LETTING DATE
Dec 15, 2026

HMA Resurfacing with Milling
NHSX-169-1(048)--3H-80

RINGGOLD COUNTY

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	**Typical Cross Sections and Details**
B.1 - 5	Typical Cross Sections and Details
C Sheets	**Quantities and General Information**
C.1 - 4	Estimated Project Quantities and Reference Information
C.5 - 18	Project Description, Standard Road Plans, General Notes, and Tabulations
G Sheets	**Survey Sheets**
G.1	Superelevation data
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control Plan
P Sheets	**Lighting Layout Sheets**
P.1 - 7	Lighting Layout Sheets "Mainline or Side Road Name"
U Sheets	**500 Series, Mod.Stds. and Detail Sheets**
U.1 - 29	500 Series, Modified Standards and Detail Sheets

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

RINGGOLD COUNTY

HMA Resurfacing with Milling

Missouri State Line to IA 2

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.13 of the Specifications.

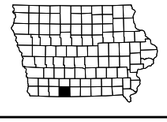
IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

REVISIONS

	TOTAL
	63
PROJECT IDENTIFICATION NUMBER	
22-80-169-010	
PROJECT NUMBER	
NHSX-169-1(048)--3H-80	
R.O.W. PROJECT NUMBER	

Scan the QR code or click the link below to leave plan quality feedback and help us improve future projects.

Design QR Feedback Link



DESIGN DATA RURAL			
2023	AADT	870	V.P.D.
20 --	AADT	–	V.P.D.
20 --	DHV	–	V.P.H.
TRUCKS		10	%
Total Design ESALs		–	

ROADWAY DESIGN

LICENSED PROFESSIONAL ENGINEER
TRAVIS R. MALONE
20718
IOWA

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 — Date: 10-05-2026

Travis R. Malone
Printed or Typed Name

My license renewal date is December 31, 2026

Pages or sheets covered by this seal: A.1 - A.2, B.1 - B.5, C.1 - C.18, J.1, U.1 - U.29

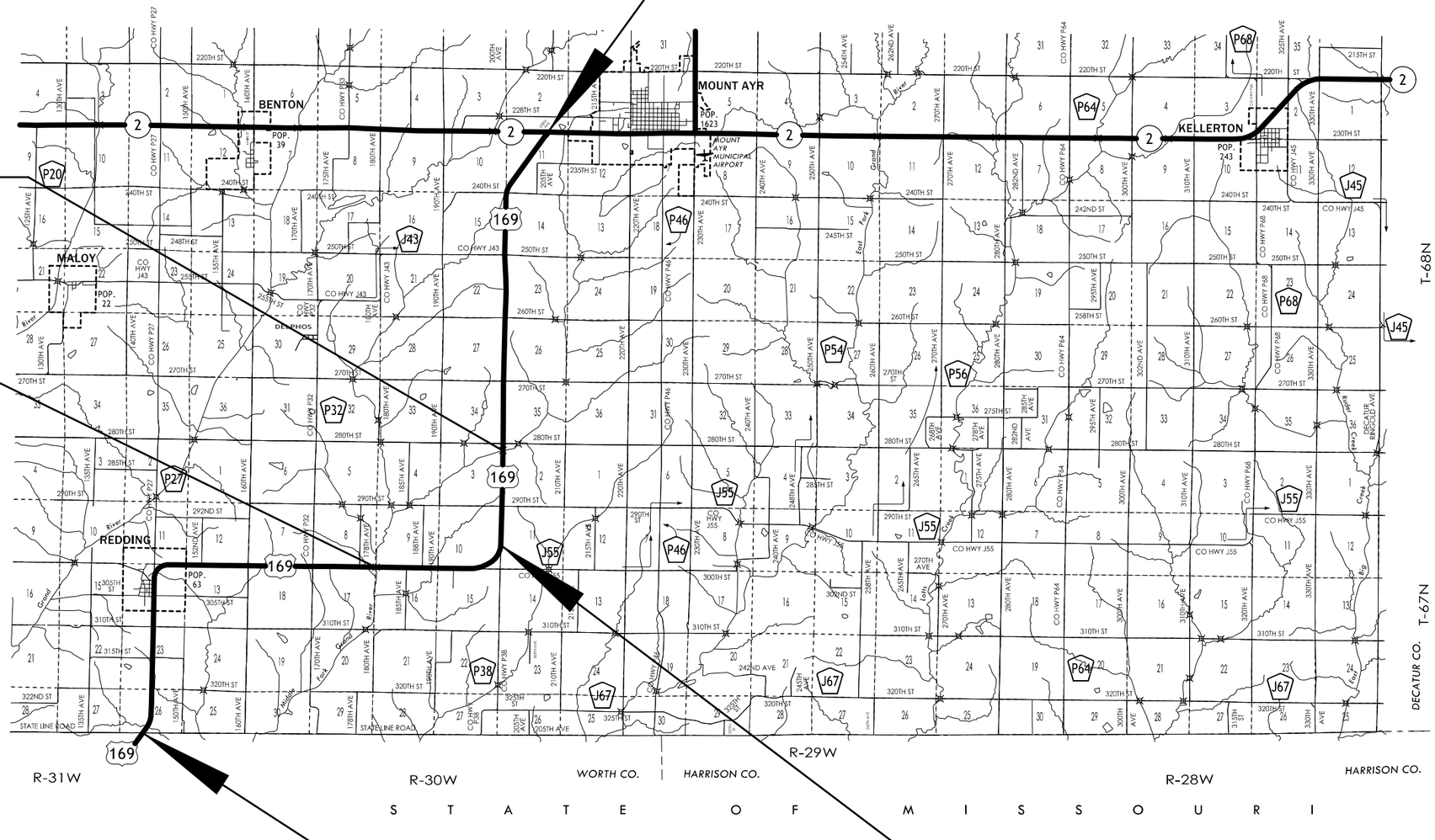
FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER A.1	

10:14:11 AM 10/5/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)–3H-80\80-1691-048 A Sheets.dgn

END CONSTRUCTION
MILEPOST 15.15
STA 802+36.6

FHWA # 46260
MAINT. # 8009.8S169

FHWA # 46251
MAINT. # 8006.1S169



BEGIN CONSTRUCTION
MILEPOST 0.0
STA 0+65

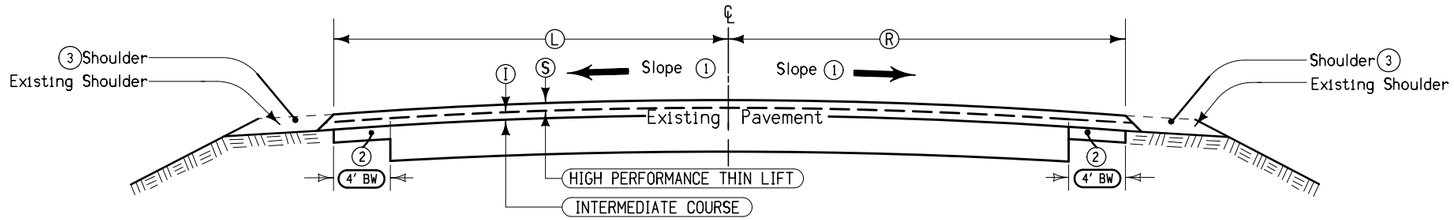
STATION EQUATION
STA 441+17 (BK)=
STA 444+57.4 (AH)

LOCATION MAP SCALE
0 1 2 3
Miles

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER A.2

10:14:13 AM 10/5/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)–3H-80\80-1691-048 A Sheets.dgn

DIST.4-1
05-26-21



HMA Resurfacing							
Location			Ⓢ	Ⓘ	Ⓛ	Ⓡ	Remarks
Road Identification	Station To Station		Inches	Inches	Feet	Feet	
US 169	0+65	131+00	1.5	1.5	16	16	
US 169	151+03	324+55	1.5	1.5	16	16	
US 169	325+98	406+44	1.5	1.5	16	16	
US 169	444+57.4	521+65	1.5	1.5	16	16	Begins at Sta Equation (AH)
US 169	521+65	522+15	1.5	1.5	8	8	*In between PCC Shoulders
US 169	524+91	525+21	1.5	1.5	11.5	7.5	*In between PCC Shoulder & PCC widening
US 169	525+21	525+41	1.5	1.5	11.5	11.5	*In between PCC Shoulders
US 169	444+57.4	521+65	1.5	1.5	16	16	
US 169	521+65	735+79	1.5	1.5	16	16	
US 169	749+36	802+36	1.5	1.5			Pavement widens (See Sheet B.3)

Notes:

Section shown in the direction of travel

① Finished slope of the roadway is to be 2.0%. Section may be modified as directed by the Engineer through areas of special shaping.

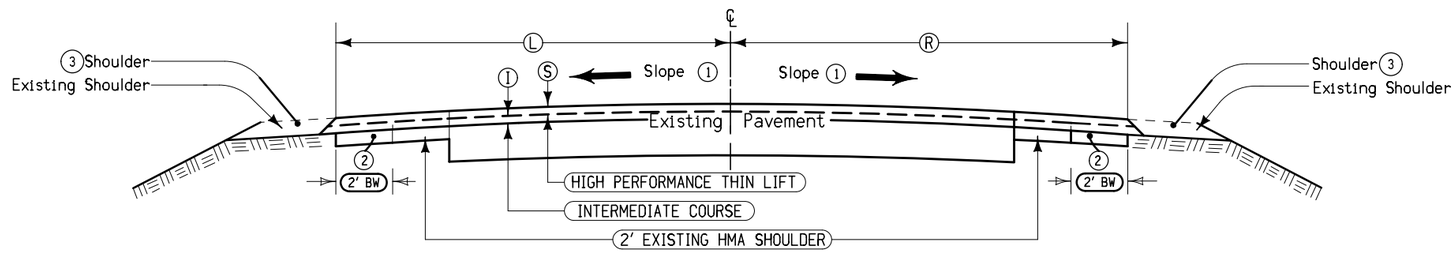
② Base Widening quantities are not included with Resurfacing quantities, see Standard Road Plan PV-203 and Tab 106-5.

③ Refer to shoulder typicals.
Refer to Standard Road Plan PV-301 for additional requirements through superelevated curves.

TYPICAL CROSS SECTION
HMA RESURFACING
WITH 4' BASE WIDENING

*Existing PCC shoulders & widening will not be part of mill and overlay

DIST.4-1
05-26-21



HMA Resurfacing							
Location			Ⓢ	Ⓘ	Ⓛ	Ⓡ	Remarks
Road Identification	Station To Station		Inches	Inches	Feet	Feet	
US 169	131+00	151+03	1.5	1.5	16	16	Mill 2" of existing HMA shoulder
US 169	406+44	441+17	1.5	1.5	16	16	Mill 2" of existing HMA shoulder
US 169	735+79	749+36	1.5	1.5	16	16	Mill 2" of existing HMA shoulder

Notes:

Section shown in the direction of travel

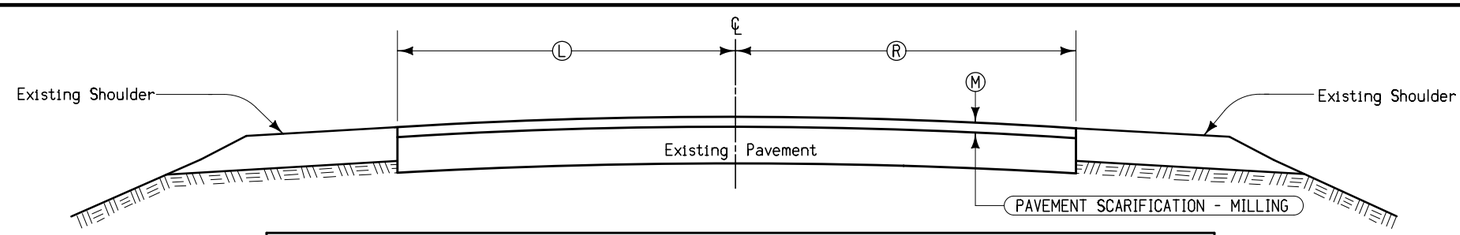
① Finished slope is to be 2.0%. Section may be modified as directed by the Engineer through areas of special shaping.

② Base Widening quantities are not included with Resurfacing quantities, see Standard Road Plan PV-203 and Tab 106-5.

③ Refer to shoulder typicals.
Refer to Standard Road Plan PV-301 for additional requirements through superelevated curves.

TYPICAL CROSS SECTION
HMA RESURFACING
WITH 2' BASE WIDENING

DIST.4-1
MODIFIED



Design Quantities						
Location			Ⓜ	Ⓛ	Ⓡ	Remarks
Road Identification	Station To Station		Inches	Feet	Feet	
US 169	0+65	324+55	2	12	12	
US 169	325+98	521+65	2	12	12	Sta EQ 441+17(BK)=444+57.4(AH)
US 169	521+65	522+15	3	8	8	*Mill depth 3" at bridge
US 169	524+91	525+21	3	11.5	7.5	*Mill depth 3" at bridge
US 169	525+21	525+41	3	11.5	11.5	*See Note
US 169	525+41	749+36	2	12	12	
US 169	749+36	802+36	2			See Sheet B.3 for details

Notes:

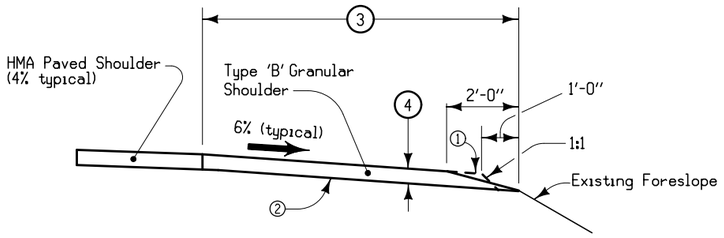
Section shown in the direction of travel.

Scarification widths may be less than 12 feet in some areas due to pavement unraveling.

TYPICAL CROSS SECTION
PAVEMENT SCARIFICATION

*Existing PCC shoulders & widening will not be part of mill and overlay

7135
MODIFIED



① Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.

② Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing.

③ Granular shoulder width varies. Adjust placement width of new granular material to match the full existing shoulder width from the edge of paved shoulder to the shoulder breakpoint at the existing foreslope. Multiple passes may be needed

④ Average thickness of 3" takes the new and existing granular shoulders into consideration

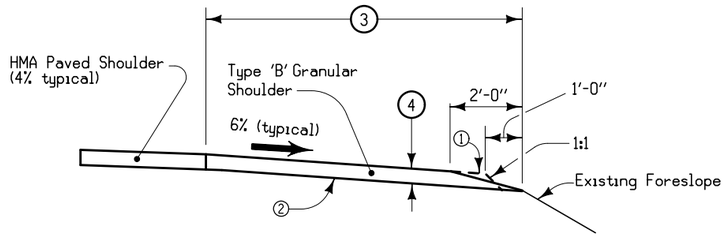
TYPICAL SECTION FOR TYPE 'B' GRANULAR SHOULDER

ADJACENT TO HOT MIX ASPHALT RESURFACING

At locations where the existing granular shoulder is higher than the resurfacing, or where the slope of the shoulder is toward the mainline rather than away from it, the contractor shall correct the existing shoulder elevation and slope to match this typical.

LOCATION			
ROAD IDENTIFICATION	STATION TO STATION		SIDE
US 169	0+65	119+80	Lt
US 169	120+30	123+10	Lt
US 169	123+70	129+75	Lt
US 169	130+80	133+00	Lt
US 169	135+00	147+75	Lt
US 169	150+25	271+05	Lt
US 169	272+45	323+29	Lt
US 169	327+24	441+17	Lt
US 169	444+57.4	521+60.5	Lt
US 169	525+45.5	687+60	Lt
US 169	688+90	796+05	Lt
US 169	796+75	802+36	Lt

7135
MODIFIED



① Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.

② Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing.

③ Granular shoulder width varies. Adjust placement width of new granular material to match the full existing shoulder width from the edge of paved shoulder to the shoulder breakpoint at the existing foreslope. Multiple passes may be needed

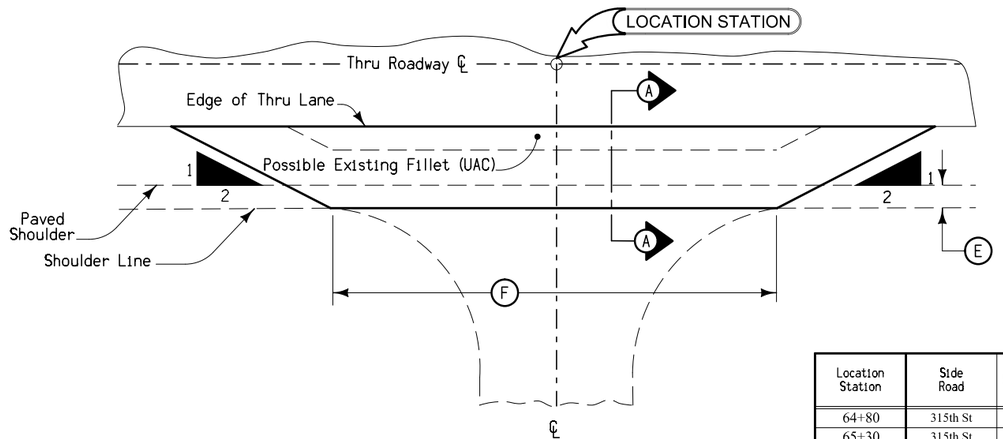
④ Average thickness of 3" takes the new and existing granular shoulders into consideration

TYPICAL SECTION FOR TYPE 'B' GRANULAR SHOULDER

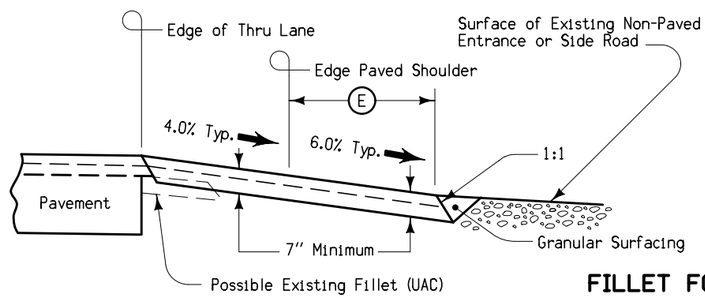
ADJACENT TO HOT MIX ASPHALT RESURFACING

At locations where the existing granular shoulder is higher than the resurfacing, or where the slope of the shoulder is toward the mainline rather than away from it, the contractor shall correct the existing shoulder elevation and slope to match this typical.

LOCATION			
ROAD IDENTIFICATION	STATION TO STATION		SIDE
US 169	0+65	323+29	Rt
US 169	327+24	403+65	Rt
US 169	406+35	439+10	Rt
US 169	440+90	441+17	Rt
US 169	444+57.4	521+60.5	Rt
US 169	525+45.5	802+36	Rt



PLAN



SECTION A-A

7148
MODIFIED

Milling or special shaping of existing residential, business, & side road surfaces prior to placement of new fillet may be required by the Engineer to ensure positive drainage and is incidental to other work on the project. UAC existing fillets that are larger than the dimensions shown here. Quantites included with mainline quantities.

FILLET FOR NON-PAVED ENTRANCES OR SIDE ROADS

Location Station	Side Road	Side	E Feet	F Feet
64+80	315th St	Lt	4	30
65+30	315th St	Rt	4	50
91+25	310th St	Rt	4	50
91+25	310th St	Lt	4	50
116+75	Fourth St	Lt	4	40
117+65	Adams St	Rt	4	50
120+05	Third St (paved)	Lt	4	40
123+40	Main St (paved)	Lt	4	40

Location Station	Side Road	Side	E Feet	F Feet
126+80	Second St	Lt	4	40
130+20	J55 (paved)	Lt	See Sheet B.4	
134+00 +/-	P27 (paved)	Lt	See Sheet B.4	
149+00+/-	Lantz St	Lt	4	150
178+30	152nd Ave	Lt	4	40
217+50	160th Ave	Rt	4	50
271+75	170th Ave	Rt	4	50
271+75	P32 (paved)	Lt	See Sheet B.4	

Location Station	Side Road	Side	E Feet	F Feet
311+85	178th Ave	Lt	4	50
350+70	185th Ave	Rt	4	40
364+00	188th Ave	Lt	4	50
377+15	190th Ave	Lt	4	40
405+00+/-	J55 (paved)	Rt	See Sheet B.5	
440+00+/-	P38 (paved)	Rt	See Sheet B.5	
476+50	290th St	Lt	4	50
476+50	290th St	Rt	4	50
529+25	280th St	Lt	4	50

Location Station	Side Road	Side	E Feet	F Feet
529+25	280th St	Rt	4	50
581+90	270th St	Lt	4	50
581+90	270th St	Rt	4	50
635+30	260th St	Lt	4	50
635+30	260th St	Rt	4	50
688+25	J43 (paved)	Lt	See Sheet B.5	
688+25	250th St	Rt	4	50
742+75	240th St	Lt	4	50
742+75	240th St	Rt	4	50

Location Station	Side Road	Side	E Feet	F Feet
93+86	Unpaved Drive	Lt	4	30
102+84	Unpaved Drive	Lt	4	30
114+15	Unpaved Drive	Lt	4	30
128+50	Unpaved Drive	Lt	4	30
164+88	Unpaved Drive	Lt	4	30
291+41	Unpaved Drive	Lt	4	30
356+68	Unpaved Drive	Lt	4	30
444+28	Unpaved Drive	Lt	4	30

Location Station	Side Road	Side	E Feet	F Feet
551+20	Unpaved Drive	Lt	4	30
600+75	Unpaved Drive	Lt	4	30
655+28	Unpaved Drive	Lt	4	30
672+10	Unpaved Drive	Lt	4	30
710+35	Unpaved Drive	Lt	4	30
751+80	Paved Drive	Lt		
778+00	Unpaved Drive	Lt	4	30
795+80	Church Drive	Lt	4	60

Location Station	Side Road	Side	E Feet	F Feet
73+55	Unpaved Drive	Rt	4	30
99+75	Unpaved Drive	Rt	4	30
103+00	Unpaved Drive	Rt	4	30
175+30	Unpaved Drive	Rt	4	30
240+88	Unpaved Drive	Rt	4	30
465+20	Unpaved Drive	Rt	4	30
466+00	Unpaved Drive	Rt	4	30
518+08	Unpaved Drive	Rt	4	30

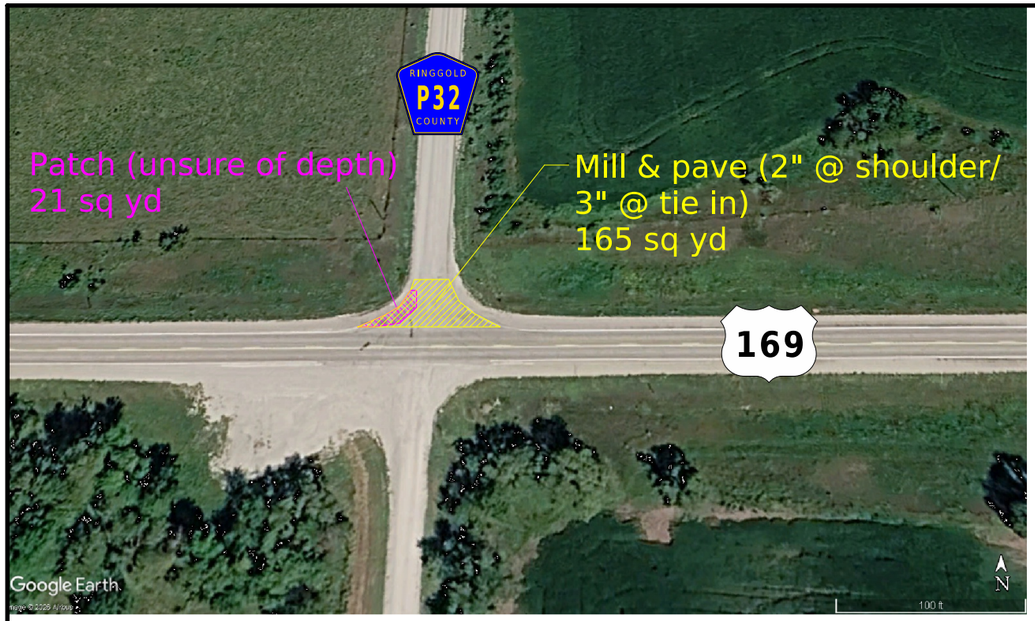
Location Station	Side Road	Side	E Feet	F Feet
563+94	Unpaved Drive	Rt	4	30
599+60	Unpaved Drive	Rt	4	30
664+20	Unpaved Drive	Rt	4	30
714+60	Unpaved Drive	Rt	4	30
780+45	Unpaved Drive	Rt	4	30



Image Not to Scale

FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **B.3**	

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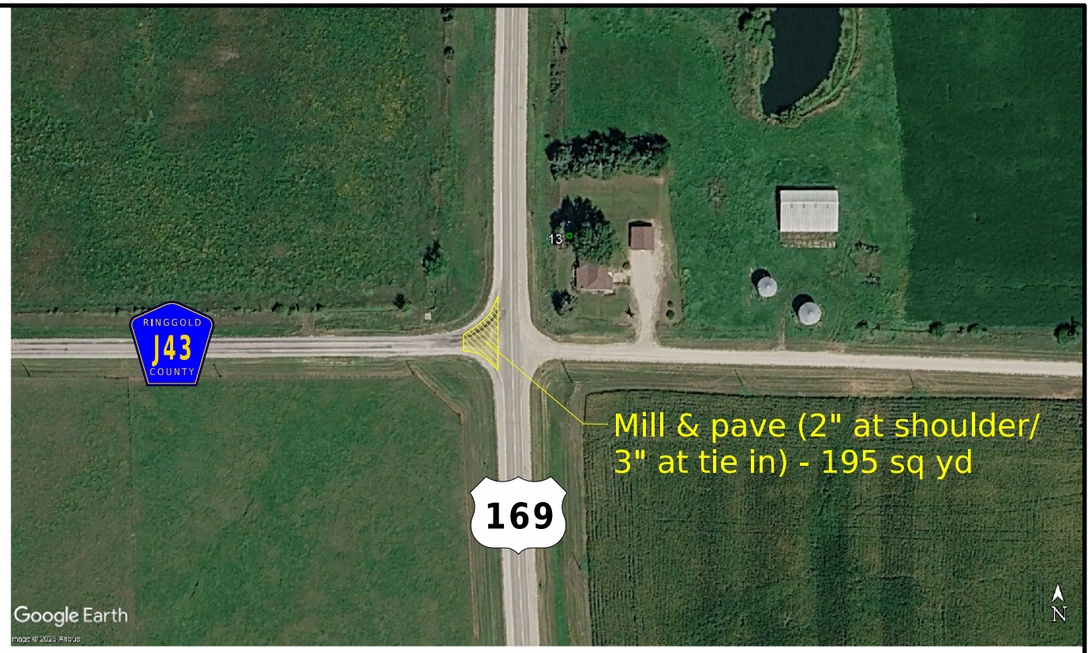


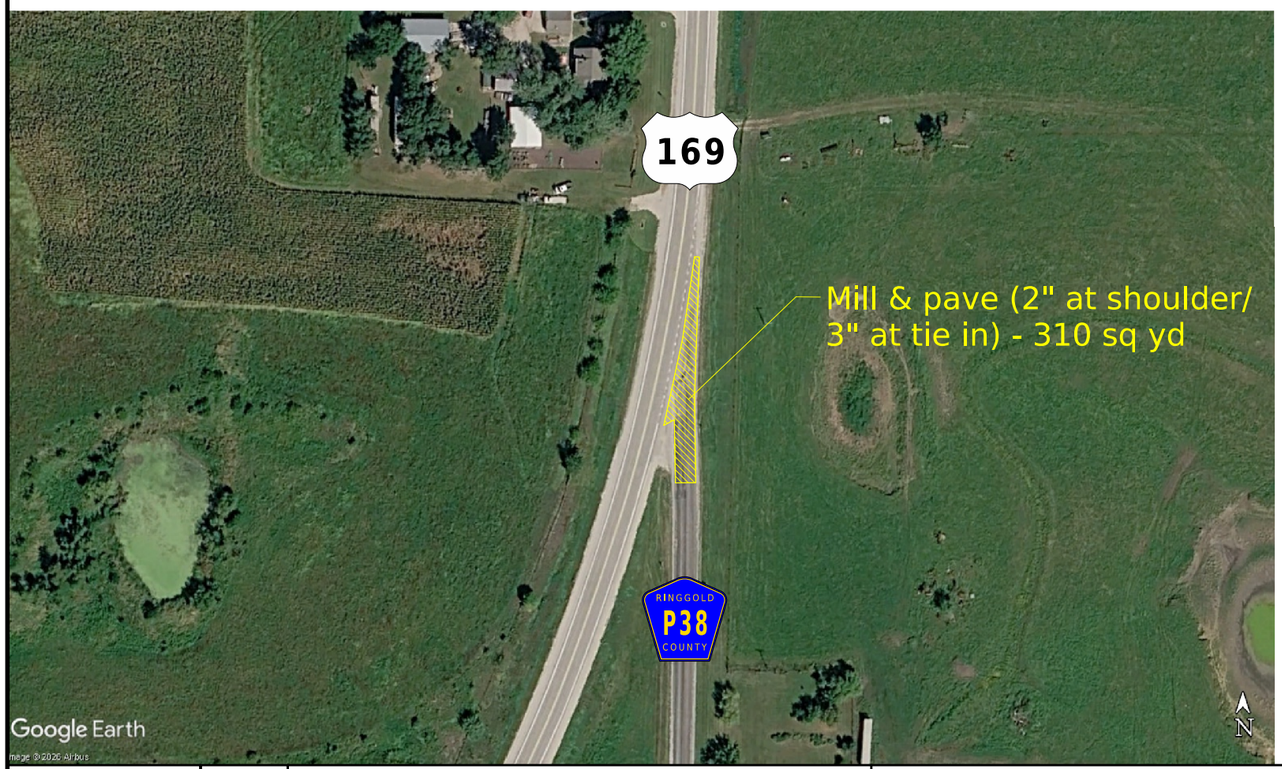
Images Not to Scale

FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **B.4**

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Images Not to Scale

FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **B.5**	

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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	0.15	
2	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	15,800	Refer to Typical 7110 and Tabulation 112-9.
3	2125-2225050	RESHAPING DITCHES	STA	3.6	
4	2128-0000200	CONTRACTOR STOCKPILED SHOULDER MATERIAL	TON	2,500	The Contractor shall deliver the millings from pavement scarification to the Iowa DOT at the Mount Ayr Maintenance shop. The address of delivery is: 700 S. Henderson Drive, Mount Ayr, Iowa 50854. Bryan Craig is the point of contact for millings delivery and can be reached at phone number (515)-250-8050.
5	2212-0475095	CLEANING AND PREPARATION OF BASE	MILE	15.15	This bid item includes: 15.15 miles of two-lane roadway.
6	2212-5070310	PATCHES, FULL-DEPTH REPAIR	SY	2,769.8	Refer to Tabulation 102-6C
7	2212-5070330	PATCHES BY COUNT (REPAIR)	EACH	166	Refer to Tab. 102-6C
8	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	7,744.87	Refer to Tab. 106_05 and 7148 modified
9	2213-8201040	BASE WIDENING, 4 IN. HOT MIX ASPHALT MIXTURE	SY	66,933.87	
10	2213-8201070	BASE WIDENING, 7 IN. HOT MIX ASPHALT MIXTURE	SY	1,579.11	
11	2214-5145150	PAVEMENT SCARIFICATION	SY	219,193.87	
12	2301-9091000	RUMBLE STRIP PANEL (PCC SURFACE)	EACH	2	
13	2303-0003380	HOT MIX ASPHALT MIXTURE THIN LIFT SURFACE COURSE, 3/8 IN. MIX	TON	23,337.24	
14	2303-1032500	HOT MIX ASPHALT STANDARD TRAFFIC, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	26,025	This item is 23,659.13 tons with 2,365.87 ton for irregularities.
15	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	1,561.5	
16	2303-1264347	ASPHALT BINDER, PG 64-34E+, EXTREMELY HIGH TRAFFIC, 90% ELASTIC RECOVERY	TON	1,892.73	
17	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1	
18	2303-7000610	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE LABORATORY VOIDS (FORMULA - BY PAY FACTOR)	EACH	46,962.18	
19	2303-7000620	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE FIELD VOIDS (FORMULA - BY PAY FACTOR)	EACH	46,962.18	

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
20	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT SMOOTHNESS (BY SCHEDULE)	EACH	51,195	Quantity based on 79,992'x24'x1' sq yd/9 sq ft x 0.24=51,194.88 sq yd
21	2401-6745359	REMOVAL OF CONCRETE FOUNDATIONS OF LIGHT POLES	EACH	4	A. Refer to P Sheets for locations and details. B. This item includes the demolition and disposal of each light pole concrete footing per the plans. C. Method of Measurement: By count of each light pole concrete footing removed. D. Basis of Payment: The contractor will be paid the contract unit price for each light pole concrete footing removed. Payment is full compensation for furnishing all materials, equipment, and labor required to remove each light pole footing and any associated access handhole including waste disposal, backfill of the void, compaction to finished grade, and surface restoration. Protection, splicing, decommissioning, and removal of electric conductors and portions of conduit associated with the footing shall be incidental to the cost of the footing removal.
22	2401-6745765	REMOVAL OF LIGHT POLES	EACH	2	A. Refer to the P Sheets for locations and details. B. This item includes the protection and removal of the roadway light pole assembly for salvage to the owner. C. Method of Measurement: By count of each light pole structure removed. D. Basis of Payment: The contractor will be paid the contract unit price for each light pole structure removed. Payment is full compensation for furnishing all materials, equipment, and labor required to protect and remove each light pole assembly for salvage to the owner.
23	2416-0101036	REMOVE AND REINSTALL CONCRETE PIPE APRONS LESS THAN OR EQUAL TO 36 IN.	EACH	4	Refer to Tab. 104-3 in the C sheets. This work will be measured and paid for at the contract unit price per linear foot of pipe removed and reinstalled per the Engineer's satisfaction.
24	2416-0101136	REMOVE AND REINSTALL CONCRETE PIPE APRONS GREATER THAN 36 IN.	EACH	1	
25	2416-1541036	REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL TO 36 IN.	LF	102	
26	2416-1541136	REMOVE AND REINSTALL RIGID PIPE CULVERT GREATER THAN 36 IN.	LF	10	
27	2507-6800061	REVETMENT, CLASS E	TON	319	
28	2523-0000100	LIGHTING POLES	EACH	4	A. Refer to the P Sheets for locations and details. B. Refer to Tab. 108-1 and Tab. 108-11A in the C Sheets. C. Provide and install each light pole assembly per Iowa DOT Standard Specifications and Standard Road Plans LI-101 and LI-201. D. Method of Measurement: By count of each light pole assembly installed. E. Basis of Payment: The contractor will be paid the contract unit price for each light pole assembly installed. Payment is full compensation for furnishing all materials, equipment, and labor required to install each light pole assembly including luminaire, pole, footing, grounding, and associated riser conductors in pole.
29	2523-0000200	ELECTRICAL CIRCUITS	LF	1,100	A. Refer to the P Sheets for locations and details. B. Refer to Tab. 108-2 and Tab. 108-12 in the C Sheets. C. Provide and install Electrical Circuits per Iowa DOT Standard Specifications and Standard Road Plan LI-141. D. Method of Measurement: By count of each lineal foot of electrical circuit installed. E. Basis of Payment: The contractor will be paid the contract unit price for each lineal foot of electrical circuit installed. Payment is full compensation for furnishing all materials, equipment, and labor required to install conduit, fittings, conductors, and splice connectors/terminations including excavation, backfill, and compaction.

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
30	2523-0000310	HANDHOLES AND JUNCTION BOXES	EACH	2	A. Refer to the P Sheets for locations and details. B. Provide and install Handholes/Junction Boxes per Iowa DOT Standard Specifications and Standard Road Plan LI-103.C. Handholes shall be Type I per Standard Road Plan LI-103 unless noted otherwise. C. Basis of Payment: The contractor will be paid the contract unit price for each handhole installed. Payment is full compensation for furnishing all materials, equipment, and labor required to install each handhole including excavation, backfill, compaction, ground rod, and bonding conductors.
31	2523-0000400	CONTROL CABINET	EACH	1	A. Refer to the P Sheets for location and details. B. Provide and install Pole-Mounted Control Cabinet per Iowa DOT Standard Specifications and Standard Road Plan LI-152. C. Refer to Standard Road Plan LI-151 and Standard Specifications. D. Method of Measurement and Basis of Payment per Standard Specifications.
32	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	1	A. Refer to the P Sheets for locations and details. B. Refer to Tab. 108-1 and Tab. 108-11A in the C Sheets. C. Locate and stake each new pole assembly location. D. Basis of Payment: Payment is full compensation for furnishing all materials, equipment, and labor required to locate and stake each light pole assembly.
33	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	11,932.59	
34	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	1,614.41	Grooving for white edge lines
35	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Traffic Control Plan on Sheet J.1.
36	2528-8445113	FLAGGERS	EACH	0	See Proposal.
37	2528-8445115	PILOT CARS	EACH	0	See Proposal.
38	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	21	
39	2533-4980005	MOBILIZATION	LS	1	
40	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	1,523.02	
41	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	2,749.9	This item used for sealing centerline (1,099.96 gal) and shoulder (1,649.94 gallons) rumble strips.
42	2548-0000310	MILLED CENTERLINE RUMBLE STRIPS, HMA SURFACE	STA	761.51	
43	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS	LS	1	A. Refer to Tab. 110-13 in C Sheets. B. Method of Measurement: By lump sum. C. Basis of Payment: The contractor will be paid the contract lump sum price for transport and delivery of the identified materials/equipment to the designated stockpile location. This shall be considered full compensation for furnishing all labor, equipment, and materials required to coordinate delivery with contact person, load a materials/equipment at the project site, transport, and unload identified materials/equipment at the delivery site."

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
44	2599-9999005	('EACH' ITEM) REMOVAL OF POLE MOUNTED LIGHTING CONTROL CABINET	EACH	1	A. Refer to the P Sheets for locations and details. B. This item includes complete removal of pole mounted lighting control cabinet. Salvage is to contractor for recycle / disposal. C. Method of Measurement: By count each of each pole mounted lighting control cabinet removed. D. Basis of Payment: The contractor will be paid the contract unit price for each pole mounted lighting control cabinet removed. Payment includes furnishing all materials, equipment, and labor to remove the existing cabinet. Incidental to and included with the removal of the lighting control cabinet is waste disposal.
45	2599-9999010	('LUMP SUM' ITEM) DEMOLITION OF ELECTRIC CIRCUITS	LS	1	A. Refer to the P Sheets for locations and details. B. This item includes the removal of unused existing handholes, cutting back of unused existing conduits and conductors, and removal of conductors from conduits as called out on P Sheets. Salvage of removed materials is to the contractor for recycling / disposal. C. Method of Measurement: By lump sum. D. Basis of Payment: The contractor will be paid the contract lump sum price for the removal of unused existing electrical circuits. Payment includes furnishing all materials, equipment, and labor to remove the electrical circuits. Incidental to and included with the removal of the electrical circuits is waste disposal, backfill of voids, compaction to finished grade, and surface restoration.
46	2601-2634100	MULCHING	ACRE	0.55	Perform mulching according to Article 2601.03, E, 2, of the Standard Specifications. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes. Item is included for areas requiring reshaping and seedbed preparation. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Association. Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre. MULCHING
47	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	0.55	Seed and fertilize all areas 8 foot adjacent to the shoulder mainline, medians, and side according to Article 2601.03, C, 3, of the Standard Specifications.
48	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	600	Item is included for temporary perimeter sediment control, inlet protection, and water velocity reduction on slopes or at locations to be determined during construction. Verify specific locations with the Engineer prior to beginning placement.
49	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1	
50	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	

100_01D
8/15/22

PROJECT DESCRIPTION

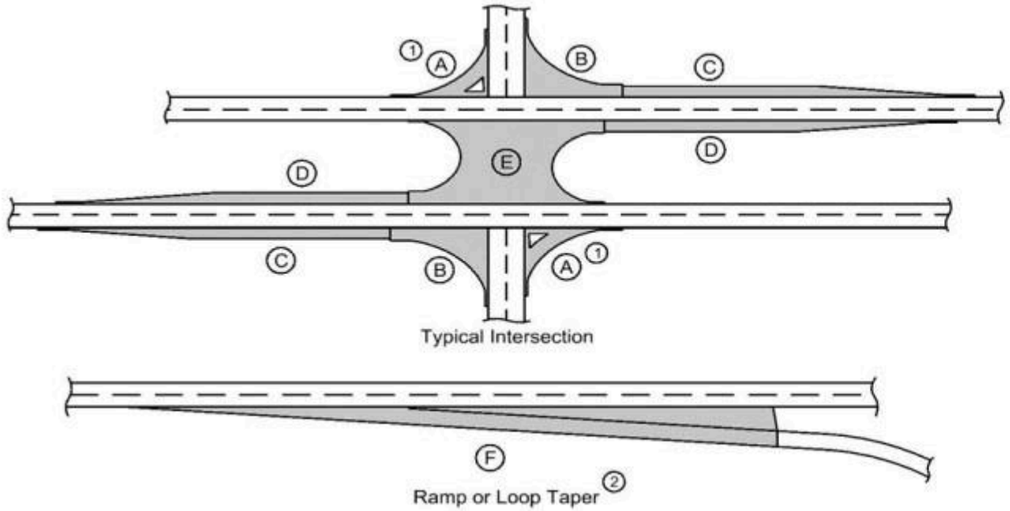
HMA Milling and Resurfacing of US 169 from Missouri State Line (MP 0.0) to IA 2 (MP 15.15). Additional work includes paved shoulders, milled rumble strips, and grooved paint markings.

262_06
9/28/22

UTILITIES (NOT A POINT 25 PROJECT)

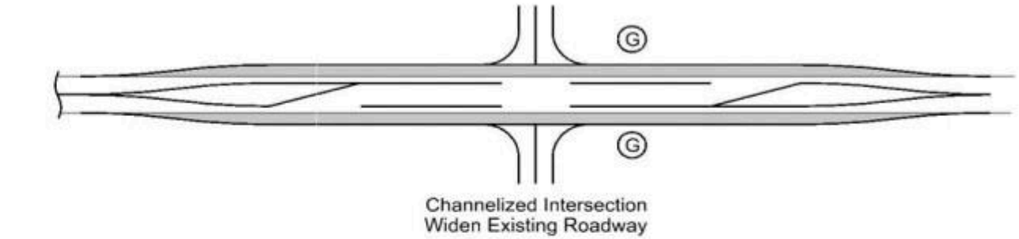
This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

HMA PAVEMENT

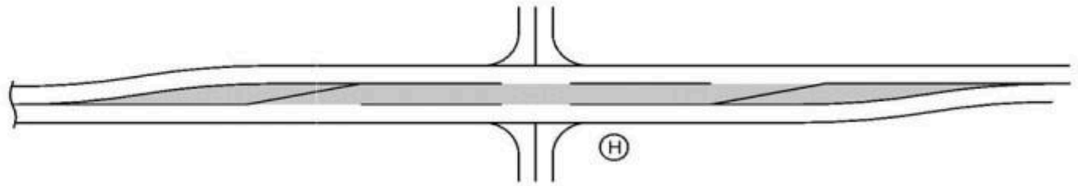


Typical Intersection

Ramp or Loop Taper (2)



Channelized Intersection
Widen Existing Roadway

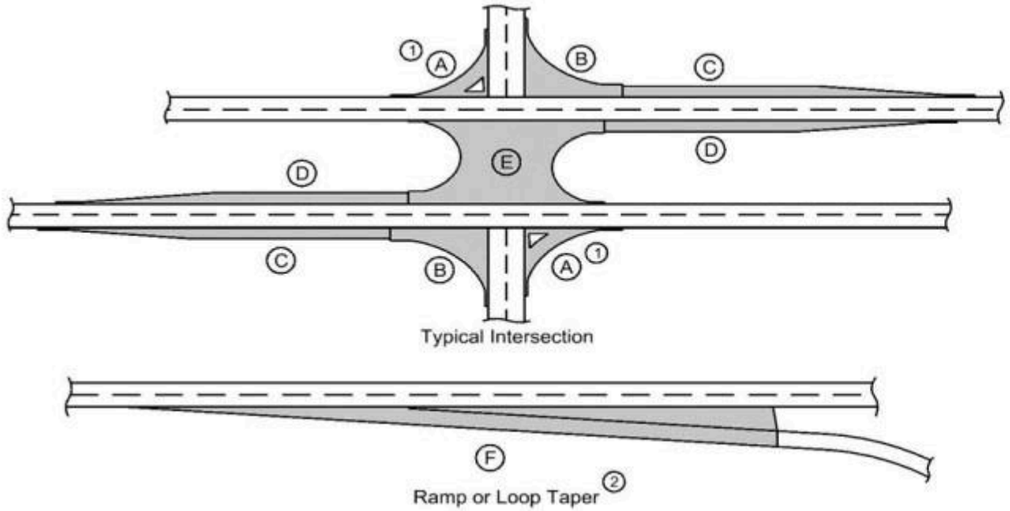


Channelized Intersection
Reconstructed Roadway

(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

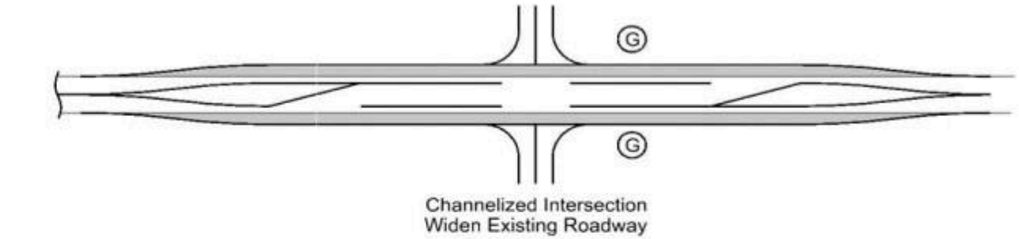
Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E(2) (SY)(3)	Area F (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	HMA Pavement Surface (SY)	HMA Hi-Pro Surface (TONS)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	Binder Hi-Pro (TONS)	Binder Intermediate (TONS)	Pavement Scarification (SY)	Remarks
1.0	US 169	Both	+65.00	324+55.00	24.0	32390.00	86373.33									86373.33	7141.995	7044.825	86373.33	571.360	422.689	86373.33	BOP to bridge
2.0	US 169	Both	325+98.00	441+17.00	24.0	11519.00	30717.33									30717.33	2539.939	2505.382	30717.33	203.195	150.323	30717.33	Bridge to Station Equation
3.0	US 169	Both	444+57.40	521+65.00	24.0	7707.60	20553.60									20553.60	1699.526	1676.403	20553.60	135.962	100.584	20553.60	Station Equation to bridge
4.0	US 169	Both	521+65.00	522+15.00	16.0	50.00	88.89									88.89	7.350	7.250	88.89	0.588	0.435	88.89	End PCC Shoulders to PCC approach
5.0	US 169	Both	524+91.00	525+21.00	19.0	30.00	63.33									63.33	5.237	5.165	63.33	0.419	0.310	63.33	End PCC approach to end PCC widening
6.0	US 169	Both	525+21.00	525+41.00	23.0	20.00	51.11									51.11	4.226	4.169	51.11	0.338	0.250	51.11	End PCC widening to end PCC Shoulders
7.0	US 169	Both	524+20.50	796+50.00	24.0	27229.50	72612.00									72612.00	6004.105	5922.416	72612.00	480.328	355.345	72612.00	Bridge to turn lane
8.0	US 169	Both	796+50.00	802+36.00		586.00	0.00						618.00		2884.00	3502.00	289.572	285.632	3502.00	23.166	17.138	3502.00	See Sheet B.3 for details
9.0							0.00															0.00	
10.0	US 169	SB	+65.00	129+75.00	4.0	12910.00	5737.78									5737.78	474.443	467.988	5737.78	37.955	28.079	0.00	Left shoulder
11.0	US 169	SB	129+75.00	130+80.00	4.0	105.00	46.67									46.67	3.859	3.807	46.67	0.309	0.228	46.67	J55
12.0	US 169	SB	130+80.00	132+50.00	4.0	170.00	75.56									75.56	6.248	6.163	75.56	0.500	0.370	37.78	2' exst. shoulder
13.0	US 169	SB	132+50.00	134+50.00	4.0	200.00	88.89									88.89	7.350	7.250	88.89	0.588	0.435	88.89	P27
14.0	US 169	SB	134+50.00	151+03.00	4.0	1653.00	734.67									734.67	60.748	59.921	734.67	4.860	3.595	367.33	2' exst. Shoulder
15.0	US 169	SB	151+03.00	271+05.00	4.0	12002.00	5334.22									5334.22	441.074	435.073	5334.22	35.286	26.104	0.00	Left shoulder
16.0	US 169	SB	271+05.00	272+45.00	4.0	140.00	62.22									62.22	5.145	5.075	62.22	0.412	0.305	62.22	P32
17.0	US 169	SB	272+45.00	323+29.00	4.0	5084.00	2259.56									2259.56	186.837	184.295	2259.56	14.947	11.058	0.00	Left shoulder
18.0	US 169	SB	323+29.00	324+55.00	4.0	126.00	56.00									56.00	4.631	4.568	56.00	0.370	0.274	56.00	West end bridge
19.0	US 169	SB	325+98.00	327+24.00	4.0	126.00	56.00									56.00	4.631	4.568	56.00	0.370	0.274	56.00	East end bridge
20.0	US 169	SB	327+24.00	406+44.00	4.0	7920.00	3520.00									3520.00	291.060	287.100	3520.00	23.285	17.226	0.00	Left shoulder

HMA PAVEMENT

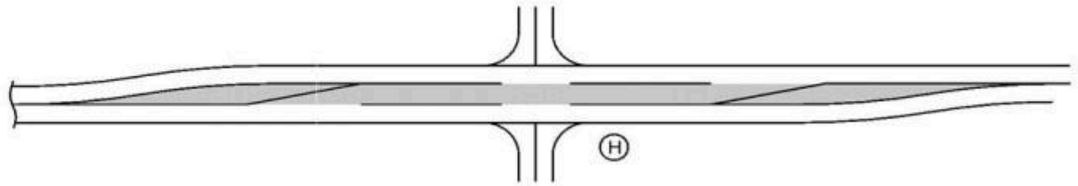


Typical Intersection

Ramp or Loop Taper (2)



Channelized Intersection
Widen Existing Roadway

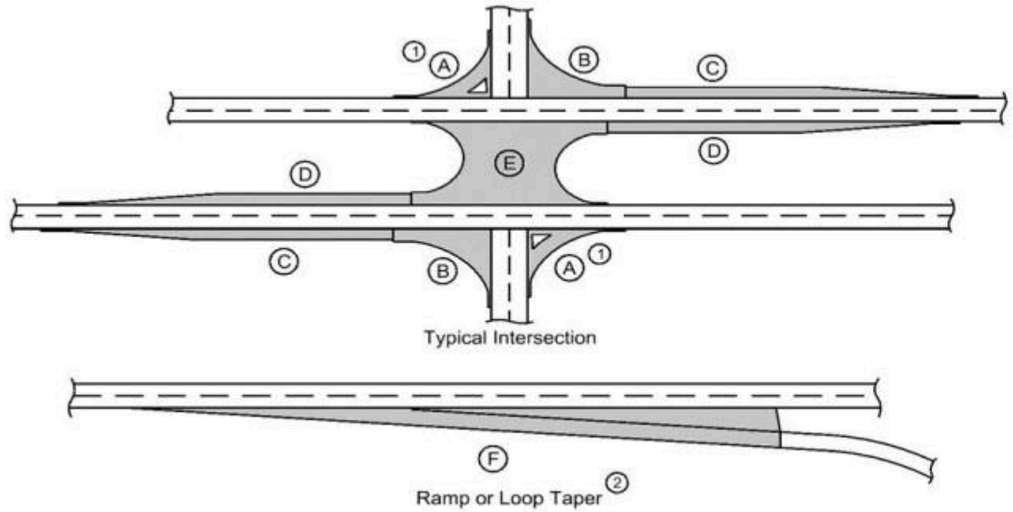


Channelized Intersection
Reconstructed Roadway

(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

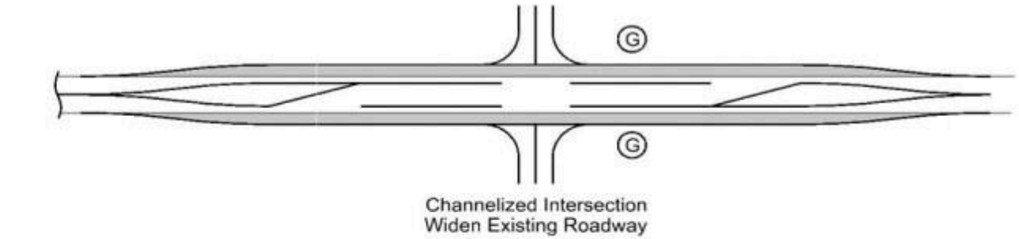
Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E(2) (SY)(3)	Area F (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	HMA Pavement Surface (SY)	HMA Hi-Pro Surface (TONS)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	Binder Hi-Pro (TONS)	Binder Intermediate (TONS)	Pavement Scarification (SY)	Remarks
21.0	US 169	SB	406+44.00	441+17.00	4.0	3473.00	1543.56									1543.56	127.633	125.896	1543.56	10.211	7.554	771.78	2' exst. shoulder
22.0	US 169	SB	444+57.40	521+65.00	4.0	7707.60	3425.60									3425.60	283.254	279.400	3425.60	22.660	16.764	0.00	Bridge
23.0	US 169	SB	525+41.00	687+60.00	4.0	16219.00	7208.44									7208.44	596.048	587.939	7208.44	47.684	35.276	0.00	Left shoulder
24.0	US 169	SB	687+60.00	688+90.00	4.0	130.00	57.78									57.78	4.778	4.713	57.78	0.382	0.283	57.78	J43
25.0	US 169	SB	688+90.00	735+79.00	4.0	4689.00	2084.00									2084.00	172.321	169.976	2084.00	13.786	10.199	0.00	Left shoulder
26.0	US 169	SB	735+79.00	749+36.00	4.0	1357.00	603.11									603.11	49.870	49.191	603.11	3.990	2.951	301.56	2' exst. shoulder
27.0	US 169	SB	749+36.00	802+36.00	4.0	5300.00	2355.56									2355.56	194.775	192.125	2355.56	15.582	11.528	0.00	Left shoulder
28.0																							
29.0	US 169	NB	+65.00	131+00.00	4.0	13035.00	5793.33									5793.33	479.036	472.519	5793.33	38.323	28.351	0.00	Right shoulder
30.0	US 169	NB	131+00.00	151+03.00	4.0	2003.00	890.22									890.22	73.610	72.609	890.22	5.889	4.357	445.11	2' exst. Shoulder
31.0	US 169	NB	151+03.00	323+29.00	4.0	17226.00	7656.00									7656.00	633.056	624.443	7656.00	50.644	37.467	0.00	Right shoulder
32.0	US 169	NB	323+29.00	324+55.00	4.0	126.00	56.00									56.00	4.631	4.568	56.00	0.370	0.274	56.00	West end bridge
33.0	US 169	NB	325+98.00	327+24.00	4.0	126.00	56.00									56.00	4.631	4.568	56.00	0.370	0.274	56.00	East end bridge
34.0	US 169	NB	327+24.00	404+44.00	4.0	7720.00	3431.11									3431.11	283.710	279.850	3431.11	22.697	16.791	0.00	Right shoulder
35.0	US 169	NB	404+44.00	406+44.00	4.0	200.00	88.89									88.89	7.350	7.250	88.89	0.588	0.435	88.89	J25
36.0	US 169	NB	406+44.00	441+17.00	4.0	3473.00	1543.56									1543.56	127.633	125.896	1543.56	10.211	7.554	771.78	2' exst. shoulder
37.0	US 169	NB	441+17.00	444+57.40	4.0	340.40	151.29									151.29	12.510	12.340	151.29	1.001	0.740	151.29	P38
38.0	US 169	NB	444+57.40	521+65.00	4.0	7707.60	3425.60									3425.60	283.254	279.400	3425.60	22.660	16.764	0.00	Right shoulder
39.0	US 169	NB	525+41.00	735+79.00	4.0	21038.00	9350.22									9350.22	773.147	762.628	9350.22	61.852	45.758	0.00	Right shoulder
40.0	US 169	NB	735+79.00	749+36.00	4.0	1357.00	603.11									603.11	49.870	49.191	603.11	3.990	2.951	301.56	2' exst. shoulder

HMA PAVEMENT

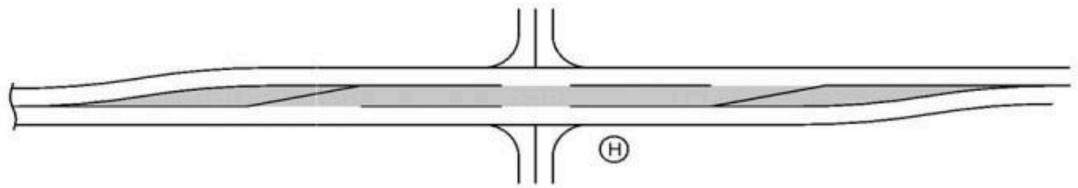


Typical Intersection

Ramp or Loop Taper (2)



Channelized Intersection
Widen Existing Roadway



Channelized Intersection
Reconstructed Roadway

(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

Line No.	Identification Road	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E(2) (SY)(3)	Area F (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	HMA Pavement Surface (SY)	HMA Hi-Pro Surface (TONS)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	Binder Hi-Pro (TONS)	Binder Intermediate (TONS)	Pavement Scarification (SY)	Remarks
41.0	US 169	NB	749+36.00	802+36.00	4.0	5300.00	2355.56									2355.56	194.775	192.125	2355.56	15.582	11.528	0.00	Right shoulder
42.0																							
43.0	J55	WB					0.00	195.00								195.00	16.124	15.905	195.00	1.290	0.954	195.00	See Sheet B.4 for details
44.0	P27	NB					0.00	295.00								295.00	24.393	24.061	295.00	1.951	1.444	295.00	See Sheet B.4 for details
45.0	P32	NB					0.00	165.00								165.00	13.643	13.458	165.00	1.091	0.807	165.00	See Sheet B.4 for details
46.0	J55	EB					0.00	355.00								355.00	29.354	28.955	355.00	2.348	1.737	355.00	See Sheet B.5 for details
47.0	P38	NB					0.00	310.00								310.00	25.633	25.284	310.00	2.051	1.517	310.00	See Sheet B.5 for details
48.0	J43	WB					0.00	195.00								195.00	16.124	15.905	195.00	1.290	0.954	195.00	See Sheet B.5 for details
Total							281110.10									286127.10	23659.139	23337.245	286127.10	1892.731	1400.234	219193.23	

EXISTING PAVEMENT

Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
1.0	Ringgold	US 169	Both		15.15	2014	S	MPIN-035-5(701)33--0N-20	MSS												
2.0	Ringgold	US 169	Both		15.15	2000		STPN-169-1(32)--2J-80	AAC	1.5	RAC	4.0			MIL	4.0	Menlo	C.Lst.			
3.0	Ringgold	US 169	Both		15.15	1988		MP-169-4(1)0--76-80	BSC												
4.0	Ringgold	US 169	Both		15.15	1968		FN-169-1(3)--21-80	BAC	1.0	TBB	4.0					Allendale	C.Lst.			
5.0	Ringgold	US 169	Both		15.15	1955		F-931(1) & F-123(5)	AAC	3.0	RSB	9.0	SAS	6.0			Dr. Jeffries	C.Lst.			

FULL-DEPTH PATCHES

Line No.	Count	Station	Direction of Travel	Side	Length (FT)	Width (FT)	Total Patch Area (SY)	Patch Thickness (IN)	Patch Repair or Finish	HMA Patches (SY)	Remarks
1.0	1	64+85.00	2-Lane	Left	30.0	11.5	38.3	17.5	Repair	38.3	
2.0	2	77+00.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
3.0	2	77+60.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
4.0	1	115+85.00	2-Lane	Right	8.0	11.5	10.2	17.5	Repair	10.2	
5.0	2	118+20.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
6.0	2	119+50.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
7.0	2	119+95.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
8.0	2	120+30.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
9.0	1	123+40.00	2-Lane	Left	50.0	11.5	63.9	17.5	Repair	63.9	
10.0	2	124+00.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
11.0	2	130+00.00	2-Lane	Both	150.0	11.5	383.3	17.5	Repair	383.3	
12.0	1	198+10.00	2-Lane	Left	24.0	11.5	30.7	17.5	Repair	30.7	
13.0	2	203+65.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
14.0	1	212+40.00	2-Lane	Right	8.0	11.5	10.2	17.5	Repair	10.2	
15.0	1	222+60.00	2-Lane	Left	8.0	11.5	10.2	17.5	Repair	10.2	
16.0	2	271+80.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
17.0	2	272+00.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
18.0	2	331+20.00	2-Lane	Both	50.0	11.5	127.8	17.5	Repair	127.8	
19.0	2	445+80.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
20.0	1	501+90.00	2-Lane	Left	24.0	6.0	16.0	17.5	Repair	16.0	
21.0	1	506+65.00	2-Lane	Left	40.0	11.5	51.1	17.5	Repair	51.1	
22.0	1	509+35.00	2-Lane	Left	100.0	6.0	66.7	17.5	Repair	66.7	
23.0	1	511+65.00	2-Lane	Left	60.0	6.0	40.0	17.5	Repair	40.0	
24.0	2	529+15.00	2-Lane	Both	20.0	11.5	51.1	17.5	Repair	51.1	
25.0	2	529+55.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
26.0	1	558+45.00	2-Lane	Left	40.0	11.5	51.1	17.5	Repair	51.1	
27.0	1	572+75.00	2-Lane	Left	24.0	11.5	30.7	17.5	Repair	30.7	
28.0	2	574+60.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
29.0	1	575+25.00	2-Lane	Left	8.0	11.5	10.2	17.5	Repair	10.2	
30.0	2	581+50.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
31.0	2	581+85.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
32.0	1	611+20.00	2-Lane	Left	8.0	11.5	10.2	17.5	Repair	10.2	
33.0	1	630+40.00	2-Lane	Left	20.0	11.5	25.6	17.5	Repair	25.6	
34.0	2	635+30.00	2-Lane	Both	20.0	11.5	51.1	17.5	Repair	51.1	
35.0	2	661+85.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
36.0	2	669+35.00	2-Lane	Both	15.0	11.5	38.3	17.5	Repair	38.3	
37.0	2	672+85.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
38.0	2	674+35.00	2-Lane	Both	15.0	11.5	38.3	17.5	Repair	38.3	
39.0	2	685+80.00	2-Lane	Both	12.0	11.5	30.7	17.5	Repair	30.7	
40.0	2	688+35.00	2-Lane	Both	12.0	11.5	30.7	17.5	Repair	30.7	
41.0	1	690+75.00	2-Lane	Right	60.0	11.5	76.7	17.5	Repair	76.7	
42.0	2	693+95.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
43.0	2	695+55.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
44.0	2	695+80.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
45.0	2	696+35.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
46.0	2	696+95.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
47.0	2	697+50.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
48.0	2	702+75.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
49.0	2	710+70.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	

FULL-DEPTH PATCHES

Line No.	Count	Station	Direction of Travel	Side	Length (FT)	Width (FT)	Total Patch Area (SY)	Patch Thickness (IN)	Patch Repair or Finish	HMA Patches (SY)	Remarks
50.0	2	715+90.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
51.0	2	717+10.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
52.0	2	718+30.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
53.0	2	719+10.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
54.0	2	721+75.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
55.0	2	723+00.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
56.0	2	723+75.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
57.0	2	731+65.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
58.0	2	732+60.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
59.0	2	735+20.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
60.0	2	736+50.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
61.0	2	737+35.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
62.0	2	738+05.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
63.0	2	740+00.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
64.0	2	741+30.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
65.0	2	744+60.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
66.0	2	745+95.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
67.0	2	747+90.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
68.0	2	749+60.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
69.0	2	750+35.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
70.0	2	750+70.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
71.0	2	753+80.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
72.0	2	754+45.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
73.0	2	755+40.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
74.0	2	756+25.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
75.0	2	757+00.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
76.0	2	758+60.00	2-Lane	Both	30.0	11.5	76.7	17.5	Repair	76.7	
77.0	2	759+65.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
78.0	2	760+00.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
79.0	2	760+55.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
80.0	2	761+20.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
81.0	2	764+65.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
82.0	2	768+60.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
83.0	2	771+10.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
84.0	2	778+10.00	2-Lane	Both	8.0	11.5	20.4	17.5	Repair	20.4	
85.0	2	780+15.00	2-Lane	Both	6.0	11.5	15.3	17.5	Repair	15.3	
86.0	1	780+45.00	2-Lane	Right	6.0	11.5	7.7	17.5	Repair	7.7	
87.0	2	785+00.00	2-Lane	Both	15.0	11.5	38.3	17.5	Repair	38.3	
88.0	2	787+75.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
89.0	2	789+15.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
90.0	2	790+75.00	2-Lane	Both	20.0	11.5	51.1	17.5	Repair	51.1	
91.0	2	795+00.00	2-Lane	Both	10.0	11.5	25.6	17.5	Repair	25.6	
92.0	1	271+75.00	2-Lane	Left			21.0		Repair	21.0	West return at P32 (See Sheet B.5 for details)
Total	166									2769.8	

NOTCHES AND RUNOUTS FOR RESURFACING

Refer to PR-201 and PR-202.

(1) Bid item. Applies only to Types 'N1' and 'N3' on PR-202. Refer to 100-25 for remaining values.

Line No.	Station	Type of Notch or Runout	S (IN)	I (IN)	DI (IN)	L (FT)	M (IN)	Pavement Scarification (SY) (1)	Remarks
1.0	+65.00	Type N5	1.5	1.5		150.0	2.0		
2.0	324+55.00	Type N5	1.5	1.5		150.0	2.0		West end of bridge
3.0	325+98.00	Type N5	1.5	1.5		150.0	2.0		East end of bridge
4.0	521+15.00	Type N5	1.5	1.5		150.0	2.0		Roadway South of PCC shoulders
5.0	521+65.00	Type N4	1.5	1.5		50.0	3.0		South roadway between PCC
6.0	524+91.00	Type N4	1.5	1.5		50.0	3.0		North roadway between PCC
7.0	525+41.00	Type N5	1.5	1.5		150.0	2.0		Roadway North of PCC shoulders
8.0	802+36.00	Type N5	1.5	1.5		30.0	2.0		EOP ramp taper from IA 2
9.0	802+36.00	Type N5	1.5	1.5		30.0	2.0		EOP 3-lane area
Total								0	

FORESLOPE FLATTENING AND DRAINAGE STRUCTURES BY ROAD CONTRACTOR (MAINLINE PIPES)

Refer to Standard Road Plans DR-121, DR-122, and DR-213.

* Not a bid item

Line No.	Location	Existing Size of Culvert	Existing Type of Culvert	Dimension Total Left (LF)	Dimension Total Right (LF)	Remove and Reinstall Aprons Left (No.)	Remove and Reinstall Aprons Right (No.)	Remove and Reinstall Culvert Left* (No.)	Remove and Reinstall Culvert Left (FT)	Remove and Reinstall Culvert Right* (No.)	Remove and Reinstall Culvert Right (FT)	New Apron In (No.)	New Apron Out (No.)	Apron Guard DR-213* (No.)	Type 'C' Connection DR-122* (Type)	Type 'C' Connection DR-122* (No.)	Connected Pipe Joint DR-121* (Type)	Embank.-In-Place (CY)	Class 20 (CY)	Remarks
1.0	40+66.30		RCB																	50' ditch reshaping (West) & 30 ton Class E
2.0	56+18.50		RCB																	West 100' ditch reshaping (80' S/20' N) place 60 ton Class E; 8 ton Class E (East)
3.0	90+06.90		RCB																	20 ton Class E at toe and corners of apron (East)
4.0	111+39.80		RCB																	Clear & grub 0.025 acres and place 15 ton of Class E (West)
5.0	124+88.90	24.0	RCP							1	8.0						Type 1			
6.0	137+87.20		RCB																	Clear & grub 0.025 acre, 30 ditch reshaping, place 20 ton Class E (West)
7.0	160+07.80		RCB			1														Clear & grub 0.025 acre, place 15 ton Class E (South)
8.0	190+23.70		RCB																	20 ton Class E at toe & corners of apron (South)
9.0	206+09.40		RCB			1		2	10.0								Type 1			4'x6' RCB
10.0	348+79.50		RCB																	Clear & grub 0.015 acre, place 7 ton Class E (North)
11.0	364+00.00	36.0	RCP				1			6	48.0									Clear & grub 0.015 acre place 5 ton Class E (North); place 15 ton Class E (South)
12.0	428+38.00	24.0	RCP				1			1	8.0						Type 1			
13.0	429+82.00	24.0	RCP			1		5	30.0								Type 1			Place 5 ton Class E by tile outlet on West foreslope
14.0	497+08.40		RCB																	Clear & grub 0.015 acre, place 8 ton Class E (West)
15.0	504+95.60		RCB																	Place 30 ton Class E at toe & corners of apron (West)
16.0	681+05.40		RCB																	Shape 120' of ditch, place 10 ton Class E at toe & corners of apron (East)
17.0	694+17.00		RCB																	Place 8 ton Class E at toe & corners of apron (East)
18.0	721+47.60		RCB																	Clear & grub 0.025 acre, place 15 ton Class E (West)
19.0	790+90.90		RCB																	30' ditch reshaping, place 20 ton Class E (East)
20.0	801+60.10	24.0	RCP			1		1	8.0								Type 1			30' ditch reshaping (East); place 8 ton Class E at toe & corners of apron (West)
Total						4	2	8	48	8	64					0	0		0	

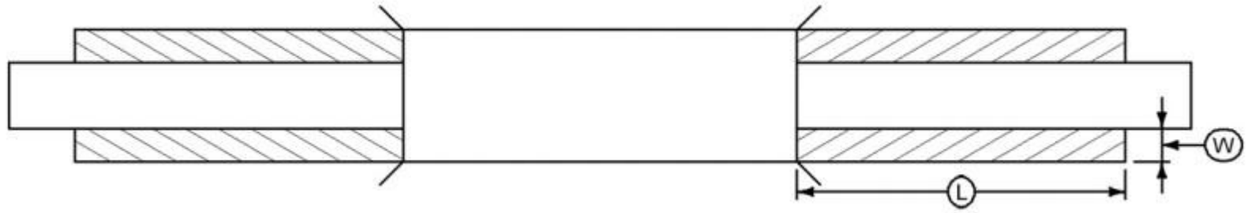
Note: Stations taken from Iowa DOT project number P-1011 and may vary in the field

STANDARDS

The following Standards apply to construction work on this project.

Number	Date	Title
LI-101	10-21-14	Light Pole Location
LI-103	10-21-25	Conduit and Precast Handholes
LI-120	10-21-14	Underdeck Lighting
LI-130	10-17-17	Temporary Floodlighting Luminaires
LI-141	10-21-14	Electrical Installation (Roadway Ducts)
LI-142	04-21-15	Electrical Installation (Bases)
LI-152	10-21-14	Control Cabinet (Pad-Mounted)
LI-201	04-21-26	Light Pole Foundation
LI-210	10-21-14	Transformer Base (Cast Aluminum)
PV-13	10-20-26	Milled Centerline Rumble Strips
PV-202	04-21-20	Hot Mix Asphalt Resurfacing
PV-203	04-21-20	HMA Base Widening
PV-301	04-15-25	Superelevation Details Two Lane Roadway
SI-211	10-18-22	Object Marker and Delineator Placement with Guardrail
SI-881	10-20-26	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-214	04-18-23	Lane Closure with Flaggers for use with Pilot Car
TC-231	04-18-23	Slow Moving Vehicle Operating in the Traffic Lane
TC-232	10-21-14	Shoulder Rumble Strip Operations
TC-233	10-17-17	Pavement Marking Operations Two-Lane
TC-282	10-15-19	Uneven Lanes
TC-402	04-18-23	Work Within 15 ft of Traveled Way

AREAS FOR PAVEMENT OR BASE WIDENING



(1) Bid Item
(2) Estimated for two applications to achieve lifts and one application of 0.10 Gal/SY adjacent to existing pavement. Priming of subgrade or finished base is not required.

Line No.	Station From	Station To	Side	Pavement Type	Length (LF)	Width (LF)	Thickness (IN)	HMA Unit Wt. (lbs/cf)	HMA Base Widening (1) (TONS)	HMA Base Widening (1) (SY)	Tack Coat Unit Wt. (gal/sy)	Tack Coat Lifts (GAL)	Tack Coat Vertical Edge (GAL)	Tack Coat (2) (GAL)	Asphalt Binder (1) (TON)	Class 13 Excavation Widening (1) (CY)	Is Special Backfill Required per PV-203?	Remarks
1.0	+65.00	129+75.00	Left	HMA	12910.00	4.0	4.0	145		5737.8			47.81	47.81		637.5	No	
2.0	130+80.00	132+50.00	Left	HMA	170.00	2.0	4.0	145		37.8			0.63	0.63		4.2	No	2' existing shoulder
3.0	134+50.00	151+03.00	Left	HMA	1653.00	2.0	4.0	145		367.3			6.12	6.12		40.8	No	P27
4.0	151+03.00	271+05.00	Left	HMA	12002.00	4.0	4.0	145		5334.2			44.45	44.45		592.7	No	
5.0	272+45.00	323+29.00	Left	HMA	5084.00	4.0	4.0	145		2259.6			18.83	18.83		251.1	No	
6.0	327+24.00	406+44.00	Left	HMA	7920.00	4.0	4.0	145		3520.0			29.33	29.33		391.1	No	
7.0	406+44.00	441+17.00	Left	HMA	3473.00	2.0	4.0	145		771.8			12.86	12.86		85.8	No	2' existing shoulder / Station Equation behind
8.0	444+57.40	521+65.00	Left	HMA	7707.60	4.0	4.0	145		3425.6			28.55	28.55		380.6	No	Station Equation ahead
9.0	525+41.00	687+60.00	Left	HMA	16219.00	4.0	4.0	145		7208.4			60.07	60.07		800.9	No	
9.0	749+36.00	802+36.00	Left	HMA	5300.00	4.0	4.0	145		2355.6			19.63	19.63		261.7	No	
10.0	688+90.00	735+79.00	Left	HMA	4689.00	4.0	4.0	145		2084.0			17.37	17.37		231.6	No	
11.0	735+79.00	749+36.00	Left	HMA	1357.00	2.0	4.0	145		301.6			5.03	5.03		33.5	No	2' existing shoulder
13.0																		
14.0	+65.00	131+00.00	Right	HMA	13035.00	4.0	4.0	145		5793.3			48.28	48.28		643.7	No	
15.0	131+00.00	151+03.00	Right	HMA	2003.00	2.0	4.0	145		445.1			7.42	7.42		49.5	No	2' existing shoulder
16.0	151+03.00	323+29.00	Right	HMA	17226.00	4.0	4.0	145		7656.0			63.80	63.80		850.7	No	
17.0	327+24.00	404+44.00	Right	HMA	7720.00	4.0	4.0	145		3431.1			28.59	28.59		381.2	No	
18.0	406+44.00	441+17.00	Right	HMA	3473.00	2.0	4.0	145		771.8			12.86	12.86		85.8	No	2' existing shoulder / Station Equation behind
19.0	444+57.40	521+65.00	Right	HMA	7707.60	4.0	4.0	145		3425.6			28.55	28.55		380.6	No	Station Equation ahead
20.0	525+41.00	735+79.00	Right	HMA	21038.00	4.0	4.0	145		9350.2			77.92	77.92		1038.9	No	
21.0	735+79.00	749+36.00	Right	HMA	1357.00	2.0	4.0	145		301.6			5.03	5.03		33.5	No	2' existing shoulder
22.0	749+36.00	802+36.00	Right	HMA	5300.00	4.0	4.0	145		2355.6			19.63	19.63		261.7	No	
Total										66934.0			582.76			7437.1		

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.
*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17 | BCY6: Broken Centerline (Yellow) @ 0.25 | BLC6: Broken Line Contrast (White/Black) @ 0.50 | BLW4: Broken Lane Line (White) @ 0.17 | BLW6: Broken Lane Line (White) @ 0.25
CBW6: Crosswalk Bar (White) @ 10.00 | CHW8: Channelizing Line (White) @ 1.33 | CHW10: Channelizing Line (White) @ 1.67 | CHY8: Channelizing Line (Yellow) @ 1.33 | CHY10: Channelizing Line (Yellow) @ 1.67
CLW6: Crosswalk Line (White) @ 2.00 | DCY4: Double Centerline (Yellow) @ 1.34 | DCY6: Double Centerline (Yellow) @ 2.00 | DDY4: Double Dotted Line (Yellow) @ 0.44 | DDY6: Double Dotted Line (Yellow) @ 0.67
DLW4: Dotted Line (White) @ 0.22 | DLW6: Dotted Line (White) @ 0.33 | DLY4: Dotted Line (Yellow) @ 0.22 | DLY6: Dotted Line (Yellow) @ 0.33 | ELW4: Edge Line Right (White) @ 0.67
ELW6: Edge Line Right (White) @ 1.00 | ELY4: Edge Line Left (Yellow) @ 0.67 | ELY6: Edge Line Left (Yellow) @ 1.00 | LDW8: Lane Drop (White) @ 0.33 | LDW10: Lane Drop (White) @ 0.42
MNY6: Median Nose (Yellow) @ 1.00 | NPY4: No Passing Zone Line (Yellow) @ 0.84 | NPY6: No Passing Zone Line (Yellow) @ 1.25 | RLW4: Ramp Edge Line Right (White) @ 0.67 | RLW6: Ramp Edge Line Right (White) @ 1.00
RLY4: Ramp Edge Line Left (Yellow) @ 0.67 | RLY6: Ramp Edge Line Left (Yellow) @ 1.00 | SLW2: Stop Line (White) @ 4.00 | SLW4: Solid Lane Line (White) @ 0.67 | SLW6: Solid Lane Line (White) @ 1.00
SPW4: Sloped Curb 4" (White) @ 2.16 | SPW6: Sloped Curb 6" (White) @ 2.28 | SPY4: Sloped Curb 4" (Yellow) @ 2.16 | SPY6: Sloped Curb 6" (Yellow) @ 2.28 | STW6: Standard Curb 6" (Yellow) @ 2.03
STY6: Standard Curb 6" (Yellow) @ 2.03 | YLW2: Yield Line (White) @ 1.15

Line No.	Road ID	Begin Ref. Location Sign	End Ref. Location Sign	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY6 Factored (STA)	CHY10 Factored (STA)	DCY6 Factored (STA)	DLW6 Factored (STA)	ELW6 Factored (STA)	NPY6** Factored (STA)	SLW2 Factored (STA)	SLW6 Factored (STA)	Remarks
1.0	US 169		15.15	2-Lane	Waterborne/Solvent Paint		X		No		81.26		1685.70			1518.00			See Note 1
2.0	US 169		15.15	2-Lane	Waterborne/Solvent Paint	X		X	No			18.79		9.36	4799.52		7.32	8.25	3 applications with no grooving
4.0	US 169	0	15.15	2-Lane	Waterborne/Solvent Paint		X		No		27.09		561.90			506.00			Application after rumble strip milling
5.0	US 169	0	15.15	2-Lane	Waterborne/Solvent Paint		X		No		27.09		561.90			506.00			See Note 2
Total																			
										0.00	135.44	18.79	2809.50	9.36	4799.52	2530.00	7.32	8.25	
Groove Marking Needed? : No																			
3.0	US 169		15.15	2-Lane	Waterborne/Solvent Paint	X		X	Yes	1614.41		6.26		3.12	1599.84		2.44	2.75	Final application with grooving
Total																			
										1614.41	0	6.26	0	3.12	1599.84	0	2.44	2.75	
Groove Marking Needed? : Yes																			
Grand Totals																			
										1614.41	135.44	25.05	2809.50	12.48	6399.36	2530.00	9.76	11.00	

Notes:
1) Quantities based on 3 applications; one after milling, one after intermediate HMA course, and one after surface HMA course.
2) Application approximately 30 days after fog seal for rumble strips is complete.

112_07

10/20/26

RUMBLE STRIP PANELS

Refer to Standard Road Plan PV-10.

Line No.	Roadway Identification	Station	Side	Pavement Type	Rumble Strip Panel Type	Remarks
1.0	US 169	788+70.00	Right	New	Sinusoidal Rumble Strip Panel	
2.0	US 169	794+10.00	Right	New	Sinusoidal Rumble Strip Panel	

RUMBLE STRIPS

* Calculated at 18" width for Shoulder.
** For use with penetrating Engineered Fog Seal. Calculated at 2" wider than rumble strips.

Line No.	Road Identification	Station From	Station To	Surface Type	Rumble Strip Lane	Rumble Strip Type	Fog Seal Type	L (IN)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Fog Seal (SY)**	Effective Shoulder Width Granular\Earth (FT)	Remarks
1.0	US 169	+.00	104+20.00	HMA	Centerline	Milled Centerline Rumble Strips	Asphalt Emulsion	12"	104.20	150.5	2315.6		BOP to Redding City limit
2.0	US 169	+.00	104+20.00	HMA	Left Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	104.20	112.9	1736.7		BOP to Redding City limit
3.0	US 169	+.00	104+20.00	HMA	Right Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	104.20	112.9	1736.7		BOP to Redding City limit
4.0	US 169	151+70.00	324+55.00	HMA	Centerline	Milled Centerline Rumble Strips	Asphalt Emulsion	12"	172.85	249.7	3841.1		Redding City limit to W end bridge
5.0	US 169	151+70.00	324+55.00	HMA	Left Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	172.85	187.3	2880.8		Redding City limit to W end bridge
6.0	US 169	151+70.00	324+55.00	HMA	Right Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	172.85	187.3	2880.8		Redding City limit to W end bridge
7.0	US 169	325+90.00	441+17.00	HMA	Centerline	Milled Centerline Rumble Strips	Asphalt Emulsion	12"	115.27	166.5	2561.6		East end bridge to station equation
8.0	US 169	325+90.00	441+17.00	HMA	Right Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	115.27	124.9	1921.2		East end bridge to station equation
9.0	US 169	325+90.00	441+17.00	HMA	Left Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	115.27	124.9	1921.2		East end bridge to station equation
10.0	US 169	444+57.40	522+85.50	HMA	Centerline	Milled Centerline Rumble Strips	Asphalt Emulsion	12"	78.28	113.1	1739.6		Station equation to bridge
11.0	US 169	444+57.40	522+85.50	HMA	Right Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	78.28	84.8	1304.7		Station equation to bridge
12.0	US 169	444+57.40	522+85.50	HMA	Left Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	78.28	84.8	1304.7		Station equation to bridge
13.0	US 169	524+20.50	802+36.60	HMA	Centerline	Milled Centerline Rumble Strips	Asphalt Emulsion	12"	278.16	414.8	6381.3		Bridge to EOP
14.0	US 169	524+20.50	802+36.60	HMA	Left Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	278.16	301.3	4636.0		Bridge to EOP
15.0	US 169	524+20.50	802+36.60	HMA	Right Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	278.16	301.3	4636.0		Bridge to EOP
16.0	US 169	134+55.00	147+30.00	HMA	Left Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	12.75	13.8	212.5		Curve in Redding due to crash issues
17.0	US 169	134+55.00	147+30.00	HMA	Centerline	Milled Centerline Rumble Strips	Asphalt Emulsion	12"	12.75	18.4	212.5		Curve in Redding due to crash issues
18.0	US 169	134+55.00	147+30.00	HMA	Right Shoulder	Milled Shoulder Rumble Strips	Asphalt Emulsion	12"	12.75	13.8	212.5		Curve in Redding due to crash issues
Total									2284.53	2763.0	42435.5		

Note:
Centerline fog seal quantity calculated at 24" width

SUPERELEVATION DATA

See PV-300 Series

Line No.	Road Identification	Circular Curve or Spiral Curve Name	Radius (FT)	e (%)	L (FT)	x (FT)	Standard Road Plan	Section A-A	Section A'-A'	Section B-B	Section C'-C'	Section C-C	Section D-D	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
1.0	US 169	C1	1146.0	5.8	144.0	48.00	PV-301	13061.16		13109.16		13256.16	13253.16	13209.96			13181.16	13229.16		
2.0	US 169	C1	1146.0	5.8	144.0	48.00	PV-301	15151.80		15103.80		15055.80	14949.80	15003.00			15029.32	14979.66		
3.0	US 169	C2	3183.3	3.8	91.0	48.00	PV-301	40237.44		40285.44		40333.44	40376.44	40349.14			15029.32			
4.0	US 169	C2	3183.3	3.8	91.0	48.00	PV-301	44228.70		44180.70		44132.70	44089.70	44117.00			44108.86			
5.0	US 169	C3	1910.0	4.8	115.0	48.00	PV-301	73550.40		73598.40		73646.40	73713.40	73678.90			73670.28			
6.0	US 169	C3	1910.0	4.8	115.0	48.00	PV-301	74964.60		74916.60		74868.60	74801.60	74836.10			74844.73			

108_23A
8/15/22

TRAFFIC CONTROL PLAN

Through traffic will be maintained on the project at all times. Traffic control on this project shall be in accordance with the TC series of the Standard Road Plans on Tabulation 105-4. Refer to the current Standard Specifications for additional information. The contractor shall coordinate traffic control with other projects in the area. PDMS shall be utilized for advance notification of work anywhere within the project site. Each of the 3 primary route approach directions shall be notified by PDMS message of potential delays and advised to seek alternate routes starting 7 days prior to any work occurring which would impact traffic flow in the project area. PDMS messages shall be coordinated with the RCE and the Iowa DOT TMC office.

108_25
3/28/24

511 TRAVEL RESTRICTIONS

Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
1.0	US 169	Both	Ringgold	MP 0.0 to MP 15.15		Traffic Control Device		Horizontal					

111_01
10/14/22

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
None Provided	

GENERAL NOTES

A. CONDUITS SHALL BE INSTALLED USING HORIZONTAL DIRECTIONAL BORING. OPEN-CUT TRENCHING MAY BE USED IF CONDITIONS ALLOW AND IS AT THE CONTRACTOR'S RISK.

B. ALL UNDERGROUND CONDUIT SHALL BE EITHER HDPE, TYPE SDR 13.5, OR SCHEDULE 40 PVC. USE SCHEDULE 80 PVC WHEN CROSSING ROADWAYS. ABOVE GROUND CONDUIT SHALL BE SCHEDULE 40 OR SCHEDULE 80 PVC AS REQUIRED BY THE UTILITY.

C. ALL UNDERGROUND CONDUIT SHALL BE PLACED 30" BELOW FINISHED GRADE OR SURFACE. ADJUSTMENTS MAY BE MADE TO AVOID EXISTING UNDERGROUND FACILITIES BUT SHALL BE NO LESS THAN 24".

D. ALL HANDHOLES SHALL BE "TYPE I" PER STANDARD ROAD PLAN LI-103.

E. PROPOSED LIGHTING EQUIPMENT LOCATIONS ARE APPROXIMATE AND MAY REQUIRE MODIFICATION TO AVOID CONFLICTS WITH UNDERGROUND UTILITIES OR OTHER OBSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ANY CONFLICTS WITH EXISTING UTILITIES IN THE FIELD PRIOR TO INSTALLATION. THE LIGHTING CONTROL CABINET AND LIGHTING ASSEMBLY LOCATIONS ARE DISTANCE SENSITIVE. REVIEW ANY IDENTIFIED CONFLICTS WITH THE ENGINEER OR OWNER REPRESENTATIVE AND OBTAIN PERMISSION PRIOR TO RELOCATING ANY AFFECTED EQUIPMENT.

F. POLE LOCATIONS ARE DEVELOPED USING AERIAL IMAGING AND SHOULD BE CONSIDERED APPROXIMATE. ALIGNMENTS WERE NOT DEVELOPED FOR THIS PROJECT. ALL COORDINATES ARE BASED ON THE IOWA REGIONAL COORDINATE SYSTEM (IARCS) - ZONE 12. THE CONTRACTOR SHALL USE THE STATED COORDINATES TO ESTABLISH THE LONGITUDINAL POSITION ALONG THE ADJACENT ROADWAY. THE LATERAL POSITION OF THE LIGHT POLE SHALL BE ESTABLISHED RELATIVE TO THE EDGE OF TRAVELED LANE, PER STANDARD ROAD PLAN LI-101.

KEY NOTES

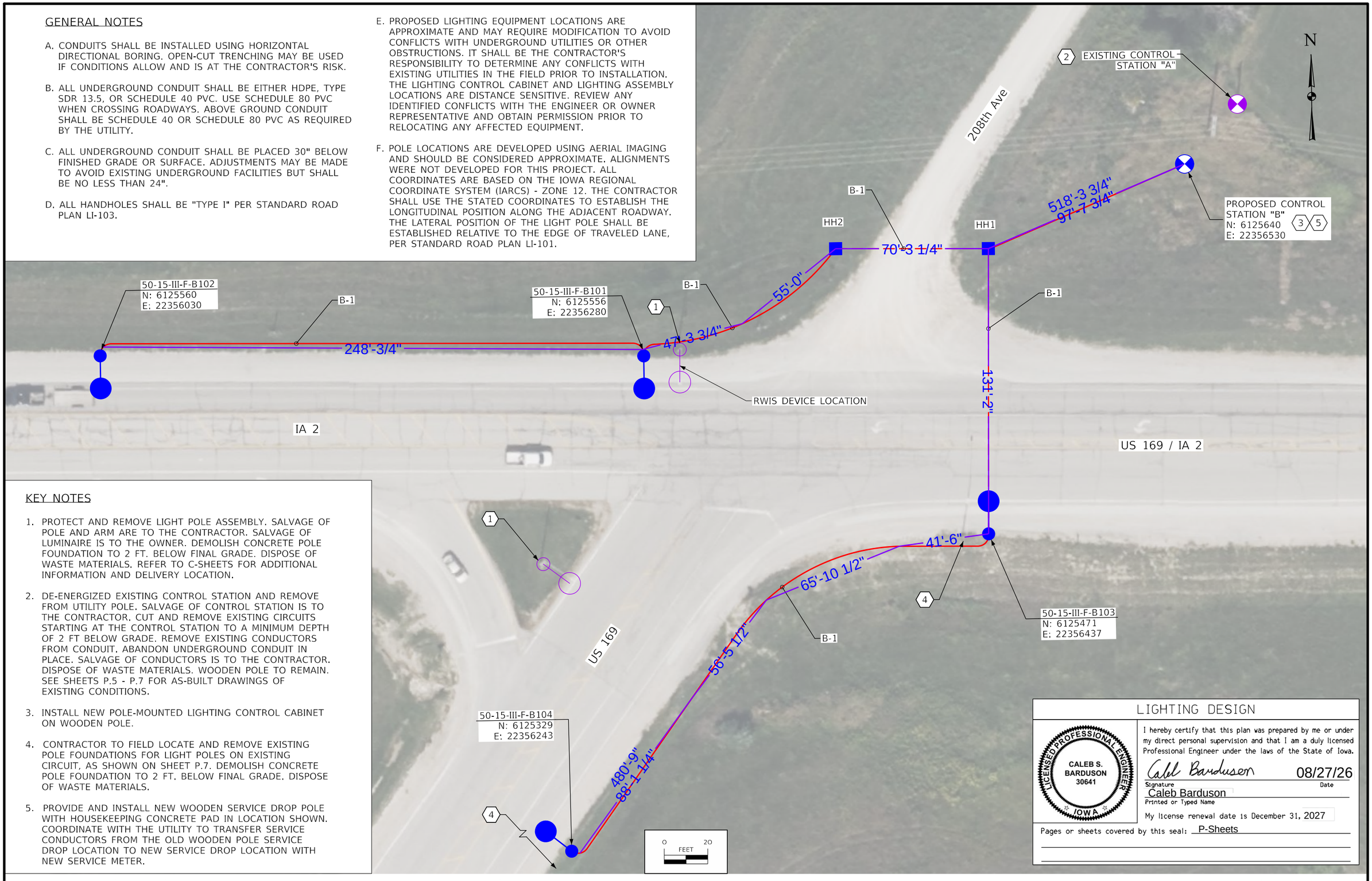
1. PROTECT AND REMOVE LIGHT POLE ASSEMBLY. SALVAGE OF POLE AND ARM ARE TO THE CONTRACTOR. SALVAGE OF LUMINAIRE IS TO THE OWNER. DEMOLISH CONCRETE POLE FOUNDATION TO 2 FT. BELOW FINAL GRADE. DISPOSE OF WASTE MATERIALS. REFER TO C-SHEETS FOR ADDITIONAL INFORMATION AND DELIVERY LOCATION.

2. DE-ENERGIZED EXISTING CONTROL STATION AND REMOVE FROM UTILITY POLE. SALVAGE OF CONTROL STATION IS TO THE CONTRACTOR. CUT AND REMOVE EXISTING CIRCUITS STARTING AT THE CONTROL STATION TO A MINIMUM DEPTH OF 2 FT BELOW GRADE. REMOVE EXISTING CONDUCTORS FROM CONDUIT. ABANDON UNDERGROUND CONDUIT IN PLACE. SALVAGE OF CONDUCTORS IS TO THE CONTRACTOR. DISPOSE OF WASTE MATERIALS. WOODEN POLE TO REMAIN. SEE SHEETS P.5 - P.7 FOR AS-BUILT DRAWINGS OF EXISTING CONDITIONS.

3. INSTALL NEW POLE-MOUNTED LIGHTING CONTROL CABINET ON WOODEN POLE.

4. CONTRACTOR TO FIELD LOCATE AND REMOVE EXISTING POLE FOUNDATIONS FOR LIGHT POLES ON EXISTING CIRCUIT, AS SHOWN ON SHEET P.7. DEMOLISH CONCRETE POLE FOUNDATION TO 2 FT. BELOW FINAL GRADE. DISPOSE OF WASTE MATERIALS.

5. PROVIDE AND INSTALL NEW WOODEN SERVICE DROP POLE WITH HOUSEKEEPING CONCRETE PAD IN LOCATION SHOWN. COORDINATE WITH THE UTILITY TO TRANSFER SERVICE CONDUCTORS FROM THE OLD WOODEN POLE SERVICE DROP LOCATION TO NEW SERVICE DROP LOCATION WITH NEW SERVICE METER.



LIGHTING DESIGN

LICENSED PROFESSIONAL ENGINEER
CALEB S. BARDUSON
30641
IOWA

I hereby certify that this plan 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.

Caleb Barduson — Signature — 08/27/26 — Date

Caleb Barduson — Printed or Typed Name

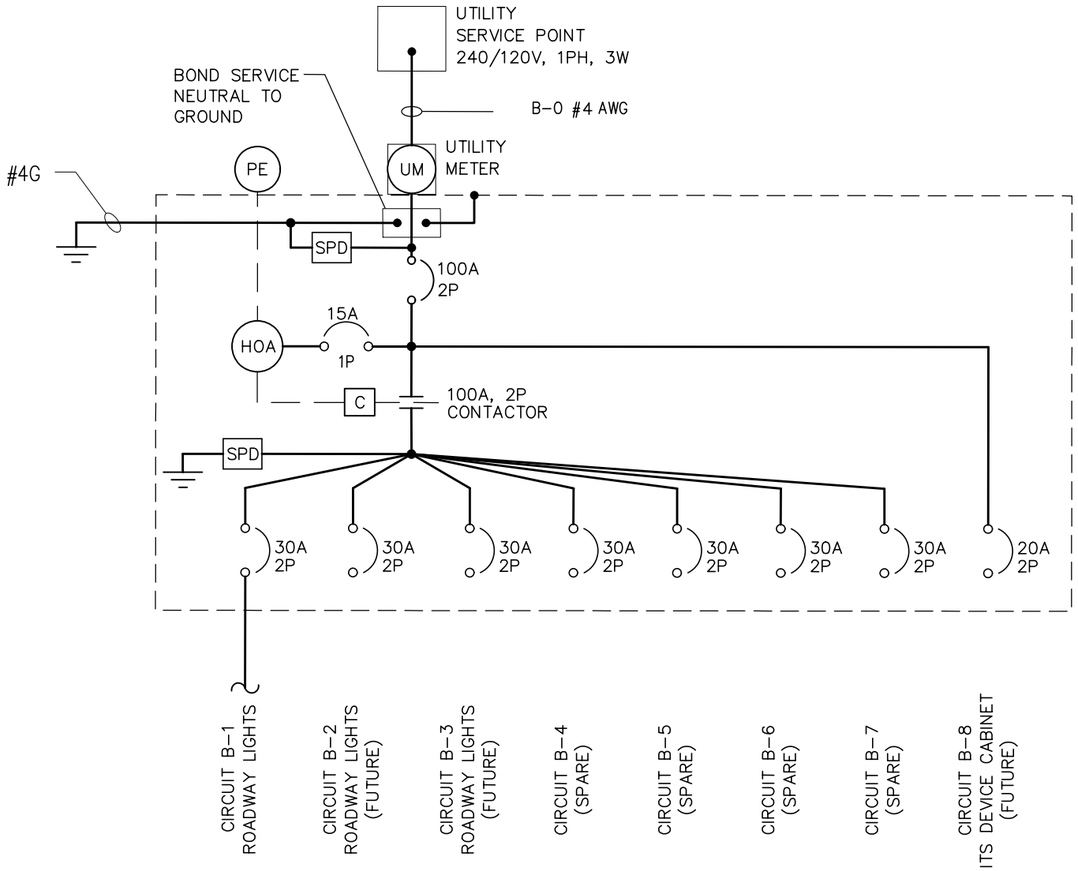
My license renewal date is December 31, 2027

Pages or sheets covered by this seal: P-Sheets

FILE NO.	ENGLISH	DESIGN TEAM HERMANN \ HR GREEN	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER P.1

10:49:40 AM 8/24/2026 rtyrrel pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\8016901022\TrafficAndSafety\TrafficEngineering_048_Lighting\CADD Files\SHT_P01_08169048.dgn

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ONE-LINE DIAGRAM

LIGHTING DETAILS

FILE NO.	ENGLISH	DESIGN TEAM **HERMANN \ HR GREEN**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **P.2**	

108-11A
08-01-08

HIGHWAY LIGHTING DATA

The Iowa DOT is resurfacing with milling work on the US 169 and IA 2 intersection. This work will include updating the current lighting at the intersection to a more current design located Near the city of Mount Ayr, in Ringgold County Iowa

The project generally consists of the following new work:
(4) New IADOT conventional lighting pole assemblies and associated circuitry, associated conduit, and wire.
(2) Existing lighting poles and their foundations that will be removed and the pole bases demolished to 2'-0" below adjacent grade and backfill as required.
(2) Existing ligh pole foundation only that the pole bases to be demolished to 2'-0" below adjacent grade and backfill as required.
(2) Existing IADOT poles, arms will be salvage to owner. Protect and store until delivered. Refer to table 108-13
(2) luminaires will be salvaged to owner. Protect and store until delivered. Refer to table 108-13

Electrical Service: Replace existing pole mounted lighting cabinet with new pole mounted lighting cabinet. New cabinet on new wooden service pole with housekeeping pad in location shown. Salvage of old existing lighting cabinet is to the contractor. Existing wooden service pole to remain.

Utility Provider:

Southwest Iowa Rural Electric Cooperative
2248 Avenue of Industries
PO Box 367
Corning, IA 50841
Tel: (888)-220-4869

The intent is to remove the existing poles, install the new poles in locations shown.

Obtain One-Call services and verify the location of existing underground utilities and lighting circuits prior to proceeding with lighting/electrical installations.

Light Poles: All Light Poles shall be Steel poles with Transformer Base type, per Standard Road Plan LI-210, Standard Specifications, and sized/dimensioned per the Layout Plans.

Roadway Luminaires: Contractor shall be responsible for suppling and installing solid state light emitting diode (LED) cobrahead style luminaires as described for the new luminaire locations. LED luminaires shall be:

Cooper Lighting - Archeon Model:
ARCH-M-PA2-110-740-U-T3R-AP-10K-PR7-PSC for Type III distribution.

or
American Electric Lighting - Autobahn Model:
ATB0-P304-MVOLT-R3-P7-SH for Type III distribution.

or
Signify Lumec - RoadFocus Model:
RFM-135W40LED-4K-G3-R3M-UNV-DMG-PH9-RCD7-GY3 for Type III distribution.

No substitutes will be allowed. All luminaires shall be rated for and connected for operation at 240 Volts.

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
LI-101	10-21-14	Light Pole Location
LI-103	04-19-22	Conduit and Precast Handholes
LI-141	10-21-14	Electrical Installation (Roadway Ducts)
LI-142	04-21-15	Electrical Installation (Bases)
LI-151	10-21-14	Control Cabinet (Pole-Mounted)
LI-201	04-18-17	Light Pole Foundation
LI-210	10-21-14	Transformer Base (Cast Aluminum)
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-402	04-18-23	Work Within 15 ft of Traveled Way

108-23A
08-01-08

TRAFFIC CONTROL PLAN

1. To the extent practicable, perform lighting installations in coordination with traffic control measures associated with Project NHSX-169-1(048)--3H-80HMA Resurfacing with Milling.
2. For lighting installations performed on roadways otherwise open to traffic, contractor shall maintain traffic on such roadways at all times.
3. Traffic control on this project shall be in accordance with the TC series of Standard Road Plans listed on Tab. 105-4.

All traffic control devices and equipment necessary to maintain traffic in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and the current Standard Specifications.

111-01
04-17-12

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
NHSX-169-1(048)--3H-80	HMA Resurfacing with Milling

UTILITY
Modified

UTILITY NOTES

Lighting Contractor shall check for locations of utilities, drainage structures or other facilities in the construction area. Any damage to such facilities due to the contractor's carelessness shall be corrected at the contractor's expense.

232-3A
10-19-21

EROSION CONTROL (RURAL SEEDING)

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.

WASTE
Modified

WASTE

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess materials (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this projects.

It shall be the contractor's responsibility to ensure that areas (including haul roads) selected for waste or disposal not impact 1) culturally sensitive sites or graves or 2) wetlands or "Waters of the U.S.", including streams or stream banks below the "ordinary high water mark", without an approved U.S. Army Corps of Engineers Section 404 Permit.

No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

108-2
08-01-08

ELECTRICAL DUCTS

Location	Conduit Type	Dia. IN	Length FT	Remarks
"LC-B"				New Pole Mounted Cabinet
B-0	OVERHEAD	Open Wire	150	NEW Overhead Electrical Service
B-1	PLASTIC	2.0	145	Control Cabinet to HH1
B-1	SCH 80	2.0	77	Road Crossing (HH1-HH2)
B-1	PLASTIC	2.0	116	HH2 to B101
B-1	PLASTIC	2.0	282	B101 to B102
B-1	SCH 80	2.0	144	Road Crossing (HH1-B103)
B-1	PLASTIC	2.0	286	B103 to B104
		Total:	1049	

108-1
10-21-14

LIGHTING INSTALLATIONS

Location No.	Location Station	LI-101 Type	LI-101 A	LI-101 E FT	LI-201 Type	Remarks
B101	N:6125556/E:22356280	1	6	6.0	A	T-Base
B102	N:6125560/E:22356030	1	6	6.0	A	T-Base
B103	N:6125471/E:22356437	1	6	6.0	A	T-Base
B104	N:6125329/E:22356243	1	6	6.0	A	T-Base

108-12
10-21-14

WIRE, CABLE AND CONNECTORS

Circuit Number	Connectors								Phase Lines								Ground		Remarks
	Type	Quan. No.	Type	Quan. No.	Type	Quan. No.	Type	Quan. No.	Size A.W.G.	Quan. LF	Size A.W.G.	Quan. LF	Size A.W.G.	Quan. LF	Size A.W.G.	Quan. LF	Size A.W.G.	Quan. LF	
"LC-B"																			
B-0									#4	300							#4	150	NEW Service line and neutral conductors, Ground electrode cond.
B-1			Y-1	4									#6	2098			#6	1049	Circuit run conductors
B-1							Y-3	4							#10	800	#8	400	Light pole riser conductors, Ground conductor, [1]
																			[1] Provide one 5A time delay fuse in each Y-1 connector.

110-13
04-20-10

DELIVERY AND STOCKPILING

Item Description	Quantity	Units	Delivery Location	Contact Name & Number	Remarks
LED Luminaire	2	EACH	Mount Ayr Garage	Bryan Craig	Mount Ayr Maintanance
Light Pole	2	EACH	700 S. Henderson Dr.	Phone: 515-250-8050	Phone: 641-464-2340
Light Pole Arms	2	EACH	Mount Ayr, IA 50854		

262 03
09-28-22

ROAD WEATHER INFORMATION SYSTEM

ROAD WEATHER INFORMATION SYSTEM (RWIS) installations(s) are located within this projects construction limits <<(Sta. 1234+12)>>. Notify the Iowa DOT's Maintanance Office (telephone number (515.239.1971) a minimum of 7 days prior to working near the RWIS installations(s). Maintanance personnell will locate and mark the RWIS(s) one time. Treat these RWIS(s) similar to other public utilities. The Contractor is respondsible for paying for unapproved damage they have caused to the RWIS(s)

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5		1	9

PROJECT NUMBER
FN-169-1(2)--21-80

RINGGOLD COUNTY

(LIGHTING)

FN-169-1(2)--21-80

LETTING DATE
Aug 11, 1967

CONVENTIONAL SIGNS

State Line
Co. Line
Twp. Line
Sec. Line
Corp. Line
Urban Bdry.
R.O.W. Lines
Survey Line — Old / New — Sta / Ref. Point
Profile Grade
Railroad
Field Tile
Underground Lines — Old / New — G Gas / T Tel
Culverts — Old / New
Utility Poles — Power Tel
Fences — Barb. / Mesh
Trees Or Brush
Stream
Dike — Old / New
County Road No.
Primary Road No.
U. S. Road No.
Interstate Road No.

STATE OF IOWA
STATE HIGHWAY COMMISSION

PLANS OF PROPOSED IMPROVEMENT
ON THE

PRIMARY ROAD SYSTEM
RINGGOLD COUNTY
LIGHTING

JUNCTION U. S. NO. 169 AND IOWA NO. 2

THE IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR CONSTRUCTION WORK, SERIES OF 1964 SHALL APPLY TO WORK ON THIS PROJECT

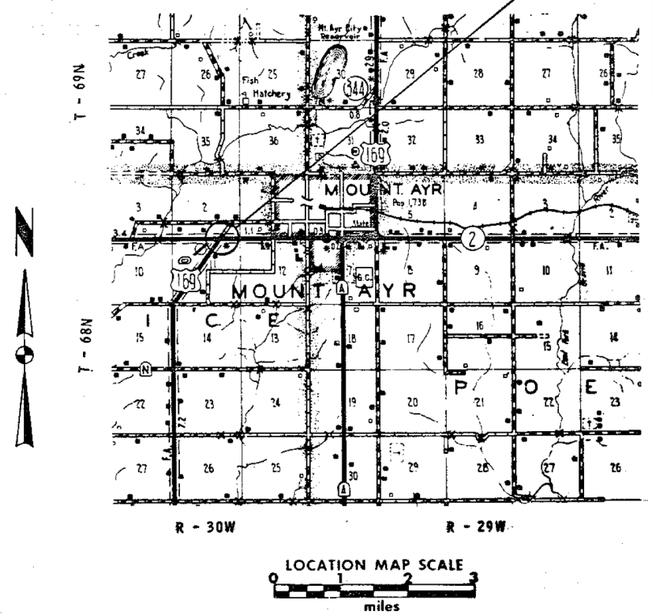
NO MILEAGE SUMMARY

INDEX OF SHEETS 103.3

NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATE OF QUANTITIES
3	HIGHWAY LIGHTING LAYOUT
4	RM-1, POLE LOCATION DETAILS
5	RM-2A, INSTALLATION DETAILS, (ELECTRICAL DUCTS)
6	RM-2B, INSTALLATION DETAILS, (ELECTRICAL CIRCUITS)
7	RM-7A, CONTROL STATION DETAILS, (POLE MOUNTED)
8	RM-11, FOOTING DETAILS
9	RM-12, CABLE SPLICES AND CONNECTORS

PROJECT LOCATION

STATE CONTROL SECTION NUMBER
80-0900



CONSTRUCTION PLANS SHOWING PROJECT "AS BUILT"
THREE COPIES PREPARED BY D. S. Jespersen
DATE 1-31-68

ONE COPY APPROVED AND FORWARDED TO AMES:
Ray M Collins DATE 2/2/68
DIST. CONST. ENGR.

COPIES SENT TO:
ROBERT I. BORTLE DISTRICT ENGINEER
RALPH D. CORNICK RES. MAINT. ENGR.

DETAIL PLANS REDUCED IN SIZE (DO NOT SCALE)

INFORMATIONAL PURPOSE ONLY

REVISED:

APPROVED
R M Owen 7/11/67
DEPUTY CHIEF ENGINEER — DATE
IOWA HIGHWAY COMMISSION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY SUPERVISION AND THAT ENGINEERING DECISIONS WITH REGARD TO THE DESIGN WERE MADE BY ME OR BY OTHER DULY REGISTERED PROFESSIONAL ENGINEERS UNDER THE LAWS OF THE STATE OF IOWA.
John C. Hooker
DATE July 10 19 67, IOWA REG. NO. 3729

U. S. DEPT. TRANSPORTATION
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER — DATE

75

7-11-67 J.C.D. 7-11-67 R.M.O.

RINGGOLD COUNTY PROJECT NO. FN-169-1(2)--21-80 SHEET NO. 1

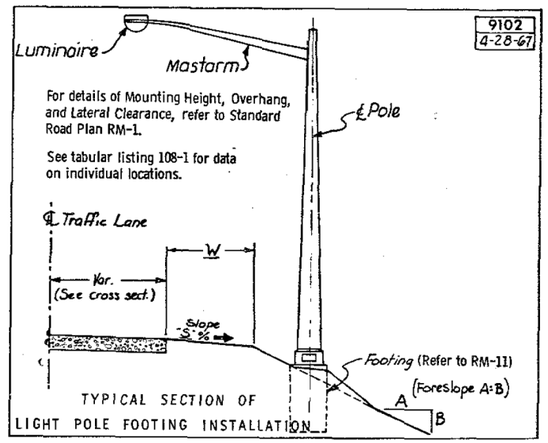
FILE NO.	ENGLISH	DESIGN TEAM HERMANN \ HR GREEN	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER P.5

10:49:53 AM 8/24/2026 rtyrrel pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\8016901022\TrafficAndSafety\TrafficEngineering_048_Lighting\CADD Files\SHT_P02_08169048.dgn

TABULATION OF LIGHTING INSTALLATIONS

108-1

Location	Location Type	Mounting Height	Mastarm Length	Design Shldr. Width (W)	Design Shldr. Slope (S)	Foreslope A	Foreslope B	Remarks
621+15	9102	40	15	10	4%	3	1	
622+45	9102	40	15	10	4%	3	1	
799+90	9102	40	15	10	4%	3	1	
801+50	9102	40	15	-	-	-	-	



109-20

LIGHTING CONTRACTOR SHALL CHECK FOR LOCATION OF UTILITIES, DRAINAGE, OR OTHER FACILITIES IN THE CONSTRUCTION AREA. ANY DAMAGE TO SUCH FACILITIES DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT HIS OWN EXPENSE.

HIGHWAY LIGHTING DATA

108-8

GENERAL NOTE:
THE RIDETA ELECTRIC CO-OPERATIVE WILL PROVIDE SECONDARY SERVICE (120/240 VOLT) TO CONTROL STATION "A" INDICATED ON THE PLANS. EXACT LOCATION OF CONTROL STATION SHALL BE DETERMINED ON CONSTRUCTION AS DIRECTED BY THE ENGINEER AND APPROVED BY THE UTILITY COMPANY.

POLES, ROADWAY LIGHTING:
MASTARMS SHALL BE TYPE "B".
It shall be the Contractor's responsibility to determine the various pole lengths required to obtain the specified mounting height.

TRANSFORMER BASE:
Transformer bases shall be installed for all lighting poles.

All transformer bases shall be cast aluminum, of a commercial design approved by the Engineer. Non-corrosive bolts, nuts and washers shall be included at no extra cost.

When steel poles are used, an approved non-metallic spacer shall be inserted between the pole anchor flange and the transformer base top.

Contract price for transformer base shall include furnishing and installing the base as part of the lighting pole installation in accordance with applicable specifications and methods approved by the Engineer.

LUMINAIRES:
ROADWAY: Mercury Vapor, 400 Watt, Cutoff.

CIRCUIT BREAKERS:
LOAD CURRENT RATING, 30 Amperes (Each Circuit)
MIN. INTERRUPTING RATING: 15,000 Amperes, Asym. at 600 volts. Provide one each circuit, without spares.

CONTACTOR:
MINIMUM INTERRUPTING RATING: 60 Amperes.

CONDUCTOR SIZES:
PHASE LINES: No. 6, A.W.G.
NEUTRAL: No. 6, A.W.G. Bare Copper

TRENCHING:
DIMENSION "D" is 4'-0", Refer to RM-2B.

PLACING POLES:
Overhang shall be 0'-0" with a tolerance of ± 0'-6". Refer to Standard Road Plan RM-1.

Leveling shims may be used for all poles mounted on transformer bases.

ESTIMATED PROJECT QUANTITIES

100-0

NO.	ITEM	UNIT	TOTAL
1	Pole, With 15'-0" Mastarm, (Alum. or Steel)	No.	4
2	Luminaire, Roadway, M.V. Type III-S (400 Watt)	No.	4
3	Footing, RM-11	No.	4
4	Ground Rod, 5/8"ϕ x 12'-0"	No.	5
5	Transformer Base, As Per Plan	No.	4
6	Connector, RM-12, Type Y-1	No.	8
7	Control Cabinet	No.	1
8	Sand Backfill	Tons	27
9	Conduit, 2"ϕ Rigid Steel	Lin. Ft.	35
10	Conduit, 3"ϕ Rigid Steel	Lin. Ft.	210
11	Cable, #6 A.W.G. 1/c (600 Volt)	Lin. Ft.	2 080
12	Cable, #10 A.W.G. 1/c (600 Volt)	Lin. Ft.	460
13	Ground Wire, #6 A.W.G., Bare Copper	Lin. Ft.	1 040

ESTIMATE REFERENCE INFORMATION

100-4

Data listed below is for informational purposes only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
2.	Bid to include A.S.A. H33-ICD Lamp.
6.	Bid to include 5 ampere, 600 volt fuse.

TABULATION OF ELECTRICAL DUCTS

108-2

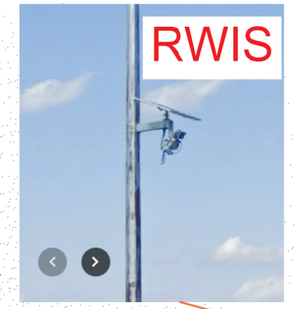
LOCATION	CONDUIT TYPE	DIA. (IN)	L'GTH. (FT.)	REMARKS
620+60±	RIGID STEEL	3	80	PLACE BY JACKING
622+60±	RIGID STEEL	3	80	PLACE BY JACKING
803+60±	RIGID STEEL	3	50	AS DIRECTED BY ENGR.
CONTROL STATION	RIGID STEEL	2	35	RISERS

INFORMATIONAL PURPOSE ONLY

Ringgold COUNTY | PROJECT NUMBER FN-169-1(2)--21-80 | STATE IOWA | FED. ROAD DIST. NO. 5 | FISCAL YEAR | SHEET NO. 2 | TOTAL SHEETS 3

FILE NO. | ENGLISH | DESIGN TEAM **HERMANN \ HR GREEN** | **RINGGOLD** COUNTY | PROJECT NUMBER **NHSX-169-1(048)--3H-80** | SHEET NUMBER **P.6**

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Note:
Pole for control station to be furnished by the utility company.

INFORMATIONAL PURPOSE ONLY

HIGHWAY LIGHTING LAYOUT

INTERSECTION OF
U. S. NO. 169 & IA. NO. 2

FILE NO. 87B

Ringgold COUNTY	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	FN-169-1(2)--21-80	IOWA	5		3	5

FILE NO.	ENGLISH	DESIGN TEAM **HERMANN \ HR GREEN**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **P.7**

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FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		7	

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

STA. 0+00.0 BEG. OF DIV. I AND PROJ.

STATE OF MISSOURI

COUNTY

State Line Road

CLINTON TWP.
T. 67 N. R. 31 W.
SEC. 26

Ref to POT Sta. 0+00

Ref to PC Sta 11+10.6

Ref to PT Sta 16+13.5

Ref to POT Sta 24+13.9 = POT Sta 22+40.13 P-613

Ref. Pt. Sta. 17+43.8 = Ref. Pt. Sta. POT 17+58.2

Found Iron Pin

Steel Pin

Iron Pinch

Sta. 0+00 - 16+3.5 Lt. 5'x9'x40' R.250° Culv. DA = Side road Extend 30' North and ~~[illegible]~~ Road Contr. to ditch outlet.

CHAS. E. NORRIS
169 By Easement 193 acres
Consideration $3138
Date of Contract 5-23-61
Recorded Bk. 178 Pg. 74
Ringgold Co. Recorder
CULTIVATED

EARL D. ADAIR
See Sheet No. 8
CULTIVATED

Off. Reloc. Δ = 33° 43' Rt. D = 3° R = 1910.0 L = 123.9 Ps = 85.8 T = 378.8

Survey Line

Off. Reloc. Δ = 18° 20' Rt. D = 7° R = 818.2 L = 261.8 T = 132.4

Off. Reloc. on Constr. Δ = 18° 20' Rt. D = 7° R = 818.2 L = 261.8 T = 132.4

Sta. 6+78.8 32'x24' I Beam DA = 1107 Ac. V.H. Replace with 36'x26' Concrete Slab Bridge

CHAS. E. NORRIS

See this Sheet

See Sheet No. ___ for local road approaches.

PASTURE

Prop. Inter Ditch

Sta. 0+53.6 3'x2'x60° Conc. Box Culv. Flowline = 9.5 3'x2'x30° Conc. Box Culv. on Inlet end DA = 20 Ac. V.H. Extend 44 Ft. 8' Rt.

Sta. 13+01.0 2'x2'x41° Conc. Box Culv. DA = 7 Ac. ± V.H. Extend 18 Lt. & 6' Rt. Road Contr. to ditch inlet.

Survey Line

Survey Void

Sta. 12+04.7 = Sta. 12+00 Ahead

Off. Reloc. 6.3

Conc. Pipe Culv.

CULTIVATED

PASTURE

GARDEN

GARAGE

Log

Wag.

Iron Pipe

Corr. Pipe

POT Sta. 24+13.9 = Sta. 24+00 Ahead

SAMPSON
SAM R. ADAIR
169 By Assessment 201 Acres
Consideration $251.25
Date of Contract 6-9-51
Recorded Bk. 178 Pg. 72

BENCH MARKS: Ringgold Co. Recorder

STATION		
Sta. 2+43 ±		H.C. S.M. in inlet Hdwl. 4.5'x2' R.C. Box 18.9' Rt.
#2 Sta. 6+96.8		Found "X" Cut in N.W. Idol post 32'x24' I Beam Bridge 14.8' Lt.
#3 Sta. 19+01		I.T.C. B.M. in Inlet Hdwl. of 2'x2' R.C. Box Sta. 13+01 Rt.
#4 Sta. 25+70		Cut "X" in Center of Conc. Side Walk House 77 Lt.
#2 Sta. 6+28.5		I.N.C. B.M. in Wing Wall Rt. 19.8'

~~439.43~~	
~~439.04~~	
El. 423.46 ±	
El. ~~479.09~~ 474.86	
El. 498.53 ±	
El. 432.06 ±	

Sta. 0+00 to Sta. 4+00 Proposed subgrade treatment. Fill + 10% = 936 cu yds. of selected backfill material (glacial clay). see sheet No. 5A

Sta. 4+00 to Sta. 6+62 586 cu yds of selected material (reclaimed surfacing) to be stockpiled. see sheet No. 5I

Sta. 6+00 to Sta. 17+00 Proposed subgrade treatment. F. 10% = 1172 cu yds of selected material (Glacial clay) See Sheet No. 5A.

Sta. 7+00 to 17+00 Approximately 222 cu yds of selected material (reclaimed surfacing) to be stockpiled. see sheet No. 5I.

Sta. 17+00 to Sta. 19+50 Proposed subgrade treatment Ft 10% = 3216 cu yds. of selected backfill material (glacial clay). See Sheet No. 5A.

Overhaul - 19,986 Sta. yd

Sta. 19+50 to Sta. 32+75 Approximately 294 cu yds of selected material (Reclaimed surfacing) to be stockpiled. See sheet No. 5I

Sta 21+50 to Sta. 32+75 Proposed subgrade treatment. Ft 10% = 3900 cu yds. of selected backfill material (Glacial Clay). See sheet No. 5A.

Prop. 5' Ditch on Left Varies Ditch Right

Prop. 5' Ditch Right

Prop. 4' Ditch Left

Prop. 4' Ditch on Right

Prop. 3' Ditch Lt.

3' Ditch on Lt.

See Left Ditch Grade

No. Prop. Ditch Right.

PLAT 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

Ringgold Co. P. Proj # 1011 Sheet # 7

For Information Only

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.1

9:00:25 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)-3H-80\80-1691-048 U Sheets.dgn

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

CLINTON TWP
T-67N R-3W

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		8	

Ref. to P.O.T. Sta. 24+13.9

Ref. Sta. 38+50.5 Ref. to P.O.T. Sta. 36+50.5

Ref. to P.O.T. Sta. 51+69.1

EARL D. ADAIR
Required By Easement 1.64 Acres
Consideration $35.00
Date of Contract 4-24-51
Recorded Bk. 198 Pg. 72
Ringgold Co. Recorder

SEC. 26

SEC. 23

GROVER C. WRIGHT
Acq. By Easement 1.61 Acres
Consideration $311.60
Date of Contract 4-24-51
Recorded Bk. 170 Pg. 601
Ringgold Co. Recorder

LOT
PASTURE
CULTIVATED
GARDEN
House
Barn
Farm Truck
Corn Piles
Borrow "B"
Borrow "S"
Loop Ditch
Loop Inter Ditch
Prop. Ch. Ch.
Waste material in old Channel.
P.O.T. Sta. 24+13.9
P.O.T. Sta. 36+50.5
P.O.T. Sta. 51+69.1
Sampson R. ADAIR
See Sheet #7
J. W. ADAIR
ROSS H. & ALICE BELLE KEITH
Acq. by Easement 0.83 Acres
Consideration $25.00
Date of Contract 4-24-51
Recorded Bk. 170 Pg. 591
Ringgold Co. Recorder
ALICE BELL PARKER
See Sheet #9

Sta. 30+55.3
3'-3" x 6'-4" Conc. Box Culv.
10° Rough Conc. Flume on Fl. Gr.
DA = 1.3 AC. V.H.
Extend 20 Lt. & 44 Rt. Flume outlet.

Sta. 36+86.4
2'-6" x 5'-3" Conc. Box Culv.
DA = 6.1 AC. V.H.
Extend 4 Lt. & 29 Rt.
Road Contr. to ditch inlet & outlet.

Sta. 40+66.3
10' x 8' x 33.3' Conc. Box Culv.
DA = 31.5 AC. V.H.
Extend 20 Lt. & 26 Rt.
Replace top slab of present structures

Sta. 56+19.5
6' x 4' x 37.0' Conc. Box Culv.
DA = 1.5 AC. V.H.
Extend 4 Lt. & 15 Rt.
Road Contr. to ditch inlet & outlet.
Replace top slab of present structure

BENCH MARKS
#5 Sta. 30+55.3 1 M.C. B.M. in inlet N.W. of 3'x3' R.C. Box 93.9 Lt. Elev. 466.70
#6 Sta. 36+86.4 1 M.C. B.M. in inlet N.W. of 2'6"x5'3" R.C. Box 93.9 Lt. Elev. 452.43

For Information Only

Sta. 19+50 to Sta. 32+75
Approximately 234 cu. yds. of selected material (reclaimed surfacing) to be stockpiled see Sheet No. 5T.

Sta. 21+50 to Sta. 32+75
Proposed subgrade treatment
Ft 10% = 3900 cu. yds. of selected backfill material (glacial clay). See sheet No. 5A.

Sta. 32+75 to Sta. 37+50
Prop. subgrade treatment
Ft 10% = 618 cu. yds. of selected backfill material (glacial clay). See sheet No. 5A.

Sta. 37+50 to Sta. 44+50
Approximately 135 cu. yds. of selected material (Reclaimed surfacing) to be stockpiled. See sheet No. 5T.

Prop. Ch. Ch. right at Sta. 41+
Approx. 2½ Sta. of 380 cu. yds. per Sta. = 950 cu. yds. waste in old channel.

Sta. 37+50 to Sta. 47+25
Prop. subgrade treatment
Ft 10% = 1134 cu. yds. of selected backfill material (glacial clay). See sheet No. 5A.

Sta. 47+25 to Sta. 52+00
Approximately 1815 cu. yds. of selected material (reclaimed surfacing) to be stockpiled) See sheet No. 5T.

Sta. 50+00 to Sta. 71+00
Prop. subgrade treatment
Ft 10% = 1282 cu. yds. of selected backfill material, (glacial clay) See sheet No. 5A.

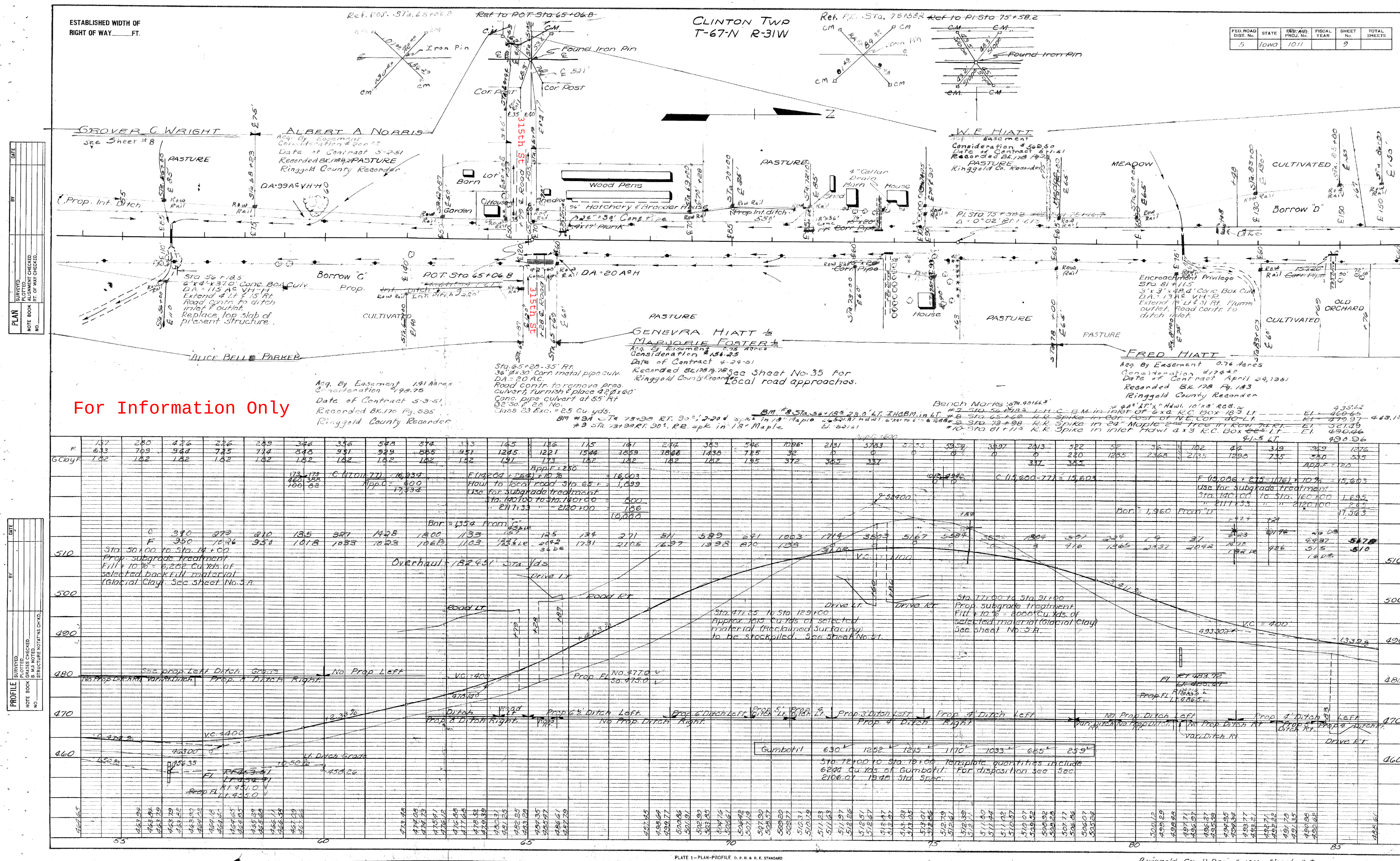
Prop. 3' Ditch Left
3' Ditch Right
No Prop. Ditch Right
Prop. 4' Ditch Left
Prop. 4' Ditch Right
Prop. Ft. Lt. 433.92
No. Prop. Ditch Rt.
Prop. Ft. Rt. 432.72
No. Prop. Ditch Left
Prop. Ft. Rt. 429.72
Prop. Ft. Lt. 429.72
Prop. Ft. Rt. 423.9
Prop. Ft. Lt. 423.9
Prop. Ft. Rt. 425.4
Prop. Ft. Lt. 425.4
Prop. 4' Ditch Left
Drive Rt.
No. Prop. Ditch Right
See Lt. Ditch Grade

PLATE 1 — PLAN-PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

Ringgold Co. P. Proj. # 1011 Sheet # 8

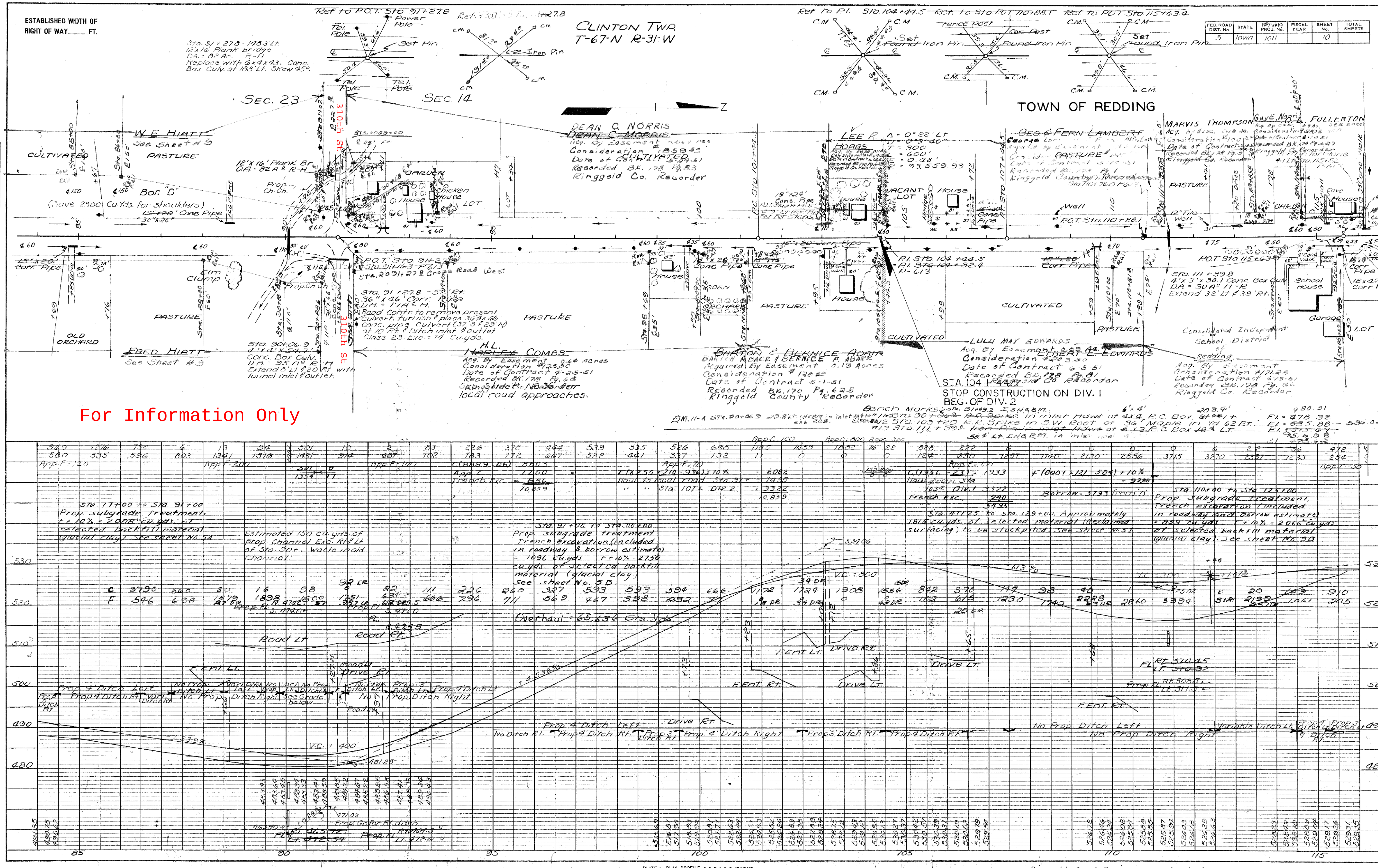
FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.2

9:00:28 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)—3H-80\80-1691-048 U Sheets.dgn



FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.3**

9:00:30 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets.dgn



For Information Only

FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.4**

9:00:31 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets.dgn

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		11	

CLINTON TWP.
T-67 N R-13 W
Sec. 14

ESTABLISHED WIDTH OF RIGHT OF WAY ___ FT.

Ref. to POT Sta. 1154+63.4 | Ref. to POT Sta. 1177+53.9 | Ref. to PC Sta. 1324+09.36 | Ref. to PI Sta. 1434+90

Dean Norris, Barton ABarr and Grouter Wright Acquired by Easement Consideration $1 or Contra or Contract 6-6-51 Recorded BK 178 Pg. 93 Ringgold Co. Recorder
Sta. 1179+80 - 30 Lt. 24" x 38" Conc. pipe
DA = 5 Ac. H-R. Road Contr. to remove pres. Culv, furnish & place 24" x 38" Conc. pipe culv (23 N.F. 13.5 S) at 35° N. Ditch Inlet & Outlet.
Class 23 Exc. = 23 Cu. yds.

HAZEL RUTH ORLAN R. SMITH

EVA & ARIEL F. KNAPP
Acq. by Easement Consideration $68 Date of Contract 6-6-51 Recorded BK 178 Pg. 91 Ringgold Co. Recorder
DA = 2 Ac. H-R. Road Contr. to remove pres. Culv, furnish & place 24" x 48" Conc. Pipe Culv (23 N.F. 25 S) at Ditch Inlet. Class 23 Exc. = 30 Cu. yds.

MARY SAVILLE HEIRS
Acq. by Easement Consideration $35 Date of Contract 6-6-51 Recorded BK 178 Pg. 91 Ringgold Co. Recorder

ALFRED COLE

ML & BARR
Acq. by Easement Consideration $1 Date of Contract 6-6-51 Recorded BK 178 Pg. 92 Ringgold Co. Recorder

U.S. MILLER
Acq. by Easement Consideration $1 Date of Contract 6-6-51 Recorded BK 178 Pg. 92 Ringgold Co. Recorder

RALPH J. MAIN
Acq. by Easement Consideration $383 Date of Contract 6-6-51 Recorded BK 178 Pg. 91 Ringgold Co. Recorder

CLYDE E. & HARLO C. NORRIS
CLYDE E. NORRIS & HARLAN C. NORRIS Acquired by Easement 0.31 Acres Date of Contract 5-2-51 Recorded BK. 178 Pg. 91 Ringgold County Recorder

GUY STATON, LEVINIA STATON and FEDERAL LAND BANK of OMAHA

VERNON E. & LORENE LANTZ

Co. Rd P27

Lantz St

Adams Co.

FULLERTON see same sheet

CITY LOTS

Consolidated Independent School District of REDDING see sheet #10

LULU MAY EDWARDS see sheet #10

ILA SAVILLE Acq. by Easement 0.6 Acres Consideration $85.00 Date of Contract 5-29-51 Recorded BK 178 Pg. 82 Ringgold Co. Recorder

O.J. FULLERTON Acquired by Easement 0.37 acres Consideration $318.75 Date of Contract 6-6-51 Recorded BK. 170 Pg. 435 Ringgold Co. Recorder

See Sheet No. 36 for local road approach.

See Sheet No. 36 for local road approach.

Superelevate curve

For Information Only

BENCH MARKS
#4 Sta. 1161+28 Cut 'X' in E. Side of Conc. Platform at Steps 70' Lt. El. 932.62
BM. 12 A Sta. 1249+88.9 TNG BM in Inlet Hdwl. 212 Rcg. 30.9 Lt. El. 915.54
#5 Sta. 1321+46 TNG. BM in Inlet Hdwl. of 6'x6' RCB 89.5' Lt. El. 932.60
Sta. 1371+72 TNG. BM in Inlet Hdwl. of 5'x4' RCB 51.2 Lt. El. 916.14
El. 995.75

PLATE 1 — PLAN-PROFILE O. P. R. & R. E. STANDARD KEUFFEL & ESSER CO., NEW YORK.

Ringgold Co. P. Proj. # 1011 Sheet # 11

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.5

9:00:33 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)–3H-80\80-1691-048 U Sheets.dgn

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		12	

CLINTON TWP
T-67N R-13W

TOWN OF REDDING

Ref. P.T. Sta. 150+03.0 — Ref. to P.T. Sta. 150+03.0 — Ref. P.O.T. Sta. 165+28.5 — Ref. to P.O.T. Sta. 165+28.5 — Ref. P.O.T. Sta. 175+44 — Ref. to P.O.T. Sta. 175+44

GEO. B. & MARGARET E. HAWK
CULTIVATED
PASTURE
P.I. LOT
Barn
LOT
Prop. local road connection
Old P.I. Sta. 150+33.9 = Sta. 152+84.4 D=6°13'
Hedge
Lantz St
approx. 3°13'
Borrow "E"
P.O.T. Sta. 150+09.7
105' (Save 5000 cu. Yds. Shoulders)
Δ=89°39' Rt.
D=5°
T=1159.0
L=1793.0
E=463.8
R=1146.0
PASTURE
Sta. 146+00 to Sta. 153+00 Prop. 622 lineal ft. of 6" tile drain, 60 lineal ft. of 6" perforated metal pipe drain, 40 lineal feet of 6" metal outlet pipe and 733 cu. yds. of porous backfill material. See Sheet No. 5B
GUY STATON, LEVINIA STATON and FEDERAL LAND BANK OF OMAHA
Acquired by Easement 4.03 Acres
Consideration $463.50
Date of Contract 5-1-51
Recorded Bk 178 Pg. 183
Ringgold Co. Recorder

ANSEL & VELMA JONES
PASTURE
Sec. 11
Encroachment privilege
Sta. 160+07.8 - 8.3' Lt. 4'x4'x45.0' Conc. Box Culv. UA=58 Ag. R-M
Replace with 5'x9'x70' Conc. box culv. at Sta. 160+20. Reset Conc. to ditch inlet and outlet.
15"x18" Corr. Pipe
24"Ø Conc. Pipe
ANSEL & VELMA JONES
201 by Easement 0.90 Ac. Consideration $11.25
Date of Contract 4-10-51
Recorded Bk 179 Pg. 33
Ringgold Co. Recorder
CULTIVATED
Sec. 14

Barn
House
Sec. 12
STA. 165+26.0
END OF DIV. 2
RESUME CONSTR. ON DIV. 1
24"x20' Corr. Pipe
24"x32' Conc. Pipe
P.O.T. Sta. 165+28.5
R.O.T. Sta. 161+42.6
R.I.P. for Stone 8' North
36.9' L.T. P-613
FLOYD & GLADYS COMER
See Sheet #13
Sec. 13

E. W. McQUIGG
ALDA E. McQUIGG, INA MARTIN BECK & REBA McQUIGG & EUNICE WEISS
CULTIVATED Acq. by Easement 0.68 Acres
Consideration $812.50
Date of Contract 5-23-51
Recorded Bk 178 Pg. 5
Ringgold Co. Recorder
P.O.T. Sta. 175+44
P.I. Sta. 177+38.8
26.6' L.T. P-613
CULTIVATED
PASTURE
Well
House
Sta. 169+00 to Sta. 180+00. Prop. 622 lineal ft. of 6" tile drain, 120 lineal ft. of 6" perforated metal pipe drain, 40 lineal ft. of 6" metal outlet pipe and 240 cu.yds. of porous backfill material. See sheet No. 5C.

For Information Only

Bench Marks: #16-A Sta. 138+26, Lt. 75' I. H.C. ROW Rail — El. = 493.17
#17 Sta. 145+79 RR Spike in S. Side of 18" Fir 166' Lt. — El. = ~~527.58~~ 527.74
#18 Sta. 154+98 I.H.C. BM in inlet at s.w. RC Box ~~93'~~ Lt. — El. = ~~488.64~~ 488.85
#19 Sta. 171+73 RR Spike in Corn. post 16' Rt. — El. = ~~533.65~~ 533.85
#16-H Sta. 160+50 Lt. 75' 8-20d Spks. in tele pole — El. = 483.76

PLAN: SURVEYED, PLOTTED, DRAWN, CHECKED, QUANTITY CHECKED, RT. OF WAY CHECKED. NOTE BOOK, HIGHWAY NO., STRUCTURE NOTATIONS OK'D.

PROFILE: SURVEYED, PLOTTED, DRAWN, CHECKED, NOTE BOOK, HIGHWAY NO., STRUCTURE NOTATIONS OK'D.

Approx. Rx

3337 3332 | 1263 1 | 3115 0 | 4285 0 | 4207 0 | 4344 0 | 3515 0 | 2496 30 | 1028 217 | 1009 459 | 541 800 | 850 1157 | 126 1495 | 191 1506 | 200 1453 | 338 1875 | 349 1627 | 291 1747 | 294 1902 | 154 2096 | 95 1669 | 93 1083 | 243 186 | 650 545 | 618 334 | 828 1103 | 752 33 | 1267 0 | 2206 0 | 3702 0 | 4059 0 | 3977 0

2345 1533 | 0 0

C(1842 - 164) = 8278 Tr. excavation = 431 = 8709

F(8498 + 66 - 640) + 10% = 8109

App. 300 | 338 0 | 1619 856

C(1168 - 82) = 1086 Haul from Sta. 1743 = 9872 = 10,958

F(10,399 + 43 - 4801) + 10% = 10,958

App. 300 | 93 36 | 202 50

C(11,364 - 150) = 11,214 Trench etc. = 1,079 = 12,293

F(2695 + 57 - 3571) + 10% = 2421 Haul to Sta. 160 = 9872 = 12,293

Sta. 130+00 to Sta. 160+00 Prop. subgrade treatment, trench excavation (included in roadway & borrow estimate) = 638 cu. yds. F + 10% = 4335 cu. yds. of selected backfill material (glacial clay) See sheet No. 5B

Sta. 133+00 to Sta. 302+00 Approximately 3752 cu. yds. of selected material (included in subtracting) to be stockpiled See sheet No. 3.1

Sta. 160+00 to Sta. 188+00 Prop. subgrade treatment. Trench excavation (included in roadway & borrow estimate) = 1908 cu. yds. F + 10% = 4391 cu. yds. of selected backfill material (glacial clay) See sheet No. 5C.

3103 0 | 3624 0 | 4006 0 | 4716 0 | 4551 0 | 2656 33 | 1363 102 | 1243 470 | 518 886 | 835 1170 | 100 1479 | 182 1599 | 171 1543 88 | 248 1141 | 313 1516 | 137 1809 | 173 2139 | 127 2374 | 70 1901 | 32 1761 | 222 880 | 353 772 | 594 594 | 151 218 | 453 115 | 915 0 | 2500 0 | 3581 0 | 4628 0 | 4473 0

Overhaul = 19,921 Sta. yd.

Line Drive Lt. — Rent Rt. — Drive Lt. — Rent Rt.

Prop. 3' Ditch Left — Prop. 3' Ditch Right — Prop. 4' Ditch Left — No Ditch — Prop. 4' Ditch Right — No Ditch — Ditch Left — Ditch Right — Prop. 3' Ditch Left — Prop. 3' Ditch Right

Sta. 145 — Sta. 150 — Sta. 155 — Sta. 160 — Sta. 165 — Sta. 170 — Sta. 175

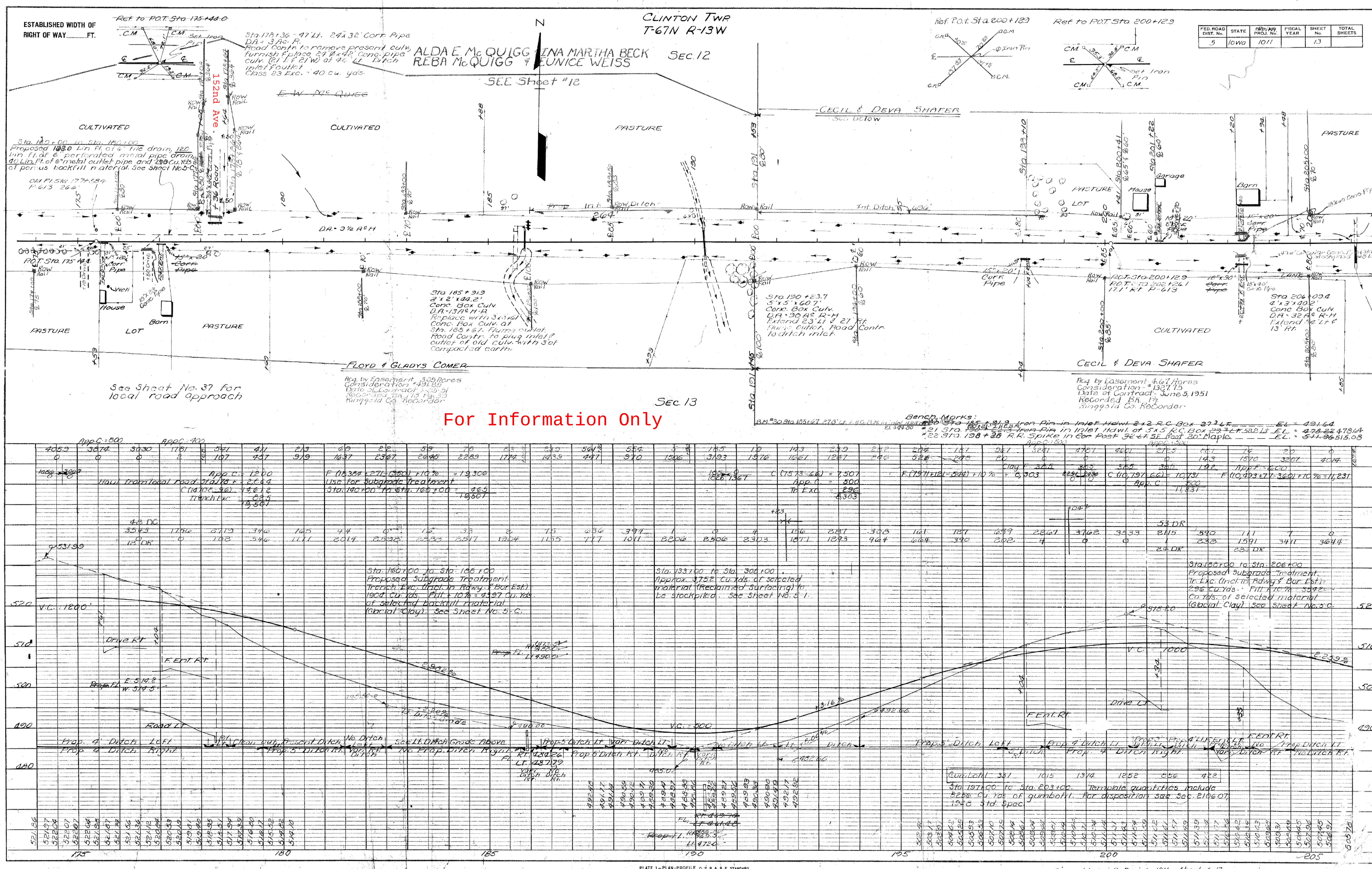
PLATE 1 — PLAN-PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

Ringgold Co. P. Proj. # 1011 Sheet # 12

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.6

9:00:36 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)—3H-80\80-1691-048 U Sheets.dgn

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	Iowa	1011		13	



For Information Only

FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.7**

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

CLINTON TWP. T-67-N R-31-W — Sec. 12 — Sec. 13

MIDDLE FORK TWP. T-67-N R-30-W — Sec. 7 — Sec. 18

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	10W0	1011		14	

For Information Only

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, ELEV. MAY CHECKED, NOTE BOOK, NO., DATE, BY

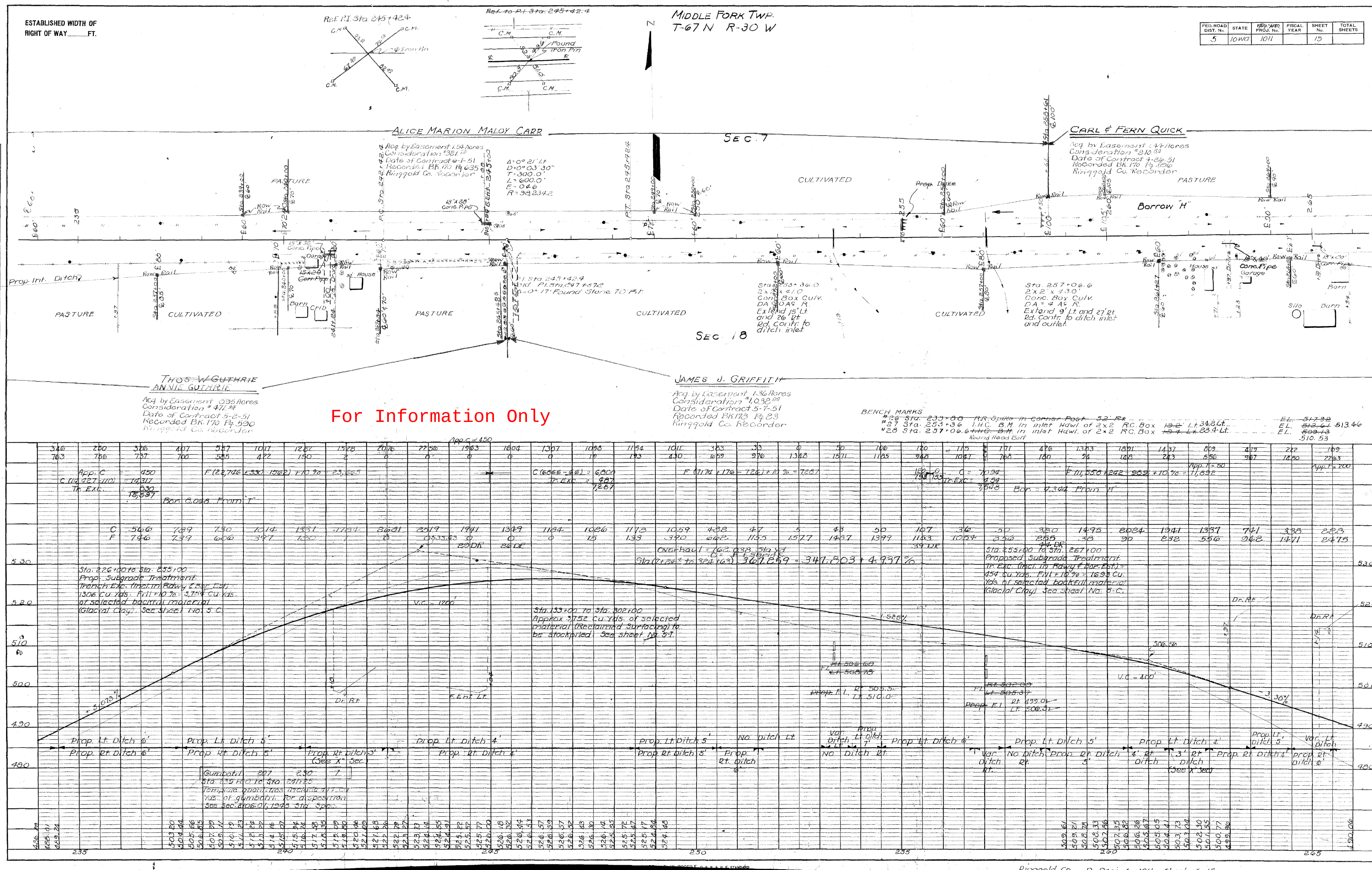
PROFILE — GRADES CHECKED, ALL UTILITIES SHOWN, STRUCTURE NOTATIONS CH'KD.

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD KEUFFEL & ESSER CO., NEW YORK

Ringgold Co. P. Proj. # 1011 Sheet # 14

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.8

9:00:40 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)—3H-80\80-1691-048 U Sheets.dgn



For Information Only

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.9

9:00:42 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets.dgn

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		16	

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

MIDDLE FORK TWP
T-67-N R-30-W

Ref. to P.O.T. Sta. 271+77.9

Ref. to P.O.T. Sta. 271+77.9

Ref. to P.O.T. Sta. 276+92.1

Ref. to Pl. Sta. 293+19.3

SEC. 7

SEC. 8

SEC. 18

SEC. 17

Co Rd P32

Co Rd P32

CARL & FERN A. QUICK
See Sheet #15

JAMES J. GRIFFITH
See Sheet #15

MILO & FERN McQUIGG
Acq. by Easement 1.89 Acres
Consideration $213.00
Date of Contract 4-27-51
Recorded BK 170 Pg 588
Ringgold Co. Recorder

JULIAN GALLOWAY & ELSIE GALLOWAY
See This Sheet

JULIAN GALLOWAY
ELSIE GALLOWAY
Acq. by Easement 6.30 Acres (Barrow) & 1.30 Acres (Borrow)
Consideration, $1586.00
Date of Contract 5-22-51
Recorded BK 170 Pg 592 & 593
Ringgold Co. Recorder

PASTURE
CULTIVATED
Bor. "H"
Bor. "I"
Save 4000 Cu Yds for Shoulders
Save 1500 Cu Yds for Shoulders
Oil Station Drive
House
Barn
Crib
Shed
Garage
Chick Ler.
Well
Lane
Int. Ditch
Corr. Pipe
Conc. Slab
Conc. Pipe
Road Ditch
Rock Wall
Fence
Ditch

Sta 276+50 to Sta 283+00.
Prop. 632 lineal feet of 6" tile drain, 20 lineal ft. of 6" metal outlet pipe and 18 cu.yds of porous backfill material.
See sheet No. 5D.

Sta 268+09.4
6'x6'x53.2'
Conc. Box Culv.
DA = 125.49 R-V11-11
Extend 29'Lt. and 43'Rt.
Add Top Slab to present Culvert. Rd. Contr. to ditch inlet & outlet.

Sta 278+24.1
6'x2'x30.0'
Conc. Box Culv.
DA = 10.49 R
Extend 6'Lt. and 6'Rt.
Rd. contr. to ditch inlet.

Sta 285+65.0'
6'x4'x48.0'
Conc. Box Culv.
DA = 40.49 R
Extend 38'Lt. and 53'Rt.
Rd. contr. to ditch outlet

See Sheet No. 31 for local road connections.

For Information Only

Bench Marks: #30A Sta. 278+15, Lt. 82' RR Spk. in Cor. post
#20 Sta 268+09.4 1HC BM in Int. Hdwl of 6'x6' RC Box 26.6' Lt. 49.5' Lt. El = 498.83
#30 Sta 272+24.1 1HC BM in Int. Hdwl of 2'x2' RC Box 78.9' Lt. 24.9' Lt. El = 486.93
#31 Sta 285+65.0 1HC BM in Int. Hdwl of 4'x4' RC Box 21.7' Lt. 39.7' Lt. El = 479.63
#30 Sta 276+92.1 1HC BM in Int. Hdwl of 2'x2' RC Box 78.9' Lt. 24.9' Lt. El = 486.93
#31 Sta 285+65.0 1HC BM in Int. Hdwl of 4'x4' RC Box 21.7' Lt. 39.7' Lt. El = 479.63
#1A Sta 295+00 100' Lt. RR Spk. in Cor. post in bronze post El = 472.93

PLAN: SURVEYED, PLOTTED, NOTE BOOK (BLUES CHECKED, ALIGNMENT CHECKED, NO. ____, RT. OF WAY CHECKED, STRUCTURE NOTE #'S CHECKED), BY, DATE

PROFILE: SURVEYED, PLOTTED, NOTE BOOK (BLUES CHECKED, ALIGNMENT CHECKED, NO. ____, STRUCTURE NOTE #'S CHECKED), BY, DATE

Gumbotil 1019 1332 1063 1144 1130 748 407 193
Sta 275+00 to Sta 283+00 Template quantities include 7256 cu yds of Gumbotil. For disposition see Sec 2106.07 of 1948 Std. Specs.

Gumbotil 93 544 915 463
Sta 292 to Sta 296 Template quantities include 2026 cu yds of Gumbotil. For disposition, see Sec 2106.07 of 1948 Std. Specs.

Sta 133+00 to Sta 302+00
Approximately 3752 cu yds of selected material (AE or claystone surfacing) to be stockpiled. See sheet No. 5I

Sta 267+00 to Sta 287+00
Proposed subgrade treatment
Trench excavation (included in Roadway and Borrow estimate)
397 cu yds. F+10% 2803 cu yds of selected backfill material (glacial clay) See Sheet No. 5D.

Borrow: 825 from "F"

Special Ditch Left
See Cross Sections

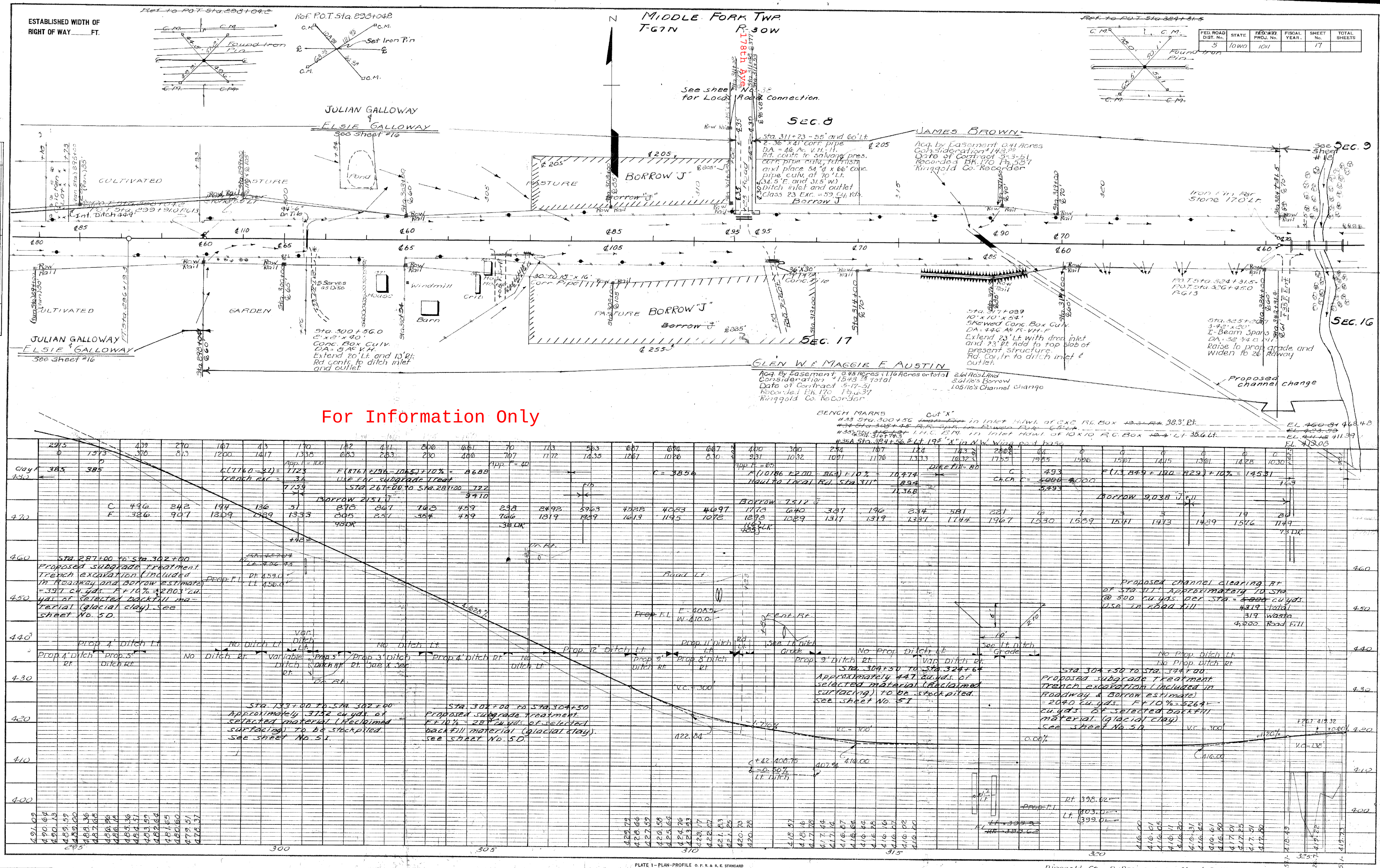
Prop. 6' Ditch Lt. Prop. 6' Ditch Rt. Prop. 5' Ditch Lt. Prop. 4' Ditch Lt. Prop. 4' Ditch Rt. Prop. 5' Ditch Lt. Prop. 5' Ditch Rt. Prop. Lt. Ditch Variable No Prop. Ditch Rt. Prop. 3' Ditch Lt. Prop. 4' Ditch Lt.

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

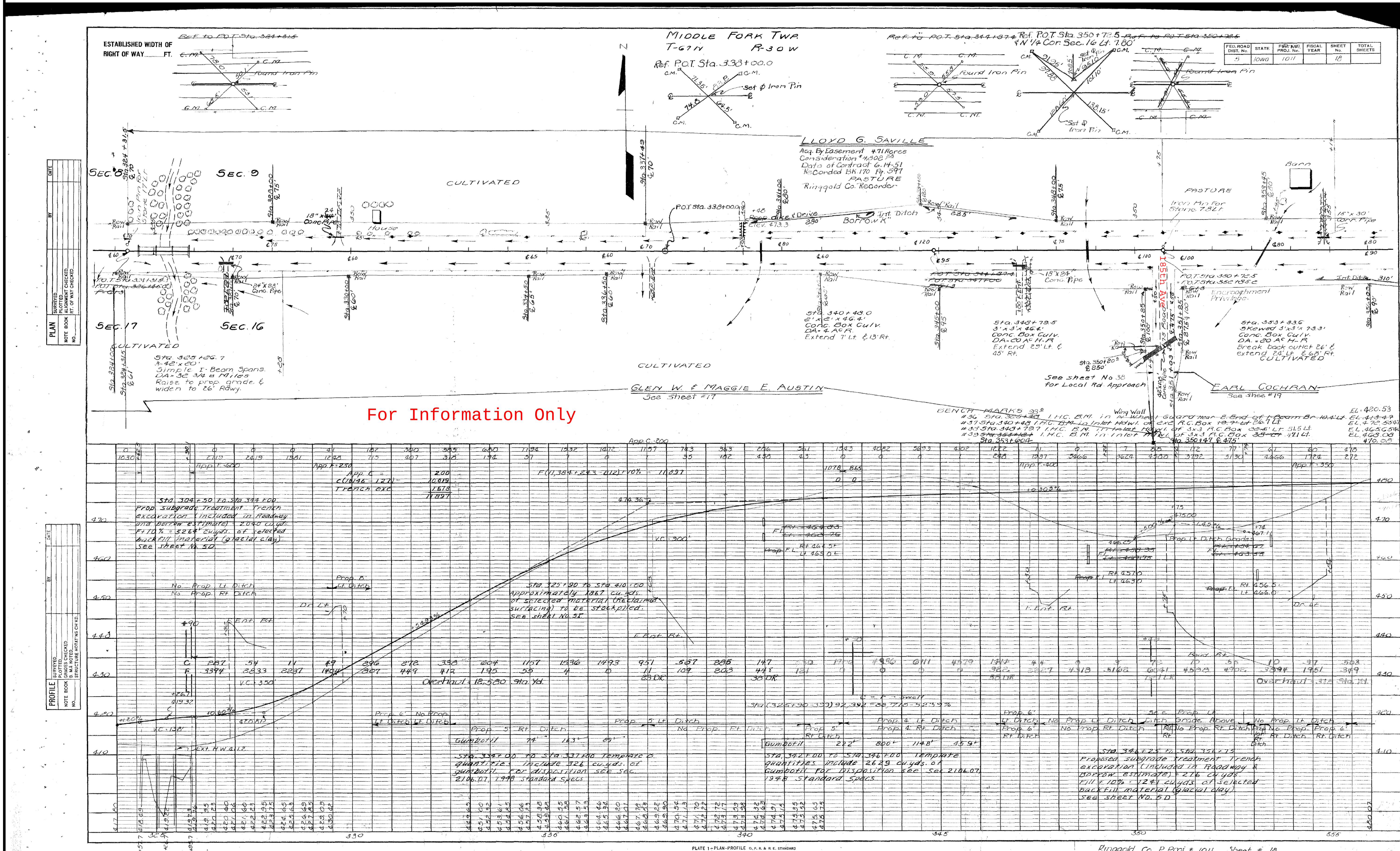
Ringgold Co. P Proj # 1011 Sheet # 16

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.10

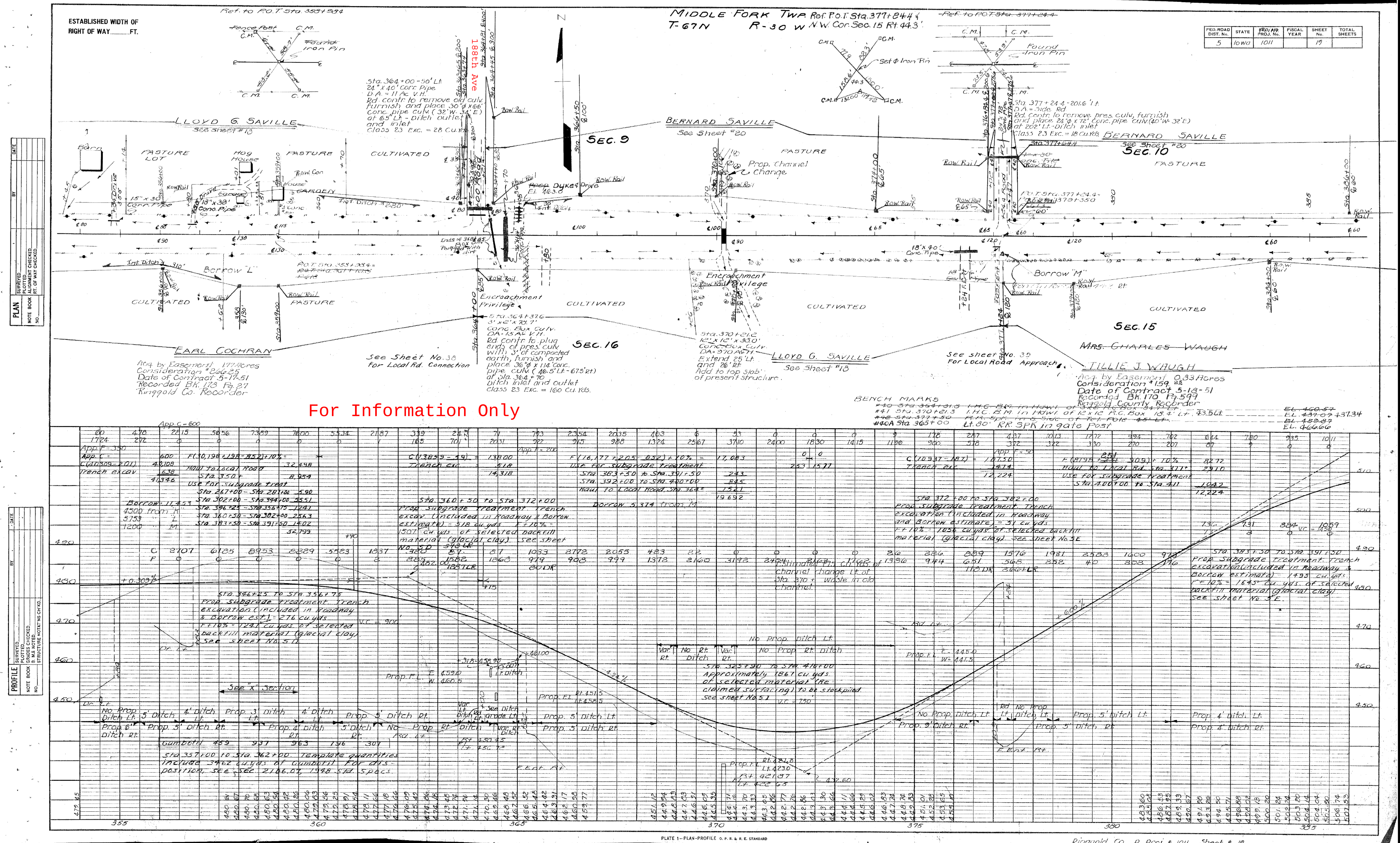
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FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.11**



FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.12



FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.13**

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FED. ROAD DIST. No.	STATE	PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	10 WD	1011		20	

ESTABLISHED WIDTH OF RIGHT OF WAY_____FT.

Ref. POT Sta. 391+93.1

Ref to POT Sta. 403+32.3

Ref PC Sta 403+49.14 Ref to PC Sta 407+49.9

MIDDLE FORK TWP
T67N R30W

SEC. 10

SEC. 15

BERNARD SAVILLE
Acq by Easement-2.64 Acres
Consideration-$ 359.
Date of Contract- May 16, 1951
Recorded BK P2
Ringgold Co. Recorder

PASTURE

CULTIVATED

CHARLES WAUGH

TILLIE J. WAUGH
See Sheet #19

JULIAN & ELSIE GALLOWAY
See Sheet #16

ETHEL CLIFFORD JACKSON
See Sheet #81

E.E. BLACK
Acq By Easement 0.31 Acres
Consideration $ 33.33
Date of Contract 3-19-52
Recorded BK 178 PG 19
Ringgold County Recorder

Prop Dike

Encroachment Privilege

Intercepting Ditch

Office Relocation (Use on construction)

Co Rd J55

Survey Line (Void)

Superelevate Curve

Office Relocation
Δ = 34° 27'
D = 1° 45'
T = 956.94
L = 1913.89
E = 149.87
R = 3273.33

Survey
Δ = 32° 27' Lt.
D = 3° 45'
T = 1782
L = 3613
E = 397
R = 1210.0

Prop. Left Ditch 4' Deep
Prop. Right Ditch 4' Deep
No Ditch Left
No Ditch Right
Prop. Left Ditch 5' Deep
Prop. Right Ditch 5' Deep
Prop. Left Ditch 6' Deep
Prop. Right Ditch 6' Deep
Prop. Left Ditch Beginning 4' Deep Ending 5' Deep
Prop. Left Ditch Beginning 5' Deep Ending 6' Deep
Prop. Left Ditch Beginning 4' Deep Ending 6' Deep
Prop. Right Ditch Beginning 4' Deep Ending 6' Deep
Prop. Left Ditch 4' Deep Ending 5' Deep
Prop. Left Ditch 5' Deep Ending 6' Deep
Prop. Left Ditch 4' Deep Ending 6' Deep
Prop. Right Ditch 4' Deep Ending 6' Deep
Prop. Left Ditch 6' Deep
Prop. Right Ditch 6' Deep
Road Cont. Right
Road Cont. Left

BENCH MARKS
#43 Sta 387+58 1.1 C. BM in inlet Hdwl. of 2'x2' conc. box culv. 18.4' Lt. — El 511.90
#44 Sta. 395+51.8 1.4 C. BM in inlet Hdwl. of 2'x2' conc. box culv. 23.2' Lt. — El 504.03
#45 Sta 403+29.6 1.4 C. BM in inlet Hdwl. of 4'x4' conc. box culv. 20' Rt. — El 489.76
#46 Sta 411+38.2 1.4 C. BM in inlet Hdwl. of 2'x2' conc. box culv. 19.5' Lt. — El 503.23

Sta 387+58 2'x2'x42.3' conc. Box Culv. DA = 3 Ac. Extend 4' Lt. and 14' Rt.

Sta 391+93.1 Sta 394+05.5 P-613' 24" conc. pipe culv. 30' Lt. Connect to remove and place 24"x48" conc. pipe culv. 22' Lt. and 15' Rt. Drop inlet and outlet Class 29 Ex = 29 cu Yds.

Sta 395+31.6 8'x2'x66.1' Conc. Box Culv. DA = 5 Ac. M. Extend 2' Lt. and 11' Rt. Ref. Conn to ditch Inlet and Outlet

Sta 403+09.6 4'x4'x70.3' Conc. Box Culv. DA = 58 Ac-M Extend 58' Lt and 18' Rt. Drop Inlet

Borrow "N" E 130 Save 5000 Cu Yds for Shoulders

Salv 36"x60" C&P lateral

Sta 403+32.3 Rt. Ref. Set ⌀ Iron Pin

Set ⌀ Iron Pin

Found Iron Pin

Fence Post

Set Iron Pin

Iron Pin on Pin for Stone 140' Rt.

Sta 407+00 Co. Rd. J55 Ran 45°

Sta 387+58 Sta 394+05.5 P-613

Sta 403+09.6 Sta 403+32.3 P-613

Sta 334+00 Sta 338+00 Sta 342+00 Sta 346+00 Sta 350+00 Sta 354+00 Sta 358+00 Sta 362+00 Sta 366+00 Sta 370+00 Sta 374+00 Sta 378+00 Sta 382+00 Sta 386+00 Sta 390+00 Sta 394+00 Sta 398+00 Sta 402+00 Sta 406+00 Sta 410+00 Sta 414+00 Sta 418+00 Sta 422+00 Sta 426+00 Sta 430+00 Sta 434+00

Sta 303+50 to Sta 321+50
Proposed Subgrade Treatment
Trench Exc. (Incl. in Rdwy. Ex. Est.)
1498 Cu. Yds. Fill + 10% = 1648 Cu Yds
of selected backfill material
(Glacial Clay) See Sheet No. 5-E

Sta 392+00 to Sta 400+00
Proposed Subgrade Treatment
Trench Exc. (Incl. in Rdwy. Ex. Est.)
37 Cu. Yds. Fill + 10% = 41 Cu. Yds.
of selected backfill material
(Glacial Clay) See Sheet No. 5-E

Sta 321+50 to Sta 410+00
Approx. 1067 Cu. Yds. of selected material (Redeposit of unsuitable Exc. Stockpiled) See Sheet No. 5-E

Sta 400+00 to Sta 411+00
Proposed Subgrade Treatment
Trench Exc. (Incl. in Rdwy. Ex. Est.)
170 Cu. Yds. Fill + 10% = 187 Cu. Yds.
of selected backfill material
(Glacial Clay) See Sheet No. 5-E

Overhaul = 18,760 Sta. Yd.

V.C. = 1450'

V.C. = 500'

EL. Rt. = 499.24
EL. Lt. = 508.11

EL. Rt. = 502.27
EL. Lt. = 495.45

Road Ctr.

Prop. Rt. Ditch Grade

Prop. Left Ditch Grade

Office Relocation Profile

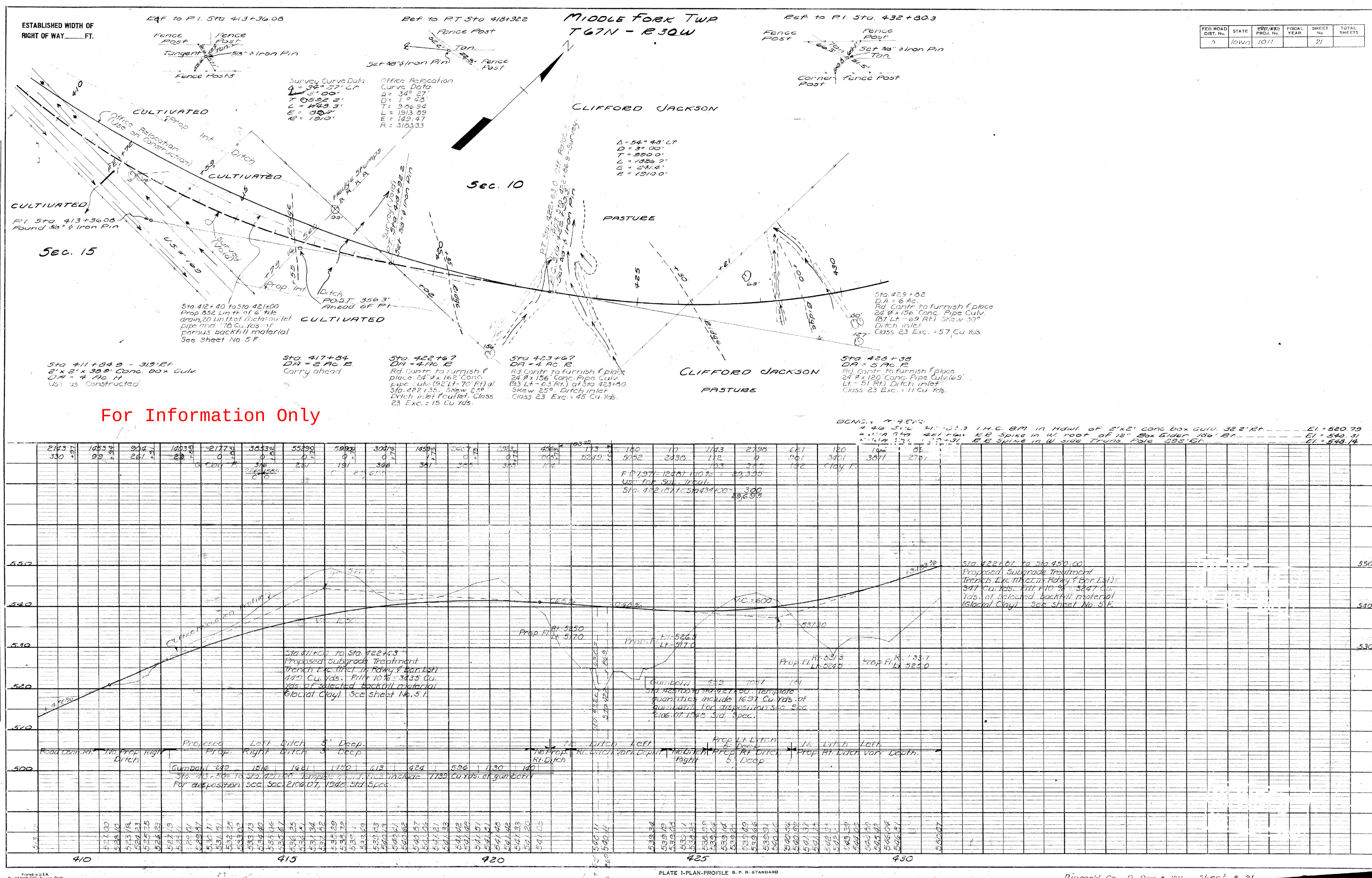
PLATE I-PLAN-PROFILE B. P. R. STANDARD

Ringgold Co. P. Proj. # 1011 Sheet # 20

For Information Only

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.14

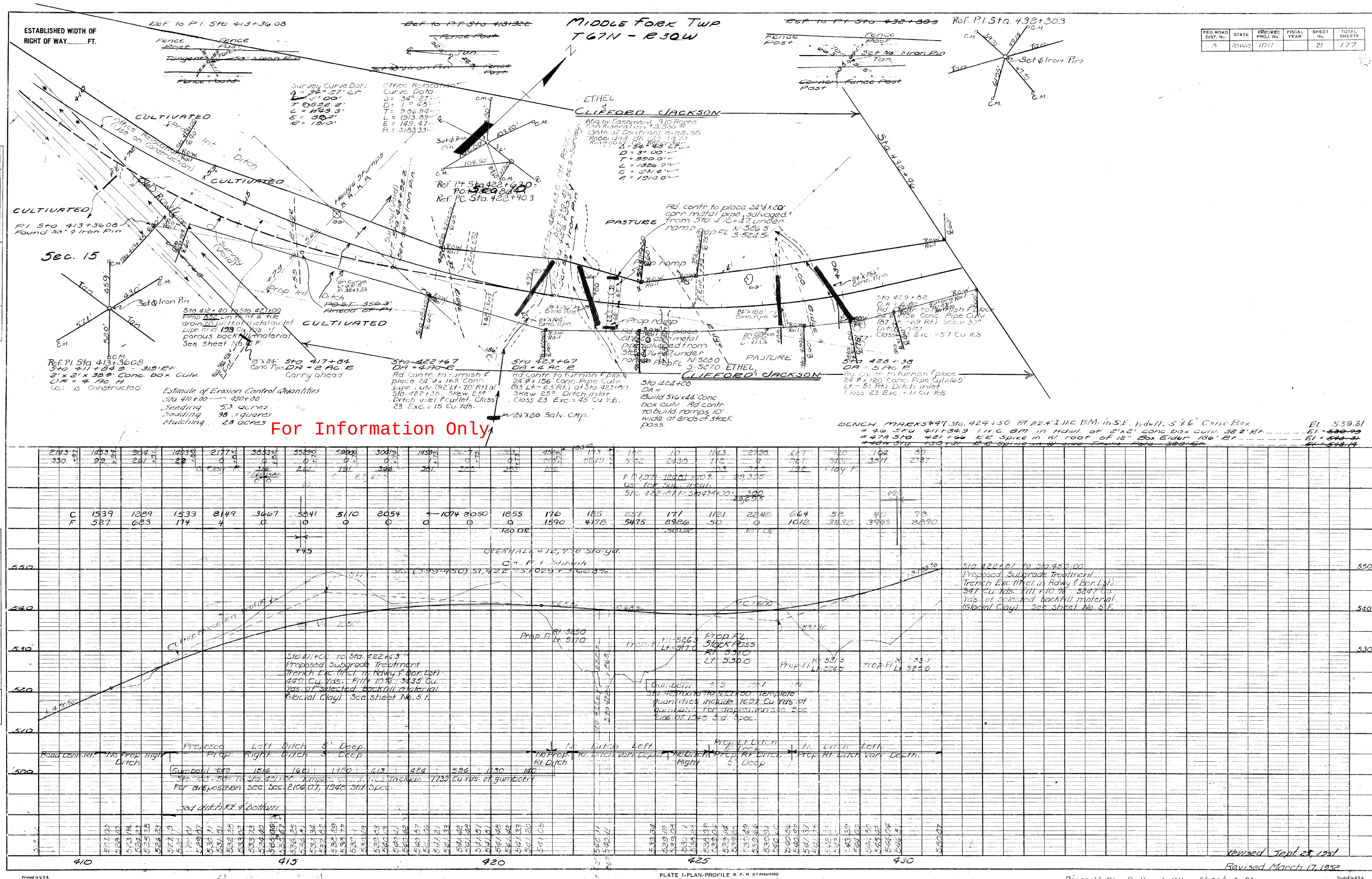
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For Information Only

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.15

9:00:53 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets.dgn



For Information Only

FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.16**

9:00:55 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets.dgn

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

FED. ROAD DIST. No.	STATE	PROJECT PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	OHIO	1011		22	

MIDDLE FORK TWP.
T-67N R-30W

Ref to P.I. Sta 432+80.3

Ref to P.I. Sta 441+17.0

Ref to P.I. Sta 444+57.46

CLIFFORD & ETHEL JACKSON
See Sheet #20

Tan A: 54°48' Lt.
D: 3°00'
T: 990.0'
L: 1026.7'
E: 241.4'
R: 1910.0'

ALBERT & ALBERTA DRAKE
Acq. by Easement 1.30 Ac.
Consideration $381.50
Date of Contract 9-11-51
Recorded BK 175 Pg 55
Ringgold Co. Recorder

Sec. 10

Sta 434+18
D.A.: 1 Ac.±
Ind. Contr. to furnish & place 24" x 102" Corrug pipe culvert L.F. 46 Rt. of Sta 434+20. Skew 30° Class 23 Excav. 8 Cu Yds.

Co Rd P38
U.S. No. 169

P.I. Sta 432+80.3

Sta 429+82
D.A.: 6 Ac.±
Ind. Contr. to furnish & place 24" x 156' Conc. pipe Culv. 67 Lt. & 6.5 Rt. Skew 30° Ditch inlet. Class 23 Excav. 87 Cu Yds.

Sta 434+18
D.A.: 106 Ac. ±

CULTIVATED

Sec. 11

CLIFFORD L. NICHOLS
Acq. by Easement 6.8± Ac.
Consideration $1861.00
Date of Contract 5-22-51
Recorded BK 178 Pg 61
Ringgold Co. Recorder

CRAIG & COLA MILLER
Acq. by Easement 0.3± Ac.
Consideration 103.00
Date of Contract 3-7-58
Recorded BK 173 Pg 73
Ringgold Co. Recorder

Sta 435+25.0
4'x3'x15.0' Conc. Box Culv.
D.A.: 30 Ac. ±
Extend 21' Lt. & 16' Rt. ed
Contr. to Ditch Inlet & Outlet

Borrow "R"
50yds 13.00 Cy. Yds. Bor. "R" for Shoulders
Prop. Int. Dr. Ditch

For Information Only

Permanent Marks:
~~# 48 Sta. 430+31 E.E. Spike in W. Side Tree 3 Ft. Rt. of P.I.~~
49 Sta. 441+96 E.E. Spike in Power Pole N. Side Farm Dr. 56' Lt.
50 Sta. 455+85 ~~Magnail~~ in Head of 4'x3' Conc. Box Culv. ~~16.7 Rt. & 32.6 Ft.~~

~~Ct 648.14~~
~~Ct 559.39 559.86~~
~~Ct 522.70 523.80~~

PLATE I-PLAN-PROFILE B. P. R. STANDARD

Printed in U.S.A.
On ABERWRIGHT Tracing Cloth

Ringgold Co P Proj # 1011 Sheet # 22

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.17

9:00:58 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)-3H-80\80-1691-048 U Sheets.dgn

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		23	

ESTABLISHED WIDTH OF RIGHT OF WAY_____FT.

MIDDLE FORK TWP
T-67N R 30W

Ref. To P.O.T. Sta. 469+530

Ref. to P.O.T. Sta. 476+974

ALBERT & ALBERTA DRAKE
See Sheet #22

ALBERT & RACHEL D. BAGLEY
ALBERT B. BAGLEY & RACHEL D. BAGLEY
Acquired by Easement 1.60 Ac.
CULTIVATED
Consideration $483.50 Total
Date of Contract 5-16-51
Recorded BK. 178 Pg. 7
Ringgold County Recorder

ALBERT B. BAGLEY & RACHEL D. BAGLEY
See This Page

Ref. To P.O.T. Sta. 476+974
Also Ref. To S.E. Cor. Sec. 3, Lt. 15.25

CLIFFORD L. NICHOLS
See Sheet #22

JOHN & NONNIE EWING
Acq. By Easement 4.03 Acres
Consideration $607.66
Date of Contract 5-23-51
Recorded BK. 178 Pg. 11
Ringgold Co. Recorded

Sta. 469+85.6 3'X2'x3'X3' R.C.B.

Bench Marks:
#51 Sta. 460+45.9 Iron Pin in Inl. Howl. at 2'x2' R.C. Box 68.9' Rt. 84.8' Rt. El. = 543.91 545.10
#52 Sta. 470+41.6 Iron Pin in Inl. Howl. at 2'x2' R.C. Box 67.6' Rt. 84.5' Rt. El. = 545.32 547.66
#53 Sta. 478+87.5 I.H.C. B.M. in Inl. Howl. at 2'x2' R.C. Box 68.2' Rt. 85.1' Rt. El. = 537.40 539.41
#54 Sta. 483+86.5 I.H.C. B.M. in Inl. Howl. at 3'x3' R.C. Box 68.4' Rt. 84.8' Rt. El. = 533.06 535.84
#55 Sta. 487+74.8 I.H.C. B.M. in Inl. Howl. at 3'x2' R.C. Box 65.4' Rt. 84.6' Rt. El. = 522.35 530.63

B.M. #54 3'X2'x3'X3' R.C.B.

For Information Only

PLAN

SURVEYED	BY	DATE
PLOTTED		
NOTE BOOK CLOSURES CHECKED.		
NO. B.M.'S NOTED.		
NO. ST. OF WAY CHECKED.		

PROFILE

SURVEYED	BY	DATE
PLOTTED		
NOTE BOOK CLOSURES CHECKED.		
NO. B.M.'S NOTED.		
NO. STRUCTURE NOTE'S CHKD.		

Sta. 439+00 to Sta. 471+50
Approximately 640 cu.yds. of selected material (Reclaimed surfacing) to be stockpiled See Sheet No. 31

Overhaul-free Sta. 20
300ft.
20 Sta.

Prop. subgrade treatment. Trench excavation (included in Roadway & Borrow estimate) = 31 cu.yds. F 10% = 2061 cu.yds. of selected backfill material (glacial clay) See Sheet No. 35

C = F + Shrink
Sta. (450-566) 99,470 = 85402 + 3.093%

Sta. 463+00 to Sta. 480+00

Overhaul-free Sta. 20

Overhaul=1643 Sta. Yd.

Sta. 450+00 to Sta. 505+00
Proposed subgrade treatment
Trench exc. incl. in Roadway Bor. Est.
406 Cu. Yds. Fill + 10% = 2990 Cu. Yds. of Selected backfill material (Glacial Clay)
See Sheet No. 34

Borrow "S"

Sta. 470+41.6
2'x2'x49.0' Conc. Box Culv.
D.A. = 10.98 G.R.
Extend 13' Lt. & 17' Rt. Rd. contr. to ditch inlet.

Sta. 476+41.6 12' Rt.
24" x 48' Corr. Pipe
D.A. = 9 A.E.R.
Rd. contr. to remove pres. culv., furn. & place 30"x48" conc. pipe culv. 20' S. & 28' N. at 50' Rt. Ditch, inlet and outlet.
Class 23 Exc. 25 C.Y.

Sta. 478+82.5
3'x2'x42.3' Conc. Box Culv.
D.A. = 12.78 A.E.R.
Extend 4' Lt. & 27' Rt. Flume outlet. Rd. contr. to ditch, inlet.

Sta. 483+86.3
3'x2'x54.0' Conc. Box Culv.
D.A. = 18.9 GR
Ext. 26' Rt with 3'x3' inlet

Sta. 488+08.8
3'x2'x64.0' Conc. Box Culv.
D.A. = 17.2 G.R
Extend 6' Lt. & 27' Rt. Flume outlet. Inlet funnelled to 3'x3'

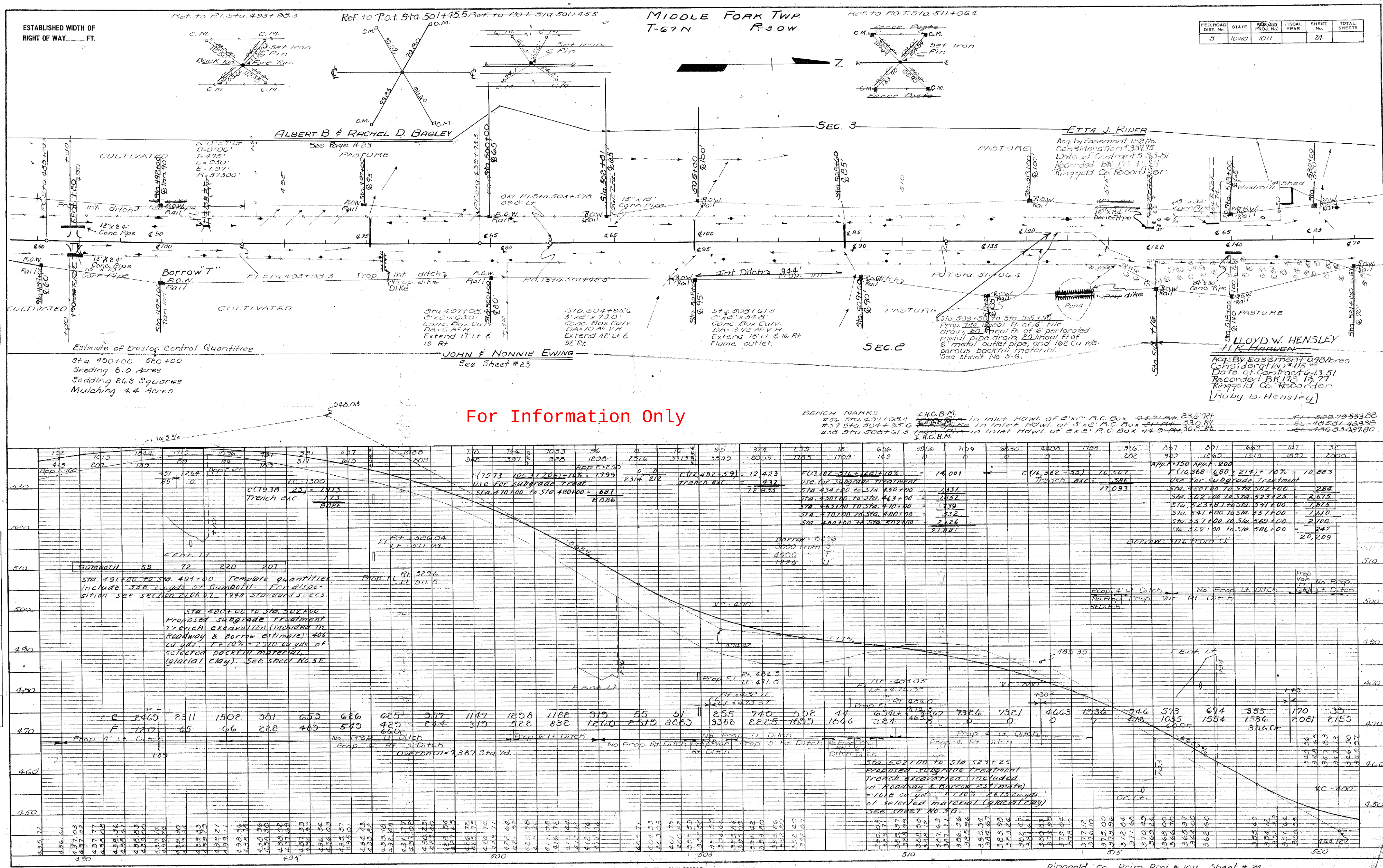
Sta. 439+36
Sta. 445+00
Sta. 450+00
Sta. 460+00
Sta. 465+00
Sta. 470+00
Sta. 475+00
Sta. 480+00
Sta. 485+00
Sta. 490+00

PLATE 1—PLAN-PROFILE O. P. R. & B. E. STANDARD

Ringgold Co. Prim. Proj. # 1011 Sheet # 23

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.18

9:01:00 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\80169901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets.dgn



FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.19

9:01:02 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets.dgn

FED. ROAD DIST. No.	STATE	FEDERAL PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	10W2	1011		25	

ESTABLISHED WIDTH OF RIGHT OF WAY.....FT.

Ref. to P.O.T. 529+85.0
Also Ref. to N.W. Cor. Section 2

Ref. to P.O.T. Sta. 563+65.0

C.M. Set 5/8" ⌀ Iron Pin
C.M. 36" Iron Pin for Stone

MIDDLE FORK TWP.
T-62N R-30W
SEC. 3

RICE TWP.
T-63N R-30W
SEC. 34

ETTA I. RIDER
See Misc. Rec. Book 159 Page 24

RAYMOND & MARY LOU DRAKE
Acq. by Easement 1.21 Acres
Consideration $290.63
Date of Contract 5-11-51
Recorded Misc. Rec. Book 70 Page 504
Ringgold Co. Recorder

PASTURE
CULTIVATED
POND
Windmill
Shed
GARDEN

Sta. 529+25.45 50 Lt. 36"x40' Corr. Pipes 1A-4.3 AC V.H. Replace with 5'x4'x30' Conc. Box Culv. at 60° Lt. Skew

280th St.

Sta. 533+56.4 60'x80' Pony Truss DA=17.39 Miles Replace with 60'x30' I Beam Br.

LLOYD W. HENSLEY
RUBY B. HENSLEY
See sheet #87

SEC. 2
SEC. 35

Sta. 537+00 Rd. Ascends 30' Rt.
24"x40' Corr. Pipe DA-6 AC V.H. Rem. Contr. to remove pres. Culv.

Int. Ditch Prop.
Borrow "U"
Int. Ditch
Prop. Lt. Ent. as dike
Dike
Ditch

Sta. 542+54.2
2'x2'x44.0'
Conc. Box Culv.
DA-5 AC V.H.
Extend 15' Lt. & 5' Rt.

Sta. 540+46.7
3'x2'x53.2'
Conc. Box Culv.
DA-12.5 AC V.H.
Extend 28' Lt. & 10' Rt. With drop inlet.

CLIFFORD L. NICHOLS
See Sheet #22
CLIFFORD L. NICHOLS

LYNDEN L. SMITH
Acq. by Easement 1.73 Acres
Consideration $89.25
Date of Contract 5-11-51
Recorded Misc. Rec. Book 70 Page 573
Ringgold Co. Recorder

See Sheet No. 40 for local road approaches.

BENCH MARKS
#59 Sta. 529+60 1 M.C. - R.M. in ~~W. Wheel Guard of I Beam Br. 10.4 Lt.~~ SE. Cor. Wing Post — El. = 445.63
#60 Sta. 533+30 1 M.C. - R.M. in Top Nut of 3rd Power Pole N. of X Road 63 Rt. — El. = 444.90
#61 Sta. 542+54.2 1 M.C. - R.M. in Int. Hdwl. of 2'x2' RCB ~~Sta. 542+54~~ 251 Lt. — El. = 439.94
#62 Sta. 546+46.7 1 M.C. BM. in Int. Hdwl. of 3'x2' RC Box ~~Sta. 546+47~~ 299 Rt. — El. = 443.94

For Information Only

PLATE 1 — PLAN-PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

Ringgold Co. Prim. Proj. # 1011 Sheet # 25

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.20

9:01:04 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)-3H-80\80-1691-048 U Sheets.dgn

ESTABLISHED WIDTH OF RIGHT OF WAY_____FT.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	Iowa	1011		26	

RICE TWP. T-68N R-30W

SEC. 34 | SEC. 35 | SEC. 27 | SEC. 26

RAYMOND & MARY LOU DRAKE — See Sheet # 25

WAYNE H. & LORENE MORGAN
Agr'd By Easement for 3.91 Acres Consideration #1467.00
Date of Contract 8-21-51
Recorded BK 175 Pg 69
Ringgold Co. Recorder

CLIFFORD & NICHOLS — See Sheet # 22

270th St

Ref. to P.I. Sta. 552+49.9 | Ref. to P.I. Sta. 564+85.4 | Ref. to P.I. Sta. 581+88.4

Borrow "V" — Unfilled Well — Save 2500 Cu. Yds. for Shoulders — Int. Ditch 4.71 — Prop. Int. Ditch 4 — Int. Ditch 4.51

Sta. 555+30.1 3'x6'x33.0' Conc. Box Culv. DA=2.9 Ac.H. Extend 28' Lt. & 20' Rt. Rd. contr. to ditch inlet and outlet.

18"x24" Corr Pipe — 18"x24" Concrete

Sta. 567+66.0 6'x6'x62.0' Conc. Box Culv. DA=10 Ac.H. Extend 32' Lt. & 22' Rt. Rd. contr. to ditch inlet & outlet.

Prop. Ditch 2.390' — Save 2000 Cu. Yds. for shoulders:

Borrow "W"

Sta. 581+49.4 Ø 5'11" CMP

For local road connection See Sheet No. 41

BENCH MARKS
#63 Sta. 555+50.1 Rail Spike in Inlet HWL of 3x2 R.C. Box 17.6' Rt. 375' Rt. Elev. 559.93
#64 Sta. 567+56.4 Rail Spike in Inlet HWL of 2x2 R.C.B. 10' Rt. 32.0 Rt. Elev. 553 + 559.13
I.H.C.B.M.
I.H.C.B.M.

PLAN: SURVEYED ____ PLOTTED ____ CHECKED ____ NOTE BOOK ____ ALIGNMENT CHECKED ____ NO. ____ FIT OF PLAN CHECKED ____ STRUCTURE NOTATIONS CHKD. ____ BY ____ DATE ____

PROFILE: SURVEYED ____ PLOTTED ____ CHECKED ____ NOTE BOOK ____ NO. ____ STRUCTURE NOTATIONS CHKD. ____ BY ____ DATE ____

For Information Only

Sta. 551+00 to Sta. 555+00 Proposed Subgrade Treatment Tr. Exc. Unclass. in Roadway & Bor. Est. 216 Cu. Yds. Fill + 10 % = 238 Cu. Yds. of Selected Material (Special Clay) See Sheet No. 5-G

Sta. 555+00 to Sta. 559+00 Proposed Subgrade Treatment Tr. Exc. Unclass. in Roadway & Bor. Est. = 396 Cu. Yds. Fill + 10 % = 436 Cu. Yds. of Selected Material (Special Clay) See Sheet No. 5-G

Sta. 559+00 to Sta. 563+50 Tentative quantities include 1970 Cu. Yds. of Gumbo(1). For disposition of Gumbo(1) see Sec. 2106.07, 1972 Std. Spec.

Sta. 563+50 to Sta. 567+00 Tentative quantities include 1800 Cu. Yds. of Gumbo(1). For disposition of Gumbo(1) see Sec. 2106.07, 1972 Std. Spec.

Sta. 567+00 to Sta. 572+00 Proposed Subgrade Treatment Tr. Exc. Unclass. in Roadway & Bor. Est. 930 Cu. Yds. Fill + 10 % = 1023 Cu. Yds. of Selected Material (Special Clay) See Sheet No. 5-G

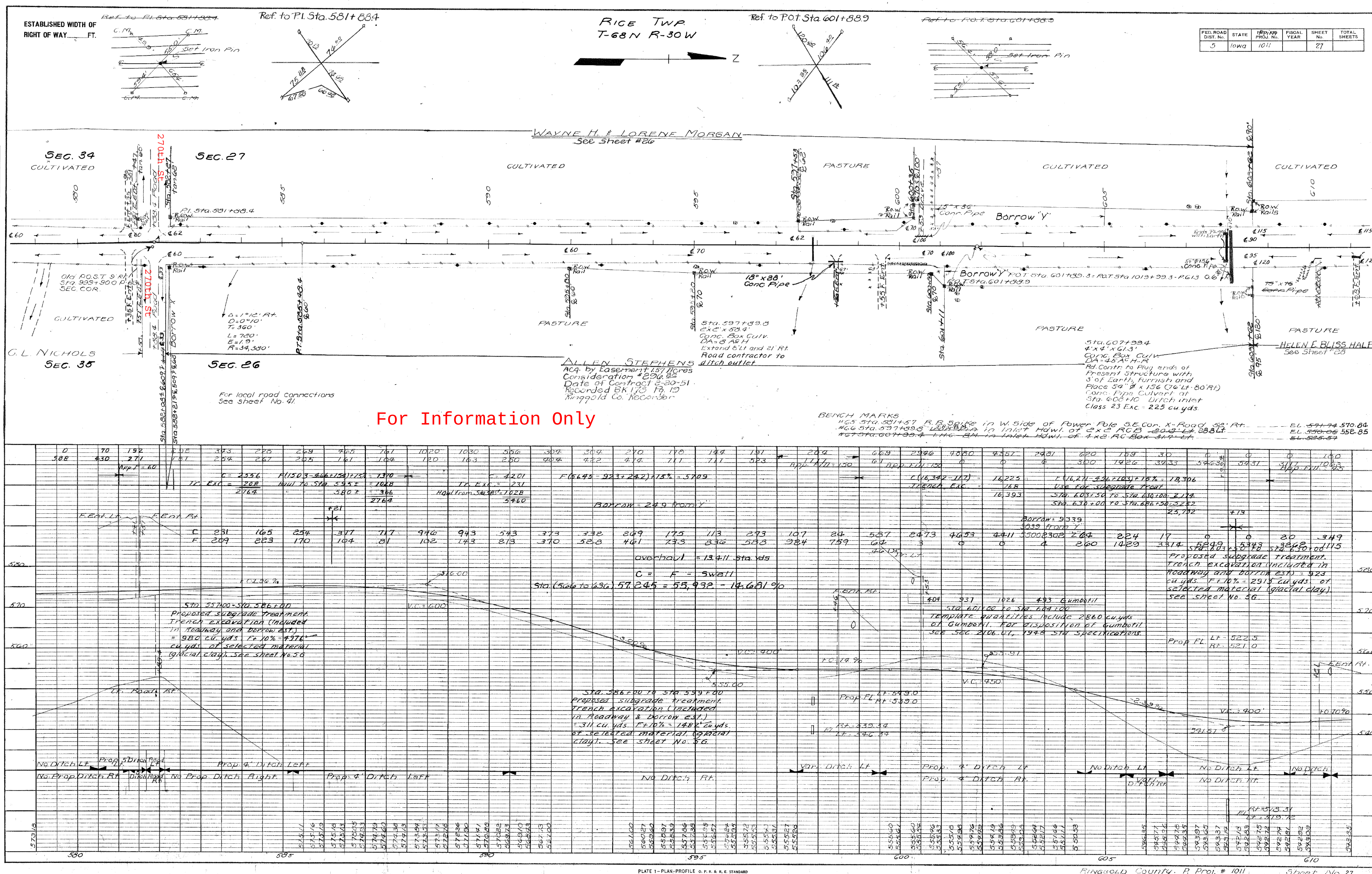
Overhaul = 475.5 sta. yd.

Ringgold Co. R. Proj. # 1011 Sheet # 26

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD KEUFFEL & ESSER CO. NEW YORK

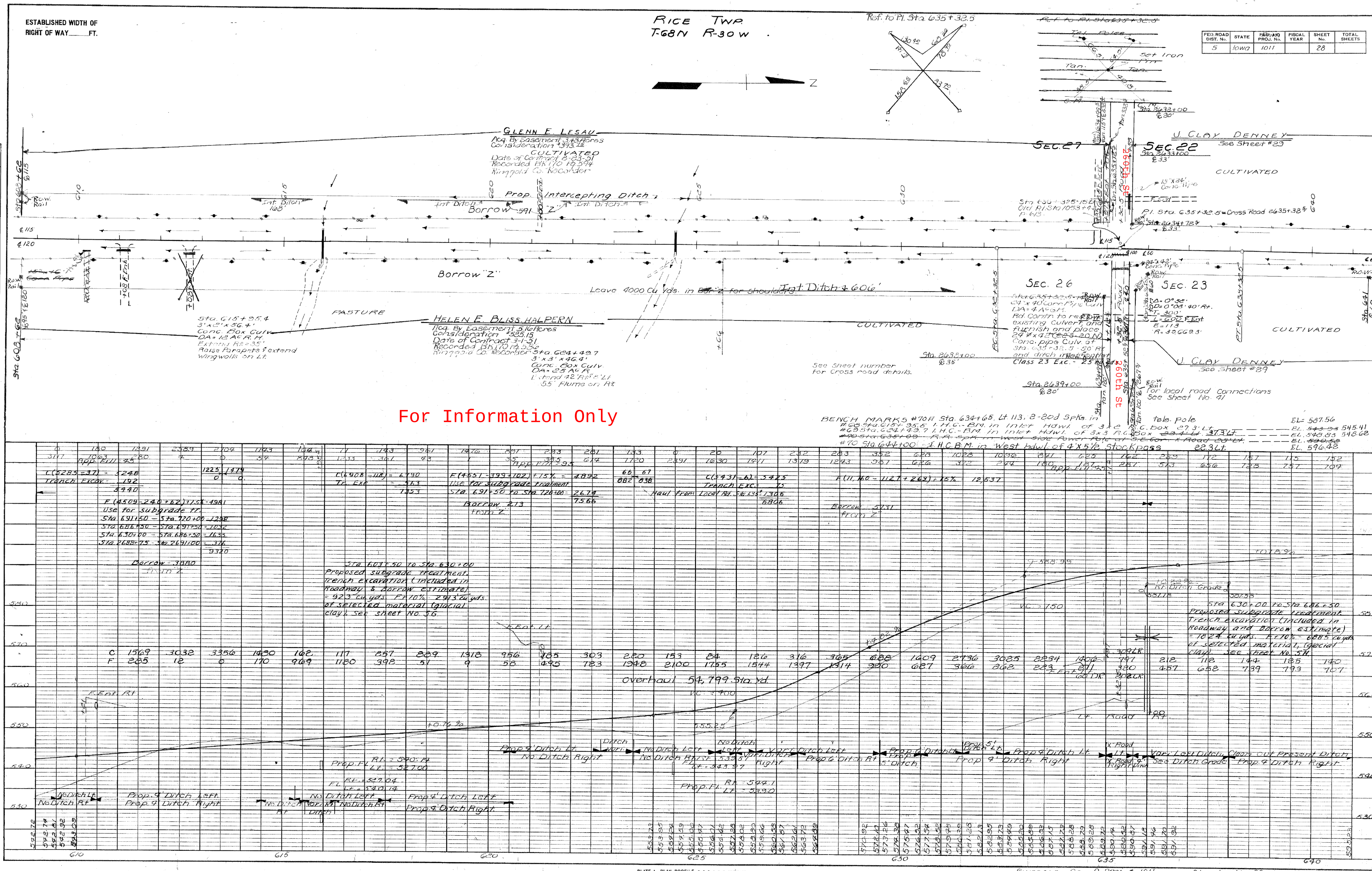
FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.21

9:01:15 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)–3H-80\80-1691-048 U Sheets 2.dgn



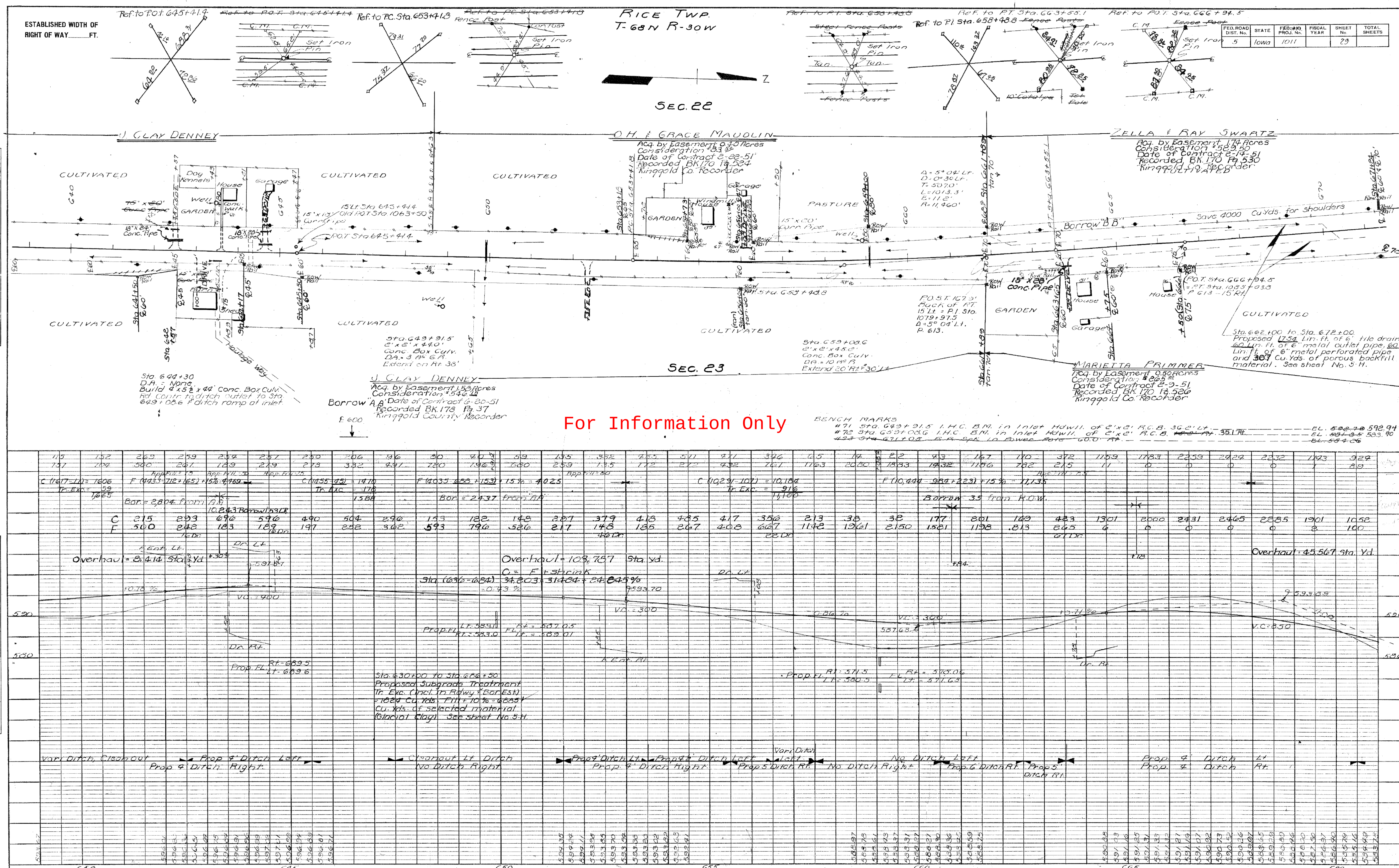
For Information Only

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.22



FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.23**

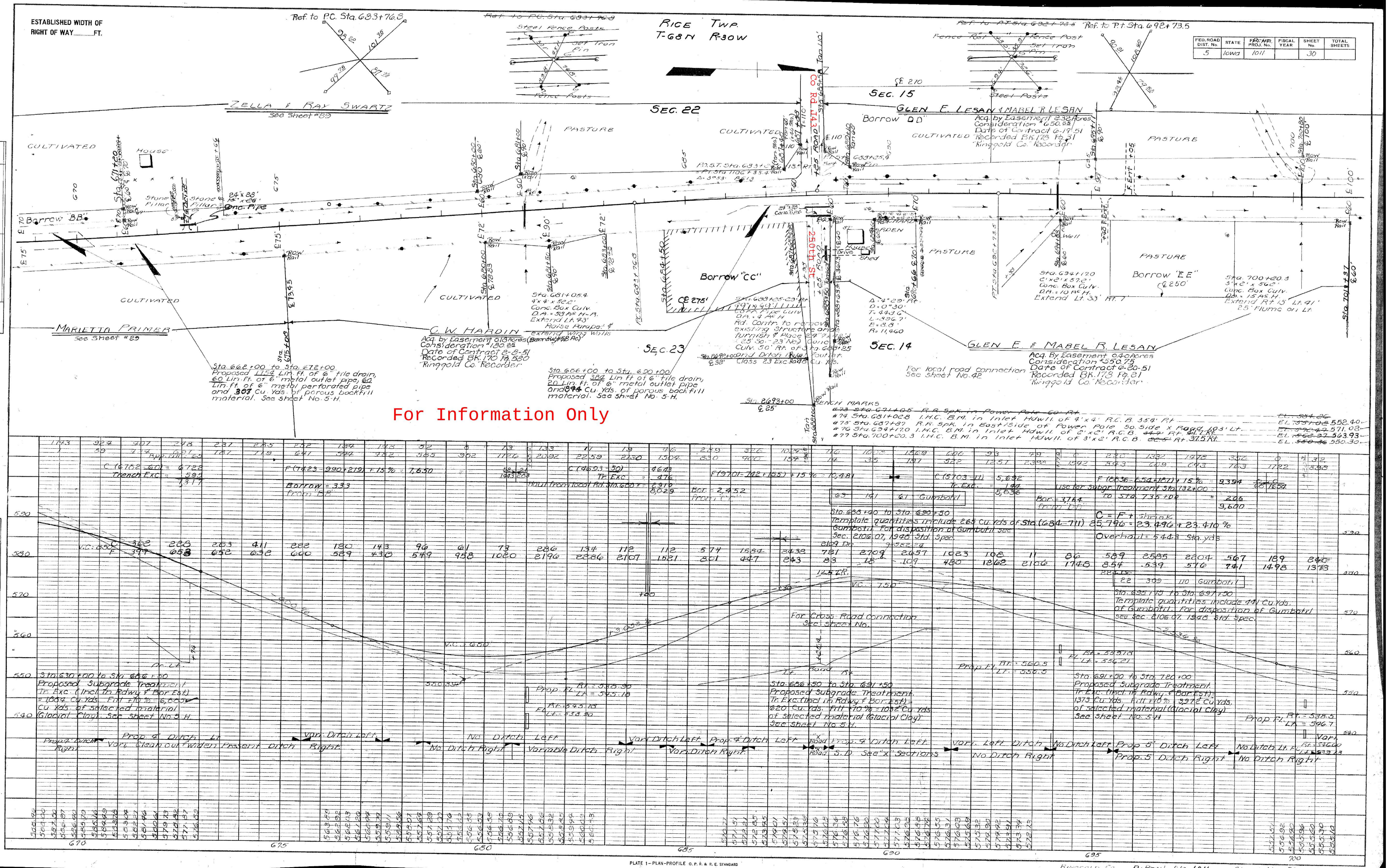
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For Information Only

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.24

9:01:21 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets 2.dgn



FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.25

9:01:23 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets 2.dgn

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	Iowa	1011		31	

RICE TWP. T68N R30W

Sec. 15

Sec. 14

GLEN E. LESAN & MABEL K. LESAN
See Sheet #30

LULU M. SALTZMAN
See Sheet #33

RAYMOND R. BUCK
Neg. by Easement & Traffic Rts
Consideration $620.50
Date of Contract 2-13-51
Recorded Bk. 175 Pg. 54
Ringgold County Recorder

For Information Only

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, PROFILE CHECKED, NOTE BOOK, NO. ____, BY, DATE

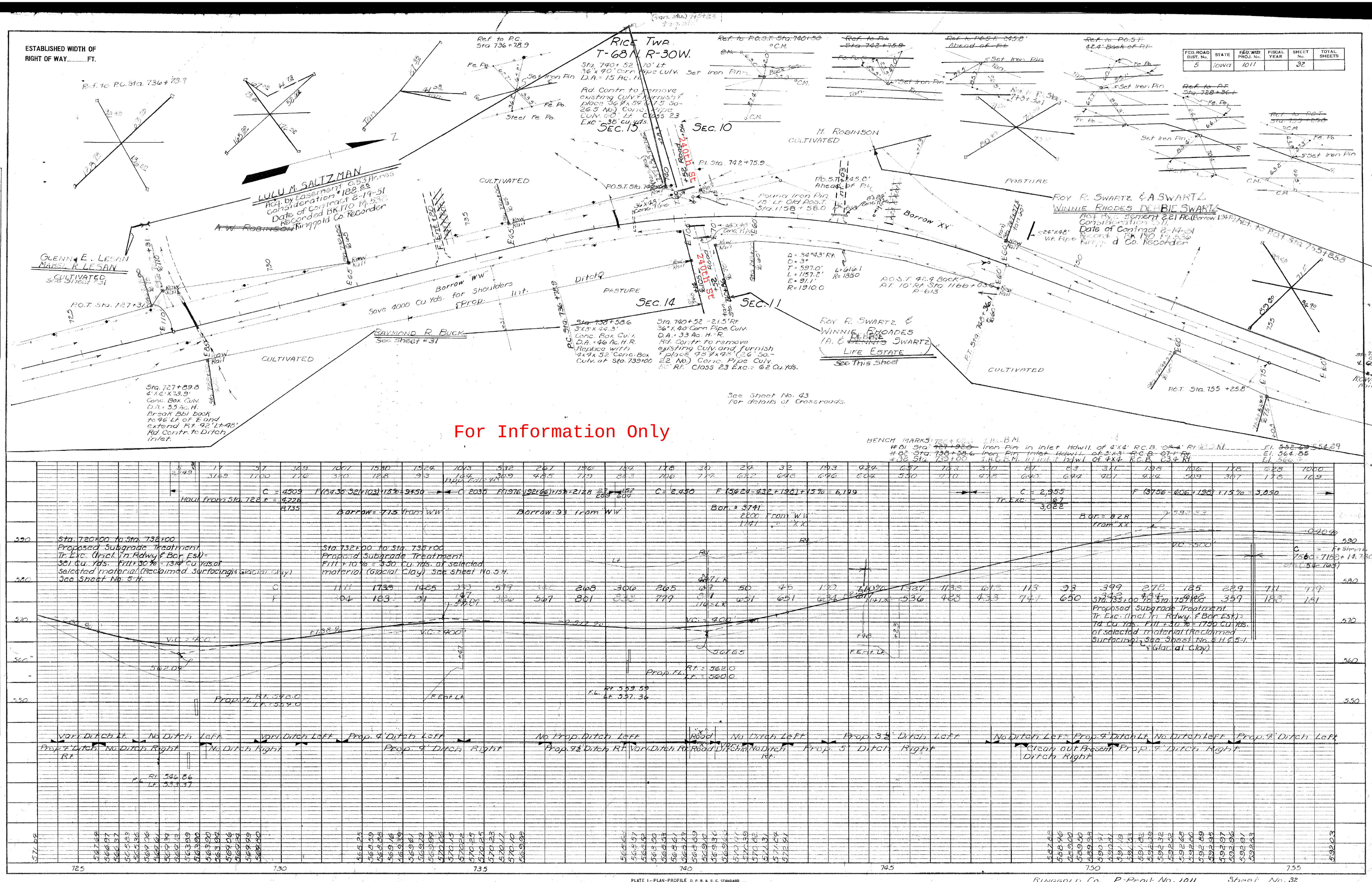
PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, NOTE BOOK, NO. ____, STRUCTURE NOTATIONS CHKD., BY, DATE

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

RINGGOLD Co. P. Proj. No. 1011 Sheet No. 31

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.26

9:01:25 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets 2.dgn



FILE NO.	ENGLISH	DESIGN TEAM **MAYBERRY\MALONE\KELLY**	**RINGGOLD** COUNTY	PROJECT NUMBER **NHSX-169-1(048)--3H-80**	SHEET NUMBER **U.27**

9:01:27 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)--3H-80\80-1691-048 U Sheets 2.dgn

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		33	

RICE TWP
T-68N R 30W

SEC. 11

Ref. to P.O.T. Sta. 755+25.8 — Ref. to P.O.T. Sta. 770+96.0 — Ref. to P.O.T. Sta. 784+15.7 — Ref. to P.O.T. Sta. 798+15.4

Set Iron Pin — Fence Post — Steel Fence Post — Gate Post

ROY R. SWARTZ & WINNIE RHODES
A. & DEBBIE SWARTZ
LIFE ESTATE
See Sheet #32

ELMER & GENEVIENE MATSINGER
Hor. By Easement & (Horse) (Borrow Ditch Rts.)
Consideration $349.00
Date of Contract 2-2-51
Recorded Bk. 170 Pg. 534
Ringgold Co. Recorder

PASTURE — CULTIVATED

Borrow "YY"

Sta. 758+16.5
2'x2'x81.3 Conc. Box Culv.
With Conc. Tile Extension
D.A. = 0.49 M.
Extend 9' Lt.
Culv. Cont. to plug intake with Conc.

Sta. 776+67.9
2'x2'x51.0'
Conc. Box Culv.
D.A. = 0.85 M.
Extend 18' Rt. 22' Lt.

18"x 20' CMCP
18"x 32' Conc. Pipe
Encroachment privilege Sta. 774 to Sta. 785+83

P.O.T. Sta. 753+25.0
P.O.T. Sta. 770+
Found Iron Pin 0.4' Rt. of P.O.T. Sta 1189+059.0 of L.I.N.C.R.R.
P.O.T. Sta. 784+

Sta. 735+00 to Sta. 757+00
Proposed Subgrade Treatment
Tr. Exc. (Incl. in Roadway & Bor. Est.) = 19 Cu. Yds. Fill + 30% = (1900 Cu. Yds. of selected material (Reclaimed Surfacing). See Sheet No. 5.1.

Sta. 757+00 to Sta. 772+00
Proposed Subgrade Treatment
Fill + 30% = 1379 Cu. Yds. of selected material (Reclaimed surfacing)
See Sheet No. 5.1.

Sta. 772+00 to Sta. 784+00
Proposed Subgrade Treatment
Tr. Exc. (Incl. in Roadway & Bor. Est.) = 107 Cu. Yds. Fill + 30% = 1377 Cu. Yds. of Selected material (Reclaimed Surfacing)
See Sheet No. 5.1

F Ent. Rt. — F Ent. Lt. — V.C. = 400' — V.C. = 300' — V.C. = 450' — +30% — -4.0% — +4.0% — Drive Rt.

Prop. 9' Ditch Left — No Ditch Left — Prop. 9' Ditch Right — No Ditch Right — Prop. 5' Ditch Rt. — Prop. 5' Ditch Left — Vari. Ditch Left — Vari. Ditch Rt.

Prop. Inlet Fl. 577.30
Rt. Rt. 577.06
Lt. 560.4
Prop. Fl. Rt. 577.0
Lt. 560.2

Prop. Fl. Rt. 569.10
Lt. 562.0
Fl. Rt. 563.7±
Lt. 567.7±

BENCH MARKS:
#83 Sta. 758+16.5 R.R. Spk. in Inlet Hdwl. of 2'x2' R.C.B. 93.5 Rt. El. 584.93
#84 Sta. 776+67.9 R.R. Spk. in Inlet Hdwl. of 2'x2' R.C.B. 36.3 Lt. El. 574.52
I.N.C.R.R.

PLATE 1—PLAN-PROFILE D. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

RINGGOLD Co. P-Proj. No. 1011 — Sheet No. 33

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.28

9:01:29 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)—3H-80\80-1691-048 U Sheets 2.dgn

For Information Only

FED.ROAD DIST. No.	STATE	RINGGOLD PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	IOWA	1011		34	

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

Ref. to P.O.T. Sta. 784+154.
To Post — Cone Post — Set Iron Pin
Street Fence Post — Gate Post

Ref. to P.O.T. Sta. 784+154.
70.18 — 66.24 — 71.88 — 76.45

RICE TWP
T-68N R-30W

Ref. to P.O.T. Sta. 802+42.7
Cor. Post — Cut 'X' in Pavt. — Guard Rail Posts
78.5' — 85.0' — 79.3'

SEC. 11 — SEC. 12

R.R. R.O.W. IRA J. CAMPBELL
Req. by Easement 2.35 Ac. (endorsed) [illegible]
Consideration $217.30
Date of Contract 2-15-51
Recorded Bk. 170 Pg. 598
PASTURE Ringgold County Recorder

Borrow "ZZ"
VACANT (STATE OWNED)
Shoulder dirt available.
L=495' R=3680'

ELMER & GENEVIENE MATSINGER
See Sheet #33

PASTURE R.O.W.

Encroachment Privilege Sta. 786+68 to Sta. 793+93

STA. 802 + 36.6
END OF DIV. I
AND PROJ.

P.O.T. Sta. 784 + 15.4

Present Primary #169

Borrow "ZZ" P.O.T. Sta. 802+48.
Ab. P.O.T. Sta. 621+63.33
P.A.G.(C)

P.O.T. Sta. 802+55.6
10' Rt.
P.I.C.T. Sta. 621+69.33
P.I.C. (C) Sta. 122.0 + 64.7 P. 613

Sta. 790+90.9
2'x2'x 46.1'
Conc. Box Culv.
Ea. + 9.9% R.C.
Extend 36' Rt. & 37' Lt.

P.O.T. Sta. 793+51.8
Ab. P.O.T. Sta. 621+63.33
P.I.C. (C) Sta. 621+69.33
P.I.C. (C) Sta. 122.0 + 64.7 P. 613

Sta. 801+60.1
24" ϕ x 61.0'
Conc. T.I.P.
Da.: 39° R
Rel. Contr. to remove existing structure and furnish and place 24"ϕ x 138' (97' Lt. & 91' Rt.) Conc. Pipe Culv. at Sta. 801+20. Skew 45°
Ditch inlet & outlet.
Class 2 Exc. = 121 Cu. Yds.

Sta. 802+52.5
2'x2'x 29.5'
Conc. Box Culv.

For details on road connection See Sheet No. 44

ELMER & GENEVIENE MATSINGER
See Sheet #33

Row Ahead Shown on Final Constr. Plans To #2

PLAN — SURVEYED — PLOTTED — QUANTITY CHECKED — RT. OF WAY CHECKED — NOTE BOOK — NO. — BY — DATE

For Information Only

Bench Marks:
#85 Sta. 790+90.9 Rt. Spk. in inlet Hdwl. of 2'x2' R.C.B. 29.5' Lt. & 4' Above F.H.C.B.M. — El. 591.33
#86 Sta. 802+52.5 I.H.C. B.M. in inlet Hdwl. of 2'x2' R.C.B. under Road North of Ftrt. 38.4' Lt. — El. 568.07

	847	549	611	930	1393	179	3694	392	347	429	1016	1204	1652	1515	1319	906	596	355	110				
	75	82	289	682	1353	2392	3393	3515	1739	671	83	0	0	0	0	10	196	1278	771				
	C (2321-11) = 2,310			F (1326-260) (2) (1) + 15% = 8258						C (9268-172) = 9,096			F (9519-251) (7-11) + 15% = 10,747										
	Tr. Exc. 60									Tr. Exc. 1,062													
	2,250									10,220													
	Bor. 6928 from "ZZ"												Bor. 867 from "ZZ"							Totals for Borrow & along ℄				
C	626	1405	2756	2704	1032	60	4	40	187	630	1986	2967	2583	2048	1351	770	441	650	1485	2719	1599	1758	2923	1313	415	24
F	119	345	775	1420	2409	3257	2956	1750	688	77	0	0	4	90	116	285	1178	1745	3995	5054	3962	1132	519	230	95	40

Sta. 772+00 to Sta. 790+00
Proposed Subgrade treatment
Tr. Exc. (incl. in Roadway & Bor. Est.)
107 Cu. Yds. Fill + 30% = 1317 cu. yds. of selected material (Reclaimed Surfacing) See Sheet No. 5-I

Sta. 794+20 to Sta. 802+42.7
Proposed Subgrade Treatment
Tr. Exc. (incl. in Roadway & Bor. Est.)
1159 Cu. Yds. Fill + 30% = 1507 Cu. yds. of Selected Material (Reclaimed Surfacing) See Sheet No. 5-I

	590.65	590.57	591.16	591.26	591.32	591.41	591.35	591.41	591.22	591.39													
	585					790					795					800					805		

PLATE 1 — PLAN-PROFILE O. P. R. & H. E. STANDARD

RINGGOLD Co. Prim. Proj. # 1011 Sheet # 34

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD COUNTY	PROJECT NUMBER NHSX-169-1(048)--3H-80	SHEET NUMBER U.29

9:01:31 AM 1/14/2026 mkelly pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\8016901022\DistrictDesign\NHSX-169-1(048)–3H-80\80-1691-048 U Sheets 2.dgn