

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



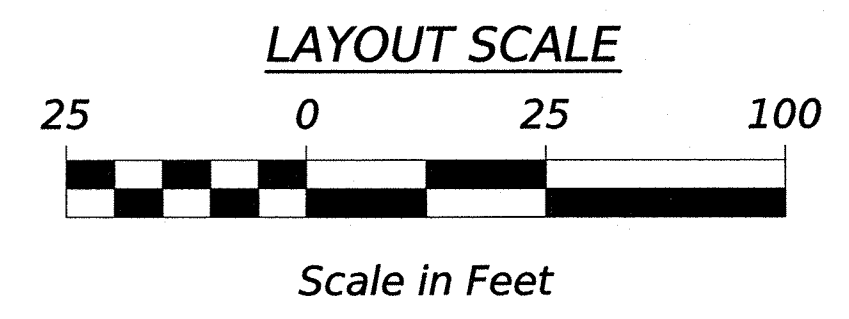
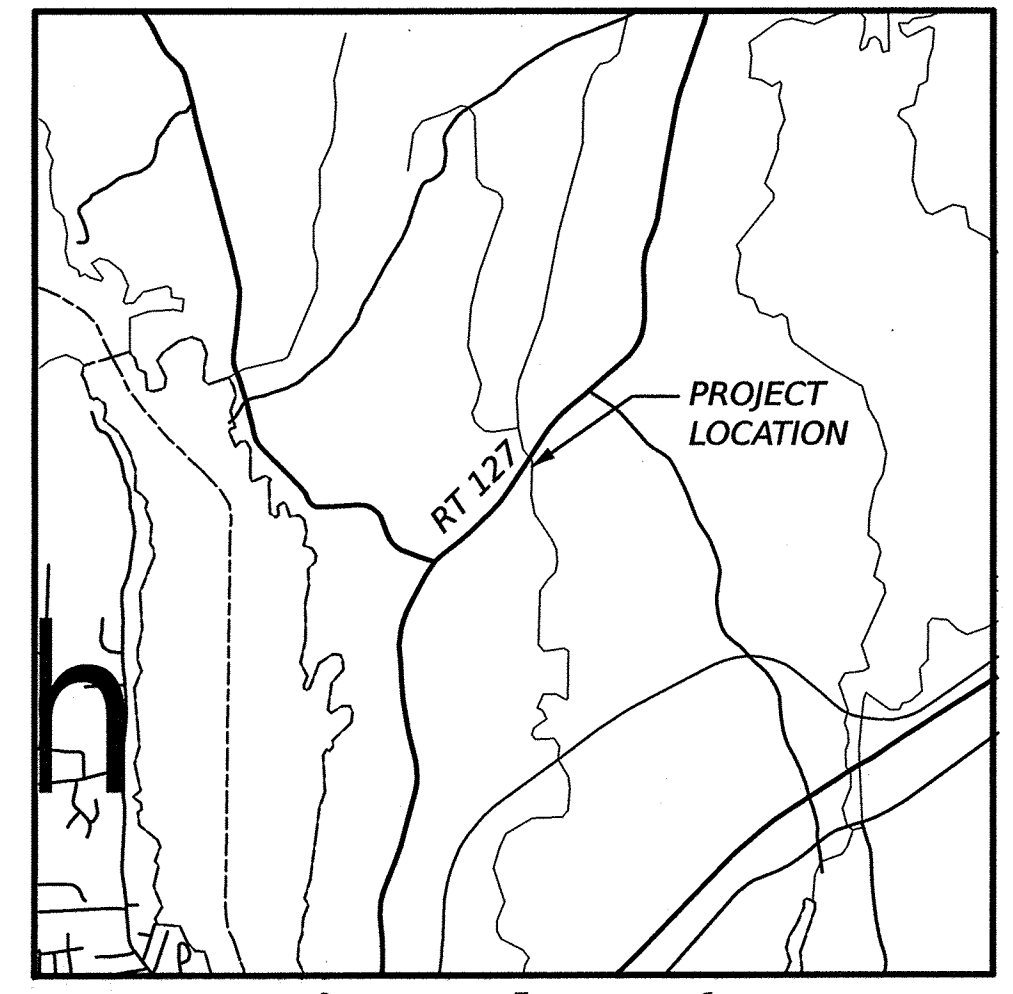
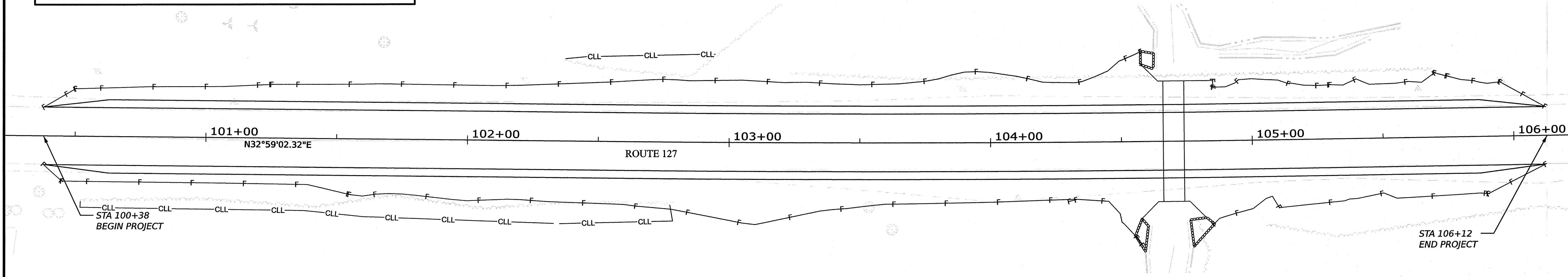
WOOLWICH
SAGadahoc COUNTY
ROUTE 127
STATE PROJECT NO. 027174.00
PROJECT LENGTH: .109 MILES

PLAN LEGEND

Town, County, State	-----	Catch Basins	Existing	Proposed
Property Lines	-----	Manholes	Existing	Proposed
R/W Lines-Existing	-----	Proposed Underdrain	-----	
R/W Lines-Proposed	-----	Proposed Ditch	-----	
Culvert-Existing	-----	Existing Ditch	-----	
Culvert Proposed	-----	Utility Poles	Existing	Proposed
Curbing	Existing	Fire Hydrants	Existing	Proposed
Type 1	-----	Existing Water Line	-----	
Type 3	-----	Existing San. Sewer	-----	
Type 5	-----	Existing San. Sewer Manhole	-----	
Outline of Bodies of Water	-----	Guardrail-Existing	-----	
Exposed Bedrock	-----	Guardrail-Proposed	-----	
Buildings	-----	Centerline-Existing	-----	
Trees	Conifer	Centerline-Proposed	-----	
Tree Line	-----	Travelway-Existing	-----	
Clearing Limit Line	CLL	Travelway-Proposed	-----	
Railroad	-----			
Boring	HB-XXX-###	Probe	P-#. #X	
Pavement Core	PC-#	#.# = Depth		
Test Pit	TP-XXX-###	X = W (Weathered Rock)		
		R (Refusal)		
		NR (No Refusal)		

INDEX OF SHEETS

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TRAFFIC DATA

Current (2024) AADT	3280
Future (2044) AADT	3610
DHV - % of AADT	16%
Design Hour Volume	578
% Heavy Trucks (AADT)	5%
% Heavy Trucks (DHV)	5%
Directional Distribution (DHV)	73%
18-kip Equivalent P 2.0	67
18-kip Equivalent P 2.5	64
Design Speed (mph)	45
Corridor Priority	4

PROJECT LOCATION:	LARGE CULVERT (#228491) LOCATED .34 OF A MILE NORTHEAST OF RIVER ROAD
PROGRAM AREA:	HIGHWAY PROGRAM
SCOPE OF WORK:	LARGE CULVERT REPLACEMENT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

COMMISSIONER: Matthew J. Philbrick
CHIEF ENGINEER: Joyce Noel Taylor

DATE
3-25-24

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
MATTHEW J. PHILBRICK
No. 12002
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
12002
DATE
3-25-2024

PROJECT INFORMATION

PROGRAM	DOUGLAS COOMBS
PROJECT MANAGER	M. PHILBRICK
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WOOLWICH
ROUTE 127
TITLE SHEET

SHEET NUMBER
1
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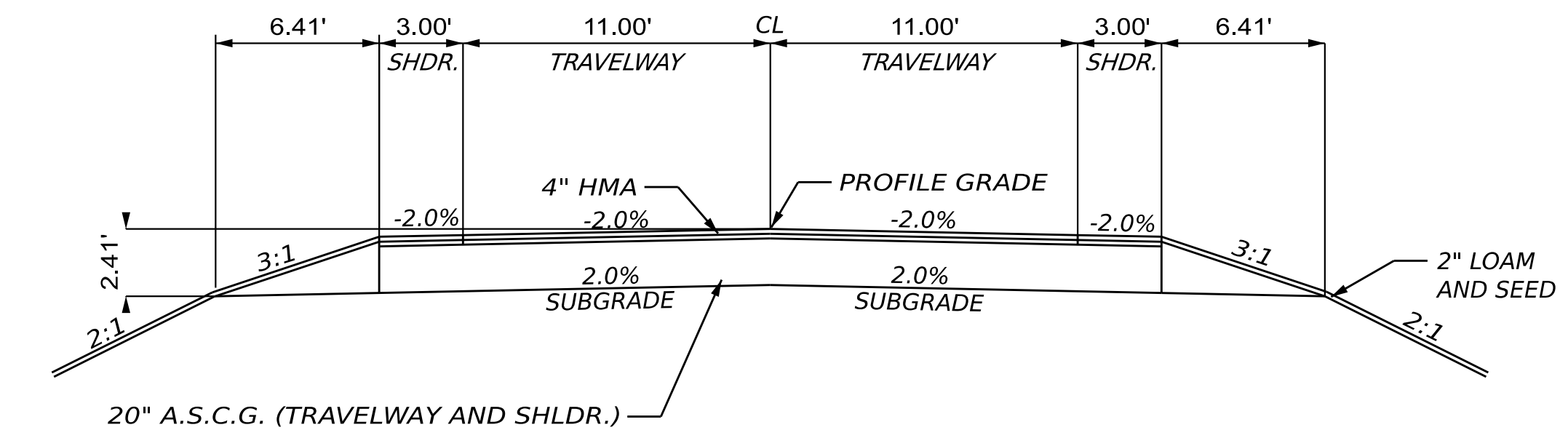
WIN 027174.00

Username: Matthew.Philbrick Date: 3/25/2024

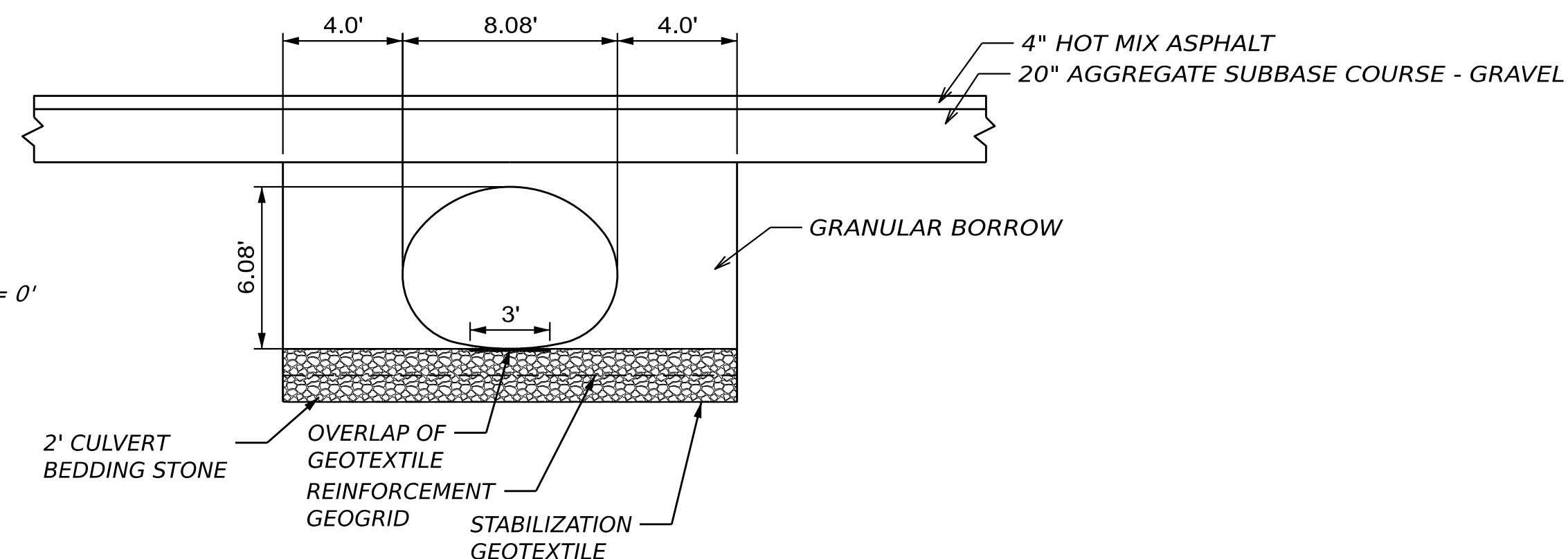
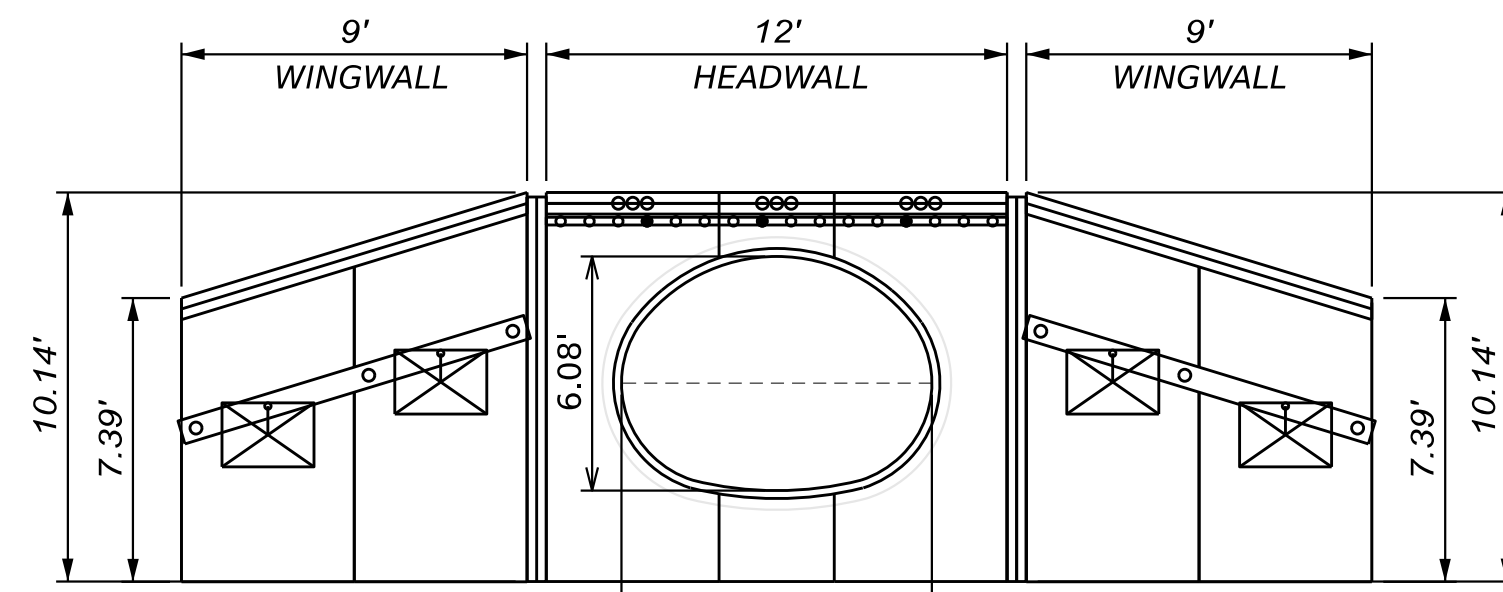
1. Pavement thicknesses shown on the typical sections are intended to be nominal.
2. All clearing shall be considered incidental to the Contract and no separate payment will be made. The actual lines for clearing shall be established in the field by the Contractor as indicated on the Plans and approved by the Resident.
3. Grubbing in fill areas has been shown on the cross sections and the quantities noted. These limits are approximate and have been used for estimating purposes only. Actual grubbing limits may vary based on field conditions as directed by the Resident.
4. All inslope and ditches in cut areas shall be graded as shown on the typicals or flatter, or as directed by the Resident.
5. The Contractor shall plan and conduct work so that upon completion of the project there is no drop-off from the edge of the shoulder pavement.
6. All waste material not used on the project shall be disposed of off the project in acceptable waste areas reviewed by the Resident. Grading, seeding and mulching of waste areas shall be considered incidental.
7. Required ditch protection shown on the Plans or in the Construction Notes is for estimating purposes only. The actual type and location of ditch protection may be altered by the Resident.
8. Granular borrow used to backfill muck excavation or in low wet areas to 1 foot above water level or old ground shall meet requirements for granular borrow material for underwater backfill as specified in Standard Specifications Item 703.19, Granular Borrow.
9. Existing inslopes in proposed fill areas shall be benched by excavating steps of sufficient width to permit placing and compacting the fill material along with the material removed.
10. Any necessary cleaning of existing pavement prior to paving (or milling) shall be incidental to the related paving (or milling) items. This includes killing and removal of all vegetative matter.
11. When superelevation exceeds the slope of the low-side shoulder, the low-side shoulder will have same slope as the travelway.
12. Cross slopes for normal and superelevated sections will be straight unless otherwise directed by the Department.
13. The algebraic difference between travelway and shoulder cross slope shall not exceed 8 percent.
14. Unless otherwise noted Seeding Method No. 1 shall be utilized on all lawns and developed areas; Seeding Method No. 2 shall be utilized on all other areas.
15. Loam shall be placed to a nominal depth of 4 inches in lawn areas and 2 inches in all other areas unless otherwise noted or directed.
16. The Contractor will be responsible for maintaining all existing mailboxes to ensure that the mail will be deliverable. Payment for this work will be considered incidental to the contract
17. The Contractor will be responsible for maintaining all existing operational business directional signs (OBDS) to ensure that they are visible to the traveling public. Payment for this work will be considered incidental to the contract.
18. The Contractor is responsible for the careful side staking of existing centerline as per Standard Specification Section 105.6.2, Contractor Provided Services. Side stakes shall be placed safely outside of the construction limits and the existing centerline grades shall be transferred to these stakes. These stakes and grades will be used to lay out centerline and determine new construction finish grades from differential elevation sheets furnished by MaineDOT. All layout, stakes, and grades will be checked and must be acceptable to the Resident.
19. Any damage to the slopes caused by the Contractor's equipment, personnel, or operation shall be repaired to the satisfaction of the Resident. All work, equipment, and materials required to make repairs shall be at the Contractor's expense.
20. Areas on the project requiring fill will come from suitable sites such as excavation, ditch and inslope or equipment rental areas.
21. Estimated quantities for required structural earth excavation, drainage and minor structures are informational only and represent the approximate minimum quantity required to install drainage structures. Additional excavation for the Contractor's convenience or to comply with backsloping requirements will not be paid for directly but will be considered incidental to the related drainage items.
22. No separate payment for superintendent or foreman will be made for the supervision of equipment and layout of work being paid for under the equipment rental items.
23. “Undetermined locations” shall be determined by the Resident.
24. Final striping for the project shall be done by the Contractor per the striping layout in the Contract documents or as provided by the Department. Payment shall be made under appropriate Contract items.

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.203	PAVEMENT BUTT JOINTS	70	SY
203.200	COMMON EXCAVATION - Road Travel Lane & Shoulder	600	CY
203.250	GRANULAR BORROW	140	CY
203.550	CULVERT BEDDING STONE	55	CY
206.061	STRUCTURAL EARTH EXCAVATION - DRAINAGE BELOW GRADE	28	CY
304.100	AGGREGATE SUBBASE COURSE - GRAVEL	1270	CY
403.213	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE, BASE	420	TN
409.150	BITUMINOUS TACK COAT, APPLIED	35	G
511.070	COFFERDAM Lt. Up Stream	1	EA
511.070	COFFERDAM Rt. Down Stream	1	EA
509.194	ALUMINUM ALLOY STRUCTURAL PLATE PIPE ARCH	1	LS
610.080	PLAIN RIPRAP	10	CY
613.319	EROSION CONTROL BLANKET	10	SY
615.070	LOAM	60	CY
618.140	SEEDING METHOD NUMBER 2	9	UN
619.120	MULCH	9	UN
619.140	EROSION CONTROL MIX	60	CY
620.540	REINFORCEMENT/STABILIZATION GEOTEXTILE	200	SY
620.580	EROSION CONTROL GEOTEXTILE	50	SY
620.650	REINFORCEMENT GEOGRID	82	SY
627.733	4 INCH WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	730	LF
629.050	HAND LABOR, STRAIGHT TIME	20	HR
631.120	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	20	HR
639.190	FIELD OFFICE, TYPE B	1	EA
652.330	DRUM	20	EA
652.340	CONES	100	EA
652.350	CONSTRUCTION SIGNS	200	SF
652.312	TYPE III BARRICADE	4	EA
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	47	CD
652.38	FLAGGER	630	HR
656.750	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.100	MOBILIZATION	1	LS

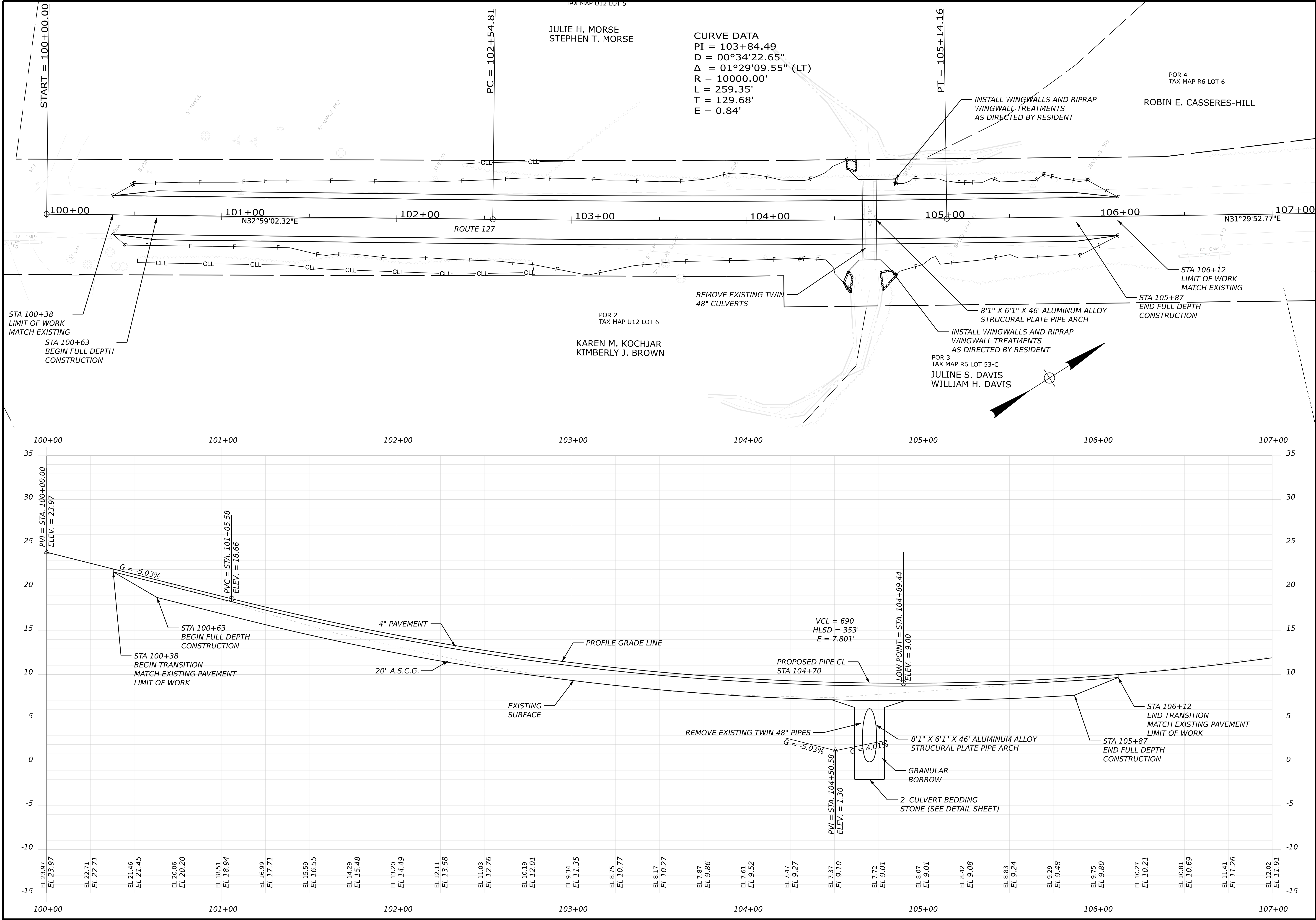
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	CHECKED-REVIEWED	M. PHILBRICK					
	DESIGN-DETAILED						
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	DESIGN-DETAILED03						
	REVISIONS 1						
	REVISIONS 2						
	REVISIONS 3						
	REVISIONS 4						
	FIELD CHANGES						
SHEET NUMBER		2 OF 9					



1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. CROWNS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT UNLESS DIRECTED BY THE DEPARTMENT.
3. THE PIPE ARCH CULVERT SHALL BE BEDDED ON A 2' THICK LAYER OF CULVERT BEDDING STONE (UNDERDRAIN BACKFILL MATERIAL, TYPE C) WITH A LAYER OF REINFORCEMENT GEOGRID AT THE CENTER. THE CULVERT BEDDING STONE SHALL BE WRAPPED IN STABILIZATION GEOTEXTILE. PAYMENT WILL BE MADE UNDER THE APPROPRIATE CONTRACT ITEMS.
4. INLET AND OUTLET GRADING SHALL BE COORDINATED WITH THE MAINEDOT HYDROLOGY SECTION. THE CONTRACTOR SHALL GIVE THE RESIDENT A MINIMUM OF 48 HOURS NOTICE BEFORE INLET OR OUTLET GRADING MAY BEGIN. ROCK EXCAVATION AND RIPRAP WILL BE PAID UNDER THE APPROPRIATE ITEMS.
5. WINGWALL ANGLES MAY BE ADJUSTED AT THE DISCRETION OF THE RESIDENT FOR BEST FIT. CAP ANGLE WILL BE DETERMINED BY RESIDENT, ORDERED BY MDOT AND INSTALLED BY THE CONTRACTOR
6. RIPRAP WILL BE USED TO INSLOPE AROUND THE CULVERT ENDS AT BOTH THE INLET AND OUTLET. SEE PLAN FOR LOCATIONS. MODIFICATIONS TO THE RIPRAP LOCATIONS SHALL BE AT THE DISCRETION OF THE RESIDENT.
7. VOIDS IN RIPRAP APRONS SHALL BE INFILLED, WATERED-IN, AND TAMPED.
8. STABILIZATION GEOTEXTILE SHALL BE OVERLAPPED A MINIMUM OF 3'.
9. THE SOFT SOILS AT THE BEDDING ELEVATION SHOULD BE EXCAVATED USING A SMOOTH-EDGED BACKHOE BUCKET TO MINIMIZE DISTURBANCE TO THE SOFT SOILS AT THE SITE. ANY DISTURBED SOILS AT THE BEDDING ELEVATION RESULTING FROM EXCAVATION ACTIVITIES SHOULD BE REMOVED BY HAND PRIOR TO PLACEMENT OF THE GEOTEXTILE WRAPPED, GEOGRID REINFORCED, CRUSHED STONE MAT.
10. THE REINFORCEMENT GEOGRID SHALL MEET THE REQUIREMENTS OF SPECIAL PROVISION 620.
11. REMOVAL OF EXISTING CULVERTS SHALL BE INCIDENTAL TO THE CONTRACT.
12. THE CONTRACTOR SHALL REMOVE THE TEMPORARY 5'X8'X1" STEEL PLATE THAT IS CURRENTLY BEING USED AS COVER OVER THE FAILED PIPE, AND RETURN IT TO THE MAINEDOT FACILITY AT 420 LEWISTON ROAD, GARDINER, ME.



OF 9



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2717400

WIN
27174_00

HIGHWAY PLANS

BY	DATE	SIGNATURE	P.E. NUMBER	DATE

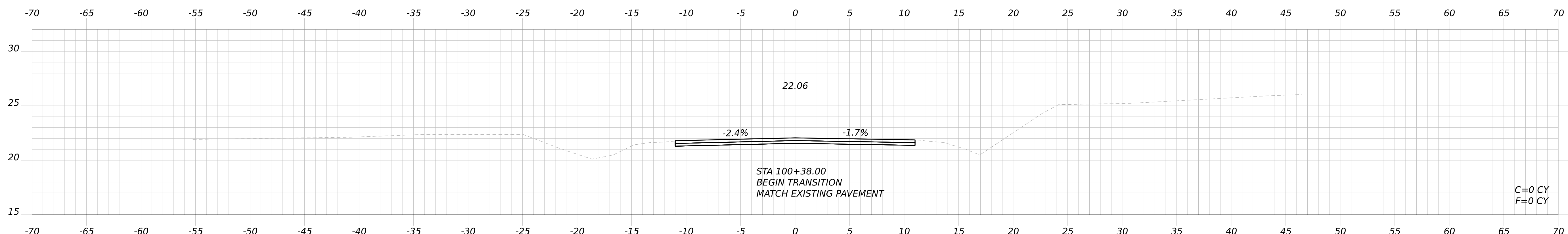
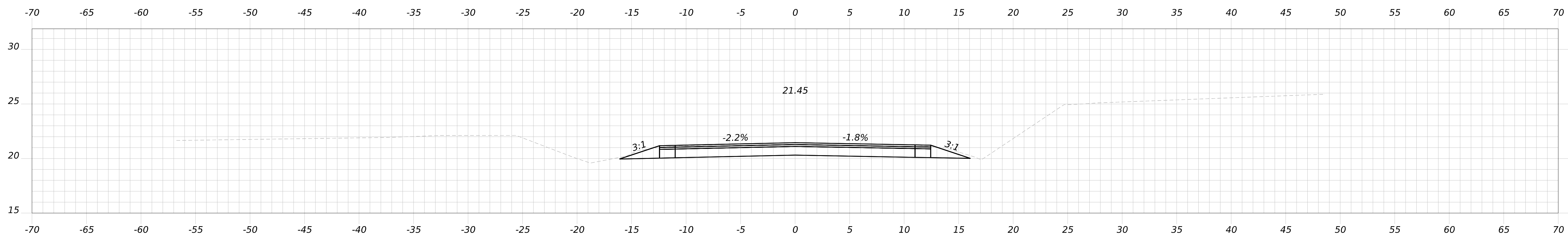
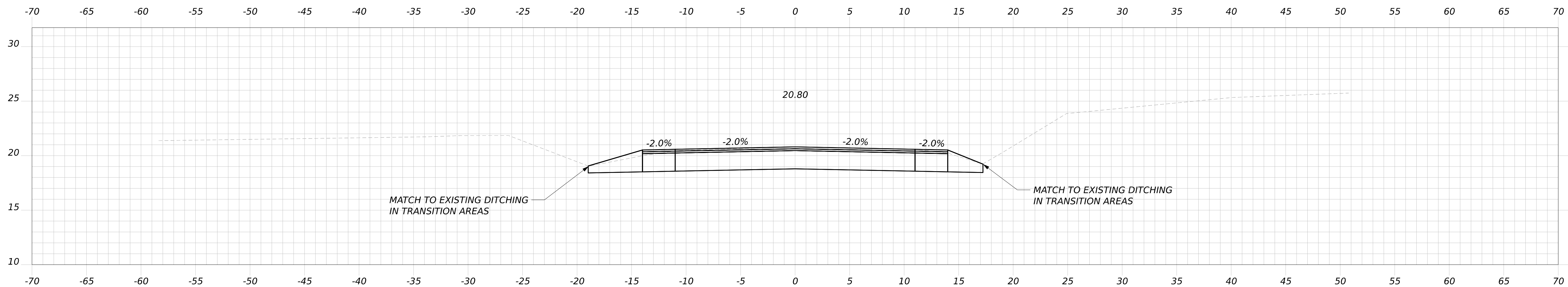
WOOLWICH
ROUTE 127

PLANS

SHEET NUMBER

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OF 9



Username: Matthew.Philbrick Date: 3/25/2024

Date: 3/25/2024

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STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

2717400

WIN

27174_00 HIGHWAY PLANS

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

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**WOOLWICH
ROUTE 127**

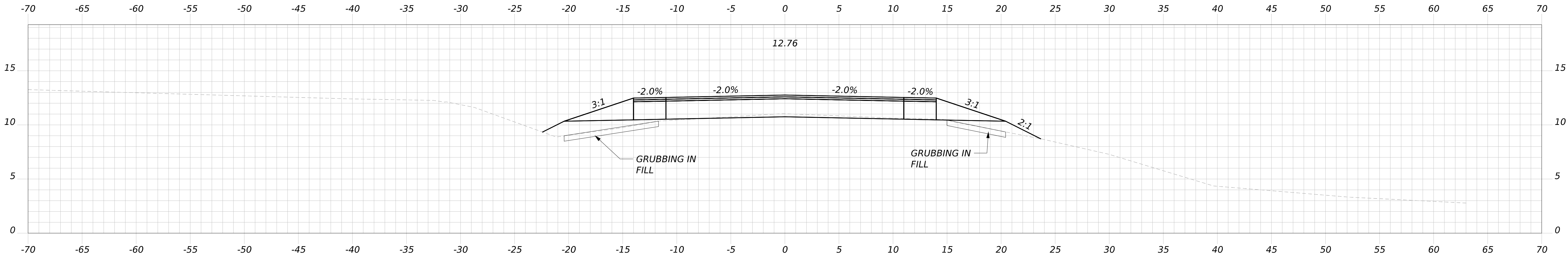
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CROSS SECTIONS

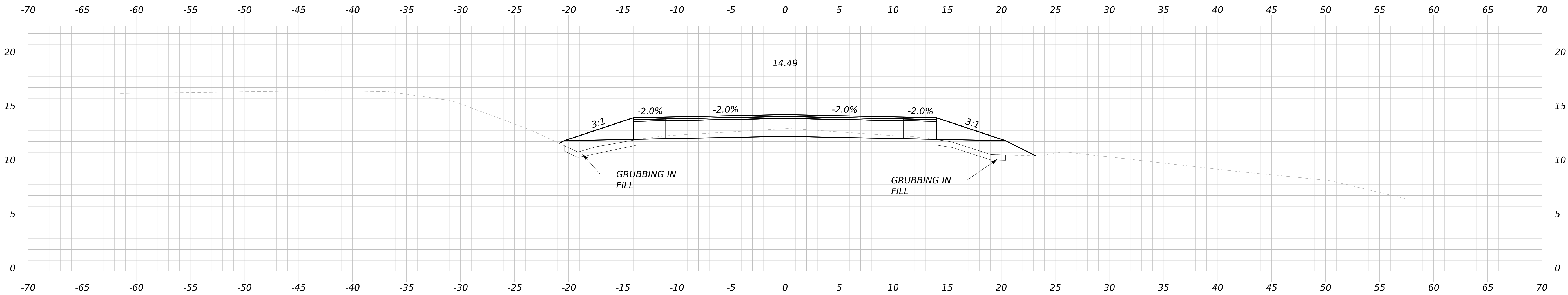
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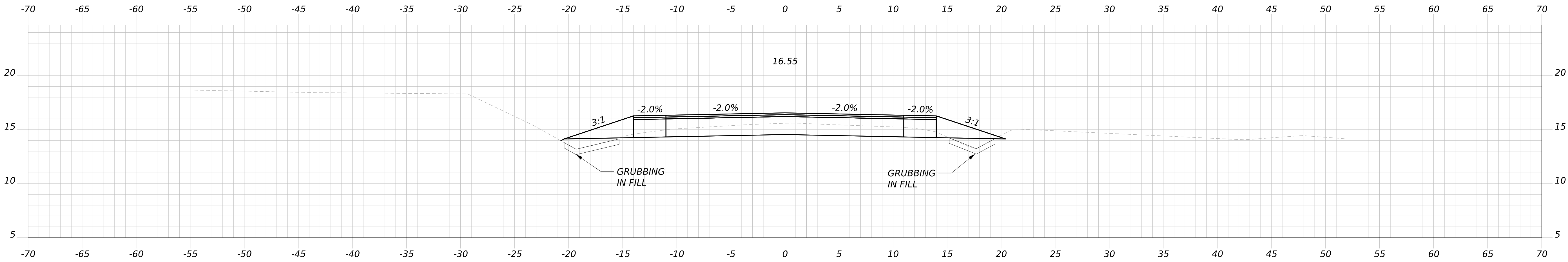
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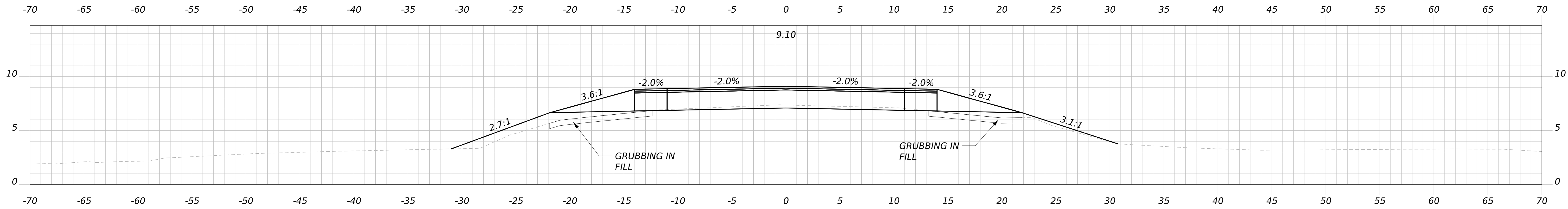


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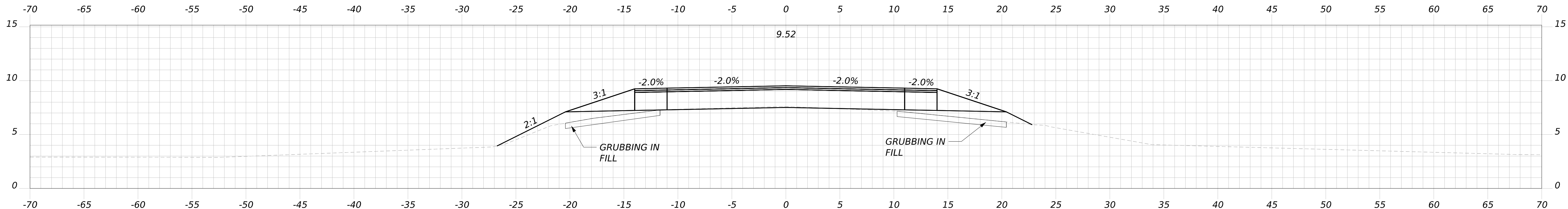


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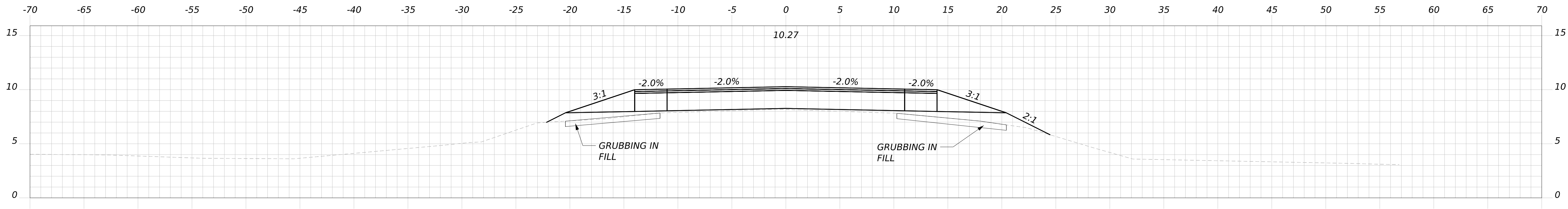
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		DOUGLAS COOMBS		M. PHILBRICK							
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		DOUGLAS COOMBS		M. PHILBRICK							
SHEET NUMBER		6		OF		9					



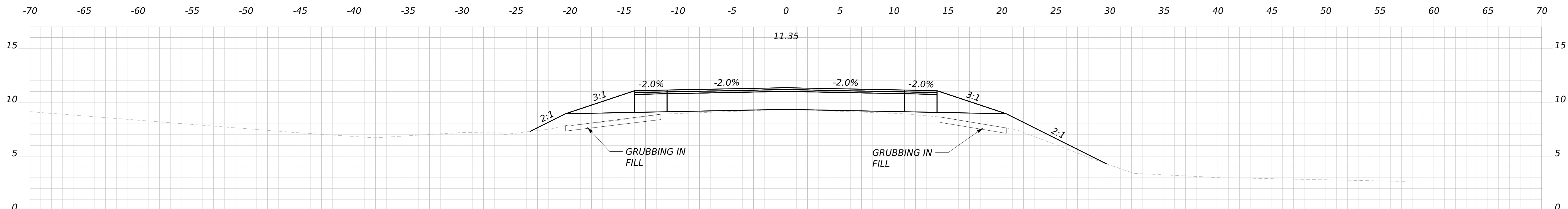
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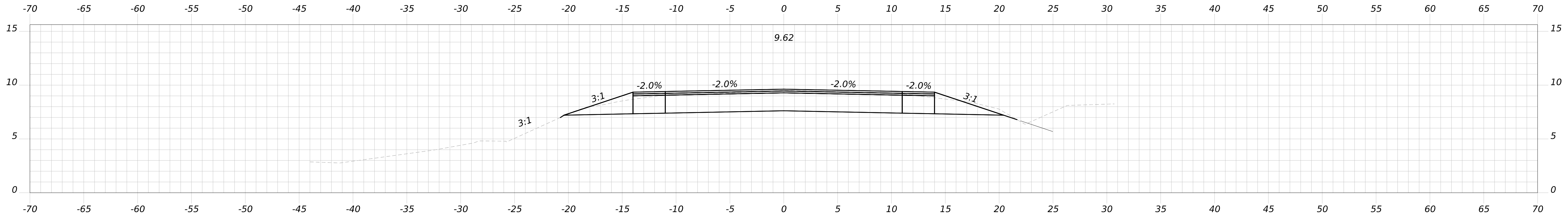
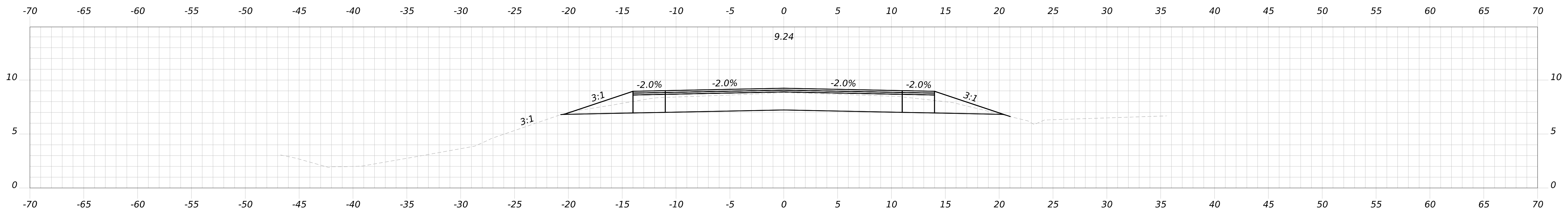
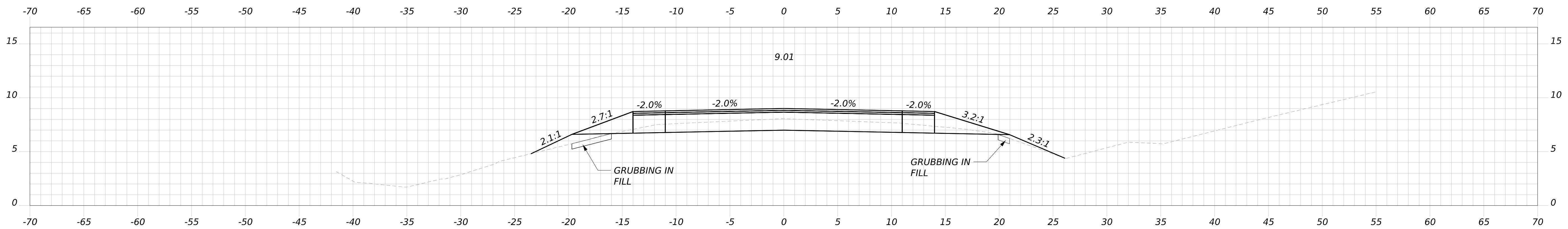
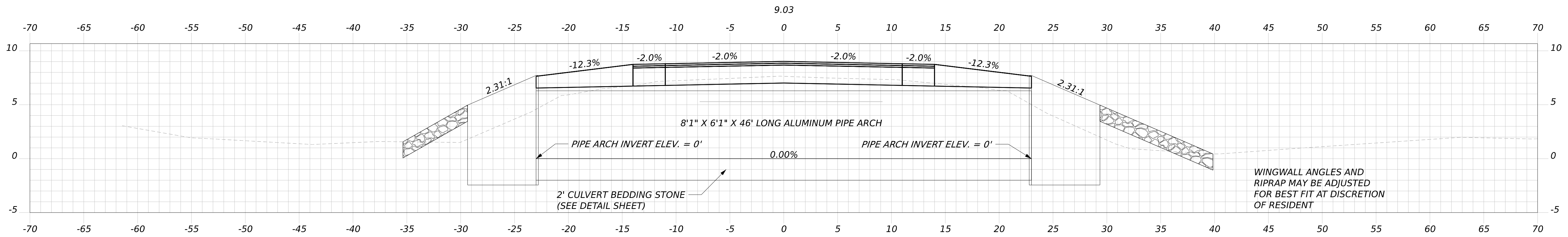
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STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2717400		WIN 27174_00		HIGHWAY PLANS	
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		DESIGN-DETAILED	M. PHILBRICK				
		CHECKED-REVIEWED					
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		DESIGN3-DETAILED3					
SHEET NUMBER 7 OF 9		REVISIONS 1					
		REVISIONS 2					
		REVISIONS 3					
		REVISIONS 4					
		FIELD CHANGES					

Username: Matthew.Philbrick Date: 3/25/2024


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105+50.00105+00.00
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

2/1/400

27174_00 HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE _____

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DESIGN-DETAILED	M. PHILBRICK
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CHECKED-REVIEWED	
DESIGN2-DETAILED2	

DESIGN3-DETAILED3	
REVISIONS 1	

REVISIONS 2	
REVISIONS 3	

REVISIONS 4	
FIELD CHANGES	

WOOLWICH
ROUTE 127

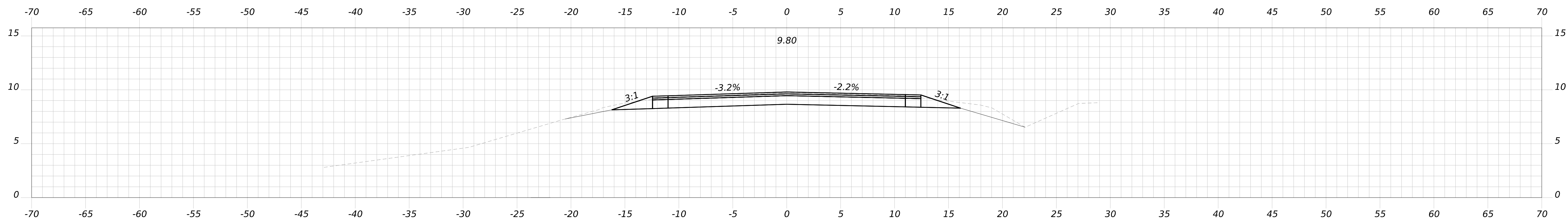
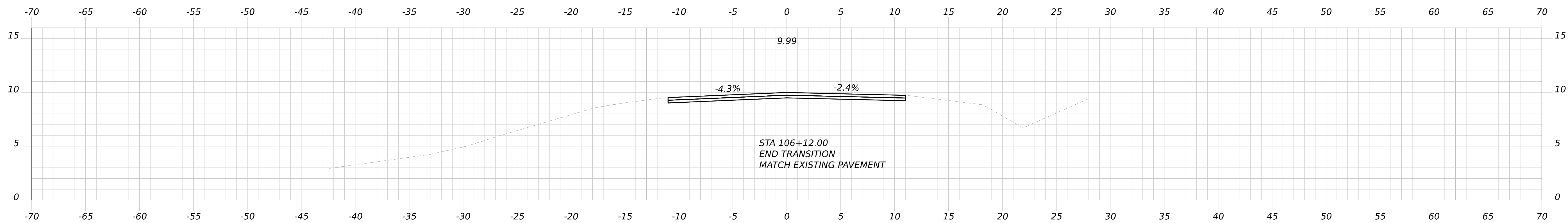
CONCLUSIONS

HEET NUMBER

8

OF 9

Username: Matthew.Philbrick Date: 3/25/2024

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WOOLWICH ROUTE 127	SHEET NUMBER				STATE OF MAINE				
	CROSS SECTIONS	9				DEPARTMENT OF TRANSPORTATION			
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					2717400				
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					27174_00				
				HIGHWAY PLANS					