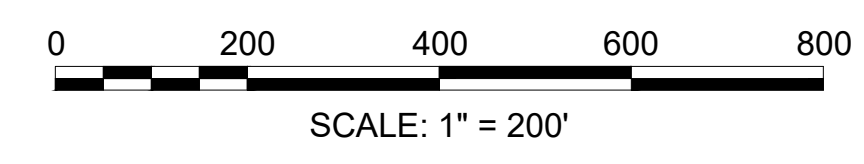
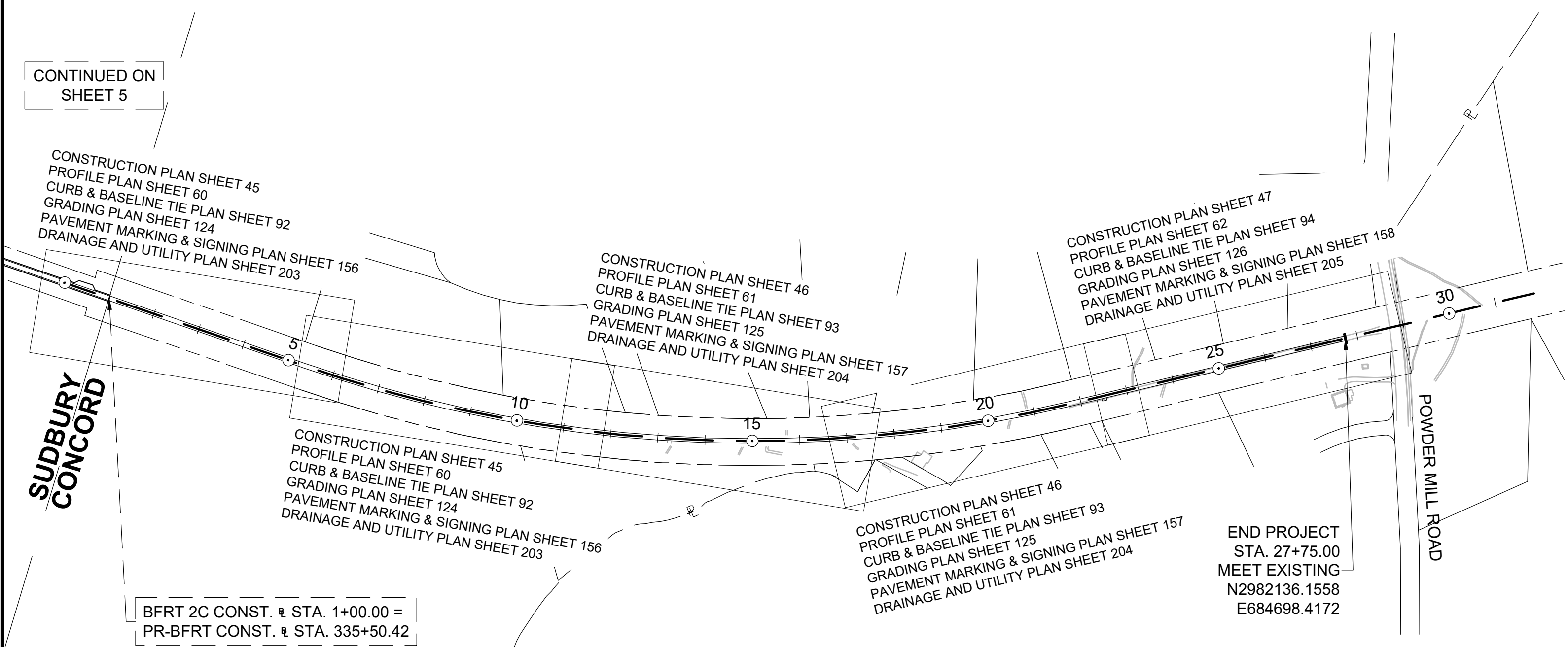
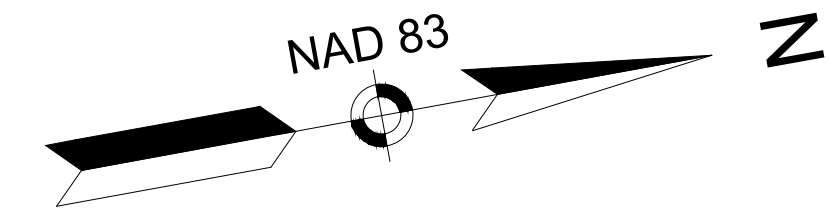


CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

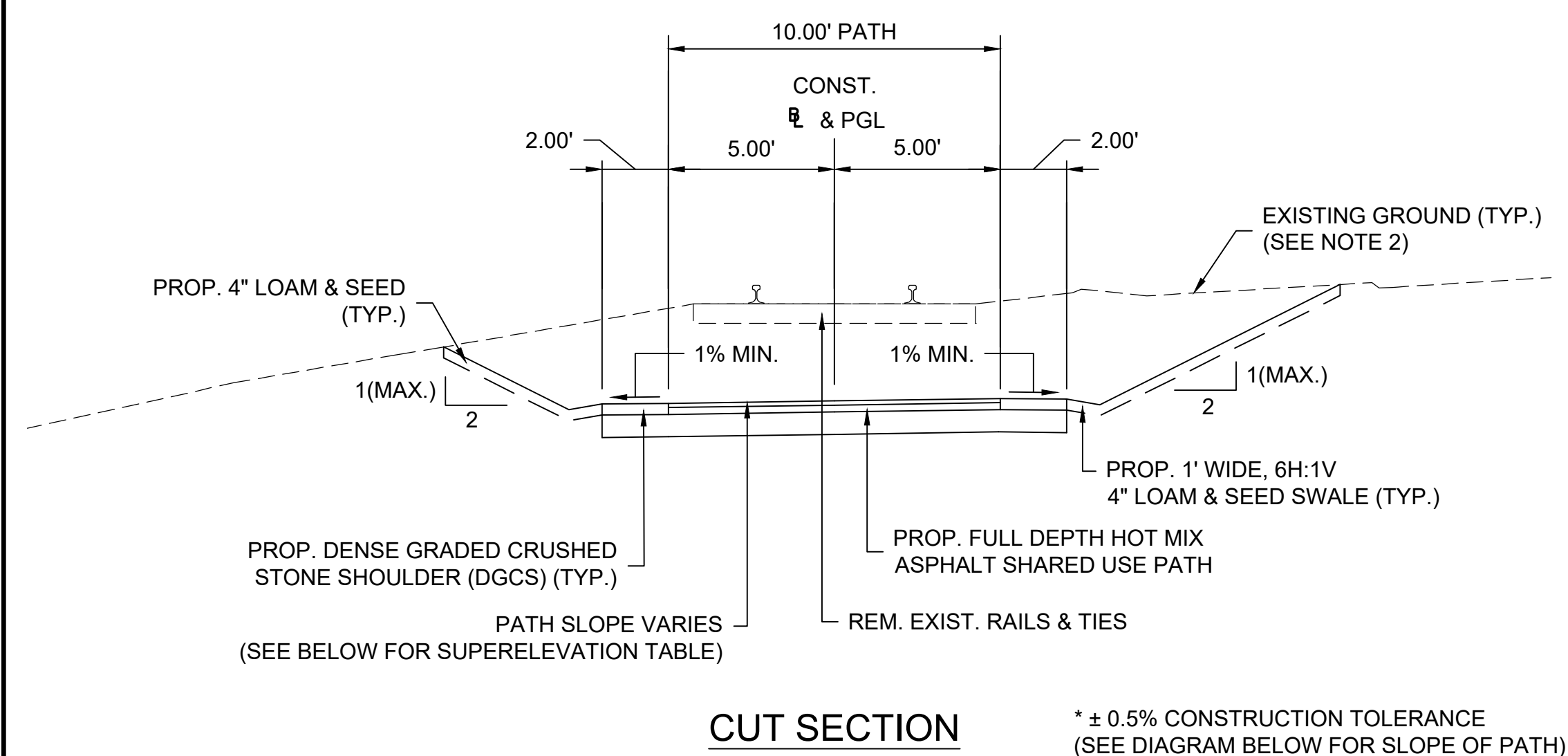
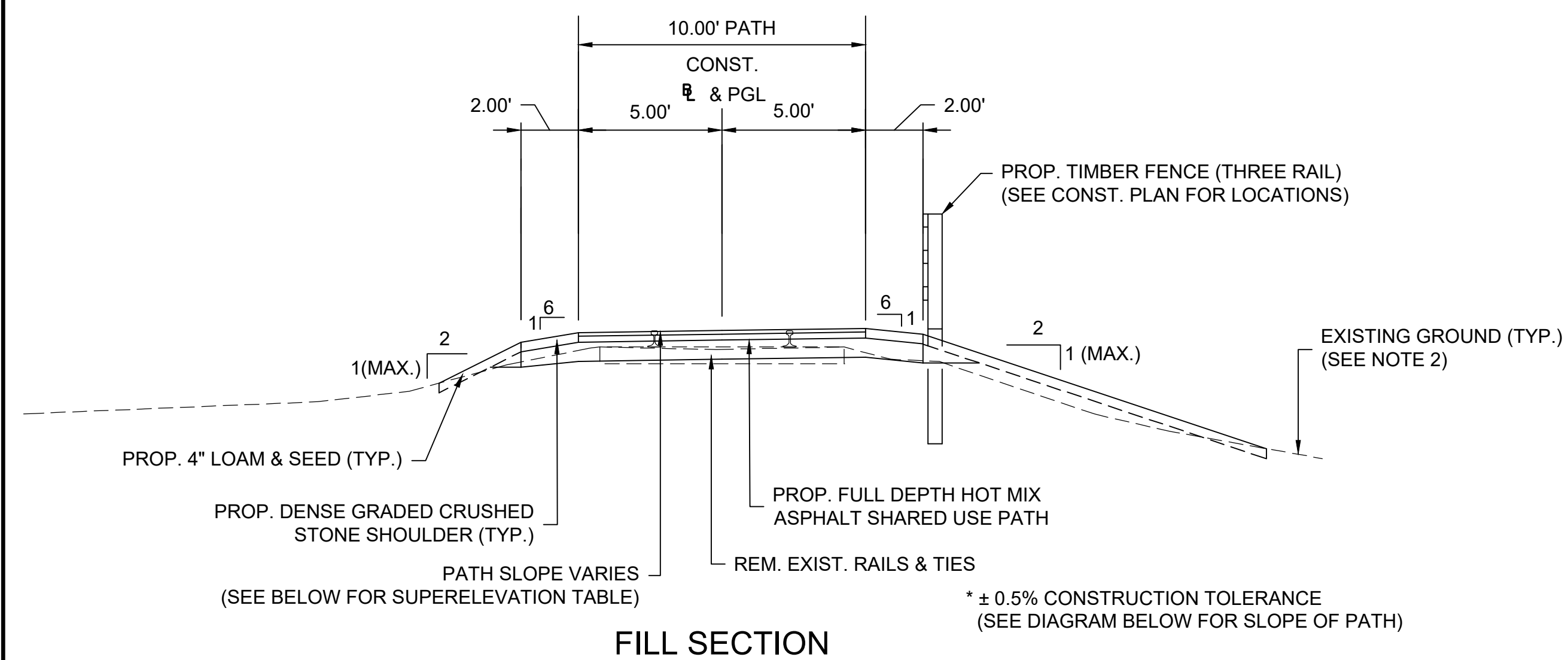
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	6	319
PROJECT FILE NO.		608164	

KEY PLAN



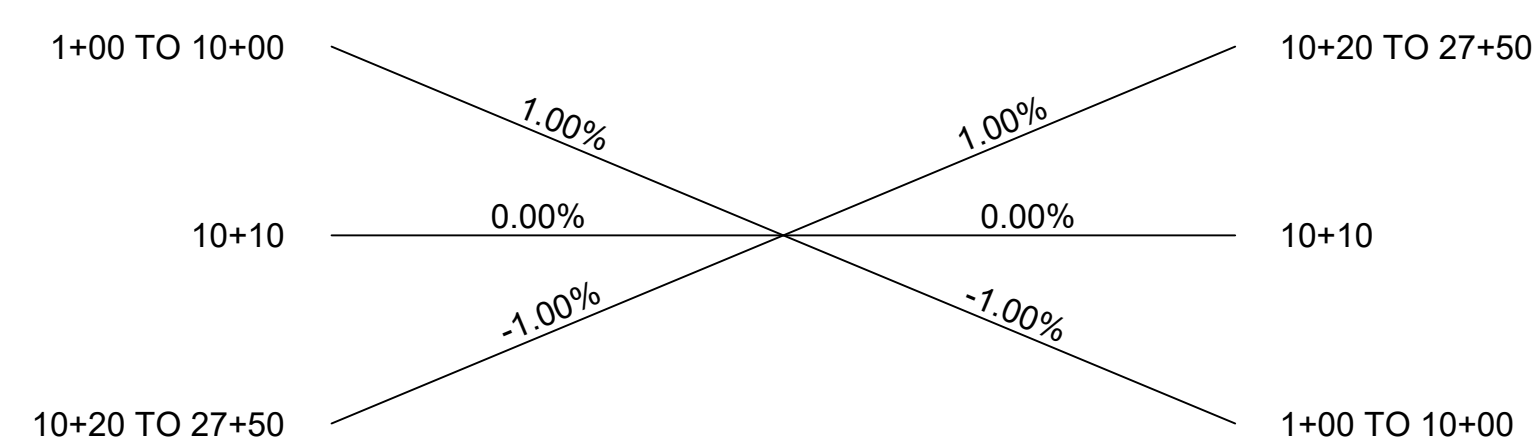
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	15	319
PROJECT FILE NO.		608164	

TYPICAL SECTIONS



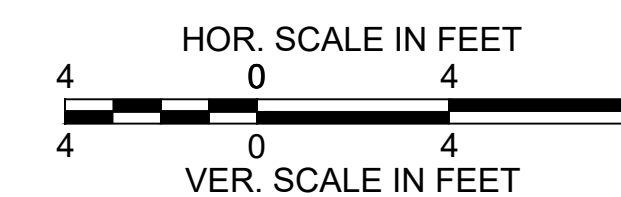
**TYPICAL SECTION - 10' WIDE PATH**

SCALE 1" = 4'  
STA. 1+00± TO STA. 27+50±

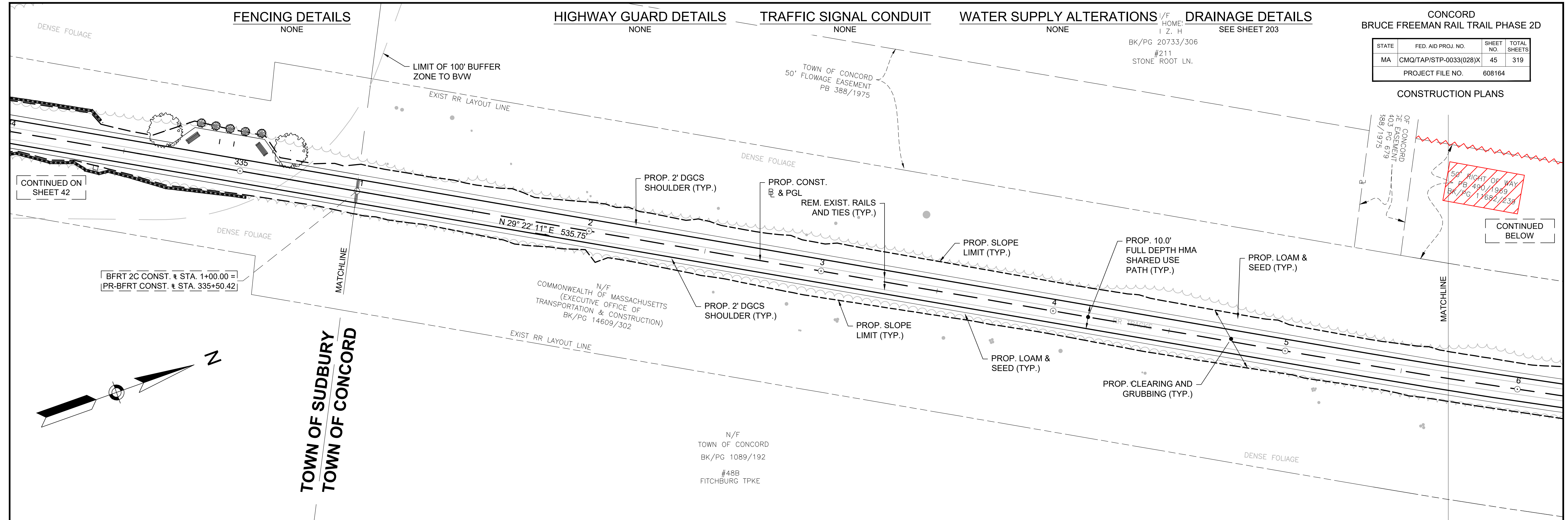


**SHARED USE PATH SLOPING - CONCORD**  
(SEE SHEET 10 FOR SUDBURY)

SEE SHEET 10 FOR PAVEMENT NOTES



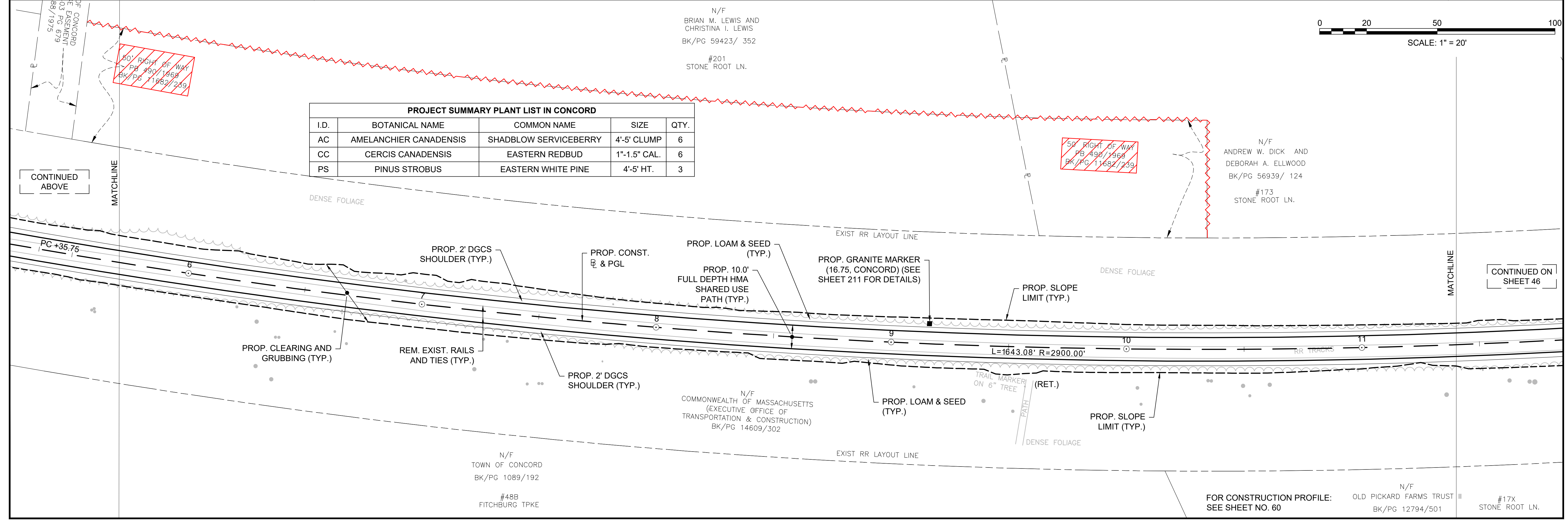
CONSTRUCTION PLANS



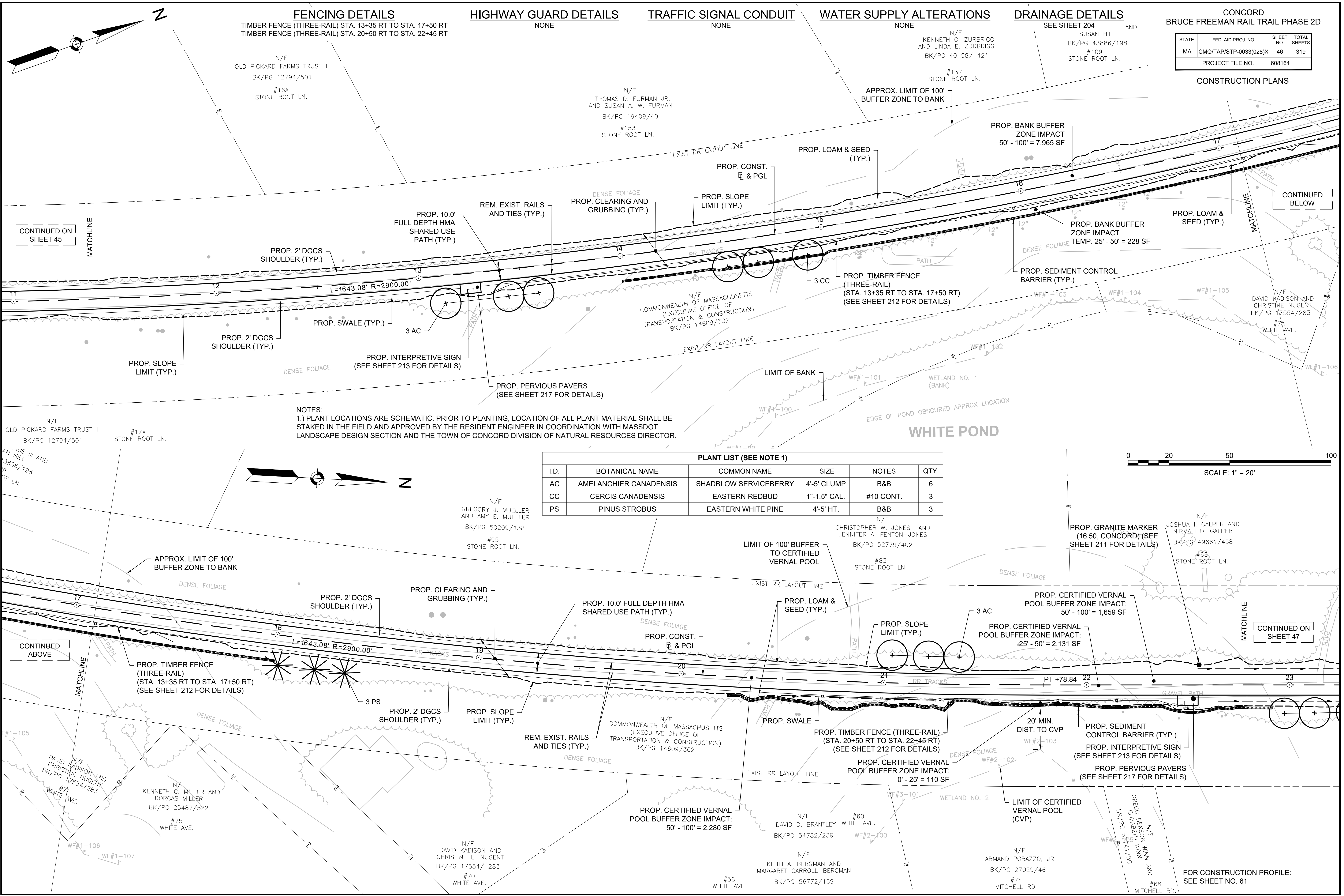
TOWN OF SUDBURY  
TOWN OF CONCORD

PROJECT SUMMARY PLANT LIST IN CONCORD

I.D.	BOTANICAL NAME	COMMON NAME	SIZE	QTY.
AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	4'-5' CLUMP	6
CC	CERCIS CANADENSIS	EASTERN REDBUD	1"-1.5" CAL.	6
PS	PINUS STROBUS	EASTERN WHITE PINE	4'-5' HT.	3



FOR CONSTRUCTION PROFILE: SEE SHEET NO. 60



**FENCING DETAILS**  
 TIMBER FENCE (THREE-RAIL) STA. 13+35 RT TO STA. 17+50 RT  
 TIMBER FENCE (THREE-RAIL) STA. 20+50 RT TO STA. 22+45 RT

**HIGHWAY GUARD DETAILS**  
 NONE

**TRAFFIC SIGNAL CONDUIT**  
 NONE

**WATER SUPPLY ALTERATIONS**  
 NONE

**DRAINAGE DETAILS**  
 SEE SHEET 204

CONCORD  
 BRUCE FREEMAN RAIL TRAIL PHASE 2D

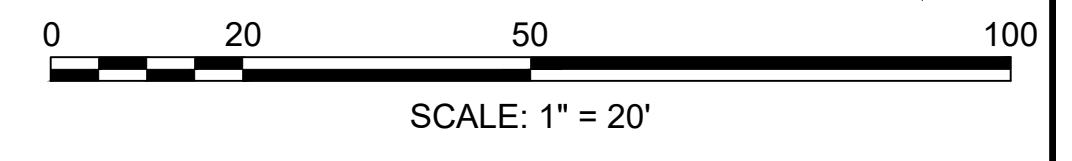
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	46	319
PROJECT FILE NO.		608164	

CONSTRUCTION PLANS

**NOTES:**  
 1.) PLANT LOCATIONS ARE SCHEMATIC. PRIOR TO PLANTING, LOCATION OF ALL PLANT MATERIAL SHALL BE STAKED IN THE FIELD AND APPROVED BY THE RESIDENT ENGINEER IN COORDINATION WITH MASSDOT LANDSCAPE DESIGN SECTION AND THE TOWN OF CONCORD DIVISION OF NATURAL RESOURCES DIRECTOR.

**PLANT LIST (SEE NOTE 1)**

I.D.	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	QTY.
AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	4'-5' CLUMP	B&B	6
CC	CERCIS CANADENSIS	EASTERN REDBUD	1"-1.5" CAL.	#10 CONT.	3
PS	PINUS STROBUS	EASTERN WHITE PINE	4'-5' HT.	B&B	3



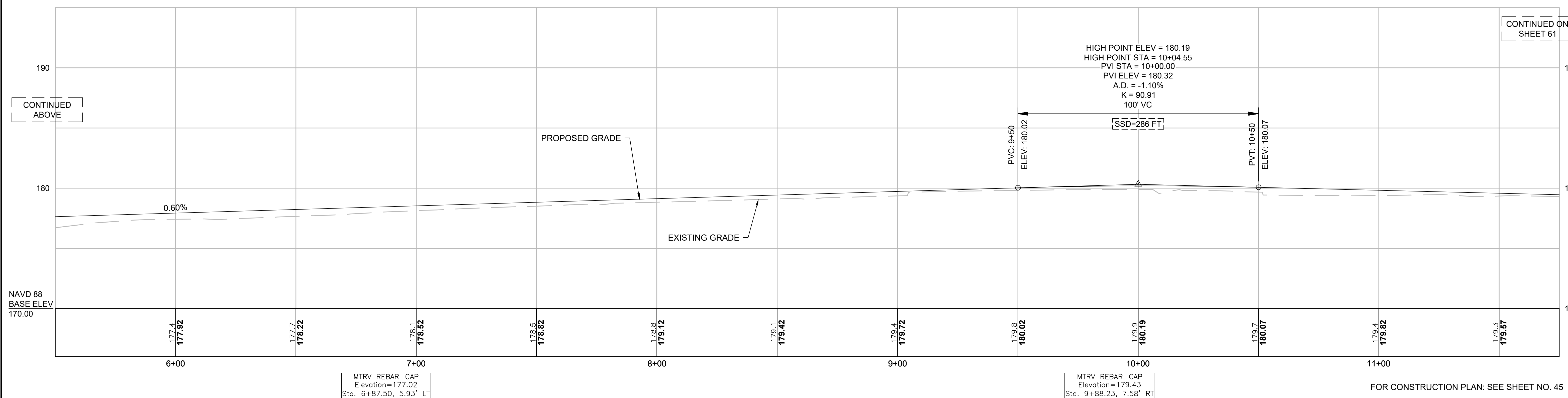
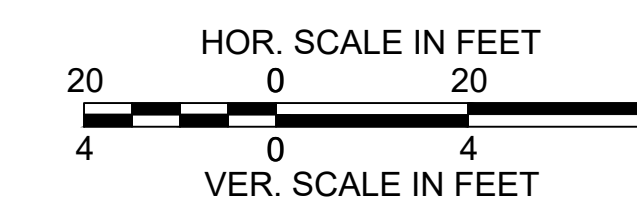
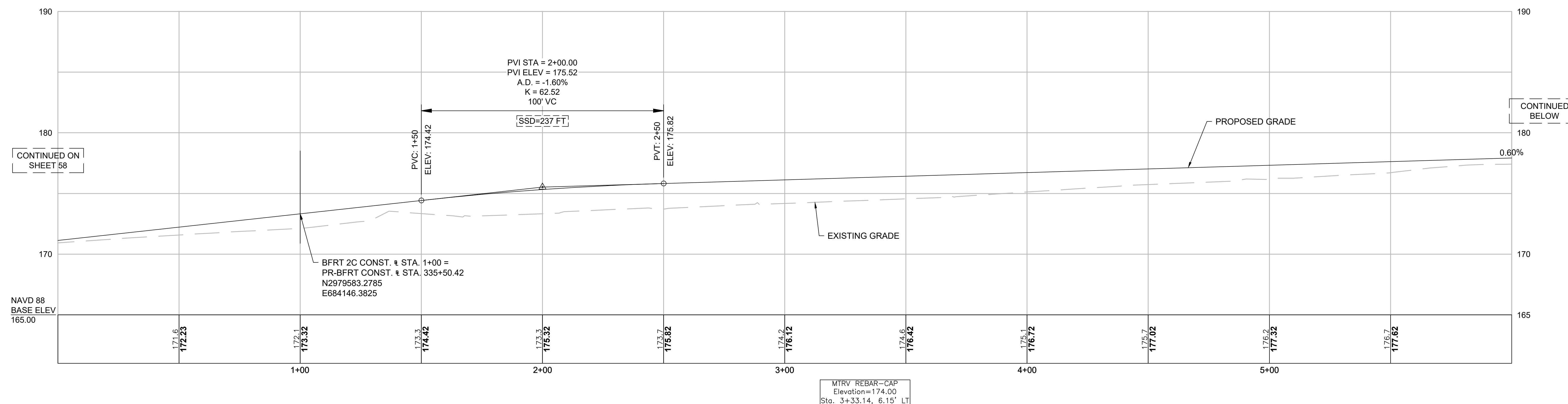
FOR CONSTRUCTION PROFILE:  
 SEE SHEET NO. 61



CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	60	319
PROJECT FILE NO.		608164	

CONSTRUCTION PROFILES

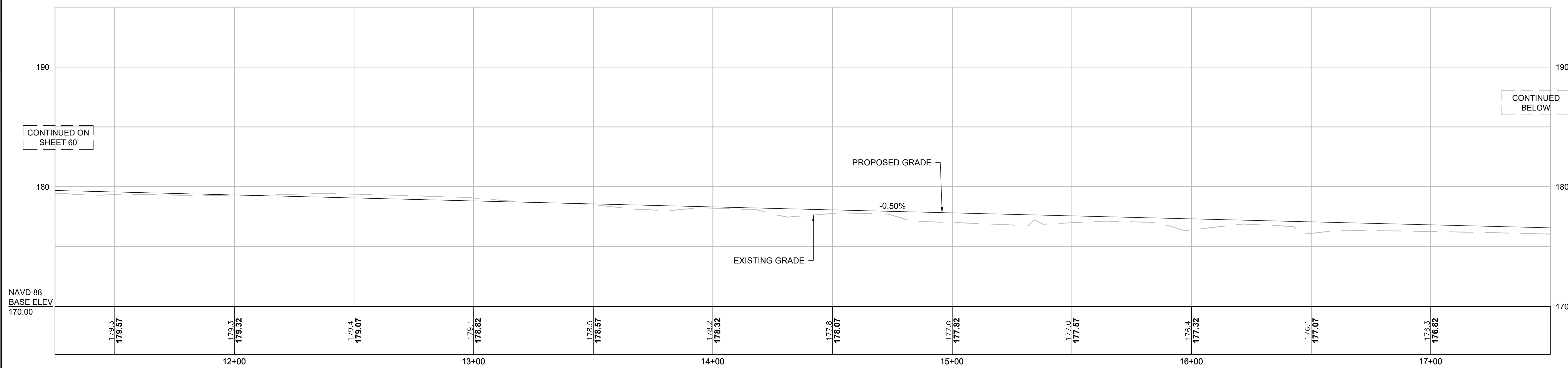


FOR CONSTRUCTION PLAN: SEE SHEET NO. 45

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

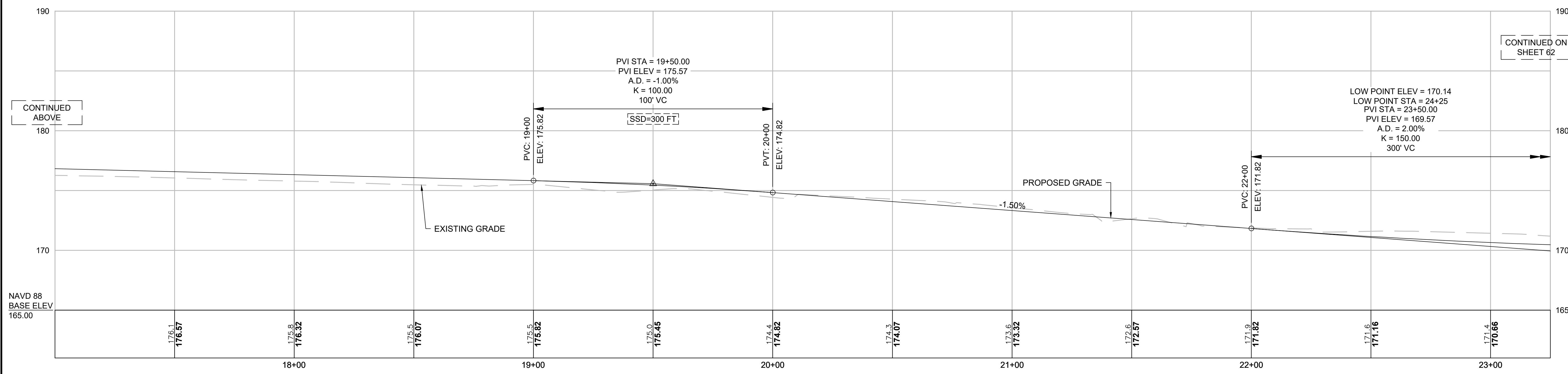
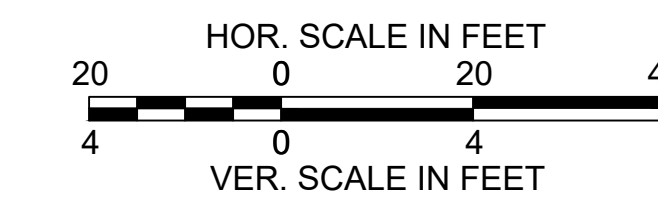
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	61	319
PROJECT FILE NO.		608164	

CONSTRUCTION PROFILES



MTRV REBAR-CAP  
Elevation=178.67  
Sta. 12+97.05, 8.62' RT

MTRV REBAR-CAP  
Elevation=176.22  
Sta. 16+75.12, 9.49' RT



MTRV REBAR-CAP  
Elevation=173.53  
Sta. 20+67.85, 5.80' RT

FOR CONSTRUCTION PLAN: SEE SHEET NO. 46

CONTINUED ON  
SHEET 60

CONTINUED  
BELOW

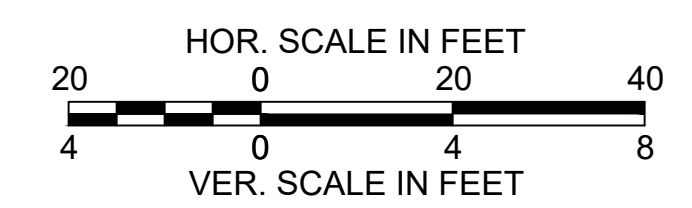
CONTINUED  
ABOVE

CONTINUED ON  
SHEET 62

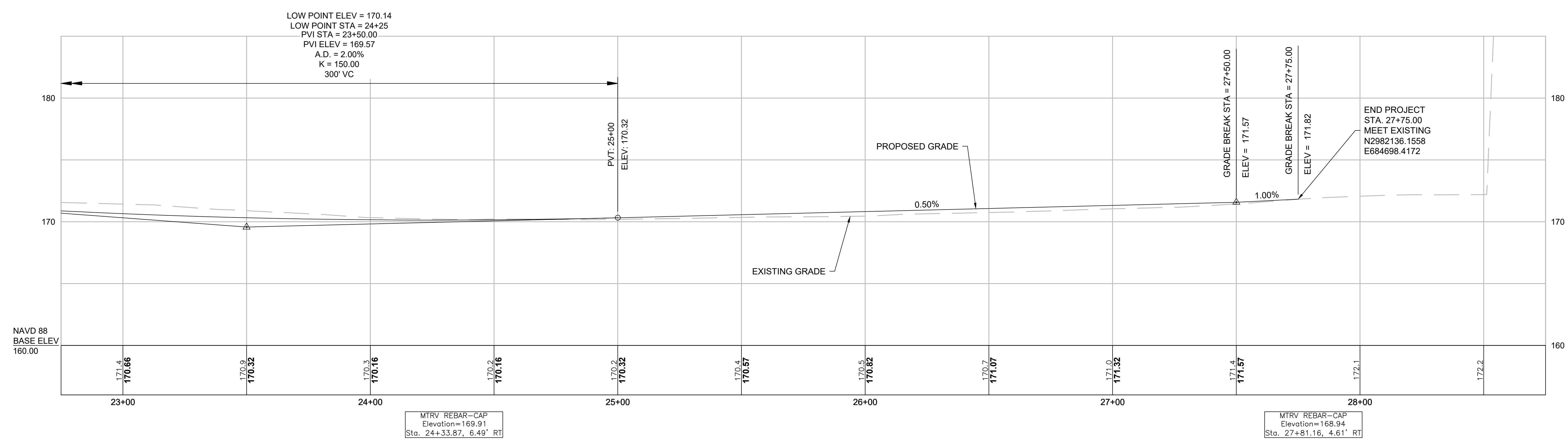
CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	62	319
PROJECT FILE NO.		608164	

CONSTRUCTION PROFILES



CONTINUED ON  
SHEET 61



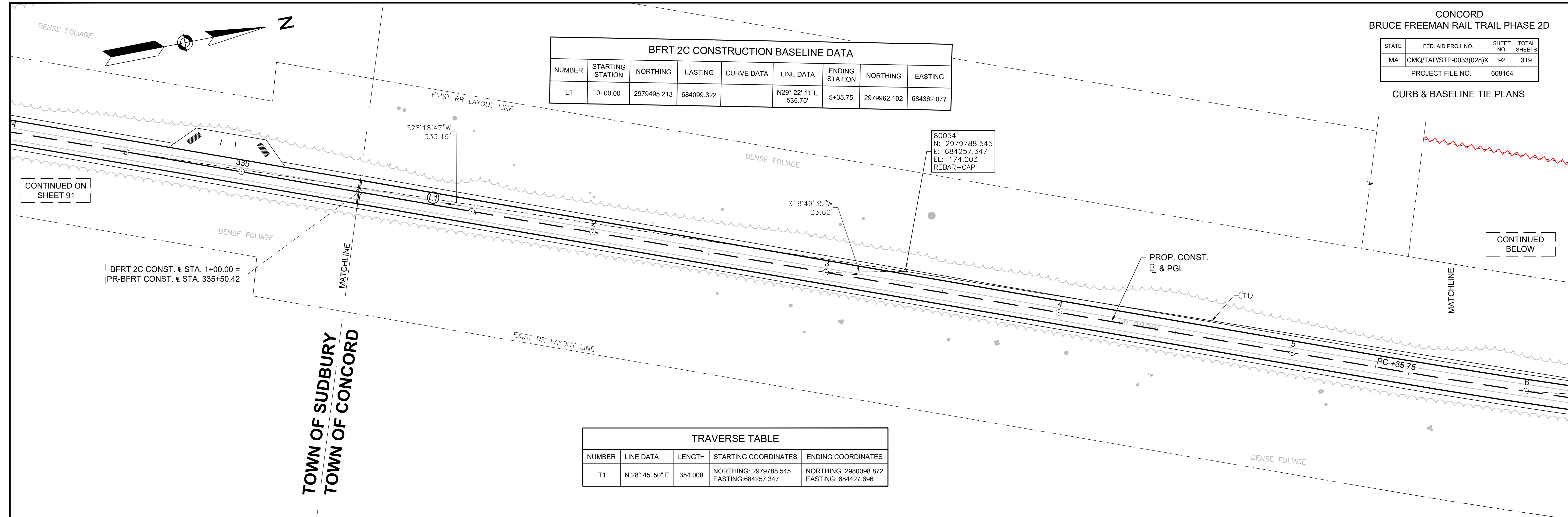
FOR CONSTRUCTION PLAN: SEE SHEET NO. 47

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

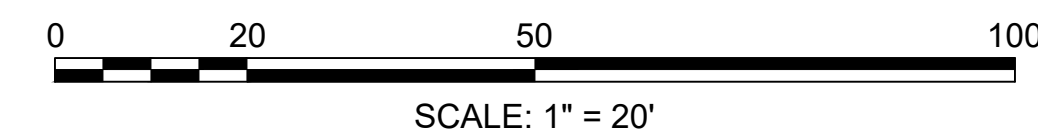
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	92	319
PROJECT FILE NO.		608164	

CURB & BASELINE TIE PLANS

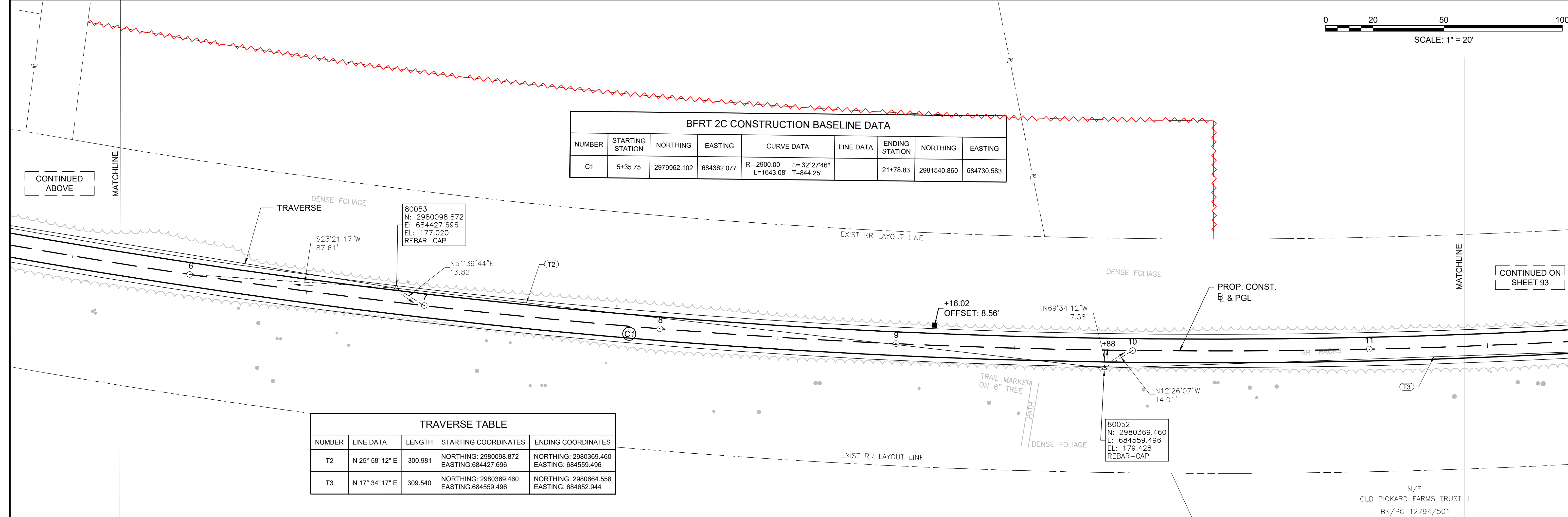
BFRT 2C CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	0+00.00	2979495.213	684099.322		N29° 22' 11"E 535.75'	5+35.75	2979962.102	684362.077



TRAVERSE TABLE				
NUMBER	LINE DATA	LENGTH	STARTING COORDINATES	ENDING COORDINATES
T1	N 28° 45' 50" E	354.008	NORTHING: 2979788.545 EASTING: 684257.347	NORTHING: 2980098.872 EASTING: 684427.696



BFRT 2C CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C1	5+35.75	2979962.102	684362.077	R=2900.00 L=1643.08' T=844.25'		21+78.83	2981540.860	684730.583



TRAVERSE TABLE				
NUMBER	LINE DATA	LENGTH	STARTING COORDINATES	ENDING COORDINATES
T2	N 25° 58' 12" E	300.981	NORTHING: 2980098.872 EASTING: 684427.696	NORTHING: 2980369.460 EASTING: 684559.496
T3	N 17° 34' 17" E	309.540	NORTHING: 2980369.460 EASTING: 684559.496	NORTHING: 2980664.558 EASTING: 684652.944

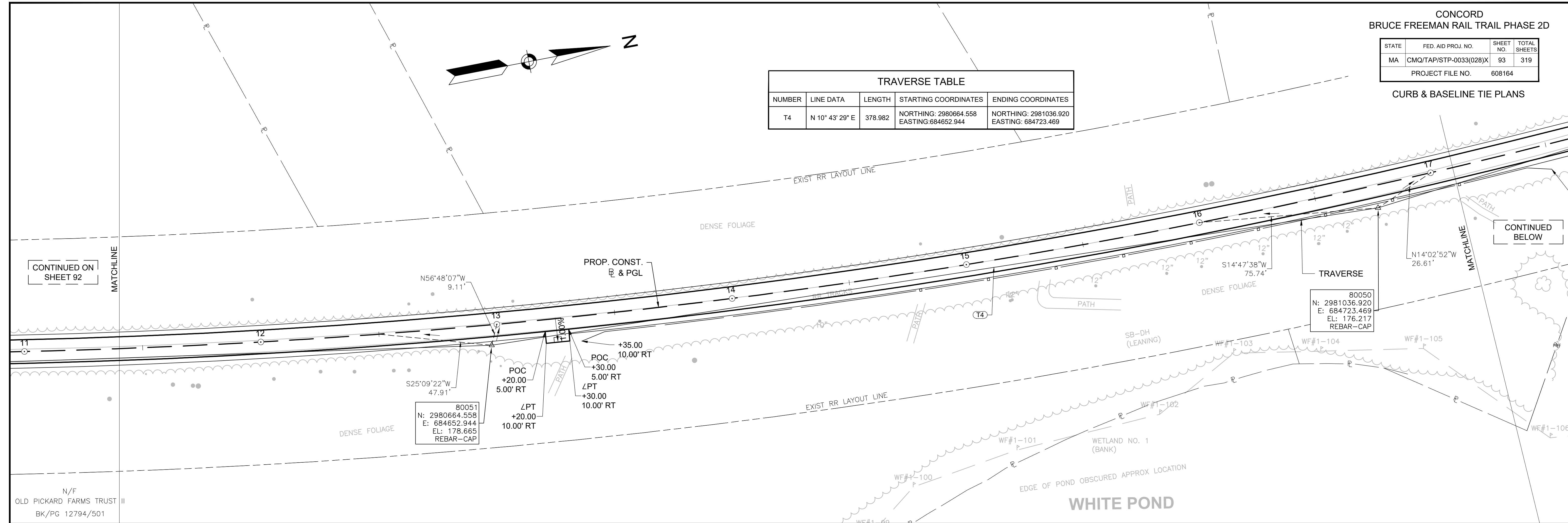
N/F  
OLD PICKARD FARMS TRUST II  
BK/PG 12794/501

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

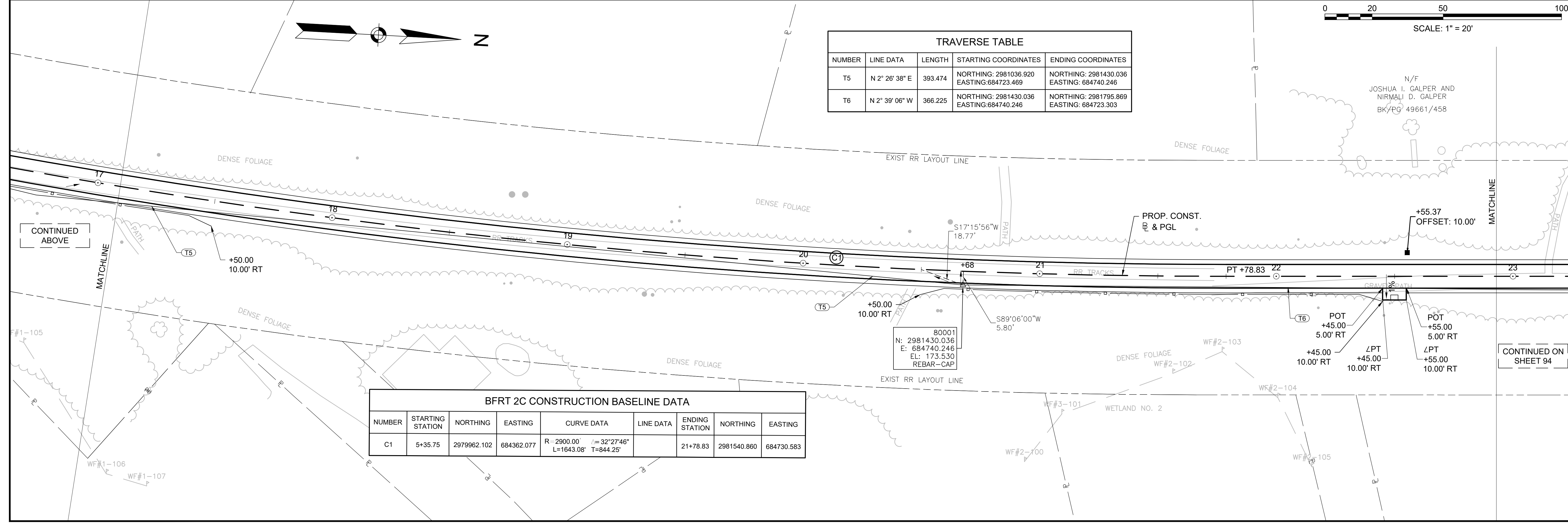
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	93	319
PROJECT FILE NO.		608164	

CURB & BASELINE TIE PLANS

TRAVERSE TABLE				
NUMBER	LINE DATA	LENGTH	STARTING COORDINATES	ENDING COORDINATES
T4	N 10° 43' 29" E	378.982	NORTHING: 2980664.558 EASTING: 684652.944	NORTHING: 2981036.920 EASTING: 684723.469



TRAVERSE TABLE				
NUMBER	LINE DATA	LENGTH	STARTING COORDINATES	ENDING COORDINATES
T5	N 2° 26' 38" E	393.474	NORTHING: 2981036.920 EASTING: 684723.469	NORTHING: 2981430.036 EASTING: 684740.246
T6	N 2° 39' 06" W	366.225	NORTHING: 2981430.036 EASTING: 684740.246	NORTHING: 2981795.869 EASTING: 684723.303



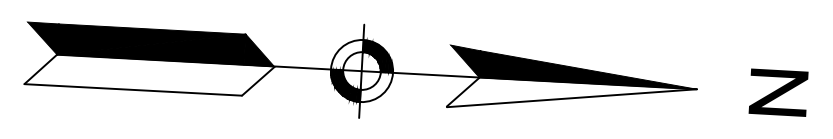
BFRT 2C CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C1	5+35.75	2979962.102	684362.077	R=2900.00' Δ=32°27'46" L=1643.08' T=844.25'		21+78.83	2981540.860	684730.583

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

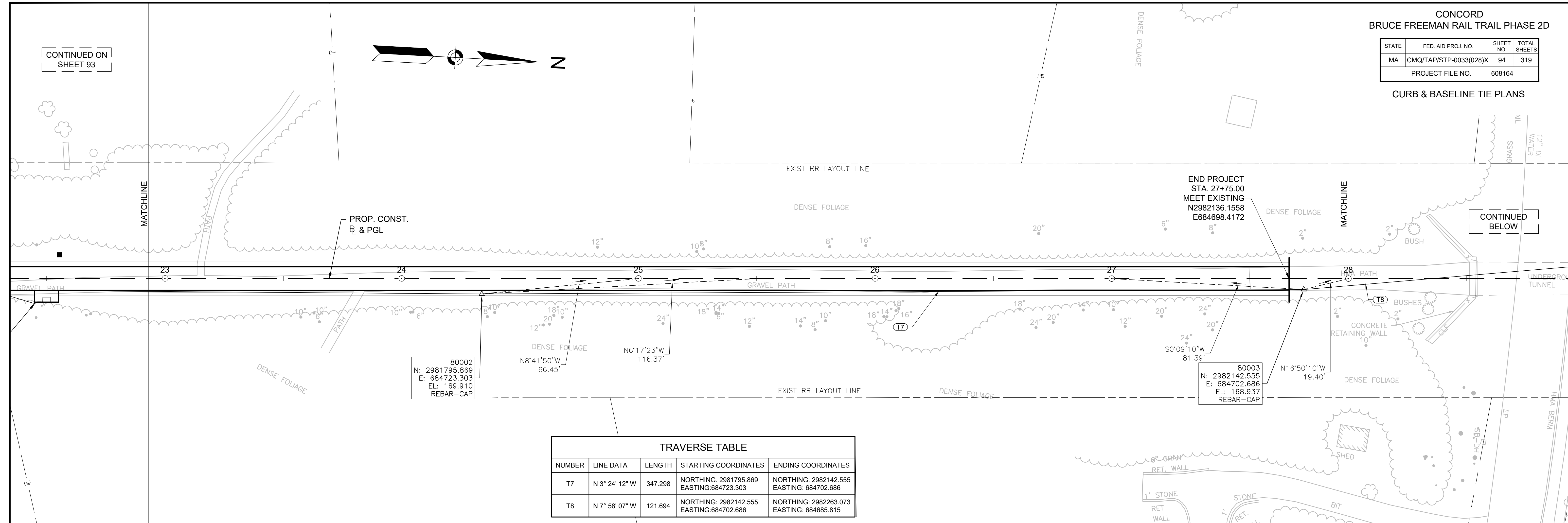
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	94	319
PROJECT FILE NO.		608164	

CURB & BASELINE TIE PLANS

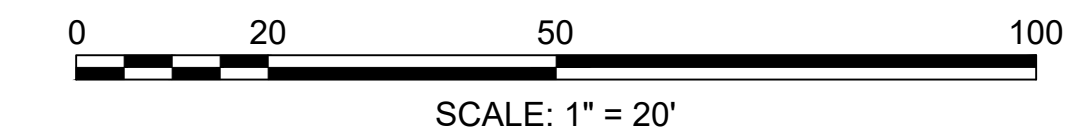
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SHEET 93



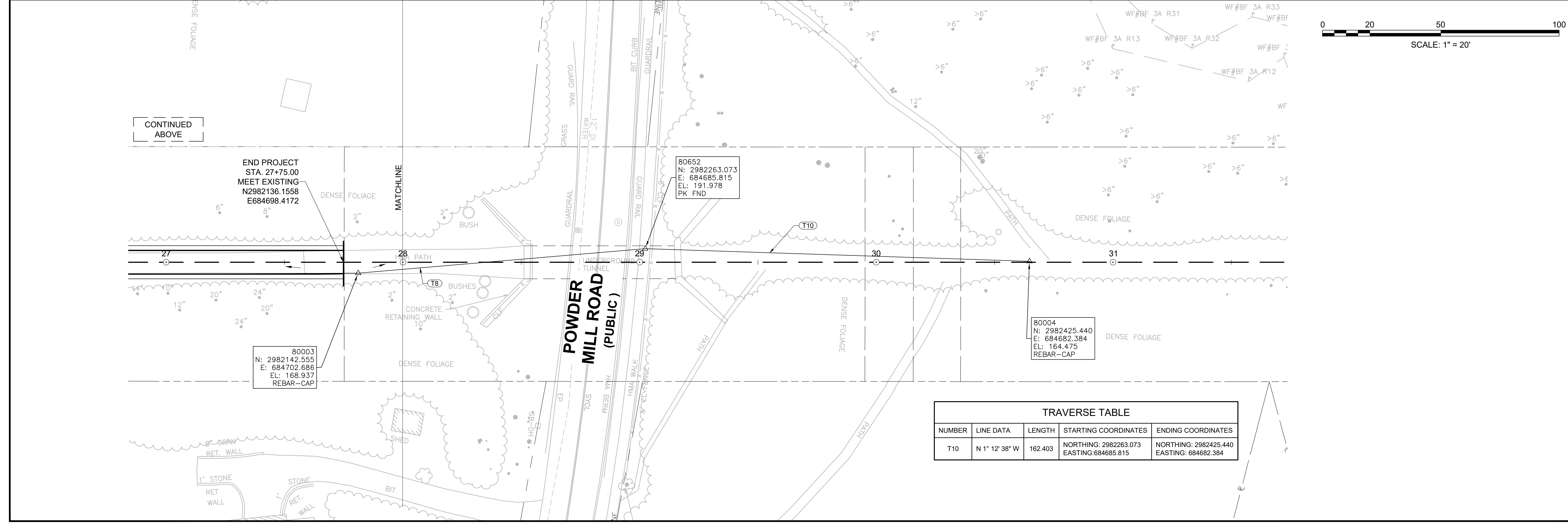
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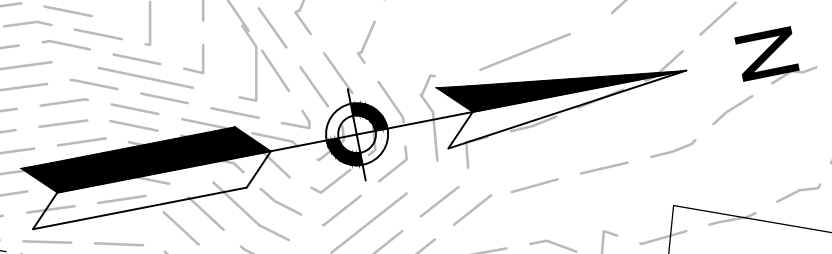
TRAVERSE TABLE				
NUMBER	LINE DATA	LENGTH	STARTING COORDINATES	ENDING COORDINATES
T7	N 3° 24' 12" W	347.298	NORTHING: 2981795.869 EASTING: 684723.303	NORTHING: 2982142.555 EASTING: 684702.686
T8	N 7° 58' 07" W	121.694	NORTHING: 2982142.555 EASTING: 684702.686	NORTHING: 2982263.073 EASTING: 684685.815



CONTINUED  
ABOVE



TRAVERSE TABLE				
NUMBER	LINE DATA	LENGTH	STARTING COORDINATES	ENDING COORDINATES
T10	N 1° 12' 38" W	162.403	NORTHING: 2982263.073 EASTING: 684685.815	NORTHING: 2982425.440 EASTING: 684682.384

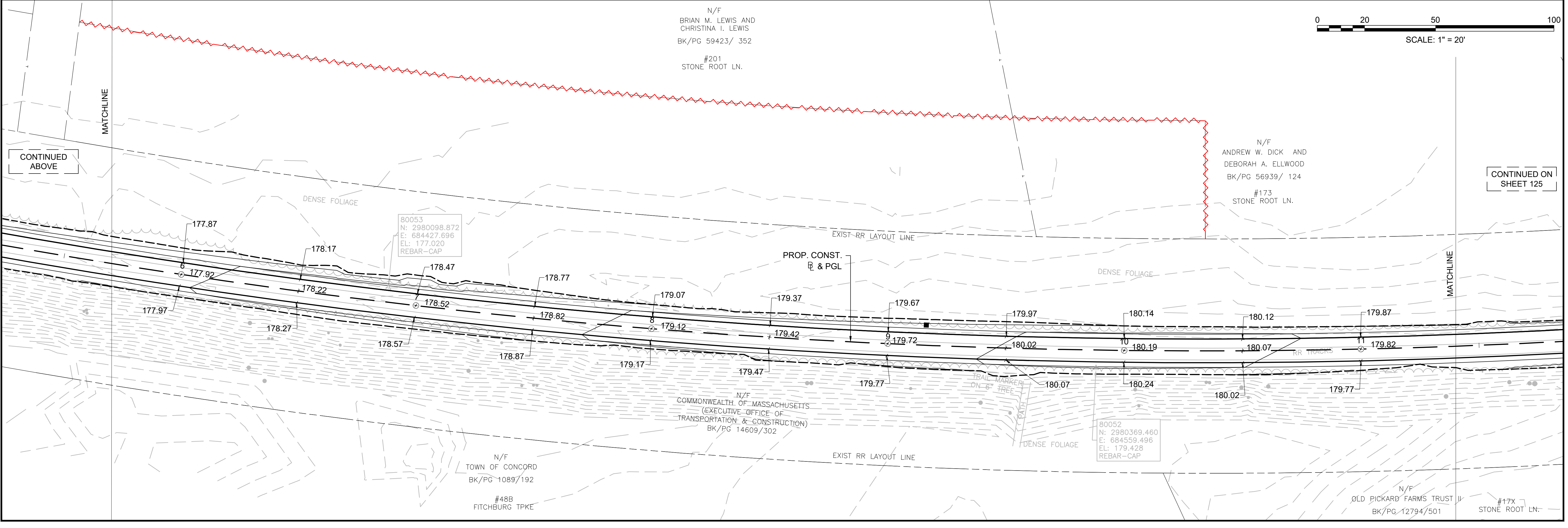
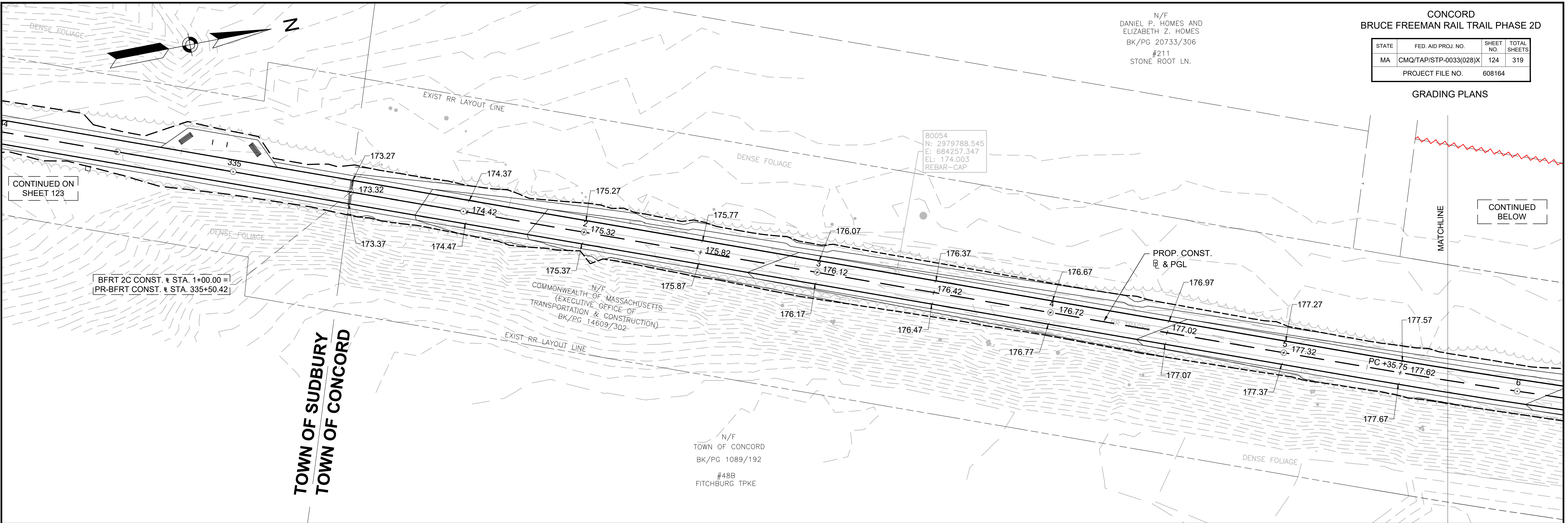


N/F  
DANIEL P. HOMES AND  
ELIZABETH Z. HOMES  
BK/PG 20733/306  
#211  
STONE ROOT LN.

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	124	319
PROJECT FILE NO.		608164	

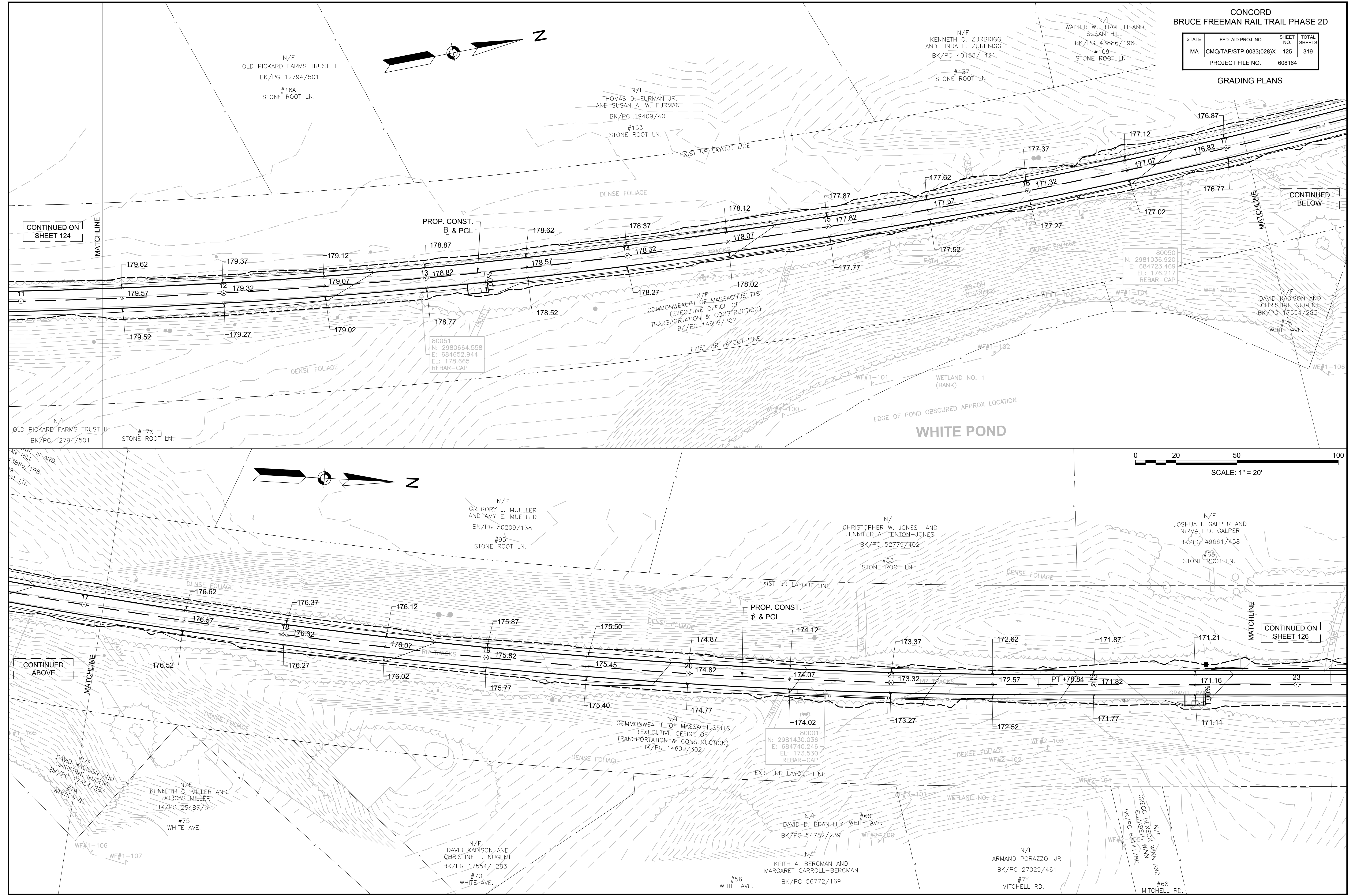
GRADING PLANS



CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	125	319
PROJECT FILE NO.		608164	

GRADING PLANS

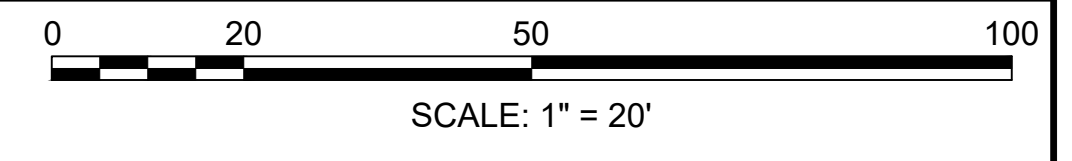


CONTINUED ON SHEET 124

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CONTINUED ON SHEET 126

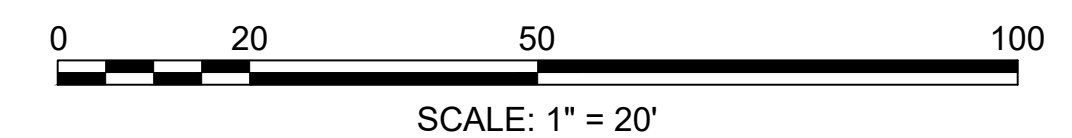
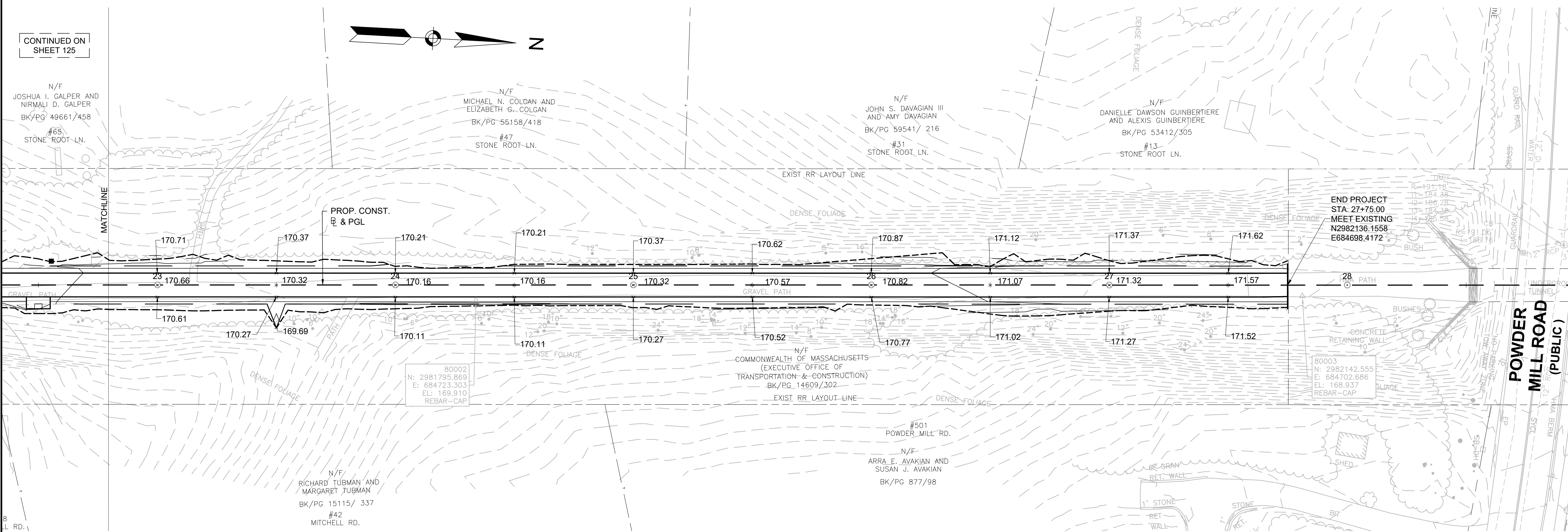
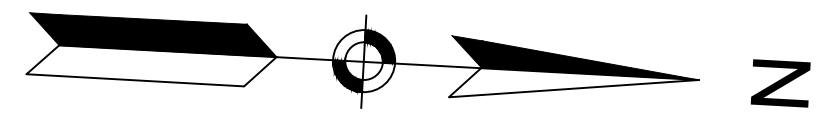


CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	126	319
PROJECT FILE NO.		608164	

GRADING PLANS

CONTINUED ON  
SHEET 125



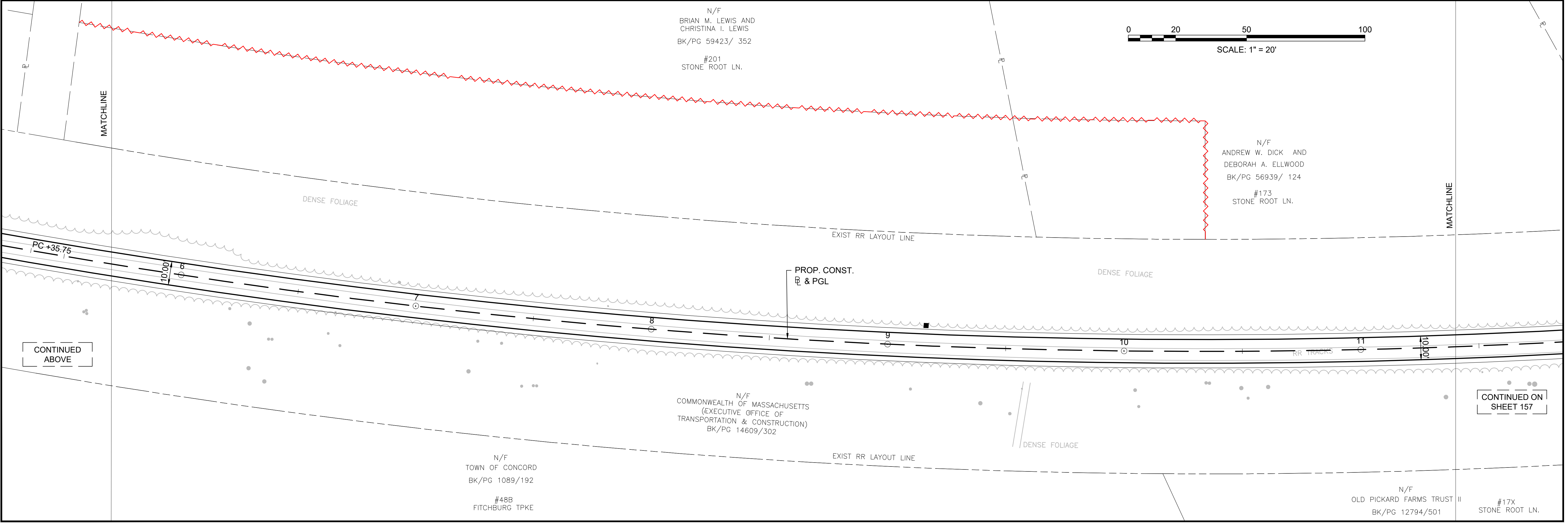
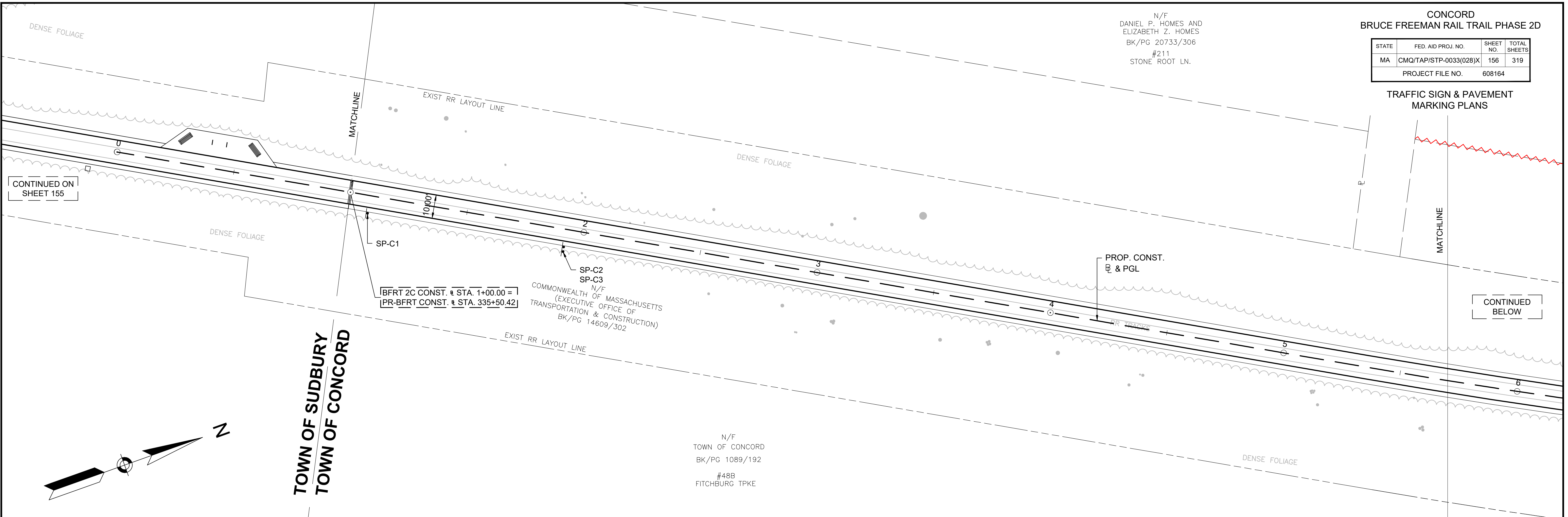
8  
L RD. 1

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	156	319
PROJECT FILE NO.		608164	

TRAFFIC SIGN & PAVEMENT MARKING PLANS

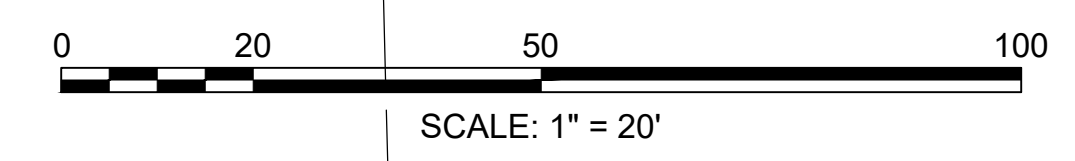
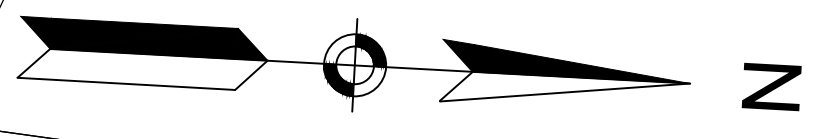
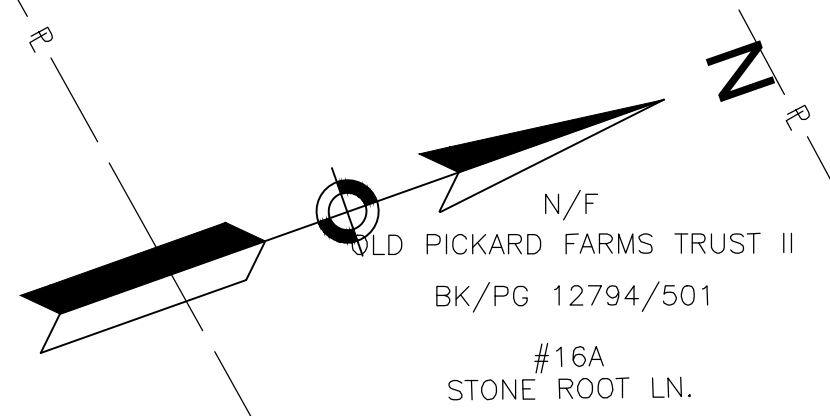
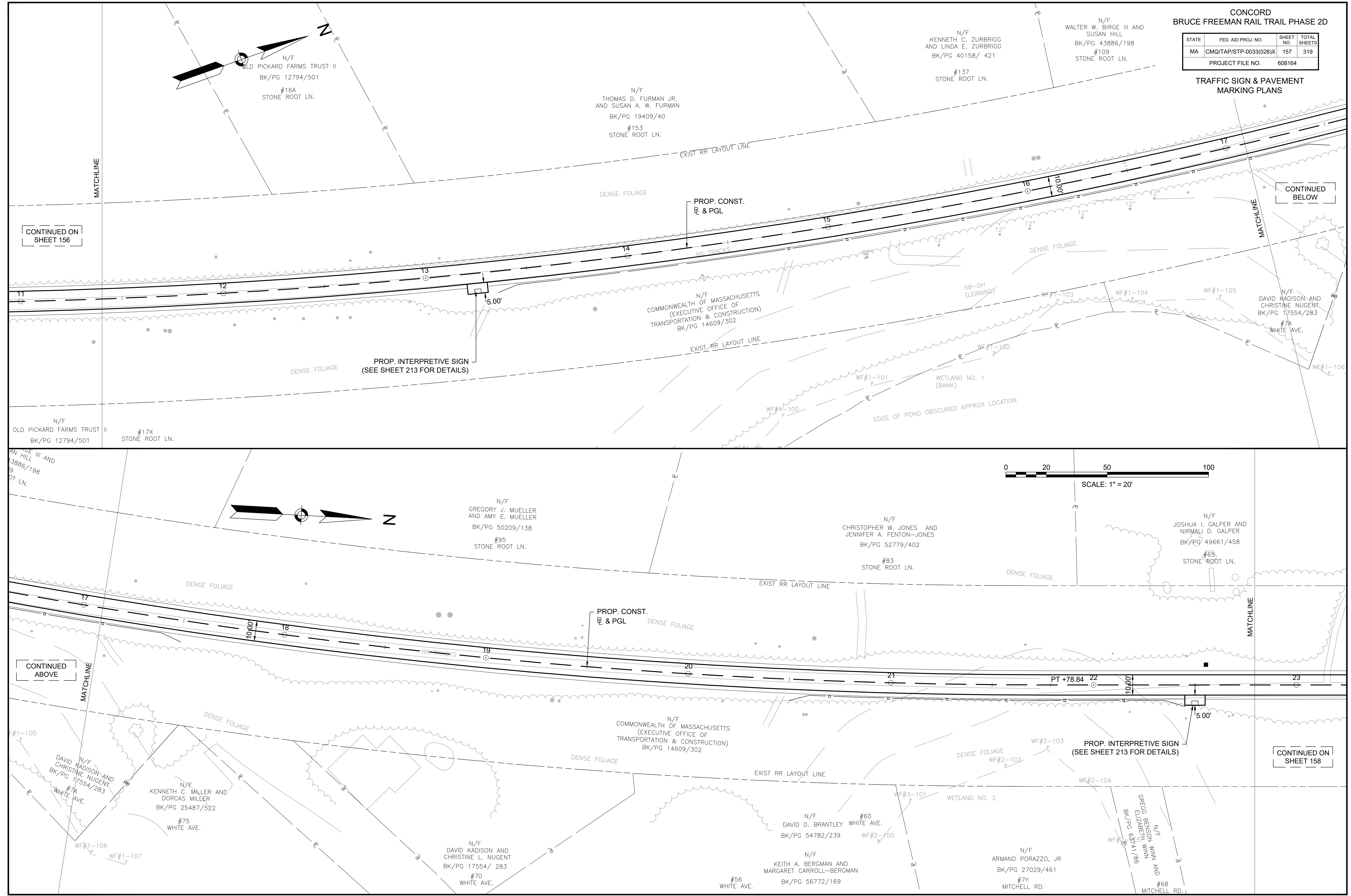
N/F  
DANIEL P. HOMES AND  
ELIZABETH Z. HOMES  
BK/PG 20733/306  
#211  
STONE ROOT LN.



CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	157	319
PROJECT FILE NO.		608164	

TRAFFIC SIGN & PAVEMENT MARKING PLANS



CONTINUED ON  
SHEET 156

CONTINUED  
BELOW

CONTINUED  
ABOVE

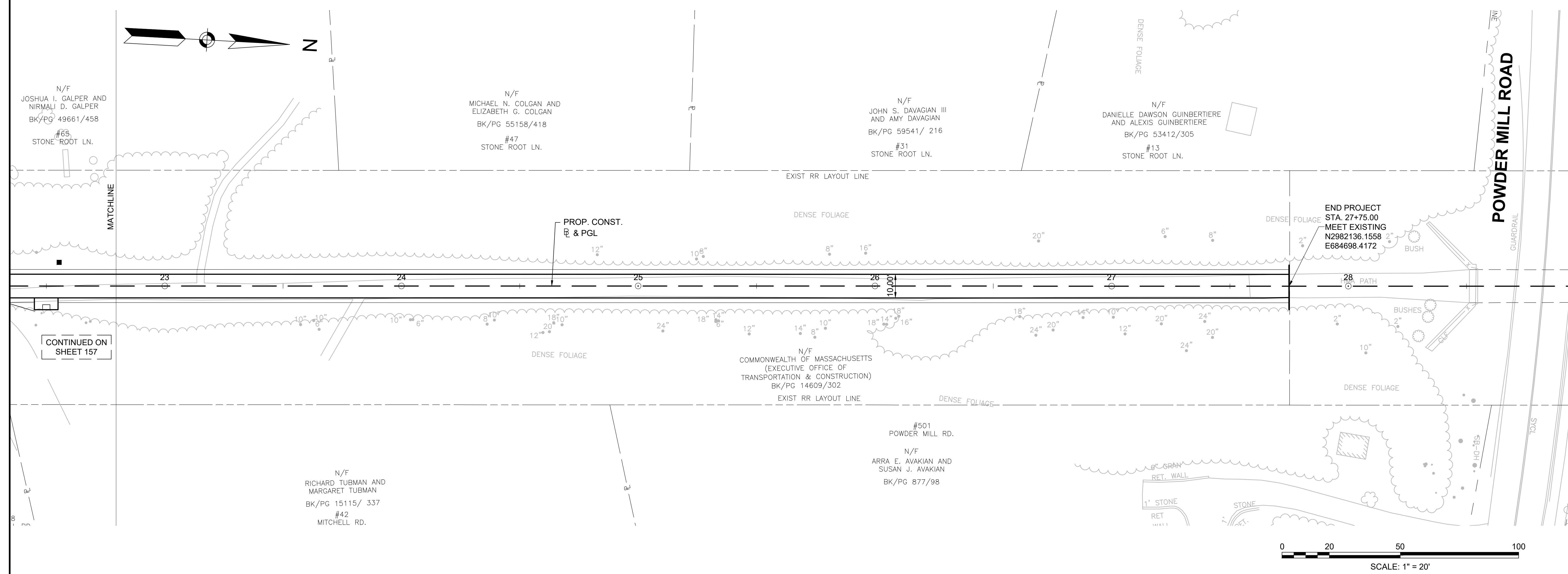
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SHEET 158

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

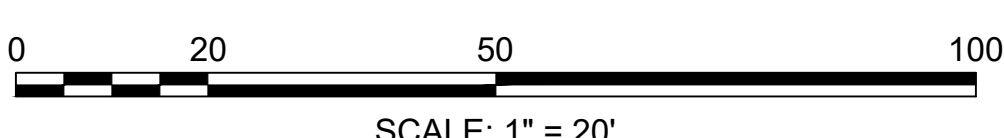
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	158	319
PROJECT FILE NO.		608164	

TRAFFIC SIGN & PAVEMENT  
MARKING PLANS

Plotted on 22-Jun-2022 1:54 PM  
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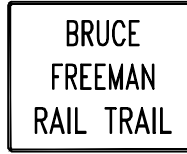
CONTINUED ON  
SHEET 157



CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	161	319
PROJECT FILE NO.		608164	

TRAFFIC SIGN SUMMARY SHEET

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK-GROUND	LEGEND	BORDER			
SP-C1	30"	24"		4"B 4"B 4"B	3" 3" 3"	1	WHITE	BLACK	BLACK	P5 (1 REQ'D)	5.00	5.00
SP-C2	30"	24"		4"B 4"B 4"B	3" 3" 3"	1	BROWN	WHITE	WHITE	2-P5 (1 REQ'D)	5.00	5.00
SP-C3	24"	36"	TRAIL RULES SIGN (REF. SPEC 832.1)			1	WHITE	BLACK	BLACK	MNT w/SP-C2	PAY UNDER ITEM 832.1	

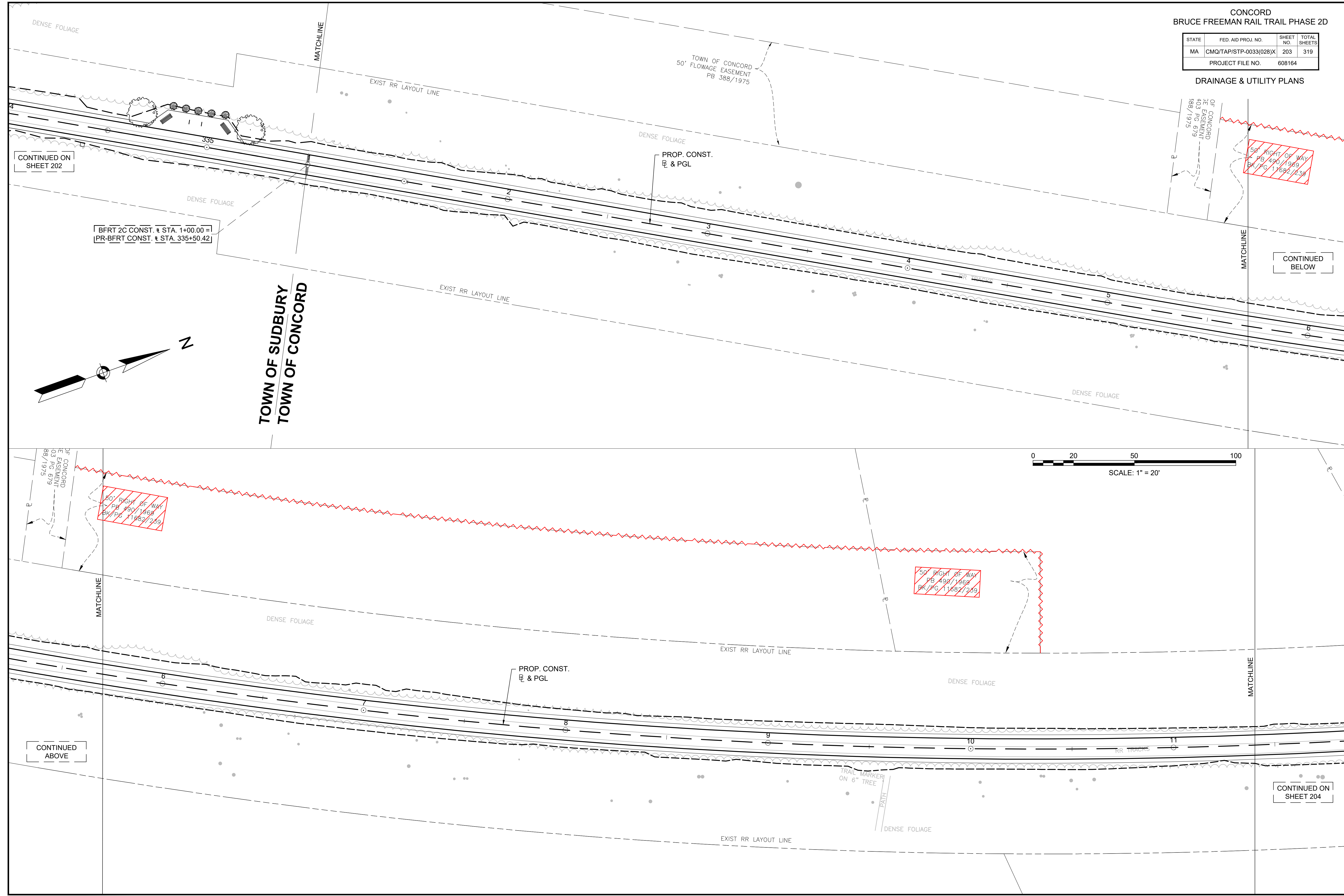
NOTES:

- ALL WARNING, REGULATORY AND ROUTE MARKERS SHALL BE FABRICATED WITH HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING (SEE SECTION M9.30.0) TYPE III OR IV.
- ALL SIGNS NOTED AS "(R&R)" SHALL BE MOUNTED ON NEW P5 POSTS OR AS OTHERWISE INDICATED.
- ALL P5 POSTS SHALL BE TELESCOPIC SQUARE TYPE POSTS.
- QUANTITIES OF SIGNS AND POSTS SHOWN ON THIS SHEET MAY DIFFER FROM THE TRAFFIC SIGN & PAVEMENT MARKING PLANS. WHERE DIFFERENCES OCCUR, THE TRAFFIC SIGN & PAVEMENT MARKING PLANS SHALL PREVAIL.
- ALL STOP AND YIELD SIGNS PROPOSED IN THIS CONTRACT ARE SUBJECT TO FIELD INVESTIGATION BY THE DISTRICT OFFICE OF THE MASSACHUSETTS HIGHWAY DEPARTMENT TO JUSTIFY WARRANTS BEFORE INSTALLATION.
- NUMERICAL LIMITS AND JUSTIFICATION FOR THE LIMITS AND JUSTIFICATION FOR THE SPEED AND ADVISORY EXIT SPEED AND ADVISORY EXIT SPEED SIGNS SHALL BE OBTAINED FROM THE SPEED ZONING UNIT OF THE TRAFFIC DEPARTMENT BEFORE FABRICATION AND/OR ERECTION.

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	203	319
PROJECT FILE NO.		608164	

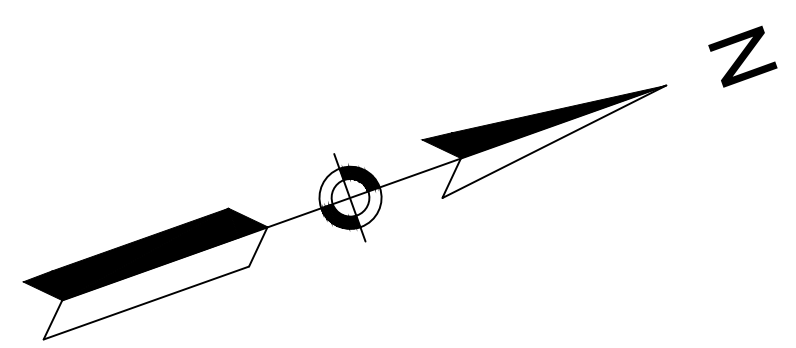
DRAINAGE & UTILITY PLANS



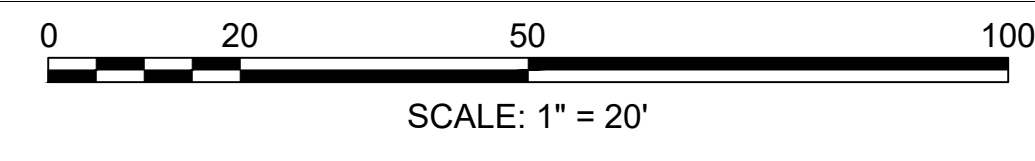
CONTINUED ON SHEET 202

BFRT 2C CONST. & STA. 1+00.00 = 1  
PR-BFRT CONST. & STA. 335+50.42

TOWN OF SUDBURY  
TOWN OF CONCORD



CONTINUED BELOW



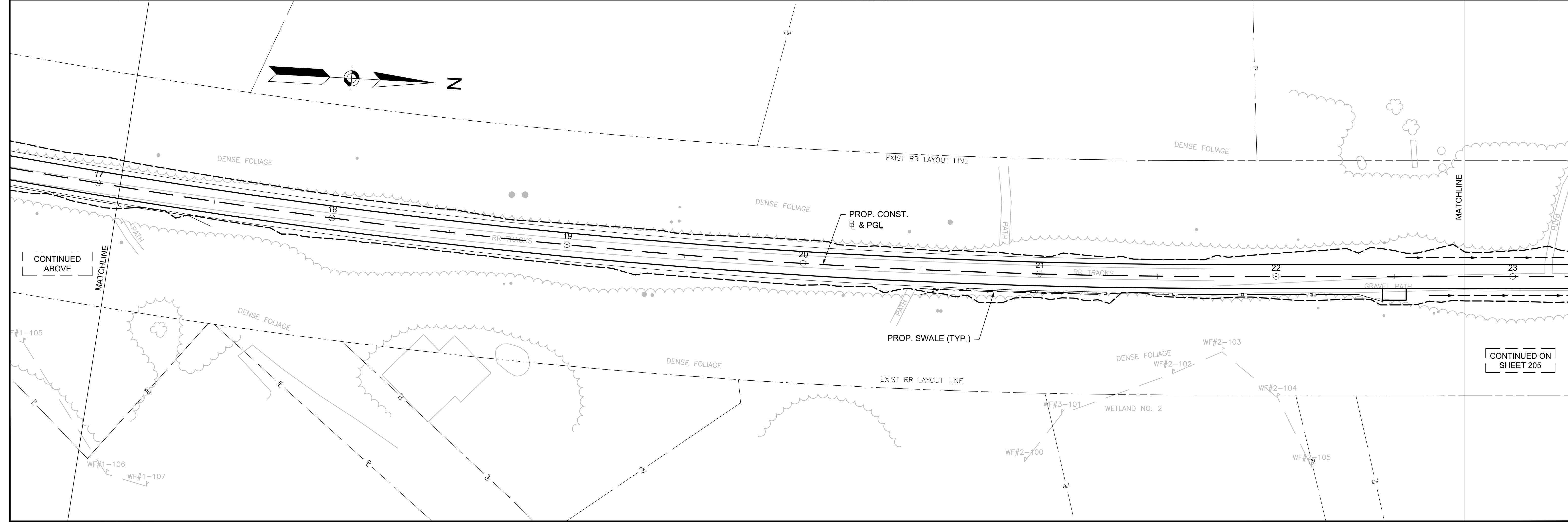
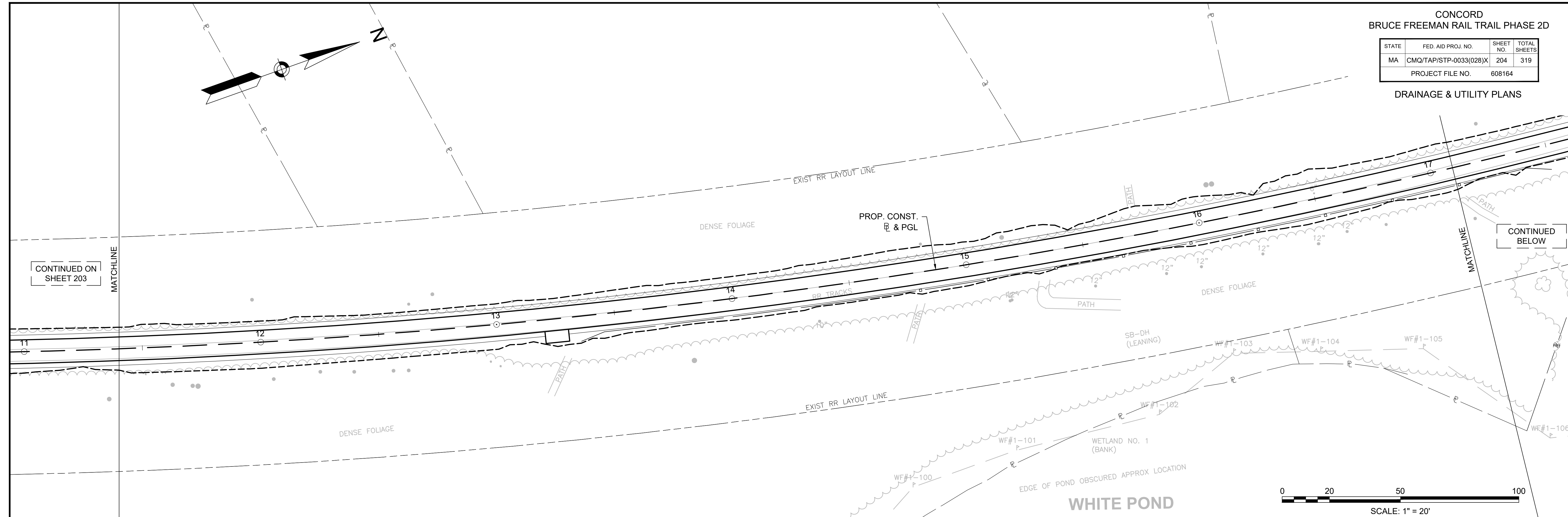
CONTINUED ABOVE

CONTINUED ON SHEET 204

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	204	319
PROJECT FILE NO.		608164	

DRAINAGE & UTILITY PLANS



CONTINUED ON SHEET 203

CONTINUED BELOW

CONTINUED ABOVE

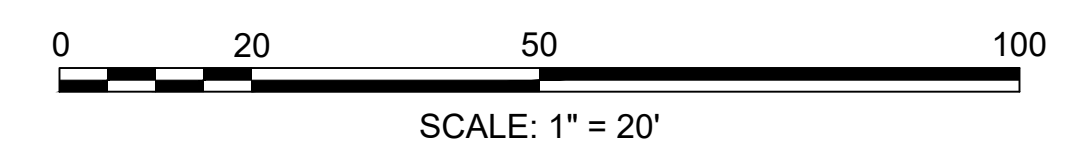
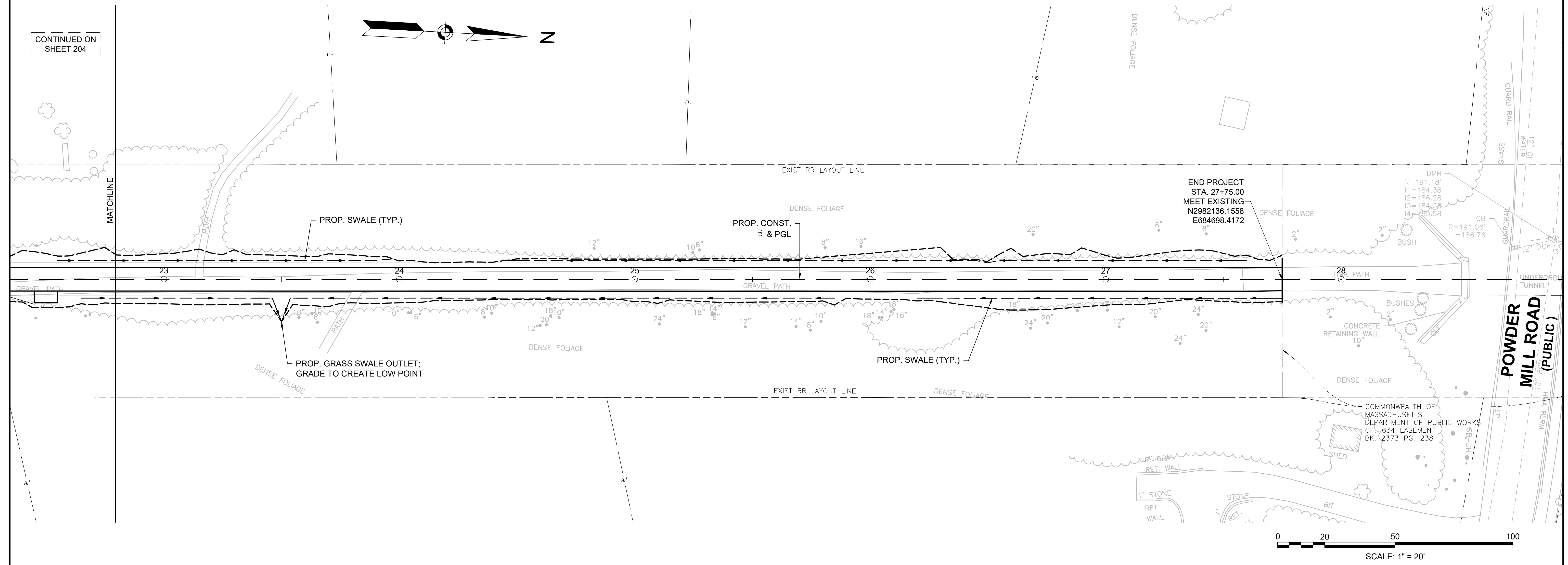
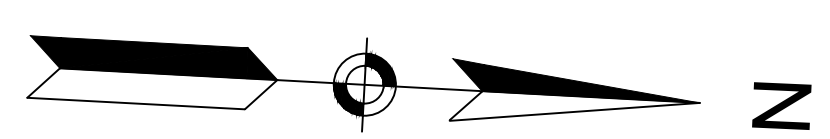
CONTINUED ON SHEET 205

CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	205	319
PROJECT FILE NO.		608164	

DRAINAGE & UTILITY PLANS

CONTINUED ON  
SHEET 204

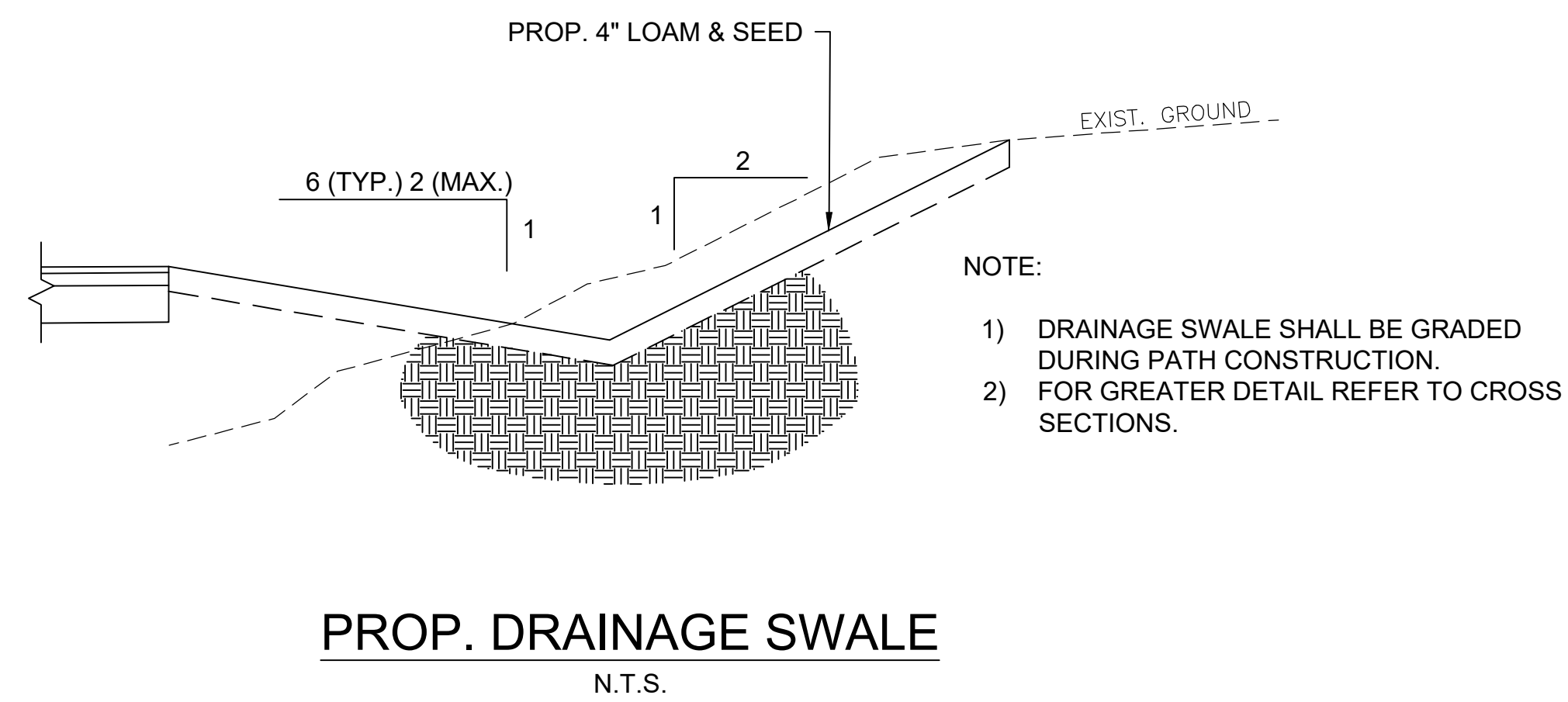
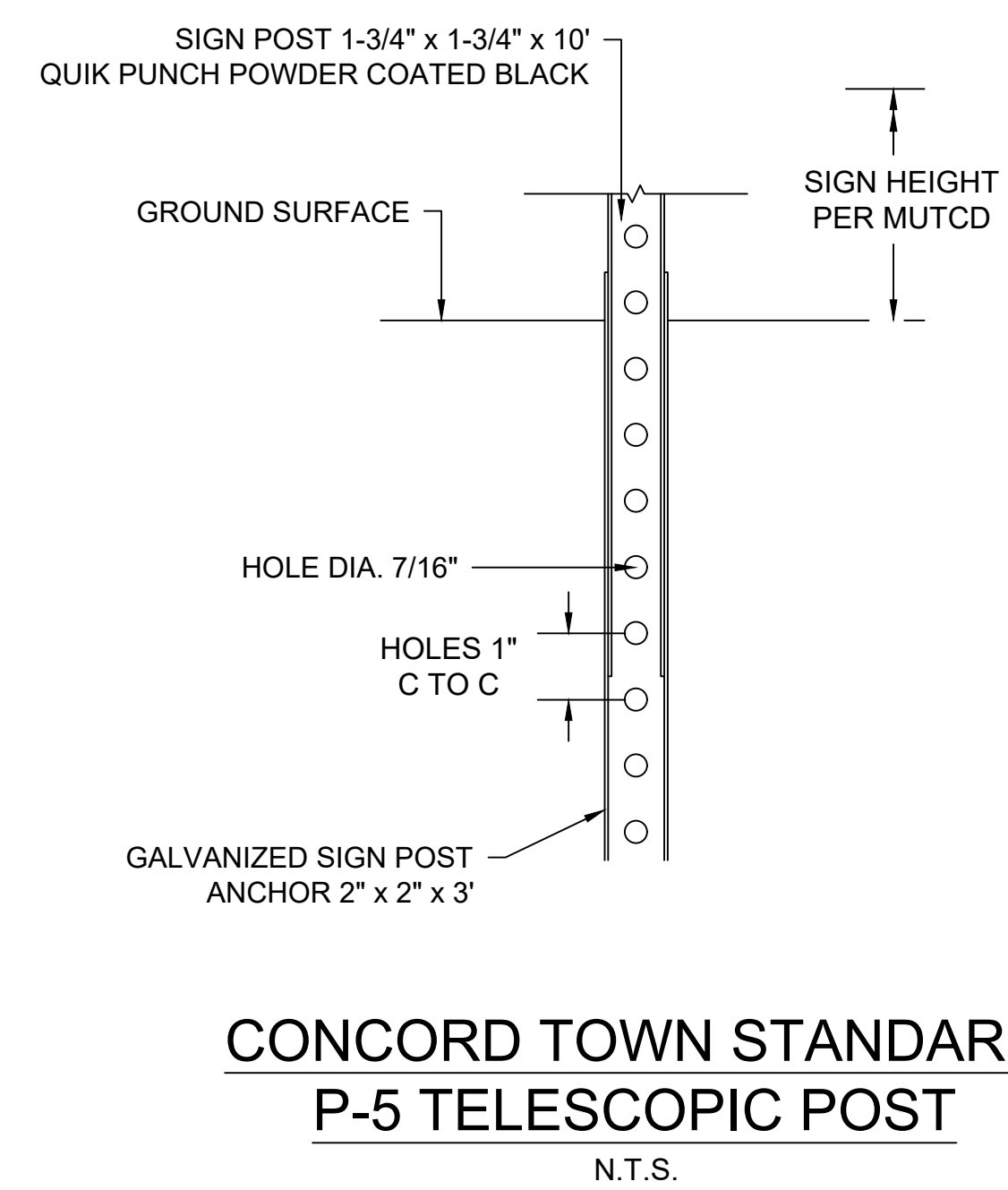


**POWDER  
MILL ROAD  
(PUBLIC)**

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS  
CH. 834 EASEMENT  
BK.12373 PG. 238

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	220	319
PROJECT FILE NO.		608164	

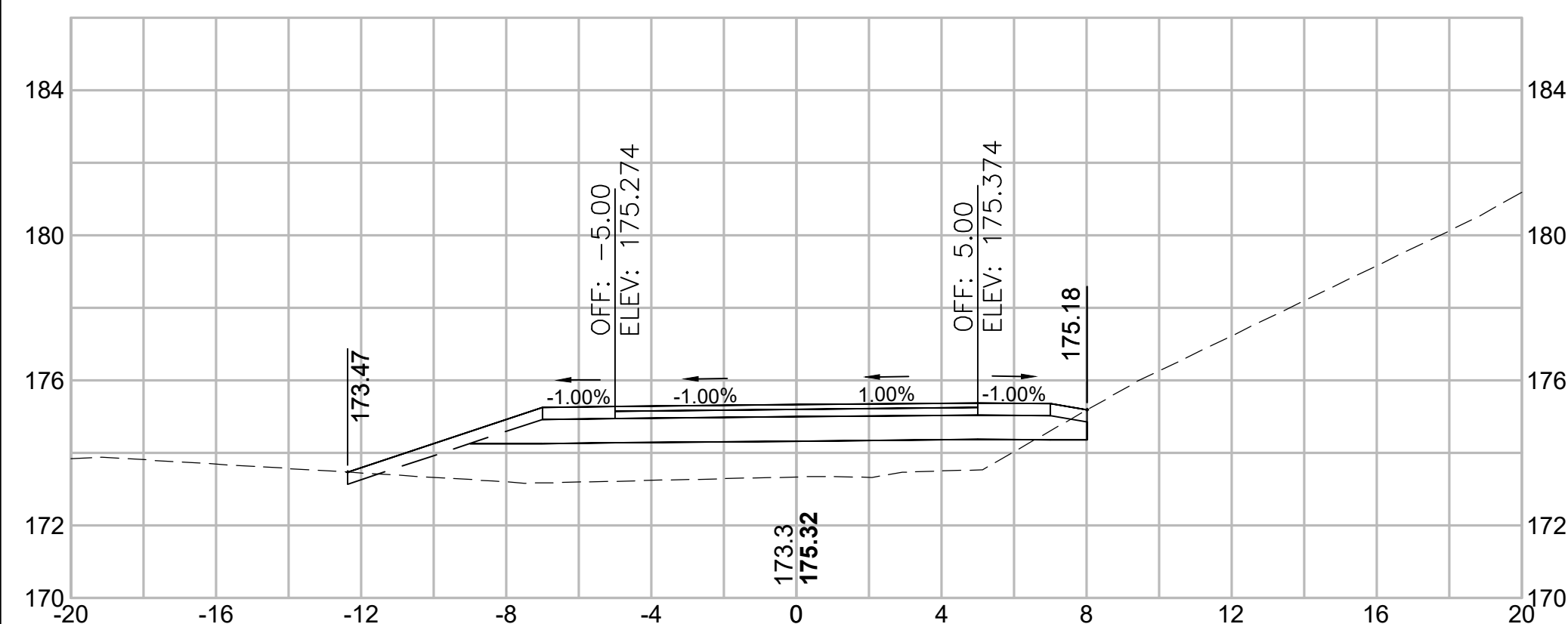
CONSTRUCTION DETAILS



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	310	319
PROJECT FILE NO.		608164	

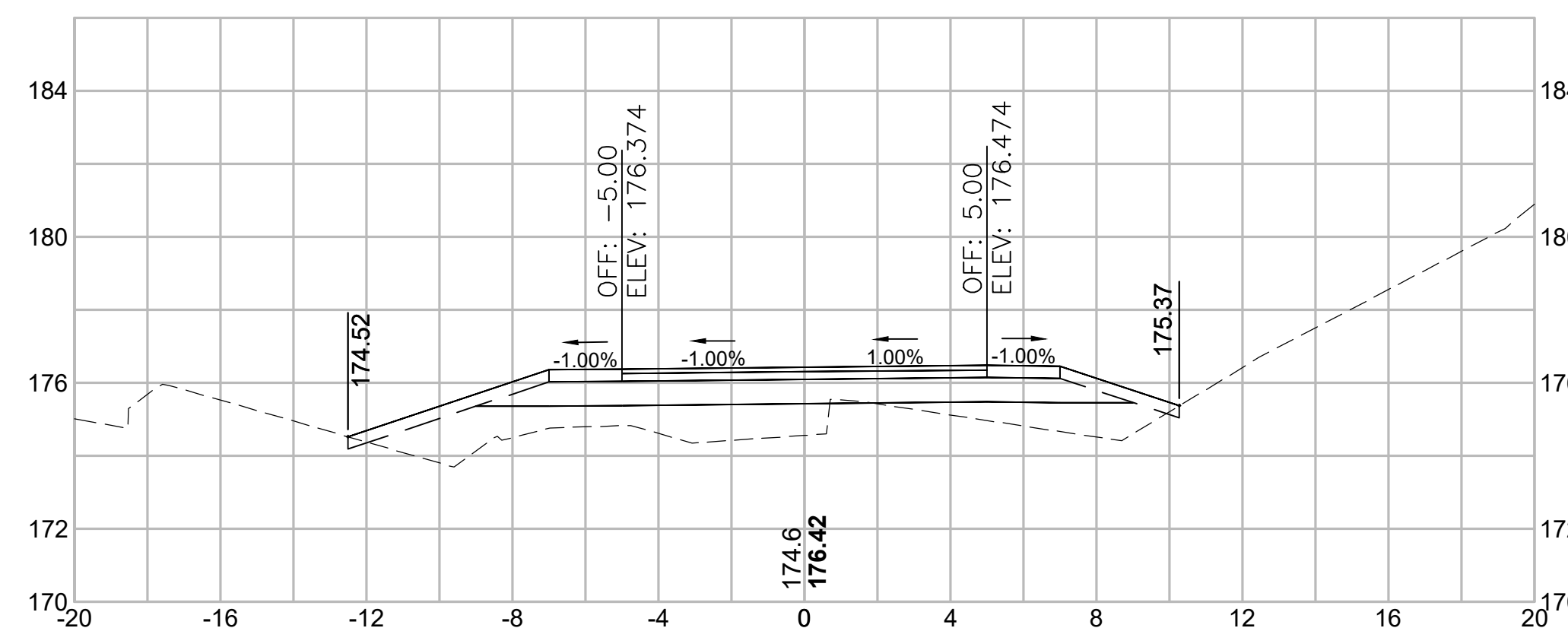
CROSS SECTIONS

2+00



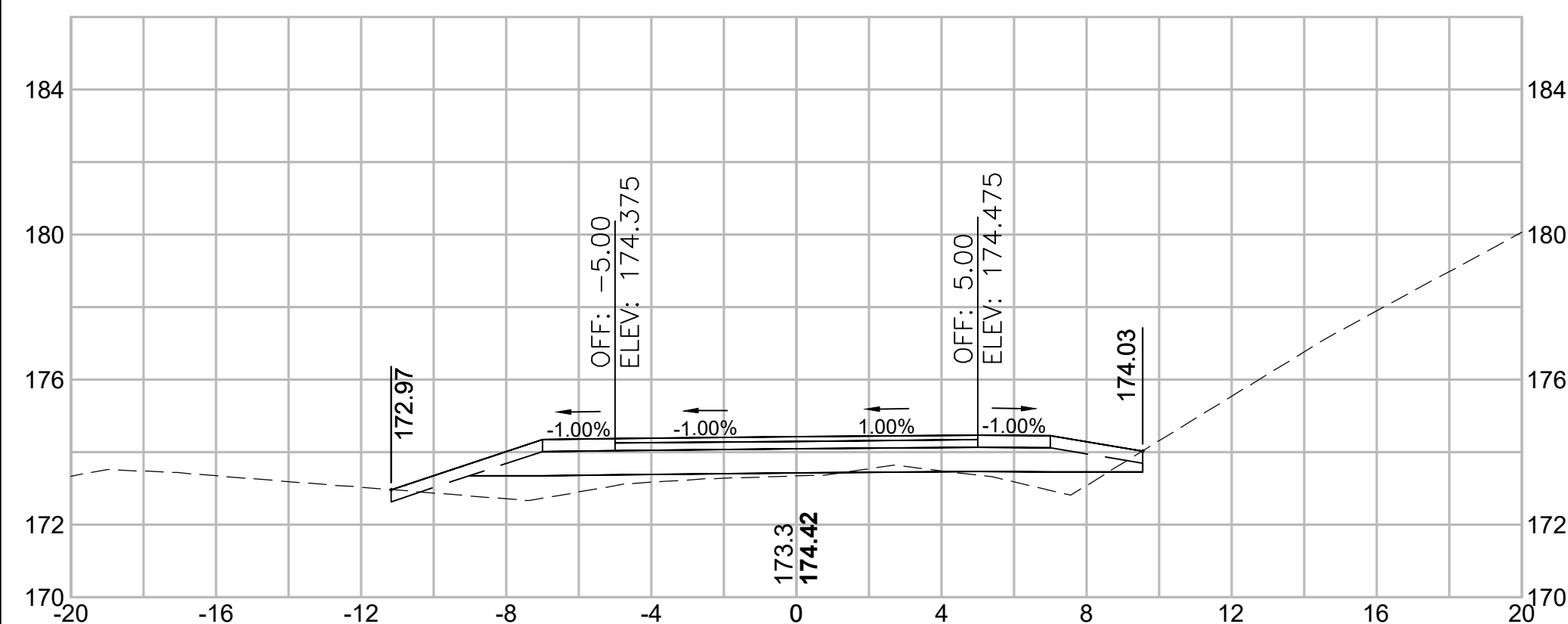
Total Volume at Station 2+00.00	
Cut Area (SF)	7.004
Fill Area (SF)	22.953
Cut Vol (CY)	12.9
Fill Vol (CY)	32.0
Cum Cut Vol (CY)	32.5
Cum Fill Vol (CY)	66.1
Net Vol (CY)	-33.6

3+50



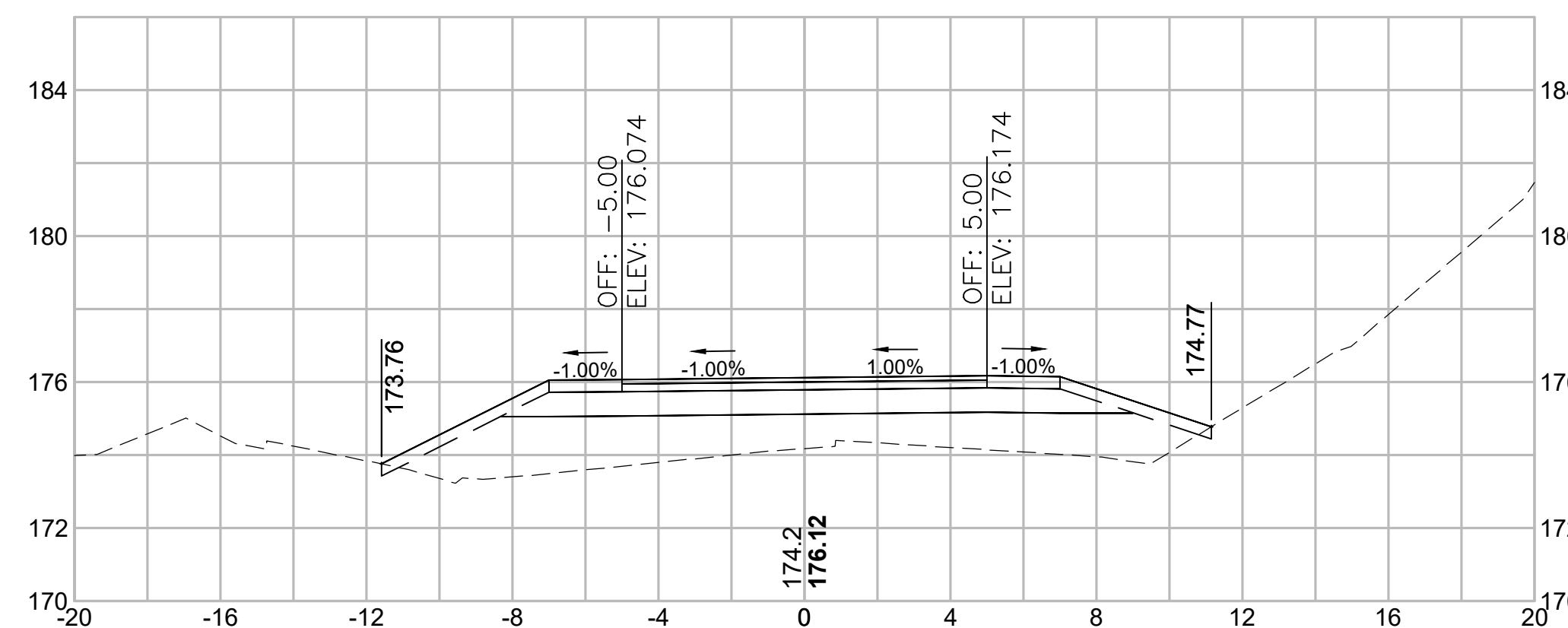
Total Volume at Station 3+50.00	
Cut Area (SF)	7.583
Fill Area (SF)	22.745
Cut Vol (CY)	14.0
Fill Vol (CY)	50.5
Cum Cut Vol (CY)	74.3
Cum Fill Vol (CY)	227.9
Net Vol (CY)	-153.6

1+50



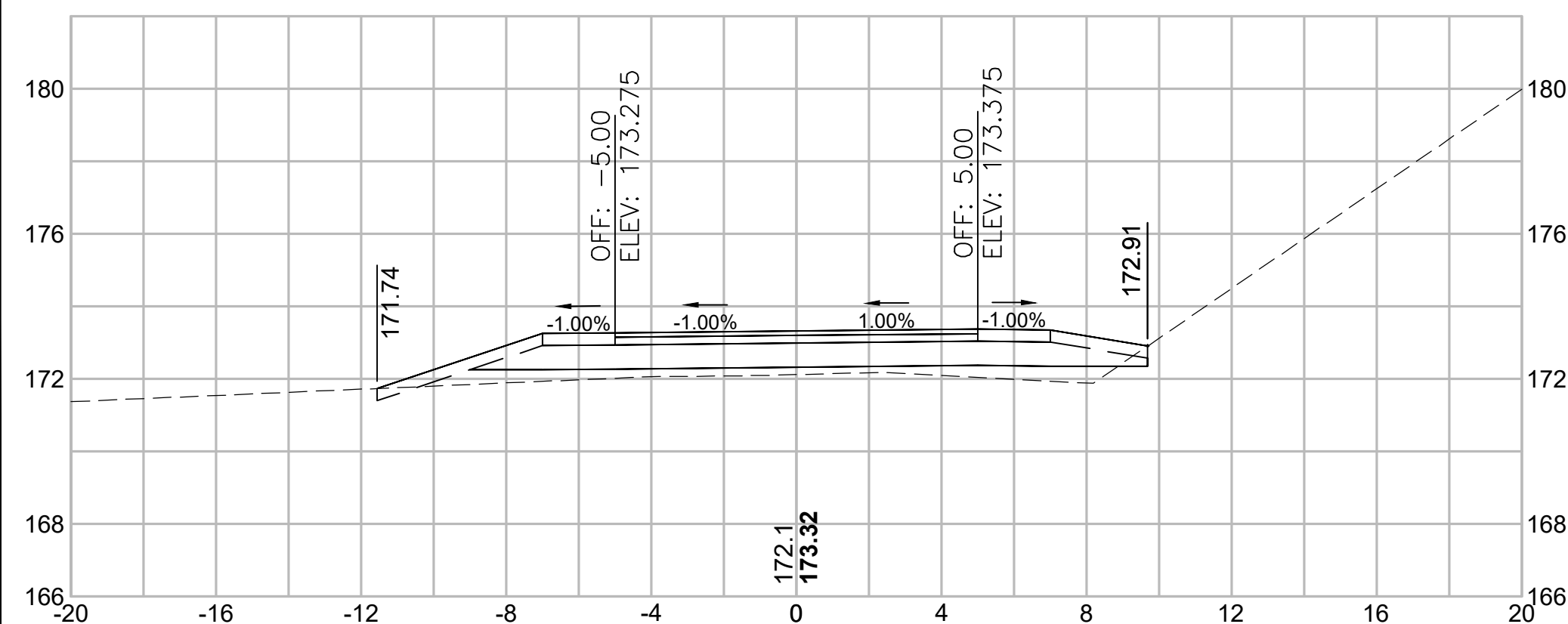
Total Volume at Station 1+50.00	
Cut Area (SF)	6.945
Fill Area (SF)	11.633
Cut Vol (CY)	6.4
Fill Vol (CY)	11.0
Cum Cut Vol (CY)	19.5
Cum Fill Vol (CY)	34.1
Net Vol (CY)	-14.5

3+00



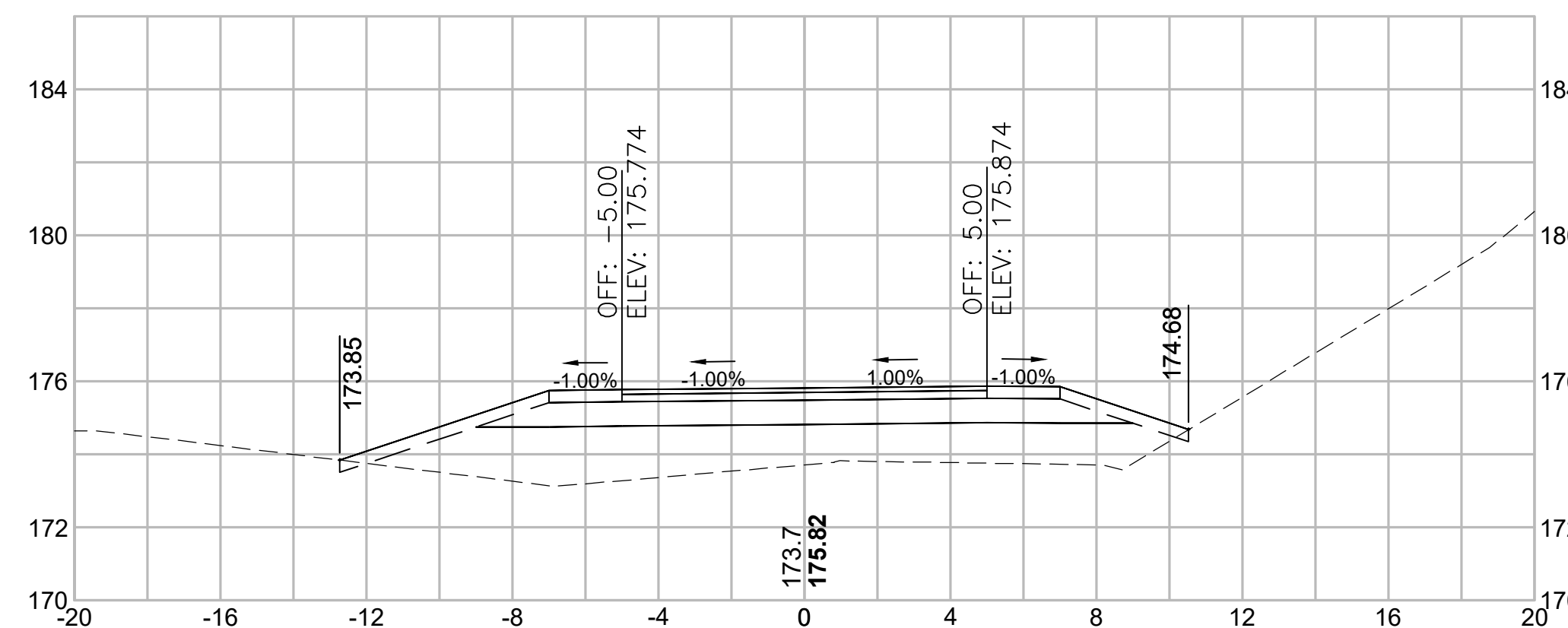
Total Volume at Station 3+00.00	
Cut Area (SF)	7.570
Fill Area (SF)	31.821
Cut Vol (CY)	14.2
Fill Vol (CY)	59.8
Cum Cut Vol (CY)	60.3
Cum Fill Vol (CY)	177.4
Net Vol (CY)	-117.1

1+00

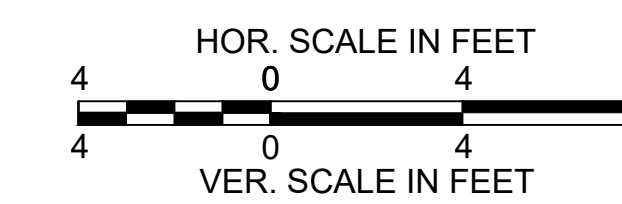


Total Volume at Station 1+00.00	
Cut Area (SF)	7.105
Fill Area (SF)	12.542
Cut Vol (CY)	6.6
Fill Vol (CY)	11.6
Cum Cut Vol (CY)	6.6
Cum Fill Vol (CY)	11.6
Net Vol (CY)	-5.0

2+50

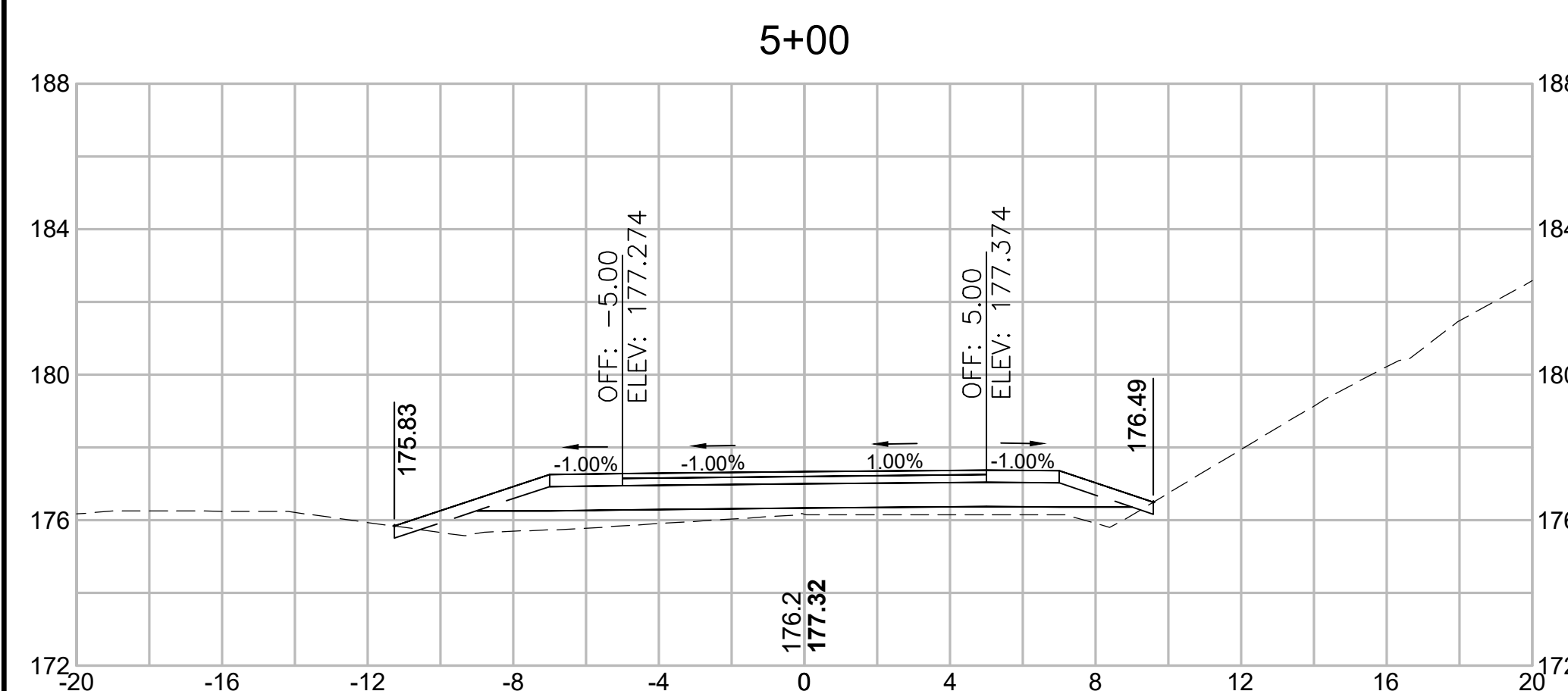


Total Volume at Station 2+50.00	
Cut Area (SF)	7.743
Fill Area (SF)	32.725
Cut Vol (CY)	13.7
Fill Vol (CY)	51.6
Cum Cut Vol (CY)	46.1
Cum Fill Vol (CY)	117.6
Net Vol (CY)	-71.5

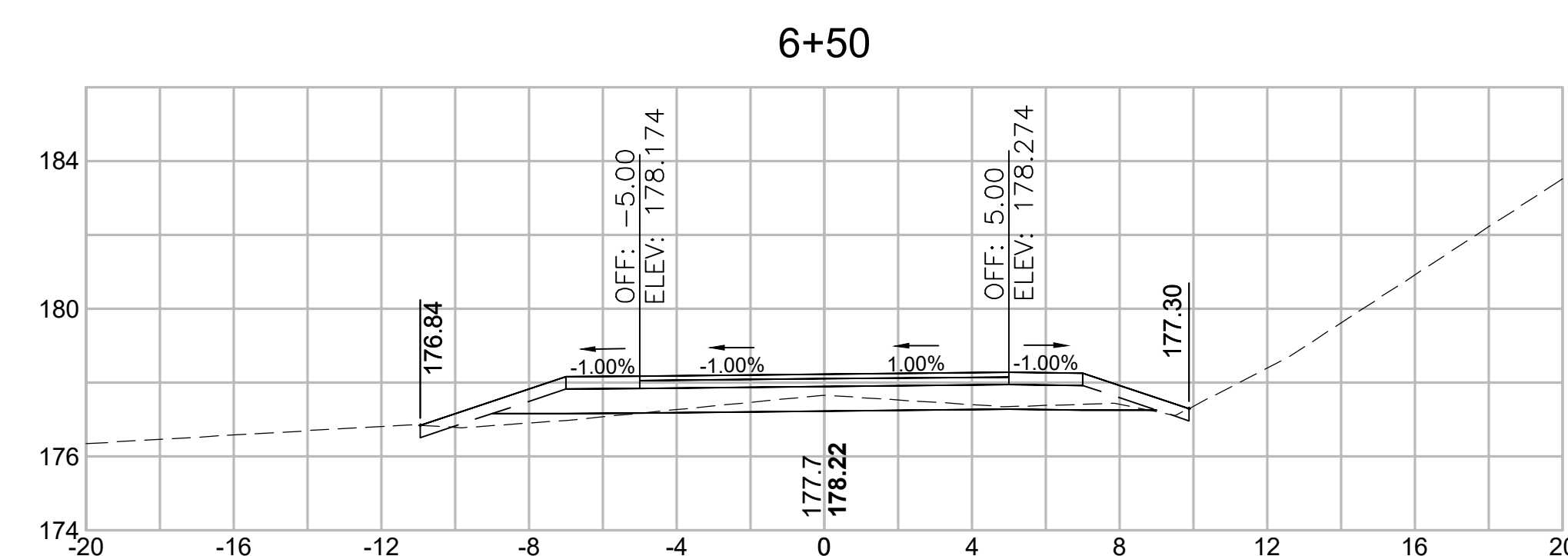


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	311	319
PROJECT FILE NO.		608164	

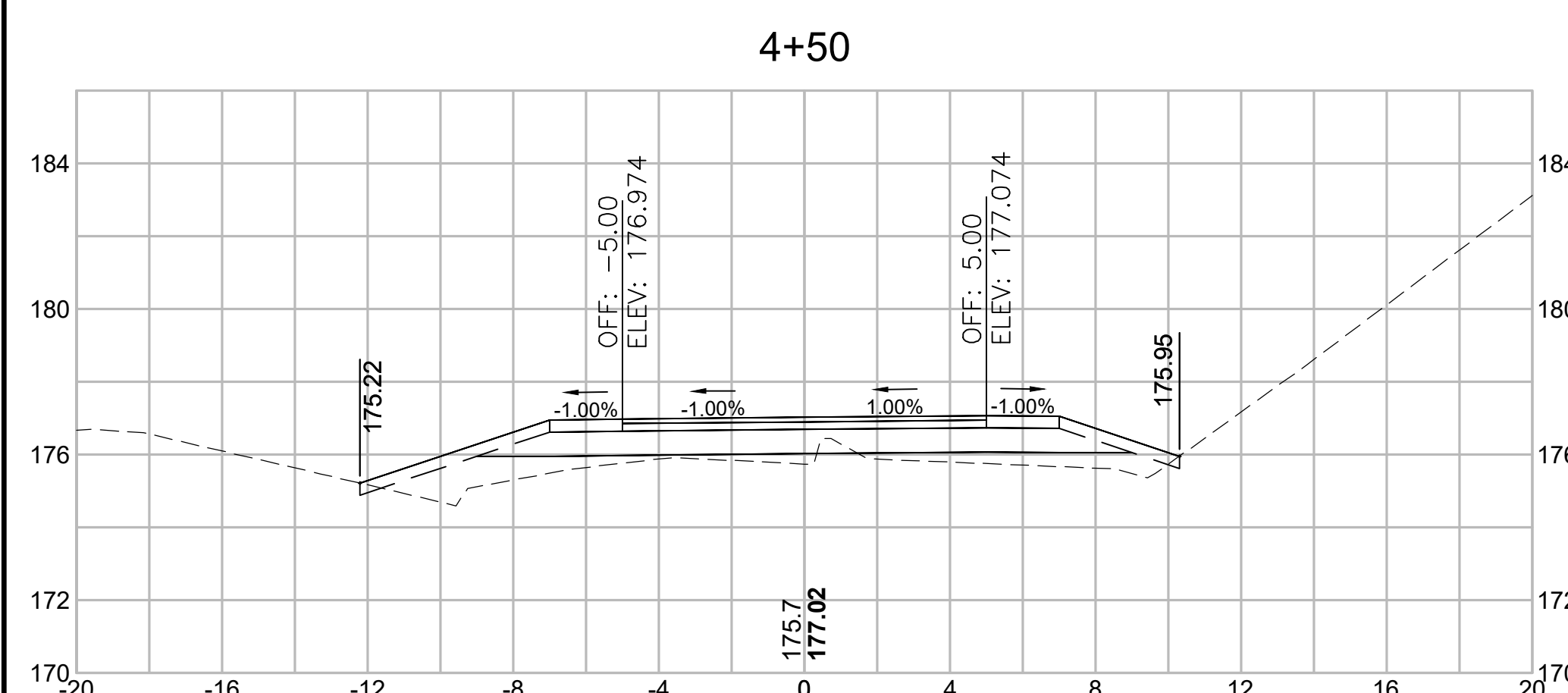
CROSS SECTIONS



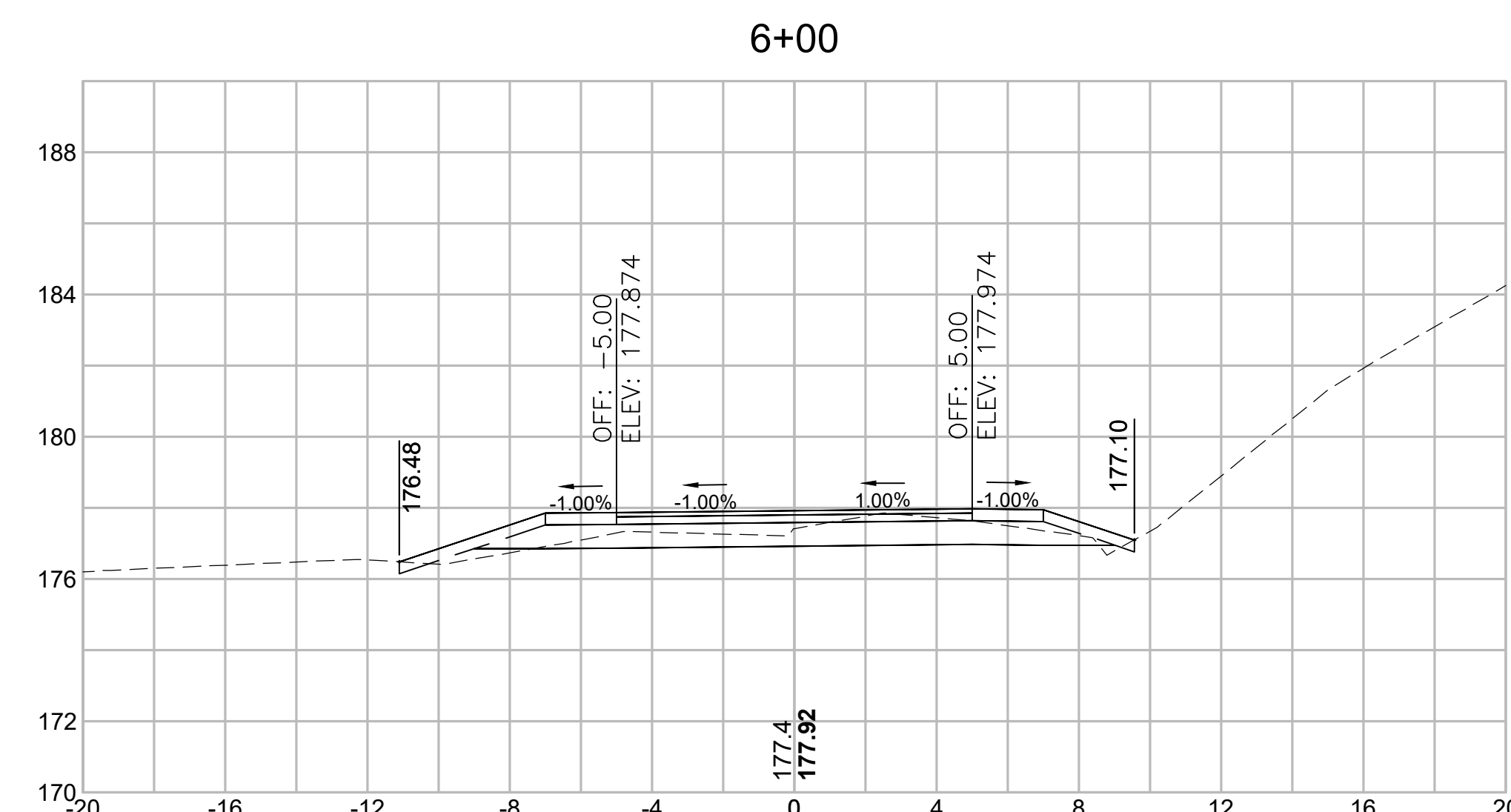
Total Volume at Station 5+00.00	
Cut Area (SF)	6.944
Fill Area (SF)	13.193
Cut Vol (CY)	13.4
Fill Vol (CY)	26.2
Cum Cut Vol (CY)	115.5
Cum Fill Vol (CY)	321.2
Net Vol (CY)	-205.7



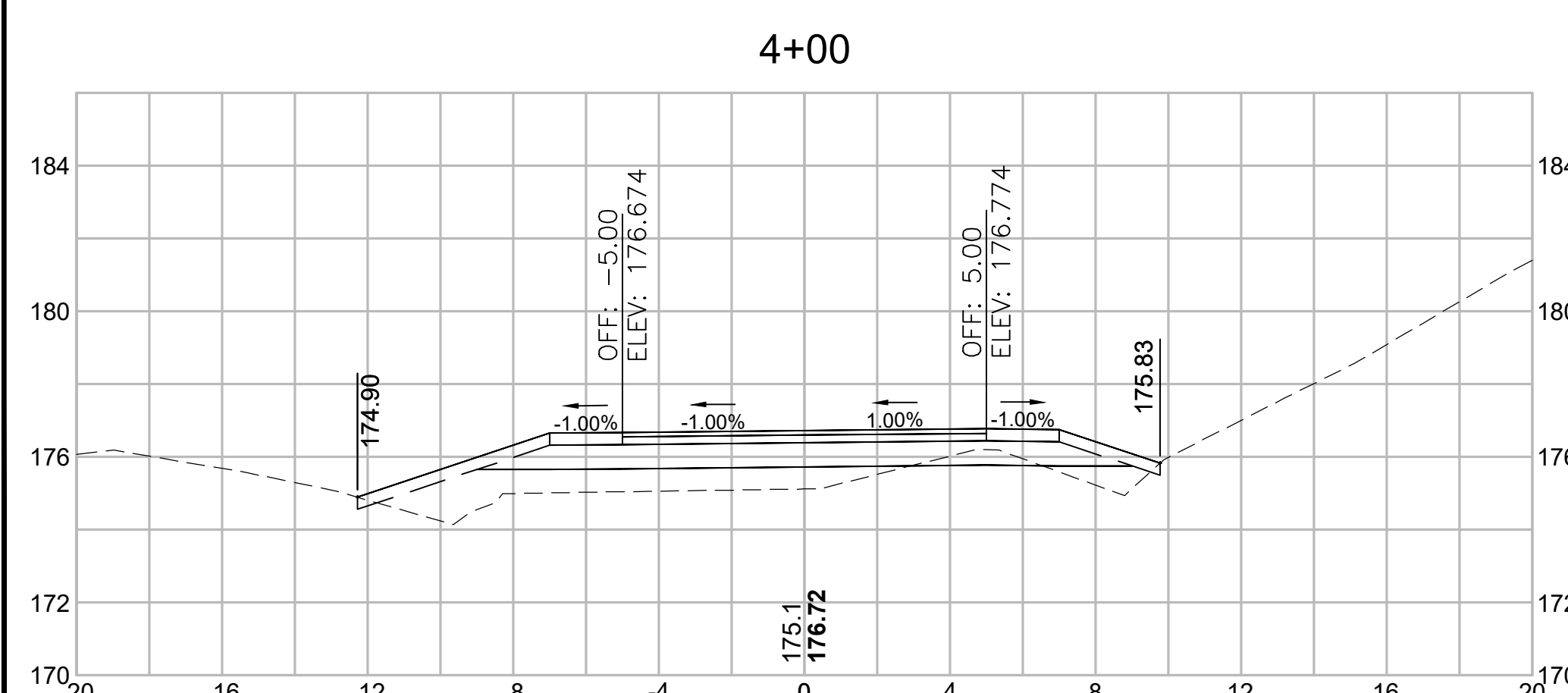
Total Volume at Station 6+50.00	
Cut Area (SF)	7.059
Fill Area (SF)	5.676
Cut Vol (CY)	15.5
Fill Vol (CY)	7.5
Cum Cut Vol (CY)	159.3
Cum Fill Vol (CY)	360.9
Net Vol (CY)	-201.6



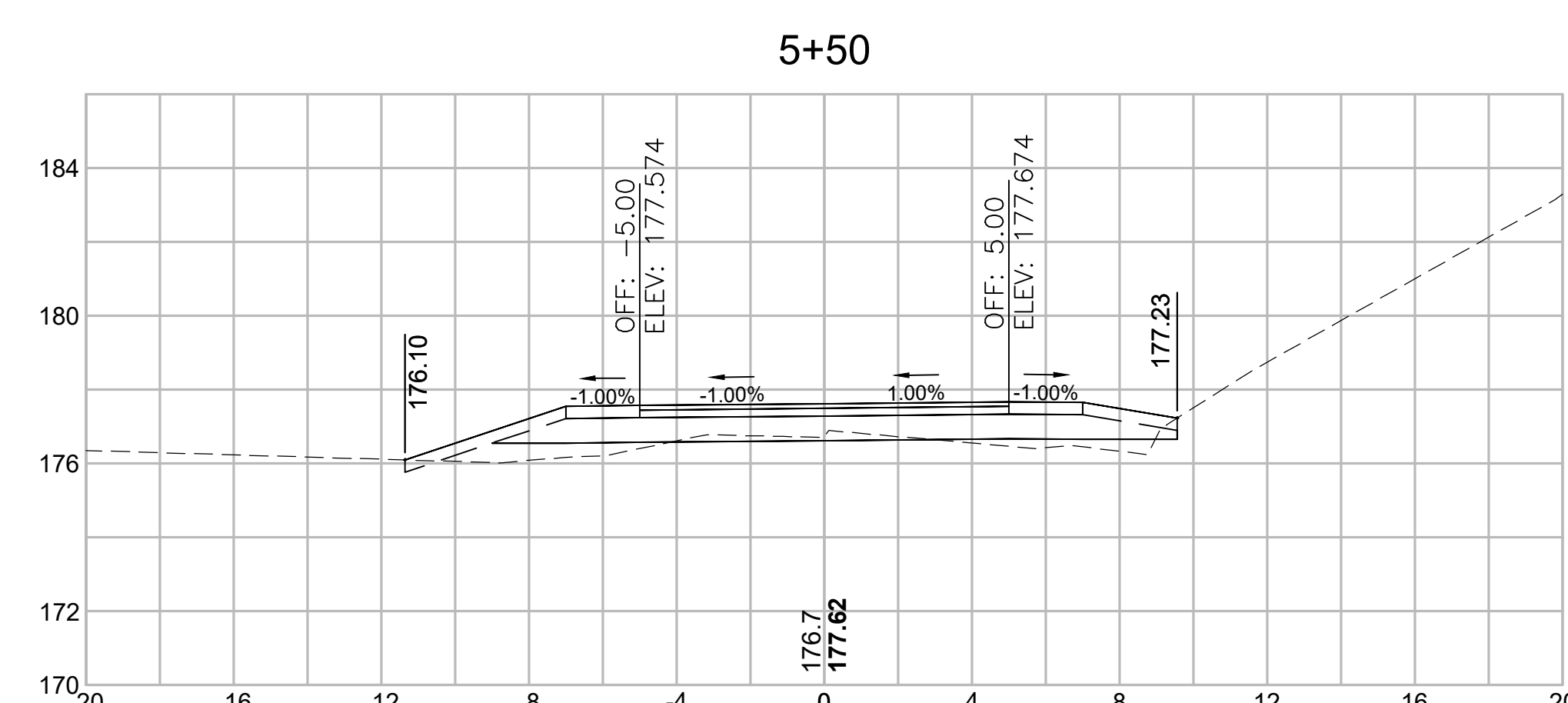
Total Volume at Station 4+50.00	
Cut Area (SF)	7.526
Fill Area (SF)	15.131
Cut Vol (CY)	13.8
Fill Vol (CY)	30.0
Cum Cut Vol (CY)	102.1
Cum Fill Vol (CY)	295.0
Net Vol (CY)	-192.9



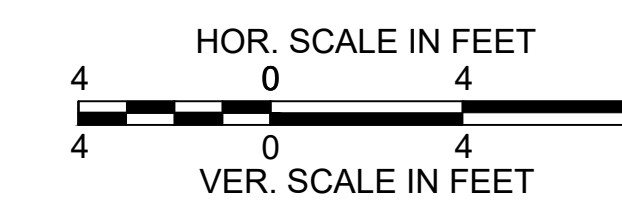
Total Volume at Station 6+00.00	
Cut Area (SF)	9.639
Fill Area (SF)	2.378
Cut Vol (CY)	15.4
Fill Vol (CY)	11.1
Cum Cut Vol (CY)	143.8
Cum Fill Vol (CY)	353.5
Net Vol (CY)	-209.6



Total Volume at Station 4+00.00	
Cut Area (SF)	7.432
Fill Area (SF)	17.266
Cut Vol (CY)	13.9
Fill Vol (CY)	37.0
Cum Cut Vol (CY)	88.2
Cum Fill Vol (CY)	265.0
Net Vol (CY)	-176.8

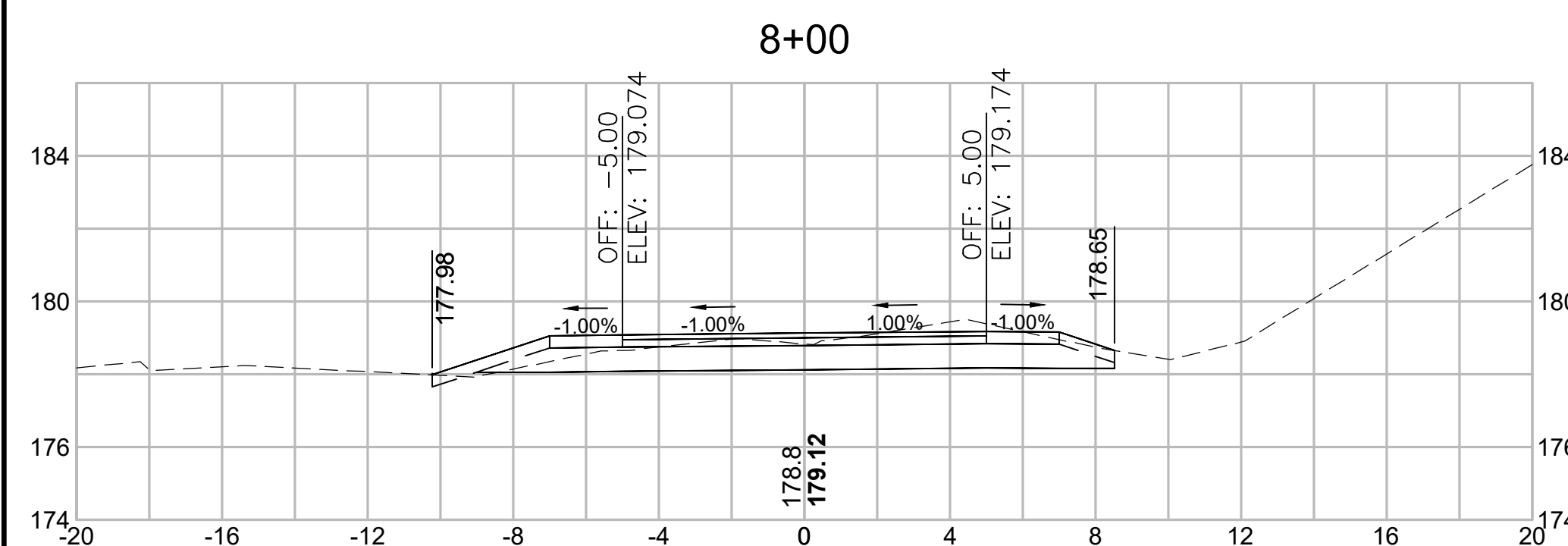


Total Volume at Station 5+50.00	
Cut Area (SF)	7.015
Fill Area (SF)	9.628
Cut Vol (CY)	12.9
Fill Vol (CY)	21.1
Cum Cut Vol (CY)	128.4
Cum Fill Vol (CY)	342.3
Net Vol (CY)	-213.9

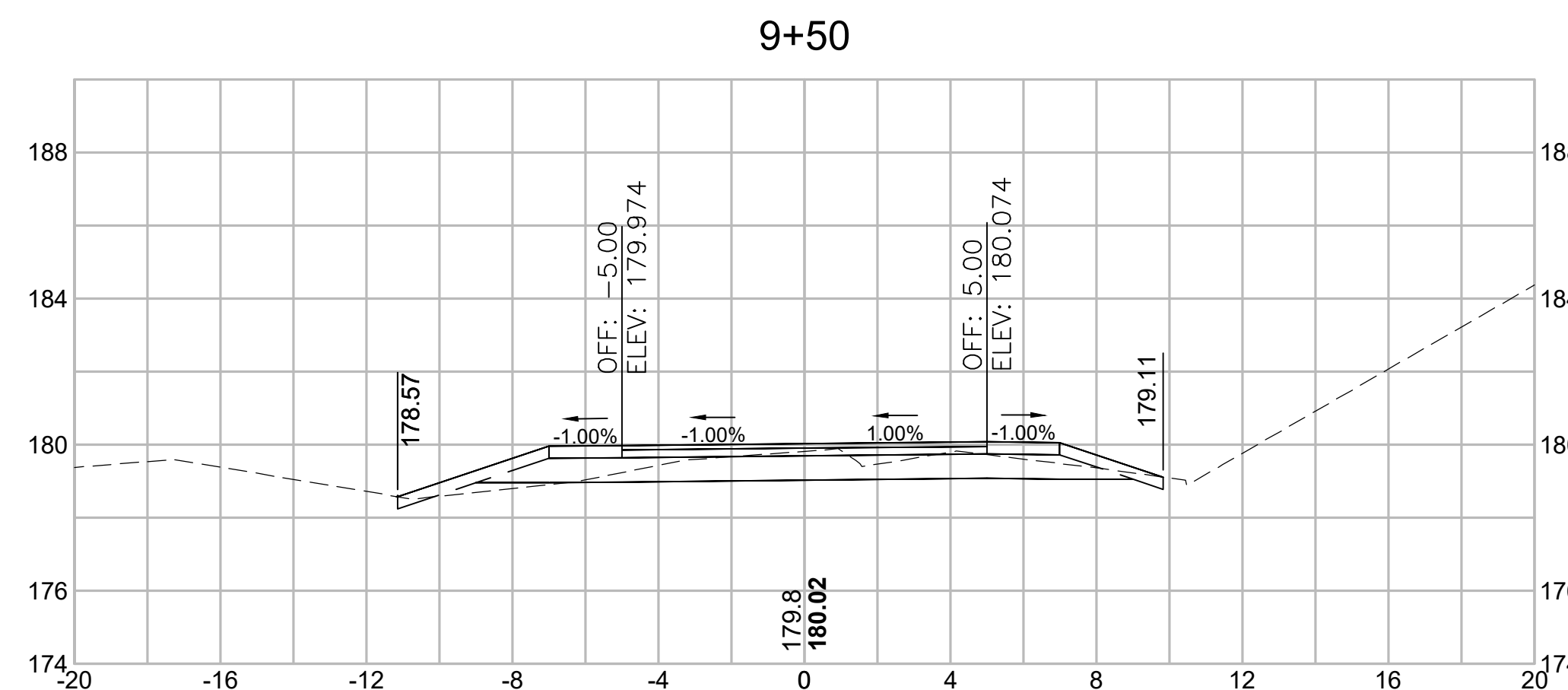


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	312	319
PROJECT FILE NO.		608164	

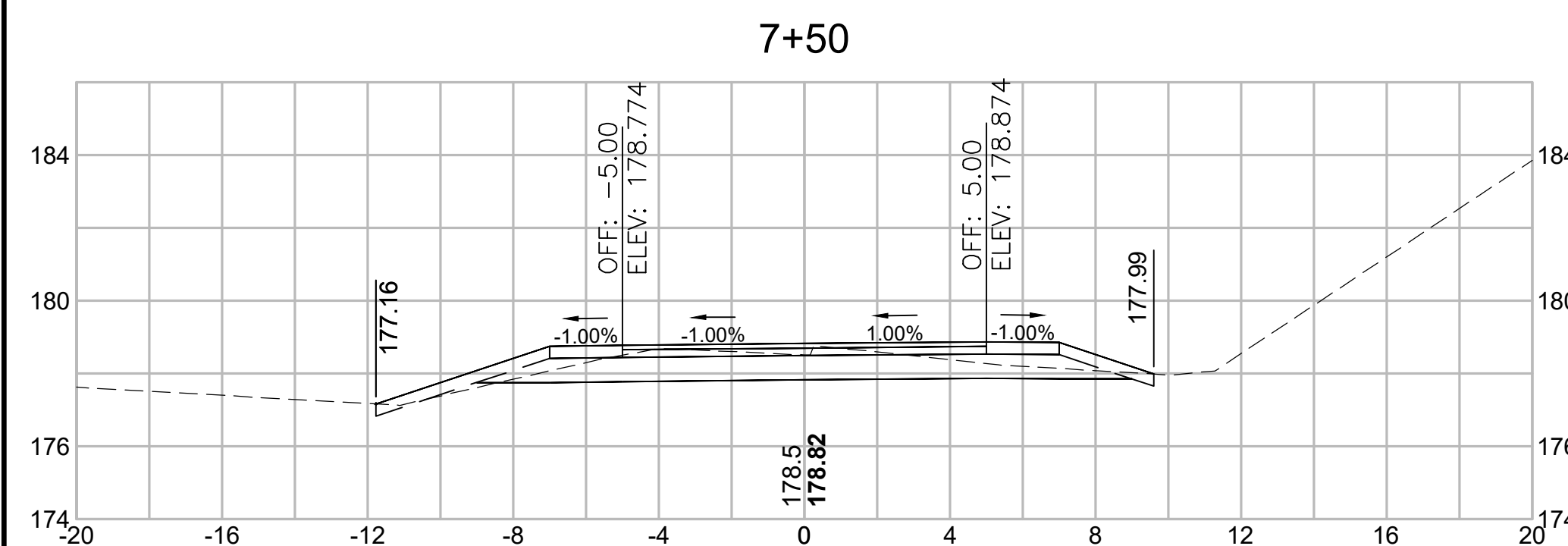
CROSS SECTIONS



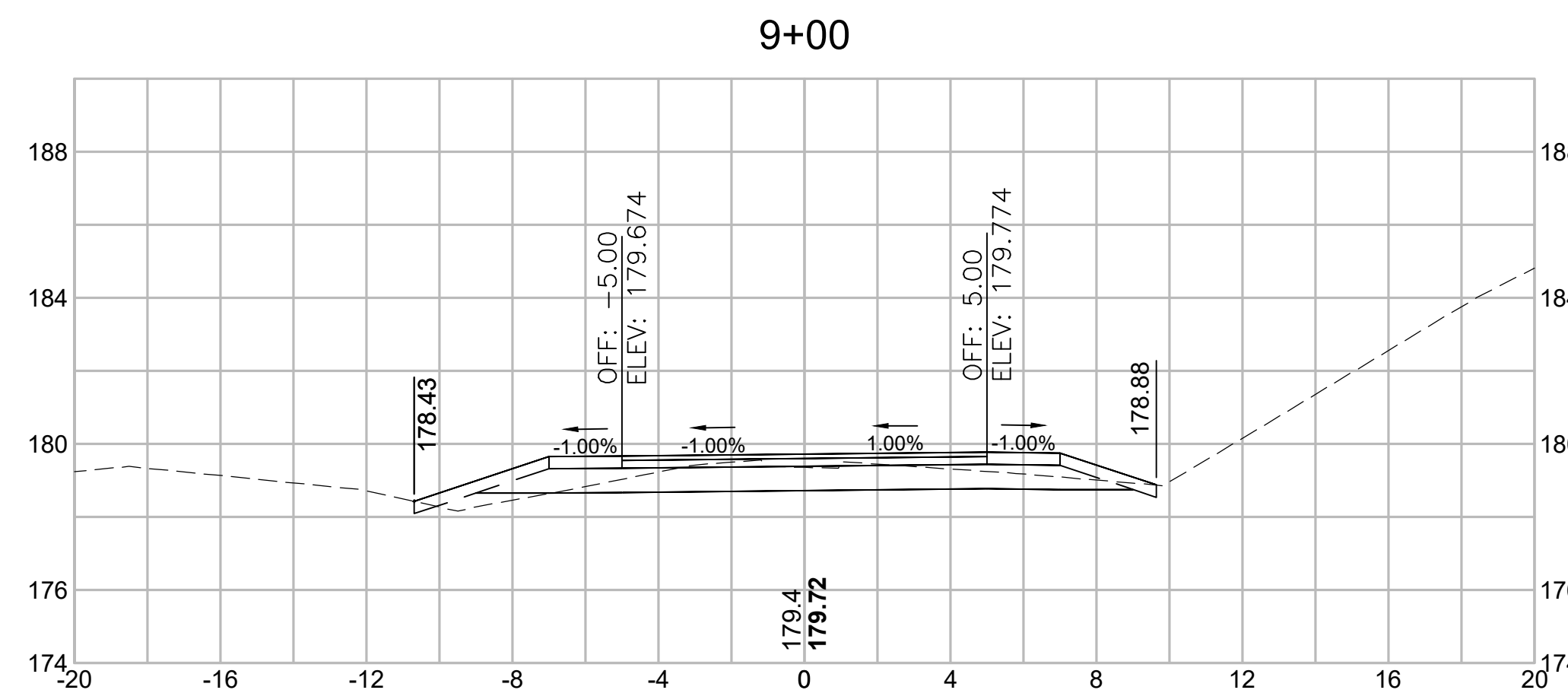
Total Volume at Station 8+00.00	
Cut Area (SF)	13.893
Fill Area (SF)	0.790
Cut Vol (CY)	23.6
Fill Vol (CY)	2.9
Cum Cut Vol (CY)	226.3
Cum Fill Vol (CY)	381.3
Net Vol (CY)	-155.1



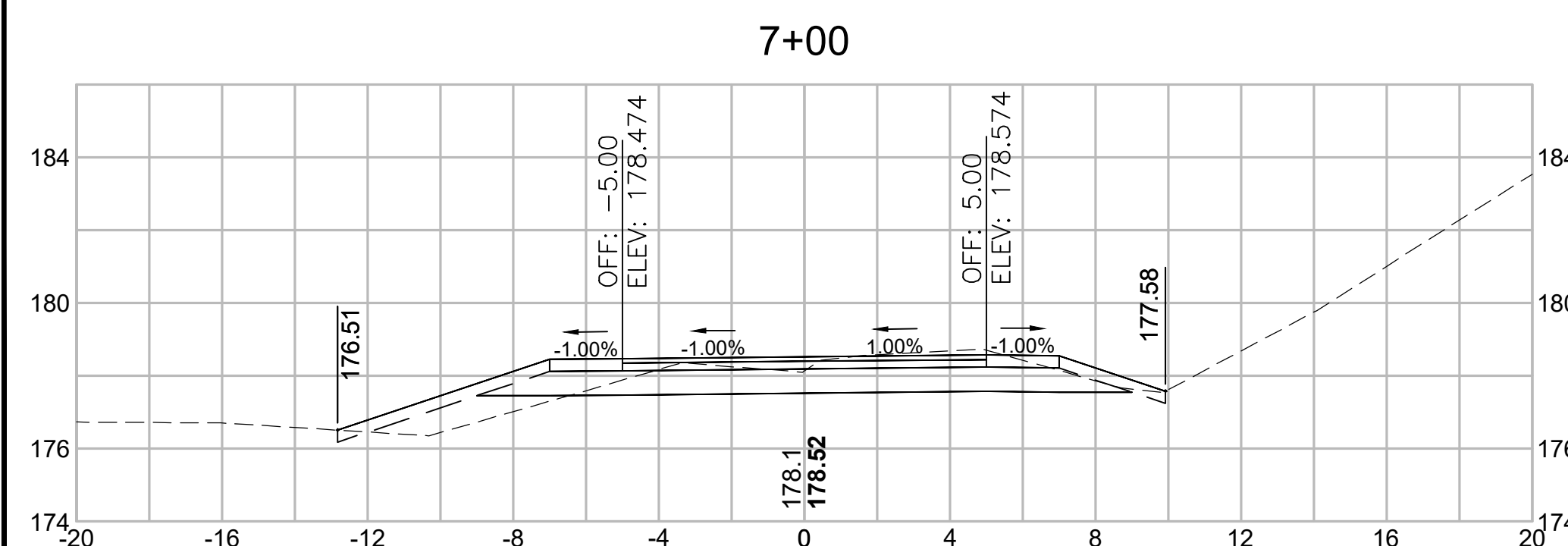
Total Volume at Station 9+50.00	
Cut Area (SF)	10.262
Fill Area (SF)	3.063
Cut Vol (CY)	18.8
Fill Vol (CY)	5.0
Cum Cut Vol (CY)	291.4
Cum Fill Vol (CY)	392.7
Net Vol (CY)	-101.4



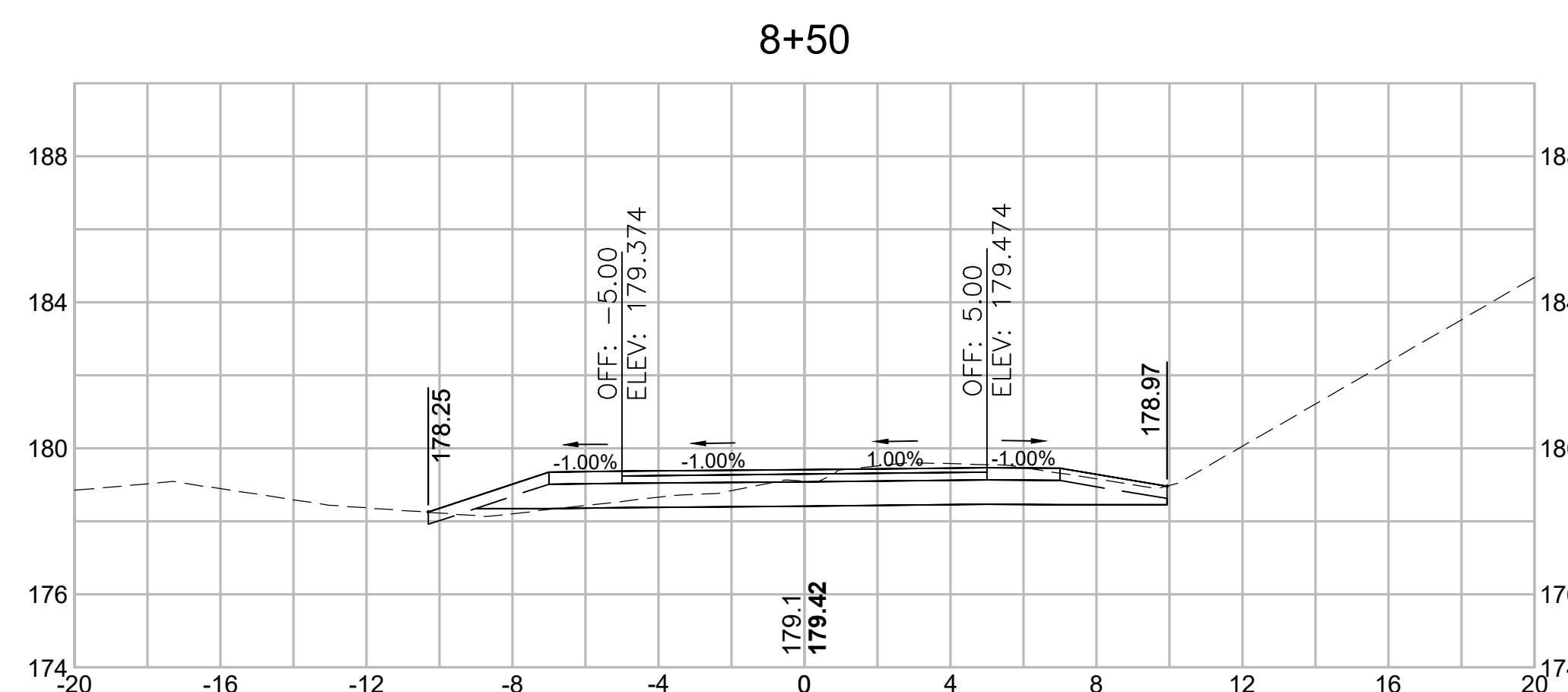
Total Volume at Station 7+50.00	
Cut Area (SF)	11.605
Fill Area (SF)	2.296
Cut Vol (CY)	23.8
Fill Vol (CY)	7.2
Cum Cut Vol (CY)	202.7
Cum Fill Vol (CY)	378.5
Net Vol (CY)	-175.8



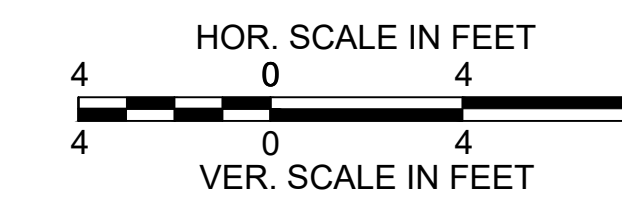
Total Volume at Station 9+00.00	
Cut Area (SF)	10.017
Fill Area (SF)	2.326
Cut Vol (CY)	21.4
Fill Vol (CY)	3.9
Cum Cut Vol (CY)	272.6
Cum Fill Vol (CY)	387.8
Net Vol (CY)	-115.2



Total Volume at Station 7+00.00	
Cut Area (SF)	14.090
Fill Area (SF)	5.492
Cut Vol (CY)	19.6
Fill Vol (CY)	10.3
Cum Cut Vol (CY)	178.9
Cum Fill Vol (CY)	371.2
Net Vol (CY)	-192.4



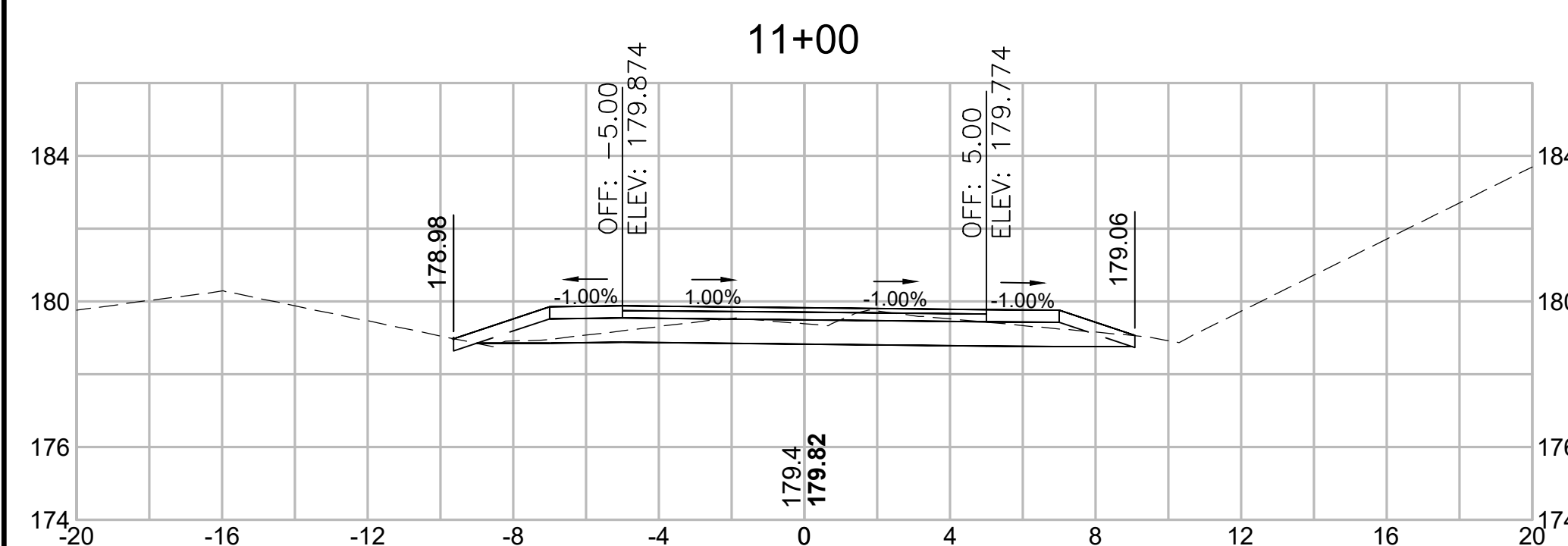
Total Volume at Station 8+50.00	
Cut Area (SF)	13.075
Fill Area (SF)	1.921
Cut Vol (CY)	25.0
Fill Vol (CY)	2.5
Cum Cut Vol (CY)	251.2
Cum Fill Vol (CY)	383.8
Net Vol (CY)	-132.6



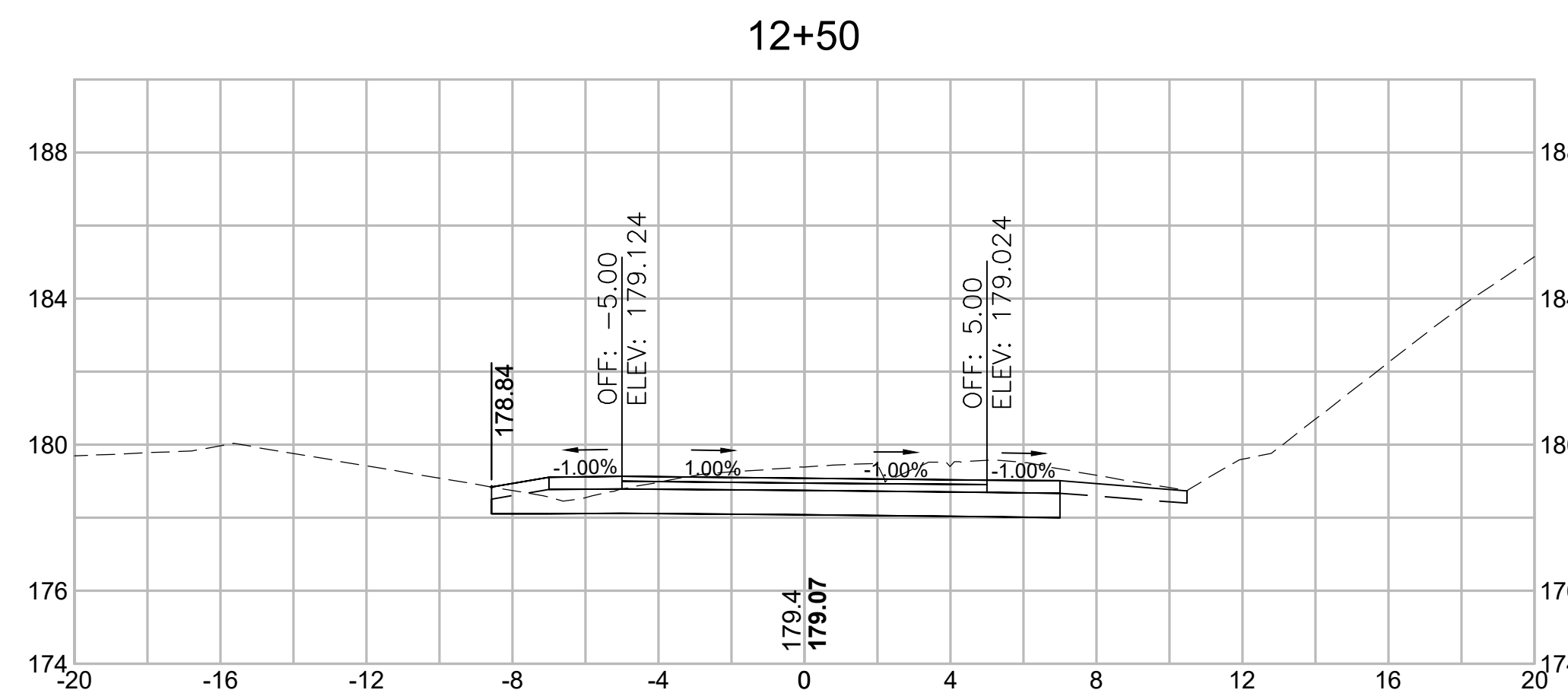
CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	313	319
PROJECT FILE NO.		608164	

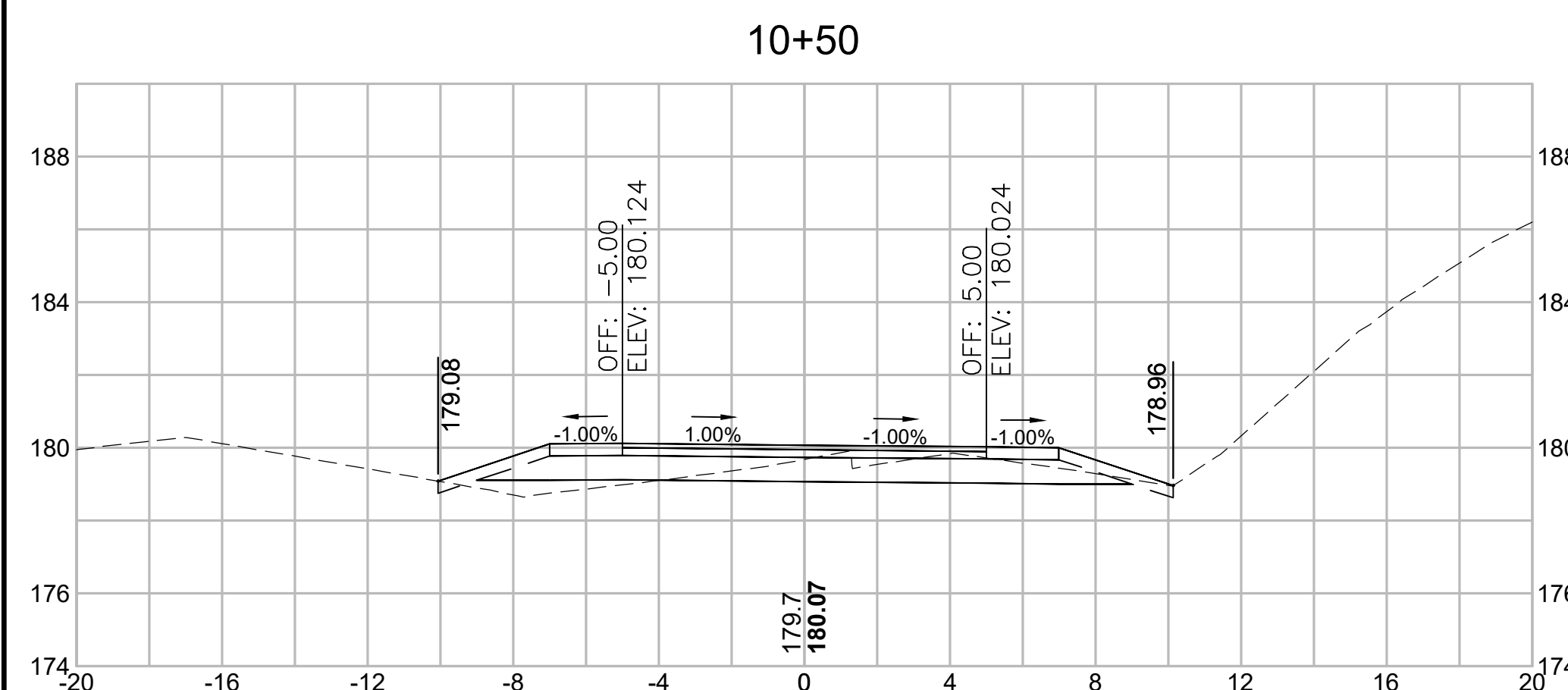
CROSS SECTIONS



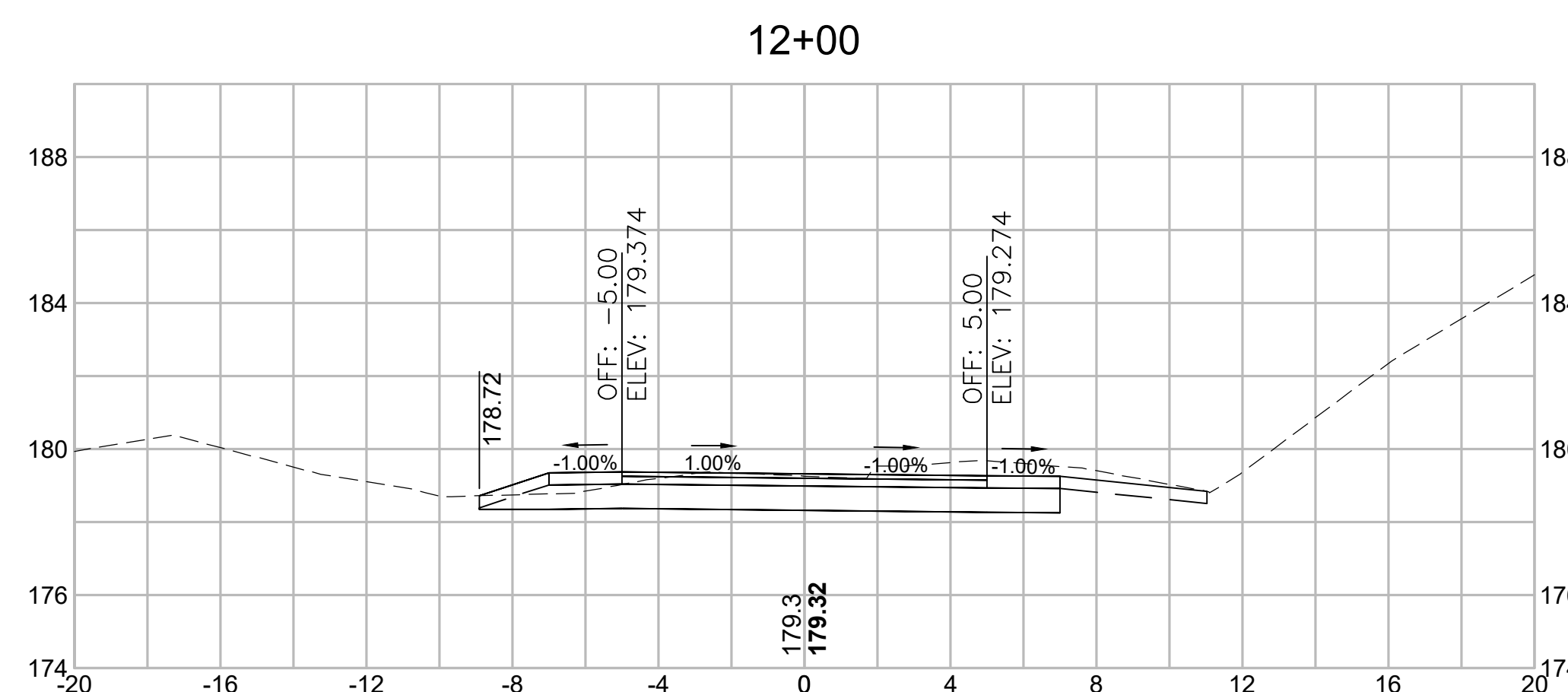
Total Volume at Station 11+00.00	
Cut Area (SF)	10.051
Fill Area (SF)	0.982
Cut Vol (CY)	17.7
Fill Vol (CY)	4.5
Cum Cut Vol (CY)	343.9
Cum Fill Vol (CY)	408.8
Net Vol (CY)	-64.9



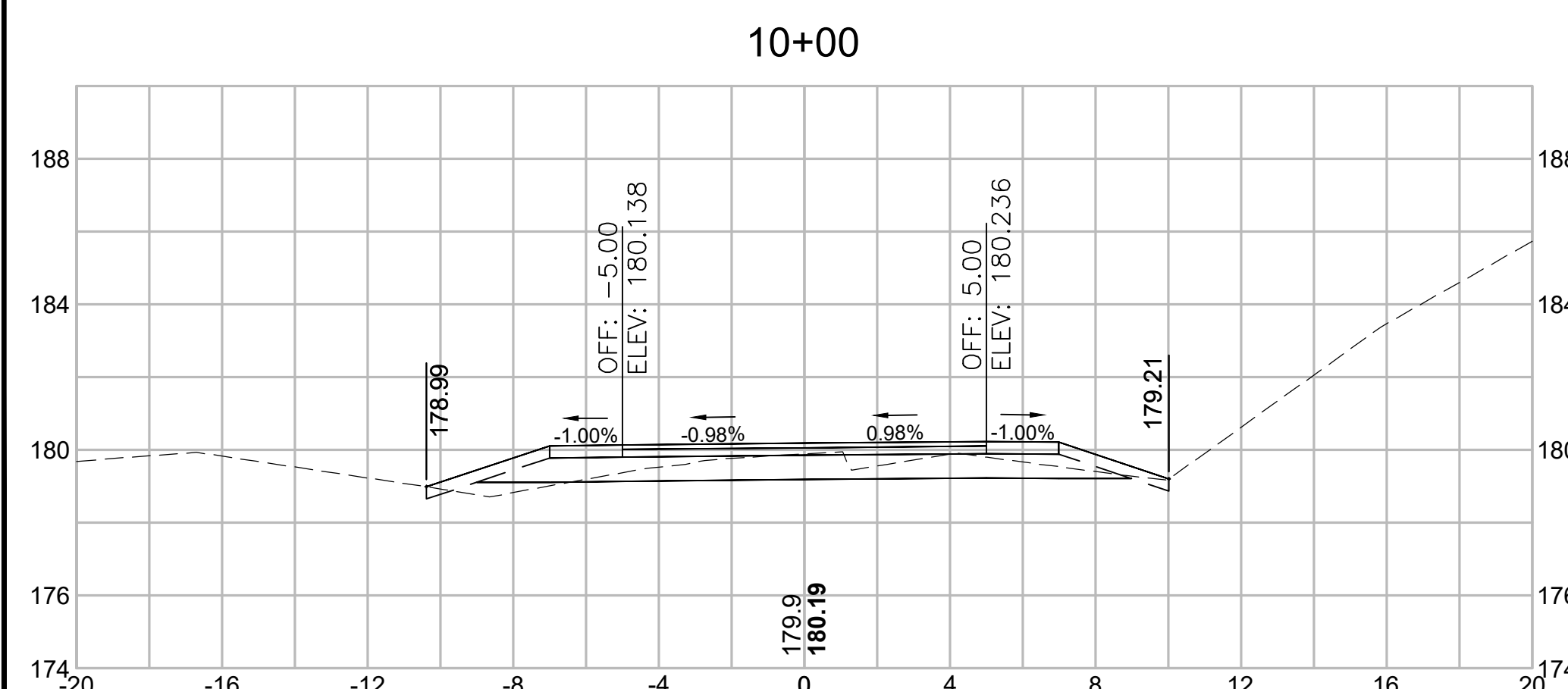
Total Volume at Station 12+50.00	
Cut Area (SF)	18.691
Fill Area (SF)	0.000
Cut Vol (CY)	32.9
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	427.6
Cum Fill Vol (CY)	409.8
Net Vol (CY)	17.7



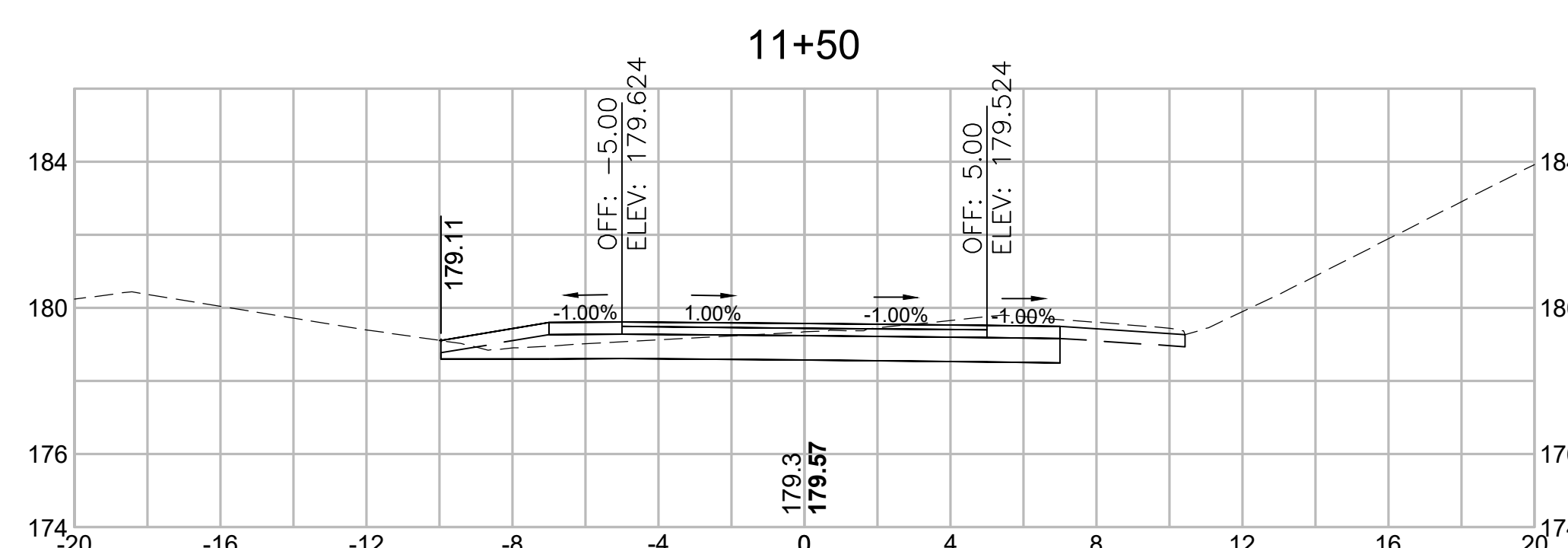
Total Volume at Station 10+50.00	
Cut Area (SF)	9.059
Fill Area (SF)	3.926
Cut Vol (CY)	16.8
Fill Vol (CY)	6.1
Cum Cut Vol (CY)	326.2
Cum Fill Vol (CY)	404.2
Net Vol (CY)	-78.1



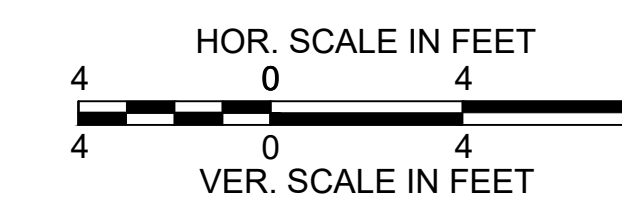
Total Volume at Station 12+00.00	
Cut Area (SF)	16.834
Fill Area (SF)	0.000
Cut Vol (CY)	28.5
Fill Vol (CY)	0.1
Cum Cut Vol (CY)	394.7
Cum Fill Vol (CY)	409.8
Net Vol (CY)	-15.1



Total Volume at Station 10+00.00	
Cut Area (SF)	9.136
Fill Area (SF)	2.714
Cut Vol (CY)	18.0
Fill Vol (CY)	5.3
Cum Cut Vol (CY)	309.3
Cum Fill Vol (CY)	398.1
Net Vol (CY)	-88.8



Total Volume at Station 11+50.00	
Cut Area (SF)	13.984
Fill Area (SF)	0.067
Cut Vol (CY)	22.3
Fill Vol (CY)	1.0
Cum Cut Vol (CY)	366.1
Cum Fill Vol (CY)	409.8
Net Vol (CY)	-43.6

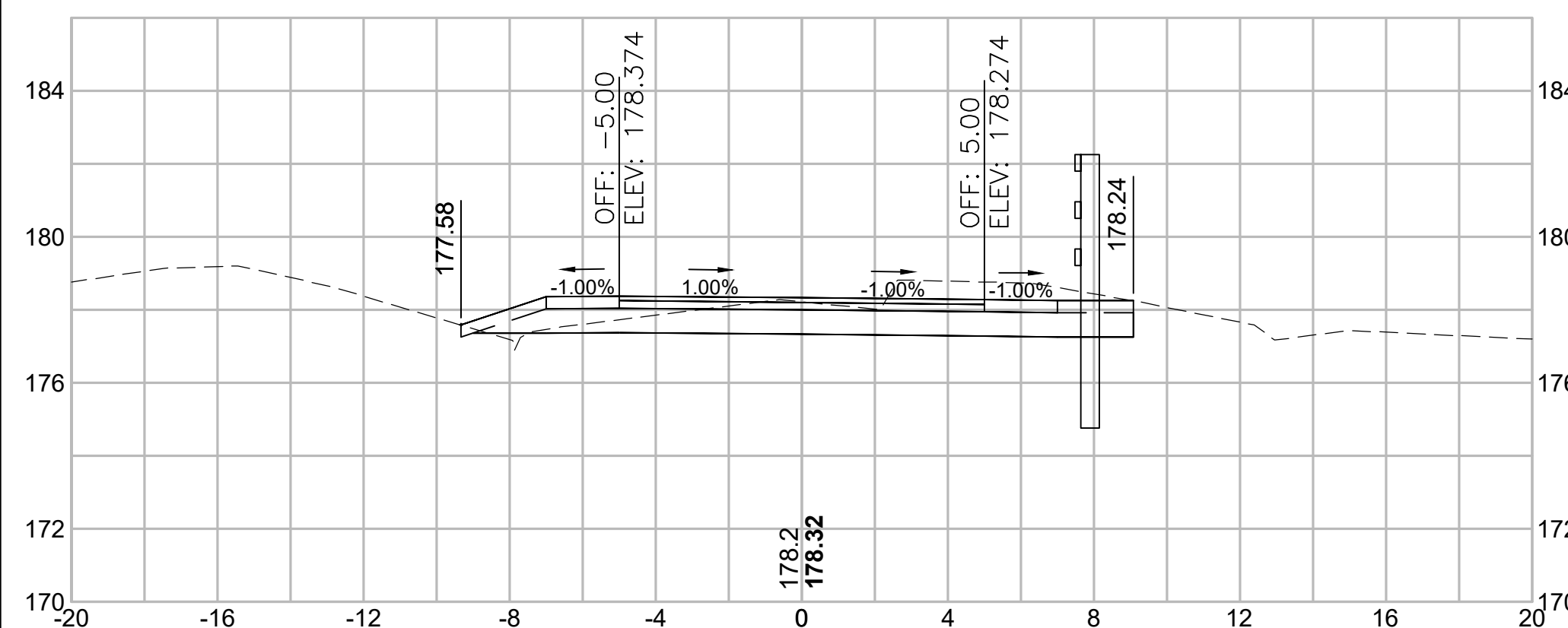


CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	314	319
PROJECT FILE NO.		608164	

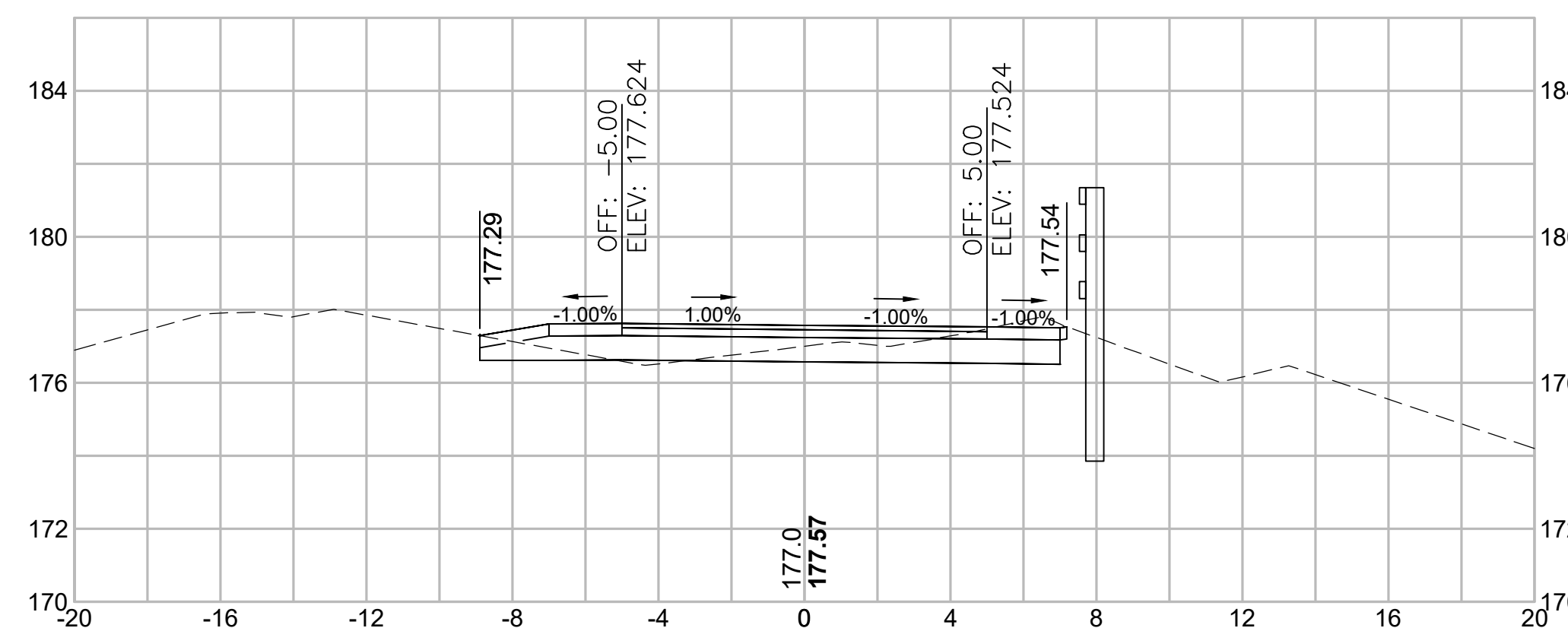
CROSS SECTIONS

14+00



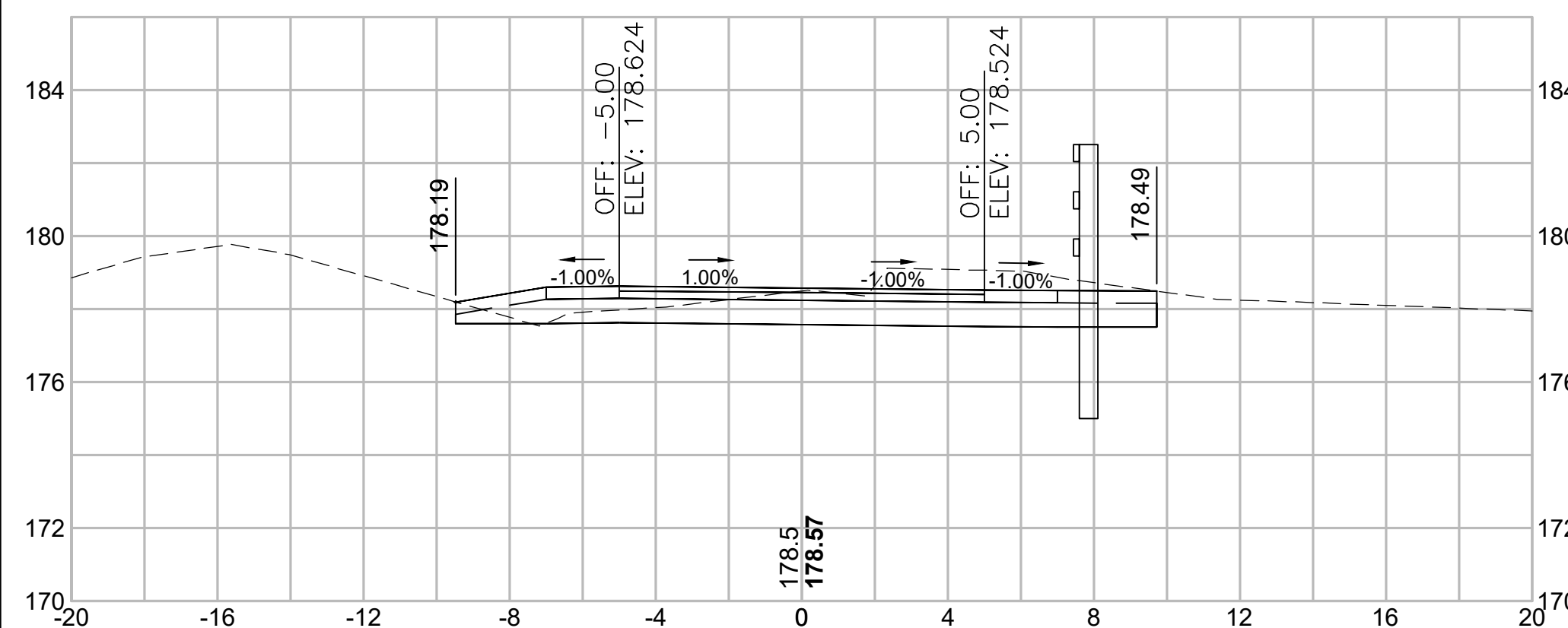
Total Volume at Station 14+00.00	
Cut Area (SF)	15.973
Fill Area (SF)	1.655
Cut Vol (CY)	30.7
Fill Vol (CY)	2.0
Cum Cut Vol (CY)	528.1
Cum Fill Vol (CY)	412.1
Net Vol (CY)	116.0

15+50



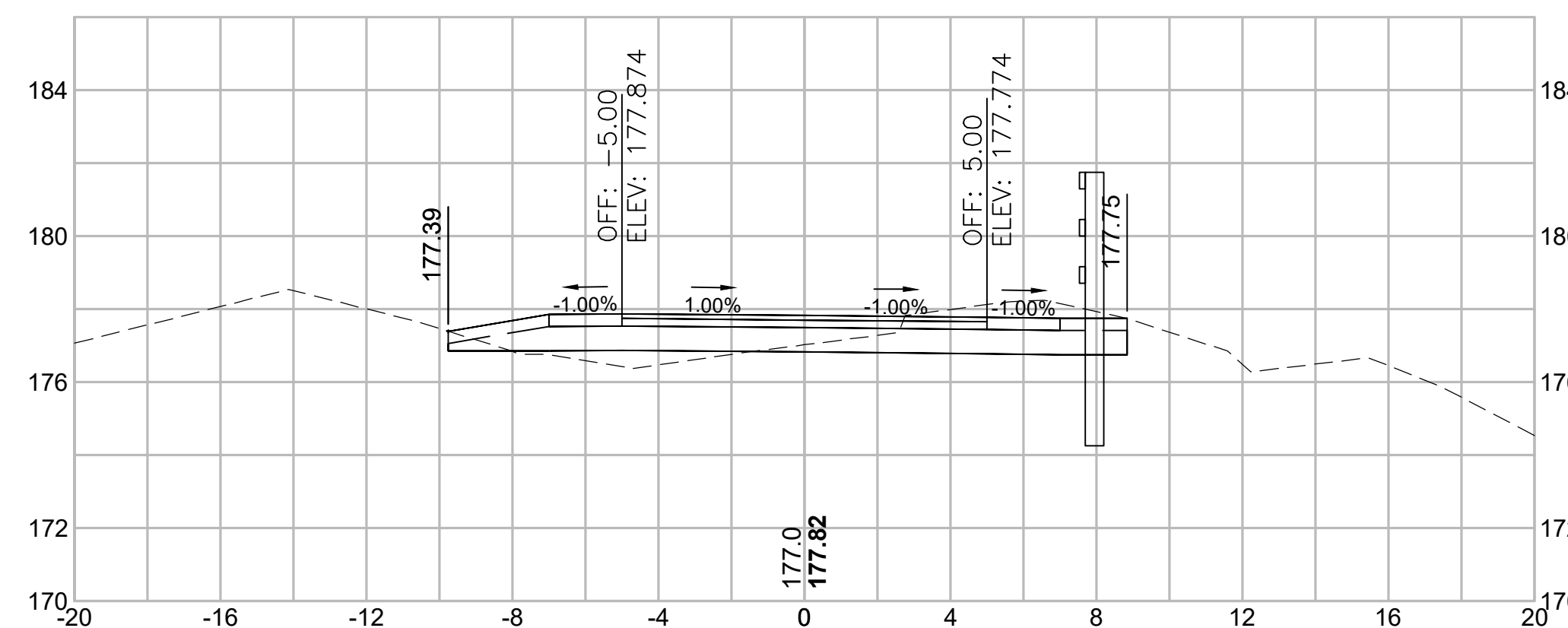
Total Volume at Station 15+50.00	
Cut Area (SF)	8.693
Fill Area (SF)	1.502
Cut Vol (CY)	19.4
Fill Vol (CY)	5.4
Cum Cut Vol (CY)	596.1
Cum Fill Vol (CY)	431.8
Net Vol (CY)	164.3

13+50



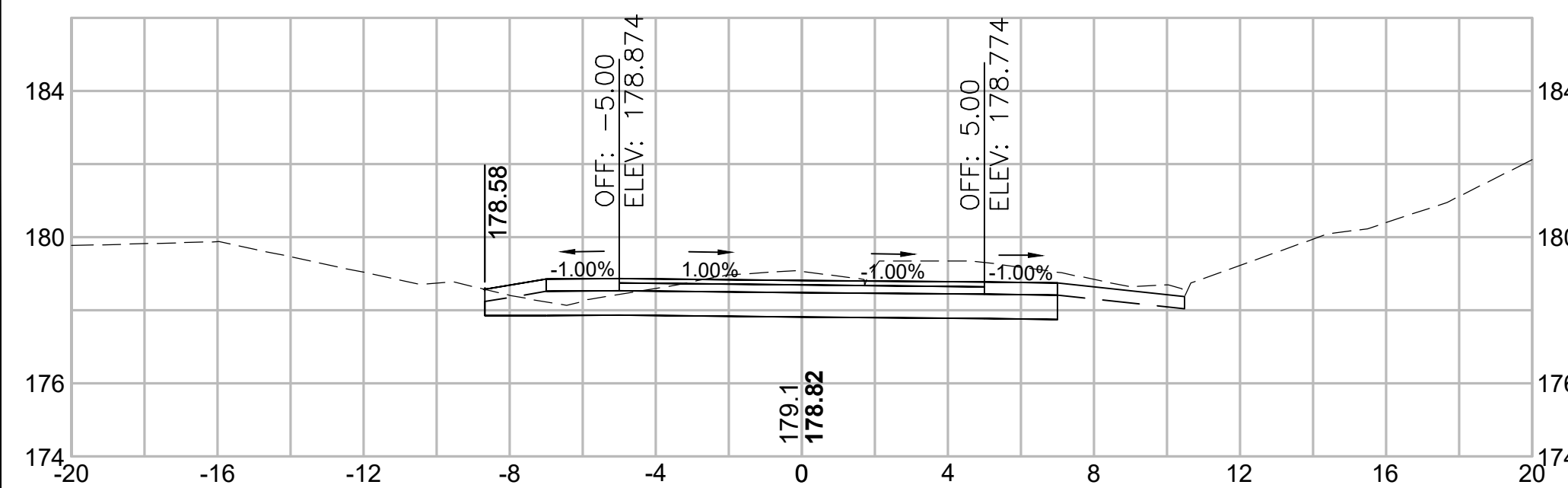
Total Volume at Station 13+50.00	
Cut Area (SF)	17.194
Fill Area (SF)	0.491
Cut Vol (CY)	17.6
Fill Vol (CY)	0.3
Cum Cut Vol (CY)	497.4
Cum Fill Vol (CY)	410.2
Net Vol (CY)	87.3

15+00



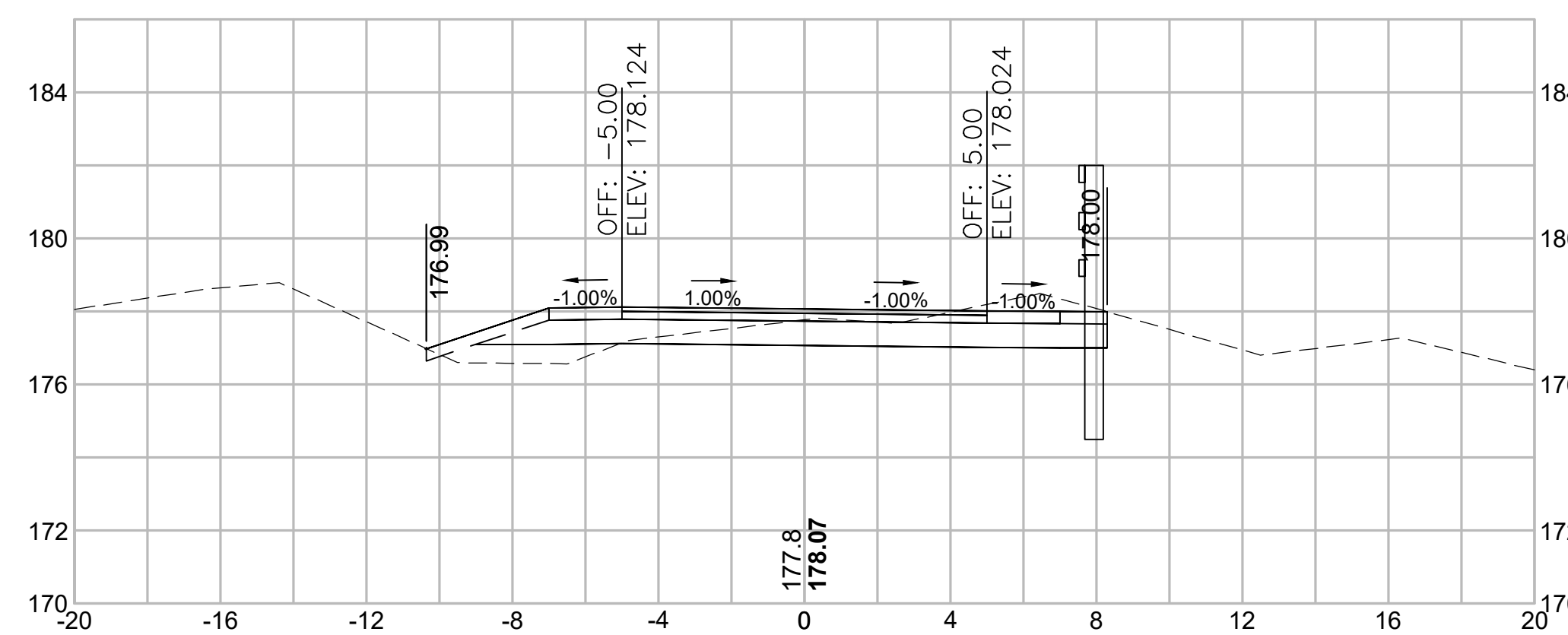
Total Volume at Station 15+00.00	
Cut Area (SF)	12.218
Fill Area (SF)	4.376
Cut Vol (CY)	22.6
Fill Vol (CY)	8.4
Cum Cut Vol (CY)	576.8
Cum Fill Vol (CY)	426.3
Net Vol (CY)	150.4

13+00

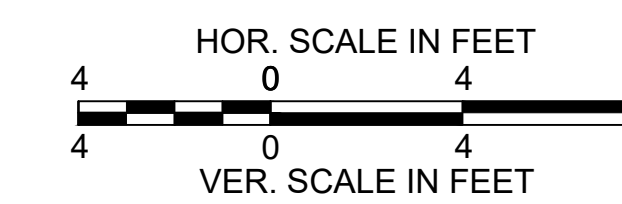


Total Volume at Station 13+00.00	
Cut Area (SF)	18.289
Fill Area (SF)	0.017
Cut Vol (CY)	34.2
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	461.8
Cum Fill Vol (CY)	409.8
Net Vol (CY)	52.0

14+50



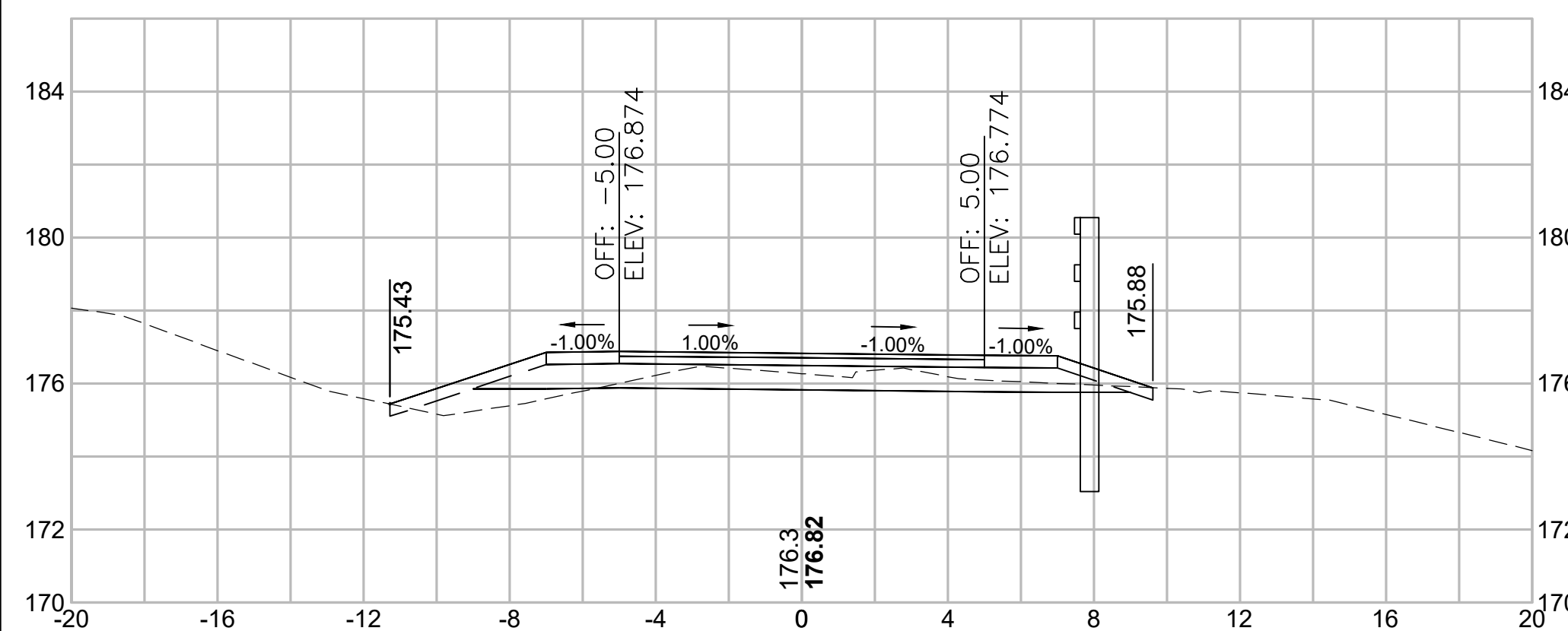
Total Volume at Station 14+50.00	
Cut Area (SF)	12.167
Fill Area (SF)	4.654
Cut Vol (CY)	26.1
Fill Vol (CY)	5.8
Cum Cut Vol (CY)	554.2
Cum Fill Vol (CY)	418.0
Net Vol (CY)	136.2



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	315	319
PROJECT FILE NO.		608164	

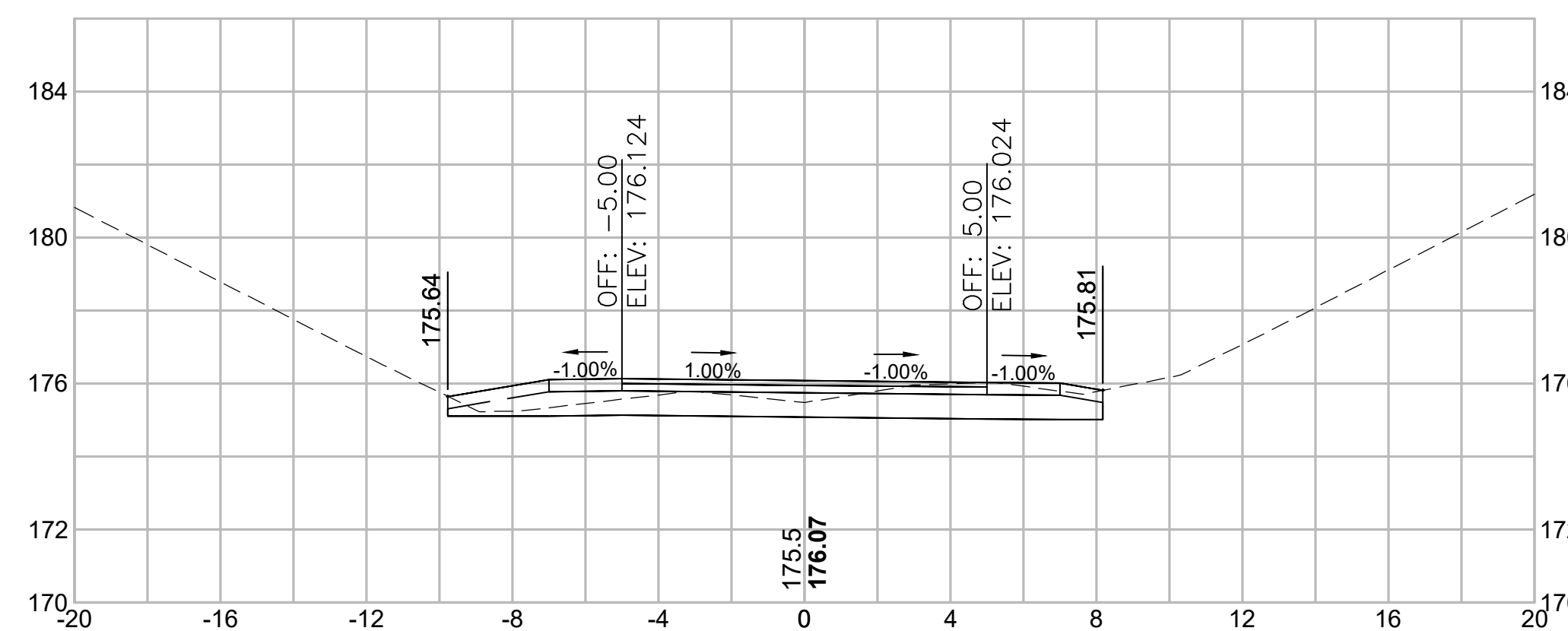
CROSS SECTIONS

17+00



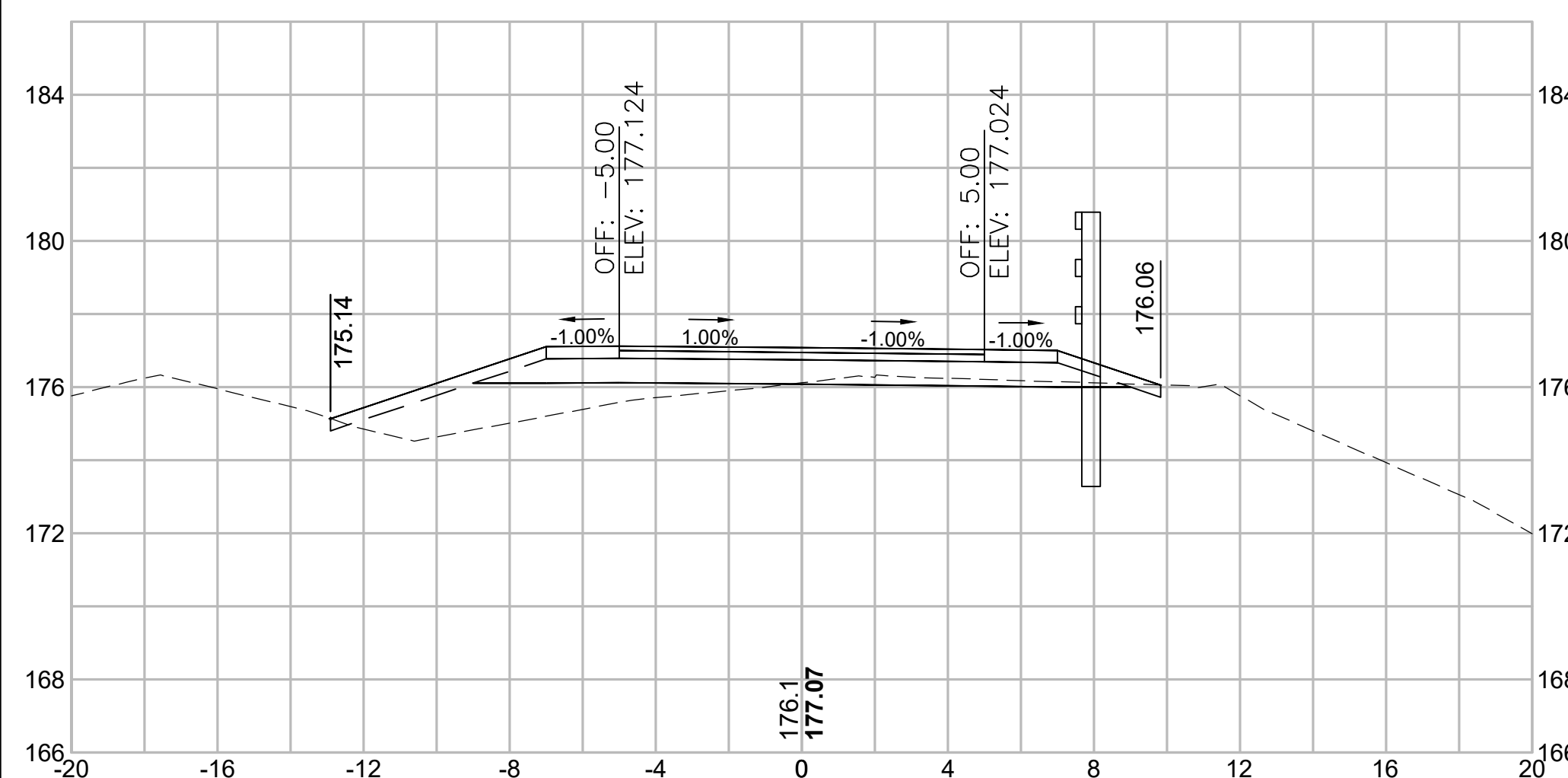
Total Volume at Station 17+00.00	
Cut Area (SF)	8.320
Fill Area (SF)	4.892
Cut Vol (CY)	14.7
Fill Vol (CY)	17.0
Cum Cut Vol (CY)	644.0
Cum Fill Vol (CY)	481.3
Net Vol (CY)	162.7

18+50



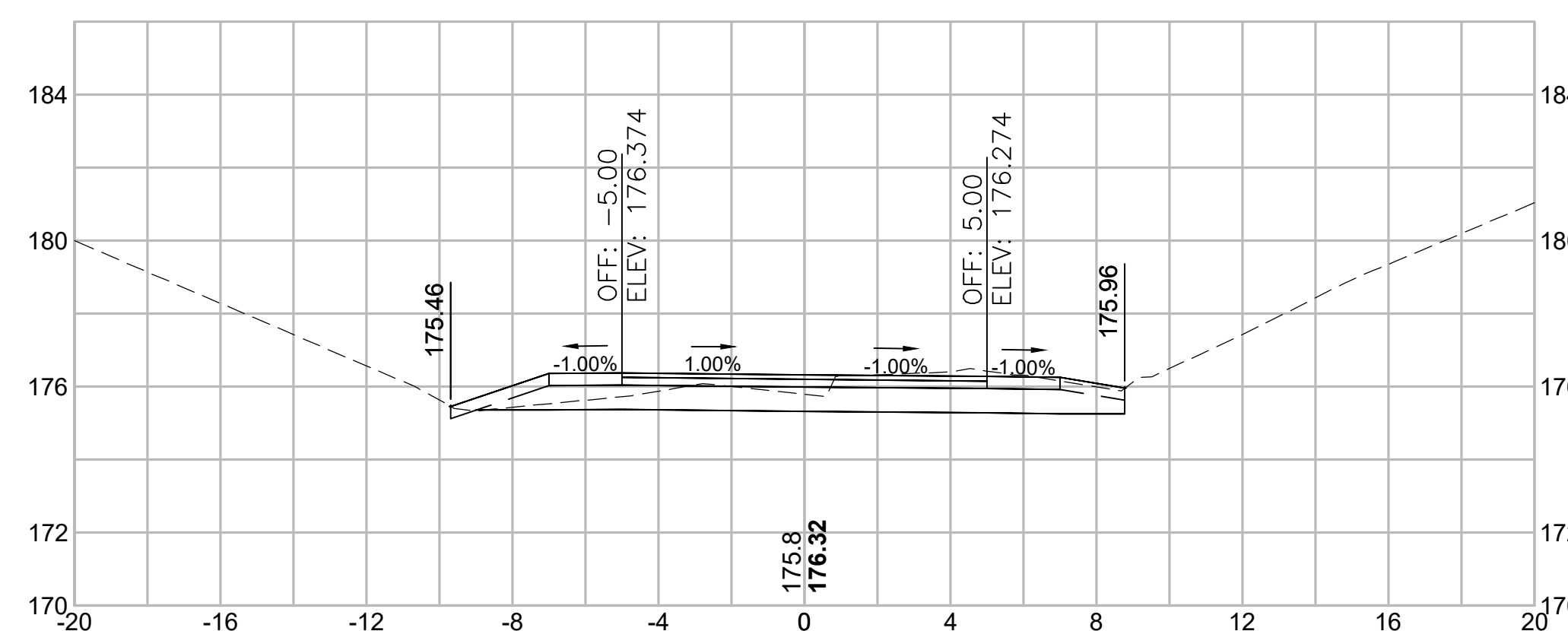
Total Volume at Station 18+50.00	
Cut Area (SF)	11.002
Fill Area (SF)	0.444
Cut Vol (CY)	21.9
Fill Vol (CY)	1.1
Cum Cut Vol (CY)	705.3
Cum Fill Vol (CY)	493.6
Net Vol (CY)	211.7

16+50



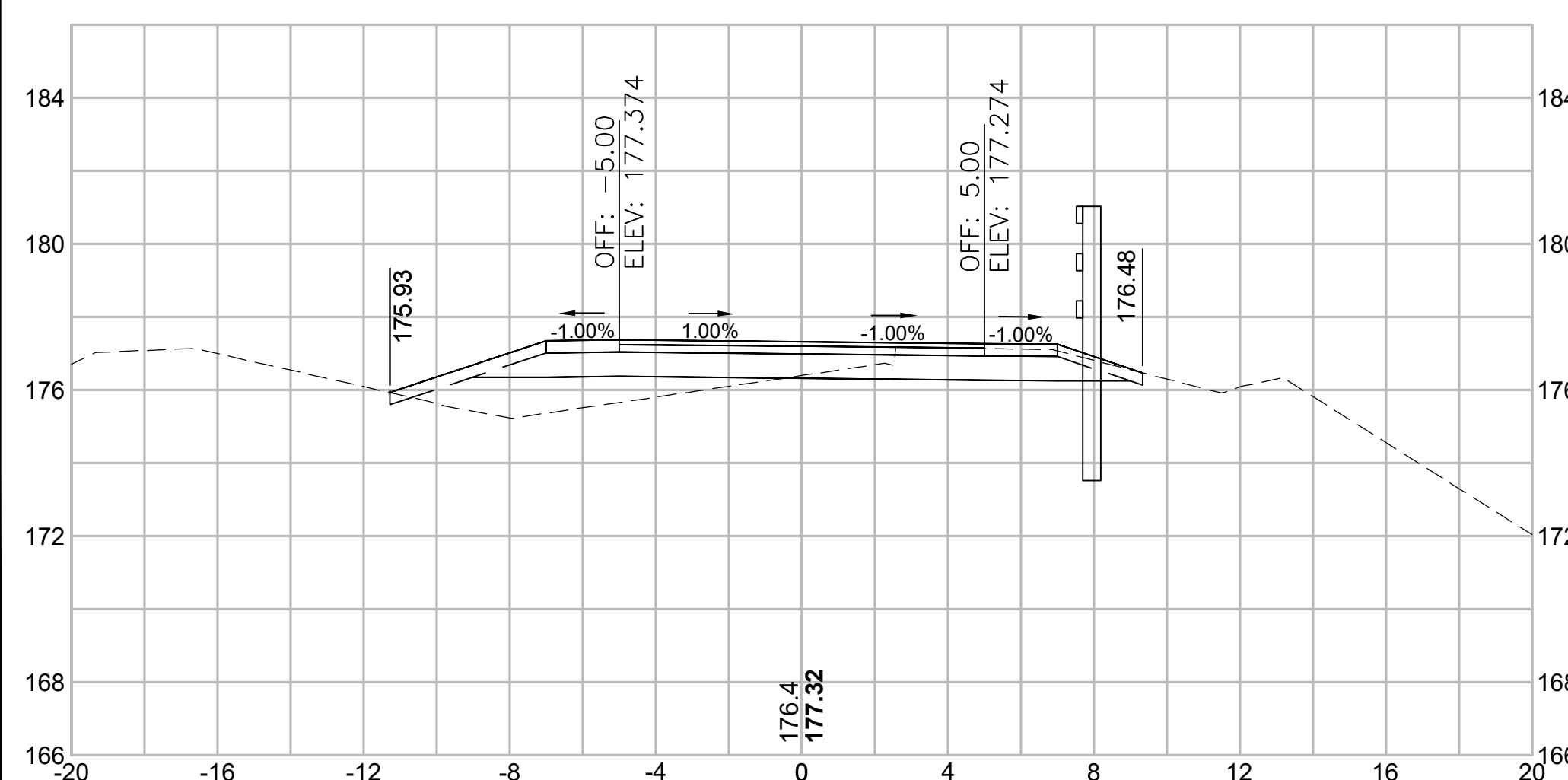
Total Volume at Station 16+50.00	
Cut Area (SF)	7.572
Fill Area (SF)	13.471
Cut Vol (CY)	16.1
Fill Vol (CY)	21.8
Cum Cut Vol (CY)	629.3
Cum Fill Vol (CY)	464.3
Net Vol (CY)	165.0

18+00



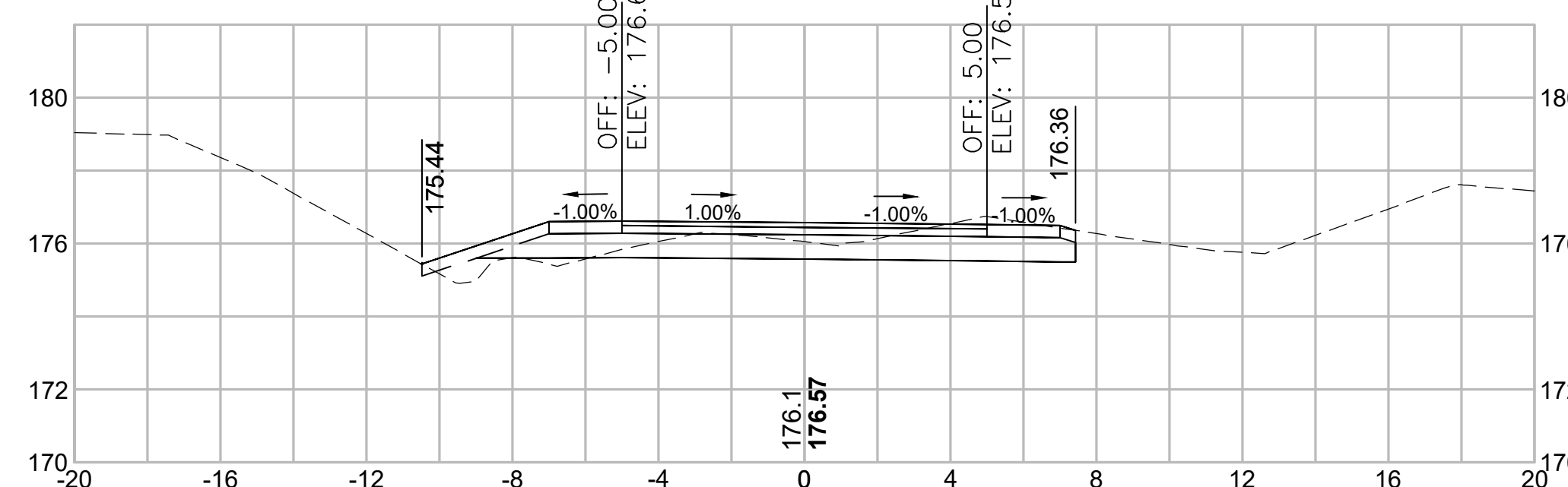
Total Volume at Station 18+00.00	
Cut Area (SF)	12.694
Fill Area (SF)	0.796
Cut Vol (CY)	21.7
Fill Vol (CY)	3.7
Cum Cut Vol (CY)	683.4
Cum Fill Vol (CY)	492.5
Net Vol (CY)	190.9

16+00

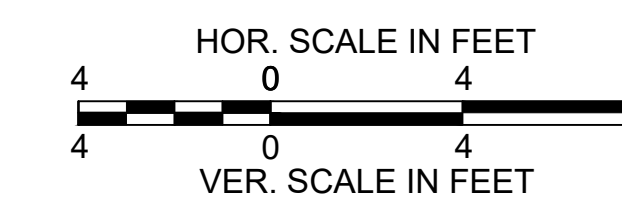


Total Volume at Station 16+00.00	
Cut Area (SF)	9.768
Fill Area (SF)	10.047
Cut Vol (CY)	17.1
Fill Vol (CY)	10.7
Cum Cut Vol (CY)	613.2
Cum Fill Vol (CY)	442.5
Net Vol (CY)	170.7

17+50



Total Volume at Station 17+50.00	
Cut Area (SF)	10.750
Fill Area (SF)	3.197
Cut Vol (CY)	17.7
Fill Vol (CY)	7.5
Cum Cut Vol (CY)	661.7
Cum Fill Vol (CY)	488.8
Net Vol (CY)	172.9

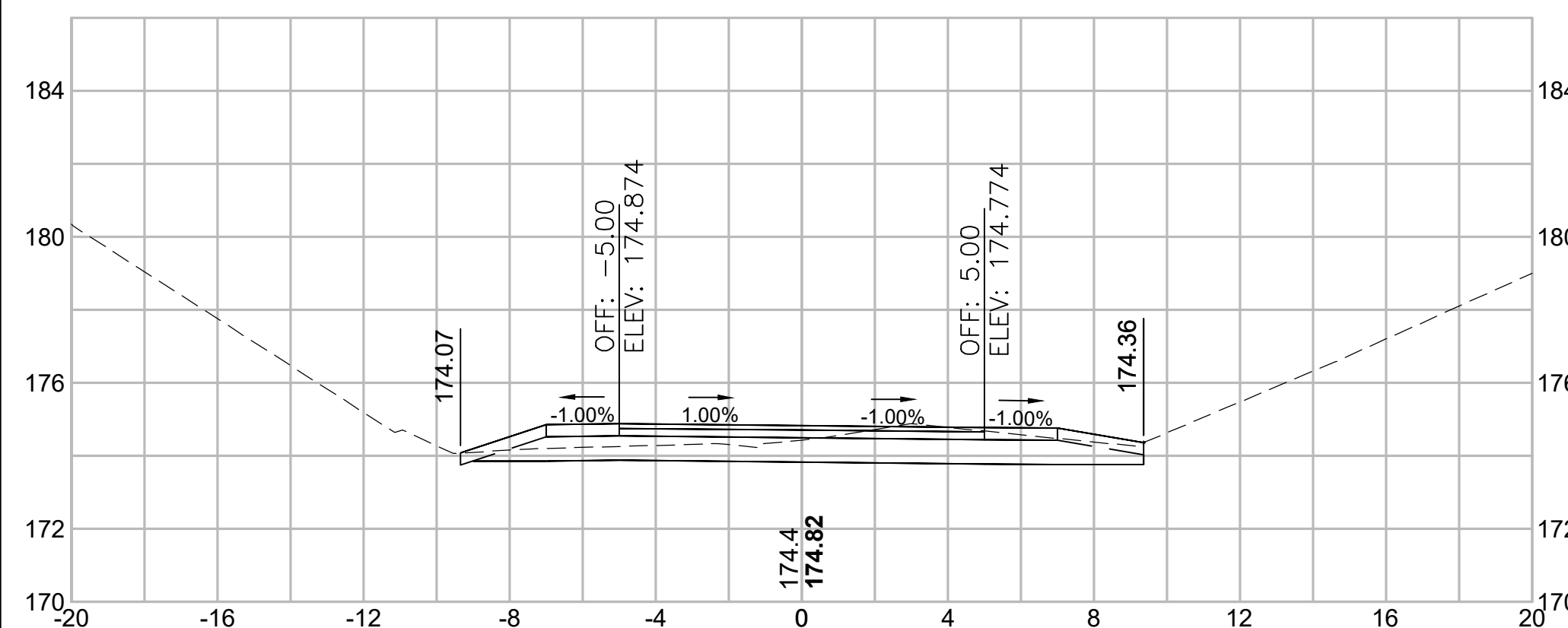


CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	316	319
PROJECT FILE NO.		608164	

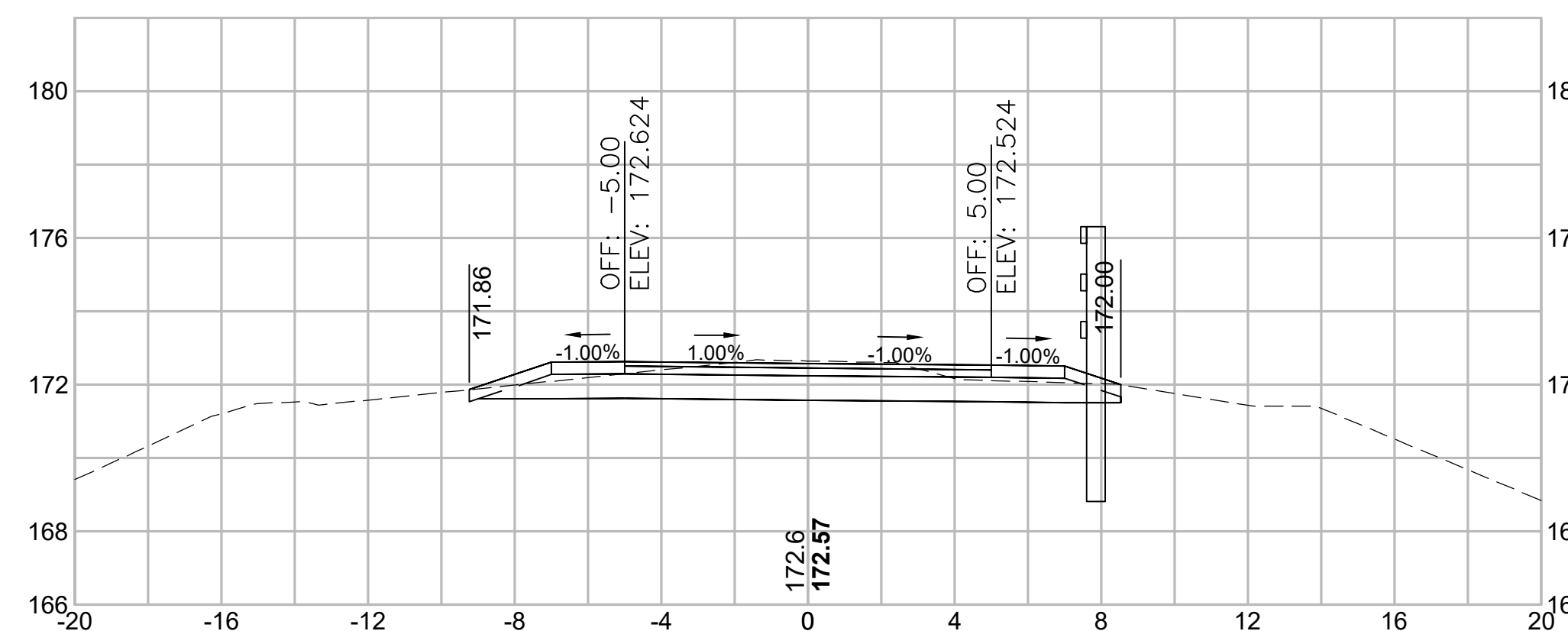
CROSS SECTIONS

20+00



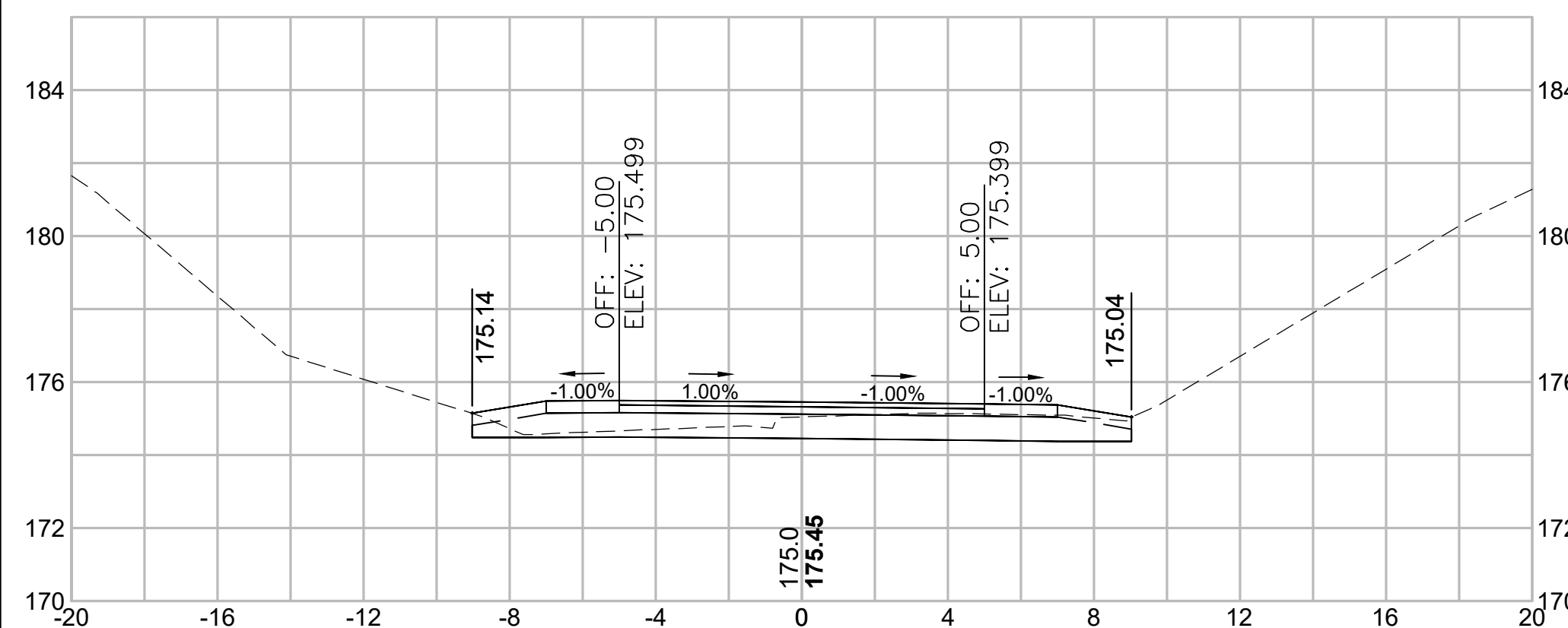
Total Volume at Station 20+00.00	
Cut Area (SF)	11.325
Fill Area (SF)	0.753
Cut Vol (CY)	19.3
Fill Vol (CY)	1.6
Cum Cut Vol (CY)	763.2
Cum Fill Vol (CY)	497.3
Net Vol (CY)	265.9

21+50



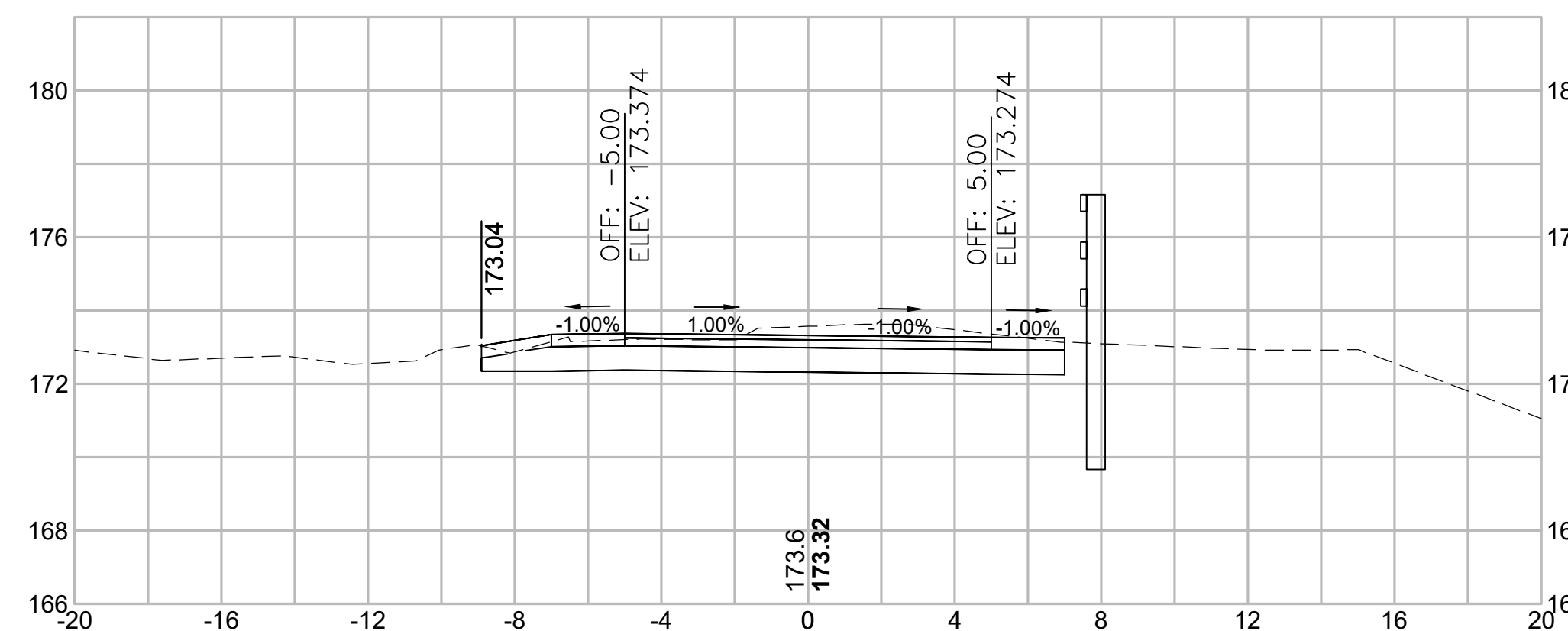
Total Volume at Station 21+50.00	
Cut Area (SF)	12.942
Fill Area (SF)	0.578
Cut Vol (CY)	26.7
Fill Vol (CY)	0.5
Cum Cut Vol (CY)	841.9
Cum Fill Vol (CY)	498.5
Net Vol (CY)	343.4

19+50



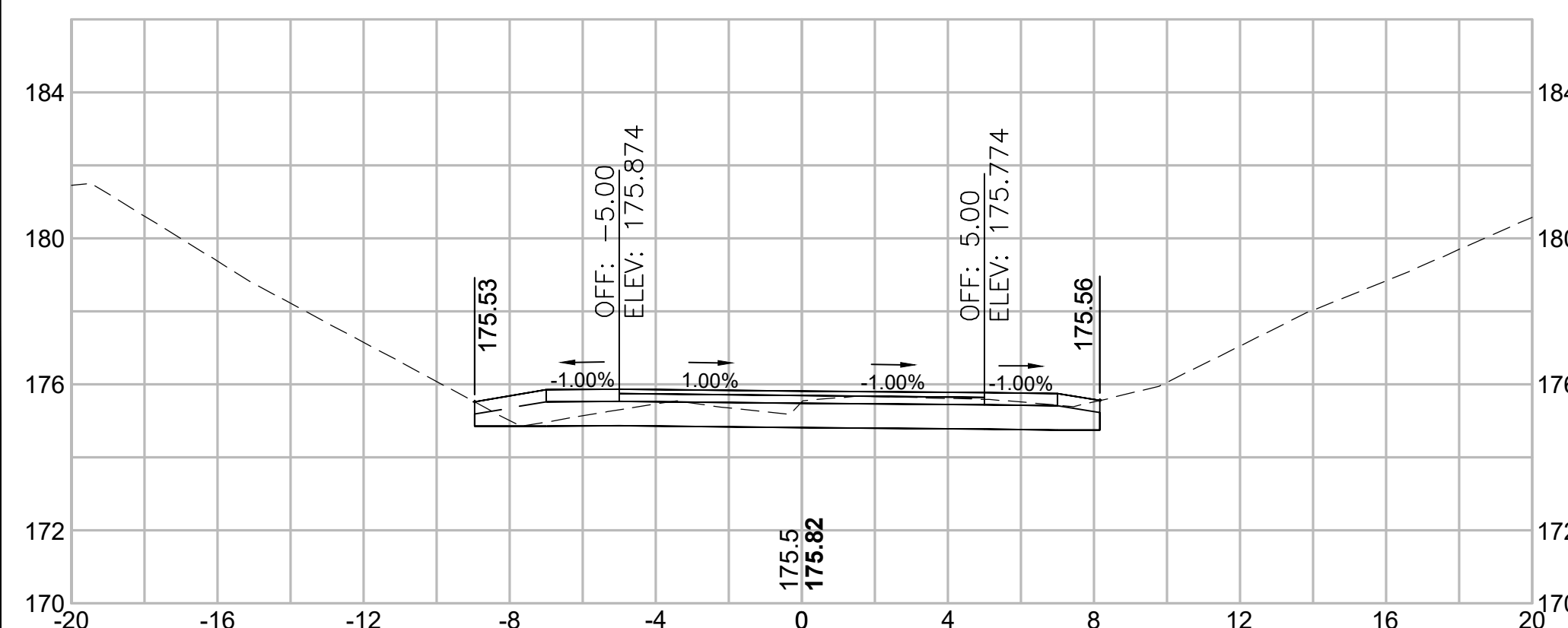
Total Volume at Station 19+50.00	
Cut Area (SF)	9.507
Fill Area (SF)	0.932
Cut Vol (CY)	18.6
Fill Vol (CY)	1.3
Cum Cut Vol (CY)	743.9
Cum Fill Vol (CY)	495.7
Net Vol (CY)	248.2

21+00



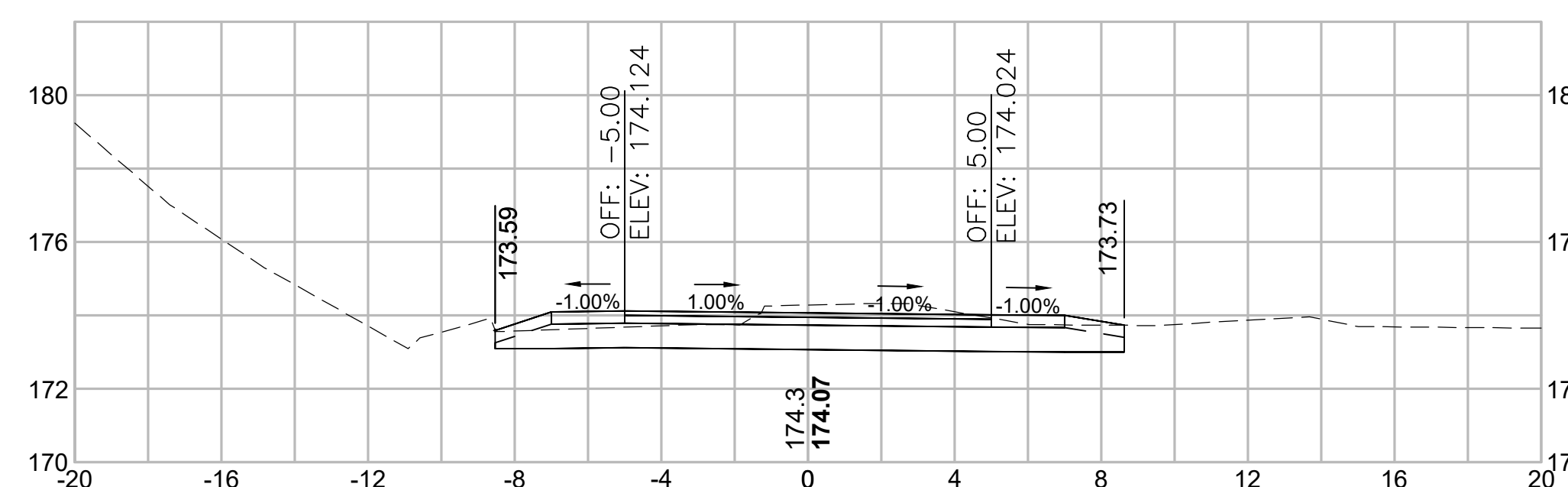
Total Volume at Station 21+00.00	
Cut Area (SF)	15.924
Fill Area (SF)	0.000
Cut Vol (CY)	28.1
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	815.1
Cum Fill Vol (CY)	497.9
Net Vol (CY)	317.2

19+00

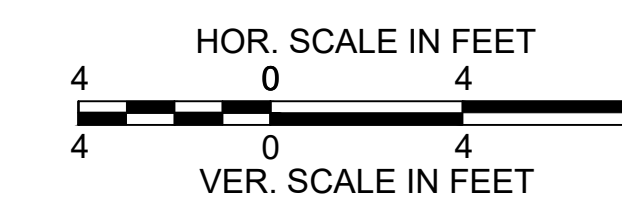


Total Volume at Station 19+00.00	
Cut Area (SF)	10.584
Fill Area (SF)	0.441
Cut Vol (CY)	20.0
Fill Vol (CY)	0.8
Cum Cut Vol (CY)	725.3
Cum Fill Vol (CY)	494.4
Net Vol (CY)	230.9

20+50



Total Volume at Station 20+50.00	
Cut Area (SF)	14.431
Fill Area (SF)	0.000
Cut Vol (CY)	23.8
Fill Vol (CY)	0.7
Cum Cut Vol (CY)	787.0
Cum Fill Vol (CY)	497.9
Net Vol (CY)	289.1

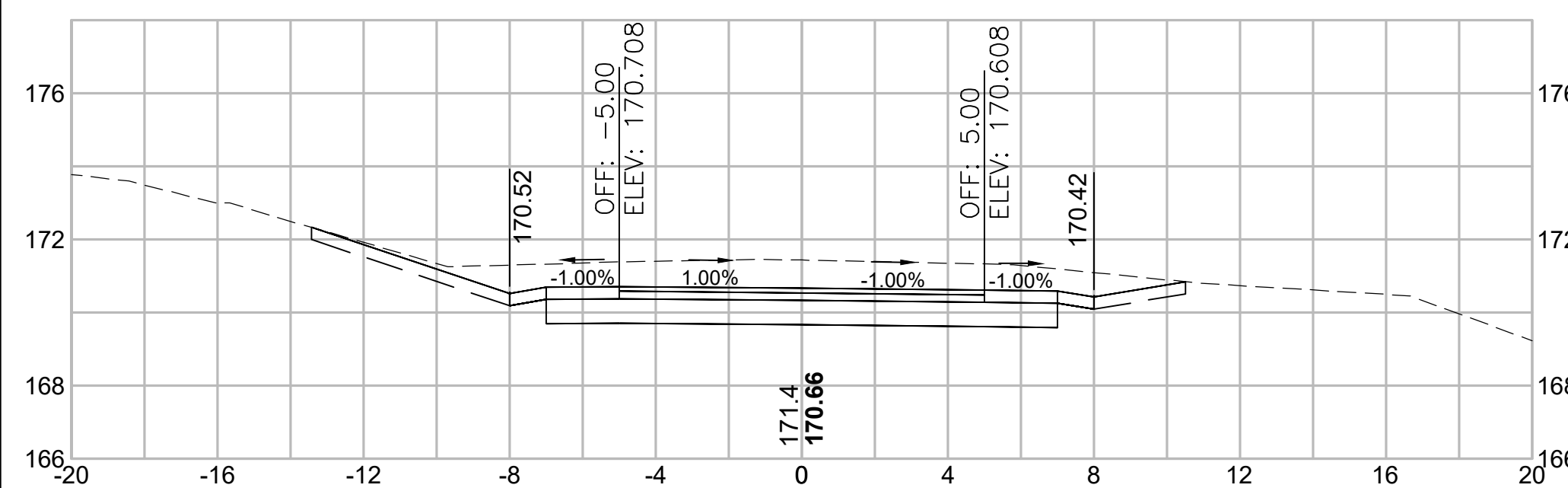


CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	317	319
PROJECT FILE NO.		608164	

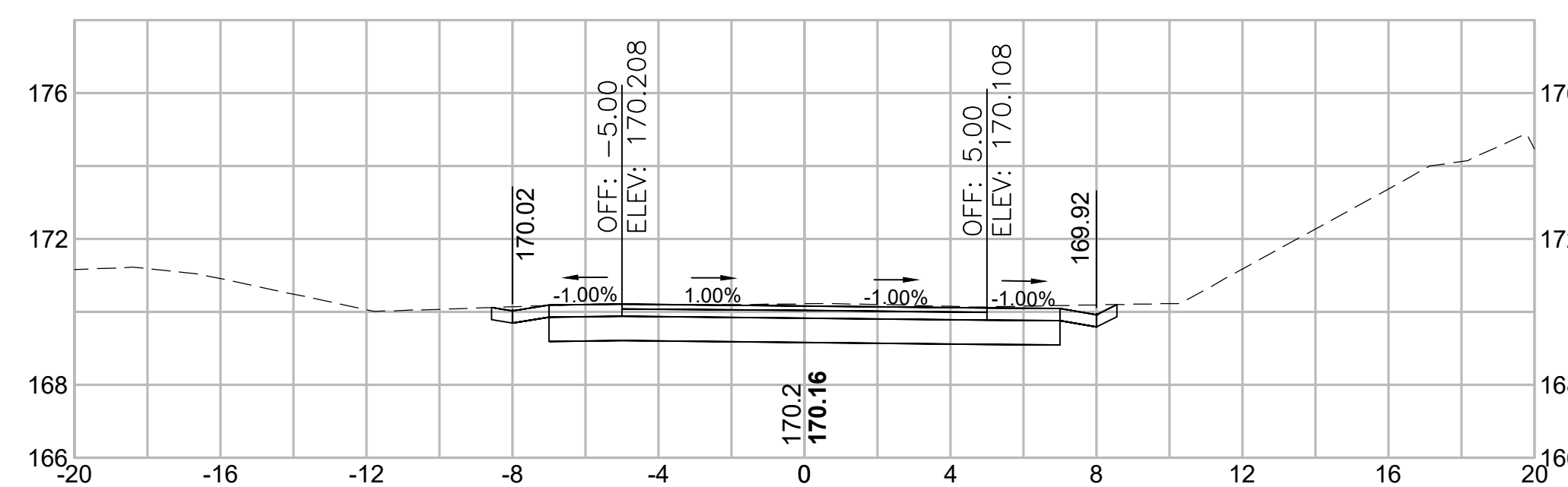
CROSS SECTIONS

23+00



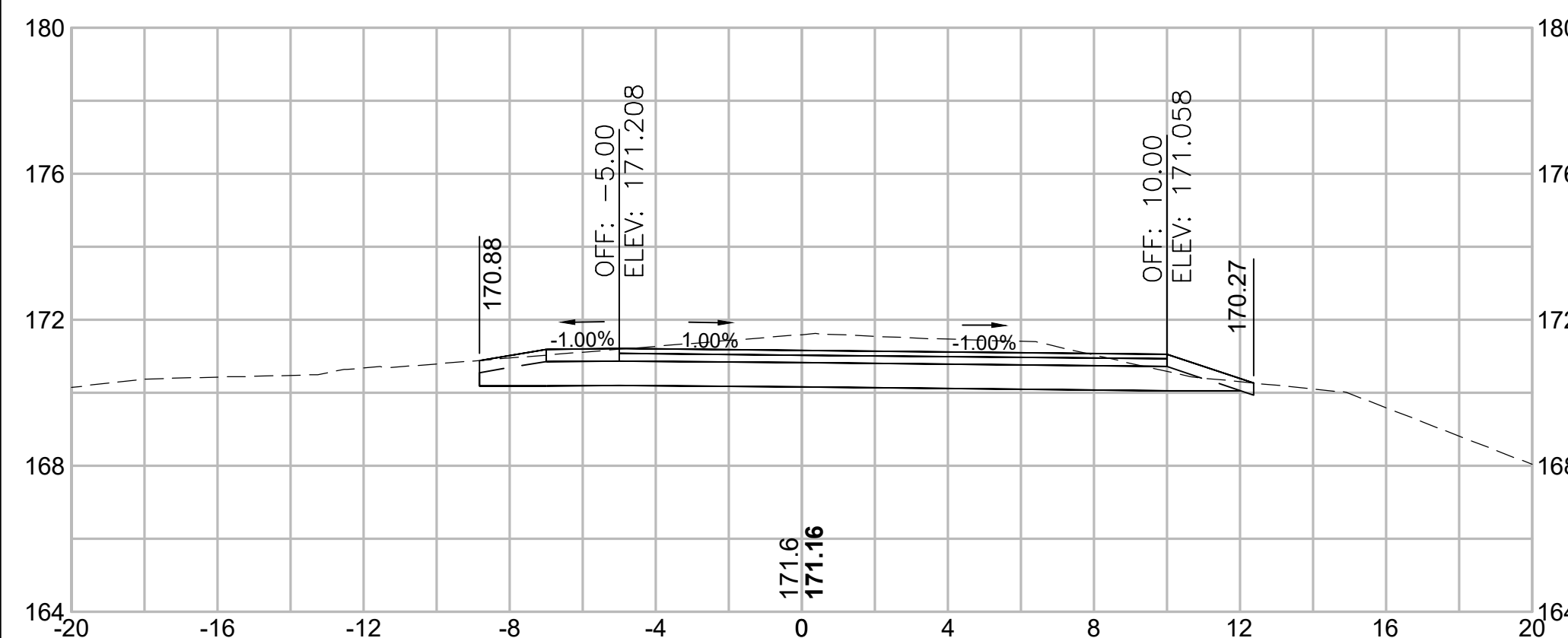
Total Volume at Station 23+00.00	
Cut Area (SF)	30.688
Fill Area (SF)	0.000
Cut Vol (CY)	49.0
Fill Vol (CY)	0.1
Cum Cut Vol (CY)	951.8
Cum Fill Vol (CY)	499.1
Net Vol (CY)	452.7

24+50



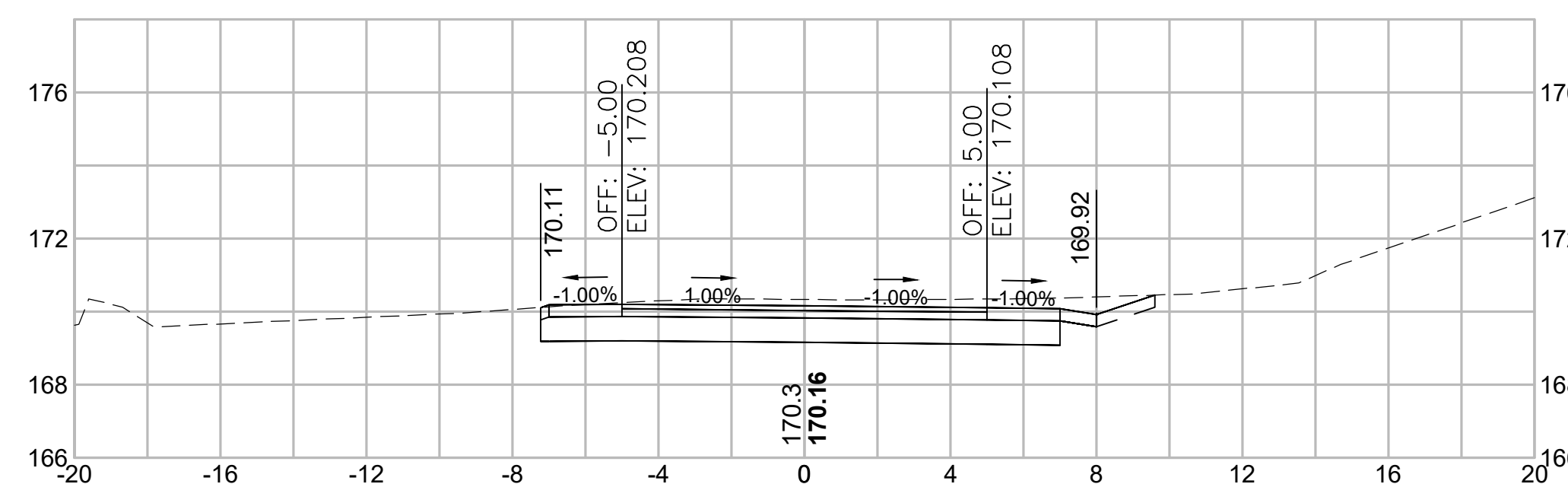
Total Volume at Station 24+50.00	
Cut Area (SF)	15.802
Fill Area (SF)	0.002
Cut Vol (CY)	31.3
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1089.8
Cum Fill Vol (CY)	499.1
Net Vol (CY)	590.7

22+50



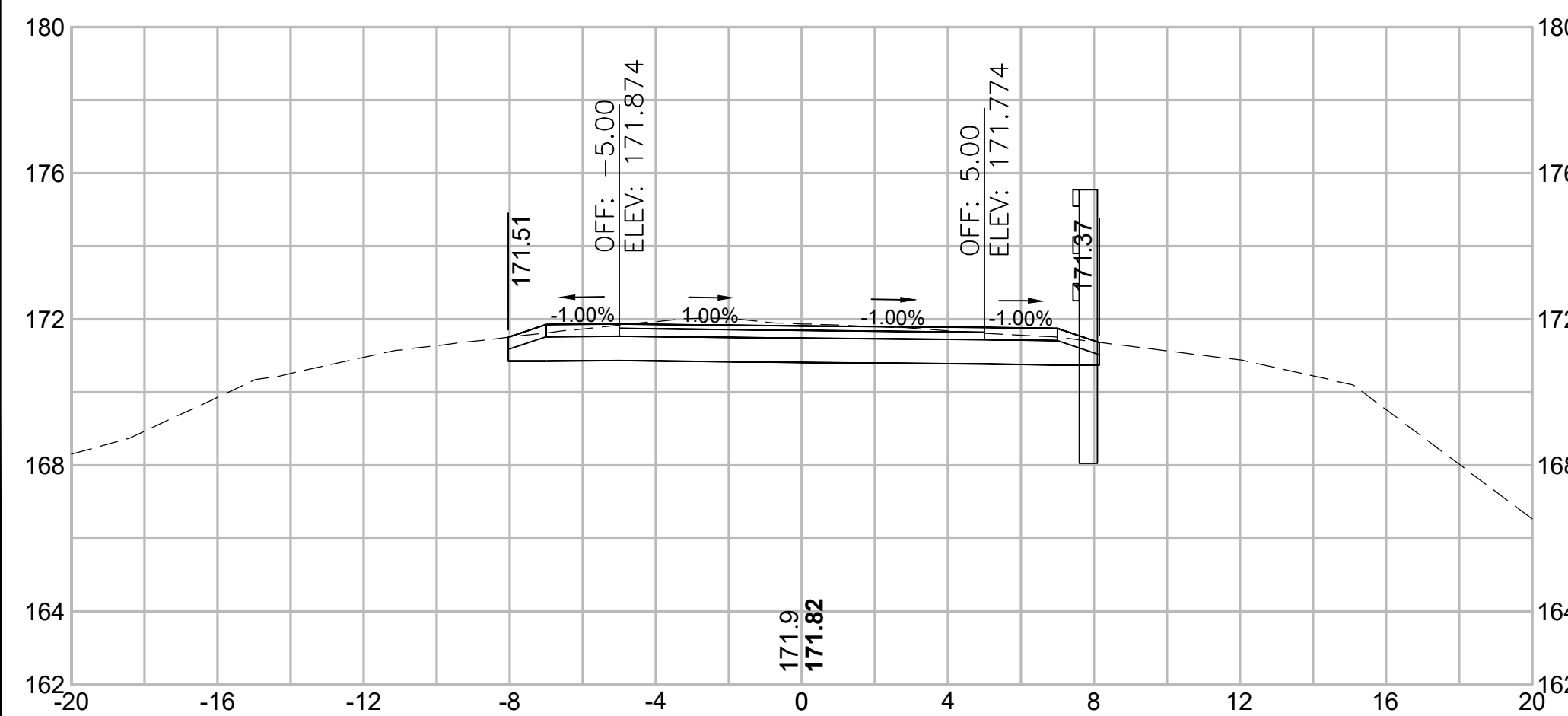
Total Volume at Station 22+50.00	
Cut Area (SF)	22.267
Fill Area (SF)	0.055
Cut Vol (CY)	34.8
Fill Vol (CY)	0.1
Cum Cut Vol (CY)	902.8
Cum Fill Vol (CY)	499.1
Net Vol (CY)	403.7

24+00



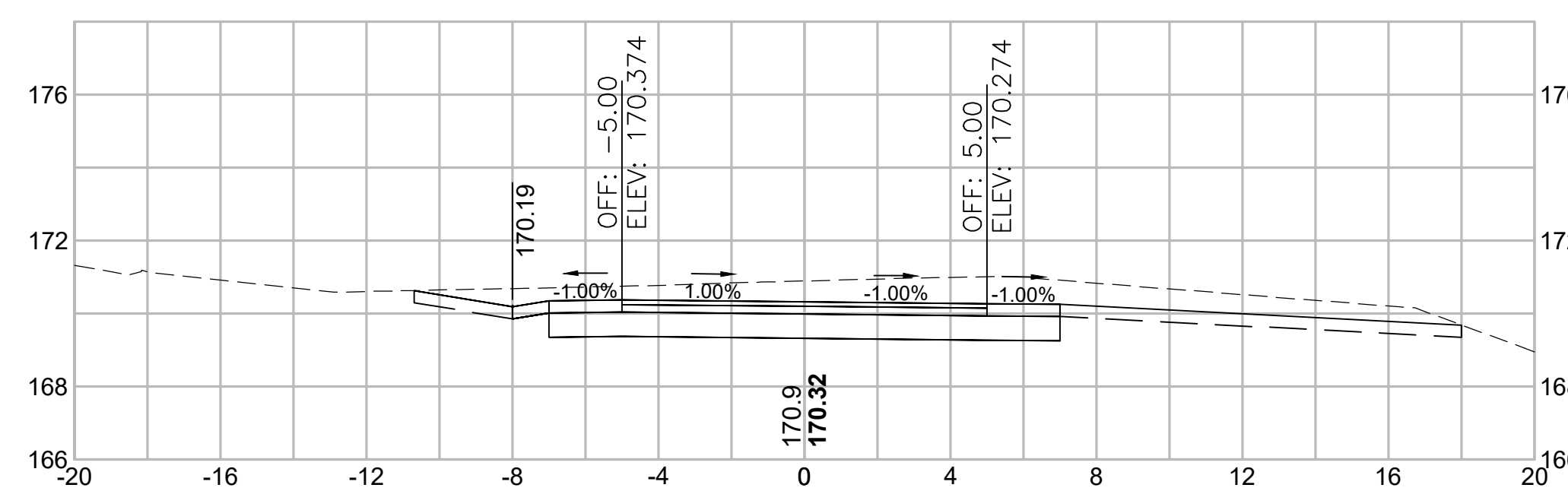
Total Volume at Station 24+00.00	
Cut Area (SF)	18.056
Fill Area (SF)	0.000
Cut Vol (CY)	47.5
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1058.5
Cum Fill Vol (CY)	499.1
Net Vol (CY)	559.4

22+00

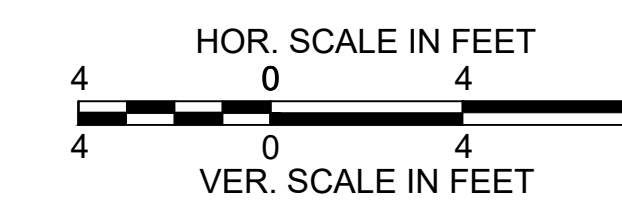


Total Volume at Station 22+00.00	
Cut Area (SF)	15.275
Fill Area (SF)	0.000
Cut Vol (CY)	26.1
Fill Vol (CY)	0.5
Cum Cut Vol (CY)	868.0
Cum Fill Vol (CY)	499.0
Net Vol (CY)	369.0

23+50



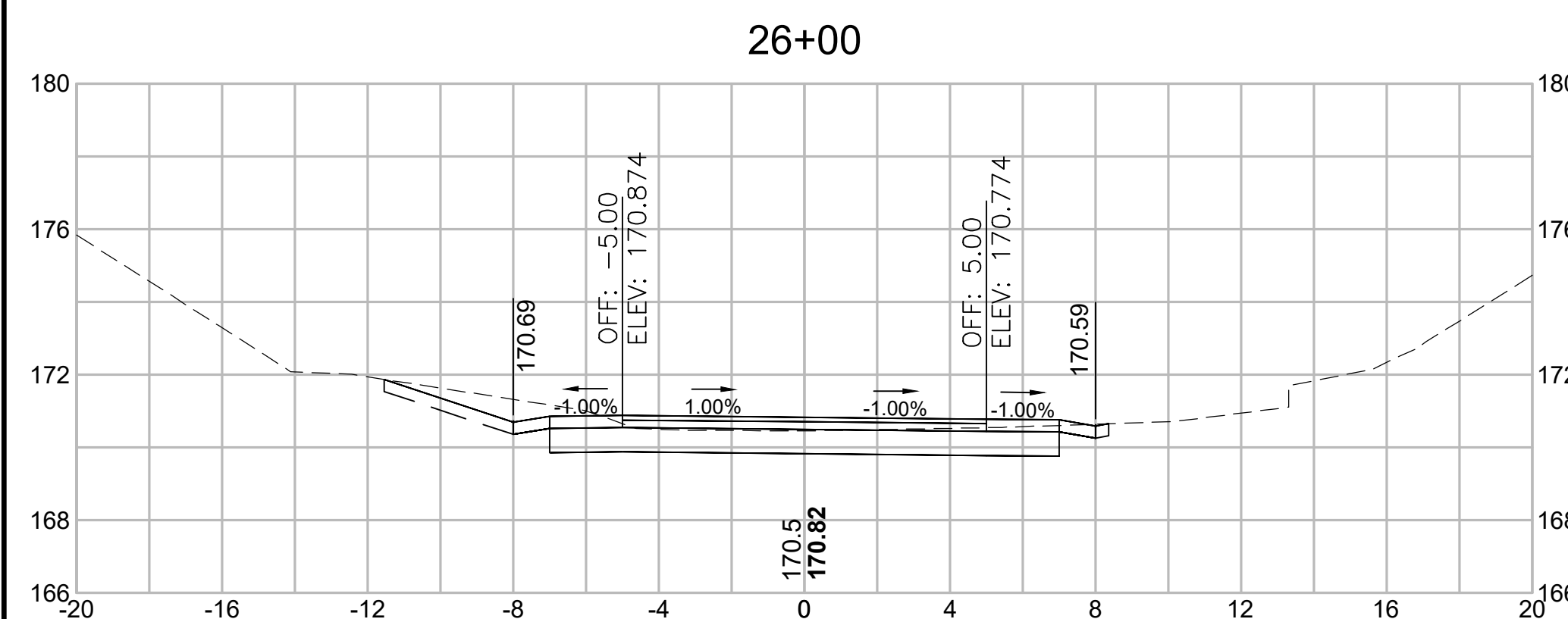
Total Volume at Station 23+50.00	
Cut Area (SF)	33.252
Fill Area (SF)	0.000
Cut Vol (CY)	59.2
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1011.0
Cum Fill Vol (CY)	499.1
Net Vol (CY)	511.9



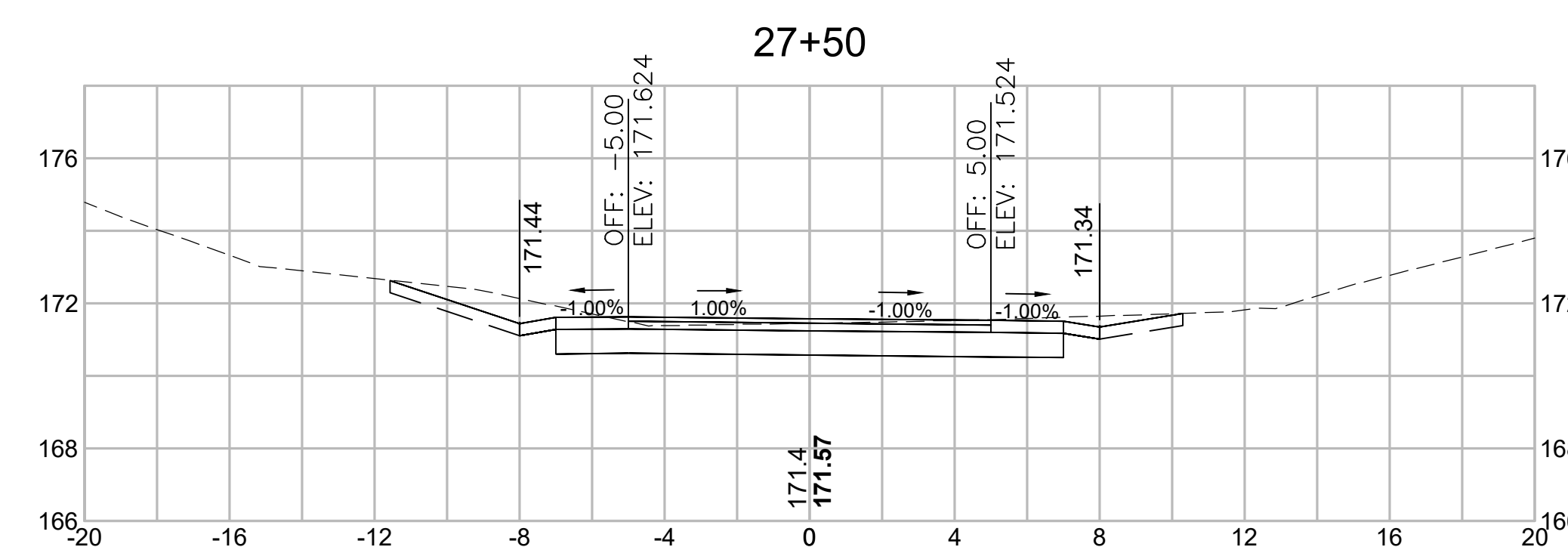
CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	318	319
PROJECT FILE NO.		608164	

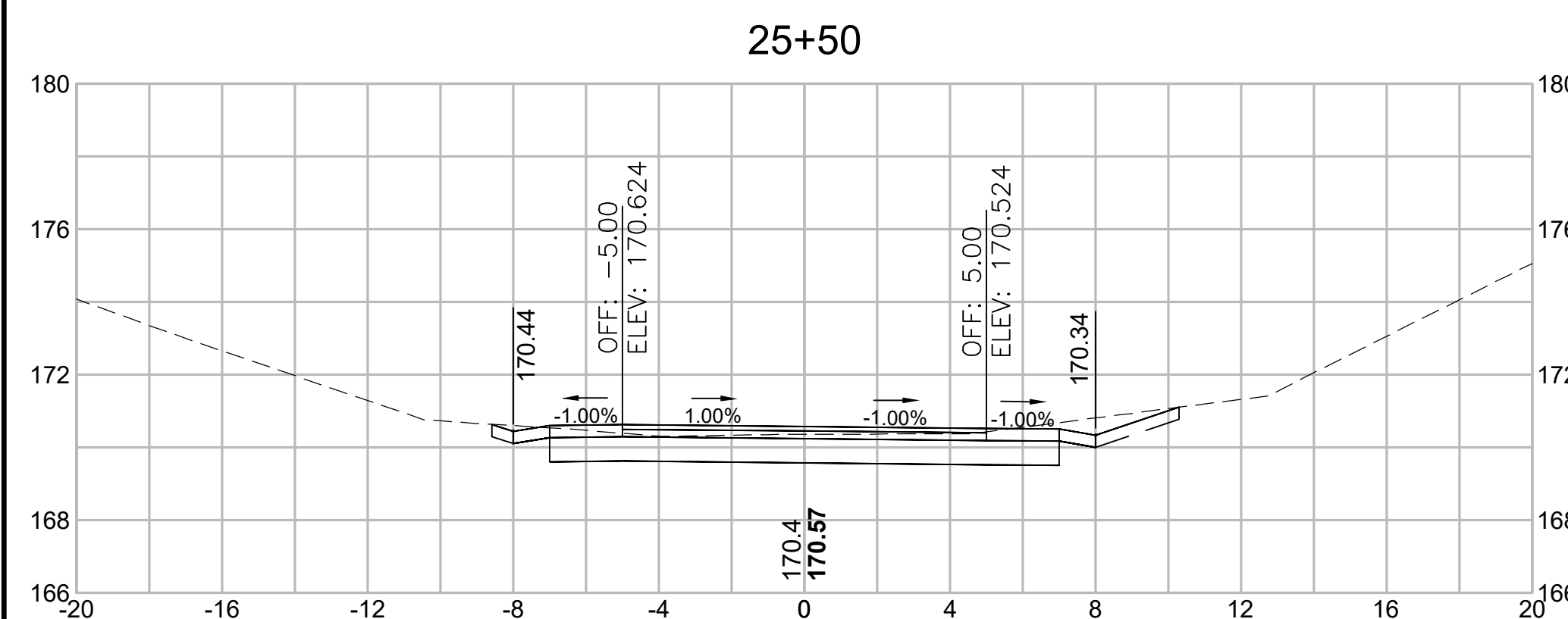
CROSS SECTIONS



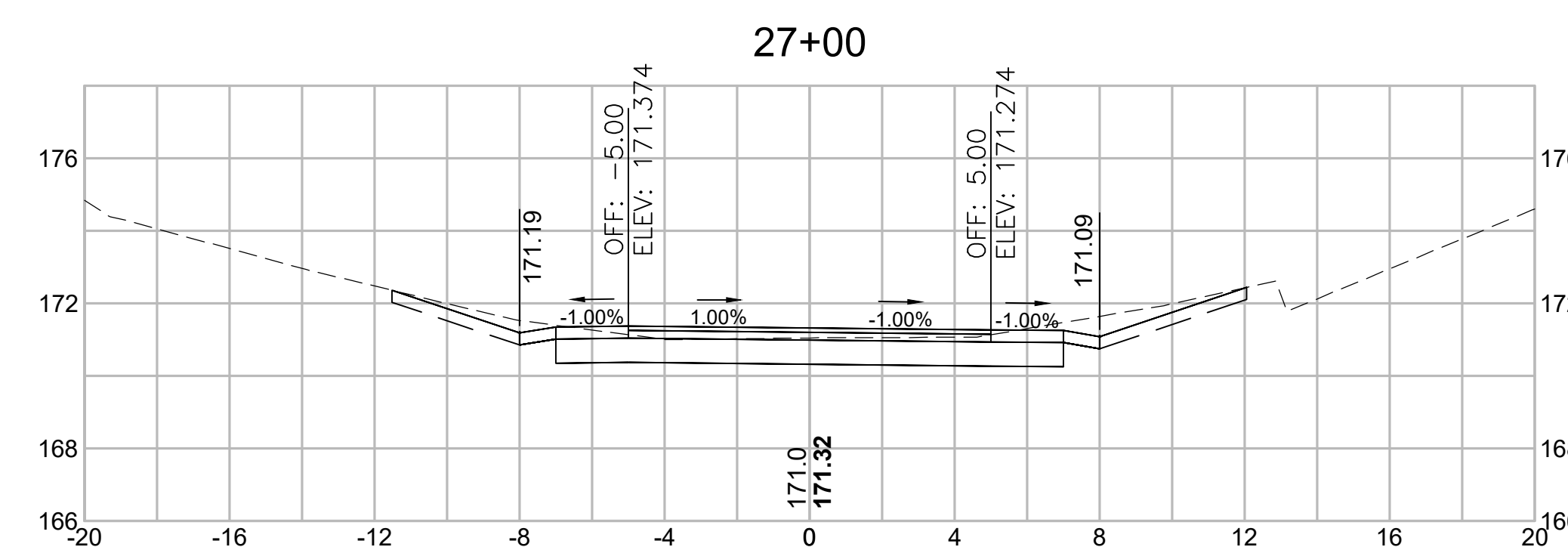
Total Volume at Station 26+00.00	
Cut Area (SF)	13.994
Fill Area (SF)	0.058
Cut Vol (CY)	26.1
Fill Vol (CY)	0.1
Cum Cut Vol (CY)	1170.4
Cum Fill Vol (CY)	499.2
Net Vol (CY)	671.2



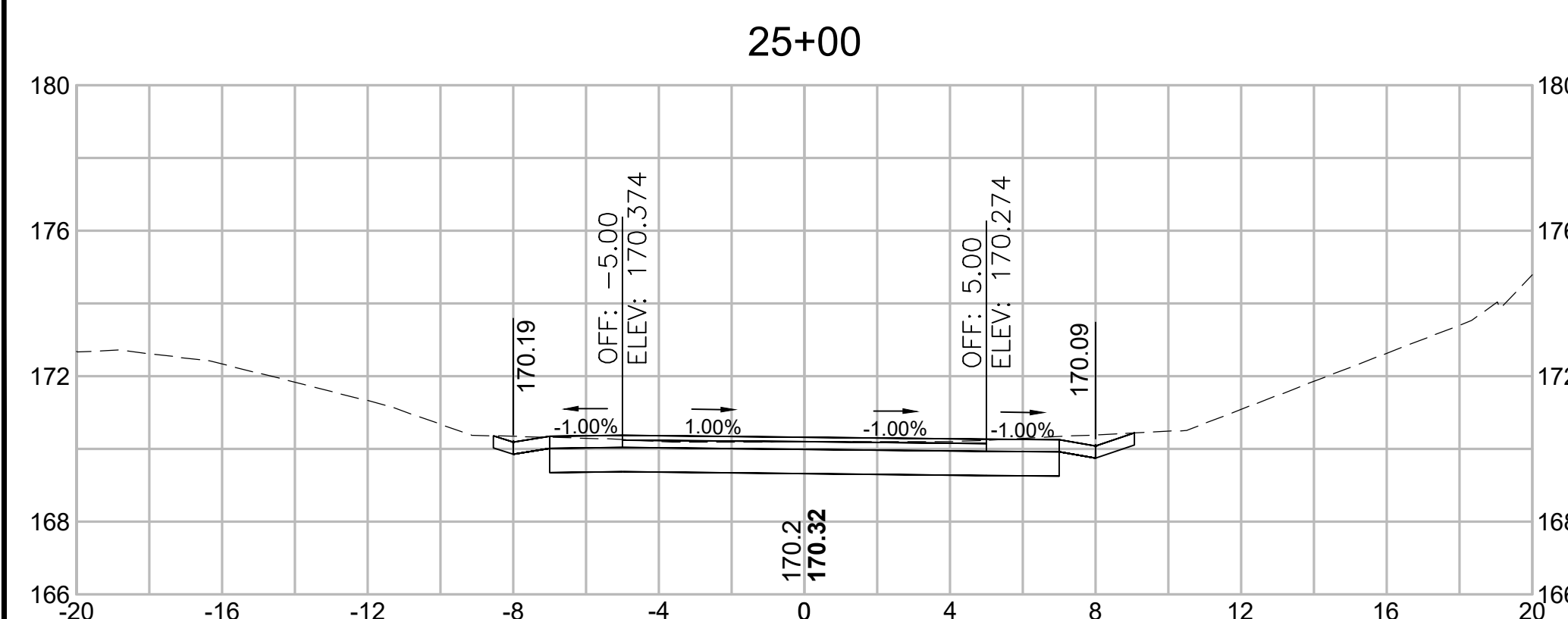
Total Volume at Station 27+50.00	
Cut Area (SF)	18.189
Fill Area (SF)	0.000
Cut Vol (CY)	32.1
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1260.7
Cum Fill Vol (CY)	499.3
Net Vol (CY)	761.4



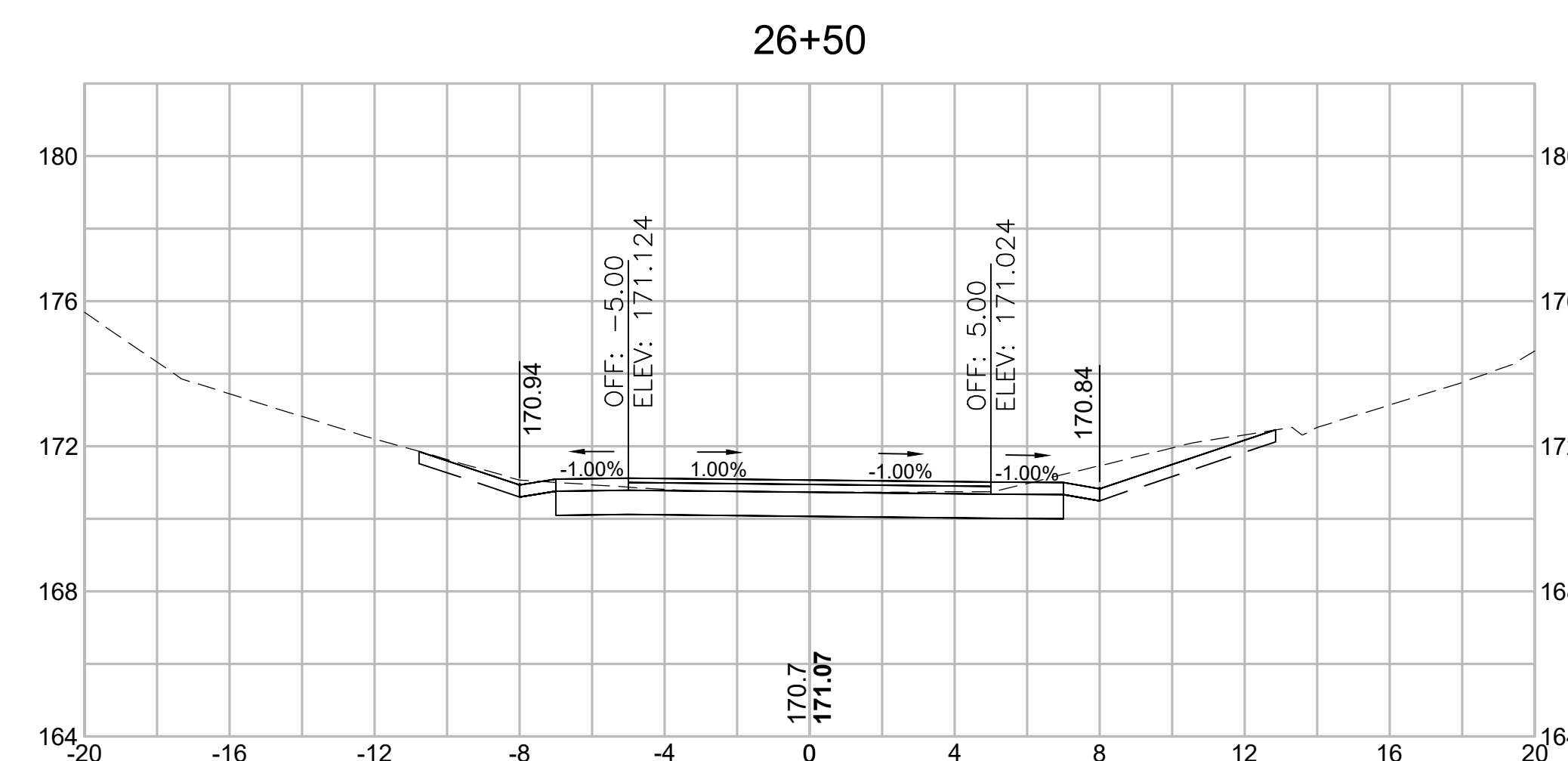
Total Volume at Station 25+50.00	
Cut Area (SF)	14.200
Fill Area (SF)	0.009
Cut Vol (CY)	26.5
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1144.3
Cum Fill Vol (CY)	499.1
Net Vol (CY)	645.2



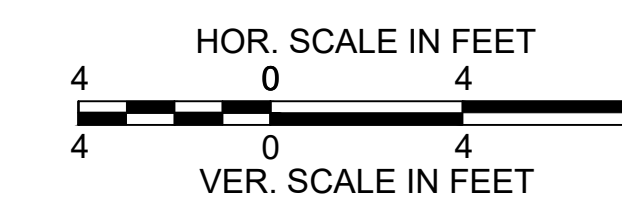
Total Volume at Station 27+00.00	
Cut Area (SF)	16.490
Fill Area (SF)	0.000
Cut Vol (CY)	30.2
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1228.6
Cum Fill Vol (CY)	499.3
Net Vol (CY)	729.3



Total Volume at Station 25+00.00	
Cut Area (SF)	14.427
Fill Area (SF)	0.002
Cut Vol (CY)	28.0
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1117.8
Cum Fill Vol (CY)	499.1
Net Vol (CY)	618.7



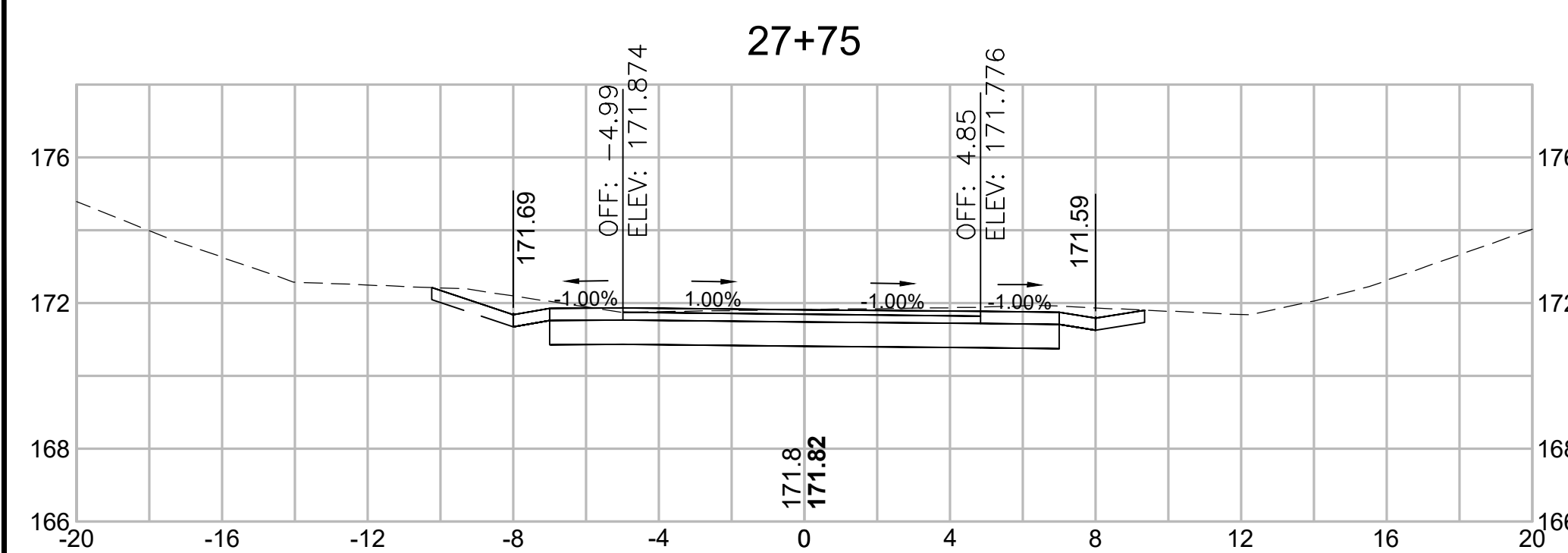
Total Volume at Station 26+50.00	
Cut Area (SF)	16.146
Fill Area (SF)	0.020
Cut Vol (CY)	27.9
Fill Vol (CY)	0.1
Cum Cut Vol (CY)	1198.4
Cum Fill Vol (CY)	499.3
Net Vol (CY)	699.1



CONCORD  
BRUCE FREEMAN RAIL TRAIL PHASE 2D

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ/TAP/STP-0033(028)X	319	319
PROJECT FILE NO.		608164	

CROSS SECTIONS



Total Volume at Station 27+75.00	
Cut Area (SF)	17.652
Fill Area (SF)	0.000
Cut Vol (CY)	16.6
Fill Vol (CY)	0.0
Cum Cut Vol (CY)	1277.3
Cum Fill Vol (CY)	499.3
Net Vol (CY)	778.0

