



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

LEE COUNTY

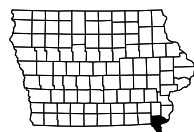
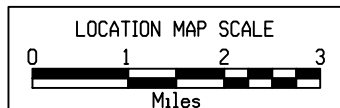
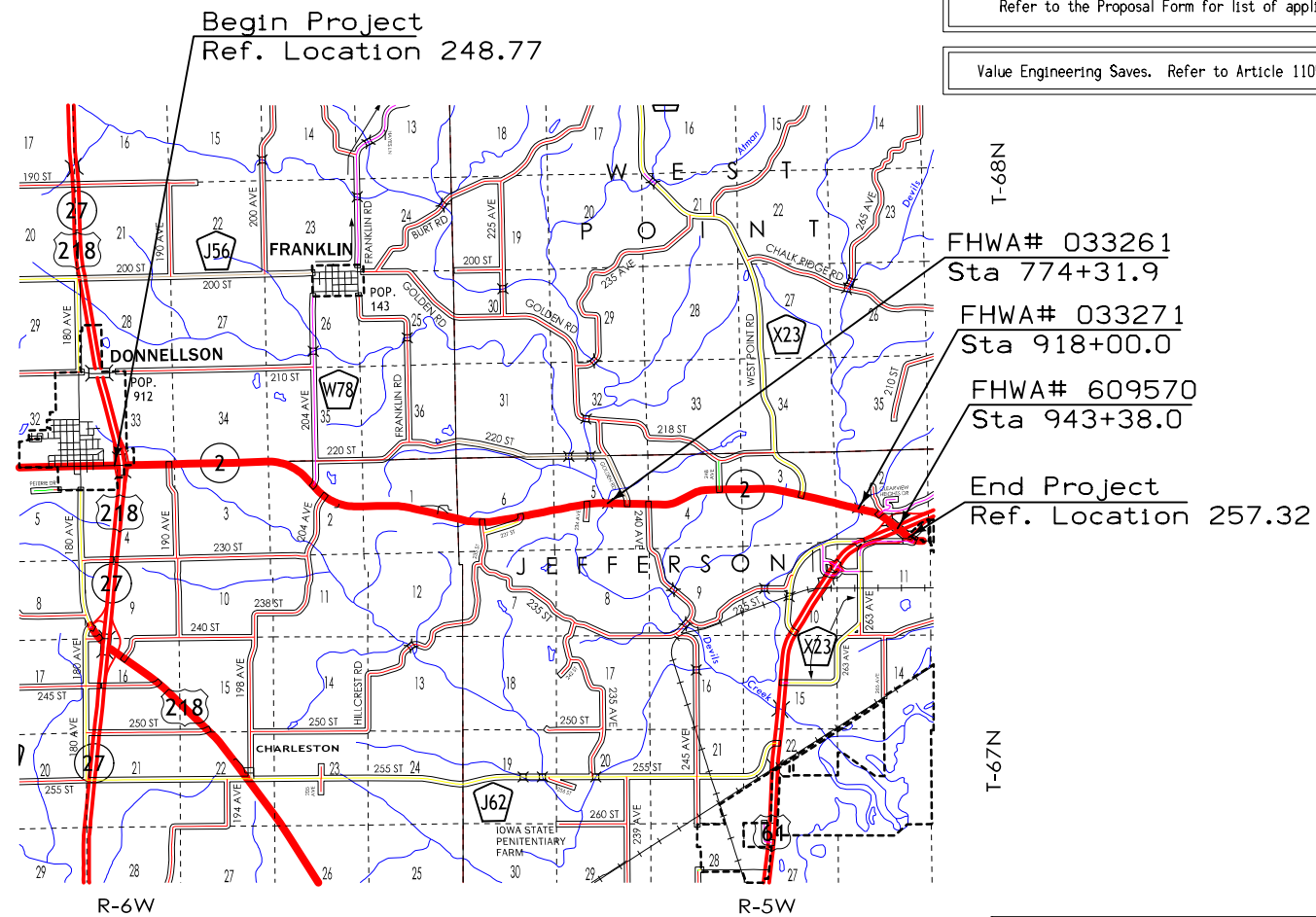
PAVEMENT PLANING/GROOVING - HMA PAVED SHOULDER-NEW

US 218 to US 61

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

TOTAL

43

PROJECT IDENTIFICATION NUMBER

19-56-002-010

PROJECT NUMBER

NHSX-002-9(38)--3H-56

HSIPX-002-9(39)--3L-56

R.O.W. PROJECT NUMBER

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INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
* A.2	Strip Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 8	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1	Estimated Project Quantities - NHSX-002-9(38)--3H-56
C.1 - 2	Estimate Reference Information - NHSX-002-9(38)--3H-56
C.2	Estimated Project Quantities - HSIPX-002-9(39)--3L-56
C.2	Estimate Reference Information - HSIPX-002-9(39)--3L-56
C.3	Standard Road Plans
C.3	Index of Tabulations
C.3	General Notes
C.3	Tab. of Incidentals
C.4 - 15	Tabulations (beg. with tab. of incidentals if needed)
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1	500 Series, Modified Standards and Detail Sheets
	* Color Plan Sheets

Project Event Dates:
D7 PLAN - Date: 10-01-2019

PRELIMINARY PLANS

Subject to change by final design.

DM5 PLAN - Date: 8-29-2019

DESIGN DATA RURAL

2018	AADT	3346	V.P.D.
2020	AADT	3500	V.P.D.
20--	DHV	--	V.P.H.
	TRUCKS	10 %	
	Total		
	Design ESALs	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Jonathan W. Bahr	Primary Signature Block

LETTING DATE
12-17-2019

PAVEMENT PLANING/GROOVING
HMA PAVED SHOULDER - NEW
NHSX-002-9(38)--3H-56/
HSIPX-002-9(39)--3L-56

LEE CO.

FILE NO.

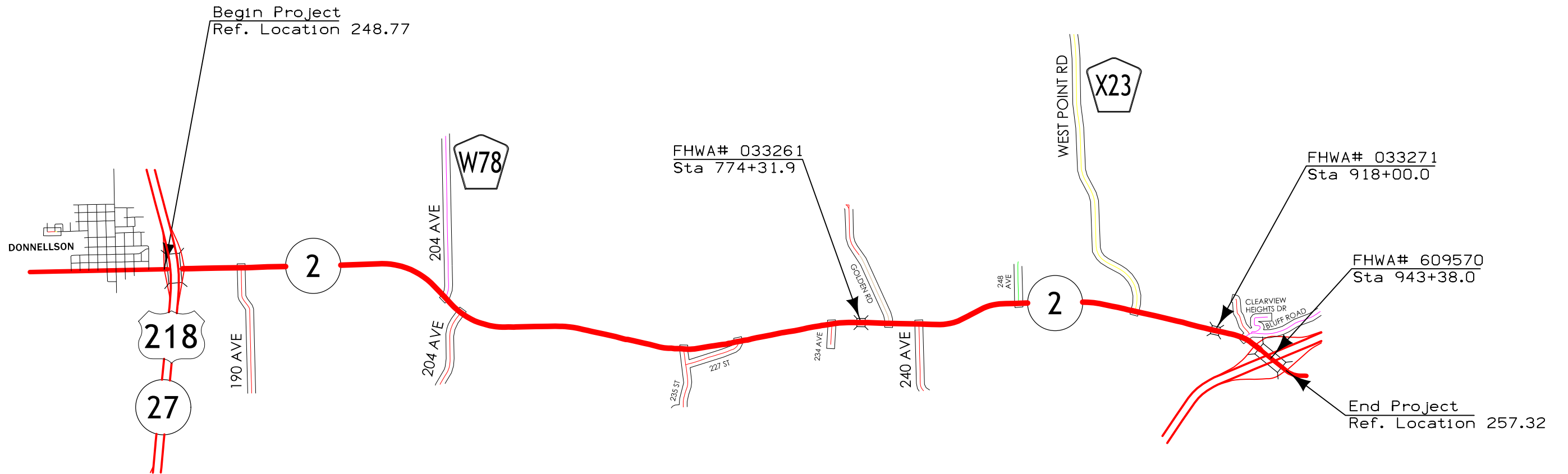
ENGLISH

DESIGN TEAM **HOLST \ BAHR \ CAMPBELL**

LEE COUNTY

PROJECT NUMBER **NHSX-002-9(38)--3H-56/HSIPX-002-9(39)--3L-56**

SHEET NUMBER **A.1**



Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

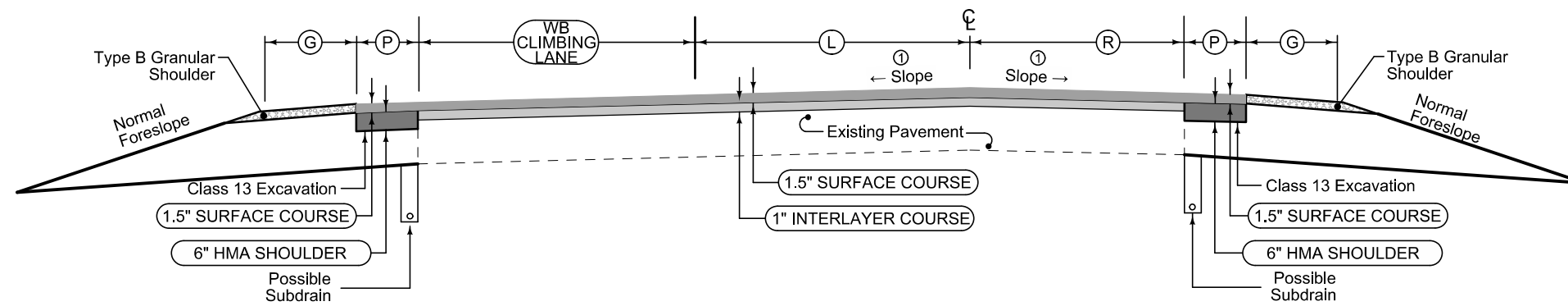
3R_Shldr_Paved_ Modified				
STATION TO STATION	(P) Feet	(G) Feet	Length Feet	REMARKS
887+74.8	910+98.0	4	6	2323.2

Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

3R_Shldr_Paved_ Modified				
STATION TO STATION	(P) Feet	(G) Feet	Length Feet	REMARKS
887+74.8	910+98.0	4	6	2323.2

① Finished slope shall match existing pavement except the maximum allowable slope is 3.0% and the minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping.



3R_HIR_Overlay Modified				
STATION TO STATION	(WB CLIMBING LANE) Feet	(L) Feet	Length Feet	
887+74.8	908+38.7	12	12	2063.9
908+38.7	910+98.0	12-0	12	259.3

3R_HIR_Overlay Modified			
STATION TO STATION	(R) Feet	Length Feet	
887+74.8	910+98.0	12	2323.2

Shoulder Jointing:
Longitudinal joint: B

Combination Shoulder

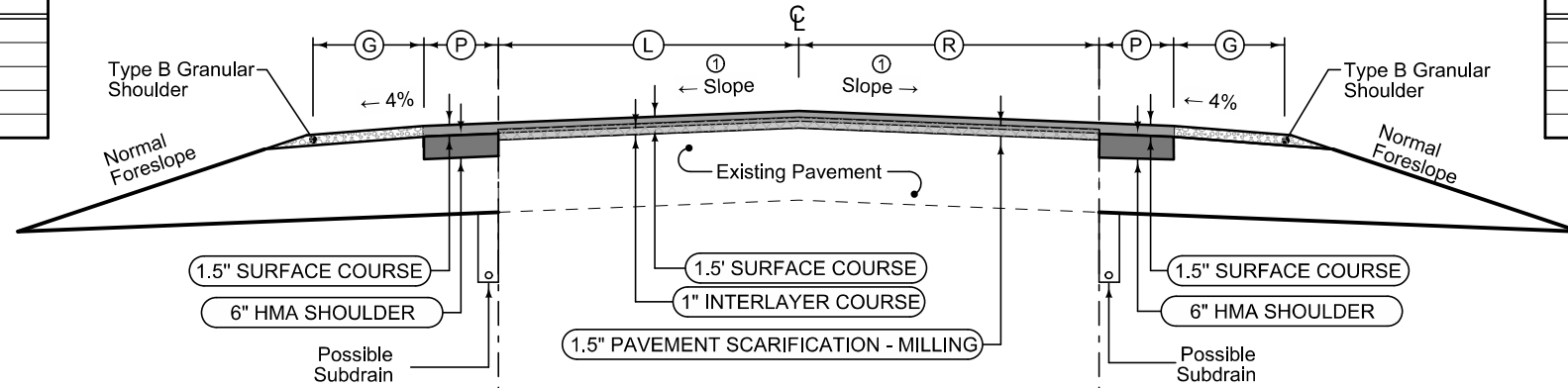
3R_Shldr_Paved_ Modified				
STATION TO STATION	(P) Feet	(G) Feet	Length Feet	REMARKS
910+98.0	913+27.6	4	6	2323.2

① Finished slope shall match existing pavement except the maximum allowable slope is 3.0% and the minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping.

Shoulder Jointing:
Longitudinal joint: B

Combination Shoulder

3R_Shldr_Paved_ Modified				
STATION TO STATION	(P) Feet	(G) Feet	Length Feet	REMARKS
910+98.0	913+27.6	4	6	2323.2

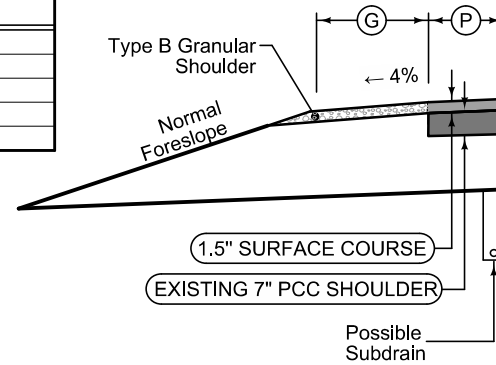


3R_HIR_Overlay Modified				
STATION TO STATION	(L) Feet	(R) Feet	Length Feet	REMARKS
910+98.0	916+13.5	12	12	560.8

Shoulder Jointing:
Longitudinal joint: B

Combination Shoulder

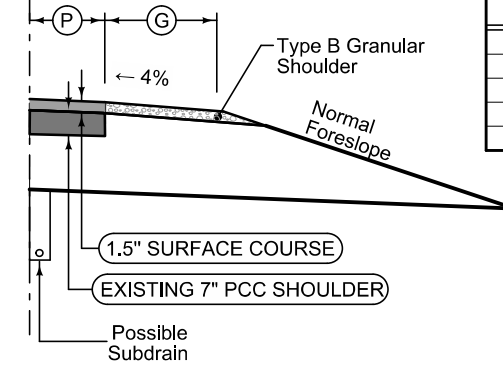
3R_Shldr_Paved_ Modified				
STATION TO STATION	(P) Feet	(G) Feet	Length Feet	REMARKS
913+30.4	915+36.0	8 - UAC	2	205.6

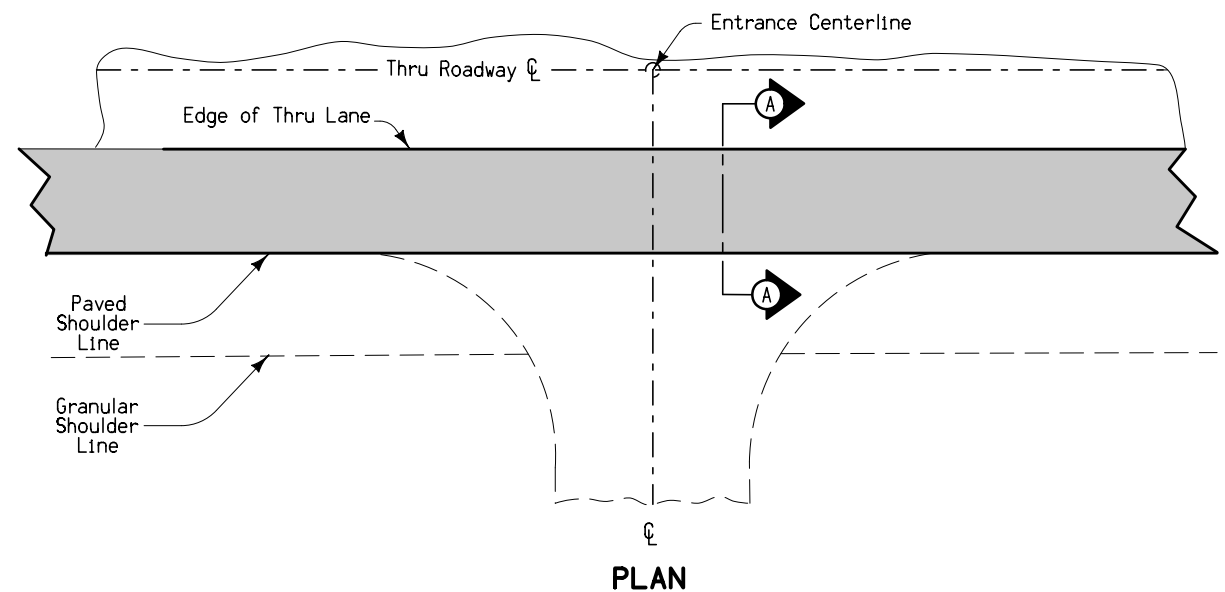


Shoulder Jointing:
Longitudinal joint: B

Combination Shoulder

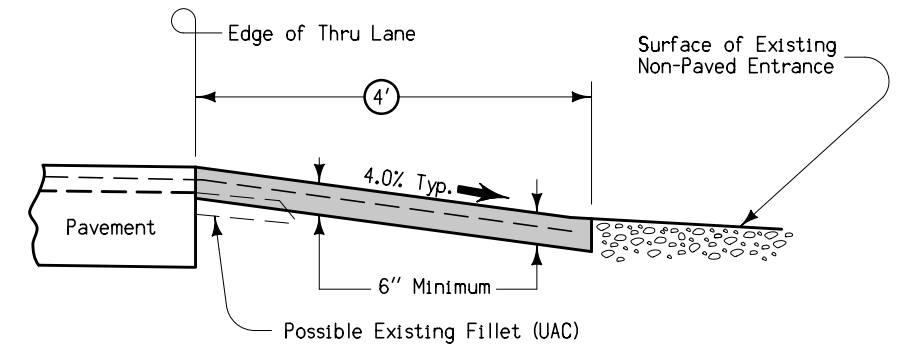
3R_Shldr_Paved_ Modified				
STATION TO STATION	(P) Feet	(G) Feet	Length Feet	REMARKS
913+27.6	915+36.0	8 - UAC	2	205.6





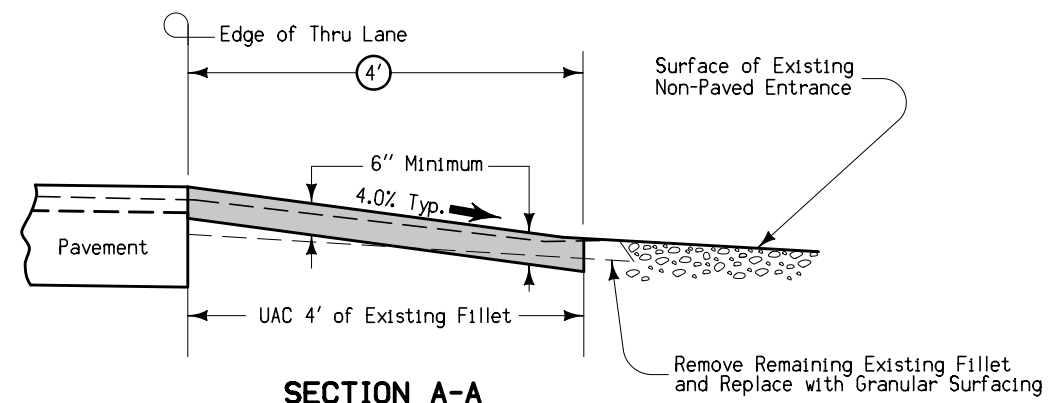
PLAN

CASE 'A' - Existing Fillet Less Than 4'



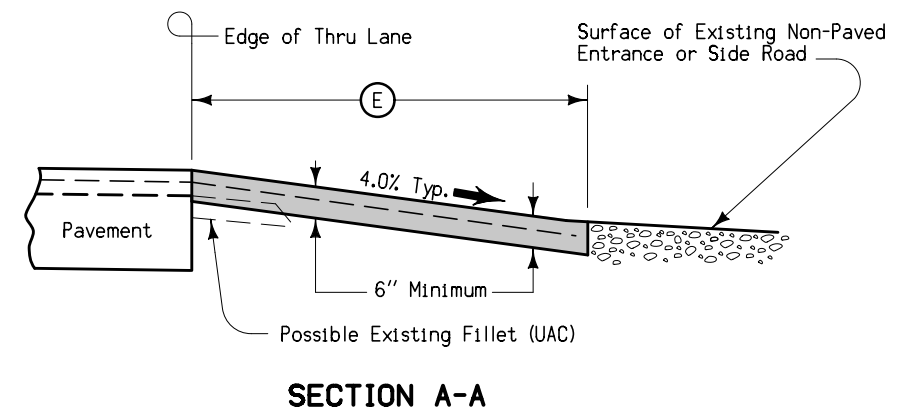
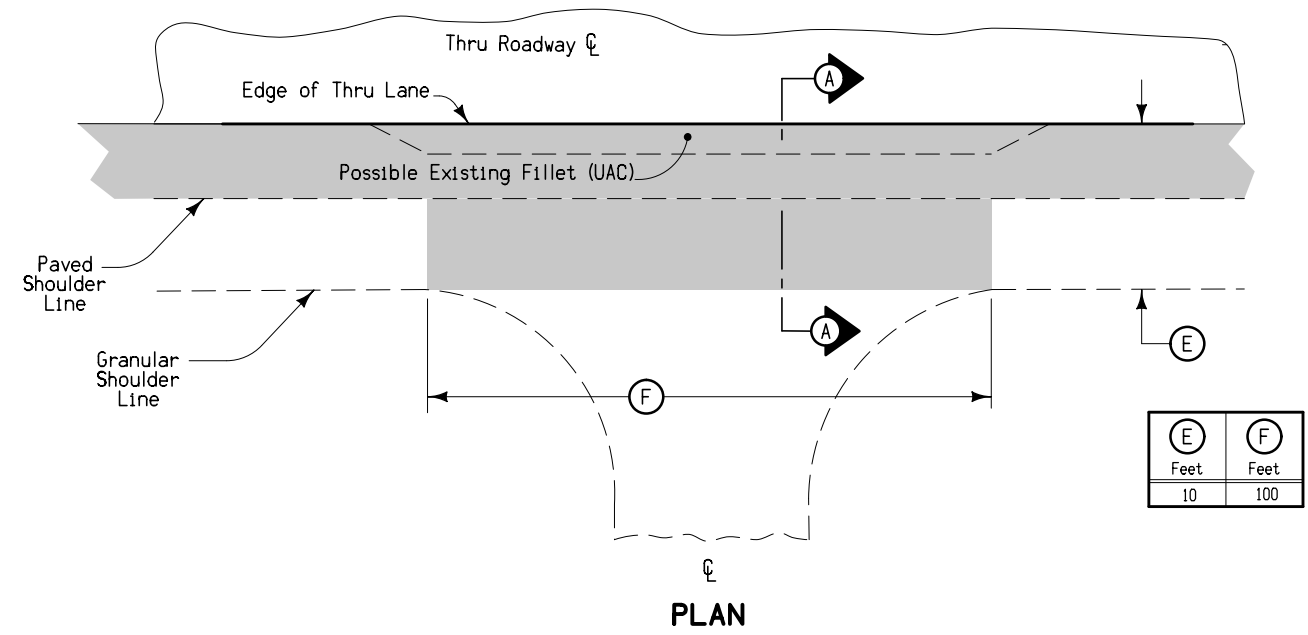
SECTION A-A

CASE 'B' - Existing Fillet Greater Than 4'



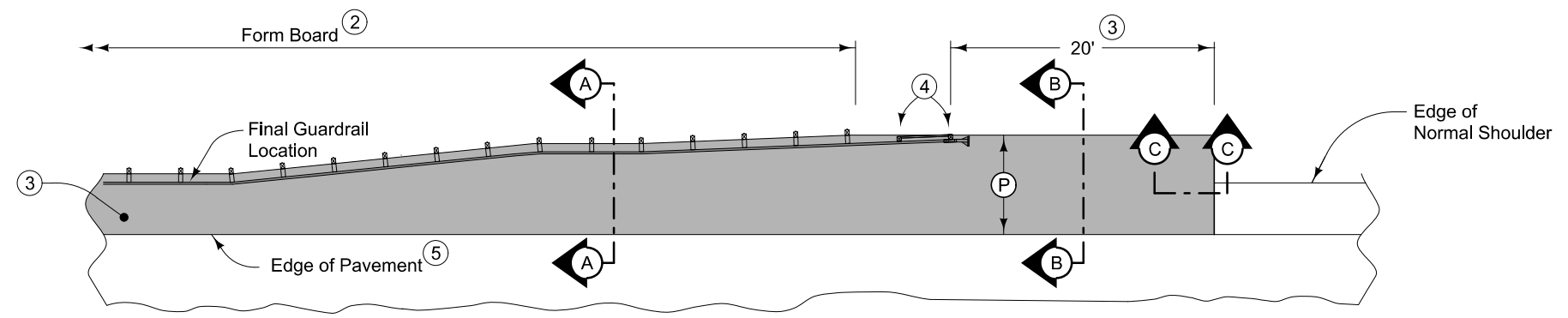
SECTION A-A

FILLET FOR NON-PAVED ENTRANCES



Special shaping of existing surface prior to placement of fillet may be required by the Engineer and is incidental to other work on the project.
Quantities included with mainline quantities.

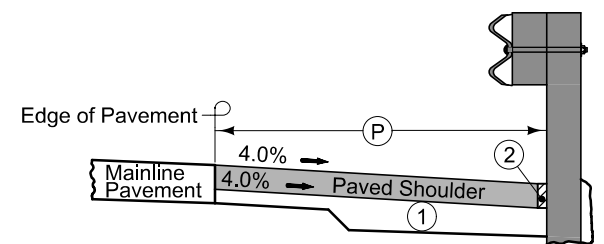
FILLET FOR NON-PAVED SIDE ROADS



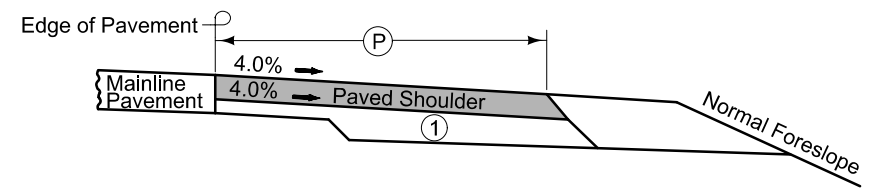
PLAN VIEW

9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:
 Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.
 Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.



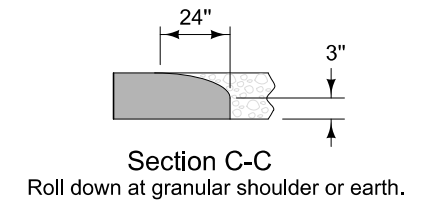
Section A-A



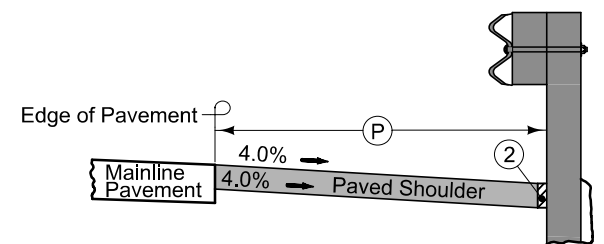
Section B-B

NEW CONSTRUCTION

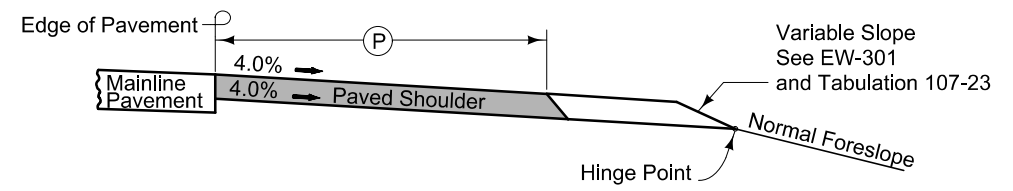
- ① For subgrade treatment, refer to other details in the plan.
- ② PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown. Refer to note 4 for final 2 posts.
- ③ Continue paved shoulder to existing paved shoulder or 20 feet beyond the center of the first post.
- ④ Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ⑤ 'KT-1 joint for PCC shoulder. 'B' joint for HMA shoulder.



Section C-C
Roll down at granular shoulder or earth.



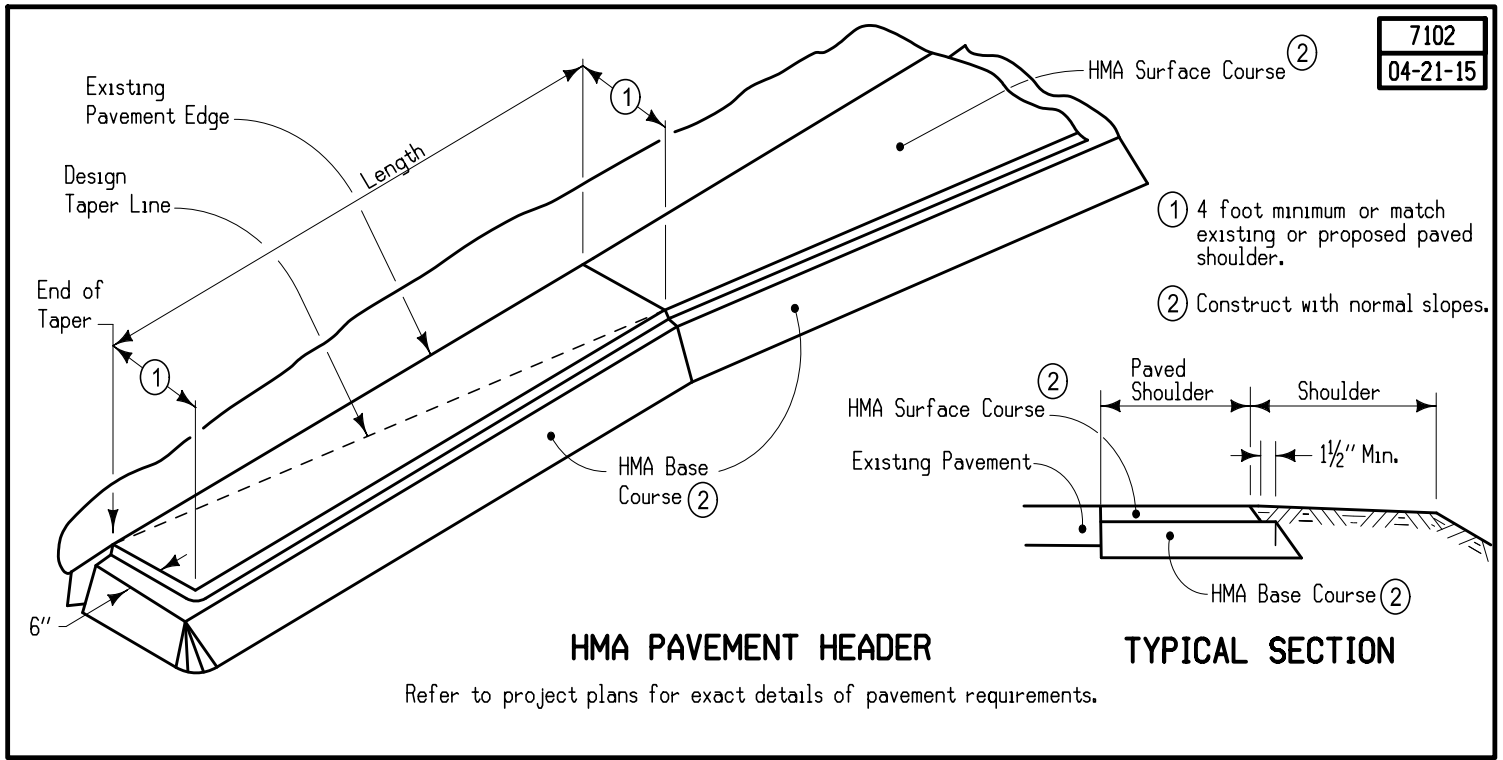
Section A-A



Section B-B

EXISTING SHOULDER

PAVED SHOULDER AT GUARDRAIL



PROJECT DESCRIPTION

This project include PCC pavement Diamond Grinding and HMA and granular combination shoulders along with milled PCC centerline rumble strips and milled HMA shoulder rumble strips. There is an area of HMA Resurfacing and an area of HMA Milling and Resurfacing.

Also included is PCC patching, pipe repairs, clearing and grubbing, cable guard rail and guardrail at one bridge.

**ESTIMATED ROADWAY QUANTITIES - NHSX-002-9(38)-3H-56
(1 DIVISION PROJECT)**

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.2	
2	2101-0850002	CLEARING AND GRUBBING	UNIT	115	
3	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	1,013.3	
4	2102-4560000	LOCATING TILE LINES	STA	2.00	
5	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN.	SY	4,053.3	
6	2125-2225050	RESHAPING DITCHES	STA	72.20	
7	2212-5070310	PATCHES, FULL-DEPTH REPAIR	SY	2,172.2	
8	2212-5070330	PATCHES BY COUNT (REPAIR)	EACH	83	
9	2214-5145150	PAVEMENT SCARIFICATION	SY	1,885.9	
10	2303-1032500	HOT MIX ASPHALT STANDARD TRAFFIC, INTERMEDIATE COURSE, 1/2 I N. MIX	TON	566.00	
11	2303-1033504	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MI X, FRICTION L-4	TON	1,111.80	
12	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	100.60	
13	2312-8260250	GRANULAR SURFACING ON ROAD, CRUSHED STONE	TON	65.0	
14	2402-0425040	FLOODED BACKFILL	CY	30.0	
15	2402-2720000	EXCAVATION, CLASS 20	CY	2907	
16	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH	2	
17	2416-0101036	REMOVE AND REINSTALL CONCRETE PIPE APRONS LESS THAN OR EQUAL TO 36 IN.	EACH	14	
18	2416-0101136	REMOVE AND REINSTALL CONCRETE PIPE APRONS GREATER THAN 36 IN .	EACH	1	
19	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.	LF	50	
20	2416-1541036	REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL T O 36 IN.	LF	60	
21	2416-1541136	REMOVE AND REINSTALL RIGID PIPE CULVERT GREATER THAN 36 IN.	LF	12	
22	2422-0360018	APRONS, UNCLASSIFIED, 18 IN. DIA.	EACH	12	
23	2422-0360024	APRONS, UNCLASSIFIED, 24 IN. DIA.	EACH	30	
24	2422-0360030	APRONS, UNCLASSIFIED, 30 IN. DIA.	EACH	2	
25	2422-1722018	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 18 IN. DIA.	LF	690	
26	2422-1722024	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 24 IN. DIA.	LF	1067	
27	2422-1722030	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 30 IN. DIA.	LF	216	
28	2503-0111018	STORM SEWER GRAVITY MAIN, TRENCHED, HIGH DENSITY POLYETHYLEN E PIPE (HDPE), 18 IN.	LF	94.0	
29	2505-4008130	REMOVAL OF CABLE GUARDRAIL	LF	3,170.0	
30	2505-6000111	HIGH TENSION CABLE GUARDRAIL	LF	3,170.0	
31	2505-6000121	HIGH TENSION CABLE GUARDRAIL, END ANCHOR	EACH	8	
32	2506-4984000	FLOWABLE MORTAR	CY	7.4	
33	2507-3250005	ENGINEERING FABRIC	SY	365.0	
34	2507-6800061	REVTMENT, CLASS E	TON	95.5	
35	2507-8029000	EROSION STONE	TON	123.0	
36	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	42.44	
37	2527-9263112	PAINTED PAVEMENT MARKINGS, HIGH-BUILD WATERBORNE	STA	1,249.31	
38	2527-9263138	PAINTED SYMBOLS AND LEGENDS, HIGH-BUILD WATERBORNE	EACH	4	
39	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EACH	8	
40	2528-8445110	TRAFFIC CONTROL	LS	1.00	
41	2528-8445113	FLAGGERS	EACH	See Proposal	
42	2528-8445115	PILOT CARS	EACH	See Proposal	
43	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA	SY	10.7	
44	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT	EACH	1	
45	2529-8174010	SUBBASE (PATCHES)	SY	26.7	
46	2532-5200001	PAVEMENT SURFACE REPAIR (GRINDING LIMESTONE)	SY	148,851.5	
47	2533-4980005	MOBILIZATION	LS	1.00	
48	2548-0000310	MILLED CENTERLINE RUMBLE STRIPS, HMA SURFACE	STA	28.4	
49	2548-0000320	MILLED CENTERLINE RUMBLE STRIPS, PCC SURFACE	STA	434.1	
50	2602-0000020	SILT FENCE	LF	825.0	
51	2602-0000050	SILT BASINS	EACH	73	
52	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	825.0	
53	2602-0000080	REMOVAL OF SILT BASINS	EACH	29	
54	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	82.5	

ESTIMATE REFERENCE INFORMATION - NHSX-002-9(38)-3H-56

Item No.	Item Code	Description
1	2101-0850001	CLEARING AND GRUBBING
2	2101-0850002	CLEARING AND GRUBBING Refer to Tab. 110-17on C Sheets.
3	2102-2713090	EXCAVATION, CLASS 13, WASTE Refer to Tab. 112-9 on C Sheets.
4	2102-4560000	LOCATING TILE LINES Refer to Tab 3R_Culv.
5	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN. Refer to Tab. 112-9 on C Sheets.
6	2125-2225050	RESHAPING DITCHES Refer to Tab. 3R-CULV on C. Sheets.
7	2212-5070310	PATCHES, FULL-DEPTH REPAIR
8	2212-5070330	PATCHES BY COUNT (REPAIR) Refer to Tab. 102-6C for locations and details. Calcium chloride shall not be used in the patch concrete. From April 15th to October 15th, Class C concrete may be used. Otherwise, Class M concrete shall be used. For Class M concrete, cure time required prior to opening shall be a minimum flexural strength of 300 psi determined from beam specimens made during the progress of the work. With prior approval, the Engineer may waive the restriction of calcium chloride use at identified patches located in intersections or other areas that require early opening due to anticipated traffic movements.
9	2214-5145150	PAVEMENT SCARIFICATION Refer to Tab. 100-25 and Tab. 102-16 on C Sheets.
10	2303-1032500	HOT MIX ASPHALT STANDARD TRAFFIC, INTERMEDIATE COURSE, 1/2 I N. MIX
11	2303-1033504	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MI X, FRICTION L-4
12	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC Refer to Tab. 100-25 on C Sheets.
13	2312-8260250	GRANULAR SURFACING ON ROAD, CRUSHED STONE
14	2402-0425040	FLOODED BACKFILL
15	2402-2720000	EXCAVATION, CLASS 20
16	2416-0100024	APRONS, CONCRETE, 24 IN. DIA. Refer to Tab. 3R-CULV on C. Sheets.
17	2416-0101036	REMOVE AND REINSTALL CONCRETE PIPE APRONS LESS THAN OR EQUAL TO 36 IN.
18	2416-0101136	REMOVE AND REINSTALL CONCRETE PIPE APRONS GREATER THAN 36 IN . Refer to Tab. 3R-CULV on C. Sheets. Excavation for removal and reinstallation of pipe is incidental to this item.
19	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA. Refer to Tab. 3R-CULV on C. Sheets.
20	2416-1541036	REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL T O 36 IN.
21	2416-1541136	REMOVE AND REINSTALL RIGID PIPE CULVERT GREATER THAN 36 IN. Refer to Tab. 3R-CULV on C. Sheets. Excavation for removal and reinstallation of pipe is incidental to this item.
22	2422-0360018	APRONS, UNCLASSIFIED, 18 IN. DIA.
23	2422-0360024	APRONS, UNCLASSIFIED, 24 IN. DIA.
24	2422-0360030	APRONS, UNCLASSIFIED, 30 IN. DIA.
25	2422-1722018	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 18 IN. DIA.
26	2422-1722024	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 24 IN. DIA.
27	2422-1722030	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 30 IN. DIA.
28	2503-0111018	STORM SEWER GRAVITY MAIN, TRENCHED, HIGH DENSITY POLYETHYLEN E PIPE (HDPE), 18 IN. Refer to Tab. 3R-CULV on C. Sheets.
29	2505-4008130	REMOVAL OF CABLE GUARDRAIL Refer to Tab. 110-7b on C Sheets.
30	2505-6000111	HIGH TENSION CABLE GUARDRAIL
31	2505-6000121	HIGH TENSION CABLE GUARDRAIL, END ANCHOR Refer to Tab. 108-9A on C Sheets.
32	2506-4984000	FLOWABLE MORTAR Refer to Tab. 3R-CULV on C. Sheets.
33	2507-3250005	ENGINEERING FABRIC
34	2507-6800061	REVTMENT, CLASS E
35	2507-8029000	EROSION STONE Refer to Tab. 100-23 and Tab. 3R_CULV on C Sheets.
36	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED
37	2527-9263112	PAINTED PAVEMENT MARKINGS, HIGH-BUILD WATERBORNE Refer to Tab. 108-22 on C Sheets.

ESTIMATE REFERENCE INFORMATION - NHSX-002-9(38)-3H-56

Item No.	Item Code	Description
38	2527-9263138	PAINTED SYMBOLS AND LEGENDS, HIGH-BUILD WATERBORNE Refer to Tab 108-29 on C Sheets.
39	2528-8400256	TEMPORARY TRAFFIC SIGNALS Refer to Tab. 108-28 on C Sheets.
40	2528-8445110	TRAFFIC CONTROL
41	2528-8445113	FLAGGERS
42	2528-8445115	PILOT CARS
43	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA
44	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT Refer to Tab. 102-6C for locations and details. Calcium chloride shall not be used in the patch concrete. From April 15th to October 15th, Class C concrete may be used. Otherwise, Class M concrete shall be used. For Class M concrete, cure time required prior to opening shall be a minimum flexural strength of 300 psi determined from beam specimens made during the progress of the work. With prior approval, the Engineer may waive the restriction of calcium chloride use at identified patches located in intersections or other areas that require early opening due to anticipated traffic movements.
45	2529-8174010	SUBBASE (PATCHES) Refer to Tab. 102-6C on C Sheets.
46	2532-5200001	PAVEMENT SURFACE REPAIR (GRINDING LIMESTONE) Quantity includes 2 - 12 ft wide ft through lanes for the full project length, including repair patches, and auxiliary lanes. Quantity computed at the full length of the project and 24 ft. - varies, mainline width. The profilometer runs beginning at the west end, IA 27, and includes both the existing HMA and PCC surfaces going east to US 61. The CalPro Inventory average international roughness index (IRI) values are: EBL lane, 182.98 in/mi (from pg. 196 of report) WBL lane, 185.69 in/mi (from pg. 196 of report) Electronic files of the high speed testing of the existing profile bumps are available from the Office of Contracts.
47	2533-4980005	MOBILIZATION
48	2548-0000310	MILLED CENTERLINE RUMBLE STRIPS, HMA SURFACE
49	2548-0000320	MILLED CENTERLINE RUMBLE STRIPS, PCC SURFACE Refer to Tab. 112-10 on C Sheets.
50	2602-0000020	SILT FENCE Refer to Tab. 100-17. The tabulation includes estimated locations for placement of Silt Fence to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
51	2602-0000050	SILT BASINS Refer to Tab. 100-14 and Tab. 3R CULV on C Sheets. The tabulation includes estimated locations for placement of "Silt Basins" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 150% additional quantity for the paving project for field adjustment and maintenance.
52	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS This item is included for silt fence removal required for replacement (replacement to be paid separately), or for areas that have achieved 70% permanent growth.
53	2602-0000080	REMOVAL OF SILT BASINS Refer to Tab. 100-14 on C Sheets.
54	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK This item is included for clean-out and repair of the silt fence and silt fence for ditch checks during the project.

**ESTIMATED ROADWAY QUANTITIES - HSIPX-002-9(39)--3L-56
(1 DIVISION PROJECT)**

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	6,312.0	
2	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	3,302.5	
3	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN.	SY	35,872.6	
4	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN.	SY	1,333.2	
5	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	250.0	
6	2505-4008300	STEEL BEAM GUARDRAIL	LF	150.0	
7	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	4	
8	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	4	
9	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	4	
10	2505-6000111	HIGH TENSION CABLE GUARDRAIL	LF	3,170.0	
11	2505-6000121	HIGH TENSION CABLE GUARDRAIL, END ANCHOR	EACH	8	
12	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	909.6	
13	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	985.6	
14	2548-0000200	MILLED SHOULDER RUMBLE STRIPS, PCC SURFACE	STA	15.4	

ESTIMATE REFERENCE INFORMATION - HSIPX-002-9(39)--3L-56

Item No.	Item Code	Description
1	2102-2713090	EXCAVATION, CLASS 13, WASTE Refer to Tab. 112-9 on C Sheets.
2	2121-7425020	GRANULAR SHOULDERS, TYPE B Refer to Tab. 112-9 on C Sheets. Item includes 431 tons (15%) for existing shoulder slope correction.
3	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN.
4	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN. Refer to Tab. 112-9 on C Sheets.
5	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL Refer to Tab. 110-7A on C Sheets.
6	2505-4008300	STEEL BEAM GUARDRAIL
7	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201
8	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED
9	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205 Refer to Tab. 108-8A on C Sheets.
10	2505-6000111	HIGH TENSION CABLE GUARDRAIL
11	2505-6000121	HIGH TENSION CABLE GUARDRAIL, END ANCHOR Refer to Tab. 108-9A on C Sheets.
12	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE
13	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)
14	2548-0000200	MILLED SHOULDER RUMBLE STRIPS, PCC SURFACE Refer to Tab. 112-10 on C Sheets.

STANDARD ROAD PLANS

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

Number	Date	Title
BA-200	04-16-19	Steel Beam Guardrail Components
BA-201	04-18-17	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-202	10-20-15	Steel Beam Guardrail Bolted End Anchor
BA-205	04-19-16	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-351	10-15-19	High Tension Cable Guardrail
DR-101	04-18-17	Pipe Culvert (Bedding and Backfill)
DR-103	04-21-15	Pipe Culvert (Installation Details)
DR-104	04-19-16	Depth of Cover Tables for Concrete and Corrugated Pipe
DR-122	10-18-16	Construction of Type "C" Concrete Adaptors for Pipe Culvert Connections
DR-201	10-16-18	Concrete Aprons
EC-201	10-15-19	Silt Fence
EC-301	10-18-16	Rock Erosion Control (REC)
EW-105	04-21-15	Reshaping Slopes and Ditches
EW-301	10-20-15	Guardrail Grading
EW-403	04-18-17	Temporary Erosion Control Measures
PM-110	10-16-18	Line Types
PM-111	04-21-15	Symbols and Legends
PM-120	10-21-14	Stop Lines and Islands
PM-221	10-18-16	Climbing Lane
PM-521	10-15-19	Two-Lane Roadway with Right Turn Lanes
PR-103	10-21-14	Full Depth PCC Patch with Dowels
PR-140	04-21-15	Subbase Patches
PR-202	10-21-14	Notches for Resurfacing (with or without Runout)
PV-12	04-19-16	Milled Shoulder Rumble Strips
PV-13	10-17-17	Milled Centerline Rumble Strips
PV-202	04-16-13	Hot Mix Asphalt Resurfacing
SI-173	04-19-16	Object Markers
SI-211	10-18-16	Object Marker and Delineator Placement with Guardrail
SI-881	04-16-19	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-21-15	Work Within 15 ft of Traveled Way
TC-212	10-15-19	Spot Location Lane Closure with Flaggers
TC-213	10-15-19	Lane Closure with Flaggers
TC-214	10-15-19	Lane Closure with Flaggers for use with Pilot Car
TC-218	10-15-19	Lane Closure with Pilot Car and Flagger Operated Signals
TC-231	10-15-19	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-432	10-17-17	Shoulder Rumble Strip Operations

INCIDENTAL ITEMS

Special or unique items where method of measurement / basis of payment is not indicated in the specifications or other contract documents.

No.	Incidental Item	Unit	Quantity	Incidental To		Remarks
				Item Code	Item	
	Culvert Cleaning	CY	78.3	2402-2720100	Class 20 Excavation	Note (1)
	(1) See Tab 3R_CULV, Note 1 for culvert interior flushing.					

INDEX OF TABULATIONS

Tabulation	Tabulation Title	Sheet No.
C Sheets		
100-0A38	ESTIMATED ROADWAY QUANTITIES - NHSX-002-9(38)-3L-56 (1 DIVISION PROJECT)	C.1
100-0A39	ESTIMATED ROADWAY QUANTITIES - HSIPX-002-9(39)--3L-56 (1 DIVISION PROJECT)	C.2
100-1D	PROJECT DESCRIPTION	C.1
100-4A38	ESTIMATE REFERENCE INFORMATION - NHSX-002-9(38)-3L-56	C.1 - C.2
100-4A39	ESTIMATE REFERENCE INFORMATION - HSIPX-002-9(39)--3L-56	C.2
100-14	SILT BASINS	C.5
100-17	TABULATION OF SILT FENCES	C.4
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100-25	HMA PAVEMENT	C.13
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102-16	NOTCHES AND RUNOUTS FOR RESURFACING	C.13
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107-23	GRADING FOR GUARDRAIL INSTALLATIONS	C.11
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108-22	PAVEMENT MARKING LINE TYPES	C.15
108-28	TEMPORARY TRAFFIC SIGNALS	C.6
108-29	PAVEMENT MARKING SYMBOLS AND LEGENDS	C.14
108-30	CRASH CUSHIONS	No Sheet No.
108-33	TEMPORARY BARRIER RAIL	No Sheet No.
110-7A	REMOVAL OF STEEL BEAM GUARDRAIL	C.11
110-7B	REMOVAL OF CABLE GUARDRAIL	C.11
110-17	CLEARING AND GRUBBING	C.6
111-25	INDEX OF TABULATIONS	C.3
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**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.

EMERALD ASH BORER

Any living, dead, cut or fallen material of the ash (Fraxinus spp.) including trees, nursery stock, logs, firewood, stumps, roots, branches, and composted or uncomposted ash chips can be freely moved within the yellow areas of the most recent Federal EAB Quarantine & Authorized Transit.

https://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/eab_quarantine_map.pdf.

Obtain appropriate Compliance Agreements from USDA APHIS PPQ prior to moving any of the above listed ash articles to areas outside the yellow zone on the map.

For questions, concerns, and general assistance, contact:

USDA APHIS PPQ, Iowa office, 515-414-3295

Or

Iowa Department of Agriculture & Land Stewardship
515-725-1470
Entomology@IowaAgriculture.gov

ROCK EROSION CONTROL

Refer to EC-301 and Detail 570-8

Location				Rock Erosion Control (REC)					Material Bid Quantities			Remarks		
Road Identification	Begin Station	End Station	Side Lt./Rt.	L FT	W FT	Type 1	Type 2	Type 3	Type 4	Type 5	Eng. Fabric		Class E Revetment	Erosion Stone
						Rock Ditch Check	Rock Ditch	Rock Flume	Rock Splash Basin	Rock Slope Protection	SY		TON	TON
IA 2, Entrance LT, place stone at inlet	516+26.70		LT						1		10.0		0.5	See 3R-CULV
IA 2, Entrance LT	520+54.00		LT				1				10.0		0.5	See 3R-CULV
IA 2, Entrance Dike RT	523+00.00		RT			1					15.0	5.0		See 3R-CULV
IA 2, Entrance RT	524+70.00		RT										0.5	See 3R-CULV
IA 2, Entrance RT, inlet erosion	539+23.00		RT						1		10.0	0.5		See 3R-CULV
IA 2, Entrance LT	539+90.00		LT			1					10.0		0.5	See 3R-CULV
IA 2, Type F Dike RT, inlet erosion	542+08.00		RT						1					See 3R-CULV
IA 2, Type F Dike RT	543+00.00		RT						1		10.0	20.0		See 3R-CULV
IA 2, Cross Road pipe	561+83.00		LT			1					15.0		3.0	See 3R-CULV
IA 2, Cross Road pipe	581+40.00		LT			1					15.0		3.0	See 3R-CULV
IA 2, Cross Road pipe	629+20.00		RT										5.0	See 3R-CULV
IA 2, Entrance LT	691+36.00		LT			1					25.0		15.0	See 3R-CULV
IA 2, Cross Road RCB	718+46.00		LT						1		20.0		10.0	See 3R-CULV
IA 2, Cross Road RCB	722+02.00		LT			1					25.0		15.0	See 3R-CULV
IA 2, Cross Road RCB	751+02.00		LT			1					20.0		10.0	See 3R-CULV
IA 2, Cross Road pipe	782+80.00		RT			1					10.0		5.0	See 3R-CULV
IA 2, Cross Road pipe	821+28.00		LT			1					20.0		10.0	See 3R-CULV
IA 2, Entrance RT	834+65.00		RT			1					20.0		10.0	See 3R-CULV
IA 2, Cross Road pipe	835+30.00		LT						1		20.0		15.0	See 3R-CULV
IA 2, Cross Road RCB	881+45.00		RT						1		50.0	30.0		See 3R-CULV
IA 2, Cross Road pipe	902+50.00		LT			1					20.0		10.0	See 3R-CULV
IA 2, Cross Road RCB	908+40.00		LT						1		40.0	20.0		See 3R-CULV
IA 2, Cross Road pipe	942+80.00		RT			1						20.0	10.0	See 3R-CULV
Totals											365.0	95.5	123.0	

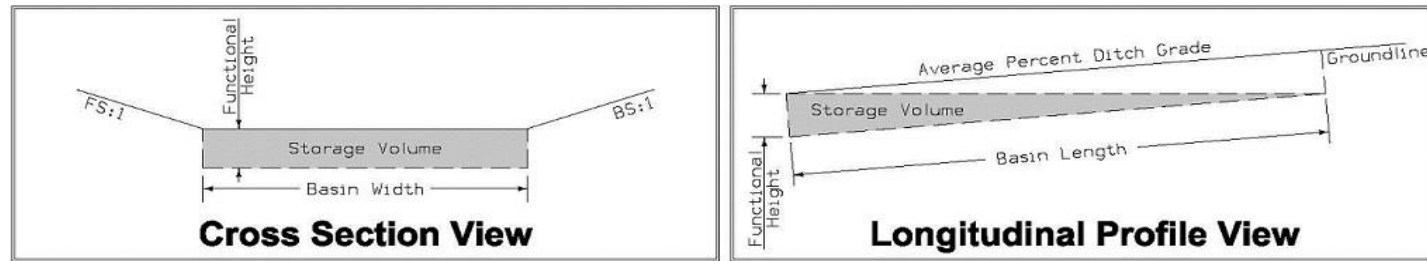
TABULATION OF SILT FENCES

Refer to EC-201

Location				Length LF	Remarks
Begin Station	End Station	Side			
499+65.00		LT	20.0	See 3R-CULV	
502+50.00		LT	20.0	See 3R-CULV	
508+18.00		RT	20.0	See 3R-CULV	
513+95.00		RT	10.0	See 3R-CULV	
522+10.00		LT	20.0	See 3R-CULV	
543+00.00		RT	10.0	See 3R-CULV	
MP 249.886		RT	20.0	See 3R-CULV	
MP 250.071		RT	20.0	See 3R-CULV	
561+83.00		LT	10.0	See 3R-CULV	
594+78.00		LT	20.0	See 3R-CULV	
607+00.00		LT	20.0	See 3R-CULV	
610+73.00		LT	20.0	See 3R-CULV	
610+72.00		RT	10.0	See 3R-CULV	
610+72.00		LT	20.0	See 3R-CULV	
621+60.00		LT	10.0	See 3R-CULV	
622+75.00		LT	20.0	See 3R-CULV	
629+20.00		RT	10.0	See 3R-CULV	
634+00.00		LT	10.0	See 3R-CULV	
634+80.00		RT	20.0	See 3R-CULV	
656+00.00		LT	10.0	See 3R-CULV	
665+64.00		RT	10.0	See 3R-CULV	
680+00.00		LT	10.0	See 3R-CULV	
683+30.00		LT	20.0	See 3R-CULV	
685+88.00		LT	20.0	See 3R-CULV	
691+36.00		LT	20.0	See 3R-CULV	
696+98.00		RT	20.0	See 3R-CULV	
784+87.30		RT	20.0	See 3R-CULV	
792+95.00		LT	20.0	See 3R-CULV	
793+90.00		RT	20.0	See 3R-CULV	
816+50.00		RT	20.0	See 3R-CULV	
824+10.00		RT	20.0	See 3R-CULV	
834+65.00		RT	20.0	See 3R-CULV	
862+00.00		RT	20.0	See 3R-CULV	
872+88.00		RT	20.0	See 3R-CULV	
898+50.00		LT	20.0	See 3R-CULV	
902+65.00		RT	20.0	See 3R-CULV	
906+53.00		LT	20.0	See 3R-CULV	
907+15.00		LT	20.0	See 3R-CULV	
	Total		660.0		
	Bid		825.0	125% Tab.	
	Maintenance		82.5	10% Bid	
	Removal		825.0	100% Bid	

SILT BASINS

Possible Standard: EW-403



* The functional height used in the volume equation is 95% of effective height. Effective height is 3 feet as shown in EW-403.
 * Volume equation: $(0.5 * Length * (Width * Height + Width * (Height - Length * Avg \% Slope)))$

Basin No.	Location		Bid Items		Stormwater Storage Volume Summary					Remarks
	Station	Side	Installation	Removal	Basin Width FT	Basin Length FT	Height FT	Avg. % Slope	Volume* CF	
			EACH	EACH						
1	499+65.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
2	502+50.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
3	508+18.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
4	522+10.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
5	MP 249.886	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
6	MP 250.071	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
7	594+78.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
8	607+00.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
9	610+73.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
10	610+72.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
11	622+75.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
12	629+20.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
13	634+80.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
14	683+30.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
15	685+88.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
16	691+36.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
17	696+98.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
18	784+87.30	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
19	792+95.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
20	793+90.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
21	816+50.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
22	824+10.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
23	834+65.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
24	862+00.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
25	872+88.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
26	898+50.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
27	902+65.00	RT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
28	906+53.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
29	907+15.00	LT	1		10.0	50.0	2.85		1425.0	See 3R-CULV
		Total	29							
		Bid	73	250% Tab						
		Removal	29	100% Tab						

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks		
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth IN	Type	Depth IN	Type	Depth IN	Type	Depth IN	Type	Depth IN	Source	Type		Durability Class	Type
	Lee	IA 2	WB-EB	248.77	254.18	1979		F-2-9(11)--20-56	PCC	8							FARMINGTON-COM	C. LST.	1				
				254.18	257.57	1979		FN-2-9(17)--20-56	PCC	8							FARMINGTON-COM	C. LST.	1				
				257.57	257.95	2011		NHSX-061-1(117)--3H-56	PCC	10													

CLEARING AND GRUBBING

Location		Work and Material Type	Trees, Stumps, and Logs and Down Timber Material Diameters												All Other Materials		Estimated Quantities			Remarks	
Station to Station or Ref. Loc. Sign to Ref. Loc. Sign or Description	Direction of Travel		3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>42"-48"	>48"-60"	>60"-72"	>72"	Length	Width	Units	Area		Herbicide Application
			FT	FT	Units	Acres	Each														
MP 251.145 RT		Trees - Clearing and Grubbing						1										22			1
MP 251.206 RT		Logs and Down Timber - Clearing	1		2			1										13			2
MP 251.240 RT		Logs and Down Timber - Clearing	2															1			2
MP 251.590 RT		Trees - Clearing and Grubbing													40.0	40.0		0.0			3
MP 252.949 RT		Logs and Down Timber - Clearing						1										8			2
MP 252.992 RT		Logs and Down Timber - Clearing	2	3														4			2
MP 252.997 RT		Logs and Down Timber - Clearing		1														1			2
MP 253.014 LT		Logs and Down Timber - Clearing		1														1			2
MP 253.016 LT		Logs and Down Timber - Clearing			1													2			2
MP 253.018 LT		Logs and Down Timber - Clearing	2															1			2
MP 253.023 LT		Logs and Down Timber - Clearing				1												3			2
MP 253.029 LT		Logs and Down Timber - Clearing	1															1			2
MP 253.033 RT		Logs and Down Timber - Clearing				1												3			2
MP 253.060 LT		Logs and Down Timber - Clearing		1														1			2
MP 253.500 LT		Logs and Down Timber - Clearing	6															3			2
MP 253.523 LT		Logs and Down Timber - Clearing	1	1														2			2
MP 253.610 LT		Logs and Down Timber - Clearing						1										8			2
MP 254.177 - MP 254.186 LT		Logs and Down Timber - Clearing													50.0	20.0		0.0			4
MP 254.184 - MP 254.189 RT		Logs and Down Timber - Clearing													25.0	20.0		0.0			4
MP 254.209 - MP 254.240 LT		Logs and Down Timber - Clearing													166.0	20.0		0.1			4
MP 254.217 - MP 254.229 RT		Logs and Down Timber - Clearing													68.0	20.0		0.0			4
MP 256.055 RT		Logs and Down Timber - Clearing						1										5			2
MP 256.321 RT		Logs and Down Timber - Clearing							1									8			2
MP 256.416 RT		Logs and Down Timber - Clearing						1										5			2
MP 256.521 RT		Logs and Down Timber - Clearing				1												3			2
MP 256.523 RT		Logs and Down Timber - Clearing			1													2			2
MP 256.930 LT		Logs and Down Timber - Clearing	3															2			5
MP 256.952 RT		Logs and Down Timber - Clearing	2															1			5
MP 256.961 RT		Logs and Down Timber - Clearing	2															1			5
MP 256.968 LT		Logs and Down Timber - Clearing	3															2			5
MP 257.125 - MP 257.140 LT		Logs and Down Timber - Clearing	19		2													13			2
Totals																		115	0.2		
1 - Cedar Tree at inlet																					
2 - Dead Trees																					
3 - Around driveway culvert																					
4 - Sugar Creek Bridge																					
5 - Devil's Creek Bridge																					

108-28
08-01-08

TEMPORARY TRAFFIC SIGNALS

No.	Location Station	Type			Remarks
		One Lane Traffic	Haul Road	Intersection	
1	482+00.00	X			
2	535+00.00	X			
3	561+00.00	X			
4	628+50.00	X			
5	718+00.00	X			
6	798+50.00	X			
7	877+80.00	X			
8	928+00.00	X			

FULL-DEPTH PATCHES

Possible Standards: PR-101, PR-102, PR-103, PR-104, PR-105 and PR-140.

Count	Location			Dimension			PCC Patches				HMA Patches SY	Composite HMA TON	Subbase Patches PR-140 SY	Subbase Patch w/ 'EF' Joint PR-101 SY	Patch Subdrain PR-101 or PR-140 No.	'CD' Joints No.	'CT' Joints No.	'EF' Joints PR-101 No.	Anchor Lugs Removal No.	Remarks
	Station	Reference Location Sign	Lane L, R, or B	Length FT	Width FT	Patch Thickness IN	With Dowels	Without Dowels	C R C	Ramp with Dowels										
							PR-103 SY	PR-102 SY	PR-104 SY	PR-105 SY										
Repair																				
1	482+50		RT	13.0	4.0	8.0	5.8													
2	499+52		RT	40.0	12.0	8.0	53.3													
3	502+40		RT	91.0	12.0	8.0	121.3													
4	503+30		LT	80.0	12.0	8.0	106.7													
5	531+48		LT	20.0	12.0	8.0	26.7													
6	531+95		LT	74.0	12.0	8.0	98.7													
7	533+38		RT	17.0	4.0	8.0	7.6													
8	533+80		RT	40.0	4.0	8.0	17.8													
9	534+80		RT	40.0	6.0	8.0	26.7													
9	548+00		RT	40.0	5.0	8.0	22.2													
10	553+30		LT	40.0	12.0	8.0	53.3													
11	561+65		LT	8.0	12.0	8.0	10.7													
12	561+65		RT	6.0	12.0	8.0	8.0													
13	583+51		LT	4.0	4.0	8.0	1.8													
14	621+35		LT	18.0	4.0	8.0	8.0													
15	621+48		LT	6.0	12.0	8.0	8.0													
16	621+48		RT	40.0	5.0	8.0	22.2													
17	622+75.00	Entrance	L	12.0	15.0	6.0					340.0									See Tab 3R-CULV
18	622+90		RT	40.0	6.0	8.0	26.7													
19	624+40		RT	32.0	5.0	8.0	17.8													
20	628+40		LT	6.0	12.0	8.0	8.0													
21	656+11		LT	18.0	12.0	8.0	24.0													
22	656+11		RT	18.0	12.0	8.0	24.0													
23	661+24		LT	8.0	4.0	8.0	3.6													
24	663+37		LT	20.0	6.0	8.0	13.3													
25	663+52		LT	6.0	12.0	8.0	8.0													
26	663+70		LT	4.0	5.0	8.0	2.2													
27	666+05		RT	14.0	4.0	8.0	6.2													
28	666+33		RT	6.0	12.0	8.0	8.0													
29	666+80		RT	122.0	6.0	8.0	81.3													
30	669+20		RT	30.0	5.0	8.0	16.7													
31	670+40		RT	20.0	6.0	8.0	13.3													
32	670+74		RT	20.0	12.0	8.0	26.7													
33	671+56		RT	8.0	4.0	8.0	3.6													
34	678+00		LT	23.0	12.0	8.0	30.7													
35	680+00		LT	38.0	12.0	8.0	50.7													
36	680+00		RT	38.0	12.0	8.0	50.7													
37	696+98.00	IA 2	B	12.0	10.0	8.0	493.3					493.3								See Tab 3R-CULV Note 3, and TC-218
38	718+00		LT	6.0	12.0	8.0	8.0													
39	718+00		RT	6.0	12.0	8.0	8.0													
40	724+52		RT	4.0	4.0	8.0	1.8													
41	726+85		RT	24.0	12.0	8.0	32.0													
42	726+93		RT	6.0	12.0	8.0	8.0													
43	727+00		RT	6.0	12.0	8.0	8.0													
44	727+20		RT	6.0	12.0	8.0	8.0													
45	730+30		LT	12.0	4.0	8.0	5.3													
46	733+36		LT	40.0	12.0	8.0	53.3													
47	736+60		LT	40.0	7.0	8.0	31.1													
48	745+70		RT	40.0	6.0	8.0	26.7													
50	756+03		RT	40.0	5.0	8.0	22.2													
51	766+77		LT	12.0	6.0	8.0	8.0													
52	775+36		LT	6.0	12.0	8.0	8.0													
53	775+97		RT	6.0	12.0	8.0	8.0													
54	796+50		LT	40.0	12.0	8.0	53.3													
55	839+54		RT	8.0	12.0	8.0	10.7													
56	839+68		LT	6.0	12.0	8.0	8.0													
57	862+40		LT	40.0	5.0	8.0	22.2													
58	868+90		LT	20.0	6.0	8.0	13.3													
59	870+60		LT	6.0	12.0	8.0	8.0													
60	874+20		LT	40.0	12.0	8.0	53.3													
61	879+66		LTO	6.0	2.0	8.0	1.3													Climbing lane
62	888+77		LTO	4.0	4.0	8.0	1.8													Climbing lane
63	890+20		LTO	4.0	4.0	8.0	1.8													Climbing lane
64	892+40		LTO	9.0	12.0	8.0	12.0													Climbing lane
65	898+40		LT	21.0	12.0	8.0	28.0													
66	898+40		RT	21.0	2.0	8.0	4.7													
67	899+80		RT	40.0	12.0	8.0	53.3													
68	903+85		RT	29.0	4.0	8.0	12.9													
69	904+60		LTO	8.0	6.0	8.0	5.3													Climbing lane
70	905+20		LT	9.0	6.0	8.0	6.0													
71	911+10		LT	12.0	12.0	10.0	16.0													
72	911+10		RT	12.0	12.0	10.0	16.0													
73	911+23		RT	6.0	12.0	10.0	8.0													
74	920+26		LT	10.0	12.0	10.0	13.3													
75	920+45		RT	6.0	12.0	10.0	8.0													
76	920+95		RT	6.0	12.0	10.0	8.0													
77	921+19		RT	6.0	12.0	10.0	8.0													
78	921+58		LT	6.0	12.0	10.0	8.0													

FULL-DEPTH PATCHES

Possible Standards: PR-101, PR-102, PR-103, PR-104, PR-105 and PR-140.

Count	Location			Dimension			PCC Patches				HMA Patches	Composite HMA	Subbase Patches	Subbase Patch w/ 'EF' Joint	Patch Subdrain	'CD' Joints	'CT' Joints	'EF' Joints	Anchor Lugs Removal	Remarks
	Station	Reference Location Sign	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C	Ramp with Dowels										
							PR-103	PR-102	PR-104	PR-105										
			L, R, or B	FT	FT	IN	SY	SY	SY	SY	SY	TON	SY	SY	No.	No.	No.	No.	No.	
79	922+00		RT	10.0	4.0	10.0	4.4													
80	922+60		RT	6.0	12.0	10.0	8.0													
81	922+75		RT	6.0	12.0	10.0	8.0													
82	927+05		LT	6.0	12.0	10.0	8.0													
83	927+05		RT	6.0	12.0	10.0	8.0													
					Total		2161.6													
Finish																				
1	771+65		LT	8.0	12.0	12.0	10.7													
					Total		10.7													
																				In Br. App.

DRAINAGE STRUCTURE REPAIR WORK

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.

- * Not a bid item
- ① Diameter or equivalent diameter
- ② UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
- ③ Backfill according to DR-101

No.	Location	Size	Kind Of Pipe	Length New Const.		New Apron	Type 'C' Connections* (DR-122)		Connected Pipe Joint* (DR-121)	Flow Line Elevations Note 6		Remove and Reinstall Pipe Culvert Note 5				Remove and Reinstall Apron Note 5				Class 20 Excavation (Culvert Cleaning) Note 1	Class 20 Excavation		Granular Surfacing Note 4		Reshaping Ditch Std Rd. Plan EW-105		Flowable Backfill Note 3	Flowable Mortar Note 3	Tile Repair	Remarks		
				Lin. Ft.	Each		Type	No.		Type	Lt.	Rt.	Left Side		Right Side		Left Side		Right Side		CY	CY		TON		STA						
													≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	≤ 36"			>36"	Lt.	Rt.	Lt.	Rt.					Lt.	Rt.
1	499+65.00	18	CMP	48	2							48.0																			Entrance, ditch to east and west, remove pipe, place new pipe	
2	501+75.00	18	CMP																												Entrance RT, reshape ditch, See Note 2	
3	502+50.00	18	CMP	56	2							56.0						9.0		3.0										Entrance, ditch to east and west, remove pipe, place new pipe		
4	MP 249.1 Tile																													20.0 Tile repair		
5	504+80.00	18	CMP																												Entrance RT, clean pipe, see Note 1	
6	505+95.00	18	CMP																												Entrance RT, clean pipe, see Note 1	
7	508+18.00	18	CMP	64	2							64.0						17.0		3.0										Entrance, reshape ditch to east and west, remove pipe, place new pipe		
8	MP 249.245	24	CMP																												Entrance RT, clean pipe, see Note 1	
9	513+95.00	24	RCP											1																	Cross Road, Rt reset inlet, clean pipe, see Note 1	
10	516+26.70	24	CMP																												Entrance LT, clean pipe, see Note 1, place stone at inlet, see 100-23	
11	520+54.00	24	CMP																												Entrance LT, shape ditch, place stone, see 100-23	
12	522+10.00	30	CMP	40	2							40.0																			Dike, remove pipe, place new pipe	
13	523+00.00	24	CMP																												Entrance RT, dike, see 100-23	
14	524+70.00	18	CMP																												Entrance RT, see 100-23, clean pipe, see Note 1	
15	539+23.00	18	CMP																												Entrance RT, inlet erosion, see 100-23, clean outlet, see Note 1	
16	539+90.00	18	CMP																												Entrance LT, see 100-23	
17	542+08.00	24	CMP																												Type F dike RT, erosion at inlet, see 100-23	
18	543+00.00	24	CMP			1																									Type F dike RT, remove, place new apron East end, see 100-23	
19	MP 249.886	24	CMP	75	2																										Entrance RT, remove and place new pipe	
20	MP 250.071	18	CMP	60																											Grass Entrance RT, remove and place new pipe	
21	555+70.00	18	CMP																												Entrance RT, clean inlet and outlet, see Note 1	
22	560+70.00		CMP																												Entrance LT, reshape ditch	
23	561+83.00	24	RCP																												Cross Road, erosion LT, separation RT, see 100-23	
24	564+90.00	18	CMP																												Entrance LT, reshape ditch	

DRAINAGE STRUCTURE REPAIR WORK

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.

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- ① Diameter or equivalent diameter
- ② UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
- ③ Backfill according to DR-101

No.	Location	Size ① IN	Kind Of Pipe ②	Length New Const.		New Apron		Type 'C' Connections* (DR-122)		Connected Pipe Joint* (DR-121) Type	Flow Line Elevations Note 6		Remove and Reinstall Pipe Culvert Note 5		Remove and Reinstall Apron Note 5		Class 20 Excavation (Culvert Cleaning) Note 1		Class 20 Excavation		Granular Surfacing Note 4		Reshaping Ditch Std Rd. Plan EW-105		Flowable Backfill Note 3 C.Y.	Flowable Mortar Note 3 C.Y.	Tile Repair LF	Remarks								
				Lin. Ft. Lt.	Rt.	Each Lt.	Rt.	Type	No.		Lt.	Rt.	Left Side		Right Side		Left Side		Right Side		CY		CY						TON		STA					
													≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"					Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.
25	567+29.00	24	RCP																											0.3	Cross Road, reshape ditch					
26	573+55.00	18	CMP																											1.0	Entrance RT, reshape ditch					
27	574+50.00	15	CMP																											1.8	Entrance LT, reshape ditch					
28	581+40.00	24	RCP																											0.3	Cross Road, LT reshape ditch, see 100-23					
29	594+78.00	18	CMP	94		2							94.0							73.0		5.0							2.5	Entrance LT, remove and replace pipe with plastic, reshape ditch to east						
30	602+25.00	24	CMP																											1.0	Entrance RT, reshape ditch					
31	607+00.00	24	CMP	120		1							120.0							116.0										1.0	LT 100', remove and place new					
32	610+73.00	24	CMP	62		2							62.0							92.0		3.0							0.3	Entrance LT, remove and place new						
33	610+72.00	24	RCP				1									1				2.0																
34	610+72.00	24	CMP	62		2							62.0							92.0		3.0														
35	621+60.00	24	CMP												1					5.0										1.5	Cross Road, ditch reshape RT to south, inlet LT apron reset					
36	622+75.00	18	CMP	75									75.0							68.0																
37	627+60.00	18	CMP																												2.5	Entrance LT, reshape ditch 50' to west & 200' to east				
38	629+20.00	24	CMP												1																					
39	634+00.00	48	RCP											12.0			1			32.0																
40	634+80.00	24	RCP	124		2								124.0							266.0		3.0													
41	635+40.00	24	RCP																													1.0	Entrance LT, reshape inlet and outlet			
42	644+20.00	18	CMP																													1.0	Entrance LT, reshape inlet and outlet			
43	647+10.00	18	CMP																													1.0	Entrance LT, reshape inlet and outlet			
44	648+00.00	18	CMP																													1.0	Entrance RT, reshape to west			
45	651+00.00	18	CMP																													1.0	Entrance RT, reshape inlet and outlet			
46	656+00.00	24	RCP										12.0			1				9.0												1.0	Cross Road, LT 2 separations remove and replace			
47	665+64.00	24	RCP											6.0		1	1				5.0															
48	676+28.00	24	CMP																		3.0											0.3	1 Section separated			
49	680+00.00	36	RCP													1				5.0																
50	683+30.00	24	RCP																																	
51	683+30.00	24	CMP	62		2							62.0							18.0																
52	685+88.00	18	CMP	45		2							45.0							12.0		3.0														
53	689+68.00	18	CMP																																	
54	691+36.00	24	CMP	76		2							76.0							23.0		3.0											0.5	Entrance LT, 2 20 degree elbows, remove and place new, see 100-23		
55	692+85.00																																			
56	696+98.00	24	CMP	25	25	1	1			Type 3			25.0	25.0						7.5	7.5					30.0	7.4									
57	697+00.00	24	RCP																9.3																	
58	697+25.00	18	CMP																																	
59	705+00.00	30	RCP																																	
60	707+00.00	24	CMP																																	
61	715+00.00	18	CMP																																	
62	718+46.00																																			
63	722+02.00																																			
64	724+28.90	18	CMP																																	
65	737+75.00	18	CMP																																	
66	751+02.00																																			
67	762+41.00	36	RCP																																	
68	781+00.00	18	CMP																																	
69	782+80.00	24	RCP																																	
70	784+87.30	24	CMP			34	2																													
71	792+95.00	24	CMP	60		2							60.0																							
72	793+90.00	18	CMP			56	2																													
73	796+79.30	18	CMP																																	

DRAINAGE STRUCTURE REPAIR WORK

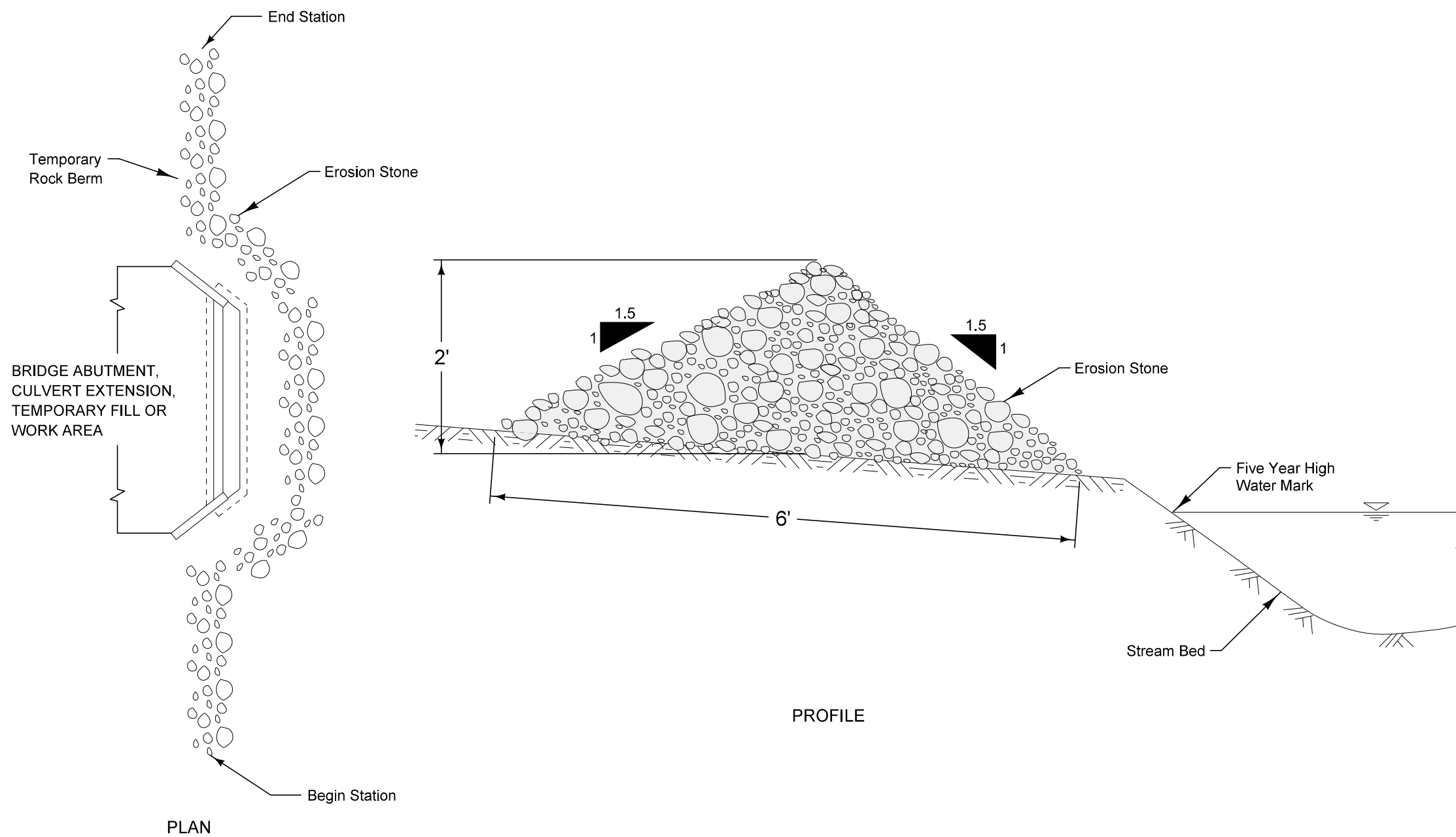
Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.

- * Not a bid item
- ① Diameter or equivalent diameter
- ② UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
- ③ Backfill according to DR-101

No.	Location	Size ① IN	Kind Of Pipe ②	Length New Const.		New Apron		Type 'C' Connections* (DR-122)		Connected Pipe Joint* (DR-121) Type	Flow Line Elevations Note 6		Remove and Reinstall Pipe Culvert Note 5				Remove and Reinstall Apron Note 5				Class 20 Excavation (Culvert Cleaning) Note 1		Class 20 Excavation		Granular Surfacing Note 4		Reshaping Ditch Std Rd. Plan EW-105		Flowable Backfill Note 3		Flowable Mortar Note 3		Tile Repair LF	Remarks	
				Lin. Ft.		Each		Type	No.		Lt.	Rt.	Left Side		Right Side		Left Side		Right Side		CY		CY		TON		STA		C.Y.	C.Y.					
				Lt.	Rt.	Lt.	Rt.				≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	≤ 36"	>36"	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.							
74	804+11.00	18	CMP																															Entrance RT, reshape ditch	
75	804+27.00	18	CMP																														Entrance RT, reshape ditch		
76	806+46.00	24	RCP																															Cross Road, RT reset apron, LT reshape ditch	
77	810+28.00	18	CMP																															Entrance LT, reshape ditch both ends	
78	816+50.00	18	CMP	136								136.0													176.0								Entrance RT, remove and place new		
79	821+28.00	36	RCP																															Cross Road, LT reset inlet, see 100-23	
80	823+80.00	18	CMP																															Entrance LT, reshape ditch to west	
81	824+10.00	18	CMP	150																														Entrance RT, remove and replace	
82	829+50.00	18	CMP																															Entrance RT, see Note 2 for inlet, reshape ditch	
83	834+65.00	24	CMP	20																														Entrance RT, remove and place new, see 100-23	
84	835+30.00	48	RCP																															Cross Road, see 100-23	
85	835+30.00	24	CMP																							7.0								Entrance RT, reshape ditch, see Note 1	
86	838+17.80	24	CMP																															Entrance RT, reshape ditch, see Note 1	
87	840+63.00	18	CMP																															Entrance RT, reshape ditch both ends	
88	848+00.00	18	CMP																															Entrance LT, reshape ditch both ends	
89	862+00.00	24	CMP	120																														Entrance RT, remove and place new	
90	871+23.00	24	CMP																															Entrance LT, reset inlet reshape ditch	
91	872+88.00	24	CMP	134																														Entrance RT, remove and place new	
92	881+45.00		RCB																															Cross Road 3' X 3' RCB, erosion, see 100-23	
93	888+00.00	18	CMP																															Entrance LT, reshape ditch, see Note 1	
94	888+00.00	18	CMP																															Entrance RT, reshape ditch both ends	
95	898+50.00	24	CMP	29																														Entrance LT, remove and place new	
96	902+50.00	30	RCP																															Cross Road, LT reset inlet, see 100-23	
97	902+65.00	30	CMP	176																														RT Type F dyke, remove and place new, see tree removal	
98	906+53.00	24	CMP	40																														Entrance LT, remove and place new	
99	907+15.00	24	CMP	49																														Entrance LT, remove and place new, letdown	
100	908+40.00																																	Cross Road 5' X 5' RCB, LT outlet, see 100-23	
101	942+80.00	36	CMP																															Cross Road, LT reshape ditch, see 100-23	
Totals				2117	48							2177.0	12.0			18	1	78.3	2828.0	65.0	72.2	30.0	7.4	20.0											
Unclassified				18	690	12																													
Unclassified				24	1067	30																													
Unclassified				30	216	2																													
RCP				24	50	2																													
HDPE (Plastic)					94	2																													
Tile Repair					20																														
Remove & Reinstall Apron ≤ 36"					14																														
Remove & Reinstall Apron > 36"					1																														
Remove & Reinstall Pipe Culvert ≤ 36"					60																														
Remove & Reinstall Pipe Culvert > 36"					12																														

- Note 1: Class 20 Excavation for cleaning is approximated to equal to the volume of the culvert. The interior of the culvert is to be flushed clean with water. Flushing of the culvert will be considered incidental to Class 20 Exc., See Tab 100-26.
- Note 2: Iowa DOT Maintenance to bevel, cut off, the existing bent pipe end.
- Note 3: Iowa 2 to be closed to one lane. Pipe to be installed 1/2 at a time. Other bid items and tabs apply for Rd. Std. TC-218 bid items, flowable mortar backfill for pipe backfill, Std. DR-101, subbase patch, PCC patch Tab 102-6C.
- Note 4: Pipe trenching through Entrances are to replace granular surfacing.
- Note 5: Remove and Replace. Bid Item is to remove the existing pipe or apron and is to replace with new pipe or apron, if pipe is also itemized as Length New Construction or New Apron. Otherwise, reset the existing pipe or apron to grade by using the existing pipe and/or apron.
- Note 6: For pipe flowlines, see Record Drawings FN-2-9(11)--21-56 & FN-2-9(17)--21-56.

Place Erosion Stone as near to the five year high water mark as possible while not allowing it to enter the stream bed.
Remove Erosion Stone after project completion.



Possible Contract Item:
Erosion Stone

Possible Tabulation:
100-23

	REVISION	
	NEW	10-17-17
ROAD DESIGN DETAIL		570-8
REVISIONS: NEW		SHEET 1 of 1
TEMPORARY ROCK BERM FOR SEDIMENT CONTROL		

110-7B
10-19-10

REMOVAL OF CABLE GUARDRAIL

* Not a bid item
① Lane(s) to which the installation is adjacent

No.	Direction of Traffic	Location			Type (High/Low Tension)	Cable	Post * Footings, Concrete	End Terminal*	Remarks
		Station to Station	Side	Remove		Remove	Remove		
				LF		Yes/No	No.		
WB		540+32.00	547+12.00	LT	Low Tension	680.0	Yes	2	
EB		703+40.00	708+20.00	RT	Low Tension	480.0	Yes	2	
WB		849+75.00	859+25.00	LT	Low Tension	950.0	Yes	2	
WB		870+30.00	880+90.00	LT	Low Tension	1060.0	Yes	2	
Total						3170.0		8	

108-9A
04-20-10

HIGH TENSION CABLE GUARDRAIL

① Lane(s) to which the installation is adjacent.
Refer to BA-351.

No.	Direction of Traffic	Location			Dimensions				Bid Items		Remarks
		Station	Side	Offset D ₀	Approach C _A	Obstacle C _O	Trailing C _T	Protection Length (C _A +C _O +C _T)	End Anchor		
								FT	FT	FT	
	WB	540+32.00	LT	UAC	0.0	680.0	0.0	680.0	2	Replace Existing	
	EB	703+40.00	RT	UAC	0.0	480.0	0.0	480.0	2	Replace Existing	
	WB	849+75.00	LT	UAC	0.0	950.0	0.0	950.0	2	Replace Existing	
	WB	870+30.00	LT	UAC	0.0	1060.0	0.0	1060.0	2	Replace Existing	
Total								3170.0	8		

107-23
10-18-11

GRADING FOR GUARDRAIL INSTALLATIONS

① Lane(s) to which the installation is adjacent.
Refer to EW-301

No.	Direction of Traffic	Location			Foreslope at Guardrail	Dimensions (Feet)								Earthwork		Remarks
		Station	Side	X1		Y1	X2	Y2	X3	Y3	X4	Y4	Z	Excavation Class 10	Embankment In Place	
														CY	CY	
1	WB	772+86.50	LT	6:1	40.6	13.9	--	--	--	--	95.5	15.9	80.0			
2	EB	772+86.50	Rt	6:1	53.1	13.9	106.9	18.8	--	--	157.2	25.9	95.0			
3	WB	775+77.50	Lt	6:1	53.1	13.9	106.9	18.8	--	--	157.2	25.9	95.0			
4	EB	775+77.50	Rt	6:1	40.6	13.9	--	--	--	--	95.5	15.9	80.0			

110-7A
04-17-12

REMOVAL OF STEEL BEAM GUARDRAIL

① Lane(s) to which the installation is adjacent.
② Includes length of End Terminals and End Anchors.

No.	Direction of Traffic	Location			Removal of Guardrail ② LF
		Station to Station	Side	Removal of Guardrail ② LF	
	WB	772+19.20	772+81.70	LT	62.5
	WB	775+82.10	776+44.60	LT	62.5
	EB	772+19.20	772+81.70	RT	62.5
	EB	775+82.10	776+44.60	RT	62.5
Total					250.0

108-8A
10-16-18

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

① Lane(s) to which the obstacle is adjacent.
② Not a bid item. Incidental to guardrail installation.

No.	Direction of Traffic	Side O = Outside M = Median	Location				Layout Lengths				Delineators and Object Markers ②				Bid Items								Remarks											
			Station	Offset	BA-250, BA-260, LS-630, or LS-635				Long-Span System	SI-211	Delineator SI-172	Object Marker SI-173			Bolted End Anchor	Post Adapter	Steel Beam Guardrail	Barrier Transition Section	BA-250 or LS-630					BA-260 or LS-635										
					VT1	VF	VT2	ET				Type 1	Type 2	Type 3					End Terminal					Barrier Transition Section	End Terminal									
																			Tangent	Flared	Tangent	Flared				BA-221	BA-225							
					FT	LF	LF	LF				LF	STATION	TYPE					TYPE	White	OM2-2	OM3-L		OM3-R	BA-202	BA-210	BA-200	BA-201	BA-205	BA-206	LS-625	LS-626	BA-221	BA-225
WB	O		772+81.70	10' Lt	53.125																													
WB	O		775+82.10	10' Lt	53.125	50.00																												
EB	O		772+81.70	10' Rt	53.125	50.00																												
EB	O		775+82.10	10' Rt	53.125																													
Total:																																		

SHOULDERS

- ① Lane(s) to which the shoulder is adjacent.
- ② Bid Item
- ③ Applies only for Paved Shoulders constructed on project with existing granular shoulders.
- ④ Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 147, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Road Identification	Direction Of Traffic	Location			P Width FT	G Width FT	L Length FT	Class 13 Excavation CY ②	Hot Mix Asphalt		Binder TONS	Paved Shoulder SY ②	Reinforced Paved Shoulder SY ②	Special Backfill				Modified Subbase CY ②	Granular Shoulder		Earth Shoulder Construction Alternates			Remarks			
		Station to Station	Side	HMA Alternate					PCC Alternate					TON ②	TON/STA	CY ②	TON ②		TON/STA	CY ②	TON ②	TON/STA	STA ②		HMA CY ④	PCC CY ④	
				TON ②					TON/STA	TON ②																	TON/STA
				TON ②					TON/STA	TON ②																	TON/STA
6" Shoulders																											
IA 2	EB	485+97.40	491+19.20	RT	4.0	6.0	521.8	38.7	76.705	14.700	4.602	231.9							18.3	3.500	5.2						
"	EB	492+59.20	500+66.20	RT	4.0	6.0	807.0	59.8	118.629	14.700	7.118	358.7							28.2	3.500	8.1						
"	EB	501+01.20	555+07.20	RT	4.0	6.0	5406.0	400.4	794.682	14.700	47.681	2402.7							189.2	3.500	54.1						
"	EB	555+55.20	610+16.40	RT	4.0	6.0	5461.2	404.5	802.796	14.700	48.168	2427.2							191.1	3.500	54.6						
"	EB	611+16.40	702+87.60	RT	4.0	6.0	9171.2	679.3	1348.166	14.700	80.890	4076.1							321.0	3.500	91.7						
"	EB	708+82.80	722+74.70	RT	4.0	6.0	1391.9	103.1	204.609	14.700	12.277	618.6							48.7	3.500	13.9						
"	EB	724+44.50	742+40.10	RT	4.0	6.0	1795.6	133.0	263.953	14.700	15.837	798.0							62.8	3.500	18.0						
"	EB	742+76.80	769+66.40	RT	4.0	6.0	2689.6	199.2	395.371	14.700	23.722	1195.4							94.1	3.500	26.9						
"	EB	778+97.40	913+27.60	RT	4.0	6.0	13430.2	994.8	1974.239	14.700	118.454	5969.0							470.1	3.500	134.3						
"	EB	922+77.60	937+54.60	RT	4.0	6.0	1477.0	109.4	217.119	14.700	13.027	656.4							51.7	3.500	14.8						
"	EB	938+99.30	940+57.00	RT	4.0	6.0	157.7	11.7	23.182	14.700	1.391	70.1							5.5	3.500	1.6						
"	EB	945+41.10	948+53.40	RT	4.0	6.0	312.3	23.1	45.908	14.700	2.754	138.8							10.9	3.500	3.1						
Total 6"								5978.8				35872.6								2871.5							
44' x 291' Bridge Sta. 774+31.9 - 9" Shoulders																											
IA 2	EB	769+66.40	772+66.40	RT	10.0	0.0	300.0	83.3	165.375	55.125	9.923	333.3							0.0	0.000	3.0						
"	EB	775+97.40	778+97.40	RT	10.0	0.0	300.0	83.3	165.375	55.125	9.923	333.3							0.0	0.000	3.0						
"	WB	769+66.40	772+66.40	LT	10.0	0.0	300.0	83.3	165.375	55.125	9.923	333.3							0.0	0.000	3.0						
"	WB	775+97.40	778+97.40	LT	10.0	0.0	300.0	83.3	165.375	55.125	9.923	333.3							0.0	0.000	3.0						
Total								333.2				1333.2								0.0							
High Tension Cable Guardrail - 9" Shoulders																											
IA 2	WB	849+13.20	859+83.60	LT	10.0	0.0	1070.4	297.3	590.058	55.125	35.403	1189.3							0.0	0.000	10.7						
"	WB	869+72.40	881+48.40	LT	10.0	0.0	1176.0	326.7	648.270	55.125	38.896	1306.7							0.0	0.000	11.8						
"	EB	702+87.60	708+82.80	RT	10.0	0.0	595.2	165.3	328.104	55.125	19.686	661.3							0.0	0.000	6.0						
"	WB	539+72.40	547+78.80	LT	10.0	0.0	806.4	224.0	444.528	55.125	26.672	896.0							0.0	0.000	8.1						
Total								1013.3				4053.3									0.0						

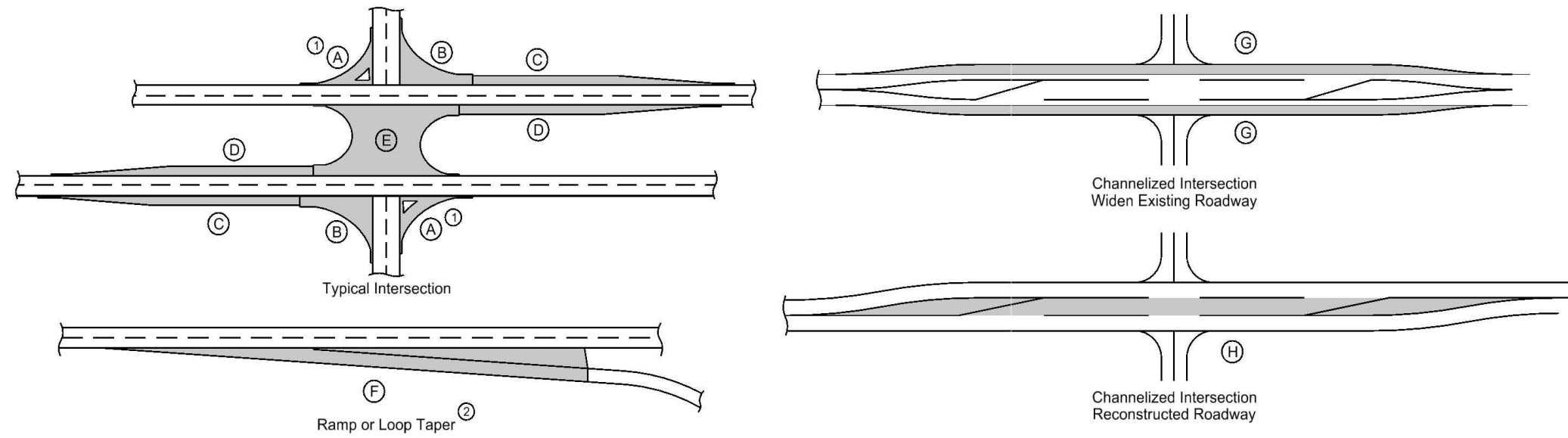
NOTCHES AND RUNOUTS FOR RESURFACING

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.

Location Station	Type of Notch or Runout	S	I	DI	L	M	Pavement Scarification ①	Remarks
		IN	IN	IN	FT	IN	SY	
887+74.80	Type 'N3'	1.5	1.0	0.0	125.0		305.6	
910+98.00	Type 'N3'	1.5	1.0	0.0	125.0		305.6	

HMA PAVEMENT



- 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.

Calculations assume a surface course unit weight (lbs/cf) of 147, an intermediate course unit weight (lbs/cf) of 147, a base course unit weight (lbs/cf) of 145.

Location		Mainline			Area ③								Bid Items										Remarks			
Road Identification	Direction of Travel	Station to Station		Width FT	Length FT	Area SY	A	B	C	D	E	F	G	H	Hot Mix Asphalt Pavement		Binder			Special Backfill TONS	Modified Subbase CY	Granular Subbase SY		Pavement Scarification SY		
		SY	SY				SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	TONS						TONS	
IA 2	Both	887+74.80	910+98.00	44.0	2323.2	11357.9									939	11357.9								611.2	(1)	
IA 2	Both	888+12.30	910+60.50	36.0	2248.2	8992.8																				
IA 2	Both	911+35.50	916+13.50	24.0	478.0	1274.7																				
IA 2	Both	910+98.00	913+27.60	32.0	229.6	816.4									68	816.4										
IA 2	Both	913+27.60	916+13.50	40.0	285.9	1270.7									105	1270.7										
					Total										1112	13445.0	566	10267.5							1885.9	

(1) See Tab 102- 16

MILLED RUMBLE STRIPS

See PV-12 and PV-13.

* Calculated at 18" width for Shoulder.

Road Identification	Location		Shoulder Pavement Type	Rumble Strip Type (Centerline, Rt or Lt Shoulder)	Length		Fog Seal* (Milled Rumble Strip) Shoulder GAL	Effective Shoulder Width			Remarks
	Station to Station				PCC	HMA		PCC Paved	HMA Paved	Granular/ Earth	
					STA	STA					
						Fog Seal					
IA 2	485+41.20	887+74.80	PCC	Centerline	402.3		0.0				
"	887+74.80	916+13.50	HMA	Centerline		28.4	0.0				
"	916+58.80	948+36.70	PCC	Centerline	31.8		0.0				
"	485+97.40	915+36.00	HMA	Left Shoulder		429.4	465.2				
"	915+36.00	923+04.60	PCC	Left Shoulder	7.7		0.0				
"	923+04.60	948+36.70	HMA	Left Shoulder		25.3	27.5				
"	485+97.40	915+36.00	HMA	Right Shoulder		429.4	465.2				
"	915+36.00	923+04.60	PCC	Right Shoulder	7.7		0.0				
"	923+04.60	948+53.40	HMA	Right Shoulder		25.5	27.7				
Totals					PCC	HMA	Fog Seal				
					HMA Shoulders	909.6	985.6				
					PCC Shoulders	15.4					
					PCC or HMA Shoulders	0.0	0.0				
					HMA Centerlines		28.4				
					PCC Centerlines	434.1					
					PCC or HMA Centerlines	0.0	0.0				

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Road Identification	Location		STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	RRCW	BLSW	WCSW	WPSB	SCLW	XNGW	STPW	AHDW	ONLW	BIKW	LANW	XITW	Groove Cuts EACH	Remarks
	Station	Side																								
IA 2	487+33.40	LT			2																					
	490+11.90	RT			2																					
	Total				4																					

PAVEMENT MARKING LINE TYPES

See PM-110

***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

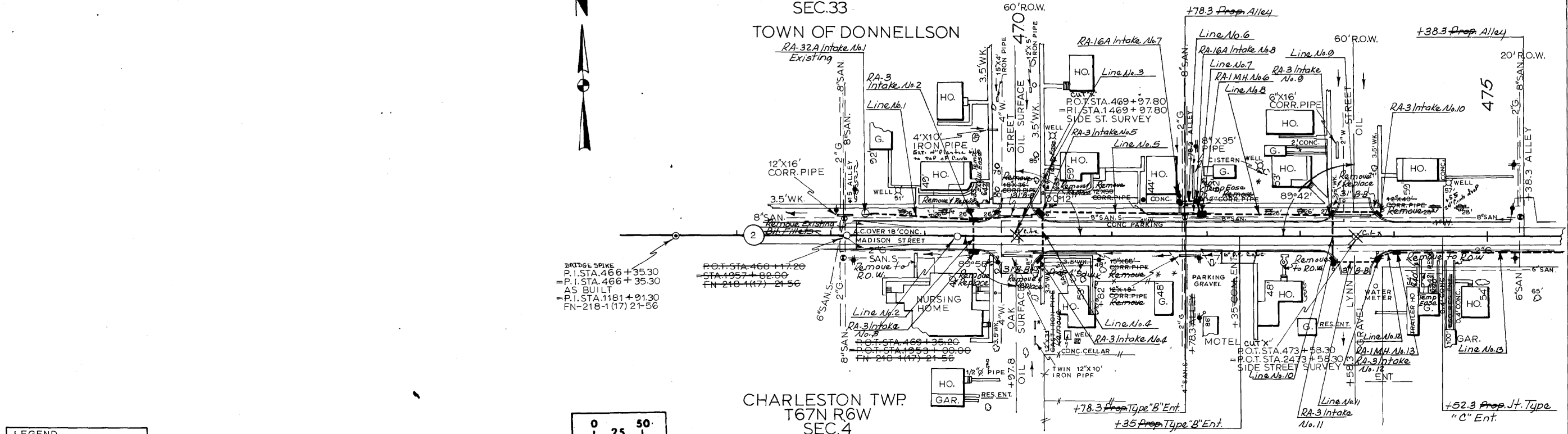
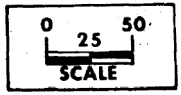
BCY4: Broken Centerline (Yellow) @ 0.25 DCY4: Double Centerline (Yellow) @ 2.00 NPY4: No Passing Zone Line (Yellow) @ 1.25 BLW4: Broken Lane Line (White) @ 0.25 ELW4: Edge Line Right (White) @ 1.00
 ELY4: Edge Line Left (Yellow) @ 1.00 SLW4: Solid Lane Line (White) @ 1.00 CHY8: Channelizing Line (Yellow) @ 2.00

Road ID	Station to Station		Dir. of Travel	Location	Marking Type	Side			Length by Line Type (Unfactored)												Remarks														
						L	C	R	BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4	SLW4	CHY8																			
									STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA		STA	STA												
IA 2	486+32.80	488+26.30	WB		Highbuild Waterborne Paint	x								1.94																					
"	486+64.70	490+76.50	BOTH		Highbuild Waterborne Paint		x								4.12																				
"	488+86.80	490+80.70	EB		Highbuild Waterborne Paint									1.94																					
"	492+18.70	495+93.70	WB		Highbuild Waterborne Paint	x								3.75																					
"	493+07.50	497+95.60	BOTH		Highbuild Waterborne Paint		x												4.88																
"	497+95.60	504+43.90	WB		Highbuild Waterborne Paint		x				6.48																								
"	504+43.90	595+99.80	BOTH		Highbuild Waterborne Paint		x		91.56																										
"	595+99.80	601+99.60	EB		Highbuild Waterborne Paint		x				6.00																								
"	601+99.60	605+57.70	BOTH		Highbuild Waterborne Paint		x		3.58																										
"	605+57.70	606+97.20	EB		Highbuild Waterborne Paint		x				1.40																								
"	606+97.20	724+88.80	BOTH		Highbuild Waterborne Paint		x		117.92																										
"	724+88.80	737+11.60	BOTH		Highbuild Waterborne Paint		x																												
"	737+90.80	754+78.30	WB		Highbuild Waterborne Paint	x							18.88																						
"	737+11.60	761+79.60	WB		Highbuild Waterborne Paint		x				24.68																								
"	761+79.60	778+35.50	BOTH		Highbuild Waterborne Paint		x		16.56																										
"	778+35.50	803+89.80	EB		Highbuild Waterborne Paint		x				25.54																								
"	784+46.20	795+47.00	EB		Highbuild Waterborne Paint			x					11.01																						
"	803+89.80	817+78.60	BOTH		Highbuild Waterborne Paint		x			13.89																									
"	817+78.60	820+13.40	WB		Highbuild Waterborne Paint		x				2.35																								
"	820+13.40	877+59.00	BOTH		Highbuild Waterborne Paint		x		57.46																										
"	877+59.00	879+42.10	WB		Highbuild Waterborne Paint		x				1.83																								
"	879+42.10	892+15.00	BOTH		Highbuild Waterborne Paint		x		12.73																										
"	888+48.30	908+38.70	WB		Highbuild Waterborne Paint			x					19.90																						
"	892+15.00	914+82.00	WB		Highbuild Waterborne Paint		x				22.67																								
"	914+82.00	916+15.50	BOTH		Highbuild Waterborne Paint		x		1.34																										
"	916+15.50	926+41.80	EB		Highbuild Waterborne Paint		x				10.26																								
"	926+41.80	931+40.10	BOTH		Highbuild Waterborne Paint		x		4.98																										
"	485+97.40	948+36.70	WB		Highbuild Waterborne Paint	x							462.39																						
"	485+97.40	948+53.40	EB		Highbuild Waterborne Paint			x					462.56																						
"	887+74.80	892+14.60	BOTH		Waterborne/Solvent Paint		x			4.40																						Markings for Interlayer paving			
"	888+48.30	908+38.70	WB		Waterborne/Solvent Paint			x					19.90																			Markings for Interlayer paving			
"	892+15.00	914+82.00	WB		Waterborne/Solvent Paint		x				22.67																					Markings for Interlayer paving			
"	914+82.00	916+13.50	BOTH		Waterborne/Solvent Paint		x		1.32																							Markings for Interlayer paving			
									Factored Total: Waterborne/Solvent Paint	0.33	8.80	28.34	4.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
									Factored Total: Highbuild Waterborne Paint	72.11	87.66	126.51	12.45	924.95	-	7.63	18.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
									Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based				42.44																						
									Bid Quantity: Painted Pavement Markings, Highbuild Waterborne				1249.31																						

14

FRANKLIN TWP
T68N R6W
SEC.33
TOWN OF DONNELSON

CHARLESTON TWP
T67N R6W
SEC.4



- LEGEND
- IA.TEL.CO.
 - UNION ELEC.CO.

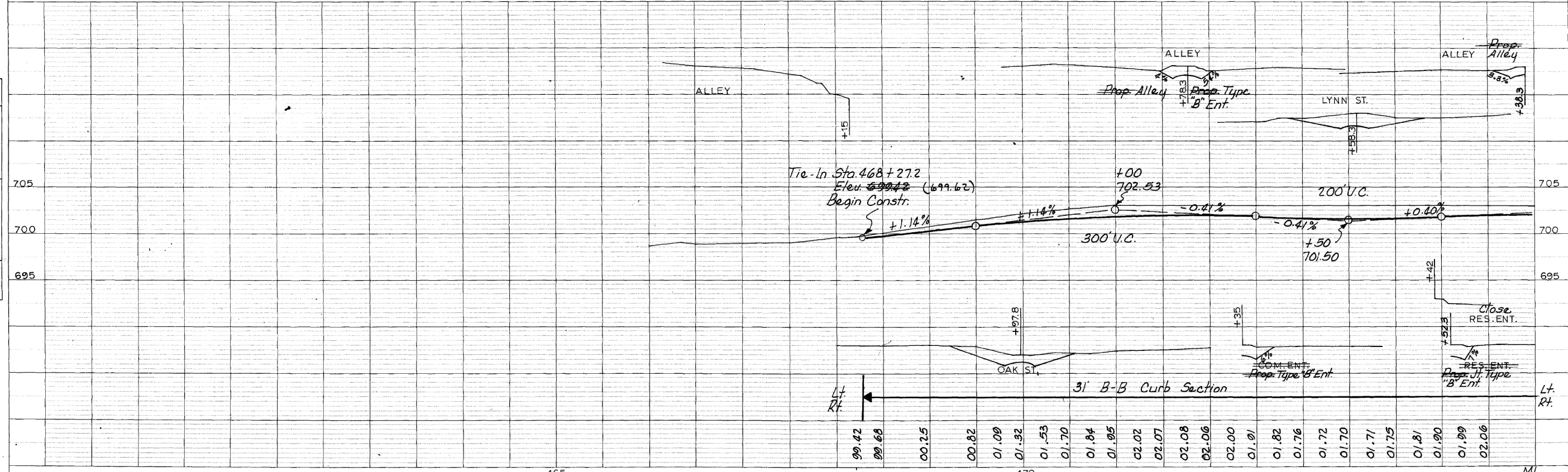
BRIDGE SPIKE
P.I. STA. 466+35.30
= P.I. STA. 466+35.30
AS BUILT
P.I. STA. 1181+91.30
FN-218-1(17) 21-56

P.O.T. STA. 466+17.20
= STA. 1957+00.00
FN 218-1(17) 21-56

P.O.T. STA. 469+35.00
P.O.T. STA. 469+35.00
FN 218-1(17) 21-56

P.O.T. STA. 473+53.30
= P.O.T. STA. 2473+58.30
SIDE STREET SURVEY
Line No. 10

FOR REFERENCE ONLY



PLAN

DATE	
BY	
SURVEYED	
PACKED	
ALIGNED	
CHECKED	
RT. OF WAY	
CHECKED	
NO. 1	

PROFILE

DATE	
BY	
SURVEYED	
PACKED	
ALIGNED	
CHECKED	
STRUCTURE	
NOTING	
CHECKED	
NO. 1	

FILE NO.	ENGLISH	DESIGN TEAM	HOLST \ BAHR \ CAMPBELL	LEE COUNTY	PROJECT NUMBER	NHSX-002-9(38)-3H-56/HSIPX-002-9(39)-3L-56	SHEET NUMBER	D.1
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This Sheet
For Information Only

FRANKLIN TWP
T68N R6W
SEC.33

CHARLESTON TWP
T67N R6W
SEC.4

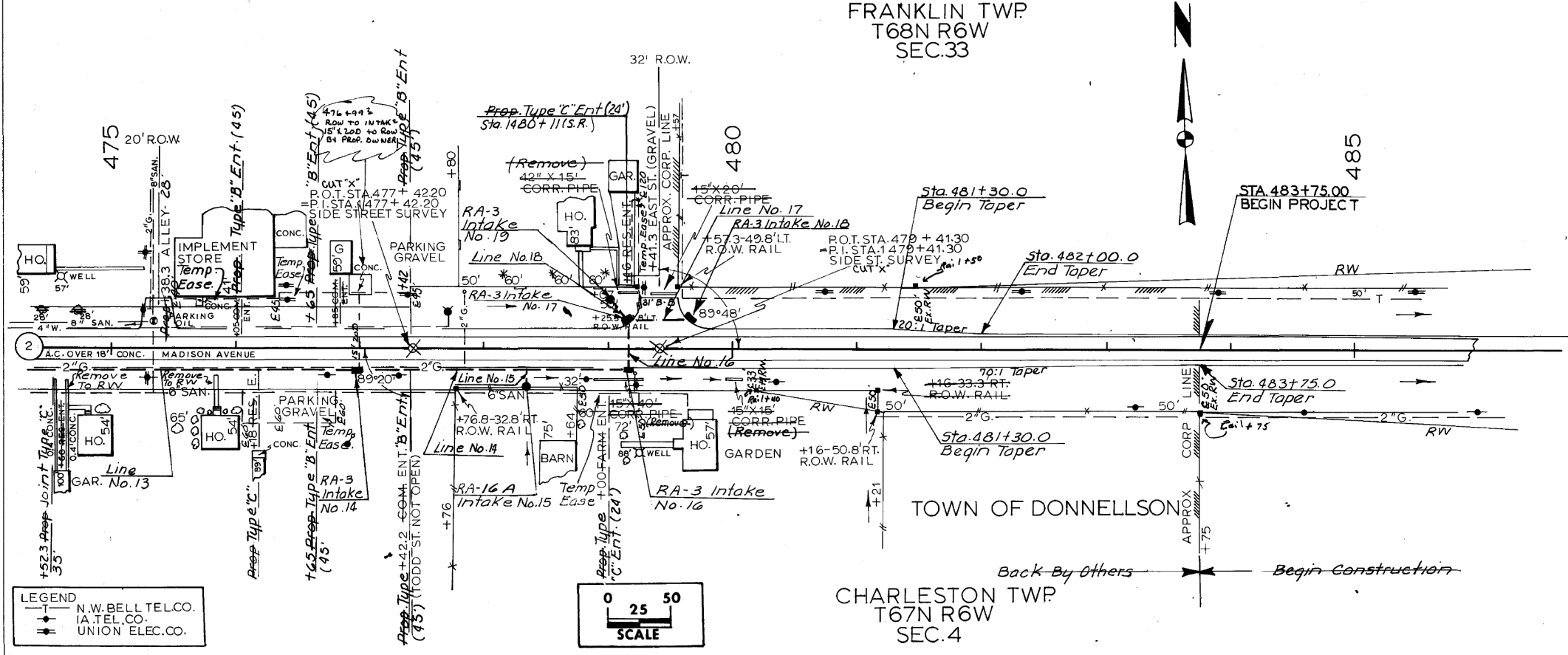
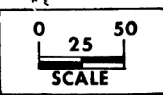
TOWN OF DONNELSON

Back By Others Begin Construction

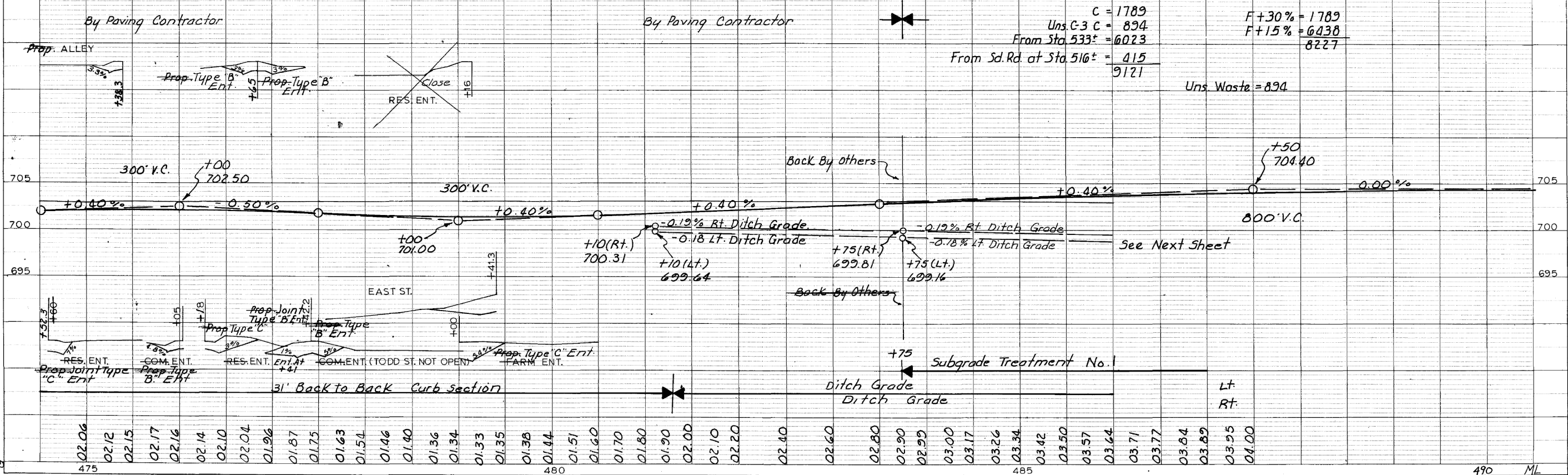
DATE	BY
DATE	BY
DATE	BY

LEGEND

—	N.W. BELL TEL. CO.
—	I.A. TEL. CO.
—	UNION ELEC. CO.



DATE	BY
DATE	BY
DATE	BY



C = 1789	F + 30% = 1789
Uns. C-3 C = 894	F + 15% = 6438
From Sta. 533± = 6023	8227
From Sd. Rd. at Sta. 516± = 415	
9121	
Uns. Waste = 894	

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5				F-2-9(A)--20-56	IOWA	5			

This Sheet For Information Only

PROPERTY OWNERS
 A-AUGUST L. BURGHOFFER
 B-RUTH HOLLEY
 C-WAYNE DAVIDSON
 D-CLARENCE SMITH
 E-GUTHRIE HIRSCHLER
 F-JOHN KIRCHNER
 G-LESTER A. MARTIN
 H-LLOYD SHRIVER
 I-MELVIN GRABER
 J-Bruce J. Armstrong

Parcel 8
 Acquired From Ruth Holley, et al.
 Contract Signed 2-6-77 Approved 5-6-77 Recorded 5-16-77 Book 67 Page 677
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 0.3 Total Settlement \$192.00
 Conveyance recorded in LCC County on 5-17-77 Book 67 Page 677

Parcel 11
 Acquired From Wayne L. Travis, Davidson
 Contract Signed 4-19-77 Approved 5-20-77 Recorded 5-22-77 Book 69 Page 629
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 0.2 Total Settlement \$793.00
 Conveyance recorded in LCC County on 5-30-77 Book 69 Page 629

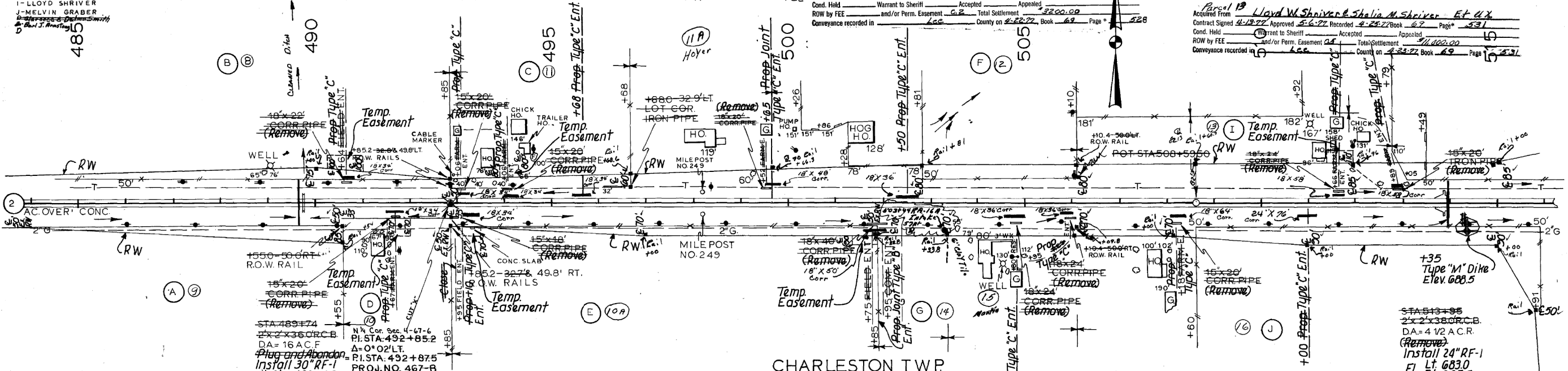
Parcel 12
 Acquired From Guthrie Hirschler & Violet Hirschler et al.
 Contract Signed 4-14-77 Approved 5-6-77 Recorded 5-6-77 Book 67 Page 650
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 1.4 Total Settlement \$600.00
 Conveyance recorded in LCC County on 6-2-77 Book 67 Page 650

Parcel 13
 Acquired From Lloyd W. Shriver & Shelia M. Shriver et al.
 Contract Signed 4-18-77 Approved 5-6-77 Recorded 4-25-77 Book 67 Page 531
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 2.1 Total Settlement \$1000.00
 Conveyance recorded in LCC County on 5-22-77 Book 67 Page 531

Parcel 15
 Acquired From Melvin L. Martin
 Contract Signed 9-23-76 Approved 10-2-76 Recorded 10-2-76 Book 69 Page 35
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 0.1 Total Settlement \$500.00
 Conveyance recorded in LCC County on 11-2-76 Book 69 Page 35

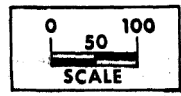
FRANKLIN TWP
 T68N R6W
 SEC. 33

CHARLESTON TWP
 T67N R6W
 SEC. 4



LEGEND
 • IOWA TEL. CO.
 • UNION ELEC. CO-OP
 • S.E. IOWA ELEC. CO-OP
 - N.W. BELL TEL. CO.

NOTE:
 Contractor is to insure that area right of Sta. 491± will drain westerly to culvert at Sta. 489+65. Special shaping may be necessary.

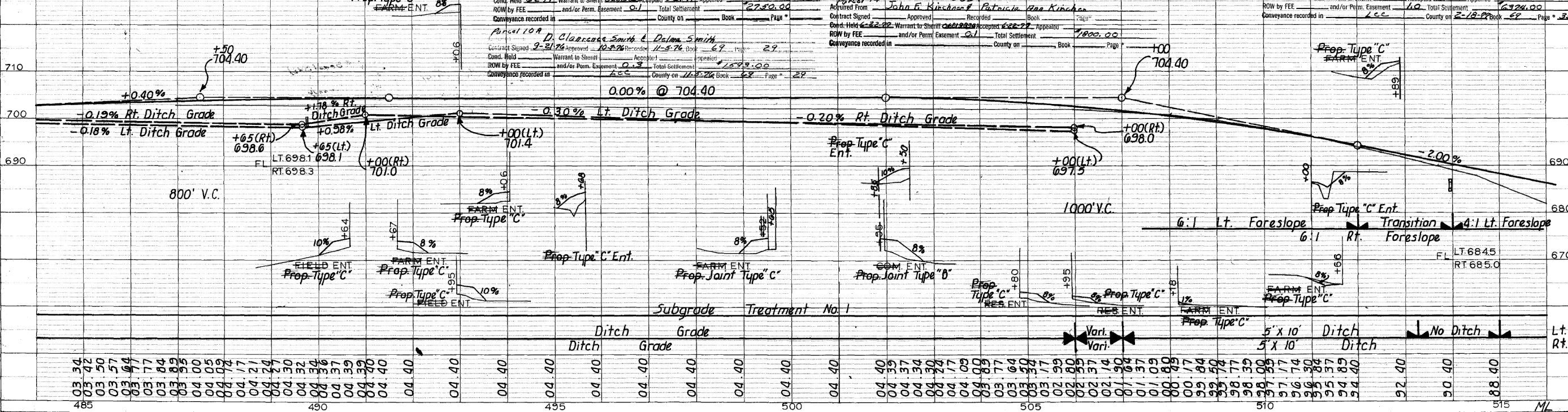


Parcel 9
 Acquired From August Burghoffer & Glorvyn R. Burghoffer - Marvin R. Denny - LeRoy Burghoffer
 Contract Signed 2-14-76 Approved 10-2-76 Recorded 10-2-76 Book 68 Page 336
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 0.29 Total Settlement \$100.00
 Conveyance recorded in LCC County on 2-18-76 Book 68 Page 336

Parcel 10
 Acquired From Bert Jay Martin, Rose Armstrong et al.
 Contract Signed 6-2-77 Approved 6-2-77 Recorded 6-2-77 Book 69 Page 352
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 0.1 Total Settlement \$250.00
 Conveyance recorded in LCC County on 6-2-77 Book 69 Page 352

Parcel 14
 Acquired From John F. Kirchner & Patricia Ann Kirchner
 Contract Signed 6-22-77 Approved 6-22-77 Recorded 6-22-77 Book 69 Page 799
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 0.1 Total Settlement \$1800.00
 Conveyance recorded in LCC County on 6-22-77 Book 69 Page 799

Parcel 16
 Acquired From Melvin L. Martin
 Contract Signed 10-18-76 Approved 11-5-76 Recorded 11-5-76 Book 69 Page 352
 Cond. Held Warrant to Sheriff Accepted
 ROW by FEE and/or Perm. Easement 1.0 Total Settlement \$674.00
 Conveyance recorded in LCC County on 2-18-77 Book 69 Page 352



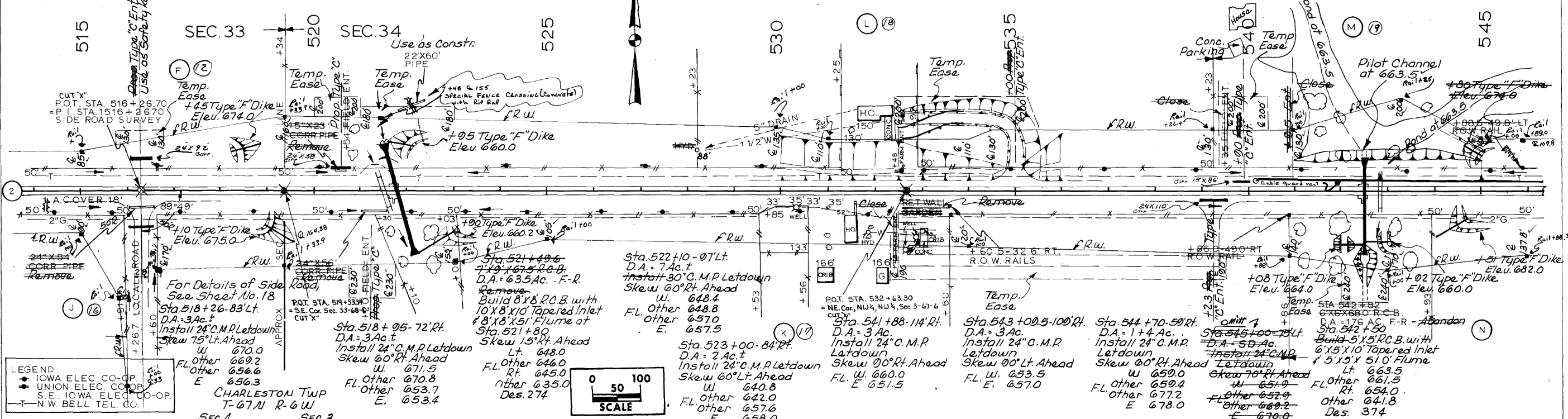
STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	5				F-2-9(8)-20-56	IOWA	5			

PROPERTY OWNERS
 F-GUTHRIE HIRSCHLER
 J-MELVIN GRABER
 K-ROBERT J. METTENBURG
 L-ERNEST J. CRUICKSHANK
 M-A DEWAYNE HENTZEL
 N-HARRY M. FREESMEIER

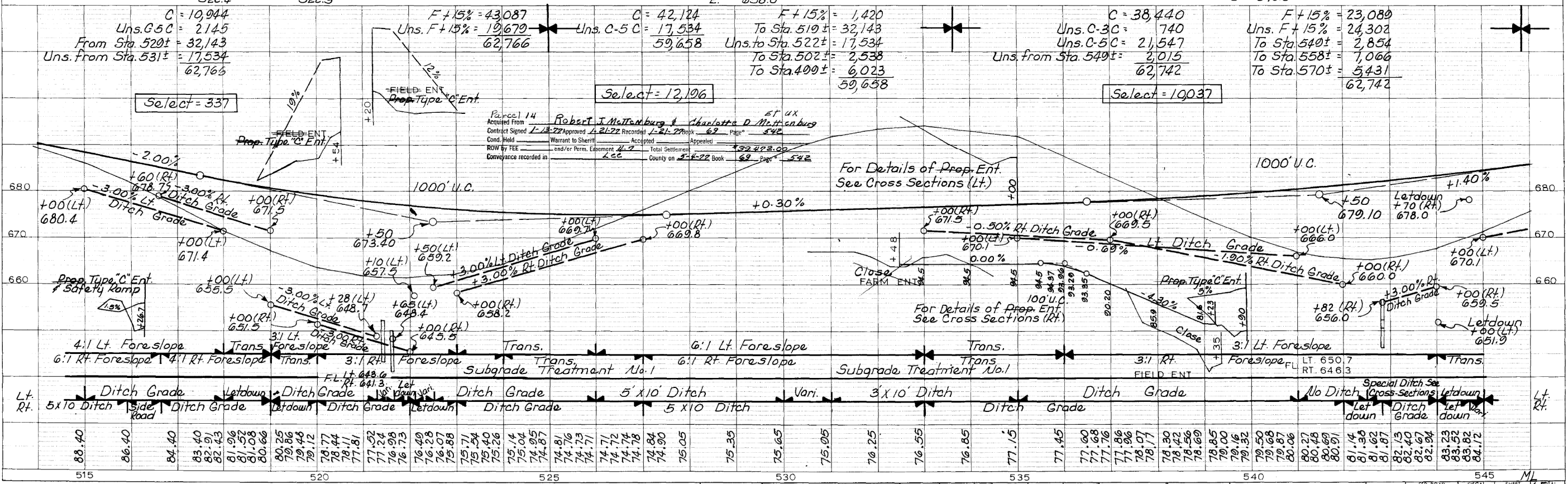
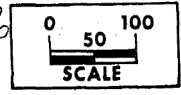
FRANKLIN TWP.
 T68N R6W

Parcel 18
 Acquired From Ernest J. Cruickshank & Thelma Cruickshank
 Contract Signed 4-20-22 Approved 5-6-22 Recorded 5-6-22 Book 67 Page 671
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 3.8 Total Settlement 30,000.00
 Conveyance recorded in Lee County on 6-2-22 Book 67 Page 671

Parcel 19
 Acquired From Earlene M. Hentzel & R. Dewayne Hentzel
 Contract Signed 5-12-22 Approved 6-2-22 Recorded 6-2-22 Book 69 Page 657
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 10.7 Total Settlement 41,500.00
 Conveyance recorded in Lee County on 6-2-22 Book 69 Page 657



LEGEND
 IOWA ELEC CO-OP
 UNION ELEC CO-OP
 S.E. IOWA ELEC CO-OP
 N.W. BELL TEL CO



STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
515	83.40	520	77.81	525	74.81	530	75.35
516	86.40	521	77.24	526	74.72	531	75.65
517	84.40	522	76.98	527	74.74	532	75.05
518	83.40	523	76.73	528	74.72	533	76.25
519	82.43	524	76.49	529	74.71	534	76.55
520	81.96	525	76.28	530	74.71	535	76.85
521	81.52	526	76.07	531	74.71	536	77.15
522	80.66	527	75.88	532	74.71	537	77.45
523	80.25	528	75.74	533	74.71	538	77.60
524	79.86	529	75.54	534	74.71	539	77.76
525	79.48	530	75.26	535	74.71	540	77.96
526	79.12	531	75.04	536	74.71	541	78.07
527	78.77	532	74.81	537	74.71	542	78.30
528	78.44	533	74.76	538	74.71	543	78.42
529	78.11	534	74.71	539	74.71	544	78.50
530	77.81	535	74.71	540	74.71	545	78.69
531	77.24	536	74.71	541	74.71	546	78.85
532	76.98	537	74.71	542	74.71	547	79.00
533	76.73	538	74.71	543	74.71	548	79.16
534	76.49	539	74.71	544	74.71	549	79.32
535	76.28	540	74.71	545	74.71	550	79.50
536	76.07	541	74.71	546	74.71	551	79.68
537	75.88	542	74.71	547	74.71	552	79.87
538	75.74	543	74.71	548	74.71	553	80.06
539	75.54	544	74.71	549	74.71	554	80.27
540	75.26	545	74.71	550	74.71	555	80.48
541	75.04			551	74.71	556	80.69
542	74.81			552	74.71	557	80.91
543	74.76			553	74.71	558	81.14
544	74.71			554	74.71	559	81.36
545	74.71			555	74.71	560	81.67
546	74.71			556	74.71	561	82.13
547	74.71			557	74.71	562	82.40
548	74.71			558	74.71	563	82.67
549	74.71			559	74.71	564	82.94
550	74.71			560	74.71	565	83.23
551	74.71			561	74.71	566	83.52
552	74.71			562	74.71	567	83.82
553	74.71			563	74.71	568	84.12

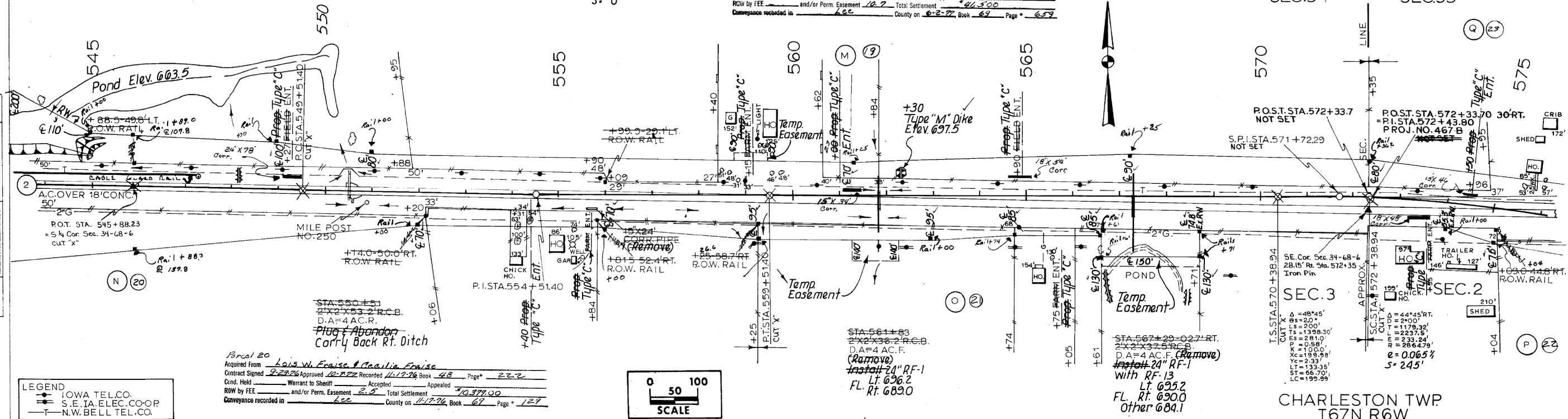
PROPERTY OWNERS
 M-A. DEWAYNE HENTZEL
 N-HENRY M. FREESMEYER
 O-HENRY MERSCHMAN
 P-CHARLES EDWARD BERTSHAFFER
 Q-ALBERTINE LOUISE MERSCHLER Wilson

Δ = 1° 00' LT.
 D = 0° 06'
 T = 5000.0'
 L = 1000.0'
 R = 2.2'
 S = 57295.78'
 S = N.C.
 S = 0

Parcel 19
 Acquired From Earlans M. Heatzel & A. Duwayn Heatzel
 Contract Signed 5/2/22 Approved 6-2-22 Recorded 6-2-22 Book 67 Page 659
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 10.7 Total Settlement 41,500
 Conveyance recorded in 6-2-22 County on 6-2-22 Book 67 Page 659

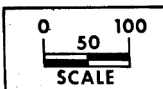
FRANKLIN TWP
 T68N R6W

SEC. 34 SEC. 35



LEGEND
 IOWA TEL. CO.
 S.E. IA. ELEC. CO-OP
 N.W. BELL TEL. CO.

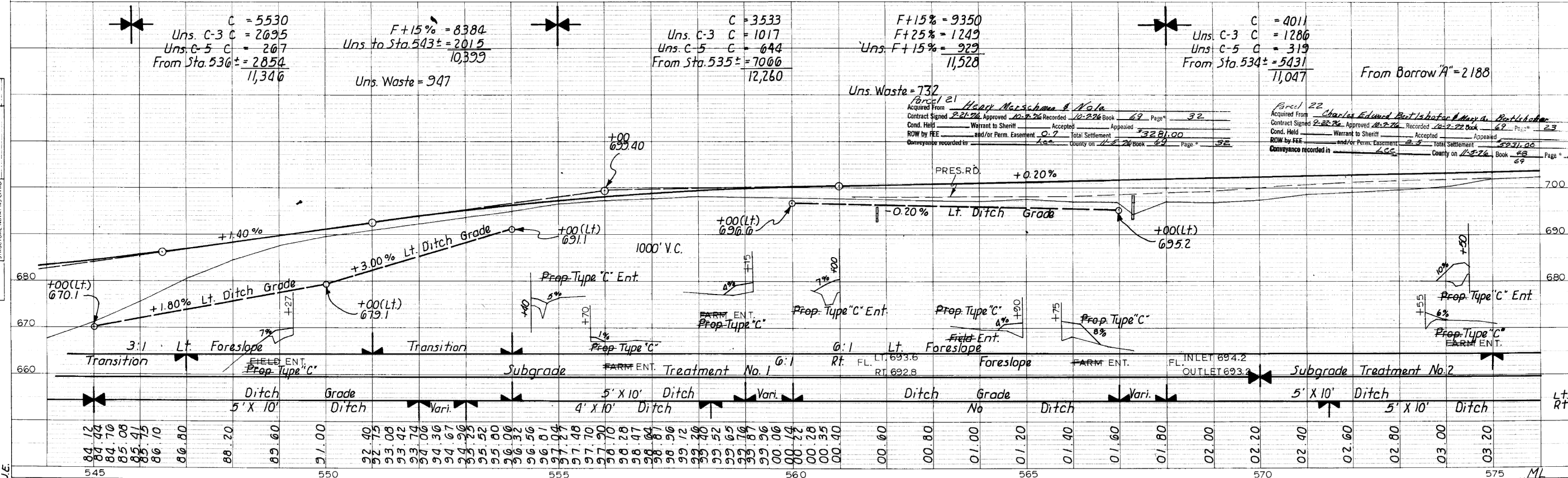
Parcel 20
 Acquired From Louis W. Fraise & Carolin Fraise
 Contract Signed 2-22-26 Approved 12-22-26 Recorded 11-22-26 Book 48 Page 222
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 2.5 Total Settlement 10,377.00
 Conveyance recorded in Lee County on 11-22-26 Book 67 Page 127



CHARLESTON TWP
 T67N R6W

$C = 5530$ $Uns. C-3 C = 2695$ $Uns. C-5 C = 267$ $From Sta. 536 \pm = 2854$ $11,346$	$F+15\% = 8384$ $Uns. to Sta. 543 \pm = 2015$ $10,399$ $Uns. Waste = 947$	$C = 3533$ $Uns. C-3 C = 1017$ $Uns. C-5 C = 644$ $From Sta. 535 \pm = 7006$ $12,260$	$F+15\% = 9350$ $F+25\% = 1249$ $Uns. F+15\% = 929$ $11,528$ $Uns. Waste = 732$	$C = 4011$ $Uns. C-3 C = 1286$ $Uns. C-5 C = 319$ $From Sta. 534 \pm = 5431$ $11,047$ $From Borrow "A" = 2188$
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PROFILE
 SURVEYED, PLOTTED, CHECKED, AND NOTED BY
 DATE



Parcel 21
 Acquired From Henry Merschman & Nola
 Contract Signed 2-21-26 Approved 10-22-26 Recorded 10-22-26 Book 69 Page 32
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 0.7 Total Settlement 3281.00
 Conveyance recorded in Lee County on 10-22-26 Book 69 Page 32

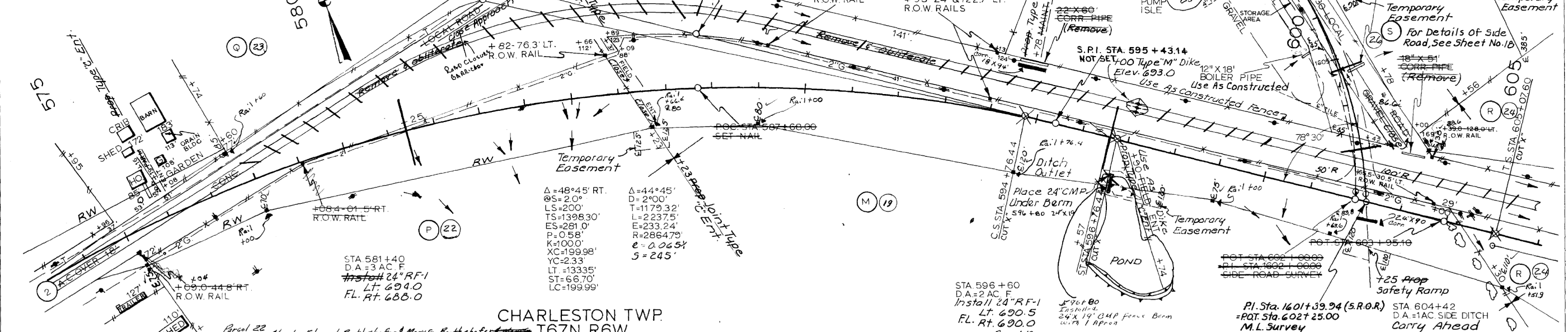
Parcel 22
 Acquired From Charles Edward Bertshafer & Nancy A. Bertshafer
 Contract Signed 2-22-26 Approved 10-22-26 Recorded 10-22-26 Book 69 Page 23
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 2.5 Total Settlement 5291.00
 Conveyance recorded in Lee County on 10-22-26 Book 69 Page 23

STATE IOWA	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER	STATE IOWA	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
					F-2-9(B)--20-56					

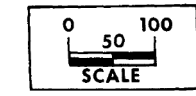
PROPERTY OWNERS
 M-A DEWAYNE HENTZEL
 P-CHARLES EDWARD BERTSHAFER
 Q-ALBERTINE LOUISE WILSON
 R-LEO C SCHILLER
 S-CHAS. D. SCHMITT
 Parcel 23
 Acquired From Albertine Louise Wilton & Edwin W. Wilson
 Contract Signed 10-22-76 Approved 12-22-76 Recorded 12-22-76 Book 69 Page 150
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 0.4 Total Settlement 7750.00
 Conveyance recorded in Lee County on 12-27-76 Book 69 Page 150

FRANKLIN TWP
 T68N R6W
 SEC. 35
 P.I. STA. 584 + 37.24
 1272' AHEAD & 54.4' LT. OF
 P.I. STA. 584 + 37.24
 P.I. STA. 585 + 73.00
 PLANS

Acquired From Lee Co Parcel 25
 Contract Signed 10-22-76 Approved 12-22-76 Recorded 12-22-76 Book 69 Page 150
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 0.4 Total Settlement 7750.00
 Conveyance recorded in Lee County on 12-27-76 Book 69 Page 150

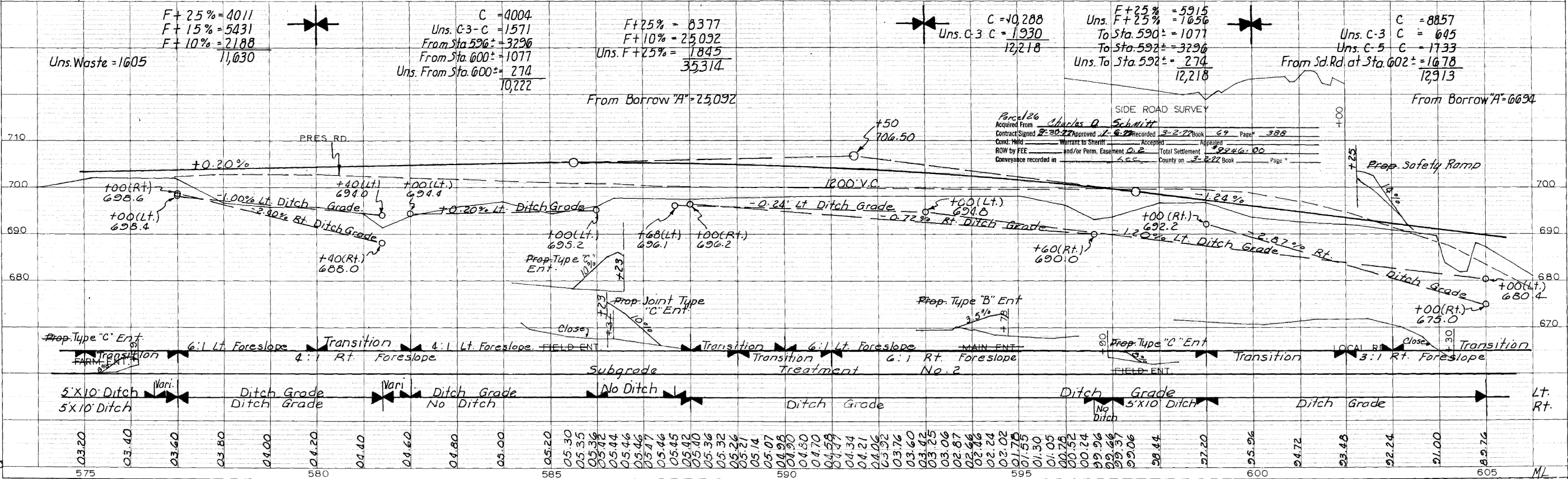


CHARLESTON TWP.
 T67N R6W
 SEC. 2
 STA 581+40
 D.A.=3 AC. F
 Install 24" R.F-1
 Lt. 694.0
 FL. Rt. 688.0



Parcel 10
 Acquired From Charles M. Hatfield & P. Duquesne Hatfield
 Contract Signed 12-22-76 Approved 12-22-76 Recorded 12-22-76 Book 69 Page 659
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 0.2 Total Settlement 41100.00
 Conveyance recorded in Lee County on 12-22-76 Book 69 Page 659

LEGEND
 IA. TEL. CO.
 S.E. IA. ELEC. CO-OP.
 T-N.W. BELL TEL. CO.



Uns. Waste = 1605
 F+25% = 4011
 F+15% = 5431
 F+10% = 2188
 11,630

C = 4004
 Uns. C-3 - C = 1571
 From Sta 596 = 3296
 From Sta 600 = 1077
 Uns. From Sta 600 = 274
 10,222

From Borrow "A" = 25,092

C = 10,288
 Uns. C-3 C = 1,930
 12,218

Uns. F+25% = 5915
 F+25% = 1656
 To Sta 590 = 1077
 To Sta 592 = 3296
 Uns. To Sta 592 = 274
 12,218

C = 8857
 Uns. C-3 C = 645
 Uns. C-5 C = 1733
 From Sd. Rd. at Sta 602 = 1678
 12,913

From Borrow "A" = 6694

FILE NO.	ENGLISH	DESIGN TEAM	HOLST \ BAHM \ CAMPBELL	LEE COUNTY	PROJECT NUMBER	NHSX-002-9(38)-3H-56/HSIPX-002-9(39)-3L-56	SHEET NUMBER	D.6
1:26:58 PM	8/20/2019	dcampbe	pw:\nt\p\lnt1.dot.int.lan:P\Main\Documents\Projects\5600201019\Design\56002038.D06.D10.dgn					

For Information Only

PROPERTY OWNERS
 M-A DEWAYNE HENTZEL
 R-LEO C. SCHILLER
 T-DAVID L. GRABER
 V-BOBBY CLEVELAND
 V-LEON ZERN
 Gary Lamm (29)

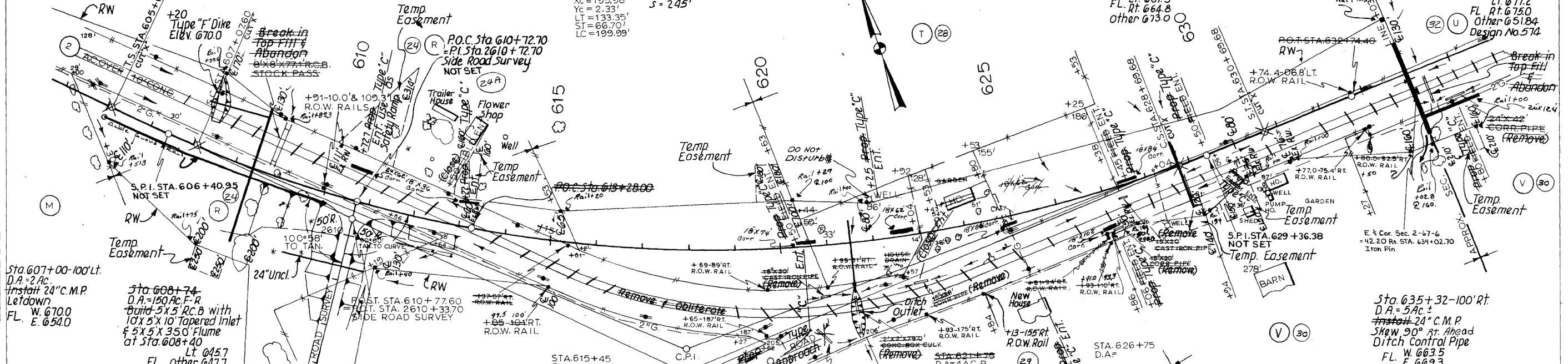
For Details of Borrow A,
 See Sheet No. 46

$\Delta = 47^{\circ}14'1/2''$
 $\Delta = 43^{\circ}14'1/2''$
 $\Delta = 2^{\circ}00'$
 $\Delta = 1^{\circ}35'45''$
 $L = 200'$
 $L = 135.45'$
 $Ts = 1353.09'$
 $L = 2162.08'$
 $ES = 262.6'$
 $RI = 216.8'$
 $R = 2864.79'$
 $e = 0.063\%$
 $s = 2.45'$
 $K = 100.00'$
 $Xc = 199.98'$
 $Yc = 2.33'$
 $LT = 133.35'$
 $ST = 66.70'$
 $LC = 199.99'$

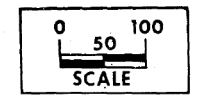
Sta. 620+69.66-28.2 RT.
 D.A. = 4 AC. R. (Remove)
 Install 24" R.F-1
 with R.F-13
 at Sta. 628+76
 FL. Rt. 681.3
 other 673.0

CHARLESTON TWP.
 T67N R6W
 SEC. 2 SEC. 1

Sta. 634+31.24 RT.
 D.A. = 30 AC. R. H.
 Install 48" R.F-1 with
 Flume 4'4" x 8'2"
 at Sta. 634+00
 Lt. 677.2
 FL. Rt. 675.0
 Other 651.84
 Design No. 574

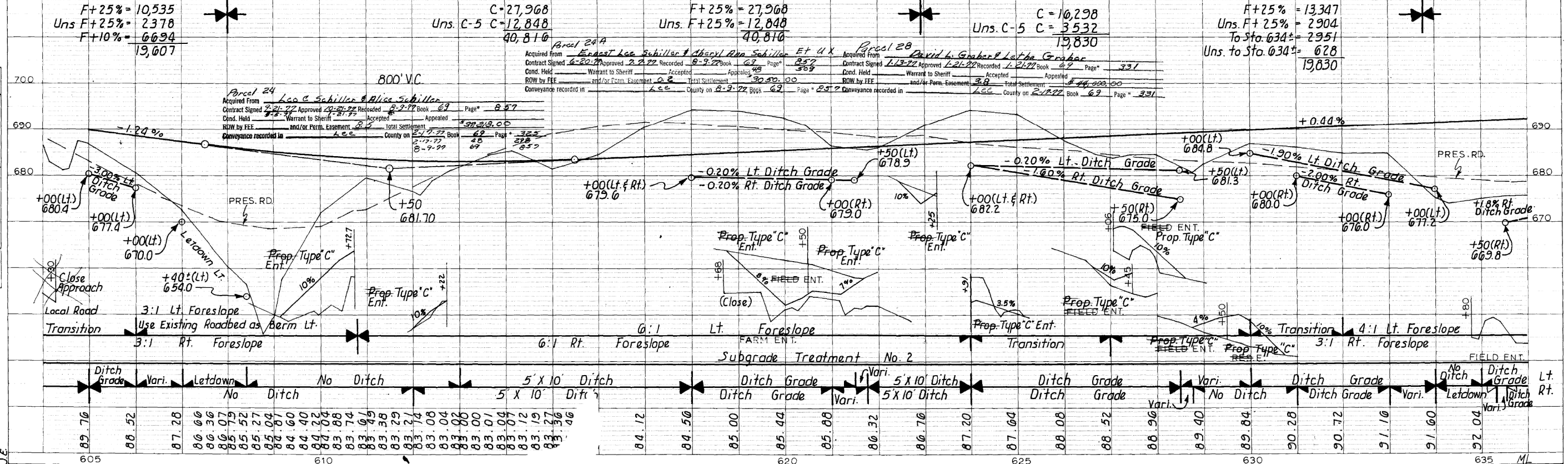


LEGEND
 IOWA TEL. CO.
 S. IOWA ELEC. COOP.
 UNION ELEC. CO.
 N.W. BELL TEL. CO.



For Details of Side Road
 See Sheet No. 19

Acquired From Parcel 24 Leo C. Schiller & Alice Schiller ET UX
 Contract Signed 8-21-77 Approved 8-21-77 Recorded 8-21-77 Book 69 Page 857
 Cond. Held Warrant to Sheriff Accepted 8-21-77 Appealed 8-21-77
 ROW by FEE and/or Perm. Easement 0.3 Total Settlement \$22,000.00
 Conveyance recorded in Lee County on 8-21-77 Book 69 Page 857



STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER
IOWA	5				F-2-9(8)--20-56	IOWA	5				F-2-9(8)--20-56

FILE NO. ENGLISH DESIGN TEAM **HOLST \ BAHM \ CAMPBELL** LEE COUNTY PROJECT NUMBER **NHSX-002-9(38)--3H-56/HSIPX-002-9(39)--3L-56** SHEET NUMBER **D.7**

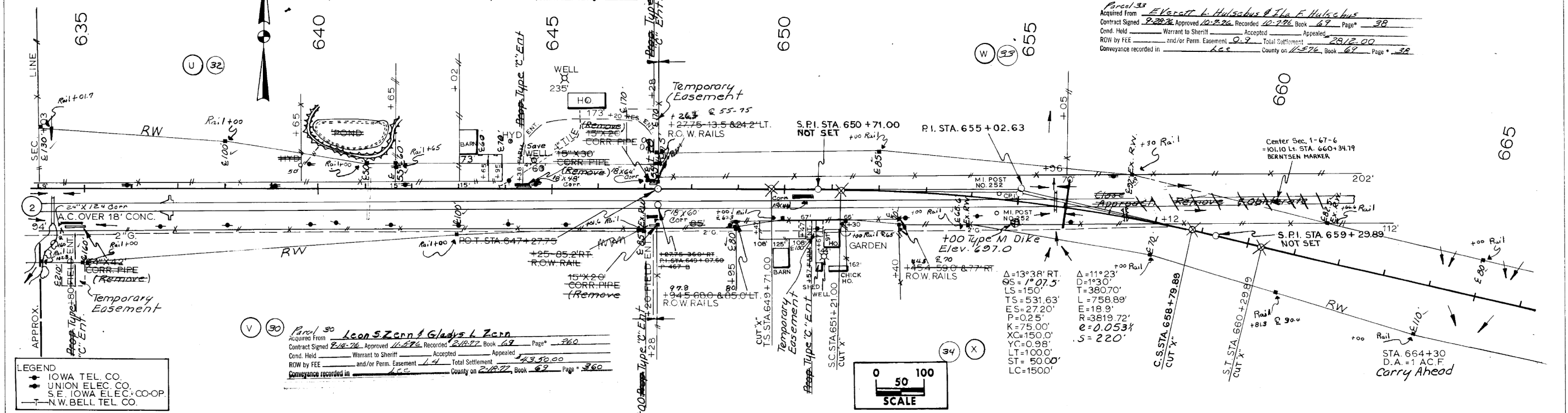
PROPERTY OWNERS
 U-Bobby A. CLEVELAND
 V-LEON ZERN
 W-BERNARD WAGHMAN
 X-PERNELL P. GRABER
 Y-Veratt L. Hulsbach

Parcel 32
 Acquired From Bobby A. Cleveland Et Al
 Contract Signed 2-24-72 Approved 10-27-72 Recorded 10-27-72 Book 69 Page 38
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 2.0 Total Settlement 15,300.00
 Conveyance recorded in Lee County on 2-24-72 Book 69 Page 38

CHARLESTON TWP.
 T67N R6W
 SEC.1

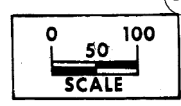
STA 655+82.0 100' RT.
 2" X 2" X 30" R.C.B. Plug & Abandon
 D.A. = 6 AC. F.
 Install 24" R.F-1
 At Sta. 656+00
 Lt. 694.0
 Fl. Rt. 694.9

Parcel 33
 Acquired From Veratt L. Hulsbach & Fla. F. Hulsbach
 Contract Signed 9-28-76 Approved 10-2-76 Recorded 10-7-76 Book 69 Page 38
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 0.9 Total Settlement 28,120.00
 Conveyance recorded in Lee County on 10-2-76 Book 69 Page 38

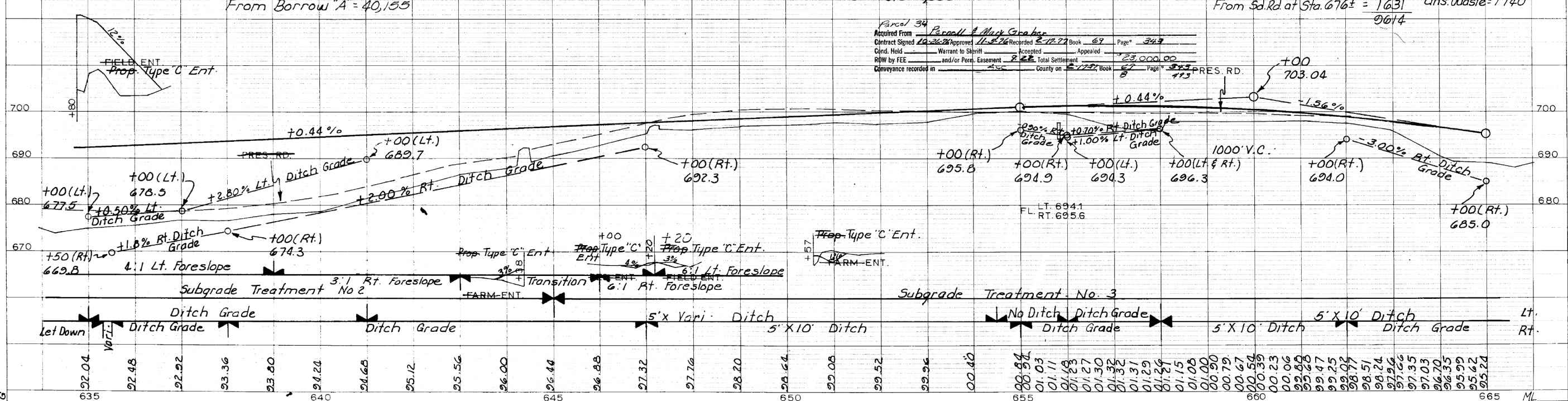


LEGEND
 IOWA TEL. CO.
 UNION ELEC. CO.
 S.E. IOWA ELEC. CO-OP.
 N.W. BELL TEL. CO.

Parcel 30
 Acquired From Leon S. Zern & Gladys L. Zern
 Contract Signed 2-18-76 Approved 11-5-76 Recorded 2-18-77 Book 69 Page 360
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 1.4 Total Settlement 43,300.00
 Conveyance recorded in Lee County on 2-18-77 Book 69 Page 360



C = 5928 Uns. from Sta 627± = 628 From Sta 623± = 2951 9507	F+25% = 8,879 F+10% = 40,155 Uns. F+25% = 628 49,662	C = 7692 Uns. C-5 C = 1352 9044	F+25% = 6387 To Sta 665± = 606 To Sta 659± = 699 7692	C = 4159 Uns. C-5 C = 1740 From Sta 648± = 699 From Sta 647± = 606 From Sta 668± = 779 From Sa. Rd at Sta. 676± = 1631 9614	F+25% = 6243 F+15% = 1631 7874	Uns. Waste = 1740
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Parcel 34
 Acquired From Pernell & Mury Graber
 Contract Signed 10-26-76 Approved 11-5-76 Recorded 2-12-77 Book 69 Page 349
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 2.2 Total Settlement 23,000.00
 Conveyance recorded in Lee County on 2-12-77 Book 69 Page 349

PLAN
 SURVEYED
 ALIGNMENT CHECKED
 RT OF WAY CHECKED

PROFILE
 GRADES CHECKED
 IF NOT NOTED
 IN PLAN USE INDICATIVES ONLY

PROPERTY OWNERS:
 W - BUELL LACHMANN
 X - PERNELL P GRABER
 Y - MILTON SCHERER
 Z - HAROLD RICHMOND
 AA - CARL KNOX

Parcel 35
 Acquired From Milton A. Scherer & Davis M. Scherer Lt. 4X
 Contract Signed 4-6-72 Approved 5-27-72 Recorded 5-29-72 Book 67 Page 882
 Cond. Held Warrant to Sheriff Accepted Appraised
 ROW by FEE and/or Perm. Easement 5-5 Total Settlement 120,000
 Conveyance recorded in Lee County on 8-17-72, Book 67 Page 279

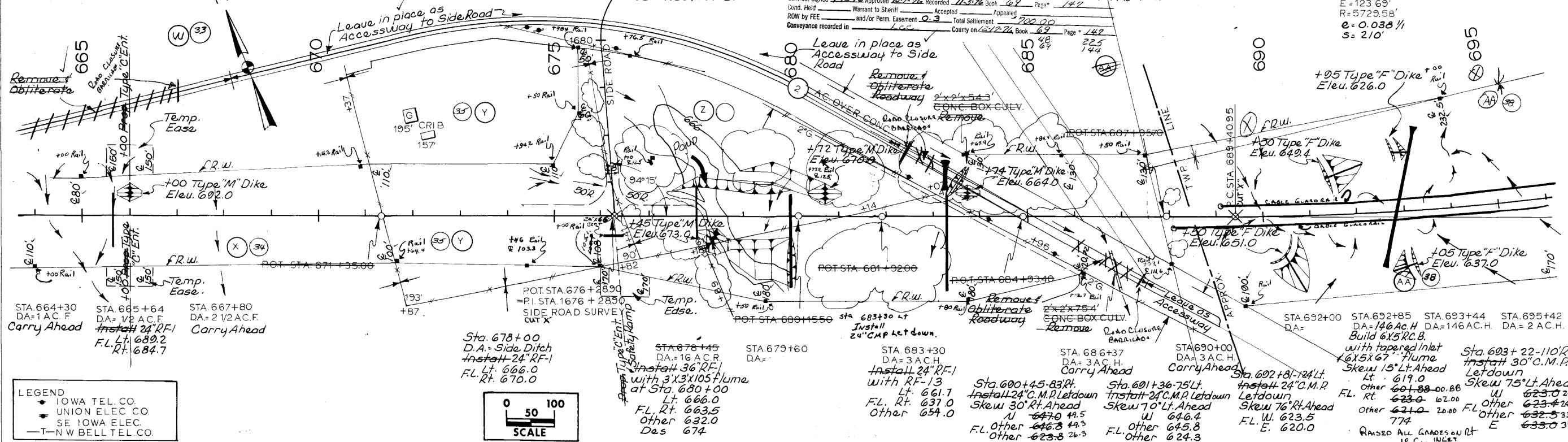
For Submain Line No. 1 At
 Sta. 679+40, See Sheet No. 45
 For Details of Side Road,
 See Sheet No. 20

CHARLESTON TWP T 67N R 6W
 JEFFERSON TWP T 67N R 5W
 SEC. 1 & SEC. 6

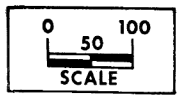
Δ = 23° 36' LT
 D = 1° 00'
 T = 1196.97'
 L = 2360.00'
 E = 123.69'
 R = 5729.58'
 e = 0.038 1/1
 s = 210'

PLAN
 SURVEYED, PLOTTED, CHECKED, REVISIONS, DATE, BY

PROFILE
 SURVEYED, PLOTTED, CHECKED, REVISIONS, DATE, BY



LEGEND
 IOWA TEL. CO.
 UNION ELEC. CO.
 SE IOWA ELEC.
 T-N W BELL TEL. CO.

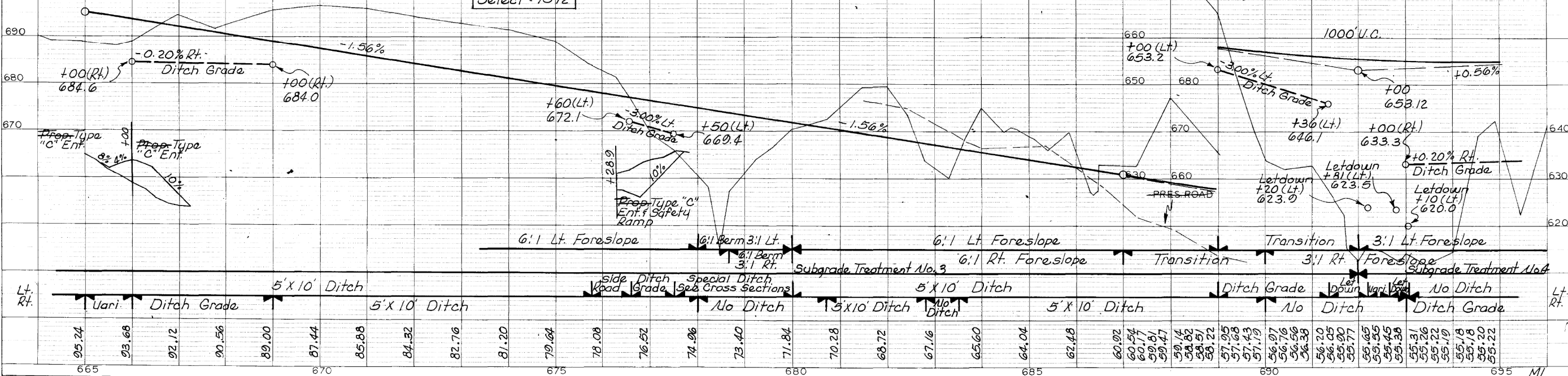


C = 34,385
 Uns. C-5 C = 33,667
 79,052
 Uns. Waste = 4073

F+15% = 7654
 Uns. F+15% = 11,041
 To Sta. 666± = 779
 To Sta. 693± = 21,233
 To Sta. 692± = 4,719
 Uns. to Sta. 692± = 18,553
 65,974

C = 37,500
 Uns. C-5 C = 10,607
 From Sta. 674± = 21,233
 From Sta. 682± = 4,719
 From Side Rd. at Sta. 701± = 19,171
 Uns. from Sta. 671± = 18,553
 113,963

F+15% = 65,542
 F+10% = 19,171
 Uns. F+15% = 29,250
 113,963
 Select = 10,330



FILE NO.	ENGLISH	DESIGN TEAM	HOLST \ BAHM \ CAMPBELL	LEE COUNTY	PROJECT NUMBER	NHSX-002-9(38)-3H-56/HSIPX-002-9(39)-3L-56	SHEET NUMBER	D.9
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JEFFERSON TWP
T67N R5W
SEC. 6

FOR SUBMAIN LINE NO. 2 RT
Sta. 705 + 36, See Sheet No. 45

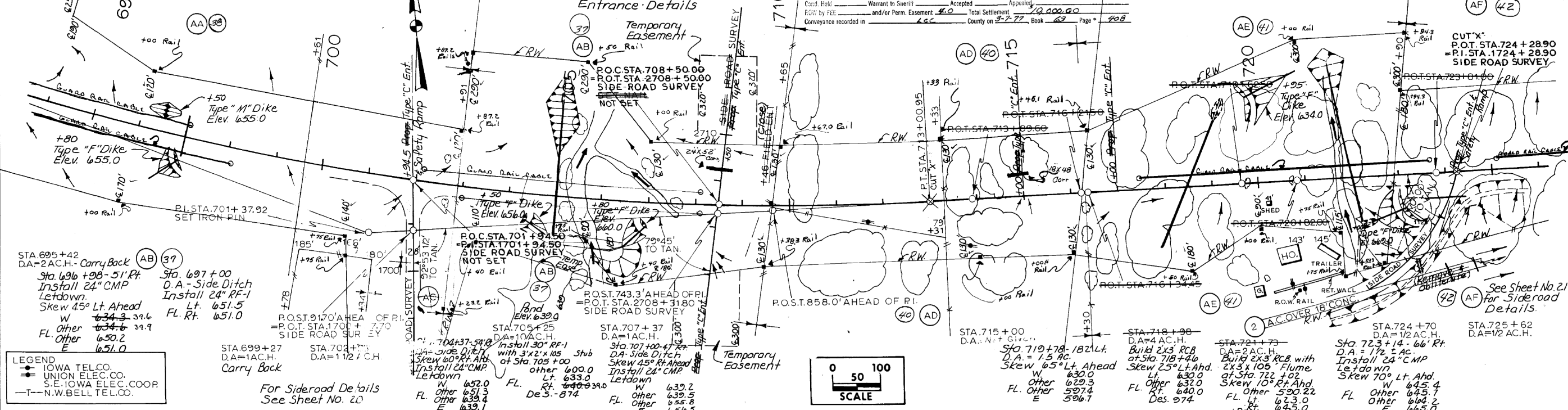
PROPERTY OWNERS
AA-CARL KNOX
AB-THOMAS HOENIG
AC-Geo. HEATER
AD-JOHN A. JOHNSON
AE-KIPP WELLS
AF-FLOYD TAYLOR

Parcel 38
Acquired From Carl Miller, Karol May E. Knox, Dennis Elmer Langsdorf, Formerly Known as George Elmer Knox
Contract Signed 6-28-77 Approved 10-12-77 Recorded 11-5-77 Book 69 Page 26
Cond. Held Warrant to Sheriff Accepted Appraised 6-16-77
ROW by FEE and/or Perm. Easement 11.2 Total Settlement \$2,230.00
Conveyance recorded in Lee County on 2-27-77 Book 69 Page 26

See Sheet No. 21 for
Entrance Details

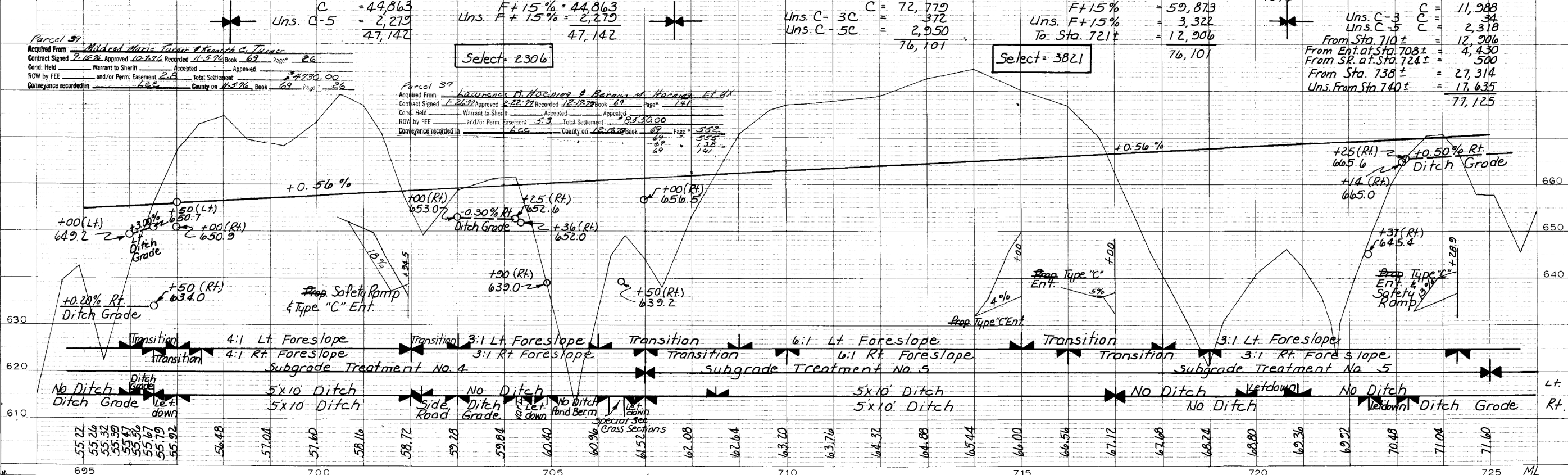
Parcel 40
Acquired From Marion Harwood, Formerly Known as Marion Johnson
Contract Signed 2-1-76 Approved 1-6-77 Recorded 1-6-77 Book 67 Page 408
Cond. Held Warrant to Sheriff Accepted Appraised
ROW by FEE and/or Perm. Easement 4.0 Total Settlement \$9,000.00
Conveyance recorded in Lee County on 2-27-77 Book 67 Page 408

Parcel 41
Acquired From Kipp, W. Wells & Margie J. Wells
Contract Signed 11-5-76 Approved 1-27-77 Recorded 2-17-77 Book 68 Page 338
Cond. Held Warrant to Sheriff Accepted Appraised
ROW by FEE and/or Perm. Easement 5.8 Total Settlement \$1,018.00
Conveyance recorded in Lee County on 2-27-77 Book 68 Page 301



LEGEND
- IOWA TEL. CO.
- UNION ELEC. CO.
- S.E. IOWA ELEC. COOP.
- T-N.W. BELL TEL. CO.

For Sideroad Details
See Sheet No. 20



695	55.22	55.26	55.32	55.39	55.47	55.57	55.67	55.79	55.92	56.48	57.04	57.60	58.16	58.72	59.28	59.84	60.40	60.96	61.52	62.08	62.64	63.20	63.76	64.32	64.88	65.44	66.00	66.56	67.12	67.68	68.24	68.80	69.36	69.92	70.48	71.04	71.60
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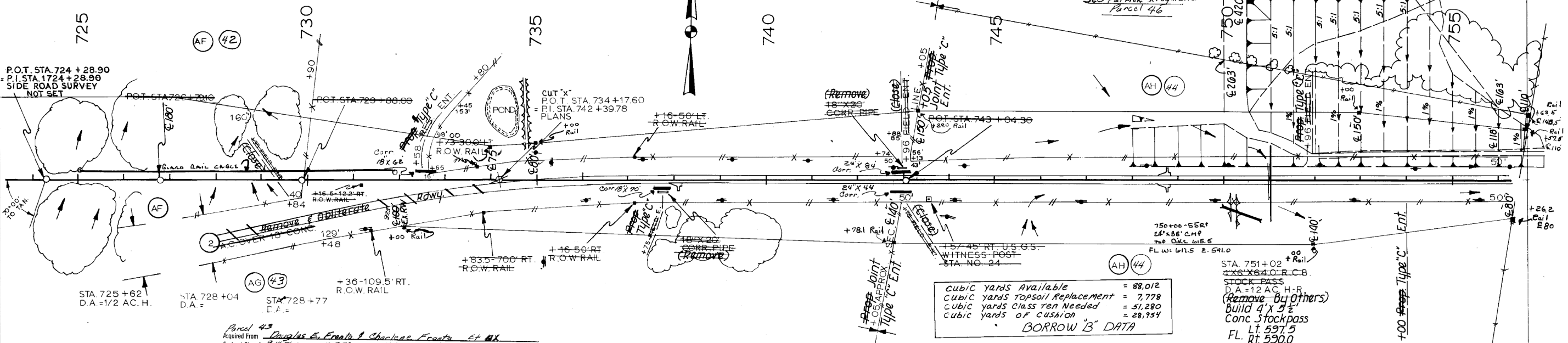
STATE IOWA, PROJECT NUMBER NHSX-002-9(38)-3H-56/HSIPX-002-9(39)-3L-56, SHEET NUMBER D.10

FILE NO. ENGLISH DESIGN TEAM HOLST \ BAHM \ CAMPBELL LEE COUNTY PROJECT NUMBER NHSX-002-9(38)-3H-56/HSIPX-002-9(39)-3L-56 SHEET NUMBER D.10

PROPERTY OWNERS
 AF-FLOYD TAYLOR
 AG-DOUGLAS FRANTA
 AH-LAWRENCE HOENIG

Parcel 42
 Acquired From Floyd T. Taylor & Mabel H. Taylor
 Contract Signed 4-20-76 Approved 12-7-76 Recorded 2-17-77 Book 67 Page 340
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 20 Total Settlement 13661.00
 Conveyance recorded in LCC County on 2-17-77, Book 67 Page 340

JEFFERSON TWP.
 T67N R5W



Cubic yards Available = 88,012
 Cubic yards Topsoil Replacement = 7,778
 Cubic yards Class Ten Needed = 51,280
 Cubic yards of Cushion = 28,954
BORROW 'B' DATA

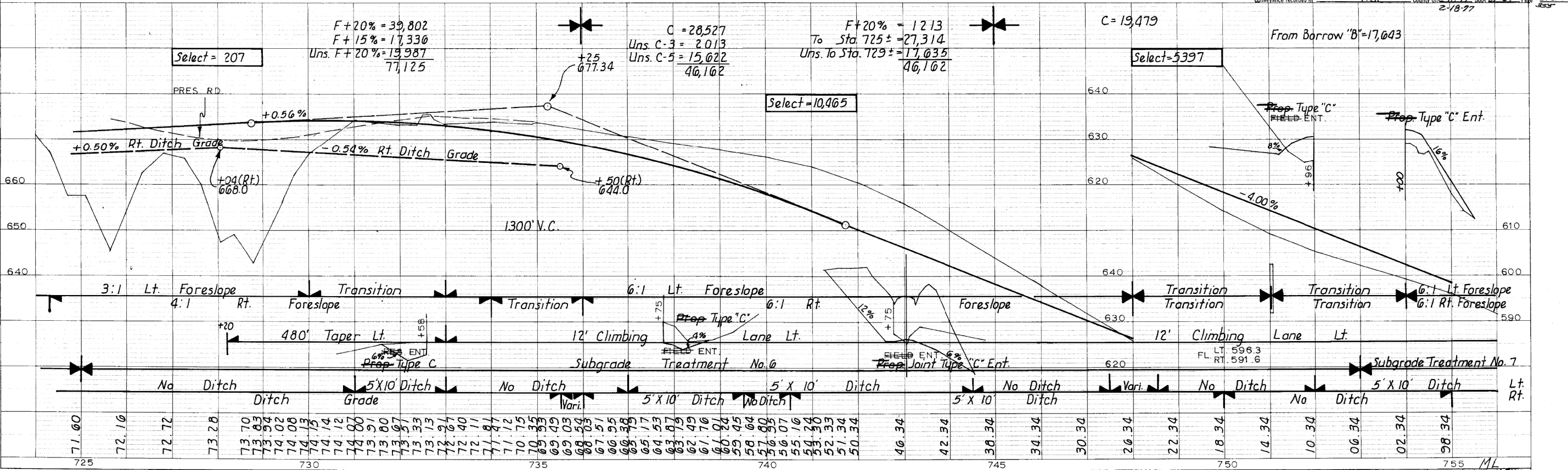
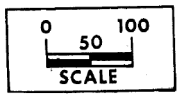
STA. 751+02
 4'x6'x64.0' R.C.B.
 STOCK PASS
 D.A.=12 AC. H-R
 (Remove By Others)
 Build 4'x5'
 Conc Stockpass
 FL. LT. 597.5
 RT. 590.0
 Design No. 1174

LEGEND
 IOWA TEL. CO.
 UNION ELEC. CO.
 S.E. IOWA ELEC. CO-OP

Parcel 43
 Acquired From Douglas E. Franta & Charles Franta Et Al
 Contract Signed 7-14-76 Approved 12-7-76 Recorded 10-7-76 Book 67 Page 41
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 16 Total Settlement 3600.00
 Conveyance recorded in LCC County on 11-27-76, Book 67 Page 41

Parcel 44
 Acquired From Lawrence R. Hoening & Bernice M. Hoening
 Contract Signed 10-18-76 Approved 11-5-76 Recorded 11-5-76 Book 69 Page 141
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 54 Total Settlement 12400.00
 Conveyance recorded in LCC County on 2-18-77, Book 69 Page 141

Parcel 46
 Acquired From Patrick J. & Joyce K. Kragmaric
 Contract Signed 10-18-76 Approved 11-5-76 Recorded 2-2-77 Book 69-62 Page 352-355
 Cond. Held Warrant to Sheriff Accepted Appealed
 ROW by FEE and/or Perm. Easement 0.8 Total Settlement 3564.00
 Conveyance recorded in LCC County on 2-18-77, Book 69-62 Page 355



STATION	ELEVATION	REMARKS
725	71.00	
72.10	72.10	
72.72	72.72	
73.28	73.28	
73.70	73.70	
73.83	73.83	
73.94	73.94	
74.02	74.02	
74.06	74.06	
74.13	74.13	
74.14	74.14	
74.12	74.12	
74.00	74.00	
73.91	73.91	
73.80	73.80	
73.87	73.87	
73.33	73.33	
73.13	73.13	
72.91	72.91	
72.40	72.40	
72.11	72.11	
71.91	71.91	
71.12	71.12	
70.75	70.75	
70.35	70.35	
70.53	70.53	
69.45	69.45	
69.03	69.03	
68.24	68.24	
67.51	67.51	
66.58	66.58	
65.17	65.17	
64.53	64.53	
63.87	63.87	
62.45	62.45	
61.70	61.70	
60.24	60.24	
59.45	59.45	
58.04	58.04	
57.00	57.00	
56.35	56.35	
55.10	55.10	
54.30	54.30	
53.33	53.33	
52.34	52.34	
50.34	50.34	
40.34	40.34	
42.34	42.34	
38.34	38.34	
34.34	34.34	
30.34	30.34	
26.34	26.34	
22.34	22.34	
18.34	18.34	
14.34	14.34	
10.34	10.34	
06.34	06.34	
02.34	02.34	
98.34	98.34	

PROPERTY OWNERS
AH-LAWRENCE HOENIG
AJ-IDOL RASHID
AJ-LOUIS W. FRAISE
AK-NORMAN H. LAUE

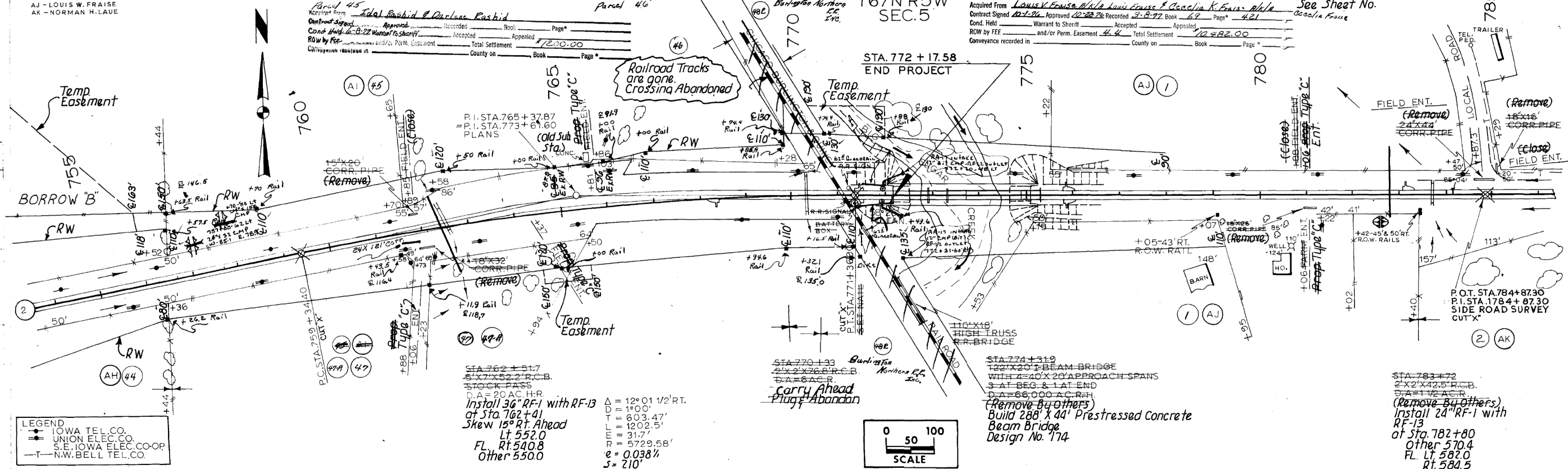
Parcel 45
Acquired From Edal Rashid & Darlan Rashid
Contract Signed 10/22/22 Approved 10/22/22 Recorded 3-8-22 Book 67 Page 421
Cond. Held Warrant to Sheriff Accepted 10/22/22 Appealed
ROW by FEE 10,200.00 and/or Perm. Easement 4.4 Total Settlement 10,200.00
Conveyance recorded in LEE County on 3-8-22 Book 67 Page 421

Sec Patrick Krogmeier
Parcel 46

JEFFERSON TWP.
T67N R5W
SEC. 5

Parcel 1
Acquired From Louis V. Fraise, W/La. Louis Fraise & Cecelia K. Fraise, W/La.
Contract Signed 10/22/22 Approved 10/22/22 Recorded 3-8-22 Book 67 Page 421
Cond. Held Warrant to Sheriff Accepted 10/22/22 Appealed
ROW by FEE 10,200.00 and/or Perm. Easement 4.4 Total Settlement 10,200.00
Conveyance recorded in LEE County on 3-8-22 Book 67 Page 421

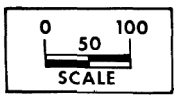
For Details of Side Road
See Sheet No. 15-243



LEGEND
- IOWA TEL. CO.
- UNION ELEC. CO.
- S.E. IOWA ELEC. CO-OP.
- N.W. BELL TEL. CO.

STA 762+51.7
5' X 7' X 52.2' R.C.B.
STOCK PASS
D.A. = 20 AC R.H.
Install 36" RF-1 with RF-B
of Sta. 762+41
Skew 15° Rt. Ahead
Lt. 552.0
FL Rt. 540.8
Other 550.0

Δ = 12° 01' 1/2 RT.
D = 1'00'
T = 603.47'
M = 1202.5'
C = 31.7'
S = 5729.58'
e = 0.038%
s = 210'



STA 774+31.9
122' X 20' I-BEAM BRIDGE
WITH 4' X 20' APPROACH SPANS
3' AT BEG. & 1' AT END
D.A. = 66,000 AC R.H.
(Remove by others)
Build 288' X 44' Prestressed Concrete
Beam Bridge
Design No. 174

STA 783+72
2' X 2' X 42.5' R.C.B.
D.A. = 11/2 AC R.H.
(Remove by others)
Install 24" RF-1 with
RF-13
of Sta. 782+80
Other 570.4
FL Lt. 582.0
Rt. 584.5

F+10% = 37,122

C = 5327

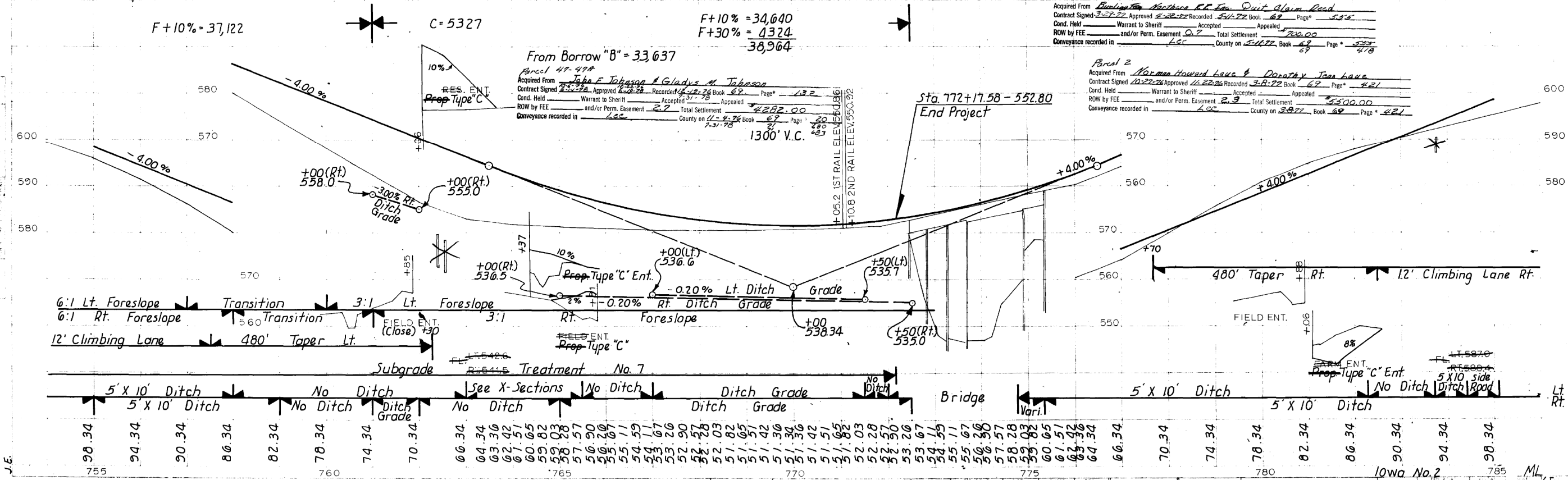
F+10% = 34,640
F+30% = 4324
38,964

From Borrow "B" = 33,637

Parcel 47-47A
Acquired From John F. Johnson & Gladys M. Johnson
Contract Signed 8/22/22 Approved 8/22/22 Recorded 10-26-22 Book 62 Page 172
Cond. Held Warrant to Sheriff Accepted 8/22/22 Appealed
ROW by FEE 10,200.00 and/or Perm. Easement 2.7 Total Settlement 10,200.00
Conveyance recorded in LEE County on 10-26-22 Book 62 Page 172

Acquired From Burlington Northern R.R. Co. Quit Claim Deed
Contract Signed 3-22-22 Approved 3-22-22 Recorded 5-17-22 Book 62 Page 558
Cond. Held Warrant to Sheriff Accepted 3-22-22 Appealed
ROW by FEE 10,200.00 and/or Perm. Easement 0.7 Total Settlement 10,200.00
Conveyance recorded in LEE County on 5-17-22 Book 62 Page 558

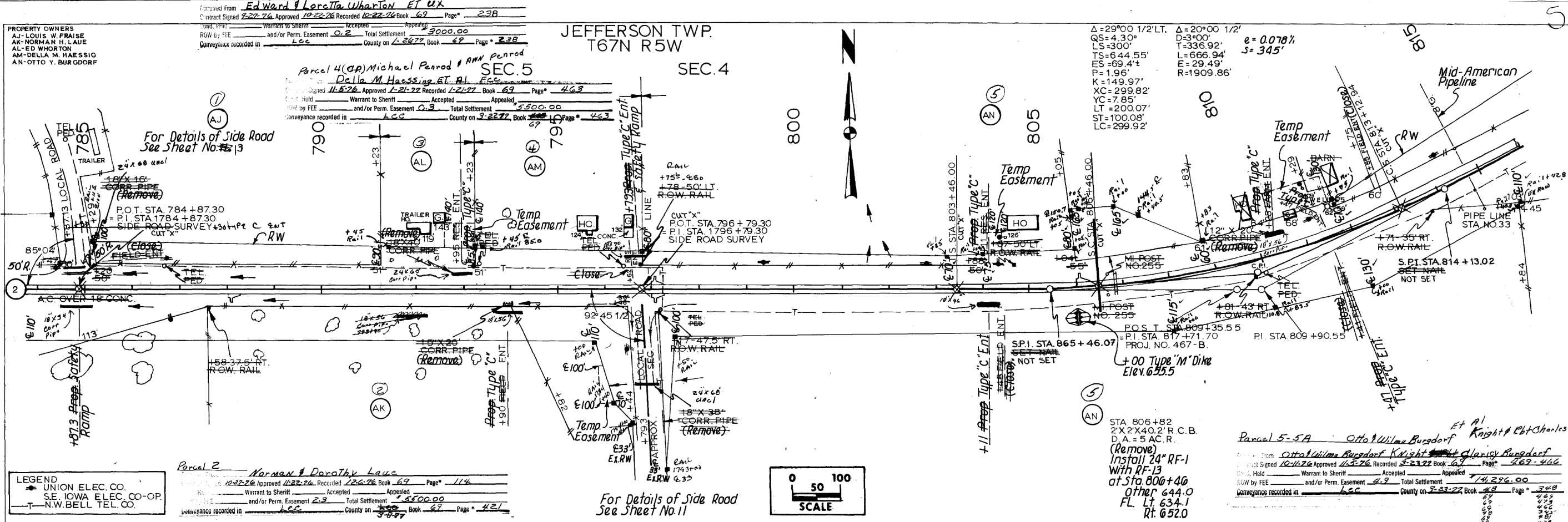
Parcel 2
Acquired From Norman Howard Laue & Dorothy Jean Laue
Contract Signed 10-22-22 Approved 10-22-22 Recorded 3-8-22 Book 67 Page 421
Cond. Held Warrant to Sheriff Accepted 10-22-22 Appealed
ROW by FEE 10,200.00 and/or Perm. Easement 2.3 Total Settlement 10,200.00
Conveyance recorded in LEE County on 3-8-22 Book 67 Page 421



755	90.34	94.34	90.34	86.34	82.34	78.34	74.34	70.34	66.34	64.34	62.42	60.65	59.82	58.57	57.57	56.90	56.20	55.51	54.59	53.67	52.90	52.28	51.82	51.42	51.30	51.36	51.42	51.51	51.62	51.82	52.03	52.28	52.50	52.50	53.26	53.67	54.59	55.11	55.67	56.36	57.57	58.57	60.65	62.42	63.36	64.34	66.34	70.34	74.34	78.34	82.34	86.34	90.34	94.34	98.34
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LEE CO. PROJECT NUMBER F-2-9(B)--20-50 IOWA No. 2 ML 65 15-243 24

This Sheet For Information Only



PLAN

DATE: _____

BY: _____

NO. _____

DATE: _____

BY: _____

NO. _____

DATE: _____

BY: _____

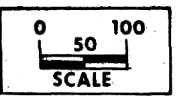
NO. _____

LEGEND

UNION ELEC. CO.

SE. IOWA ELEC. CO-OP

N.W. BELL TEL. CO.



PROFILE

DATE: _____

BY: _____

NO. _____

DATE: _____

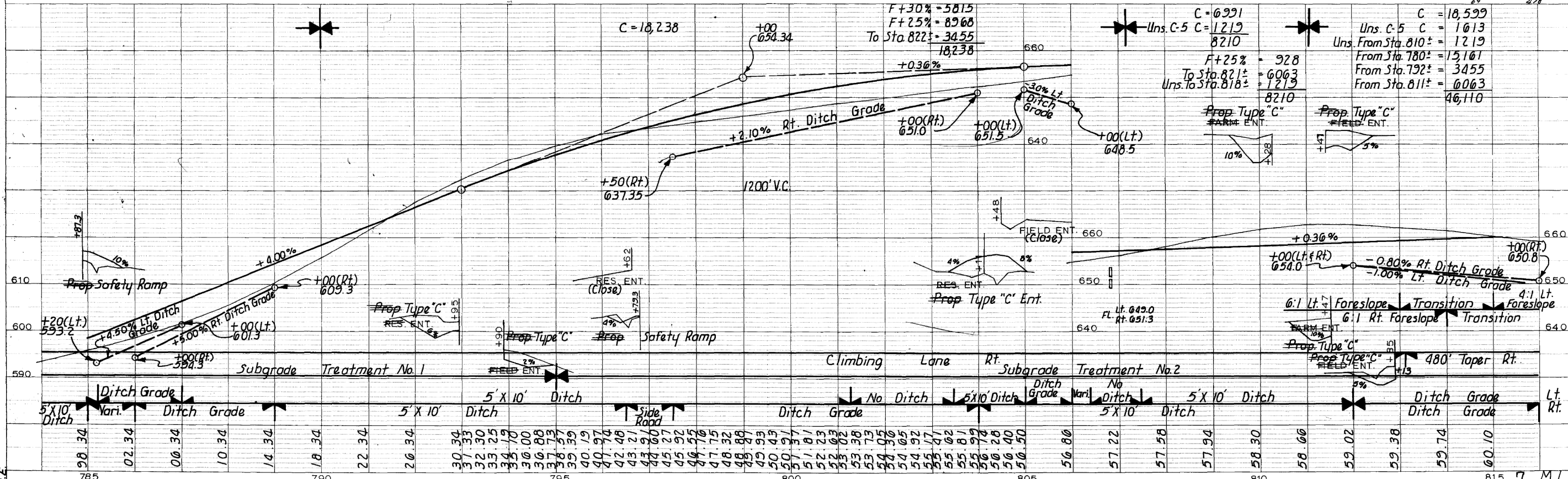
BY: _____

NO. _____

DATE: _____

BY: _____

NO. _____



STATE: IOWA	FED. ROAD DIST. NO.: 5	FISCAL YEAR:	SHEET NO.:	TOTAL SHEETS: 7	PROJECT NUMBER: F-2-9(15)--20-50
-------------	------------------------	--------------	------------	-----------------	----------------------------------

FILE NO.:	ENGLISH	DESIGN TEAM: HOLST \ BAHR \ CAMPBELL	LEE COUNTY	PROJECT NUMBER: NHSX-002-9(38)-3H-56/HSIPX-002-9(39)-3L-56	SHEET NUMBER: D.13	DATE: 8/20/2019	TIME: 1:36:01 PM
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This Sheet For Information Only

PROPERTY OWNERS
 AN - OTTO V. BURDORF
 AO - H. LORETTA PITES
 AP - I. ROBERT F. BOEDING
 AQ - J. ROBERT BALOG
 AR - MARVIN CAROL FAETH
 AS - HAROLD GARDNER

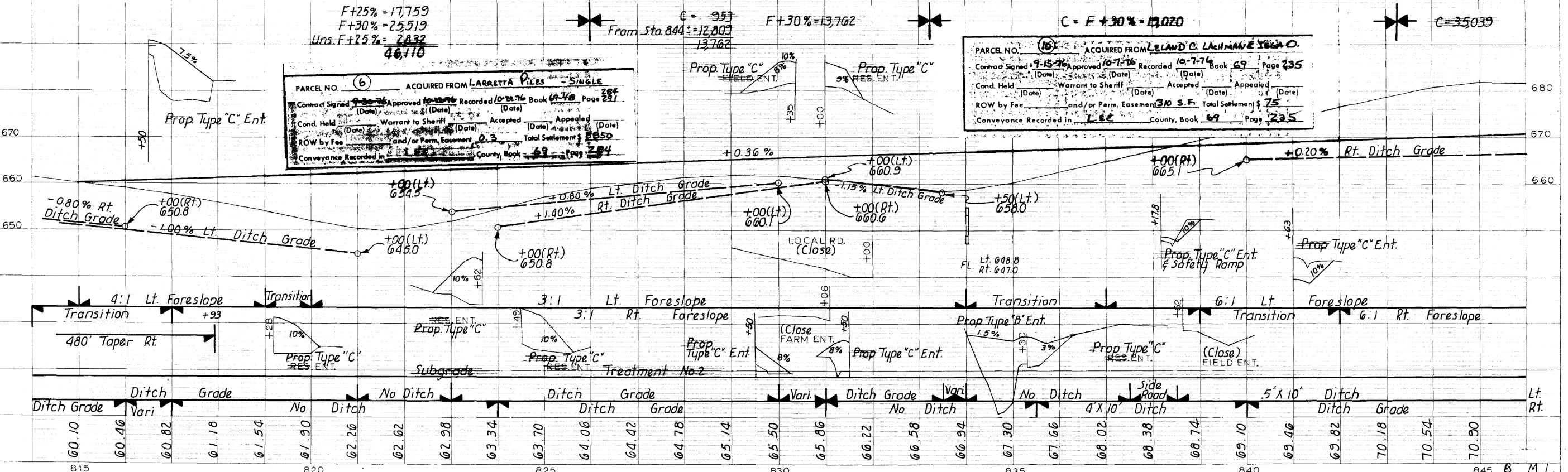
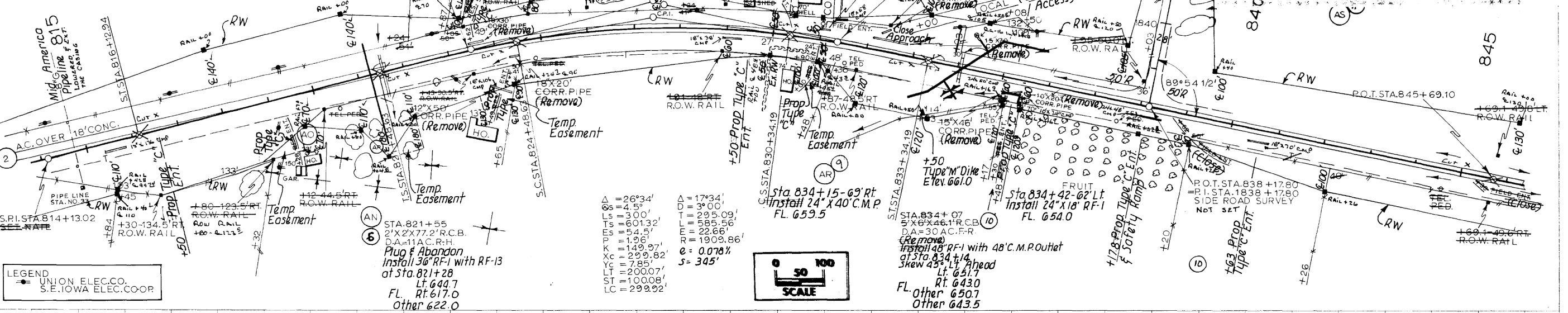
PARCEL NO. 3 ACQUIRED FROM ROBERT R. FELLNER & BALOG
 Contract Signed 10-21-74 Approved 11-5-74 Recorded 11-5-74 Book 61 Page 364
 Cond. Held (Date) Warrant to Sheriff (Date) Accepted (Date) Appealed (Date)
 ROW by Fee and/or Perm. Easement 3450 S.F. Total Settlement \$ 5,500
 Conveyance Recorded in [redacted] County, Book [redacted] Page [redacted]

PARCEL NO. 9 ACQUIRED FROM MARVIN CAROL FAETH ET UX.
 Contract Signed 1-17-77 Approved 1-17-77 Recorded 3-17-77 Book 71 Page 299
 Cond. Held (Date) Warrant to Sheriff (Date) Accepted (Date) Appealed (Date)
 ROW by Fee and/or Perm. Easement 21 Total Settlement \$ 2,000
 Conveyance Recorded in [redacted] County, Book [redacted] Page [redacted]

PARCEL NO. 17 ACQUIRED FROM GARY & BEANIE NIEHAUS
 Contract Signed 1-25-76 Approved 6-7-76 Recorded 1-26-77 Book 48 Page 273
 Cond. Held (Date) Warrant to Sheriff (Date) Accepted (Date) Appealed (Date)
 ROW by Fee and/or Perm. Easement 0.3 Total Settlement \$ 14,500
 Conveyance Recorded in [redacted] County, Book [redacted] Page [redacted]

Δ = 29°00'12"
 BS = 4.5'
 IS = 300'
 TS = 644.55'
 ES = 694.4'
 P = 1.96'
 K = 149.97'
 XC = 299.82'
 YC = 7.85'
 LT = 200.07'
 ST = 100.08'
 LC = 299.92'

Δ = 20°00'12"
 BS = 4.5'
 IS = 300'
 TS = 644.55'
 ES = 694.4'
 P = 1.96'
 K = 149.97'
 XC = 299.82'
 YC = 7.85'
 LT = 200.07'
 ST = 100.08'
 LC = 299.92'



STATE	IOWA	FED. ROAD DIST. NO.	5	FISCAL YEAR		SHEET NO.	15	TOTAL SHEETS	15
PROJECT NUMBER	F-2-9(17)--20-50				SHEET NO.	8	TOTAL SHEETS	15	

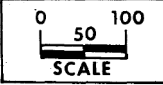
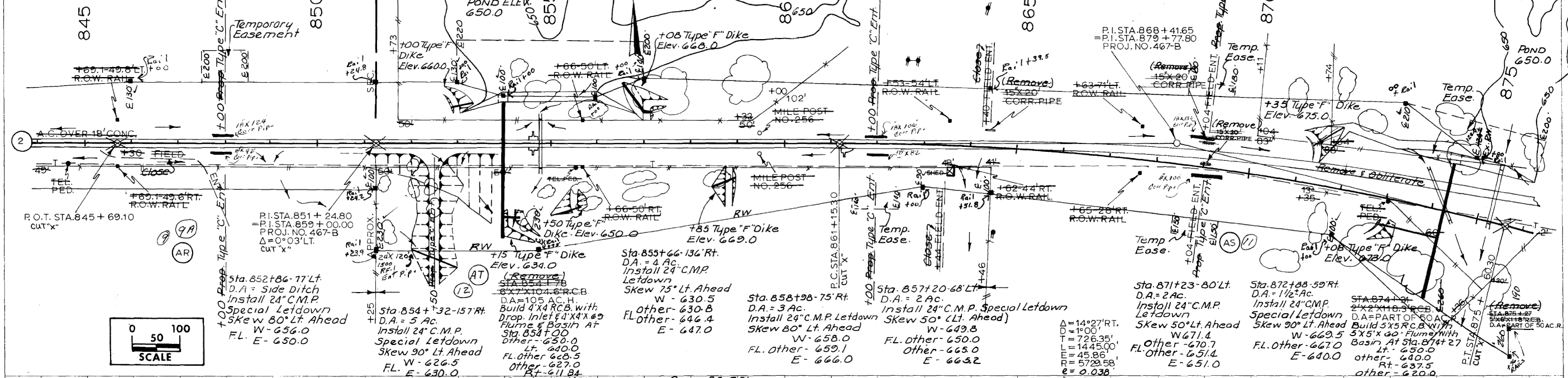
FILE NO. ENGLISH DESIGN TEAM **HOLST \ BAHM \ CAMPBELL** LEE COUNTY PROJECT NUMBER **NHSX-002-9(38)-3H-56/HSIPX-002-9(39)-3L-56** SHEET NUMBER **D.14**

PROPERTY OWNERS
 AR - MARVIN FAETH
 AS - HAROLD F. GARDNER
 AT - SARAH RASHID

JEFFERSON TWP
 T67N R5W

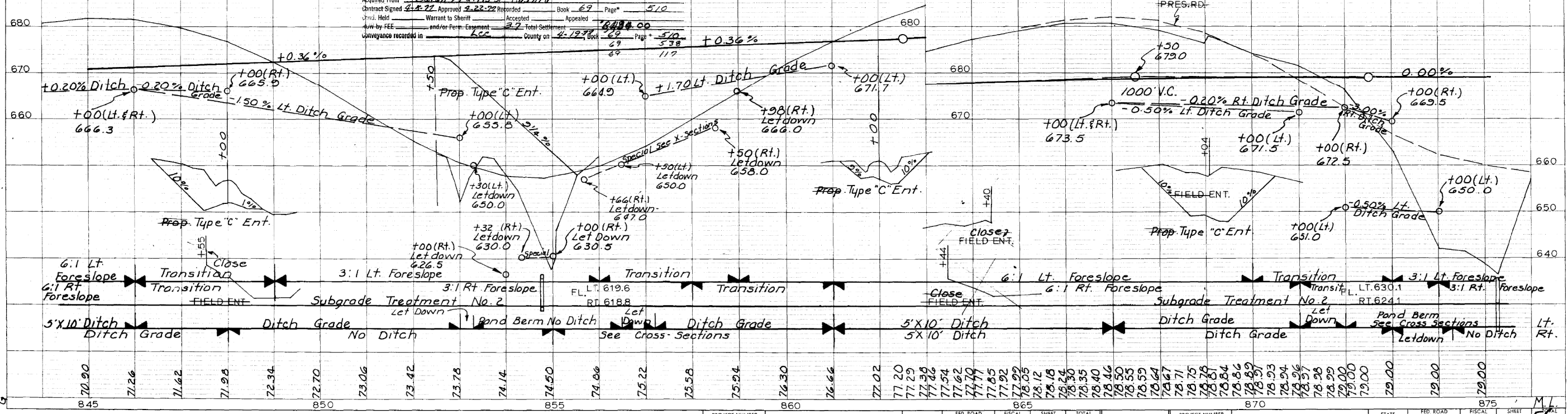
Parcel 11
 Acquired From Harold F. Gardner ET AL
 Contract Signed Approved Recorded Book Page
 Cont. Held Warrant to Sheriff Accepted 2-2-77 Appealed 2-8-1977
 Run by FEE and/or Perm. Easement 12.8 Total Settlement \$3,000.00
 Conveyance recorded in Lee County on Book Page

Parcel 9A
 Acquired From Marvin A. Faeth & Carol M. Faeth, Ada M. Morgan & Henry M. Morgan
 Contract Signed 1-6-77 Approved 1-21-77 Recorded 2-17-78 Book 71 Page 276
 Cont. Held Warrant to Sheriff Accepted Appealed
 Run by FEE and/or Perm. Easement 3.3 Total Settlement \$2,551.00
 Conveyance recorded in Lee County on 2-22-77 Book 71 Page 298



$F + 30\% = 20,578$ $To Sta. 838 \pm = 1,652$ $To Sta. 833 \pm = 12,809$ Select = 5831	$F + 10\% = 54,093$ $F + 20\% = 72,250$ $126,343$	$F + 20\% = 2,884$ $To Sta. 858 \pm = 35,540$ $38,424$	$C = 38,424$	$C = 3,587$ $From Sta. 892 \pm = 64,369$ $67,256$
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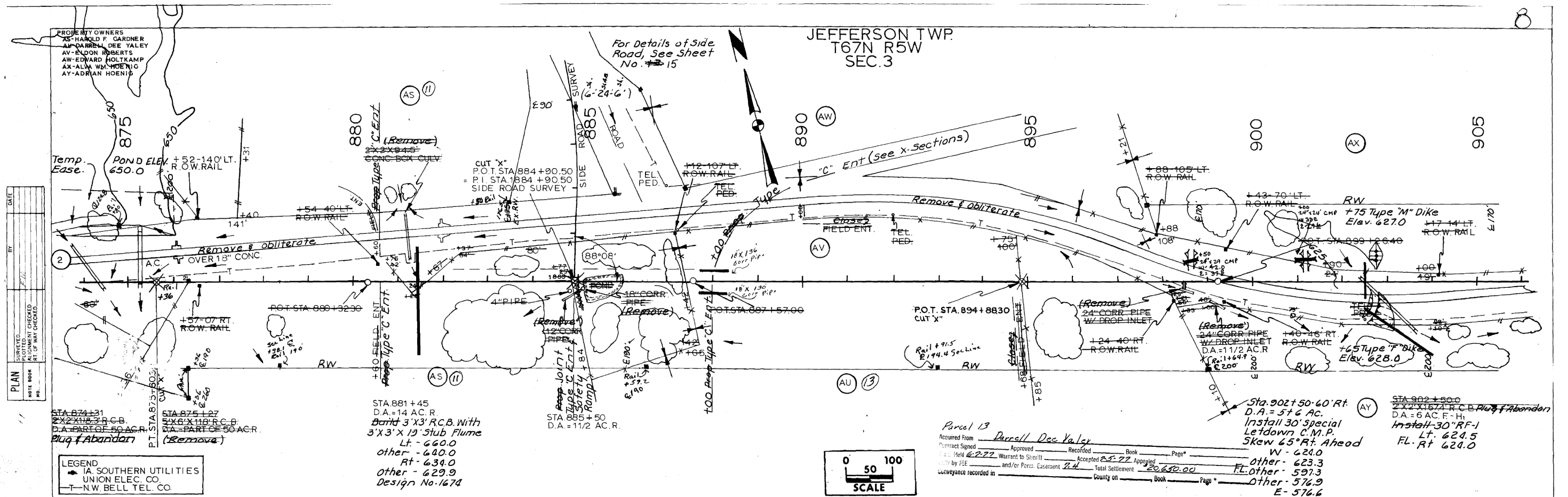
Parcel 12
 Acquired From Sarah & Farris J. Rashid
 Contract Signed 2-2-77 Approved 2-23-77 Recorded Book 69 Page 510
 Cont. Held Warrant to Sheriff Accepted Appealed
 Run by FEE and/or Perm. Easement 2.7 Total Settlement \$4,894.00
 Conveyance recorded in Lee County on 2-19-77 Book 69 Page 538



PLAN
 SURVEYED
 ALIGNED
 CHECKED
 RT OF WAY CHECKED

PROFILE
 SURVEYED
 GRADES CHECKED
 B.M. NOTED
 VERTICAL CURVES CHECKED

This Sheet For Information Only



DATE: _____

BY: _____

DATE: _____

BY: _____

DATE: _____

BY: _____

STA 874+31
 2' X 2' X 18' R.C.B.
 D.A. - PART OF 50 AC.R.
 Plug & Abandon

STA 875+27
 2' X 6' X 110' R.C.B.
 D.A. - PART OF 50 AC.R.
 (Remove)

P.T. STA 881+45

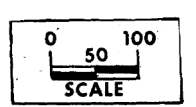
STA 881+45
 D.A. - 14 AC.R.
 Band 3' X 3' R.C.B. With
 3' X 3' X 19' Stub Flume
 Lt. - 660.0
 other - 640.0
 Rt - 634.0
 Other - 629.9
 Design No. 1674

STA 885+50
 D.A. - 1 1/2 AC.R.

STA 894+88.30
 CUT 'X'

STA 902+50.60
 D.A. - 5 1/2 AC.
 Install 30' Special
 Letdown C.M.P.
 5' Kew 65' Rt. Ahead

STA 902+50.00
 2' X 2' X 16 1/2' R.C.B. Plug & Abandon
 D.A. - 6 AC.F.H.
 Lt. - 624.5
 FL - Rt 624.0



Parcel 13

Accounted From: Darrell Dec Valley

Contract Signed: _____ Approved: _____ Recorded: _____ Book: _____ Page: _____

1/2 Held: 6,272 Warrant to Sheriff: _____ Accepted: 2,572 Applied: _____

1/2 by F&E: _____ and/or Porrs: Casement: 24 Total Settlement: 20,680.00

Waiver recorded in _____ County on _____ Book: _____ Page: _____

W - 624.0
 other - 623.3
 FL other - 597.3
 Other - 576.9
 E - 576.6

DATE: _____

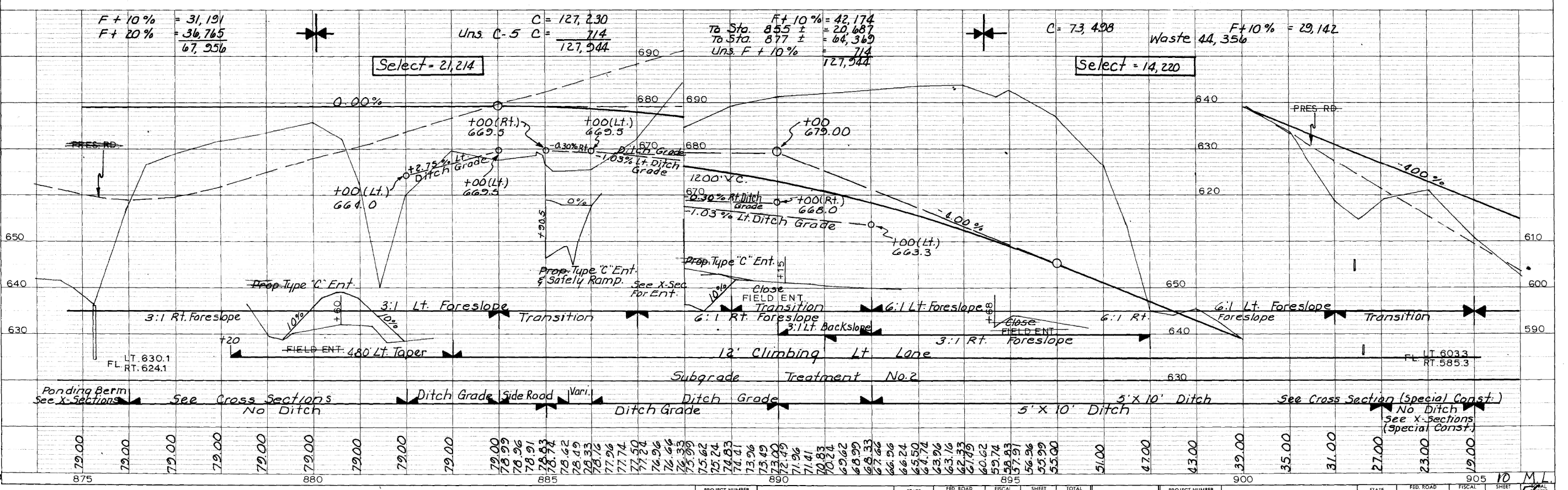
BY: _____

DATE: _____

BY: _____

DATE: _____

BY: _____



PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
LEE CO.	IOWA	5				F-2-9(15)--20-56	IOWA	5		10	17

This Sheet For Information Only

JEFFERSON TWP
T67N R5W

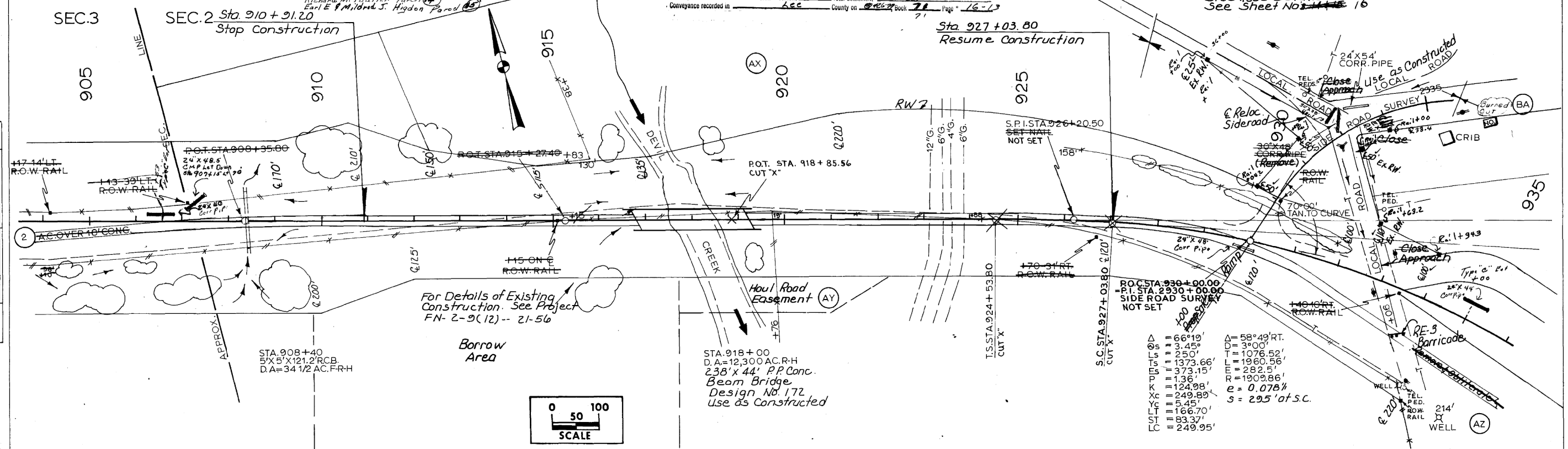
PROPERTY OWNERS
AX - ALVA WM. HOENIG
AY - ADRIAN HOENIG
AZ - STANLEY WEIDENBACHER
BA - WM P. WESTFALL
Richard M. Paulter Parcel 14
Earl E. Higdon & Mildred J. Higdon Parcel 15

Parcel 15
Acquired From Earl E. Higdon & Mildred J. Higdon ET AL
Contract Signed 6-21-72 Approved 7-2-72 Recorded 2-22-72 Book 71 Page 16
Cond. Held Warrant to Sheriff Accepted
ROW by FEE and/or Perm. Easement 2,365 Total Settlement 24,000.00
Conveyance recorded in 6-22-72 County on 9-26-72 Book 71 Page 16-13

Side Road Details
See Sheet No. 16

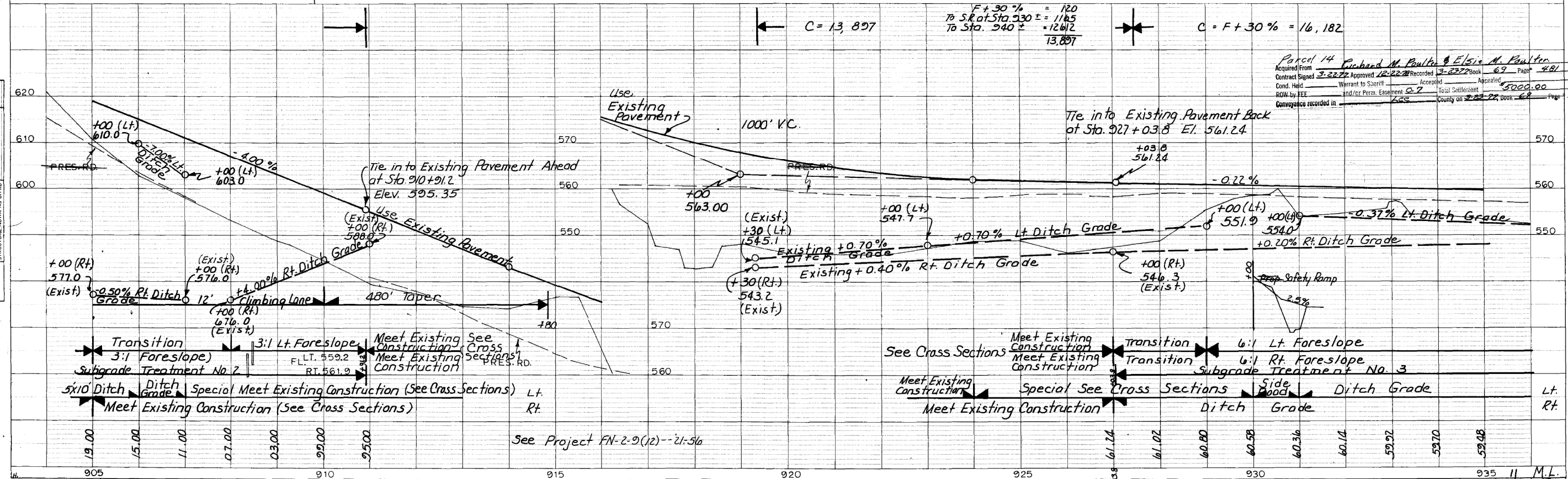
DATE	
BY	
SURVEYED	
PLOTTED	
CHECKED	
PT. OF WAY CHECKED	
NOTE BOOK NO.	
STRUCTURE NOTATIONS CIPKO	

AZ
AZ



Δ	= 66.19'
Δ	= 58.49' RT.
D	= 3.00'
T	= 1076.52'
RM	= 1960.56'
R	= 282.5'
R	= 1909.86'
e	= 0.078%
s	= 2.95' at S.C.
Δ	= 1373.66'
ES	= 373.15'
P	= 1.36'
K	= 124.98'
Xc	= 249.89'
Yc	= 5.45'
LT	= 166.70'
ST	= 83.37'
LC	= 249.95'

DATE	
BY	
SURVEYED	
PLOTTED	
CHECKED	
STRUCTURE NOTATIONS CIPKO	
NOTE BOOK NO.	



Parcel 14
Acquired From Richard M. Paulter & Elsie M. Paulter
Contract Signed 3-22-72 Approved 12-22-72 Recorded 3-23-72 Book 69 Page 481
Cond. Held Warrant to Sheriff Accepted
ROW by FEE and/or Perm. Easement 0.7 Total Settlement 5000.00
Conveyance recorded in 6-22-72 County on 2-23-72 Book 69 Page 48

LEE CO.	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		IOWA	5				F-2-9(15) -- 20-56	IOWA	5			

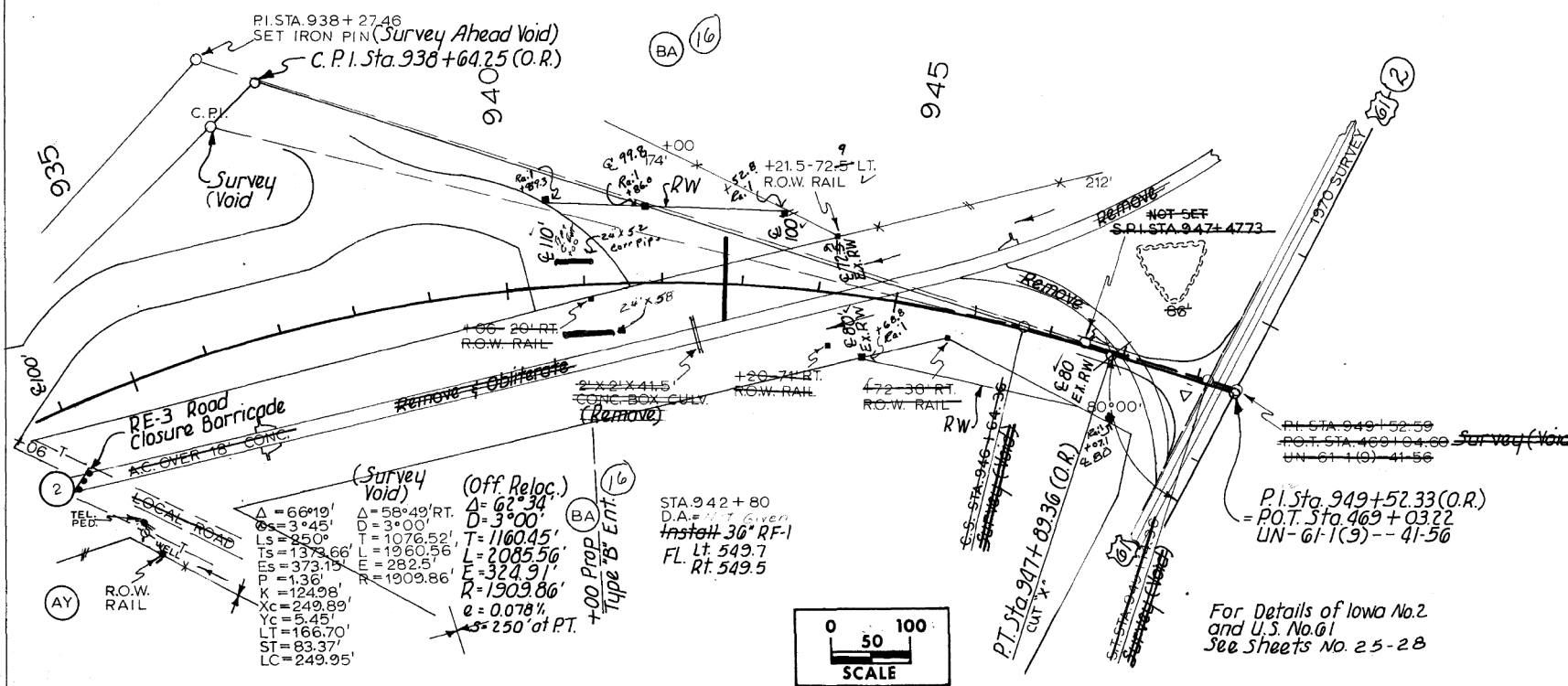
This Sheet
For Information Only

JEFFERSON TWP
T67N R5W
SEC.2

PROPERTY OWNERS
AY-ADRIAN HOENIG
AZ-STANLEY WEIDENBACHER
BA-WM. P. WESTFALL

Parcel 16 et al
Acquired From William P. Westfall & Virginia E. Westfall (See owners) - Ed Higdon & Mildred J. Higdon (C.P.)
Contract Signed 2-27-76 Approved 10-22-76 Recorded 12-23-76 Book 69 Page 478
Cond. Held Warrant to Plow Accepted Agreed
RDW by FEI 0-2 Total Department 1,500.00
Emergency: 600 2-23-77 Book 69 Page 478

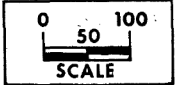
DATE: BY: PLANNED: PLOTTED: ALIGNED: CHECKED: BY: DATE: PLAN: NOTE BOOK: NO. 87



(Survey Void)
 $\Delta = 66^{\circ}19'$
 $\theta = 3^{\circ}45'$
 $L = 250'$
 $TS = 1373.66'$
 $ES = 373.19'$
 $P = 1.36'$
 $X = 124.98'$
 $YC = 249.89'$
 $YC = 5.45'$
 $LT = 166.70'$
 $ST = 83.37'$
 $LC = 249.95'$

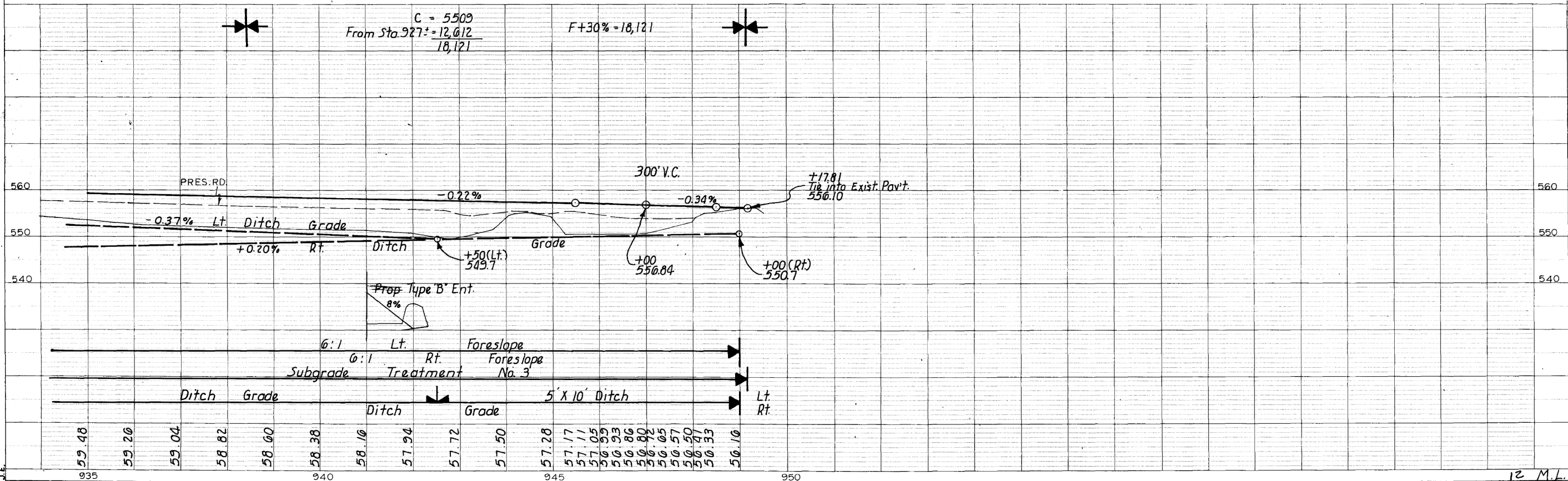
(Off. Reloc.)
 $\Delta = 58^{\circ}49'$ RT.
 $D = 3^{\circ}00'$
 $T = 1076.52'$
 $L = 2085.56'$
 $E = 282.5'$
 $F = 324.9'$
 $R = 1909.86'$
 $e = 0.078\%$
 $s = 250'$ at PT.

STA. 942+80
D.A. = 1.5 (over)
Hatch 36' RF-1
FL. Lt. 549.7
Rt. 549.5



For Details of Iowa No. 2
and U.S. No. 61
See Sheets No. 25-28

DATE: BY: PROFILE: GRADES CHECKED: STRUCTURE NOTATIONS CHECKED: NO. 87



$C = 5509$
From Sta. 927+ = 12,612
18,121
 $F+30\% = 18,121$

LEE CO.	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.
		IOWA	5				F-2-9(15)-20-56	IOWA	5		12

This Sheet For Information Only

