

319+50



EARTHWORK 319+50	
CUT AREA	0.00 SF
FILL AREA	0.00 SF

319+00



EARTHWORK 319+00	
CUT AREA	12.61 SF
FILL AREA	0.16 SF

HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

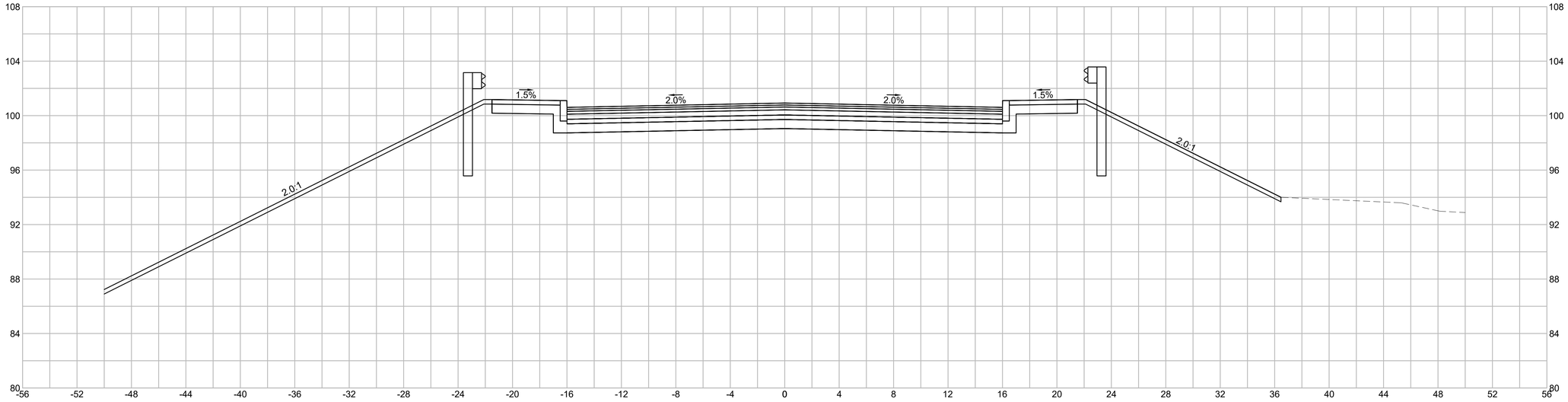
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	415	420
PROJECT FILE NO.	608051		

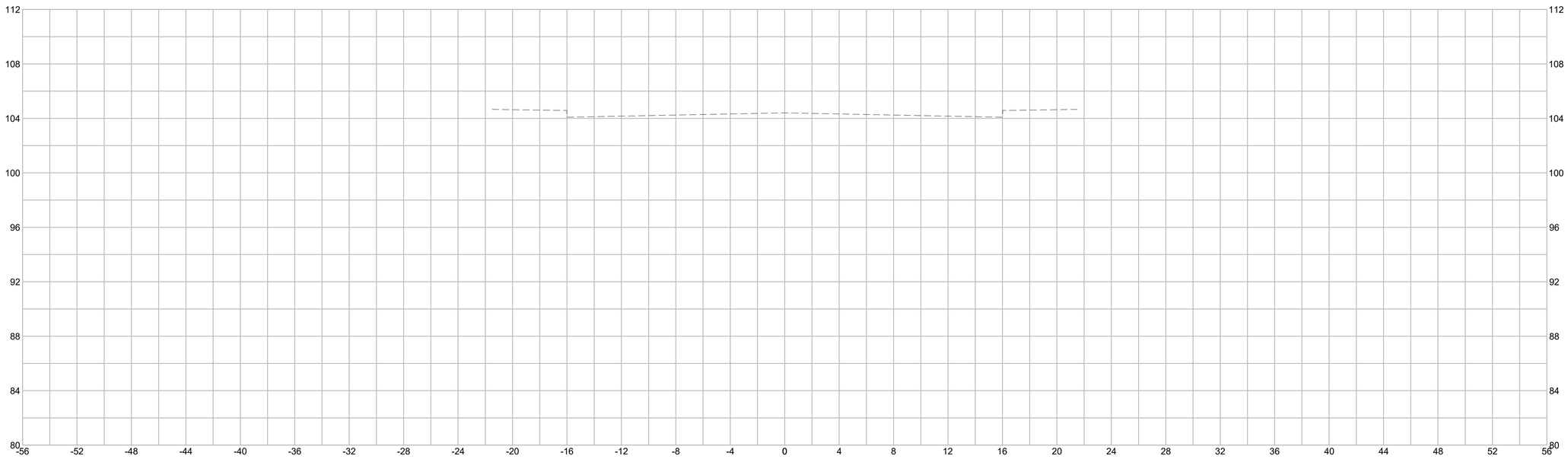
CROSS SECTIONS - 154
BUTTERS ROW

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:42 PM

56+00



55+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

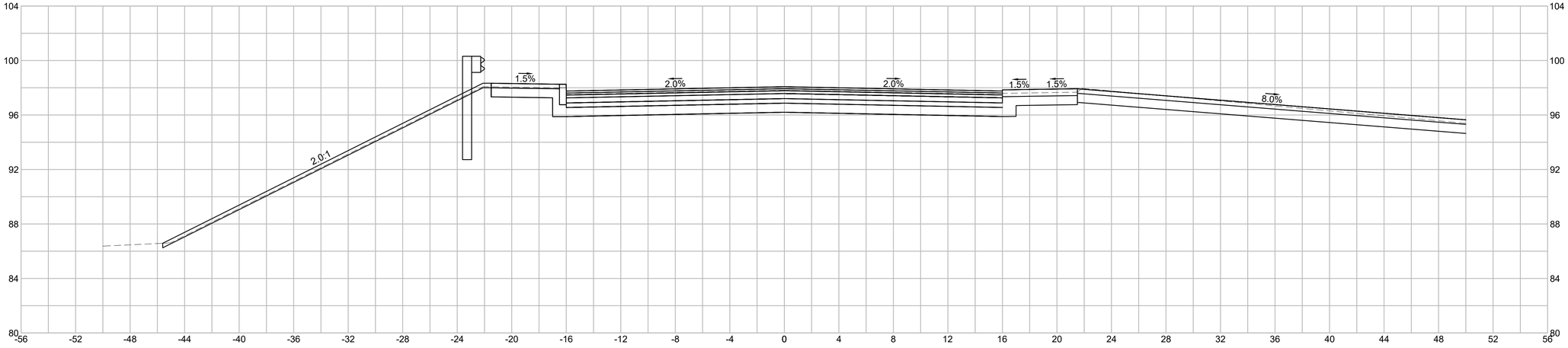
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	415	420
PROJECT FILE NO.	608051		

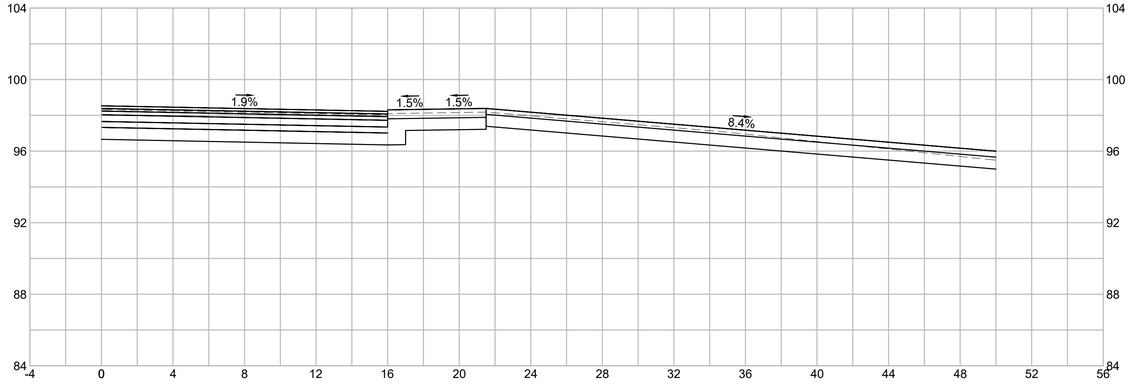
CROSS SECTIONS - 155
BUTTERS ROW

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:42 PM

56+50



56+40.74



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

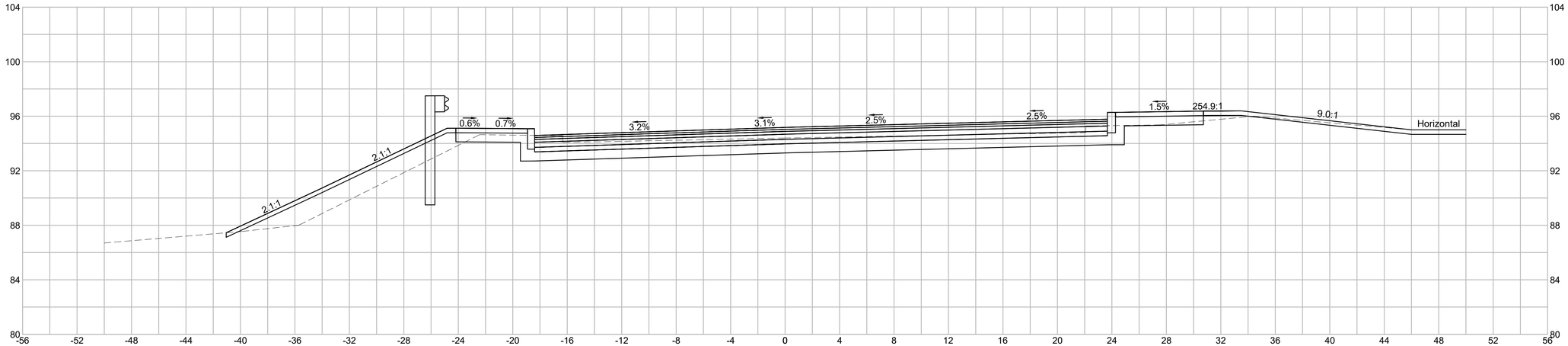
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	417	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 156
BUTTERS ROW

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:43 PM

57+50



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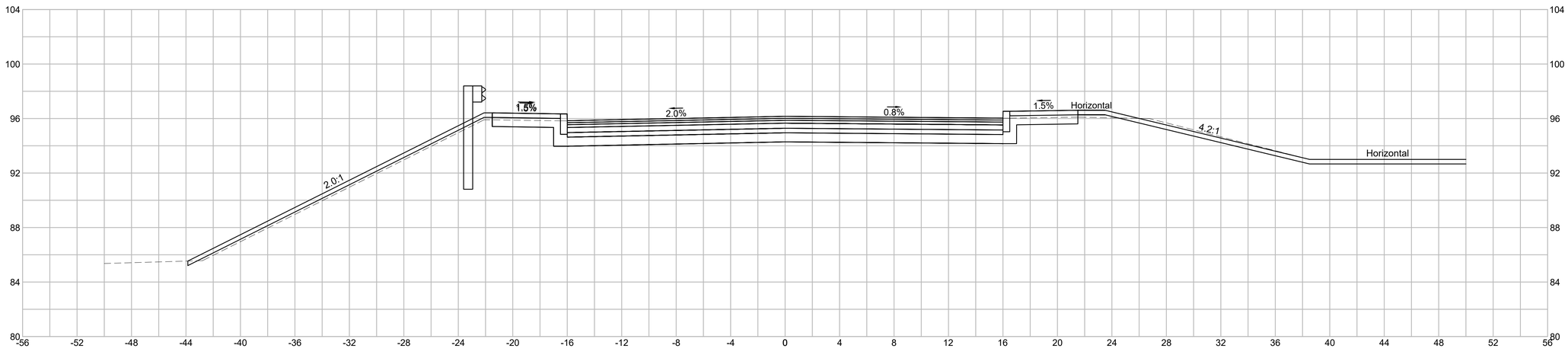


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

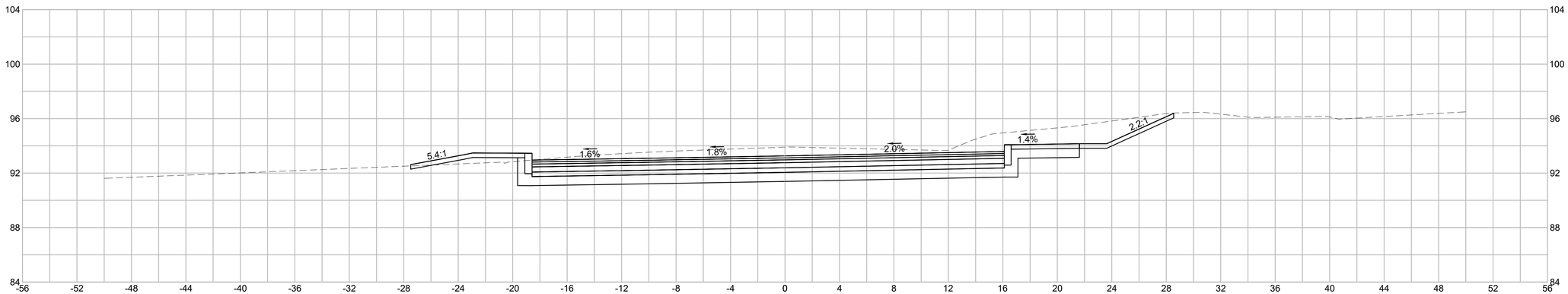
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	417	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 157
CROSS STREET

608051_HD12\(CROSS SECTIONS).DWG Plotted on 2-Dec-2025 3:43 PM

41+00



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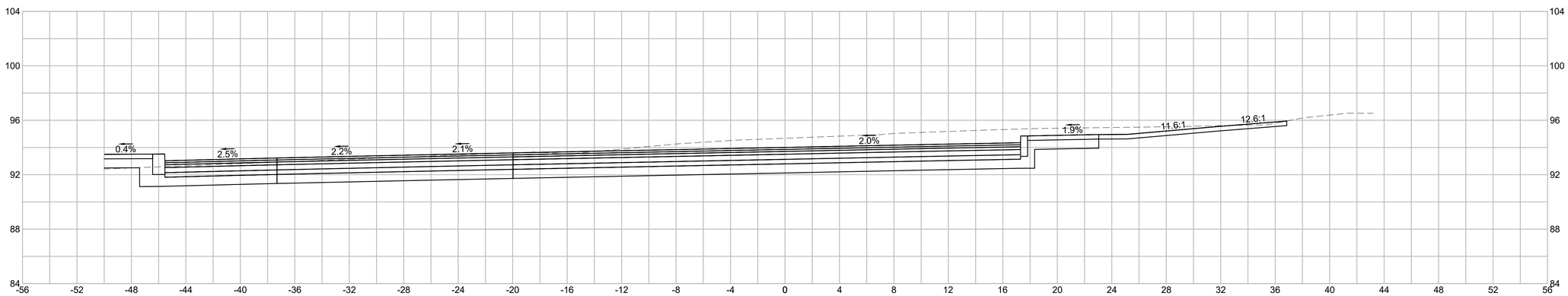


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

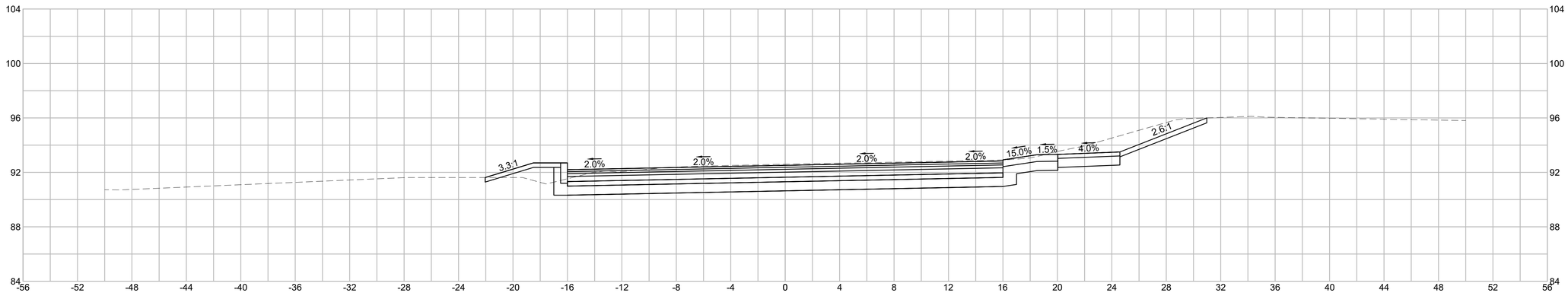
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	418	420
PROJECT FILE NO.	608051		

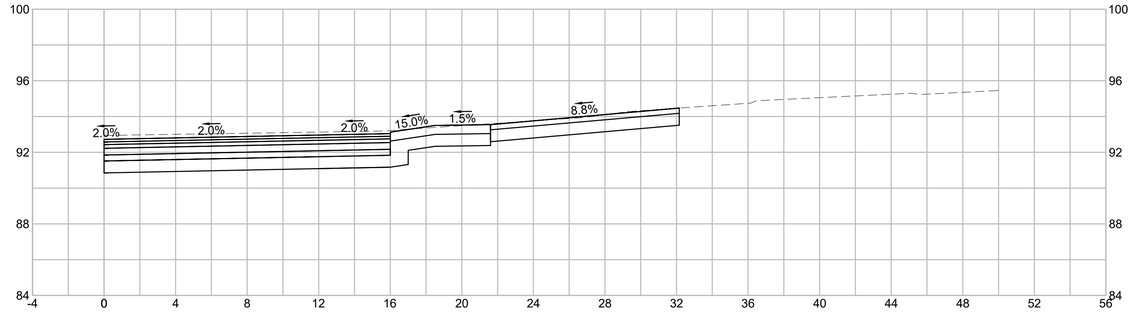
CROSS SECTIONS - 158
CROSS STREET

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:44 PM

41+50



41+36.14



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

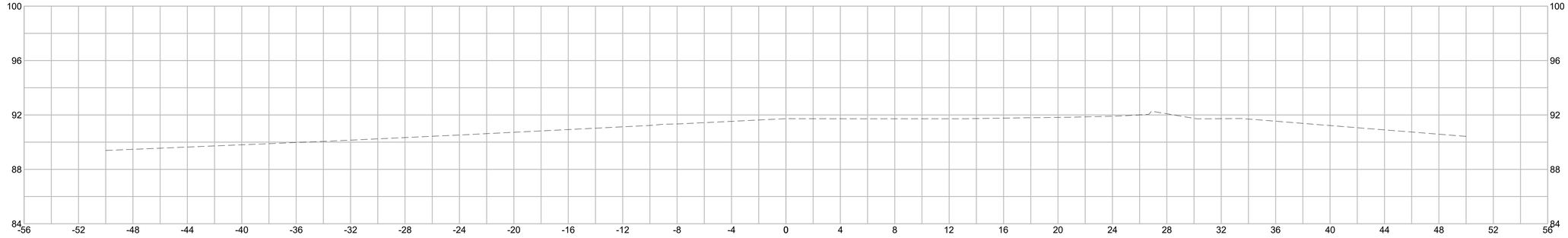
WILMINGTON
ROUTE 38 (MAIN STREET)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	STP/CMQ/HSI-0034(030)X	419	420
PROJECT FILE NO.	608051		

CROSS SECTIONS - 159
CROSS STREET

608051_HD12\CROSS SECTIONS\.DWG Plotted on 2-Dec-2025 3:44 PM

42+00



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET