MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	1	63
	PROJECT FILE NO. 610777		

TITLE SHEET & INDEX

PLAN AND PROFILE OF

QUALITY STREET/SOUTH WILLOW STREET

(BRIDGE NO. A-04-038)

IN THE TOWN OF

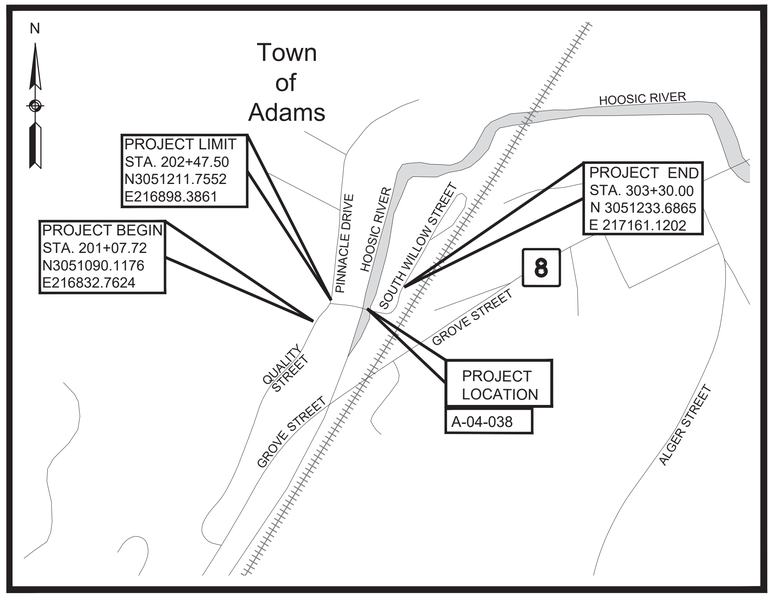
ADAMS

BERKSHIRE COUNTY

FEDERAL AID PROJECT NO. BFL(BR-OFF)-0031(020)

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.

INDEX



0 250 500 750 1000

SCALE: 1" = 250'

LENGTH OF PROJECT = 445.15 FEET = 0.084 MILES

DESIGN DESIGNATION (QUALITY STREET/SOUTH WILLOW STREET)

DESIGN SPEED	20 MPH
ADT (2018)	129
ADT (2032)	160
T	1.0%
FUNCTIONAL CLASSIFICATION	LOCAL ROAD/URBAN LOCAL ROAD

COMMONWEALTH OF MASSACHUSETTS
KELLAN D. LEWIS
NO. 52632
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Kellan lewis
Date: 2025.08.08 14:39:41 -04'00'

BSC GROUP
BUILD | SUPPORT | CONNECT
803 SUMMER STREET
BOSTON, MASSACHUSETTS 02127
617-896-4300 | www.bscgroup.com

DATE	DESCRIPTION	REV #

massDOT
Massachusetts Department of Transportation
Highway Division

APPROVED

Carrie Lavallee, P.E.

Carrie Lavallee, P.E.
2025.08.18 09:31:53 -04'00'

08/18/2025

CHIEF ENGINEER — DATE

610777_HD1(TITLE_SHEET).DWG Plotted on 1-Aug-2025 10:11 AM

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
		MASONRY PLUG
		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
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
		COMPOST FILTER TUBES
		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 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
℄		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

ENVIRONMENTAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
WF#XX-XX		WETLAND FLAGS

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
1	1	CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		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

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE - 12" WHITE LINE LOCATED 4' BEHIND CW (TYP)
	CW	CROSSWALK - 12" WHITE LINES (WIDTH - 10', LADDERING - 3' ON CENTER(2' SPACING))
	SWL	SOLID WHITE LINE - 6"
	SYL	SOLID YELLOW LINE - 6"
	BWL	BROKEN WHITE LINE - 6" (10' LINE, 30' SPACE)
	BYL	BROKEN YELLOW LINE - 6" (10' LINE, 30' SPACE)
	DWL	DOTTED WHITE LINE - 6" (3' LINE, 9' SPACE)
	DYL	DOTTED YELLOW LINE - 6" (3' LINE, 9' SPACE)
	DWLEx	DOTTED WHITE LINE EXTENSION - 6" (2' LINE, 6' SPACE)
	DYLEx	DOTTED YELLOW LINE EXTENSION - 6" (2' LINE, 6' SPACE)
	DBWL	DOUBLE WHITE LINE - 6"
	DBYL	DOUBLE YELLOW LINE - 6"

1. ALL EXISTING UTILITY CASTINGS THAT ARE TO REMAIN WITHIN AREAS TO BE REPAVED SHALL BE ADJUSTED TO LINE AND GRADE BY THE CONTRACTOR UNLESS OTHERWISE NOTED. ALL PRIVATE TELEPHONE, GAS, AND ELECTRICAL CASTINGS SHALL BE ADJUSTED BY OTHERS.
2. THE LOCATIONS OF EXISTING SUBSURFACE UTILITIES SHOWN ON THE PLANS WERE COMPILED FROM AVAILABLE RECORD DRAWINGS AND ARE NOT WARRANTIED TO BE CORRECT. THE LOCATIONS ARE APPROXIMATE ONLY AND IN SOME CASES MAY BE INCOMPLETE. THE CONTRACTOR SHALL NOTIFY ALL AGENCIES REQUIRED AND VERIFY THE LOCATIONS OF ALL EXISTING SUBSURFACE UTILITIES PRIOR TO PERFORMING ANY WORK.
3. PRIOR TO THE INSTALLATION OF PROPOSED UTILITIES, THE CONTRACTOR SHALL EXCAVATE TEST PITS AT LOCATIONS OF UTILITY CROSSINGS TO VERIFY DEPTHS OF EXISTING PIPES, CONDUITS OR OTHER FACILITIES AS DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL SAWCUT TO THE FULL PAVEMENT DEPTH AT BOUNDARIES BETWEEN FULL DEPTH CONSTRUCTION AND EXISTING PAVEMENT.
5. THE SURVEY BASE PLAN WAS PREPARED BY BSC GROUP IN MAY AND JUNE OF 2021 AND SEPTEMBER OF 2024, RECORDED IN MASSDOT FIELD BOOK NO. 41825.
6. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY HIGHWAY BOUND OR PRIVATE PROPERTY PIN THAT MAY BE DAMAGED OR DESTROYED DURING CONSTRUCTION, TO ITS LOCATION JUST PRIOR TO CONSTRUCTION.
7. THE MOST RECENT SITE VISIT WAS COMPLETED IN SEPTEMBER, 2024 TO VERIFY THAT THE EXISTING CONDITIONS SHOWN ON THE PLAN ARE THE CURRENT CONDITIONS IN THE FIELD.
8. THE LAYOUT AND PROPERTY LINES SUBMITTED ON THE PLAN WERE COMPILED FROM RECORDS AS REFERENCED ON THE PLAN CERTIFIED BY SEAN EWALD, A PLS IN DIRECT CHARGE AND SUPERVISION OF THE SURVEY BASEMAP.
9. THE OWNERS HAVE BEEN CHECKED AND UPDATED AS OF AUGUST, 2024.
10. ALL AREAS OUTSIDE OF THE LIMIT OF WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S OWN EXPENSE.
11. ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM DAMAGE CAUSED BY CONTRACTOR OPERATIONS.
12. HORIZONAL DATUM IS BASED ON NORTH AMERICAN DATUM (NAD) 1983.
13. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
14. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT DIGSAFE TO MARK OUT UTILITIES WITHIN THE PROJECT AREA. 1-888-344-7233: 1-888-DIG-SAFE.

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
ARB	ARBORVITAE
BIT	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
B.O.	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
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
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
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
LSCSF	LAND SUBJECT TO COASTAL STORM FLOOD
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
MNTD	MOUNTED
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
PROT	PROTECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW

ABBREVIATIONS (cont.)

GENERAL

PT	POINT OF TANGENCY
PUE	PERMANENT UTILITY EASEMENT
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
RCP	REINFORCED CONCRETE PIPE
RDWY	ROADWAY
REL (or RELOC)	RELOCATE
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
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
SWC	STONE WITNESS CORNER
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TS&V	TAPPING SLEEVE & VALVE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
VGC	VERTICAL GRANITE CURB
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

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	2	63
	PROJECT FILE NO. 610777		

LEGEND & ABBREVIATIONS

PAVEMENT NOTES

ROADWAY

SURFACE: 1 ½" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER

INTERMEDIATE: 2 ½" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER

SUBBASE: 12" GRAVEL BORROW (M1.02.0 TYPE b)

*NEW SUBBASE TO BE PLACED ONLY WHERE EXISTING SUBBASE MATERIAL FAILS TO MEET REQUIREMENTS OF M1.03.0 TYPE b AND AS DIRECTED BY THE ENGINEER

PROP RESURFACING OVERLAY TRANSITION AT LIMITS OF WORK

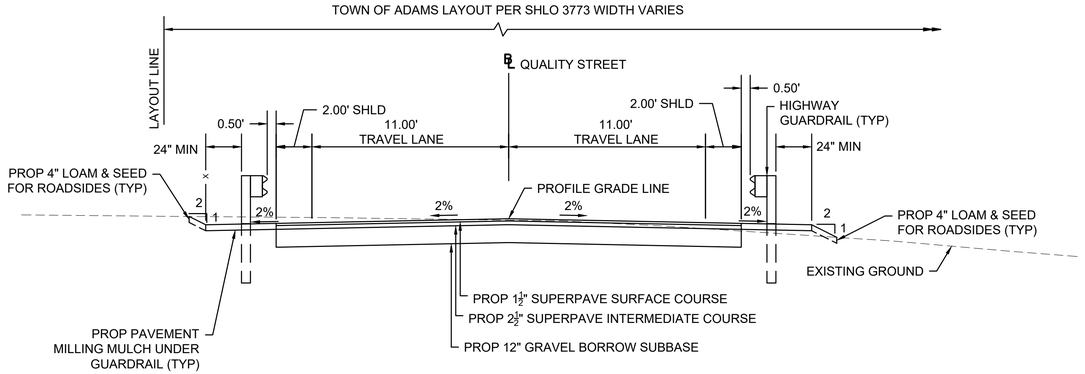
SURFACE: 1 ½" SUPERPAVE SURFACE SURFACE COURSE - 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER

1.5" PAVEMENT FINE MILLING

BRIDGE

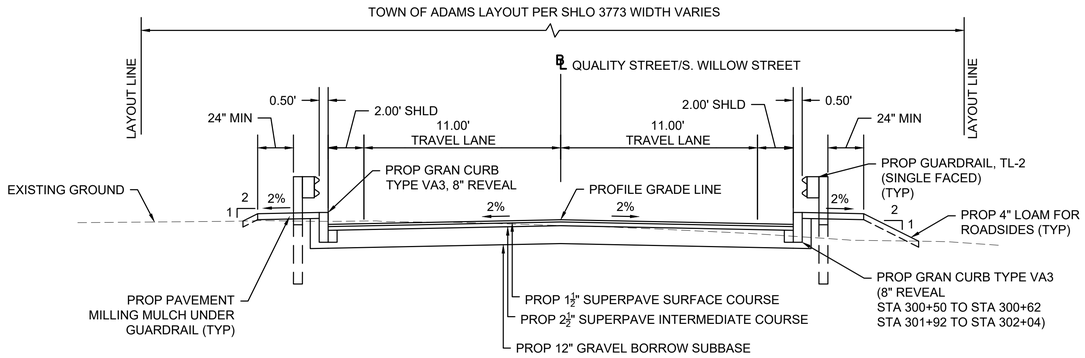
SURFACE: 1 ½" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B - 9.5 - P) OVER ASPHALT EMULSION FOR TACK COAT OVER

PROTECTIVE: 1 ½" SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 POLYMER (SBC-B - 9.5 - P) OVER POLYMER MODIFIED TACK COAT OVER MEMBRANE WATERPROOFING



QUALITY STREET
SCALE: 1"=4'

STA 300+07 TO STA 300+47



QUALITY STREET/S. WILLOW STREET
SCALE: 1"=4'

STA 300+47 TO STA 300+62
STA 301+92 TO STA 302+16

PAVEMENT NOTES (CONT)

HOT MIX ASPHALT SIDEWALK

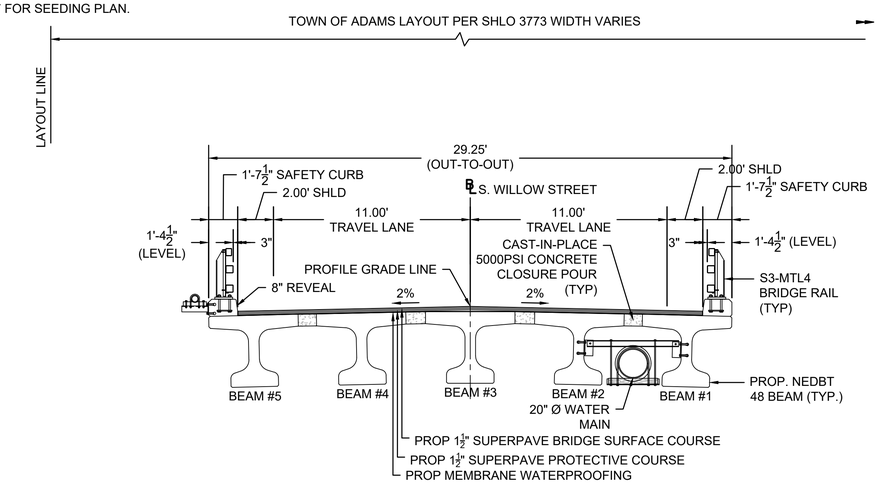
SURFACE : 1 ¼" SURFACE COURSE OVER

INTERMEDIATE : 1 ¾" INTERMEDIATE COURSE OVER

SUBBASE : 8" GRAVEL BORROW (M1.02.0 TYPE b)

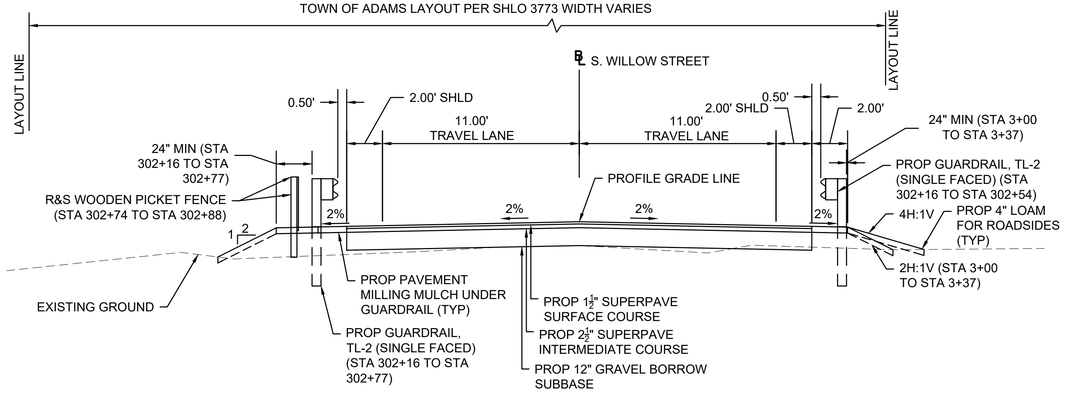
NOTES:

1. SEE STANDARD DETAIL E 104.1.0 FOR METHOD OF STEPPING SURFACE AND BASE COURSE LAYERS.
2. PREPARATION OF UNDERLYING SURFACE, ASPHALT EMULSION FOR TACK COAT, HMA FOR PATCHING, AND HMA JOINT ADHESIVE SHALL BE IN ACCORDANCE WITH SECTION 450.
3. ASPHALT EMULSION FOR TACK COAT SHALL MEET ALL REQUIREMENTS OUTLINED IN THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 2024 EDITION FOR ANIONIC EMULSIFIED ASPHALT (SECTION M.03.1), AND SPRAYED FOR 95% UNIFORM COVERAGE PRIOR TO PAVING.
4. CONSTRUCTION TOLERANCE +/- 0.5%.
5. SEE SHEET 17 FOR SEEDING PLAN.



QUALITY STREET/S. WILLOW STREET (BRIDGE)
SCALE: 1"=4'

STA 300+79 TO STA 301+75



S. WILLOW STREET
SCALE: 1"=4'

STA 302+16 TO STA 302+92

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	3	63
PROJECT FILE NO.	610777		

TYPICAL SECTIONS

610777_HDS(TYPICAL_SECTIONS).DWG Plotted on 23-Jul-2025 12:49 PM

PAVEMENT NOTES

ROADWAY

SURFACE: 1 ½" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER

INTERMEDIATE: 2 ½" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER

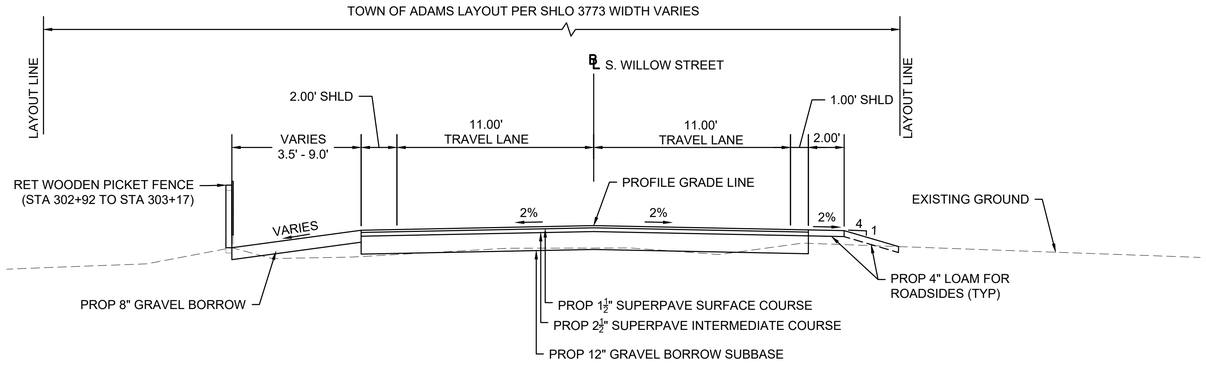
SUBBASE: 12" GRAVEL BORROW (M1.02.0 TYPE b)

*NEW SUBBASE TO BE PLACED ONLY WHERE EXISTING SUBBASE MATERIAL FAILS TO MEET REQUIREMENTS OF M1.03.0 TYPE b AND AS DIRECTED BY THE ENGINEER

PROP RESURFACING OVERLAY TRANSITION AT LIMITS OF WORK

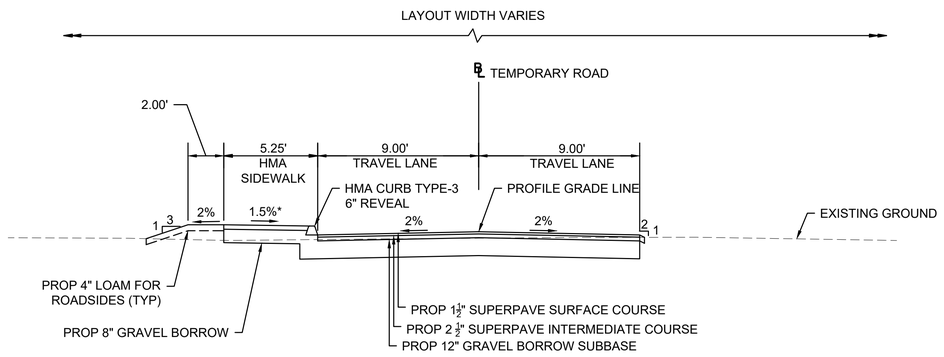
SURFACE: 1 ½" SUPERPAVE SURFACE SURFACE COURSE - 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER

1.5" PAVEMENT FINE MILLING



S. WILLOW STREET
SCALE: 1"=4'

STA 302+92 TO STA 303+30



* ±0.5% TOLERANCE FOR CONSTRUCTION

TEMPORARY ROAD
SCALE: 1"=4'

STA 400+13 TO STA 402+10

PAVEMENT NOTES (CONT)

HOT MIX ASPHALT SIDEWALK

SURFACE : 1 ¼" SURFACE COURSE OVER

INTERMEDIATE : 1 ¾" INTERMEDIATE COURSE OVER

SUBBASE : 8" GRAVEL BORROW (M1.02.0 TYPE b)

BOX WIDENING (LESS THAN 4')

SURFACE : 1 ½" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER

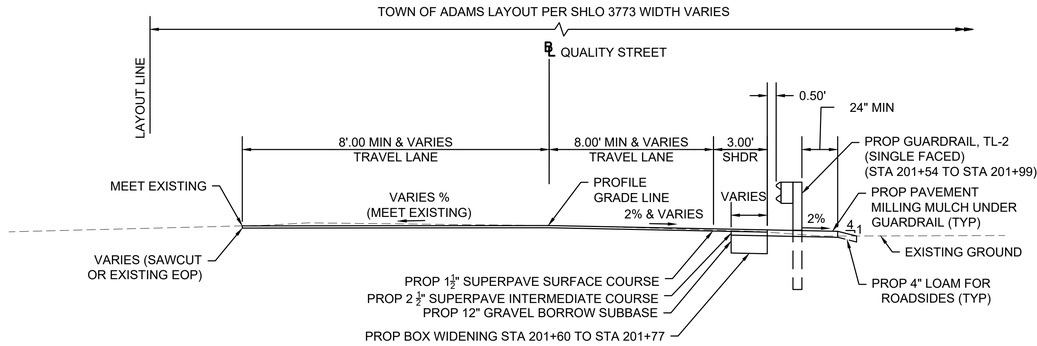
INTERMEDIATE : 2 ½" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER

SUBBASE : 6" HIGH EARLY STRENGTH CEMENT CONCRETE

BASE: 12" GRAVEL BORROW (M1.02.0 TYPE b)

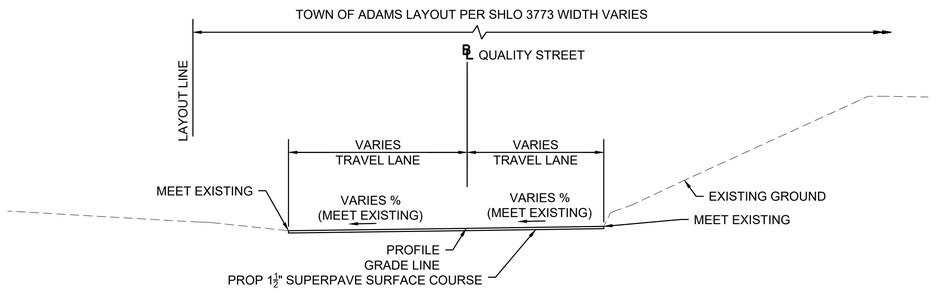
NOTES:

1. SEE STANDARD DETAIL E 104.1.0 FOR METHOD OF STEPPING SURFACE AND BASE COURSE LAYERS.
2. PREPARATION OF UNDERLYING SURFACE, ASPHALT EMULSION FOR TACK COAT, HMA FOR PATCHING, AND HMA JOINT ADHESIVE SHALL BE IN ACCORDANCE WITH SECTION 450.
3. ASPHALT EMULSION FOR TACK COAT SHALL MEET ALL REQUIREMENTS OUTLINED IN THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 2024 EDITION FOR ANIONIC EMULSIFIED ASPHALT (SECTION M.03.1), AND SPRAYED FOR 95% UNIFORM COVERAGE PRIOR TO PAVING.
4. CONSTRUCTION TOLERANCE +/- 0.5%.
5. SEE SHEET 17 FOR SEEDING PLAN.



QUALITY STREET/PINNACLE DRIVE
SCALE: 1"=4'

STA 201+37 TO STA 202+48



GROVE STREET
SCALE: 1"=4'

STA 402+07 TO STA 403+26

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	4	63
	PROJECT FILE NO. 610777		

TYPICAL SECTIONS

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

DRAINAGE DETAILS
NONE

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	5	63
	PROJECT FILE NO. 610777		

TEMPORARY CONSTRUCTION PLAN

610777_HDA(TEMP_CONST_PLAN).DWG Plotted on 23-Jul-2025 12:50 PM

N

NAD 83

101 GROVE ST
MAP 4 BLOCK 124 LOT 23
N/F
JOHN D. DUQUETTE, JR.
BK 1438 PG 482

56
N: 3051282.515'
E: 216883.415'
EL: 879.264'
SWC

PINNACLE DRIVE
PRIVATE ACCESS DRIVE

QUALITY ST
MAP 4 BLOCK 121 LOT 15
N/F
JAMES T. GANCARZ AND
MARIA E. GANCARZ
BK 896 PG 611

QUALITY ST
MAP 4 BLOCK 121 LOT 14
N/F
JAMES T. GANCARZ
BK 896 PG 611

HOOSIC RIVER

8 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 18
N/F
ALBERT SAWYER
BK 672 PG 666

2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 17
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883

SO. WILLOW ST
MAP 4 BLOCK 121 LOT 21.2
N/F
ALBERT SAWYER
BK 727 PG 444

4
N: 3051310.483'
E: 217224.538'
EL: 867.830'
IRWC

BENCHMARK: NAIL IN WOOD UTILITY POLE
EL=871.80'

TEMPORARY ROAD BEGIN
STA 400+12.27
N3051227.3747
E217171.6406
(MEET EXISTING)

R&R WOOD GUARD

400+00 PR-TEMP ROAD=
303+29.93 PR-QUALITY ST & SOUTH WILLOW ST

L=23.44' R=100.00'
Δ=13° 25' 49"

SOUTH WILLOW STREET

ASHUWILLTICOOK RAIL TRAIL (DCR)

TEMPORARY ROAD END
STA 402+06.59
N3051200.6065
E217350.1678
(MEET EXISTING)

W2-1

PROP CONSTRUCTION BASELINE

PROP CLEARING AND GRUBBING

PROP TEMP EASEMENT

41 GROVE ST
MAP 4 BLOCK 121 LOT 25
N/F
AMY E. CARY
BK 1629 PG 1001

PROP TREE PROTECTION FENCE
APPX DRIP LINE

MEET EXIST AT CROSSWALK

PROP FULL DEPTH PVMT

PROP GRAVEL DRIVE

100+00.10 PR-UTIL-CL=
300+35.95 PR-QUALITY ST & SOUTH WILLOW ST

PROP TEMP GUY WIRE (TYP)(BO)

PROP TEMP UPL (BO)

RET 10" ARB

RET

REM 20" ARB
10" TWIN

PROP 12" CAP

PROP 12" INSERTION VALVE

300+00 PR-QUALITY ST & SOUTH WILLOW ST=
202+22.87 PR-QUALITY ST & PINNACLE DR

PROP TEMP EASEMENT

51
N: 3051167.069'
E: 216858.757'
EL: 873.212'
MMAG

9959
N: 3051162.890'
E: 216862.018'
EL: 873.545'
MN

59
N: 3051162.891'
E: 216862.019'
EL: 873.658'
MN

1-3 QUALITY ST
MAP 4 BLOCK 121 LOT 13
N/F
JEFFREY R. MULLEN
BK 1540 PG 310

PROP 16" CAP
PROP 16" INSERTION VALVE
PROP 16"X16" TS&V

N 3051091.2770
E 216872.3359

RET

PROP 10' SIDEWALK

GUY WIRE (BO)

RET GUY WIRE (BO)

RET UPL & OHW (BO)

PROP TEMP UPL & OHW (TYP) (BO)

N 3051220.8759
E 216963.6743
N 3051208.2677
E 216960.5066

PROP CLEARING AND GRUBBING

REM 8" MAPLE & 20" PINES

PROP 260', 20" DI

REM 20"PINE

REM 12" AND 14" TWIN MAGNOLIAS

TEMP UTILITY BRIDGE 110'-0"

REM 14" MAPLE

REM 30"PINE

REM 24"PINE

REM 6"HEMLOCK

RET 10"ARB

PROP 4', 8" DI
PROP 8" VALVE
PROP 16"X16"X8" TS&V

PROP 20"X16"X14" TEE
PROP 3', 14" DI
PROP 14"X12" REDUCER
PROP 7', 12" DI
PROP 12"X12" TS&V
PROP 88', 16" DI

REM 12" PIPE

REM 30" & 2X20" PINE, 10" MAPLE, 8" SPRUCE

REM 16" PIPE

PROP TEMP EASEMENT (TYP)

PROP UPL (BO)

REM 10"MAPLE

PROP 6" INSERTION VALVE
PROP 20"X20"X6" TEE
PROP 10', 6" DI

REM 12" MAPLE

REM 10" MAPLE

PROP 20"X16"X14" TEE

N 18° 30' 30" E 37.79'

N 3051184.4537
E 217112.8740

N 3051182.7089
E 217119.9999

N 3051172.3239
E 217105.2320

REM 8" MAPLE

REM 12" MAPLE

PROP 12" CAP

PROP 12" INSERTION VALVE

PROP 12"X12" TS&V

PROP 16" CAP

REM 18" POPLAR

PROP 38', 16" DI

REM 12" & 18" MAPLE, 12" & 16" POPLAR

PROP 16" INSERTION VALVE

PROP 16"X16" TS&V

PROP TEMP DETECTABLE WARNING PANEL

PROP TEMP EASEMENT
W2-1

PROP PUE

R&R CLF AT LOW

PROP 4" PVC (BO)

PROP TEMPORARY CONSTRUCTION BASELINE

S 59° 21' 54" E 76.11'

102+00.90 PR-UTIL-CL=
302+17.86 PR-QUALITY ST & SOUTH WILLOW ST

HMA CURB TYPE-3

PROP 4.75' HMA SW

GROVE STREET (ROUTE 8)
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773

QUALITY STREET
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773

7-9 QUALITY ST
MAP 4 BLOCK 121 LOT 12
N/F
MARK G. MARRINGTON
BK 10034 PG 847

QUALITY ST
MAP 4 BLOCK 121 LOT 24
N/F
TOWN OF ADAMS
BK 481 PG 51 (SHLO 3773)

DEPARTMENT OF TRANSPORTATION
BK 860 PG 1194
DRAWER 8 PLAN 587

BENCHMARK: SPK IN UP
EL=874.88'

BENCHMARK: MAG NAIL IN CONC.
EL=871.80'

57
N: 3051137.955'
E: 216990.761'
EL: 862.728'
SWC

52
N: 3050993.941'
E: 216991.805'
EL: 868.088'
SWC

50
N: 3051096.420'
E: 217052.753'
EL: 869.591'
SWC

CB
RIM=871.21'
INV=866.2'

SMH
RIM=872.65'
INV=864.3' (10"CLAY)
INV=868.7' (8"CLAY)

SMH
RIM=869.75'
INV=861.85'
INV=862.25'
INV=862.30'

INV 24" RCP
EL=863.47'

INV 6" PVC
EL=866.07'

S89°52'42"E 134.68'

TOWN OF ADAMS LAYOUT PER SHLO 3773

1950 SHLO NO. 3773

ALL TREES IN THIS AREA ARE COTTONWOOD UNLESS NOTED

CONTINUED BELOW

CONTINUED ABOVE

TEMPORARY ROAD END
STA 402+06.59
N3051200.6065
E217350.1678
(MEET EXISTING)

MILL & OVERLAY END
STA 403+26
N3051252.6653
E217457.6362
(MEET EXISTING)

41 GROVE ST
MAP 4 BLOCK 121 LOT 25
N/F
AMY E. CARY
BK 1629 PG 1001

N 63° 55' 34" E 241.04'

PROP MILL & OVERLAY PVMT

0 20 50 100
SCALE: 1" = 20'

FOR CONSTRUCTION PROFILE:
SEE SHEET NO. 7

HIGHWAY GUARD DETAILS

STA 201+54.76 TO STA 201+70.07, RT (TANGENT END, TL-2)
STA 201+70.07 TO STA 202+15.10, RT (GUARDRAIL, TL-2)
STA 300+21.77 TO STA 300+37.12, LT (TANGENT END, TL-2)
STA 300+31.39 TO STA 300+62.64, RT (TRANSITION TO BRIDGE RAIL)
STA 300+37.12 TO STA 300+65.24, LT (TRANSITION TO BRIDGE RAIL)
STA 301+88.44 TO STA 302+44.26, RT (TRANSITION TO BRIDGE RAIL-CURVED)
STA 301+91.89 TO STA 302+63.29, LT (TRANSITION TO BRIDGE RAIL-CURVED)
STA 302+44.26 TO STA 302+53.90, RT (TANGENT END, TL-2)
STA 302+63.29 TO STA 302+77.15, LT (TANGENT END, TL-2)

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE BELOW

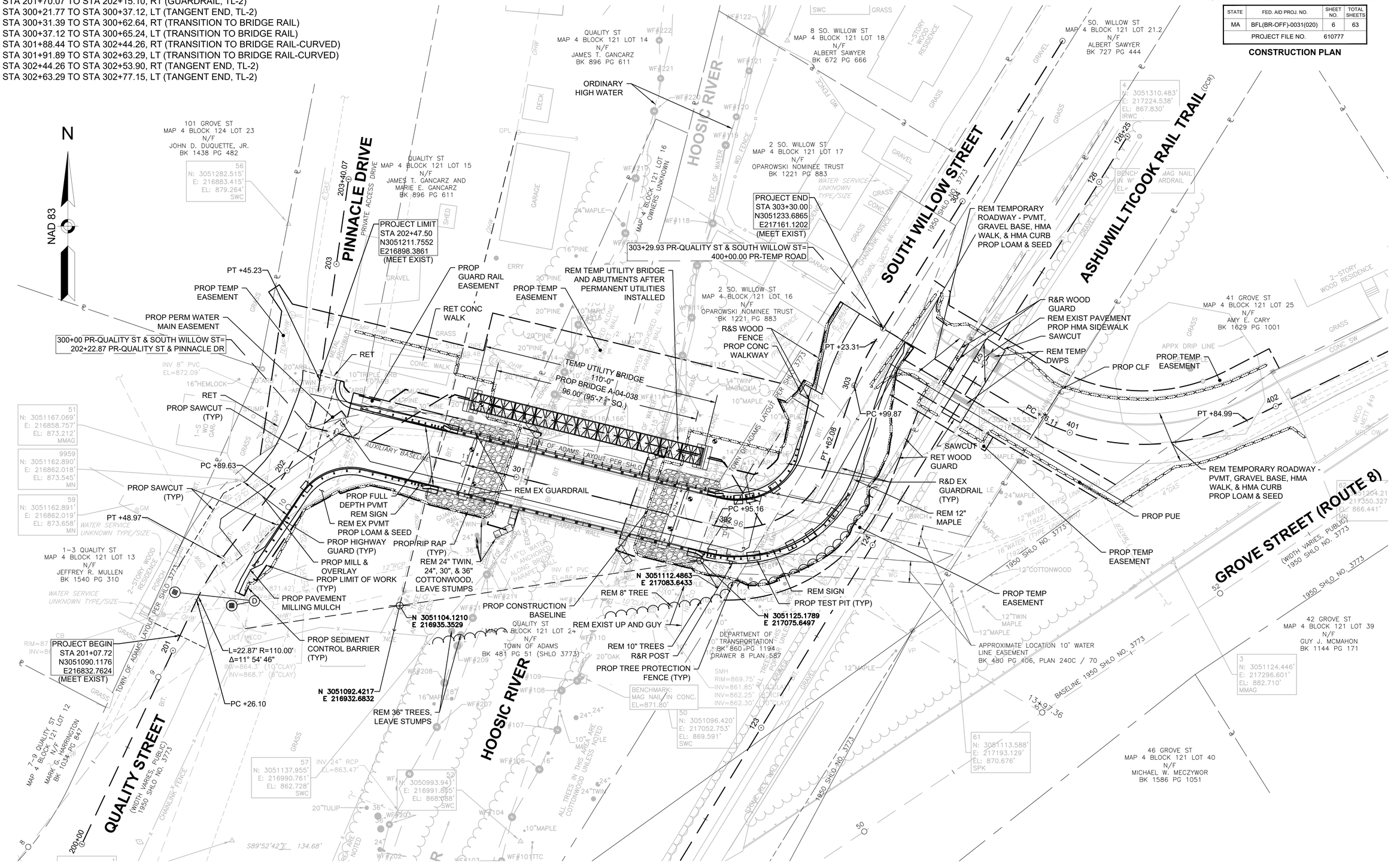
DRAINAGE DETAILS
SEE SHEET 16

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	6	63
PROJECT FILE NO.	610777		

CONSTRUCTION PLAN

610777_HD5(CONST_PLAN).DWG Plotted on 23-Jul-2025 12:50 PM



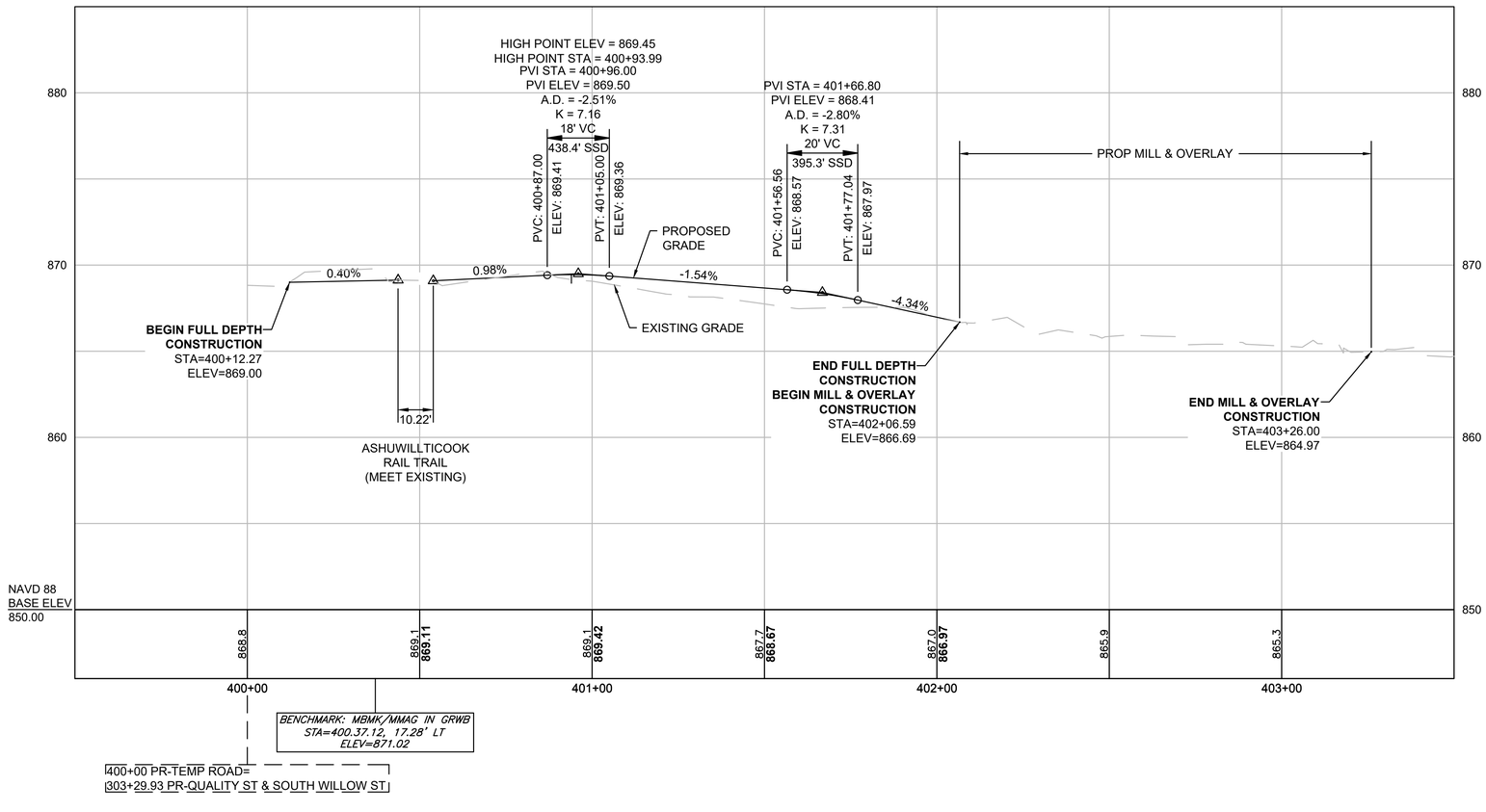
FOR CONSTRUCTION PROFILES:
SEE SHEET NOS. 8-9

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	7	63
PROJECT FILE NO.	610777		

TEMPORARY PROFILE

PR-TEMP ROAD



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

FOR TEMPORARY CONSTRUCTION PLAN:
SEE SHEET NO. 5

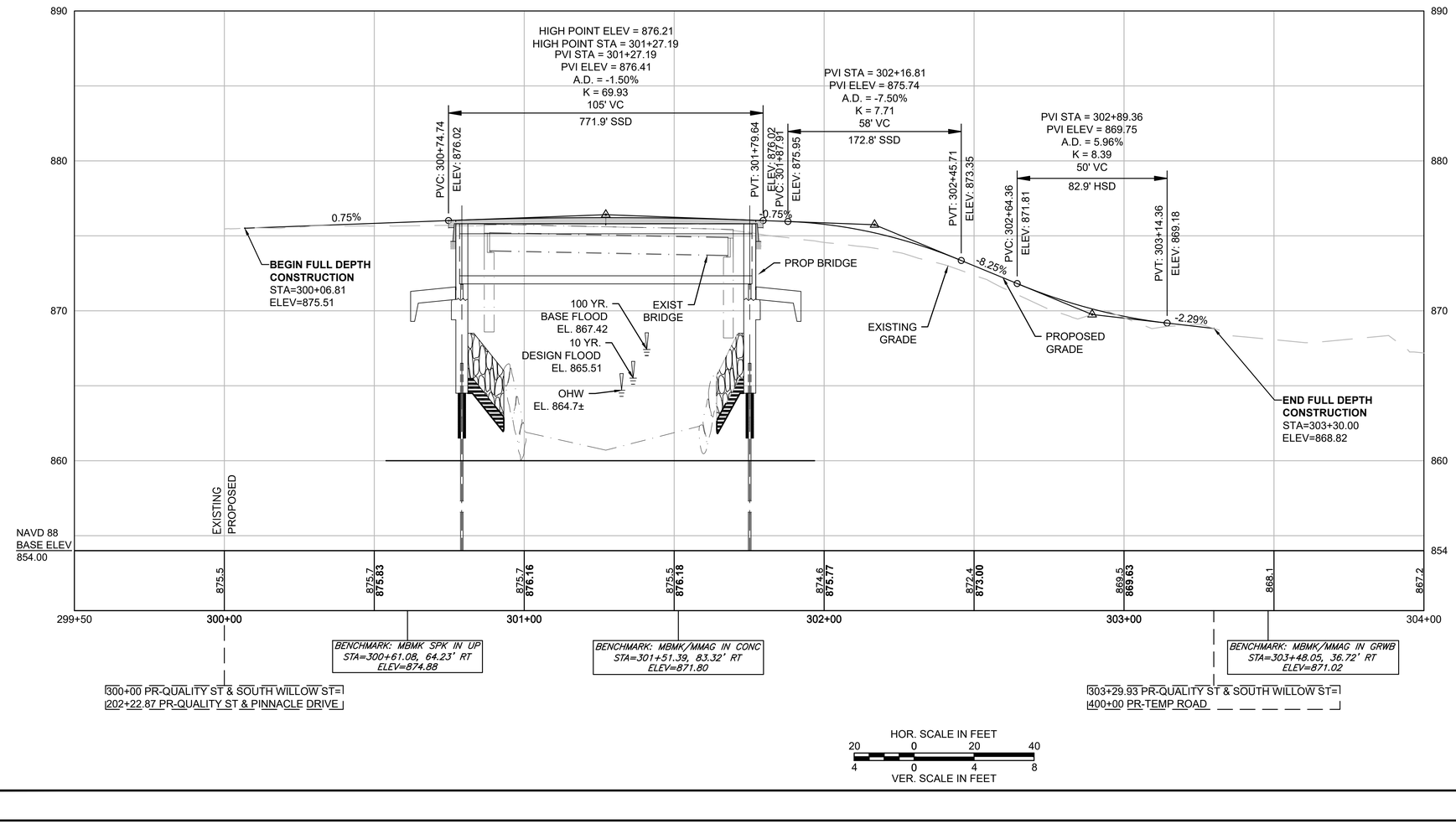
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	8	63
PROJECT FILE NO.	610777		

CONSTRUCTION PROFILE
QUALITY STREET & SOUTH WILLOW STREET

610777_HD7(PROFILE).DWG Plotted on 23-Jul-2025 12:51 PM

PR-QUALITY ST & SOUTH WILLOW ST



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

FOR CONSTRUCTION PLAN:
SEE SHEET NO. 6

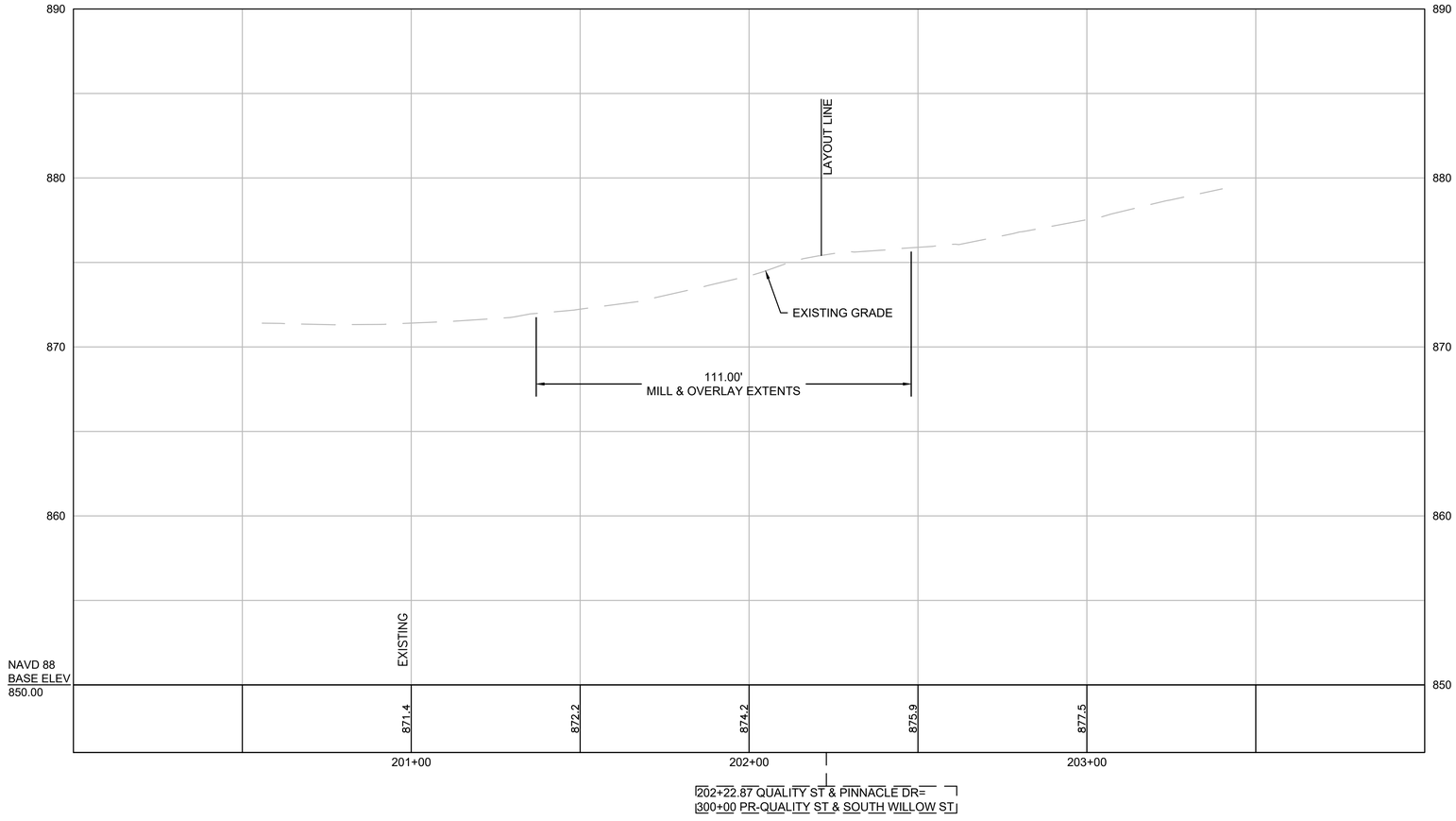
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	9	63
	PROJECT FILE NO. 610777		

CONSTRUCTION PROFILE
QUALITY STREET & PINNACLE DRIVE

610777_HD7(PROFILE).DWG Plotted on 23-Jul-2025 12:51 PM

PR-QUALITY ST & PINNACLE DR



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

FOR CONSTRUCTION PLAN:
SEE SHEET NO. 6

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	10	63
	PROJECT FILE NO. 610777		

CURB TIE & GRADING PLAN

N

NAD 83

PROJECT LIMIT
STA 202+47.50
N3051211.7552
E216898.3861

PROJECT BEGIN
STA 201+07.72
N3051090.1176
E216832.7624

PROJECT END
STA 303+30
N3051233.6874
E217161.1188

300+00 PR-QUALITY ST & SOUTH WILLOW ST=
202+22.87 PR-QUALITY ST & PINNACLE DR

300+29.91 PR-QUALITY ST & SOUTH WILLOW ST=
99+91.55 PR-UTIL-CL

303+29.93 PR-QUALITY ST & SOUTH WILLOW ST=
400+00.00 PR-TEMP ROAD

302+17.86 PR-QUALITY ST & SOUTH WILLOW ST=
102+00.90 PR-UTIL-CL

PINNACLE DRIVE
PRIVATE ACCESS DRIVE

SOUTH WILLOW STREET
1950 SHLO NO. 3773

ASHUWILLTICOOK RAIL TRAIL (DCR)

QUALITY STREET
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773

GROVE STREET (ROUTE 8)
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773

HOOSIC RIVER

PROP VGC TRANSITION
0" TO 8" REVEAL

PROP VGC TRANSITION
8" TO 0" REVEAL

PROP CONSTRUCTION BASELINE

AUXILIARY BASELINE

TOWN OF ADAMS LAYOUT PER SHLO 3773

BASELINE 1950 SHLO NO. 3773

101 GROVE ST
MAP 4 BLOCK 124 LOT 23
N/F
JOHN D. DUQUETTE, JR.
BK 1438 PG 482

QUALITY ST
MAP 4 BLOCK 121 LOT 14
N/F
JAMES T. GANCARZ
BK 896 PG 611

QUALITY ST
MAP 4 BLOCK 121 LOT 15
N/F
JAMES T. GANCARZ AND
MARIA E. GANCARZ
BK 896 PG 611

MAP 4 BLOCK 121 LOT 16
OWNERS UNKNOWN

8 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 18
N/F
ALBERT SAWYER
BK 672 PG 666

2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 17
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883

2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 16
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883

SO. WILLOW ST
MAP 4 BLOCK 121 LOT 21.2
N/F
ALBERT SAWYER
BK 727 PG 444

41 GROVE ST
MAP 4 BLOCK 121 LOT 25
N/F
AMY E. CARY
BK 1629 PG 1001

42 GROVE ST
MAP 4 BLOCK 121 LOT 39
N/F
GUY J. MCMAHON
BK 1144 PG 171

46 GROVE ST
MAP 4 BLOCK 121 LOT 40
N/F
MICHAEL W. MECZYWOR
BK 1586 PG 1051

1-3 QUALITY ST
MAP 4 BLOCK 121 LOT 13
N/F
JEFFREY R. MULLEN
BK 1540 PG 310

7-9 QUALITY ST
MAP 4 BLOCK 121 LOT 12
N/F
MARK G. HARRINGTON
BK 1034 PG 847

QUALITY ST
MAP 4 BLOCK 121 LOT 24
N/F
TOWN OF ADAMS
BK 481 PG 51 (SHLO 3773)

DEPARTMENT OF TRANSPORTATION
BK 860 PG 1194
DRAWER 8 PLAN 587

APPROXIMATE LOCATION 10" WATER LINE EASEMENT
BK 480 PG 406, PLAN 240C / 70

56 N: 3051282.515' E: 216883.415' EL: 879.264' SWC
57 N: 3051137.955' E: 216990.761' EL: 862.728' SWC
50 N: 3051096.420' E: 217052.753' EL: 869.591' SWC
51 N: 3051167.069' E: 216858.757' EL: 873.212' MMAG
52 N: 3050993.941' E: 216991.805' EL: 868.088' SWC
1 N: 3050994.310' E: 216857.067' EL: 875.370' IRWC
2 N: 3051164.166' E: 217043.456' EL: 875.981' MMAG
3 N: 3051124.446' E: 217296.601' EL: 882.710' MMAG
4 N: 3051310.483' E: 217224.538' EL: 867.830' IRWC
BENCHMARK: SPK IN UP EL=874.88'
BENCHMARK: MAG NAIL IN CONC. EL=871.80'

0 20 50 100
SCALE: 1" = 20'

FOR BASELINE DATA, POINT AND CURVE TABLES: SEE SHEET NO. 11

610777_HD8(CURB_TIE).DWG Plotted on 10-May-2022 12:14 PM

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	11	63
	PROJECT FILE NO. 610777		

BASELINE DATA, POINT AND CURVE TABLES

PR-QUALITY ST & PINNACLE DR CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	200+00.00	3050992.638	216786.929		N25°10'56"E 126.10'	201+26.10	3051106.751	216840.583
C1	201+26.10	3051106.751	216840.583	R=110.00' Δ=11°54'46" L=22.87' T=11.48'		201+48.97	3051126.291	216852.389
L2	201+48.97	3051126.291	216852.389		N37°05'42"E 40.66'	201+89.63	3051158.721	216876.911
C2	201+89.63	3051158.721	216876.911	R=110.00' Δ=28°57'45" L=55.60' T=28.41'		202+45.23	3051209.506	216898.065
L3	202+45.23	3051209.506	216898.065		N8°07'57"E 94.84'	203+40.07	3051303.392	216911.481

PR-QUALITY ST & SOUTH WILLOW ST CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	300+00.00	3051187.843	216892.681		S76°17'19"E 195.16'	301+95.16	3051141.584	217082.280
C3	301+95.16	3051141.584	217082.280	R=45.00' Δ=85°12'12" L=66.92' T=41.38'		302+62.08	3051171.016	217135.619
L5	302+62.08	3051171.016	217135.619		N18°30'30"E 37.79'	302+99.87	3051206.855	217147.617
C4	302+99.87	3051206.855	217147.617	R=100.00' Δ=13°25'49" L=23.44' T=11.77'		303+23.31	3051228.012	217157.583
L6	303+23.31	3051228.012	217157.583		N31°56'19"E 164.99'	304+88.31	3051368.027	217244.865

PR-UTIL-CL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L9	99+91.55	3051180.754	216921.737		N58°42'18"E 42.10'	100+33.65	3051202.620	216957.708
L7	100+33.65	3051202.620	216957.708		S76°17'27"E 133.06'	101+66.71	3051171.085	217086.980
L8	101+66.71	3051171.085	217086.980		S31°17'19"E 34.18'	102+00.90	3051141.872	217104.734

PR-TEMP ROAD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	400+00.00	3051233.627	217161.083		S59°21'54"E 76.11'	400+76.11	3051194.843	217226.573
C5	400+76.11	3051194.843	217226.573	R=110.00' Δ=56°42'32" L=108.87' T=59.36'		401+84.99	3051190.685	217330.974
L11	401+84.99	3051190.685	217330.974		N63°55'34"E 241.04'	404+26.02	3051296.629	217547.480

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION
1	3050994.310	216857.067	875.370	MTRV IRWC
2	3051164.166	217043.456	875.981	MTRV MMAG
3	3051124.446	217296.601	882.710	MTRV MMAG
4	3051310.483	217224.538	867.830	MTRV IRWC
50	3051096.420	217052.753	869.591	MTRV SWC
51	3051167.069	216858.757	873.212	MTRV MMAG
52	3050993.941	216991.805	868.088	MTRV SWC
54	3051368.172	217116.319	864.906	MTRV SWC
56	3051282.515	216883.415	879.264	MTRV SWC
57	3051137.955	216990.761	862.728	MTRV SWC

CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
C6	28.00'	19.45'	19.45'	69°33'31"
C7	10.00'	10.33'	10.33'	91°52'53"
C8	32.00'	7.85'	7.85'	27°33'53"
C9	58.00'	31.91'	31.91'	57°38'19"
C10	113.00'	13.30'	13.30'	13°25'49"
C11	88.00'	10.36'	10.36'	13°25'49"

N
NAD 83
101 GROVE ST
MAP 4 BLOCK 124 LOT 23
N/F
JOHN D. DUQUETTE, JR.
BK 1438 PG 482
QUALITY ST
MAP 4 BLOCK 121 LOT 15
N/F
JAMES T. GANCARZ AND
MARIA E. GANCARZ
BK 896 PG 611
QUALITY ST
MAP 4 BLOCK 121 LOT 14
N/F
JAMES T. GANCARZ
BK 896 PG 611
8 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 18
N/F
ALBERT SAWYER
BK 672 PG 666
SO. WILLOW ST
MAP 4 BLOCK 121 LOT 21.2
N/F
ALBERT SAWYER
BK 727 PG 444
2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 17
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883
2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 16
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883
MAP 4 BLOCK 121 LOT 16
OWNERS UNKNOWN
41 GROVE ST
MAP 4 BLOCK 121 LOT 25
N/F
AMY E. CARY
BK 1629 PG 1001
1-3 QUALITY ST
MAP 4 BLOCK 121 LOT 13
N/F
JEFFREY R. MULLEN
BK 1540 PG 310
7-9 QUALITY ST
MAP 4 BLOCK 121 LOT 12
N/F
MARK G. HARRINGTON
BK 1034 PG 847
QUALITY ST
MAP 4 BLOCK 121 LOT 24
N/F
TOWN OF ADAMS
BK 481 PG 51 (SHLO 3773)
DEPARTMENT OF TRANSPORTATION
BK 860 PG 1194
DRAWER 8 PLAN 587
42 GROVE ST
MAP 4 BLOCK 121 LOT 39
N/F
GUY J. MCMAHON
BK 1144 PG 171
46 GROVE ST
MAP 4 BLOCK 121 LOT 40
N/F
MICHAEL W. MECZYWOR
BK 1586 PG 1051
PINNACLE DRIVE
PRIVATE ACCESS DRIVE
HOOSIC RIVER
SOUTH WILLOW STREET
ASHUWILLTICOOK RAIL TRAIL (DCR)
GROVE STREET (ROUTE 8)
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773
QUALITY STREET
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773
56
N: 3051282.515'
E: 216883.415'
EL: 879.264'
SWC
54
N: 3051368.172'
E: 217116.319'
EL: 864.906'
SWC
51
N: 3051167.069'
E: 216858.757'
EL: 873.212'
MMAG
2
N: 3051164.166'
E: 217043.456'
EL: 875.981'
MMAG
4
N: 3051310.483'
E: 217224.538'
EL: 867.830'
IRWC
57
N: 3051137.955'
E: 216990.761'
EL: 862.728'
SWC
3
N: 3051124.446'
E: 217296.601'
EL: 882.710'
MMAG
50
N: 3051096.420'
E: 217052.753'
EL: 869.591'
SWC
52
N: 3050993.941'
E: 216991.805'
EL: 868.088'
SWC
1
N: 3050994.310'
E: 216857.067'
EL: 875.370'
IRWC
BENCHMARK: SPK IN UP
EL=874.88'
BENCHMARK: MMAG IN CONC
EL=871.80'
BENCHMARK: / MMAG IN GRWB
EL=871.02'
300+00 PR-QUALITY ST & SOUTH WILLOW ST=
202+22.87 PR-QUALITY ST & PINNACLE DR
303+29.93 PR-QUALITY ST & SOUTH WILLOW ST=
400+00.00 PR-TEMP ROAD
N 3051214.8780
E 216871.3224
N 3051162.5022
E 217083.9444
N 3051213.4339
E 217343.1263
N 3051092.4763
E 217174.7838
PROP CONSTRUCTION
BASELINE
AUXILIARY BASELINE
TOWN OF ADAMS LAYOUT PER SHLO 3773
S 76° 17' 19" E 195.16'
L=55.60' R=110.00'
Δ=28° 57' 45"
L=23.44' R=100.00'
Δ=13° 25' 49"
L=22.87' R=110.00'
Δ=11° 54' 46"
Δ=56° 42' 32"
L=108.87' R=110.00'
203+40.07
PT +45.23
PT +23.31
PT +48.97
PT +62.08
PT +84.99
PC +26.10
PC +89.63
PC +95.16
PC +99.87
PC +76.11
+22.69
OFFSET: 15.84
+16.77
OFFSET: 20.27
+13.38
OFFSET: 10.77
+16.77
OFFSET: 8.66
+16.18
OFFSET: 8.37
+06.98
OFFSET: 3.29
+10.64
OFFSET: 17.06
+85.93
OFFSET: 123.89
+94.79
OFFSET: 130.27
N13°42'41"E
11.61'
S54°16'24"W
9.85'
N35°43'36"W
3.69'
S76°17'38"E
50.36'
N54°17'12"W
96.11'
S63°25'39"W
60.34'
N25°35'50"W
73.05'
S25°10'36"E
129.31'
N20°05'47"E
82.07'
N61°41'50"E
207.82'
S75°17'42"W
125.94'
N27°36'06"E
100.42'
S79°54'49"W
51.91'
S6°15'06"W
20.46'
S31°45'53"W
182.92'
N31°56'19"E
164.99'
S59°21'54"E
76.11'
S59°21'54"E
114.81'
S59°21'54"E
108.78'
S42°01'57"E
141.54'
N 37° 05' 42" E 40.66'
N 25° 10' 56" E 126.10'
N 8° 07' 57" E 94.84'
APPROXIMATE LOCATION 10' WATER
LINE EASEMENT
BK 480 PG 406, PLAN 240C / 70
SURVEY TRAVERSE
BASELINE 1950 SHLO NO. 3773
0 20 50 100
SCALE: 1" = 20'

ADAMS

QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	12	63
	PROJECT FILE NO.	610777	

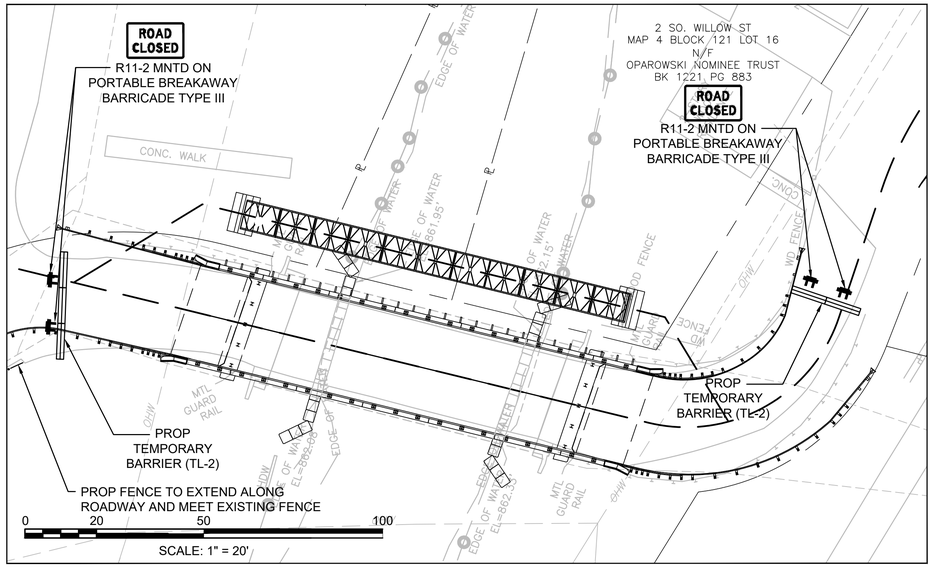
SURVEY TIE PLAN

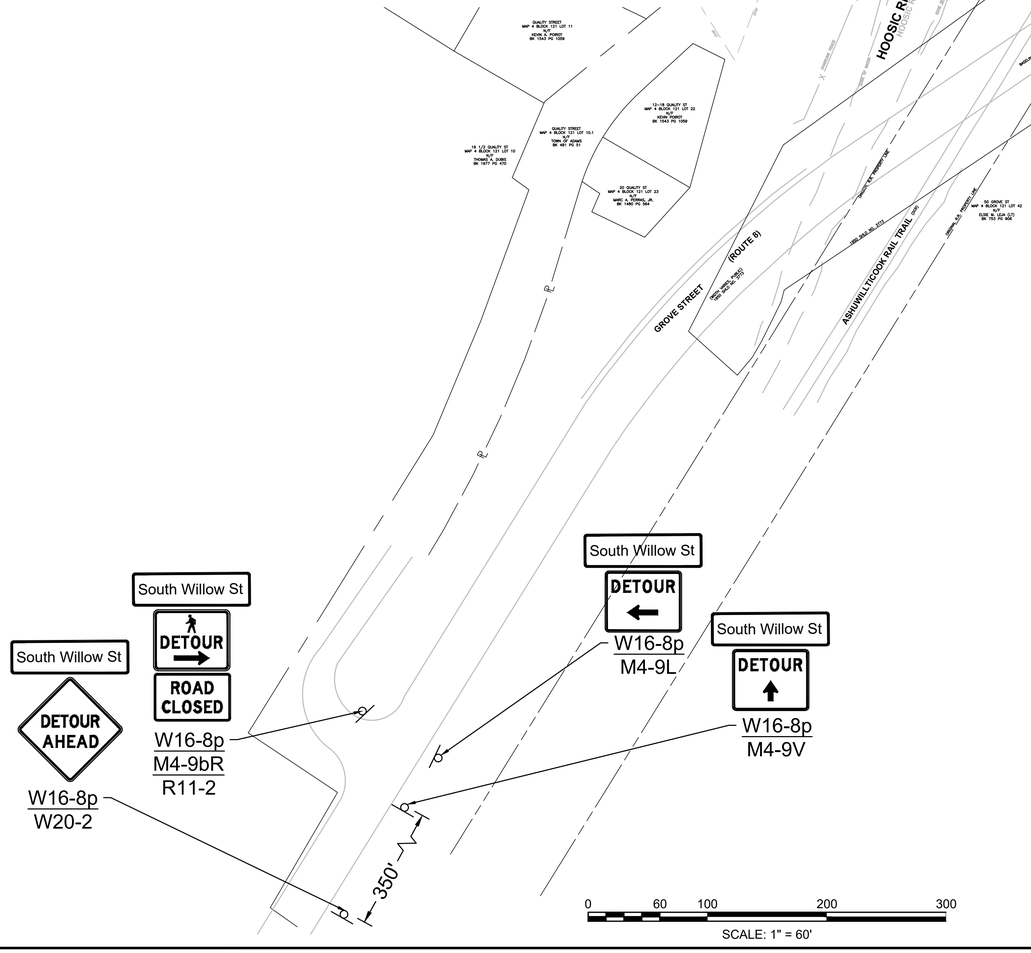
PINS AND BOUNDS NOT WITHIN PROJECT LIMITS

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
101	3050887.141	216637.288	875.084	MIPE GOOD 0.3BG
102	3050953.955	216716.563	871.969	MIPE GOOD 0.2BG
106	3050850.793	216839.042	885.516	MMHB /MELP GOOD FLUSH
2683	3050993.750	216813.860	875.274	GPS CONTROL
2684	3051297.036	216925.049	878.437	GPS CONTROL
3745	3051457.772	217304.700	864.727	MIPE 2.5 2.0AG

610777_HDB(SURVEY_TIE).DWG Plotted on 23-Jul-2025 12:52 PM

INSET 1





ADAMS
QUALITY STREET/SOUTH WILLOW STREET

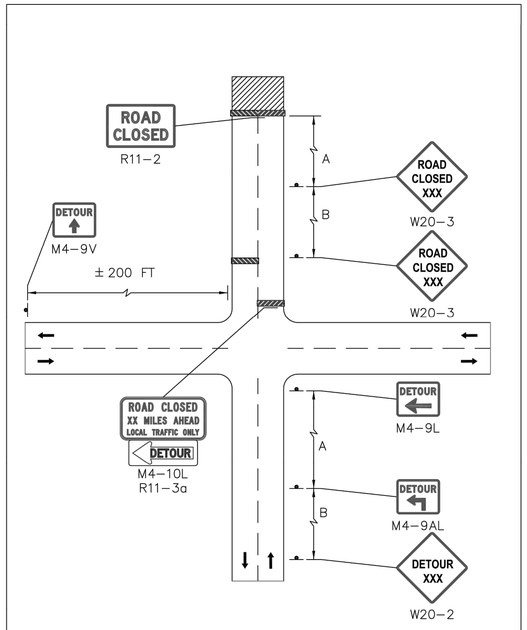
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	13	63
	PROJECT FILE NO. 610777		

TEMPORARY TRAFFIC CONTROL PLAN

N
NAD 83

TEMPORARY TRAFFIC CONTROL PLAN SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (IN.)			NUMBER OF SIGNS REQUIRED	COLOR			UNIT AREA (S.F.)	TOTAL AREA (S.F.)
	WIDTH (IN.)	HEIGHT (IN.)		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACKGROUND	LEGEND	BORDER		
W16-8p	66	12	South Willow St	6D/4D	3" 3"	N/A	9	FLUORESCENT ORANGE	BLACK	BLACK	5.50	49.50
M4-8a	24	18	END DETOUR	SEE 2009 M.U.T.C.D.			1	FLUORESCENT ORANGE	BLACK	BLACK	3.00	3.00
M4-9 L/R	30	24	DETOUR DETOUR	SEE 2009 M.U.T.C.D.			2	FLUORESCENT ORANGE	BLACK	BLACK	5.00	10.00
M4-9b L/R	30	24	DETOUR DETOUR	SEE 2009 M.U.T.C.D.			2	FLUORESCENT ORANGE	BLACK	BLACK	5.00	10.00
M4-9SR	30	24	DETOUR	SEE 2009 M.U.T.C.D.			2	FLUORESCENT ORANGE	BLACK	BLACK	5.00	10.00
M4-9V	30	24	DETOUR	SEE 2009 M.U.T.C.D.			1	FLUORESCENT ORANGE	BLACK	BLACK	5.00	5.00
R11-2	48	30	ROAD CLOSED	SEE 2009 M.U.T.C.D.			3	FLUORESCENT ORANGE	BLACK	BLACK	10.00	30.00
W11-2	24	24		SEE 2009 M.U.T.C.D.			1	FLUORESCENT ORANGE	BLACK	BLACK	4.00	4.00
W20-2	36	36	DETOUR AHEAD	SEE 2009 M.U.T.C.D.			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00



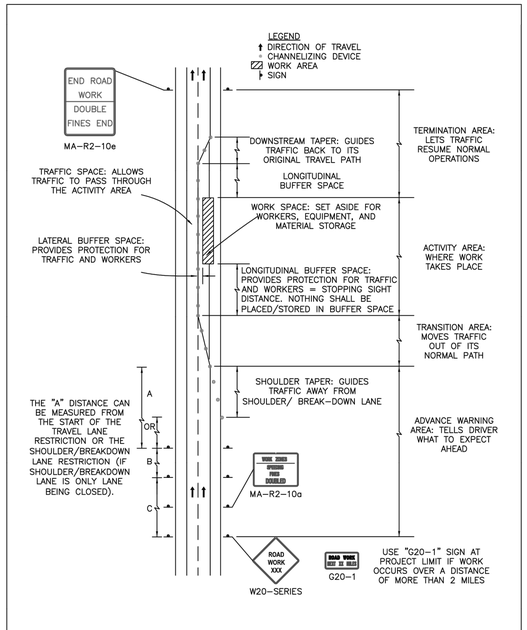
massDOT Massachusetts Department of Transportation Highway Division

Standard Details and Drawings for the Development of TemporaryTraffic Control Plans

FIGURE D-1

DETOUR ADVANCE SIGNING

NOT TO SCALE



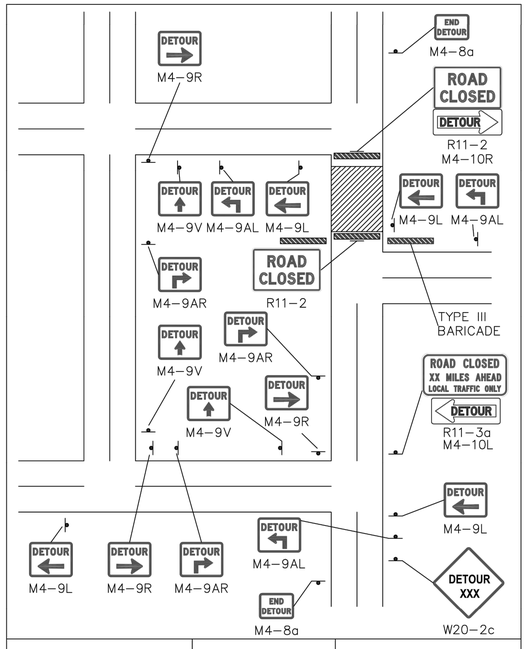
massDOT Massachusetts Department of Transportation Highway Division

Standard Details and Drawings for the Development of TemporaryTraffic Control Plans

FIGURE Gen-4

COMPONENT PARTS OF A TEMPORARY TRAFFIC CONTROL (TTC) ZONE

NOT TO SCALE



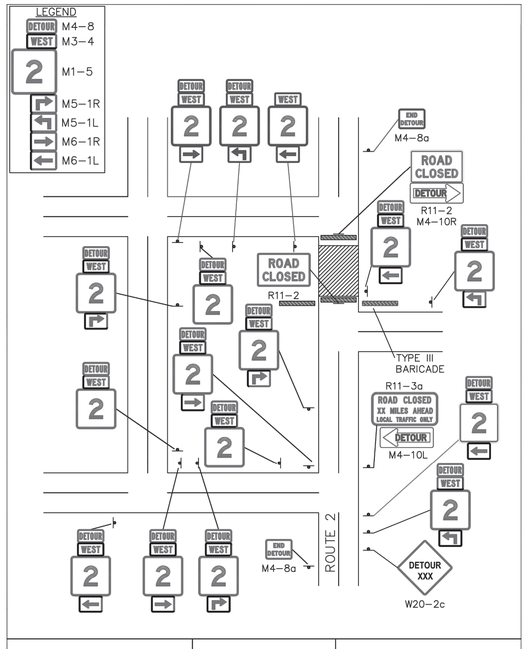
massDOT Massachusetts Department of Transportation Highway Division

Standard Details and Drawings for the Development of TemporaryTraffic Control Plans

FIGURE D-2

DETOUR

NOT TO SCALE



massDOT Massachusetts Department of Transportation Highway Division

Standard Details and Drawings for the Development of TemporaryTraffic Control Plans

FIGURE D-3

ROUTE WITH DETOUR

NOT TO SCALE

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	14	63
	PROJECT FILE NO. 610777		

TEMPORARY TRAFFIC CONTROL DETAILS

610777_HD10(TRAFFIC_MANAGEMENT_PLAN).DWG Plotted on 23-Jul-2025 12:53 PM

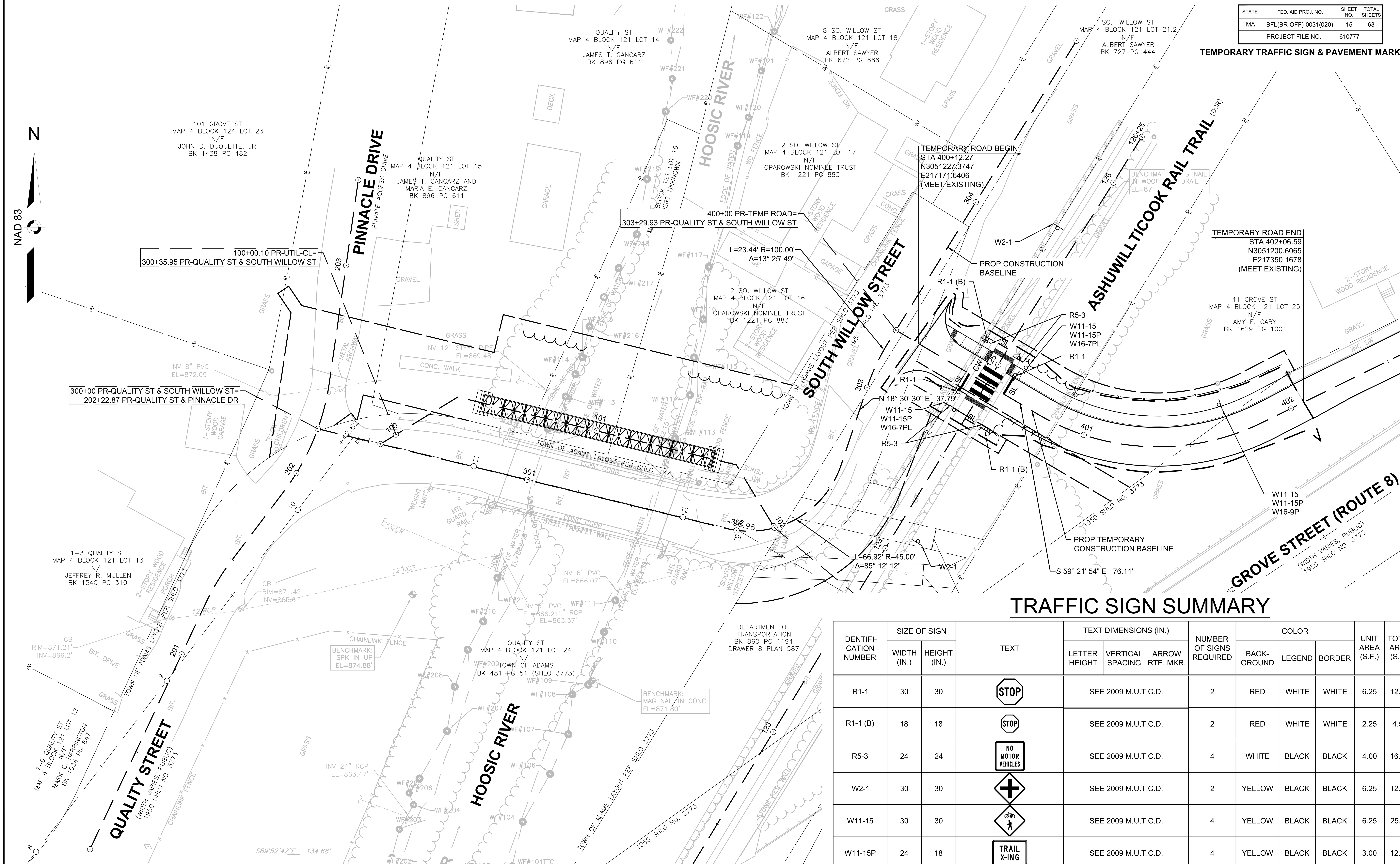
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	15	63
PROJECT FILE NO.	610777		

TEMPORARY TRAFFIC SIGN & PAVEMENT MARKINGS

Plotted on 23-Jul-2025 12:53 PM

610777_HDBB(PVMT&SIGN).DWG



N
NAD 83
PINNACLE DRIVE
PRIVATE ACCESS DRIVE
HOOSIC RIVER
SOUTH WILLOW STREET
ASHUWILLTICOOK RAIL TRAIL (DCR)
QUALITY STREET
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773
GROVE STREET (ROUTE 8)
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773
101 GROVE ST
MAP 4 BLOCK 124 LOT 23
N/F
JOHN D. DUQUETTE, JR.
BK 1438 PG 482
QUALITY ST
MAP 4 BLOCK 121 LOT 15
N/F
JAMES T. GANCARZ AND
MARIA E. GANCARZ
BK 896 PG 611
QUALITY ST
MAP 4 BLOCK 121 LOT 14
N/F
JAMES T. GANCARZ
BK 896 PG 611
8 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 18
N/F
ALBERT SAWYER
BK 672 PG 666
SO. WILLOW ST
MAP 4 BLOCK 121 LOT 21.2
N/F
ALBERT SAWYER
BK 727 PG 444
2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 17
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883
2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 16
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883
41 GROVE ST
MAP 4 BLOCK 121 LOT 25
N/F
AMY E. CARY
BK 1629 PG 1001
1-3 QUALITY ST
MAP 4 BLOCK 121 LOT 13
N/F
JEFFREY R. MULLEN
BK 1540 PG 310
7-9 QUALITY ST
MAP 4 BLOCK 121 LOT 12
N/F
MARK G. HARRINGTON
BK 1034 PG 847
QUALITY ST
MAP 4 BLOCK 121 LOT 24
N/F
TOWN OF ADAMS
BK 481 PG 51 (SHLO 3773)
DEPARTMENT OF
TRANSPORTATION
BK 860 PG 1194
DRAWER 8 PLAN 587
TEMPORARY ROAD BEGIN
STA 400+12.27
N3051227.3747
E217171.6406
(MEET EXISTING)
TEMPORARY ROAD END
STA 402+06.59
N3051200.6065
E217350.1678
(MEET EXISTING)
400+00 PR-TEMP ROAD=
303+29.93 PR-QUALITY ST & SOUTH WILLOW ST
100+00.10 PR-UTIL-CL=
300+35.95 PR-QUALITY ST & SOUTH WILLOW ST
300+00 PR-QUALITY ST & SOUTH WILLOW ST=
202+22.87 PR-QUALITY ST & PINNACLE DR
L=23.44' R=100.00'
Δ=13° 25' 49"
L=66.92' R=45.00'
Δ=85° 12' 12"
N 18° 30' 30" E 37.79'
S 59° 21' 54" E 76.11'
PROP CONSTRUCTION BASELINE
PROP TEMPORARY CONSTRUCTION BASELINE
W2-1
R1-1 (B)
R5-3
W11-15
W11-15P
W16-7PL
R1-1
W16-9P
TOWN OF ADAMS LAYOUT PER SHLO 3773
BENCHMARK:
SPK IN UP
EL=874.88'
BENCHMARK:
MAG NAIL IN CONC.
EL=871.80'
0 20 50 100
SCALE: 1" = 20'

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH (IN.)	SIZE OF SIGN HEIGHT (IN.)	TEXT	TEXT DIMENSIONS (IN.) LETTER HEIGHT / VERTICAL SPACING / ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACKGROUND	COLOR LEGEND	COLOR BORDER	UNIT AREA (S.F.)	TOTAL AREA (S.F.)
R1-1	30	30	STOP	SEE 2009 M.U.T.C.D.	2	RED	WHITE	WHITE	6.25	12.50
R1-1 (B)	18	18	STOP	SEE 2009 M.U.T.C.D.	2	RED	WHITE	WHITE	2.25	4.50
R5-3	24	24	NO MOTOR VEHICLES	SEE 2009 M.U.T.C.D.	4	WHITE	BLACK	BLACK	4.00	16.00
W2-1	30	30		SEE 2009 M.U.T.C.D.	2	YELLOW	BLACK	BLACK	6.25	12.50
W11-15	30	30		SEE 2009 M.U.T.C.D.	4	YELLOW	BLACK	BLACK	6.25	25.00
W11-15P	24	18	TRAIL X-ING	SEE 2009 M.U.T.C.D.	4	YELLOW	BLACK	BLACK	3.00	12.00
W16-7PL	24	12		SEE 2009 M.U.T.C.D.	4	YELLOW	BLACK	BLACK	2.00	8.00

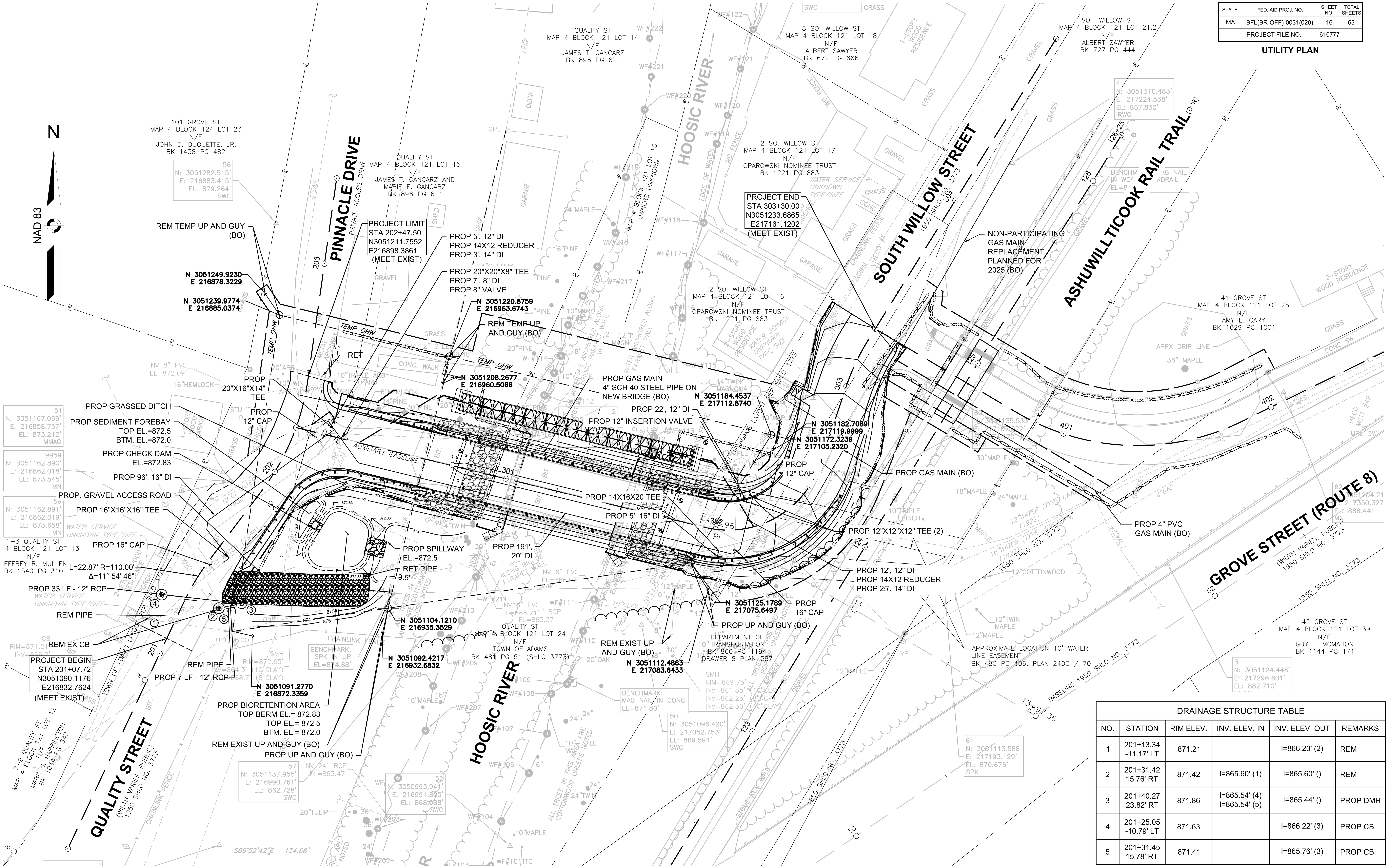
NOTES:

1. PROPOSED SIGNS TO EXIST ONLY IN TEMPORARY CONFIGURATION. SIGNS TO BE REMOVED PRIOR TO COMPLETION OF THE PROJECT

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	16	63
	PROJECT FILE NO.	610777	

UTILITY PLAN



N
NAD 83
PINNACLE DRIVE
PRIVATE ACCESS DRIVE
HOOSIC RIVER
SOUTH WILLOW STREET
1950 SHLO NO. 3773
ASHUWILLTICOOK RAIL TRAIL (DCR)
GROVE STREET (ROUTE 8)
(WIDTH VARIES, PUBLIC)
QUALITY STREET
(WIDTH VARIES, PUBLIC)
101 GROVE ST MAP 4 BLOCK 124 LOT 23 N/F JOHN D. DUQUETTE, JR. BK 1438 PG 482
QUALITY ST MAP 4 BLOCK 121 LOT 14 N/F JAMES T. GANCARZ BK 896 PG 611
QUALITY ST MAP 4 BLOCK 121 LOT 15 N/F JAMES T. GANCARZ AND MARIE E. GANCARZ BK 896 PG 611
8 SO. WILLOW ST MAP 4 BLOCK 121 LOT 18 N/F ALBERT SAWYER BK 672 PG 666
SO. WILLOW ST MAP 4 BLOCK 121 LOT 21.2 N/F ALBERT SAWYER BK 727 PG 444
2 SO. WILLOW ST MAP 4 BLOCK 121 LOT 17 N/F OPAROWSKI NOMINEE TRUST BK 1221 PG 883
2 SO. WILLOW ST MAP 4 BLOCK 121 LOT 16 N/F OPAROWSKI NOMINEE TRUST BK 1221 PG 883
41 GROVE ST MAP 4 BLOCK 121 LOT 25 N/F AMY E. CARY BK 1629 PG 1001
42 GROVE ST MAP 4 BLOCK 121 LOT 39 N/F GUY J. MCMAHON BK 1144 PG 171
1-3 QUALITY ST 4 BLOCK 121 LOT 13 N/F EFFREY R. MULLEN BK 1540 PG 310
7-9 QUALITY ST MAP 4 BLOCK 121 LOT 12 N/F MARK G. HARRINGTON BK 1034 PG 847
QUALITY ST MAP 4 BLOCK 121 LOT 24 N/F TOWN OF ADAMS BK 481 PG 51 (SHLO 3773)
DEPARTMENT OF TRANSPORTATION BK 860 PG 1194 DRAWER 8 PLAN 587
REM TEMP UP AND GUY (BO)
N 3051249.9230 E 216878.3229
N 3051239.9774 E 216885.0374
PROJECT LIMIT STA 202+47.50 N3051211.7552 E216898.3861 (MEET EXIST)
PROP 5', 12" DI PROP 14X12 REDUCER PROP 3', 14" DI
PROP 20"X20"X8" TEE PROP 7', 8" DI PROP 8" VALVE
N 3051220.8759 E 216963.6743
REM TEMP UP AND GUY (BO)
N 3051208.2677 E 216960.5066
PROP GAS MAIN 4" SCH 40 STEEL PIPE ON NEW BRIDGE (BO)
PROP 22', 12" DI
PROP 12" INSERTION VALVE
N 3051184.4537 E 217112.8740
PROJECT END STA 303+30.00 N3051233.6865 E217161.1202 (MEET EXIST)
NON-PARTICIPATING GAS MAIN REPLACEMENT PLANNED FOR 2025 (BO)
N 3051182.7089 E 217119.9999
N 3051172.3239 E 217105.2320
PROP 12" CAP
PROP GAS MAIN (BO)
PROP 4" PVC GAS MAIN (BO)
PROP 12"X12"X12" TEE (2)
PROP 12', 12" DI PROP 14X12 REDUCER PROP 25', 14" DI
PROP 16" CAP
N 3051125.1789 E 217075.6497
PROP UP AND GUY (BO)
REM EXIST UP AND GUY (BO)
N 3051112.4863 E 217083.6433
APPROXIMATE LOCATION 10' WATER LINE EASEMENT BK 480 PG 406, PLAN 240C / 70
PROP 14X16X20 TEE
PROP 5', 16" DI
PROP 191', 20" DI
PROP SPILLWAY EL.=872.5
RET PIPE 9.5'
PROP 20"X16"X14" TEE
PROP 12" CAP
RET
PROP GRASSED DITCH
PROP SEDIMENT FOREBAY TOP EL.=872.5 BTM. EL.=872.0
PROP CHECK DAM EL.=872.83
PROP 96', 16" DI
PROP. GRAVEL ACCESS ROAD
PROP 16"X16"X16" TEE
PROP 16" CAP
L=22.87' R=110.00' Δ=11° 54' 46"
PROP 33 LF - 12" RCP
REM PIPE
REM EX CB
PROJECT BEGIN STA 201+07.72 N3051090.1176 E216832.7624 (MEET EXIST)
REM PIPE
PROP 7 LF - 12" RCP
N 3051091.2770 E 216872.3359
N 3051092.4217 E 216932.6832
N 3051104.1210 E 216935.3529
PROP BIORETENTION AREA TOP BERM EL.= 872.83 TOP EL.= 872.5 BTM. EL.= 872.0
REM EXIST UP AND GUY (BO)
PROP UP AND GUY (BO)
AUXILIARY BASELINE
BASELINE 1950 SHLO NO. 3773
TEMP OHW
ALL TREES IN THIS AREA ARE COTTONWOOD UNLESS NOTED
BENCHMARK: MAG NAIL IN CONC. EL=871.80'
BENCHMARK: SPK IN UP EL=874.88'
S89°52'42"E 134.68'

0 20 50 100	

SCALE: 1" = 20'

DRAINAGE STRUCTURE TABLE

NO.	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
1	201+13.34 -11.17' LT	871.21		I=866.20' (2)	REM
2	201+31.42 15.76' RT	871.42	I=865.60' (1)	I=865.60' ()	REM
3	201+40.27 23.82' RT	871.86	I=865.54' (4) I=865.54' (5)	I=865.44' ()	PROP DMH
4	201+25.05 -10.79' LT	871.63		I=866.22' (3)	PROP CB
5	201+31.45 15.78' RT	871.41		I=865.76' (3)	PROP CB

Plotted on 23-Jul-2025 12:54 PM
610777_HD8A(UTILITY_PLAN).DWG

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	17	63
	PROJECT FILE NO. 610777		

LANDSCAPE PLAN

610777_HDB(LANDSCAPING).DWG Plotted on 19-Aug-2025 9:14 AM

N

NAD 83

101 GROVE ST
MAP 4 BLOCK 124 LOT 23
N/F
JOHN D. DUQUETTE, JR.
BK 1438 PG 482

QUALITY ST
MAP 4 BLOCK 121 LOT 14
N/F
JAMES T. GANCARZ
BK 896 PG 611

QUALITY ST
MAP 4 BLOCK 121 LOT 15
N/F
JAMES T. GANCARZ AND
MARIA E. GANCARZ
BK 896 PG 611

MAP 4 BLOCK 121 LOT 16
OWNERS UNKNOWN

HOOSIC RIVER

8 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 18
N/F
ALBERT SAWYER
BK 672 PG 666

2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 17
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883

2 SO. WILLOW ST
MAP 4 BLOCK 121 LOT 16
N/F
OPAROWSKI NOMINEE TRUST
BK 1221 PG 883

SO. WILLOW ST
MAP 4 BLOCK 121 LOT 21.2
N/F
ALBERT SAWYER
BK 727 PG 444

PINNACLE DRIVE
PRIVATE ACCESS DRIVE

SOUTH WILLOW STREET
1950 SHLO NO. 3773

ASHUWILLTICOOK RAIL TRAIL (DCR)

BENCHMARK: MAG NAIL IN WOOD GUARDRAIL EL=871.02'

PROJECT END
STA 303+30.00
N3051233.6865
E217161.1202

PROJECT LIMIT
STA 202+47.50
N3051211.7552
E216898.3861

PROJECT LIMIT
STA 402+06.59
N3051200.6065
E217350.1678

41 GROVE ST
MAP 4 BLOCK 121 LOT 25
N/F
AMY E. CARY
BK 1629 PG 1001

PROJECT BEGIN
STA 201+07.72
N3051090.1260
E216832.7454

1-3 QUALITY ST
MAP 4 BLOCK 121 LOT 13
N/F
JEFFREY R. MULLEN
BK 1540 PG 310

7-9 QUALITY ST
MAP 4 BLOCK 121 LOT 12
N/F
MARK G. HARRINGTON
BK 1034 PG 847

QUALITY STREET
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773

GROVE STREET (ROUTE 8)
(WIDTH VARIES, PUBLIC)
1950 SHLO NO. 3773

PROP WETLAND SEEDING RIPARIAN MIX (TYP)

PROP TREE PLANTING (TYP)

PROP WETLAND SEEDING-SEASONALLY FLOODED MIX (TYP)

PROP SEED PART SHADE ROADSIDE (TYP)

PROP WETLAND SEEDING RIPARIAN MIX TO END OF GUARDRAIL (TYP)

PROP CONSTRUCTION BASELINE

PROP SEED PART SHADE ROADSIDE MIX

PROP TREE PROTECTION FENCE

APPROXIMATE LOCATION 10' WATER LINE EASEMENT
BK 480 PG 406, PLAN 240C / 70

BENCHMARK: SPK IN UP EL=874.88'

BENCHMARK: MAG NAIL IN CONC. EL=871.80'

DEPARTMENT OF TRANSPORTATION
BK 860 PG 1194
DRAWER 8 PLAN 587

TOWN OF ADAMS
BK 481 PG 51 (SHLO 3773)

QUALITY ST
MAP 4 BLOCK 121 LOT 24
N/F
TOWN OF ADAMS

TOWN OF ADAMS LAYOUT PER SHLO 3773

BASELINE 1950 SHLO NO. 3773

+26.96 PI

S89°52'42"E 134.68'

0 20 50 100
SCALE: 1" = 20'

NOTES:
1. FINAL PLANTING LOCATIONS SHALL BE DETERMINED IN THE FIELD IN ACCORDANCE WITH THE SPECIFICATIONS.

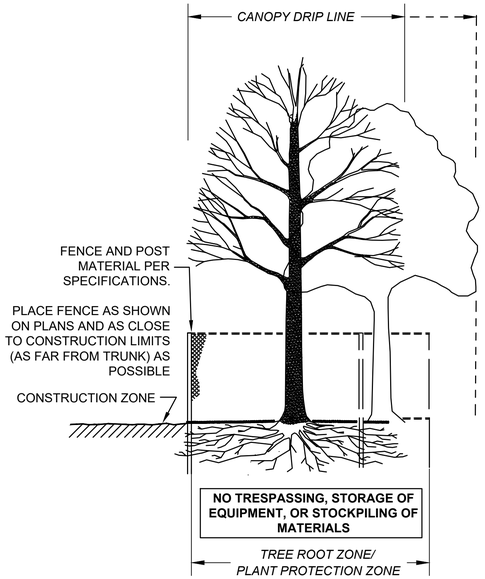
PART SHADE ROADSIDE MIX (ITEM 765.451)

WETLAND SEEDING RIPARIAN MIX (ITEM 765.553)

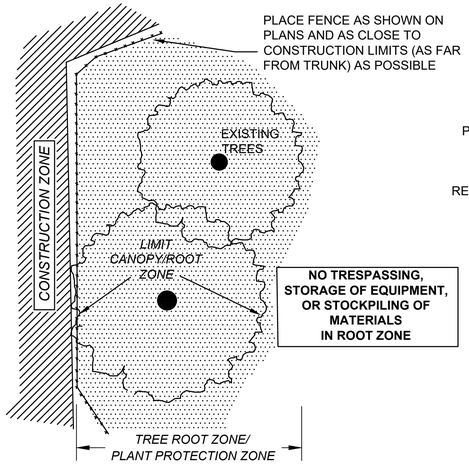
WETLAND SEEDING - SEASONALLY FLOODED MIX (ITEM 765.554)

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	SIZE
CP	2	CRATAEGUS PHAENOPYRUM HAWTHORN - COCKSPUR	1-1.5 INCH CALIPER
HV	6	HAMAMELIS VIRGINIANA WITCH HAZEL - SPRING BLOOMING	2-3 FEET
PO	3	PLATANUS OCCIDENTALIS PLANE TREE AMERICAN	2-2.5 INCH CALIPER
QB	3	QUERCUS BICOLOR SWAMP WHITE OAK	1.5-2 INCH CALIPER
TA	2	TILIA AMERICANA LINDEN - AMERICAN	2-2.5 INCH CALIPER
SD	2	SALIX DISCOLOR WILLOW-PUSSY	2-3FEET / #2
AM	3	AMELANCHIER CANADENSIS SERVICEBERRY	4'-5' CLUMP
CL	6	CLETHRA ALNIFOLIA SWEET PEPPERBUSH	#2 CONT.
VA	3	VACCINIUM CORYMBOSUM BLUEBERRY	#3 CONT.
DM	7	DRYOPTERIA MARGINALIS MARGINAL WOOD FERN	#1 POT
SY	3	SYMPHTOTRICHUM LAEVE SMOOTH ASTER	#1 POT



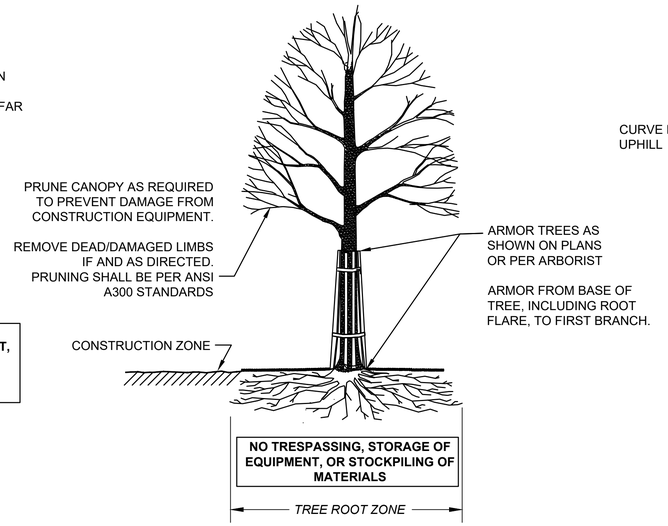
SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - ROOT ZONE

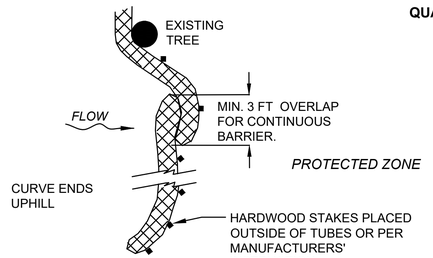
NOT TO SCALE



SECTION - TRUNK ARMORING & PRUNING

TREE PROTECTION - TRUNK

NOT TO SCALE



ADAMS
QUALITY STREET/SOUTH WILLOW STREET

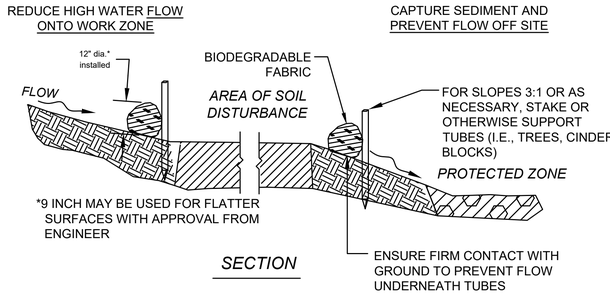
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	18	63
	PROJECT FILE NO. 610777		

CONSTRUCTION DETAILS

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.

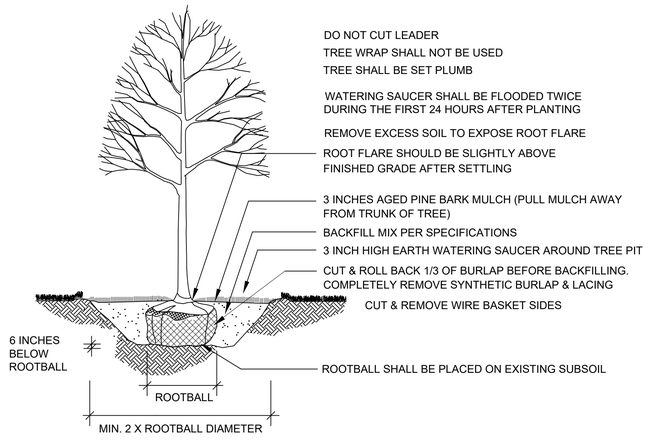
PLAN VIEW



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE

NOT TO SCALE



DECIDUOUS TREE PLANTING

NOT TO SCALE

TREE PROTECTION TABLE			
STA	OFFSET	SIZE	TYPE
202+43.98	13.92 LT	10"	TWIN ARB
202+46.76	11.76 LT	20"	ARB
300+88.59	30.69 RT	24"	MAPLE
300+89.38	22.36 LT	20"	PINE
300+89.80	33.53 RT	36"	MAPLE
300+89.96	23.51 RT	24"	TWIN MAPLE
300+97.30	33.35 LT	20"	PINE
300+97.72	46.92 LT	20"	PINE
300+97.90	23.59 LT	10"	MAPLE
300+98.04	29.17 RT	30"	MAPLE
301+12.98	54.21 LT	10"	MAPLE
301+91.97	31.79 LT	12"	MAPLE
302+06.05	23.45 RT	12"	MAPLE
302+09.95	26.50 RT	12"	MAPLE
302+10.09	24.12 RT	18"	MAPLE
302+14.33	21.11 RT	16"	MAPLE
302+16.22	29.81 LT	12"	MAPLE
302+18.84	19.15 RT	18"	MAPLE
302+19.61	29.35 RT	18"	MAPLE
302+60.10	25.50 LT	8"	MAPLE
302+73.27	24.82 LT	10"	MAPLE
302+80.35	35.45 LT	10"	MAPLE
302+83.75	24.96 LT	12"	MAPLE

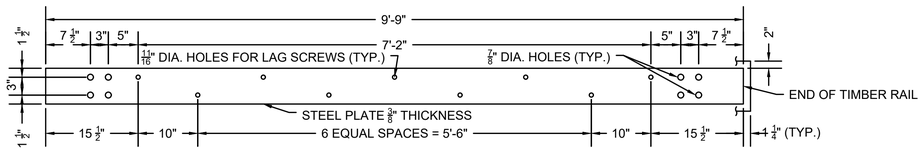
TREE REMOVAL TABLE			
STA	OFFSET	SIZE	TYPE
300+12.24	25.14 LT	10"	TRIPLE ARB
300+16.86	21.12 LT	10"	ARB
300+22.32	20.42 LT	10"	ARB
300+30.10	16.88 LT	6"	HEMLOCK
300+35.24	17.37 LT	24"	PINE
300+47.39	18.73 LT	30"	PINE
300+59.69	19.82 LT	20"	PINE
300+72.85	21.66 LT	30"	PINE
300+80.23	20.40 LT	8"	SPRUCE
301+76.44	48.36 LT	12"	TWIN MAGNOLIA
302+59.52	13.39 RT	12"	MAPLE

610777_HDR(DETAILS).DWG Plotted on 23-Jul-2025 12:55 PM

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	19	63
	PROJECT FILE NO. 610777		

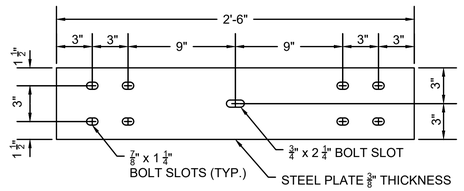
CONSTRUCTION DETAILS

610777_HDB(DETAILS).DWG Plotted on 23-Jul-2025 12:55 PM



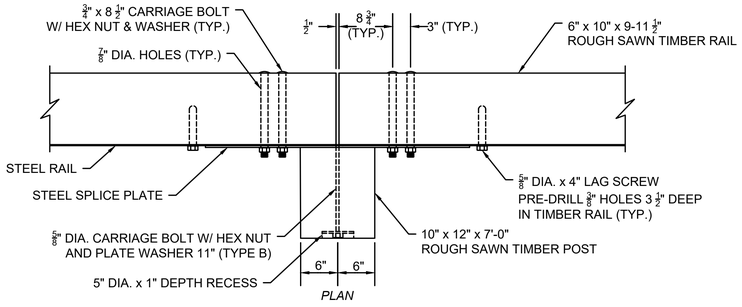
STEEL RAIL

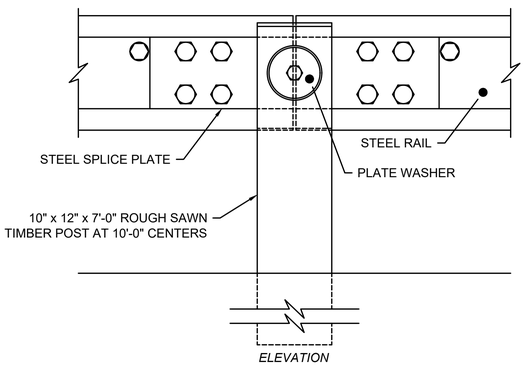
NOT TO SCALE



STEEL SPLICE PLATE

NOT TO SCALE



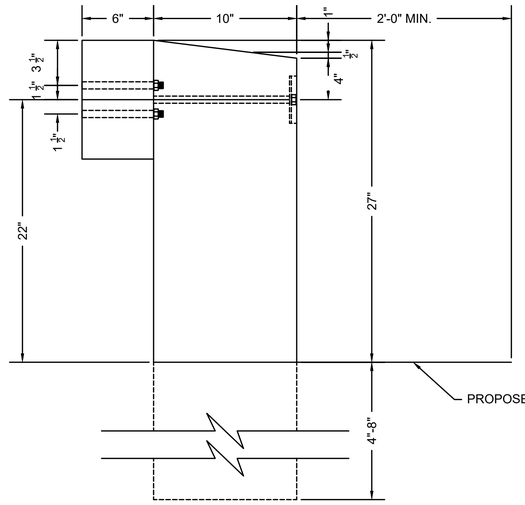


POST CONNECTION

NOT TO SCALE

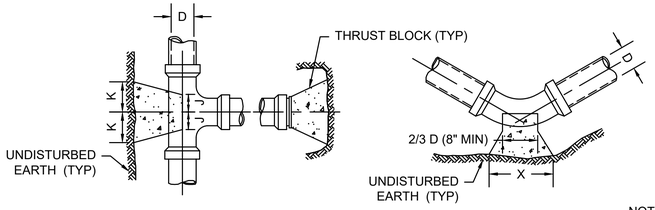
STEEL-BACKED TIMBER GUARDRAIL TYPE B (FLH STANDARD 617-60)

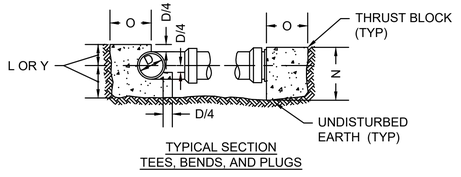
NOT TO SCALE



TYPICAL GUARDRAIL CROSS SECTION

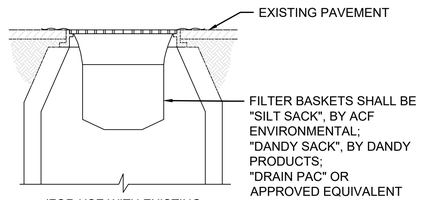
NOT TO SCALE





CONCRETE THRUST BLOCK FOR PRESSURE PIPE

NOT TO SCALE



NOTE:
FILTER BASKETS TO BE PLACED IN ALL CATCH BASINS IN THE VICINITY OF NEW CONSTRUCTION. CATCH BASINS ARE TO BE PROTECTED AS SHOWN, WITH MINIMUM WEEKLY MAINTENANCE, OR AS REQUIRED AND REPLACED IF NECESSARY.

SEDIMENT FILTER INLET PROTECTION

NOT TO SCALE

NOTE:

1. USE WEATHERING STEEL FOR ALL STRUCTURAL STEEL AND FASTENER HARDWARE.

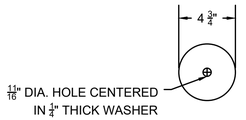
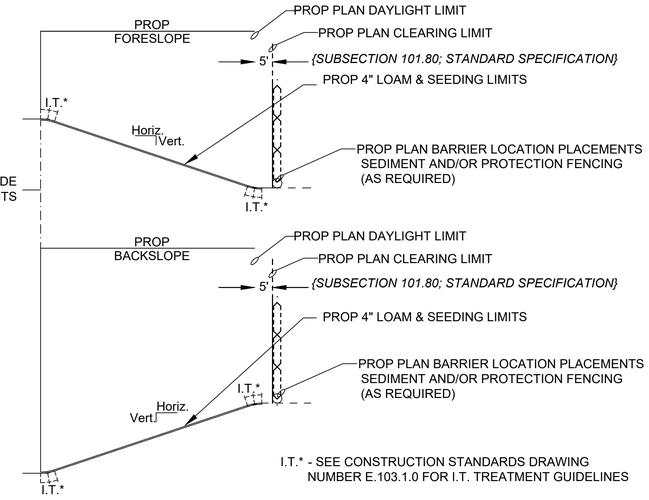


PLATE WASHER

NOT TO SCALE

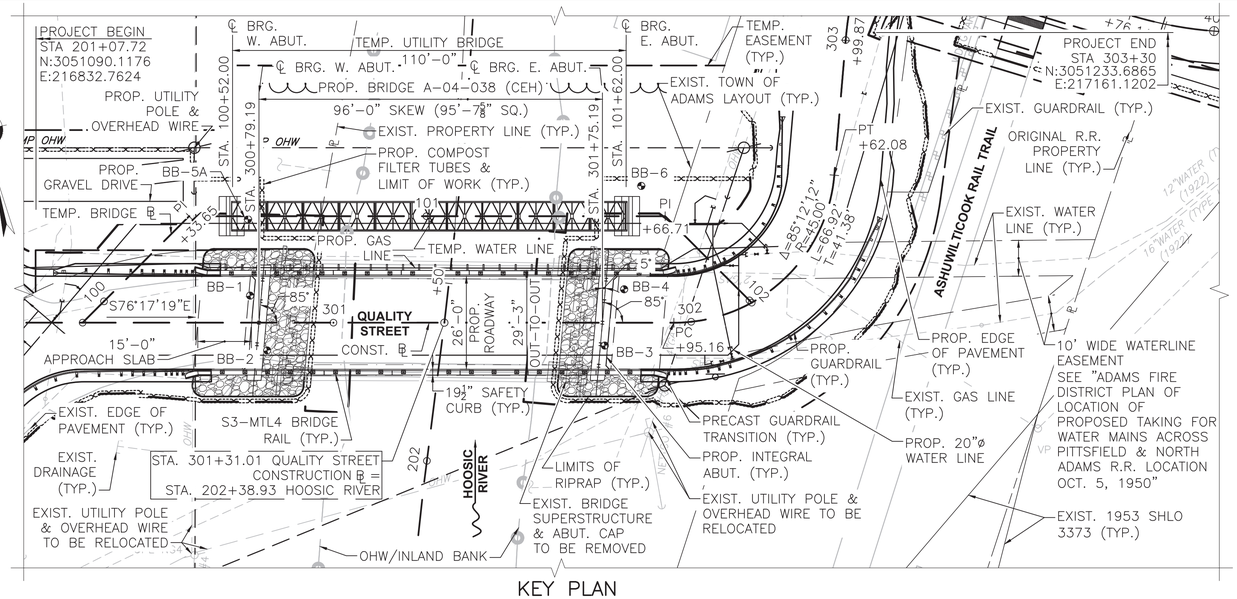


TYPICAL SLOPE TREATMENT AND BARRIER PROTECTION PLACEMENTS THROUGH AREAS OF PROPOSED CLEARING

NOT TO SCALE

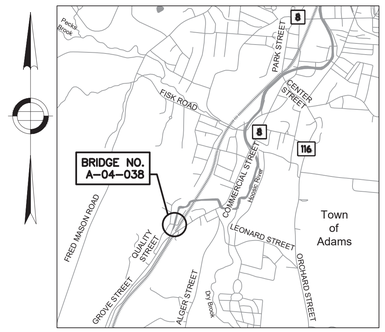
NOTES:
1. PROVIDE 3000 psi CONCRETE THRUST BLOCKS AT ALL BENDS, DEAD ENDS, & TEES UNLESS OTHERWISE DIRECTED. CONCRETE FOR ALL THRUST BLOCKS TO BE PLACED AGAINST FIRM, UNDISTURBED SOIL. PROVIDE APPROVED ANCHOR HARNESS RODS & SOCKET CLAMPS AS SPECIFIED & IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS WHERE SOIL HAS BEEN DISTURBED OR THRUST BLOCKS CANNOT BE USED, AS DIRECTED BY THE ENGINEER.
2. ALL SOCKET CLAMP METAL SHALL BE COATED WITH BLACK ASPHALTUM OR OTHER WATER DEPARTMENT APPROVED COATINGS.
3. CONCRETE THRUST BLOCKS POURED BEHIND 3-WAY TEE & HYDRANT SHOE TO BE USED WITH SOCKET CLAMPS.
4. NO CONCRETE SHALL COVER PIPE JOINTS, FITTING JOINTS, BOLTS OR HYDRANT DRAINS.

TEES AND PLUGS						
SIZE OF BRANCH	J	K	L	M	N	O
4" THRU 8"	10"	10"	1'-0"	2'-0"	1'-6"	10"
10" THRU 16"	1'-0"	1'-6"	1'-8"	3'-10"	2'-10"	1'-6"
24"	1'-4"	2'-0"	2'-6"	5'-0"	3'-6"	1'-8"
	BENDS					
	90° AND 45° BENDS			22.5° AND 11.25° BENDS		
D	4" TO 8"	10" TO 16"	24"	4" TO 8"	10" TO 16"	24"
X	1'-8"	3'-4"	3'-6"	1'-4"	2'-0"	3'-6"
Y	1'-2"	1'-8"	2'-4"	1'-0"	1'-0"	2'-4"



KEY PLAN

SCALE: 1" = 20'



LOCUS PLAN

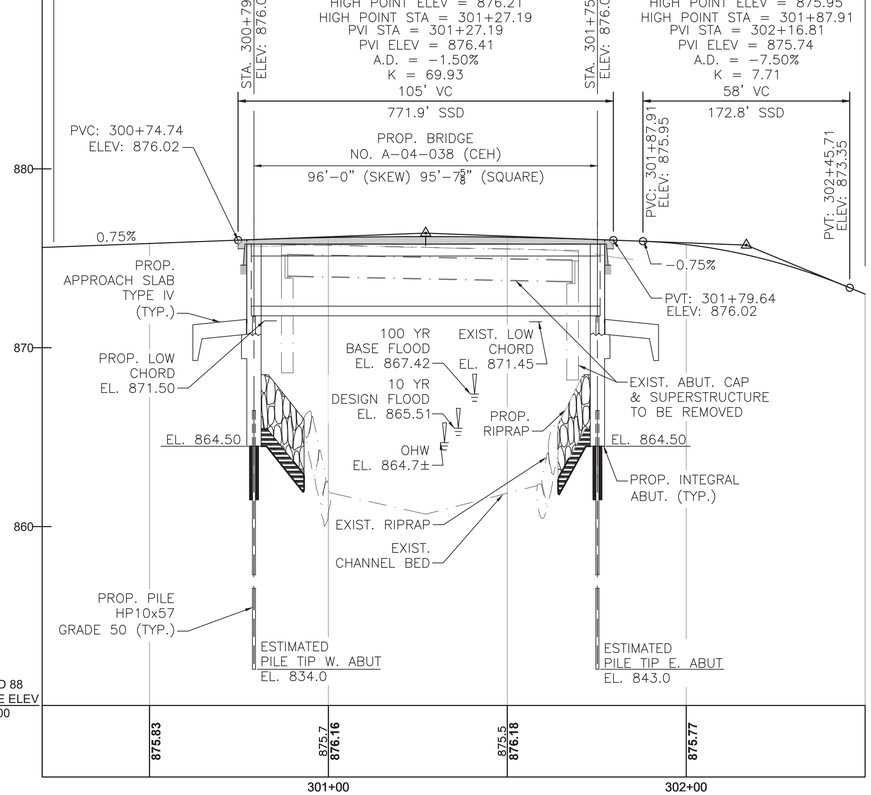
SCALE: 1" = 2000'

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	20	63
	PROJECT FILE NO. 610777		

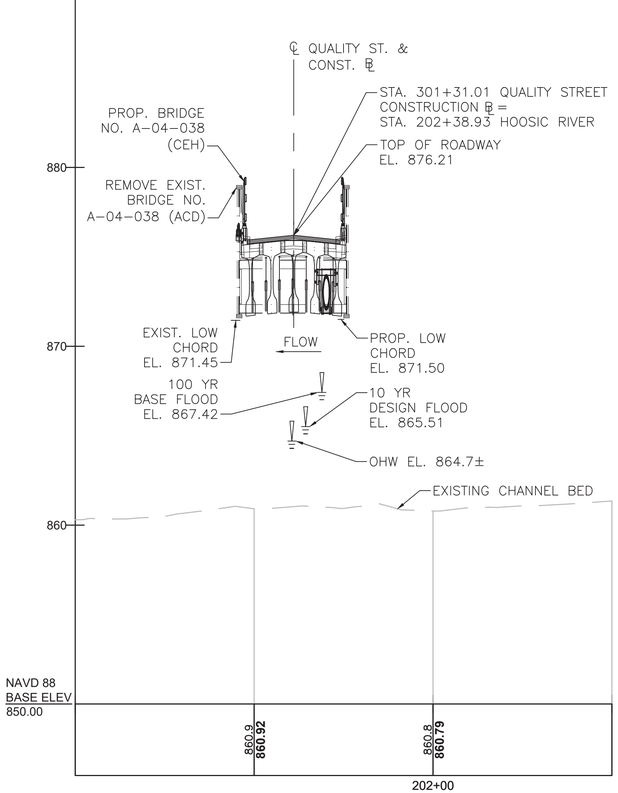
KEY PLAN, LOCUS & PROFILES

INDEX



QUALITY STREET PROFILE

HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'



HOOSIC RIVER PROFILE

HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'

MICAH C. MORRISON STRUCTURAL No. 46726 REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS
Micah Morrison Digitally signed by Micah Morrison Date: 2025.08.08 15:01:56 -04'00'

BSC GROUP
BUILD | SUPPORT | CONNECT
803 SUMMER STREET
BOSTON, MASSACHUSETTS 02127
617-896-4300 | www.bscgroup.com

AUGUST 9, 2025 | ISSUED FOR CONSTRUCTION

massDOT Massachusetts Department of Transportation Highway Division

PROPOSED BRIDGE
ADAMS
QUALITY STREET
OVER HOOSIC RIVER

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

Alexander K. Bardow, P.E. — Digitally signed by Alexander K. Bardow, P.E. Date: 2025.08.08 18:15:27 -04'00'
STATE BRIDGE ENGINEER

Carrie Lavallee, P.E. — 2025.08.18 09:55:13 -04'00'
CHIEF ENGINEER

SHEET 1 OF 26 SHEETS BRIDGE NO. A-04-038 (CEH)

GENERAL NOTES:

DESIGN:

IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020, FOR HL-93 LOADING.

MASSDOT BENCH MARK:

BENCH MARK 1:
SPIKE IN UTILITY POLE
N = 3051110.964, E = 216936.797,
EL. = 874.88

BENCH MARK 2:
MAG NAIL IN CONCRETE
N=3051071.012, E=217020.004,
EL. = 871.80

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

DATE:

TO BE PLACED ON THE INSIDE FACE OF THE NORTHEASTERLY AND SOUTHWESTERLY 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 NOTEBOOKS:

COPIES OF ELECTRONIC FILES MAY BE OBTAINED FROM MASSDOT.

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.

ANCHOR BOLTS:

ALL ANCHOR BOLTS SHALL BE SET BY TEMPLATE BEFORE THE CONCRETE IS PLACED.

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.

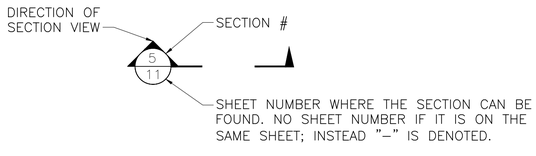
REINFORCEMENT:

REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS	#8 BARS
1. NONE	16"	17"	21"	34"
2. 12" OF CONCRETE BELOW BAR	18"	22"	27"	44"
3. EPOXY COATED BARS, COVER < 3d_b, OR CLEAR SPACING < 6d_b	21"	26"	31"	51"
4. COATED BARS, ALL OTHER CASES	17"	21"	25"	41"
5. CONDITION 2. AND 3.	23"	29"	35"	57"
6. CONDITION 2. AND 4.	21"	27"	32"	53"

ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

SECTION MARK:



EXISTING CONDITIONS:

ACCURACY OF DIMENSIONS AND DETAILS SHOWN FOR THE EXISTING STRUCTURE IS NOT GUARANTEED. EXISTING SKETCHES ARE BASED ON THE ORIGINAL 1950 BRIDGE PLANS. THE CONTRACTOR SHALL VERIFY AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR THE COMPLETION OF THE WORK BY FIELD MEASUREMENT AND SURVEY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY AND ADEQUACY THEREOF AND SHALL NOT COMMENCE ANY FABRICATION UNTIL THEY HAVE MADE THE REQUIRED MEASUREMENTS ON THE EXISTING STRUCTURE AND SUBMITTED SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER. SHOP DRAWINGS SHALL STATE THAT THE EXISTING DIMENSIONS, ANGLES, ELEVATIONS AND FIELD CONDITIONS HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS REQUIRED FOR THE PROPER PERFORMANCE OF THE WORK. FIELD CONDITIONS MAY EXIST WHICH DEVIATE FROM THE TYPICAL WORK AND THEORETICAL DIMENSIONS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FABRICATION AND FIT OF THEIR WORK.

TRAFFIC NOTES:

QUALITY STREET SHALL BE CLOSED TO TRAFFIC. REFER TO THE TRAFFIC MANAGEMENT PLANS FOR DETOUR ROUTES.

UTILITIES:

THE CONTRACTOR SHALL PROTECT FROM DAMAGE, AS NECESSARY, ANY EXISTING UTILITIES/POLES. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE RESPECTIVE UTILITY OWNERS FOR ALL UTILITIES THAT ARE TO BE TEMPORARILY OR PERMANENTLY RELOCATED FOR THE BRIDGE REPLACEMENT WORK.

STRUCTURAL STEEL:

STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50, UNLESS SPECIFIED OTHERWISE.

PILES SHALL CONFORM TO AASHTO M270 GRADE 50.

ESTIMATED QUANTITIES
(NOT GUARANTEED)

DESCRIPTION	QUANTITY	UNIT
BUILDING CONDITION SURVEY	1	LS
DEMOLITION OF BRIDGE SUPERSTRUCTURE OF BRIDGE NO. A-04-038 (ACD)	1	LS
EARTH EAXCAVATION	570	CY
REINFORCED CONCRETE EXCAVATION	70	CY
BRIDGE EXCAVATION	590	CY
CHANNEL EXCAVATION	100	CY
CLASS B ROCK EXCAVATION	60	CY
GRAVEL BORROW FOR BRIDGE FOUNDATION	200	CY
GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	18	CY
CRUSHED STONE FOR BRIDGE FOUNDATION	45	TON
CRUSHED STONE FOR INTEGRAL ABUTMENT PILES	30	TON
CRUSHED STONE FOR FILTER BLANKET	52	CY
CONTROLLED LOW-STRENGTH MATERIAL (>300 PSI)	6	CY
SUPERPAVE BRIDGE SURFACE COURSE - 9.5 (SSC-B - 9.5 - P)	25	TON
SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 (SPC-B - 12.5 - P)	40	TON
GEOTEXTILE FABRIC FOR PERMANENT EROSION CONTROL	270	SY
STEEL PILE HP 10 X 57	300	FT
PRE-DRILLING FOR PILES	230	FT
DRILLING FOR PILE OBSTRUCTIONS	70	FT
DYNAMIC LOAD TEST BY CONTRACTOR	2	EA
PILE SHOES	10	EA
TEMPORARY EARTH SUPPORT SYSTEM	1	LS
RIPRAP WITH GRAVEL PACKED VOIDS	250	TON
CONTROL OF WATER - STRUCTURE NO. A-04-038	1	LS
TEMPORARY UTILITY BRIDGE	1	LS
TEMPORARY PROTECTIVE SHIELDING BRIDGE NO. A-04-038	1	LS
BRIDGE STRUCTURE, BRIDGE NO. A-04-038 (CEH)	1	LS

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	21	63
	PROJECT FILE NO. 610777		

GENERAL NOTES

TRAFFIC DATA	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR	2032	
AVERAGE DAILY TRAFFIC - PRESENT	129	
AVERAGE DAILY TRAFFIC - DESIGN YEAR	160	
DESIGN HOURLY VOLUME	N/A	
DIRECTIONAL DISTRIBUTION	50%	
TRUCK PERCENTAGE - AVERAGE DAY	1%	
TRUCK PERCENTAGE - PEAK HOUR	N/A	
DESIGN SPEED	20 MPH	
DIRECTIONAL DESIGN HOURLY VOLUME	N/A	

SEISMIC DESIGN CRITERIA	
DESIGN RETURN PERIOD:	1000 YRS
DESIGN SPECTRA	
As	0.091
SDs	0.208
SD1	0.096
SITE CLASS	D
SEISMIC DESIGN CATEGORY (SDC)	A

HYDRAULIC DESIGN FLOOD (HDF) DATA	
DRAINAGE AREA (SQ. MILES)	35.9
HDF DISCHARGE (C.F.S.)	1,703
HDF FREQUENCY (YEARS)	10 YRS
HDF VELOCITY (F.P.S.)	7.72
HDF ELEVATION (FEET, NAVD, UPSTREAM)	865.51
BASE (100-YEAR) FLOOD DATA	
BASE FLOOD DISCHARGE (C.F.S.)	3,336
BASE FLOOD ELEVATION (FEET, NAVD, UPSTREAM)	867.42
SCOUR DESIGN FLOOD (SDF) EVENT DATA	
SDF EVENT FREQUENCY (YEARS)	25
SDF ELEVATION (FEET, NAVD, UNDER BRIDGE)	866.16
SDF TOTAL SCOUR DEPTH AT ABUTMENT (FEET)	0.0
SDF TOTAL SCOUR DEPTH AT PIER (FEET)	N/A
SCOUR CHECK FLOOD (SCF) EVENT DATA	
SCF EVENT FREQUENCY (YEARS)	50
SCF ELEVATION (FEET, NAVD, UNDER BRIDGE)	866.74
SCF TOTAL SCOUR DEPTH AT ABUTMENT (FEET)	0.0
SCF TOTAL SCOUR DEPTH AT PIER (FEET)	N/A
FLOOD OF RECORD	
DISCHARGE (C.F.S.)	N/A
FREQUENCY (IF KNOWN, YEARS)	N/A
MAXIMUM ELEVATION (FEET, NAVD)	N/A
DATE (MM/YYYY)	N/A
HISTORY OF ICE FLOES	N/A
EVIDENCE OF SCOUR AND EROSION	N/A

NOTE:
TEMPORARY WATER CONTROL DESIGN DATA IS BASED ON WATER CONTROL BEING IN PLACE FOR NOT MORE THAN 1-YEAR WITH THE CHANNEL WIDTH BEING REDUCED TO 49'-3"

TEMPORARY WATER CONTROL DESIGN DATA	
DESIGN FLOOD DISCHARGE (C.F.S.)	886
DESIGN FLOOD FREQUENCY (YEARS)	2
DESIGN FLOOD VELOCITY (F.P.S.)	8.28
DESIGN FLOOD ELEVATION (FEET, NAVD)	865.38

DATE	DESCRIPTION
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION

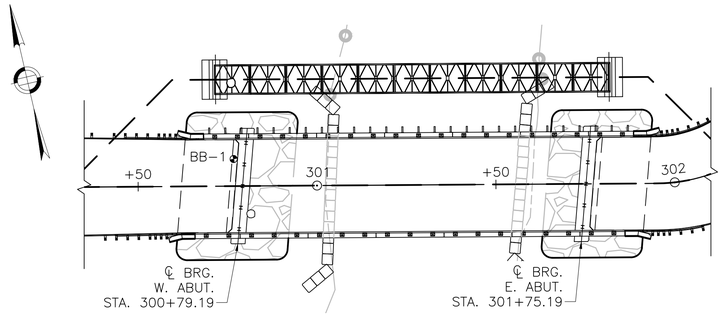
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	22	63
	PROJECT FILE NO. 610777		

BORING LOGS BB-1



BORING PLAN

SCALE: 1" = 20'

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-1
Boring Location: N: 3051177 E: 216970
Plan
Checked by: A. Fragoso
Date Start: June 3, 2022
Date Finish: June 3, 2022

Contractor: Seaboard Drilling, Inc.
Driller: J. Nitsch
Nobis Rep.: K. Kocia

Rig Type / Model: Truck / B-53 Mobile
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 876
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	4	1-3/8
Advancement	Drive and Wash	140-lb Hammer

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼06/03/22	12:45	11.5	31.5	34	10 min

Depth (ft.)	Sample Type & No.	Sample Rec. (in.)	Sample Depth (ft.)	Blows/ 6 in.	Drilling Rate (min/ft)	Ground Water	Lithology Graphic	Lithology Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)	Notes
1								ASPHALT 875.4 / 0.6	Approximately 7 inches of asphalt in two layers.	1
	S-1	20	1-3	9				875.5 / 0.5 BASE COURSE	Approximately 2.5 inches of gravel base course.	
2				10					S-1A (15"): Medium dense, brown – gray, fine to coarse SAND, little Sand, trace fine Gravel, very few asphalt fragments/particles. Dry to moist. (FILL).	
				12					S-1B (5"): Medium dense, white – orangish-brown, fine to coarse SAND, little fine Gravel, trace Silt. Redoxymorphic staining present. Dry. (FILL).	
3				7					S-2: Loose, brown, fine to coarse SAND, little coarse Gravel, little Silt, very few asphalt fragments/particles. Dry to moist. (FILL).	
	S-2	10	3-5	3						
4				2						
				5						
5				7						
	S-3	12	5-7	5					S-3: Loose, brown – dark brown, fine to coarse SAND, little Silt, trace fine Gravel, very few asphalt fragments/particles, very few roots/wood. Very faint redoximorphic staining present. Moist. (FILL).	
6				2						
				6						
7				13						
	S-4	22	7-9	7				868.5 / 7.5	S-4A (5"): Medium dense, brown, fine to coarse SAND, some fine to coarse Gravel, little Silt. Moist. (FILL).	
8				6				ALLUVIUM 867.3 / 8.7	S-4B (14"): Medium dense, tan, fine to medium SAND, some Silt. Moist.	
				10				COARSE DEPOSITS W/ COBBLES 866.0 / 10.0	S-4C (3"): Medium dense, gray, fine to coarse GRAVEL, some fine to coarse Sand, trace Silt. Moist.	
9				8						
10										
	S-5	11	10-12	9					S-5: Loose, brown – tan, fine to coarse SAND, little fine Gravel, little Silt. Wet.	
11				5						
12				3						
				3						
13										
14										
15										
	S-6	4	15-17	9					S-6: Medium dense, brown – white, fine to coarse GRAVEL, little fine to coarse Sand, trace Silt. Wet.	
16				12						
17				12						
				10						
18										
19										
20								COARSE DEPOSITS		
	S-7	10	20-22	11					S-7: Medium dense, brown, fine to coarse SAND, trace fine Gravel, trace Silt. Wet.	
21				9						
22				6						
				4						
23										
24										
25										
	S-8	6	25-27	8					S-8: Medium dense, light gray, fine to coarse GRAVEL, little fine to coarse Sand, trace Silt. Wet.	
26				11						
27				12						
				10						
28										

CONTINUATION

ELEVATION (FEET): 880.00, 875.00, 870.00, 865.00, 860.00, 855.00, 850.00

OBSERVED GROUNDWATER EL. 864.5± 6/3/22

BOT. OF PROP. INTEGRAL ABUT. EL. 864.50

Soil	Percentage	Non-Soil
trace	5 – 10	very few
little	10 – 20	few
some	20 – 35	several
and	35 – 50	numerous

NOTES:
1) Boring location topped off with asphalt cold patch upon completion.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be graded.

Page No. 1 of 2

BORING LOG BB-1

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

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-1
Boring Location: N: 3051177 E: 216970
Plan
Checked by: A. Fragoso
Date Start: June 3, 2022
Date Finish: June 3, 2022

Contractor: Seaboard Drilling, Inc.
Driller: J. Nitsch
Nobis Rep.: K. Kocia

Rig Type / Model: Truck / B-53 Mobile
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 876
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	4	1-3/8
Advancement	Drive and Wash	140-lb Hammer

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼06/03/22	12:45	11.5	31.5	34	10 min

Depth (ft.)	Sample Type & No.	Sample Rec. (in.)	Sample Depth (ft.)	Blows/ 6 in.	Drilling Rate (min/ft)	Ground Water	Lithology Graphic	Lithology Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)	Notes
CONTINUATION										
29								COARSE DEPOSITS 846.5 / 29.5		
30										
31										
	C-1	25	31-34	4	4.5			BOULDER 842.0 / 33.5	C-1: light gray, fine to medium-grained, Boulder. Casing refusal at 31.5 feet.	
32										
33										
34					0.5			GLACIAL TILL W/ COBBLES & BOULDERS 842.0 / 34.0	Inferred glacial till encountered based on wash and soil cuttings encountered.	
35									Boring terminated at 34 feet.	2
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										

ELEVATION (FEET): 845.00, 840.00, 835.00, 830.00, 825.00, 820.00

EST. PILE TIP EL. 834.0

Soil	Percentage	Non-Soil
trace	5 – 10	very few
little	10 – 20	few
some	20 – 35	several
and	35 – 50	numerous

NOTES:
2) Boring backfilled with soil cuttings and one (1) bag of filter sand upon termination.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be graded.

Page No. 2 of 2

BORING LOG BB-1

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

BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE KEY PLAN THUS: ◕
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 1⅜" 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. ALL BORINGS WERE MADE IN JUNE AND JULY 2022.
7. BORINGS WERE MADE BY SEABOARD DRILLING, INC., LOCATED AT 649 MEADOW STREET, CHICOPEE, MA 01013.
8. THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

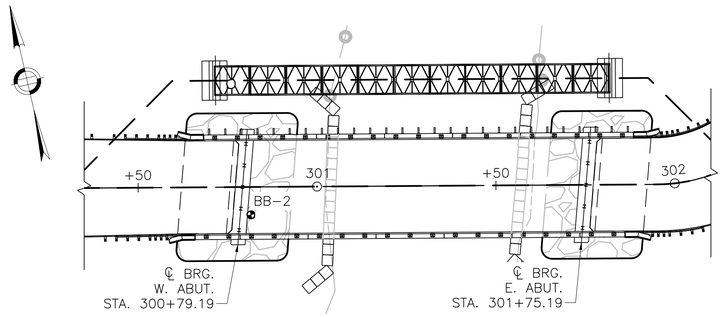
DATE	DESCRIPTION
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	23	63
	PROJECT FILE NO. 610777		

BORING LOGS BB-2



BORING PLAN
SCALE: 1" = 20'

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-2
Boring Location: N: 3051161 E: 216968
Plan
Checked by: A. Fragoso
Date Start: June 3, 2022
Date Finish: June 7, 2022

Contractor: Seaboard Drilling, Inc.
Driller: J. Nitsch
Nobis Rep.: K. Kocia

Rig Type / Model: Truck / B-53 Mobile
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 876
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	4 & 3	1-3/8
Advancement	Drive and Wash	140-lb Hammer

Groundwater Observations					
Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼06/06/22	15:00	28.5	38.5	42	10 min
▼06/07/22	09:30	12.5	42	54	15 min

Depth (ft.)	Sample Type & No.	Sample Rec. (in.)	Sample Depth (ft.)	Sample Blows/6 in.	REC X / RQD X	Drilling Rate (min/ft)	Ground Water	Lithology Graphic	Lithology Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1									ASPHALT 875.5 / 0.5	Approximately 5.5 inches of asphalt in two layers.	1
2	S-1	14	1-3	8					875.3 / 0.8 BASE COURSE	Approximately 4.5 inches of gravel base course.	
3				7						S-1: Medium dense, brown – gray, fine to coarse SAND, some fine to coarse Gravel, little Silt, few asphalt fragments/particles. Dry to moist. (FILL).	
4	S-2	11	3-5	13					FILL		
5				7						S-2: Loose, brown – black, fine to coarse SAND, little Silt, trace fine Gravel, several asphalt fragments/particles. Dry to moist. (FILL).	
6	S-3	7	5-7	2							
7				3						S-3: Loose, brown – white, fine to coarse GRAVEL and fine to coarse Sand, trace Silt. Dry to moist. (FILL).	
8	S-4	13	7-9	4							
9				5						S-4A (6"): Medium dense, brown – gray, fine to coarse SAND, little Silt, trace fine Gravel. Dry to moist. (FILL).	
10				8					868.2 / 7.8		
11	S-5	13	10-12	14						S-4B (7"): Medium dense, tan, fine to medium SAND, some Silt, very few wood fragments. Moist.	
12				11					ALLUVIUM		
13				10					866.0 / 10.0		
14				9						S-5A (6"): Dense, gray, numerous cobble fragments/particles. Wet.	
15				30					COARSE DEPOSITS W/ COBBLES	S-5B (7"): Medium dense, brown, fine to coarse SAND, some fine Gravel, little Silt. Wet.	
16				11					864.0 / 12.0		
17				10							
18				8							
19											
20											
21	S-6	7	15-17	5						S-6: Loose, olive – orangish-brown, fine to coarse GRAVEL, some fine to coarse Sand, trace Silt. Redoximorphic staining present. Wet. [Laboratory Analysis Performed – Grain Size: GRAVEL = 64.7%, SAND = 28.5%, FINES = 6.8%].	
22				2							
23				4							
24				9							
25											
26	S-7	6	20-22	10						S-7: Medium dense, gray – tan, fine GRAVEL and fine to coarse Sand, trace Silt. Creosote-like odor present in sample. Wet.	
27				5							
28				6							
				4							
	S-8	10	25-27	15						S-8: Medium dense, white – tan, fine to coarse GRAVEL, some fine to coarse Sand, trace Silt. Faint creosote-like odor present in sample. Wet.	
				13							
				11							
				5							

CONTINUATION

Soil	Percentage	Non-Soil
trace	5 – 10	very few
little	10 – 20	few
some	20 – 35	several
and	35 – 50	numerous

NOTES:
1) Boring location topped off with asphalt cold patch upon completion.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.

ELEVATION (FEET)
880.00
875.00
870.00
865.00
860.00
855.00
850.00

BOT. OF PROP. INTEGRAL ABUT. EL. 864.50

OBSERVED GROUNDWATER EL. 863.5± 6/7/22

BORING LOG BB-2
SCALE: 1/4" = 1'-0"

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-2
Boring Location: N: 3051161 E: 216968
Plan
Checked by: A. Fragoso
Date Start: June 3, 2022
Date Finish: June 7, 2022

Contractor: Seaboard Drilling, Inc.
Driller: J. Nitsch
Nobis Rep.: K. Kocia

Rig Type / Model: Truck / B-53 Mobile
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 876
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	4 & 3	1-3/8
Advancement	Drive and Wash	140-lb Hammer

Groundwater Observations					
Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼06/06/22	15:00	28.5	38.5	42	10 min
▼06/07/22	09:30	12.5	42	54	15 min

CONTINUATION

Depth (ft.)	Sample Type & No.	Sample Rec. (in.)	Sample Depth (ft.)	Sample Blows/6 in.	REC X / RQD X	Drilling Rate (min/ft)	Ground Water	Lithology Graphic	Lithology Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
29									847.5 / 28.5		
30									INFERRED COBBLES AND BOULDERS	Inferred cobbles and boulders encountered based on drilling resistance and soil cuttings.	
31	S-9	17	30-32	45						S-9: Very dense, brown – dark gray, fine to coarse SAND, some Silt, little fine Gravel, few cobble fragments/particles. Wet.	
32				35							
33				33							
34				32							
35											
36	S-10	17	35-37	32					GLACIAL TILL W/ COBBLES & BOULDERS	S-10: Very dense, gray – tan, fine to coarse SAND and Silt, some fine Gravel, few cobble fragments/particles. Wet.	
37				30							
38				40							
39	C-1	4	38.5-39	50	67	8			837.5 / 38.5	C-1: gray, fine to medium-grained, cobble pieces/fragments.	
40	C-2	17	39-42		47	6			COBBLES AND BOULDERS	C-2: light gray to gray, fine to medium-grained, cobble and boulder pieces/fragments.	
41						3					
42						2			834.0 / 42.0		
43	C-3	49	42-47		82/35	5.5				C-3: Medium Hard to Hard, fresh to slightly weathered, slightly to moderately, dark gray, fine to medium-grained, BERKSHIRE SCHIST, moderately dipping to low angle joints.	
44						7					
45						5					
46						5					
47						4.5					
48	C-4	41	47-50.5		98/10	10			BEDROCK	C-4: Medium Hard to Hard, slightly to moderately weathered, moderately fractured, dark gray, fine to medium-grained, BERKSHIRE SCHIST, moderately dipping to low angle joints.	
49						5.5					
50						8					
51	C-5	38	50.5-54		90/31	6.5 3.5				C-5: Medium Hard to Hard, slightly to moderately weathered, slightly to moderately, dark gray, fine to medium-grained, BERKSHIRE SCHIST, moderately dipping to low angle joints.	
52						4					
53						4					
54						2			822.0 / 54.0	Boring terminated at 54 feet.	2
55											
56											

Soil	Percentage	Non-Soil
trace	5 – 10	very few
little	10 – 20	few
some	20 – 35	several
and	35 – 50	numerous

NOTES:
2) Boring backfilled with soil cuttings and three (3) bags of gravel upon termination.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.

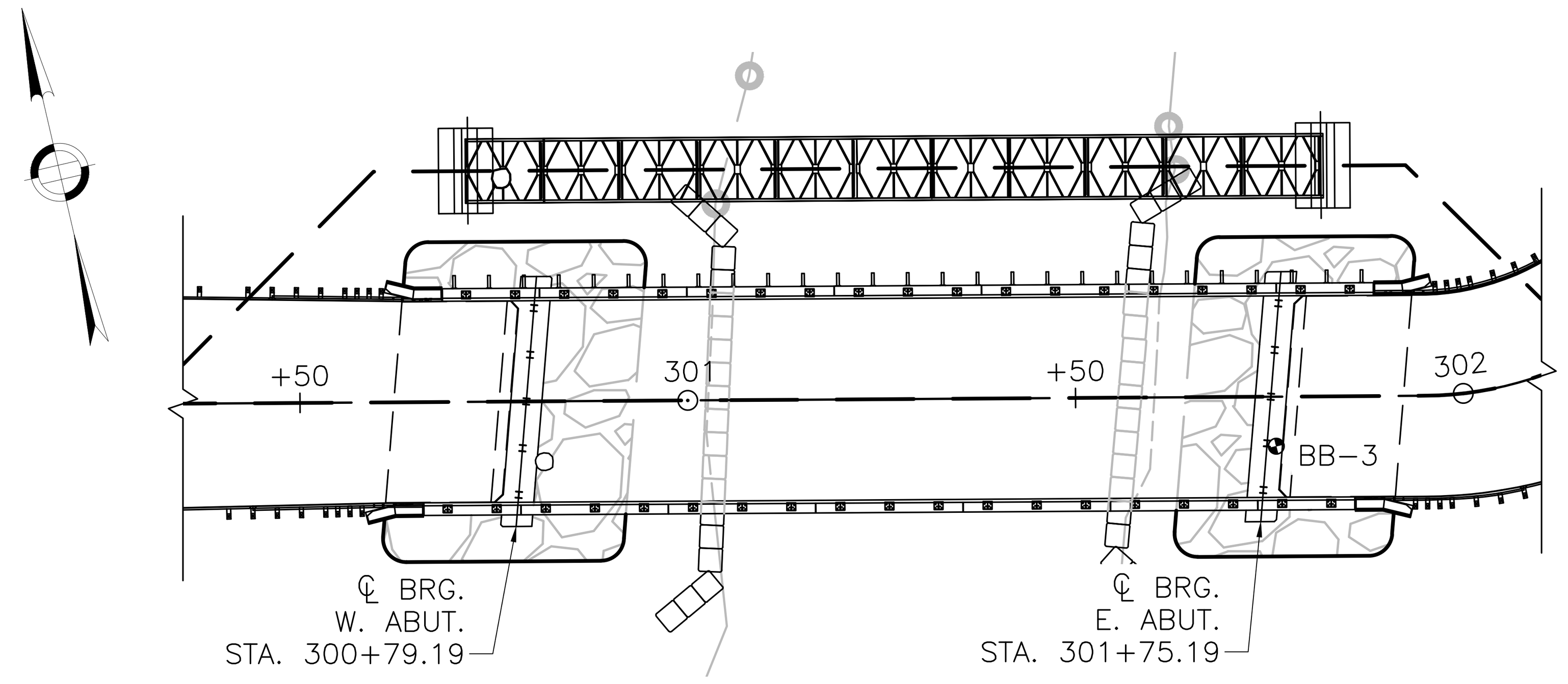
ELEVATION (FEET)
845.00
840.00
835.00
830.00
825.00
820.00

EST. PILE TIP EL. 834.0

BORING LOG BB-2
SCALE: 1/4" = 1'-0"

DATE	DESCRIPTION
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE



BORING PLAN

SCALE: 1" = 20'

BORING LOG

nobis

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-3
Boring Location: N: 3051140 E: 217061
Plan
Checked by: A. Fragoso
Date Start: June 8, 2022
Date Finish: June 9, 2022

Contractor: Seaboard Drilling, Inc.
Driller: J. Nitsch
Nobis Rep.: K. Kocia

Rig Type / Model: Truck / B-53 Mobile
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 875
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	4	1-3/8
Advancement	Drive and Wash	140-lb Hammer

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
06/08/22	14:45	Not Encountered	10	12	10 min
▼06/09/22	09:00	13	25	26.8	15 min

SAMPLE INFORMATION

Type & No.	Rec (in.)	Depth (ft.)	Blows/6 in.
S-1	14	0.5-2	22, 10, 7
S-2	16	2-4	7, 28, 11, 10
S-3	9	5-6.8	4, 4, 20, 50/4"
S-4	12	7-9	8, 9, 7, 7
S-5	11	10-12	9, 12, 5, 4
S-6	9	15-17	7, 5, 2, 1
S-7	5	20-22	3, 3, 5, 6
S-8	8	25-26.2	4, 20, 50/2"

Ground Water: ▼ at 13 ft.

LITHOLOGY

Stratum Elev. / Depth (ft.)	Stratum
874.9 / 0.1	ASPHALT
874.7 / 0.3	BASE COURSE
868.4 / 6.6	FILL
868.0 / 7.0	COBBLES
857.5 / 17.5	FILL
849.0 / 26.0	COARSE DEPOSITS
848.2 / 26.8	GLACIAL TILL W/ COBBLES & BOULDERS

SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)

Approximately 1.5 inches of asphalt. (Note 1)
Less than 2 inches of base course.
S-1: Medium dense, brown - black, fine to coarse SAND, little Silt, several asphalt fragments/particles. Dry to moist. (FILL).
S-2: Dense, brown - dark brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, few asphalt fragments/particles. Dry to moist. (FILL).
S-3: Medium dense, brown - dark brown, fine to coarse SAND and fine Gravel, little Silt, very few asphalt fragments/particles. Dry to moist. (FILL).
Encountered cobble during driving of split-spoon and casing operations.
S-4: Medium dense, brown - black, fine to coarse SAND, little Silt, trace fine Gravel, several asphalt fragments/particles. Dry to moist. (FILL).
S-5: Medium dense, dark brown - white, fine to coarse SAND, some fine Gravel, some Silt. Moist. (FILL). [Laboratory Analysis Performed - Grain Size: GRAVEL = 31.4%, SAND = 48.5%, FINES = 20.1%].
S-6: Loose, dark brown - black, fine to coarse SAND, some Silt, little fine Gravel. Sewage-like odor present in sample. Wet. (FILL).
S-7: Loose, gray - dark gray, fine to coarse SAND and fine Gravel, little Silt, very few organic fibers. Faint sewage-like odor present in sample. Wet.
S-8: Very dense, tan - dark gray, fine to coarse SAND, little Silt, very few weathered rock fragments/particles. Wet.
Inferred cobbles and boulders encountered based on wash and soil cuttings during drive and wash procedures. (Note 2)
Boring terminated at 26.8 feet on roller bit refusal.

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:
1) Boring location topped off with asphalt cold patch upon completion.
2) Boring backfilled with soil cuttings and two (2) bags of gravel upon termination.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

Page No. 1 of 1

BOREHOLE LOG - NOBIS GINT DATA TEMPLATE OCT 7 2011.GDT - 7/22/22 15:58 - J:\88644.00 - MASSDOT QUALITY STREET OVER HOOSIC RIVER, ADAMS\GEOTECHNICAL\EXPLORATIONS\BORING LOGS\GINT\88644.00 BORINGS.GPJ

ELEVATION (FEET): 880.00, 875.00, 870.00, 865.00, 860.00, 855.00, 850.00

BOT. OF PROP. INTEGRAL ABUT. EL. 864.50

OBSERVED GROUNDWATER EL. 862.0± 6/9/22

EST. PILE TIP EL. 843.0

BORING LOG BB-3

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

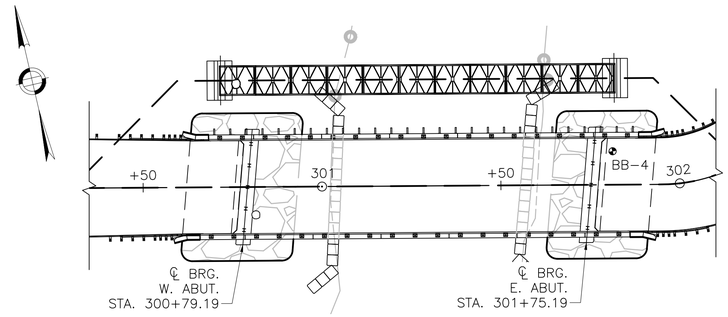
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	25	63
	PROJECT FILE NO. 610777		

BORING LOGS BB-4



BORING PLAN
SCALE: 1" = 20'

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-4
Boring Location: N: 3051152 E: 217068
Plan
Checked by: A. Fragoso
Date Start: June 7, 2022
Date Finish: June 8, 2022

Contractor: Seaboard Drilling, Inc.
Driller: J. Nitsch
Nobis Rep.: K. Kocia

Rig Type / Model: Truck / B-53 Mobile
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 875
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	4	1-3/8
Advancement	Drive and Wash	140-lb Hammer

Groundwater Observations					
Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼06/07/22	15:00	12.5	15	17	10 min
▼06/08/22	12:00	12	32	44	15 min

Depth (ft.)	Sample Info: Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	REC % / ROD %	Drilling Rate (min/ft)	Ground Water	Lithology: Graphic	Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)	Notes
0									874.8 / 0.2 ASPHALT 874.4 / 0.6 BASE COURSE	Approximately 2.5 inches of asphalt.	1
										Approximately 2.5 inches of base course.	
1	S-1	6	0.5-2	25 16 8 8						S-1: Medium dense, brown – gray, fine to coarse GRAVEL, little fine to coarse Sand, trace Silt, very few asphalt fragments/particles. Dry. (FILL).	
2											
3	S-2	11	2-4	5 3 5 4						S-2: Loose, tan – gray, fine to coarse SAND, trace fine Gravel, trace Silt, very few asphalt fragments/particles. Dry. (FILL).	
4											
5									FILL		
6	S-3	9	5-7	9 10 8 6						S-3: Medium dense, brown – gray, fine to coarse SAND, some fine Gravel, little Silt. Dry to moist. (FILL).	
7											
8	S-4	10	7-9	9 18 35 14						S-4: Very dense, brown – gray, fine to coarse SAND and fine to coarse Gravel, trace Silt. Dry to moist. (FILL).	
9											
10									865.0 / 10.0		
11	S-5	3	10-12	5 5 4 3						S-5: Loose, gray, fine to coarse SAND, trace Silt. Moist.	
12											
13											
14											
15											
16	S-6	12	15-17	9 10 8 10						S-6: Medium dense, brown, fine to coarse SAND and fine to coarse Gravel, trace Silt. Very faint redoximorphic staining present. Wet.	
17											
18											
19											
20									COARSE DEPOSITS		
21	S-7	5	20-22	7 4 3 2						S-7: Loose, tan – gray, fine to coarse GRAVEL, some fine to coarse Sand, trace Silt. Wet.	
22											
23											
24											
25											
26	S-8	5	25-27	4 3 3 3						S-8: Loose, tan – brown, fine to coarse SAND and fine to coarse Gravel, trace Silt. Wet.	
27											
28											

Soil	Percentage	Non-Soil
trace	5 – 10	very few
little	10 – 20	few
some	20 – 35	several
and	35 – 50	numerous

NOTES:
1) Boring location topped off with asphalt cold patch upon completion.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.

Page No. 1 of 2

CONTINUATION

ELEVATION (FEET)

880.00 / 875.00 / 870.00 / 865.00 / 860.00 / 855.00 / 850.00

BOT. OF PROP. INTEGRAL ABUT. EL. 864.50

OBSERVED GROUNDWATER EL. 863.0± 6/8/22

BORING LOG BB-4
SCALE: 1/4" = 1'-0"

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-4
Boring Location: N: 3051152 E: 217068
Plan
Checked by: A. Fragoso
Date Start: June 7, 2022
Date Finish: June 8, 2022

Contractor: Seaboard Drilling, Inc.
Driller: J. Nitsch
Nobis Rep.: K. Kocia

Rig Type / Model: Truck / B-53 Mobile
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 875
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	4	1-3/8
Advancement	Drive and Wash	140-lb Hammer

Groundwater Observations					
Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼06/07/22	15:00	12.5	15	17	10 min
▼06/08/22	12:00	12	32	44	15 min

Depth (ft.)	Sample Info: Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	REC % / ROD %	Drilling Rate (min/ft)	Ground Water	Lithology: Graphic	Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)	Notes
29											
30											
31	S-9	10	30-31.6	10 8 50 50/1"					COARSE DEPOSITS	S-9: Very dense, brown – dark gray, fine to coarse GRAVEL and fine to coarse Sand, little Silt, few weathered rock fragments/particles. Wet.	
32									843.5 / 31.5 WEATHERED BEDROCK 843.0 / 32.0	Inferred weathered bedrock encountered based on drilling resistance, wash and soil cuttings during drive and wash procedures.	
33	C-1	36	32.5-36		86/10	6.5				C-1: Soft to Medium Hard, fresh to slightly weathered, moderately fractured, dark gray, fine to medium-grained, BERKSHIRE SCHIST, moderately dipping to low angle joints.	
34						6					
35						5.5					
36						7					
37	C-2	54	36-41		90/75	3.5				C-2: Medium Hard to Hard, fresh to slightly weathered, sound to slightly fractured, dark gray, fine to medium-grained, BERKSHIRE SCHIST, moderately dipping to low angle joints.	
38						3.5					
39						4					
40						3.5			BEDROCK		
41						3.5					
42	C-3	36	41-44		100/100	4				C-3: Medium Hard to Hard, fresh to slightly weathered, sound, dark gray, fine to medium-grained, BERKSHIRE SCHIST, moderately dipping to low angle joints.	
43						4					
44						5			831.0 / 44.0		
45										Boring terminated at 44 feet.	2
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											

Soil	Percentage	Non-Soil
trace	5 – 10	very few
little	10 – 20	few
some	20 – 35	several
and	35 – 50	numerous

NOTES:
2) Boring backfilled with soil cuttings and three (3) bags of gravel upon termination.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.

Page No. 2 of 2

CONTINUATION

ELEVATION (FEET)

845.00 / 840.00 / 835.00 / 830.00 / 825.00 / 820.00

EST. PILE TIP EL. 843.0

BORING LOG BB-4
SCALE: 1/4" = 1'-0"

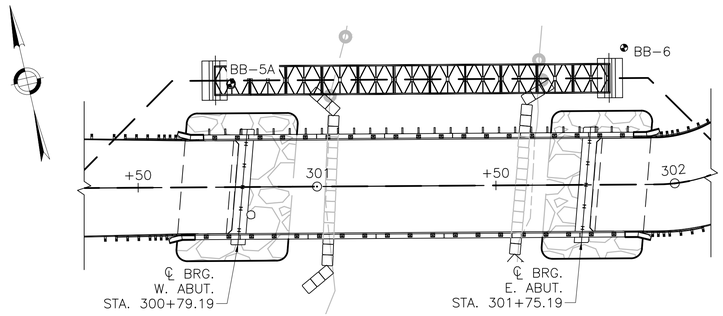
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	26	63
	PROJECT FILE NO. 610777		

BORING LOGS BB-5A & BB-6



BORING PLAN
SCALE: 1" = 20'

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-5A
Boring Location: See Exploration Location
Plan N: 3051198.00 E: 216973.00
Checked by: S. Pape
Date Start: July 13, 2022
Date Finish: July 13, 2022

Contractor: Seaboard Drilling, Inc.
Driller: D. Feeley
Nobis Rep.: K. Stanway

Rig Type / Model: ATV / Diedrich D-50
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 875
Datum: NAVD88

Type	Drilling Method: Hollow Stem Auger	Sampler: Split-Spoon
Size ID (in.)	4	1-3/8
Advancement	Augered	140-lb Hammer

Groundwater Observations					
Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼07/13/22	13:25	15	17	17.2	10 minutes

Depth (ft.)	Sample Info: Type & No.	Rec. (in.)	Depth (ft.)	Blows/ 6 in.	Ground Water	Lithology: Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
0	S-1	11	0-2	2			874.8 / 0.2 TOPSOIL	TOPSOIL (2"): Loose, brown, Organic SILT, trace fine Sand, numerous roots and organic fibers. Dry.	
1				2				S-1: Loose, light brown, SILT, little fine Sand, very few roots/ organic fibers. Dry.	
2	S-2	4	2-4	2				S-2: Medium dense, light brown, SILT, some fine to coarse Sand, trace fine Gravel, very few roots/ organic fibers. Dry. Pulverized rock in bottom of sampler. Rig chatter observed from 3 to 4 feet.	
3				4					
4				7					
4				9					
5	S-3	5	4-5.3	11				S-3: Very dense, brown, fine to coarse SAND and fine to coarse Gravel, little Silt. Moist.	
5				12					
6				60/3"				Increased rig chatter observed from 5.3 to 7.5 feet.	
7									
8							FILL		
9	S-4	0	8-10	13				S-4: No recovery. Wood/root material in bottom of sampler.	
10				11					
10				12					
11				14					
11	S-5	10	10-12	9				S-5A (6"): Medium dense, light brown, fine to coarse GRAVEL and fine to coarse Sand, little Silt, trace ash and burnt material. Moist.	
12				10				S-5B (4"): Medium dense, dark brown, fine to coarse SAND, trace ash and burnt material, several brick fragments. Moist.	
13				8					
14				4					
15							860.0 / 15.0		
16	S-6	8	15-17	10			COARSE DEPOSITS	S-6: Very dense, brown, fine to coarse GRAVEL, some fine to coarse Sand, little Silt. Wet.	
17				35				Increased rig chatter observed from 15.5 to 17 feet.	
17				15					
18				48					
18	S-7	0	17-17.2	50/2"			857.8 / 17.2	S-7: No recovery.	1
19								Boring terminated at 17.2 feet.	
20									
21									
22									
23									
24									
25									
26									
27									
28									

ELEVATION (FEET)

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:
1) Boring backfilled with soil cuttings and multiple bags of sand.
2) Upon auger refusal, the boring was offset 7 feet northeast (N: 3051205 E: 216973) then 15 feet northeast (N: 3051208 E: 216984) from the original location. Auger refusal was encountered at a depth of 10.5 and 10.2 feet bgs, respectively.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

Page No. 1 of 1

BOT. OF PROP. UTILITY BRIDGE W. ABUT EL. 867.00

OBSERVED GROUNDWATER EL. 860.0± 7/13/22

BORINGS LOG - NOBIS GINT DATA TEMPLATE OCT 7 2011.GDT - 7/22/25 15:56 - J:\88644.00 - MASSDOT QUALITY STREET OVER HOOSIC RIVER, ADAMS\GEOTECHNICAL\EXPLORATIONS\BORING LOGS\GINT\88644.00 BORINGS.GPJ

BORING LOG BB-5A
SCALE: 1/4" = 1'-0"

nobis

BORING LOG

Project: MassDOT Quality Street over Hoosic River
Location: Adams, Massachusetts
Nobis Project No.: 88644.00

Boring No.: BB-6
Boring Location: See Exploration Location
Plan N: 3051181.00 E: 217082.00
Checked by: S. Pape
Date Start: July 13, 2022
Date Finish: July 13, 2022

Contractor: Seaboard Drilling, Inc.
Driller: D. Feeley
Nobis Rep.: K. Stanway

Rig Type / Model: ATV / Diedrich D-50
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic

Ground Surface Elev.: (+/-) 869
Datum: NAVD88

Type	Drilling Method: Hollow Stem Auger	Sampler: Split-Spoon
Size ID (in.)	4	1-3/8
Advancement	Augered	140-lb Hammer

Groundwater Observations					
Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼07/13/22	11:00	13	25	25.5	15 minutes

Depth (ft.)	Sample Info: Type & No.	Rec. (in.)	Depth (ft.)	Blows/ 6 in.	Ground Water	Lithology: Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
0	S-1	12	0-2	3			868.5 / 0.5 TOPSOIL	TOPSOIL (6"): Loose, brown, Organic SILT, little fine to medium Sand, numerous roots and wood fragments. Dry.	
1				4				S-1: Loose, light brown to very light brown, fine to coarse SAND and fine to coarse Gravel, little Silt. Moist.	
2	S-2	11	2-4	5				S-2A (5"): Loose, light brown, fine to coarse SAND, some Silt, trace fine Gravel, Very few roots/ organic fibers. Moist.	
3				4				S-2B (2"): Loose, black, fine to coarse SAND, some Silt, trace ash/ burnt material. Moist.	
4				2				S-2C (4"): Loose, dark brown, fine to coarse SAND, some Silt, little fine Gravel. Moist.	
4				3				S-3: Very dense, dark brown to black, fine to coarse SAND, some Silt, little fine Gravel, trace ash, very few brick particles. Moist.	
5	S-3	4	4-4.4	10					
5				100/5"					
6	S-4	11	5-7	11			863.5 / 5.5 FILL		
6				3				S-4: Loose, gray-brown to dark brown, fine to medium SAND AND SILT, very few fine roots. Moist. Top 2 inches of sample consist of pulverized rock with trace brick particles.	
7				2					
7				2					
8	S-5	5	7-9	3			ALLUVIUM	S-5A (2"): Loose, gray-brown, fine to medium SAND, some Silt. Moist.	
8				2					
9				5				S-5B (3"): Loose, orange-gray-brown, fine to coarse GRAVEL, some fine to coarse Sand, trace Silt, very few roots/ organic fibers. Moist.	
9				6			861.0 / 8.0		
10									
11	S-6	0	10-12	6				S-6: No recovery. Coarse gravel stuck in bottom of sampler.	
11				3					
12				1					
13									
14									
15									
16	S-7	6	15-17	4				S-7: Medium dense, brown, fine to coarse SAND, some fine to coarse Gravel, little Silt. Wet.	
16				6					
17				7					
17				4					
18									
19									
20									
21	S-8	5	20-22	4				S-8: Very loose, brown, fine to coarse SAND, some fine to coarse Gravel, little Silt. Wet. Transition to fine to medium sand in spoon tip. Water levels in augers not maintained while changing tooling. Density may be artificially low due to heaving sands.	
21				1					
22				1					
22				2					
23								Rig chatter increased with depth from 22 to 25.5 feet.	
24									
25									
25	S-9	1	25-25.2	50/2"			843.5 / 25.5	S-9: Very dense, gray-brown, fine to coarse SAND, some Silt. Wet.	
26								Increase in rig chatter observed from 25 to 25.5 feet.	1
27								Boring terminated at 25.5 feet.	
28									

ELEVATION (FEET)

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:
1) Boring backfilled with soil cuttings and multiple bags of sand.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

Page No. 1 of 1

BOT. OF PROP. UTILITY BRIDGE E. ABUT EL. 865.50

OBSERVED GROUNDWATER EL. 856.0± 7/13/22

BORINGS LOG - NOBIS GINT DATA TEMPLATE OCT 7 2011.GDT - 7/22/25 15:56 - J:\88644.00 - MASSDOT QUALITY STREET OVER HOOSIC RIVER, ADAMS\GEOTECHNICAL\EXPLORATIONS\BORING LOGS\GINT\88644.00 BORINGS.GPJ

BORING LOG BB-6
SCALE: 1/4" = 1'-0"

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

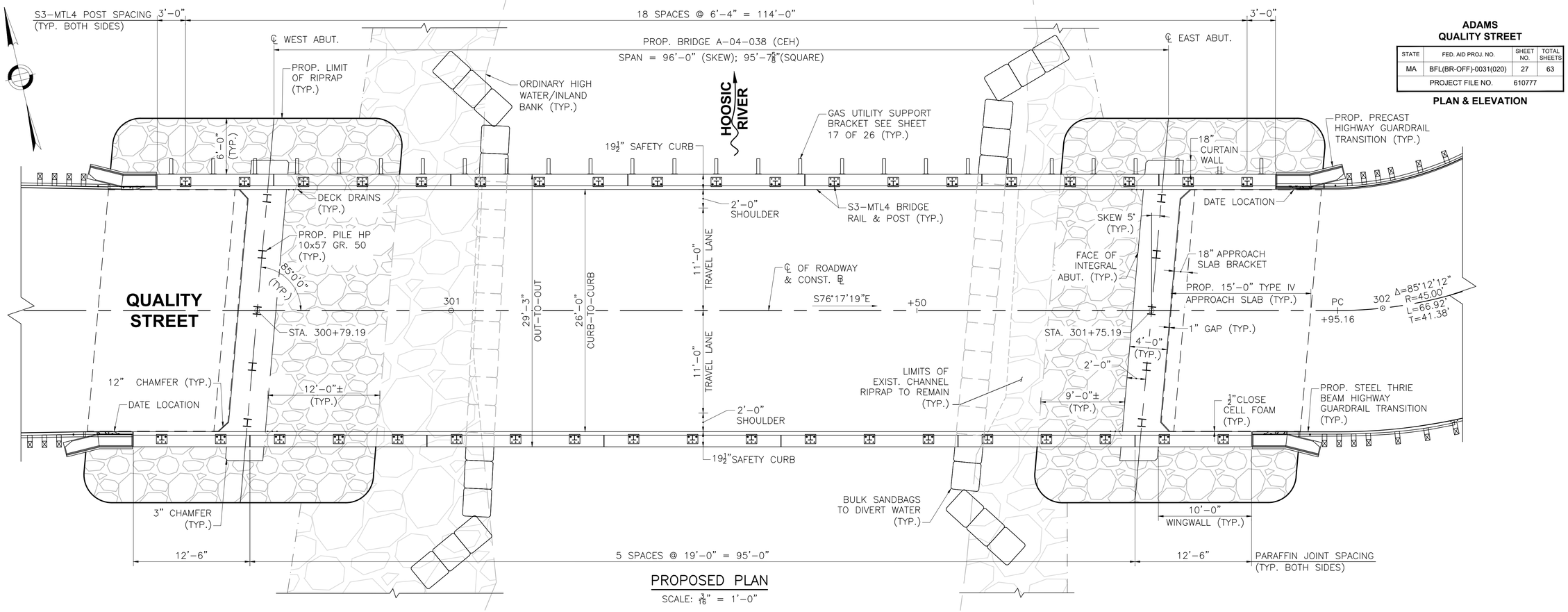
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

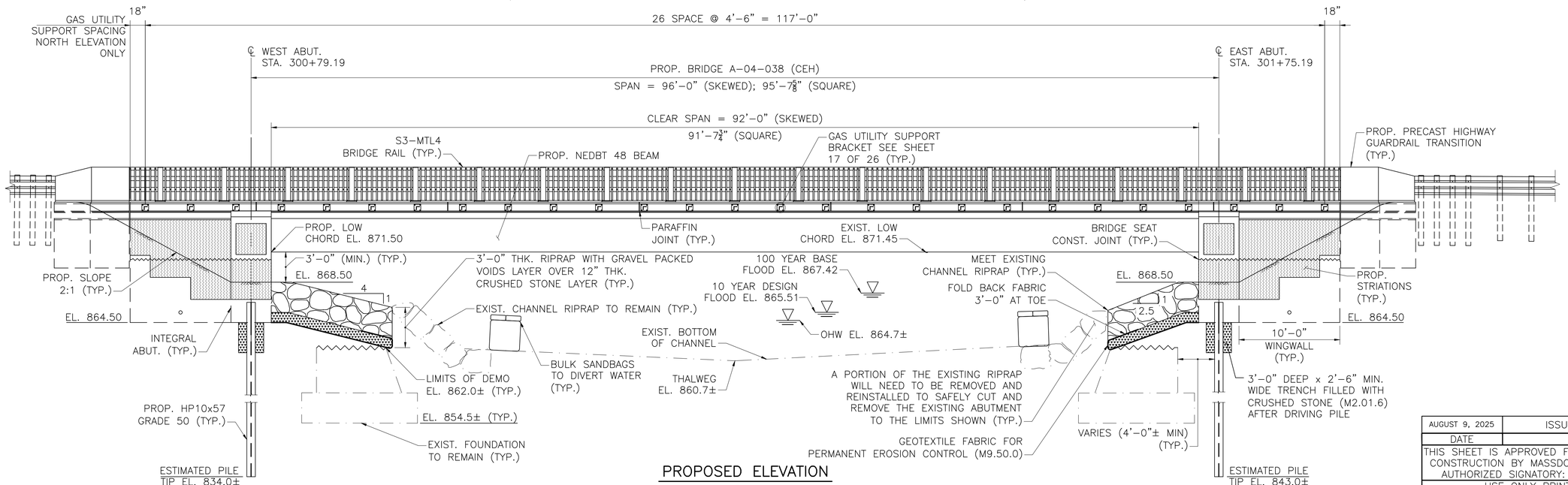
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	27	63
PROJECT FILE NO.	610777		

PLAN & ELEVATION



PROPOSED PLAN

SCALE: $\frac{3}{16}$" = 1'-0"



PROPOSED ELEVATION

SCALE: $\frac{3}{16}$" = 1'-0"

AUGUST 9, 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

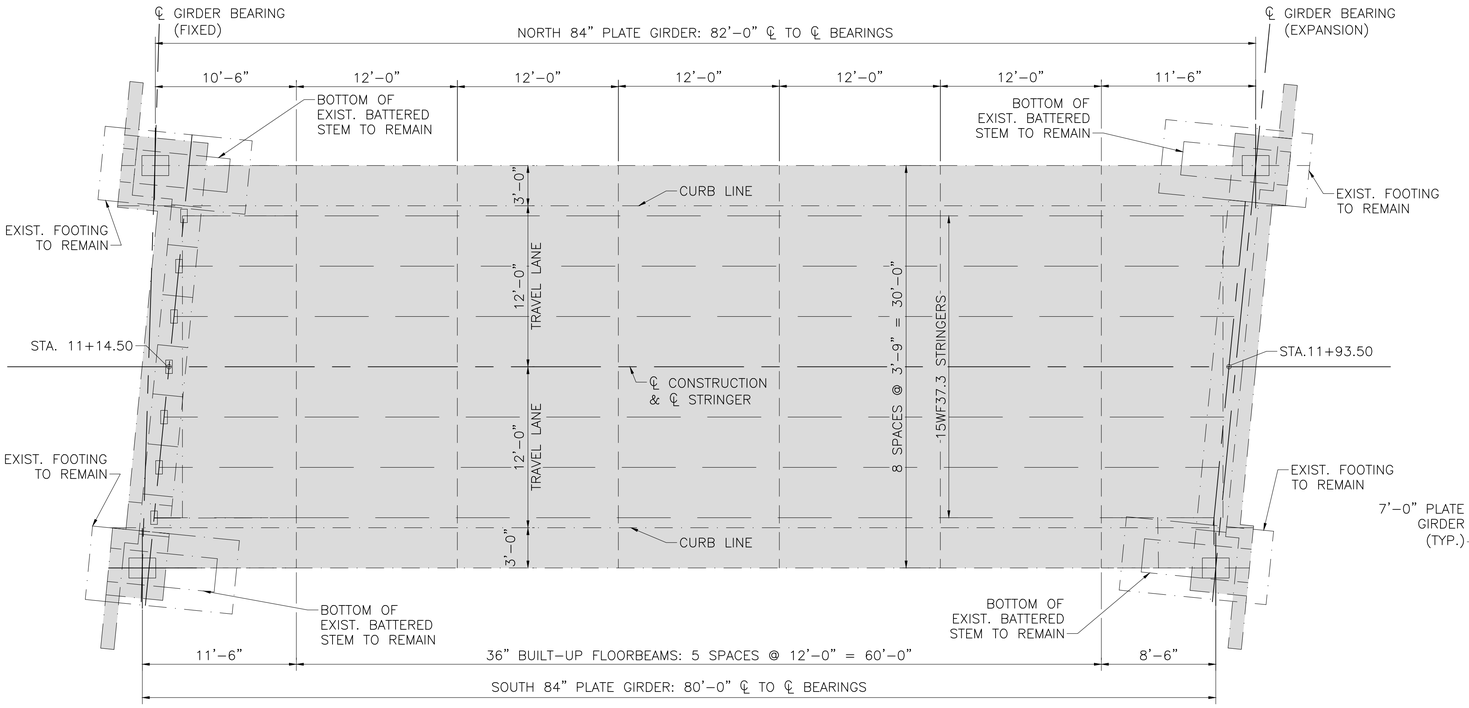
610777_BR8(A-04-038 PLAN & ELEV).DWG Plotted on 19-Aug-2025 8:55 AM

Final Structural Submittal (SF) 09-August-2025

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	28	63
	PROJECT FILE NO. 610777		

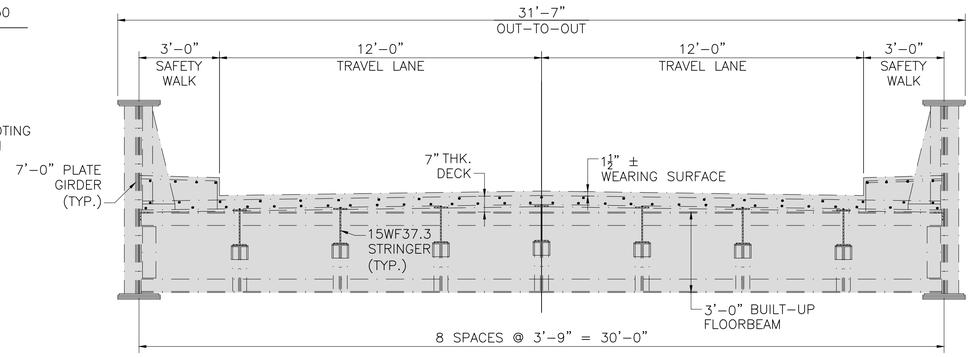
EXISTING BRIDGE DEMOLITION PLAN



EXISTING FRAMING PLAN

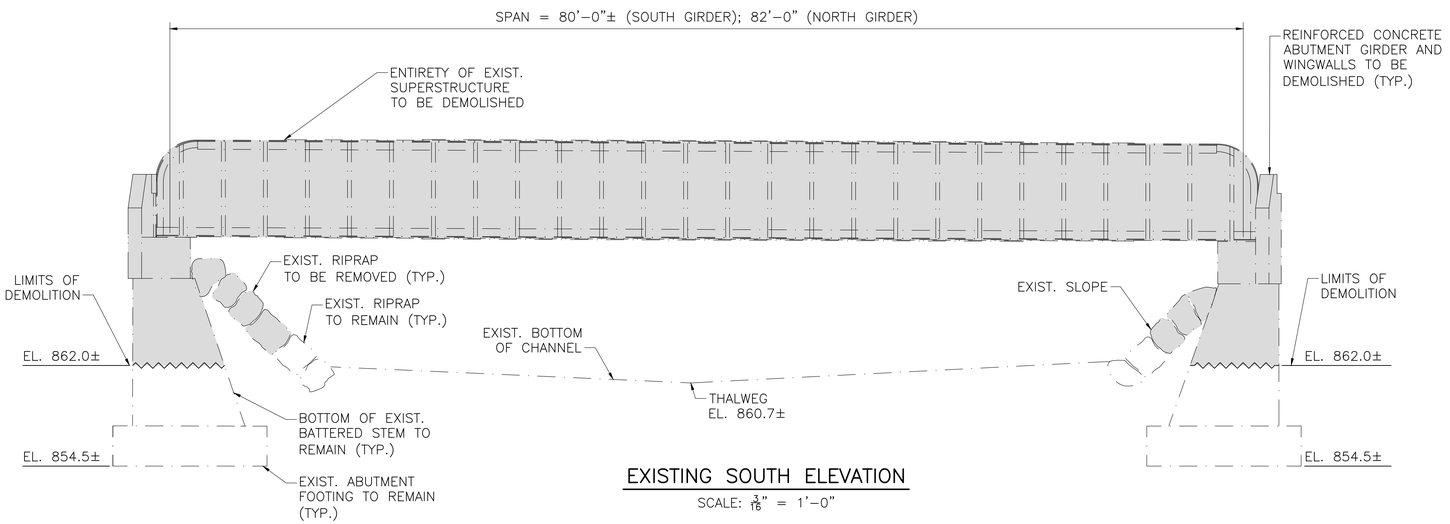
SCALE: $\frac{3}{16}$" = 1'–0"

NOTE:
SECTIONS OF EXISTING STRUCTURE SHADED GRAY ARE TO BE DEMOLISHED IN THEIR ENTIRETY. EXISTING FOOTINGS AND BOTTOMS OF BATTERED STEM WALLS ARE TO REMAIN BURIED AND ABANDONED IN PLACE.



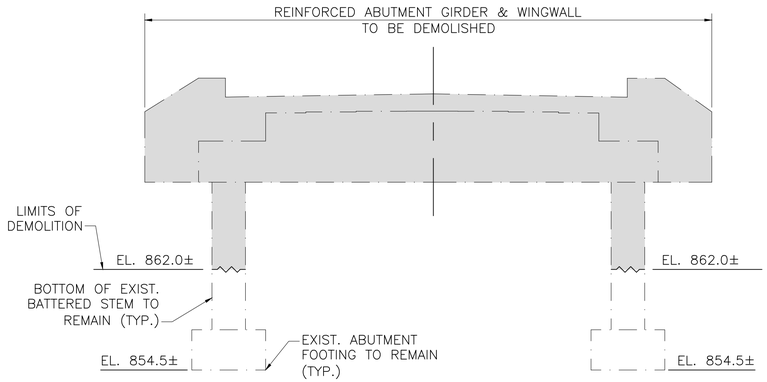
EXISTING TRANSVERSE SECTION

SCALE: $\frac{3}{8}$" = 1'–0"



EXISTING SOUTH ELEVATION

SCALE: $\frac{3}{16}$" = 1'–0"



TYPICAL ABUTMENT ELEVATION

SCALE: $\frac{3}{16}$" = 1'–0"

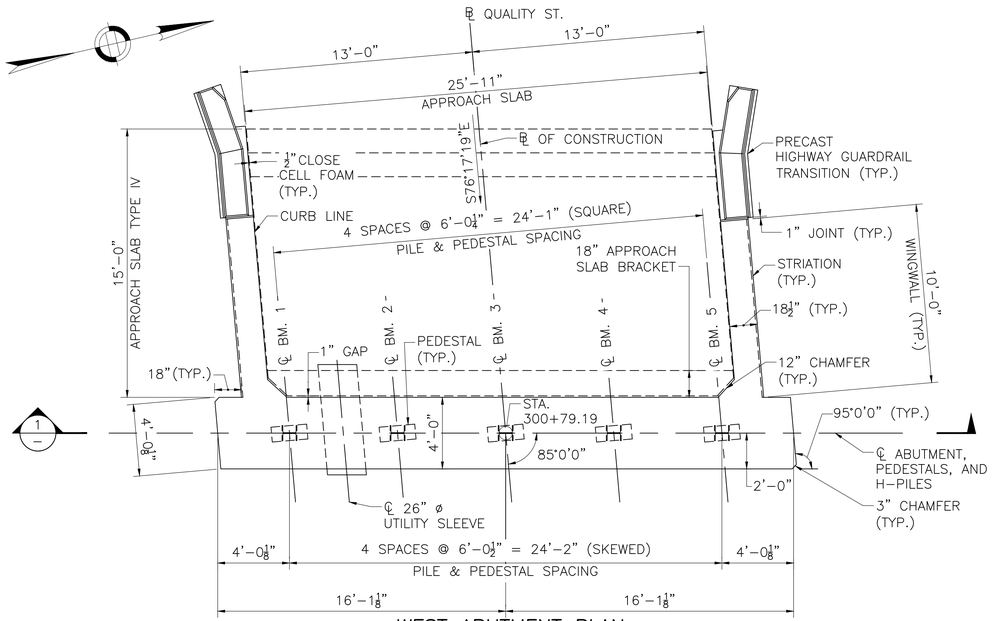
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	29	63
PROJECT FILE NO.	610777		

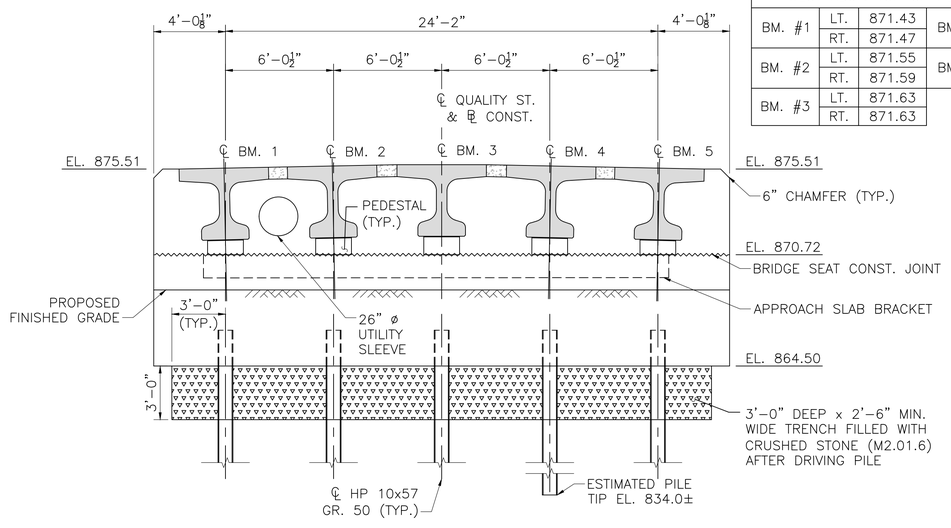
ABUTMENT PLAN & ELEVATION



WEST ABUTMENT PLAN

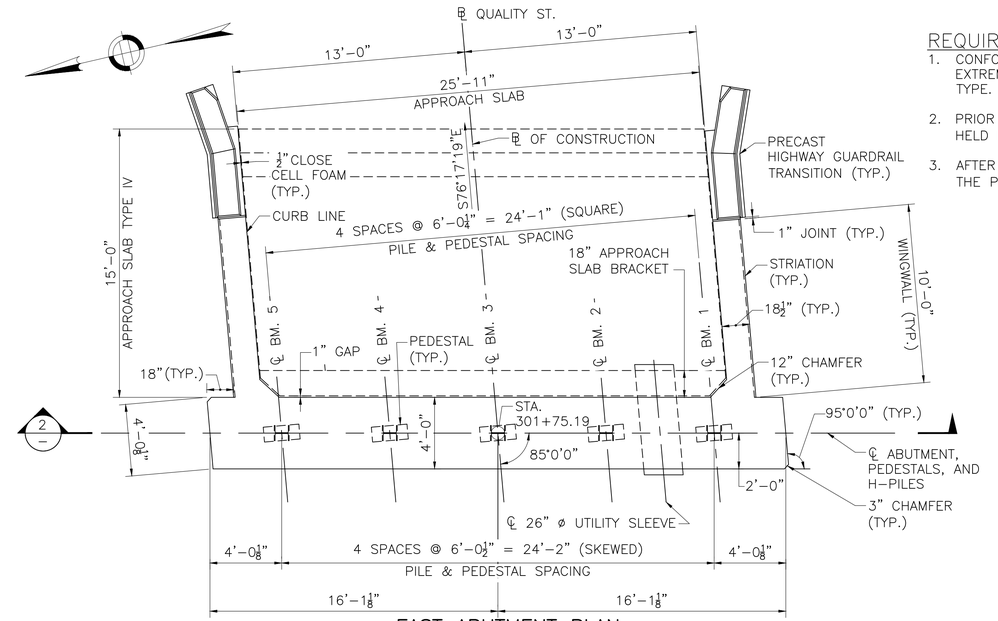
SCALE: ¼" = 1'-0"

WEST ABUT. TOP OF PEDESTAL ELEVATIONS					
BM. #1	LT.	871.43	BM. #4	LT.	871.58
	RT.	871.47		RT.	871.54
BM. #2	LT.	871.55	BM. #5	LT.	871.46
	RT.	871.59		RT.	871.42
BM. #3	LT.	871.63			
	RT.	871.63			



SECTION 1 / –

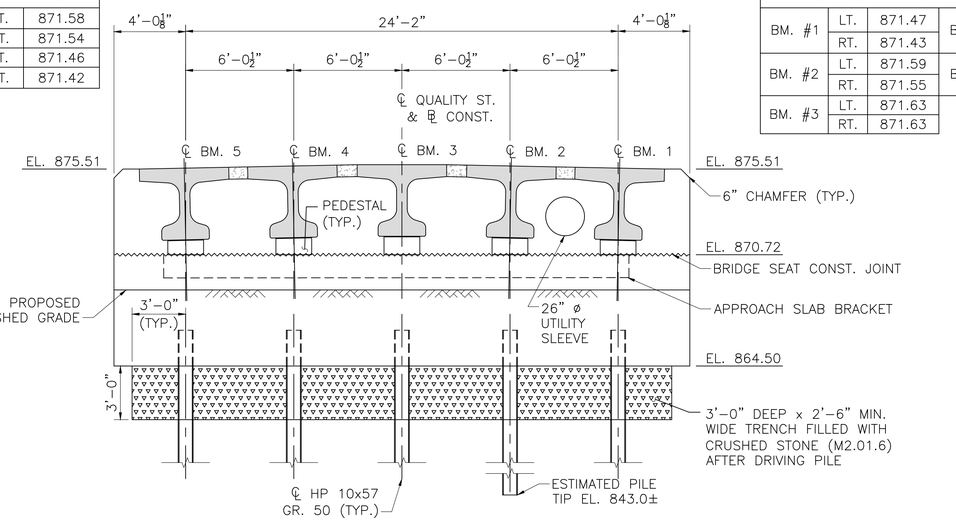
SCALE: ¼" = 1'-0"



EAST ABUTMENT PLAN

SCALE: ¼" = 1'-0"

EAST ABUT. TOP OF PEDESTAL ELEVATIONS					
BM. #1	LT.	871.47	BM. #4	LT.	871.54
	RT.	871.43		RT.	871.58
BM. #2	LT.	871.59	BM. #5	LT.	871.42
	RT.	871.55		RT.	871.46
BM. #3	LT.	871.63			
	RT.	871.63			



SECTION 2 / –

SCALE: ¼" = 1'-0"

REQUIRED PILE LOCATION TOLERANCES:

1. CONFORMANCE TO THE FOLLOWING TOLERANCES IS OF EXTREME IMPORTANCE TO FOUNDATIONS OF THIS TYPE.
2. PRIOR TO DRIVING, EACH ABUTMENT PILE SHALL BE HELD BY TEMPLATE TO WITHIN 1" OF PLAN LOCATION.
3. AFTER EACH ABUTMENT PILE IS DRIVEN, THE TOP OF THE PILE SHALL BE WITHIN 3" OF PLAN LOCATION.

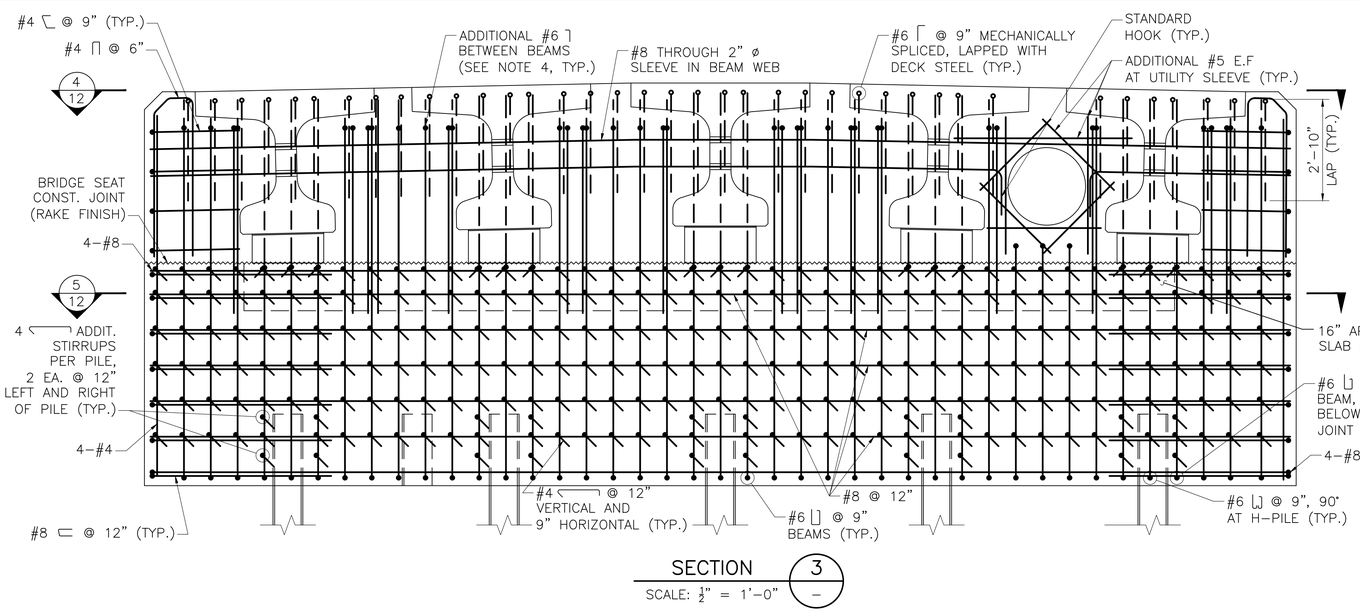
NOTES:

1. ALL ELEVATIONS ARE SHOWN AT ABUTMENT CENTERLINE.
2. DETAILS ABOVE DECK LEVEL AND INDEPENDENT WINGWALLS OMITTED FOR CLARITY.

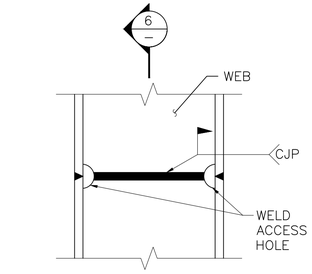
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

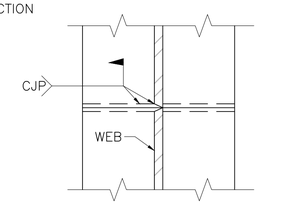
USE ONLY PRINTS OF LATEST DATE



SECTION 3
SCALE: ½" = 1'-0"



ELEVATION
NOT TO SCALE



SECTION 6
NOT TO SCALE

CJP H-PILE SPLICE NOTES:

1. ALL WELDS SHALL BE COMPLETE PENETRATION AND SHALL CONFORM TO THE AASHTO/AWS BRIDGE WELDING CODE, D1.5.
2. WELDING PROCEDURE SPECIFICATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO WELDING.
3. WHENEVER POSSIBLE ALL PILES SHALL BE SPLICED ON THE GROUND IN THE FLAT POSITION.
4. WEB SHALL BE COPED TO ALLOW FOR COMPLETE PENETRATION WELDING OF FLANGES.
5. WELDED MECHANICAL PILE SPLICERS MAY BE USED PROVIDED THAT COMPLETE DETAILS AND WELDING PROCEDURES HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.

INTEGRAL ABUTMENT NOTES:

1. ALL REINFORCEMENT SHALL BE COATED.
2. DECK SLAB REINFORCEMENT NOT SHOWN FOR CLARITY. CONTINUE DECK SLAB REINFORCEMENT TO BACK OF ABUTMENT.
3. ALL CONCRETE SHALL CONTAIN SUPERPLASTICIZER TO ENSURE ADEQUATE CONSOLIDATION.
4. THE NUMBER OF ADDITIONAL #6 BARS BETWEEN BEAMS SHALL BE EQUAL TO THE NUMBER OF #6 BARS WHICH ARE TERMINATED UNDERNEATH THE BEAM IN A 135° HOOK.
5. BEFORE THE DECK IS CONSTRUCTED, BACKFILL/RIPRAP MAY BE INSTALLED UP TO EL. 868.50 AT EACH INDIVIDUAL ABUTMENT. NO MORE THAN TWO (2) FEET OF DIFFERENTIAL BACKFILL/RIPRAP HEIGHT SHALL BE PERMITTED ON EITHER SIDE OF THE ABUTMENT.
6. BOTH ABUTMENTS SHALL BE BACKFILLED SIMULTANEOUSLY. NO MORE THAN TWO (2) FEET OF DIFFERENTIAL BACKFILL HEIGHT SHALL BE PERMITTED. BACKFILLING SHALL NOT BEGIN UNTIL THE ABUTMENT AND DECK CONSTRUCTION IS COMPLETE.
7. HMA PROTECTIVE BERM TO BE SUPERPAVE BRIDGE PROTECTIVE COURSE (SPC-B-12.5) PLACED IN 2" LAYERS AND COMPACTED WITH A MECHANICAL HAND-GUIDED TAMPER.

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	30	63
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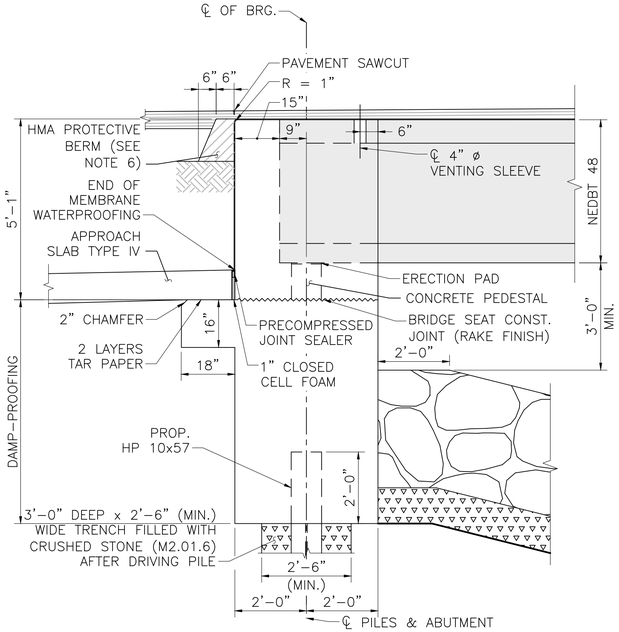
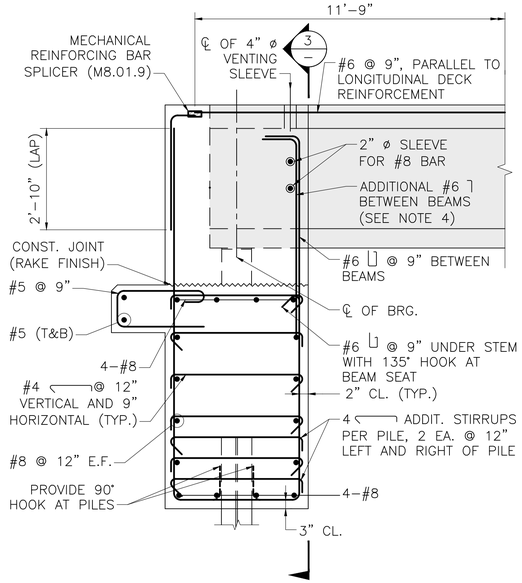
ABUTMENT DETAILS 1 OF 2

PILE NOTES:

1. A TRENCH WITH A DEPTH OF 3'-0" AND A MINIMUM WIDTH OF 2'-6" SHALL BE CONSTRUCTED DIRECTLY BELOW THE BOTTOM OF THE PILE CAP ELEVATION. AFTER THE PILES ARE DRIVEN, THE TRENCH SHALL BE FILLED WITH CRUSHED STONE (M2.01.6).
2. ALL PILE SPLICES SHALL BE BUTT JOINTS MADE USING COMPLETE JOINT PENETRATION WELDS. THERE SHALL BE NO SPLICES WITHIN THE TOP 20 FEET OF PILE. SPLICE WELDS SHALL BE 100% INSPECTED USING UT.
3. PILES SHALL CONFORM TO AASHTO M270 GRADE 50.
4. HEAVY DUTY PILE SHOES SHALL BE INSTALLED ON THE TIPS OF ALL PILES. PREFABRICATED PILE SHOES MAY BE USED IF APPROVED BY THE ENGINEER.
5. FACTORED AXIAL DESIGN LOAD PER PILE PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
   - STRENGTH I LIMIT STATE
     FACTORED AXIAL DESIGN LOAD = 282 KIPS.
6. PILES SHALL BE DRIVEN TO BEDROCK WITH THE ESTIMATED TIP ELEVATION AT EL. 834.0' AT THE WEST ABUTMENT AND EL. 843.0' AT THE EAST ABUTMENT. THE FACTORED STRUCTURAL RESISTANCE PER PILE IS 417 KIPS AND IS THE PRODUCT OF THE NOMINAL STRUCTURAL RESISTANCE OF 835 KIPS AND A RESISTANCE FACTOR OF 0.50.
7. THE MINIMUM PILE TIP ELEVATION IS AT EL. 846.0' REGARDLESS OF THE PERFORMANCE TESTING OUTLINED BELOW.
8. DETERMINATION OF THE DRIVEN PILE RESISTANCE, PILE DRIVING CRITERIA AND PILE INTEGRITY SHALL BE PERFORMED ON AT LEAST ONE (1) PILE PER ABUTMENT USING DYNAMIC TESTING WITH A RESISTANCE FACTOR OF 0.65. PILES SHALL BE INSTALLED TO ACHIEVE A FACTORED DRIVEN RESISTANCE EQUAL TO OR GREATER THAN THE FACTORED AXIAL DESIGN LOAD.
9. THE CONTRACTOR SHALL SUBMIT A PILE SCHEDULE, PILE INSTALLATION, AND PILE DRIVING/TESTING PLAN FOR REVIEW AND APPROVAL OF THE ENGINEER.
10. AFTER PILE DRIVING IS COMPLETE, THE CONTRACTOR SHALL SUBMIT PILE DRIVING LOGS INCLUDING THE FINAL TIP ELEVATIONS AND THE RESULTS OF ANY DYNAMIC OR STATIC LOAD TESTING. SIGNIFICANT DEVIATIONS SHALL BE NOTED AS REVISIONS ON THE CONSTRUCTION DRAWINGS.
11. THE CONTRACTOR SHALL BE PREPARED TO DRILL THROUGH POTENTIAL OBSTRUCTIONS (E.G. COBBLES/BOULDERS). THE DRILLED HOLE DIAMETER SHALL BE APPROXIMATELY 14 INCHES. THE MAXIMUM DRILL THROUGH OBSTRUCTIONS DEPTH IS TO THE TOP OF BEDROCK. NOTE THE TOP OF BEDROCK ELEVATION IS EXPECTED TO VARY. TEMPORARY CASING WILL BE NEEDED TO KEEP THE DRILLED HOLE FROM COLLAPSING. ADDITIONALLY THE INSIDE DIAMETER OF THE TEMPORARY CASING SHALL BE SLIGHTLY LARGER THAN THE DIAGONAL WIDTH OF THE H-PILE. THE DRILLED HOLE SHALL BE BACKFILLED WITH M1.04.0 TYPE A (SAND BORROW) AS THE CASING IS REMOVED.
12. ALL PILES REQUIRE RESTRIKE AFTER ALLOWING THEM TO SET UP FOR 12 TO 24 HOURS IN ACCORDANCE WITH STANDARD SPECIFICATIONS.



ABUTMENT SECTION
SCALE: ½" = 1'-0"



ABUTMENT REINFORCEMENT
SCALE: ½" = 1'-0"

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	31	63
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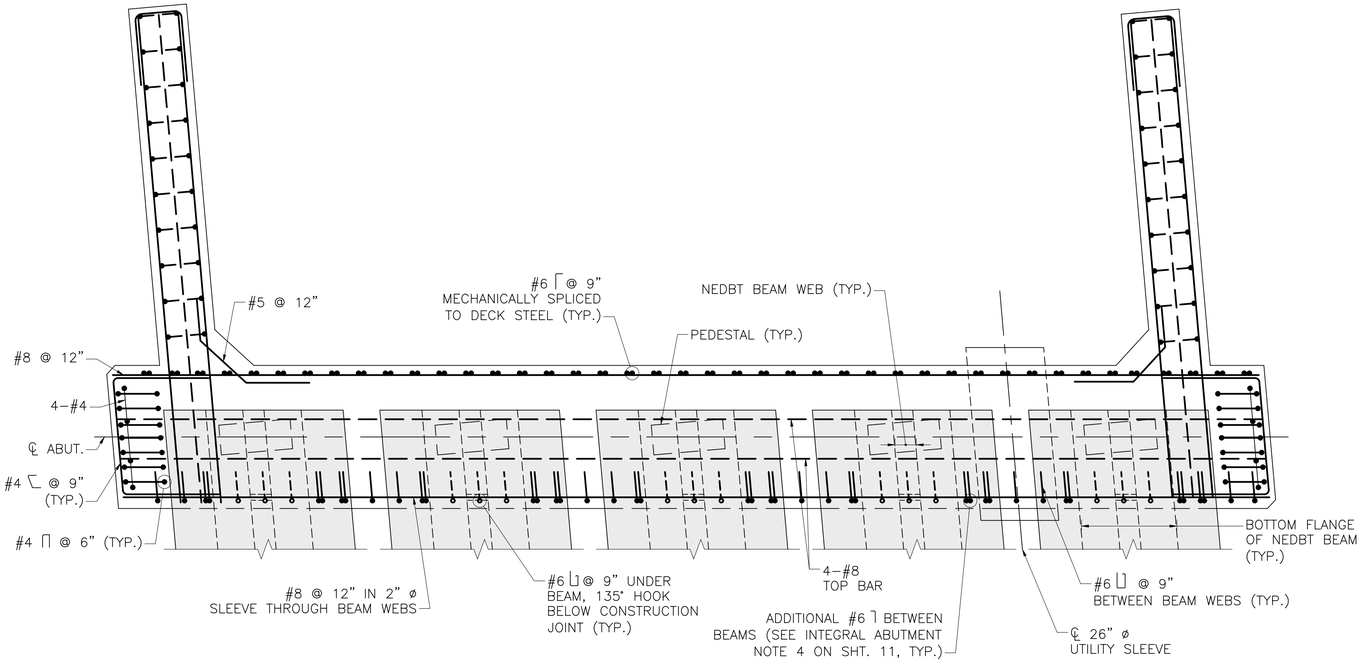
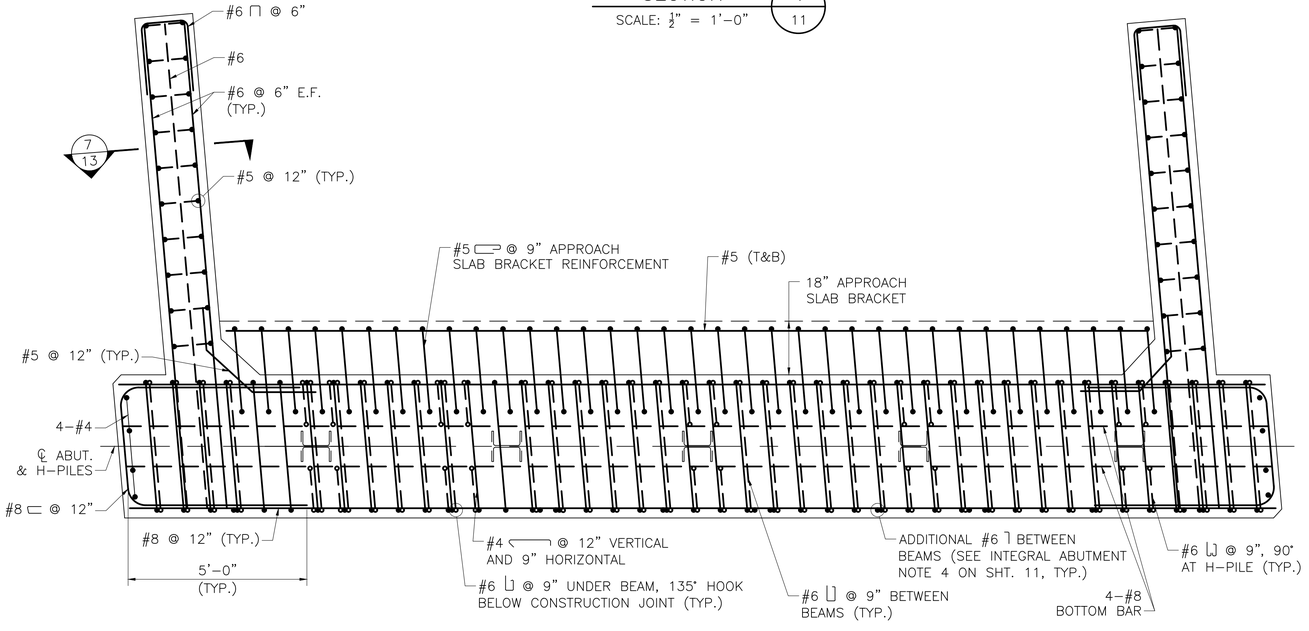
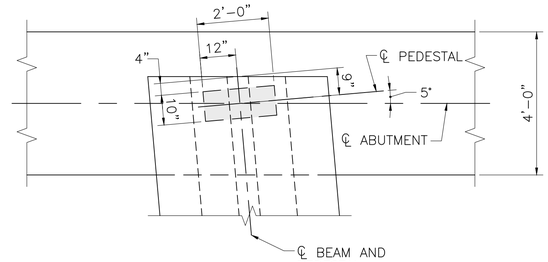
ABUTMENT DETAILS 2 OF 2



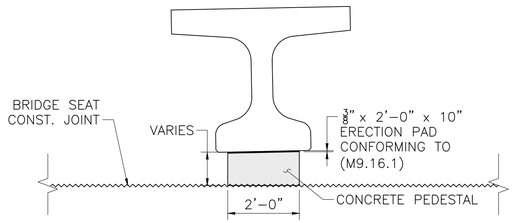
SECTION 4
SCALE: ½" = 1'–0"
11



SECTION 5
SCALE: ½" = 1'–0"
11

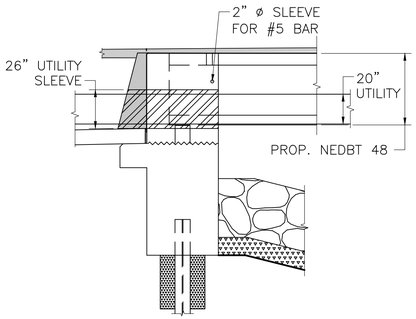


PLAN

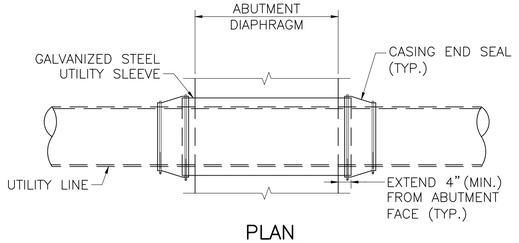


ELEVATION

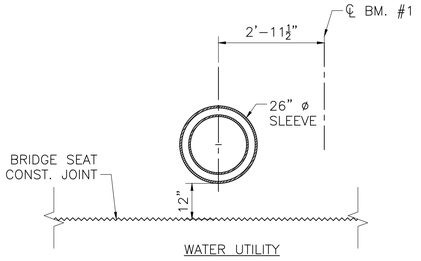
PEDESTAL DETAILS
SCALE: ½" = 1'–0"



UTILITY SLEEVE DETAIL
SCALE: ¼" = 1'–0"



PLAN



ELEVATION

UTILITY DETAILS AT ABUTMENT
SCALE: ½" = 1'–0"

NOTES:
1. DIMENSIONS ARE SQUARE TO BEAMS.
2. UTILITY SLEEVES SHALL BE STEEL PIPE CONFORMING TO ASTM A 53, TYPE S, GRADE B, STANDARD WEIGHT, PLAIN ENDS, HOT–DIP GALVANIZED AND SHALL BE SET IN THE FORMS PRIOR TO PLACING ABUTMENT DIAPHRAGM CONCRETE.

DATE	DESCRIPTION
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ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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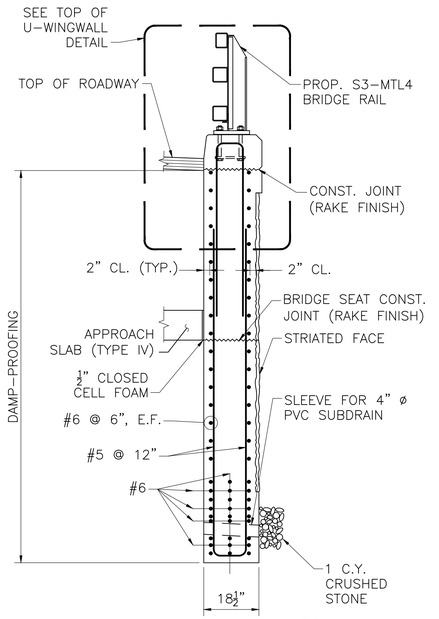
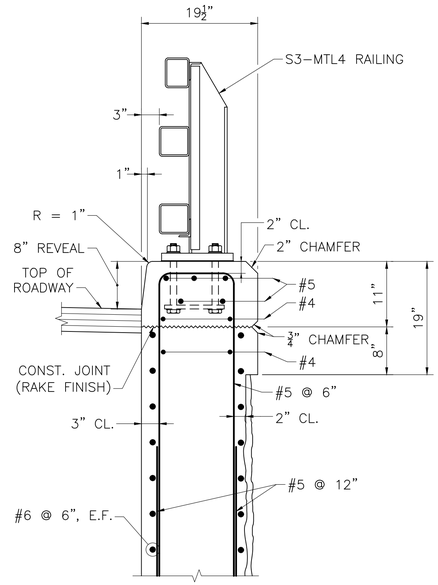
WINGWALL DETAILS 1 OF 2



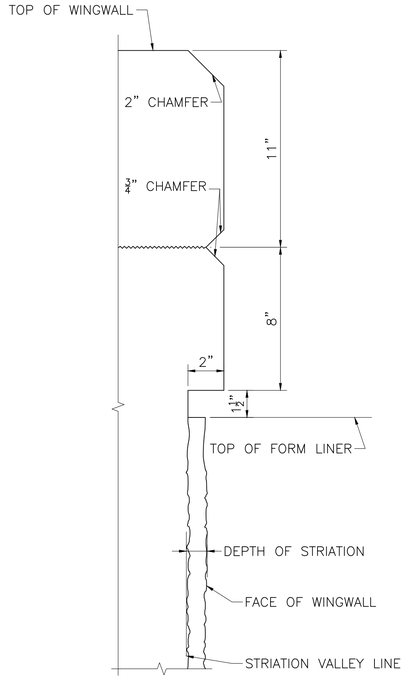
SECTION 7/12

SCALE: ½" = 1'-0"



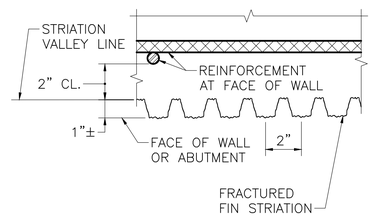
TOP OF U-WINGWALL DETAIL

SCALE: 1" = 1'-0"



STRIATION DETAIL AT TOP OF WINGWALL

SCALE: 3" = 1'-0"



TYPICAL STRIATION DETAIL

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.

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ADAMS
QUALITY STREET

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MA	BFL(BR-OFF)-0031(020)	33	63
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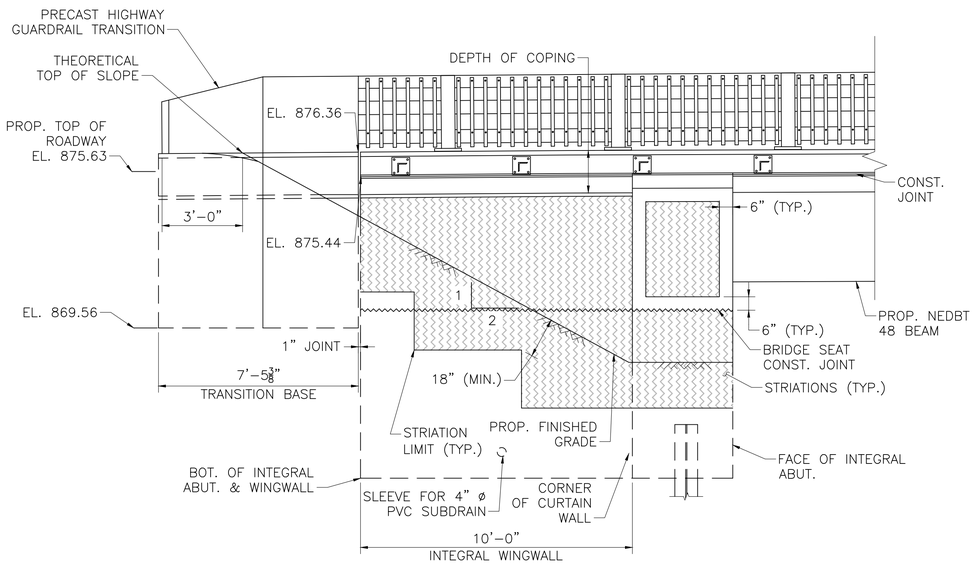
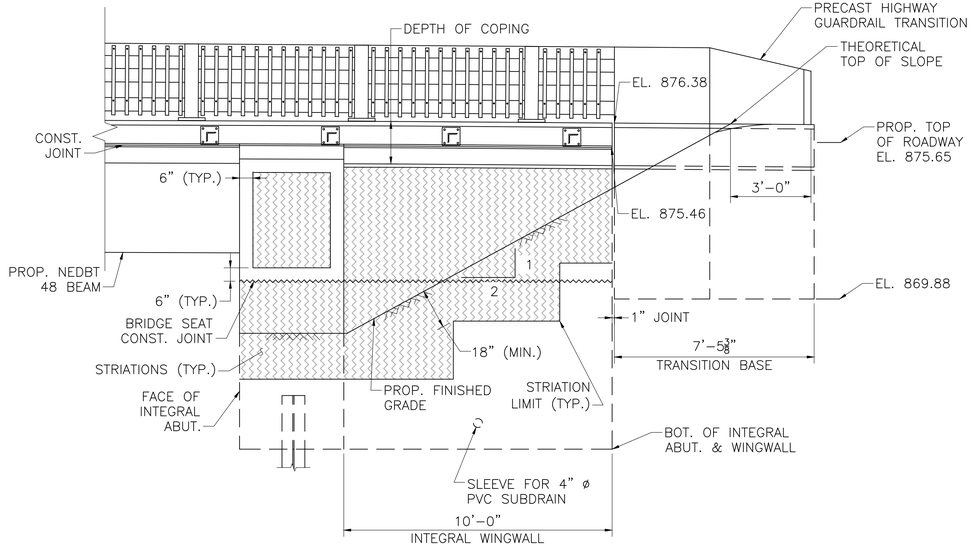
WINGWALL DETAILS 2 OF 2



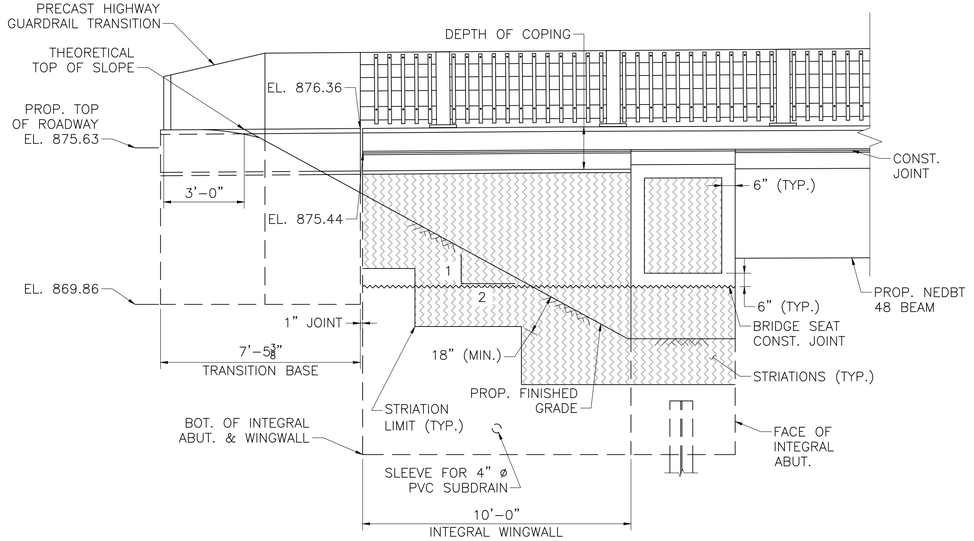
NORTHEAST WINGWALL ELEVATION

SCALE: ⅜" = 1'-0"



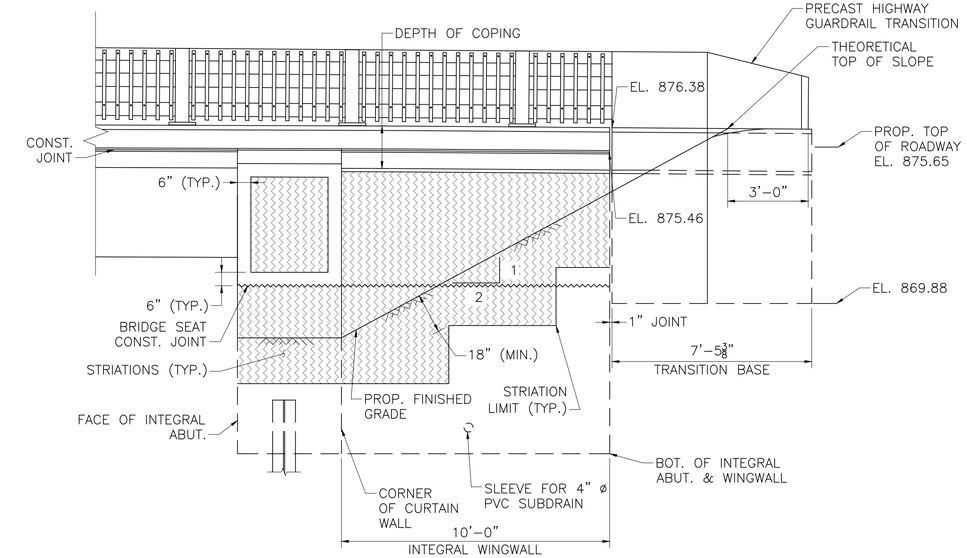
NORTHWEST WINGWALL ELEVATION

SCALE: ⅜" = 1'-0"



SOUTHWEST WINGWALL ELEVATION

SCALE: ⅜" = 1'-0"



SOUTHEAST WINGWALL ELEVATION

SCALE: ⅜" = 1'-0"

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ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	34	63
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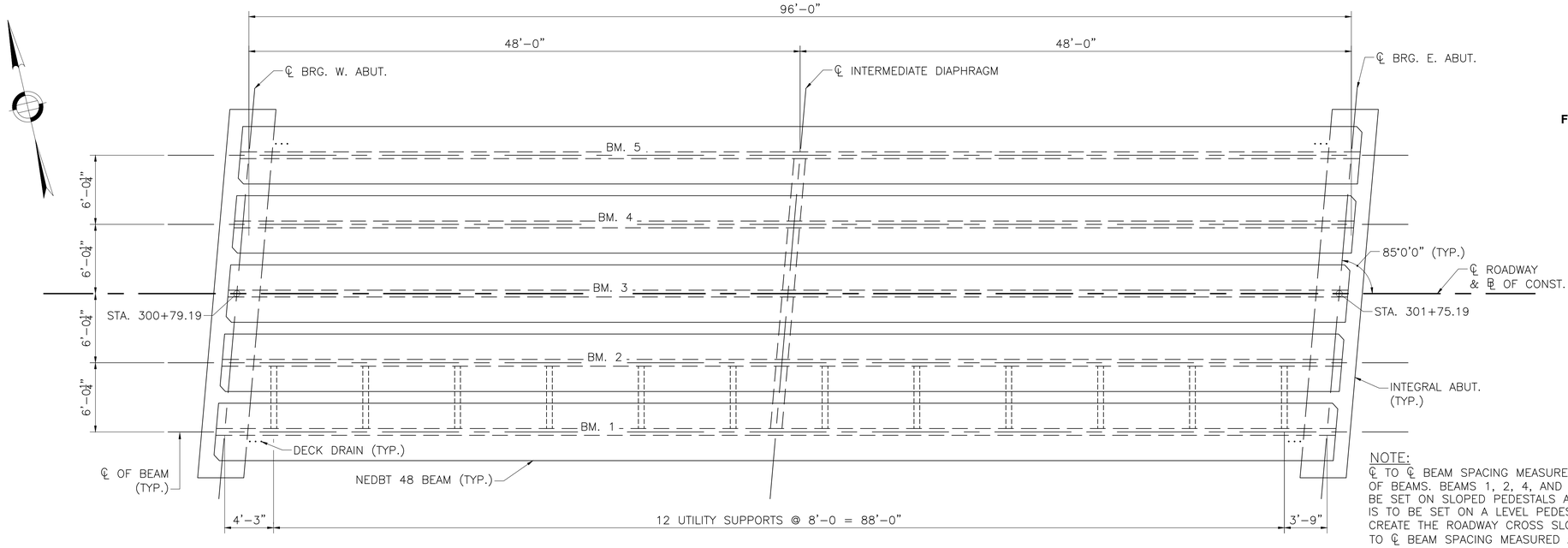
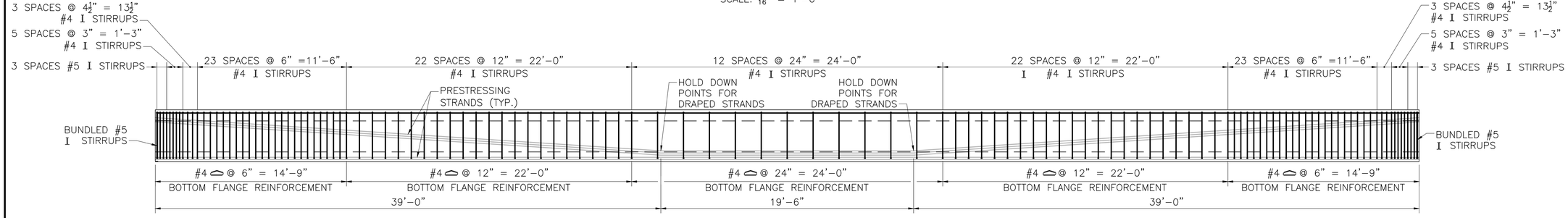
FRAMING PLAN, CROSS SECTION, & BEAM ELEVATION



FRAMING PLAN

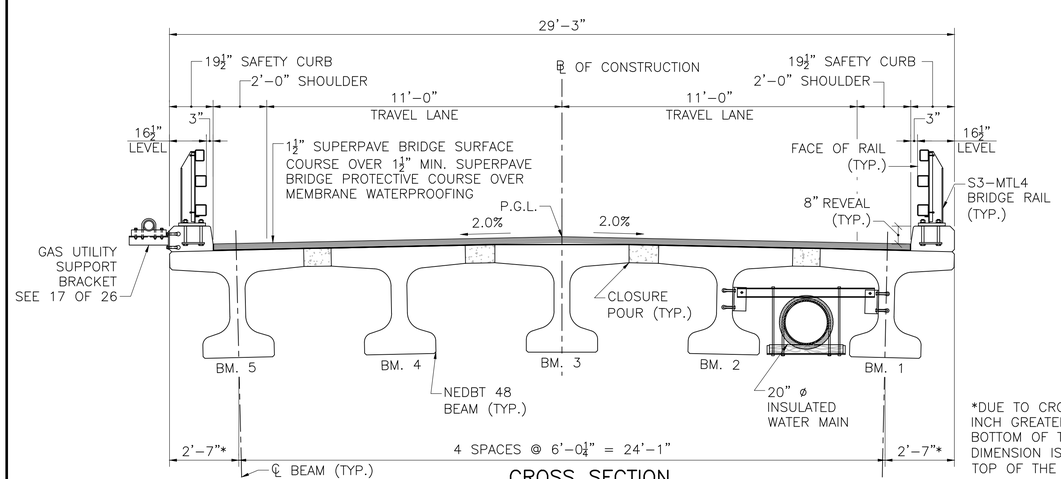
SCALE: $\frac{3}{16}$" = 1'-0"

NOTE:
℄ TO ℄ BEAM SPACING MEASURED AT BOTTOM OF BEAMS. BEAMS 1, 2, 4, AND 5 ARE TO BE SET ON SLOPED PEDESTALS AND BEAM 3 IS TO BE SET ON A LEVEL PEDESTAL TO CREATE THE ROADWAY CROSS SLOPE, SO ℄ TO ℄ BEAM SPACING MEASURED AT THE TOP OF BEAMS INCREASES TO 6'-1¼" BETWEEN BEAMS 2 & 3 AND BEAMS 3 & 4.



TYPICAL BEAM SHEAR REINFORCEMENT ELEVATION

SCALE: ¼" = 1'-0"



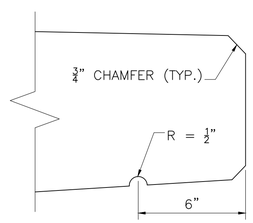
CROSS SECTION

SCALE: $\frac{3}{8}$" = 1'-0"

*DUE TO CROSS SLOPE, DIMENSION IS AN INCH GREATER WHEN MEASURED AT THE BOTTOM OF THE BEAM. EXTERIOR OVERHANG DIMENSION IS 2'-6" WHEN MEASURED AT THE TOP OF THE BEAM.

ESTIMATED CAMBER AND DEFLECTIONS AT MIDSPAN (INCHES)

STATE OF BEAM	DIRECTION	BM. 1	BM. 2	BM. 3	BM. 4	BM. 5
CAMBER AT TRANSFER	UP	3.80	3.80	3.80	3.80	3.80
CAMBER AT ERECTION	UP	3.05	3.06	3.23	3.21	3.21
FINAL NCDL DEFLECTIONS	DOWN	0.256	0.347	0.182	0.197	0.197
FINAL CDL DEFLECTIONS	DOWN	0.495	0.391	0.391	0.391	0.391



EXTERIOR BEAM FASCIA DETAIL

SCALE: 3" = 1'-0"

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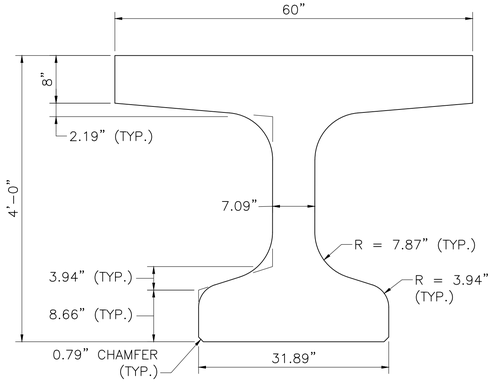
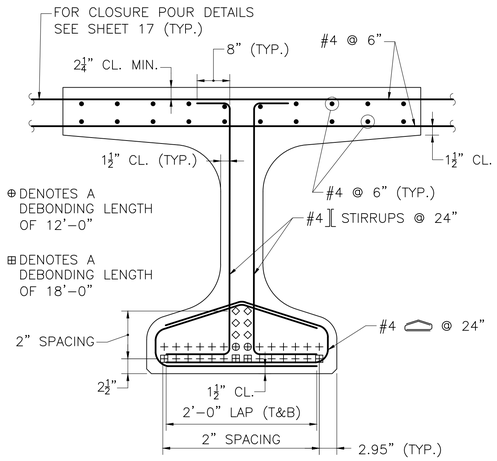


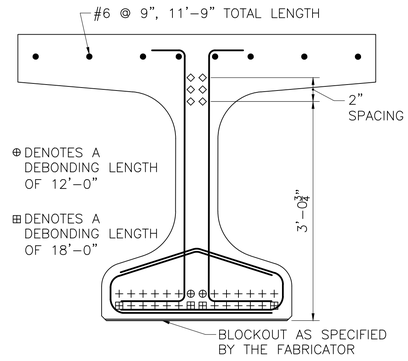
TYPICAL BEAM DIMENSIONS

SCALE: 1" = 1'-0"



MIDSPAN SECTION

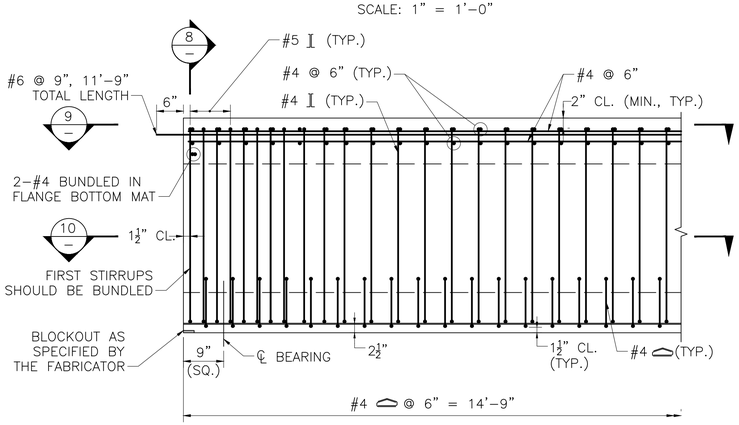
SCALE: 1" = 1'-0"



SECTION 8/–

SCALE: 1" = 1'-0"

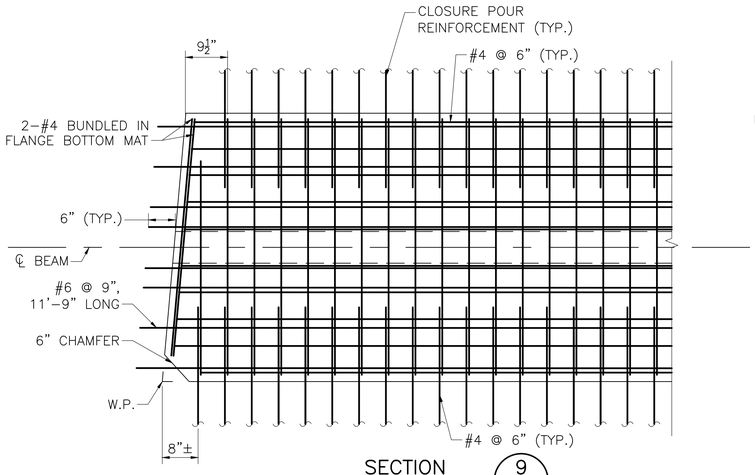
NOTES:
1. SEE MIDSPAN SECTION FOR DETAILS AND INFORMATION NOT SHOWN ABOVE.
2. TOP FLANGE REBAR NOT SHOWN FOR CLARITY.



BEAM LONGITUDINAL SECTION AT ABUTMENT

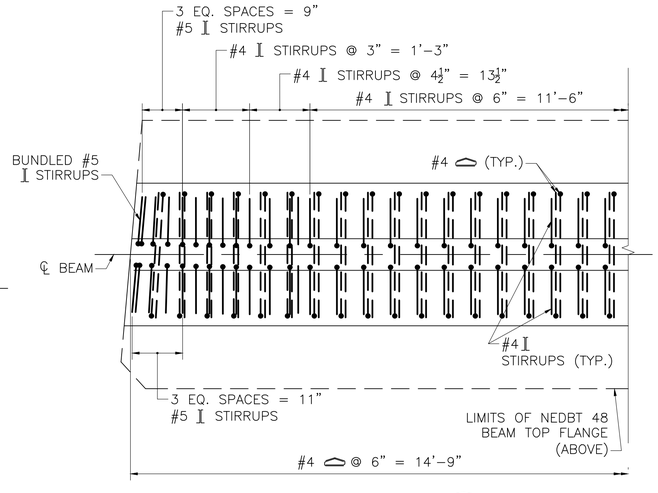
SCALE: ¾" = 1'-0"

NOTE:
REMAINDER OF PRESTRESSING STRANDS NOT SHOWN FOR CLARITY.



SECTION 9/–

SCALE: ¾" = 1'-0"



SECTION 10/–

SCALE: ¾" = 1'-0"

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	35	63
PROJECT FILE NO.	610777		

BEAM DETAILS

NOTES:
1. + DENOTES STRAIGHT STRANDS.
2. ◇ DENOTES DRAPED STRANDS.
3. ⊕ ⊞ DENOTES DEBONDED STRANDS OF DIFFERENT LENGTHS.
4. ALL PRETENSIONING ELEMENTS SHALL BE 0.6" ø, UNCOATED, SEVEN-WIRE, LOW RELAXATION STEEL STRANDS AND SHALL CONFORM TO AASHTO M 203.
5. THE NOMINAL TENSILE STRENGTH OF THE PRETENSIONING STRANDS SHALL BE 270 KSI.
6. THE INITIAL TENSION PER 0.6" ø STRAND SHALL BE 44 KIPS.
7. THE MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 6500 PSI.
8. NO PRESTRESS SHALL BE TRANSFERRED TO THE CONCRETE UNTIL IT HAS ATTAINED A COMPRESSIVE STRENGTH, AS SHOWN BY A CYLINDER TEST, OF AT LEAST 4500 PSI.
9. THE TOP OF THE BEAMS UNDER THE SAFETY CURBS SHALL BE GIVEN A RAKED FINISH (¼" AMPLITUDE) ACROSS THE ENTIRE WIDTH PERPENDICULAR TO THE BEAM'S AXIS.
10. THE FABRICATOR IS FULLY RESPONSIBLE FOR THE DESIGN OF THE LIFTING DEVICES WHICH SHALL BE ADEQUATE FOR THE SAFETY FACTORS REQUIRED BY THE ERECTION PROCEDURE.
11. TO CONTROL CRACKING AT THE END OF THE BEAM, THE FABRICATOR SHALL DEBOND APPROXIMATELY 50% OF THE STRANDS FOR THE FIRST 6" FROM THE END OF THE BEAM.
12. PRECASTER SHALL PROVIDE A DETENSIONING SEQUENCE TO THE ENGINEER FOR REVIEW AND APPROVAL.

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
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THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
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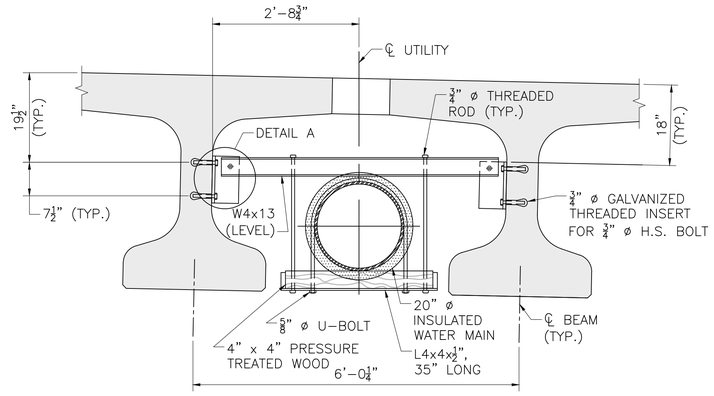
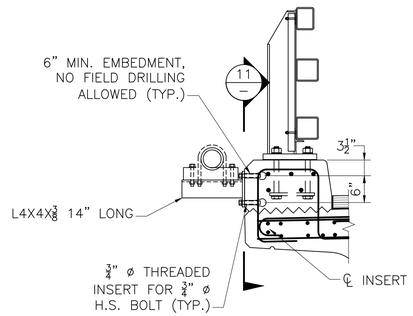


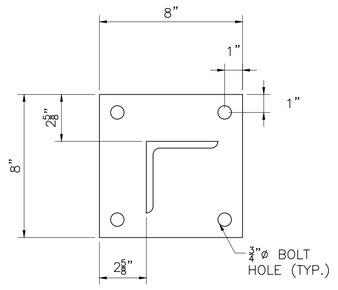
SOUTH UTILITY BAY DETAILS

SCALE: ¾" = 1'–0"



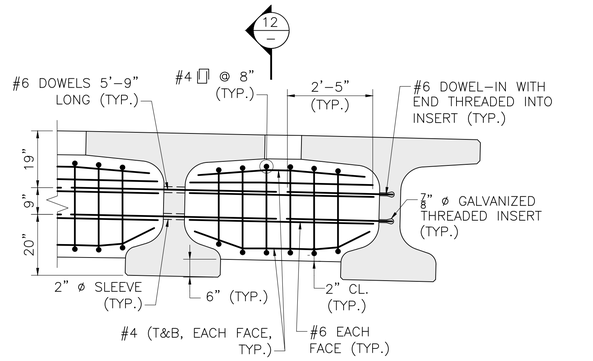
GAS UTILITY SUPPORT DETAIL

SCALE: ¾" = 1'–0"



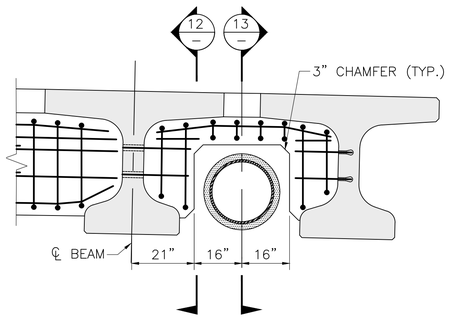
SECTION 11

SCALE: 1" = 1'–0"



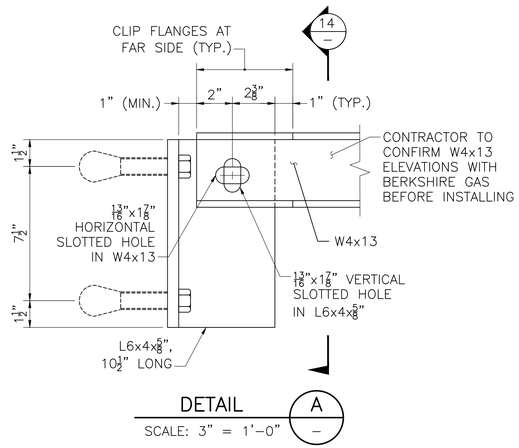
INTERMEDIATE DIAPHRAGM

SCALE: ½" = 1'–0"



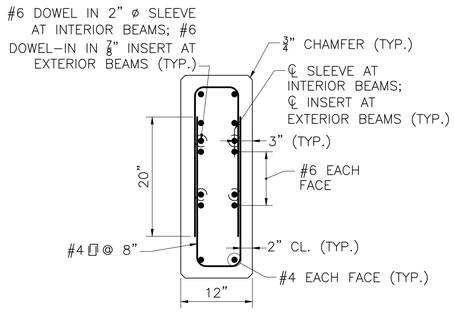
INTERMEDIATE DIAPHRAGM WITH 20" WATER UTILITY

SCALE: ½" = 1'–0"



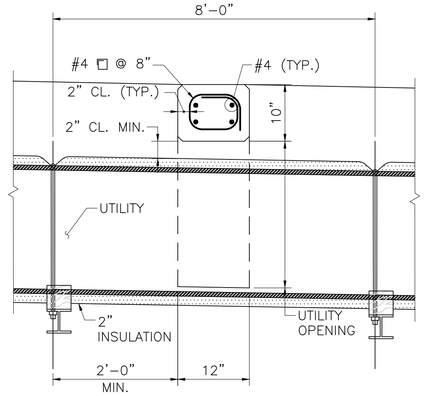
DETAIL A

SCALE: 3" = 1'–0"



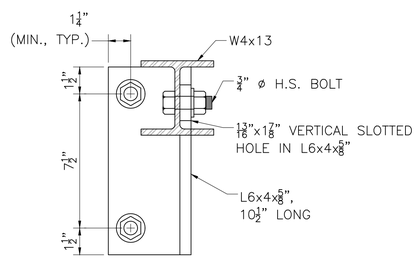
SECTION 12

SCALE: 1" = 1'–0"



SECTION 13

NOT TO SCALE



SECTION 14

SCALE: 3" = 1'–0"

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	36	63
	PROJECT FILE NO. 610777		

DIAPHRAGM & UTILITY SUPPORT DETAILS

INTERMEDIATE DIAPHRAGM NOTES:

1. SLEEVES AND INSERTS SHALL BE ALIGNED WITH DIAPHRAGM SKEWS AS SHOWN ON THE FRAMING PLAN.
2. ⅞" ø GALVANIZED THREADED INSERTS SHALL BE CAST INTO THE PRECAST BEAMS BY THE FABRICATOR. THEY SHALL PROVIDE A MINIMUM NOMINAL TENSILE RESISTANCE OF 21.0 KIPS AND A MINIMUM NOMINAL SHEAR RESISTANCE OF 21.0 KIPS IN 3000 PSI CONCRETE.

WATER UTILITY NOTES:

1. ALL STRUCTURAL STEEL FOR UTILITY SUPPORTS SHALL CONFORM TO AASHTO M 270 GRADE 36 OR GRADE 50. ALL STRUCTURAL STEEL AND FASTENERS SHALL BE HOT–DIP GALVANIZED.
2. THE ¾" ø GALVANIZED THREADED INSERTS FOR ¾" ø H.S. BOLTS SHALL BE CAST INTO THE PRECAST BEAMS BY THE FABRICATOR. THEY SHALL PROVIDE A MINIMUM NOMINAL TENSILE RESISTANCE OF 4.0 KIPS AND A MINIMUM NOMINAL SHEAR RESISTANCE OF 4.0 KIPS IN 3000 PSI CONCRETE.
3. THE CONTRACTOR IS TO VERIFY THAT AFTER THE WATERLINE IS INSTALLED, NO PORTION OF THE WATERLINE OR SUPPORT MATERIAL HANGS BELOW THE ELEVATION OF THE BOTTOM OF THE NEDBT.
4. INSERTS SHALL BE POSITIONED TO AVOID INTERFERENCE WITH PRESTRESSING STRANDS AND REINFORCEMENT.

GAS UTILITY NOTES:

1. ¾"ø GALVANIZED THREADED INSERTS FOR ¾" ø GALVANIZED H.S. BOLTS SHALL BE CAST INTO THE SAFETY CURB AND SHALL PROVIDE A MINIMUM NOMINAL TENSILE RESISTANCE OF 6.0 KIPS AND A MINIMUM NOMINAL SHEAR RESISTANCE OF 6.0 KIPS IN 3000 PSI CONCRETE. MAX. INSERT SPACING = 4'–6" (TYP.) DESIGNED FOR 125 LB/FT UTILITY LOAD AT 12" FROM THE EXTERIOR FACE OF FLANGE/SAFETY CURB.
2. THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL, CALCULATIONS THAT DEMONSTRATE THAT THE PROPOSED UTILITY INSERTS MEET THE REQUIREMENTS LISTED ON THIS SHEET. ALL CALCULATIONS SUBMITTED SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN MASSACHUSETTS.
3. THE INSERTS SHALL BE POSITIONED TO AVOID INTERFERENCE WITH REINFORCEMENT. INSERTS TO BE SET WITH TEMPLATE BEFORE CONCRETE IS PLACED.
4. THE GAS UTILITY SUPPORT WILL BE DESIGNED AND SUPPLIED BY BERKSHIRE GAS FOR INSTALLATION BY THE CONTRACTOR. THE CONTRACTOR SHALL REFER TO THE PROVIDED GAS UTILITY SUPPORT DETAIL AND SECTION 11 TO DESIGN AND LOCATE ¾"ø GALVANIZED THREADED INSERTS TO BE CAST INTO THE SAFETY CURB.

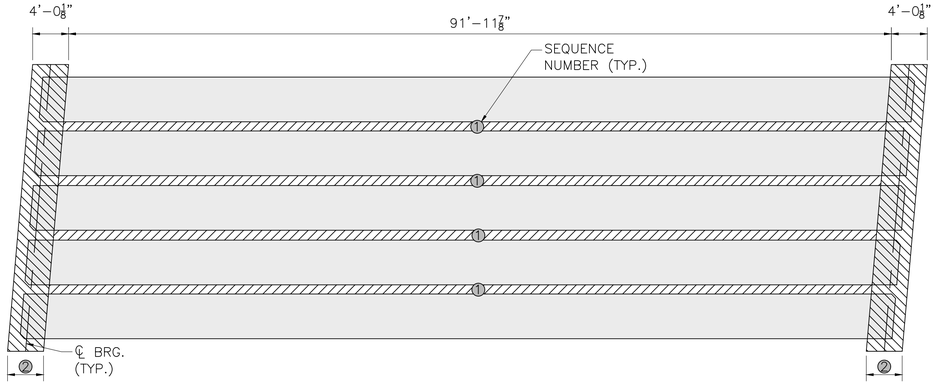
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

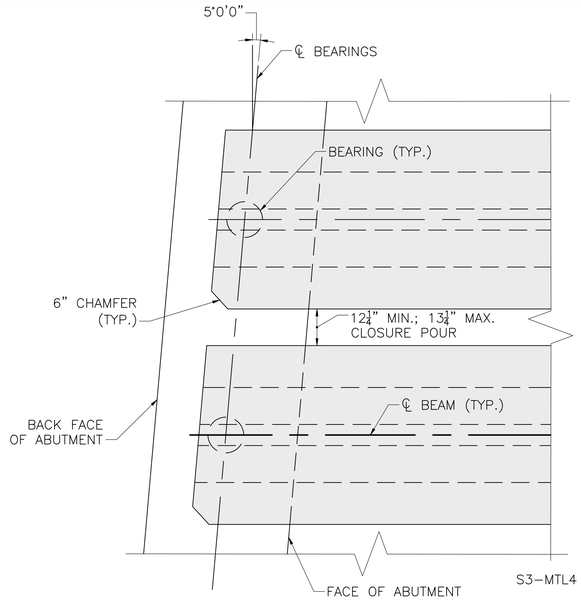
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	37	63
	PROJECT FILE NO. 610777		

CLOSURE POUR & DECK DRAIN DETAILS



DECK POURING SEQUENCE

SCALE: ⅛" = 1'–0"



END OF BEAM PLAN AT ABUTMENT

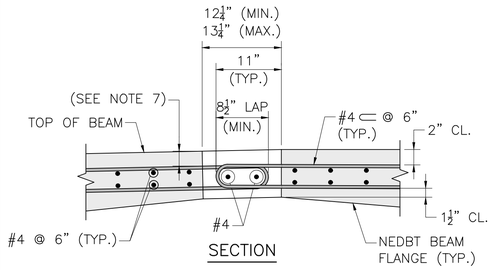
SCALE: ½" = 1'–0"

DECK POURING SEQUENCE NOTES:

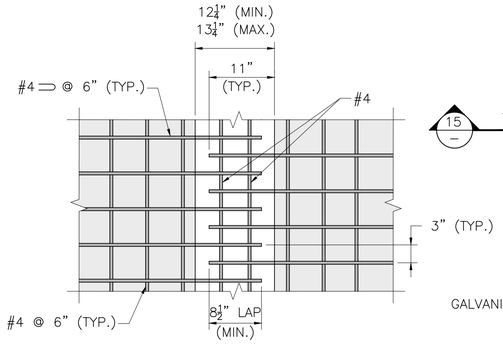
1. BEAM CLOSURE POURS AND ABUTMENTS ABOVE THE BRIDGE SEAT CONSTRUCTION JOINTS SHALL BE PLACED IN ACCORDANCE WITH THE PLACEMENT SEQUENCE SHOWN ON THE CONSTRUCTION DRAWINGS.
2. THE CONTRACTOR MAY PLACE ALL BEAM CLOSURE POURS AND BOTH ABUTMENTS ABOVE THE BRIDGE SEAT CONSTRUCTION JOINTS IN ONE CONTINUOUS OPERATION WITHOUT CONSTRUCTION JOINTS WITH THE APPROVAL OF THE ENGINEER, PROVIDED THAT THE INITIAL SET (f'c = 500 PSI) OF ALL CONCRETE DOES NOT OCCUR UNTIL AFTER THE COMPLETION OF THE PLACEMENT. AN APPROVED RETARDER SHALL BE USED, WHEN NECESSARY, TO RETAIN THE WORKABILITY OF THE CONCRETE. IF MULTIPLE PLACEMENTS ARE MADE, A MINIMUM OF 72 HOURS SHALL PASS BETWEEN PLACEMENTS.

CLOSURE POUR NOTES:

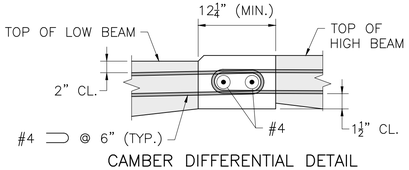
1. EDGE OF BEAM FLANGE IN CLOSURE POUR SHALL HAVE EXPOSED AGGREGATE FINISH.
2. CLOSURE POUR REINFORCEMENT TO BE PLACED ALONG THE ENTIRE SPAN.
3. CLOSURE POUR REINFORCEMENT SHALL BE PLACED PERPENDICULAR TO BEAM EDGE.
4. METHOD OF FORMING CLOSURE POUR TO BE DETERMINED BY THE CONTRACTOR. THE FORMS SHALL BE REMOVABLE AND BE ABLE TO ACCOMMODATE DIFFERENTIAL CAMBER. FORM SUPPORTS SHOULD NOT PENETRATE THROUGH TOP OF POUR UNLESS APPROVED BY THE ENGINEER.
5. CLOSURE POUR CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI.
6. AT THE CONTRACTOR'S OPTION, GALVANIZED INSERTS MAY BE CAST INTO THE BEAMS TO FACILITATE FORMING OF THE CLOSURE POUR. THE INSERTS SHALL BE SHOWN ON THE SHOP DRAWINGS AND MAY NOT BE CLOSER THAN 2'–0" ON CENTER. CALCULATIONS SHALL BE PROVIDED ALONG WITH MANUFACTURER'S RECOMMENDATIONS DEMONSTRATING THAT THE INSERTS ARE SUFFICIENT FOR THE INTENDED PURPOSE.
7. WHEN MINIMUM COVER OVER HOOPS IN THE CLOSURE POUR IS LESS THAN 1" USE CAMBER DIFFERENTIAL DETAIL.



SECTION



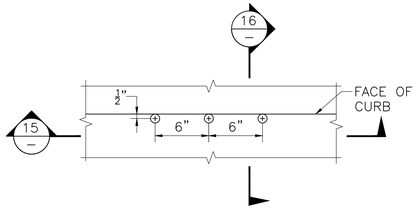
PLAN



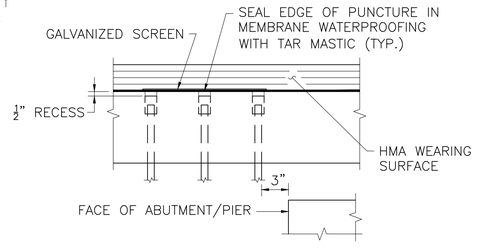
CAMBER DIFFERENTIAL DETAIL

CLOSURE POUR DETAILS

SCALE: 1" = 1'–0"



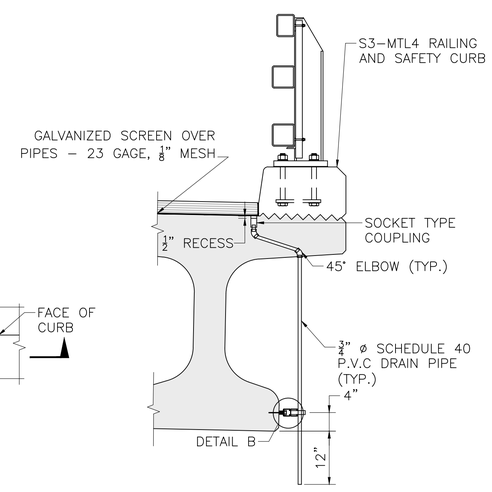
DECK PLAN



SECTION 15

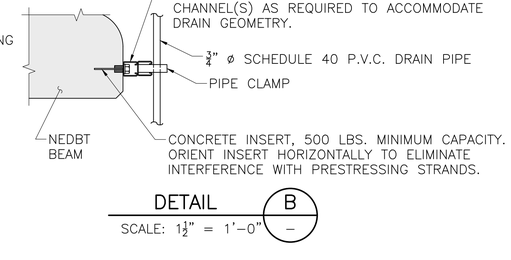
DECK DRAIN PIPES

SCALE: 1½" = 1'–0"



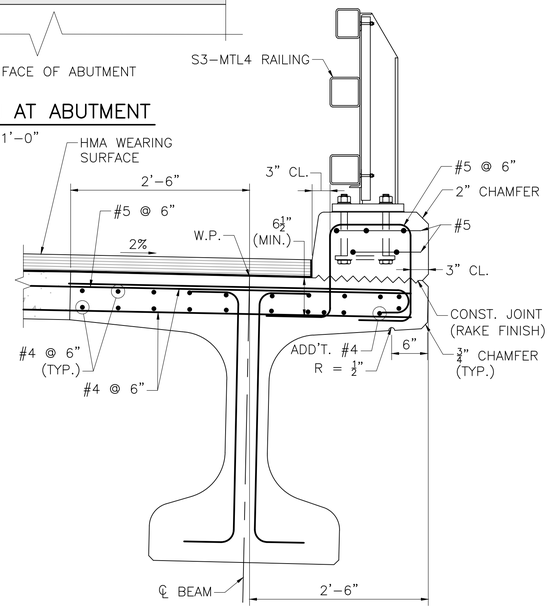
SECTION 16

SCALE: ¾" = 1'–0"



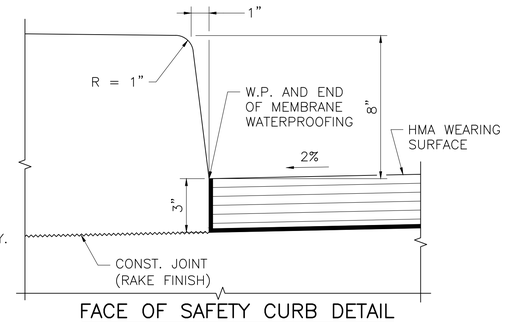
DETAIL B

SCALE: 1½" = 1'–0"



SECTION THRU SAFETY CURB

SCALE: 1" = 1'–0"



FACE OF SAFETY CURB DETAIL

SCALE: 3" = 1'–0"

DATE	DESCRIPTION
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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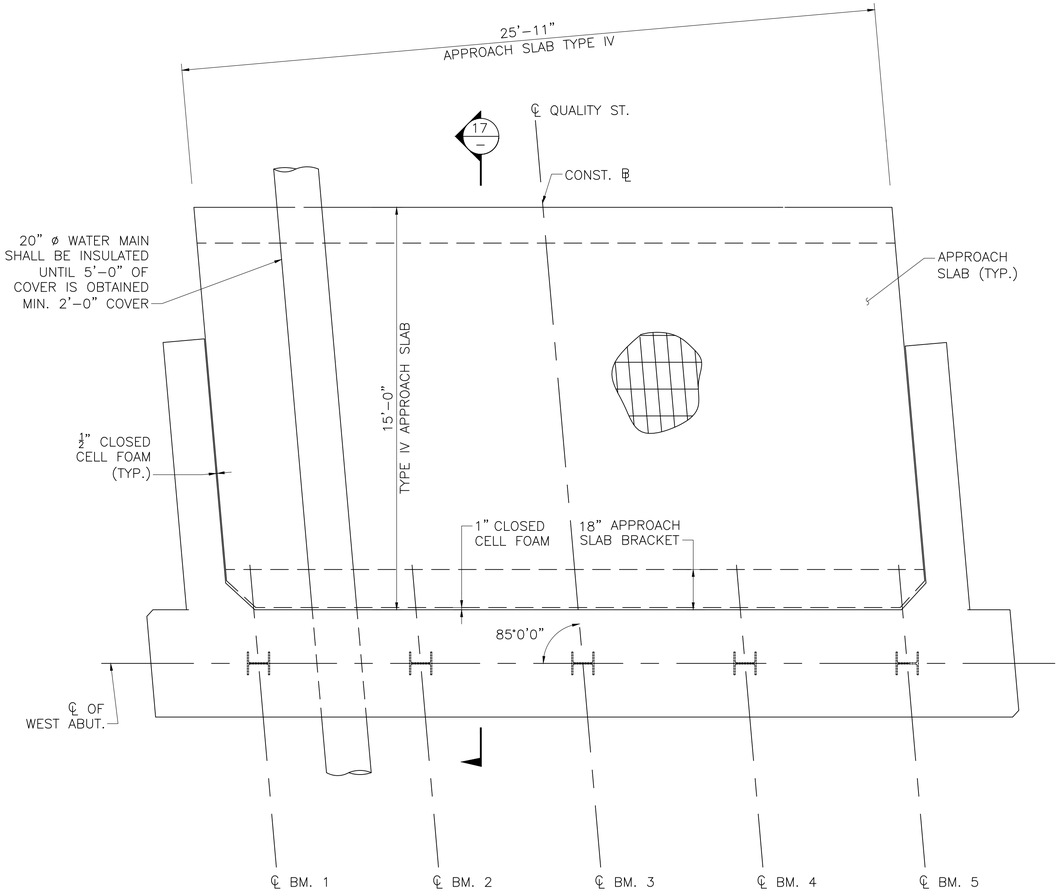
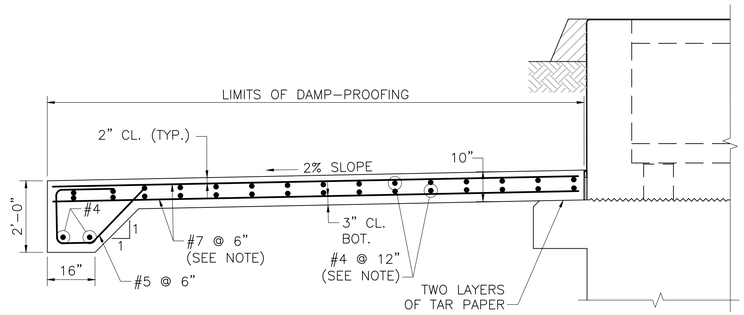
APPROACH SLAB DETAILS



APPROACH SLAB PLAN
SCALE: ⅜" = 1'-0"

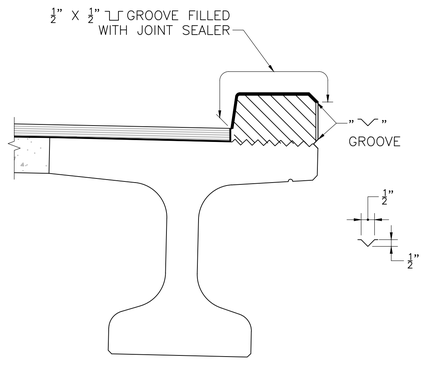
NOTE:
APPROACH SLAB AT EAST ABUTMENT IS IDENTICAL BUT MIRRORED.



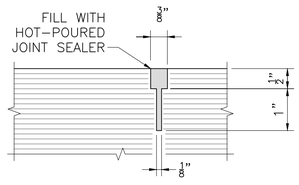
SECTION 17 / –
SCALE: ½" = 1'-0"

NOTE:
PLACE LONGITUDINAL REINFORCEMENT PARALLEL TO THE CENTERLINE OF QUALITY STREET AND THE BASELINE OF CONSTRUCTION. PLACE TRANSVERSE REINFORCEMENT PARALLEL TO THE ABUTMENT. ALL REINFORCEMENT SHALL NOT BE COATED.

INTEGRAL ABUTMENT BACKFILL
SCALE: ¼" = 1'-0"



PARAFFIN JOINT DETAIL
SCALE: ¾" = 1'-0"



PAVEMENT SAWCUT DETAIL
NOT TO SCALE

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
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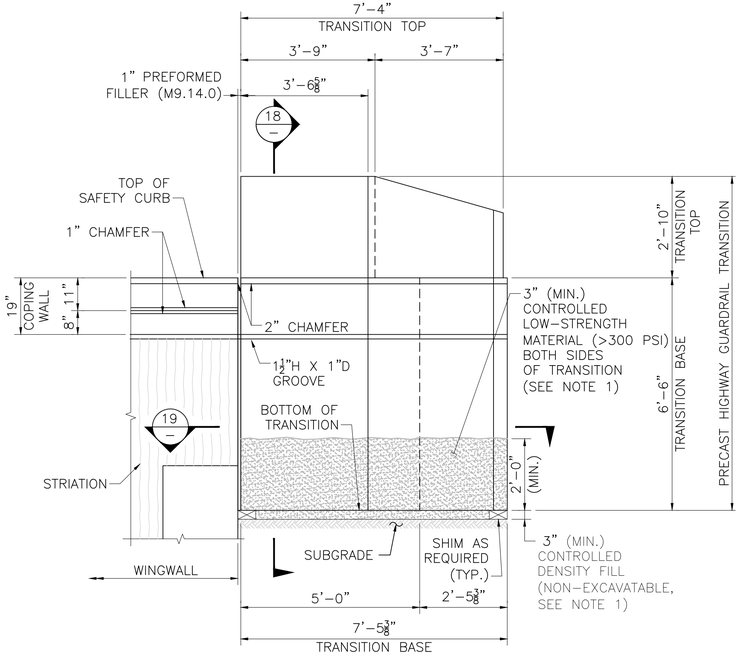
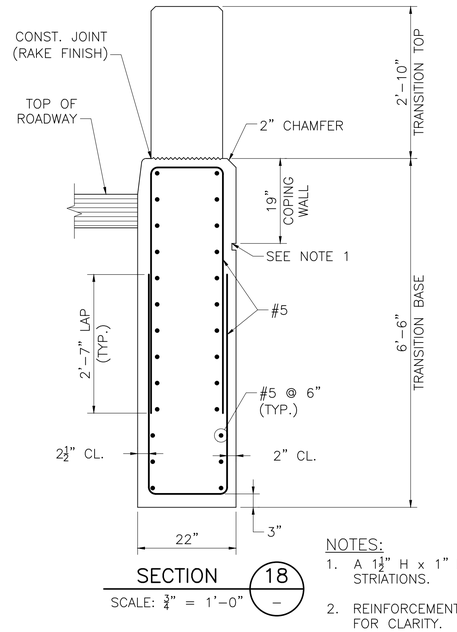
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	



PRECAST GUARDRAIL TRANSITION ELEVATION AT U-WINGWALL

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

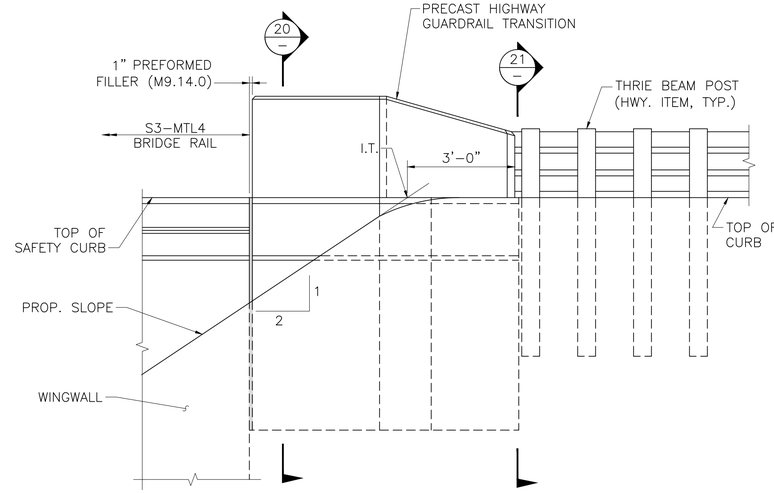


SECTION 18

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

NOTES:

1. A 1 1/2" H x 1" D GROOVE. ALIGN GROOVE AT TOP OF STRIATIONS.
2. REINFORCEMENT OF THE TRANSITION TOP IS NOT SHOWN FOR CLARITY.



NOTE: STRIATIONS NOT SHOWN FOR CLARITY.

GRADING REQUIREMENTS ELEVATION

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

ADAMS
QUALITY STREET

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MA	BFL(BR-OFF)-0031(020)	39	63
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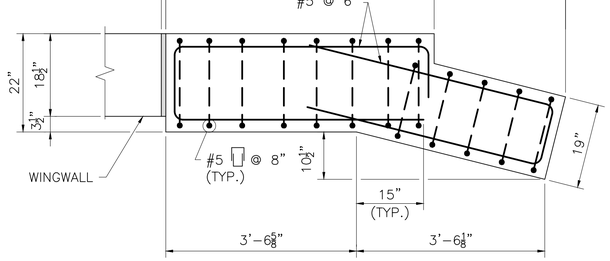
HIGHWAY GUARDRAIL TRANSITION DETAILS

NOTES:

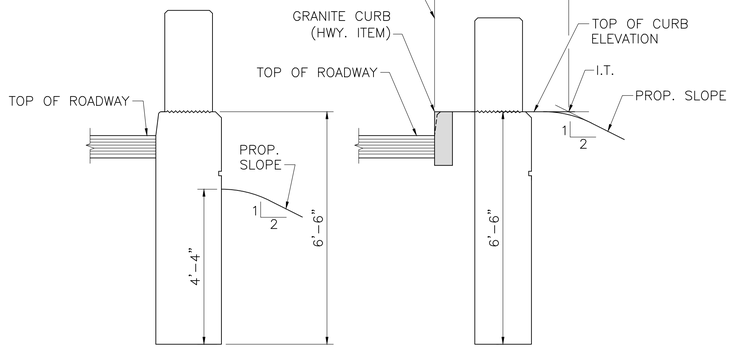
1. GRAVEL BORROW SHALL BE PLACED AND THOROUGHLY COMPACTED TO THE GRADE OF 3" (MIN.) BELOW THE INTENDED BOTTOM OF THE GUARDRAIL TRANSITION BASE AND TO A HEIGHT OF 2'-0" (MIN.) ON ALL SIDES OF THE TRANSITION BASE TO FORM A TRENCH IN WHICH TO SET THE TRANSITION.
2. CONTRACTOR SHALL SET THE PRECAST GUARDRAIL TRANSITION TO THE REQUIRED ELEVATION AND ALIGNMENT, AND BACKFILL GUARDRAIL TRANSITION WITH CONTROLLED DENSITY FILL (NON-EXCAVATABLE) TO THE ELEVATION SHOWN.
3. BACKFILL THE REMAINDER OF EXCAVATION WITH GRAVEL BORROW, WHICH SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS.



NOTE:
WINGWALL REINFORCEMENT AND STRIATIONS NOT SHOWN FOR CLARITY.

SECTION 19

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

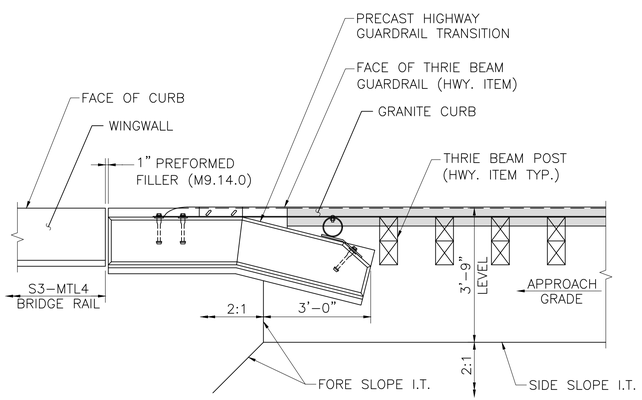


SECTION 20

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

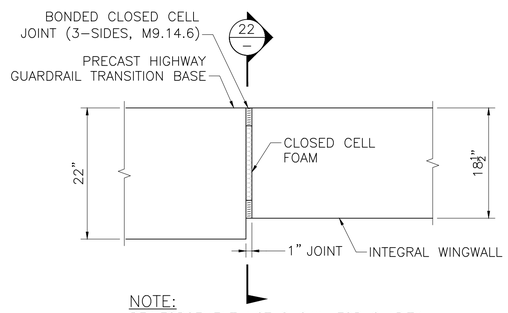
SECTION 21

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



GRADING REQUIREMENTS PLAN

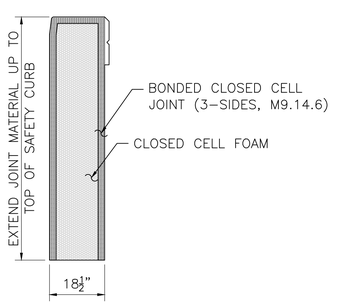
SCALE: 1/2" = 1'-0"



NOTE:
REINFORCEMENT NOT SHOWN FOR CLARITY.

INTEGRAL WINGWALL MOVEMENT JOINT

SCALE: 1" = 1'-0"



SECTION 22

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

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
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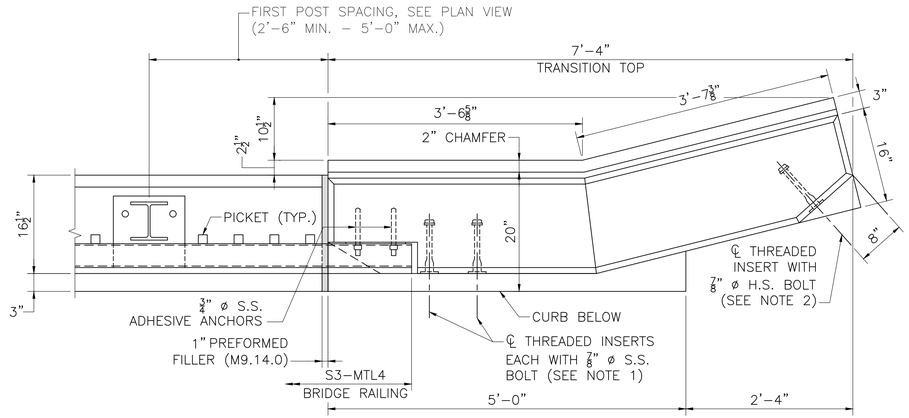
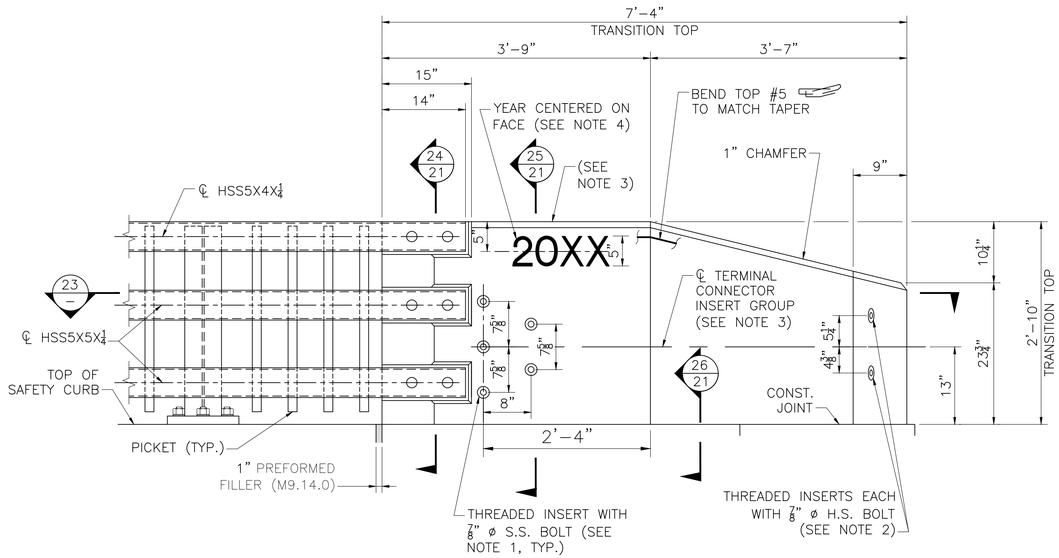
610777_BR8-X(A-04-038 DETAILS).DWG Plotted on 19-Aug-2025 9:00 AM
Final Structural Submittal (SF) 09-August-2025



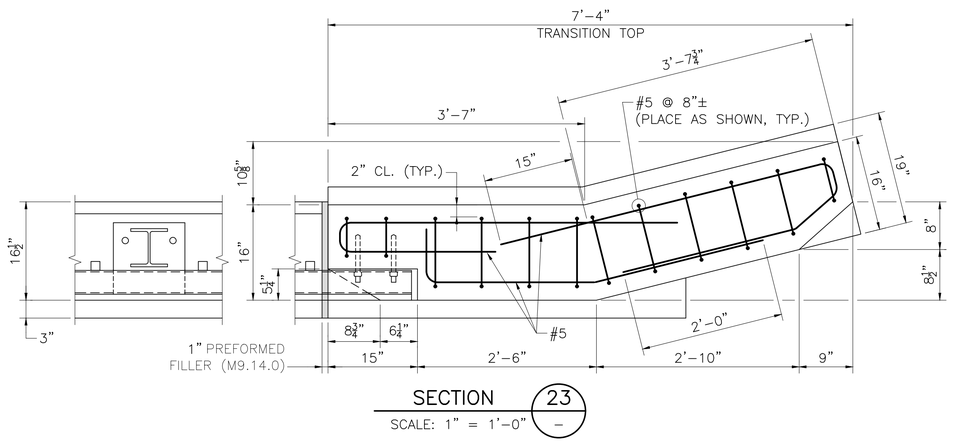
PLAN AT SAFETY CURB

SCALE: 1" = 1'-0"



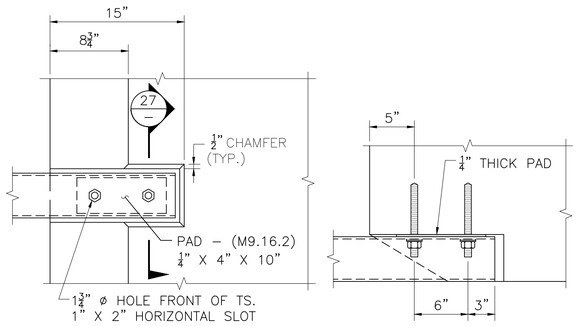
ELEVATION AT SAFETY CURB

SCALE: 1" = 1'-0"



SECTION 23 / –

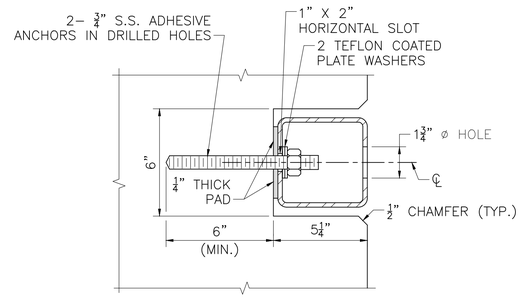
SCALE: 1" = 1'-0"



ELEVATION PLAN

RAIL ATTACHMENT

SCALE: 1½" = 1'-0"



SECTION 27 / –

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 ⅞" 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. 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.

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	40	63
	PROJECT FILE NO. 610777		

HIGHWAY GUARDRAIL TRANSITION FOR S3-MTL4 RAILING
SHEET 1 OF 2

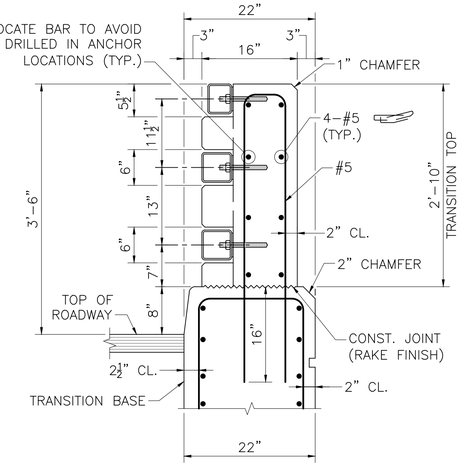
AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

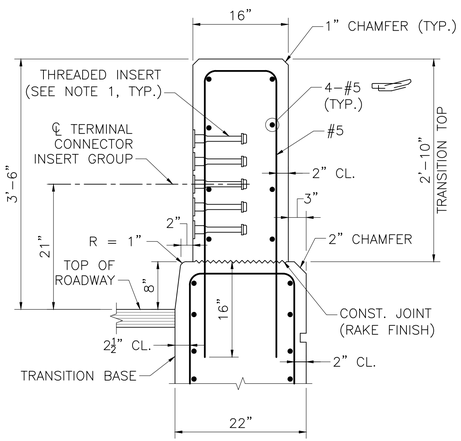
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	41	63
	PROJECT FILE NO. 610777		

HIGHWAY GUARDRAIL
TRANSITION FOR S3-MTL4
RAILING 2 OF 2



SECTION AT SAFETY CURB

SECTION 24
SCALE: 1" = 1'–0" 20



SECTION AT SAFETY CURB

SECTION 25
SCALE: 1" = 1'–0" 20

SECTION AT SAFETY CURB

SECTION 26
SCALE: 1" = 1'–0" 20

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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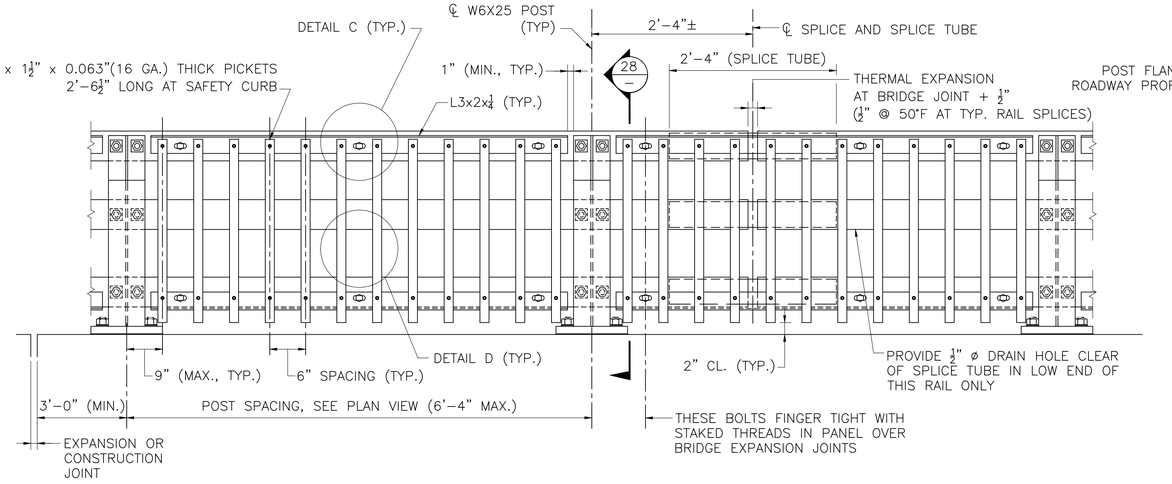
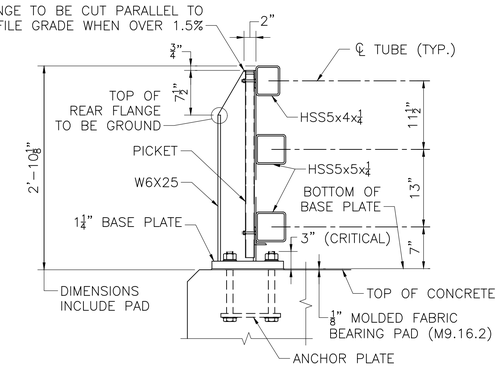


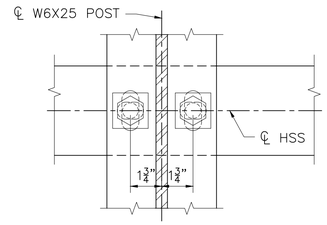
BRIDGE RAILING ELEVATION

SCALE: 1" = 1'-0"



SECTION 28

SCALE: 1" = 1'-0"

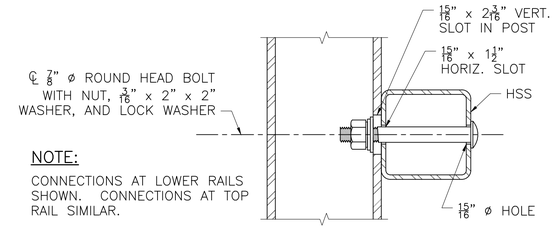


SECTION THRU POST WEB

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	42	63
	PROJECT FILE NO. 610777		

S3-MTL4 BRIDGE RAILING



NOTE:

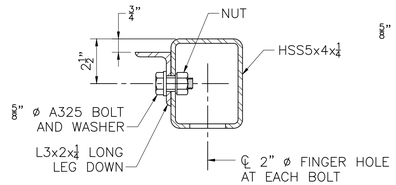
CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

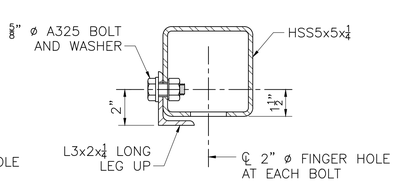
SCALE: 3" = 1'-0"

RAILING NOTES:

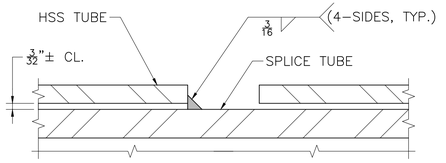
1. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING (HSS) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 500 WITH A CERTIFIED Fy = 50 KSI MINIMUM. THE MINIMUM HORIZONTAL BENDING RADII OF THE HSS TUBING SHALL BE 8 FEET. PICKET CARRIER ANGLES, ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 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 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 ⅜" 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.



SECTION 29

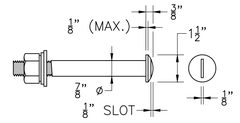


SECTION 31



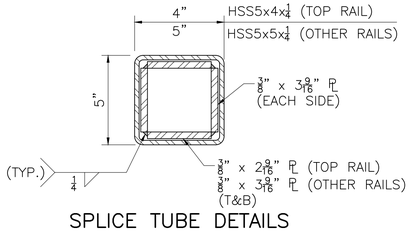
SPLICE DETAIL

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



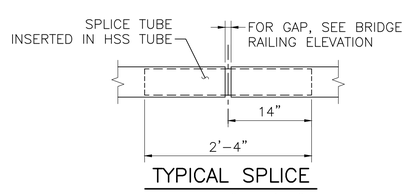
7/8" DIAMETER ROUND HEAD BOLT

SCALE: 3" = 1'-0"



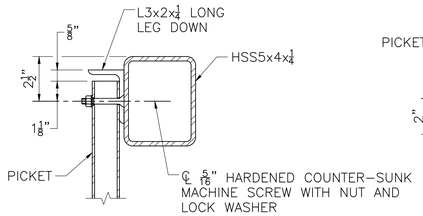
SPLICE TUBE DETAILS

SCALE: 3" = 1'-0"

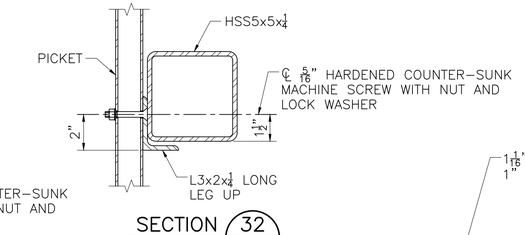


TYPICAL SPLICE

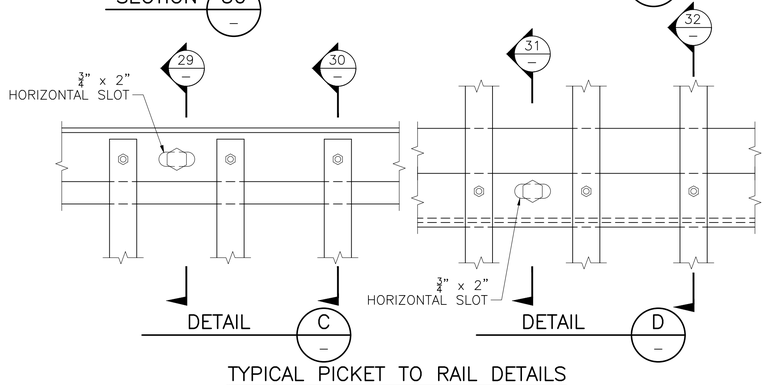
SCALE: 1" = 1'-0"



SECTION 30

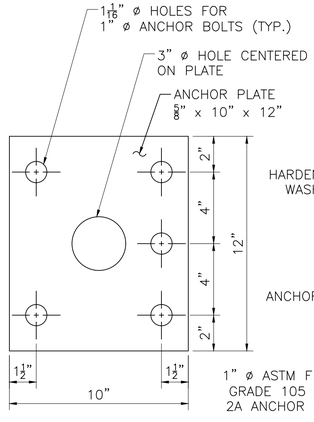


SECTION 32



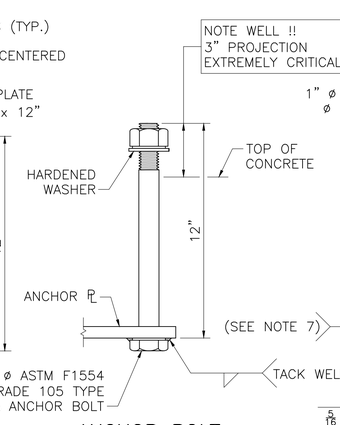
TYPICAL PICKET TO RAIL DETAILS

SCALE: 3" = 1'-0"



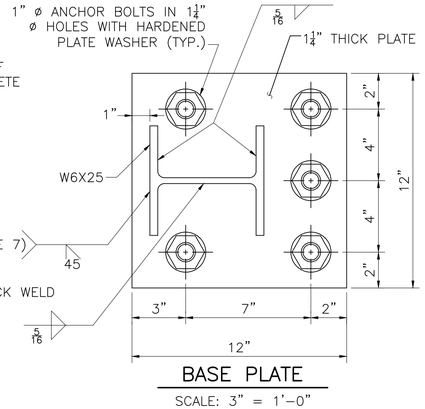
ANCHOR PLATE

SCALE: 3" = 1'-0"



ANCHOR BOLT

SCALE: 3" = 1'-0"



BASE PLATE

SCALE: 3" = 1'-0"

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
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USE ONLY PRINTS OF LATEST DATE

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	43	63
	PROJECT FILE NO. 610777		

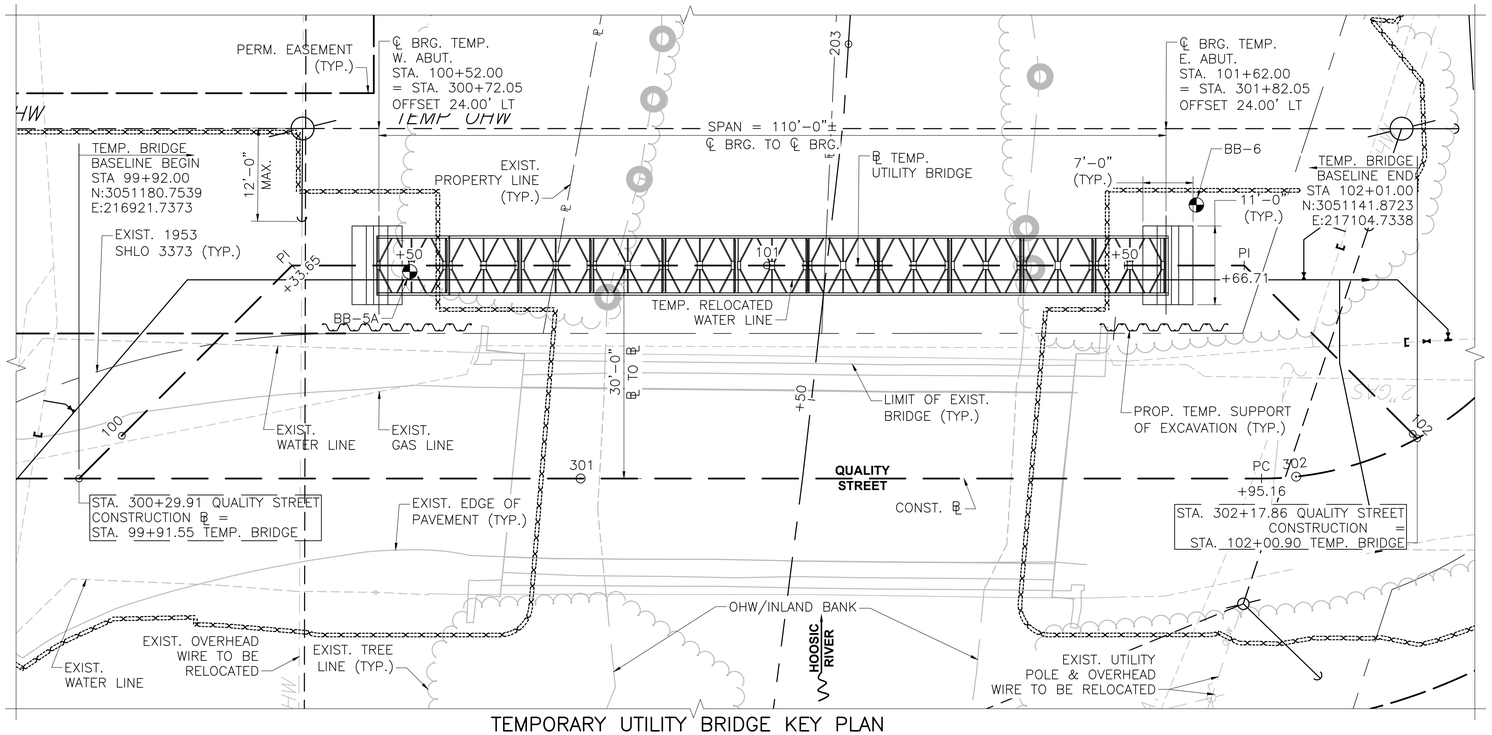
TEMP. UTILITY BRIDGE KEY PLAN & PROFILES

NOTES:

1. TEMPORARY SUPPORT OF EXCAVATION SHALL BE DESIGNED BY THE CONTRACTOR AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS. THE DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
2. TEMPORARY SUPPORT OF EXCAVATION IS TO BE CUT A MINIMUM OF 1 FOOT BELOW PROPOSED FINISHED GRADE AND LEFT IN PLACE.
3. ALL TEMPORARY SUPPORT OF EXCAVATION THAT PROTRUDES INTO THE SOIL THAT SUPPORTS THE BRIDGE STRUCTURE SHALL BE LEFT IN PLACE.

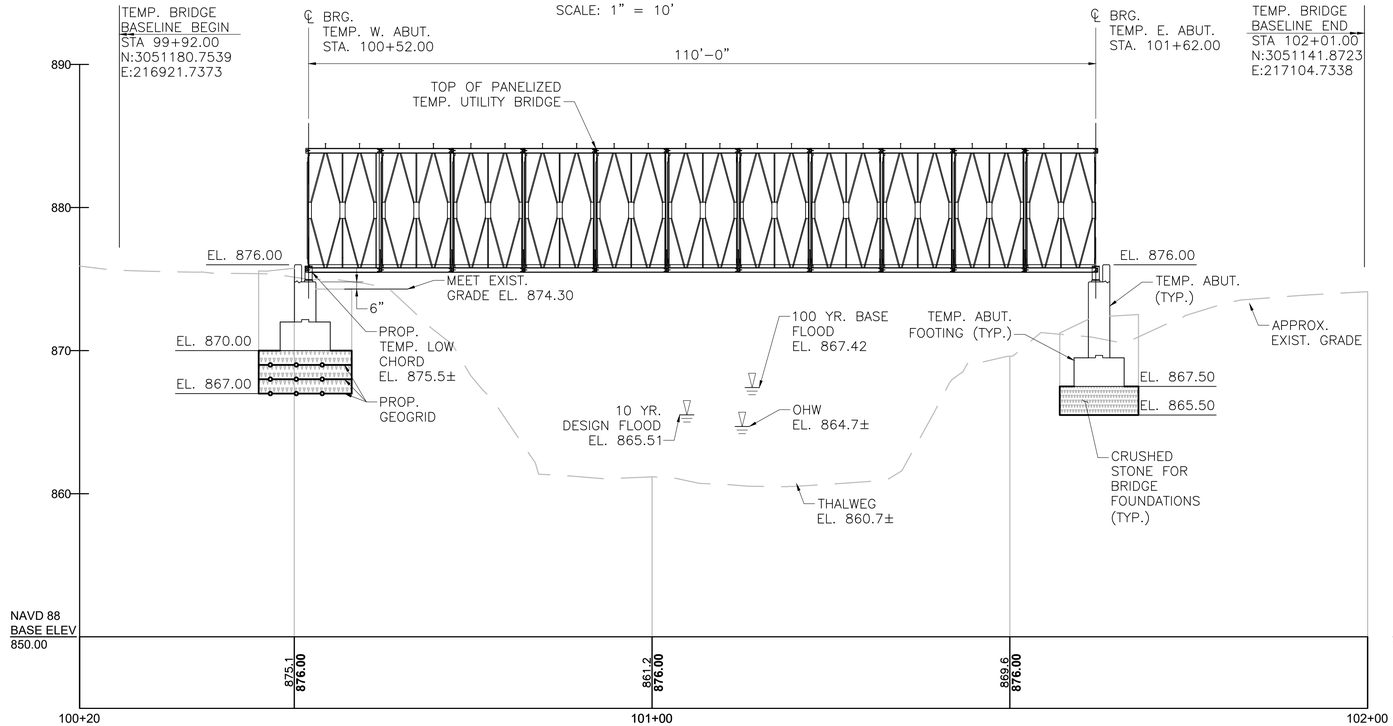
SUGGESTED CONSTRUCTION SEQUENCE:

1. INSTALL GAS MAIN FROM ROUTE 8 TO CONNECT RESIDENCES LOCATED ON SOUTH WILLOW STREET.
2. RELOCATE OVERHEAD WIRES.
3. INSTALL TEMPORARY UTILITY BRIDGE.
4. RELOCATE EXISTING WATER MAIN ON TO THE TEMP. BRIDGE AND RELOCATE THE EXISTING GAS MAIN TO THE LOCATION SPECIFIED IN THE HIGHWAY DRAWINGS.
5. INSTALL TEMPORARY SUPPORT OF EXCAVATION.
6. BEGIN DEMOLITION OF EXISTING BRIDGE.



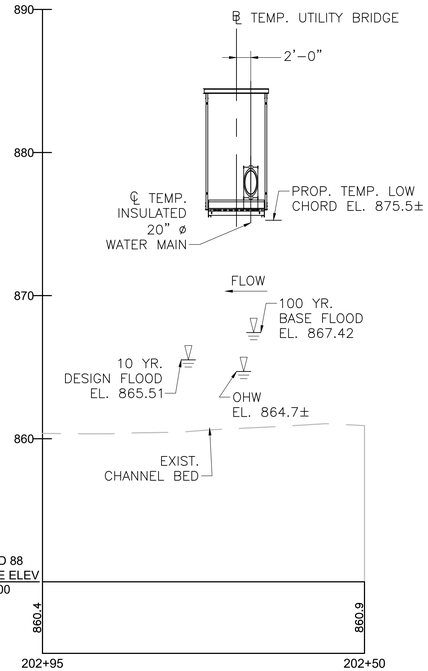
TEMPORARY UTILITY BRIDGE KEY PLAN

SCALE: 1" = 10'



TEMPORARY UTILITY BRIDGE PROFILE

1" = 10' HORIZONTAL
1" = 5' VERTICAL



HOOSIC RIVER PROFILE

1" = 10' HORIZONTAL
1" = 5' VERTICAL

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

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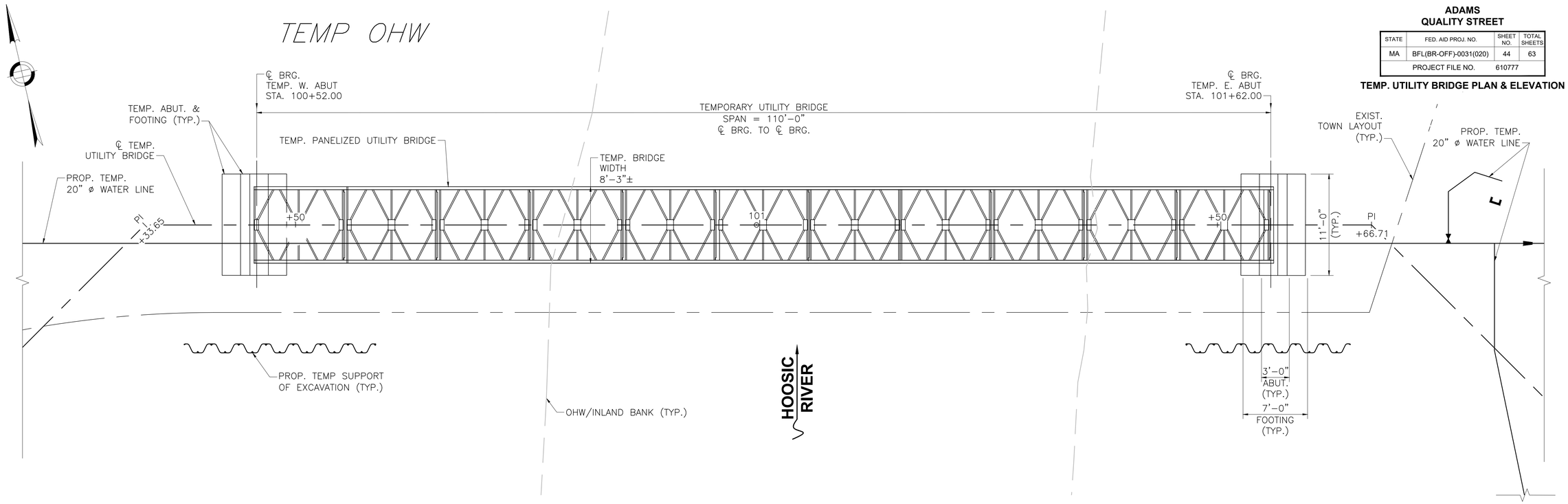
ADAMS
QUALITY STREET

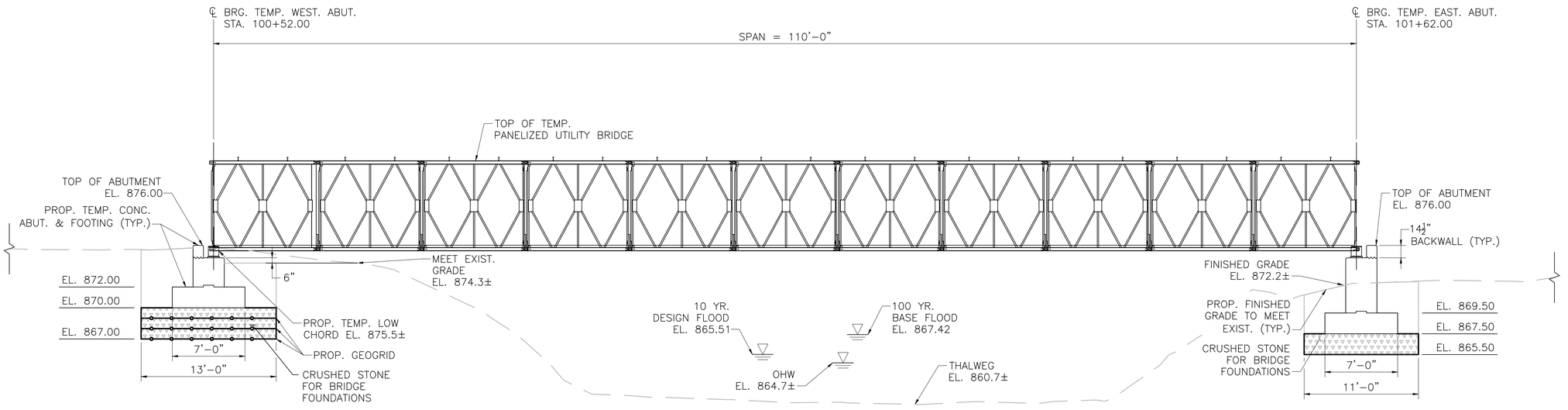
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	44	63
	PROJECT FILE NO. 610777		

TEMP. UTILITY BRIDGE PLAN & ELEVATION



PROPOSED TEMPORARY UTILITY BRIDGE PLAN

SCALE: $\frac{3}{16}$" = 1'-0"



NOTE:

OVEREXCAVATION AND ADDITIONAL CRUSHED STONE MAY BE EXPECTED. FINAL ELEVATION SHALL BE DETERMINED BY THE RESIDENT ENGINEER. SEE NOTE 4 ON SHEET 26 OF 26.

PROPOSED TEMPORARY UTILITY BRIDGE ELEVATION

SCALE: $\frac{3}{16}$" = 1'-0"

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

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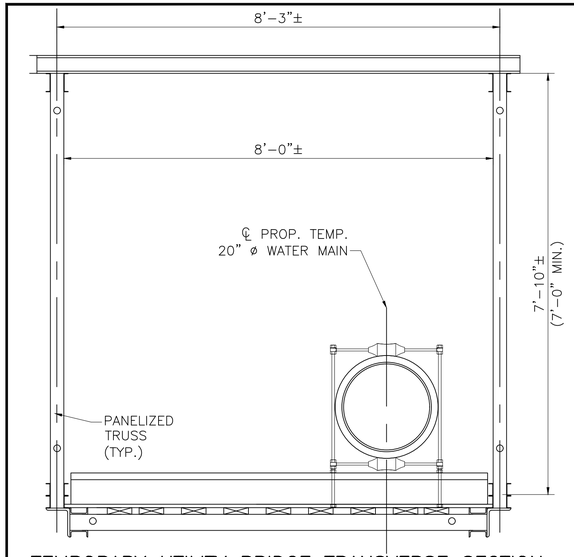
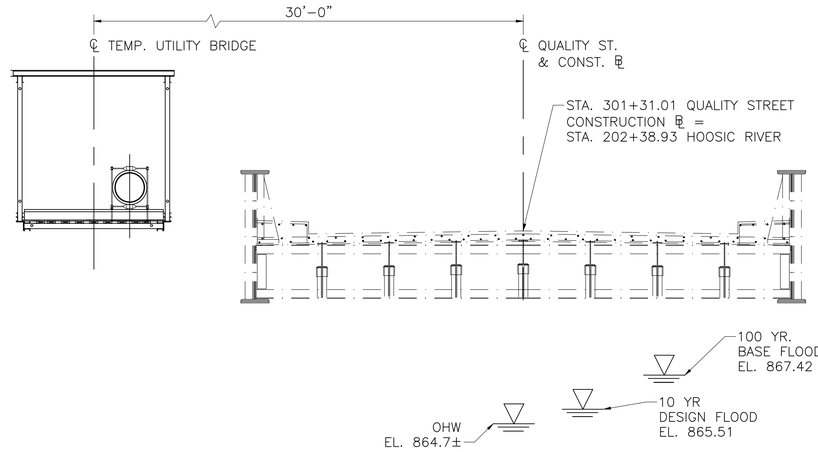


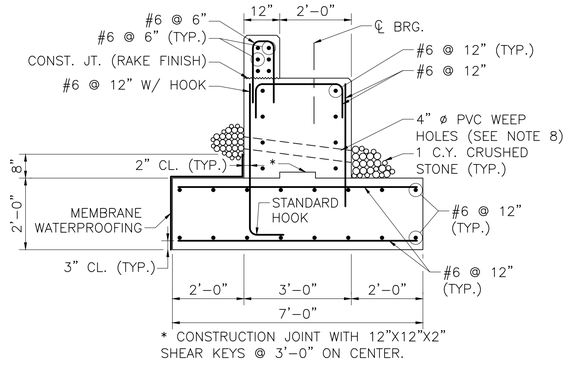
TEMPORARY UTILITY BRIDGE TRANSVERSE SECTION

SCALE: $\frac{3}{4}$" = 1'-0"



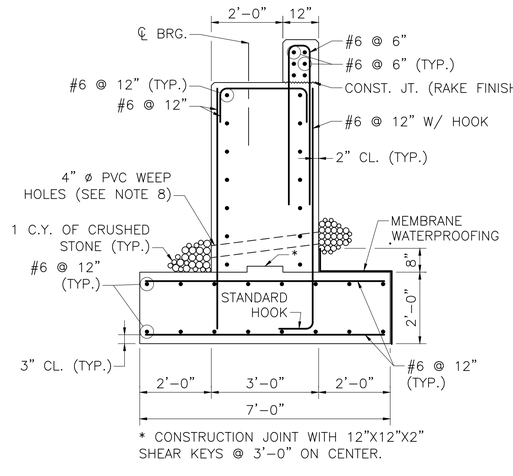
TEMPORARY UTILITY BRIDGE SECTION

SCALE: $\frac{3}{4}$" = 1'-0"



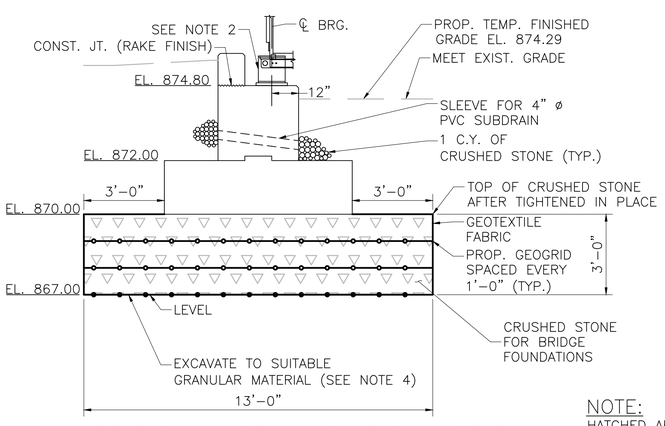
TEMP. UTILITY BRIDGE WEST ABUT. REINFORCEMENT

SCALE: $\frac{1}{2}$" = 1'-0"



TEMP. UTILITY BRIDGE EAST ABUT. REINFORCEMENT

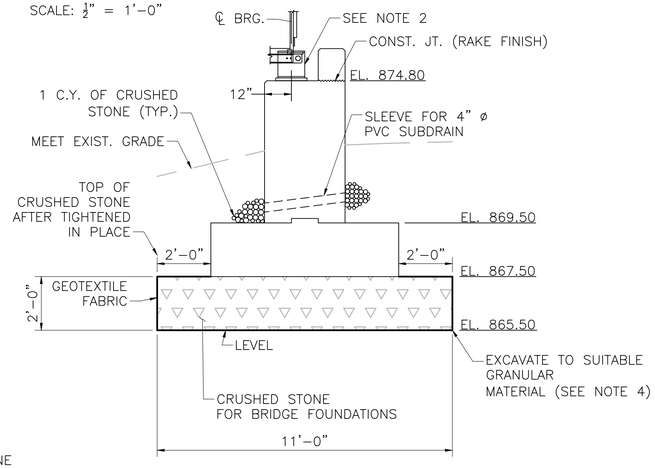
SCALE: $\frac{1}{2}$" = 1'-0"



TEMPORARY UTILITY BRIDGE WEST ABUT. SECTION

SCALE: $\frac{3}{8}$" = 1'-0"

NOTE:
HATCHED AREA FOR CRUSHED STONE FOR BRIDGE FOUNDATIONS DENOTES THE PAY LIMITS FOR ITEM 156.1.

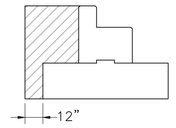


TEMPORARY UTILITY BRIDGE EAST ABUT. SECTION

SCALE: $\frac{3}{8}$" = 1'-0"

PREFABRICATED BRIDGE NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111. BOLTS, CARRIAGE BOLTS, SCREWS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232. ANCHOR BOLTS AT THE BEARING LOCATIONS SHALL CONFORM TO ASTM F1554 GRADE 105.
2. WELDING DETAILS, PROCEDURES AND TESTING METHODS SHALL CONFORM TO THE ANSI/AASHTO/AWS D1.5 – BRIDGE WELDING CODE.
3. FIELD SPLICES IF ANY SHALL BE DESIGNED BY THE TRUSS MANUFACTURER.
4. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS TO ENSURE THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL ALL CONNECTIONS ARE MADE AND ERECTION IS COMPLETE.
5. ANCHOR BOLTS SHALL BE DESIGNED BY THE TRUSS MANUFACTURER.



STUB ABUTMENT

NOTE:
HATCHED AREA INDICATES LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES. WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILAR.

LIMITS OF GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES

SCALE: $\frac{1}{4}$" = 1'-0"

ADAMS
QUALITY STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	45	63
	PROJECT FILE NO. 610777		

TEMP. UTILITY BRIDGE DETAILS

TEMPORARY BRIDGE NOTES:

1. THE FOLLOWING ASSUMPTIONS WERE INCORPORATED INTO THE DESIGN OF THE ABUTMENTS:
   - SUPERSTRUCTURE UNFACTORED DESIGN DEAD LOAD =54.5K. PANELIZED UTILITY, DECKING & UTILITY WEIGHT
   - WIND LOAD ON SUPERSTRUCTURE = 16K.
   - MINIMUM OF (2) – 1" ø ANCHOR BOLTS AT EACH SUPPORT.
   - SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
2. DIMENSIONS AND SEAT ELEVATIONS MAY VARY DEPENDING UPON THE SUPERSTRUCTURE SYSTEM SELECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL ADJUST THE SUBSTRUCTURE DIMENSIONS FOR THE SELECTED SUPERSTRUCTURE SYSTEM.
3. THE CONTRACTOR MAY SUBMIT ALTERNATIVE ABUTMENT DESIGNS WITH EQUAL OR GREATER CAPACITY OF THE DEPICTED ABUTMENT TO THE ENGINEER FOR APPROVAL. THE FACTORED BEARING PRESSURE = 2.88 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION. FACTORED BEARING RESISTANCE = 7.20 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.45.
4. IF UNSUITABLE MATERIAL IS PRESENT BELOW THE CRUSHED STONE ELEVATION, OVER EXCAVATION OF UNSUITABLE MATERIAL IS REQUIRED. A DEPTH OF GREATER THAN 3'–0" OF CRUSHED STONE SHALL BE ANTICIPATED. FINAL ELEVATION TO BE DETERMINED BY THE RESIDENT ENGINEER.
5. THE ABUTMENTS AND BACKWALLS SHALL BE 5000 PSI, $\frac{3}{4}$ INCH, 685 HP CEMENT CONCRETE. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
6. NO EQUIPMENT/LOADS GREATER THAN 2000 LB. SHALL BE LOCATED WITHIN 10 FEET OF THE TEMPORARY ABUTMENT UNTIL THE TEMPORARY BRIDGE IS INSTALLED.
7. AFTER THE TEMPORARY BRIDGE IS NO LONGER REQUIRED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY BRIDGE AND ABUTMENTS FROM THE SITE. THE PORTIONS OF THE SITE ALTERED/DISTURBED BY THE INSTALLATION OF THE TEMPORARY BRIDGE SHALL BE RESTORED IN CONFORMANCE WITH THE PROJECT SPECIAL PROVISIONS.
8. 4" ø WEEP HOLES. PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT EACH END OF THE WEEP HOLE (JUST ABOVE MEMBRANE WATERPROOFING).
9. LOWER WATER LEVEL AS MUCH AS POSSIBLE WITHOUT DISTURBING THE GRANULAR SOIL (SIDES AND BOTTOM) AND TIGHTEN THE CRUSHED STONE IN PLACE SEE STANDARD SPECIFICATIONS.

AUGUST 9, 2025	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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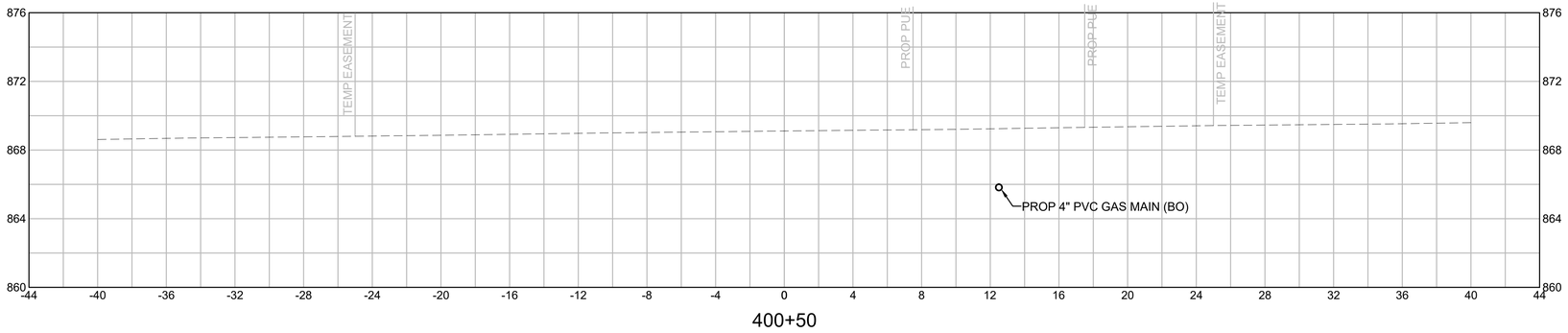
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

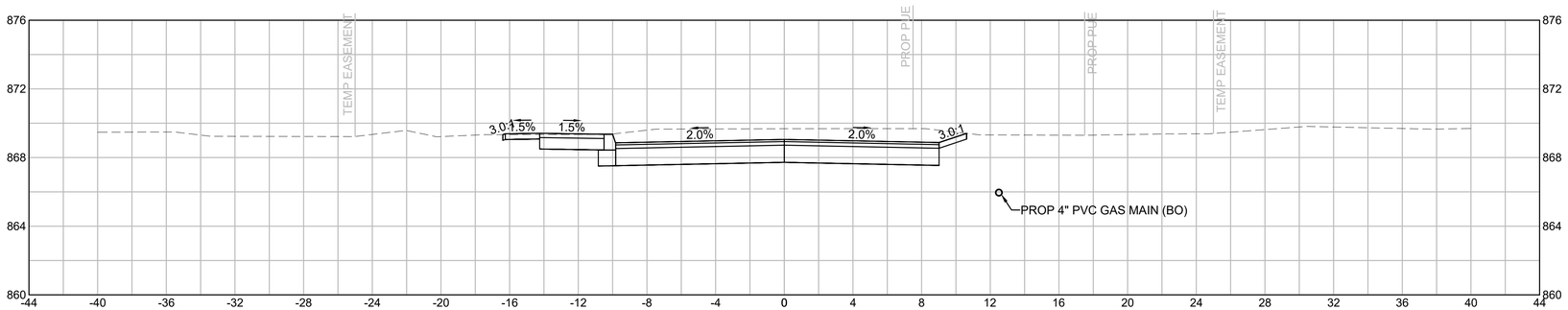
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	46	63
PROJECT FILE NO.	610777		

TEMPORARY CROSS SECTIONS



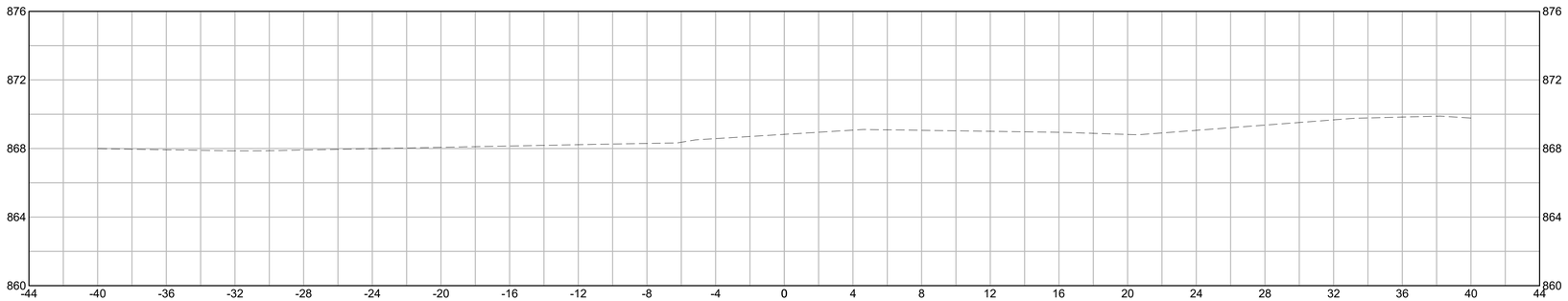
CUT: 0.00 SF
FILL: 0.00 SF

400+50



CUT: 44.73 SF
FILL: 0.00 SF

400+25



CUT: 0.00 SF
FILL: 0.00 SF

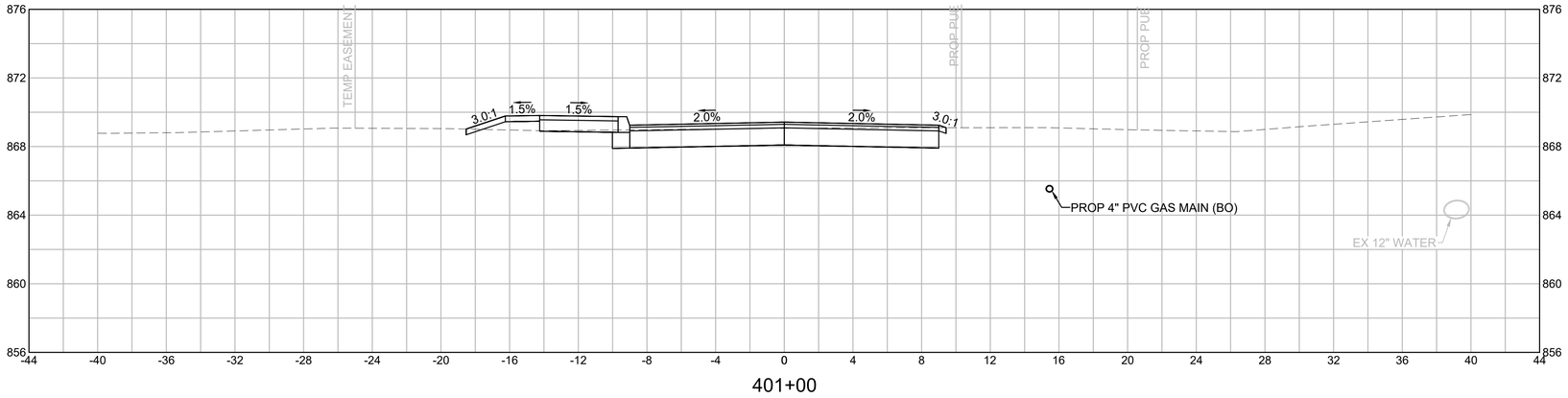
400+00

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

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

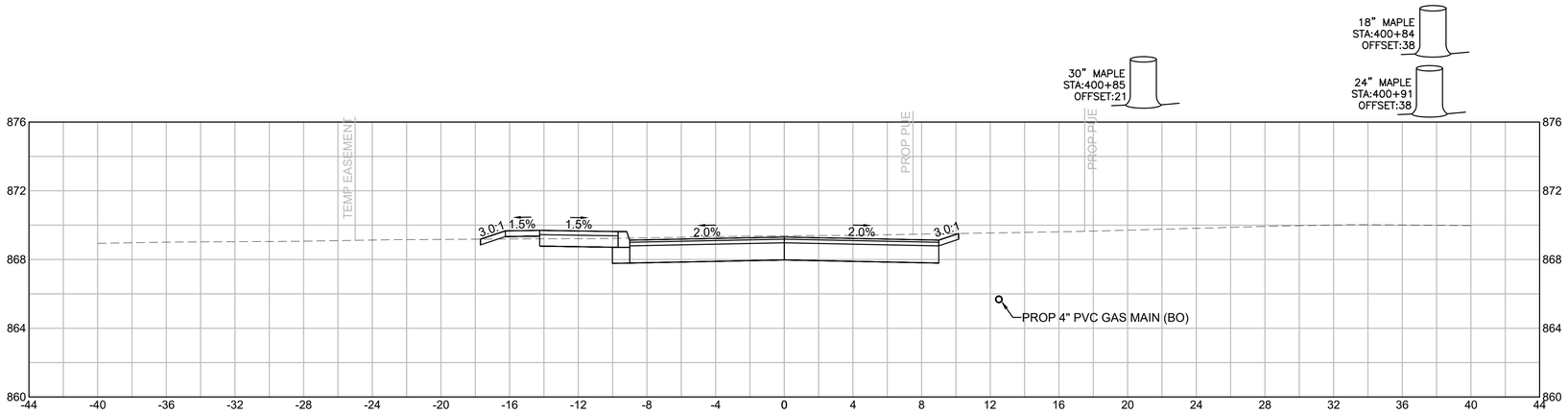
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	47	63
	PROJECT FILE NO. 610777		

TEMPORARY CROSS SECTIONS



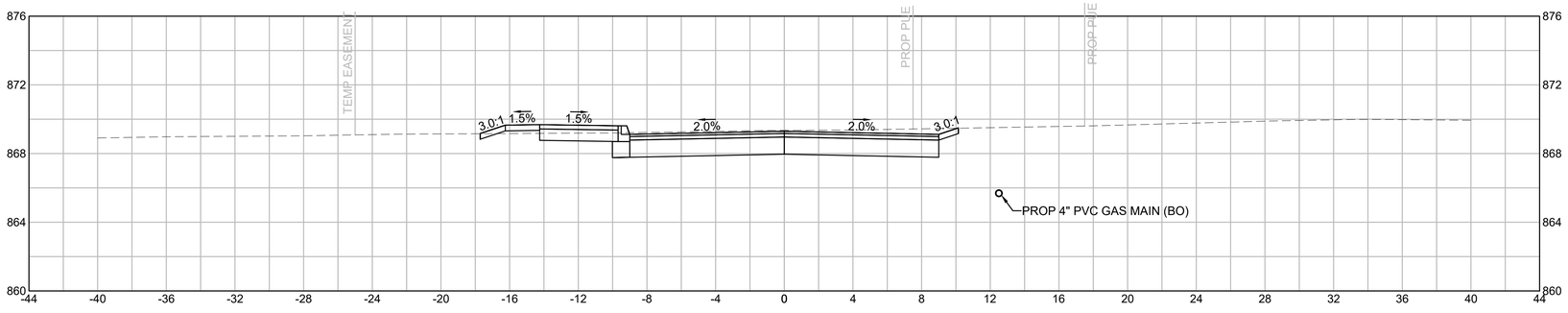
401+00

CUT: 20.62 SF
FILL: 1.35 SF



400+76.11

CUT: 31.03 SF
FILL: 0.33 SF



400+75

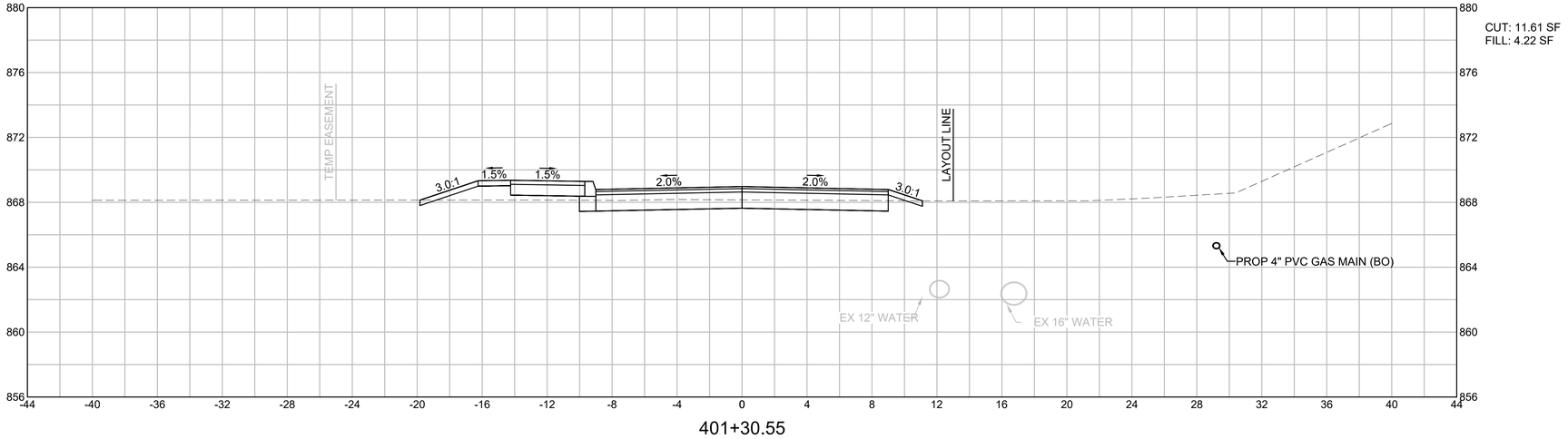
CUT: 30.51 SF
FILL: 0.37 SF

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

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

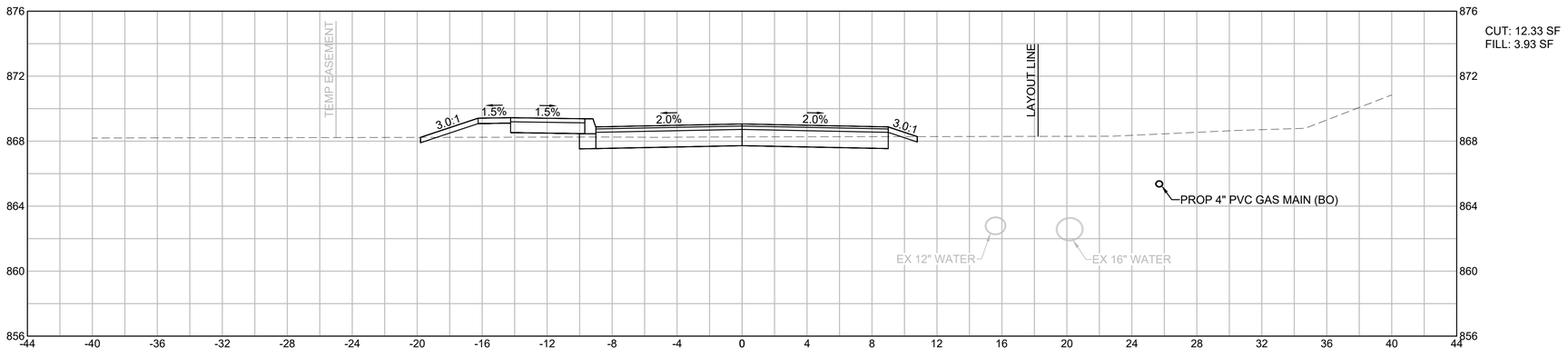
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	48	63
PROJECT FILE NO.	610777		

TEMPORARY CROSS SECTIONS



CUT: 11.61 SF
FILL: 4.22 SF

401+30.55



CUT: 12.33 SF
FILL: 3.93 SF

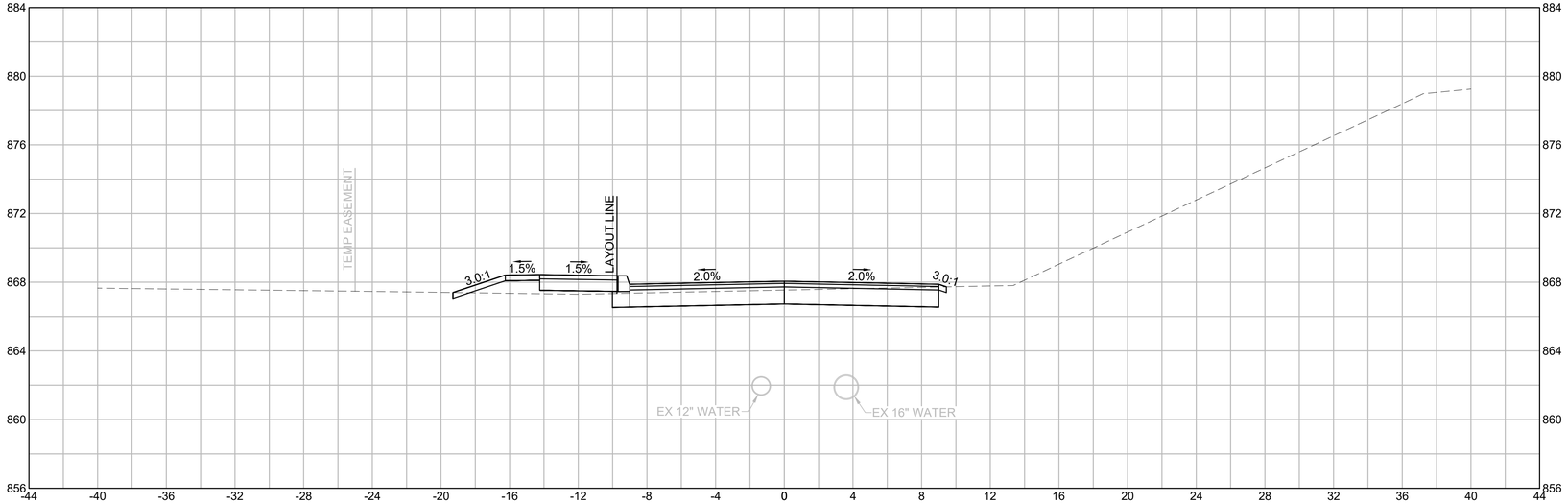
401+25

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

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

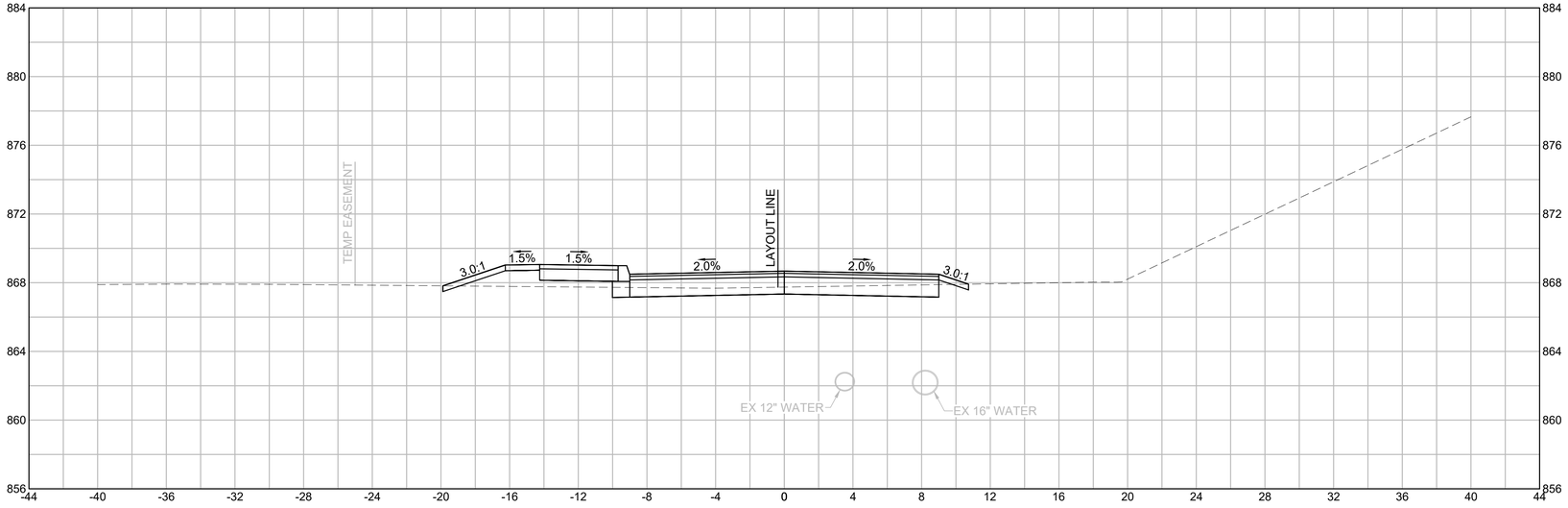
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	49	63
PROJECT FILE NO.	610777		

TEMPORARY CROSS SECTIONS



401+75

CUT: 17.43 SF
FILL: 3.01 SF



401+50

CUT: 10.10 SF
FILL: 4.71 SF

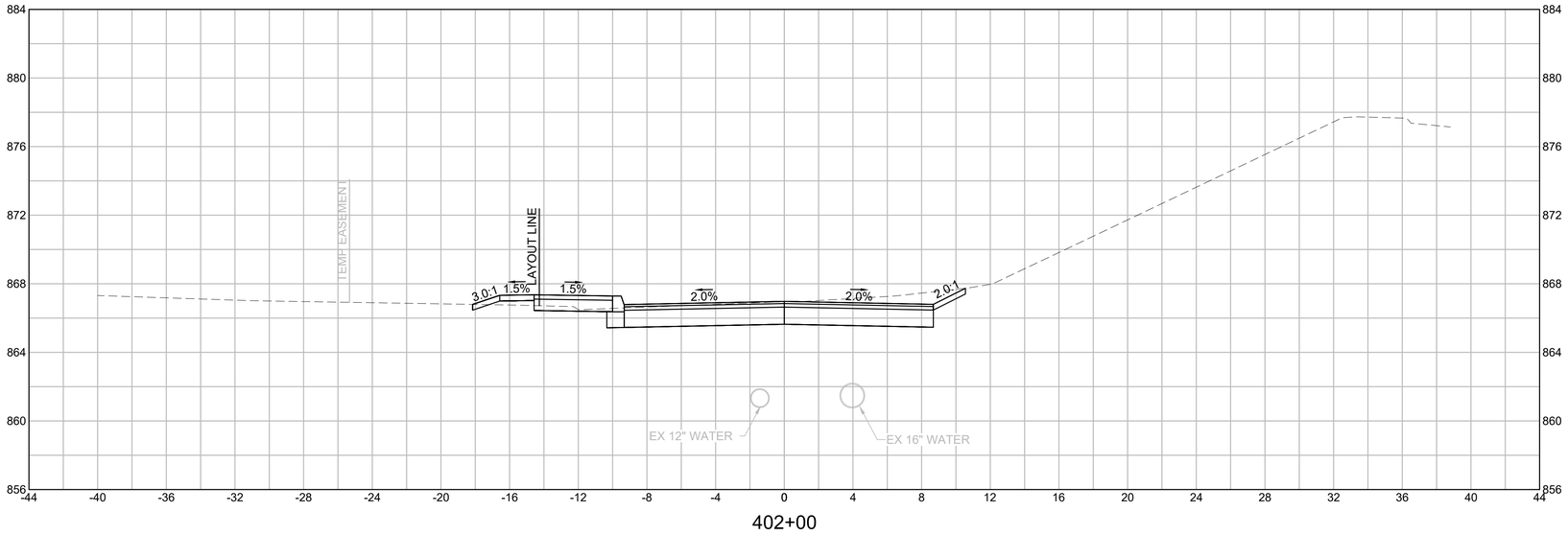
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

610777_HD14(TEMP_CROSS_SECTIONS).DWG Plotted on 23-Jul-2025 12:55 PM

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

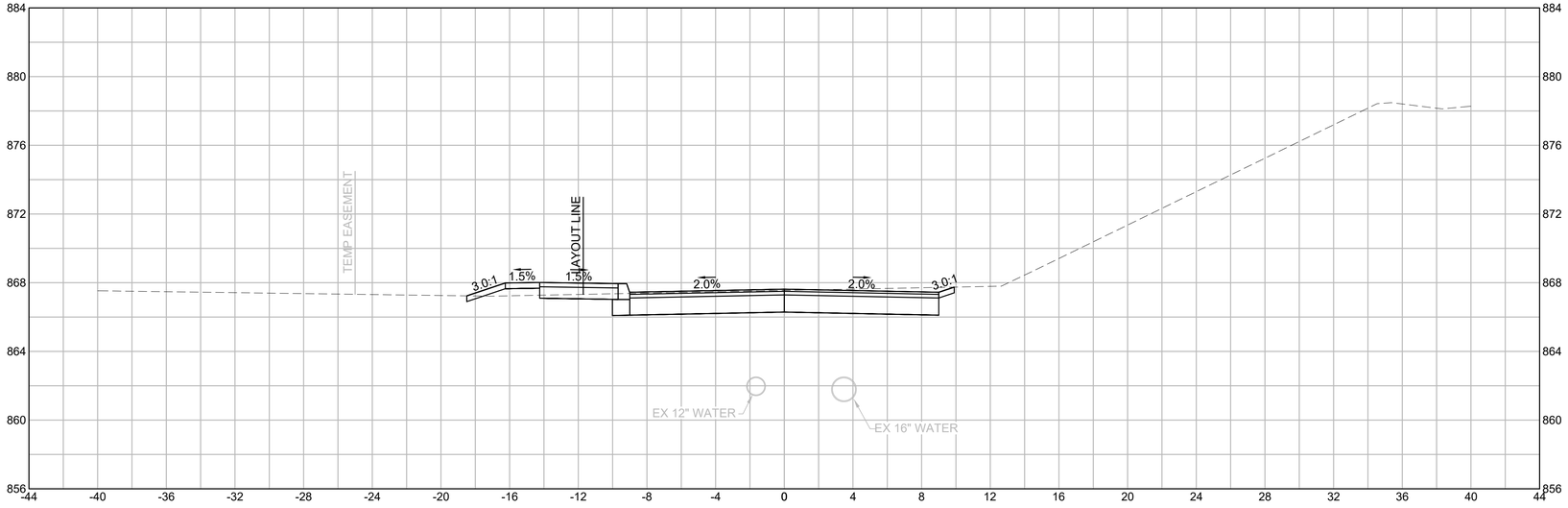
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	50	63
PROJECT FILE NO.	610777		

TEMPORARY CROSS SECTIONS



CUT: 29.11 SF
FILL: 0.58 SF

402+00



CUT: 27.22 SF
FILL: 1.10 SF

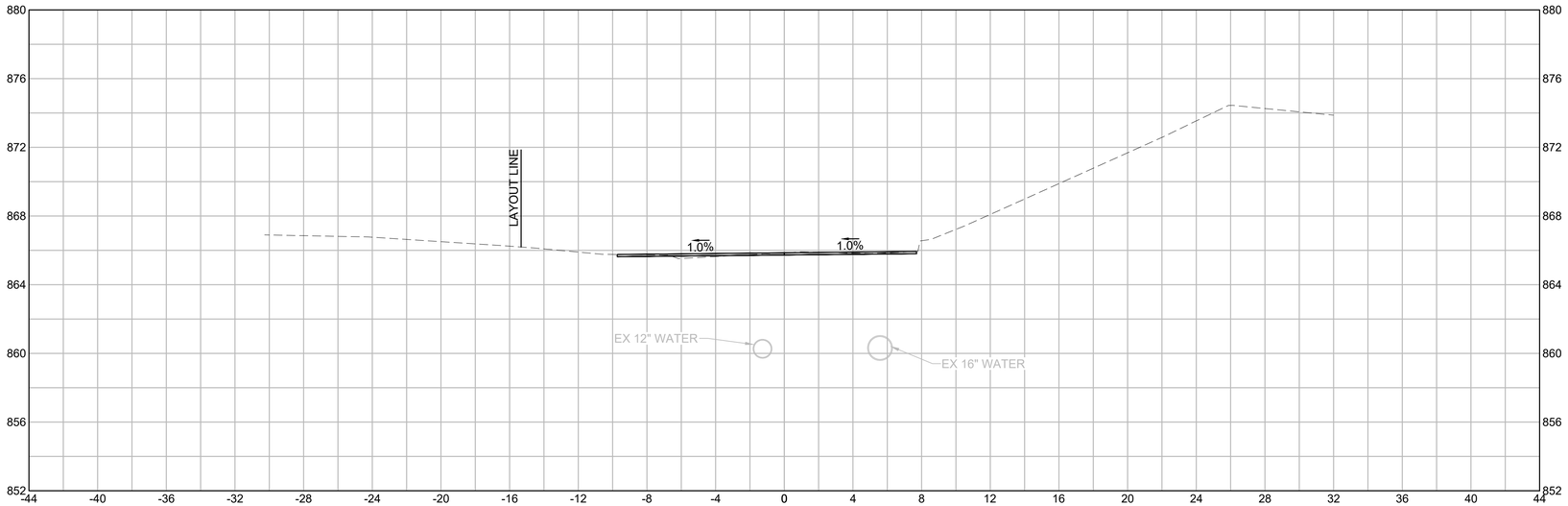
401+84.99

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

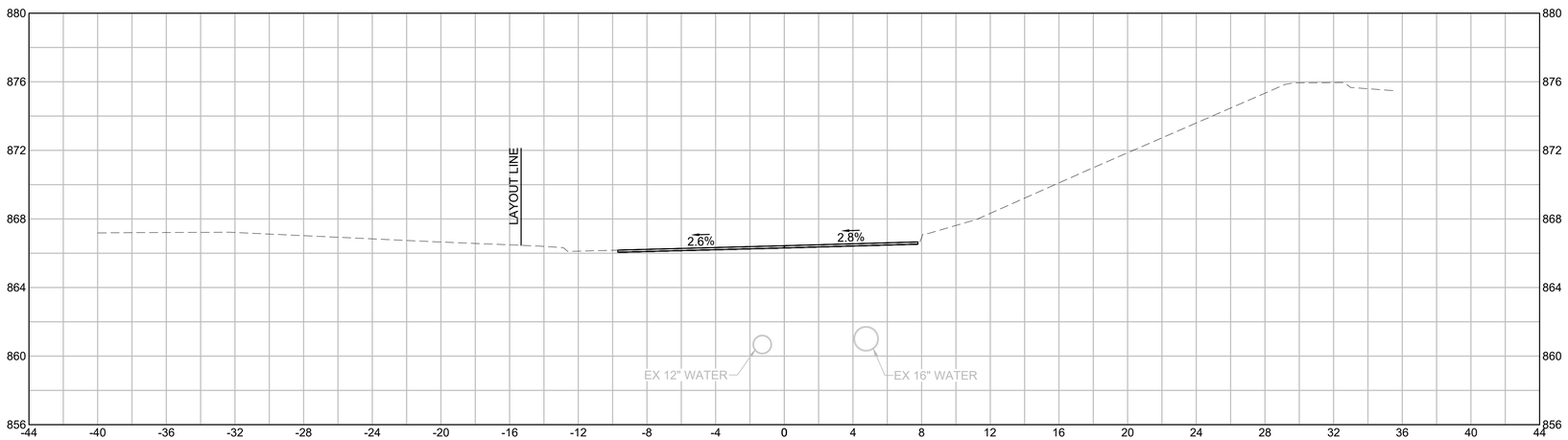
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	51	63
PROJECT FILE NO.	610777		

TEMPORARY CROSS SECTIONS



402+50



402+25

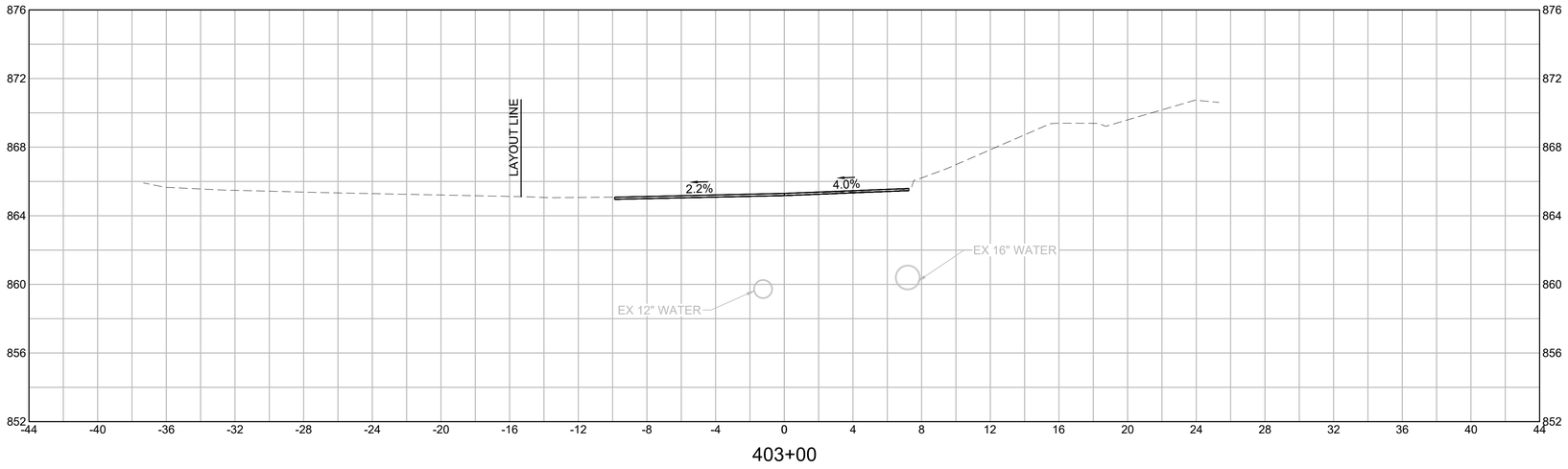
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

610777_HD14(TEMP_CROSS_SECTIONS).DWG Plotted on 23-Jul-2025 12:55 PM

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

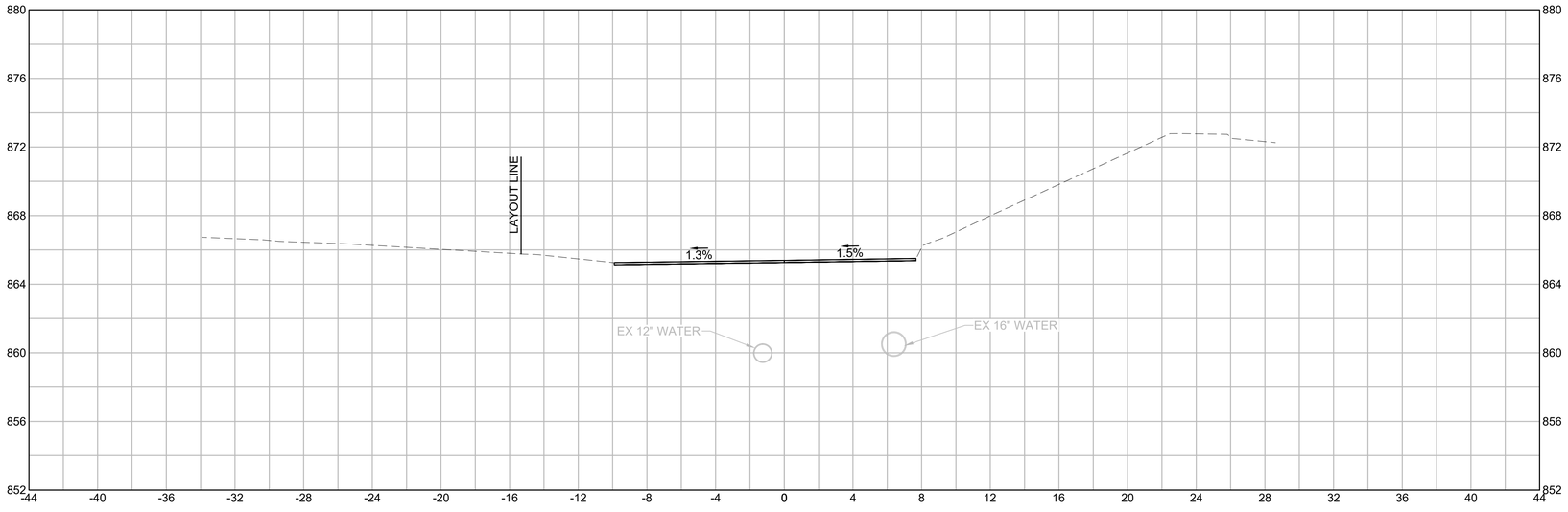
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	52	63
PROJECT FILE NO.	610777		

TEMPORARY CROSS SECTIONS



CUT: 0.00 SF
FILL: 0.00 SF

403+00



CUT: 0.00 SF
FILL: 0.00 SF

402+75

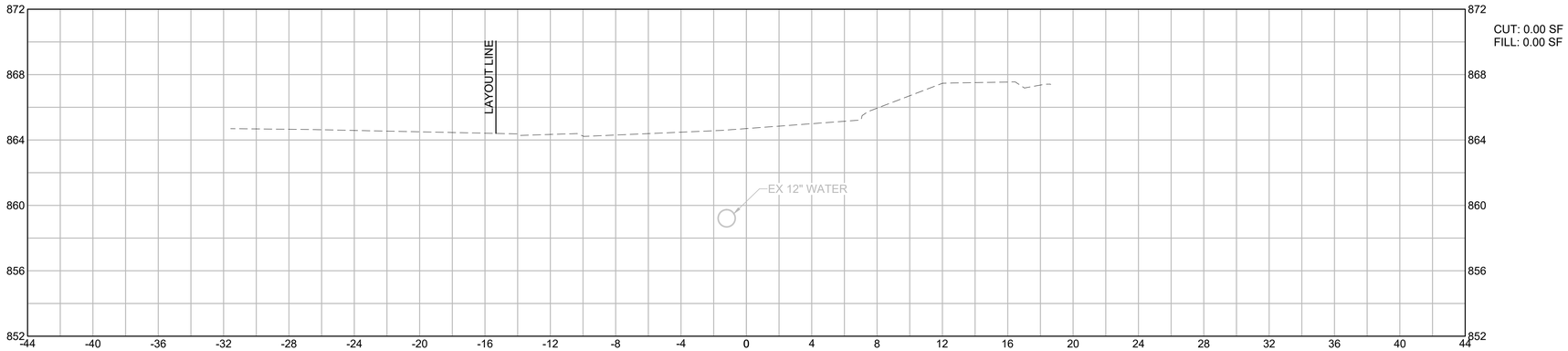
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

610777_HD14(TEMP_CROSS_SECTIONS).DWG Plotted on 23-Jul-2025 12:55 PM

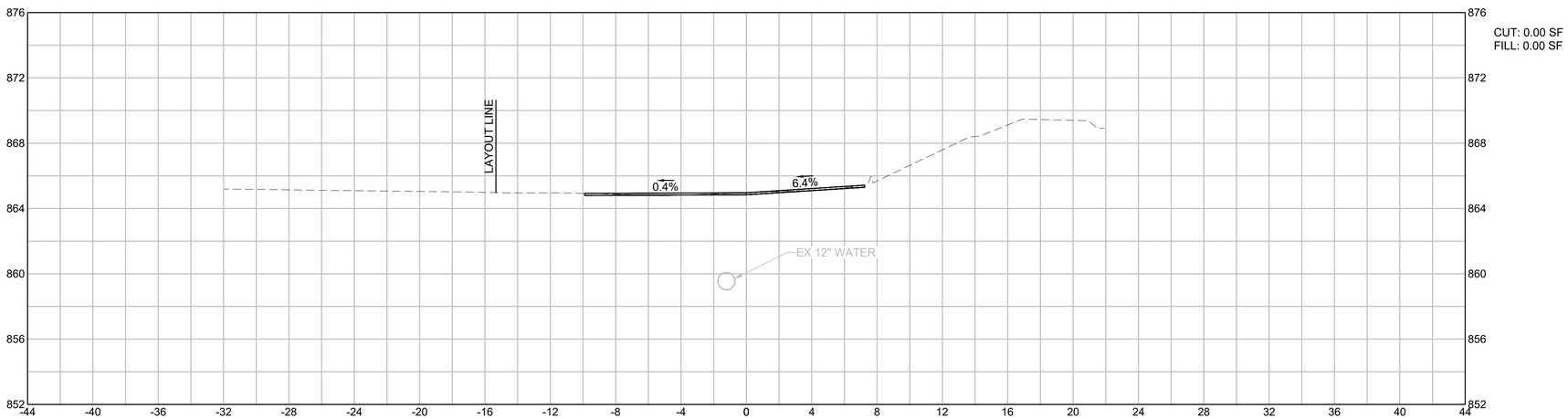
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	53	63
PROJECT FILE NO.	610777		

TEMPORARY CROSS SECTIONS



403+50



403+25

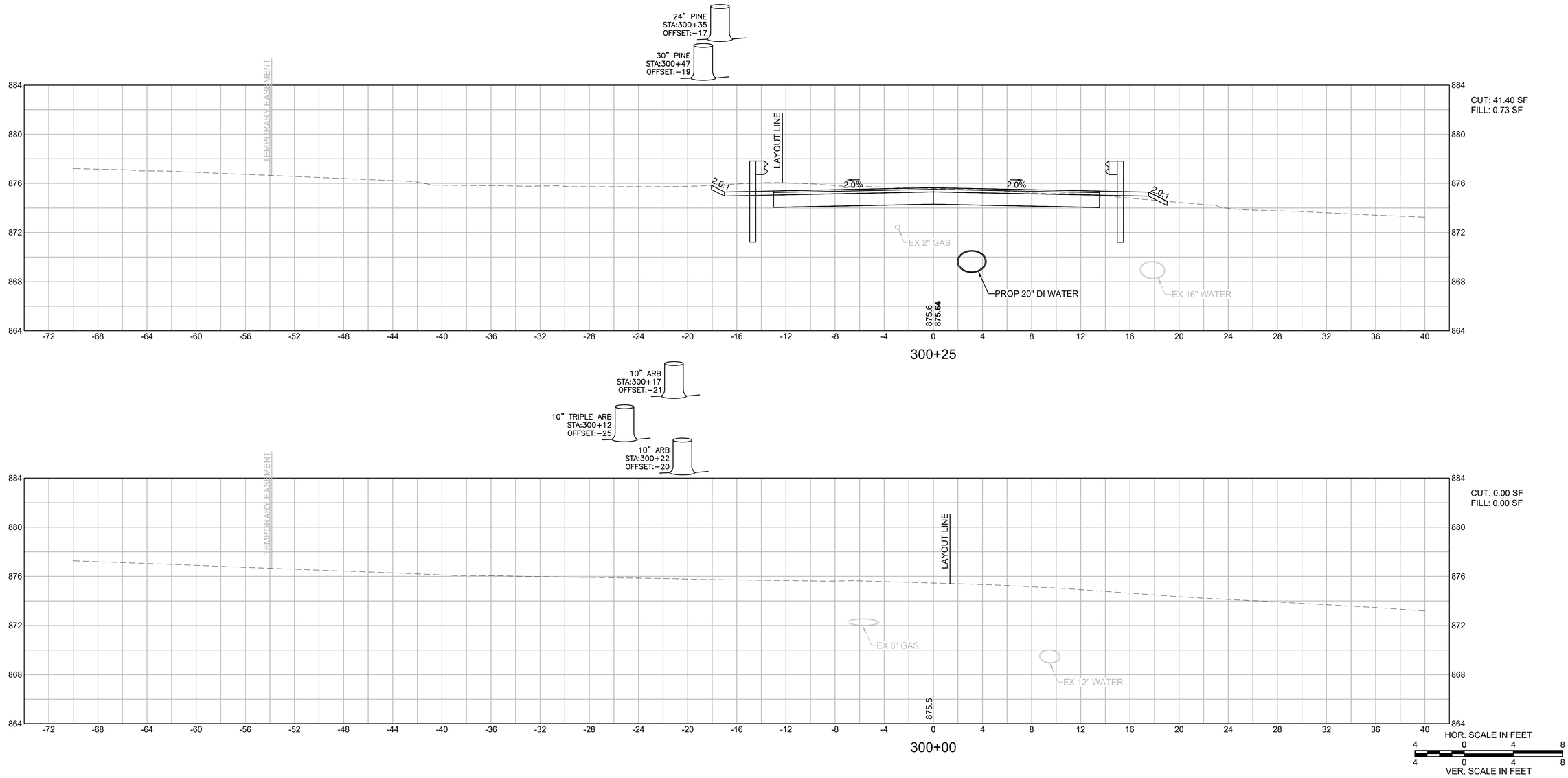
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

610777_HD14(TEMP_CROSS_SECTIONS).DWG Plotted on 23-Jul-2025 12:55 PM

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	54	63
PROJECT FILE NO.	610777		

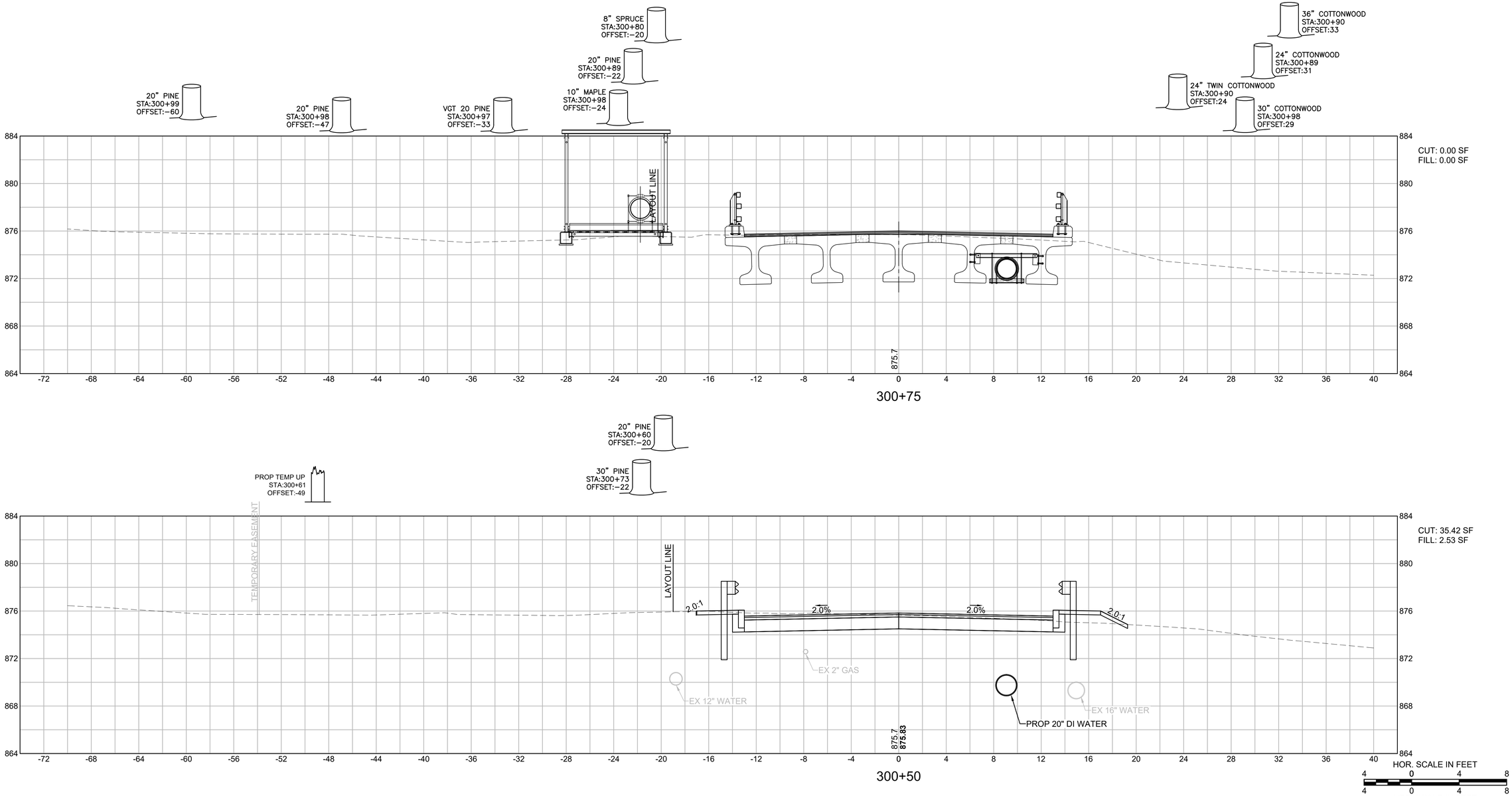
CROSS SECTIONS
QUALITY STREET & SOUTH WILLOW STREET



ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	55	63
PROJECT FILE NO.	610777		

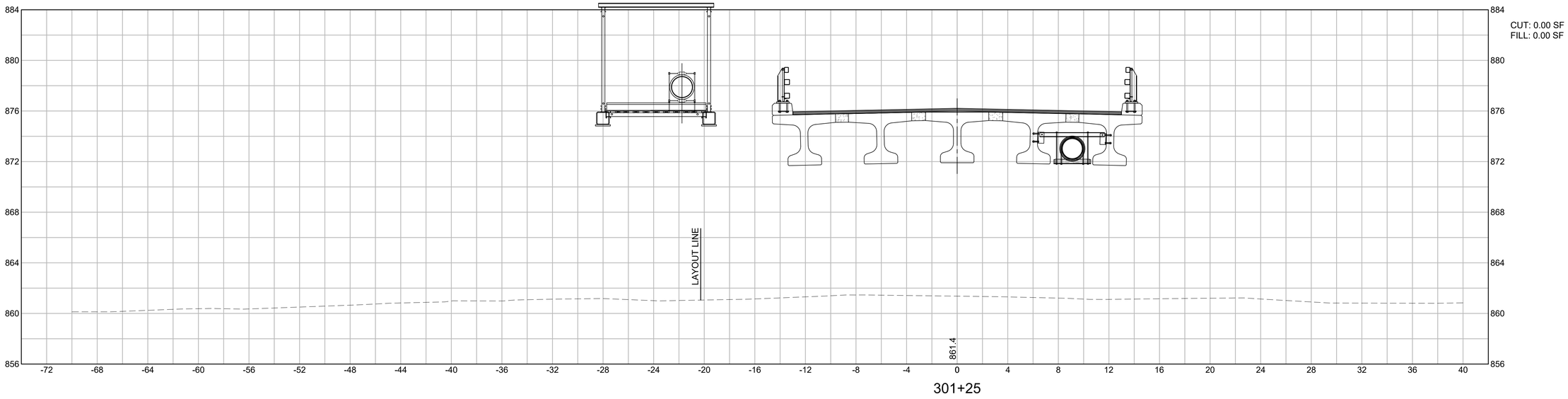
CROSS SECTIONS
QUALITY STREET & SOUTH WILLOW STREET



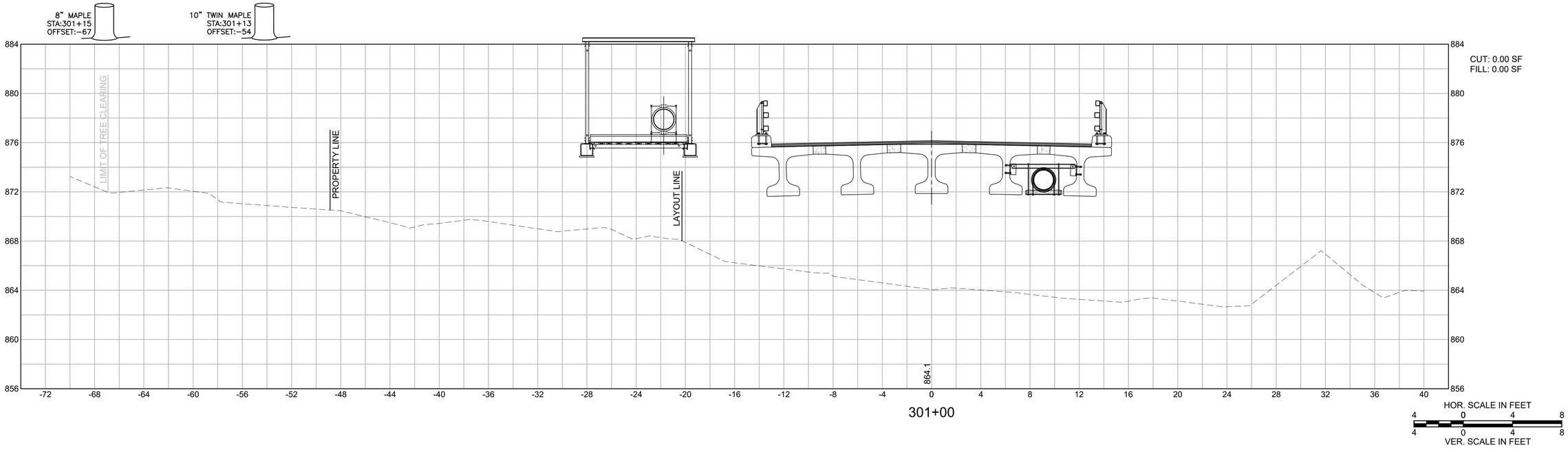
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	56	63
PROJECT FILE NO.	610777		

CROSS SECTIONS
QUALITY STREET & SOUTH WILLOW STREET



301+25

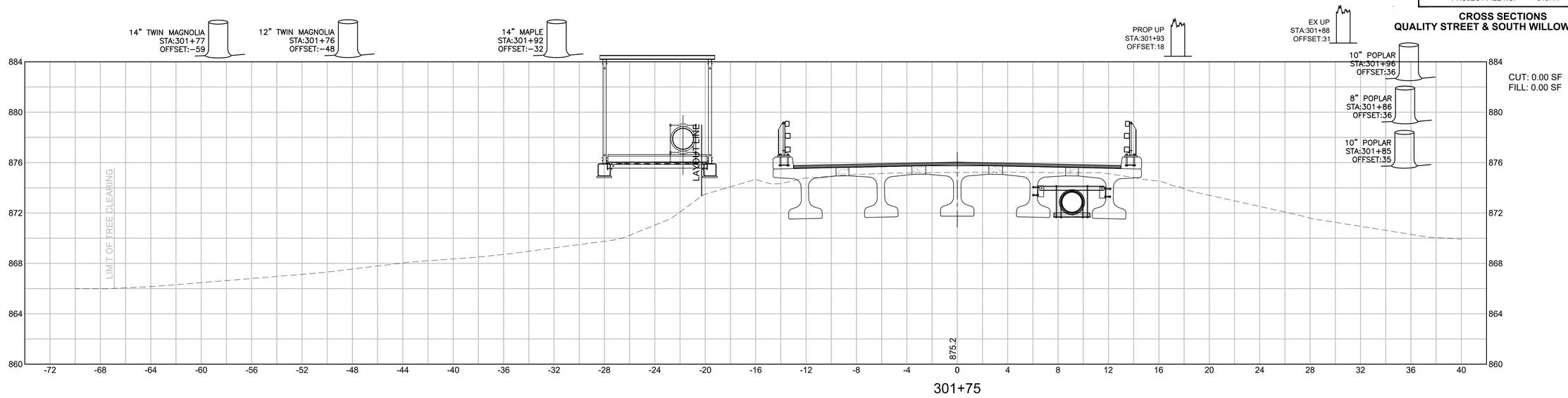


301+00

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

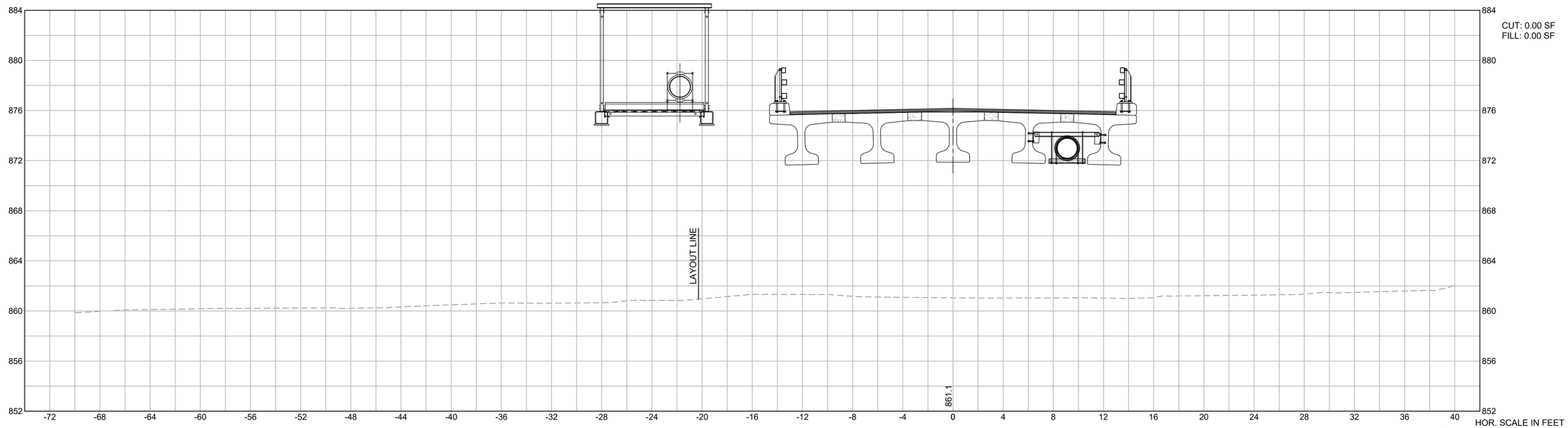
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	57	63
PROJECT FILE NO.	610777		

CROSS SECTIONS
QUALITY STREET & SOUTH WILLOW STREET



CUT: 0.00 SF
FILL: 0.00 SF

301+75



CUT: 0.00 SF
FILL: 0.00 SF

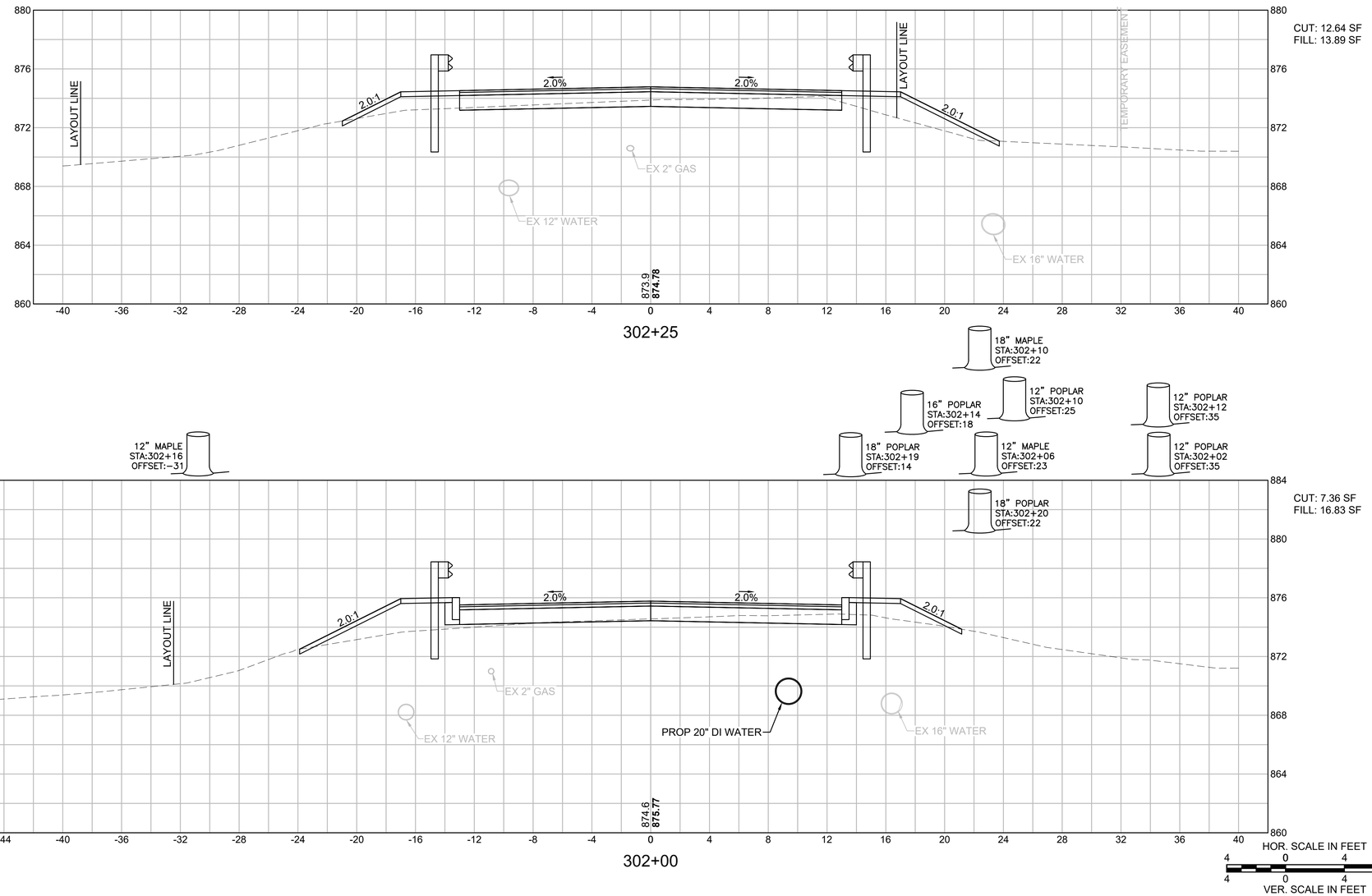
301+50

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

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	58	63
PROJECT FILE NO.	610777		

CROSS SECTIONS
QUALITY STREET & SOUTH WILLOW STREET

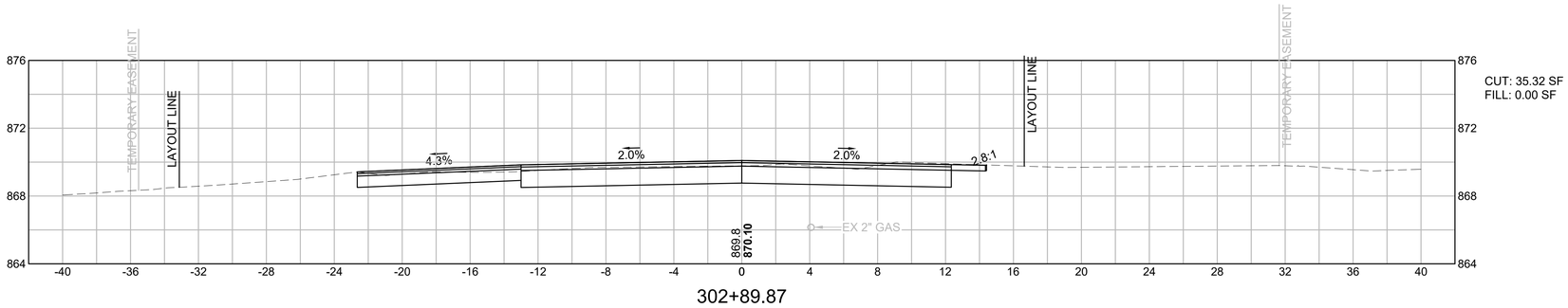


610777_HD15(CROSS_SECTIONS).DWG Plotted on 23-Jul-2025 12:56 PM

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

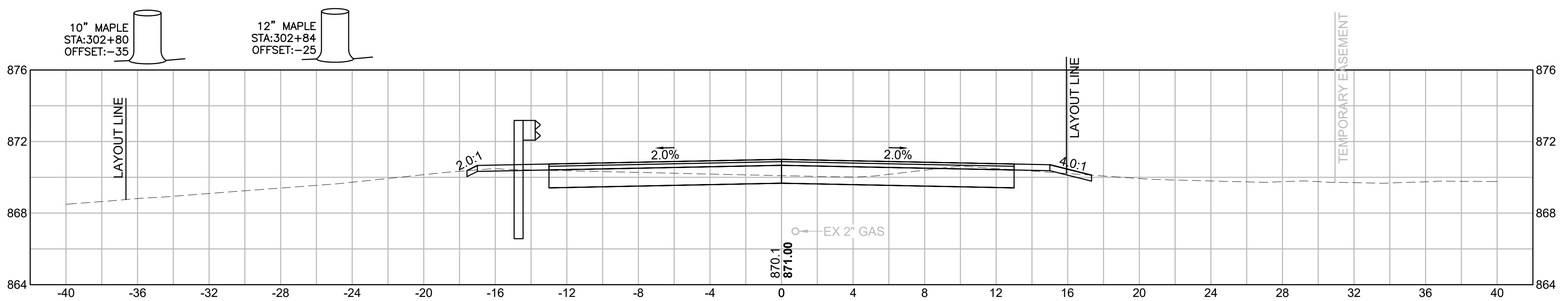
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	59	63
PROJECT FILE NO.	610777		

CROSS SECTIONS
QUALITY STREET & SOUTH WILLOW STREET



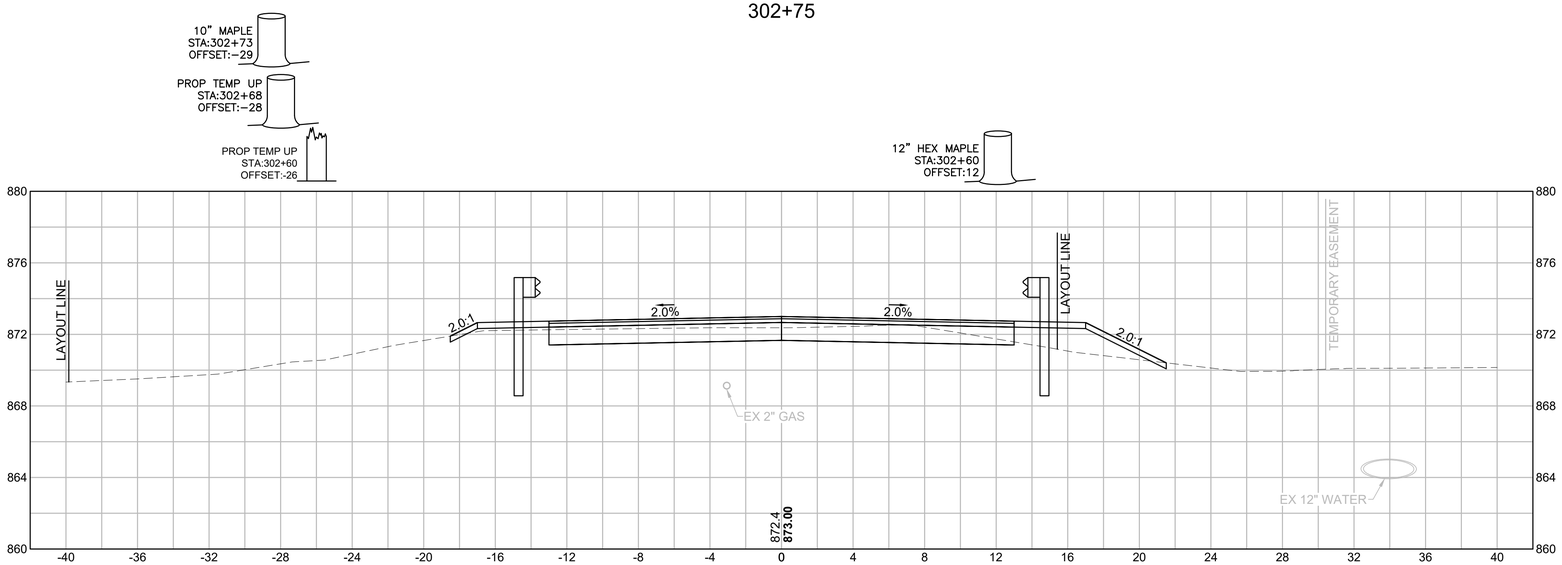
CUT: 35.32 SF
FILL: 0.00 SF

302+89.87



CUT: 19.32 SF
FILL: 0.10 SF

302+75



CUT: 20.25 SF
FILL: 7.64 SF

302+50

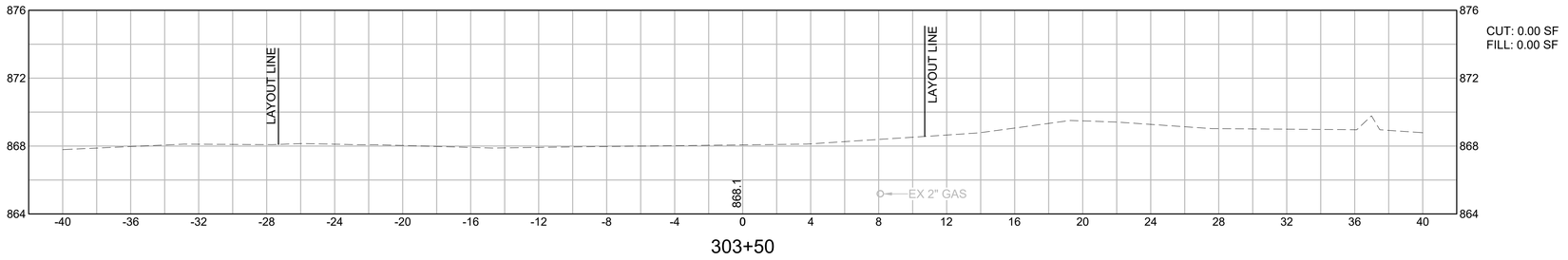
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

610777_HD15(CROSS_SECTIONS).DWG Plotted on 23-Jul-2025 12:56 PM

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

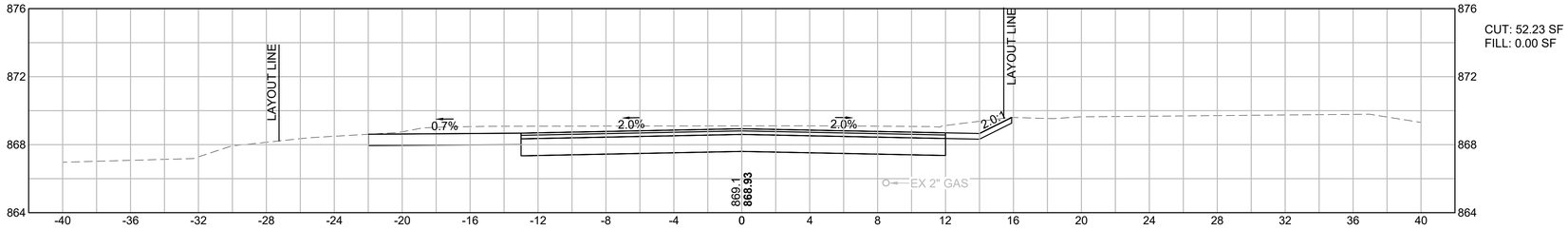
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	60	63
PROJECT FILE NO.	610777		

CROSS SECTIONS
QUALITY STREET & SOUTH WILLOW STREET



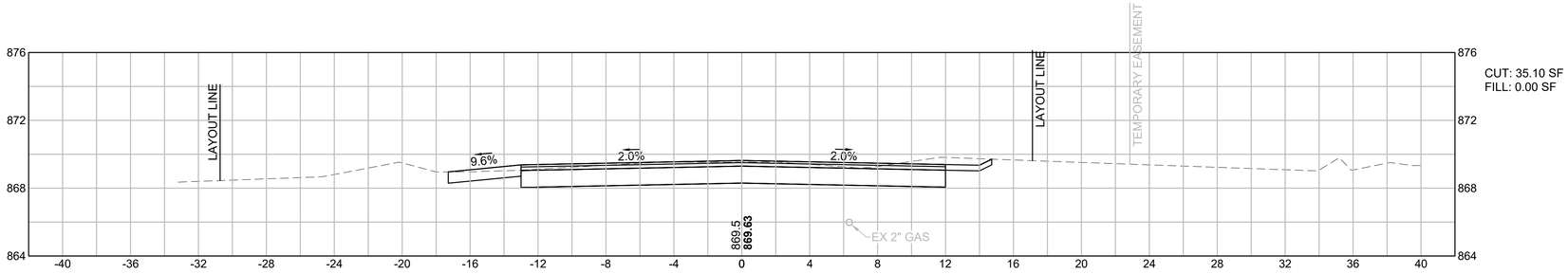
CUT: 0.00 SF
FILL: 0.00 SF

303+50



CUT: 52.23 SF
FILL: 0.00 SF

303+25



CUT: 35.10 SF
FILL: 0.00 SF

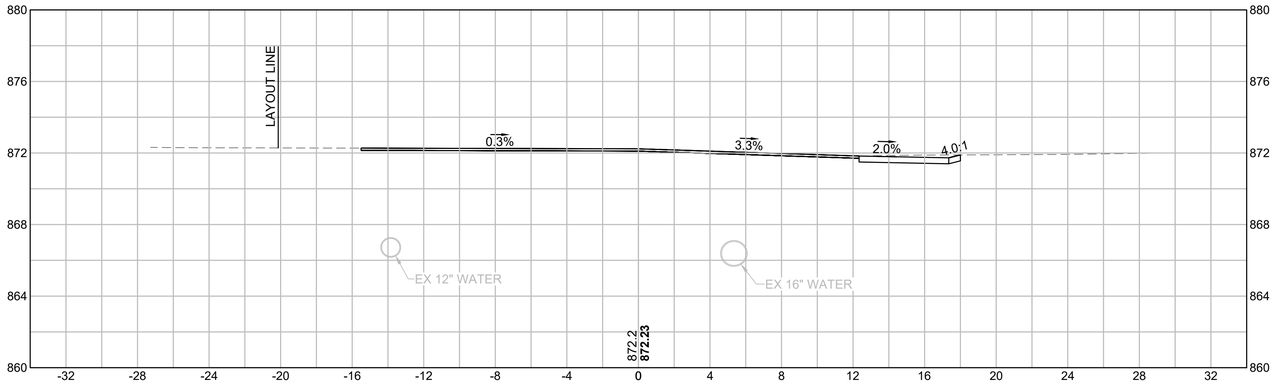
303+00

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

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

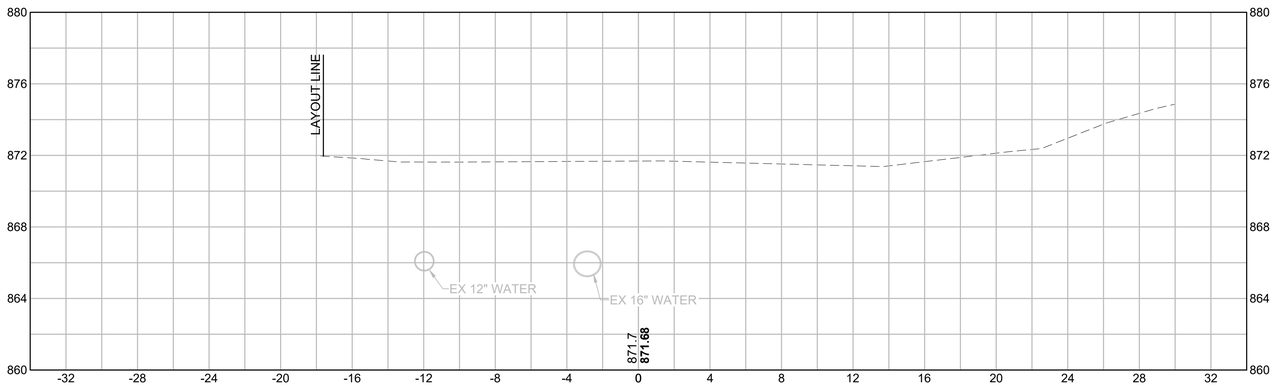
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	61	63
PROJECT FILE NO.	610777		

CROSS SECTIONS
QUALITY STREET & PINNACLE DRIVE



CUT: 2.37 SF
FILL: 0.00 SF

201+50



CUT: 0.00 SF
FILL: 0.00 SF

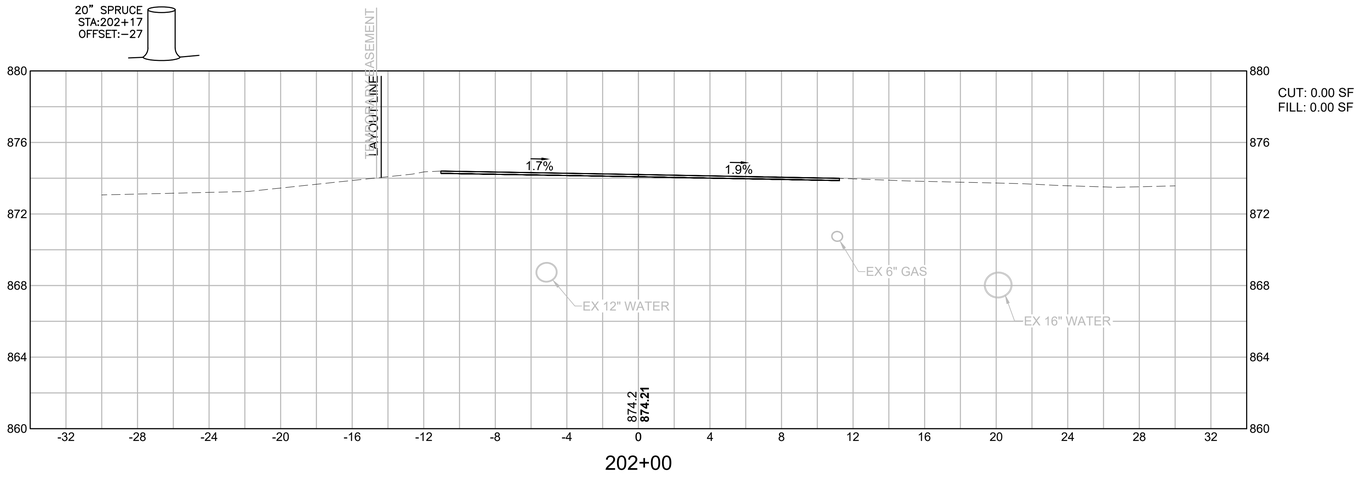
201+25

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

ADAMS
QUALITY STREET/SOUTH WILLOW STREET

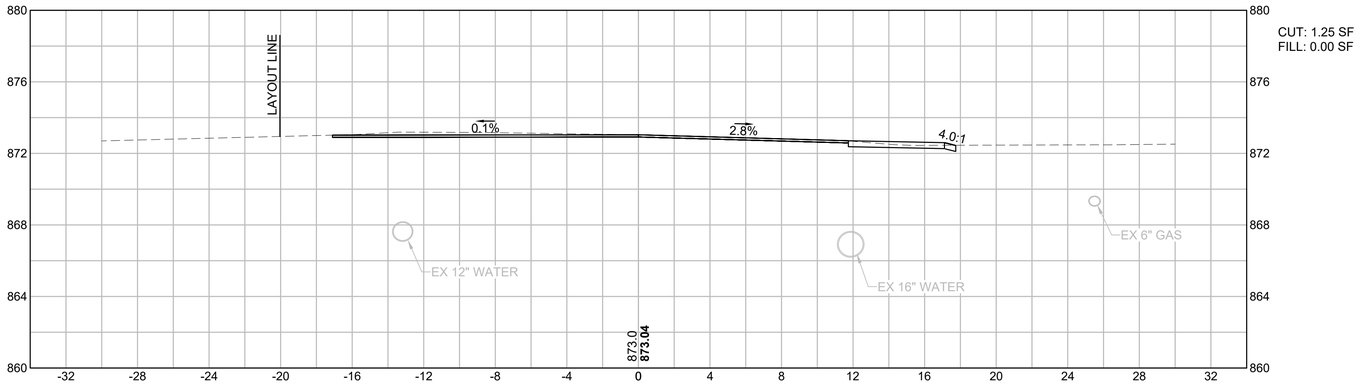
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	62	63
PROJECT FILE NO.	610777		

CROSS SECTIONS
QUALITY STREET & PINNACLE DRIVE



CUT: 0.00 SF
FILL: 0.00 SF

202+00



CUT: 1.25 SF
FILL: 0.00 SF

201+75

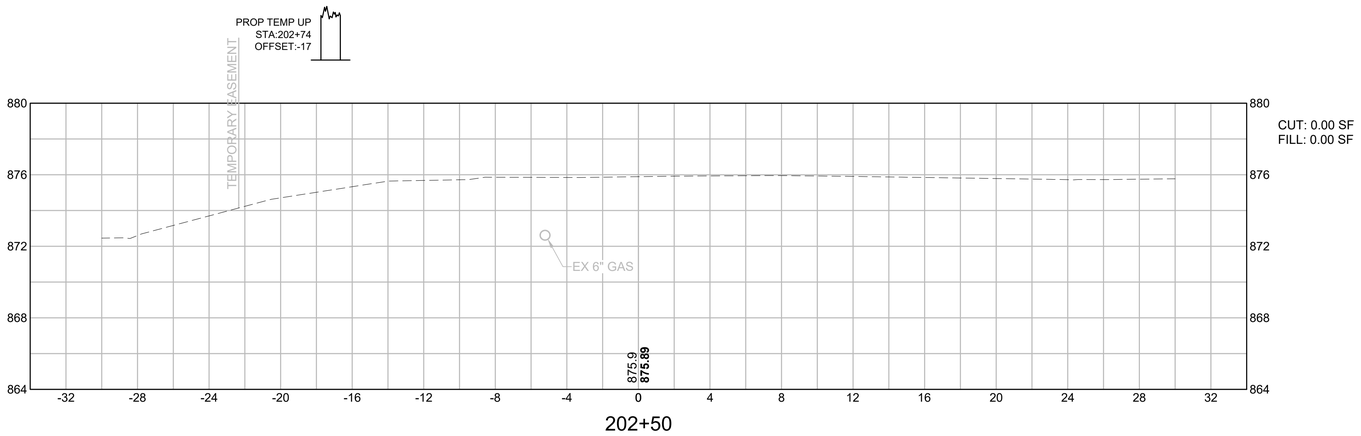
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

610777_HD15(CROSS_SECTIONS).DWG Plotted on 23-Jul-2025 12:56 PM

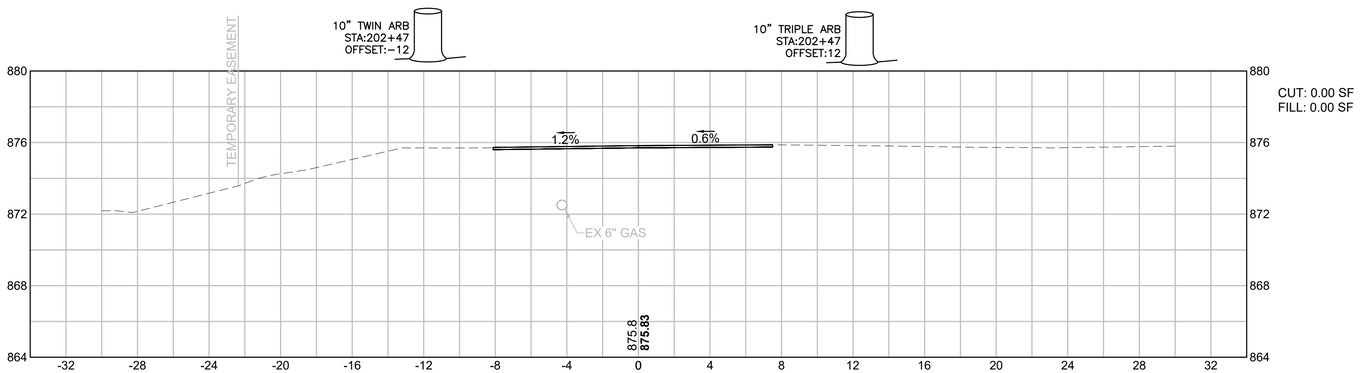
ADAMS
QUALITY STREET/SOUTH WILLOW STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	BFL(BR-OFF)-0031(020)	63	63
PROJECT FILE NO. 610777			

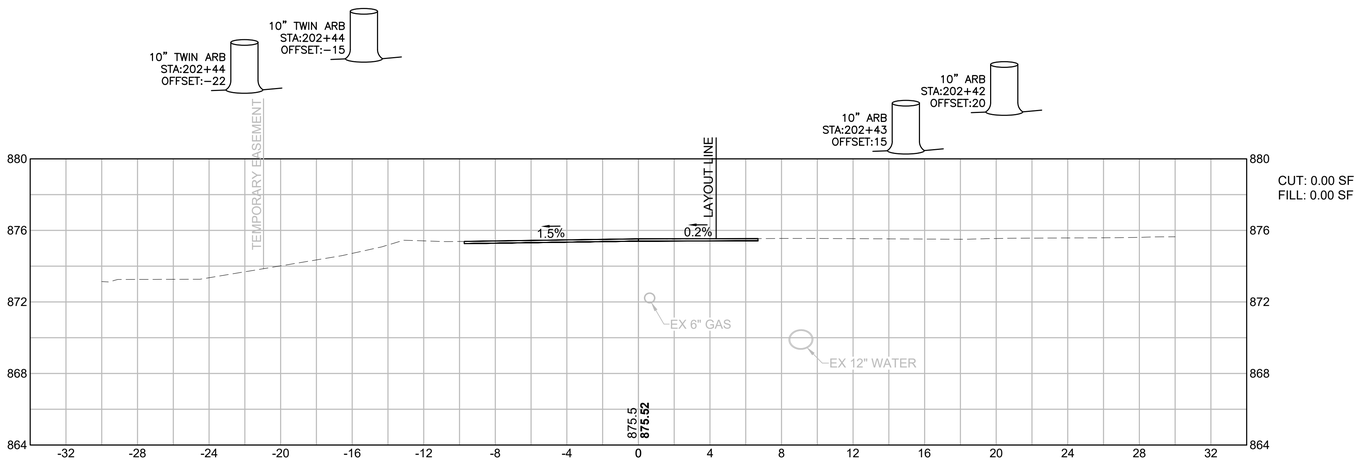
CROSS SECTIONS
QUALITY STREET & PINNACLE DRIVE



202+50



202+45



202+25

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