MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	1	278
PROJECT FILE NO. 607398			

TITLE SHEET & INDEX

607398_HDI(COVI.DWG 14-Feb-2024

PLAN AND PROFILE OF

CAPE COD RAIL TRAIL EXTENSION - PHASE 3

BRIDGE NO. Y-01-018 (C8R)

IN THE TOWNS OF

BARNSTABLE & YARMOUTH

BARNSTABLE COUNTY

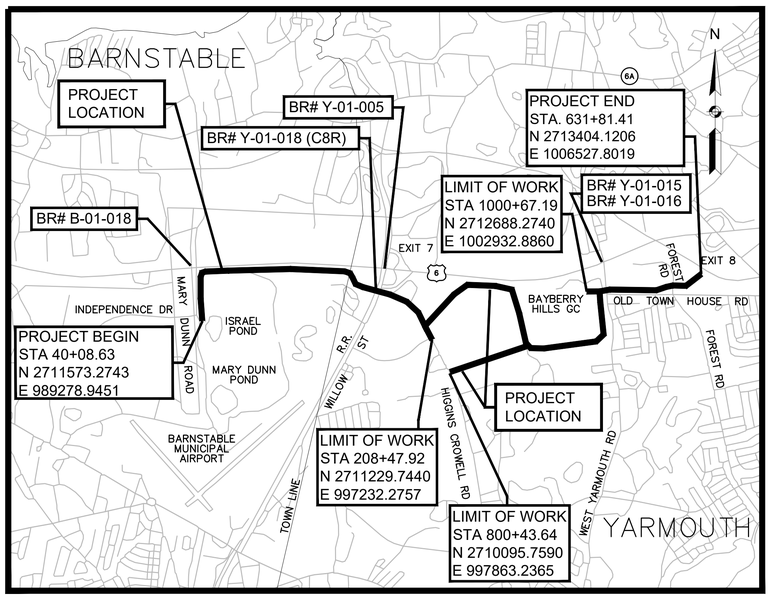
FEDERAL AID PROJECT NO. N/A

PS&E SUBMITTAL

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

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278	TRANSFER STATION CROSS SECTIONS



0 2500 5000 7500 10000

SCALE: 1" = 2500'

LENGTH OF PROJECT = 23,172.74 FEET = 4.389 MILES

DESIGN DESIGNATION (CAPE COD RAIL TRAIL EXTENSION)

DESIGN SPEED	18-25 MPH
FUNCTIONAL CLASSIFICATION	SHARED-USE PATH

DESIGN DESIGNATION (WILLOW STREET)

DESIGN SPEED	45 MPH
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL
ADT (2018)	22,711

DESIGN DESIGNATION (GOLF COURSE DRIVEWAY)

DESIGN SPEED	25 MPH
FUNCTIONAL CLASSIFICATION	--
ADT	NO TRAFFIC DATA AVAILABLE; ASSUME <500

DESIGN DESIGNATION (WEST YARMOUTH ROAD)

DESIGN SPEED	30 MPH
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL
ADT	NO TRAFFIC DATA AVAILABLE
OLD TOWN ROAD BETWEEN WEST YARMOUTH ROAD & FOREST ROAD ADT (2018)	6,508

DESIGN DESIGNATION (FOREST ROAD)

DESIGN SPEED	25 MPH
FUNCTIONAL CLASSIFICATION	LOCAL ROAD
ADT	NO TRAFFIC DATA AVAILABLE

DATE	DESCRIPTION	REV #
02/15/2024	PS&E SUBMISSION	

PLAN PREPARED BY:

vhb
101 WALNUT STREET
WATERTOWN, MA 02471

massDOT Massachusetts Department of Transportation Highway Division

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER **DATE**

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR **DATE**

APPROVED

HIGHWAY ADMINISTRATOR **DATE**

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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LEGEND, GENERAL NOTES & ABBREVIATIONS

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER ON BRIDGE OR JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
		FLARED END SECTION (FES)
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
Ⓒ	Ⓒ	CABLE MANHOLE
Ⓓ	DMH/LB	DRAINAGE MANHOLE OR LEACHING BASIN
Ⓔ	Ⓔ	ELECTRIC MANHOLE
Ⓖ	Ⓖ	GAS MANHOLE
Ⓜ	Ⓜ	MISC MANHOLE
Ⓢ	Ⓢ	SEWER MANHOLE
Ⓣ	Ⓣ	TELEPHONE MANHOLE
Ⓦ	Ⓦ	WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS
		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)
		MSE RETAINING WALL / TEMPORARY SHEETING
		BALANCE STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
x	x	CHAIN LINK OR METAL FENCE
o		SPLIT RAIL WOOD FENCE
		WOOD RAILING - 2 RAIL
		WOOD RAILING - 4 RAIL
		COMPOST FILTER TUBE
		TREE LINE OR LIMIT OF CLEARING AND GRUBBING
		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
		FULL DEPTH PAVEMENT
		RIP RAP SLOPE PROTECTION AND MODIFIED ROCK FILL
		DRAINAGE DITCH

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
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" WIDE
	CW	CROSSWALK - WIDTH AS NOTED
	SWL	SOLID WHITE LINE - 4" WIDE
	SYL	SOLID YELLOW LINE - 4" WIDE
	DBYL	DOUBLE YELLOW LINE - 4" WIDE

ABBREVIATIONS

GENERAL

ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
BIT.	BITUMINOUS
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CCRT	CAPE COD RAIL TRAIL
CEM	CEMENT
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
DIA	DIAMETER
ELEV (or EL.)	ELEVATION
EOP	EDGE OF PAVEMENT
E.P	ELEVATION POINT
EXIST	EXISTING
FDN.	FOUNDATION
GP	GATE POST
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HMA	HOT MIX ASPHALT
L&S	LOAM AND SEED
LT, L	LEFT
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
PROP	PROPOSED

ABBREVIATIONS (CONTINUED)

GENERAL (CONTINUED)

PH	PRIORITY HABITAT
OD	OUTSIDE DIAMETER
PVM'T	PAVEMENT
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT, R	RIGHT
SGE	SLOPED GRANITE EDGING
STA	STATION
SUP	SHARED USE PATH
TEMP	TEMPORARY
TOS	TOP OF SLOPE
TRANS	TRANSITION
TYP	TYPICAL

UTILITIES

CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
COND	CONDUIT
DB	DIRECT BURIAL
FES	FLARED END SECTION
F&C	FRAME & COVER
F&G	FRAME & GRATE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT
LB	LEACHING BASIN
PVC	POLYVINYL CHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
TSV&B	TAPPING SLEEVE, VALVE, & BODY
UP	UTILITY POLE

GENERAL NOTES

1. TOPOGRAPHICAL INFORMATION FROM A SURVEY BY THE TOWN OF YARMOUTH BETWEEN THE DATES OF JUNE 2010 AND FEBRUARY 2014, VHB, WATERTOWN, MASSACHUSETTS BETWEEN JULY AND AUGUST 2014 , DOWN CAPE ENGINEERING IN MARCH 2017, AND BRACKEN ENGINEERING IN FEBRUARY & MARCH 2021. (HORIZONTAL DATUM: NAD83, VERTICAL DATUM: NAVD88).
2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING. CONTRACTOR SHALL CONTACT BARNSTABLE DPW (508-790-6400) FOR LOCATION OF DRAINAGE STRUCTURES; HYANNIS WATER SYSTEM (508-775-0063) FOR LOCATION OF WATER INFRASTRUCTURE; BARNSTABLE WATER POLLUTION CONTROL (508-790-6335) FOR LOCATION OF SEWER INFRASTRUCTURE. CONTRACTOR SHALL CONTACT YARMOUTH DPW (508-398-2231) FOR LOCATION OF DRAINAGE STRUCTURES AND YARMOUTH WATER DEPARTMENT (508-771-7921) FOR LOCATION OF WATER INFRASTRUCTURE.
3. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
4. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M4.05.2.
5. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
6. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS.
7. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
8. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
9. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
10. JOINTS BETWEEN NEW HOT MIX ASPHALT ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDED
11. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS
12. ALL LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
13. ALL EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED PIECES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
14. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATION ARE NOT GUARANTEED.
15. DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
16. CONTRACTOR SHALL COORDINATE WITH RAILROAD ON TRAIN TRAFFIC ON THE CAPE MAIN.

ABBREVIATIONS (CONTINUED)

ALIGNMENT/GRADING

BC	BOTTOM OF CURB
CC	CENTER OF CURVE
HP	HIGH POINT
LP	LOW POINT
PC	POINT OF CURVE
PI	POINT OF INTERSECTION
PNT	POINT
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
25.45	SPOT ELEVATION

PROFILES

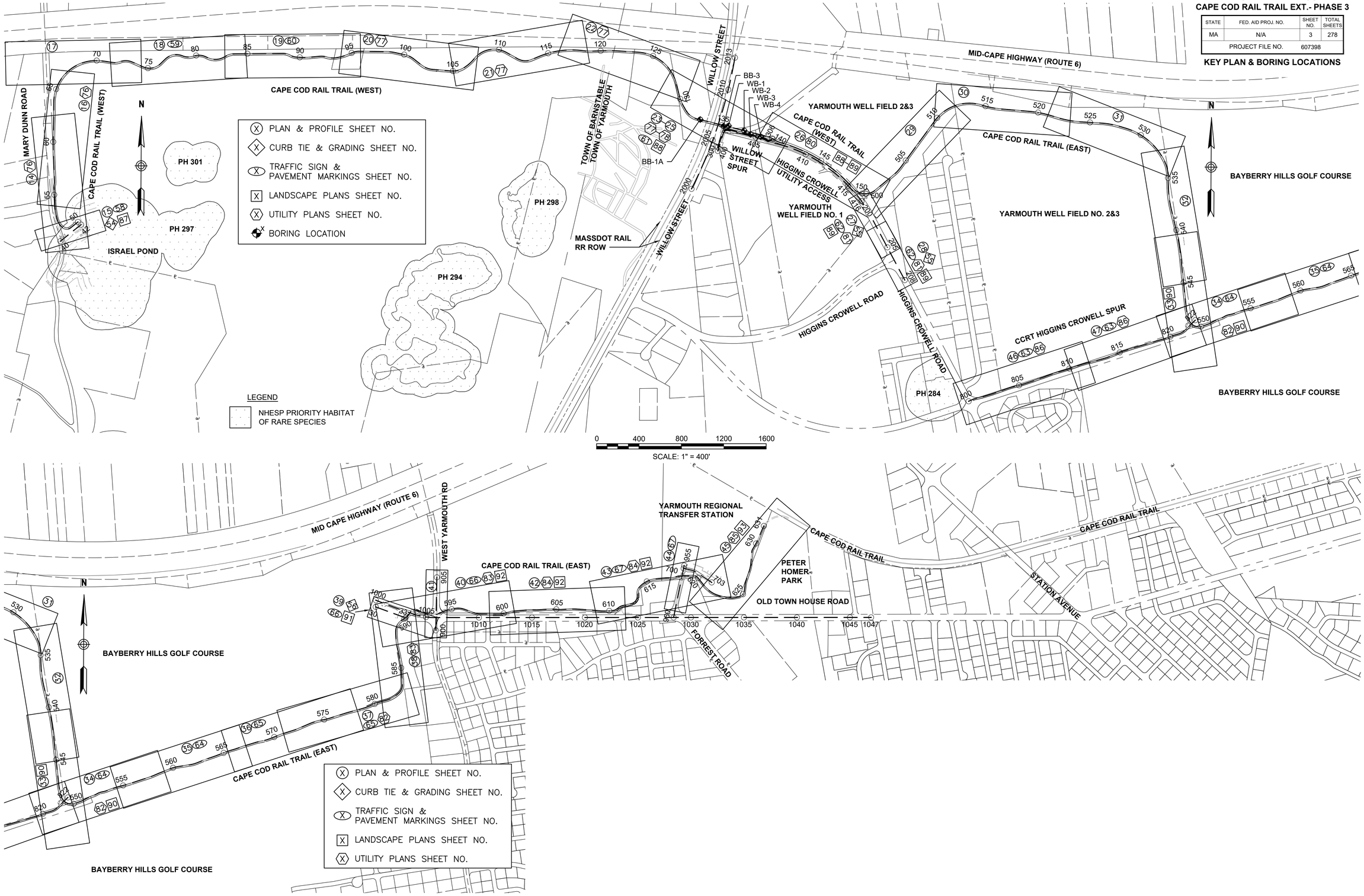
AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
ELEV	ELEVATION
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVC	POINT OF VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
PVRC	POINT OF VERTICAL REVERSE CURVE
PVCC	POINT OF VERTICAL COMPOUND CURVE
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

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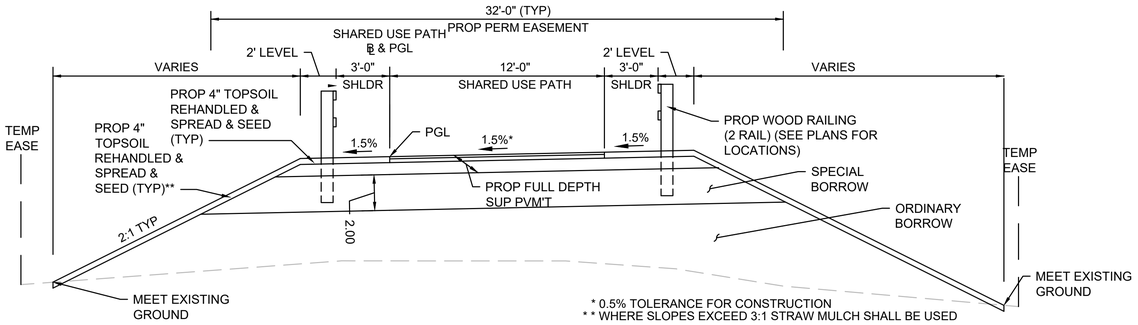
KEY PLAN & BORING LOCATIONS



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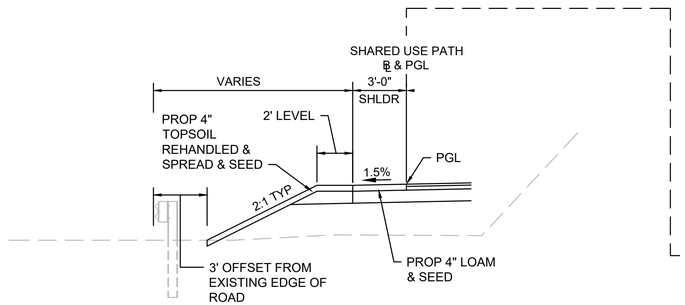
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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TYPICAL SECTIONS & PAVEMENT NOTES



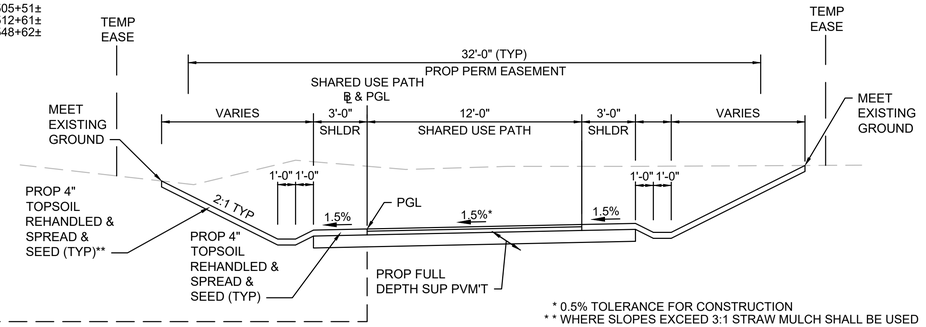
TYPICAL SHARED USE PATH SECTION - NO DITCH

CCRT EXTENSION - WEST
STA 50+59± TO STA 51+53±, STA 57+50± TO 58+90±, STA 59+68± TO STA 61+00±
STA 65+64± TO 66+68±, STA 72+53± TO STA 73+70±, STA 74+11± TO STA 77+21±
STA 81+38± TO STA 86+21±, STA 87+00± TO 89+89±, STA 91+57± TO STA 92+59±
STA 93+68± TO STA 96+29±, STA 97+15± TO STA 101+59±, STA 107+61± TO STA 111+03±
STA 113+65± TO STA 119+22±, STA 120+15± TO STA 122+11±, STA 123+86± TO STA 124+60±
STA 125+87± TO STA 126+34±, STA 127+56± TO STA 128+81±, STA 131+16± TO STA 133+30±
CCRT EXTENSION - EAST
STA 501+28± TO STA 502+10±, STA 502+69± TO STA 503+01±, STA 503+79± TO STA 505+51±
STA 505+98± TO STA 508+11±, STA 508+54± TO STA 509+11±, STA 512+38± TO STA 512+61±
STA 513+66± TO STA 522+20±, STA 523+19± TO STA 536+72±, STA 537+69± TO STA 548+62±
STA 549+35± TO STA 550+15±
NTS



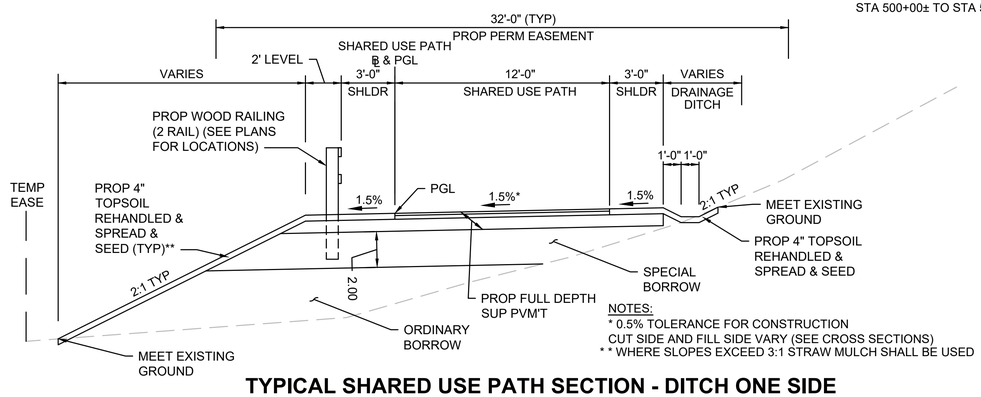
TYPICAL SHARED USE PATH SECTION

CCRT EXTENSION - WEST
STA 52+50± TO STA 55+50±
NTS



TYPICAL SHARED USE PATH SECTION - DITCH BOTH SIDES

CCRT EXTENSION - WEST
STA 51+59± TO STA 57+00±, STA 58+93± TO STA 59+44±, STA 61+39± TO ± STA 63+00±
STA 64+20± TO STA 65+20±, STA 66+68± TO STA 69+70±, STA 73+88± TO STA 74+11±
STA 77+60± TO STA 80+75±, STA 86+21± TO STA 86+56±, STA 102+20± TO STA 106+89±
STA 112+40± TO STA 113+65±, STA 118+70± TO STA 120+15±, STA 124+75± TO STA 125+87±
STA 126+90± TO STA 127+40±, STA 128+90± TO STA 130+60±
CCRT EXTENSION - EAST
STA 500+00± TO STA 500+89±, STA 509+60± TO STA 511+89±, STA 512+61± TO STA 513+60±
NTS



NOTES:
* 0.5% TOLERANCE FOR CONSTRUCTION
CUT SIDE AND FILL SIDE VARY (SEE CROSS SECTIONS)
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION - DITCH ONE SIDE

CCRT EXTENSION - WEST
STA 57+00± TO STA 57+50±, STA 59+44± TO 59+68±, STA 61+00± TO STA 61+39±
STA 63+00± TO STA 64+20±, STA 65+20± TO STA 65+64±, STA 69+70± TO STA 72+53±
STA 73+70± TO STA 73+88±, STA 77+21± TO 77+60±, STA 80+75± TO STA 81+38±
STA 86+56± TO STA 87+00±, STA 89+89± TO STA 91+57±, STA 92+59± TO STA 93+68±
STA 96+29± TO STA 97+15±, STA 101+59± TO STA 102+20±, STA 106+89± TO STA 107+61±
STA 111+03± TO STA 112+40±, STA 119+22± TO STA 118+70±, STA 122+11± TO STA 123+86±
STA 124+60± TO STA 124+75±, STA 126+34± TO STA 126+90±, STA 127+40± TO STA 127+56±
STA 128+81± TO STA 128+90±, STA 130+60± TO STA 131+16±
CCRT EXTENSION - EAST
STA 500+89± TO STA 501+28±, STA 502+10± TO STA 502+69±, STA 503+01± TO STA 503+79±, STA 505+51± TO STA 505+98±
STA 508+11± TO STA 508+54±, STA 509+11± TO STA 509+60±, STA 511+89± TO STA 512+38±, STA 513+60± TO STA 513+66±
STA 520+22± TO STA 523+19±, STA 536+72± TO STA 537+69±, STA 548+62± TO STA 549+35
NTS

NOTES
1. ALL HOT MIX ASPHALT PAVEMENTS SHALL BE PRODUCED IN ACCORDANCE WITH SECTION 450 OF THE STANDARD SPECIFICATIONS.
2. ASPHALT EMULSION FOR TACK COAT (ITEM 452.) SHALL BE SPRAY APPLIED FOR TRIPLE OVERLAP COVERAGE AT 0.08 GAL/SY OVER MILLED SURFACES AND 0.07 GAL/SY OVER SMOOTH SURFACES.
3. HMA JOINT ADHESIVE (ITEM 453.) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.
4. ALL HOT MIX ASPHALT WALKS AND DRIVEWAYS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702. OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
5. WHERE EXISTING SOIL WITHIN A DEPTH OF 2' BELOW SUBGRADE IS FOUND TO HAVE GREATER THAN 14% MATERIAL PASSING THE #200 MESH, THE MATERIAL SHALL BE EXCAVATED.
6. ALL SEED MIX SHALL BE ITEM 765.472 UNLESS NOTATED OTHERWISE ON LANDSCAPE PLANS.

PAVEMENT NOTES

PROPOSED FULL DEPTH SHARED USE PATH (SUP) PAVEMENT
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
BASE: 2.5" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0)
SUBBASE: 8" GRAVEL BORROW, TYPE b

PROPOSED SHARED USE PATH (SUP) PAVEMENT OVERLAY
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5)
LEVELING COURSE: VARIABLE DEPTH (1" MIN) SUPERPAVE LEVELING COURSE 9.5 (SLC-9.5)

PROPOSED FULL DEPTH PAVEMENT (ROADWAY)
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2.5" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0)
BASE: 4.0" SUPERPAVE BASE COURSE 37.5 (SBC-37.5)
SUBBASE: 4" DENSE GRADED CRUSHED STONE OVER
8" GRAVEL BORROW, TYPE b

PROPOSED FULL DEPTH PAVEMENT (LESS THAN 4.0' WIDE)
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2.5" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0)
BASE: 8" HIGH EARLY STRENGTH CEMENT
CONCRETE BASE COURSE
SUBBASE: 8" GRAVEL BORROW, TYPE b

PROPOSED FULL DEPTH PARKING AREA
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2.5" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0)
SUBBASE: 12" GRAVEL BORROW, TYPE b

PROPOSED PAVEMENT LEVELING AND OVERLAY
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5)
LEVELING COURSE: VARIABLE DEPTH (1" MIN) SUPERPAVE LEVELING COURSE 9.5 (SLC-9.5)
TREAT EXISTING PAVEMENT SURFACE WITH ASPHALT EMULSION FOR TACK COAT PRIOR TO INSTALLING TOP COURSE APPLICATION RATE 0.07 GAL/SY

PROPOSED PAVEMENT MICROMILLING AND OVERLAY
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
0.5" MAXIMUM PAVEMENT MILLING

* PROPOSED HOT MIX ASPHALT DRIVEWAY
SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2.5" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)
FOUNDATION: 8" GRAVEL BORROW, TYPE b

* PROPOSED HOT MIX ASPHALT WALK
SURFACE: 1.25" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)
FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED CEMENT CONCRETE WALK/PEDESTRIAN CURB RAMP/MEDIAN ISLAND
SURFACE: 4" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4", 610
6"X6" W2.9 X W2.9 WELDED STEEL, FIBER MESH
(FOR PEDESTRIAN CURB RAMPS ONLY)
FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED GRAVEL PATH / GRAVEL GOLF CART PATH
SURFACE: 4" DENSE GRADED CRUSHED STONE
FOUNDATION: 6" GRAVEL BORROW, TYPE b

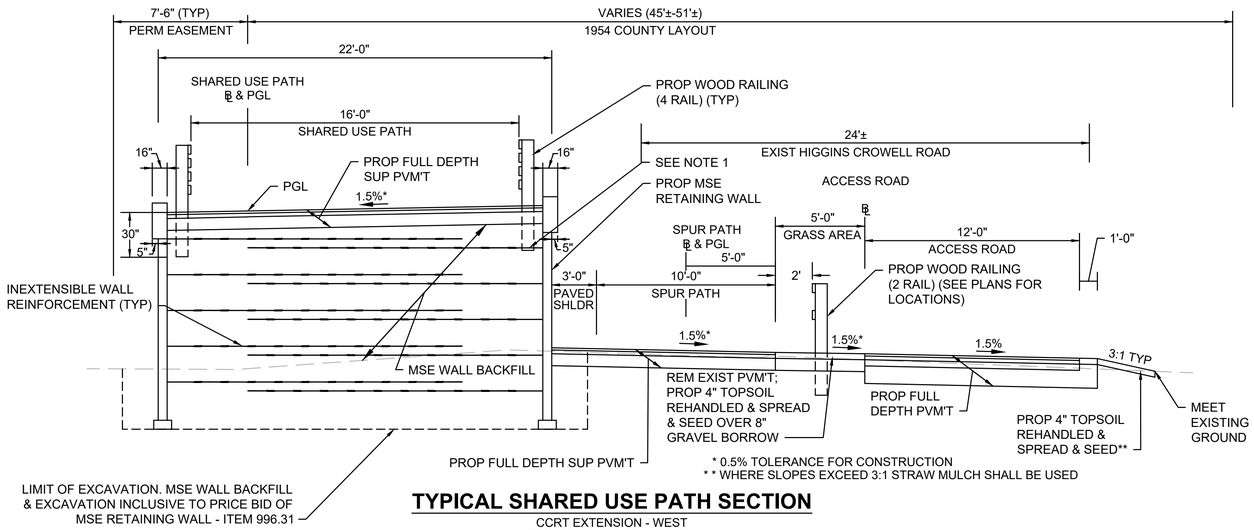
607398_HD(TYP).DWG Plotted on 20-Feb-2024 11:04 AM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	5	278
PROJECT FILE NO. 607398			

TYPICAL SECTIONS & PAVEMENT NOTES

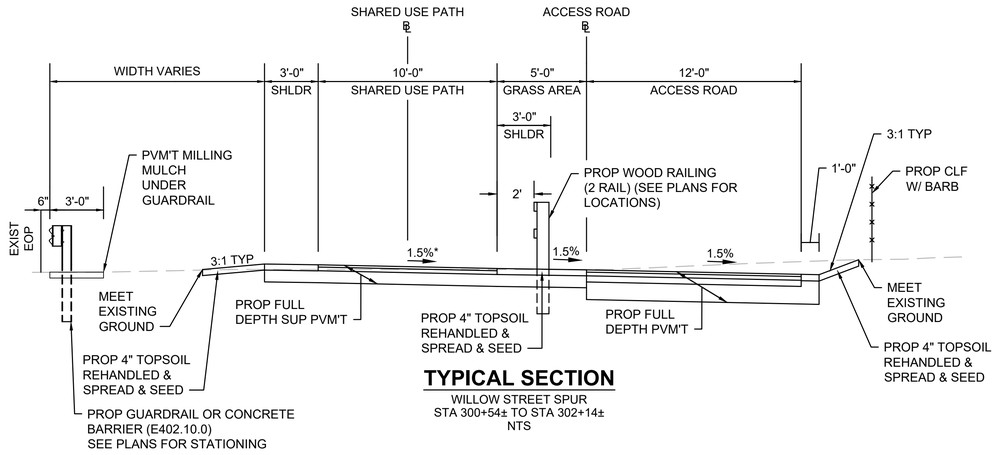
607398_HD(TYP).DWG Plotted on 14-Feb-2024 12:17 PM



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

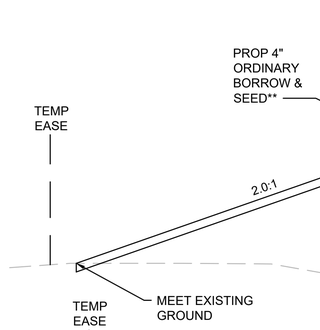
TYPICAL SHARED USE PATH SECTION

CCRT EXTENSION - WEST
STA 135+95± TO STA 136+98±
NTS



TYPICAL SECTION

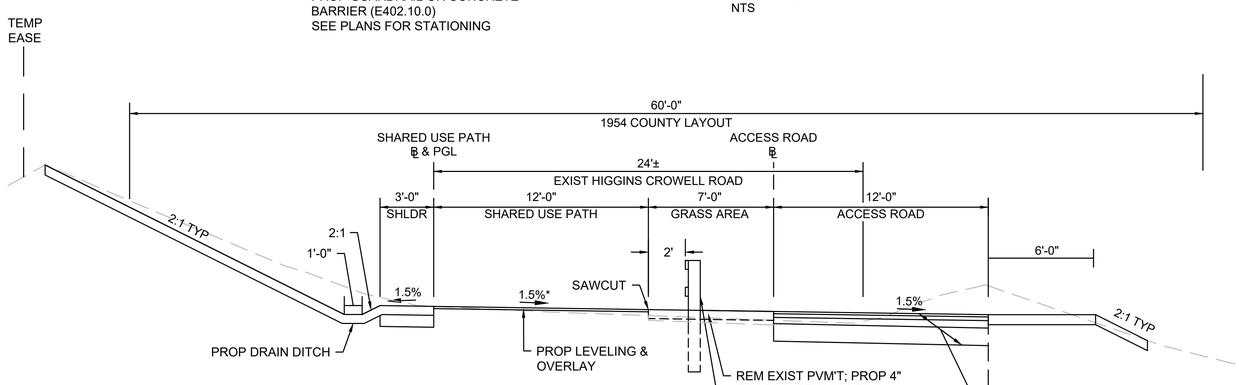
WILLOW STREET SPUR
STA 300+54± TO STA 302+14±
NTS



NOTE:
1. THE CONTRACTOR SHALL LAY OUT THE MSE SOIL REINFORCING STRIPS TO PREVENT CONFLICTS WITH THE WOOD RAILING POSTS. REINFORCING STRIPS SHALL BE LAID OUT ACCORDING TO THE MANUFACTURER'S DESIGN PLANS AND SPECIFICATIONS.

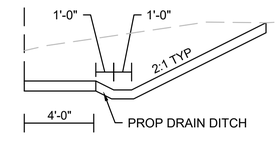
TYPICAL SHARED USE PATH SECTION

CCRT EXTENSION - WEST
STA 136+98± TO STA 137+86±
NTS



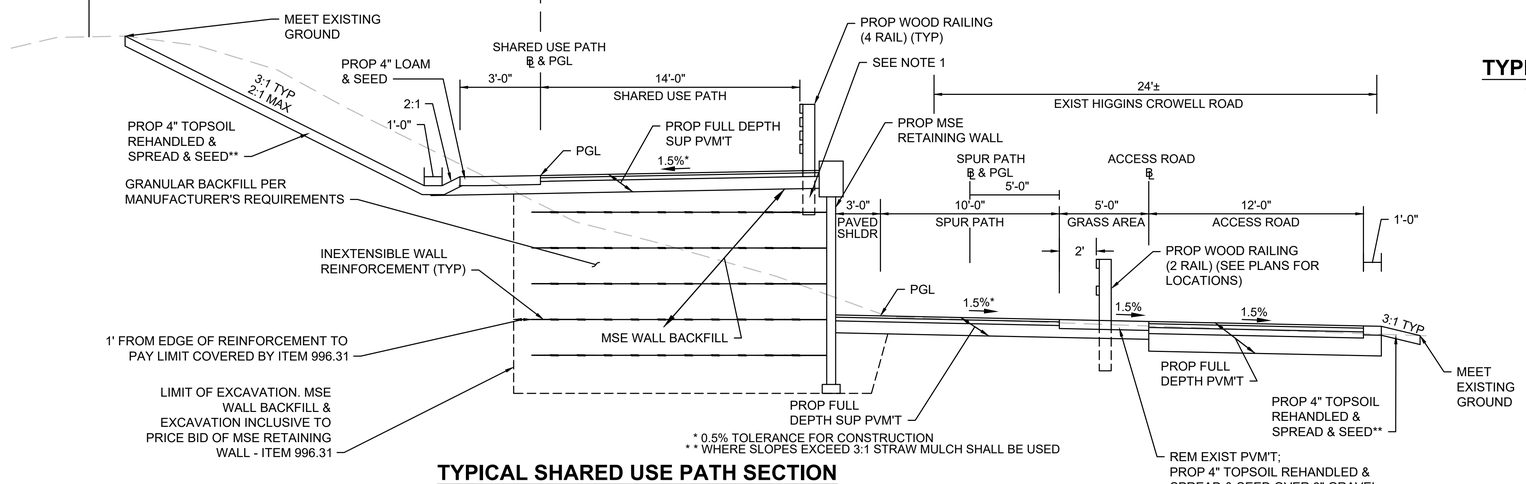
TYPICAL SHARED USE PATH SECTION

CCRT EXTENSION - WEST (HIGGINS CROWELL ROAD)
STA 140+69± TO STA 144+30±
STA 147+30± TO STA 149+51±
NTS



TYPICAL SHARED USE PATH SECTION

CCRT EXTENSION - WEST (HIGGINS CROWELL ROAD)
STA 140+91± TO STA 143+80±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

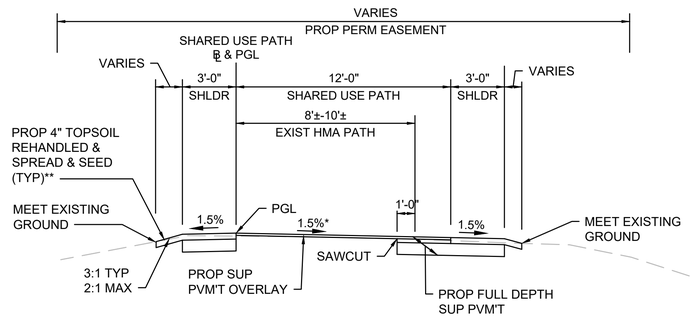
CCRT EXTENSION - WEST
STA 136+98± TO STA 139+48±
NTS

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	6	278
PROJECT FILE NO. 607398			

TYPICAL SECTIONS & PAVEMENT NOTES

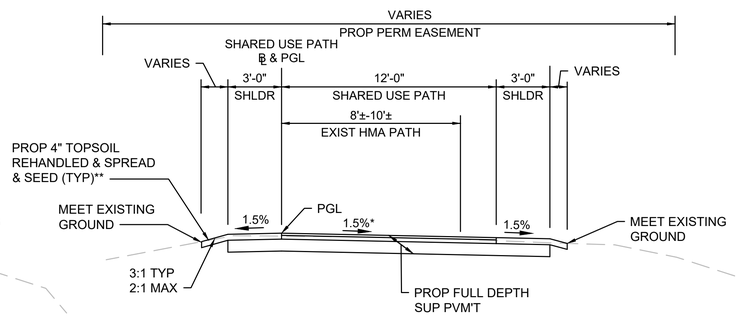
607398_HD(TYP).DWG Plotted on 14-Feb-2024 12:17 PM



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

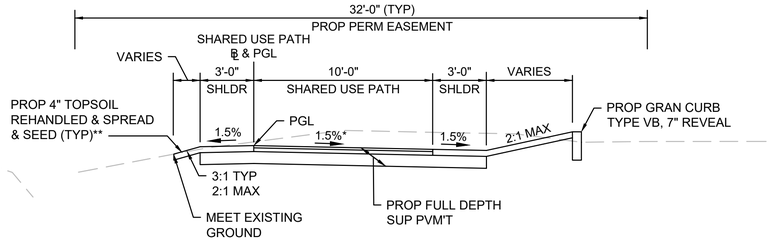
CCRT EXTENSION - EAST
STA 550+15± TO STA 560+51±, STA 565+61± TO STA 572+51±
STA 575+01± TO STA 588+52±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

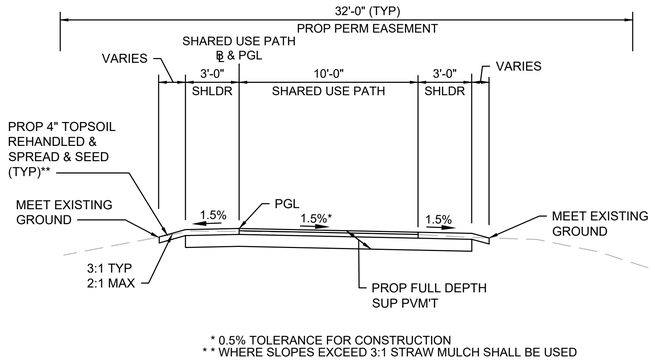
CCRT EXTENSION - EAST
STA 560+51± TO STA 565+61±, STA 572+51± TO STA 575+01±
STA 588+52± TO STA 590+31±, STA 591+60± TO STA 592+89±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

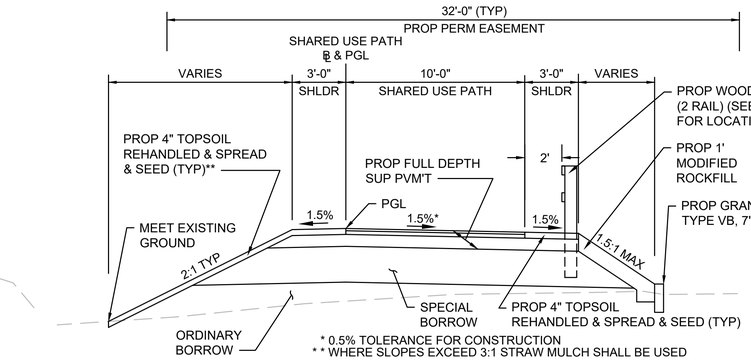
CCRT EXTENSION - EAST
STA 597+24± TO STA 598+90±, STA 599+90± TO STA 600+15±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

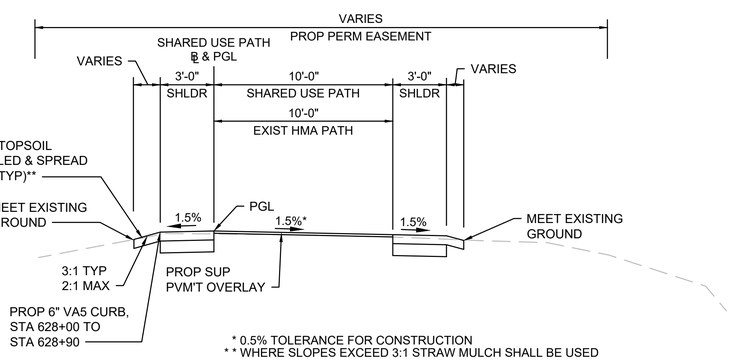
CCRT EXTENSION - EAST
STA 594+04± TO STA 597+24±, STA 600+15± TO STA 602+94±
STA 607+62± TO STA 615+60±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

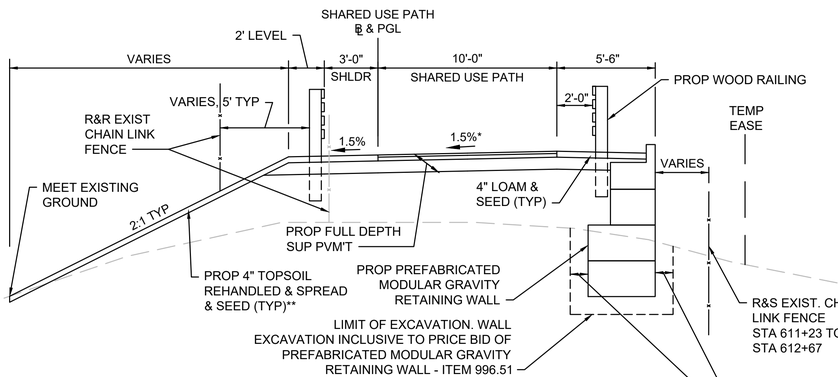
CCRT EXTENSION - EAST
STA 598+90± TO STA 599+90±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

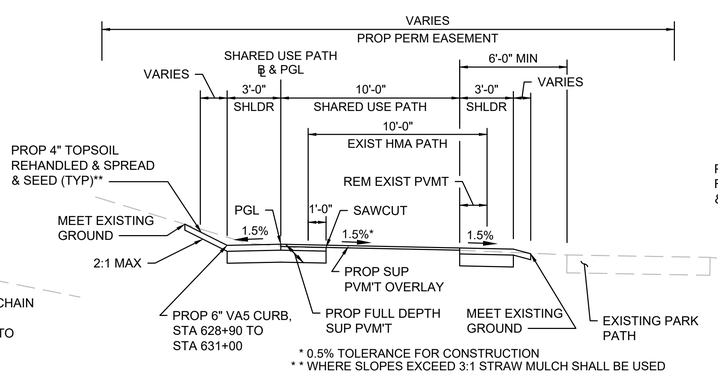
TYPICAL SHARED USE PATH SECTION

CCRT EXTENSION - EAST
STA 602+94± TO STA 607+62±, STA 615+60 TO STA 617+49±
STA 618+81± TO STA 628+90±
NTS



TYPICAL SHARED USE PATH SECTION

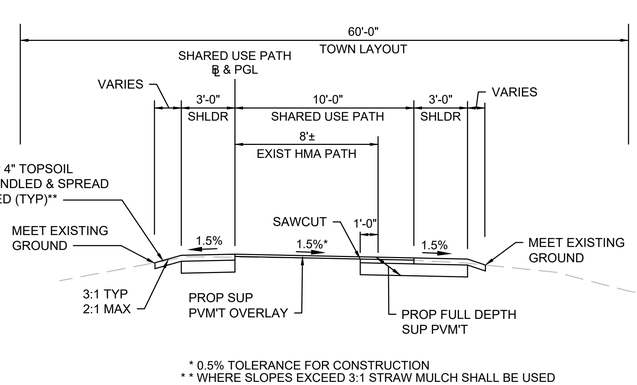
CCRT EXTENSION - EAST
STA 610+65± TO STA 613+52±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

CCRT EXTENSION - EAST
STA 628+90± TO STA 631+81±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

TYPICAL SHARED USE PATH SECTION

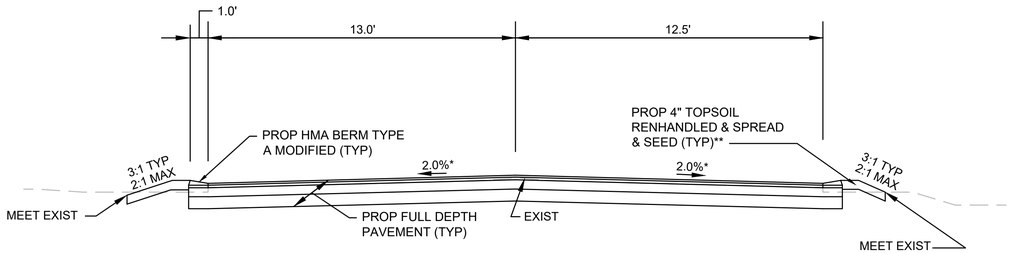
HIGGINS CROWELL ROAD SPUR
STA 800+80± TO STA 820+82±
NTS

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	7	278
PROJECT FILE NO. 607398			

TYPICAL SECTIONS & PAVEMENT NOTES

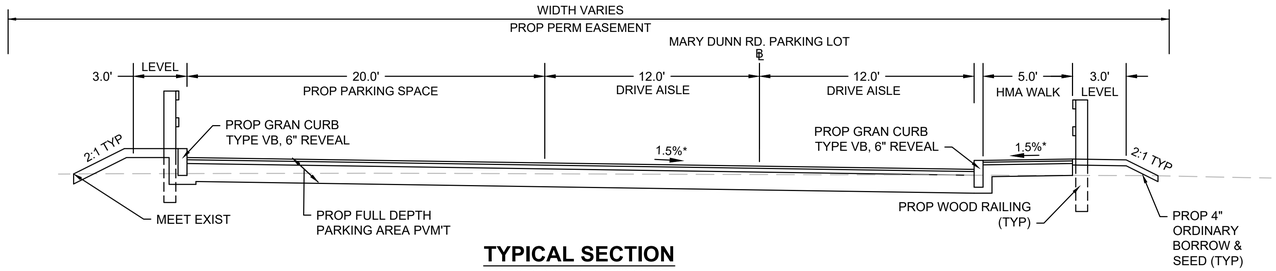
607398_HD(TYP).DWG Plotted on 14-Feb-2024 12:17 PM



* 0.5% TOLERANCE FOR CONSTRUCTION
* * WHERE SLOPES EXCEED 3:1 STRAW MULCH SHALL BE USED

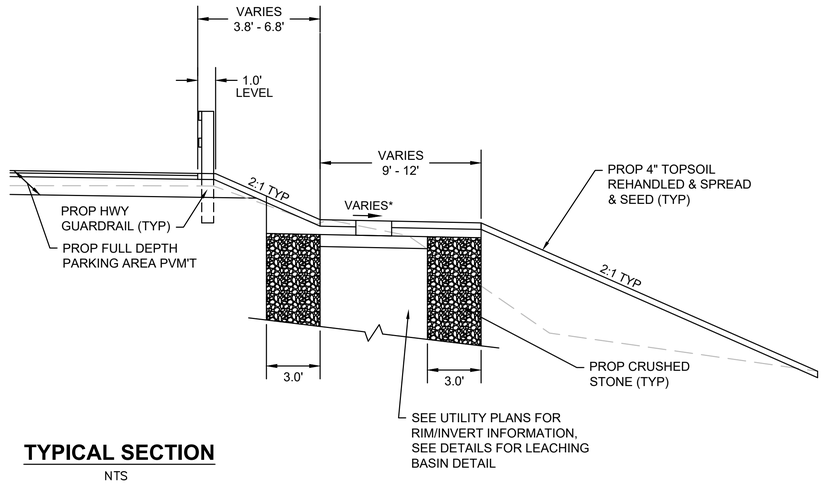
TYPICAL SPEED TABLE SECTION

FOREST ROAD EXTENSION
NTS



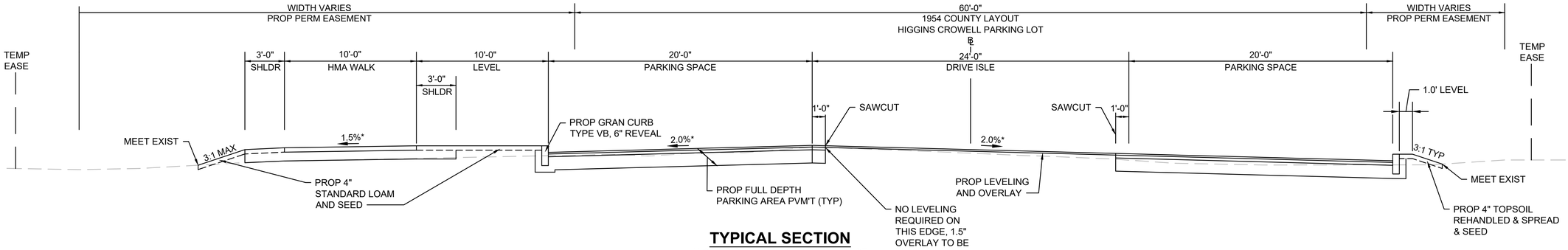
TYPICAL SECTION

MARY DUNN RD. PARKING LOT
NTS



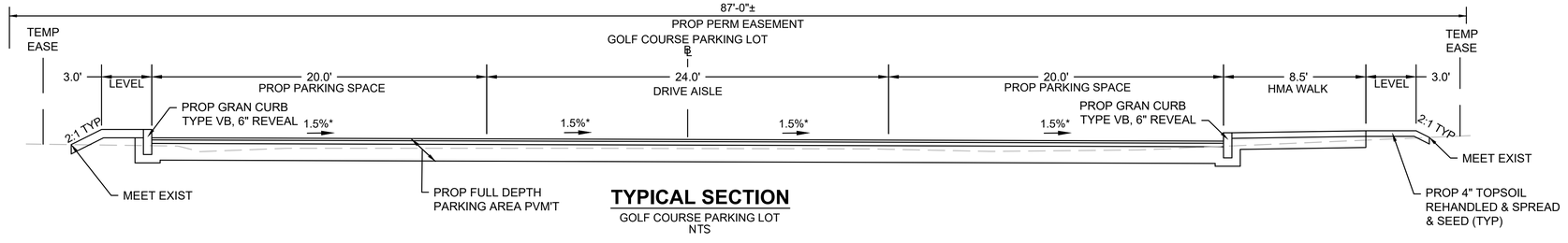
TYPICAL SECTION

NTS
MARY DUNN RD. PARKING LOT @ LEACHING BASINS



TYPICAL SECTION

HIGGINS CROWELL ROAD PARKING LOT
STA 200+23± TO 204+73±
NTS



TYPICAL SECTION

GOLF COURSE PARKING LOT
NTS

CCRT PHASE 3 - WEST CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	50+00.00	2711770.003	989421.055		S51° 18' 15"W 87.89'	50+87.89	2711715.057	989352.462
C1	50+87.89	2711715.057	989352.462	R=60.00' Δ=78°27'36" L=82.16' T=48.99'		51+70.05	2711715.765	989276.573
C2	51+70.05	2711715.765	989276.573	R=170.00' Δ=37°38'25" L=111.68' T=57.94'		52+81.73	2711809.369	989219.401
C3	52+81.73	2711809.369	989219.401	R=870.00' Δ=10°13'19" L=155.21' T=77.81'		54+36.95	2711963.058	989199.210
L2	54+36.95	2711963.058	989199.210		N2° 22' 25"W 120.75'	55+57.70	2712083.709	989194.209
C4	55+57.70	2712083.709	989194.209	R=170.00' Δ=12°26'15" L=36.90' T=18.52'		55+94.60	2712120.457	989196.679
C5	55+94.60	2712120.457	989196.679	R=170.00' Δ=12°27'07" L=36.95' T=18.55'		56+31.55	2712157.247	989199.147
L3	56+31.55	2712157.247	989199.147		N2° 23' 16"W 281.55'	59+13.10	2712438.552	989187.417
C6	59+13.10	2712438.552	989187.417	R=1000.00' Δ=3°31'52" L=61.63' T=30.82'		59+74.73	2712500.166	989186.747
L4	59+74.73	2712500.166	989186.747		N1° 08' 35"E 256.58'	62+31.31	2712756.699	989191.866
C7	62+31.31	2712756.699	989191.866	R=2000.00' Δ=0°53'17" L=31.00' T=15.50'		62+62.31	2712787.692	989192.244
L5	62+62.31	2712787.692	989192.244		N0° 15' 18"E 106.47'	63+68.78	2712894.164	989192.718
C8	63+68.78	2712894.164	989192.718	R=400.00' Δ=94°58'46" L=663.08' T=436.37'		70+31.86	2713290.715	989629.208
C9	70+31.86	2713290.715	989629.208	R=1000.00' Δ=3°46'24" L=65.86' T=32.94'		70+97.72	2713282.552	989694.544
L6	70+97.72	2713282.552	989694.544		S80° 59' 32"E 50.23'	71+47.94	2713274.688	989744.152
C10	71+47.94	2713274.688	989744.152	R=150.00' Δ=29°17'19" L=76.68' T=39.20'		72+24.62	2713282.137	989819.630
C11	72+24.62	2713282.137	989819.630	R=150.00' Δ=44°16'54" L=115.93' T=61.03'		73+40.55	2713278.467	989932.636
L7	73+40.55	2713278.467	989932.636		S65° 59' 56"E 111.36'	74+51.91	2713233.173	990034.364
C12	74+51.91	2713233.173	990034.364	R=150.00' Δ=68°24'05" L=179.07' T=101.94'		76+30.98	2713263.034	990200.328
L8	76+30.98	2713263.034	990200.328		N45° 35' 58"E 60.87'	76+91.85	2713305.624	990243.819
C13	76+91.85	2713305.624	990243.819	R=150.00' Δ=66°54'08" L=175.15' T=99.10'		78+67.00	2713337.034	990406.176
C14	78+67.00	2713337.034	990406.176	R=150.00' Δ=41°46'21" L=109.36' T=57.24'		79+76.36	2713334.019	990513.088
C15	79+76.36	2713334.019	990513.088	R=150.00' Δ=47°55'07" L=125.45' T=66.66'		81+01.81	2713324.060	990634.506
C16	81+01.81	2713324.060	990634.506	R=170.00' Δ=60°56'00" L=180.79' T=100.00'		82+82.61	2713329.532	990806.812
C17	82+82.61	2713329.532	990806.812	R=170.00' Δ=31°44'06" L=94.16' T=48.32'		83+76.77	2713355.806	990895.982
L9	83+76.77	2713355.806	990895.982		N89° 26' 58"E 455.70'	88+32.46	2713360.184	991351.656
C18	88+32.46	2713360.184	991351.656	R=150.00' Δ=28°59'51" L=75.92' T=38.79'		89+08.38	2713342.080	991424.549
C19	89+08.38	2713342.080	991424.549	R=150.00' Δ=25°45'18" L=67.43' T=34.29'		89+75.80	2713324.134	991488.956
L10	89+75.80	2713324.134	991488.956		S87° 18' 29"E 45.67'	90+21.47	2713321.989	991534.575
C20	90+21.47	2713321.989	991534.575	R=500.00' Δ=8°02'38" L=70.20' T=35.16'		90+91.67	2713323.617	991604.694
L11	90+91.67	2713323.617	991604.694		N84° 38' 54"E 100.49'	91+92.16	2713332.989	991704.747
C21	91+92.16	2713332.989	991704.747	R=150.00' Δ=23°15'20" L=60.88' T=30.87'		92+53.04	2713326.379	991764.850
C22	92+53.04	2713326.379	991764.850	R=200.00' Δ=27°16'39" L=95.22' T=48.53'		93+48.26	2713319.365	991858.909
C23	93+48.26	2713319.365	991858.909	R=500.00' Δ=12°46'48" L=111.53' T=56.00'		94+59.78	2713349.601	991966.018

CCRT PHASE 3 - WEST CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L12	94+59.78	2713349.601	991966.018		N67° 50' 47"E 51.65'	95+11.44	2713369.078	992013.857
C24	95+11.44	2713369.078	992013.857	R=150.00' Δ=22°52'18" L=59.88' T=30.34'		95+71.31	2713380.140	992072.300
L13	95+71.31	2713380.140	992072.300		S89° 16' 55"E 258.46'	98+29.77	2713376.901	992330.739
C25	98+29.77	2713376.901	992330.739	R=400.00' Δ=11°33'52" L=80.73' T=40.50'		99+10.51	2713367.777	992410.818
L14	99+10.51	2713367.777	992410.818		S77° 43' 03"E 97.85'	100+08.35	2713346.962	992506.425
C26	100+08.35	2713346.962	992506.425	R=200.00' Δ=26°09'26" L=91.31' T=46.46'		100+99.66	2713308.192	992588.217
L15	100+99.66	2713308.192	992588.217		S51° 33' 38"E 91.35'	101+91.01	2713251.402	992659.767
C27	101+91.01	2713251.402	992659.767	R=200.00' Δ=33°42'58" L=117.69' T=60.60'		103+08.70	2713208.734	992767.635
L16	103+08.70	2713208.734	992767.635		S85° 16' 36"E 172.56'	104+81.26	2713194.525	992939.606
C28	104+81.26	2713194.525	992939.606	R=200.00' Δ=36°54'44" L=128.85' T=66.75'		106+10.10	2713224.586	993062.617
C29	106+10.10	2713224.586	993062.617	R=400.00' Δ=18°40'48" L=130.41' T=65.79'		107+40.52	2713310.666	993159.814
C30	107+40.52	2713310.666	993159.814	R=240.00' Δ=80°04'44" L=335.43' T=201.67'		110+75.95	2713368.683	993463.106
L17	110+75.95	2713368.683	993463.106		S60° 47' 24"E 122.08'	111+98.03	2713309.108	993569.659
C31	111+98.03	2713309.108	993569.659	R=150.00' Δ=51°59'25" L=136.11' T=73.14'		113+34.14	2713301.734	993700.941
L18	113+34.14	2713301.734	993700.941		N67° 13' 11"E 74.08'	114+08.22	2713330.420	993769.247
C32	114+08.22	2713330.420	993769.247	R=800.00' Δ=30°34'00" L=426.79' T=218.60'		118+35.01	2713385.447	994187.388
C33	118+35.01	2713385.447	994187.388	R=500.00' Δ=10°07'18" L=88.33' T=44.28'		119+23.34	2713381.252	994275.501
L19	119+23.34	2713381.252	994275.501		N87° 39' 53"E 139.45'	120+62.79	2713386.935	994414.834
C34	120+62.79	2713386.935	994414.834	R=500.00' Δ=5°56'33" L=51.86' T=25.95'		121+14.64	2713386.359	994466.665
L20	121+14.64	2713386.359	994466.665		S86° 23' 34"E 239.00'	123+53.64	2713371.323	994705.187
C35	123+53.64	2713371.323	994705.187	R=400.00' Δ=73°02'19" L=509.91' T=296.19'		128+63.54	2713064.503	995069.205
L21	128+63.54	2713064.503	995069.205		S13° 21' 15"E 113.29'	129+76.83	2712954.279	995095.371
C36	129+76.83	2712954.279	995095.371	R=300.00' Δ=16°02'51" L=84.02' T=42.29'		130+60.86	2712876.292	995125.899
L22	130+60.86	2712876.292	995125.899		S29° 24' 06"E 60.92'	131+21.77	2712823.222	995155.805
C37	131+21.77	2712823.222	995155.805	R=170.00' Δ=46°33'32" L=138.14' T=73.14'		132+59.92	2712741.758	995262.669
L23	132+59.92	2712741.758	995262.669		S75° 57' 38"E 659.95'	139+19.87	2712581.660	995902.910
C38	139+19.87	2712581.660	995902.910	R=300.00' Δ=17°18'07" L=90.59' T=45.64'		140+10.46	2712546.846	995986.174
C39	140+10.46	2712546.846	995986.174	R=300.00' Δ=15°28'14" L=81.00' T=40.75'		140+91.47	2712514.507	996060.174
C40	140+91.47	2712514.507	996060.174	R=1400.00' Δ=33°06'24" L=808.95' T=416.12'		149+00.41	2712086.772	996733.548
C41	149+00.41	2712086.772	996733.548	R=150.00' Δ=51°46'27" L=135.54' T=72.79'		150+35.96	2712035.404	996854.034

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	8	278
PROJECT FILE NO. 607398			

CONSTRUCTION BASELINE DATA

607398_HD(BL-TIE).DWG Plotted on 14-Feb-2024 12:17 PM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	9	278
PROJECT FILE NO. 607398			

CONSTRUCTION BASELINE DATA

CCRT PHASE 3 - EAST CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C42	500+00.00	2712035.404	996854.034	R=150.00' Δ=37°01'55" L=96.95' T=50.24'		500+96.95	2712070.031	996942.789
L24	500+96.95	2712070.031	996942.789		N50° 10' 18"E 226.80'	503+23.75	2712215.295	997116.964
C43	503+23.75	2712215.295	997116.964	R=400.00' Δ=13°57'06" L=97.40' T=48.94'		504+21.15	2712286.126	997183.470
L25	504+21.15	2712286.126	997183.470		N36° 13' 12"E 545.94'	509+67.09	2712726.569	997506.061
C44	509+67.09	2712726.569	997506.061	R=400.00' Δ=69°41'59" L=486.60' T=278.52'		514+53.69	2712874.873	997938.478
L26	514+53.69	2712874.873	997938.478		S74° 04' 49"E 43.21'	514+96.90	2712863.021	997980.030
C45	514+96.90	2712863.021	997980.030	R=800.00' Δ=11°08'09" L=155.48' T=77.99'		516+52.38	2712835.126	998132.743
L27	516+52.38	2712835.126	998132.743		S85° 12' 58"E 258.44'	519+10.82	2712813.573	998390.281
C46	519+10.82	2712813.573	998390.281	R=1000.00' Δ=12°28'06" L=217.61' T=109.24'		521+28.44	2712772.065	998603.463
L28	521+28.44	2712772.065	998603.463		S72° 44' 52"E 52.03'	521+80.47	2712756.634	998653.151
C47	521+80.47	2712756.634	998653.151	R=1000.00' Δ=13°50'20" L=241.53' T=121.36'		524+22.00	2712713.416	998890.190
L29	524+22.00	2712713.416	998890.190		S86° 35' 11"E 178.71'	526+00.71	2712702.775	999068.581
C48	526+00.71	2712702.775	999068.581	R=800.00' Δ=13°13'15" L=184.60' T=92.71'		527+85.30	2712670.716	999249.956
L30	527+85.30	2712670.716	999249.956		S73° 21' 57"E 56.55'	528+41.86	2712654.528	999304.142
C49	528+41.86	2712654.528	999304.142	R=600.00' Δ=48°10'51" L=504.55' T=268.27'		533+46.40	2712334.963	999675.349
C50	533+46.40	2712334.963	999675.349	R=300.00' Δ=23°12'50" L=121.55' T=61.62'		534+67.95	2712217.619	999703.690
L31	534+67.95	2712217.619	999703.690		S1° 58' 17"E 128.78'	535+96.73	2712088.919	999708.120
C51	535+96.73	2712088.919	999708.120	R=1000.00' Δ=11°21'05" L=198.12' T=99.39'		537+94.85	2711892.881	999734.441
L32	537+94.85	2711892.881	999734.441		S13° 19' 22"E 207.04'	540+01.89	2711691.415	999782.150
C52	540+01.89	2711691.415	999782.150	R=2000.00' Δ=7°14'50" L=252.98' T=126.66'		542+54.87	2711442.217	999824.742
L33	542+54.87	2711442.217	999824.742		S6° 04' 32"E 477.96'	547+32.83	2710966.940	999875.329
C53	547+32.83	2710966.940	999875.329	R=500.00' Δ=8°08'31" L=71.05' T=35.59'		548+03.88	2710897.058	999887.835
L34	548+03.88	2710897.058	999887.835		S14° 13' 03"E 42.79'	548+46.67	2710855.582	999898.344
C54	548+46.67	2710855.582	999898.344	R=100.00' Δ=96°17'01" L=168.05' T=111.62'		550+14.71	2710786.476	1000030.304
L35	550+14.71	2710786.476	1000030.304		N69° 29' 56"E 57.96'	550+72.68	2710806.776	1000084.596
C55	550+72.68	2710806.776	1000084.596	R=220.00' Δ=10°11'44" L=39.15' T=19.63'		551+11.82	2710823.668	1000119.855
C56	551+11.82	2710823.668	1000119.855	R=405.00' Δ=12°27'11" L=88.02' T=44.19'		551+99.85	2710860.059	1000199.815
C57	551+99.85	2710860.059	1000199.815	R=160.00' Δ=13°17'57" L=37.14' T=18.65'		552+36.99	2710875.656	1000233.428
C58	552+36.99	2710875.656	1000233.428	R=150.00' Δ=22°32'19" L=59.01' T=29.89'		552+95.99	2710895.971	1000288.422
C59	552+95.99	2710895.971	1000288.422	R=200.00' Δ=12°58'00" L=45.26' T=22.73'		553+41.26	2710908.031	1000331.947
C60	553+41.26	2710908.031	1000331.947	R=1000.00' Δ=7°15'17" L=126.62' T=63.40'		554+67.88	2710947.855	1000452.054
L36	554+67.88	2710947.855	1000452.054		N75° 17' 01"E 68.83'	555+36.71	2710965.340	1000518.625
C61	555+36.71	2710965.340	1000518.625	R=550.00' Δ=3°47'34" L=36.41' T=18.21'		555+73.12	2710975.747	1000553.508

CCRT PHASE 3 - EAST CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L37	555+73.12	2710975.747	1000553.508		N71° 29' 27"E 106.35'	556+79.47	2711009.510	1000654.361
C62	556+79.47	2711009.510	1000654.361	R=1000.00' Δ=2°15'25" L=39.39' T=19.70'		557+18.86	2711021.276	1000691.950
C63	557+18.86	2711021.276	1000691.950	R=700.00' Δ=7°23'18" L=90.26' T=45.19'		558+09.12	2711052.048	1000776.741
L38	558+09.12	2711052.048	1000776.741		N66° 21' 34"E 32.33'	558+41.45	2711065.013	1000806.358
C64	558+41.45	2711065.013	1000806.358	R=700.00' Δ=2°07'32" L=25.97' T=12.99'		558+67.42	2711074.983	1000830.337
L39	558+67.42	2711074.983	1000830.337		N68° 29' 06"E 106.52'	559+73.94	2711114.048	1000929.434
C65	559+73.94	2711114.048	1000929.434	R=350.00' Δ=12°34'50" L=76.85' T=38.58'		560+50.79	2711134.189	1001003.439
L40	560+50.79	2711134.189	1001003.439		N81° 03' 56"E 113.48'	561+64.28	2711151.814	1001115.546
C66	561+64.28	2711151.814	1001115.546	R=300.00' Δ=13°17'32" L=69.60' T=34.96'		562+33.88	2711170.465	1001182.436
L41	562+33.88	2711170.465	1001182.436		N67° 46' 24"E 55.83'	562+89.71	2711191.584	1001234.117
C67	562+89.71	2711191.584	1001234.117	R=600.00' Δ=3°15'40" L=34.15' T=17.08'		563+23.86	2711203.596	1001266.080
L42	563+23.86	2711203.596	1001266.080		N71° 02' 04"E 73.85'	563+97.70	2711227.595	1001335.917
C68	563+97.70	2711227.595	1001335.917	R=800.00' Δ=1°48'42" L=25.30' T=12.65'		564+23.00	2711236.194	1001359.707
L43	564+23.00	2711236.194	1001359.707		N69° 13' 22"E 99.83'	565+22.83	2711271.609	1001453.049
C69	565+22.83	2711271.609	1001453.049	R=800.00' Δ=5°26'04" L=75.88' T=37.97'		565+98.71	2711295.123	1001525.161
C70	565+98.71	2711295.123	1001525.161	R=400.00' Δ=3°46'48" L=26.39' T=13.20'		566+25.10	2711302.940	1001550.362
L44	566+25.10	2711302.940	1001550.362		N70° 52' 37"E 59.11'	566+84.21	2711322.303	1001606.207
C71	566+84.21	2711322.303	1001606.207	R=550.00' Δ=2°07'05" L=20.33' T=10.17'		567+04.54	2711328.607	1001625.535
L45	567+04.54	2711328.607	1001625.535		N72° 59' 42"E 107.55'	568+12.09	2711360.060	1001728.379
C72	568+12.09	2711360.060	1001728.379	R=400.00' Δ=5°27'04" L=38.06' T=19.04'		568+50.14	2711369.443	1001765.245
L46	568+50.14	2711369.443	1001765.245		N78° 26' 46"E 29.43'	568+79.57	2711375.337	1001794.075
C73	568+79.57	2711375.337	1001794.075	R=450.00' Δ=9°51'54" L=77.48' T=38.84'		569+57.05	2711397.298	1001868.278
L47	569+57.05	2711397.298	1001868.278		N68° 34' 51"E 92.08'	570+49.13	2711430.923	1001953.996
C74	570+49.13	2711430.923	1001953.996	R=800.00' Δ=3°34'40" L=49.96' T=24.99'		570+99.08	2711447.703	1002001.042
L48	570+99.08	2711447.703	1002001.042		N72° 09' 31"E 101.36'	572+00.44	2711478.759	1002097.529
C75	572+00.44	2711478.759	1002097.529	R=500.00' Δ=5°38'53" L=49.29' T=24.66'		572+49.73	2711496.146	1002143.629
L49	572+49.73	2711496.146	1002143.629		N66° 30' 38"E 102.46'	573+52.19	2711536.984	1002237.596
C76	573+52.19	2711536.984	1002237.596	R=550.00' Δ=13°18'22" L=127.73' T=64.15'		574+79.92	2711573.896	1002359.576
L50	574+79.92	2711573.896	1002359.576		N79° 49' 00"E 21.57'	575+01.49	2711577.709	1002380.804
C77	575+01.49	2711577.709	1002380.804	R=400.00' Δ=7°22'19" L=51.47' T=25.77'		575+52.95	2711590.038	1002430.735
L51	575+52.95	2711590.038	1002430.735		N72° 26' 41"E 158.03'	577+10.98	2711637.703	1002581.403
C78	577+10.98	2711637.703	1002581.403	R=1000.00' Δ=2°40'01" L=46.55' T=23.28'		577+57.53	2711650.705	1002626.094
L52	577+57.53	2711650.705	1002626.094		N75° 06' 42"E 92.39'	578+49.92	2711674.443	1002715.381

607398_HD(BL-TIE).DWG Plotted on 14-Feb-2024 12:17 PM

CCRT PHASE 3 - EAST CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C79	578+49.92	2711674.443	1002715.381	R=800.00' Δ=8°13'02" L=114.73' T=57.47'		579+64.65	2711711.758	1002823.773
L53	579+64.65	2711711.758	1002823.773		N66° 53' 41"E 18.40'	579+83.05	2711718.979	1002840.698
C80	579+83.05	2711718.979	1002840.698	R=700.00' Δ=9°43'40" L=118.85' T=59.57'		581+01.90	2711756.136	1002953.436
C81	581+01.90	2711756.136	1002953.436	R=280.00' Δ=32°14'00" L=157.52' T=80.91'		582+59.42	2711832.672	1003088.742
C82	582+59.42	2711832.672	1003088.742	R=100.00' Δ=46°05'41" L=80.45' T=42.55'		583+39.87	2711905.601	1003117.237
L54	583+39.87	2711905.601	1003117.237		N1° 42' 21"W 28.11'	583+67.98	2711933.697	1003116.401
C83	583+67.98	2711933.697	1003116.401	R=500.00' Δ=2°58'40" L=25.99' T=13.00'		583+93.97	2711959.640	1003114.953
L55	583+93.97	2711959.640	1003114.953		N4° 41' 01"W 108.23'	585+02.20	2712067.507	1003106.115
C84	585+02.20	2712067.507	1003106.115	R=350.00' Δ=5°39'43" L=34.59' T=17.31'		585+36.78	2712101.783	1003101.594
L56	585+36.78	2712101.783	1003101.594		N10° 20' 44"W 75.87'	586+12.65	2712176.420	1003087.969
C85	586+12.65	2712176.420	1003087.969	R=500.00' Δ=3°11'55" L=27.91' T=13.96'		586+40.56	2712203.724	1003082.193
L57	586+40.56	2712203.724	1003082.193		N13° 32' 38"W 48.73'	586+89.30	2712251.101	1003070.780
C86	586+89.30	2712251.101	1003070.780	R=500.00' Δ=9°52'27" L=86.17' T=43.19'		587+75.46	2712336.193	1003057.901
L58	587+75.46	2712336.193	1003057.901		N3° 40' 12"W 36.37'	588+11.83	2712372.488	1003055.573
C87	588+11.83	2712372.488	1003055.573	R=500.00' Δ=4°11'37" L=36.60' T=18.31'		588+48.43	2712409.063	1003054.568
C88	588+48.43	2712409.063	1003054.568	R=130.00' Δ=63°55'35" L=145.04' T=81.12'		589+93.48	2712525.162	1003128.494
C89	589+93.48	2712525.162	1003128.494	R=100.00' Δ=25°52'08" L=45.15' T=22.97'		590+38.63	2712553.021	1003163.537
L59	590+38.63	2712553.021	1003163.537		N38° 34' 53"E 49.99'	590+88.62	2712592.102	1003194.715
C90	590+88.62	2712592.102	1003194.715	R=60.00' Δ=90°57'38" L=95.25' T=61.01'		591+83.87	2712600.955	1003279.817
C91	591+83.87	2712600.955	1003279.817	R=60.00' Δ=32°12'14" L=33.72' T=17.32'		592+17.60	2712587.716	1003310.352
L60	592+17.60	2712587.716	1003310.352		S82° 39' 44"E 134.36'	593+51.95	2712570.556	1003443.609
L61	593+51.95	2712570.556	1003443.609		N67° 37' 56"E 51.68'	594+03.63	2712590.222	1003491.400
C92	594+03.63	2712590.222	1003491.400	R=60.00' Δ=10°34'39" L=11.08' T=5.55'		594+14.71	2712595.356	1003501.197
C93	594+14.71	2712595.356	1003501.197	R=100.00' Δ=20°55'05" L=36.51' T=18.46'		594+51.22	2712609.242	1003534.743
L62	594+51.22	2712609.242	1003534.743		N77° 58' 22"E 74.03'	595+25.25	2712624.668	1003607.148
C94	595+25.25	2712624.668	1003607.148	R=175.00' Δ=31°57'27" L=97.61' T=50.11'		596+22.86	2712618.029	1003703.267
L63	596+22.86	2712618.029	1003703.267		S70° 04' 11"E 92.34'	597+15.20	2712586.551	1003790.079
C95	597+15.20	2712586.551	1003790.079	R=200.00' Δ=19°37'53" L=68.53' T=34.60'		597+83.73	2712574.575	1003857.211
L64	597+83.73	2712574.575	1003857.211		S89° 42' 04"E 169.47'	599+53.19	2712573.691	1004026.677
C96	599+53.19	2712573.691	1004026.677	R=200.00' Δ=15°10'29" L=52.97' T=26.64'		600+06.16	2712580.392	1004079.065
L65	600+06.16	2712580.392	1004079.065		N75° 07' 27"E 60.03'	600+66.20	2712595.804	1004137.088
C97	600+66.20	2712595.804	1004137.088	R=150.00' Δ=9°56'37" L=26.03' T=13.05'		600+92.23	2712600.276	1004162.700
L66	600+92.23	2712600.276	1004162.700		N85° 04' 04"E 151.18'	602+43.42	2712613.274	1004313.324

CCRT PHASE 3 - EAST CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C98	602+43.42	2712613.274	1004313.324	R=200.00' Δ=7°44'14" L=27.01' T=13.52'		602+70.42	2712613.775	1004340.307
L67	602+70.42	2712613.775	1004340.307		S87° 11' 42"E 32.68'	603+03.10	2712612.176	1004372.947
C99	603+03.10	2712612.176	1004372.947	R=200.00' Δ=7°09'52" L=25.01' T=12.52'		603+28.11	2712612.515	1004397.938
L68	603+28.11	2712612.515	1004397.938		N85° 38' 26"E 59.61'	603+87.72	2712617.046	1004457.374
C100	603+87.72	2712617.046	1004457.374	R=200.00' Δ=2°38'51" L=9.24' T=4.62'		603+96.96	2712617.536	1004466.601
L69	603+96.96	2712617.536	1004466.601		N88° 17' 16"E 64.82'	604+61.78	2712619.472	1004531.387
C101	604+61.78	2712619.472	1004531.387	R=250.00' Δ=6°59'34" L=30.51' T=15.27'		604+92.29	2712618.523	1004561.865
L70	604+92.29	2712618.523	1004561.865		S84° 43' 10"E 19.25'	605+11.54	2712616.751	1004581.037
C102	605+11.54	2712616.751	1004581.037	R=250.00' Δ=8°27'59" L=36.94' T=18.50'		605+48.48	2712616.076	1004617.939
L71	605+48.48	2712616.076	1004617.939		N86° 48' 51"E 79.93'	606+28.41	2712620.518	1004697.741
C103	606+28.41	2712620.518	1004697.741	R=500.00' Δ=6°53'33" L=60.15' T=30.11'		606+88.56	2712620.244	1004757.853
L72	606+88.56	2712620.244	1004757.853		S86° 17' 36"E 138.52'	608+27.08	2712611.289	1004896.084
C104	608+27.08	2712611.289	1004896.084	R=500.00' Δ=2°12'58" L=19.34' T=9.67'		608+46.42	2712609.666	1004915.354
L73	608+46.42	2712609.666	1004915.354		S84° 04' 38"E 56.61'	609+03.03	2712603.824	1004971.662
C105	609+03.03	2712603.824	1004971.662	R=500.00' Δ=10°01'41" L=87.51' T=43.87'		609+90.54	2712602.438	1005059.050
L74	609+90.54	2712602.438	1005059.050		N85° 53' 42"E 40.38'	610+30.91	2712605.328	1005099.322
C106	610+30.91	2712605.328	1005099.322	R=75.00' Δ=32°28'06" L=42.50' T=21.84'		610+73.42	2712619.903	1005138.642
L75	610+73.42	2712619.903	1005138.642		N53° 25' 36"E 26.94'	611+00.36	2712635.957	1005160.279
C107	611+00.36	2712635.957	1005160.279	R=100.00' Δ=24°11'07" L=42.21' T=21.42'		611+42.57	2712653.319	1005198.411
L76	611+42.57	2712653.319	1005198.411		N77° 36' 43"E 78.38'	612+20.95	2712670.135	1005274.969
C108	612+20.95	2712670.135	1005274.969	R=75.00' Δ=79°47'52" L=104.45' T=62.71'		613+25.41	2712746.249	1005333.824
L77	613+25.41	2712746.249	1005333.824		N2° 11' 09"W 26.14'	613+51.55	2712772.372	1005332.827
C109	613+51.55	2712772.372	1005332.827	R=75.00' Δ=45°36'58" L=59.71' T=31.54'		614+11.26	2712826.793	1005353.306
L78	614+11.26	2712826.793	1005353.306		N43° 25' 49"E 18.86'	614+30.12	2712840.491	1005366.273
C110	614+30.12	2712840.491	1005366.273	R=150.00' Δ=15°14'42" L=39.91' T=20.07'		614+70.03	2712865.505	1005397.222
L79	614+70.03	2712865.505	1005397.222		N58° 40' 30"E 13.57'	614+83.60	2712872.559	1005408.812
C111	614+83.60	2712872.559	1005408.812	R=230.00' Δ=25°10'06" L=101.03' T=51.34'		615+84.63	2712904.759	1005503.720
L80	615+84.63	2712904.759	1005503.720		N83° 50' 36"E 55.01'	616+39.64	2712910.658	1005558.408
C112	616+39.64	2712910.658	1005558.408	R=800.00' Δ=3°52'21" L=54.07' T=27.05'		616+93.71	2712914.637	1005612.323
L81	616+93.71	2712914.637	1005612.323		N87° 42' 57"E 59.94'	617+53.65	2712917.026	1005672.216
C113	617+53.65	2712917.026	1005672.216	R=60.00' Δ=24°40'39" L=25.84' T=13.12'		617+79.49	2712923.499	1005697.028
C114	617+79.49	2712923.499	1005697.028	R=60.00' Δ=22°54'30" L=23.99' T=12.16'		618+03.48	2712929.871	1005719.991
L82	618+03.48	2712929.871	1005719.991		N85° 56' 49"E 60.15'	618+63.64	2712934.122	1005779.994

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	10	278
PROJECT FILE NO. 607398			

CONSTRUCTION BASELINE DATA

607398_HD(BL-TIE).DWG Plotted on 14-Feb-2024 12:17 PM

CCRT PHASE 3 - EAST CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L83	618+63.64	2712934.122	1005779.994		N87° 27' 08"E 76.82'	619+40.46	2712937.537	1005856.739
C115	619+40.46	2712937.537	1005856.739	R=60.00' Δ=54°10'22" L=56.73' T=30.69'		619+97.19	2712914.845	1005906.444
L84	619+97.19	2712914.845	1005906.444		S38° 22' 30"E 93.97'	620+91.16	2712841.174	1005964.782
C116	620+91.16	2712841.174	1005964.782	R=280.00' Δ=37°56'16" L=185.40' T=96.24'		622+76.56	2712742.950	1006118.038
L85	622+76.56	2712742.950	1006118.038		S76° 18' 46"E 54.07'	623+30.63	2712730.155	1006170.577
C117	623+30.63	2712730.155	1006170.577	R=200.00' Δ=25°02'48" L=87.43' T=44.42'		624+18.06	2712728.393	1006257.294
L86	624+18.06	2712728.393	1006257.294		N78° 38' 26"E 32.03'	624+50.09	2712734.702	1006288.697
C118	624+50.09	2712734.702	1006288.697	R=70.00' Δ=71°47'10" L=87.70' T=50.66'		625+37.80	2712794.976	1006344.410
L87	625+37.80	2712794.976	1006344.410		N6° 51' 16"E 63.33'	626+01.13	2712857.854	1006351.968
C119	626+01.13	2712857.854	1006351.968	R=100.00' Δ=11°28'22" L=20.02' T=10.05'		626+21.15	2712877.364	1006356.326
L88	626+21.15	2712877.364	1006356.326		N18° 19' 38"E 105.56'	627+26.71	2712977.573	1006389.520
C120	627+26.71	2712977.573	1006389.520	R=350.00' Δ=13°43'39" L=83.86' T=42.13'		628+10.57	2713059.560	1006406.146
L89	628+10.57	2713059.560	1006406.146		N4° 36' 00"E 100.69'	629+11.26	2713159.922	1006414.221
C121	629+11.26	2713159.922	1006414.221	R=60.00' Δ=25°55'59" L=27.16' T=13.82'		629+38.41	2713185.592	1006422.347
L90	629+38.41	2713185.592	1006422.347		N30° 31' 59"E 49.06'	629+87.48	2713227.852	1006447.273
L91	630+53.16	2713286.495	1006476.758		N22° 51' 08"E 79.92'	631+33.08	2713360.142	1006507.795

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	11	278
PROJECT FILE NO. 607398			

CONSTRUCTION BASELINE DATA

607398_HD(BL-TIE).DWG Plotted on 14-Feb-2024 12:17 PM

CCRT - HIGGINS-CROWELL SPUR CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L93	800+00.00	2710077.953	997823.398		N65° 55' 06"E 48.66'	800+48.66	2710097.810	997867.826
C123	800+48.66	2710097.810	997867.826	R=100.00' Δ=11°01'17" L=19.24' T=9.65'		800+67.90	2710103.927	997886.032
L94	800+67.90	2710103.927	997886.032		N76° 56' 22"E 60.70'	801+28.60	2710117.645	997945.164
C124	801+28.60	2710117.645	997945.164	R=100.00' Δ=3°43'56" L=6.51' T=3.26'		801+35.12	2710119.322	997951.457
L95	801+35.12	2710119.322	997951.457		N73° 12' 27"E 99.66'	802+34.78	2710148.115	998046.868
C125	802+34.78	2710148.115	998046.868	R=100.00' Δ=2°34'52" L=4.51' T=2.25'		802+39.28	2710149.513	998051.150
L96	802+39.28	2710149.513	998051.150		N70° 37' 34"E 94.31'	803+33.60	2710180.800	998140.123
C126	803+33.60	2710180.800	998140.123	R=100.00' Δ=1°10'55" L=2.06' T=1.03'		803+35.66	2710181.504	998142.062
L97	803+35.66	2710181.504	998142.062		N69° 26' 39"E 48.39'	803+84.05	2710198.496	998187.374
C127	803+84.05	2710198.496	998187.374	R=100.00' Δ=3°31'13" L=6.14' T=3.07'		803+90.20	2710200.475	998193.190
L98	803+90.20	2710200.475	998193.190		N72° 57' 51"E 45.67'	804+35.86	2710213.855	998236.854
C128	804+35.86	2710213.855	998236.854	R=100.00' Δ=3°54'27" L=6.82' T=3.41'		804+42.68	2710215.629	998243.438
L99	804+42.68	2710215.629	998243.438		N76° 52' 18"E 46.22'	804+88.90	2710226.127	998288.449
C129	804+88.90	2710226.127	998288.449	R=200.00' Δ=1°23'25" L=4.85' T=2.43'		804+93.76	2710227.286	998293.162
L100	804+93.76	2710227.286	998293.162		N75° 28' 53"E 32.30'	805+26.05	2710235.383	998324.428
C130	805+26.05	2710235.383	998324.428	R=100.00' Δ=4°00'06" L=6.98' T=3.49'		805+33.04	2710237.369	998331.123
L101	805+33.04	2710237.369	998331.123		N71° 28' 47"E 97.42'	806+30.45	2710268.312	998423.493
C131	806+30.45	2710268.312	998423.493	R=200.00' Δ=2°09'42" L=7.55' T=3.77'		806+38.00	2710270.843	998430.601
L102	806+38.00	2710270.843	998430.601		N69° 19' 05"E 48.13'	806+86.13	2710287.843	998475.633
C132	806+86.13	2710287.843	998475.633	R=115.00' Δ=2°38'12" L=5.29' T=2.65'		806+91.43	2710289.597	998480.625
L103	806+91.43	2710289.597	998480.625		N71° 57' 18"E 44.76'	807+36.18	2710303.462	998523.181
C133	807+36.18	2710303.462	998523.181	R=100.00' Δ=2°18'26" L=4.03' T=2.01'		807+40.21	2710304.786	998526.984
L104	807+40.21	2710304.786	998526.984		N69° 38' 52"E 95.84'	808+36.04	2710338.117	998616.837
C134	808+36.04	2710338.117	998616.837	R=200.00' Δ=3°36'04" L=12.57' T=6.29'		808+48.61	2710342.115	998628.752
L105	808+48.61	2710342.115	998628.752		N73° 14' 56"E 58.96'	809+07.57	2710359.107	998685.206
C135	809+07.57	2710359.107	998685.206	R=300.00' Δ=1°33'41" L=8.18' T=4.09'		809+15.75	2710361.357	998693.066
L106	809+15.75	2710361.357	998693.066		N74° 48' 37"E 15.96'	809+31.71	2710365.539	998708.469
C136	809+31.71	2710365.539	998708.469	R=300.00' Δ=1°31'46" L=8.01' T=4.00'		809+39.72	2710367.740	998716.168
L107	809+39.72	2710367.740	998716.168		N73° 16' 51"E 41.16'	809+80.87	2710379.580	998755.588
C137	809+80.87	2710379.580	998755.588	R=100.00' Δ=2°40'33" L=4.67' T=2.34'		809+85.54	2710381.028	998760.027
L108	809+85.54	2710381.028	998760.027		N70° 36' 18"E 27.09'	810+12.64	2710390.025	998785.582
C138	810+12.64	2710390.025	998785.582	R=200.00' Δ=0°52'23" L=3.05' T=1.52'		810+15.68	2710391.015	998788.464
L109	810+15.68	2710391.015	998788.464		N71° 28' 41"E 48.85'	810+64.54	2710406.533	998834.785
C139	810+64.54	2710406.533	998834.785	R=200.00' Δ=1°11'46" L=4.18' T=2.09'		810+68.71	2710407.901	998838.730

CCRT - HIGGINS-CROWELL SPUR CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L110	810+68.71	2710407.901	998838.730		N70° 16' 55"E 43.84'	811+12.55	2710422.693	998880.003
C140	811+12.55	2710422.693	998880.003	R=100.00' Δ=3°20'49" L=5.84' T=2.92'		811+18.40	2710424.503	998885.556
L111	811+18.40	2710424.503	998885.556		N73° 37' 43"E 47.73'	811+66.13	2710437.956	998931.351
C141	811+66.13	2710437.956	998931.351	R=100.00' Δ=3°45'45" L=6.57' T=3.28'		811+72.69	2710439.599	998937.708
L112	811+72.69	2710439.599	998937.708		N77° 23' 29"E 45.16'	812+17.85	2710449.456	998981.778
C142	812+17.85	2710449.456	998981.778	R=100.00' Δ=2°43'29" L=4.76' T=2.38'		812+22.61	2710450.604	998986.393
L113	812+22.61	2710450.604	998986.393		N74° 40' 00"E 94.47'	813+17.07	2710475.584	999077.495
C143	813+17.07	2710475.584	999077.495	R=300.00' Δ=0°33'14" L=2.90' T=1.45'		813+19.97	2710476.365	999080.289
L114	813+19.97	2710476.365	999080.289		N74° 06' 46"E 44.19'	813+64.17	2710488.463	999122.795
C144	813+64.17	2710488.463	999122.795	R=100.00' Δ=5°42'04" L=9.95' T=4.98'		813+74.12	2710491.658	999132.214
L115	813+74.12	2710491.658	999132.214		N68° 24' 41"E 90.54'	814+64.66	2710524.972	999216.405
C145	814+64.66	2710524.972	999216.405	R=200.00' Δ=2°09'12" L=7.52' T=3.76'		814+72.18	2710527.868	999223.340
L116	814+72.18	2710527.868	999223.340		N66° 15' 30"E 40.89'	815+13.07	2710544.331	999260.768
C146	815+13.07	2710544.331	999260.768	R=100.00' Δ=6°18'35" L=11.01' T=5.51'		815+24.08	2710548.201	999271.072
L117	815+24.08	2710548.201	999271.072		N72° 34' 05"E 40.37'	815+64.45	2710560.295	999309.589
C147	815+64.45	2710560.295	999309.589	R=200.00' Δ=1°18'06" L=4.54' T=2.27'		815+68.99	2710561.705	999313.908
L118	815+68.99	2710561.705	999313.908		N71° 15' 59"E 45.61'	816+14.60	2710576.354	999357.103
C148	816+14.60	2710576.354	999357.103	R=100.00' Δ=2°29'15" L=4.34' T=2.17'		816+18.95	2710577.659	999361.244
L119	816+18.95	2710577.659	999361.244		N73° 45' 14"E 198.06'	818+17.01	2710633.070	999551.398
C149	818+17.01	2710633.070	999551.398	R=100.00' Δ=1°58'49" L=3.46' T=1.73'		818+20.47	2710634.094	999554.699
L120	818+20.47	2710634.094	999554.699		N71° 46' 25"E 46.21'	818+66.68	2710648.549	999598.594
C150	818+66.68	2710648.549	999598.594	R=100.00' Δ=3°11'00" L=5.56' T=2.78'		818+72.24	2710650.139	999603.917
L121	818+72.24	2710650.139	999603.917		N74° 57' 25"E 49.29'	819+21.52	2710662.931	999651.515
C151	819+21.52	2710662.931	999651.515	R=100.00' Δ=2°30'44" L=4.38' T=2.19'		819+25.91	2710664.162	999655.724
L122	819+25.91	2710664.162	999655.724		N72° 26' 41"E 46.28'	819+72.19	2710678.121	999699.849
C152	819+72.19	2710678.121	999699.849	R=100.00' Δ=4°29'52" L=7.85' T=3.93'		819+80.04	2710680.780	999707.233
L123	819+80.04	2710680.780	999707.233		N67° 56' 49"E 41.18'	820+21.22	2710696.241	999745.398
C153	820+21.22	2710696.241	999745.398	R=100.00' Δ=6°00'35" L=10.49' T=5.25'		820+31.70	2710699.662	999755.308
L124	820+31.70	2710699.662	999755.308		N73° 57' 25"E 50.01'	820+81.72	2710713.485	999803.375
C154	820+81.72	2710713.485	999803.375	R=150.00' Δ=28°10'28" L=73.76' T=37.64'		821+55.48	2710750.138	999866.528
L125	821+55.48	2710750.138	999866.528		N45° 46' 57"E 133.00'	822+88.48	2710842.888	999961.847

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	12	278
PROJECT FILE NO. 607398			

CONSTRUCTION BASELINE DATA

607398_HD(BL-TIE).DWG Plotted on 14-Feb-2024 12:18 PM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	13	278
PROJECT FILE NO. 607398			

CONSTRUCTION BASELINE DATA

607398_HD(BL-TIE).DWG Plotted on 14-Feb-2024 12:18 PM

MARY DUNN PARKING LOT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L126	40+00.00	2711588.715	989255.519		N51° 18' 15"E 250.00'	42+50.00	2711745.011	989450.638

HIGGINS CROWELL PARKING LOT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C155	200+00.00	2711966.496	996812.704	R=1550.00' Δ=6°46'38" L=183.34' T=91.78'		201+83.34	2711810.069	996908.131
L127	201+83.34	2711810.069	996908.131		S27° 59' 46"E 666.66'	208+50.00	2711221.426	997221.069

GOLF COURSE PARKING LOT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L128	30+00.00	2712640.660	1002865.867		S69° 49' 54"E 300.00'	33+00.00	2712537.226	1003147.472

WILLOW STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C156	2000+00.00	2712082.119	995209.292	R=4400.00' Δ=17°02'05" L=1308.17' T=658.95'		2013+08.17	2713319.522	995618.658

WILLOW STREET SPUR - DOT YARD TO MAIN PATH CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L129	300+00.00	2712474.422	995457.502		N17° 42' 00"E 143.38'	301+43.38	2712611.014	995501.093
C157	301+43.38	2712611.014	995501.093	R=47.00' Δ=86°20'22" L=70.82' T=44.09'		302+14.20	2712642.320	995557.270
L130	302+14.20	2712642.320	995557.270		S75° 57' 38"E 343.13'	305+57.33	2712559.081	995890.150
C158	305+57.33	2712559.081	995890.150	R=75.00' Δ=22°28'40" L=29.42' T=14.90'		305+86.76	2712546.597	995916.585
C159	305+86.76	2712546.597	995916.585	R=47.00' Δ=40°19'39" L=33.08' T=17.26'		306+19.84	2712537.474	995947.677
C160	306+19.84	2712537.474	995947.677	R=20.00' Δ=58°42'45" L=20.49' T=11.25'		306+40.33	2712548.202	995964.091

HIGGINS CROWELL ROAD UTILITY ACCESS CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L131	400+00.00	2712440.181	995457.071		N17° 42' 00"E 176.13'	401+76.13	2712607.973	995510.620
C161	401+76.13	2712607.973	995510.620	R=37.00' Δ=86°20'22" L=55.76' T=34.71'		402+31.89	2712632.619	995554.844
L132	402+31.89	2712632.619	995554.844		S75° 57' 38"E 343.13'	405+75.01	2712549.380	995887.724
C162	405+75.01	2712549.380	995887.724	R=65.00' Δ=21°54'13" L=24.85' T=12.58'		405+99.86	2712538.946	995910.109
C163	405+99.86	2712538.946	995910.109	R=100.00' Δ=24°35'31" L=42.92' T=21.80'		406+42.78	2712521.862	995949.125
C164	406+42.78	2712521.862	995949.125	R=1381.00' Δ=37°37'35" L=906.91' T=470.49'		415+49.69	2712074.302	996719.213
C165	415+49.69	2712074.302	996719.213	R=500.00' Δ=4°43'05" L=41.17' T=20.60'		415+90.87	2712044.386	996747.485
C166	415+90.87	2712044.386	996747.485	R=500.00' Δ=10°38'12" L=92.82' T=46.55'		416+83.69	2711973.822	996807.586

OLD TOWN HOUSE ROAD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L133	1000+00.00	2712703.686	1002866.790		S68° 44' 29"E 179.69'	1001+79.69	2712638.536	1003034.249
C167	1001+79.69	2712638.536	1003034.249	R=800.00' Δ=2°17'46" L=32.06' T=16.03'		1002+11.75	2712627.514	1003064.352
L134	1002+11.75	2712627.514	1003064.352		S71° 02' 15"E 179.34'	1003+91.08	2712569.238	1003233.958
C168	1003+91.08	2712569.238	1003233.958	R=540.00' Δ=18°59'14" L=178.95' T=90.30'		1005+70.03	2712539.933	1003409.663
L135	1005+70.03	2712539.933	1003409.663		N89° 58' 31"E 4129.97'	1047+00.00	2712541.713	1007539.629

WEST YARMOUTH ROAD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L136	900+00.00	2712419.970	1003432.797		N1° 10' 38"E 500.00'	905+00.00	2712919.864	1003443.069

FOREST ROAD EXT. CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L137	950+00.00	2712540.910	1005676.211		N11° 30' 01"E 500.00'	955+00.00	2713030.871	1005775.898

TRANSFER STATION DRIVEWAY CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L138	700+00.00	2713003.338	1005770.296		S78° 29' 59"E 57.72'	700+57.72	2712991.830	1005826.859
C169	700+57.72	2712991.830	1005826.859	R=200.00' Δ=21°48'29" L=76.12' T=38.53'		701+33.85	2712962.990	1005896.814
L139	701+33.85	2712962.990	1005896.814		S56° 41' 30"E 166.15'	703+00.00	2712871.748	1006035.672

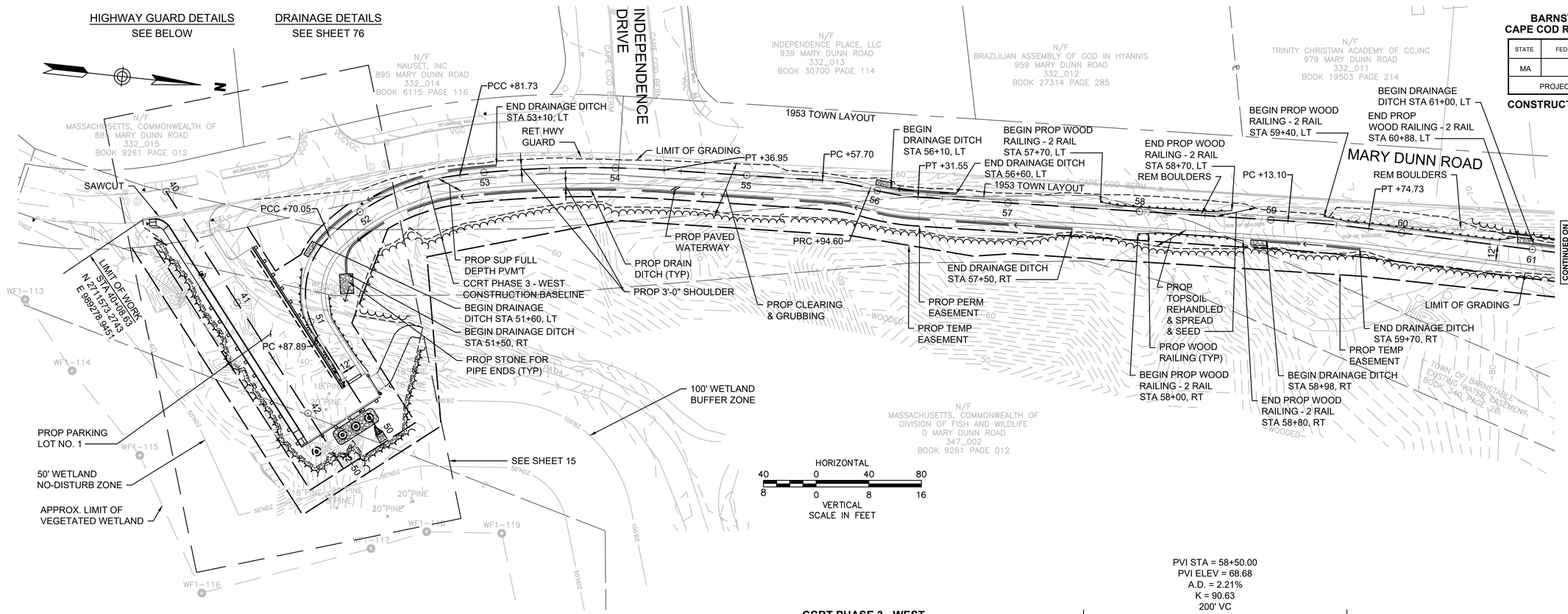
HIGHWAY GUARD DETAILS
SEE BELOW

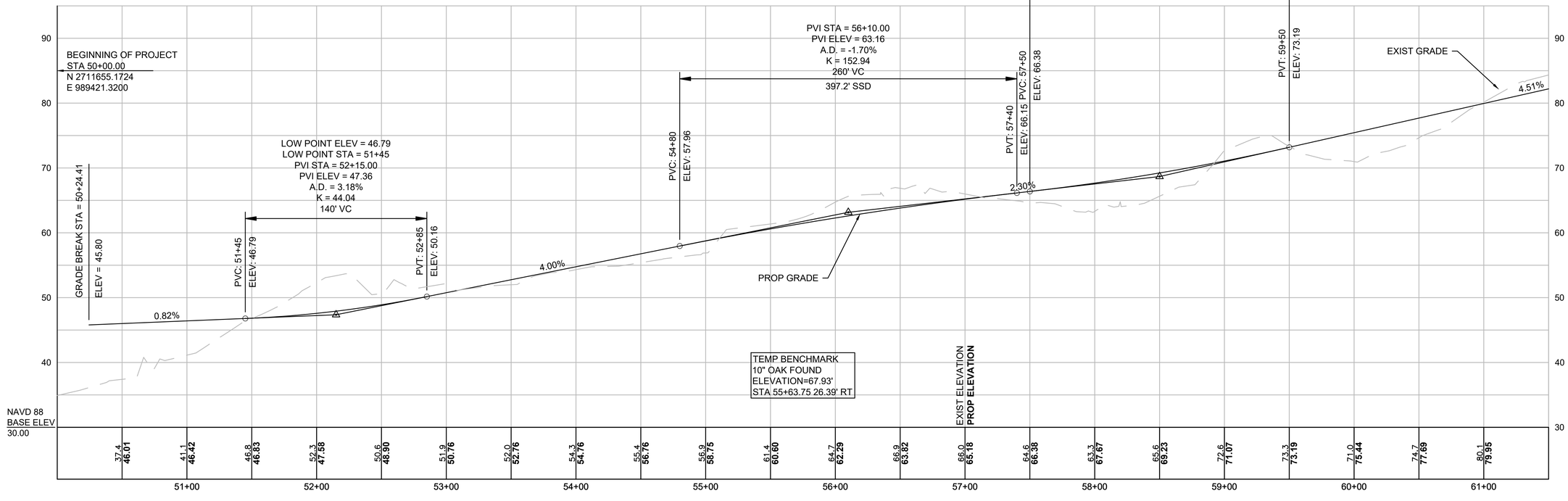
DRAINAGE DETAILS
SEE SHEET 76

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	14	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

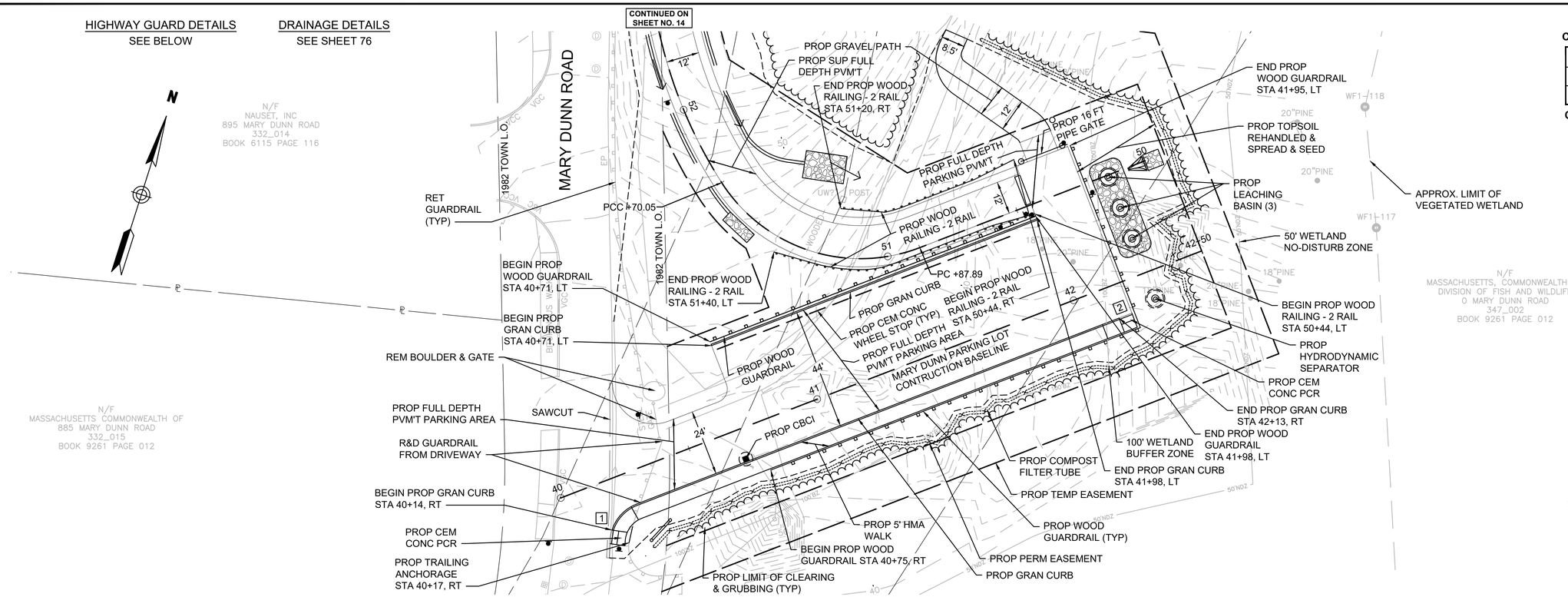




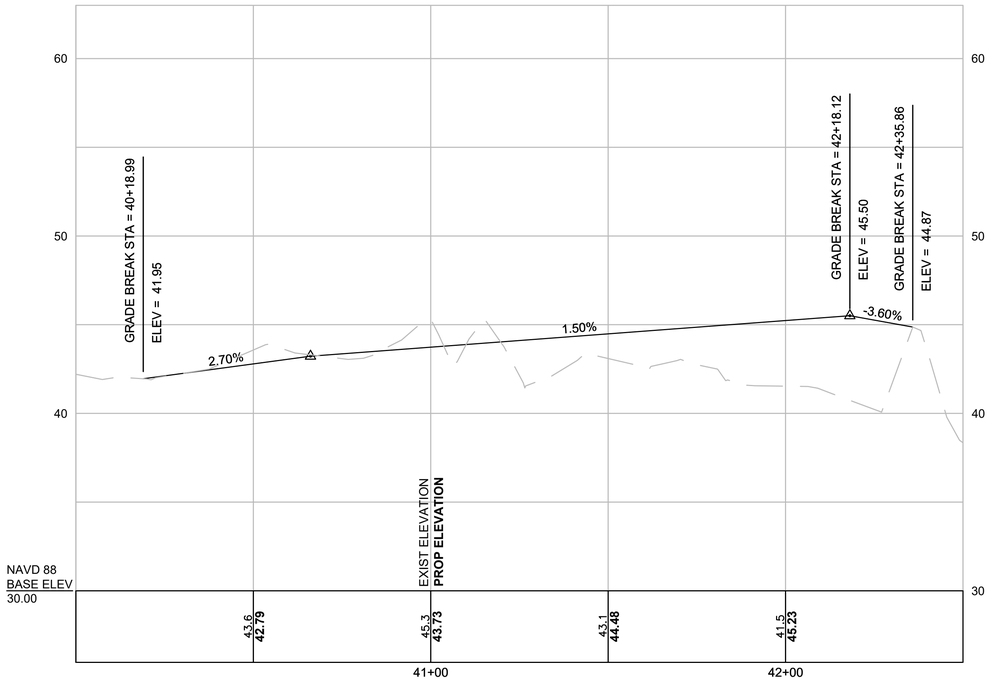
607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:12 PM

HIGHWAY GUARD DETAILS
SEE BELOW

DRAINAGE DETAILS
SEE SHEET 76



PARKING LOT NO. 1 - MARY DUNN ROAD



BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	15	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

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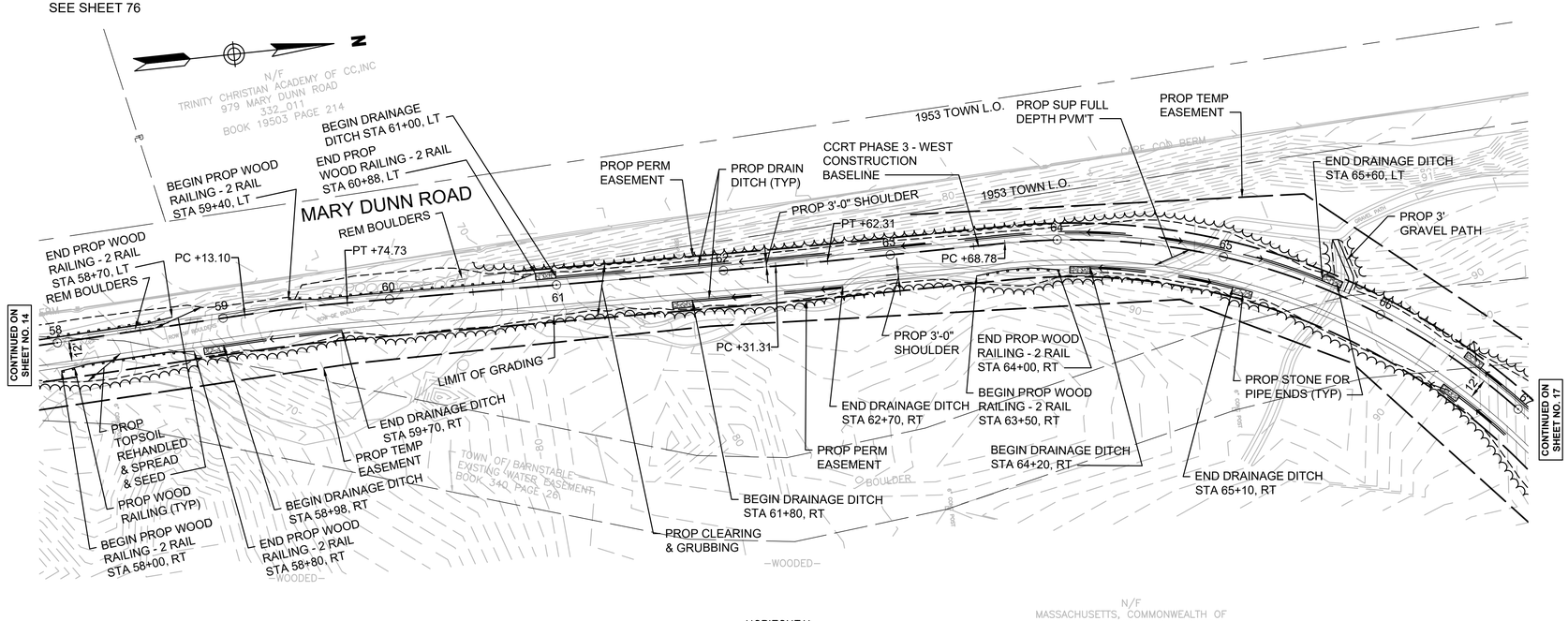
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 76

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

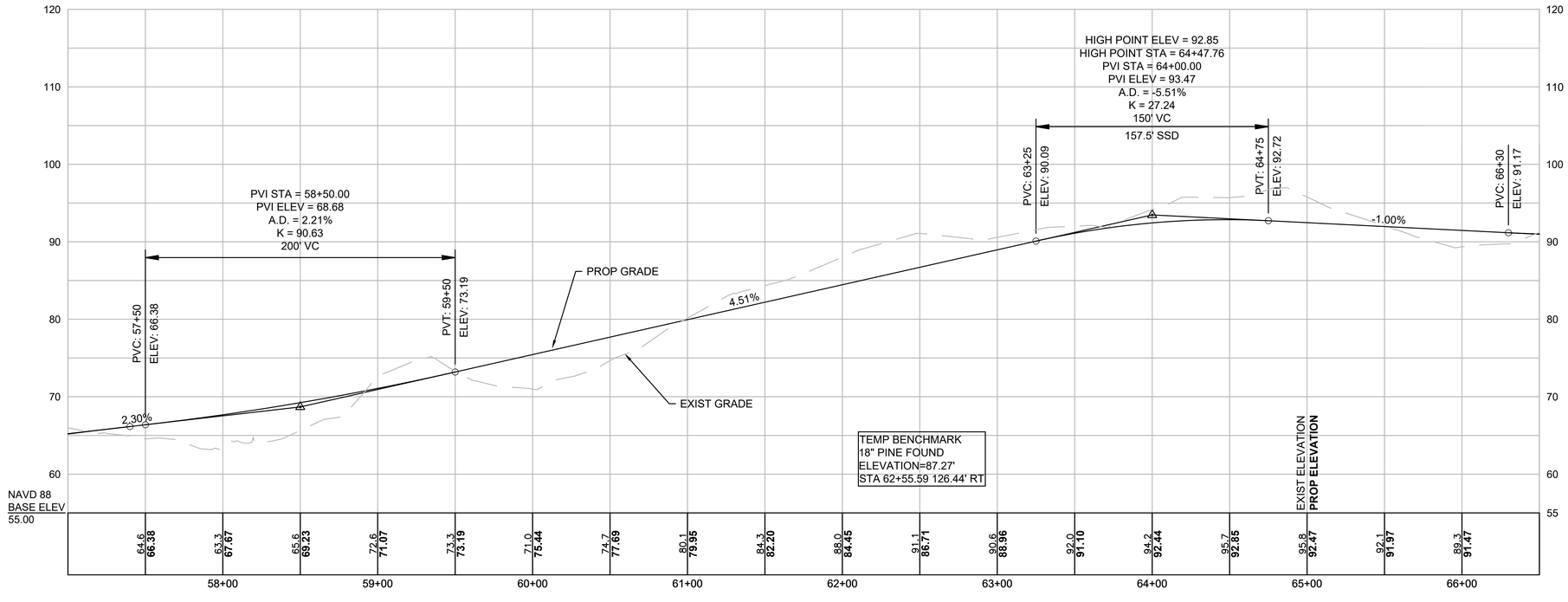
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	16	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



HORIZONTAL
40 0 40 80
8 0 8 16
VERTICAL

CCRT PHASE 3 - WEST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:13 PM

HIGHWAY GUARD DETAILS
NONE

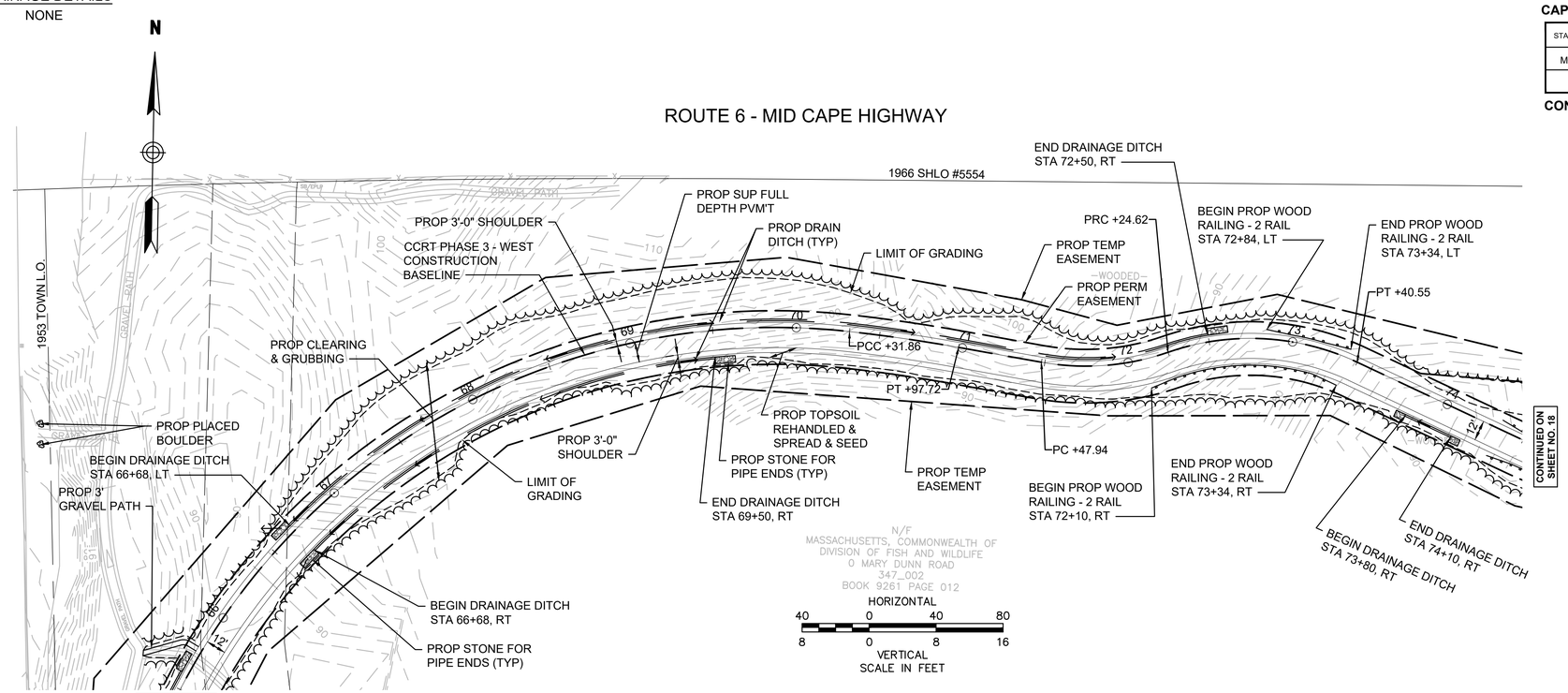
DRAINAGE DETAILS
NONE

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

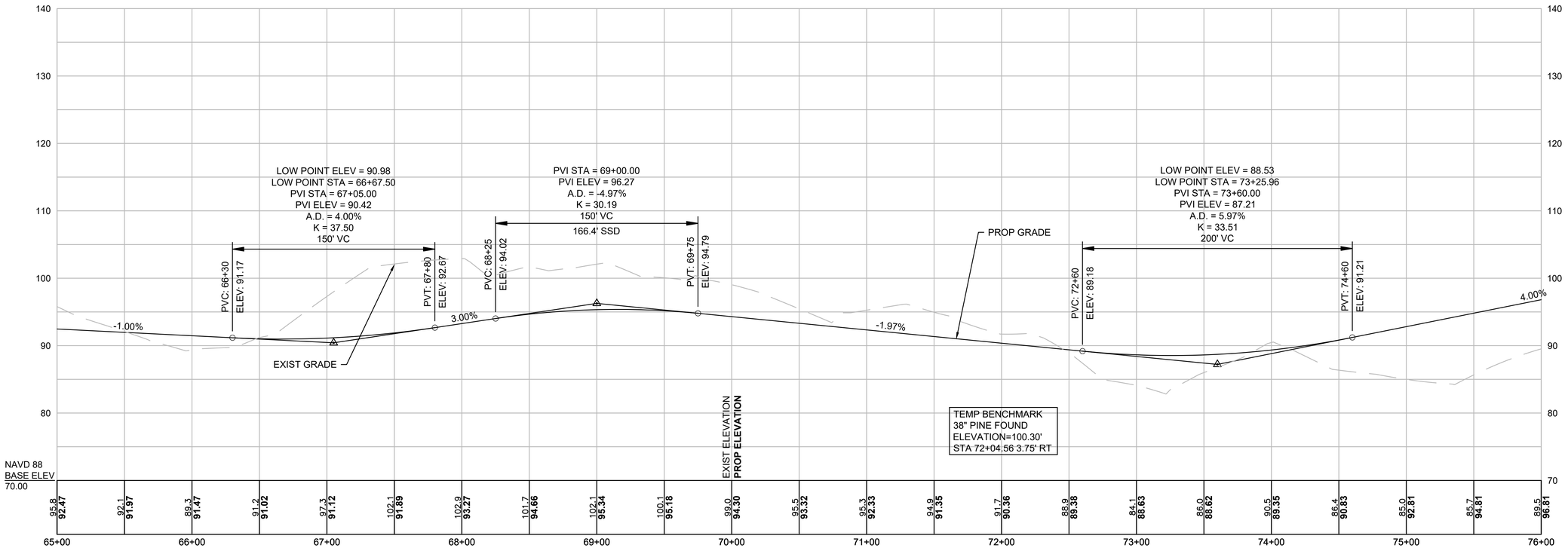
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	17	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:14 PM



CCRT PHASE 3 - WEST



HIGHWAY GUARD DETAILS
NONE

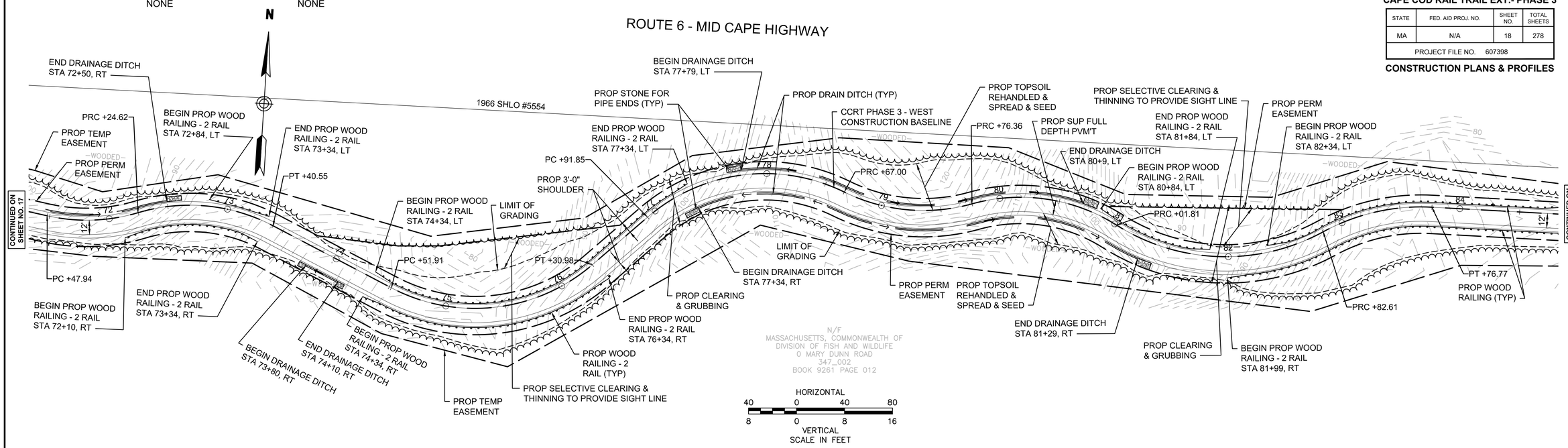
DRAINAGE DETAILS
NONE

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

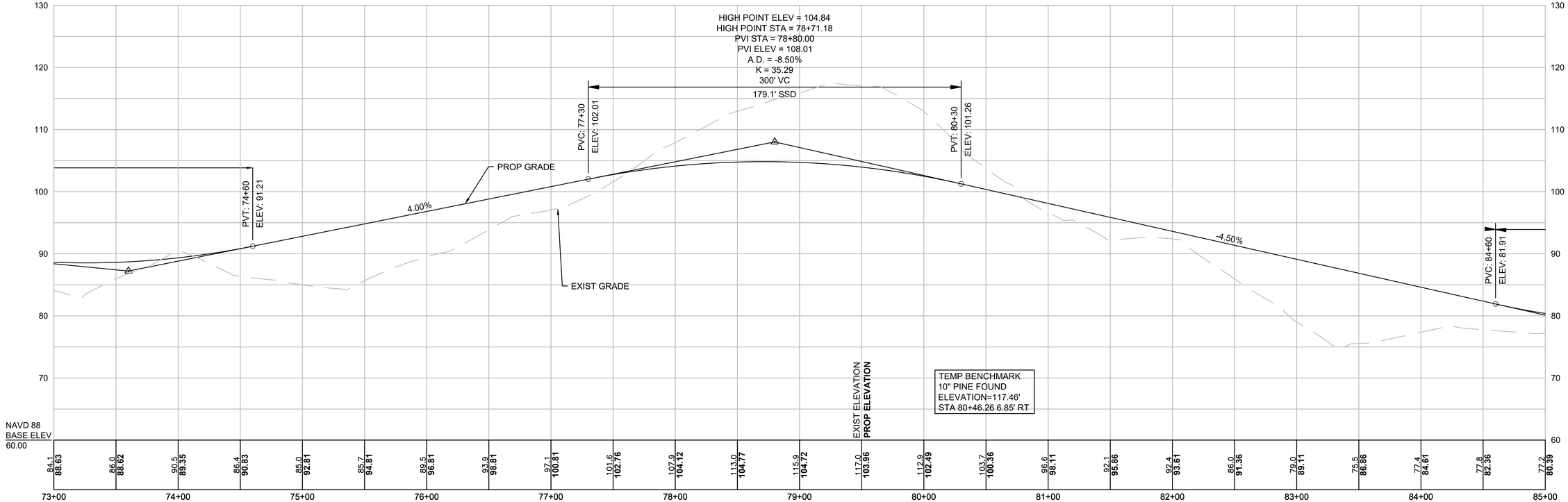
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	18	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

ROUTE 6 - MID CAPE HIGHWAY



CCRT PHASE 3 - WEST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:14 PM

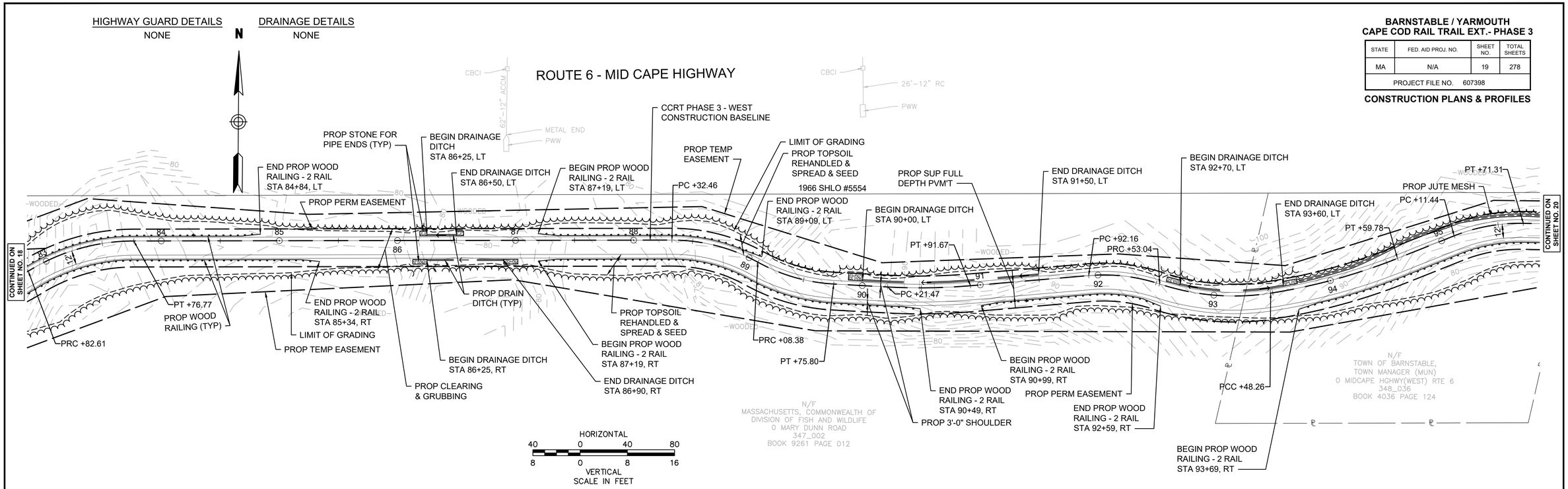
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
NONE

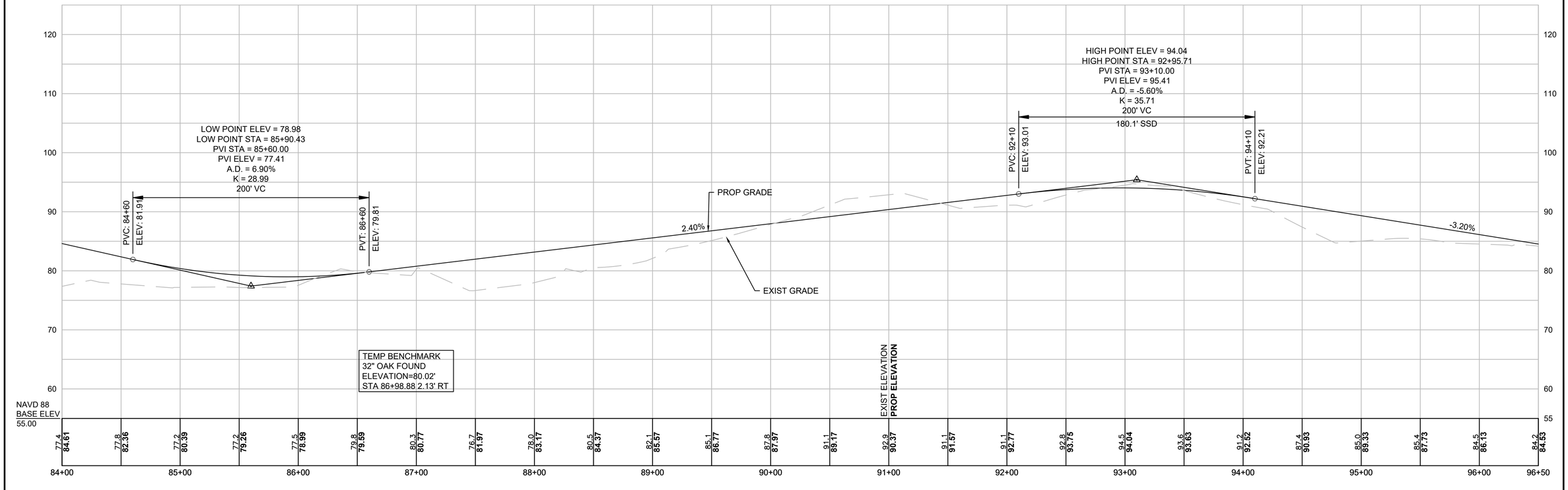
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	19	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - WEST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:15 PM

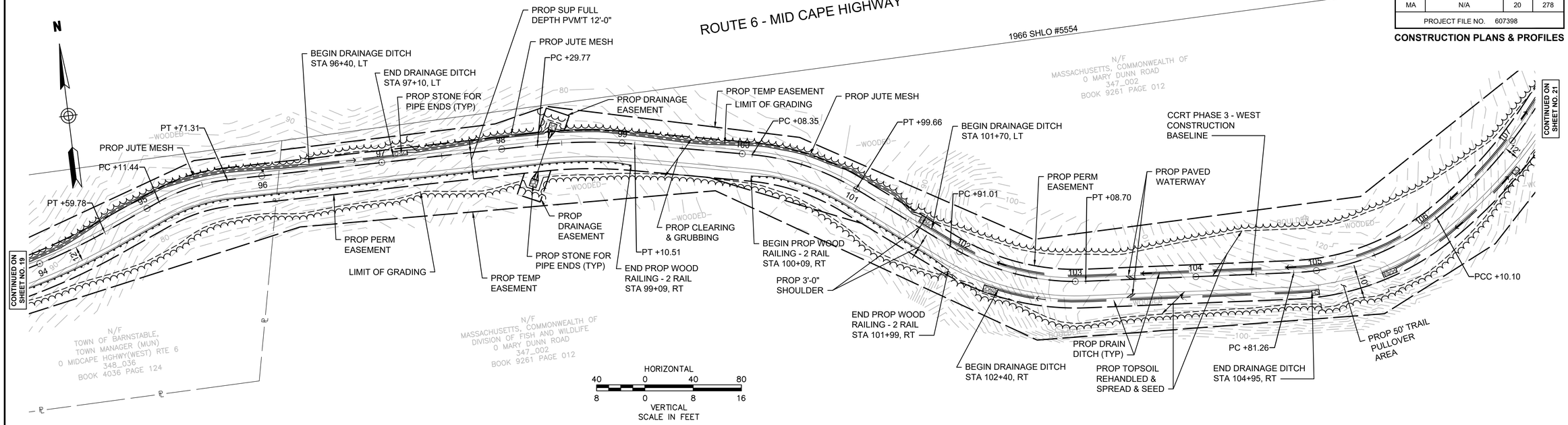
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 77

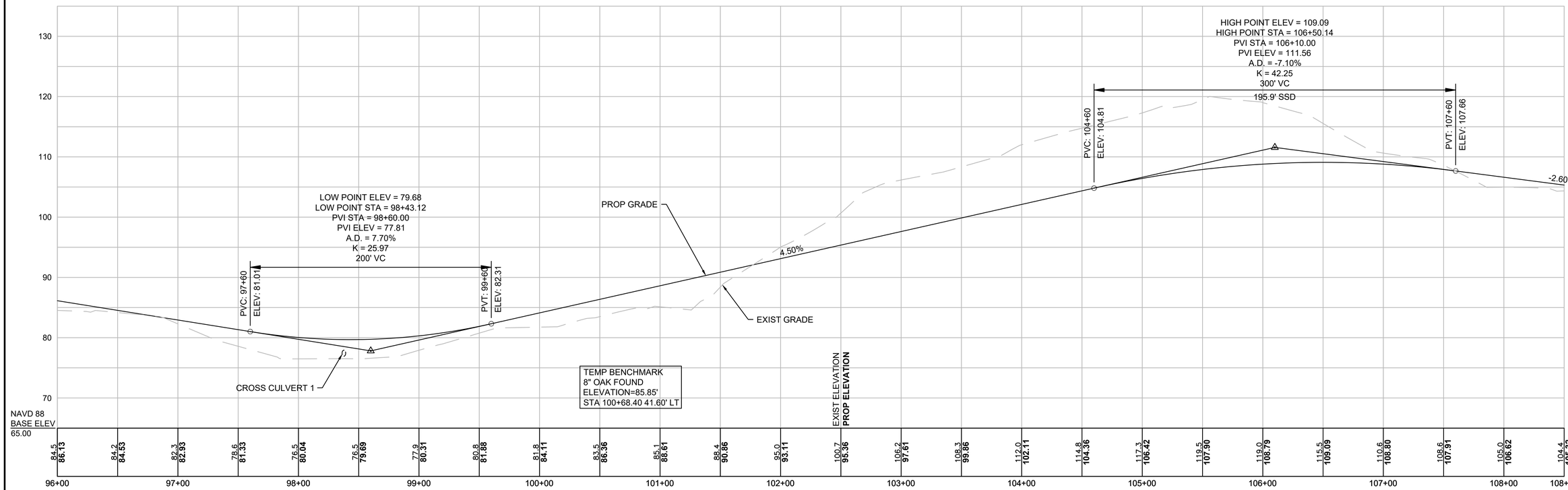
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	20	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - WEST



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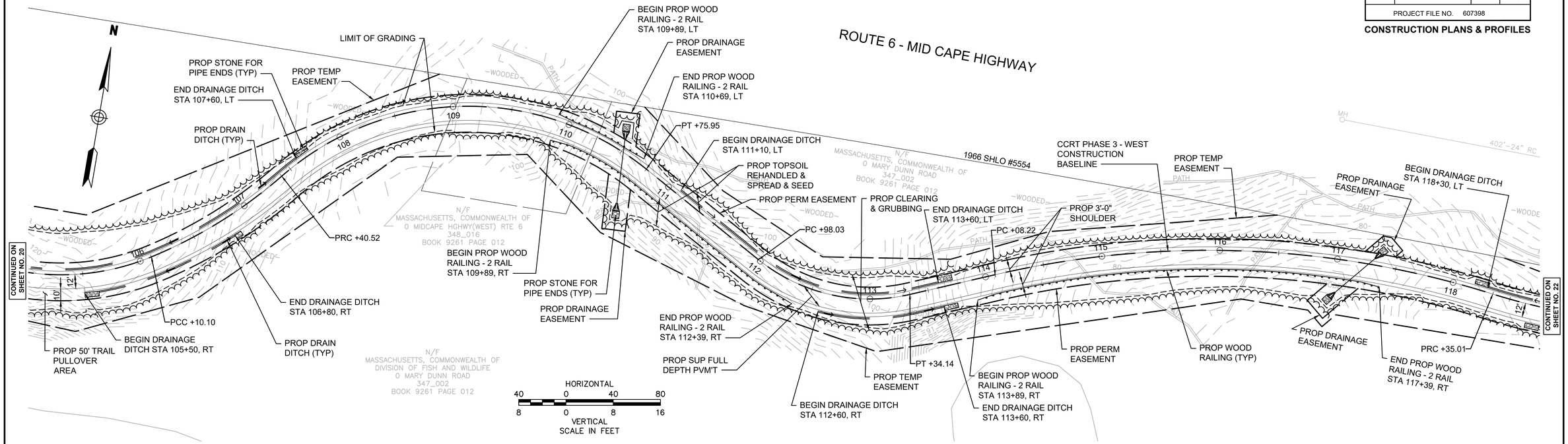
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 77

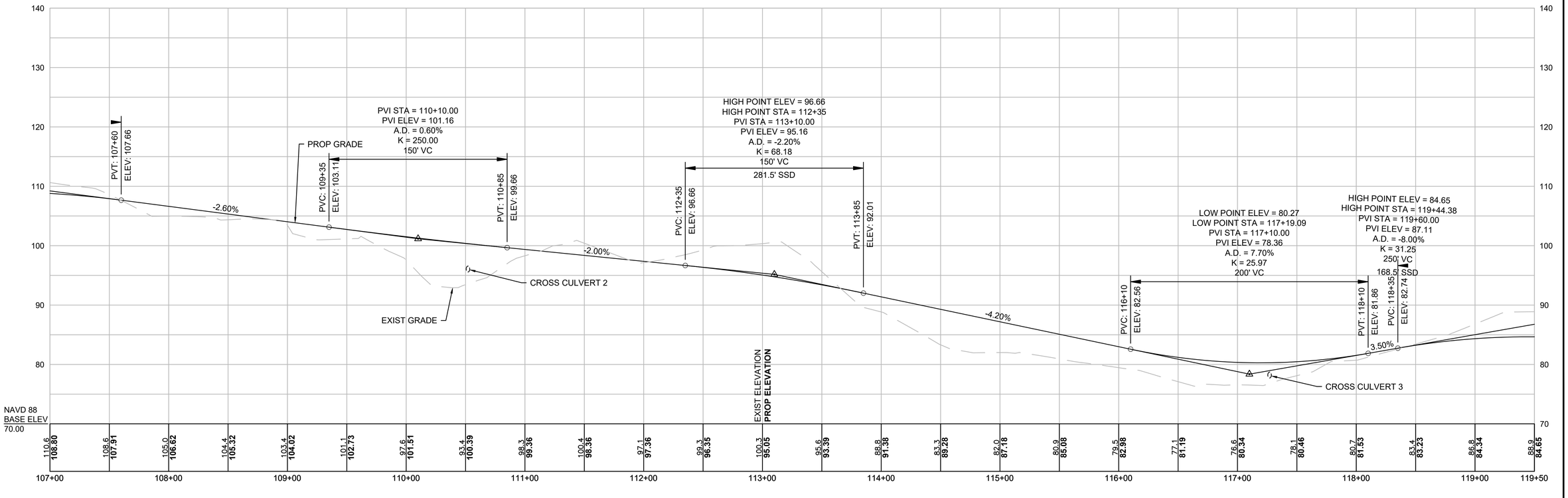
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	21	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - WEST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:16 PM

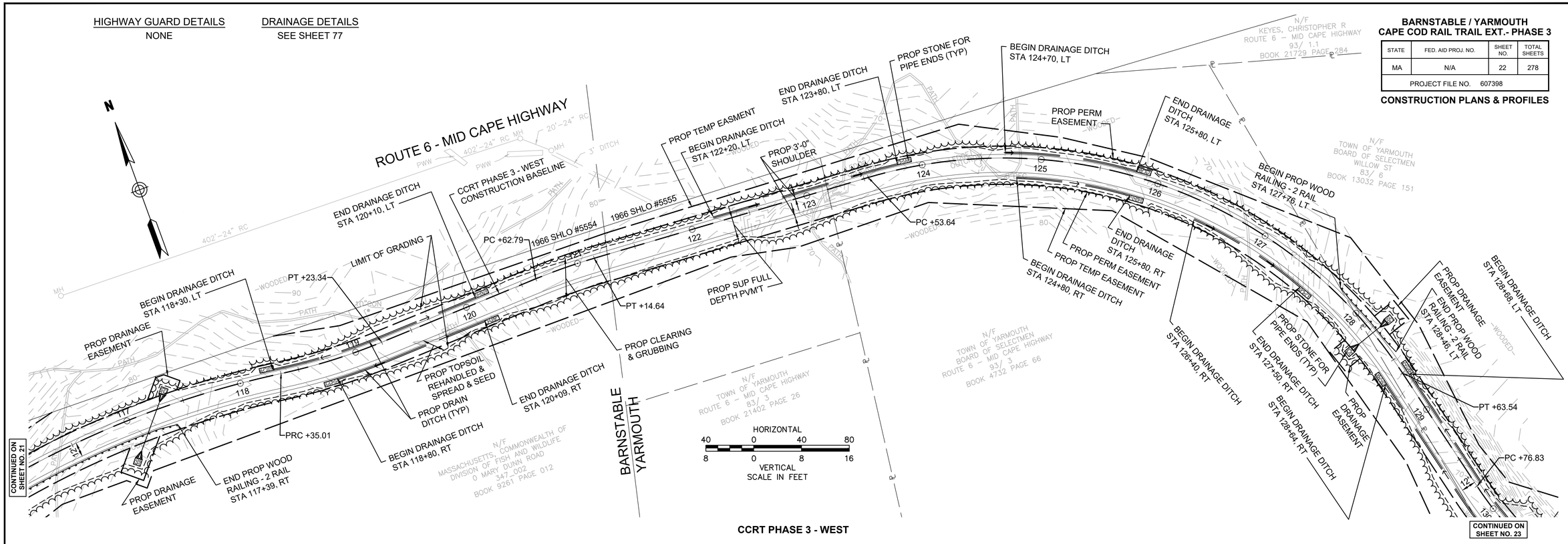
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 77

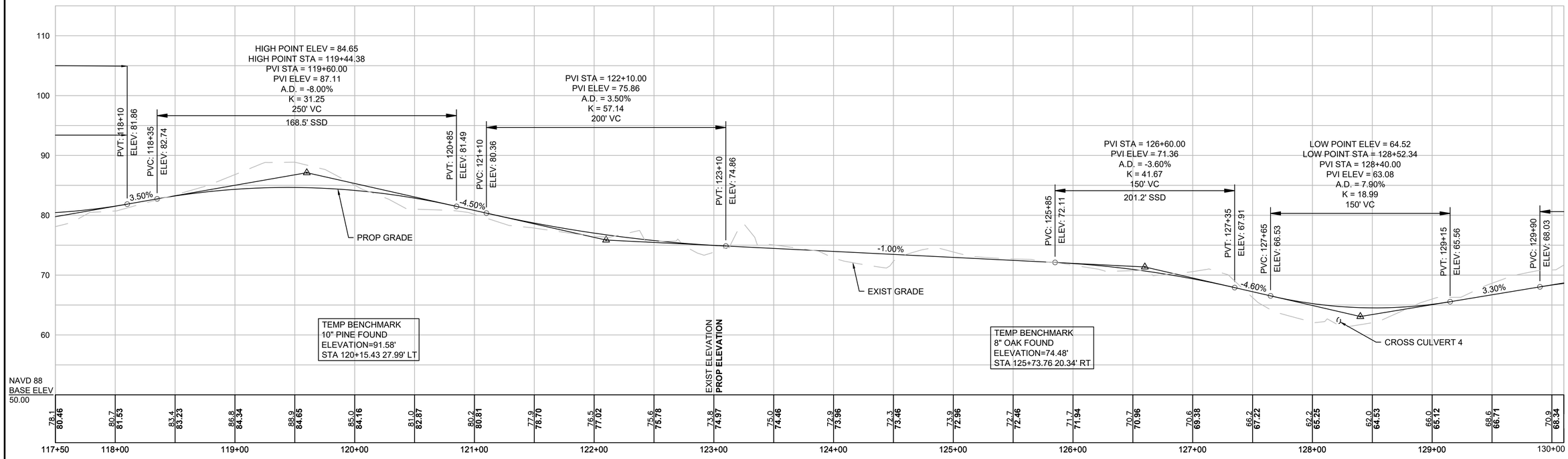
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	22	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - WEST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:16 PM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	23	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

CONTINUED ON SHEET NO. 22

CONTINUED ON SHEET NO. 26

HIGHWAY GUARD DETAILS
2005+12 RT TO 2005+49 RT GUARDRAIL TANGENT END TREATMENT, TL-3
2005+49 RT TO 2005+88 RT TRANSITION TO
RIGID BARRIER (SINGLE FACED)
2005+88 RT TO 2006+90 RT F SHAPE PRECAST SINGLE FACED
CONCRETE BARRIER (42" HIGH)
2006+90 RT TO 2007+29 RT TRANSITION TO
RIGID BARRIER (SINGLE FACED)
2007+29 RT TO 2007+39 RT TRAILING ANCHORAGE

DRAINAGE DETAILS
SEE SHEETS 77-78

134+65.52 CCRT PHASE 3 - WEST=
2006+60.72 WILLOW STREET

306+50 WILLOW STREET SPUR=
139+90.23 CCRT PHASE 3 - WEST

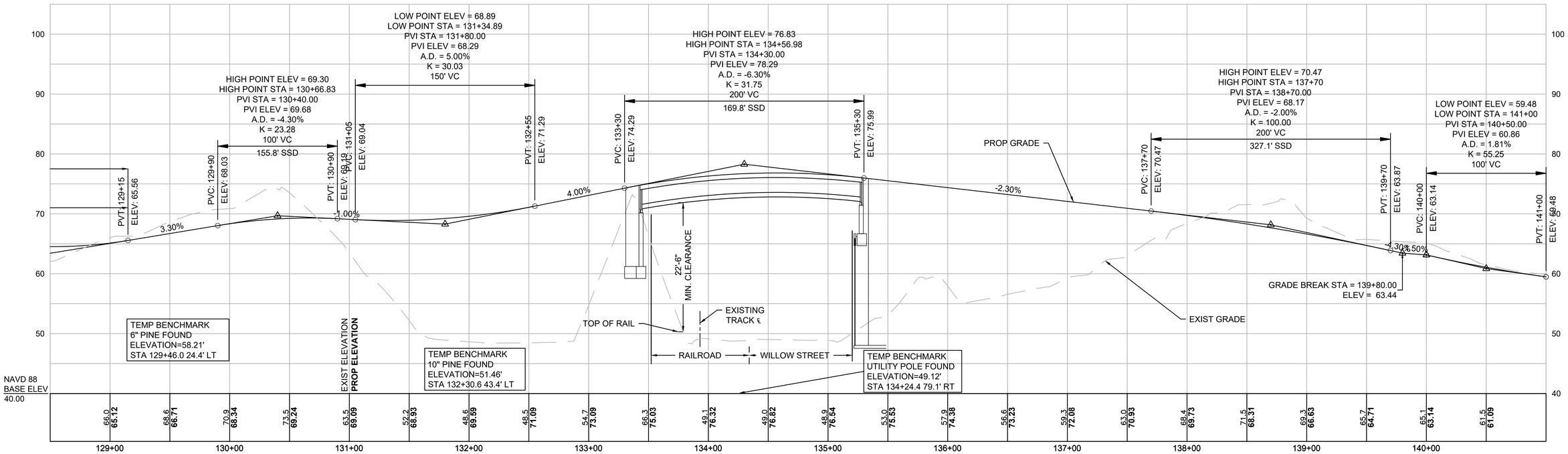
BEGIN DRAINAGE DITCH STA 128+69, LT
PROP STONE FOR PIPE ENDS (TYP)
PROP DRAINAGE EASEMENT
END PROP WOOD RAILING - 2 RAIL STA 128+46, LT
PROP STONE FOR PIPE ENDS BEGIN DRAINAGE DITCH STA 128+64, RT
PROP DRAINAGE EASEMENT
PROP DRAIN DITCH (TYP)
PROP TOPSOIL REHANDLED & SPREAD & SEED
PROP TEMP EASEMENT
PT +63.54
END DRAINAGE DITCH STA 130+46, LT
PROP DRAIN DITCH (TYP)
PC +76.83
BEGIN PROP WOOD RAILING - 2 RAIL STA 130+46, LT
PROP STONE FOR PIPE ENDS
PROP PAVED WATERWAY
PROP TEMP EASEMENT
END PROP WOOD RAILING - 2 RAIL STA 133+42, LT
LIMIT OF GRADING
LIMIT OF CLEARING & GRUBBING
PT +60.86
PC +21.77
PROP PERM EASEMENT
PROP STONE FOR PIPE ENDS PROP 3'-0" SHOULDER
PROP SUP FULL DEPTH PVM'T
PT +59.92
LIMIT OF GRADING
PROP CLEARING & GRUBBING
PROP PERM EASEMENT
END DRAINAGE DITCH STA 131+09, RT
BEGIN PROP WOOD RAILING - 2 RAIL STA 131+26, RT
PROP WOOD RAILING - 2 RAIL (TYP)
LIMIT OF CLEARING & GRUBBING
END PROP WOOD RAILING - 2 RAIL STA 133+42, RT
MASSDOT RAIL RR ROW
PROP WILLOW STREET BRIDGE NO.Y-01-018 (C8R) SEE SHEETS 109-120
SEE SHEETS 24-25
BEGIN DRAINAGE DITCH STA 138+00, LT
PC +19.87
PRC +10.46
PRC +91.47
E.P. 1
E.P. 2
E.P. 3
E.P. 4 SAWCUT
E.P. 5
PROP ACCESS ROAD FULL DEPTH PVM'T
BEGIN DRAINAGE DITCH STA 140+92, RT
PROP TEMP EASEMENT
WILLOW STREET SPUR CONSTRUCTION BASELINE
HIGGINS CROWELL UTILITY ACCESS CONSTRUCTION BASELINE
WILLOW STREET CONSTRUCTION BASELINE
1953 SHLO #4069
1953 TOWN L.O.

N/F TOWN OF YARMOUTH BOARD OF SELECTMEN WILLOW ST 83/ 6 BOOK 13032 PAGE 151
N/F MASSACHUSETTS DEPARTMENT OF TRANSPORTATION COMMONWEALTH OF MASS EXECUTIVE OFFICE OF TRANSPORTATION & CONSTRUCTION HARTFORD & N.H.H. & H.R.R. CO. BOOK 1438 PAGE 92
N/F TOWN OF YARMOUTH BOARD OF SELECTMEN WILLOW ST 83/6 BOOK 13032 PAGE 151
N/F TOWN OF YARMOUTH BOARD OF SELECTMEN ROUTE 6 – MID CAPE HIGHWAY 93/3 BOOK 4732 PAGE 66
N/F YARM CAMP GROUND ASSOC INC WILLOW ST 83/ 2 BOOK 18462S PAGE 61390
N/F COMMONWEALTH OF MASS 362 WILLOW ST 83/10 BOOK 854 PAGE 108
N/F TOWN OF YARMOUTH BOARD OF SELECTMEN HIGGINS CROWELL ROAD 83/9 BOOK 858 PAGE 545
N/F TOWN OF YARMOUTH BOARD OF SELECTMEN HIGGINS CROWELL ROAD 83/7 BOOK 892 PAGE 140

NOTE:
SEE SHEET 26 FOR ELEVATION POINT INFORMATION

HORIZONTAL
40 0 40 80
8 0 8 16
VERTICAL
SCALE IN FEET

CCRT PHASE 3 - WEST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 10:44 PM

HIGHWAY GUARD DETAILS
SEE SHEET 23

DRAINAGE DETAILS
SEE SHEET 78

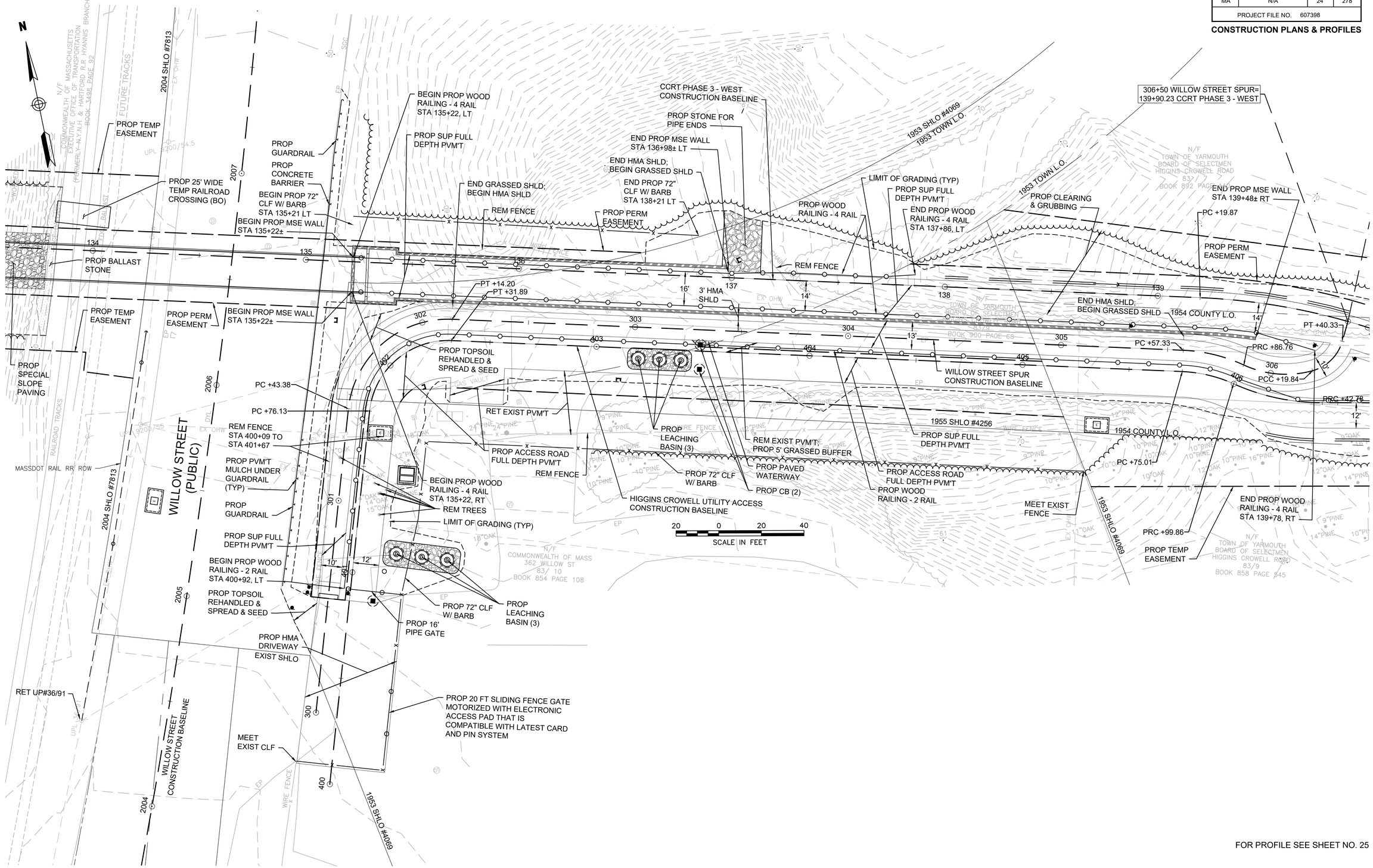
TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	24	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



FOR PROFILE SEE SHEET NO. 25

607398_HDGEN.DWG Plotted on 15-Feb-2024 10:44 PM

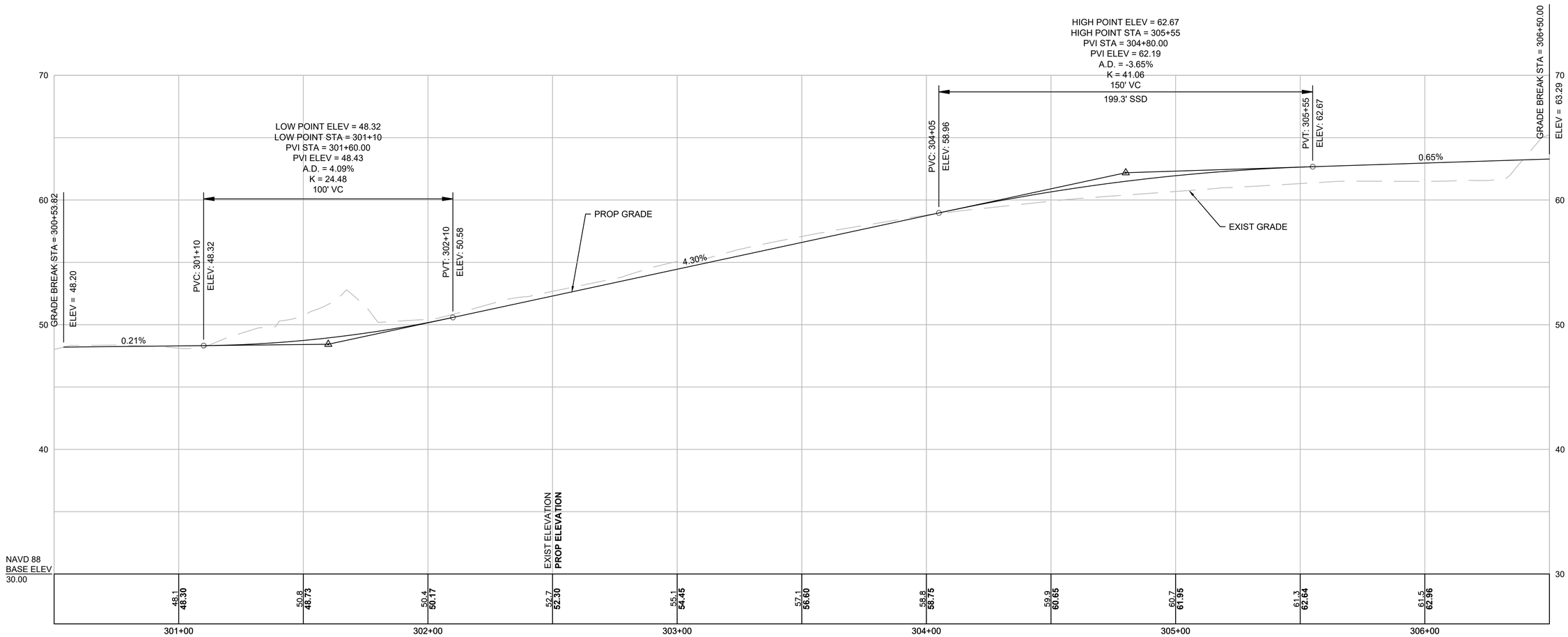
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	25	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:18 PM

WILLOW STREET SPUR



FOR PLAN SEE SHEET NO. 24

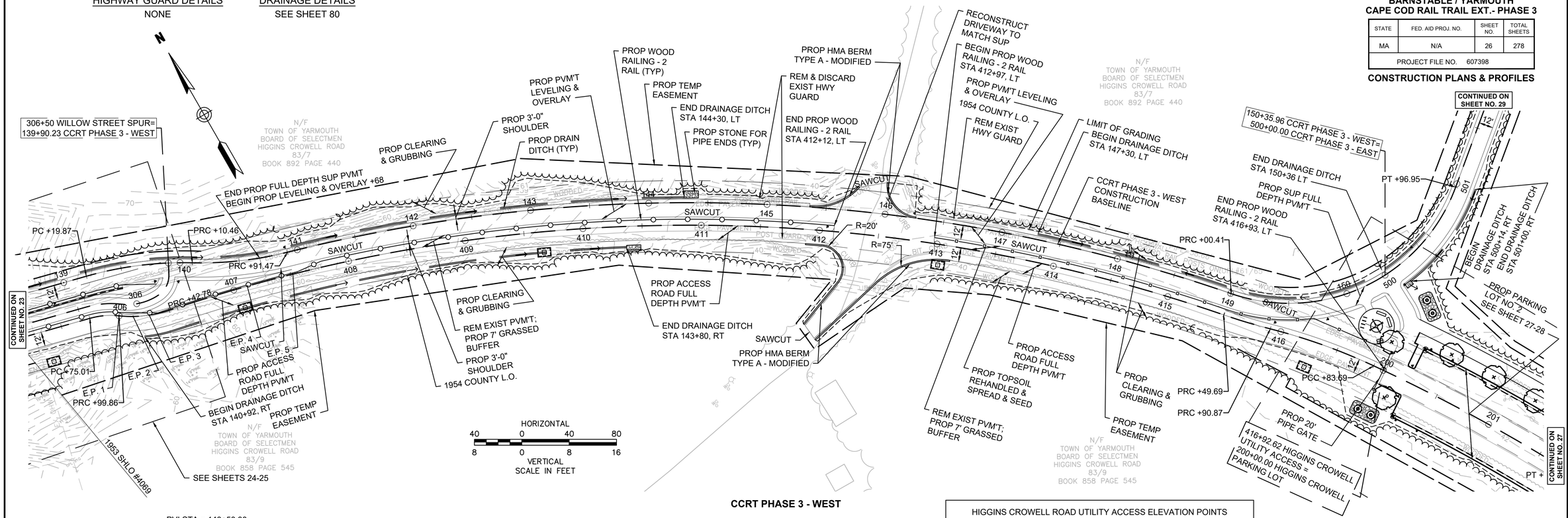
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 80

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

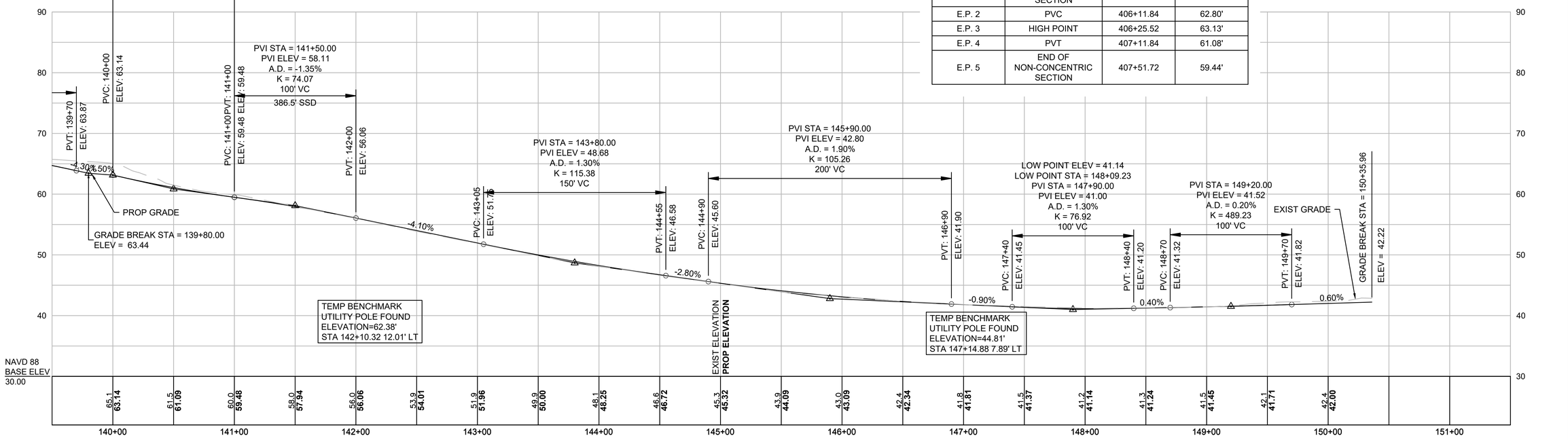
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	26	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - WEST

HIGGINS CROWELL ROAD UTILITY ACCESS ELEVATION POINTS			
POINT	DESCRIPTION	STATION	ELEVATION
E.P. 1	BEGINNING OF NON-CONCENTRIC SECTION	405+99.86	62.72'
E.P. 2	PVC	406+11.84	62.80'
E.P. 3	HIGH POINT	406+25.52	63.13'
E.P. 4	PVT	407+11.84	61.08'
E.P. 5	END OF NON-CONCENTRIC SECTION	407+51.72	59.44'



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:18 PM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

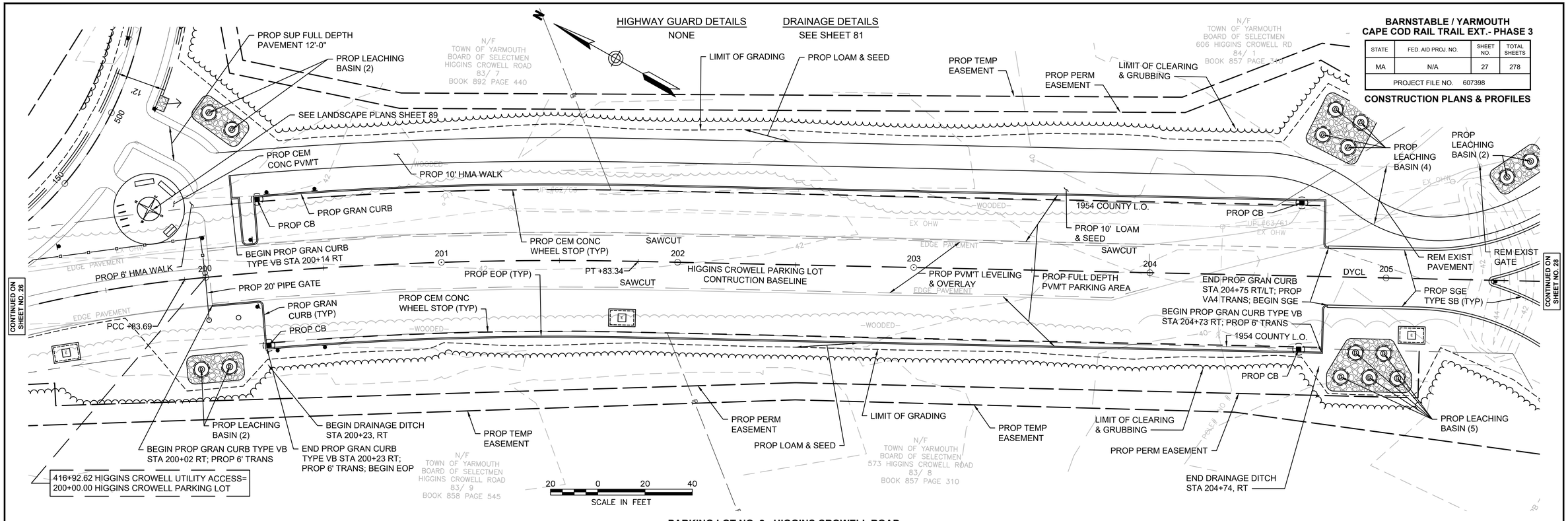
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	27	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

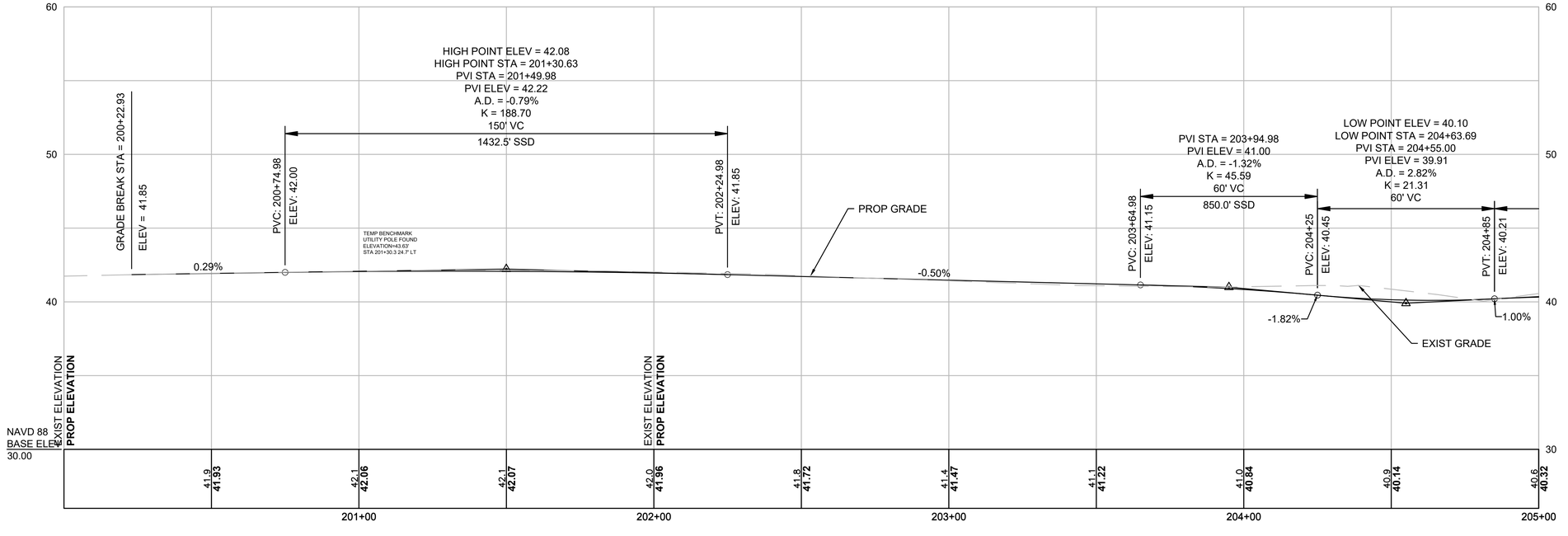
607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:19 PM

HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 81



PARKING LOT NO. 2 - HIGGINS CROWELL ROAD



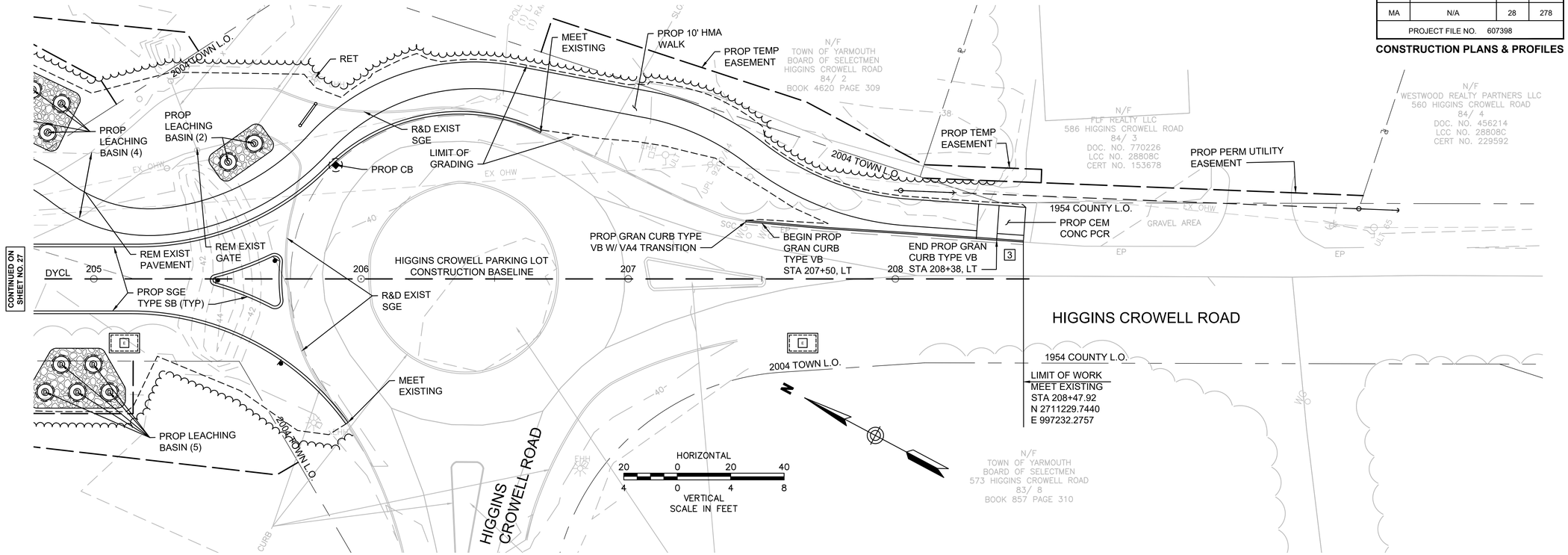
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 81

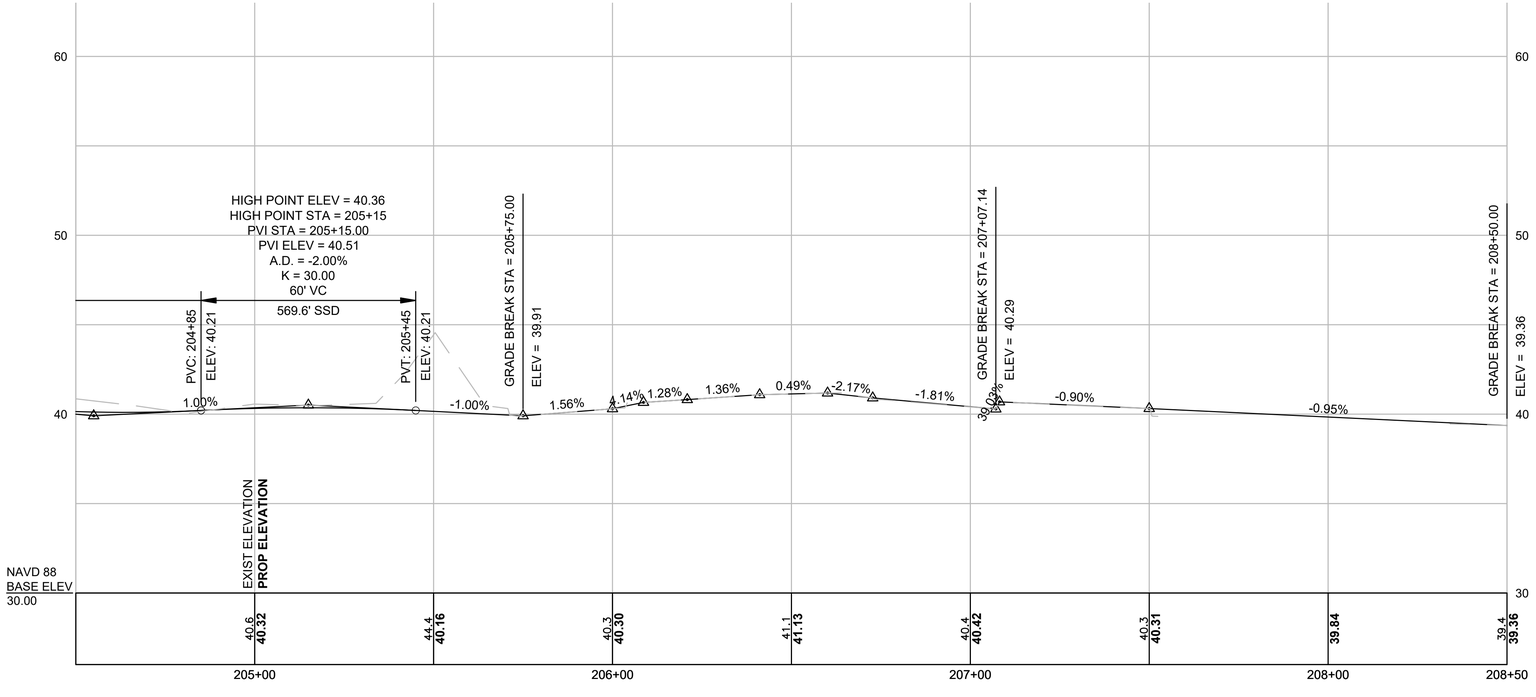
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	28	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



PARKING LOT NO. 2 - HIGGINS CROWELL ROAD



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:20 PM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

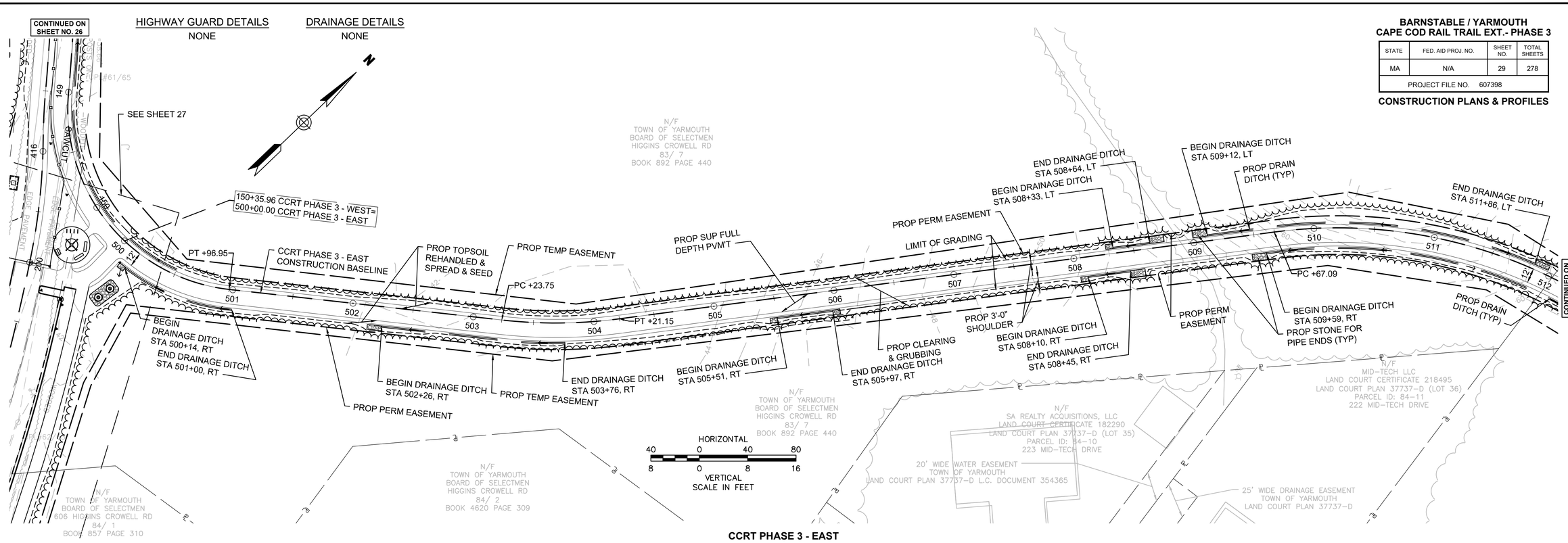
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	29	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

CONTINUED ON SHEET NO. 26

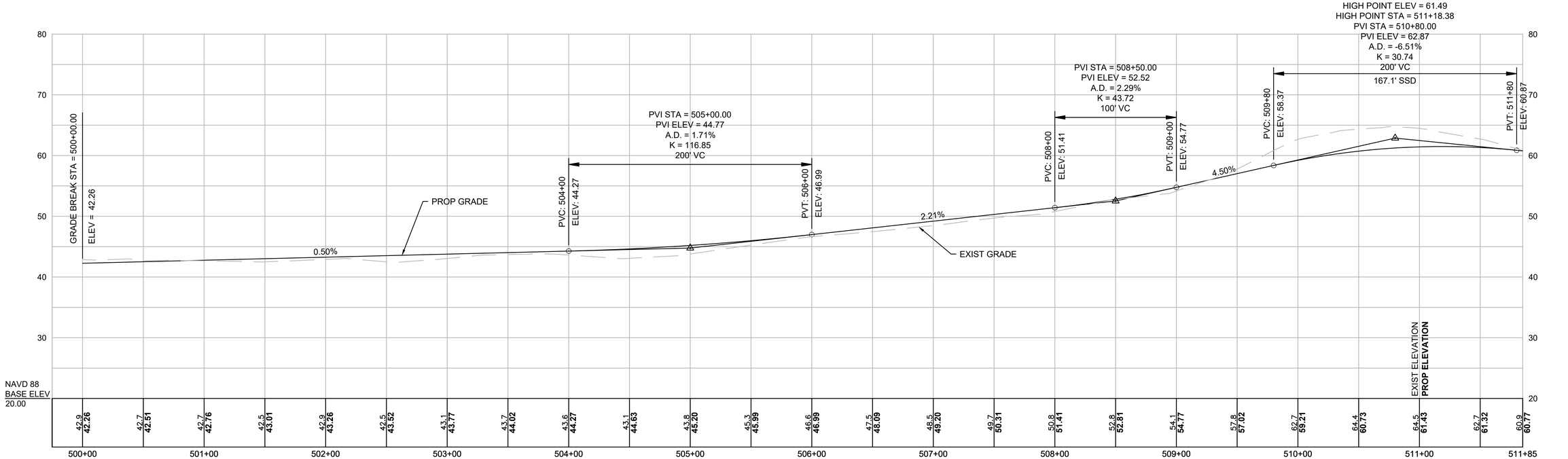
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
NONE



CONTINUED ON SHEET NO. 30

CCRT PHASE 3 - EAST



EXIST ELEVATION	42.9	42.7	42.7	42.5	42.9	42.5	43.1	43.7	43.6	43.1	43.8	45.3	46.6	47.5	48.5	49.7	50.8	52.8	54.1	57.8	62.7	64.4	64.5	62.7	60.9
PROP ELEVATION	42.26	42.51	42.76	43.01	43.26	43.52	43.77	44.02	44.27	44.63	45.20	45.99	46.99	48.09	49.20	50.31	51.41	52.81	54.77	57.02	59.21	60.73	61.43	61.32	60.77

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:20 PM

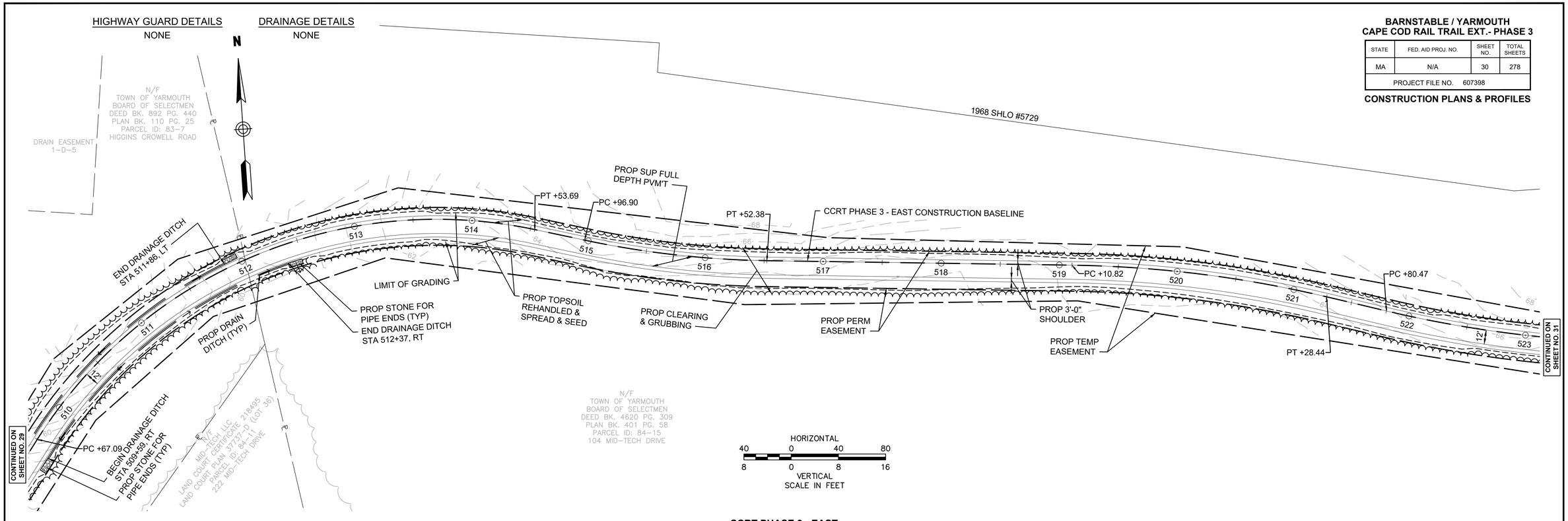
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
NONE

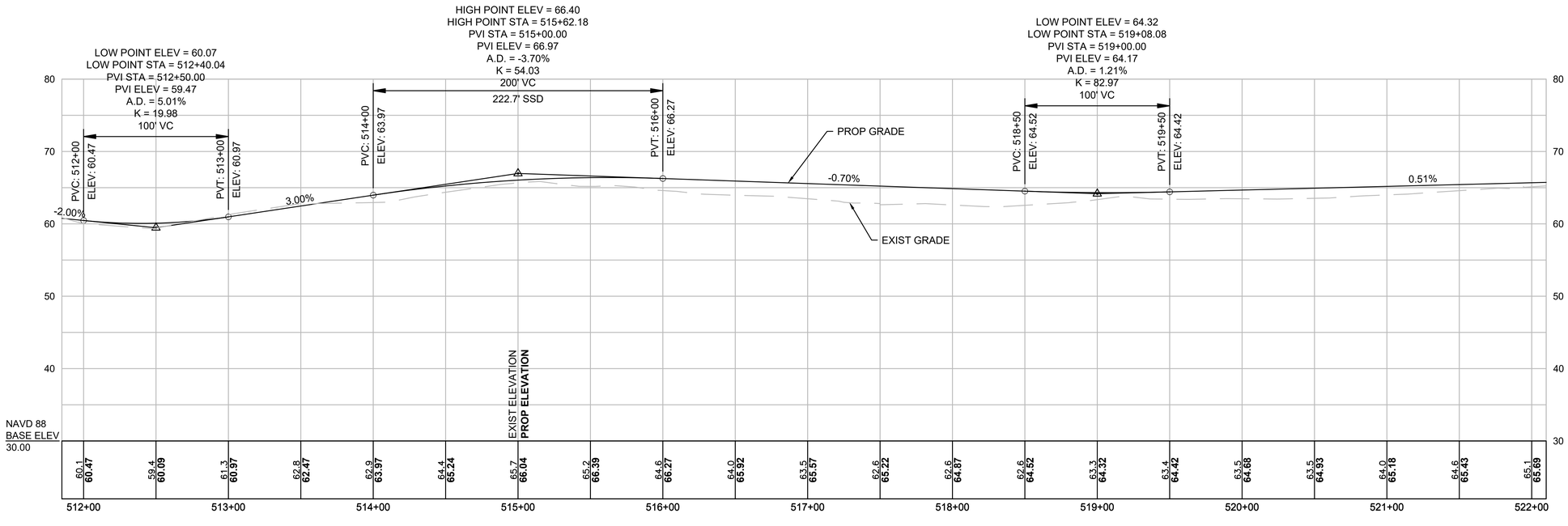
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	30	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - EAST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:21 PM

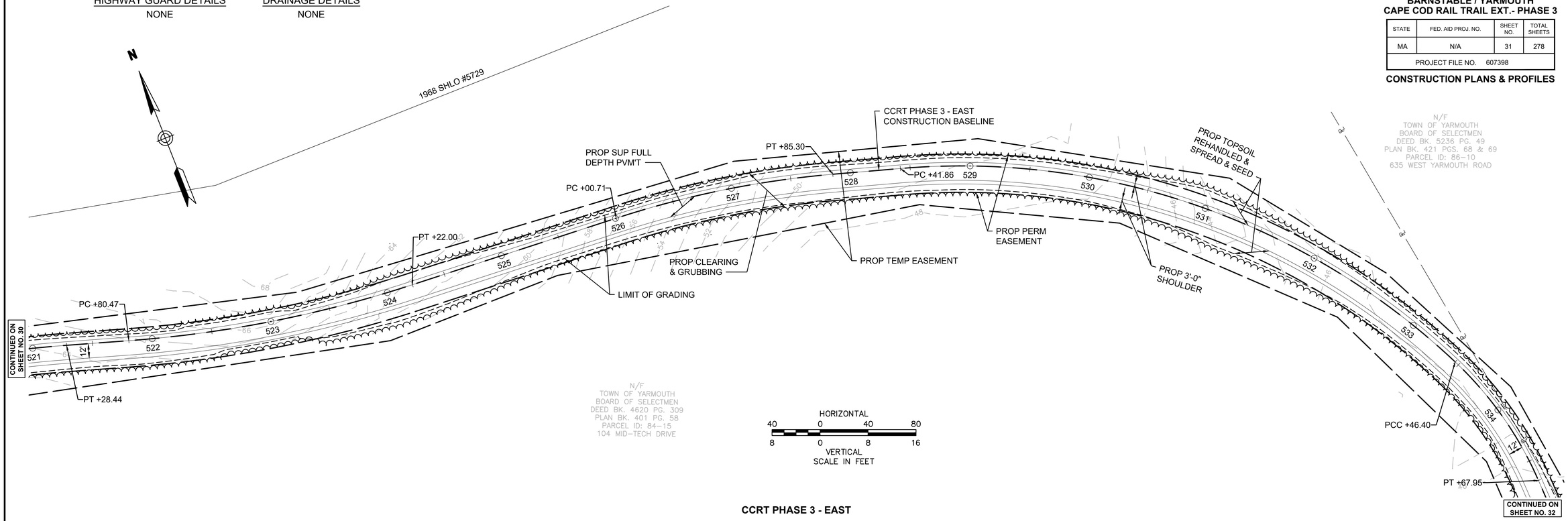
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
NONE

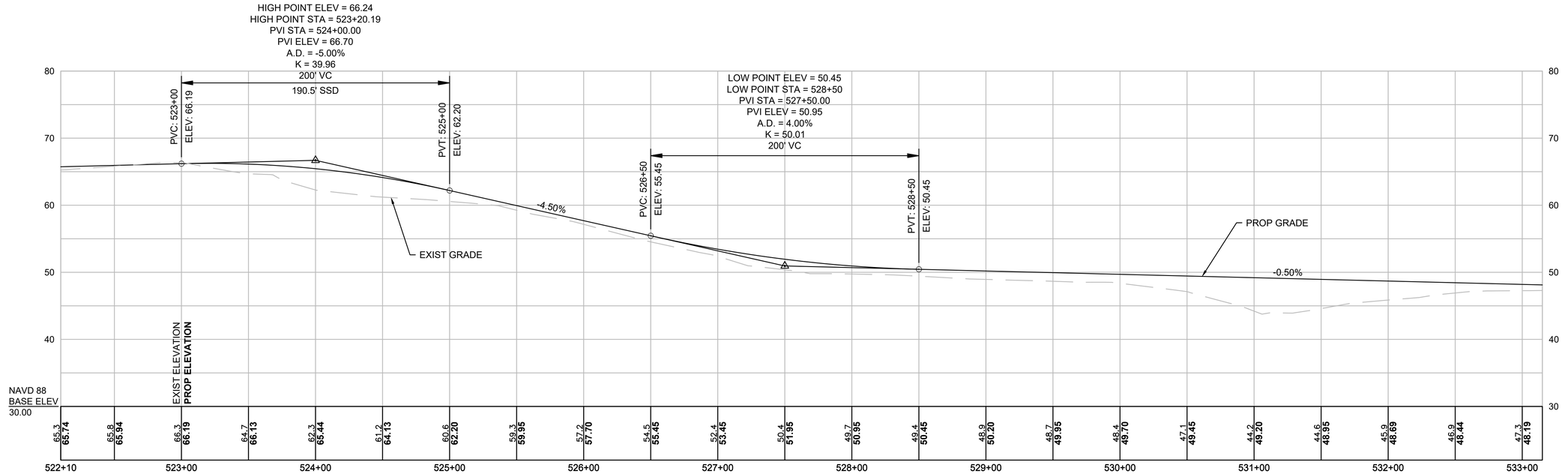
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	31	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - EAST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:22 PM

HIGHWAY GUARD DETAILS
NONE

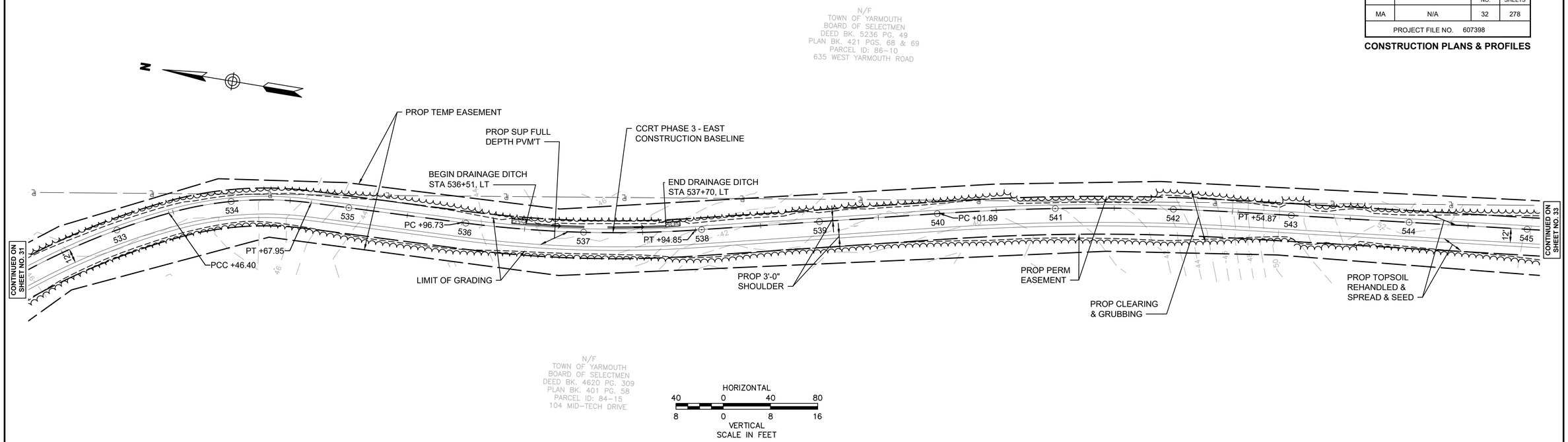
DRAINAGE DETAILS
NONE

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

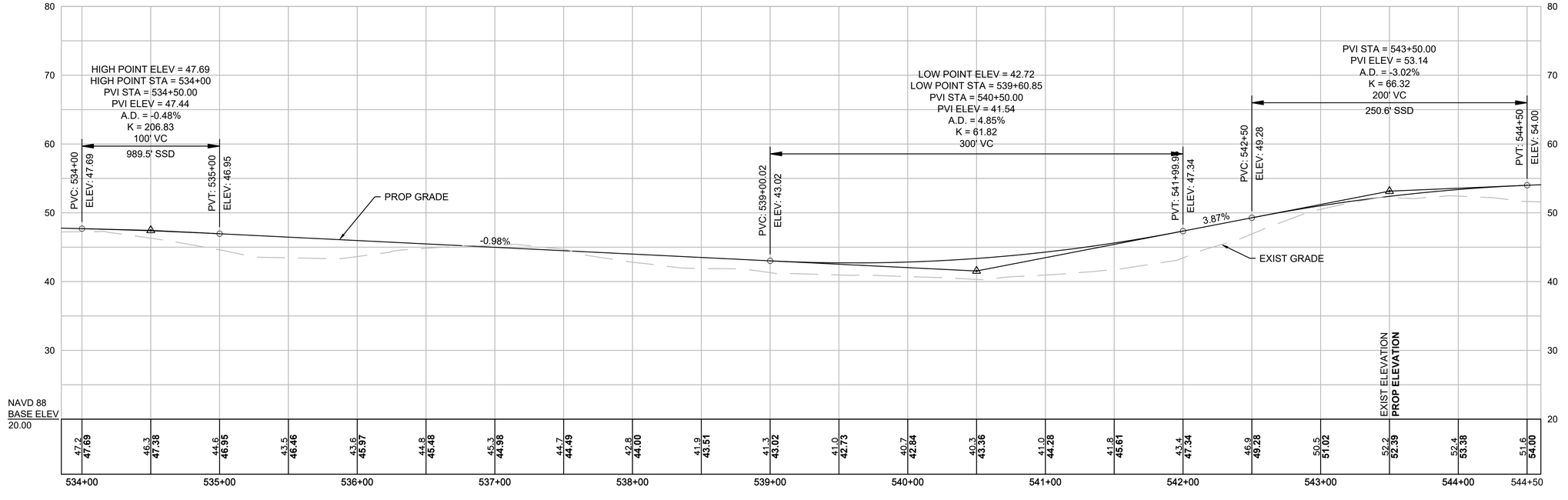
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	32	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:22 PM



CCRT PHASE 3 - EAST



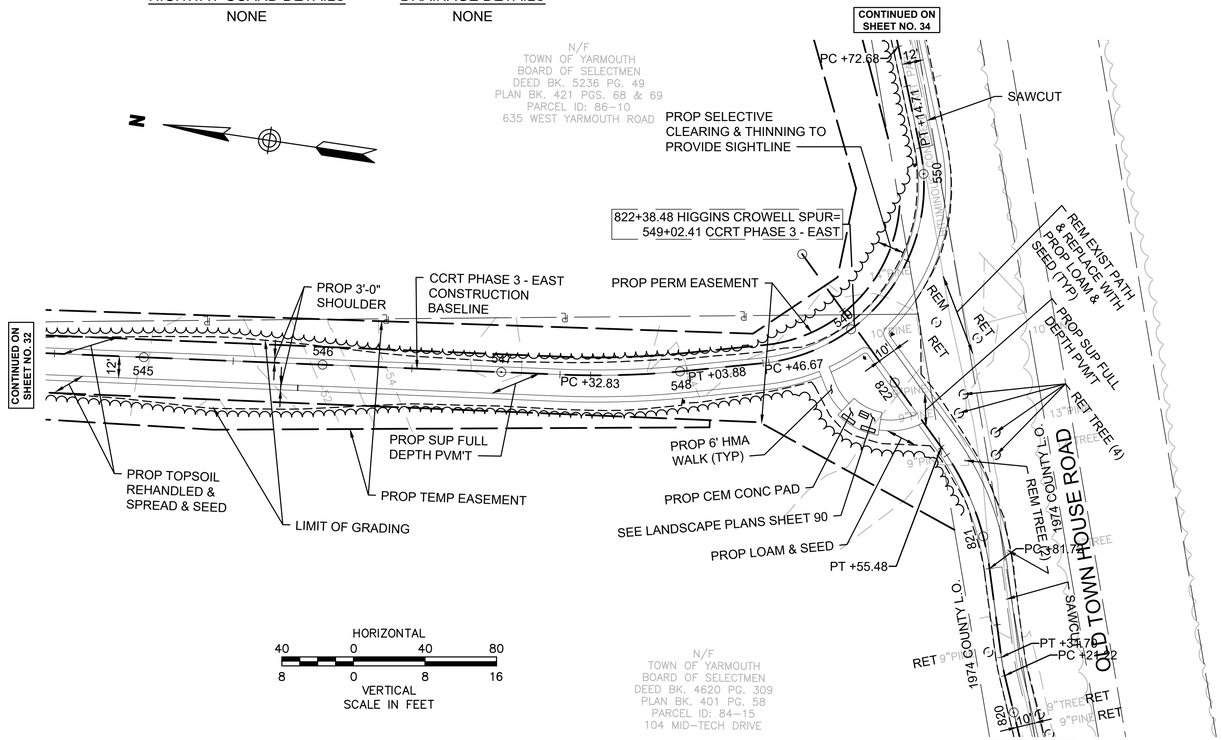
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
NONE

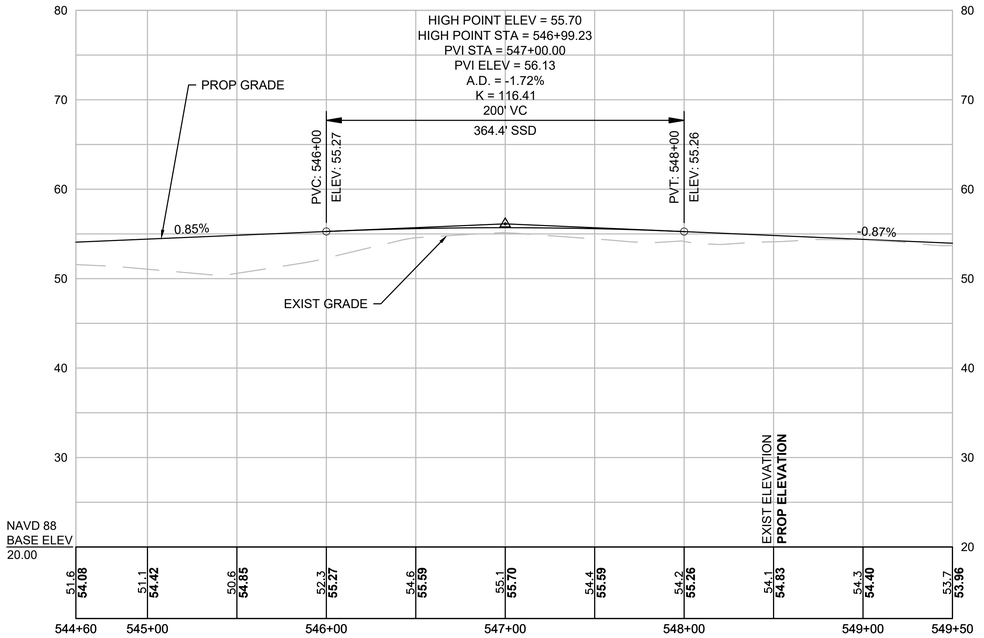
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	33	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - EAST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:23 PM

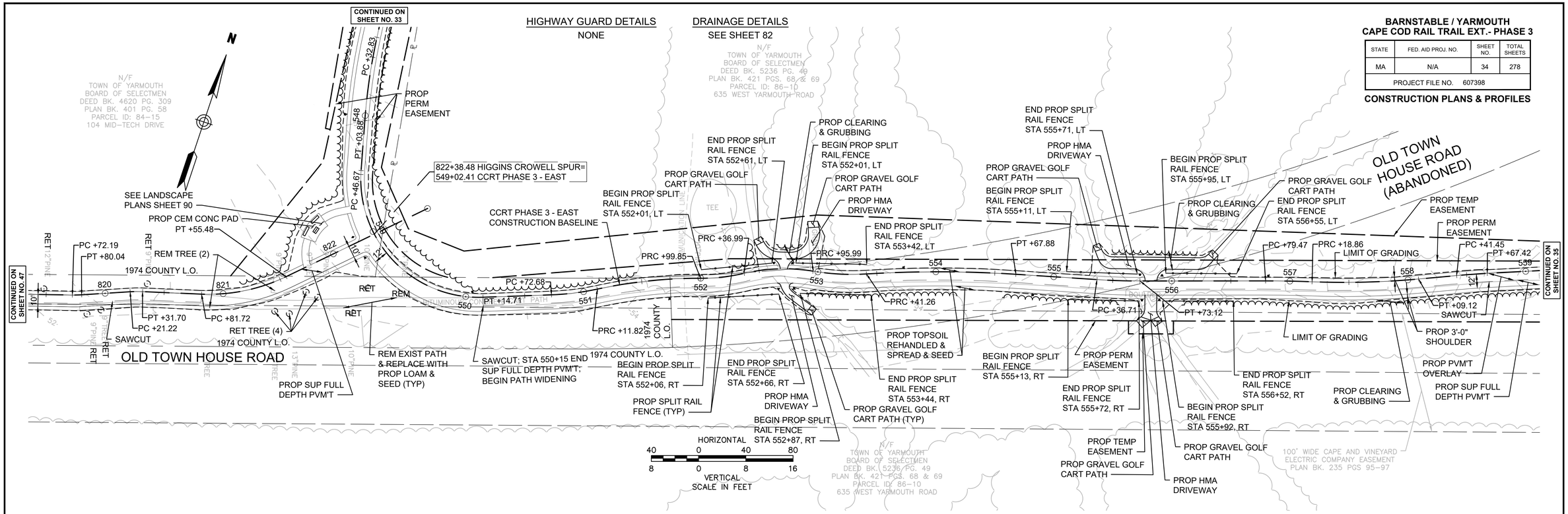
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	34	278
PROJECT FILE NO. 607398			

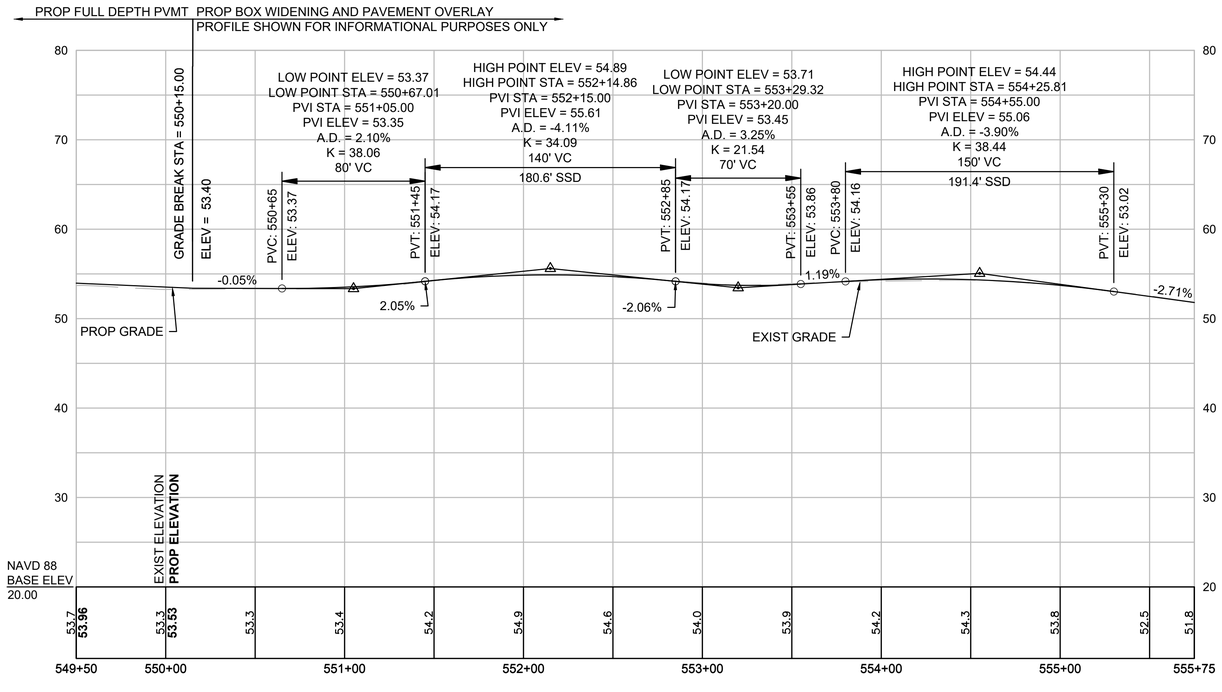
CONSTRUCTION PLANS & PROFILES

HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 82



CCRT PHASE 3 - EAST



CCRT PHASE 3 - EAST

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:24 PM

HIGHWAY GUARD DETAILS
NONE

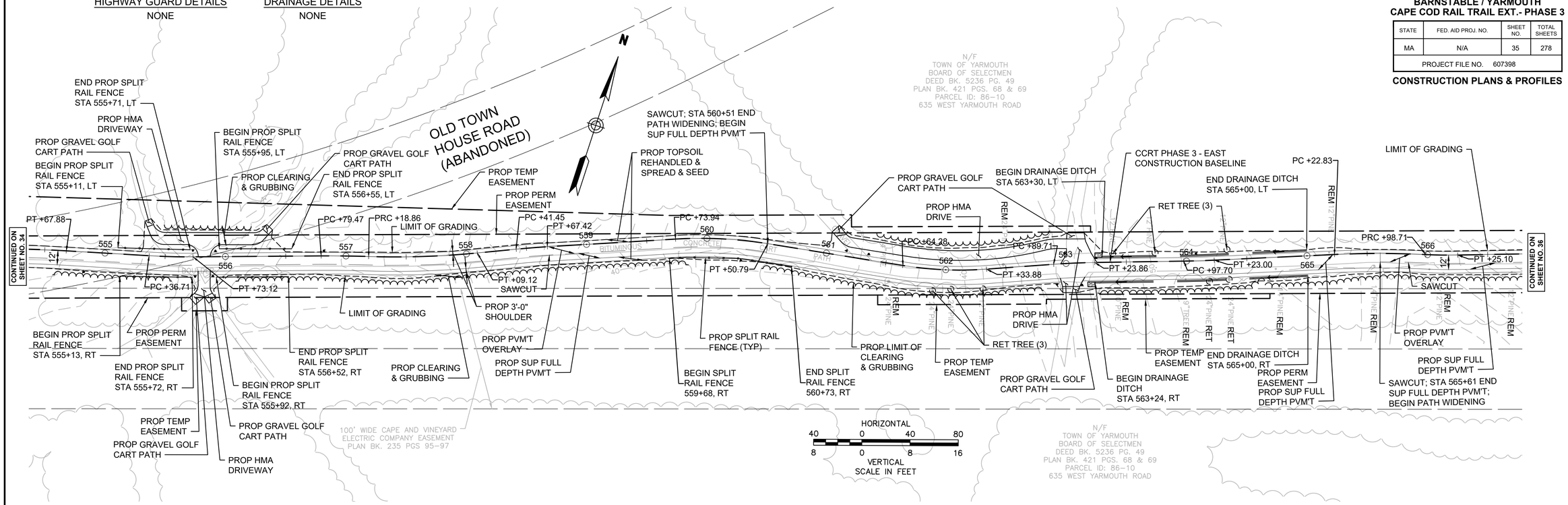
DRAINAGE DETAILS
NONE

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

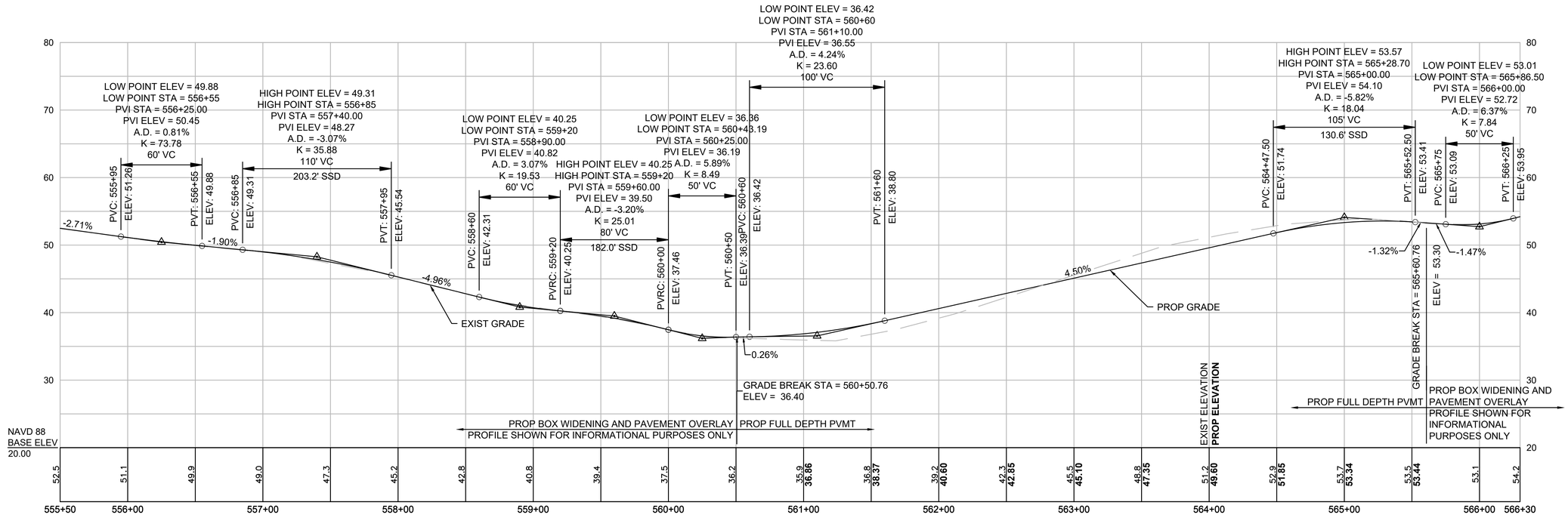
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	35	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:25 PM



CCRT PHASE 3 - EAST



HIGHWAY GUARD DETAILS
NONE

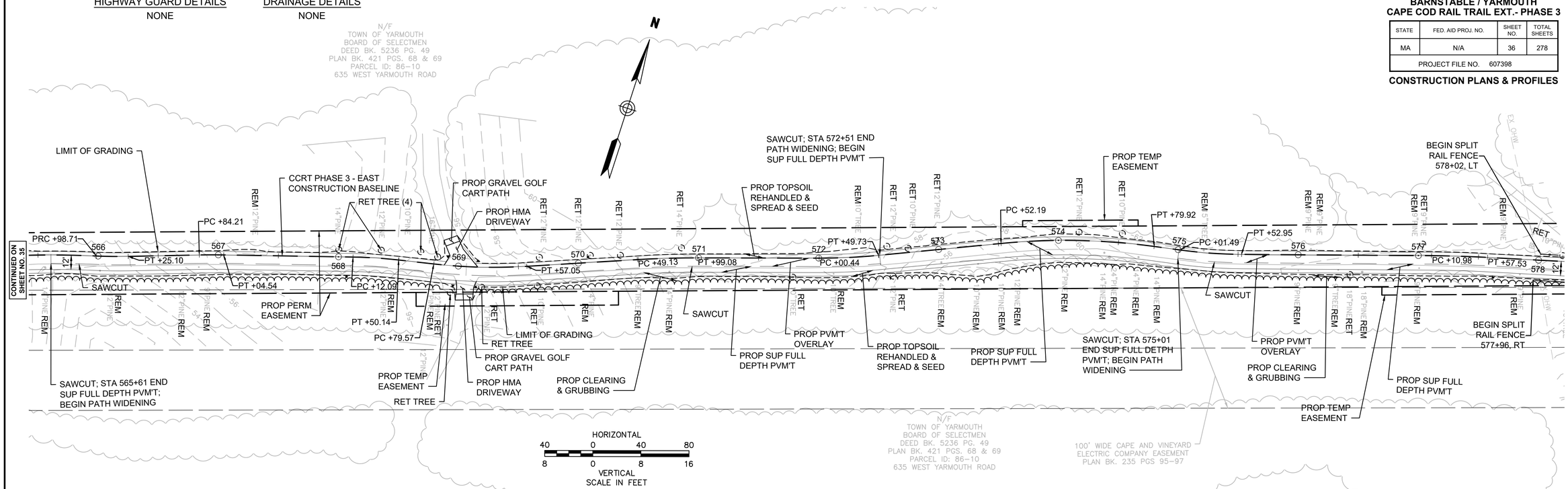
DRAINAGE DETAILS
NONE

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

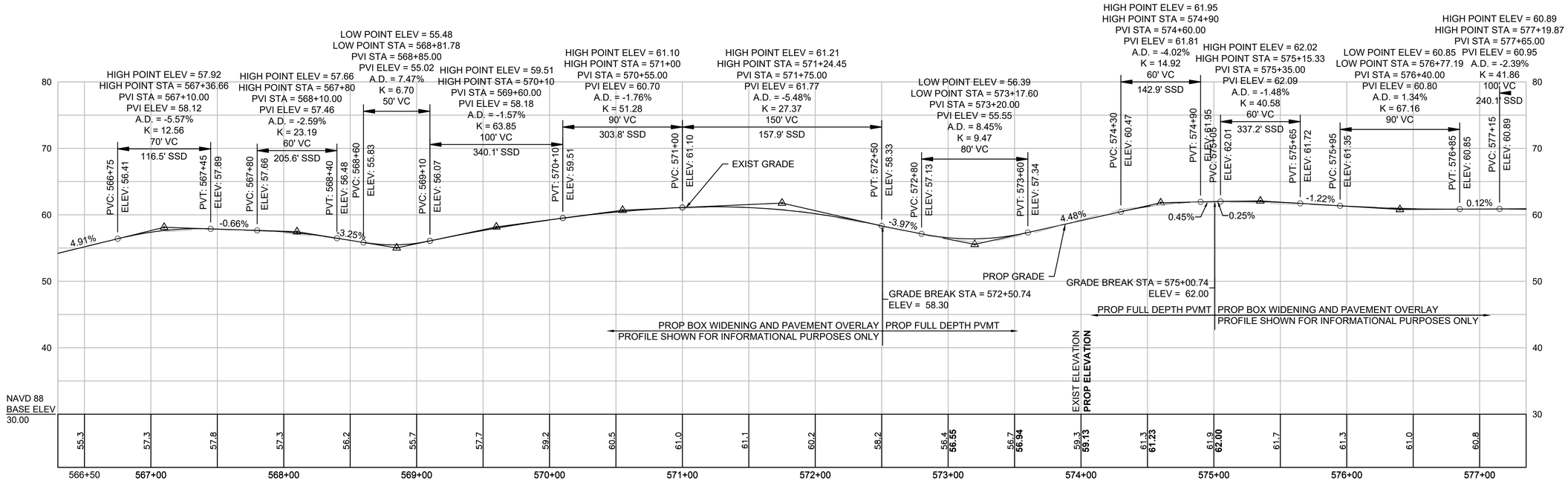
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	36	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:25 PM



CCRT PHASE 3 - EAST



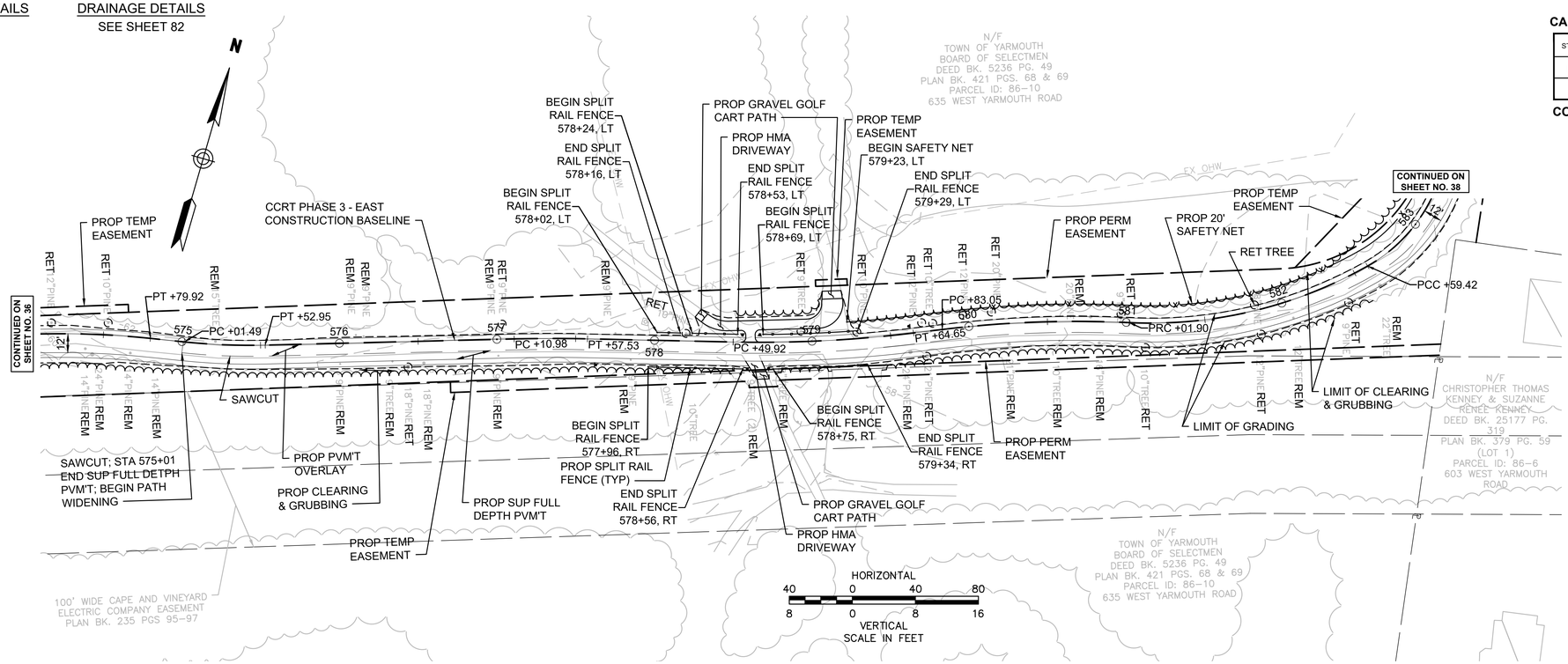
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 82

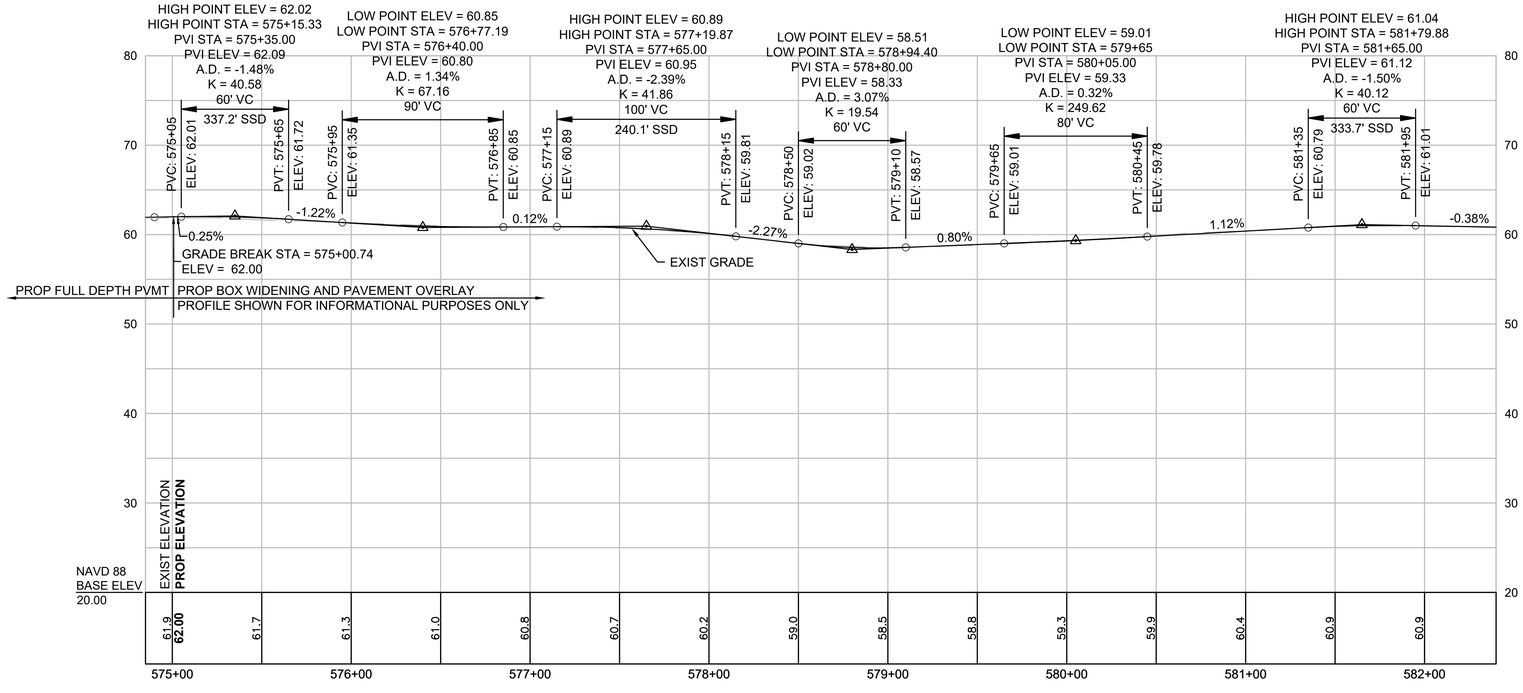
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	37	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - EAST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:26 PM

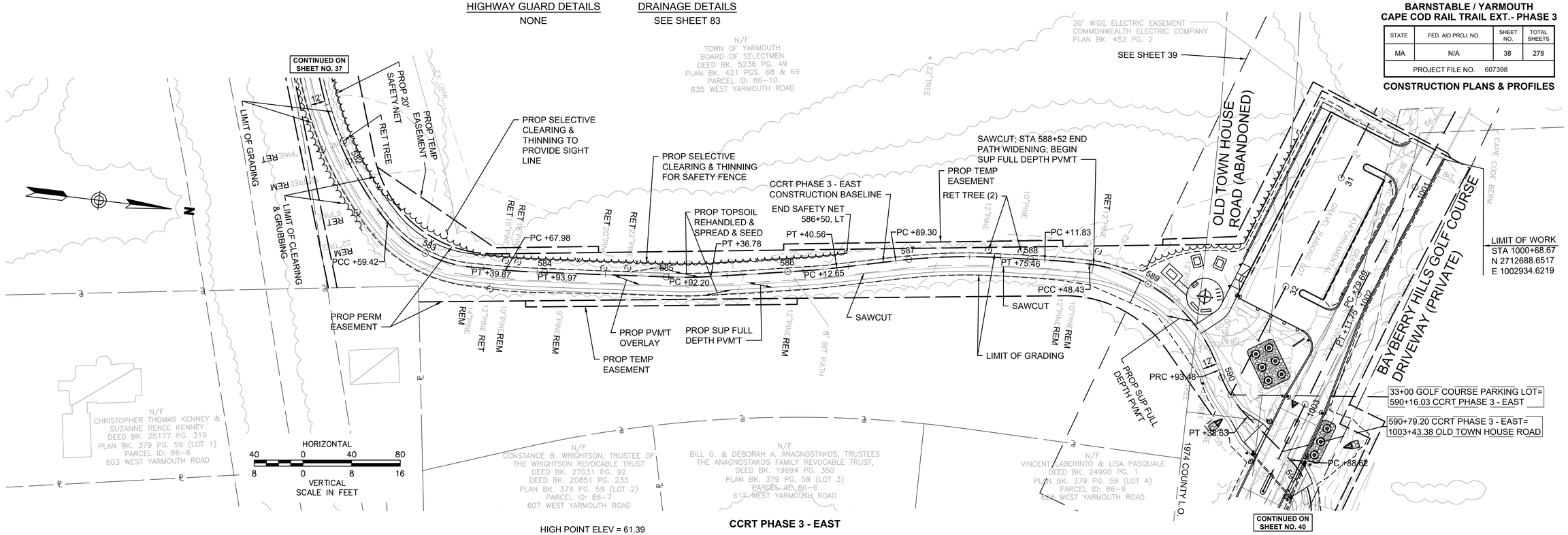
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 83

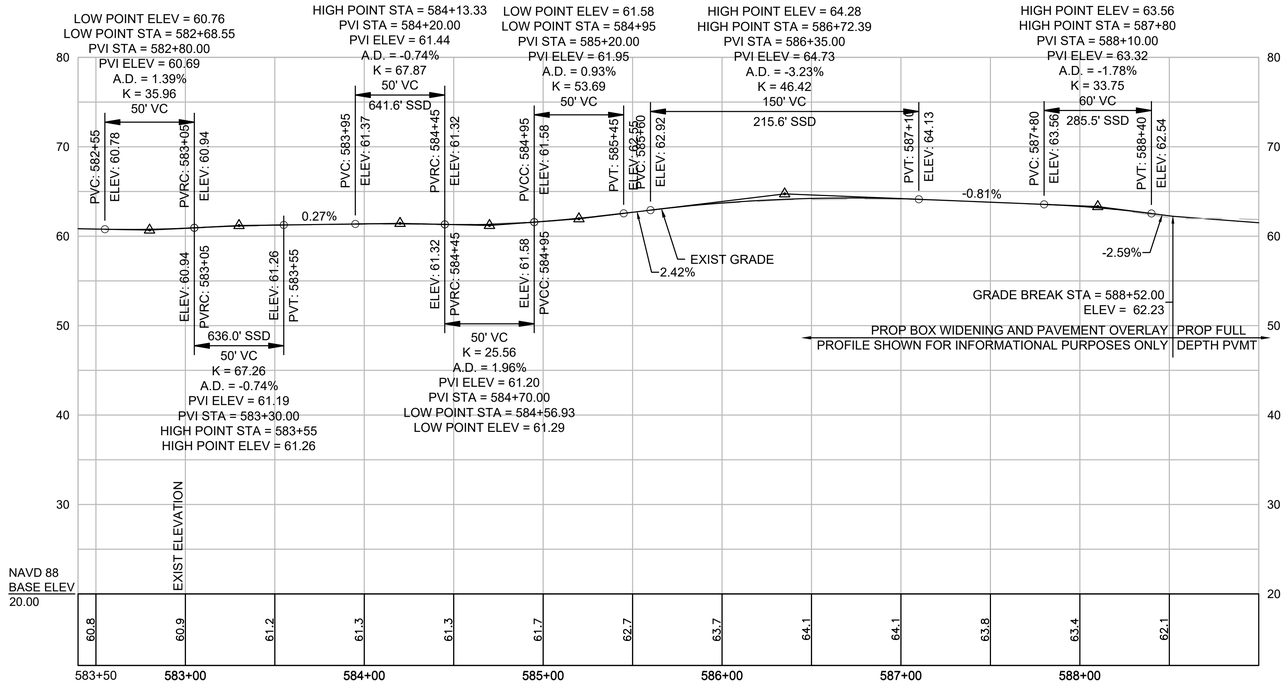
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	38	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - EAST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:27 PM

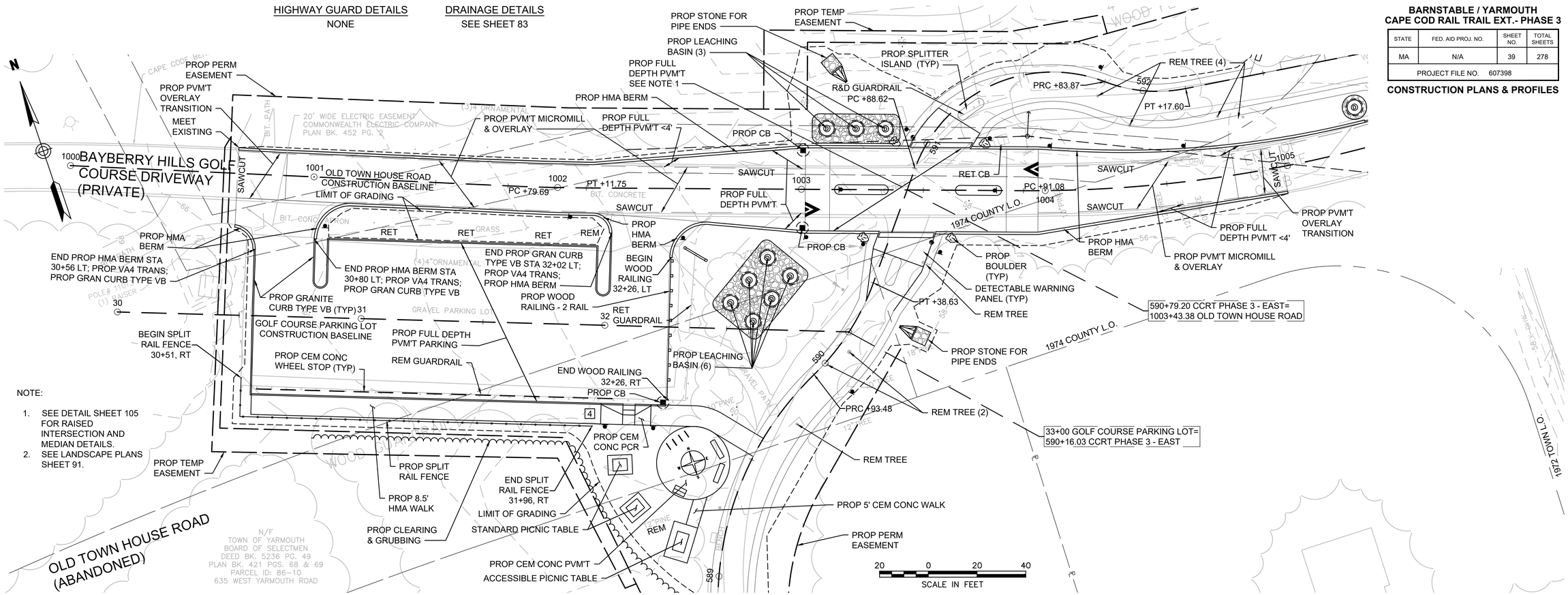
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 83

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	39	278
PROJECT FILE NO. 607398			

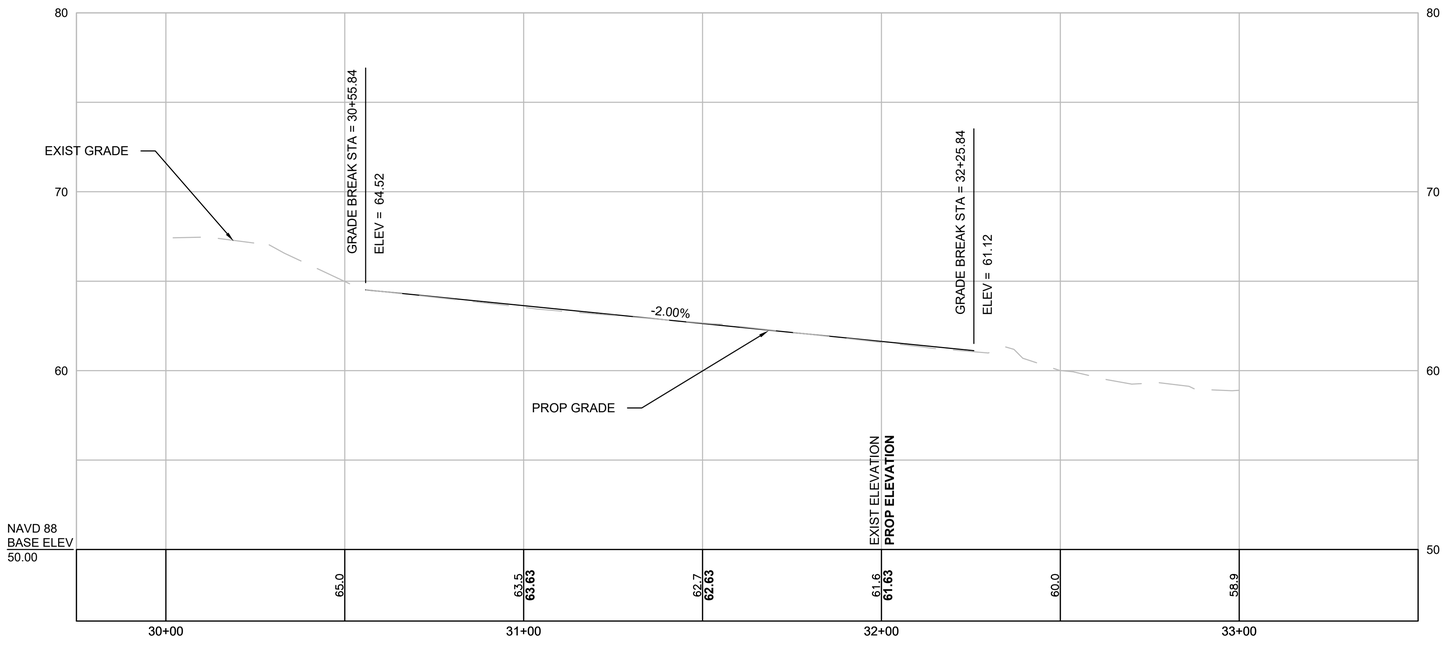
CONSTRUCTION PLANS & PROFILES



NOTE:

1. SEE DETAIL SHEET 105 FOR RAISED INTERSECTION AND MEDIAN DETAILS.
2. SEE LANDSCAPE PLANS SHEET 91.

PARKING LOT NO. 3 - OLD TOWN HOUSE ROAD



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:27 PM

HIGHWAY GUARD DETAILS
NONE

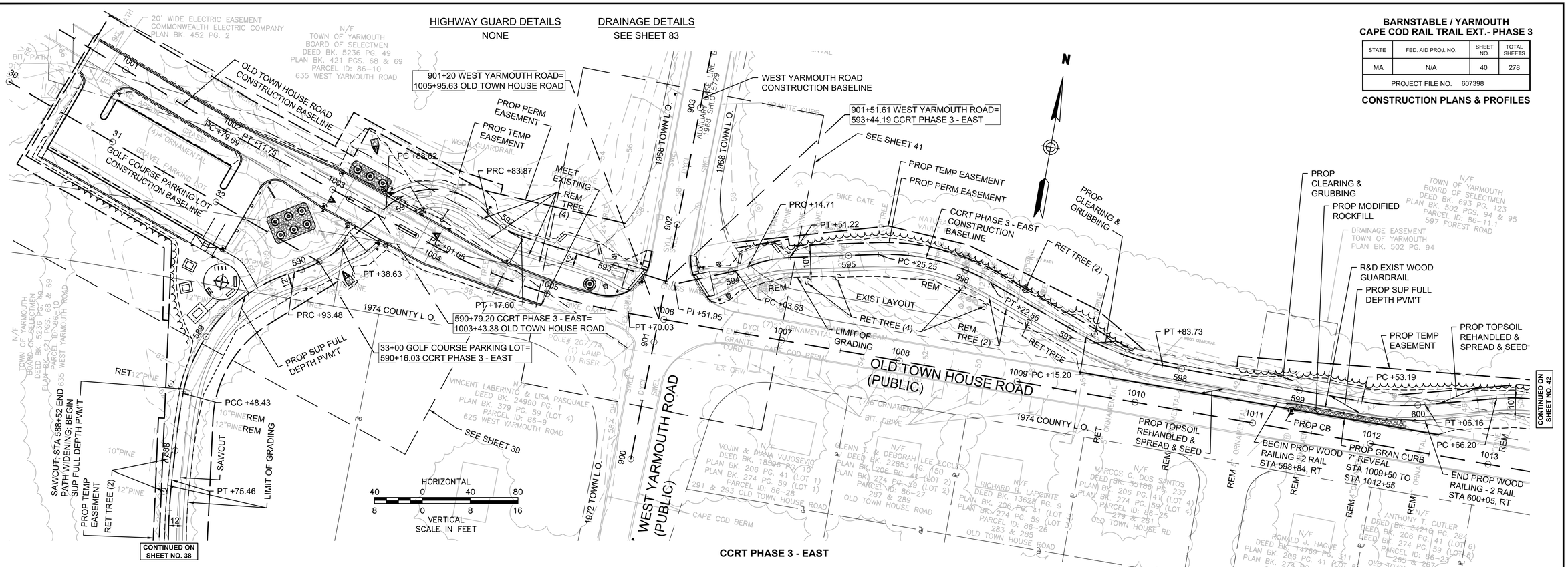
DRAINAGE DETAILS
SEE SHEET 83

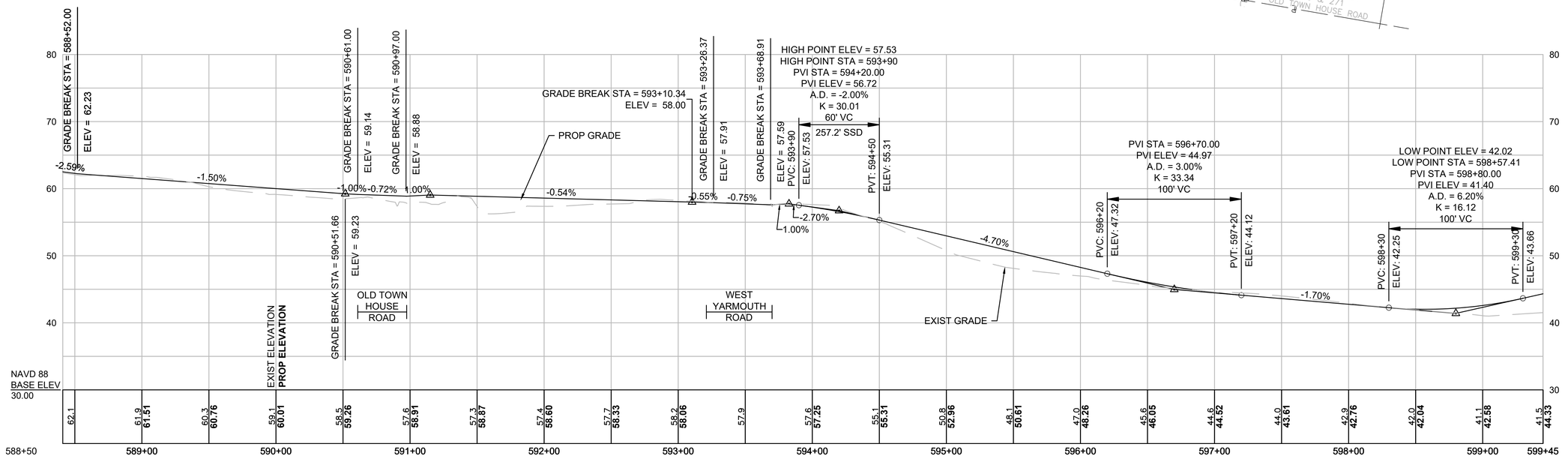
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	40	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:28 PM





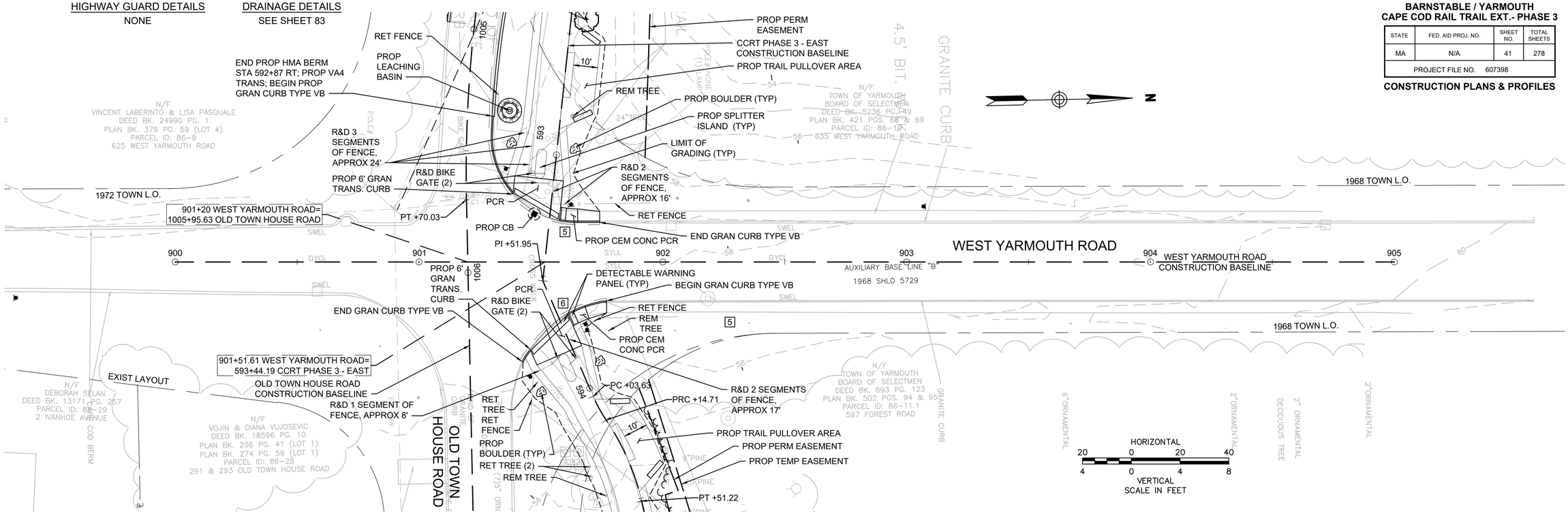
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 83

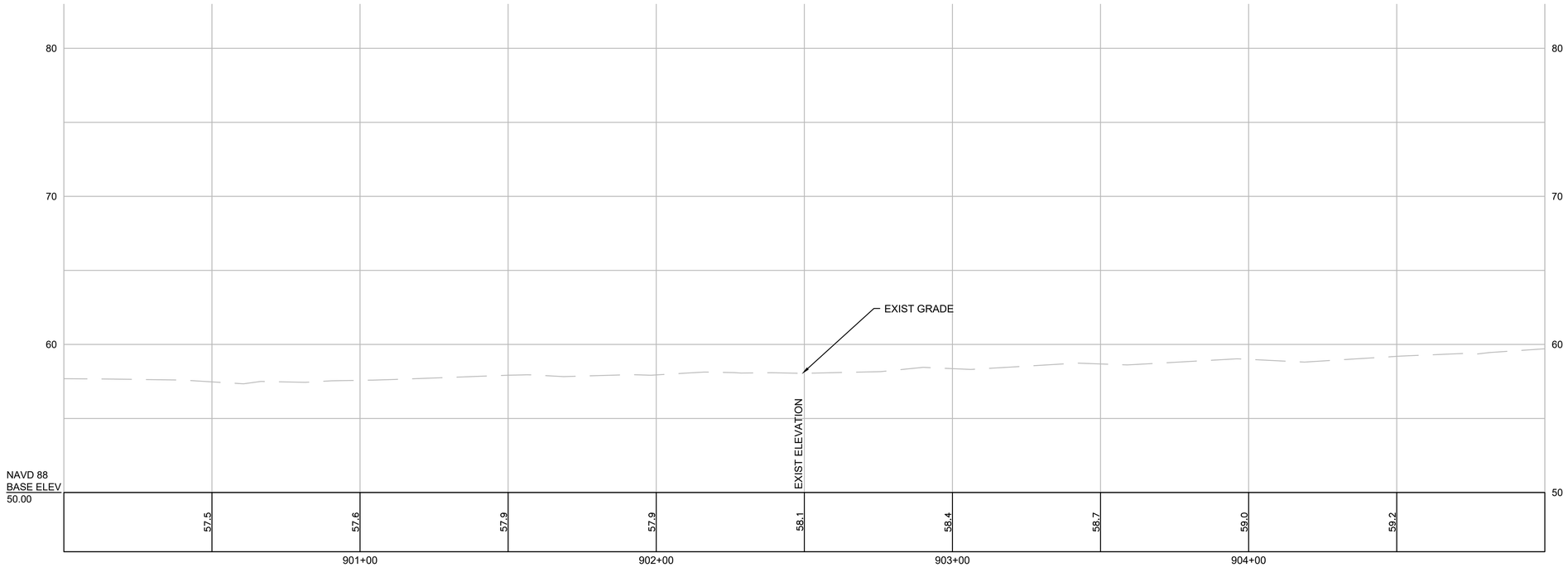
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	41	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



WEST YARMOUTH ROAD



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:29 PM

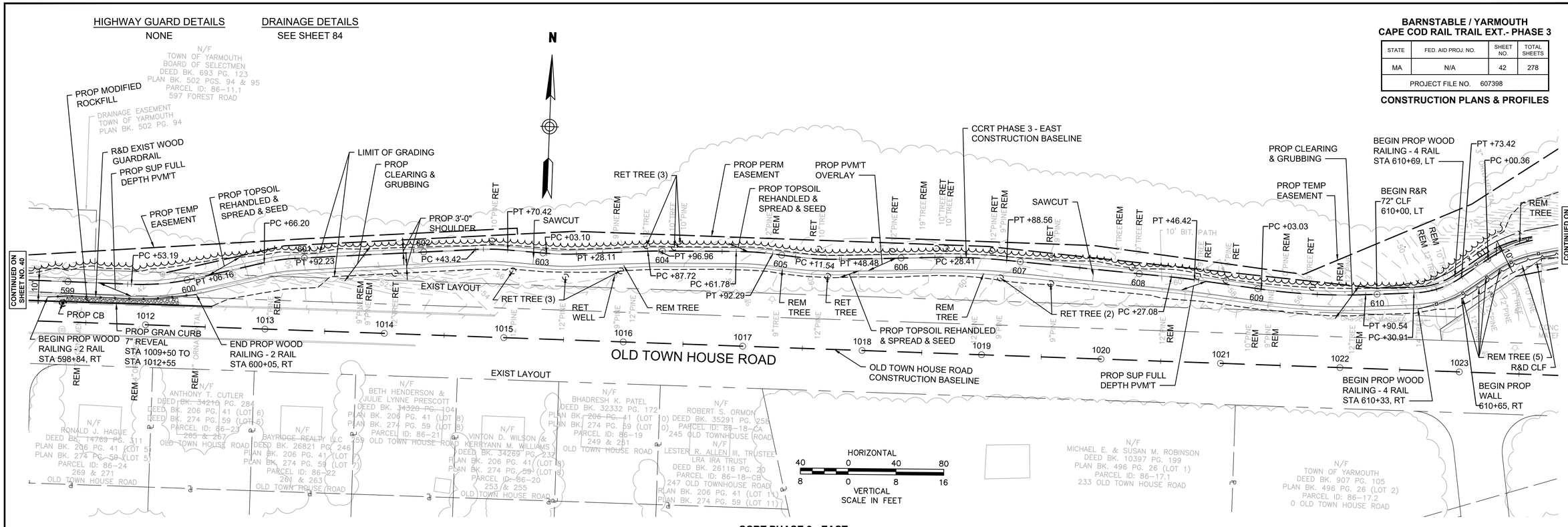
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 84

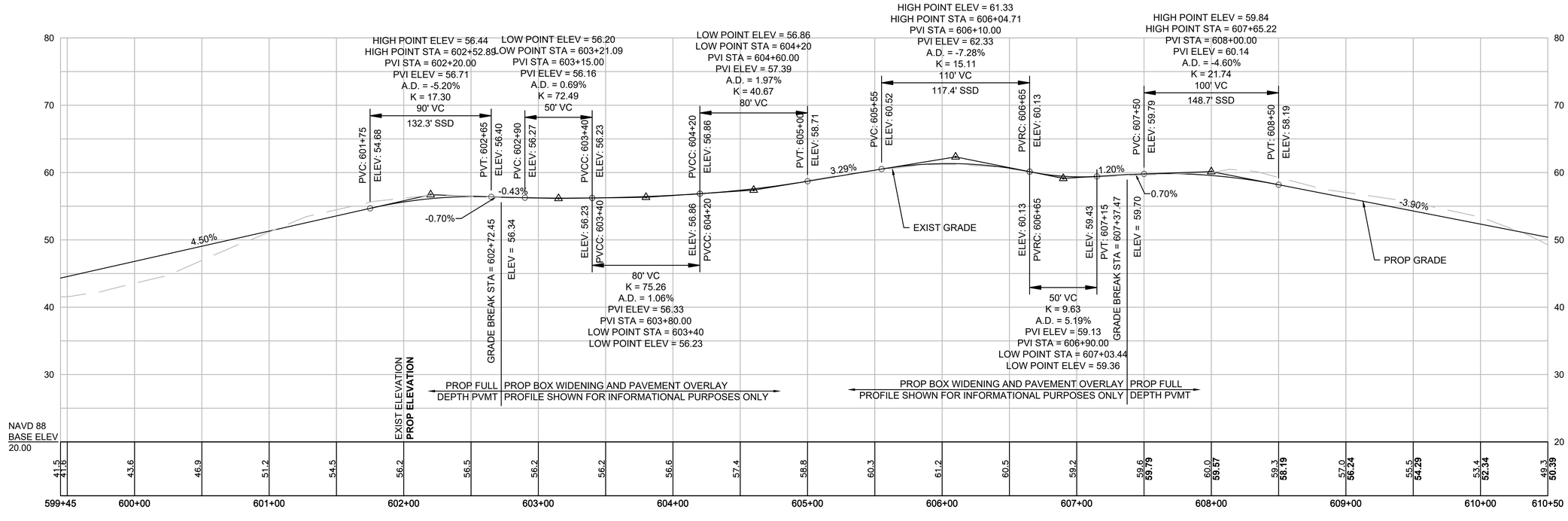
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	42	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



CCRT PHASE 3 - EAST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:29 PM

HIGHWAY GUARD DETAILS
NONE

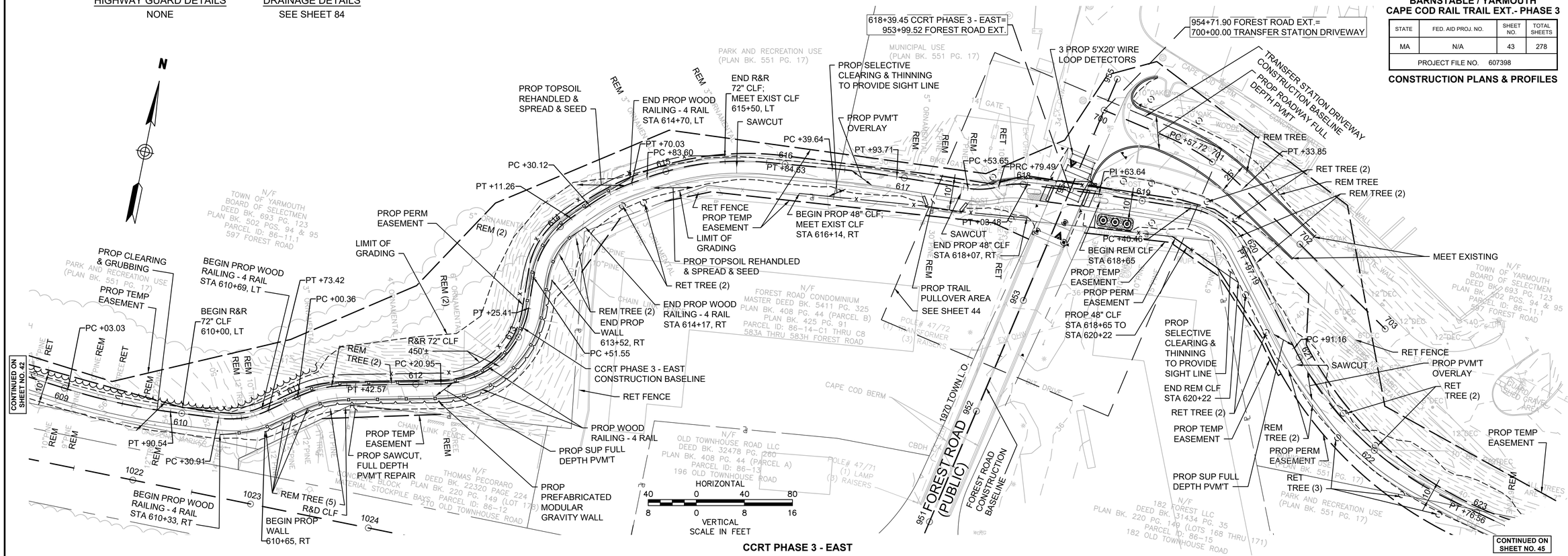
DRAINAGE DETAILS
SEE SHEET 84

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

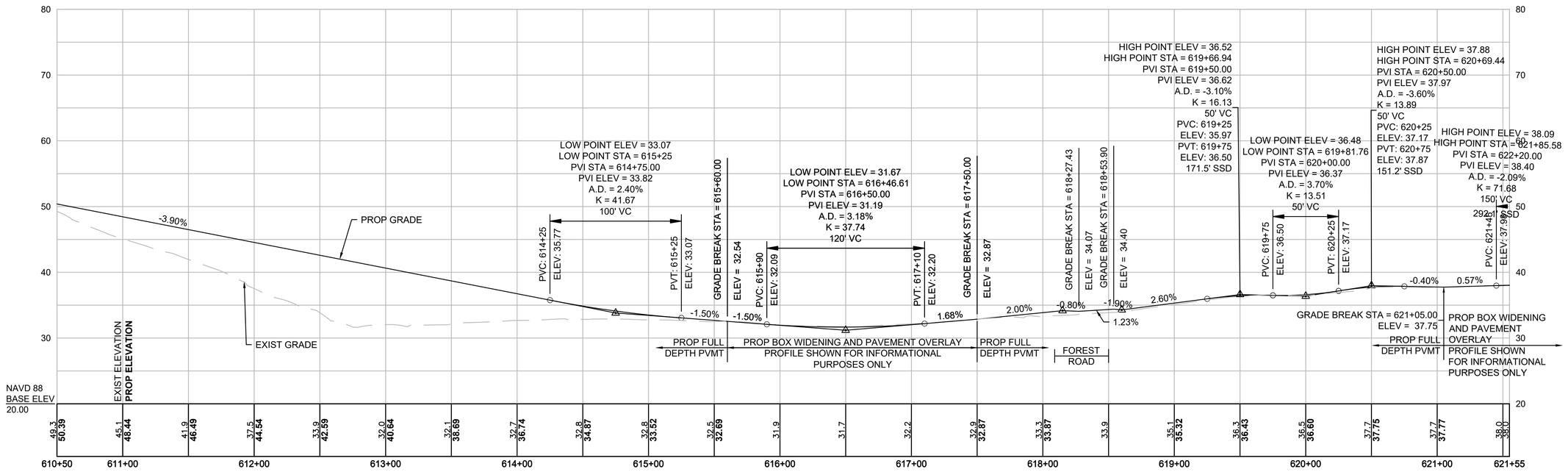
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	43	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

607398_HDGEN.DWG Plotted on 15-Feb-2024 5:30 PM



CCRT PHASE 3 - EAST



HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 84

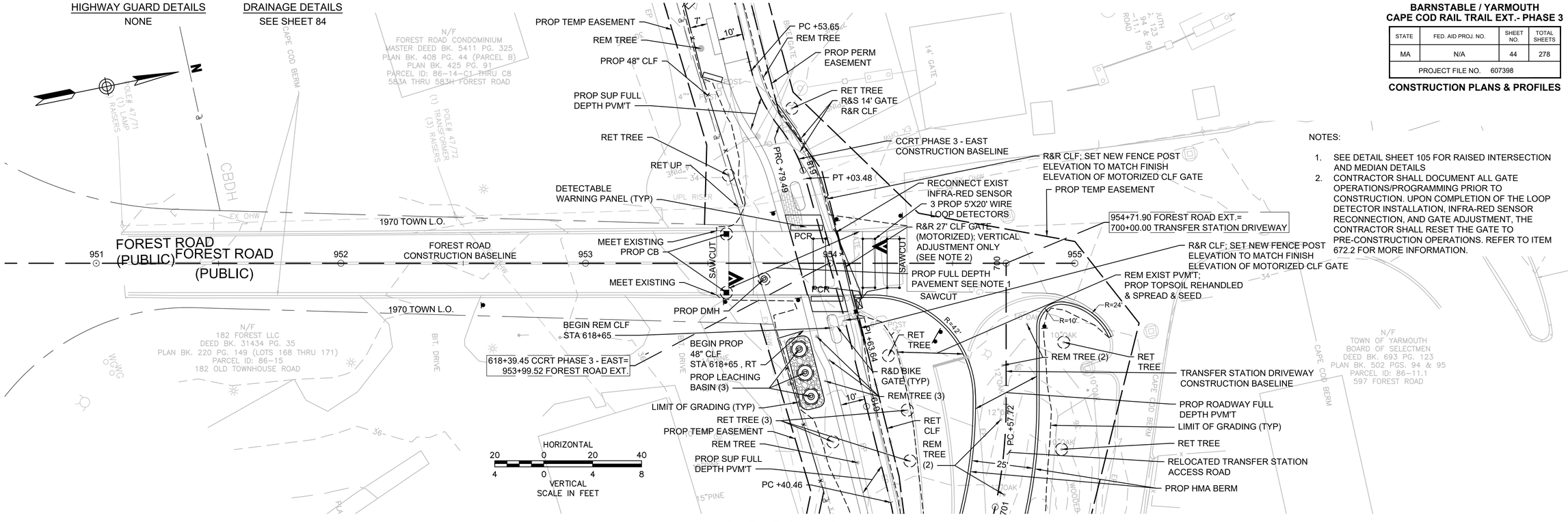
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	44	278
PROJECT FILE NO. 607398			

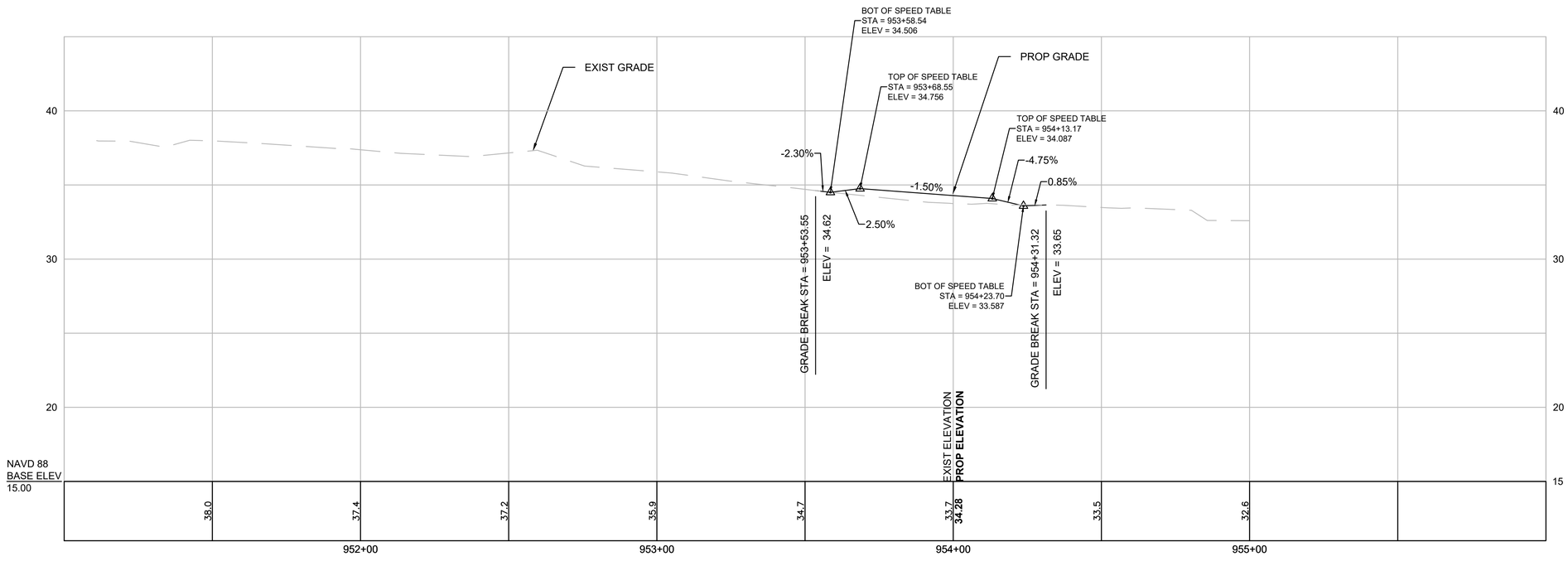
CONSTRUCTION PLANS & PROFILES

NOTES:

1. SEE DETAIL SHEET 105 FOR RAISED INTERSECTION AND MEDIAN DETAILS
2. CONTRACTOR SHALL DOCUMENT ALL GATE OPERATIONS/PROGRAMMING PRIOR TO CONSTRUCTION. UPON COMPLETION OF THE LOOP DETECTOR INSTALLATION, INFRA-RED SENSOR RECONNECTION, AND GATE ADJUSTMENT, THE CONTRACTOR SHALL RESET THE GATE TO PRE-CONSTRUCTION OPERATIONS. REFER TO ITEM 672.2 FOR MORE INFORMATION.



FOREST ROAD EXTENSION



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:31 PM

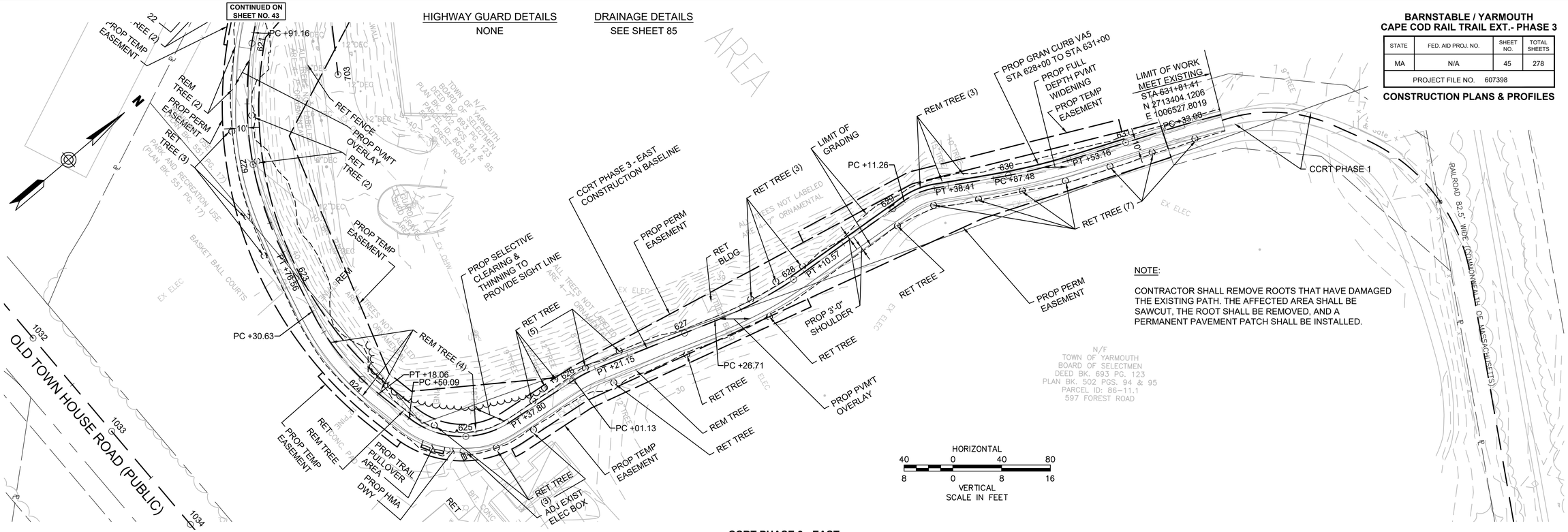
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	45	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES

HIGHWAY GUARD DETAILS
NONE

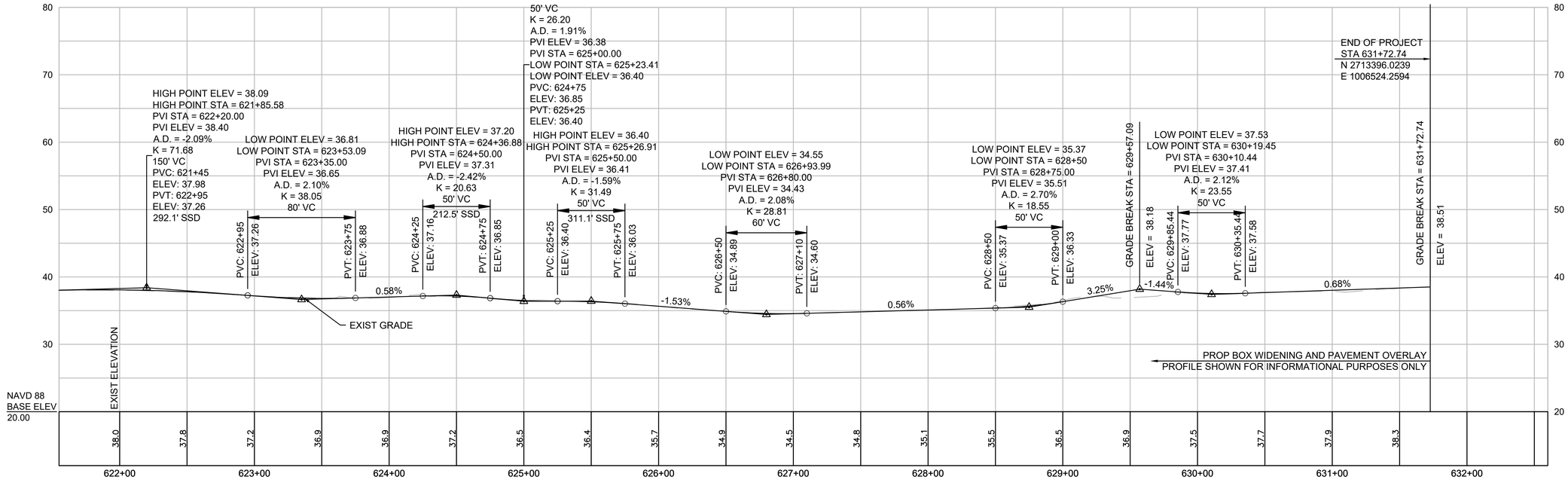
DRAINAGE DETAILS
SEE SHEET 85



NOTE:

CONTRACTOR SHALL REMOVE ROOTS THAT HAVE DAMAGED THE EXISTING PATH. THE AFFECTED AREA SHALL BE SAWCUT, THE ROOT SHALL BE REMOVED, AND A PERMANENT PAVEMENT PATCH SHALL BE INSTALLED.

CCRT PHASE 3 - EAST



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:31 PM

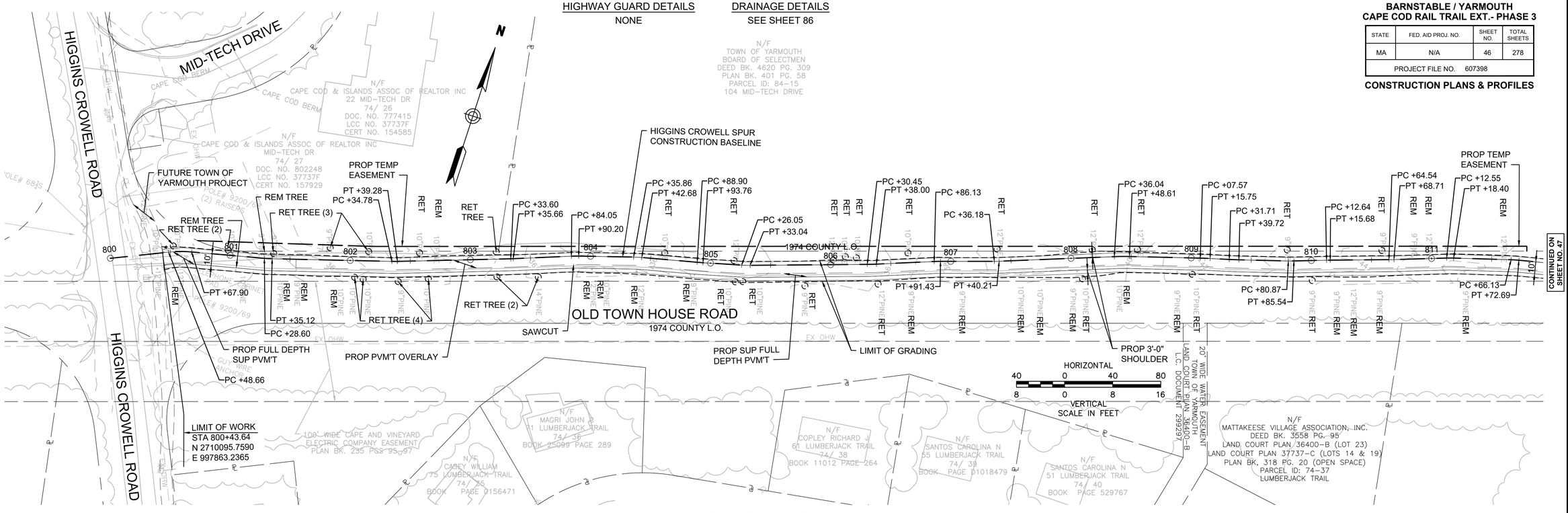
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 86

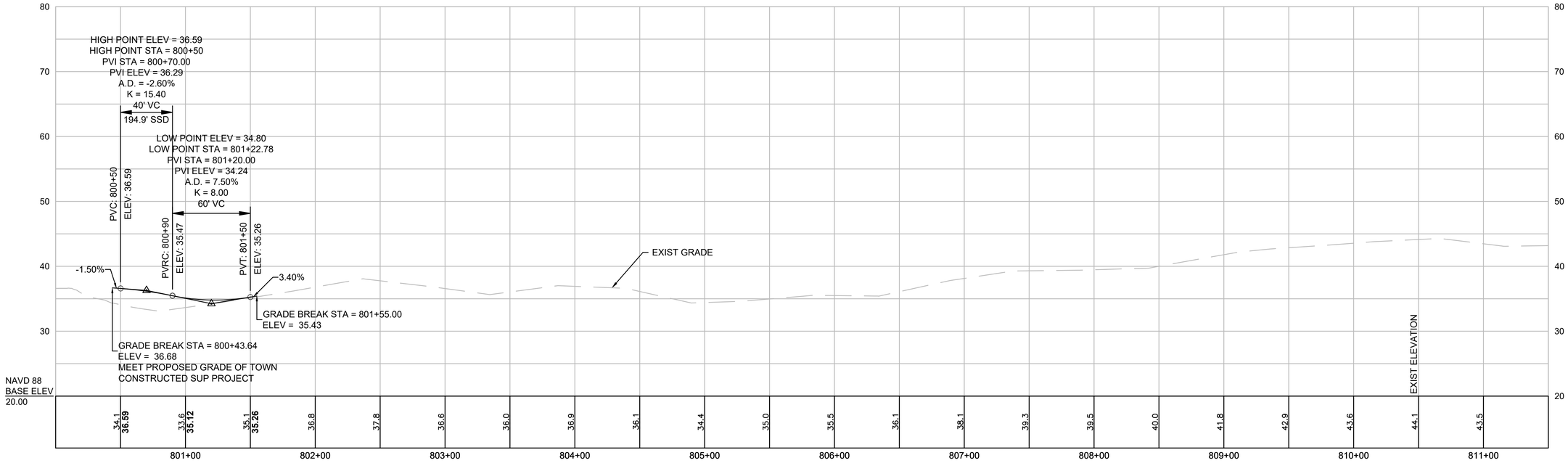
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	46	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



HIGGINS CROWELL ROAD SPUR



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:32 PM

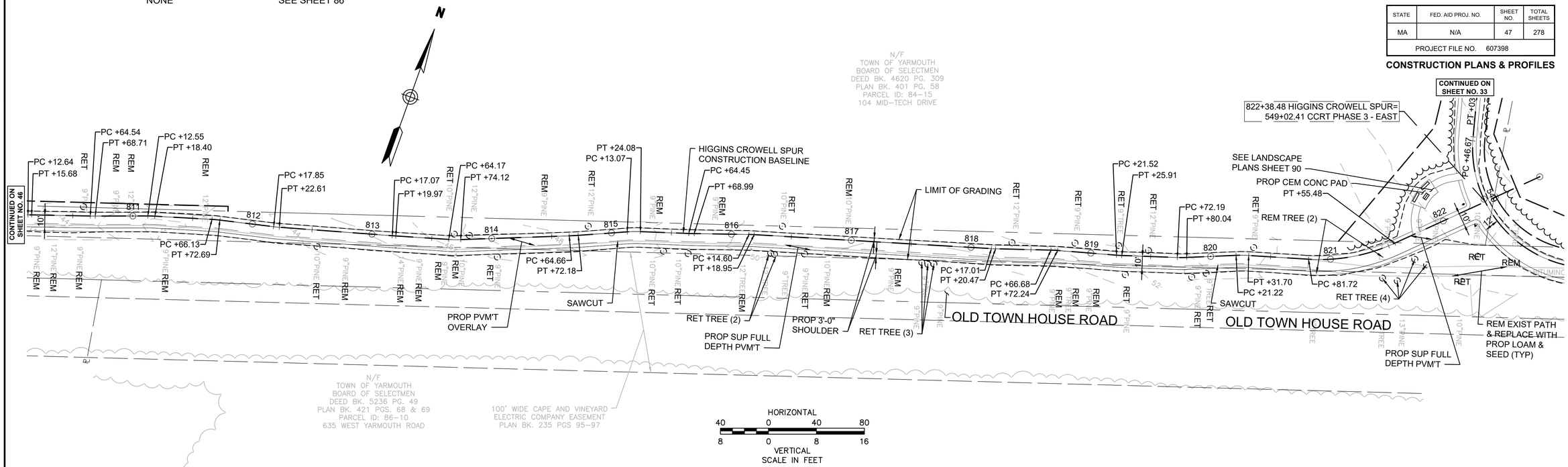
HIGHWAY GUARD DETAILS
NONE

DRAINAGE DETAILS
SEE SHEET 86

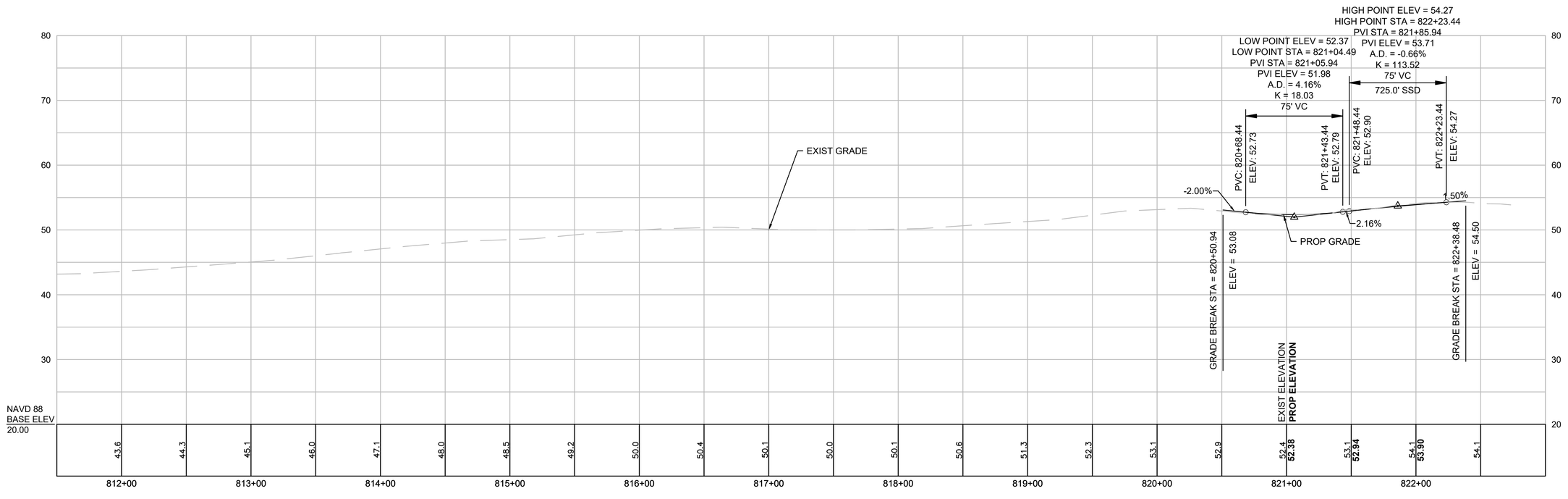
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	47	278
PROJECT FILE NO. 607398			

CONSTRUCTION PLANS & PROFILES



HIGGINS CROWELL ROADWAY SPUR



607398_HD(GEN).DWG Plotted on 15-Feb-2024 5:33 PM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	48	278
PROJECT FILE NO. 607398			

SURVEY CONTROL PLANS

607398_HD(CTG).DWG Plotted on 14-Feb-2024 1:28 PM

TRAVERSE DATA				
POINT #	ELEVATION	NORTHING	EASTING	RAW DESCRIPTION
1	41.14	2711674.4287	996981.0774	MMAG
2	42.32	2711947.3911	996839.5804	MMAG
3	42.23	2712260.0325	996543.2828	MMAG
4	52.63	2712444.4947	996223.2127	MMAG
5	61.13	2712539.3213	995939.2306	MMAG
6	55.13	2712599.6885	995646.7164	MMAG
7	48.33	2712656.1137	995412.5225	MSTN
8	73.42	2712723.6174	995338.8411	MSTN
9	49.66	2712815.1105	995193.9162	MSTN
10	59.26	2712995.9035	995110.5989	MSTN
11	61.85	2713132.1622	995133.1142	MSTN
12	73.87	2713171.3357	994988.3627	MSTN
13	73.59	2713336.1626	994826.0350	MSTN
14	71.81	2713332.6482	994653.9233	MSTN
15	78.21	2713379.0954	994483.2775	MSTN
16	89.09	2713408.8955	994303.7112	MSTN
17	80.92	2713435.0679	994093.9739	MSTN
18	76.42	2713335.2376	993898.0899	MSTN
19	101.92	2713328.2967	993667.5328	MSTN
20	99.41	2713334.2719	993507.9632	MSTN
21	95.81	2713281.1613	993365.0347	MSTN
22	113.97	2713390.6868	993121.8350	MSTN
23	127.18	2713345.0788	993004.7866	MSTN
24	116.37	2713195.8114	992943.8559	MSTN

TRAVERSE DATA				
POINT #	ELEVATION	NORTHING	EASTING	RAW DESCRIPTION
25	112.25	2713234.9679	992839.2720	MSTN
26	99.87	2713294.1891	992681.0139	MSTN
27	84.80	2713398.2497	992485.3566	MTRV
28	91.68	2713420.5862	992158.8154	MTRV
29	103.14	2713420.6150	991865.3219	MTRV
30	97.15	2713355.8542	991634.0990	MSTN
31	76.70	2713333.9621	991294.3419	MSTN
32	80.59	2713356.4950	991138.9075	MSTN
33	73.88	2713359.2545	990857.5278	MSTN
34	94.79	2713273.3141	990712.8106	MSTN
35	117.52	2713324.9568	990488.7935	MSTN
36	107.87	2713294.2185	990300.1579	MDHL
37	88.70	2713213.2331	989995.8533	MSTN
38	95.70	2713285.8390	989694.6555	MSTN
39	97.46	2713166.6066	989502.9417	MSTN
40	91.28	2713065.9121	989359.4406	MSTN
41	85.64	2712788.0594	989315.6723	MSTN
42	81.90	2712624.9170	989279.5078	MSTN
43	68.35	2712335.3029	989256.7754	MSTN
44	66.48	2712100.9710	989219.9930	MDHL
45	65.00	2711936.9001	989251.2939	MSTN
46	47.12	2711755.9518	989200.5123	MMAG
48	39.32	2711453.4124	997180.1086	MTRV MSTN

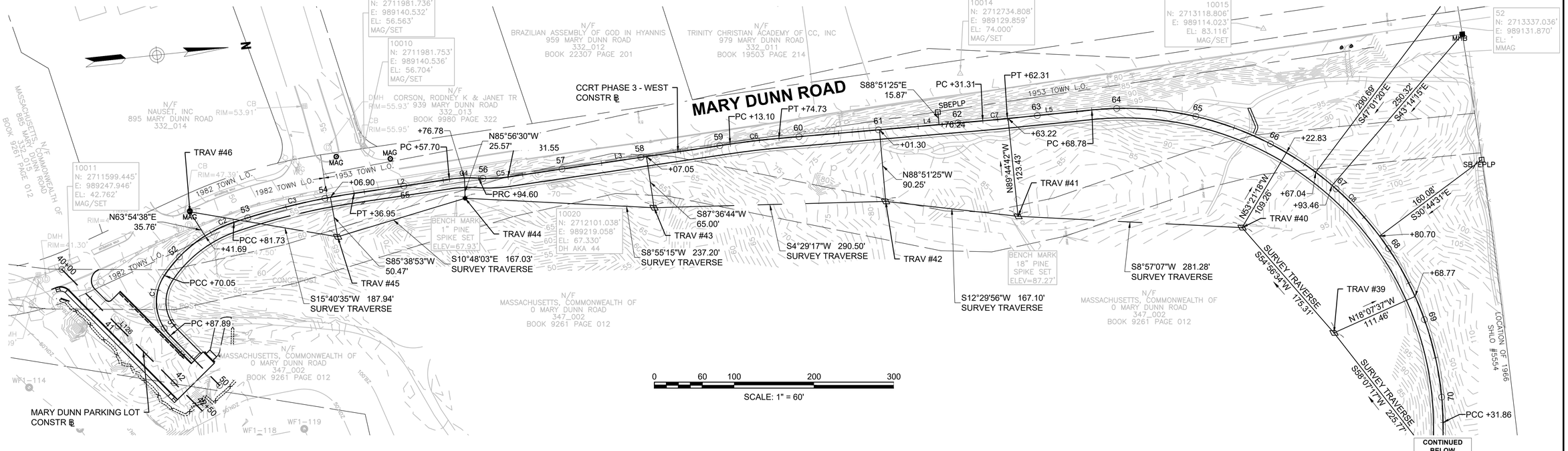
BOUND LOCATION					
ALIGNMENT	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
CCRT EXT WEST	61+76	15.9' LT	2712701.9584	989174.8979	SBEPLP
CCRT EXT WEST	66+67	290.7' LT	2713363.2358	989087.3929	CONC. BOUND/DISK
CCRT EXT WEST	66+93	250.3' LT	2713366.1535	989147.2293	MHB
CCRT EXT WEST	67+81	160.1' LT	2713373.7592	989306.4167	SB/EPLP
CCRT EXT WEST	78+56	52.0' LT	2713390.0655	990412.8241	MHB
CCRT EXT WEST	83+92	80.2' LT	2713436.1647	990910.7707	MHB
CCRT EXT WEST	101+21	42.3' LT	2713327.9178	992631.3372	MHB
CCRT EXT WEST	108+59	65.4' RT	2713320.3422	993278.7762	STONE BOUND/EPLP
CCRT EXT WEST	110+34	68.0' RT	2713321.5755	993402.7809	STONE BOUND/EPLP
CCRT EXT WEST	138+61	65.6' RT	2712532.2629	995830.1037	CONC. BOUND/DISK
WILLOW STREET	2004+75	41.44 LT	2712531.3571	995361.5739	MHB/SBEPLP
HIGGINS CROWELL PARKING LOT	201+78	30.1' RT	2711800.4422	996879.1951	CONC. BOUND
HIGGINS CROWELL PARKING LOT	201+79	29.9' LT	2711828.4133	996932.2465	CONC. BOUND #BROKEN

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	49	278
PROJECT FILE NO. 607398			

SURVEY CONTROL PLANS

607398_HDI(CTG).DWG Plotted on 15-Feb-2024 10:21 PM



BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

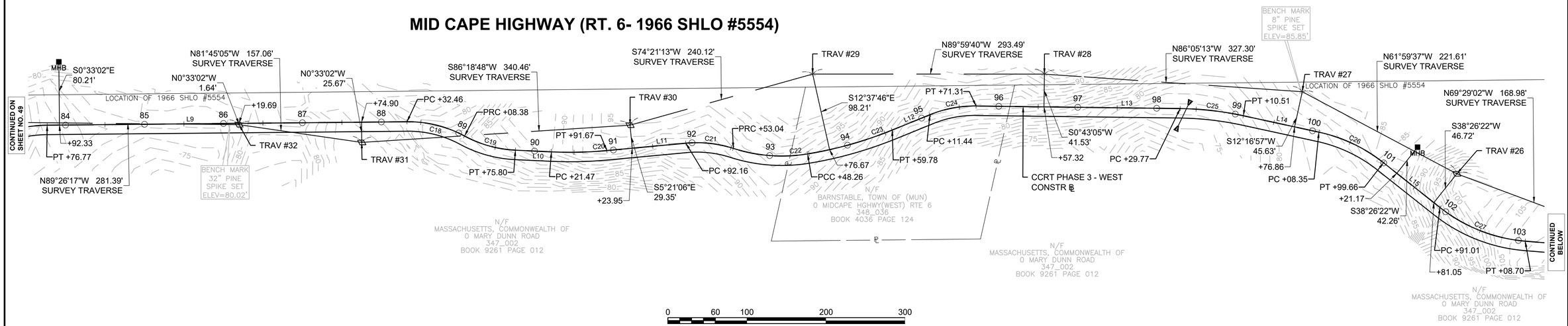
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	50	278
PROJECT FILE NO. 607398			

SURVEY CONTROL PLANS

607398_HD(CTG).DWG Plotted on 14-Feb-2024 1:29 PM

N

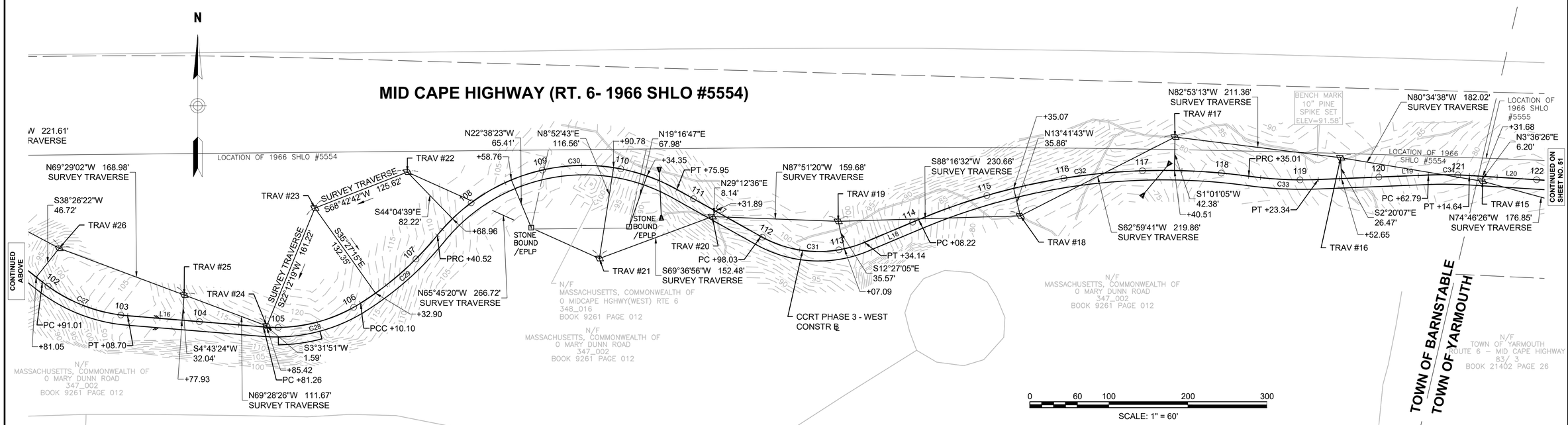
MID CAPE HIGHWAY (RT. 6- 1966 SHLO #5554)



0 60 100 200 300

SCALE: 1" = 60'

MID CAPE HIGHWAY (RT. 6- 1966 SHLO #5554)



0 60 100 200 300

SCALE: 1" = 60'

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	51	278
PROJECT FILE NO. 607398			

SURVEY CONTROL PLANS

607398_HDI(CTG).DWG Plotted on 15-Feb-2024 10:22 PM

MID CAPE HIGHWAY
(RT. 6- 1966 SHLO #5554)

TOWN OF BARNSTABLE
TOWN OF YARMOUTH

LOCATION OF 1966 SHLO #5555

CCRT PHASE 3 - WEST
CONSTR ℄

N21°51'18"E
7.76'

+81.03
TRAV #13

PC +53.64

N3°36'26"E
41.82'

+31.68

N3°36'26"E
6.20'

+04.91

N80°34'38"W 182.02'
SURVEY TRAVERSE

LOCATION OF 1966 SHLO #5554

TRAV #15

PT +14.64

PC +62.79

TRAV #16

+52.65

S2°20'07"E
26.47'

TRAV #14

N74°46'26"W 176.85'
SURVEY TRAVERSE

S88°49'49"W 172.15'
SURVEY TRAVERSE

SURVEY TRAVERSE
N44°33'44"W 231.34'

TRAV #12

+20.95

N74°51'25"W 149.96'
SURVEY TRAVERSE

N57°08'00"E
32.90'

+27.32

TRAV #11

N9°22'58"E 138.11'
SURVEY TRAVERSE

TRAV #10

S70°32'43"W
80.53'

PT +63.54

+39.85

S76°38'45"W
24.43'

PC +76.83

SURVEY TRAVERSE
N24°44'32"W 199.07'

PT +60.86

PC +21.77

+52.56

S50°13'21"W
26.88'

TRAV #9

PT +59.92

S14°02'22"W
0.88'

N47°30'20"W 99.93'
SURVEY TRAVERSE

TRAV #7

N57°44'07"W 171.39'
SURVEY TRAVERSE

+26.07

+38.21

TRAV #8

N14°02'22"E
46.73'

WILLOW STREET
CONSTR ℄

WILLOW STREET

ON-RAMP
ROUTE 6 EAST

MASSDOT RAIL RR ROW

LOCATION OF RR SIDELINE

LOCATION OF 2004 SHLO #7813

HIGGINS CROWELL ROAD
DISCONTINUED ROAD

PRC +10.46

N23°41'08"E
28.42'

+70.38

1954 COUNTY L.O.

PC +19.87

N14°02'22"E
65.58'

+61.22

WILLOW STREET SPUR
CONSTR ℄ (SEE SHEET 52)

N14°02'22"E
44.66'

+66.96

LOCATION OF 1955 SHLO #4069

1953 TOWN L.O.

PRC +99.86

PC +76.13

PRC +42.78

TRAV #5

N78°20'22"W 298.68'
SURVEY TRAVERSE

LOCATION OF 1955 SHLO #4256

CONC. BOUND / DISK

LOCATION OF 1953 SHLO #4069

PT +31.89

TRAV #6

N76°27'13"W 240.90'
SURVEY TRAVERSE

HIGGINS CROWELL ROAD
UTILITY ACCESS CONSTR ℄
(SEE SHEET 52)

10032
N: 2712598.842'
E: 995647.039'
EL: 55.474'
MAG/FND GPS

10033
N: 2712538.659'
E: 995939.565'
EL: 61.555'
MAG/FND GPS

10048
N: 2712462.405'
E: 995954.573'
EL: 64.139'
SPK/SET

CONTINUED ON SHEET NO. 50

CONTINUED BELOW

N/F
TOWN OF YARMOUTH
ROUTE 6 – MID CAPE HIGHWAY
93/ 3
BOOK 21402 PAGE 26

N/F
TOWN OF YARMOUTH
ROUTE 6 – MID CAPE HIGHWAY
93/ 1.1
BOOK 21729 PAGE 284

N/F
KEYES, CHRISTOPHER R
ROUTE 6 – MID CAPE HIGHWAY
93/ 1.1
BOOK 21729 PAGE 284

N/F
TOWN OF YARMOUTH
ROUTE 6 – MID CAPE HIGHWAY
93/ 3
BOOK 4732 PAGE 66

N/F
TOWN OF YARMOUTH
WILLOW ST
83/ 6
BOOK 13032 PAGE 151

N/F
TOWN OF YARMOUTH
WILLOW ST
83/ 6
BOOK 13032 PAGE 151

N/F
TOWN OF YARMOUTH
ROUTE 6 – MID CAPE HIGHWAY
BOOK 10388 PAGE 227

N/F
COMMONWEALTH OF MASS
MASSACHUSETTS
DEPARTMENT OF TRANSPORTATION
OF THE TOWN OF YARMOUTH
AND THE TOWN OF BARNSTABLE
EXECUTIVE HIGHWAY NO. 3499

BENCH MARK
8" PINE
SPIKE SET
ELEV=74.48'

BENCH MARK
6" PINE
SPIKE SET
ELEV=58.21'

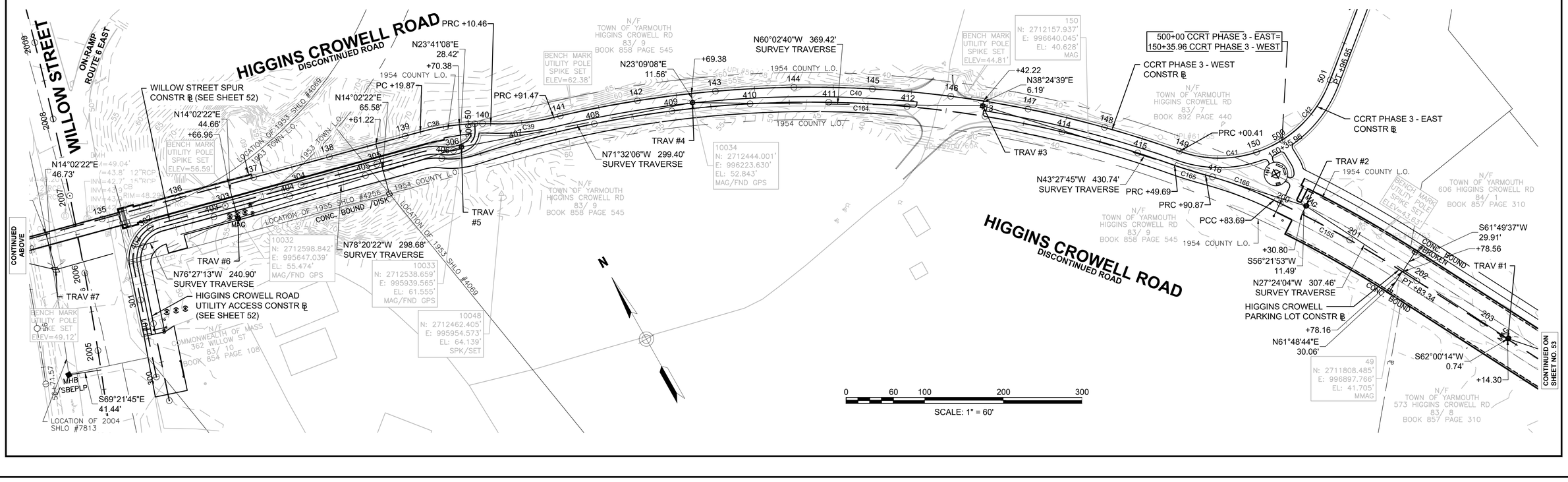
BENCH MARK
10" PINE
SPIKE SET
ELEV=51.46'

BENCH MARK
UTILITY POLE
SPIKE SET
ELEV=56.59'

BENCH MARK
UTILITY POLE
SPIKE SET
ELEV=49.12'

DMH
=49.04'
=43.8' 12"RCP
INV=42.7' 15"RCP
INV=43.3 CB
INV=43.4
RIM=48.29

0 60 100 200 300
SCALE: 1" = 60'

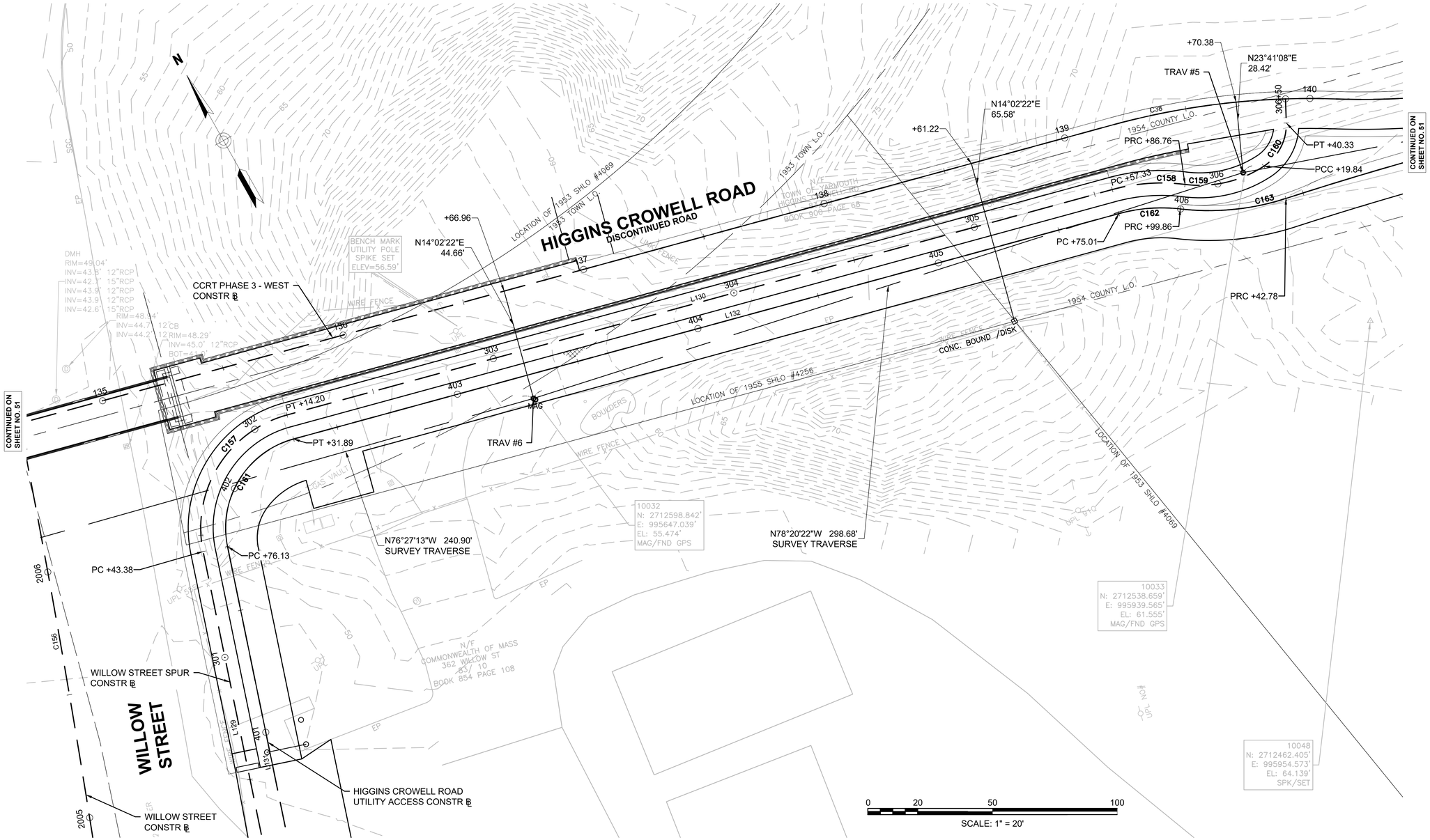


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	52	278
PROJECT FILE NO. 607398			

SURVEY CONTROL PLANS

607398_HD(CTG).DWG Plotted on 15-Feb-2024 10:23 PM

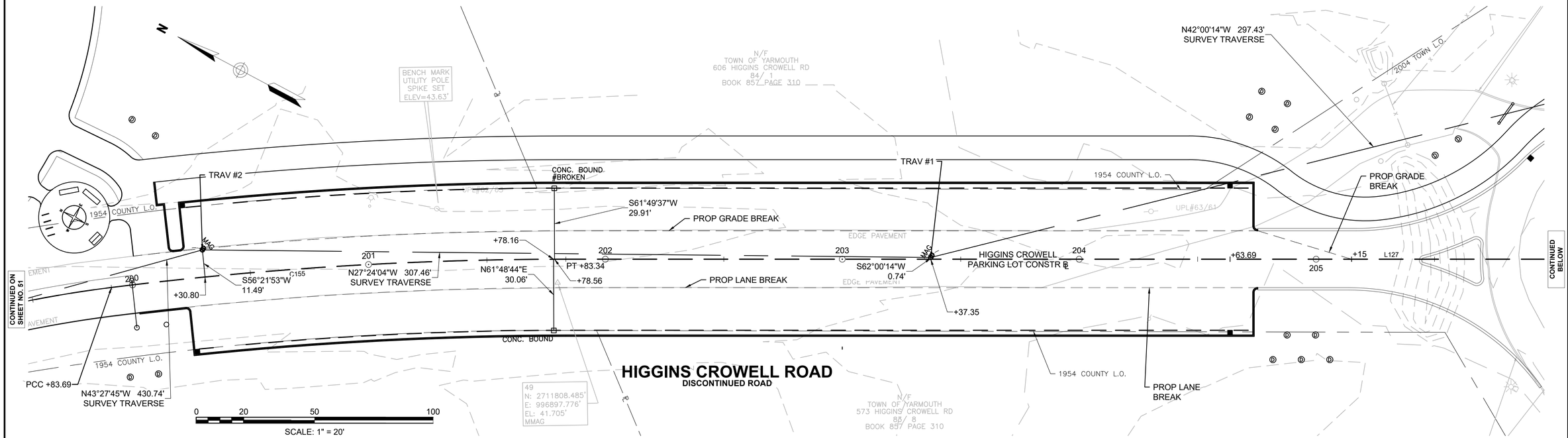


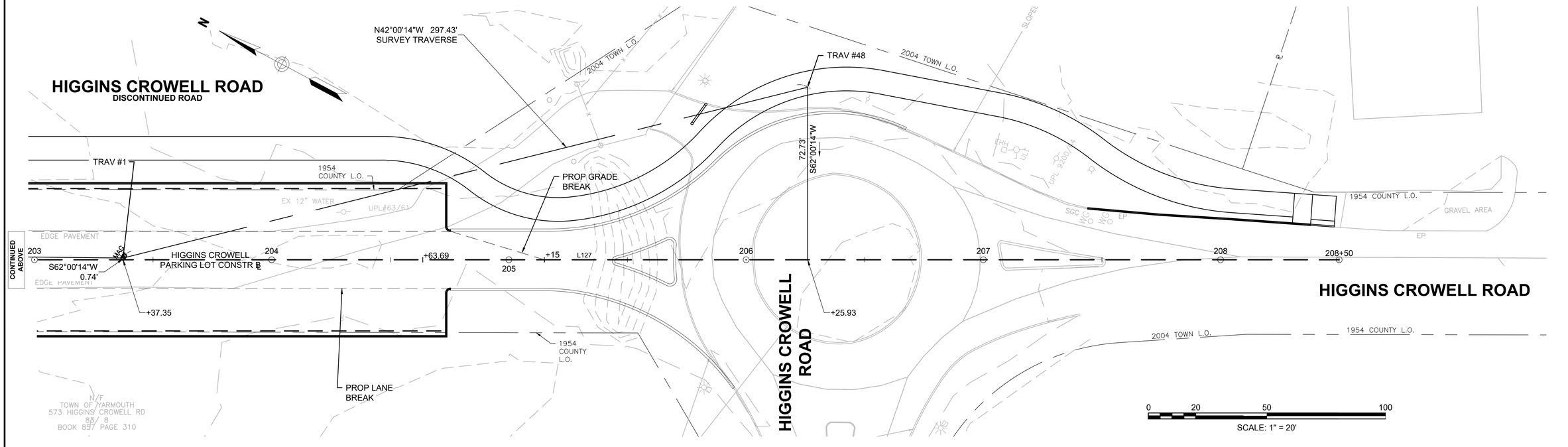
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	53	278
PROJECT FILE NO. 607398			

SURVEY CONTROL PLANS

607398_HD(CTG).DWG Plotted on 15-Feb-2024 10:23 PM



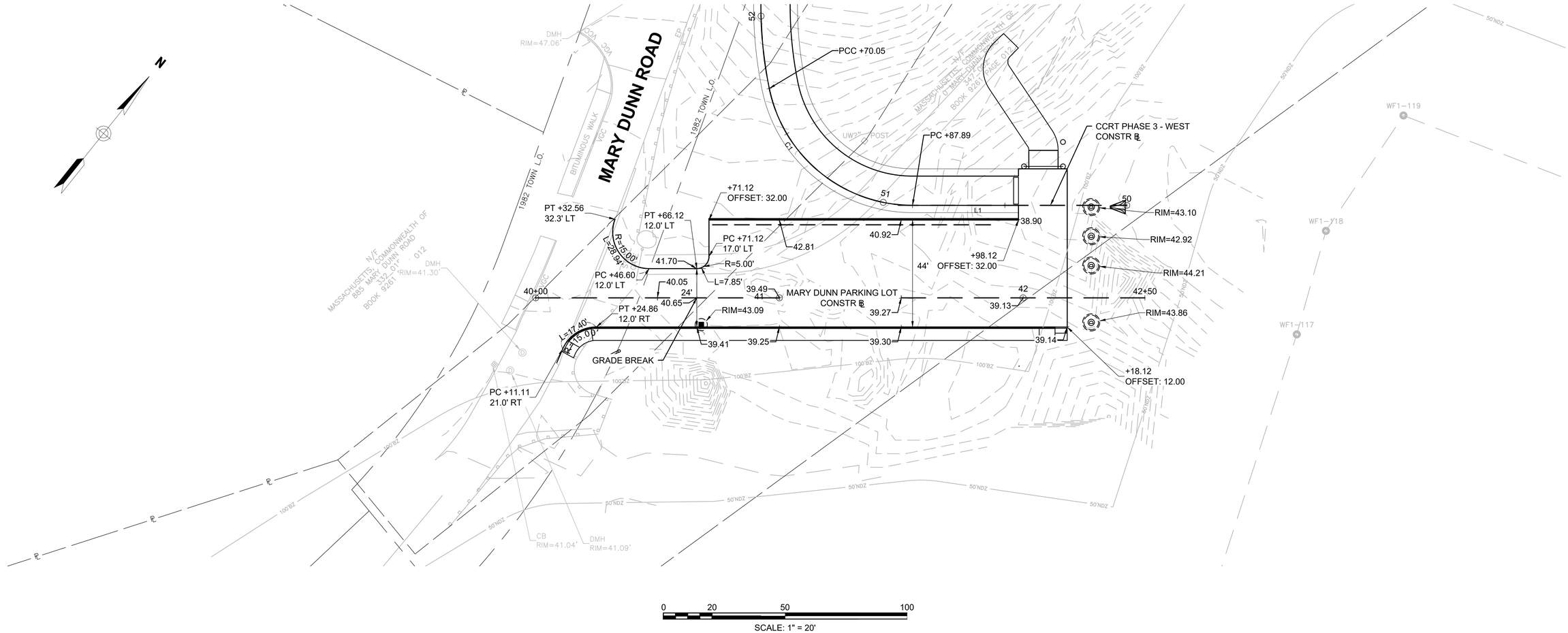


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	54	278
PROJECT FILE NO. 607398			

CURB TIE & GRADING PLANS

607398_HD(CTG).DWG Plotted on 15-Feb-2024 10:24 PM



0 20 50 100

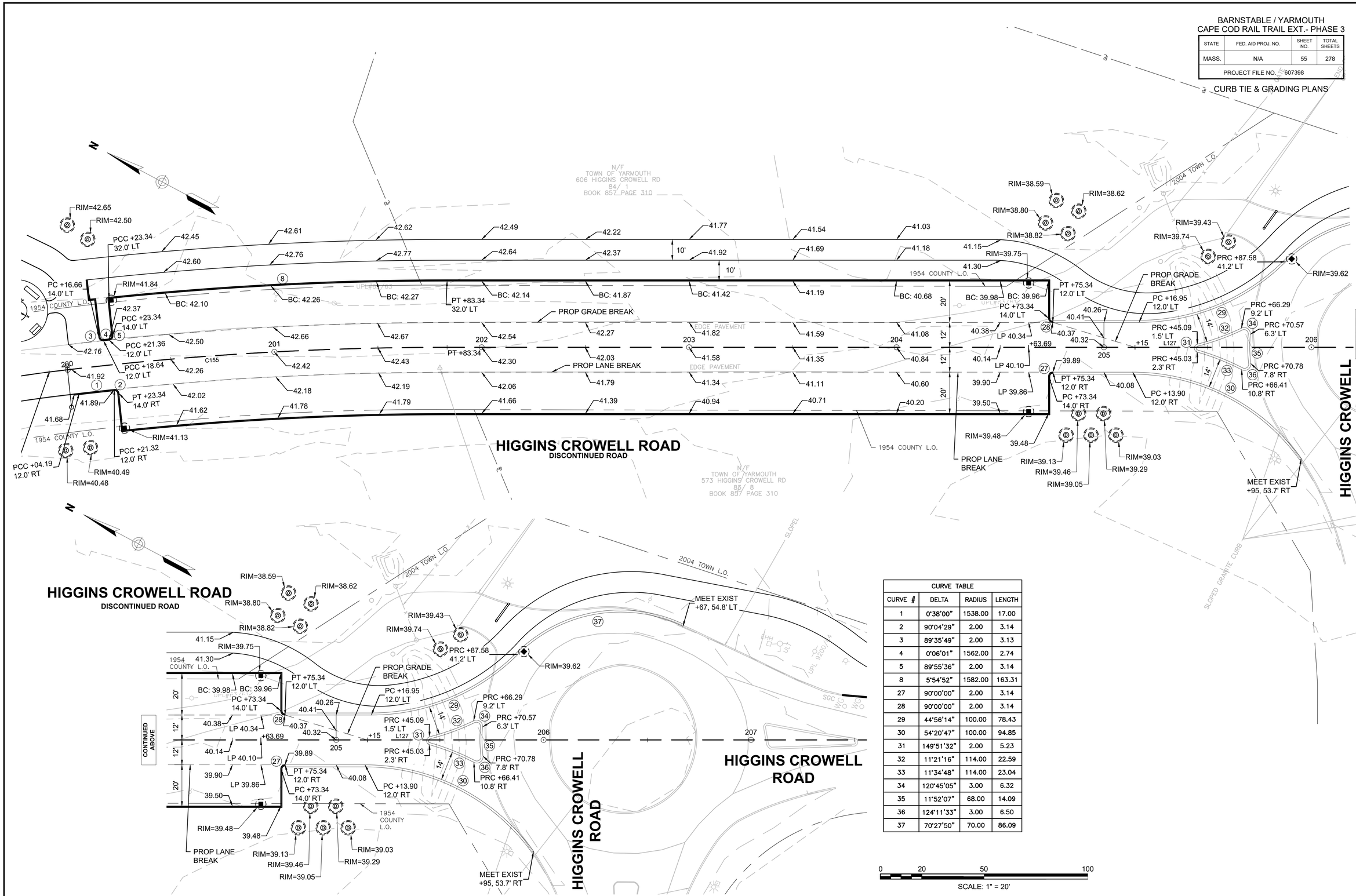
SCALE: 1" = 20'

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	55	278
PROJECT FILE NO. 607398			

CURB TIE & GRADING PLANS

607398_HD(CTG).DWG Plotted on 14-Feb-2024 1:34 PM



CURVE TABLE			
CURVE #	DELTA	RADIUS	LENGTH
1	0°38'00"	1538.00	17.00
2	90°04'29"	2.00	3.14
3	89°35'49"	2.00	3.13
4	0°06'01"	1562.00	2.74
5	89°55'36"	2.00	3.14
8	5°54'52"	1582.00	163.31
27	90°00'00"	2.00	3.14
28	90°00'00"	2.00	3.14
29	44°56'14"	100.00	78.43
30	54°20'47"	100.00	94.85
31	149°51'32"	2.00	5.23
32	11°21'16"	114.00	22.59
33	11°34'48"	114.00	23.04
34	120°45'05"	3.00	6.32
35	11°52'07"	68.00	14.09
36	124°11'33"	3.00	6.50
37	70°27'50"	70.00	86.09

0 20 50 100

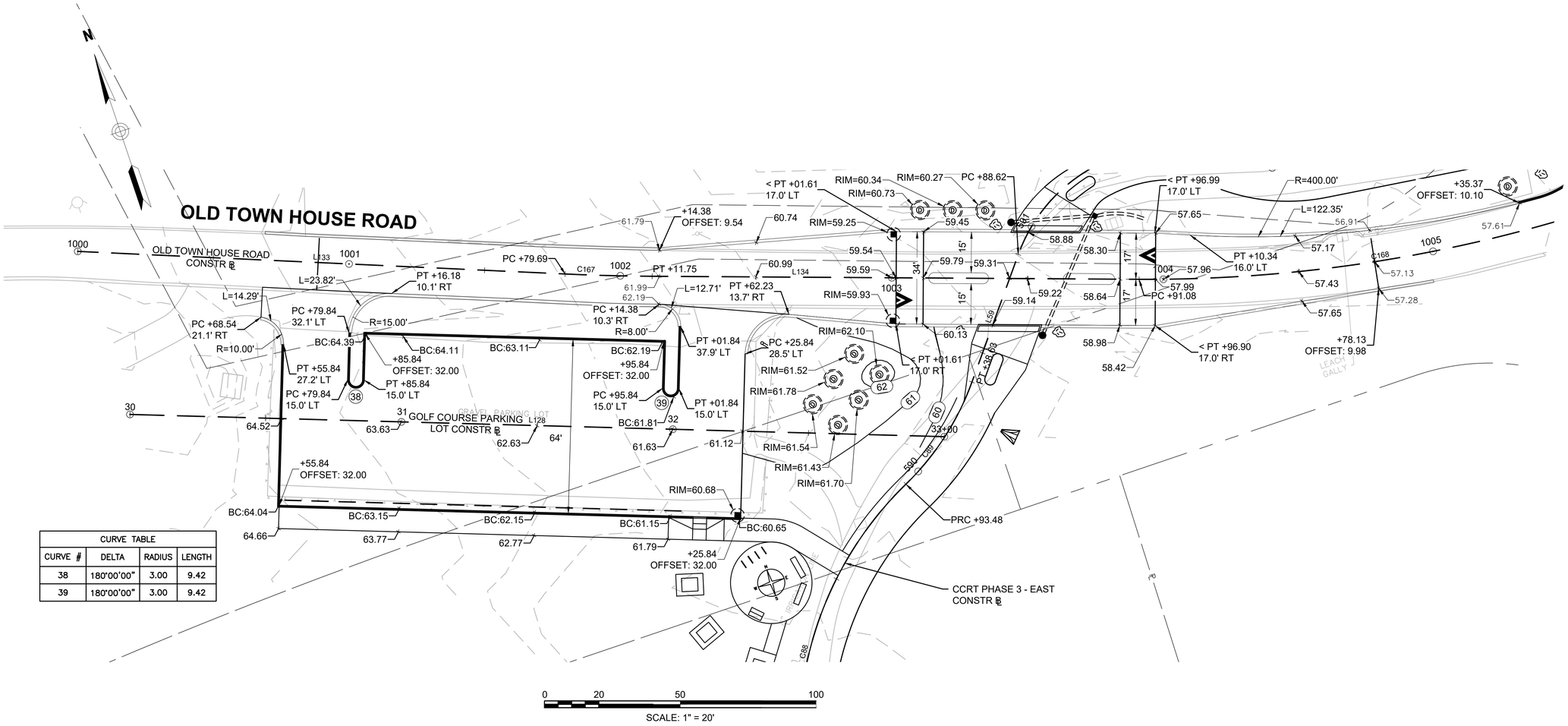
SCALE: 1" = 20'

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	56	278
PROJECT FILE NO. 607398			

CURB TIE & GRADING PLANS

607398_HDI(CTG).DWG Plotted on 14-Feb-2024 1:34 PM



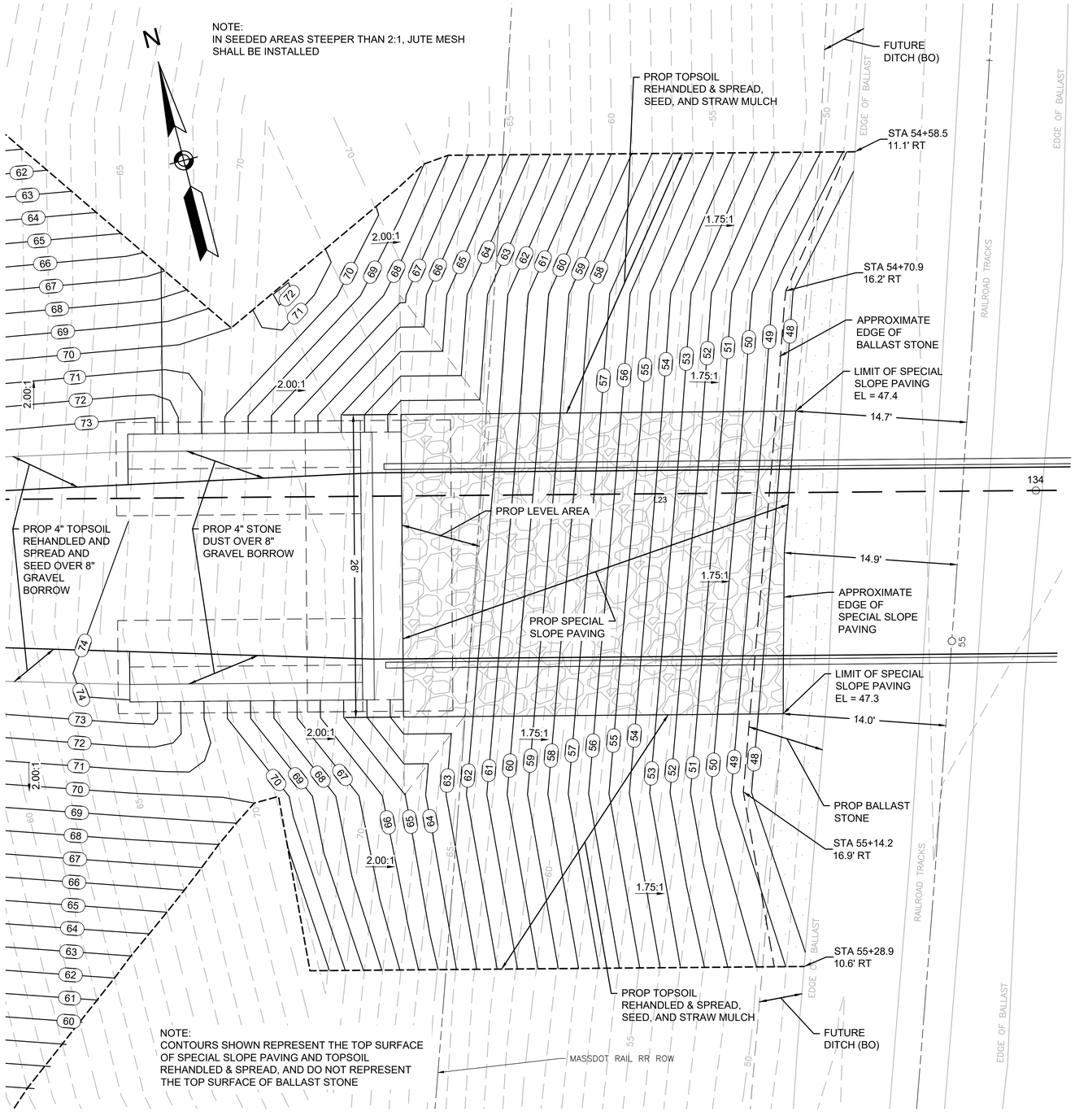
CURVE TABLE			
CURVE #	DELTA	RADIUS	LENGTH
38	180°00'00"	3.00	9.42
39	180°00'00"	3.00	9.42

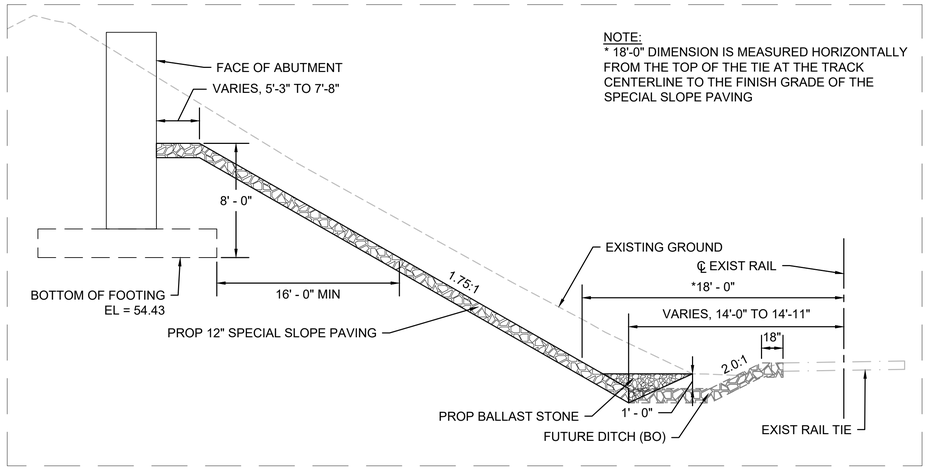
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	N/A	57	278
PROJECT FILE NO. 607398			

CURB TIE & GRADING PLANS

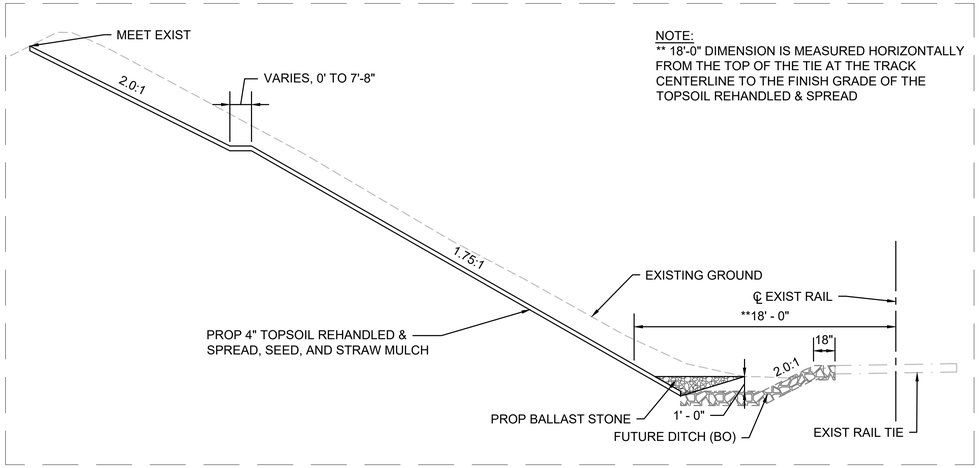
607398_HD(CTG).DWG Plotted on 20-Feb-2024 1:11 PM





TYPICAL SECTION - SPECIAL SLOPE PAVING

NTS



TYPICAL SECTION - ORDINARY BORROW AND SEED

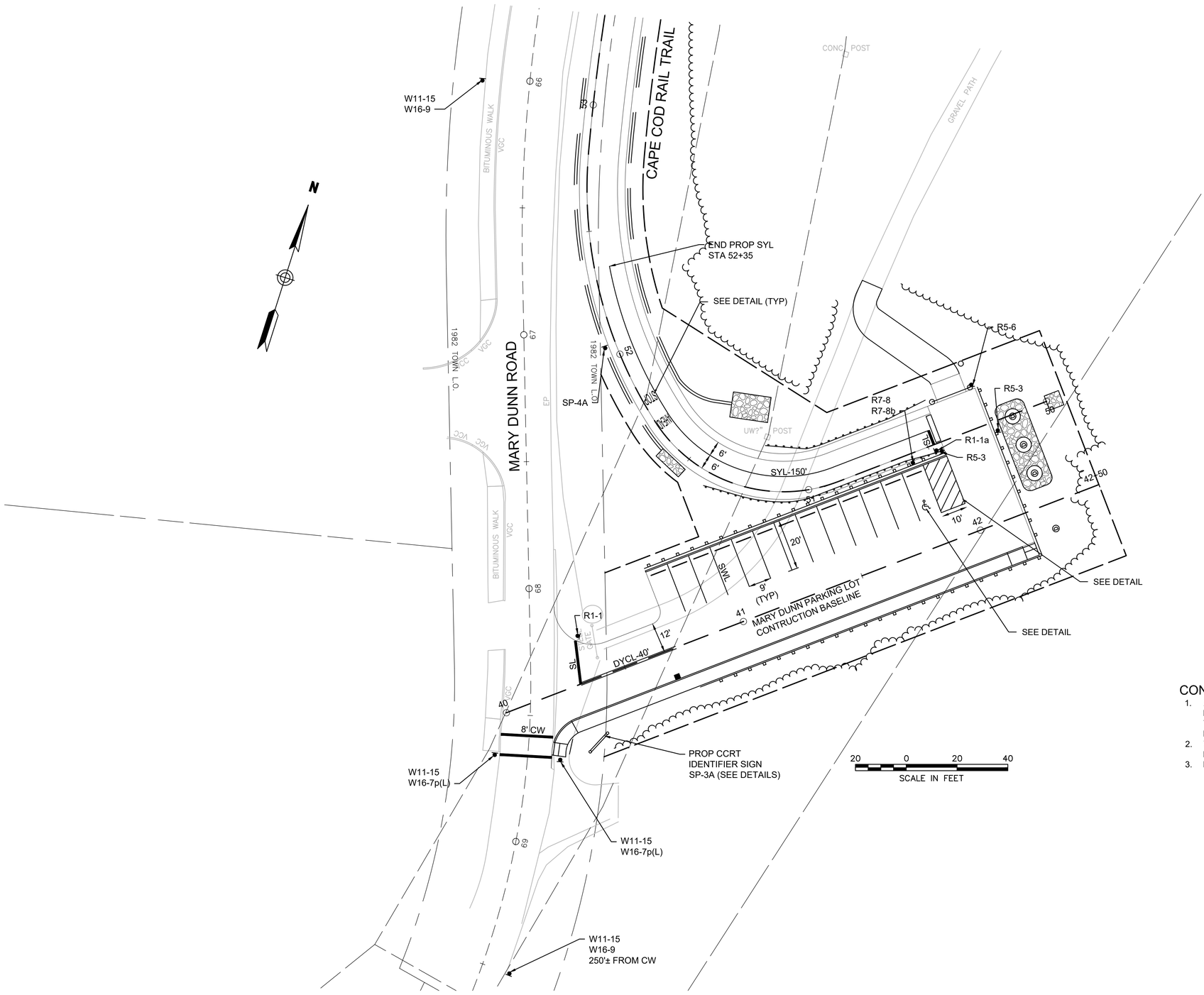
NTS

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	58	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
PARKING LOT NO. 1 - MARY DUNN ROAD

607398_HD(STRP).DWG Plotted on 14-Feb-2024 10:57 AM



CONSTRUCTION NOTES

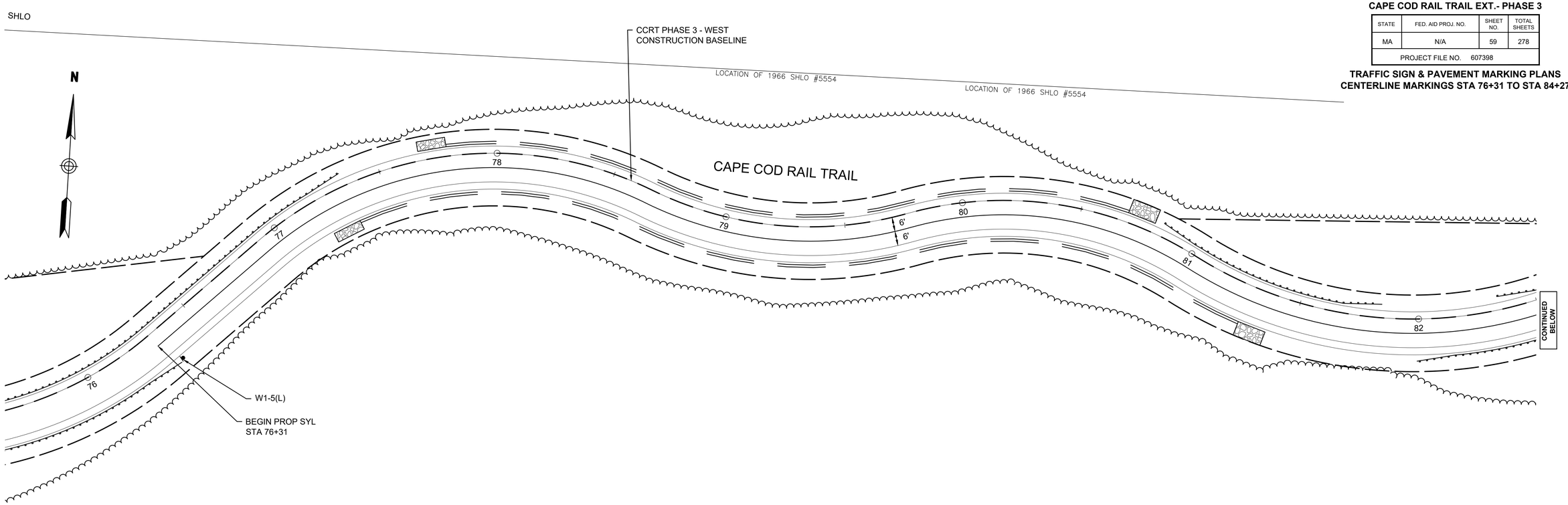
1. ALL PAVEMENT MARKINGS ON ROADWAYS SHALL BE REFLECTORIZED THERMOPLASTIC. ALL PAVEMENT MARKINGS ON THE CAPE COD RAIL TRAIL & PARKING LOTS SHALL BE REFLECTORIZED PAINT.
2. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.

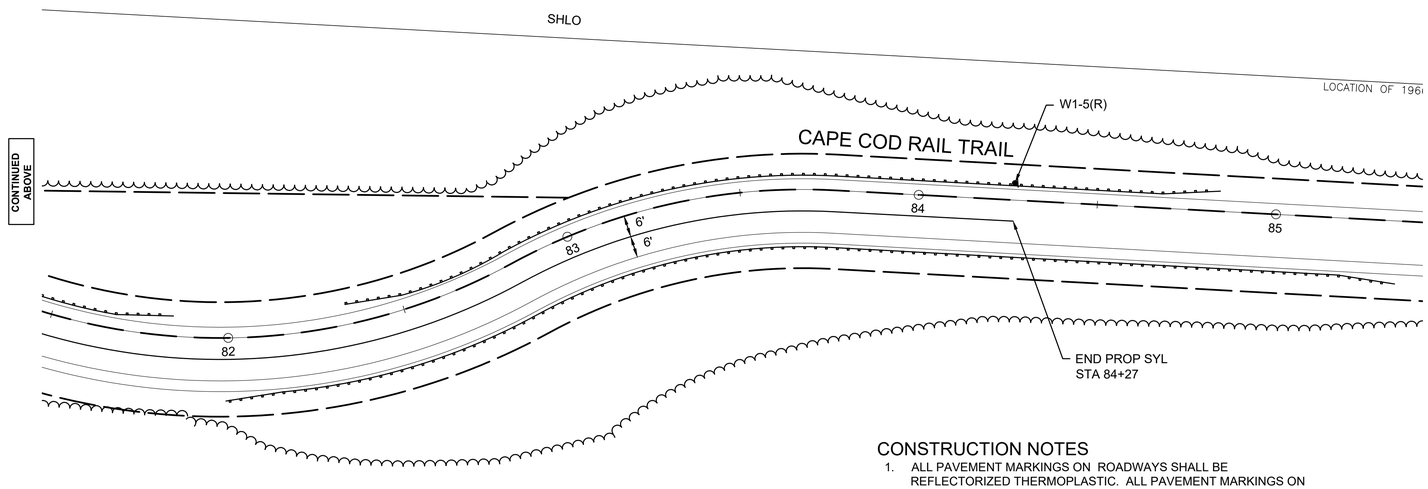
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	59	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
CENTERLINE MARKINGS STA 76+31 TO STA 84+27

607398_HD(STRP).DWG Plotted on 14-Feb-2024 10:59 AM





CONSTRUCTION NOTES

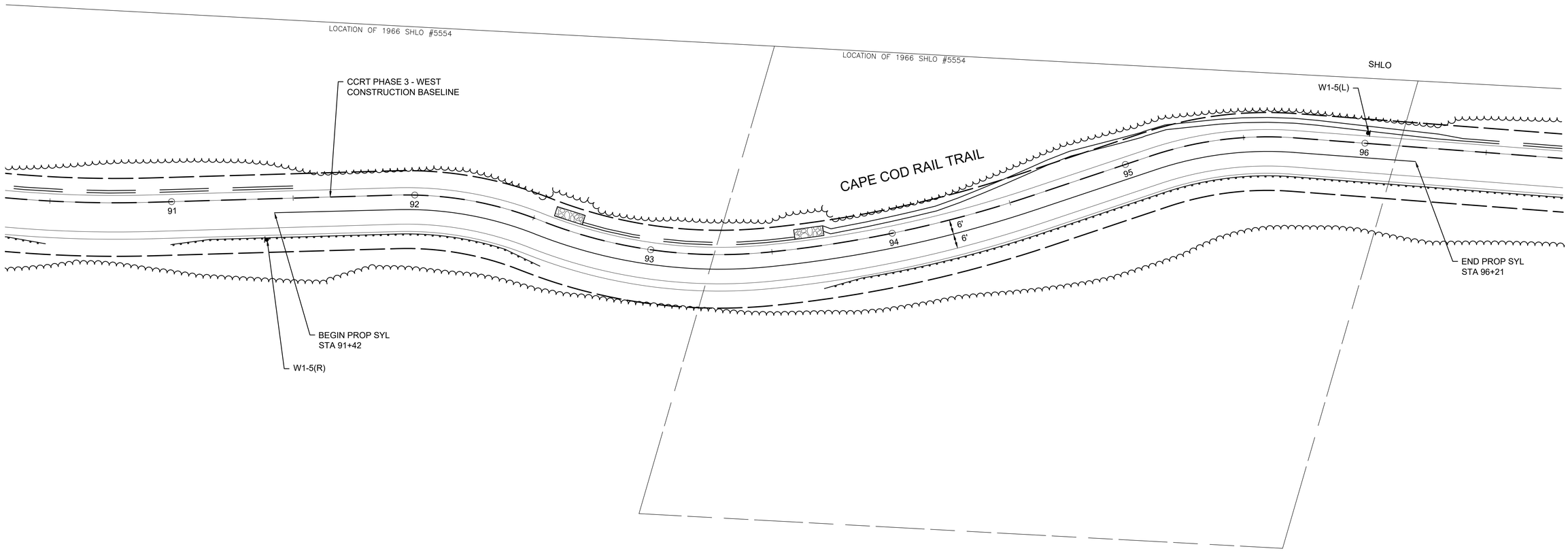
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	60	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
CENTERLINE MARKINGS STA 91+42 TO STA 96+21

607398_HD(STRP).DWG Plotted on 14-Feb-2024 11:00 AM



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SCALE IN FEET

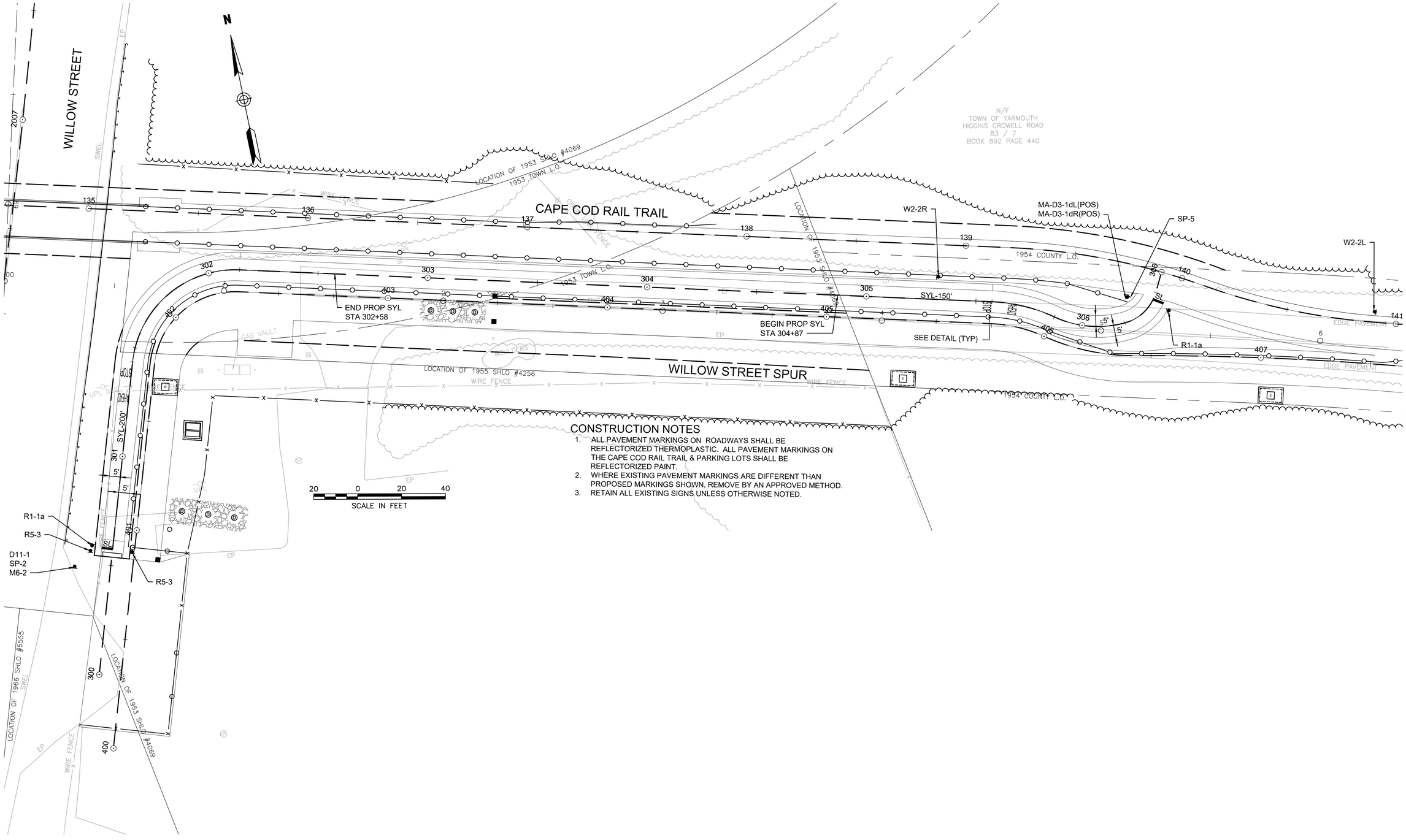
CONSTRUCTION NOTES

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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	61	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
WILLOW STREET SPUR



CONSTRUCTION NOTES

1. ALL PAVEMENT MARKINGS ON ROADWAYS SHALL BE REFLECTORIZED THERMOPLASTIC. ALL PAVEMENT MARKINGS ON THE CAPE COD RAIL TRAIL & PARKING LOTS SHALL BE REFLECTORIZED PAINT.
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607398_HD(STRP).DWG Plotted on 14-Feb-2024 11:01 AM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	62	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
PARKING LOT NO. 2 - HIGGINS CROWELL ROAD

607398_HD(STRP).DWG Plotted on 14-Feb-2024 11:03 AM

CONSTRUCTION NOTES

1. ALL PAVEMENT MARKINGS ON ROADWAYS SHALL BE REFLECTORIZED THERMOPLASTIC. ALL PAVEMENT MARKINGS ON THE CAPE COD RAIL TRAIL & PARKING LOTS SHALL BE REFLECTORIZED PAINT.
2. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.

N/F
TOWN OF YARMOUTH
HIGGINS CROWELL RD
83/ 7
BOOK 892 PAGE 440

CAPE COD RAIL TRAIL

CCRT PHASE 3 - WEST CONSTRUCTION BASELINE

1954 COUNTY LO

SP-2
M6-3

BEGIN PROP SWL STA 412+12

END PROP SWL STA 412+97

POST/CABLE GUARD RAIL

GUARD RAIL POSTS ONLY

EDGE PAVEMENT

BIT. CURB

UPL#60/67

UPL#9200/60A

UPL#61/65

UPL#63/61

W1-10R

W1-10L

SP-4B

R1-1a

501

500

150

SL

6' SYL

6'

R7-8
R7-8b

SEE DETAILS (TYP)

R5-3

10' (TYP)

CONTINUED BELOW

CONTINUED ABOVE

HIGGINS CROWELL PARKING LOT CONTRUCTION BASELINE

PT +83.34

24'

DYCL

12'

SWL

OM1-1

2' SYL

3'

R4-7

R1-2

PROP CCRT IDENTIFIER SIGN SP-3B (SEE DETAILS)

PROP YIELD MARKINGS (SEE DETAILS)

2004 TOWN L.O.

HIGGINS CROWELL ROAD

POLE# NO #

EHW

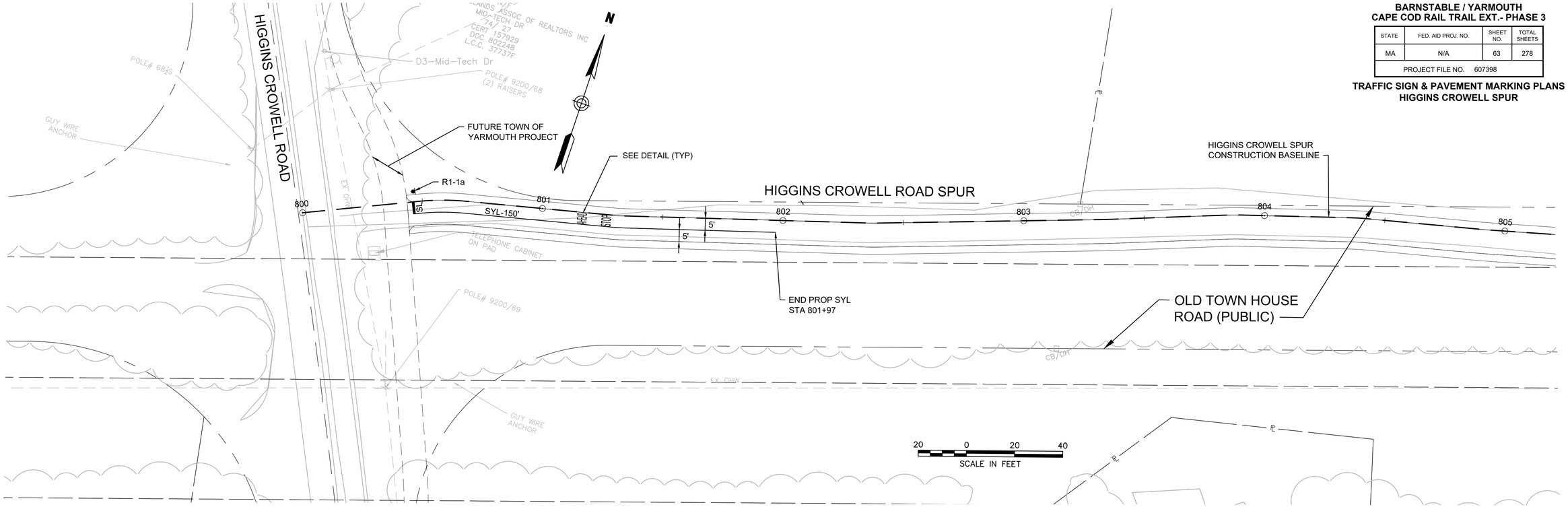
SCALE IN FEET
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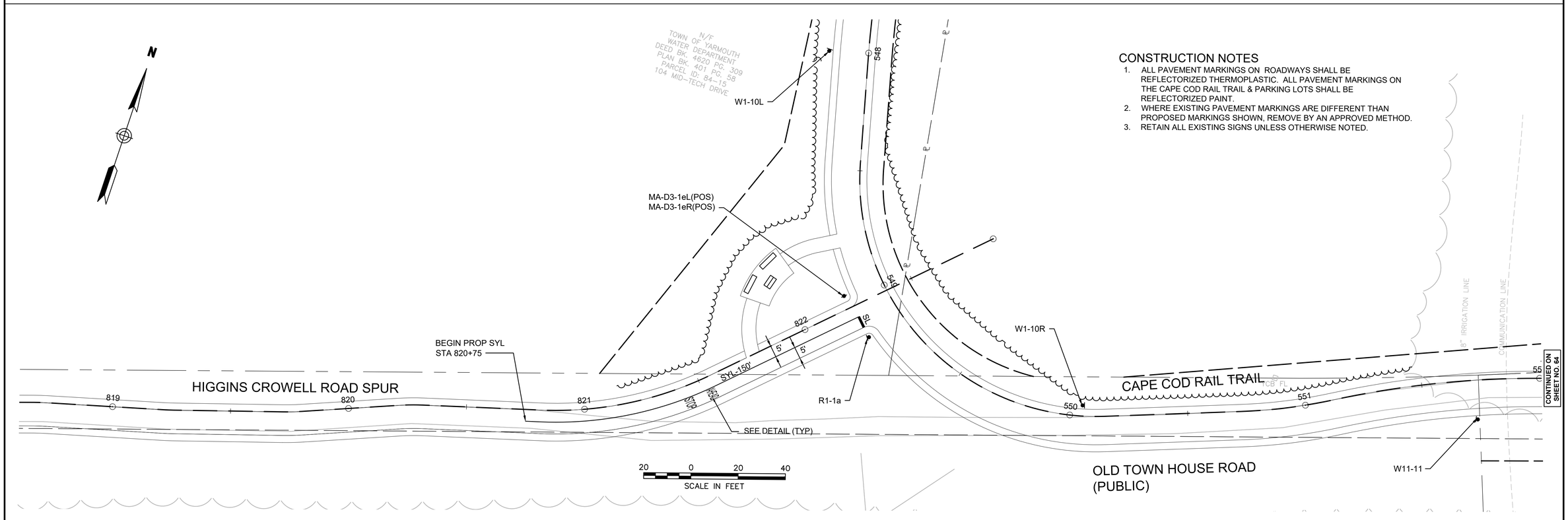
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	63	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
HIGGINS CROWELL SPUR

607398_HD(STRP).DWG Plotted on 15-Feb-2024 2:33 PM





CONSTRUCTION NOTES

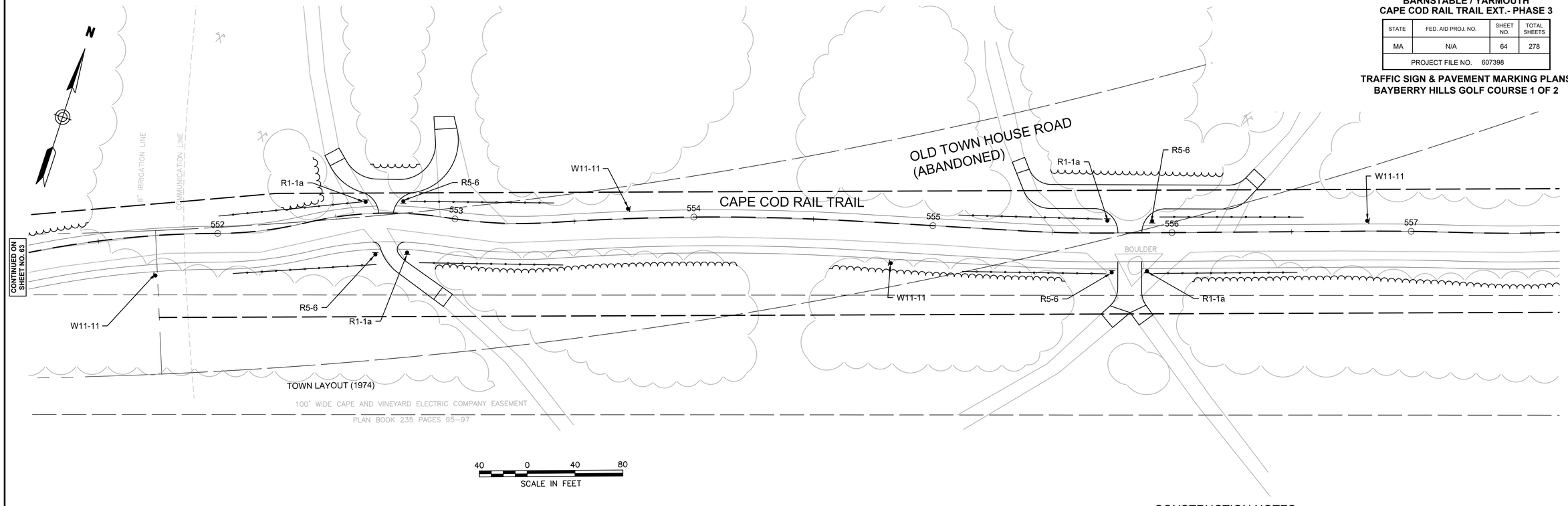
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	64	278
PROJECT FILE NO. 607398			

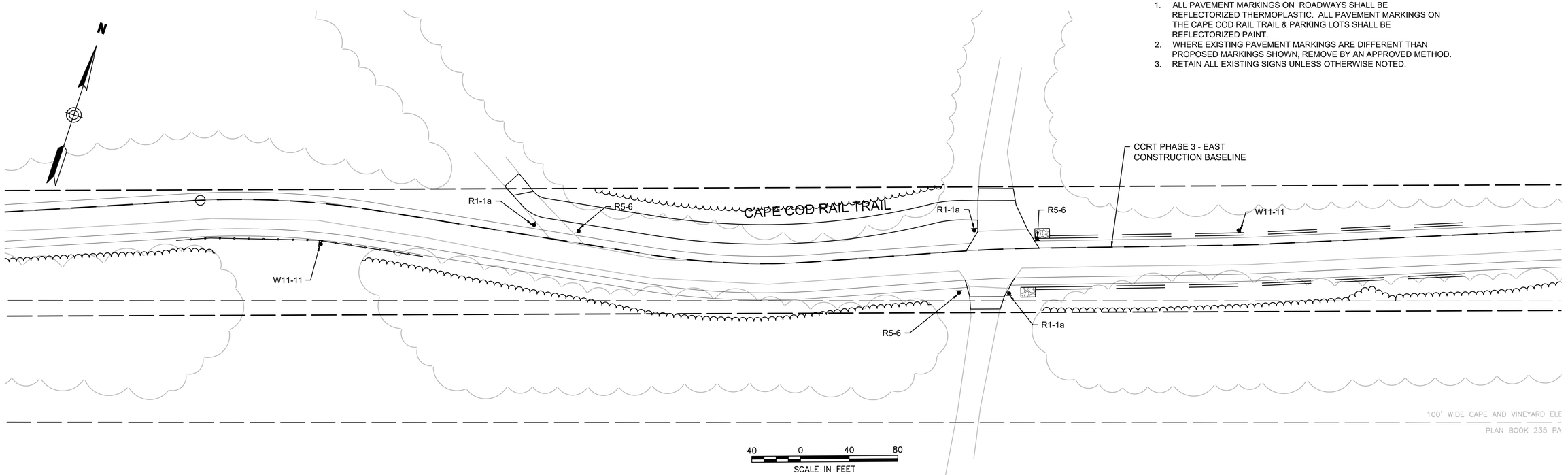
TRAFFIC SIGN & PAVEMENT MARKING PLANS
BAYBERRY HILLS GOLF COURSE 1 OF 2

607398_HD(STRP).DWG Plotted on 14-Feb-2024 11:08 AM



CONSTRUCTION NOTES

1. ALL PAVEMENT MARKINGS ON ROADWAYS SHALL BE REFLECTORIZED THERMOPLASTIC. ALL PAVEMENT MARKINGS ON THE CAPE COD RAIL TRAIL & PARKING LOTS SHALL BE REFLECTORIZED PAINT.
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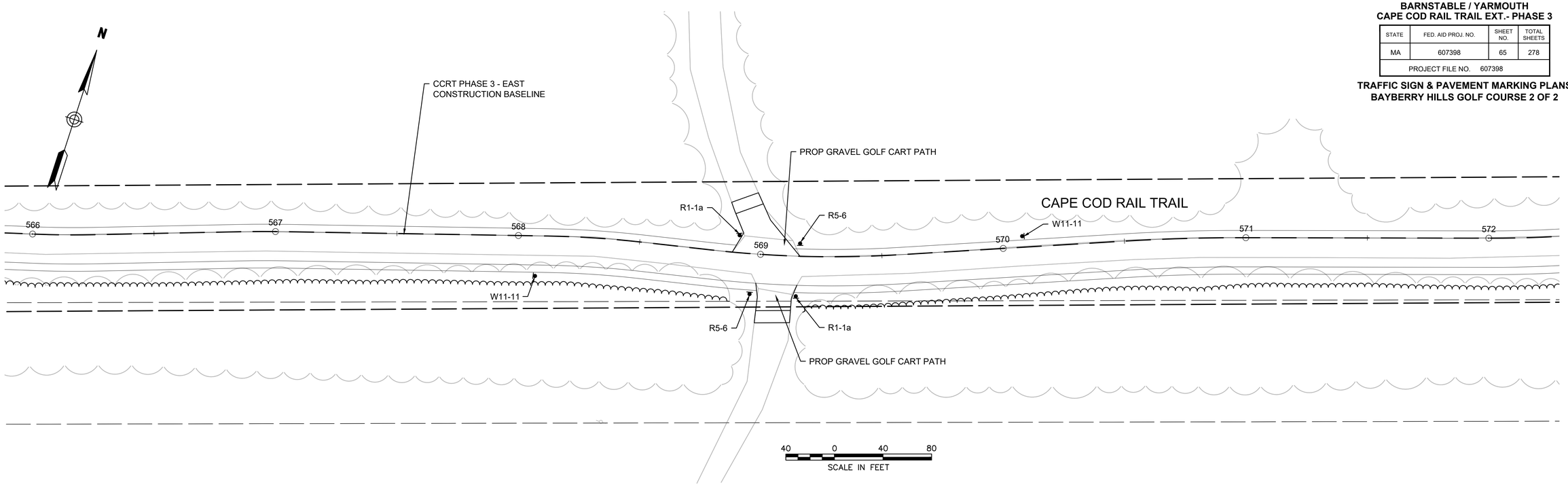


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	607398	65	278
PROJECT FILE NO. 607398			

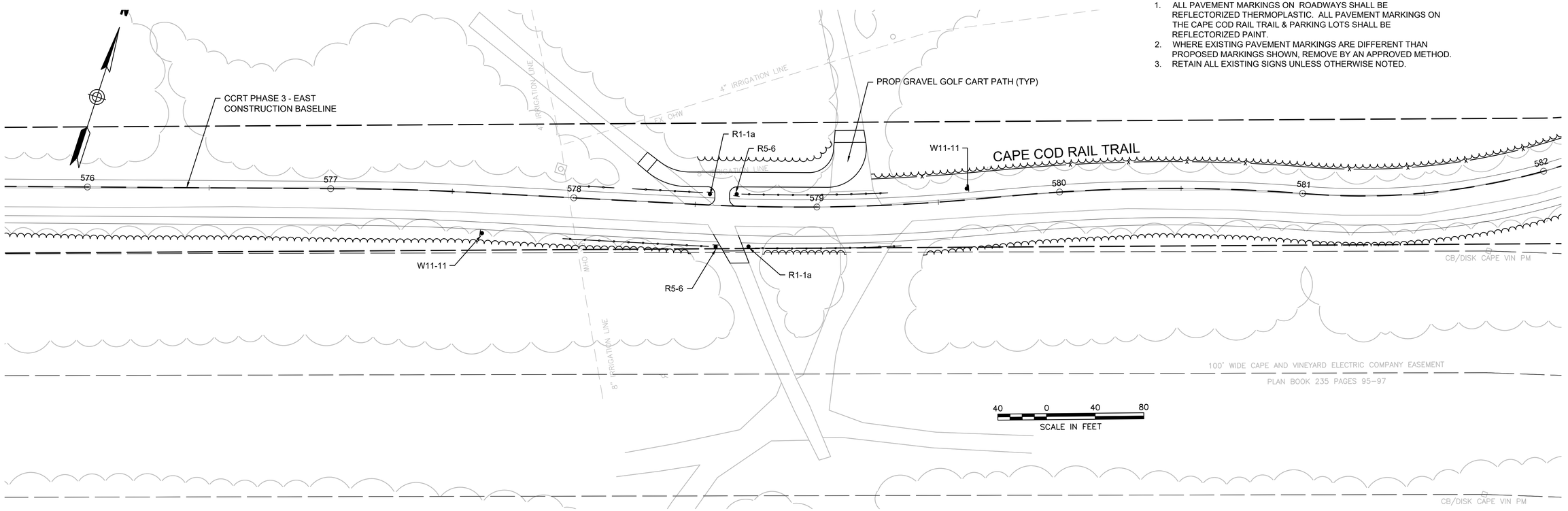
TRAFFIC SIGN & PAVEMENT MARKING PLANS
BAYBERRY HILLS GOLF COURSE 2 OF 2

607398_HD(STRP).DWG Plotted on 14-Feb-2024 11:10 AM



CONSTRUCTION NOTES

1. ALL PAVEMENT MARKINGS ON ROADWAYS SHALL BE REFLECTORIZED THERMOPLASTIC. ALL PAVEMENT MARKINGS ON THE CAPE COD RAIL TRAIL & PARKING LOTS SHALL BE REFLECTORIZED PAINT.
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	66	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
OLD TOWN HOUSE ROAD RRFB

LIST OF MAJOR ITEMS REQUIRED

PAY ITEM	QUANTITY	DESCRIPTION
804.3	100'±	3" CONDUIT, SCHEDULE 80, TYPE NM
811.31	1	PULL BOX-12"X12"
813.60	1	EQUIPMENT GROUNDING
813.801	1	SERVICE CONNECTION (OVERHEAD)
824.211	2	15' TS POST STANDARD INCL. FOUNDATION
	4	L.E.D. RECTANGULAR DUAL YELLOW BEACON (RRFB) (1-SIDED)
	2	APS PEDESTRIAN PUSH BUTTON W/R10-25
	1	SIDE OF POST CONTROL CABINET
832.	2	SP-1
	4	W11-15
	2	W16-7p(L)
	2	W16-7p(R)
	4	SP-6

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RRFB SYSTEM

PROP 15' TS POST
W/SIDE OF POST MOUNTED CONTROL CABINET
W/TWO RRFB (1-SIDED)
W/APS PED PUSH BUTTON
W/R10-25
W/TWO W11-15, TWO SP-6, W16-7p(L), W16-7p(R) & SP-1
STA 1003+44.0, 20.5' LT

PROP 15' TS POST
W/SIDE OF POST MOUNTED CONTROL CABINET
W/TWO RRFB (1-SIDED)
W/APS PED PUSH BUTTON
W/R10-25
W/TWO W11-15, TWO SP-6, W16-7p(L), W16-7p(R) & SP-1
STA 1003+55.5, 21.0' RT

BEGIN PROP SYL
STA 588+79

CCRT PHASE 3 - EAST
CONSTRUCTION BASELINE

END PROP SYL
STA 595+55

CONSTRUCTION NOTES:
1. PULL BOXES SHALL BE ADJACENT TO CURB UNLESS OTHERWISE NOTED AND SHALL NOT BE LOCATED IN PEDESTRIAN CURB RAMPS.
2. ALL PAVEMENT MARKINGS ON ROADWAYS SHALL BE REFLECTIVE THERMOPLASTIC. ALL PAVEMENT MARKINGS ON THE CAPE COD RAIL TRAIL AND IN PARKING LOTS SHALL BE REFLECTIVE PAINT.
3. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
4. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
5. CROSSWALKS ARE SHOWN SCHEMATICALLY, SEE SHEET 105 DETAILS FOR LAYOUT.

20 0 20 40
SCALE IN FEET

607398_HD(STRP).DWG Plotted on 14-Feb-2024 11:12 AM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	67	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN & PAVEMENT MARKING PLANS
FOREST ROAD EXT RRFB

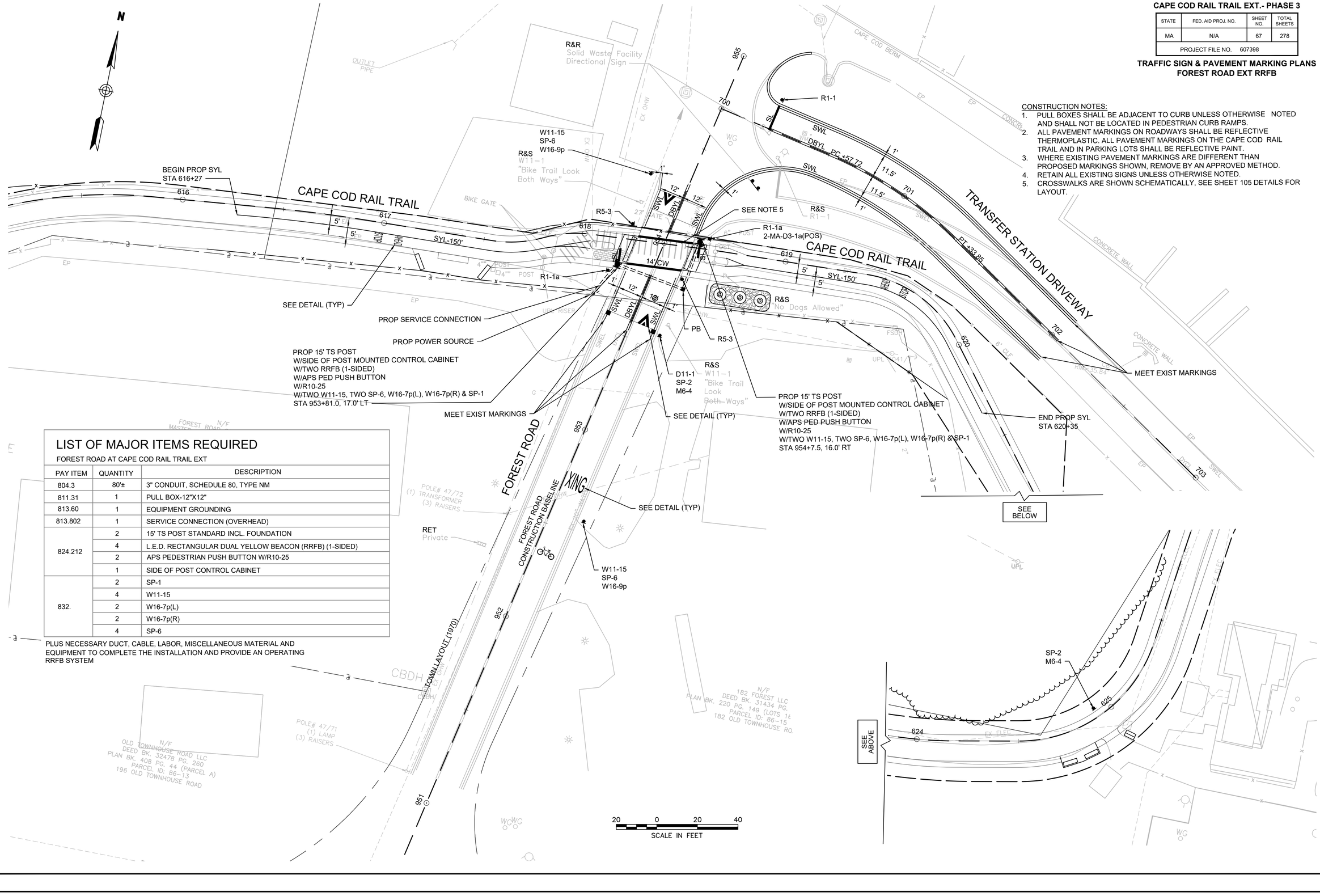
CONSTRUCTION NOTES:
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4. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
5. CROSSWALKS ARE SHOWN SCHEMATICALLY, SEE SHEET 105 DETAILS FOR LAYOUT.

LIST OF MAJOR ITEMS REQUIRED

FOREST ROAD AT CAPE COD RAIL TRAIL EXT

PAY ITEM	QUANTITY	DESCRIPTION
804.3	80'±	3" CONDUIT, SCHEDULE 80, TYPE NM
811.31	1	PULL BOX-12"X12"
813.60	1	EQUIPMENT GROUNDING
813.802	1	SERVICE CONNECTION (OVERHEAD)
824.212	2	15' TS POST STANDARD INCL. FOUNDATION
	4	L.E.D. RECTANGULAR DUAL YELLOW BEACON (RRFB) (1-SIDED)
	2	APS PEDESTRIAN PUSH BUTTON W/R10-25
	1	SIDE OF POST CONTROL CABINET
832.	2	SP-1
	4	W11-15
	2	W16-7p(L)
	2	W16-7p(R)
	4	SP-6

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RRFB SYSTEM



607398_HD(STRP).DWG Plotted on 14-Feb-2024 11:15 AM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	68	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK–GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
R1-1	30"	30"	STOP	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			4	RED	WHITE	WHITE	P5-4	6.25	25.00
R1-1a	18"	18"	STOP				24	RED	WHITE	WHITE	P5-24	1.86	44.64
R1-2	36"X36"X36"		YIELD				1	WHITE	RED	WHITE	P5-1	3.90	3.90
R4-7	24"	30"					3	WHITE	BLACK	BLACK	P5-3	5.00	15.00
R5-3	24"	24"	NO MOTOR VEHICLES				14	WHITE	BLACK	BLACK	P5-14	4.00	56.00
R5-6	18"	18"					12	WHITE	RED/ BLACK	BLACK	P5-12	2.25	27.00
R7-8	12"	18"	RESERVED PARKING				7	WHITE	GREEN/ BLUE	GREEN	P5-7	1.50	10.50
R7-8b	18"	9"	VAN ACCESSIBLE				6	BLUE	WHITE	WHITE	6 MTD W/OTHERS	1.13	6.78
R10-25	9"	12"	PUSH BUTTON TO TURN ON WARNING LIGHTS				4	WHITE	BLACK	BLACK	4 MTD ON RRFB	PAID UNDER ITEMS 824.211 & 824.212	
M6-2	12"	9"					1	GREEN	WHITE	WHITE	1 MTD W/OTHERS	0.75	0.75
M6-3	12"	9"					2	GREEN	WHITE	WHITE	2 MTD W/OTHERS	0.75	1.50
M6-4	12"	9"					4	GREEN	WHITE	WHITE	4 MTD W/OTHERS	0.75	3.00
W11-15	30"	30"					18	FLUOR-ESCENT YELLOW/ GREEN	BLACK	BLACK	P5-10 8 MTD ON RRFB	6.25	112.50
W11-11	18"	18"					10	YELLOW	BLACK	BLACK	P5-10	2.25	22.50
W1-5L	18"	18"					2	YELLOW	BLACK	BLACK	P5-2	2.25	4.50
W1-5R	18"	18"					2	YELLOW	BLACK	BLACK	P5-2	2.25	4.50
W2-2L	18"	18"					1	YELLOW	BLACK	BLACK	P5-1	2.25	2.25
W2-2R	18"	18"					1	YELLOW	BLACK	BLACK	P5-1	2.25	2.25

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK–GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
W1-10L	18"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			2	YELLOW	BLACK	BLACK	P5-2	2.25	5.50
W1-10R	18"	18"					2	YELLOW	BLACK	BLACK	P5-2	2.25	5.50
W16-7p(L)	24"	12"					6	FLUOR-ESCENT YELLOW/ GREEN	BLACK	BLACK	4 MTD ON RRFB 2 MTD W/OTHERS	2.00	12.00
W16-7p(R)	24"	12"					4	FLUOR-ESCENT YELLOW/ GREEN	BLACK	BLACK	4 MTD ON RRFB	2.00	8.00
W16-9p	24"	12"	AHEAD				8	FLUOR-ESCENT YELLOW/ GREEN	BLACK	BLACK	8 MTD W/OTHERS	2.00	16.00
D11-1	24"	18"	BIKE ROUTE				4	GREEN	WHITE	WHITE	P5-4	3.00	12.00
OM1-1	24"	24"					1	YELLOW	YELLOW CLUSTER	- - -	P5-1	4.00	4.00

607398_HD(SS).DWG Plotted on 15-Feb-2024 5:33 PM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	69	278
PROJECT FILE NO. 607398			

TRAFFIC SIGN SUMMARY

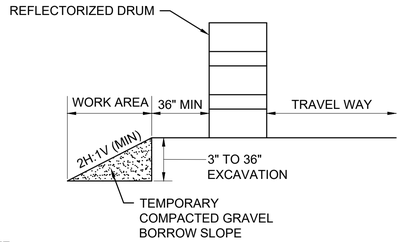
IDENTIFI-CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
SP-1	9"	12"	WAIT FOR VEHICLES TO STOP BEFORE CROSSING	1"C 1"C 1"C 1"C 1"C	1.5" 1" 1" 1" 1" 1.5"	N/A	4	YELLOW	BLACK	BLACK	4 MTD ON RRFB	0.75	2.25
SP-2	18"	12"	CCRT	4"D	4" 4"	N/A	7	GREEN	WHITE	WHITE	P5-3 4 MTD W/OTHERS	1.50	10.50
SP-3A	6'-0"	4'-0"	Cape Cod Rail Trail Mary Dunn Road Parking Area Town of Barnstable	PER DEPARTMENT OF CONSERVATION AND RECREATION STANDARDS[5]			1	SAGE	BLACK	-	SEE CONSTRUCTION DETAILS	PAID UNDER ITEM 707.41	
SP-3B	6'-0"	4'-0"	Cape Cod Rail Trail Higgins Crowell Road Parking Area Town of Yarmouth				1	SAGE	BLACK	-		PAID UNDER ITEM 707.41	
SP-3C	6'-0"	4'-0"	Cape Cod Rail Trail Old Town House Road Parking Area Town of West Yarmouth				1	SAGE	BLACK	-		PAID UNDER ITEM 707.41	
SP-4A	5'-2"	2'-0"	Mary Dunn Road Parking Area				1	SAGE	BLACK	-		PAID UNDER ITEM 707.43	
SP-4B	5'-2"	2'-0"	Higgins Crowell Road Parking Area				2	SAGE	BLACK	-		PAID UNDER ITEM 707.43	
SP-4C	5'-2"	2'-0"	Old Town House Road Parking Area				2	SAGE	BLACK	-		PAID UNDER ITEM 707.43	
SP-5	12"	18"	NO TRAIL BEYOND THIS POINT	3"C 3"C 2"B 2"B 2"B	1.75" 0.875" 0.625" 0.625" 0.625" 1.5"	N/A	1	GREEN	WHITE	WHITE	1 MTD W/OTHERS	0.75	0.75
SP-6	30"	18"	RAISED CROSSWALK	4"C 4"C	3.5" 3" 3.5"	N/A	12	FLUOR-ESCENT YELLOW/ GREEN	BLACK	BLACK	8 MTD ON RRFB 4 MTD W/OTHERS	3.75	45.00
MA-D3-1a (POS)	24"	8"	Forest Rd	4"B	2" 2"	N/A	2	GREEN	WHITE	WHITE	2 MTD W/OTHERS	PAID UNDER ITEM 874	
MA-D3-1b (POS)	42"	8"	West Yarmouth Rd	4"B	2" 2"	N/A	2	GREEN	WHITE	WHITE	2 MTD W/OTHERS	PAID UNDER ITEM 874	
MA-D3-1c (POS)	42"	8"	Old Town House Rd	4"B	2" 2"	N/A	2	GREEN	WHITE	WHITE	2 MTD W/OTHERS	PAID UNDER ITEM 874	
MA-D3-1dL (POS)	24"	6"	← Willow St	2"D	2" 2"	2" @ 180°	1	GREEN	WHITE	WHITE	P5-1	PAID UNDER ITEM 874	
MA-D3-1dR (POS)	24"	6"	Willow St →	2"D	2" 2"	2" @ 180°	1	GREEN	WHITE	WHITE	1 MTD W/OTHERS	PAID UNDER ITEM 874	
MA-D3-1eL (POS)	36"	6"	← Higgins Crowell Rd	2"D	1.75" 2.25"	2" @ 180°	1	GREEN	WHITE	WHITE	P5-1	PAID UNDER ITEM 874	
MA-D3-1eR (POS)	36"	6"	Higgins Crowell Rd →	2"D	1.75" 2.25"	2" @ 0°	1	GREEN	WHITE	WHITE	1 MTD W/OTHERS	PAID UNDER ITEM 874	

NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS.
2. SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, FOR VERTICAL & LATERAL CLEARANCES.
3. POS = PAINTED ONE SIDE.
4. MTD = MOUNTED.
5. BACKGROUND COLOR AND FONT SHALL BE CONSISTENT WITH DCR GRAPHICS STANDARD MANUAL AND PANEL SHALL INCLUDE DCR SYMBOL AND LOGO AT BOTTOM OF PANEL REPRODUCED FROM ARTWORK PROVIDED BY DCR.

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GENERAL NOTES

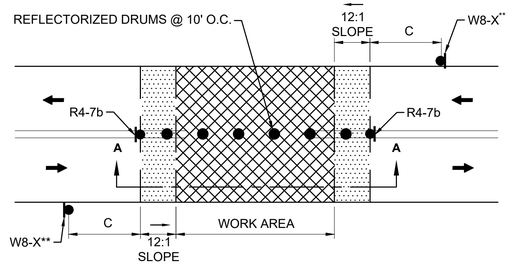
1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. WORK HOURS THAT IMPACT THE PUBLIC WAY SHALL BE 7:00AM TO 3:00PM MONDAY THRU FRIDAY UNLESS OTHERWISE APPROVED BY MASSDOT, THE TOWN OF BARNSTABLE AND THE TOWN OF YARMOUTH. NO WORK IMPACTING THE TRAVEL WAY WILL BE ALLOWED DURING PEAK TRAFFIC PERIODS. PEAK PERIODS ARE DEFINED AS MONDAY THRU FRIDAY, 6:00AM TO 9:00AM AND 3:00PM TO 7:00PM.
3. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY THE DAY BEFORE, AFTER OR ON A STATE RECOGNIZED HOLIDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AND PUBLIC RIGHTS-OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
6. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
7. THE FIRST 10 DRUMS OF A TAPER SHALL BE REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS AND SHALL BE OPERATING, AT A MINIMUM, BETWEEN DUSK AND DAWN, WHEN TAPER IS DEPLOYED.
8. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
9. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
10. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
11. FOR DROP-OFFS 3" OR LESS WITHIN THE CLEAR ZONE, CONDITION MAY BE MITIGATED WITH W8-9 (LOW SHOULDER) SIGN OR TEMPORARY CHANNELIZATION DEVICES. FOR DROP-OFFS GREATER THAN 3" BUT NO MORE THAN 36", DETERMINE WHETHER IT IS MORE COST EFFECTIVE TO INSTALL BOTH W8-9 SIGN AND TEMPORARY CHANNELIZATION DEVICES IN ACCORDANCE WITH MASSDOT WORK ZONE SAFETY GUIDE OR W8-9 SIGN WITH A 2H:1V (MIN) WEDGE OR TO REMOVE THE HAZARD.
12. CONTRACTOR SHALL STAGE WORK SUCH THAT A DROP-OFF OF NO MORE THAN 3" AT THE END OF EACH WORK DAY EXISTS WITHIN THE CLEAR ZONE AT ANY TIME AND ENSURE DROP-OFF IS MITIGATED WITHOUT BARRIER PER NOTE 11.
13. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
    4' IF POSTED SPEED IS LESS THAN 35 MPH
14. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
15. TEMPORARY TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
16. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
17. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
18. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN. CONTRACTOR SHALL MAINTAIN A MINIMUM SIDEWALK HORIZONTAL CLEAR WIDTH OF 36" AT ALL TIMES.
19. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.SIGNS SHALL NOT BE MOUNTED TO OR LEANED AGAINST DRUMS OR CONES.
20. W21-7 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF AREAS WHERE UTILITY CASTINGS HAVE BEEN RAISED IN ADVANCE OF PAVING OPERATIONS OR AS REQUESTED BY THE ENGINEER.
21. W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF PAVEMENT MILLING AREAS OR AS REQUESTED BY THE ENGINEER.
22. W20-1c, MA-R2-10a OR MA-R2-10e SIGNS SHOWN ON ADVANCE SIGN SCHEMATIC MAY BE USED IN LIEU OF THOSE SIGNS SHOWN ON TYPICAL DETAILS ON THE TEMPORARY TRAFFIC CONTROL PLANS IF MINIMUM SIGN SPACING IS MET.
23. CONTRACTOR SHALL SECURE WORK AREAS BY APPROPRIATE MEANS, TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
24. THERE IS NO DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.
25. NIGHTTIME WORK SHALL REQUIRE PRIOR APPROVAL FROM MASSDOT.
26. ILLUMINATION REQUIRED FOR NIGHTTIME WORK APPROVED BY THE ENGINEER SHALL BE DIFFUSED OR ANTI-GLARE LIGHTING AND IN ACCORDANCE WITH MASSDOT STANDARDS.
27. CONTRACTOR SHALL PROVIDE 4 PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) A MINIMUM OF 14 DAYS PRIOR TO START OF CLOSURE AND DURING THE CLOSURE. REFER TO THE WILLOW STREET DETOUR PLAN ON SHEET 70 FOR PCMS LOCATION AND MESSAGING.
28. CONTRACTOR SHALL SETUP DAILY WORK ZONES AS NECESSARY FOR FULL DEPTH PAVEMENT CONSTRUCTION. AT THE END OF EACH WORK SHIFT, UNTIL INTERMEDIATE PAVING COURSE IS INSTALLED, CONTRACTOR TO FOLLOW THE BELOW GUIDELINES OR AS DIRECTED BY THE ENGINEER.
    A. GRAVEL PAVEMENT COURSE SHALL REMAIN OPEN TO TRAVEL FOR A MAXIMUM OF 10 CALENDAR DAYS PRIOR TO PAVING
    B. BASE AND BINDER PAVING COURSES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND PAVEMENT NOTES. IN LOCATIONS WHERE THE ROADWAY IS NARROWED, PAVED ACCESS SHALL BE PROVIDED AT ALL ABUTTING DRIVEWAYS AND PARKING AREAS
    C. MAINTAIN ADEQUATE ROADWAY DRAINAGE AT ALL TIMES
29. CONTRACTOR SHALL COORDINATE WITH MASSDOT RAIL DIVISION REGARDING TRAIN TRAFFIC ON THE CAPE MAIN.

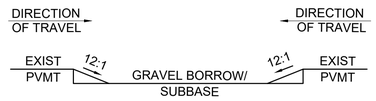


NOTE:
1. CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FT IN ADVANCE OF THE START OF DROP-OFF CONDITION.

TYPICAL ROADWAY DROP-OFF PROTECTION

SCALE: NTS



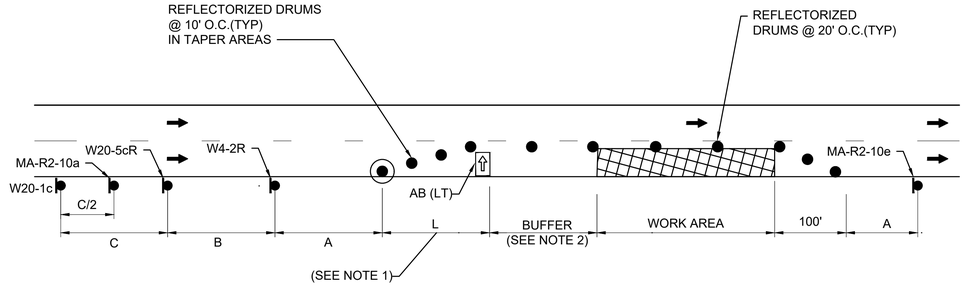


SECTION A-A

NOTES:
1. SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY.
2. ** CONTRACTOR SHALL INSTALL W8-1 AT LIMIT OF EXCAVATION OR W8-3, W8-8, OR W8-15 SIGN, AS APPROPRIATE, ON ALL ROADWAYS IN ADVANCE OF THE TRANSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

TEMPORARY PAVEMENT TRANSITION

SCALE: NTS



NOTES:
1. SEE TAPER LENGTH FORMULA.
2. SEE BUFFER SPACING CHART.
3. SEE ADVANCE SIGN SPACING TABLE.
4. SEE GENERAL NOTE 22.

ONE LANE CLOSURE - RIGHT

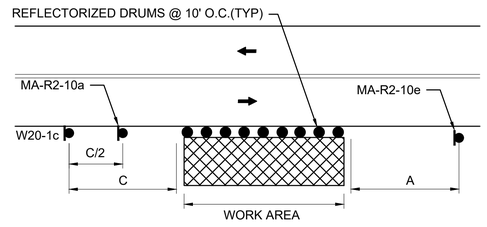
SCALE: NTS

SUGGESTED STAGING NOTES FOR BRIDGE CONSTRUCTION

1. COORDINATE WITH MASSDOT RAIL DIVISION REGARDING TRACK OUTAGES/ACCESSING THE RAILROAD ROW.
2. RELOCATE UTILITIES
    1. OVERHEAD ELECTRIC AND COMMUNICATION ALONG WILLOW STREET & ABANDONED PORTION OF HIGGINS CROWELL ROAD EAST OF WILLOW STREET
    2. GAS MAIN ALONG ABANDONED PORTION OF HIGGINS CROWELL ROAD
3. CONSTRUCT MSE WALLS, EAST BRIDGE ABUTMENT, WEST APPROACH FILL SLOPE, WEST BRIDGE ABUTMENT
4. COORDINATE ROAD DETOUR & CLOSURE WITH TOWN OF YARMOUTH AND MASSDOT HIGHWAY DIVISION
5. COORDINATE RAILROAD SHUT DOWN WITH MASS COASTAL AND MASSDOT RAIL DIVISION
6. INSTALL BRIDGE DURING OVERNIGHT ROAD CLOSURE AND RAILROAD SHUT DOWN
7. RESTRICT PEDESTRIAN/BIKE ACCESS TO THE BRIDGE UNTIL ENTIRE PROJECT IS COMPLETE

OFF ROADWAY WORK - RIGHT

SCALE: NTS



NOTES:
1. SEE ADVANCE SIGN SPACING TABLE.
2. SEE GENERAL NOTE 22.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	70	278
PROJECT FILE NO. 607398			

TEMPORARY TRAFFIC CONTROL PLANS
GENERAL NOTES & LEGEND

LEGEND	
Ⓟ	POLICE OFFICER
Ⓢ	TRAFFIC SIGNAL
●	REFLECTORIZED DRUM
◉	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS (SEE NOTE 7)
	TEMPORARY CONSTRUCTION SIGN
▲	TRAFFIC CONE
	TYPE III BARRICADE
	ARROW BOARD (AB) (RIGHT OR LEFT)
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRANSITION/BUFFER AREAS
←	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	TEMPORARY PEDESTRIAN BARRICADE
NTS	NOT TO SCALE

ADVANCE SIGN SPACING

	DISTANCE BETWEEN SIGNS (FEET)		
ROADWAY	A	B	C
ALL OTHER ROADWAYS	100	100	100
FOREST RD, HIGGINS CROWELL RD	350	350	350
WILLOW ST, WEST YARMOUTH RD	500	500	500

LANE TAPER LENGTH FORMULAS

L=	TAPER LENGTH IN FEET
W=	WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET
S=	POSTED SPEED LIMIT IN MPH

POSTED SPEED
40 MPH OR LESS
$L=\frac{WS^2}{60}$

BUFFER SPACING

SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200

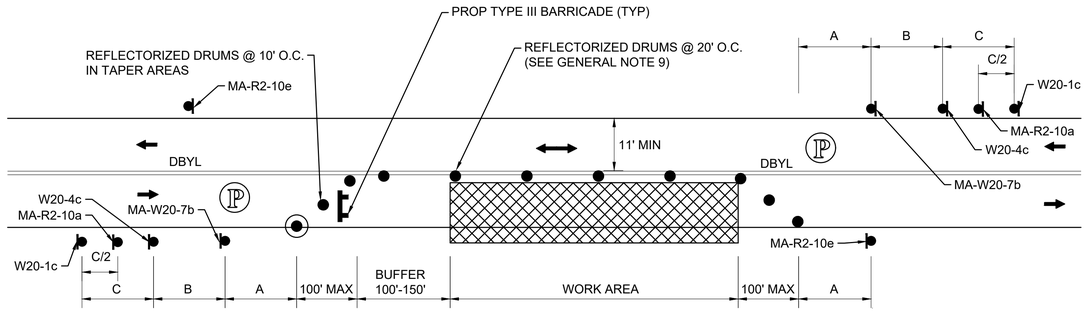
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	71	278
PROJECT FILE NO. 607398			

TEMPORARY TRAFFIC CONTROL PLANS
TYPICAL DETAILS

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NOTES:

1. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 70.
2. SEE GENERAL NOTE 22 ON SHEET 70.

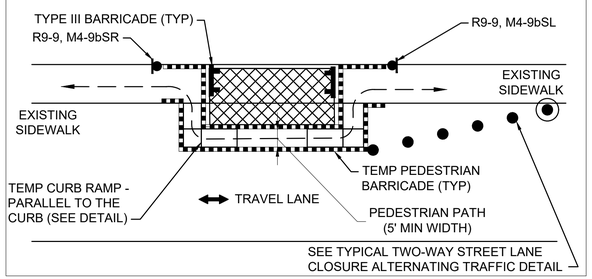
TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

SCALE: NTS

NOTES:

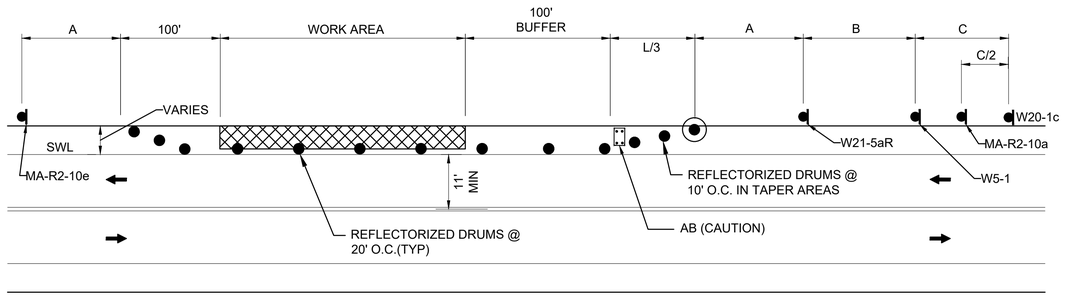
1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. ← — → INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS AND INCLUDE THE USE OF A COMPLIANT TEMPORARY PEDESTRIAN MANAGEMENT GUIDANCE SYSTEM AT ALL TIMES.
6. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS. A 5' x 5' PASSING AREA SHALL BE PROVIDED IN INTERVALS NOT EXCEEDING 200 FEET.
7. TEMPORARY PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
8. TEMPORARY PEDESTRIAN BARRICADE SHALL BE PAID FOR UNDER ITEM 852.11 TEMPORARY PEDESTRIAN BARRICADE.
9. TEMPORARY PEDESTRIAN CURB RAMPS SHALL BE PAID FOR UNDER ITEM 852.12 TEMPORARY PEDESTRIAN CURB RAMP.

PEDESTRIAN BYPASS TYPE I



PEDESTRIAN BYPASS DETAIL

SCALE: NTS



NOTES:

1. SEE TAPER LENGTH FORMULA ON SHEET 70.
2. SEE ADVANCE SIGN SPACING CHART ON SHEET 70.
3. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED BEYOND MINIMUM SPACING SHOWN AS NECESSARY.
4. SEE GENERAL NOTE 22 ON SHEET 70.

TYPICAL SHOULDER CLOSURE - RIGHT

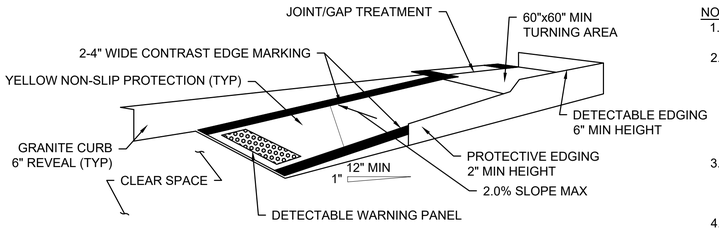
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

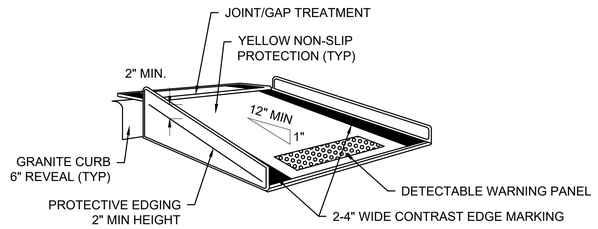
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	72	278
PROJECT FILE NO. 607398			

TEMPORARY TRAFFIC CONTROL PLANS
TYPICAL DETAILS

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TEMPORARY CURB RAMP-PARALLEL TO CURB



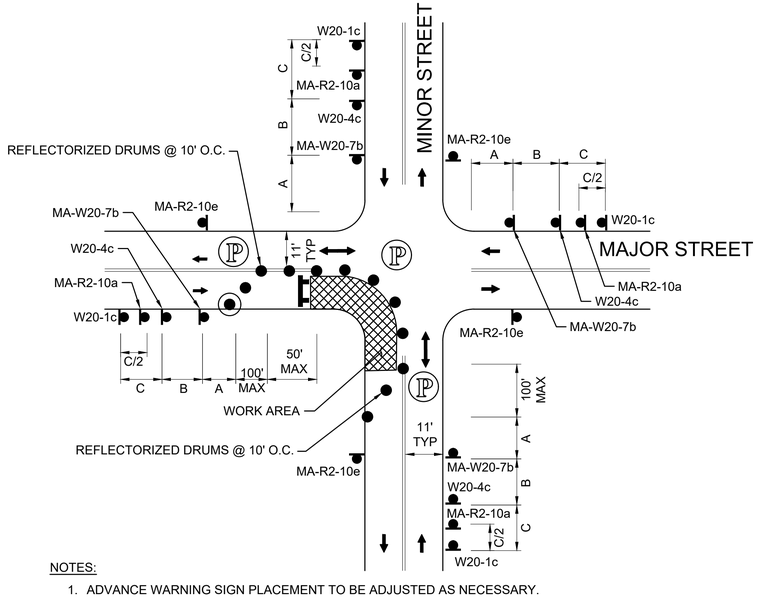
TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

NOTES:

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

TEMPORARY CURB RAMPS

SCALE: NTS



NOTES:

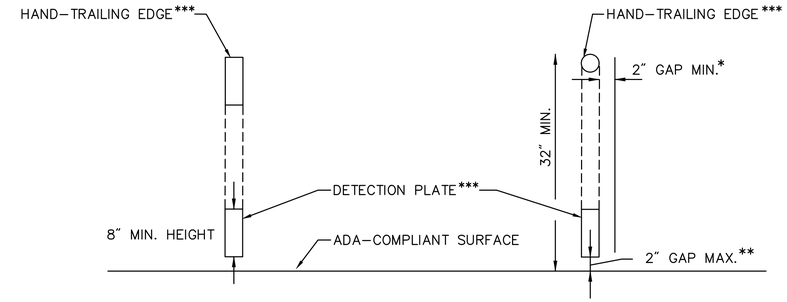
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 70.
3. SEE GENERAL NOTE 22 ON SHEET 70.

ONE LANE BI-DIRECTIONAL TRAFFIC AT-INTERSECTIONS - NEAR SIDE

SCALE: NTS

TYPICAL PEDESTRIAN CHANNELIZING DEVICE

SCALE: NTS



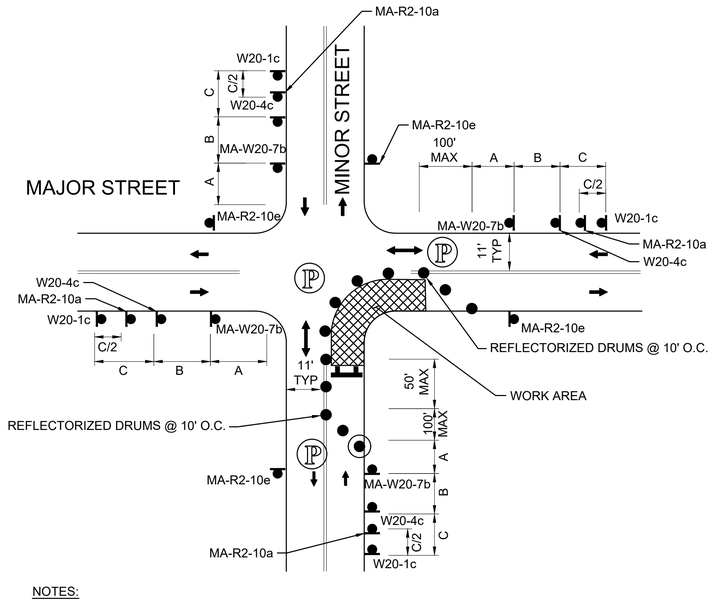
CROSS SECTION VIEW

NOTES:

* THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND–TRAILING EDGE AND ITS SUPPORT.

** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.

*** THE HAND–TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.



NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 70.
3. SEE GENERAL NOTE 22 ON SHEET 70.

ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - FAR SIDE

SCALE: NTS

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	73	278
PROJECT FILE NO. 607398			

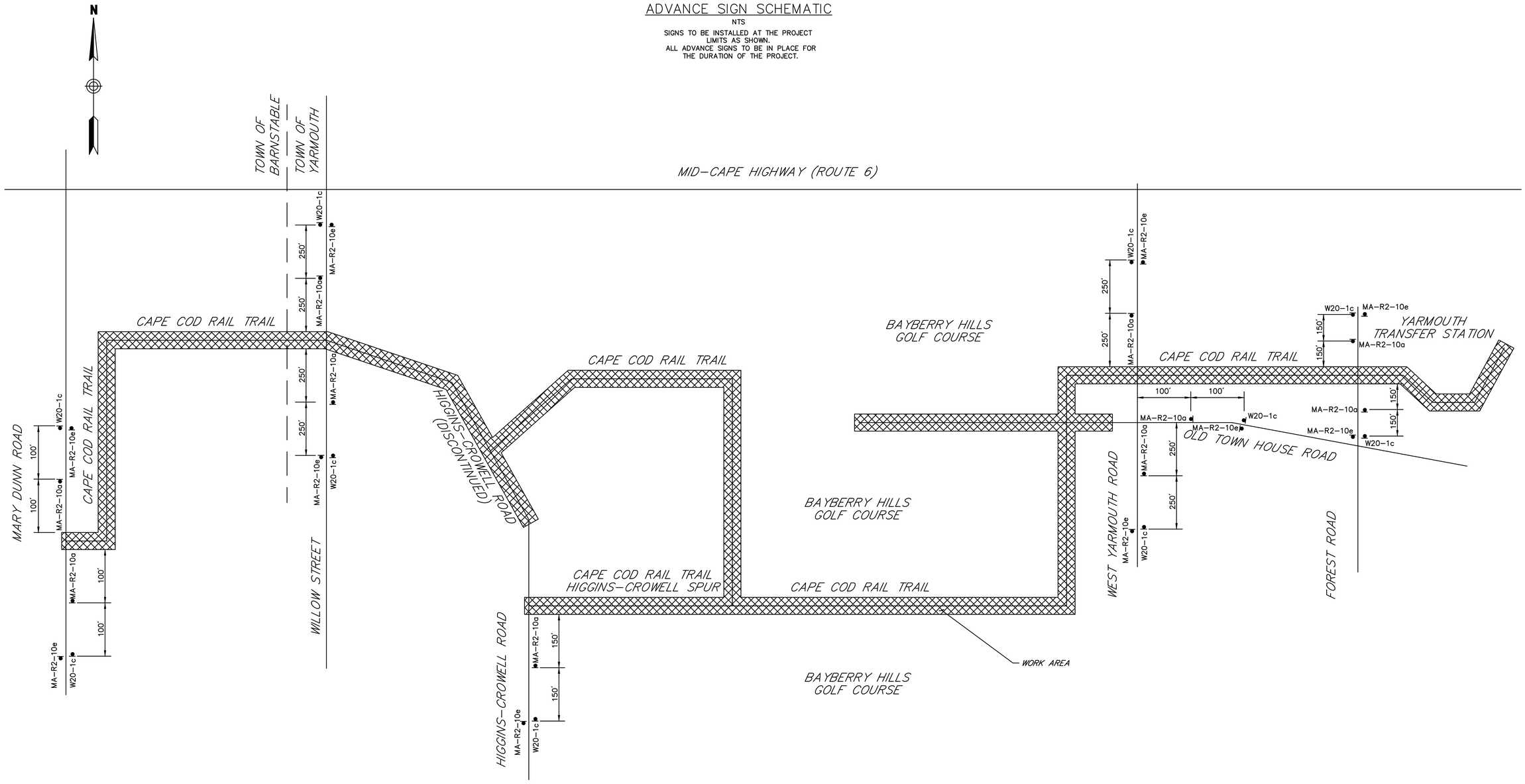
TEMPORARY TRAFFIC CONTROL PLANS
ADVANCE SIGN SCHEMATIC

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ADVANCE SIGN SCHEMATIC

NTS

SIGNS TO BE INSTALLED AT THE PROJECT LIMITS AS SHOWN.
ALL ADVANCE SIGNS TO BE IN PLACE FOR THE DURATION OF THE PROJECT.



TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR			UNIT AREA (S.F.)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER	
MA-R2-10a	48"	36"	WORK ZONE / SPEEDING FINES DOUBLED	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK	12.00
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES END				FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK	12.00
R4-7b	24"	30"	KEEP RIGHT	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	5.00
R9-9	24"	12"	SIDEWALK CLOSED				WHITE	BLACK	BLACK	2.00
R11-2	48"	30"	ROAD CLOSED				WHITE	BLACK	BLACK	10.00
R11-3a	60"	30"	ROAD CLOSED AHEAD / LOCAL TRAFFIC ONLY				WHITE	BLACK	BLACK	12.50
W4-2R	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W5-1	36"	36"	ROAD NARROWS				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-1	36"	36"	BUMP				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-3	36"	36"	PAVEMENT ENDS				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-8	36"	36"	ROUGH ROAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-9	36"	36"	LOW SHOULDER				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W8-15	36"	36"	GROOVED PAVEMENT				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W16-8P(1)	30"	8"	WILLOW ST NB	4"B	2" / 2"	N/A	FLUOR-ESCENT ORANGE	BLACK	BLACK	1.67
W16-8P(2)	30"	8"	WILLOW ST SB	4"B	2" / 2"	N/A	FLUOR-ESCENT ORANGE	BLACK	BLACK	1.67
W20-1c	36"	36"	ROAD WORK AHEAD	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-2c	36"	36"	DETOUR AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR			UNIT AREA (S.F.)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER	
W20-3c	36"	36"	ROAD CLOSED AHEAD	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-4c	36"	36"	ONE LANE ROAD AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W20-5cR	36"	36"	RIGHT LANE CLOSED AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W21-5aR	36"	36"	RIGHT SHOULDER CLOSED	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
W21-7	36"	36"	UTILITY WORK AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK	9.00
M1-4(6)	24"	24"	6				WHITE	BLACK	BLACK	4.00
M4-8a	24"	18"	END DETOUR				FLUOR-ESCENT ORANGE	BLACK	BLACK	3.00
M4-9L	30"	24"	DETOUR ←				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9R	30"	24"	DETOUR →				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9V	30"	24"	DETOUR ↑				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9bsL	30"	24"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9bsR	30"	24"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9SL	30"	24"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-9SR	30"	24"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	BLACK	5.00
M4-10L	48"	18"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	- - -	6.00
M4-10R	48"	18"	DETOUR				FLUOR-ESCENT ORANGE	BLACK	- - -	6.00

NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	74	278
PROJECT FILE NO. 607398			

TEMPORARY TRAFFIC CONTROL PLANS
SIGN SUMMARY

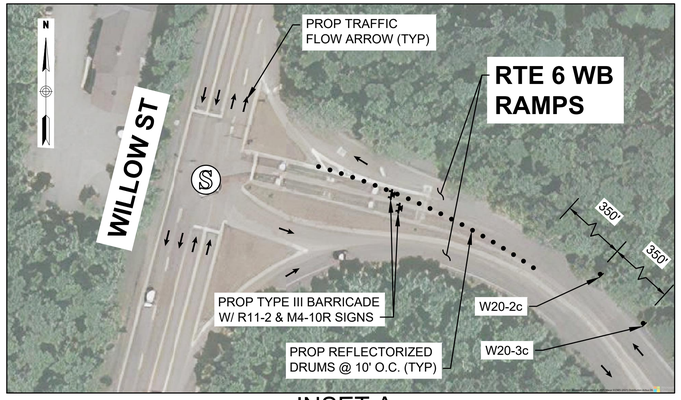
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

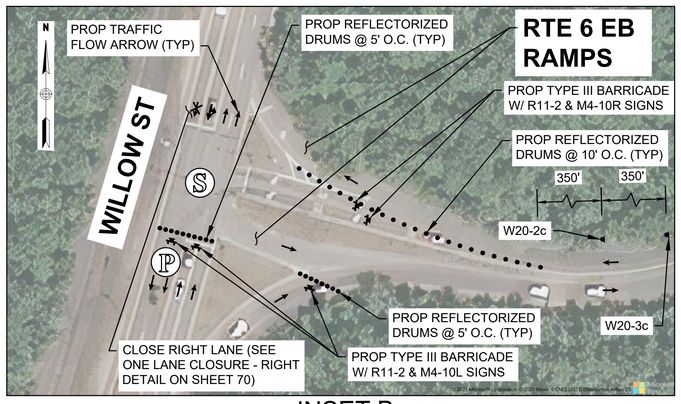
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	75	278
PROJECT FILE NO. 607398			

DETOUR PLAN
WILLOW STREET

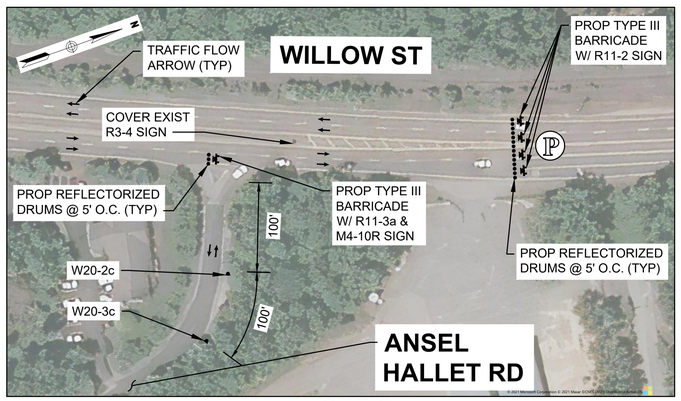
607398_HD(DETOUR).DWG 15-Feb-2024



INSET A
SCALE: 1" = 60'

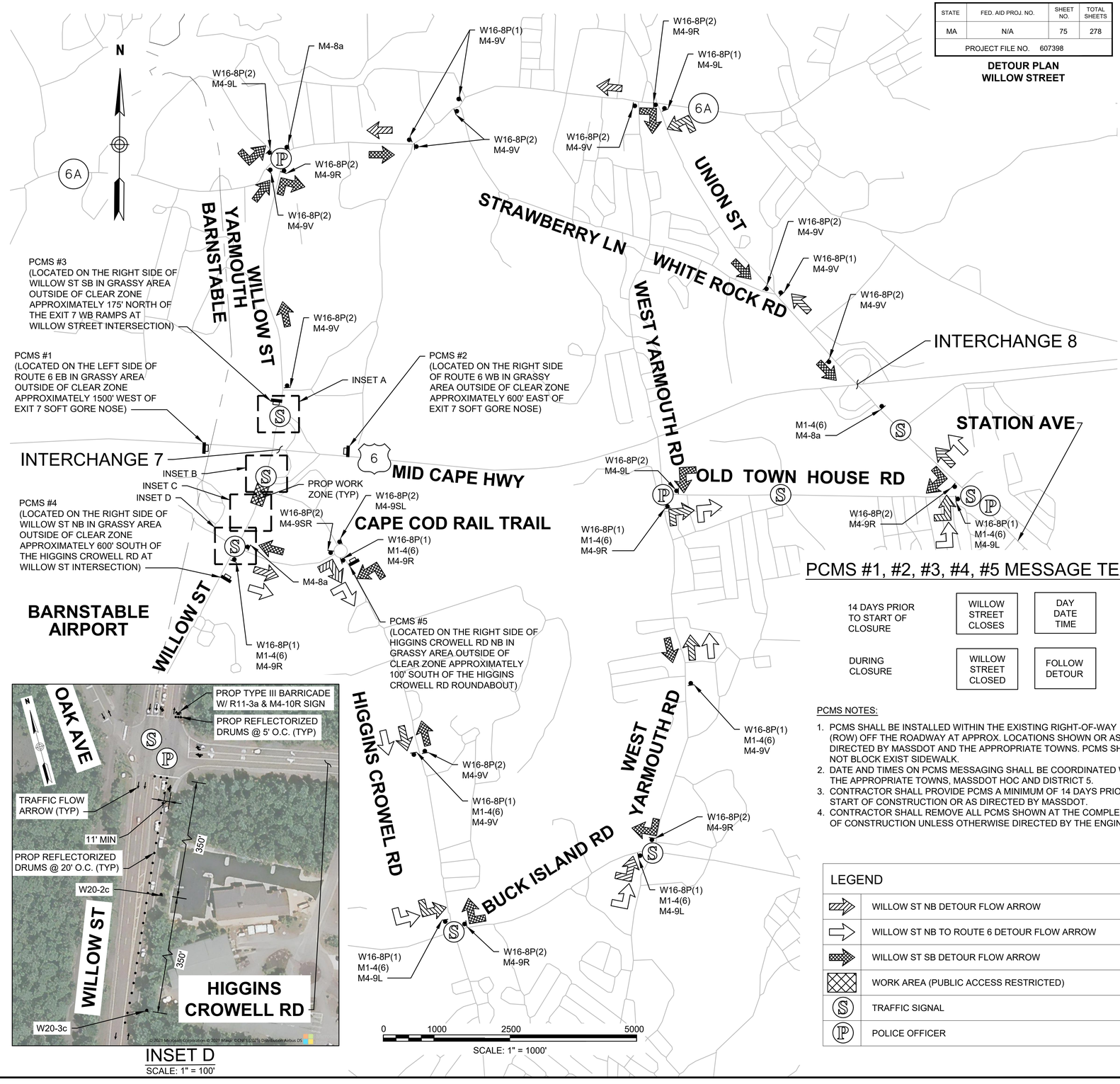


INSET B
SCALE: 1" = 60'



INSET C
SCALE: 1" = 80'

INSET D
SCALE: 1" = 100'



PCMS #1, #2, #3, #4, #5 MESSAGE TEXT

14 DAYS PRIOR TO START OF CLOSURE	WILLOW STREET CLOSES	DAY DATE TIME
DURING CLOSURE	WILLOW STREET CLOSED	FOLLOW DETOUR

PCMS NOTES:

1. PCMS SHALL BE INSTALLED WITHIN THE EXISTING RIGHT-OF-WAY (ROW) OFF THE ROADWAY AT APPROX. LOCATIONS SHOWN OR AS DIRECTED BY MASSDOT AND THE APPROPRIATE TOWNS. PCMS SHALL NOT BLOCK EXIST SIDEWALK.
2. DATE AND TIMES ON PCMS MESSAGING SHALL BE COORDINATED WITH THE APPROPRIATE TOWNS, MASSDOT HOC AND DISTRICT 5.
3. CONTRACTOR SHALL PROVIDE PCMS A MINIMUM OF 14 DAYS PRIOR TO START OF CONSTRUCTION OR AS DIRECTED BY MASSDOT.
4. CONTRACTOR SHALL REMOVE ALL PCMS SHOWN AT THE COMPLETION OF CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

LEGEND

	WILLOW ST NB DETOUR FLOW ARROW
	WILLOW ST NB TO ROUTE 6 DETOUR FLOW ARROW
	WILLOW ST SB DETOUR FLOW ARROW
	WORK AREA (PUBLIC ACCESS RESTRICTED)
S	TRAFFIC SIGNAL
P	POLICE OFFICER

NOTES:

1. SEE GENERAL NOTES & LEGEND ON SHEET 70 FOR ADDITIONAL INFORMATION.
2. REFER TO ADVANCE SIGN SCHEMATIC PLAN ON SHEET 72.
3. CONTRACTOR TO COORDINATE WITH THE YARMOUTH FIRE/EMS/POLICE DEPARTMENTS AT LEAST 14 DAYS IN ADVANCE OF CLOSURE AND DETOUR OF WILLOW STREET.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	76	182
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HDUTIL).DWG Plotted on 14-Feb-2024 11:00 AM

N

INDEPENDENCE DRIVE

CCRT PHASE 3 - WEST CONSTRUCTION BASELINE

MARY DUNN ROAD

1953 TOWN LAYOUT

PROP HYD, WG, 6" DIP (25'), 16x6 TS&V

PROP 16x16 TS&V

PROP 16" INSERTION VALVE

PROP HYD, WG, 6" DIP (27'), 16x6 TEE

CUT AND CAP WATER MAIN, PROP THRUST BLOCK

PROP 16" DIP WATER LINE

PROP WG

PROP 16" 45 DEG BEND (2)

PROP CBCI

155' - 12" RCP

PROP HYDRODYNAMIC SEPARATOR

PROP LB (3)
LB#3 W/F&G, LB#4, #5 W/F&C
3' MIN STONE SURROUNDING EACH LB

5' - 12" RCP

PROP 12" FES
INV = 39.0

6' - 12" RCP

6' - 12" RCP

17' - 12" RCP

ABAN 16" WATER MAIN

PROP PAVED WATERWAY

PROP 16" DIP WATER LINE

CUT AND CAP WATER MAIN, PROP THRUST BLOCK

PROP HYD, WG, 6" DIP (22'), 16x6 TEE

PROP 16" 45 DEG BEND (2)

PROP WG

PROP 16x16 TS&V

PROP HYD, WG, 6" DIP (12'), 16x6 TS&V

PROP 16" INSERTION VALVE

CONTINUED BELOW

CONTINUED ABOVE

SCALE IN FEET

MARY DUNN PARKING LOT DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
1	CBCI	40+68.0 11.0 R	43.1		39.5	
2	DMH	42+28.0 10.1 R	43.9	(1) 38.6	38.4	STORMCEPTOR
3	LB	42+28.0 13.3 L	44.2	(2) 38.2	38.0	PROP LEACHING BASIN
4	LB	42+28.0 25.3 L	42.9	(3) 37.8	37.6	PROP LEACHING BASIN
5	LB	42+28.0 37.3 L	43.1	(4) 37.4	39.3	PROP LEACHING BASIN

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	77	278
PROJECT FILE NO. 607398			

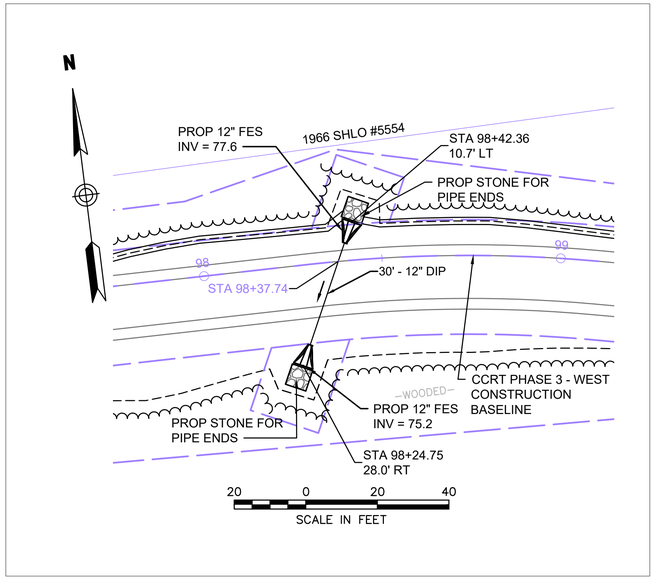
UTILITY PLANS

607398_HDUTIL).DWG Plotted on 14-Feb-2024 11:03 AM

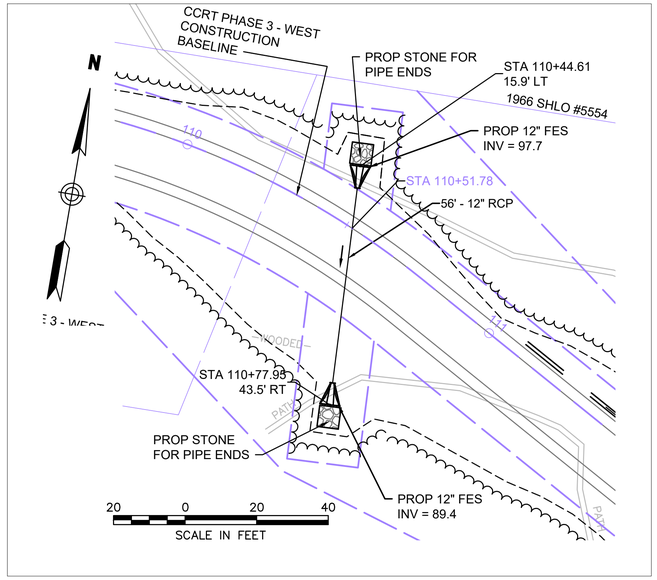
NOTE:

NO UTILITIES FROM STA 68+00 - 134+00
OTHER THAN CROSS CULVERTS

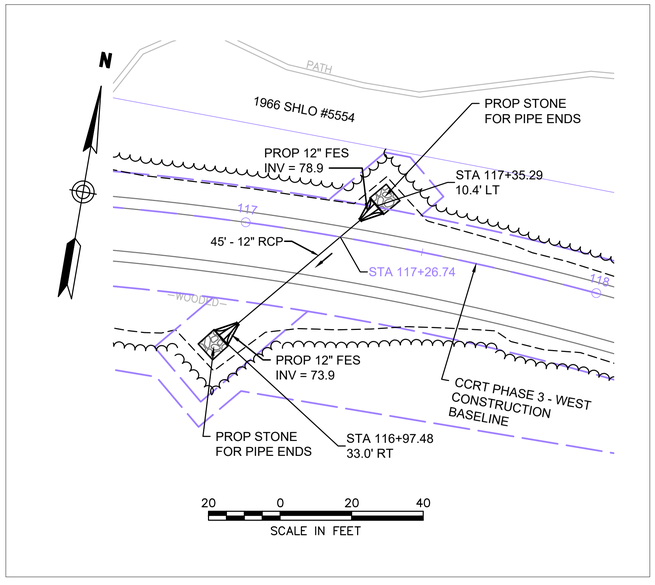
CROSS CULVERT 1 - STA 98+24.75 TO STA 98+42.36



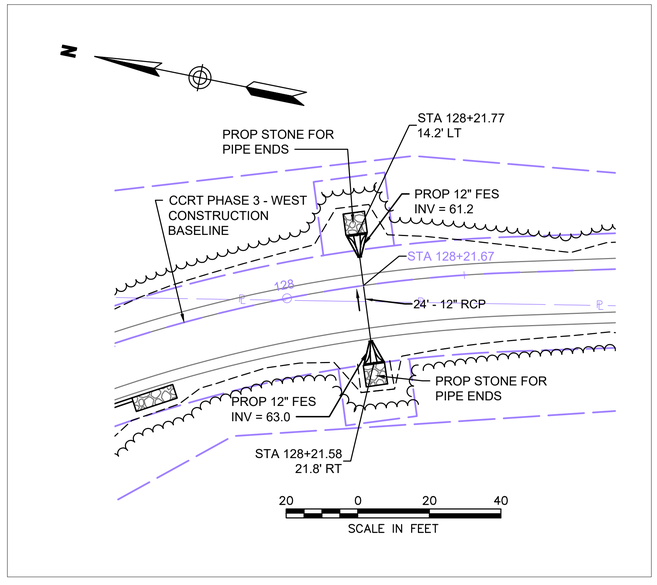
CROSS CULVERT 2 - STA 110+44.61 TO STA 110+77.95



CROSS CULVERT 3 - STA 116+97.48 TO STA 117+35.29



CROSS CULVERT 4 - STA 128+21.58 TO STA 128+21.77



WILLOW STREET SPUR - DOT YARD TO MAIN PATH DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
83	CB	300+54.9 21.0 R	47.9		44.0	PROP 12" HOOD
84	LB	300+78.0 29.6 R	48.9	(83) 43.6	43.4	PROP LEACHING BASIN
85	LB	300+77.9 41.6 R	49.6	(84) 43.2	43.0	PROP LEACHING BASIN
86	LB	300+77.7 53.6 R	50.0	(85) 42.8		PROP LEACHING BASIN
87	CB	303+31.0 7.0 R	55.7		51.4	PROP 12" HOOD
88	LB	303+22.1 14.8 R	55.2	(87) 51.0 (91) 51.0	50.5	PROP LEACHING BASIN
89	LB	303+12.1 14.8 R	54.7	(88) 50.2	50.0	PROP LEACHING BASIN
90	LB	303+02.1 14.8 R	54.3	(89) 49.8		PROP LEACHING BASIN
91	CB	303+31.0 18.6 R	55.5		51.2	PROP 12" HOOD

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	78	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HDUTIL).DWG Plotted on 15-Feb-2024 3:41 PM

N

CONTINUED BELOW

RAILROAD
FUTURE TRACKS

REM UP#9200/54.5
WILLOW STREET CONSTRUCTION BASELINE
PROP 6-6" PVC ELEC CONDUITS CONC ENCASED
PROP 2-4" PVC TEL CONDUITS CONC ENCASED
UPL 9200/54.5

CUT & CAP EXIST GAS (BO)
REM 8" GAS
10" CS GAS LINE (BO)
REM UP#9200/56 AND GUY
CUT & CAP EXIST GAS (BO)
MEET EXIST GAS LINE (BO)
REM GAS MAIN
PROP STONE FOR PIPE ENDS
1953 SHLO #4069
1953 TOWN LAYOUT
CCRT PHASE 3 - WEST CONSTRUCTION BASELINE
1953 TOWN LAYOUT

MASSDOT RAIL RR ROW
PROP 165'± 8" PL GAS LINE (BO)
PROP 316'± 10" CS GAS LINE (BO)
PROP 2-4" PVC SWEEPS FOR TELEPHONE
REM UP#9200/55S AND GUY
PROP 6-6" RGS BENDS RADIUS = 48" CONC ENCASED
R&R 45' UP#9200/55 W/15' DE GUY REM 10' SW GUYS (BO)
PROP 6-6" RGS BENDS RADIUS = 48" CONC ENCASED
PROP 6-6" PVC ELEC CONDUITS CONC ENCASED
PROP 2-6" PVC ELEC CONDUITS CONC ENCASED
PROP 2-6" RGS RISERS AND SWEEPS
PROP 50' UP #9200/55.5 (BO)
PROP EMH M-1204
PROP 2-6" RGS BENDS RADIUS = 48" CONC ENCASED
RET UP#36/91
PROP 12-6" PVC ELEC CONDUITS CONC ENCASED

PROP EMH M-1204
CUT & CAP EXIST GAS (BO)
REM GAS LINE
PROP CB
7' - 12" RCP
PROP CB
5' - 12" RCP
4' - 12" RCP
4' - 12" RCP
PROP LB (3) 2' MIN STONE SURROUNDING EACH LB
WILLOW STREET SPUR CONSTRUCTION BASELINE
HIGGINS CROWELL UTILITY ACCESS CONSTRUCTION BASELINE
PROP CLEARING & GRUBBING (TYP)
1955 SHLO #4256
1954 COUNTY LAYOUT
PROP EMH M-1204
1953 SHLO #4069
PROP 6-6" PVC ELEC CONDUITS CONC ENCASED

CUT & CAP EXIST GAS (BO)
MEET EXIST GAS LINE (BO)
PROP 4-6" PVC ELEC CONDUITS CONC ENCASED
PROP 4-6" RGS BENDS RADIUS = 48" CONC ENCASED
PROP 6-6" PVC ELEC CONDUITS CONC ENCASED
PROP PAD MOUNTED PRIMARY SWITCH ENCLOSURE 25KV (BO)
PROP LB (3) 3' MIN STONE SURROUNDING EACH LB
6' - 12" RCP
6' - 12" RCP
20' - 12" RCP
PROP CB

WILLOW STREET (PUBLIC)

20 0 20 40
SCALE IN FEET

CONTINUED ON SHEET 80

CONTINUED ABOVE

CONTINUED ON SHEET 79

UPGRADE R&R 45' UP#9200/54 W/ 15' DE GUY (BO)
RAILROAD
FUTURE TRACKS
PROP 2-4" PVC SWEEPS FOR TELEPHONE
PROP 2-4" PVC TEL CONDUITS CONC ENCASED
PROP 2-4" PVC SWEEPS FOR TELEPHONE
2004 SHLO #7813
UPGRADE 50' UP#9200/53.5 W/ 15' DE GUY (BO)
PROP 2-6" 48 DEG RGS RISERS & SWEEPS
PROP 2-6" PVC ELEC CONDUITS CONC ENCASED
REM UP#9200/54.5
R&R 45' UP#9200/55 W/ 15' DE GUY (BO)
PROP 6-6" PVC ELEC CONDUITS CONC ENCASED
PROP EMH M-1204
PROP 2-6" RGS BENDS RADIUS = 48" CONC ENCASED
WILLOW STREET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	79	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HD(UTIL).DWG Plotted on 14-Feb-2024 11:05 AM

CONTINUED ON SHEET 78

N

RET UP#36/91

UPL 36/91

RET UP#36/90

UPL 36/90

RET UP#90S

UPL 90S

RAILROAD

2004

2003

2002

2001

300

400

WIRE FENCE

EP

"14'-2" AHEAD"

"6 EAST ORLEANS PROVINCETOWN NEXT RIGHT" "WEST 6 BOSTON"

DMH RIM=43.33'

WILLOW STREET CONSTRUCTION BASELINE

WILLOW STREET

ANSEL HALLET ROAD

N/F
COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF TRANSPORTATION
(FORMERLY N.Y.N.H. & HARTFORD R.R. HYANNIS BRANCH)
BOOK 3498 PAGE 92

N/F
COMMONWEALTH OF MASS
362 WILLOW ST
83/10
BOOK 854 PAGE 108

PROP 1-4" PVC ELEC CONDUIT

PROP EVERSOURCE APPROVED HH

CONNECT TO METER

RET 50' UP#1099/1 W/ 2-15' HIP GUY (BO)

PROP 1-3P SECONDARY ELECTRIC SERVICE RELOCATION CONN TO EXIST

PROP 1-6" RGS RISERS & SWEEPS

20 0 20 40
SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	80	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HDUTIL).DWG Plotted on 15-Feb-2024 10:55 PM

N

N/F
TOWN OF YARMOUTH
HIGGINS CROWELL ROAD
83/9
BOOK 858 PAGE 545

CONTINUED ON PAGE 80

1954 COUNTY LAYOUT

PROP 6-6" PVC ELEC CONDUITS CONC ENCASED

PROP EMH M-1204

REM UP#9200/58

CCRT PHASE 3 - WEST CONSTRUCTION BASELINE

1954 COUNTY L.O.

PROP 6-6" PVC ELEC CONDUITS CONC ENCASED

HIGGINS CROWELL UTILITY ACCESS CONSTRUCTION BASELINE

PROP CLEARING AND GRUBBING (TYP)

REM UP#9200/59

PROP EMH M-1204

1954 COUNTY L.O.

PROP 6-6" PVC ELEC CONDUITS CONC ENCASED

CONTINUED BELOW

20 0 20 40
SCALE IN FEET

N

PROP 1-3P SECONDARY ELEC SERVICE RELOCATION CONN TO EXIST

PROP 2-4" PVC ELEC CONDUITS CONC ENCASED

PROP EMH M-1207

PROP 300 KVA TRANSFORMER PAD

1954 COUNTY L.O.

CCRT PHASE 3 - WEST CONSTRUCTION BASELINE

REM UP#9200/60

PROP 4-6" PVC ELEC CONDUITS CONC ENCASED

PROP 2-6" RGS BENDS RADIUS = 48" CONC ENCASED

CONTINUED ABOVE

PROP 6-6" PVC ELEC CONDUITS CONC ENCASED

PROP EMH M-1204

PROP 2-6" RGS BENDS RADIUS = 48" CONC ENCASED

PROP 2-6" PVC ELEC CONDUITS CONC ENCASED

REM UP#9200/60A

PROP EMH M-1207

PROP 2-3P SECONDARY ELEC SERVICE RELOCATION CONN TO EXIST

1954 COUNTY L.O.

HIGGINS CROWELL UTILITY ACCESS CONSTRUCTION BASELINE

PROP CLEARING AND GRUBBING (TYP)

REM UP#9200/61

END CCRT WEST CONST.
BL. STA. 151+26.81
BEGIN CCRT EAST CONST.
BL. STA. 500+00.00

PROP 6-6" PVC ELEC CONDUITS CONC ENCASED

PROP LB (2) 3' MIN STONE SURROUNDING EACH LB

PROP CB

PROP EMH M-1204

6' - 12" RCP

14' - 12" RCP

CONTINUED ON PAGE 81

20 0 20 40
SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	81	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HDUTIL).DWG Plotted on 15-Feb-2024 11:10 PM

HIGGINS CROWELL PARKING LOT DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
77	CB	200+24.3 31.0 L	41.8		38.0	PROP 12" HOOD
78	LB	200+16.4 61.4 L	42.5	(77) 37.6	37.4	PROP LEACHING BASIN
95	LB	200+07.7 69.3 L	42.6	(78) 37.2		PROP LEACHING BASIN

HIGGINS CROWELL PARKING LOT DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
92	CB	200+24.4 31.0 R	41.1		36.6	PROP 12" HOOD
93	LB	200+06.6 38.6 R	40.5	(92) 36.4	36.2	PROP LEACHING BASIN
94	LB	416+87.0 38.5 R	40.5	(93) 36.0		PROP LEACHING BASIN

HIGGINS CROWELL PARKING LOT DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
79	CBCI	204+63.7 31.0 L	39.7		35.5	PROP 12" HOOD
96	LB	204+71.9 60.0 L	38.8	(79) 35.0	34.6 34.6	PROP LEACHING BASIN
97	LB	204+82.7 54.8 L	38.8	(96) 34.4	34.2	PROP LEACHING BASIN
98	LB	204+87.9 65.6 L	38.6	(97) 34.0 (99) 34.0		PROP LEACHING BASIN
99	LB	204+77.1 70.8 L	38.6	(96) 34.4	34.2	PROP LEACHING BASIN

HIGGINS CROWELL PARKING LOT DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
6	CB	205+90.5 42.6 L	39.6		36.0	PROP 12" HOOD
106	LB	205+60.0 50.8 L	39.4	(6) 35.5	35.2	PROP LEACHING BASIN
107	LB	205+50.3 43.8 L	39.7	(106) 35.0		PROP LEACHING BASIN

HIGGINS CROWELL PARKING LOT DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
100	CBCI	204+63.7 31.0 R	39.5		35.5	PROP 12" HOOD
101	LB	204+81.8 42.4 R	39.1	(100) 34.9	34.8 34.8	PROP LEACHING BASIN
102	LB	204+93.8 42.4 R	39.1	(101) 34.7	34.6	PROP LEACHING BASIN
103	LB	205+05.8 42.4 R	39.0	(102) 34.5 (105) 34.3		PROP LEACHING BASIN
104	LB	204+87.8 32.0 R	39.5	(101) 34.7	34.6	PROP LEACHING BASIN
105	LB	204+99.8 32.0 R	39.3	(104) 34.5	34.4	PROP LEACHING BASIN

CONTINUED ON PAGE 80
CONTINUED BELOW
CONTINUED ABOVE

SCALE IN FEET 20 0 20 40

HIGGINS CROWELL ROAD

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	82	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HDUTIL).DWG Plotted on 14-Feb-2024 11:09 AM

NOTE:

NO UTILITIES FROM
STA 500+00 TO STA 548+00

N/F
TOWN OF YARMOUTH
RECREATIONAL & MUNICIPAL/WATER DEPARTMENT
DEED BK. 5236 PG. 49
PLAN BK. 421 PGS. 68 & 69
PARCEL ID: 86-10
635 WEST YARMOUTH ROAD

N/F
TOWN OF YARMOUTH
WATER DEPARTMENT
DEED BK. 4620 PG. 309
PLAN BK. 401 PG. 58
PARCEL ID: 84-15
104 MID-TECH DRIVE

CCRT PHASE 3 - EAST
CONSTRUCTION BASELINE

TOWN LAYOUT (1974)

HIGGINS CROWELL SPUR
CONSTRUCTION BASELINE

CONTINUED ON PAGE 86

CONTINUED ON PAGE 83

40 0 40 80
SCALE IN FEET

NOTE:

NO UTILITIES FROM
STA 559+00 TO STA 571+00

CCRT PHASE 3 - EAST
CONSTRUCTION BASELINE

N/F
CHRISTOPHER
THOMAS KENNEY
& SUZANNE
RENEE KENNEY
DEED BK. 25177
PG. 319
PLAN BK. 379
PG. 59 (LOT 1)
PARCEL ID: 86-6
603 WEST
YARMOUTH ROAD

40 0 40 80
SCALE IN FEET

OLD TOWN HOUSE ROAD DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
7	CB	1002+43.7 87.8 R	60.7		56.5	PROP 12" HOOD
8	CB	1003+00.5 15.8 R	59.9		56.0	PROP 12" HOOD
114	LB	1002+71.2 46.8 R	61.5	(7) 56.0	55.8 55.8	PROP LEACHING BASIN
115	LB	1002+78.8 37.4 R	61.8	(114) 55.6	55.5	PROP LEACHING BASIN
116	LB	1002+86.3 28.1 R	61.5	(8) 55.5 (115) 55.3	55.2	PROP LEACHING BASIN
117	LB	1002+80.5 54.3 R	61.4	(114) 55.6	55.5	PROP LEACHING BASIN
118	LB	1002+88.1 45.0 R	61.7	(117) 55.3	55.2	PROP LEACHING BASIN
119	LB	1002+95.6 35.7 R	62.1	(116) 55.0 (118) 55.0	58.6	PROP LEACHING BASIN

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	83	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HD(UTIL).DWG Plotted on 20-Feb-2024 11:06 AM

CCRT PHASE 3 - EAST CONSTRUCTION BASELINE

RET UP#1101/3

RET UP#1101/2

BAYBERRY HILLS GOLF COURSE DRIVEWAY (PRIVATE)

PROP CB

44' - 12" RCP

R&R IRRIGATION LINE AS NEEDED

PROP LEACHING BASIN (6)
3' MIN STONE SURROUNDING EACH LB

6' - 12" RCP

14' - 12" RCP

33+00 GOLF COURSE PARKING LOT=
590+16.03 CCRT PHASE 3 - EAST

8' - 12" RCP

46' - 12" DIP

PROP 12" FES
INV = 58.0

PROP 12" FES
INV = 56.7

22' - 12" RCP

PROP LEACHING BASIN (3)
3' MIN STONE SURROUNDING EACH LB

PROP GAS RELOCATION
CUT & CAP EXIST GAS
(BO)

CONTINUED BELOW

N/F
CHRISTOPHER THOMAS KENNEY & SUZANNE RENEE KENNEY
DEED BK. 25177 PG. 319
PLAN BK. 379 PG. 59 (LOT 1)
PARCEL ID: 86-6
603 WEST YARMOUTH ROAD

N/F
CONSTANCE B. WRIGHTSON, TRUSTEE OF THE WRIGHTSON REVOCABLE TRUST
DEED BK. 27031 PG. 92
DEED BK. 20851 PG. 233
PLAN BK. 379 PG. 59 (LOT 2)
PARCEL ID: 86-7
607 WEST YARMOUTH ROAD

N/F
BILL G. & DEBORAH A. ANAGNOSTAKOS, TRUSTEES THE ANAGNOSTAKOS FAMILY REVOCABLE TRUST,
DEED BK. 19694 PG. 350
PLAN BK. 379 PG. 59 (LOT 3)
PARCEL ID: 86-6
617 WEST YARMOUTH ROAD

N/F
VINCENT LABERINTO & LISA PASQUALE
DEED BK. 24990 PG. 1
PLAN BK. 379 PG. 59 (LOT 4)
PARCEL ID: 86-9
625 WEST YARMOUTH ROAD

N/F
TOWN OF YARMOUTH
RECREATIONAL & MUNICIPAL WATER DEPARTMENT
DEED BK. 5236 PG. 49
PLAN BK. 421 PGS. 68 & 69
PARCEL ID: 86-10
635 WEST YARMOUTH ROAD

40 0 40 80
SCALE IN FEET

CONTINUED ABOVE

BAYBERRY HILLS GOLF COURSE DRIVEWAY (PRIVATE)

PROP GAS RELOCATION
CUT & CAP EXIST GAS
(BO)

RET UP#1101/2

RET UP#1101/3

GOLF COURSE PARKING LOT CONSTRUCTION BASELINE

PROP CB

8' - 12" RCP

6' - 12" RCP

PROP 12" FES
INV = 56.7

22' - 12" RCP

PROP LEACHING BASIN (3)
3' MIN STONE SURROUNDING EACH LB

PROP POLYMER CONC HAND HOLE

PROP LEACHING BASIN
2' MIN STONE SURROUNDING LB

ADJ WG (TYP)

14' - 12" RCP

6' - 12" RCP

ADJ CB

46' - 12" DIP

PROP 12" FES
INV = 58.0

R&R UP#1101/1
W/10' SW GUY

39' - 12" RCP

R&R IRRIGATION LINE AS NEEDED

44' - 12" RCP

32+99.97 GOLF COURSE PARKING LOT=
590+16.03 CCRT PHASE 3 - EAST

RET UP#207/74

901+20 WEST YARMOUTH ROAD=
1005+95.63 OLD TOWN HOUSE ROAD

WEST YARMOUTH ROAD

OLD TOWN HOUSE ROAD

COUNTY LAYOUT (1974)

TOWN LAYOUT (1972)

ADJ WG

ADJ MONITORING WELL

REM EXIST CB

REPLACE WITH 2(12"), CLASS V RCP

R&R HYD
PROP 6" DI PIPE (9')
PROP WG
PROP 16X6 TS&V

CONTINUED ON PAGE 84

OLD TOWN HOUSE ROAD DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
9	CB	1003+00.6 16.0 L	59.3		55.2	PROP 12" HOOD
10	LB	1003+10.3 25.0 L	60.7	(9) 55.0	54.8	PROP LEACHING BASIN
11	CBCI	1011+30.3 15.8 L	41.5			5 FT DIAMETER, BUILD OVER EXIST PIPE
120	LB	1003+22.3 25.0 L	60.3	(10) 54.6	54.4	PROP LEACHING BASIN
121	LB	1003+34.3 25.0 L	60.3	(120) 54.2	57.0	PROP LEACHING BASIN
126	CB	1005+76.5 27.7 L	57.9		54.8	PROP 12" HOOD
127	LB	1005+32.7 17.2 L	57.8	(126) 54.2		PROP LEACHING BASIN

N

40 0 40 80
SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	84	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HDUTIL).DWG Plotted on 14-Feb-2024 11:11 AM

N

ADJ MONITORING WELL
6" IRRIGATION LINE
(2)-12" HDPE OUTLET PIPES (SIDE BY SIDE) WITH RIP RAP STONE
ADJ WG
(2) 12" HDPE PIPE
REM EXIST CB
REPLACE WITH 2(12"), CLASS V RCP
R&R HYD
PROP 6" DI PIPE (9')
PROP WG
PROP 16X6 TS&V
RET WELL
CCRT PHASE 3 - EAST CONSTRUCTION BASELINE
OLD TOWN HOUSE ROAD
OLD TOWN HOUSE ROAD CONSTRUCTION BASELINE
10' BIT. PATH
GAS LINE MARKER
CONC MATER
CONTINUED ON PAGE 83
CONTINUED BELOW
N/F TOWN OF YARMOUTH DEED BK. 693 PG. 123 PLAN BK. 502 PGS. 94 & 95 PARCEL ID: 86-11.1 597 FOREST ROAD
N/F RONALD J. HAGUE DEED BK. 14769 PG. 111 PLAN BK. 206 PG. 41 (LOT 5) PLAN BK. 274 PG. 59 (LOT 5) PARCEL ID: 86-24 269 & 271 OLD TOWN HOUSE ROAD
N/F ANTHONY T. CUTLER DEED BK. 34210 PG. 284 DEED BK. 206 PG. 41 (LOT 6) DEED BK. 274 PG. 59 (LOT 6) PARCEL ID: 86-23 265 & 267 OLD TOWN HOUSE ROAD
N/F BAYRIDGE REALTY LLC DEED BK. 26821 PG. 246 PLAN BK. 206 PG. 41 (LOT 7) PLAN BK. 274 PG. 59 (LOT 7) PARCEL ID: 86-22 261 & 263 OLD TOWN HOUSE ROAD
N/F BETH HENDERSON & JULIE LYNNE PRESCOTT DEED BK. 32320 PG. 104 PLAN BK. 206 PG. 41 (LOT 8) PLAN BK. 274 PG. 59 (LOT 8) PARCEL ID: 86-21 253 OLD TOWN HOUSE ROAD
N/F VINTON D. WILSON & KERRYANN M. WILLIAMS DEED BK. 34269 PG. 237 PLAN BK. 206 PG. 41 (LOT 8) PLAN BK. 274 PG. 59 (LOT 8) PARCEL ID: 86-20 253 & 255 OLD TOWN HOUSE ROAD
N/F BHADRESH K. PATEL DEED BK. 32332 PG. 172 PLAN BK. 206 PG. 41 (LOT 10) PLAN BK. 274 PG. 59 (LOT 10) PARCEL ID: 86-19 249 & 251 OLD TOWN HOUSE ROAD
N/F ROBERT S. ORMON DEED BK. 35291 PG. 255 PARCEL ID: 86-18-CA 245 OLD TOWNHOUSE ROAD
N/F LESTER R. ALLEN III, TRUSTEE LRA IRA TRUST DEED BK. 26116 PG. 20 247 OLD TOWNHOUSE ROAD PLAN BK. 206 PG. 41 (LOT 11) PLAN BK. 274 PG. 59 (LOT 11)
N/F MICHAEL E. & SUSAN M. ROBINSON DEED BK. 10397 PG. 199 PLAN BK. 496 PG. 26 (LOT 1) PARCEL ID: 86-17.1 233 OLD TOWN HOUSE ROAD
N/F TOWN OF YARMOUTH DEED BK. 907 PG. 105 PLAN BK. 496 PG. 26 (LOT 2) PARCEL ID: 86-17.2 0 OLD TOWN HOUSE ROAD
40 0 40 80 SCALE IN FEET

FOREST ROAD EXT. DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
12	CB	953+57.6 12.0 L	34.3		30.1	PROP 12" HOOD
13	LB	953+87.3 35.1 R	34.7	(123) 29.2	29.0	PROP LEACHING BASIN
14	CB	953+57.6 12.0 R	34.8		30.5	PROP 12" HOOD
15	LB	953+89.7 44.8 R	34.7	(13) 28.8	28.6	PROP LEACHING BASIN
122	LB	953+92.2 54.5 R	34.7	(15) 28.4		PROP LEACHING BASIN
123	DMH	953+73.0 6.5 R	34.9	(12) 29.8 (14) 30.2	29.6	

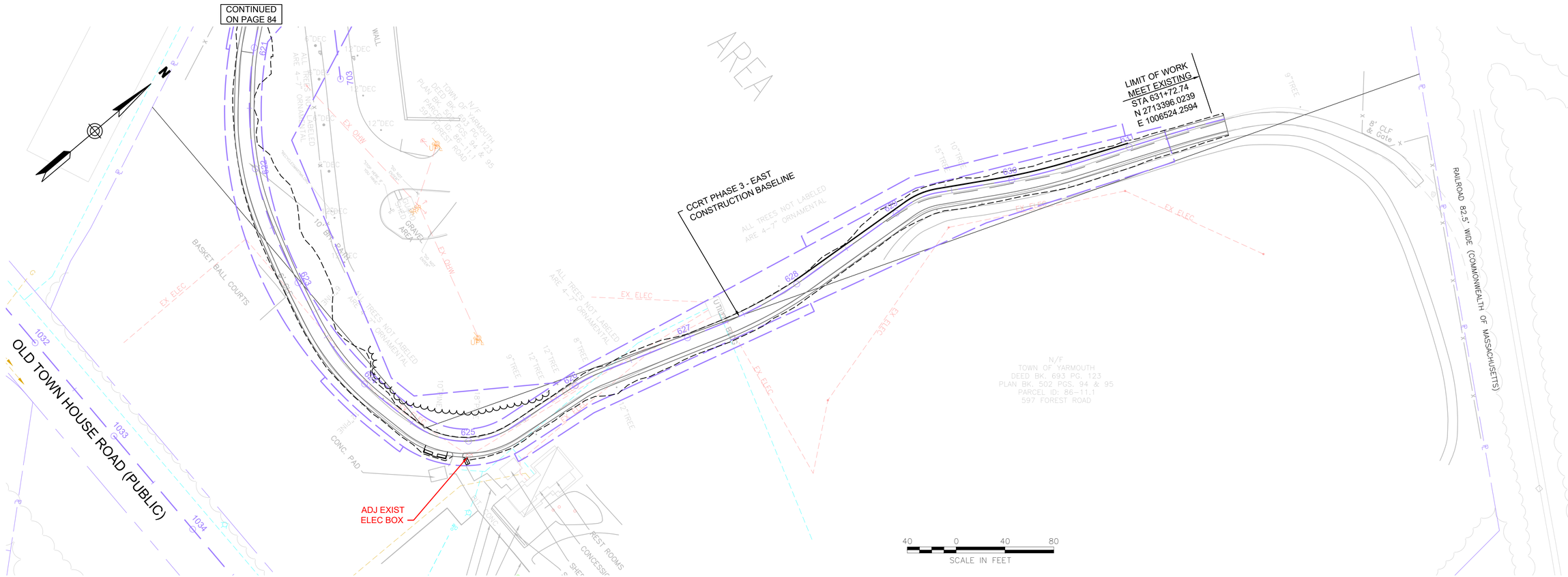
R&R HYDRANT OVER EXIST PIPE, PROP WG, 6" DIP (21'), 20x6 TS&V
REM HOSE BIB, METER PIT, AND CURB STOP
PROP LB (3) 2' MIN STONE SURROUNDING EACH LB
TRANSFER STATION DRIVEWAY CONSTRUCTION BASELINE
27'- 12" RCP
4'- 12" RCP
4'- 12" RCP
PROP DMH
ADJ MONITORING WELLS
CCRT PHASE 3 - EAST CONSTRUCTION BASELINE
RET UP
PROP POLYMER CONC HAND HOLE
PROP CB
12'- 12" RCP
PROP CB
20'- 12" RCP
FOREST ROAD CONSTRUCTION BASELINE
FOREST ROAD (PUBLIC)
1970 TOWN LAYOUT
CAPE COD BERM
BIT. DRIVE
CHAIN LINK FENCE
OUTLET PIPE
14' GATE
BIKE GATE
CONCRETE WALL
CONCRETE BLOCK MATERIAL STOCKPILE BAYS
POLE# 47/72 (1) TRANSFORMER (3) RAISERS
POLE# 47/71 (1) LAMP (3) RAISERS
FOREST ROAD CONDOMINIUM MASTER DEED BK. 5411 PG. 325 PLAN BK. 408 PG. 44 (PARCEL B) PLAN BK. 425 PG. 91 PARCEL ID: 86-14-C1 THRU C8 583A THRU 583H FOREST ROAD
OLD TOWNHOUSE ROAD LLC DEED BK. 32478 PG. 260 PLAN BK. 408 PG. 44 (PARCEL A) PARCEL ID: 86-13 196 OLD TOWNHOUSE ROAD
N/F THOMAS FECORARO DEED BK. 22320 PAGE 224 PLAN BK. 220 PG. 149 (LOT 178) PARCEL ID: 86-12 210 OLD TOWNHOUSE ROAD
N/F 182 FOREST LLC DEED BK. 31434 PG. 35 PLAN BK. 220 PG. 149 (LOTS 168 THRU 171) PARCEL ID: 86-15 182 OLD TOWNHOUSE ROAD
CONTINUED ABOVE
CONTINUED ON PAGE 85

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	85	278
PROJECT FILE NO. 607398			

UTILITY PLANS

607398_HD(UTIL).DWG Plotted on 14-Feb-2024 11:12 AM

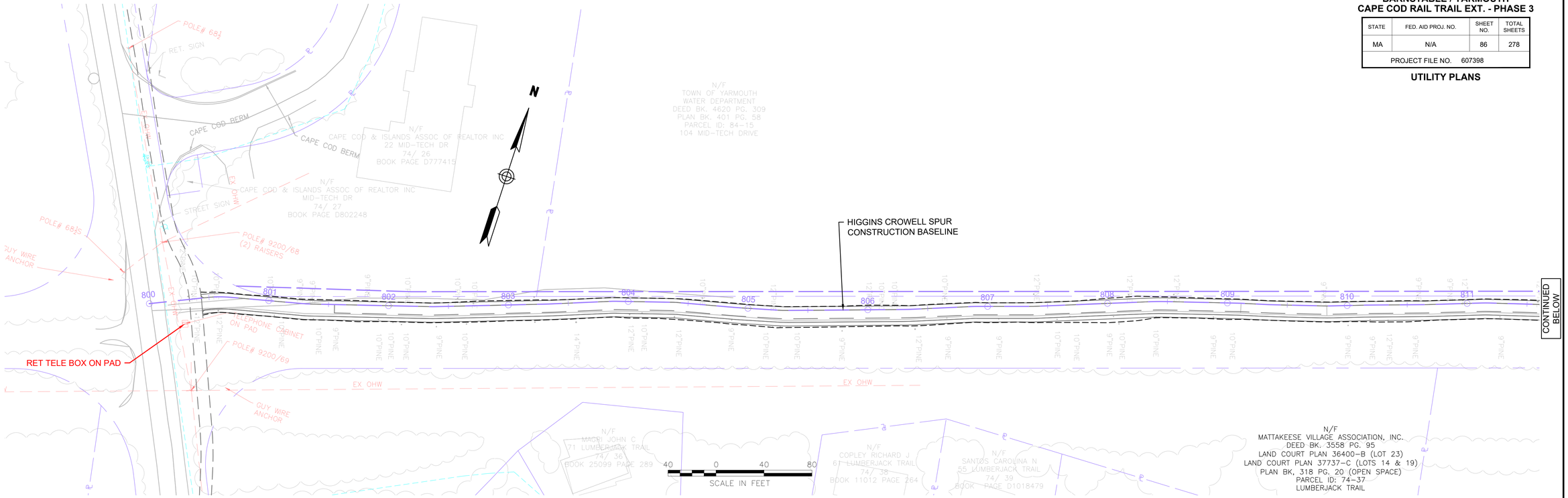


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	86	278
PROJECT FILE NO. 607398			

UTILITY PLANS

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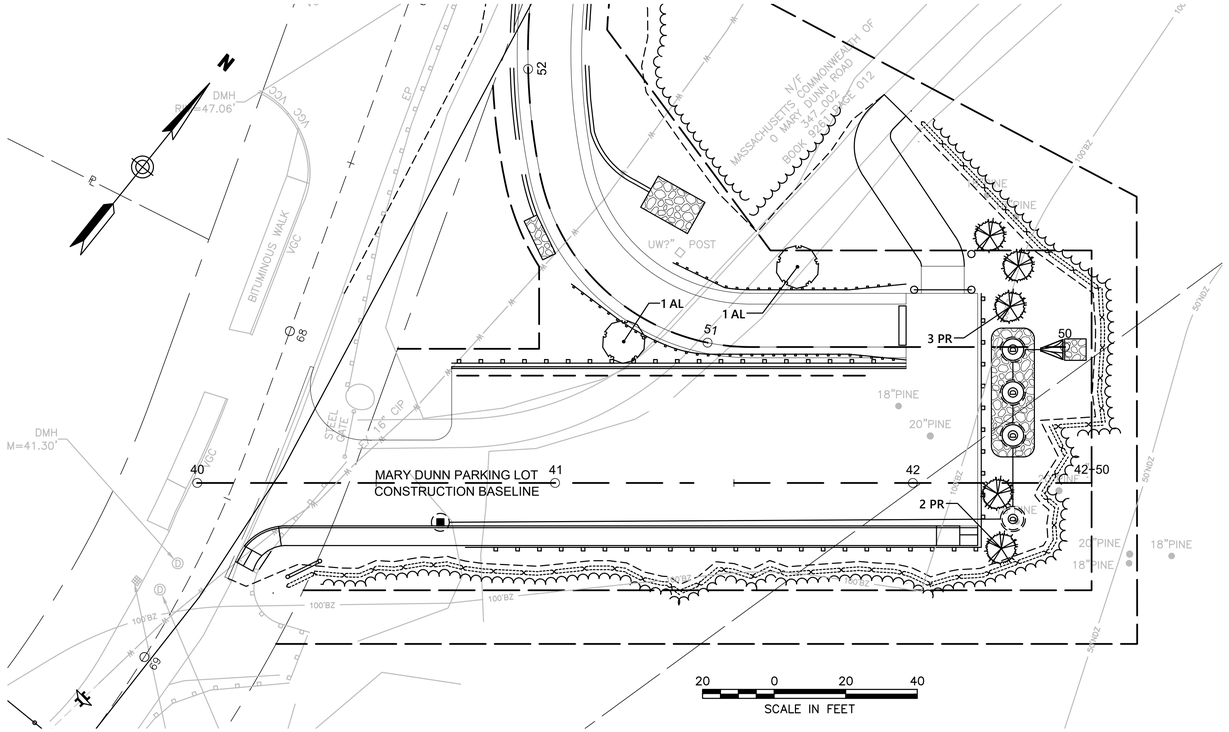


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	87	278
PROJECT FILE NO. 607398			

LANDSCAPE PLANS

607398_HD(LA).DWG Plotted on 14-Feb-2024 11:21 AM



PARKING LOT NO. 1 - MARY DUNN ROAD

PLANT SCHEDULE SHEET 1

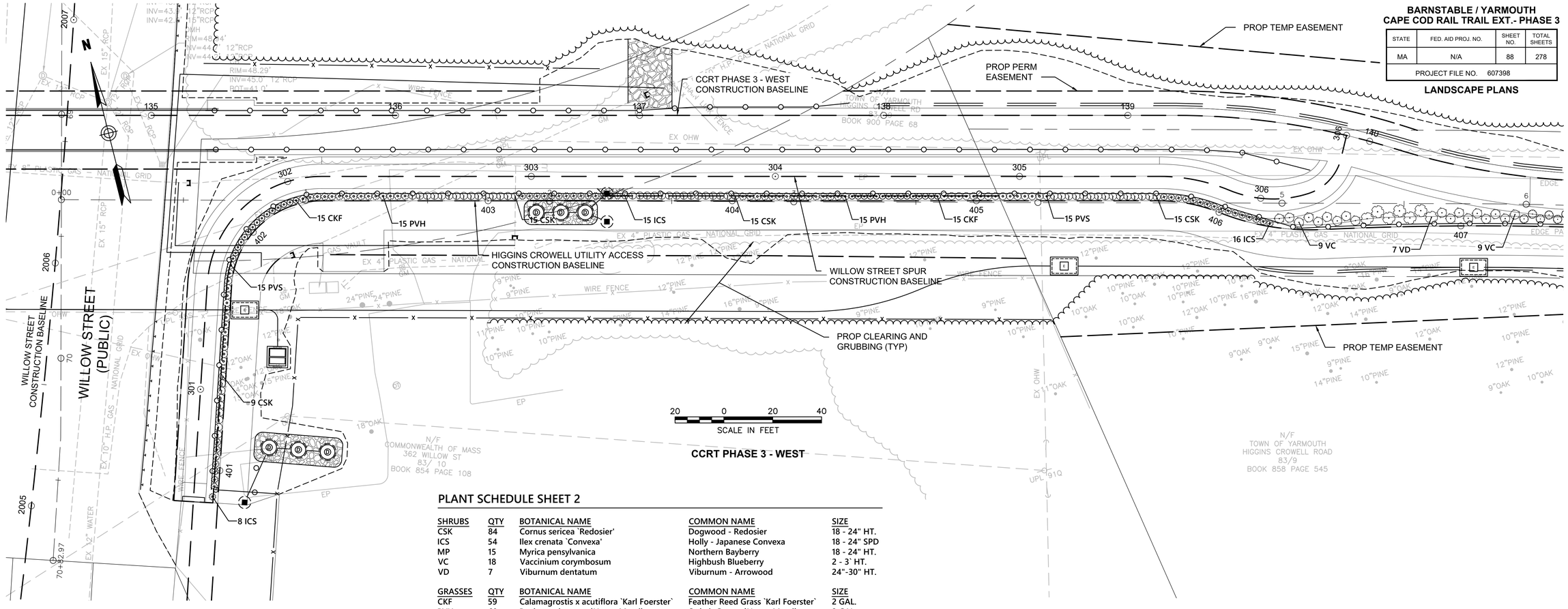
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PR	5	Pinus rigida	Pine - Pitch	7 - 8` HT.
ORNAMENTAL TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
AL	2	Amelanchier laevis	Shad Tree - Downy	2 - 2 1/2" CAL.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	88	278
PROJECT FILE NO. 607398			

LANDSCAPE PLANS

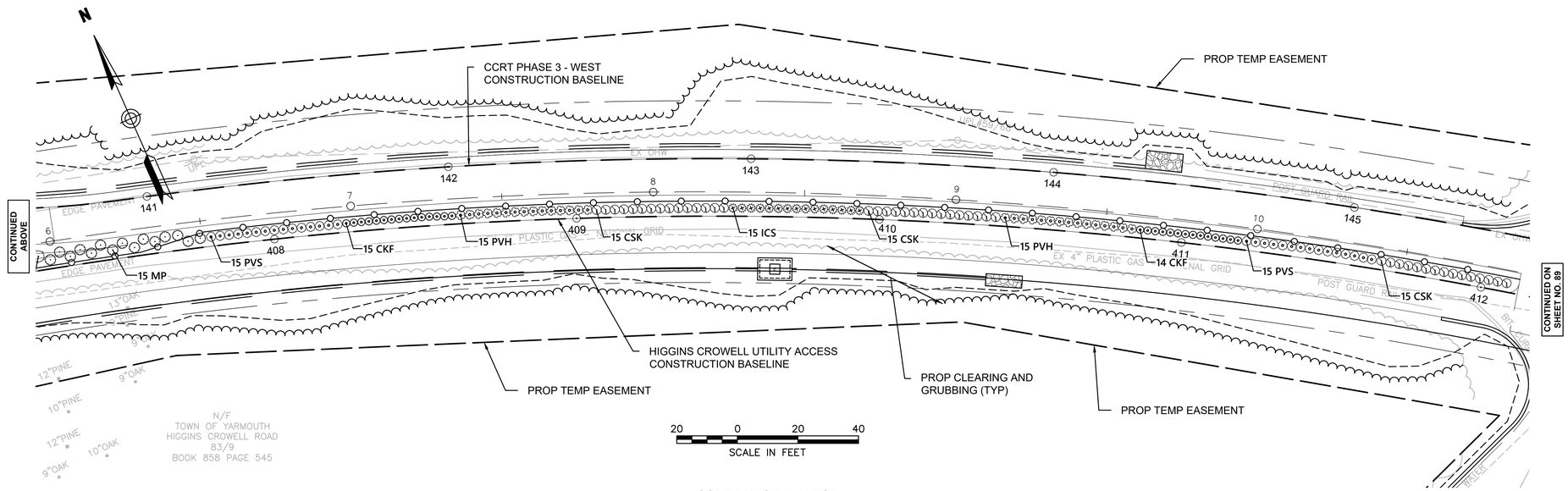
607398_HD(LA).DWG Plotted on 14-Feb-2024 11:23 AM



PLANT SCHEDULE SHEET 2

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CSK	84	Cornus sericea `Redosier'	Dogwood - Redosier	18 - 24" HT.
ICS	54	Ilex crenata `Convexa'	Holly - Japanese Convexa	18 - 24" SPD
MP	15	Myrica pensylvanica	Northern Bayberry	18 - 24" HT.
VC	18	Vaccinium corymbosum	Highbush Blueberry	2 - 3` HT.
VD	7	Viburnum dentatum	Viburnum - Arrowood	24"-30" HT.

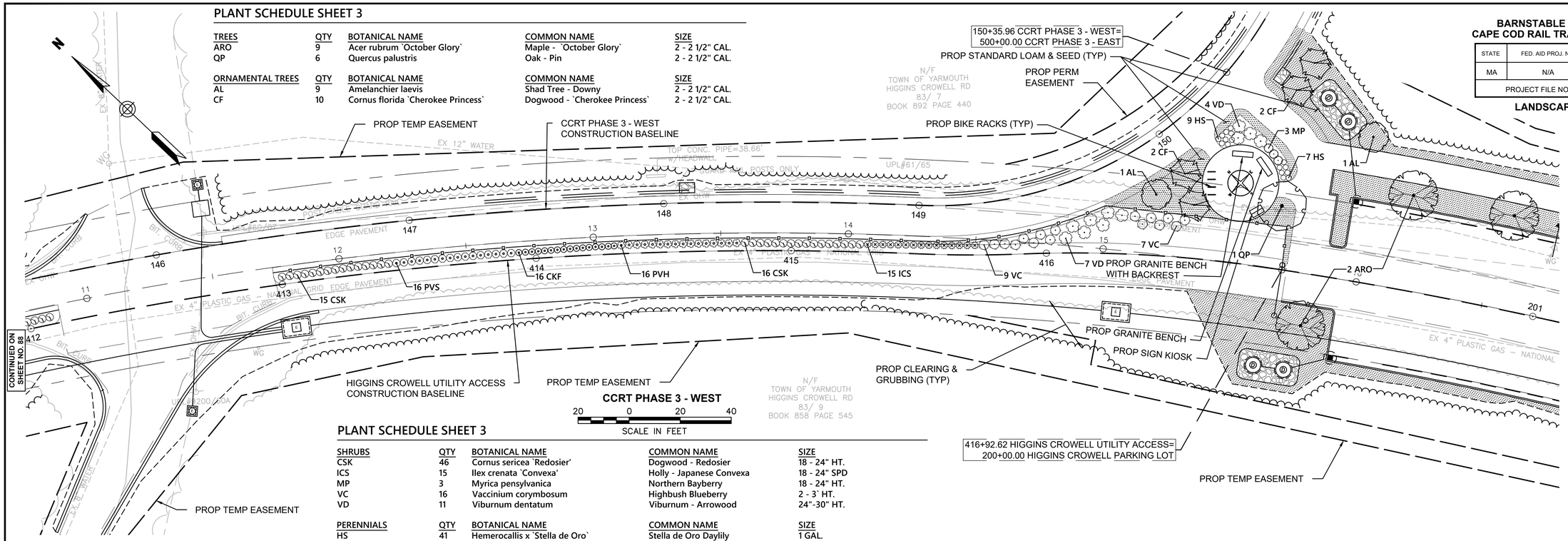
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CKF	59	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass `Karl Foerster`	2 GAL.
PVH	60	Panicum virgatum `Heavy Metal`	Switch Grass - `Heavy Metal`	2 GAL.
PVS	60	Panicum virgatum `Shenandoah`	Switch Grass - 'Shenandoah'	2 GAL.



PLANT SCHEDULE SHEET 3

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ARO	9	Acer rubrum `October Glory`	Maple - `October Glory`	2 - 2 1/2" CAL.
QP	6	Quercus palustris	Oak - Pin	2 - 2 1/2" CAL.

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AL	9	Amelanchier laevis	Shad Tree - Downy	2 - 2 1/2" CAL.
CF	10	Cornus florida `Cherokee Princess`	Dogwood - `Cherokee Princess`	2 - 2 1/2" CAL.

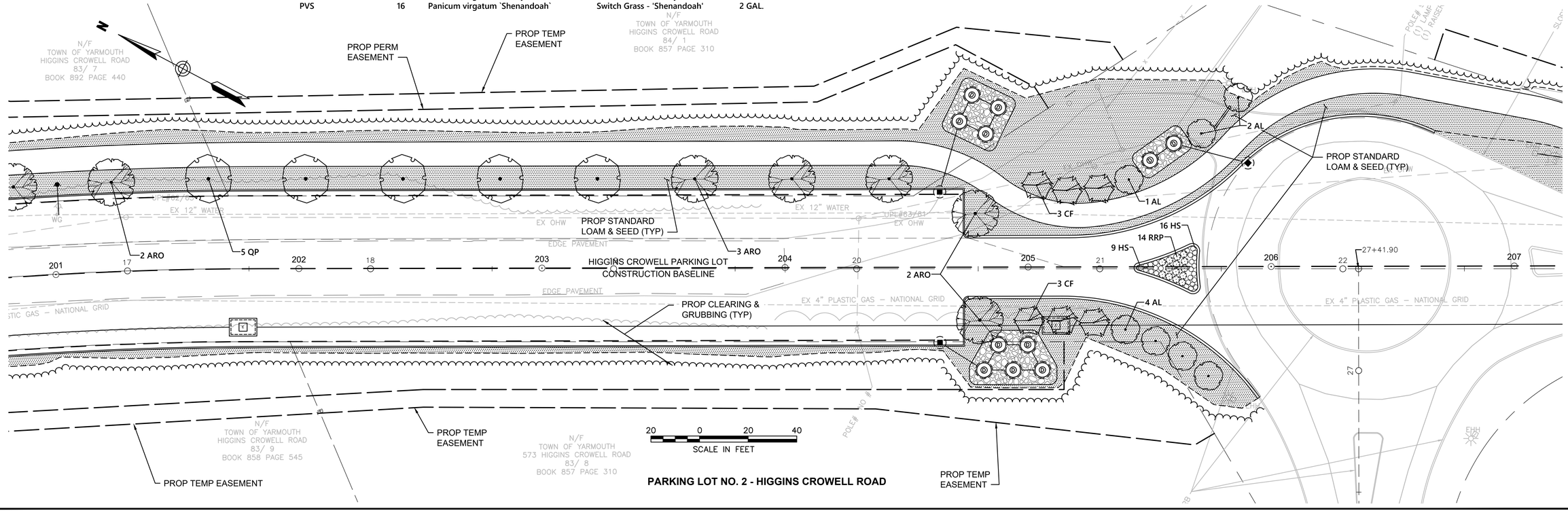


PLANT SCHEDULE SHEET 3

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CSK	46	Cornus sericea `Redosier'	Dogwood - Redosier	18 - 24" HT.
ICS	15	Ilex crenata `Convexa'	Holly - Japanese Convexa	18 - 24" SPD
MP	3	Myrica pensylvanica	Northern Bayberry	18 - 24" HT.
VC	16	Vaccinium corymbosum	Highbush Blueberry	2 - 3` HT.
VD	11	Viburnum dentatum	Viburnum - Arrowood	24"-30" HT.

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
HS	41	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily	1 GAL.
RRP	14	Rosa rugosa `Pink`	Rose - Rugosa - Pink	2 GAL.

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CKF	16	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass `Karl Foerster`	2 GAL.
PVH	16	Panicum virgatum `Heavy Metal`	Switch Grass - `Heavy Metal`	2 GAL.
PVS	16	Panicum virgatum `Shenandoah`	Switch Grass - 'Shenandoah'	2 GAL.



PARKING LOT NO. 2 - HIGGINS CROWELL ROAD

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	89	278
PROJECT FILE NO. 607398			

LANDSCAPE PLANS

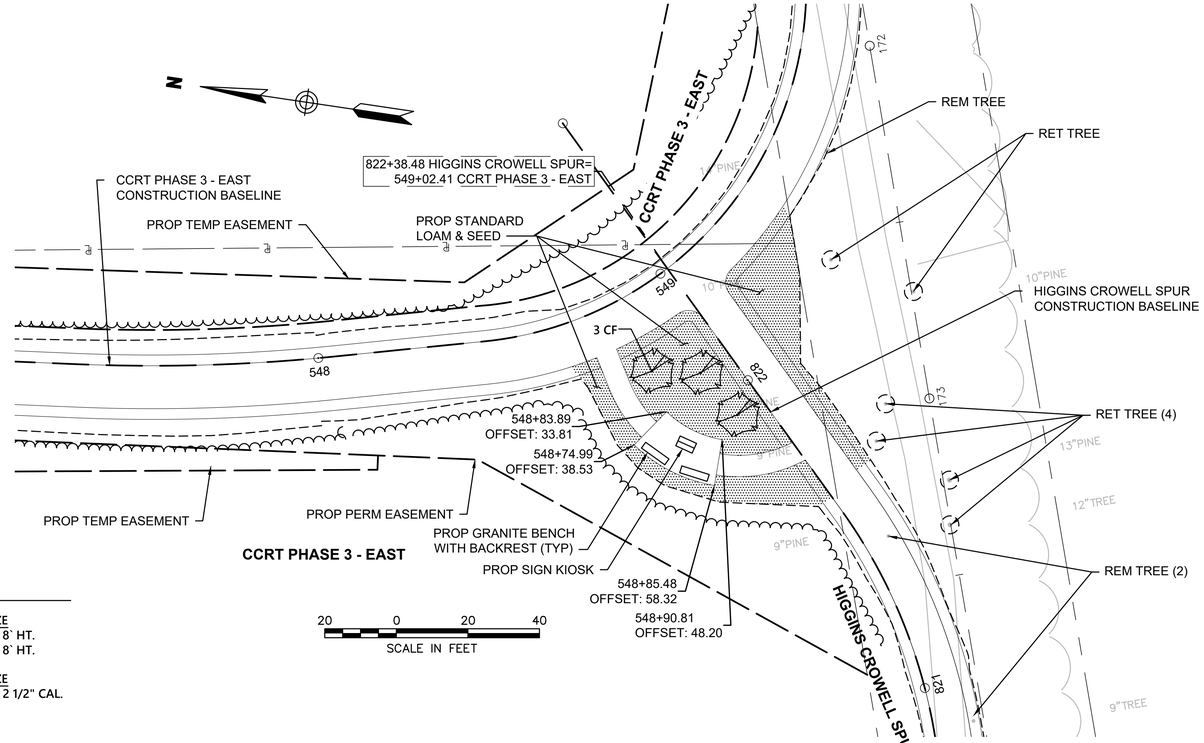
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	90	278
PROJECT FILE NO. 607398			

LANDSCAPE PLANS

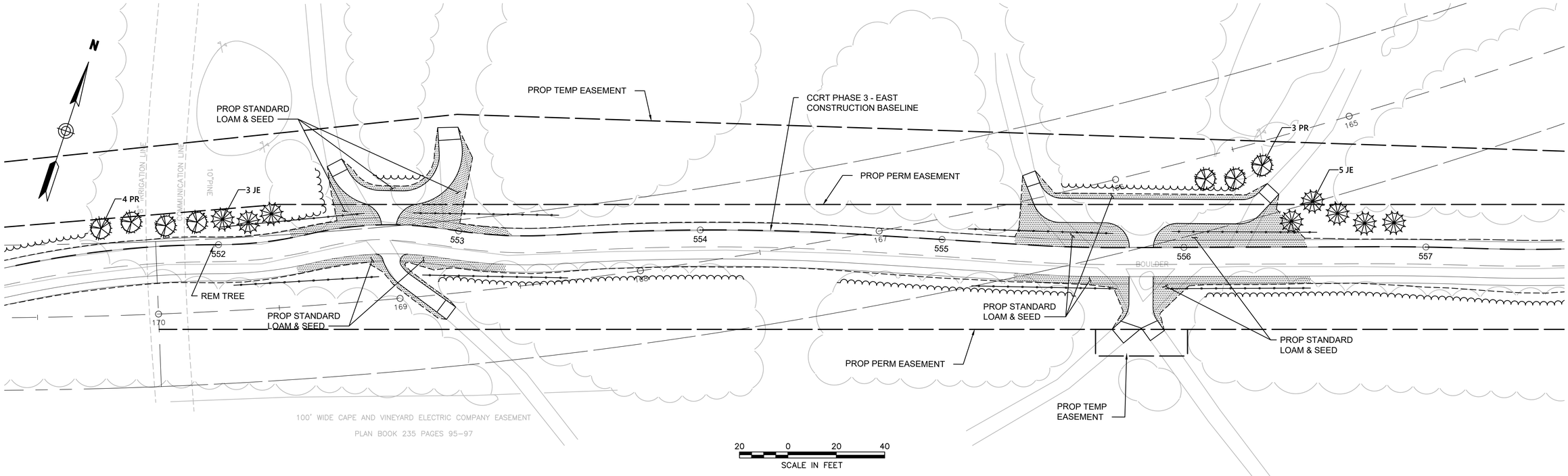
607398_HD(LA).DWG Plotted on 14-Feb-2024 11:27 AM



PLANT SCHEDULE SHEET 4

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
JE	8	Juniperus virginiana	Cedar - Red	7 - 8` HT.
PR	7	Pinus rigida	Pine - Pitch	7 - 8` HT.

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CF	3	Cornus florida `Cherokee Princess`	Dogwood - `Cherokee Princess`	2 - 2 1/2" CAL.



CCRT PHASE 3 - EAST

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	91	278
PROJECT FILE NO. 607398			

LANDSCAPE PLANS

PLANT SCHEDULE SHEET 5

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ARO	4	Acer rubrum `October Glory`	Maple - `October Glory`	2 - 2 1/2" CAL.
QP	2	Quercus palustris	Oak - Pin	2 - 2 1/2" CAL.
ORNAMENTAL TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
AL	1	Amelanchier laevis	Shad Tree - Downy	2 - 2 1/2" CAL.
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
VC	11	Vaccinium corymbosum	Highbush Blueberry	2 - 3` HT.
PERENNIALS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
RFG	22	Rudbeckia fulgida `Goldsturm`	Black-eyed Susan	2 GAL.
GRASSES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
CKF	14	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass `Karl Foerster`	2 GAL.

BAYBERRY HILLS GOLF COURSE DRIVEWAY (PRIVATE)

PROP CCRT IDENTIFIER SIGN SP-3C (SEE DETAIL SHEET 104)

PROP TEMP EASEMENT

PROP PERM EASEMENT

OLD TOWN HOUSE ROAD CONSTRUCTION BASELINE

GOLF COURSE PARKING LOT CONSTRUCTION BASELINE

WEST YARMOUTH ROAD (PUBLIC)

CCRT PHASE 3 - EAST CONSTRUCTION BASELINE

WEST YARMOUTH ROAD CONSTRUCTION BASELINE

CCRT PHASE 3 - EAST

PROP GRANITE BENCH WITH BACKREST

REM TREE

REM TREE (4)

3 VC

14 CKF

4 VC

12 RFG

1 AL

10 RFG

4 VC

RET TREE

2 ARO

1 ARO

2 QP

STANDARD LOAM & SEED (TYP)

PROP BIKE RACKS (TYP)

REM TREE (2)

PROP PICNIC TABLE

PROP SIGN KIOSK

PROP ACCESSIBLE PICNIC TABLE

32+12.50 OFFSET: 52.67

32+02.52 OFFSET: 53.38

32+03.10 OFFSET: 61.36

32+13.07 OFFSET: 60.65

32+15.61 OFFSET: 68.14

32+08.11 OFFSET: 74.76

32+13.41 OFFSET: 80.76

32+20.90 OFFSET: 74.14

32+30.68 OFFSET: 79.48

32+26.74 OFFSET: 93.96

32+40.33 OFFSET: 82.11

32+36.39 OFFSET: 96.58

33+00 GOLF COURSE PARKING LOT= 590+16.03 CCRT PHASE 3 - EAST

901+20 WEST YARMOUTH ROAD= 1005+95.63 OLD TOWN HOUSE ROAD

PARKING LOT NO. 3 - OLD TOWN HOUSE ROAD

20 0 20 40
SCALE IN FEET

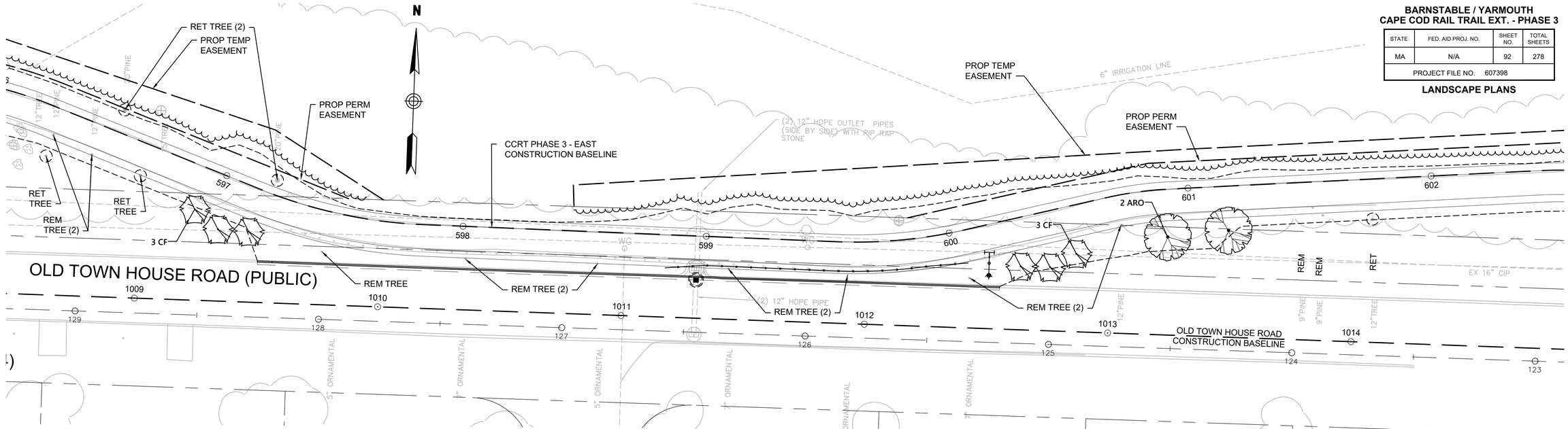
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT. - PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	92	278
PROJECT FILE NO. 607398			

LANDSCAPE PLANS

607398_HD(LA).DWG Plotted on 14-Feb-2024 11:29 AM



PLANT SCHEDULE SHEET 6

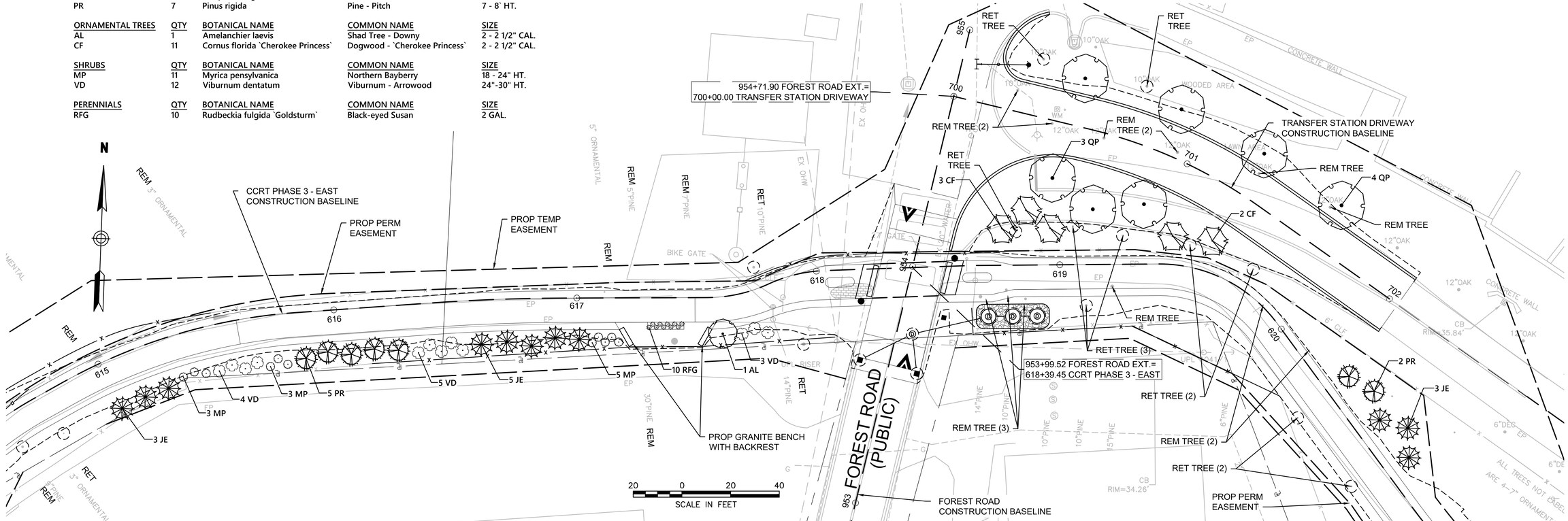
TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ARO	2	Acer rubrum `October Glory`	Maple - `October Glory`	2 - 2 1/2" CAL.
QP	7	Quercus palustris	Oak - Pin	2 - 2 1/2" CAL.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
JE	11	Juniperus virginiana	Cedar - Red	7 - 8` HT.
PR	7	Pinus rigida	Pine - Pitch	7 - 8` HT.

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AL	1	Amelanchier laevis	Shad Tree - Downy	2 - 2 1/2" CAL.
CF	11	Cornus florida `Cherokee Princess`	Dogwood - `Cherokee Princess`	2 - 2 1/2" CAL.

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
MP	11	Myrica pensylvanica	Northern Bayberry	18 - 24" HT.
VD	12	Viburnum dentatum	Viburnum - Arrowood	24"-30" HT.

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
RFG	10	Rudbeckia fulgida `Goldsturm`	Black-eyed Susan	2 GAL.



BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

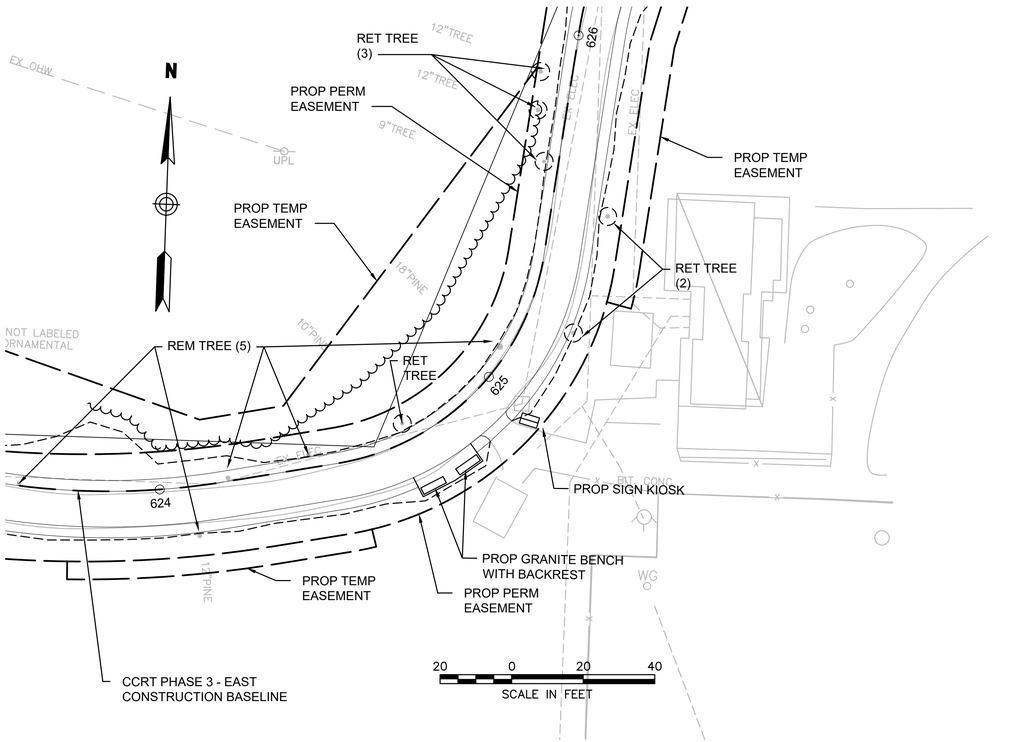
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	93	278
PROJECT FILE NO. 607398			

LANDSCAPE PLANS

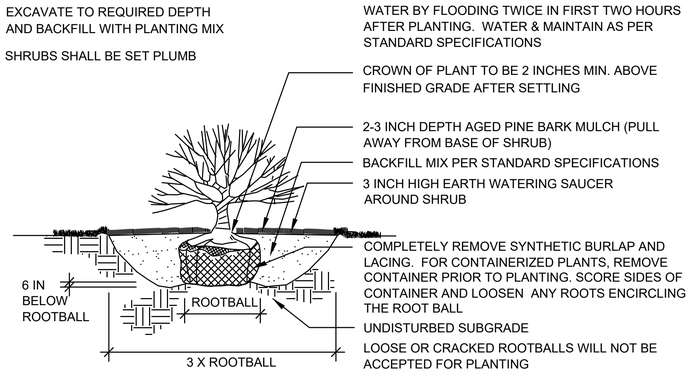
607398_HD(LA).DWG Plotted on 14-Feb-2024 11:30 AM

PLANT SCHEDULE SHEET 7

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
PR	7	Pinus rigida	Pine - Pitch	7 - 8` HT.	773.228
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**REMARKS**
MP	9	Myrica pensylvanica	Northern Bayberry	18 - 24" HT.	789.331

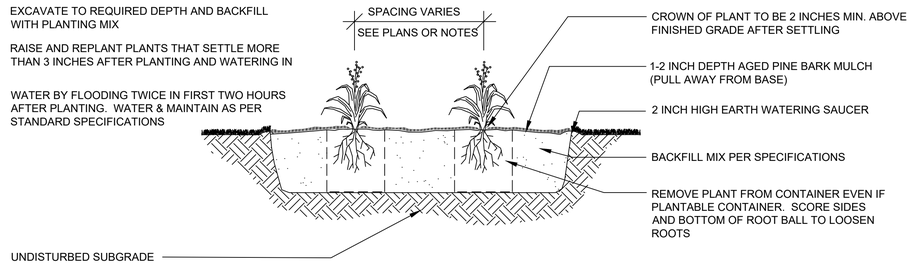

N
RET TREE (3)
PROP PERM EASEMENT
PROP TEMP EASEMENT
PROP TEMP EASEMENT
RET TREE (2)
REM TREE (5)
RET TREE
PROP SIGN KIOSK
PROP GRANITE BENCH WITH BACKREST
PROP TEMP EASEMENT
PROP PERM EASEMENT
CCRT PHASE 3 - EAST CONSTRUCTION BASELINE
EX OHW
UPL
12"TREE
9"TREE
8"PINE
10"PINE
NOT LABELED ORNAMENTAL
626
625
624
PAVED PATH
PAVED PATH
PAVED PATH

607398_HD(LA).DWG Plotted on 14-Feb-2024 11:30 AM



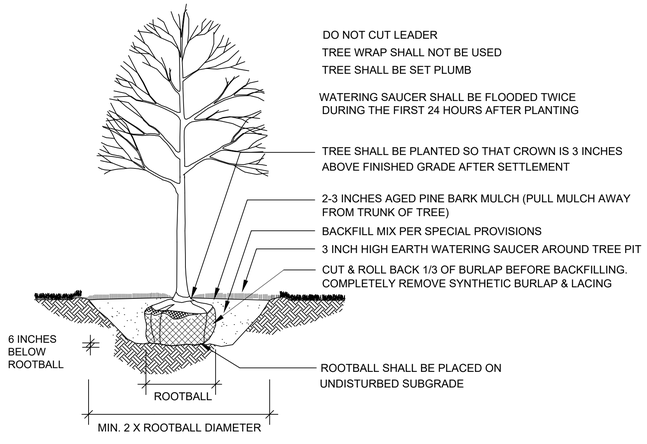
SHRUB PLANTING

NOT TO SCALE FEB 28, 2013



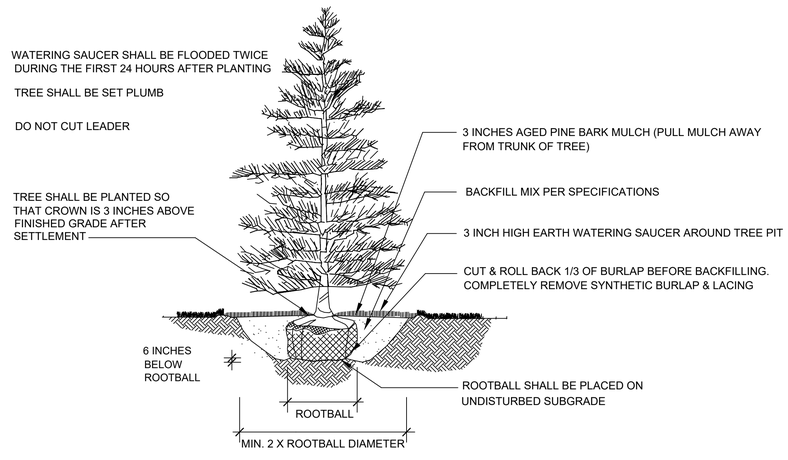
PERENNIAL PLANTING

NOT TO SCALE



DECIDUOUS TREE PLANTING

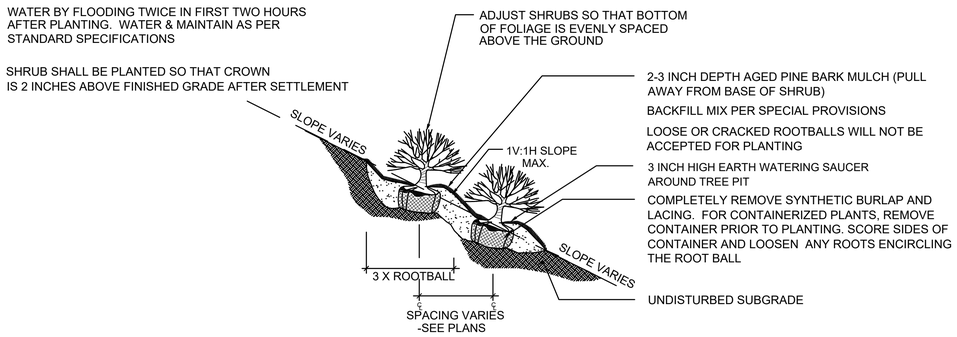
NOT TO SCALE



EVERGREEN TREE PLANTING

NOT TO SCALE

607398_HD(DET).DWG Plotted on 14-Feb-2024 11:31 AM



CONTAINERIZED SHRUB PLANTING (SLOPE)

SCALE: N.T.S.

PLANT KEY	
	SHADE TREES
	EVERGREEN TREES
	ORNAMENTAL TREES
	SHRUBS
	HEMEROCALLIS/NARCISSUS
	PT OR PQ VINES

SEED MIXES (SHALL CONTAIN SOME OR ALL OF THE FOLLOWING SPECIES)

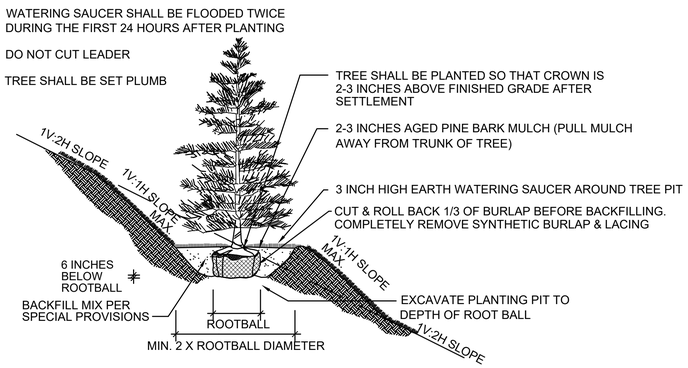
GENERAL SEED MIX (A1)	
APPLICATION RATE: 35 LBS/ACRE	
CANADA WILDE RYE	ELYMUS CANADENSIS
CREEPING RED FESCUE	FESTUCA RUBRA
BIG BLUESTEM	ANDROPOGON GERARDII
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM
INDIAN GRASS	SORGHASTRUM NUTANS
SIDE OATS GRASS	BOUTELOUA CURTIPENDULA
SWITCH GRASS	PANICUM VIRGATUM
SAND LOVEGRASS	ERAGROSTIS TRICHODES

*NARCISSUS VARIETIES (DAFFODIL)			
VARIETY	COLOR	SEASON	SIZE
MARIEKE	YELLOW	EARLY	18"
THALIA	WHITE	MID	14"
ICE FOLLIES	WHITE/YELLOW	EARLY	18"
BARRETT BROWNING	WHITE/YELLOW	EARLY	16"
PROFESSOR EINSTEIN	WHITE/PUMPKIN	EARLY	16 "
*HEMEROCALLIS VARIETIES (DAYLILY)			
VARIETY	COLOR	SEASON	SIZE
CATHERINE WOODBURY	PINK	EXTENDED	30"
HAPPY RETURNS	YELLOW	JULY-FROST	18"
ICE CARNIVAL	WHITE/LIME	REBLOOM	28"
PARDON ME	RED	REBLOOM	18"
ROSY RETURNS	PINK/ROSE	JULY-FROST	18 "

* PLANT DAYLILYS AND DAFFODILS IN RANDOM CLUMPS OF 3 AND 7 BULBS EACH, MIXED COLORS.
* PLANT DAFFODIL BULBS IN MIN 3X BULB DIAMETER DEPTH.
* PLANT DAYLILY CROWN MAX 1 INCH BELOW SOIL SURFACE AND SPREAD ROOTS.

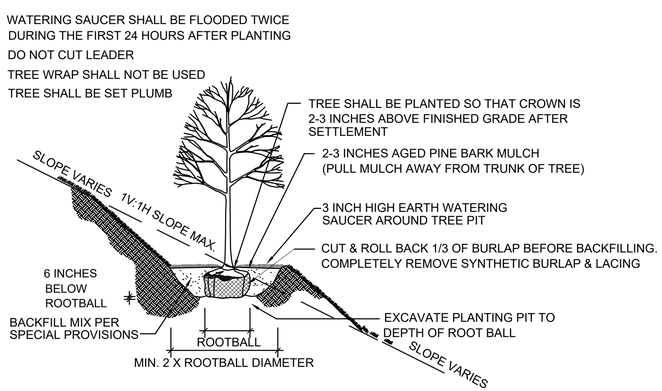
SLOPE SEED MIX (B1)	
APPLICATION RATE: 25 LBS/ACRE	
VIRGINIA WILDE RYE	ELYMUS VIRGINICUS
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM
BIG BLUE STEM	ANDROPOGON GERARDII
CREEPING RED FESCUE	FESTUCA RUBRA
SWITCH GRASS	PANICUM VIRGATUM
PARTRIDGE PEA	CHAMAECRISTA FASCICULATA
DEER TONGUE	PANICUM CLANDESTINUM
INDIAN GRASS	SORGHASTRUM NUTANS
OX EYE SUNFLOWER	HELIOPSIS HELIANTHOIDES
COMMON MILKWEED	ASCLEPIAS SYRIACA
SPOTTED JOE PYE WEED	EUPATORIUM MACULATUM
GRASS LEAVED GOLDENROD	EUTHAMIA GRAMINIFOLIA
BLUE VERVAIN	VERBENA HASTATA
NEW ENGLAND ASTER	ASTER NOVAE-ANGLIAE
EARLY GOLDENROD	SOLIDAGO JUNCEA

* SEED MIX B1 TO BE USED ON ALL SLOPES 3:1 OR GREATER , AND WITHIN ALL DETENSION BASINS AND SWALES.
* SEED MIX A1 TO BE USED ON ALL OTHER DISTURBED AREAS.



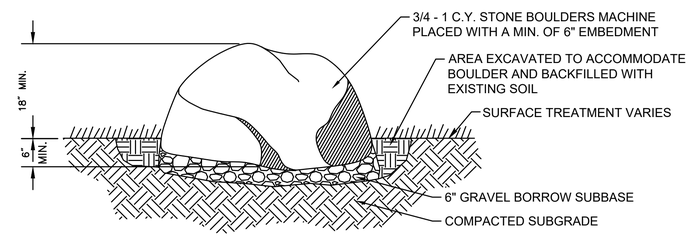
EVERGREEN TREE PLANTING (SLOPE)

SCALE: N.T.S.



DECIDUOUS TREE PLANTING (SLOPE)

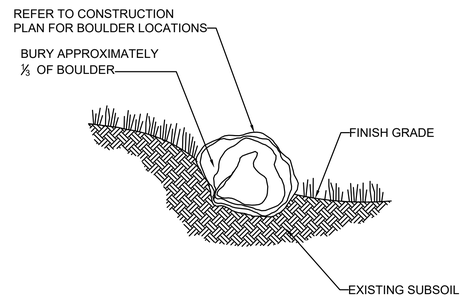
SCALE: N.T.S.



NOTES:
1. LOCATION AND FACING TO BE APPROVED BY LANDSCAPE ARCHITECT IN THE FIELD.
2. TO BE SPACED 6' O.C. WHEN MORE THAN ONE

BOULDER BARRIER

SCALE: N.T.S.



NOTES

1. GRANITE BOULDERS TO BE PLACED AT ADDITIONAL LOCATIONS NOT SHOWN ON PLANS AS DIRECTED BY THE ENGINEER OR TOWN/

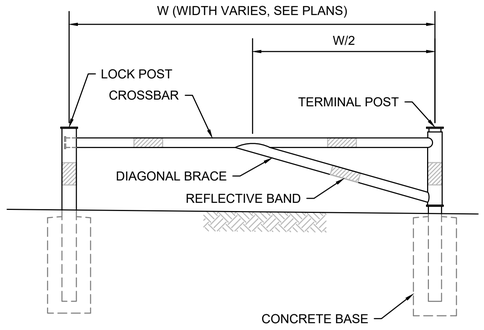
PLACED BOULDER INSTALLATION

SCALE: N.T.S.

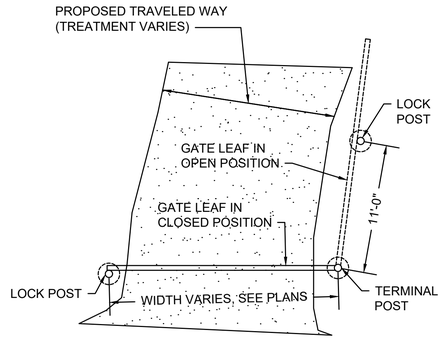
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	96	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

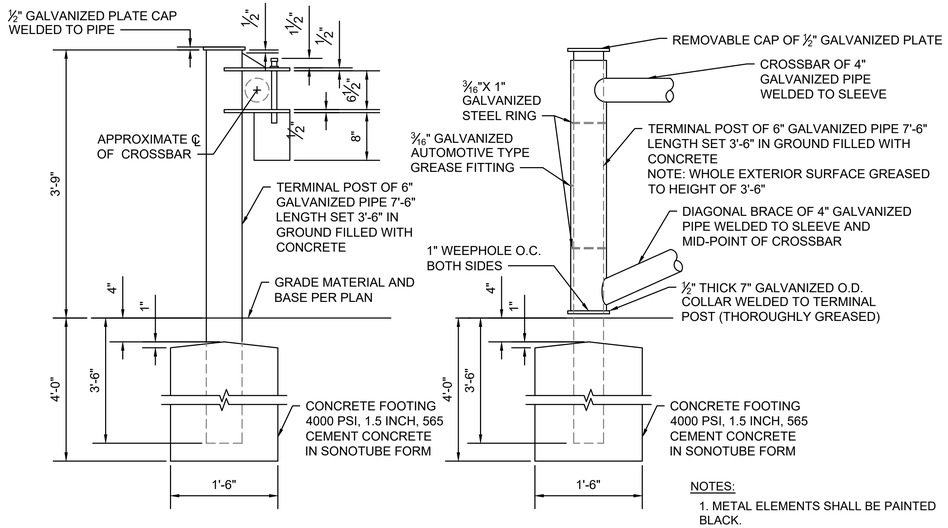
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ELEVATION



PLAN



NOTES:

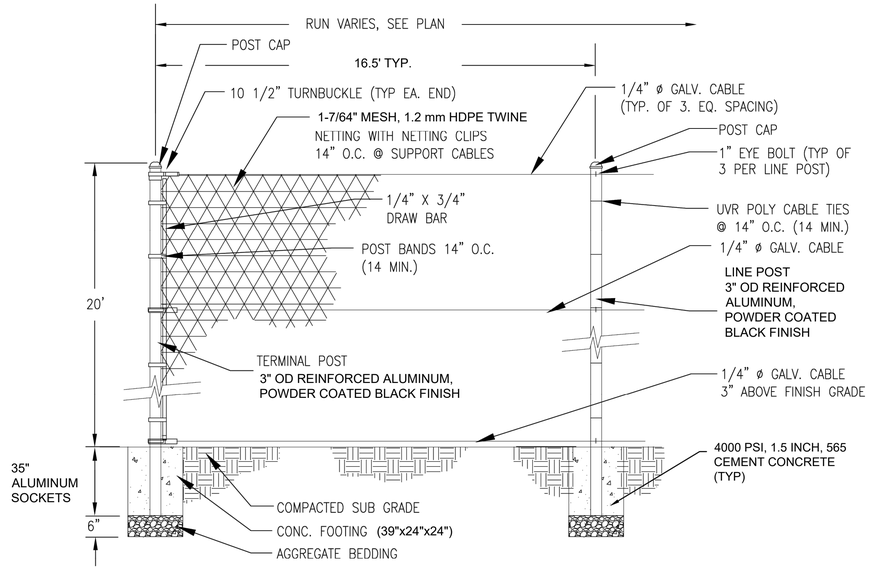
1. METAL ELEMENTS SHALL BE PAINTED BLACK.

PIPE GATE AND POST DETAILS

SCALE: N.T.S.

NOTE:

1. ALL FABRIC TO BE ON FIELD SIDE OF CABLES AND POSTS.
2. CONTRACTOR TO SUBMIT SHOP DWGS FOR SAFETY SCREENING TO OWNER'S REPRESENTATIVE FOR APPROVAL.
3. PVC COATING AS SPECIFIED.

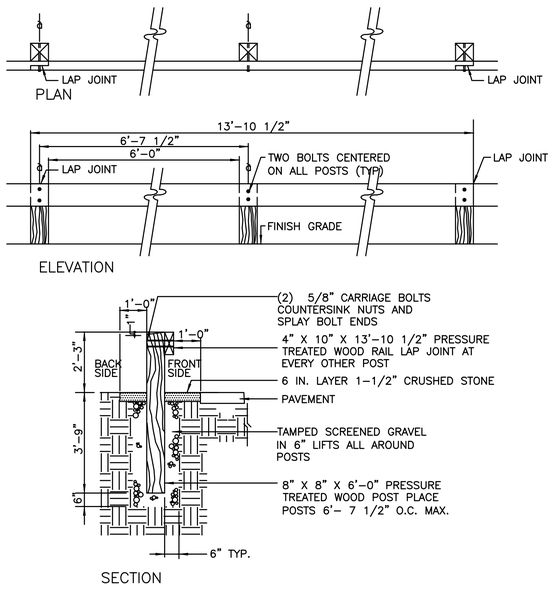


SAFETY NET

SCALE: N.T.S.

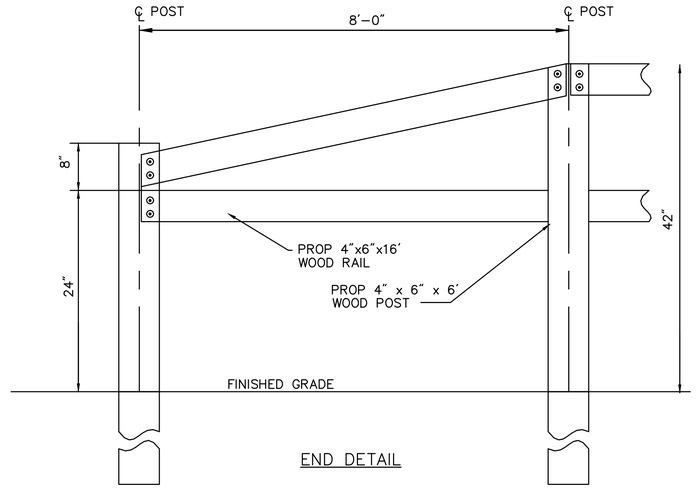
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	97	278
PROJECT FILE NO. 607398			

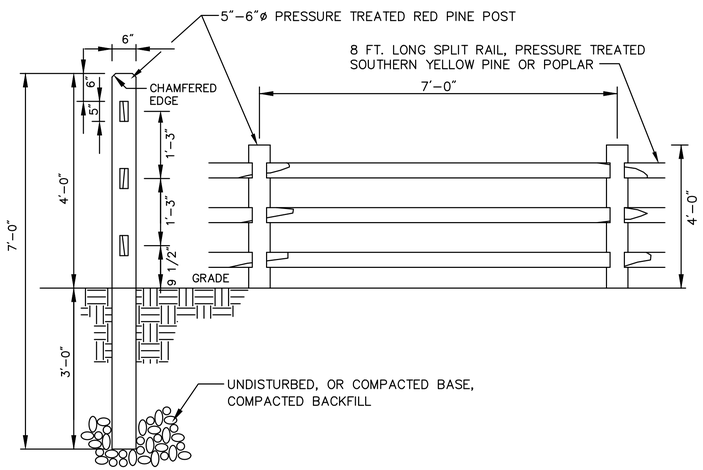
CONSTRUCTION DETAILS



WOOD GUARDRAIL

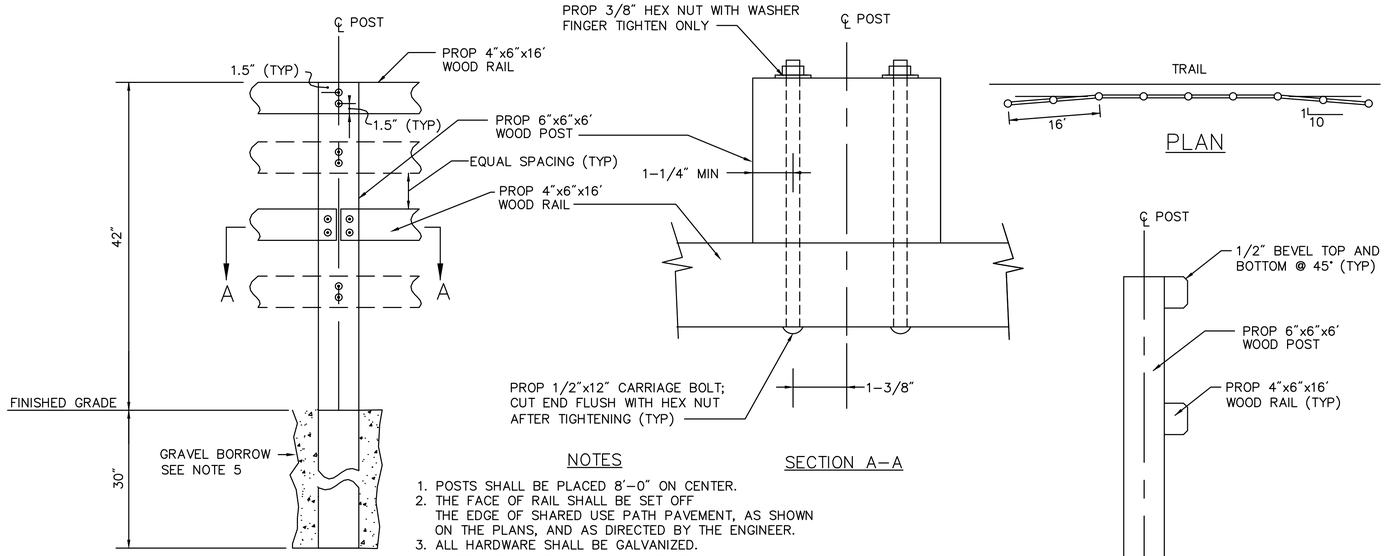
SCALE: N.T.S.





SPLIT RAIL WOOD FENCE

SCALE: N.T.S.



NOTES

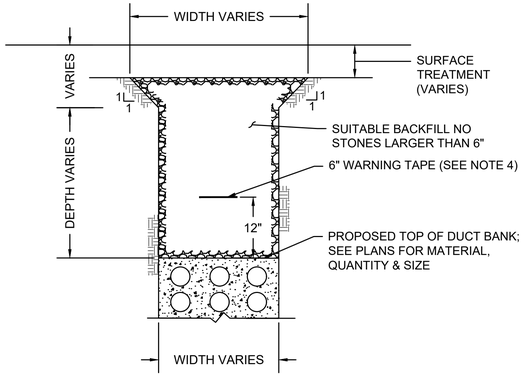
1. POSTS SHALL BE PLACED 8'–0" ON CENTER.
2. THE FACE OF RAIL SHALL BE SET OFF THE EDGE OF SHARED USE PATH PAVEMENT, AS SHOWN ON THE PLANS, AND AS DIRECTED BY THE ENGINEER.
3. ALL HARDWARE SHALL BE GALVANIZED.
4. ALTERNATE JOINTS IN RAILING BETWEEN POSTS.
5. CONTRACTOR SHALL SET POST IN 4,000 PSI, 1–1/2IN, 565 CEMENT CONCRETE FOR ALL POSTS UNABLE TO BE SET AT REQUIRED DEPTH.
6. BOLTS SHALL BE SIZED AND INSTALLED SO THAT THEY EXTEND NO MORE THAN ONE ADDITIONAL NUT LENGTH BEYOND THE SECURED SURFACE.
7. PRESSURE TREATED LUMBER SHALL BE USED ON ALL SEGMENTS.
8. TWO RAIL SECTIONS TO BE USED ON THE PATH, FOUR RAIL SECTIONS TO BE USED AT WALLS AND BRIDGE SECTIONS.

WOOD RAILING

SCALE: N.T.S. DWG: GRD-06 DATE: APRIL 2003

607398_HD(DET).DWG Plotted on 15-Feb-2024 4:20 PM

607398_HD(DET).DWG Plotted on 15-Feb-2024 4:21 PM

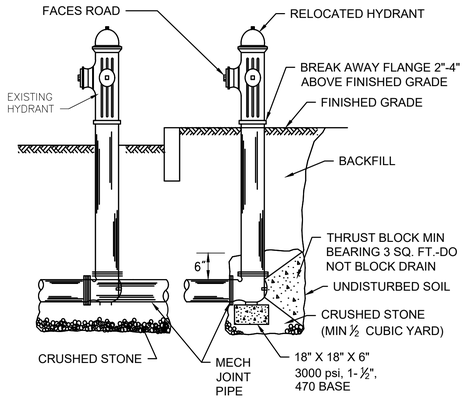


NOTES:

1. ALL CONSTRUCTION OF DUCT BANKS INCLUDING TRENCH, EXCAVATION, AND BACKFILL SHALL CONFORM TO UTILITY DETAILS AND SPECIFICATIONS.
2. FOR ALL DUCTS USE SCHEDULE 40 CONDUITS ENCASED IN 2,500 PSI, 3/8 INCH, 520 CEMENT CONCRETE CONCRETE. USE PLASTIC SPACERS TO MAINTAIN CONDUIT SPACING. SPACERS SHALL MEET UTILITY SPECIFICATIONS FOR DESIGN AND SPACING.
3. ALL TRENCH EXCAVATION ACTIVITIES SHALL COMPLY WITH ALL APPROPRIATE OSHA STANDARDS.
4. EACH DUCT BANK SHALL HAVE ASSOCIATED WARNING TAPE INSTALLED. ELECTRIC DUCT BANKS WILL HAVE 6 INCH, COLOR RED, DETECTABLE METALLIC WARNING TAPE PLACED 12 INCHES ABOVE CONCRETE ENCASEMENT. TELEPHONE DUCT BANKS WILL HAVE 6 INCH, COLOR ORANGE, DETECTABLE METALLIC WARNING TAPE PLACED 12 INCHES ABOVE EACH CONCRETE ENCASEMENT.
5. A UTILITY COMPANY REPRESENTATIVE FROM EVERSOURCE SHALL BE PRESENT FOR ALL ELECTRICAL CONDUIT INSTALLED.
6. A UTILITY COMPANY REPRESENTATIVE FROM VERIZON SHALL BE PRESENT FOR ALL TELEPHONE CONDUIT INSTALLED.
7. A MINIMUM OF 12 INCHES OF SEPARATION IS REQUIRED FOR CROSSINGS WITH GAS, WATER, SEWER AND DRAINAGE.
8. CONDUITS SHALL BE BLOWN CLEAN USING COMPRESSED AIR. RUN MANDREL THRU EACH CONDUIT TO CONFIRM VIABLE PATHWAY.
9. WOVEN POLYESTER MULE TAPE WITH MINIMUM STRENGTH OF 2500 LB TENSILE STRENGTH TO BE INSTALLED WITHIN EACH CONDUIT.

ELECTRIC & TELEPHONE TRENCH

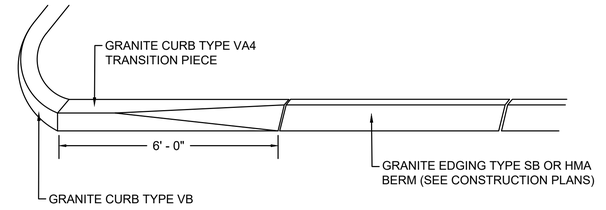
SCALE: N.T.S.



LATERAL PIPE SHALL BE CUT AND REMOVED OR LENGTHENED AS REQUIRED - SEE DRAWINGS FOR LOCATIONS

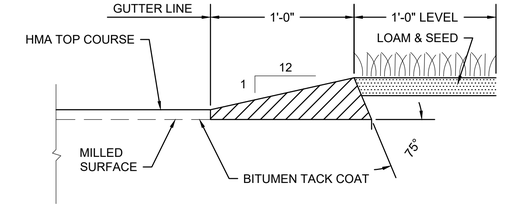
HYDRANT RELOCATION

SCALE: N.T.S.



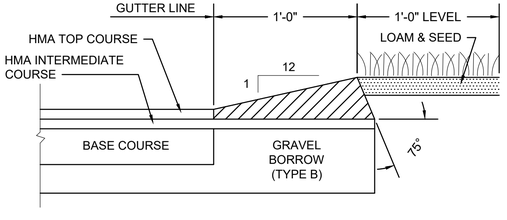
GRANITE CURB TYPE VA-4 - SPLAYED END

SCALE: N.T.S.



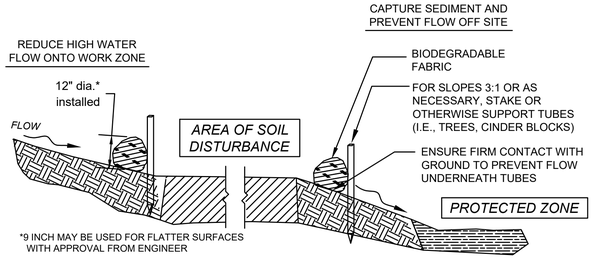
HMA BERM TYPE A-MODIFIED AT PAVEMENT OVERLAY

SCALE: N.T.S.



HMA BERM TYPE A-MODIFIED AT FULL DEPTH PAVEMENT

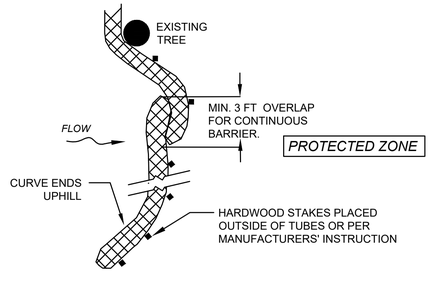
SCALE: N.T.S.



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBE

NOT TO SCALE



PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLAN VIEW

SEDIMENT CONTROL BARRIER

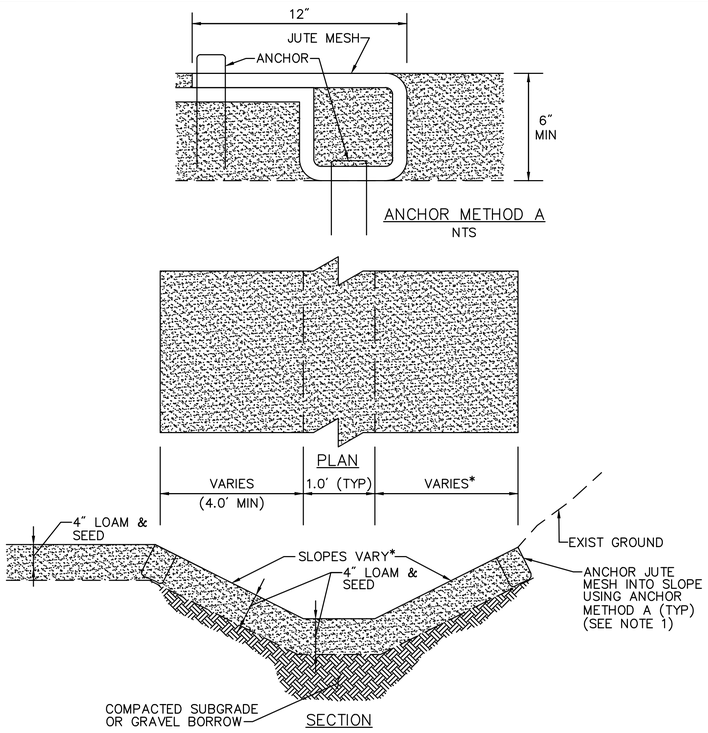
SCALE: N.T.S.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	99	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

607398_HD(DET).DWG Plotted on 15-Feb-2024 4:21 PM

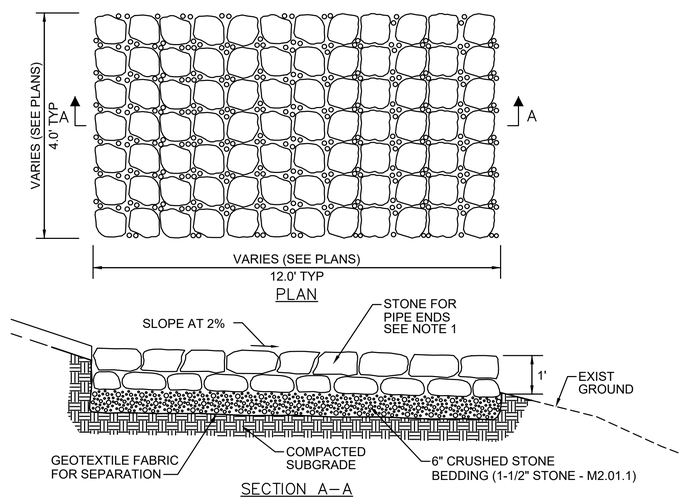


NOTE:

1. JUTE MESH SHALL BE INSTALLED WHERE SLOPES EXCEED 3:1.

LOAM & SEED SWALE

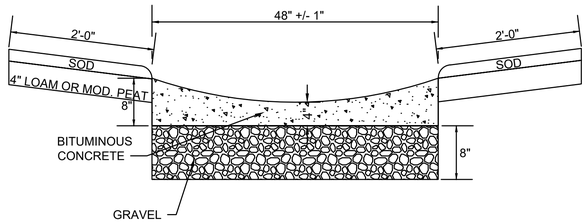
SCALE: N.T.S.



NOTES:
1. STONE SHALL BE ANGULAR, IN ACCORDANCE WITH SECTION M2.02.3.

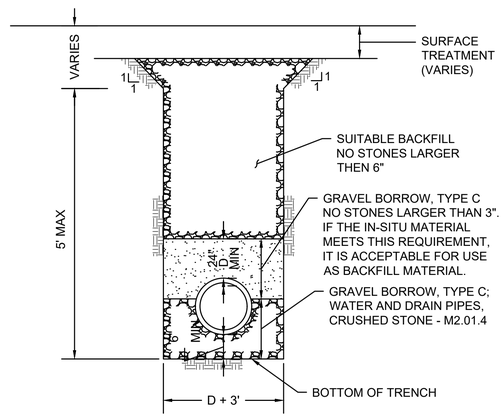
STONE FOR PIPE ENDS AT DRAINAGE DITCH OUTLET

SCALE: N.T.S.



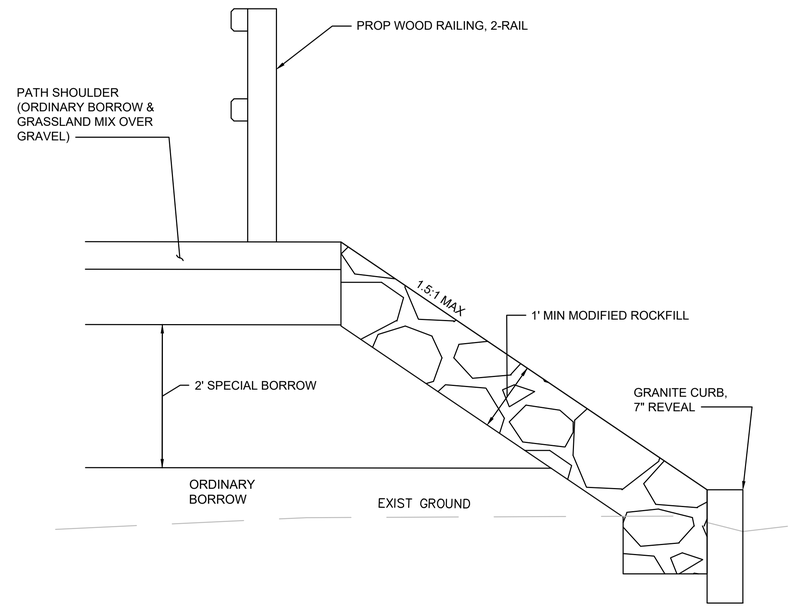
PAVED WATERWAY: STA 54+50 RT, STA 103+49 LT, STA 103+49 RT, STA 131+35 LT, STA 303+31 RT

SCALE: N.T.S.



TRENCH DETAIL

SCALE: N.T.S. DWG: TRENCH-05 DATE: MARCH 2013



NOTE: SEE TYPICAL SECTIONS FOR APPLICABLE STATION RANGES

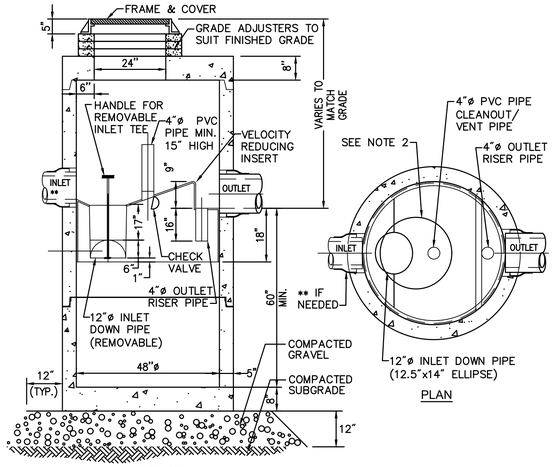
MODIFIED ROCKFILL SLOPE PROTECTION DETAIL

SCALE: NTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	100	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

607398_HD(DET).DWG Plotted on 14-Feb-2024 11:31 AM

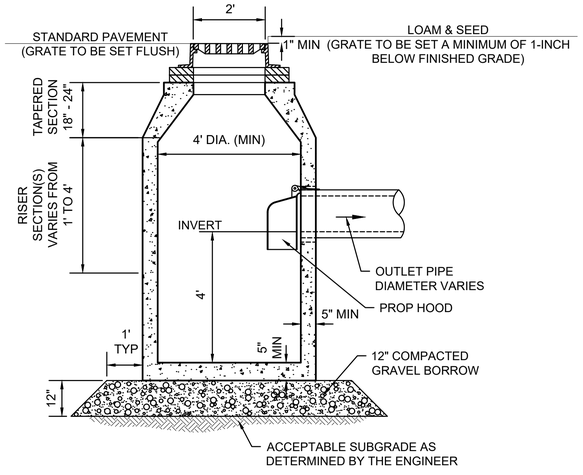


NOTES:

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. THE GRATE SHALL BE POSITIONED OVER THE INLET PIPE AND THE OIL PORT.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
4. MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICKS TYPICALLY, 5 BRICK COURSES MAXIMUM).
5. PROVIDE OPENINGS FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL CONNECTIONS.

WATER QUALITY UNIT

SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 6 2015

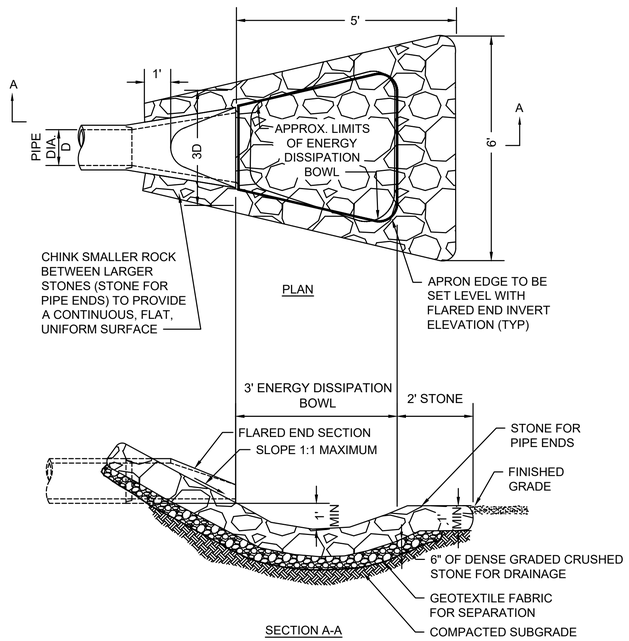


NOTES:

1. TOP SLAB OPENINGS FOR CBCI SHALL BE 24" x 27".
2. 6" MINIMUM SPACE FROM TOP OF KNOCKOUT TO BOTTOM OF ROOF SLAB JOINT REQUIRED WHEN USING HOODS.

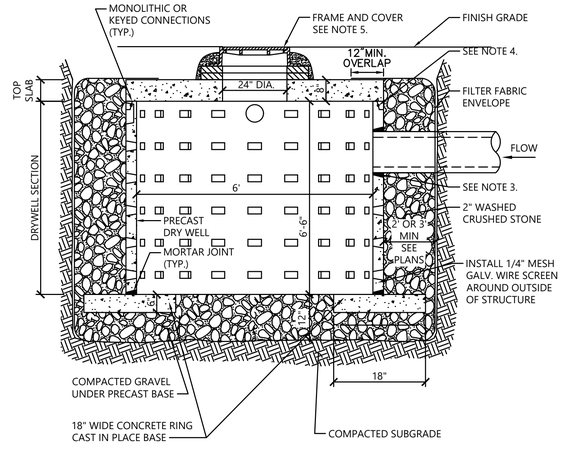
DEEP SUMP CATCH BASIN

SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 6 2015



FLARED END SECTION (FES) WITH STONE FOR PIPE ENDS (STORMWATER FEATURES)

SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 7 2015



NOTES

1. BASE SECTION SHALL BE PRECAST CONCRETE WITH MORTARED JOINTS OR CAST IN PLACE.
2. ALL COMPONENTS SHALL BE DESIGNED FOR HS-20 LOADING.
3. PROVIDE PRECAST OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSE MINIMUM, 5 BRICK COURSE MAXIMUM)
6. FILTER FABRIC SHALL NOT BE INSTALLED BELOW THE LEACHING BASIN

LEACHING BASIN

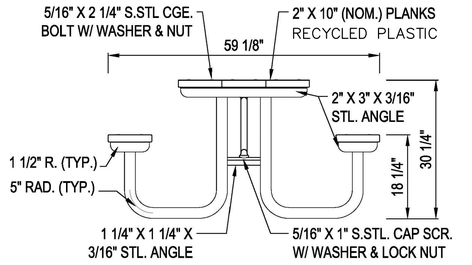
SCALE: N.T.S. SOURCE: VHB

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

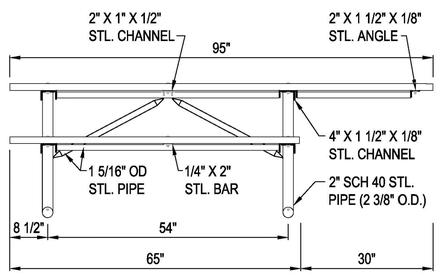
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	101	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

607398_HD(DET).DWG Plotted on 14-Feb-2024 11:32 AM



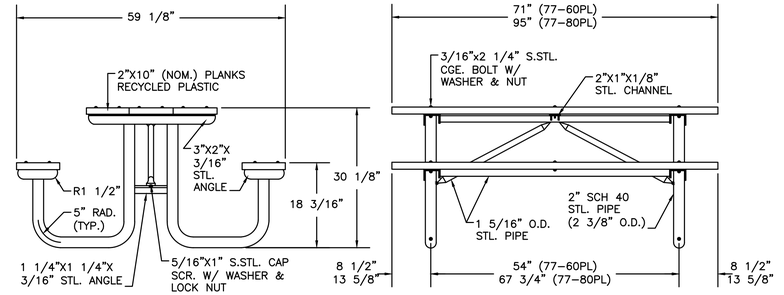
PICNIC TABLE SIDE VIEW
NOT TO SCALE



PICNIC TABLE SIDE VIEW
NOT TO SCALE

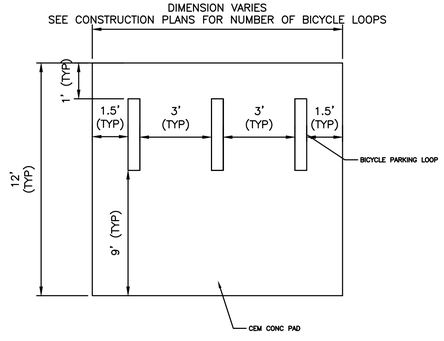
PICNIC TABLE - ACCESSIBLE

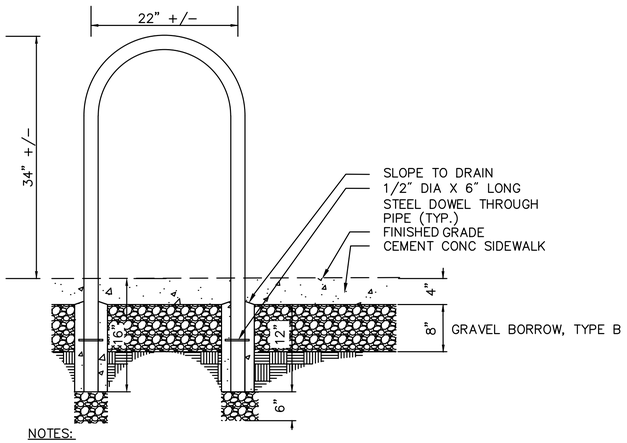
SCALE: N.T.S.



PICNIC TABLE

SCALE: N.T.S.



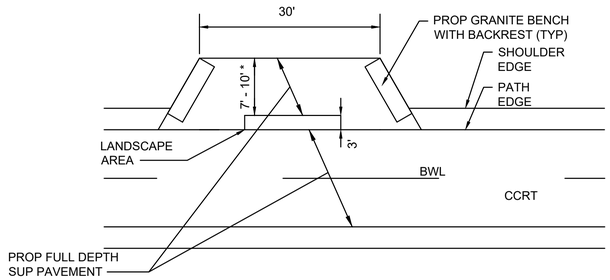


NOTES:

1. BICYCLE RACK UNITS SHALL CONSIST OF INVERTED "U" PIPES
2. 2IN NOM SCHED 40, ASTMA 500 WELDED SEAMLESS STEEL PIPE CONSTRUCTION SHALL BE POWDER COATED OVER ZINC – METALIZED STEEL
3. INVERTED "U" PIPES SHALL BE PLACED PARALLEL TO EACH OTHER 36–INCHES
4. CONCRETE SHALL BE 4000 PSI, 3/4IN, 565 CEMENT CONCRETE

BICYCLE RACK

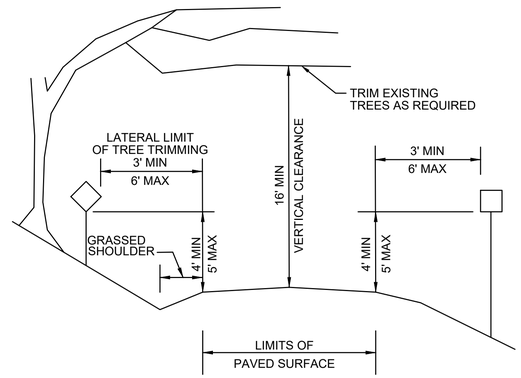
SCALE: N.T.S.



NOTE:
* WIDTH VARIES, SEE CONSTRUCTION PLANS.

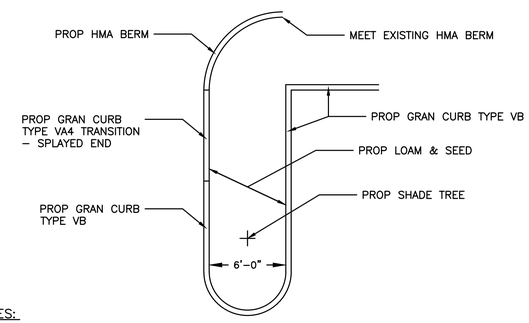
TRAIL PULLOVER AREA - STA 592+65± & STA 594+25±

SCALE: N.T.S.



HORIZONTAL AND VERTICAL CLEARANCES

SCALE: N.T.S.



NOTES:

1. SIDE OF GRAN CURB TO HMA BERM VARIES, SEE CONSTRUCTION PLANS.

CURBED ISLAND - GOLF COURSE PARKING LOT

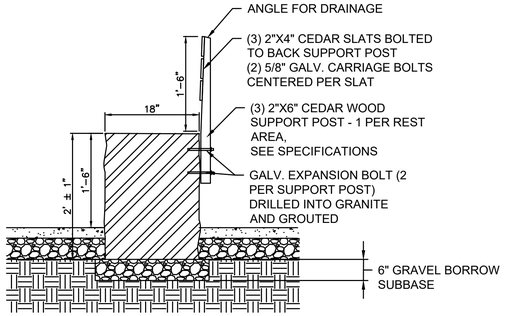
SCALE: N.T.S.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	102	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

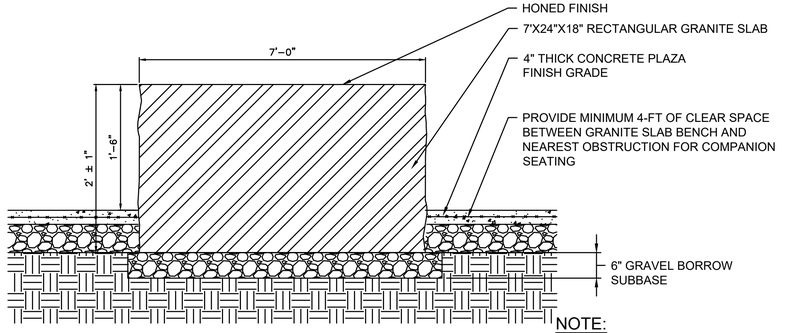
607398_HD(DET).DWG Plotted on 15-Feb-2024 4:21 PM



GRANITE SLAB BENCH WITH BACKREST
NOT TO SCALE

GRANITE BENCH WITH BACKREST

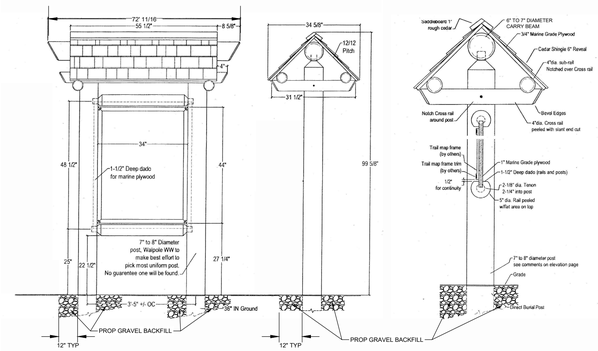
SCALE: N.T.S.

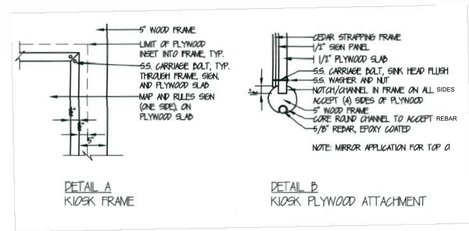


NOTE:
EACH BENCH SHALL INCORPORATE 2.5 FT x 4 FT CLEARANCE ADJACENT TO NARROW END AS SHOWN ON DRAWINGS TO ACCOMMODATE ACCESSIBLE COMPANION SEATING.

GRANITE BENCH

SCALE: N.T.S.

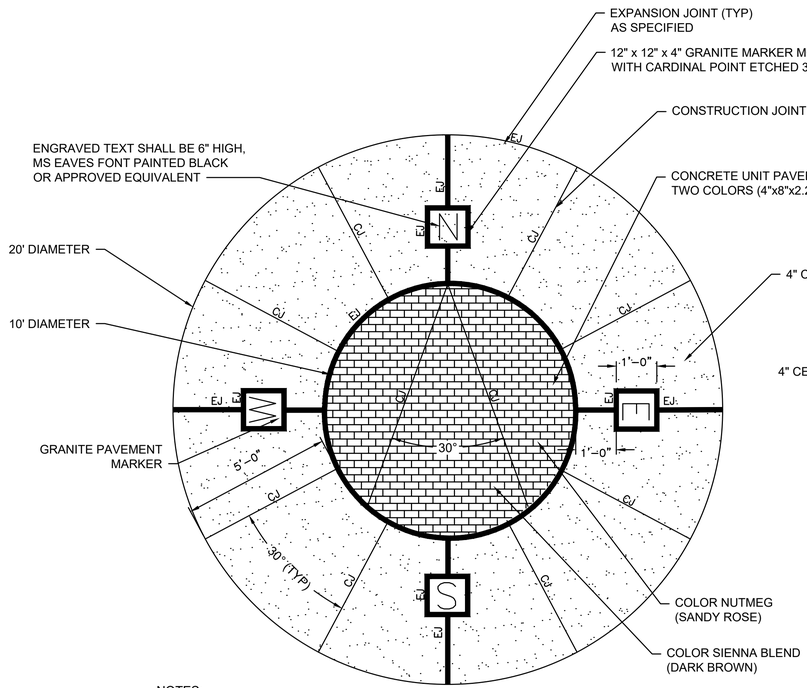


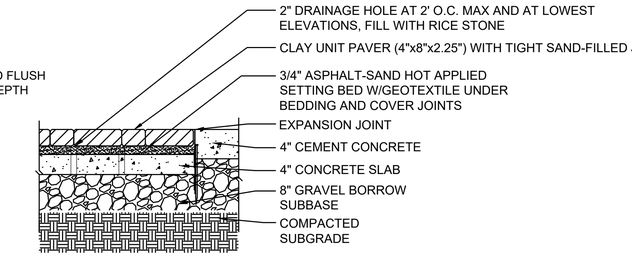


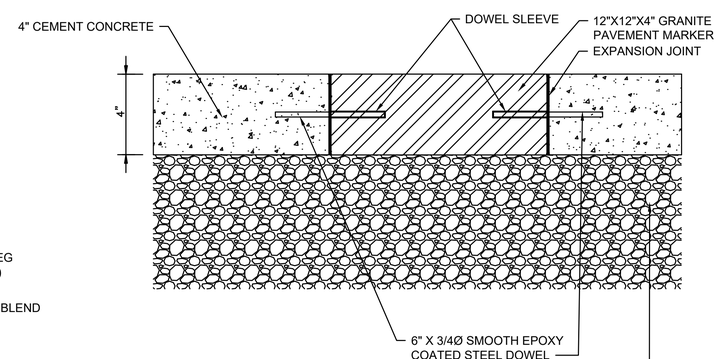
NOTE: MESSAGE BOARD MAP SIGN TO BE PRINTED DOUBLE SIDED

SIGN KIOSK

SCALE: N.T.S.





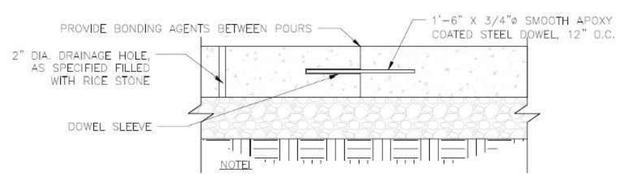


NOTES:

1. COMPASS POINTS SHALL BE SURVEYED AND STAKED IN THE FIELD FOR APPROVAL BY ENGINEER
2. COMPASS POINTS SHALL BE ORIENTED TO MAGNETIC NORTH
3. BRICKS SHALL BE BELDEN BRICK - SIENNA BLEND OR EQUAL AND BELDEN BRICK - NUTMEG OR EQUAL
4. CONSTRUCTION JOIN SHALL BE FORMED FULL DEPTH OF SLAB
5. DOWELS OR DOWEL SLEEVES SHALL BE INSTALLED AND SECURED AGAINST DISPLACEMENT PRIOR TO POUR. DOWEL SHALL NOT BE INSTALLED AFTER POUR
6. DOWEL SLEEVES SHALL BE USED ON ONE SIDE OF JOINT WITH OTHER SIDE EXPOSED TO CONCRETE

REST AREA CEMENT CONCRETE PLAZA, BRICK PAVER NORTH ARROW MEDALLION, AND GRANITE PAVEMENT MARKER

SCALE: N.T.S.



SUBBASE AND CONSTRUCTION JOINT

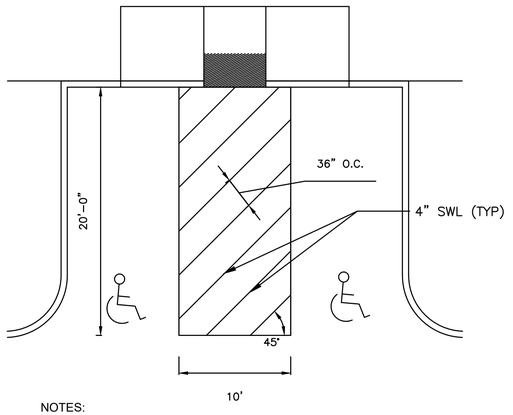
SCALE: N.T.S.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	103	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

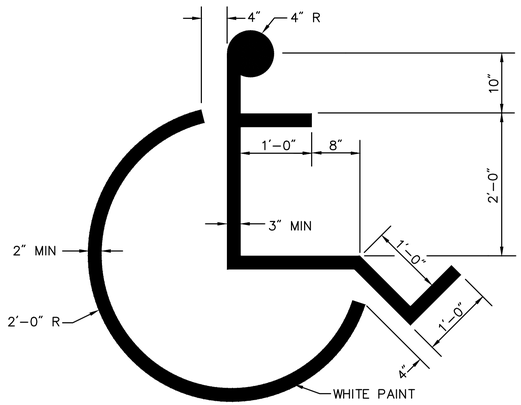
607398_HD(DET).DWG Plotted on 14-Feb-2024 11:32 AM



NOTES:
1. ALL DIMENSIONS TO EDGES OF 4" PAVEMENT STRIPING.
2. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED PAINT.

ACCESSIBLE PAVEMENT MARKINGS

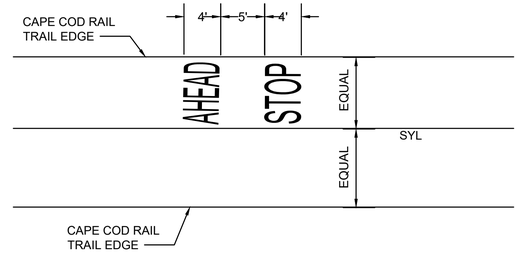
SCALE: N.T.S.



NOTE: SYMBOL SHALL BE CENTERED IN THE PARKING STALL

HANDICAPPED PARKING PAVEMENT MARKINGS

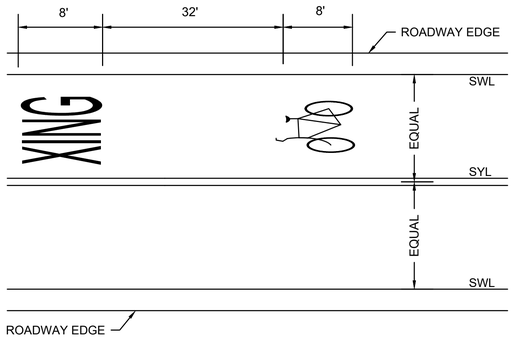
SCALE: N.T.S.



NOTES:
1. PAVEMENT MARKINGS AS PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. PAVEMENT MARKINGS SHALL BE REFLECTIVE PAINT.

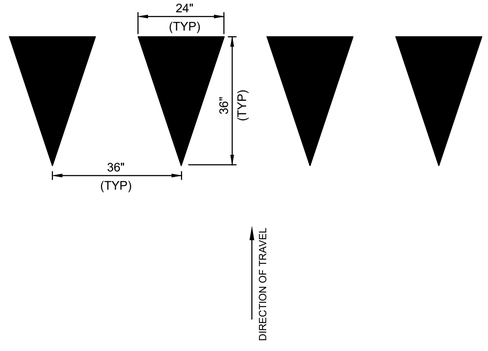
SHARED-USE PATH PAVEMENT MARKINGS

SCALE: N.T.S.



ROADWAY PAVEMENT MARKINGS

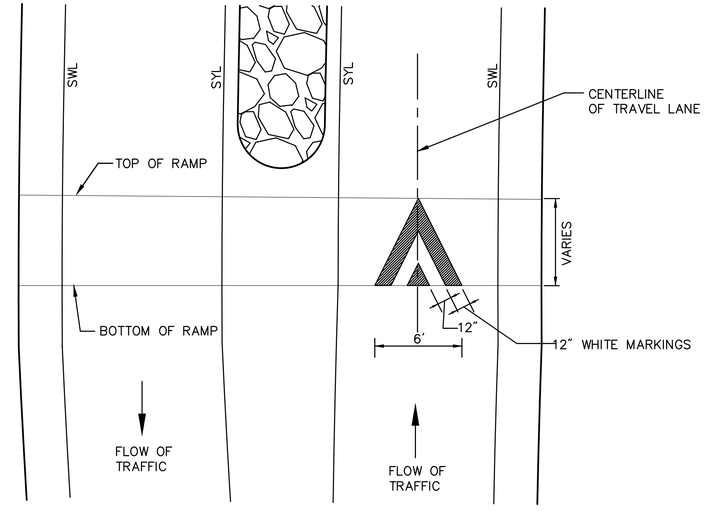
SCALE: N.T.S.



NOTES:
1. YIELD LINES SHALL CONSIST OF A ROW OF SOLID WHITE TRIANGLES.
2. IF APPLICABLE, YIELD LINES SHALL BE PLACED 4-FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
3. IN THE ABSENCE OF A MARKED CROSSWALK, YIELD LINES SHALL BE PLACED AS SHOWN ON THE PLANS.

YIELD LINE TRIANGLES

SCALE: N.T.S.



NOTES:
1. RAMP MARKINGS SHALL BE REFLECTIVE THERMOPLASTIC.
2. SEE TRAFFIC PLANS FOR RAMP MARKING LAYOUT
3. SEE FIGURE 3B-29 IN THE MUTCD FOR MORE DETAIL.

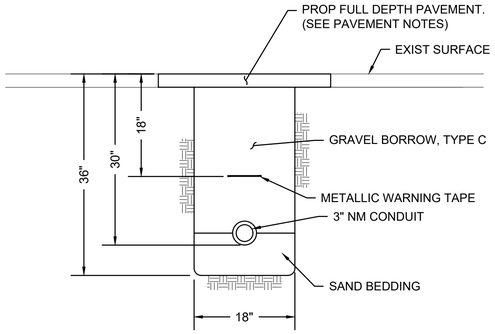
SPEED TABLE PAVEMENT MARKINGS

SCALE: N.T.S.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	104	278
PROJECT FILE NO. 607398			

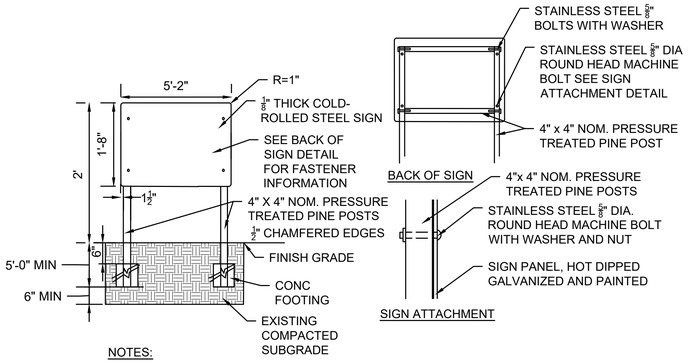
CONSTRUCTION DETAILS

607398_HD(DET).DWG Plotted on 14-Feb-2024 11:32 AM



CONDUIT CROSSING ROADWAY/DRIVEWAY

SCALE: N.T.S.

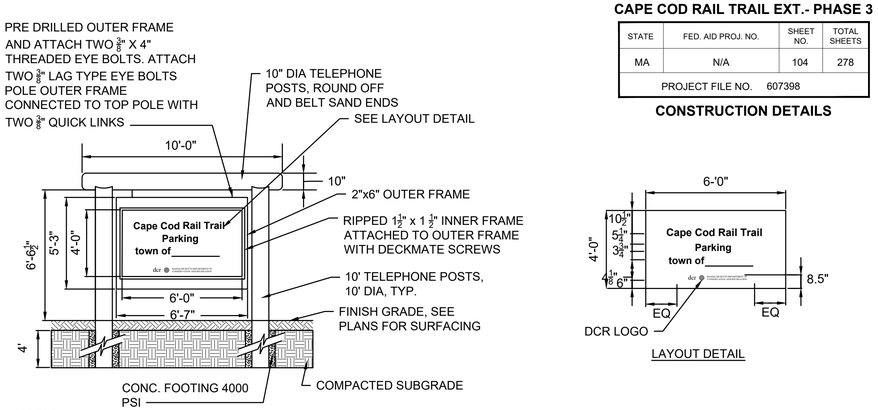


NOTES:

1. SEE SIGN SUMMARY SHEET 68 AND SPECIAL PROVISIONS ITEM 707.43 FOR MORE INFORMATION.
2. SIGN COLORS AND FONT SIZE AND SPACING SHALL BE PER DCR GRAPHIC STANDARDS MANUAL.

PARKING AREA IDENTIFIER SIGN (SP-4x)

SCALE: N.T.S.

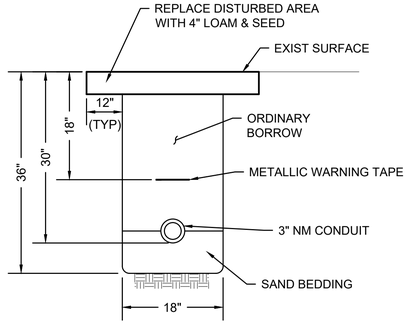


NOTES:

1. SEE SIGN SUMMARY SHEET 68 AND SPECIAL PROVISIONS ITEM 707.41 FOR MORE INFORMATION.
2. SIGN COLORS AND FONT SIZE AND SPACING SHALL BE PER DCR GRAPHIC STANDARDS MANUAL.

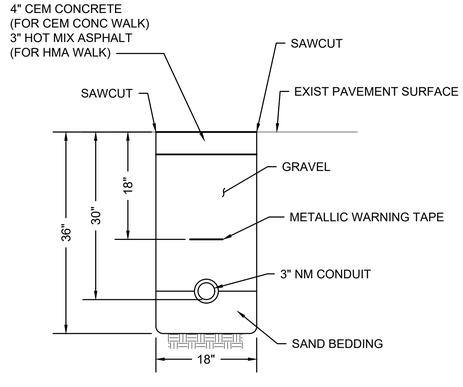
CCRT FACILITY SIGN (SP-3x)

SCALE: N.T.S.



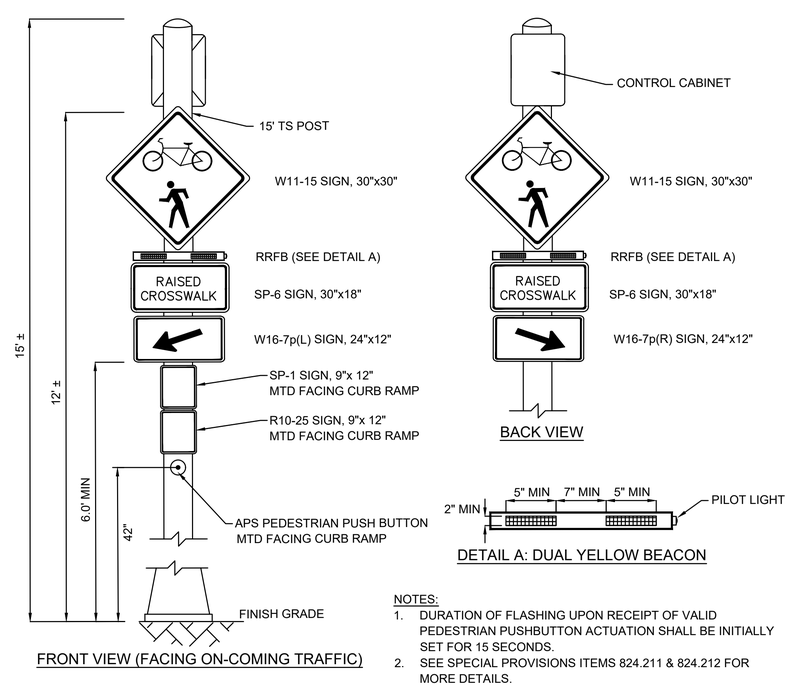
CONDUIT IN GRASS

SCALE: N.T.S.



CONDUIT IN SIDEWALK

SCALE: N.T.S.

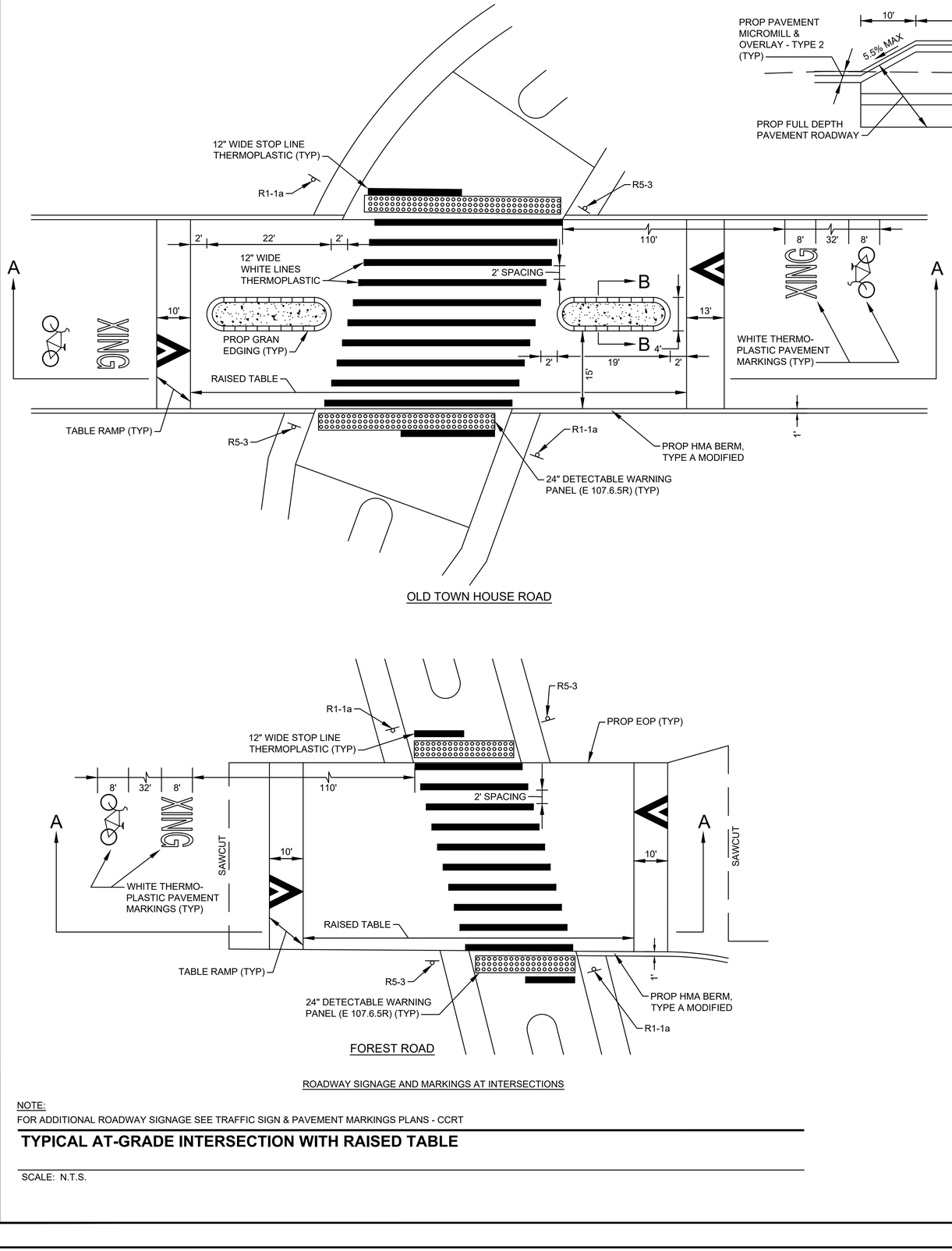


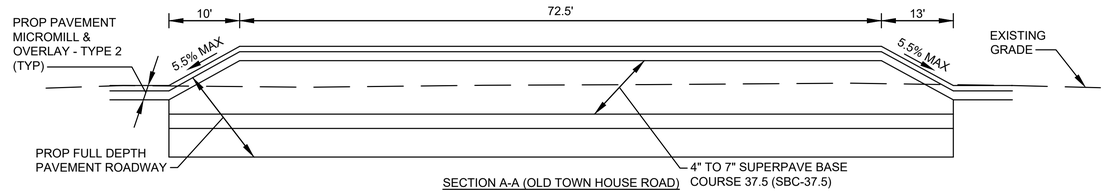
NOTES:

1. DURATION OF FLASHING UPON RECEIPT OF VALID PEDESTRIAN PUSHBUTTON ACTUATION SHALL BE INITIALLY SET FOR 15 SECONDS.
2. SEE SPECIAL PROVISIONS ITEMS 824.211 & 824.212 FOR MORE DETAILS.

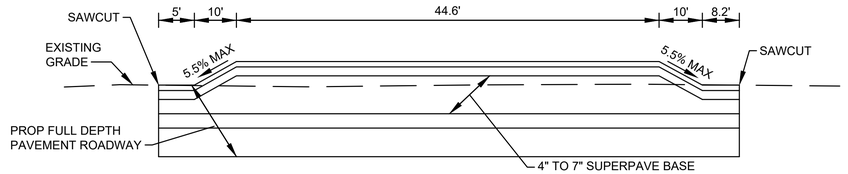
RECTANGULAR RAPID FLASHING BEACON (AC POWER) (BI-DIRECTIONAL)

SCALE: N.T.S.

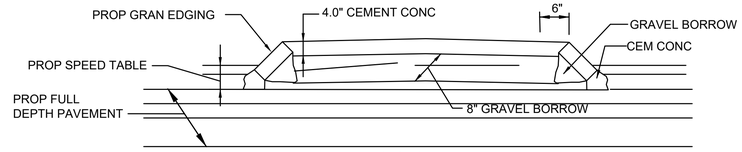




SECTION A-A (OLD TOWN HOUSE ROAD)



SECTION A-A (FOREST ROAD)



SECTION B-B

NOTE:

1. SEE PROFILE AT FOREST ROAD AND CURB TIE & GRADING PLAN AT OLD TOWN HOUSE ROAD FOR VERTICAL GEOMETRY OF SPEED TABLES.
2. PAYMENT FOR CEMENT CONCRETE FOR EDGING INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR GRANITE EDGING.

ROADWAY SIGNAGE AND MARKINGS AT INTERSECTIONS

NOTE:

FOR ADDITIONAL ROADWAY SIGNAGE SEE TRAFFIC SIGN & PAVEMENT MARKINGS PLANS - CCRT

TYPICAL AT-GRADE INTERSECTION WITH RAISED TABLE

SCALE: N.T.S.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	105	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

607398_HD(DET).DWG Plotted on 14-Feb-2024 11:32 AM

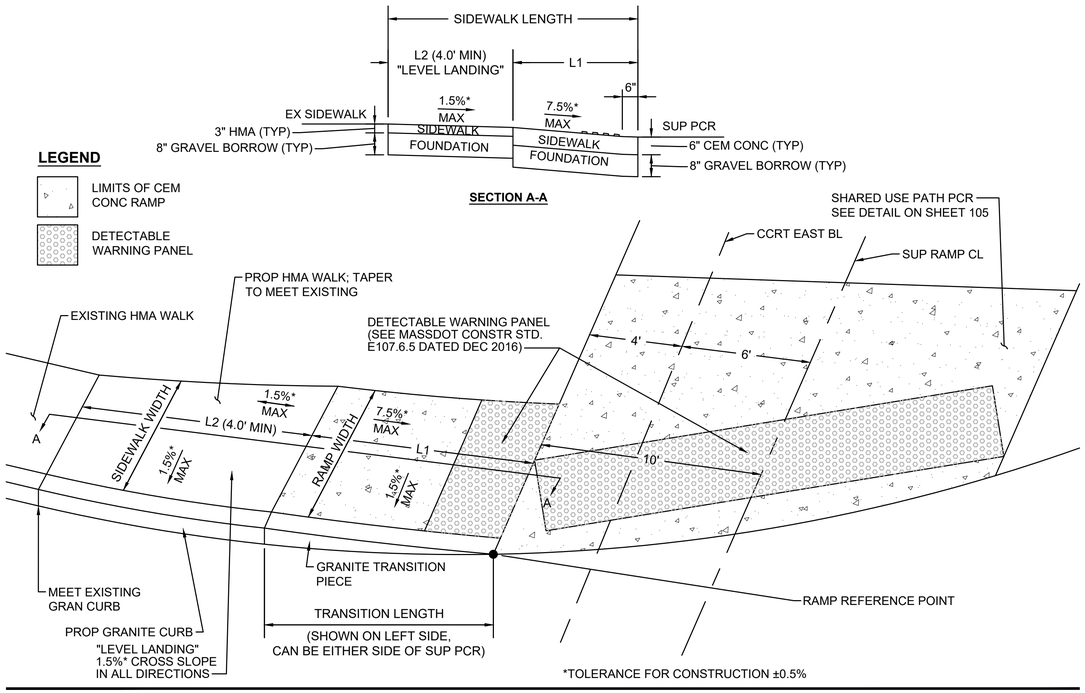
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	106	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

607398_HD(DET).DWG Plotted on 14-Feb-2024 2:18 PM

PEDESTRIAN CURB RAMP DATA													
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	L1	L2	LEFT SIDE				RIGHT SIDE			
						ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV	ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV
5	CCRT PHASE 3 - EAST 593+26.7 4.0' LT	4.5'-5.5'	5.5'	7.7'	9.0'	N/A	N/A	N/A	N/A	0.37%	6"	7'-8"	57.95
6	CCRT PHASE 3 - EAST 593+68.2 4.0' LT	4.9'-5.5'	5.5'	7.7'	9.2'	0.37%	6"	7'-8"	57.58	N/A	N/A	N/A	N/A

NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.
2. **STRAIGHT TRANSITION PIECE.



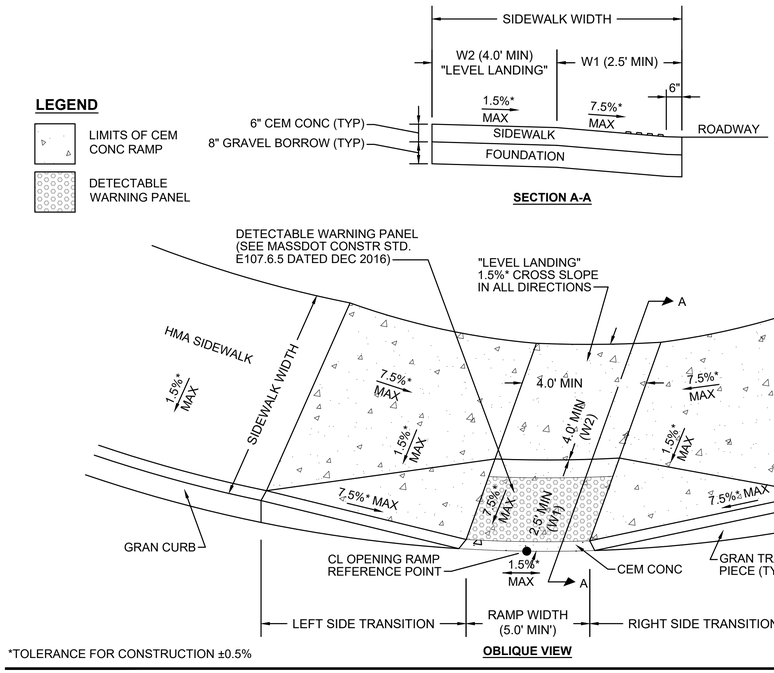
*TOLERANCE FOR CONSTRUCTION ±0.5%

ONE DIRECTIONAL PEDESTRIAN CURB RAMP

SCALE: NTS

PEDESTRIAN CURB RAMP DATA													
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	W1	W2	LEFT SIDE				RIGHT SIDE			
						ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV	ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV
4	GOLF COURSE PARKING LOT 32+10.8 32.0' RT	8.5'	5.0'	4.5'	4.0'	-2.00%	6"	**6'-6"	60.89	2.00%	6"	**9'-0"	60.99

NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.
2. **STRAIGHT TRANSITION PIECE.



*TOLERANCE FOR CONSTRUCTION ±0.5%

OBLIQUE VIEW

PEDESTRIAN CURB RAMP - GREATER THAN 6.5 FEET

SCALE: NTS

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	107	278
PROJECT FILE NO. 607398			

CONSTRUCTION DETAILS

607398_HD(DET).DWG Plotted on 14-Feb-2024 2:18 PM

WHEELCHAIR RAMP DATA											
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE				RIGHT SIDE			
				ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV	ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV
1	MARY DUNN PARKING LOT 40+11.8 19.7' RT	5.5'	5.0'	2.70%	6"	11'-0"	41.44	N/A	N/A	N/A	41.32
2	MARY DUNN PARKING LOT 42+15.6 12.0' RT	5.5'	5.0'	N/A	N/A	N/A	45.32	-1.50%	6"	**6'-6"	45.25
3	HIGGINS CROWELL PARKING LOT 208+42.9 14.2' LT	13.0'	10.0'	0.65%	6"	**7'-8"	39.16	N/A	N/A	N/A	39.04

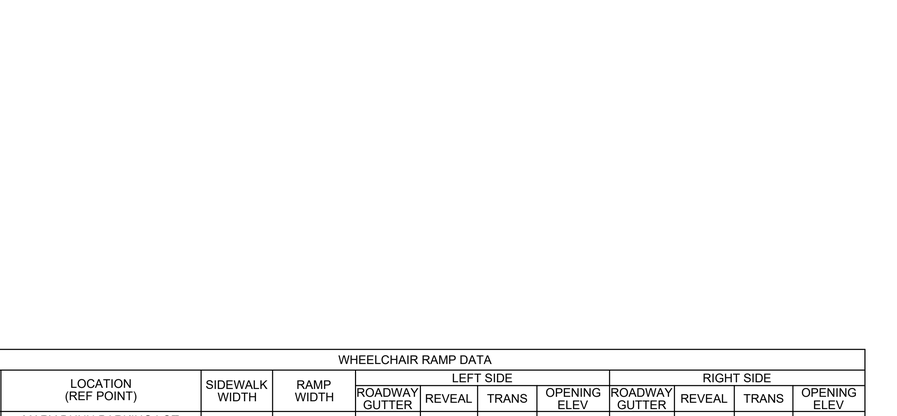
NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.
2. **STRAIGHT TRANSITION PIECE.

LEGEND

LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL

SECTION A-A

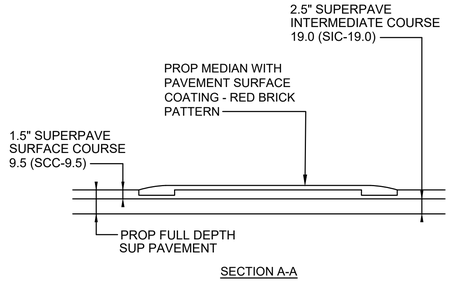


*TOLERANCE FOR CONSTRUCTION ±0.5%

OBLIQUE VIEW

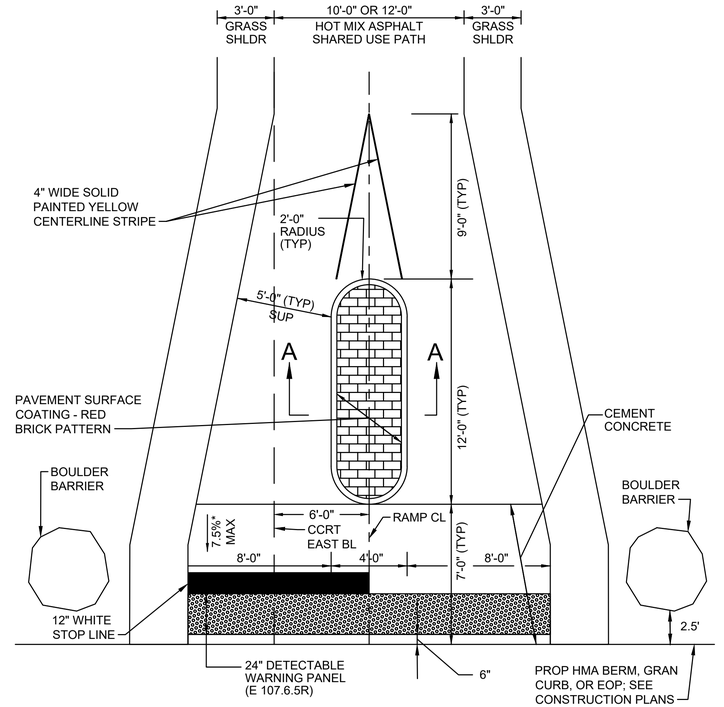
WHEELCHAIR RAMP - LESS THAN 6.5 FEET - CURVED

SCALE: NTS



SECTION A-A

NOTE:
PAYMENT FOR SUPERPAVE INTERMEDIATE COURSE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PAVEMENT SURFACE COATING.



*0.5% CONSTRUCTION TOLERANCE

SPLITTER ISLAND AND SHARED USE PATH PEDESTRIAN CURB RAMP

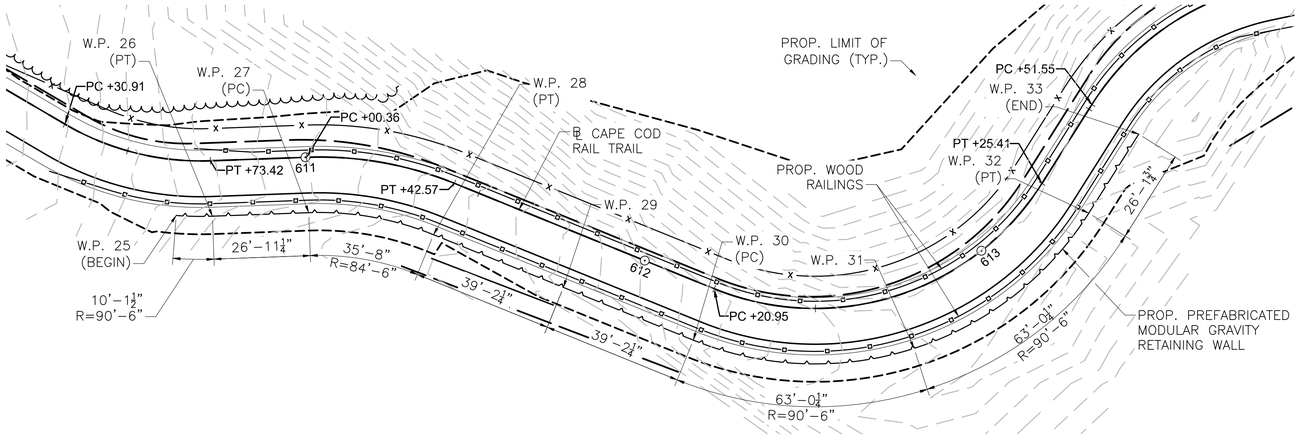
SCALE: N.T.S.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	108	278
PROJECT FILE NO.	607398		

RETAINING WALL DETAILS

607398_HD(WALL).DWG Plotted on 15-Feb-2024 10:01 PM

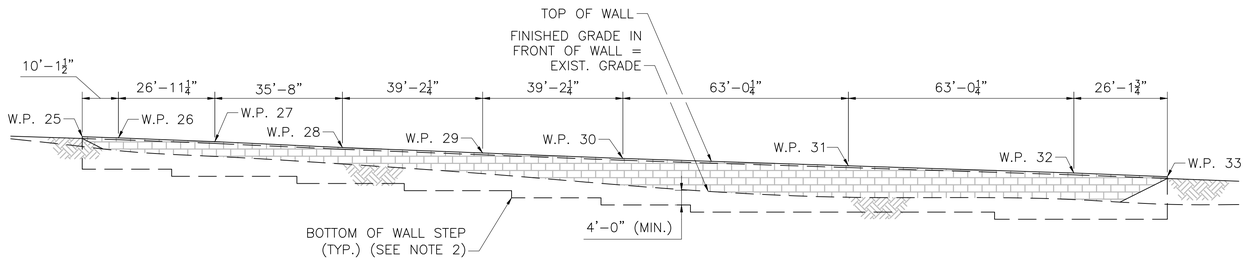


RETAINING WALL PLAN

SCALE: 1" = 20'

NOTES:

1. RETAINING WALL TYPE SHOWN IS PRELIMINARY ONLY. PREFABRICATED MODULAR GRAVITY RETAINING WALL SHALL BE DESIGNED BY THE CONTRACTOR.
2. BOTTOM OF WALL STEPS ARE SHOWN APPROXIMATELY. STEP LOCATIONS SHALL BE DETERMINED BY CONTRACTOR. 4'–0" MIN. EMBEDMENT SHALL BE MAINTAINED.
3. THE CONTRACTOR SHALL DETERMINE THE FACTORED BEARING PRESSURE PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
4. FACTORED BEARING RESISTANCE = 3.9 KSF FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE 8.8 KSF AND A RESISTANCE FACTOR OF 0.45.

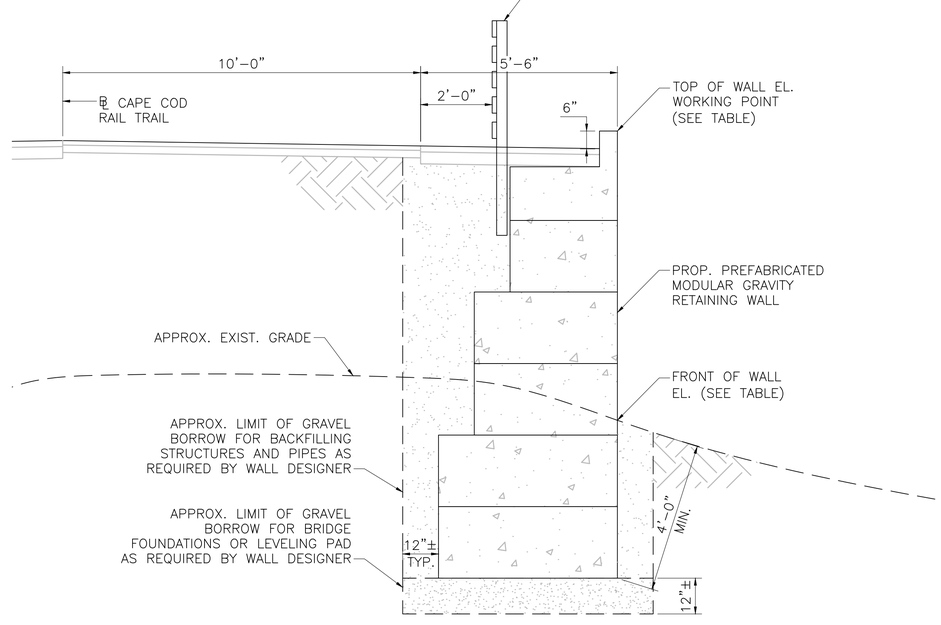


RETAINING WALL DEVELOPED ELEVATION

SCALE: 1" = 20'

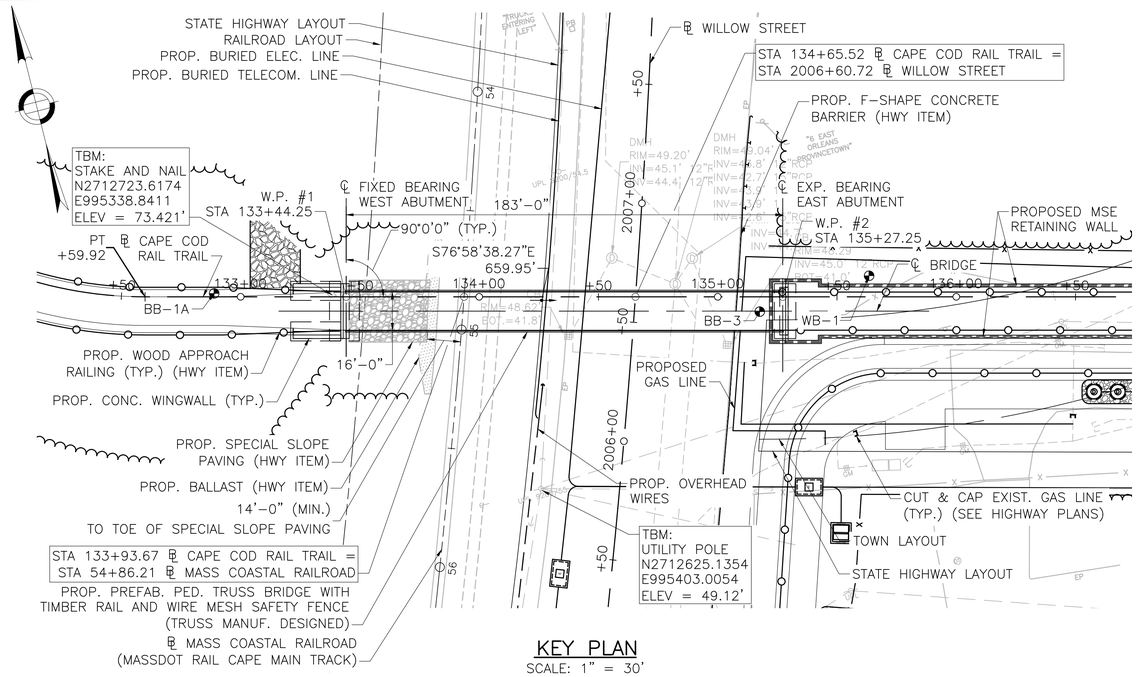
RETAINING WALL GEOMETRY

WORKING POINT	STATION	OFFSET	TOP OF WALL EL.	FRONT OF WALL EL.
W.P. 25	610+65.03	15.50' RT	50.07'	47.33'
W.P. 26	610+73.42	15.50' RT	49.74'	46.17'
W.P. 27	611+00.36	15.50' RT	48.69'	44.57'
W.P. 28	611+42.57	15.50' RT	47.05'	42.45'
W.P. 29	611+81.76	15.50' RT	45.52'	39.76'
W.P. 30	612+20.95	15.50' RT	43.99'	36.53'
W.P. 31	612+73.18	15.50' RT	41.95'	33.14'
W.P. 32	613+25.40	15.50' RT	39.92'	32.51'
W.P. 33	613+51.55	15.50' RT	38.90'	31.17'

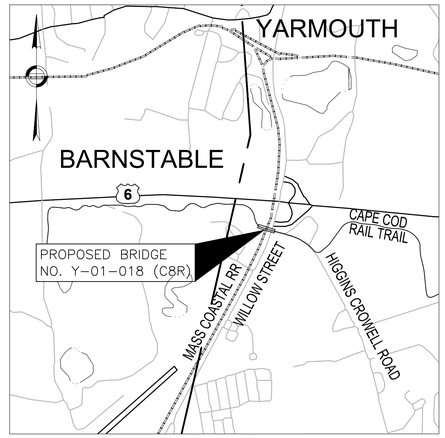


RETAINING WALL SECTION

SCALE: ½" = 1'–0"



KEY PLAN
SCALE: 1" = 30'



LOCUS
SCALE: 1" = 2000'

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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KEY PLAN PROFILE LOCUS AND INDEX

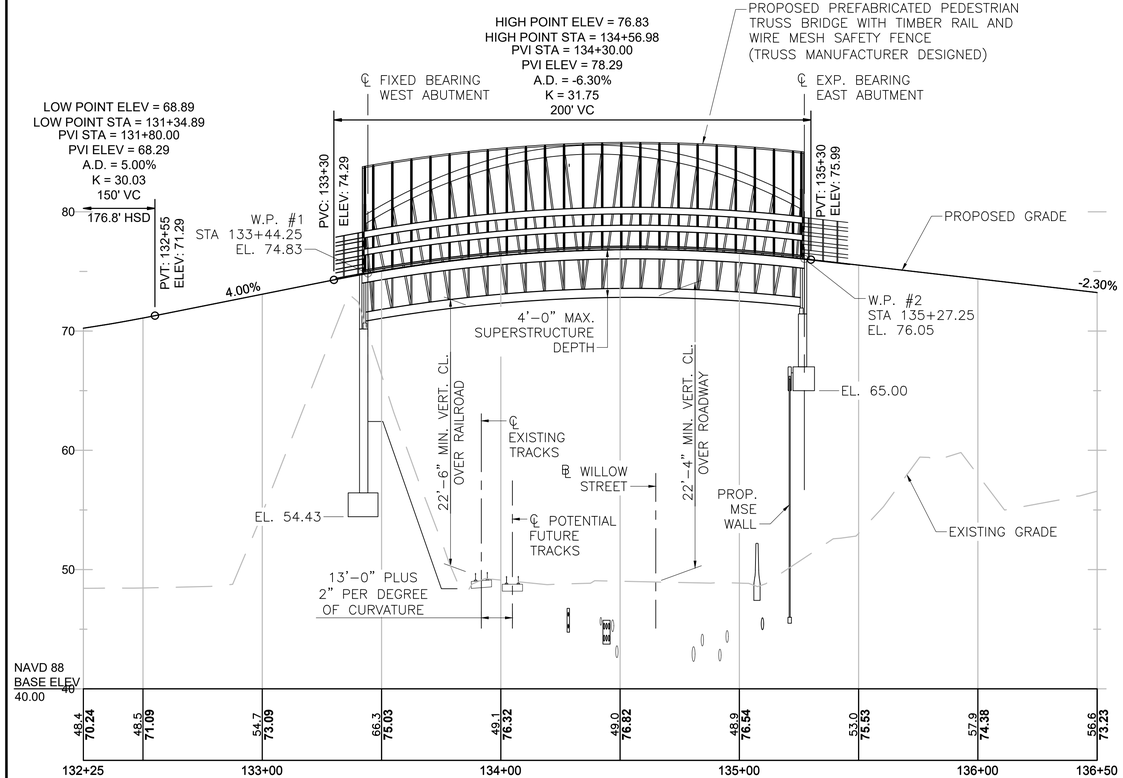
ESTIMATED QUANTITIES

(NOT GUARANTEED)

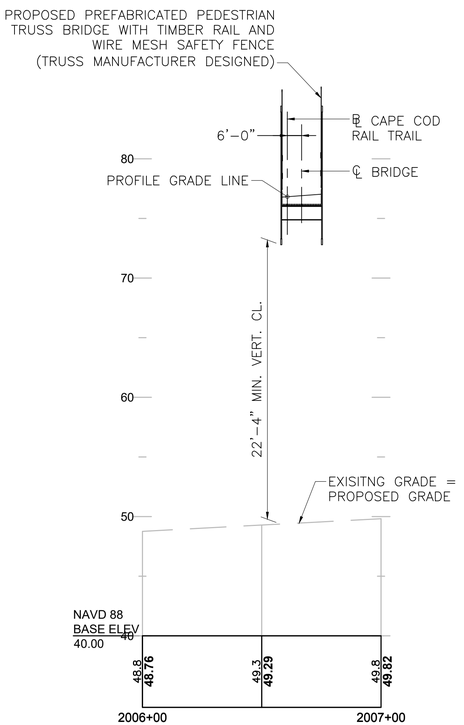
DESCRIPTION:	QUANTITIY	UNITS
BRIDGE EXCAVATION	690	CY
CLASS B ROCK EXCAVATION	210	CY
GRAVEL BORROW FOR BRIDGE FOUNDATION	110	CY
GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	610	CY
CRUSHED STONE FOR BRIDGE FOUNDATIONS	60	TONS
BRIDGE STRUCTURE NO. Y-01-018 (C8R)	1	LS
MSE RETAINING WALL	1310	SY

INDEX:

01 KEY PLAN PROFILE LOCUS AND INDEX
02 MASS COASTAL RAILROAD PROFILE
03 GENERAL NOTES
04 BORING LOGS (1 OF 3)
05 BORING LOGS (2 OF 3)
06 BORING LOGS (3 OF 3)
07 GENERAL PLAN AND ELEVATION
08 WEST ABUTMENT DETAILS
09 EAST ABUTMENT DETAILS
10 MSE WALL PLAN AND ELEVATION
11 MSE WALL DETAILS
12 MISCELLANEOUS DETAILS



PROFILE ALONG ℄ CAPE COD RAIL TRAIL
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'



PROFILE ALONG ℄ WILLOW STREET
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'

NOTE: FOR PROFILE ALONG ℄ MASS COASTAL RAILROAD, SEE SHEET 02 OF 12.

MONTH DD, YYYY | ISSUED FOR CONSTRUCTION

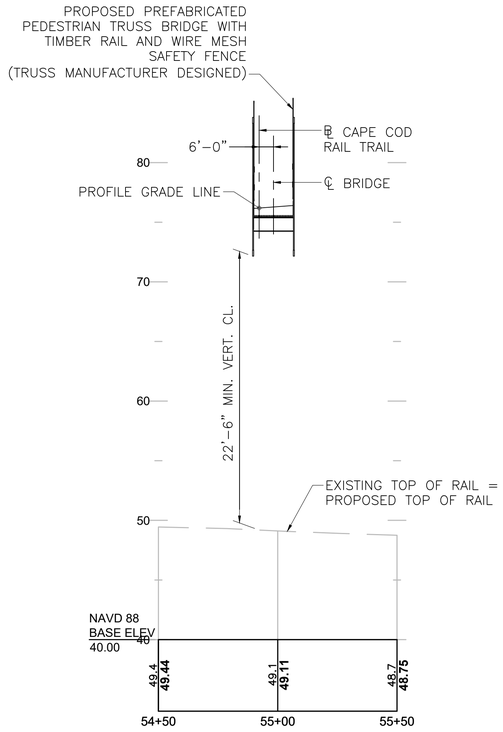
MassDOT Massachusetts Department of Transportation Highway Division

PROPOSED BRIDGE
YARMOUTH
CAPE COD RAIL TRAIL OVER
WILLOW STREET & MASS COASTAL RAILROAD
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

vhb
Vanasse Hangen Brustlin, Inc.
101 Walnut St, P.O. Box 9151
Watertown, MA 02472
617.924.1770 FAX 617.924.2286

STATE BRIDGE ENGINEER | CHIEF ENGINEER

607398_BR1-2(Y01018)(KEY PLAN).DWG Plotted on 15-Feb-2024 10:46 AM
Final Structural Submittal (PS&E) 15 February, 2024



NOTE: MASS COASTAL RAILROAD IS ALSO KNOWN AS MASSDOT RAIL CAPE MAIN TRACK.

PROFILE ALONG ℄ MASS COASTAL RAILROAD

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 6'

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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MASS COASTAL RAILROAD PROFILE

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

607398_BR1-2(Y01018)(KEY PLAN).DWG Plotted on 15-Feb-2024 10:47 AM
Final Structural Submittal (PS&E) 15 February, 2024

GENERAL NOTES

DESIGN:

IN ACCORDANCE WITH:

THE 2020 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS.

THE 2009 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES WITH 2015 INTERIM REVISIONS FOR H–15 LOADING OR 90 PSF PEDESTRIAN LOADING, WHICHEVER CONTROLS.

THE 2013 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) LRFD BRIDGE MANUAL WITH 2020 REVISIONS.

THE 2020 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN.

MASSDOT BENCH MARKS:

BENCH MARK: STAKE AND NAIL ON N.W. CORNER N2712723.617, E995338.8411, EL. 73.421'

BENCH MARK: UTILITY POLE SOUTH OF BRIDGE N2712625.1354, E995403.0054, EL. 49.12'

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD88) OF 1988.

MASSDOT SURVEY NOTEBOOKS:

TOPOGRAPHICAL INFORMATION FROM A SURVEY BY THE TOWN OF YARMOUTH BETWEEN THE DATES OF JUNE 2010 AND FEBRUARY 2014 AND VHB OF WATERTOWN, MA BETWEEN JULY AND AUGUST 2014.

SCALES:

SCALES NOTED ON THE PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALES BY 2 FOR HALF–SIZE PRINTS.

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.

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
1. NONE	16"	19"	23"
2. 12" OF CONCRETE BELOW BAR	20"	25"	30"
3. COATED BARS, COVER <3d_b, OR CLEAR SPACING <6d_b	23"	29"	34"
4. COATED BARS, ALL OTHER CASES	18"	23"	27"
5. CONDITION 2, AND 3	26"	32"	39"
6. CONDITION 2, AND 4	24"	30"	36"

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

ALL REINFORCING SHALL BE EPOXY COATED.

GEOTECHNICAL REPORT:

REFER TO GEOTECHNICAL REPORT, DATED NOVEMBER 20, 2023, PREPARED BY NOBIS ENGINEERING.

CONSTRUCTION REQUIREMENTS AND PROCEDURES:

THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO ENSURE THE STABILITY AND SAFE PERFORMANCE OF ALL STRUCTURAL ELEMENTS DURING DEMOLITION AND CONSTRUCTION.

THE CONTRACTOR SHALL SEQUENCE THE CONSTRUCTION TO DELAY THE PLACEMENT OF THE FINAL PAVEMENT COURSE AT THE BRIDGE APPROACHES IN ORDER TO MINIMIZE THE IMPACT OF SETTLEMENT DURING CONSTRUCTION.

EXISTING CONDITIONS:

THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENTS AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF, AND SHALL NOT ORDER ANY MATERIAL OR COMMENCE ANY FABRICATION UNTIL HE HAS MADE THE REQUIRED MEASUREMENTS AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

CONSTRUCTION JOINTS:

CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

CONCRETE:

ALL CONCRETE SHALL BE 5000 PSI – ¾" – 685 HP CEMENT CONCRETE.

STRUCTURAL STEEL:

ALL STRUCTURAL STEEL OTHER THAN STRUCTURAL TUBING SHALL BE AASHTO M270 GRADE 50. STRUCTURAL TUBING SHALL BE HEAT TREATED, AND SHALL CONFORM TO ASTM A1085 GRADE A, WITH THE SUPPLEMENTAL REQUIREMENTS S1. MINIMUM STRUCTURAL TUBULAR MEMBER THICKNESS SHALL BE ¼".
STEEL TRUSS AND TRUSS CONNECTIONS SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH:

- THE 2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- THE 2009 AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES WITH 2015 INTERIM REVISIONS.
- THE 2013 MASSDOT LRFD BRIDGE MANUAL WITH 2020 REVISIONS.
- THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR IS TO BE AWARE THAT THERE MAY BE LIMITS TO THE LENGTH OF HEAT TREATED HSS A1085 TUBULAR STEEL THAT SUPPLIERS CAN PROVIDE WHICH MEET THE REQUIRED BUY AMERICA PROVISIONS. SPLICES AT THE QUARTER POINTS ARE LIKELY TO BE REQUIRED GIVEN THE 183 FOOT BRIDGE SPAN.
ALL EXPOSED STEEL SURFACES SHALL BE FINISHED AND FREE OF COARSE OR RUGGED EDGES. WELDED TUBULAR CONNECTIONS SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE – STEEL ANSI/AWS/D1.1. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
ALL NON TUBULAR WELDED CONNECTIONS SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE – STEEL ANSI/AWS/D1.5. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
ALL STRUCTURAL STEEL AND STRUCTURAL TUBING SHALL BE GALVANIZED AND PAINTED, IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE FINISH COAT COLOR SHALL BE GREEN AND MATCH COLOR CHIP NO. 24272 OF FEDERAL STANDARD 595B.

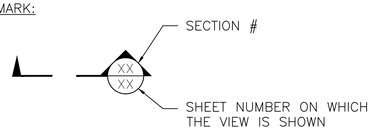
TIMBER RUB RAILS

TIMBER RUB RAILS MOUNTED TO THE TRUSS SHALL BE SUPPLIED BY THE BRIDGE MANUFACTURER. RUB RAIL MATERIAL SHALL BE IPE.

SUPERSTRUCTURE DEAD LOAD:

FOUNDATIONS ARE DESIGNED FOR A MAXIMUM SUPERSTRUCTURE SERVICE DEAD LOAD OF 272 KIPS PER ABUTMENT. SUPERSTRUCTURE DEAD LOAD INCLUDES STEEL TRUSS, CONCRETE DECK FENCE, AND RAILINGS. IF WEIGHT IS NOT IN THIS RANGE, THE ABUTMENT DESIGN (FOUNDATIONS AND REINFORCING) SHALL BE CHECKED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS. THE CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION OR FABRICATION.

SECTION MARK:



TRACK:

ANY EXISTING RAIL, JOINT BARS, AND OTHER TRACK MATERIAL (OTM) FOUND ON THE MASSDOT RAIL & TRANSIT ROW SHALL BE PICKED UP AND DELIVERED TO A MASSDOT RAIL & TRANSIT STORAGE FACILITY WITHIN 100 MILES OF THE WORK AREA. THE MATERIAL WILL BE ACCESSED BY MASSDOT RAIL & TRANSIT/MCRR AS SALVAGEABLE OR NON–SALVAGEABLE MATERIAL. TRACK MATERIALS DEEMED SALVAGEABLE WILL BE LABELED AND PALLETIZED FOR DELIVERED TO A MASSDOT RAIL & TRANSIT STORAGE FACILITY WITHIN 100 MILES OF THE WORK AREA.. ALL NON–SALVAGEABLE STEEL OTM ITEMS SUCH AS TIE PLATES, RAIL ANCHORS, BOLTS, NUTS, WASHERS, ETC. SHALL BE COLLECTED BY THE CONTRACTOR AND PLACED IN A SCRAP CONTAINER ON SITE PROVIDED BY MASSDOT/MCRR FOR PICK UP BY A SCRAP DEALER DESIGNATED BY MASSDOT.

CONTRACTOR WILL BE RESPONSIBLE FOR THE COLLECTION AND DISPOSAL OF ALL SCRAP CROSSTIES, TIMBERS, ASPHALT, CONCRETE, AND RUBBER MATERIAL WITHIN THE LIMITS OF THE WORK ALONG THE MASSDOT RAILROAD ROW. ALL MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH STATE, LOCAL AND MASS DEP REQUIREMENTS.

CONTRACTOR SHALL NOT WORK WITHIN THE "FOUL" AREA OF THE RAILROAD (15 FEET FROM CENTERLINE OF TRACK) WITHOUT FIRST OBTAINING ROADWAY WORKER PROTECTION (RWP) SAFETY TRAINING FROM MASS COASTAL RAILROAD, FOR ALL PERSONS PLANNING ON WORKING WITHIN THE MASS COASTAL RAILROAD AND MASSDOT RIGHT–OF–WAY. CONTRACTOR SHALL COORDINATE WITH MCRR FOR APPROPRIATE PROTECTION FROM THE OPERATING RAILROAD BEFORE WORKING INSIDE (OR POTENTIAL TO FOUL) THE 15 FT FOUL AREA. CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL MASS COASTAL RAILROAD AND MASSDOT RAIL AND TRANSIT DIVISION WORK REQUIREMENTS AND RESTRICTIONS.

ANY DAMAGE TO THE EXISTING RAILROAD INFRASTRUCTURE RAIL, TIES, TRACK STRUCTURE, SIGNAL SYSTEM, CONDUITS, CROSSING PAVEMENT, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO MASSDOT. CONTRACTOR MUST NOTIFY MCRR OF ANY INCIDENTS INVOLVING RAIL INFRASTRUCTURE, RAIL, TIES, OTM, BALLAST, DITCH LINES, SIGNALS ETC.

THE CONTRACTOR SHALL CONTACT THE RAILROAD AND OTHER APPROPRIATE PARTIES (DIG SAFE, ETC.) PRIOR TO THE START OF EXCAVATION WORK. CONTRACTOR MUST TRANSMIT ALL ASSOCIATED DIG SAFE TICKET NUMBERS THROUGHOUT THE DURATION TO THE RAILROAD.

PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR CONSTRUCTION TO MASSDOT RAIL & TRANSIT/MCRR FOR APPROVAL

FLAGGING, AS REQUIRED BY MASS COASTAL RAILROAD (MCRR), SHALL BE ARRANGED BY THE CONTRACTOR AND AT THE EXPENSE OF THE CONTRACTOR/ SUB–CONTRACTOR. THESE SERVICES WILL BE PROVIDED AS SPECIFIED HEREIN AND AS APPROVED BY MCRR AND MASSDOT TO ALLOW THE CONTRACTOR TO CARRY OUT THEIR REGULAR WORK ACTIVITIES.

ALL TRACK OUTAGES THAT ARE NEEDED FOR THE PROJECT MUST BE COORDINATED 21 DAYS IN ADVANCE WITH MCRR.

PAVING:

AT BRIDGE APPROACHES, EMBANKMENTS 10 FEET OR MORE IN HEIGHT FROM THE ELEVATION OF THE SUBGRADE TO THE ORIGINAL GROUND ELEVATION SHALL BE CONSTRUCTED TO THE ELEVATION OF THE PROPOSED SUBGRADE AND THEN ALLOWED TO SETTLE FOR 60 DAYS BEFORE THE PAVEMENT STRUCTURE IS CONSTRUCTED THEREON. SEE HIGHWAY PLANS FOR PATH PAVEMENT DETAILS.

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	111	278
PROJECT FILE NO.	607398		

GENERAL NOTES

TRAFFIC DATA	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR	N/A	N/A
AVERAGE DAILY TRAFFIC – PRESENT	N/A	22,711
AVERAGE DAILY TRAFFIC – DESIGN YEAR	N/A	N/A
DESIGN HOURLY VOLUME	N/A	N/A
DIRECTIONAL DISTRIBUTION	N/A	N/A
TRUCK PERCENTAGE – AVERAGE DAY	N/A	N/A
TRUCK PERCENTAGE – PEAK HOUR	N/A	N/A
DESIGN SPEED	20 MPH	30 MPH
DIRECTIONAL DESIGN HOURLY VOLUME	N/A	N/A

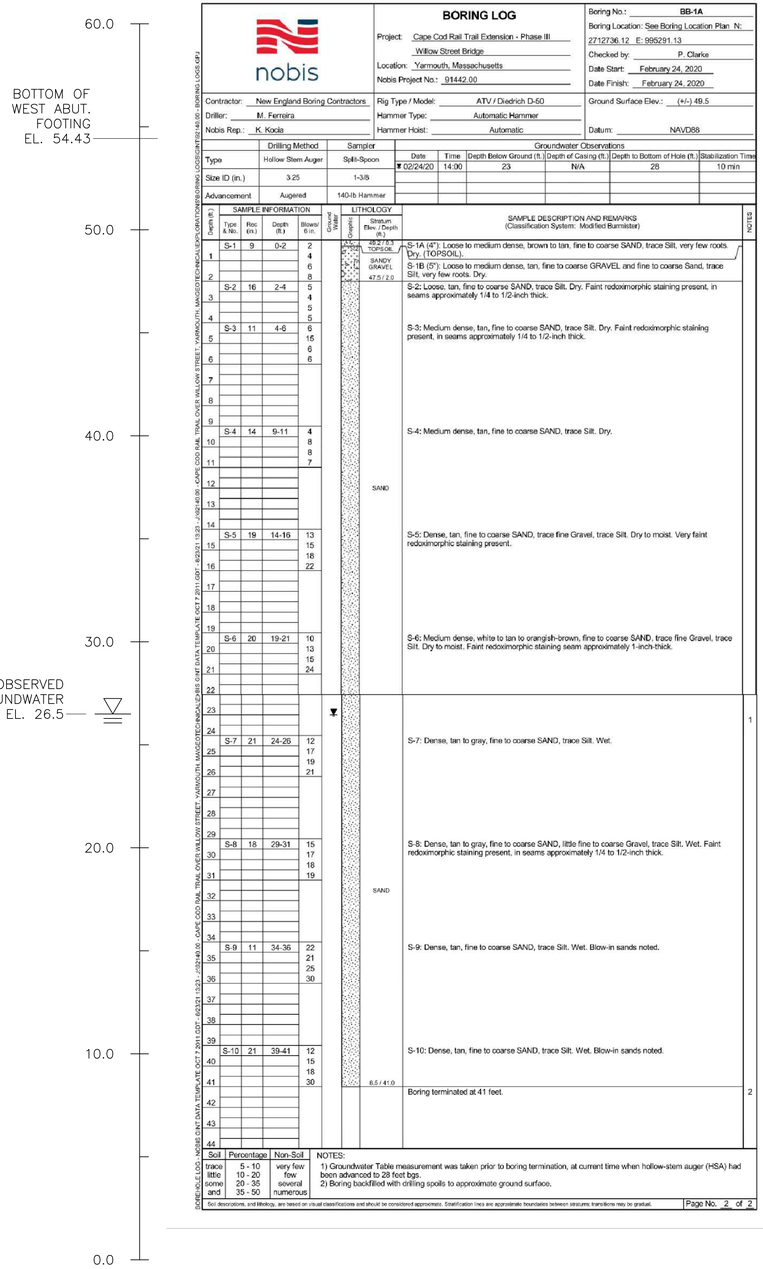
SEISMIC DESIGN CRITERIA	
DESIGN RETURN PERIOD:	1000 YEAR
DESIGN SPECTRA	
As	0.075
SDs	0.1648
SD1	0.072
SITE CLASS	D
SEISMIC DESIGN CATEGORY (SDC)	A

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

607398_BR3(Y01018)(GEN_NOTES).DWG Plotted on 15-Feb-2024 10:47 AM
15 February, 2024
Final Structural Submittal (PS&E)

BORING BB–1A
STATION: 132+88.9
OFFSET: 1.4' LT
N: 2712736.12
E: 995291.13
GROUND ELEVATION: 49.5'±



BORING LOG

nobis

Project: Cape Cod Rail Trail Extension - Phase III
Willow Street Bridge
Location: Yarmouth, Massachusetts
Nobis Project No.: 91442.00

Boring No.: BB-1A
Boring Location: See Boring Location Plan N: 2712736.12 E: 995291.13
Checked by: P. Clarke
Date Start: February 24, 2020
Date Finish: February 24, 2020

Contractor: New England Boring Contractors
Driller: M. Ferreira
Nobis Rep.: K. Kocla

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

Ground Surface Elev.: (+/-) 49.5
Datum: NAVD88

	Drilling Method	Sampler
Type	Hollow Stem Auger	Split-Spoon
Size ID (in.)	3.25	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
▼ 02/24/20	14:00	23	N/A	28	10 min

Depth (ft.)	Sample Information: Type & No.	Rec. (in.)	Depth (ft.)	Blows/ 6 in.	Groundwater Graphic	Lithology: Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)	Notes
1	S-1	9	0-2	2 4 6 8		49.2 / 0.3 TOPSOIL	S-1A (4"): Loose to medium dense, brown to tan, fine to coarse SAND, trace Silt, very few roots. Dry. (TOPSOIL).	
2						SANDY GRAVEL 47.5 / 2.0	S-1B (5"): Loose to medium dense, tan, fine to coarse GRAVEL and fine to coarse Sand, trace Silt, very few roots. Dry.	
3	S-2	16	2-4	5 4 4 5			S-2: Loose, tan, fine to coarse SAND, trace Silt. Dry. Faint redoximorphic staining present, in seams approximately 1/4 to 1/2-inch thick.	
4								
5	S-3	11	4-6	6 6 6 6			S-3: Medium dense, tan, fine to coarse SAND, trace Silt. Dry. Faint redoximorphic staining present, in seams approximately 1/4 to 1/2-inch thick.	
6								
7								
8								
9								
10	S-4	14	9-11	4 8 8 7			S-4: Medium dense, tan, fine to coarse SAND, trace Silt. Dry.	
11								
12								
13								
14								
15	S-5	19	14-16	13 15 18 22			S-5: Dense, tan, fine to coarse SAND, trace fine Gravel, trace Silt. Dry to moist. Very faint redoximorphic staining present.	
16								
17								
18								
19								
20	S-6	20	19-21	10 13 15 24			S-6: Medium dense, white to tan to orangish-brown, fine to coarse SAND, trace fine Gravel, trace Silt. Dry to moist. Faint redoximorphic staining seam approximately 1-inch-thick.	
21								
22								
23					▼			1
24	S-7	21	24-26	12 17 19 21			S-7: Dense, tan to gray, fine to coarse SAND, trace Silt. Wet.	
25								
26								
27								
28								
29								
30	S-8	18	29-31	15 17 18 19			S-8: Dense, tan to gray, fine to coarse SAND, little fine to coarse Gravel, trace Silt. Wet. Faint redoximorphic staining present, in seams approximately 1/4 to 1/2-inch thick.	
31								
32								
33								
34						SAND		
35	S-9	11	34-36	22 21 25 30			S-9: Dense, tan, fine to coarse SAND, trace Silt. Wet. Blow-in sands noted.	
36								
37								
38								
39								
40	S-10	21	39-41	12 15 18 30			S-10: Dense, tan, fine to coarse SAND, trace Silt. Wet. Blow-in sands noted.	
41						8.5 / 41.0		
42							Boring terminated at 41 feet.	2
43								
44								

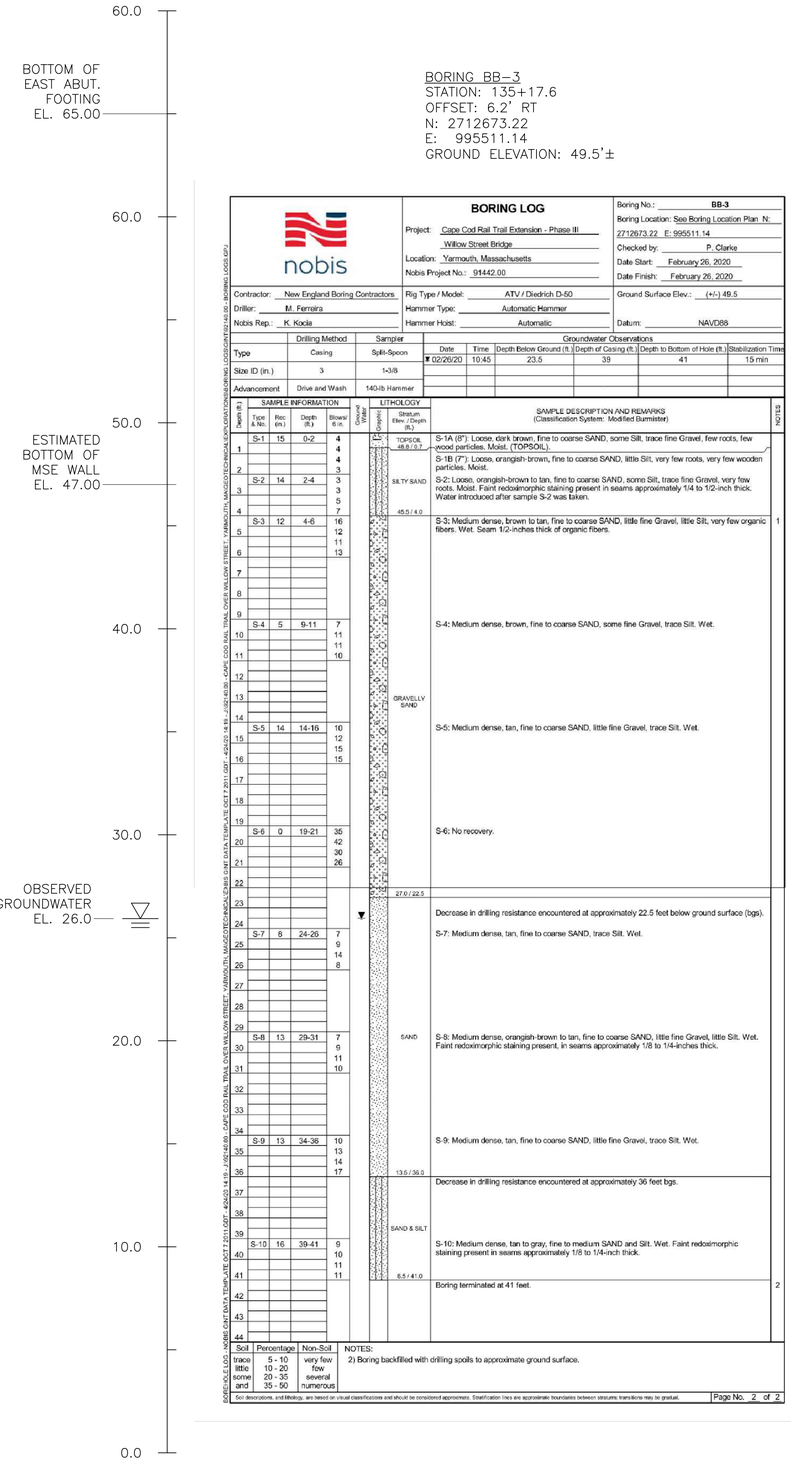
Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:
1) Groundwater Table measurement was taken prior to boring termination, at current time when hollow-stem auger (HSA) had been advanced to 28 feet bgs.
2) Boring backfilled with drilling spoils to approximate ground surface.

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

BORING BB–3
STATION: 135+17.6
OFFSET: 6.2' RT
N: 2712673.22
E: 995511.14
GROUND ELEVATION: 49.5'±



BORING LOG

nobis

Project: Cape Cod Rail Trail Extension - Phase III
Willow Street Bridge
Location: Yarmouth, Massachusetts
Nobis Project No.: 91442.00

Boring No.: BB-3
Boring Location: See Boring Location Plan N: 2712673.22 E: 995511.14
Checked by: P. Clarke
Date Start: February 26, 2020
Date Finish: February 26, 2020

Contractor: New England Boring Contractors
Driller: M. Ferreira
Nobis Rep.: K. Kocla

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

Ground Surface Elev.: (+/-) 49.5
Datum: NAVD88

	Drilling Method	Sampler
Type	Casing	Split-Spoon
Size ID (in.)	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
▼ 02/26/20	10:45	23.5	39	41	15 min

Depth (ft.)	Sample Information: Type & No.	Rec. (in.)	Depth (ft.)	Blows/ 6 in.	Groundwater Graphic	Lithology: Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)	Notes
1	S-1	15	0-2	4 4 4 3		TOPSOIL 48.8 / 0.7	S-1A (8"): Loose, dark brown, fine to coarse SAND, some Silt, trace fine Gravel, few roots, few wood particles. Moist. (TOPSOIL).	
2							S-1B (7"): Loose, orangish-brown, fine to coarse SAND, little Silt, very few roots, very few wooden particles. Moist.	
3	S-2	14	2-4	3 3 5 7		SILTY SAND	S-2: Loose, orangish-brown to tan, fine to coarse SAND, some Silt, trace fine Gravel, very few roots. Moist. Faint redoximorphic staining present in seams approximately 1/4 to 1/2-inch thick. Water introduced after sample S-2 was taken.	
4						45.5 / 4.0		
5	S-3	12	4-6	16 12 11 13			S-3: Medium dense, brown to tan, fine to coarse SAND, little fine Gravel, little Silt, very few organic fibers. Wet. Seam 1/2-inches thick of organic fibers.	1
6								
7								
8								
9								
10	S-4	5	9-11	7 11 11 10			S-4: Medium dense, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.	
11								
12								
13						GRAVELLY SAND		
14								
15	S-5	14	14-16	10 12 15 15			S-5: Medium dense, tan, fine to coarse SAND, little fine Gravel, trace Silt. Wet.	
16								
17								
18								
19								
20	S-6	0	19-21	35 42 30 26			S-6: No recovery.	
21								
22						27.0 / 22.5		
23							Decrease in drilling resistance encountered at approximately 22.5 feet below ground surface (bgs).	
24	S-7	8	24-26	7 9 14 8	▼		S-7: Medium dense, tan, fine to coarse SAND, trace Silt. Wet.	
25								
26								
27								
28								
29								
30	S-8	13	29-31	7 9 11 10		SAND	S-8: Medium dense, orangish-brown to tan, fine to coarse SAND, little fine Gravel, little Silt. Wet. Faint redoximorphic staining present, in seams approximately 1/8 to 1/4-inches thick.	
31								
32								
33								
34								
35	S-9	13	34-36	10 13 14 17			S-9: Medium dense, tan, fine to coarse SAND, little fine Gravel, trace Silt. Wet.	
36						13.5 / 36.0		
37							Decrease in drilling resistance encountered at approximately 36 feet bgs.	
38								
39						SAND & SILT		
40	S-10	16	39-41	9 10 11 11			S-10: Medium dense, tan to gray, fine to medium SAND and Silt. Wet. Faint redoximorphic staining present in seams approximately 1/8 to 1/4-inch thick.	
41						8.5 / 41.0		
42							Boring terminated at 41 feet.	2
43								
44								

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 drilling spoils to approximate ground surface.

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

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	112	278
PROJECT FILE NO.	607398		

BORING LOGS (1 OF 3)

BORING NOTES:

1. LOCATION OF BORINGS BB–1A & BB–3 SHOWN ON THE KEY PLAN AND WB–1 THRU WB–4 SHOWN ON MSE WALL 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 1 ⅜" 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 FEBRUARY 2020.
7. BORINGS WERE MADE BY NEW ENGLAND BORING CONTRACTORS, INC. 250 CAPE HIGHWAY, UNIT 12, E. TAUNTON, MA 02718.
8. THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

GROUND WATER

THE WATER LEVELS RECORDED IN THE TABLE ARE THOSE MEASURED ON THE DATES GIVEN AND DO NOT NECESSARILY REPRESENT GROUND WATER LEVEL AT TIME OF CONSTRUCTION.

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

607398_BR4-6(Y01018)(BORINGS).DWG Plotted on 15-Feb-2024 10:47 AM
Final Structural Submittal (PS&E) 15 February, 2024

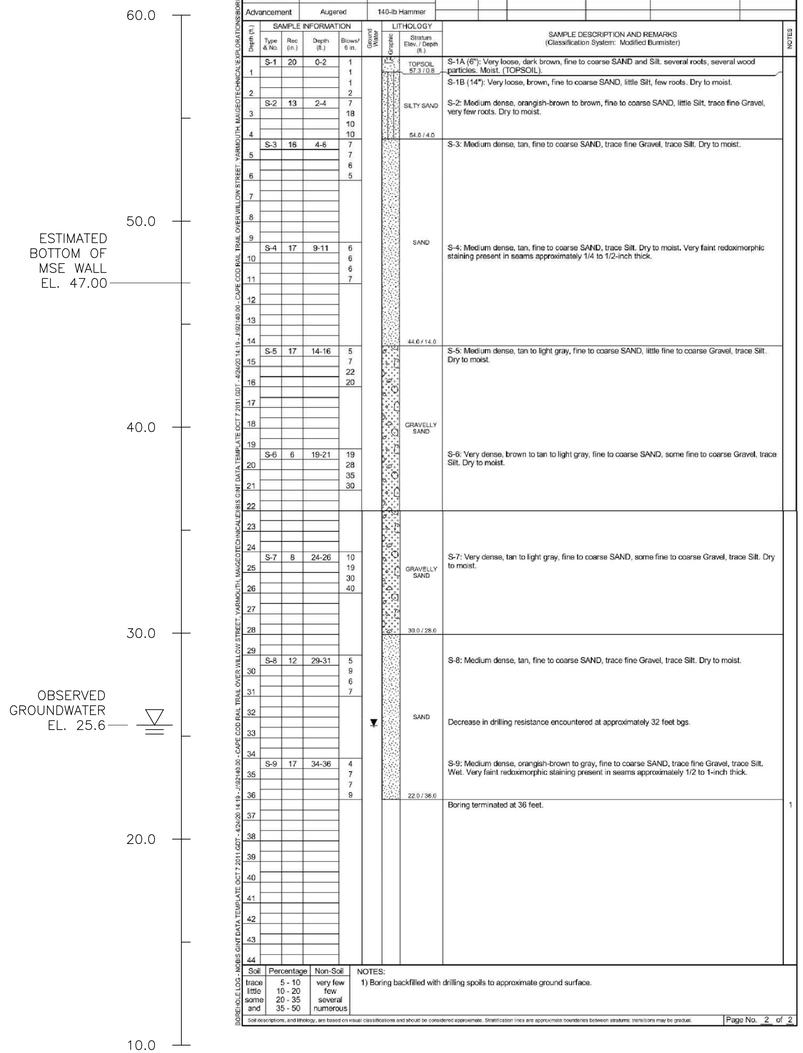
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	113	278
PROJECT FILE NO.	607398		

BORING LOGS (2 OF 3)

NOTE: FOR BORING NOTES, SEE SHEET 04 OF 12.

BORING WB–1
STATION: 135+63.4
OFFSET: 8.8' LT
N: 2712676.68
E: 995559.25
GROUND ELEVATION: 58.0'±



BORING LOG

nobis

Project: Cape Cod Rail Trail Extension - Phase III
Willow Street Bridge
Location: Yarmouth, Massachusetts
Nobis Project No.: 91442.00

Boring No.: WB-1
Boring Location: See Boring Location Plan N: 2712676.68 E: 995559.25
Checked by: P. Clarke
Date Start: February 28, 2020
Date Finish: February 28, 2020

Contractor: New England Boring Contractors
Driller: M. Ferreira
Nobis Rep.: K. Kocia

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

Ground Surface Elev.: (+/-) 58
Datum: NAVD88

	Drilling Method	Sampler
Type	Hollow Stem Auger	Split-Spoon
Size ID (in.)	3.25	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
▼ 02/28/20	12:30	32.4	34	36	20 min

Depth (ft.)	Type & No.	Rec. (in.)	Depth (ft.)	Blows/ 6 in.	Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1	S-1	20	0-2	1 1 1 2		TOPSOIL 57.3 / 0.8	S-1A (6"): Very loose, dark brown, fine to coarse SAND and Silt, several roots, several wood particles. Moist. (TOPSOIL). S-1B (14"): Very loose, brown, fine to coarse SAND, little Silt, few roots. Dry to moist.	
2								
3	S-2	13	2-4	7 18 10 10		SILTY SAND 54.6 / 4.0	S-2: Medium dense, orangish-brown to brown, fine to coarse SAND, little Silt, trace fine Gravel, very few roots. Dry to moist.	
4								
5	S-3	16	4-6	7 7 6 5			S-3: Medium dense, tan, fine to coarse SAND, trace fine Gravel, trace Silt. Dry to moist.	
6								
7								
8								
9								
10	S-4	17	9-11	6 6 6 7		SAND	S-4: Medium dense, tan, fine to coarse SAND, trace Silt. Dry to moist. Very faint redoximorphic staining present in seams approximately 1/4 to 1/2-inch thick.	
11								
12								
13								
14						44.6 / 14.0		
15	S-5	17	14-16	5 7 22 20		GRAVELLY SAND	S-5: Medium dense, tan to light gray, fine to coarse SAND, little fine to coarse Gravel, trace Silt. Dry to moist.	
16								
17								
18								
19	S-6	6	19-21	19 28 35 30			S-6: Very dense, brown to tan to light gray, fine to coarse SAND, some fine to coarse Gravel, trace Silt. Dry to moist.	
20								
21								
22								
23								
24	S-7	8	24-26	10 19 30 40		GRAVELLY SAND 33.0 / 25.0	S-7: Very dense, tan to light gray, fine to coarse SAND, some fine to coarse Gravel, trace Silt. Dry to moist.	
25								
26								
27								
28								
29	S-8	12	29-31	5 9 6 7		SAND	S-8: Medium dense, tan, fine to coarse SAND, trace fine Gravel, trace Silt. Dry to moist. Decrease in drilling resistance encountered at approximately 32 feet bgs.	
30								
31								
32								
33								
34	S-9	17	34-36	4 7 7 9			S-9: Medium dense, orangish-brown to gray, fine to coarse SAND, trace fine Gravel, trace Silt. Wet. Very faint redoximorphic staining present in seams approximately 1/2 to 1-inch thick.	
35								
36						22.0 / 36.0	Boring terminated at 36 feet.	1
37								
38								
39								
40								
41								
42								
43								
44								

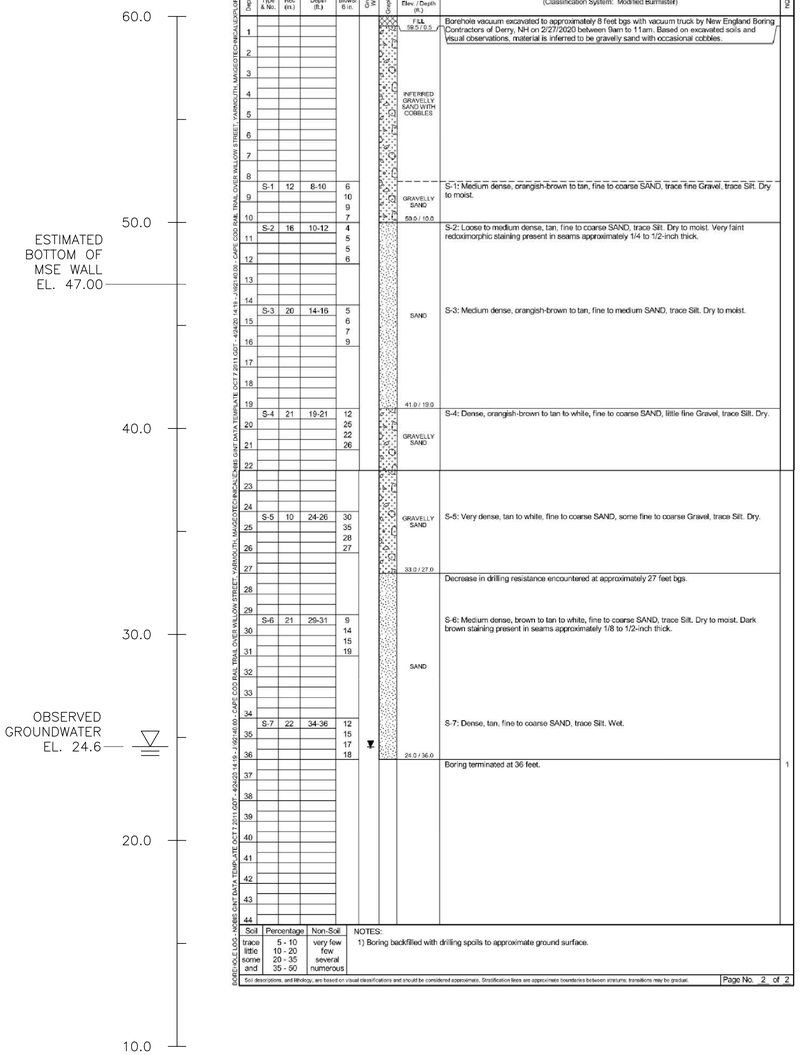
Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:
1) Boring backfilled with drilling spoils to approximate ground surface.

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

BORING WB–2
STATION: 137+16.6
OFFSET: 1.4' LT
N: 2712632.38
E: 995706.01
GROUND ELEVATION: 60.0'±



BORING LOG

nobis

Project: Cape Cod Rail Trail Extension - Phase III
Willow Street Bridge
Location: Yarmouth, Massachusetts
Nobis Project No.: 91442.00

Boring No.: WB-2
Boring Location: See Boring Location Plan N: 2712632.38 E: 995706.01
Checked by: P. Clarke
Date Start: February 27, 2020
Date Finish: February 27, 2020

Contractor: New England Boring Contractors
Driller: M. Ferreira
Nobis Rep.: K. Kocia

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

Ground Surface Elev.: (+/-) 60
Datum: NAVD88

	Drilling Method	Sampler
Type	Hollow Stem Auger	Split-Spoon
Size ID (in.)	3.25	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
▼ 02/27/20	14:00	35.4	34	36	10 min

Depth (ft.)	Type & No.	Rec. (in.)	Depth (ft.)	Blows/ 6 in.	Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1						FILL 59.5 / 0.5	Borehole vacuum excavated to approximately 8 feet bgs with vacuum truck by New England Boring Contractors of Derry, NH on 2/27/2020 between 9am to 11am. Based on excavated soils and visual observations, material is inferred to be gravelly sand with occasional cobbles.	
2								
3								
4						INFERRED GRAVELLY SAND WITH COBBLES		
5								
6								
7								
8								
9	S-1	12	8-10	6 10 9 7		GRAVELLY SAND 50.0 / 10.0	S-1: Medium dense, orangish-brown to tan, fine to coarse SAND, trace fine Gravel, trace Silt. Dry to moist.	
10								
11	S-2	16	10-12	4 5 5 6			S-2: Loose to medium dense, tan, fine to coarse SAND, trace Silt. Dry to moist. Very faint redoximorphic staining present in seams approximately 1/4 to 1/2-inch thick.	
12								
13								
14								
15	S-3	20	14-16	5 6 7 9		SAND 41.0 / 19.0	S-3: Medium dense, orangish-brown to tan, fine to medium SAND, trace Silt. Dry to moist.	
16								
17								
18								
19								
20	S-4	21	19-21	12 26 22 26		GRAVELLY SAND	S-4: Dense, orangish-brown to tan to white, fine to coarse SAND, little fine Gravel, trace Silt. Dry.	
21								
22								
23								
24	S-5	10	24-26	30 35 28 27		GRAVELLY SAND 33.0 / 27.0	S-5: Very dense, tan to white, fine to coarse SAND, some fine to coarse Gravel, trace Silt. Dry.	
25								
26								
27							Decrease in drilling resistance encountered at approximately 27 feet bgs.	
28								
29	S-6	21	29-31	9 14 15 19		SAND	S-6: Medium dense, brown to tan to white, fine to coarse SAND, trace Silt. Dry to moist. Dark brown staining present in seams approximately 1/8 to 1/2-inch thick.	
30								
31								
32								
33								
34	S-7	22	34-36	12 15 17 18		24.0 / 36.0	S-7: Dense, tan, fine to coarse SAND, trace Silt. Wet.	
35								
36							Boring terminated at 36 feet.	1
37								
38								
39								
40								
41								
42								
43								
44								

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 drilling spoils to approximate ground surface.

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

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

607398_BR4-6(Y01018)(BORINGS).DWG Plotted on 15-Feb-2024 10:47 AM
Final Structural Submittal (PS&E) 15 February, 2024

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	114	278
PROJECT FILE NO.	607398		

BORING LOGS (3 OF 3)

NOTE: FOR BORING NOTES, SEE SHEET 04 OF 12.

BORING WB-3
STATION: 137+83.8
OFFSET: 18.6' RT
N: 2712596.86
E: 995766.47
GROUND ELEVATION: 60.0'±

BORING LOG

Boring No.: WB-3
Boring Location: See Boring Location Plan N: 2712596.86 E: 995766.47
Project: Cape Cod Rail Trail Extension - Phase III / Willow Street Bridge
Location: Yarmouth, Massachusetts
Nobis Project No.: 91442.00
Checked by: P. Clarke
Date Start: February 27, 2020
Date Finish: February 27, 2020
Contractor: New England Boring Contractors
Driller: M. Ferreira
Nobis Rep.: K. Kocia
Rig Type / Model: ATV / Diedrich D-50
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic
Ground Surface Elev.: (+/-) 60
Datum: NAVD88

	Drilling Method	Sampler
Type	Hollow Stem Auger	Split-Spoon
Size ID (in.)	3.25	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
02/27/20	10:00	Not Encountered	29	31	15 min

Depth (ft.)	SAMPLE INFORMATION 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
1							59.7 / 0.3 ASPHALT	Asphalt present, approximately 4.0-inches thick. Due to rainfall, samples obtained during borehole advancement may contain greater amounts of moisture compared to naturally.	
2	S-1	19	1-3	11 12			FILL 58.3 / 1.8	S-1A (6"): Medium dense, black to brown, fine to coarse SAND, little Silt, trace fine Gravel, few asphalt fragments. Moist.	
3				17 18				S-1B (13"): Medium dense, orangish-brown to tan, fine to medium SAND, trace Silt. Moist.	
4	S-2	10	3-5	10 10			SAND	S-2: Medium dense, tan, fine to coarse SAND, trace Silt. Moist.	
5				12 9			55.0 / 5.0		
6	S-3	6	5-7	37 15			GRAVELLY SAND 53.0 / 7.0	S-3: Medium dense, brown to dark brown, fine to coarse SAND, little fine Gravel, trace Silt. Moist to wet.	
7				13 10					
8									
9									
10	S-4	20	9-11	5 9				S-4: Medium dense, tan, fine to coarse SAND, trace fine Gravel, trace Silt. Moist to wet. Very faint redoximorphic staining present, in seams approximately 1/8 to 1/4-inches thick.	
11				9 8					
12									
13									
14									
15	S-5	19	14-16	5 7			SAND	S-5: Medium dense, tan, fine to coarse SAND, trace fine Gravel, trace Silt. Moist to wet. Very faint redoximorphic staining present, in seams approximately 1/8 to 1/4-inches thick.	
16				8					
17									
18									
19									
20	S-6	24	19-21	14 21				S-6: Dense, orangish-brown to tan, fine to coarse SAND, trace fine Gravel, trace Silt. Moist to wet. Faint redoximorphic staining present, in pockets.	
21				27 35					
22									
23									
24									
25	S-7	6	24-26	14 22			SAND	S-7: Very dense, gray to tan, fine to medium SAND, trace Silt. Moist to wet.	
26				35 31					
27									
28									
29									
30	S-8	22	29-31	13 18				S-8: Dense, tan to white, fine to coarse SAND, trace Silt. Moist to wet.	
31				23 20			29.0 / 31.0		
32								Boring terminated at 31 feet.	1
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									

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 drilling spoils to approximate ground surface.

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

ESTIMATED BOTTOM OF MSE WALL EL. 47.00

OBSERVED GROUNDWATER EL. 28.4

BORING WB-4
STATION: 138+83.8
OFFSET: 17.4' RT
N: 2712573.58
E: 995863.72
GROUND ELEVATION: 63.0'±

BORING LOG

Boring No.: WB-4
Boring Location: See Boring Location Plan N: 2712573.58 E: 995863.72
Project: Cape Cod Rail Trail Extension - Phase III / Willow Street Bridge
Location: Yarmouth, Massachusetts
Nobis Project No.: 91442.00
Checked by: P. Clarke
Date Start: February 26, 2020
Date Finish: February 26, 2020
Contractor: New England Boring Contractors
Driller: M. Ferreira
Nobis Rep.: K. Kocia
Rig Type / Model: ATV / Diedrich D-50
Hammer Type: Automatic Hammer
Hammer Hoist: Automatic
Ground Surface Elev.: (+/-) 63
Datum: NAVD88

	Drilling Method	Sampler
Type	Hollow Stem Auger	Split-Spoon
Size ID (in.)	3.25	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
▼ 02/26/20	14:30	34.6	34	36	15 min

Depth (ft.)	SAMPLE INFORMATION 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
1							62.7 / 0.3 ASPHALT	Asphalt present, approximately 3.8-inches thick.	
2	S-1	20	1-3	11 12			FILL 61.3 / 1.8	S-1A (7"): Medium dense, brown, fine to coarse SAND, little Silt, very few asphalt fragments. Dry to moist.	
3				13 17				S-1B (13"): Medium dense, tan, fine to coarse SAND, trace Silt. Dry to moist.	
4	S-2	15	3-5	17 10				S-2: Medium dense, orangish-brown to tan, fine to coarse SAND, trace Silt. Dry. Faint redoximorphic staining present, in seams approximately 1/8 to 1/4-inches thick.	
5				10 11					
6	S-3	9	5-7	8 6				S-3: Medium dense, dark gray to tan, fine to coarse SAND, trace Silt. Dry.	
7				9 8					
8									
9									
10	S-4	16	9-11	4 4			SAND	S-4: Loose, tan, fine to coarse SAND, trace Silt. Dry.	
11				5 6					
12									
13									
14									
15	S-5	19	14-16	5 6				S-5: Medium dense, orangish-brown to tan, fine to coarse SAND, trace Silt. Dry. Faint redoximorphic staining present, in seams approximately 1/8 to 1/4-inches thick.	
16				7 7					
17									
18									
19							44.0 / 19.0		
20	S-6	12	19-21	6 8			GRAVELLY SAND	S-6: Medium dense, orangish-brown to tan, fine to coarse SAND, some fine to coarse Gravel, trace Silt. Dry to moist. Multiple areas of redoximorphic staining present.	
21				11 9					
22									
23							GRAVELLY SAND		
24							39.0 / 24.0		
25	S-7	23	24-26	6 9			SAND	S-7: Medium dense, orangish-brown to tan, fine to coarse SAND, trace Silt. Moist. Multiple areas of redoximorphic staining present.	
26				16 18					
27									
28									
29									
30	S-8	22	29-31	10 14				S-8: Dense, orangish-brown to tan, fine to coarse SAND, trace fine Gravel, trace Silt. Moist. Multiple areas of redoximorphic staining present.	
31				18 21					
32							33.5 / 32.5		
33								Decrease in drilling resistance encountered at approximately 32.5 feet bgs.	
34							GRAVELLY SAND		
35	S-9	15	34-36	9 11	▼			S-9: Medium dense, gray to tan, fine to coarse SAND, some fine to coarse Gravel, trace Silt. Wet.	
36				14 16			27.0 / 36.0		
37								Boring terminated at 36 feet.	1
38									
39									
40									
41									
42									
43									
44									

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 drilling spoils to approximate ground surface.

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

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

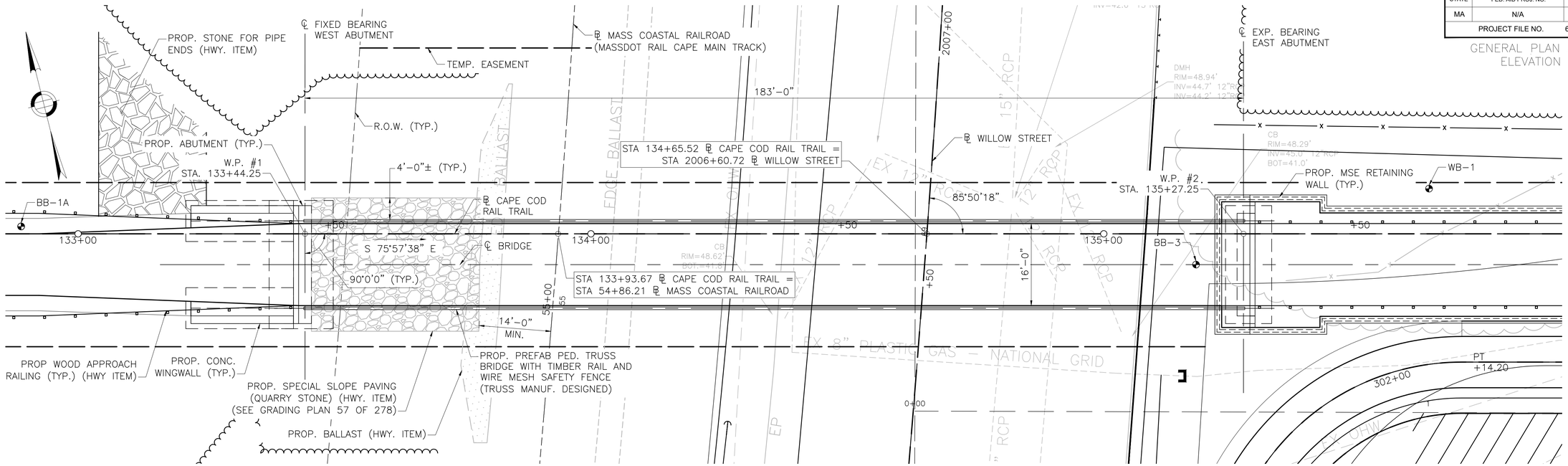
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

607398_BR4-6(Y01018)BORINGS).DWG Plotted on 15-Feb-2024 10:47 AM
Final Structural Submittal (PS&E) 15 February, 2024

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	115	278
PROJECT FILE NO.	607398		

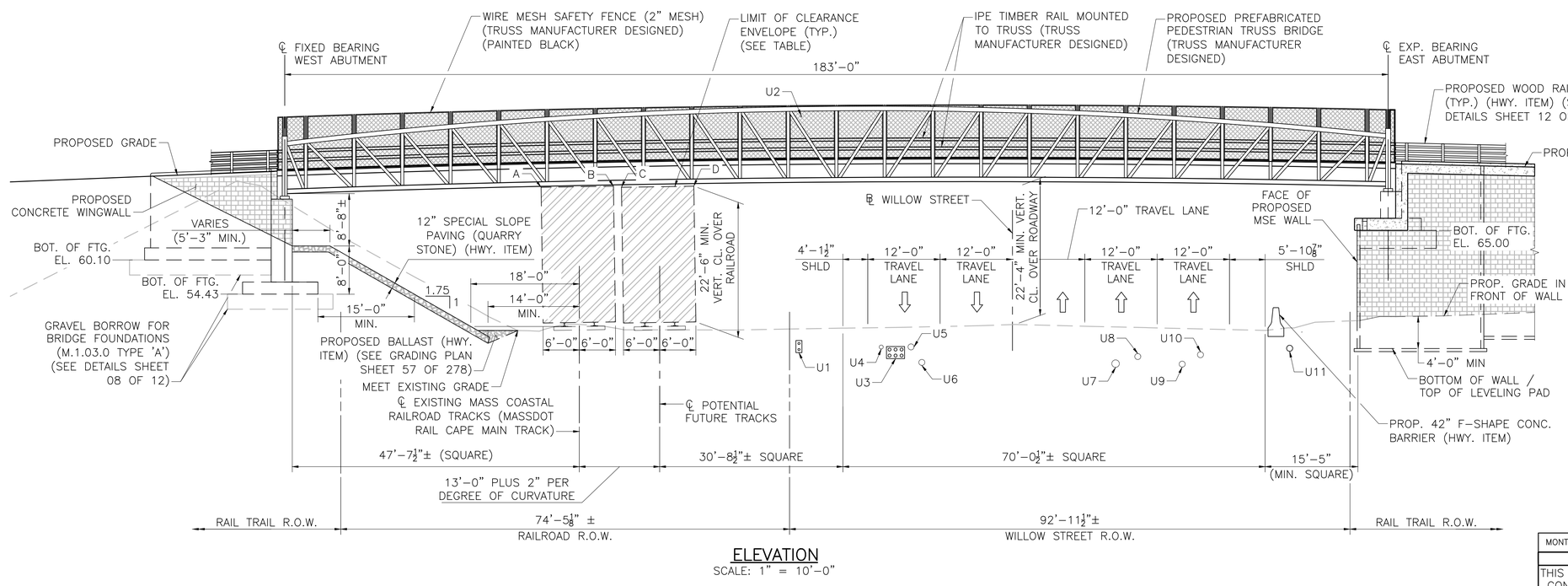
GENERAL PLAN AND ELEVATION



PLAN
SCALE: 1" = 10'-0"

*NOTE: CONTRACTOR SHALL SURVEY TOP OF RAIL ELEVATIONS AND PROVIDE TO ENGINEER TO VERIFY CLEARANCE.

CLEARANCE ENVELOPE SUMMARY TABLE		
CONTROL POINT	STATION	ELEVATION*
A	133+87.67	71.80
B	133+99.67	71.98
C	134+01.00	71.80
D	134+13.00	71.98



ELEVATION
SCALE: 1" = 10'-0"

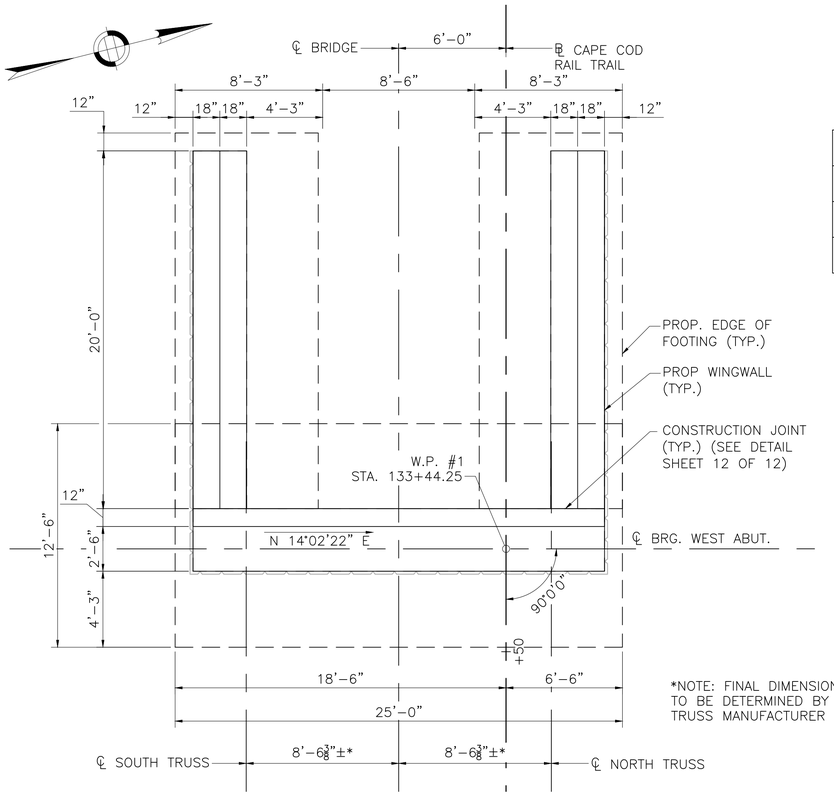
UTILITY SUMMARY TABLE	
DESIGNATION	DESCRIPTION
U1	PROPOSED TELECOM. LINE
U2	EXIST. OVERHEAD ELECTRIC TO BE REPLACED
U3	PROPOSED ELECTRIC LINE
U4	EXISTING 8" GAS LINE
U5	EXISTING 12" DRAINAGE RCP
U6	EXISTING 12" WATER LINE
U7	EXISTING 15" DRAINAGE RCP
U8	EXISTING 12" DRAINAGE RCP
U9	EXISTING 12" WATER LINE
U10	EXISTING 12" DRAINAGE RCP
U11	PROPOSED GAS LINE

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

607398_BR(Y01018)(GEN PLAN EL).DWG Plotted on 15-Feb-2024 10:49 AM

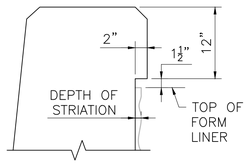
15 February, 2024 Final Structural Submittal (PS&E)



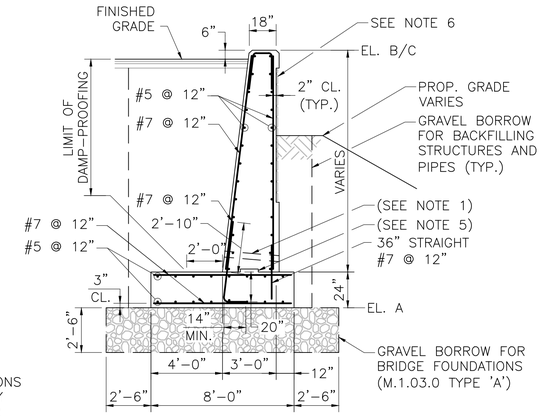
*NOTE: FINAL DIMENSIONS TO BE DETERMINED BY TRUSS MANUFACTURER

WEST ABUTMENT PLAN
SCALE: 1/4" = 1'–0"

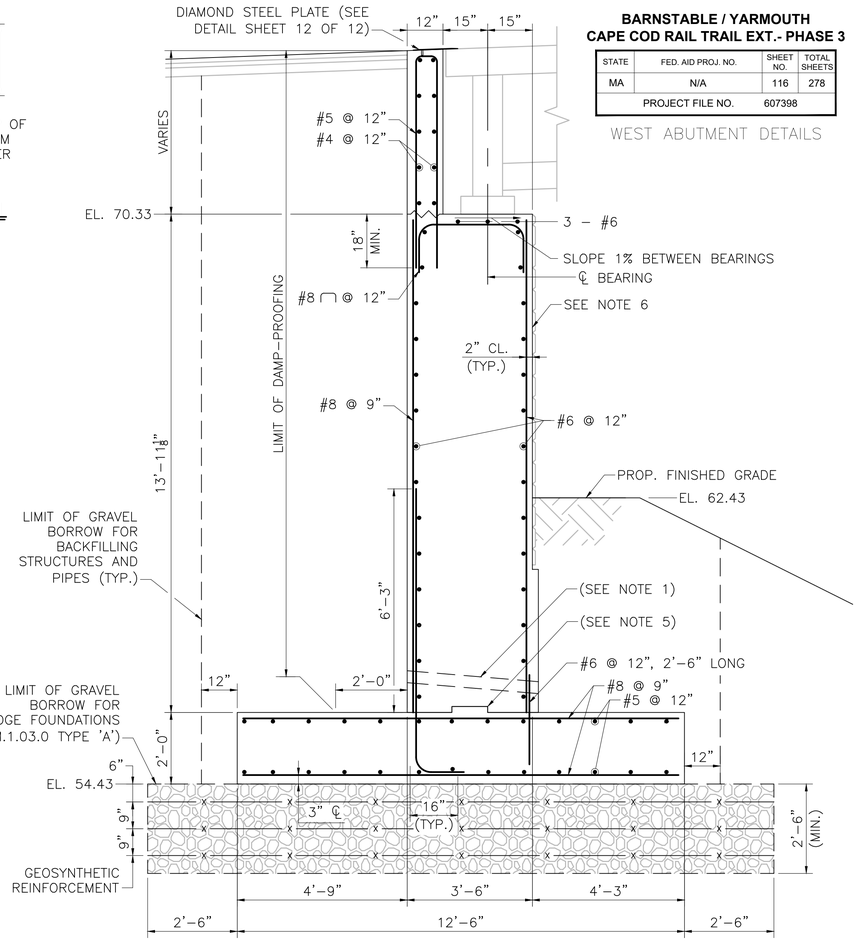
WINGWALL ELEVATION TABLE			
LOCATION	EL. A	EL. B	EL. C
NORTH WINGWALL	60.10'	74.63'	75.16'
SOUTH WINGWALL	60.10'	74.97'	75.51'



TOP OF WINGWALL DETAIL
SCALE: 1" = 1'–0"



WINGWALL SECTION
SCALE: 1/4" = 1'–0"



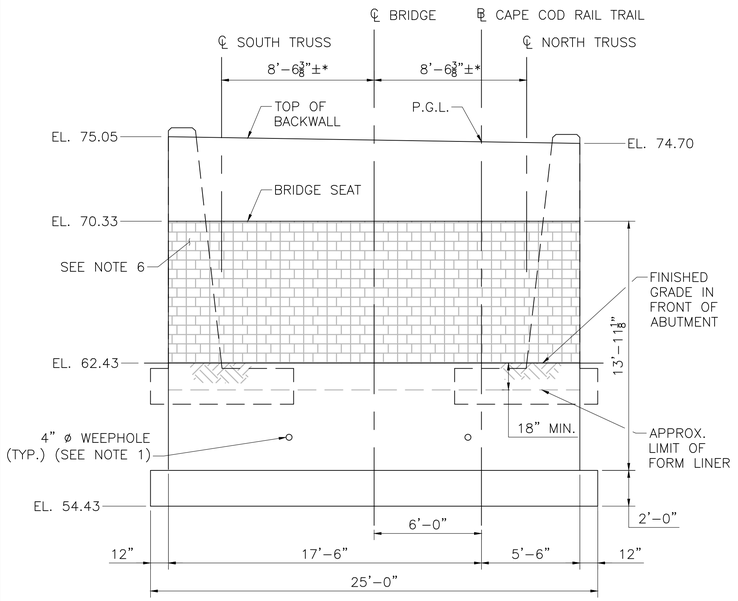
WEST ABUTMENT SECTION
SCALE: 1/2" = 1'–0"

NOTES:

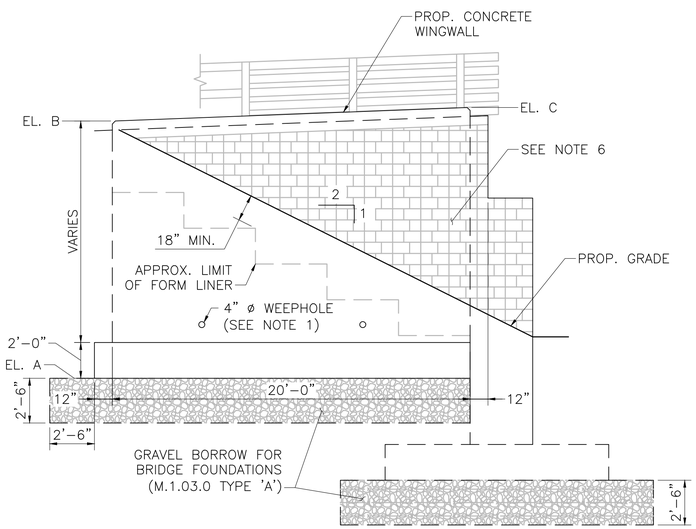
1. 4" ø WEEP HOLES 10'–0" O.C. LOCATED 12" ABOVE THE HEEL OF THE FOOTING SLOPING 1" PER FOOT TOWARDS THE FRONT FACE. PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT EACH END OF WEEP HOLE.
2. ALL CONCRETE SHALL BE 5000 PSI, 3/4 IN, 685 HP CEMENT CONCRETE.
3. THE ABUTMENT FACTORED BEARING PRESSURE = 6.12 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH V LOAD COMBINATION.

   ABUTMENT FACTORED BEARING RESISTANCE = 7.1 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.45.
4. THE WINGWALL FACTORED BEARING PRESSURE = 4.58 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION.

   WINGWALL FACTORED BEARING RESISTANCE = 14.1 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.55.
5. CONSTRUCTION JOINT AT TOP OF FOOTING WITH 12"x12"x2" SHEAR KEYS @ 3'–0" O.C.
6. FACE OF ABUTMENT AND WINGWALLS SHALL BE FORM LINER FINISHED. FORM LINER SHALL BE ASHLAR STONE PATTERN.



WEST ABUTMENT ELEVATION
SCALE: 1/4" = 1'–0"



WINGWALL ELEVATION
SCALE: 1/4" = 1'–0"

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	116	278
PROJECT FILE NO.	607398		

WEST ABUTMENT DETAILS

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

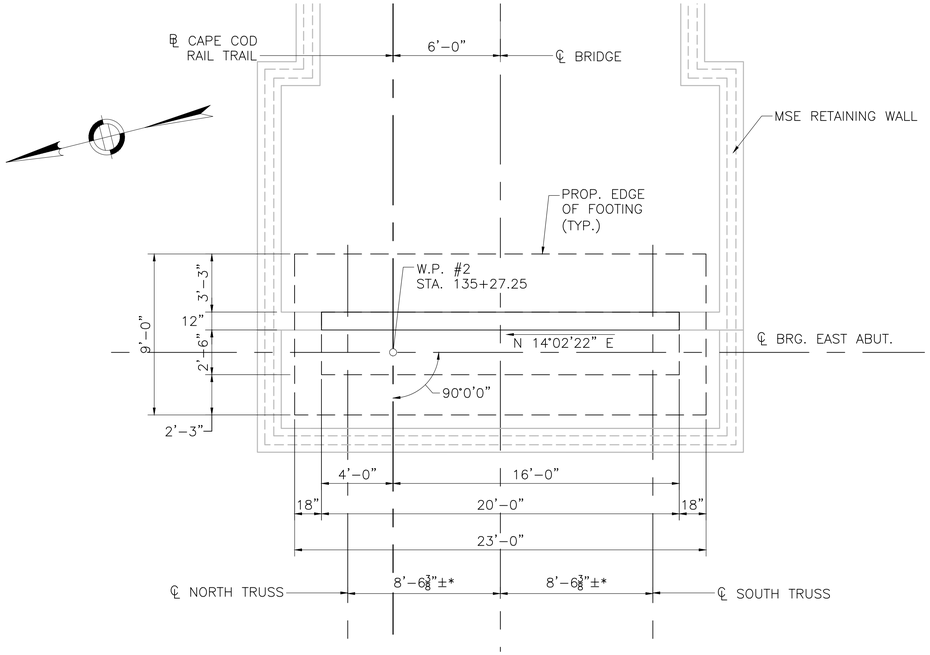
607398_BR8-9(Y01018)(ABUT).DWG Plotted on 15-Feb-2024 10:49 AM

15 February, 2024 Final Structural Submittal (PS&E)

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	117	278
PROJECT FILE NO.	607398		

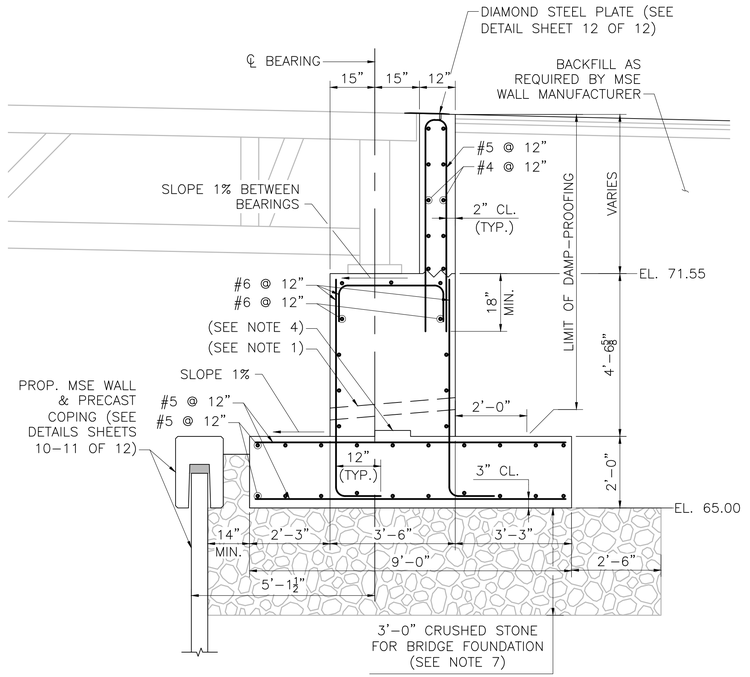
EAST ABUTMENT DETAILS



EAST ABUTMENT PLAN

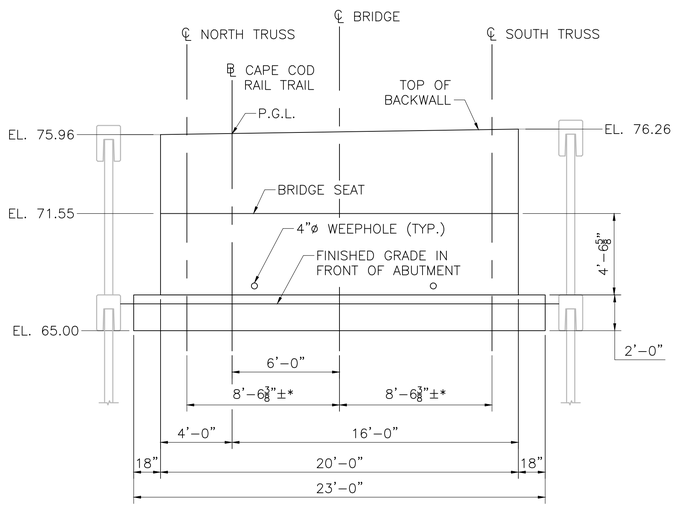
SCALE: ¼" = 1'–0"

*NOTE: FINAL DIMENSIONS TO BE DETERMINED BY TRUSS MANUFACTURER.



EAST ABUTMENT SECTION

SCALE: ½" = 1'–0"



EAST ABUTMENT ELEVATION

SCALE: ¼" = 1'–0"

NOTES:

1. 4" ø WEEP HOLES 10'–0" O.C. LOCATED 12" ABOVE THE HEEL OF THE FOOTING SLOPING 1" PER FOOT TOWARDS THE FRONT FACE. PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT END OF WEEP HOLE BEHIND ABUTMENT.
2. ALL CONCRETE SHALL BE 5000 PSI, ¾ IN, 685 HP CEMENT CONCRETE.
3. STRENGTH LIMIT STATE:

   THE FACTORED BEARING PRESSURE = 5.3 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION.

   FACTORED BEARING RESISTANCE = 7.0 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.45.
4. SERVICE LIMIT STATE:

   THE FACTORED BEARING PRESSURE = 3.9 KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SERVICE I LOAD COMBINATION.

   FACTORED BEARING RESISTANCE = 4.0 KSF.
5. CONSTRUCTION JOINT AT TOP OF FOOTING WITH 12"x12"x2" SHEAR KEYS @ 3'–0" O.C.
6. SEE SHEET 11 OF 12 FOR MSE WALL BEARING PRESSURE AND RESISTANCE.
7. EAST ABUTMENT SUBGRADE SHALL BE NON–FROST SUSCEPTIBLE GRAVEL IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND GEOTECHNICAL RECOMMENDATIONS.

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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AUTHORIZED SIGNATORY: _____ STATE BRIDGE ENGINEER

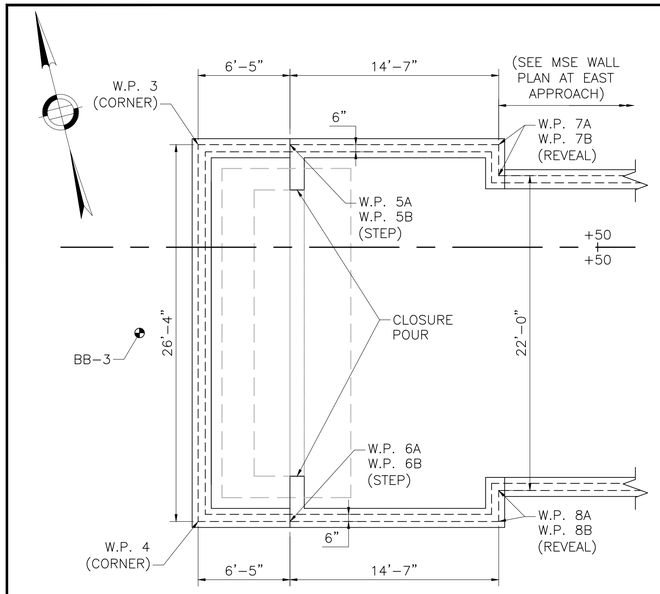
USE ONLY PRINTS OF LATEST DATE

607398_BR8-9(Y01018)(ABUT).DWG Plotted on 15-Feb-2024 10:49 AM
15 February, 2024
Final Structural Submittal (PS&E)

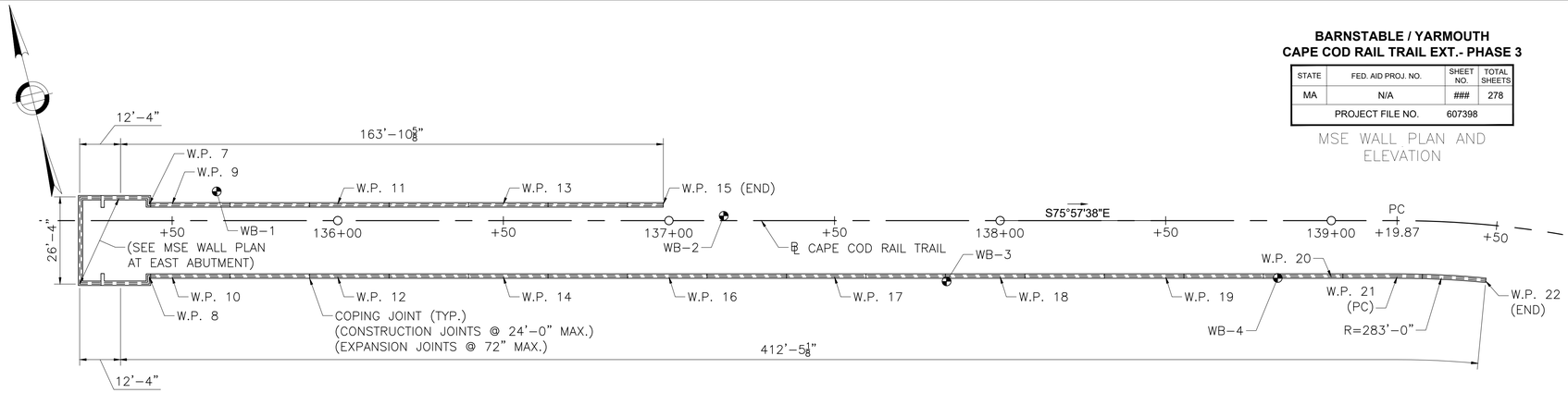
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	###	278
	PROJECT FILE NO. 607398		

MSE WALL PLAN AND ELEVATION

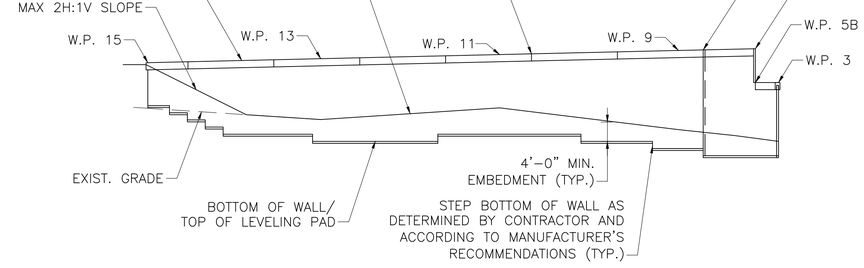


MSE WALL PLAN AT EAST ABUTMENT
SCALE: 1" = 5'–0"

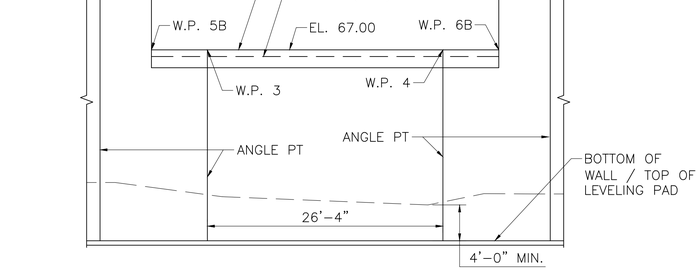


MSE WALL PLAN AT EAST APPROACH
SCALE: 1" = 20'–0"

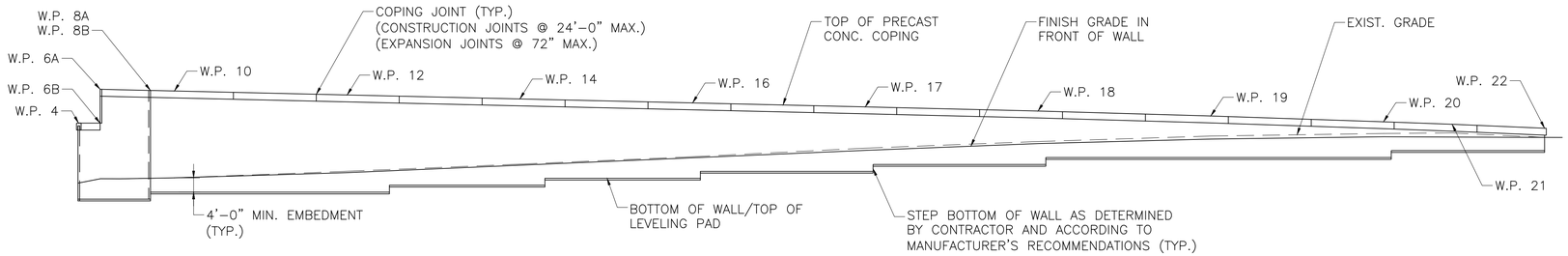
MSE WALL GEOMETRY					
WORKING POINT		STATION	OFFSET	TOP OF WALL EL.	PROP. GRADE AT FRONT OF WALL
W.P. 3 (CORNER)		135+22.08	7.17' LT	67.00'	50.58'
W.P. 4 (CORNER)		135+22.08	19.17' RT	67.00'	49.66'
W.P. 5 (STEP)	5A	135+28.50	7.17' LT	76.42'	51.41'
	5B			67.00'	
W.P. 6 (STEP)	6A	135+28.50	19.17' RT	76.81'	50.92'
	6B			67.00'	
W.P. 7 (REVEAL)	7A	135+43.08	7.17' LT	76.08'	53.39'
	7B		5.00' LT	76.11'	
W.P. 8 (REVEAL)	8A	135+43.08	19.17' RT	76.48'	50.92'
	8B		17.00' RT	76.44'	
W.P. 9		135+50.00	5.00' LT	75.96'	53.83'
W.P. 10		135+50.00	17.00' RT	76.29'	51.16'
W.P. 11		136+00.00	5.00' LT	74.81'	59.91'
W.P. 12		136+00.00	17.00' RT	75.14'	52.67'
W.P. 13		136+50.00	5.00' LT	73.66'	56.64'
W.P. 14		136+50.00	17.00' RT	73.99'	54.82'
W.P. 15 (END)		136+98.30	5.00' LT	72.54'	72.00'
W.P. 16		137+00.00	17.00' RT	72.84'	56.97'
W.P. 17		137+50.00	17.00' RT	71.69'	59.12'
W.P. 18		138+00.00	17.00' RT	70.49'	61.07'
W.P. 19		138+50.00	17.00' RT	69.06'	62.38'
W.P. 20		139+00.00	17.00' RT	67.39'	63.05'
W.P. 21 (PC)		139+19.87	17.00' RT	66.66'	62.97'
W.P. 22 (END)		139+48.29	17.00' RT	65.50'	62.87'



MSE WALL NORTH ELEVATION
SCALE: 1" = 20'–0"



MSE WALL DEVELOPED WEST ELEVATION
SCALE: 1" = 20'–0"



MSE WALL SOUTH ELEVATION
SCALE: 1" = 20'–0"

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

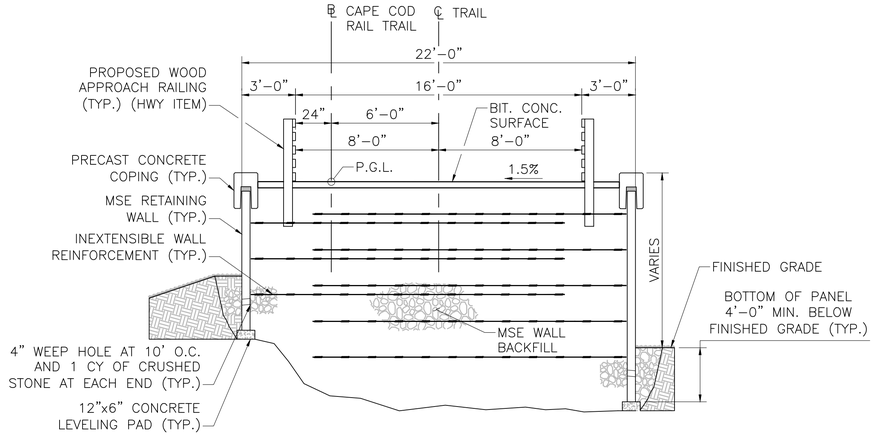
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

607398_BR10-11(Y01018)(MSE PLAN EL).DWG Plotted on 15-Feb-2024 10:50 AM
Final Structural Submittal (PS&E) 15 February, 2024

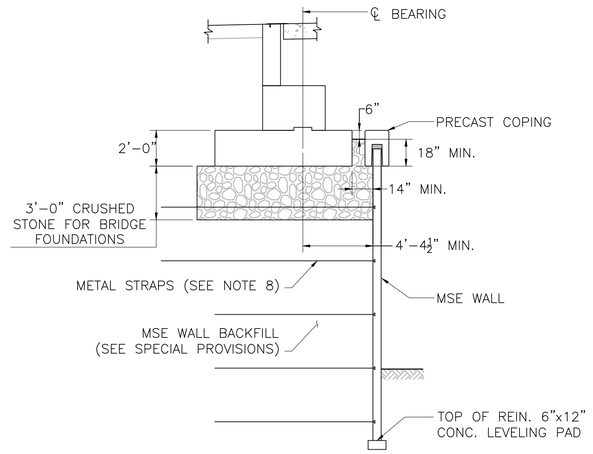
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	119	278
PROJECT FILE NO.	607398		

MSE WALL DETAILS



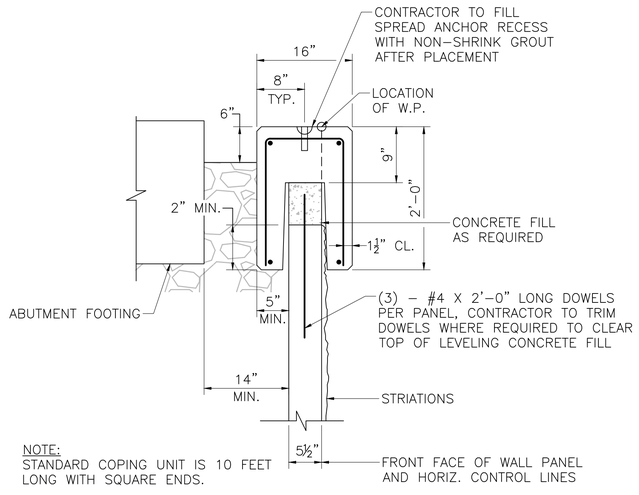
AT EAST APPROACH



AT EAST ABUTMENT

MSE WALL TYPICAL SECTION

SCALE: ¼" = 1'–0"



PRECAST COPING DETAILS

SCALE: 1" = 1'–0"

MSE WALL NOTES:

1. RETAINING WALL SHALL BE A MECHANICALLY STABILIZED EARTH (MSE) WALL.
2. ACTUAL LENGTH OF STEEL STRIP REINFORCING DEPENDS ON WALL SUPPLIER'S DESIGN. SEE TYPICAL SECTION.
3. MSE PRECAST CONCRETE FACING PANELS SHALL HAVE A RECTANGULAR SHAPE (APPROXIMATELY 5'X5').
4. FACE MSE WALLS SHALL BE FORM LINE FINISHED. FORM LINER SHALL BE ASHLAR STONE PATTERN.
5. THE MSE WALL COMPANY SHALL BE RESPONSIBLE FOR THE DESIGN OF THE INTERNAL STABILITY OF THE SELECTED MSE RETAINING WALL SYSTEM. THE MSE WALL MANUFACTURER SHALL SUBMIT MSE RETAINING WALL PLANS AND CALCULATIONS PREPARED BY A MASSACHUSETTS LICENSED PROFESSIONAL ENGINEER AND BEAR THE ENGINEER'S SEAL.
6. THE MSE WALL SHALL BE DESIGNED TO RESIST ADDITIONAL LOAD INDUCED BY THE ABUTMENT. SEE ABUTMENT NOTES ON SHEET 09 OF 12 FOR BEARING PRESSURES.
7. DESIGN, FABRICATION AND CONSTRUCTION OF THE MSE RETAINING WALL, INCLUDING LEVELING PAD, PANELS, AND COPINGS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS ITEM 996.32.
8. MSE WALL REINFORCING STRAPS SHALL BE DESIGNED AND DETAILED BY THE WALL MANUFACTURER. THE UPPER TWO LAYERS OF REINFORCING BELOW THE EAST ABUTMENT SHALL EXTEND BEYOND THE LOWER LAYERS BY 3'–0".
9. THE CONTRACTOR SHALL LAY OUT THE MSE SOIL REINFORCING STRIPS TO PREVENT CONFLICTS WITH APPROACH BIKE RAIL POSTS. REINFORCING STRIPS SHALL BE LAID OUT ACCORDING TO MANUFACTURER'S DESIGN PLANS AND SPECIFICATIONS.
10. REINFORCEMENT IN THE MSE WALL CAP SHALL HAVE 2" MINIMUM CLEAR COVER FOR CAST–IN–PLACE ELEMENTS AND 1½" MINIMUM CLEAR COVER FOR PRECAST ELEMENTS.
11. THE CONTRACTOR SHALL FILL ALL LIFTING DEVICE RECESSES IN THE PRECAST COPINGS WITH NON–SHRINK GROUT AFTER INSTALLATION USING A COLOR THAT MATCHES THE COPING CONCRETE.
12. REFER TO GEOTECHNICAL REPORT DATED NOVEMBER 20, 2023 BY NOBIS GROUP.
13. BOTTOM OF MSE WALL BEARING ON GRAVEL BORROW (MHD M1.03.0 TYPE B) IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND SPECIAL PROVISIONS ITEM 996.32.
14. REINFORCED CONCRETE LEVELING PAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND SPECIAL PROVISIONS ITEM 996.32.
15. ONE OR MORE QUALIFIED CIVIL ENGINEERS REPRESENTING THE MSE WALL MANUFACTURER SHALL BE ON SITE DURING CONSTRUCTION OF EACH WALL IN ACCORDANCE WITH SPECIAL PROVISIONS ITEM 996.32.
16. THE MSE WALL FACTORED BEARING PRESSURE SHALL BE DETERMINED BY THE WALL MANUFACTURER/DESIGNER.

    MSE WALL FACTORED BEARING RESISTANCE = 6.5 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.65.

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

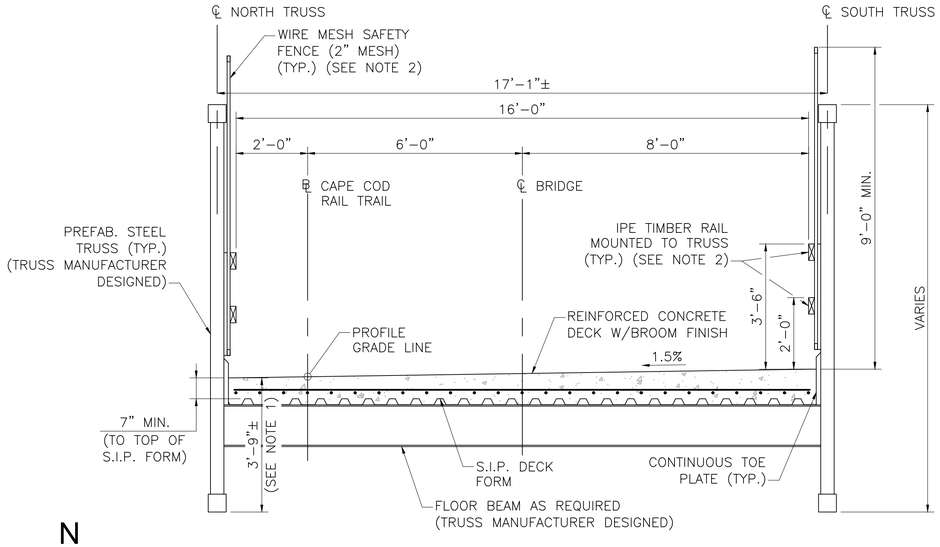
USE ONLY PRINTS OF LATEST DATE

607398_BR10-11(Y01018)MSE PLAN EL).DWG Plotted on 15-Feb-2024 10:50 AM
Final Structural Submittal (PS&E) 15 February, 2024

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

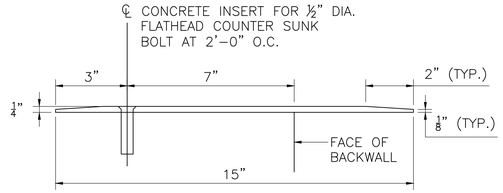
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	###	278
	PROJECT FILE NO.	607398	

MISCELLANEOUS DETAILS



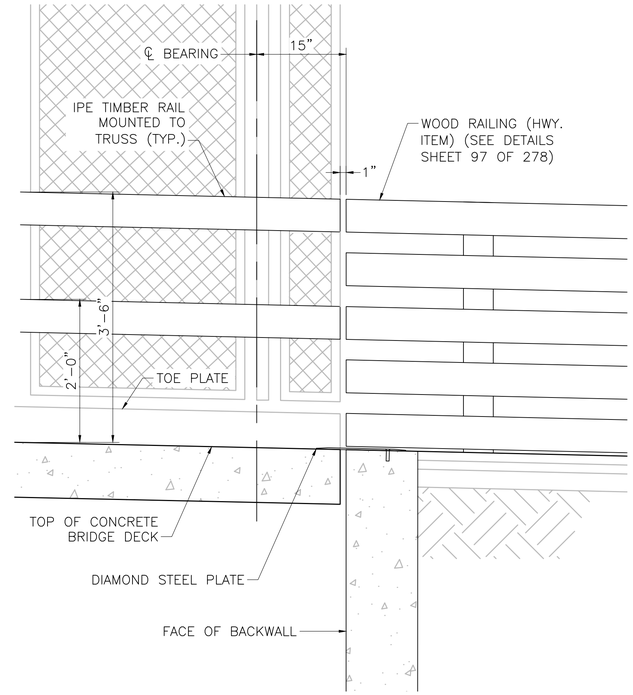
TRANSVERSE SECTION
SCALE: ½" = 1'-0"

NOTES:
1. STRUCTURE DEPTH SHOWN IS PRELIMINARY ONLY. TRUSS MANUFACTURER SHALL DESIGN TRUSS IN ACCORDANCE WITH SPECIAL PROVISIONS AND CLEARANCE ENVELOPE REQUIREMENTS (SEE SHEET 07 OF 12).
2. WIRE MESH SAFETY FENCE AND IPE TIMBER RAIL SHOWN AS CONCEPTUAL DESIGN ONLY. FENCE AND RAIL DESIGN, DETAILING, AND CONNECTION TO TRUSS VERTICAL MEMBERS SHALL BE DESIGNED BY BRIDGE MANUFACTURER.

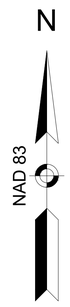


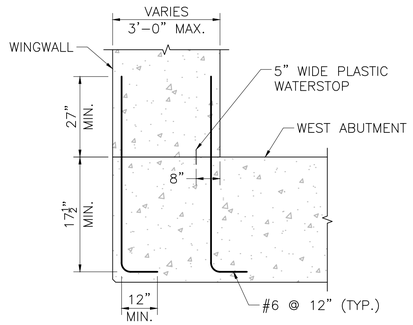
NOTE: EXTEND DIAMOND STEEL PLATE FROM CURB TO CURB AT EACH ABUTMENT.

DIAMOND STEEL PLATE DETAIL
SCALE: 1" = 0'-3"



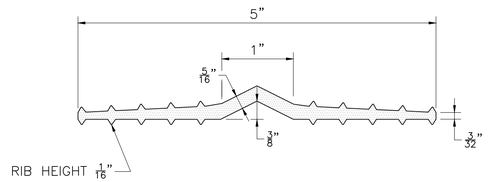
RAILING TRANSITION DETAIL
SCALE: 1" = 1'-0"





NOTE: REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS. (TYPICAL REINFORCEMENT NOT SHOWN FOR CLARITY.)

CONSTRUCTION JOINT DETAIL
SCALE: ½" = 1'-0"



5" WATERSTOP
NOT TO SCALE

MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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

USE ONLY PRINTS OF LATEST DATE

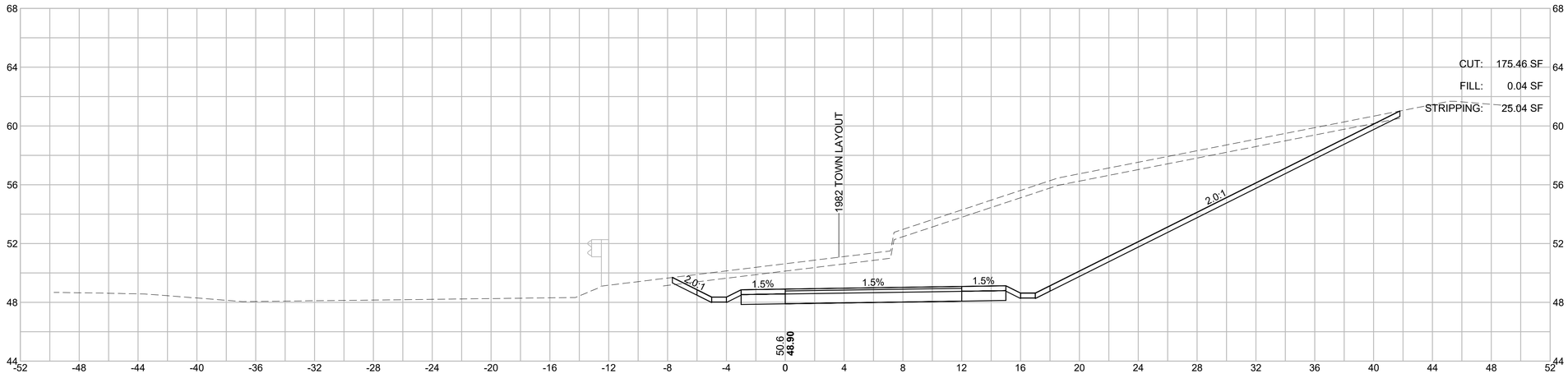
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BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

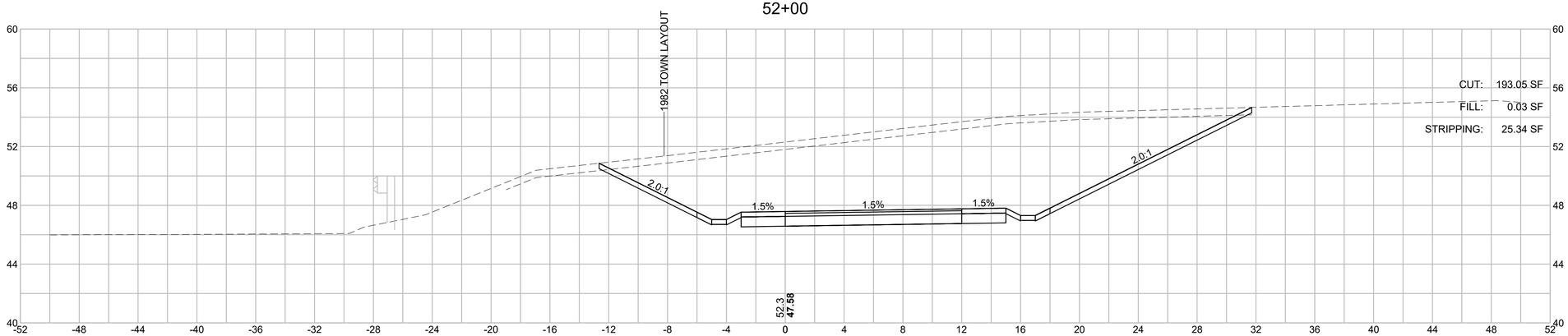
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MA	N/A	121	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

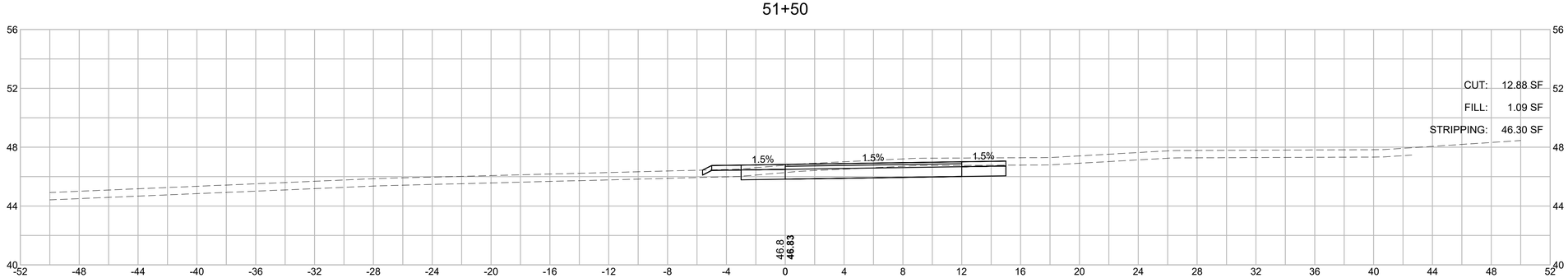
52+50



52+00



51+50



HOR. SCALE IN FEET
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VER. SCALE IN FEET

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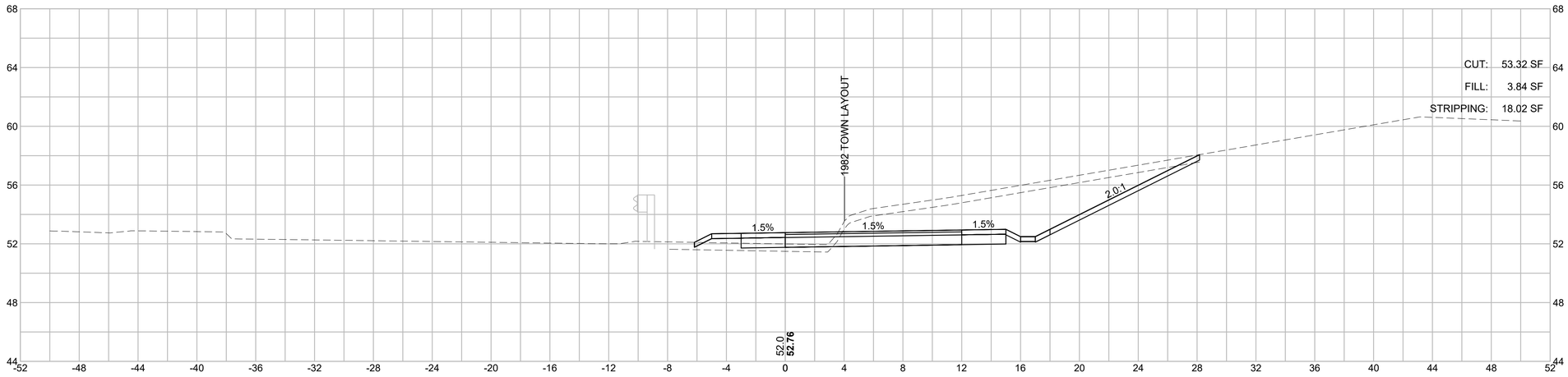
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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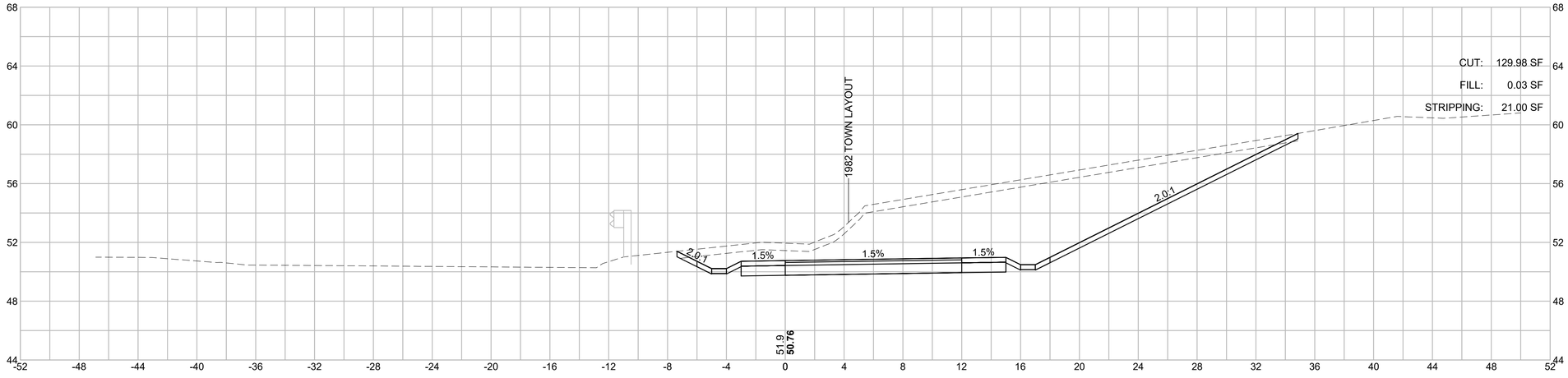
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:16 PM

53+50



53+00



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

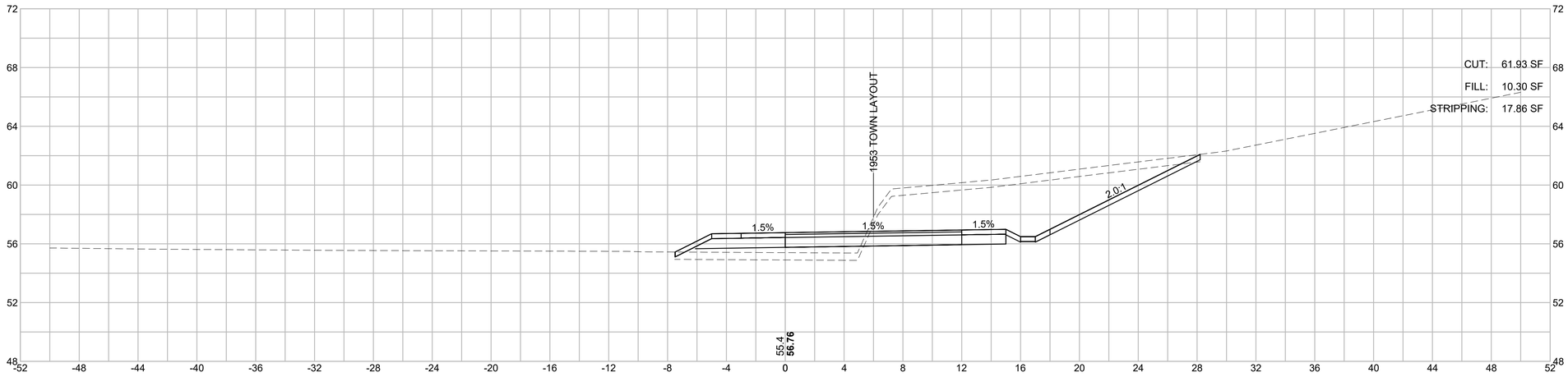
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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PROJECT FILE NO. 607398			

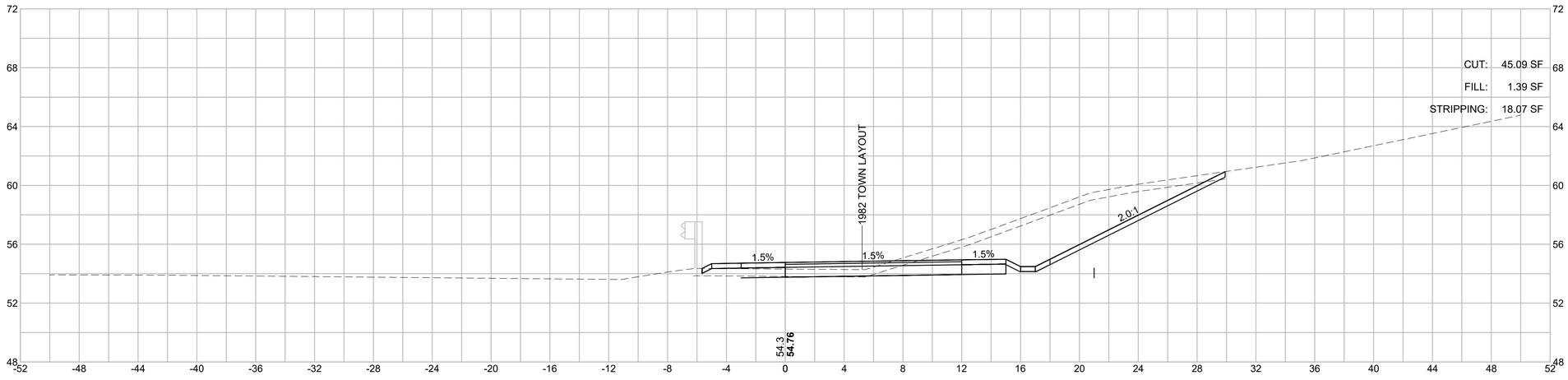
WEST CROSS SECTIONS

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54+50



54+00



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VER. SCALE IN FEET

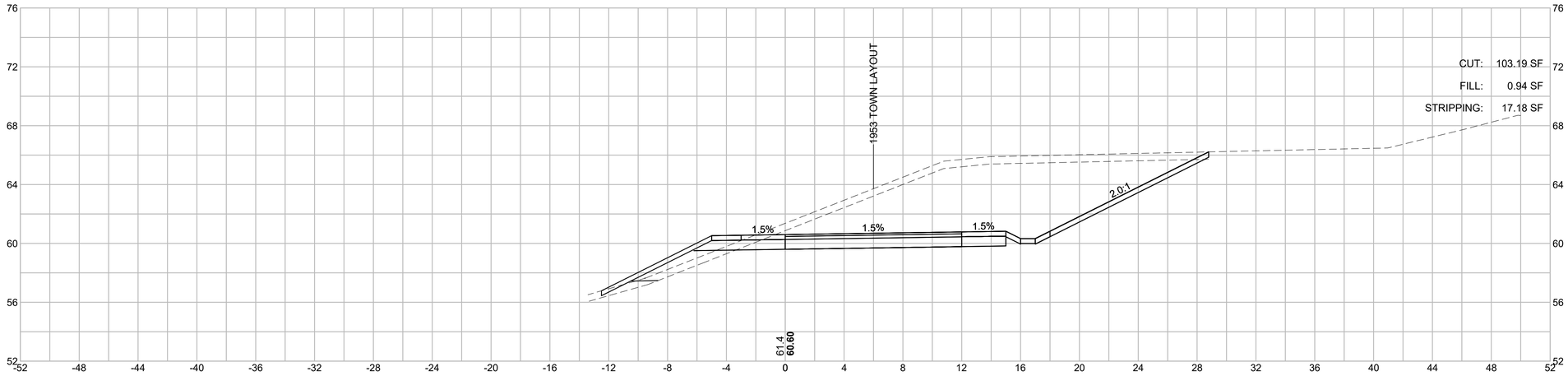
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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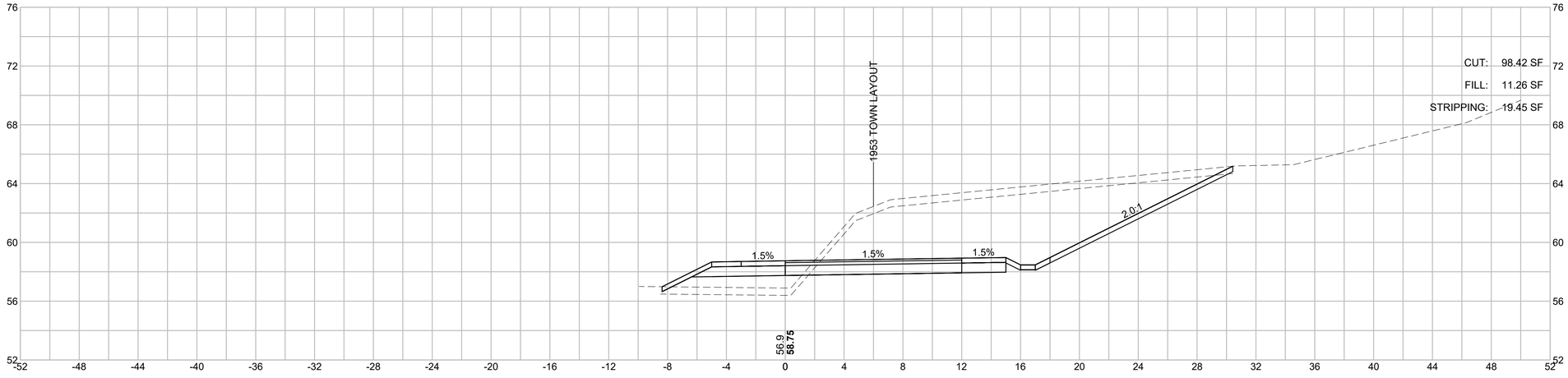
WEST CROSS SECTIONS

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55+50



55+00

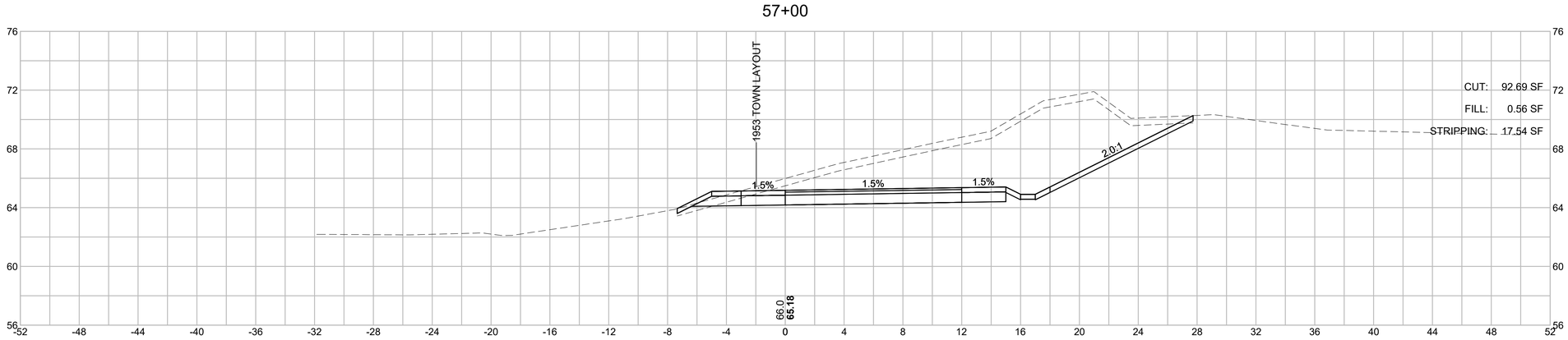


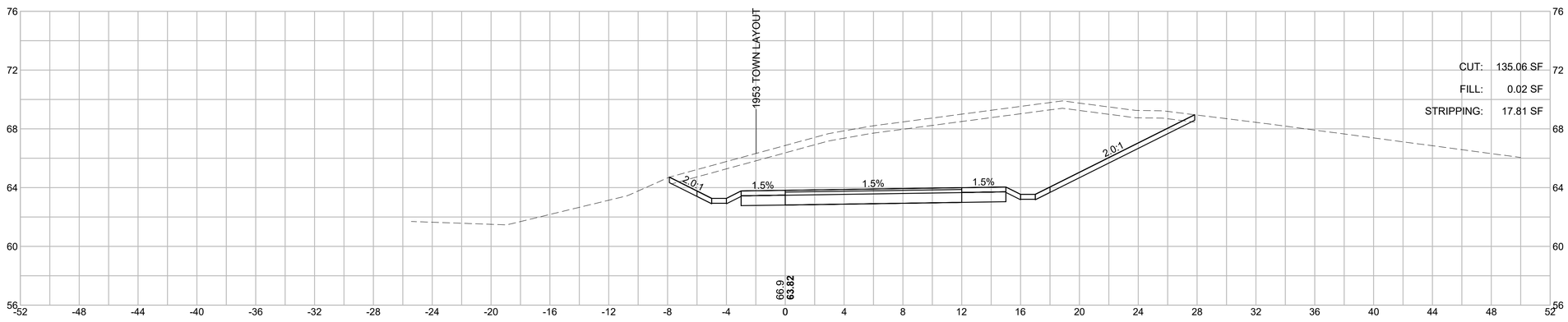
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VER. SCALE IN FEET

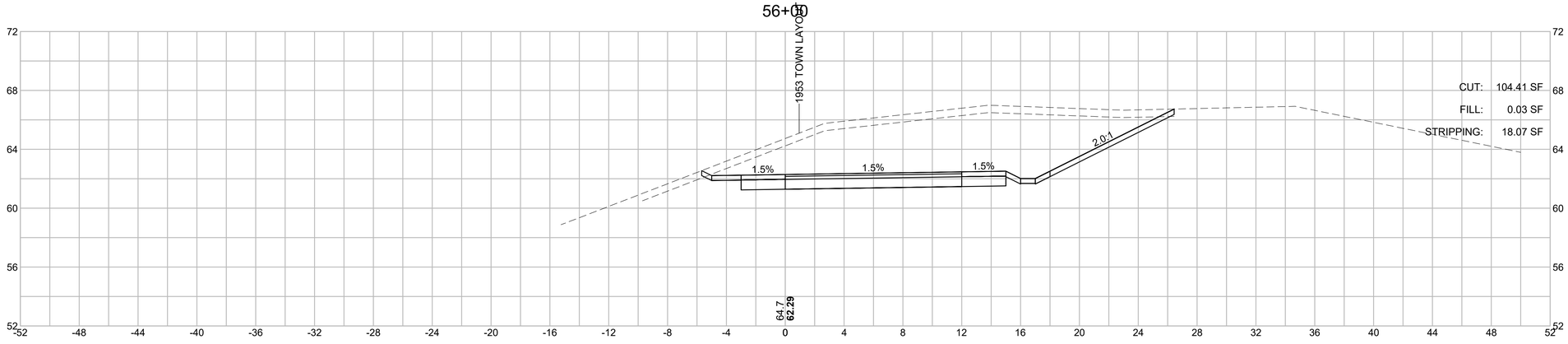
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	125	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS







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

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:17 PM

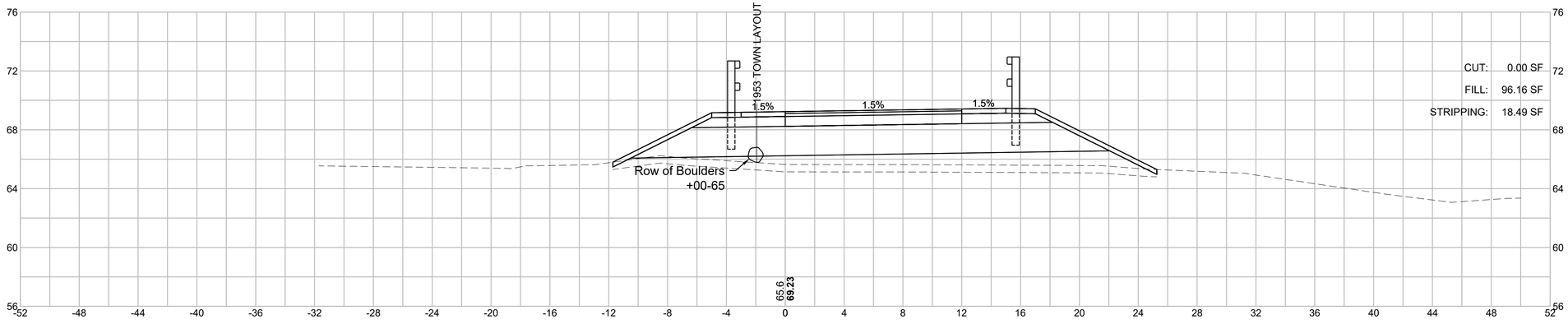
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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PROJECT FILE NO. 607398			

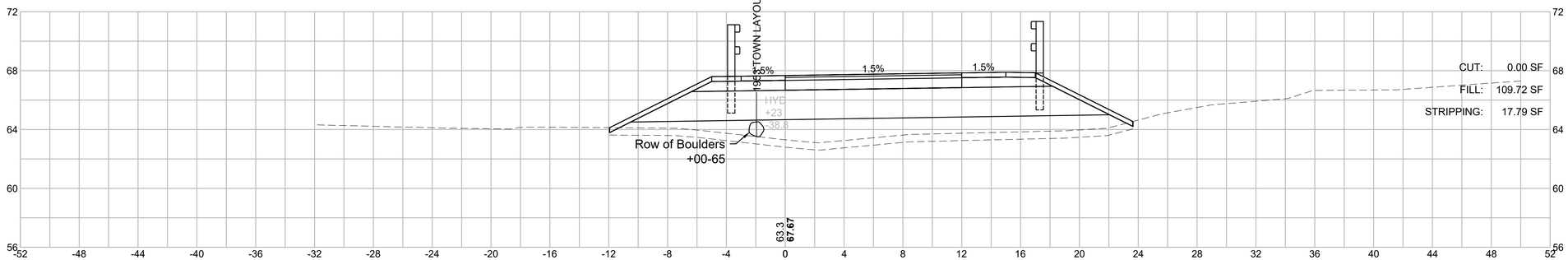
WEST CROSS SECTIONS

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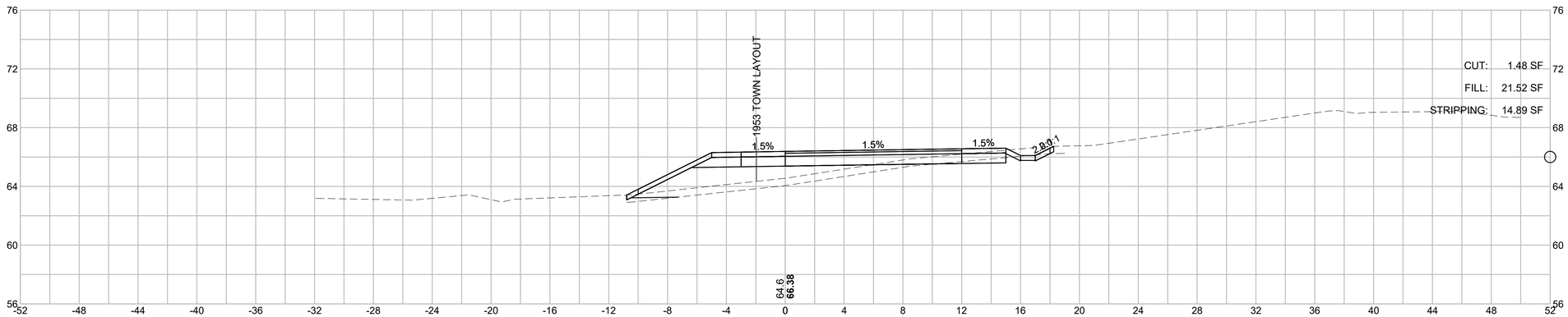
58+50



58+00



57+50

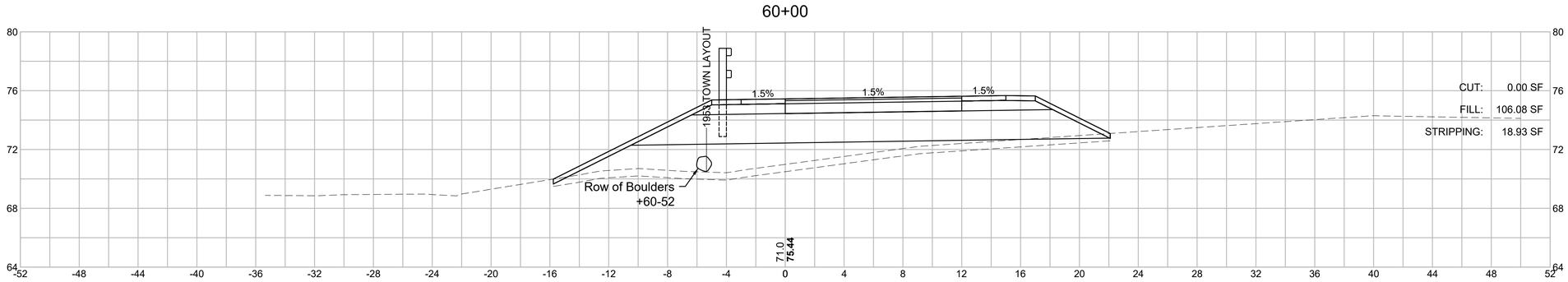


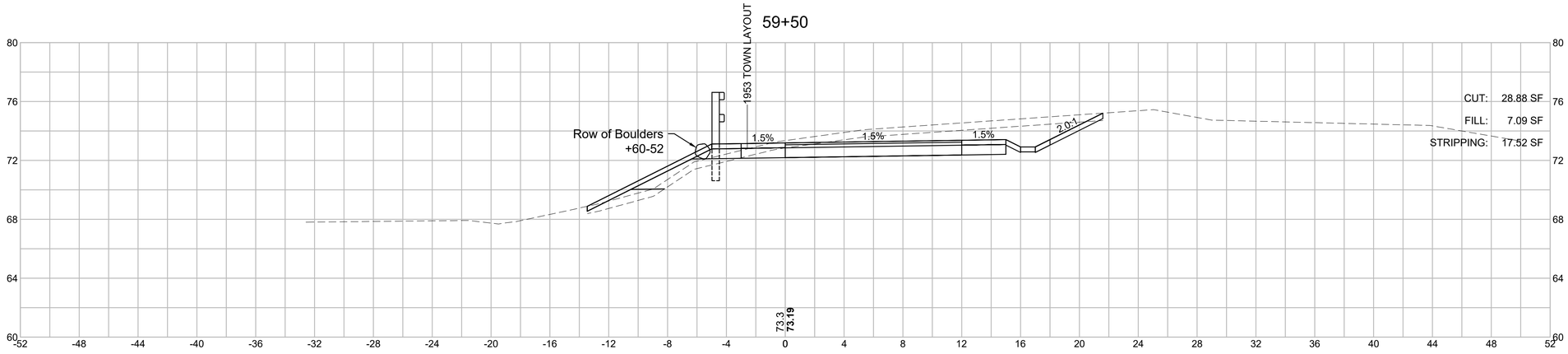
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VER. SCALE IN FEET

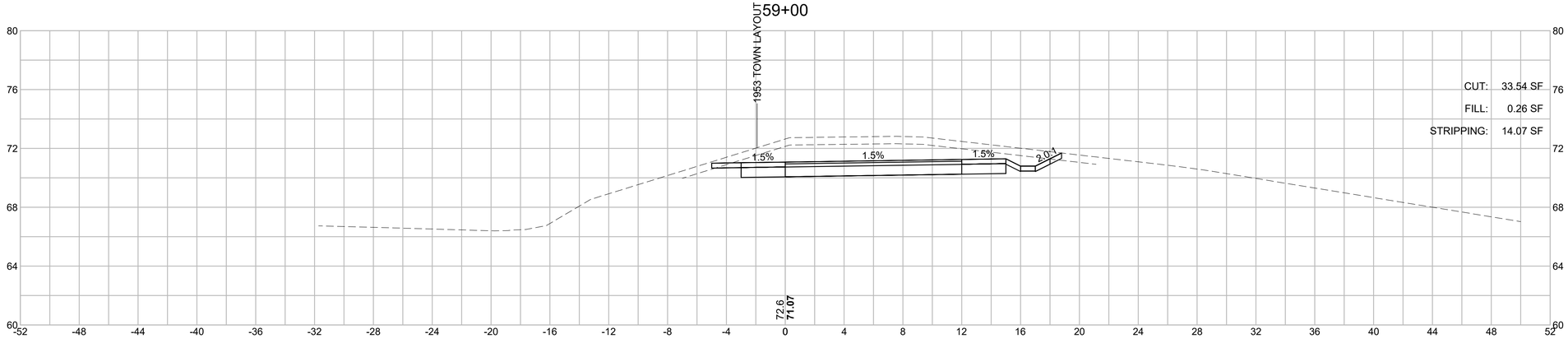
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	127	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS







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

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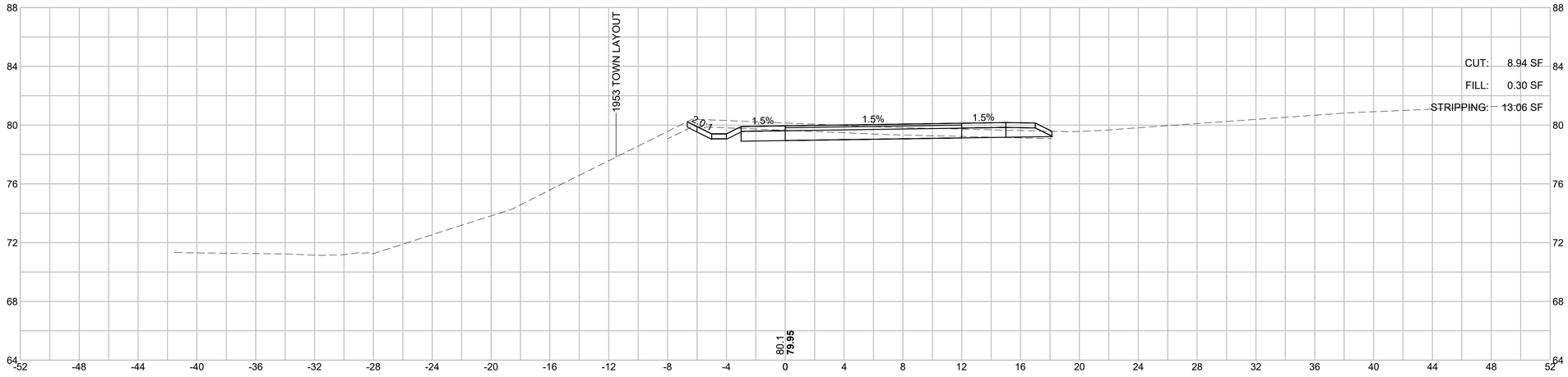
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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PROJECT FILE NO. 607398			

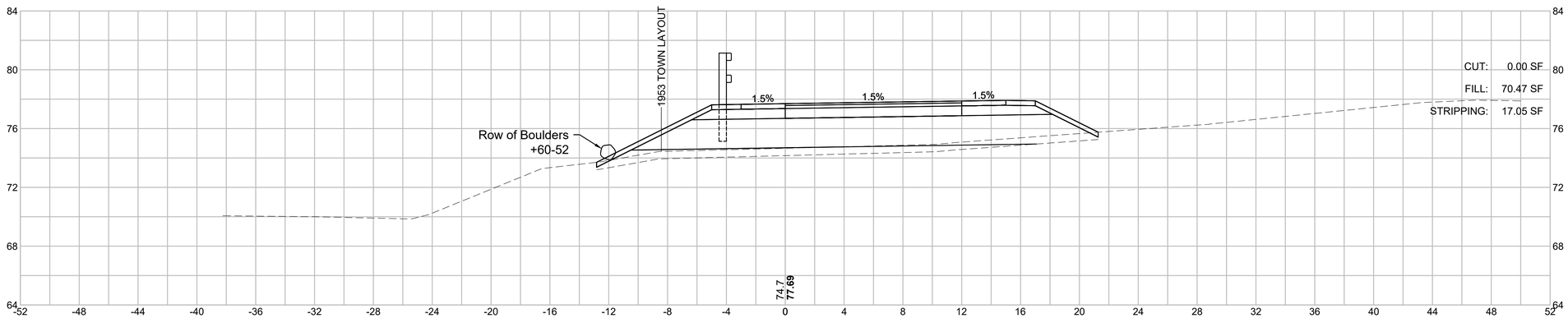
WEST CROSS SECTIONS

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61+00



60+50



HOR. SCALE IN FEET
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VER. SCALE IN FEET

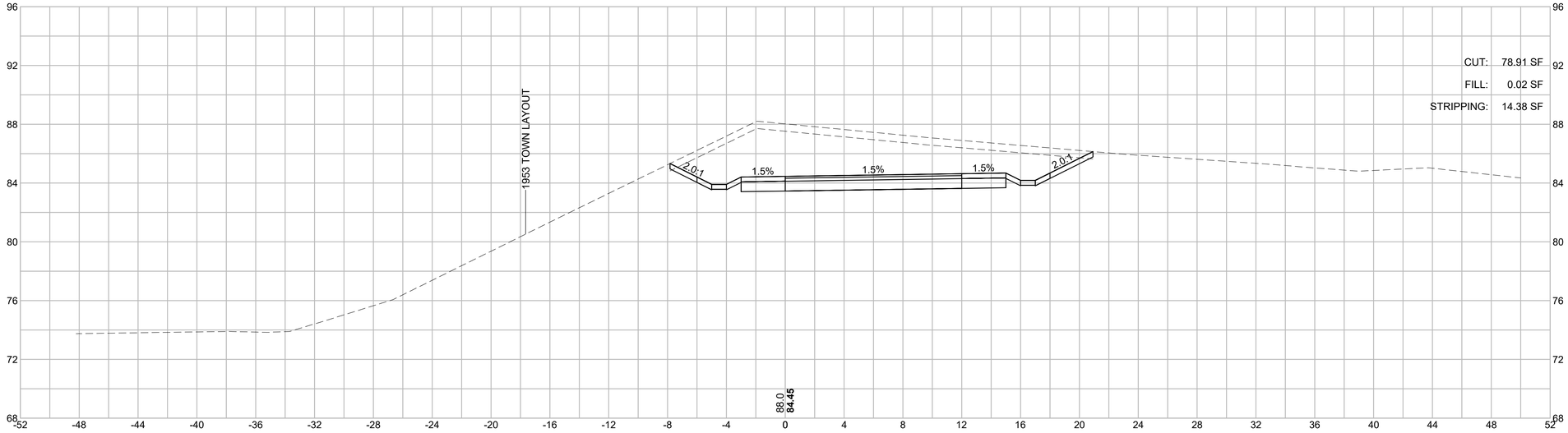
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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MA	N/A	129	278
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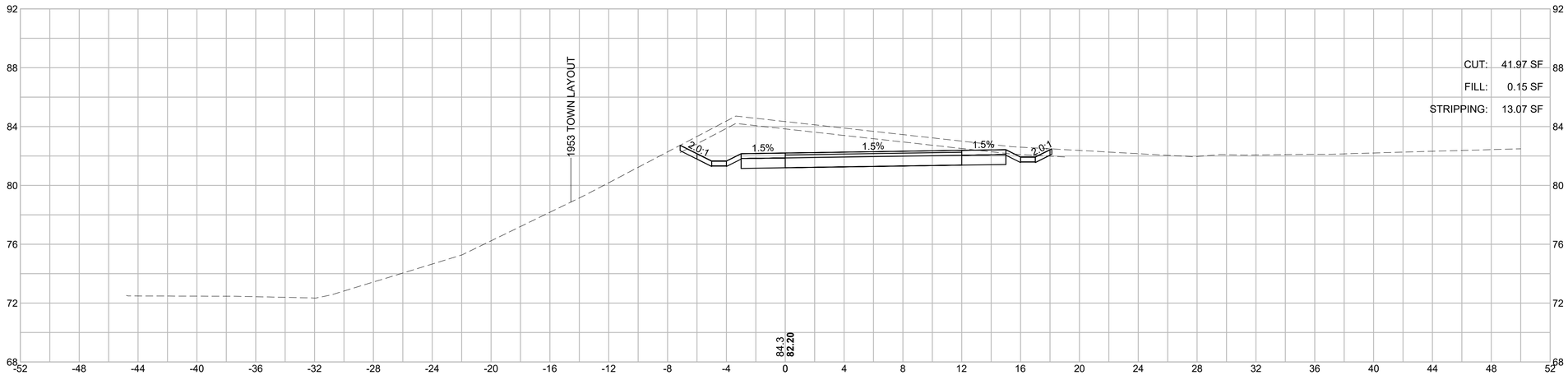
WEST CROSS SECTIONS

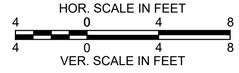
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62+00



61+50





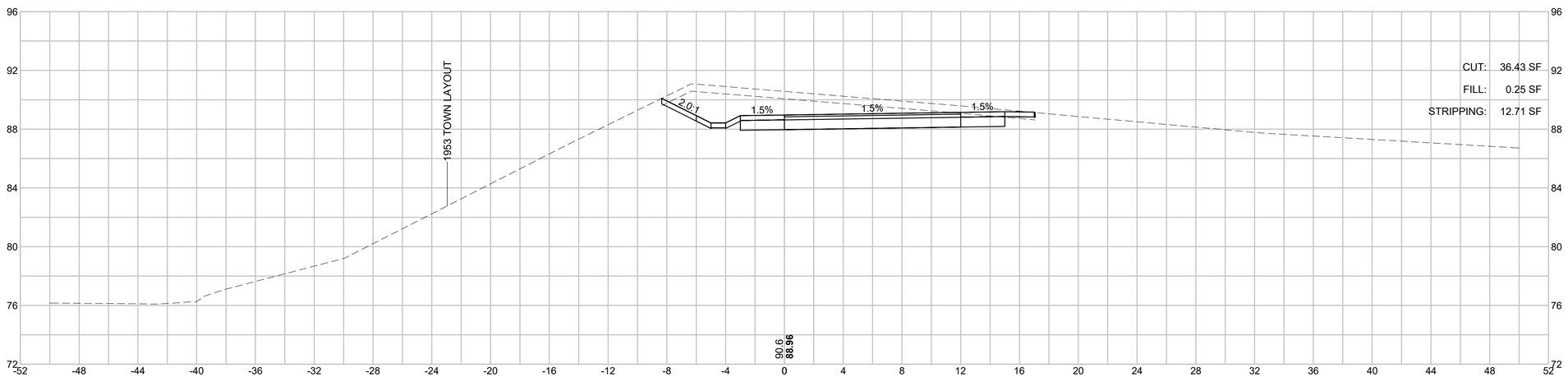
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

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PROJECT FILE NO. 607398			

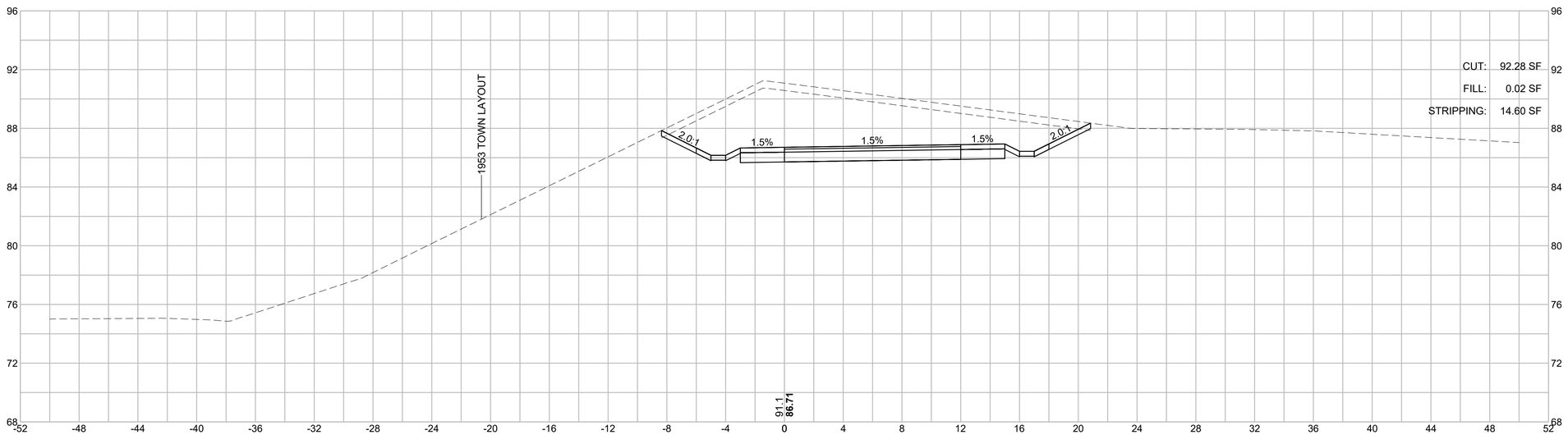
WEST CROSS SECTIONS

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63+00



62+50



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

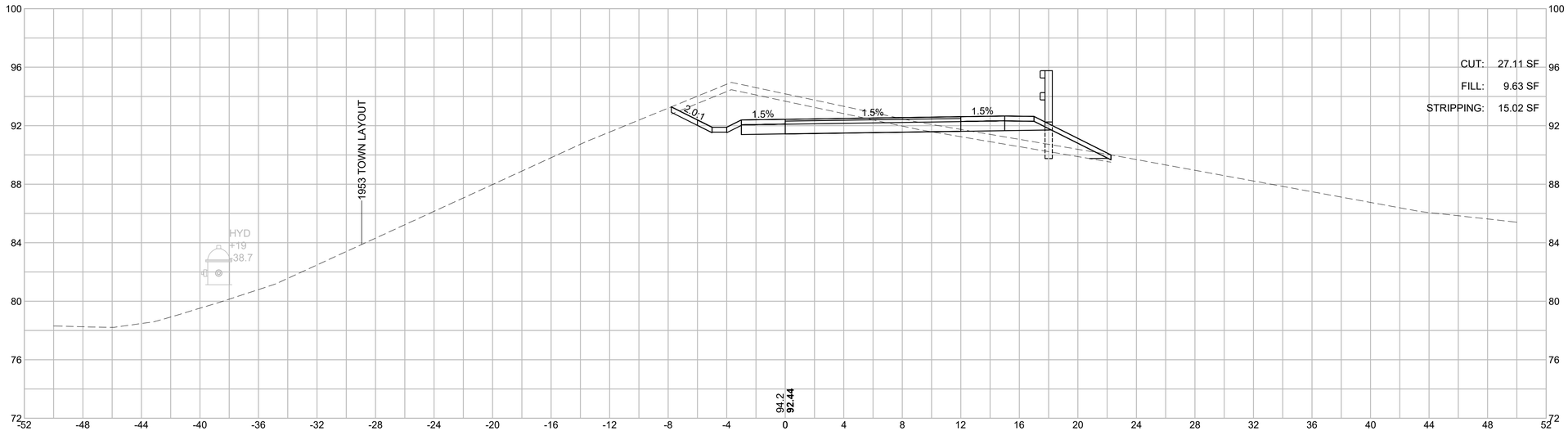
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	131	278
PROJECT FILE NO. 607398			

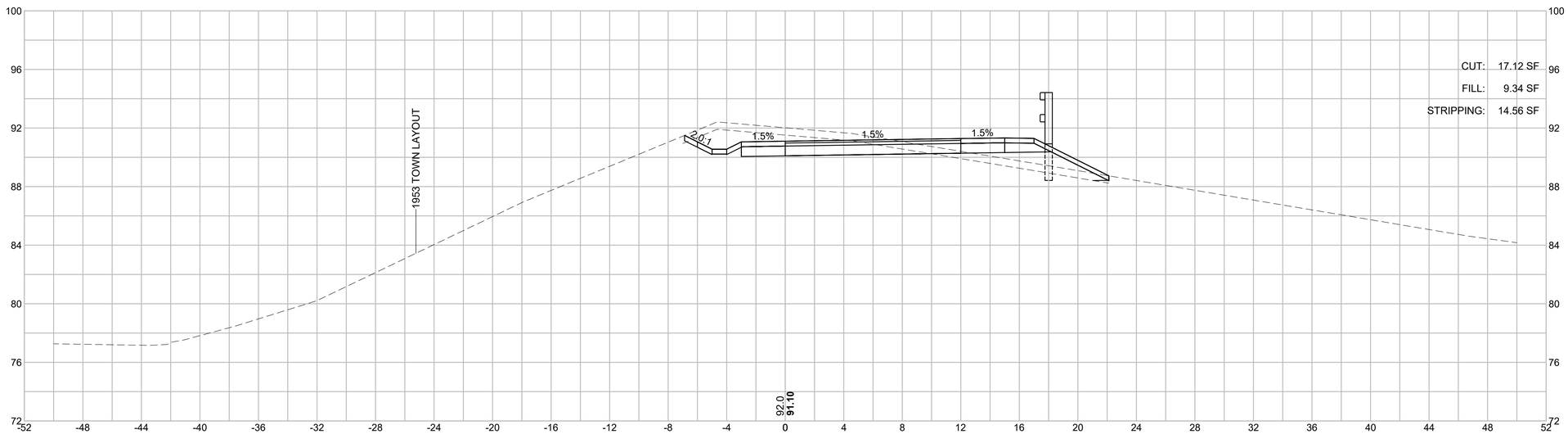
WEST CROSS SECTIONS

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64+00



63+50



HOR. SCALE IN FEET
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VER. SCALE IN FEET

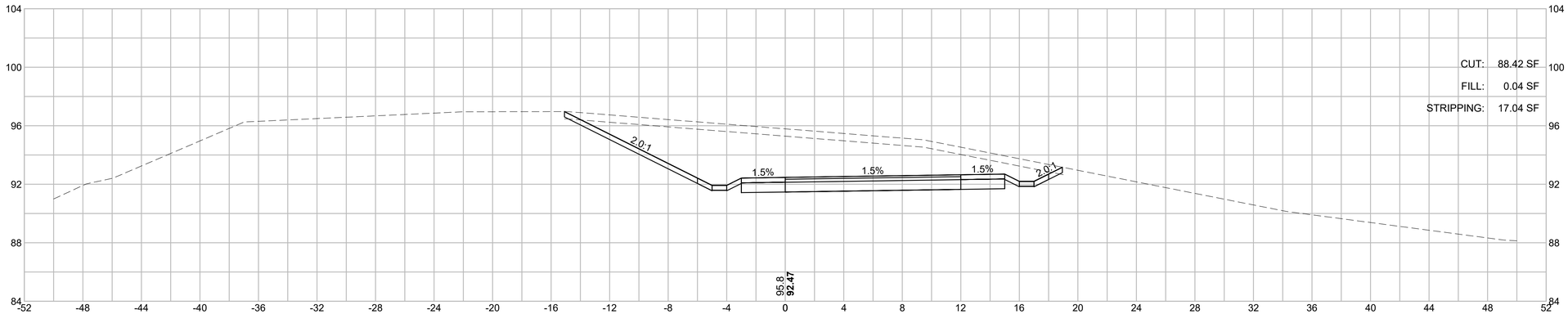
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	132	278
PROJECT FILE NO. 607398			

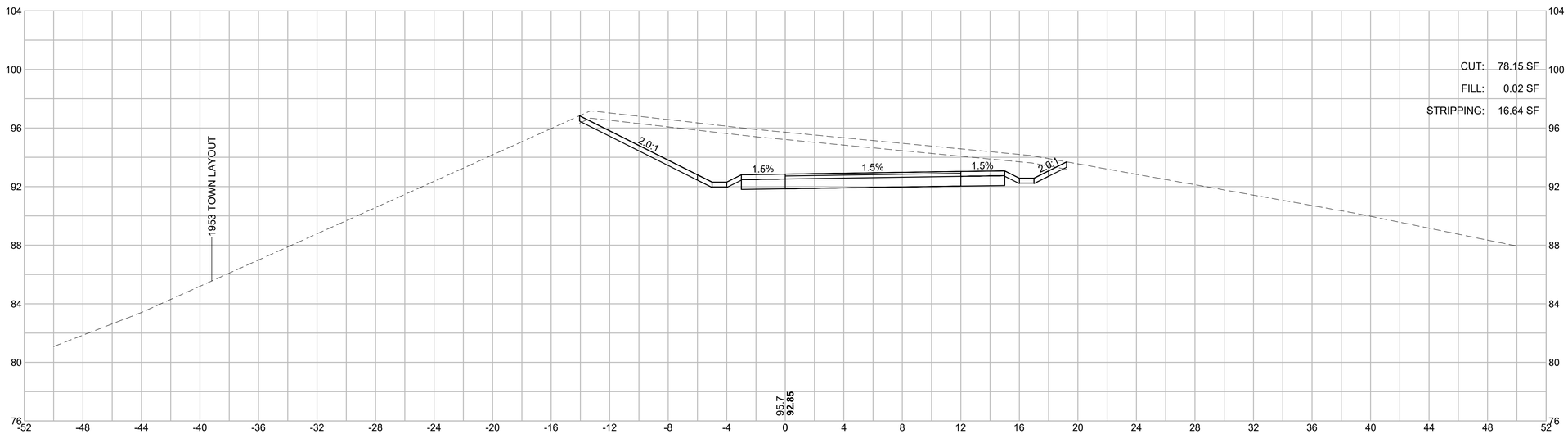
WEST CROSS SECTIONS

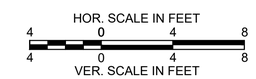
607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:18 PM

65+00



64+50





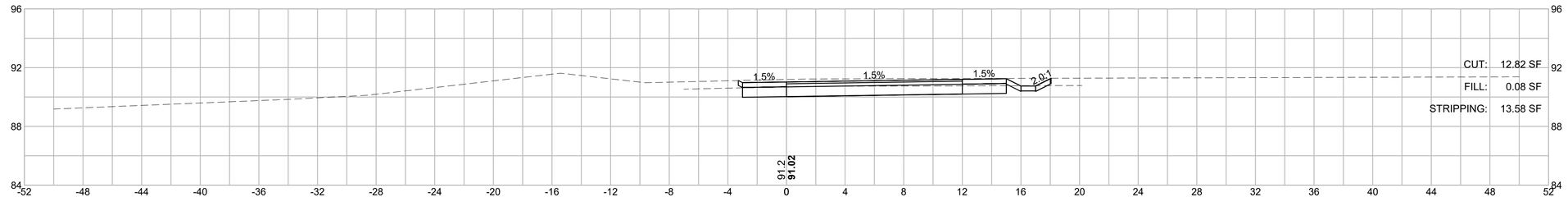
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	133	278
PROJECT FILE NO. 607398			

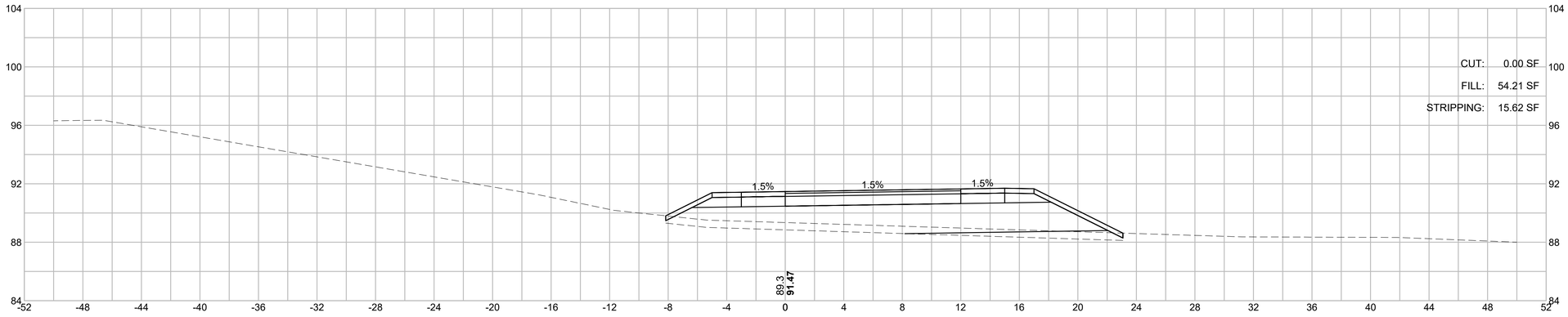
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:18 PM

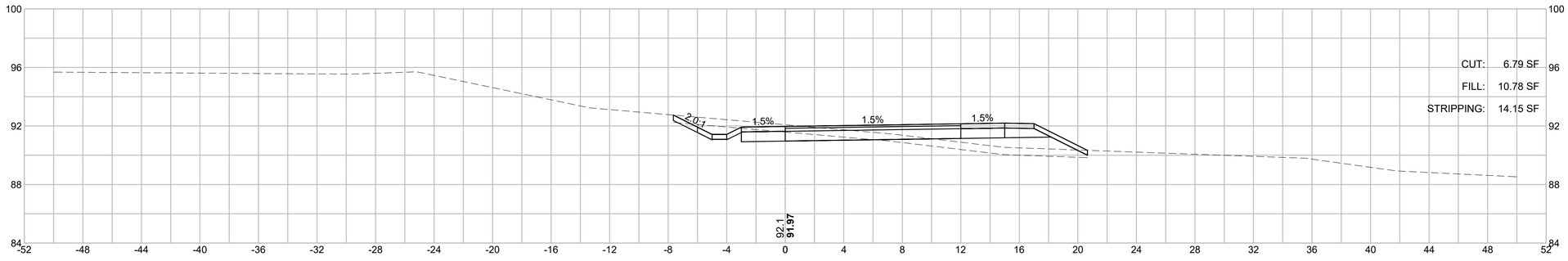
66+50

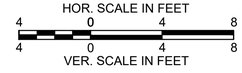


66+00



65+50





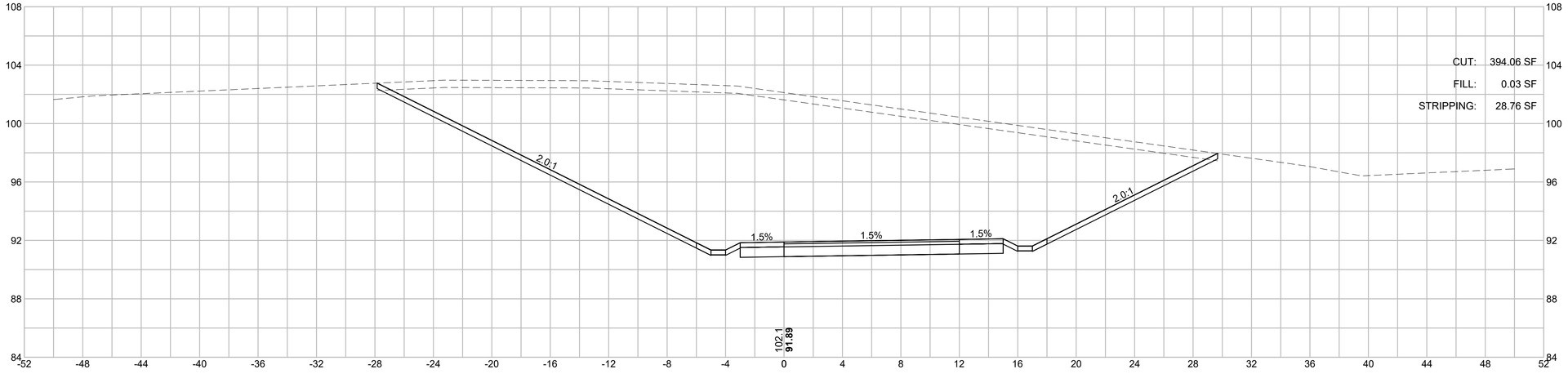
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	134	278
PROJECT FILE NO. 607398			

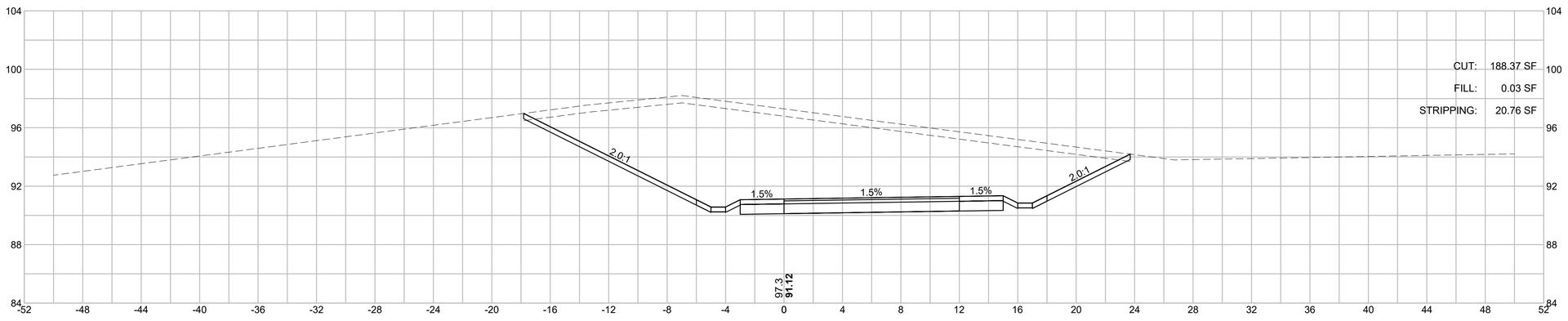
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:18 PM

67+50



67+00



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

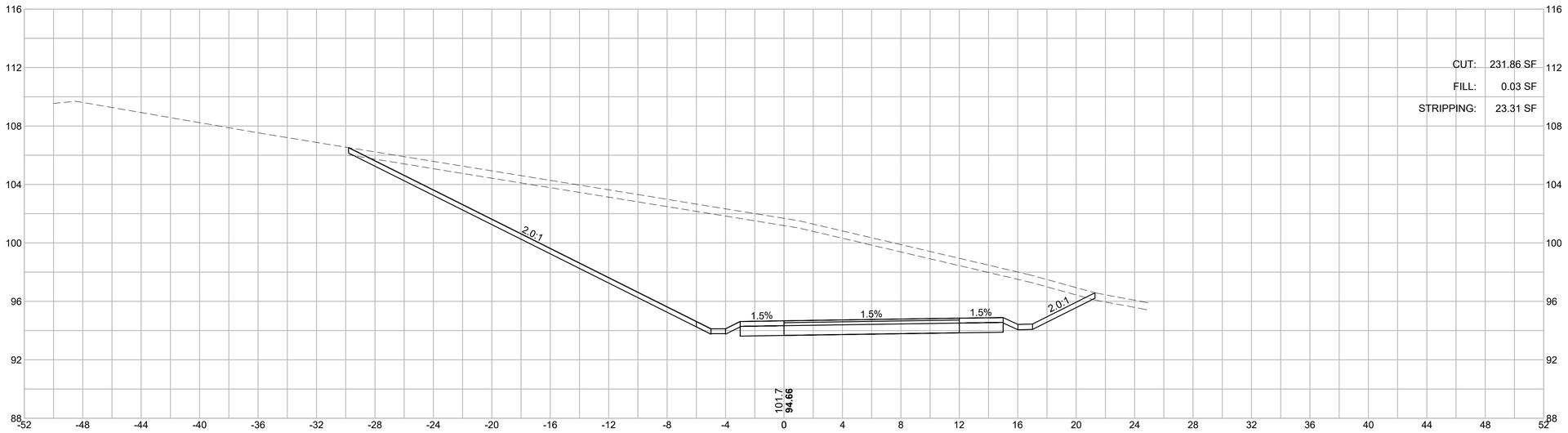
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	135	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

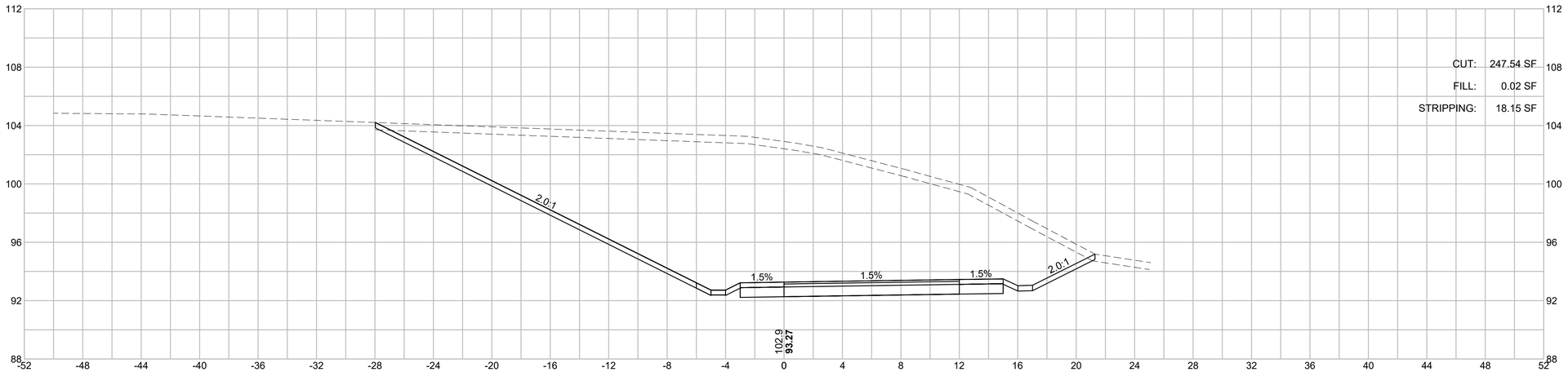
607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:18 PM

68+50



CUT: 231.86 SF
FILL: 0.03 SF
STRIPPING: 23.31 SF

68+00



CUT: 247.54 SF
FILL: 0.02 SF
STRIPPING: 18.15 SF

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

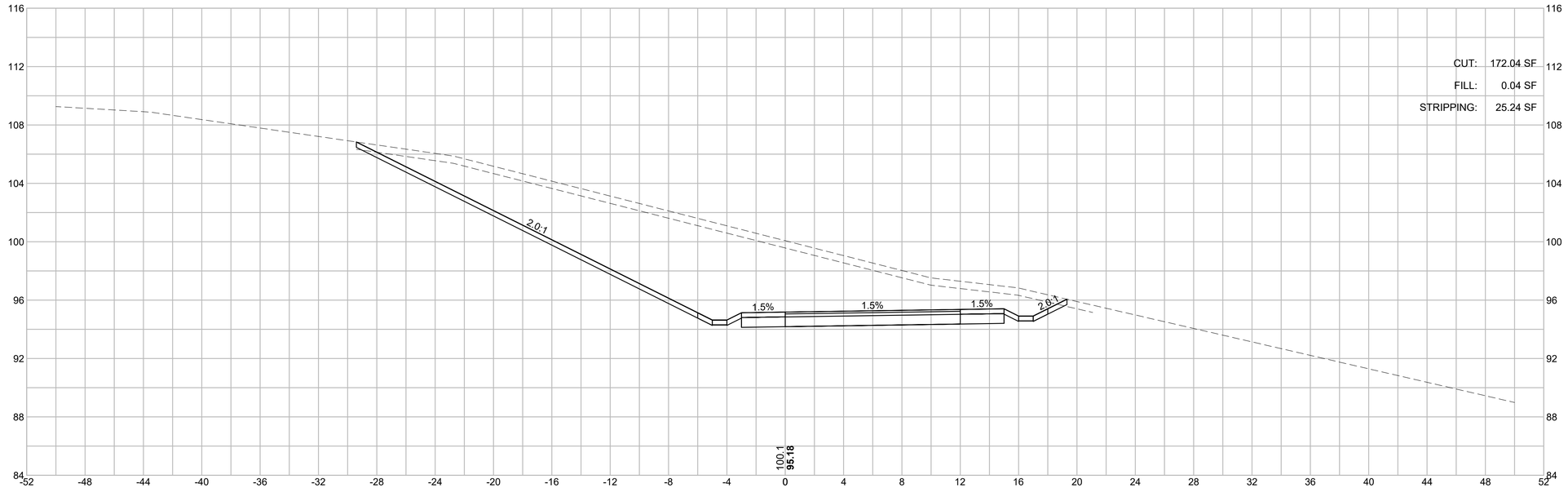
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	136	278
PROJECT FILE NO. 607398			

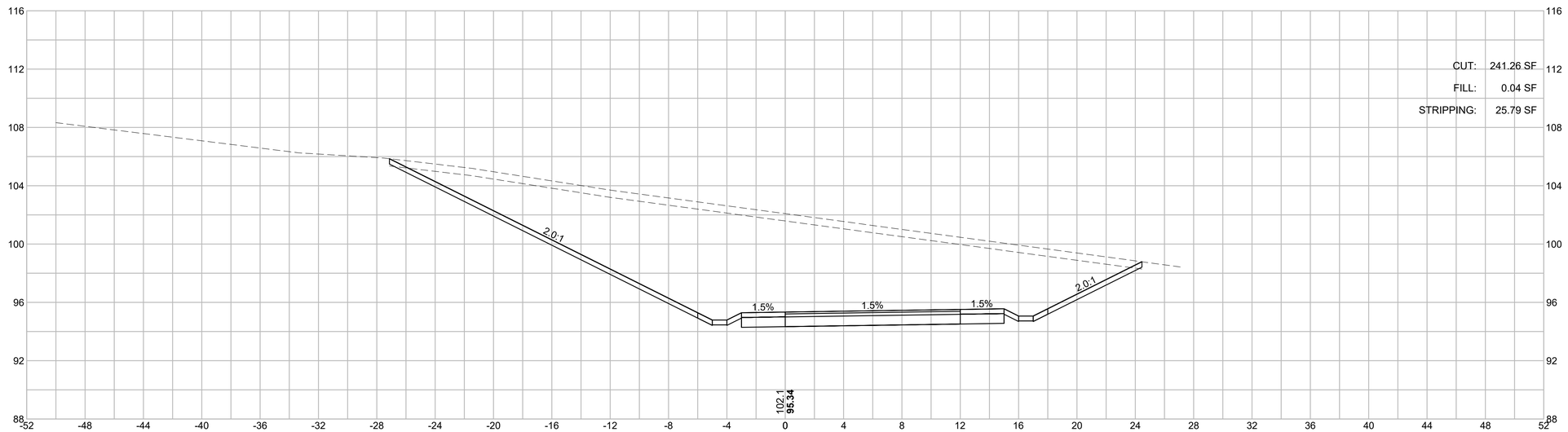
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:18 PM

69+50



69+00



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

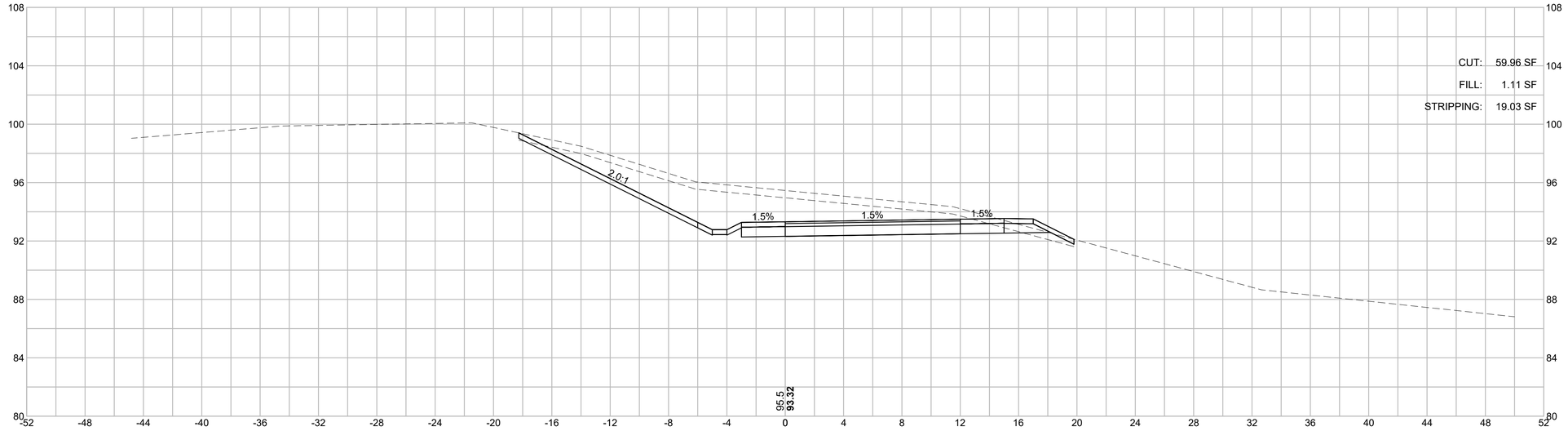
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	137	278
PROJECT FILE NO. 607398			

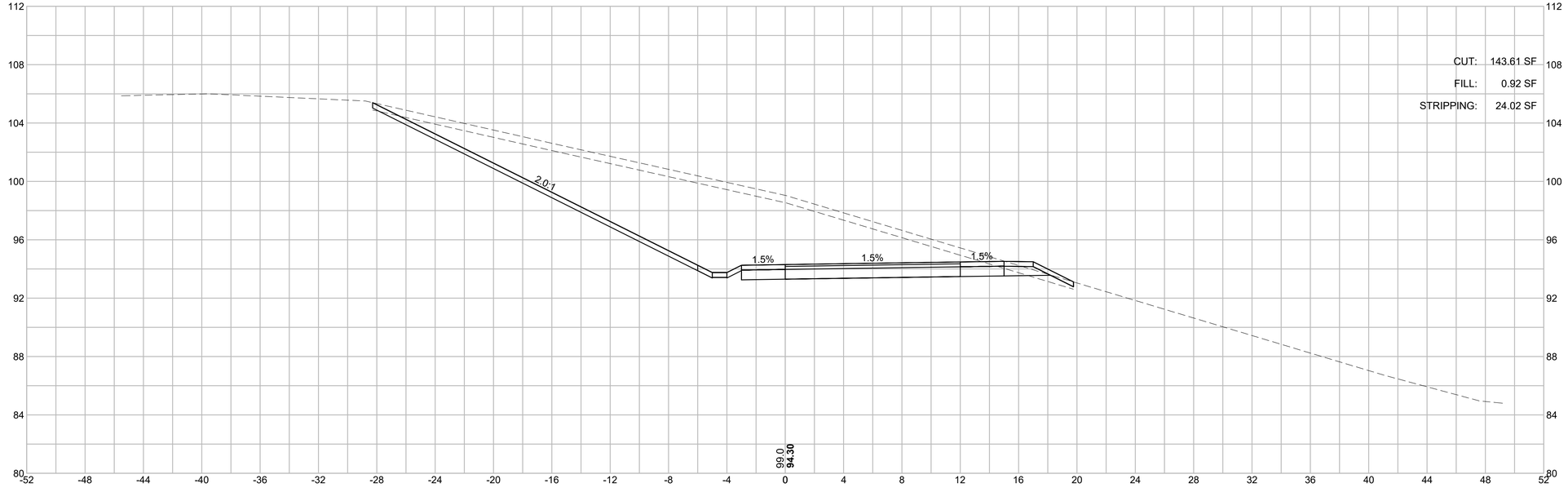
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:19 PM

70+50



70+00



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

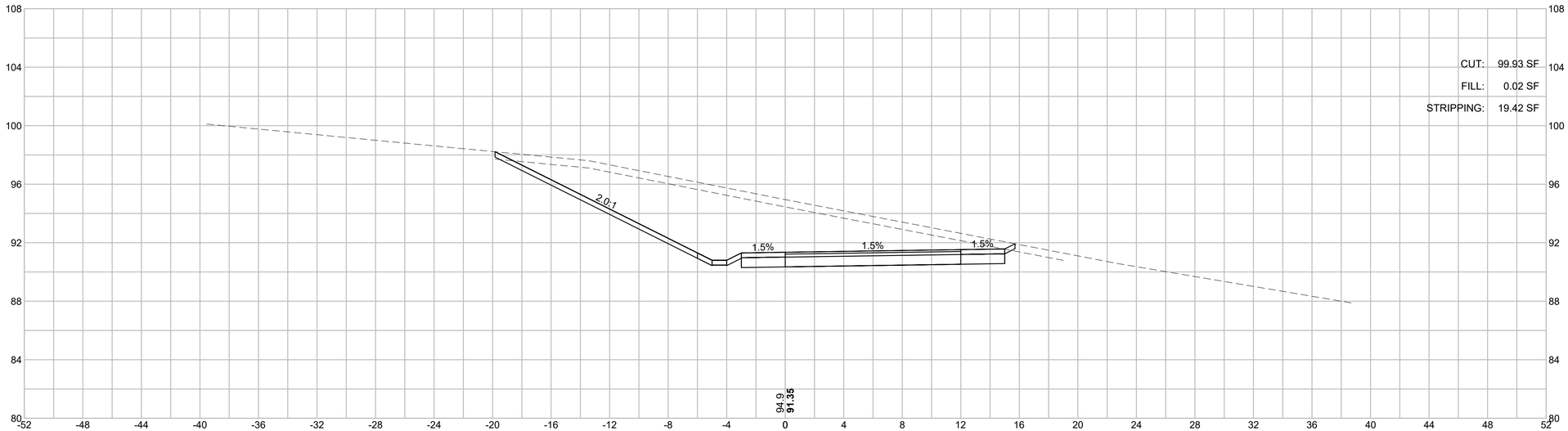
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	138	278
PROJECT FILE NO. 607398			

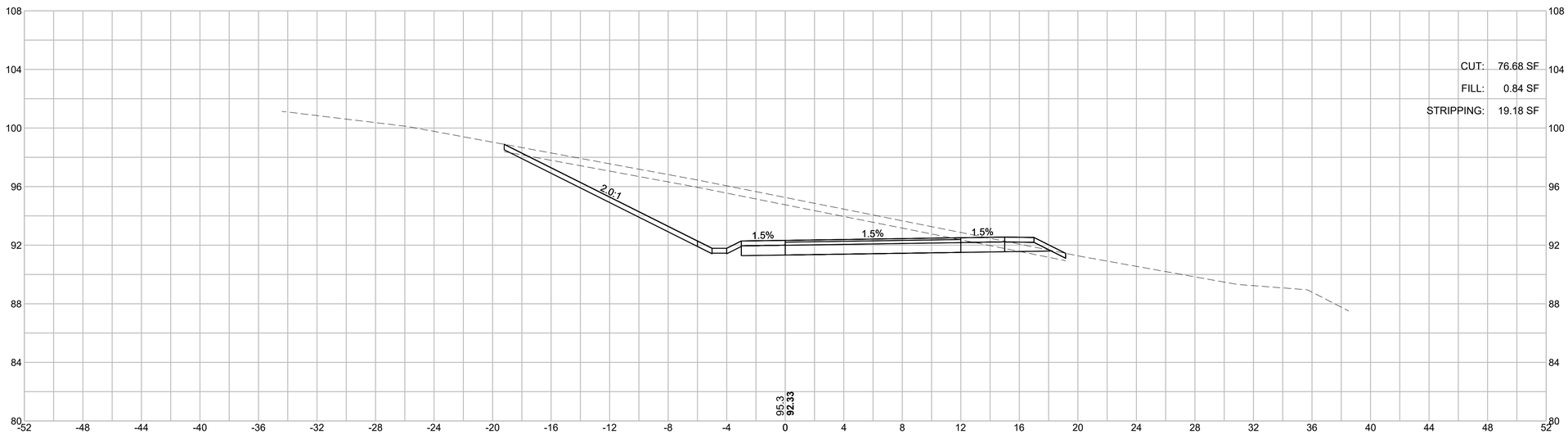
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:19 PM

71+50



71+00



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

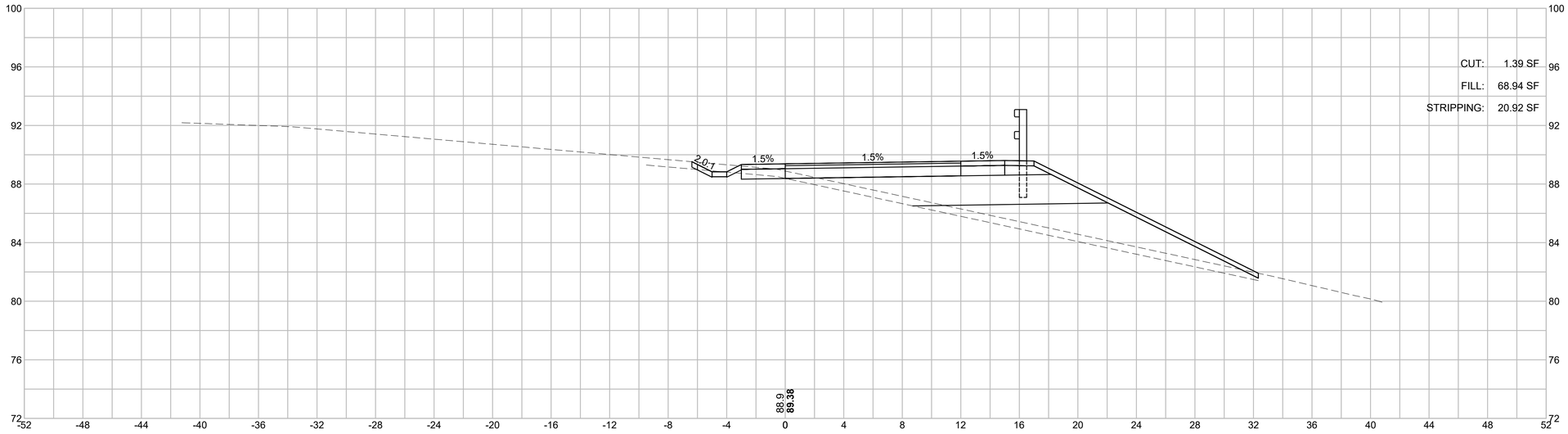
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	139	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

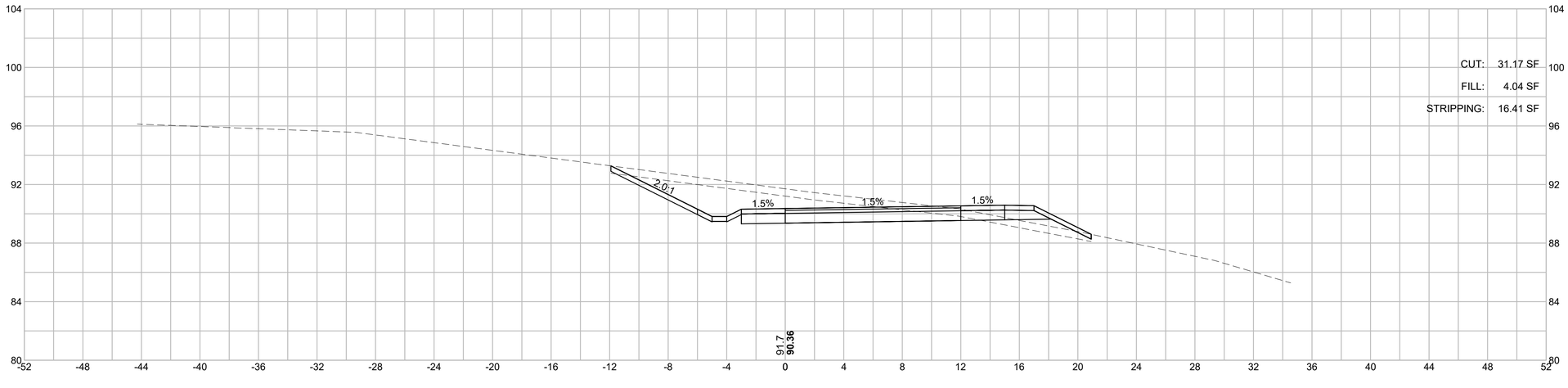
607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:19 PM

72+50



CUT: 1.39 SF
FILL: 68.94 SF
STRIPPING: 20.92 SF

72+00



CUT: 31.17 SF
FILL: 4.04 SF
STRIPPING: 16.41 SF

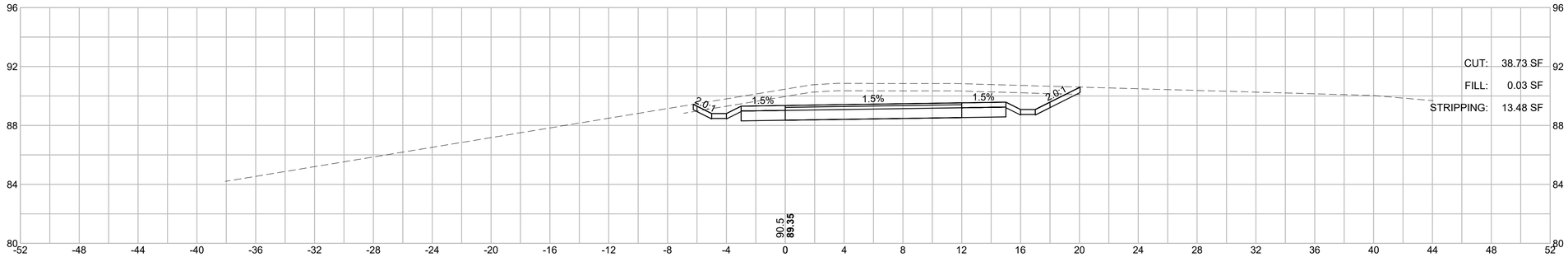
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

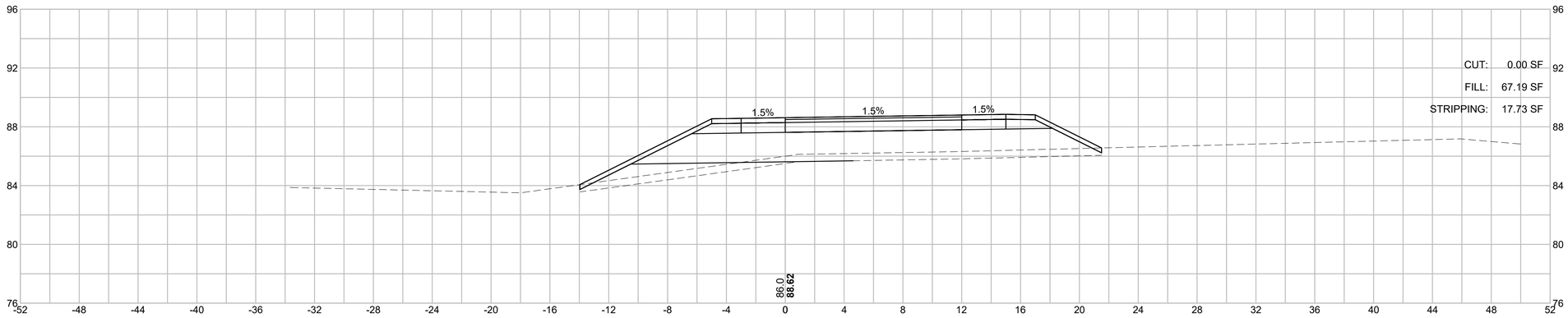
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	140	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

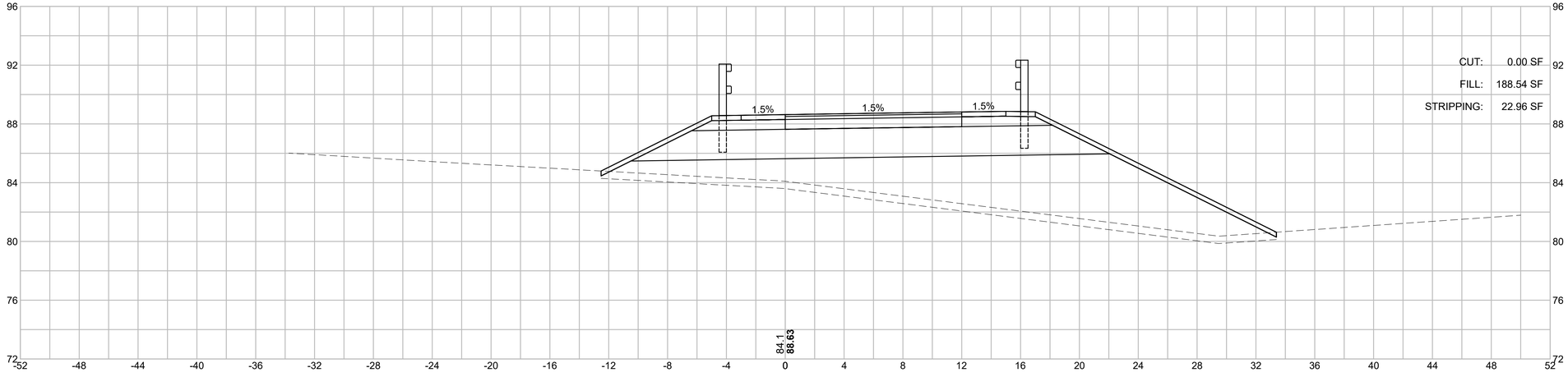
74+00



73+50



73+00



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

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 2:19 PM

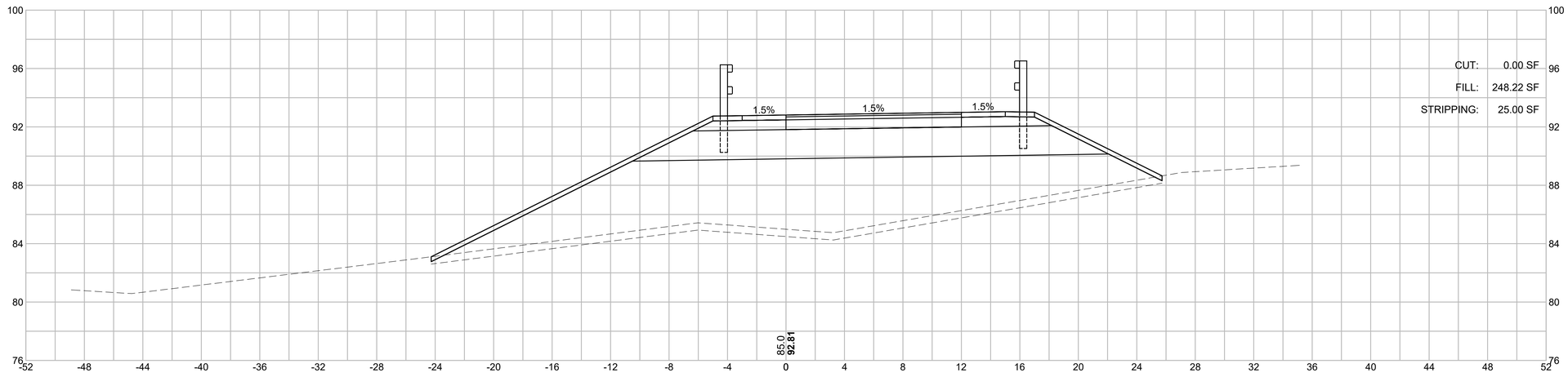
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	141	277
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

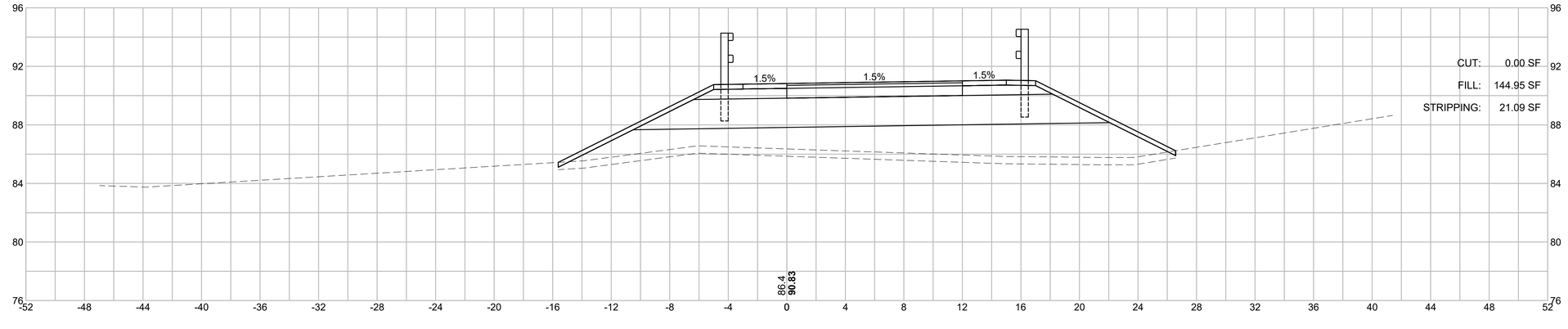
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:55 AM

75+00



CUT: 0.00 SF
FILL: 248.22 SF
STRIPPING: 25.00 SF

74+50



CUT: 0.00 SF
FILL: 144.95 SF
STRIPPING: 21.09 SF

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

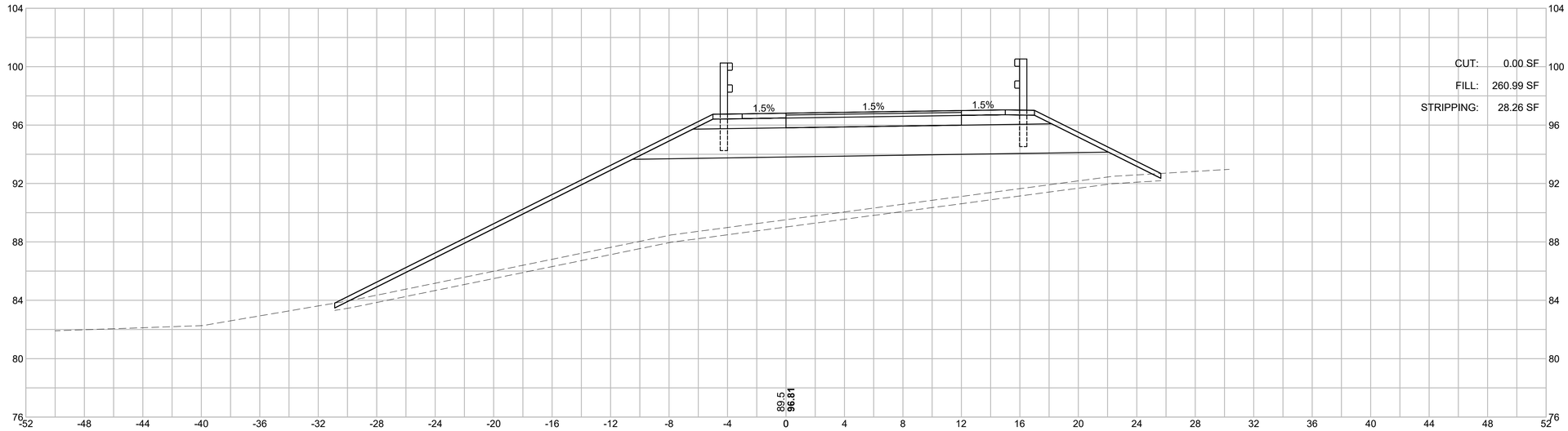
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	142	277
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

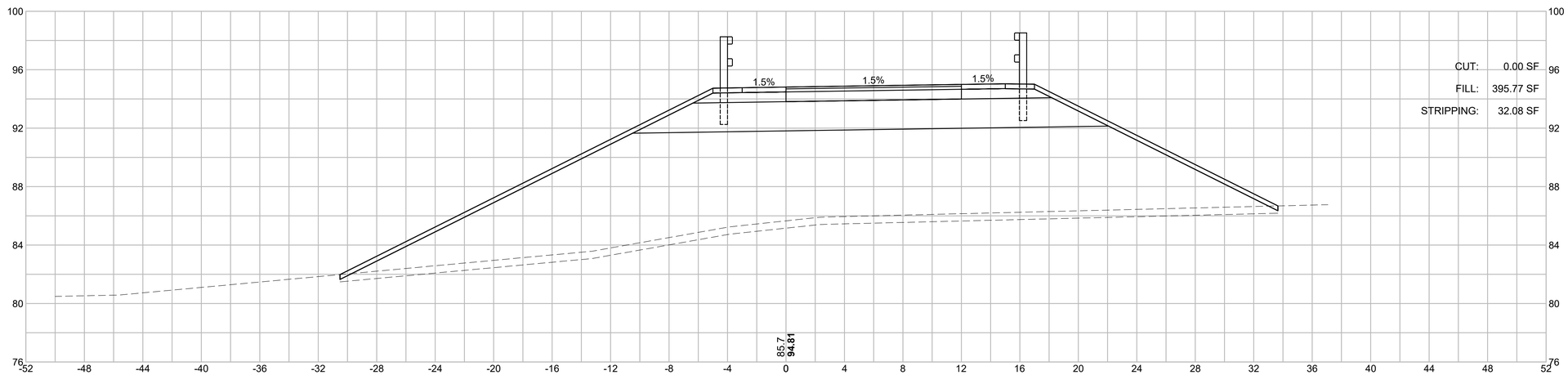
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:55 AM

76+00



CUT: 0.00 SF
FILL: 260.99 SF
STRIPPING: 28.26 SF

75+50



CUT: 0.00 SF
FILL: 395.77 SF
STRIPPING: 32.08 SF

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

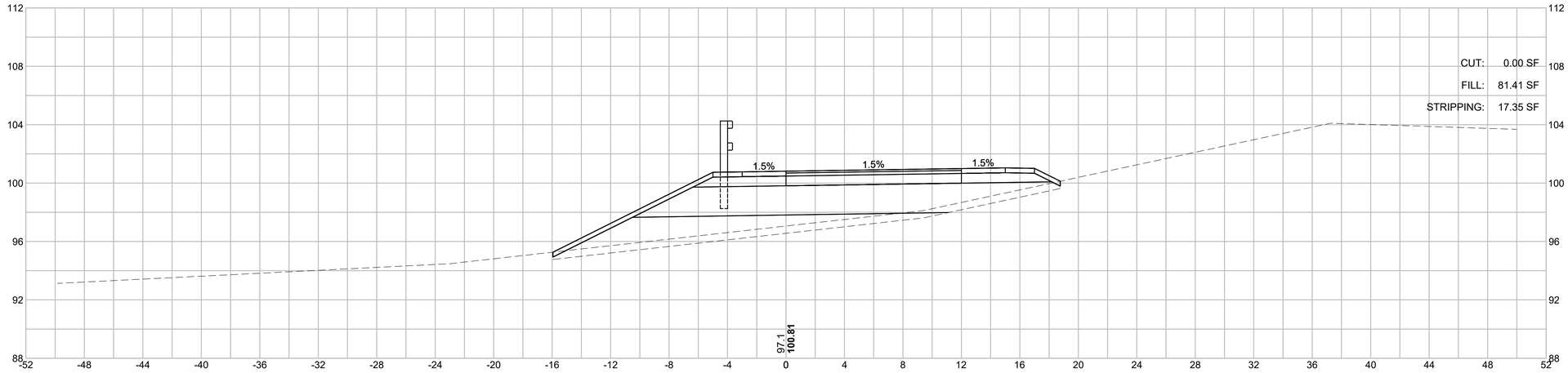
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	143	277
PROJECT FILE NO. 607398			

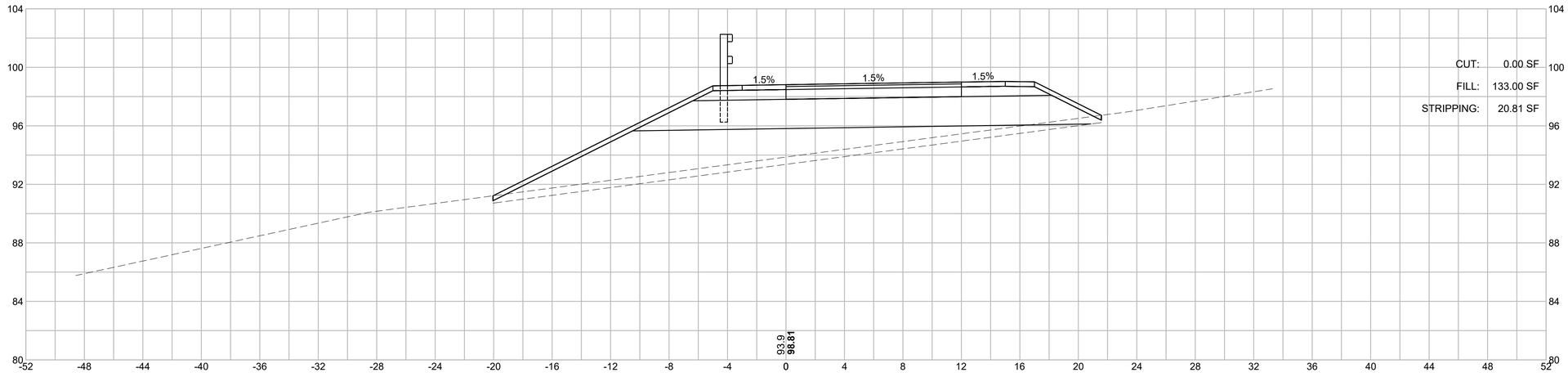
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

77+00



76+50



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

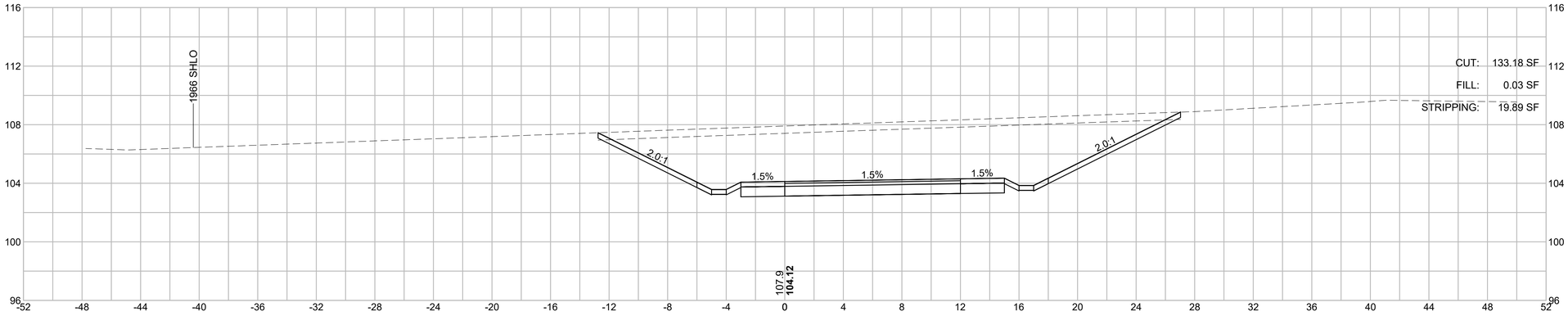
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	144	277
PROJECT FILE NO. 607398			

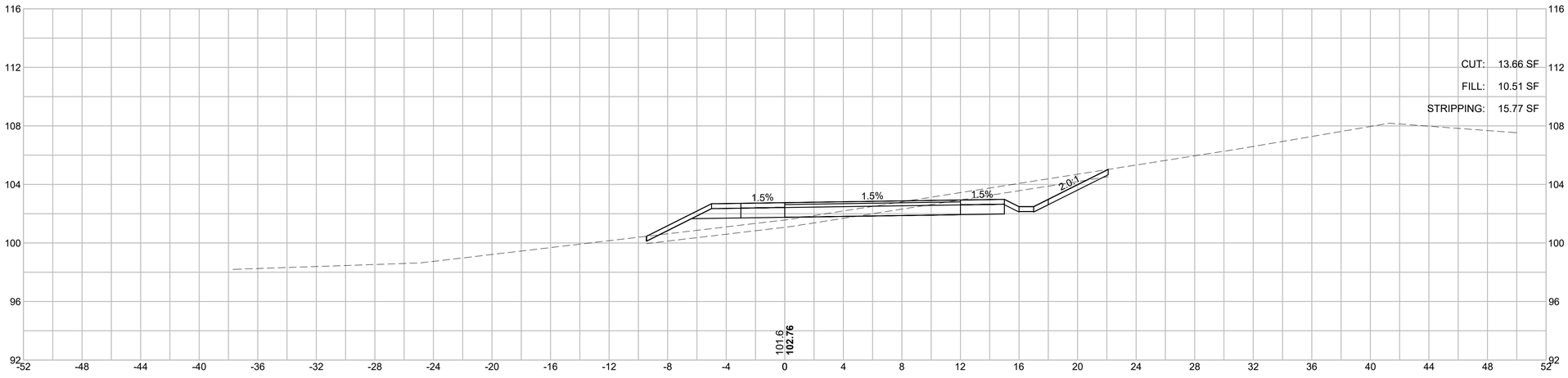
WEST CROSS SECTIONS

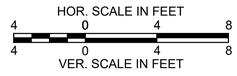
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

78+00



77+50





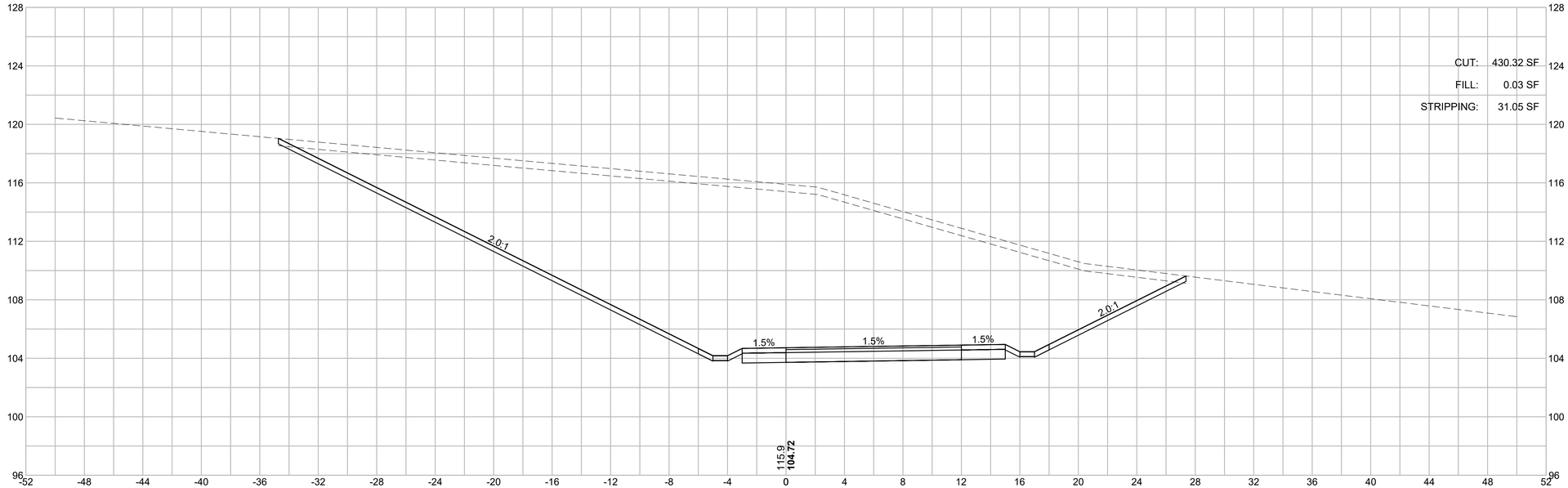
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	145	277
PROJECT FILE NO. 607398			

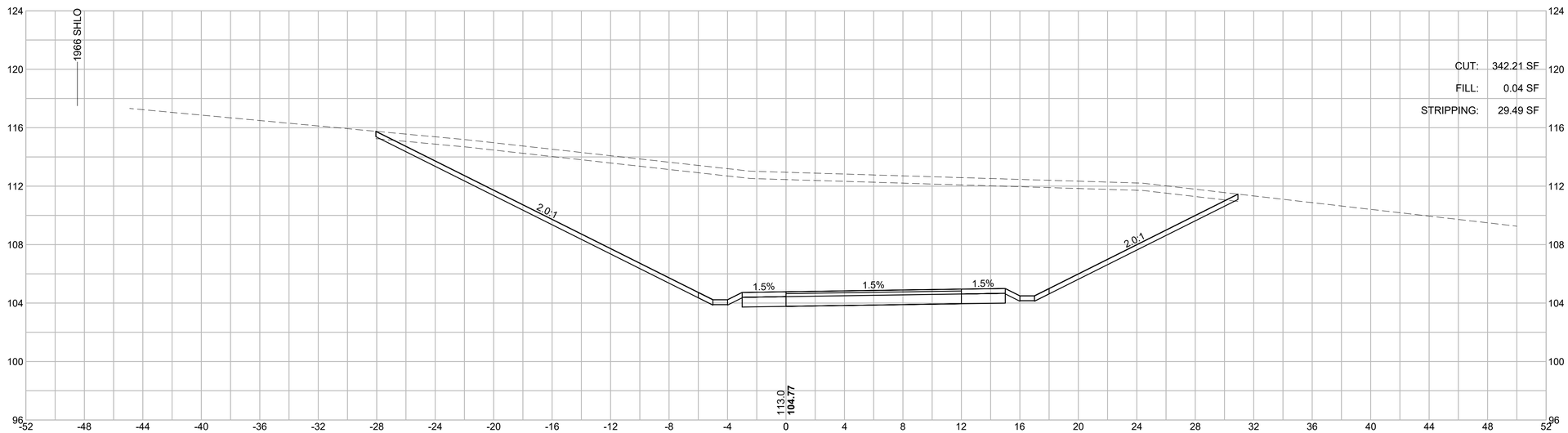
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

79+00



78+50



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

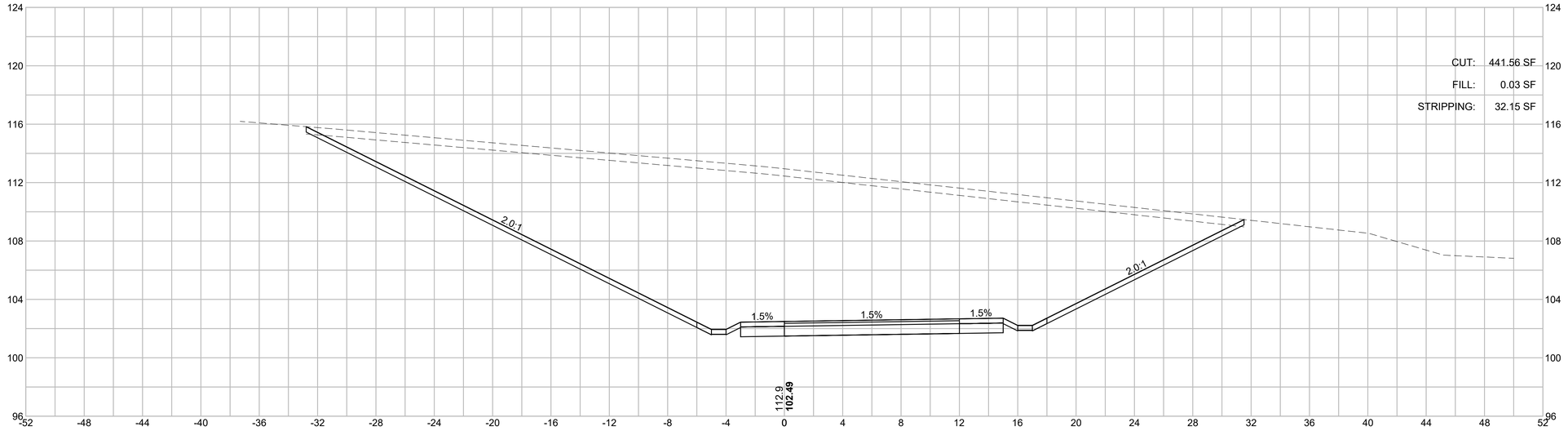
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	146	277
PROJECT FILE NO. 607398			

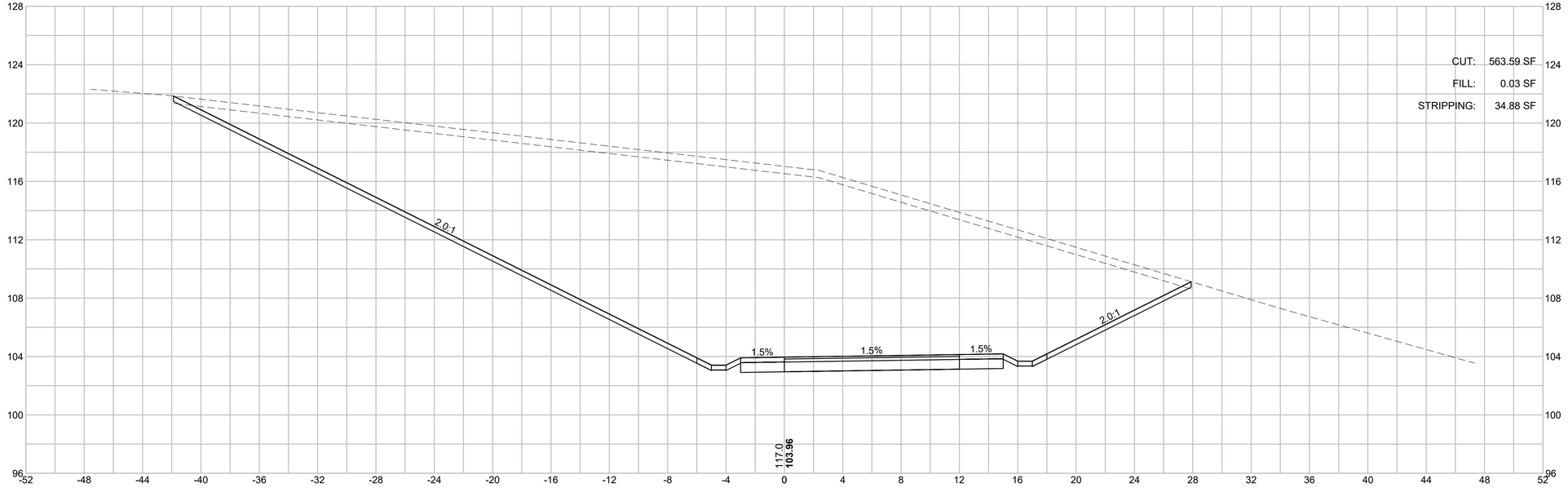
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

80+00



79+50



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

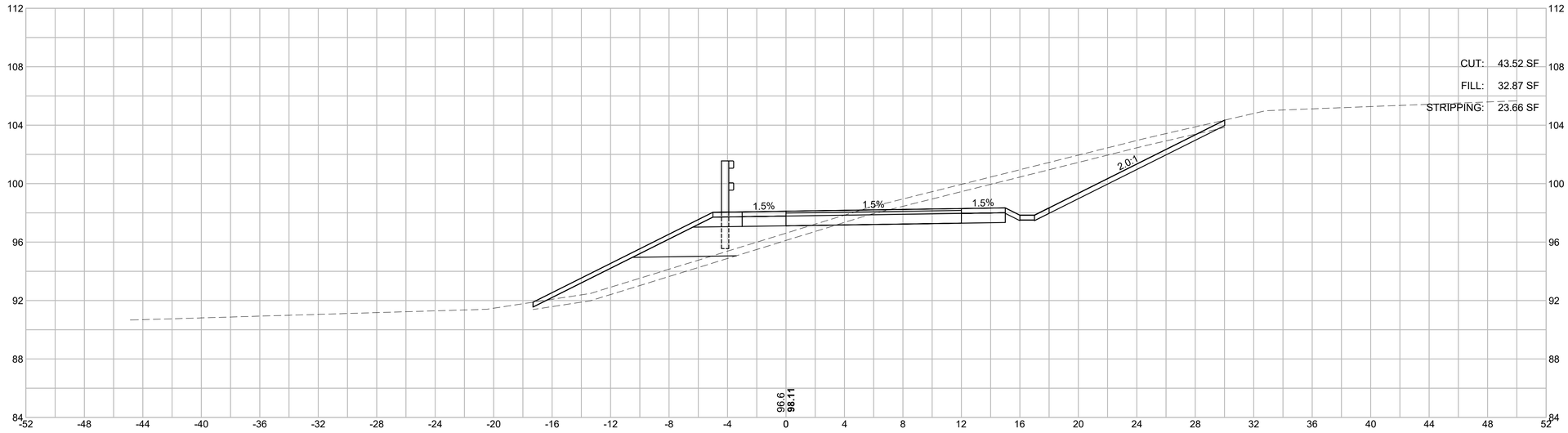
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	147	277
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

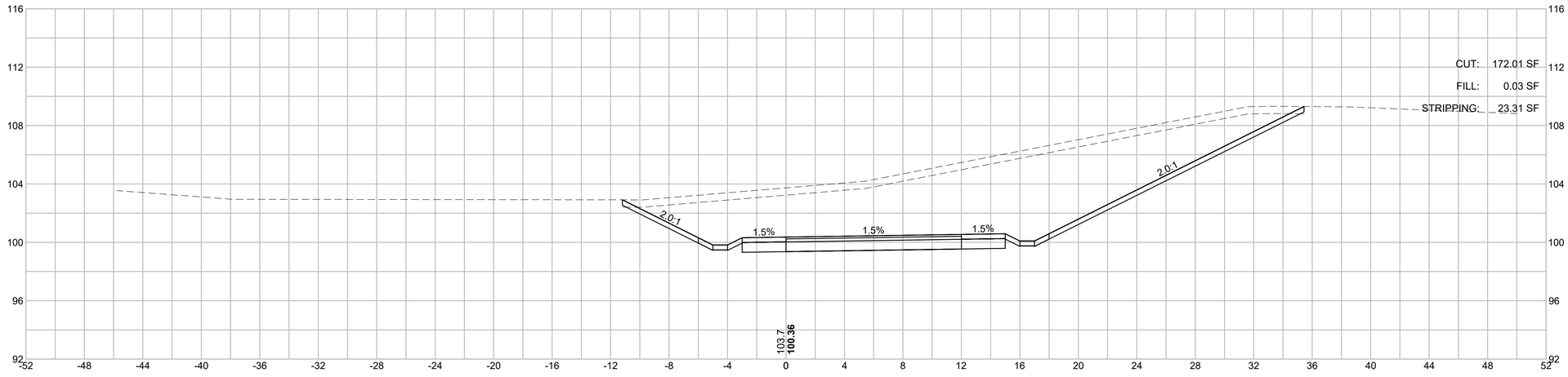
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

81+00



CUT: 43.52 SF
FILL: 32.87 SF
STRIPPING: 23.66 SF

80+50



CUT: 172.01 SF
FILL: 0.03 SF
STRIPPING: 23.31 SF

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

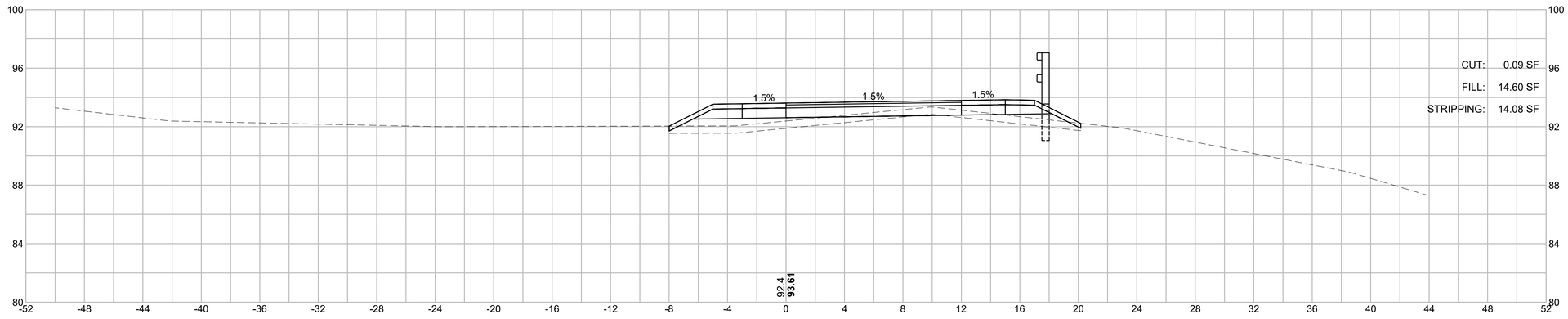
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	148	277
PROJECT FILE NO. 607398			

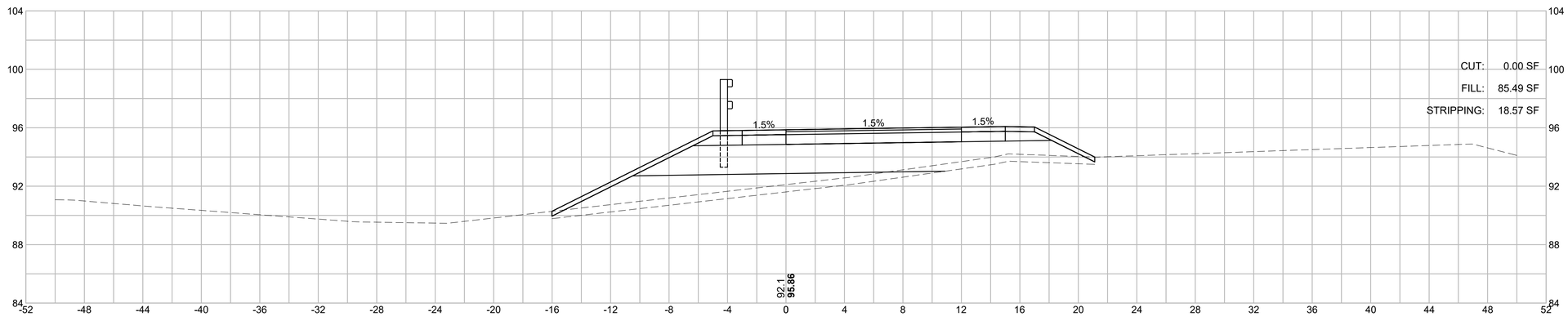
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

82+00



81+50





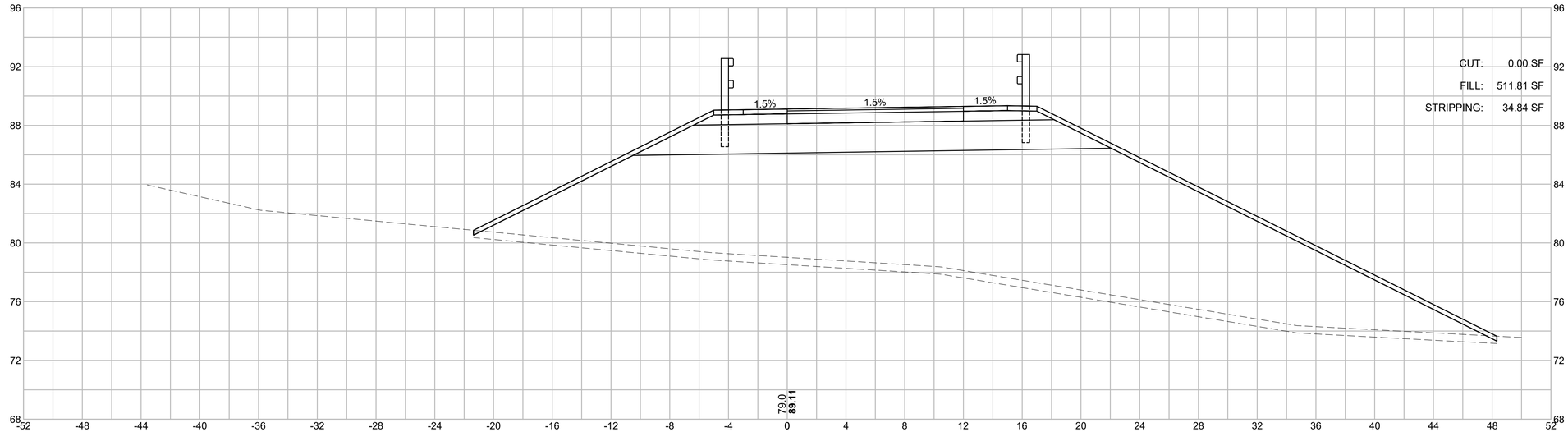
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	149	277
PROJECT FILE NO. 607398			

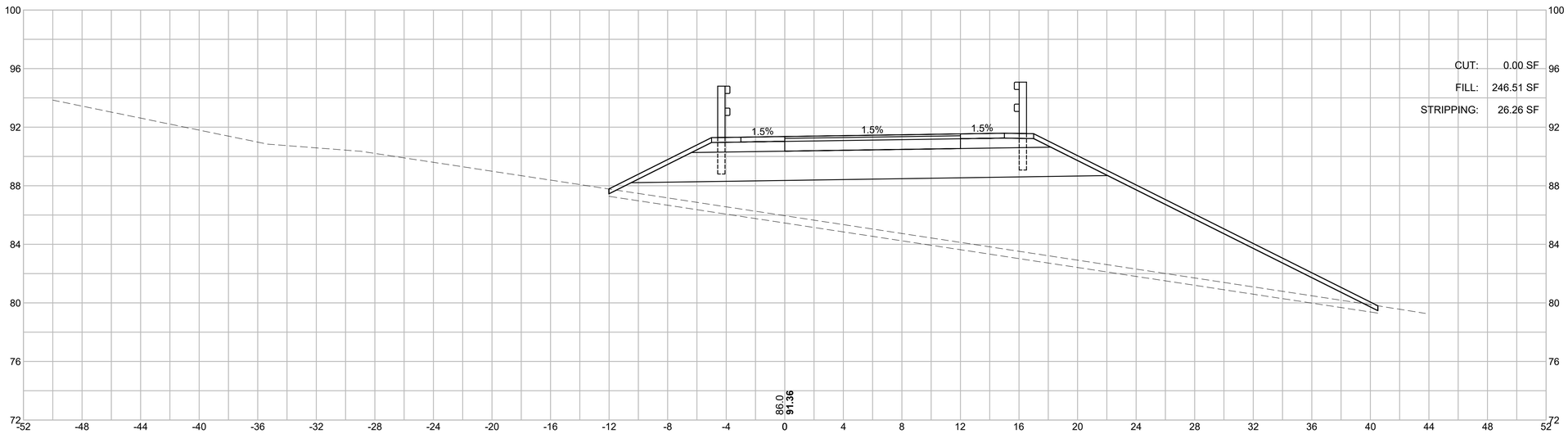
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

83+00



82+50



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

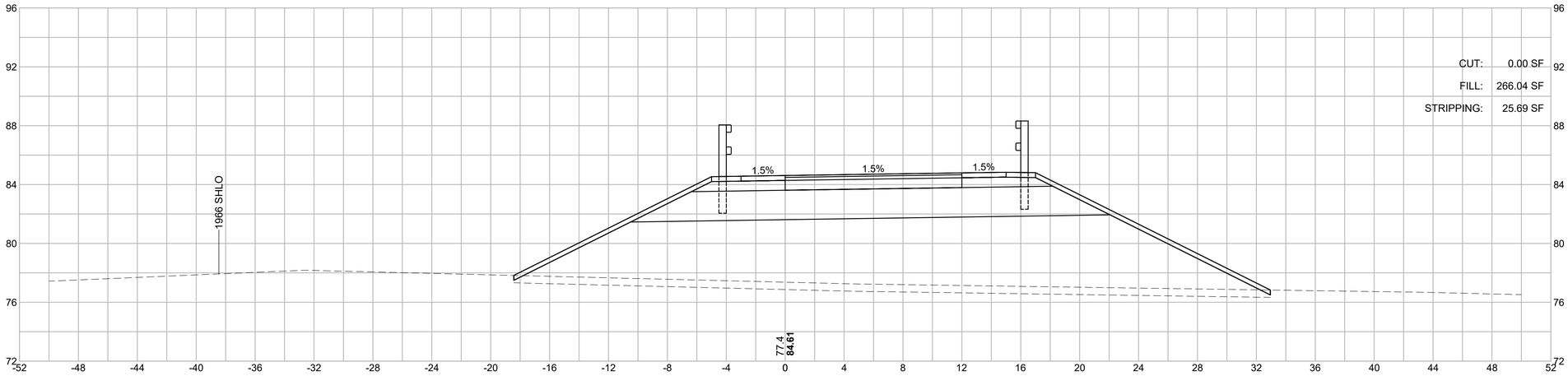
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	150	277
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

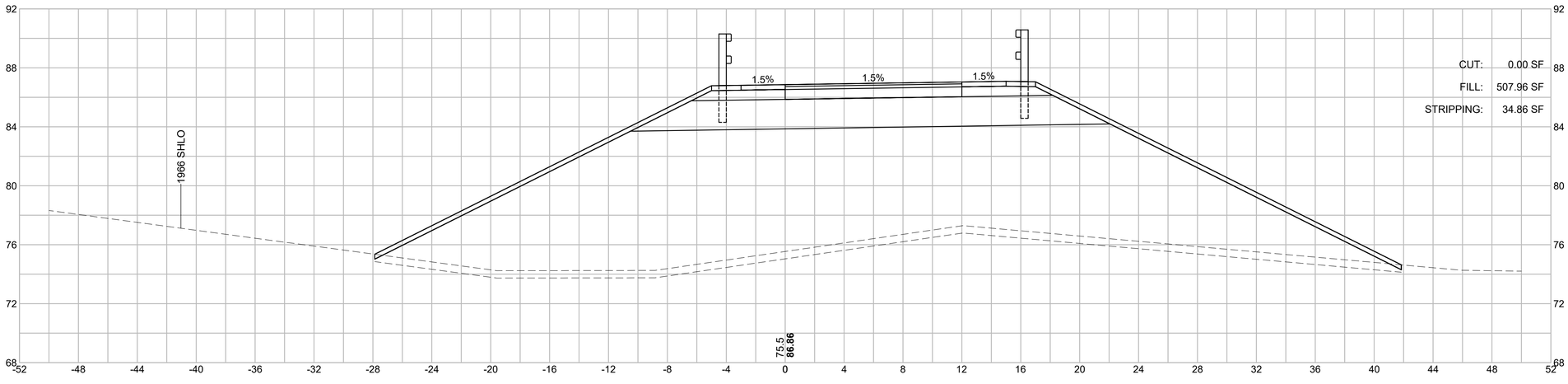
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

84+00



CUT: 0.00 SF
FILL: 266.04 SF
STRIPPING: 25.69 SF

83+50



CUT: 0.00 SF
FILL: 507.96 SF
STRIPPING: 34.86 SF

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

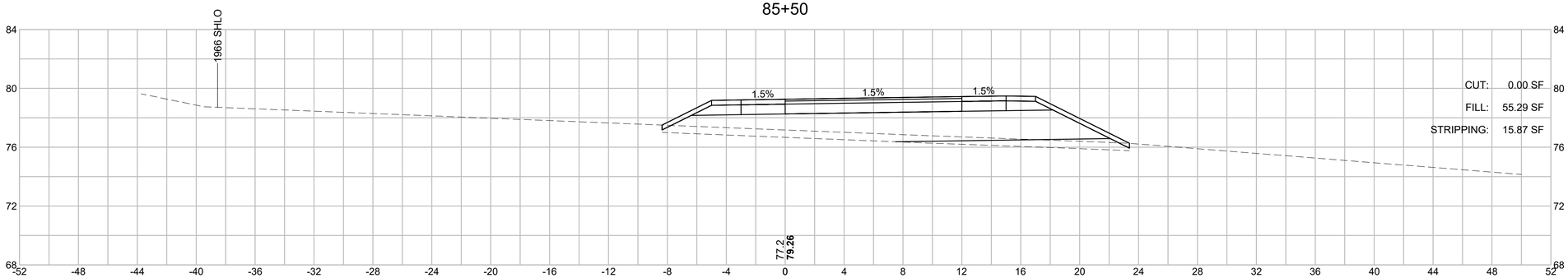
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	151	277
PROJECT FILE NO. 607398			

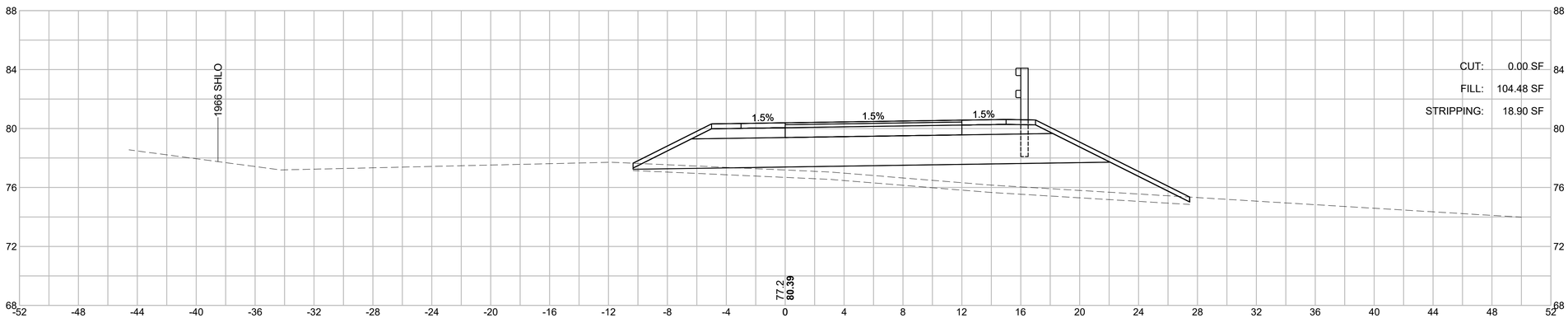
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

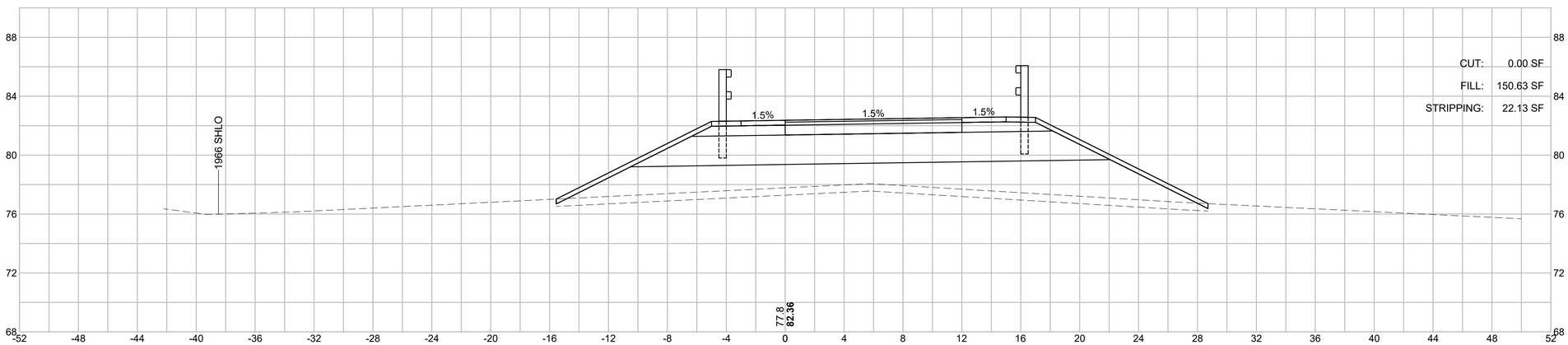
85+50



85+00



84+50



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

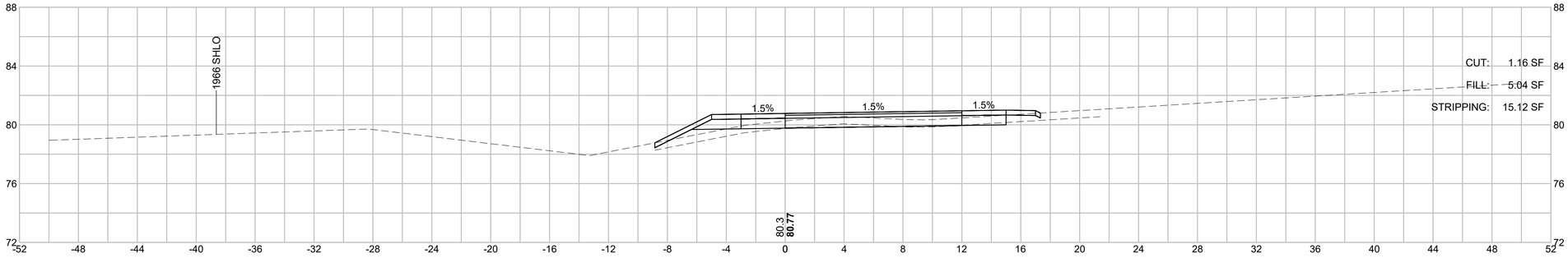
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	152	277
PROJECT FILE NO. 607398			

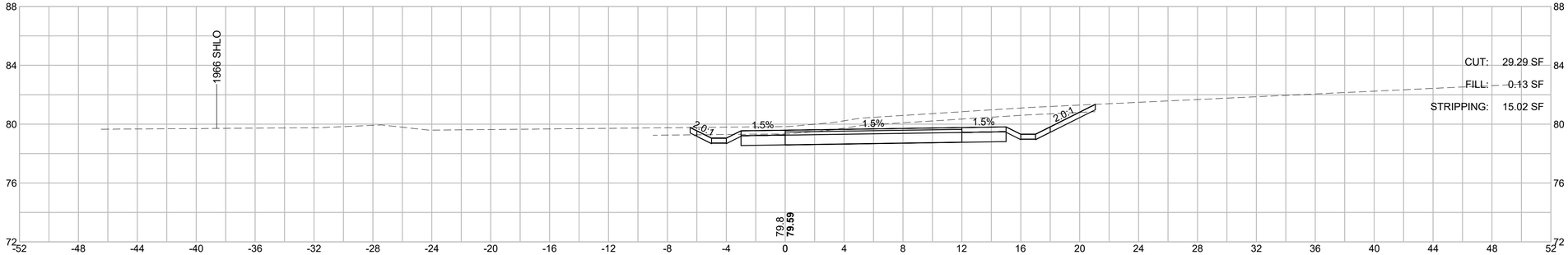
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:56 AM

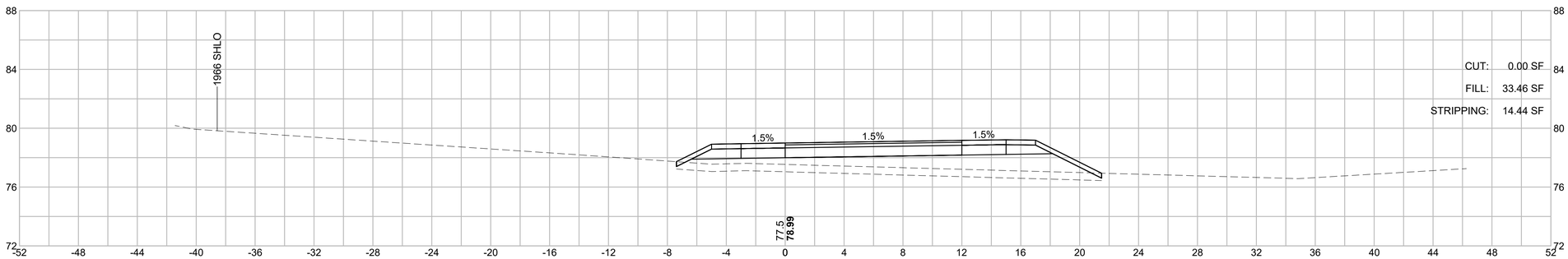
87+00



86+50



86+00



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

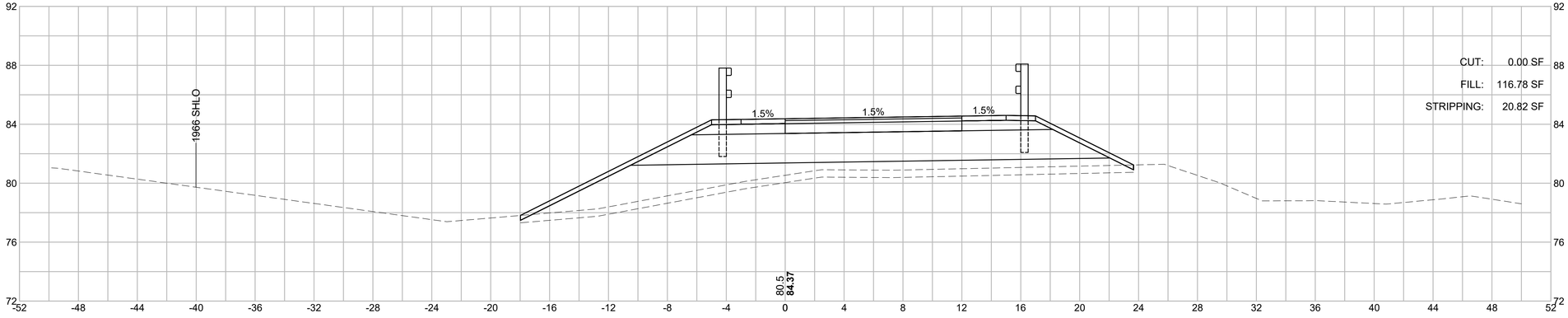
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	153	277
PROJECT FILE NO. 607398			

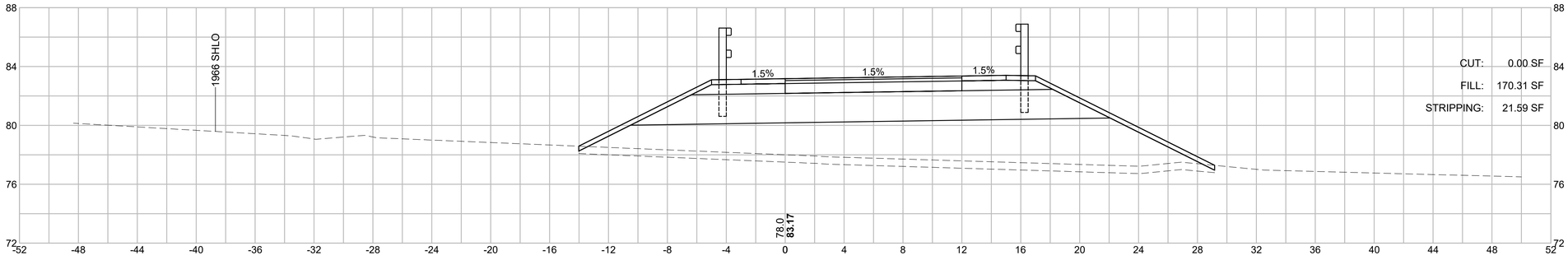
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

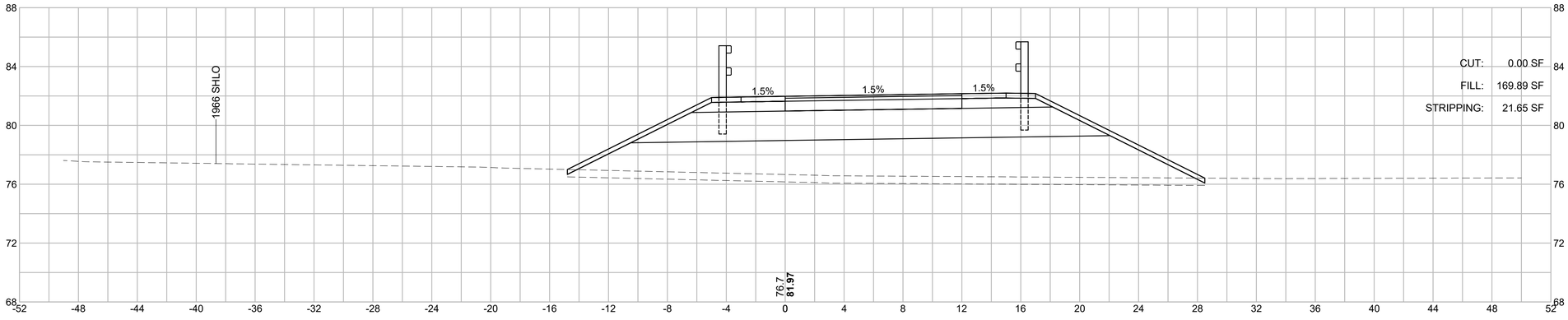
88+50



88+00



87+50



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

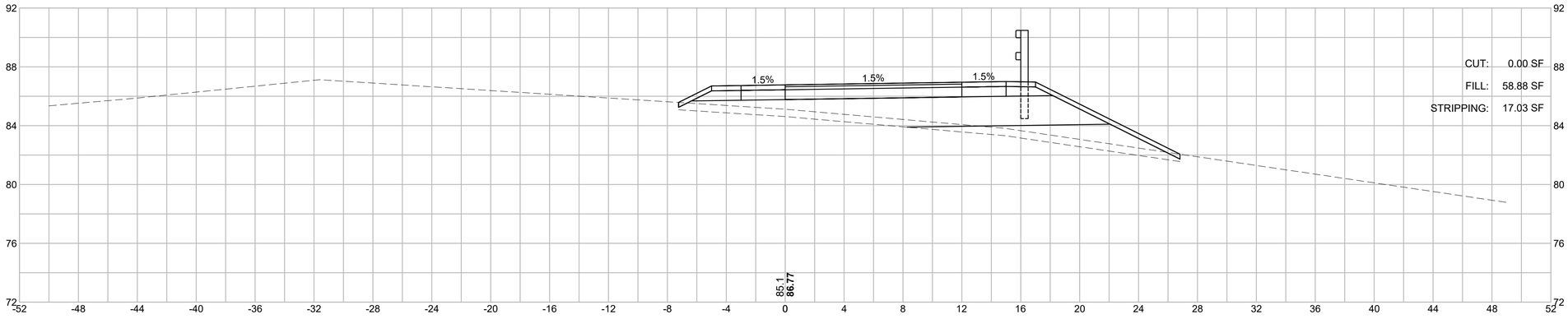
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	154	277
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

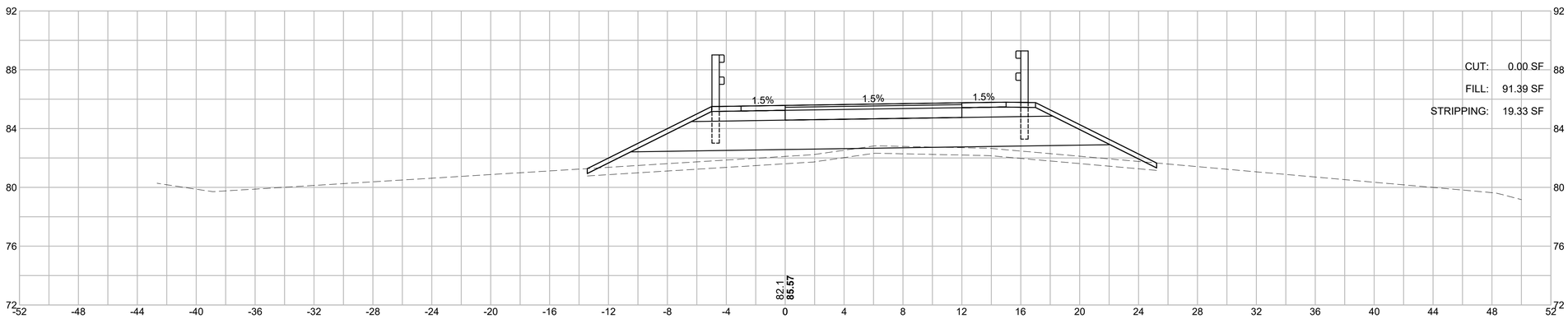
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

89+50



CUT: 0.00 SF
FILL: 58.88 SF
STRIPPING: 17.03 SF

89+00



CUT: 0.00 SF
FILL: 91.39 SF
STRIPPING: 19.33 SF

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

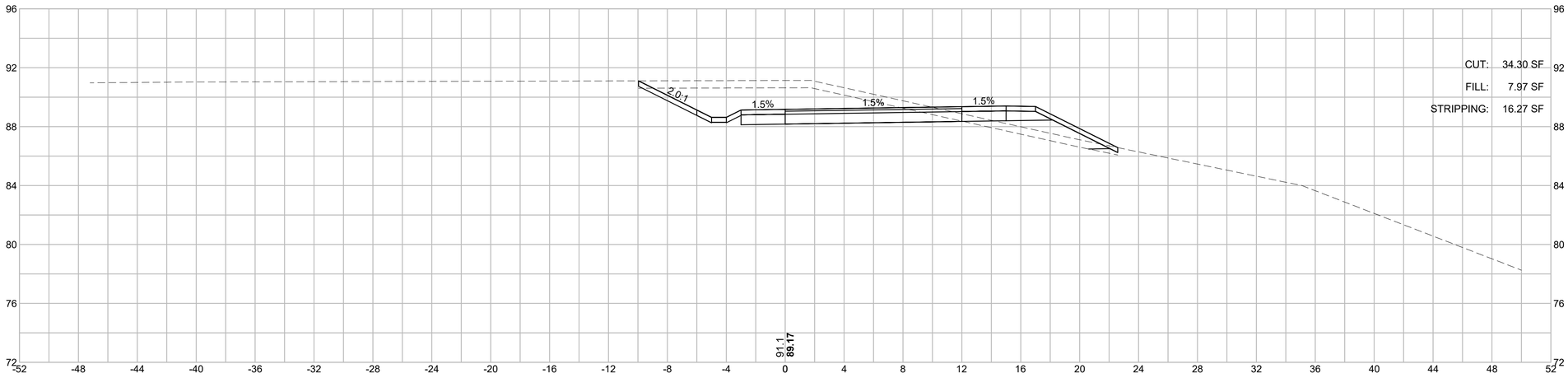
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	155	277
PROJECT FILE NO. 607398			

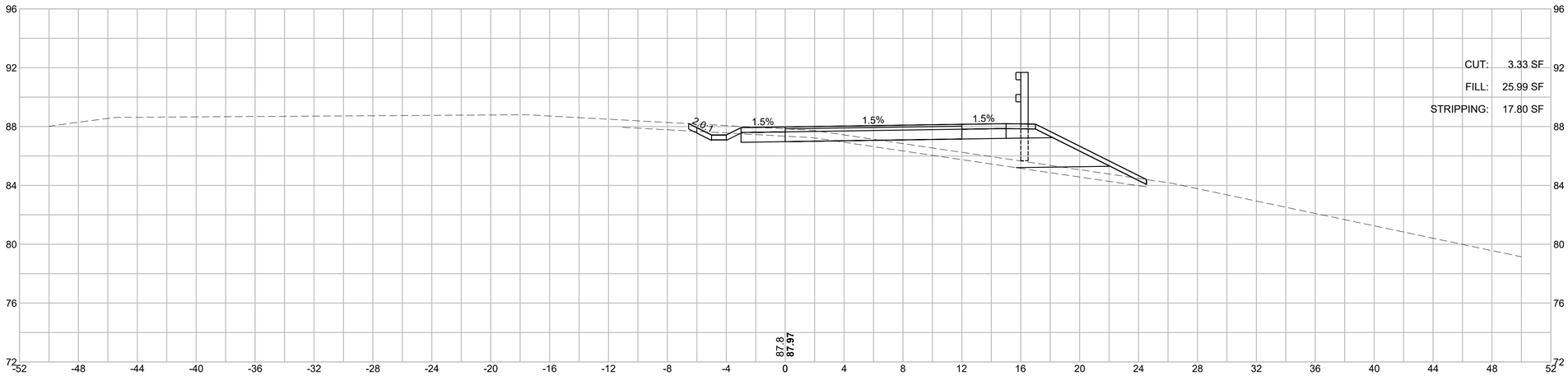
WEST CROSS SECTIONS

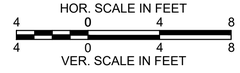
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

90+50



90+00





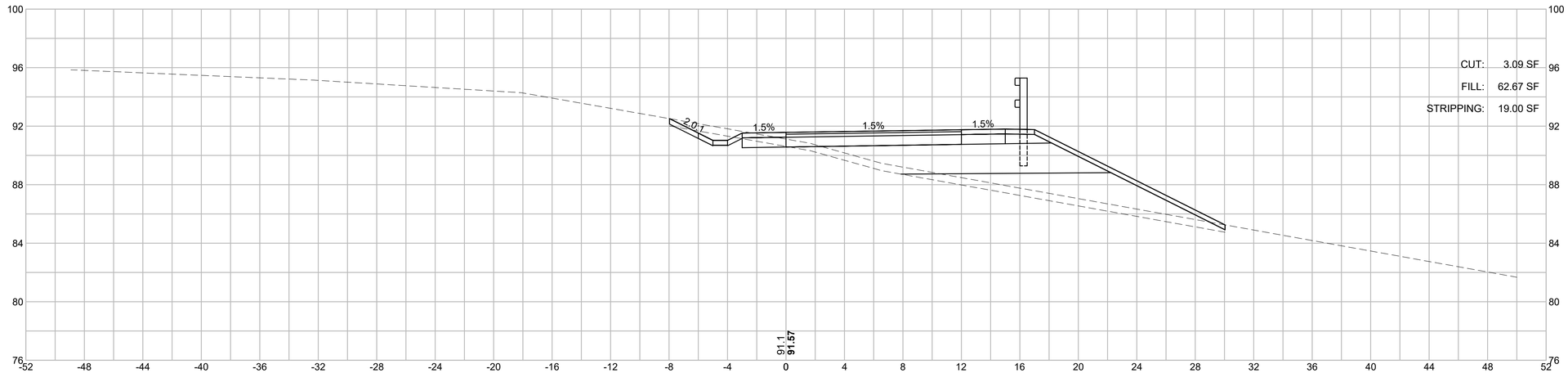
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	156	277
PROJECT FILE NO. 607398			

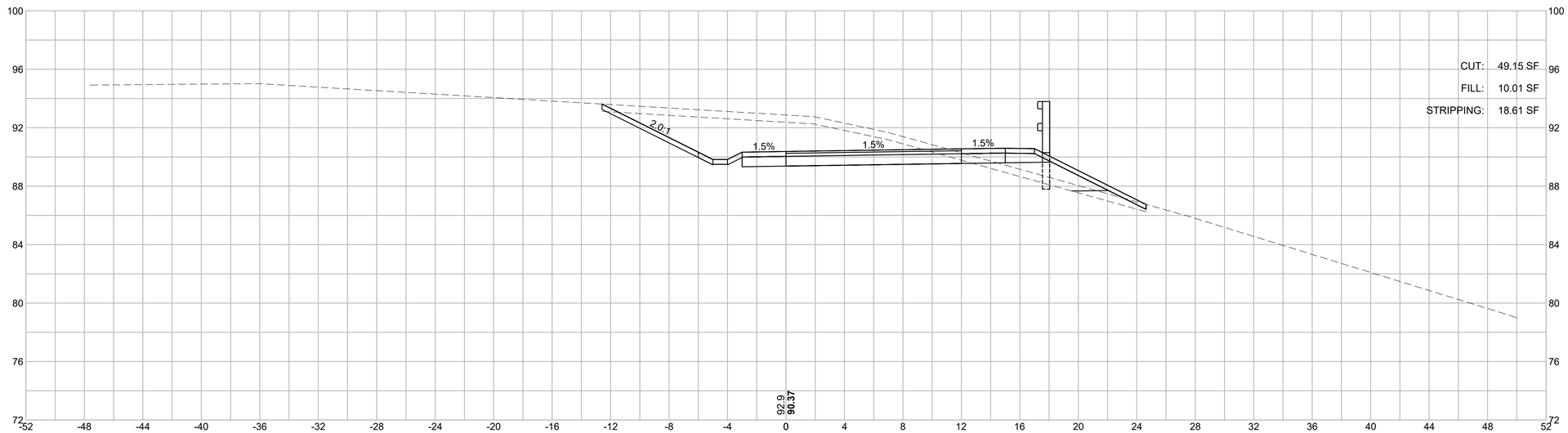
WEST CROSS SECTIONS

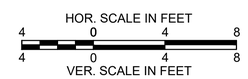
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

91+50



91+00



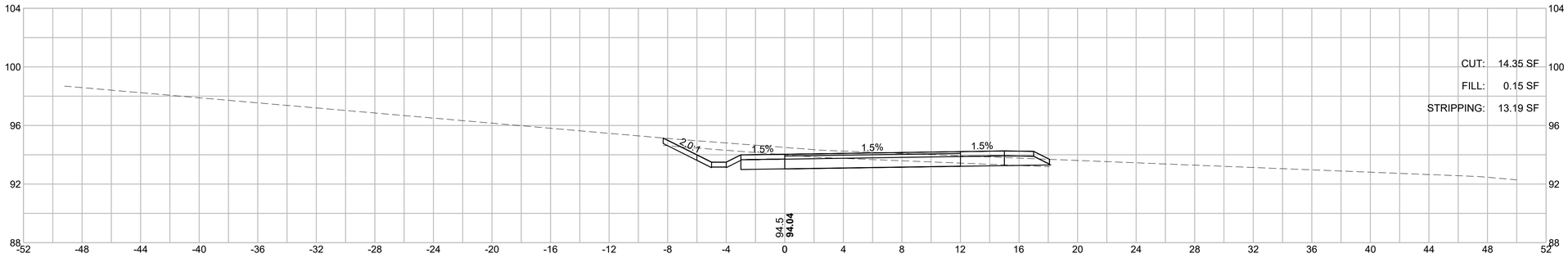


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

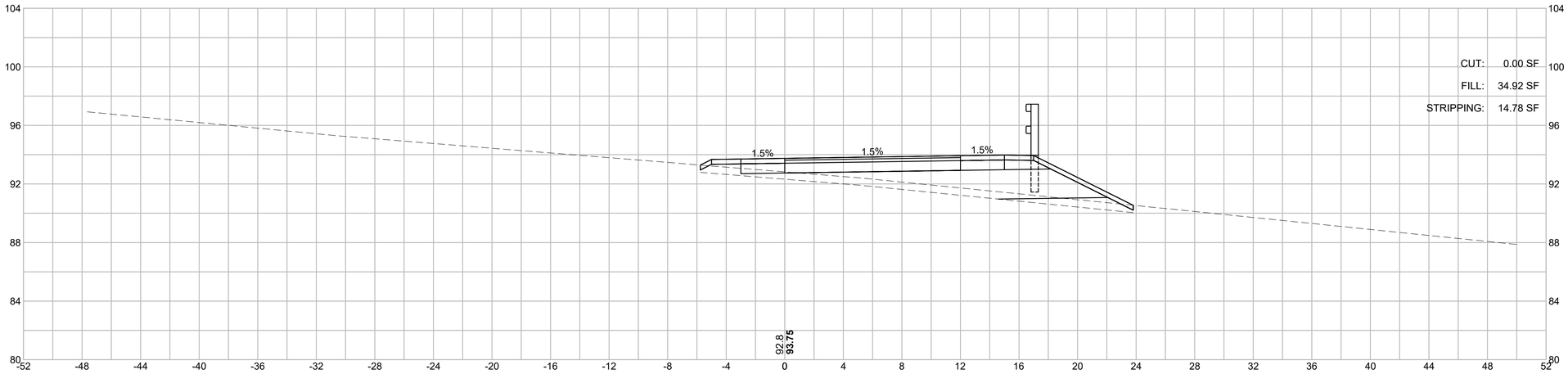
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	157	277
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

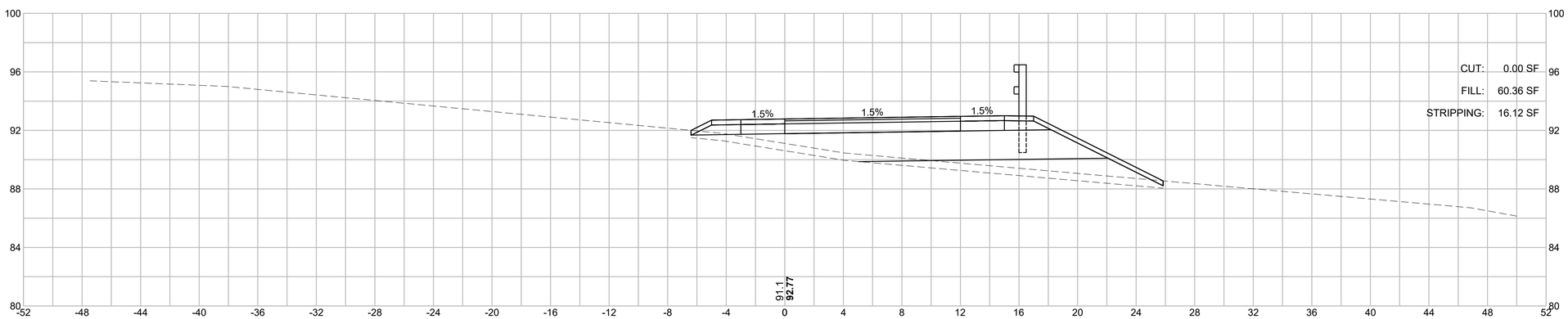
93+00

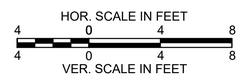


92+50



92+00





607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

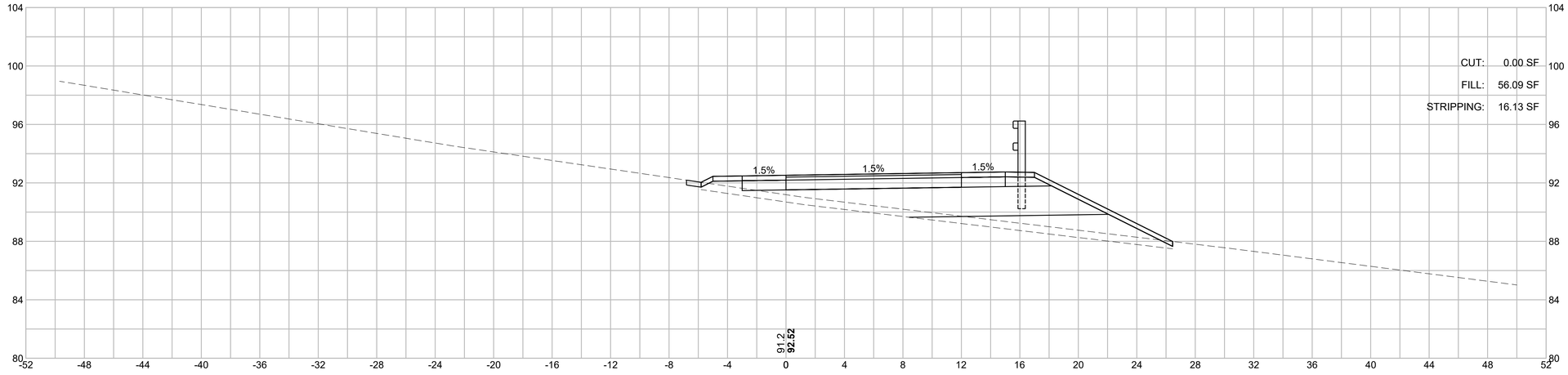
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	158	277
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

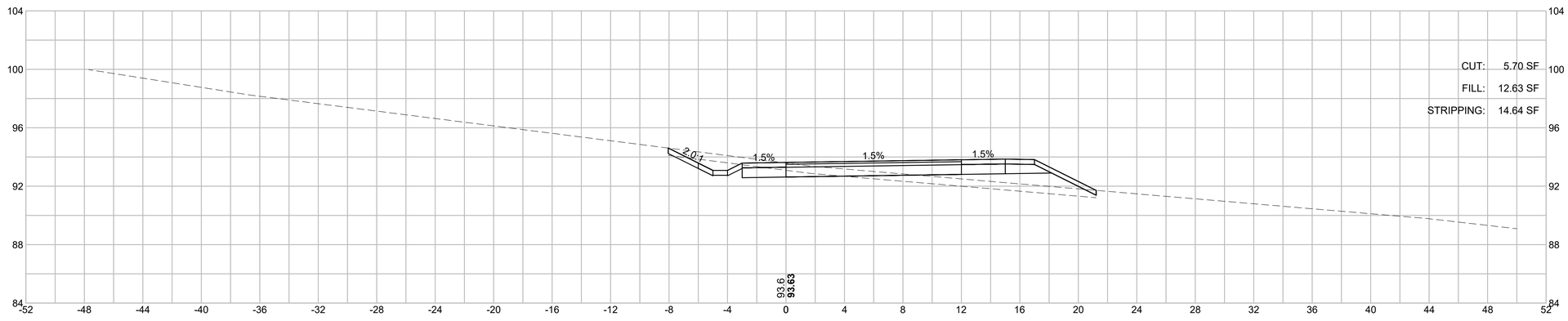
607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

94+00



CUT: 0.00 SF
FILL: 56.09 SF
STRIPPING: 16.13 SF

93+50



CUT: 5.70 SF
FILL: 12.63 SF
STRIPPING: 14.64 SF

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

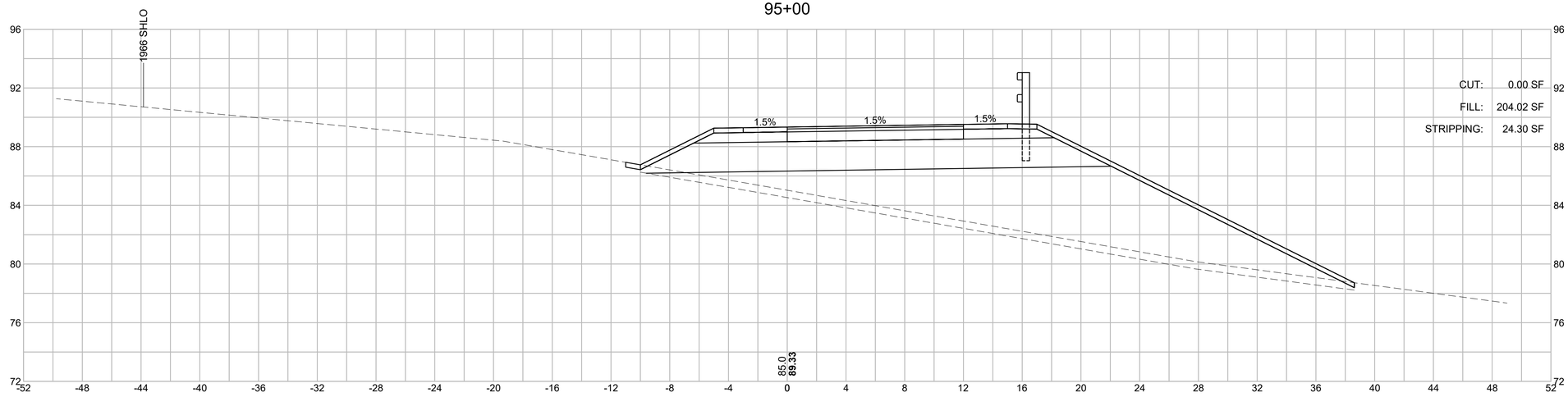
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	159	277
PROJECT FILE NO. 607398			

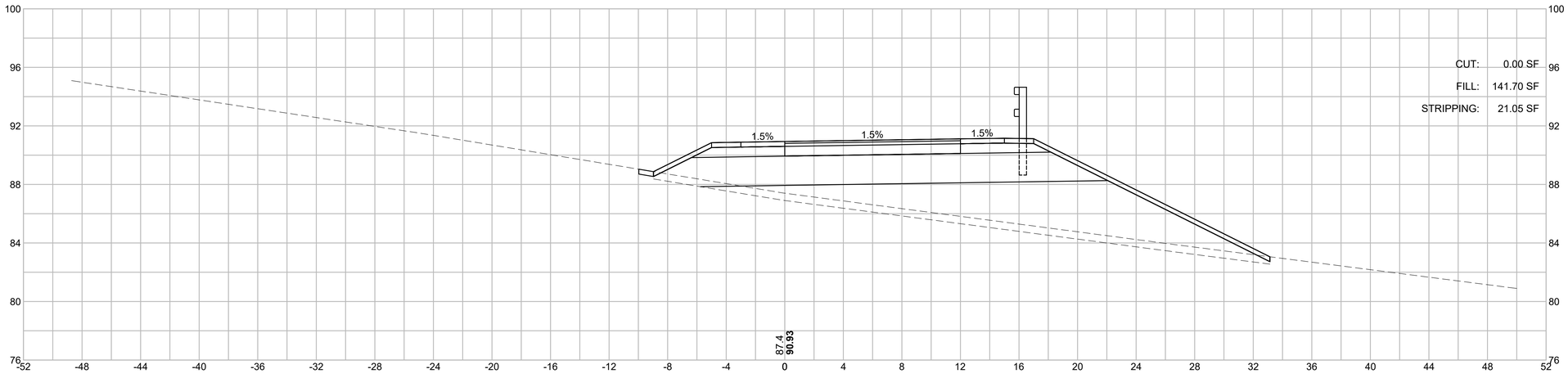
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

95+00



94+50



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

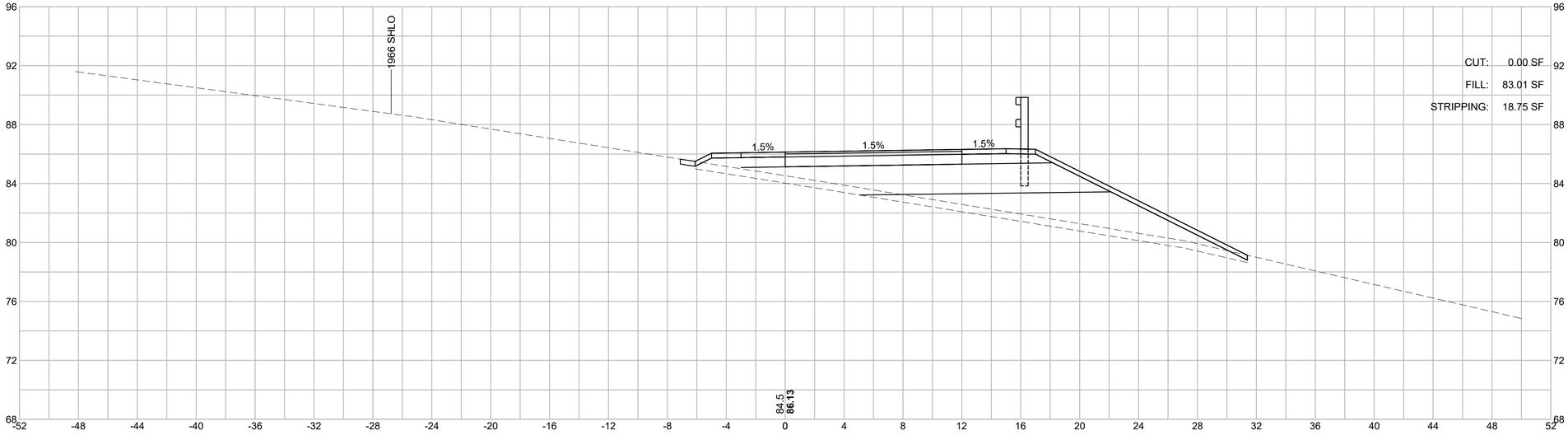
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	160	277
PROJECT FILE NO. 607398			

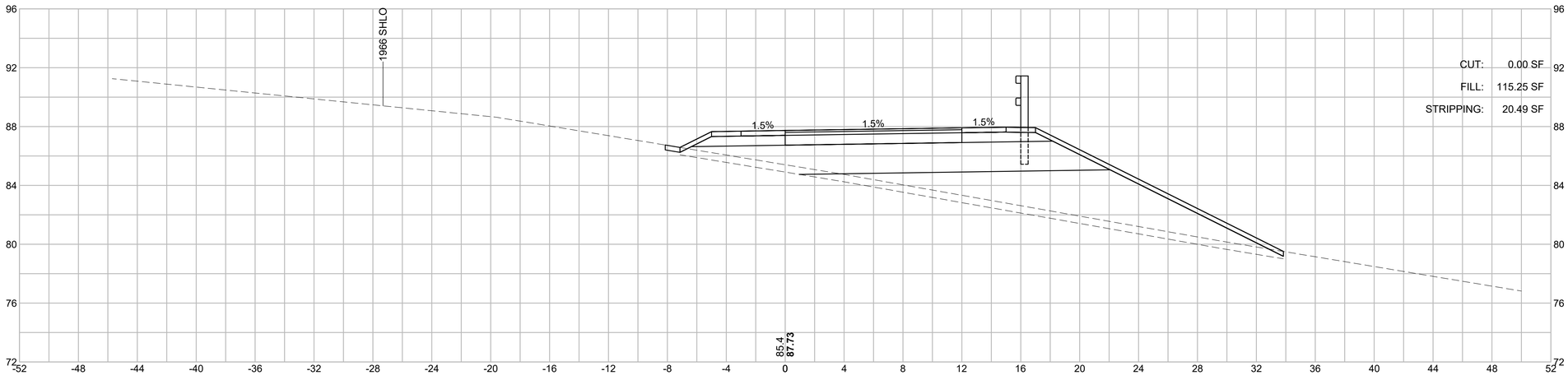
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-2).DWG Plotted on 14-Feb-2024 10:57 AM

96+00



95+50



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

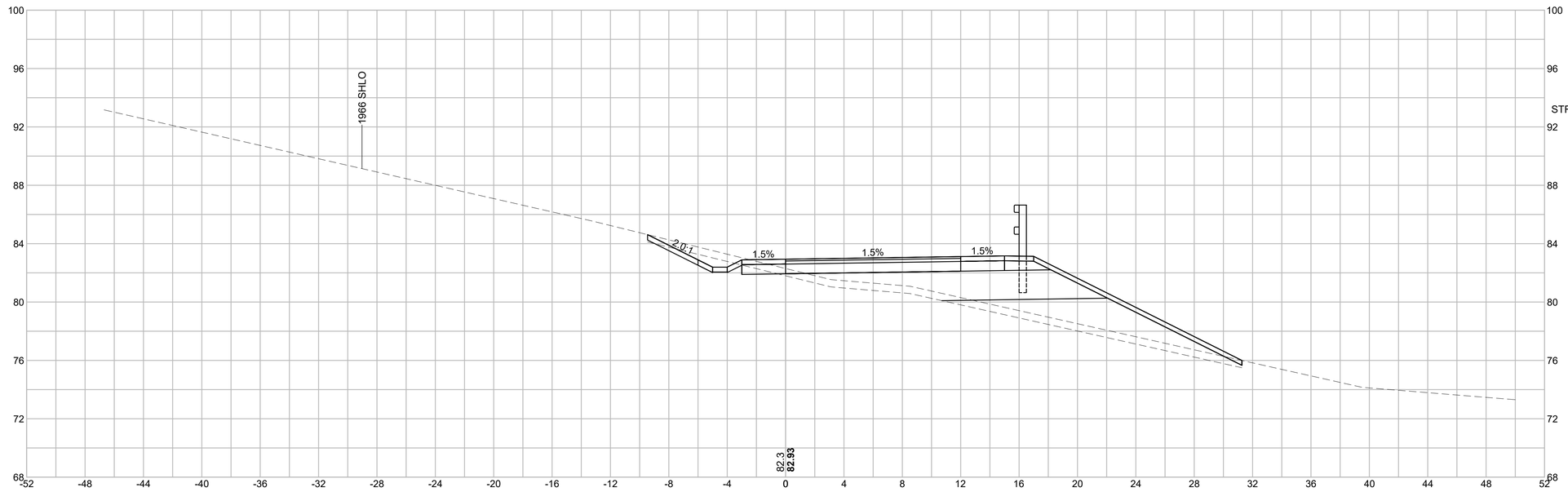
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	161	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

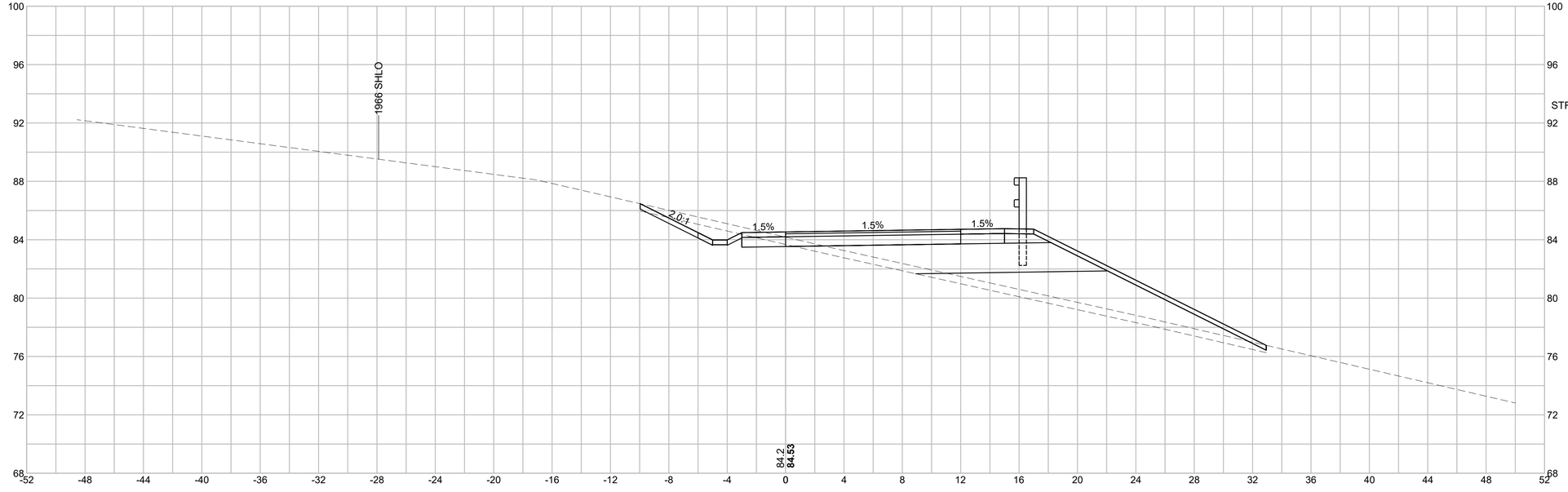
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

97+00



CUT: 4.00 SF
FILL: 59.59 SF
STRIPPING: 20.36 SF

96+50



CUT: 5.95 SF
FILL: 69.01 SF
STRIPPING: 21.45 SF

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

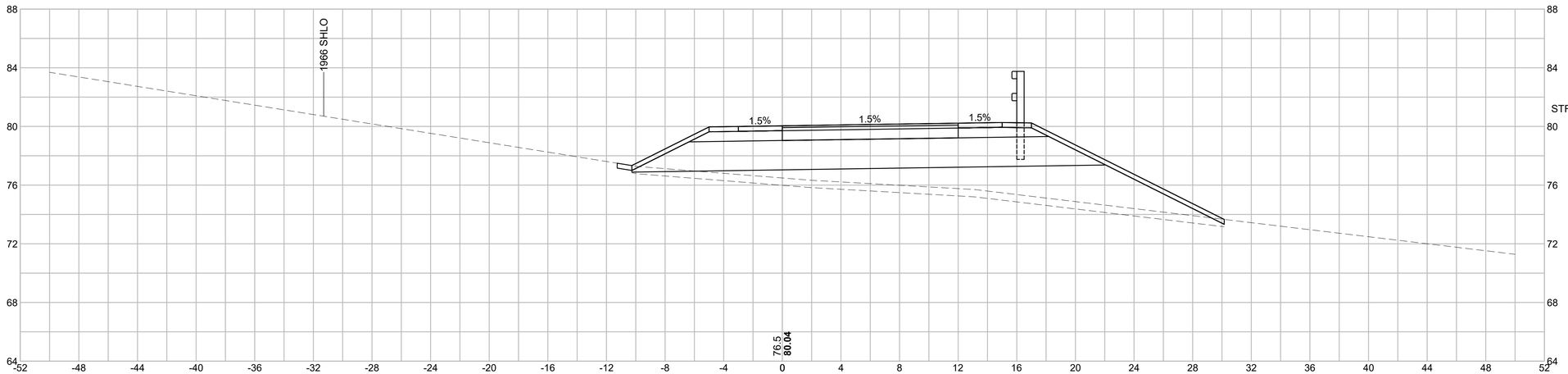
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	162	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

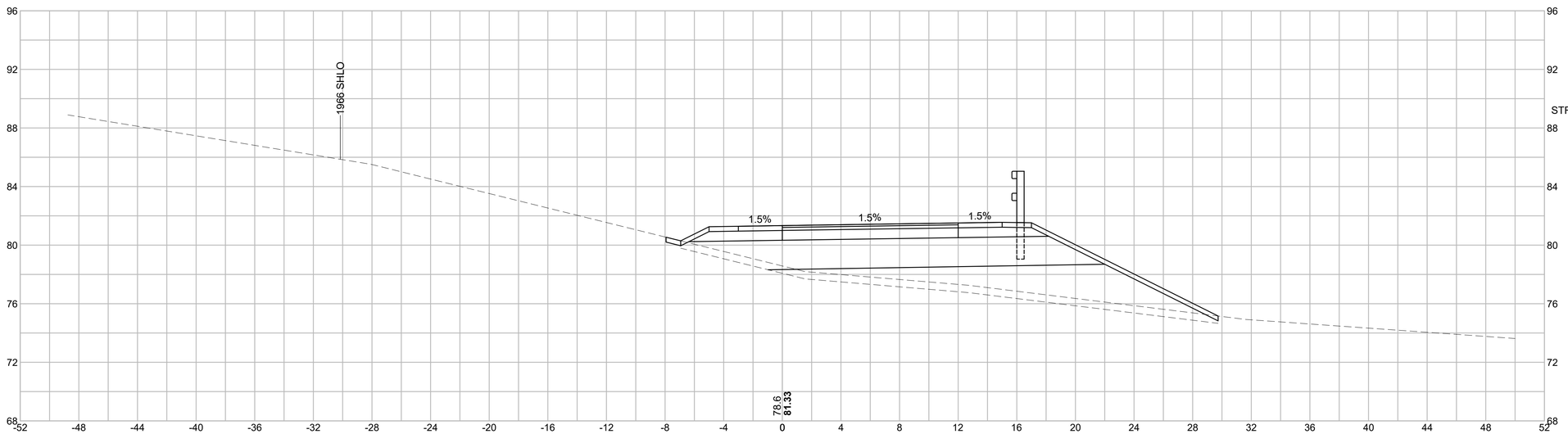
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

98+00



CUT: 0.00 SF
FILL: 120.91 SF
STRIPPING: 20.21 SF

97+50



CUT: 0.00 SF
FILL: 98.67 SF
STRIPPING: 18.33 SF

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

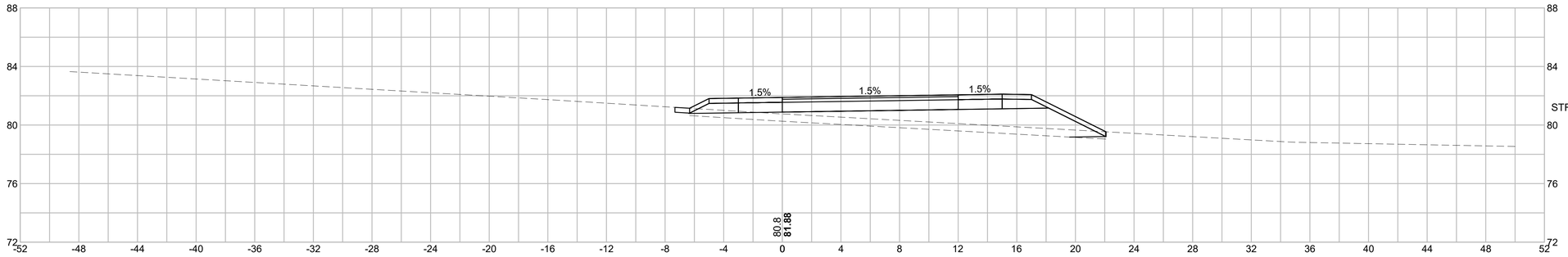
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	163	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

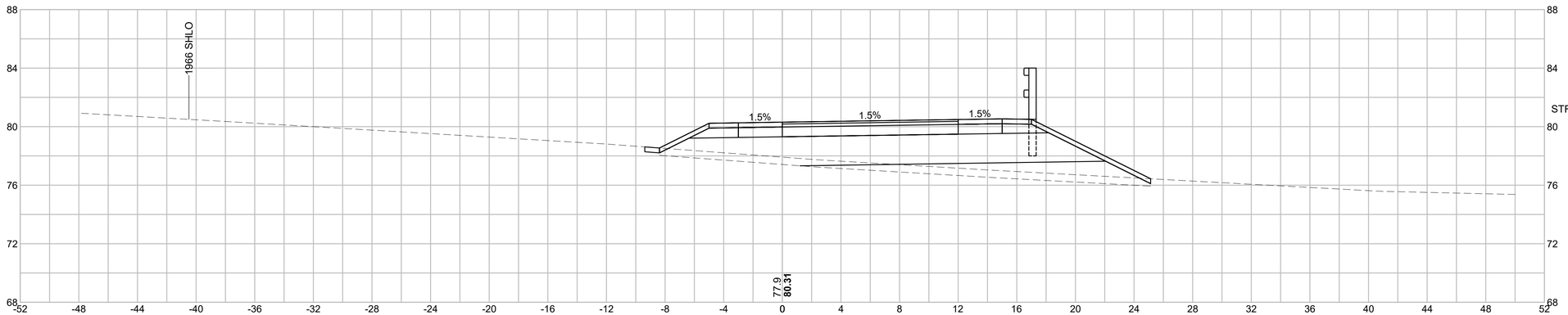
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

99+50



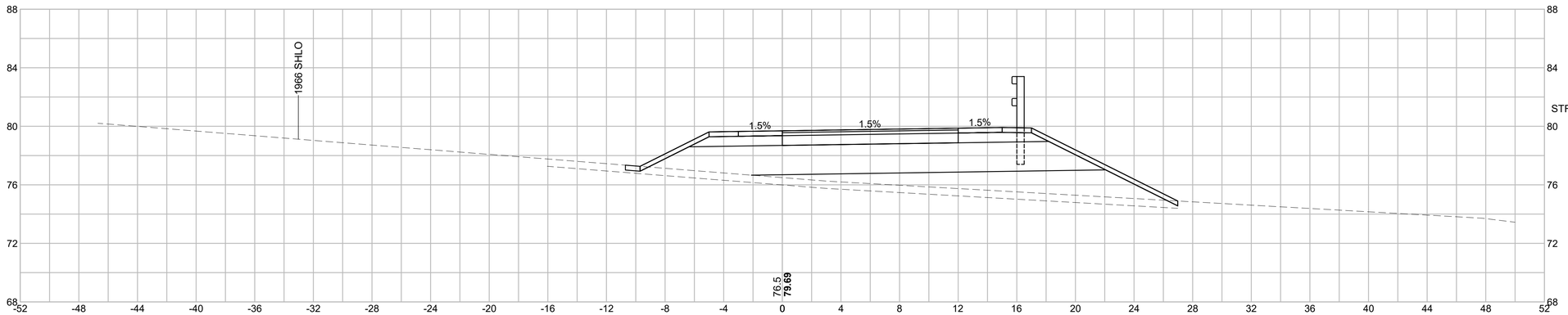
CUT: 0.00 SF
FILL: 29.40 SF
STRIPPING: 14.20 SF

99+00



CUT: 0.00 SF
FILL: 70.97 SF
STRIPPING: 16.76 SF

98+50



CUT: 0.00 SF
FILL: 99.76 SF
STRIPPING: 21.51 SF

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

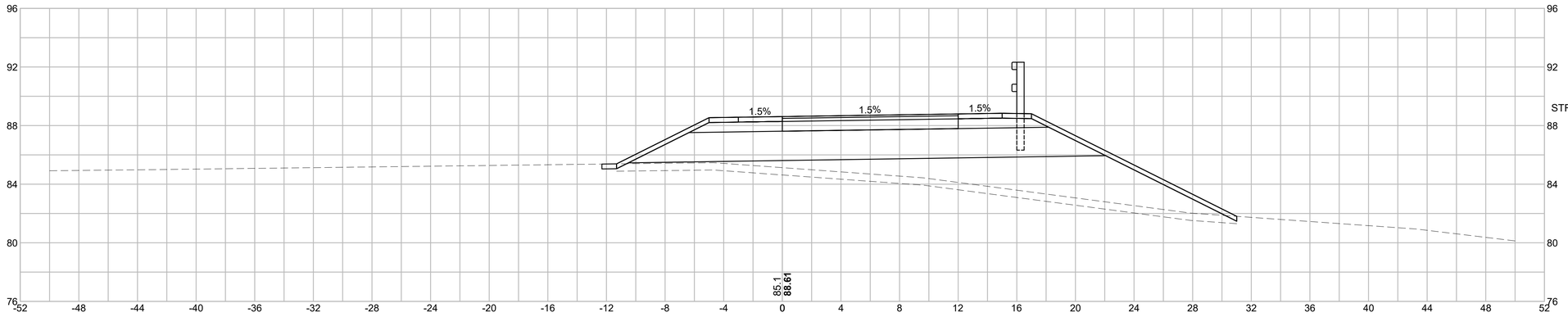
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	164	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

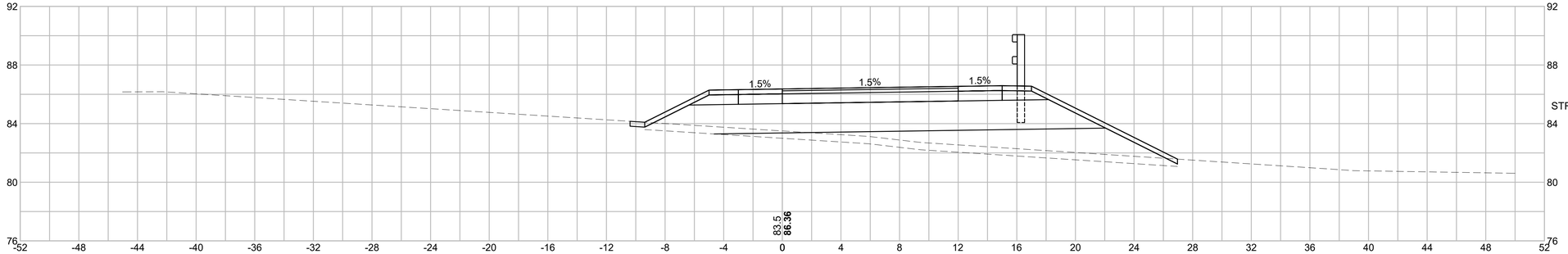
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

101+00



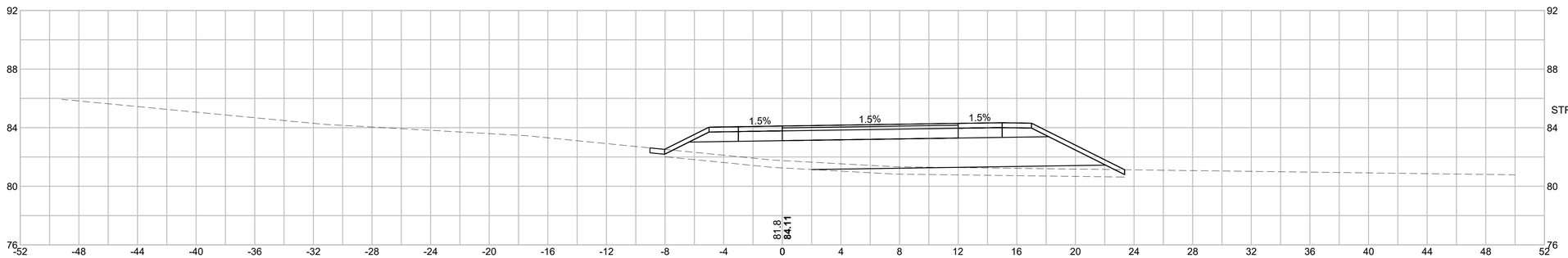
CUT: 0.00 SF
FILL: 129.64 SF
STRIPPING: 21.16 SF

100+50



CUT: 0.00 SF
FILL: 92.72 SF
STRIPPING: 18.17 SF

100+00



CUT: 0.00 SF
FILL: 61.21 SF
STRIPPING: 15.69 SF

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

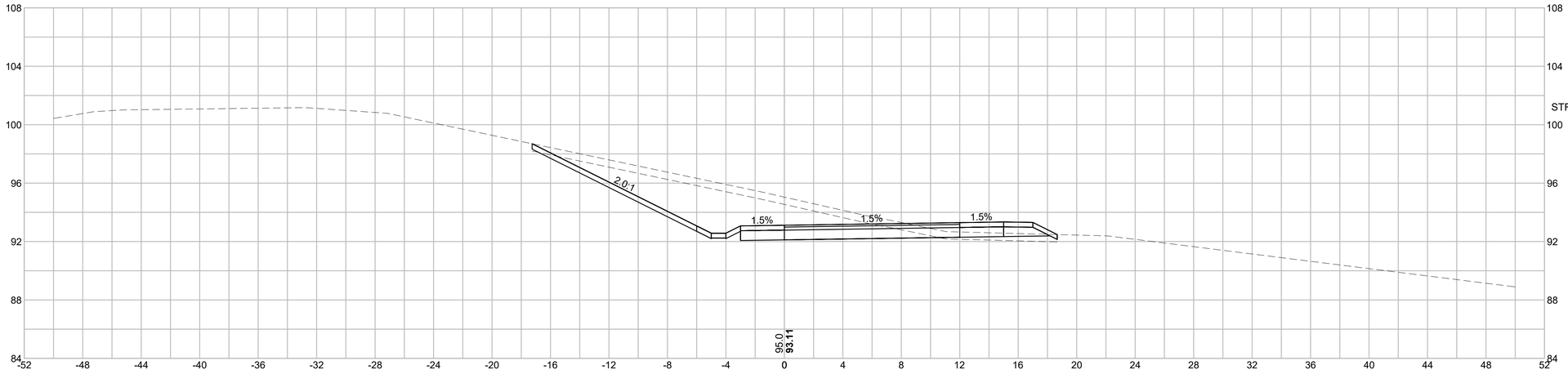
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	165	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

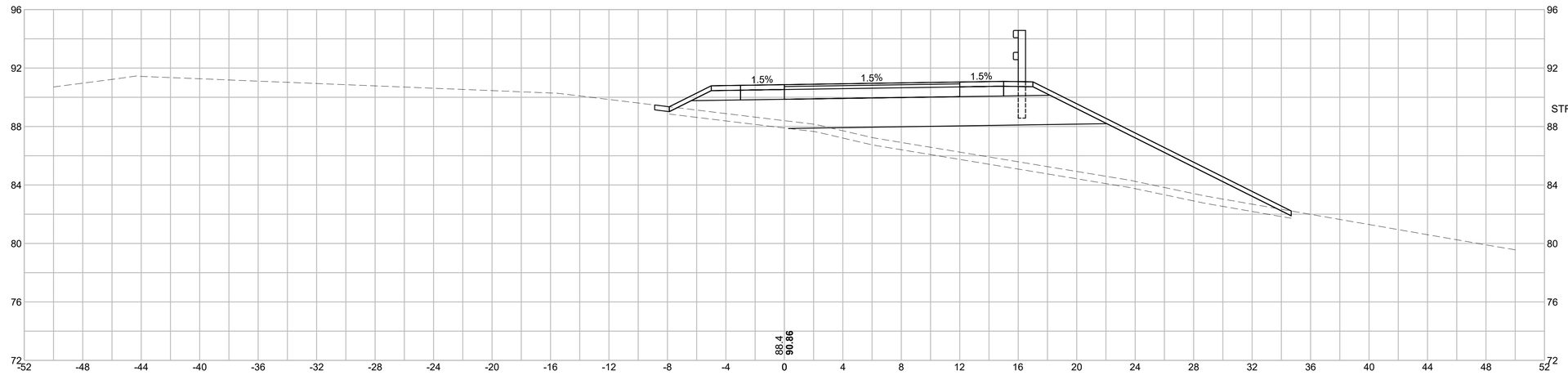
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

102+00



CUT: 47.19 SF
FILL: 1.96 SF
STRIPPING: 17.96 SF

101+50



CUT: 0.00 SF
FILL: 123.99 SF
STRIPPING: 21.27 SF

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

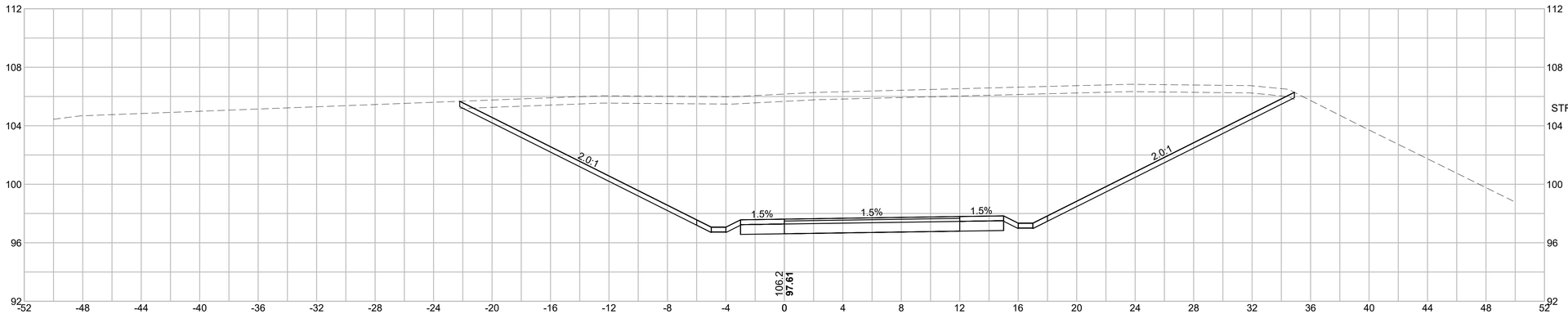
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	166	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

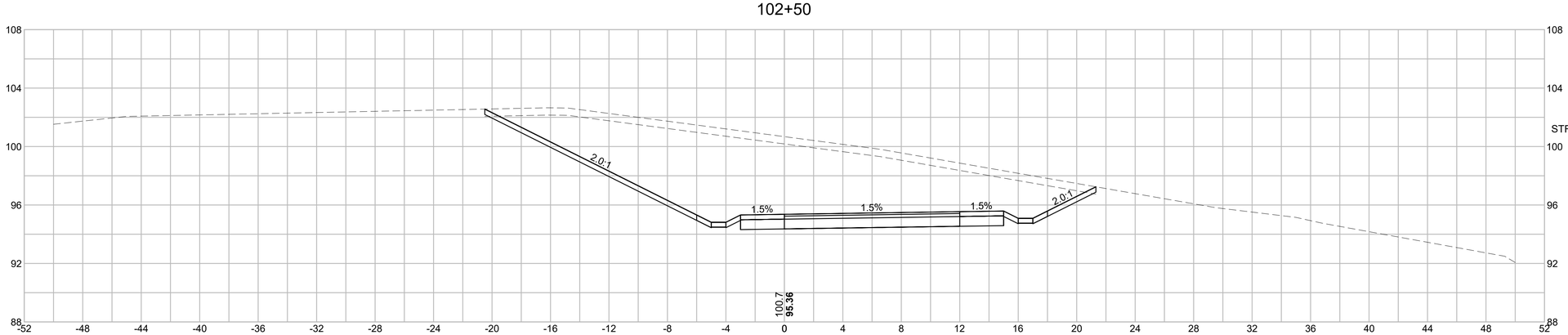
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

103+00



CUT: 362.20 SF
FILL: 0.02 SF
STRIPPING: 28.55 SF

102+50



CUT: 163.49 SF
FILL: 0.03 SF
STRIPPING: 20.90 SF

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

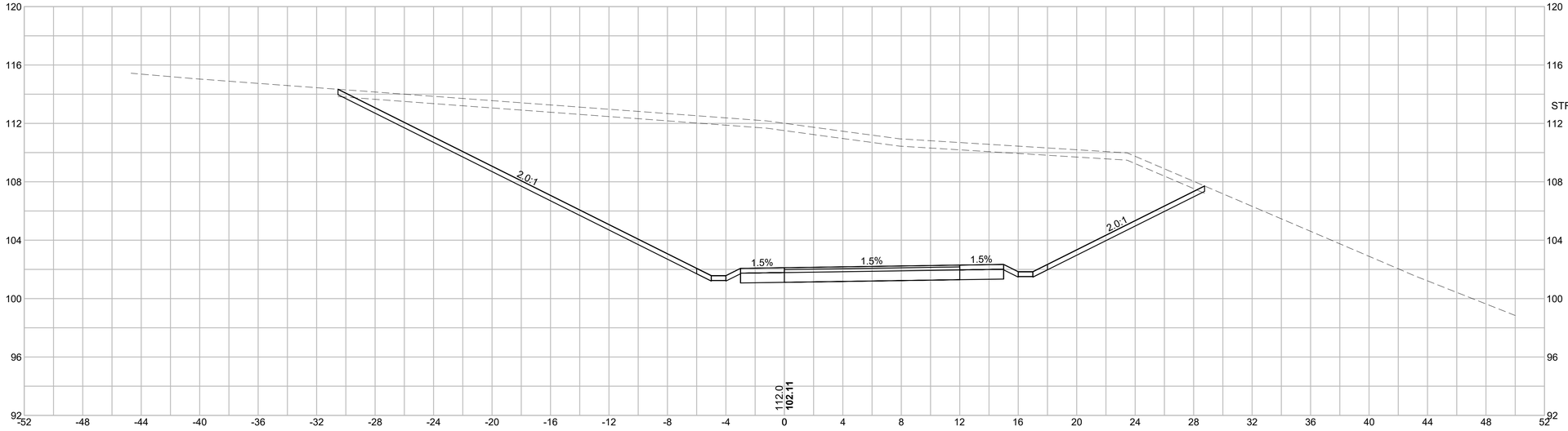
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	167	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

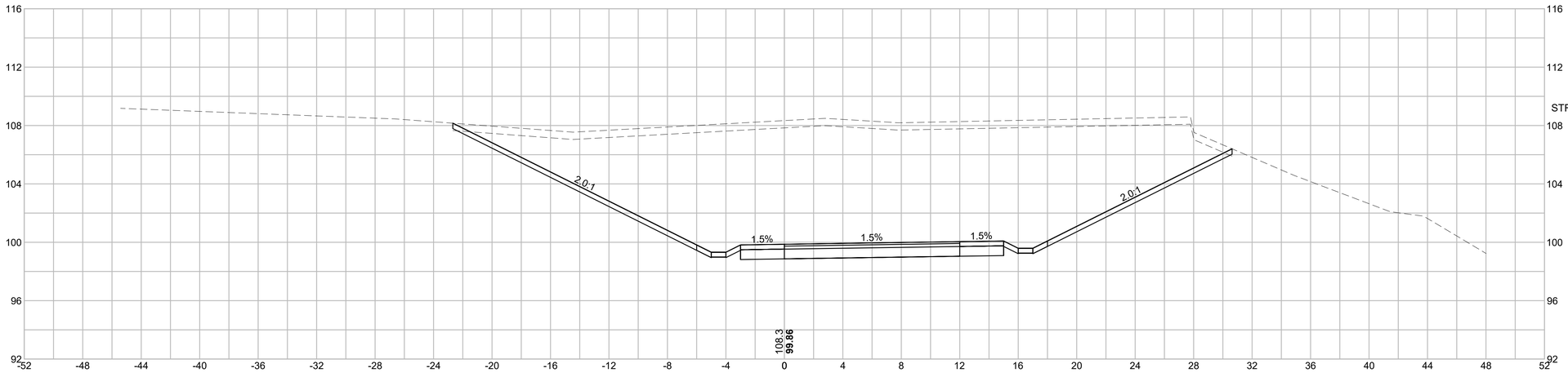
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

104+00



CUT: 400.87 SF
FILL: 0.03 SF
STRIPPING: 29.64 SF

103+50



CUT: 332.27 SF
FILL: 0.03 SF
STRIPPING: 26.66 SF

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

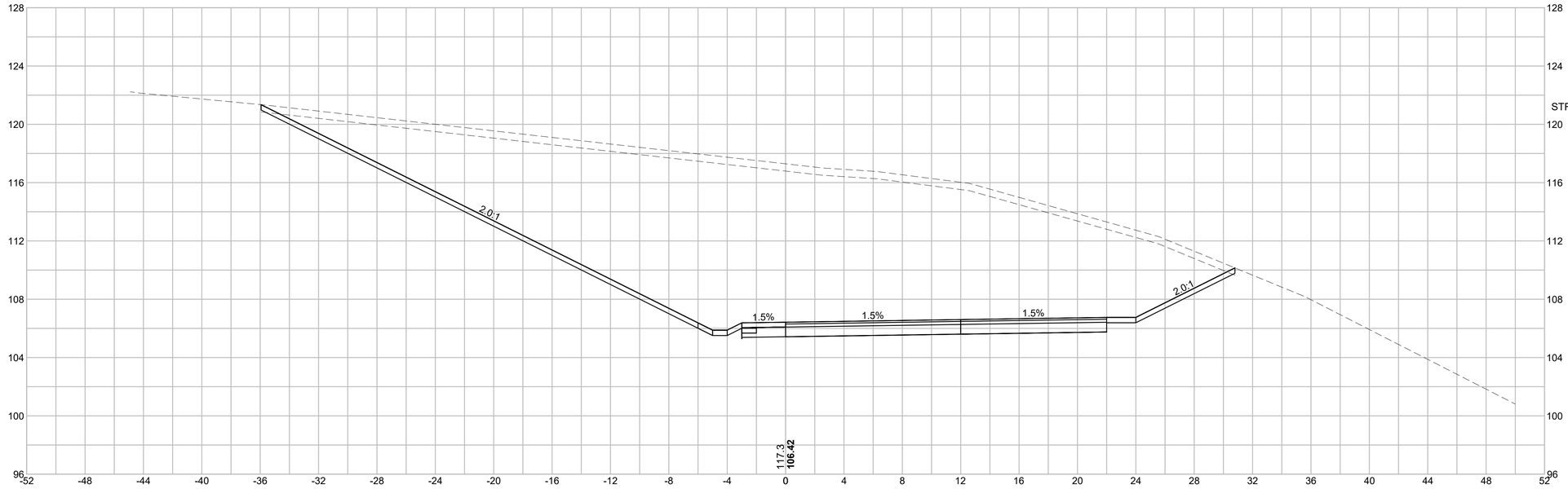
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	168	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

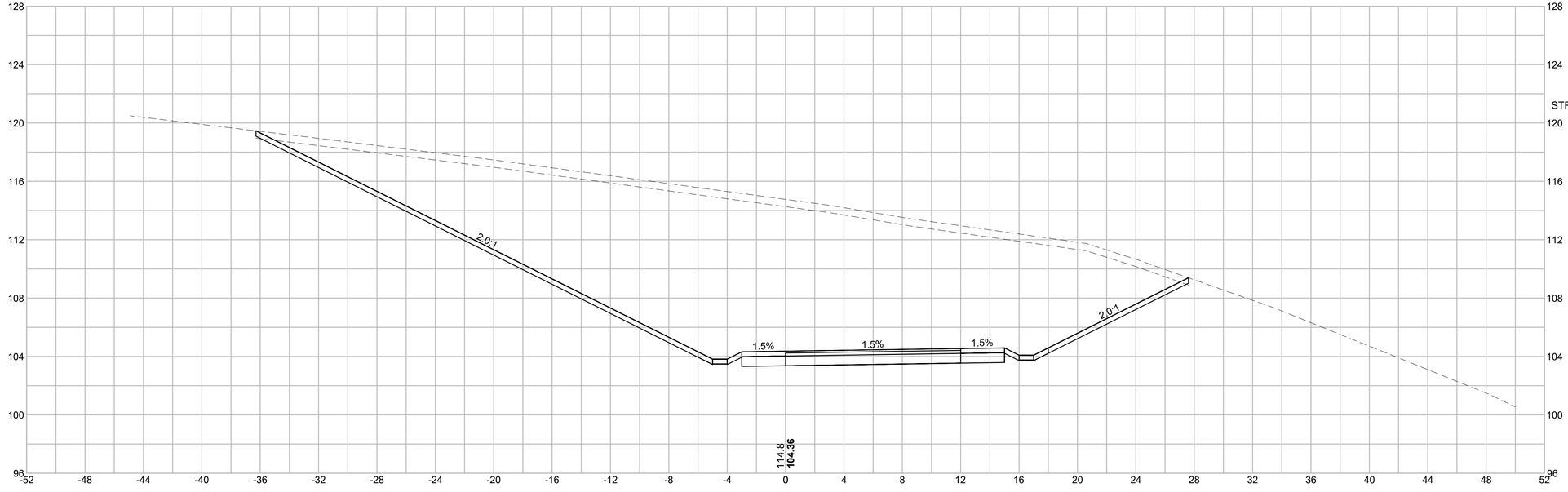
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

105+00



CUT: 483.82 SF
FILL: 0.03 SF
STRIPPING: 33.36 SF

104+50



CUT: 440.74 SF
FILL: 0.03 SF
STRIPPING: 31.95 SF

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

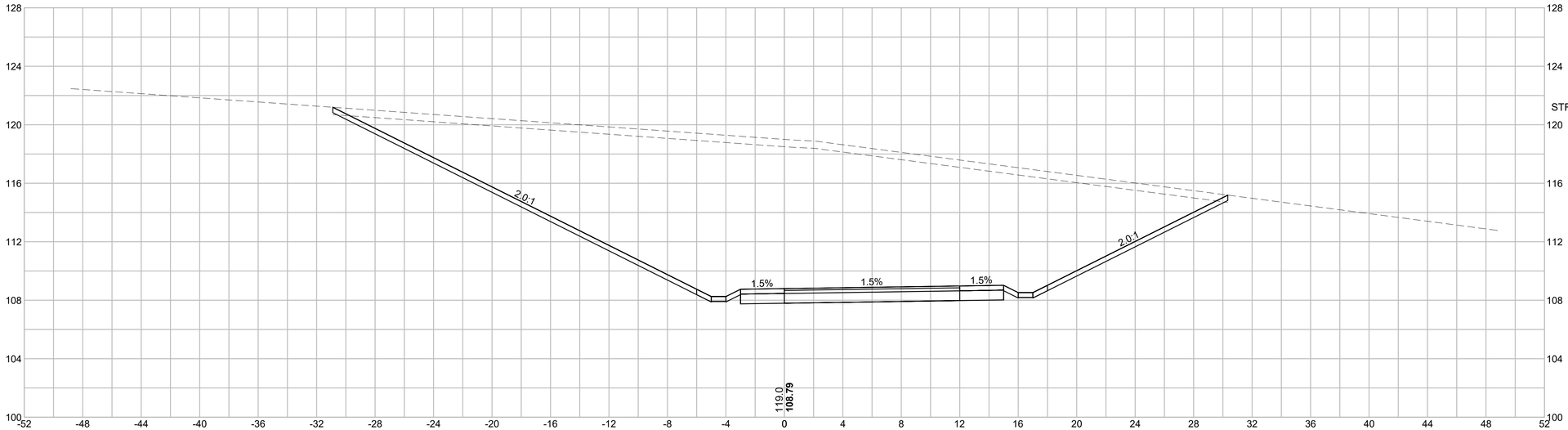
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	169	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

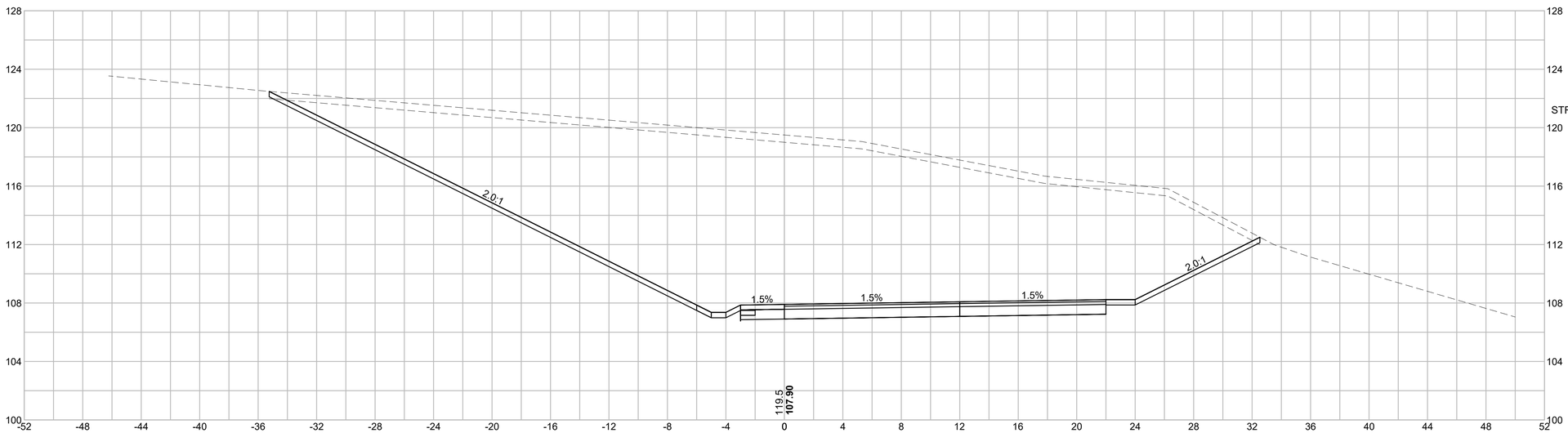
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

106+00



CUT: 411.67 SF
FILL: 0.03 SF
STRIPPING: 30.61 SF

105+50



CUT: 525.09 SF
FILL: 0.03 SF
STRIPPING: 33.89 SF

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

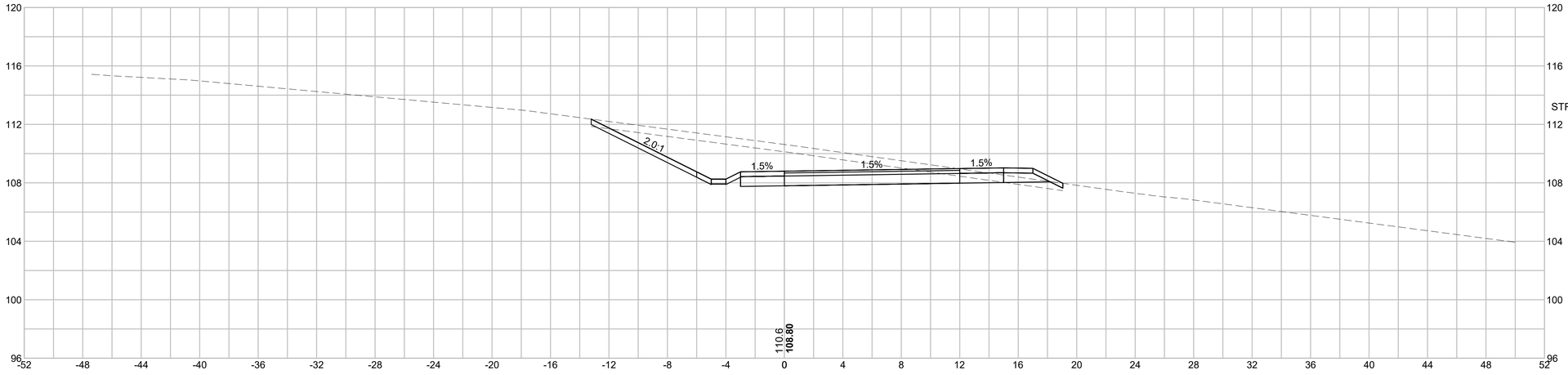
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	170	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

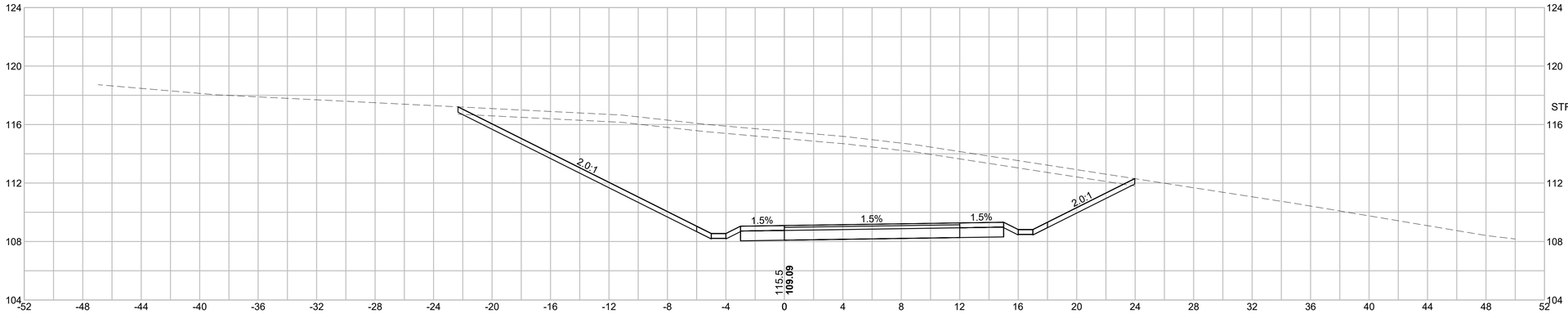
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

107+00



CUT: 41.86 SF
FILL: 1.05 SF
STRIPPING: 16.13 SF

106+50



CUT: 213.87 SF
FILL: 0.03 SF
STRIPPING: 23.15 SF

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

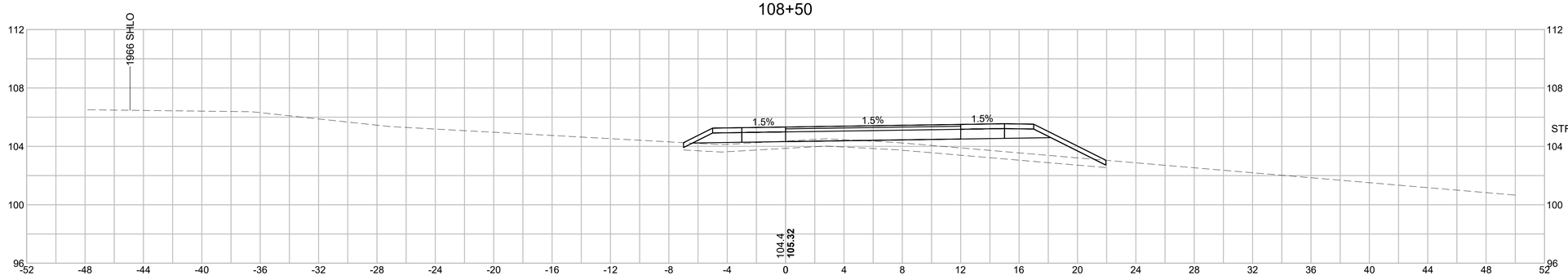
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	171	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

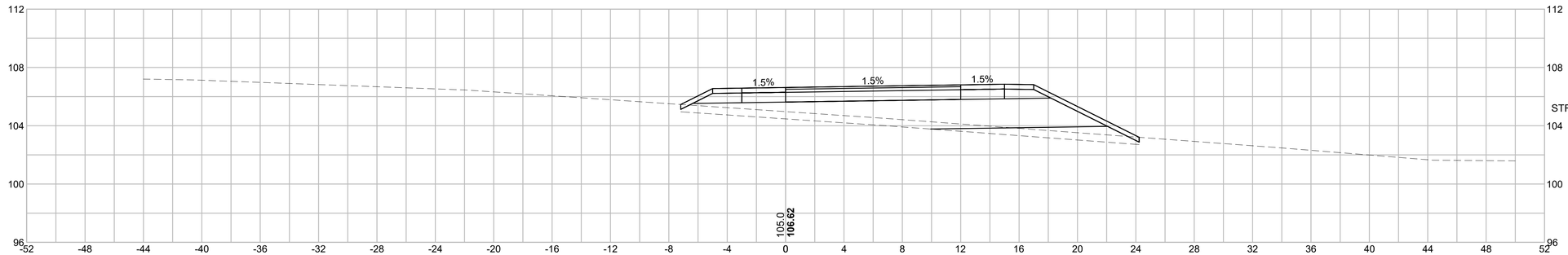
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108+50



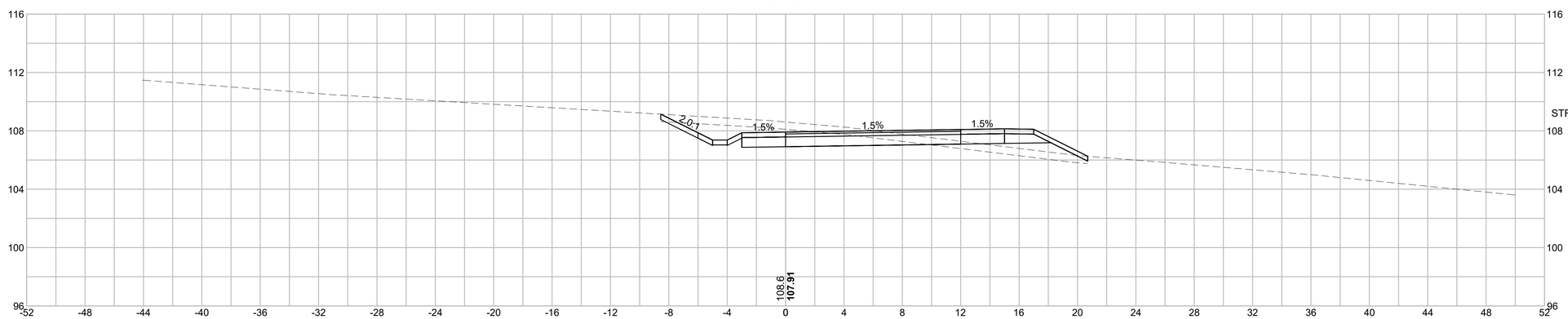
CUT: 0.00 SF
FILL: 23.61 SF
STRIPPING: 14.47 SF

108+00



CUT: 0.00 SF
FILL: 49.91 SF
STRIPPING: 15.70 SF

107+50



CUT: 15.04 SF
FILL: 6.58 SF
STRIPPING: 14.63 SF

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

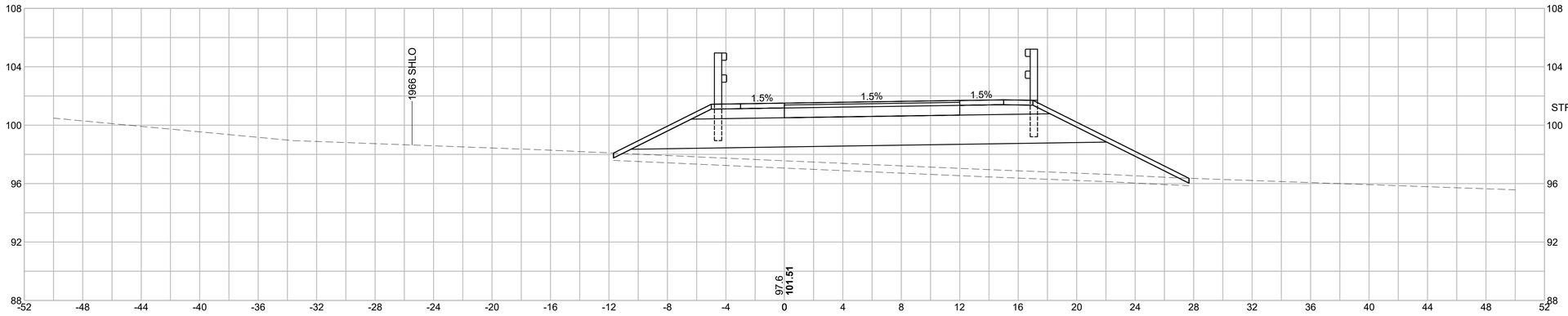
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	172	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

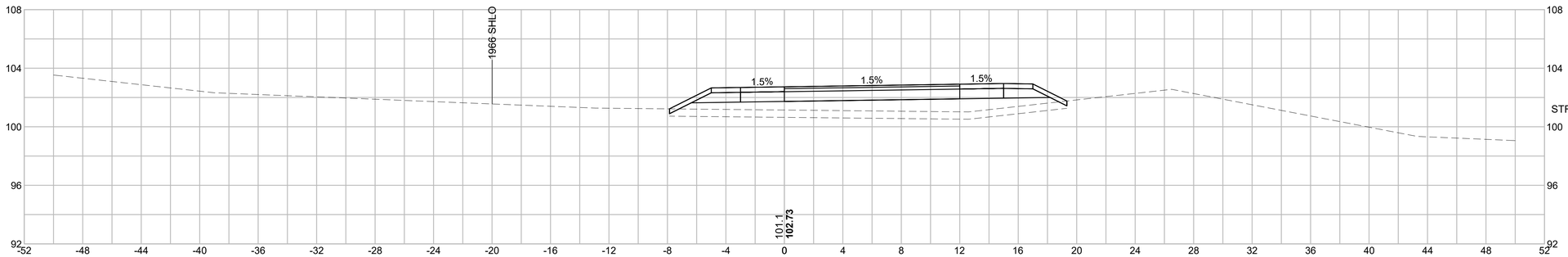
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110+00



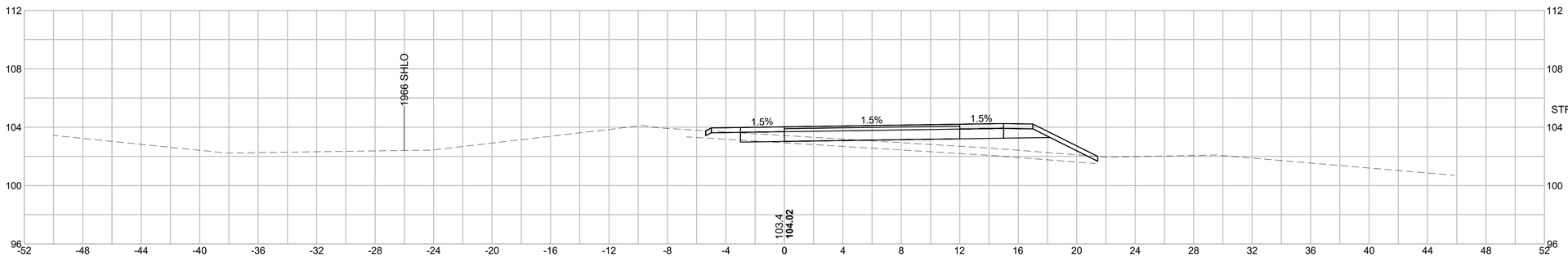
CUT: 0.00 SF
FILL: 123.68 SF
STRIPPING: 19.68 SF

109+50



CUT: 0.00 SF
FILL: 29.83 SF
STRIPPING: 13.59 SF

109+00



CUT: 0.12 SF
FILL: 18.25 SF
STRIPPING: 13.99 SF

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

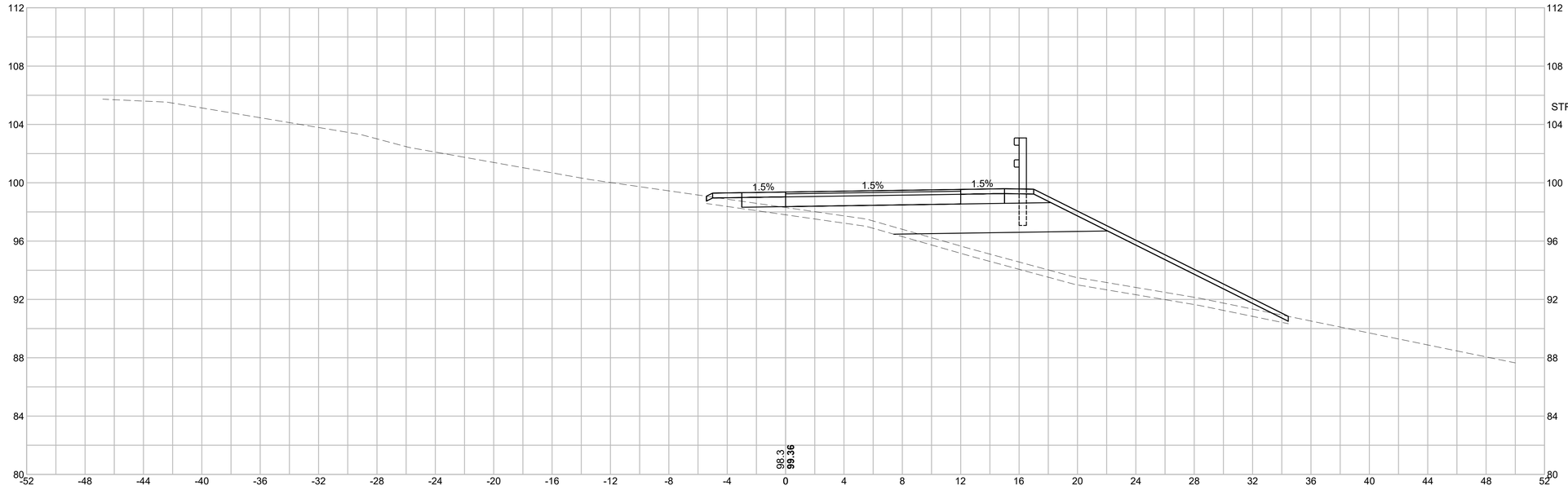
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	173	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

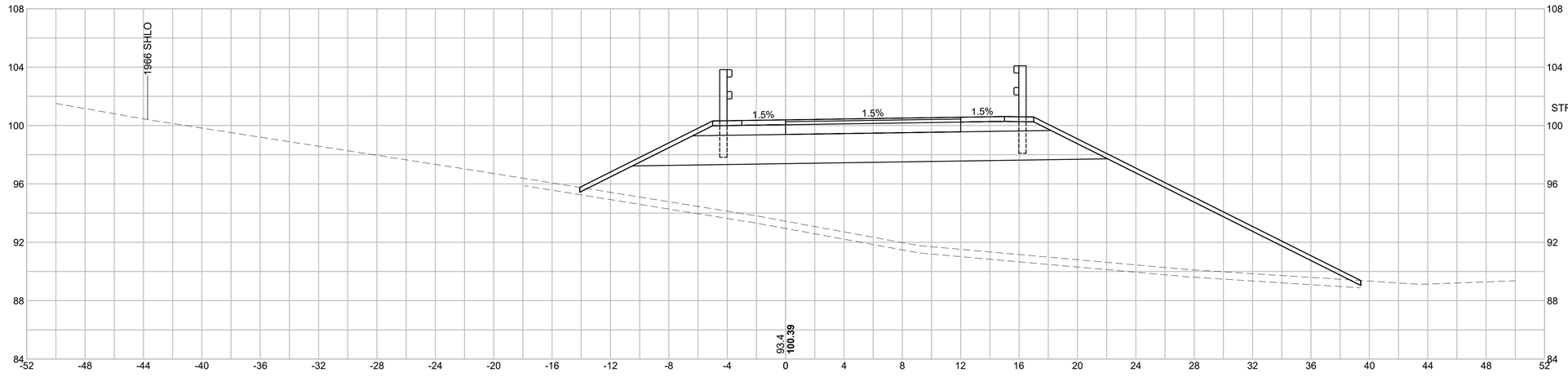
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

111+00



CUT: 0.00 SF
FILL: 93.28 SF
STRIPPING: 19.94 SF

110+50



CUT: 0.00 SF
FILL: 305.07 SF
STRIPPING: 28.65 SF

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

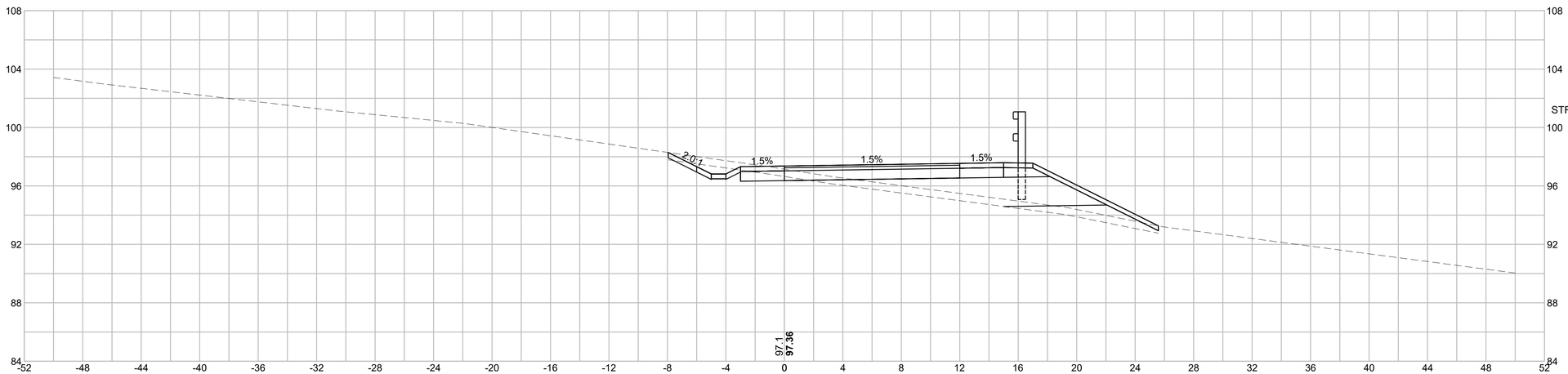
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	174	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

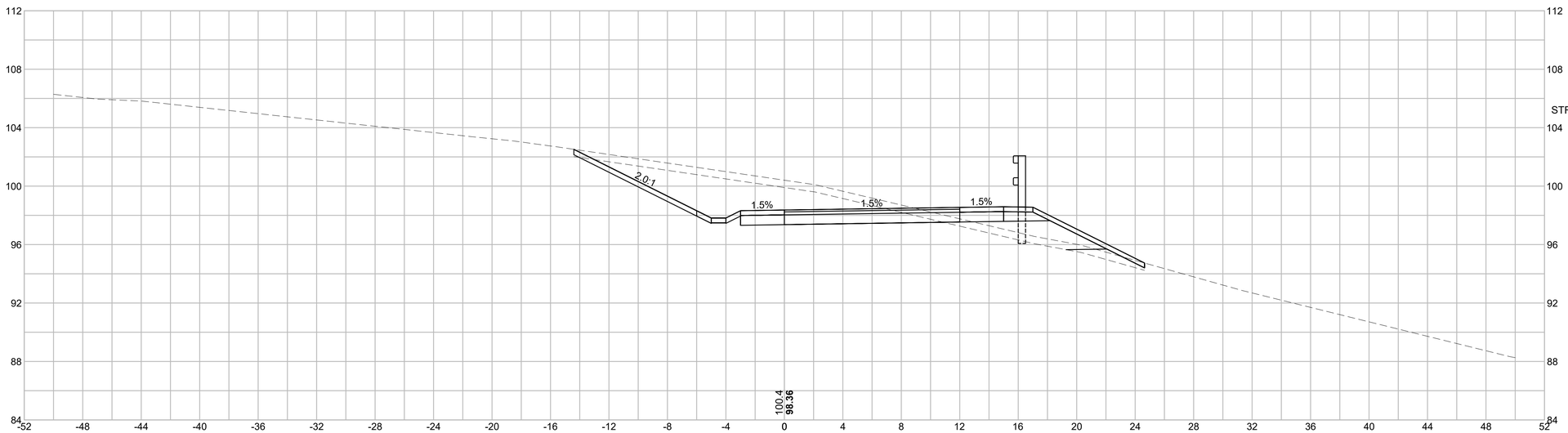
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:57 PM

112+00



CUT: 4.29 SF
FILL: 30.11 SF
STRIPPING: 16.76 SF

111+50



CUT: 43.21 SF
FILL: 12.52 SF
STRIPPING: 19.52 SF

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

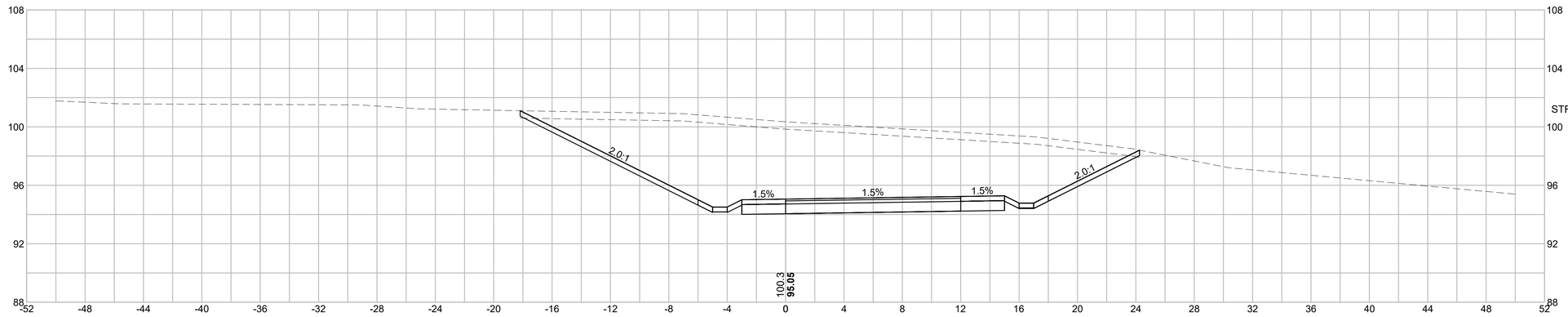
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	175	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

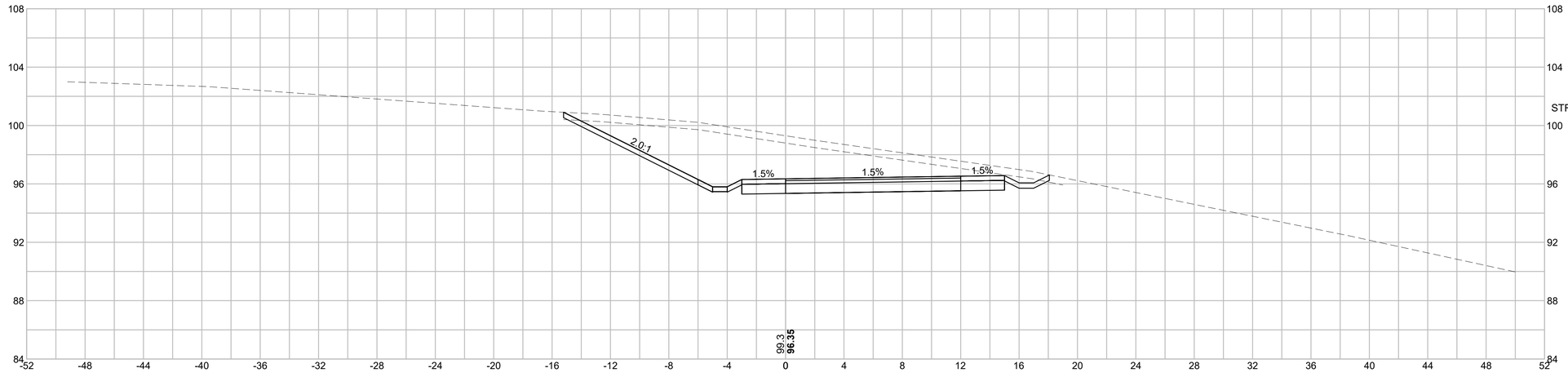
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

113+00



CUT: 172.29 SF
FILL: 0.03 SF
STRIPPING: 21.22 SF

112+50



CUT: 75.54 SF
FILL: 0.03 SF
STRIPPING: 17.11 SF

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

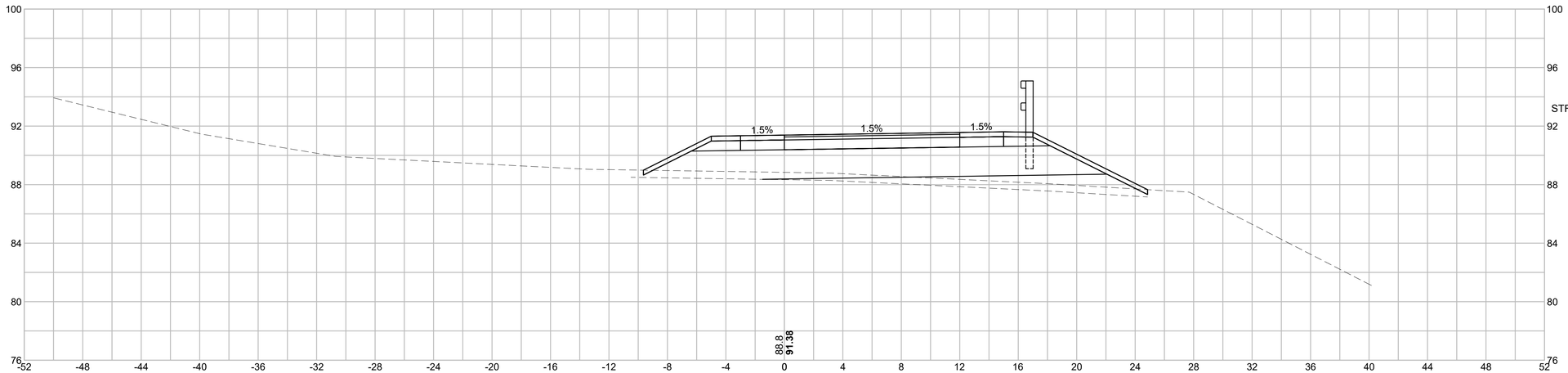
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	176	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

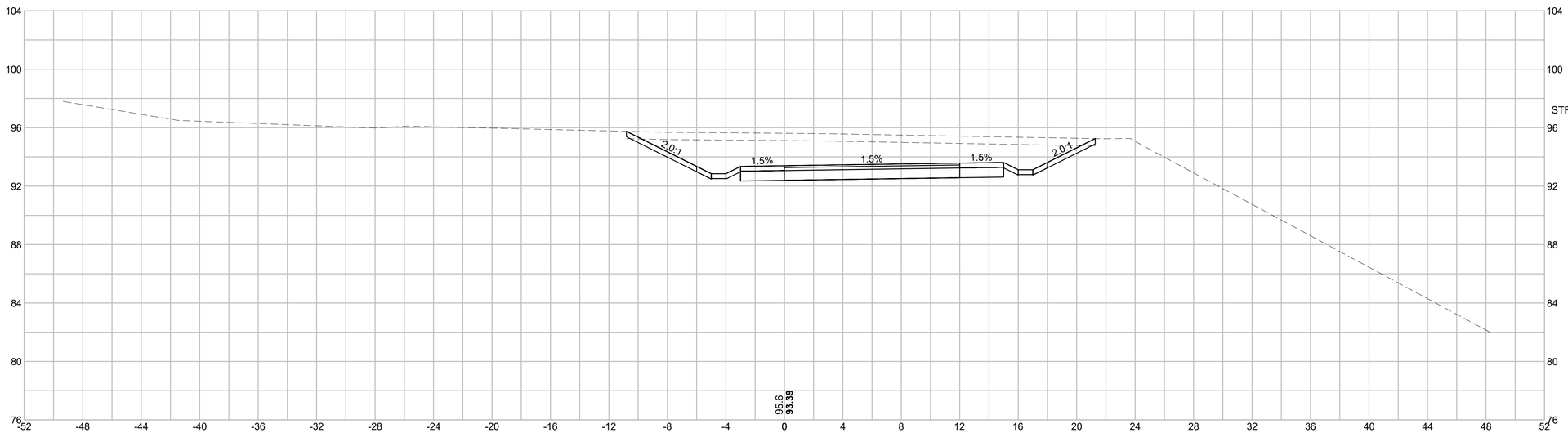
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

114+00



CUT: 0.00 SF
FILL: 72.58 SF
STRIPPING: 17.67 SF

113+50



CUT: 66.19 SF
FILL: 0.03 SF
STRIPPING: 16.03 SF

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

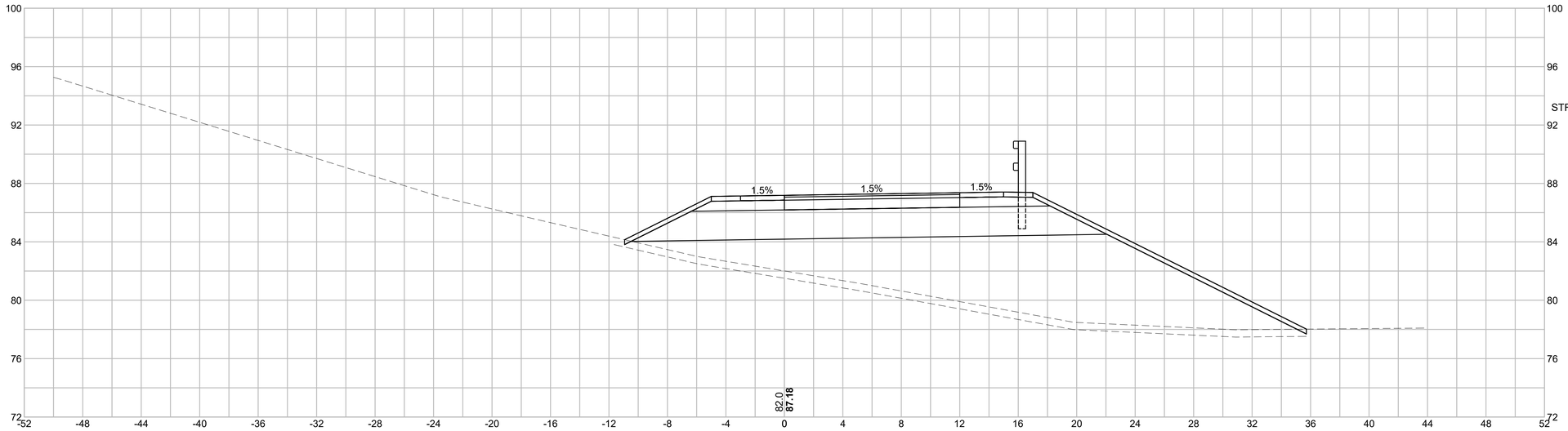
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	177	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

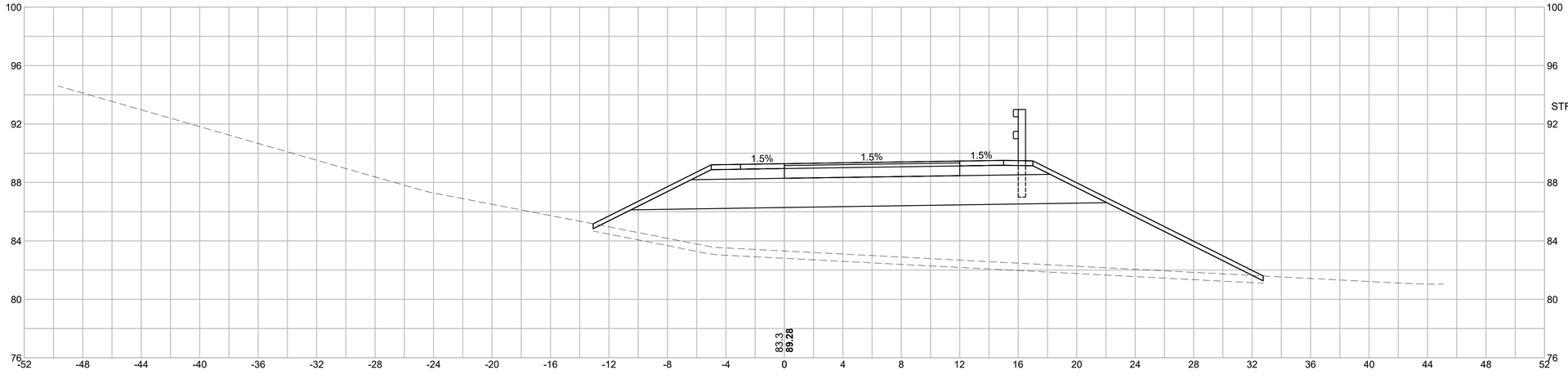
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

115+00



CUT: 0.00 SF
FILL: 227.66 SF
STRIPPING: 23.69 SF

114+50



CUT: 0.00 SF
FILL: 210.78 SF
STRIPPING: 22.92 SF

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

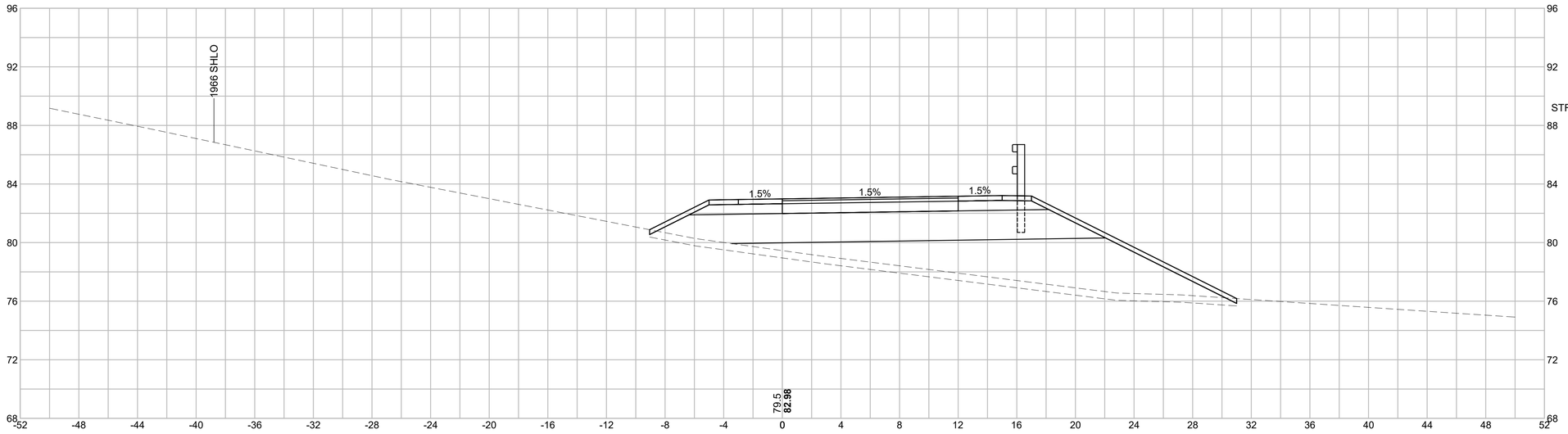
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	178	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

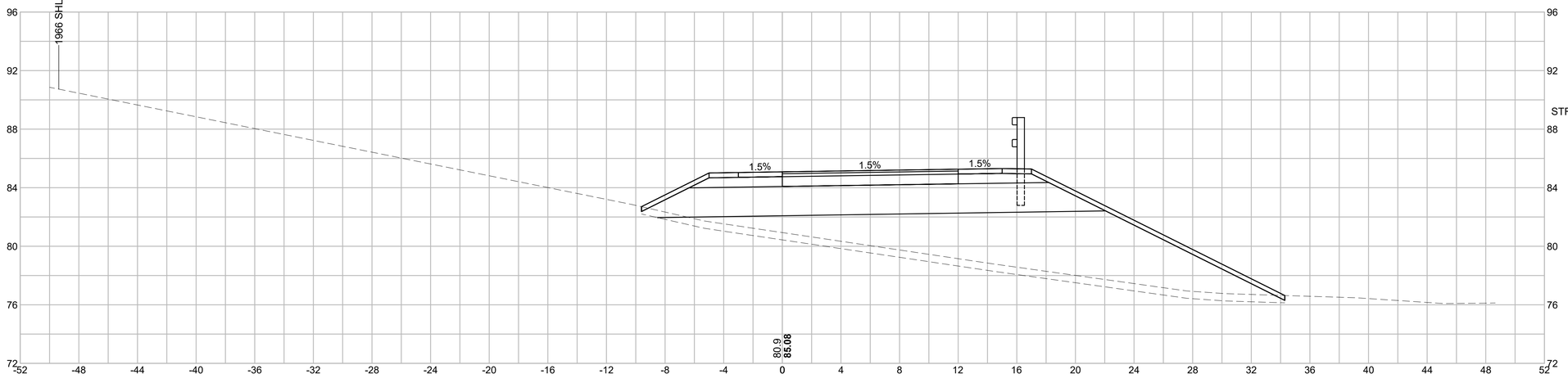
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

116+00



CUT: 0.00 SF
FILL: 136.30 SF
STRIPPING: 20.03 SF

115+50



CUT: 0.00 SF
FILL: 175.12 SF
STRIPPING: 21.95 SF

HOR. SCALE IN FEET
VER. SCALE IN FEET

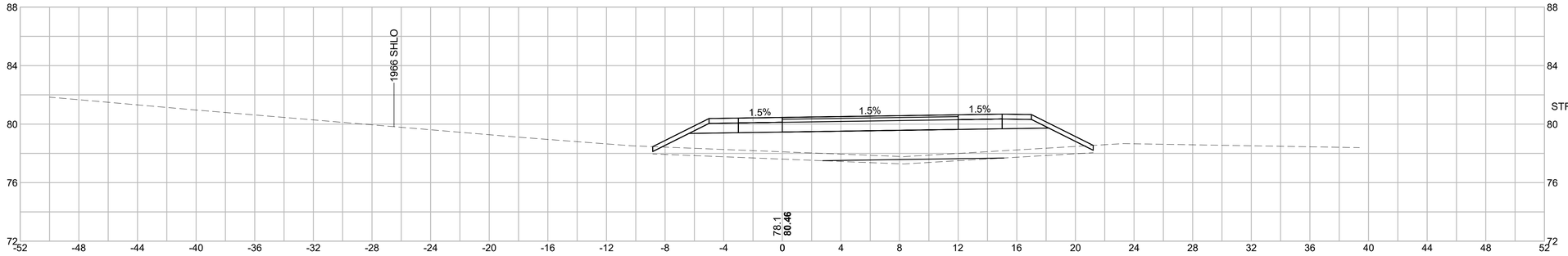
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	179	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

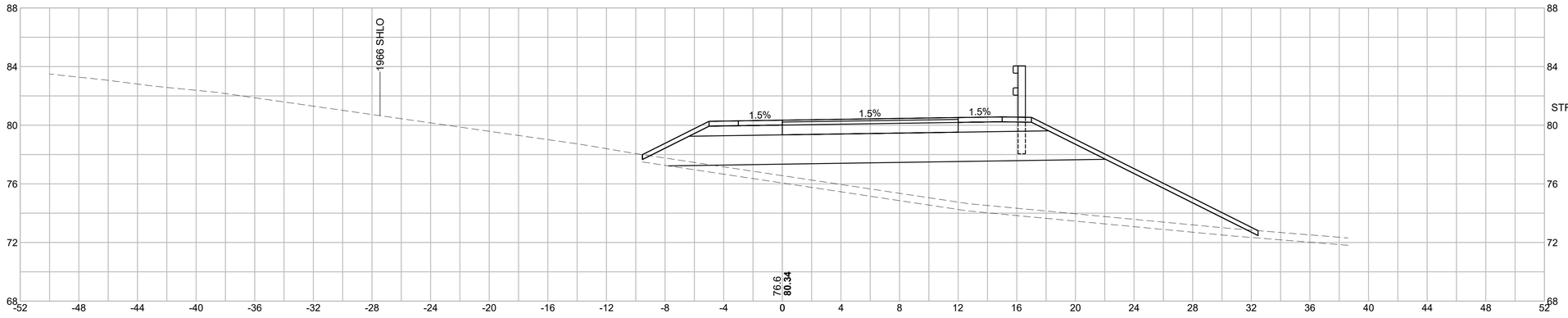
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117+50



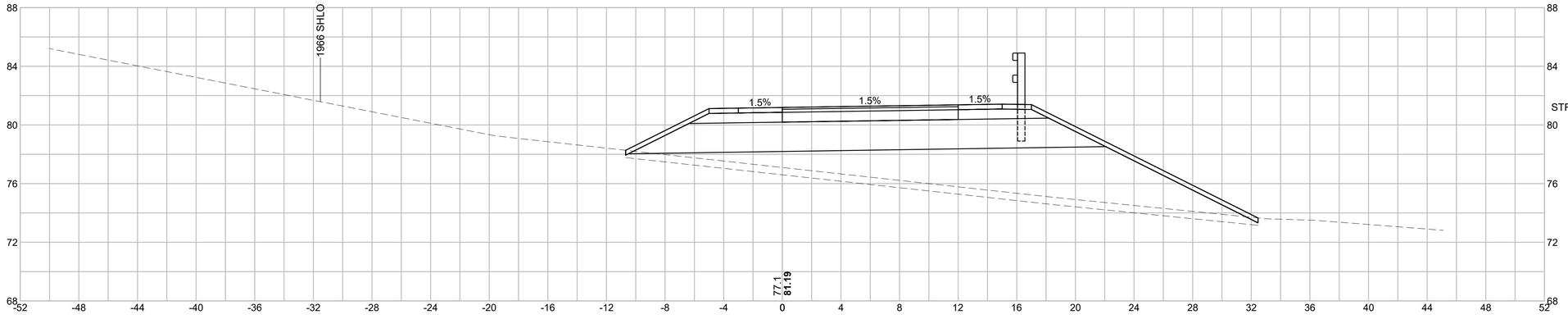
CUT: 0.00 SF
FILL: 53.63 SF
STRIPPING: 15.03 SF

117+00



CUT: 0.00 SF
FILL: 151.66 SF
STRIPPING: 24.08 SF

116+50



CUT: 0.00 SF
FILL: 155.73 SF
STRIPPING: 21.57 SF

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

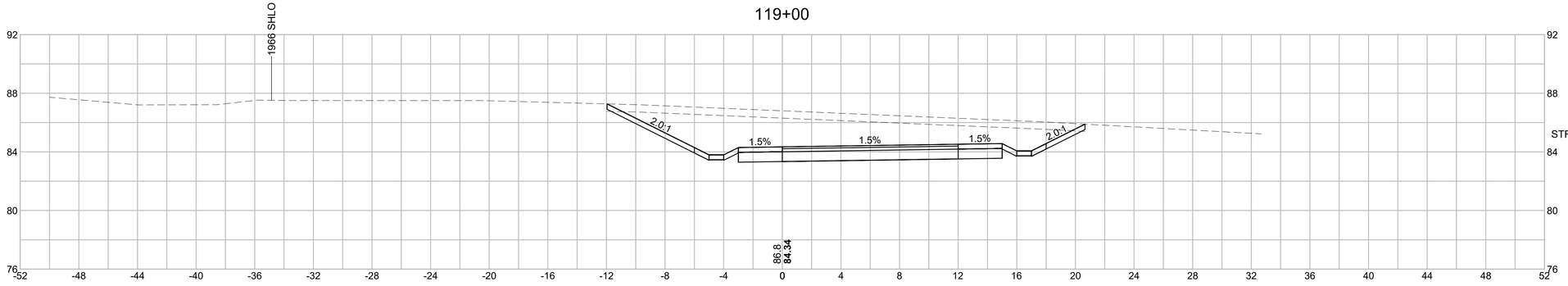
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	180	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

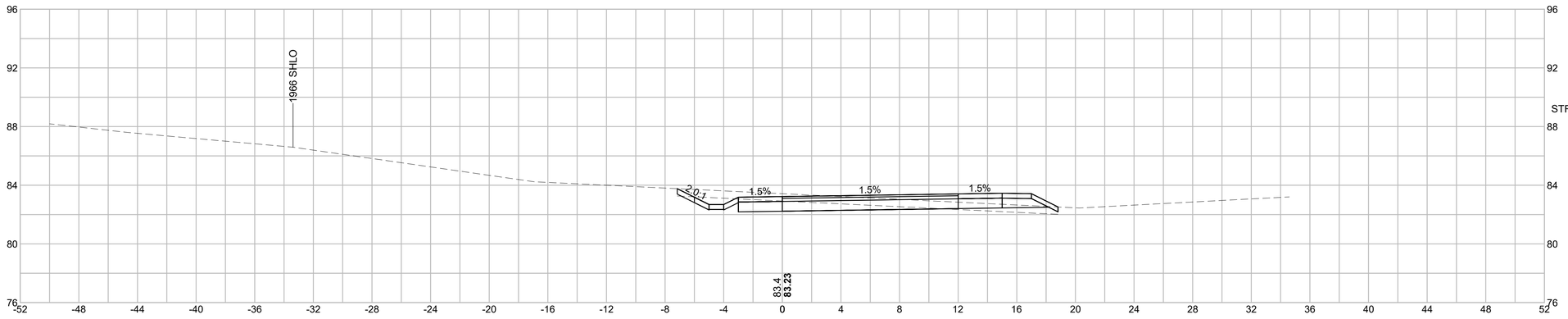
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

119+00



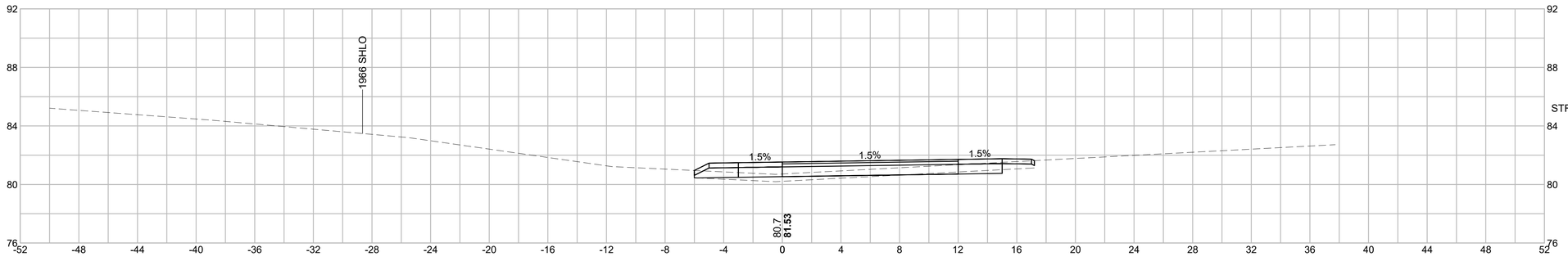
CUT: 70.12 SF
FILL: 0.03 SF
STRIPPING: 16.30 SF

118+50



CUT: 8.31 SF
FILL: 1.84 SF
STRIPPING: 12.99 SF

118+00



CUT: 0.85 SF
FILL: 4.85 SF
STRIPPING: 11.60 SF

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

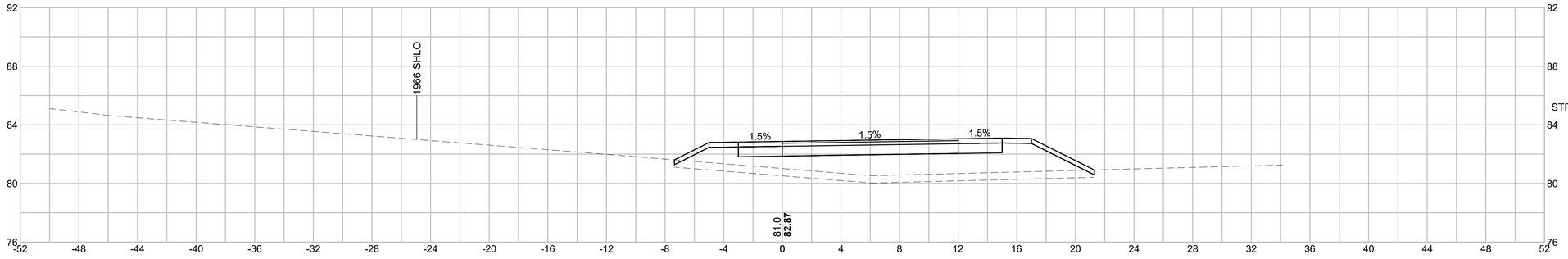
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	181	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

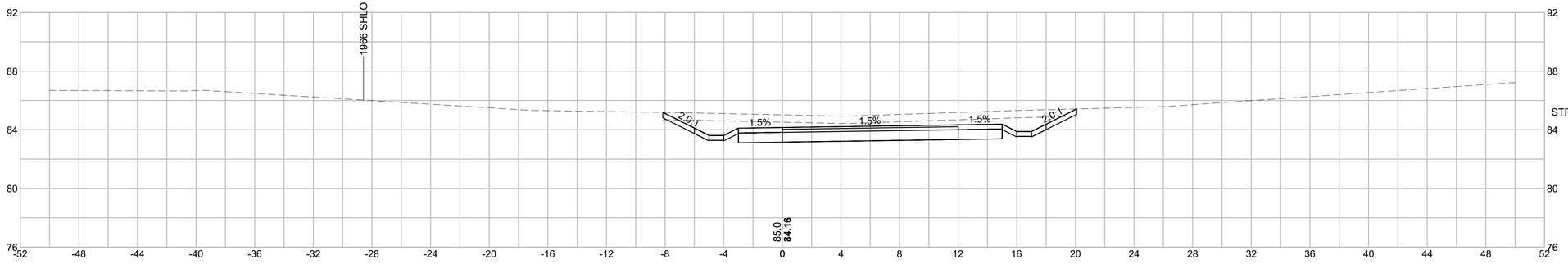
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

120+50



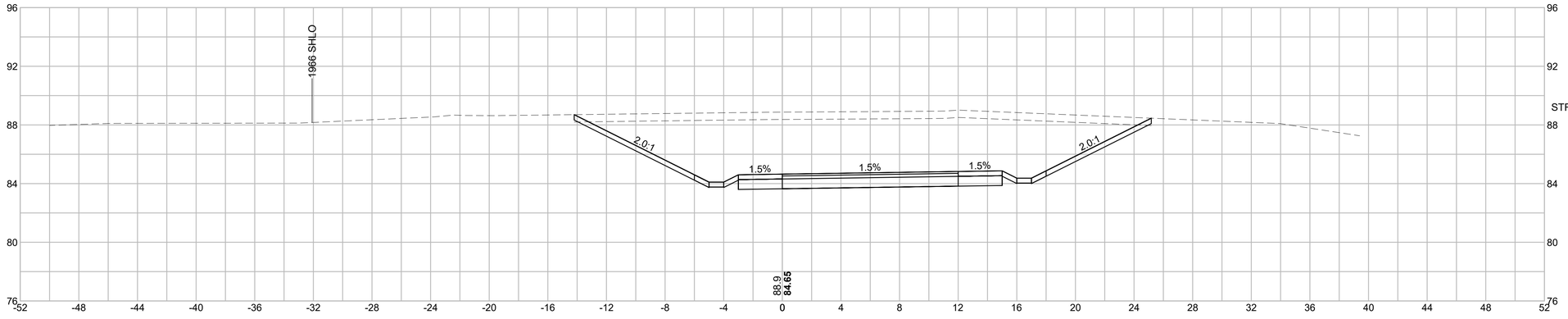
CUT: 0.00 SF
FILL: 46.17 SF
STRIPPING: 14.32 SF

120+00



CUT: 32.36 SF
FILL: 0.04 SF
STRIPPING: 14.12 SF

119+50



CUT: 138.96 SF
FILL: 0.03 SF
STRIPPING: 19.69 SF

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

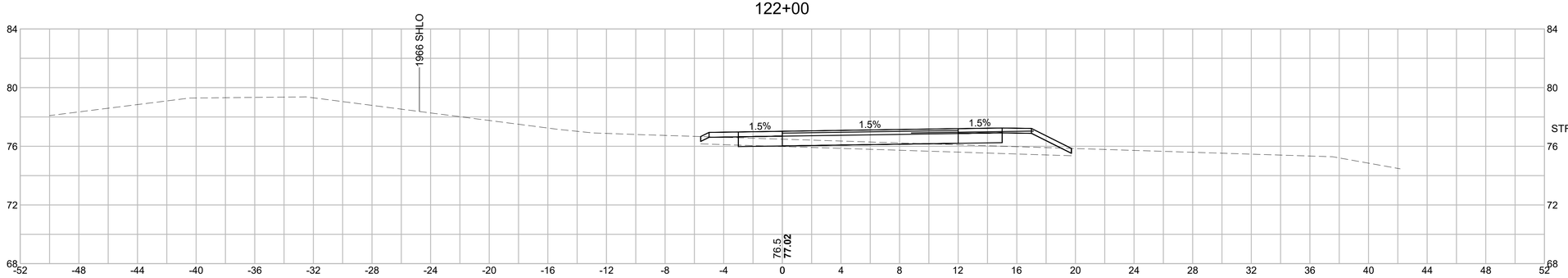
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	182	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

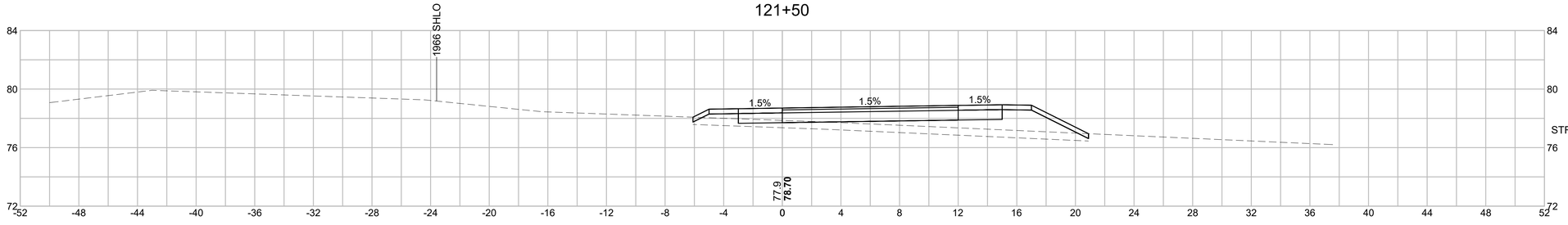
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

122+00



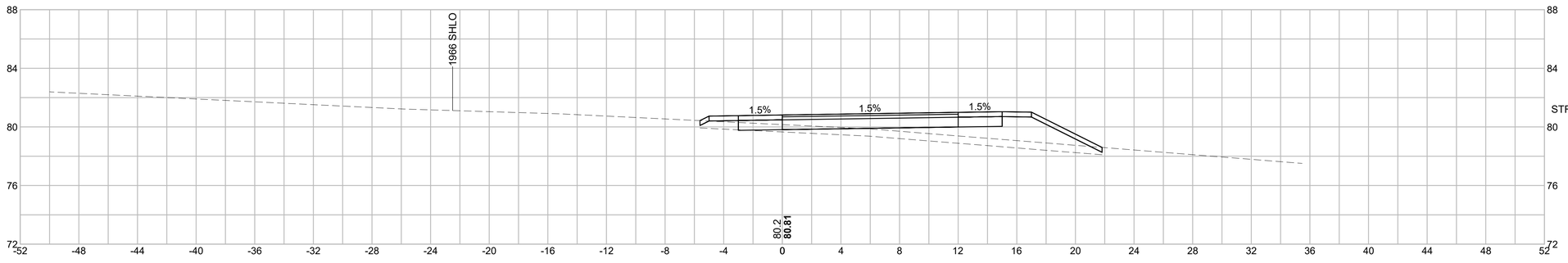
CUT: 0.11 SF
FILL: 12.11 SF
STRIPPING: 12.65 SF

121+50



CUT: 0.00 SF
FILL: 22.35 SF
STRIPPING: 13.49 SF

121+00



CUT: 0.01 SF
FILL: 22.24 SF
STRIPPING: 13.72 SF

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

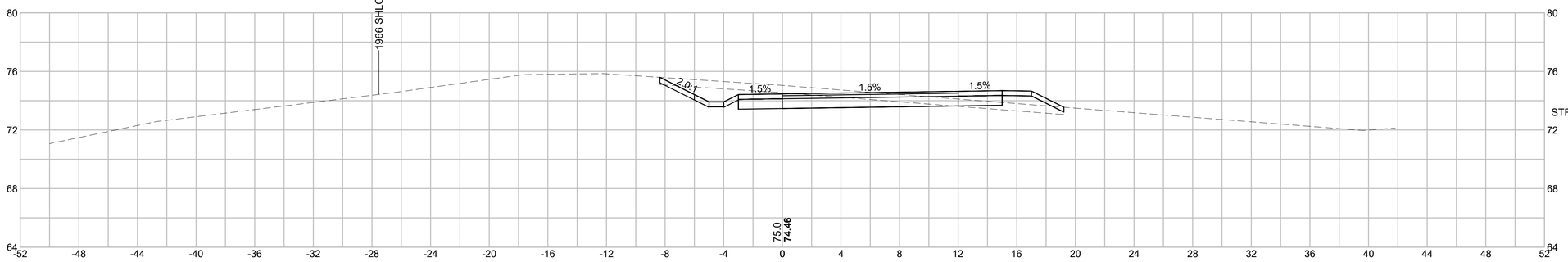
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	183	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

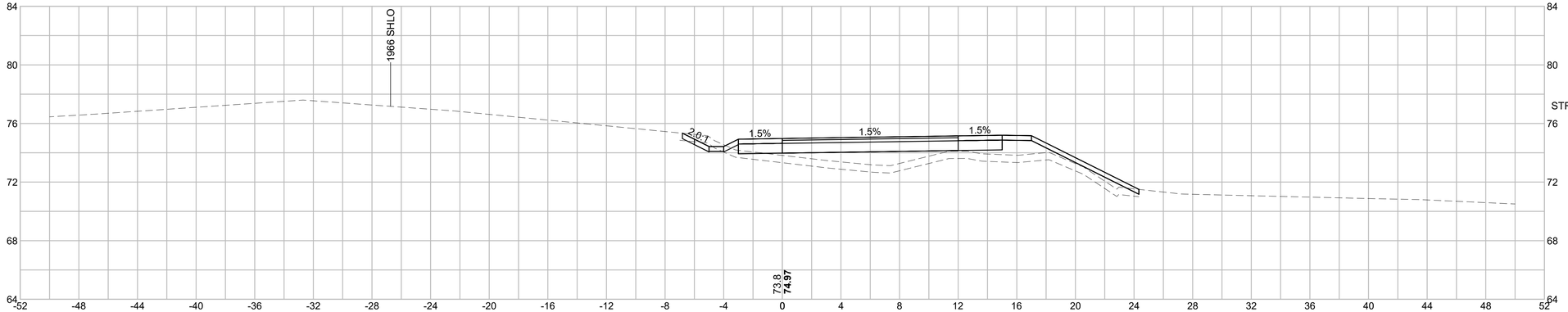
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

123+50



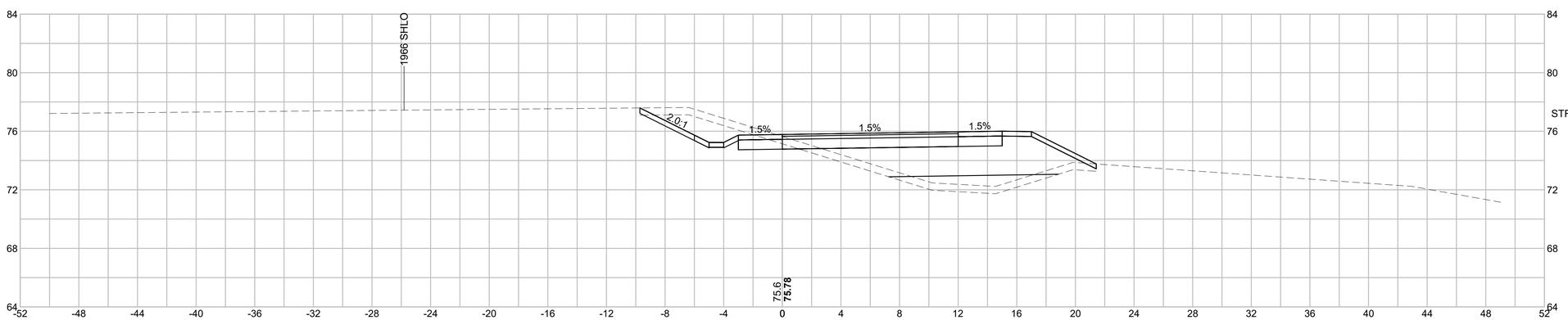
CUT: 14.19 SF
FILL: 4.02 SF
STRIPPING: 13.78 SF

123+00



CUT: 0.64 SF
FILL: 24.49 SF
STRIPPING: 15.67 SF

122+50



CUT: 10.28 SF
FILL: 41.83 SF
STRIPPING: 15.57 SF

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

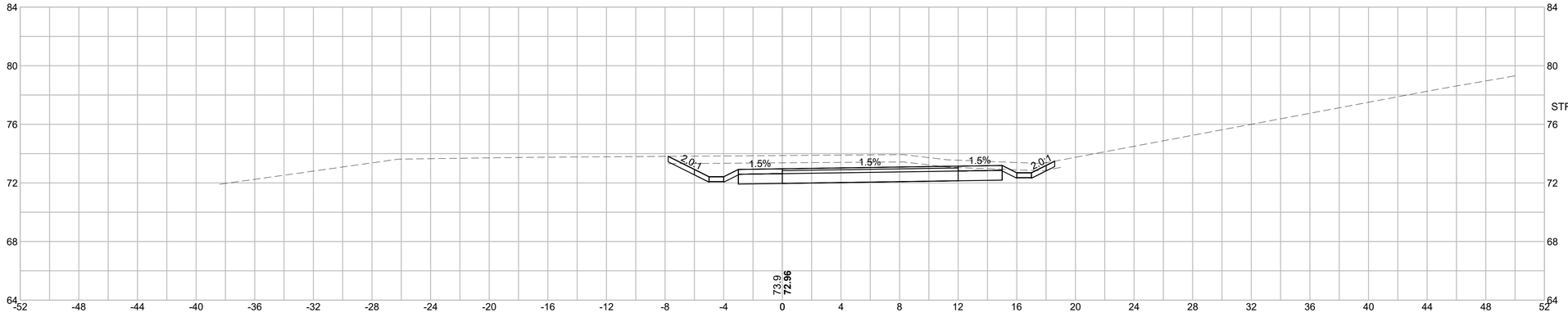
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	184	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

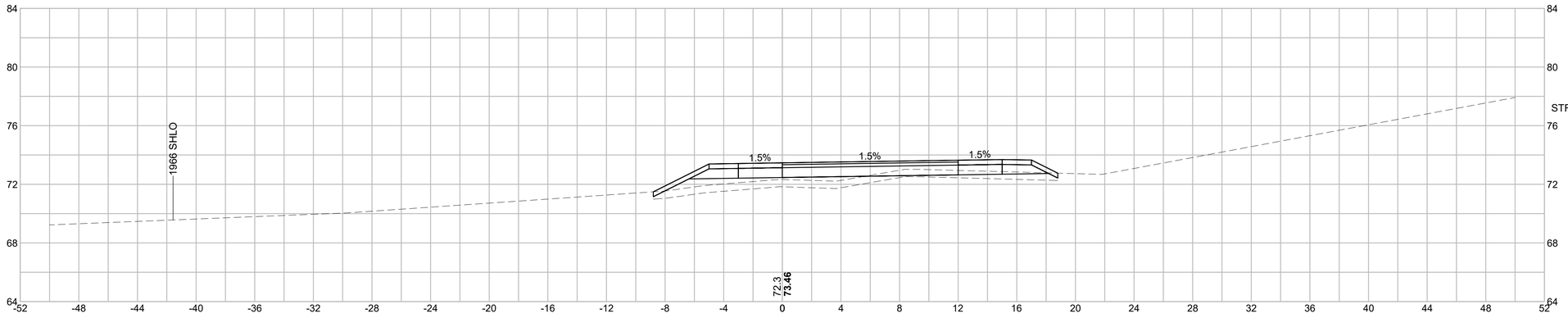
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

125+00



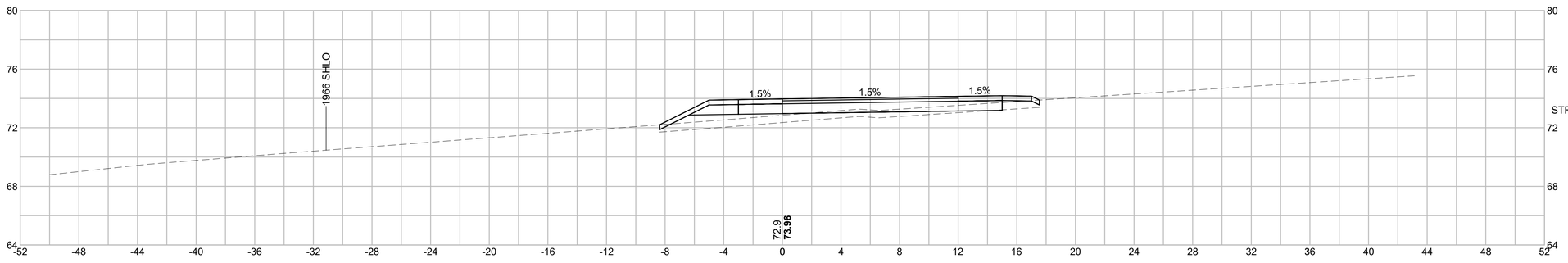
CUT: 27.26 SF
FILL: 0.06 SF
STRIPPING: 13.39 SF

124+50



CUT: 0.00 SF
FILL: 14.26 SF
STRIPPING: 13.80 SF

124+00



CUT: 0.01 SF
FILL: 11.88 SF
STRIPPING: 12.96 SF

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

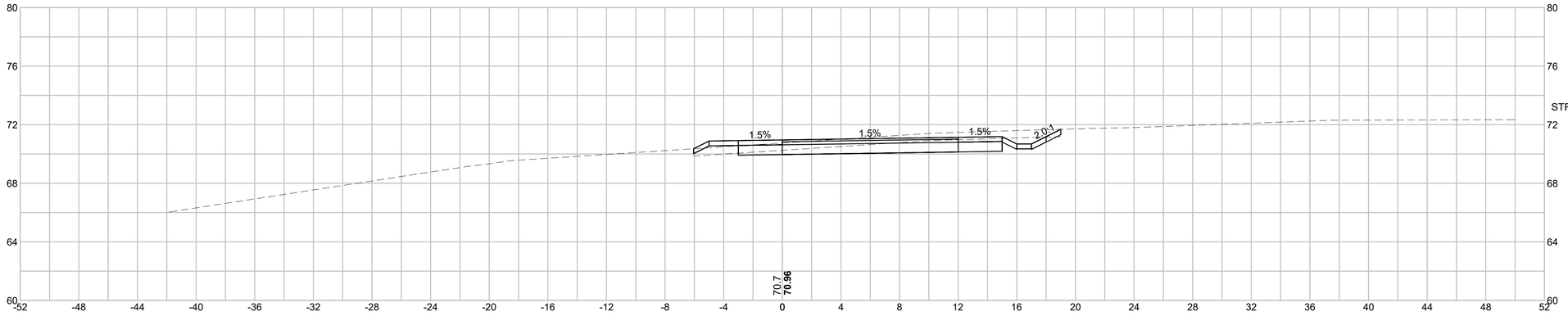
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	185	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

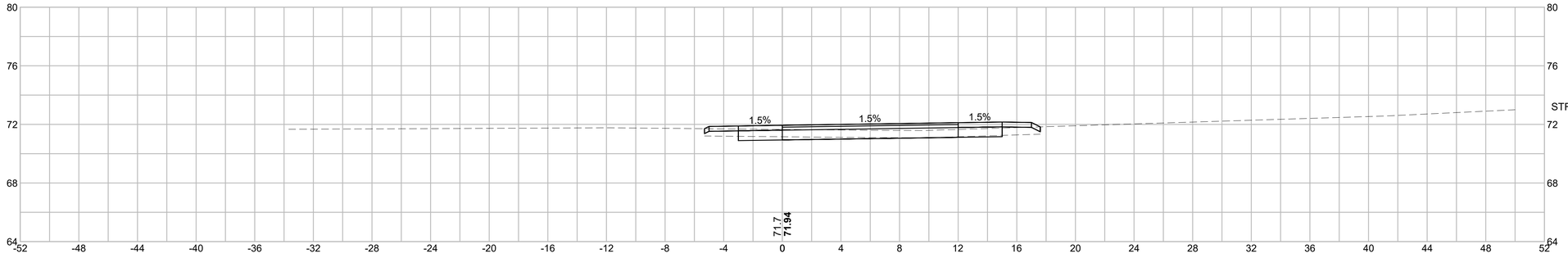
607398_HD\XSEC-WEST-3).DWG Plotted on 15-Feb-2024 9:58 PM

126+50



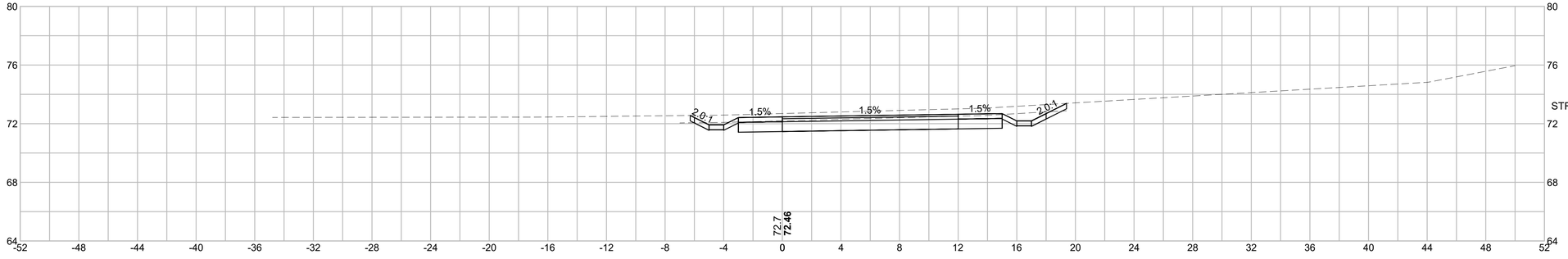
CUT: 12.29 SF
FILL: 1.59 SF
STRIPPING: 12.53 SF

126+00



CUT: 2.03 SF
FILL: 2.03 SF
STRIPPING: 11.45 SF

125+50



CUT: 17.89 SF
FILL: 0.04 SF
STRIPPING: 13.20 SF

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

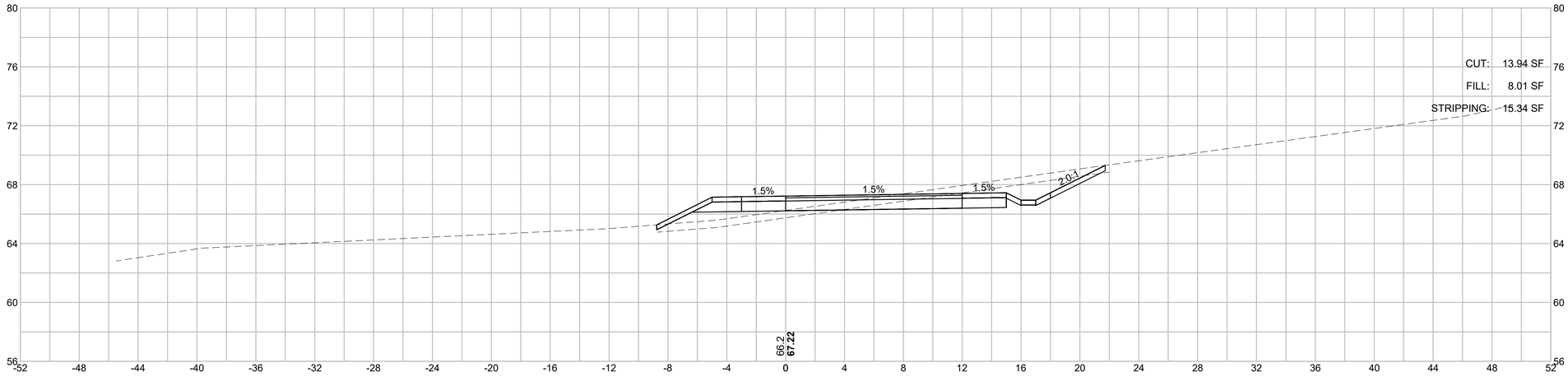
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	186	278
PROJECT FILE NO. 607398			

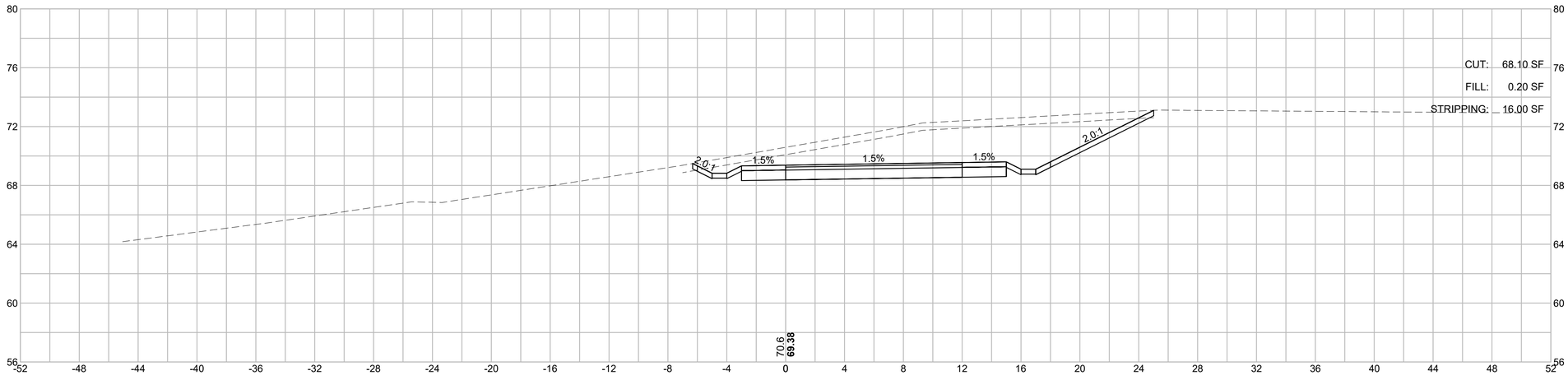
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:01 AM

127+50



127+00



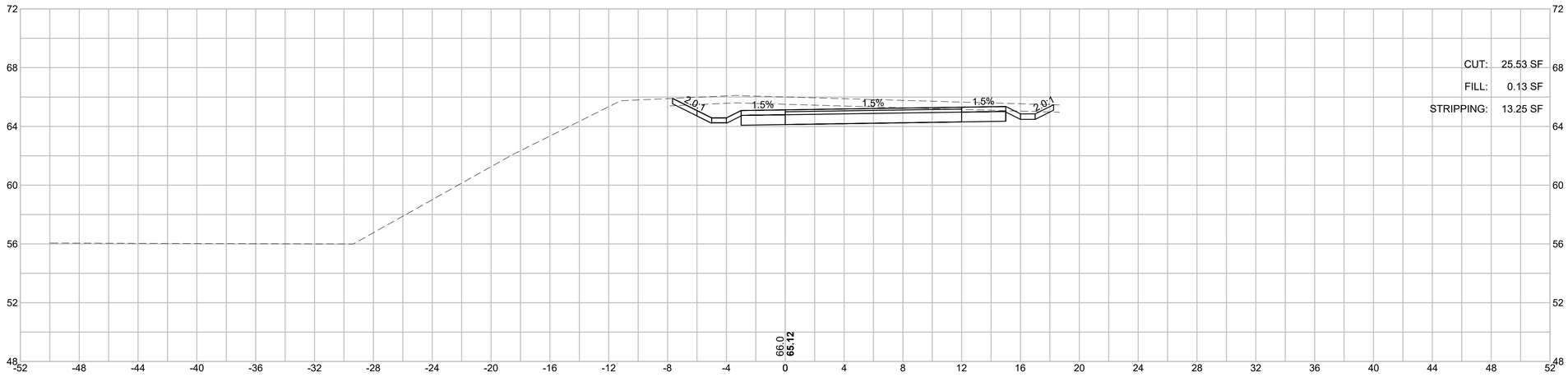
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	187	278
PROJECT FILE NO. 607398			

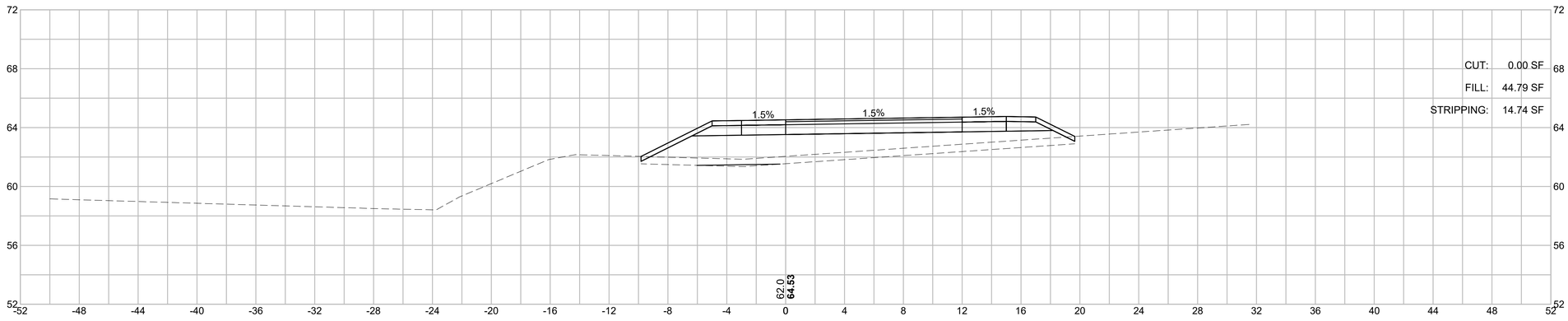
WEST CROSS SECTIONS

129+00



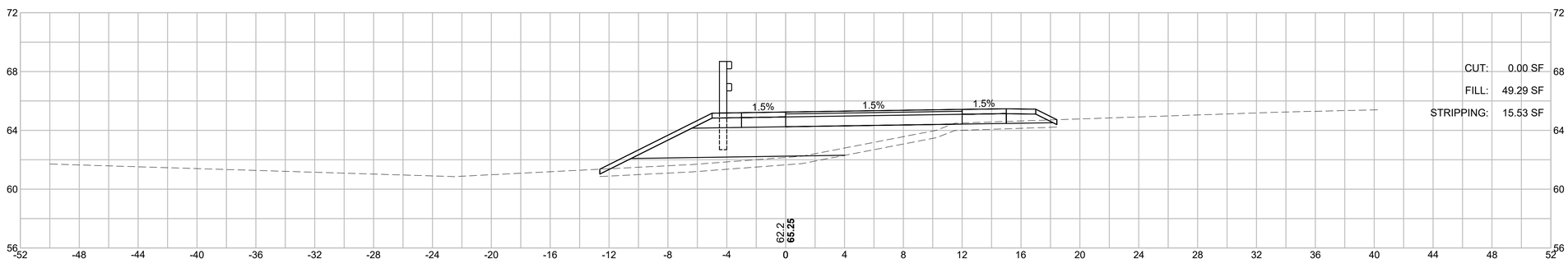
CUT: 25.53 SF
FILL: 0.13 SF
STRIPPING: 13.25 SF

128+50



CUT: 0.00 SF
FILL: 44.79 SF
STRIPPING: 14.74 SF

128+00



CUT: 0.00 SF
FILL: 49.29 SF
STRIPPING: 15.53 SF

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

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:01 AM

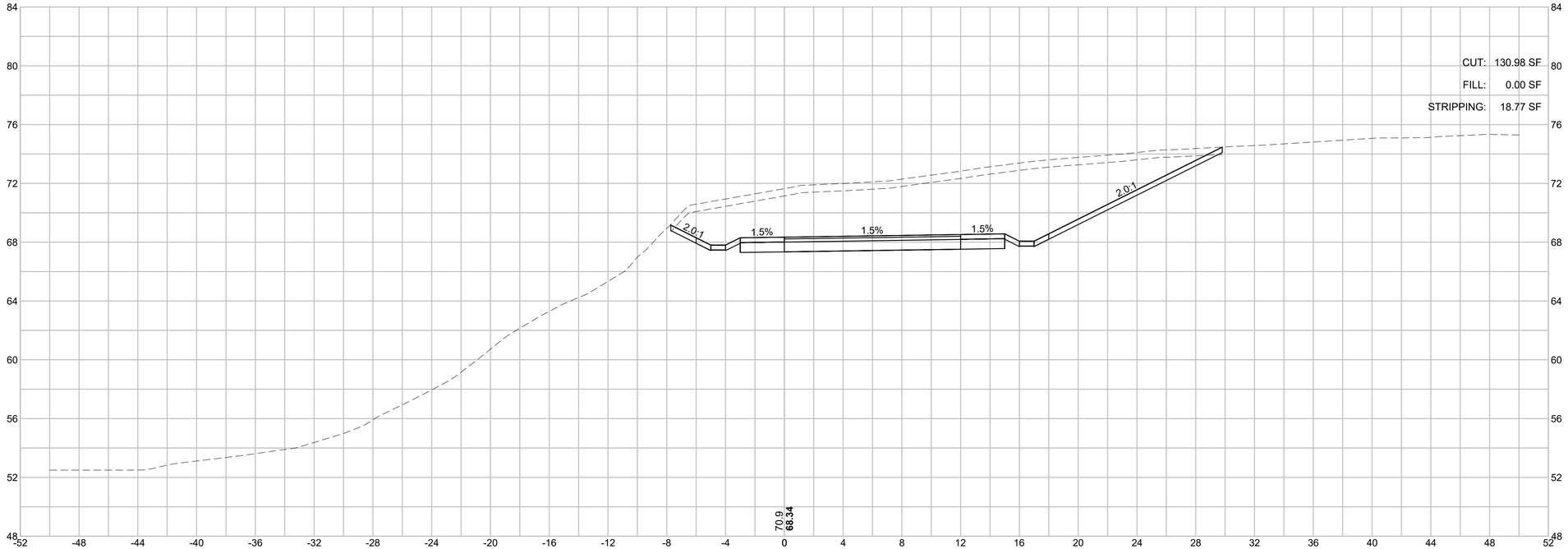
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	188	278
PROJECT FILE NO. 607398			

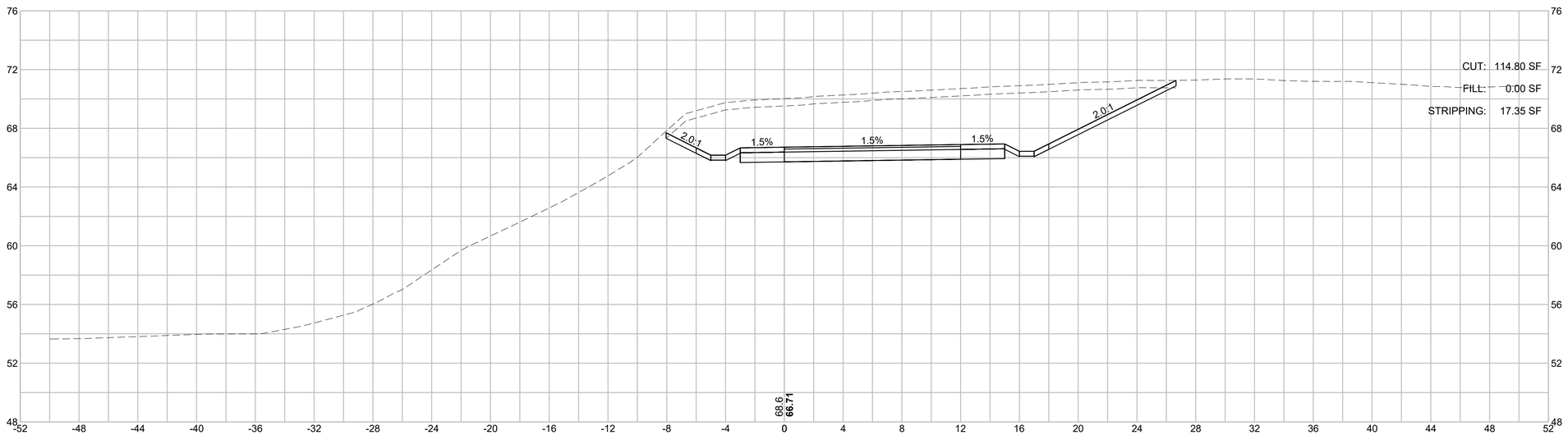
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:02 AM

130+00



129+50



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

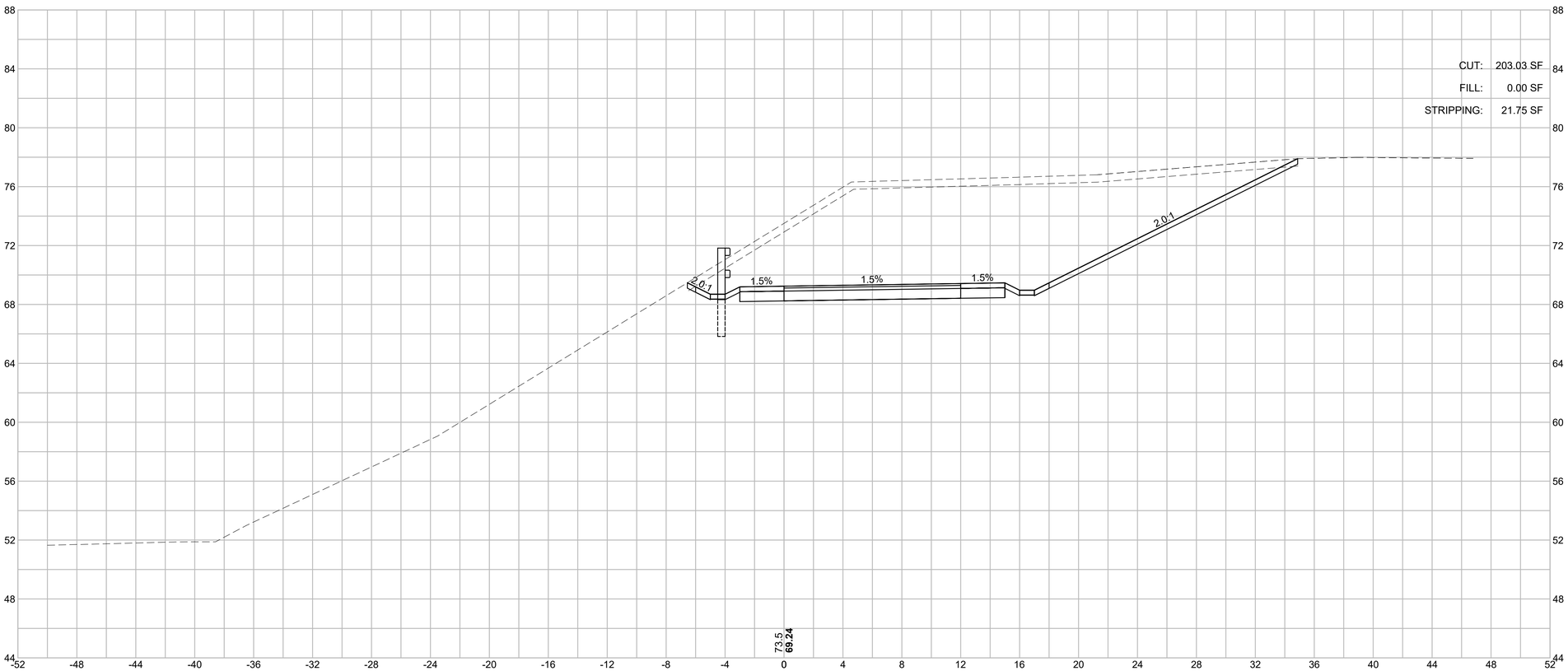
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	189	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 1:48 PM

130+50



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

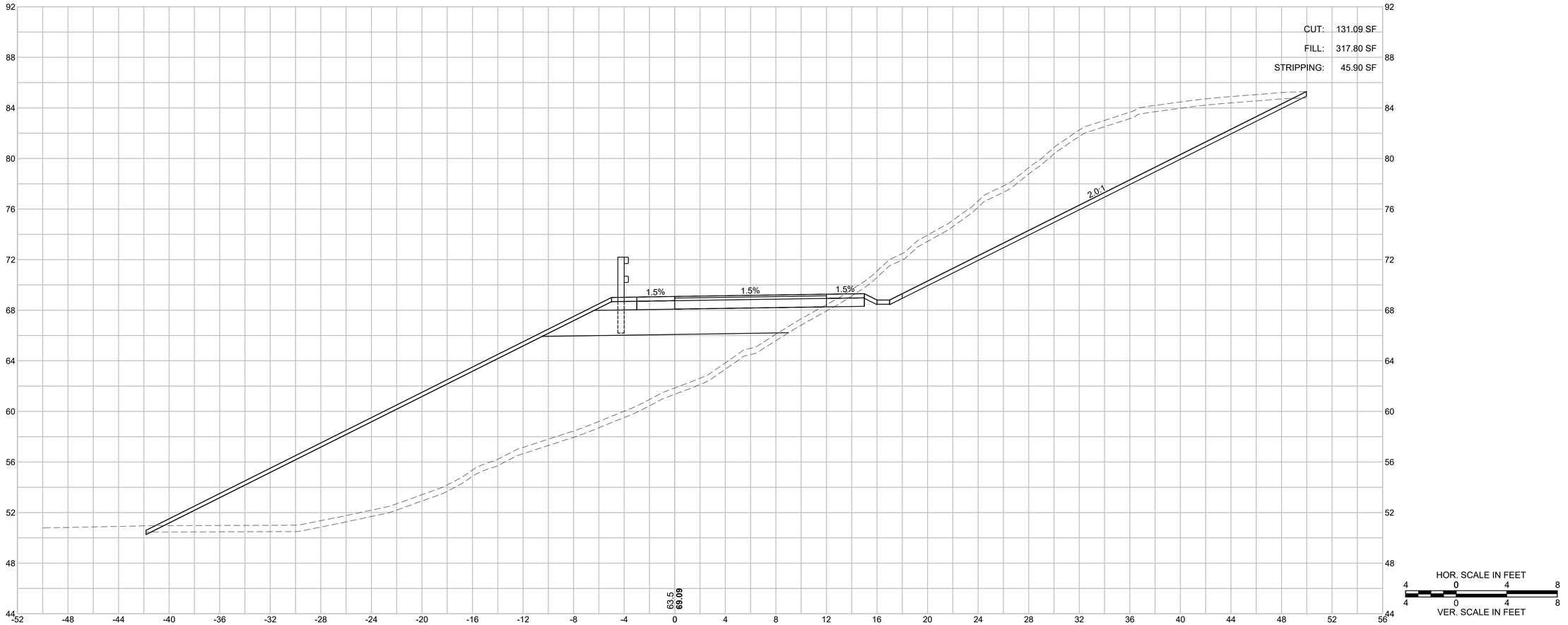
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	190	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:02 AM

131+00



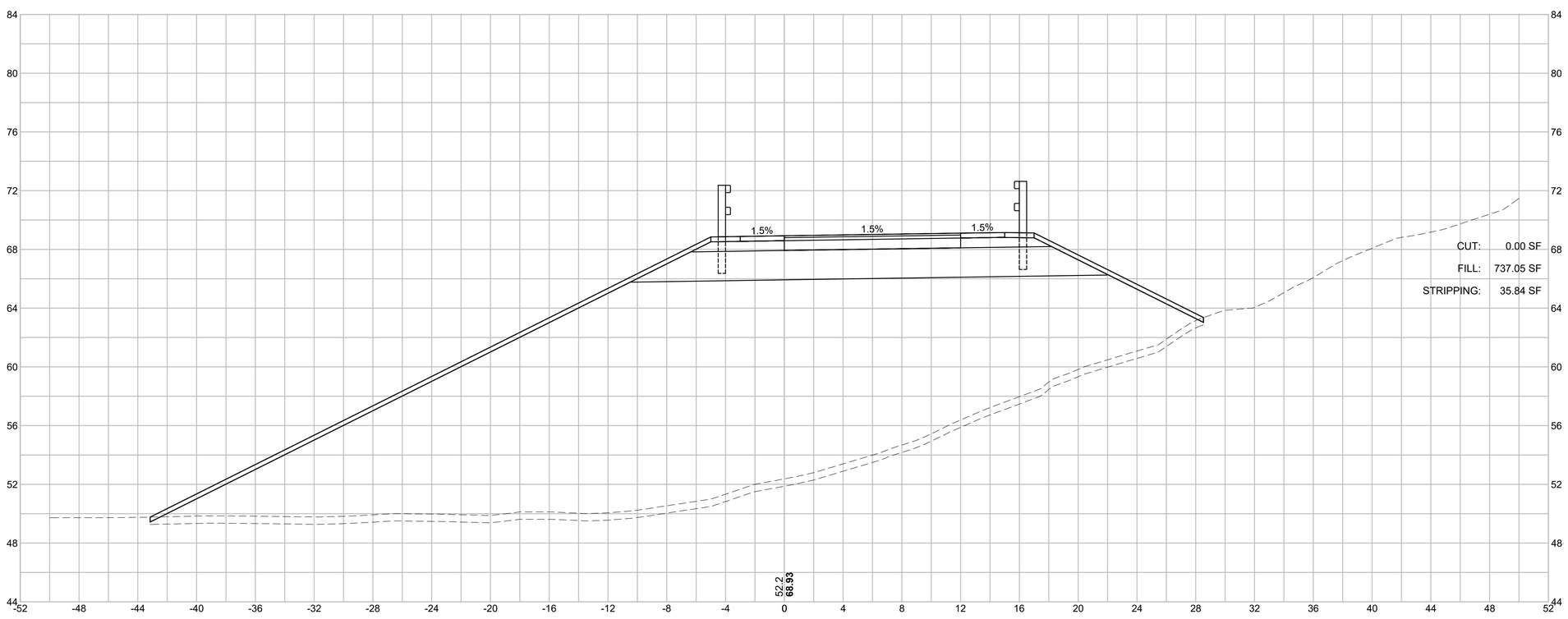
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	191	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:02 AM

131+50



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

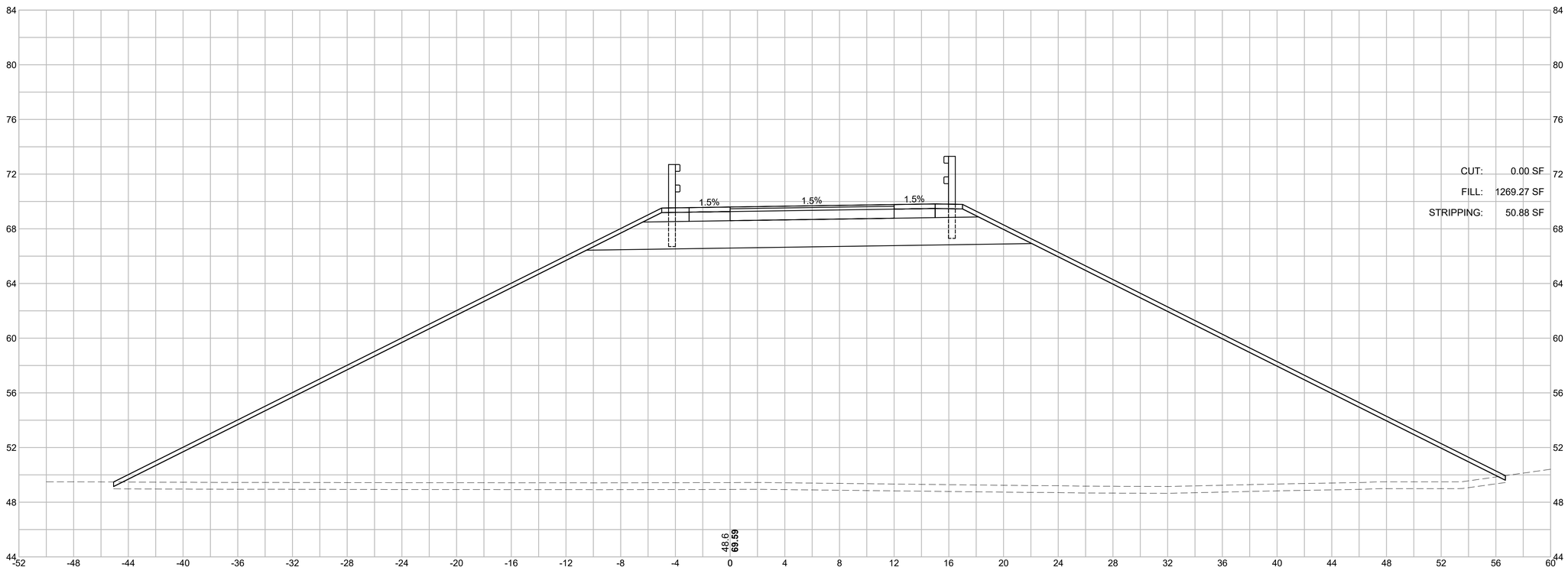
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	192	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:02 AM

132+00



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

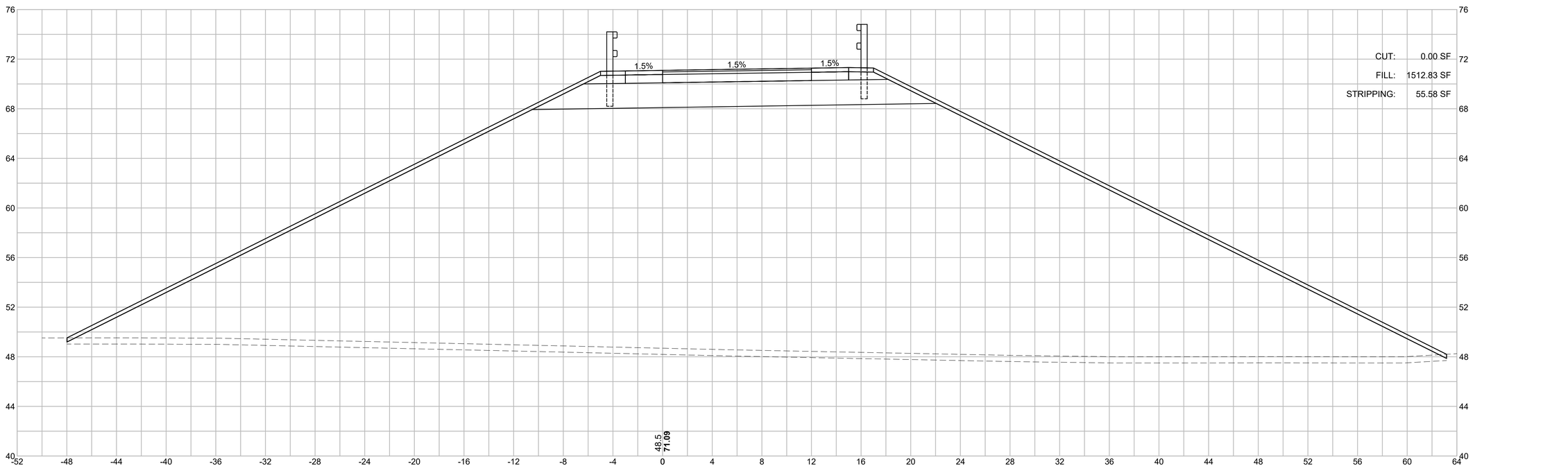
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	193	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:02 AM

132+50



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

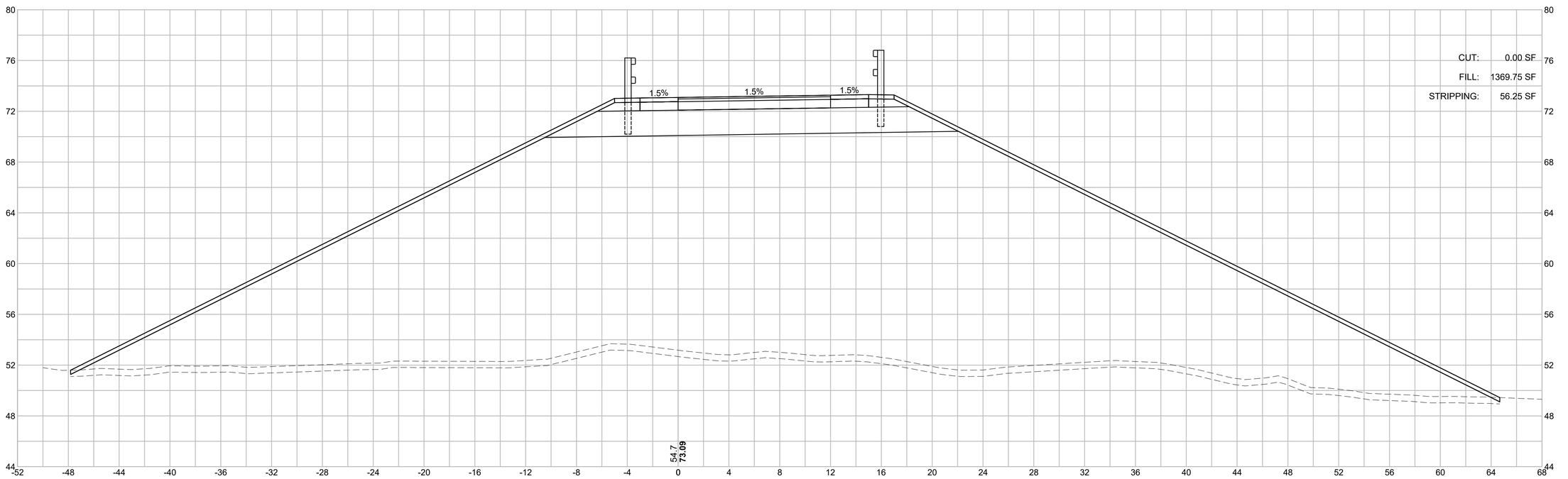
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	194	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:03 AM

133+00



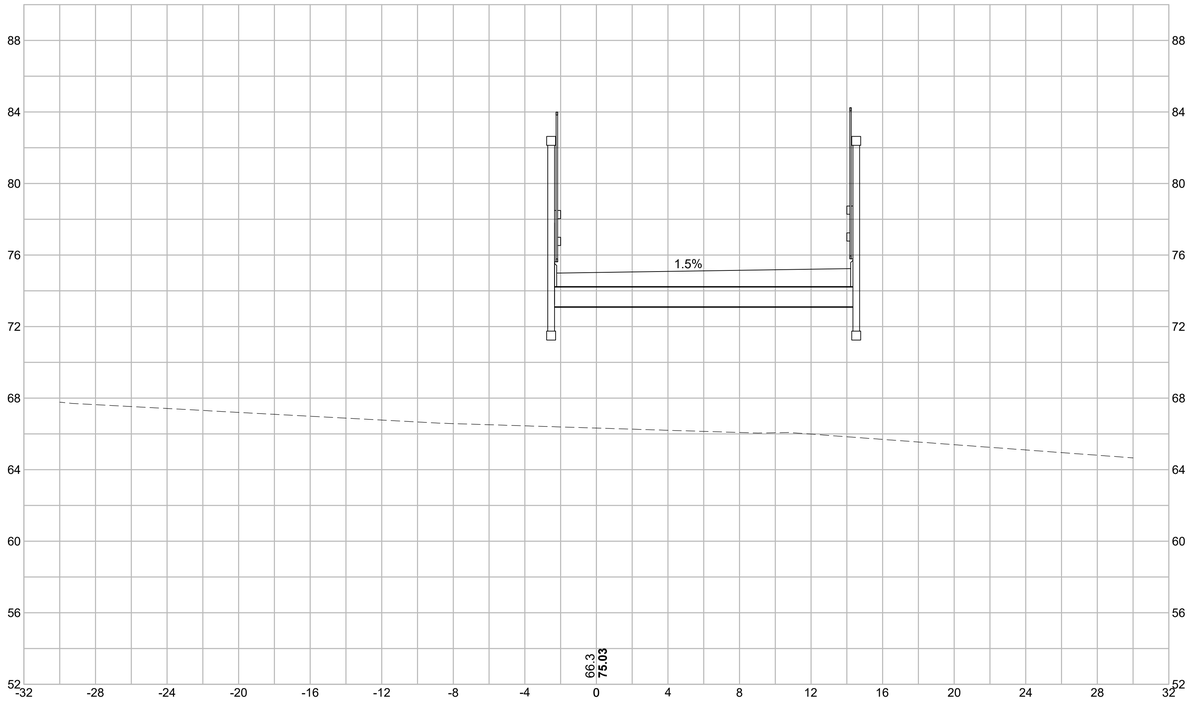
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	195	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:03 AM

133+50



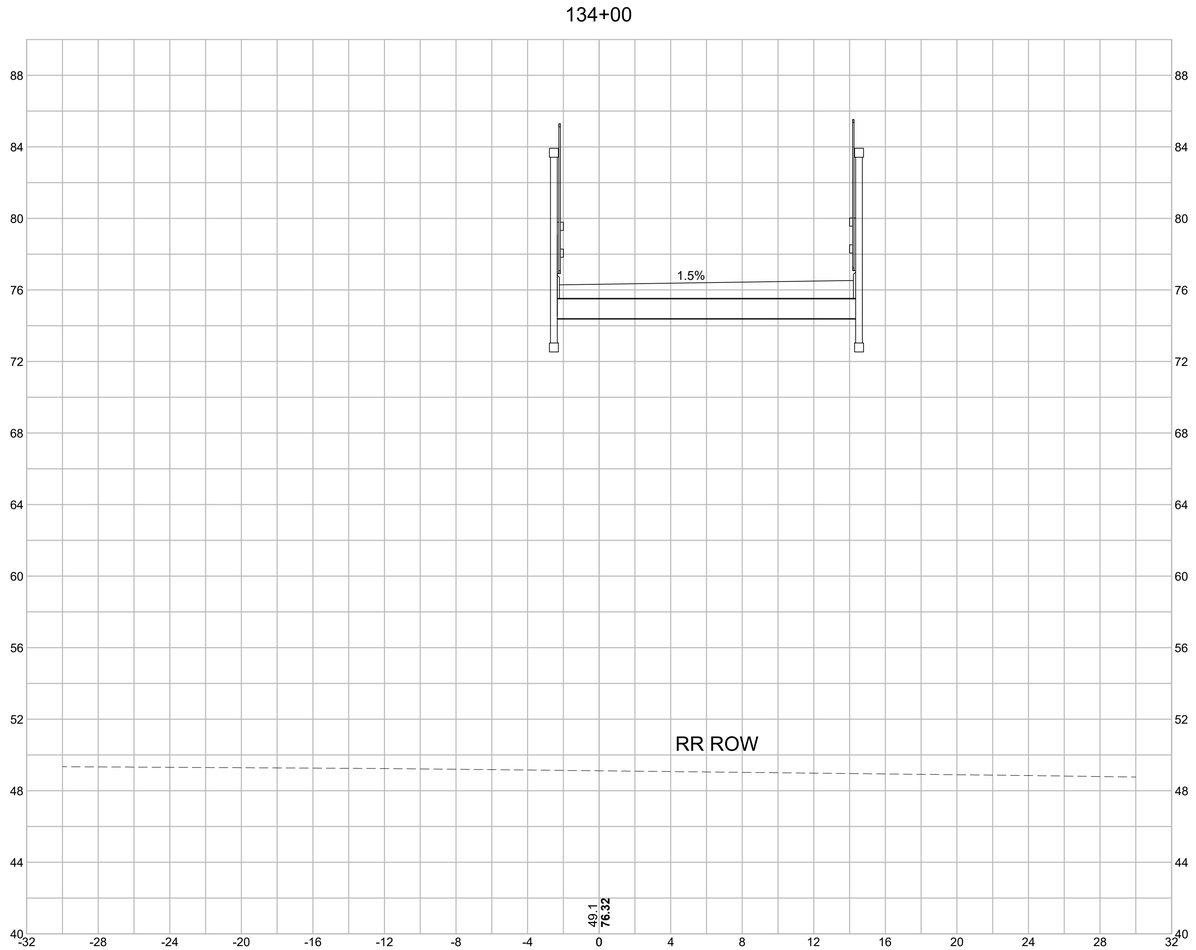
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	196	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:03 AM



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

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	197	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:03 AM

134+50

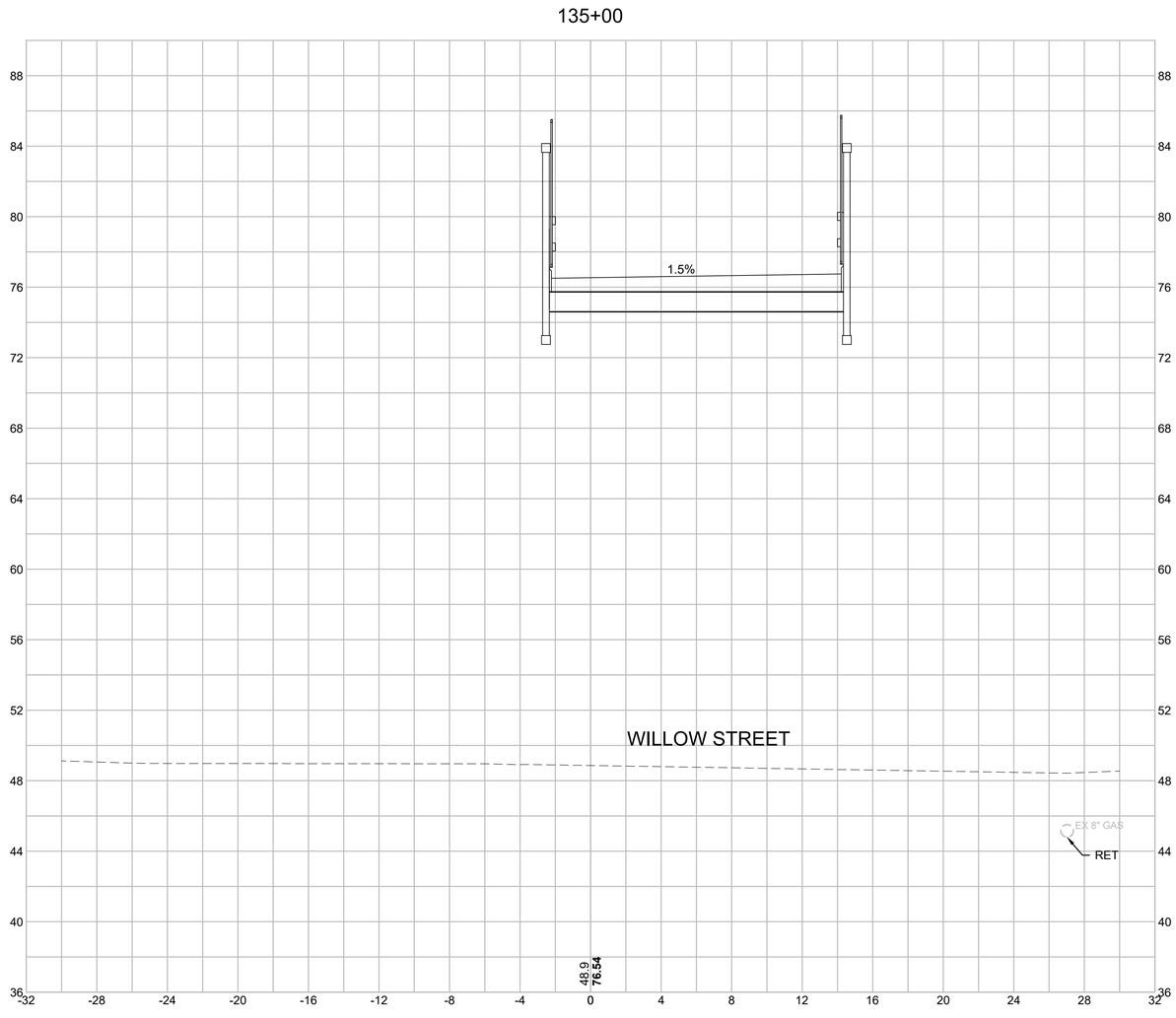


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	198	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS



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

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:03 AM

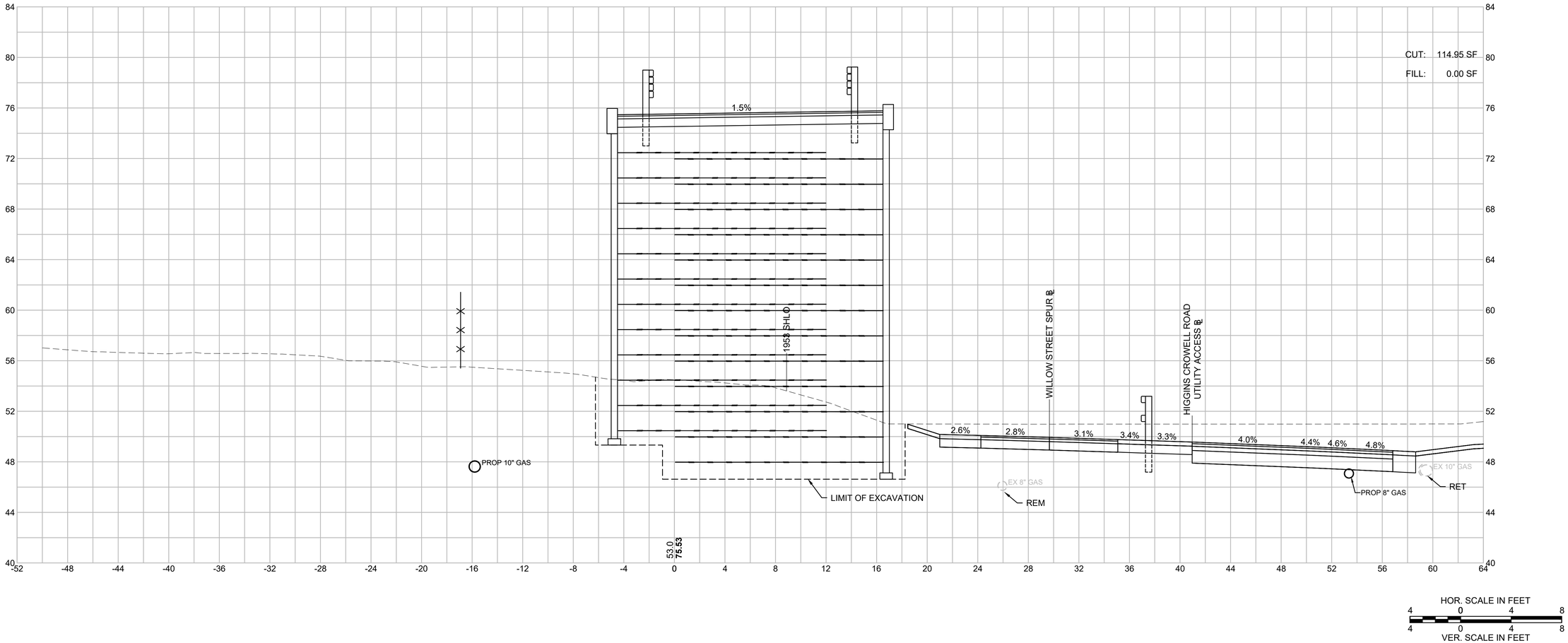
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	199	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:03 AM

135+50



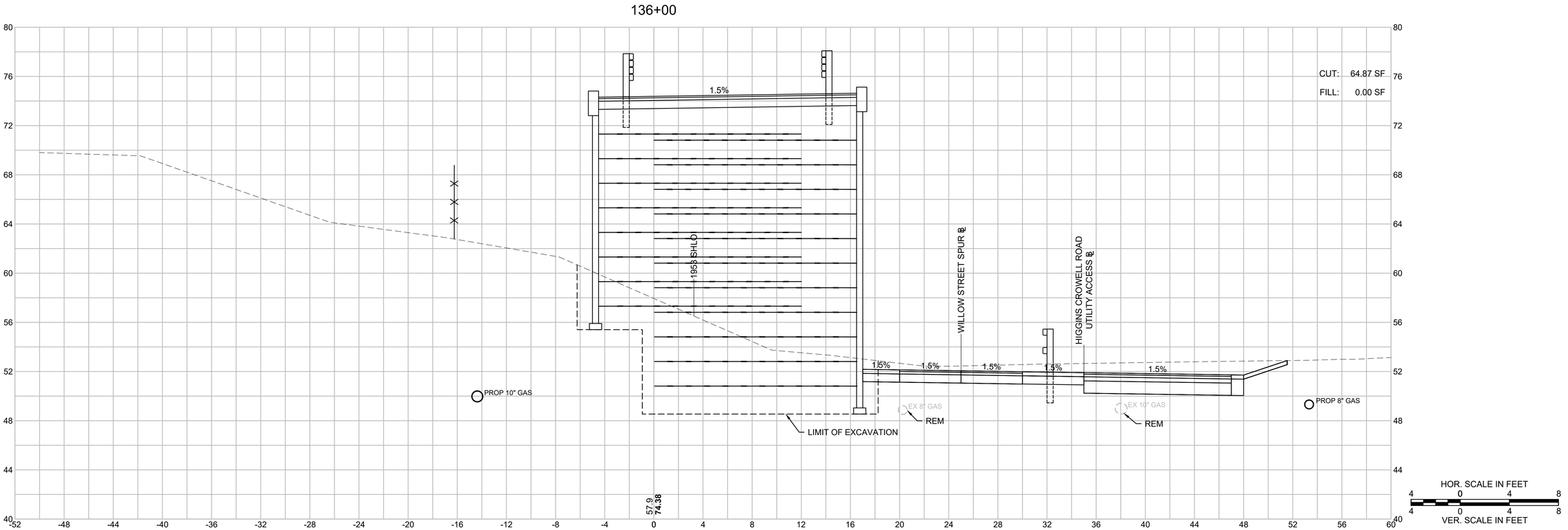
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	200	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:04 AM



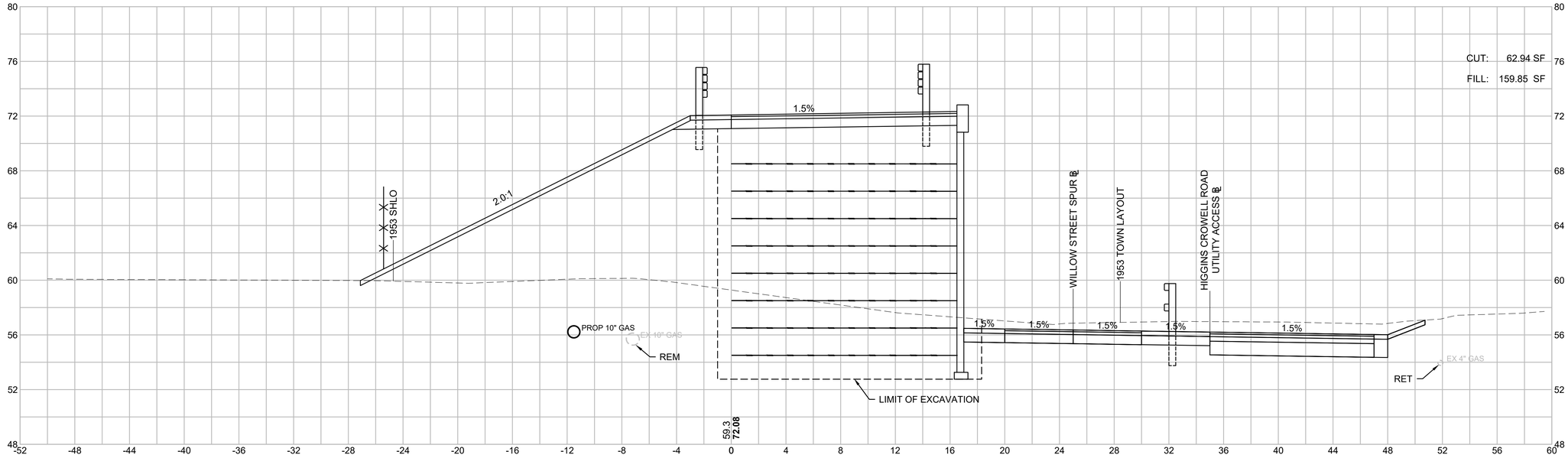
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	201	278
PROJECT FILE NO. 607398			

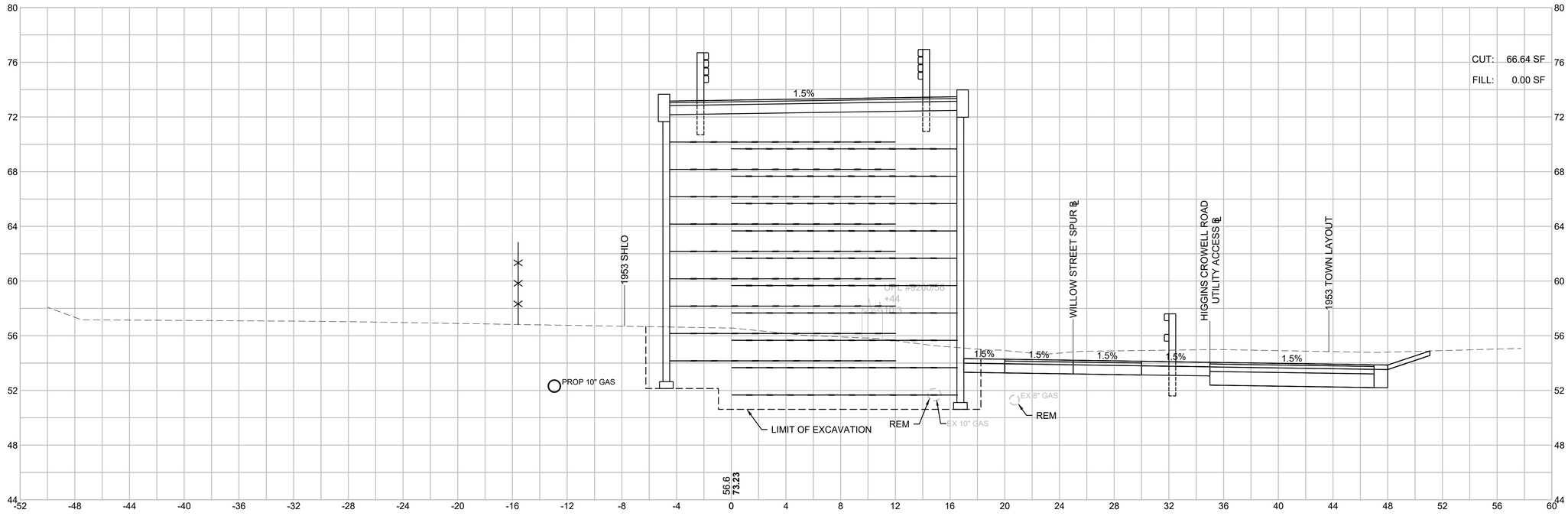
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:04 AM

137+00



136+50



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

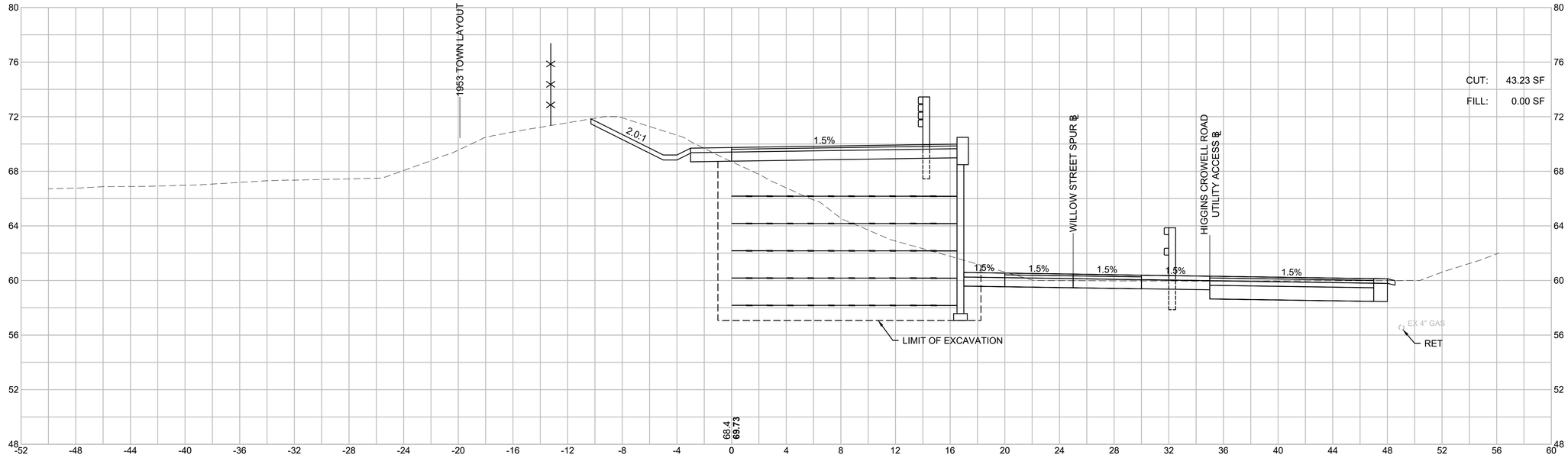
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	202	278
PROJECT FILE NO. 607398			

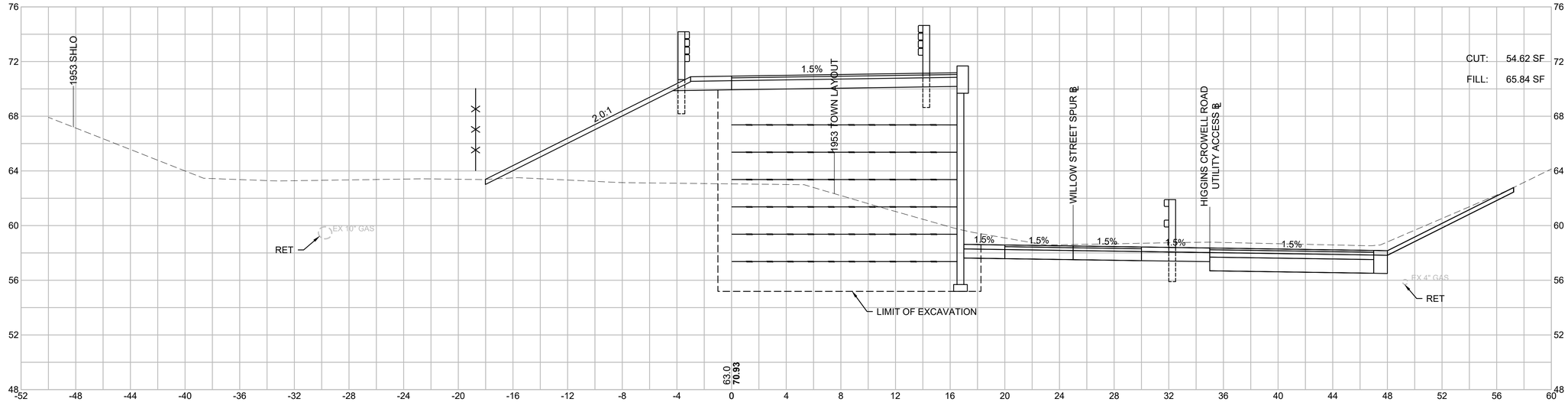
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:04 AM

138+00



137+50



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

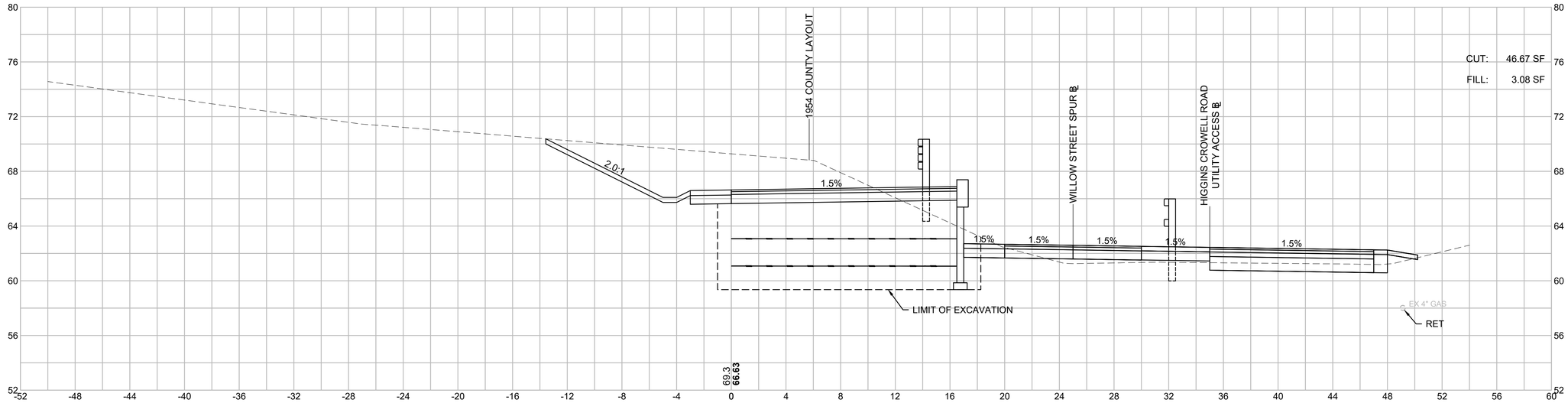
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	203	278
PROJECT FILE NO. 607398			

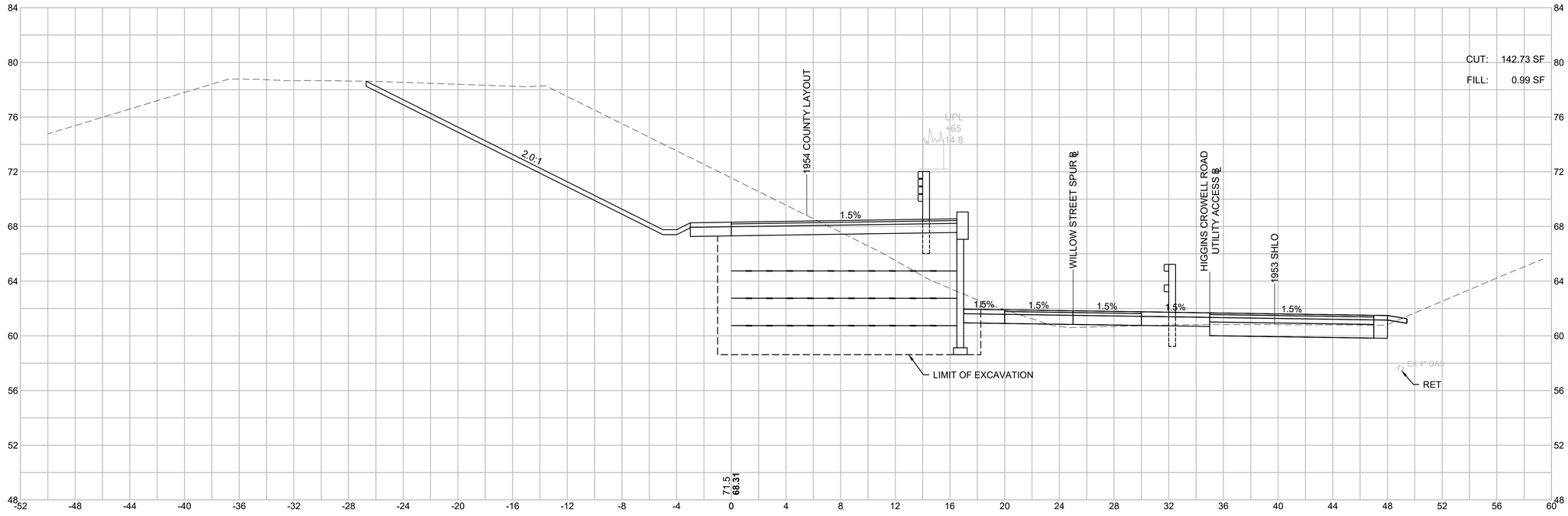
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:04 AM

139+00



138+50



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

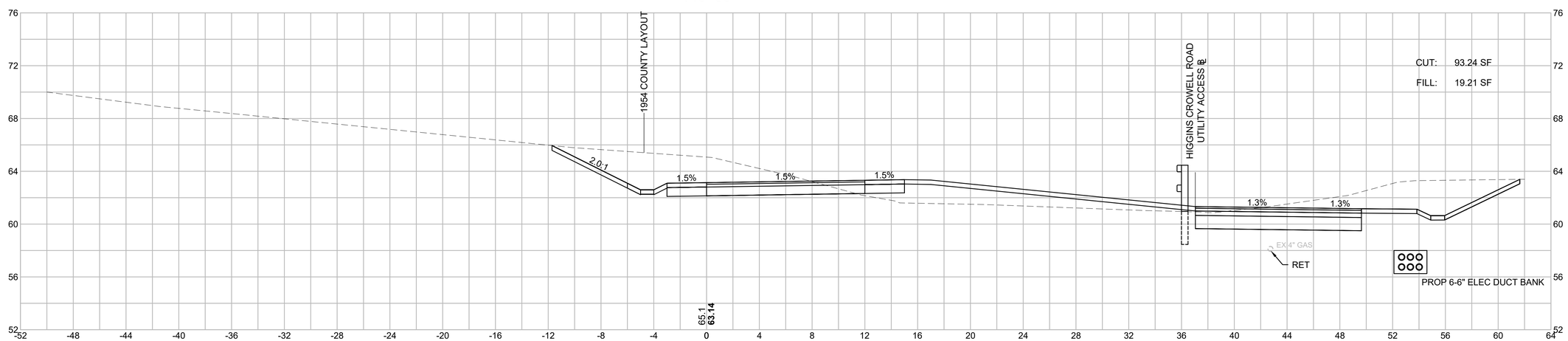
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	204	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

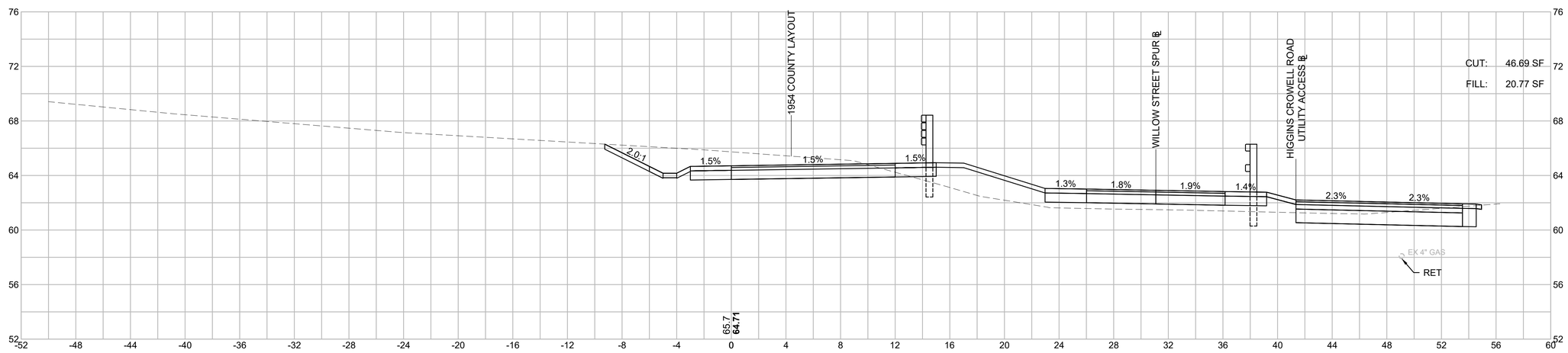
607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 10:32 PM

140+00



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

139+50



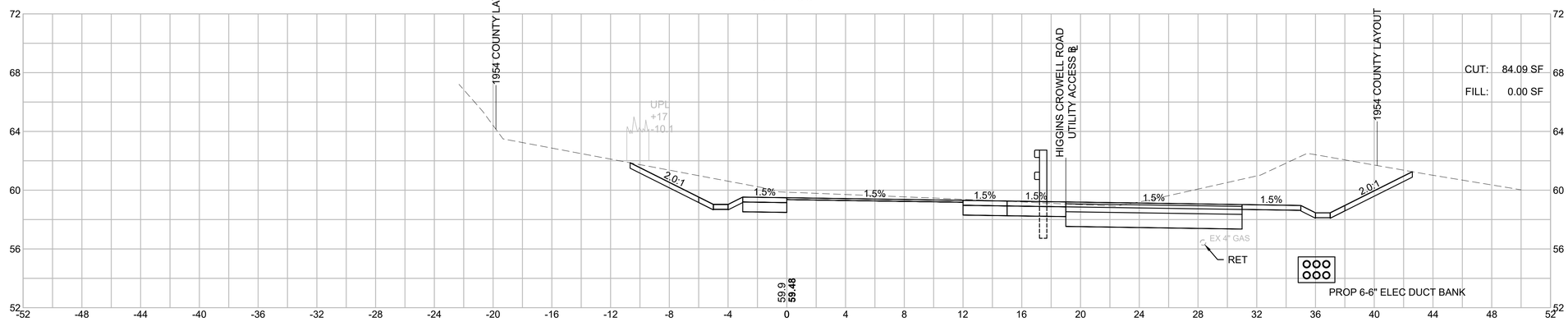
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	205	278
PROJECT FILE NO. 607398			

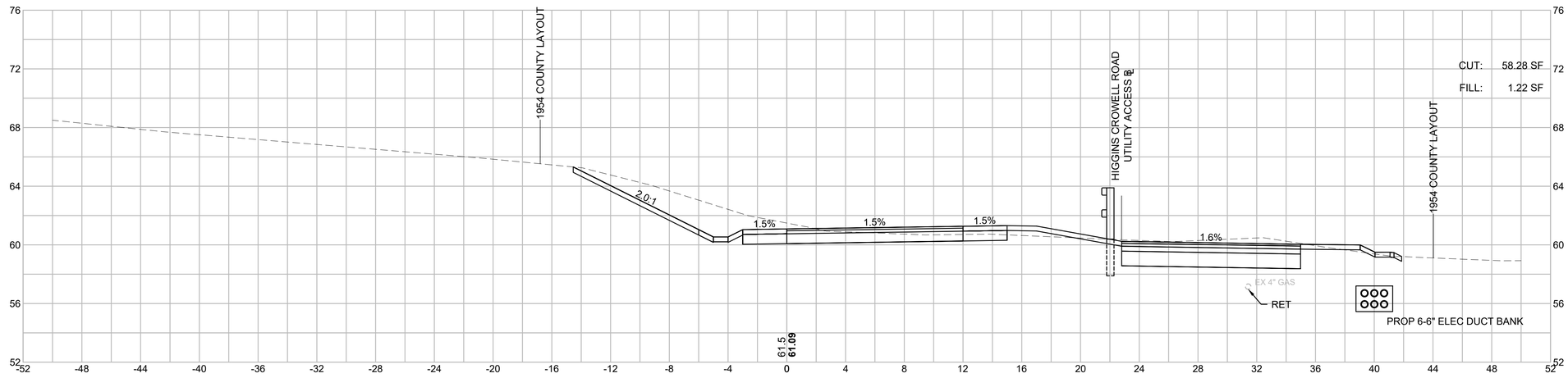
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 10:32 PM

141+00



140+50



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

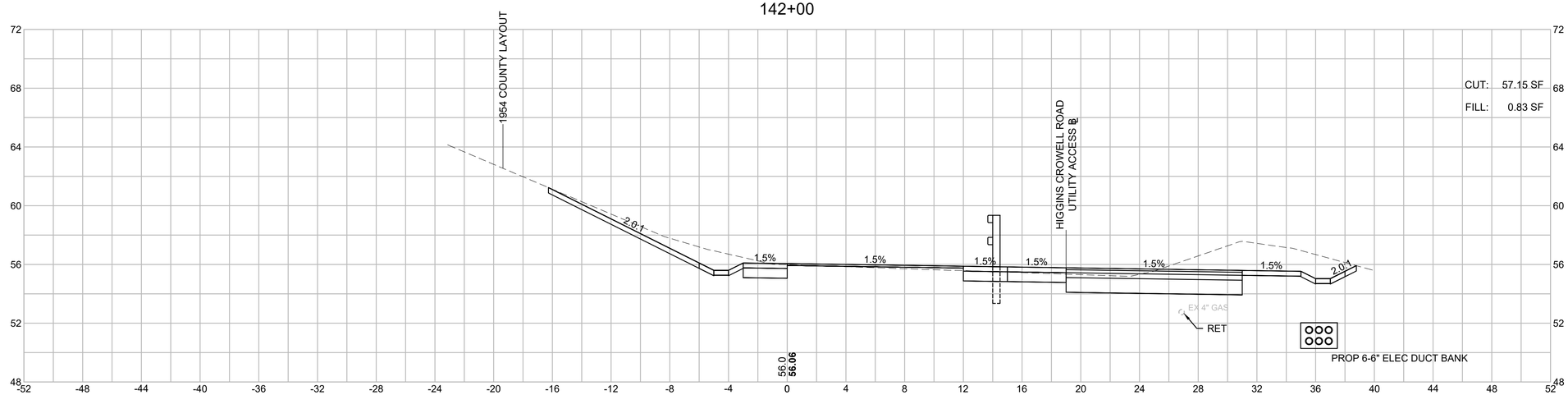
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	206	278
PROJECT FILE NO. 607398			

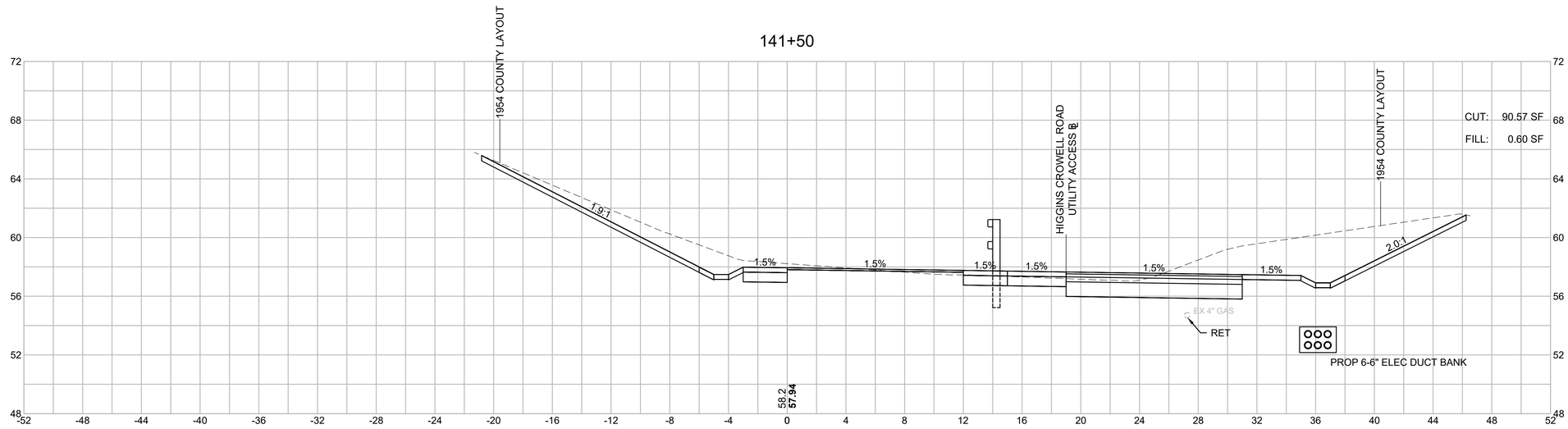
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 2:37 PM

142+00



141+50



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

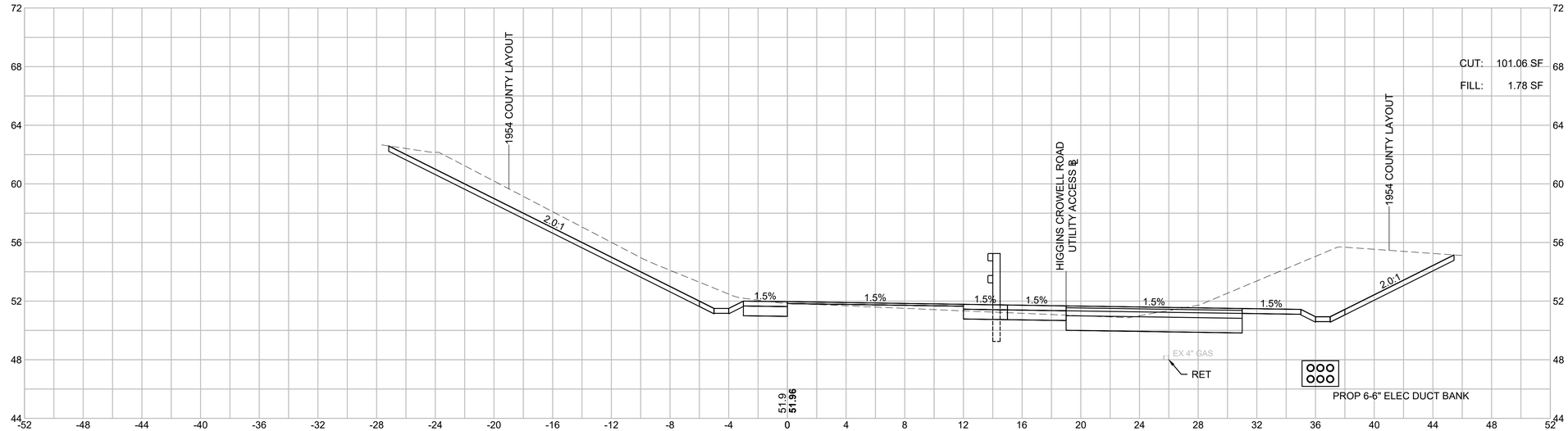
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	207	278
PROJECT FILE NO. 607398			

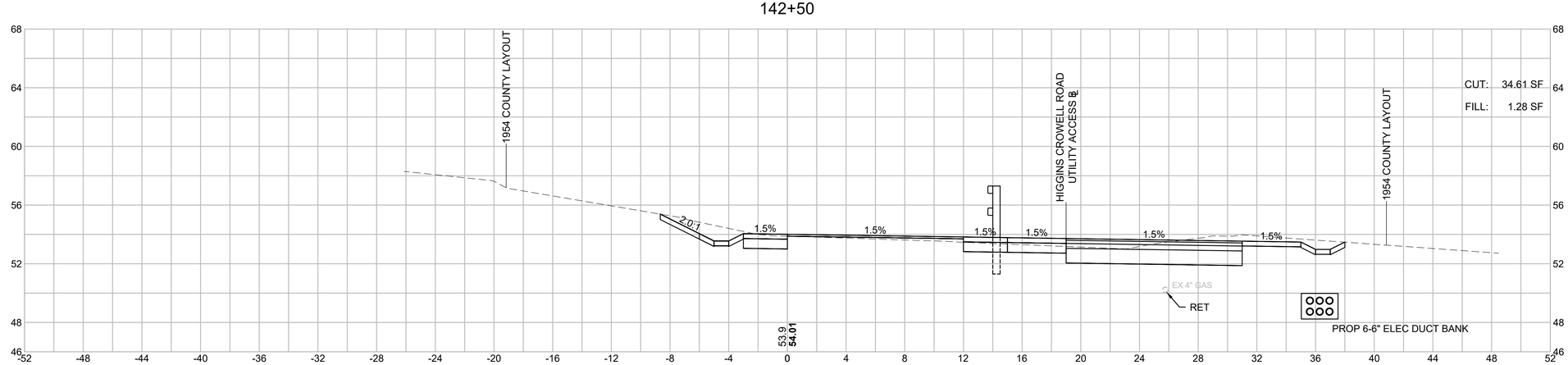
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 2:38 PM

143+00



142+50



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

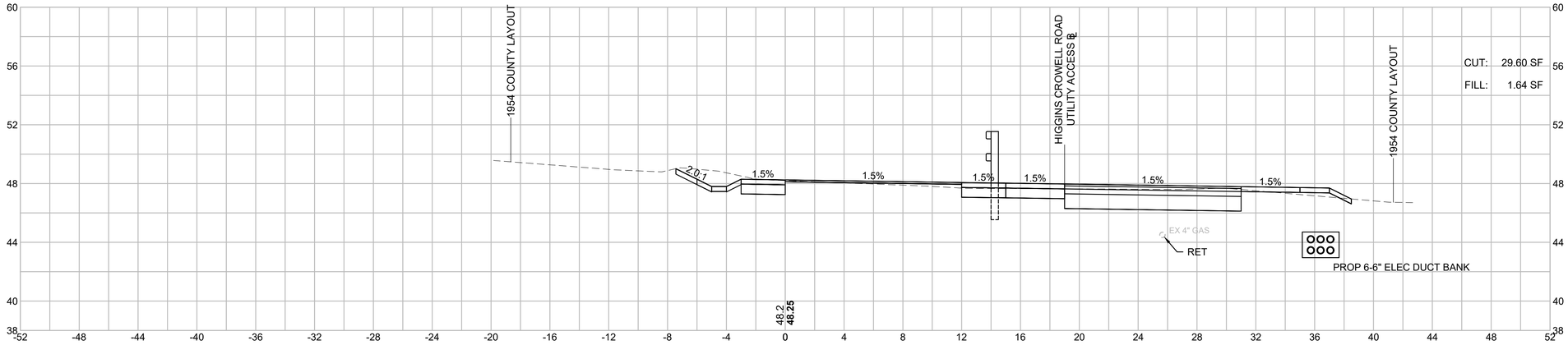
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	208	278
PROJECT FILE NO. 607398			

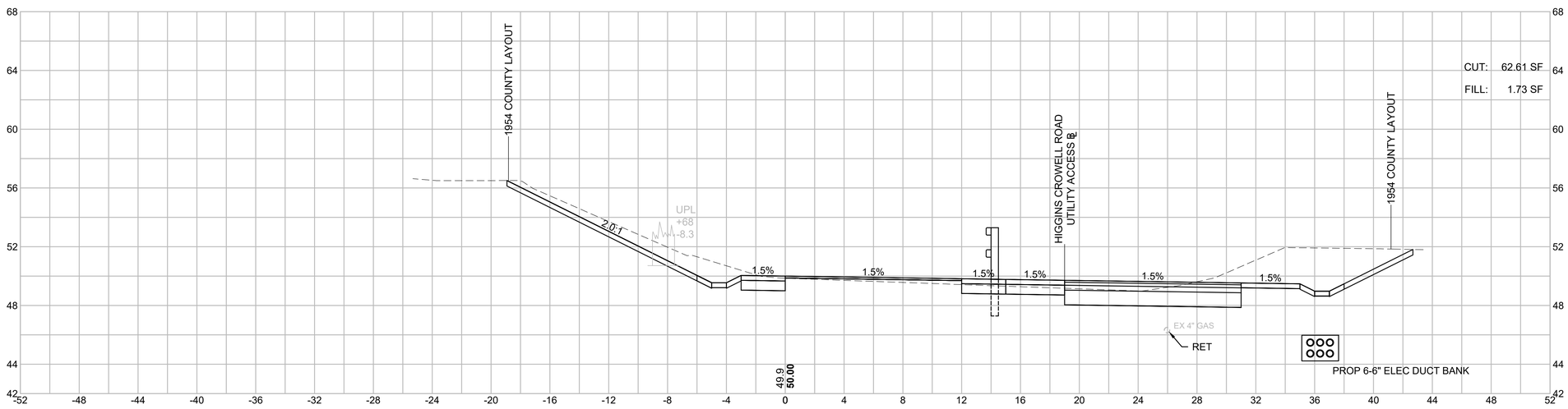
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 2:38 PM

144+00



143+50

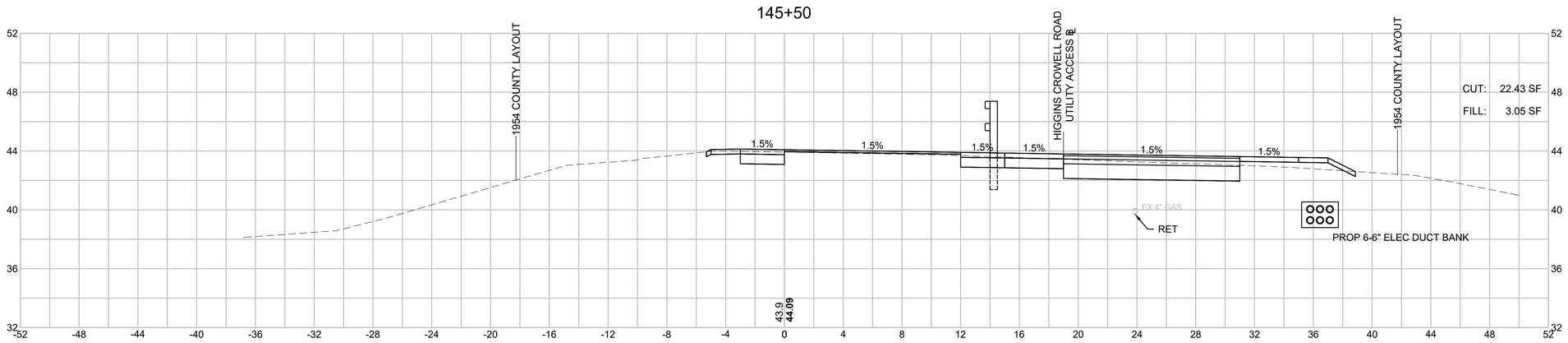


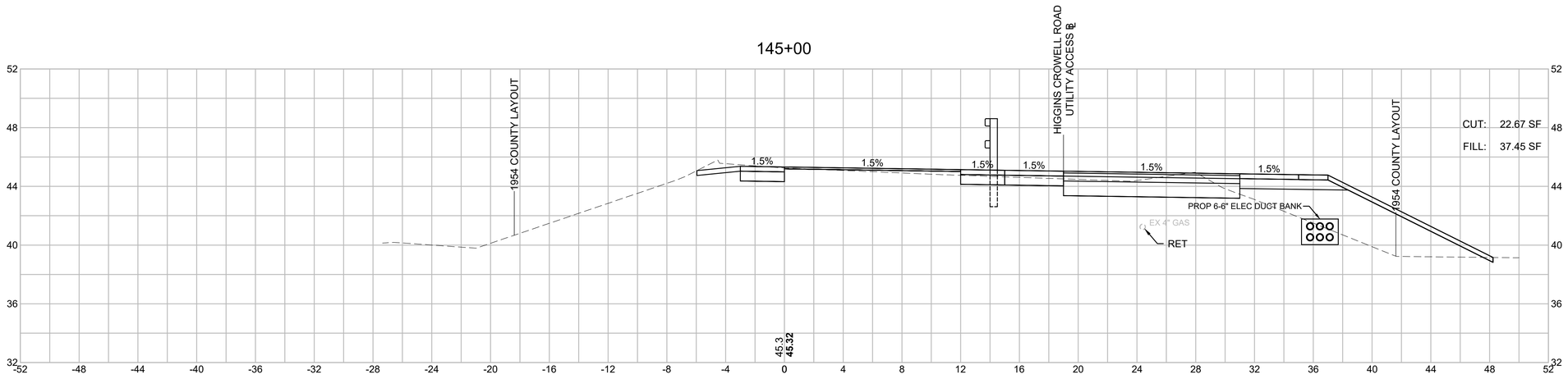
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

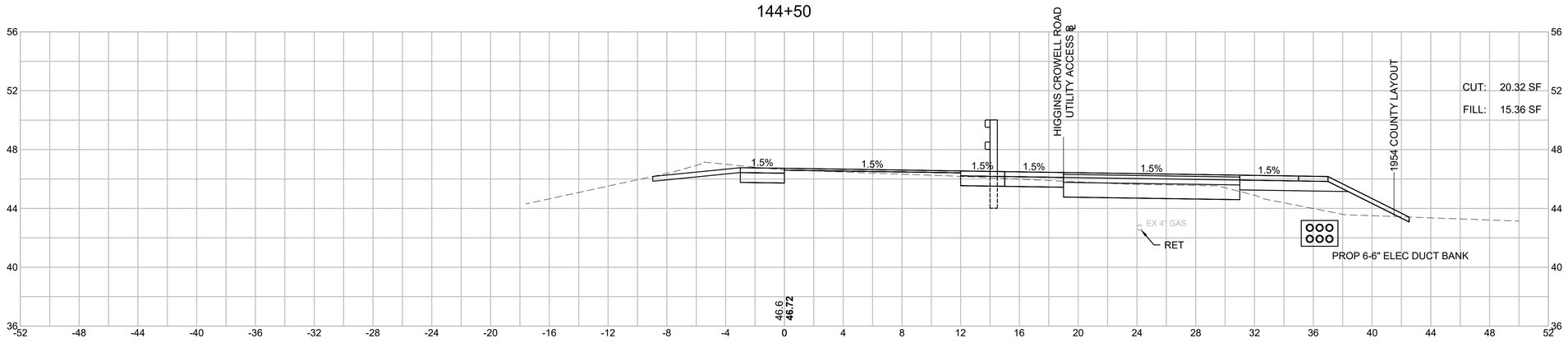
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	209	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS







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

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 2:38 PM

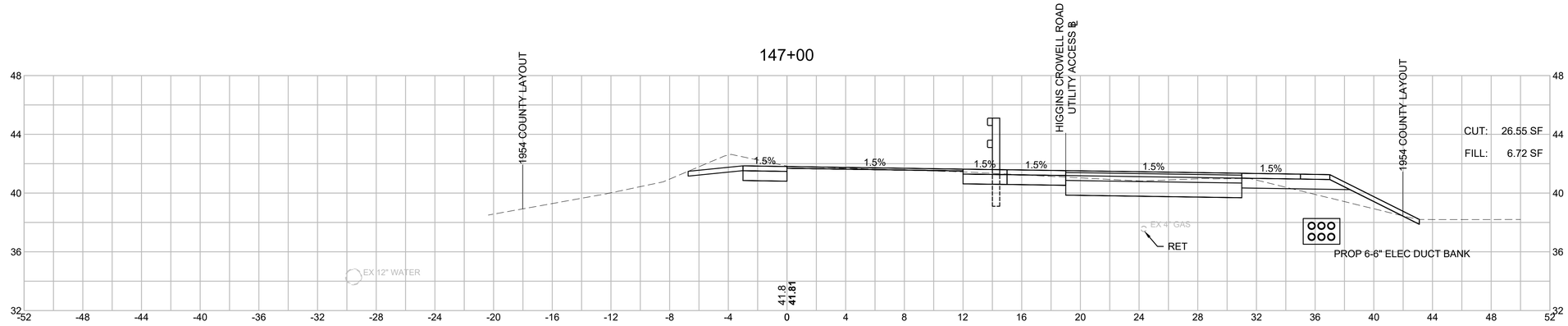
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	210	278
PROJECT FILE NO. 607398			

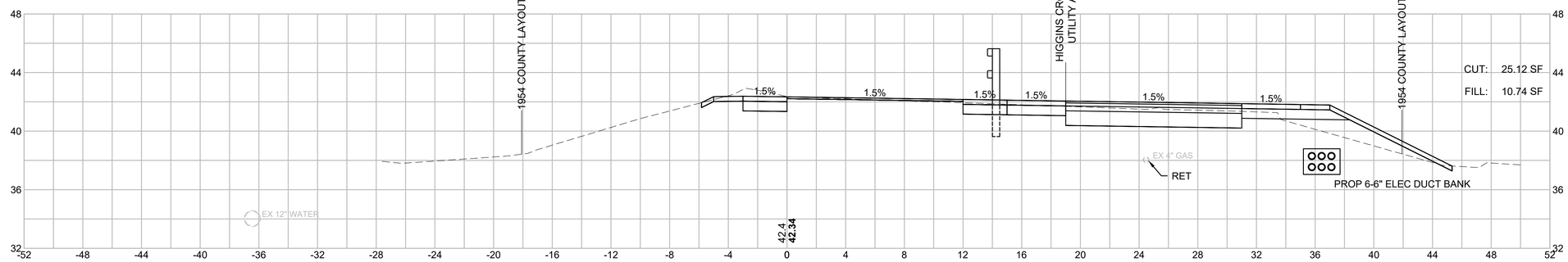
WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 2:38 PM

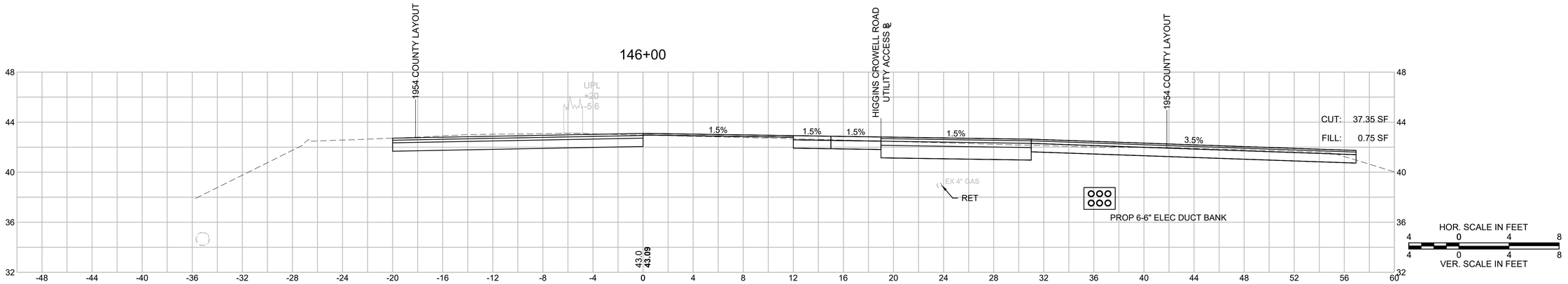
147+00



146+50



146+00

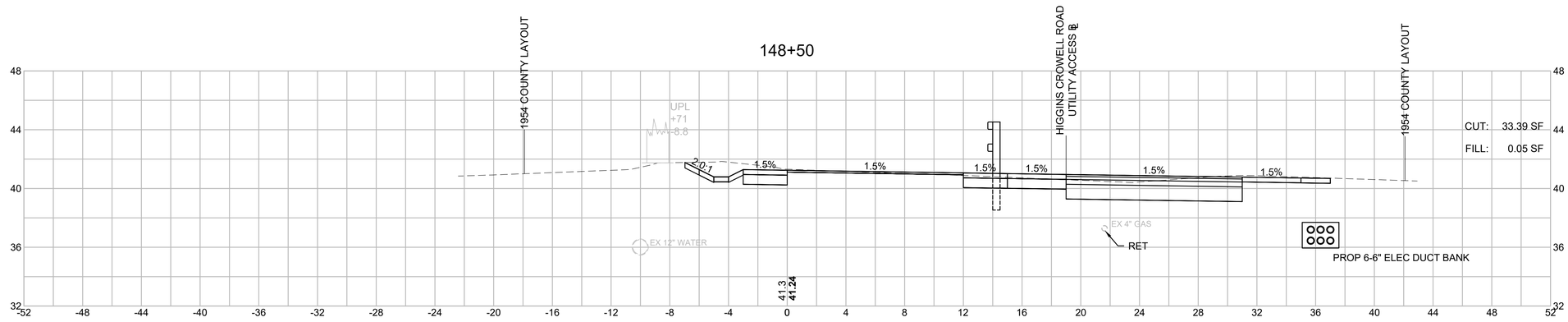


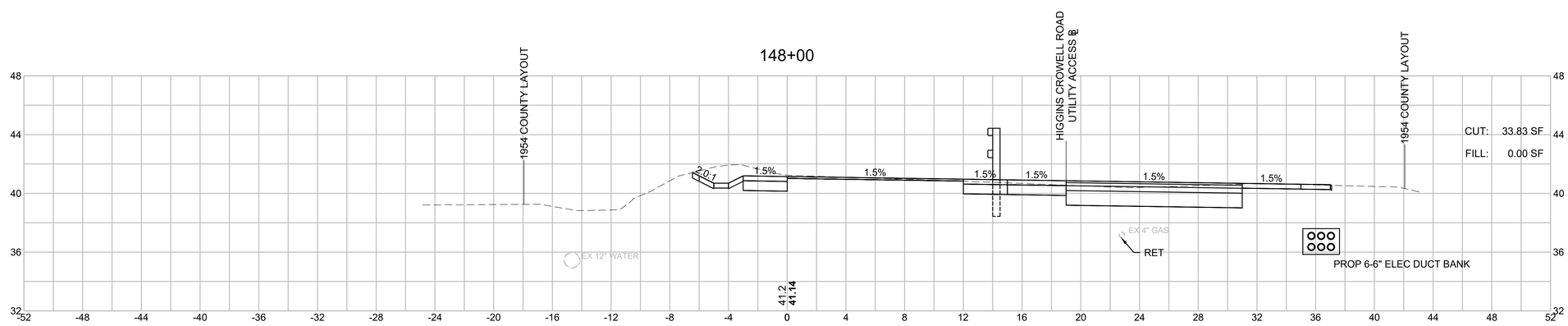
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

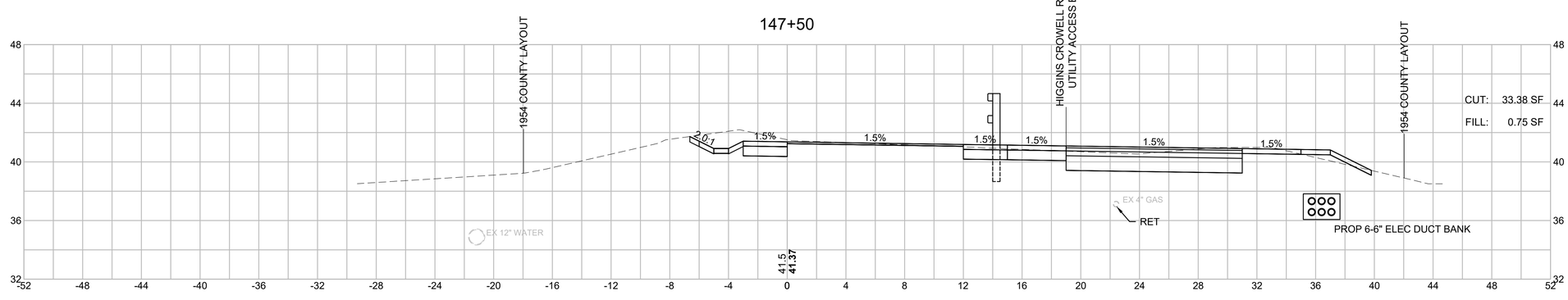
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	211	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 2:38 PM





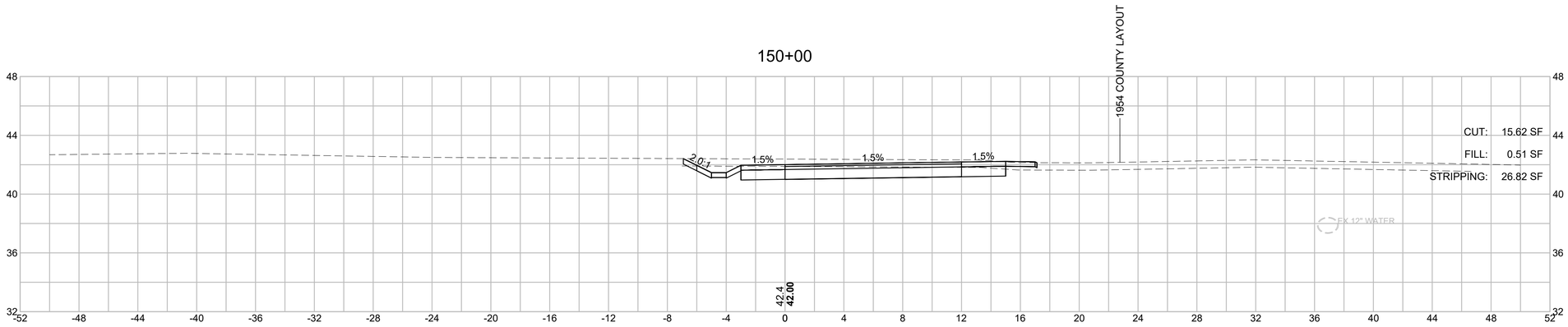


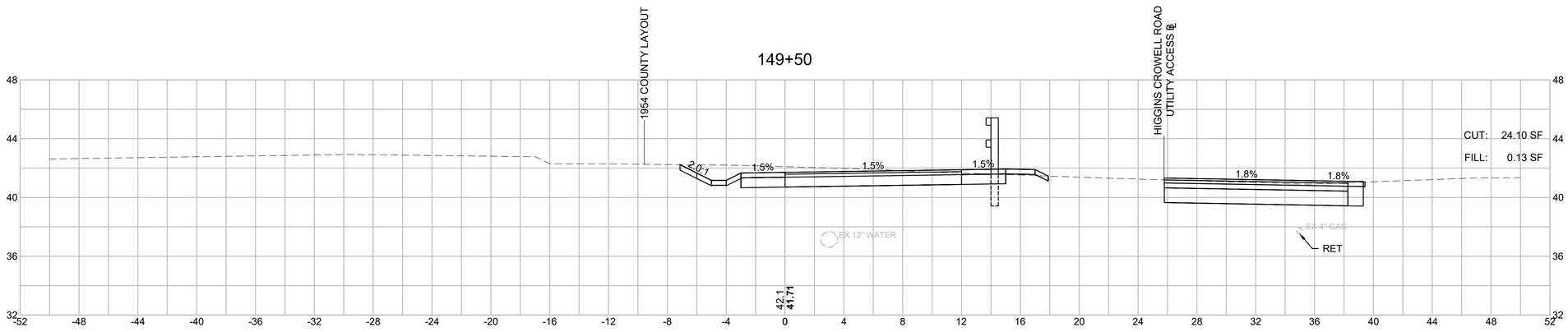
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

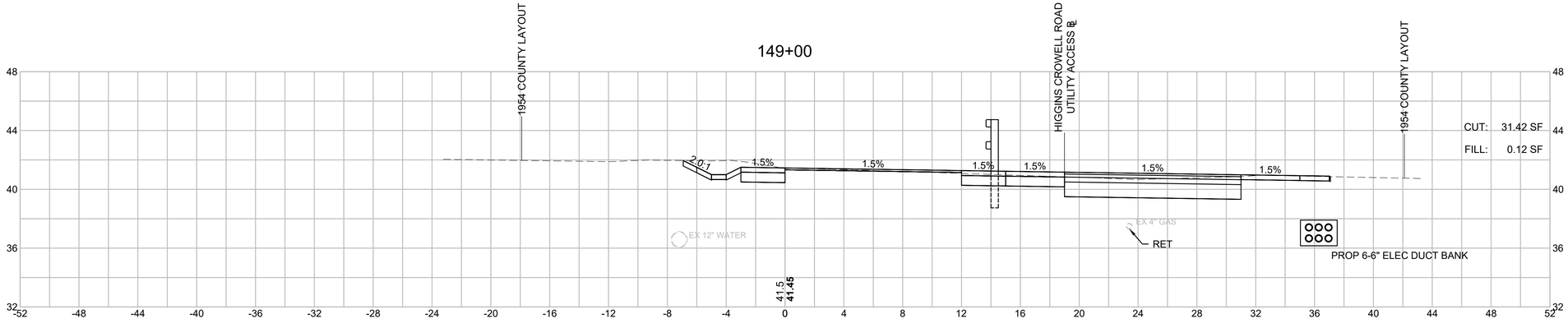
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	212	278
PROJECT FILE NO. 607398			

WEST CROSS SECTIONS







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

607398_HD\XSEC-WEST-4).DWG Plotted on 15-Feb-2024 2:38 PM

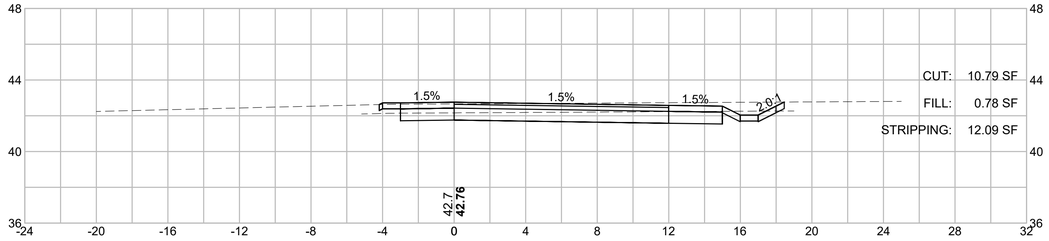
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	213	278
PROJECT FILE NO. 607398			

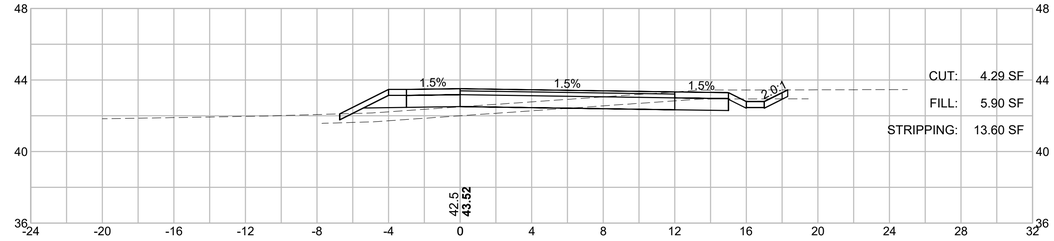
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:08 AM

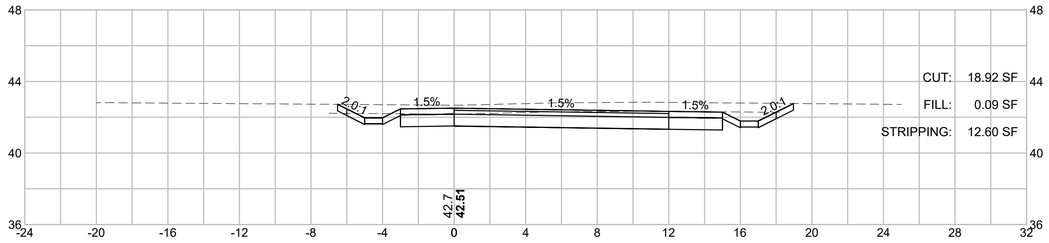
501+00



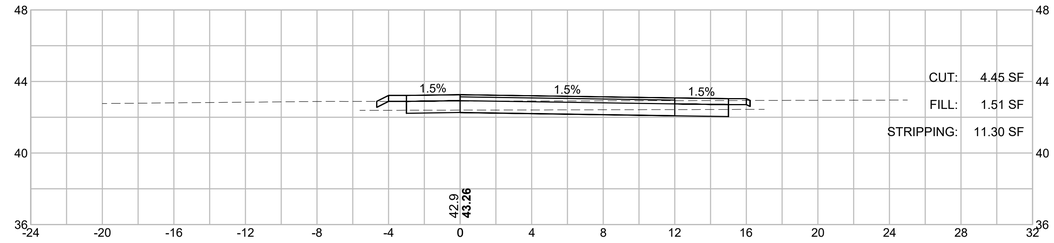
502+50



500+50

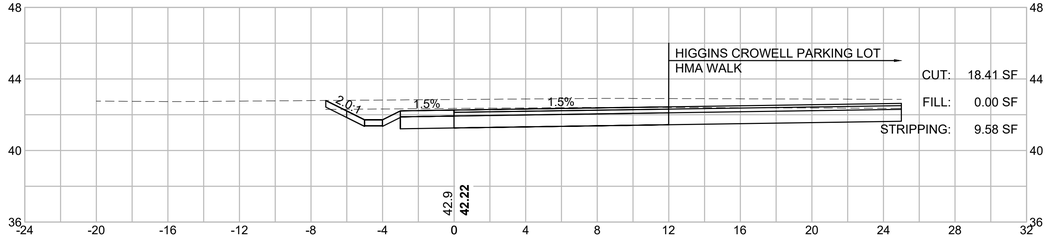


502+00

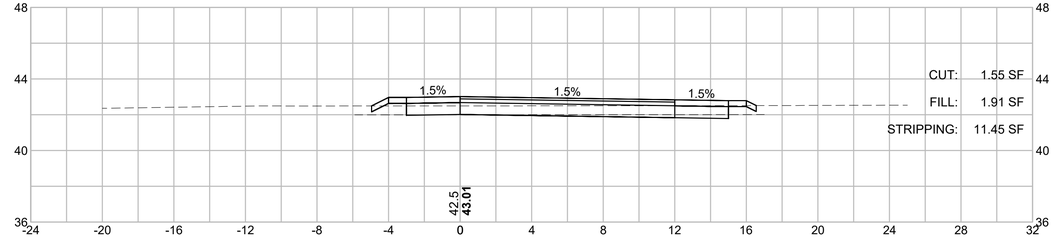


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

500+00



501+50



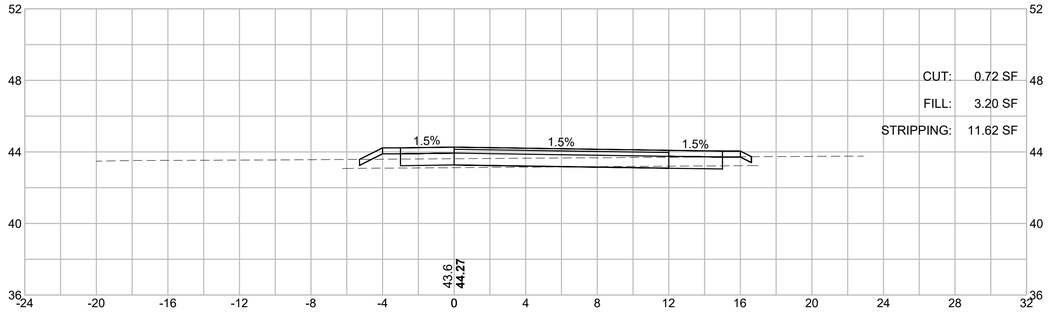
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	214	278
PROJECT FILE NO. 607398			

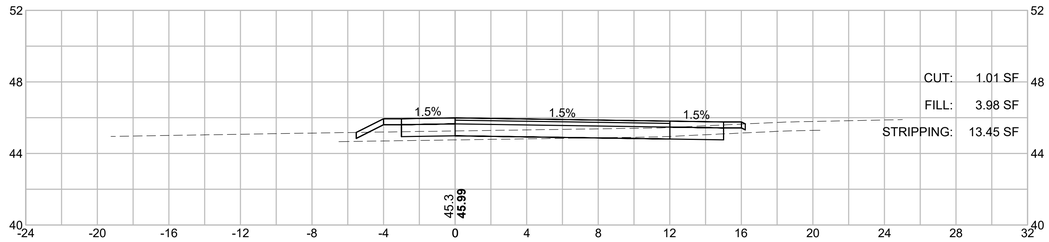
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:08 AM

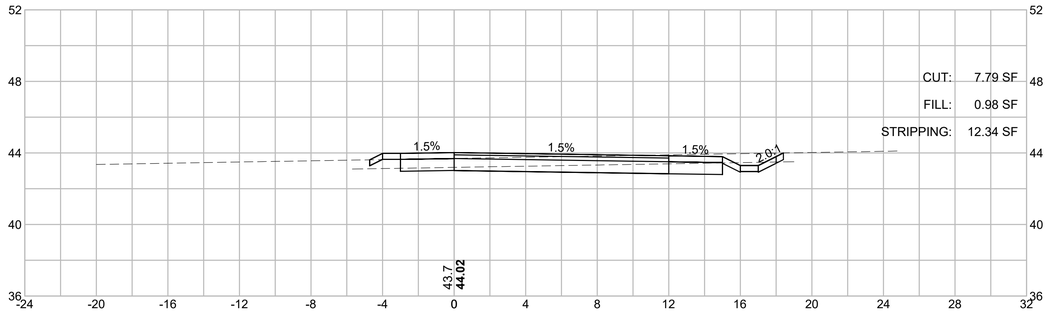
504+00



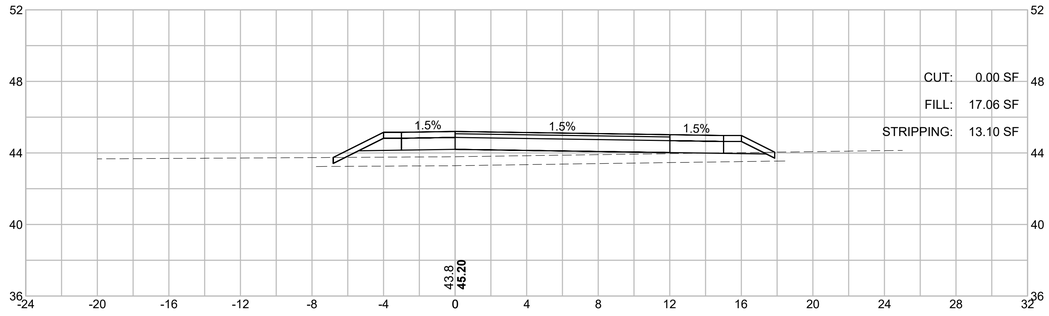
505+50



503+50

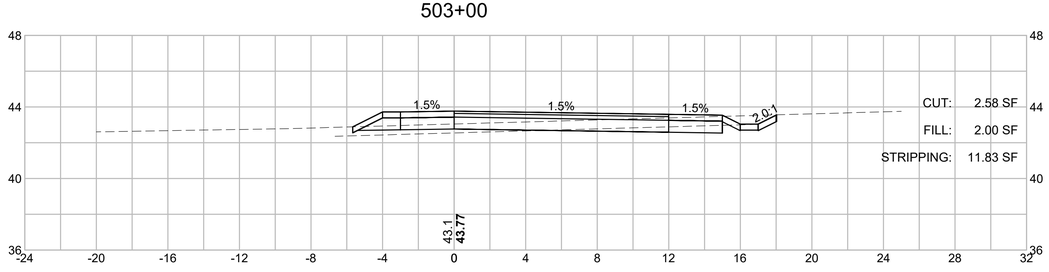


505+00

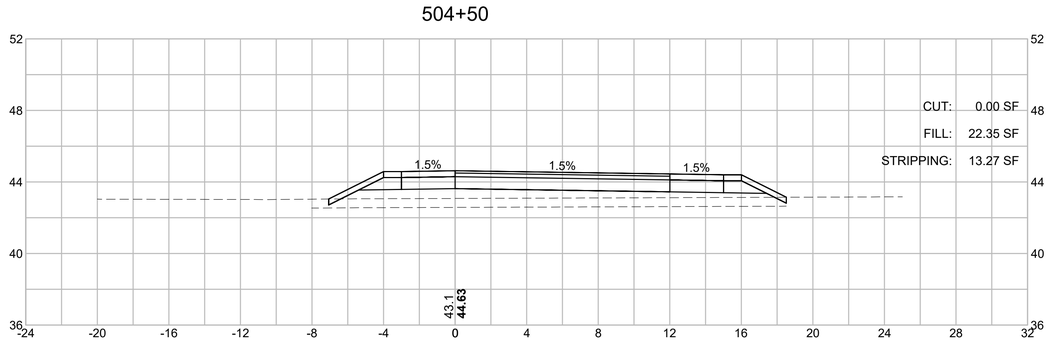


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

503+00



504+50



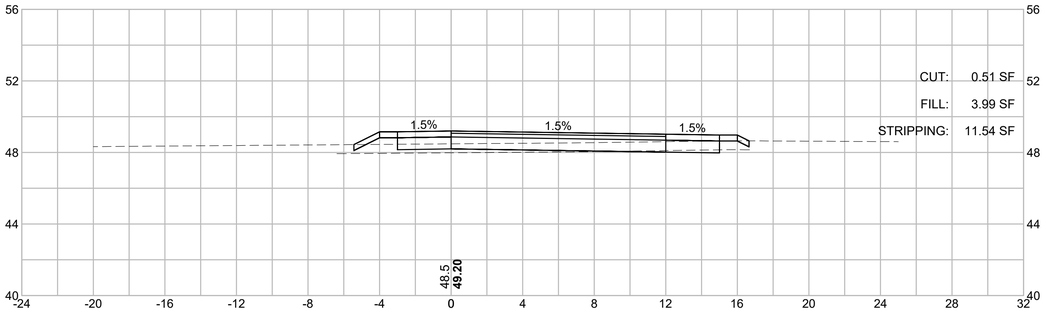
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	215	278
PROJECT FILE NO. 607398			

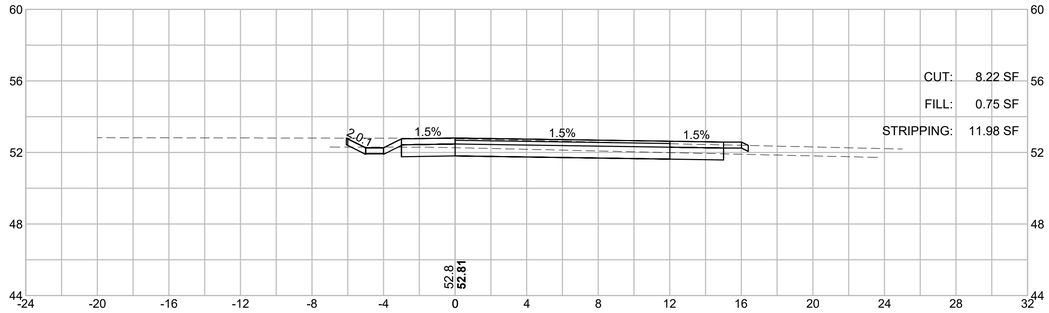
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:06 AM

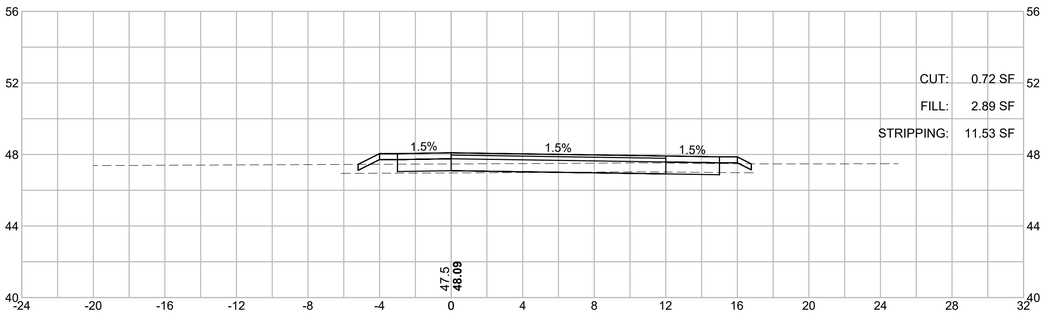
507+00



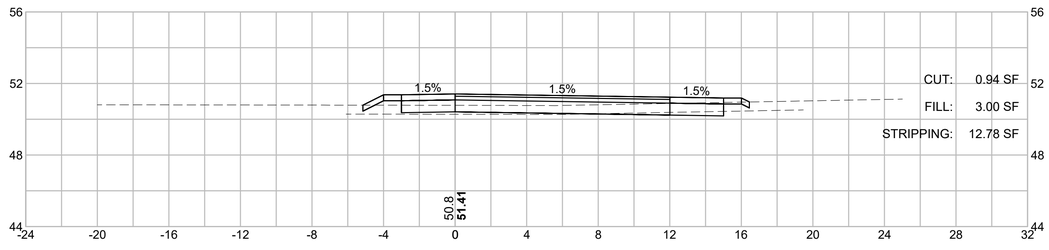
508+50



506+50

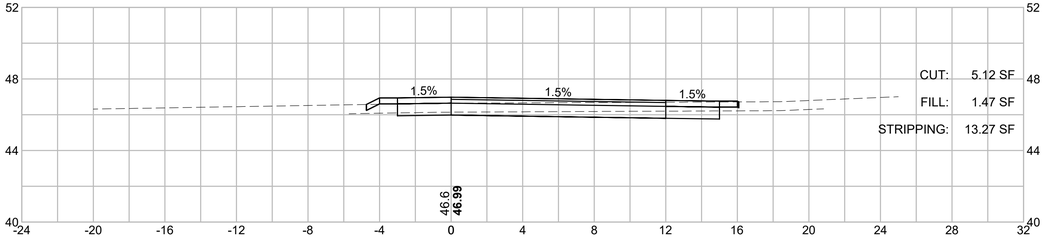


508+00

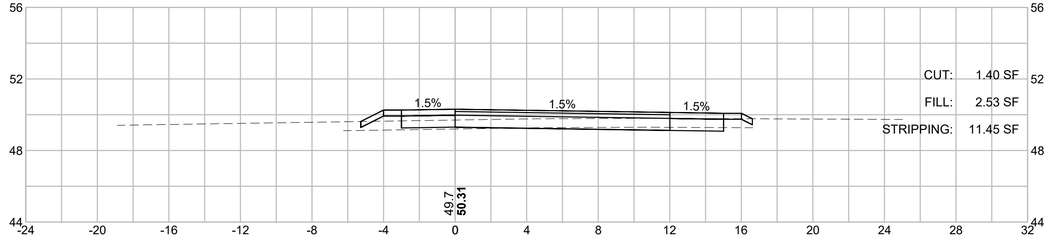


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

506+00



507+50



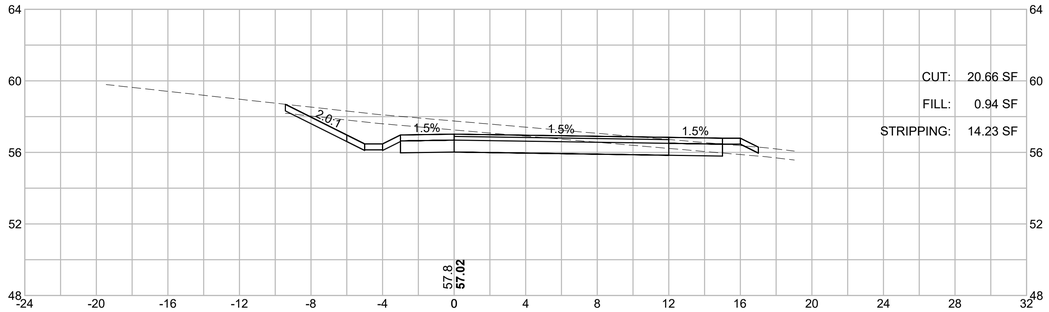
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	216	278
PROJECT FILE NO. 607398			

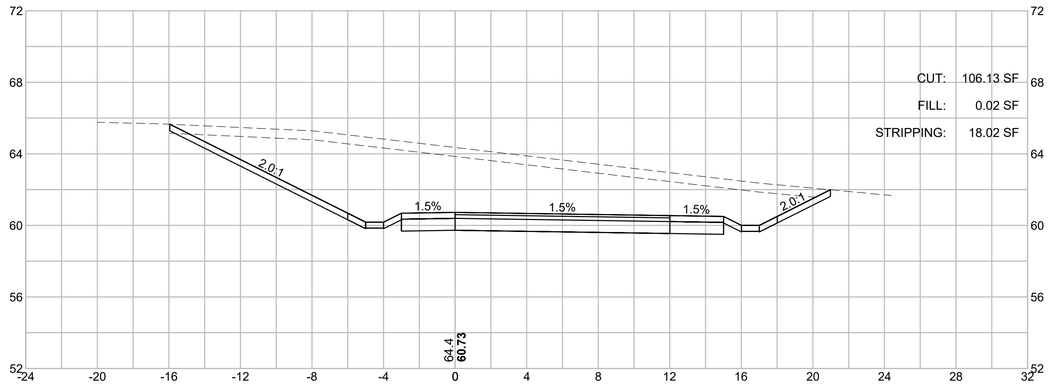
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:09 AM

509+50

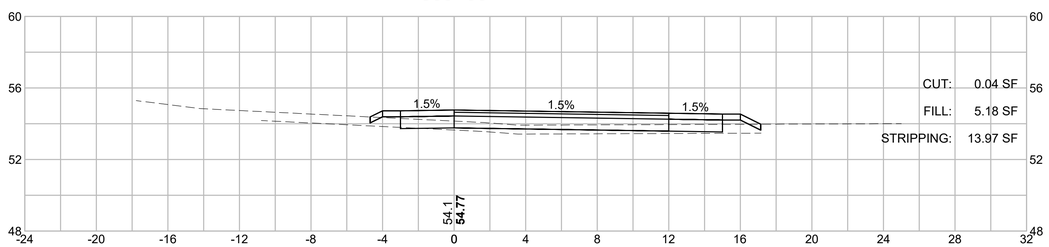


510+50

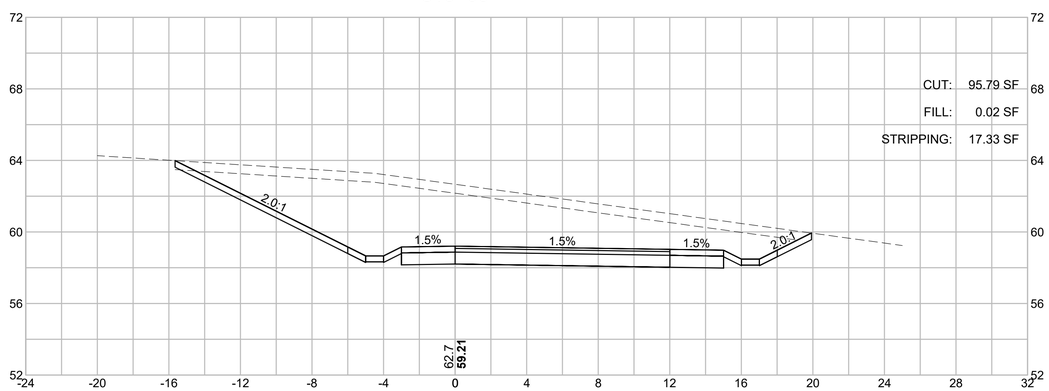


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

509+00



510+00



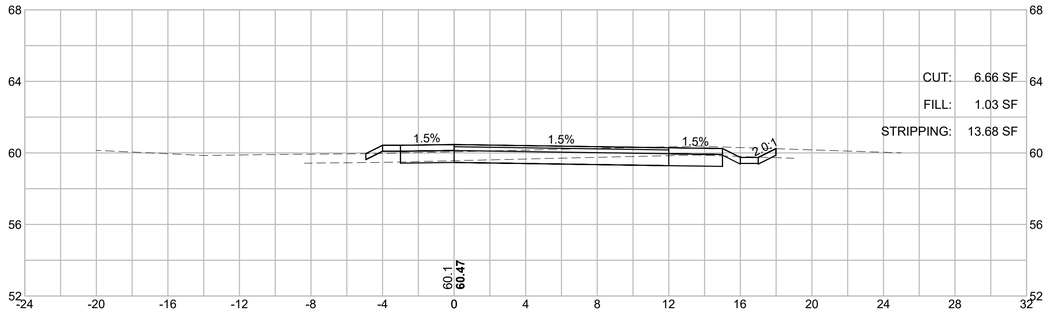
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	217	278
PROJECT FILE NO. 607398			

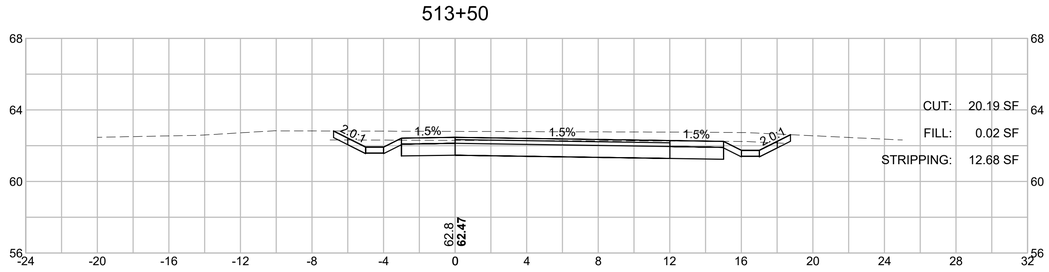
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:09 AM

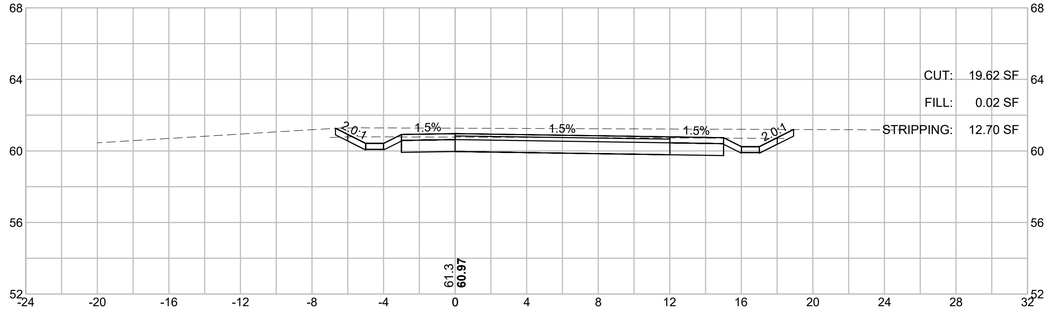
512+00



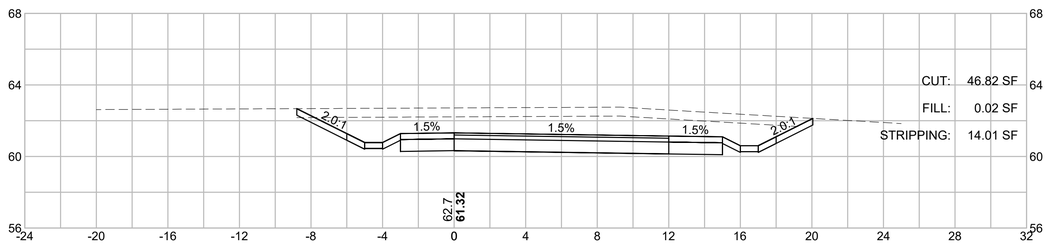
513+50



513+00

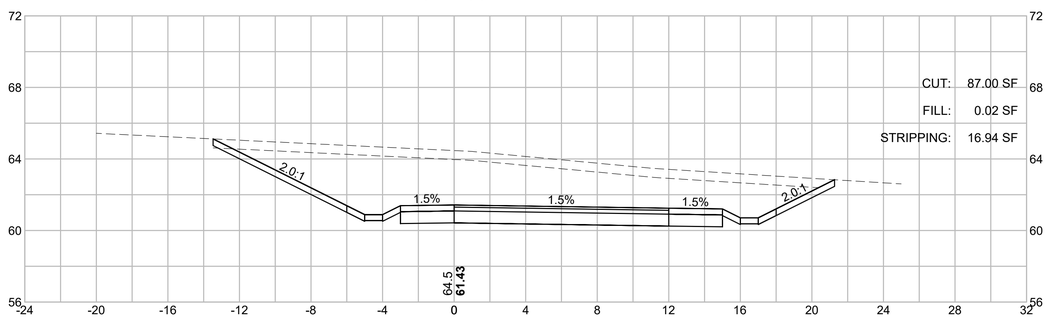


511+50

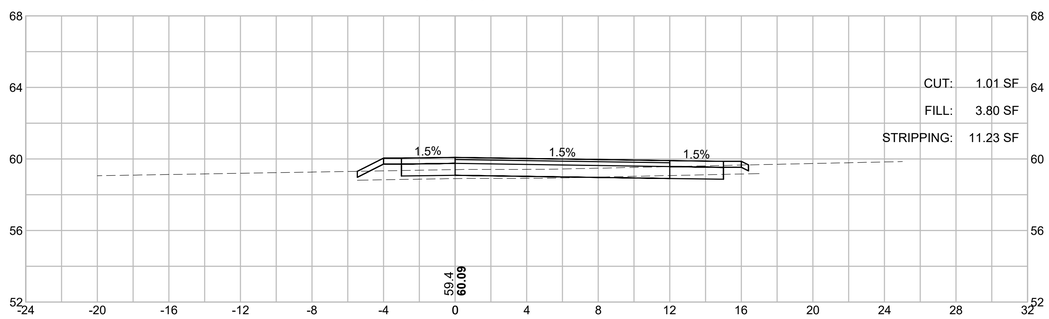


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

511+00



512+50



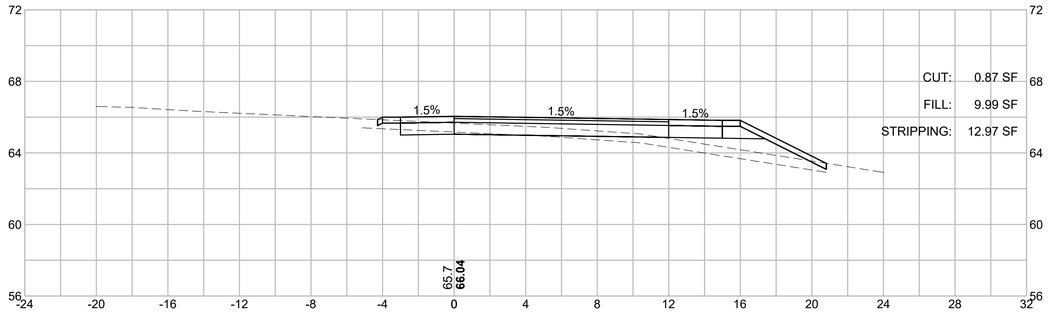
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	218	278
PROJECT FILE NO. 607398			

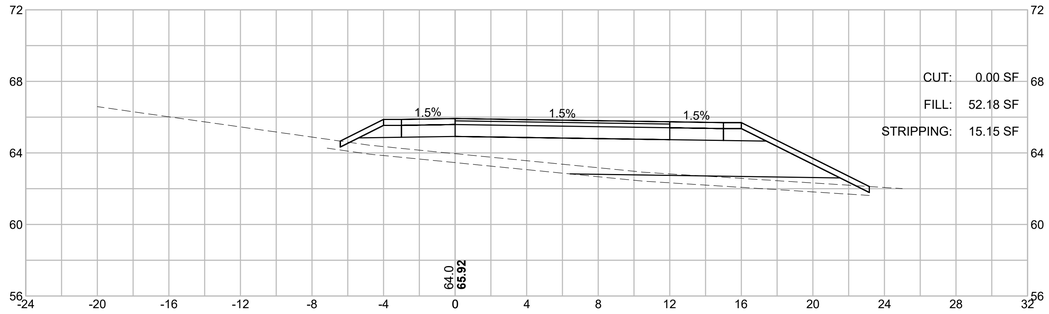
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:09 AM

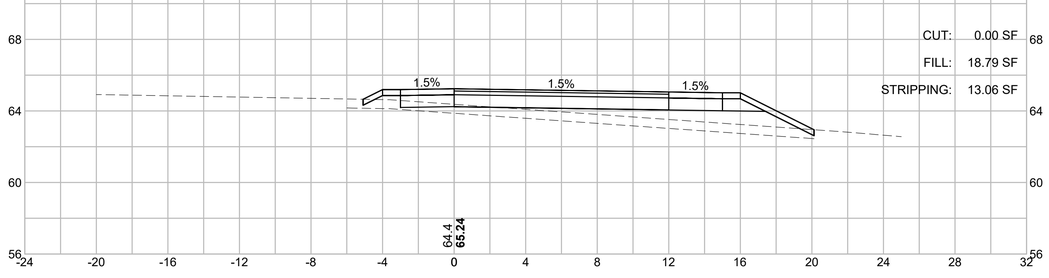
515+00



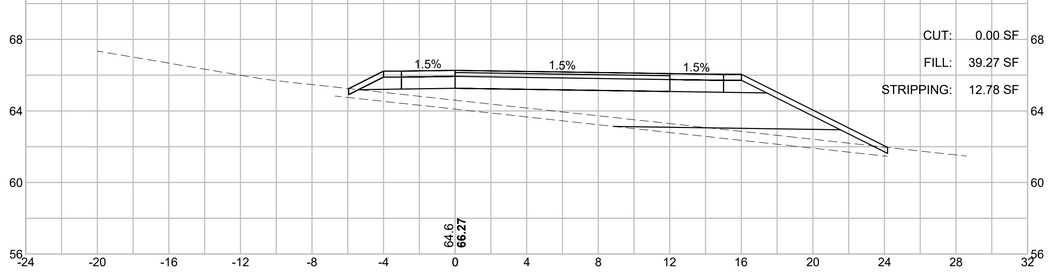
516+50



514+50

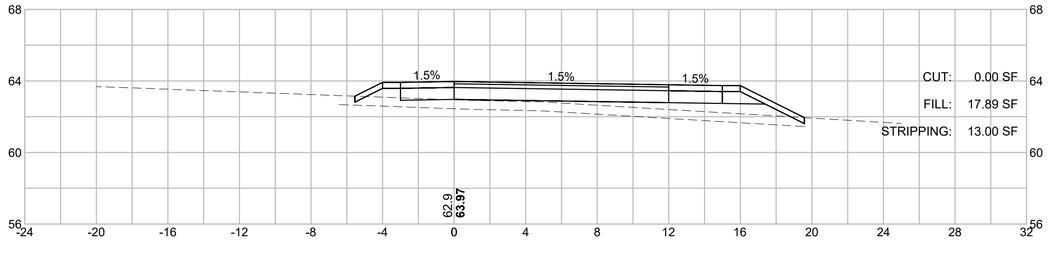


516+00

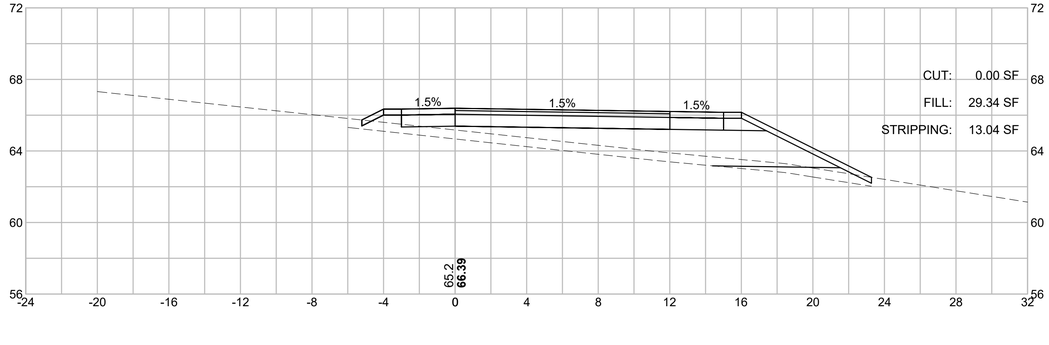


HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

514+00



515+50



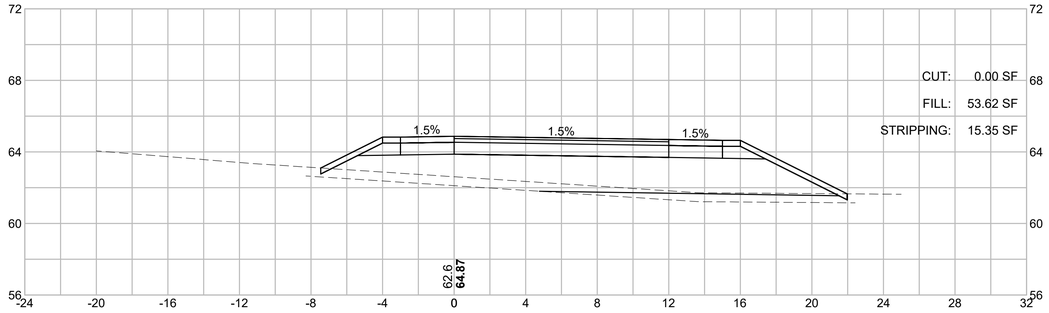
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	219	278
PROJECT FILE NO. 607398			

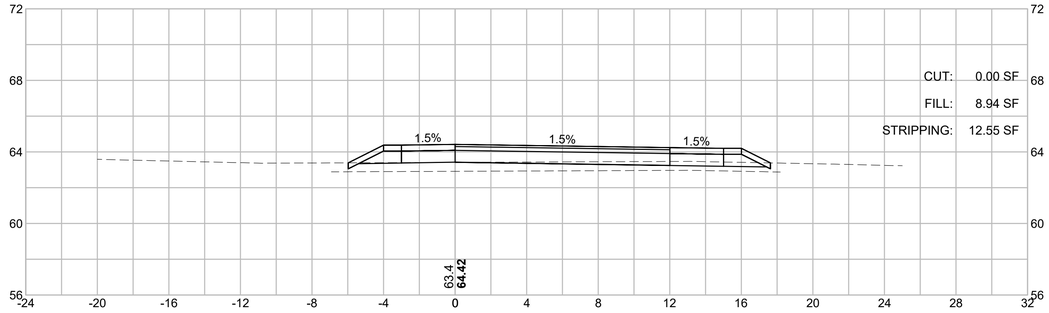
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:09 AM

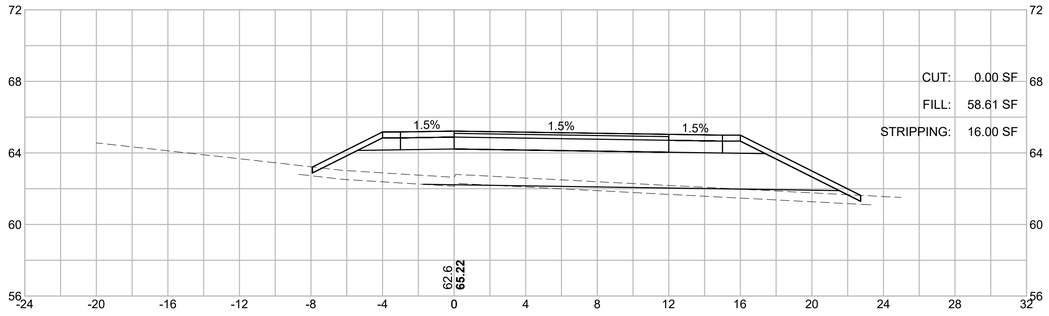
518+00



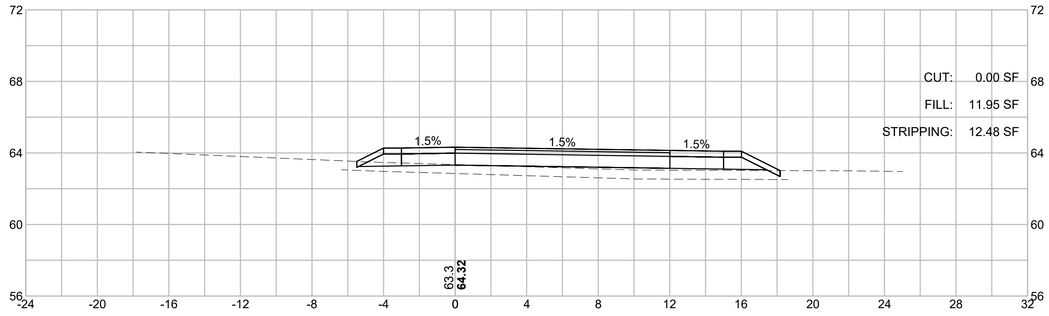
519+50



517+50

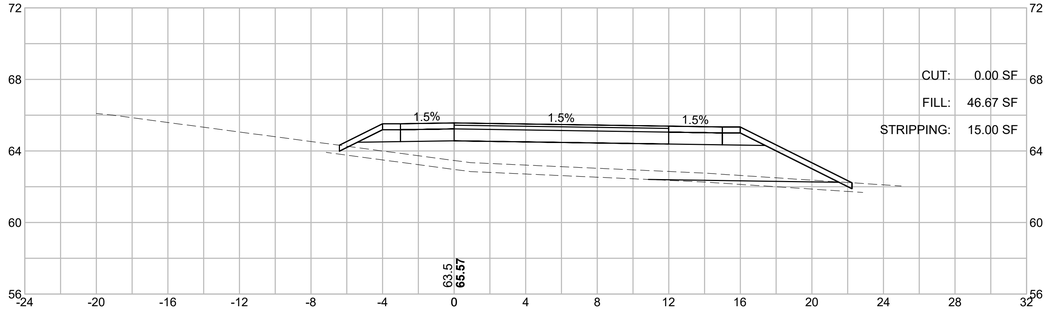


519+00

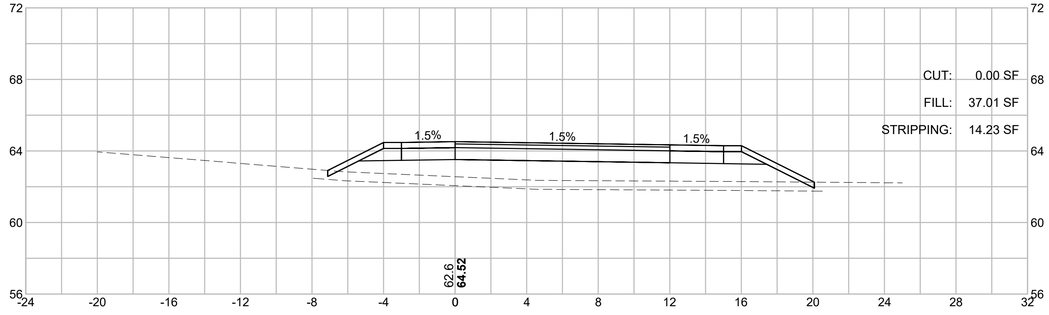


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

517+00



518+50



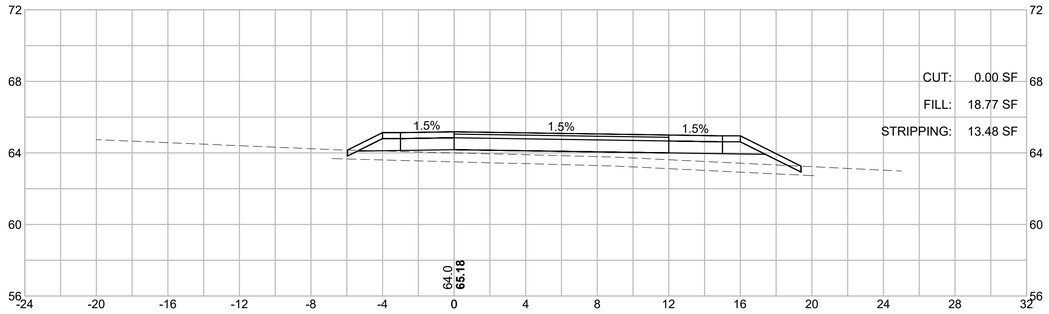
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	220	278
PROJECT FILE NO. 607398			

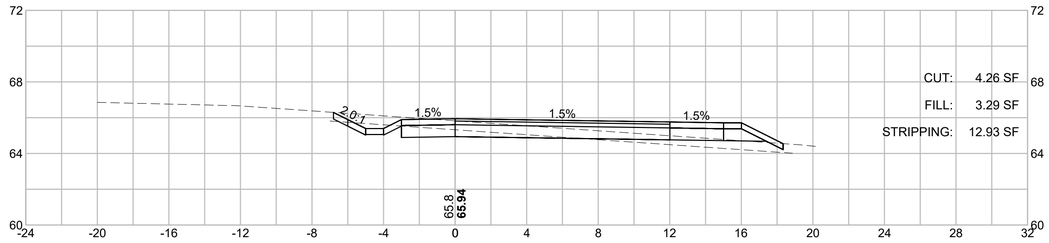
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:09 AM

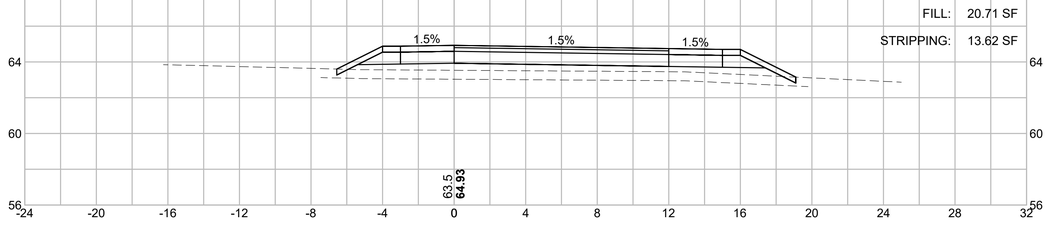
521+00



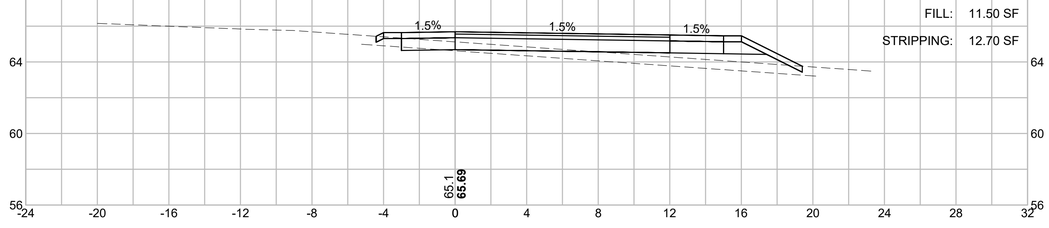
522+50



520+50

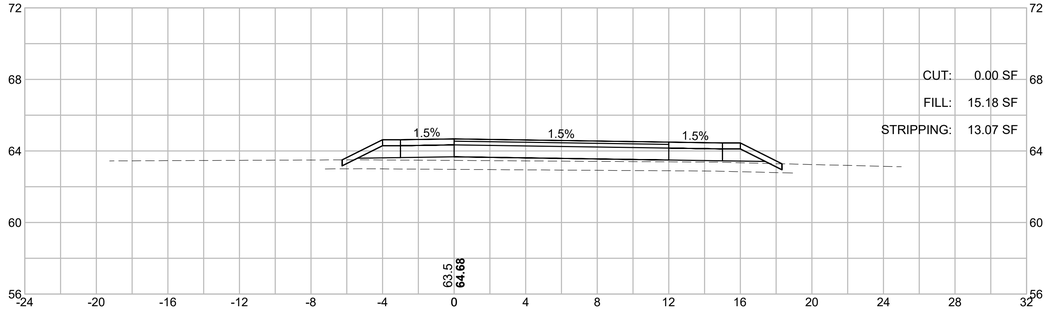


522+00

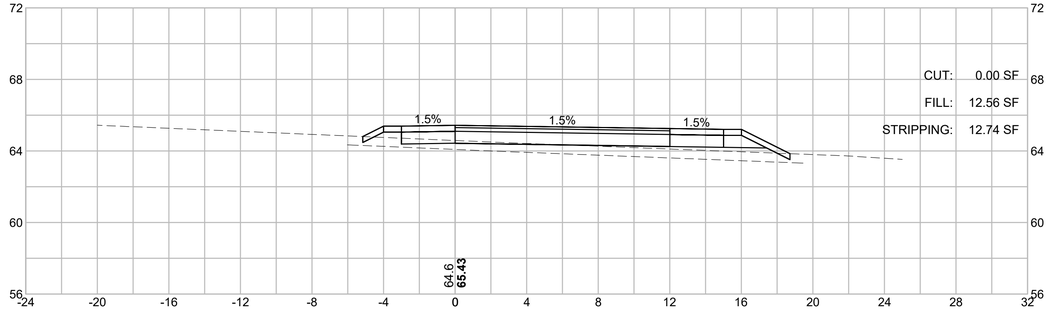


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

520+00



521+50



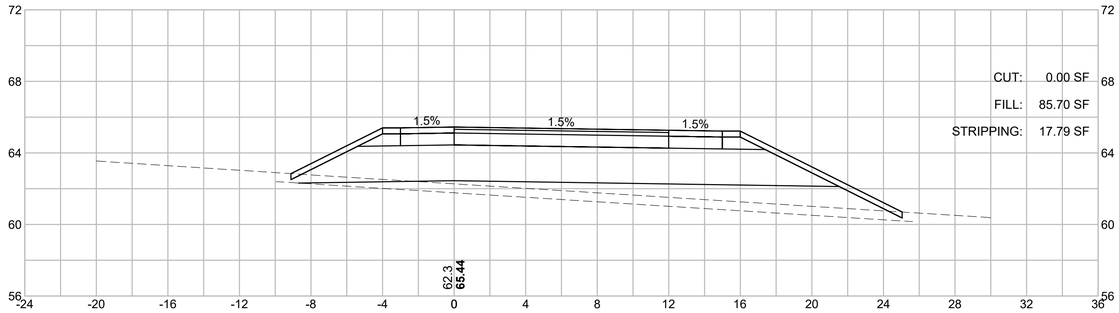
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	221	278
PROJECT FILE NO. 607398			

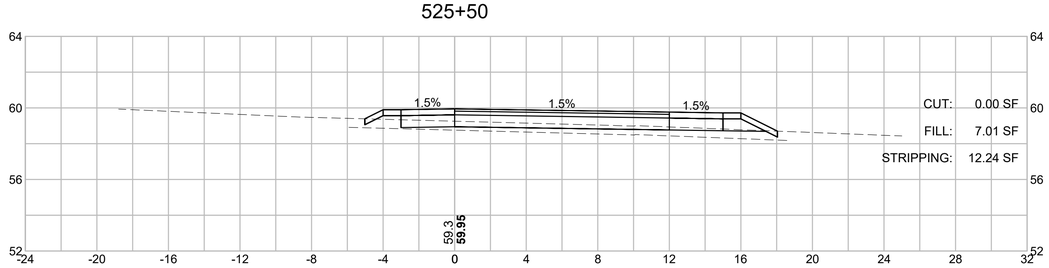
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:09 AM

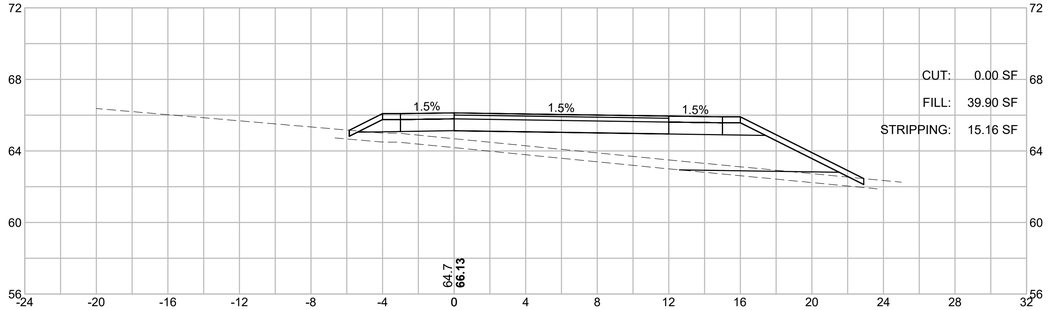
524+00



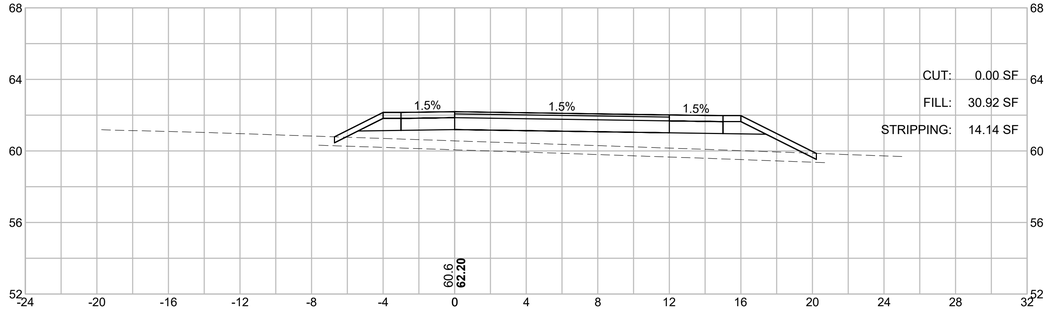
525+50



523+50

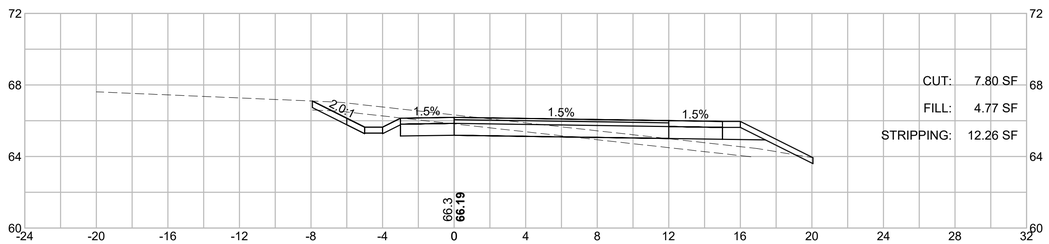


525+00

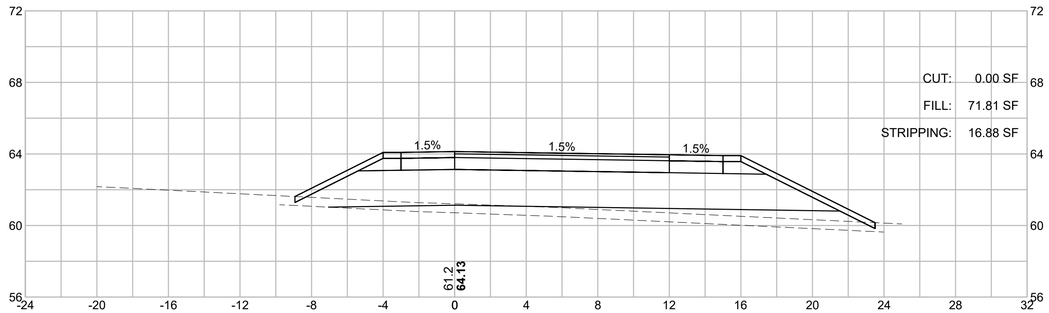


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

523+00



524+50



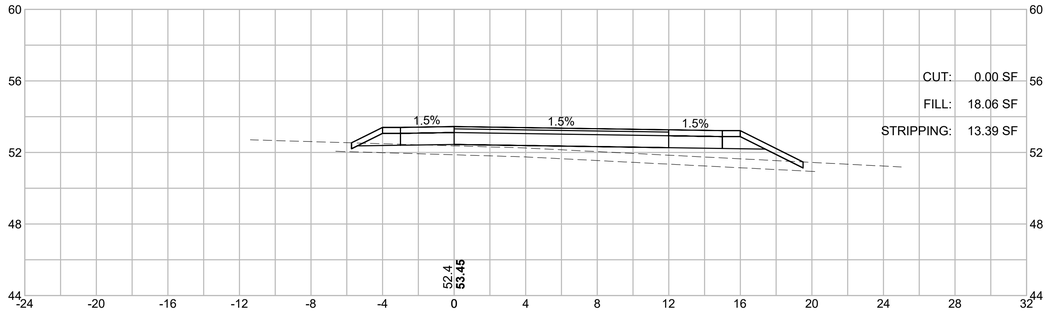
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	222	278
PROJECT FILE NO. 607398			

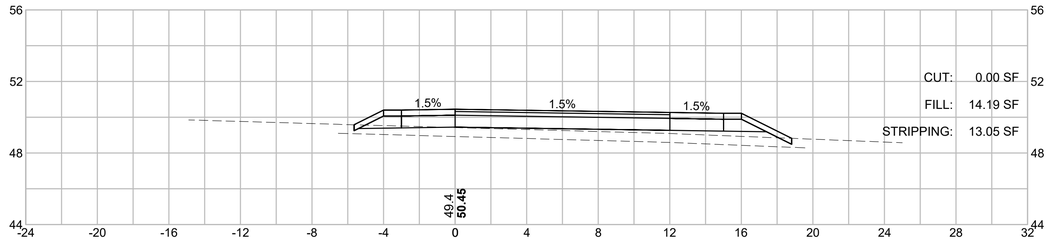
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:10 AM

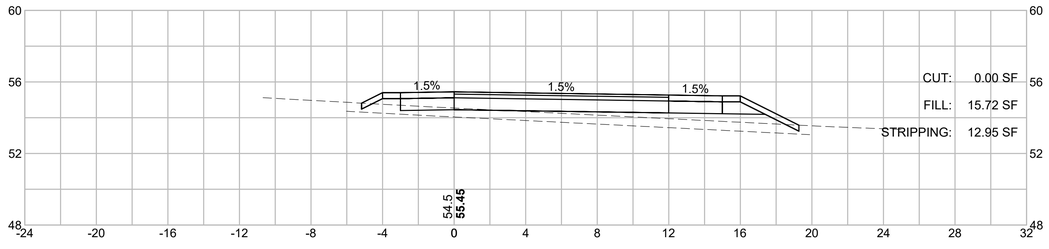
527+00



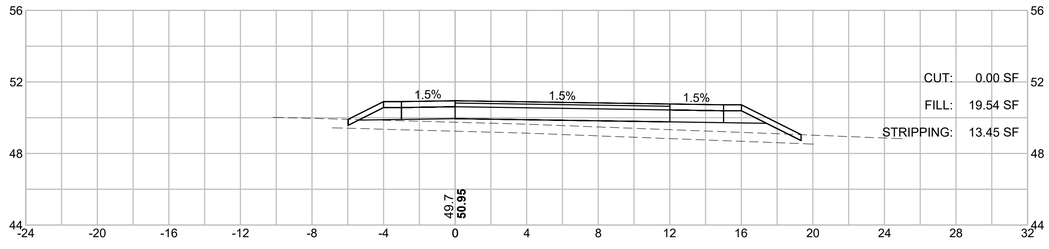
528+50



526+50

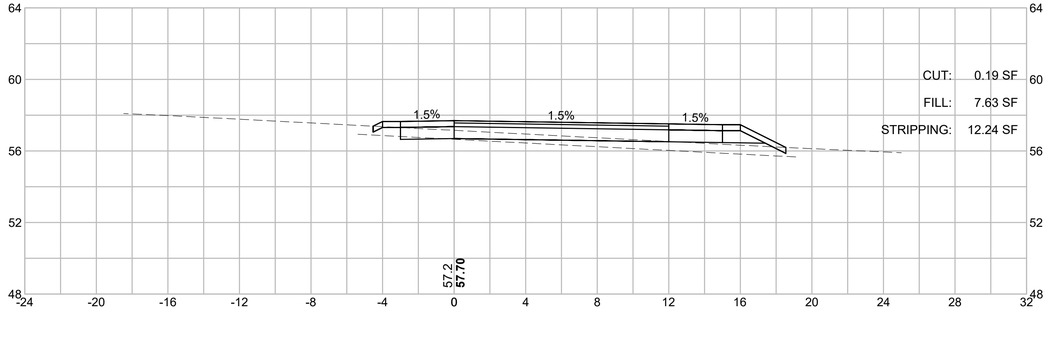


528+00

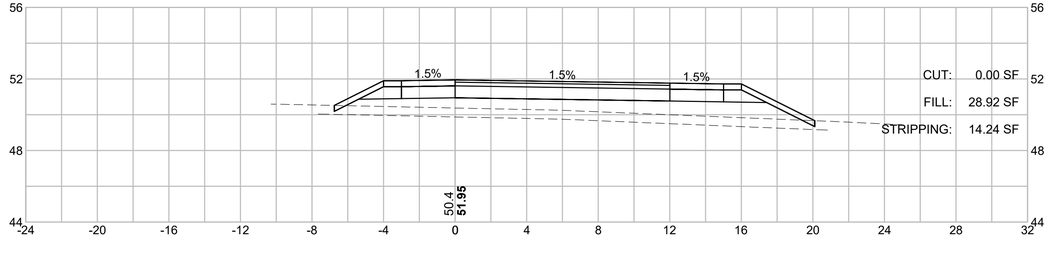


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

526+00



527+50



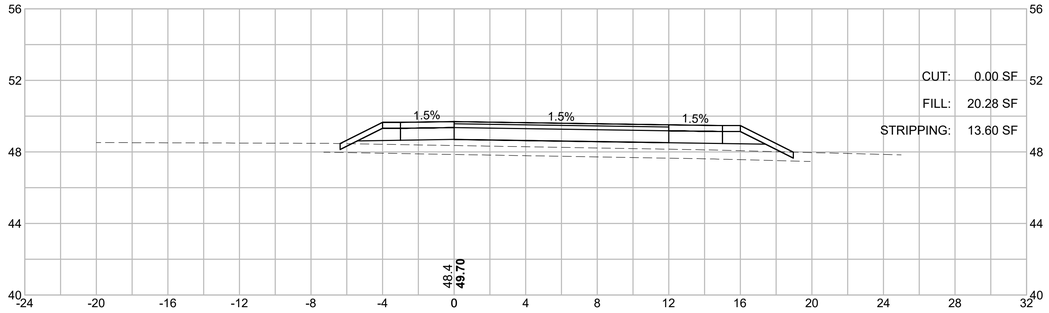
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	223	278
PROJECT FILE NO. 607398			

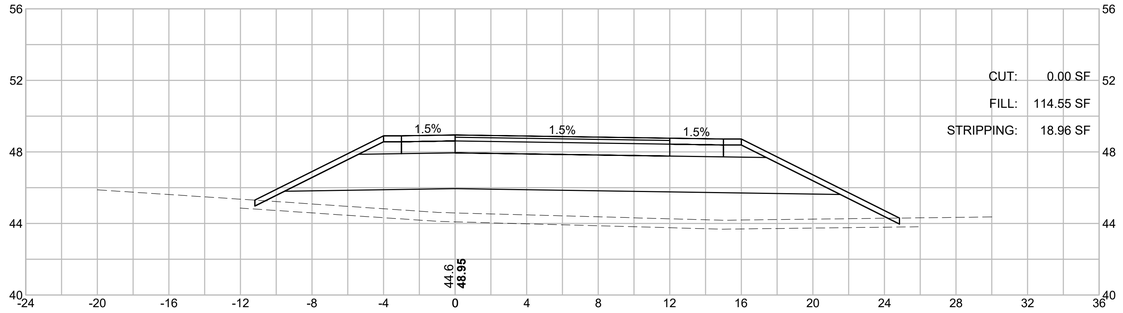
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:10 AM

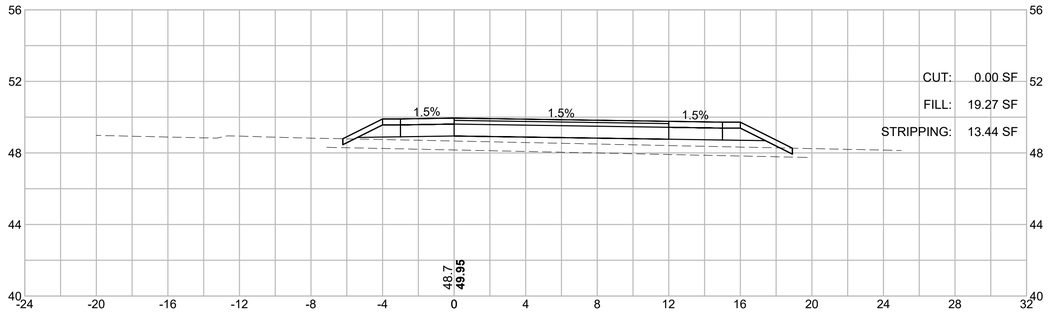
530+00



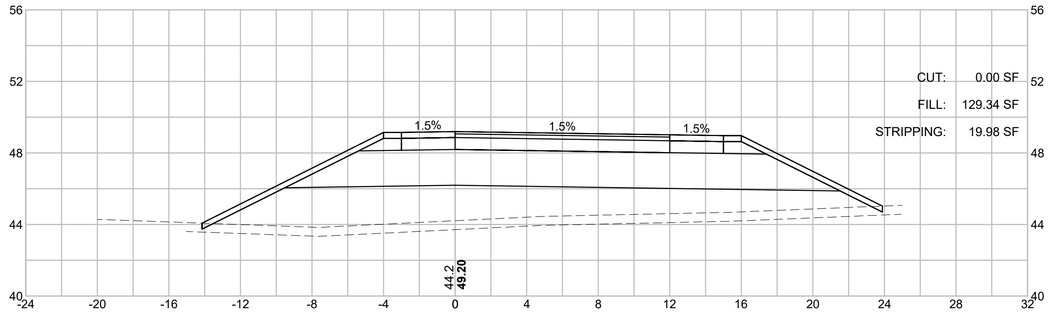
531+50



529+50

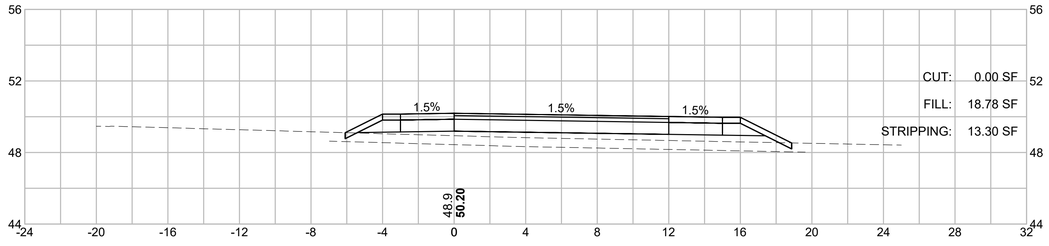


531+00

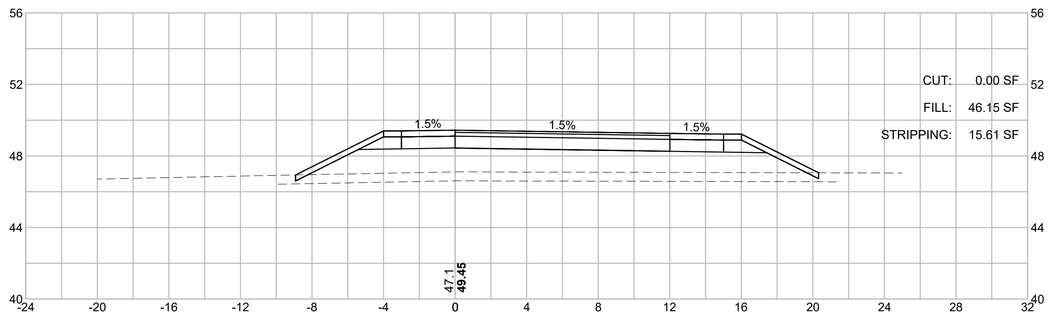


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

529+00



530+50



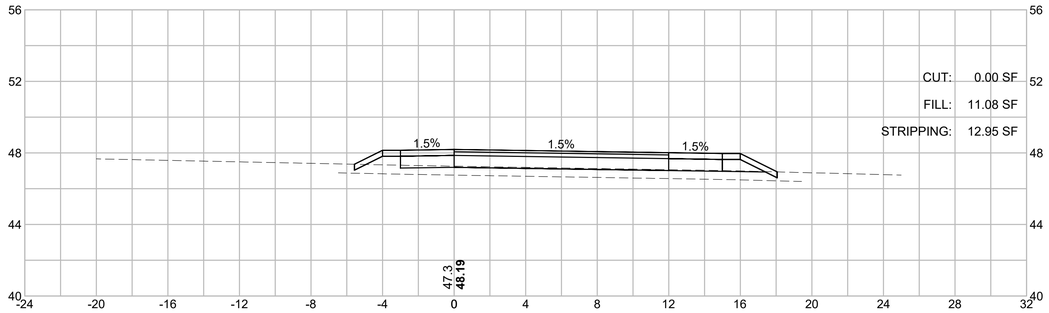
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	224	278
PROJECT FILE NO. 607398			

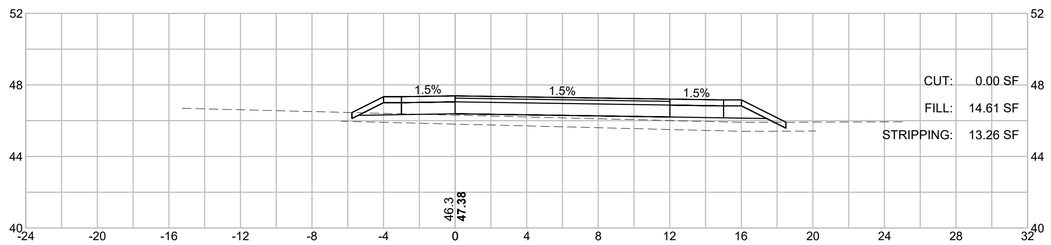
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:10 AM

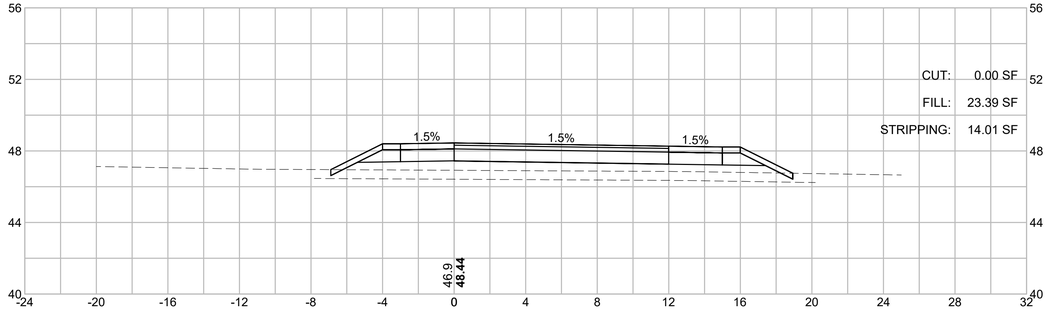
533+00



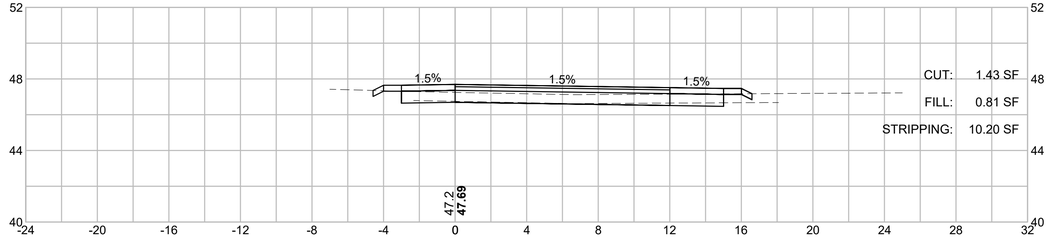
534+50



532+50

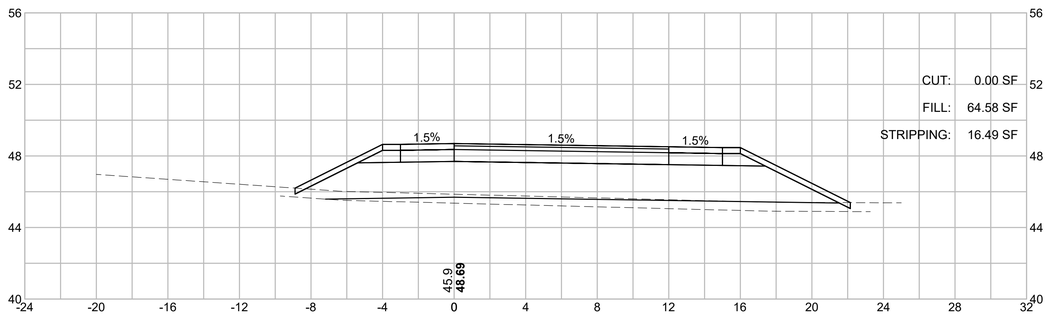


534+00

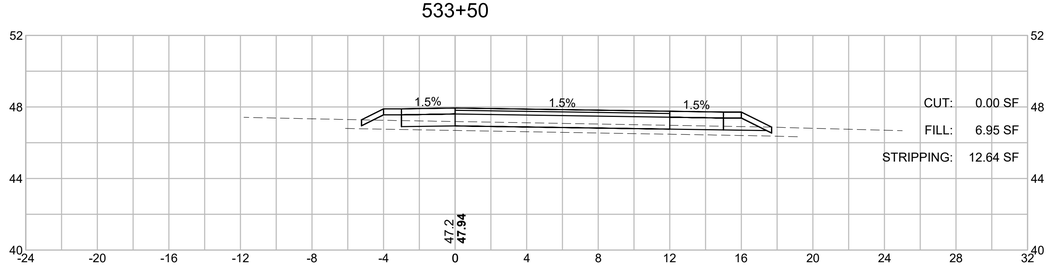


HOR. SCALE IN FETT
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

532+00



533+50



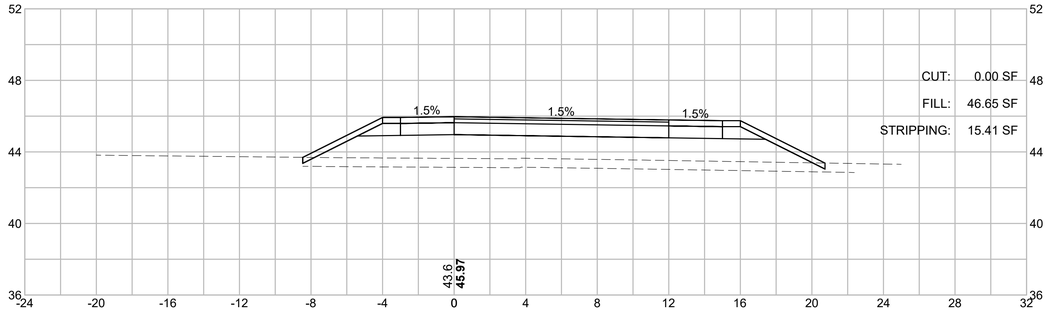
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	225	278
PROJECT FILE NO. 607398			

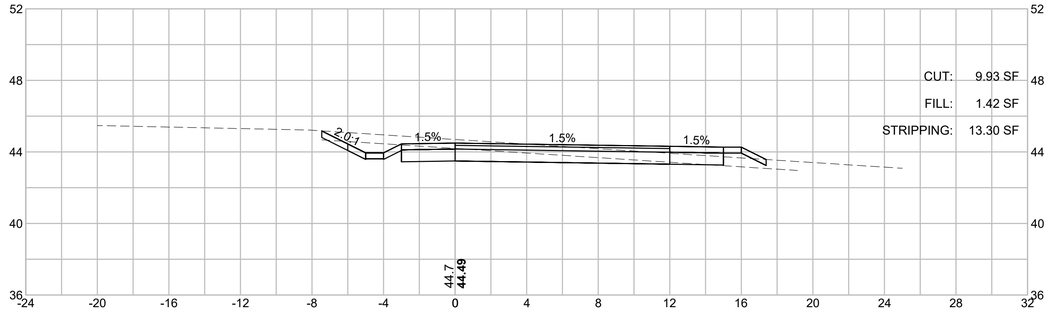
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:10 AM

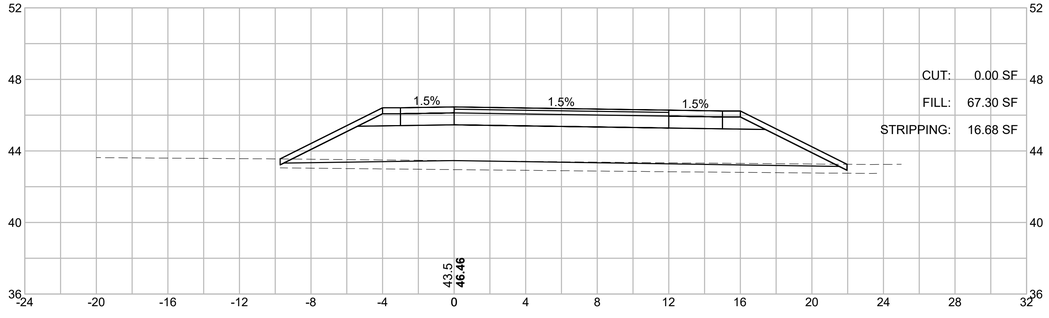
536+00



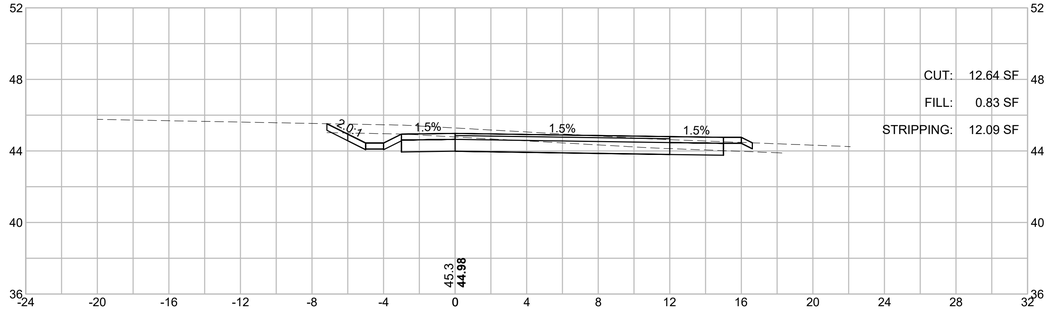
537+50



535+50

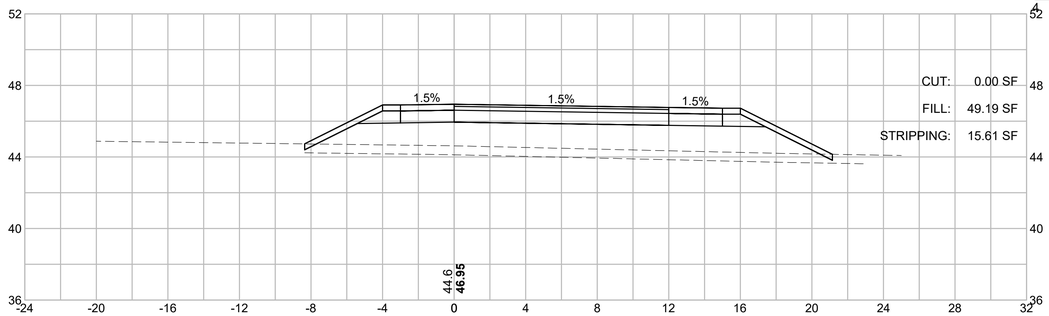


537+00

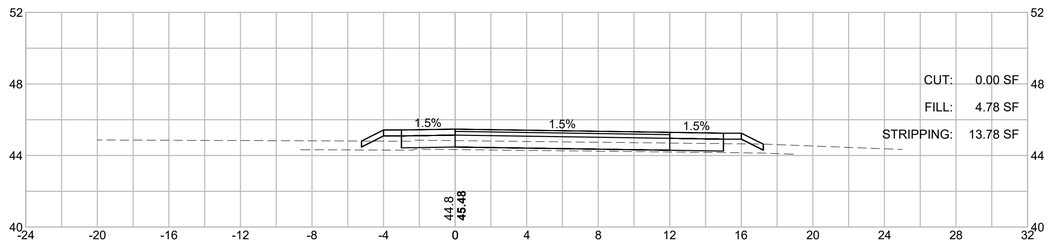


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

535+00



536+50



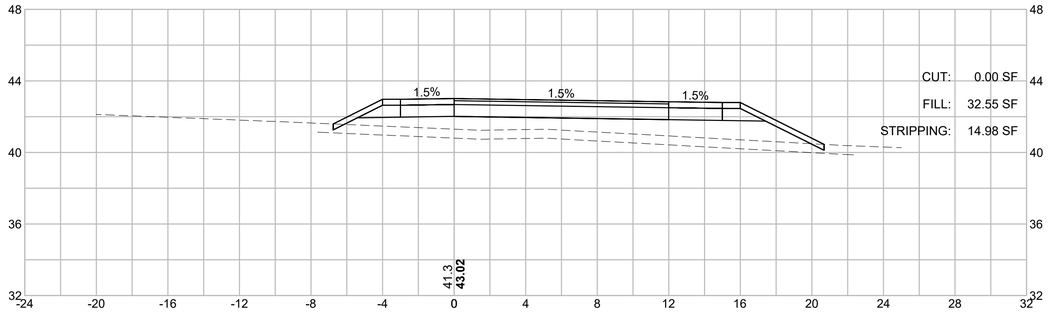
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	226	278
PROJECT FILE NO. 607398			

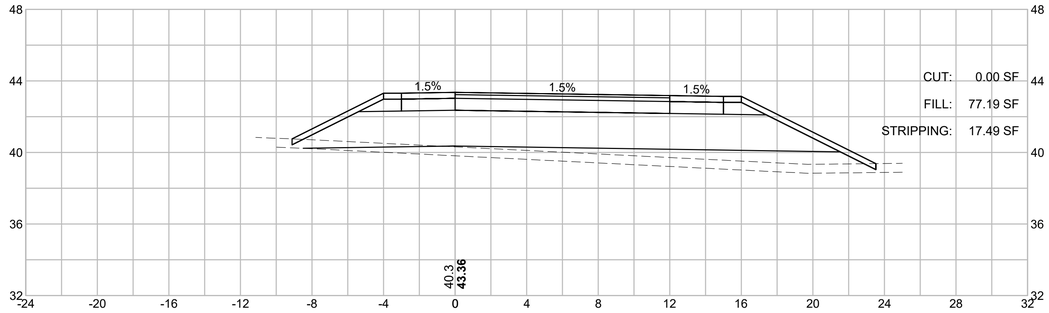
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:10 AM

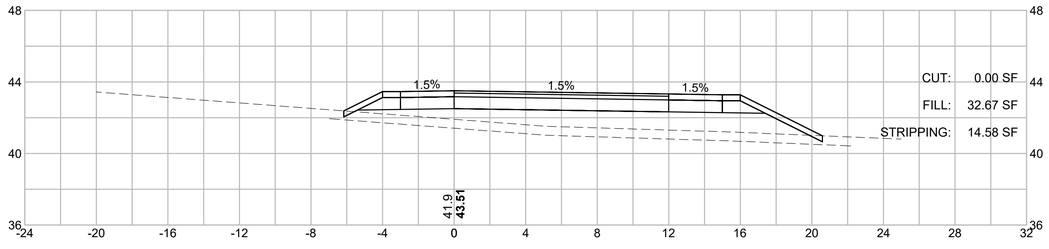
539+00



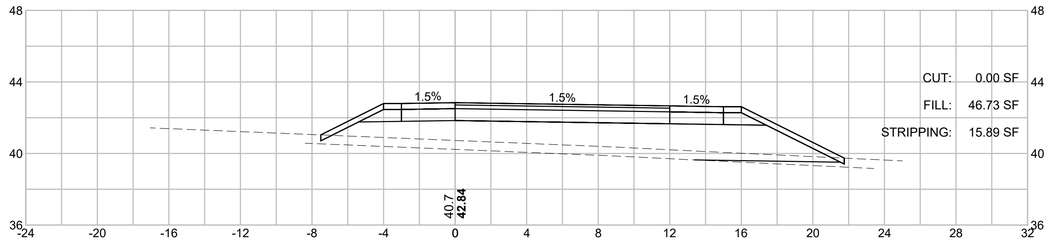
540+50



538+50

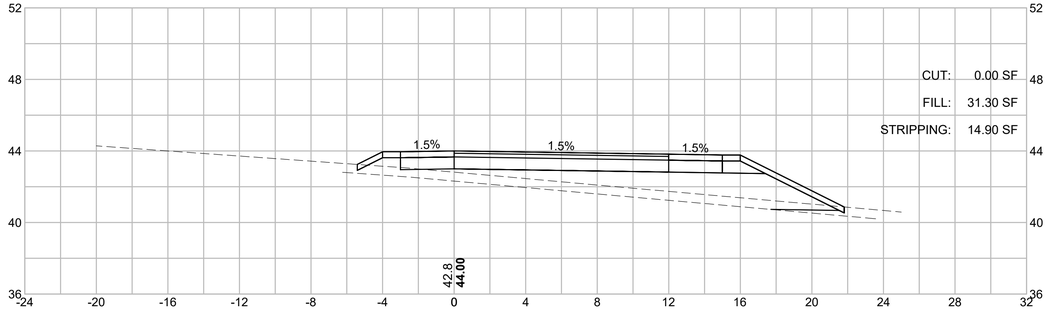


540+00

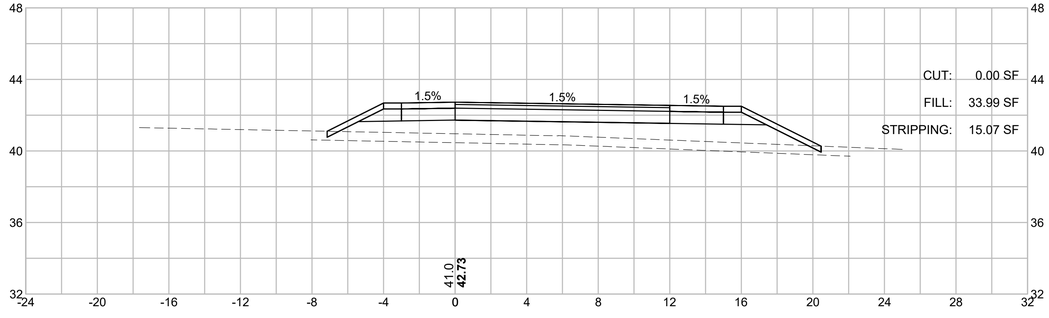


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

538+00



539+50



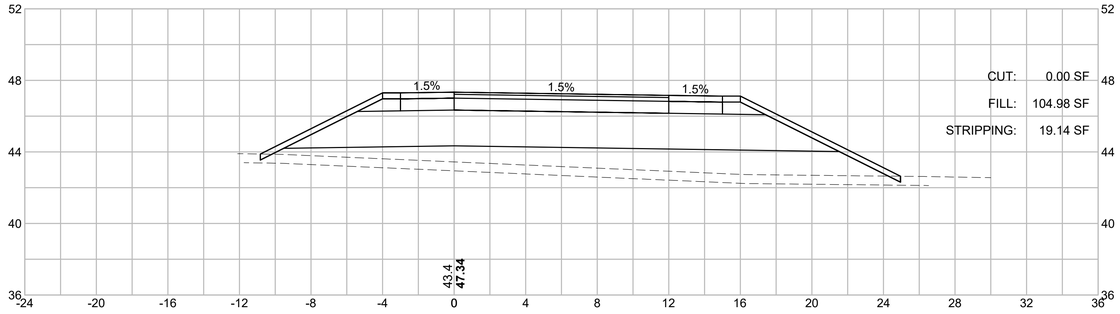
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	227	278
PROJECT FILE NO. 607398			

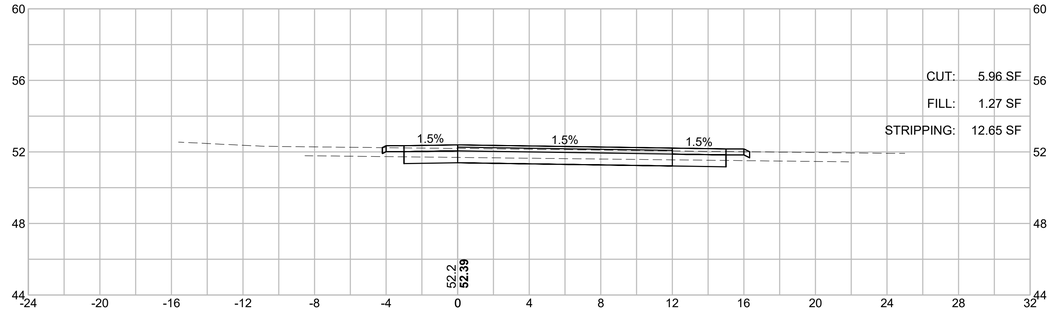
EAST CROSS SECTIONS

607398_HDXSEC-EAST-1).DWG Plotted on 14-Feb-2024 11:11 AM

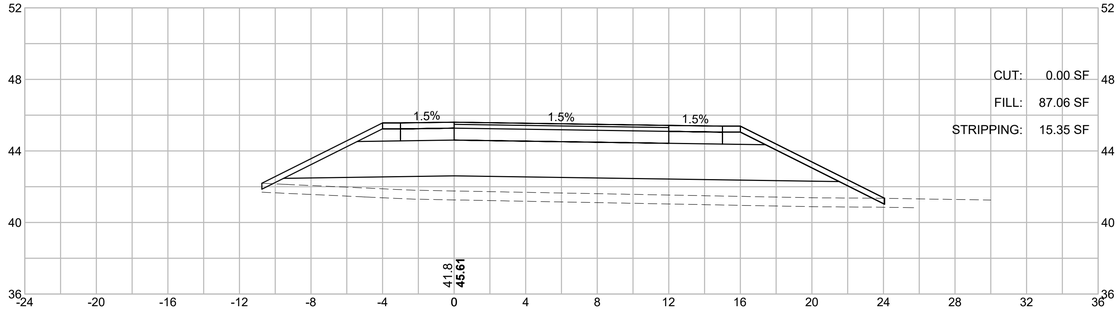
542+00



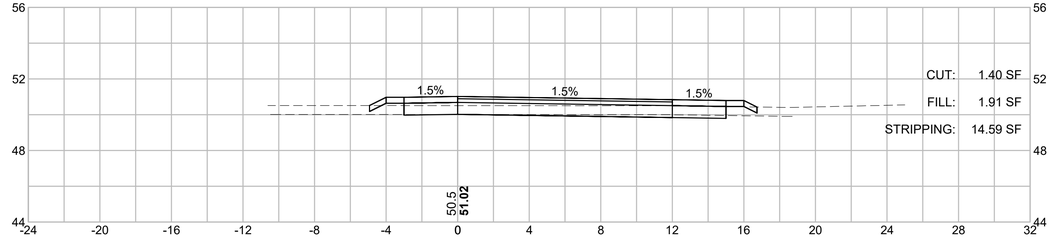
543+50



541+50

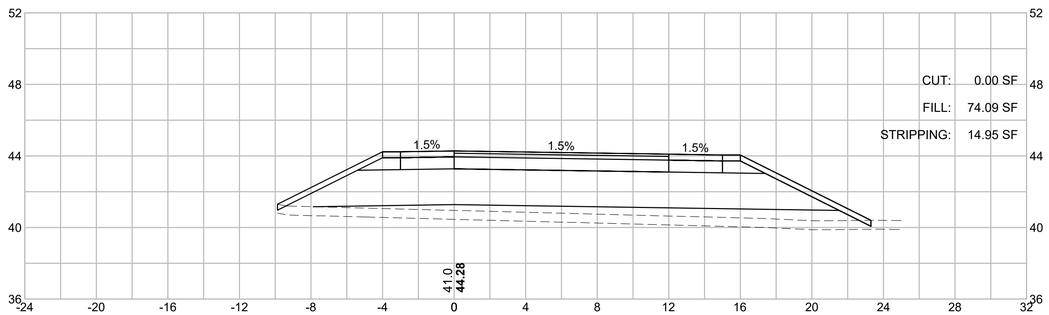


543+00

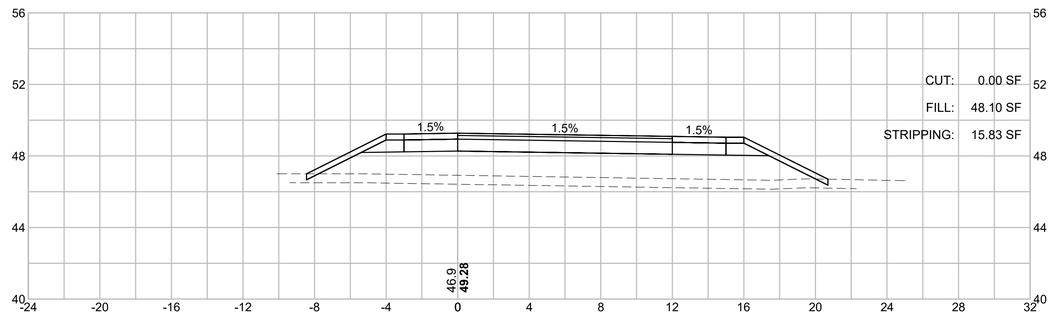


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

541+00



542+50



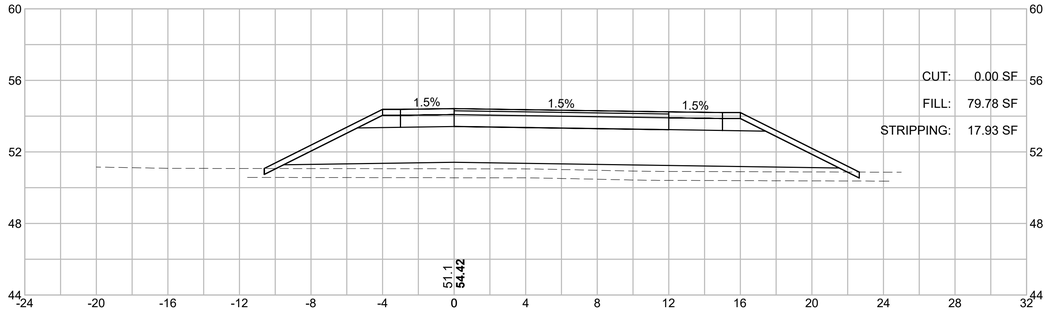
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	228	278
PROJECT FILE NO. 607398			

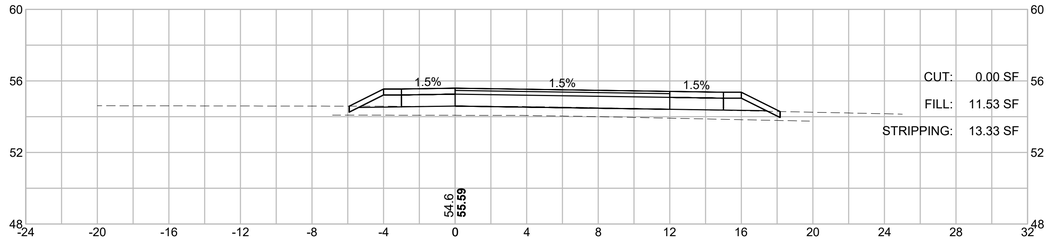
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:14 AM

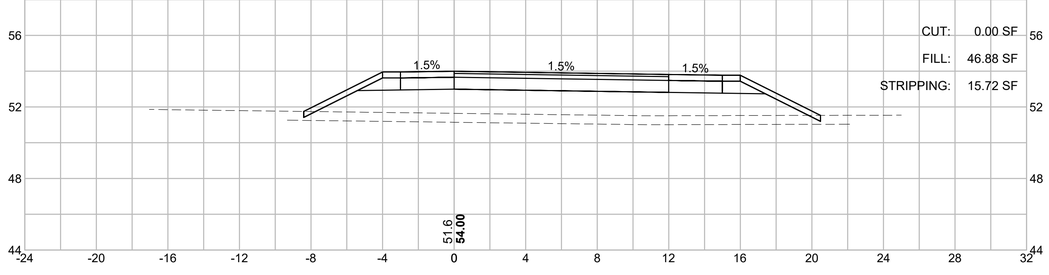
545+00



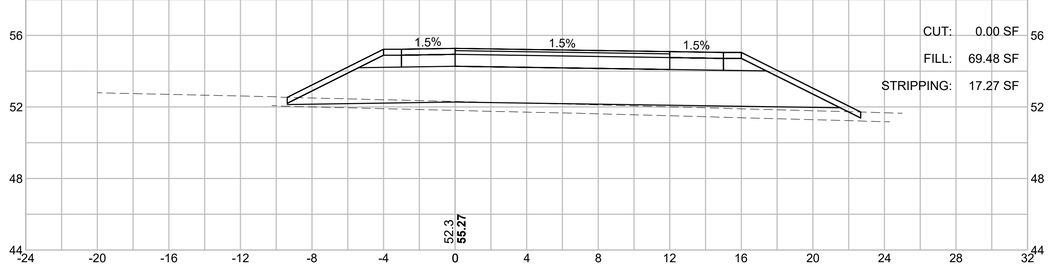
546+50



544+50

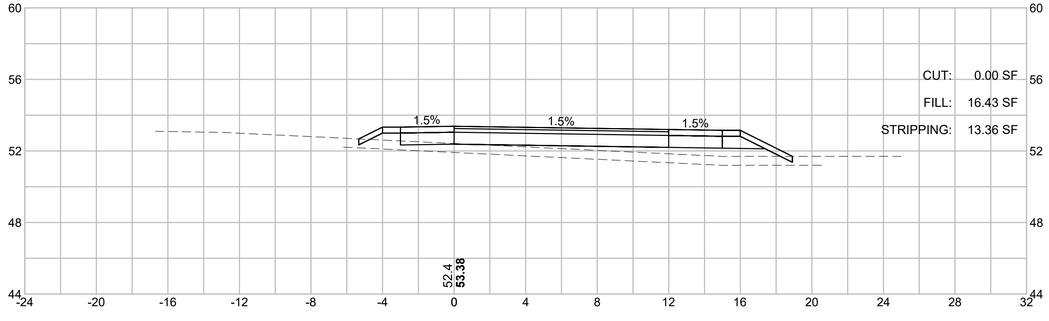


546+00

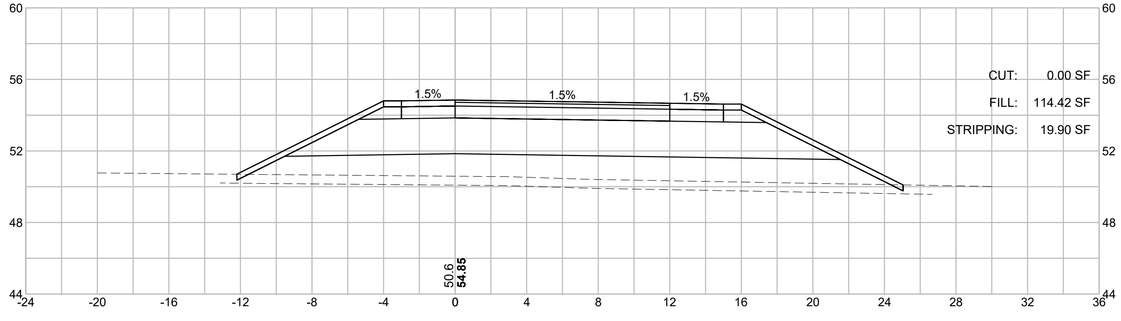


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

544+00



545+50



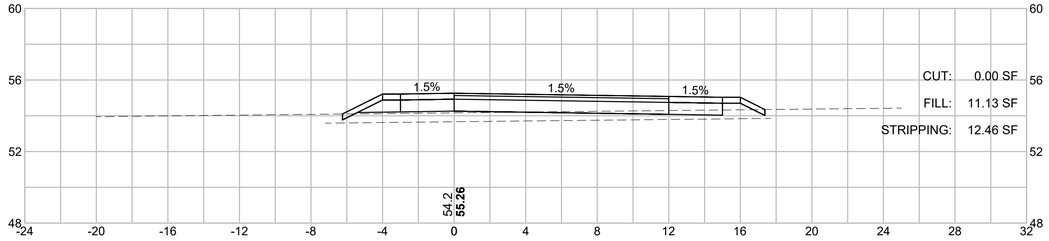
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	229	278
PROJECT FILE NO. 607398			

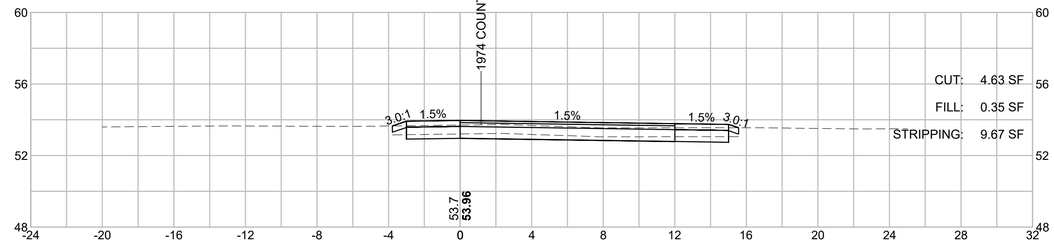
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:14 AM

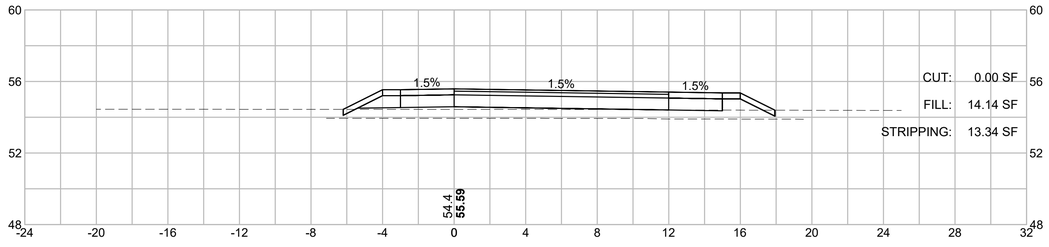
548+00



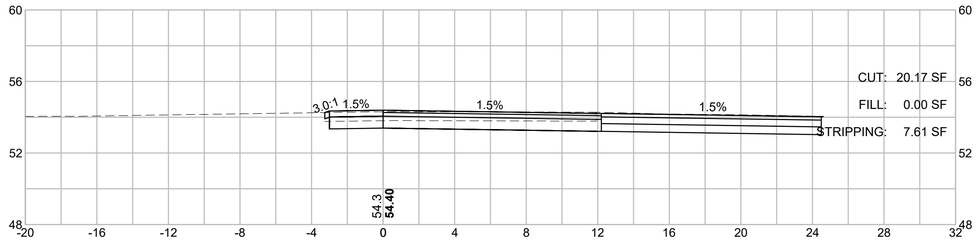
549+50



547+50

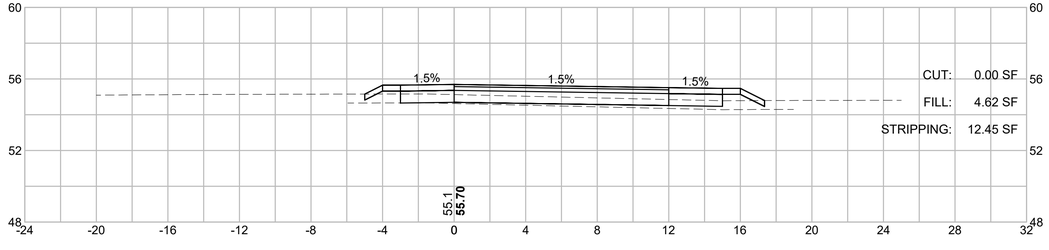


549+00

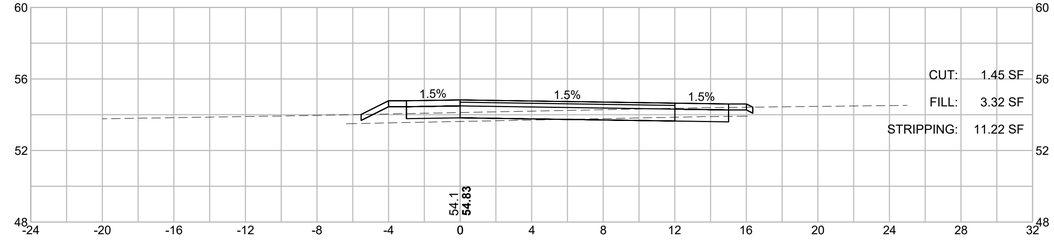


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

547+00



548+50



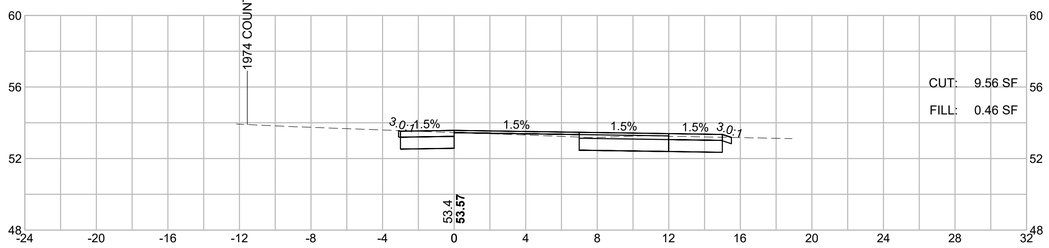
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	230	278
PROJECT FILE NO. 607398			

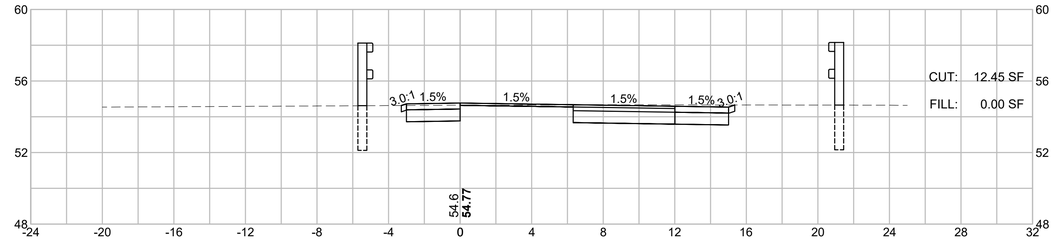
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:14 AM

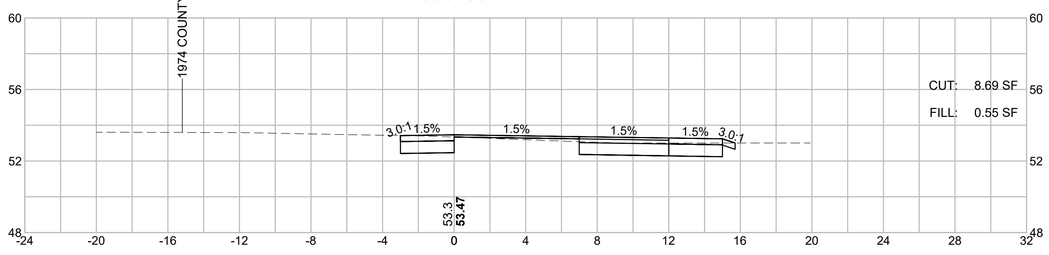
551+00



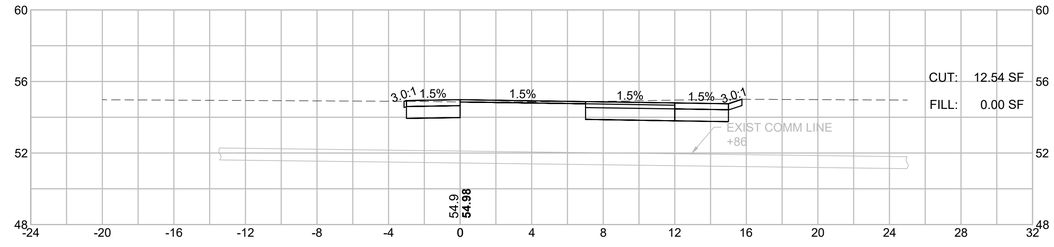
552+50



550+50

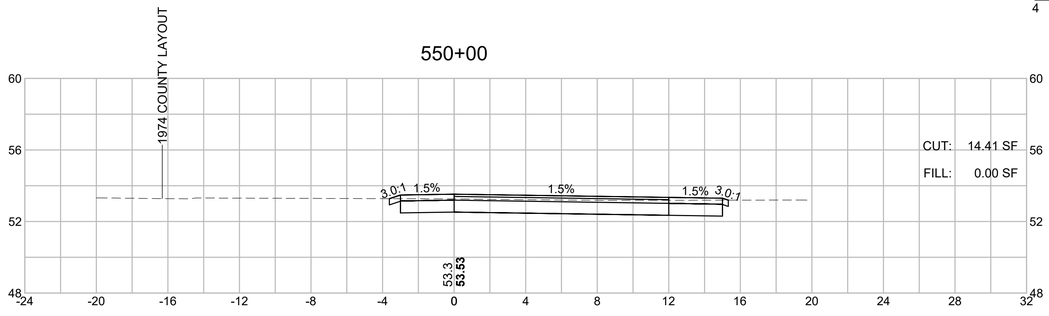


552+00

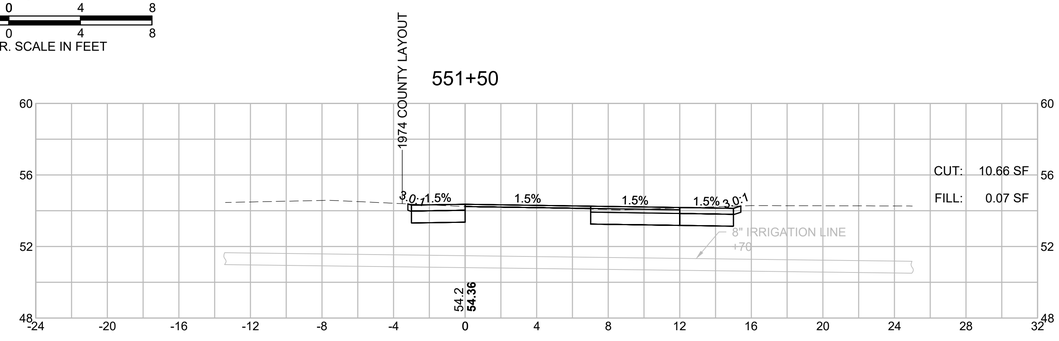


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

550+00



551+50



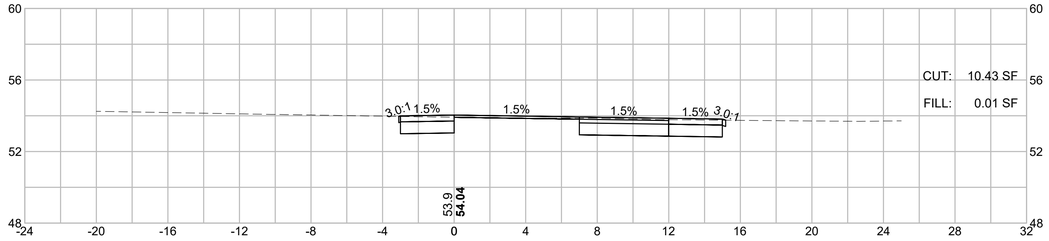
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	231	278
PROJECT FILE NO. 607398			

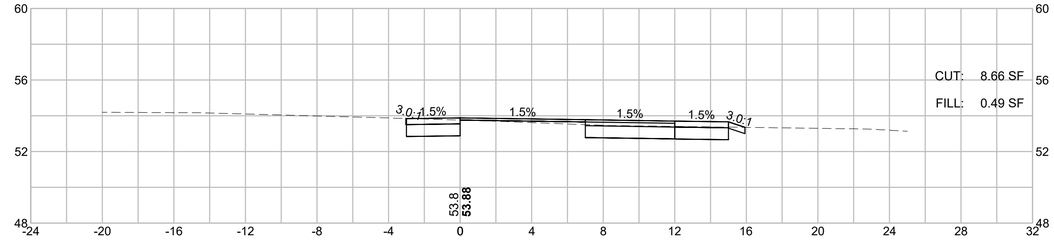
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:14 AM

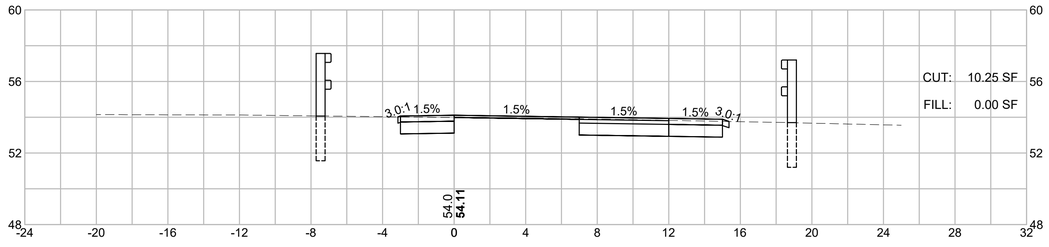
553+50



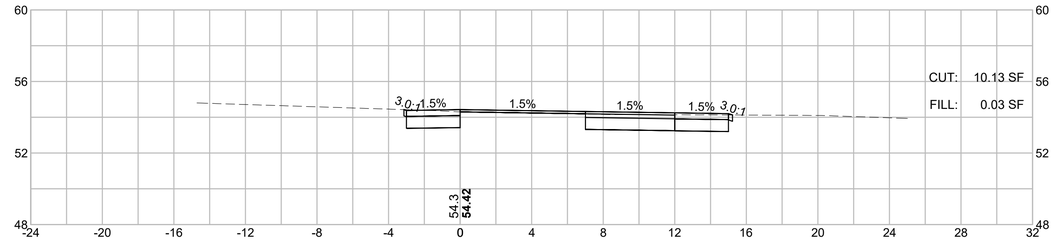
555+00



553+00

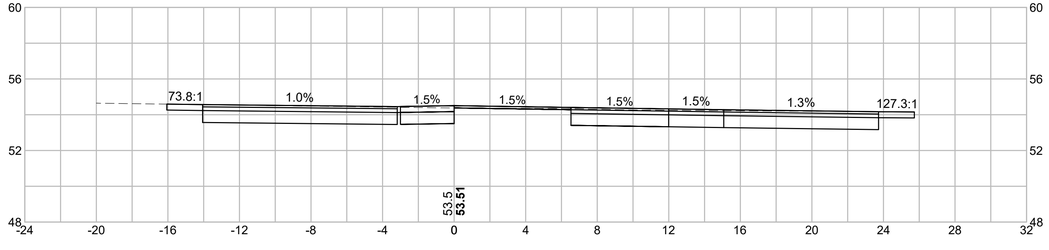


554+50

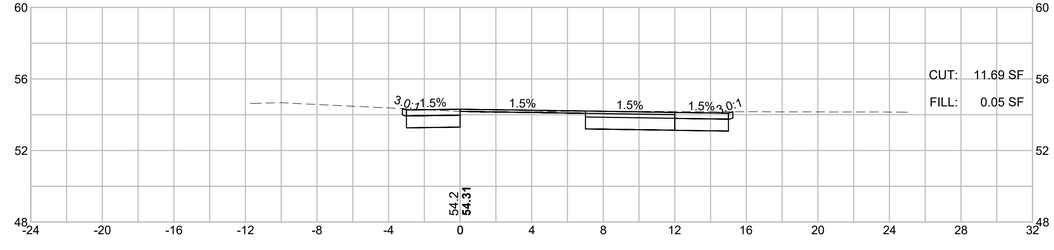


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

552+75



554+00



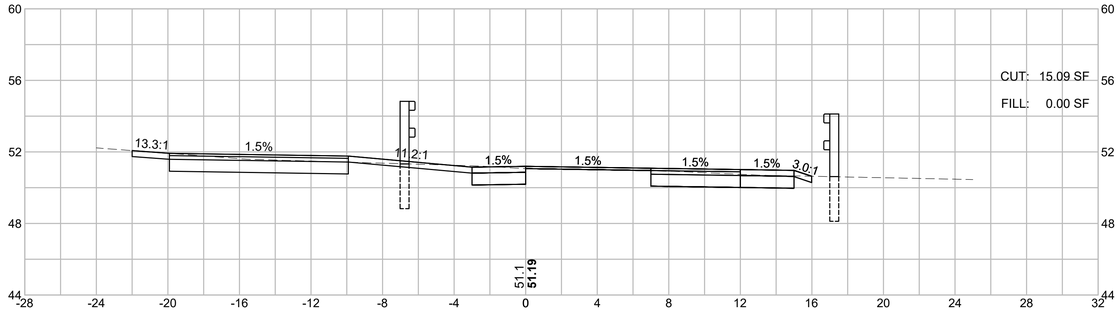
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	232	278
PROJECT FILE NO. 607398			

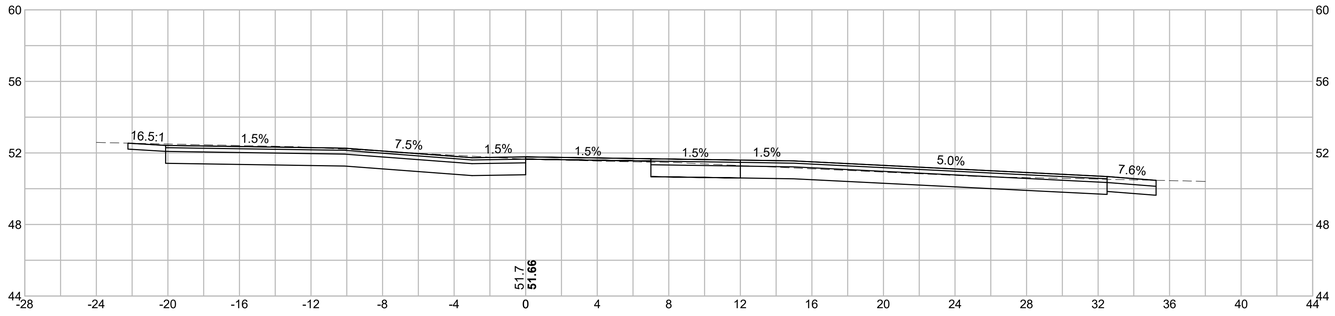
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:14 AM

556+00

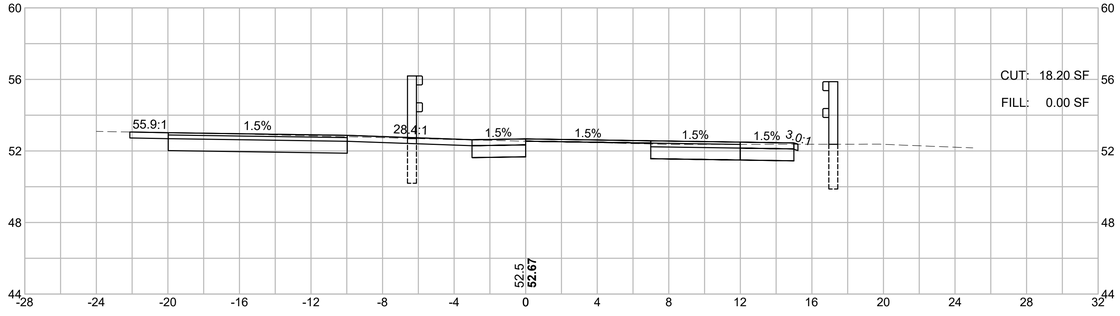


555+80



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

555+50



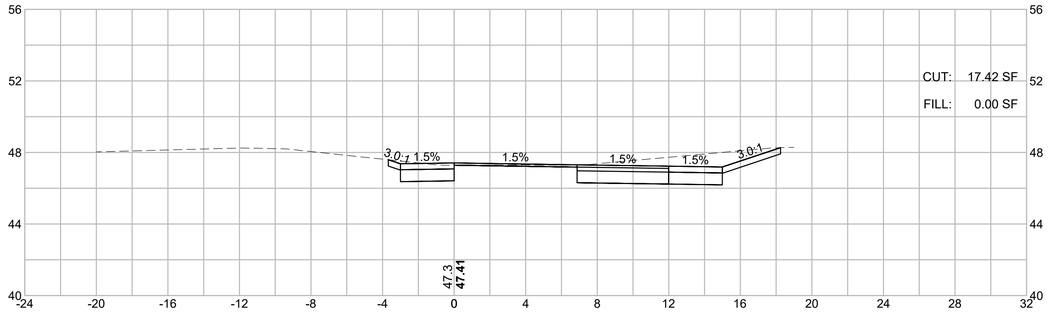
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	233	278
PROJECT FILE NO. 607398			

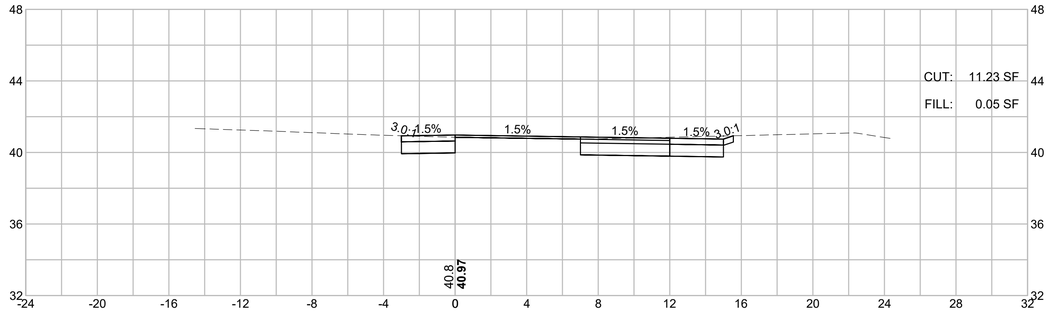
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:15 AM

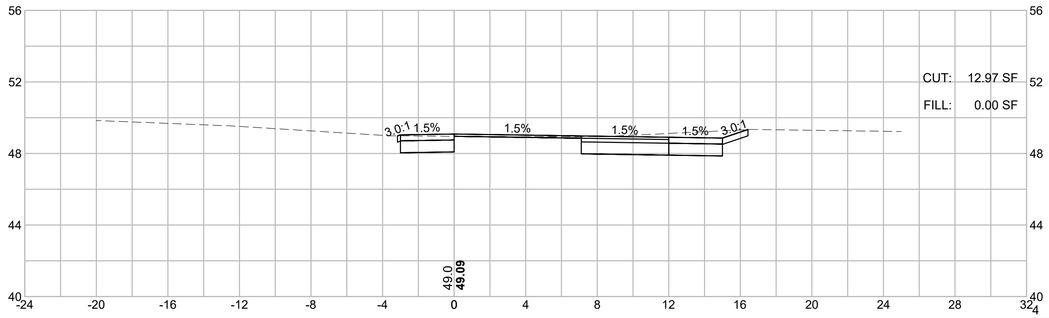
557+50



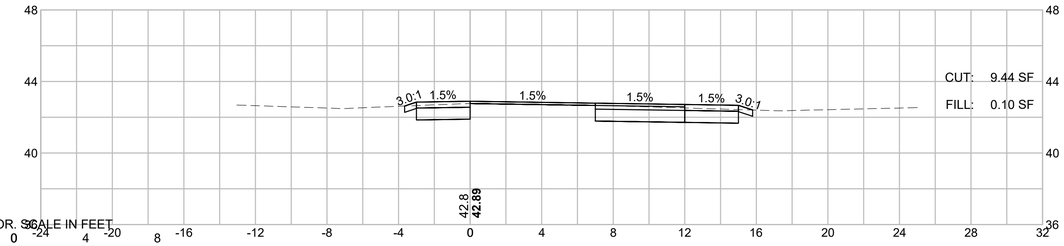
559+00



557+00

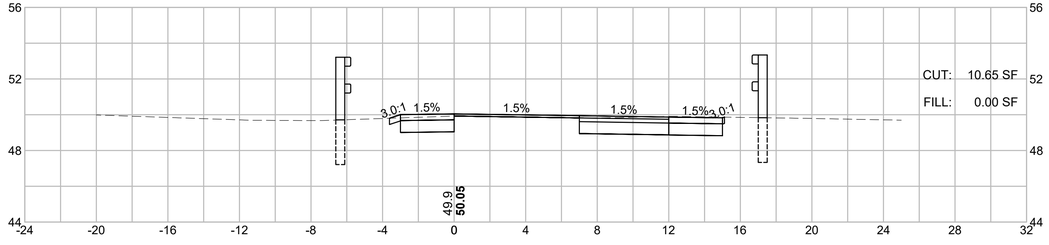


558+50

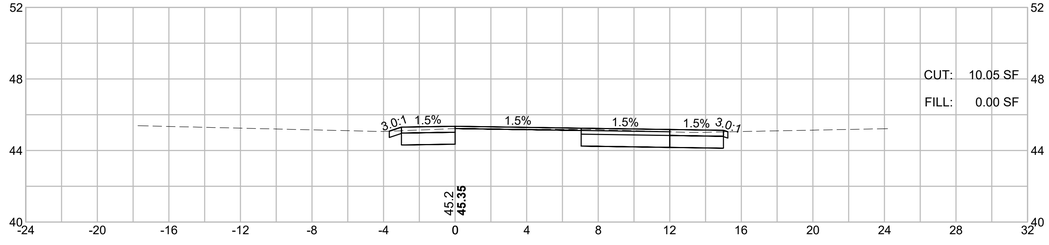


HOR. SCALE IN FEET
VER. SCALE IN FEET

556+50



558+00



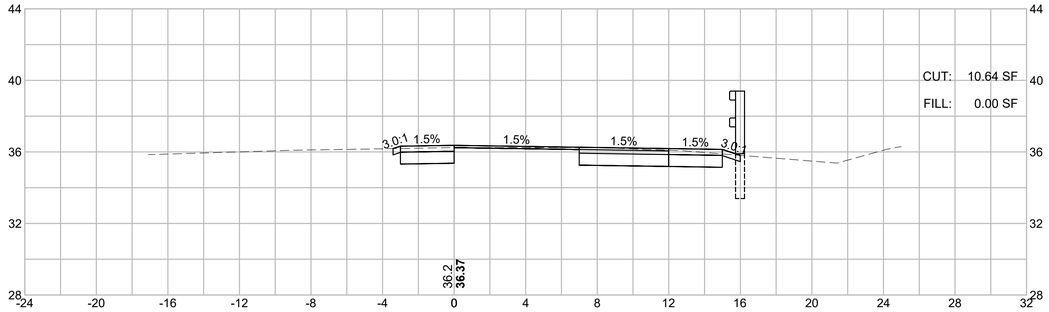
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	234	278
PROJECT FILE NO. 607398			

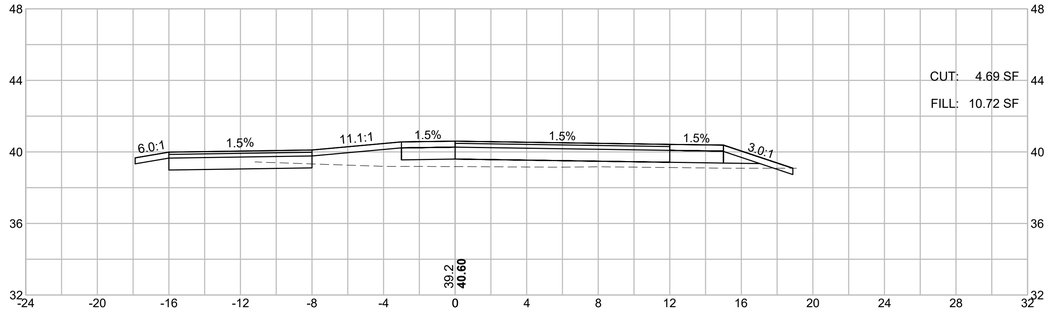
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:15 AM

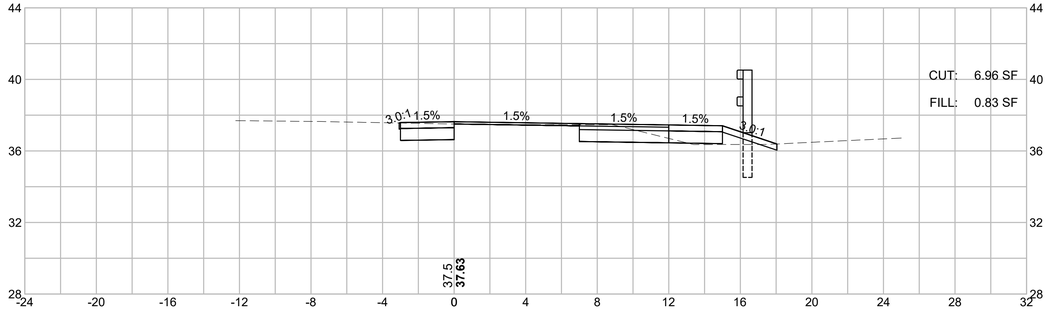
560+50



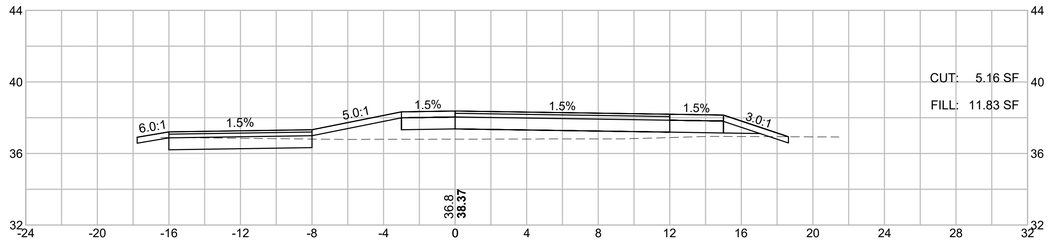
562+00



560+00

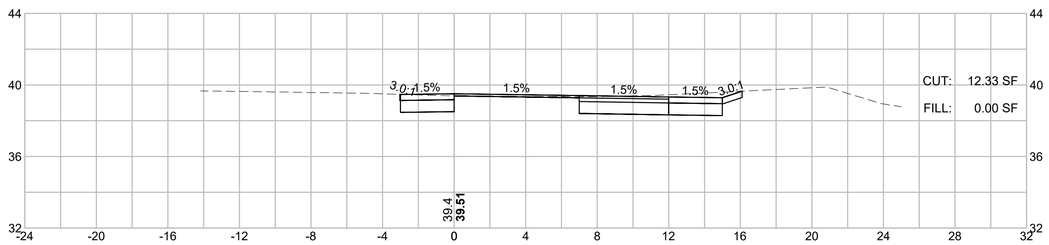


561+50

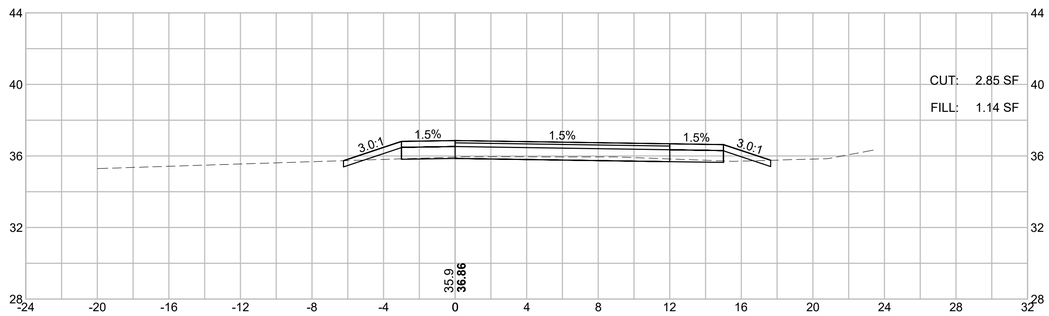


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

559+50



561+00



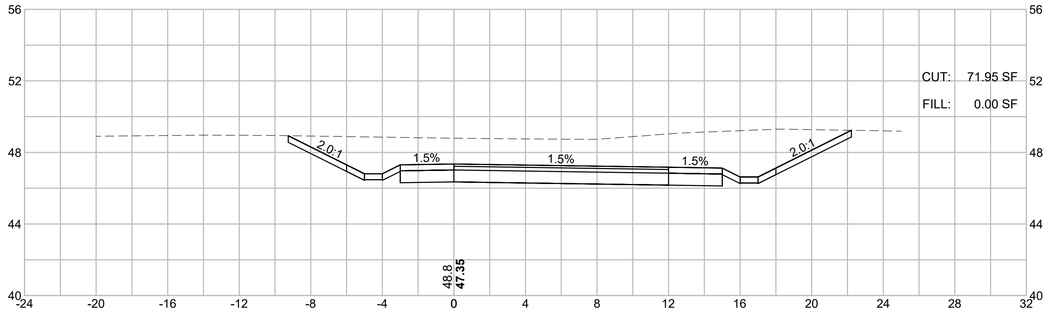
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	235	278
PROJECT FILE NO. 607398			

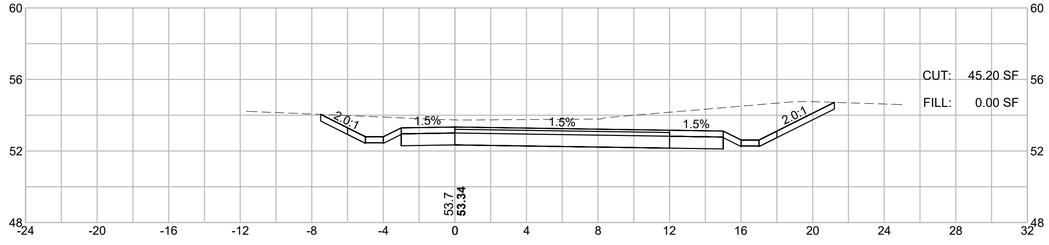
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:15 AM

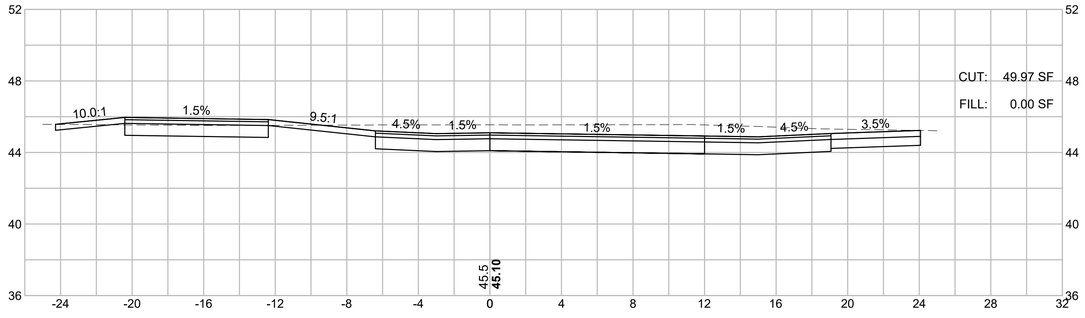
563+50



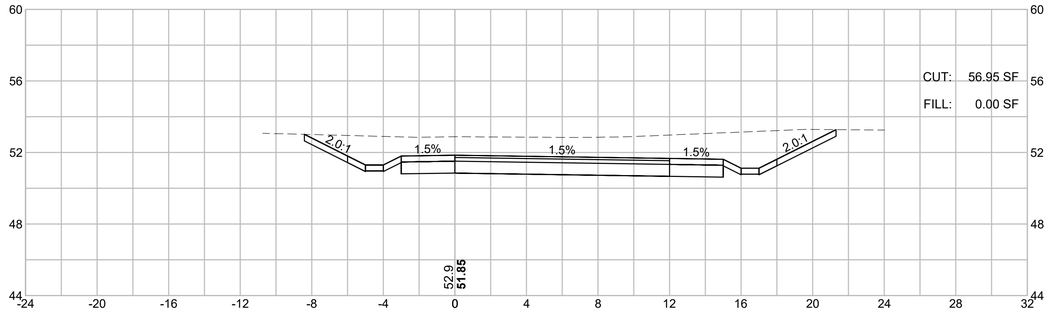
565+00



563+00

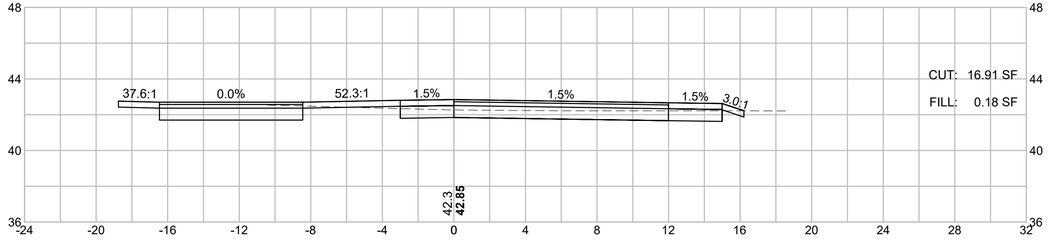


564+50

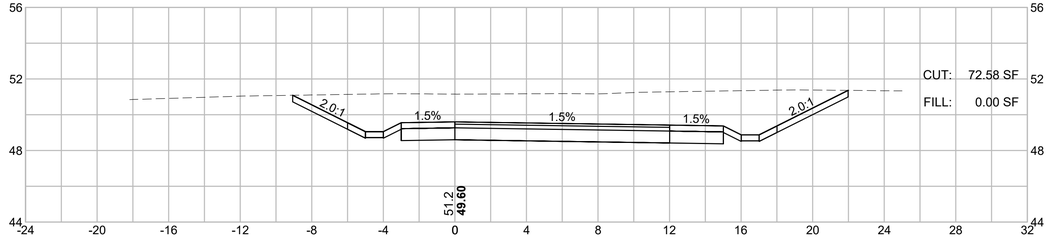


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

562+50



564+00



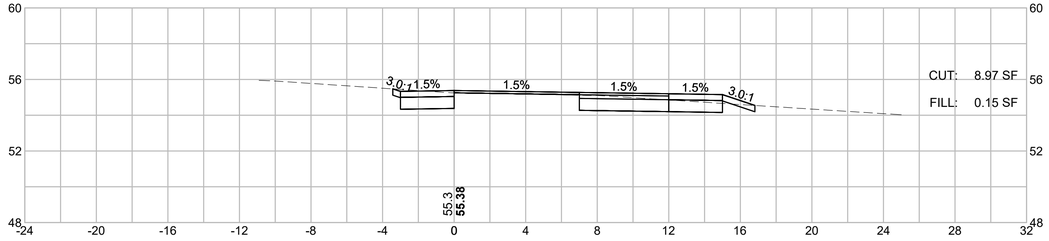
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	236	278
PROJECT FILE NO. 607398			

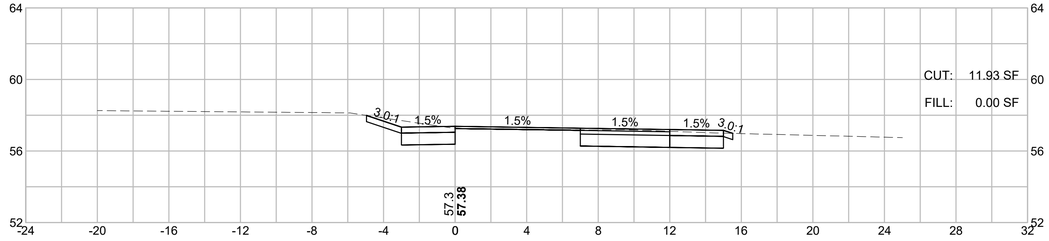
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:15 AM

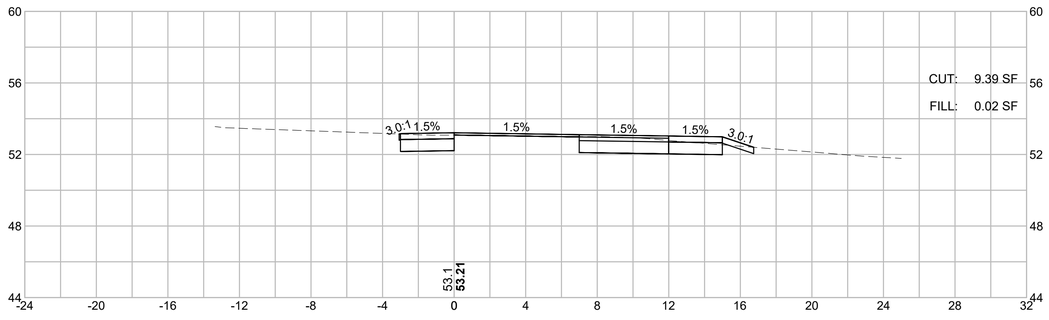
566+50



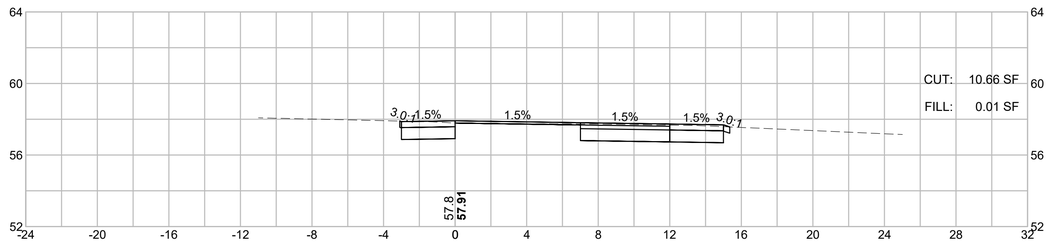
568+00



566+00

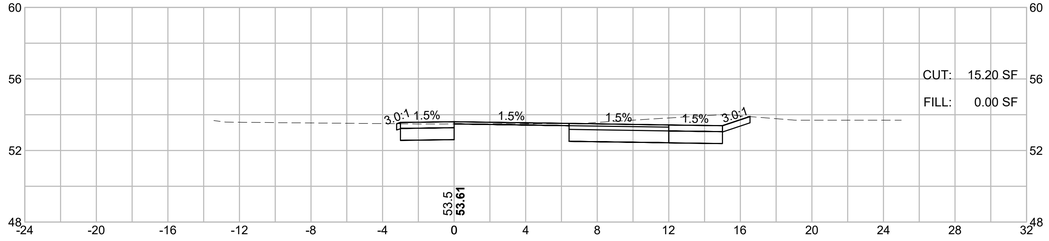


567+50

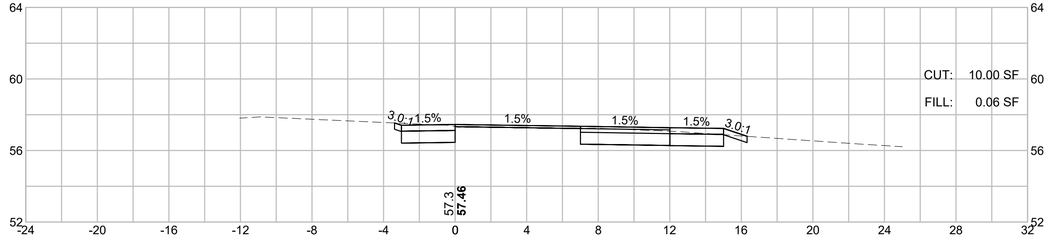


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

565+50



567+00



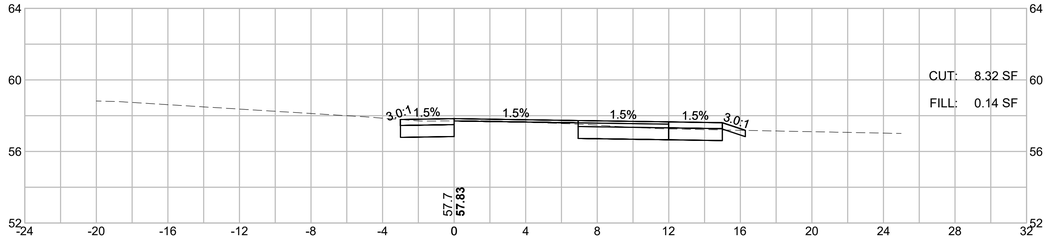
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	237	278
PROJECT FILE NO. 607398			

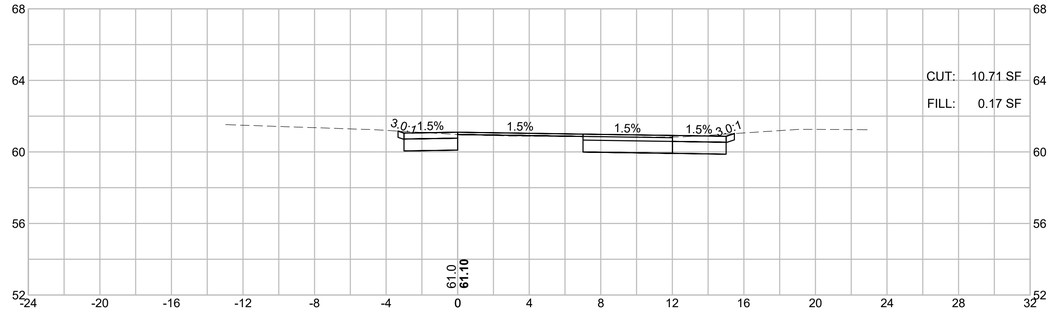
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:15 AM

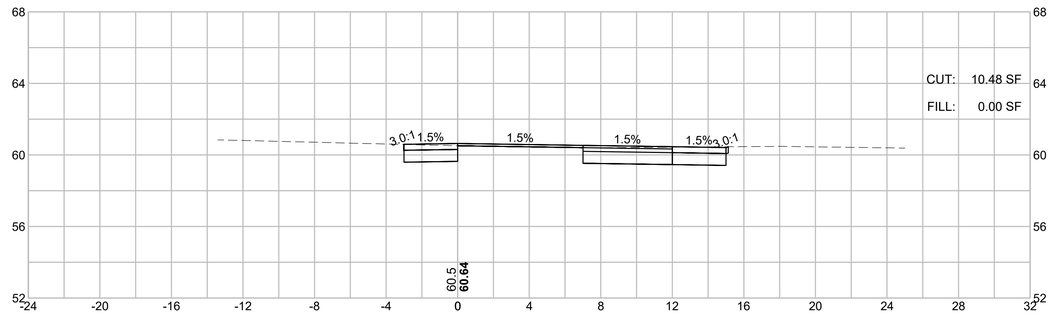
569+50



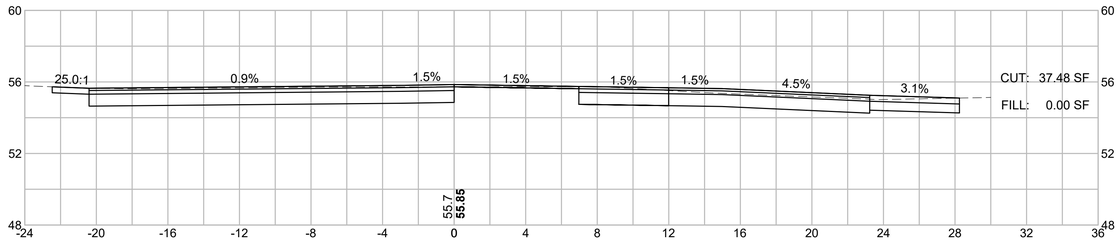
571+00



570+50

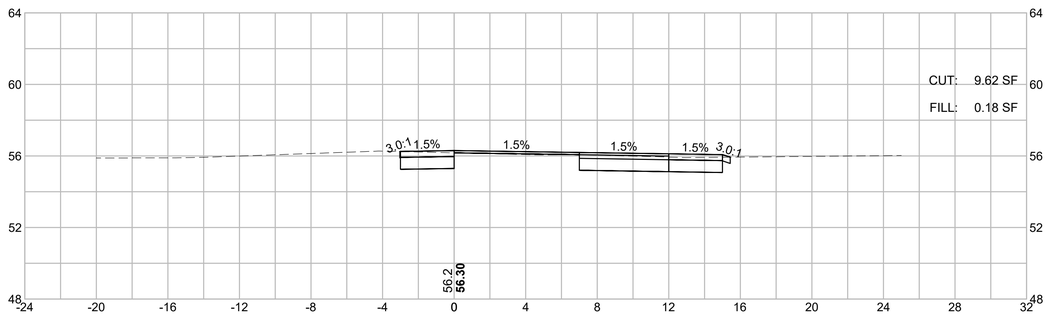


569+00

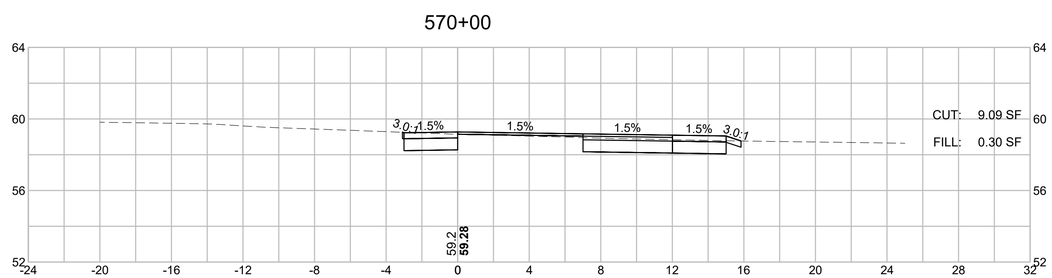


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

568+50



570+00



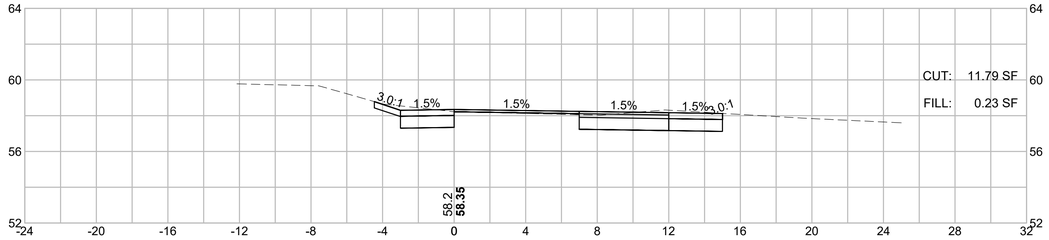
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	238	278
PROJECT FILE NO. 607398			

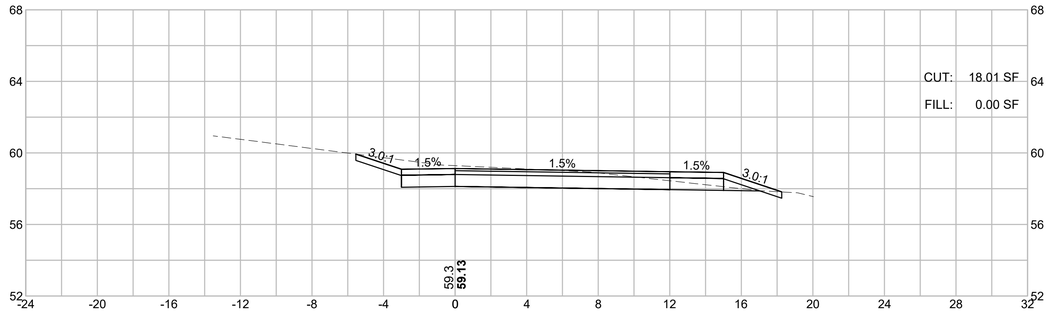
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:15 AM

572+50



574+00



572+00

573+50

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

571+50

573+00

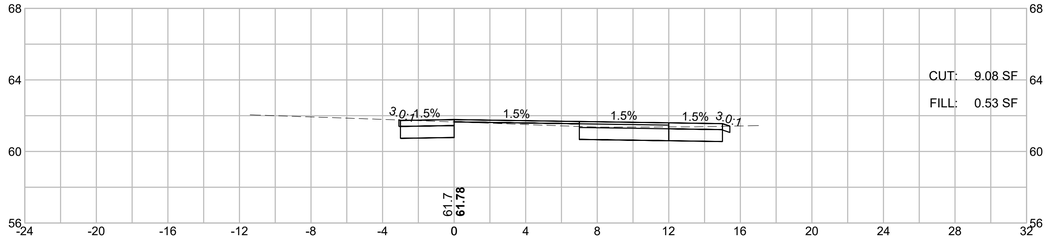
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	239	278
PROJECT FILE NO. 607398			

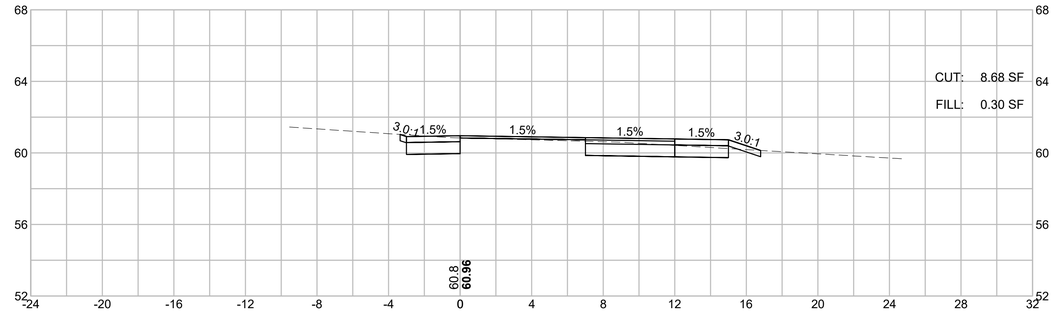
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:16 AM

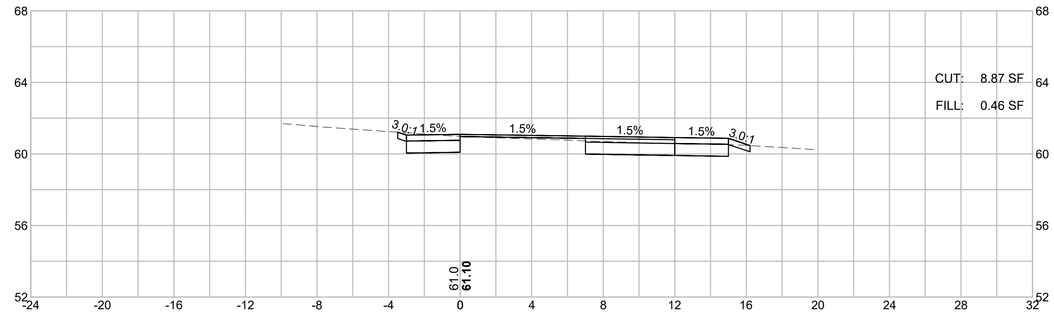
575+50



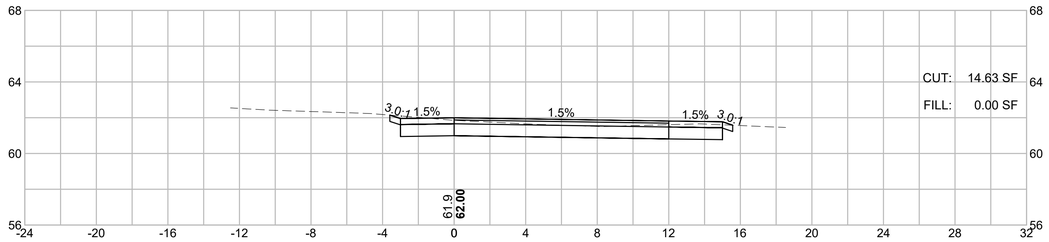
577+00



576+50

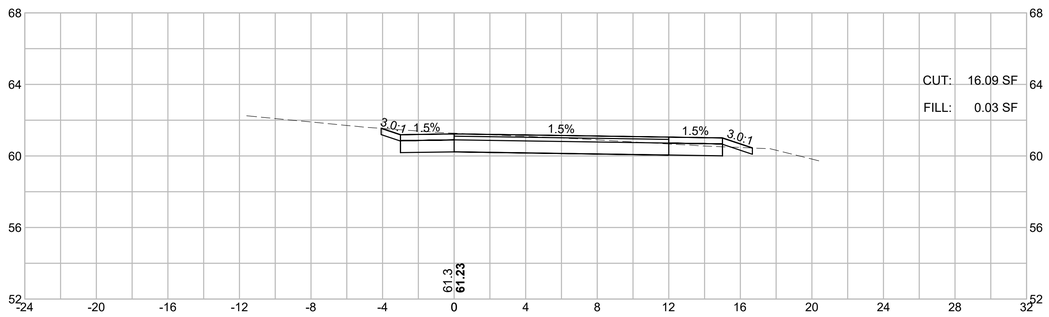


575+00

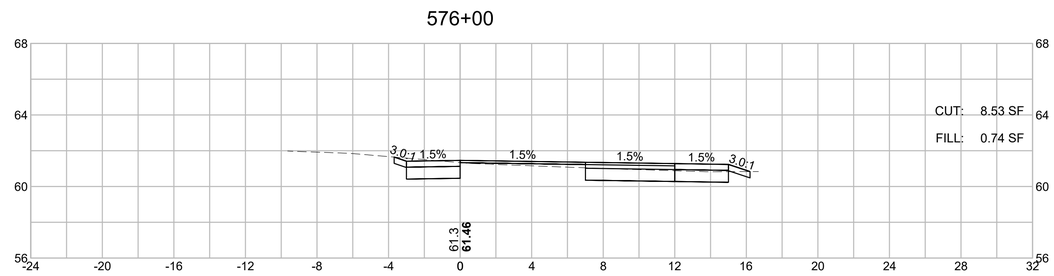


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

574+50



576+00



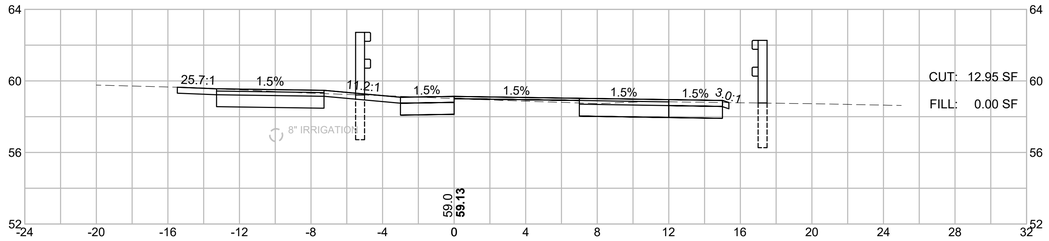
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	240	278
PROJECT FILE NO. 607398			

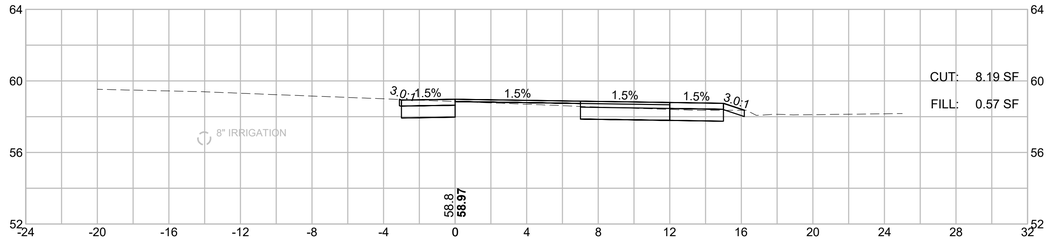
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:16 AM

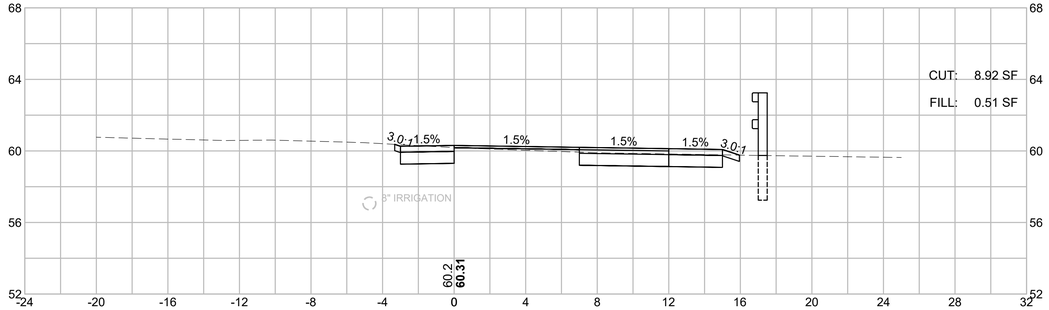
578+50



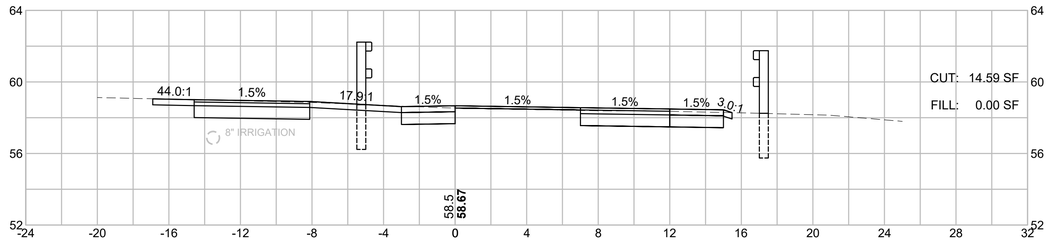
579+50



578+00

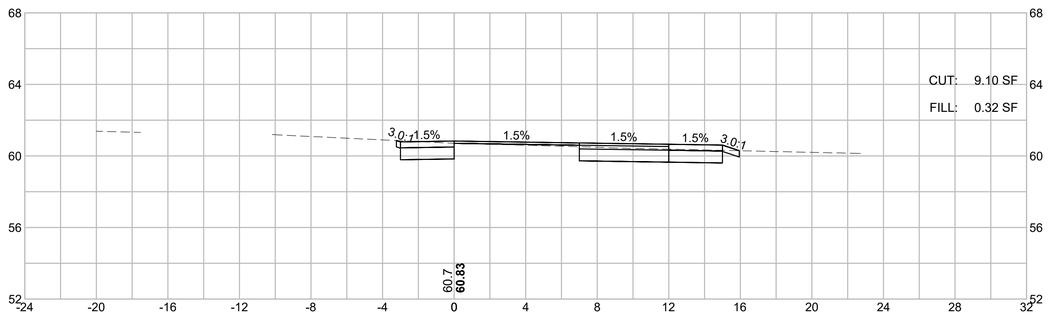


579+00

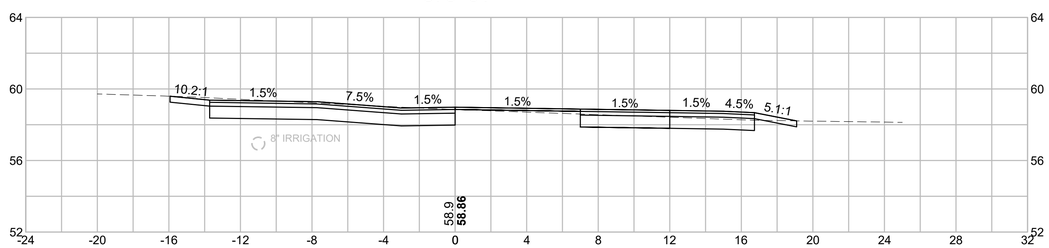


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

577+50



578+61



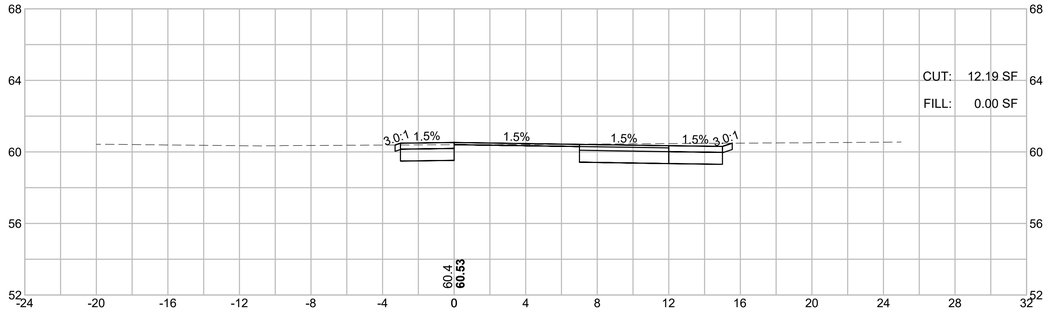
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	241	278
PROJECT FILE NO. 607398			

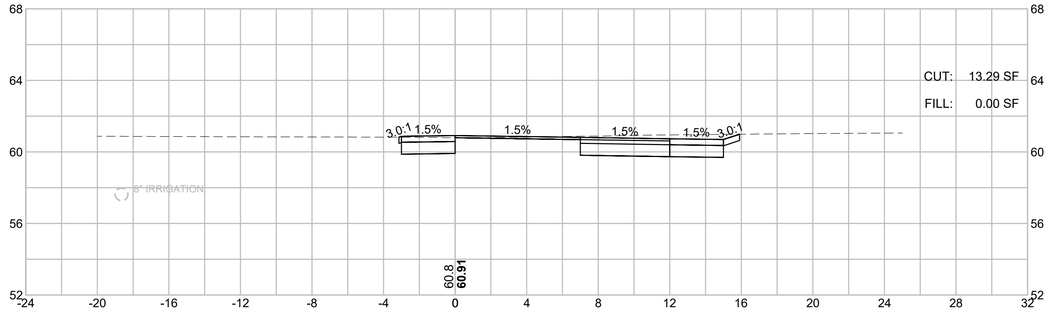
EAST CROSS SECTIONS

607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:16 AM

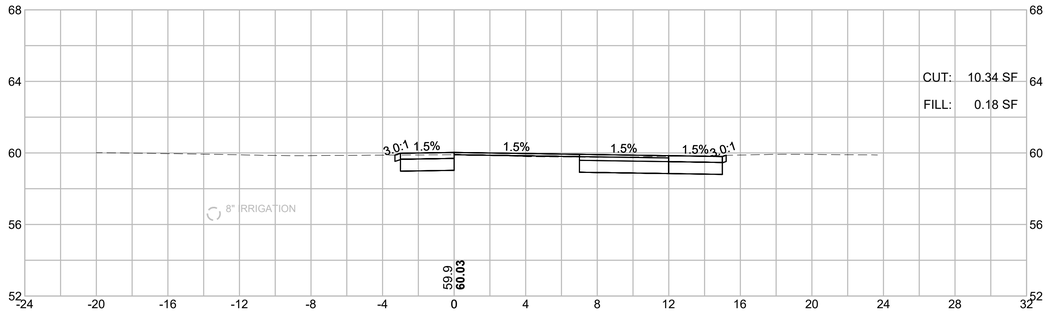
581+00



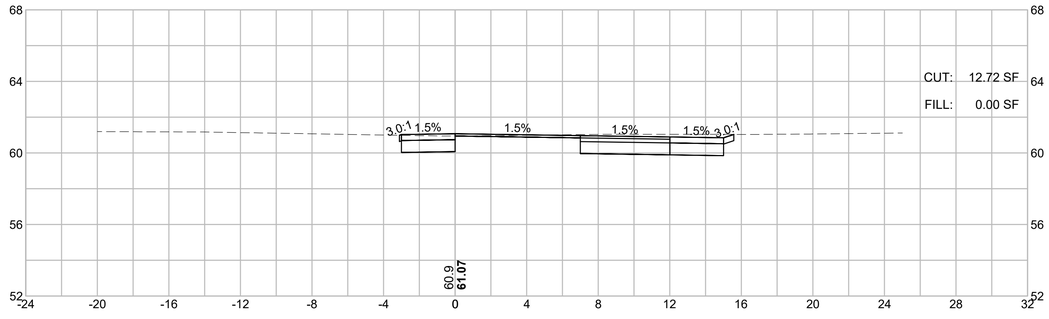
582+50



580+50

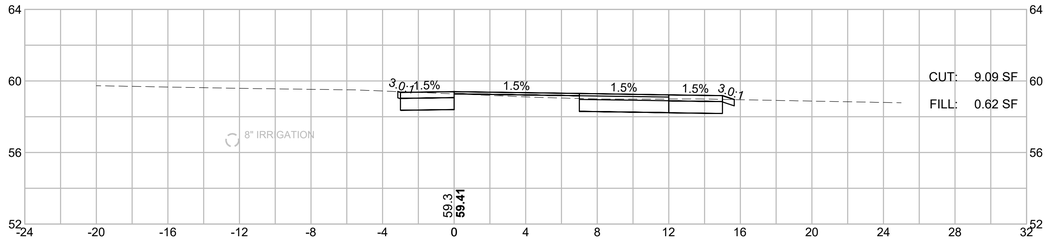


582+00

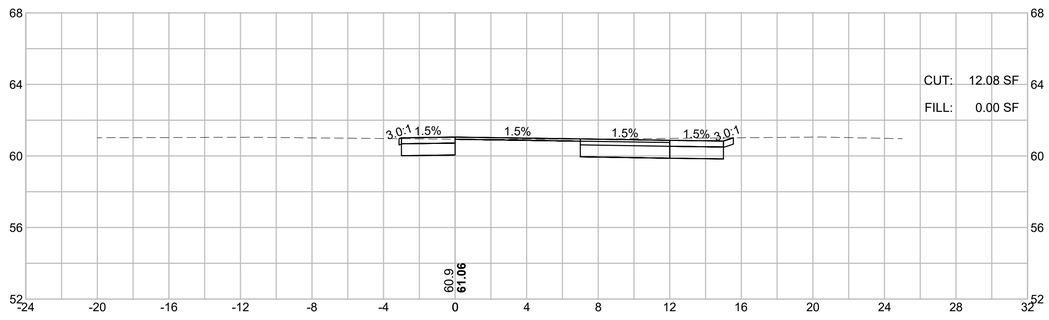


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

580+00



581+50

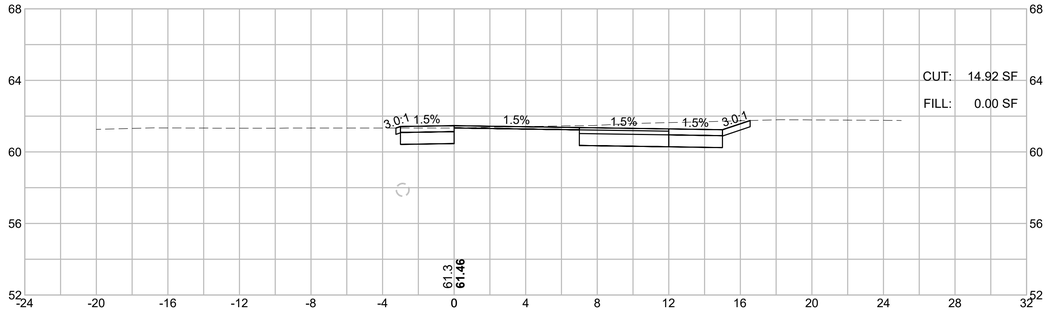


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

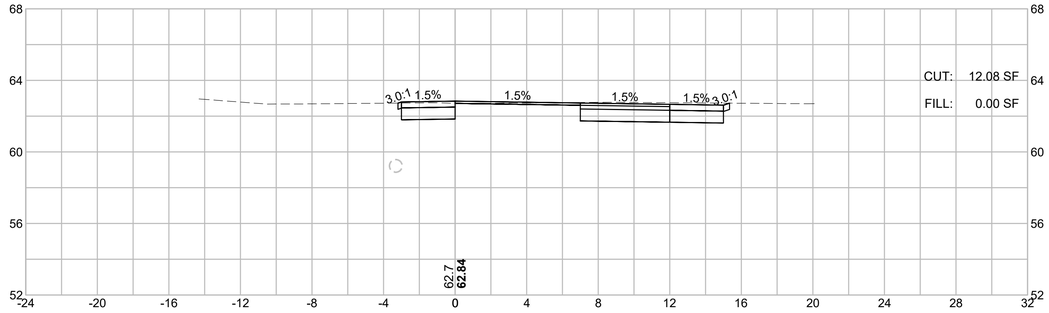
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	242	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

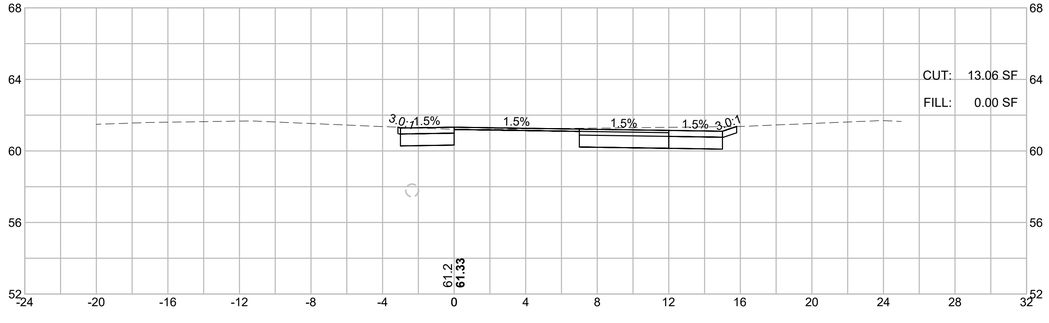
584+00



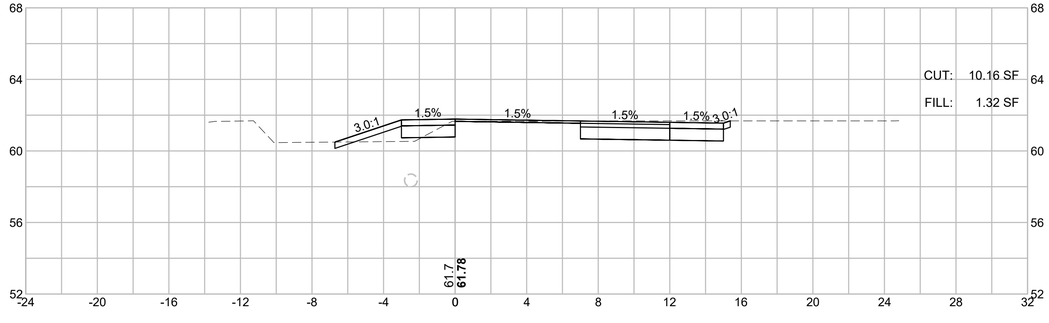
585+50



583+50

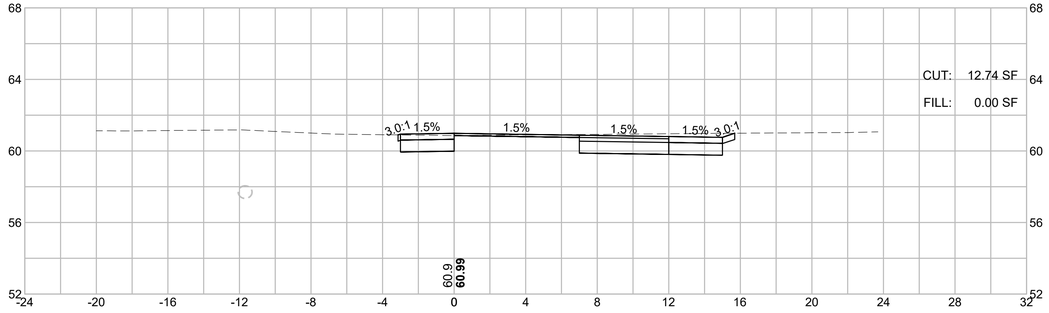


585+00

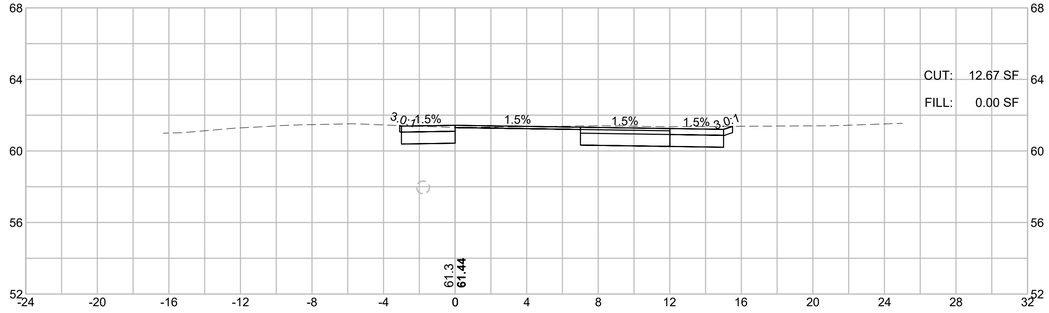


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

583+00



584+50



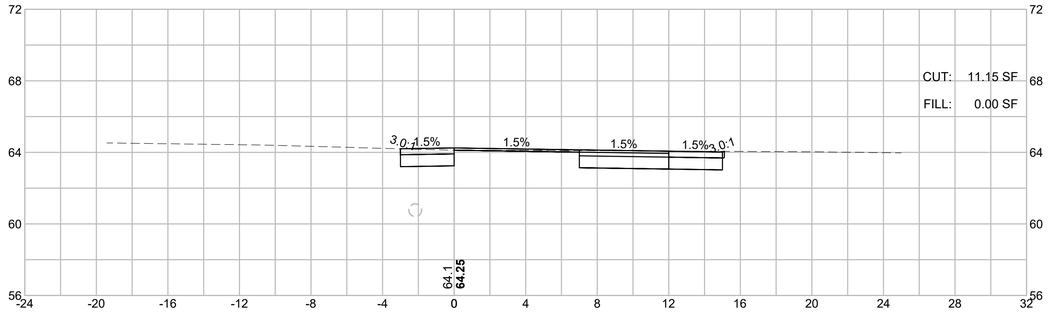
607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:16 AM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

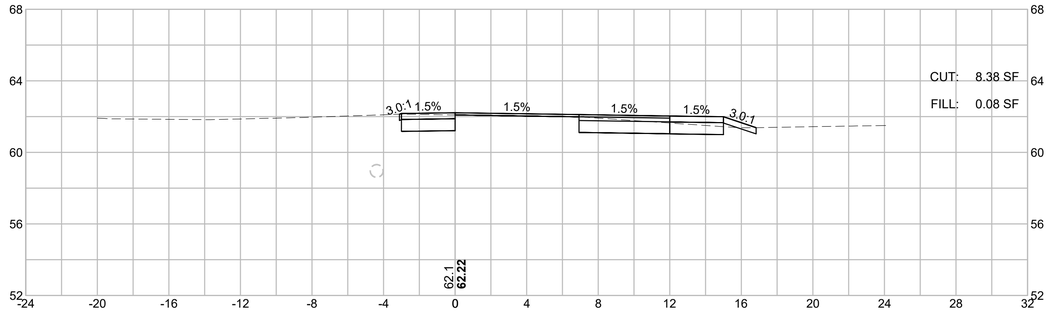
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	243	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

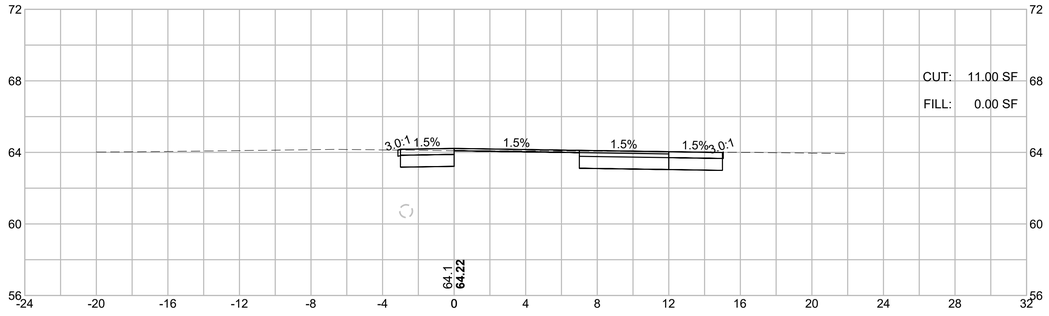
587+00



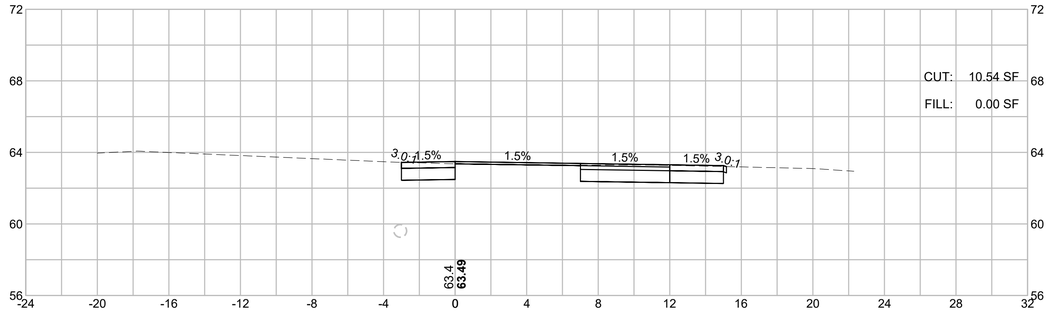
588+50



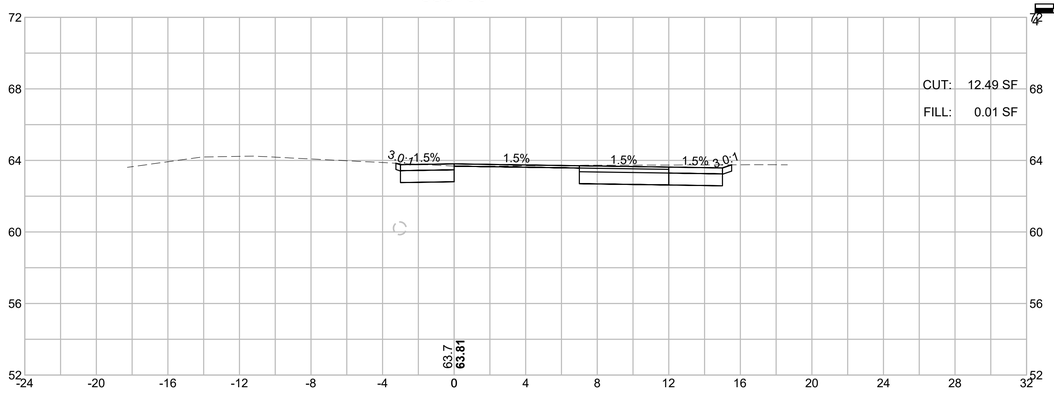
586+50



588+00

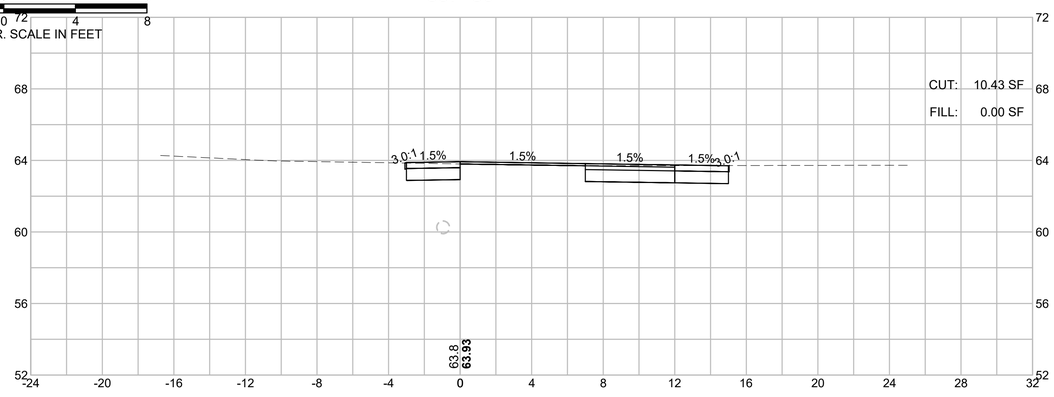


586+00



HOR. SCALE IN FEETVER. SCALE IN FEET

587+50



607398_HDXSEC-EAST-2).DWG Plotted on 14-Feb-2024 11:16 AM

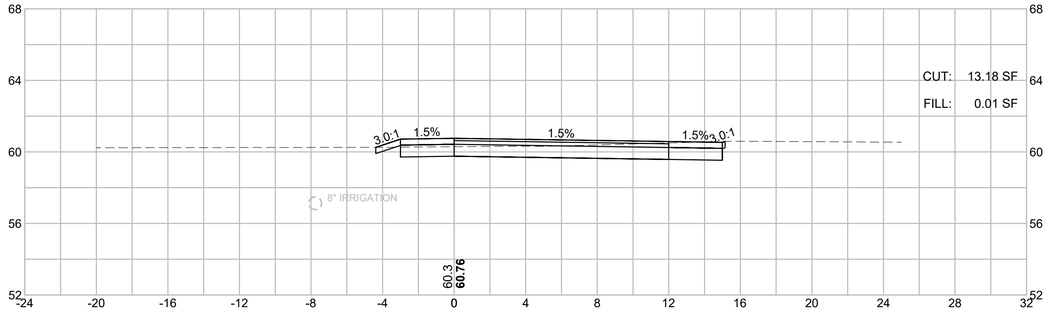
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	244	278
PROJECT FILE NO. 607398			

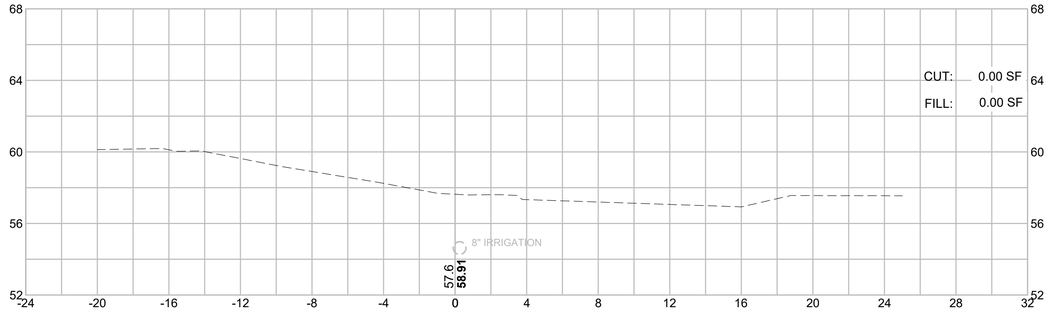
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:19 AM

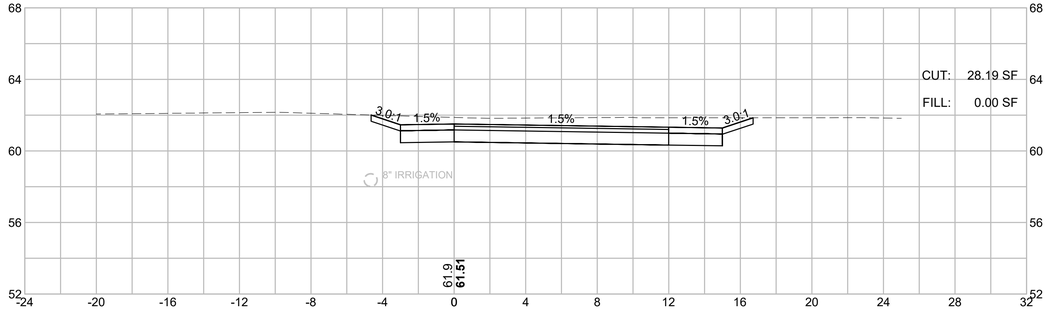
589+50



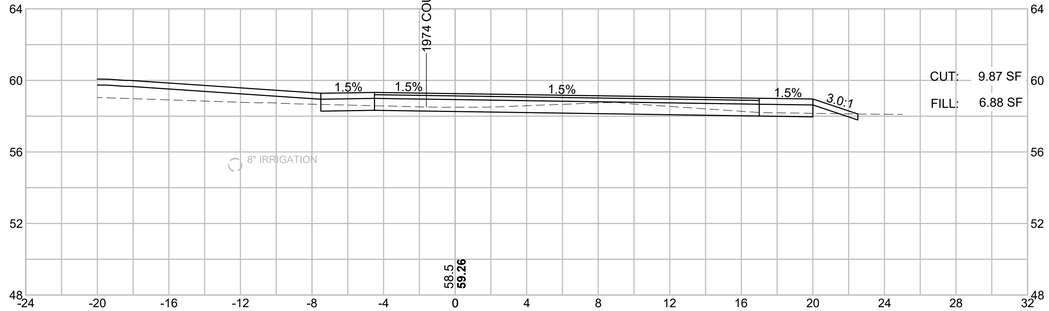
591+00



589+00

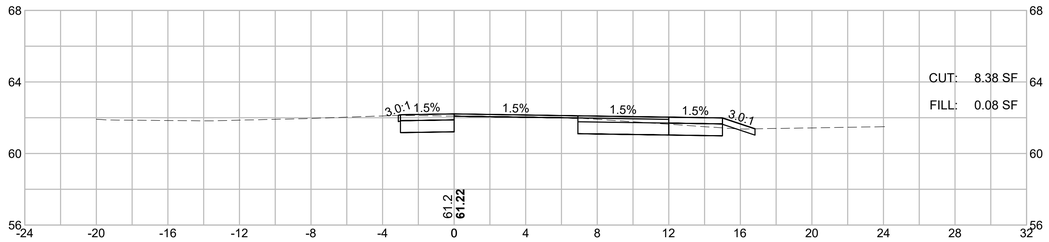


590+50

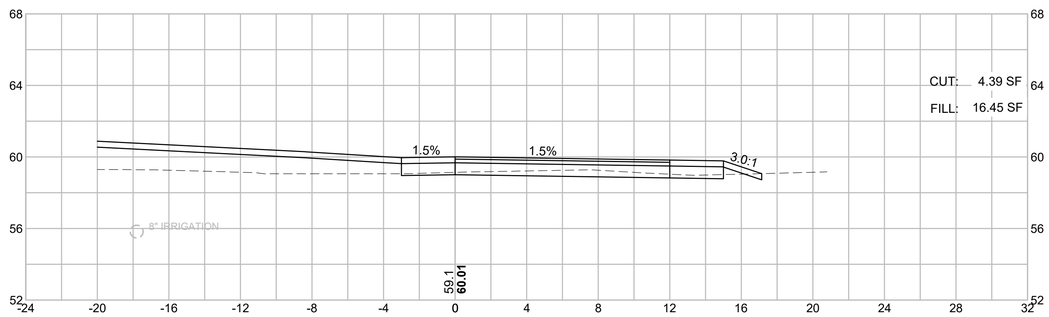


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

588+50



590+00



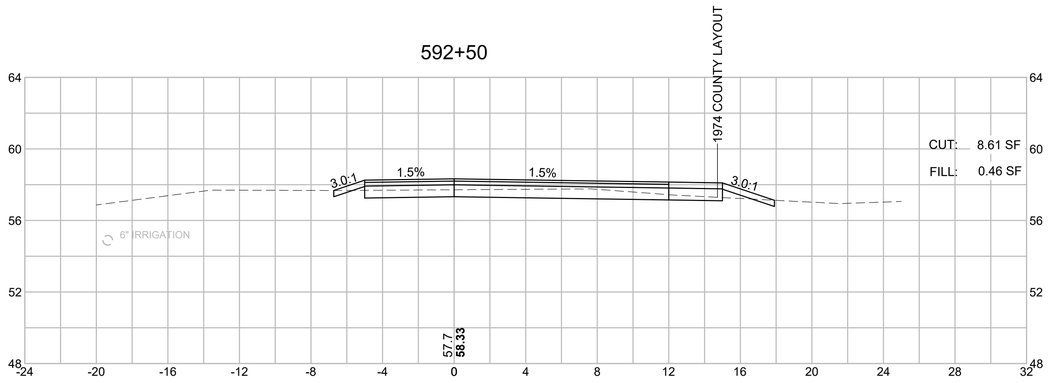
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	245	278
PROJECT FILE NO. 607398			

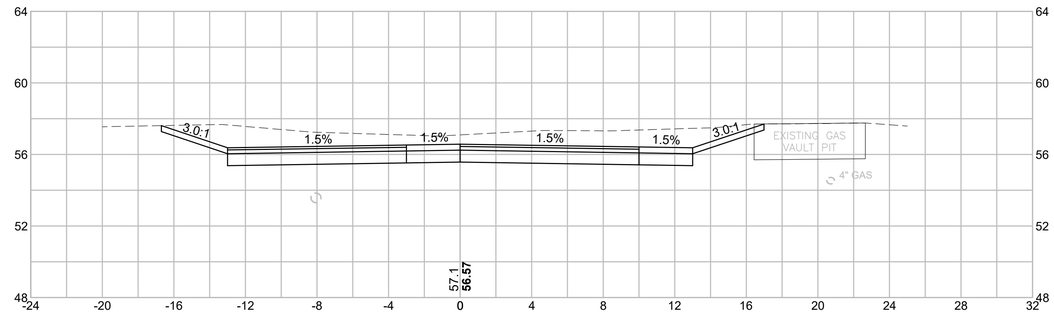
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:20 AM

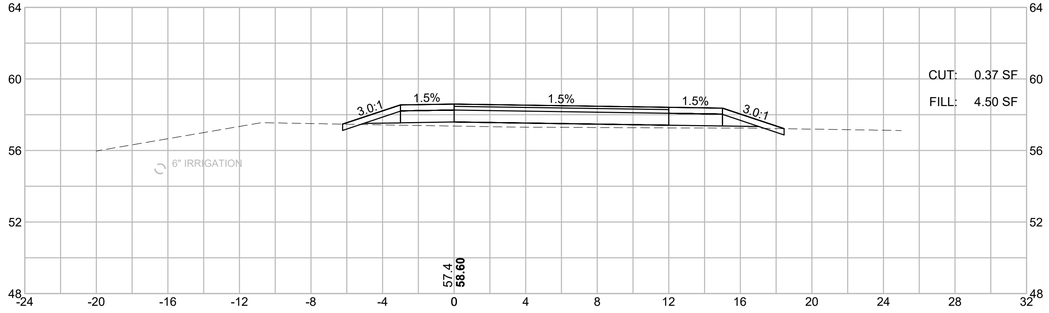
592+50



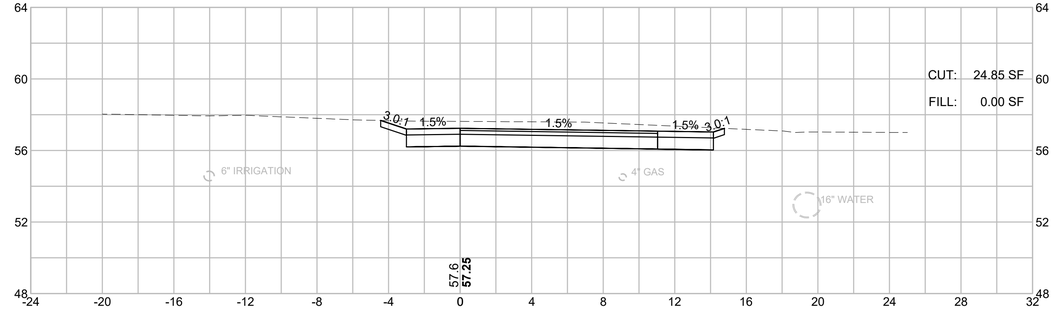
594+20



592+00

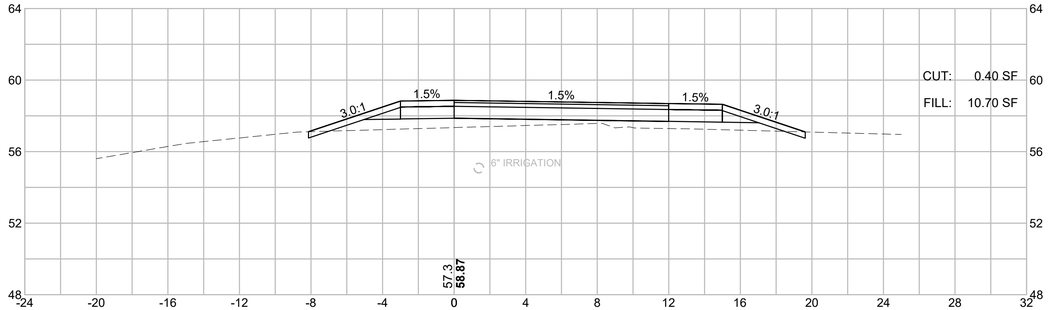


594+00

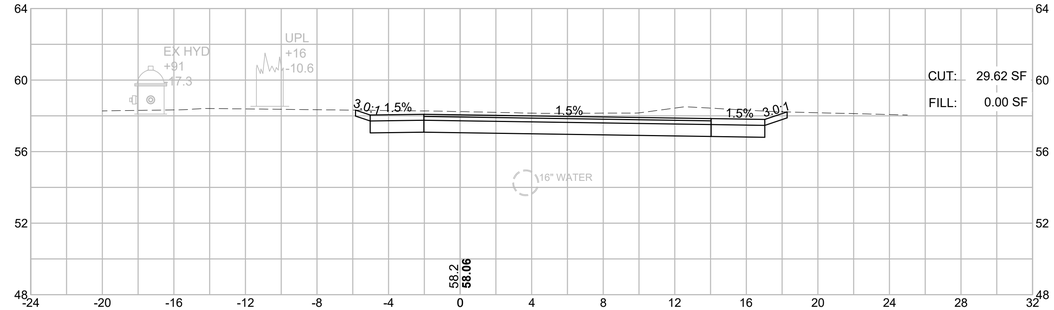


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

591+50



593+00

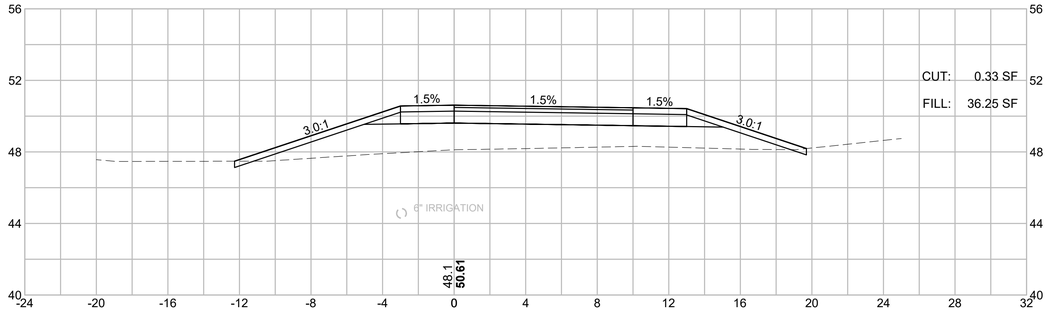


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

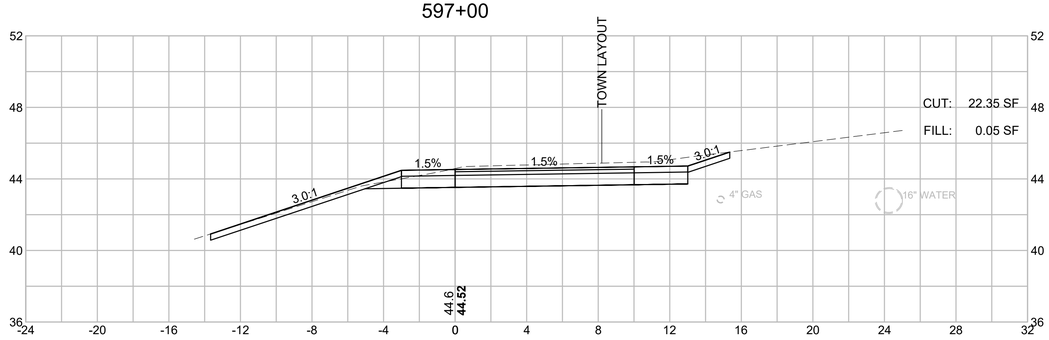
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	246	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

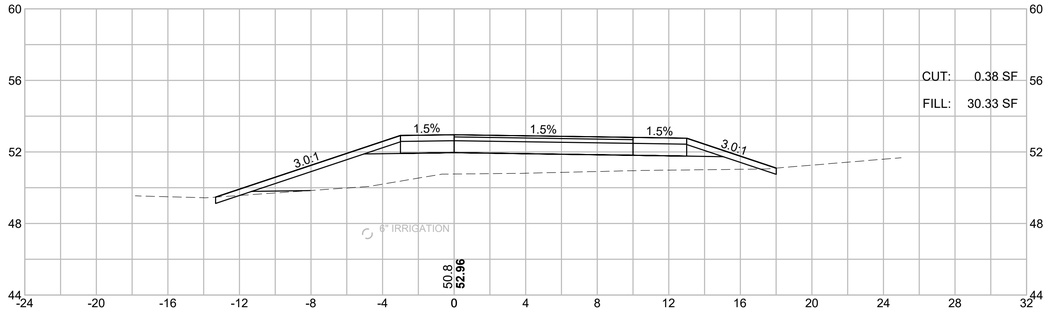
595+50



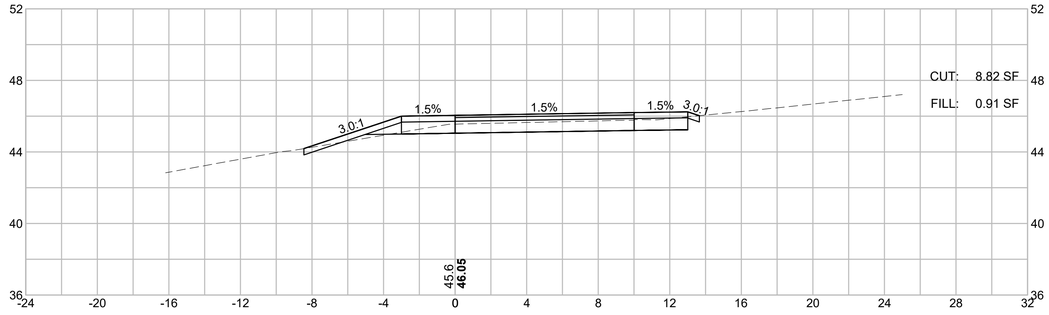
597+00



595+00

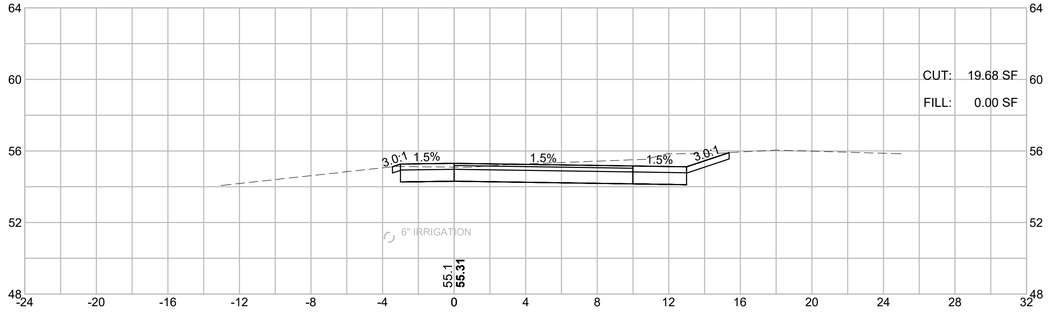


596+50

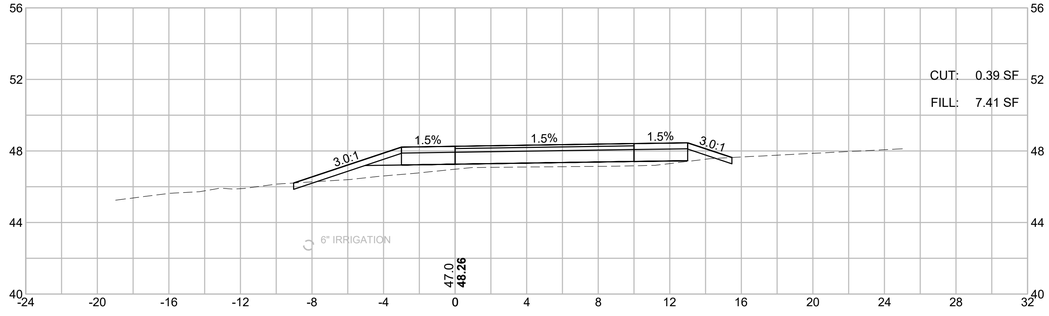


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

594+50



596+00



607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:20 AM

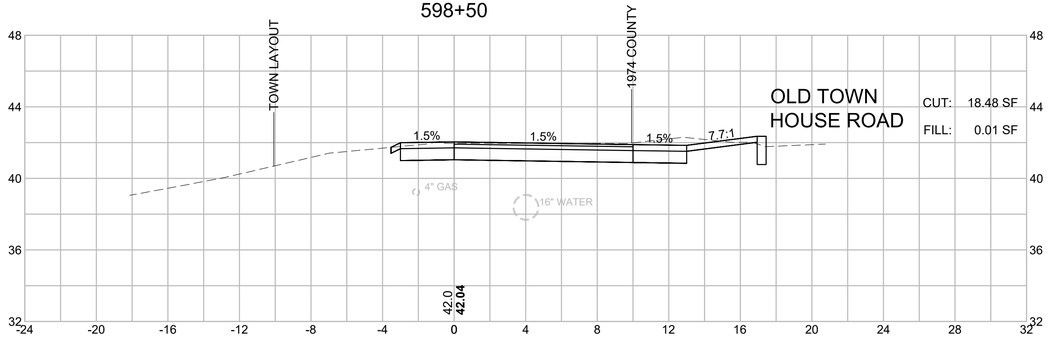
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	247	278
PROJECT FILE NO. 607398			

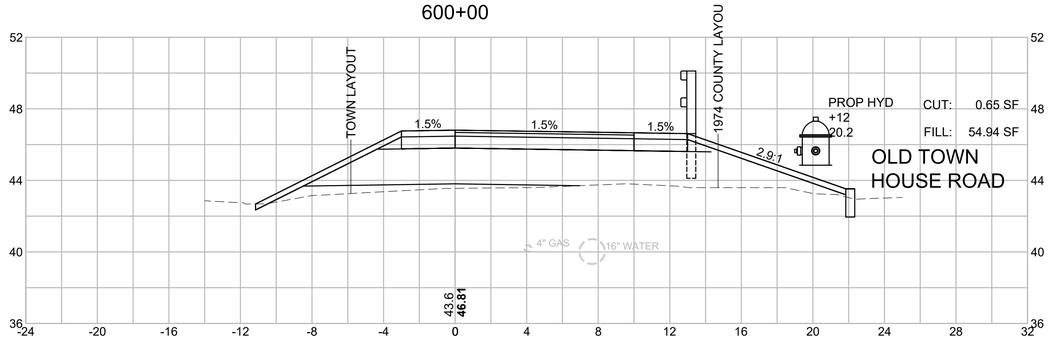
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:20 AM

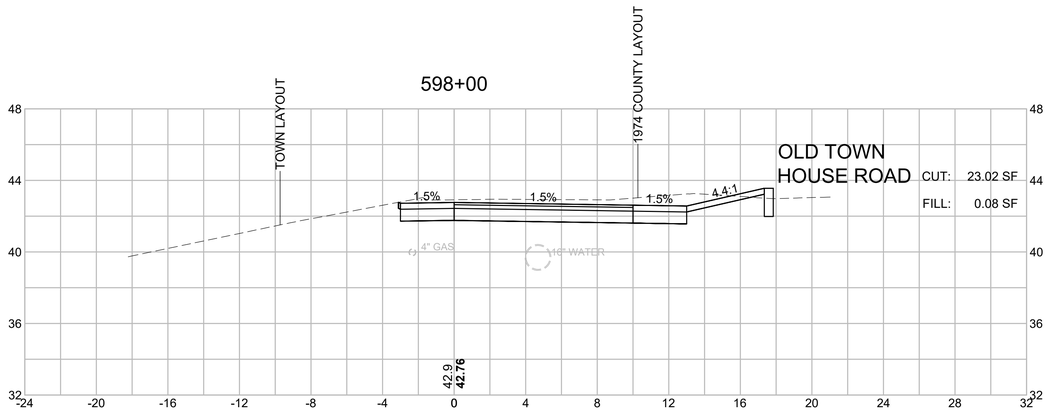
598+50



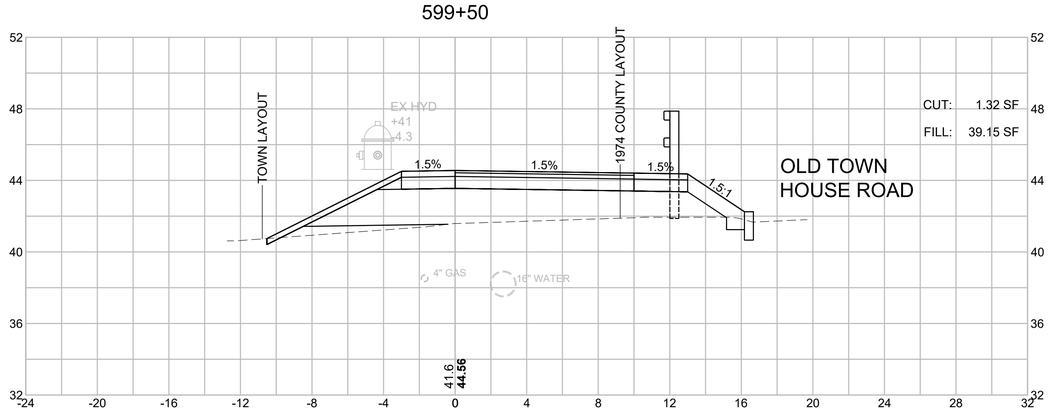
600+00



598+00

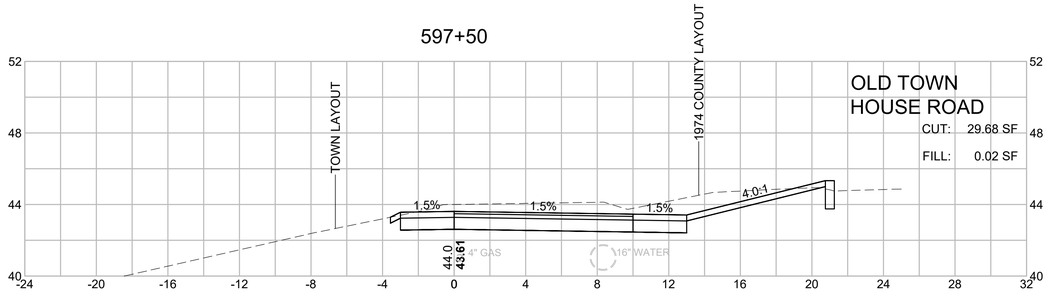


599+50

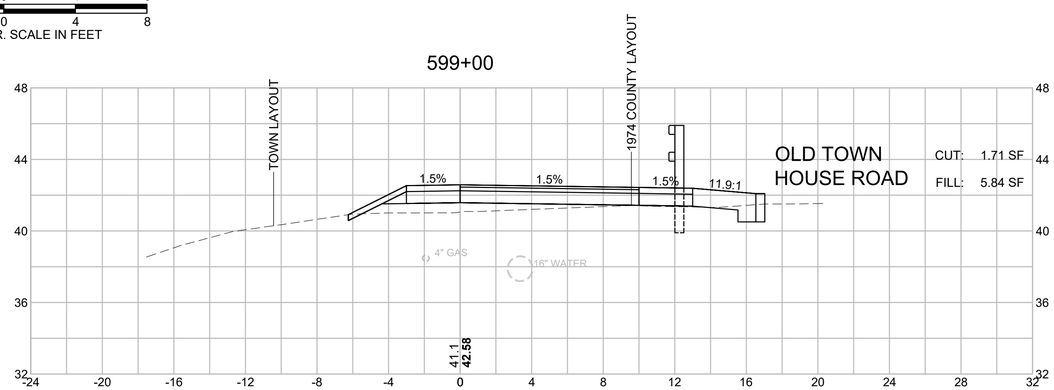


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

597+50



599+00



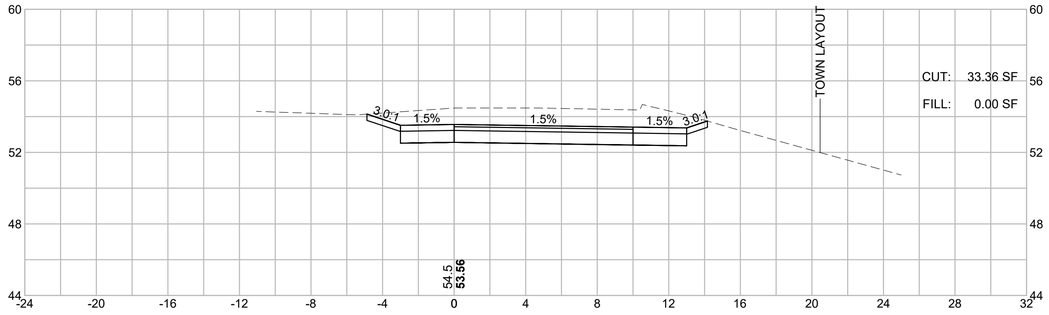
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	248	278
PROJECT FILE NO. 607398			

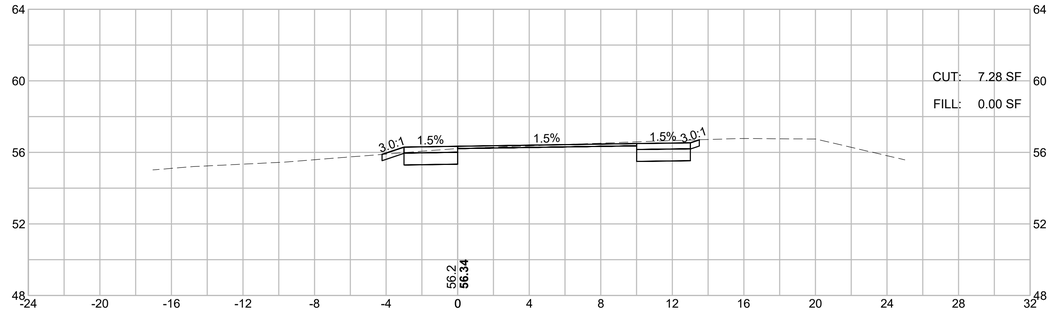
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:20 AM

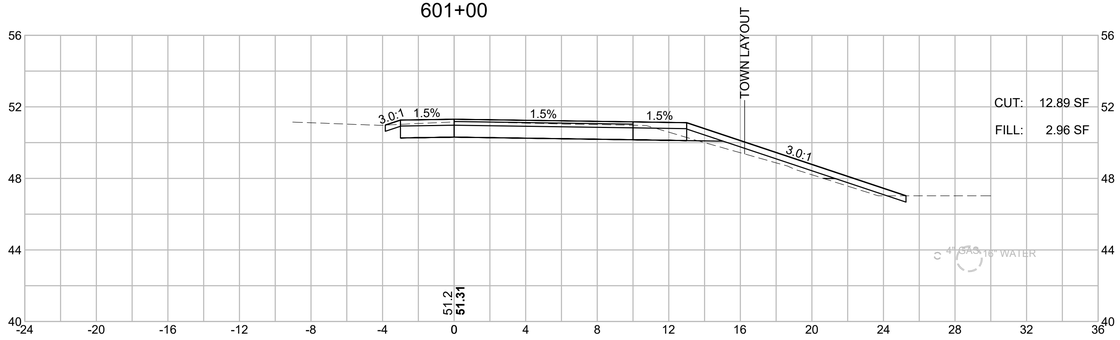
601+50



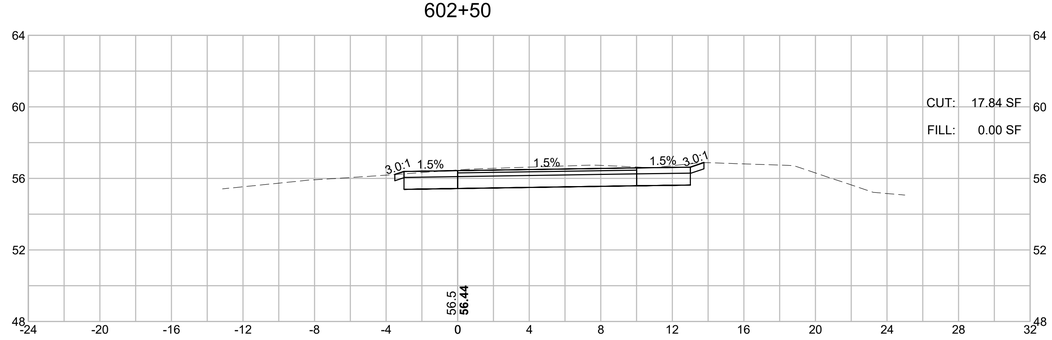
603+00



601+00

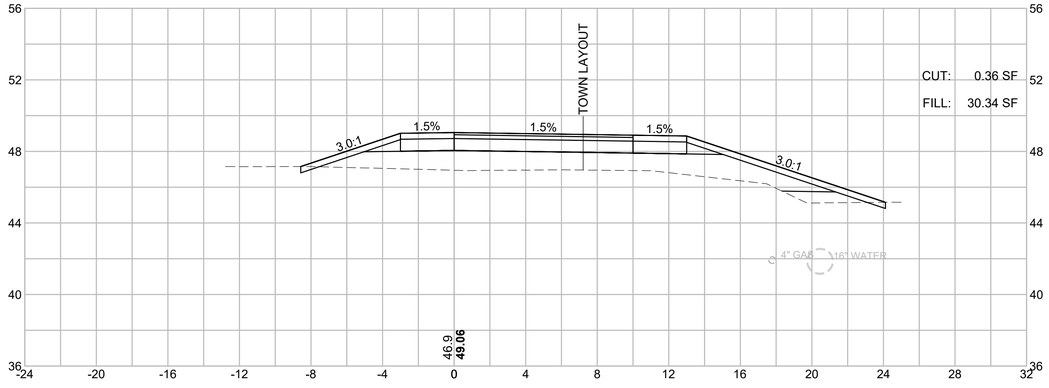


602+50

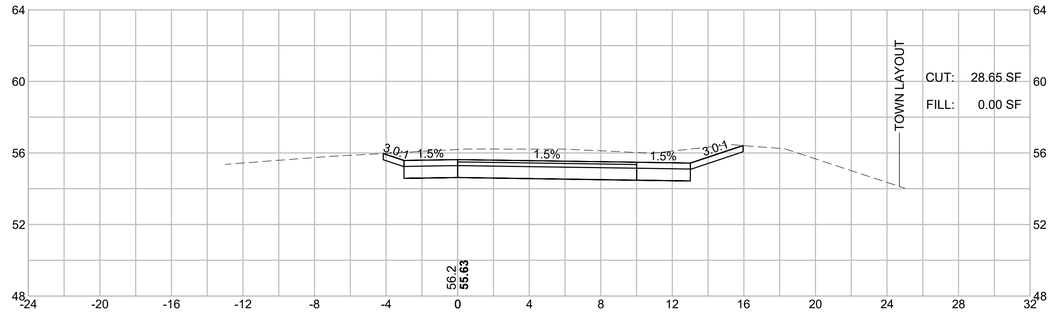


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

600+50



602+00



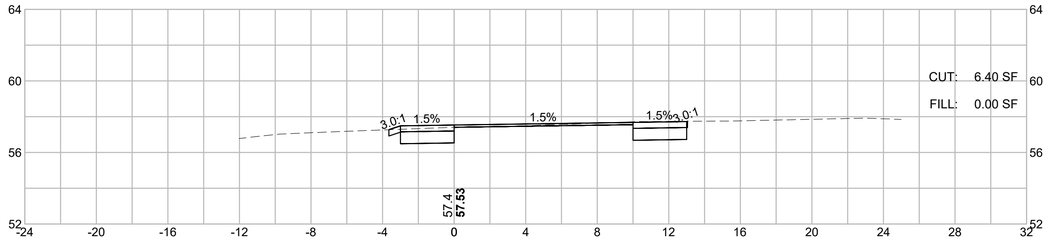
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	249	278
PROJECT FILE NO. 607398			

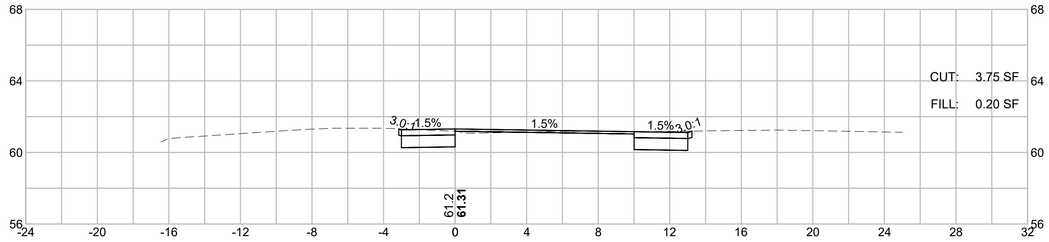
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:20 AM

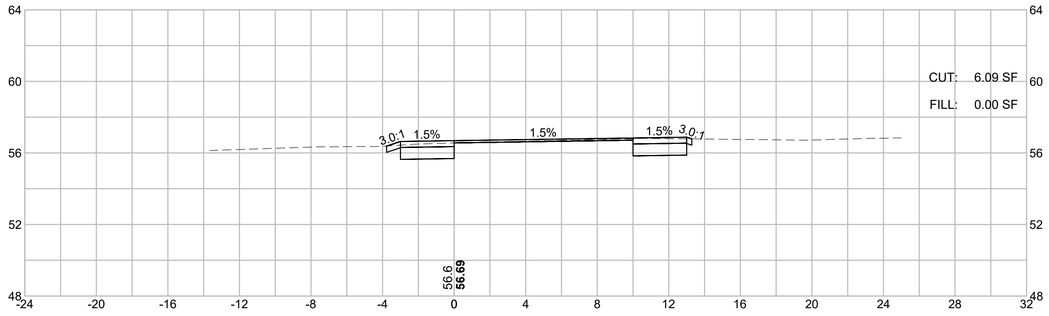
604+50



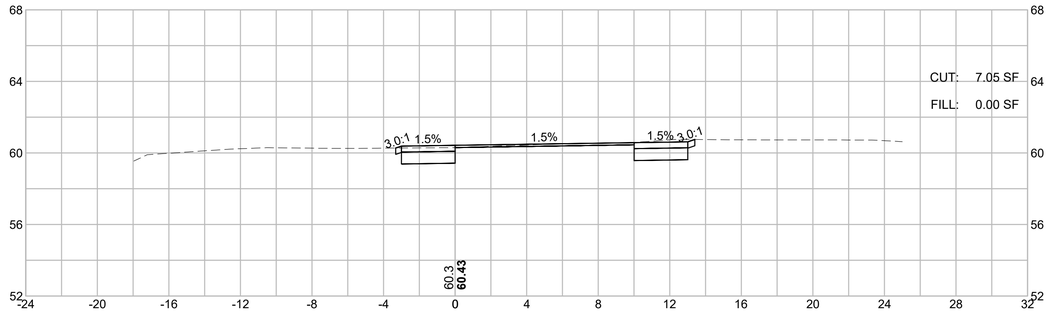
606+00



604+00

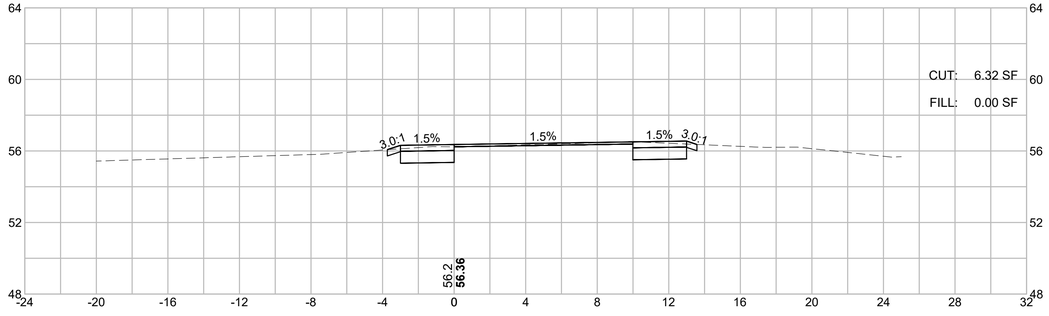


605+50

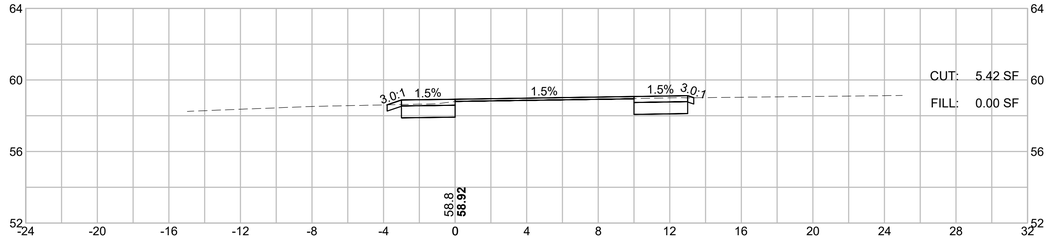


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

603+50



605+00



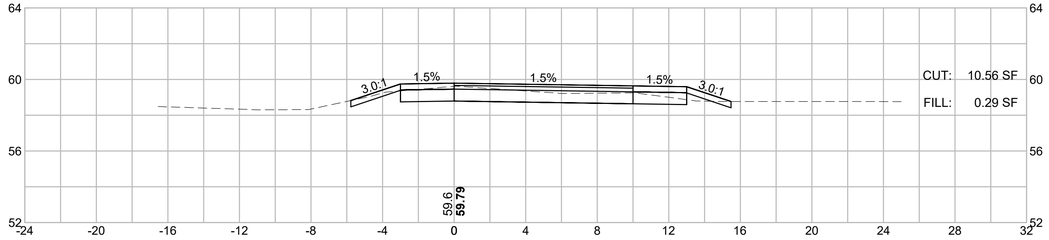
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	250	278
PROJECT FILE NO. 607398			

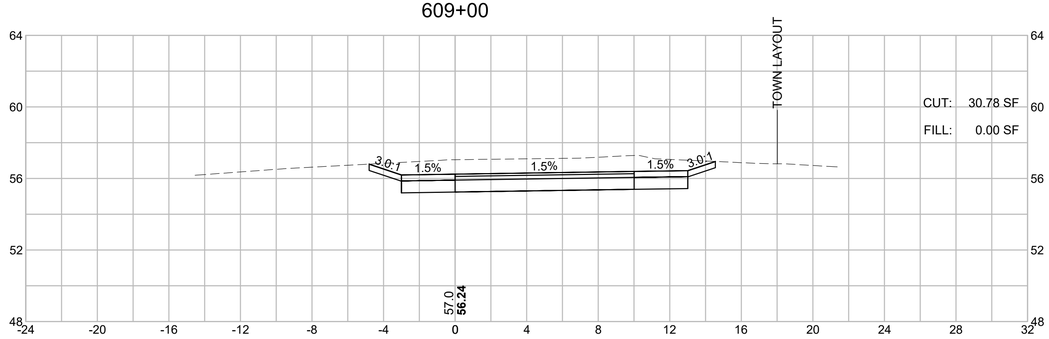
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:20 AM

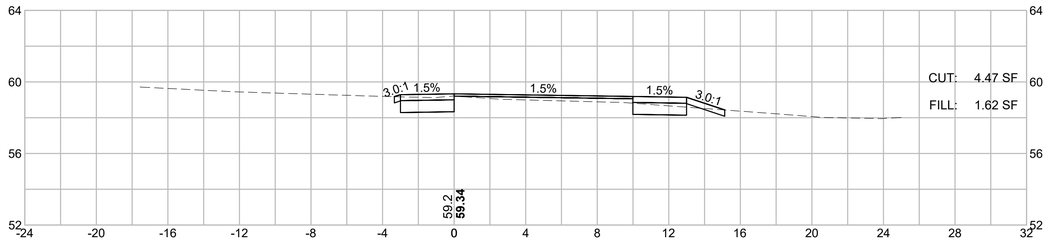
607+50



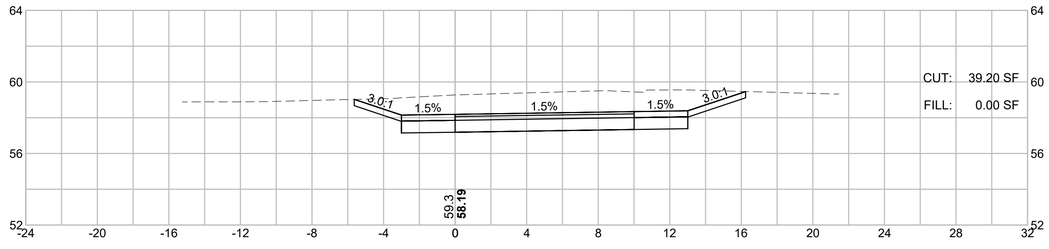
609+00



607+00

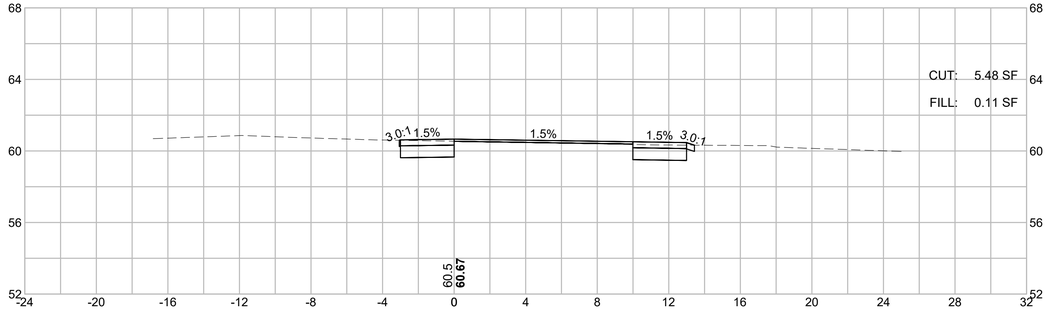


608+50

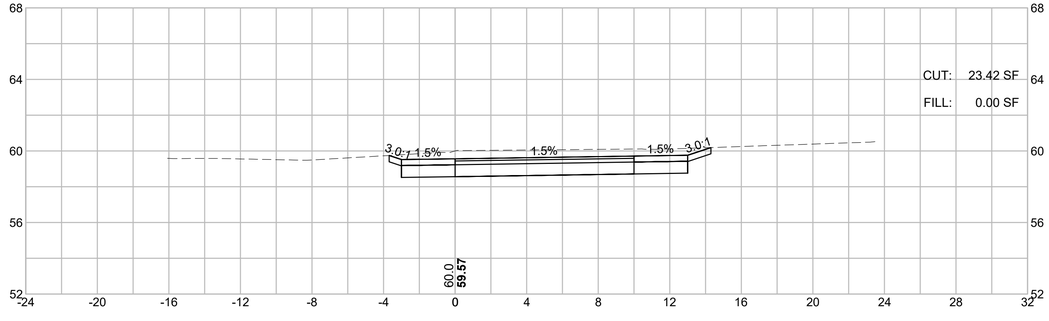


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

606+50



608+00



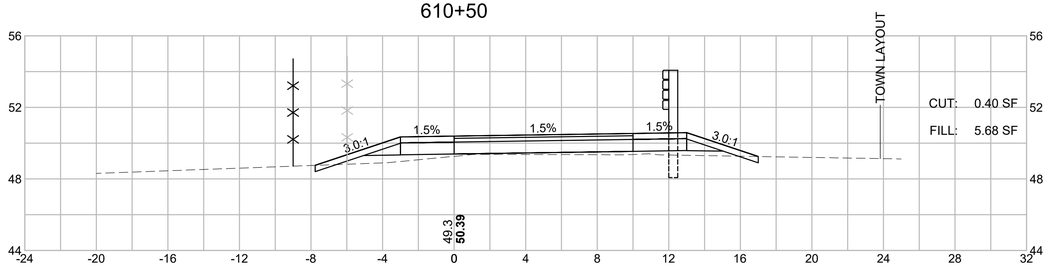
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	251	278
PROJECT FILE NO. 607398			

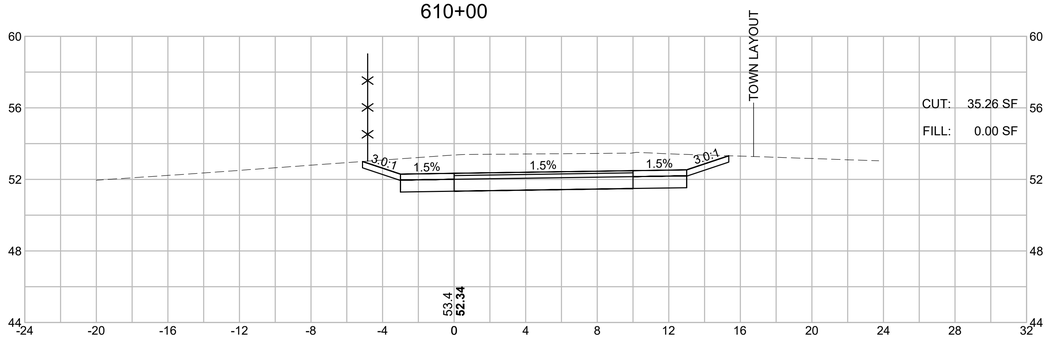
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:21 AM

610+50

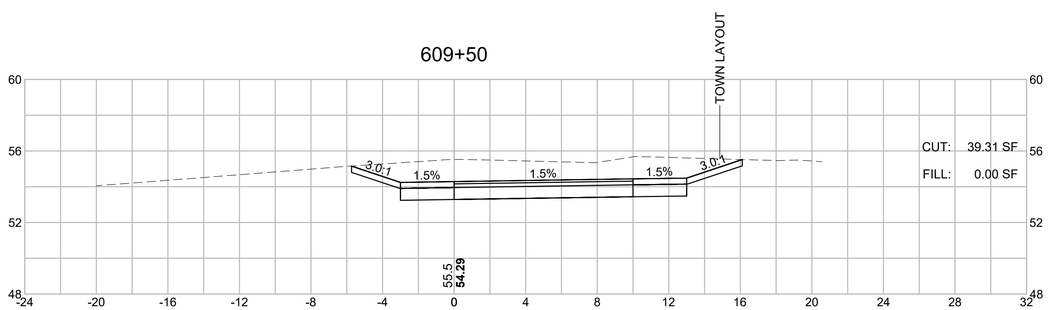


610+00

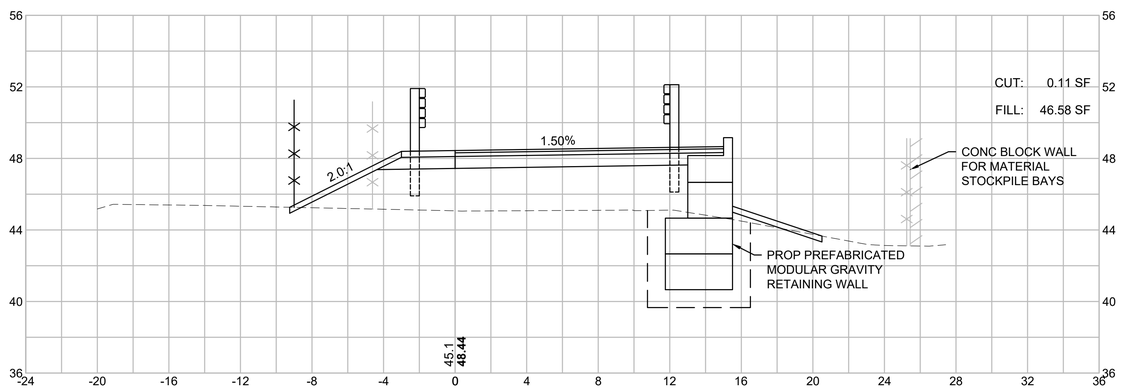


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

609+50



611+00



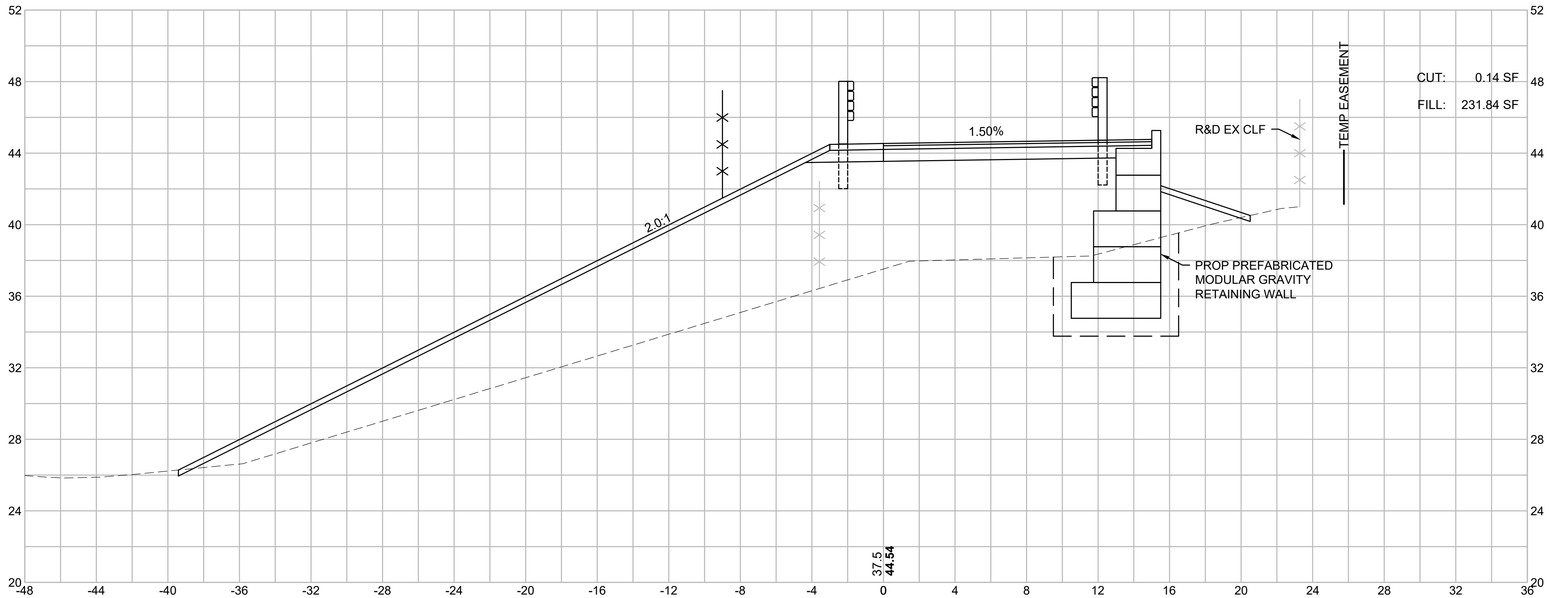
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	252	278
PROJECT FILE NO. 607398			

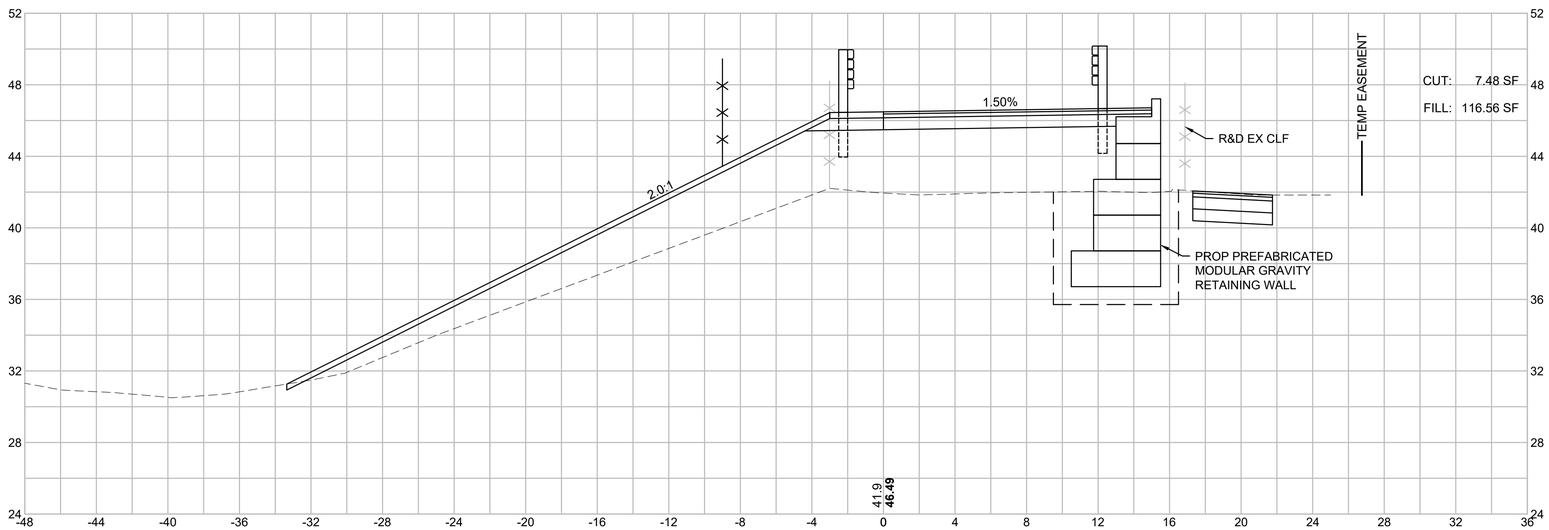
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:21 AM

612+00



611+50



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

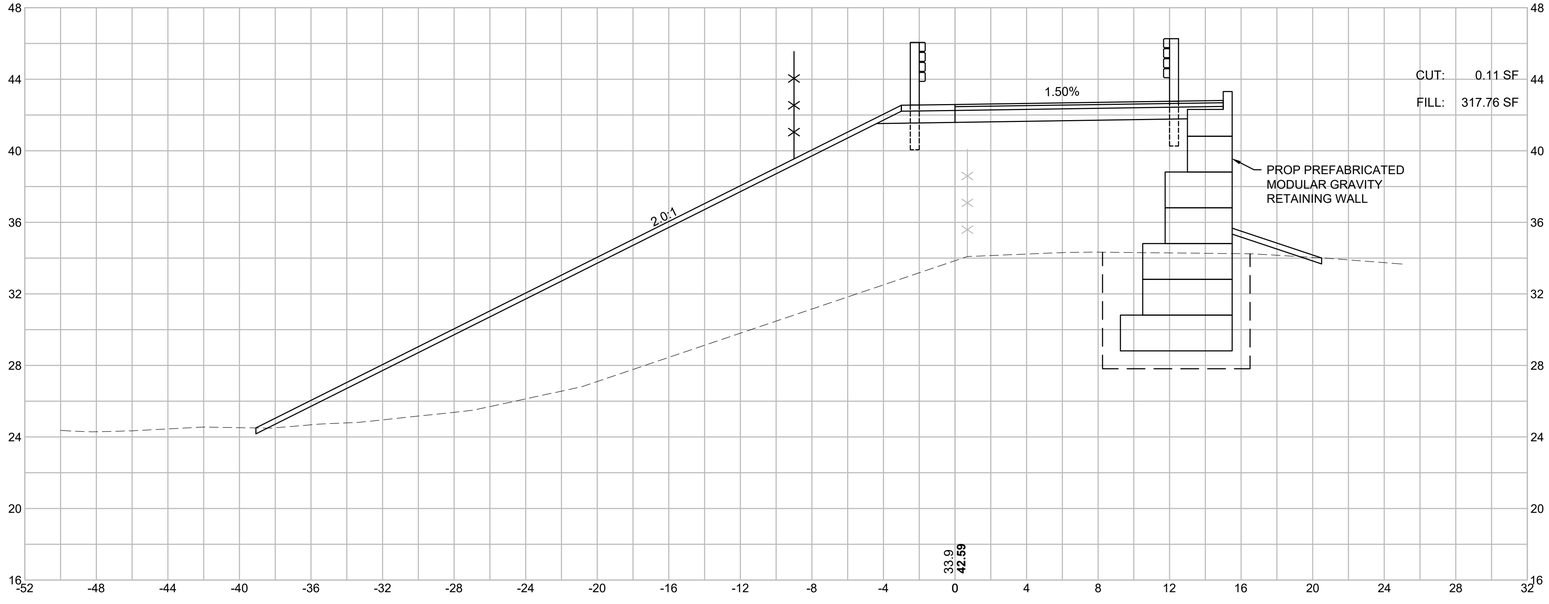
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	253	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:21 AM

612+50



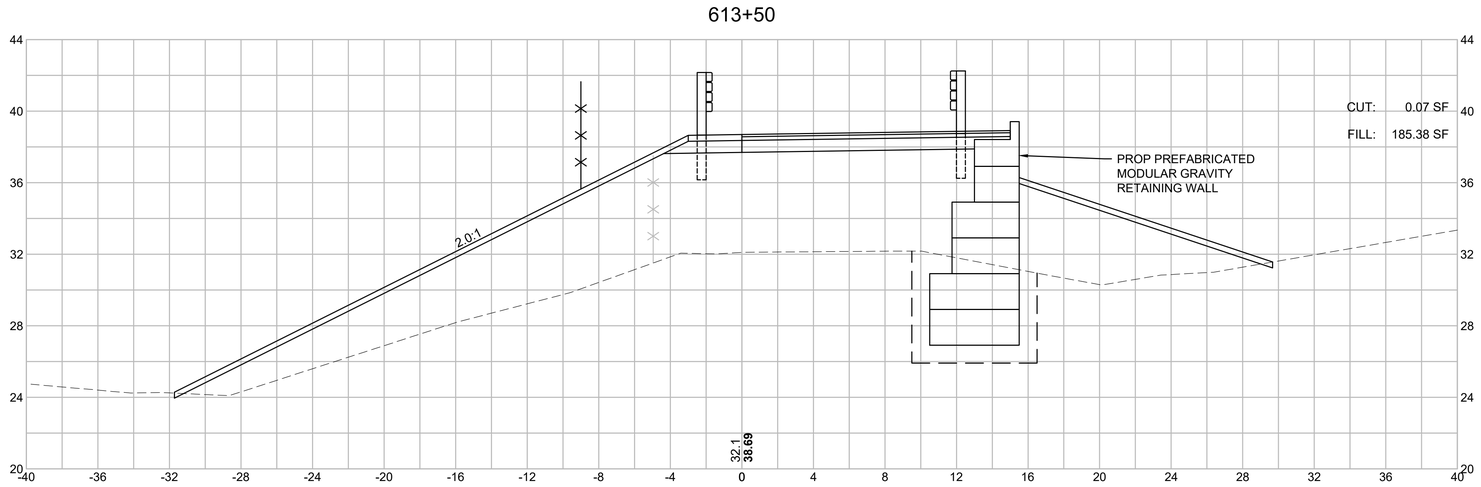
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

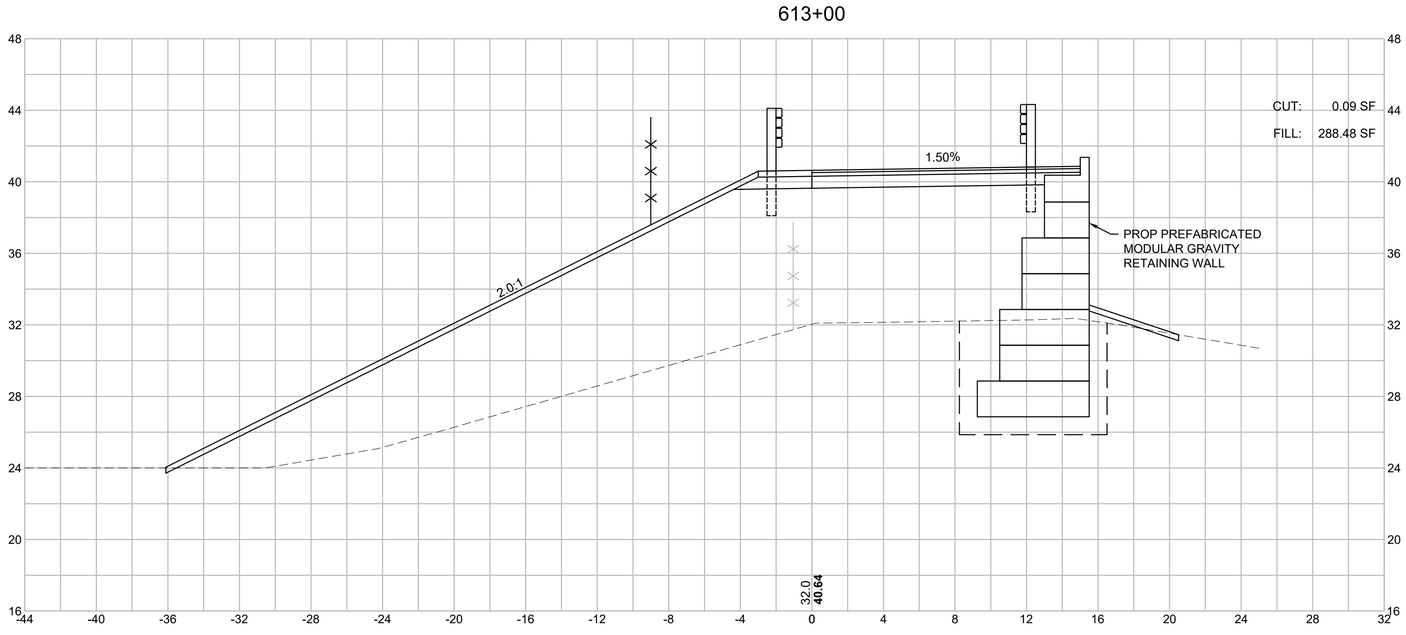
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	254	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:21 AM





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

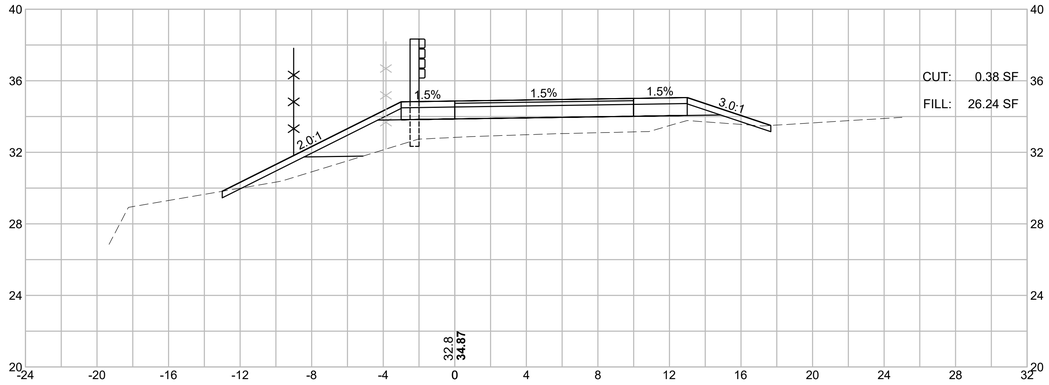
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	255	278
PROJECT FILE NO. 607398			

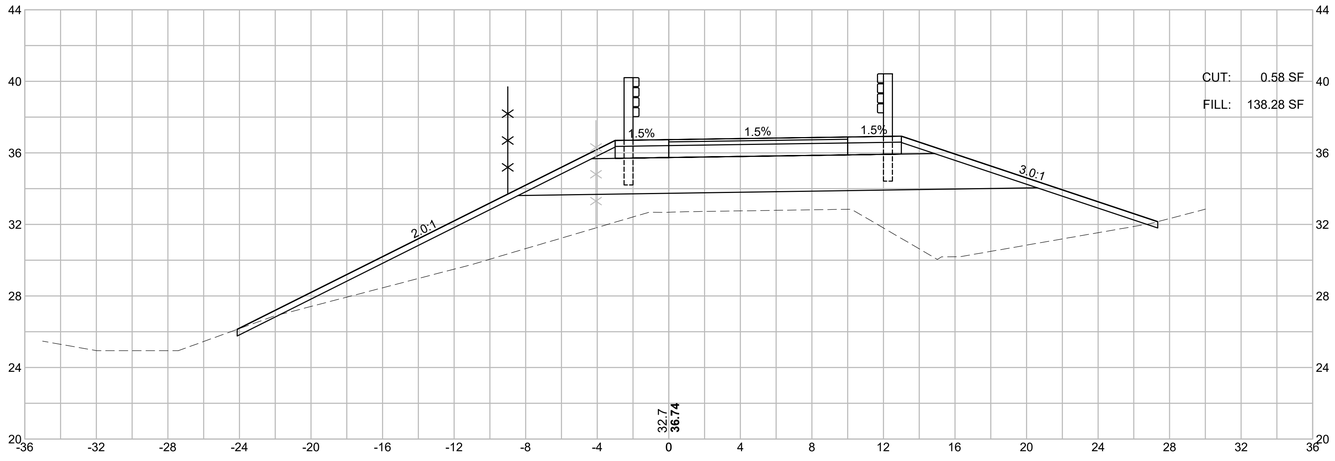
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:21 AM

614+50



614+00



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

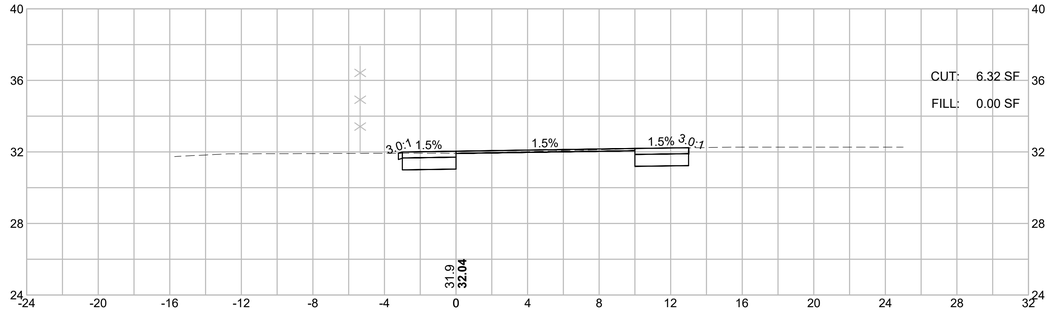
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	256	278
PROJECT FILE NO. 607398			

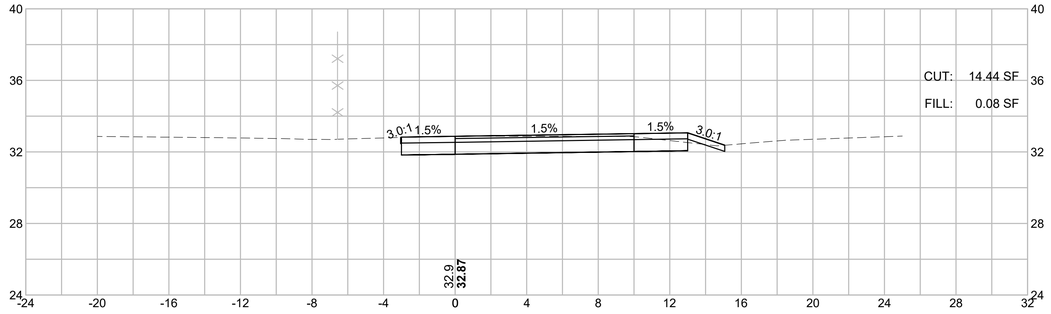
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:21 AM

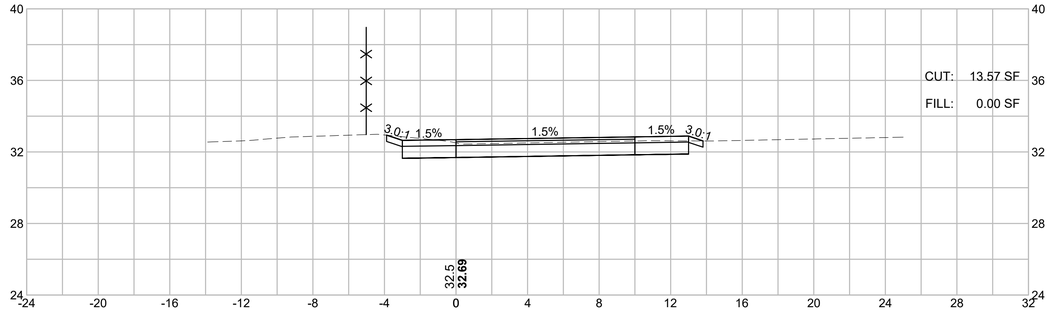
616+00



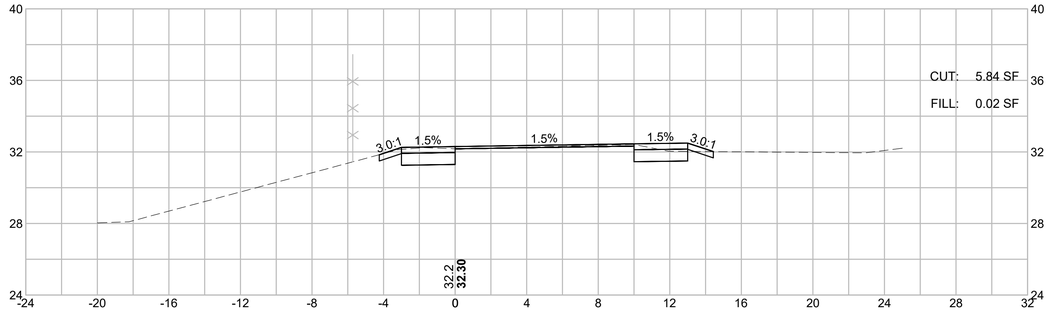
617+50



615+50

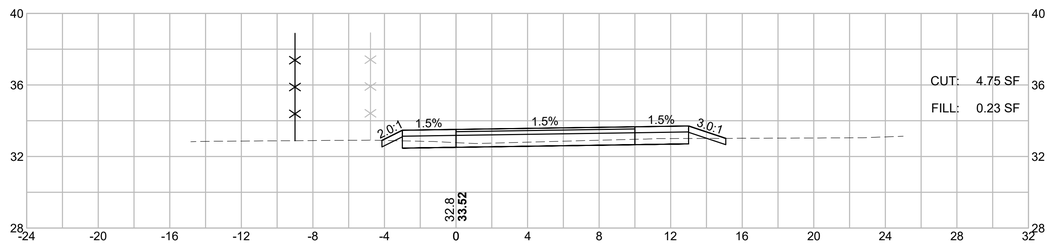


617+00

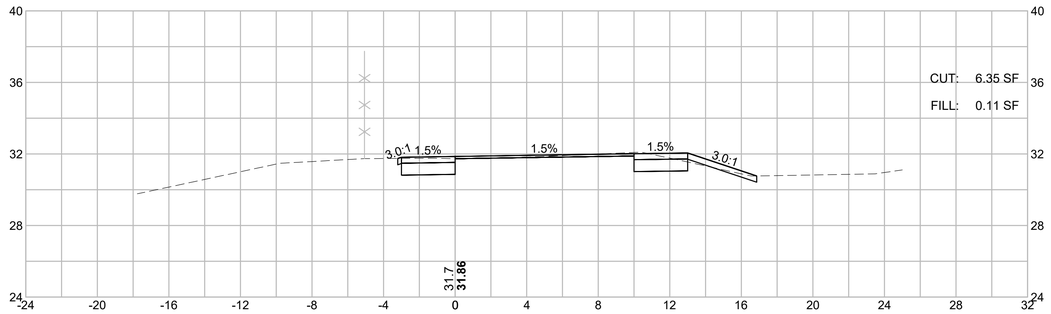


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

615+00



616+50



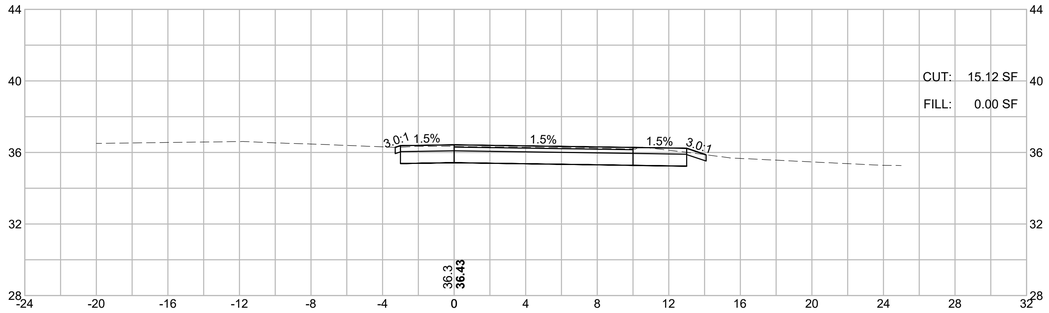
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	257	278
PROJECT FILE NO. 607398			

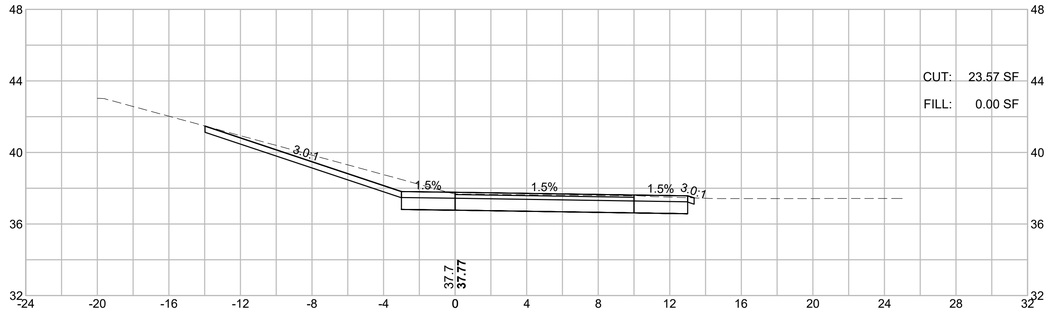
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:22 AM

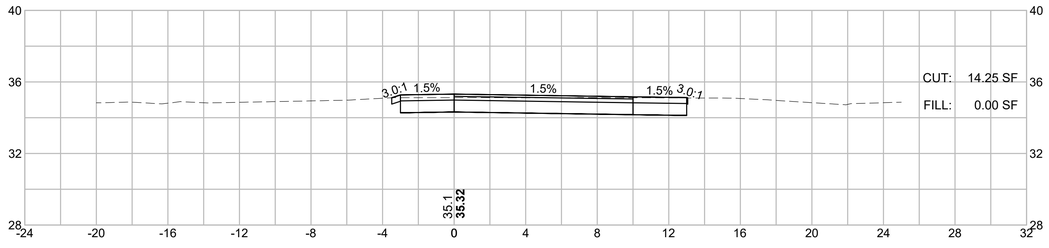
619+50



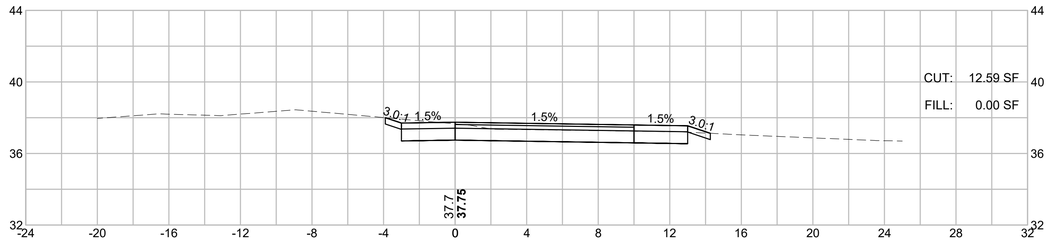
621+00



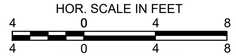
619+00



620+50

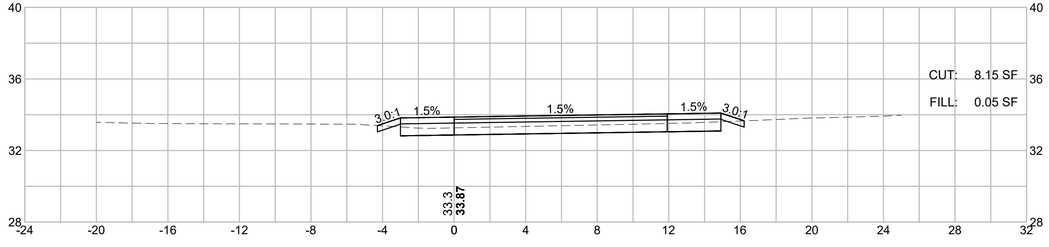


HOR. SCALE IN FEET

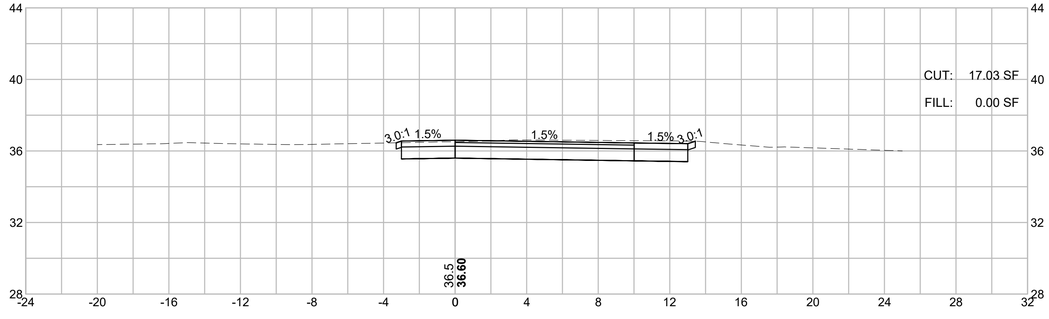


VER. SCALE IN FEET

618+00



620+00

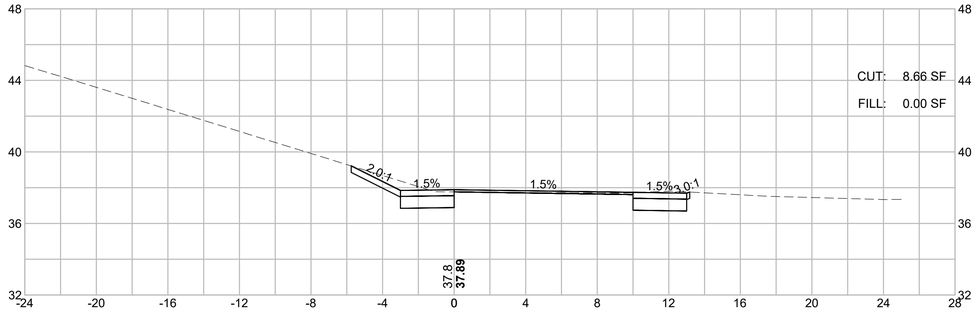


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

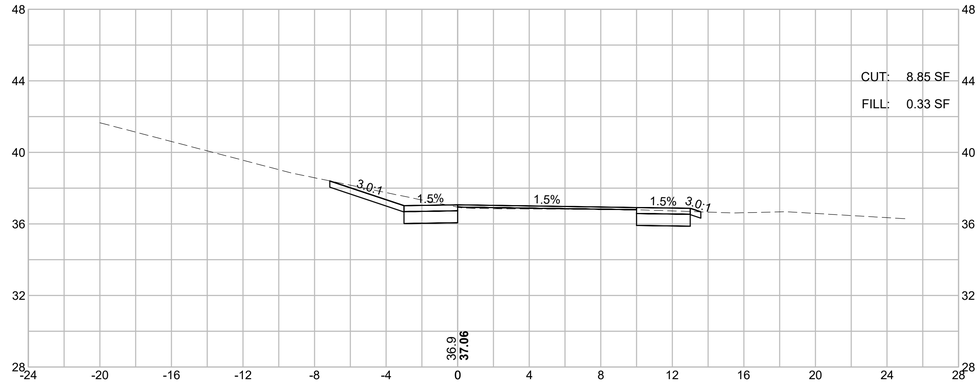
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	258	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

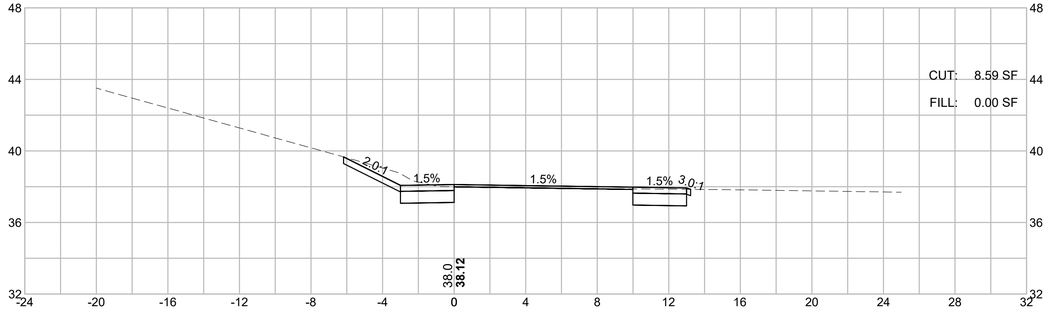
622+50



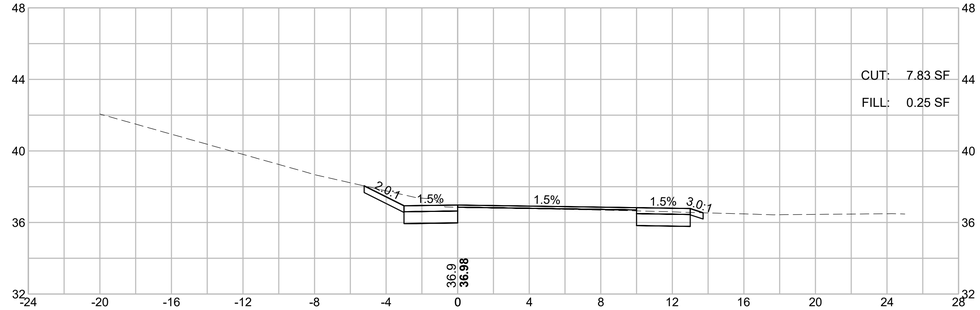
624+00



622+00

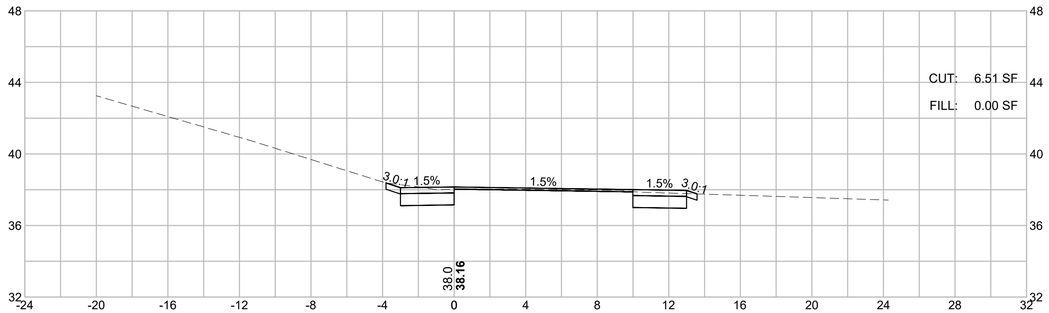


623+50

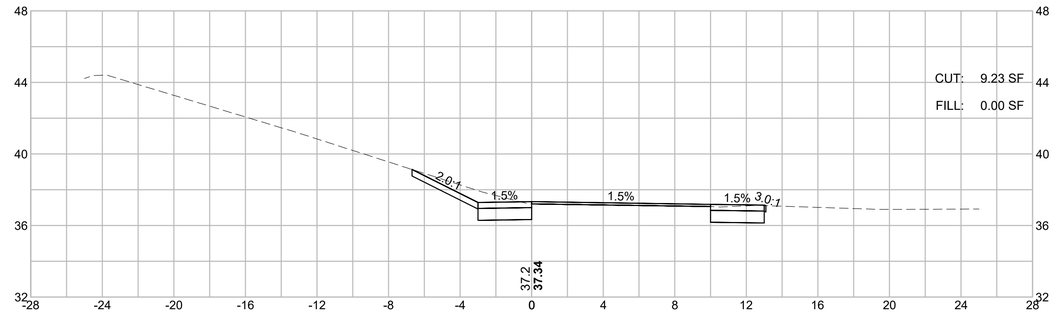


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

621+50



623+00



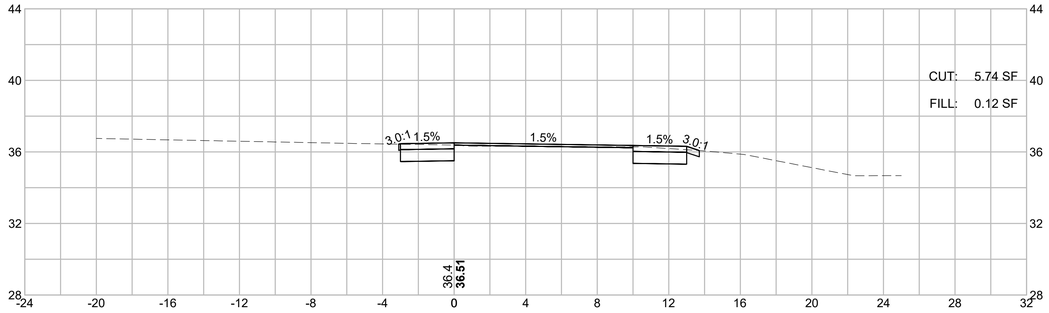
607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:22 AM

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

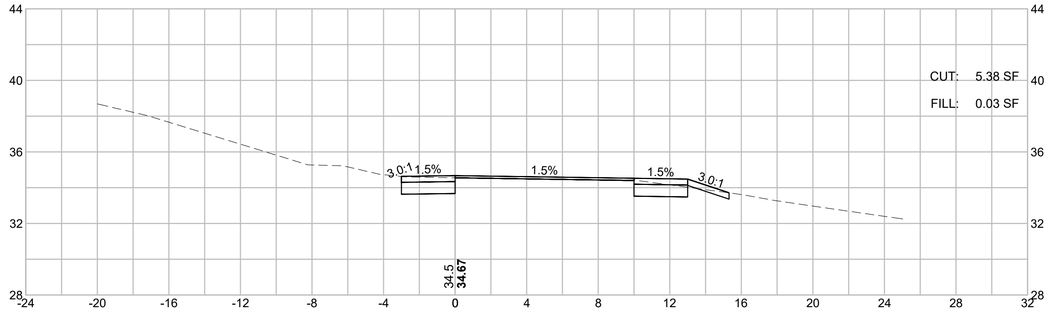
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	259	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

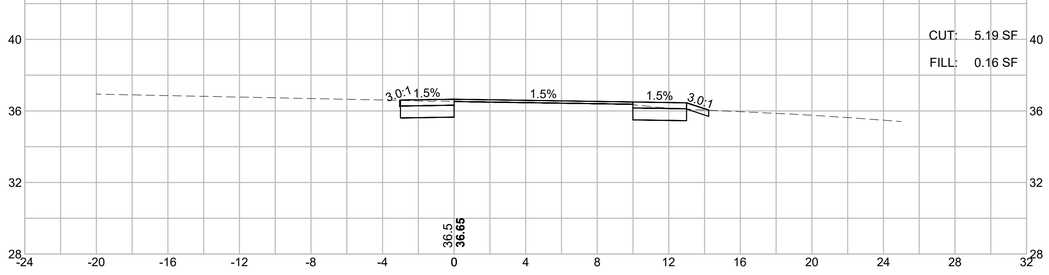
625+50



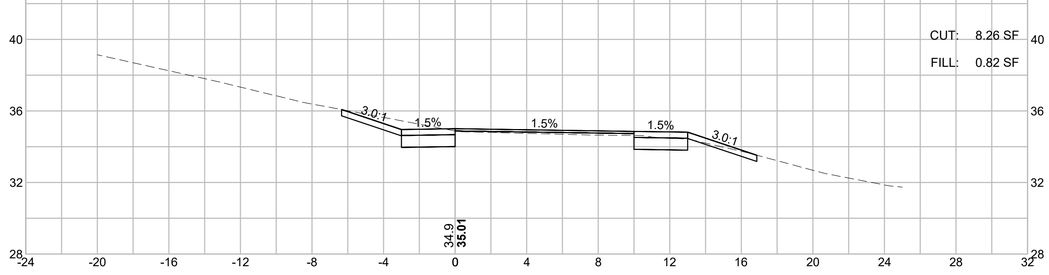
627+00



625+00

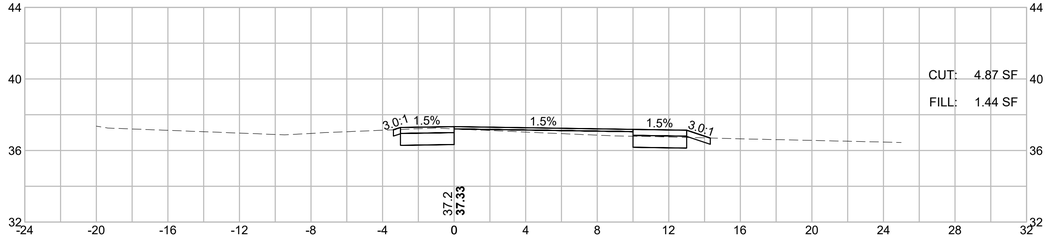


626+50

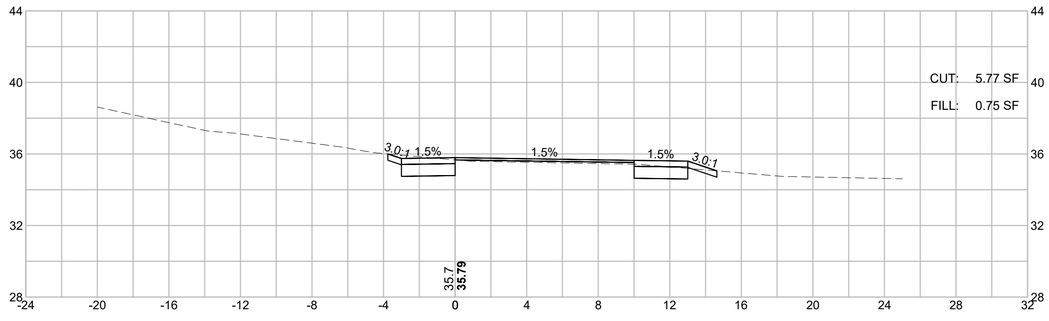


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

624+50



626+00



607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:22 AM

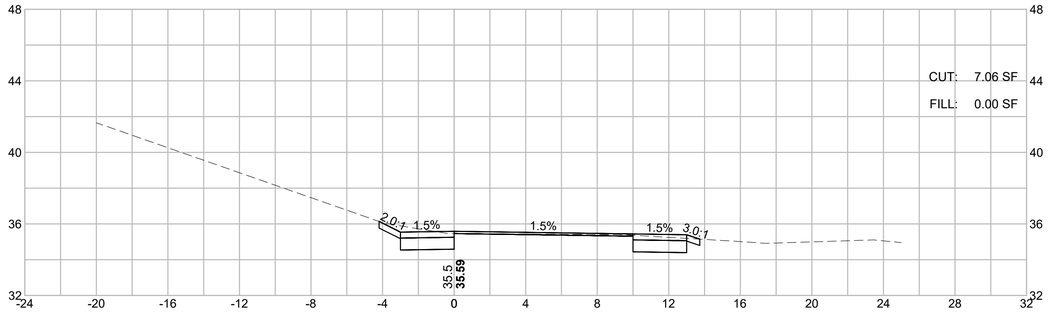
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	260	278
PROJECT FILE NO. 607398			

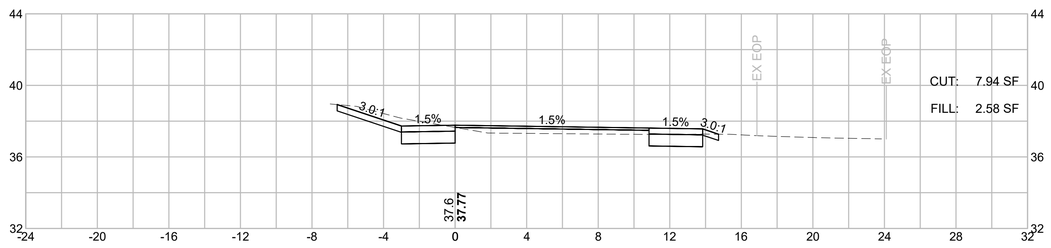
EAST CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:22 AM

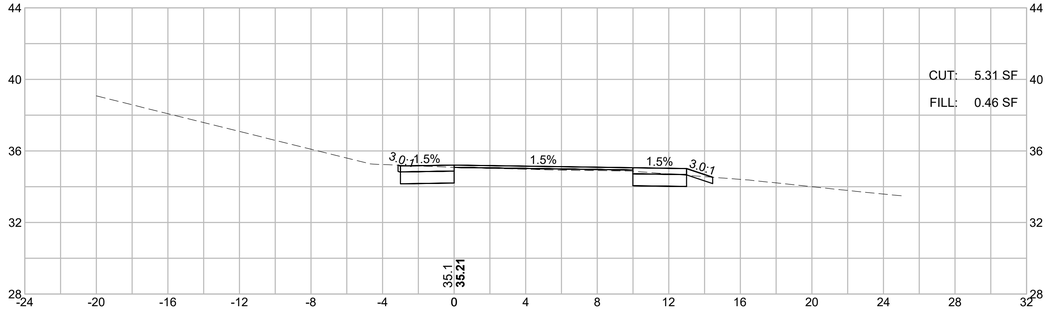
628+50



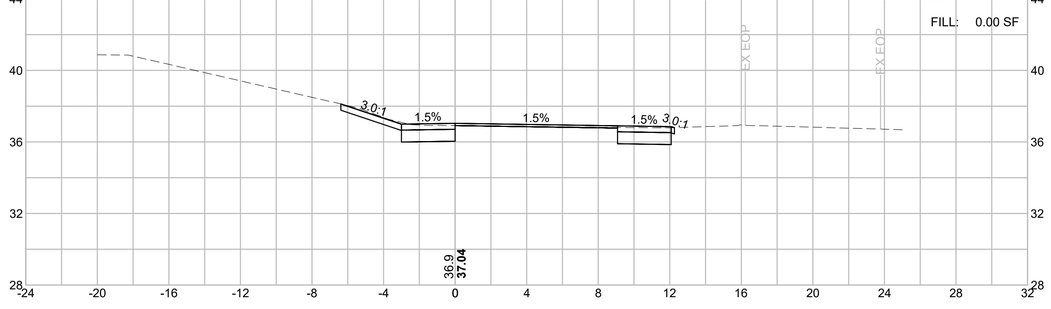
630+00



628+00

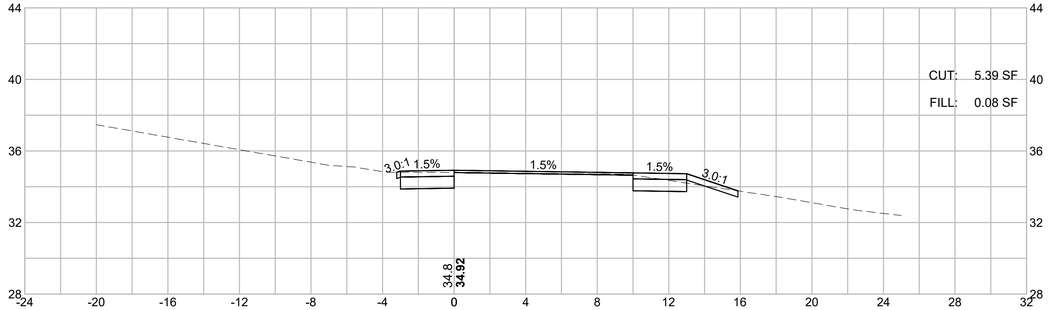


629+50

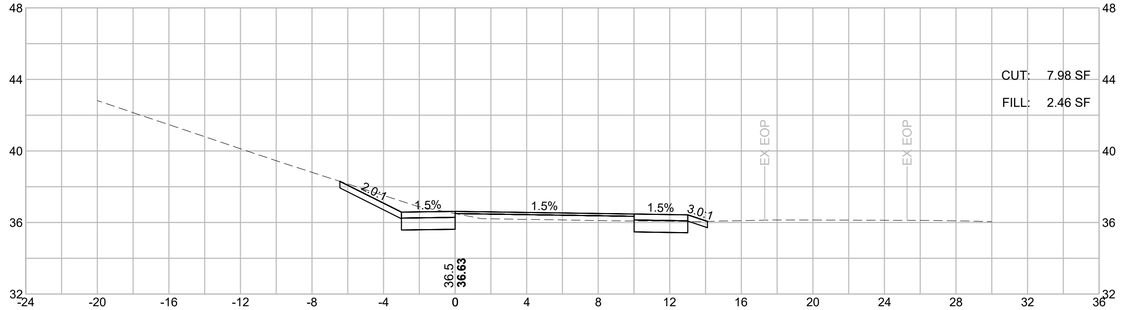


HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

627+50



629+00

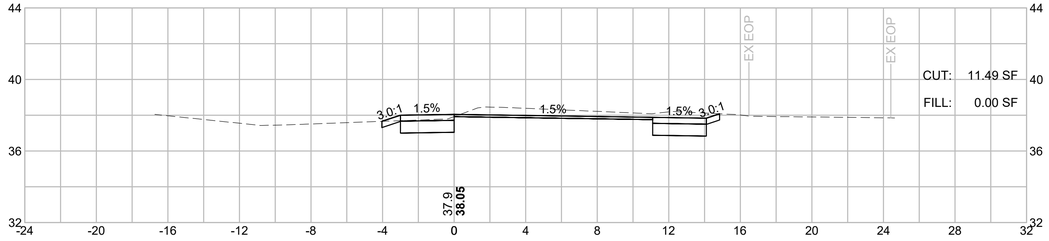


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

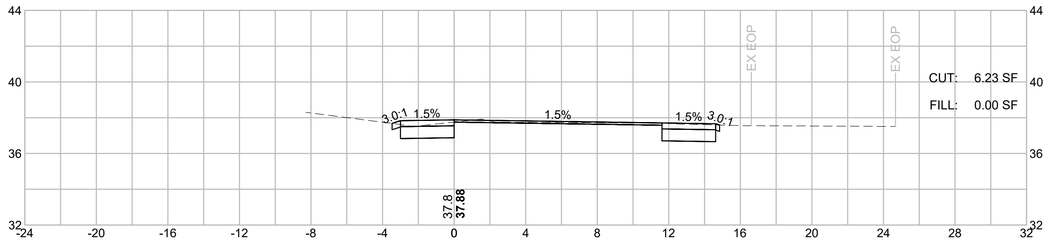
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	261	278
PROJECT FILE NO. 607398			

EAST CROSS SECTIONS

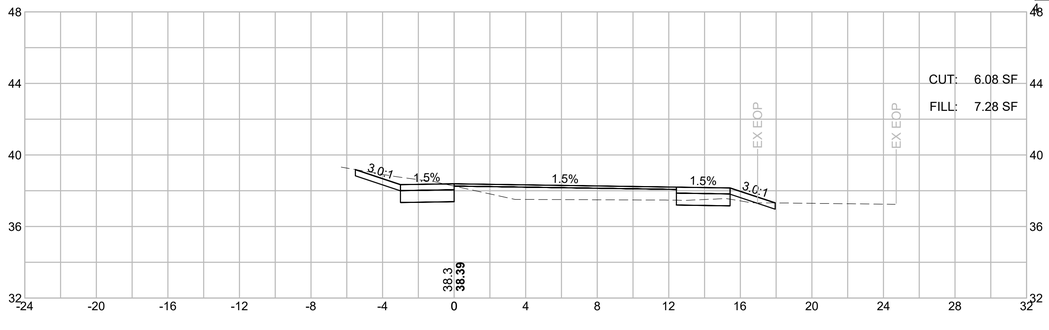
631+50



631+00



630+50





607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:22 AM

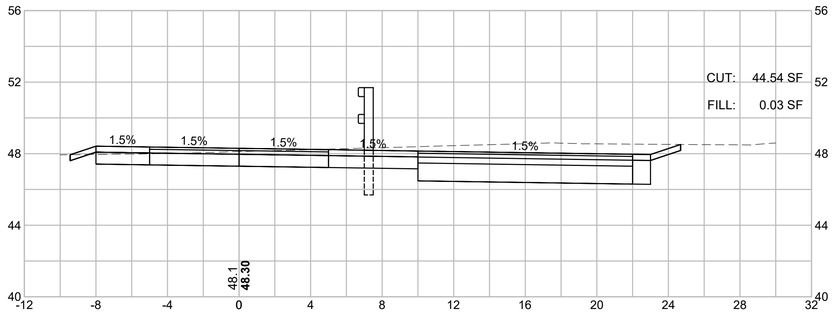
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	262	278
PROJECT FILE NO. 607398			

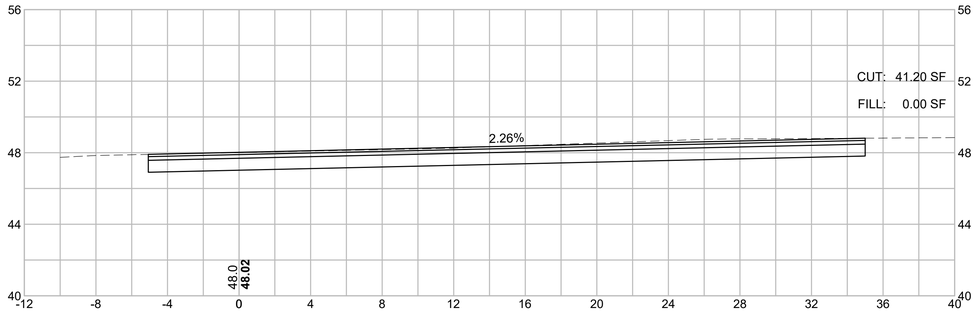
WILLOW STREET SPUR CROSS SECTIONS

607398_HD\XSEC-WEST-4).DWG Plotted on 14-Feb-2024 11:23 AM

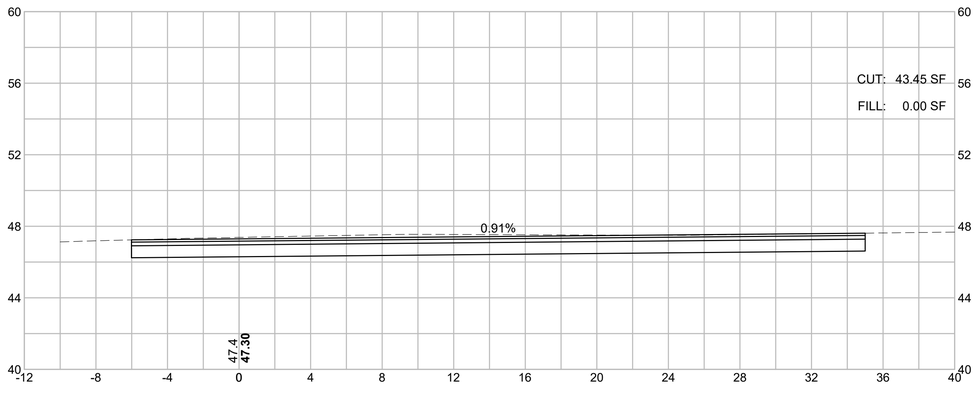
301+00



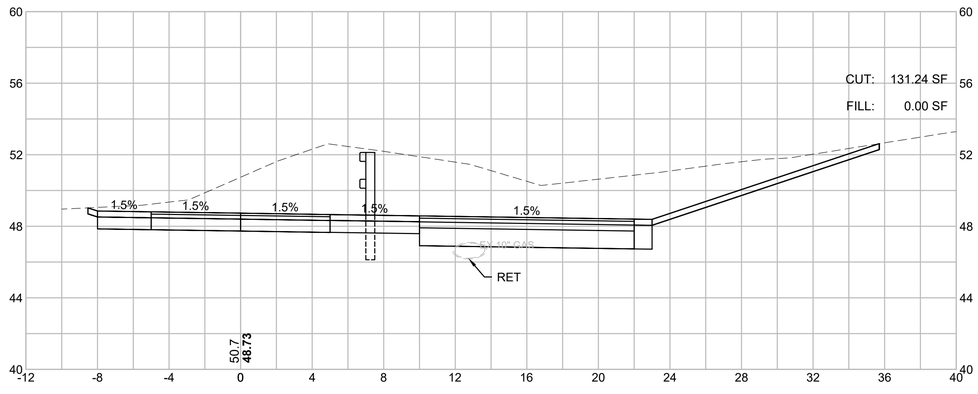
300+50

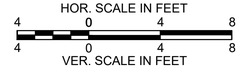


300+00



301+50



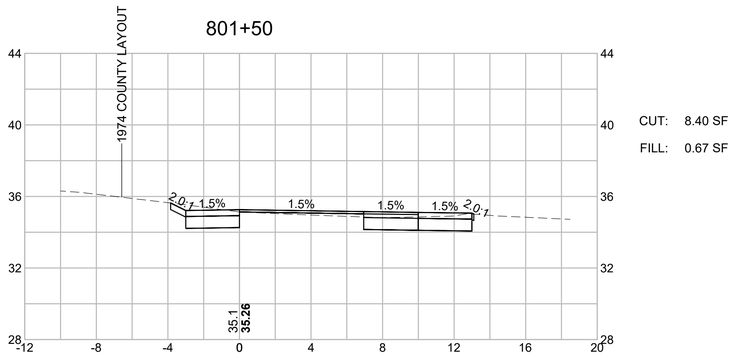


BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

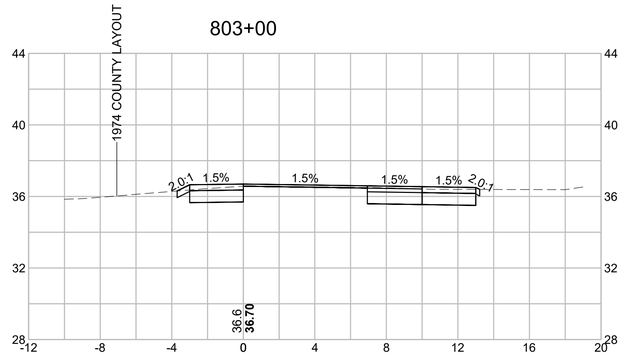
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	263	278
PROJECT FILE NO. 607398			

HIGGINS CROWELL SPUR CROSS SECTIONS

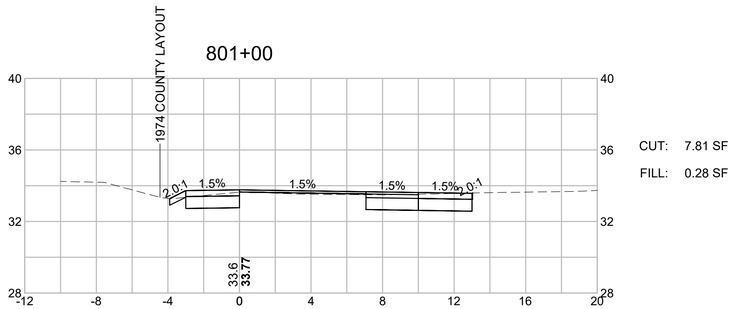
607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:23 AM



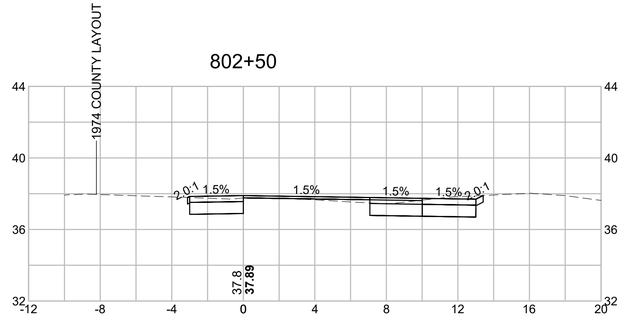
CUT: 8.40 SF
FILL: 0.67 SF



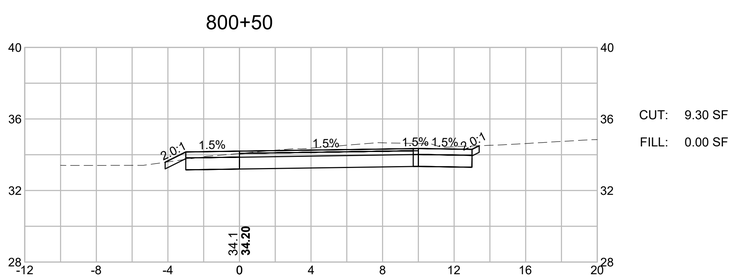
CUT: 8.16 SF
FILL: 0.00 SF



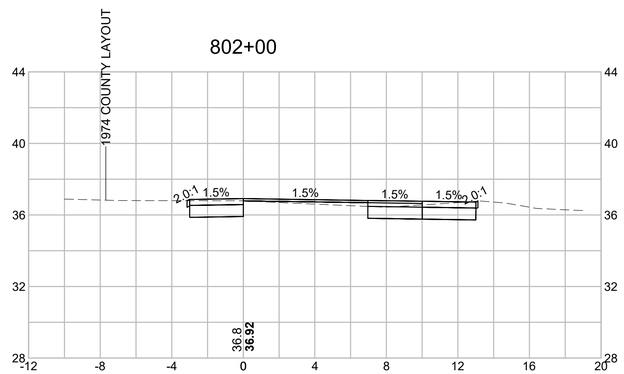
CUT: 7.81 SF
FILL: 0.28 SF



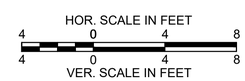
CUT: 8.25 SF
FILL: 0.38 SF



CUT: 9.30 SF
FILL: 0.00 SF



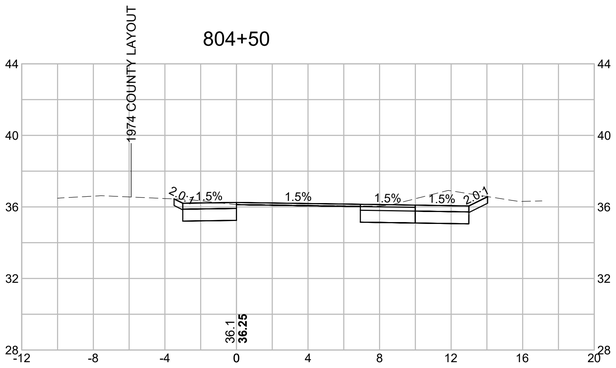
CUT: 7.65 SF
FILL: 0.75 SF



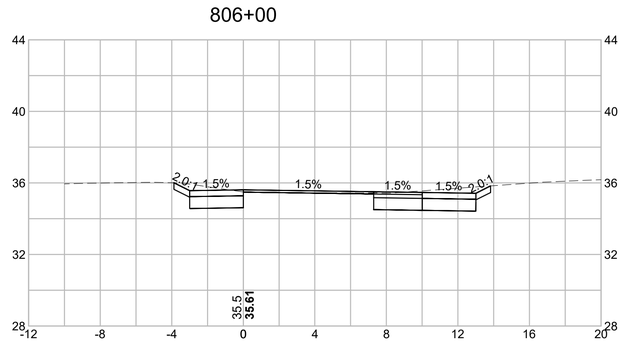
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	264	278
PROJECT FILE NO. 607398			

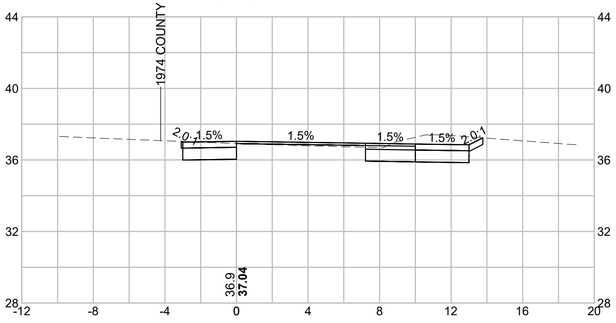
HIGGINS CROWELL SPUR CROSS SECTIONS



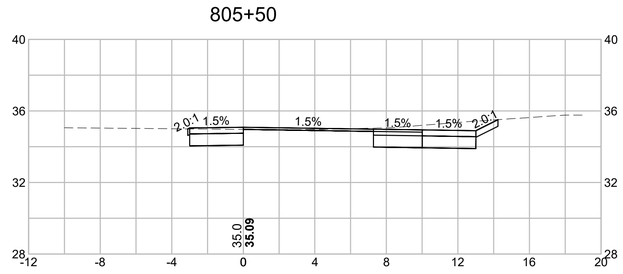
CUT: 12.53 SF
FILL: 0.00 SF



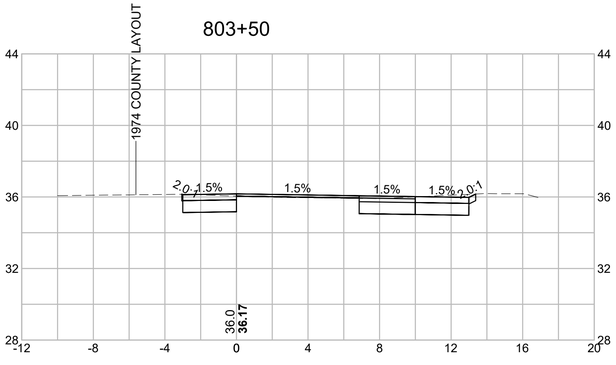
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FILL: 0.04 SF



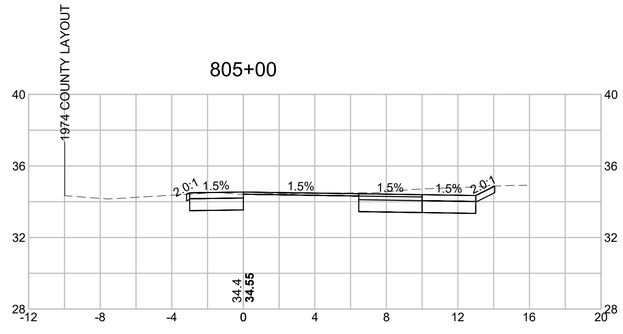
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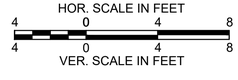
CUT: 11.34 SF
FILL: 0.00 SF



CUT: 9.08 SF
FILL: 0.18 SF



CUT: 12.48 SF
FILL: 0.00 SF



607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:24 AM

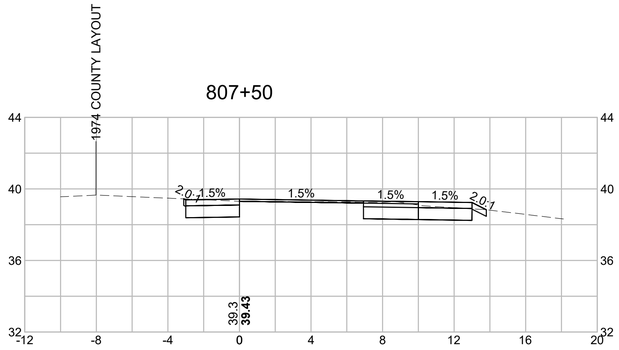
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	265	278
PROJECT FILE NO. 607398			

HIGGINS CROWELL SPUR CROSS SECTIONS

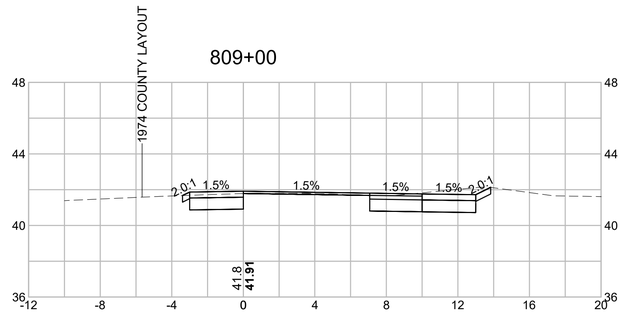
607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:24 AM

807+50



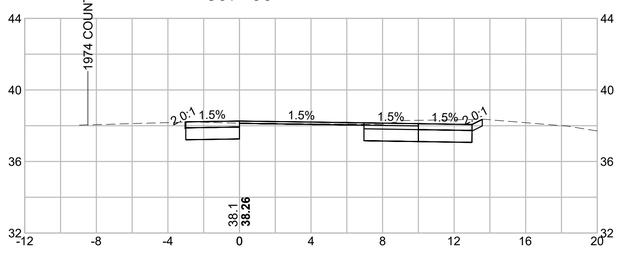
CUT: 8.28 SF
FILL: 0.00 SF

809+00



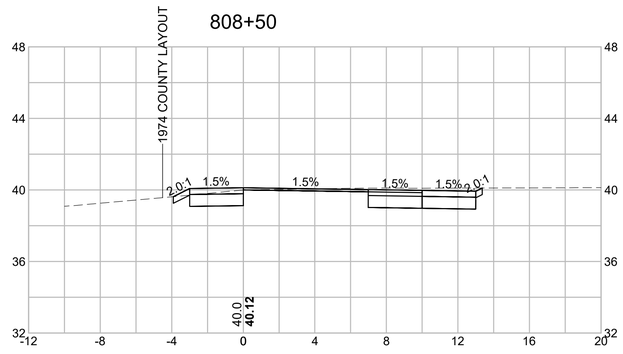
CUT: 9.76 SF
FILL: 0.00 SF

807+00



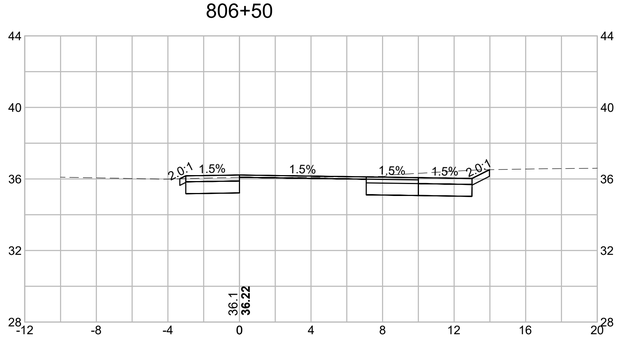
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FILL: 0.00 SF

808+50



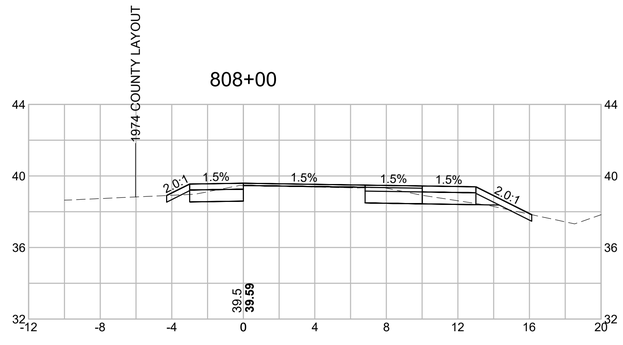
CUT: 10.14 SF
FILL: 0.00 SF

806+50



CUT: 10.99 SF
FILL: 0.00 SF

808+00



CUT: 5.49 SF
FILL: 0.70 SF

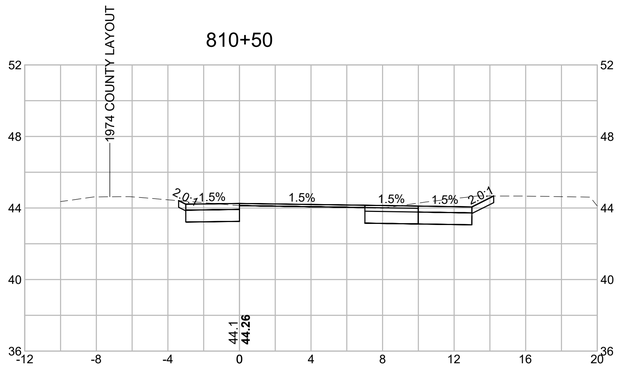
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

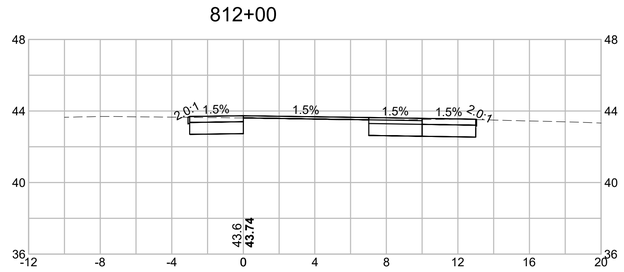
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	266	278
PROJECT FILE NO. 607398			

HIGGINS CROWELL SPUR CROSS SECTIONS

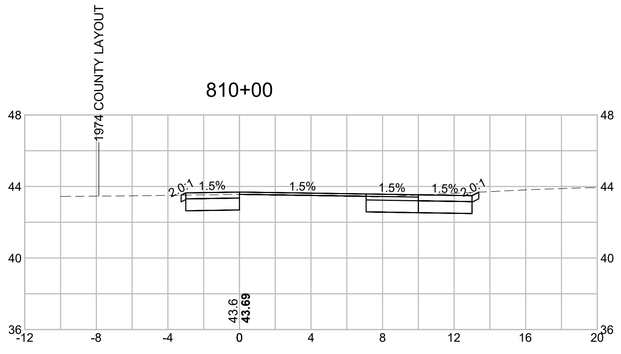
607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:24 AM



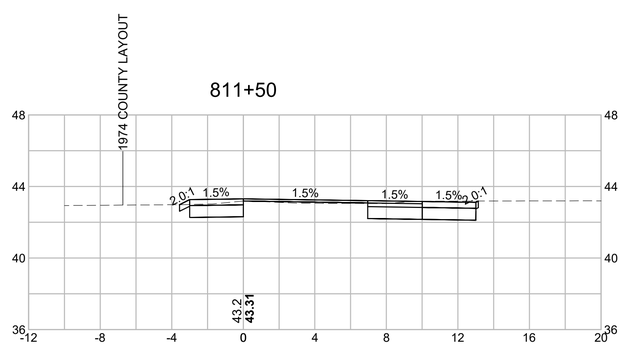
CUT: 11.04 SF
FILL: 0.06 SF



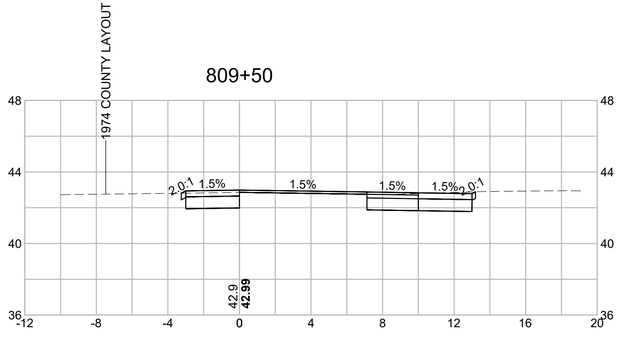
CUT: 8.36 SF
FILL: 0.09 SF



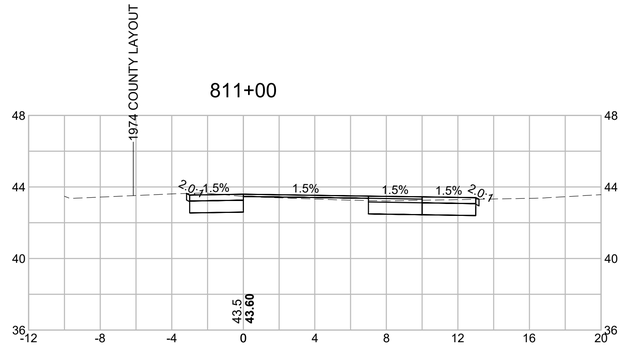
CUT: 8.74 SF
FILL: 0.11 SF



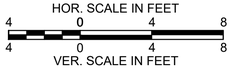
CUT: 8.43 SF
FILL: 0.31 SF



CUT: 8.46 SF
FILL: 0.02 SF



CUT: 8.06 SF
FILL: 0.52 SF



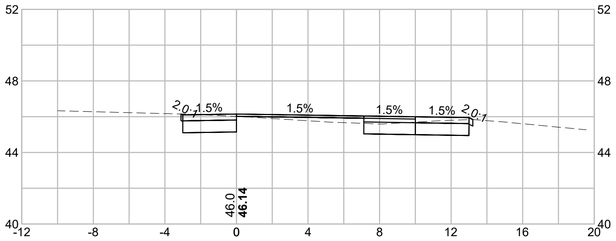
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	267	278
PROJECT FILE NO. 607398			

HIGGINS CROWELL SPUR CROSS SECTIONS

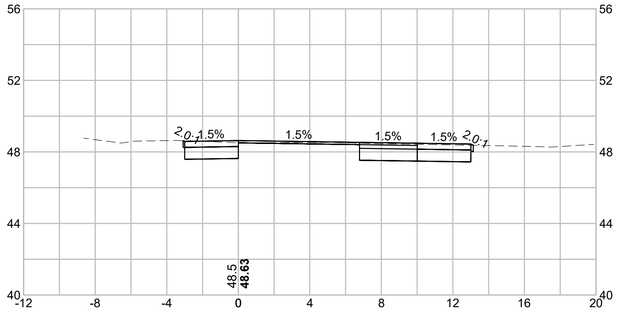
607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:24 AM

813+50



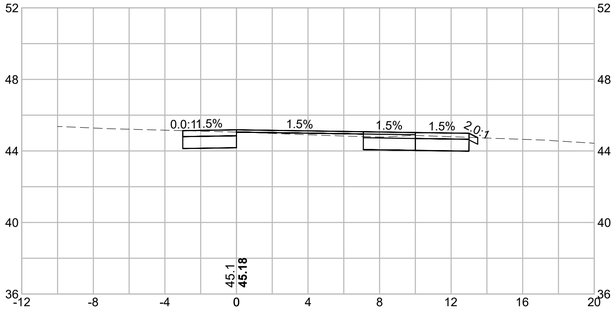
CUT: 7.16 SF
FILL: 1.13 SF

815+00



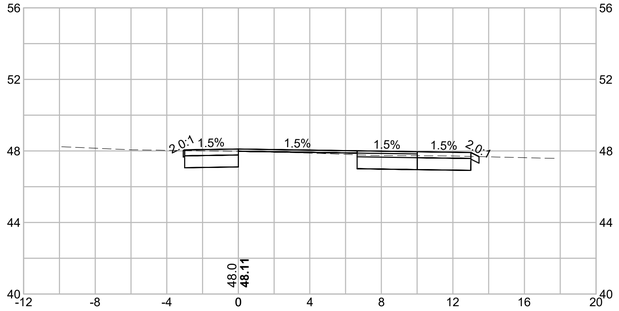
CUT: 9.19 SF
FILL: 0.00 SF

813+00



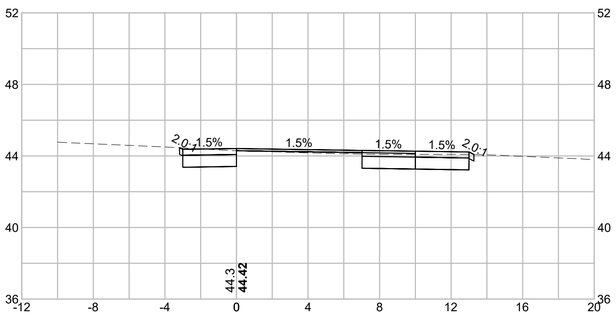
CUT: 7.55 SF
FILL: 0.55 SF

814+50



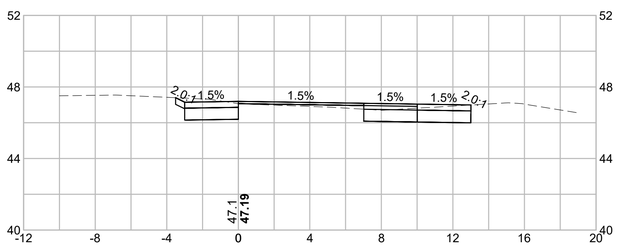
CUT: 7.82 SF
FILL: 0.27 SF

812+50



CUT: 8.02 SF
FILL: 0.33 SF

814+00



CUT: 8.20 SF
FILL: 0.63 SF

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

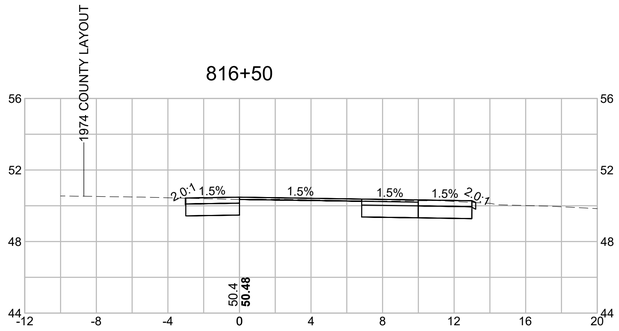
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	268	278
PROJECT FILE NO. 607398			

HIGGINS CROWELL SPUR CROSS SECTIONS

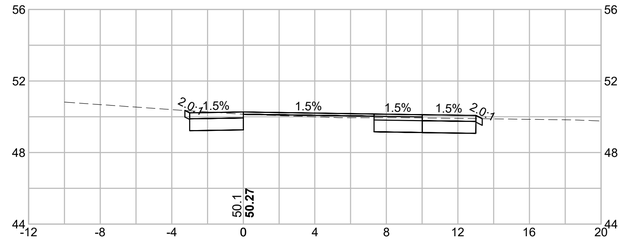
607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:24 AM

816+50



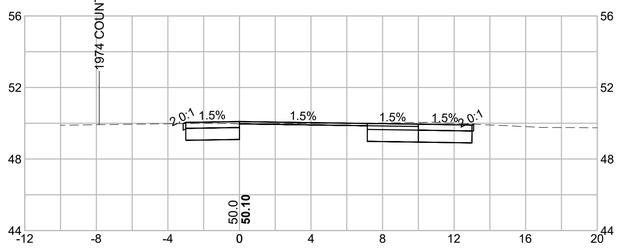
CUT: 8.81 SF
FILL: 0.00 SF

818+00



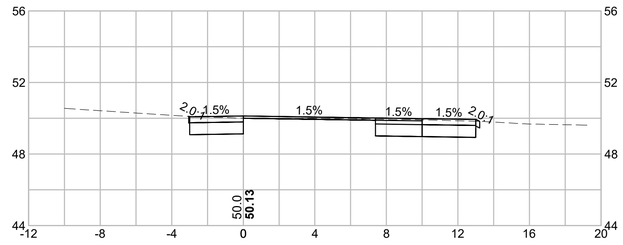
CUT: 7.83 SF
FILL: 0.51 SF

816+00



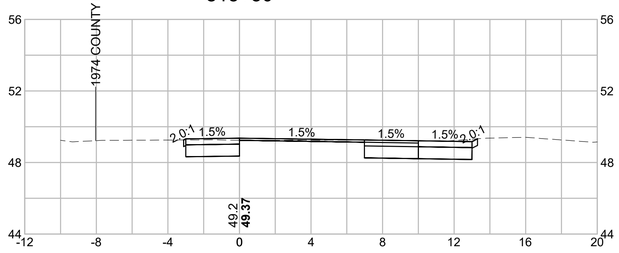
CUT: 9.64 SF
FILL: 0.00 SF

817+50



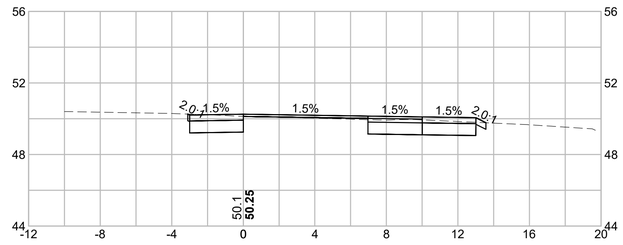
CUT: 8.42 SF
FILL: 0.00 SF

815+50

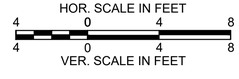


CUT: 9.53 SF
FILL: 0.00 SF

817+00



CUT: 7.91 SF
FILL: 0.21 SF



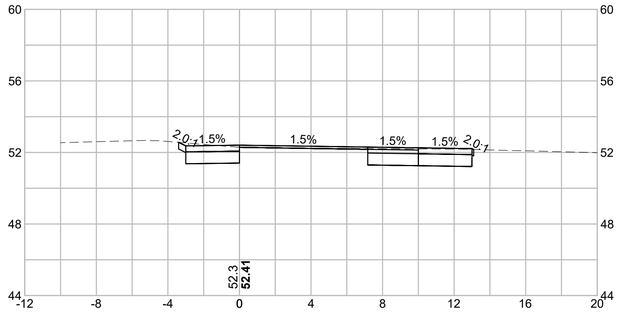
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	269	278
PROJECT FILE NO. 607398			

HIGGINS CROWELL SPUR CROSS SECTIONS

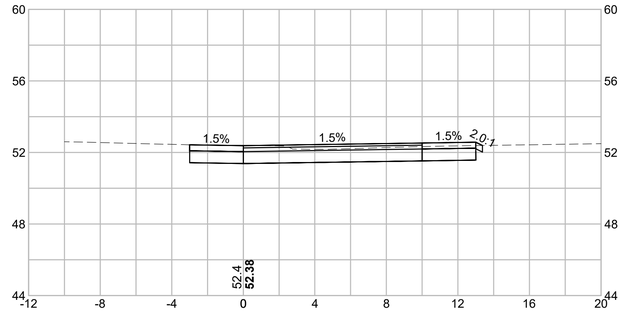
607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:24 AM

819+50



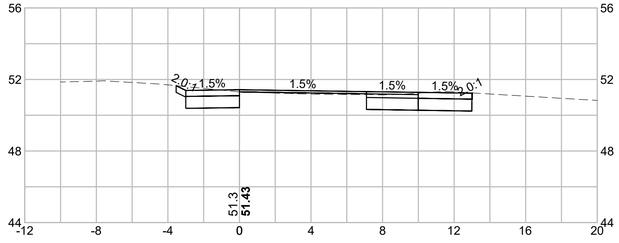
CUT: 8.85 SF
FILL: 0.00 SF

821+00



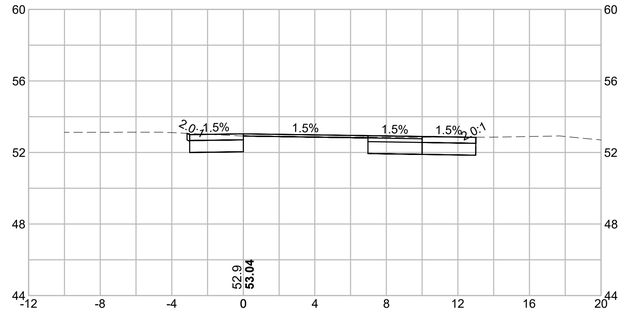
CUT: 13.71 SF
FILL: 0.00 SF

819+00



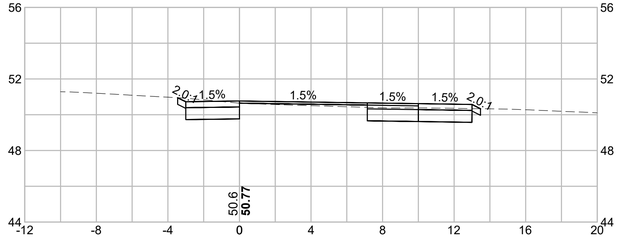
CUT: 9.00 SF
FILL: 0.33 SF

820+50



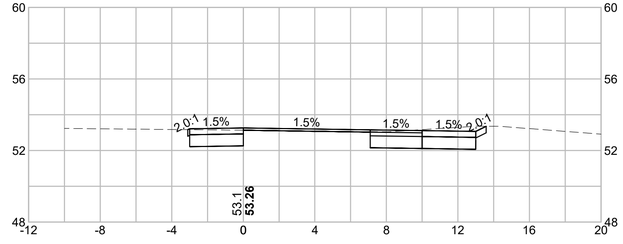
CUT: 8.89 SF
FILL: 0.00 SF

818+50



CUT: 7.86 SF
FILL: 0.50 SF

820+00



CUT: 9.39 SF
FILL: 0.00 SF

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

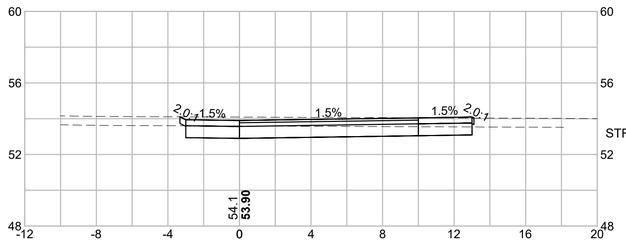
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	270	278
PROJECT FILE NO. 607398			

HIGGINS CROWELL SPUR CROSS SECTIONS

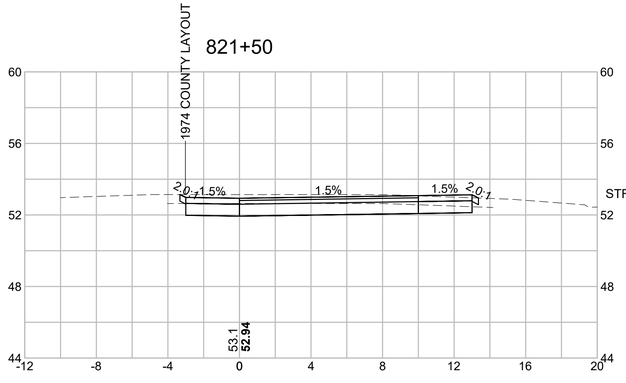
607398_HD(XSEC-SPUR).DWG Plotted on 14-Feb-2024 11:25 AM

822+00



CUT: 9.44 SF
FILL: 0.03 SF
STRIPPING: 14.06 SF

821+50



CUT: 9.54 SF
FILL: 0.10 SF
STRIPPING: 9.10 SF

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

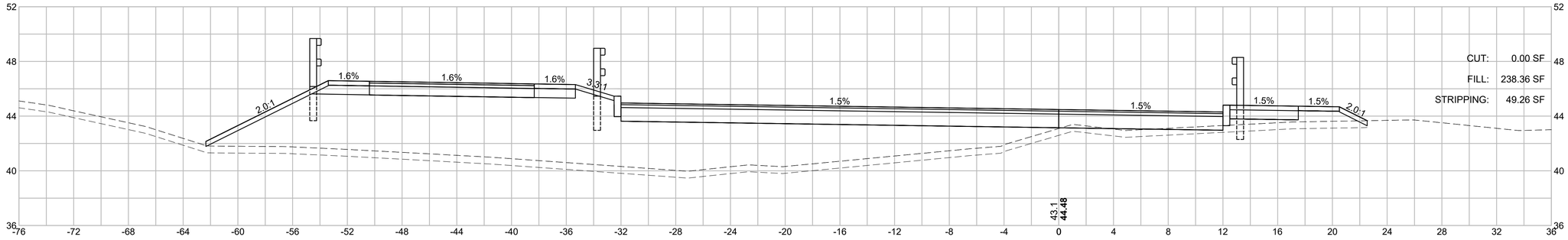
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	283	277
PROJECT FILE NO. 607398			

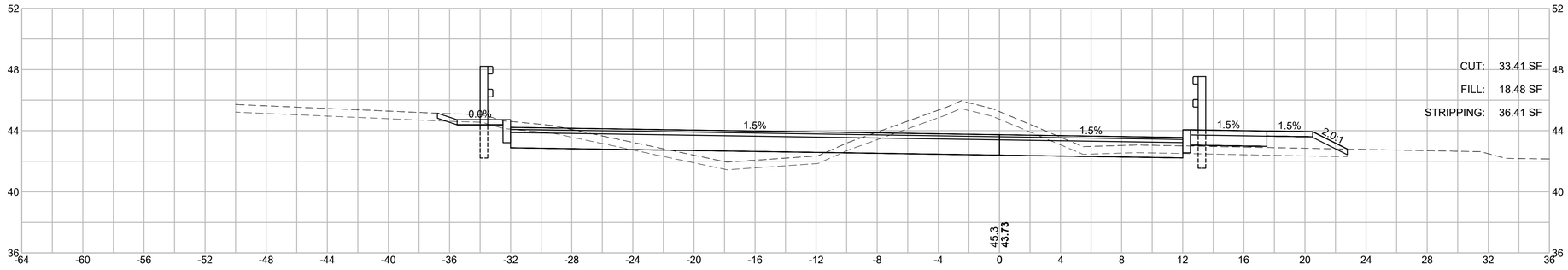
MARY DUNN PARKING CROSS SECTIONS

607398_HD\XSEC-WEST-1).DWG Plotted on 14-Feb-2024 11:25 AM

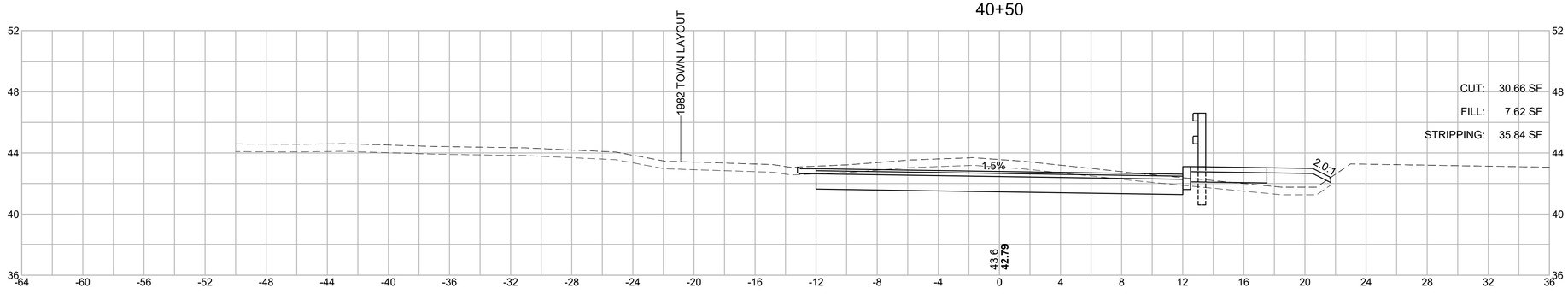
41+50



41+00



40+50



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

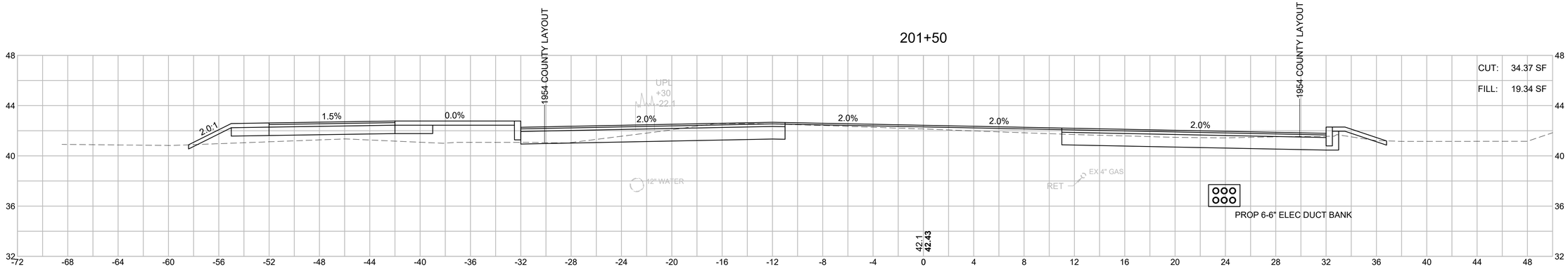
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	272	278
PROJECT FILE NO. 607398			

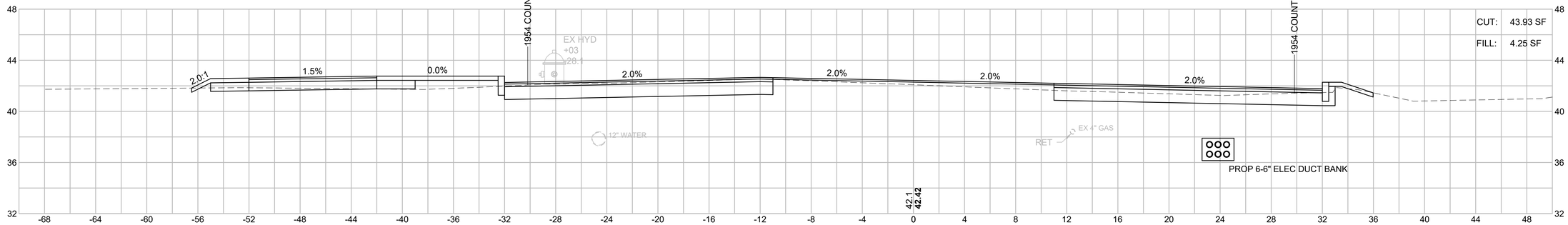
HIGGINS CROWELL PARKING CROSS SECTIONS

607398_HD(XSEC-SPUR).DWG Plotted on 15-Feb-2024 2:41 PM

201+50

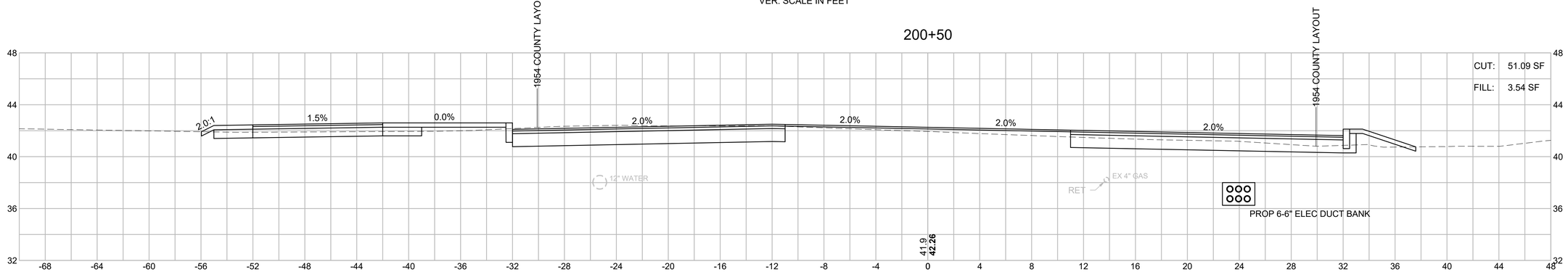


201+00



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

200+50

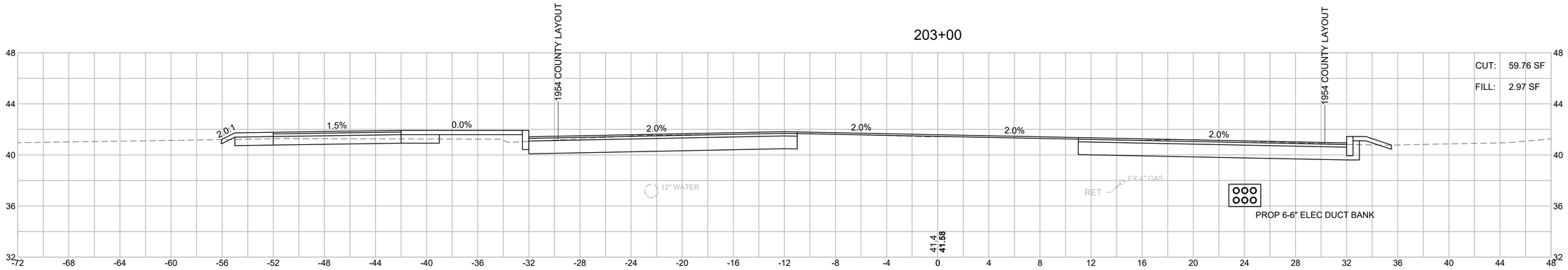


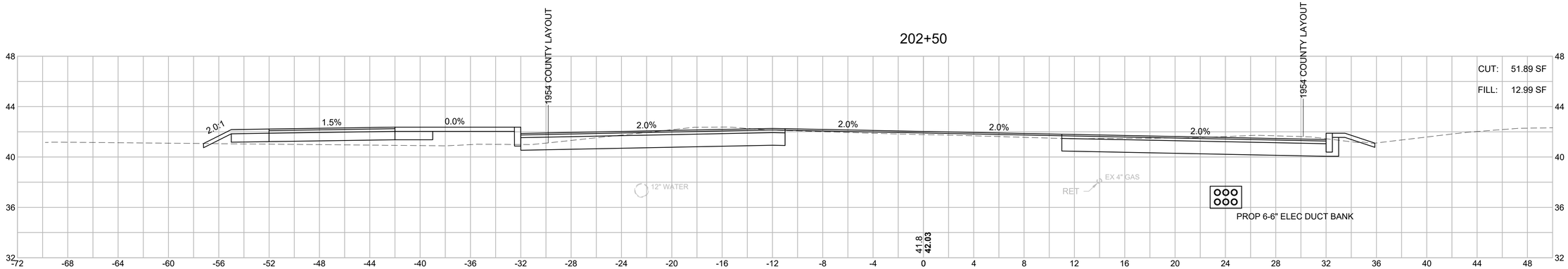
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

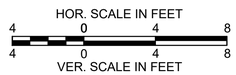
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	273	278
PROJECT FILE NO. 607398			

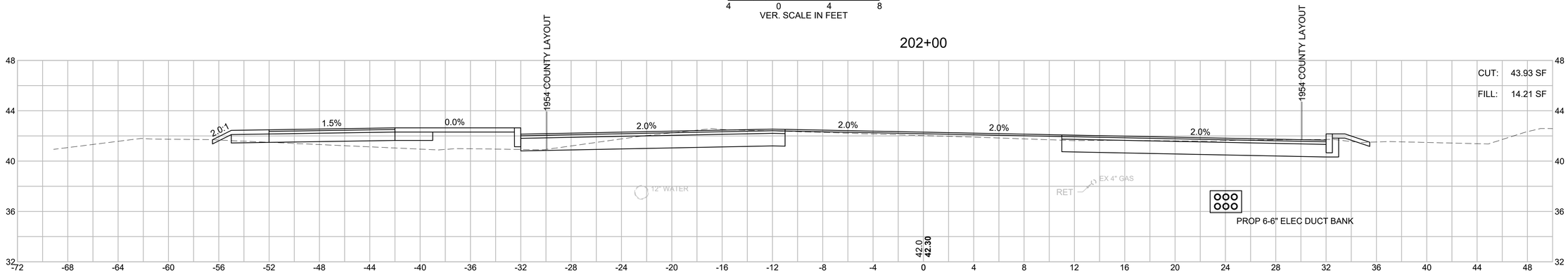
HIGGINS CROWELL PARKING CROSS SECTIONS

607398_HD(XSEC-SPUR).DWG Plotted on 15-Feb-2024 2:41 PM







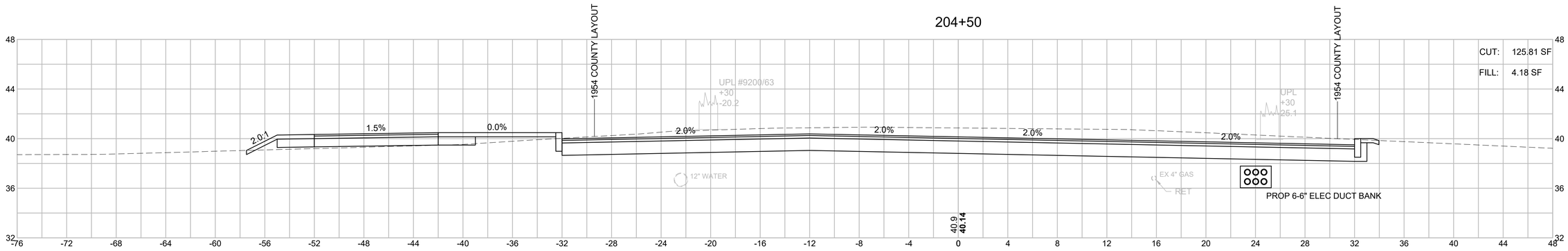


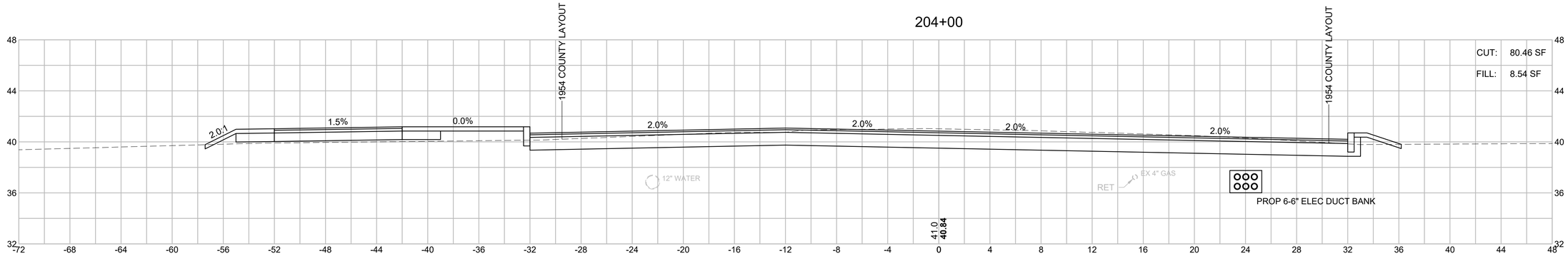
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

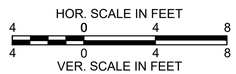
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	274	278
PROJECT FILE NO. 607398			

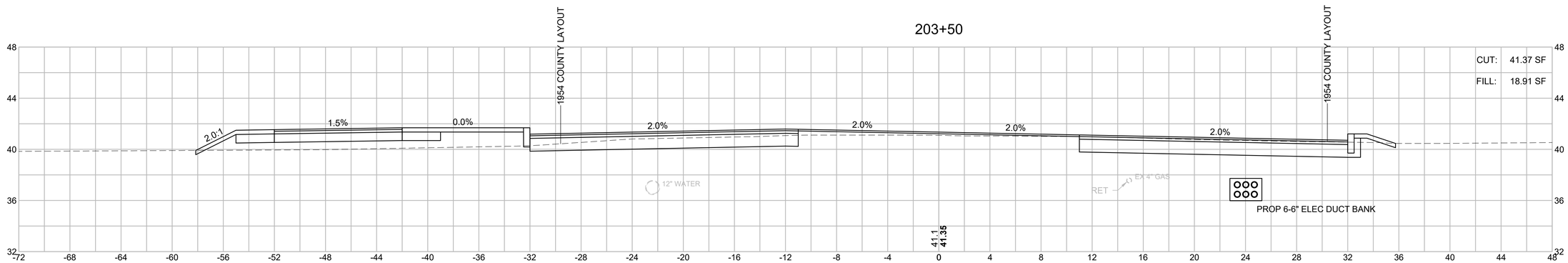
HIGGINS CROWELL PARKING CROSS SECTIONS

607398_HD(XSEC-SPUR).DWG Plotted on 15-Feb-2024 2:41 PM









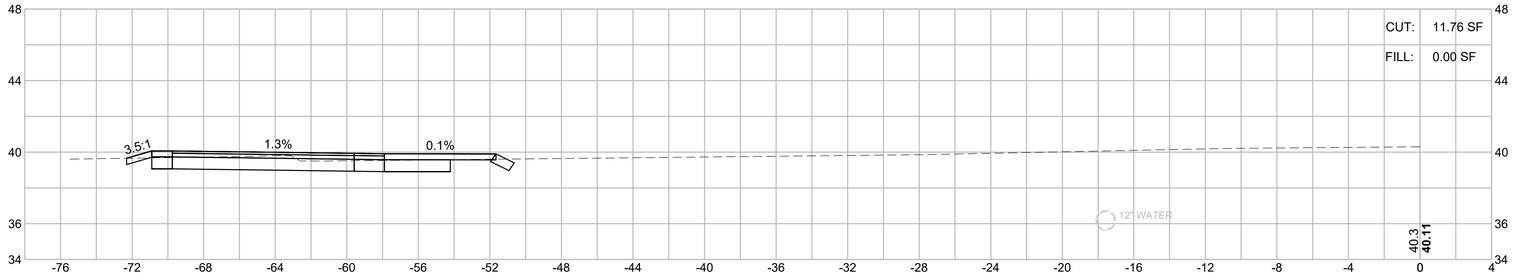
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	275	278
PROJECT FILE NO. 607398			

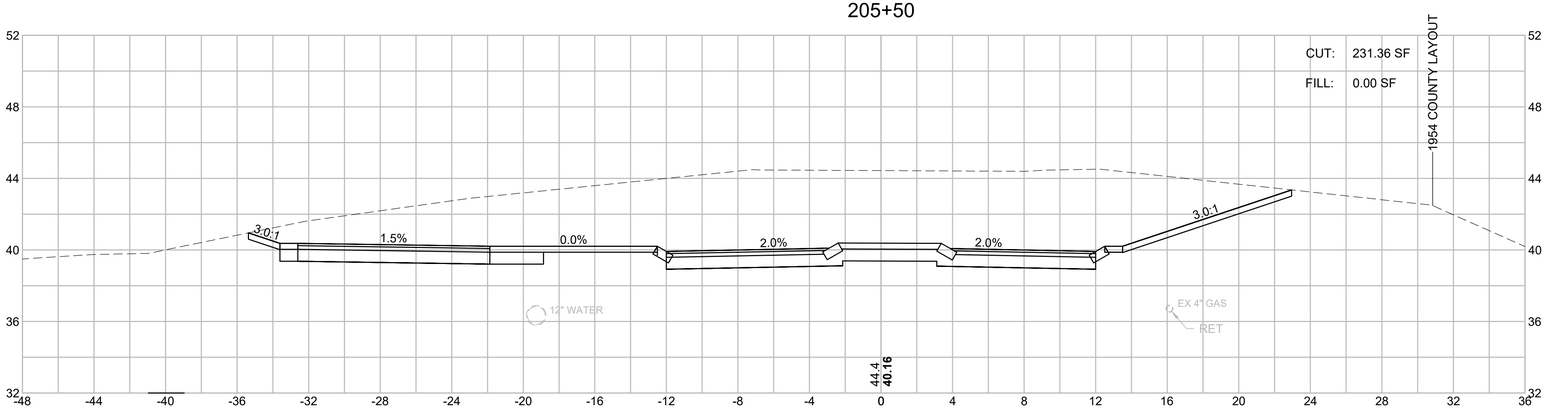
HIGGINS CROWELL PARKING CROSS SECTIONS

607398_HD(XSEC-SPUR).DWG Plotted on 15-Feb-2024 2:41 PM

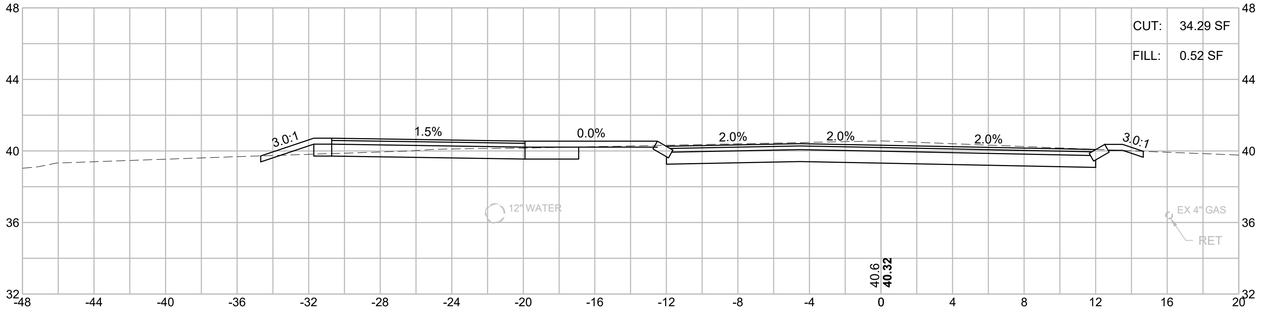
206+00



205+50



205+00



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

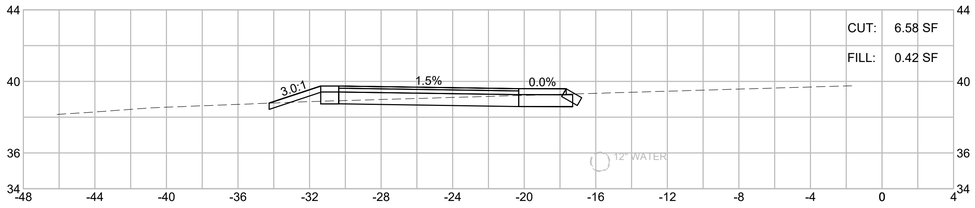
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	276	278
PROJECT FILE NO. 607398			

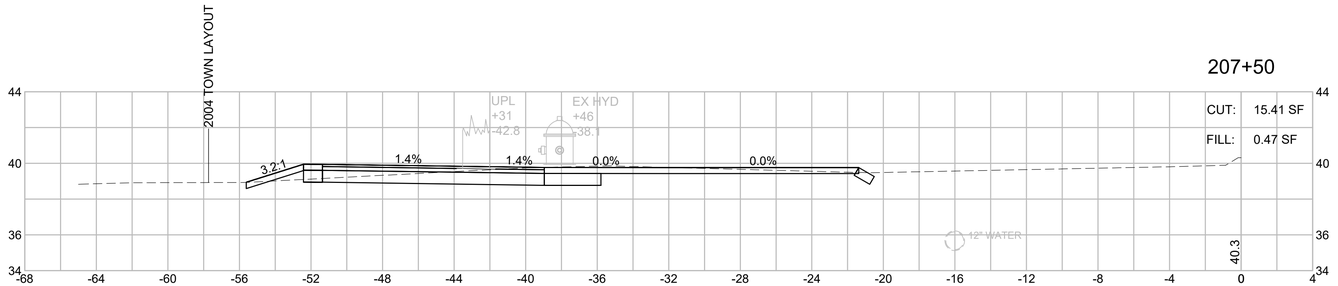
HIGGINS CROWELL PARKING CROSS SECTIONS

607398_HD(XSEC-SPUR).DWG Plotted on 15-Feb-2024 2:41 PM

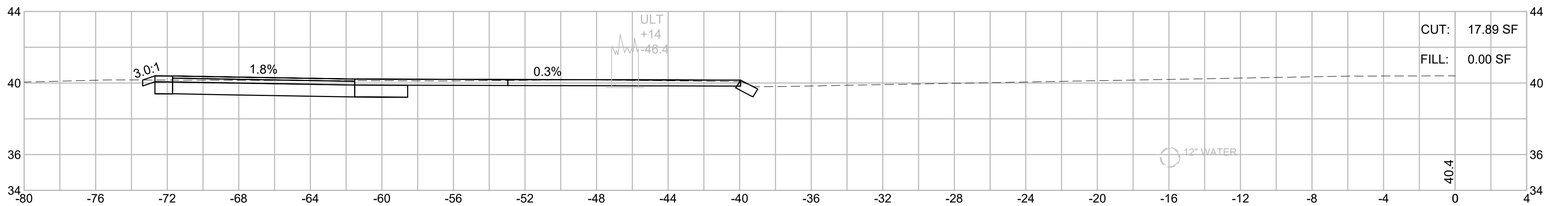
208+00



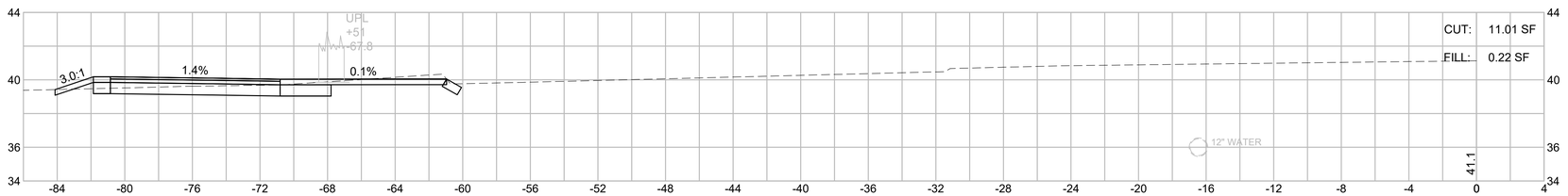
207+50



207+00



206+50



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

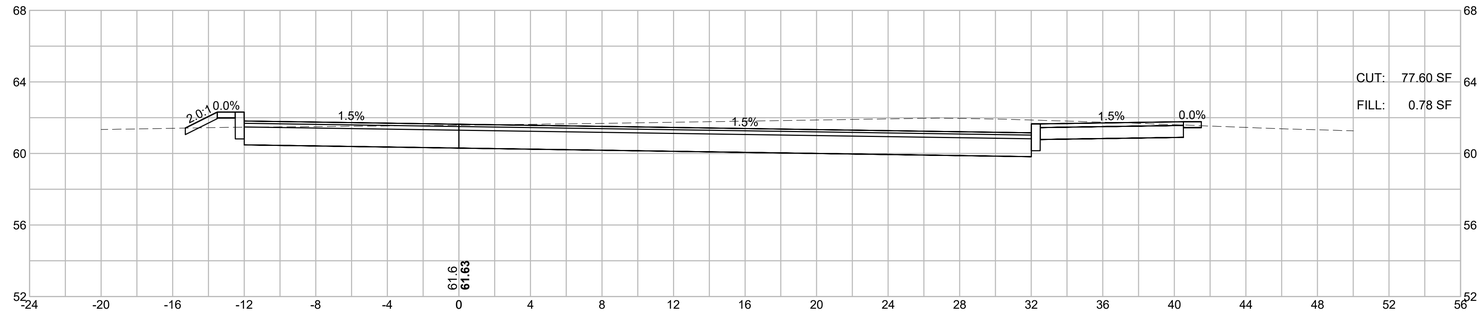
BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	277	278
PROJECT FILE NO. 607398			

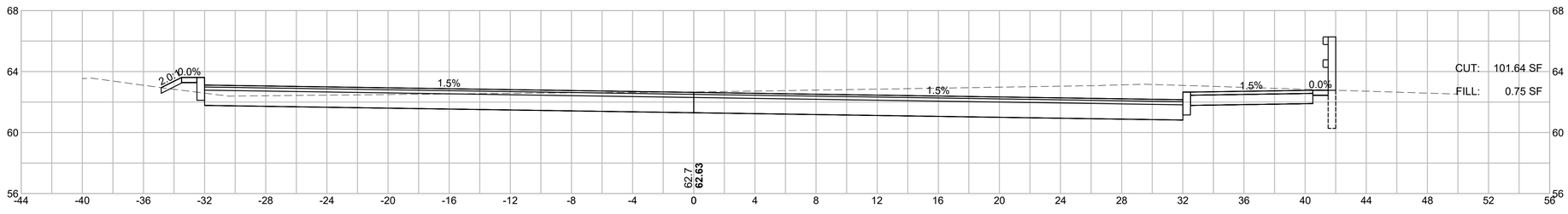
GOLF COURSE PARKING CROSS SECTIONS

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:29 AM

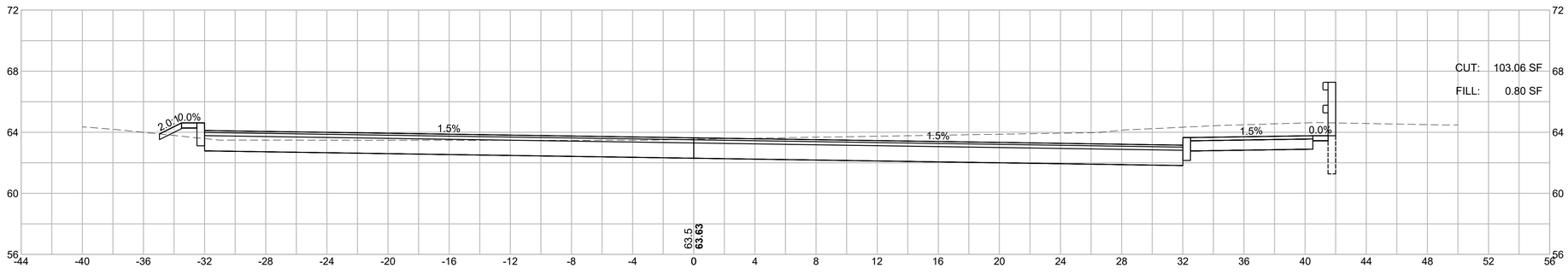
32+00



31+50



31+00



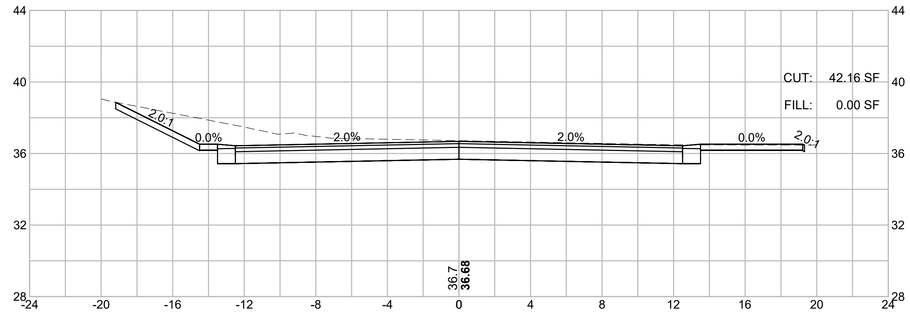
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

BARNSTABLE / YARMOUTH
CAPE COD RAIL TRAIL EXT.- PHASE 3

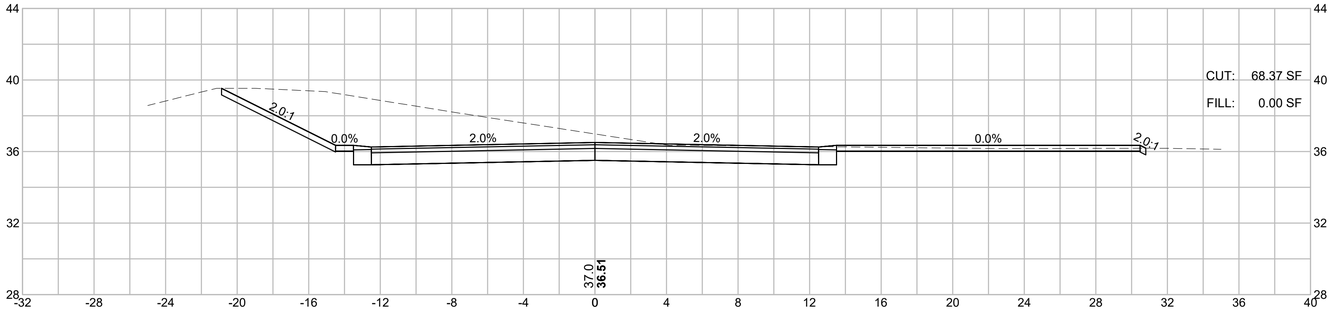
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	278	278
PROJECT FILE NO. 607398			

TRANSFER STATION CROSS SECTIONS

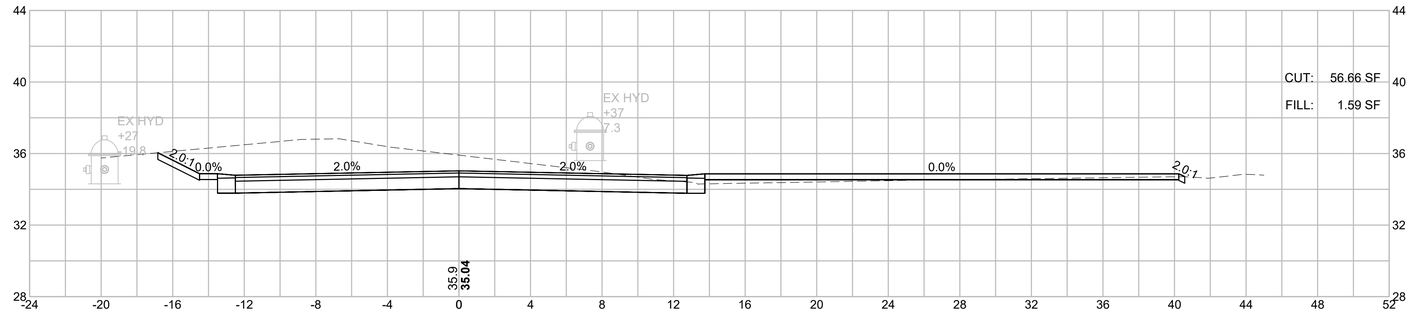
701+50



701+00



700+50



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

607398_HDXSEC-EAST-3).DWG Plotted on 14-Feb-2024 11:30 AM