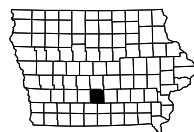


WARREN CO.
PCC PAVEMENT-GRADE AND REPLACE
NHSX-092-5(51)--3H-91

LETTING DATE
 10-21-2014

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 12	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1 - 2	Estimated Project Quantities
C.2 - 6	Estimate Reference Information
C.6	Index of Tabulations
C.6	Standard Road Plans
C.7	Pollution Prevention Plan
C.8	General Notes
C.8 - 27	Tabulations
CH Sheets	Hydraulics Information
CH.1	Hydraulics Tabulation
CS Sheets	Soils Information
CS.1 - 5	Soils Tabulations
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 29	IA 92 Mainline
E Sheets	Side Road Plan and Profile Sheets
* E.1	Kennedy Street
* E.2	R-57
* E.3	90th Ave
* E.4	R-63
* E.5	Y Street
* E.6	Access 258
* E.7	Entrance 359
F Sheets	Detour or Temporary Pavement Sheets
* F.1	County Road R-57
* F.2	County Road R-63
* F.3 - 5	Y Street
* F.6 - 7	IA 92 North Side East End
* F.8	IA 92 South Side East End
* F.9	Spruce Street
G Sheets	Survey Sheets
G.1 - 5	Reference Ties and Bench Marks
G.6 - 11	Horizontal Control Tab. & Super for all Alignments
H Sheets	Right-of-Way Mainline Sheets
H.1 - 15	Ia. 92 Mainline Sheets
HE Sheets	Right-of-Way Side Road Sheets
HE.1 - 6	Side Road ROW Sheets
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control Plan
* J.1	Pedestrian Path Closures
* J.1	Coordinated Operations
* J.2 - 3	Staging Notes
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* J.5 - 12	Detour Signing Sheets
* J.13 - 23	Staging Typical
* J.24 - 34	Staging Lay-out Sheets
* J.35 - 42	Traffic Control Details
L Sheets	Geometric, Staking and Jointing Sheets
L.1 - 5	Geometric Details of Co. Rd. R-57, R-63, 'Y' St.
L.6 - 11	Geometric Details of E. End of Ia. 92, Temp. Detours
L.12 - 14	Staking Details of Co. Rd. R-57, R-63, 'Y' ST.
L.15 - 22	Staking Details of E. End of Ia. 92, Temp. Detours
L.23 - 25	Edge Profiles of Co. Rd. R-57, R-63, 'Y' ST.
L.26 - 27	Edge Profiles of E. End of Ia. 92, Temp. Detours
L.28 - 30	Jointing Details of Co. Rd. R-57, R-63, 'Y' ST.



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

WARREN COUNTY

PCC PAVEMENT-GRADE AND REPLACE

Ia. 92 From Just West Of Co. Rd. R-57
 East To Just East of South 'N' Street In Indianola

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.



For Project Location Map
 Refer to Sheet A.2

DESIGN DATA RURAL				DESIGN DATA URBAN			
2014	AADT	6500	V.P.D.	2014	AADT	9500	V.P.D.
2034	AADT	11000	V.P.D.	2034	AADT	16000	V.P.D.
2034	DHV	1130	V.P.H.	2034	DHV	1650	V.P.H.
	TRUCKS	8	%		TRUCKS	8	%
	Total				Total		
	Design ESALs	8,300,000			Design ESALs	11,500,000	

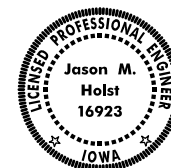
INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Jason M. Holst	Primary Signature Block
CH.1	David R. Claman	Hydraulic Signature Block
CS.1	Robert L. Stanley	Geotechnical Signature
J.5	Zachary Abrams	Signing Design Signature

REVISIONS

TOTAL
00
PROJECT IDENTIFICATION NUMBER
04-91-092-010-01
PROJECT NUMBER
NHSX-092-5(51)--3H-91
R.O.W. PROJECT NUMBER
STPN-092-5(50)--2J-91

INDEX OF SHEETS	
No.	DESCRIPTION
M Sheets	Storm Sewer Sheets
M.1 - 3	Storm Sewer Tabulations
M.4	Storm Sewer Legend & Symbol Information Sheet
M.5 - 18	Storm Sewer Plan Sheets
M.19 - 30	Storm Sewer Profile Sheets
Q Sheets	Soils Sheets
Q.1	Soils Legend & Symbol Information Sheet
Q.2 - 32	Soils Sheets Ia. 92 Mainline
S Sheets	Sidewalk Sheets
* S.1	Sidewalk Legend & Symbol Information Sheet
* S.2 - 6	Sidewalk Plan Sheets
* S.7 - 10	Sidewalk Tabulations
T Sheets	Earthwork Quantity Sheets
T.1 - 23	Earthwork Quantity Sheets
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1 - 18	Removal Detail Sheets
U.19 - 28	Pavement Marking Detail Sheets
U.29	Modified Details Of Mailbox Turnouts
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 158	IA 92 Cross Sections - Rural Section
W.160 - 206	IA 92 Cross Sections - Urban Section
W.207 - 231	IA 92 Cross Sections - Widening Section
X Sheets	Side Road Cross Sections
X.1 - 3	Kennedy St
X.4 - 10	R-57
X.12 - 21	90th
X.22 - 26	R-63
X.27 - 34	Y Street
X.35 - 48	R-57 Detour
X.48 - 60	Entrance 259
X.61 - 72	R-63 Detour
X.73 - 90	Y Street Detours
X.91 - 100	IA 92 North Side East End Detour
X.101 - 104	IA 92 South Side East End Detour
X.105 - 106	Spruce Street Detour
	* Color Plan Sheets

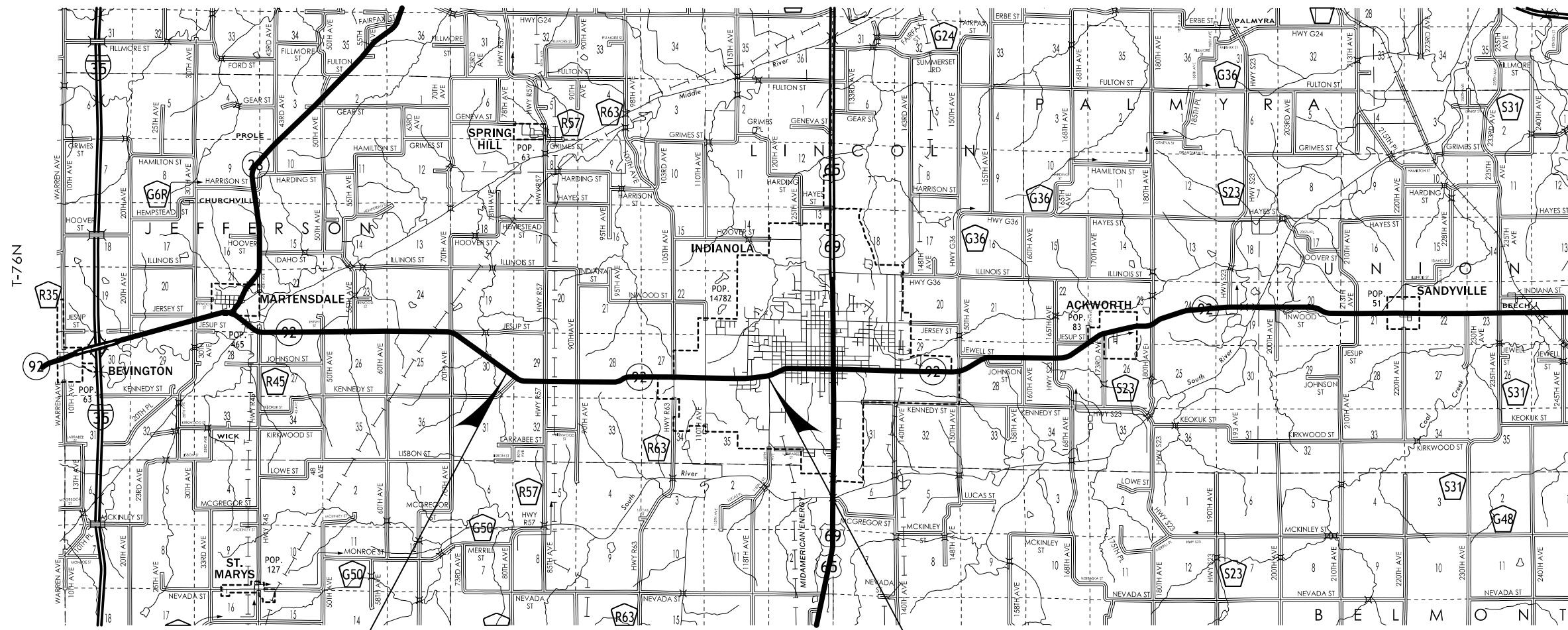
ROADWAY DESIGN



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

Signature: *Jason M. Holst* Date: _____
 Jason M. Holst
 Printed or Typed Name
 My license renewal date is December 31, 2015

Pages or sheets covered by this seal: A.1-A.2; B.1-B.12; C.1-C.27; D.1-D.29; E.1-E.7; F.1-F.9; G.1-G.11; H.1-H.15; HE.1-HE.6; J.1-J.4; J.13-J.42; L.1-L.30; M.1-M.30; S.1-S.10; T.1-T.23; U.1-U.29; W.1-W.231; X.1-X.106



R-25W

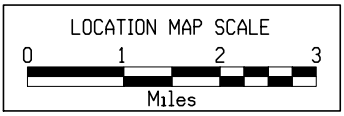
R-24W

R-23W

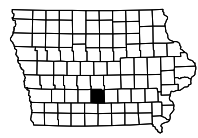
R-22W

STA. 256+50.00
BEGIN PROJECT
M.P. 125.97

STA. 465+03.68
END PROJECT
M.P. 129.92



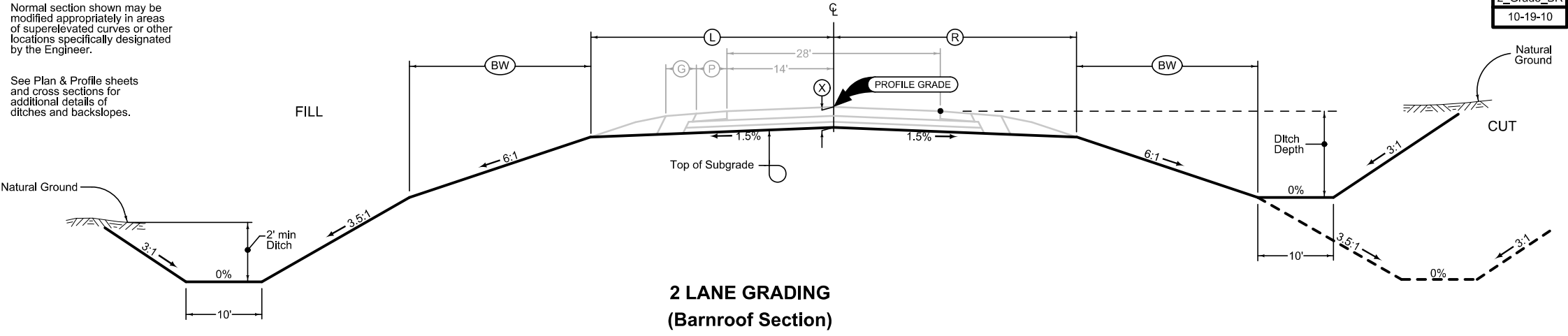
LOCATION MAP SHEET



LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	BW Feet
IA 92	256+50.00 - 391+00.00	35.2	35.2	22	16.4

Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

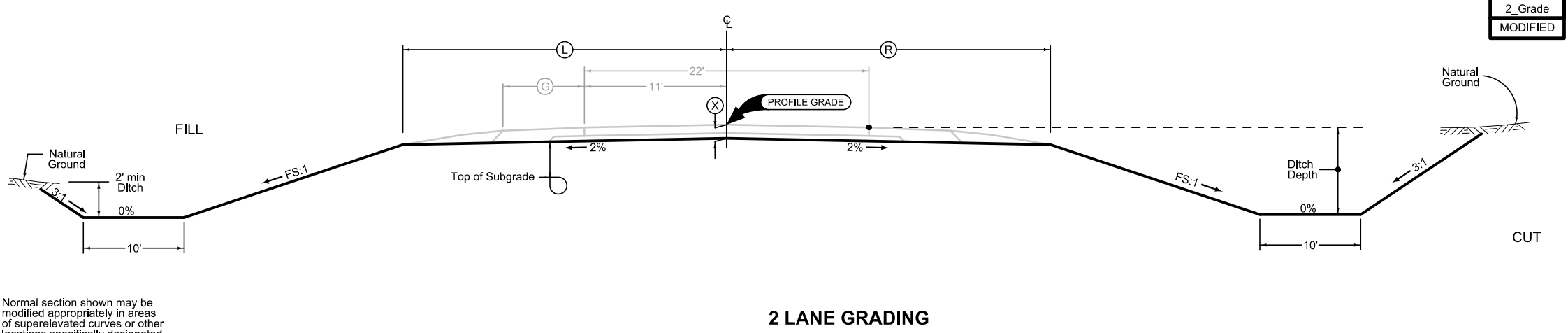


2_Grade_BR
10-19-10

LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	FS
R-57	1280+60.00 - 1283+41.23	27.0	27.0	22	4
R-57	1384+16.17 - 1386+06.00	27.0	27.0	22	4
R-63	3388+60.00 - 3390+71.41	27	27	22	4
R-63	3391+41.99 - 3393+05.00	27	27	22	4

Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See plan & profile sheets and cross sections for additional details of ditches and backslopes.



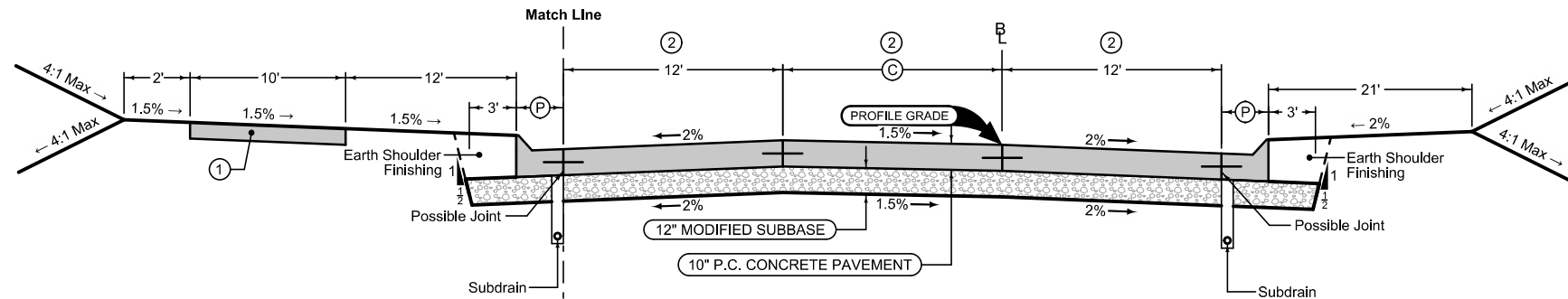
2_Grade
MODIFIED

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint: L-2
Staged: KT-2
Transverse: CD at 20' spacing

Single pour: L-2
Staged: KT-2
Transverse: CD at 20' spacing

2_Curb_MODIFIED			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
391+00.00	443+18.01	3	6" Standard



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

2P_TWLTL_10-19-10		
STATION TO STATION	(C) Feet	
391+00.00	441+27.50	16
441+27.50	443+18.01	16-12

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint: L-2
Staged: KT-2
Transverse: CD at 20' spacing

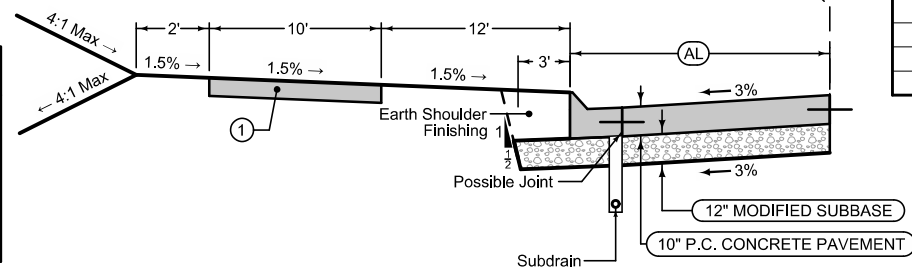
Single pour: L-2
Staged: KT-2
Transverse: CD at 20' spacing

2_Curb_MODIFIED			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
391+00.00	443+18.01	3	6" Standard

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_MODIFIED			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WEST	391+92.00	396+82.00	13



See Tab 100-24 for pavement quantities.

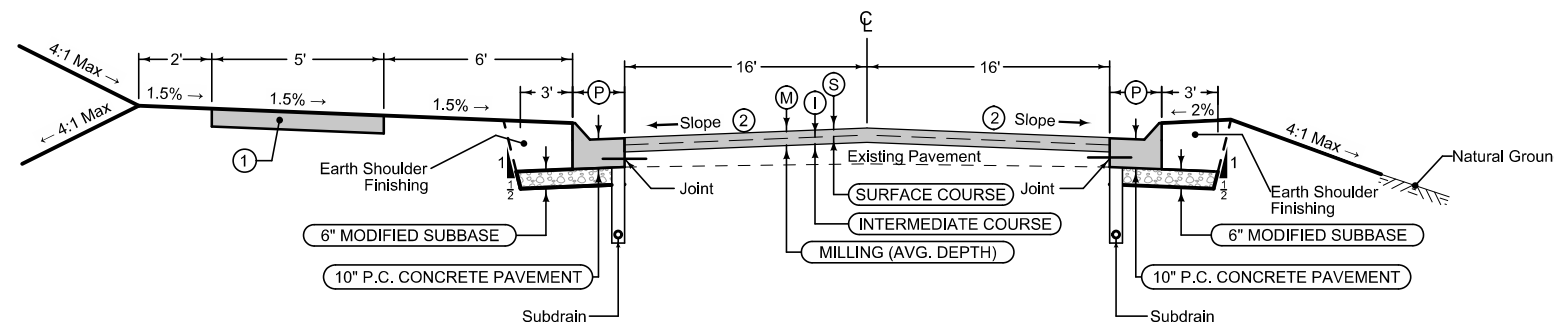
- ① Recreational Trail - Refer to Typ. 7402 for additional information.
- ② Refer to L-Sheets for transition areas.

IOWA 92 - URBAN

Curbed Shoulder

Shoulder Jointing:
Longitudinal: BT-2
Transverse: C at 20' spacing

2_Curb_MODIFIED			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
443+18.01	464+92.00	2.5	6" Standard



HMA RESURFACING

LOCATION					
ROAD IDENTIFICATION	STATION TO STATION	(M) Inches	(S) Inches	(I) Inches	
la. 92	443+18.01	465+01.01	3	1.5	1.5

Curbed Shoulder

Shoulder Jointing:
Longitudinal: BT-2
Transverse: C at 20' spacing

2_Curb_MODIFIED			
STATION TO STATION	(P) Feet	Curb Type See PV-102	
443+18.01	464+92.00	2.5	6" Standard

- ① Recreational Trail - Refer to Typ. 7402 for additional information. See Tab 100-24 for pavement quantities.
- ② Match finished slope to existing pavement, except the the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping.
- ③ Refer to Plan and Profile sheets for Curb Form Grade.

IOWA 92 - WIDENING & RESURFACE

SURVEY SYMBOLS

- TDC Tree Deciduous
- PPA Power Pole Co. 1
- FWD Wood Fence
- LUM Luminaire
- TEV Evergreen Tree
- LP L.P. Tank
- D Centerline Draw or Stream (Down)
- RET Retaining Walls
- SI Sign
- SHR Shrub
- SI Sign
- EW Edge of Water
- DIK Centerline of Dike or Dam
- FLG Flag Poles
- WM Wind Mill
- FCL Chain Link and Security Fence
- HDG Hedge Row
- TV Satellite TV Dish
- RT Radio Tower
- INB Storm Sewer Beehive Intake
- WV Water Valve
- FHD Fire Hydrants
- WEL Well
- MH Utility Access (Manhole)
- LUM Luminaire
- MIS Miscellaneous
- TPD Telephone Pedestal
- EB Electrical Box
- UB Utility Box
- PR Electric Riser Pole
- FW Wire Fence
- GP Guard Post (Less Than 4 Posts)
- IN Storm Sewer Intake
- TLN Treeline
- TVP TV Pedestal
- SEP Septic Tank
- OUT Tile Outlet
- TIL Tile Line
- UST Underground Tank
- GV Gas Valve
- DU Centerline Draw or Stream (Up)
- BNK Stream Bank
- BL Topo Breakline
- RIP Rip-Rap

- St.S. STA Storm Sewer Line Co. 1
- F03 FOC Underground Fiber Optic Co. 3
- F05 FOE Underground Fiber Optic Co. 5
- F02 FOB Underground Fiber Optic Co. 2
- San. SAA Sanitary Sewer Line Co. 1
- T1 TLA Underground Telephone Line Co. 1
- E1 ELA Underground Electric Line Co. 1
- G GLA Underground Gas Line Co. 1
- TV TVA Underground TV Cable Co. 1
- W WLA Underground Water Line Co. 1
- F0 FOA Underground Fiber Optic Co. 1
- E2 ELB Underground Electric Line Co. 2
- San.2 SAB Sanitary Sewer Line Co. 2
- G2 GLB Underground Gas Line Co. 2
- F04 FOD Underground Fiber Optic Co. 4
- W2 WLB Underground Water Line Co. 2

UTILITY LEGEND

- F0 FOA Paetac Iowa Communications Network
- F02 FOB Lightcore (Digital Teleport)
- F03 FOC Iowa Network Service
- F04 FOD Indianola Municipal Utilities
- F05 FOE MCI
- T1 TLA Qwest
- E1 ELA Mid-American
- E2 ELB Indianola Municipal Utilities
- TV TVA Mediacom
- W WLA Indianola Municipal Utilities
- W2 WLB Warren Rural Water
- San. SAA City of Indianola
- San.2 SAB Private
- G GLA Mid-American
- G2 GLB Kinder Morgan
- St.S. STA City of Indianola
- PPA Mid-American

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	Description
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING		
Design Color No.	Description	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading
Green, Light	(225)	Existing Pavement Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	Description
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

Reference Point

Station

 Section Corner

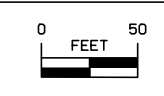
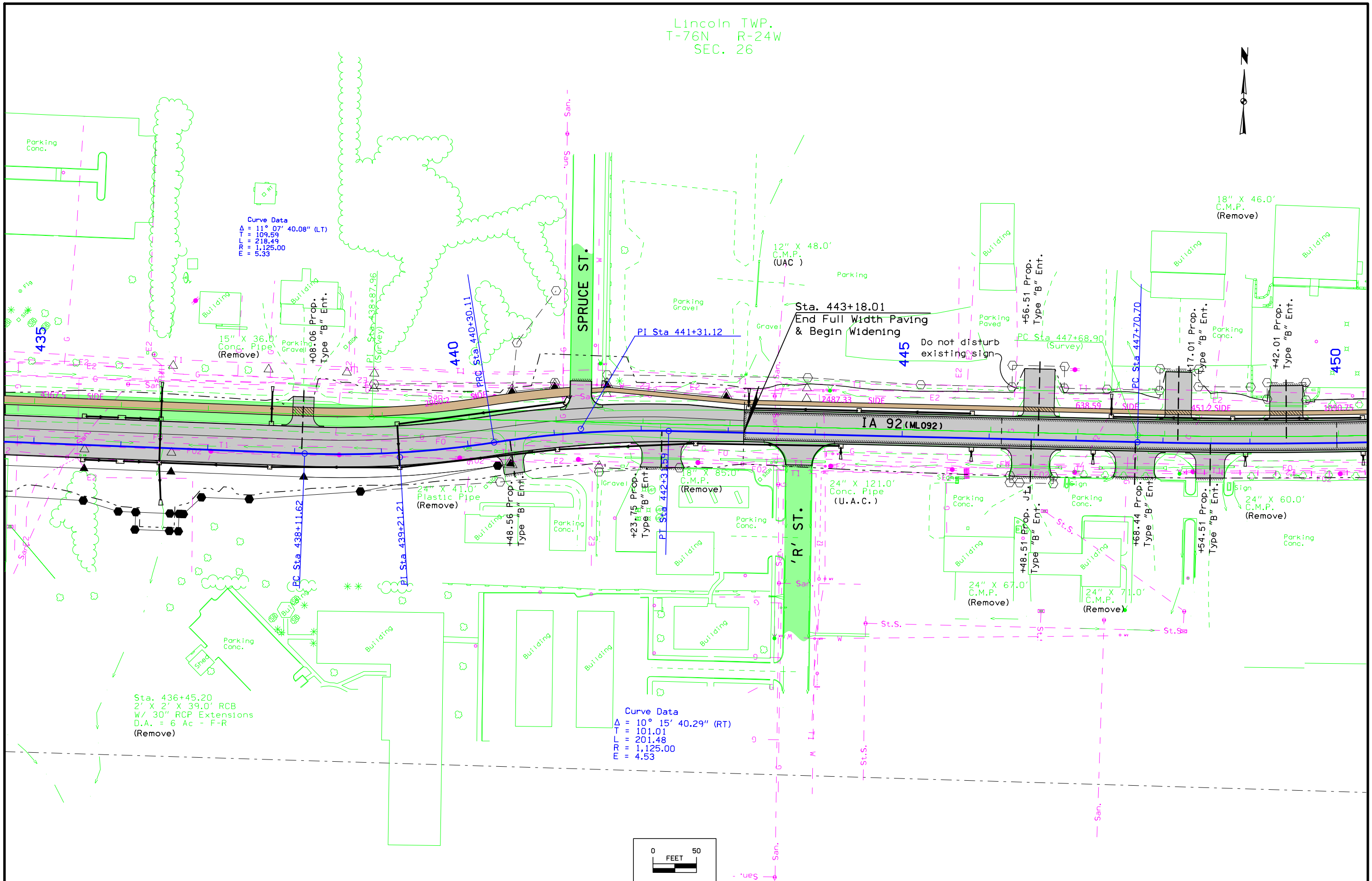
RIGHT-OF-WAY LEGEND

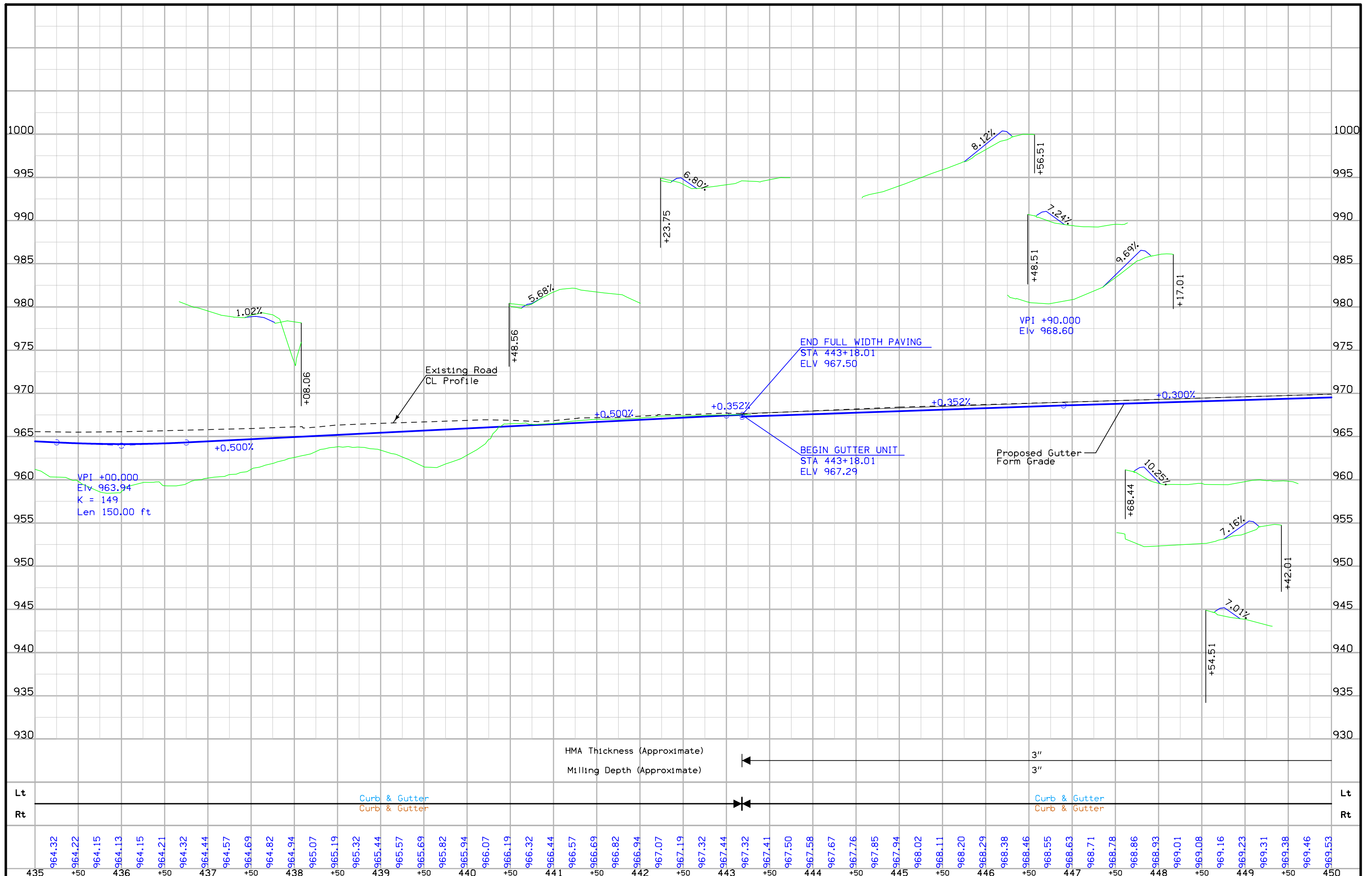
- Proposed Right-of-Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Borrow
- Easement (Temporary)
- Easement
- Excess
- Access Control

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

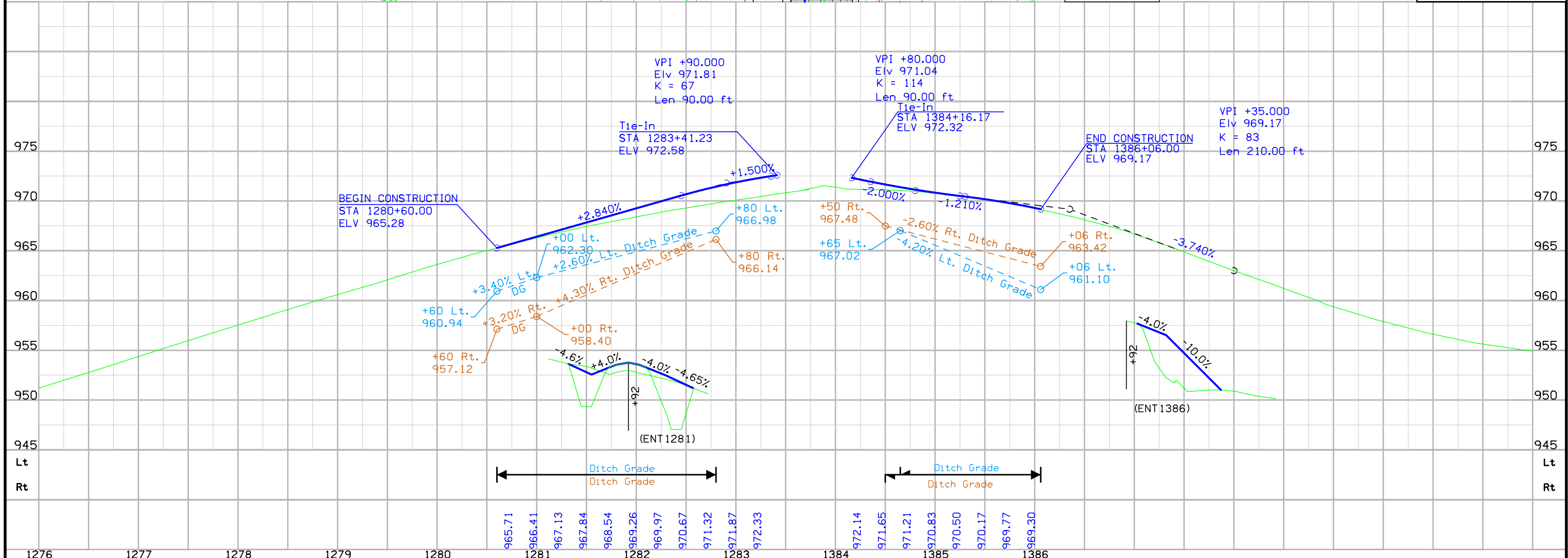
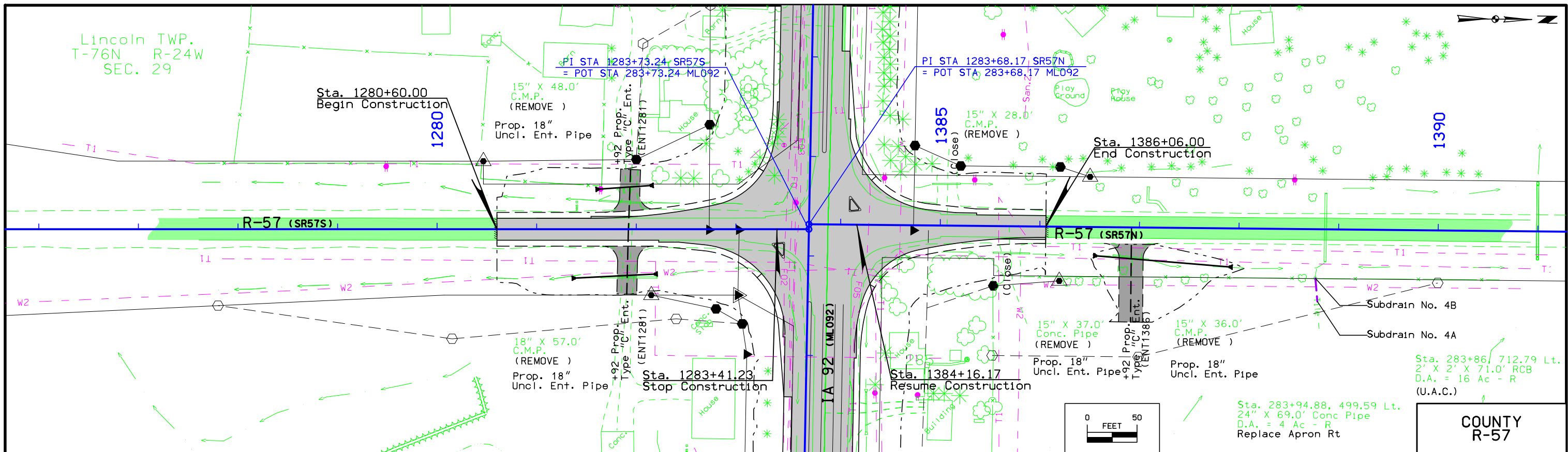
(COVERS SHEET SERIES D, E, F, & K)

Lincoln TWP.
T-76N R-24W
SEC. 26



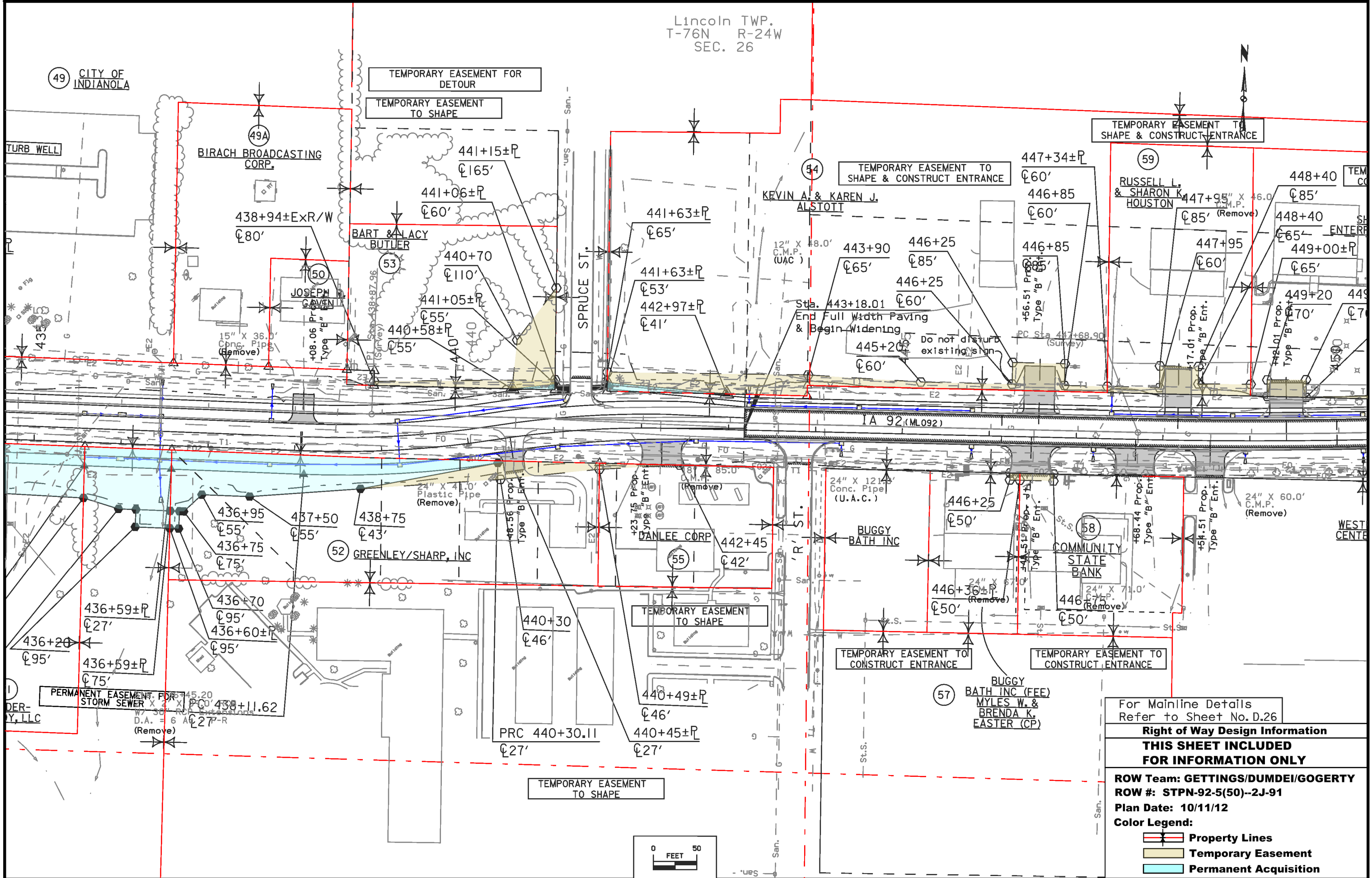


FILE NO.	ENGLISH	DESIGN TEAM	J1a\Holst\Bennett	WARREN COUNTY	PROJECT NUMBER	NHSX-092-5(51)--3H-91	SHEET NUMBER	D.27
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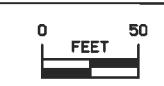


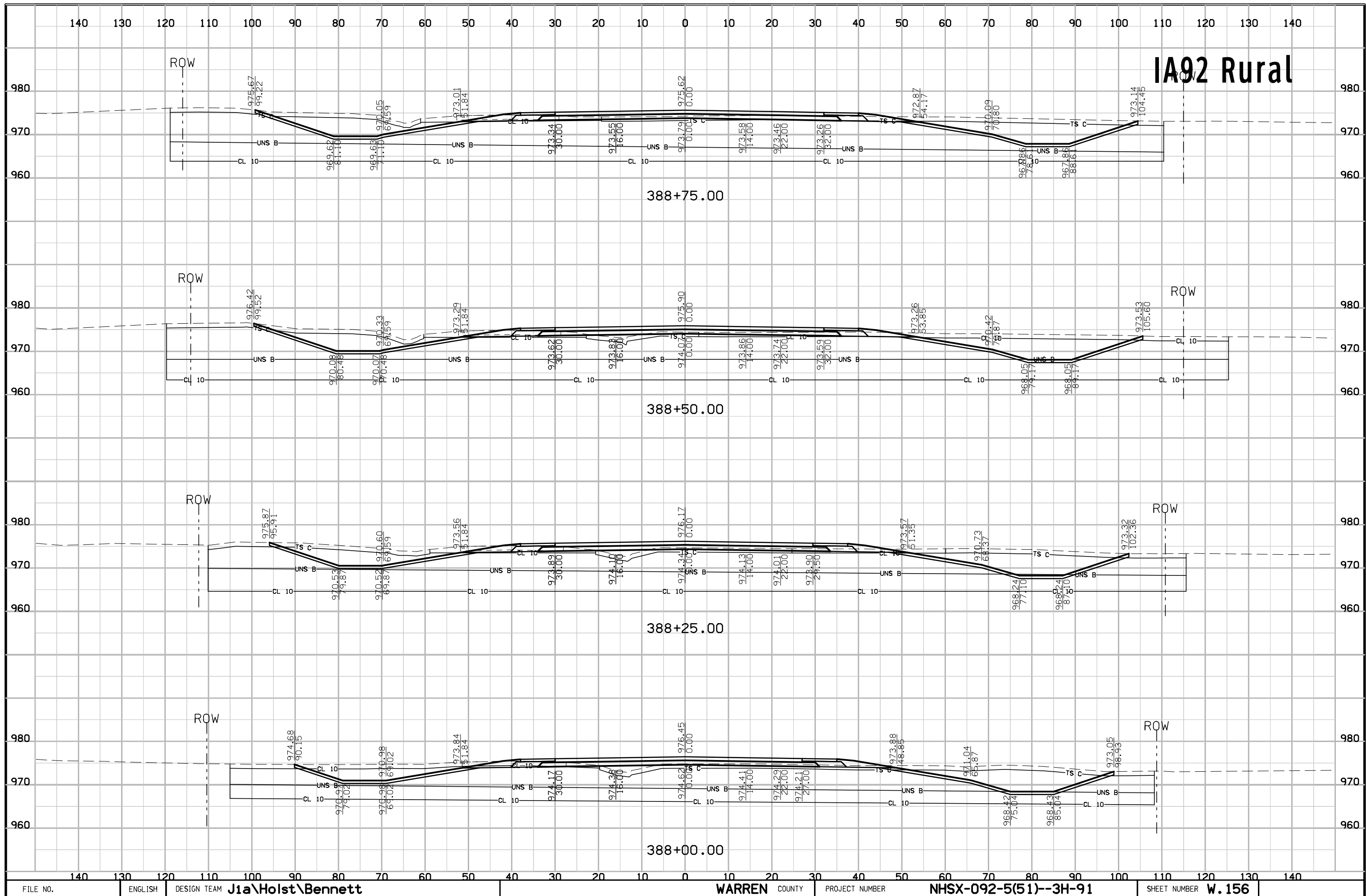
Lincoln TWP.
T-76N R-24W
SEC. 26

49 CITY OF INDIANOLA



For Mainline Details Refer to Sheet No. D.26	
Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: GETTINGS/DUMDEI/GOGERTY	
ROW #: STPN-92-5(50)--2J-91	
Plan Date: 10/11/12	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition





IA92 Rural

US Highway 20 Stage 1 Final

