



PLANS OF PROPOSED IMPROVEMENT ON THE
**PRIMARY ROAD SYSTEM
MONROE COUNTY**
SLIDE REPAIR
0.5 mi E of Co Rd S70 and Approx 1 mi W of Co Rd T19

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS

TOTAL

26

PROJECT IDENTIFICATION NUMBER

21-68-034-020

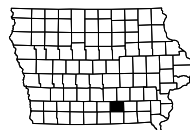
PROJECT NUMBER

NHSN-034-6(103)--2R-68

R.O.W. PROJECT NUMBER

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INDEX OF SHEETS	
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FOR PROJECT LOCATION MAP
REFER TO SHEET A.2

DESIGN DATA RURAL

2019	AAVT	2190	V.P.D.
20 --	AAVT	--	V.P.D.
20 --	DHV	--	V.P.H.
	TRUCKS	25.4	%
	Total		
	Design ESALS	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Jason M. Holst	Primary Signature Block
CS.1	Mark A. Dell	Geotechnical Design

ROADWAY DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

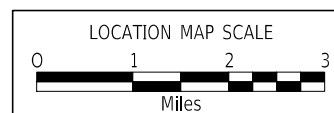
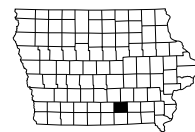
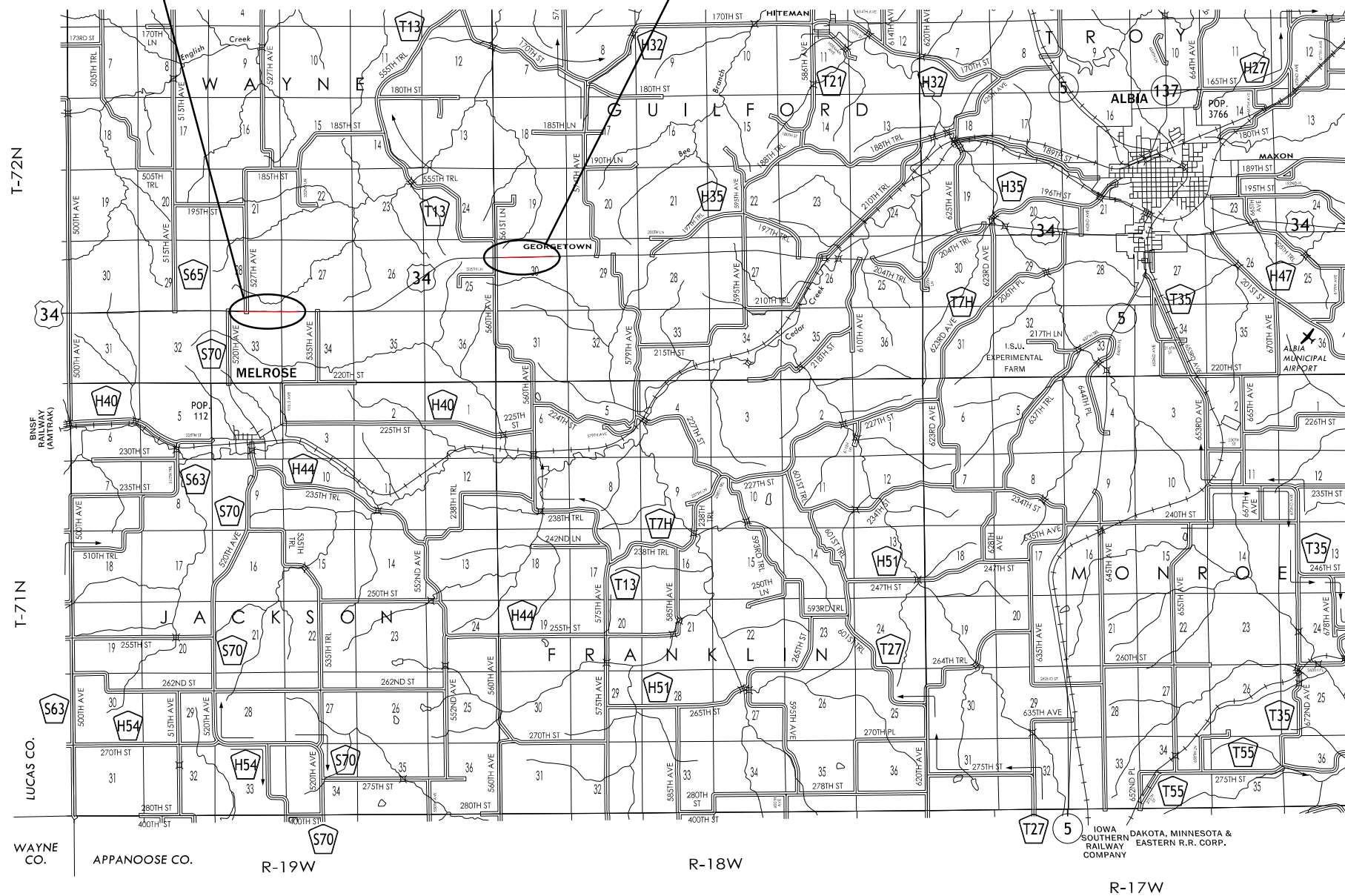
Signature: *Jason M. Holst* Date: 10-31-2022
Jason M. Holst
Printed or Typed Name

My license renewal date is December 31, 2023

Pages or sheets covered by this seal: A.1-2, C.1-2, G.4, J.1, RC.1-2, RR.1-3

PROJECT LOCATION
SITE 1 US 34
MM 155.1 NORTH SIDE

PROJECT LOCATION
SITE 2 US 34
MM 159 NORTH SIDE



ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities		Estimate Reference Notes
				Estimated		
				Roadway Items		
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.1		Clearing and Grubbing is located in Location 2. Suitable bat habitat will not be impacted by the project. Iowa Dot Spec 2101.01A is not required for this project.
2	2102-2625000	EMBANKMENT-IN-PLACE	CY	663		Refer to Tab 103-12 in the CS sheets.
3	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	872		Refer to Tab 103-12 in the CS sheets.
4	2102-2712015	EXCAVATION, CLASS 12, BOULDERS OR ROCK FRAGMENTS	CY	5		Refer to Tab 103-10 in the CS sheets.
5	2105-8425005	TOPSOIL, FURNISH AND SPREAD	CY	246		Refer to Tab 103-12 in the CS sheets.
6	2107-3825025	GRANULAR MATERIAL FOR BLANKET AND SUBDRAIN	CY	68		
7	2502-8212024	SUBDRAIN, LONGITUDINAL, (BACKSLOPE) 4 IN. DIA.	LF	335		Refer to Tab 104-9 in CS Sheets.
8	2502-8221306	SUBDRAIN OUTLET, DR-306	EACH	4		Refer to Tab 104-9 in CS Sheets.
9	2507-3250005	ENGINEERING FABRIC	SY	166		Refer to Tab 100-23 in CS Sheets.
10	2507-8029000	EROSION STONE	TON	58.9		Refer to Tab 100-23 in CS Sheets.
11	2526-8285000	CONSTRUCTION SURVEY	LS	1		
12	2528-8445110	TRAFFIC CONTROL	LS	1		
13	2528-8445113	FLAGGERS	EACH	0		See Proposal.
14	2533-4980005	MOBILIZATION	LS	1		

SLIDE REPAIR

Site No.	Location		Side	Class 13 Excavation Waste CY	Embankment-in-Place CY	Excavation, Class 10		Class "E" Revetment Tons	Engineering Fabric SY	Erosion Stone Tons	Gra. Material Blankets & Subdrain CY	Macadam Stone Slope Protection SY	Topsoil		Remarks	
	Begin Sta.	End Sta.				Roadway and Borrow CY	Waste CY						Furnish & Spread CY	Strip, Salvage & Spread CY		
1	151+40.00	152+40.00	Lt.		208		293				28			98		
2	354+65.00	355+80.00	Lt.		455		579				40			148		
Totals					663		872				68			246		

ROCK EROSION CONTROL

Refer to EC-301 and Detail 570-8

Road Identification	Begin Station	End Station	Side	L	W	Rock Erosion Control (REC)					Material Bid Quantities			Remarks	
						Type 1	Type 2	Type 3	Type 4	Type 5	Eng. Fabric	Class E Revetment	Erosion Stone		
						Rock Ditch Check	Rock Ditch	Rock Flume	Rock Splash Basin	Rock Slope Protection	SY	TON	TON		
US 34	151+40.00	153+68.00	Lt.	228	4				X			166.0		58.9	

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

* Not a bid item. Bridge berm quantities assume a trench depth of 24 inches.

Line No.	Road or Lane Identification	Station to Station	Side	Depth D	Longitudinal Subdrain (DR-301)				Subdrain Outlet		Porous* Backfill CY	Class "A"*** Crushed Stone CY	Remarks			
					Shoulder		Backslope		Bridge Berm (EW-203 or EW-204)					DR-303, DR-305 or DR-306		
					Size	Length	Size	Length	Standard Road Plan and Type	Size				Length	Station	Standard Road Plan and Type
					IN	FT	IN	FT		IN				FT		
1	US 34	151+40.00 - 152+40.00	LT	24.0			4.0	160.0					151+40.00 - 152+40.00 DR-306	2.5		Install drain per DR-301, Type 1 Installation on bench at Elev. 977.5
2	US 34	354+65.00 - 355+80.00	LT	24.0			4.0	175.0					354+65.00 - 355+80.00 DR-306	2.7		Install drain per DR-301, Type 1 Installation on bench at Elev. 970.0
Total							0.0	335.0					DR-306 = 4	5.2	0.0	

TOPSOIL STRIPPING AND PLACEMENT

Road Identification	Dir. of Traffic	Location		Topsoil Stripping Thickness IN	Topsoil Placement Thickness IN	Remarks
		Begin Station	End Station			
		US 34	WBL			
US 34	WBL	354+65.00	355+80.00		8.0	

SHRINKAGE DATA

Material	%	Remarks
Boulders		5 CY

GEOTECHNICAL DESIGN

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: *Mark A. Dell* Date: *10/17/22*

Mark A. Dell
Printed or Typed Name
My license renewal date is December 31, 2023

Pages or sheets covered by this seal:
CS.1, Q.1-4, W.1-7

SURVEY INDEX**County: Monroe****PIN: 21-68-034-020****Project Number: NHSN-034-6(103)--2R-68****Location: 0.5 mi E of Co Rd S70 and Approx. 1 mi W of Co Rd T19
(2 Locations)****Type of Work: Slide Repair****Project Directory: 6803402021****Survey Personnel**

Myron Fox – Survey Party Chief

Date(s) of Survey

Begin Date 10/28/2021

End Date 12/16/2021

General Information

Measurement units for this survey are US survey feet. This survey is for US Hwy 34 Slide Repair at locations 0.5 miles E of Co Rd S70 and Approx. 1 mi W of Co Rd T19 (2 Locations).

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Two five-minute observations were taken with appropriate time spans between and used in a weighted average to obtain final coordinate values. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) EPOCH 2010.00**VERTICAL DATUM: NAVD88****COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 12****Alignments Information**

Alignment for the two slides west of Albia created by As-built Plans Monroe County FN-240 Erosion Plans.

Survey stationing relates to As-built plan stationing as follows:

Site 1

POT Sta. 141+44.80 Plan

=POT Sta. 141+44.80 Survey

POT Sta. 194+32.80 Plan

=POT Sta. 194+24.90 Survey

Site 2

PI Sta.303+40.91 Plan

=PI Sta.303+40.92 Survey

PI Sta.368+35.70 Plan

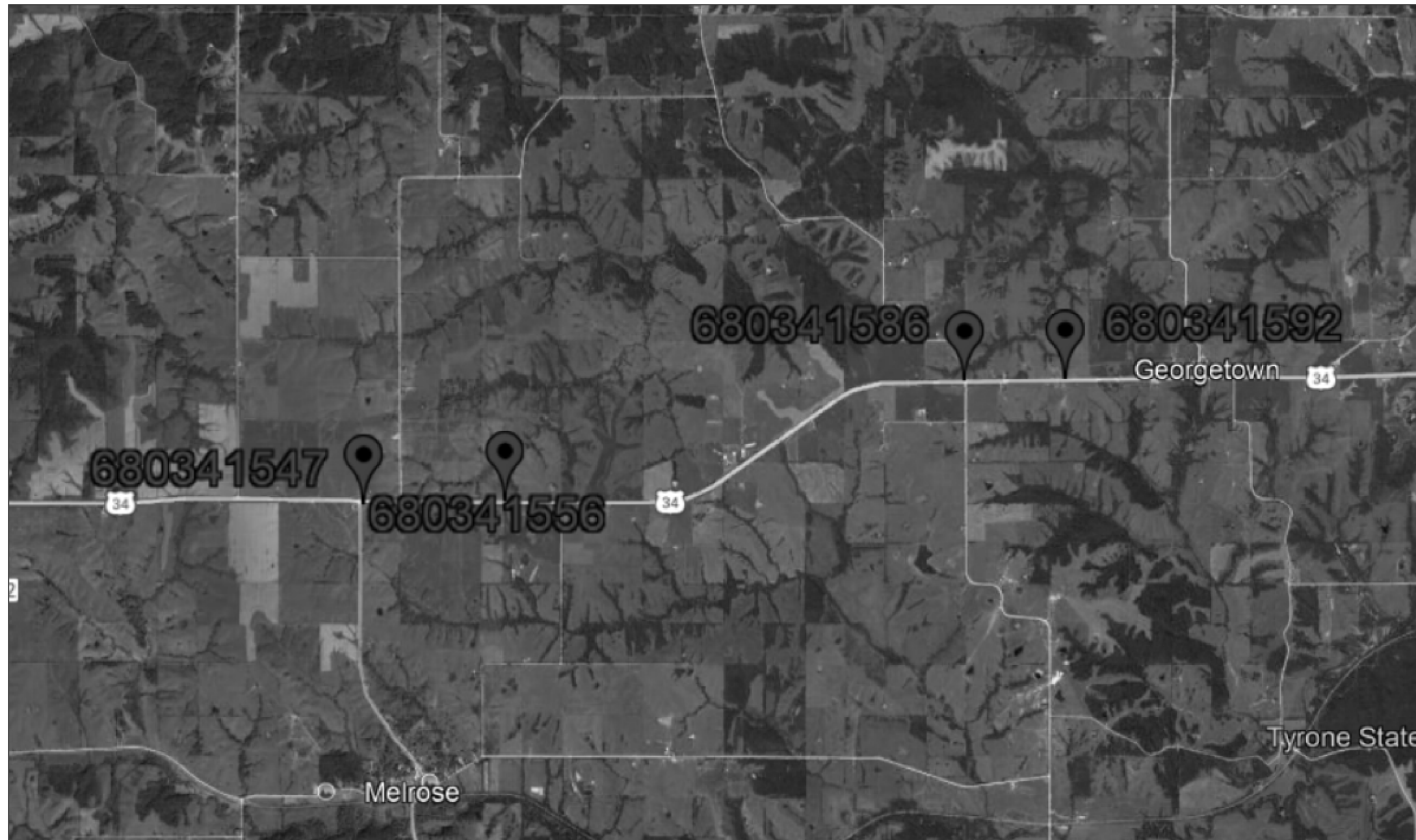
=PI Sta.368+35.70 Survey

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the Prelim Survey project directory.

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00 - Ia. RCS Zone 12
VERT. DATUM: NAVD88 - Geoid Model g2012bu3

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
 1a. Regional Coordinate System Zone 12

VERT. DATUM: NAVD88
 Geoid Model g2012bu3
 Project Control Marks are Bench Marks

Point Name	North	East	Height	Code Description
680341547	6231436.463	22691798.430	1007.039	CP Feno Monument with Idot Brass Disc from the intersection of Hwy34 and 520th Ave proceed E along Hwy34 112ft and 73ft S of centerline of Hwy34
680341556	6231602.935	22696432.330	972.812	CP Feno Monument with Idot Brass Disc from the intersection of Hwy34 and 535th Ave proceed along Hwy34 1873ft and N 87ft of centerline of Hwy34
680341586	6235637.048	22711433.900	973.306	CP Feno Monument with Idot Brass Disc from the intersection of Hwy34 and 555th Trail proceed W along Hwy34 57ft and 74ft N of centerline of Hwy34
680341592	6235698.041	22714693.640	981.872	CP Feno Monument with Idot Brass Disc from the intersection of Hwy34 and 555th Trail proceed E along Hwy34 3237ft and 76ft N of centerline of Hwy34

NOTE:

The first two digits in the control point name refer to the county number.
 The next 3 digits refer to the highway number.
 The next 3 digits refer to the highway milepost.
 The last digit refers to the distance from the referenced milepost to the nearest tenth of a mile.

ALIGNMENT COORDINATES

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
1	SURML034(1)	14144.800 R1	6231504.85	22693021.39															
1	SURML034(1)	19424.902 R1	6231525.15	22698301.46															
1	SURML034(2)	30340.920 R1	6235488.90	22708034.79															
1	SURML034(2)	36835.696 R1	6235624.70	22714528.14															

108-23A
08-01-08

TRAFFIC CONTROL PLAN

Traffic on US 34 shall be maintained at all times.

108-25
10-21-14

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			No Restrictions Expected									

SURVEY SYMBOLS

- BL, Topo Breakline
- BL, Topo Breakline
- C, Centerline BL of Road -ML or SR
- C, Centerline BL of Road -ML or SR
- CON, Concrete or A/C Slab
- CON, Concrete or A/C Slab
- CP, Control Point
- D, Centerline Draw or Stream -Down
- D, Centerline Draw or Stream -Down
- EP, Edge of Paved Roads -ML or SR
- EP, Edge of Paved Roads -ML or SR
- Existing Contours
- Existing Terrain Boundary
- FW, Wire Fence
- FW, Wire Fence
- GR, Ground Shot
- PIP, Pipe Culvert
- PIP, Pipe Culvert
- PLG, Location of General Photo
- SF, Silt Fence -Wetlands
- SF, Silt Fence -Wetlands
- SNP, Unpaved Shoulder
- SNP, Unpaved Shoulder
- SOP, Size of Pipe or Culvert
- TEV, Evergreen Tree
- TLNR, Tree Line Right
- TLNR, Tree Line Right

UTILITY LEGEND

- F0 --- FO1D, Iowa Communications Network - Quality D
- F02 --- FO2D, Windstream Communications - Quality D
- T1 --- TL1D, Windstream Communications - Quality D

PLAN VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK		Design Color No.
Green	(2)	Existing Topographic Features and Labels
Purple (Halo)	(15)	Backslope Drains
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation

SHADING		Design Color No.
Brown, Light	(236)	Core Out

PROFILE VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK		Design Color No.
Blue	(1)	Proposed Alignment, Stationing, and Alignment Annotation
Green	(2)	Existing Ground Line Profile
Green, Med	(2)	Topsoil
Green, Med	(2)	Slope Dressing Only
Orange	(6)	Loam
Aqua (Cyan)	(7)	Class 10
Brown, Med	(4)	Sand
Red	(3)	Unsuitable A
Pink, Dark	(13)	Unsuitable B
Pink	(11)	Unsuitable C
Red	(3)	Shale
Red	(3)	Waste
Gray, Light	(48)	Broken and Weathered Rock
Gray, Med	(80)	Rock
Gray, V.Dark	(128)	Boulders

PATTERN AND SYMBOL LEGEND OF SOILS SHEETS

Drill	Dig/Core	Date(s) Drilled _____
H ₂ O Water	Treatment	Sandstone
DRY Dry	Sand Blanket	Unsuitable A
Sample	Soil Remediation Area	Unsuitable B
Plugged	Select Soil	Unsuitable C
Moisture	Select Sand	Sandy Soil
Shelby	Slope Dressing Only	Boulders
Blow Count	Broken and Weathered Rock	Shale
Dens. Core	Rock	

Reference Point	Survey Line
Station	Section Corner
Ground Line Intercept	Saw Cut
Guardrail	Clearing & Grubbing Area
Pavement Removal	

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Borrow
- Easement (Temporary)
- Easement
- Excess
- A/C Access Control

NOTE: Sounding and test boring data shown in the plans were accumulated for designing and estimating purposes. Their appearance on the plans does not constitute a guarantee that conditions other than those indicated will be encountered. Details and notes shown elsewhere shall be used for roadway and structure construction.

SOILS LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES Q)

US 34, Monroe Co. Slide Repairs

GENERAL NOTES:

The design intent is to repair foreslope instability and any areas of erosion that has occurred at two (2) separate areas along the north side of US 34 located west of the City of Albia, Iowa. Be aware that the actual limits of the repairs discussed below may be found to have changed (enlarged) at the time of construction due to continued slope movements and/or erosion.

Area No. 1 (Station 151+40 to Station 153+68):

Existing Conditions

The foreslope instability has resulted in some slough material present near mid-slope. At its highest point on the foreslope, the scarp was located at the outside edge of the gravel shoulder. The roadside ditch has degraded beginning just beyond the eastern limits of the current foreslope instability and then extending east to the existing 24" CMP dike culvert inlet located at Station 153+68.

Previous Foreslope Repairs

The right (north) foreslope near the current limits of instability was repaired previously in 1991. Limits of this foreslope repair extended from about Station 154+00 to Station 155+00. Also, as part of this project, an existing 4' x 4' RCB culvert located at Station 154+25 was plugged and abandoned and a new 54-inch RCP culvert with flume and basin installed at Station 154+80. New 24" CMP culverts were installed through the existing roadside ditch dikes located west and east of the new RCP culvert and letdown.

A repair to the right (north) foreslope was completed in the general area again in 2016. Limits of this foreslope repair extended from about Station 152+95 to Station 154+80. This repair consisted of benching and rebuilding the foreslope using suitable cohesive embankment. Slope drains were also installed to remove water from the rebuilt foreslope.

Proposed Foreslope Repair

From Station 151+40 to Station 152+40, cut benches in the existing right (north) foreslope as shown on the associated cross-sections and waste excavated material off-site. The foreslope repair shall start at the toe of the existing foreslope and then extend up-slope to the outside edge of the gravel shoulder. Install bench subdrains on specific cut benches to move water away more efficiently from the rebuilt foreslope. Please refer to the subdrain tab (104-9) for additional details regarding the drain locations. The cut benches shall then be backfilled with suitable cohesive furnished embankment to rebuild the foreslope back to pre-existing conditions. Place 8 inches of furnished topsoil on the final foreslope surface. Subdrains shall then outlet on the rebuilt foreslope using DR-306 outlets. The rebuilt foreslope shall transition back to the existing foreslope at the limits of the repair.

Ditch Drainage Repair

The approximate 155 lineal feet of degradation (from about Station 152+20 to Station 153+68) that has occurred within the roadside ditch shall be backfilled with suitable cohesive furnished embankment and the entire roadside ditch, including the ditch located within the current limits of instability, regraded to flow to the CMP dike culvert.

Install a rock-lined ditch within the roadside ditch beginning at about Station 151+40 extending to the inlet of the CMP dike culvert inlet (Station 153+68). The rock-lined ditch shall be constructed using Erosion Stone underlain with Engineering Fabric.

Area No. 2 (Station 354+65 to Station 355+80):

Existing Conditions

The foreslope instability has resulted in some slough material present near mid-slope. At its highest point on the foreslope, the scarp was located at the outside edge of the gravel shoulder.

Proposed Foreslope Repair

From Station 354+65 to Station 355+80, cut benches in the existing right (north) foreslope as shown on the associated cross-sections and waste excavated material off-site. The foreslope repair shall start at the toe of the existing foreslope and then extend up-slope to the outside edge of the gravel shoulder. Install bench subdrains on specific cut benches to move water away more efficiently from the rebuilt foreslope back to pre-existing conditions. Please refer to the subdrain tab (104-9) for additional details regarding the drain locations. The cut benches shall then be backfilled with suitable cohesive furnished embankment to rebuild the foreslope. Place 8 inches of furnished topsoil on the final foreslope surface. Subdrains shall then outlet on the rebuilt foreslope using DR-306 outlets. The rebuilt foreslope shall transition back to the existing foreslope at the limits of the repair. The roadside ditch shall be regraded to allow for proper drainage.

SLIDE REPAIR AREA 1



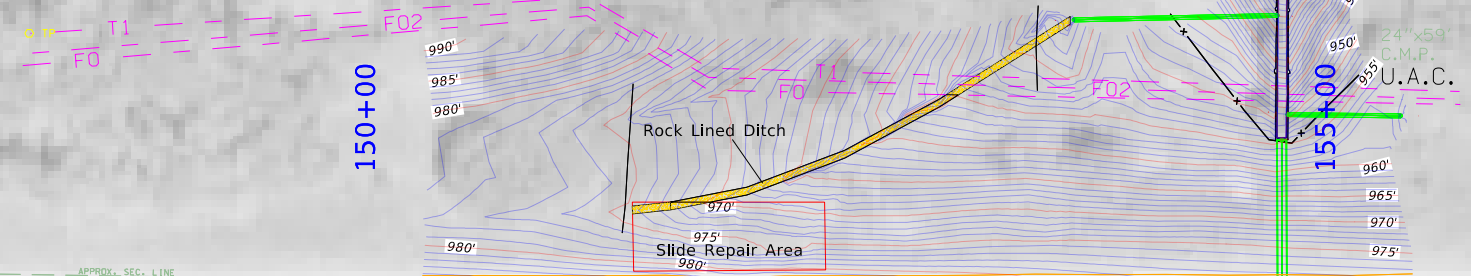
Wayne TWP.
T-72N R-19W
SEC. 28

145+00

150+00

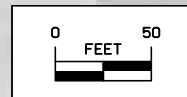
155+00

160+00



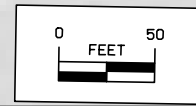
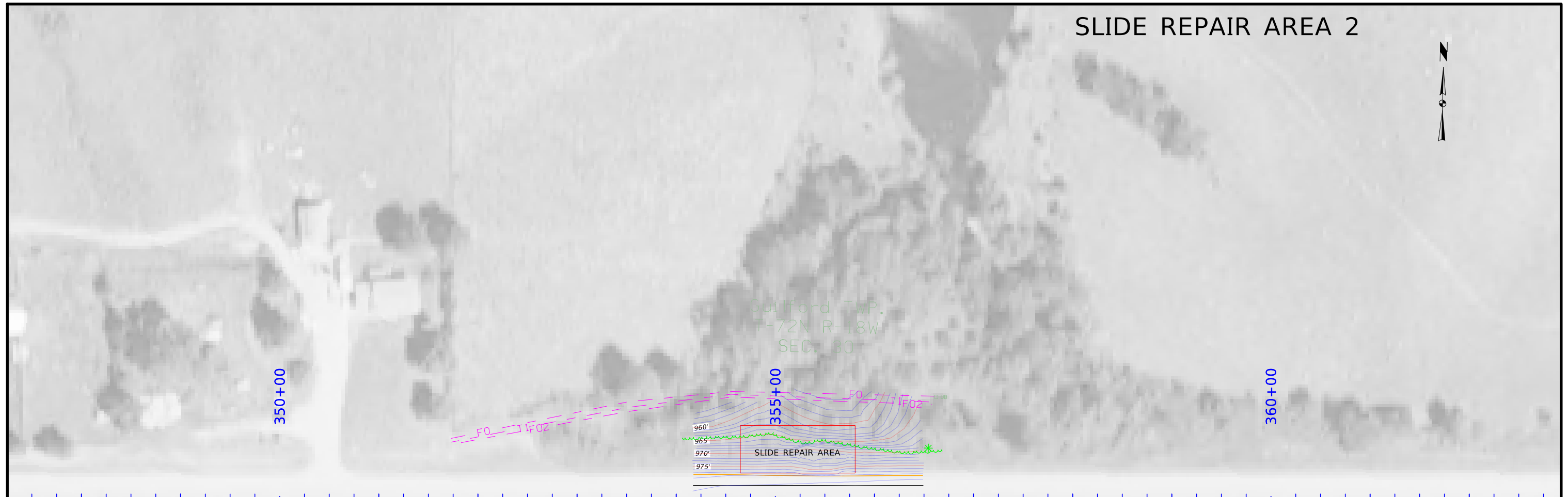
Sect. No. 33

Sta. 154+77.7
54"x183' RCP
D.A.=56 A-H (From Plan)
U.A.C.



US 34

SLIDE REPAIR AREA 2



US 34

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadside Items : Roadside Items

Item no.	Item Code	Item	Unit	Quantities		Estimate Reference Notes
				Estimated	Roadside Items	
1	2601-2643110	WATERING FOR SOD, SPECIAL DITCH CONTROL, OR SLOPE PROTECTION	MGAL	49.6		<p>Estimate for watering Special Ditch Control, Slope Protection Areas, Turf Reinforcement Mat, or Transition Mat is based on a total of four waterings at a rate of 50 gallons maximum per square, per watering.</p> <p>The first watering should be done no later than the day following placement of the materials with 3 additional watering at intervals of 5 to 8 calendar days.</p> <p>The amount of water used should be sufficient to saturate the seedbed to a depth of approximately 2 inches.</p>
2	2601-2643300	MOBILIZATION FOR WATERING	EACH	3		
3	2601-2643413	TURF REINFORCEMENT MAT, TYPE 3	SQ	248		
4	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	910		<p>Refer to Tab. 100-19 for locations.</p> <p>Refer to Standard Road Plan EC-204.</p> <p>Item is included for temporary perimeter sediment control, inlet protection, and water velocity reduction on slopes or ditches at locations to be determined during construction. Verify specific locations with the Engineer prior to beginning placement.</p>
5	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	910		<p>Refer to Tab. 100-19 for locations.</p> <p>Refer to Standard Road Plan EC-204.</p> <p>The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 20 in. dia." to address erosion to be encountered during construction.</p> <p>Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.</p>
6	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	1,820		

INDEX OF TABULATIONS			111-25 10-18-11
Tabulation	Tabulation Title	Sheet No.	
RC Sheets	ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES	RC.1	
100-19	PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES	RC.2	
100-22	ROLLED EROSION CONTROL	RC.2	
105-4	STANDARD ROAD PLANS	RC.2	
111-25	INDEX OF TABULATIONS	RC.2	
281-3	STORM WATER BEST MANAGEMENT PRACTICES	RC.2	

STANDARD ROAD PLANS			105-4 10-18-11
The following Standard Road Plans apply to construction work on this project.			
Number	Date	Title	
EC-104	04-17-18	Turf Reinforced Mat (TRM)	
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices	
EC-502	04-21-15	Seeding in Rural Areas	

STORM WATER BEST MANAGEMENT PRACTICES		281-3 10-17-17
When the following best management practices are used, they are intended to account for disturbed areas where storage volume cannot be provided: Perimeter and Slope Sediment Control Devices, Turf Reinforcement Mat Type 3 and Seeding.		

EROSION CONTROL (RURAL SEEDING)		232-3A 10-19-21
Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.		
Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:		
Place seed and fertilize according to the requirements of Article 2601.03,C,3 and Section 4169 of the Standard Specifications.		
Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.		
Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are all incidental to mobilization and will not be paid for separately.		

PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES								100-19 10-19-21
Possible Standards: EC-204								
Location			Perimeter and Slope			Ditch Check		Remarks
Begin Station	End Station	Side	Length of Installation			Length of Installation		
			9 inch Dia	12 inch Dia	20 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	LF	LF	
151+44.00	153+75.00	Lt			231.0			
152+35.00	153+75.00	Lt			140.0			40' Offset
153+13.00	153+75.00	Lt			63.0			40' Offset
153+70.00		Lt			47.0			Inlet Protection
354+65.00	355+80.00	Lt			117.0			
354+65.00	355+80.00	Lt			123.0			40' Offset
PSSCD Tab Totals:					721.0			
20 inch PSSCD Bid Totals:					901.3			125% of Tab Total
PSSCD Removal Totals:					901.3			100% of Bid Total

LINE STYLE LEGEND OF LANDSCAPE SHEETS

LINETYPE	Design Element
-----	Living Snow Fence Single Row
-----	Living Snow Fence Double Row
-----	Mechanical Edge

CELL LEGEND OF LANDSCAPE SHEETS

CELL	Design Element	Plant Diameter
⊕	Clearing	
⊙	Proposed Shrub	6 FT
⊙	Proposed Understory Tree	12 FT
⊙	Proposed Conifer Tree	18 FT
⊙	Proposed Overstory Tree	30 FT

PATTERN LEGEND OF LANDSCAPE SHEETS

	Brush Clearing		Spary Area
	Clearing & Grubbing		

LINE STYLE LEGEND OF EROSION CONTROL SHEETS

LINETYPE	Design Element
	Silt Fence
	Perimeter and Slope Sediment Control Device (9")
	Perimeter and Slope Sediment Control Device (12")
	Perimeter and Slope Sediment Control Device (20")
	Open-Throat Curb Intake Sediment Filter
	Concentrated Flow
	Rock Check and Rock Check Dam
	Sheet Flow

CELL LEGEND OF EROSION CONTROL SHEETS

CELL	Design Element
	Temporary Sediment Control basin
	Erosion Control for Circular Intake or Manhole Well
	Erosion Control for Rectangular Intake or Manhole Well
	Grate Intake Sediment Filter Bag
	Silt Basin
	Silt Fence Tail
	Stormwater Drainage Basin Discharge Point

PLAN VIEW COLOR LEGEND OF EROSION CONTROL SHEETS

LINWORK	Design Color No.	Design Element
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
Black	(0)	Permanent Erosion Control Features
Blaze Orange	(222)	Temporary Erosion Control Features

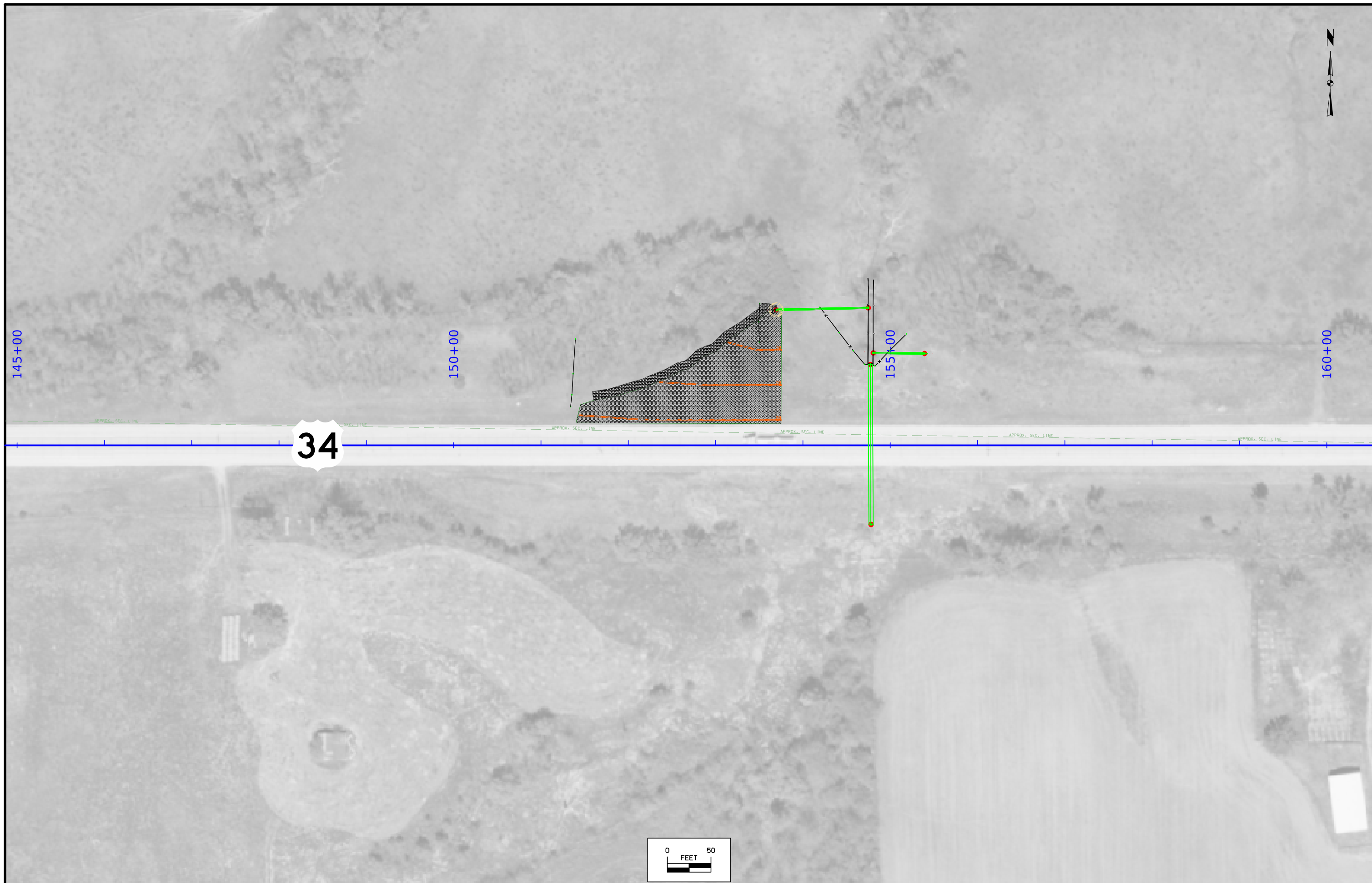
SHADING	Design Color No.	Design Element	Transparency
Citron	(234)	Mulching, All Types	50%
Light Brown	(238)	Special Ditch Control, Wood Excelsior Mat	0%
Grass Green	(233)	8FT Mow Strip	50%

PATTERN LEGEND OF EROSION CONTROL SHEETS

	Seeding and Fertilizing		Turf Reinforcement Mat Type 1
	Seeding and Fertilizing (Rural)		Turf Reinforcement Mat Type 2
	Seeding and Fertilizing (Urban)		Turf Reinforcement Mat Type 3
	Native Grass Seeding		Turf Reinforcement Mat Type 4
	Salt Tolerant Seeding		Slope Protection, Wood Excelsior Mat
	Wetland Grass Seeding		Transition Mat
	Wildflower Seeding		Rock Features, Permanent
	Sodding		Rock Features, Temporary

EROSION CONTROL LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES R)

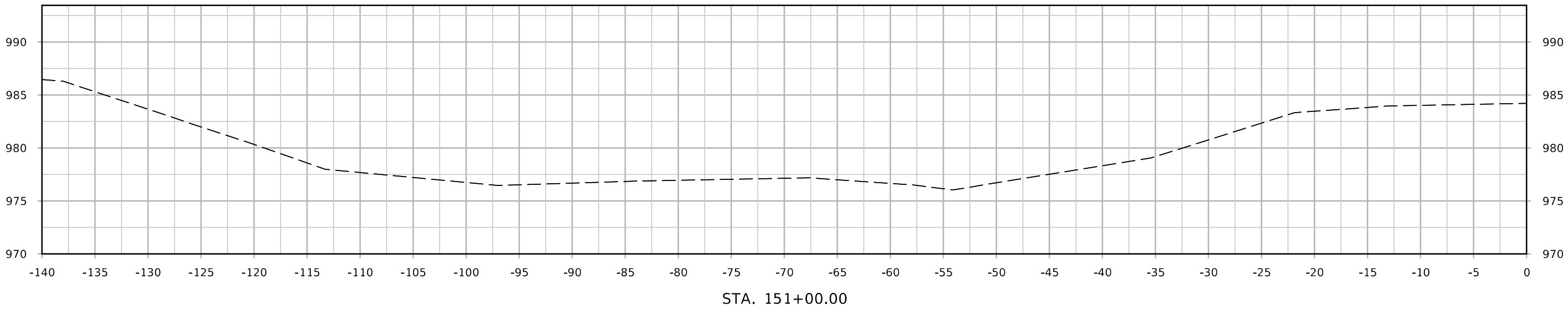
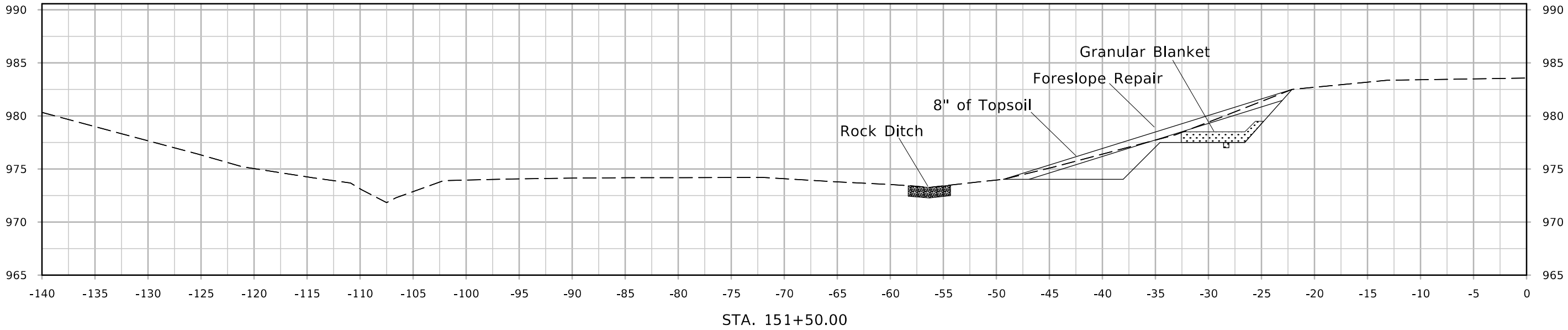


FILE NO.	ENGLISH	DESIGN TEAM Holst/Pohlen/McDonald	Monroe COUNTY	PROJECT NUMBER NHSN-034-6(103)--2R-68	SHEET NUMBER RR.2
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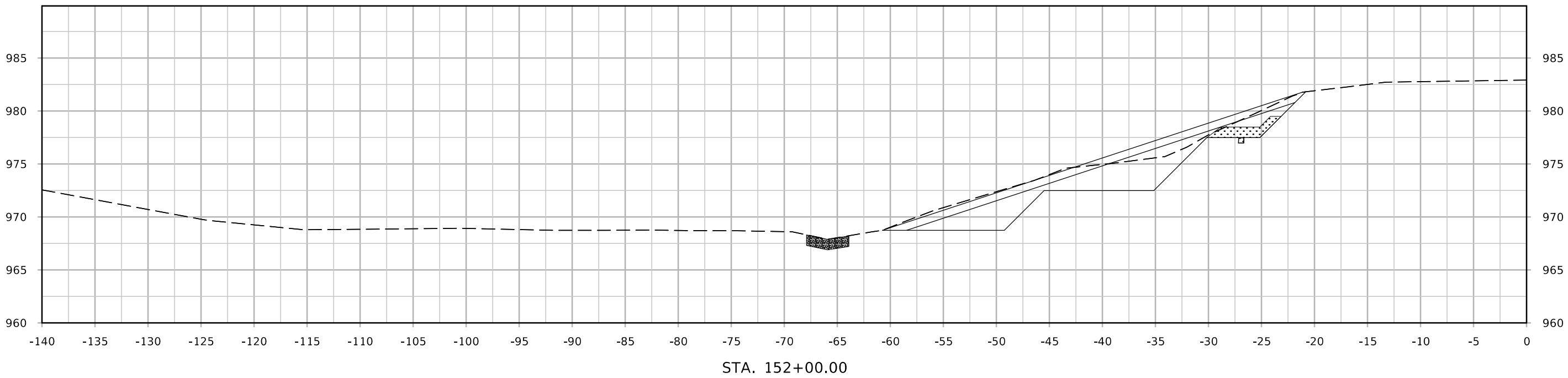
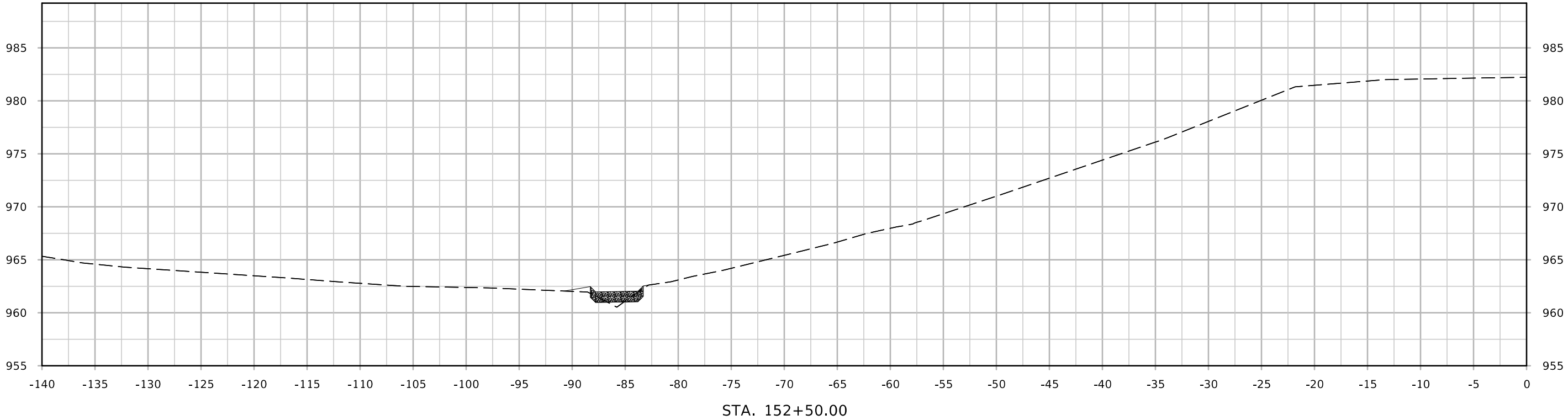
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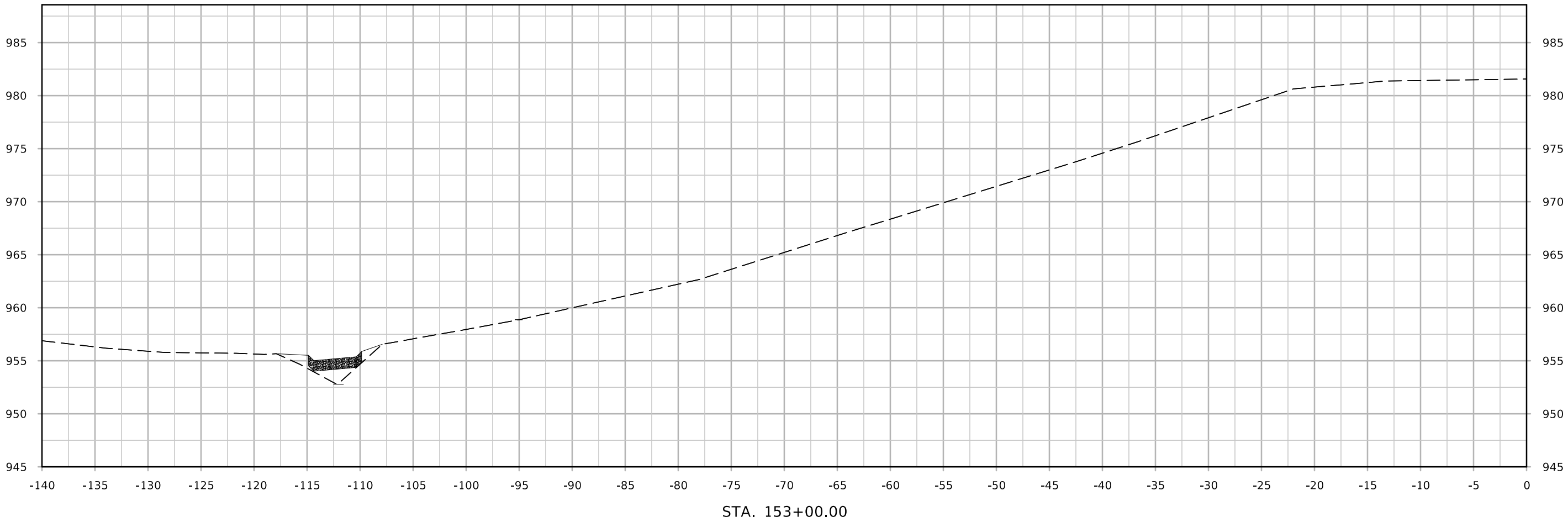
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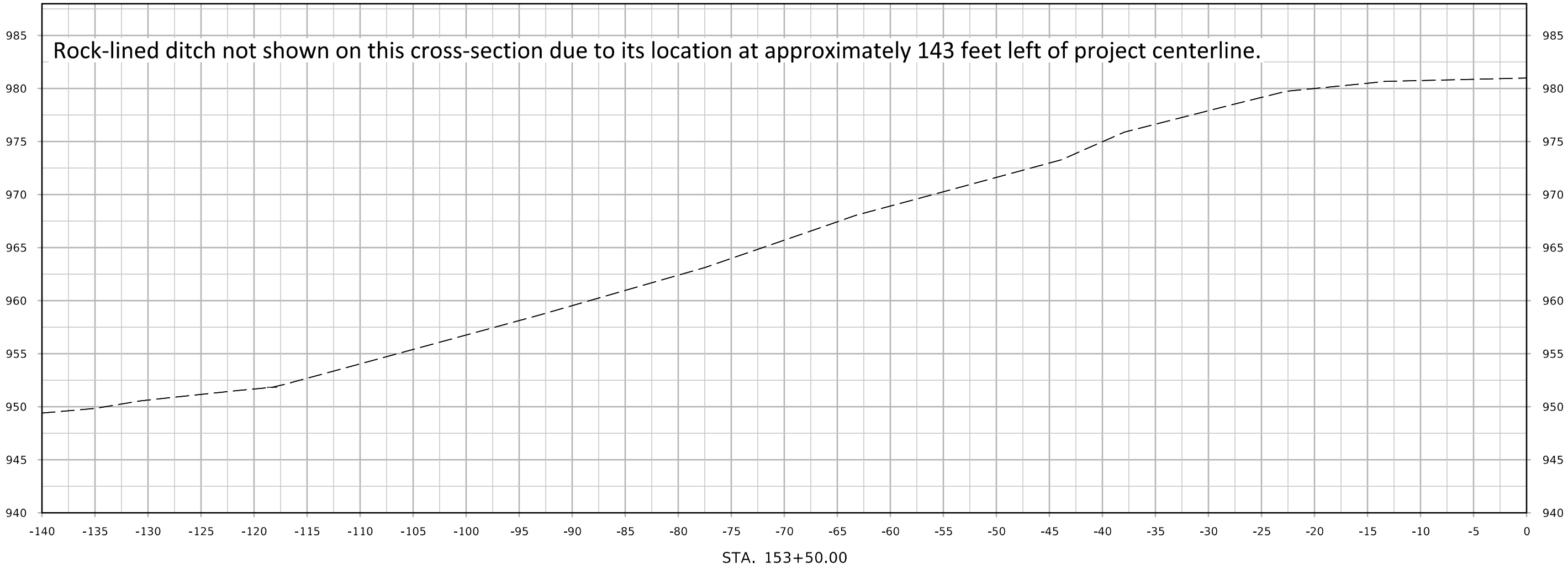
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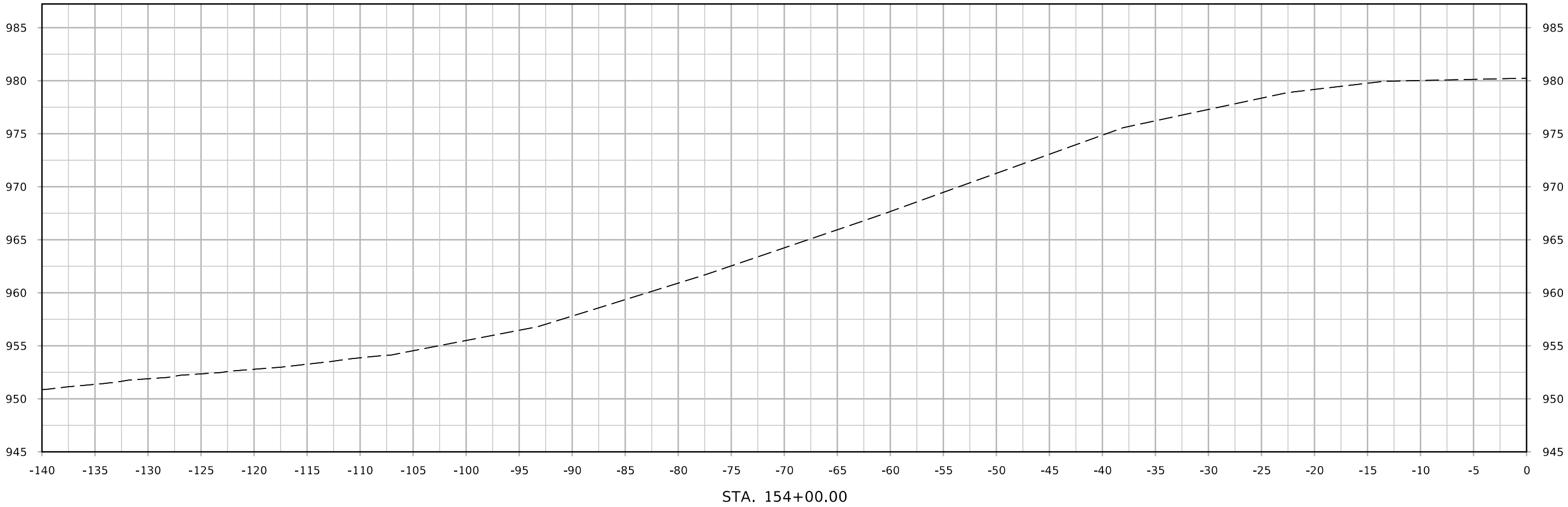
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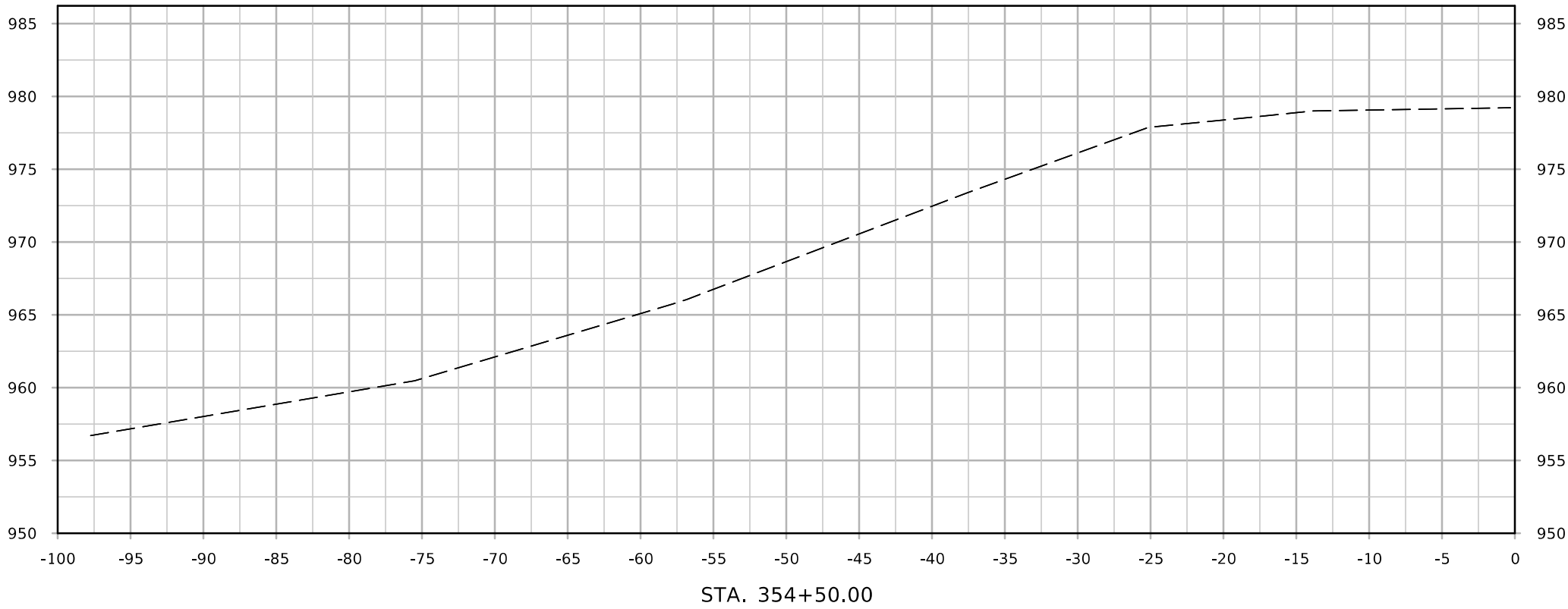
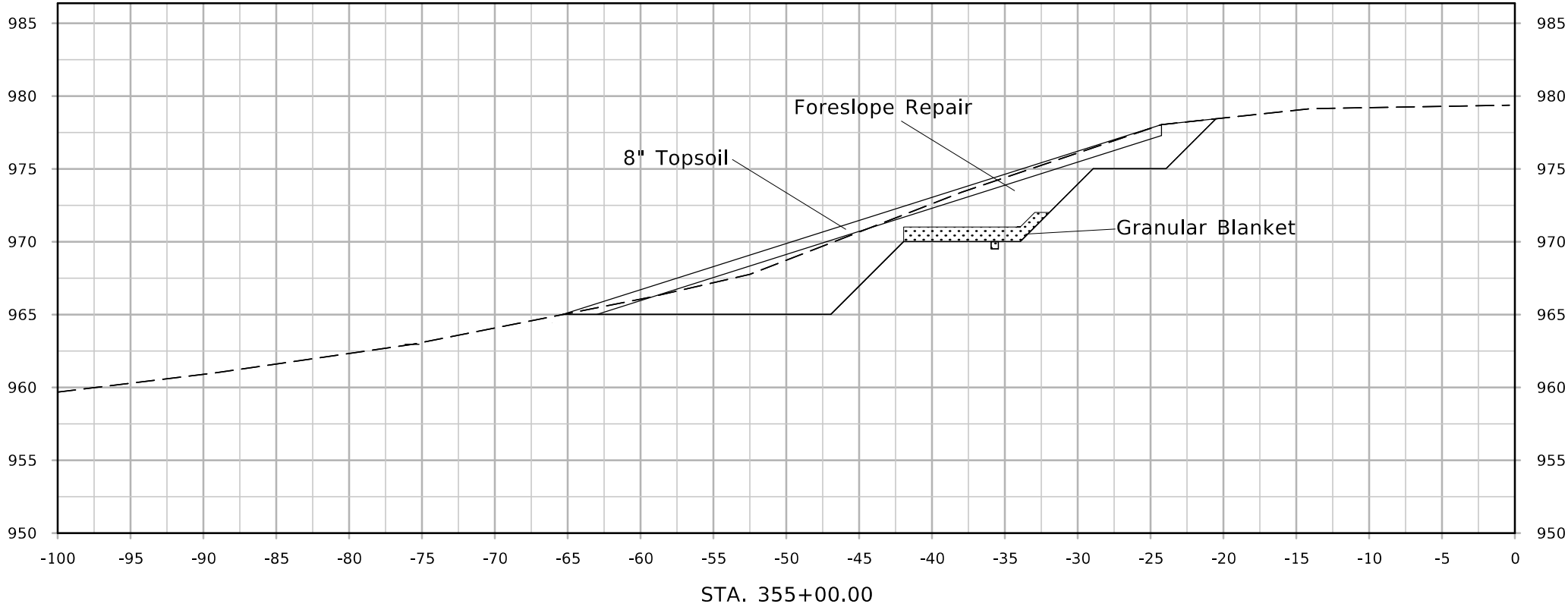
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US 34 Area No 1



US 34 Area No 2



US 34 Area No 2

