

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



NEW SWEDEN AROOSTOOK COUNTY ROUTE 161 FEDERAL PROJECT NO. 2180300 PROJECT LENGTH: 0.03 MILES

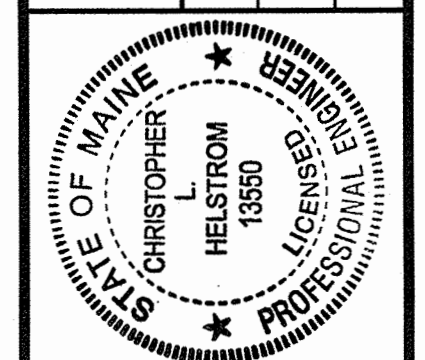
PLAN LEGEND

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	-----	Guardrail-Cable, Other	-----	
Trees	☙ Conifer	☘ Deciduous		
Tree Line	-----	Centerline-Existing	-----	
Clearing Limit Line	-----	Centerline-Proposed	-----	
Railroad	-----	Travelway-Existing	-----	
		Travelway-Proposed	-----	
Boring	⊕ HB-XXX-###	Probe	⊕ P-#. #X	
			## = Depth	
Pavement Core	● PC-#		X = W (Weathered Rock)	
			R (Refusal)	
Test Pit	▣ TP-XXX-###		NR (No Refusal)	

INDEX OF SHEETS

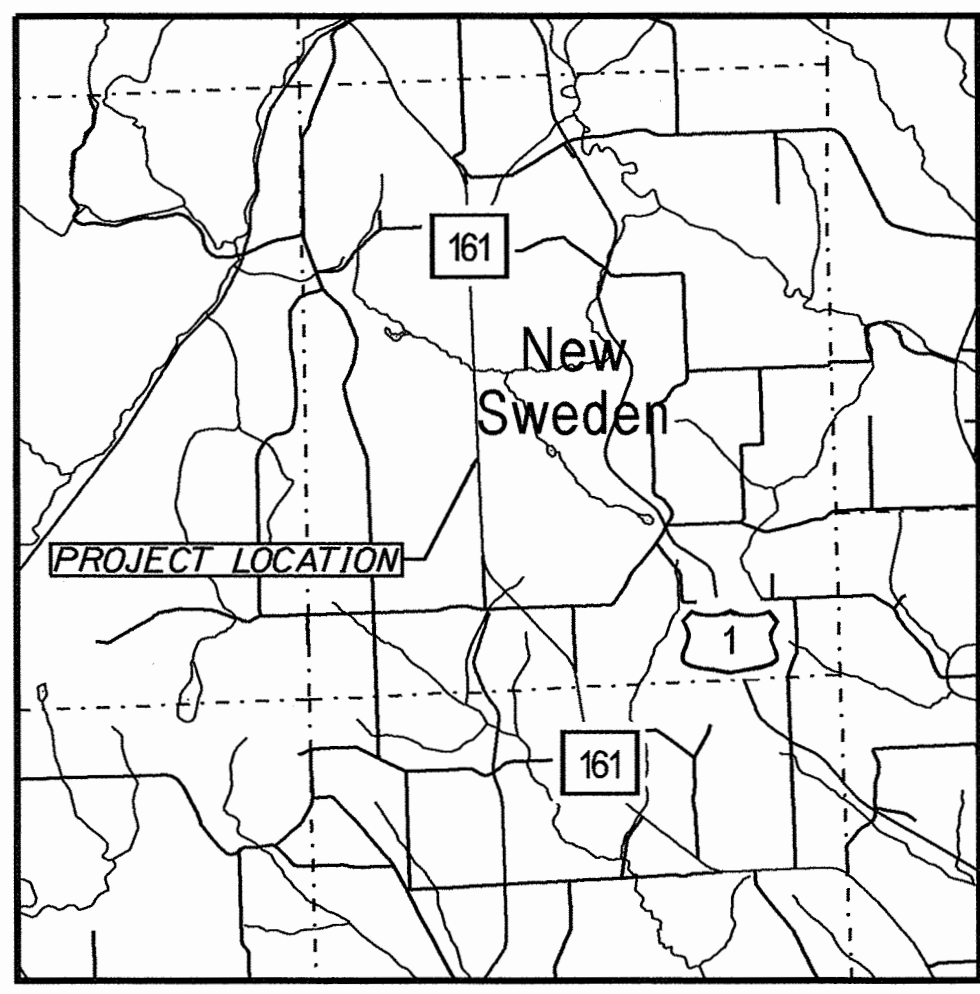
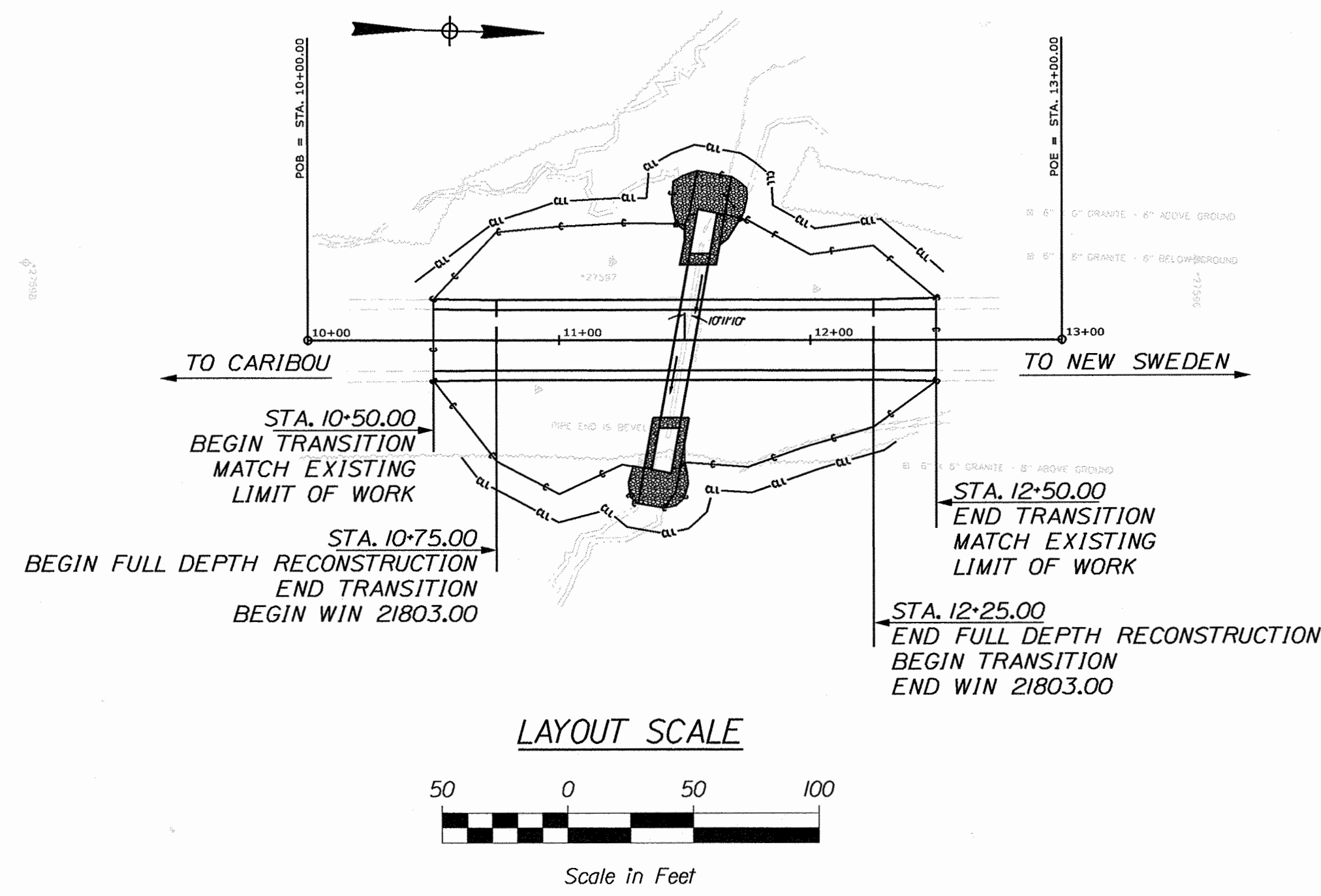
Description	Sheet No.
Title Sheet	1
Typical Section	2
Estimated Quantities	3
Construction Notes & General Notes	4
Special Details	5
Boring Location Plan & Interpretive Subsurface Profile with Boring Logs	6
Plan / Profile	7
Cross Sections	8-12
Right of Way Map	13

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>		5-27-22
CHIEF ENGINEER: <i>[Signature]</i>		5-26-2022



<i>[Signature]</i>	SIGNATURE
13550	P.E. NUMBER
5/11/2022	DATE

PROGRAM	PROJECT INFORMATION
PROJECT MANAGER	HIGHWAY
DESIGNER	ROGER SOUCY
CONSULTANT	CHRIS BELYEA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	



TRAFFIC DATA

Current (2022) AADT	2290
Future (2034) AADT	2430
DHV - % of AADT	11%
Design Hour Volume	267
% Heavy Trucks (AADT)	15%
% Heavy Trucks (DHV)	12%
Directional Distribution (DHV)	63%
18-kip Equivalent P 2.0	393
18-kip Equivalent P 2.5	375
Design Speed (mph)	55
Corridor Priority	2

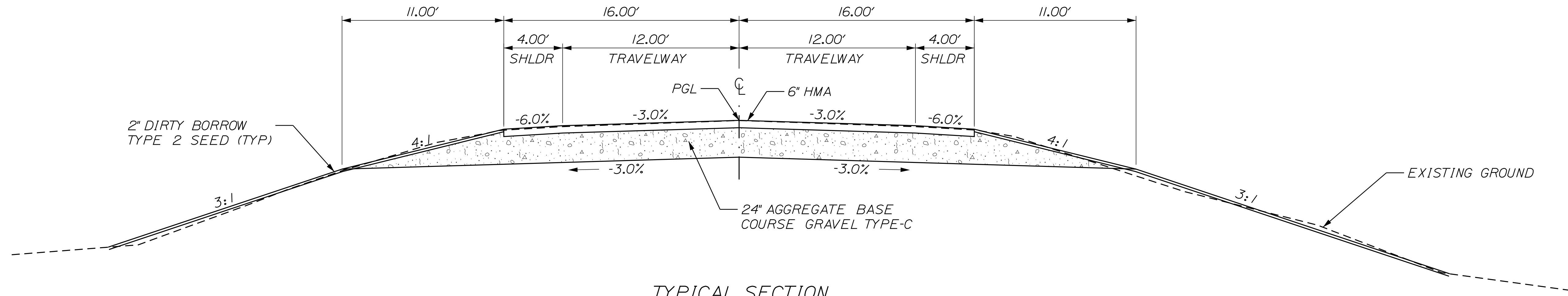
PROJECT LOCATION:	IN THE TOWN OF NEW SWEDEN ON ROUTE 161 LOCATED 0.96 MILES NORTH OF JEPSON ROAD INTERSECTION
PROGRAM AREA:	HIGHWAY PROGRAM
SCOPE OF WORK:	LARGE CULVERT REPLACEMENT

FEDERAL PROJECT NO. 2180300
WIN 21803.00

NEW SWEDEN ROUTE 161	TITLE SHEET
-------------------------	-------------

SHEET NUMBER	1
OF 13	

Date: 5/4/2022
Username: David.Wardwell
Division: HIGHWAY
Filename: ...\\001\\HIGHWAY\\MSTA\\001\\Title.dgn



TYPICAL SECTION

NOTES:

1. THE PAVEMENT AND BASE DEPTH AS SHOWN ON THE PLANS IS INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NOMINAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8.0%.
5. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.
6. 2IN OF DIRTY BORROW SHALL BE USED ON ALL DISTURBED SLOPES OTHER THAN LAWN AREAS. 4IN OF LOAM SHALL BE USED IN ALL LAWN AREAS.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2180300
WIN
21803.00
HIGHWAY PLANS

SIGNATURE
P.E. NUMBER
DATE

PROJ. MANAGER	ROGER SOUCY	BY	DATE
DESIGN-DETAILED	BELYEA	WARDWELL	05-2022
CHECKED-REVIEWED	HELSTROM	SOUCY	05-2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

NEW SWEDEN
ROUTE 161
TYPICAL SECTIONS

SHEET NUMBER
2
OF 13

GENERAL NOTES:

- 1 PAVEMENT THICKNESSES SHOWN ON THE TYPICAL SECTIONS ARE INTENDED TO BE NOMINAL.
- 2 CLEARING LIMITS SHALL BE 10 FEET BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE RESIDENT.
- 3 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.
- 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 FINAL COMPLETION OF THE PROEJCT THERE IS NO DROP-OFF FROM THE EDGE OF SHOULDER PAVEMENT.
- 6 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.
- 7 CROSS SLOPES FOR NORMAL AND SUPERELEVATED SECTIONS WILL BE STRAIGHT UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- 8 THE ALGEBRAIC DIFFERENCE BETWEEN TRAVELWAY AND SHOULDER CROSS SLOPE SHALL NOT EXCEED 8 PERCENT.
- 9 DIRTY BORROW HAS BEEN ESTIMATED FOR ALL DISTURBED SLOPE AREAS OTHER THAN LAWN AREAS. ACTUAL PLACEMENT OF THE DIRTY BORROW SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
- 10 DIRTY BORROW SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES UNLESS OTHERWISE NOTED OR DIRECTED.
- 11 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.
- 12 THE PROJECT GEOTECHNICAL REPORT TITLED "GEOTECHNICAL DESIGN REPORT FOR THE REPLACEMENT OF CROSS CULVERT #137.32", SOILS REPORT 2022-09, DATE CAN BE ACCESSED AT THE MAINEDOT WEBSITE [HTTP://WWW.MAINE.GOV/MDOT/CONTRACTORS/](http://www.maine.gov/mdot/contractors/).
- 13 GEOTECHNICAL INFORMATION FURNISHED OR REFERRED TO IN THE BID DOCUMENTS IS FOR THE USE OF THE BIDDERS. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF THE ACTUAL SUBSURFACE CONDITIONS THROUGHOUT THE CONSTRUCTION SITE. MAINEDOT WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN FROM THE GEOTECHNICAL INFORMATION. THE BORING LOGS PROVIDED IN THE BID DOCUMENTS (IF ANY) PRESENT FACTUAL AND INTERPRETIVE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN BORING LOCATIONS.
- 14 AREAS ON THE PROJECT REQUIRING FILL WILL COME FROM SUITABLE SITES SUCH AS EXCAVATION, DITCH AND INSLOPE OR EQUIPMENT RENTAL AREAS.
- 15 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.
- 16 "UNDETERMINED LOCATIONS" SHALL BE DETERMINED BY THE RESIDENT.

NEW SWEDEN
ROUTE 161

GENERAL AND
CONSTRUCTION NOTES

SHEET NUMBER

4

OF 13

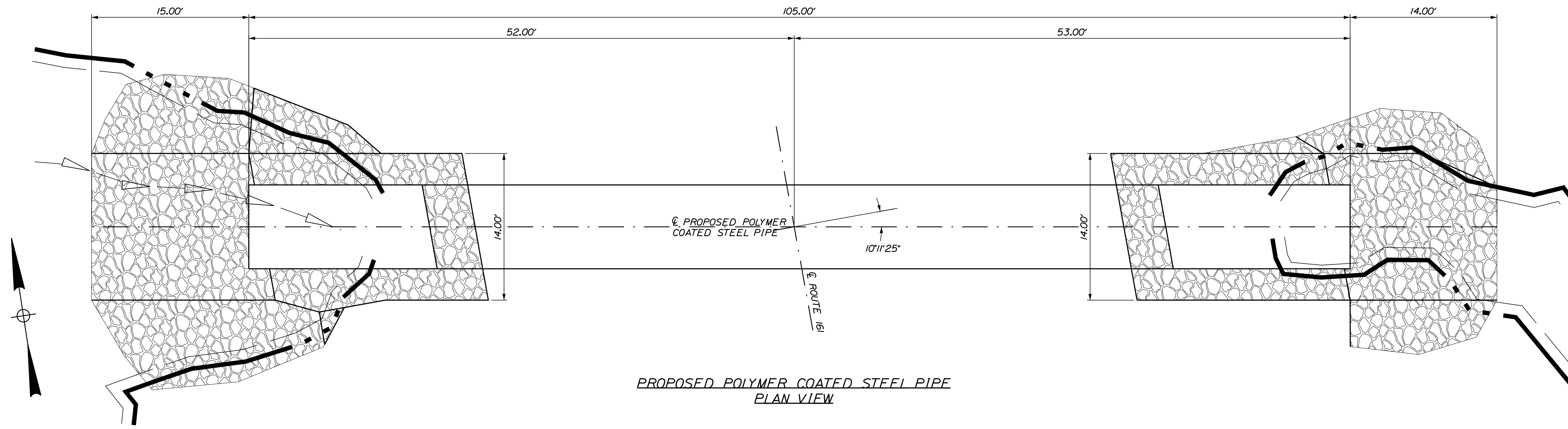
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2180300

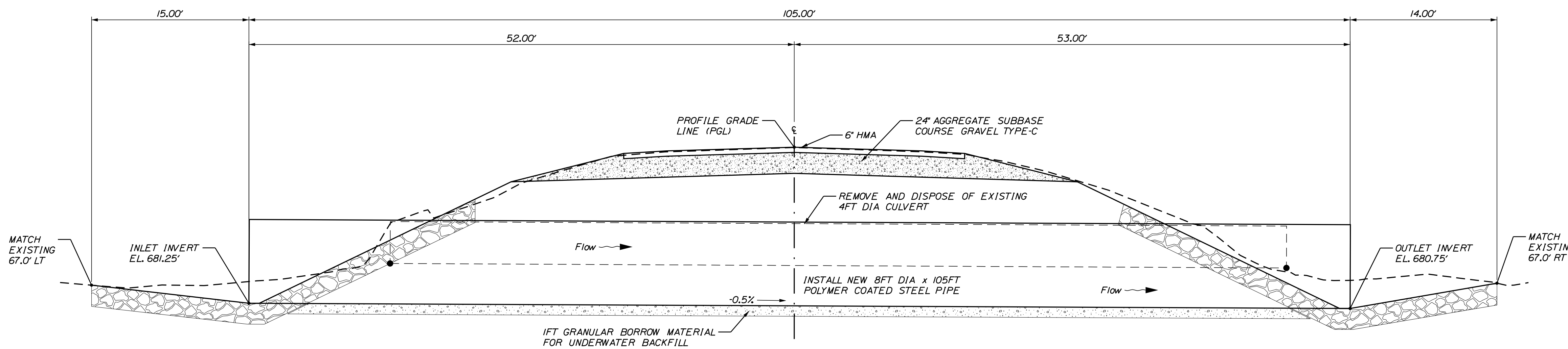
WIN
21803.00

HIGHWAY PLANS

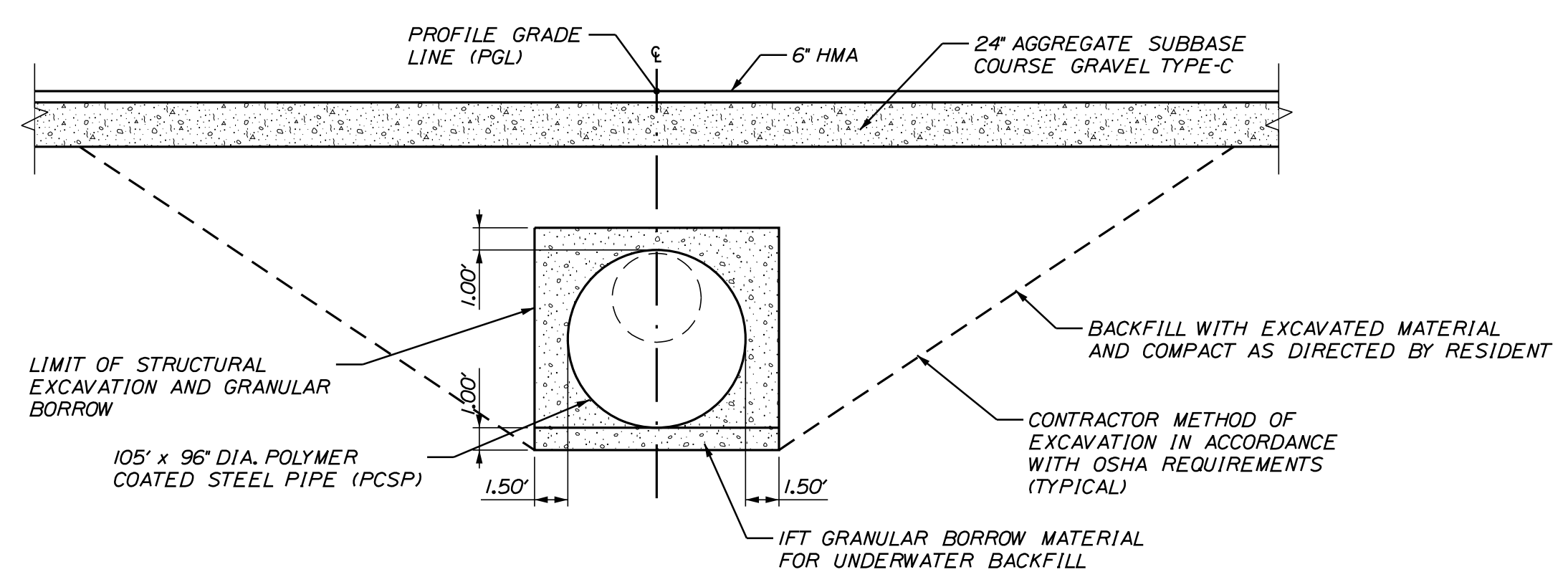
PROJ. MANAGER	ROGER SOUCY	BY	WARDWELL	DATE	05-2022
DESIGN-DETAILED	BELYEA	CHECKED-REVIEWED	HELSTROM	SIGNED	05-2022
DESIGN-DETAILED	HELSTROM	DESIGN-DETAILED	SOUCY	SIGNATURE	
REVISIONS 1		REVISIONS 1		P.E. NUMBER	
REVISIONS 2		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES					



PROPOSED POLYMER COATED STEEL PIPE
PLAN VIEW



PROPOSED POLYMER COATED STEEL PIPE
TRANSVERSE SECTION ALONG CENTERLINE



PROPOSED POLYMER COATED STEEL PIPE
TYPICAL SECTION

DESIGN-DETAILED	WARDWELL	05-2022	SIGNATURE
CHECKED-REVIEWED	SOUCY	05-2022	P.E. NUMBER
DESIGN-DETAILED			DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PROJ. MANAGER	ROGER SOUCY	DATE
DESIGN-DETAILED	BELYEA	05-2022
CHECKED-REVIEWED	WARDWELL	05-2022
DESIGN-DETAILED	HELMSTROM	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

NEW SWEDEN
ROUTE 161
SPECIAL DETAILS

SHEET INTENTIONALLY LEFT
BLANK FOR FUTURE DEVELOPMENT

SHEET NUMBER

6

OF 13

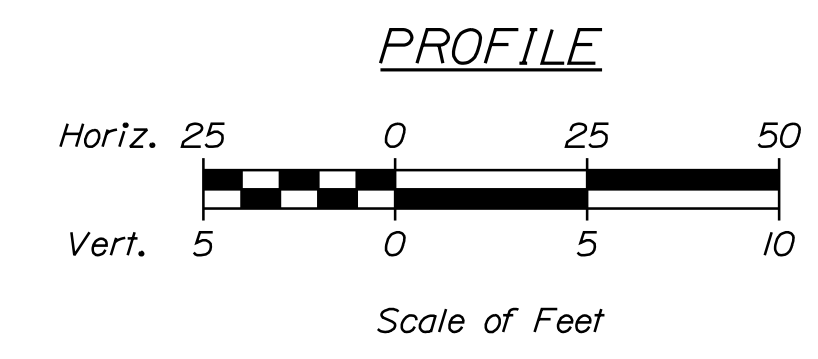
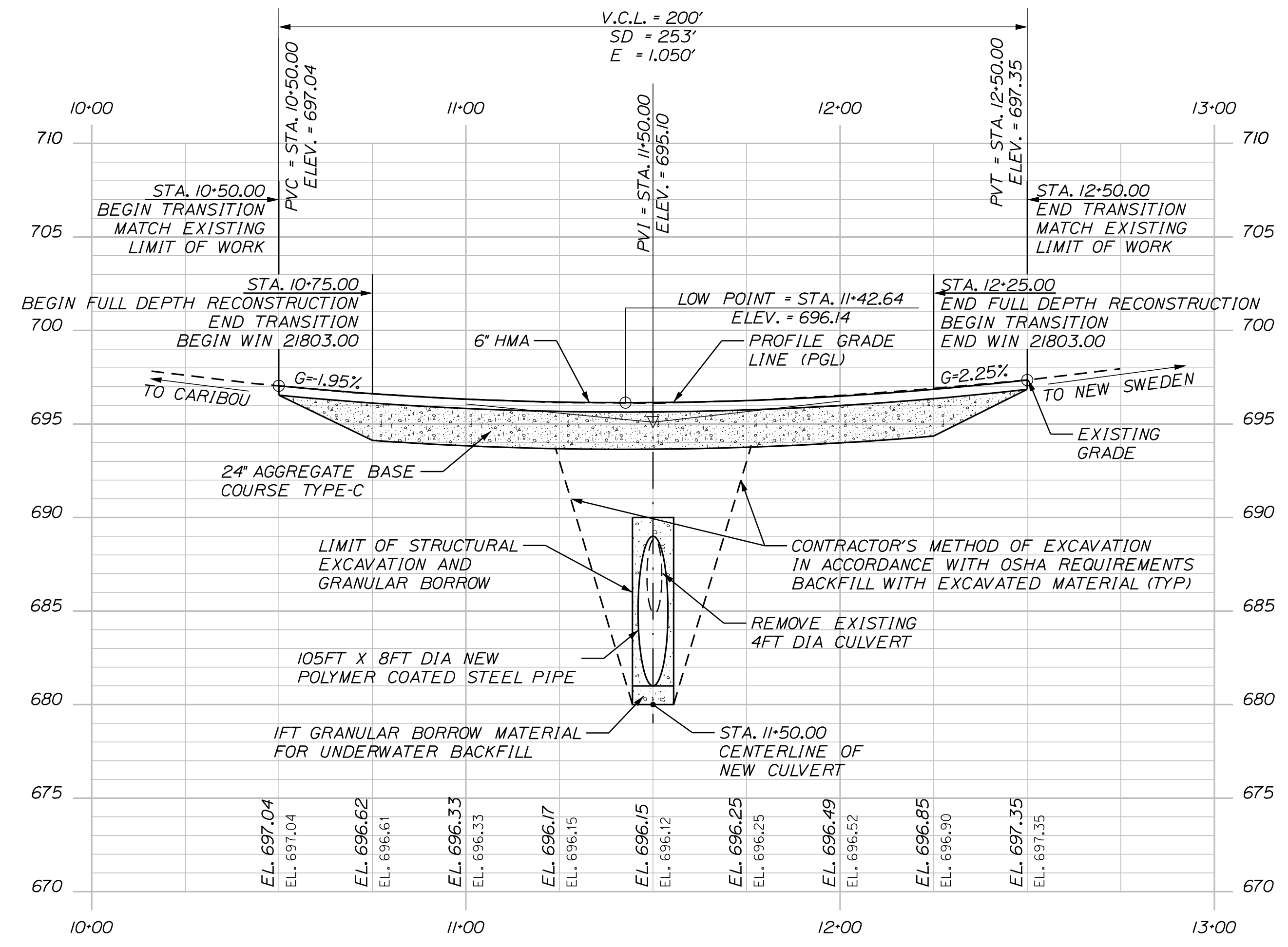
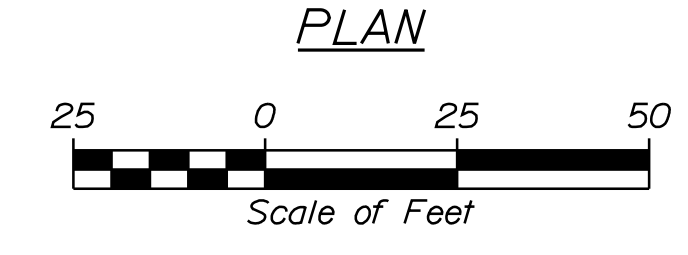
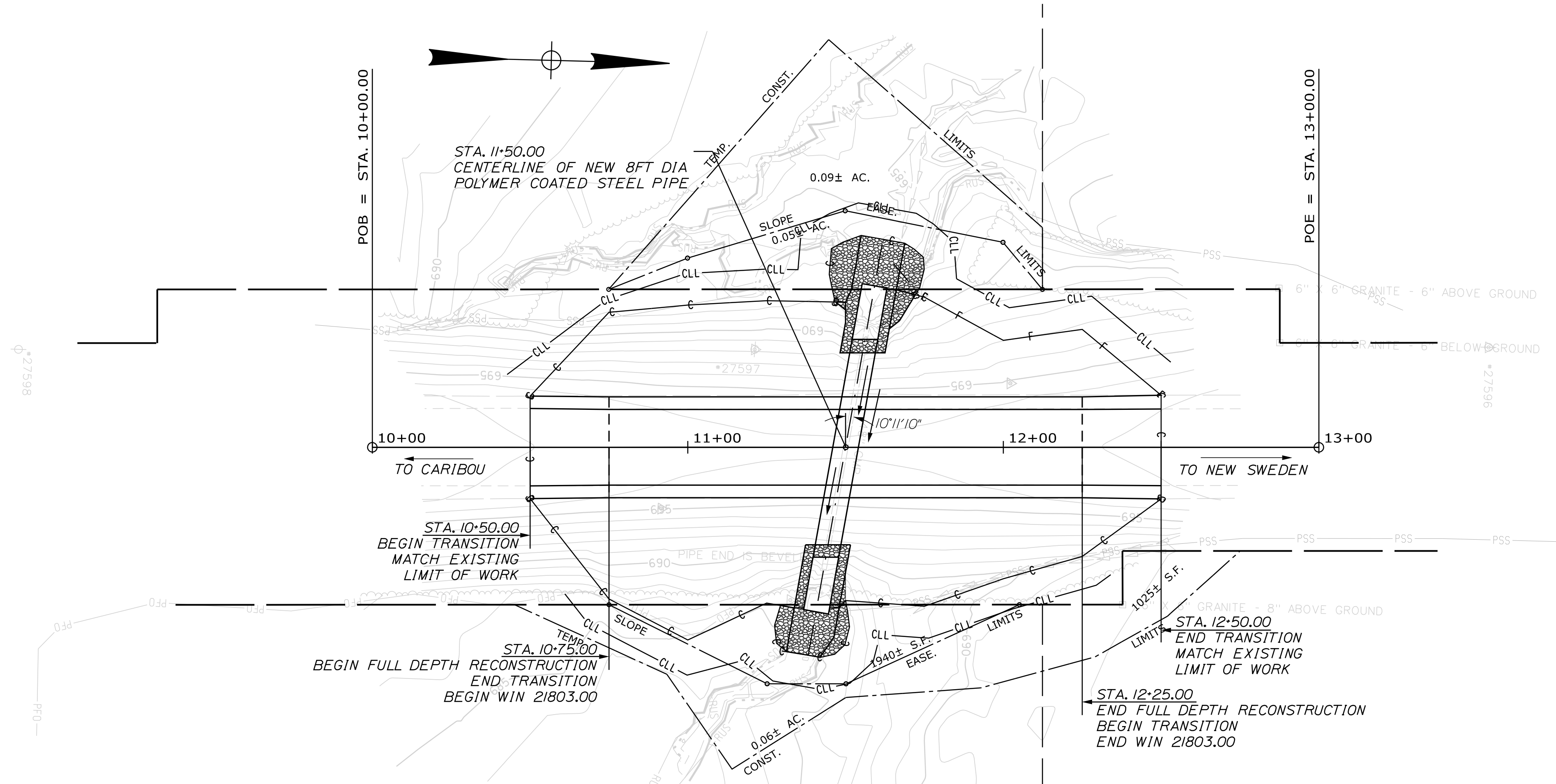
NEW SWEDEN
ROUTE 161

BORING LOCATION PLAN &
INTERPRETIVE SUBSURFACE PROFILE

PROJ. MANAGER	ROGER SOUCY	BY	DATE
DESIGN-DETAILED	BELYEA	WARDWELL	05-2022
CHECKED-REVIEWED	HELSTROM	SOUCY	05-2022
DESIGN-DETAILED2			
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE	
P.E. NUMBER	
DATE	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2180300
WIN
21803.00
HIGHWAY PLANS



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2180300
WIN
21803.00
HIGHWAY PLANS

DATE	SIGNATURE	P.E. NUMBER	DATE
05-2022			
05-2022			

PROJ. MANAGER	ROGER SOUCY	BY	DATE
DESIGN-DETAILED	BELVEA	WARDWELL	05-2022
CHECKED-REVIEWED	HELISTROM	SOUCY	05-2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

NEW SWEDEN
ROUTE 161
PLAN PROFILE

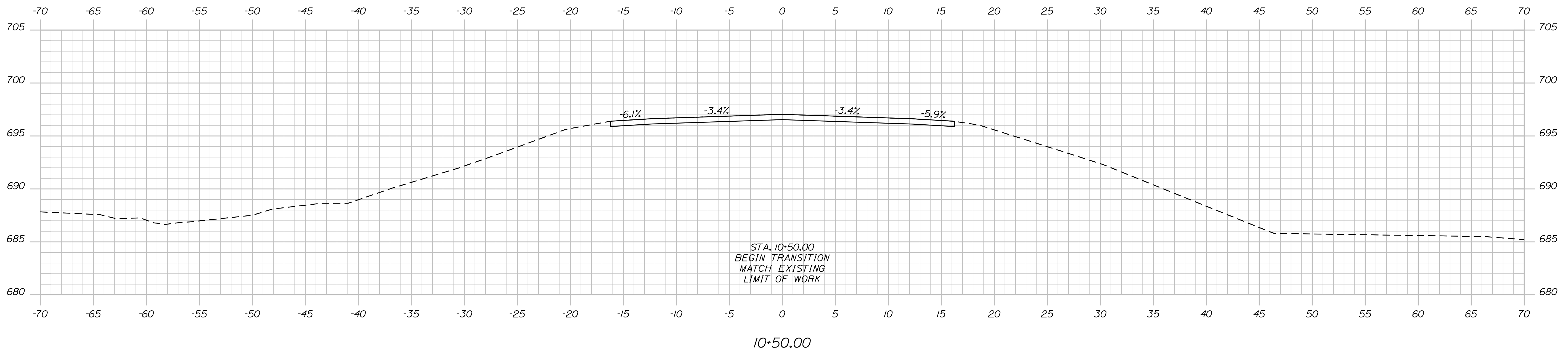
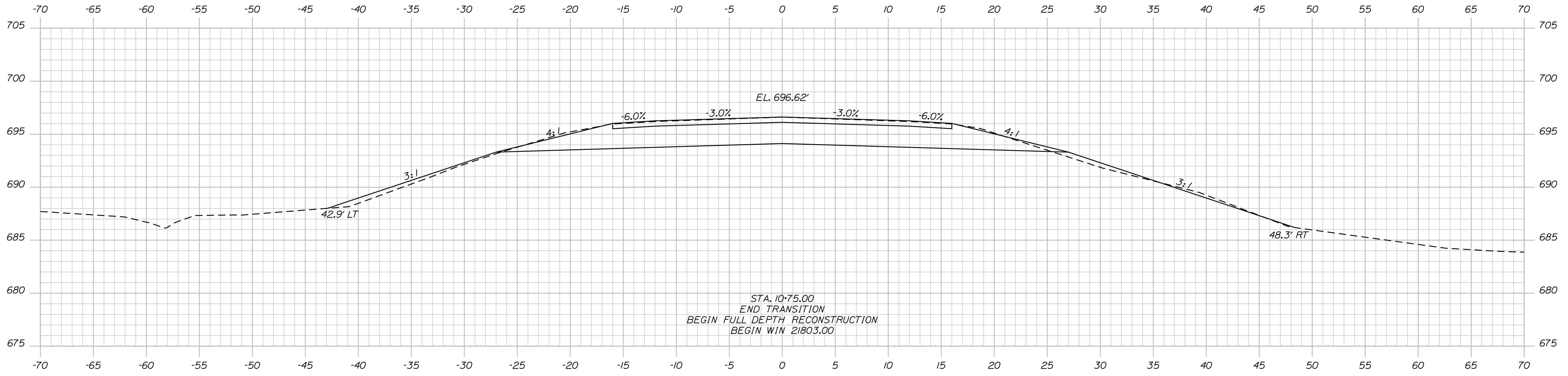
SHEET NUMBER
7
OF 13

Date: 5/3/2022

Username: David.Wardwell

Division: HIGHWAY

Filename: ... \MSTAN008_XSECT_10+50_001.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2180300

WIN

HIGHWAY PLANS

SIGNATURE

DATE

BY

ROGER SOUCY

DESIGN DETAILED

CHECKED/REVIEWED

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

P.E. NUMBER

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

NEW SWEDEN
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

8

OF 13

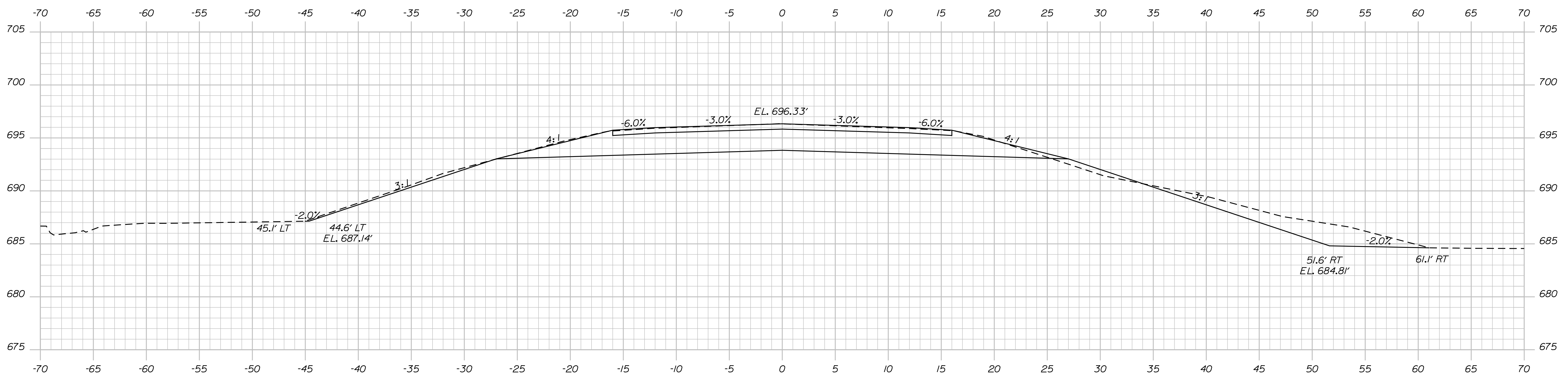
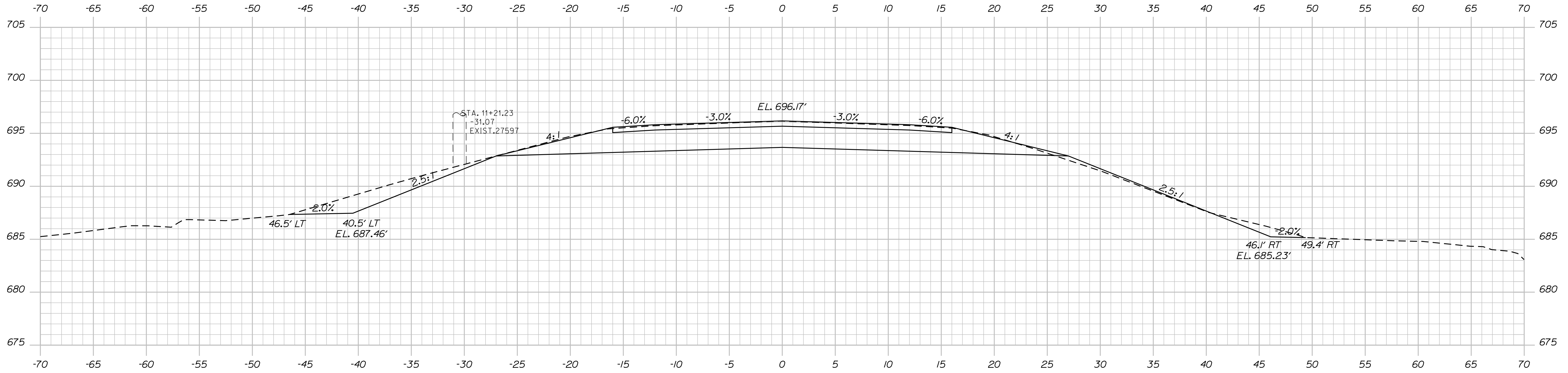
Sta. 10+50.00 to Sta. 10+75.00

Date: 5/3/2022

Username: David.Wardwell

Division: HIGHWAY

Filename: ... \MSTAD09_XSECT_11+00_002.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2180300

WIN

HIGHWAY PLANS

DATE
05-2022
BY
WARDWELL
SOUCY
ROGER SOUCY
BELVEA
HELISTROM
PROJ. MANAGER
DESIGN DETAILED
CHECKED-REVIEWED
DESIGN DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

SIGNATURE

P.E. NUMBER

DATE

NEW SWEDEN
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

9

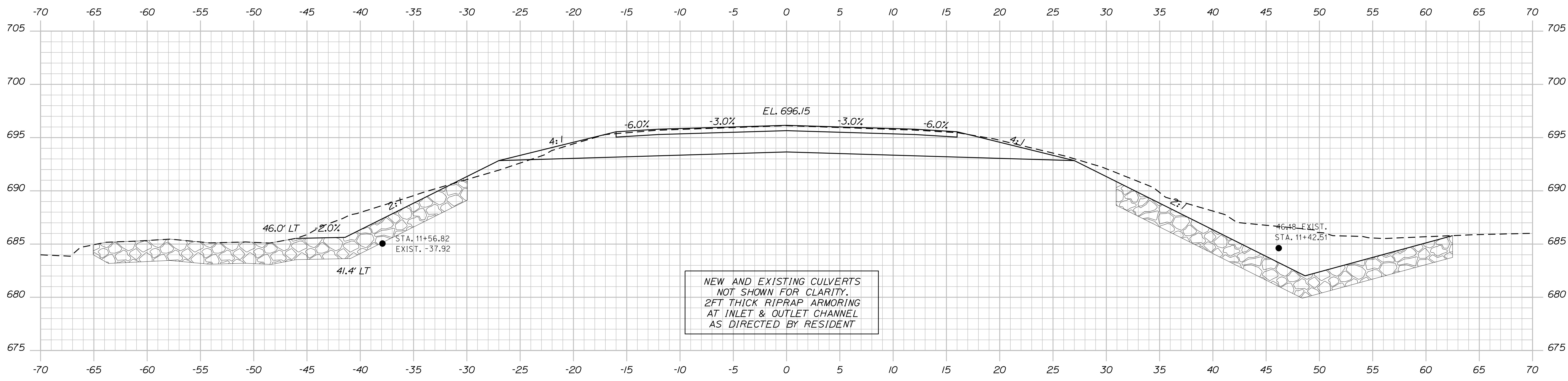
OF 13

Date: 5/3/2022

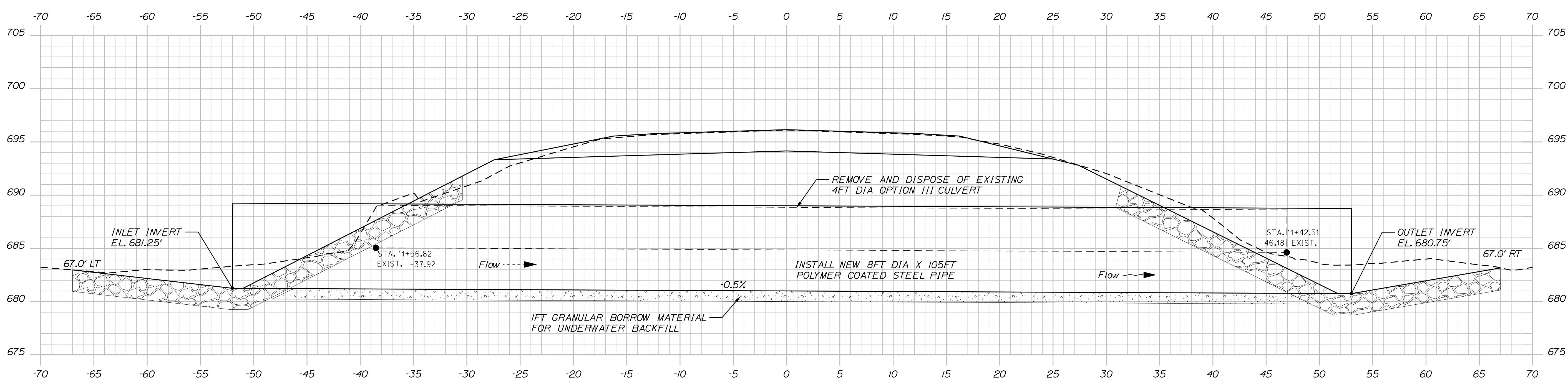
Username: David.Wardwell

Division: HIGHWAY

Filename: ... \MSTA\010_XSECT_11+50_003.dgn



NEW AND EXISTING CULVERTS
 NOT SHOWN FOR CLARITY.
 2FT THICK RIPRAP ARMORING
 AT INLET & OUTLET CHANNEL
 AS DIRECTED BY RESIDENT



11+50.00 - SKEWED ALONG CULVERT CENTERLINE

DESIGN/DATE	WARDWELL/05-2022	SIGNATURE
CHECKED/REVIEWED	SOUCY/05-2022	P.E. NUMBER
DESIGN/DATE		DATE
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER	ROGER SOUCY
DESIGN/DATE	WARDWELL/05-2022
CHECKED/REVIEWED	SOUCY/05-2022
DESIGN/DATE	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

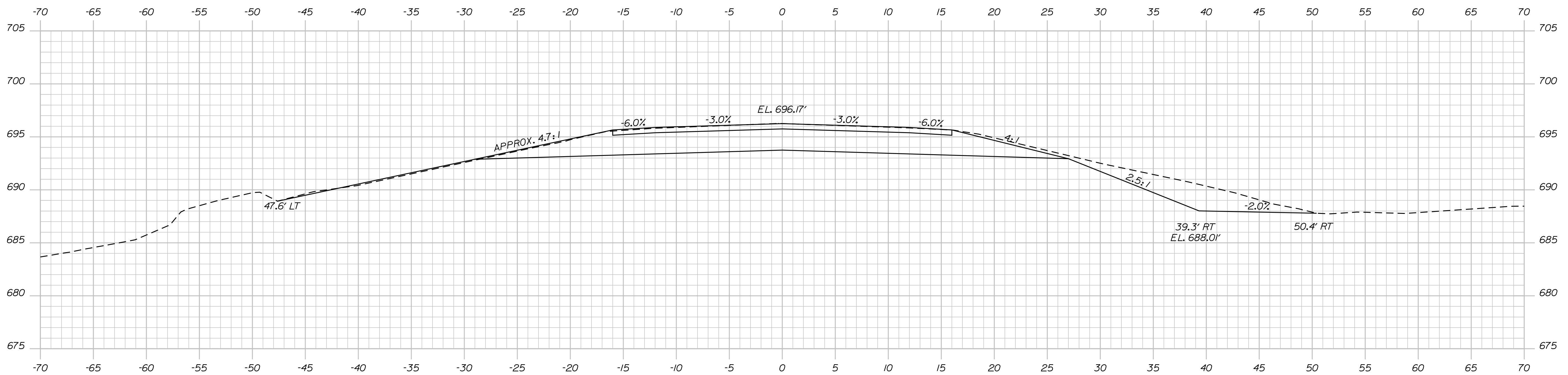
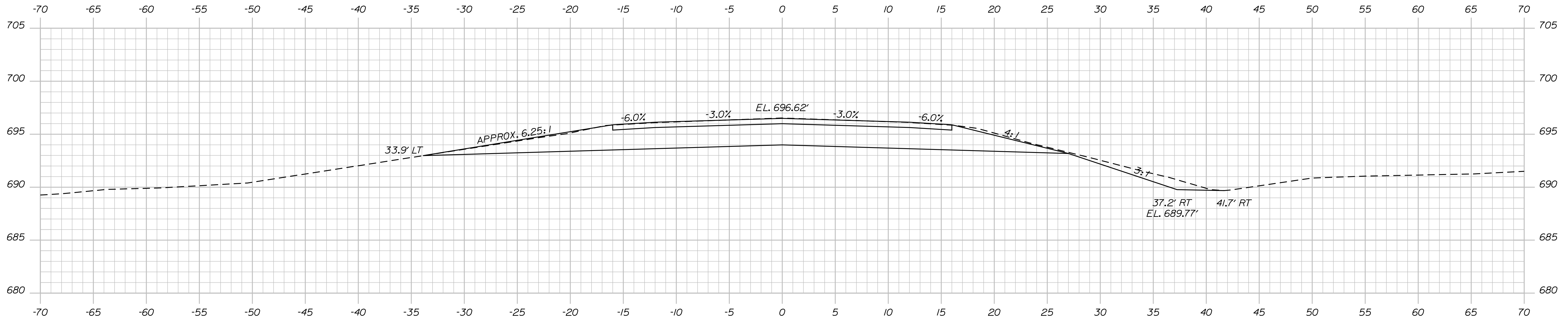
NEW SWEDEN
 ROUTE 161
 CROSS SECTIONS

Date: 5/3/2022

Username: David.Wardwell

Division: HIGHWAY

Filename: ... \MSTAN011_XSECT_11+75_004.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2180300

WIN

HIGHWAY PLANS

DATE
05-2022

BY
WARDWELL

ROGER SOUCY

DESIGN-DETAILED
BELVEA

CHECKED-REVIEWED
HELSTROM

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

SIGNATURE

P.E. NUMBER

DATE

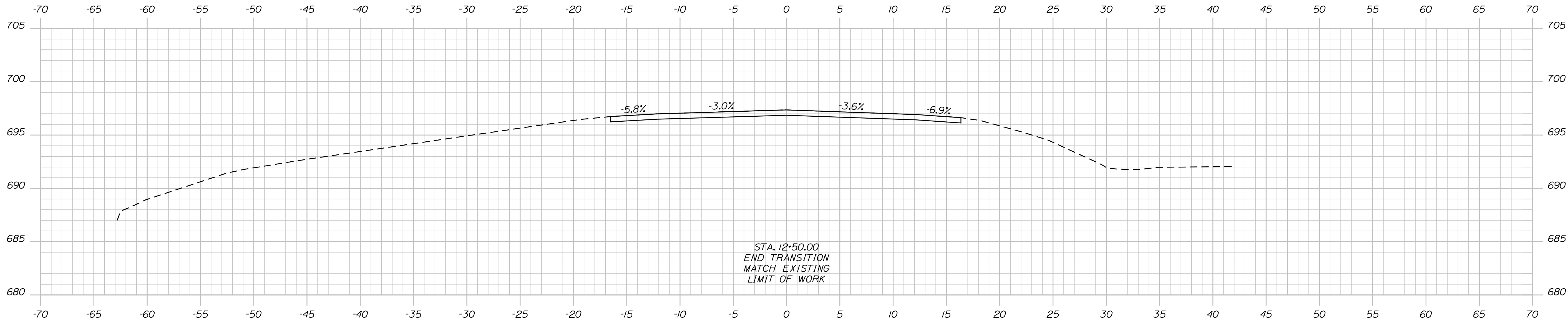
NEW SWEDEN
ROUTE 161

CROSS SECTIONS

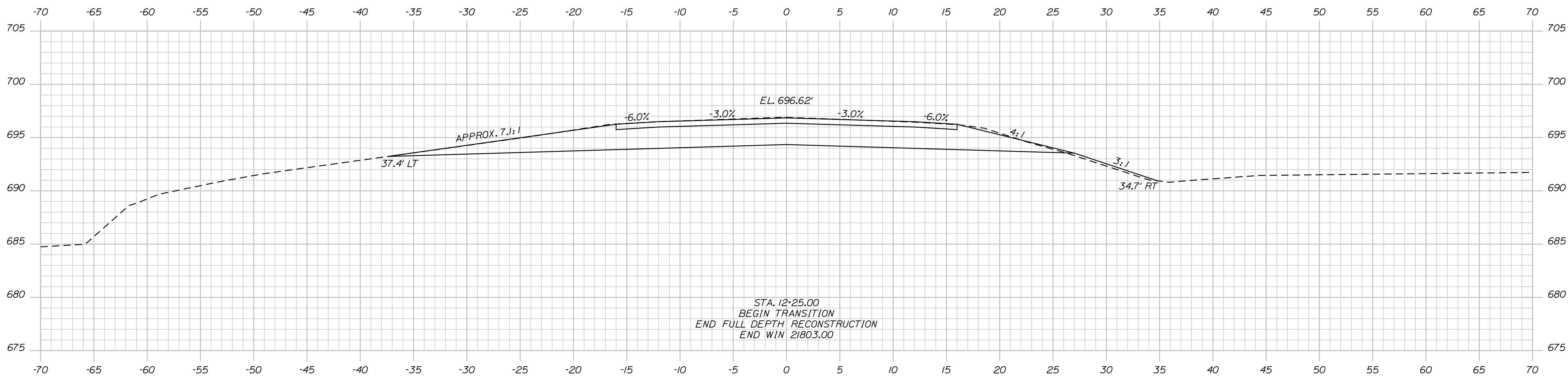
SHEET NUMBER

11

OF 13



12+50.00



12+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2180300

WIN

HIGHWAY PLANS

DATE

05-2022

BY

WARDWELL

ROGER SOUCY

DESIGN DETAILED

CHECKED/REVIEWED

DESIGN DETAILED

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

SIGNATURE

P.E. NUMBER

DATE

NEW SWEDEN
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

12

OF 13

Town, County, State _____
 Approx. Property Lines _____ P.L.
 Existing Right of Way _____
 Limits of Wrought Portion _____ L.O.W.P.
 Control Of Access _____ C.O.A.
 New Right of Way _____
 New Easement _____
 New Temporary Rights _____
 New R/W Within Existing R/W _____

New R/W Along Existing R/W _____
 Building _____
 Trees Conifer _____ Deciduous _____
 Tree Line _____
 Water Edge _____
 Ledge _____
 Fence CHAIN LINK _____ BARB WIRE _____ STOCKADE _____
 Sign _____ Well _____
 Clearing Limit Line _____
 Bush Line _____
 Rock/Boulder _____
 Flag Pole _____
 Stockade _____
 Well _____
 Mailbox _____

PLAN LEGEND

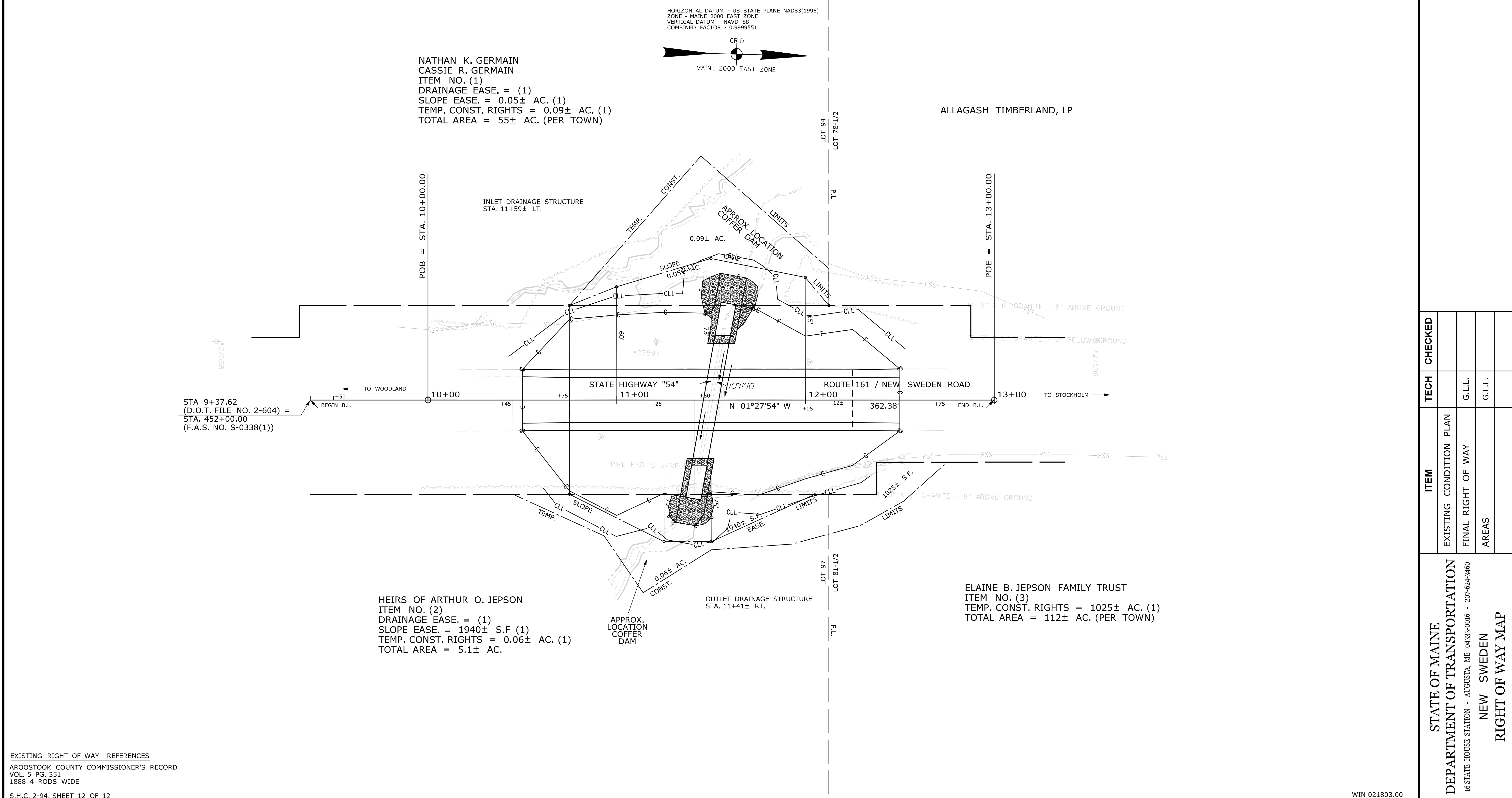
Sanitary Sewer	Existing	Proposed	Traveled Way	Existing	Proposed
Telephone Line	Existing	Proposed	Ditch	Existing	Proposed
Electric Line	Existing	Proposed	Catch Basin	Existing	Proposed
Water Line	Existing	Proposed	Manhole	Existing	Proposed
Underdrain Line	Existing	Proposed	Sewer Manhole	Existing	Proposed
Gas Line	Existing	Proposed	Utility Pole	Existing	Proposed
Guardrail	Existing	Proposed	Fire Hydrant	Existing	Proposed
Culvert	Existing	Proposed	Curbing	Existing	Proposed

Cut Line _____
 Stonewall _____
 Baseline _____
 Monument _____
 Iron Rod Found _____ IRF
 Replacement Pin Set _____
 Fill Line _____
 Retaining Wall _____
 Traverse Point _____
 Pipe Found _____ IPF

STATE OF MAINE
 REGISTRY OF DEEDS
 COUNTY _____
 RECEIVED _____
 at _____ h _____ m _____ M and recorded in
 Plan Book _____, Page _____
 Attest: _____ REGISTER

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ADJACENT PROPERTY OWNERS.

25 0 25 50 75 100
 Scale of Feet



EXISTING RIGHT OF WAY REFERENCES
 AROOSTOOK COUNTY COMMISSIONER'S RECORD
 VOL. 5 PG. 351
 1888 4 RODS WIDE
 S.H.C. 2-94, SHEET 12 OF 12

ITEM	TECH	CHECKED
EXISTING CONDITION PLAN		
FINAL RIGHT OF WAY	G.L.L.	
AREAS	G.L.L.	

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
 NEW SWEDEN
 RIGHT OF WAY MAP

NO.	DATE	REVISIONS DESCRIPTION	BY	PLAN FILED IN PLAN BOOK				PAGE COUNTY RECORD					
				NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE				

BRUCE A. VAN NOTE
 COMMISSIONER
 JOYCE NOEL TAYLOR
 CHIEF ENGINEER
 DATE _____

STATE HIGHWAY "54"
 ROUTE 161 / NEW SWEDEN ROAD
 NEW SWEDEN AROOSTOOK COUNTY
 STATE PROJECT NO. 21803.00
 JANUARY 2022 RIGHT-OF-WAY MAP
 SCALE 1" = 25' SHEET 1 OF 1
 D.O.T. FILE NO. 2-604
 SHEET NUMBER
13
 OF 13

Date: 5/5/2022
 Username: Terri.L.Blair
 Division: ROW
 Filename: ... \00\ROW\MSTA001_RWPLAN1.dgn

WIN 021803.00