PRELIMINARY

LETTING DATE

IM-035-3(194)87--13-77

POLK Co.

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
A.2	Location Map Sheet
A.3 - 6	Project Key Map Sheets
B Sheets	**Typical Cross Sections and Details**
B.1 - 16	Roadway Typical Sections and Details
D Sheets	**Mainline Plan and Profile Sheets**
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 10	I-35 Northbound
* D.11 - 14	I-235 Northbound
* D.15	I-80 Mainline-Survey
* D.16	I-80 Mainline
E Sheets	**Side Road Plan and Profile Sheets**
* E.1	Chichaqua Valley Trail
* E.2	NE 54th Avenue
* E.3	NE 29th Street
* E.4	NE Broadway Avenue
* E.5	Special Ditches
F Sheets	**Detour or Temporary Pavement Sheets**
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G.3 - 6	Horizontal Control Alignment Geometry
J Sheets	**Traffic Control and Staging Sheets**
* J.1	Traffic Control & Staging Notes
* J.2	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.3 - 6	Staging Overview
* J.7 - 10	Phasing Typicals
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K Sheets	**Interchange Sheets**
* K.1 - 2	Ramp A Plan & Profile Sheets
* K.3 - 4	Ramp B Plan & Profile Sheets
* K.5 - 9	Ramp G Plan & Profile Sheets
K.10 - 15	Interchange Drainage & Site Grading
N Sheets	**Traffic Signal Sheets**
N.1 - 14	Signing Locations and Detail Sheets
U Sheets	**500 Series, Mod.Stds. and Detail Sheets**
U.1 - 11	Special Details
V Sheets	**Bridge and Culvert Situation Plans**
V.1	Ramp B Retaining Wall Plan & Profile
V.2 - 20	Culvert Plat Plans-Mainline, Side Road & Ramps
V.21 - 35	Bridge Situation Plans
W Sheets	**Mainline Cross Sections**
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 88	Mainline Cross Sections
X Sheets	**Side Road Cross Sections**
X.1 - 17	Side Road Cross Sections
Y Sheets	**Ramp Cross Sections**
Y.1 - 53	Ramp Cross Sections

* Color Plan Sheets

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

POLK COUNTY

PRELIMINARY

I-35/80/235

I-35/80/235 Interchange Northeast of Des Moines (Stage 3A)

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

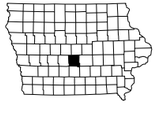
Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

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

REVISIONS

TOTAL
PROJECT IDENTIFICATION NUMBER
10-77-035-010-03
PROJECT NUMBER
IM-035-3(194)87--13-77
R.O.W. PROJECT NUMBER

For Project Location Map
Refer to Sheet A.2



INTERSTATE 235 DESIGN DATA URBAN			
2012 AADT	63,000	V.P.D.	
2050 AADT	105,600	V.P.D.	
2050 DHV	11,000	V.P.H.	
TRUCKS	9	%	
Total Design ESALs	--		

INTERSTATE 35 DESIGN DATA URBAN			
2012 AADT	75,200	V.P.D.	
2050 AADT	125,800	V.P.D.	
2050 DHV	13,000	V.P.H.	
TRUCKS	14	%	
Total Design ESALs	--		

INTERSTATE 80 DESIGN DATA URBAN			
2012 AADT	84,100	V.P.D.	
2050 AADT	133,900	V.P.D.	
2050 DHV	13,900	V.P.H.	
TRUCKS	19	%	
Total Design ESALs	--		

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN SUBMITTAL
Date: December 23, 2016

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER A.1

8:03:00 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194A01.sht

R-24W

R-23W

T-80N

T-79N

MARGO FRANKEL WOODS STATE PARK

DELAWARE AVENUE

Corporate Woods Drive

NE BERWICK DR

BERWICK

NE 62 AVE

NE 60 AVE

NE 58 AVE

NE 57 PL

NE 54 AVE

NE 54 PL

NE 46 ST

NE 29 ST

NE 22 ST

NE 14 ST

NE 3 ST

NW 52 PL

NW 51 PL

NW 50 PL

NE BROADWAY AVE

NE 46 AVE

E 38 ST

NORWOOD-VILLE

CAPI HEIG

Sta. 2114+60.00
End NB I-35 Widening

Sta. 38637+77.87
End Ramp G Construction

Sta. 8465+42.83
Begin NB I-35 Construction

Detour Construction

FHWA # 609865 EB 609815 WB

FHWA # 41740

FHWA # 41690

FHWA # 41950 EB 41960 WB

FHWA # 609860 EB 609810 WB

FHWA # 43071 EB 43081 WB

FHWA # 43051 EB 43061 WB

Sta. 38557+03.00
Begin Ramp G Construction
End ML 235 Widening

Sta. 2015+96.21
Begin ML 235 Widening

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

80 35 235 6 F52

LOCATION MAP SCALE
0 0.5 1 1.5
Miles

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER A.2

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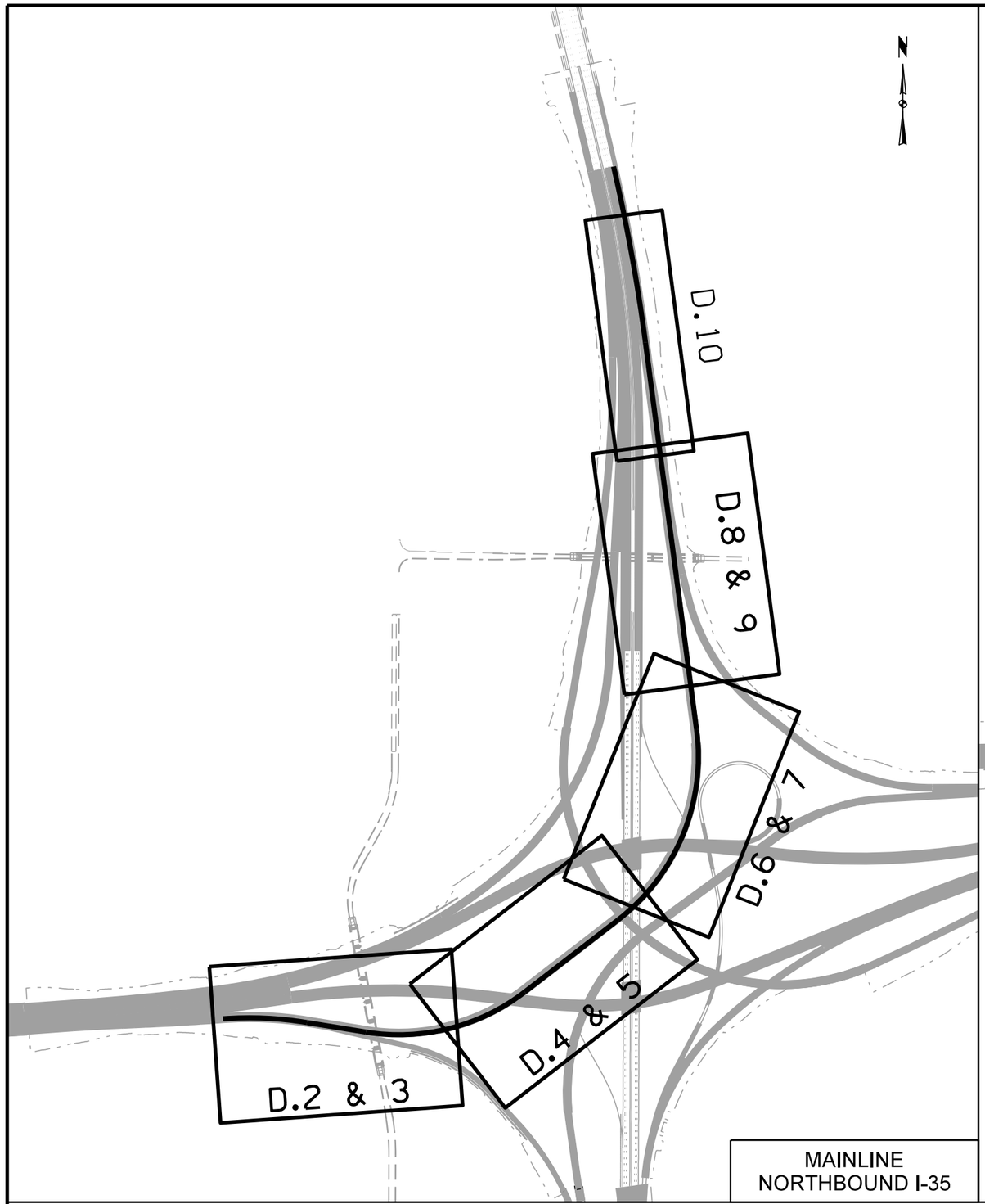
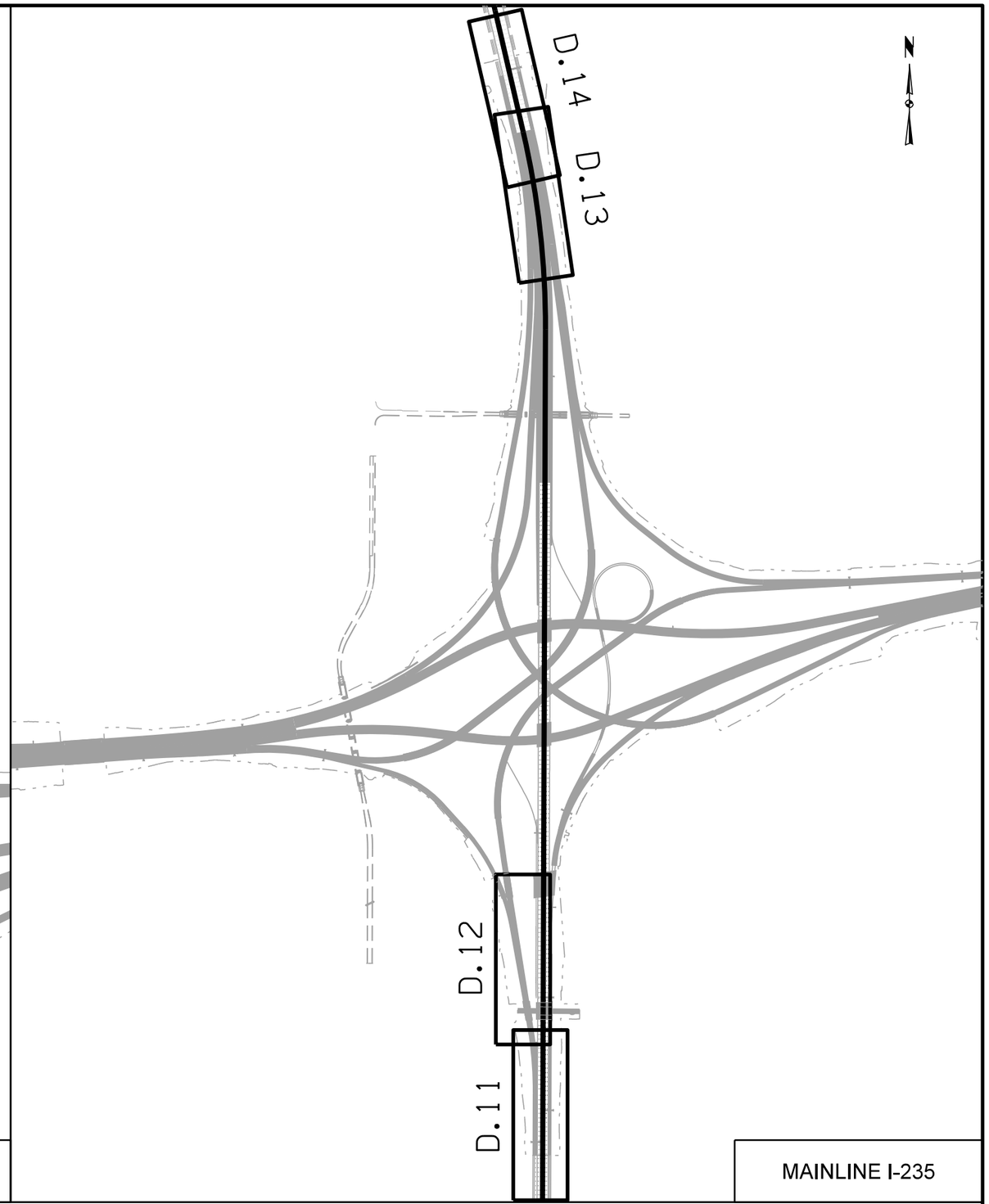


MAINLINE
NORTHBOUND I-35

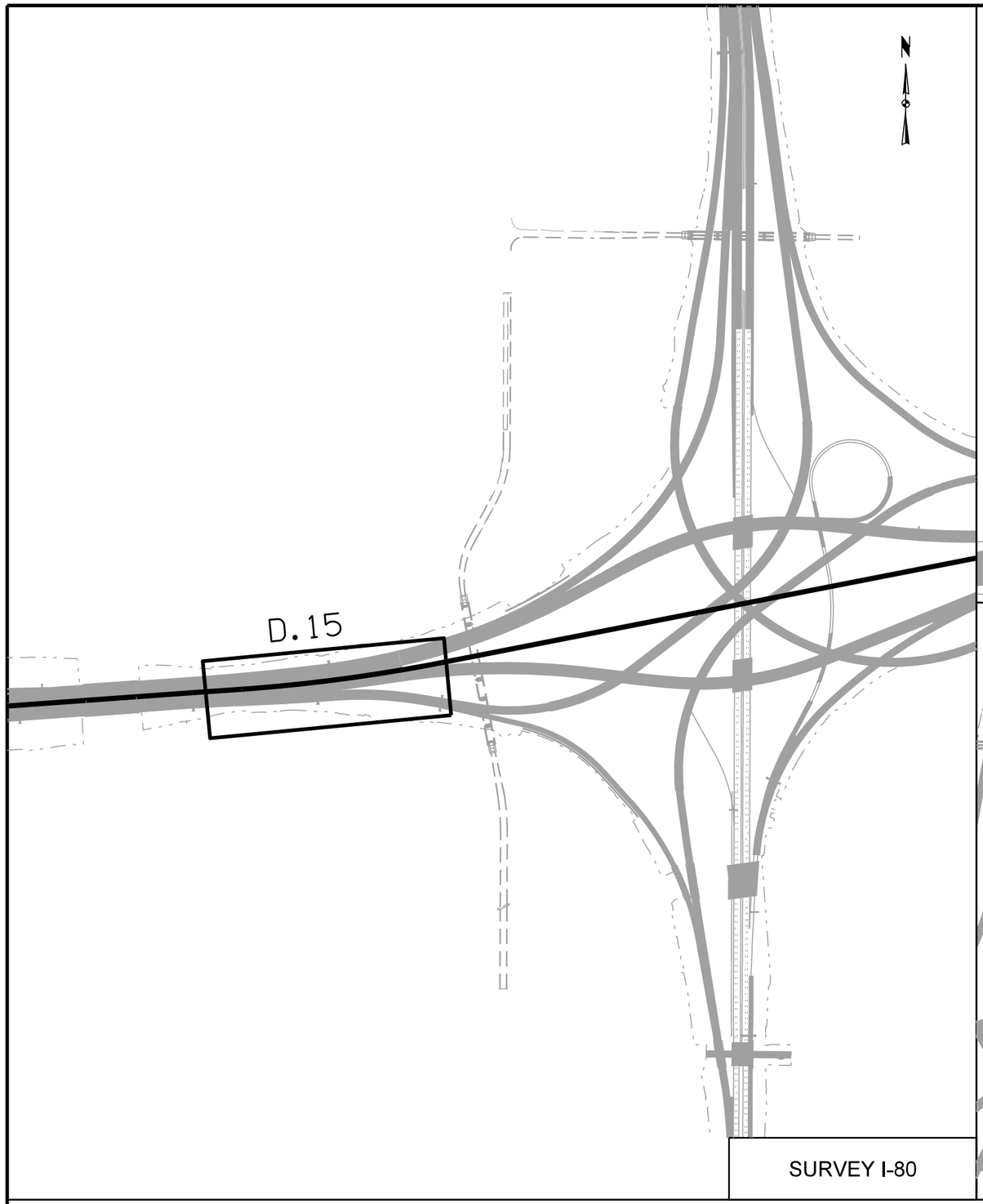


MAINLINE I-235

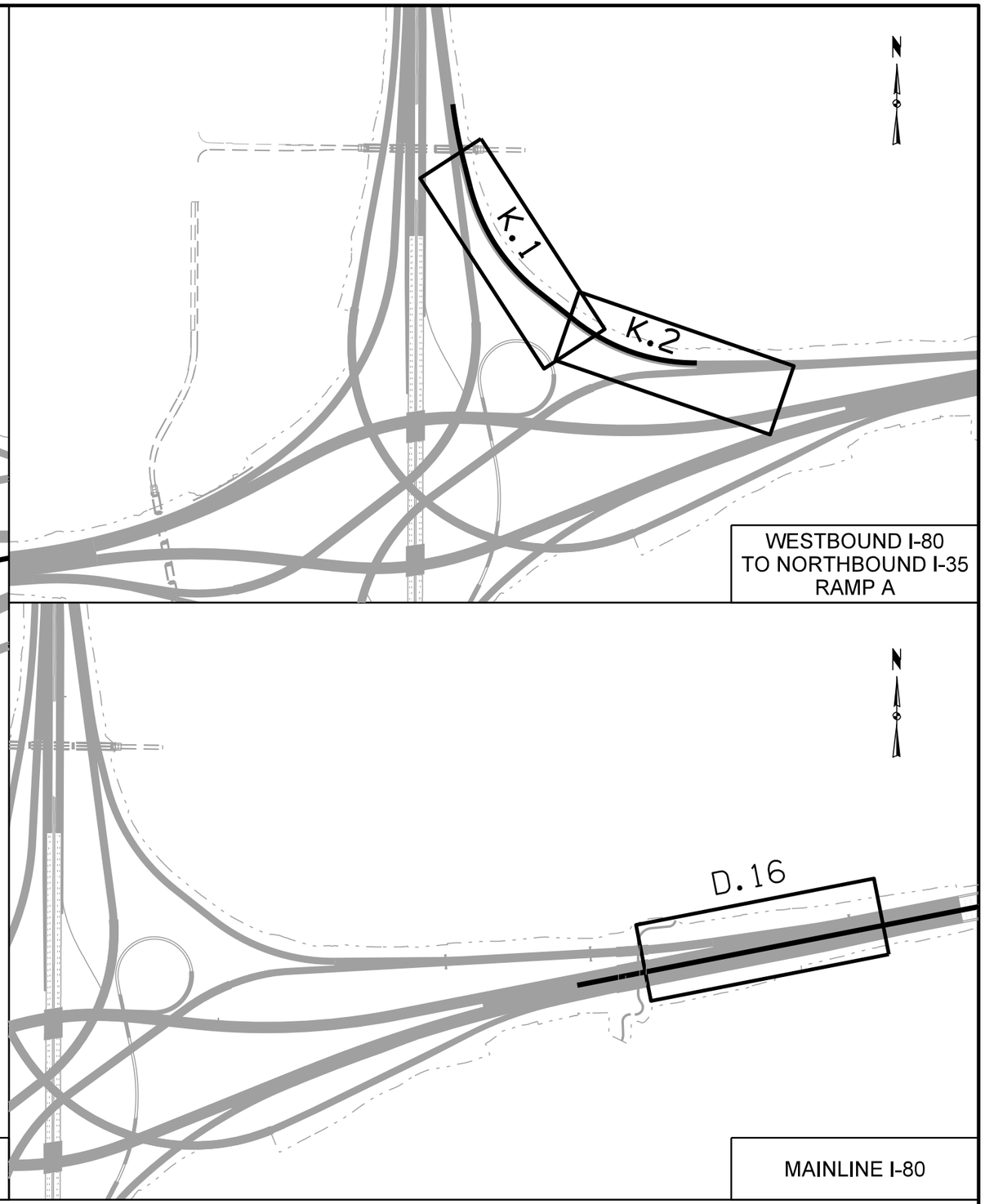
Project Key Maps

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER A.3

8:03:03 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194A01.sht



SURVEY I-80



WESTBOUND I-80
TO NORTHBOUND I-35
RAMP A

MAINLINE I-80

Project Key Maps

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER A.4

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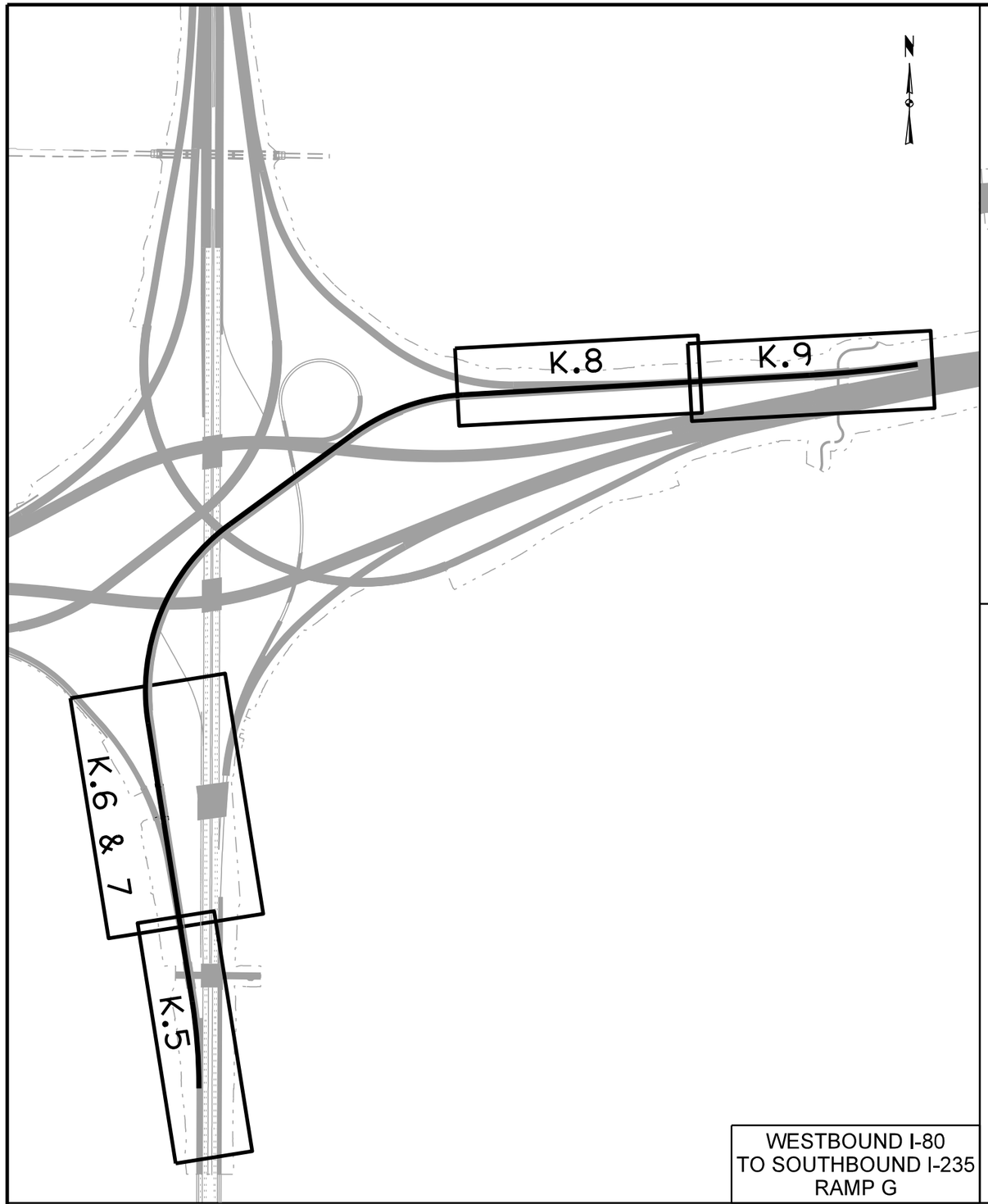
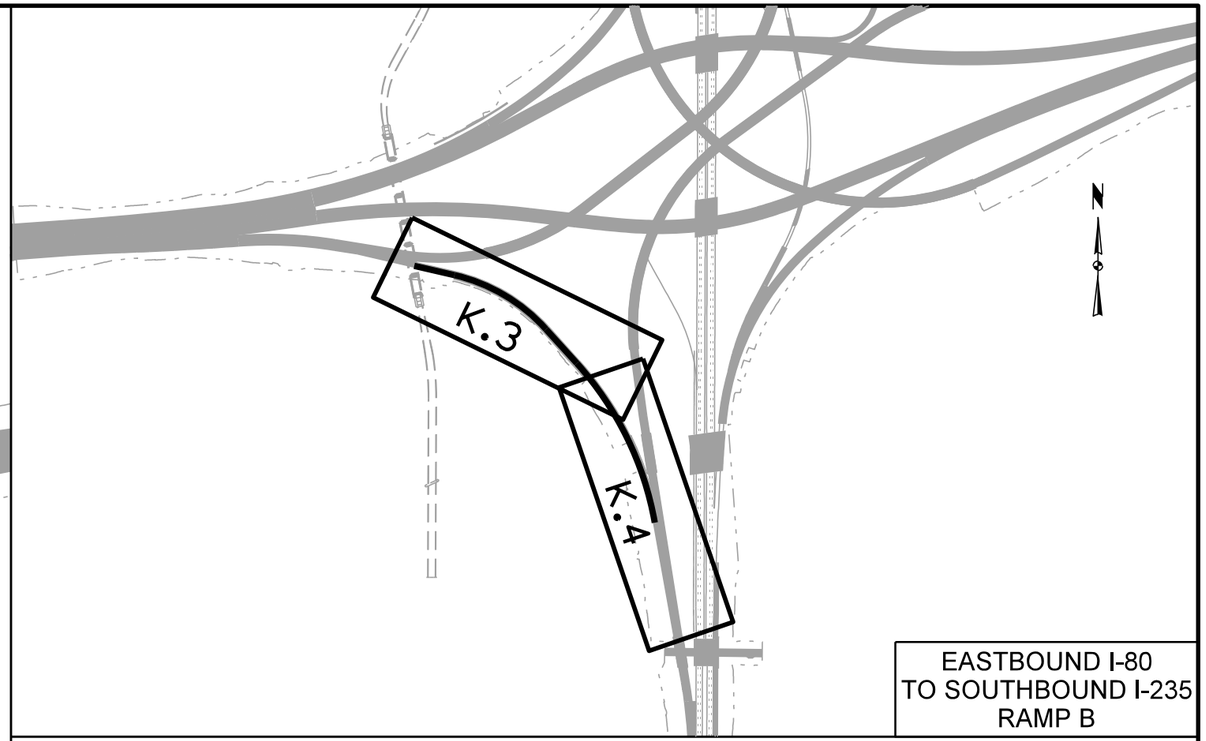
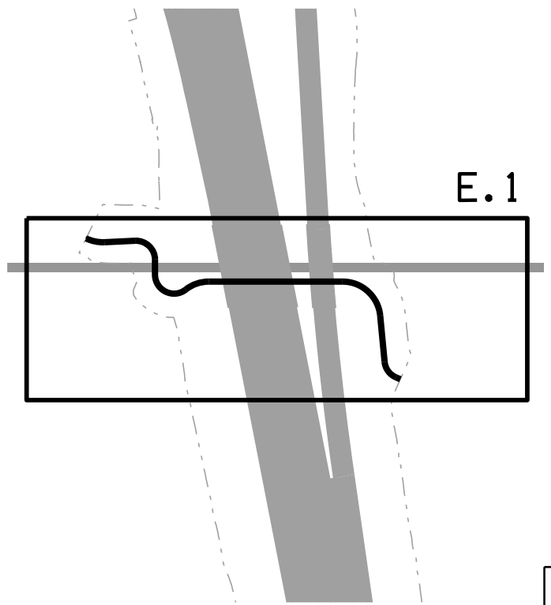


WESTBOUND I-80
TO SOUTHBOUND I-235
RAMP G



EASTBOUND I-80
TO SOUTHBOUND I-235
RAMP B

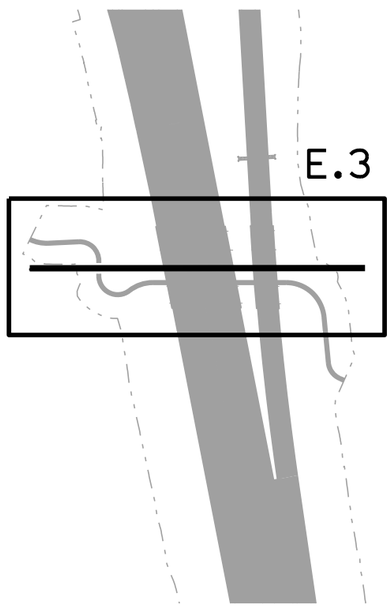


CHICHAQUA VALLEY
TRAIL

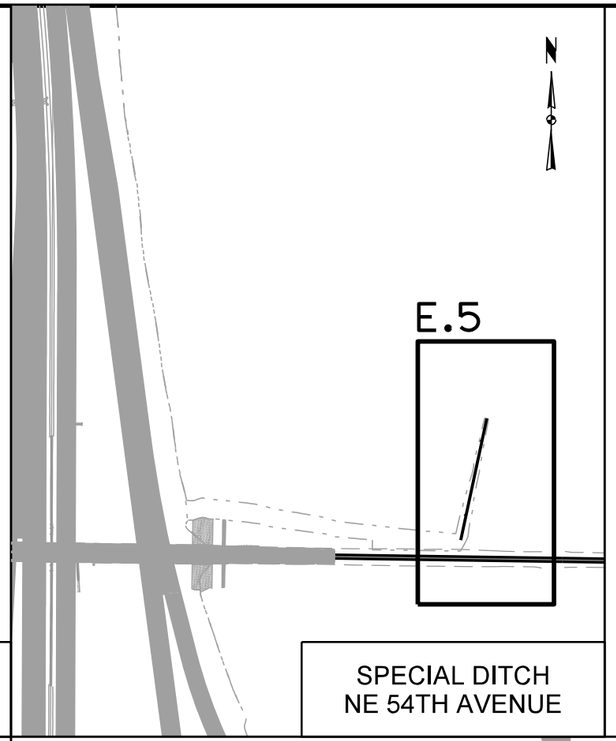
Project Key Maps

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER A.5

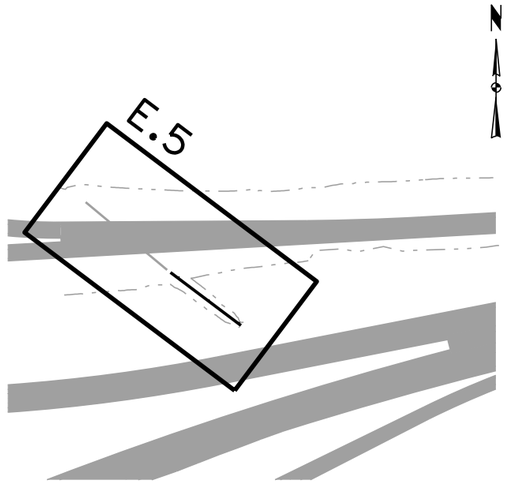
8:03:04 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194A01.sht



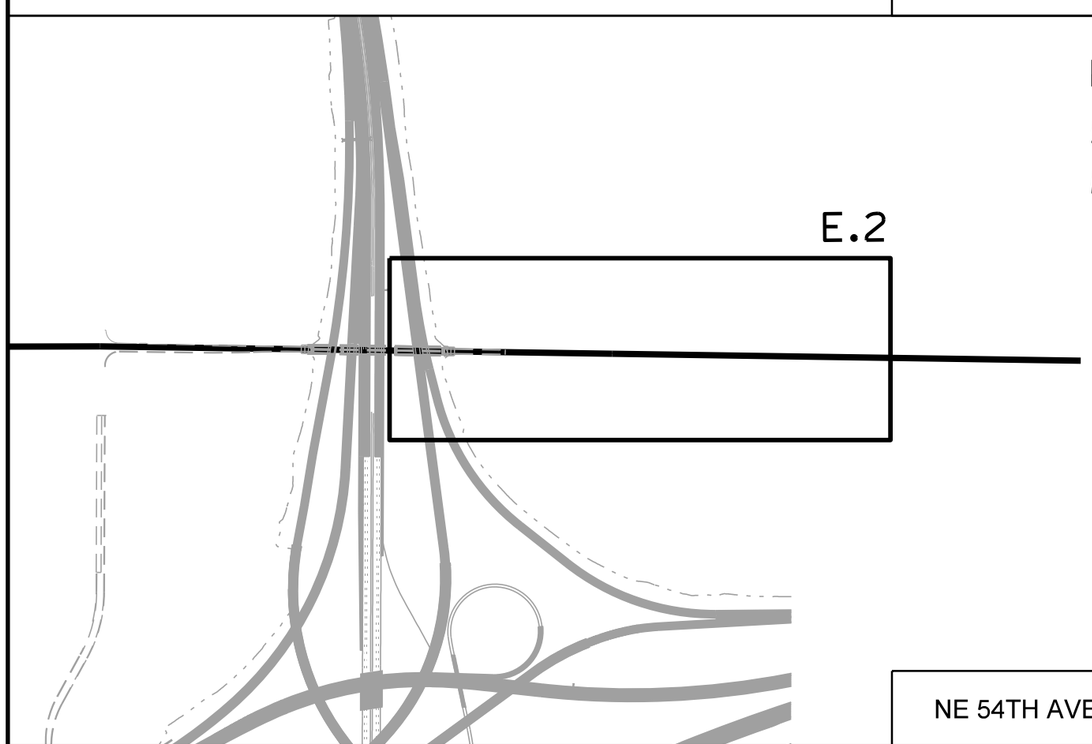
NE 29TH STREET



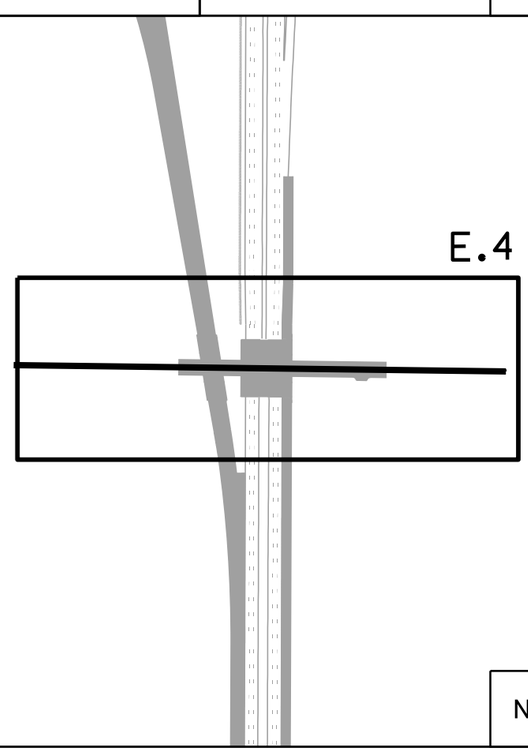
SPECIAL DITCH
NE 54TH AVENUE



SPECIAL DITCH
RAMP G



NE 54TH AVENUE



NE BROADWAY AVE.

Project Key Maps

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER A.6

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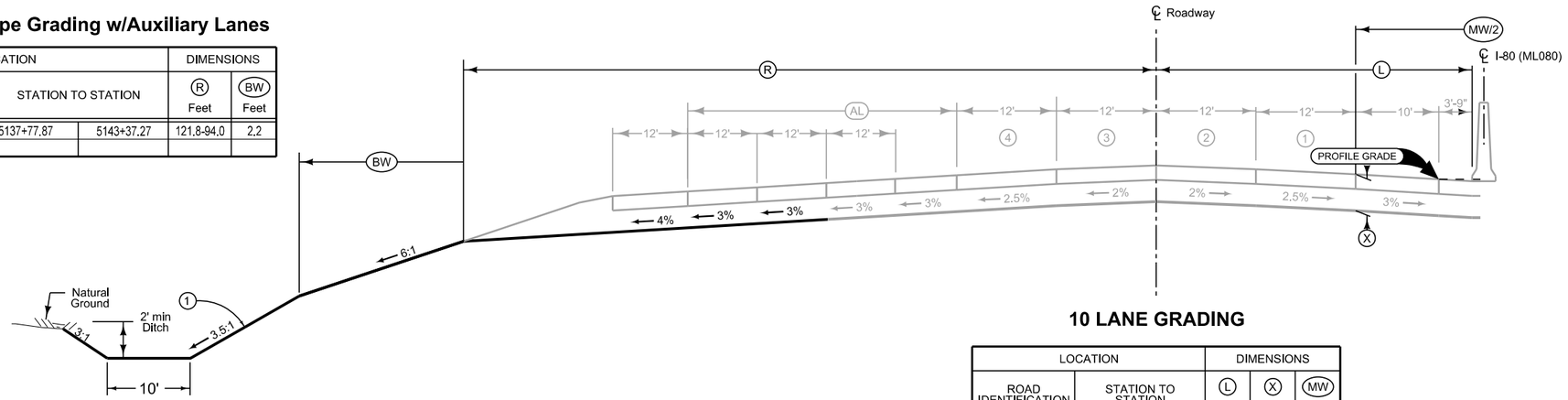
10 Lane Foreslope Grading w/Auxiliary Lanes

LOCATION			DIMENSIONS	
ROAD IDENTIFICATION	STATION TO STATION		(R) Feet	(BW) Feet
ML080	5137+77.87	5143+37.27	121.8-94.0	2.2



10 LANE GRADING

LOCATION			DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(X) Inches	(MW) Feet
ML080	5137+77.67	5143+38.27	37.75	30	30

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

MAINLINE I-80 (WESTBOUND)

6-Lane Foreslope Grading w/ Auxiliary Lanes

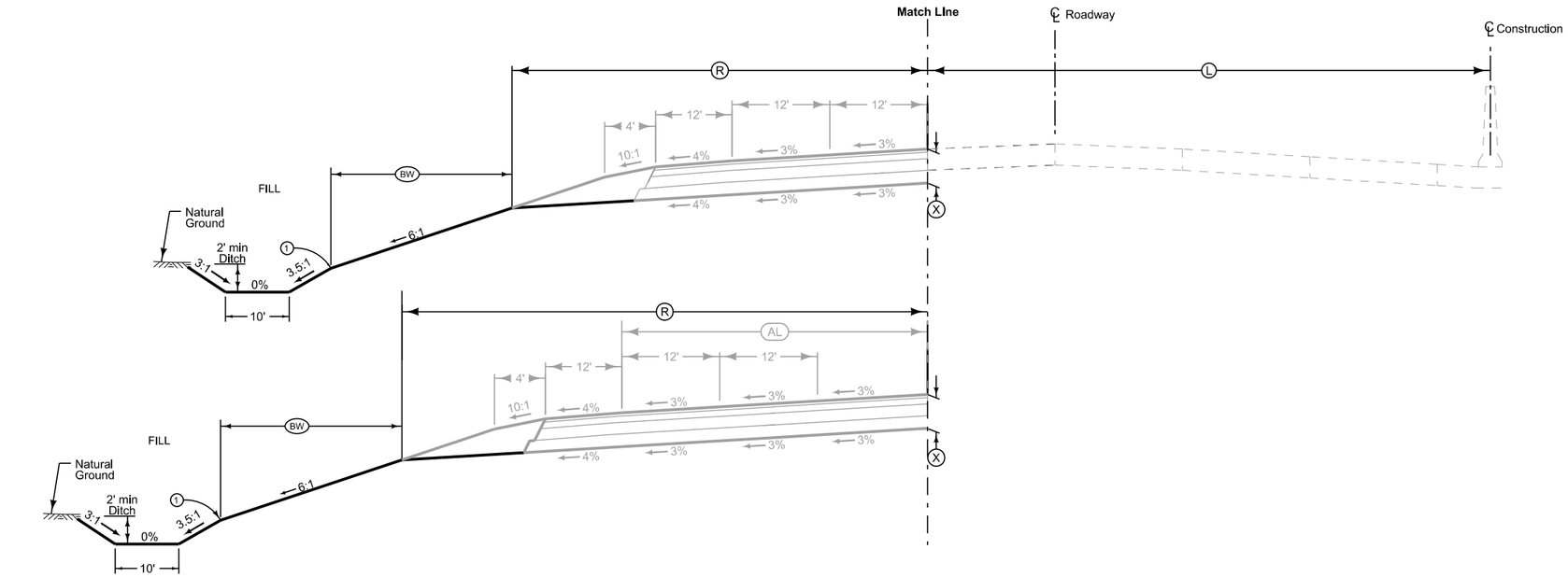
LOCATION			Ⓡ	Ⓛ	Ⓧ	BW
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Inches	Feet
ML235	2015+96.21	2023+92.95	57.8	48.6	30	2.2

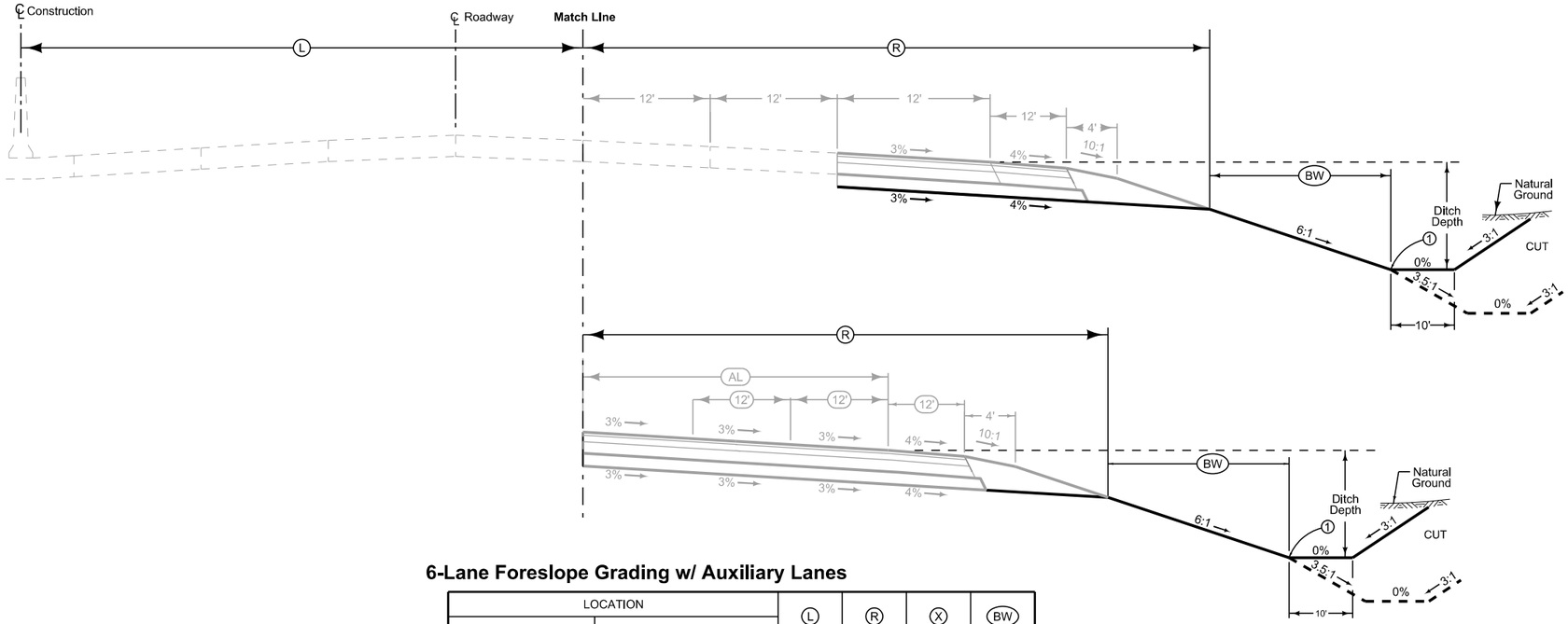
6-Lane Foreslope Grading w/ Auxiliary Lanes

LOCATION			Ⓡ	Ⓛ	Ⓧ	BW
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Inches	Feet
ML235	2023+92.95	2028+42.95	57.8-86.7	48.6	30	2.2

12-Lane Foreslope Grading

LOCATION			Ⓛ	Ⓡ	Ⓧ	BW
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Inches	Feet
ML235	2109.31.40	2114+60.00	49	69.8	30	2.2





6-Lane Foreslope Grading w/ Auxiliary Lanes

LOCATION			Ⓛ	Ⓡ	Ⓧ	BW
ROAD IDENTIFICATION	STATION TO STATION		Feet	Feet	Inches	Feet
ML235	2099+16.25	2109+31.40	49.1-49	94.0-69.8	30	2.2

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

(1) Refer to project plan and cross sections for specific location of foreslope change.

Section view is in direction of traffic.

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer such as intersections or superelevated curves.

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

ML 235 SOUTHBOUND, ML 235 NORTHBOUND

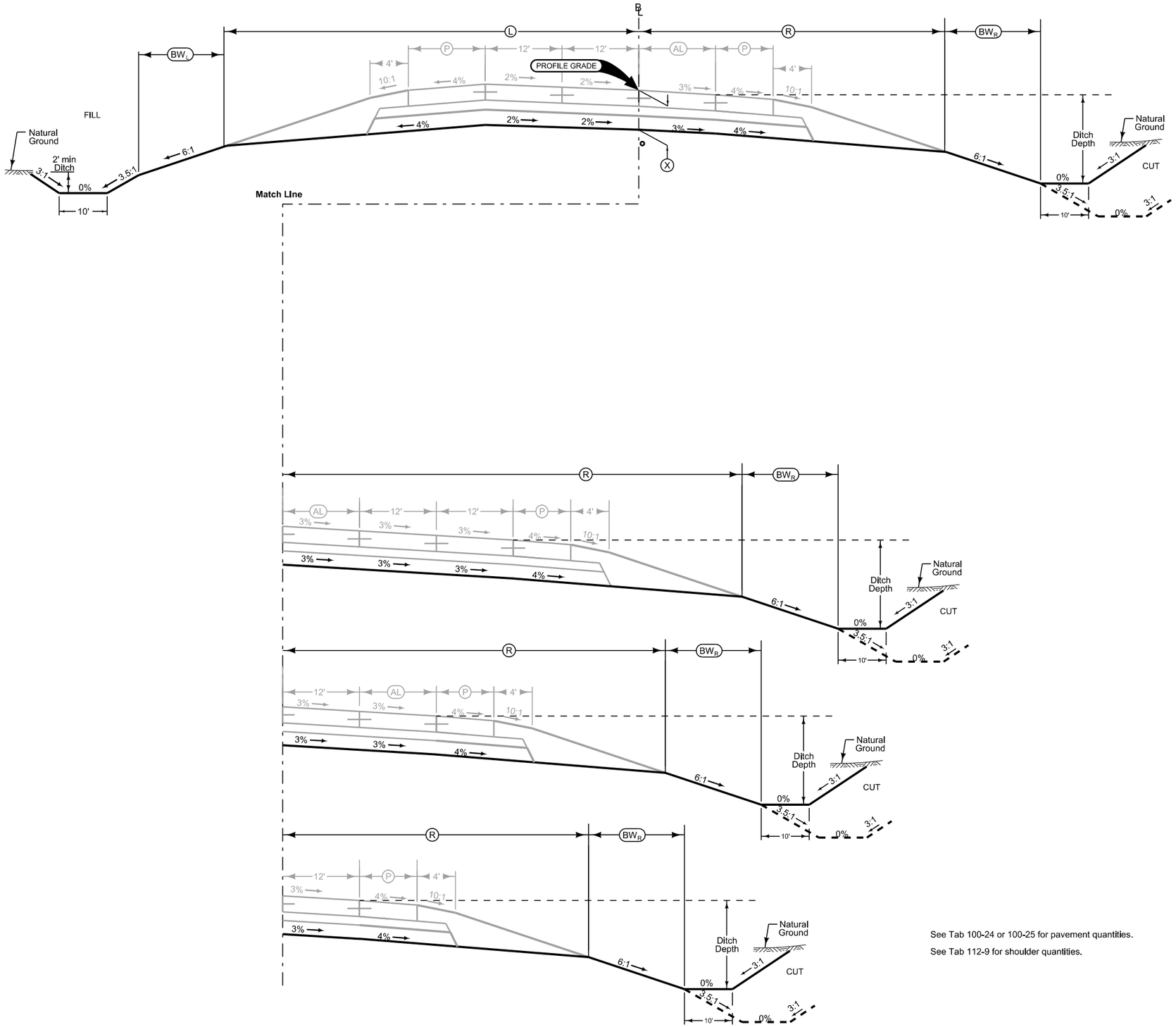
LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	ML035N	8465+42.83	8470+95.83	57.8	45.8	30	0.0	0.0
NEMM	ML035N	8470+95.83	8474+22.46	57.8	45.8-69.9	30	0.0	0.0

LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	ML035N	8474+22.46	8478+36.72	57.8	33.8	30	0.0	0.0
NEMM	ML035N	8504+86.72	8515+96.11	57.8	33.8	30	0.0	0.0

LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	ML035N	8515+96.11	8520+16.11	57.8	83.2-57.8	30	0.0	0.0

LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	ML035N	8520+16.11	8526+75.00	57.8	57.8	30	0.0	-
NEMM	ML035N	8526+75.00	8529+75.00	57.8	57.8-45.8	30	0.0	0.0

LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	ML035N	8529+75.00	8532+37.47	57.8	45.8	30	0.0	-



See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

ML035N

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER B.3

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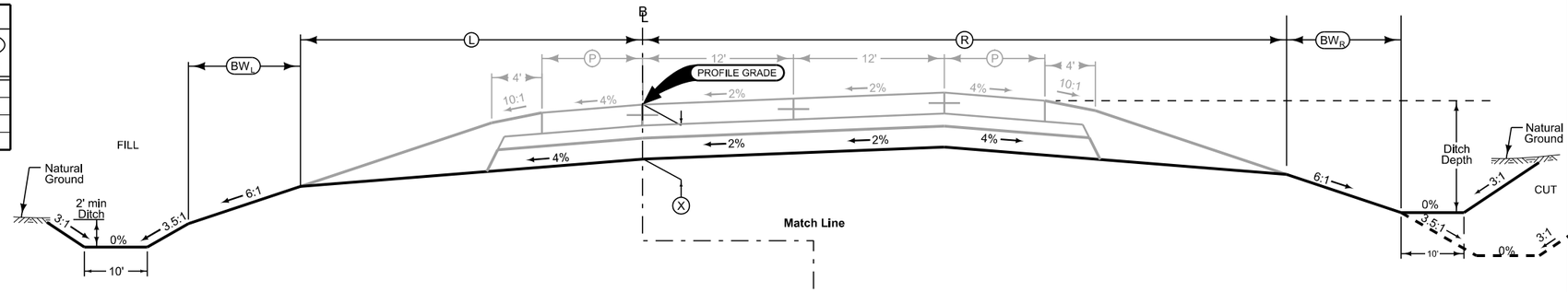
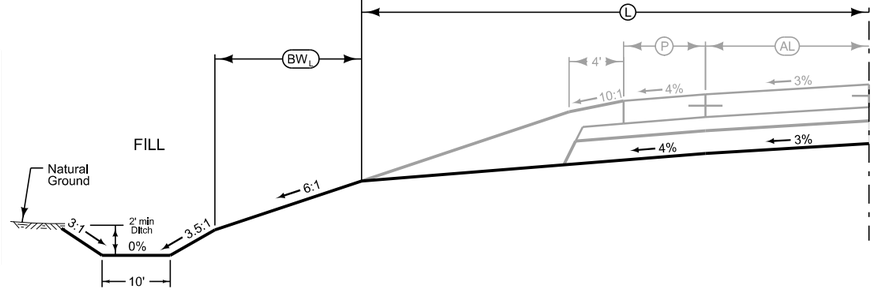
LOCATION				DIMENSIONS					
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(C) Feet	(X) Inches	BW_L Feet	BW_R Feet
NEMM	235A	38488+93.31	38511+66.22	33.8	51.8	24	30	0.0	4.2
NEMM	235G	38557+03.00	38557+30.04	33.8	51.8	24	30	0.0	0.0
NEMM	235G	38569+60.04	38570+15.04	33.8	51.8	24	30	0.0	0.0



LOCATION				DIMENSIONS					
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(C) Feet	(X) Inches	BW_L Feet	BW_R Feet
NEMM	235G	38557+30.04	38557+53.16	33.8	51.8	24	30	0.0	0.0
NEMM	235G	38557+53.16	38559+09.04	33.8-36.8	51.8	24	30	0.0	0.0
NEMM	235G	38560+68.04	38567+30.44	36.6-49.8	51.8	24	30	0.0	0.0
NEMM	235G	38567+30.44	38569+60.04	49.8-69.1	51.8	24	30	0.0	0.0
NEMM	235G	38611+66.22	38618+16.50	65.8-65.4	51.8	24	30	0.0	0.0
NEMM	235G	38618+16.50	38621+16.13	65.4-45.8	51.8	24	30	0.0	0.0
NEMM	235G	38621+16.13	38637+77.87	45.8	51.8	24	30	0.0	0.0

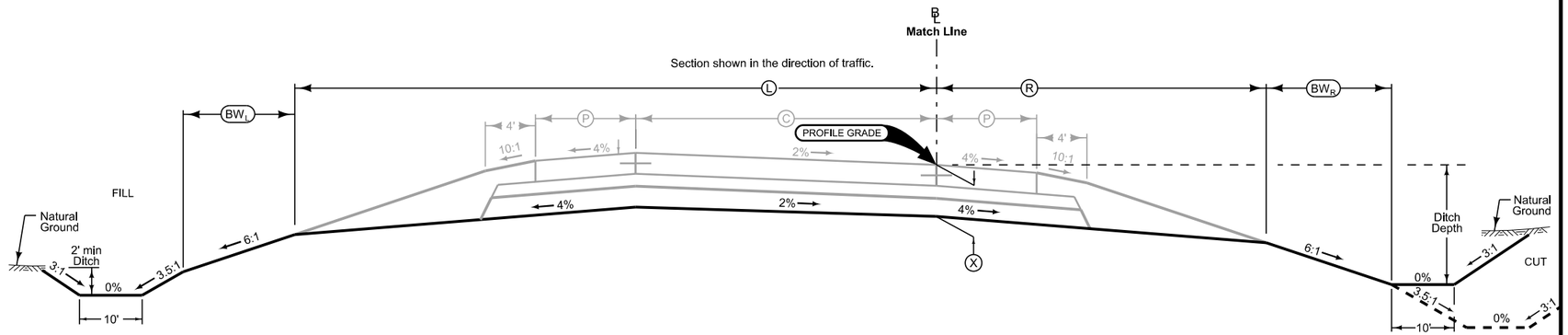


See Tab 100-24 or 100-25 for pavement quantities.

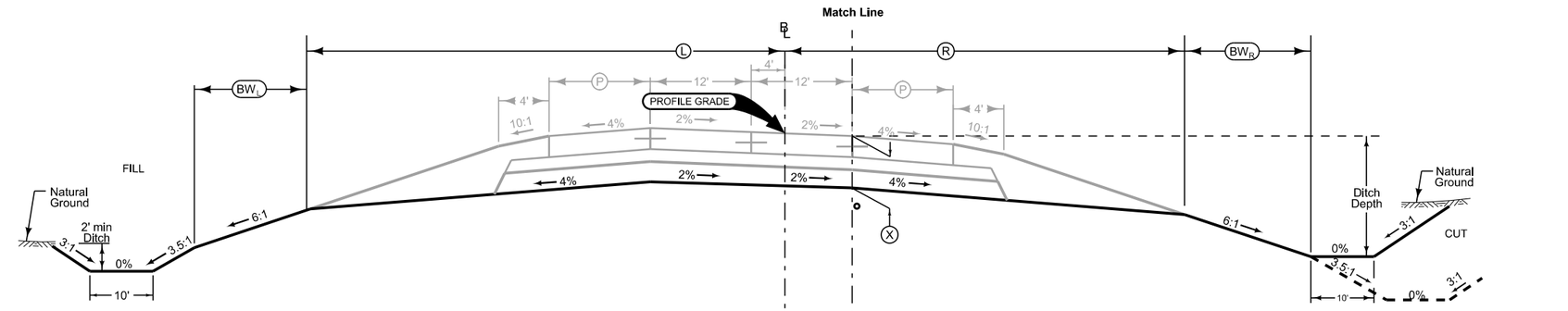
See Tab 112-9 for shoulder quantities.

RAMP 235A, RAMP 235G

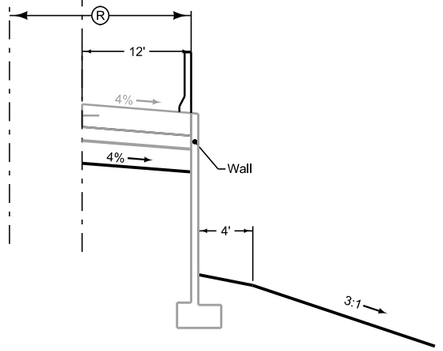
LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	235B	32574+22.46	32579+41.71	45.8	29.8	30	2.2	2.2
NEMM	235B	32587+55.00	32590+34.72	45.8	29.8	30	2.2	2.2
NEMM	235B	32592+48.72	32593+05.82	45.8	29.8	30	2.2	2.2



LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	235B	32579+41.71	32581+41.71	45.8	29.8-44.6	30	2.2	2.2-0
NEMM	235B	32581+41.71	32582+09.38	45.8	44.6	30	2.2	0.0
NEMM	235B	32582+09.38	32582+21.88	45.8	44.6-43.1	30	2.2	0.0
NEMM	235B	32582+21.88	32582+75.00	45.8	43.1	30	2.2	0.0
NEMM	235B	32582+21.88	32582+75.00	45.8	43.1	30	2.2	0.0
NEMM	235B	32585+75.00	32587+55.00	45.8	41.8-29.8	30	2.2	0-2.2



LOCATION				DIMENSIONS				
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW_L) Feet	(BW_R) Feet
NEMM	235B	32582+75.00	32585+75.00	45.8	20	30	2.2	-



Section view is in direction of traffic.

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer such as intersections or superelevated curves.

See Tab 100-24 or 100-25 for pavement quantities.

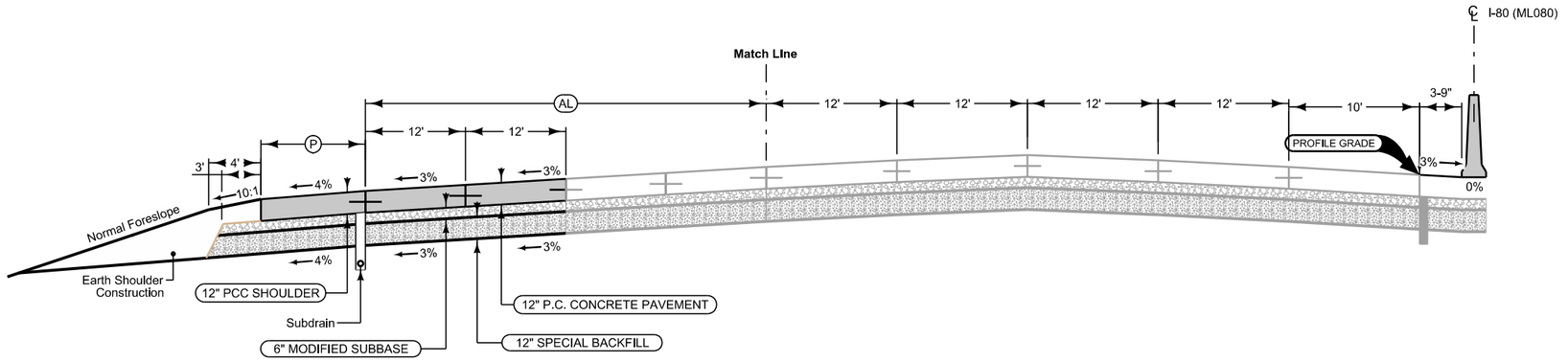
See Tab 112-9 for shoulder quantities.

RAMP 235B

Auxiliary Lane with Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

Direction of Travel	STATION TO STATION		(AL) Feet	(P) Feet
WB	5137+77.67	5143+38.27	52-36	12



Mainline Jointing:
Transverse joints: CD at 20' spacing

BEGIN STATION	END STATION
5137+77.67	5143+38.27

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

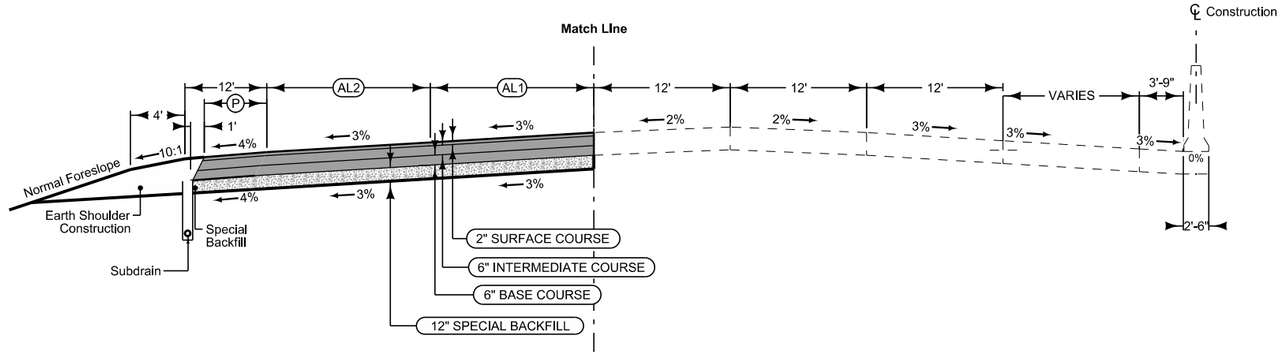
MAINLINE I-80 (Westbound)

Auxiliary Lanes w/Full Depth HMA Shoulder

Longitudinal joint: B

Shoulder Jointing:
Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(AL1) Feet	(AL2) Feet	(P) Feet
SB	2023+96.47	2028+42.95	12.01-40.95	12	0

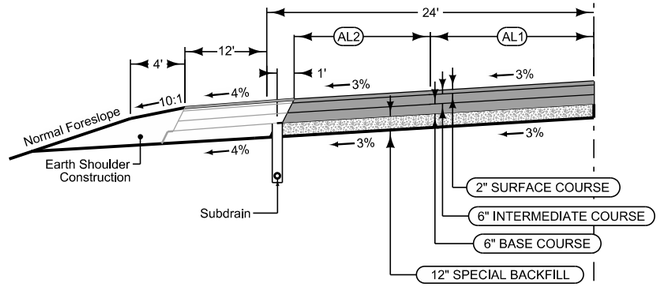


Auxiliary Lanes w/Full Depth HMA Shoulder

Longitudinal joint: B

Shoulder Jointing:
Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(AL1) Feet	(AL2) Feet
SB	2017+96.19	2023+96.47	12	12

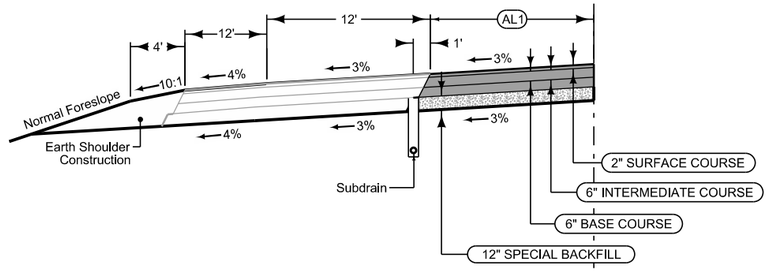


Auxiliary Lanes w/Full Depth HMA Shoulder

Longitudinal joint: B

Shoulder Jointing:
Longitudinal joint: B

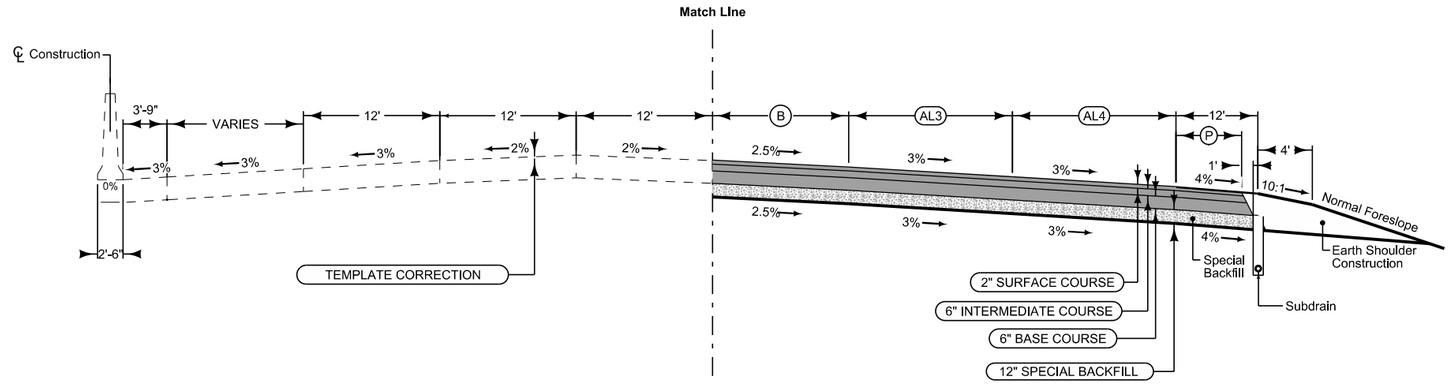
Direction of Travel	BEGIN STATION	END STATION	(AL1) Feet	(AL2) Feet
SB	2015+96.21	2017+96.21	12	-

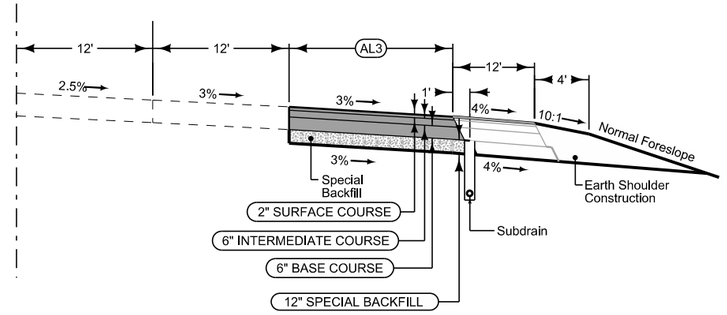


See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

ML 235 (SOUTHBOUND)





Auxiliary Lanes w/ Full Depth HMA Shoulder

Longitudinal joint: B

Shoulder Jointing:
Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(B) Feet	(AL3) Feet	(AL4) Feet	(P) Feet
NB	2099+16.25	2107+53.16	24.2-0.75	12	24	12
NB	2107+53.16	2109+01.55	0.75-0.02	12	24	12-2
NB	2109+01.55	2109+31.19	0.02-0	12	24	2

Auxiliary Lane w/ Full Depth HMA Shoulder

Longitudinal joint: B

Shoulder Jointing:
Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(AL3) Feet
NB	2109+31.19	2114+60.00	12

See Tab 100-24 or 100-25 for pavement quantities.

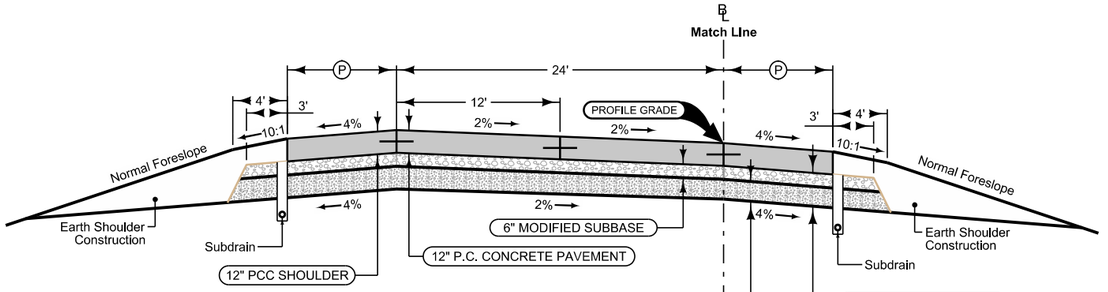
See Tab 112-9 for shoulder quantities.

ML 235 (NORTHBOUND)

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	STATION TO STATION		(P) Feet
ML035N	8465+42.83	8466+13.39	0
ML035N	8466+13.39	8478+36.72	12
ML035N	8504+86.72	8532+37.46	12



Section shown in the direction of traffic.

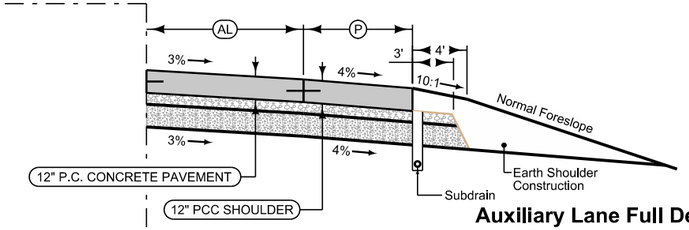
Ramp Jointing:
Transverse joints: CD at 20' spacing.
Longitudinal joint: L-2

ROAD IDENTIFICATION	BEGIN STATION	END STATION
ML035N	8465+42.83	8478+36.72
ML035N	8504+86.72	8532+37.46

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	STATION TO STATION		(P) Feet
ML035N	8474+22.46	8478+36.72	12
ML035N	8504+86.72	8515+96.11	12

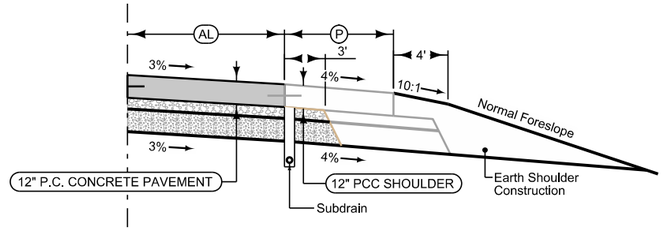


Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
ML035N	NB	8469+16.10	8470+36.10	12	12
ML035N	NB	8470+36.10	8470+95.63	12-16	12-8
ML035N	NB	8470+95.63	8474+22.46	16-40	8
ML035N	NB	8529+75.00	8532+37.46	12	12



Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

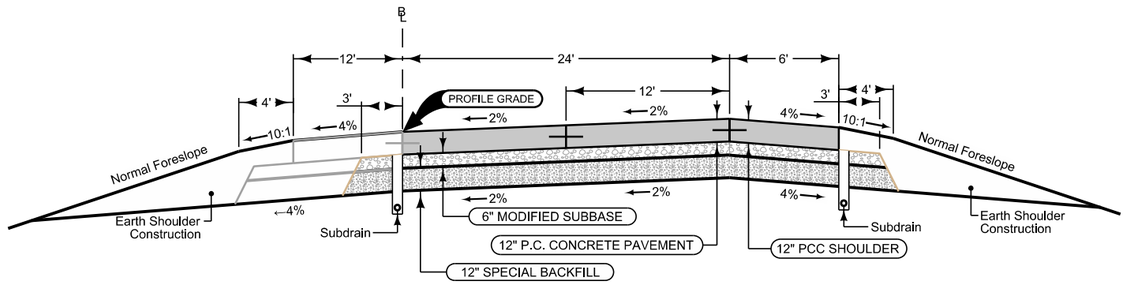
Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
ML035N	NB	8465+42.83	8469+16.10	12	12
ML035N	NB	8515+96.11	8520+16.11	49.1-24	12
ML035N	NB	8520+16.11	8526+75.00	24	12
ML035N	NB	8526+75.00	8529+75.00	24-12	12

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

ML 35 NORTH



Section shown in the direction of traffic.

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

ROAD IDENTIFICATION	BEGIN STATION	END STATION
RAMP 235A	38488+93.31	38511+66.22

See Tab 100-24 or 100-25 for pavement quantities.

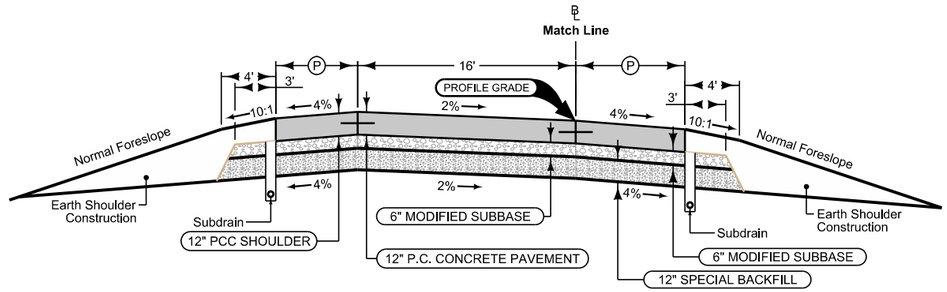
See Tab 112-9 for shoulder quantities.

RAMP 235A

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235B	SB	32574+22.46	32579+41.71	4
RAMP 235B	SB	32587+55.00	32590+34.72	4
RAMP 235B	SB	32592+48.72	32593+05.82	4



Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 20' spacing.

ROAD IDENTIFICATION	BEGIN STATION	END STATION
RAMP 235B	32574+22.46	32579+41.71
RAMP 235B	32587+55.00	32590+34.72
RAMP 235B	32592+48.72	32593+05.82

Full Depth PCC Shoulder

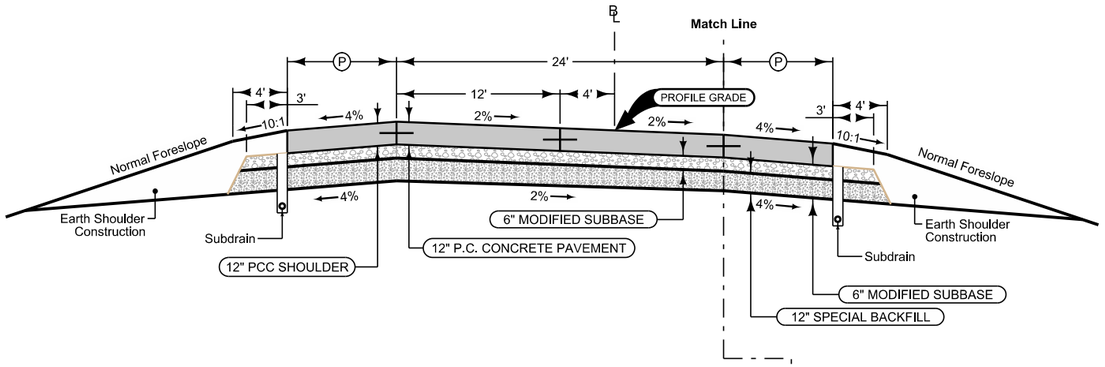
Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235B	SB	32574+22.46	32579+41.71	8
RAMP 235B	SB	32587+55.00	32590+34.72	8
RAMP 235B	SB	32592+48.72	32593+05.82	8

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

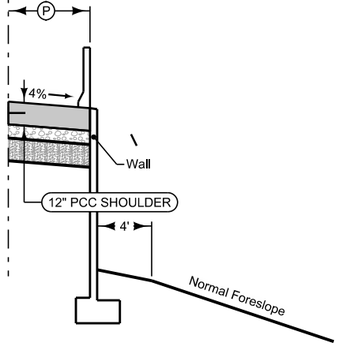
ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235B	SB	32579+41.71	32587+55.00	4



Section shown in the direction of traffic.

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

ROAD IDENTIFICATION	BEGIN STATION	END STATION
Ramp 235B	32579+41.71	32587+55.00



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235B	SB	32579+41.71	32579+71.71	2
RAMP 235B	SB	32579+71.71	32581+41.71	2-12
RAMP 235B	SB	32581+41.71	32582+09.38	14.77
RAMP 235B	SB	32582+09.38	32582+21.88	14.77-13.27
RAMP 235B	SB	32582+21.88	32582+75.00	13.27
RAMP 235B	SB	32585+75.00	32587+25.00	12-2
RAMP 235B	SB	32587+25.00	32587+55.00	2-0

Full Depth PCC Shoulder w/Retaining Wall

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235B	SB	32582+75.00	32585+75.00	12

See Tab 100-24 or 100-25 for pavement quantities.

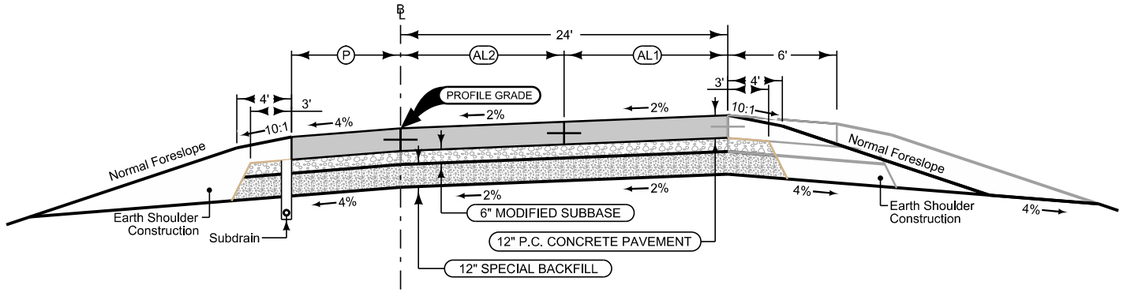
See Tab 112-9 for shoulder quantities.

RAMP 235B

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(P) Feet
RAMP 235G	SB	38557+03.00	38557+30.04	12



Section shown in the direction of traffic.

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

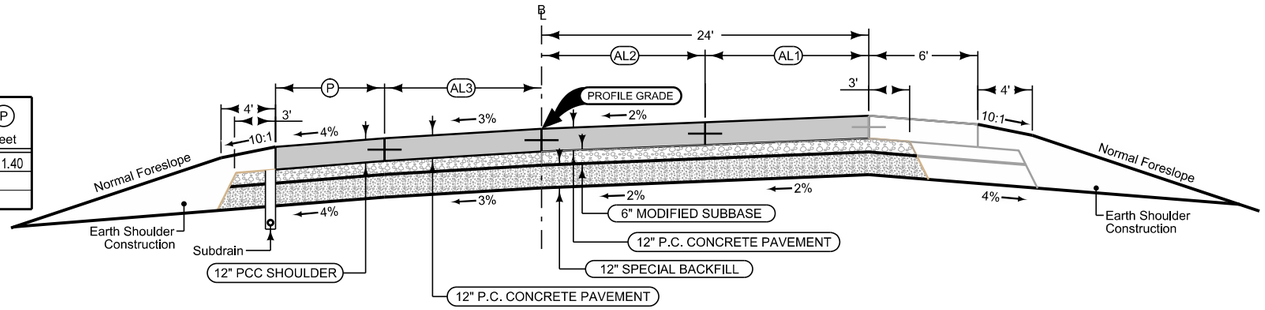
ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL2) Feet	(AL1) Feet
RAMP 235G	EB	38557+03.00	38557+30.04	12	12

Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL3) Feet	(P) Feet
RAMP 235G	EB	38557+30.04	38559+09.04	0-3.58	12-11.40



Section shown in the direction of traffic.

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

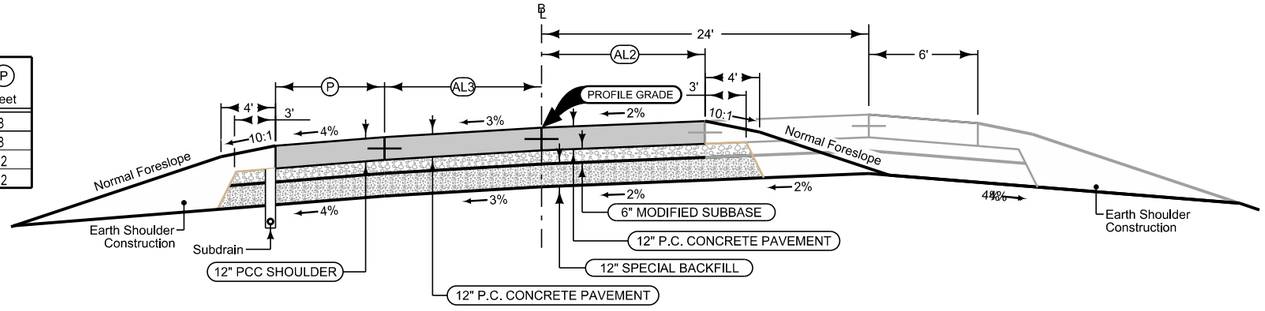
ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL2) Feet	(AL1) Feet
RAMP 235G	EB	38557+30.04	38559+09.04	12	12

Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL3) Feet	(P) Feet
RAMP 235G	EB	38560+68.04	38567+30.04	6.76-20	8
RAMP 235G	EB	38567+30.04	38567+50.04	20-20.51	8
RAMP 235G	EB	38621+16.13	38631+22.35	12	12
RAMP 235G	EB	38633+16.35	38637+77.87	12	12



Section shown in the direction of traffic.

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

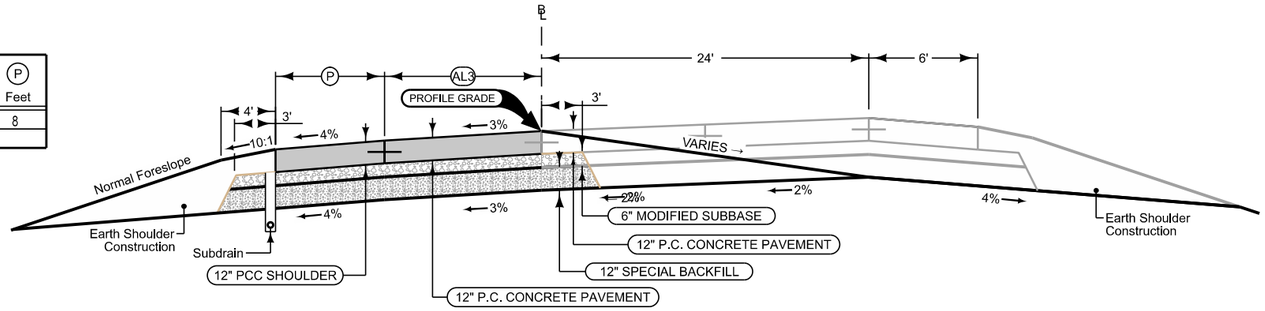
ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL2) Feet
RAMP 235G	EB	38560+68.04	38567+50.04	12
RAMP 235G	EB	38621+16.13	38631+22.35	12
RAMP 235G	EB	38633+16.35	38637+77.87	12

Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL3) Feet	(P) Feet
RAMP 235G	EB	38567+50.04	38569+60.04	20.51-39.24	8



Section shown in the direction of traffic.

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

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION
RAMP 235G	EB	38567+50.04	38569+60.04

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

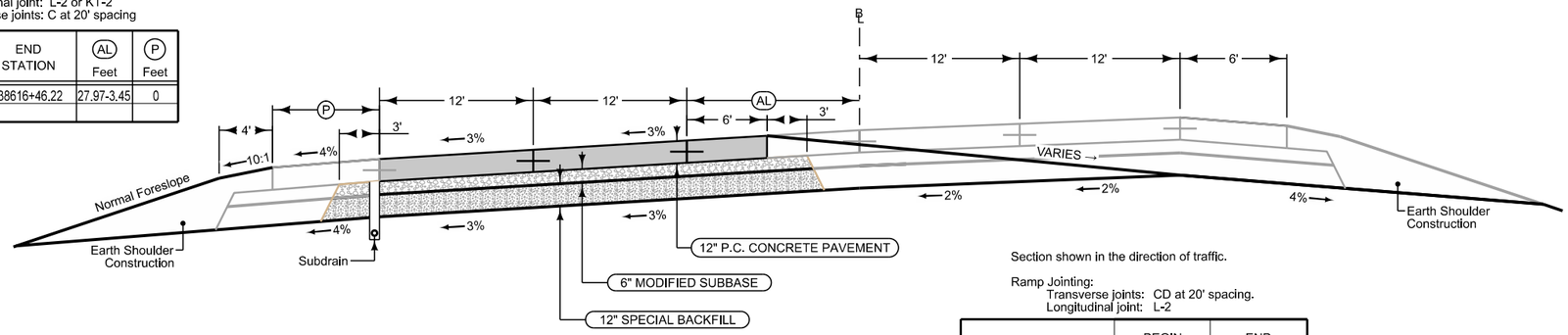
RAMP 235G

Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
RAMP 235G	EB	38611+66.22	38616+46.22	27.97-3.45	0



Section shown in the direction of traffic.

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

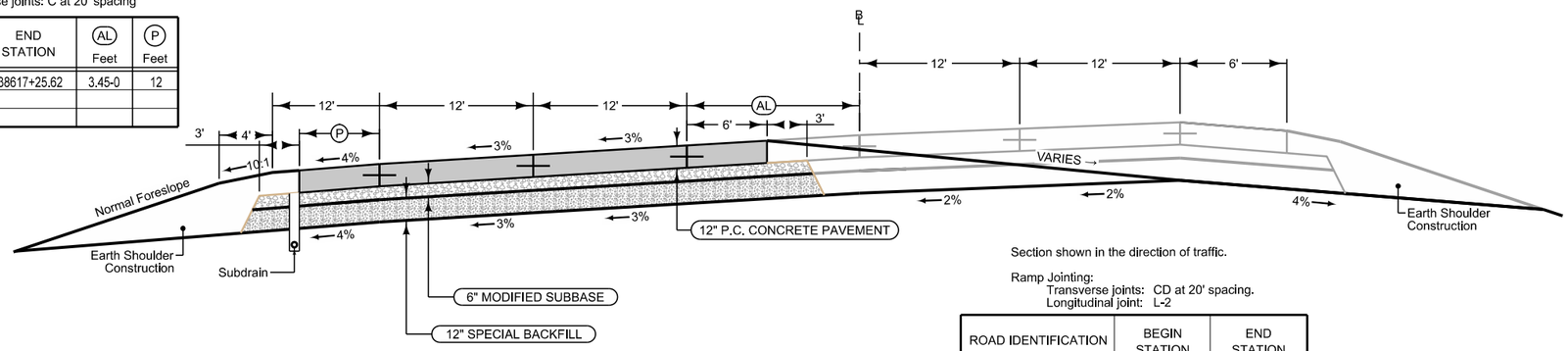
ROAD IDENTIFICATION	BEGIN STATION	END STATION
RAMP 235G	38611+66.22	38616+56.70

Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
RAMP 235G	EB	38616+46.22	38617+25.62	3.45-0	12



Section shown in the direction of traffic.

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

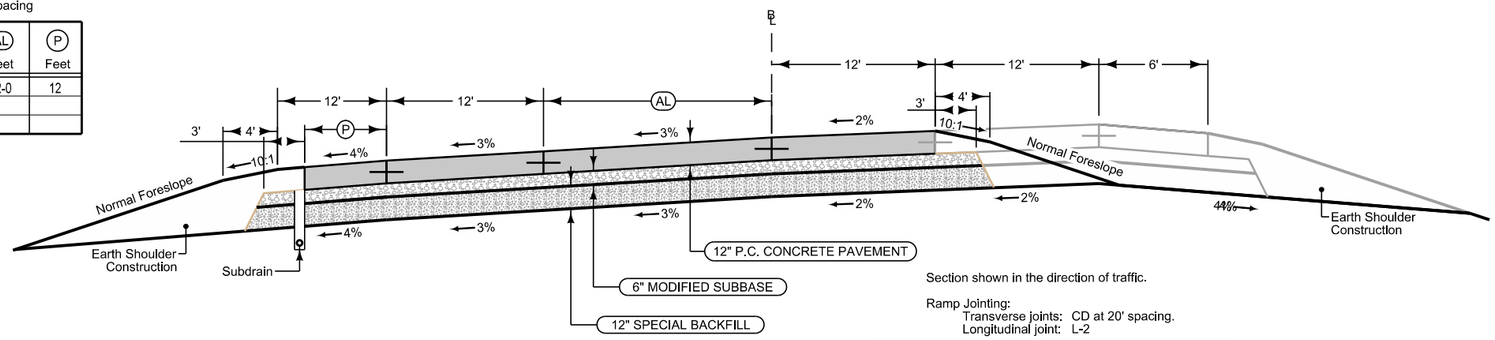
ROAD IDENTIFICATION	BEGIN STATION	END STATION
RAMP 235G	38616+56.70	38617+25.62

Auxiliary Lane Full Depth Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

ROAD IDENTIFICATION	Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(P) Feet
RAMP 235G	EB	38617+25.62	38621+16.13	12-0	12



Section shown in the direction of traffic.

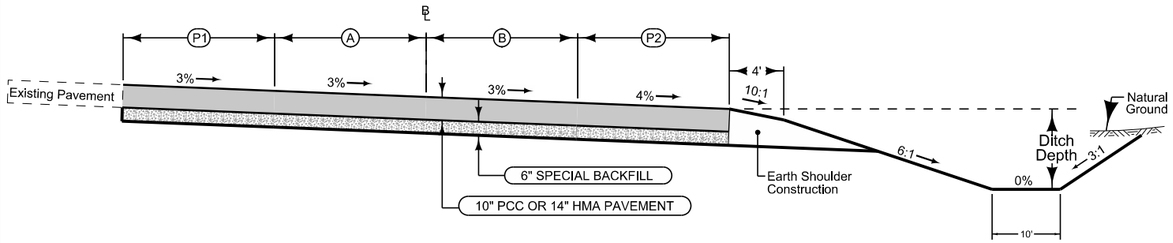
Ramp Jointing:
Transverse joints: CD at 20' spacing.
Longitudinal joint: L-2

ROAD IDENTIFICATION	BEGIN STATION	END STATION
RAMP 235G	38617+25.62	38621+16.13

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

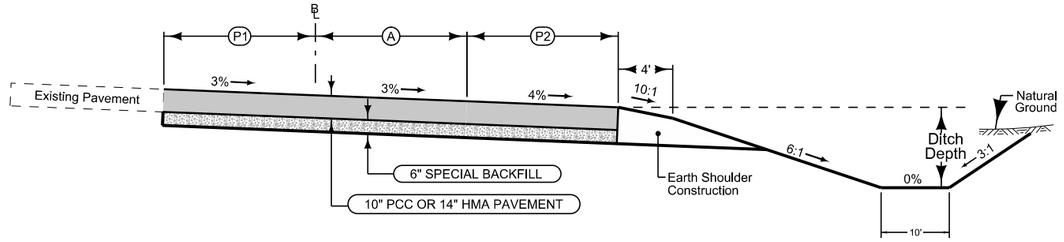
RAMP 235G



Section shown in the direction of traffic.

STATION TO STATION		(P1) Feet	(A) Feet	(B) Feet	(P2) Feet
10+07.86	13+41.56	0.0	0.0-12.0	12.0	12.0
13+41.56	16+85.36	0.0-23.9	12.0	12.0	12.0
16+85.36	18+45.89	12.0	12.0	12.0	12.0

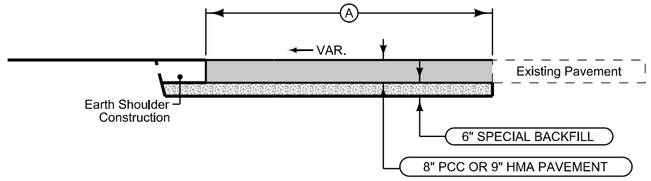
EB I-35/80 TO NB I-35
DETOUR PAVEMENT
DET_3_10



Section shown in the direction of traffic.

STATION TO STATION		(P1) Feet	(A) Feet	(P2) Feet
1157+53,27	1156+73,17	0	0	12,0
1156+73,17	30+40,77	0.0	0,0-16,0	12,0
30+40,77	25+60,57	0,0-23,9	16,0	12.0
25+60,57	20+25,00	12,0	16,0	12,0

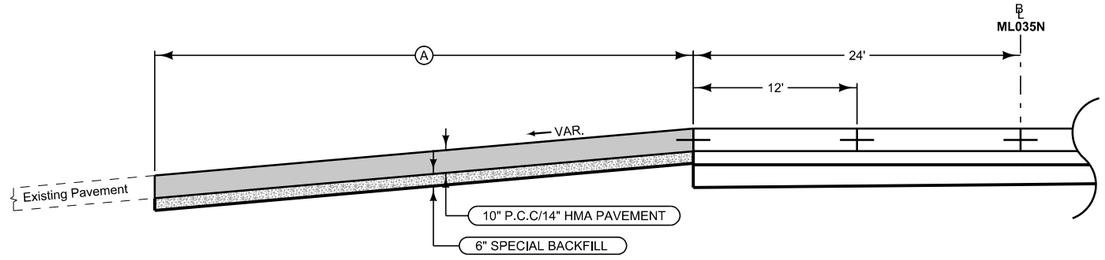
WB I-80 TO NB I-35
DETOUR PAVEMENT
DET_3_20



Section shown in the direction of traffic.

ROAD IDENTIFICATION	STATION TO STATION		(A) Feet
SUR080	1064+80.91	1068+43.04	11.6-6.0
SUR080	1068+43.04	1069+08.09	6.0

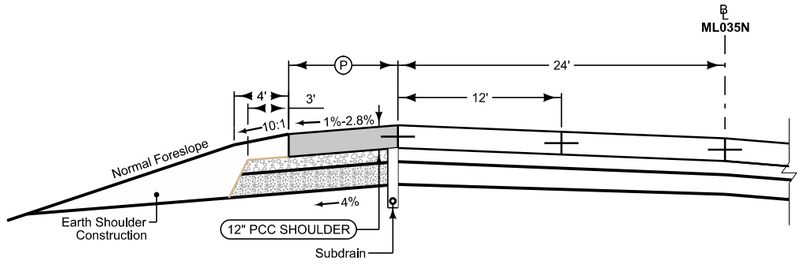
EB I-35/80
DETOUR PAVEMENT
DET_3_12



Section shown in the direction of traffic.

ROAD IDENTIFICATION	STATION TO STATION		(A) Feet
ML035N	8532+38.63	8539+69.18	24.28-2

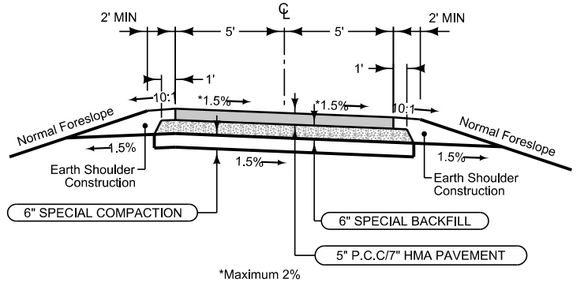
NORTHBOUND I-35
DET_3_22



Section shown in the direction of traffic.

ROAD IDENTIFICATION	STATION TO STATION		(P) Feet
ML035N	8465+42.83	8466+13.39	12.0

NB 1-35
DETOUR PAVEMENT
DET_3_14



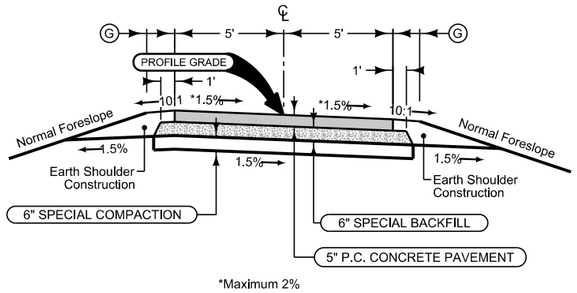
Section shown in the direction of traffic.

ROAD IDENTIFICATION	BEGIN STATION	END STATION
DET_3_26	26+00	31+05.77
DET_3_28	28+00	28+76.67

CHICHAQUA VALLEY TRAIL
DET_3_26 & DET_3_28

Earth Shoulder

BEGIN STATION	END STATION	(G) Feet
10+00.00	12+18.18	2 (MIN)
12+46.51	13+57.65	2 (MIN)
17+25.59	20+98.08	2 (MIN)



*Maximum 2%

Earth Shoulder

BEGIN STATION	END STATION	(G) Feet
10+00.00	12+18.18	2 (MIN)
12+46.51	13+57.65	2 (MIN)
17+25.59	20+98.08	2 (MIN)

Section shown in the direction of traffic.

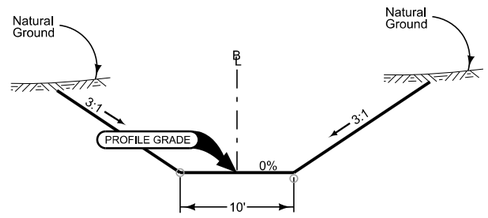
Trail Jointing:
Transverse joints: C at 20' spacing.

ROAD IDENTIFICATION	BEGIN STATION	END STATION
CHICHAQUA VALLEY TRAIL	10+00.00	12+18.18
CHICHAQUA VALLEY TRAIL	12+46.51	13+57.65
CHICHAQUA VALLEY TRAIL	17+25.59	21+18.01

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

CHICHAQUA VALLEY TRAIL



ROAD IDENTIFICATION	BEGIN STATION	END STATION
RAMP G SPECIAL DITCH	4100+00.00	4102+33.19
54th AVE SPECIAL DITCH	4200+00.00	4203+28.85

SPECIAL DITCHES

SURVEY SYMBOLS

- PPA Power Pole Co. 1
- PRA Power Riser Co. 1
- UB Utility Box
- TSG Traffic Signal
- TSL Traffic Signal and Luminare
- TCB Traffic Signal Box
- LUM Luminaire
- TPD Telephone Pedestal
- MH Utility Access (Manhole)
- IN Storm Sewer Intake
- INB Storm Sewer Beehive Intake
- WV Water Valve
- FHYD Fire Hydrant
- SI Sign
- SL Speed Limit Sign
- BB Billboard
- MM Mile Marker Post
- ROW Right of Way Rail
- TEV Evergeen Tree
- SHR Shrub
- TDC Tree Deciduous
- SWAMP
- FLG Flagpole
- BCL Bridge Centerline
- BD Bridge Deck
- BLS Bridge Low Steel
- UE Utility Elevation
- PRO Profile Shot
- BRG Bridge
- PLG Location of General Photo
- PIP Pipe Culvert
- SOP Size of Pipe or Culvert
- DU Centerline Draw or Stream (Up)
- D Centerline Draw or Stream (Down)
- DIK Centerline of Dike or Dam
- GDL Guard Rail Steel
- GPR Guard Post (4 or More Posts)
- GDC Guard Rail Cable
- RIP Rip-Rap
- TLN Tree Line
- TIL Tile Line
- FCL Chain Link and Security Fence
- FW Wire Fence
- RET Retaining Walls

- EP Edge of Paved Roads (ML or SR)
- SNP Unpaved Shoulder
- CU Back of Curb
- GU Gutter In Front of Curb
- ENT Centerline BL of Entrance
- ENP Edge Paved Entrance & Park Lot
- ENU Edge Unpaved Entrance & Parking
- SWK Sidewalk
- CON Concrete or A/C Slab
- E1 ELA Underground Electric Line Co. 1
- E2 ELA Underground Electric Line Co. 2
- E3 ELA Underground Electric Line Co. 3
- T1 ELA Underground Telephone Line Co. 1
- FO FOA Underground Fiber Optic Co. 1
- FO2 FOB Underground Fiber Optic Co. 2
- FO3 FOB Underground Fiber Optic Co. 3
- FO4 FOB Underground Fiber Optic Co. 4
- G GLA Underground Gas Line Co. 1
- W WLA Underground Water Line Co. 1
- St.S. STA Storm Sewer Line Co. 1
- St.S.2 STA Storm Sewer Line Co. 2

UTILITY LEGEND

This is a POINT 25 Project and is subject to the provisions of IAC 761-115.25.

Mid American Energy - Power and Gas
Michael Younts
E1 / G — 10510 Douglas Avenue
Urbandale, Iowa 50322
515-252-6565 - myounts@midamerican.com

Iowa D. O. T. - Lighting and Fiber Optic
E2 — Tony Taylor
800 Lincoln Way
FO3 — Ames, Iowa 50010
515-239-1902 - Tony.Taylor@dot.iowa.gov
Olsson Associates - Gregory T. Seib
601 P Street
Lincoln, Nebraska 68508
402-458-5037
gseib@olssonassociates.com

Polk County - Lighting and Traffic Signals
Kurt Bailey
E3 — 5885 NE 14th Street
Des Moines, Iowa 50313
515-286-3705
Kurt.Bailey@polkcountyiowa.gov

Century Link - Telephone and Fiber Optics
Dustin Withers
T1 — 2103 East University Avenue
Des Moines, Iowa 50317
FO — 515-263-7202
Dustin.Withers@centurylink.com

Windstream - Fiber Optics
Jim Wiand
FO2 — 115 South 2nd Avenue West
Newton, Iowa 50208
641-787-2270
jim.wiand@windstream.com

Iowa Communications Network (ICN) - Fiber Optics
Larry Klawitter
FO3 — Grimes State Office Building
400 East 14th Street
Des Moines, Iowa 50319
515-229-2046
larry.klawitter@iowa.gov

Iowa Network Services (INS) - Fiber Optics
Jeff Klocko
FO4 — 7760 Office Plaza Drive South
West Des Moines, Iowa 50266
515-830-0445
Jeff@netins.com

Des Moines Water Works - Water
Matt Smith
W — 2201 George Flagg Parkway
Des Moines, Iowa 50321
515-283-8781
msmith@dmww.com

St.S. — IDOT or Private

Polk County - Storm Sewer
Kurt Bailey
St.S.2 — 5885 NE 14th Street
Des Moines, Iowa 50313
515-286-3705
Kurt.Bailey@polkcountyiowa.gov

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
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.**	
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 "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
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
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER D.1

5:05:45 PM 10/20/2016 MKADLEC pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194lgd.sht

Sta. 1066+75
42" X 226 Conc Pipe
D.A. = 52 Ac - R
(Plug & Abandon)

SAYLOR TWP.
T-79-N R-24W
SEC. 13

Sta. 8470+71.58
Install 66" x 150' DR-601
Skew = 15° Lt. Ahd.
F.L. = Lt. 922.24
Rt. 921.45

Sta. 1075+95.35
54" X 45" Conc Pipe
W/ 54" Conc Pipe Extension
D.A. = 89 Ac - R-H (U.A.C.)

DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 8466+14.50
Install 54" x 358' DR-611
Skew = 0° Lt. Ahd.
F.L. = Lt. 921.84
Rt. 913.72

SIGN
FUTURE WB I-80
WESTBOUND I-80
SIGN BRIDGE
SUR080 B
DETOUR PAVING
(SEE SHEET F.1)
FUTURE EB I-80
EASTBOUND I-80
PI Sta 8466+93.08
SIGN
SIGN BRIDGE
Remove Existing
Pavement (Typ.)
PC Sta 8464+19.42
8465
NB I-35 (ML035N)
Sta. 8469+16.10
Begin Widening
Sta. 8465+42.83 (NB I-35)
Begin Construction
PT Sta 8469+64.19
8470
PC Sta 8473+48.85
Remove
(By Others)
Curve Data
Δ = 46° 54' 31.73" (LT)
T = 577.04
L = 1,088.89
R = 1,330.00
E = 119.79
e = 6.0%
L = 240
x = 80
DS = 60mph
8475
Curve Data
Δ = 13° 34' 14.76" (RT)
T = 273.66
L = 544.77
R = 2,300.00
E = 16.22
e = 5.2%
L = 208
x = 80
DS = 60mph
POT Sta. 8473+98.99 NB I-35 =
POT Sta. 2040+08.19 NE 22ND ST.
NE 22nd Street (By Others)
EB I-80 to SB I-235 RAMP B (235B)
PI Sta 8479+25.90

SAYLOR TWP.
T-79-N R-24W
SEC. 13

0 FEET 50

DELAWARE TWP.
T-79-N R-23W
SEC. 18

MAINLINE
NORTHBOUND I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.2

8:05:50 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

985 980 975 970 965 960 955 950 945 940 935 930 925 920 915 910 905 900

934.61

STA. 8465+42.83
BEGIN CONSTRUCTION
ELEV. 934.61

VPI +75.000
Elv 930.50
K = 148
Len 700.00 ft
DS = 60mph

NE 22ND ST. BRIDGE
(By Others)

EXISTING EB to SB
RAMP B
(To Be Removed)

PROPOSED PGL

+4.000%

-0.740%

-1.08% Lt. Ditch Grade

+3.83% Rt. Ditch Grade

+1.93% Rt. Ditch Grade

-4.30% Rt.
Ditch Grade

+50 Lt.
931.50

-0.51%
Lt. DG

+02.51 Lt.
931.24

+65 Rt.
921.36

+43 Rt.
916.97

+34 Rt.
913.05

+22 Rt.
935.03

+0.53%
Lt. DG

+05.43 Lt.
922.54

+56.80 Lt.
922.81

MAINLINE
NORTHBOUND I-35

Lt: See Sheet F.1 | Ditch Grade | No Ditch

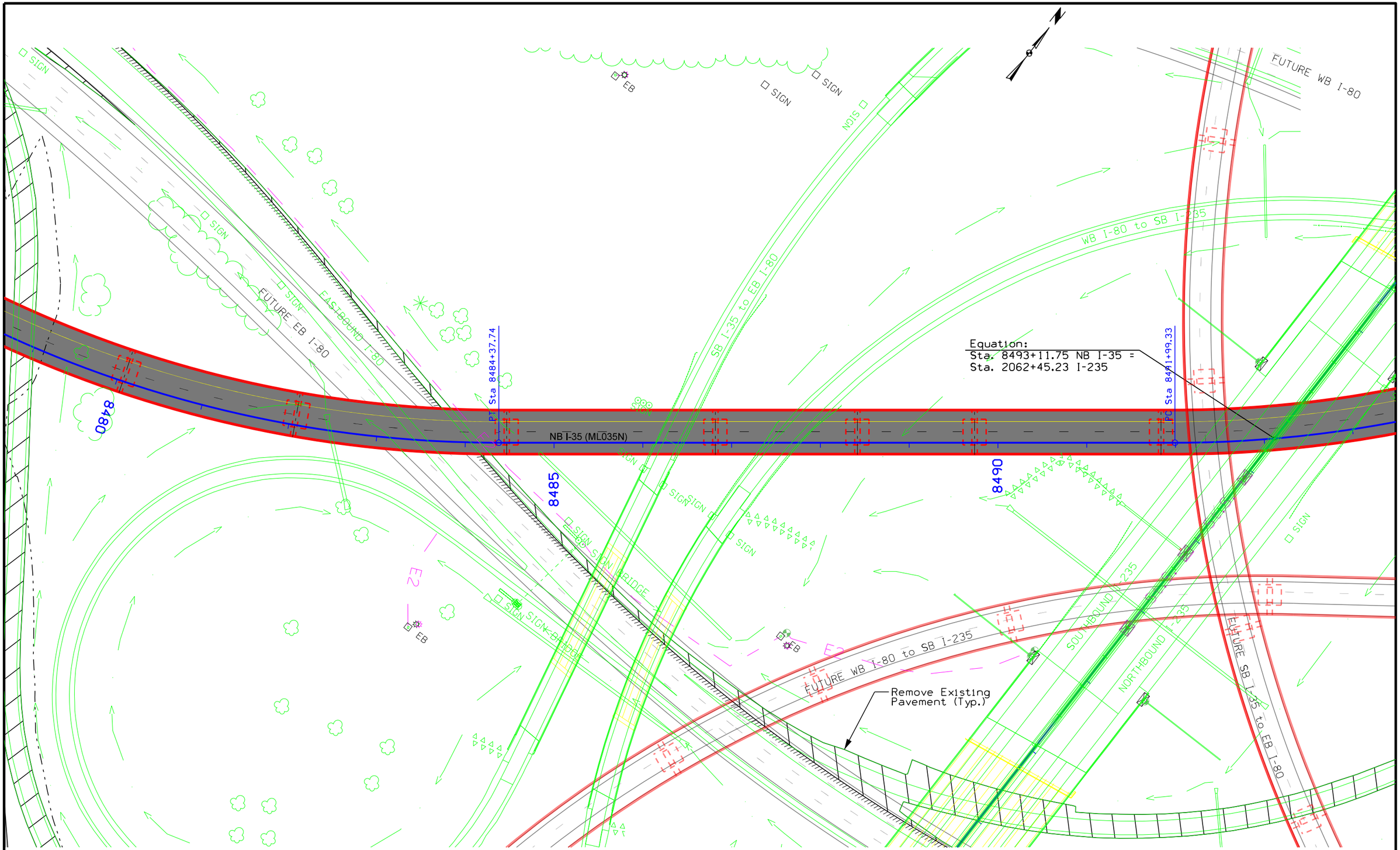
Rt: See Sheet F.1 | Ditch Grade | Vari. - See Cross Section

934.57 934.38 934.20 934.01 933.83 933.64 933.46 933.27 933.09 932.92 932.80 932.72 932.69 932.69 932.74 932.83 932.96 933.14 933.35 933.61 933.91 934.26 934.64 935.07 935.54 936.06 936.61 937.21 937.85 938.53 939.26 940.03 940.84 941.69 942.58 943.52 944.50 945.50 946.50 947.50 948.50 949.50 950.50 951.50 952.50 953.50 954.50 955.50 956.50 957.50 958.50 959.50 960.50 961.50 962.50 963.50 964.50 965.50

8464 8465 8466 8467 8468 8469 8470 8471 8472 8473 8474 8475 8476 8477 8478

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.3

8:05:51 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht



MAINLINE
NORTHBOUND I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.4

8:05:52 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

VPI +25,000
Elv 1,024.50
K = 262
Len 2,100.00 ft
DS = 60mph

+4.000%

EXISTING SB to EB
RAMP F

EXISTING WB to SB
RAMP G

EXISTING I-235

FUTURE EB I-80

EXISTING EB I-80

Bridge

Bridge

Bridge

Bridge

MAINLINE
NORTHBOUND I-35

966.50	967.50	968.50	969.50	970.50	971.50	972.50	973.50	974.50	975.50	976.50	977.50	978.50	979.50	980.50	981.50	982.50	983.49	984.45	985.39	986.31	987.20	988.07	988.91	989.74	990.53	991.31	992.06	992.78	993.49	994.16	994.82	995.45	996.06	996.64	997.20	997.74	998.25	998.74	999.20	999.64	1,000.06	1,000.45	1,000.82	1,001.16	1,001.49	1,001.78	1,002.06	1,002.31	1,002.53	1,002.74	1,002.91	1,003.07	1,003.20	1,003.31	1,003.39	1,003.45	1,003.49	1,003.50	1,003.49
8479				8480				8481				8482				8483				8484				8485				8486				8487				8488				8489				8490				8491				8492				8493			

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK	COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	D.5

8:05:52 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

Sta. 2065+90
42" X 212' Conc. Pipe
D.A. = 3 Ac - Median
(U.A.C)

Sta. 2067+05,
63' Lt
12" X 83' C.M.P.
(U.A.C)

Sta. 2067+05,
63' Rt
12" X 84' C.M.P.
(U.A.C)

FUTURE SB I-35 to EB I-80

WESTBOUND I-80

SOUTHBOUND I-235

NORTHBOUND I-235

FUTURE SB I-235

FUTURE NB I-235

SIGN

2065

2070

8495

8500

8505

WB I-80 to SB I-235

FUTURE WB I-80

NB I-235 (ML035N)

NB I-235 to WB I-80

Remove Existing Pavement (Typ.)

RT Sta 8505+89.13

Remove Bridge

FUTURE WB I-80 to SB I-235

REMOVE 116' C.M.P.
INSTALL 40° ELBOW AND
INSTALL 12" X 124' C.M.P.
DR-622

Sta. 2062+83,
63' Rt.
12" X 116' C.M.P.

PI Sta 8499+65.23

SIGN BRIDGE GO

Curve Data
Δ = 59° 52' 18.89" (LT)
T = 765.89
L = 1,389.80
R = 1,330.00
E = 204.76
e = 6.0%
L = 240
x = 80
DS = 60mph

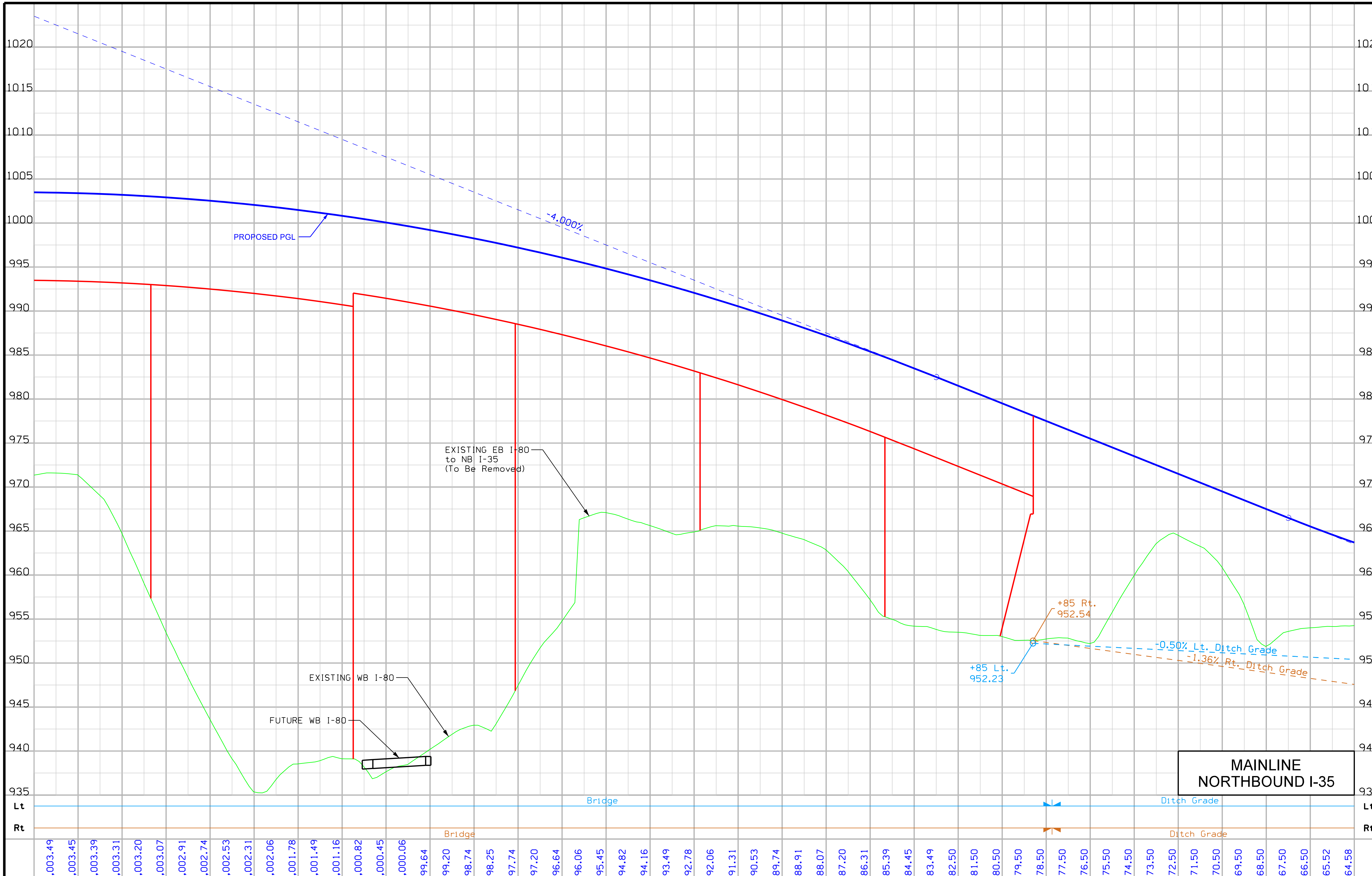
WB I-80 to NB I-35
RAMP A (235A)

0 50
FEET

MAINLINE
NORTHBOUND I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.6

8:05:53 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht



MAINLINE
NORTHBOUND I-35

FILE NO. | ENGLISH | DESIGN TEAM Iowa DOT\HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(194)87--13-77 | SHEET NUMBER D.7

8:05:54 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 2083+12.47
24" X 165'
Conc Pipe
D.A. = 0.6 Ac - R
(U.A.C.)

Sta. 2084+98.30
24" X 159'
Conc Pipe
D.A. = 24 Ac - R
(U.A.C.)

DELAWARE TWP.
T-79-N R-23W
SEC. 17

SOUTHBOUND I-235

NORTHBOUND I-235

FUTURE SB I-235 to EB I-80

FUTURE SB I-235 to WB I-80

FUTURE SB I-235

FUTURE NB I-235

SIGN

NOTIS

Remove Existing
Pavement (Typ.)

F03

APPROX. REV. LINE

EB

NB I-35 (ML035N)

8510

8515

8520

WB I-80 to NB I-35
RAMP A (235A)

POT Sta. 8417+05.64 NB I-35 =
POT Sta. 2237+18.96 NE 54TH AVE.

NE 54TH STREET

APPROX. SEC. LINE

Note:
Underground fiber was relocated during
construction of the NE 54th Avenue bridge
and is not as shown on this plan.
Update of fiber location will be required.

Sta. 8512+64.00
Install 24" x 254' DR-601
Skew = 22° Lt. Ahd.
F.L. = Lt. 943.20
Rt. 939.19

DELAWARE TWP.
T-79-N R-23W
SEC. 18

0 50
FEET

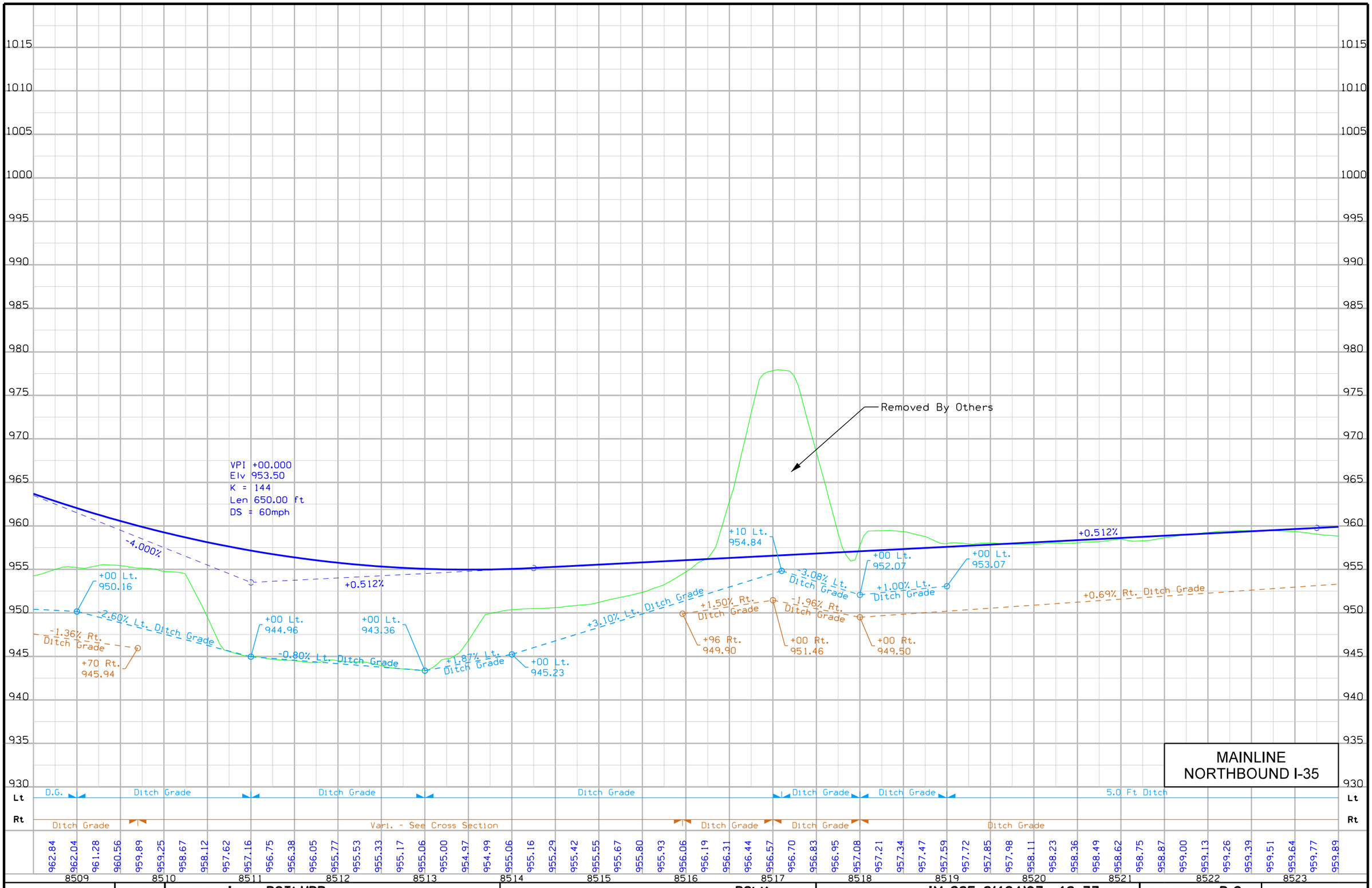
Sta. 8518+00.00
Install 52" x 32" x 100' DR-601
Skew = 0° Lt. Ahd.
F.L. = Lt. 952.43
Rt. 950.35

DELAWARE TWP.
T-79-N R-23W
SEC. 17

MAINLINE
NORTHBOUND I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.8

8:05:54 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.9

DELAWARE TWP.
T-79-N R-23W
SEC. 17

SOUTHBOUND I-235

NORTHBOUND I-235

FUTURE SB I-235 to EB I-80

BRIDGE 8

SIGN

REFER TO F SHEETS
FOR DETAILS

FUTURE SB I-235

FUTURE NB I-235

Remove Existing
Pavement (Typ.)

NB I-35 (ML035N)

8525

8530

PC Sta 8531+09.25

8535

PI Sta 8536+86.32

Sta. 8532+37.46 (NB I-35) =
Sta. 2099+16.25, 97.33' RT (I-235)
End Construction

Curve Data
Δ = 5° 30' 22.71" (LT)
T = 577.06
L = 1,153.24
R = 12,000.00
E = 13.87

DELAWARE TWP.
T-79-N R-23W
SEC. 17

0 FEET 50

MAINLINE NORTHBOUND I-35

VPI +25.000
Elv 961.82
K = 299
Len 800.00 ft
DS = 60mph

+0.512%

-2.160%

PROPOSED PGL

950.75

STA. 8532+37.46
END CONSTRUCTION
ELEV. 950.75

+0.69% Rt. Ditch Grade

+40 Rt.
954.62

+55 Rt.
952.45

-2.00% Rt. Ditch Grade

+37 Rt.
944.80

EXIST. GROUND

975 970 965 960 955 950 945 940

Lt
Rt

5.0 Ft Ditch — Vari. - See Cross Sections

Ditch Grade — 5.0 Ft Ditch — Ditch Grade

959.98 960.06 960.12 960.15 960.16 960.16 960.13 960.08 960.01 959.92 959.80 959.67 959.52 959.34 959.15 958.93 958.69 958.44 958.16 957.86 957.54 957.19 956.83 956.45 956.04 955.62 955.17 954.71 954.22 953.71 953.18 952.64 952.10 951.56 951.02

8524 8525 8526 8527 8528 8529 8530 8531 8532 8533

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.10

8:05:45 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

Sta. 2020+27
24" X 89' Conc. Pipe

Extend Existing 24" RCP
w/24" x 32' Lt. DR-621

Sta. 2024+29
30" X 215' Conc Pipe
D.A. = 10 Ac - R

Extend Existing 30" RCP
w/30" x 46' Lt. DR-621

DELAWARE TWP.
T-79-N R-23W
SEC. 19

Sta. 2015+96.21 (I-235)
Begin Widening

E2

WB I-80 to SB I-235
RAMP G (235G)

FUTURE SB I-235

ML I-235 (ML235)

SOUTHBOUND I-235

FUTURE NB I-235

(U.A.C.)

NORTHBOUND I-235

2015

2020

2025

Sta. 2028+42.95 (I-235)
End Widening

DELAWARE TWP.
T-79-N R-23W
SEC. 19

0 FEET 50

MAINLINE I-235

960 955 950 945 940 935 930 925 Lt Rt

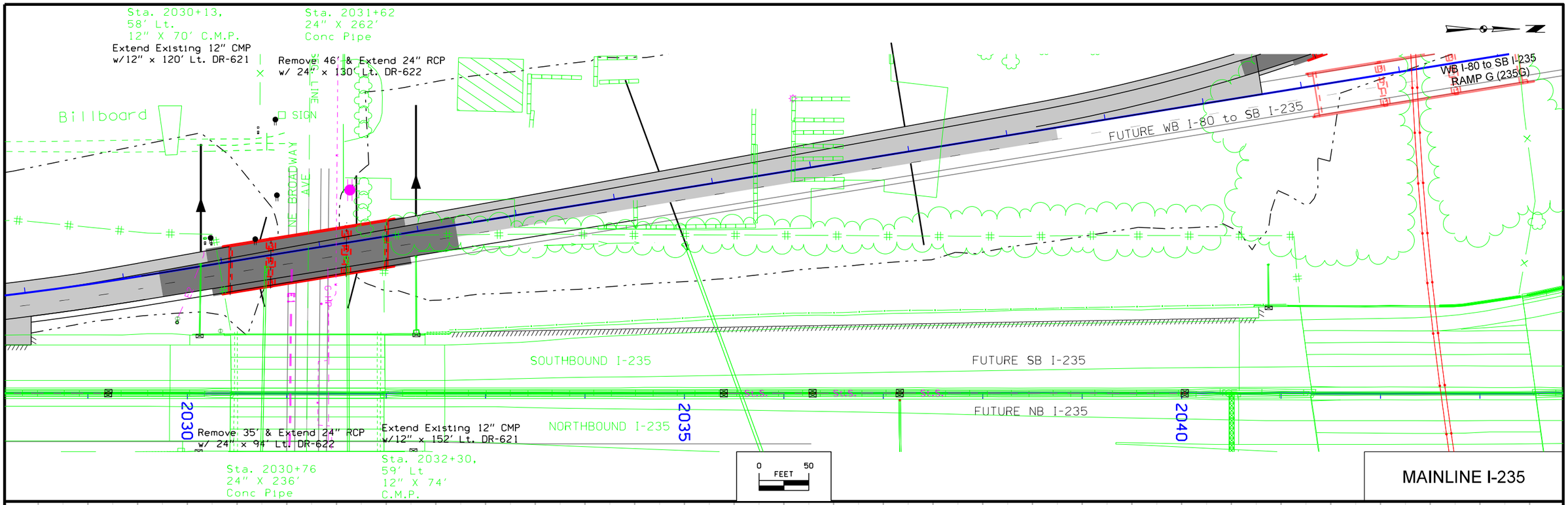
+00 Lt. 928.20
+1.40% Lt. Ditch Grade
+50 Lt. 931.70
-0.20% Lt. Ditch Grade
+50 Lt. 930.90
+1.30% Lt. Ditch Grade
+00 Lt. 932.85
-0.20% Lt. Ditch Grade
+00 Lt. 932.45
+43 Lt. 932.54
+0.20% Lt. Ditch Grade

Ditch Grade | Ditch Grade | Ditch Grade | Ditch Grade | D.G. | D.G.

2017 2018 2019 2020 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.11

8:05:46 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.12	REVISED

8:05:47 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

Sta. 2102+34
24" X 84' Conc. Pipe
(U.A.C)

DELAWARE TWP.
T-79-N R-23W
SEC. 7

SIGN BRIDGE

FUTURE SB I-235 to EB I-80

REFER TO F SHEETS
FOR DETAILS

NORTHBOUND I-235

SOUTHBOUND I-235

2100 BRIDGE

2105

Sta. 2109+31.40 (NB I-235) =
Sta. 2109+31.19, 13.00' RT (I-235)

Sta. 2109+31.19 (I-235)
Begin Widening

FUTURE SB I-235

I-235 (ML235)

I-235 (ML235NB)

FUTURE NB I-235

2110 BRIDGE

(U.A.C.)

(U.A.C.)

I-35 NB (ML035N)

I-35 NB (ML035N)

MM SIGN

MM

F03

F03

DELAWARE TWP.
T-79-N R-23W
SEC. 7

0 FEET 50

MAINLINE I-235

+16 Rt.
944.80

-2.00% Rt. Ditch Grade

+50 Rt.
940.13

-1.60% Rt. Ditch Grade

+00 Rt.
931.33

-1.88% Rt. Ditch Grade

+50 Rt.
924.75

-5.58% Rt. Ditch Grade

+00 Rt.
910.80

955 950 945 940 935 930 925 920 915 925 920

U.A.C. U.A.C.

Lt

Rt

Ditch Grade Ditch Grade Ditch Grade Ditch Grade

2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.13

8:05:47 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

Sta. 2112+52
24" x 90' Conc. Pipe
(U.A.C)

Sta. 165+43
24" X 109' Conc. Pipe
(U.A.C)

DELAWARE TWP.
T-79-N R-23W
SEC. 7

Sta. 2109+31.40 (NB I-235) =
Sta. 2109+31.19, 13.00' RT (I-235)

Sta. 2109+31.19 (I-235)
Begin Widening

Sta. 2114+60.00 (I-235)
End Widening

N BRIDGE

PT Sta 2109+34.40

FUTURE SB I-235

I-235 (ML235)

I-235 (ML235NB)

FUTURE NB I-235

I-35 NB (ML035N)

(U.A.C.)

SOUTHBOUND I-235/35

(U.A.C.)

NORTHBOUND I-235/35

SIGN BRIDGE

MM

SIGN

2110

2115

2120

F03

Sta. 2114+91
64" X 586' Steel Pipe
W/6' X 6' RCB Exts
D.A. = 111 Ac - R
(U.A.C)

Extend Existing 24" RCP
w/24" x 24' DR-621
Sta. 2107+00
24" X 121' Conc. Pipe

DELAWARE TWP.
T-79-N R-23W
SEC. 7

0 FEET 50

MAINLINE I-235

+00 Rt.
931.33

1.88% Rt. Ditch Grade

+50 Rt.
924.75

5.58% Rt. Ditch Grade

+00 Rt.
910.80

U.A.C.

Lt

Rt

Ditch Grade

Ditch Grade

U.A.C.

955 950 945 940 935 930 925 920

2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.14

8:05:48 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

SAYLOR TWP.
T-79-N R-24W
SEC. 13

Sta. 1066+75
42" X 226 Conc Pipe
D.A. = 52 Ac - R
(Plug & Abandon)

PC Sta 1058+28.34

PT Sta 1071+34.02

1060

1065

1070

SIGN BRIDGE

FUTURE WB I-80

WESTBOUND I-80

I-80/35 (SUR080)

EASTBOUND I-80

FUTURE EB I-80

PI Sta 1064+18.99

NB I-35 (ML035N)

DETOUR PAVING
(SEE SHEET F.1)

Curve Data
Δ = 6° 57' 38.61" (LT)
T = 653.65
L = 1,305.68
R = 10,747.47
E = 19.86

Sta. 1057+00
24" X 95' Conc Pipe

0 FEET 50

SAYLOR TWP.
T-79-N R-24W
SEC. 13

MAINLINE I-80
SURVEY

+00 Lt.
929.02

-4.30% Lt. Ditch Grade

+4.10% Lt. Ditch Grade

+00 Lt.
927.29

+67 Lt.
921.84

Ditch Grade

Lt	950.95	950.35	949.74	949.12	948.51	947.89	947.28	946.66	946.05	945.43	944.82	944.20	943.59	942.97	942.36	941.74	941.13	940.51	939.90	939.28	938.67	938.05	937.44	936.82	936.21	935.59
Rt																										

950 945 940 935 930 925 920 915

1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.15

8:05:49 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

Sta. 5135+06, 87.90' Lt.
Extend Existing 24" RCP
w/24" x 180' DR-601
Skew 15° Lt. Ahd.

DELAWARE TWP.
T-79-N R-23W
SEC. 17

Sta. 1138+99
18" X 146' Conc Pipe
Remove 73' Existing 24" RCP
STA 5139+01.45, 63.23 LT
AREA INLET SW-562
w/24" x 180' Lt. DR-621

Sta. 1142+98
18" X 150'
Conc Pipe
Remove 96' Existing 24" RCP
STA 5143+01.19, 44.67 LT
AREA INLET SW-562
w/24" x 176' Lt. DR-621

Sta. 1146+99
18" X 132'
Conc Pipe
Remove 80' Existing 24" RCP
STA 5146+99.18, 42.63 LT
AREA INLET SW-562
w/24" x 144' Lt. DR-621

STA 5148+12.94, 38.20 LT
AREA INLET SW-562
w/24" x 144' Lt. DR-621

Sta. 5137+77.67, 111.00' LT (ML080) =
Sta. 38637+77.87, 4.00' RT (235G)
Begin Construction

Sta. 5143+38.27, 82.98' LT (ML080) =
Sta. 20+25.00, 0.00' LT
End Construction

DETOUR PAVING
(SEE SHEET F.3)

Trail
FG3
FO3
SIGNAL BRIDGE
FUTURE WB I-80
I-80 (ML080)
(U.A.C.)
WESTBOUND I-80
EASTBOUND I-80
FUTURE EB I-80
SIGN
38635
5135
5140
5145
20
25

0 FEET 50

DELAWARE TWP.
T-79-N R-23W
SEC. 17

MAINLINE
WESTBOUND I-80

Sta. 1135+07
24" X 131' Conc Pipe

STA. 5137+77.67
BEGIN I-80 CONSTRUCTION
ELEV 919.24

STA. 5143+38.27
END CONSTRUCTION
ELEV 902.42

-3.000%

PROPOSED PGL

+00 Lt.
875.50

-3.00% Lt.
Ditch Grade

+38 Lt.
873.01

-1.80% Lt.
Ditch Grade

+78 Lt.
888.16

-3.00% Lt. Ditch Grade

Ditch Grade

Ditch Grade

920 915 910 905 900 895 890 895

880 875 870

918.57 917.82 917.07 916.32 915.57 914.82 914.07 913.32 912.57 911.82 911.07 910.32 909.57 908.82 908.07 907.32 906.57 905.82 905.07 904.32 903.57 902.82

5135 5136 5137 5138 5139 5140 5141 5142 5143 5144 5145

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER D.16

8:05:49 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194D02.sht

DELAWARE TWP.
T-79-N R-23W
SEC. 18

DELAWARE TWP.
T-79-N R-23W
SEC. 17

DELAWARE TWP.
T-79-N R-23W
SEC. 18

DELAWARE TWP.
T-79-N R-23W
SEC. 17

CHICHAQUA VALLEY TRAIL

Sta. 10+00.00 CV TRAIL
Begin Construction

PC Sta 10+00.00
C1
PT Sta 10+50.03
PI Sta 10+25.55
PC Sta 11+31.18
PI Sta 11+83.25
C2
PT Sta 12+11.75
PI Sta 13+98.00
PC Sta 12+51.75
C3
C4
PT Sta 14+28.96
PRC Sta 13+63.51
PI Sta 13+54.41

Sta. 12+18.18
Stop Construc

Sta. 12+46.51 CV TRAIL
Resume Construction

Sta. 12+57.65 CV TRAIL
End Construction

Equation:
Sta. 12+31.75 CV TRAIL
=Sta. 38801+82.11 29TH ST.

Sta. 17+25.59 CV TRAIL
Begin Construction

Equation:
Sta. 17+31.38 CV TRAIL
=Sta. 38632+60.79 RAMP G

SEE G SHEET FOR TRAIL STAGE 3A&B GEOMETRY &
F SHEET FOR STAGE 3A&B TRAIL PLAN.

PC Sta 17+82.47
PI Sta 18+73.24
C5
PI Sta 19+29.88
PC Sta 20+52.14
C6
PT Sta 21+05.08
PI Sta 20+81.40

Sta. 21+18.01 CV TRAIL
End Construction

(U.A.C.)
NE 29TH STREET
APPROX. SEC. LINE

FUTURE WB I-80
EASTBOUND I-80
FUTURE EB I-80
WB I-80 to SB I-235
RAMP G (235G)
FUTURE D SIGN

Curve Data

C1 Δ = 28° 39' 57.65" (LT)
T = 25.55
L = 50.03
R = 100.00
E = 3.21
DS = 20mph

C2 Δ = 92° 19' 53.61" (RT)
T = 52.08
L = 80.57
R = 50.00
E = 22.19
DS = 16mph

C3 Δ = 128° 03' 43.35" (LT)
T = 102.66
L = 111.76
R = 50.00
E = 64.19
DS = 16mph

C4 Δ = 38° 03' 43.35" (RT)
T = 34.49
L = 66.43
R = 100.00
E = 5.78
DS = 20mph

Curve Data

C5 Δ = 84° 27' 36.42" (RT)
T = 90.77
L = 147.41
R = 100.00
E = 35.05
DS = 20mph

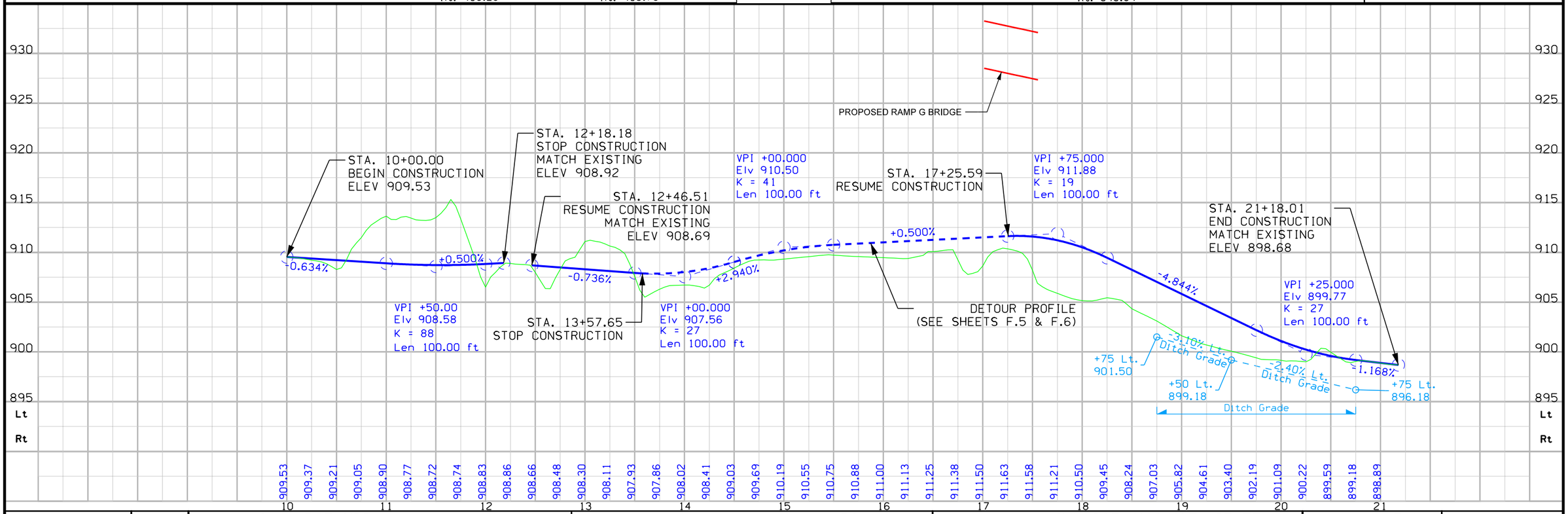
C6 Δ = 60° 39' 51.21" (LT)
T = 29.26
L = 52.94
R = 50.00
E = 7.93
DS = 16mph

Sta. 12+00.00
Install 15" x 26' DR-601
Skew = 22° Lt. Ahd.
F.L. = Lt. 906.77
Rt. 906.25

Sta. 12+62.00
Install 15" x 24' DR-601
Skew 8° Rt. Ahd.
F.L. = Lt. 906.29
Rt. 905.73

Sta. 20+85.00
Install 44" x 27" x 26' DR-601
Skew 30° Rt. Ahd.
F.L. = Lt. 895.15'
Rt. 893.89'

0 FEET 50



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER E.1

10:29:38 AM 12/23/2016 CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194E01.sht

DELAWARE TWP.
T-79N R-23W
SEC. 7

Sta. 79+11.39
24" X 62.0 C.M.P.
D.A. = 1.5 Ac - R
(U.A.C)

DELAWARE TWP.
T-79N R-23W
SEC. 7

8520

NB I-35 (ML035N)

2240

2245

2250

Note:
For Plan & Profile for Special Ditch
NE 54th Avenue, see Sheet E.5

PI Sta 2248+02.40

NE 54th Avenue (By Others)

SIGN

DELAWARE TWP.
T-79N R-23W
SEC. 18

0 FEET 50

DELAWARE TWP.
T-79N R-23W
SEC. 18

NE 54TH AVENUE

975
970
965
960
955
950
945
940
Lt
Rt

EXISTING GROUND LINE AT
NE 54TH AVE. BASE LINE

+90 Lt.
949.50

-0.50% Lt. Ditch Grade

+33 Lt.
945.78

Ditch Grade

2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER E.2

10:29:39 AM 12/23/2016 CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194E01.sht

DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 38802+13.37
15" x 57' CMP
(U.A.C)

Sta. 38805+80.62
24" x 57' Conc. Pipe
(Fill and Abandon)

Sta. 38805+75.07
24" x 26' CMP
(Remove)

Sta. 38807+87.00 (29th St.)
Install 36" x 58' DR-601
F.L. = Lt. 902.50
Rt. 901.50

Equation:
Sta. 38806+23.10 SR 29TH ST.=
Sta. 38632+22.58 RAMP G

Sta. 38807+75.00 (SR29TH)
Begin Construction

Sta. 38808+00.00 (SR29TH)
End Construction

+20 Prop.
Type "M" Dike
Elev. =905.50

EASTBOUND I-80

WESTBOUND I-80

FUTURE WB I-80

EB I-80

CLOSE

CLOSE

APPROX. SEC. LINE

APPROX. SEC. LINE

POT Sta 38800+00.00

38800

Interim Trail

38805

POT Sta 38808+85.14

+30 Prop.
Type "C" Ent.

DELAWARE TWP.
T-79-N R-23W
SEC. 17

0 FEET 50

DELAWARE TWP.
T-79-N R-23W
SEC. 18

DELAWARE TWP.
T-79-N R-23W
SEC. 17

SIDE ROAD
NE 29th STREET

930
925
920
915
910
905
900
895
Lt
Rt

38808+30.00

+30 Prop. Type "C" Ent.

-4.0%
-5.5%
-2.24%
0.0%
-6.5%

910.12
909.82

-1.200%

+25 Lt.
908.98

-4.00% Lt.
Ditch Grade

+87 Lt.
902.50

+25 Lt.
904.61

5.56% Lt.
Ditch Grade

Ditch Grade
D.G.

910.12
909.82

38800 38801 38802 38803 38804 38805 38806 38807 38808 38809

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER E.3

10:29:40 AM 12/23/2016 CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194E01.sht

DELAWARE TWP.
T-79-N R-23W
SEC. 18

DELAWARE TWP.
T-79-N R-23W
SEC. 18

WB I-80 to SB I-235
RAMP G (235G)

SOUTHBOUND I-235

NORTHBOUND I-235

ML I-235 (ML235)

1185

POT Sta 1175+00.22

POT Sta 1188+00.22

(Close)

(Close)

APPROX. SEC. LINE
(U.A.C.)

APPROX. SEC. LINE

NE BROADWAY AVE. (SRBWY)

(U.A.C.)

APPROX.

Equation:
Sta. 1180+16.12 NE BROADWAY AVE
=Sta. 38559+88.29 RAMP G

DELAWARE TWP.
T-79-N R-23W
SEC. 19

DELAWARE TWP.
T-79-N R-23W
SEC. 19

0 50
FEET

SIDE ROAD
NE BROADWAY AVE

PROPOSED RAMP G BRIDGE

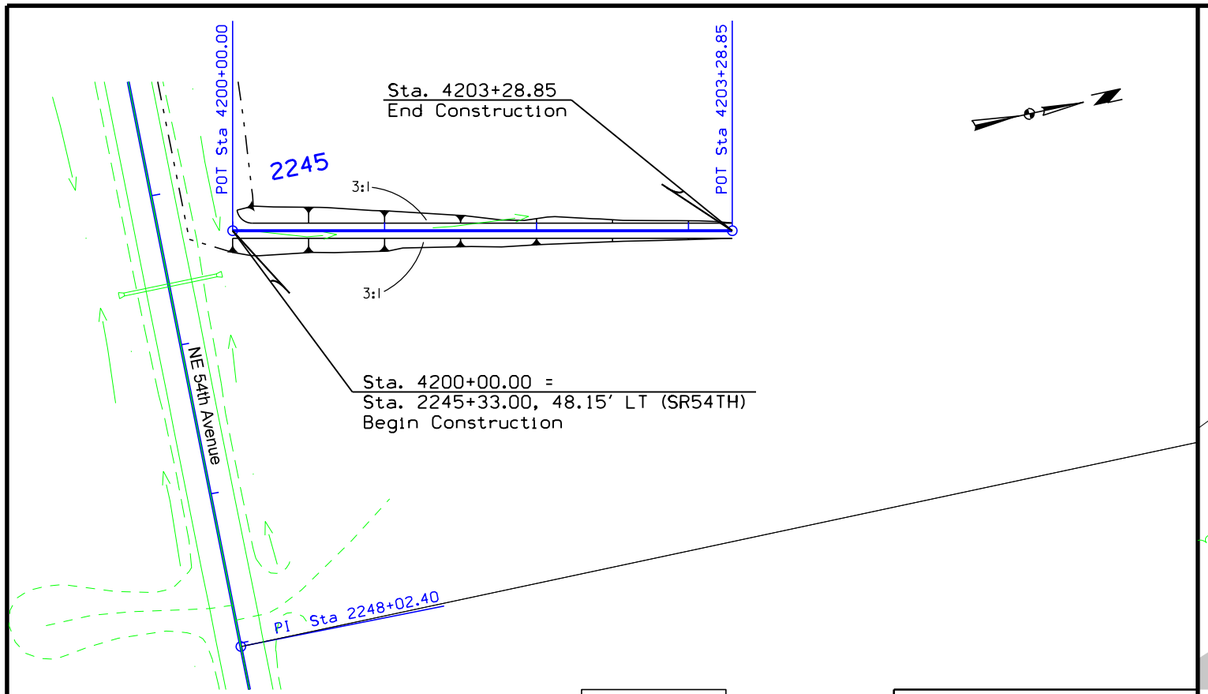
I-235 BRIDGE

960
955
950
945
940
935
930
925
Lt
Rt

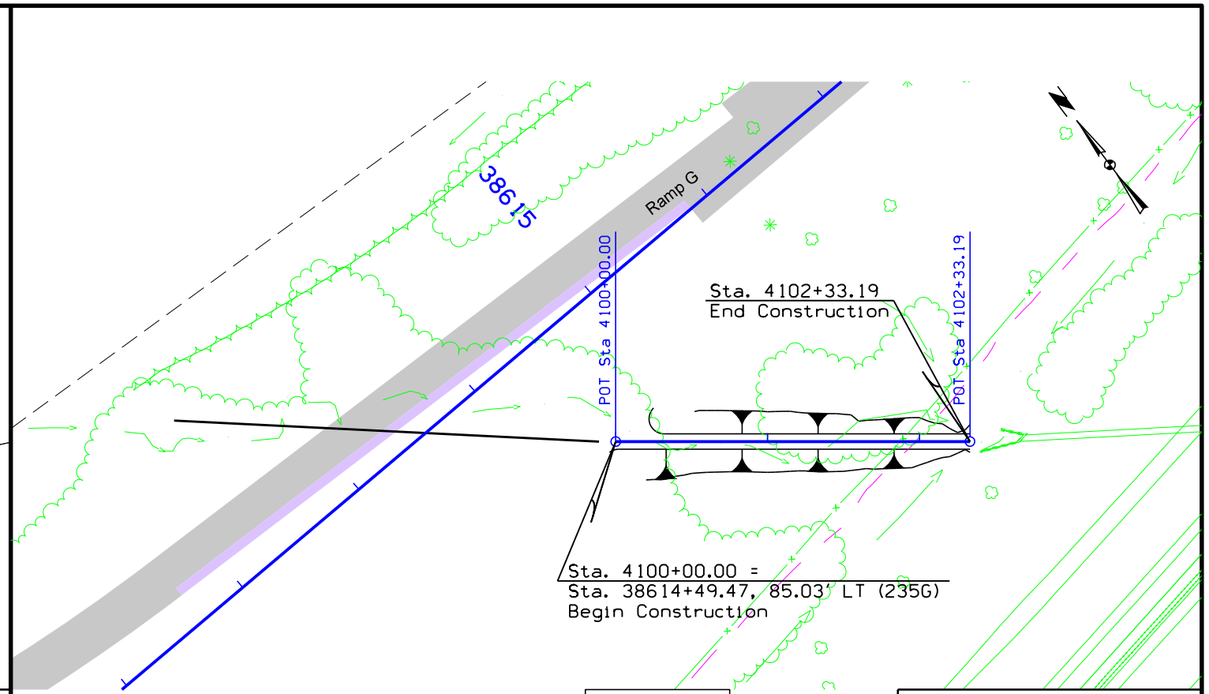
1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1188

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER E.4

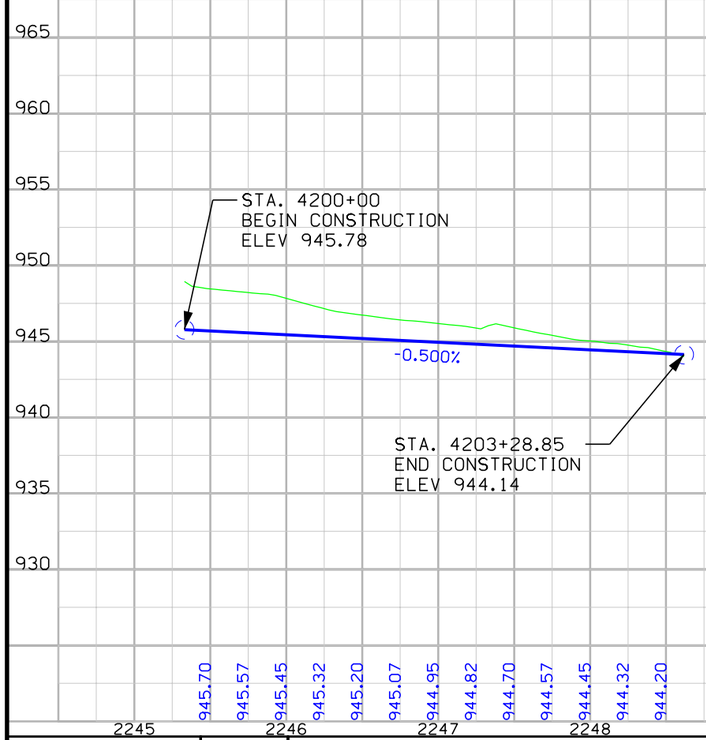
10:29:41 AM 12/23/2016 CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194E01.sht

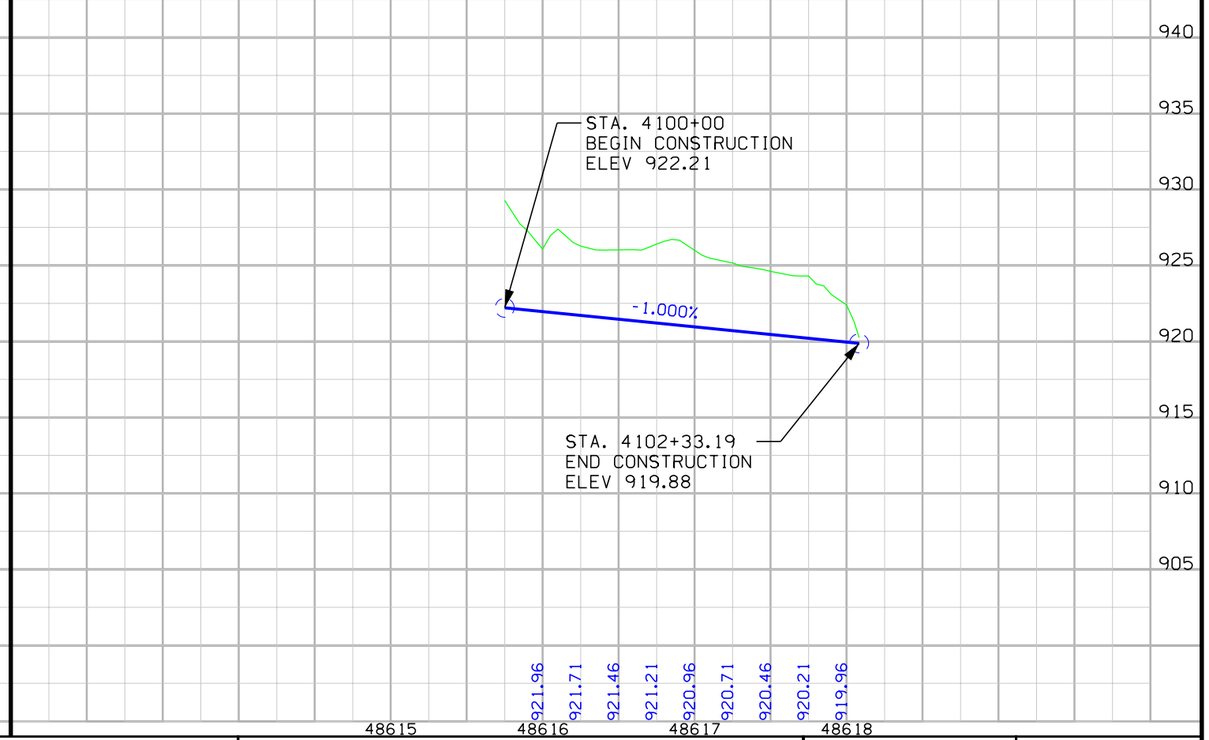


SPECIAL DITCH
NE 54th AVE



SPECIAL DITCH
RAMP G





FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER E.5

STA.1057+10.82 SUR080
51.00' RT, BEGIN CONSTRUCTION

STA. 10+07.86
0.29' LT, ELEV = 946.82

STA. 16+85.36
35.91' LT, ELEV = 936.78

STA. 18+12.42
24.00' LT

STA. 18+45.89
24.00' LT, ELEV = 934.82

STA. 18+45.89
12.00' LT

1055

1060

SIGN BRIDGE

SIGN

SUR080

PC Sta 10+00.00

15

PI Sta 18+41.16

12'
12'
12'
12'

3%
3%
4%
+48.26

28:1 TAPER

3%
3%
4%
+41.56

12'
12'

3%
3%
3%
3%
4%
+85.36

1%
3%
5.2%
5.2%
5.2%

2.8%
12'
12'

+60.89

PC Sta 18+12.42

PT Sta 18+95.89

STA.1055+89.61 SUR080
71.00' RT, ELEV = 948.89

STA. 10+08.50
19.70' RT ELEV = 946.22

STA.1056+45.96 SUR080
73.00' RT, ELEV = 948.89

DET_3_10

STA. 16+86.41
24.00' LT, ELEV = 936.42

STA.1055+89.61 SUR080
73.00' RT, ELEV = 948.83

STA. 18+12.42
24.00' RT, ELEV = 933.77

ML035N

STA. 8465+42.83, 12' LT (ML035N)
= STA. 18+45.89, (DET_3_10)
END CONSTRUCTION
TIE TO PROPOSED

STA. 18+45.89
24.00' RT, ELEV = 933.07

0 FEET 50

Sta. 1064+74
24" X 93' Conc Pipe
Sta. 17+77 (DET_3_10)
Extend Existing 24" RCP
w/24" x 86' DR-621

Curve Data
Δ = 2° 04' 06.35" (RT)
T = 41.74
L = 83.47
R = 2,312.00
E = 0.38

INTERSTATE 80/35
NORTHEAST MIX MASTER
INTERIM CONNECTION
DET_3_10 STAGE 3A

TIE TO EXISTING
SUR080 STA. 1057+10.82, 51.29' RT
= DET_3_10 STA. 10+07.87
ELEV. = 946.82

VPI +08.500
Elv 945.13

-1.678%

-2.027%

-1.682%

TIE TO PROPOSED
ML035N STA. 8465+42.83, 12.00'' LT
= DET_3_10 STA. 18+45.89
ELEV. = 934.32

VPI +85.360
Elv 935.70

-0.727%

-0.860%

-0.740%

VPI +08.500
Elv 939.05

VPI +48.500
Elv 936.69
K = 188
Len 180.00 ft

-1.72% Rt. Ditch Grade

+35 Rt.
939.72

EXIST. GROUND LINE

+60 Rt.
932.41

-4.00% Rt. Ditch Grade

+46 Rt.
916.97

955
950
945
940
935
930
925
920
Lt
Rt

No Ditch

Ditch Grade

Ditch Grade

946.53 946.11 945.69 945.27 944.80 944.29 943.78 943.28 942.77 942.26 941.76 941.25 940.74 940.24 939.73 939.22 938.77 938.35 937.94 937.56 937.21 936.89 936.61 936.36 936.14 935.96 935.78 935.57 935.36 935.14 934.93 934.71 934.50

10 11 12 13 14 15 16 17 18

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IMN-035-4(194)87--0E-77	SHEET NUMBER	F.1

8:27:46 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194F01.sht

STA.1068+43.04 SUR080
12.00' RT

STA.1064+80.91 SUR080
6.43' RT

STA.1069+08.09 SUR080
12.00' RT

STA.1069+08.00 SUR080
18.00' RT

SUR080

3%

3%

U.A.C. GUARDRAIL

DET_3_12

STA.1064+81.18 SUR080
18.04' RT

1060

1065

1070

1075

SIGN

SIGN BRIDGE

0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
DET 3 12 STAGE 3A

ML035N

STA.8466+13.39 (ML035N)
36.00' LT

2.8%

1%

STA.8466+13.39 (ML035N)
24.00' LT

DET_3_14

STA.8465+42.83 (ML035N)
36.00' LT

STA.8465+42.83 (ML035N)
24.00' LT

8465

8470

8475

0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
DET 3 14 STAGE 3A

		Iowa DOT\HDR	POLK	IMN-035-4(194)87--0E-77	F.2	

8:27:47 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194F01.sht

Sta. 1142+98
18" X 150'
Conc Pipe

Remove 96' Existing 24" RCP
STA 5143+01.19, 44.67 LT
AREA INLET SW-562
w/24" x 176' Lt. DR-621

Remove 80' Existing 24" RCP
STA 5146+99.18, 42.63 LT
AREA INLET SW-562
w/24" x 144' Lt. DR-621

Sta. 1146+99
18" X 132'
Conc Pipe

STA 5148+12.94, 38.20 LT
AREA INLET SW-562
w/24" x 144' Lt. DR-621

Sta. 1150+99
18" X 116'
Conc Pipe

Sta. 5151+00
Extend Existing 24" RCP
w/24" x 48' Lt. DR-621

STA.20+25.00 (DET_3_20)
28.00' LT, ELEV. = 900.76

STA. 20+25.00, (DET_3_20)
= STA. 5143+38.27, 82.98' LT (ML080)
BEGIN CONSTRUCTION
TIE TO PROPOSED

STA.20+25.00 (DET_3_20)
8.00' RT, ELEV. = 902.08

STA.25+60.57 (DET_3_20)
ELEV = 885.58

STA.25+61.77 (DET_3_20)
23.95' RT, ELEV = 886.30

STA.25+60.57 (DET_3_20)
28.00' LT, ELEV = 884.62

STA.25+60.97 (DET_3_20)
8.00' RT, ELEV. = 885.82

DET_3_20

20:1 RAMP TAPER

STA.1157+53.27 (SUR080)
63.00' LT
MATCH EXISTING SLOPE

STA.1156+73.47 (SUR080)
63.00' LT, ELEV = 862.13

STA.1156+73.17 (SUR080)
ELEV = 862.56

STA.1157+53.27 (SUR080)
51.00' LT
MATCH EXISTING

STA. 30+40.77, (DET_3_20)
= 1153+52.77, 51.00' LT (SUR080)
TIE TO EXISTING

ML080

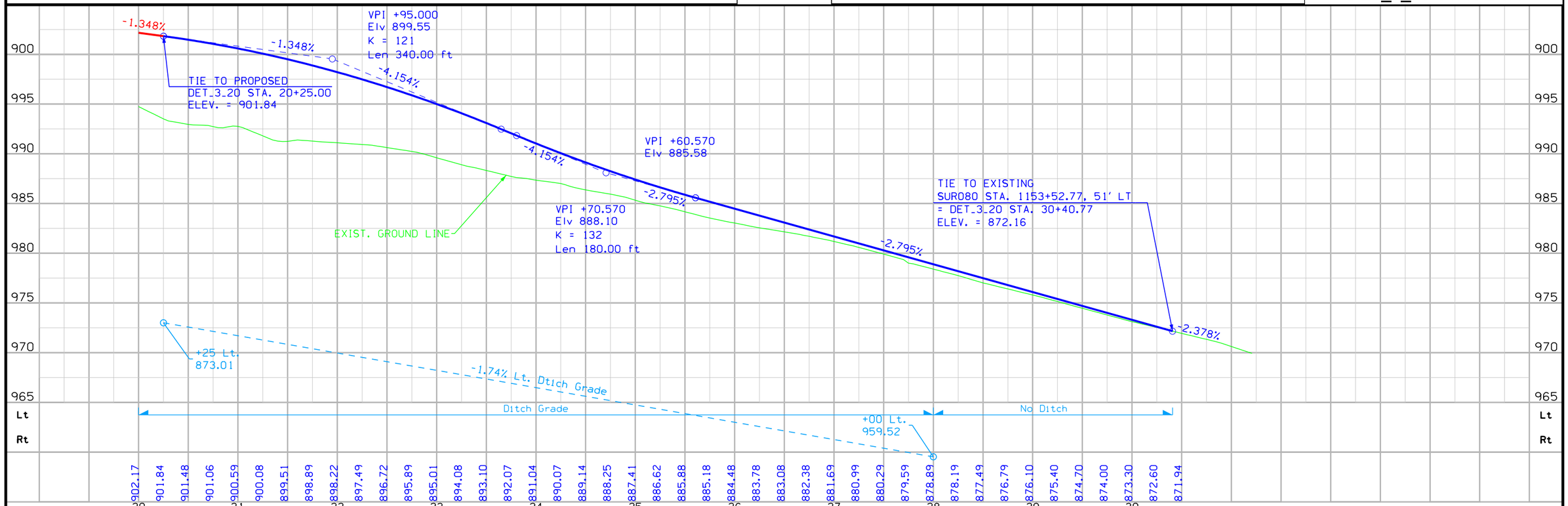
SUR080

20 | 1145 | 25 | 1150 | 30 | 1155

4% | 3% | 16' | 12' | SIGN | 5145 | 5150 | 5155

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
INTERIM CONNECTION
DET_3_20 STAGE 3A



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IMN-035-4(194)87--0E-77	SHEET NUMBER	F.3

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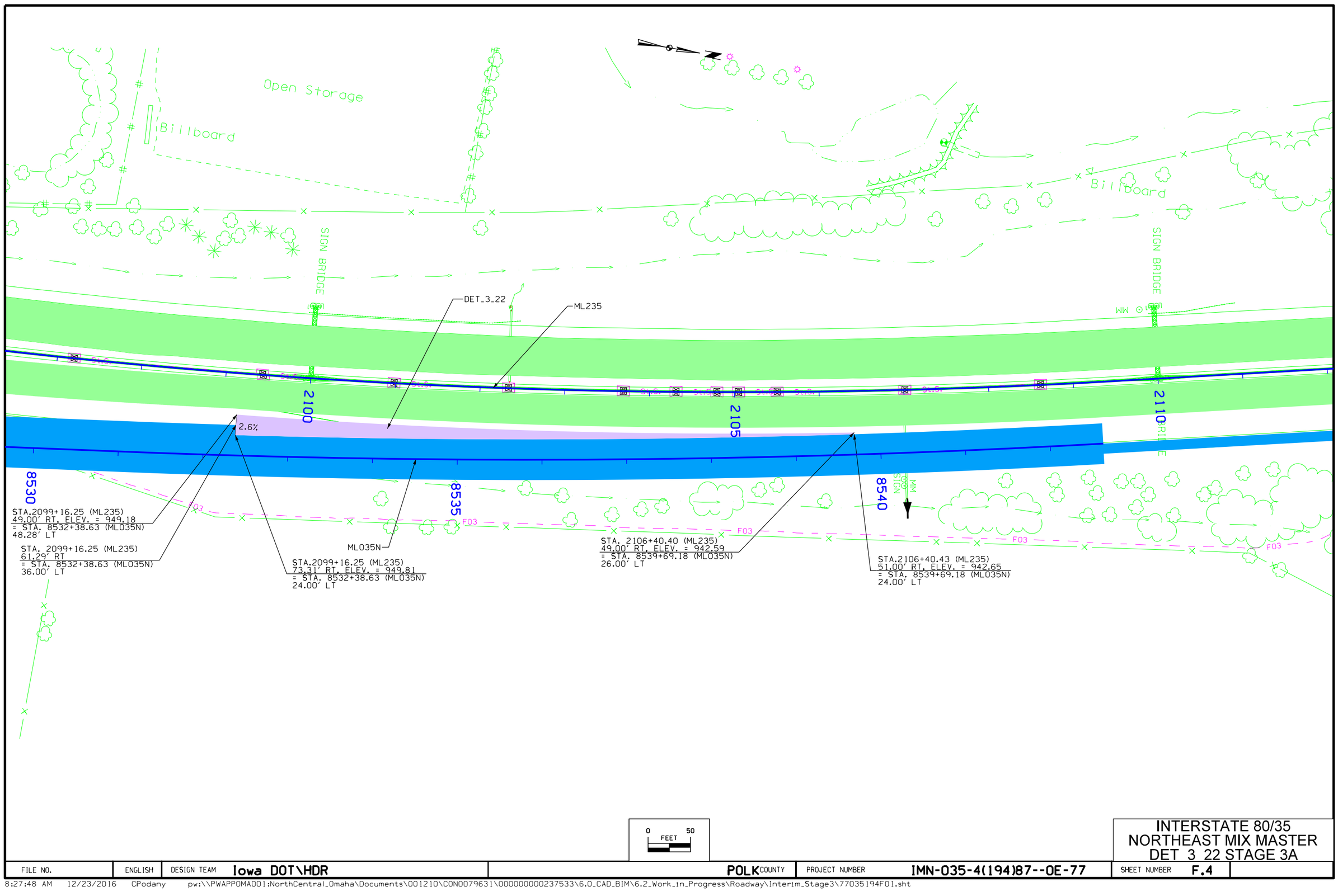
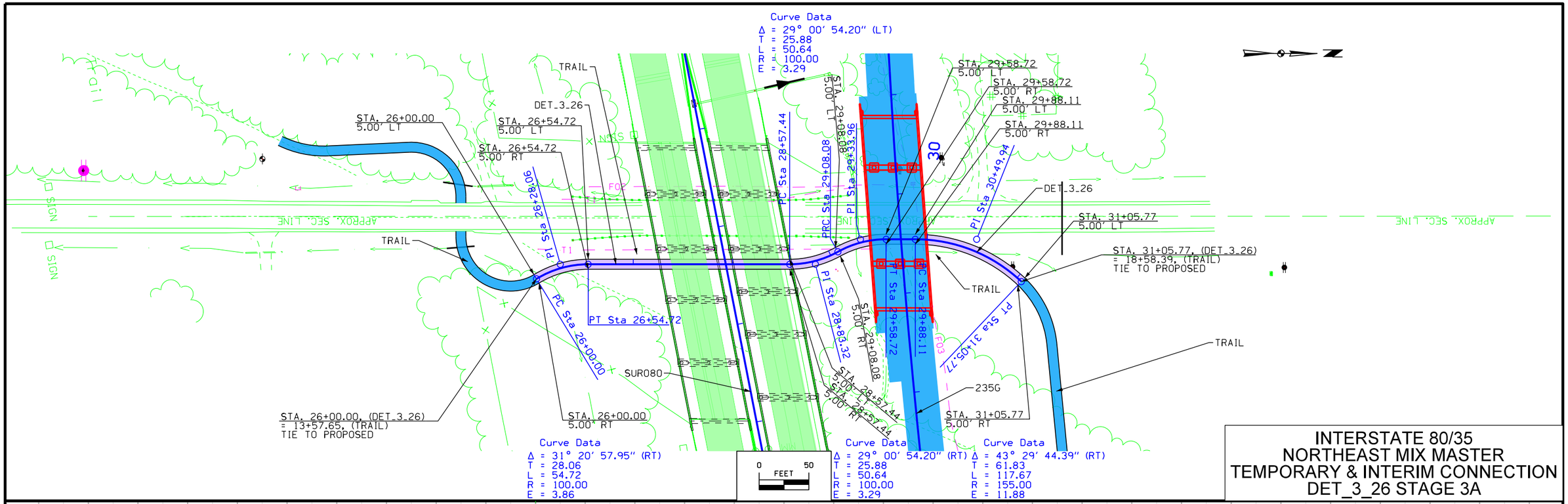


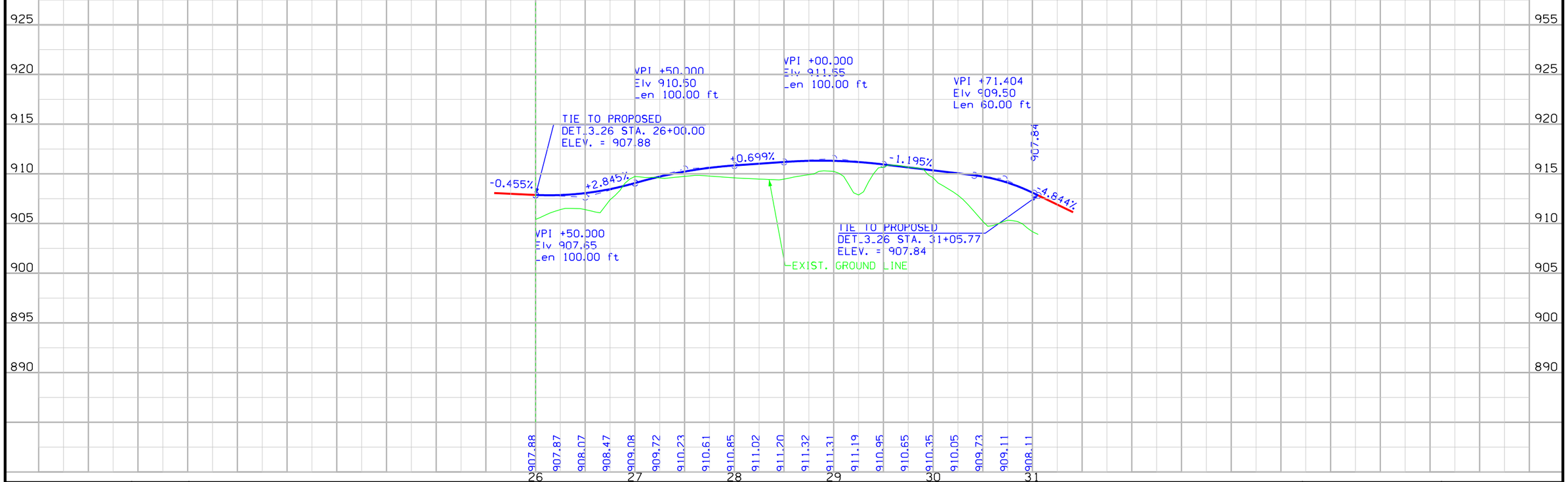
INTERSTATE 80/35
NORTHEAST MIX MASTER
DET 3 22 STAGE 3A

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER F.4

8:27:48 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194F01.sht

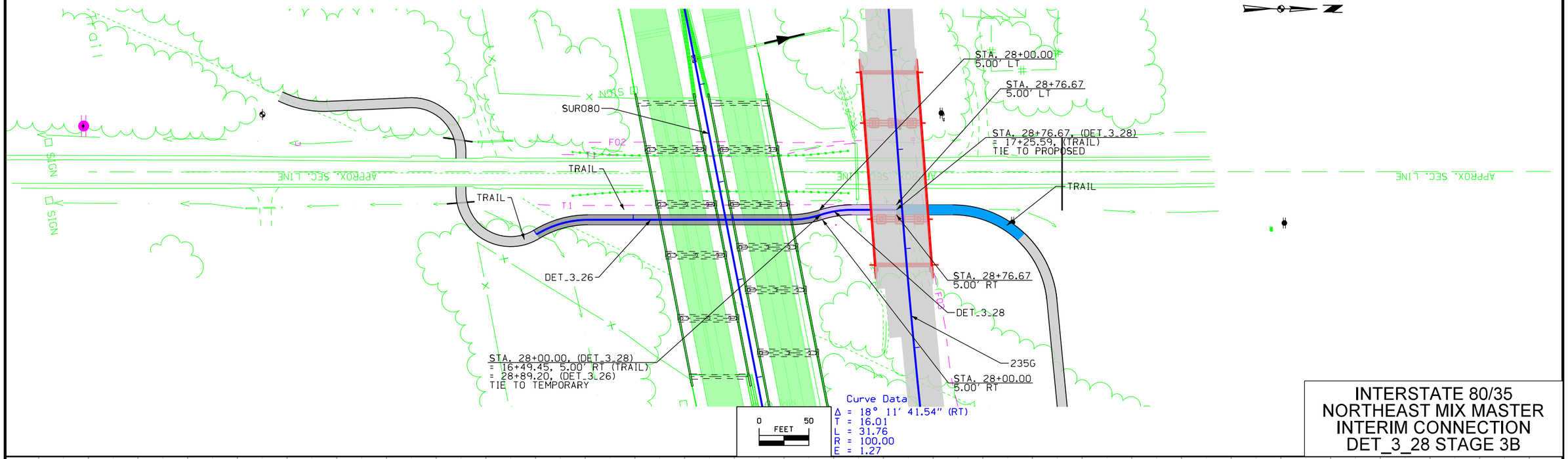


INTERSTATE 80/35
NORTHEAST MIX MASTER
TEMPORARY & INTERIM CONNECTION
DET_3_26 STAGE 3A

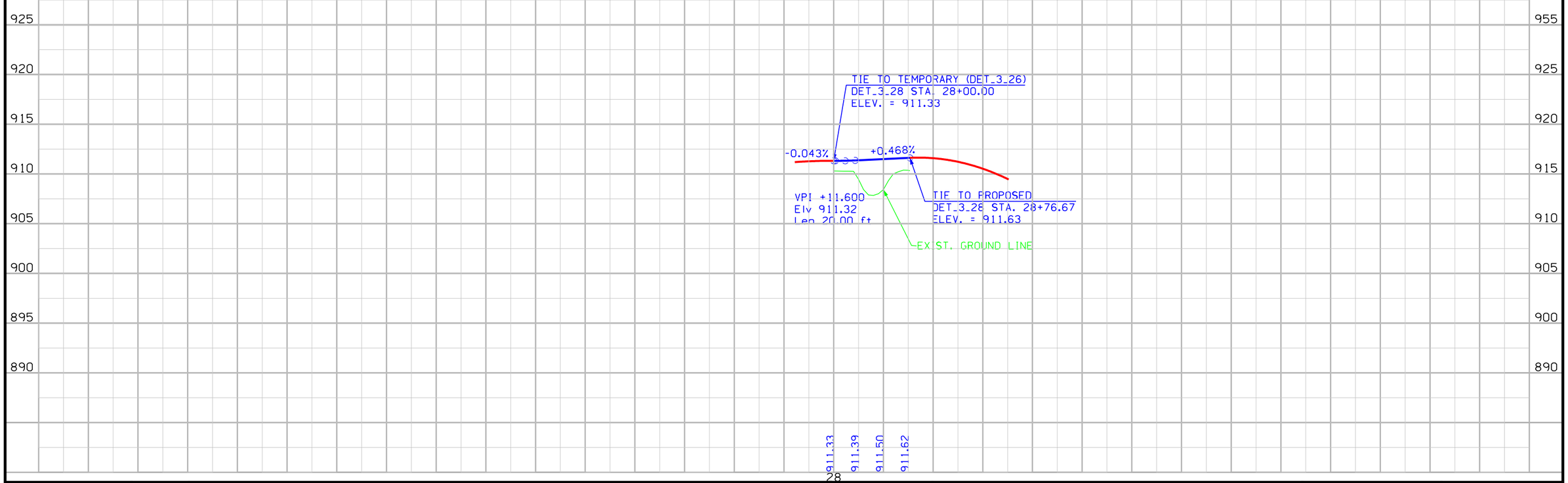


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IMN-035-4(194)87--0E-77	SHEET NUMBER	F.5

8:27:49 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194F01.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
INTERIM CONNECTION
DET_3_28 STAGE 3B



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IMN-035-4(194)87--0E-77	SHEET NUMBER	F.6

8:27:49 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\O0000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194F01.sht

Survey Information

County: Polk
PIN: 10-77-035-010-03
Project Number: IM-035-3(194)87--13-77
Location: I-35/80/235 Interchange NE Of Des Moines(Stage 3A)
Type of Work: Grading
Project Directory: 7703501010
This Index covers SAP's 0742.2, 0742.3 and 0742.4

General Information

Measurement units for this survey are US survey feet. This survey is for phase 3 of the NE Mixmaster ramp reconstruction. This survey uses the same coordinate system as the Delaware Ave. IM-035-4(161)87--13-77 and 54th. Ave. IM-035-4(160)87--13-77 Surveys. Phase 3 surveying was accomplished by an IDOT design survey crew and 2 consulting firms. IDOT surveyed project control, mainline alignments, culvert surveys, utility survey, photo control survey and selected ground features. R.E.Y. Consultants surveyed mainline pavement and interchange ramps using mobile LiDAR. Snyder and Associates surveyed railroads. Aerial survey will also be used to create a project surface and to add other topographic features.

IDOT Design Party Personnel

John Dewey- Party Chief
Robert Mingus- Party Chief
Myron Fox- Assistant Party Chief

IDOT Date(s) of Survey

Begin Date 04/2014
End Date 09/2014

R.E.Y Engineers, Inc.
Contract No. 801AH; WO7

Date(s) of R.E.Y. Survey
June-July 2014

Snyder and Associates
Contract No. 433AF; WO 5

Date(s) of R.E.Y. Survey
Oct. 2014

Project Control Information

GPS Control from previous surveys were used as follows:
GPS PROJECT : Sap 323 & 324 STP-69-4(65)--2c-77 (2000 Survey)
STATE PLANE COORDINATE ZONE 1402 (IOWA SOUTH LAMBERT)
STATE PLANE COORDINATES HELD AT POINT G030
AVERAGE PROJECT LATITUDE = 41 40 12.05576
RESULTING RADIUS = 6363663.482 (METERS)
MEAN PROJECT ELEVATION = 285.000 (METERS)
SEA LEVEL FACTOR = 0.999955216
AVERAGE PROJECT SCALE FACTOR = 0.999982250
COMBINED FACTOR (GRID) = 0.999937467
1 / GRID = 1.000062537
VERTICAL DATUM = NAVD 88 <> HORIZONTAL DATUM = NAD 83 (1996)

GPS Control point G024 coordinates from previous surveys were used and the following points were re-observed and adjusted: G013, G025, G026 and G027. G010, G011, G029 and G030 were searched for but not found. It is presumed reconstruction has obliterated those points. Point G128 from an I-235 survey was re- observed and adjusted. Points G128 and G026 are FENO monuments. All other points are 5/8" Rebar. Two FENO monuments were added. These are points 100 and 101.
It is intended that the control included in the re-observation will be the primary control used for future survey work. The FENO monuments designated as 26,100,101 and 128 to the north, south, east and west of the interchange are constructed to hold horizontal and vertical position reasonably well. The other rebar can be used but should be verified first relative to the FENO monuments. It is anticipated additional temporary marks in the interchange will be needed at various stages as the project progresses. Those temporary marks will be established as needed relative to this control.

Alignment Information

Mainline Alignment (I-80)

The I 80 alignment is relative to the control in the metric as-built plans IM-35-3(116)85--13-77 computed from a 1994 metric I 80 survey alignment. Metric alignment points were scaled and translated to this survey coordinate system. No rotation was required. Sta 2000+00.00 was assigned to the PC of the metric I 80 curve west of the Delaware Ave. Bridge. Stationing was run ahead without station equation to the end of the alignment at the mixmaster interchange central intersection point.

This Mainline survey relates to the mainline plan stationing as follows:

CP Sta. 1024+84.88, 97.35' Lt this survey (English)
=CP Sta. 312+34.97, 29.67m Lt Project # IM-35-3(116)85—13-77 (Metric)

POT Sta. 1075+46.01, 0.04' Lt this survey (English)
=POT Sta. 327+77.59, 0.010m Lt Project # IM-35-3(116)85—13-77 (Metric)

POT Sta. 1181+51.81 this survey (English)
=POT Sta. 1181+53.0 Project # IM-80-5(145)137--13-77 (English)

Mainline Alignment (I-35)

From 2001/2002 I-35 Realignment, Project # IM-35-4(101)—13-77
The mainline alignment for this survey is a retrace of Project # IM-35-4(101)—13-77. The mainline alignment was created in centerline of median. Stationing was obtained at PI Sta. 2001+60.36 and carried ahead to PI Sta. 3100+53.44 without equation. The following PI points were used to create this CL alignment.

PI 2001+60.36 Project # IM-35-4(101)88—13-77 (not found or set)
PI 3100+53.44 Project # IM-35-4(101)88—13-77 (not found or set)

This Mainline survey relates to the mainline plan stationing as follows:

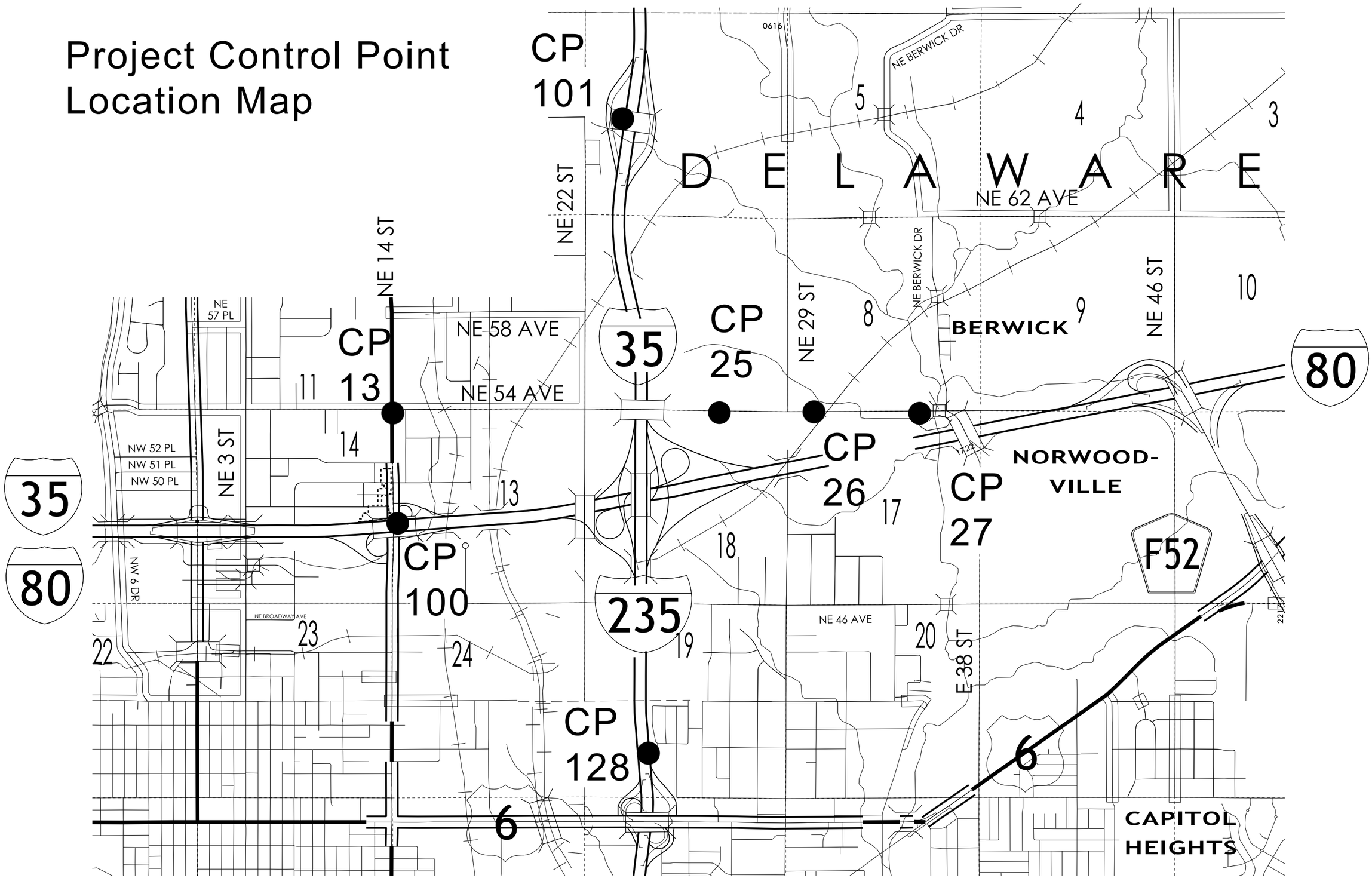
PI Sta. 2001+60.36 this survey
=PI Sta. 2001+60.36 Project # IM-35-4(101)88—13-77

PI Sta. 2100+53.74 this survey
=PI Sta. 3100+53.44 Project # IM-35-4(101)88—13-77

Project Control -FENO monuments are also Bench Marks

Name	Ground Northing (USft)	Ground Easting (USft)		
13	604251.756	1612997.613		
25	604260.796	1621907.741	939.609	
26	604283.735	1624489.54	886.7	
27	604243.29	1627372.639	838.959	
100	601242.316	1613129.094	904.541	Feno. Monument
101	612281.879	1619265.525	932.935	Feno. Monument
128	594971.978	1619970.2	933.868	Feno. Monument between top backslope and ROW fence in east ROW

Project Control Point Location Map



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER G.2	REVISED

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ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
	I-80 ML SURVEY																		
8011		975+28.38	600,997.23	1,608,212.44															
SUR080-1								998+08.83	600,998.02	1,610,492.89	1004+20.94	600,998.23	1,611,105.00	1010+32.54	601,041.98	1,611,715.55			
8012		1024+84.88	601,145.79	1,613,164.17															
8013		1055+07.15	601,361.80	1,616,178.71															
SUR080-2								1058+28.34	601,384.75	1,616,499.08	1064+81.98	601,431.47	1,617,151.06	1071+34.02	601,556.86	1,617,792.56			
8014		1240+69.40	604,805.49	1,634,413.44															
	I-35 NORTHBOUND																		
ML035N-1								8464+19.42	601,337.20	1,617,100.02	8466+93.08	601,357.77	1,617,372.91	8469+64.19	601,313.73	1,617,643.01			
ML035N-2								8473+48.85	601,251.83	1,618,022.66	8479+25.90	601,158.98	1,618,592.19	8484+37.74	601,511.45	1,619,049.07			
ML035N-3								8491+99.33	601,976.65	1,619,652.07	8499+65.23	602,444.47	1,620,258.48	8505+89.13	603,203.78	1,620,158.24			
ML035N-4								8531+09.25	605,702.22	1,619,828.39	8536+86.32	606,274.32	1,619,752.86	8542+62.49	606,836.53	1,619,622.78			
	I-235																		
23510		1949+59.42	590,888.03	1,619,611.10															
ML235-1								1973+48.82	593,260.91	1,619,891.57	1976+35.85	593,545.95	1,619,925.27	1979+20.97	593,832.02	1,619,901.74			
ML235-2								1999+18.25	595,822.57	1,619,738.02	2001+63.13	596,066.63	1,619,717.95	2004+07.71	596,311.51	1,619,718.77			
ML235-3								2091+68.42	605,072.17	1,619,748.25	2100+53.74	605,957.48	1,619,751.23	2109+31.19	606,820.01	1,619,551.67			
ML235-4								2120+36.80	607,897.17	1,619,302.45	2133+30.72	609,157.79	1,619,010.79	2145+94.73	610,438.20	1,619,197.30			
ML235-5								2175+76.86	613,389.19	1,619,627.15	2181+89.48	613,995.41	1,619,715.45	2187+99.48	614,607.95	1,619,706.02			
23511		2221+71.45	617,979.53	1,619,654.15															
	I-235 NORTHBOUND (NORTH END I-235)																		
309100		2090+59.42	604,963.12	1,619,762.88															
ML235NB-1								2091+68.09	605,071.79	1,619,763.13	2096+10.48	605,514.19	1,619,764.17	2100+51.90	605,953.75	1,619,714.23			
ML235NB-2								2100+51.90	605,953.75	1,619,714.23	2104+93.64	606,392.67	1,619,664.37	2109+34.40	606,822.94	1,619,564.34			
	I-235 SOUTHBOUND (NORTH END I-235)																		
309200		2090+59.42	604,963.22	1,619,732.88															
ML235SB-1								2091+68.07	605,071.88	1,619,733.37	2096+08.60	605,512.40	1,619,735.34	2100+48.16	605,950.22	1,619,686.57			
ML235SB-2								2100+48.16	605,950.22	1,619,686.57	2104+88.55	606,387.91	1,619,637.82	2109+27.97	606,817.08	1,619,539.01			
	RAMP A																		
235A-1								38484+75.18	604,621.62	1,619,995.26	38486+84.50	604,414.10	1,620,022.66	38488+93.31	604,211.33	1,620,074.59			
235A-2								38490+63.31	604,046.65	1,620,116.77	38495+12.65	603,611.36	1,620,228.26	38499+29.96	603,332.87	1,620,580.89			
235A-3								38502+68.51	603,123.05	1,620,846.58	38507+35.22	602,833.80	1,621,212.84	38511+66.22	602,836.84	1,621,679.54			
	RAMP B																		
303220		32574+22.46	601,202.23	1,618,091.36															
235B-1								32576+53.97	601,149.86	1,618,316.87	32579+68.33	601,078.75	1,618,623.08	32582+63.12	600,845.23	1,618,833.52			
235B-2								32585+22.66	600,652.43	1,619,007.27	32590+41.99	600,266.64	1,619,354.94	32595+34.44	599,755.47	1,619,446.66			
	RAMP G																		
235G-1								38552+54.84	598,296.98	1,619,652.83	38555+37.05	598,579.19	1,619,653.78	38558+18.03	598,857.90	1,619,609.50			
235G-2								38576+34.09	600,651.46	1,619,324.57	38584+47.75	601,455.05	1,619,196.91	38590+94.52	601,934.59	1,619,854.24			
235G-3								38600+76.01	602,513.05	1,620,647.15	38604+68.41	602,744.31	1,620,964.16	38608+39.16	602,766.46	1,621,355.93			
235G-4								38630+76.49	602,892.74	1,623,589.70	38634+27.39	602,912.55	1,623,940.05	38637+77.87	602,962.58	1,624,287.37			

SPIRAL OR CIRCULAR CURVE DATA

101-17
04-19-11

Name	Location	Δ_{scs}	Horizontal Alignment Data												Remarks
			Spiral Data								Curve Data				
			θs	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ_c	T	L	R	E	
	I-80 ML SURVEY														
SUR080-1											4° 04′ 43.41″ LT	612.11′	1,223.71′	17,190.00′	10.89′	
SUR080-2											6° 57′ 38.61″ LT	653.65′	1,305.68′	10,747.47′	19.86′	
	I-35 NORTHBOUND														
ML035N-1											13° 34′ 14.76″ RT	273.66′	544.77′	2,300.00′	16.22′	
ML035N-2											46° 54′ 31.73″ LT	577.04′	1,088.89′	1,330.00′	119.79′	
ML035N-3											59° 52′ 18.89″ LT	765.89′	1,389.80′	1,330.00′	204.76′	
ML035N-4											5° 30′ 22.71″ LT	577.06′	1,153.24′	12,000.00′	13.87′	
	I-235														
ML235-1											11° 26′ 34.74″ LT	287.03′	572.15′	2,864.79′	14.34′	
ML235-2											4° 53′ 40.67″ RT	244.88′	489.46′	5,729.58′	5.23′	
ML235-3											13° 13′ 11.22″ LT	885.31′	1,762.76′	7,639.98′	51.12′	
ML235-4											21° 18′ 52.28″ RT	1,293.92′	2,557.93′	6,875.99′	120.69′	
ML235-5											9° 10′ 08.25″ LT	612.62′	1,222.62′	7,639.98′	24.52′	
	I-235 NORTHBOUND (NORTHERLY END I-235)														
ML235NB-1											6° 36′ 56.13″ LT	442.39′	883.81′	7,654.39′	12.77′	
ML235NB-2											6° 36′ 24.10″ LT	441.74′	882.51′	7,653.45′	12.74′	
	I-235 SOUTHBOUND (NORTHERLY END I-235)														
ML235SB-1											6° 36′ 45.46″ LT	440.53′	880.08′	7,625.57′	12.71′	
ML235SB-2											6° 36′ 35.18″ LT	440.39′	879.81′	7,626.51′	12.70′	
	RAMP A														
235A-1											6° 50′ 41.78″ LT	209.32′	418.13′	3,500.00′	6.25′	
235A-2											37° 20′ 05.39″ LT	449.34′	866.65′	1,330.00′	73.85′	
235A-3											38° 40′ 21.70″ LT	466.71′	897.70′	1,330.00′	79.51′	
	RAMP B														
235B-1											34° 54′ 05.36″ RT	314.35′	609.15′	1,000.00′	48.25′	
235B-2											31° 51′ 07.08″ RT	519.33′	1,011.78′	1,820.00′	72.65′	
	RAMP G														
235G-1											9° 13′ 10.55″ LT	282.21′	563.19′	3,500.00′	11.36′	
235G-2											62° 54′ 53.64″ RT	813.67′	1,460.44′	1,330.00′	229.15′	
235G-3											32° 52′ 34.42″ RT	392.40′	763.15′	1,330.00′	56.68′	
235G-4											4° 57′ 40.47″ LT	350.91′	701.38′	8,100.00′	7.60′	

ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
	I-35/80 WB to Proposed I-35 NB (Detour)																		
149		10+00.00	601,324.91	1,616,377.67															
C50								18+12.42	601,354.20	1,617,189.56	18+54.16	601,355.71	1,617,231.27	18+95.89	601,355.71	1,617,273.01			
	I-80 WB to Proposed Ramp G (Detour)																		
154		20+00.00	603,035.09	1,624,818.76															
155		31+20.77	603,194.88	1,625,928.08															
	CHICHAQUA VALLEY TRAIL (DETOUR) DET_3_26																		
C64								26+00.00	602,537.33	1,623,798.26	26+28.06	602,561.30	1,623,783.65	26+54.72	602,589.36	1,623,783.65			
C65								28+57.44	602,792.08	1,623,783.60	28+83.32	602,817.96	1,623,783.59	29+08.08	602,840.59	1,623,771.04			
C66								29+08.08	602,840.59	1,623,771.04	29+33.96	602,863.21	1,623,758.48	29+58.72	602,889.09	1,623,758.47			
C67								29+88.11	602,918.47	1,623,758.47	30+49.94	602,980.30	1,623,758.45	31+05.77	603,025.17	1,623,801.00			
	CHICHAQUA VALLEY TRAIL (DETOUR) DET_3_28																		
C68								28+00.00	602,823.31	1,623,778.59	28+16.01	602,838.52	1,623,773.59	28+31.76	602,854.53	1,623,773.58			
220113		28+76.67	602,899.44	1,623,773.57															
	NE 29TH ST																		
308100		38800+00.00	602,279.20	1,623,735.62															
308101		38808+85.14	603,164.34	1,623,735.41															

SPIRAL OR CIRCULAR CURVE DATA

101-17
04-19-11

Name	Location	Δ_{scs}	Horizontal Alignment Data												Remarks
			Spiral Data								Curve Data				
			θs	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ_c	T	L	R	E	
	I-35/80 WB to Proposed I-35 NB (Detour)														
C50											2° 04′ 06.35″ RT	41.74′	83.47′	2,312.00′	0.38′	
	CHICHAQUA VALLEY TRAIL (DETOUR) DET_3_26														
C64											31° 20′ 57.95″ RT	28.06′	54.72′	100.00′	3.86′	
C65											29° 00′ 54.20″ LT	25.88′	50.64′	100.00′	3.29′	
C66											29° 00′ 54.20″ RT	25.88′	50.64′	100.00′	3.29′	
C67											43° 29′ 44.39″ RT	61.83′	117.67′	155.00′	11.88′	
	CHICHAQUA VALLEY TRAIL (DETOUR) DET_3_28														
C68											18° 11′ 41.54″ RT	16.01′	31.76′	100.00′	1.27′	

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER G.6

3:01:26 PM 11/10/2016 MKADLEC c:\pwworking\oma\d1584759\77035194G01.sht

Polk ROW: IMN-035-3(201)87--0E-77 PIN 10-77-035-010

I-35/80/235 Interchange NE of Des Moines (NEMM)

		STATE		COUNTY		CITY			BORROW							
PARCEL NO.	OWNER NAME	FEE	EASE	FEE	EASE	FEE	EASE	EXCESS	FEE	T.E.	MITIGATION	OTHER	HOUSE	BUILDING(S)	A/C ONLY	TOTAL ACQ.
1	Roadway Express, Inc. - Fee	2.43 AC														
1R	Union Pacific Railroad Company - Fee		0.59 AC													
5	Whaley Waste Systems, Inc. - Fee	2.89 AC														
7U	Mid American Energy Co. - Fee	3.87 AC														
16	JTB Investments - Fee	2.35 AC						1.04 AC								X
17	TLC Properties - Fee	1.38 AC														
18	Sargent Land Company, LLC. - Fee	.82 AC														
19	Myron Strain - Fee	1.7 AC														
20	Rose M. Brown - Fee	.52 AC		.64 AC												
21	Polk County Conservation - Fee	1.02 AC														
22	Robert E. Davis Trust - Fee	.21 AC														
23	Iowa Natural Heritage Foundation - Fee															
24	Gunner A. Vignaroli - Fee															
13 Parcels	"TOTALS	17.19 AC	0.59 AC	0.64 AC	0 AC	0 AC	0 AC	1.04 AC	0 AC	0 AC	0 AC					
		0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF								

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-17-17
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

NE¼ SW FRL¼ SEC. 7-79-23

SARGENT
LAND COMPANY, L.L.C.
(18)

2112+05
℄275'±Ex.R/W

2110+50
℄230'

2106+60
℄180'

2104+30
℄175'

2101+60
℄161'
End Construction
Sta. 8532+37.46 (NB I-35) =
Sta. 2099+16.25, 97.33' Rt (I-235)

8540

8535

0 FEET 50

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.1

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Right of Way Design Information

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ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-17-17
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

SARGENT
LAND COMPANY, L.L.C.
(18)

STATE OF IOWA

SE¼ SW FRL¼
SEC. 7-79-23

DELAWARE TWP.
T-79-N R-23W
SEC. 17

0 FEET 50

2097+75
℄205'

2097+22±Ex.R/W
℄200'

PC Sta 8531+09.25

2085+00
℄390'

POT Sta. 8417+05.64 NB I-35 =
POT Sta. 2237+18.96 NE 54TH AVE.

NB I-35 (ML035N)

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.2

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Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-17-17
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

STATE OF IOWA

CHA SR54TH_P & SEC. LINE

POT Sta 4200+00.00

Sta. 4203+2 End Const.

DELAWARE TWP. T-79-N R-23W SEC. 18

NE¼ NW¼ SEC. 18-79-23

2085+00 ℄390′

2083+15 ℄400′

2077+45 ℄635′

2075+75 ℄795′

2074+50 ℄945′

0 50 FEET

NB I-35 (ML035N)

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.3

3:37:08 PM 7/18/2017 sgroat pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7703501010\ROW\NE Mixmaster_Section 3\Section 3.row

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-17-17
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

STATE OF IOWA

2072+70
℄1185'

2072+05
℄1305'

2071+25
℄1475'

2071+10
℄1565'

2070+70
℄1700'

POT Sta 4100+00.00

Sta. 4102+33.19
End Construction

Sta. 4100
Sta. 38
Begi

0 FEET 50

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.4

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Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 10-03-17
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

NE¼ NE¼ SEC. 18-79-23

19 MYRON STRAIN

1119+60 ℄481'±Ex.R/W

1119+80 ℄480'

1126+30 ℄395'

1129+95 ℄320'

19 MYRON STRAIN

1132+06±Ex.R/W ℄395'

1130+20 ℄435'

1133+2 ℄400'

7532

7531

4543

7533

NW COR. SW¼ NW¼ 17-79-23 FOUND "P-K" NAIL

0 FEET 50

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.5

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X

21
POLK CO.
CONSERVATION

TEMPORARY EASEMENT TO
CONST. ENTRANCE & SHAPE

20
ROSE M.
BROWN

W½NW NW
E. OF RR

LIMBO

EAST 15.50 ACRES
NW NW

22
ROBERT E.
DAVIS TRUST

20
ROSE M.
BROWN

3+20±Ex.R/W
05'

1135+16±℄
360'

1136+07±℄
315'

1136+30
℄295'

1140+07±℄
285'

1141+35
℄280'

1144+75
℄250'±Ex.R/W

0 50
FEET

Right of Way Design Information
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ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-17-17
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER H.6

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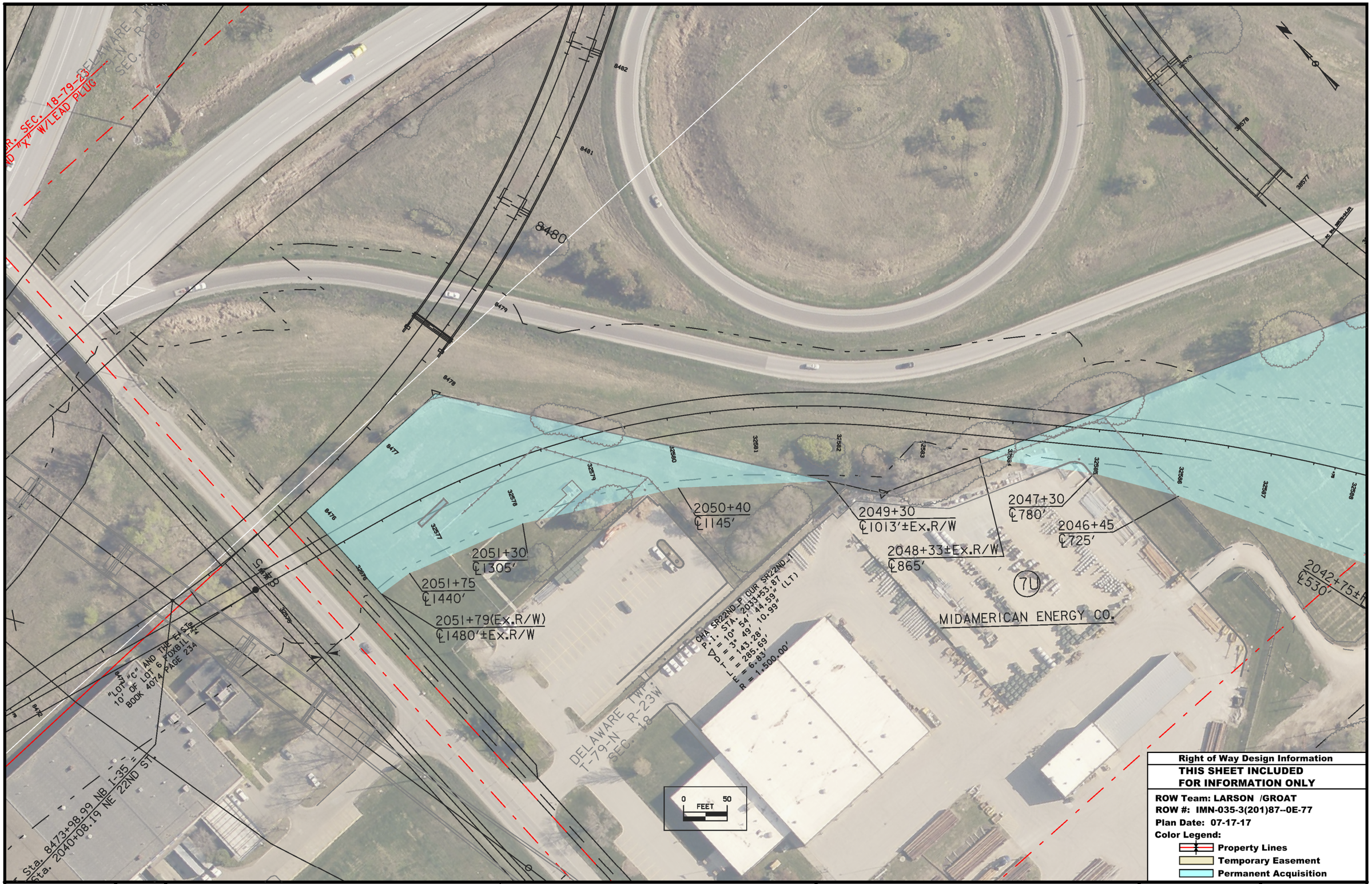

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.7	

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Right of Way Design Information

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ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-17-17
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

TEMPORARY EASEMENT TO SHAPE

FD. 1/2" RE-ROD W/ YEL. CAP 7844

2041+42±R
℄485'

2042+75±R
℄530'

2037+09±R
℄395'

2036+50
℄395'

2036+30
℄375'

2033+55
℄340'

2031+73±Ex.R/W
℄305'

(5) WHALEY WASTE SYSTEMS, INC.

(16) JTB INVESTMENTS

(1R) UNION PACIFIC RAILROAD

TEMPORARY EASEMENT TO SHAPE

0 FEET 50

DELAWARE TWP. T-80-N R-23-W SEC. 18

(Close) (U.A.C.) (Close)

Squaw Creek

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.8

3:57:14 PM 7/18/2017 sgroat pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7703501010\ROW\NE Mixmaster_Section 3\Section 3.row

Right of Way Design Information

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ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-17-17
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

1185

NE BROADWAY AVE. (SRBWY)

UCS HOLDINGS, L.L.C.

DES MOINES BAPTIST CHU

DELAWARE TWP. T-79-N R-23W SEC.

38558 38557 38556 38555 38554 38553

38561 38560 38559

(Close) (Close) (U.A.C.)

2030+15 ℄275′

2027+70 ℄225′

2017+97±P ℄155′

2030+72±Ex.R/W ℄240′

17

TLC PROPERTIES

Equation:
Sta. 1180+16.12 NE BROADWAY AVE
=Sta. 39559+88.29 RAMP G

DELAWARE TWP. T-79-N R-23W SEC. 19

3±Ex.R/W

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER H.9

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Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: LARSON /GROAT
ROW #: IMN-035-3(201)87--0E-77
Plan Date: 07-18-17
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

TEMPORARY EASEMENT TO SHAPE

38802+10±Ex.R/W
℄130'

38801+20
℄51'±Ex.R/W

24
GUNNER A. & DIANNA L. VIGNAROLI

38800+00
℄49'±Ex.R/W

23
IOWA NATURAL HERITAGE FOUNDATION

38800+15
℄127'±Ex.R/W

38801+20
℄79'±Ex.R/W

38801+85
℄50'±Ex.R/W

38801+45
℄80'

38801+75
℄65'

TEMPORARY EASEMENT TO SHAPE

0 FEET 50

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER HE.1

4:02:31 PM 7/18/2017 sgroat pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7703501010\ROW\NE Mixmaster_Section 3\Section 3.row

108-23A
08-01-08

TRAFFIC CONTROL PLAN

1. Traffic will be maintained on I-35, I-235, and I-80 at all times as provided on the following staging sheets, except as provided for in the following notes.

   A. Temporary nighttime full road closure of I-35, I-235, and I-80 will be permitted as follows.

      - Short duration of up to 20 minutes to complete overhead work and to set new bridge beams. The Contractor shall submit the traffic control plan 2 weeks in advance to the Engineer for approval.
      - Extended durations of over 20 minutes to remove existing bridge or place bridge beams.
        I-35, I-235, and I-80 traffic will be detoured to local roads per Off Site Detours.
        The Contractor shall submit the traffic control plan 2 weeks in advance for the Engineer's approval.

2. Install PCMS on interstates per Off-Site Detour plans for extended duration temporary nighttime full road closure. Coordinate messages with Engineer.

3. Coordinate with Engineer during temporary nighttime road closures to display sign messages on permanent DMS on I-235 NB, NB I-35/EB I-80, I-35 SB, and I-80 EB.

4. Contractor shall fully remove all detour signing nightly.

5. Contractor is responsible for installation, maintenance, and removal of all detour signing.

108-26A
08-01-08

STAGING NOTES

STAGING NOTES

Stage 3A-1

Traffic:
-Maintain Traffic on existing roadways.
-Maintain traffic with lane closures during off-peak hours for shoulder strengthening and milling/filling rumble strip activities
-Temporary closures for erecting overhead sign truss

Construction:
-Construct footings and erect overhead sign truss at Sta. 1030+87.01 on EB I-80/35
-Construct median footing at Sta. 1057+45.46 on EB I-80/35 for overhead sign truss
-Construct I-80/35 EB shoulder strengthening/widening in median west of NE 22nd St
-Remove existing Dynamic Message Sign at Sta. 2019+52.31 on WB I-235 and footings
-Construct median footing for overhead dynamic message sign at Sta. 2019+98.21 on WB I-235

Stage 3A-2

Traffic:
-Maintain Traffic on existing roadways.
-Maintain traffic via detour widening and lane shifts
-Reduce I-35 NB to 3 lanes just north of NE 54th Ave.
-I-80/35 EB, I-80 WB, I-235 SB, and I-35NB traffic in chute design at tie-ins
-Temporary short term closures of I-80 EB and WB, I-35 NB, SB to EB ramp, EB to NB ramp and WB to SB ramp for setting beams
-Temporary closures of NE 29th St. for setting beams
-Temporary closures of Chichaqua Valley Trail for tying in trail pavement and setting beams
-Temporary closures of NE Broadway Ave. for setting beams
-Place Portable Changeable Message Sign on WB I-235 to temporarily replace existing DMS that is being removed
-Temporary closures for erecting overhead sign truss and DMS truss

Construction:
-Construct I-35 NB ramp and flyover bridge with gaps at EB to SB ramp and WB to NB ramp
-Construct I-35 NB interim exit Taper and interim shoulder
-Construct outside footing at Sta. 1057+45.46 on EB I-80/35 for overhead sign truss and erect structure
-Grade and pave relocated temporary, interim and portions of ultimate Chichaqua Valley Trail
-Construct Ramp G Bridge over NE 29th St and relocated Chichaqua Valley Trail
-Construct footing and erect cantilevered sign truss at Sta. 1170+31.40 on WB I-80
-Construct footing and erect cantilevered sign truss at Sta. 1201+62.99 on WB I-80
-Construct retaining wall along Ramp B
-Construct Ramp B bridge over UPRR
-Construct Ramp G bridge over Broadway Ave
-Grade and pave Ramp G partial, Ramp A and Ramp B
-Construct Ramp G interim exit Taper
-Construct outside footing at Sta. 2019+98.21 on WB I-235 for overhead dynamic message sign and erect structure

Stage 3B

Traffic:
-Maintain traffic on existing and new roadway
-No chute design
-Open Ramp G partial, Ramp A and Ramp B to traffic
-Permanently close existing EB to SB ramp and WB to NB ramp to traffic

Construction:
-Complete Gap on I-35 NB bridge and grade and pave gap
-Remove existing EB to SB and WB to NB ramps

Stage 3C-Complete

Traffic:
-Open I-35 NB to traffic
-Permanently close existing I-35 NB left exit ramp to traffic
-Temporary short term closures of I-80 WB for ramp bridge demo

Construction:
-Remove existing I-35 NB left exit ramp pavement and bridge

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned
SHADING	**Design Color No.**	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

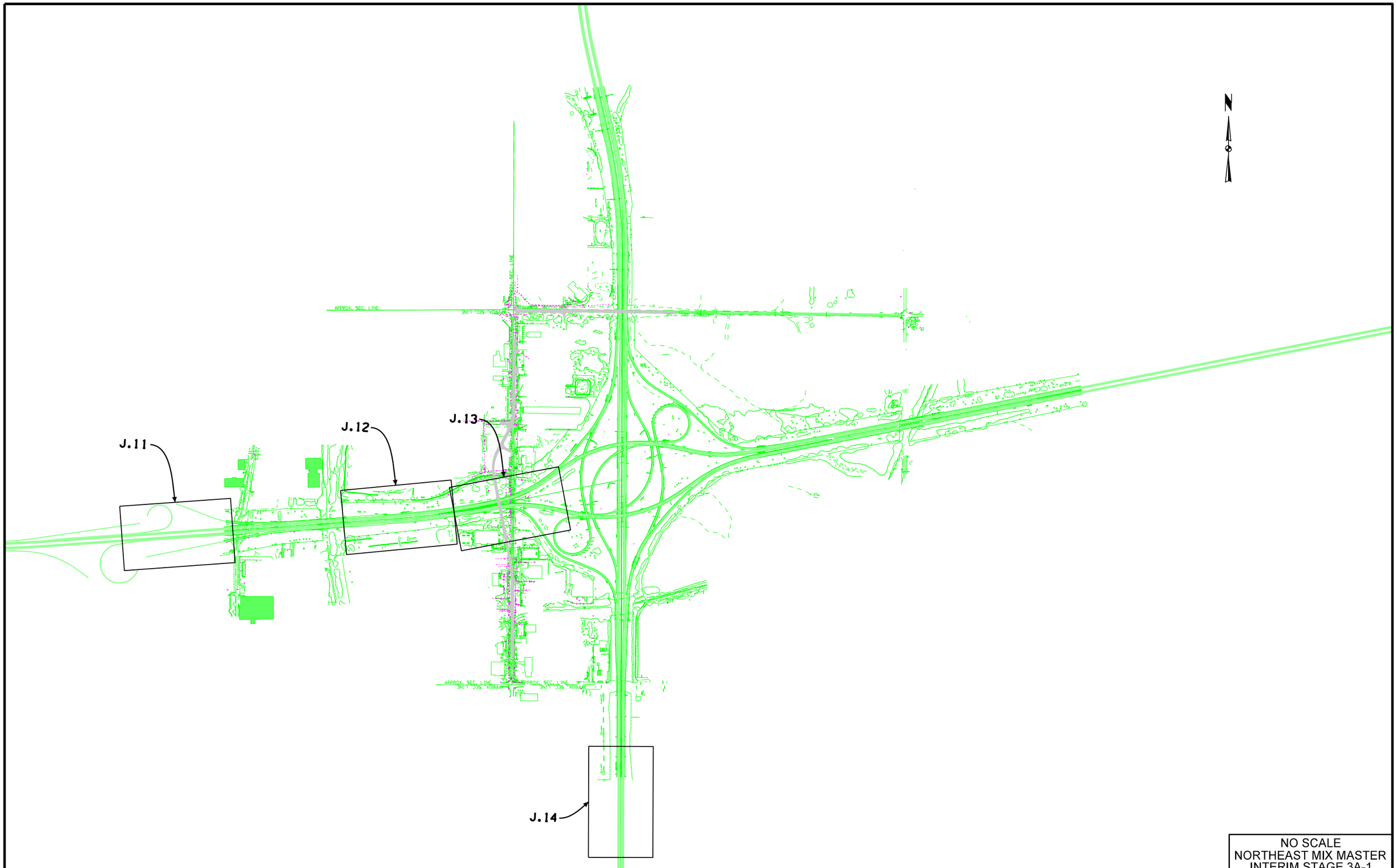
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

●	Channelizing Device		Crash Cushion (Temp or Perm)
✕	Drum		Traffic Signal
◘	Temporary Lane Separator		Flagger
◆	Tubular Marker		Temporary Floodlighting
♦	Channelizer Marker		Traffic Sign
△	Concrete Barrier Marker		Type III Barricade
☇	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout		

NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

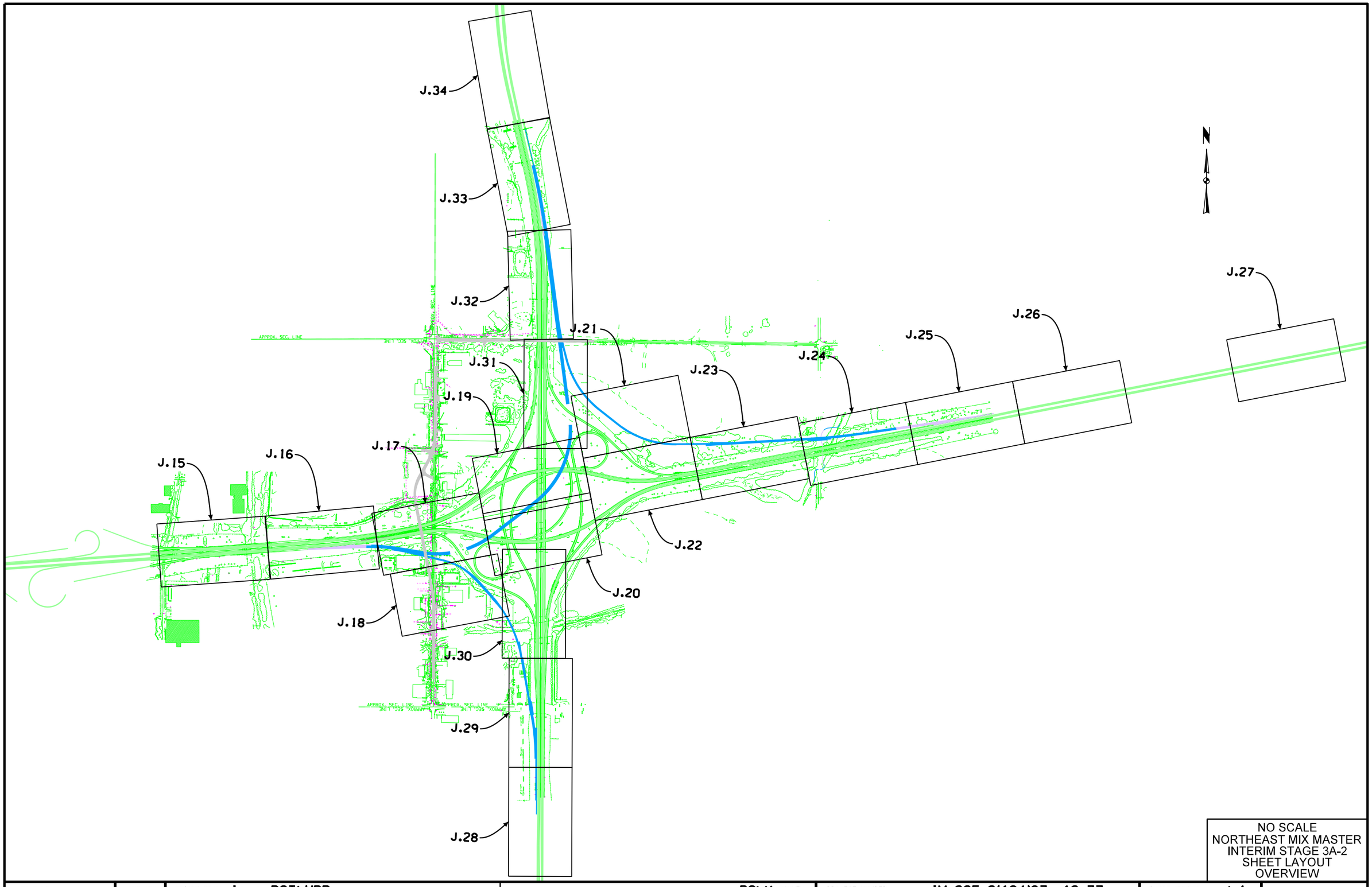
(COVERS SHEET SERIES J)



NO SCALE
NORTHEAST MIX MASTER
INTERIM STAGE 3A-1
SHEET LAYOUT
OVERVIEW

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.3	

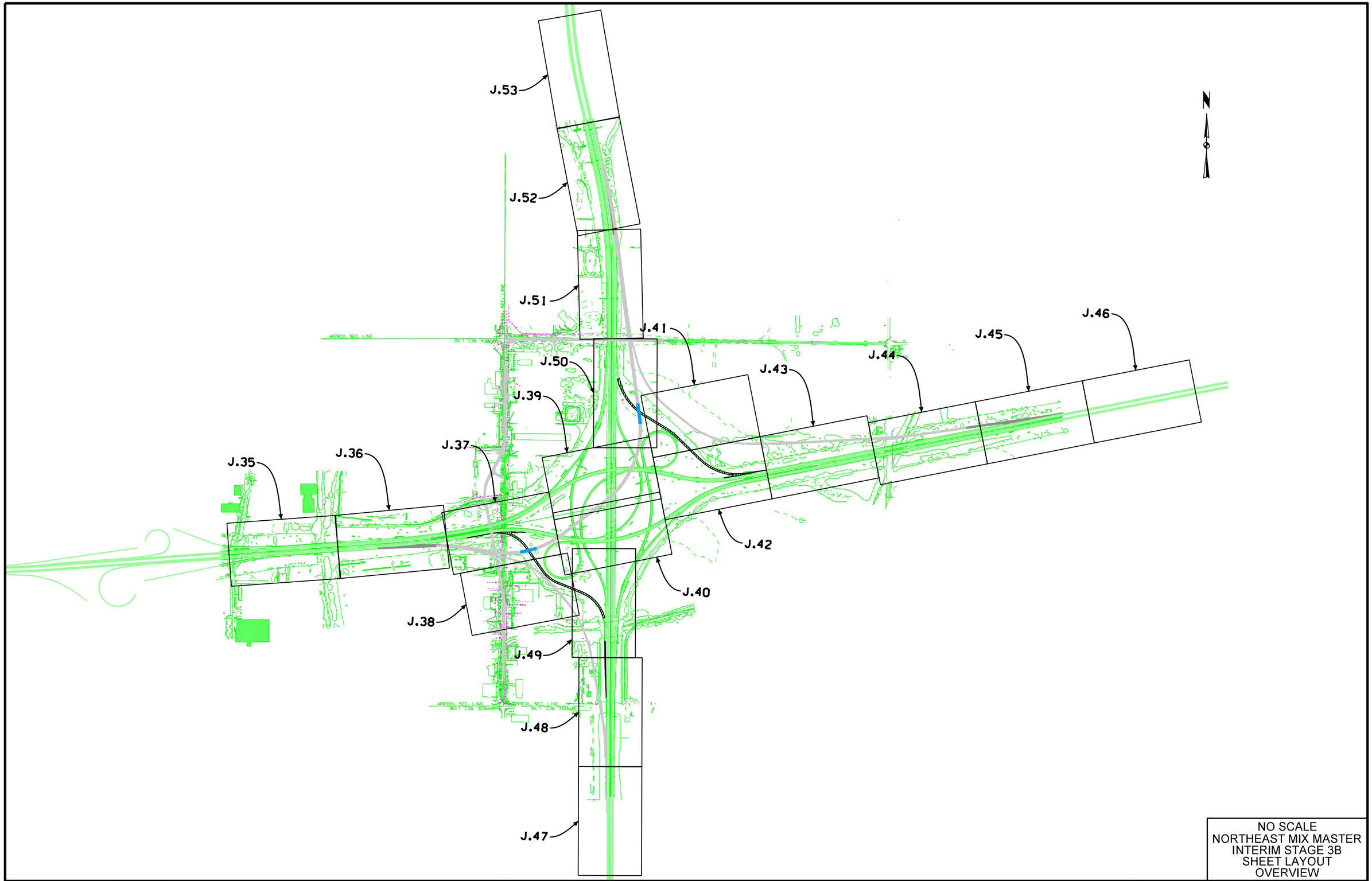
9:05:58 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



NO SCALE
NORTHEAST MIX MASTER
INTERIM STAGE 3A-2
SHEET LAYOUT
OVERVIEW

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.4

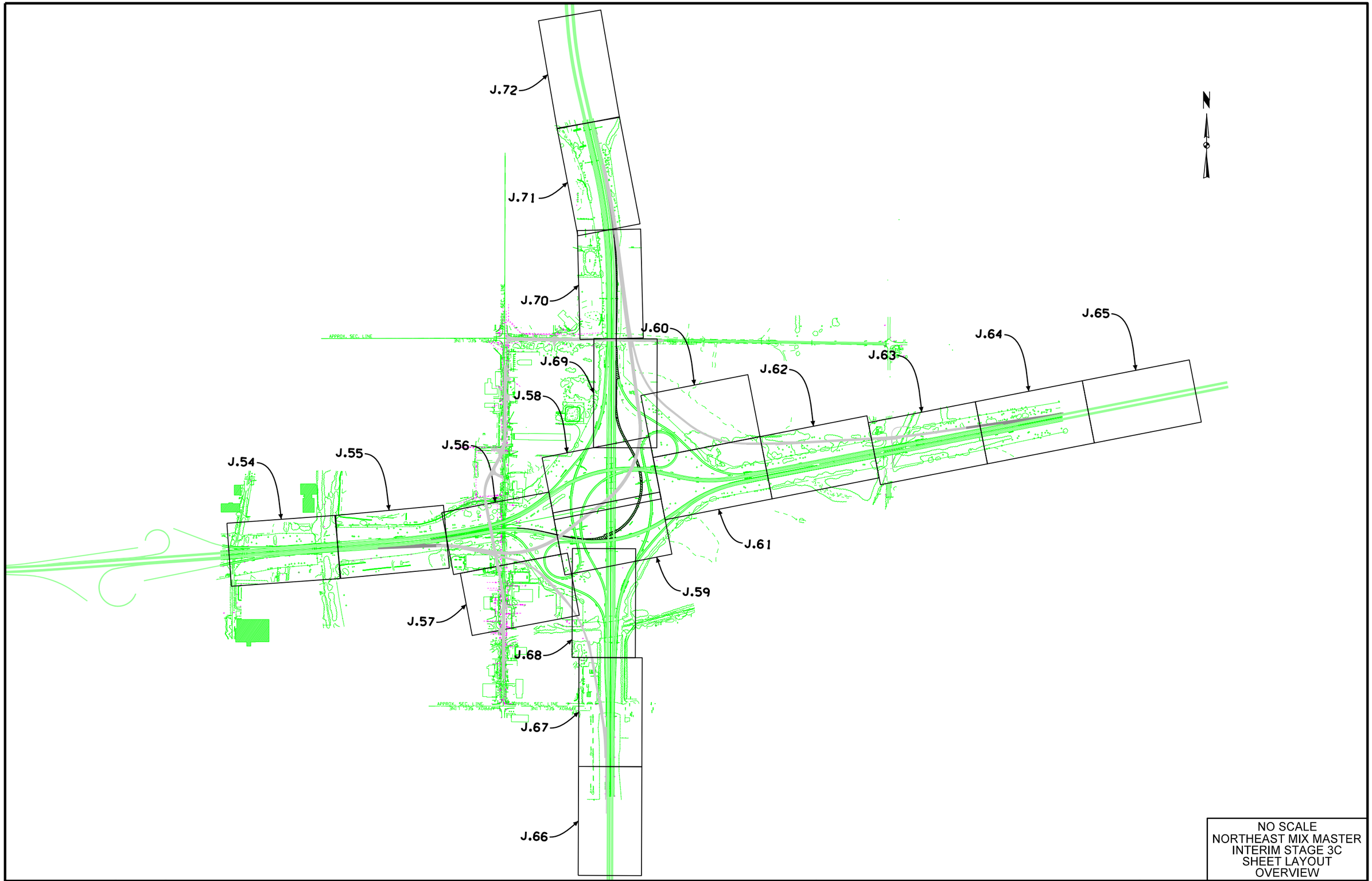
9:07:10 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



NO SCALE
NORTHEAST MIX MASTER
INTERIM STAGE 3B
SHEET LAYOUT
OVERVIEW

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.5	

9:08:08 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

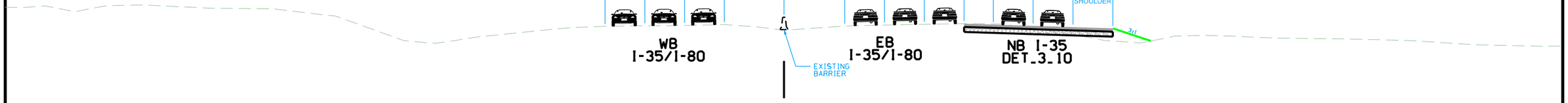


NO SCALE
NORTHEAST MIX MASTER
INTERIM STAGE 3C
SHEET LAYOUT
OVERVIEW

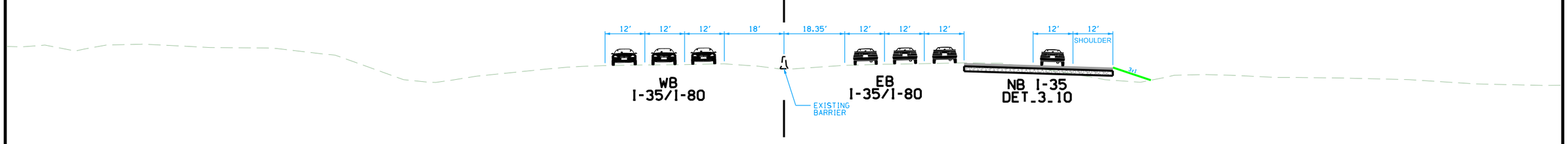
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.6	

9:08:52 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

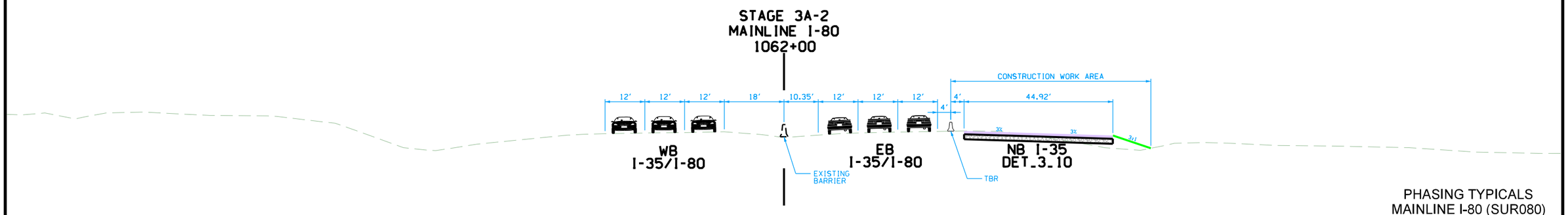
STAGE 3C
MAINLINE I-80
1062+00



STAGE 3B
MAINLINE I-80
1062+00



STAGE 3A-2
MAINLINE I-80
1062+00

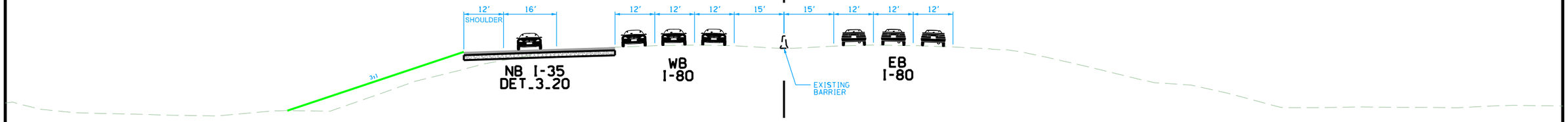


PHASING TYPICALS
MAINLINE I-80 (SUR080)
STA. 1062+00

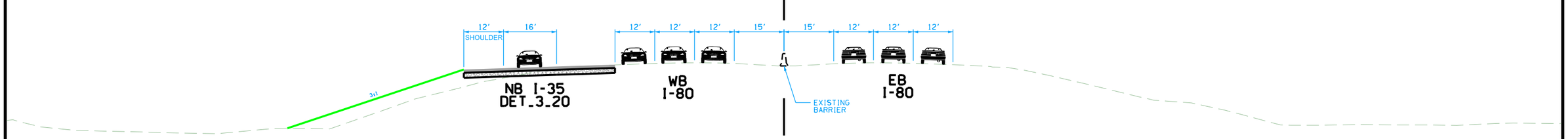
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.7

9:10:38 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

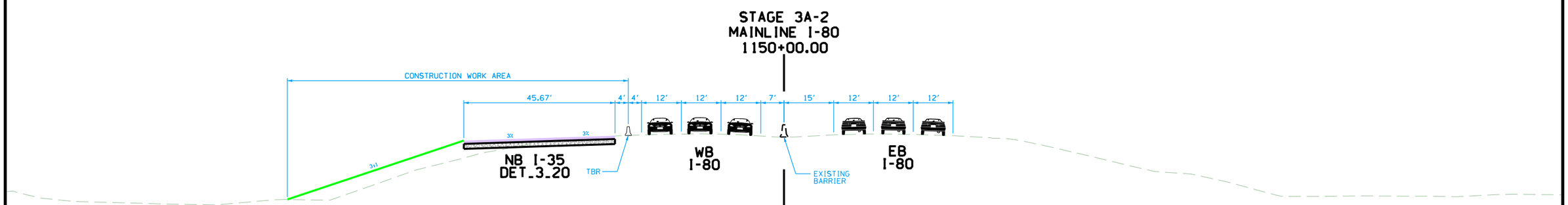
STAGE 3C
MAINLINE I-80
1150+00.00



STAGE 3B
MAINLINE I-80
1150+00.00



STAGE 3A-2
MAINLINE I-80
1150+00.00

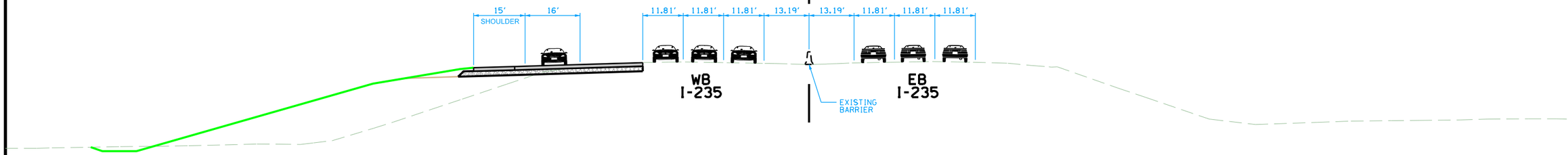


PHASING TYPICALS
MAINLINE I-80 (SUR080)
STA. 1150+00

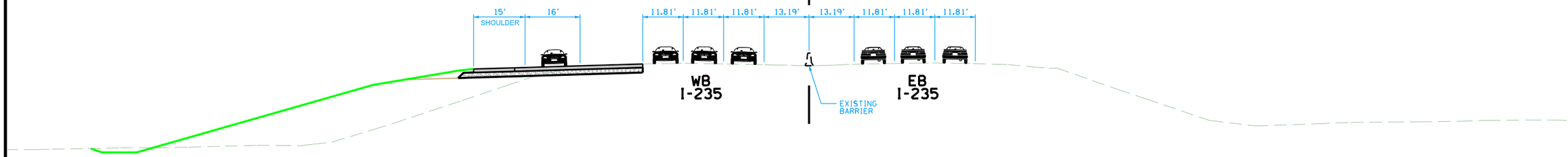
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.8

9:11:51 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

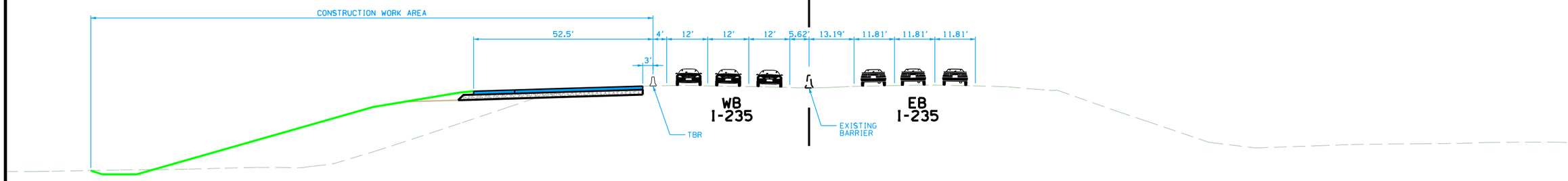
STAGE 3C
MAINLINE I-235
2027+00.00



STAGE 3B
MAINLINE I-235
2027+00.00



STAGE 3A-2
MAINLINE I-235
2027+00.00

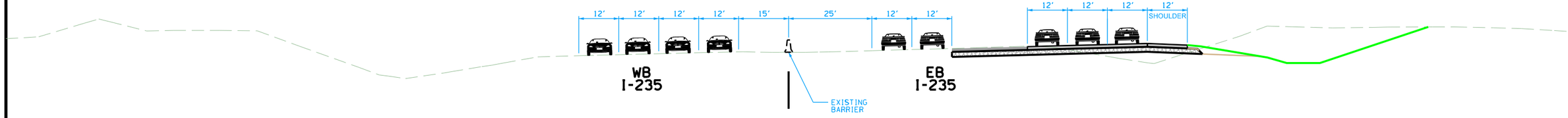


PHASING TYPICALS
MAINLINE I-235 (ML235)
STA. 2027+00

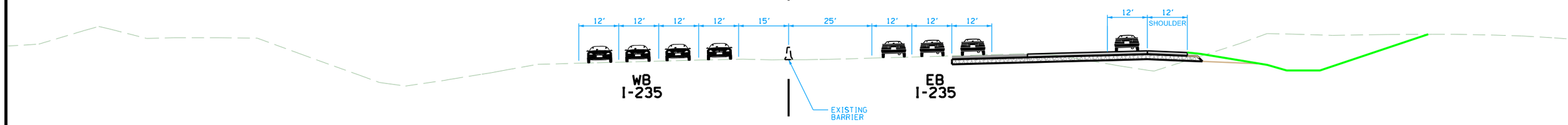
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.9

9:11:51 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

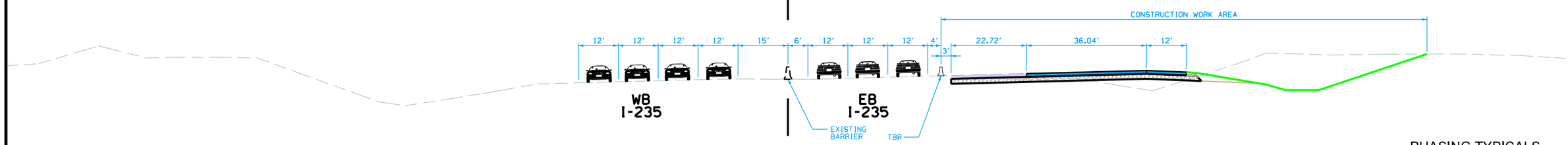
STAGE 3C
MAINLINE I-235
2099+50.00



STAGE 3B
MAINLINE I-235
2099+50.00



STAGE 3A-2
MAINLINE I-235
2099+50.00



PHASING TYPICALS
MAINLINE I-235 (ML235)
STA. 2099+50

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.10

9:02:33 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1030+87.01 (SUR080)
SIGN TRUSS

STA. 1030+27.01, 11.00' LT (SUR080)
BEGIN TBR

SUR080

STA. 1032+10.50, 5.19' LT (SUR080)
END TBR

1025

1030

1035

12'
12'
12'

I-35 SB/ I-80 WB

12'
12'
12'

12'
12'
12'

I-35 NB/ I-80 EB

12'
12'
12'

STA. 1029+63.51, 5.19' RT (SUR080)
BEGIN TBR

STA. 1031+47.01, 11.00' RT (SUR080)
END TBR

0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-1

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.11

9:03:08 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1057+45.46 (SUR080)
SIGN TRUSS MEDIAN FOOTING

STA. 1056+85.46, 11.00' LT (SUR080)
BEGIN TBR

SUR080

STA. 1058+69.92, 5.11' LT (SUR080)
END TBR

U.A.C. GUARDRAIL

1055

1060

1065

SIGN

SIGN BRIDGE

12'
12'
12'

12'
12'
12'
12'

STA. 1056+21.97, 5.19' RT (SUR080)
BEGIN TBR

STA. 1058+05.46, 11.09' RT (SUR080)
END TBR

SHOULDER STRENGTHENING CONSTRUCTION WITH LANE CLOSURE DURING OFF PEAK HOURS

Billboard

0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-1

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J12

9:03:09 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

U.A.C. GUARDRAIL

I-35 SB/ I-80 WB

12'
12'
12'

12'
12'
12'

I-35 NB/ I-80 EB

SHOULDER STRENGTHENING CONSTRUCTION WITH LANE CLOSURE DURING OFF PEAK HOURS

SIGN BRIDGE

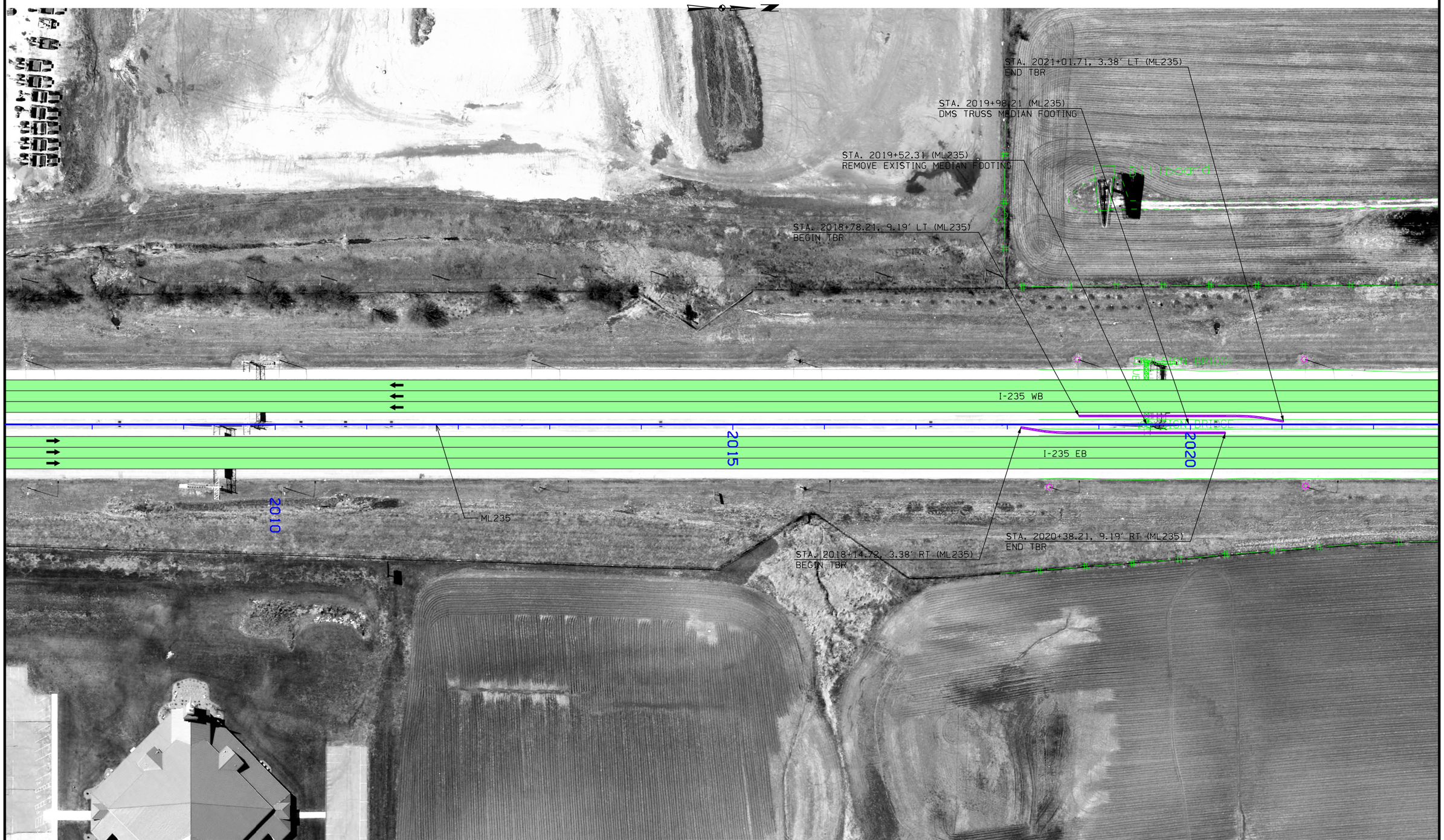
SUR080

16'

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-1

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.13

9:03:09 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-1

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.14

9:04:07 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

1040
1045
1050
SUR080
SIGN BRIDGE
SIGN
MM
Billboard
16'
12'
I-35 SB/ I-80 WB
I-35 NB/ I-80 EB
RRB
Gate
0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.15

9:04:07 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

N

STA. 1062+00.00
PHASING TYPICAL

STA. 1056+03.61, 58.15' RT
BEGIN TBR

STA. 1057+10.00, 7.00' RT
END SHIFTING TAPER

STA. 1057+10.00, 19.00' RT
END SHIFTING TAPER

SUR080

1055

1060

1065

SIGN

SIGN

SIGN

SIGN BRIDGE

U.A.C. GUARDRAIL

PDT Sta 10+00.00

I 35

12'
12'
12'
12'

65:1 SHIFTING TAPER

26:1 TAPER

6:1 TAPER

12'
12'
12'
12'

65:1 SHIFTING TAPER

PT Sta 18+54.16

SIGN

STA. 1051+90.00, 15.00' RT
BEGIN SHIFTING TAPER

STA. 1051+90.00, 27.00' RT
BEGIN SHIFTING TAPER

STA. 1051+90.00, 39.00' RT
BEGIN SHIFTING TAPER

STA. 1051+90.00, 51.00' RT
BEGIN SHIFTING TAPER

STA. 1051+90.00, 63.00' RT
BEGIN MERGING TAPER

STA. 1057+45.46 (SUR080)
SIGN TRUSS

STA. 1057+10.00, 31.00' RT
END SHIFTING TAPER

DET_3_10

STA. 1057+10.00, 43.00' RT
END SHIFTING TAPER

STA. 1063+88.00, 10.00' RT
BEGIN SHIFTING TAPER

STA. 1063+88.00, 22.00' RT
BEGIN SHIFTING TAPER

STA. 1063+88.00, 34.00' RT
BEGIN SHIFTING TAPER

STA. 1063+88.00, 46.00' RT
BEGIN SHIFTING TAPER

PC Sta 18+12.42

PT Sta 18+95.89

STA. 1063+88.00, 50.00' RT
END TBR

Billboard

Curve Data
Δ = 2° 04' 06.35" (RT)
T = 41.74
L = 83.47
R = 2,312.00
E = 0.38

0 50
FEET

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J16

9:04:08 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1069+08.00, 18.00' RT
END SHIFTING TAPER

STA. 1069+08.00, 30.00' RT
END SHIFTING TAPER

U.A.C. GUARDRAIL

1070

I-35 SB/ I-80 WB

12'
12'
12'

65:1 SHIFTING TAPER

12'
12'
12'

I-35 NB/ I-80 EB

SIGN BRIDGE

STA. 1069+08.00, 42.00' RT
END SHIFTING TAPER

STA. 1069+08.00, 54.00' RT
END SHIFTING TAPER

8470

ML035N

1075

1080

SUR080

STA. 1081+06.43, 197.28' RT
BEGIN TBR

16'

STA. 8478+29.56, 100.05' LT
BEGIN TBR

GRADE BERM ONLY

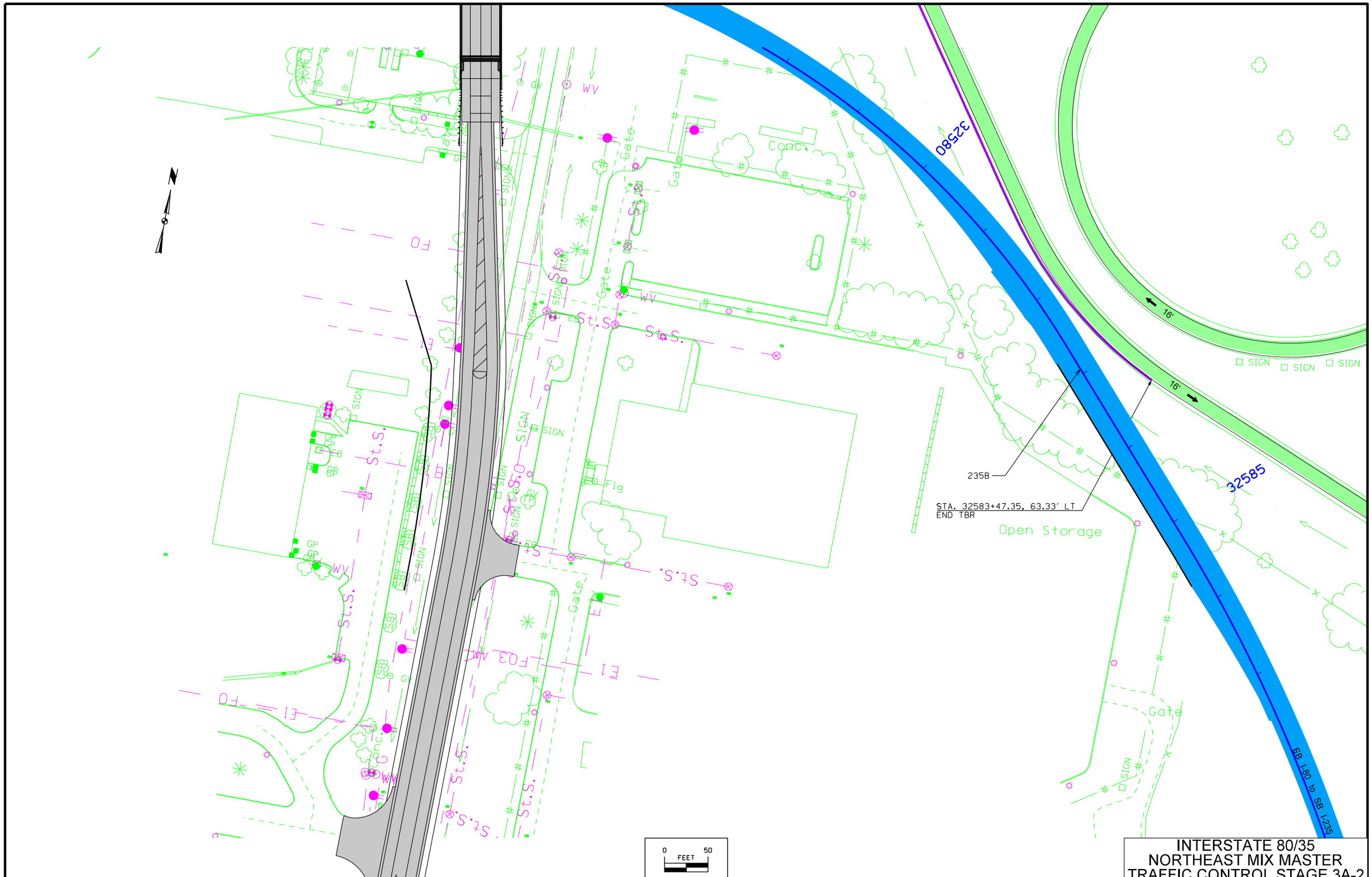
8475

8480

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.17

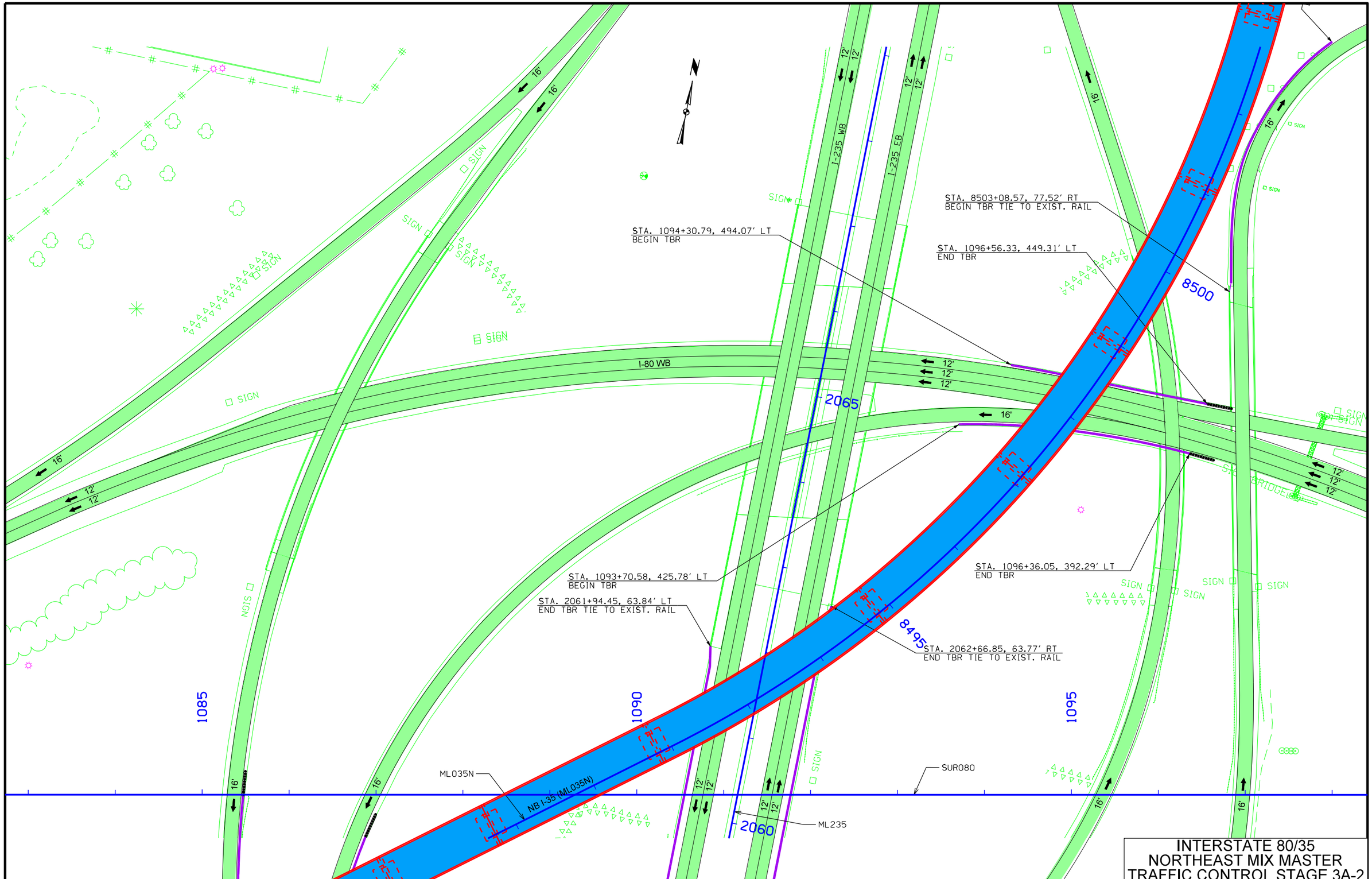
9:04:08 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.18

9:04:09 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.19

9:04:09 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

ML035N

NB I-35 (ML035N)

SUR080

ML235

8490

2060

8485

2055

I-235 WB

I-235 EB

I-80 EB

STA. 2057+93.10, 63.79' LT
BEGIN TBR TIE TO EXIST. RAIL

STA. 2058+31.47, 63.73' RT
BEGIN TBR TIE TO EXIST. RAIL

STA. 1084+83.78, 356.33' RT
END TBR

16'

12'

SIGN

BRIDGE

N

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.20

9:04:10 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.21

9:04:10 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

BRIDGE

16'

MM

SIGN

SIGN

SIGN

SIGN

UB

I-80 WB

1100

1105

1110

8510

235A

SUR080

SIGN

SIGN BRIDGE

16'

12'

12'

12'

SIGN

SIGN BRIDGE

I-80 EB

12'

12'

12'

12'

12'

16'

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.22

9:04:11 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

38615

38620

38625

2350

1115

1120

1125

SURO80

SIGN

I-80 WB

12'
12'
12'

I-80 EB

12'
12'
12'

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.23

9:04:11 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1135+10.00, 54.00' LT
BEGIN SHIFTING TAPER

STA. 1135+10.00, 42.00' LT
BEGIN SHIFTING TAPER

STA. 1135+10.00, 30.00' LT
BEGIN SHIFTING TAPER

STA. 1135+10.00, 18.00' LT
BEGIN SHIFTING TAPER

STA. 1136+07.62, 56.58' LT
BEGIN TBR

STA. 1142+30.00, 43.00' LT
END SHIFTING TAPER

STA. 1142+30.00, 31.00' LT
END SHIFTING TAPER

STA. 1142+30.00, 19.00' LT
END SHIFTING TAPER

STA. 1142+30.00, 7.00' LT
END SHIFTING TAPER

DET 3 20

2350

SUR080

65:1 SHIFTING TAPER

I-80 WB

I-80 EB

12'

38630

38635

1130

1135

1140

1145

20

Trail

F03

SIGN

SIGNAL BRIDGE

APPROX. SEC. LINE

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.24

9:04:12 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

25

30

1150

1155

1160

DET 3 20

STA. 1158+37.61, 56.55' LT
END TBR

6:1 TAPER

I-80 WB

12'
12'
12'

65:1 SHIFTING TAPER

12'
12'
12'

I-80 EB

SIGN

SIGN SIGN

SUR080

STA. 1157+75.00, 43.00' LT
BEGIN SHIFTING TAPER

STA. 1157+75.00, 31.00' LT
BEGIN SHIFTING TAPER

STA. 1157+75.00, 19.00' LT
BEGIN SHIFTING TAPER

STA. 1157+75.00, 7.00' LT
BEGIN SHIFTING TAPER

STA. 1150+00.00
PHASING TYPICAL

0 50
FEET

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.25

9:04:13 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1170+31.40 (SUR080)
CANTILEVER SIGN

STA. 1162+95.00, 51.00' LT
END SHIFTING TAPER

STA. 1162+95.00, 39.00' LT
END SHIFTING TAPER

STA. 1162+95.00, 27.00' LT
END SHIFTING TAPER

STA. 1162+95.00, 15.00' LT
END SHIFTING TAPER

1165

1170

1175

SUR080

12'
12'
12'

I-80 WB

12'
12'
12'

12'
12'
12'

I-80 EB

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.26

9:04:44 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.27

9:05:20 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 2011+41.20, 48.62' LT
BEGIN SHIFTING TAPER

STA. 2011+41.20, 36.81' LT
BEGIN SHIFTING TAPER

STA. 2011+41.20, 25.00' LT
BEGIN SHIFTING TAPER

STA. 2011+41.20, 13.19' LT
BEGIN SHIFTING TAPER

STA. 2015+96.21, 41.62' LT
END SHIFTING TAPER

STA. 2016+08.78, 29.62' LT
END SHIFTING TAPER

STA. 2016+20.78, 17.62' LT
END SHIFTING TAPER

STA. 2016+33.06, 5.62' LT
END SHIFTING TAPER

STA. 2019+98.21 (ML235)
DMS TRUSS

2' CLEARANCE FROM
BACK OF TBR TO
CONSTRUCTION JOINT

STA. 2015+96.21, 45.62' LT
BEGIN TBR

Billboard

65:1 TAPER

12'
12'
12'

I-235 WB

12'
12'
12'

I-235 EB

2015

2020

2010

ML235

0 50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.28

9:05:55 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Billboard
Billboard
APPROX. SEC. LINE
SIGN
2' CLEARANCE FROM BACK OF TBR TO CONSTRUCTION JOINT
235G
STA. 2029+09.75, 54.62' LT
END TBR
38560
38555
38565
STA. 2032+58.50, 48.62' LT
END SHIFTING TAPER
STA. 2032+58.50, 36.81' LT
END SHIFTING TAPER
STA. 2032+58.50, 25.00' LT
END SHIFTING TAPER
STA. 2032+58.50, 13.19' LT
END SHIFTING TAPER
6:1 TAPER
45:1 TAPER
12'
12'
12'
12'
12'
12'
I-235 WB
I-235 EB
St.S.
2025
2030
2035
SIGN
ML235
STA. 2028+42.85, 41.62' LT
BEGIN SHIFTING TAPER
STA. 2028+34.44, 29.62' LT
BEGIN SHIFTING TAPER
STA. 2028+25.94, 17.62' LT
BEGIN SHIFTING TAPER
STA. 2028+17.43, 5.62' LT
BEGIN SHIFTING TAPER
STA. 2027+00.00
PHASING TYPICAL
Open Storage
0 50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.29

9:05:56 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Open Storage

Open Storage

EB I-80 to SB I-235 RAMP B (235B)

32590

32595

235B

E2

SIGN

16'

12'

I-235 WB

I-235 EB

2040

2045

2050

St.S.

ML235

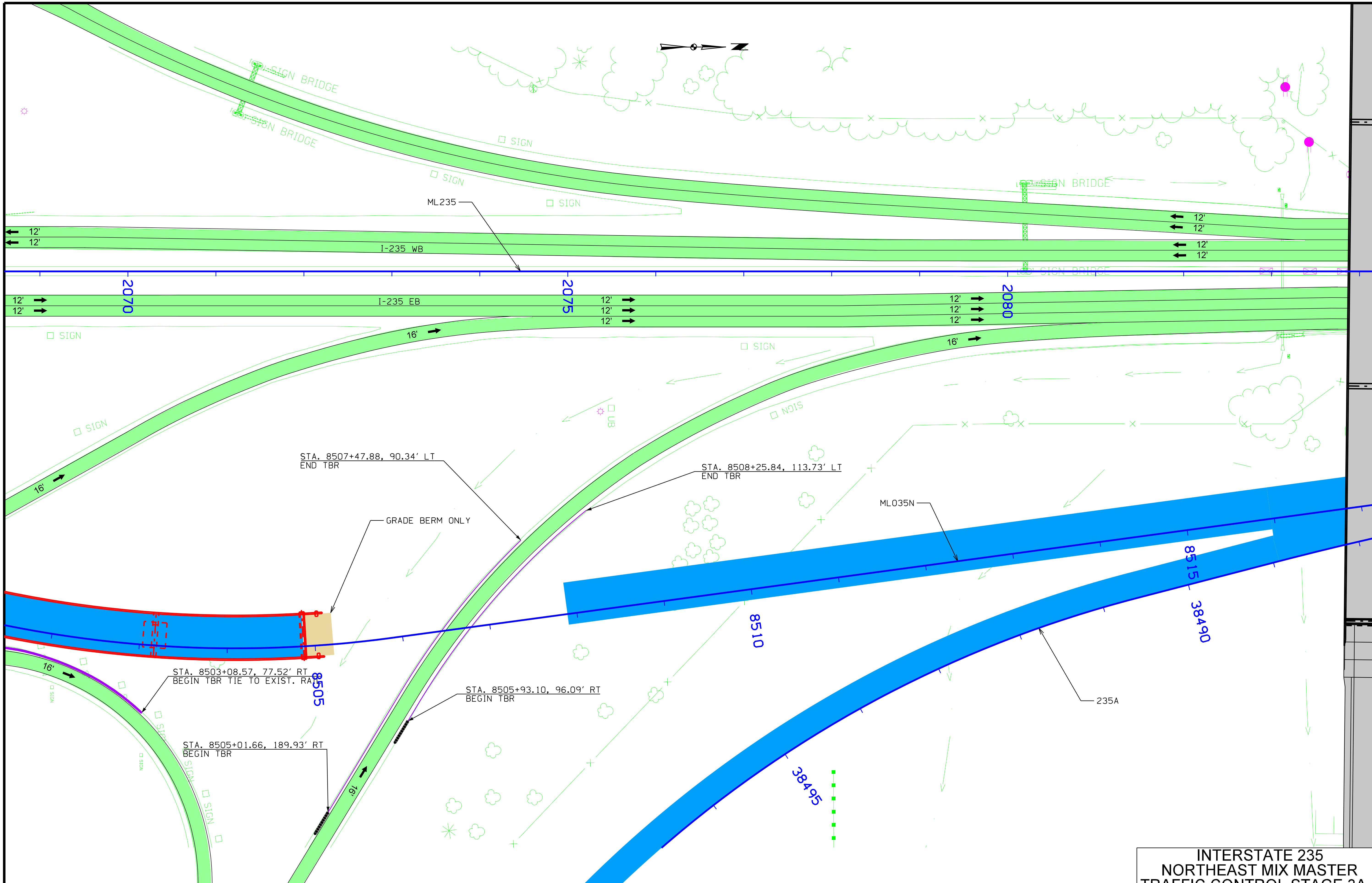
SIGN BRIDGE

0 50 FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.30

9:05:58 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.31

9:05:59 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Conc.
Conc.
Pond
Billboard
Open Stora
SIGN
SIGN
SIGN
SIGN
SIGN
SIGN
SIGN BRIDGE
SIGN BRIDGE
I-35 SB
I-35 NB
12'
12'
12'
12'
12'
12'
12'
12'
12'
12'
12'
12'
12'
12'
2085
2090
2095
8520
8525
8530
ML235
ML035N
65:1 SHIFTING TAPER
65:1 MERGING TAPER
6:1 TAPER
STA. 2091+35.00, 18.00' RT
BEGIN SHIFTING TAPER
STA. 2091+35.00, 30.00' RT
BEGIN SHIFTING TAPER
STA. 2091+35.00, 42.00' RT
BEGIN SHIFTING TAPER
STA. 2091+35.00, 54.00' RT
BEGIN SHIFTING TAPER
STA. 2091+35.00, 66.00' RT
BEGIN SHIFTING TAPER
STA. 2098+11.83, 61.[illegible]' RT
BEGIN TBR
STA. 2099+15.00, 6.00' RT
END SHIFTING TAPER
STA. 2099+15.00, 18.00' RT
END SHIFTING TAPER
STA. 2099+15.00, 30.00' RT
END SHIFTING TAPER
STA. 2099+15.00, 42.00' RT
END SHIFTING TAPER
STA. 2099+50.00
PHASING TYPICAL
0
50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.32

9:05:59 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Storage

Billboard

SIGN BRIDGE

SIGN BRIDGE

SIGN BRIDGE

MM

MM

MM

ML235

ML035N

I-35 SB

I-35 NB

12'
12'
12'
12'

12'
12'
12'
12'

2105

2110

2115

8535

8540

STA. 2114+80.00, 6.00' RT
BEGIN SHIFTING TAPER

STA. 2114+80.00, 18.00' RT
BEGIN SHIFTING TAPER

STA. 2114+80.00, 30.00' RT
BEGIN SHIFTING TAPER

STA. 2114+80.00, 42.00' RT
BEGIN SHIFTING TAPER

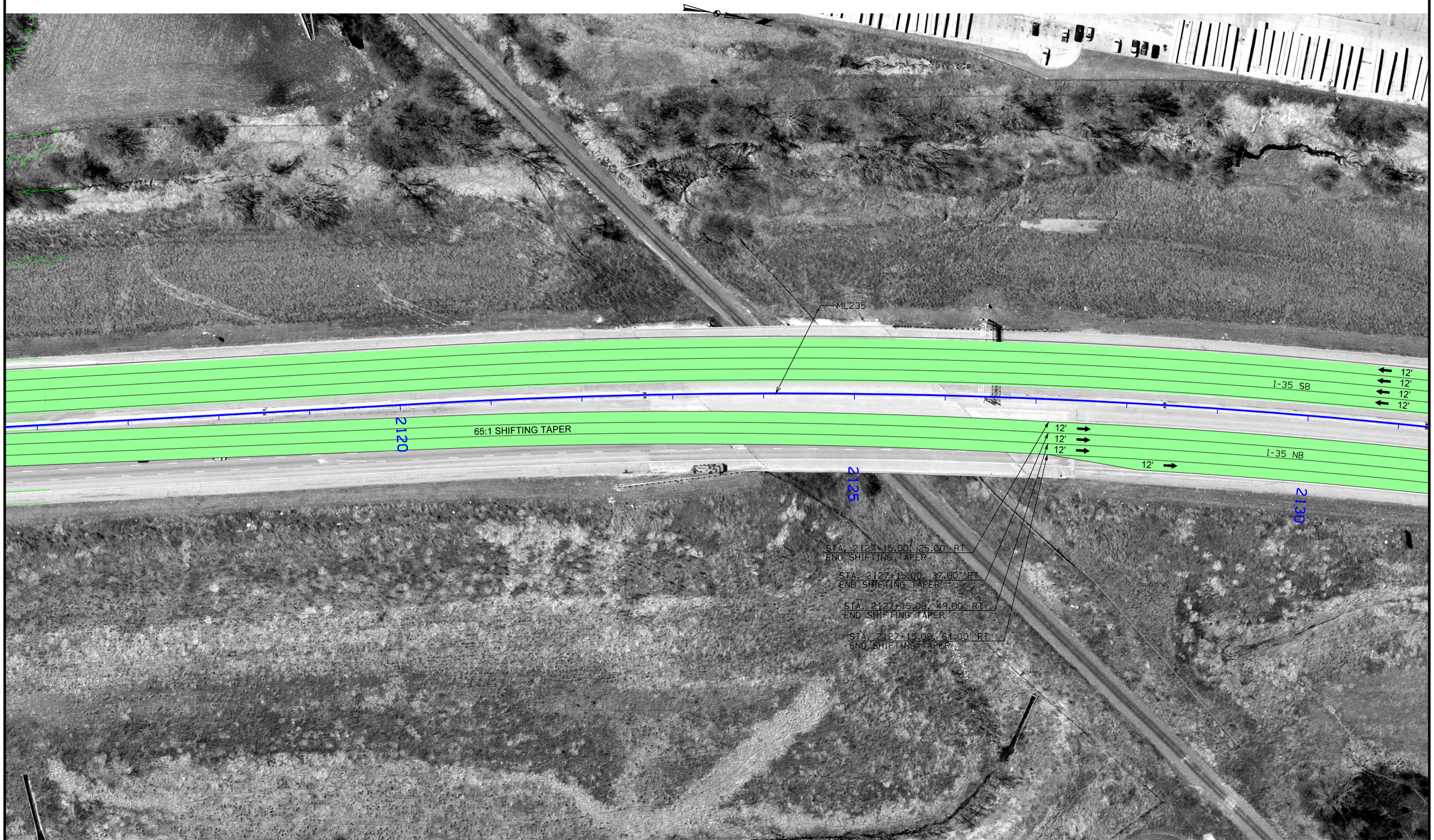
STA. 2114+79.42, 46.00' RT
END TBR

0 50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.33

9:06:00 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

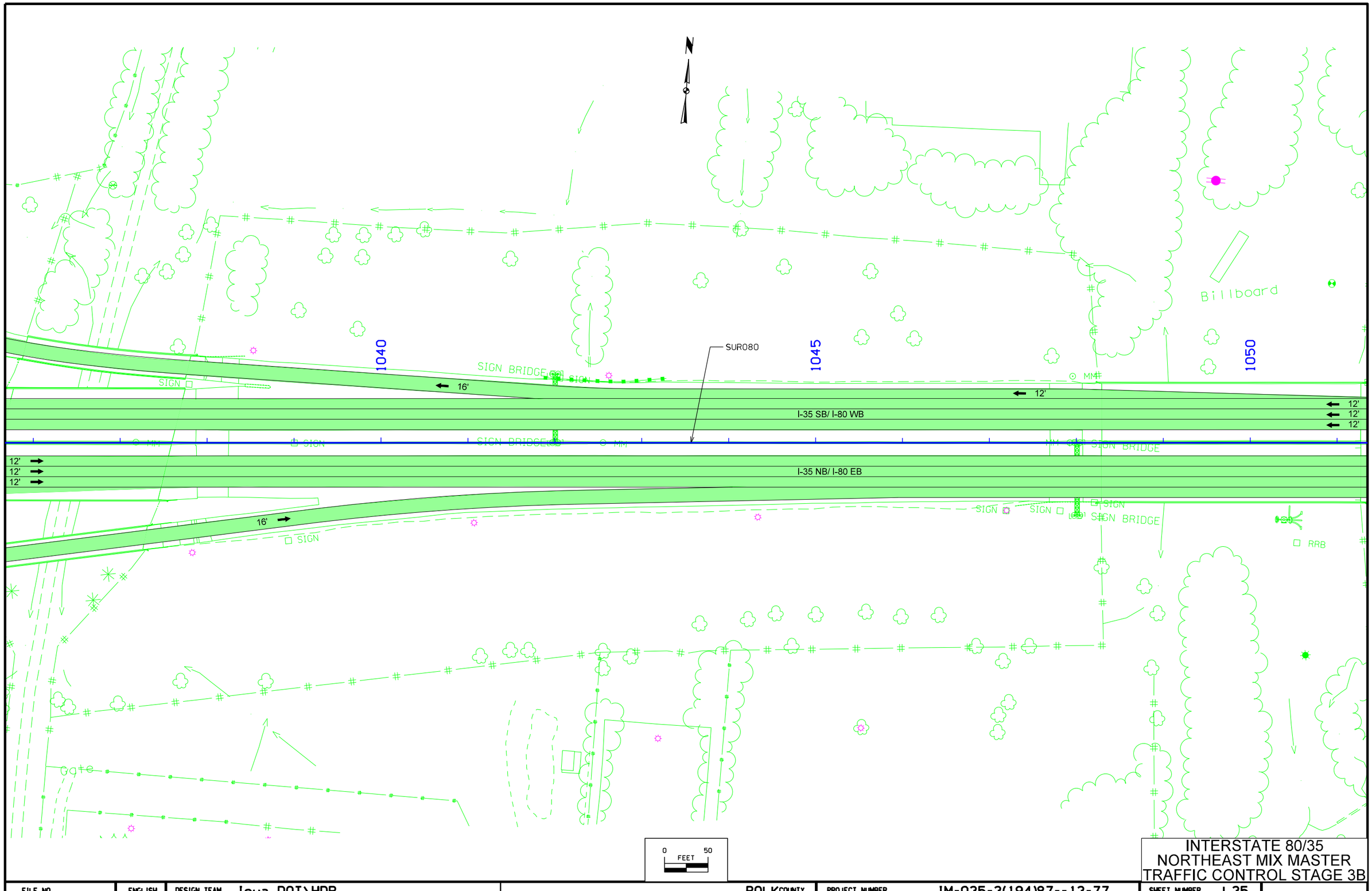


0 50 FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3A-2

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.34

9:07:06 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.35

9:07:07 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1062+00.00
PHASING TYPICAL

SUR080

1055

1060

1065

SIGN

SIGN BRIDGE

10

15

12'

STA. 1057+02.74, 51.00' RT (SUR080)
STA. 10+00.00 (DET_3_10)
BEGIN RAMP TAPER

STA. 1057+02.53, 63.00' RT (SUR080)
STA. 10+00.00, 12.00' RT (DET_3_10)
BEGIN RAMP TAPER

DET_3_10

28:1 TAPER

STA. 18+12.42 (DET_3_10)
STA. 8465+09.54, 12' LT (ML035N)
END RAMP TAPER

STA. 18+12.42, 12' RT (DET_3_10)
STA. 8465+09.54, (ML035N)
END RAMP TAPER

Billboard

0 50
FEET

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.36

9:07:07 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

I-35 SB/ I-80 WB

12'
12'
12'

I-35 NB/ I-80 EB

12'
12'
12'

SIGN BRIDGE

SIGN BRIDGE

STA. 8468+34.33, 12' LT (ML035N)
BEGIN RADIUS

STA. 8469+83.23, 8' LT (ML035N)
END RADIUS

2300' RADIUS

1216' RADIUS

1200' RADIUS

16'

STA. 8467+73.25, (ML035N)
BEGIN RADIUS

STA. 8469+52.76, 6' RT (ML035N)
END RADIUS

ML035N

SUR080

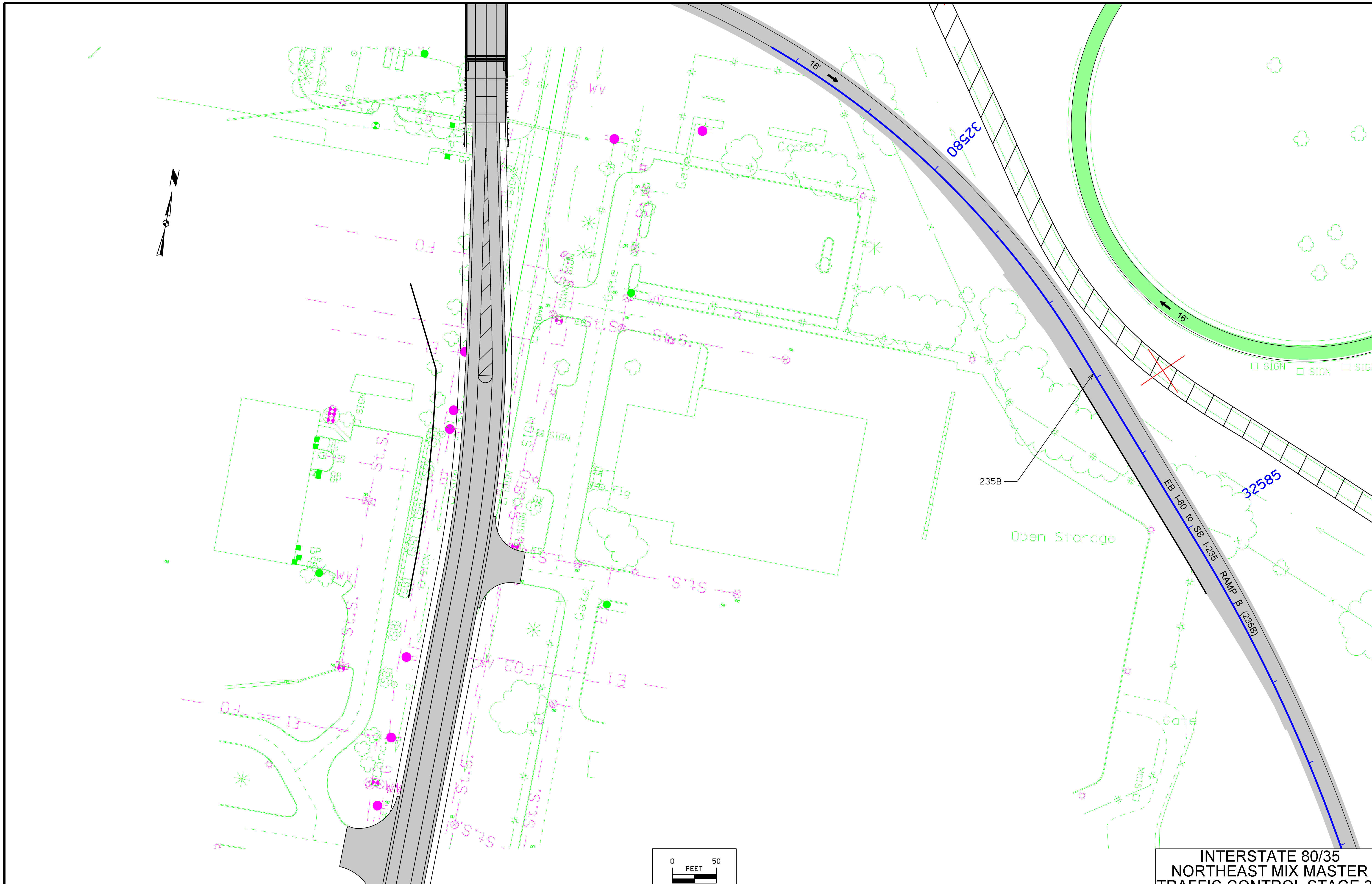
16'

0 50
FEET

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.37

9:07:08 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.38

9:07:08 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

I-80 WB

NB I-35 (ML035N)

ML035N

SUR080

ML235

2065

2060

8500

8495

1085

1090

1095

16'

12'

SIGN

0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.39

9:07:09 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

ML035N

NB I-35 (ML035N)

SUR080

ML235

8490

8485

2060

2055

16'

12'

SIGN

I-80 EB

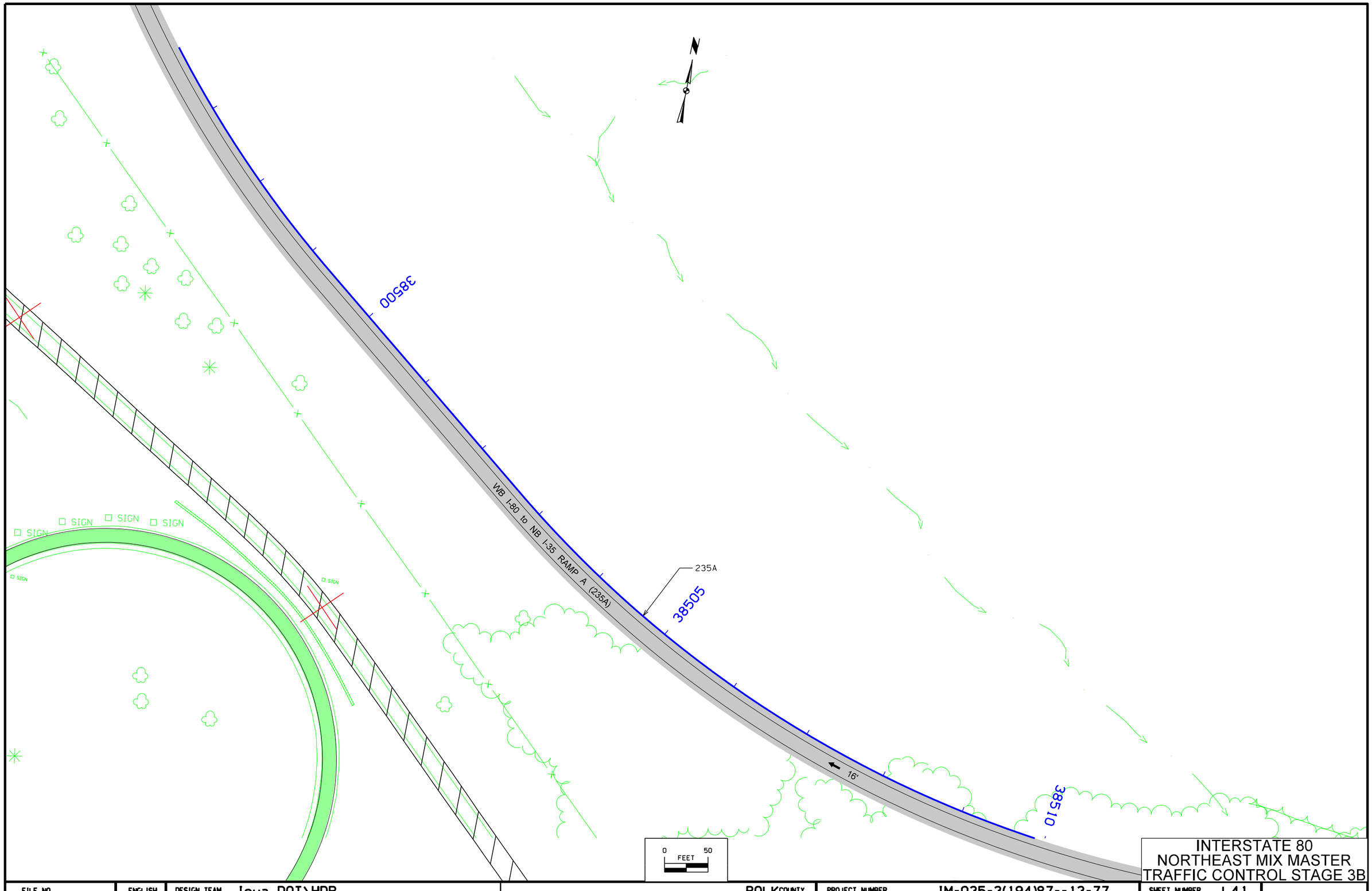
BRIDGE

0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.40

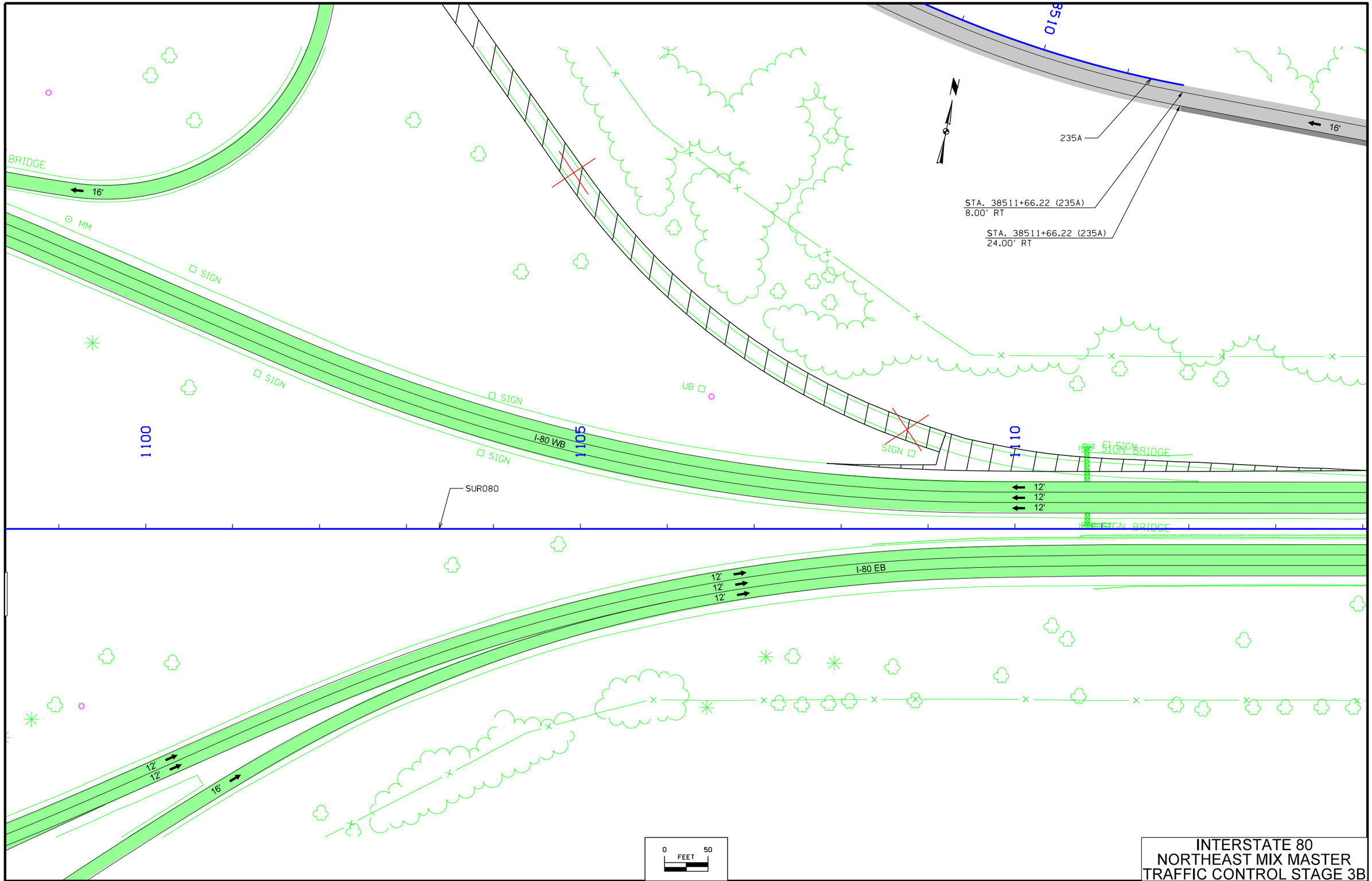
9:07:11 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.41

9:07:11 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.42

9:07:12 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

38615

STA. 38616+56.30, 19.49' LT (235G)
BEGIN RADIUS

STA. 38619+55.93, 12' LT (235G)
END RADIUS

38620

6000' RADIUS

STA. 38616+55.50, 3.51' LT (235G)
BEGIN RADIUS

235G

STA. 38619+55.93, 4.00' RT (235G)
END RADIUS

38625

16'

1115

1120

1125

SIGN

SUR080

12'
12'
12'

I-80 WB

12'
12'
12'

I-80 EB

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.43

9:07:12 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 38637+77.87, 12' LT (235G)
BEGIN RAMP TAPER

STA. 38637+77.87, 4' RT (235G)
BEGIN RAMP TAPER

DET 3 20

235G

SUR080

SIGNAL BRIDGE

SIGNAL BRIDGE

I-80 WB

I-80 EB

I-80 EB

Trail

38630

38635

1130

1135

1140

1145

20

F03

SIGN

APPROX. SEC. LINE

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.44

9:07:13 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1153+52.77, 51' LT (SUR080)
STA. 30+40.77, (DET_3_20)
END RAMP TAPER

STA. 1156+73.17, 51' LT (SUR080)
END RAMP TAPER

DET 3 20

25

30

1150

1155

1160

16'

12'
12'
12'

I-80 WB

12'
12'
12'

I-80 EB

SIGN

SIGN SIGN

SUR080

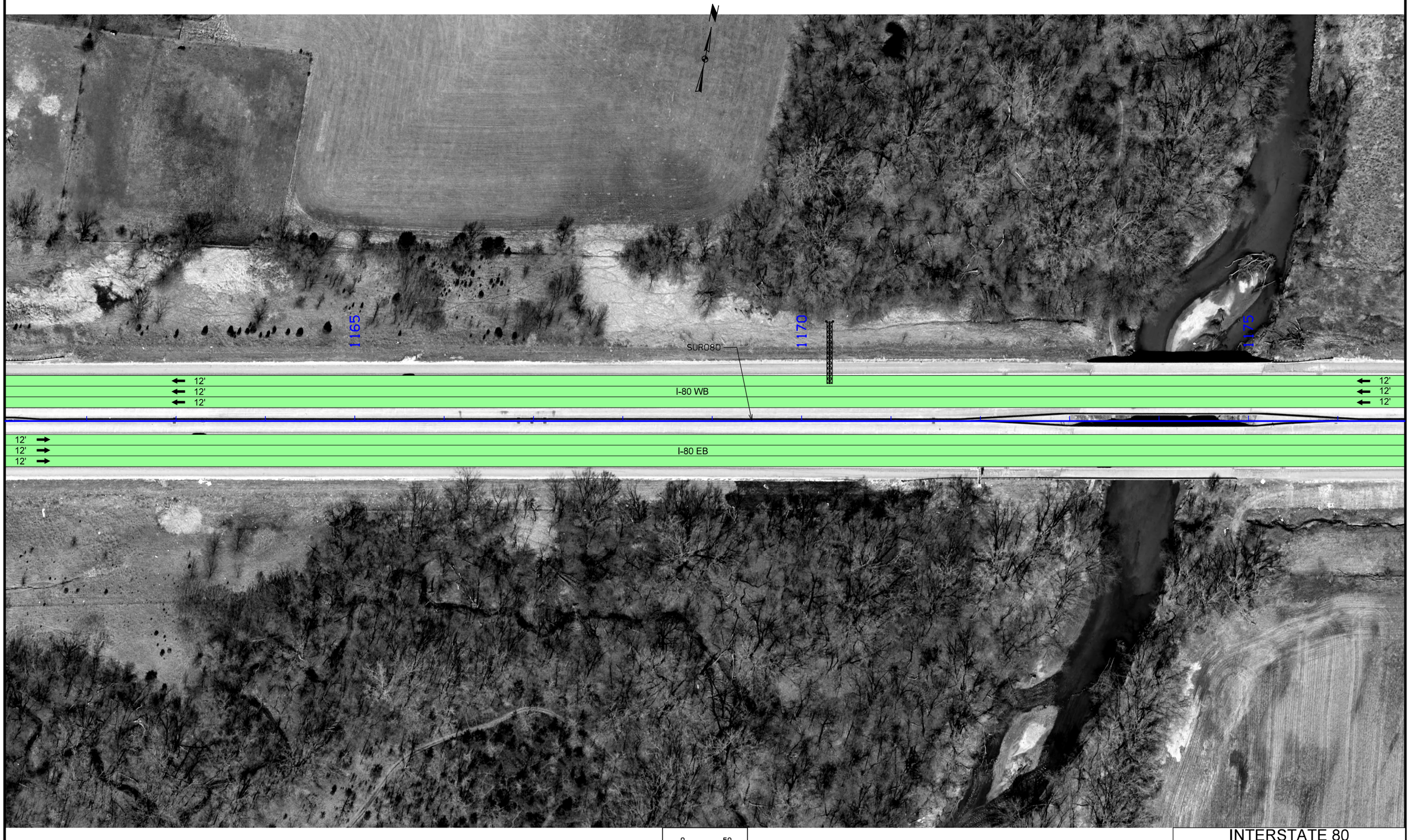
STA. 1150+00.00
PHASING TYPICAL

0 50
FEET

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.45

9:07:14 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

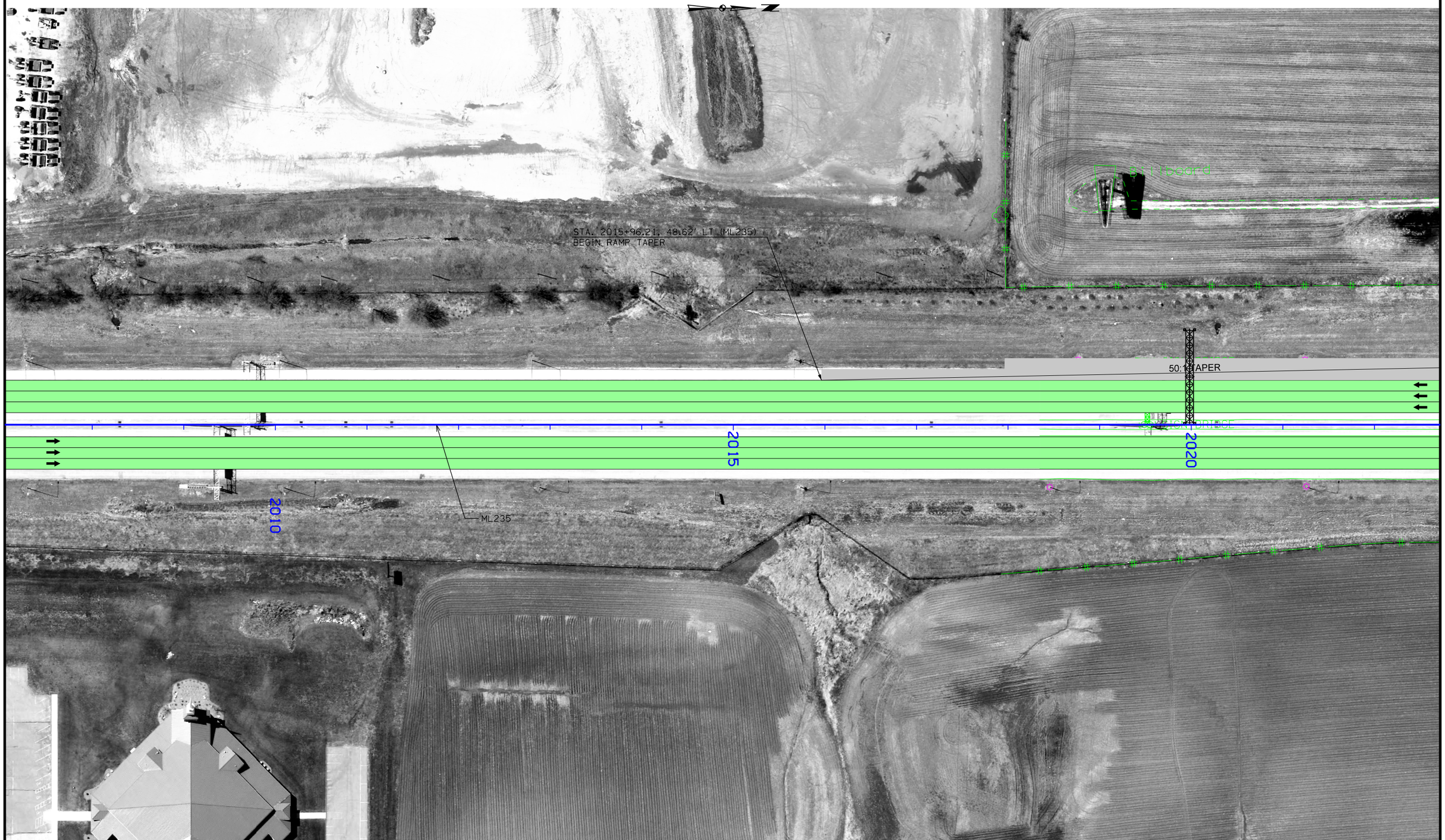


0 50
FEET

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.46

9:07:30 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



0 50 FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.47

9:08:05 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 2029+53.43, 119.58' LT (ML235)
END RADIUS

STA. 2024+11.13, 64.92' LT (ML235)
BEGIN RAMP TAPER

STA. 2029+56.31, 103.84' LT (ML235)
END RADIUS

STA. 2024+11.13, 64.92' LT (ML235)
BEGIN RADIUS

235G

3390' RADIUS

16'

12'

12'

12'

38555

38560

38565

2025

2030

2035

APPROX. SEC. LINE

SIGN

Billboard

Billboard

Open Storage

ML235

STA. 2027+00.00
PHASING TYPICAL

0 50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.48

9:08:06 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Open Storage

Open Storage

32590

32595

235B

STA. 32595+34.44, (235B)
END TAPER

STA. 32595+34.44, 16' LT (235B)
END TAPER

16'

12'

SIGN

2040

2045

2050

St.S.

ML235

SIGN BRIDGE

E2

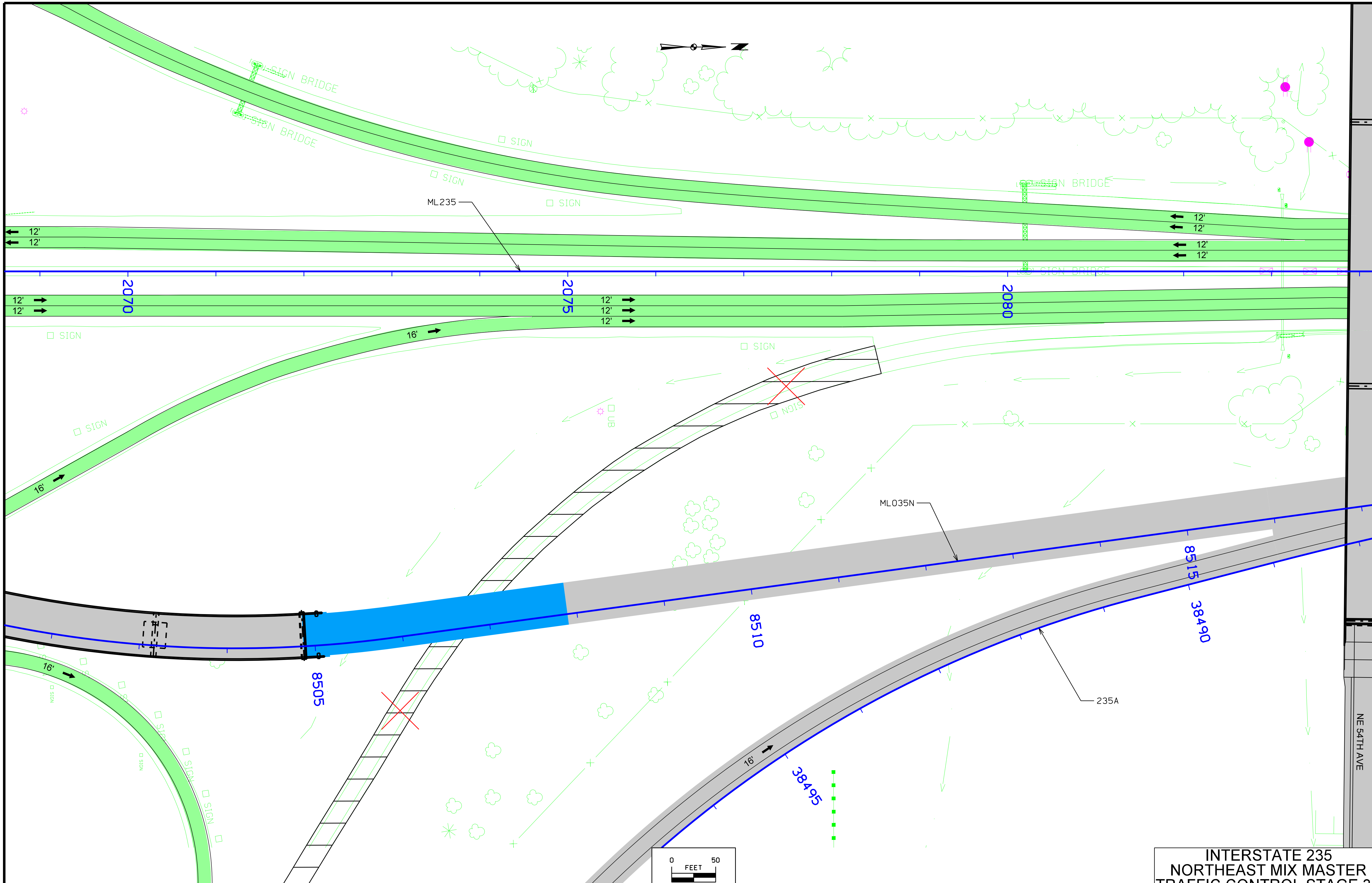
E3

0 50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.49

9:08:07 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.50

9:08:09 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Conc.
Conc.
Pond
Billboard
Open Stora
SIGN
SIGN
SIGN
SIGN
SIGN
SIGN
SIGN BRIDGE
SIGN BRIDGE
ML235
ML035N
12'
12'
12'
12'
12'
12'
12'
16'
25:1 TAPER
2085
2090
2095
8520
8525
8530
STA. 38484+75.18 (235A)
8.00' RT
STA. 2099+50.00
PHASING TYPICAL
0 FEET 50

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.51

9:08:09 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Storage

Billboard

SIGN BRIDGE

SIGN BRIDGE

SIGN BRIDGE

MM

MM

MM

SIGN

ML235

ML035N

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

65:1 SHIFTING TAPER

8535

8540

2105

2110

2115

STA. 8534+80.00, (ML035N)
BEGIN SHIFTING TAPER

STA. 8534+80.00, (ML035N)
BEGIN SHIFTING TAPER

STA. 8542+60.00, (ML035N)
END SHIFTING TAPER

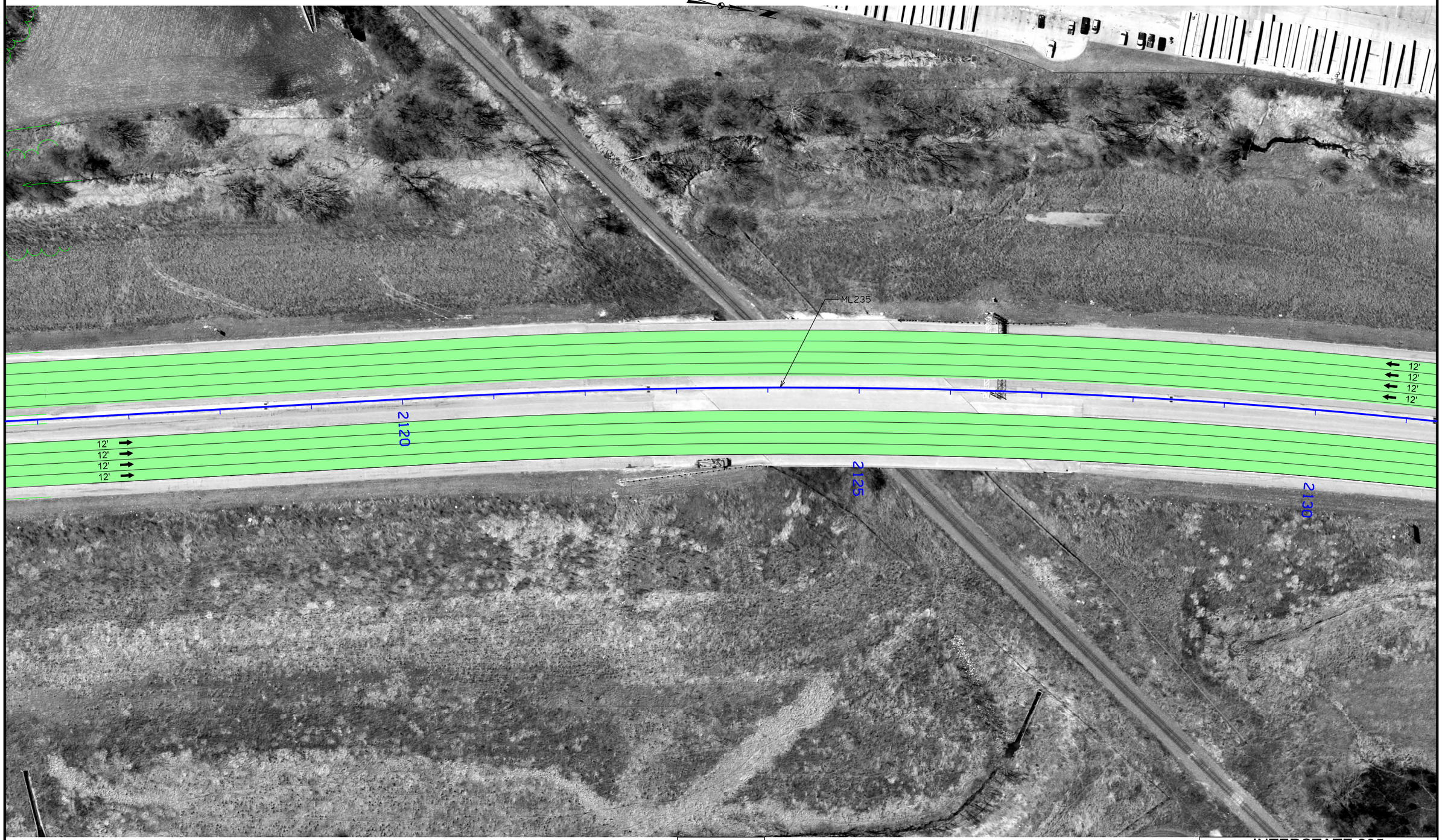
STA. 8542+60.00, (ML035N)
END SHIFTING TAPER

0 FEET 50

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.52

9:08:10 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

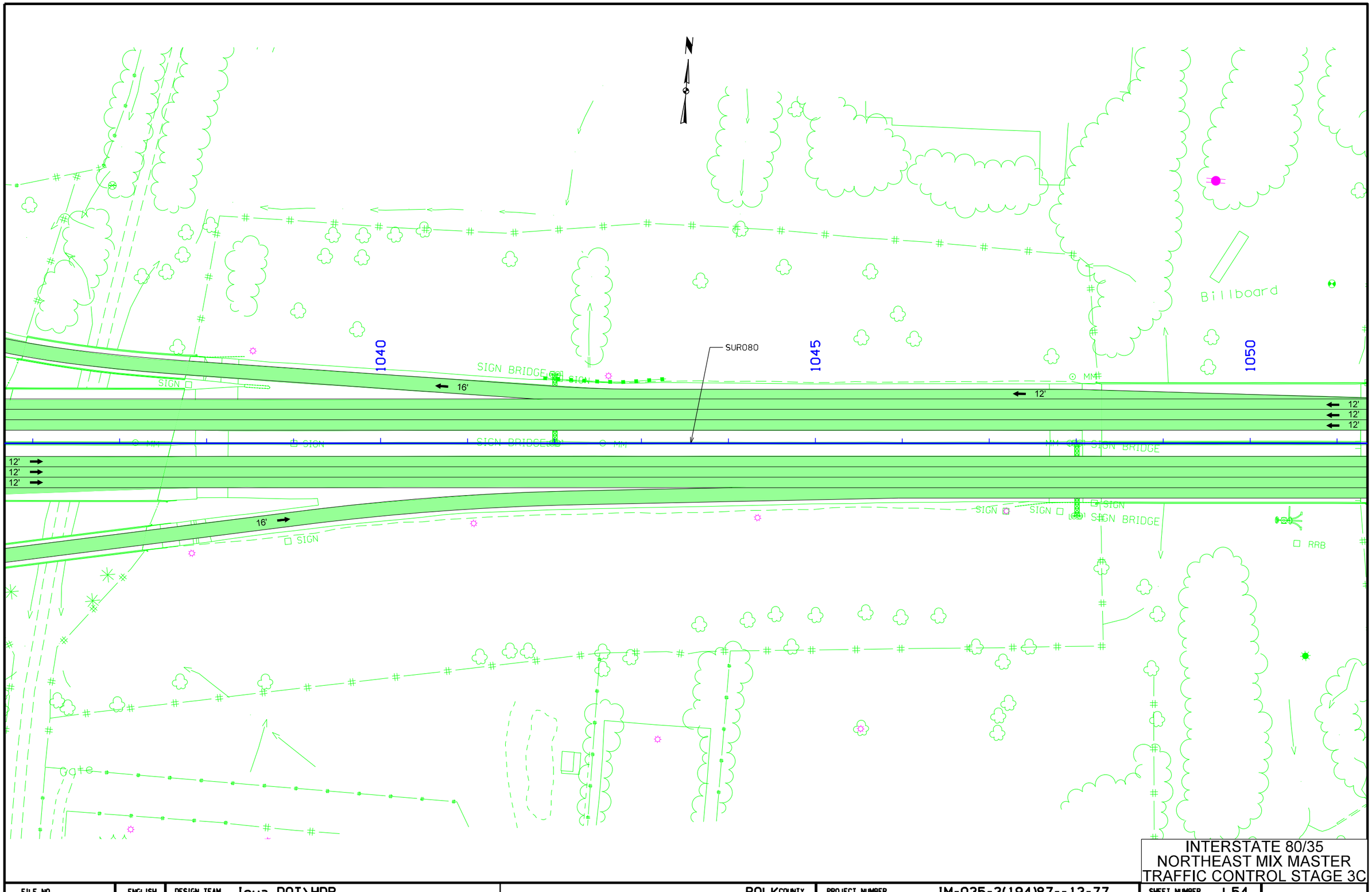


0 FEET 50

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3B

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.53

9:08:48 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.54

9:08:48 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

STA. 1062+00.00
PHASING TYPICAL

SUR080

1055

1060

1065

SIGN

SIGN BRIDGE

10

15

12'

28:1 TAPER

STA. 1060+43.67, 53.30' RT (SUR080)
STA. 13+41.56, 12 LT (DET_3_10)
BEGIN RAMP TAPER

DET_3_10

STA. 18+12.42, 12' LT (DET_3_10)
STA. 8465+09.54, (ML035N)
END RAMP TAPER

Billboard

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.55

9:08:49 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

SURO80

STA. 1074+57.33, 28.63' RT (SURO80)
BEGIN SHIFTING TAPER

STA. 1074+55.85, 40.54' RT (SURO80)
BEGIN SHIFTING TAPER

STA. 1081+99.41, 255.76' RT (SURO80)
END SHIFTING TAPER

STA. 1081+94.37, 266.66' RT (SURO80)
END SHIFTING TAPER

STA. 1074+54.37, 52.44' RT (SURO80)
BEGIN MERGING TAPER

STA. 1081+89.34, 277.55' RT (SURO80)
END MERGING TAPER

65:1 TAPER

2300' RADIUS

1200' RADIUS

1306' RADIUS

ML035N

8470

8475

8480

1070

1075

1080

12'

16'

SIGN BRIDGE

SIGN

SB

UB

EB

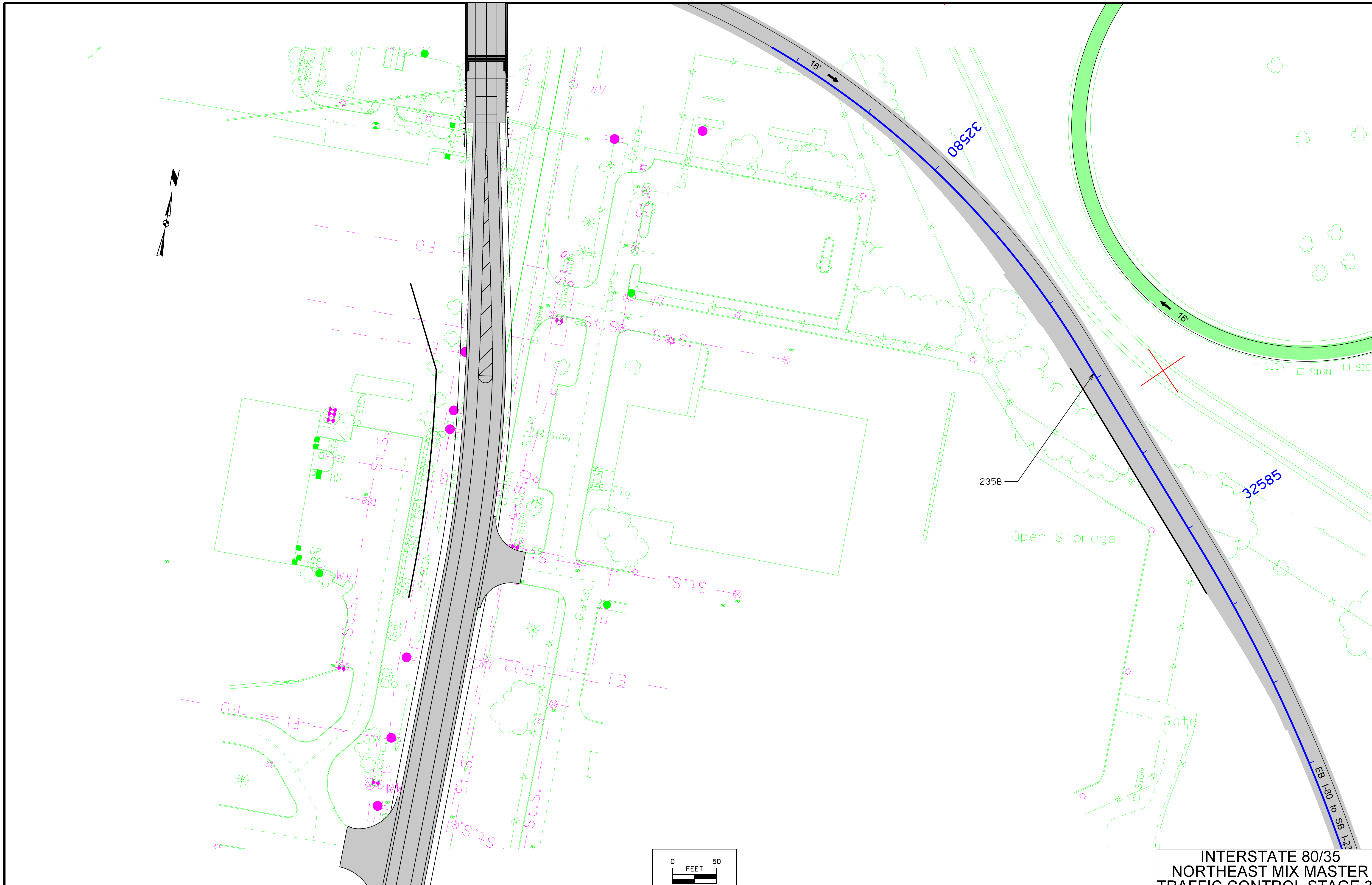
GV

0 50
FEET

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.56

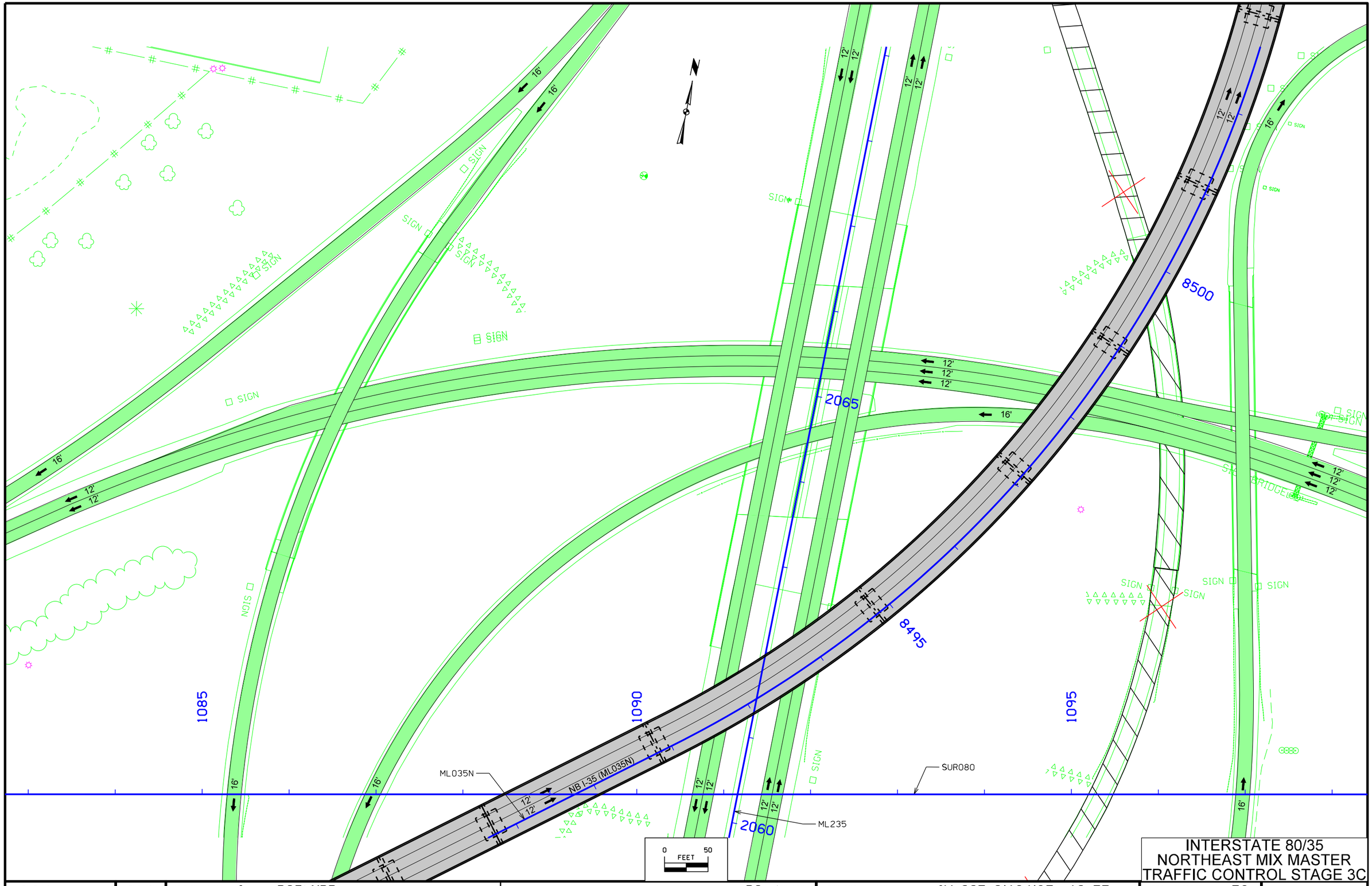
9:08:49 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON007963\1\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.57

9:08:50 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.58

9:08:50 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

ML035N

NB I-35 (ML035N)

SUR080

ML235

8490

8485

2060

2055

12'

16'

SIGN

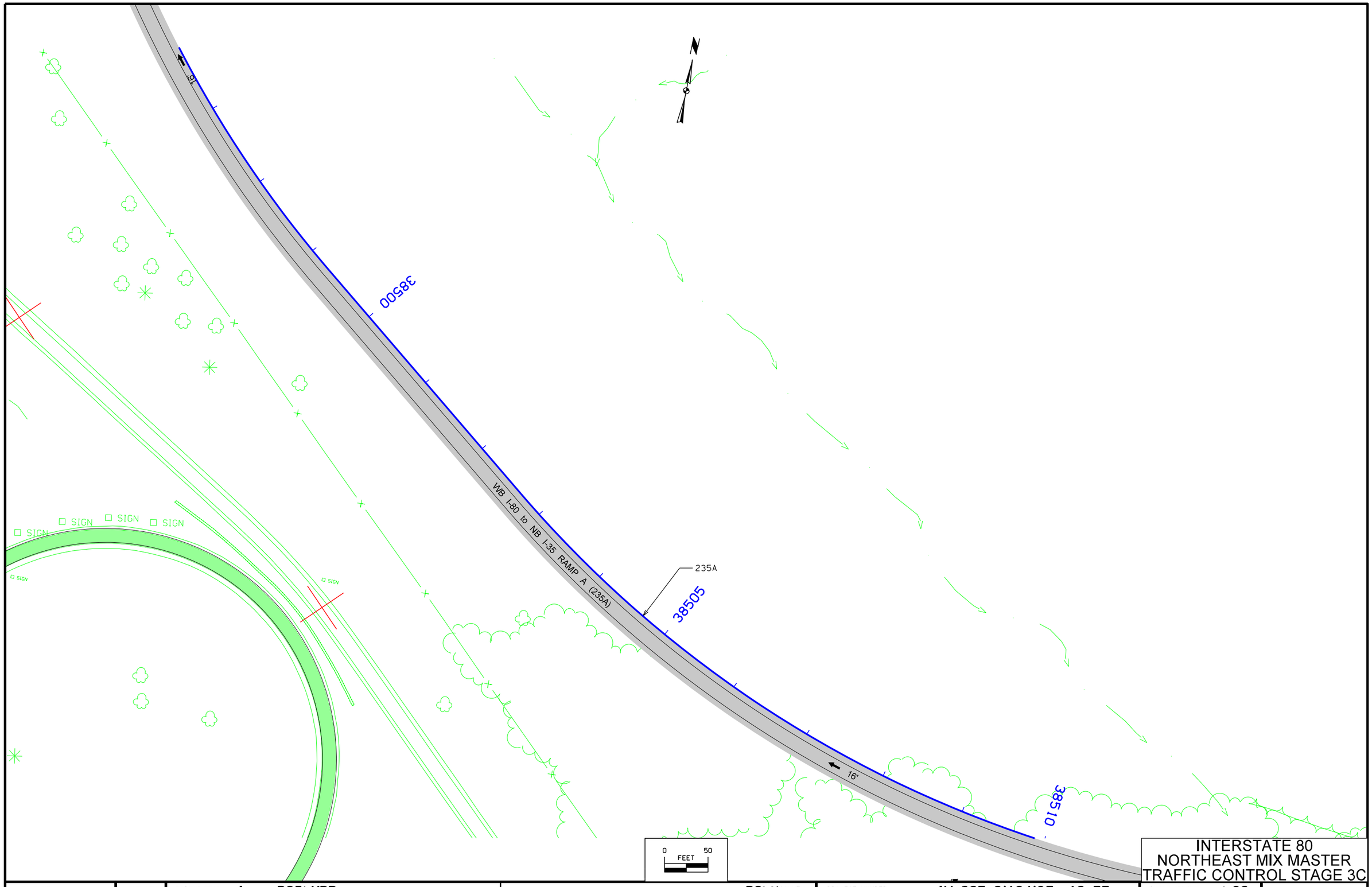
BRIDGE

0 FEET 50

INTERSTATE 80/35
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.59

9:08:51 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.60

9:08:53 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

BRIDGE
16'
MM
SIGN
SIGN
SIGN
SIGN
UB
1100
1105
1110
8510
235A
16'
SIGN
SIGN BRIDGE
SIGN
SIGN BRIDGE
SUR080
12'
12'
12'
12'
12'
12'
12'
12'
12'
16'
0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.61

9:08:53 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

38615

38620

38625

1115

1120

1125

235G

SURO80

SIGN

16'

12'
12'
12'

12'
12'
12'

0 FEET 50

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.62

9:08:53 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

38630
38635
1130
1135
1140
1145
20
Trail
F03
235G
DET 3 20
SIGNAL BRIDGE
12'
16'
SUR080
SIGN
APPROX. SEC. LINE
0 FEET 50

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER J.63	

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

9:08:54 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

25

DET 3 20

30

1150

1155

1160

16'

12'
12'
12'

12'
12'
12'

12'
12'
12'

SIGN

SIGN SIGN

SUR080

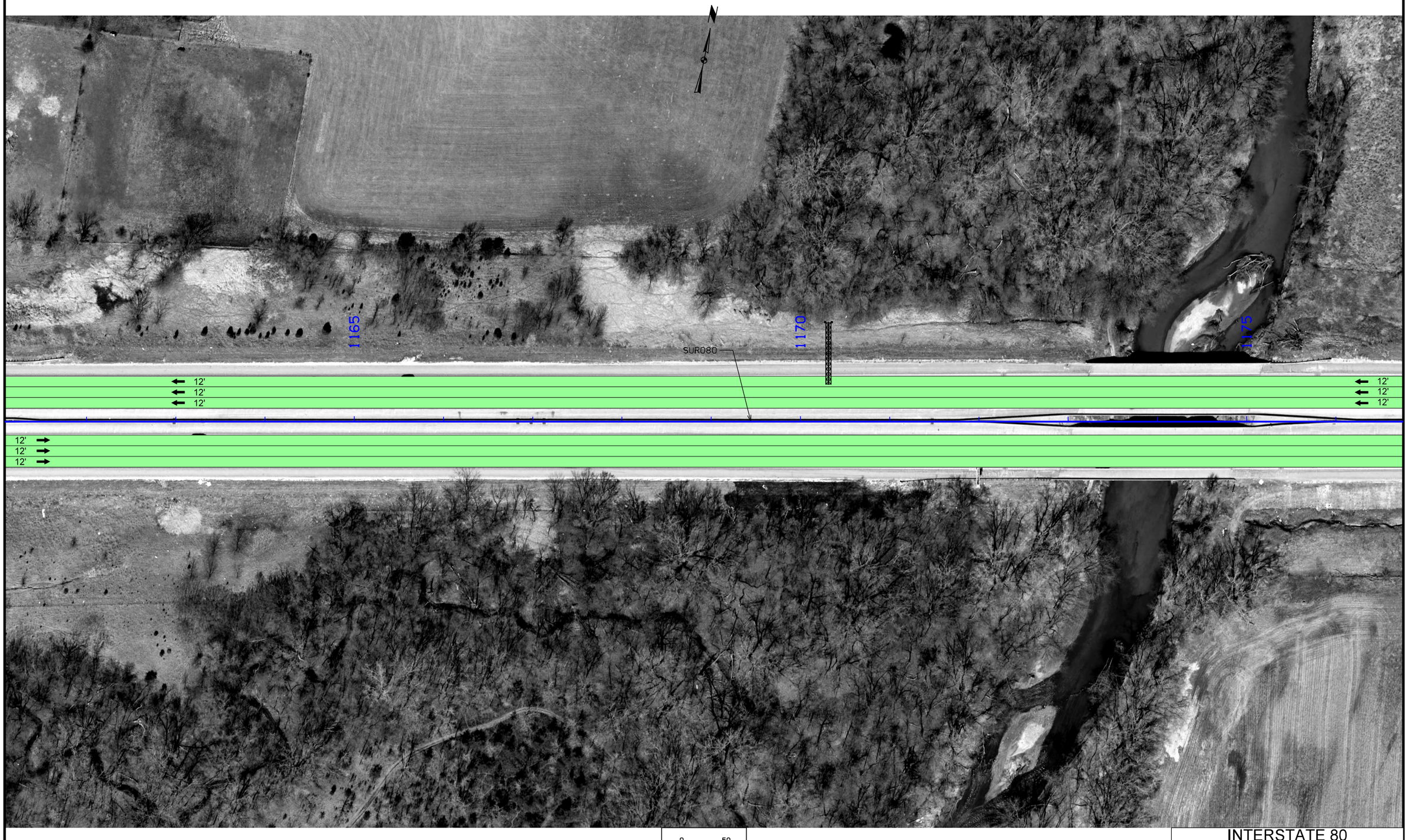
STA. 1150+00.00
PHASING TYPICAL

0 50
FEET

INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.64

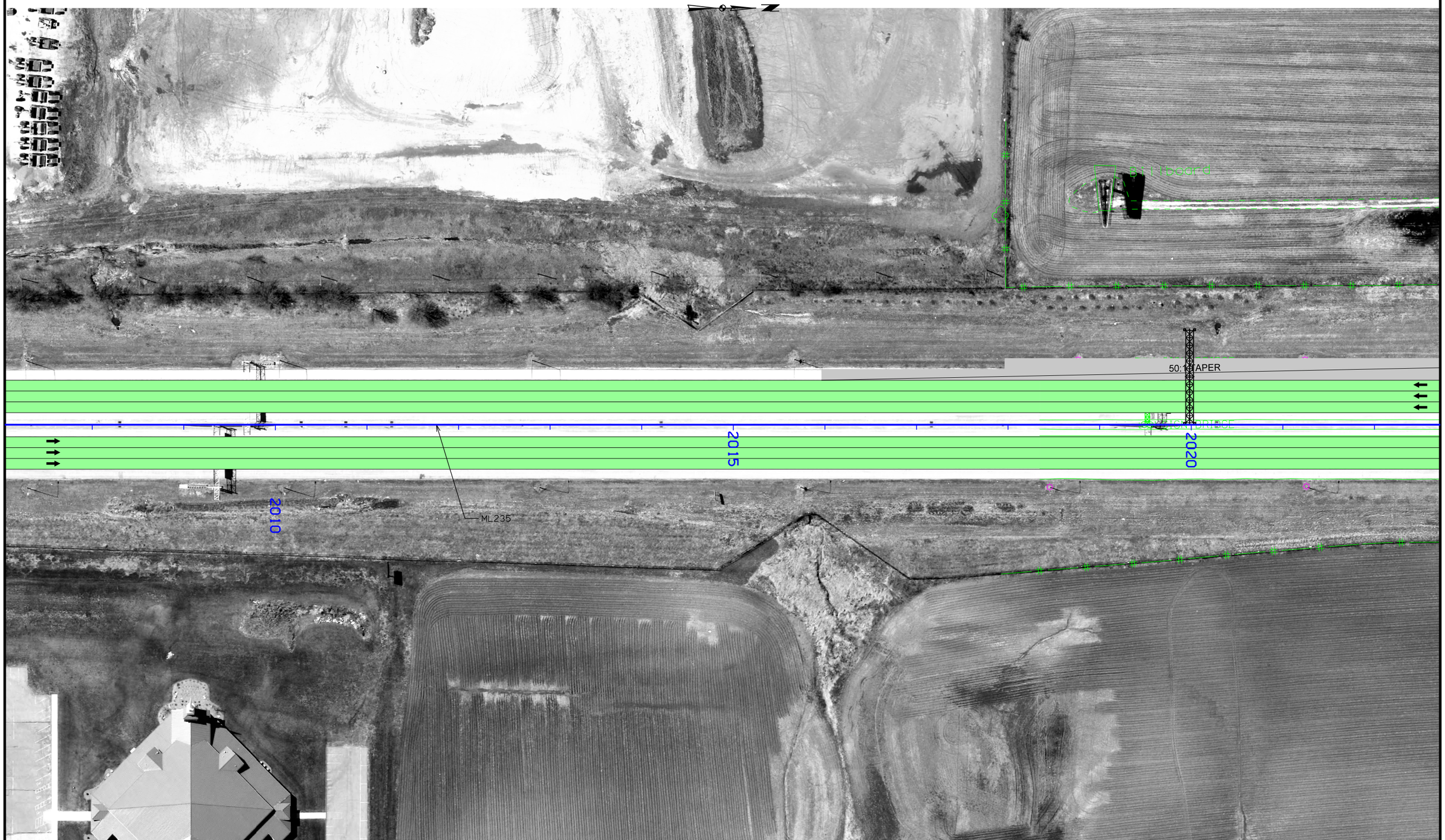
9:08:55 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 80
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.65

9:09:12 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



0 FEET 50

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.66

9:10:35 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Billboard
Billboard
APPROX. SEC. LINE
SIGN
38560
38565
38555
235G
16'
3390' RADIUS
12'
12'
12'
St.S.
St.S.
St.S.
St.S.
St.S.
2025
2030
2035
SIGN
ML235
APPROX. SEC. LINE
SIGN
SIGN
SIGN
Open Storage
STA. 2027+00.00
PHASING TYPICAL
0 50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	J.67

9:10:36 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Open Storage

Open Storage

EB I-80 to SB I-235 RAMP B (235B)

32590

32595

235B

16'

E2

SIGN

16'

16'

12'
12'
12'

12'
12'

12'
12'

12'
12'

2040

2045

2050

St.S.

ML235

SIGN BRIDGE

SIGN BRIDGE

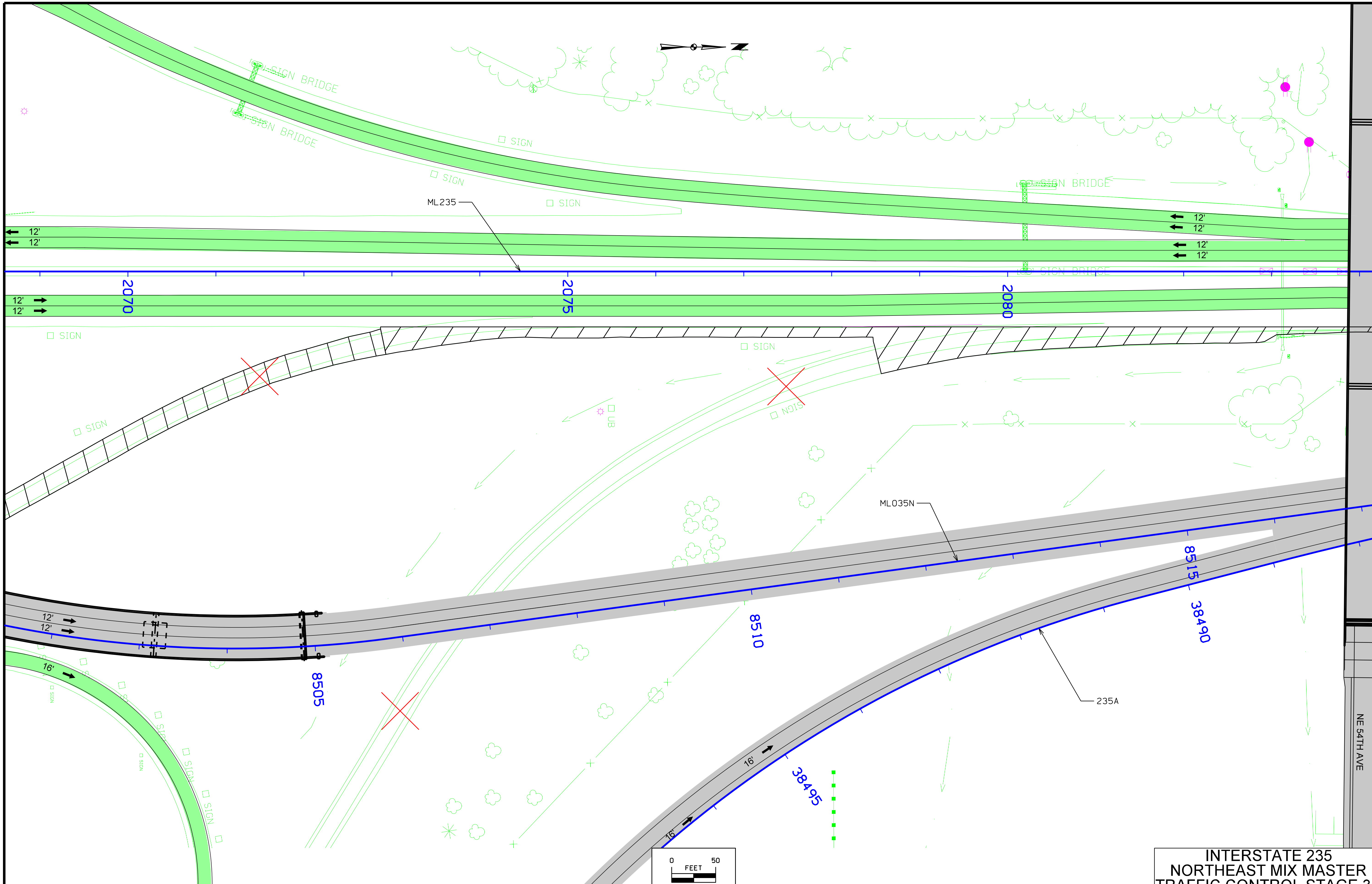
SIGN BRIDGE

0 50
FEET

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.68

9:10:37 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.69

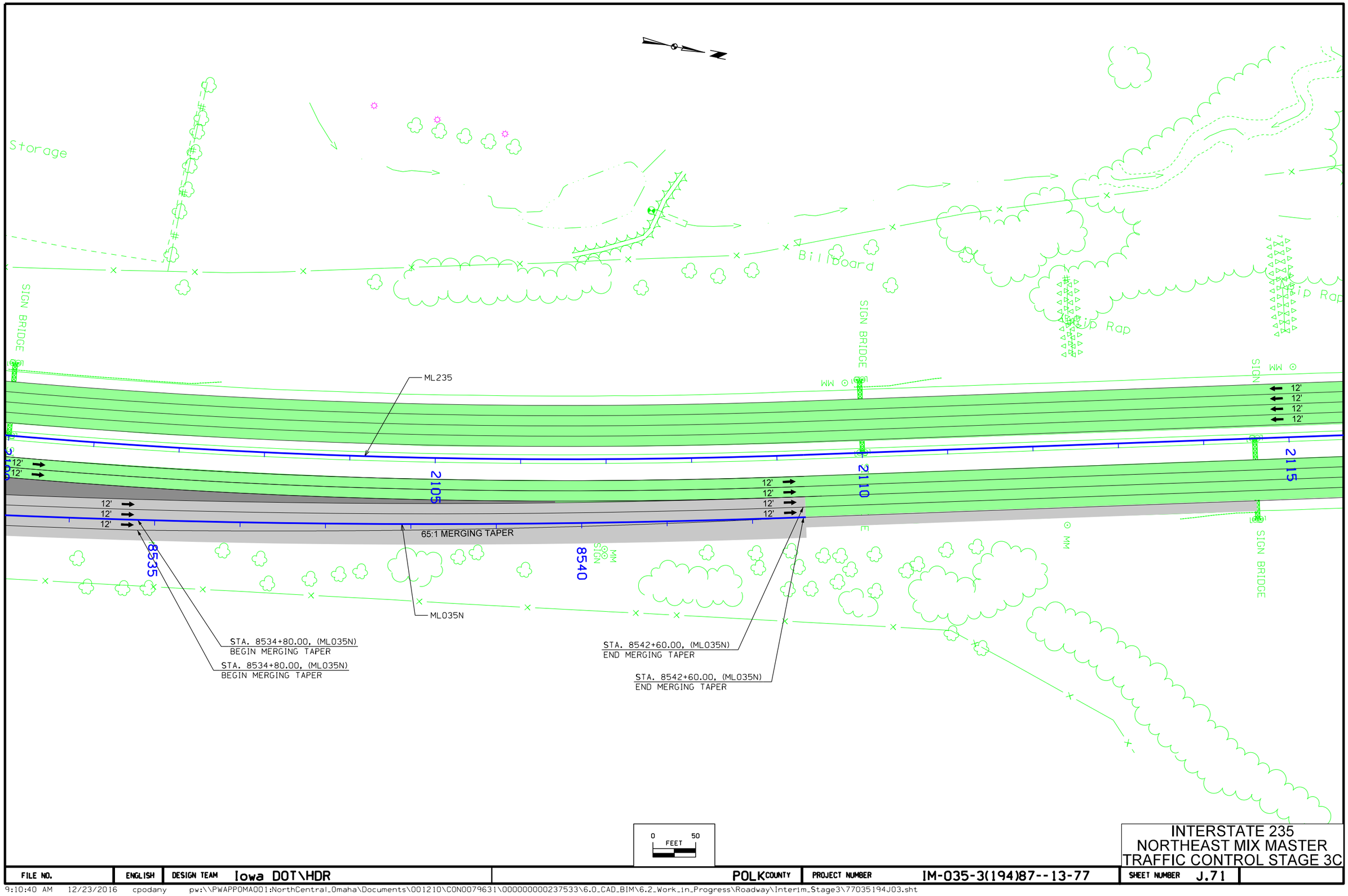
9:10:38 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

Conc.
Conc.
Pond
Billboard
Open Stora
SIGN
SIGN
SIGN
SIGN
SIGN
SIGN BRIDGE
SIGN BRIDGE
MW
ML235
ML035N
12'
12'
12'
12'
12'
12'
12'
12'
12'
16'
25:1 TAPER
2085
2090
2095
8520
8525
8530
STA. 38484+75.18, 12.00' RT (235A)
END SHIFTING TAPER
STA. 38484+75.18, 4.00' LT (235A)
END SHIFTING TAPER
STA. 38484+75.18, 12' RT (235A)
BEGIN SHIFTING TAPER
STA. 38484+75.18, 24' RT (235A)
BEGIN SHIFTING TAPER
STA. 2099+50.00
PHASING TYPICAL
0 FEET 50

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.70

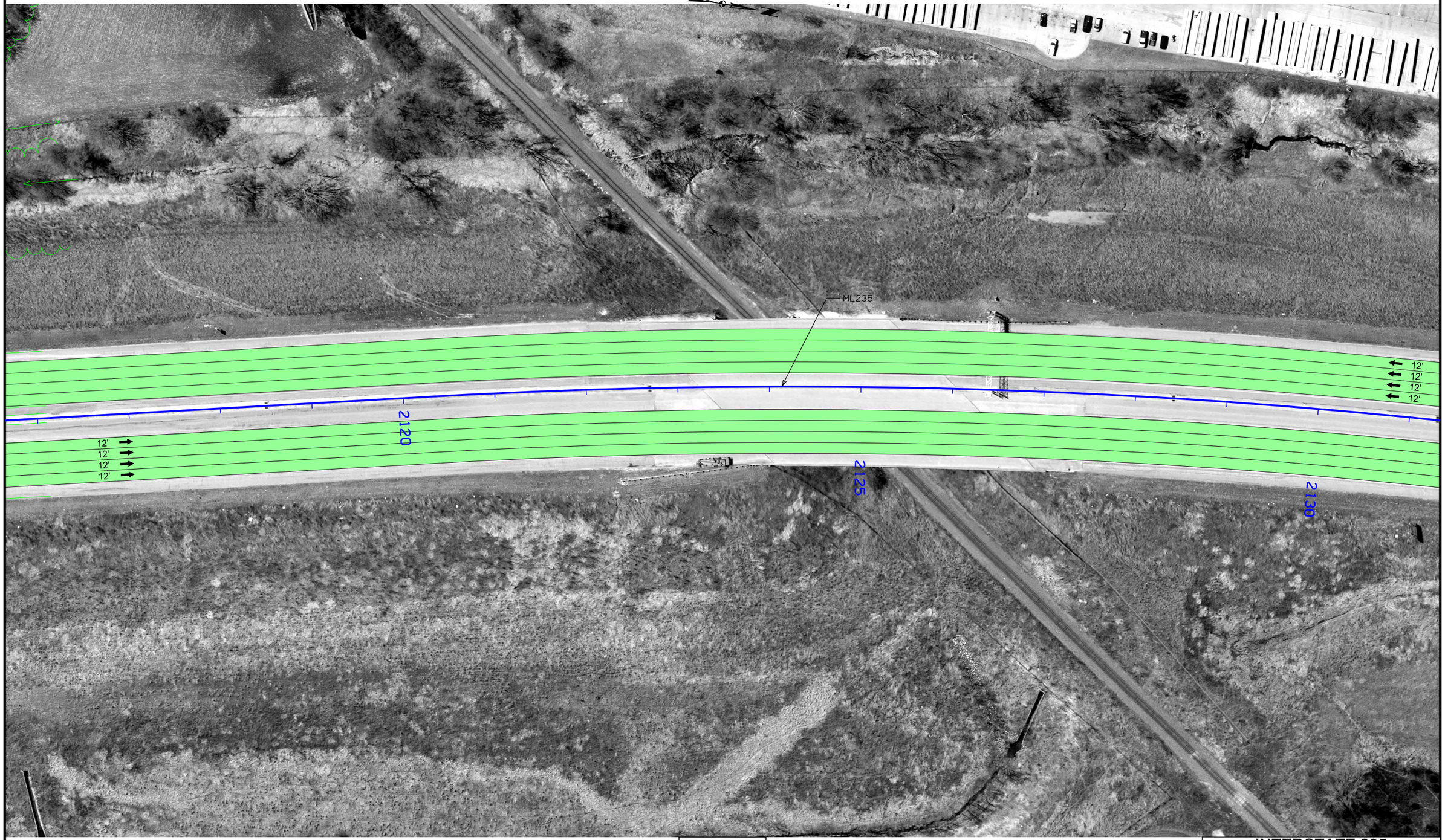
9:10:40 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.71

9:10:40 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht



0 FEET 50

INTERSTATE 235
NORTHEAST MIX MASTER
TRAFFIC CONTROL STAGE 3C

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER J.72

9:11:50 AM 12/23/2016 cpodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194J03.sht

DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 38501+70.00
Install 30" x 92' DR-601 .
F.L. = Lt. 934.75
Rt. 938.08

Sta. 38488+93.31 (RAMP A) =
Sta. 8515+98.97, 48.95' RT (NB I-35)
Begin Ramp Construction

NE 54TH AVENUE
(By Others)

PT Sta 38488+93.31

PC Sta 38490+63.31

PT Sta 38499+29.96

38490

38495

38500

FUTURE WB I-80 to NB I-35

WB I-80 to NB I-35
RAMP A (235A)

NB I-35 (ML035N)

Curve Data
Δ = 37° 20' 05.39" (LT)
T = 449.34
L = 866.65
R = 1,330.00
E = 73.85
e = 5.4%
L = 194
x = 72
DS = 50mph

PI Sta 38495+12.65

Remove Existing
Pavement (Typ.)

DELAWARE TWP.
T-79-N R-23W
SEC. 18

0 50
FEET

WESTBOUND I-80
to NORTHBOUND I-35
RAMP A

STA. 38488+93.31
BEGIN CONSTRUCTION
ELEV 954.04

954.04

VPI +75.000
Elv 953.39
K = 95
Len 250.00 ft
DS = 50mph

EXIST. GROUND

-0.360%

-3.000%

+93 Lt.
949.90

-2.66% Lt. Ditch Grade

+30 Rt.
942.28

+00 Lt.
939.10

VPI +75.000
Elv 944.39
K = 100
Len 350.00 ft
DS = 50mph

+0.500%

VPI +75.000
Elv 945.89
K = 200
Len 200.00 ft
DS = 50mph

-0.500%

-0.50% Rt. Ditch Grade

-0.50% Lt. Ditch Grade

PROPOSED PGL

VPI +75.000
Elv 943.39
K = 152
Len 250.00 ft
DS = 50mph

-0.500%

+1.147%

+70 Rt.
938.08

+4.00% Rt.
Ditch Grade

+0.50% Rt.
Ditch Grade

+50 Rt.
941.28

965 960 955 950 945 940 935 930

Lt Ditch Grade Ditch Grade

Rt Vari. - See Cross Section Ditch Grade Ditch Grade Ditch Grade

954.02 953.93 953.84 953.71 953.52 953.27 952.95 952.56 952.11 951.59 951.00 950.35 949.64 948.92 948.26 947.67 947.14 946.67 946.26 945.92 945.64 945.42 945.26 945.17 945.14 945.17 945.26 945.39 945.50 945.57 945.62 945.64 945.62 945.57 945.50 945.39 945.26 945.14 945.01 944.89 944.76 944.64 944.51 944.39 944.26 944.14 944.01 943.91 943.84 943.82 943.84 943.90 944.00 944.14 944.33 944.55 944.82 945.11 945.39

38489 38490 38491 38492 38493 38494 38495 38496 38497 38498 38499 38500 38501 38502 38503

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.1

9:01:46 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht

DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 38511+66.22 (RAMP A) =
Sta. 38611+66.22, 52.00' LT (RAMP G)
End Ramp Construction

PT Sta 38511+66.22

WB I-80 to SB I-35
RAMP G (235G)

38505

38510

FUTURE WB I-80 to NB I-35

WB I-80 to NB I-35
RAMP A (235A)

PI Sta 38507+35.22

Curve Data
Δ = 38° 40' 21.70" (LT)
T = 466.71
L = 897.70
R = 1,330.00
E = 79.51
e = 5.4%
L = 194
x = 72
DS = 50mph

FUTURE WB I-80 to SB I-235

NOTE: Refer to sheet E.5
for Special Ditch

(U.A.C.)

FUTURE WB I-80

WESTBOUND I-80

AF03

0 50
FEET

DELAWARE TWP.
T-79-N R-23W
SEC. 18

WESTBOUND I-80 to NORTHBOUND I-35 RAMP A

VPI +75.000
Elv 950.27
K = 180
Len 700.00 ft
DS = 50mph

PROPOSED PGL

+1.147%

-2.740%

EXIST. GROUND

939.55

STA. 38511+66.22
END CONSTRUCTION
ELEV 939.55

+0.50% Rt. Ditch Grade

+50 Rt.
944.28

-4.39% Rt. Ditch Grade

+66 Rt.
930.41

-0.50% Lt. Ditch Grade

+20 Lt.
930.50

-4.00% Lt. Ditch Grade

+66 Lt.
924.65

Ditch Grade

Ditch Grade

Ditch Grade

Ditch Grade

960 955 950 945 940 935 930 925

Lt

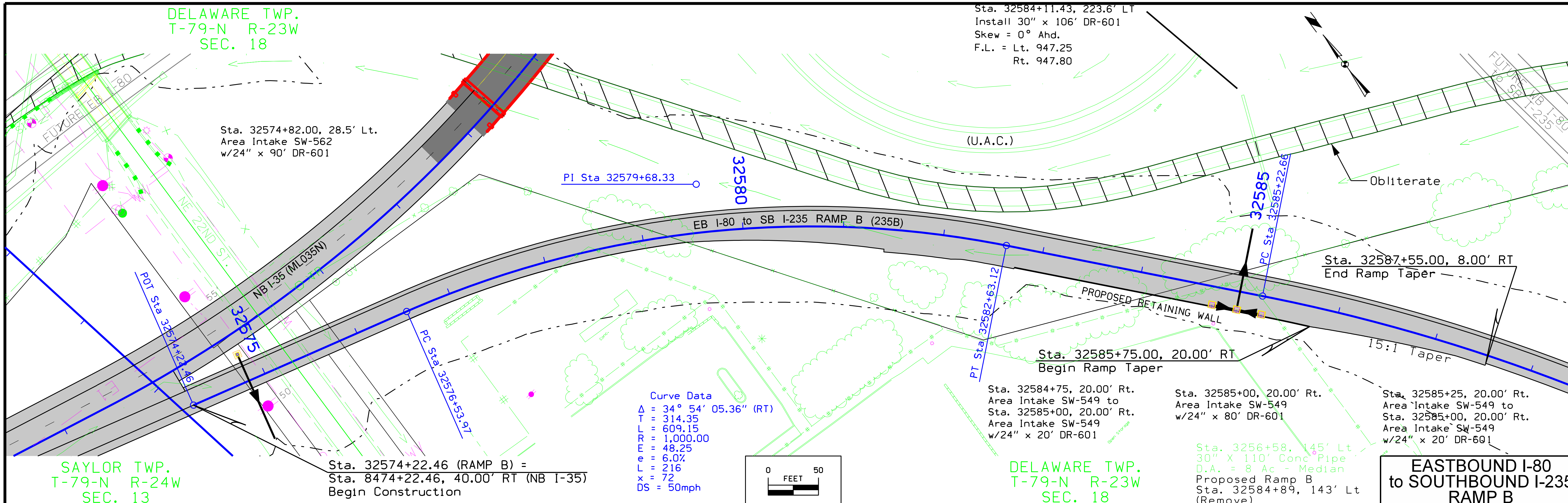
Rt

945.68 945.97 946.25 946.52 946.76 946.96 947.12 947.26 947.35 947.41 947.44 947.43 947.39 947.31 947.20 947.05 946.87 946.65 946.40 946.12 945.80 945.44 945.05 944.63 944.17 943.67 943.14 942.58 941.98 941.35 940.68 940.00

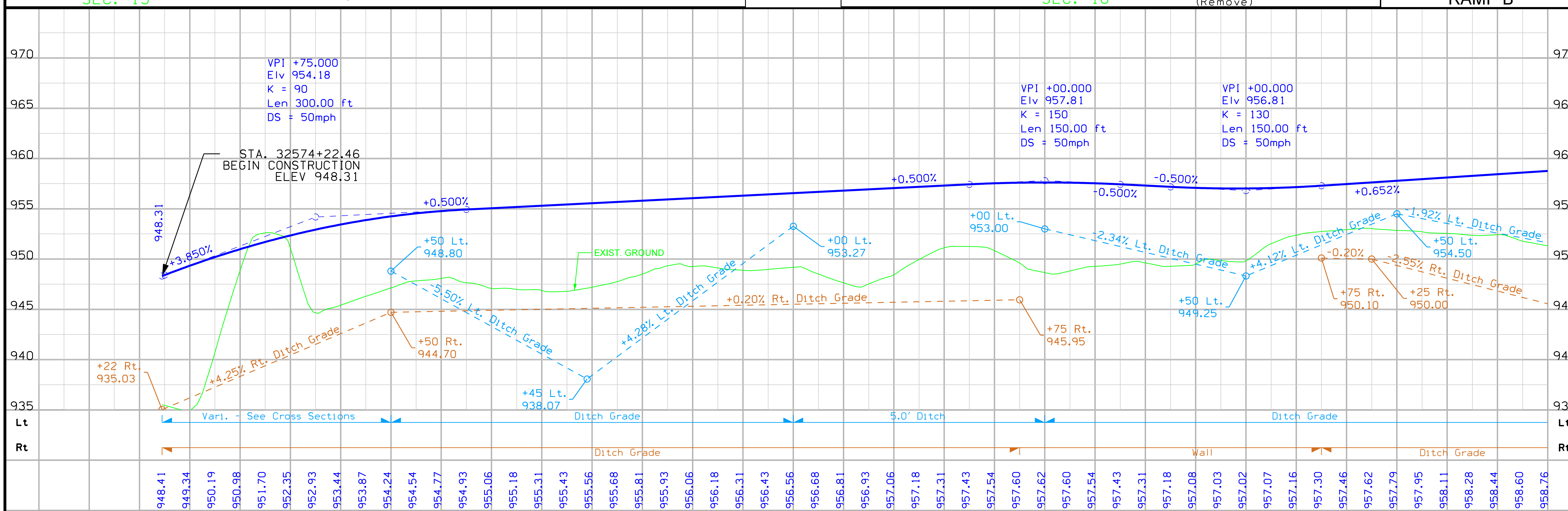
38504 38505 38506 38507 38508 38509 38510 38511

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.2

9:01:52 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht



EASTBOUND I-80 to SOUTHBOUND I-235 RAMP B



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER K.3

9:50:26 AM 12/23/2016 CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht

Sta. 32589+00.00
Install 30" x 110' DR-601
Skew = 0° Ahd.
F.L. = Lt. 949.70
Rt. 943.00

DELAWARE TWP.
T-79-N R-23W
SEC. 18

FUTURE WB I-80 to SB I-235

UPRR

PI Sta 32590+41.99

32590

32595

EB I-80 to SB I-235 RAMP B (235B)

NORTHBOUND I-235

SOUTHBOUND I-235

FUTURE NB I-235

FUTURE SB I-235

NE BROADWAY AVENUE

Curve Data
Δ = 31° 51' 07.08" (RT)
T = 519.33
L = 1,011.78
R = 1,820.00
E = 72.65
x = 4.6%
L = 166
x = 72
DS = 50mph

PI Sta 32595+34.44

Sta. 32593+05.82 (RAMP B) =
Sta. 38569+57.72, 38.90' LT (RAMP G)
End Construction

0 50 FEET

DELAWARE TWP.
T-79-N R-23W
SEC. 18

EASTBOUND I-80 to SOUTHBOUND I-235 RAMP B

VPI +00.000
Elv 961.37
K = 277
Len 200.00 ft
DS = 50mph

961.30

+0.652%

-0.070%

STA. 32593+05.82
END CONSTRUCTION
ELEV 961.30

+00 Lt.
949.70

-1.92% Lt. Ditch Grade

EXIST. GROUND

-2.55% Rt. Ditch Grade

-1.00% Rt. Ditch Grade

+00 Rt.
943.00

+50 Rt.
941.50

970
965
960
955
950
945
940
935

Lt Ditch Grade Bridge

Rt Ditch Grade Ditch Grade Bridge

958.93 959.09 959.25 959.42 959.58 959.74 959.91 960.07 960.23 960.40 960.56 960.72 960.87 961.00 961.11 961.19 961.25 961.29 961.31 961.30

32588 32589 32590 32591 32592

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.4

9:02:04 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht

Sta. 2020+27
24" X 89' Conc. Pipe

DELAWARE TWP.
T-79-N R-23W
SEC. 19

Sta. 38557+03.00 (RAMP G) =
Sta. 2028+39.88, 101.28' LT (I-235)
Begin Ramp Construction

Curve Data
Δ = 9° 13' 10.55" (LT)
T = 282.21
L = 563.19
R = 3,500.00
E = 11.36
e = 3.0%
L = 108
x = 72
DS = 50mph

Equation:
Sta. 38559+88.29 RAMP G =
Sta. 1180+16.12 SR BROADWAY

PC Sta 38552+54.84

PT Sta 38558+18.03

38555

38560

NE BROADWAY AVE (SRBWY)

EOB

EOB

EXPANSION BRIDGE

SOUTHBOUND I-235

NORTHBOUND I-235

WB I-80 to SB I-235
RAMP G (235G)

PI Sta 38555+37.05

FUTURE SB I-235

FUTURE NB I-235

Sta. 38561+38.24, 24.00' RT
Begin Taper

DELAWARE TWP.
T-79-N R-23W
SEC. 19

Sta. 2024+29
30" X 215' Conc Pipe
D.A. = 10 Ac - R

0 FEET 50

DELAWARE TWP.
T-79-N R-23W
SEC. 18

WESTBOUND I-80 to SOUTHBOUND I-235 RAMP G

VPI +00.000
Elv 962.04
K = 175
Len 350.00 ft
DS = 50mph

VPI +25.000
Elv 958.79
K = 151
Len 250.00 ft
DS = 50mph

STA. 38557+03.00
BEGIN CONSTRUCTION
ELEV 959.07

959.07

+1.000%

-1.000%

PROPOSED PGL

-2.62% Rt. Ditch Grade

+00 Rt.
957.67

+03 Lt.
932.54

+00 Lt.
933.00

+70 Lt.
932.46

+40 Lt.
933.00

+0.23% Lt. Ditch Grade

+0.20% Lt. Ditch Grade

Ditch Grade | Bridge | Ditch Grade

Vari. - See Cross Section | Bridge

965 960 955 950 945 940 935 930

Lt
Rt

959.29 959.54 959.79 960.04 960.29 960.52 960.72 960.88 961.00 961.09 961.15 961.16 961.15 961.09 961.00 960.88 960.72 960.52 960.29 960.04 959.81 959.62 959.48 959.37 959.31 959.29

38552 38553 38554 38555 38556 38557 38558 38559 38560 38561 38562 38563

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.5

9:02:10 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht

Sta. 2035+56
36" X 294'
Conc Pipe
D.A. = 16 Ac - R

Extend Existing 36" RCP
w/36" x 174' DR-626

Sta. 38566+00.00
Install 24" x 190' DR-601
Skew = 0° Ahd.
F.L. = Lt. 937.59
Rt. 945.35

DELAWARE TWP.
T-79-N R-23W
SEC. 18

UPRR

EB I-80 to SB I-235 RAMP B (235B)

Note: For Gore Detail,
Refer to sheet U.5

38565

38570

38575

WB I-80 to SB I-235
RAMP G (235G)

FUTURE WB I-80 to SB I-235

EB EB EB EB

PC Sta 38576+34.09

Sta. 38567+50.04 (Ramp G) =
Begin Widening

Sta. 38569+60.04 (Ramp G) =
Sta. 32593+09.10, 38.82' LT (Ramp B)
End Ramp Construction

SOUTHBOUND I-235

SIGN

SIGN BRIDGE

NORTHBOUND I-235

FUTURE SB I-235

FUTURE NB I-235

Remove Existing
Pavement (Typ.)

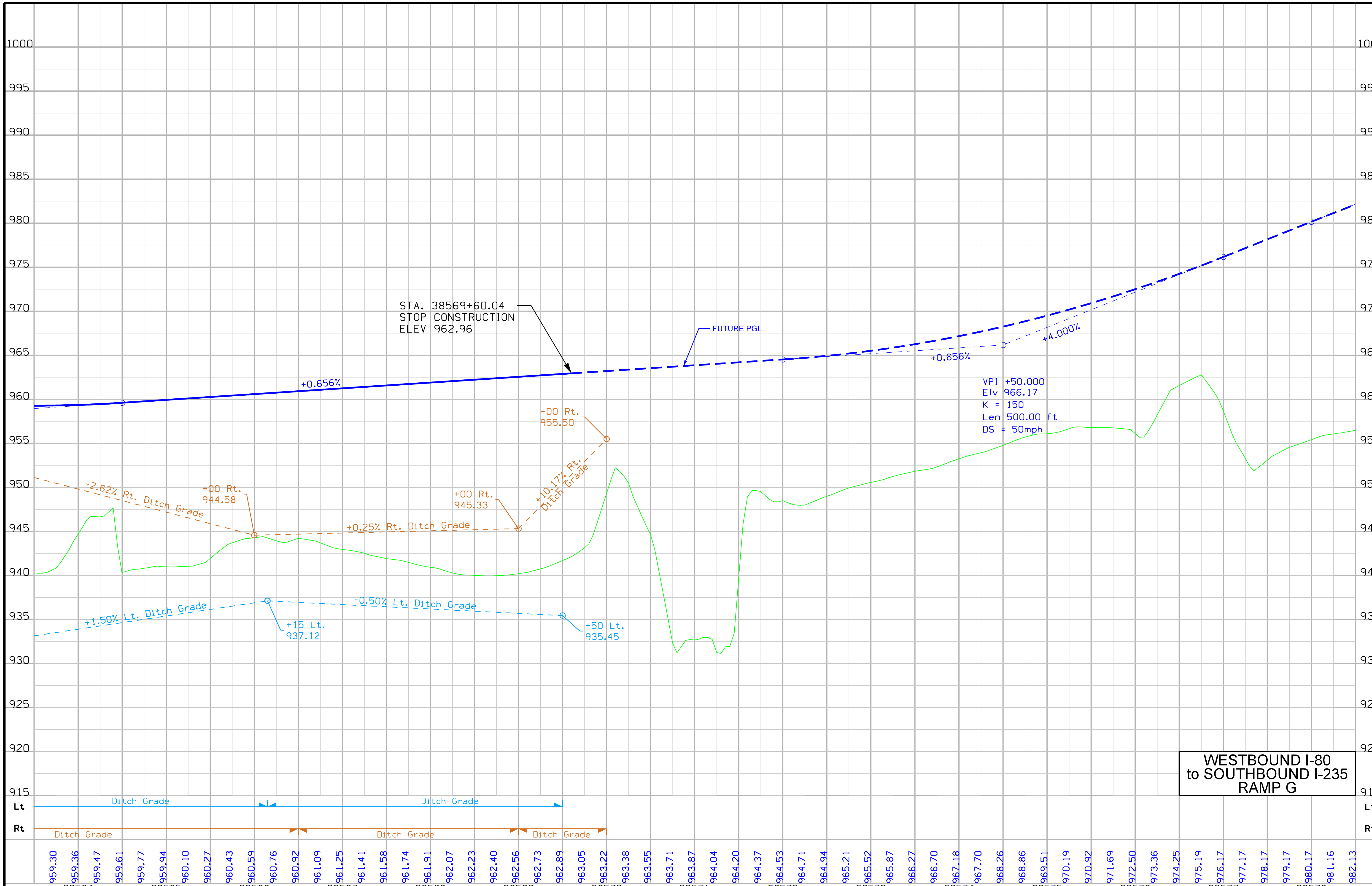
0 FEET 50

DELAWARE TWP.
T-79-N R-23W
SEC. 18

WESTBOUND I-80 to SOUTHBOUND I-235 RAMP G

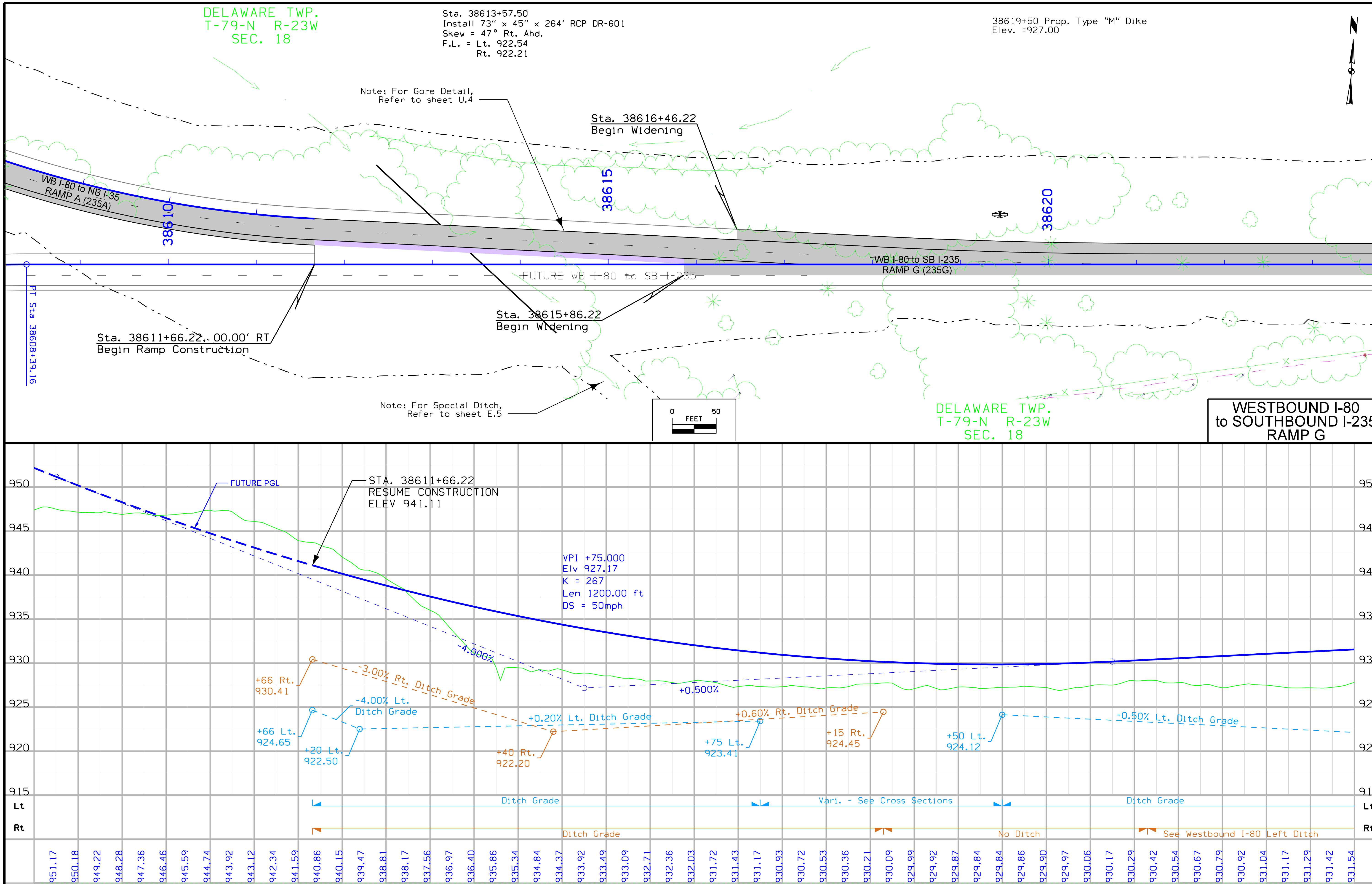
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.6

9:02:16 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht



FILE NO.	ENGLISH	DESIGN TEAM **Iowa DOT\HDR**	**POLK** COUNTY	PROJECT NUMBER **IMN-035-4(194)87--0E-77**	SHEET NUMBER **K.7**

9:02:22 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht



FILE NO.	ENGLISH	DESIGN TEAM **Iowa DOT\HDR**	**POLK** COUNTY	PROJECT NUMBER **IMN-035-4(194)87--0E-77**	SHEET NUMBER **K.8**

9:02:28 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht

Sta. 38625+80.00
Install 24" x 124' DR-601
Skew = 0° Ahd.
F.L. = Lt. 921.17
Rt. 923.61

DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 38628+45.00
Install 24" x 160' DR-601
Skew = 0° Ahd.
F.L. = Lt. 917.85
Rt. 919.82

Sta. 1130+74
18" X 131' Conc Pipe
Remove 72' & Extend 18" RCP
w/ 18" x 50' Lt.

Equation:
Sta. 38632+22.58 RAMP G =
Sta. 38806+23.10 NE 29TH ST.

DELAWARE TWP.
T-79-N R-23W
SEC. 17

Sta. 38637+77.87 (RAMP G) =
Sta. 5137+77.87, 115.00' LT (I-80)
End Construction

NE 29TH STREET

CHICHAQUA VALLEY TRAIL

Equation:
Sta. 38632+60.79 RAMP G =
Sta. 17+31.38 CV TRAIL

Curve Data
Δ = 4° 57' 40.47" (LT)
T = 350.91
L = 701.38
R = 8,100.00
E = 7.60
e = NC
DS = 50mph

PT Sta 38637+77.87

38625
38630
38635

PC Sta 38630+76.49

TP

WB I-80 to SB I-235,
RAMP G (235G)

FUTURE WB I-80 to SB I-235

FUTURE WB I-80

FO3

PI Sta 38634+27.39

I-80 (MI 080)

SIGNAL BRIDGE

WESTBOUND I-80

EASTBOUND I-80

FUTURE EB I-80

0 FEET 50

Sta. 1125+49
24" X 123'
Conc Pipe
(U.A.C.)

DELAWARE TWP.
T-79-N R-23W
SEC. 18

Sta. 1128+24
18" X 127'
Conc Pipe
(U.A.C.)

DELAWARE TWP.
T-79-N R-23W
SEC. 17

Sta. 1135+07
24" X 131'
Conc Pipe

WESTBOUND I-80 to SOUTHBOUND I-235 RAMP G

VPI +75.000
Elv 935.67
K = 97
Len 350.00 ft
DS = 50mph

+30 Lt.
893.89

-2.31% Lt. Ditch Grade

+78 Lt.
888.16

+0.500%

-3.099%

EXIST. GROUND

+00 Lt.
919.87

-0.50% Lt. Ditch Grade

-4.50% Lt. Ditch Grade

+84 Lt.
902.59

-2.850%

VPI +00.000
Elv 925.60
K = 1206
Len 300.00 ft
DS = 50mph

917.68

STA. 38637+77.87
END CONSTRUCTION
ELEV 917.68

940 935 930 925 920 915 910 905

890 885 930 925 920 915 910 905

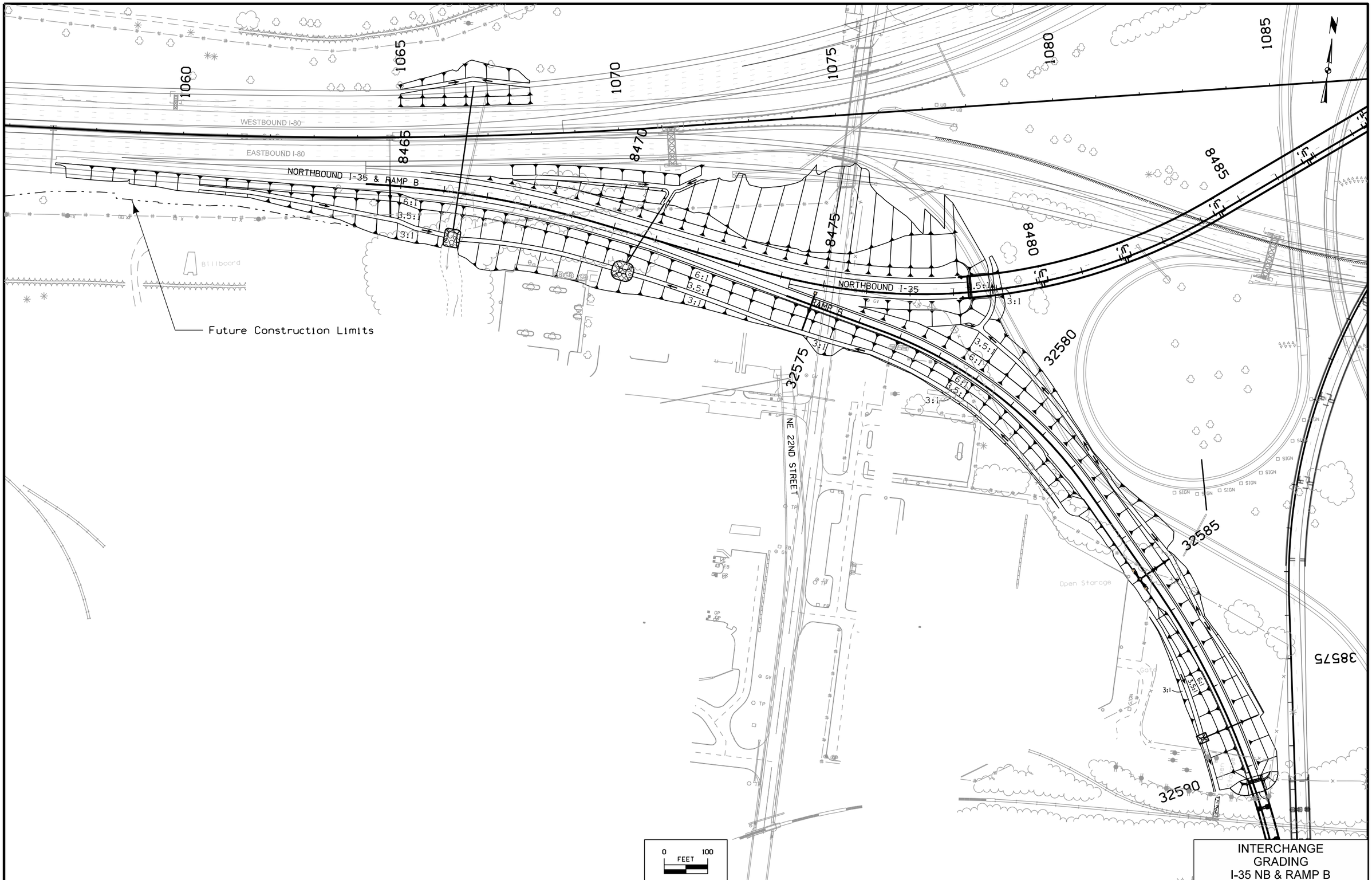
Lt Ditch Grade | Ditch Grade | Bridge | Vari. - See Cross Section | Ditch Grade

Rt See Westbound I-80 Left Ditch | Vari. - See Cross Section | Bridge | Vari. - See Cross Section

38624	38625	38626	38627	38628	38629	38630	38631	38632	38633	38634	38635	38636	38637	38638
931.67	931.79	931.92	932.04	932.17	932.29	932.42	932.54	932.67	932.79	932.92	933.04	933.17	933.29	933.42
933.54	933.67	933.79	933.92	934.04	934.17	934.29	934.42	934.54	934.67	934.79	934.89	934.92	934.88	934.78
934.62	934.39	934.10	933.74	933.32	932.83	932.28	931.67	930.99	930.25	929.48	928.71	927.95	927.19	926.44
925.69	924.95	924.22	923.48	922.76	922.04	921.32	920.61	919.90	919.19	918.47	917.76			

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.9

9:02:34 AM 12/23/2016 CPodany pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194K01.sht



INTERCHANGE GRADING
I-35 NB & RAMP B

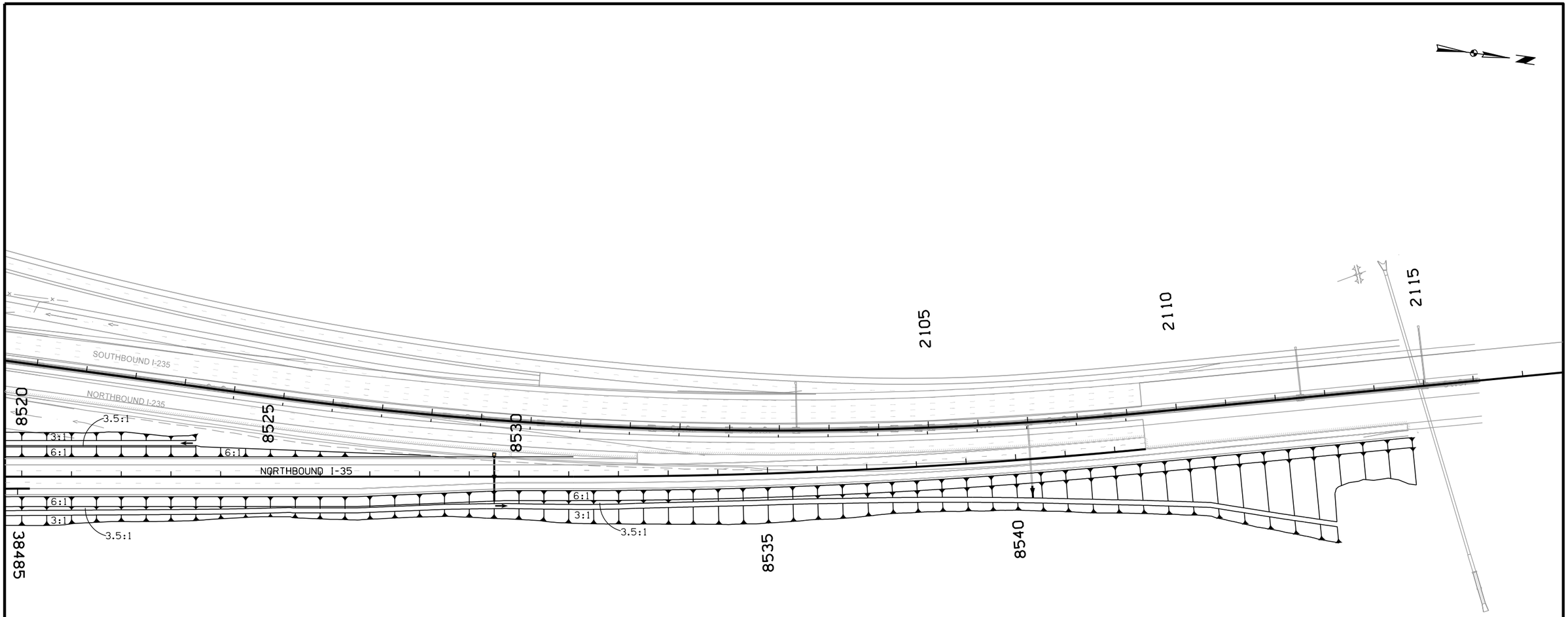
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.10

9:02:40 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194K01.sht

INTERCHANGE GRADING RAMP B & G

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.11

9:02:46 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194K01.sht



0 100 FEET

INTERCHANGE GRADING I-35 NB

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.12

9:02:56 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194K01.sht

8490

8495

8500

8505

8510

8515

8520

8525

NORTHBOUND I-35

RAMP A

NE 54TH AVENUE

38485

38490

38495

38500

38505

3:1

3.5:1

6:1

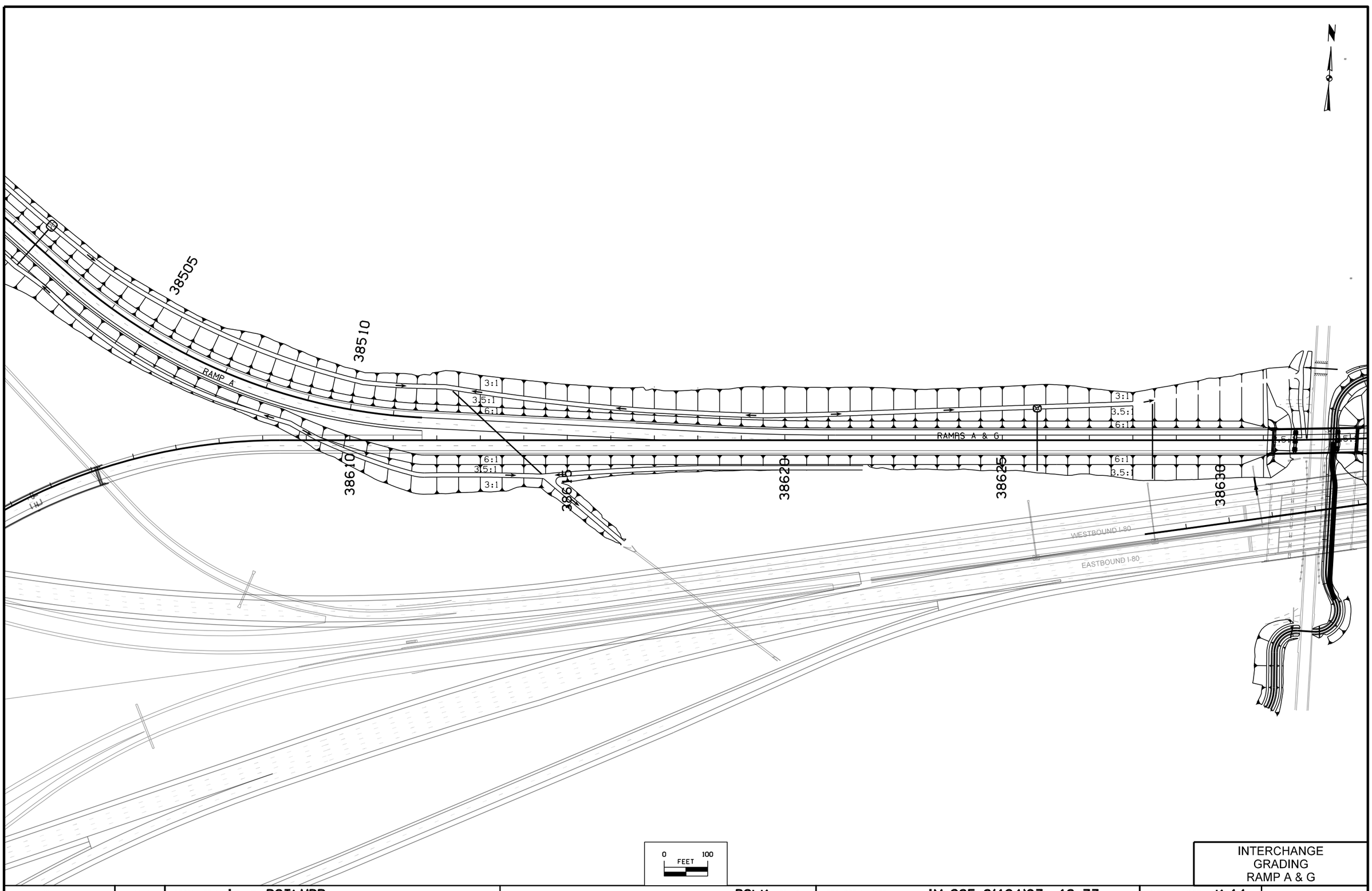
2.5:1

0 100 FEET

INTERCHANGE
GRADING
I-35 NB & RAMP A

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.13

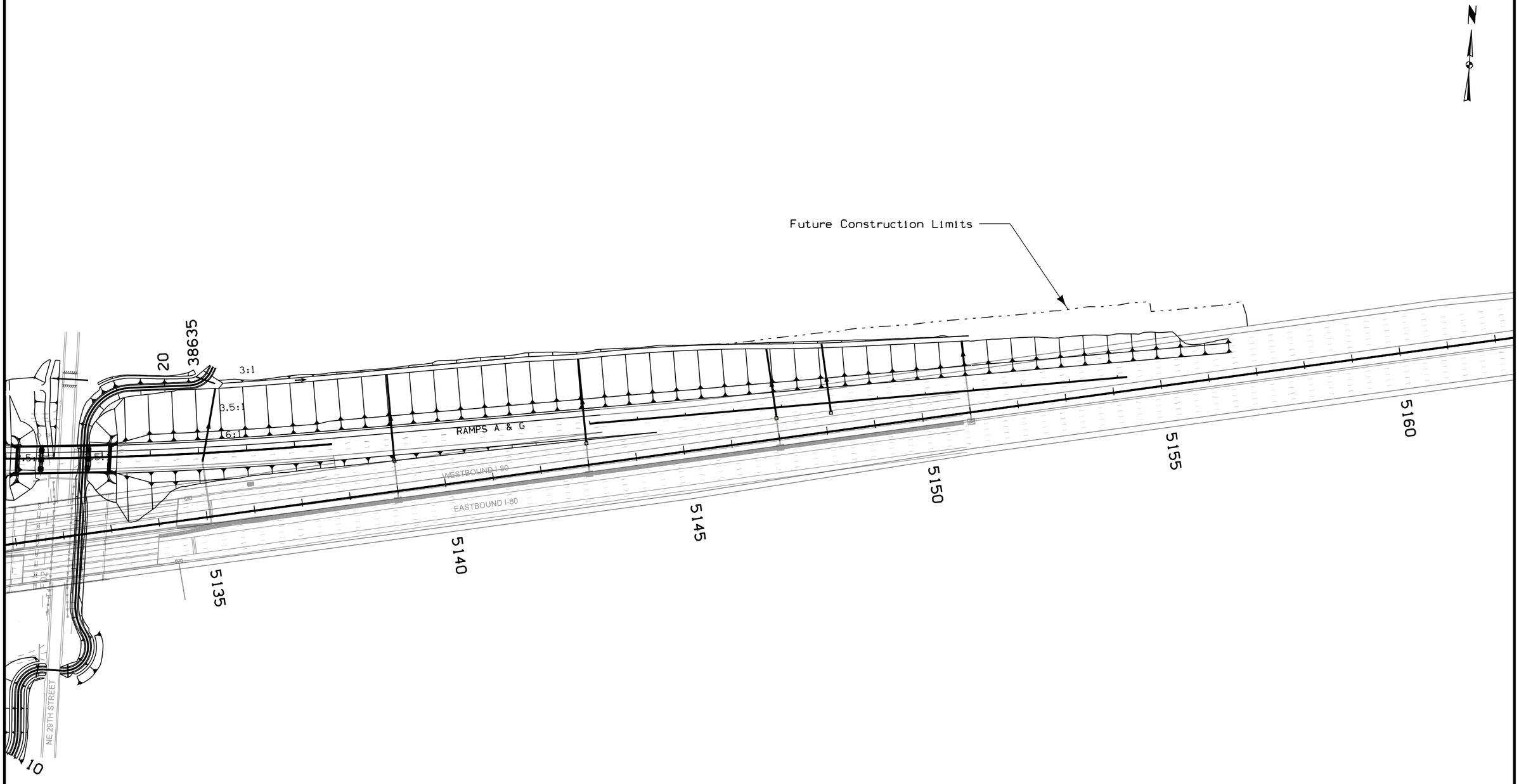
9:03:11 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194K01.sht



INTERCHANGE GRADING RAMP A & G

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.14

9:03:26 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194K01.sht



0 FEET 100

INTERCHANGE GRADING RAMP G

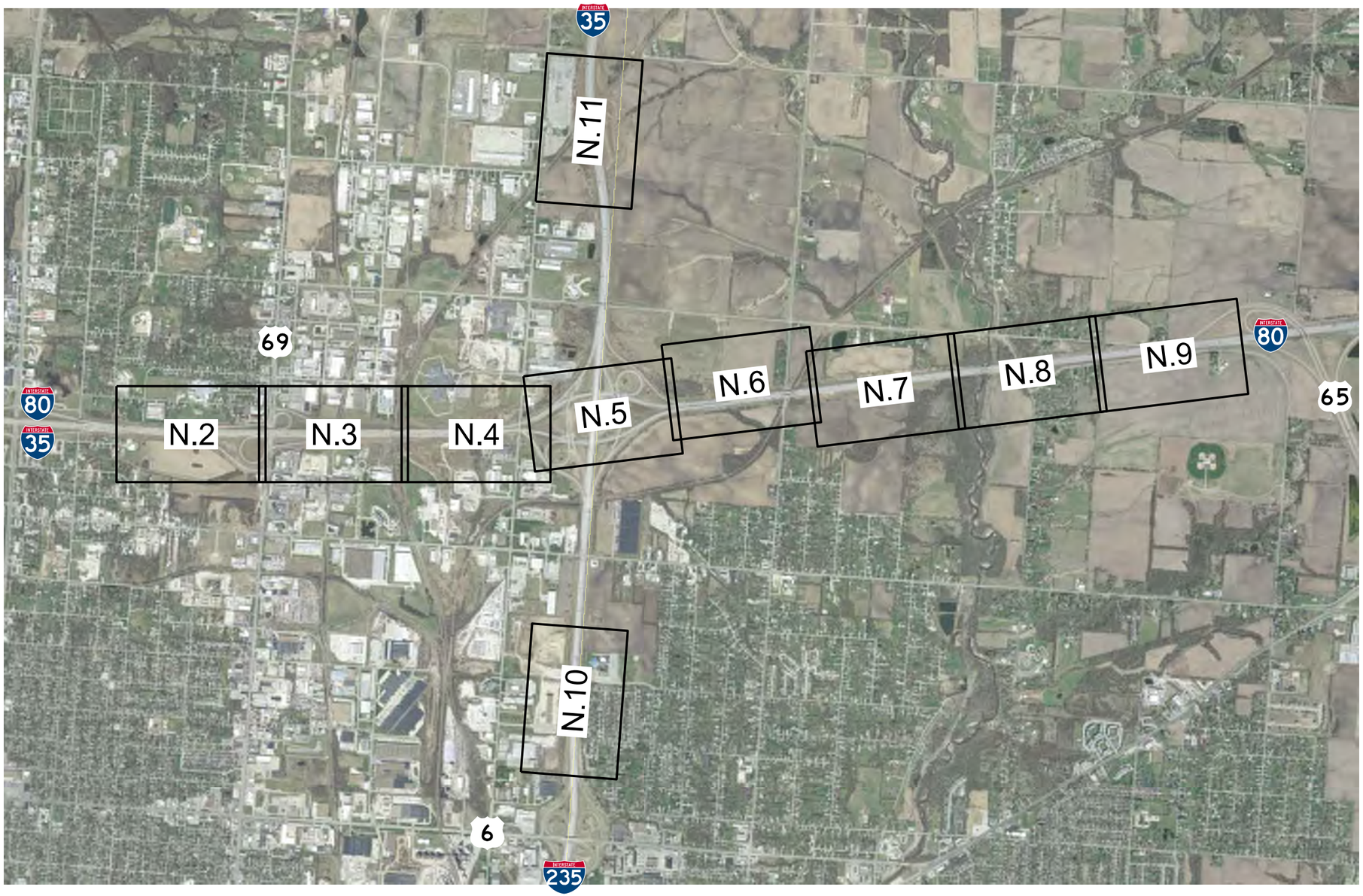
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER K.15

9:03:41 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194K01.sht

KEY MAP

LEGEND

- Existing Structure
- Proposed Structure
- Existing Sign (EAST Davenport)
- Proposed Sign (EAST Davenport)



NO SCALE

SHEET LAYOUT OVERVIEW

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.1

12:18:56 PM 11/15/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht

NOTE:

1. A structural analysis of the existing structure may be necessary to verify the existing structure can support the modified sign loads.

995 1000 1005 1010 1015 1020

80/35-77-X
M3000__STAGE__3

NORTH WEST 35 235 Minneapolis Des Moines 1 MILE	NORTH WEST 35 235 Des Moines Minneapolis 1 ¼ MILES	69 E 14th St Ankeny EXIT ONLY
REPLACE REMOVED SIGN	REMOVE	EXISTING TO REMAIN

EXISTING STRUCTURE TO REMAIN

SEE NOTE 1

NORTH 35 Minneapolis 1 ¼ MILES EXIT ONLY	EAST 80 Davenport	WEST 235 Des Moines 1 MILE

REMOVE ALL EXISTING SIGNS

EXISTING STRUCTURE TO REMAIN

0 100 FEET

N

STAGE 3 SIGN LOCATION DETAILS ALONG I-80/I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.2

11:16:04 AM 10/6/2016 gmenard pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht

NOTES:

1. Structure to be located in ultimate location outside of future widening.

2. Structure to be located outside of future widening.

3. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

REMOVE ALL EXISTING SIGNS

EXISTING STRUCTURE TO REMAIN

1025 1030 1035 1040 1045 1050

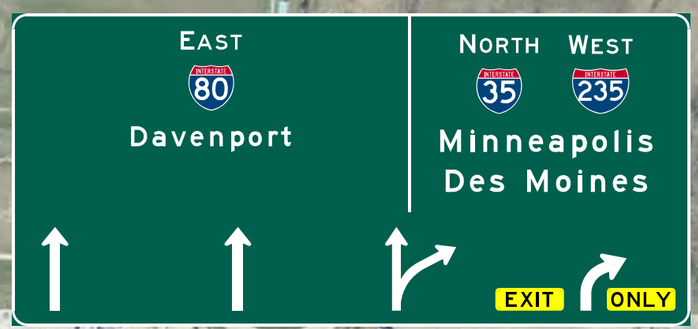
80/35-77-X M305

80/35-77-X M304

STA. 1030+87.01
PULL THRU & ADVANCE ON
120 FT OVERHEAD TRUSS

SEE NOTE 1

80/35-77-X
M3001__STAGE__3



STA. 1046+00.00
INTERIM ARROW-PER-LANE ADVANCE ON
120 FT INTERIM OVERHEAD TRUSS

SEE NOTE 2

0 100 FEET

STAGE 3 SIGN LOCATION DETAILS ALONG I-80/I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.3

9:02:01 AM 12/21/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht

NOTES:

1. Structure to be located in ultimate location outside of future widening.

2. Structure to be located outside of future widening.

3. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

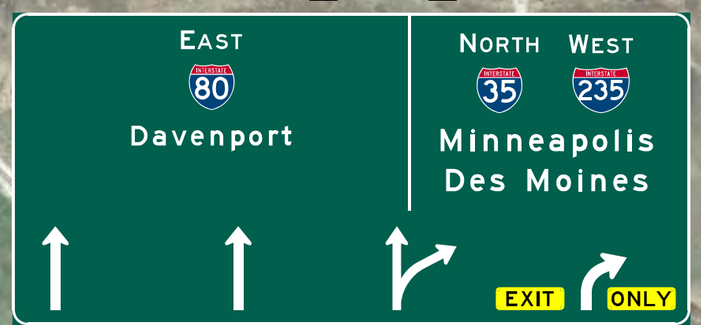
REMOVE ALL EXISTING SIGNS

EXISTING STRUCTURE TO REMAIN

1055 1060 1065 1070 1075 1080

8465 8470 8475 8480

80/35-77-X
M3002__STAGE__3



STA. 1056+00.00
INTERIM ARROW-PER-LANE ON
125 FT INTERIM OVERHEAD TRUSS

SEE NOTE 2

80/35-77-X
M3003__STAGE__3

STA. 1063+45.07
INTERIM ADVANCE ON
40 FT INTERIM CANTILEVER

35-77-X R310

35-77-X R311

STA. 8471+08.83
PULL THRU & EXIT DIRECTION ON
105 FT OVERHEAD TRUSS

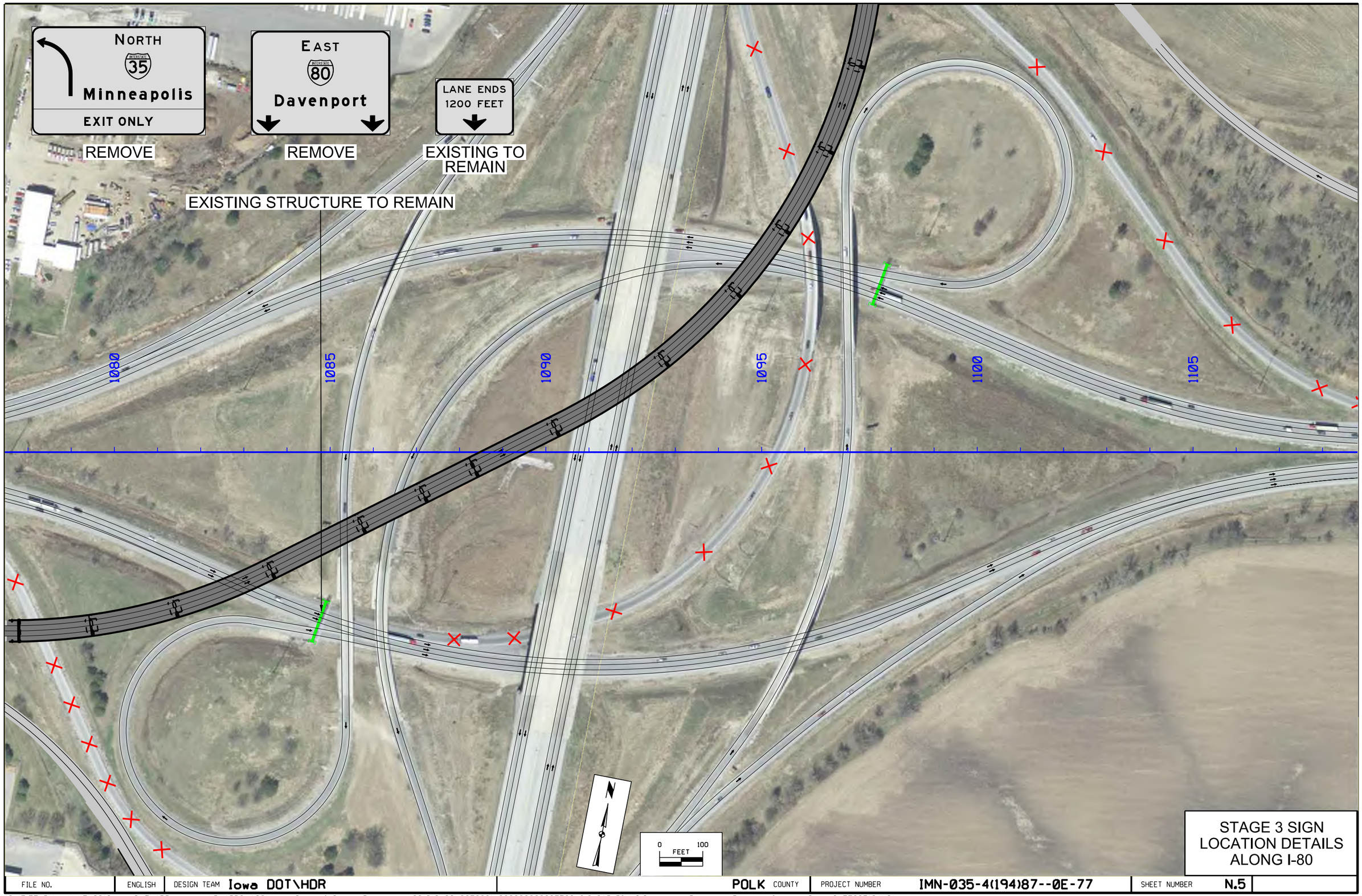
SEE NOTE 1

0 100 FEET

STAGE 3 SIGN
LOCATION DETAILS
ALONG I-80/I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.4

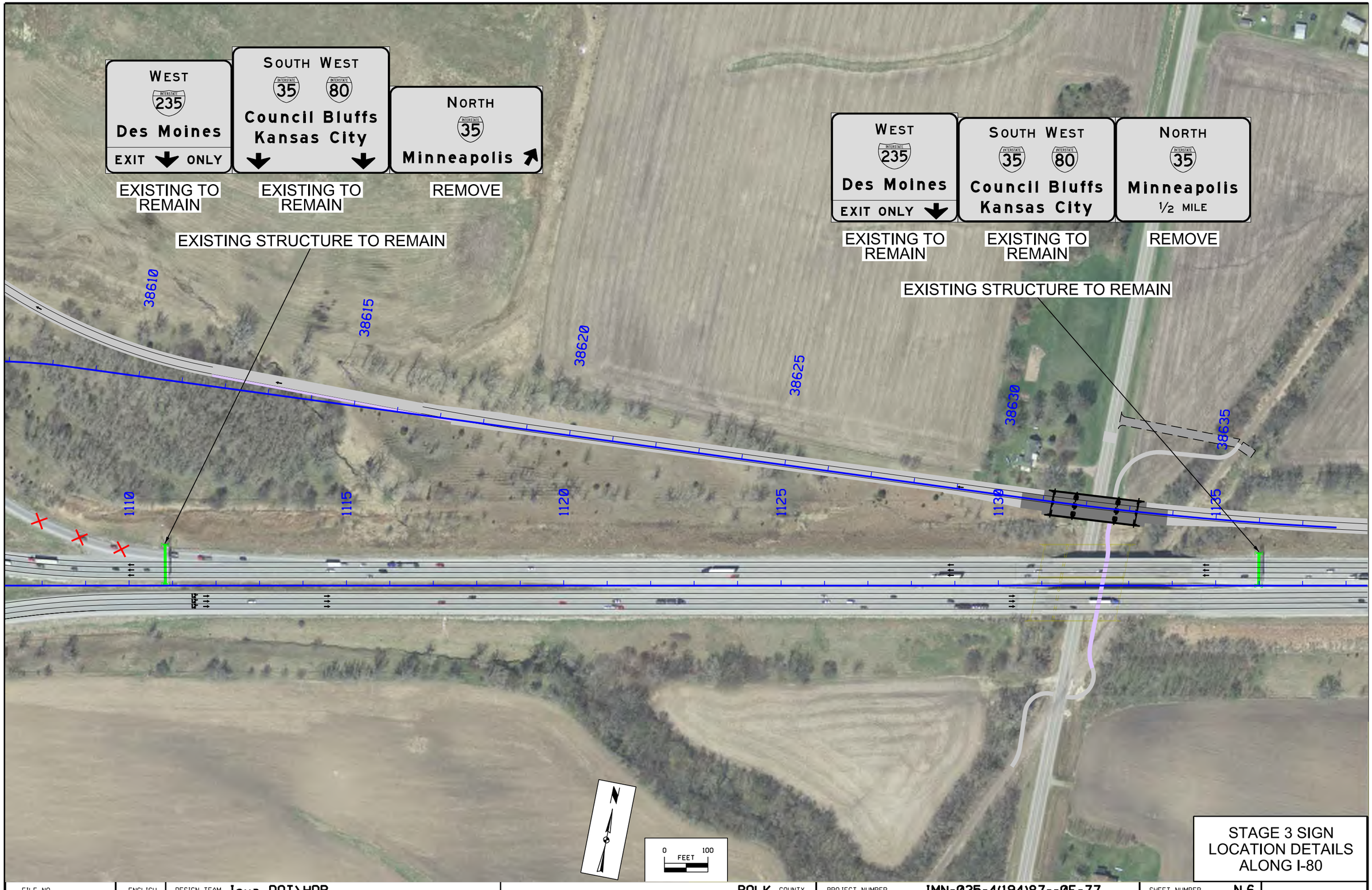
8:46:56 AM 12/21/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht



STAGE 3 SIGN LOCATION DETAILS ALONG I-80

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.5

12:45:55 PM 11/15/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht



STAGE 3 SIGN LOCATION DETAILS ALONG I-80

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.6

12:31:52 PM 11/15/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht

NOTE:

1. A structural analysis of the existing structure may be necessary to verify the existing structure can support the modified sign loads.

80-77-X
M4002__STAGE__3

EXISTING TO REMAIN | EXISTING TO REMAIN | REMOVE | REPLACE REMOVED SIGN

EXISTING STRUCTURE TO REMAIN

SEE NOTE 1

5140 5145 5150 5155 5160 5165

N

0 100 FEET

STAGE 3 SIGN LOCATION DETAILS ALONG I-80

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.7

12:32:47 PM 11/15/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht

80-77-X M4001__STAGE__3

DMS

STA. 5170+31.40
INTERIM ADVANCE ON
85 FT INTERIM OVERHEAD TRUSS

SEE NOTE 1

EXISTING DYNAMIC MESSAGE
SIGN TO REMAIN

5170 5175 5180 5185 5190 5195

NOTES:

1. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

0 FEET 100

STAGE 3 SIGN
LOCATION DETAILS
ALONG I-80

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.8

4:14:34 PM 12/19/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht

80-77-X M4000__STAGE__3

STA. 5201+63.12
INTERIM ADVANCE ON
85 FT INTERIM OVERHEAD TRUSS

SEE NOTE 1

5200 5205 5210 5215 5220 5225

NOTES:

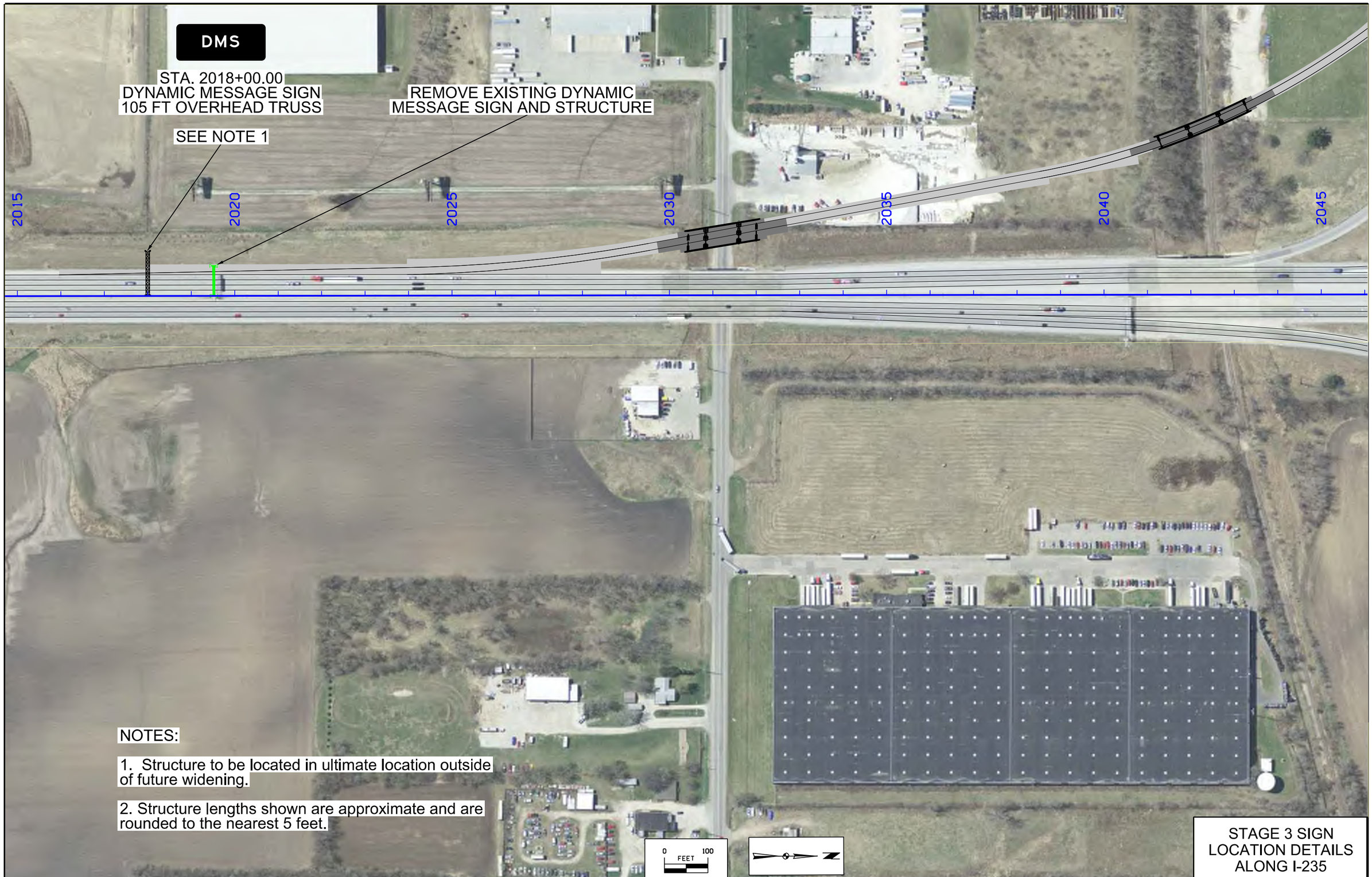
1. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

0 100
FEET

STAGE 3 SIGN LOCATION DETAILS ALONG I-80

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.9

4:15:01 PM 12/19/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht



NOTES:

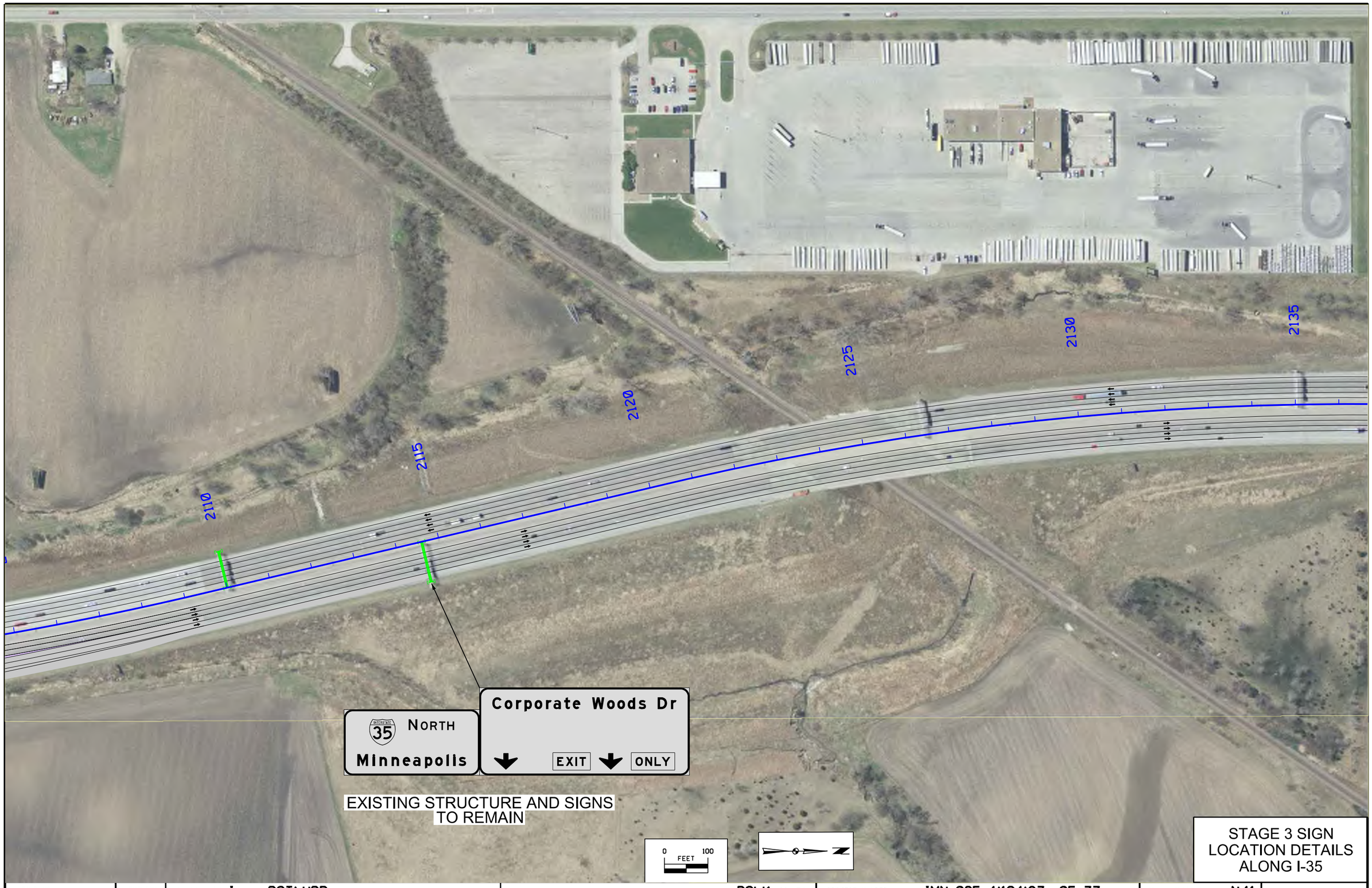
1. Structure to be located in ultimate location outside of future widening.

2. Structure lengths shown are approximate and are rounded to the nearest 5 feet.

STAGE 3 SIGN LOCATION DETAILS ALONG I-235

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.10

4:16:27 PM 12/19/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht



STAGE 3 SIGN LOCATION DETAILS ALONG I-35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IMN-035-4(194)87--0E-77	SHEET NUMBER N.11

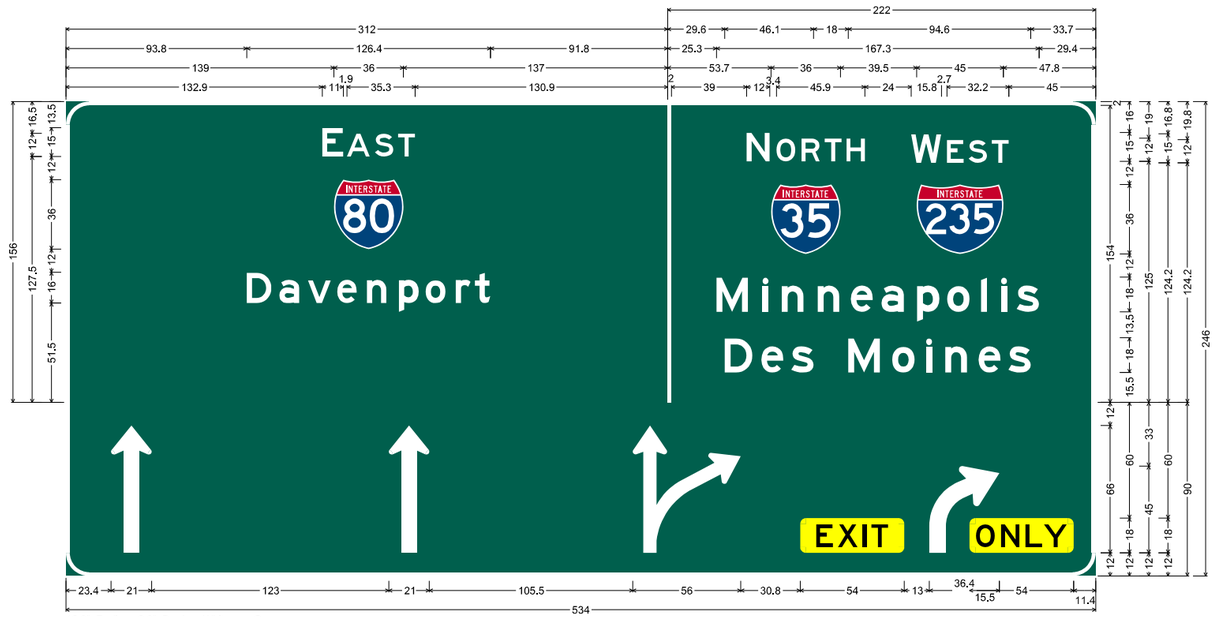
12:34:27 PM 11/15/2016 GMENARD pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Roadway\Interim_Stage3\77035194N01.sht

80/35-77-X M3000_STAGE_3

12.0" Radius, 2.0" Border, White on Green;
[N ORTH] E; [W EST] E; [Minneapolis] E Mod;
[Des Moines] E Mod; [1 MILE] E;
Table of letter and object lefts.

N 28,0	O 44,6	R 57,6	T 69,7	H 81,0	W 105,5	E 125,9	S 137,1	T 149,2
41.3	109.3							
M 18,4	i 39,6	n 48,8	n 65,3	e 80,6	a 94,7	p 111,2	o 125,0	l 140,6	l 149,8	s 157,3
D 22,3	e 39,2	s 53,0	M 79,3	o 99,5	l 115,1	n 124,3	e 139,6	s 153,4
I 68.1	M 85.1	I 96.9	L 101.1	E 110.6				

80/35-77-X M3001_STAGE_3



12.0" Radius, 2.0" Border, White on Green;
[EAST] E; [Davenport] E; [ ] E;
12.0" Radius, 2.0" Border, White on Green;
[NORTH] E; [WEST] E; [Minneapolis] E; [Des Moines] E;
12.0" Radius, 2.0" Border, White on Green;
Arrow Custom - 66.0° 90°; Arrow Custom - 66.0° 90°; 30D; Rounded Rectangle 3.0" Radius Yellow;
48A; Rounded Rectangle 3.0" Radius Yellow;
Table of letter and object lefts.

E 132.9	A 145.8	S 160.2	T 172.3						
139.0									
D 93.8	a 110.7	v 125.5	e 140.7	n 156.1	p 172.7	o 186.5	r 202.1	t 212.1	
I 312.0	N 353.0	O 368.4	R 381.5	T 393.5	H 404.8	W 438.3	E 456.8	S 468.1	T 480.2
365.7	441.2								
M 337.3	i 361.2	n 371.2	n 389.8	e 407.0	a 422.9	p 441.4	o 457.0	l 474.6	l 484.9	s 493.0
D 341.6	e 360.6	s 376.1	M 405.7	o 428.5	l 446.0	n 456.0	e 473.3	s 488.7		
I 23.4	I 167.4	293.9	380.7	447.7	468.6					

80/35-77-X M305

12.0" Radius, 2.0" Border, White on Green;
[N ORTH] E; [W EST] E; [Minneapolis] E Mod;
[Des Moines] E Mod; [½ MILE] E;
Table of letter and object lefts.

N 28,0	O 44,6	R 57,6	T 69,7	H 81,0	W 105,5	E 125,9	S 137,1	T 149,2
41.3	109.3							
M 18,4	i 39,6	n 48,8	n 65,3	e 80,6	a 94,7	p 111,2	o 125,0	l 140,6	l 149,8	s 157,3
D 22,3	e 39,2	s 53,0	M 79,3	o 99,5	l 115,1	n 124,3	e 139,6	s 153,4
½ 60,5	M 92,7	I 104,5	L 108,8	E 118,2				

80/35-77-X M304

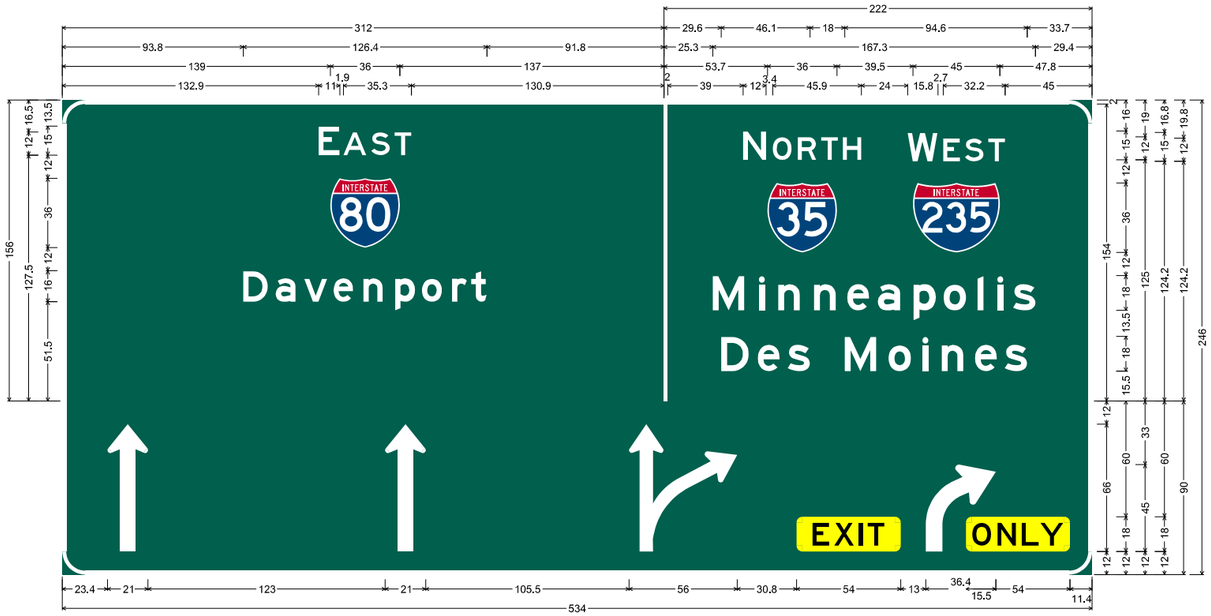
12.0" Radius, 2.0" Border, White on Green;
[E AST] E; [Davenport] E Mod; [LEFT LANES] E;
Table of letter and object lefts.

28,5	E 82,5	A 98,2	S 112,6	T 124,7					
D 17.8	a 34.7	v 49.5	e 64.7	n 80.1	p 96.7	o 110.5	r 126.1	t 136.1	
L 34.6	E 44.0	F 53.4	T 62.1	L 79.4	A 87.5	N 99.5	E 110.1	S 119.5	

NOTE: SIGN DIMENSIONS ARE IN INCHES

SIGN DETAILS

80/35-77-X M3002_STAGE_3



12.0" Radius, 2.0" Border, White on Green;
[EAST] E: [Davenport] E: [ ] E:
12.0" Radius, 2.0" Border, White on Green;
[NORTH] E: [WEST] E: [Minneapolis] E: [Des Moines] E:
12.0" Radius, 2.0" Border, White on Green;
Arrow Custom - 66.0" 90°; Arrow Custom - 66.0" 90°; 30D: Rounded Rectangle 3.0" Radius Yellow;
48A: Rounded Rectangle 3.0" Radius Yellow;
Table of letter and object lefts.

E 132.9	A 145.8	S 160.2	T 172.3
139.0			

D 93.8	a 110.7	v 125.5	e 140.7	n 156.1	p 172.7	o 186.5	r 202.1	t 212.1

I 312.0	N 353.0	O 368.4	R 381.5	T 393.5	H 404.8	W 438.3	E 456.8	S 468.1	T 480.2
365.7	441.2								

M 337.3	i 361.2	n 371.2	n 389.8	e 407.0	a 422.9	p 441.4	o 457.0	I 474.6	i 484.9	s 493.0		
D 341.6	e 360.6	s 376.1	M 405.7	o 428.5	I 446.0	n 456.0	e 473.3	s 488.7				
I 23.4	I 167.4	293.9	380.7	447.7	468.6							

80/35-77-X M3003_STAGE_3

12.0" Radius, 2.0" Border, White on Green;
[WEST] E: [Des Moines] E: [RIGHT LANE] E:
Table of letter and object lefts.

41.5	W 110.5	E 128.9	S 140.2	T 152.3

D 21.9	e 40.9	s 56.4	M 86.0	o 108.8	l 126.3	n 136.3	e 153.5	s 169.0	
R 46.8	I 59.5	G 64.6	H 77.3	T 89.3	L 110.1	A 119.8	N 134.2	E 146.9	

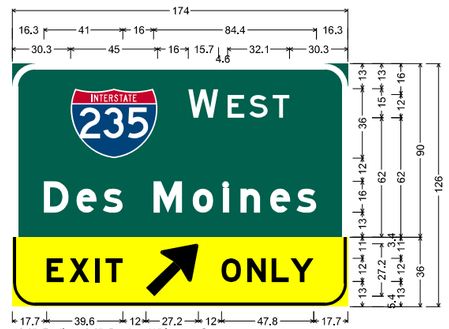
35-77-X R310

12.0" Radius, 2.0" Border, White on Green;
[N ORTH] E: [Minneapolis] E Mod; Arrow 8 - 25.0" 120°;
Arrow 8 - 25.0" 120°;
Table of letter and object lefts.

37.7	N 91.7	O 108.3	R 121.4	T 133.4	H 144.7	

M 21.4	I 42.6	n 51.8	n 68.3	e 83.6	a 97.7	p 114.2	o 128.0	I 143.6	I 152.8	s 160.3
14.4	158.4									

35-77-X R311



12.0" Radius, 3.0" Border, White on Green;
[W EST] E: [Des Moines] E Mod;
12,0" Radius, 1.5" Border, 0.5" Indent, Black on Yellow;
[EXIT] E Mod specified length; Arrow I-F - 35.0" 45°;
[ONLY] E Mod specified length;
Table of letter and object lefts.

30.3	W 91.3	E 111.6	S 122.9	T 134.9

D 16.3	e 33.2	s 47.0	M 73.3	o 93.5	I 109.1	n 118.3	e 133.6	s 147.4
E 17.7	X 29.6	I 43.0	T 48.3	69.3	O 108.5	N 121.7	L 134.5	Y 144.3

NOTE: SIGN DIMENSIONS ARE IN INCHES

SIGN DETAILS

80-77-X M4000_STAGE_3

12,0" Radius, 2.0" Border, White on Green;
[N ORTH] E; [Minneapolis] E Mod; [1 MILE] E;
Table of letter and object lefts.

34.7	N 88.7	O 105.3	R 118.4	T 130.4	H 141.7	
M 18.4	i 39.6	n 48.8	n 65.3	e 80.6	a 94.7	p 111.2	o 125.0	l 140.6	i 149.8	s 157.3
1 69.4	M 83.8	I 95.6	L 99.9	E 109.3		

80-77-X M4001_STAGE_3

12.0" Radius, 2.0" Border, White on Green;
[N ORTH] E; [MInneapolis] E Mod; [½ MILE] E;
Table of letter and object lefts.

34.7	N 88.7	O 105.3	R 118.4	T 130.4	H 141.7	
M 18.4	i 39.6	n 48.8	n 65.3	e 80.6	a 94.7	p 111.2	o 125.0	l 140.6	i 149.8	s 157.3
½ 60.5	M 92.7	I 104.5	L 108.8	E 118.2		

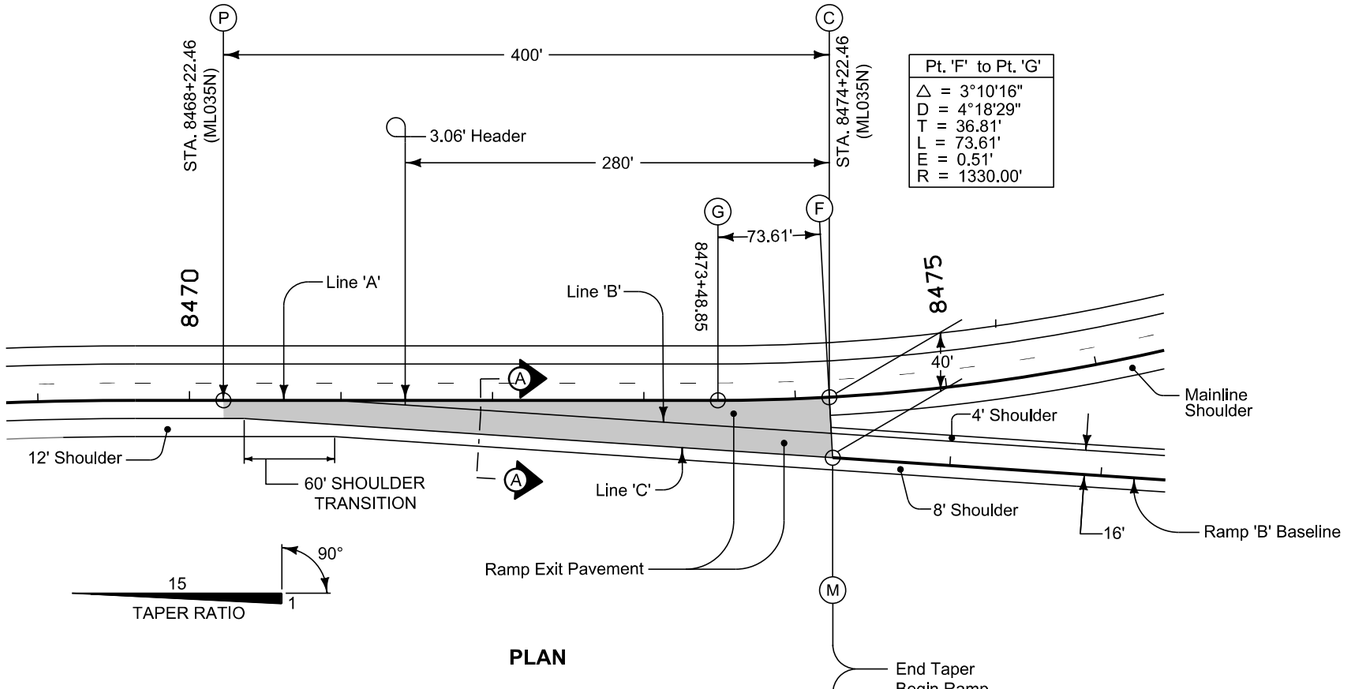
80-77-X M4002_STAGE_3

12.0" Radius, 2.0" Border, White on Green;
[N ORTH] E; [MInneapolis] E Mod; Arrow 8 - 25.0° 60°;
Table of letter and object lefts.

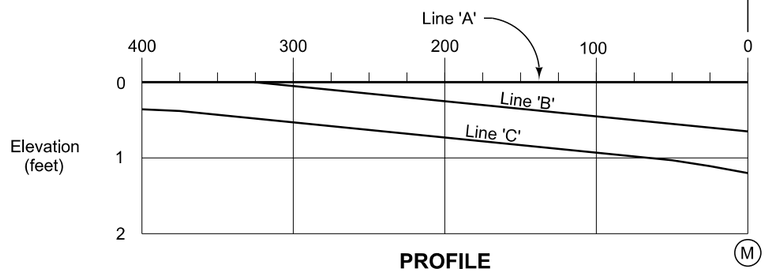
34.7	N 88.7	O 105.3	R 118.4	T 130.4	H 141.7	
M 18.4	I 39.6	n 48.8	n 65.3	e 80.6	a 94.7	p 111.2	o 125.0	l 140.6	I 149.8	s 157.3
18.4						

NOTE: SIGN DIMENSIONS ARE IN INCHES

SIGN DETAILS



PLAN



PROFILE

Refer to detail project plans for mainline and ramp alignment and grade data.

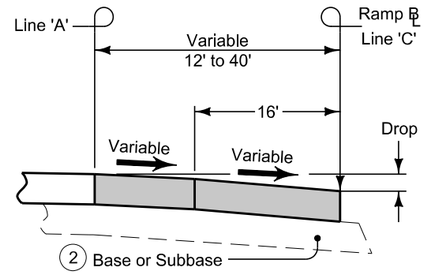
Construct ramp exit pavement the same thickness as mainline pavement.

Ramp exit pavement shown by shaded area is 1097 square yards.

This design is based on 60 mph design speed at e max = 6%.

(1) For header construction details at the beginning of taper see Typical 7101.

(2) Construct subbase for ramp exit pavement the same thickness as mainline subbase.



SECTION A-A

C

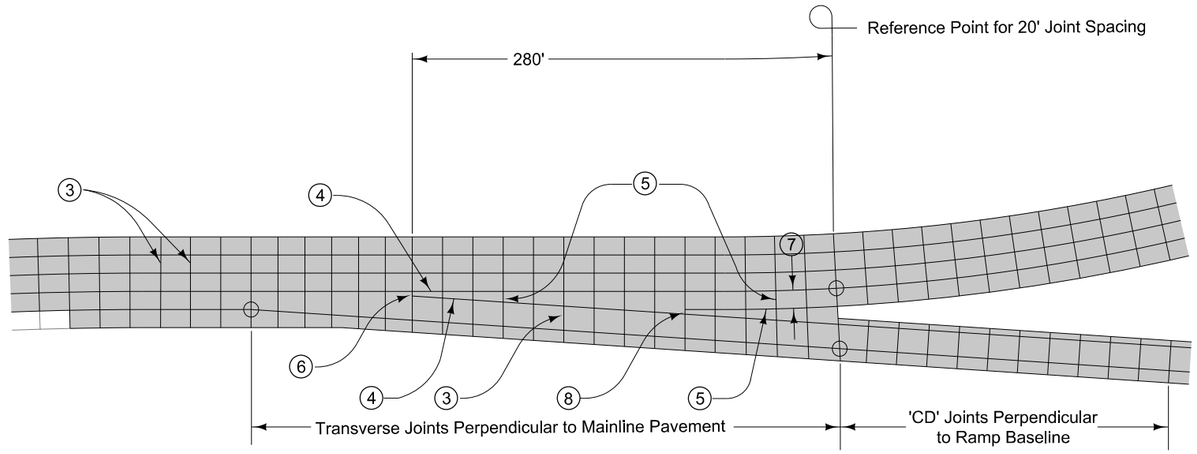
	TABLE OF OFFSETS AND DROPS FOR 16' RAMP TAPER																
DISTANCE (Ft.)	400	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25	0
OFFSET (Ft.)	12.00	12.75	14.42	16.08	17.75	19.42	21.08	22.75	24.42	26.08	27.76	29.42	31.08	32.75	34.46	37.08	40.00
SLOPE (%)	← Constant Slope 3.00% →																
DROP (Ft.)	0.36	0.38	0.43	0.48	0.53	0.58	0.63	0.68	0.73	0.78	0.36	0.35	0.33	0.31	0.30	0.27	0.24

M

ML035NB
RAMP B - EXIT

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.1

9:06:12 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194U01.sht



16' EXIT RAMP

③ 'CD' Joints at 20' spacing.

④ 'BT-2' joint for existing pavement
or 'KT-2' for new pavement .

⑤ 'C' Joint.

⑥ 'B' Joint. 2' minimum. 4' maximum.

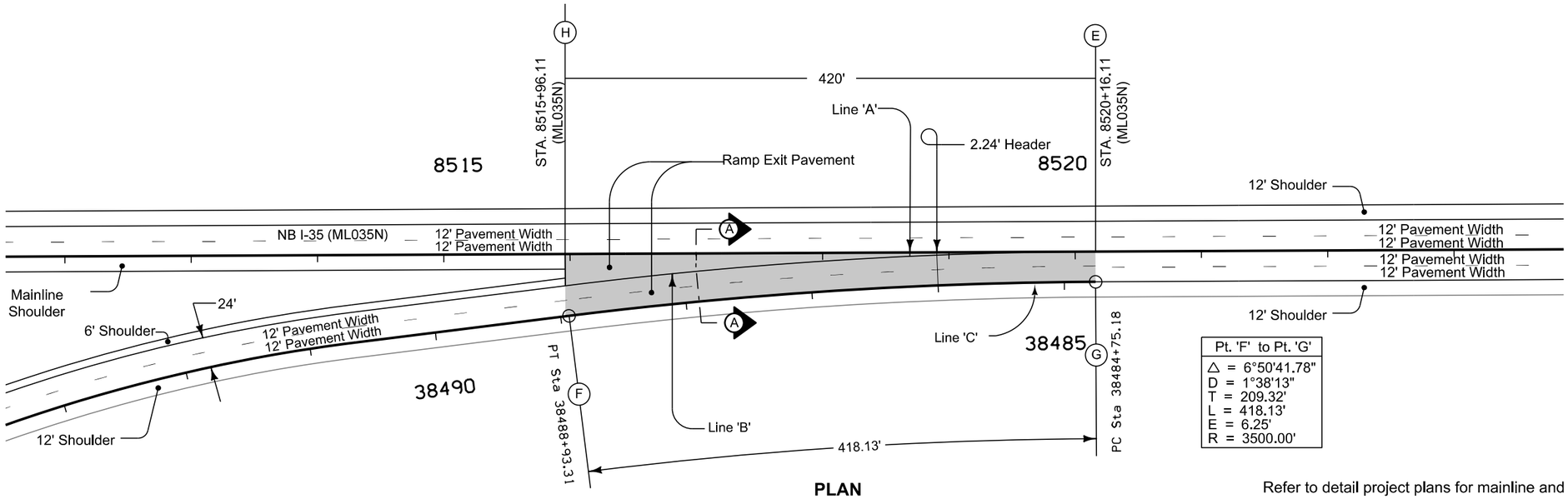
⑦ 10' minimum or equal to mainline shoulder width.

⑧ 'B' or 'C' Joint. 2' minimum. 4' maximum.

ML035NB
RAMP B - EXIT

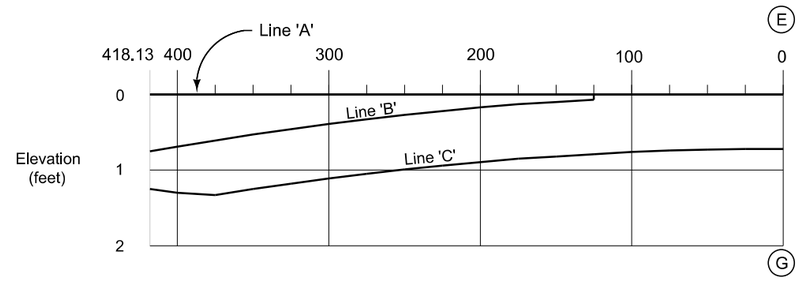
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER U.2	

9:06:13 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194U01.sht



Pt. 'F' to Pt. 'G'
△ = 6°50'41.78"
D = 1°38'13"
T = 209.32'
L = 418.13'
E = 6.25'
R = 3500.00'

PLAN



PROFILE

Refer to detail project plans for mainline and ramp alignment and grade data.

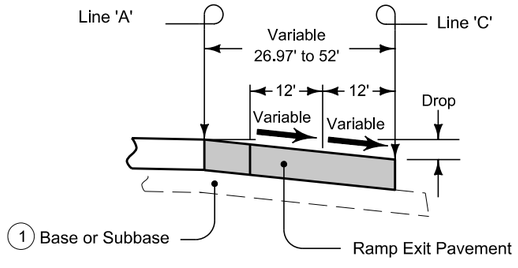
Construct ramp exit pavement the same thickness as mainline pavement.

Ramp exit pavement shown by shaded area is 1515 square yards.

This design is based on 60 mph design speed at e max = 6%.

(1) For header construction details at the end of taper see Typical 7101.

(2) Construct subbase for ramp entrance pavement the same thickness as mainline subbase.



SECTION A-A

H E

TABLE OF OFFSETS AND DROPS FOR 16' RAMP TAPER

Dist. From Pt. Ⓔ Along ML035NB ℄ (Ft.)		420	400	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25	0
From Line 'A' To Line 'B'	Offset (Ft.)	25.11	22.97	20.19	17.59	15.17	12.92	10.86	8.97	7.27	5.74	4.39	3.22	2.24					
	Slope (%)	← Constant 3.0% Slope →																	
	Drop (Ft.)	0.75	0.69	0.61	0.53	0.46	0.39	0.33	0.27	0.22	0.17	0.13	0.10	0.07					
From Line 'B' To Line 'C'	Offset (Ft.)	← Constant 24.0' Offset →																	
	Slope (%)	2.10	2.55	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00					
	Drop (Ft.)	0.50	0.61	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72					
From Line 'A' To Line 'C'	Offset (Ft.)														25.43	24.80	24.35	24.00	24.00
	Slope (%)														3.00	3.00	3.00	3.00	3.00
	Drop (Ft.)	1.25	1.30	1.33	1.25	1.18	1.11	1.05	0.99	0.94	0.89	0.85	0.82	0.79	0.76	0.74	0.73	0.72	0.72
Distance From Point Ⓖ Along Line 'C' (Ft.)		418.13	400.00	375.00	350.00	325.00	300.00	275.00	250.00	225.00	200.00	175.00	150.00	125.00	100.00	75.00	50.00	25.00	0.00

F G

ML035NB
RAMP A - ENTRANCE

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.3

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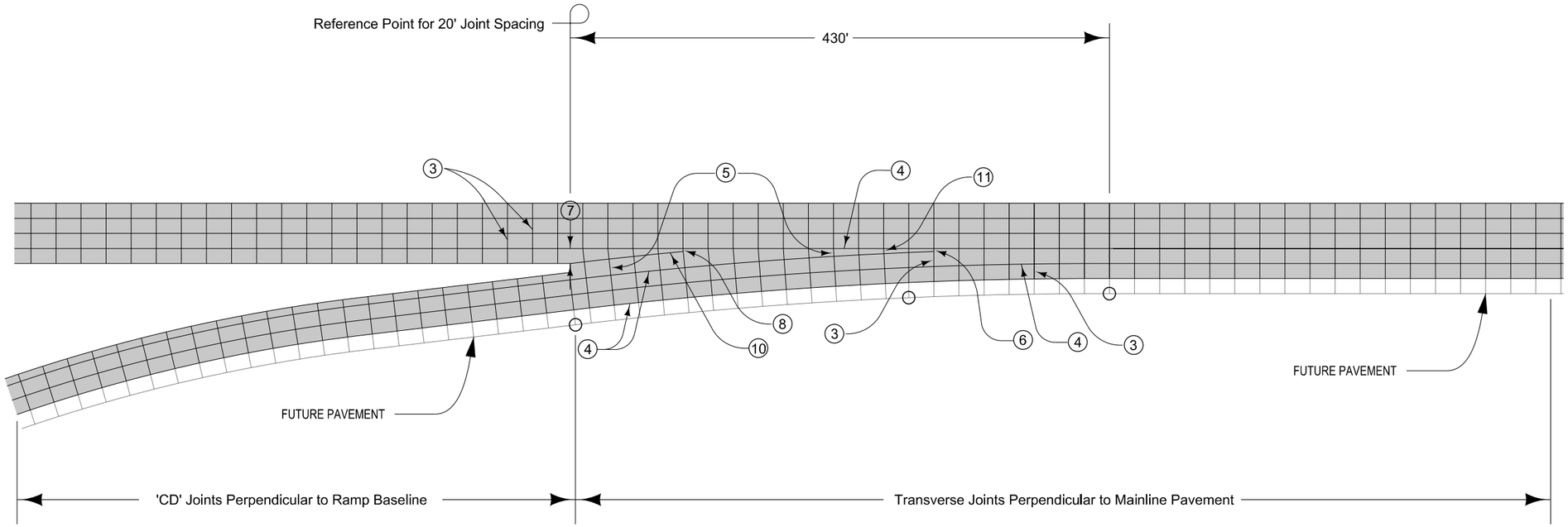

16' ENTRANCE RAMP

③ 'CD' Joints at 20' spacing.

④ 'BT-2' joint for existing pavement or 'KT-2' for new pavement .

⑤ 'C' Joint.

⑥ 'B' Joint. 2' minimum. 4' maximum.

⑦ 10' minimum or equal to mainline shoulder width.

⑧ 'B' or 'C' Joint. 2' minimum. 4' maximum.

⑨ 'L-2' Joint

⑩ 'C' joint parallel to ramp baseline

⑪ Construct transverse joints on entrance ramp taper perpendicular to tapered edge where gore area is greater than 4'

ML035NB
RAMP A - ENTRANCE

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.4

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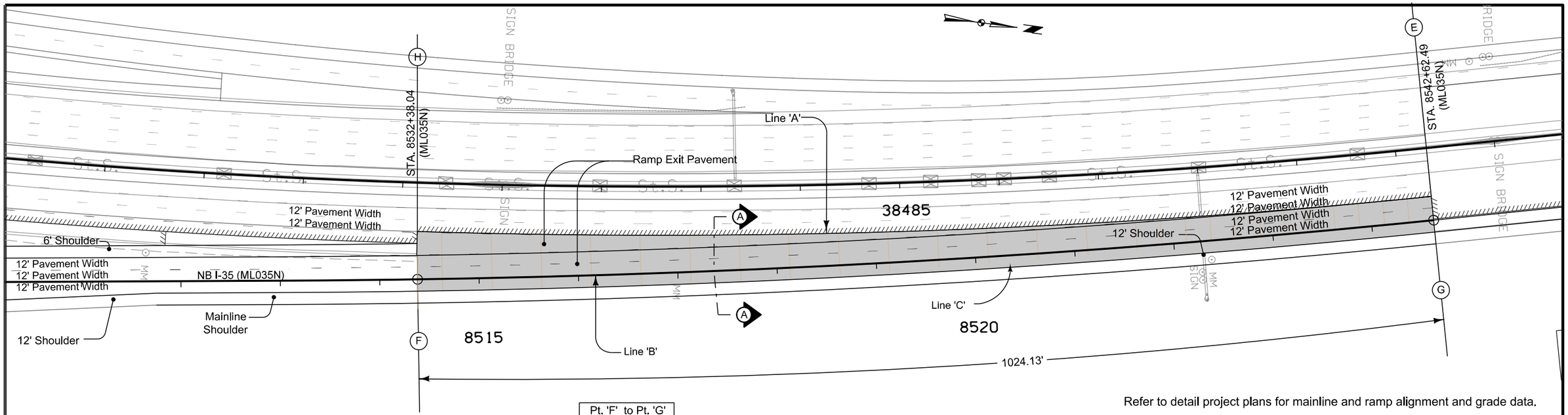


Pt. 'F' to Pt. 'G'
△ = 4°53'28.99"
D = 0°28'38"
T = 512.54'
L = 1024.13
E = 10.94'
R = 12,000.00'

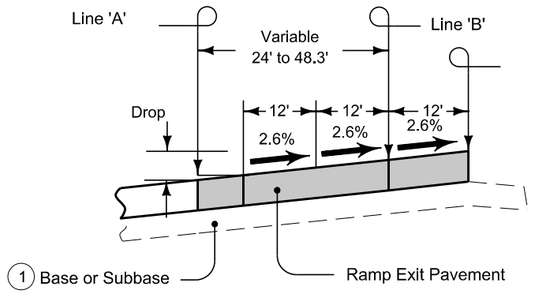
PLAN

Refer to detail project plans for mainline and ramp alignment and grade data.

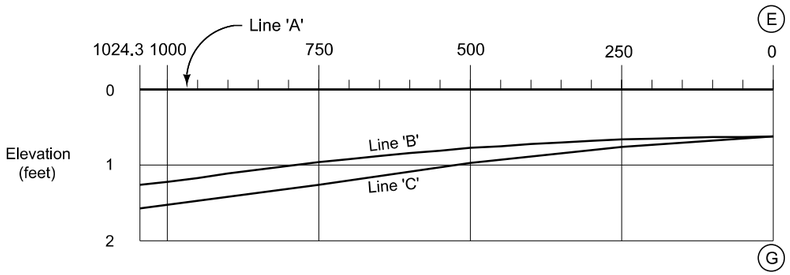
Construct ramp exit pavement the same thickness as mainline pavement.

Ramp exit pavement shown by shaded area is 4482 square yards.

For jointing layout, see Standard Road Plan PV-411.
This design is based on 60 mph design speed at e max = 6%.



SECTION A-A



PROFILE

1 For header construction details at the end of taper see Typical 7101.

2 Construct subbase for ramp entrance pavement the same thickness as mainline subbase.

TABLE OF OFFSETS AND DROPS FOR 24' RAMP TAPER

Dist. From Pt. (E) Along ML035NB ℄ (Ft.)		1024.3 (H)	1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	275	250	225	200	175	150	125	100	75	50	25	0 (E)
From Line 'A' To Line 'B'	Offset (Ft.)	48.30	47.05	44.82	42.67	40.71	38.80	37.01	35.33	33.77	32.32	30.99	29.78	28.68	27.69	26.83	26.07	25.74	25.44	25.17	24.92	24.70	24.52	24.36	24.22	24.13	24.05	24.00	24.00
	Slope (%)	← Constant 2.6% Slope →																											
	Drop (Ft.)	1.26	1.22	1.17	1.11	1.06	1.01	0.96	0.92	0.88	0.84	0.81	0.77	0.75	0.72	0.70	0.68	0.67	0.66	0.65	0.65	0.64	0.64	0.63	0.63	0.63	0.63	0.62	0.62
From Line 'B' To Line 'C'	Offset (Ft.)	← Constant 12.0' Offset →						11.49	10.72	9.95	9.18	8.41	7.64	6.88	6.11	5.34	4.57	4.18	3.80	3.41	3.03	2.65	2.26	1.88	1.49	1.11	0.72	0.33	0.00
	Slope (%)	← Constant 2.6% Slope →																											
	Drop (Ft.)	0.31	0.31	0.31	0.31	0.31	0.31	0.30	0.28	0.26	0.24	0.22	0.20	0.18	0.16	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01	0.00
From Line 'A' To Line 'C'	Offset (Ft.)																												
	Slope (%)	← Constant 2.6% Slope →																											
	Drop (Ft.)	1.57	1.53	1.48	1.42	1.37	1.32	1.26	1.20	1.14	1.08	1.03	0.97	0.93	0.88	0.84	0.80	0.78	0.76	0.74	0.73	0.71	0.70	0.68	0.67	0.66	0.65	0.63	0.62
Distance From Point (G) Along Line 'C' (Ft.)		1024.3 (F)	1000	950	900	850	800	750	700	650	600	550	500	450	400	350	300	275	250	225	200	175	150	125	100	75	50	25	0 (G)

ML235
ML035NB - ENTRANCE

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.5

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Refer to detail project plans for mainline and ramp alignment and grade data.

Construct ramp exit pavement the same thickness as mainline pavement.

Ramp exit pavement shown by shaded area is 3065 square yards.

For jointing layout, see Standard Road Plan PV-410.

This design is based on 60 mph design speed at e max = 6%.

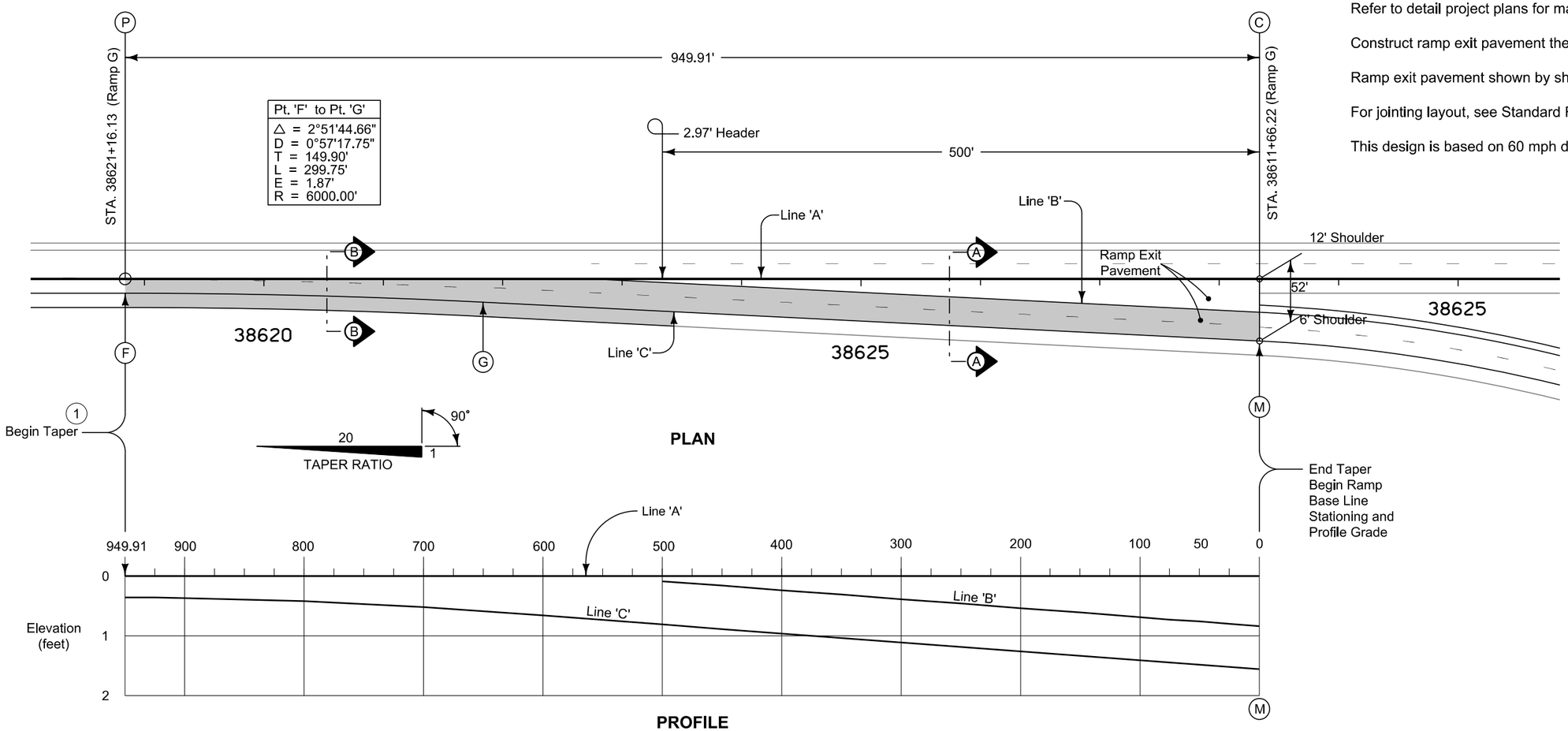
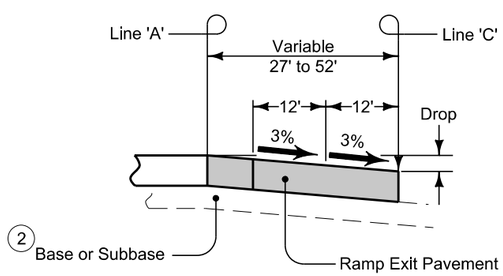
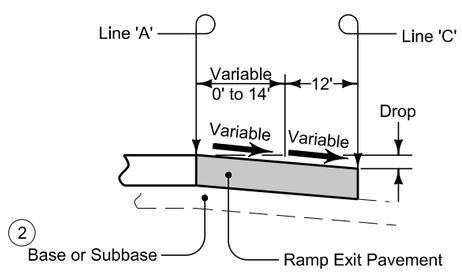


TABLE OF OFFSETS AND DROPS FOR 24' RAMP TAPER																																						
DISTANCE (Ft.)	949.91	925	900	875	850	825	800	775	750	725	700	675	650	625	600	575	550	525	500	475	450	425	400	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25	0
OFFSET (Ft.)	12.00	12.01	12.20	12.47	12.83	13.30	13.87	14.55	15.33	16.22	17.20	18.30	19.50	20.75	22.00	23.25	24.50	25.75	27.00	28.25	29.50	30.75	32.00	33.25	34.50	35.75	37.00	38.25	39.50	40.75	42.00	43.25	44.50	45.75	47.00	48.25	49.50	50.00	52.00
SLOPE (%)	← Constant Slope 3.00% →																																						
DROP (Ft.)	0.36	0.36	0.37	0.37	0.38	0.40	0.42	0.44	0.46	0.49	0.52	0.55	0.59	0.62	0.66	0.70	0.74	0.77	0.81	0.85	0.89	0.92	0.96	1.00	1.04	1.07	1.11	1.15	1.19	1.22	1.26	1.30	1.34	1.37	1.41	1.45	1.47	1.50	1.56

G M C



SECTION A-A



SECTION B-B

(1) For header construction details at the beginning of taper see Typical 7101.

(2) Construct subbase for ramp exit pavement the same thickness as mainline subbase.

RAMP G
WESTBOUND
RAMP A - EXIT

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.6

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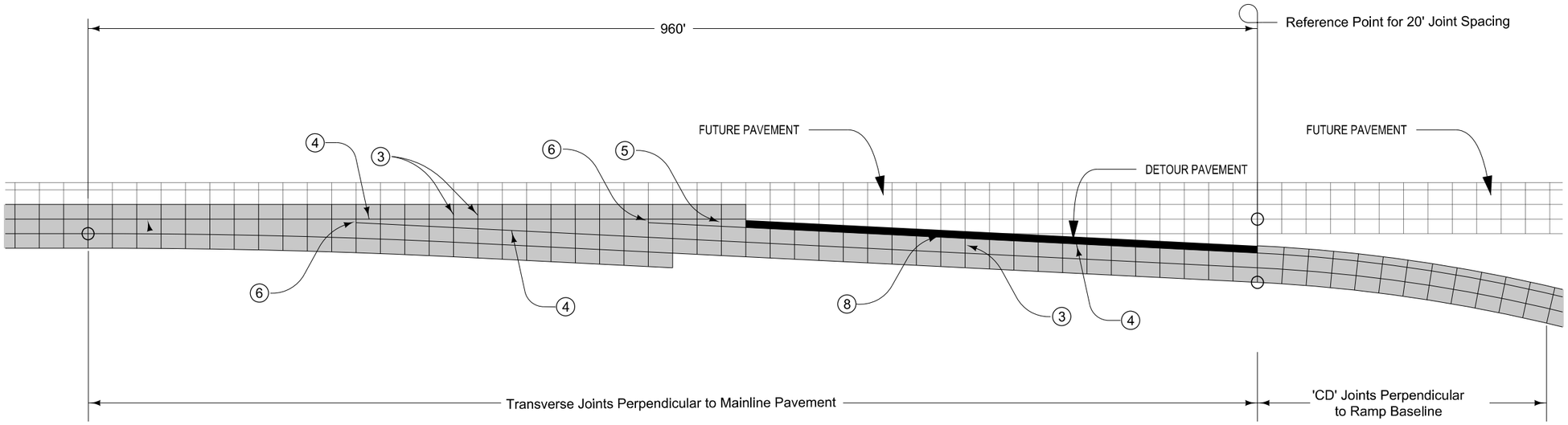

16' EXIT RAMP

③ 'CD' Joints at 20' spacing.

④ 'BT-2' joint for existing pavement
or 'KT-2' for new pavement .

⑤ 'C' Joint.

⑥ 'B' Joint. 2' minimum. 4' maximum.

⑦ 10' minimum or equal to mainline shoulder width.

⑧ 'B' or 'C' Joint. 2' minimum. 4' maximum.

RAMP G
WESTBOUND
RAMP A - EXIT

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.7

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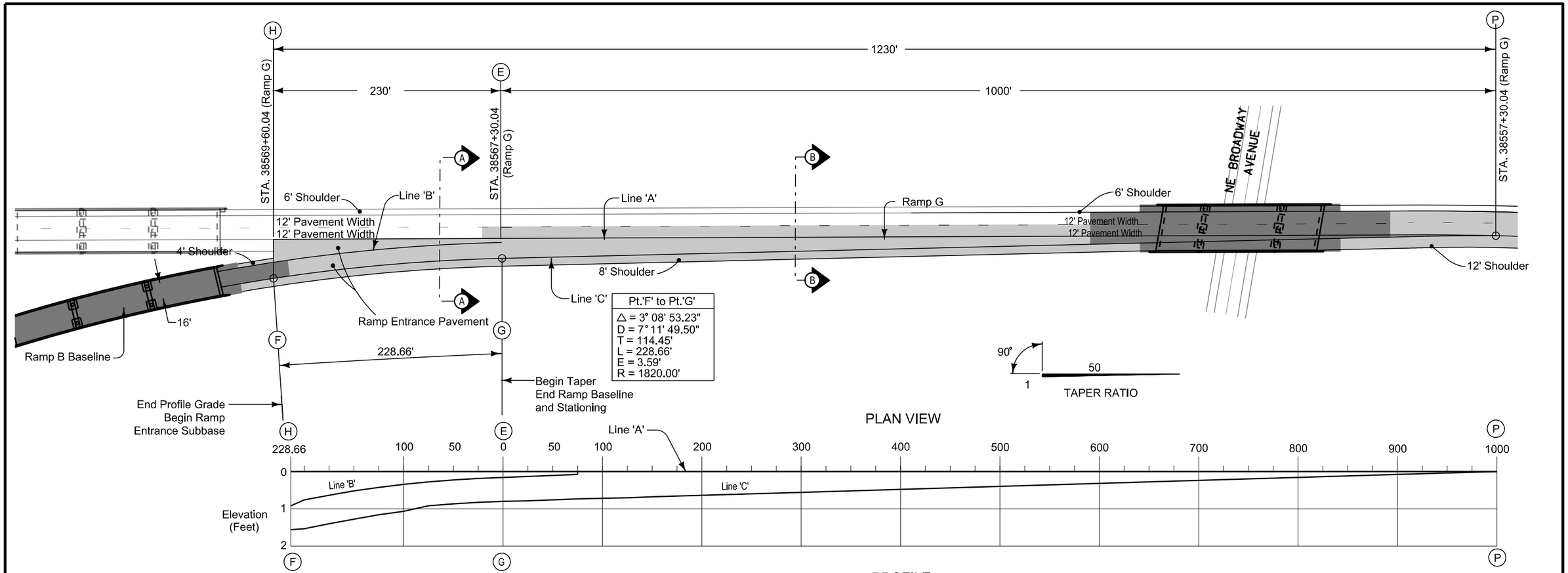
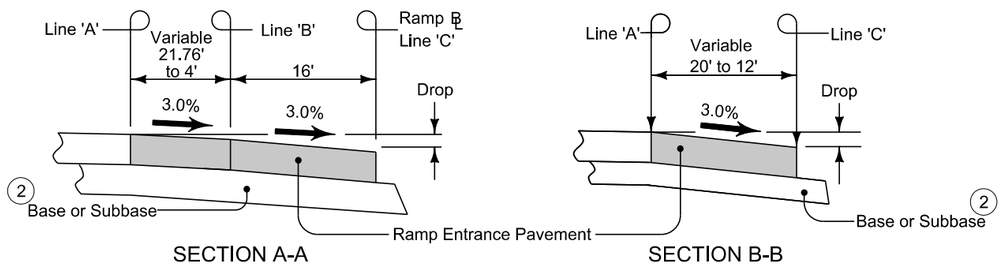


TABLE OF OFFSETS AND DROPS FOR 16' RAMP

Dist. From Pt. (E) Along Ramp G ℄ (Ft.)		228.46	225	200	175	150	125	100	75	50	25	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000
From Line 'A' To Line 'B'	Offset (Ft.)	23.06	22.49	18.97	15.89	13.16	10.78	8.74	7.04	5.69	4.67	4.00	3.51	3.01	2.50																									
	Slope (%)	← Constant Slope 3.00% →																																						
	Drop (Ft.)	0.69	0.67	0.57	0.48	0.39	0.32	0.26	0.21	0.17	0.14	0.12	0.11	0.08	0.06																									
From Line 'B' To Line 'C'	Offset (Ft.)	← Constant Offset 16.00' →																																						
	Slope (%)	← Constant Slope 3.00% →																																						
	Drop (Ft.)	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48																									
From Line 'A' To Line 'C'	Offset (Ft.)															18.00	17.50	17.00	16.50	16.00	15.50	15.00	14.50	14.00	13.50	13.00	12.50	12.00	11.00	10.00	9.00	8.00	7.00	6.00	5.00	4.00	3.00	2.00	1.00	0.00
	Slope (%)															← Constant Slope 3.00% →																									
	Drop (Ft.)	1.17	1.15	1.05	0.96	0.87	0.93	0.80	0.69	0.65	0.62	0.60	0.59	0.57	0.55	0.54	0.53	0.51	0.50	0.48	0.47	0.45	0.44	0.42	0.41	0.39	0.38	0.36	0.33	0.30	0.27	0.24	0.21	0.18	0.15	0.12	0.09	0.06	0.03	0.00
Distance From Point (G) Along Line 'C' (Ft.)		412.98	399.36	374.35	349.35	324.36	299.36	274.37	249.39	224.41	199.43	0																												



Refer to detail project plans for mainline and ramp alignment and grade data.

Construct ramp exit pavement the same thickness as mainline pavement.

Ramp exit pavement shown by shaded area is 1800 square yards.

For jointing layout, see Standard Road Plan PV-411.

This design is based on 60 mph design speed at e max = 6%.

(1) For header construction details at the end of taper see Typical 7101.

(2) Construct subbase for ramp entrance pavement the same thickness as mainline subbase.

RAMP G
RAMP B - ENTRANCE

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.8

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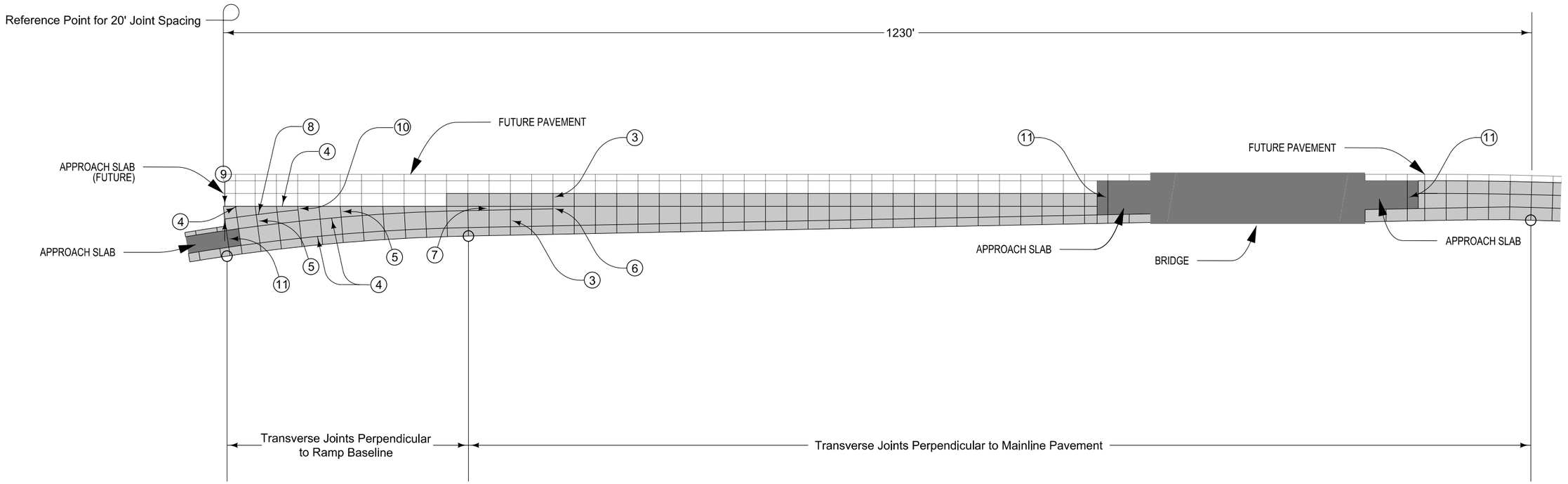

16' ENTRANCE RAMP

③ 'CD' Joints at 20' spacing.

④ 'BT-2' or 'KT-2' Joint.

⑤ 'C' Joint.

⑥ 'B' Joint. 2' minimum, 4' maximum.

⑦ Construct transverse joints on the entrance ramp taper perpendicular to the tapered edge where the gore area is greater than 4 feet.

⑧ 'C' Joint parallel to ramp baseline.

⑨ 10' minimum, or equal to mainline shoulder width.

⑩ 'B' or 'C' Joint. 2' minimum. 4' maximum.

⑪ 'EF' Joint

RAMP G
RAMP B - ENTRANCE

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.9

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Refer to detail project plans for mainline and ramp alignment and grade data.

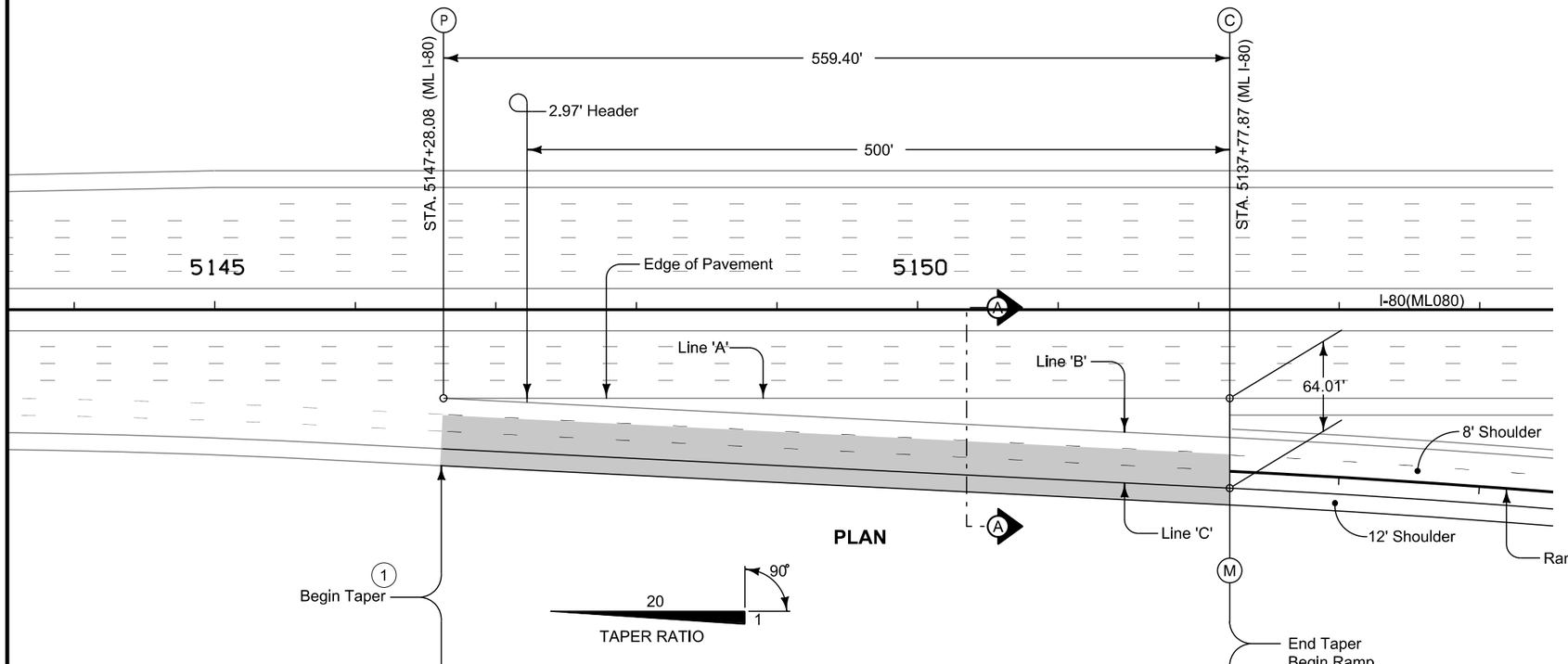
Construct ramp exit pavement the same thickness as mainline pavement.

Ramp exit pavement shown by shaded area is 2247 square yards..

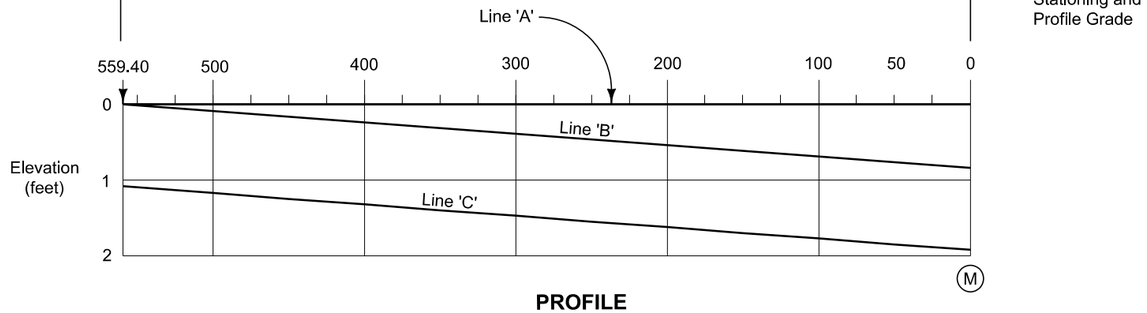
This design is based on 60 mph design speed at e max = 6%.

(1) For header construction details at the beginning of taper see Typical 7101.

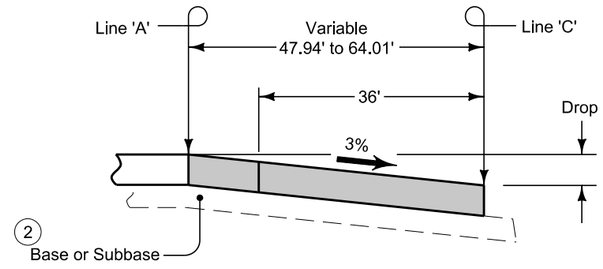
(2) Construct subbase for ramp exit pavement the same thickness as mainline subbase.



PLAN



PROFILE



SECTION A-A

C

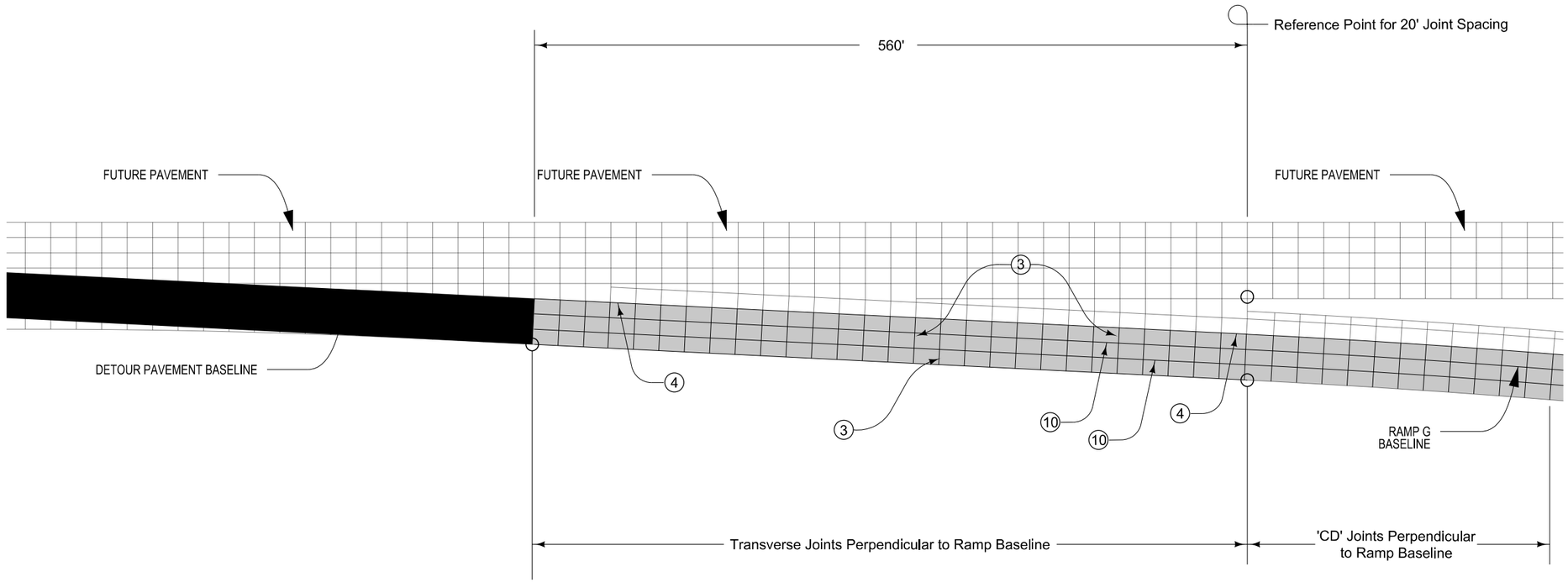
	TABLE OF OFFSETS AND DROPS FOR 36' RAMP TAPER																						
DISTANCE (Ft.)	559.40	525	500	475	450	425	400	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25	0
OFFSET (Ft.)	35.96	37.76	39.01	40.26	41.51	42.76	44.01	45.26	46.51	47.76	49.01	50.26	51.51	52.76	54.01	55.26	56.51	57.76	59.01	60.26	61.51	62.76	64.01
SLOPE (%)	Constant Slope 3.00%																						
DROP (Ft.)	1.08	1.13	1.17	1.21	1.25	1.28	1.32	1.36	1.40	1.43	1.47	1.51	1.55	1.58	1.62	1.66	1.70	1.73	1.77	1.81	1.85	1.88	1.92

M

MAINLINE I-80
WESTBOUND
RAMP A & G - EXIT

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.10

9:06:19 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194U01.sht



16' EXIT RAMP

③ 'CD' Joints at 20' spacing.

④ 'BT-2' joint for existing pavement or 'KT-2' for new pavement .

⑤ 'C' Joint.

⑥ 'B' Joint. 2' minimum. 4' maximum.

⑦ 10' minimum or equal to mainline shoulder width.

⑧ 'B' or 'C' Joint. 2' minimum. 4' maximum.

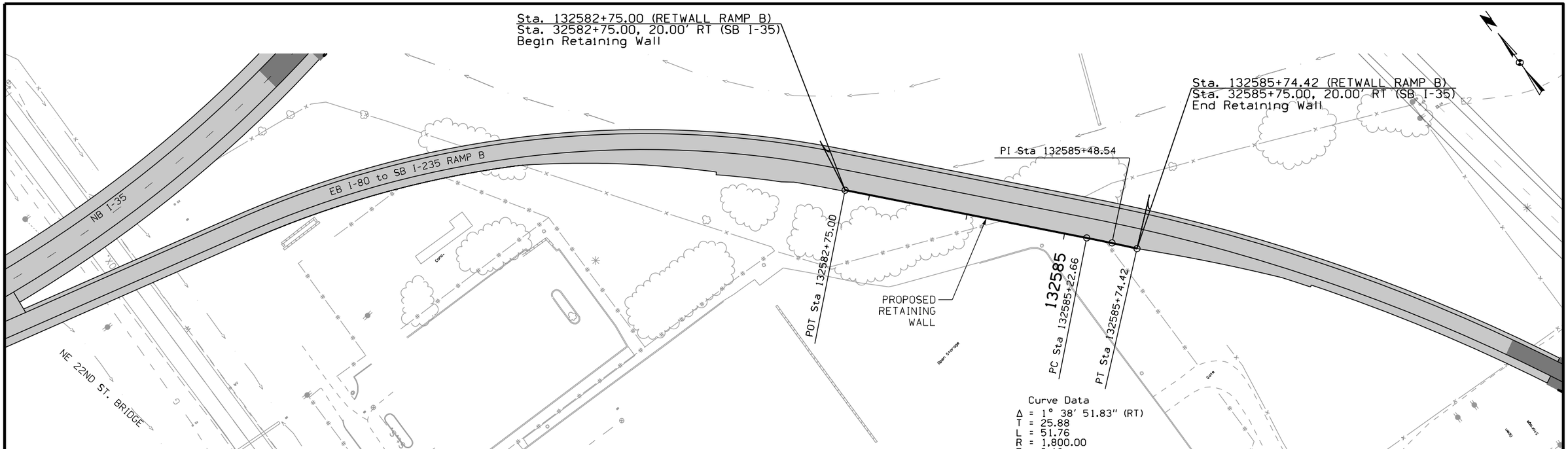
⑨ Construct transverse joints on the exit ramp taper perpendicular to tapered edge

⑩ 'L-2' Joint

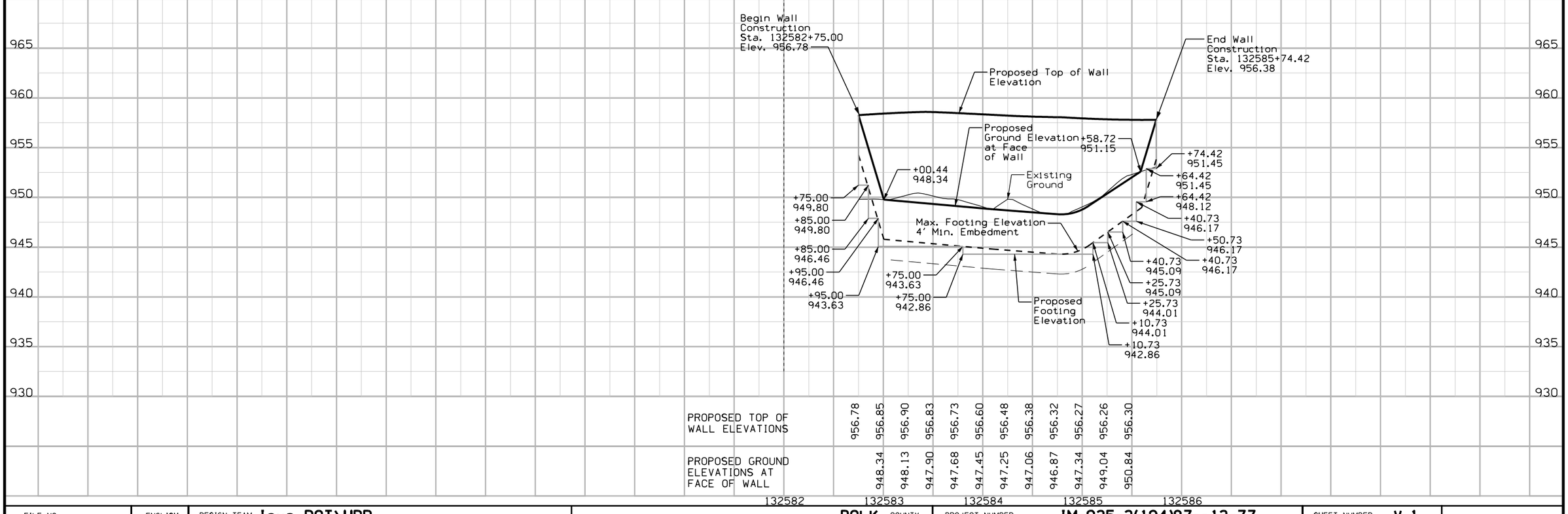
MAINLINE I-80
WESTBOUND
RAMP A & G - EXIT

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER U.11	

9:06:20 AM 12/23/2016 CPodany c:\pwworking\oma\d1584759\77035194U01.sht



MSE WALL ALONG RAMP B

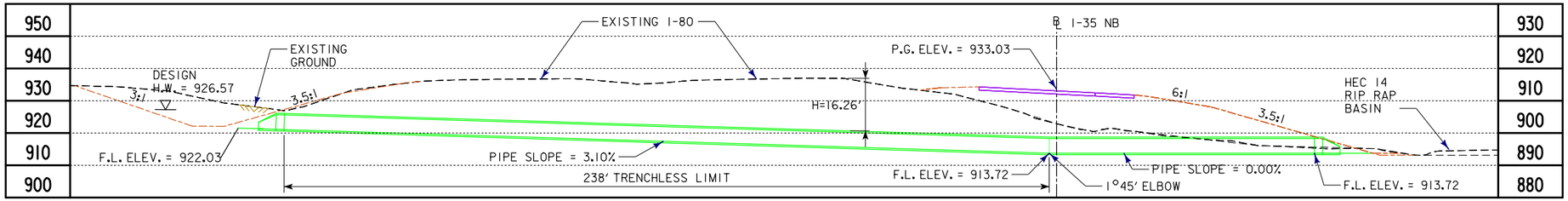


PROPOSED TOP OF WALL ELEVATIONS	956.78	956.85	956.90	956.83	956.73	956.60	956.48	956.38	956.32	956.27	956.26	956.30
PROPOSED GROUND ELEVATIONS AT FACE OF WALL		948.34	948.13	947.90	947.68	947.45	947.25	947.06	946.87	947.34	949.04	950.84

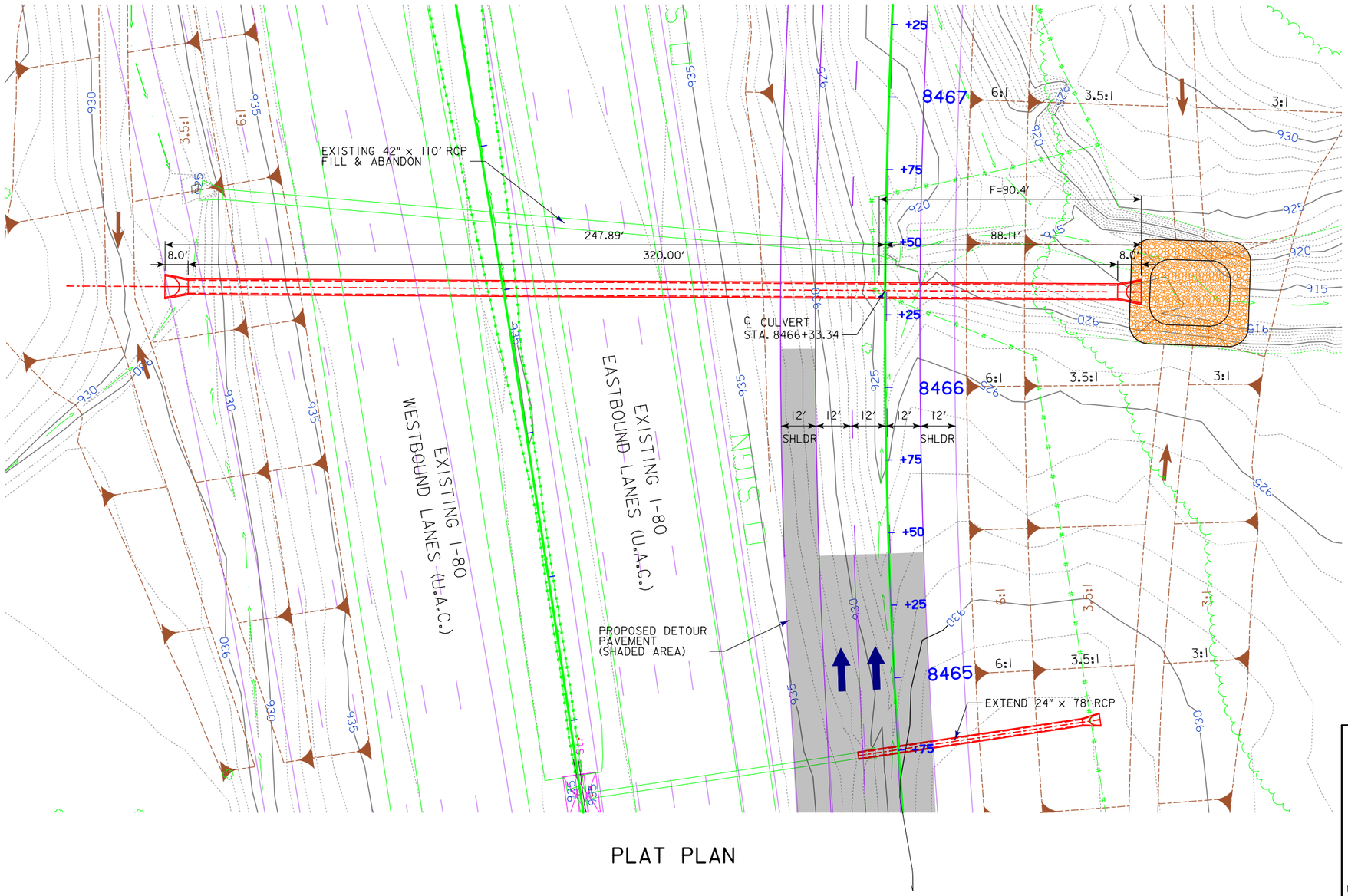
FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.1

10:21:32 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194V01.sht

BENCH MARK NO. 128, ELEV. 933.868, STA. 8478+62.35, 6457.91' RT., FENO MONUMENT BTWN TOP OF BKSLP AND R.O.W. FENCE IN EAST R.O.W.



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

Z

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	22,200	V.P.D.
2050 DHV	2,830	V.P.H.
TRUCKS	16	%
TOTAL DESIGN ESALs	-	

LOCATION

US 35 NORTHBOUND
T-79 N R-24 W
SECTION 13
SAYLOR TOWNSHIP
POLK COUNTY
LATITUDE 41.6506° N
LONGITUDE 93.5847° W

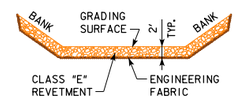
HYDRAULIC DATA

DRAINAGE AREA = 57 ACRES - ROLLING
Q_{50} = 98 CFS
HW ELEV. = 926.57

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	158	160	106
TOTALS	158	160	106

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



PRELIMINARY

DESIGN FOR A 0° SKEW RT. AHD.

54 in. x 320 ft (TRENCHLESS) REINFORCED CONCRETE PIPE

PLAT PLAN

STA. 8466+33.34 (℄ ML35N) NOVEMBER 2016

POLK COUNTY

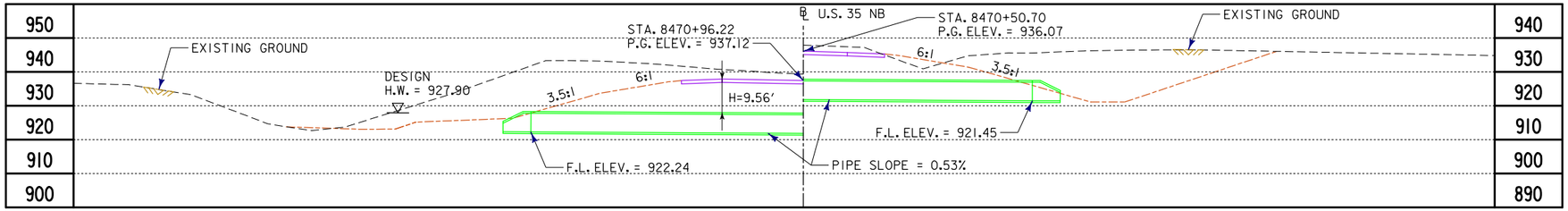
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

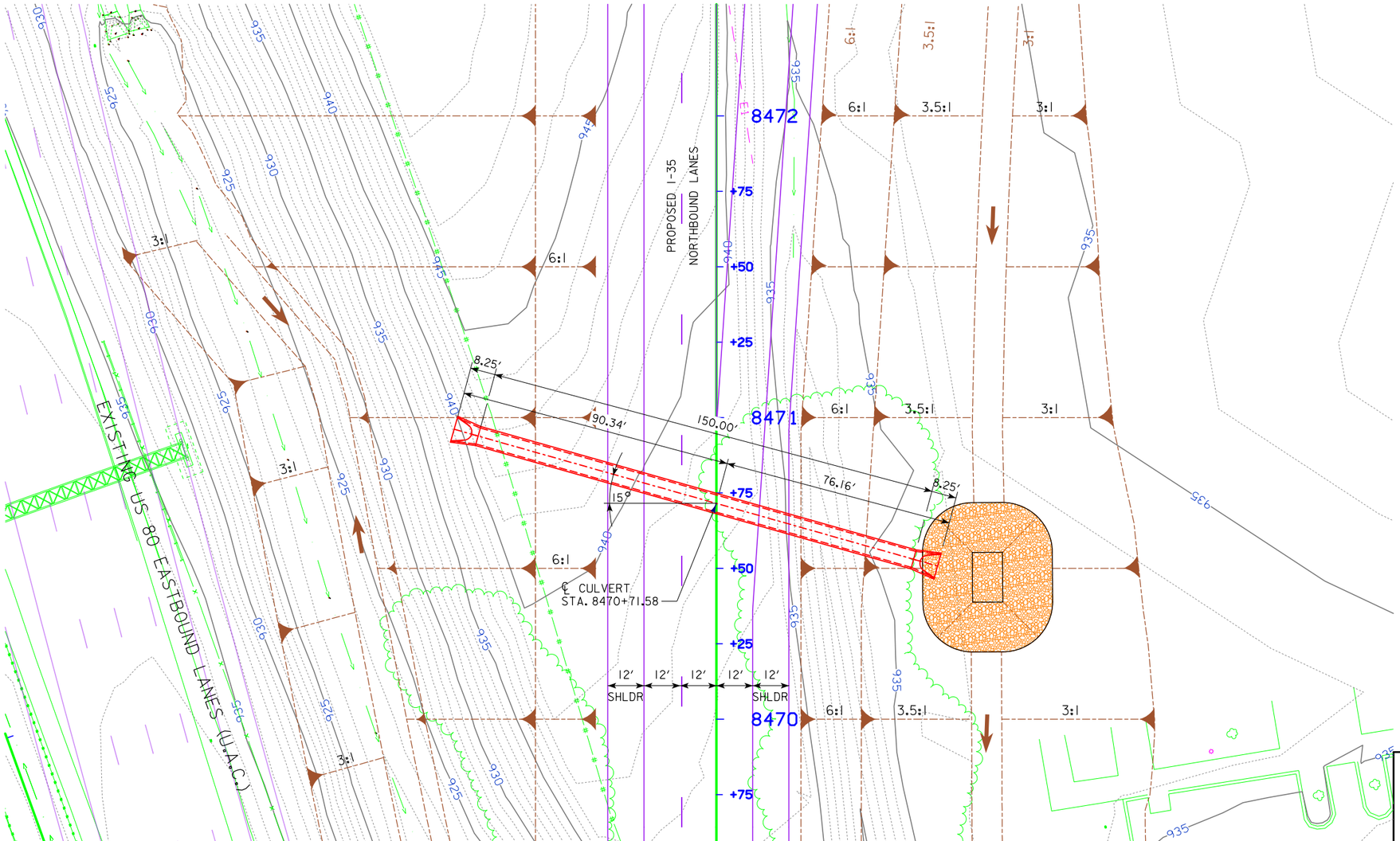
DESIGN TEAM Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.2

12/23/2016 9:59:19 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V2 11x17c_pdf.pltcfg

BENCH MARK NO. 128, ELEV. 933.868, STA. 8478+62.35, 6457.91' RT., FENO MONUMENT BTWN TOP OF BKSLP AND R.O.W. FENCE IN EAST R.O.W.



LONGITUDINAL SECTION AT CULVERT INVERTS



PLAT PLAN

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	22,200	V.P.D.
2050 DHV	2,830	V.P.H.
TRUCKS	16	%
TOTAL DESIGN ESALs	-	

LOCATION

US 35 NORTHBOUND
T-79 N R-24 W
SECTION 13
SAYLOR TOWNSHIP
POLK COUNTY
LATITUDE 41.6506° N
LONGITUDE 93.5833° W

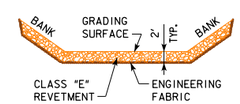
HYDRAULIC DATA

DRAINAGE AREA = 117.6 ACRES - ROLLING
Q_{50} = 166 CFS
HW ELEV. = 927.90

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	208.5	211	140
TOTALS	208.5	211	140

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



PRELIMINARY

DESIGN FOR A 15° SKEW LT. AHD.

66" X 150' REINFORCED CONCRETE PIPE

PLAT PLAN

STA. 8470+71.58 (℄ ML35N) NOVEMBER 2016

POLK COUNTY

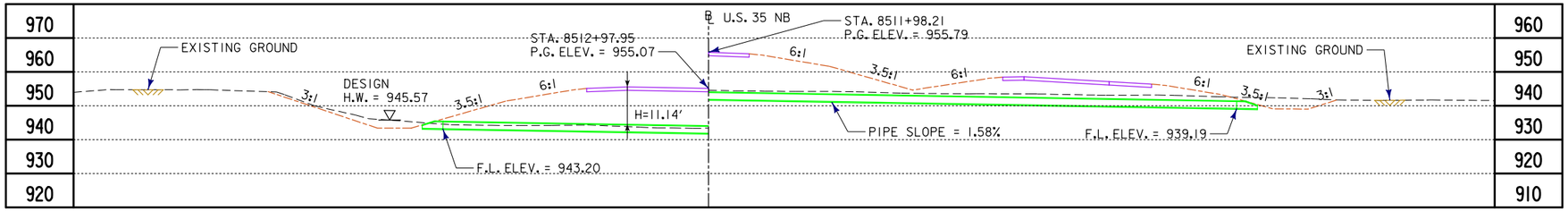
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

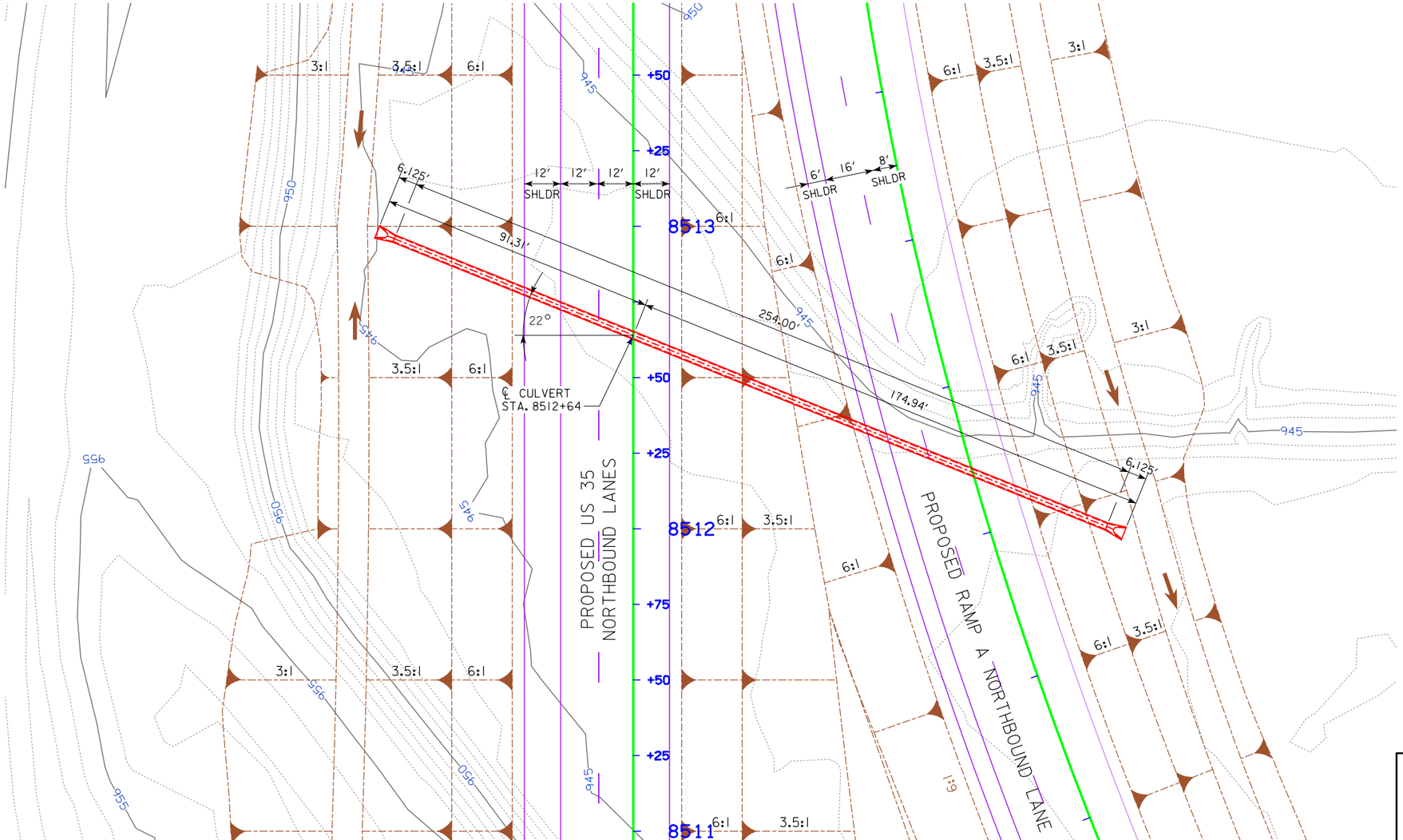
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.3

12/23/2016 10:00:19 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V3 11x17c_pdf.pltcfg

BENCH MARK NO. 128, ELEV. 933.868, STA. 8478+62.35, 6457.91' RT., FENO MONUMENT BTWN TOP OF BKSLP AND R.O.W. FENCE IN EAST R.O.W.



LONGITUDINAL SECTION AT CULVERT INVERTS



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	12,300	V.P.D.
2050 AADT	15,800	V.P.D.
2050 DHV	1,990	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	

LOCATION

US 35 NORTHBOUND
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6575° N
LONGITUDE 93.5744° W

HYDRAULIC DATA

DRAINAGE AREA = 5.6 ACRES - ROLLING
Q_{50} = 16 CFS
HW ELEV. = 945.57

PRELIMINARY

DESIGN FOR A 22° SKEW LT. AHD.

24" X 254'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 8512+64 (℄ ML35N) NOVEMBER 2016

POLK COUNTY

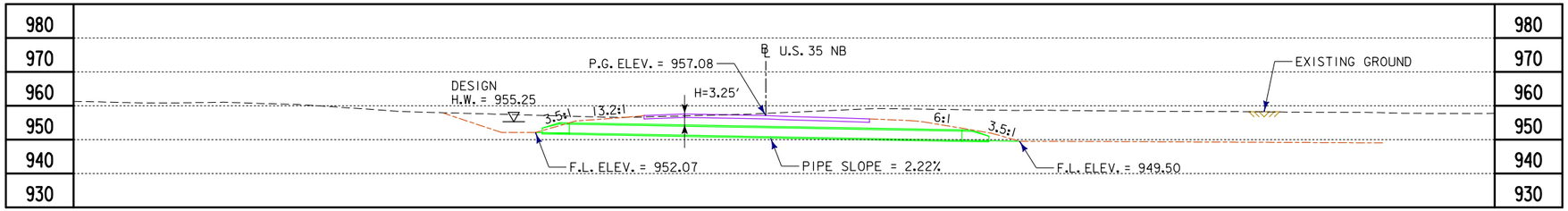
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

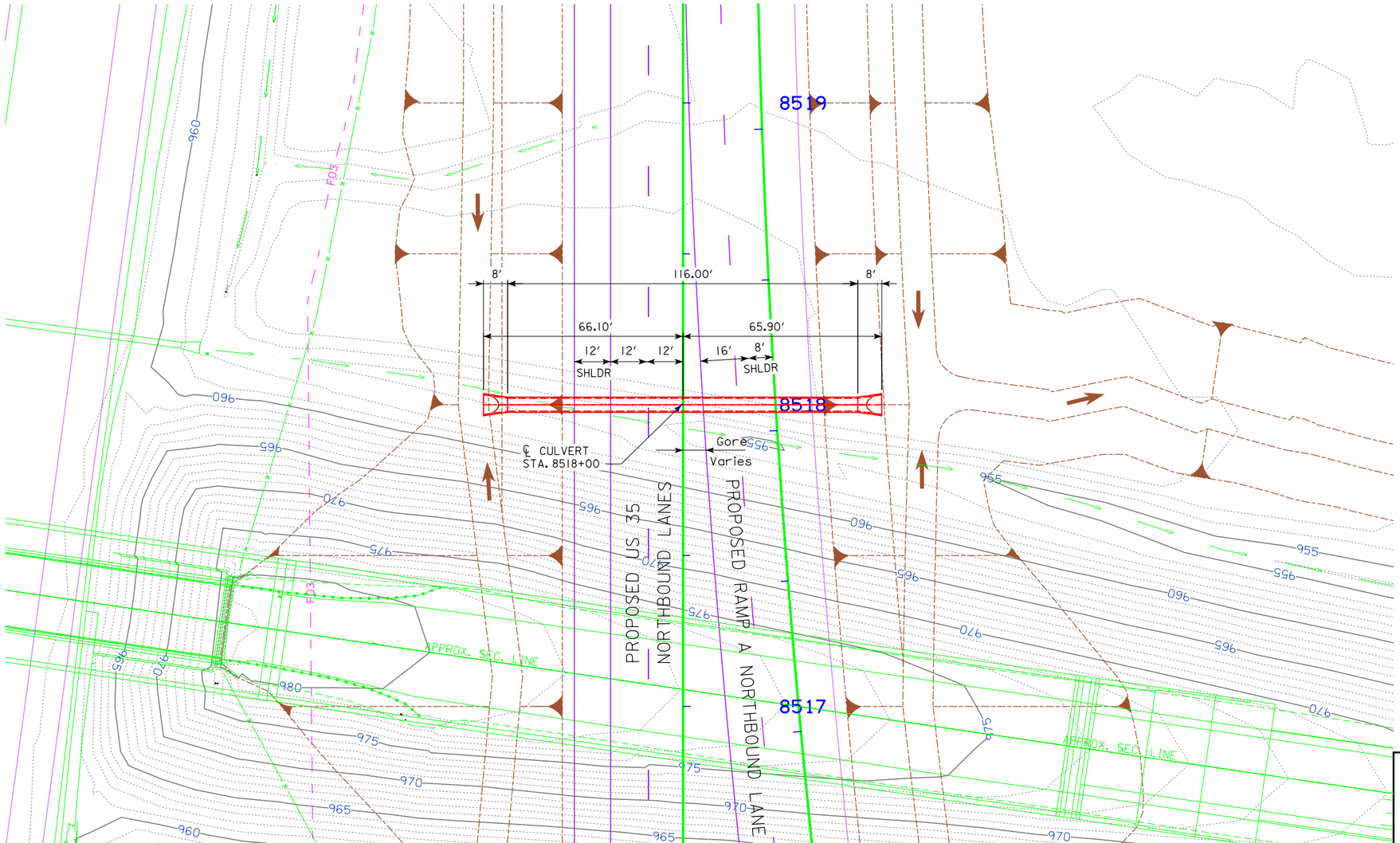
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.4

12/23/2016 10:00:30 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V4 11x17c_pdf.pltcfg

BENCH MARK NO. 128, ELEV. 933.868, STA. 8478+62.35, 6457.91' RT., FENO MONUMENT BTWN TOP OF BKSLP AND R.O.W. FENCE IN EAST R.O.W.



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	12,300	V.P.D.
2050 AADT	15,800	V.P.D.
2050 DHV	1,990	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	

LOCATION

US 35 NORTHBOUND
T-79 N R-23 W
SECTION 17
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6589° N
LONGITUDE 93.5747° W

HYDRAULIC DATA

DRAINAGE AREA = 25.3 ACRES - ROLLING
Q_{50} = 52 CFS
HW ELEV. = 955.25

PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

52" X 32" X 116' REINFORCED CONCRETE PIPE

PLAT PLAN

STA. 8518+00 (℄ ML35N) NOVEMBER 2016

POLK COUNTY

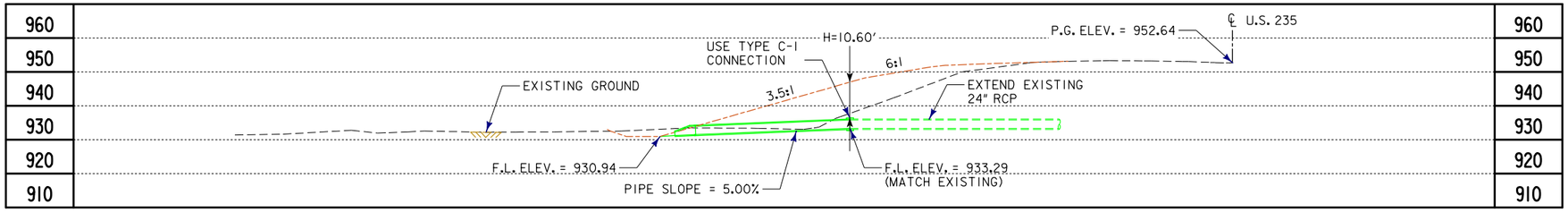
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

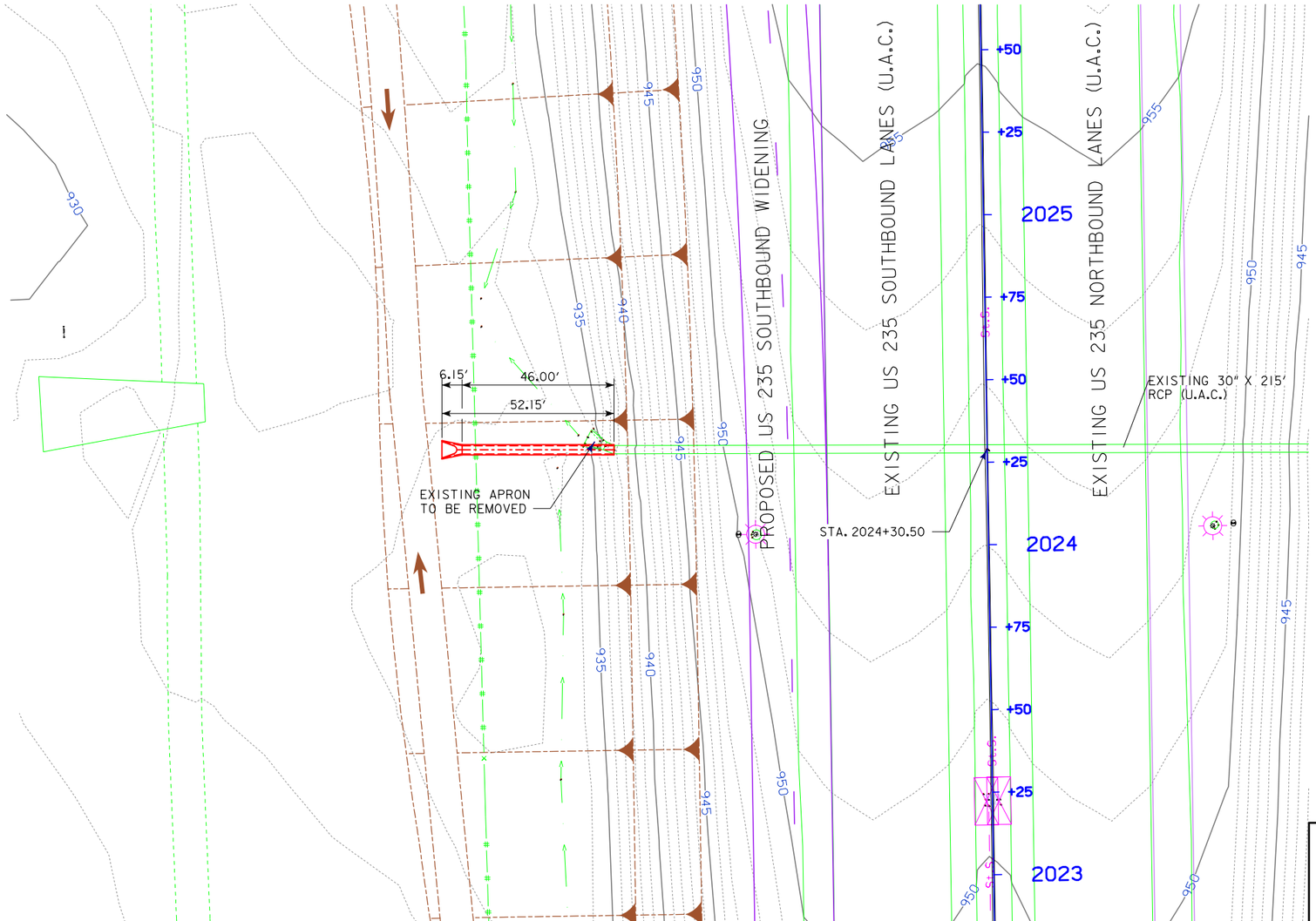
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.5

12/23/2016 10:00:45 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V5 11x17c_pdf.pltcfg

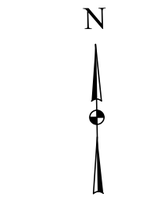
BENCH MARK NO. 128, ELEV. 933.868, STA. 1990+51.45, 161.67' RT., FENO MONUMENT BTWN TOP OF BKSLP AND R.O.W. FENCE IN EAST R.O.W.



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN



0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	13,900	V.P.D.
2050 AADT	18,500	V.P.D.
2050 DHV	2,750	V.P.H.
TRUCKS	11	%
TOTAL DESIGN ESALs	-	

LOCATION

US 235
T-79 N R-23 W
SECTION 19
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6422° N
LONGITUDE 93.5761° W

HYDRAULIC DATA

DRAINAGE AREA = 7.9 ACRES - ROLLING
Q_{50} = 35 CFS

PRELIMINARY
DESIGN FOR 0° SKEW LT. AHD.

30" X 46'
REINFORCED CONCRETE PIPE CULVERT EXTENSION
PLAT PLAN

STA. 2024+30.50 (℄ ML235) NOVEMBER 2016

POLK COUNTY

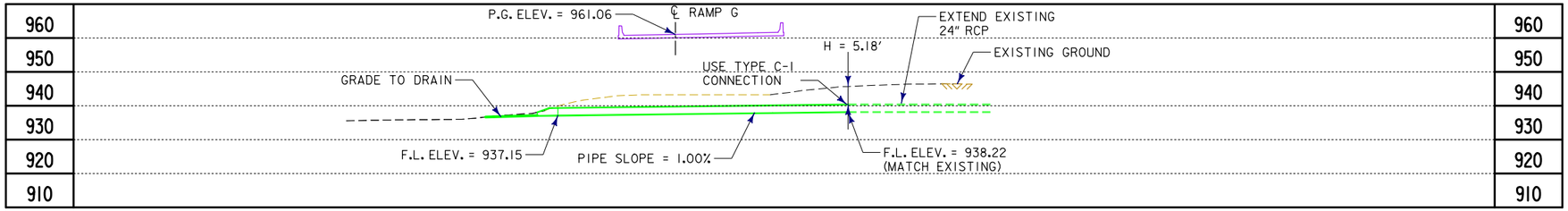
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

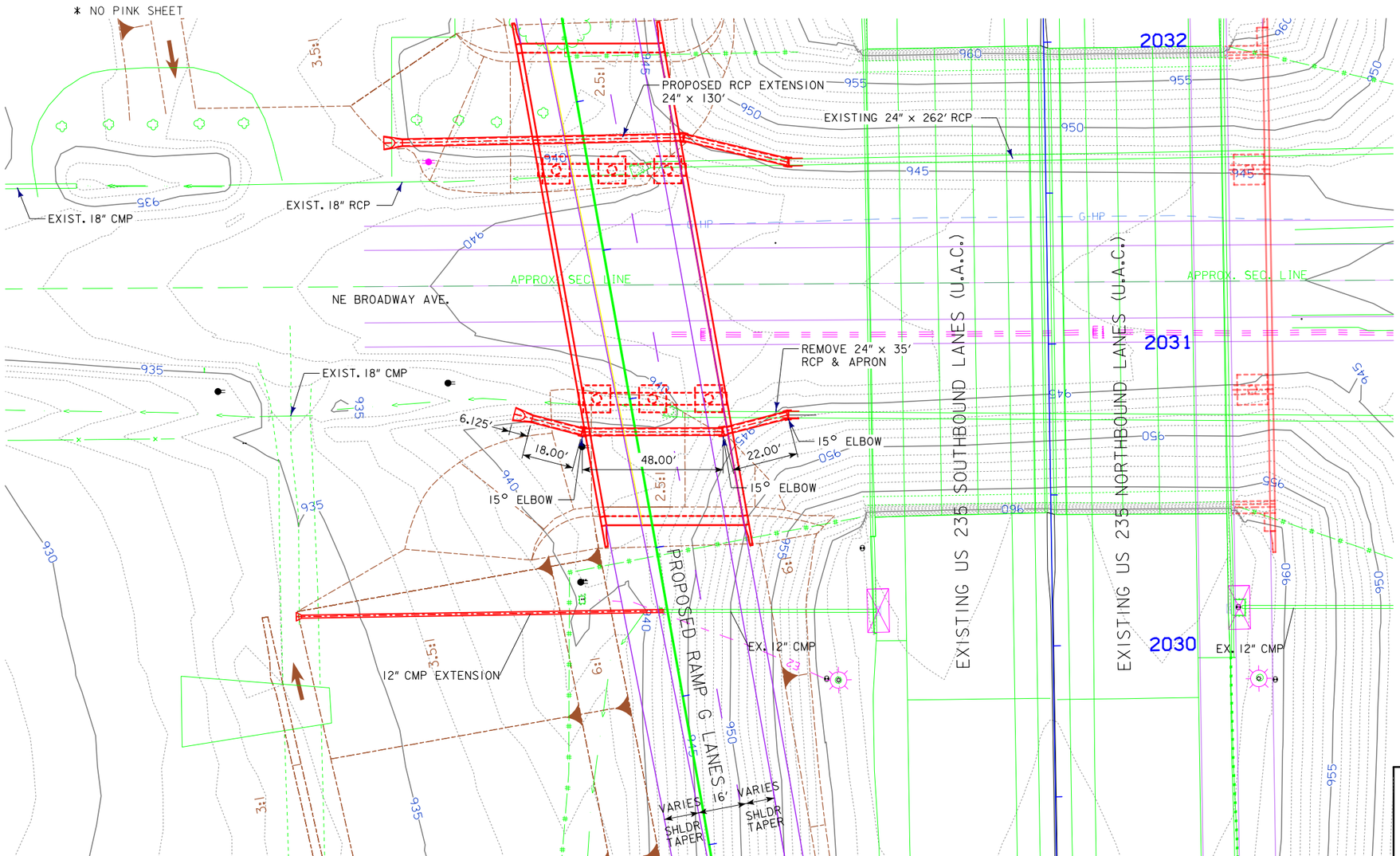
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.6

12/23/2016 10:00:56 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V6 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	13,900	V.P.D.
2050 AADT	18,500	V.P.D.
2050 DHV	2,750	V.P.H.
TRUCKS	11	%
TOTAL DESIGN ESALs	-	

LOCATION

RAMP G
T-79 N R-23 W
SECTION 19
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6439° N
LONGITUDE 93.5761° W

HYDRAULIC DATA

DRAINAGE AREA = 3.0 ACRES - ROLLING
Q_{50} = 10 CFS

PRELIMINARY
DESIGN FOR 0° SKEW LT. AHD.

24" X 94'
REINFORCED CONCRETE PIPE CULVERT EXTENSION LEFT
PLAT PLAN

STA. 38559+38.95 (℄ Ramp G) NOVEMBER 2016

POLK COUNTY

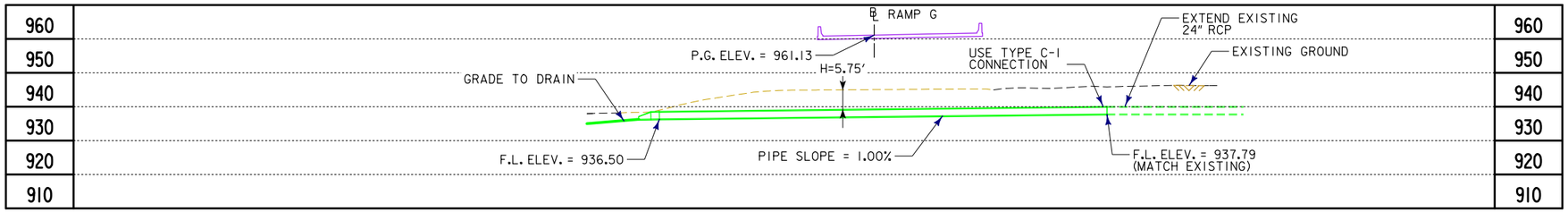
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

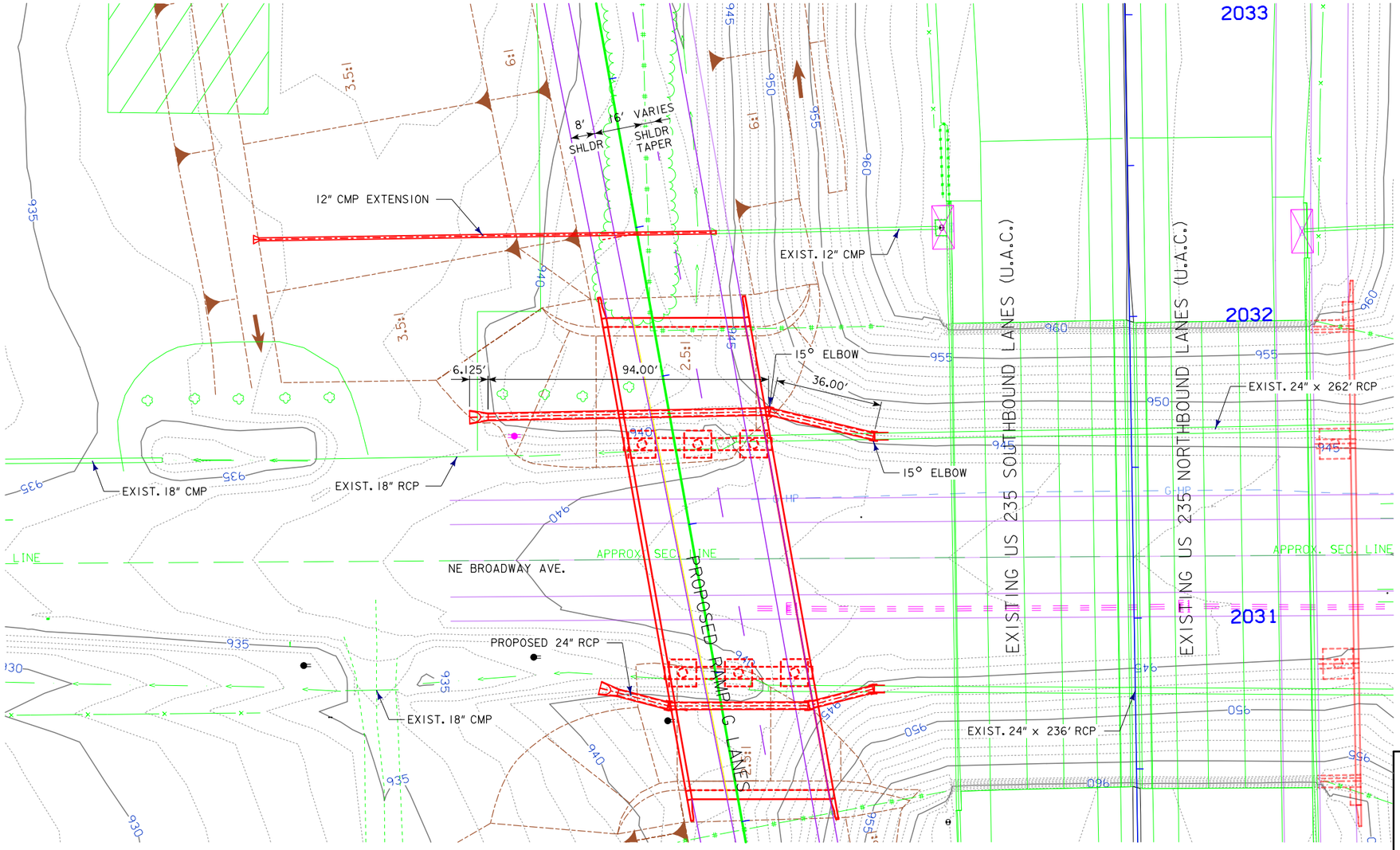
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.7

12/23/2016 10:01:06 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V7 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	13,900	V.P.D.
2050 AADT	18,500	V.P.D.
2050 DHV	2,750	V.P.H.
TRUCKS	11	%
TOTAL DESIGN ESALs	-	--

LOCATION

RAMP G
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6442° N
LONGITUDE 93.5761° W

HYDRAULIC DATA

DRAINAGE AREA = 4.0 ACRES - ROLLING
Q_{50} = 12 CFS

PRELIMINARY
DESIGN FOR 0° SKEW LT. AHD.

24" X 130' REINFORCED CONCRETE PIPE CULVERT EXTENSION LEFT PLAT PLAN

STA. 38560+37.39 (℄ Ramp G) NOVEMBER 2016

POLK COUNTY

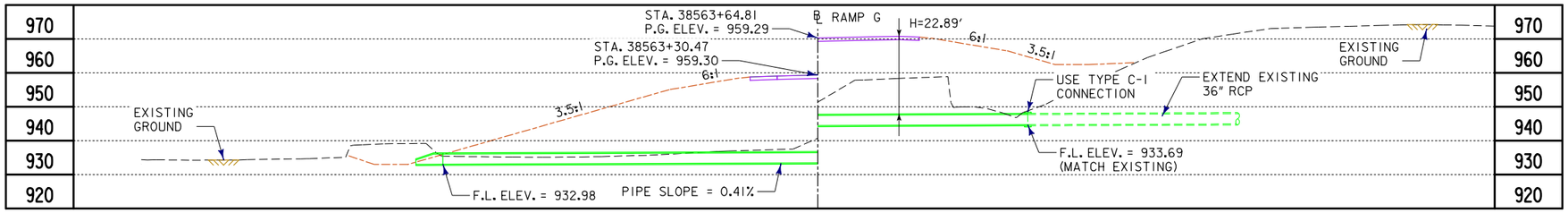
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

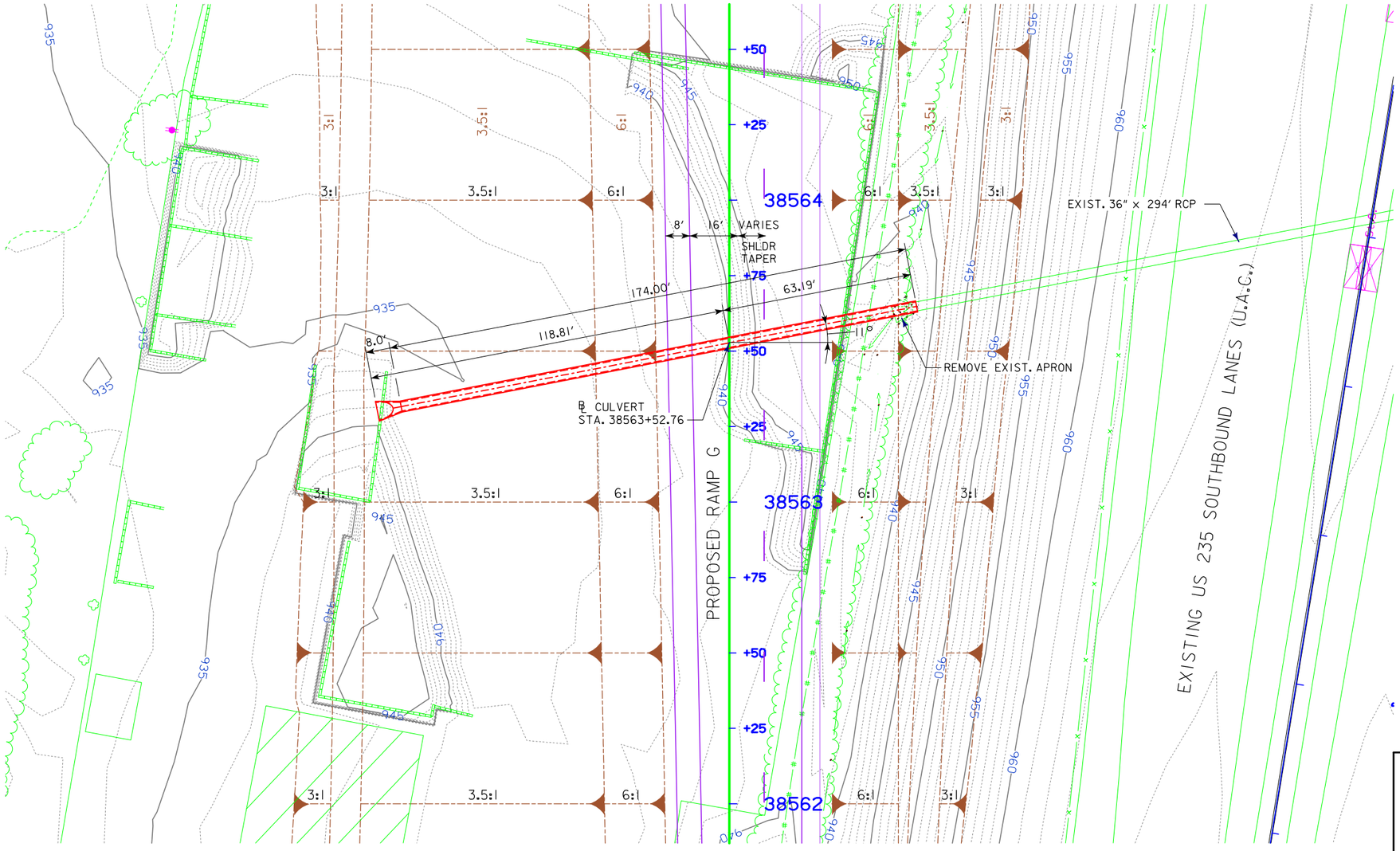
DESIGN TEAM Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.8

12/23/2016 10:01:15 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V8 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG AT CULVERT INVERTS



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	13,900	V.P.D.
2050 AADT	18,500	V.P.D.
2050 DHV	2,750	V.P.H.
TRUCKS	11	%
TOTAL DESIGN ESALs	--	

LOCATION

RAMP G
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6450° N
LONGITUDE 93.5764° W

HYDRAULIC DATA

DRAINAGE AREA = 16.0 ACRES - ROLLING
Q_{50} = 37 CFS

PRELIMINARY
DESIGN FOR 0° SKEW RT. AHD.

36" X 174'
REINFORCED CONCRETE PIPE CULVERT EXTENSION LEFT
PLAT PLAN

STA. 38563+52.76 (℄ Ramp G) NOVEMBER 2016

POLK COUNTY

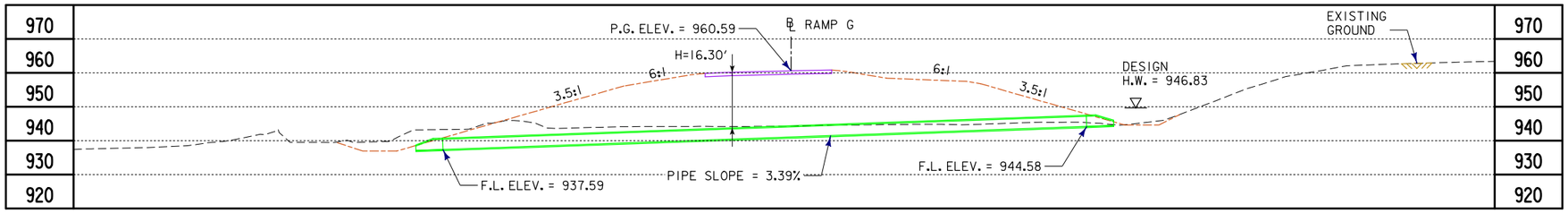
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

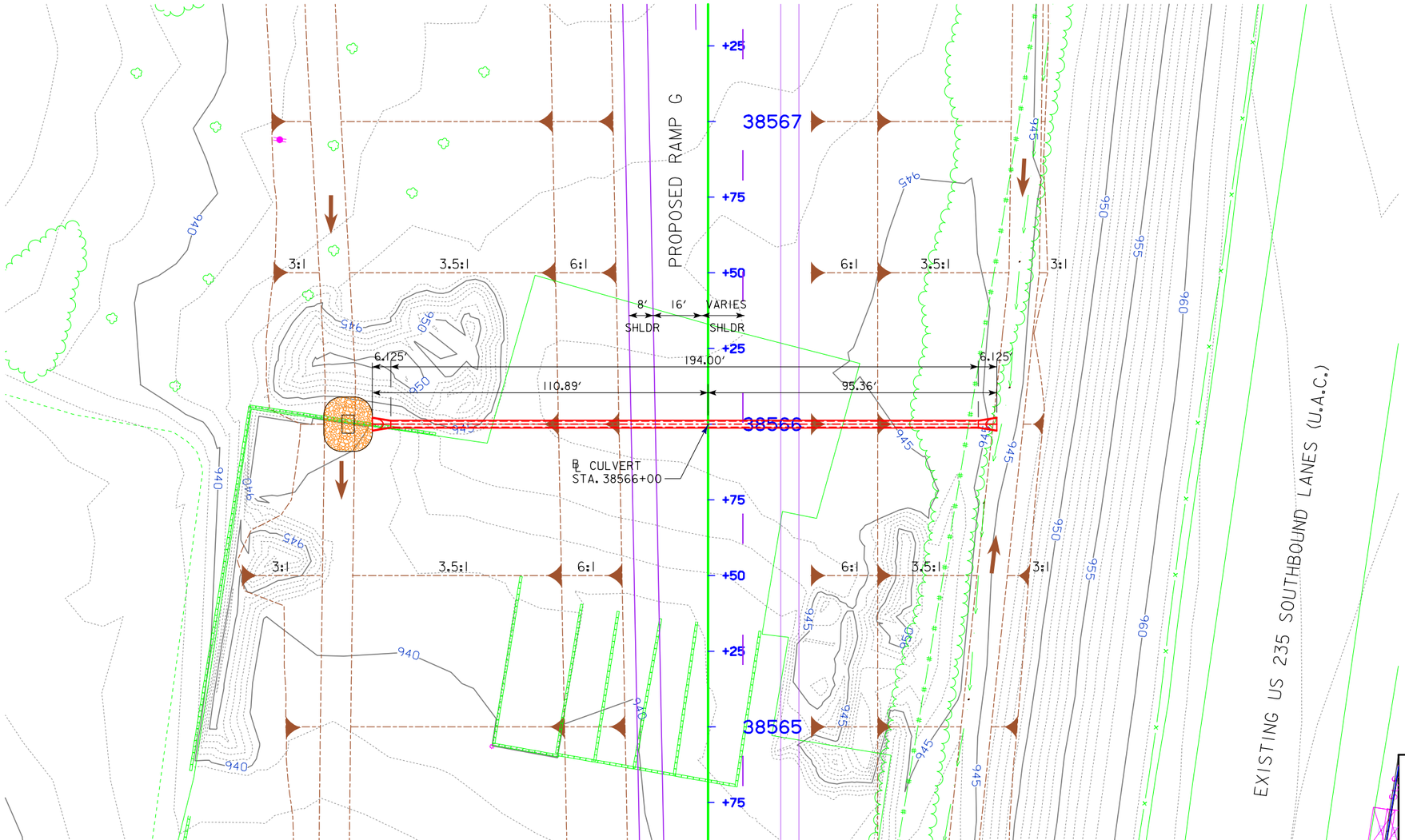
DESIGN TEAM Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.9

12/23/2016 10:01:29 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V9 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	13,900	V.P.D.
2050 AADT	18,500	V.P.D.
2050 DHV	2,750	V.P.H.
TRUCKS	11	%
TOTAL DESIGN ESALs	-	

LOCATION

RAMP G
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6458° N
LONGITUDE 93.5767° W

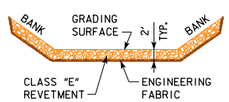
HYDRAULIC DATA

DRAINAGE AREA = 5.0 ACRES - ROLLING
Q_{50} = 15 CFS
HW ELEV. = 946.83

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	28.3	29	19
TOTALS	28.3	29	19

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

24" X 194'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 38566+00 (℄ Ramp G) NOVEMBER 2016

POLK COUNTY

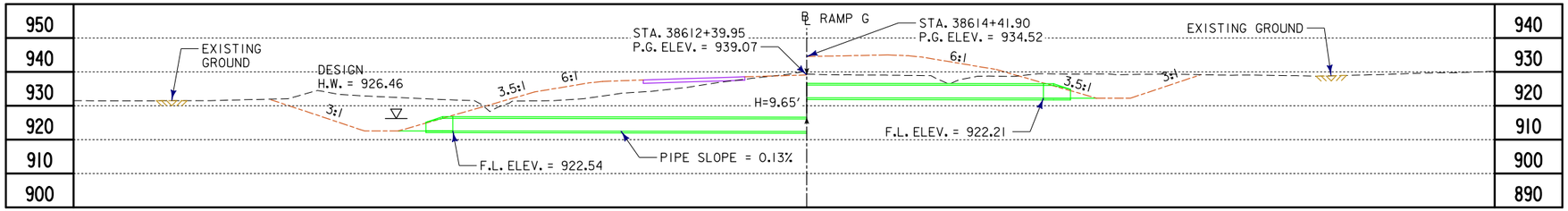
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

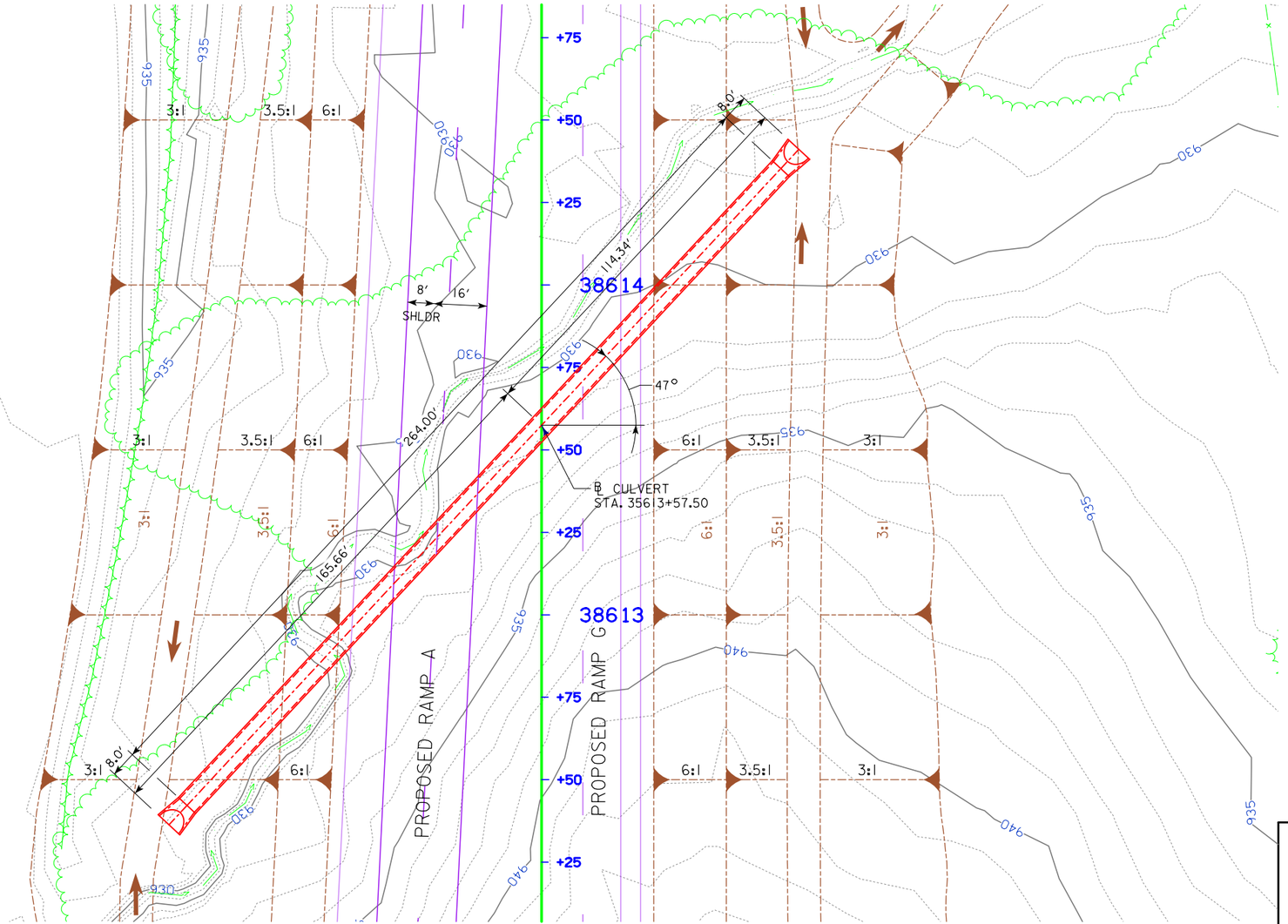
DESIGN TEAM Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.10

12/23/2016 10:01:42 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V10 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG AT CULVERT INVERTS



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	22,400	V.P.D.
2050 DHV	2,620	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	

LOCATION

RAMP G
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6544° N
LONGITUDE 93.5678° W

HYDRAULIC DATA

DRAINAGE AREA = 70.6 ACRES - ROLLING
Q_{50} = 115 CFS
HW ELEV. = 926.46

PRELIMINARY

DESIGN FOR 47° SKEW RT. AHD.

73" X 45" X 264'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 38613+57.50 (℄ Ramp G) NOVEMBER 2016

POLK COUNTY

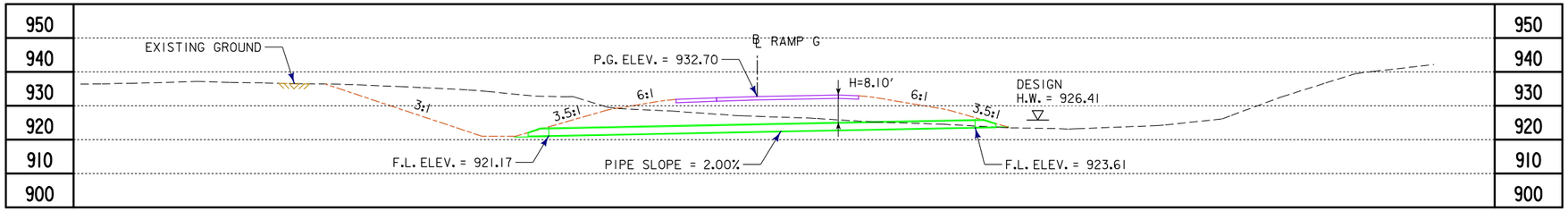
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

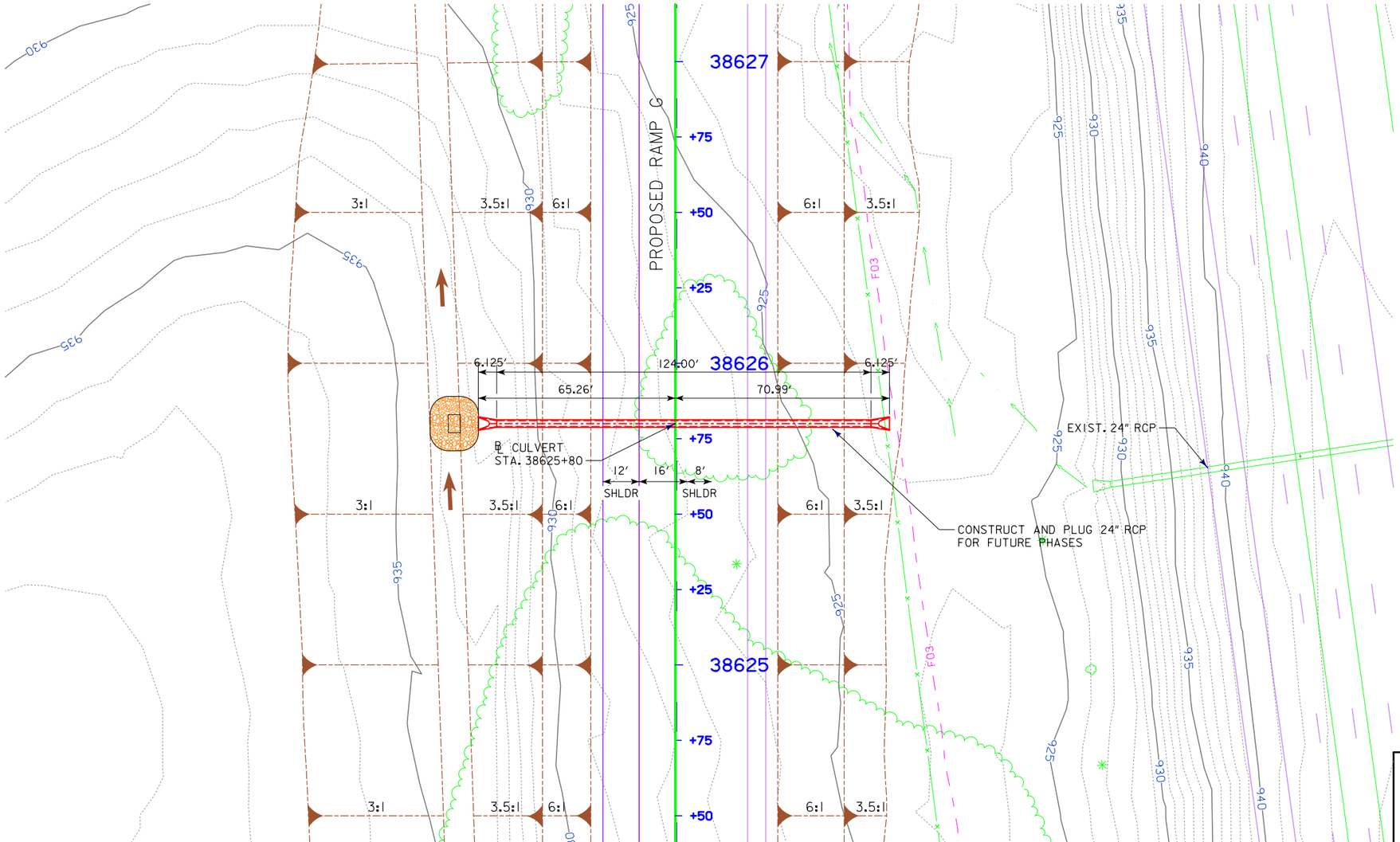
DESIGN TEAM Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.11

12/23/2016 10:01:57 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V11 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	22,400	V.P.D.
2050 DHV	2,620	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	

LOCATION

RAMP G
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6547° N
LONGITUDE 93.5633° W

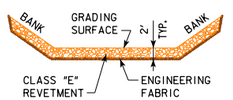
HYDRAULIC DATA

DRAINAGE AREA = 6.9 ACRES - ROLLING
Q_{50} = 19 CFS
HW ELEV. = 926.41

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	28.3	29	19
TOTALS	28.3	29	19

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

24" X 124'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 38625+80 (℄ Ramp G) NOVEMBER 2016

POLK COUNTY

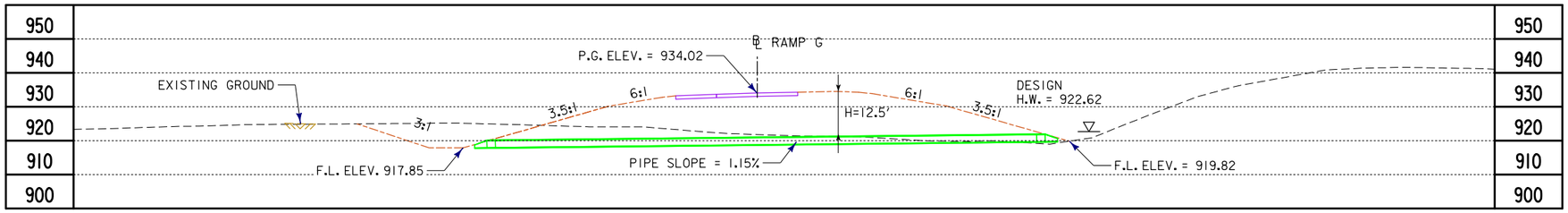
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

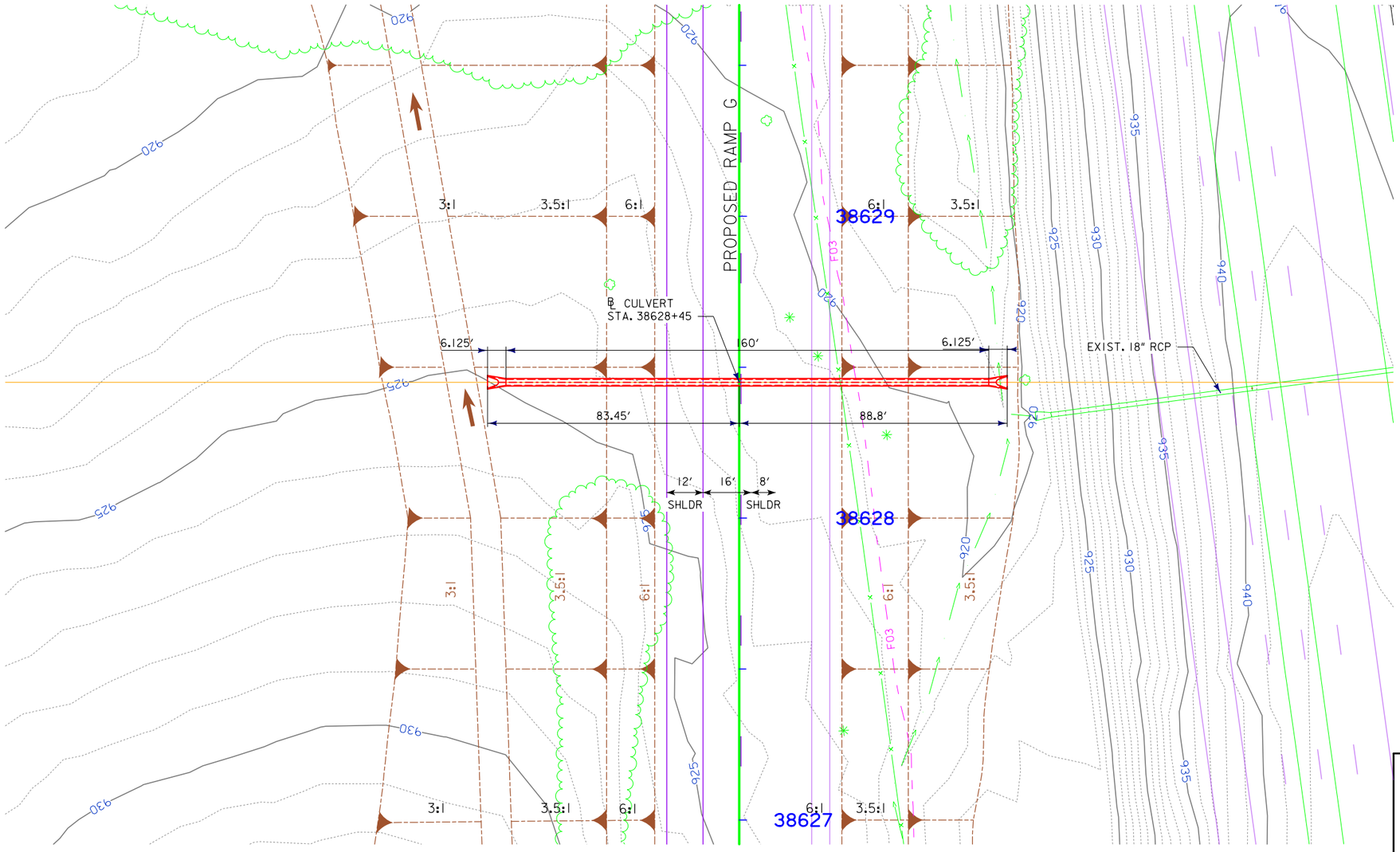
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.12

12/23/2016 10:02:07 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V12 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

TEMPORARY PIPE FOR PHASE 3

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	22,400	V.P.D.
2050 DHV	2,620	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	

LOCATION

RAMP G
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6547° N
LONGITUDE 93.5633° W

HYDRAULIC DATA

DRAINAGE AREA = 6.9 ACRES - ROLLING
Q_{50} = 19 CFS
HW ELEV. = 922.62

PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

24" X 160'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 38628+45 (℄ Ramp G) OCTOBER 2016

POLK COUNTY

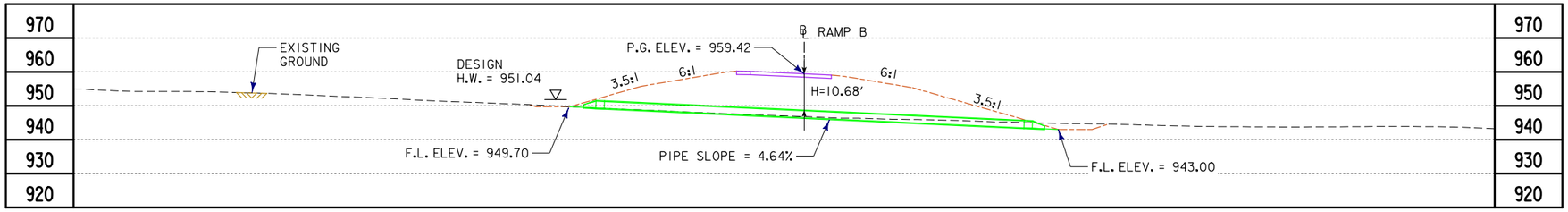
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

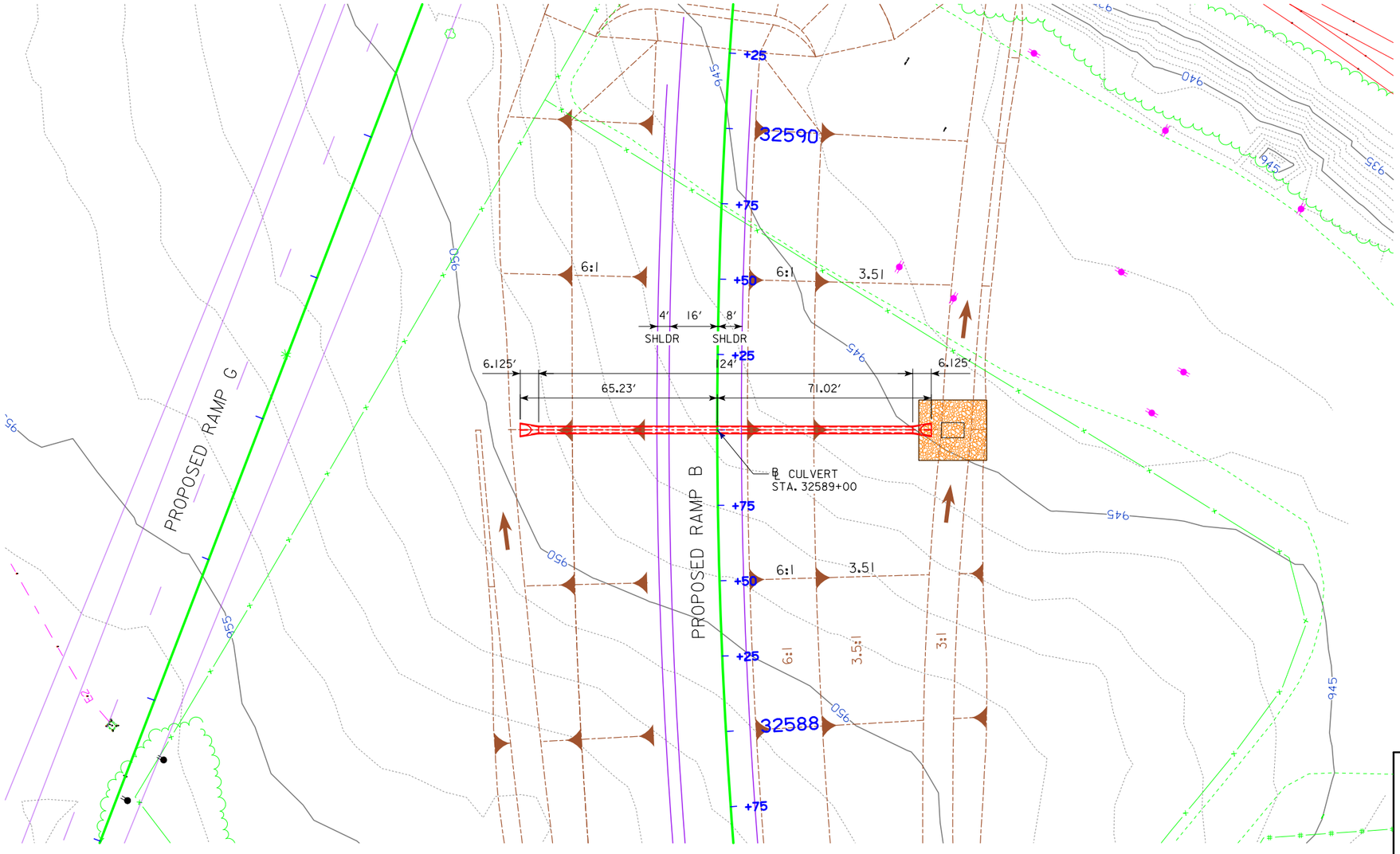
DESIGN TEAM	Iowa DOT/HDR	POLK	COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.13

12/23/2016 10:02:18 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V13 11x17c_pdf.pltcfg

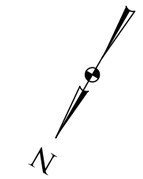
BENCH MARK NO. 100, ELEV. 904.541, N 601242.316, E 1613129.094, FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN



0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	6,400	V.P.D.
2050 DHV	1,040	V.P.H.
TRUCKS	13	%
TOTAL DESIGN ESALs	-	

LOCATION

EB I-80 TO SB I-235 - RAMP B
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6478° N
LONGITUDE 93.5775° W

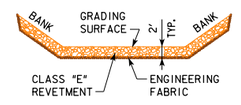
HYDRAULIC DATA

DRAINAGE AREA = 3.6 ACRES - ROLLING
Q_{50} =11 CFS
HW ELEV. = 951.04

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	49.5	50	33.5
TOTALS	49.5	50	33.5

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

24" X 124' REINFORCED CONCRETE PIPE PLAT PLAN

STA. 32589+00 (℄ Ramp B) NOVEMBER 2016

POLK COUNTY

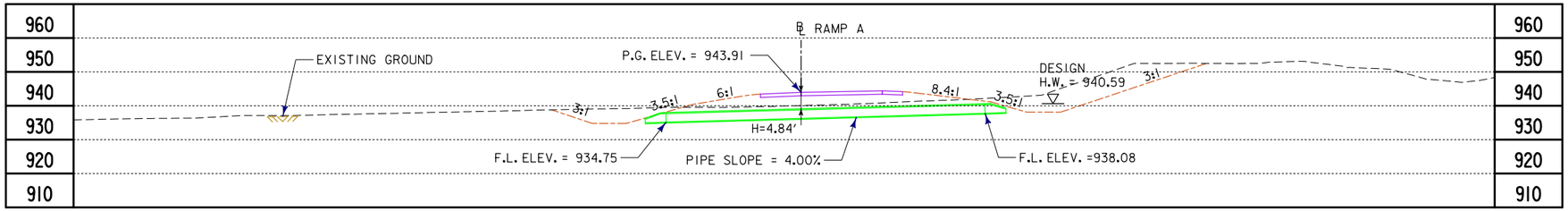
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

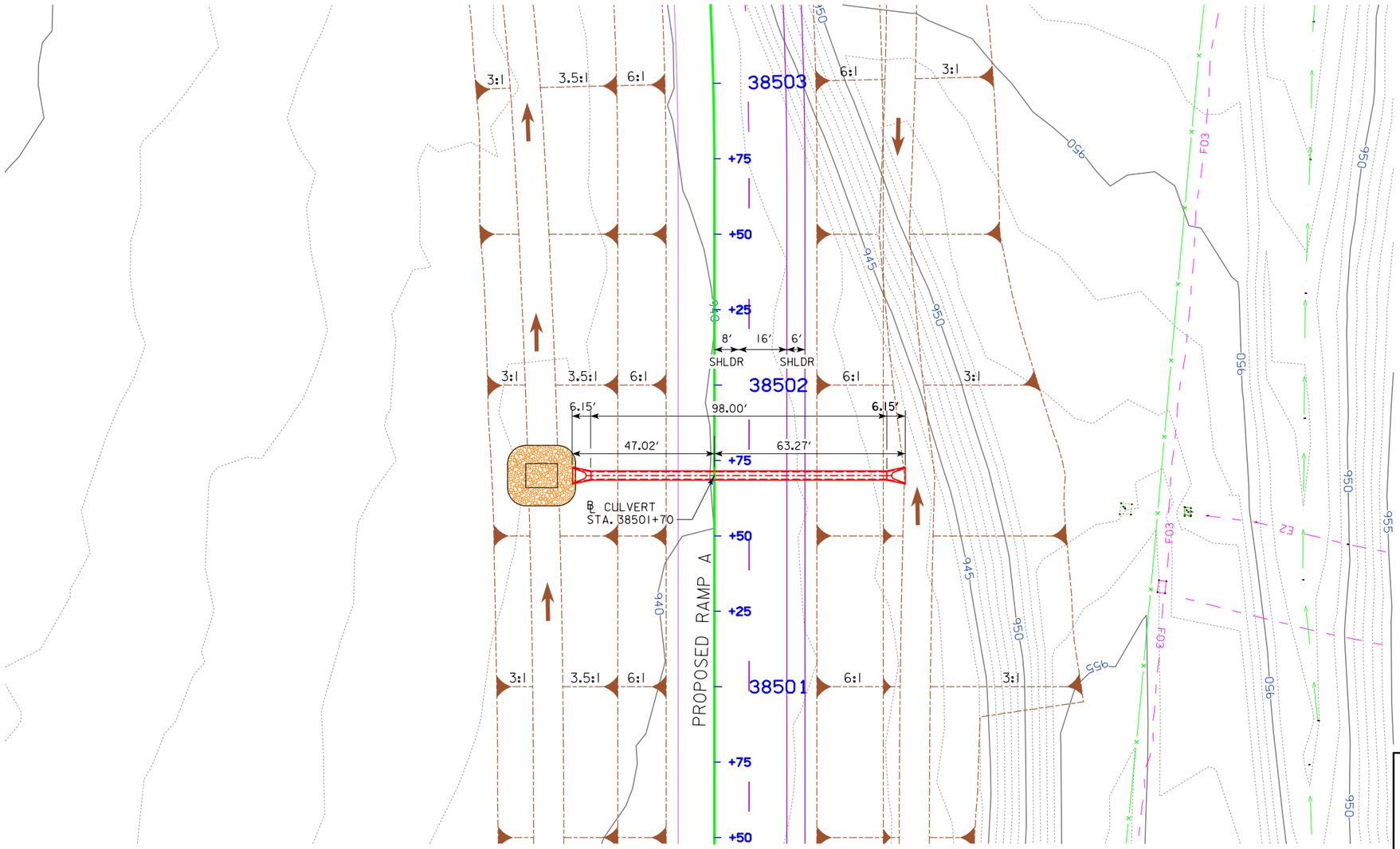
DESIGN TEAM Iowa DOT/HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(194)87--13-77 | SHEET NUMBER V.14

12/23/2016 10:02:28 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V14 11x17c_pdf.pltcfg

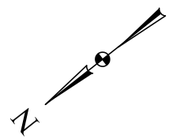
BENCH MARK NO. 128, ELEV. 933.868, STA. 38509+14.31, 8020.79' RT., FENO MONUMENT BTWN TOP OF BKSLP AND R.O.W. FENCE IN EAST R.O.W.



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN



0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	5,400	V.P.D.
2050 AADT	10,300	V.P.D.
2050 DHV	900	V.P.H.
TRUCKS	30	%
TOTAL DESIGN ESALs	-	

LOCATION

WB I-80 TO NB I-35 - RAMP A
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6556° N
LONGITUDE 93.5719° W

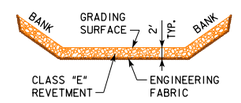
HYDRAULIC DATA

DRAINAGE AREA = 10.6 ACRES - ROLLING
Q_{50} = 27 CFS
HW ELEV. = 940.59

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	46.1	46.5	31
TOTALS	46.1	46.5	31

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.
QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

30" X 92'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 38501+70 (℄ Ramp A) NOVEMBER 2016

POLK COUNTY

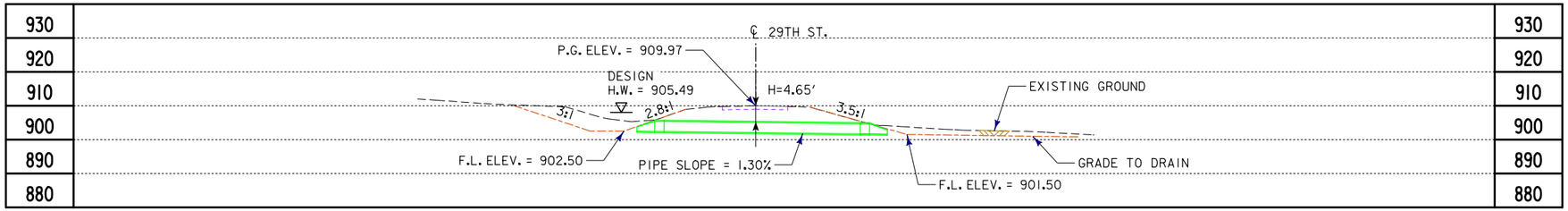
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

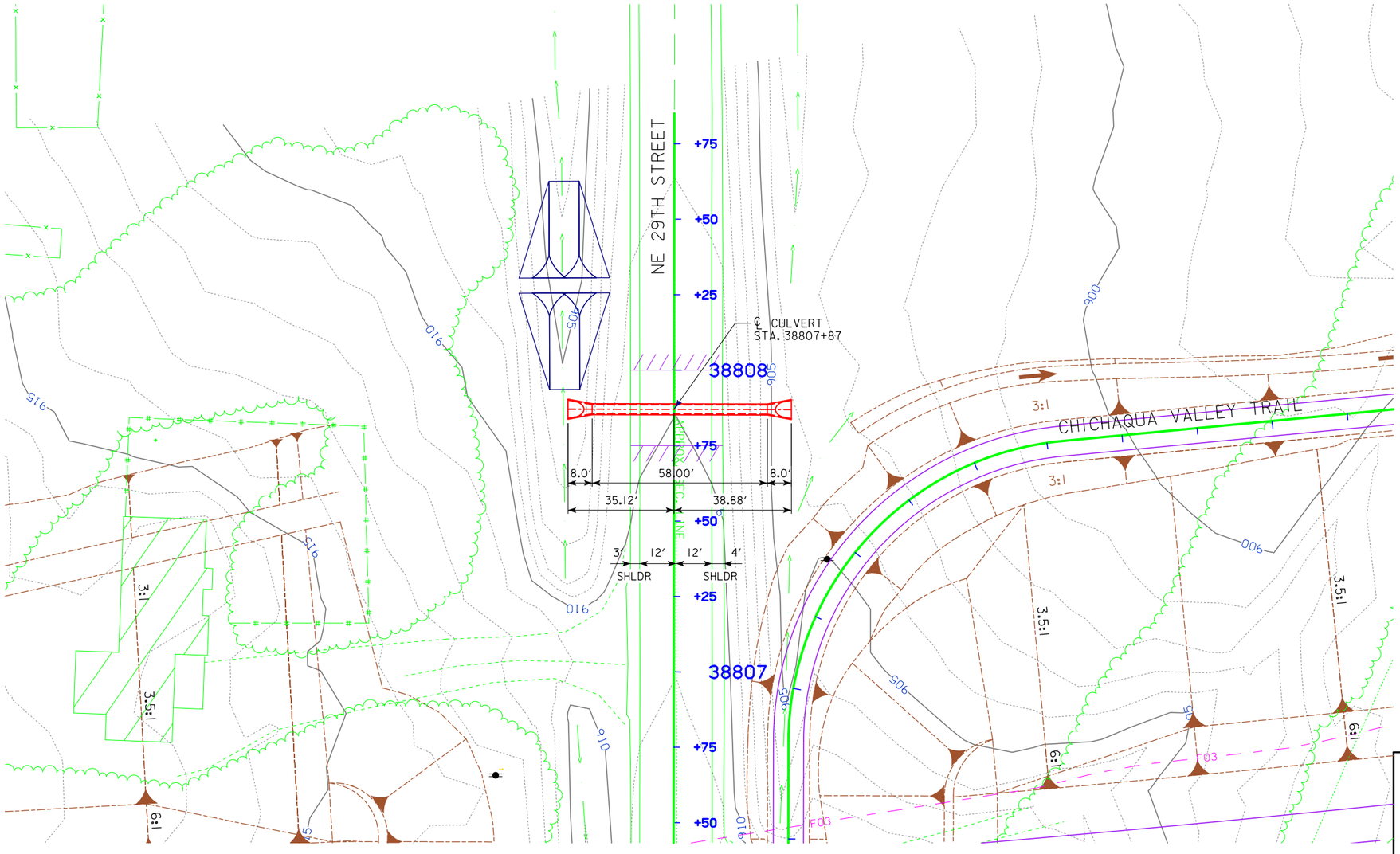
DESIGN TEAM Iowa DOT/HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(194)87--13-77 | SHEET NUMBER V.15

12/23/2016 10:02:38 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V15 11x17c_pdf.pltcfg

BENCH MARK NO. 128, ELEV. 933.868, N 594971.978, E 1619970.2, FENO MONUMENT BTWN TOP OF BKSLP AND R.O.W. FENCE IN EAST R.O.W.



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	N/A	V.P.D.
2050 DHV	N/A	V.P.H.
TRUCKS	N/A	%
TOTAL DESIGN ESALs	-	

LOCATION

NE 29TH STREET
T-79 N R-23 W
SECTION 17-18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6553° N
LONGITUDE 93.5611° W

HYDRAULIC DATA

DRAINAGE AREA = 15.3 ACRES - ROLLING
Q_{50} = 35 CFS
HW ELEV. = 905.49

PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

36" X 58' REINFORCED CONCRETE PIPE PLAT PLAN

STA. 38807+87 (℄ SR29TH) NOVEMBER 2016

POLK COUNTY

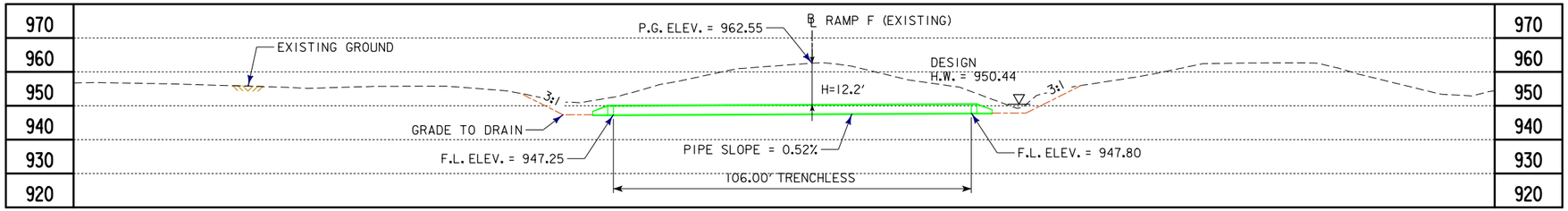
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

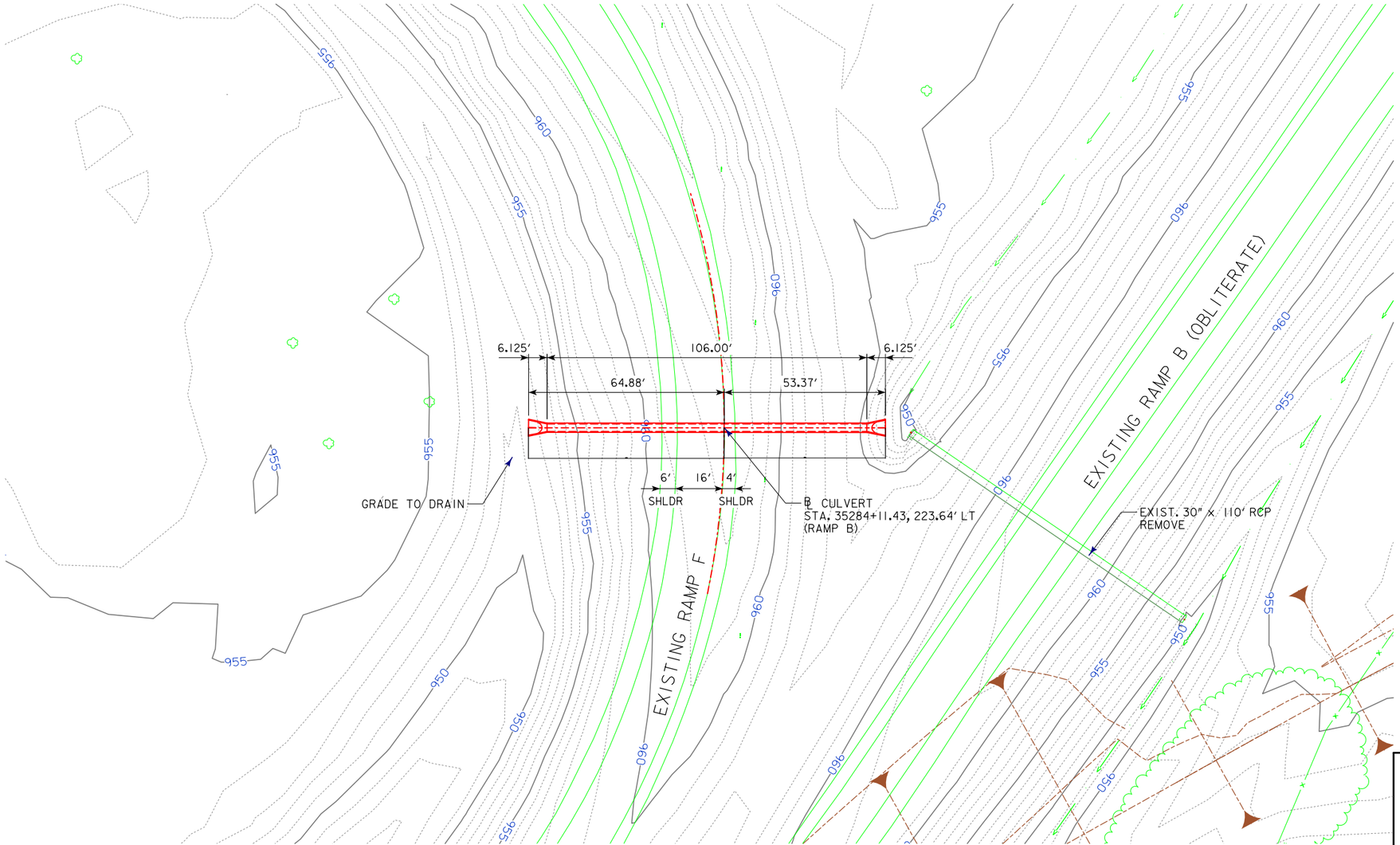
DESIGN TEAM Iowa DOT/HDR		POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.16

12/23/2016 10:03:27 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V16 11x17c_pdf.pltcfg

BENCH MARK NO. 100, ELEV. 904.541, N 601242.316, E 1613129.094, FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	6,600	V.P.D.
2050 AADT	-	V.P.D.
2050 DHV	-	V.P.H.
TRUCKS	29	%
TOTAL DESIGN ESALs	-	

LOCATION

SB I-35 TO EB I-80 - EXIST. LOOP RAMP F
T-79 N R-23 W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6492° N
LONGITUDE 93.5778° W

HYDRAULIC DATA

DRAINAGE AREA = 9.0 ACRES - ROLLING
Q_{50} = 24 CFS
HW ELEV. = 950.44

PRELIMINARY

DESIGN FOR 0° SKEW LT. AHD.

30" X 106' (TRENCHLESS) REINFORCED CONCRETE PIPE PLAT PLAN

STA. 32584+11.43 (℄ Ramp B) NOVEMBER 2016

POLK COUNTY

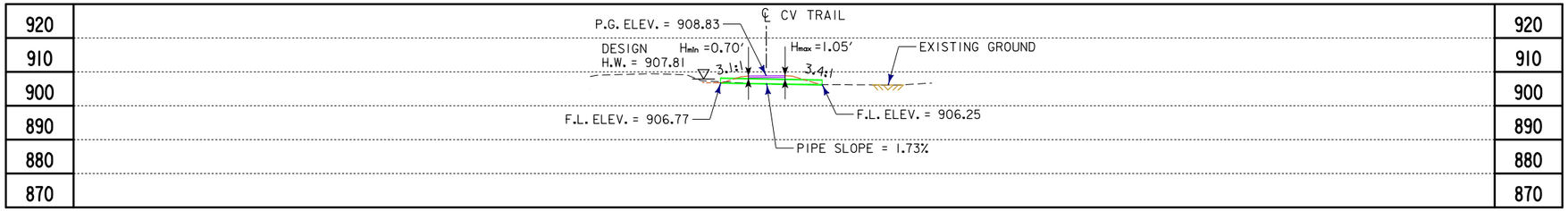
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

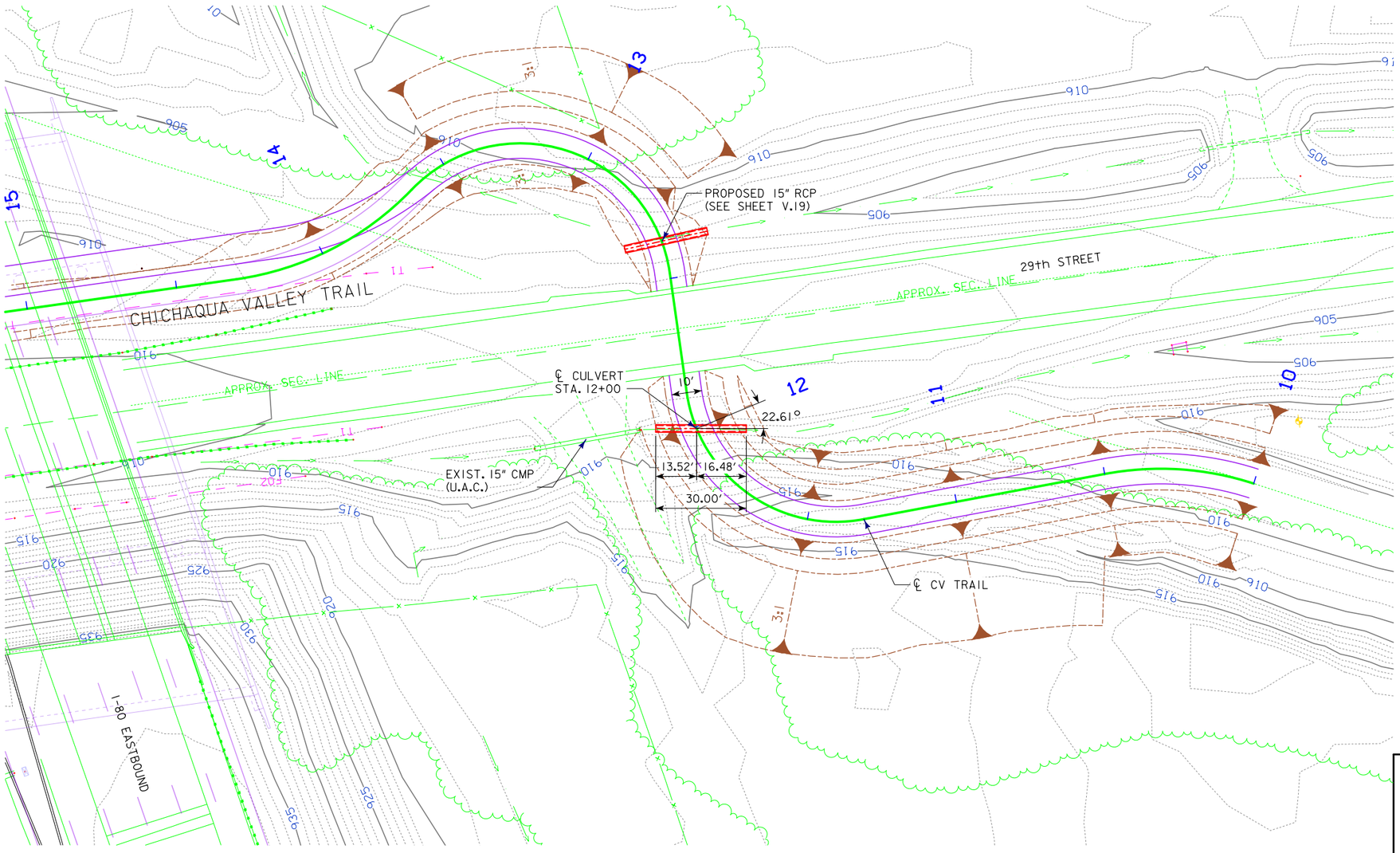
DESIGN TEAM Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER V.17

12/23/2016 10:03:37 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V17 11x17c_pdf.pltcfg

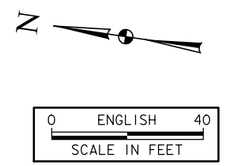
BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN



TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	N/A	V.P.D.
2050 DHV	N/A	V.P.H.
TRUCKS	N/A	%
TOTAL DESIGN ESALs	-	

LOCATION

CHICHAQUA VALLEY TRAIL
T-79 N R-23 W
SECTION 17
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6553° N
LONGITUDE 93.5606° W

HYDRAULIC DATA

DRAINAGE AREA = 1 ACRES - ROLLING
Q_{10} = 3 CFS
HW ELEV. = 907.81

PRELIMINARY

DESIGN FOR 22° SKEW LT. AHD.

15" X 30'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 12+00 (℄ CV TRAIL) NOVEMBER 2016

POLK COUNTY

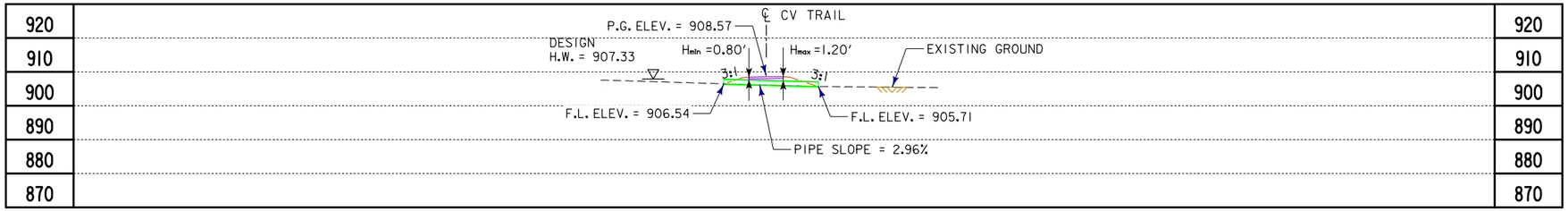
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

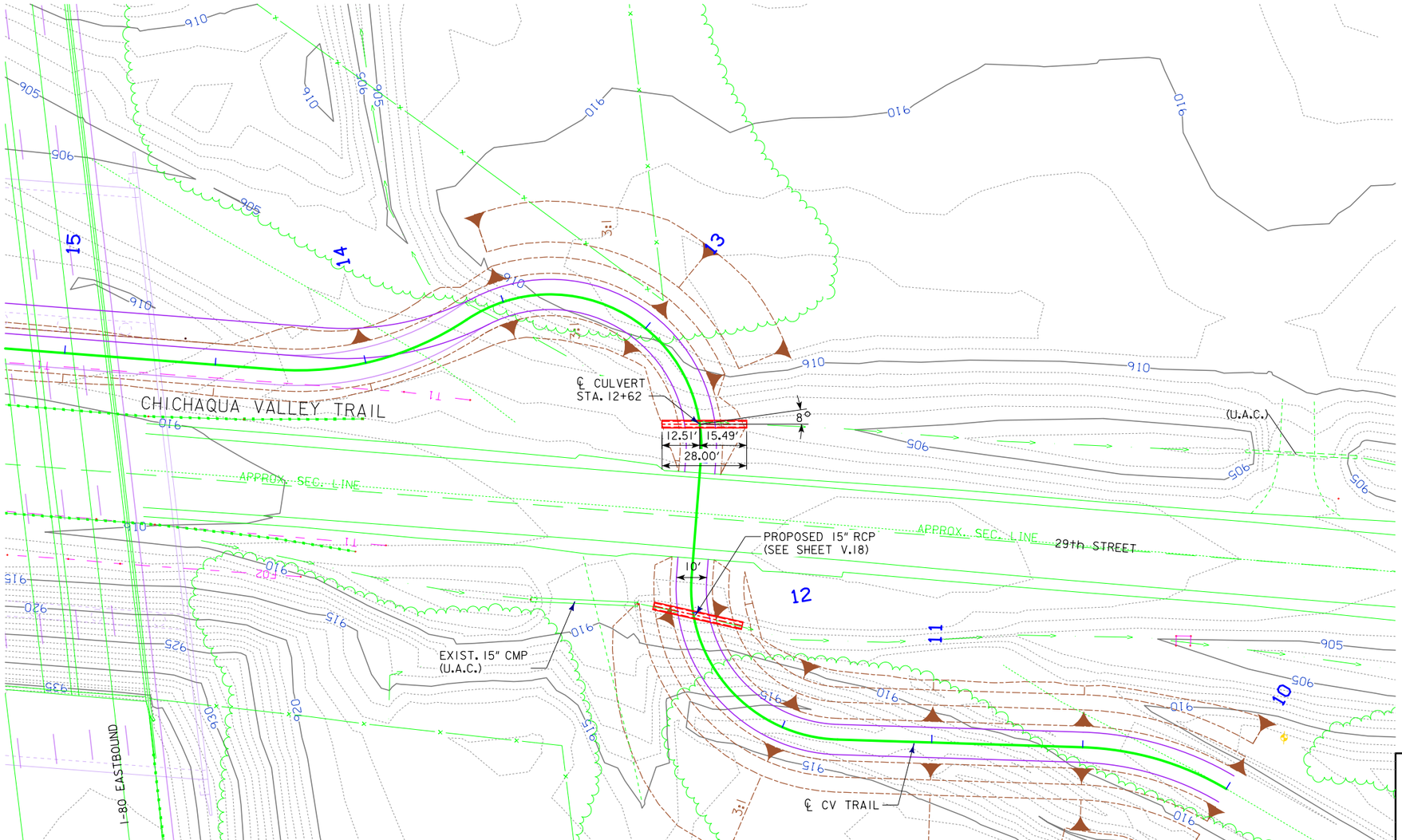
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER V.18

12/23/2016 10:03:47 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V18 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	N/A	V.P.D.
2050 DHV	N/A	V.P.H.
TRUCKS	N/A	%
TOTAL DESIGN ESALs	-	

LOCATION

CHICHAQUA VALLEY TRAIL
T-79 N R-23 W
SECTION 17
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6553° N
LONGITUDE 93.5606° W

HYDRAULIC DATA

DRAINAGE AREA = 1 ACRES - ROLLING
Q_{10} = 3 CFS
HW ELEV. = 907.33

PRELIMINARY

DESIGN FOR 8° SKEW RT. AHD.

15" X 28'
REINFORCED CONCRETE PIPE
PLAT PLAN

STA. 12+62 (℄ CV TRAIL) NOVEMBER 2016

POLK COUNTY

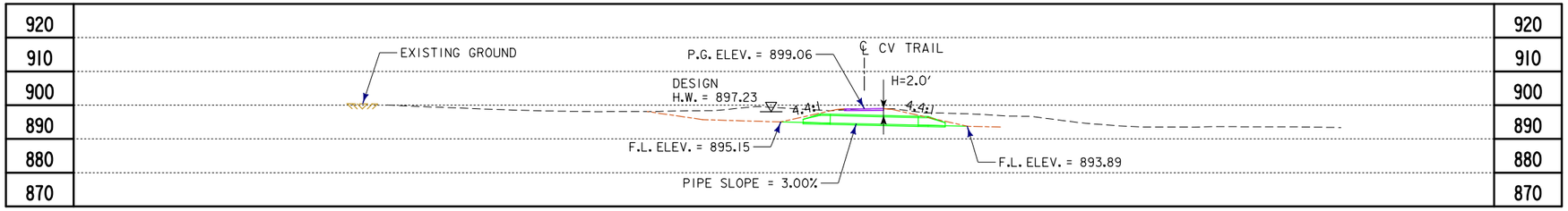
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

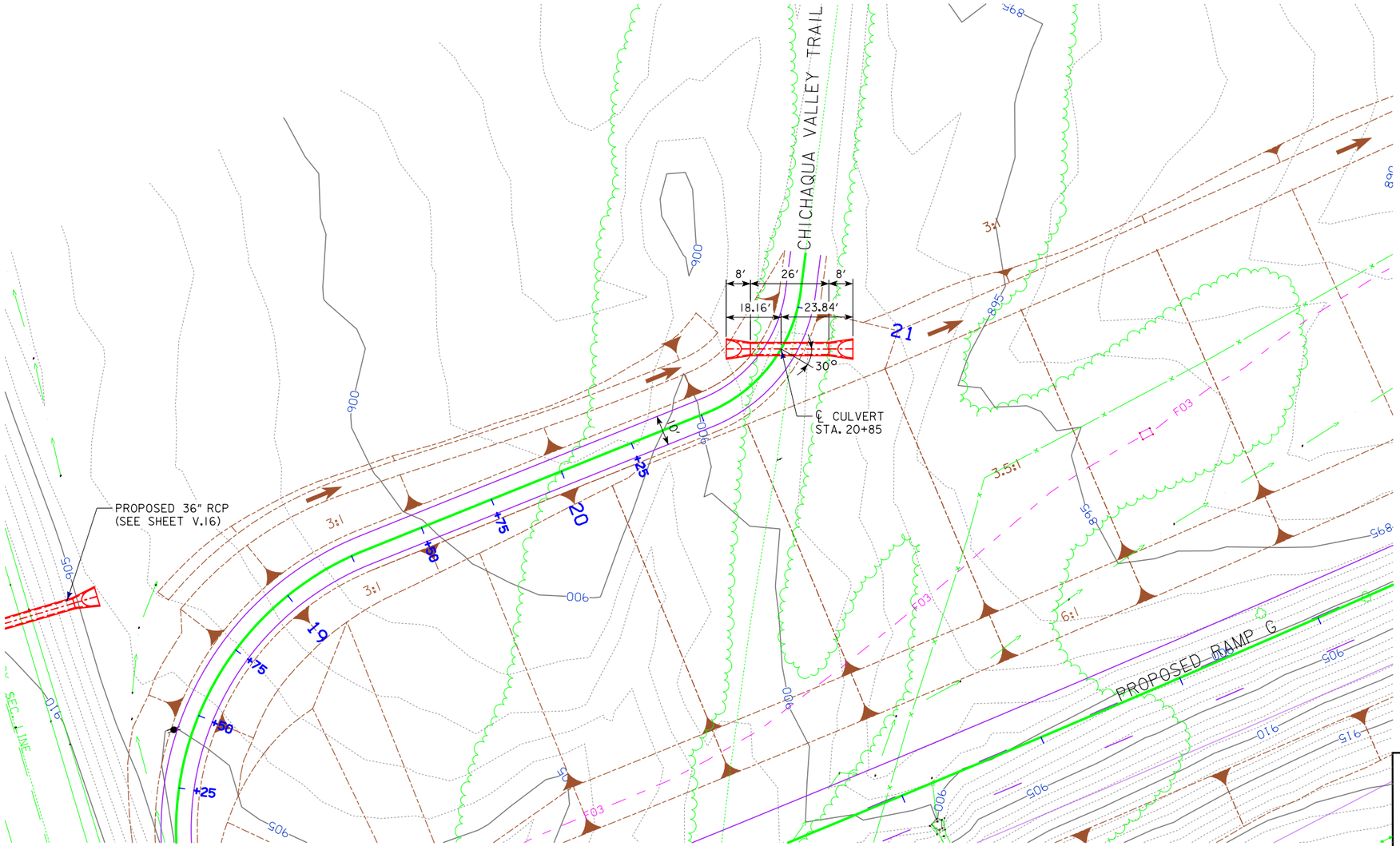
DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.19

12/23/2016 10:03:58 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\6.0_CAD_BIM\6.2_Work_in_Progress\Bridge\77035194.str 77035194V19 11x17c_pdf.pltcfg

BENCH MARK NO. 101, ELEV. 932.935, STA. 38606+52.11, 9727.41' LT., FENO MONUMENT



LONGITUDINAL SECTION ALONG ℄ CULVERT



PLAT PLAN

N

0 ENGLISH 40
SCALE IN FEET

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	N/A	V.P.D.
2050 DHV	N/A	V.P.H.
TRUCKS	N/A	%
TOTAL DESIGN ESALs	-	

LOCATION

CHICHAQUA VALLEY TRAIL
T-79 N R-23 W
SECTION 17
DELAWARE TOWNSHIP
POLK COUNTY
LATITUDE 41.6553° N
LONGITUDE 93.5606° W

HYDRAULIC DATA

DRAINAGE AREA = 15.9 ACRES - ROLLING
Q_{10} = 26 CFS
HW ELEV. = 897.21

PRELIMINARY

DESIGN FOR 30° SKEW RT. AHD.

44" X 27" X 26' REINFORCED CONCRETE PIPE PLAT PLAN

STA. 20+85 (℄ CV TRAIL) NOVEMBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. XXXXX DESIGN NO. ####

DESIGN TEAM	Iowa DOT/HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	V.20

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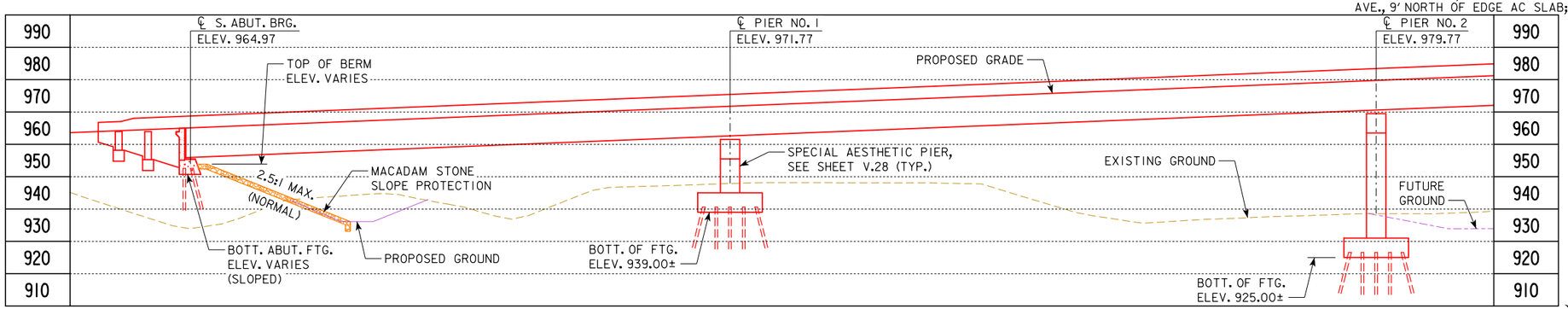
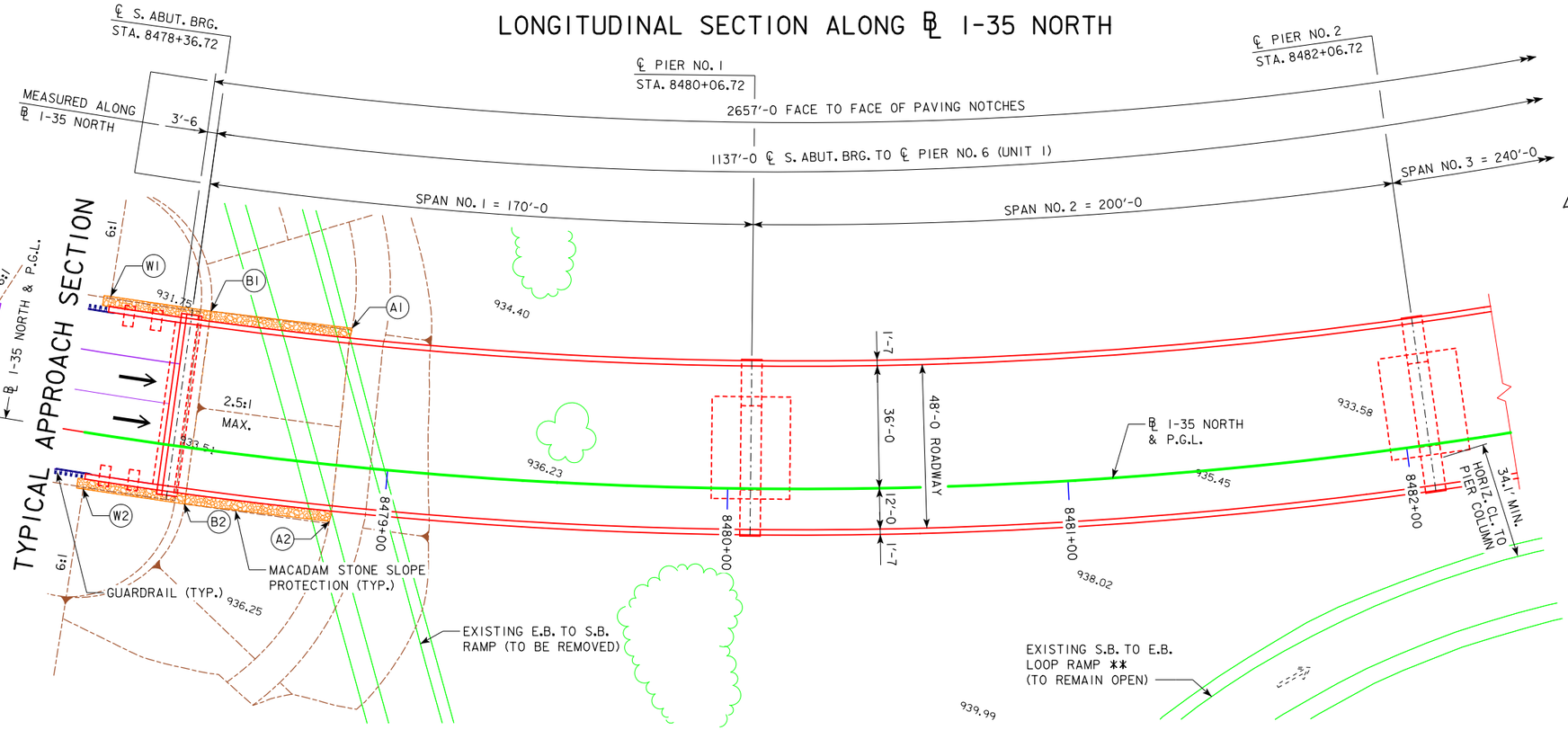
BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.



LONGITUDINAL SECTION ALONG ℄ I-35 NORTH



SITUATION PLAN

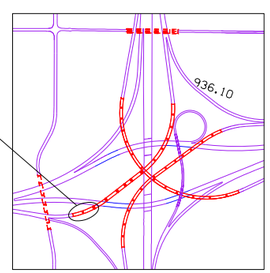
BERM SLOPE LOCATION TABLE						
POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	8478+85.39	40.58' LT.	934.14	8504+44.31	40.58' LT.	953.71
A2	8478+84.51	16.58' RT.	936.84	8504+45.88	16.58' RT.	952.71
B1	8478+42.22	40.58' LT.	950.89	8504+81.22	40.58' LT.	963.95
B2	8478+42.22	16.58' RT.	953.96	8504+81.22	16.58' RT.	967.02
W1	8478+11.66	40.58' LT.	961.68	8505+12.40	40.58' LT.	974.68
W2	8478+12.50	16.58' RT.	964.64	8505+11.40	16.58' RT.	977.74

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

UTILITIES LEGEND:

-E2- ELECTRIC - IDOT
-FO3- FIBER OPTIC - ICN/IDOT (WINDSTREAM)

0 ENGLISH 40
SCALE IN FEET



INTERCHANGE KEY PLAN

LOCATION

I-35 NORTH OVER
I-80, I-235 & SYSTEM
INTERCHANGE RAMPS
T-79N R-23W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. 700885
BRIDGE MAINT. NO. XXXXX
LATITUDE 41.652178°
LONGITUDE -93.576116°

TRAFFIC ESTIMATE

2012 AADT	12,300	V.P.D.
2050 AADT	15,800	V.P.D.
2050 DHV	1,990	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	

N

NOTES:
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
FOR VERTICAL PROFILE AND HORIZONTAL CURVE DATA, SEE SHEET V.28.
NON-STANDARD ABUTMENT WING-WALL.
TL-5 BRIDGE RAILING PROPOSED.
ADDITIONAL BRIDGE AESTHETICS TO BE INCORPORATED DURING FINAL DESIGN.
* MEASURED TO LOCAL TANGENTS
** EXISTING RAMP MOVEMENT TO BE REMOVED AFTER PROPOSED RAMP MOVEMENT CONSTRUCTED.

NOTES TO DESIGNERS:
MINIMUM HORIZONTAL CLEARANCE AND CLEAR ZONE FOR FUTURE EXPANSION:
I-80, I-35, I-235,I-35 NORTH (EB TO NB) &
I-35 SOUTH (SB TO WB) = 36' FROM LANE LINE
RAMP "G" (WB TO SB), RAMP "A" (WB TO NB),
RAMP "F" (SB TO EB), RAMP "D" (NB TO EB) &
RAMP "B" (EB TO SB) = 32' FROM LANE LINE
RAMP "E" (NB TO WB)
(OUTSIDE OF LOOP) = 22' FROM LANE LINE
(AT LOOP) = 16' FROM LANE LINE

HORIZONTAL CLEARANCES TO PIERS WERE BASED ON AN ASSUMED PIER WIDTH OF 6 FEET AND, WHERE APPLICABLE, THE SLOPING PIER COLUMN.
MINIMUM HORIZONTAL CLEARANCE TO PIER NOS. 2, 3, 4 AND 11 IS LESS THAN 30'. THEREFORE, DESIGN PIER NOS. 2, 3, 4 AND 11 FOR VEHICULAR COLLISION FORCE.
EXISTING ROADS LABELED "TO REMAIN OPEN" MAY BE BARRIER PROTECTED WITH THE FACE OF BARRIER AT THE BACK OF EXISTING SHOULDER.
SUBSTRUCTURE TO BE STUB TYPE ABUTMENTS AND AESTHETIC DELTA PIERS. AESTHETIC TREATMENTS TO BE ESTABLISHED BY IOWA DOT AESTHETICS BRIDGE SPECIALIST.
EXPANSION JOINTS AT SOUTH ABUTMENT, PIER NO. 9 AND NORTH ABUTMENT TO BE MODULAR JOINTS. EXPANSION JOINT AT PIER NO. 6 TO BE EITHER MODULAR OR FINGER JOINT.

PRELIMINARY

DESIGN FOR 0° SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN

STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY

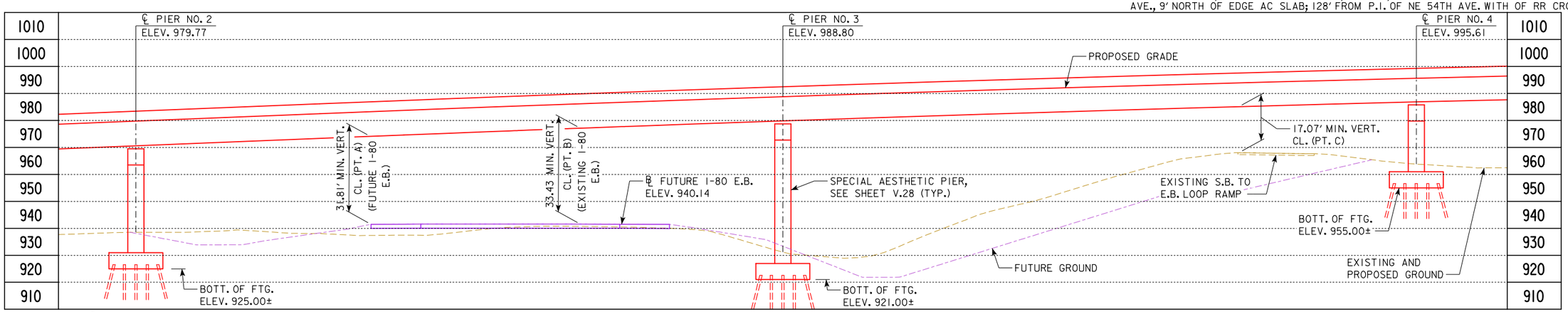
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 8 FILE NO. 31046 DESIGN NO. 1918

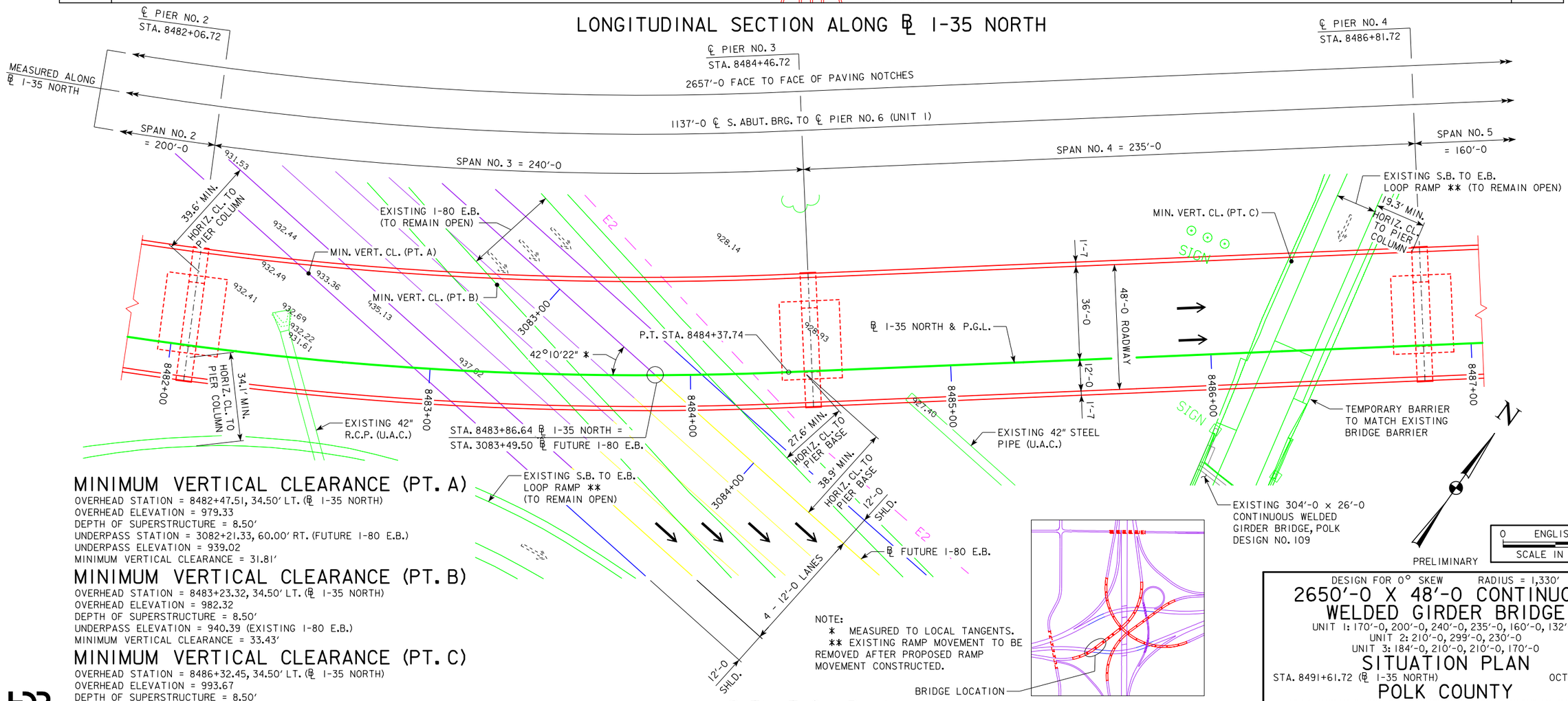
DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(195)87--13-77 | SHEET NUMBER V.21

12/23/2016 11:06:33 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_1918_01 11x17c_pdf.pltcfg

BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.



LONGITUDINAL SECTION ALONG ℄ I-35 NORTH



MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 8482+47.51, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 979.33
DEPTH OF SUPERSTRUCTURE = 8.50'
UNDERPASS STATION = 3082+21.33, 60.00' RT. (FUTURE I-80 E.B.)
UNDERPASS ELEVATION = 939.02
MINIMUM VERTICAL CLEARANCE = 31.81'

MINIMUM VERTICAL CLEARANCE (PT. B)

OVERHEAD STATION = 8483+23.32, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 982.32
DEPTH OF SUPERSTRUCTURE = 8.50'
UNDERPASS ELEVATION = 940.39 (EXISTING I-80 E.B.)
MINIMUM VERTICAL CLEARANCE = 33.43'

MINIMUM VERTICAL CLEARANCE (PT. C)

OVERHEAD STATION = 8486+32.45, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 993.67
DEPTH OF SUPERSTRUCTURE = 8.50'
EXISTING UNDERPASS ELEVATION = 968.10 (EXISTING S.B. TO E.B. LOOP RAMP)
MINIMUM VERTICAL CLEARANCE = 17.07'

NOTE:
* MEASURED TO LOCAL TANGENTS.
** EXISTING RAMP MOVEMENT TO BE REMOVED AFTER PROPOSED RAMP MOVEMENT CONSTRUCTED.

SITUATION PLAN

INTERCHANGE KEY PLAN

PRELIMINARY

0 ENGLISH 40
SCALE IN FEET

DESIGN FOR 0° SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN

STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY

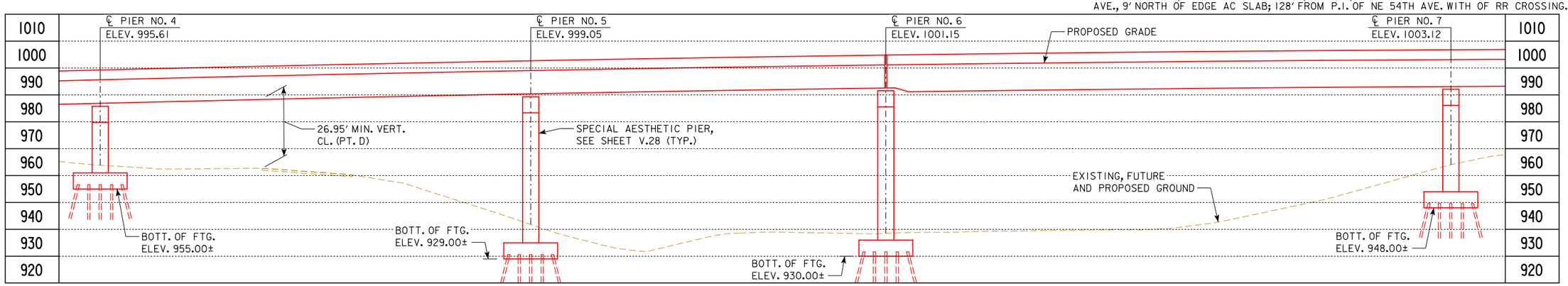
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 8 FILE NO. 31046 DESIGN NO. 1918

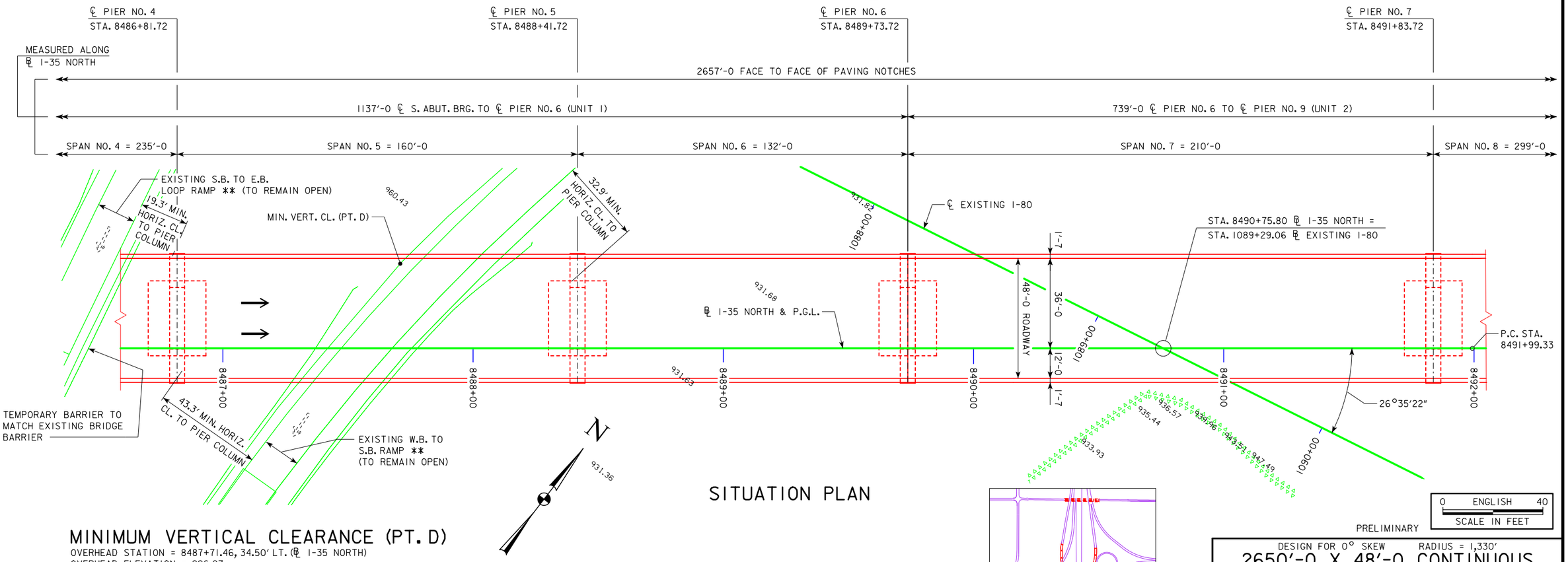
DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(195)87--13-77 | SHEET NUMBER V.22

12/23/2016 11:07:44 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_1918_02 11x17c_pdf.pltcfg

BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.



LONGITUDINAL SECTION ALONG ℄ I-35 NORTH

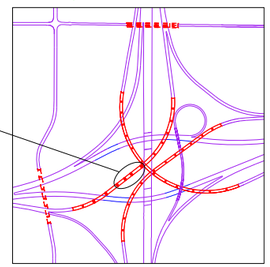


SITUATION PLAN

MINIMUM VERTICAL CLEARANCE (PT. D)

OVERHEAD STATION = 8487+71.46, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 996.97
DEPTH OF SUPERSTRUCTURE = 8.50'
EXISTING UNDERPASS ELEVATION = 961.52 (EXISTING W.B. TO S.B. RAMP)
MINIMUM VERTICAL CLEARANCE = 26.95'

NOTE:
** EXISTING RAMP MOVEMENT TO BE REMOVED AFTER PROPOSED RAMP MOVEMENT CONSTRUCTED.



INTERCHANGE KEY PLAN

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

DESIGN FOR 0° SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN

STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

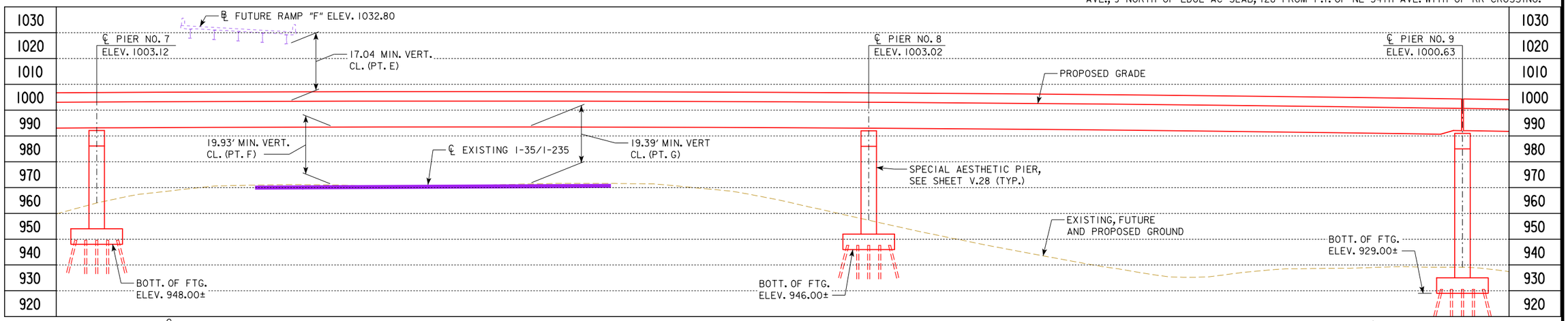
DESIGN SHEET NO. 3 OF 8 FILE NO. 31046 DESIGN NO. 1918

HDR

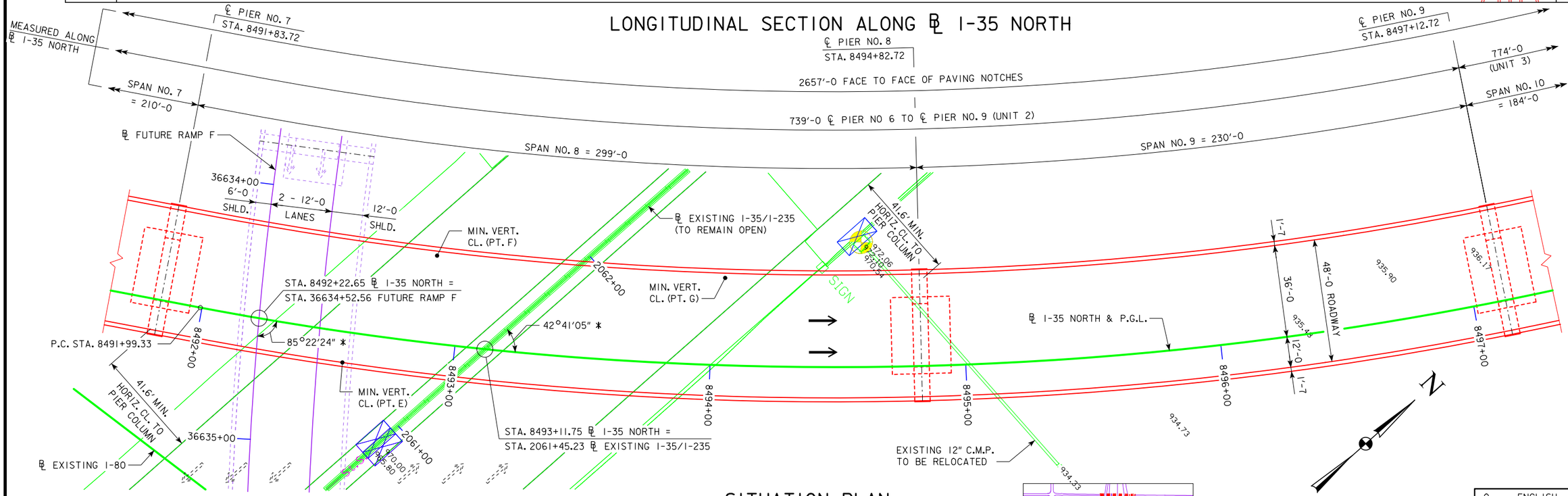
DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(195)87--13-77 | SHEET NUMBER V.23

12/23/2016 11:08:02 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_1918_03 11x17c_pdf.pltcfg

BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.



LONGITUDINAL SECTION ALONG ℄ I-35 NORTH



SITUATION PLAN

NOTE:
* MEASURED TO LOCAL TANGENTS.

MINIMUM VERTICAL CLEARANCE (PT. E)

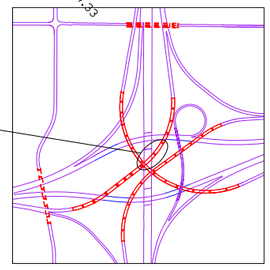
OVERHEAD STATION = 36634+67.28, 34.50' LT. (℄ FUTURE RAMP F)
OVERHEAD ELEVATION = 1031.13
DEPTH OF SUPERSTRUCTURE = 10.00'
UNDERPASS STATION = 8492+57.96, 12.00' RT. (℄ I-35 NORTH)
UNDERPASS ELEVATION = 1004.09
MINIMUM VERTICAL CLEARANCE = 17.04

MINIMUM VERTICAL CLEARANCE (PT. F)

OVERHEAD STATION = 8492+90.11, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 1001.40
DEPTH OF SUPERSTRUCTURE = 10.00'
UNDERPASS STATION = 2061+56.51, 39.00' LT. (℄ EXISTING I-35/I-235)
UNDERPASS ELEVATION = 971.47
MINIMUM VERTICAL CLEARANCE = 19.93'

MINIMUM VERTICAL CLEARANCE (PT. G)

OVERHEAD STATION = 8494+01.76, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 1001.31
DEPTH OF SUPERSTRUCTURE = 10.00'
UNDERPASS STATION = 2062+32.17, 39.00' RT. (℄ EXISTING I-35/I-235)
UNDERPASS ELEVATION = 971.92
MINIMUM VERTICAL CLEARANCE = 19.39'



INTERCHANGE KEY PLAN

0 ENGLISH 40
SCALE IN FEET

PRELIMINARY

DESIGN FOR 0° SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN

STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 4 OF 8 FILE NO. 31046 DESIGN NO. 1918

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(195)87--13-77 | SHEET NUMBER V.24

12/23/2016 11:08:16 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_1918_04 11x17c_pdf.pltcfg

BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
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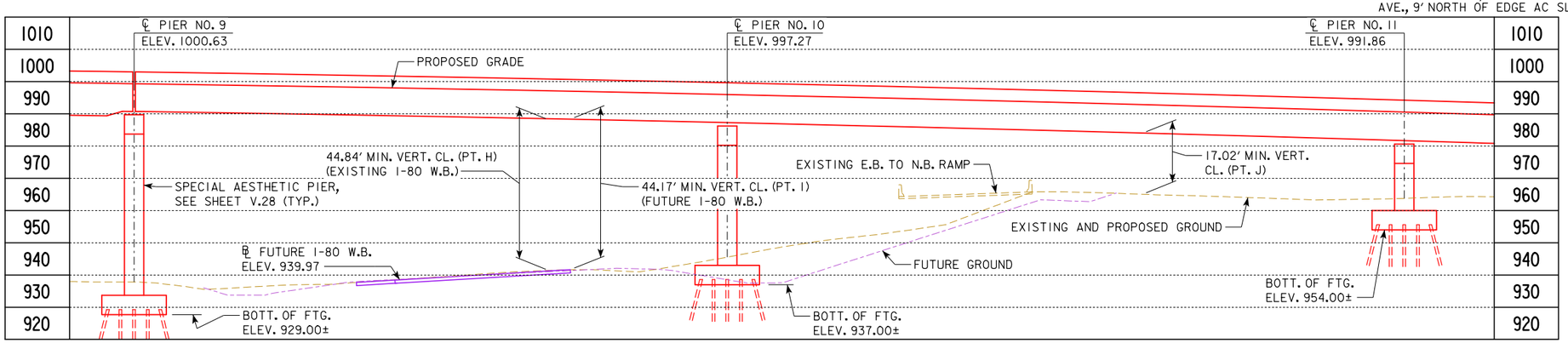


LONGITUDINAL SECTION ALONG ℄ I-35 NORTH

MINIMUM VERTICAL CLEARANCE (PT. H)

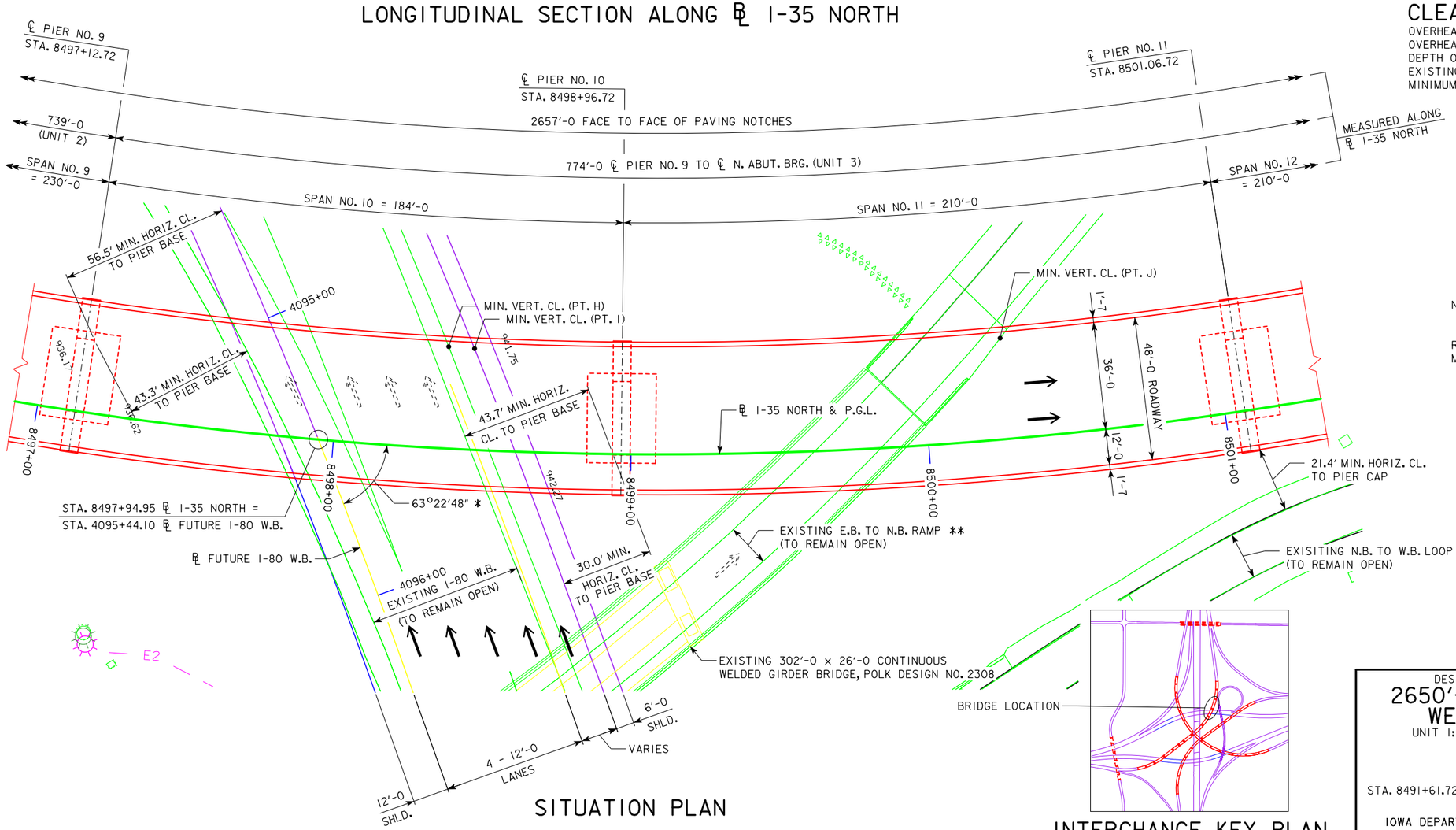
OVERHEAD STATION = 8498+36.78, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 996.44
DEPTH OF SUPERSTRUCTURE = 8.50'
UNDERPASS ELEVATION = 943.10 (EXISTING I-80 W.B.)
MINIMUM VERTICAL CLEARANCE = 44.84'

MINIMUM VERTICAL CLEARANCE (PT. I)

OVERHEAD STATION = 8498+45.60, 34.50' LT. (℄ I-35 NORTH)
OVERHEAD ELEVATION = 996.26
DEPTH OF SUPERSTRUCTURE = 8.50'
UNDERPASS STATION = 4095+34.85, 60.00' LT.
(FUTURE I-80 W.B.)
UNDERPASS ELEVATION = 943.59
MINIMUM VERTICAL CLEARANCE = 44.17'

MINIMUM VERTICAL CLEARANCE (PT. J)

OVERHEAD STATION = 8500+27.51, 34.50' LT. (℄I-35 NORTH)
OVERHEAD ELEVATION = 992.03
DEPTH OF SUPERSTRUCTURE = 8.50'
EXISTING UNDERPASS ELEVATION = 966.51
MINIMUM VERTICAL CLEARANCE = 17.02'



SITUATION PLAN

INTERCHANGE KEY PLAN

NOTES:
* MEASURED TO LOCAL TANGENTS.
** EXISTING RAMP MOVEMENT TO BE REMOVED AFTER PROPOSED RAMP MOVEMENT CONSTRUCTED.

PRELIMINARY

0 ENGLISH 40
SCALE IN FEET

DESIGN FOR 0° SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN

STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 5 OF 8 FILE NO. 31046 DESIGN NO. 1918

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(195)87--13-77 | SHEET NUMBER V.25

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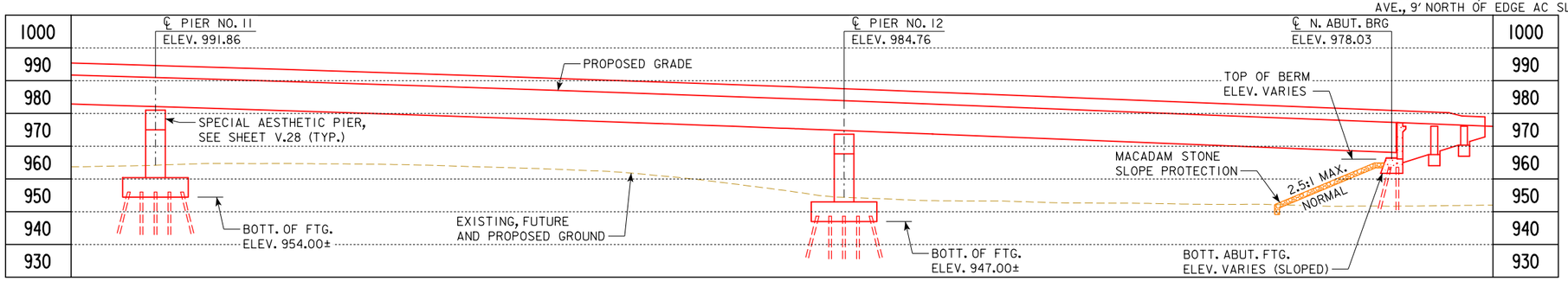
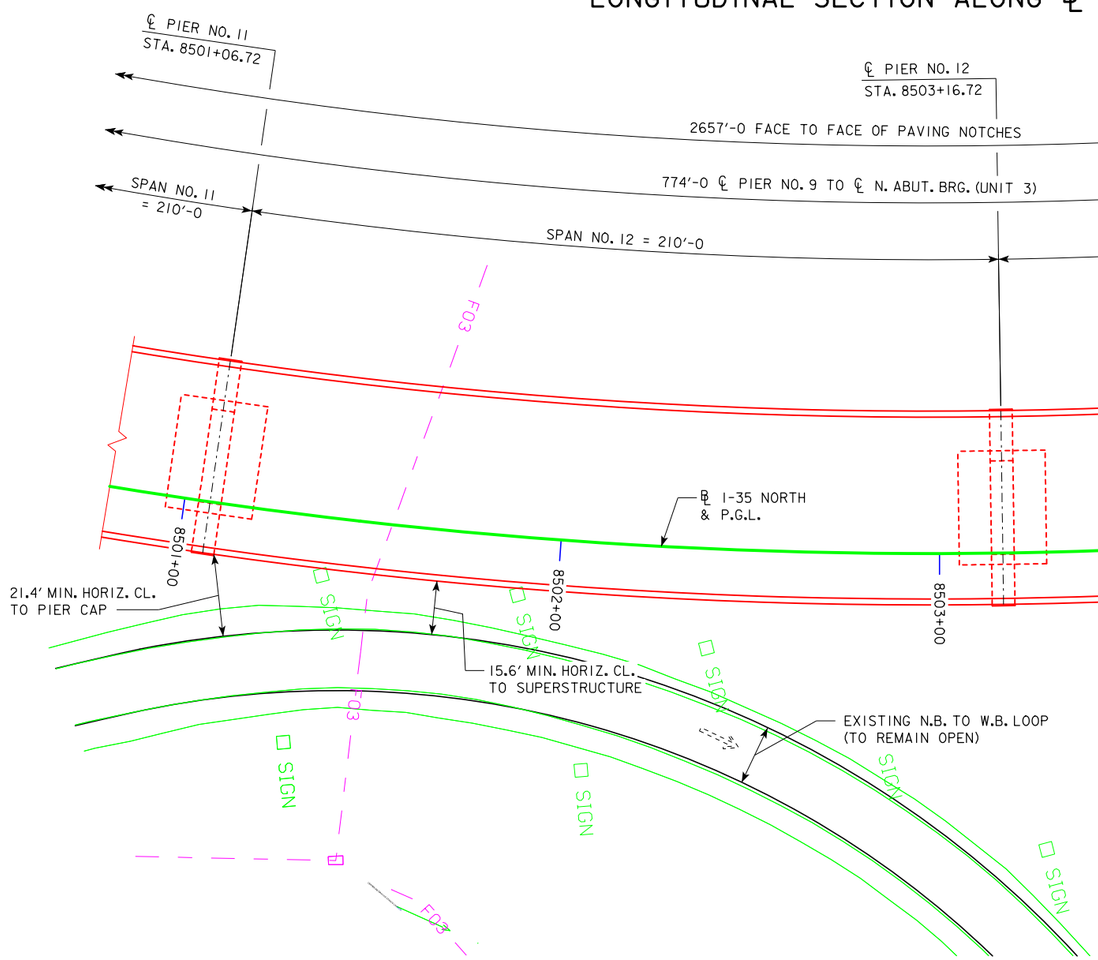
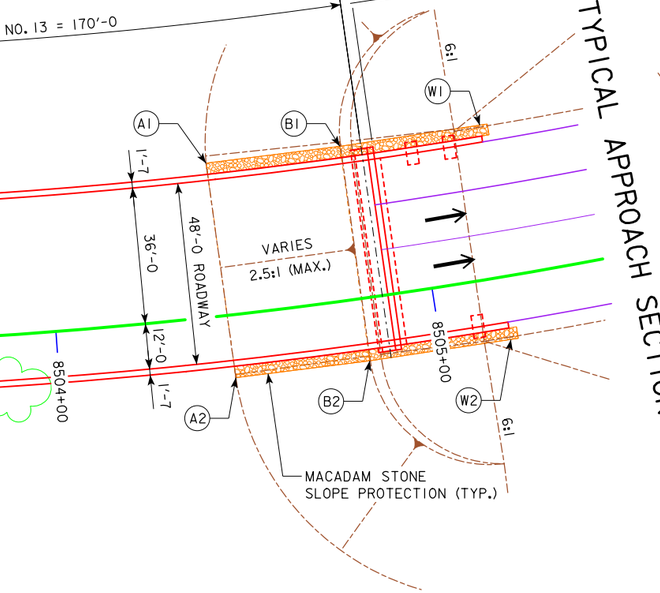
BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.



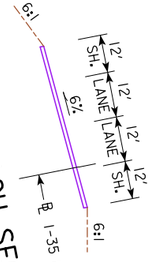
LONGITUDINAL SECTION ALONG ℄ I-35 NORTH

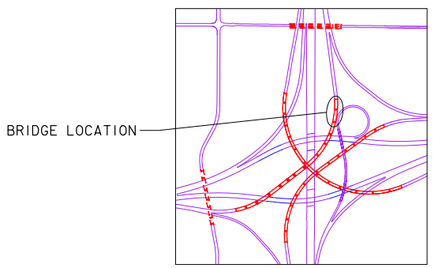


SITUATION PLAN



TYPICAL APPROACH SECTION





INTERCHANGE KEY PLAN

PRELIMINARY

0 ENGLISH 40
SCALE IN FEET

DESIGN FOR 0° SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN

STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 6 OF 8 FILE NO. 31046 DESIGN NO. 1918

HDR

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(195)87--13-77 | SHEET NUMBER V.26

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N

EXISTING TWIN 218'-8 x 61'-4 CONTINUOUS WELDED GIRDER BRIDGES, POLK DESIGN NO. 4906

℄ FUTURE I-35 SOUTH

EXISTING 332'-0 x 26'-0 CONTINUOUS WELDED GIRDER BRIDGE, POLK DESIGN NO. 209

EXISTING N.B. TO W.B. LOOP

℄ RAMP A

EXISTING 302'-0 x 26'-0 CONTINUOUS WELDED GIRDER BRIDGE, POLK DESIGN NO. 2308

EXISTING 304'-0 x 26'-0 CONTINUOUS WELDED GIRDER BRIDGE, POLK DESIGN NO. 2408

℄ FUTURE I-80 W.B.

℄ EXISTING I-80

EXISTING E.B. TO N.B. RAMP

℄ FUTURE I-80 E.B.

EXISTING W.B. TO S.B. RAMP

℄ NE 22ND STREET

℄ I-35 NORTH

EXISTING 322'-0 x 28'-0 CONTINUOUS WELDED GIRDER BRIDGE, POLK DESIGN NO. 4358

EXISTING 319'-0 x 26'-0 CONTINUOUS WELDED GIRDER BRIDGE, POLK DESIGN NO. 309

℄ FUTURE RAMP F

EXISTING 330'-0 x 26'-0 CONTINUOUS WELDED GIRDER BRIDGE, POLK DESIGN NO. 2208

EXISTING TWIN 218'-8 x 61'-4 CONTINUOUS WELDED GIRDER BRIDGES, POLK DESIGN NO. 4806

℄ FUTURE RAMP D

℄ EXISTING I-35/I-235

EXISTING 304'-0 x 26'-0 CONTINUOUS WELDED GIRDER BRIDGE, POLK DESIGN NO. 109

EXISTING E.B. TO S.B. RAMP (TO BE REMOVED)

EXISTING S.B. TO E.B. LOOP RAMP

℄ RAMP B

℄ FUTURE RAMP G

SITE PLAN

0 ENGLISH 200
SCALE IN FEET

PRELIMINARY

DESIGN FOR 0° SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN - SITE

STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 7 OF 8 FILE NO. 31046 DESIGN NO. 1918

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(195)87--13-77 | SHEET NUMBER V.27

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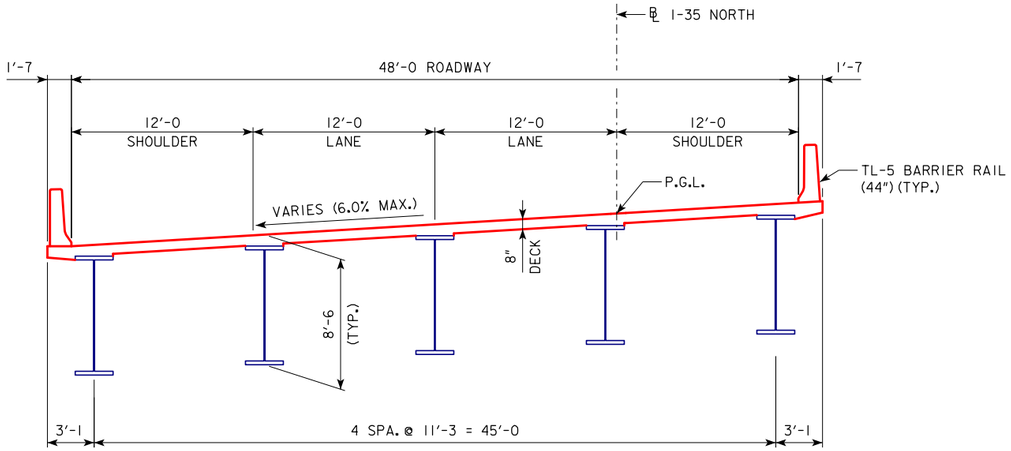
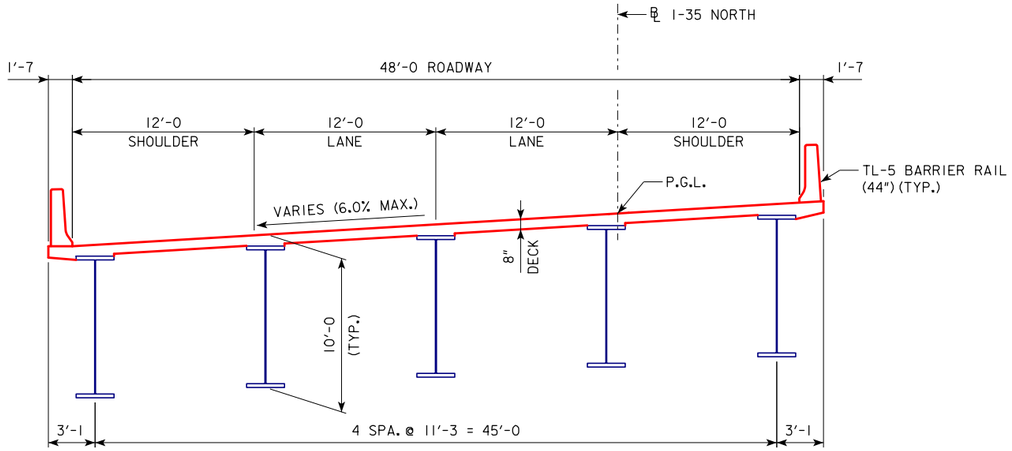
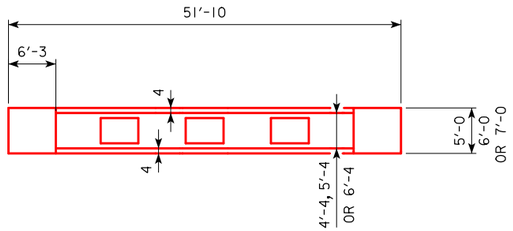


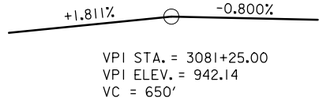
TYPICAL SECTION - UNITS 1 & 3



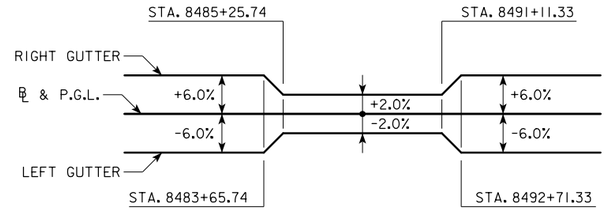
TYPICAL SECTION - UNIT 2



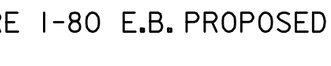
CAP PLAN



FUTURE I-80 E.B. PROPOSED GRADE



I-35 NORTH



FUTURE I-80 W.B. PROPOSED GRADE

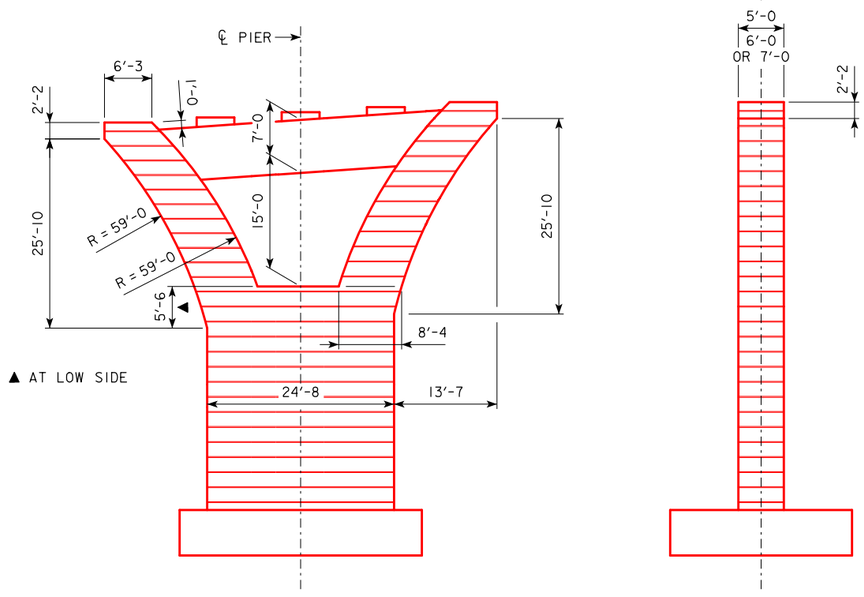
RAMP F PROPOSED GRADE

I-35 NORTH PROPOSED GRADE

I-35 NORTH
SUPERELEVATION DIAGRAM

℄ I-35 NORTH

PI STA. 8479+25.90	PI STA. 8499+65.23
Δ = 46°54'31.73" (LT.)	Δ = 59°52'18.89" (LT.)
T = 577.04'	T = 765.90'
L = 1088.89'	L = 1389.80'
E = 119.79'	E = 204.76'
R = 1330.00'	R = 1330.00'
PC STA. 8473+48.85	PC STA. 8491+99.33
PT STA. 8484+37.74	PT STA. 8505+89.13



ELEVATION

SIDE ELEVATION

TYPICAL PIER DETAILS

PRELIMINARY

DESIGN FOR VARIABLE SKEW RADIUS = 1,330'

2650'-0 X 48'-0 CONTINUOUS WELDED GIRDER BRIDGE

UNIT 1: 170'-0, 200'-0, 240'-0, 235'-0, 160'-0, 132'-0
UNIT 2: 210'-0, 299'-0, 230'-0
UNIT 3: 184'-0, 210'-0, 210'-0, 170'-0

SITUATION PLAN - MISC.

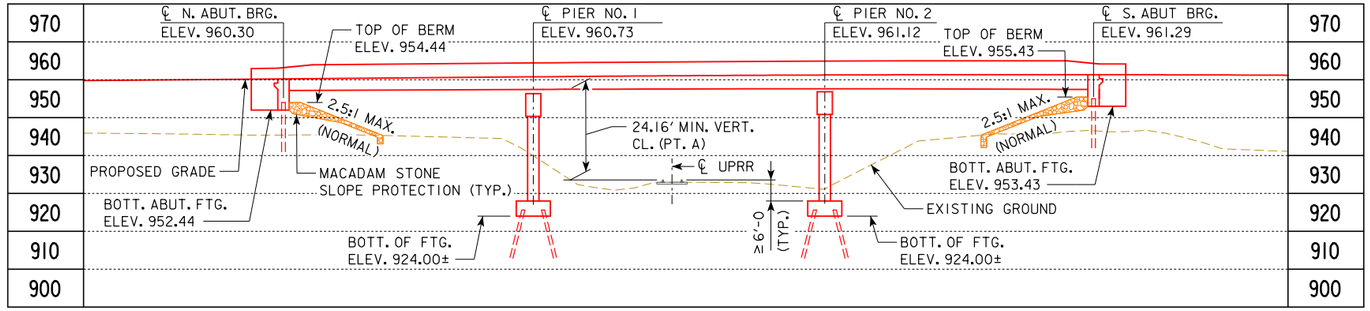
STA. 8491+61.72 (℄ I-35 NORTH) OCTOBER 2016

POLK COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

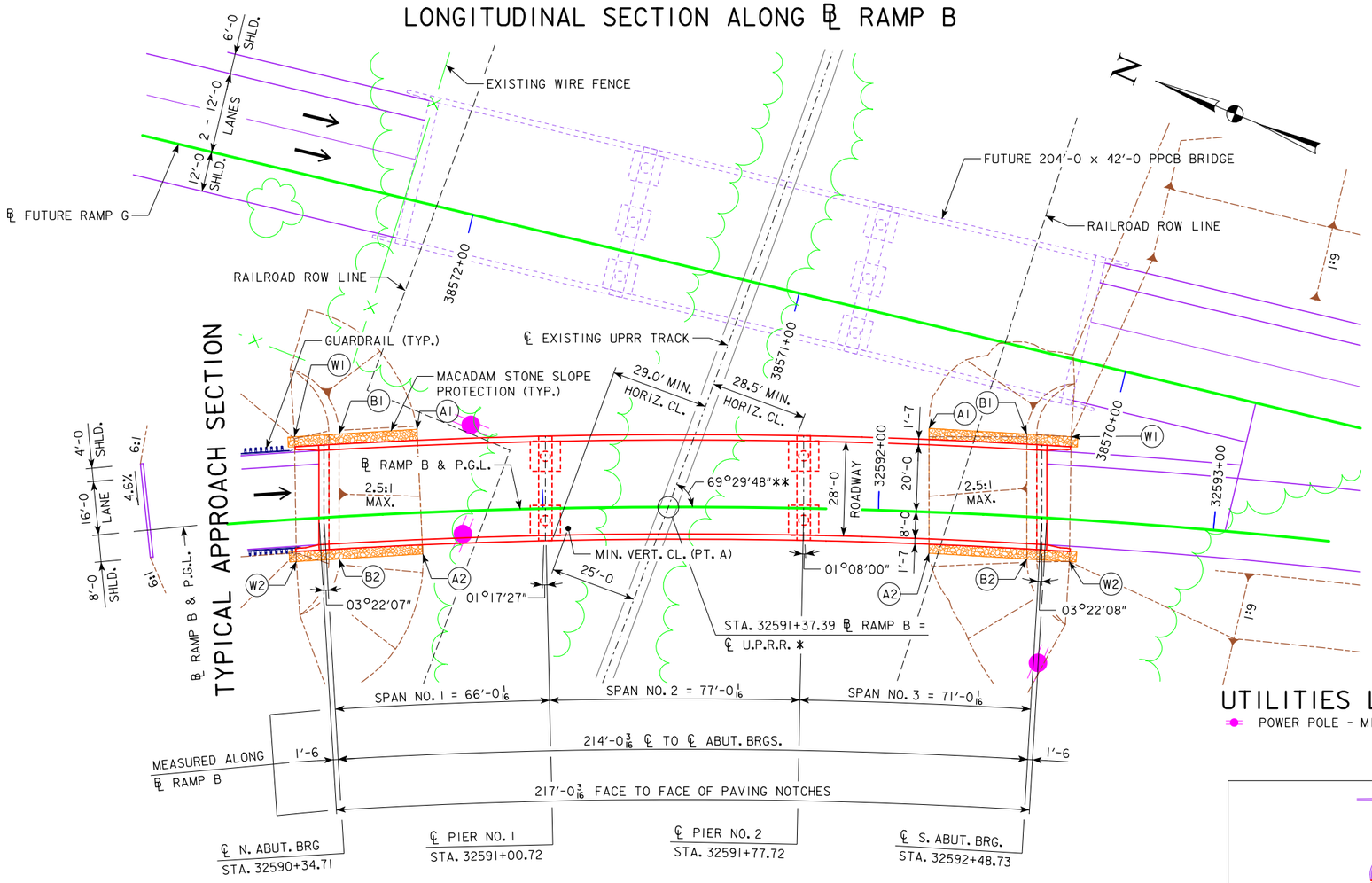
DESIGN SHEET NO. 8 OF 8 FILE NO. 31046 DESIGN NO. 1918

DESIGN TEAM HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(195)87--13-77	SHEET NUMBER V.28

12/23/2016 11:09:22 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_1918_08 11x17c_pdf.pltcfg



LONGITUDINAL SECTION ALONG ℄ RAMP B

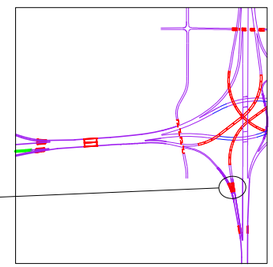


TYPICAL APPROACH SECTION

SITUATION PLAN

UTILITIES LEGEND:

POWER POLE - MIDAMERICAN



INTERCHANGE KEY PLAN

0 ENGLISH 40
SCALE IN FEET

BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.

BERM SLOPE LOCATION TABLE

POINTS	NORTH ABUTMENT			SOUTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	32590+63.59	24.58' LT.	945.10	32592+14.11	24.58' LT.	943.64
A2	32590+63.69	12.58' RT.	944.41	32592+15.59	12.58' RT.	944.58
B1	32590+40.59	24.58' LT.	954.44	32592+42.86	24.58' LT.	955.43
B2	32590+38.51	12.58' RT.	954.44	32592+44.94	12.58' RT.	955.43
W1	32590+27.56	24.58' LT.	961.05	32592+55.88	24.58' LT.	962.10
W2	32590+25.61	12.58' RT.	959.75	32592+57.84	12.58' RT.	960.81

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

G1 = +0.652% — G2 = -0.070%

VPI STA. = 32592+00.00
VPI ELEV. = 961.37
VC = 200'

RAMP B PROPOSED GRADE

℄ RAMP B CURVE DATA

PI STA. 32590+41.99
Δ = 31°51'07.08" (RT.)
T = 519.33'
L = 1,011.78'
E = 72.65'
R = 1,820.00'
PC STA. 32585+22.66
PT STA. 32595+34.44

MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 32591+07.48, 6.08' RT. (℄ RAMP B)
OVERHEAD ELEVATION = 960.49
DEPTH OF SUPERSTRUCTURE = 3.83'
UNDERPASS ELEVATION = 932.50
PROVIDED MIN. VERTICAL CLEARANCE = 24.16'

LOCATION

RAMP B (E.B. TO S.B.)
OVER UPRR
T-79N R-23W
SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. 700895
BRIDGE MAINT. NO. UNKNOWN
LATITUDE: 41.647150°
LONGITUDE: -93.577130°

TRAFFIC ESTIMATE

2012 AADT	5200	V.P.D.
2050 AADT	6400	V.P.D.
2050 DHV	1030	V.P.H.
TRUCKS	13	%
TOTAL DESIGN ESALs	-	

NOTES:
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
"BTB" BEAMS ARE CHORDED AT STANDARD BEAM SPAN LENGTHS OF 65', 75' AND 70'.
* MEASURED FROM PHOTOGRAMMETRY FILE, VERIFY DURING FINAL DESIGN.
** MEASURED TO LOCAL TANGENT OF ℄ RAMP B.
RAILROAD DITCHES ARE NOT WELL DEFINED, BUT GENERALLY FLOW WESTWARD.

NOTES TO DESIGNERS:
BRIDGE SUPERSTRUCTURE TO BE PPC "BTB" BEAMS. SUBSTRUCTURE TO BE INTEGRAL ABUTMENTS AND FRAME PIERS.
MINIMUM HORIZONTAL CLEARANCE TO PIERS EXCEEDS 25' AS DEFINED IN THE AREMA MANUAL FOR RAILWAY ENGINEERING, THEREFORE, HEAVY CONSTRUCTION IS NOT REQUIRED.
HORIZONTAL CLEARANCE TO PIER BASED ON ASSUMED CAP WIDTH OF 4'.
TL-5 BRIDGE RAILING PROPOSED.
BRIDGE AESTHETICS TO BE INCORPORATED DURING FINAL DESIGN.
VERIFY RAILROAD EQUATION POINTS DURING FINAL DESIGN.

PRELIMINARY

DESIGN FOR VARIABLE SKEW RADIUS = 1,820'

214'-0 3/16 X 28'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

66'-0 1/16, 77'-0 1/16, 71'-0 1/16 SPANS

SITUATION PLAN

STA. 32591+41.72 (℄ RAMP B) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 3 FILE NO. 31046 DESIGN NO. 2118

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(203)87--13-77 | SHEET NUMBER V.29

N

EXISTING 223'-0 x VARIES
PPCB BRIDGE, POLK DESIGN NO. 4706

℄ EXISTING I-235

EXISTING 223'-0 x VARIES
PPCB BRIDGE, POLK DESIGN NO. 4606

℄ RAMP G

℄ RAMP B

FUTURE 204'-0 x 42'-0 PPCB BRIDGE

EXISTING UPRR TRACK

2040

2038

38575

32590

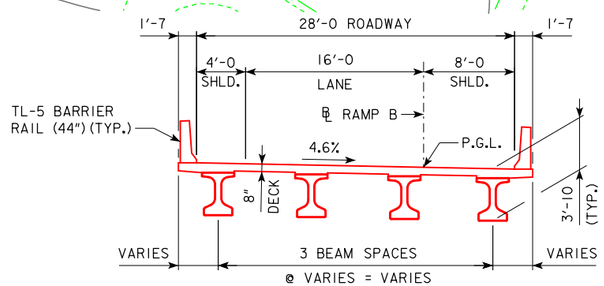
38570

32595

38565

SIGM

960 955 950 945 940 935 930



TYPICAL SECTION

SITE PLAN

PRELIMINARY

DESIGN FOR VARIABLE SKEW RADIUS = 1,820'

214'-0 3/16 X 28'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

66'-0 1/16, 77'-0 1/16, 71'-0 1/16 SPANS

SITUATION PLAN - SITE

STA. 32591+41.72 (℄ RAMP B) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

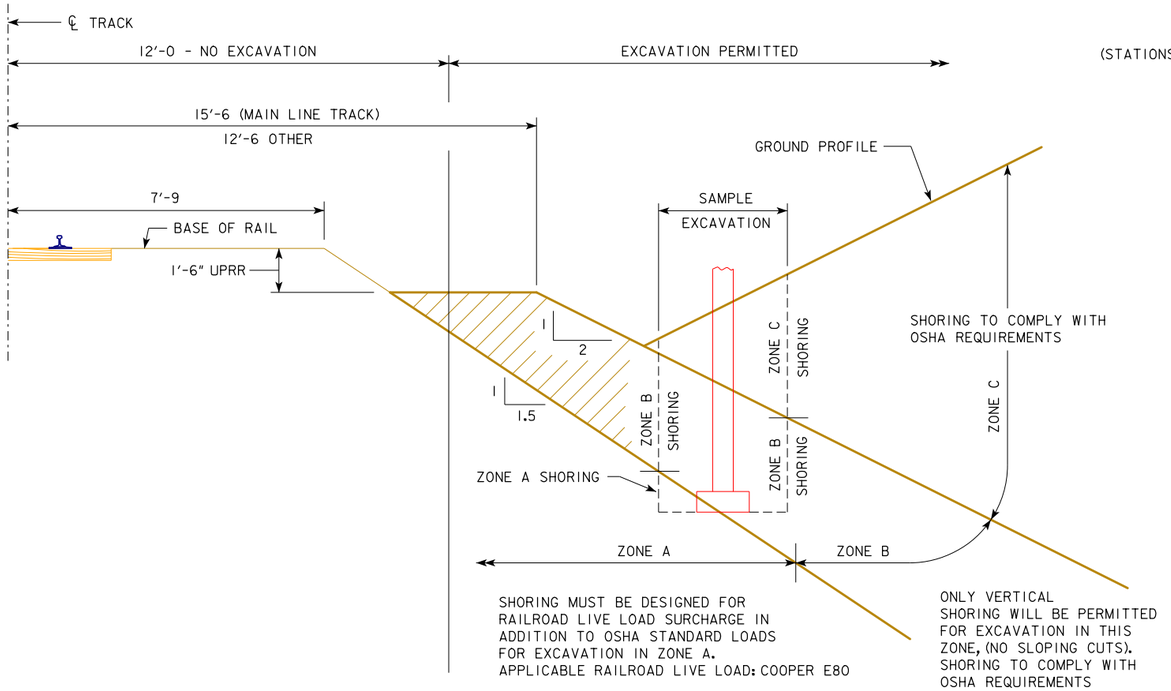
DESIGN SHEET NO. 2 OF 3 FILE NO. 31046 DESIGN NO. 2118

0 ENGLISH 80
SCALE IN FEET

HDR

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(203)87--13-77 | SHEET NUMBER V.30

12/23/2016 11:10:33 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_2118_02 11x17c_pdf.pltcfg



GENERAL EXCAVATION ZONES

RAILROAD GENERAL NOTES:

1. RAILROAD REVIEW AND APPROVAL OF SHORING, ERECTION, DEMOLITION, AND FALSEWORK IS REQUIRED. ALLOW A MINIMUM OF FOUR WEEKS FOR THE REVIEW AND APPROVAL OF EACH SUBMITTAL.
2. THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.
3. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.
5. ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.
6. ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.
7. ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
8. ALL CONSTRUCTION PHASING THAT MAY IMPACT THE RAILROAD OPERATIONS SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
9. FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.
10. ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
11. FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD COORDINATION REQUIREMENTS AS PART OF SPECIAL PROVISIONS.

GENERAL SHORING NOTES:

1. ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO TRACK.
2. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE RAILROAD DETAILED PLANS INDICATING THE NATURE AND EXTENT OF THE TRACK PROTECTION SHORING PROPOSED. THE CONTRACTOR SHALL INSTALL THE TEMPORARY SHORING SYSTEM PER THE APPROVED PLANS. DESIGN OF THE TEMPORARY SHORING SYSTEM TO COMPLY WITH GUIDELINES FOR TEMPORARY SHORING.
3. FOR EXCAVATIONS WHICH ENCROACH INTO ZONE A OR B, SHORING PLANS SHALL BE ACCOMPANIED BY DESIGN CALCULATIONS. PLANS AND CALCULATIONS MUST BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF IOWA.

NOTE:
UPRR = UNION PACIFIC RAILROAD

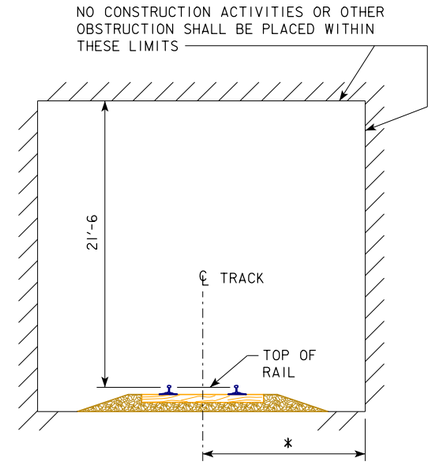
TOP OF RAIL ELEVATIONS

(STATIONS INCREASE WITH MILEPOST INCREASE. MILEPOSTS INCREASE TO THE EAST.)

MAIN LINE UPRR			
ALIGNMENT: LEFT RAIL		ALIGNMENT: RIGHT RAIL	
STATION	ELEVATION	STATION	ELEVATION
03+77.02	926.94	03+75.41	926.92
04+25.71	927.58	04+23.95	927.52
04+73.02	928.15	04+71.26	928.02
05+16.50	928.79	05+15.05	928.70
05+69.44	929.26	05+67.59	929.35
06+32.30	929.76	06+30.50	929.69
06+81.56	930.13	06+79.77	930.14
07+30.59	930.60	07+28.66	930.61
07+80.50	930.89	07+78.70	930.90
08+03.03	931.08	08+01.10	931.09
08+23.34	931.25	08+21.06	931.26
08+50.47	931.47	08+48.68	931.47
08+85.15	931.73	08+83.34	931.73
09+35.24	932.13	09+33.34	932.17
09+87.12	932.53	09+85.29	932.60
(1) 10+00.00	932.65	(2) 10+00.00	932.75
10+40.71	933.03	10+39.06	933.14
10+90.64	933.50	10+88.97	933.61
11+36.11	933.88	11+34.18	934.04
11+86.69	934.34	11+85.24	934.58
12+37.31	934.77	12+35.68	935.00
12+87.08	935.13	12+85.79	935.32
13+38.50	935.32	13+36.96	935.63
13+91.30	935.66	13+89.90	936.01
14+40.28	936.26	14+38.98	936.41
14+63.06	936.44	14+60.58	936.55

(1) EXISTING TRACK STA. 10+00 = STA. 32591+34.79 ℄ RAMP B

(2) EXISTING TRACK STA. 10+00 = STA. 32591+39.99 ℄ RAMP B



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

(NORMAL TO RAILROAD)

* 12'-0" FOR UPRR

PRELIMINARY

DESIGN FOR VARIABLE SKEW RADIUS = 1,820'

214'-0 3/16 X 28'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

66'-0 1/16, 77'-0 1/16, 71'-0 1/16 SPANS

UPRR SHORING DETAILS

STA. 32591+41.72 (℄ RAMP B) OCTOBER 2016

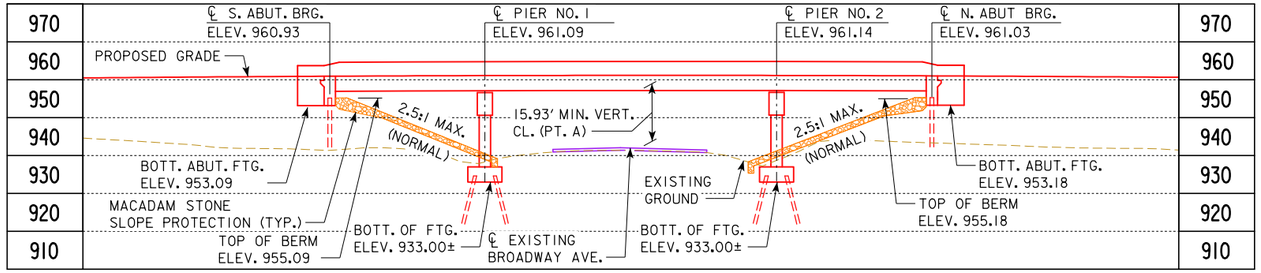
POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

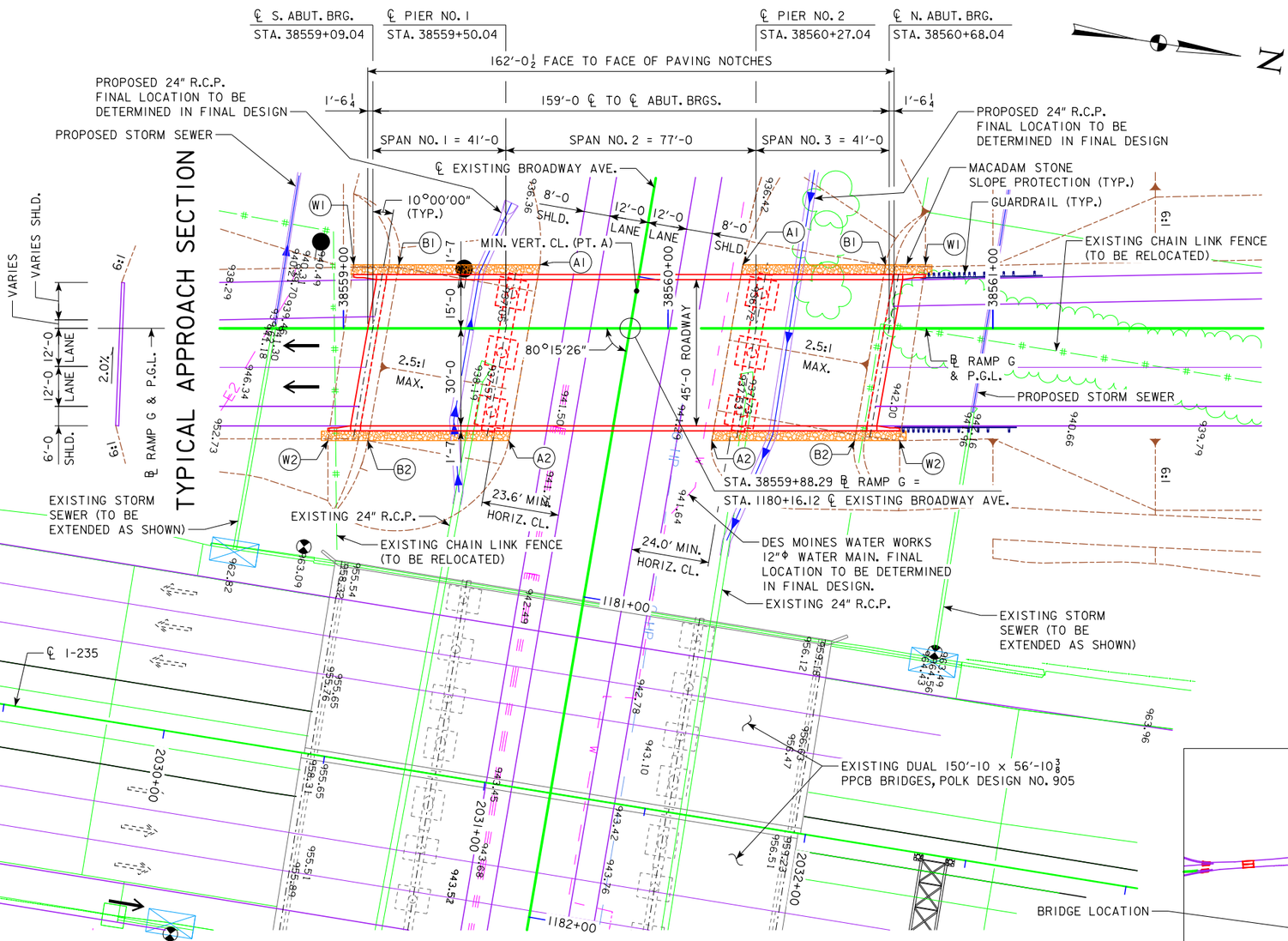
DESIGN SHEET NO. 3 OF 3 FILE NO. 31046 DESIGN NO. 2118

DESIGN TEAM HDR	BNSF & UPRR GENERAL NOTES & SHORING	STANDARD SHEET 1067	POLK COUNTY	PROJECT NUMBER IM-035-3(203)87--13-77	SHEET NUMBER V.31

REVISED 09-13 - RAILROAD CHANGED THE MINIMUM VERTICAL CONSTRUCTION CLEARANCE TO 21'-6. DISTANCE FROM MAINLINE TRACK TO EDGE OF EMBANKMENT CHANGED TO 15'-6.
ENGLISH\MISCELLANEOUSBRIDGES.DGN - 1067 - THIS SHEET ISSUED 12-08.



LONGITUDINAL SECTION ALONG ℄ RAMP G

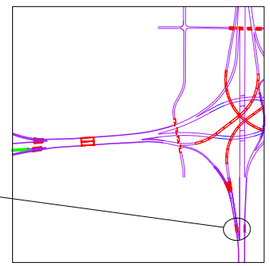


TYPICAL APPROACH SECTION

SITUATION PLAN

0 ENGLISH 40
SCALE IN FEET

INTERCHANGE KEY PLAN



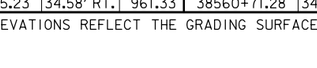
BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.

LOCATION

RAMP G OVER
EXISTING BROADWAY AVE.
T-79N R-23W
SECTION 18 / SECTION 19
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. 700890
BRIDGE MAINT. NO. UNKNOWN
LATITUDE: 41.644118°
LONGITUDE: -93.576225°

TRAFFIC ESTIMATE

2012 AADT	13900	V.P.D.
2050 AADT	18500	V.P.D.
2050 DHV	2750	V.P.H.
TRUCKS	10	%
TOTAL DESIGN ESALs	-	



VPI STA. = 38560+00.00
VPI ELEV. = 962.04
VC = 350'

RAMP G PROPOSED GRADE

MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 38559+90.54, 13.08' LT. (℄ RAMP G)
OVERHEAD ELEVATION = 960.90
DEPTH OF SUPERSTRUCTURE = 3.83'
UNDERPASS STATION = 1180+02.84, 0.00' (℄ EXISTING BROADWAY AVE.)
UNDERPASS ELEVATION = 941.14 (U.A.C.)
REQUIRED MIN. VERTICAL CLEARANCE = 15.00' (BASED ON EXISTING BROADWAY AVE.)
PROVIDED MIN. VERTICAL CLEARANCE = 15.93'

UTILITIES LEGEND:

- E1 — ELECTRIC - MIDAMERICAN
- E2 — ELECTRIC - IDOT
- G-HP — GAS LINE - MIDAMERICAN
- POWER POLE - MIDAMERICAN
- W — CITY OF DES MOINES WATER WORKS

BERM SLOPE LOCATION TABLE

POINTS	SOUTH ABUTMENT STATION	SOUTH ABUTMENT OFFSET	SOUTH ABUTMENT ELEV.	NORTH ABUTMENT STATION	NORTH ABUTMENT OFFSET	NORTH ABUTMENT ELEV.
A1	38559+60.52	19.58' LT.	937.85	38560+23.00	19.58' LT.	937.98
A2	38559+50.97	34.58' RT.	941.98	38560+13.45	34.58' RT.	941.52
B1	38559+17.07	19.58' LT.	955.09	38560+66.93	19.58' LT.	955.18
B2	38559+07.52	34.58' RT.	955.09	38560+57.38	34.58' RT.	955.18
W1	38559+03.17	19.58' LT.	960.48	38560+79.21	19.58' LT.	960.57
W2	38558+95.23	34.58' RT.	961.33	38560+71.28	34.58' RT.	961.50

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

NOTES:
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.

NOTES TO DESIGNERS:
BRIDGE SUPERSTRUCTURE TO BE PPC "BTB" BEAMS. SUBSTRUCTURE TO BE INTEGRAL ABUTMENTS AND FRAME PIERS.
MINIMUM HORIZONTAL CLEARANCE TO PIERS IS LESS THAN 30', THEREFORE, DESIGN PIERS FOR VEHICULAR COLLISION FORCE.
HORIZONTAL CLEARANCE TO PIER BASED ON ASSUMED CAP WIDTH OF 4'.
TL-5 BRIDGE RAILING PROPOSED.
BRIDGE AESTHETICS TO BE INCORPORATED DURING FINAL DESIGN.

PRELIMINARY

DESIGN FOR 10°00'00" SKEW (L.A.)

159'-0 X 45'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

41'-0, 77'-0, 41'-0 SPANS

SITUATION PLAN

STA. 38559+88.54 (℄ RAMP G) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 2 FILE NO. 31046 DESIGN NO. 2018

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-035-3(196)87--13-77 | SHEET NUMBER V.32

12/23/2016 11:11:08 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_2018_01 11x17c_pdf.pltcfg

N

SIGN

℄ EXISTING BROADWAY AVE.

℄ RAMP G

℄ I-235

38555

38560

38565

1179

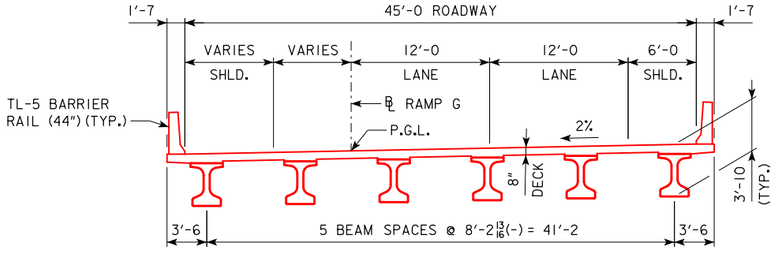
1181

2030

2035

EXISTING DUAL 150'-10 x 56'-10 3/8
PPCB BRIDGES, POLK DESIGN NO. 905

SITE PLAN



TYPICAL SECTION

HDR

PRELIMINARY

DESIGN FOR 10°00'00" SKEW (L.A.)

159'-0 X 45'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

41'-0, 77'-0, 41'-0 SPANS

SITUATION PLAN - SITE

STA. 38559+88.54 (℄ RAMP G) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 2 FILE NO. 31046 DESIGN NO. 2018

0 ENGLISH 80
SCALE IN FEET

DESIGN TEAM HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(196)87--13-77	SHEET NUMBER V.33

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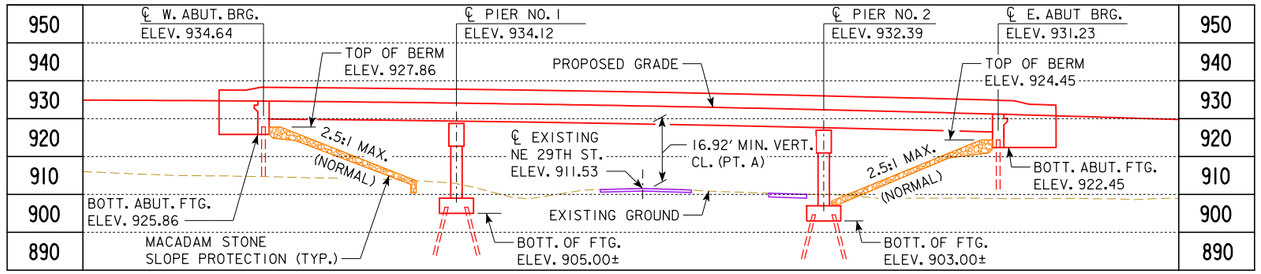
BENCH MARK NO. 26: NORTHING: 604283.735, EASTING: 1624489.540, ELEV. 886.700
FENO. MONUMENT, W/CAP STAMPED "026", 6" DEEP, IN THE NORTH ROW/SHOULDER OF NE 54TH AVE., 9' NORTH OF EDGE AC SLAB; 128' FROM P.I. OF NE 54TH AVE. WITH OF RR CROSSING.



LONGITUDINAL SECTION ALONG ℄ RAMP G

℄ RAMP G CURVE DATA

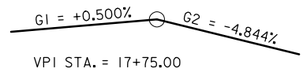
PI STA. 38634+27.39
Δ = 4°57'40.47" (LT.)
T = 350.91'
L = 701.38'
E = 7.60'
R = 8100.00'
PC STA. 38630+76.49
PT STA. 38637+77.87

LOCATION

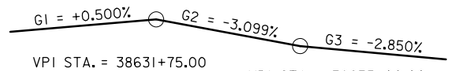
RAMP G OVER
EXISTING NE 29TH ST.
T-79N R-23W
SECTION 17 / SECTION 18
DELAWARE TOWNSHIP
POLK COUNTY
FHWA NO. 700900
BRIDGE MAINT. NO. UNKNOWN
LATITUDE: 41.654763°
LONGITUDE: -93.561053°

TRAFFIC ESTIMATE

2012 AADT	N/A	V.P.D.
2050 AADT	22400	V.P.D.
2050 DHV	2620	V.P.H.
TRUCKS	18	%
TOTAL DESIGN ESALs	-	



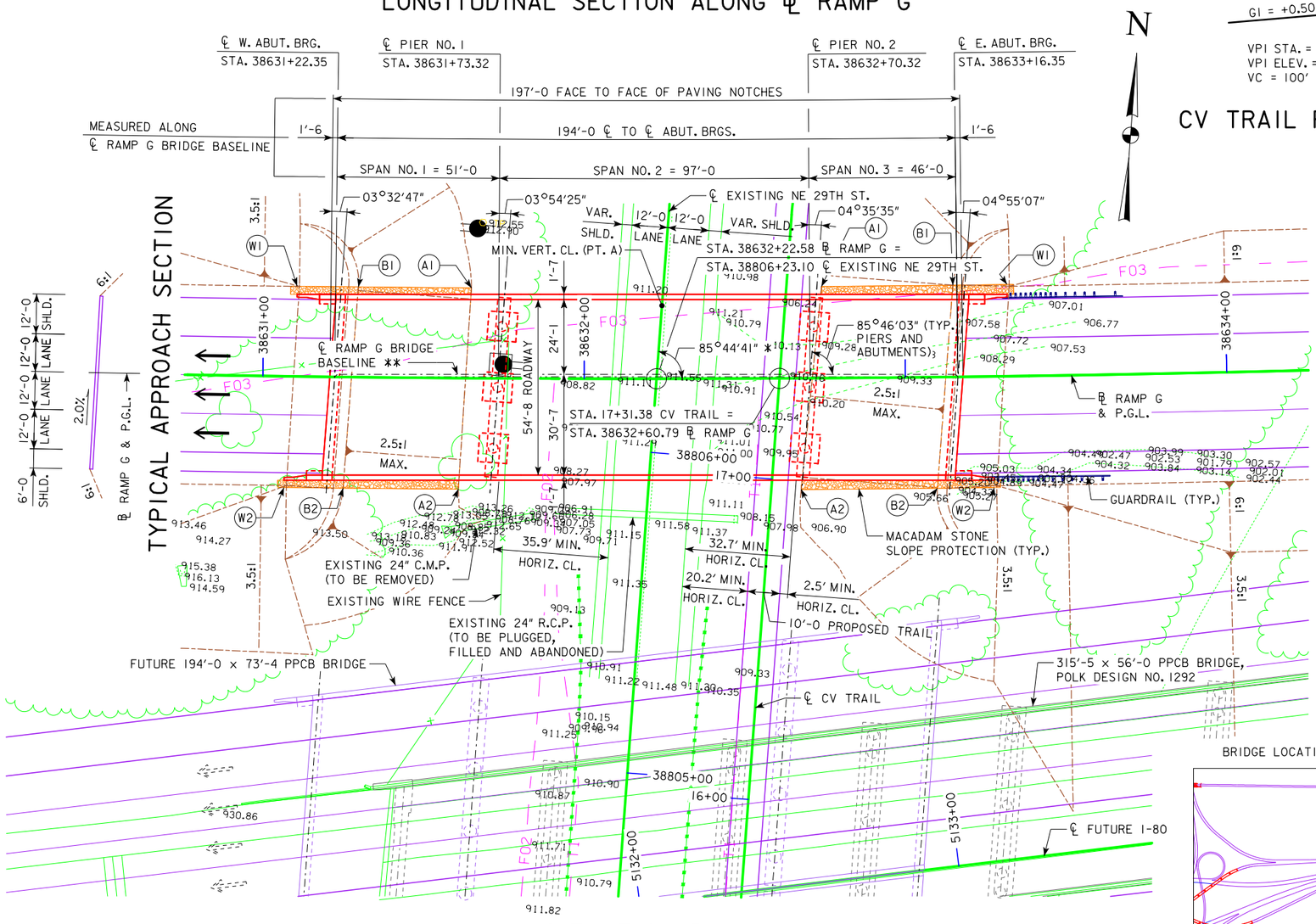
VPI STA. = 17+75.00
VPI ELEV. = 911.88
VC = 100'



VPI STA. = 38631+75.00
VPI ELEV. = 935.67
VC = 350'

VPI STA. = 38635+00.00
VPI ELEV. = 925.60
VC = 300'

CV TRAIL PROPOSED GRADE RAMP G PROPOSED GRADE



MINIMUM VERTICAL CLEARANCE (PT. A)

OVERHEAD STATION = 38632+24.27, 22.75' LT. (℄ RAMP G)
OVERHEAD ELEVATION = 932.88
DEPTH OF SUPERSTRUCTURE = 4.58'
UNDERPASS STATION = 38806+45.91, 0.00' (℄ EXISTING NE 29TH ST.)
UNDERPASS ELEVATION = 911.38 (U.A.C.)
PROVIDED MIN. VERTICAL CLEARANCE = 16.92'

BERM SLOPE LOCATION TABLE

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	38631+64.71	29.06' LT.	913.75	38632+74.06	29.06' LT.	909.15
A2	38631+61.09	34.80' RT.	913.47	38632+67.30	34.73' RT.	909.17
B1	38631+28.66	28.74' LT.	927.86	38633+14.30	28.69' LT.	924.45
B2	38631+24.67	35.14' RT.	927.86	38633+08.85	35.08' RT.	924.45
W1	38631+10.25	28.52' LT.	934.12	38633+32.03	28.47' LT.	930.19
W2	38631+07.08	35.37' RT.	935.23	38633+27.12	35.31' RT.	931.42

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

NOTES:
ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
ALL DIMENSIONS ARE IN THE HORIZONTAL PLANE UNLESS NOTED OTHERWISE.
* MEASURED TO LOCAL TANGENT OF ℄ RAMP G.
FINAL ALIGNMENT SHOWN FOR CV TRAIL. FOR TEMPORARY TRAIL ALIGNMENT REFER TO ROAD PLANS.

NOTES TO DESIGNERS:
BRIDGE SUPERSTRUCTURE TO BE PPCB "BTC" BEAMS. SUBSTRUCTURE TO BE INTEGRAL ABUTMENTS AND FRAME PIERS.
** ℄ RAMP G BRIDGE BASELINE IS A CHORD LINE CONSTRUCTED FROM POINTS WHERE CENTERLINES OF BRIDGE ABUTMENT BEARINGS INTERSECT ℄ RAMP G.
MINIMUM HORIZONTAL CLEARANCE TO PIERS EXCEEDS 30', THEREFORE, PIERS ARE NOT REQUIRED TO BE DESIGNED FOR VEHICULAR COLLISION FORCE.
HORIZONTAL CLEARANCE TO PIER BASED ON ASSUMED CAP WIDTH OF 4'.
TL-5 BRIDGE RAILING PROPOSED.
BRIDGE AESTHETICS TO BE INCORPORATED DURING FINAL DESIGN.

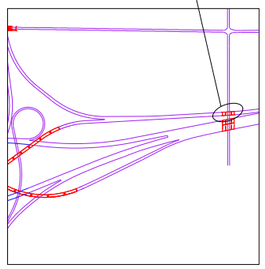
PRELIMINARY

UTILITIES LEGEND:

—T1— TELEPHONE - CENTURY LINK
—F02— FIBER OPTIC - CENTURY LINK
—F03— FIBER OPTIC - ICN/IDOT (WINDSTREAM)
POWER POLE - MIDAMERICAN

0 ENGLISH 40
SCALE IN FEET

BRIDGE LOCATION



INTERCHANGE KEY PLAN

DESIGN FOR VARIABLE SKEW

194'-0 X 54'-8 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

51'-0, 97'-0, 46'-0 SPANS

SITUATION PLAN

STA. 38632+19.35 (℄ RAMP G) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 2 FILE NO. 31046 DESIGN NO. 2218

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-080-4(70)139--13-77 | SHEET NUMBER V.34

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N

℄ EXISTING NE 29TH ST.

PROPOSED TRAIL

℄ RAMP G

FUTURE 194'-0 x 73'-4
PPCB BRIDGE

315'-5 x 56'-0 PPCB BRIDGE,
POLK DESIGN NO. 1292

280'-0 x 56'-0 PPCB BRIDGE,
POLK DESIGN NO. 1192

FUTURE 194'-0 x 97'-4
PPCB BRIDGE

℄ FUTURE I-80 W.B.

℄ FUTURE I-80

℄ FUTURE I-80 E.B.

℄ EXISTING I-80

POT Sta 5128+03.54

38808

38805

38630

38635

5130

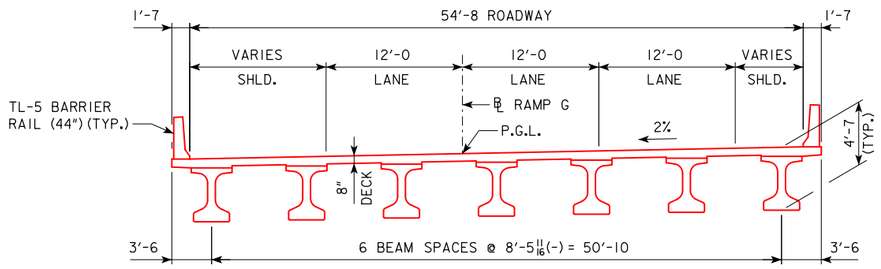
5135

1130

1133

1135

SITE PLAN



TYPICAL SECTION

PRELIMINARY

DESIGN FOR VARIABLE SKEW

194'-0 X 54'-8 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

51'-0, 97'-0, 46'-0 SPANS

SITUATION PLAN - SITE

STA. 38632+19.35 (℄ RAMP G) OCTOBER 2016

POLK COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 2 FILE NO. 31046 DESIGN NO. 2218

0 ENGLISH 80
SCALE IN FEET

HDR

DESIGN TEAM HDR | POLK COUNTY | PROJECT NUMBER IM-080-4(70)139--13-77 | SHEET NUMBER V.35

12/23/2016 11:12:05 AM CPODANY pw:\\PWAPPOMA001:NorthCentral_Omaha\Documents\001210\CON0079631\0000000000237533\8.0_Deliverables\8.2_Work_in_Progress\Data_Out\161223_D5_Final\CADD\77035194.str TSL_77_2218_02 11x17c_pdf.pltcfg

LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

- Existing Ground Line
- Proposed Template
- Proposed Topsoil Placement
- Additional Topsoil Removal
- Subgrade Treatment
- Granular Shoulder
- Pavement
- Existing Pipe\RCB
- Proposed Pipe\RCB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS — Topsoil (Class 10)
- SLOPE DRESSING — Slope Dressing Only
- CL 10 — Class 10 Materials
- SEL LO — Select Loams And Clay-Loams
- SEL SA — Select Sand
- UNS A — Unsuitable Type A Disposal
- UNS B — Unsuitable Type B Disposal
- UNS C — Unsuitable Type C Disposal
- SHALE — Shale
- WASTE — Waste
- B&W LS — Broken and Weathered Rock
- ROCK — Solid Rock
- BLDRS — Boulders

Note: All layer lines and descriptions identify layers above the line.

Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

SYMBOL LEGEND OF CROSS SECTION SHEETS

Existing ROW — Existing Right-of-Way Limit

Proposed ROW — Proposed Right-of-Way Limit

Temporary ROW — Temporary Right-of-Way Limit

CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES W, X, Y, & Z)

SUR80

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

950 940 930 920

932.12
147.26
924.72
125.08
924.72
115.08
931.99
89.65

1066+00.00

960 950 940 930

932.33
134.27
926.87
117.90
926.87
107.90
929.02
89.72

1065+50.00

960 950 940 930

932.87
124.30
929.02
109.74
929.02
99.74
931.92
89.60

1065+00.00

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.2

10:48:00 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR80

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

950
940
930
920

925.24
124.61

925.24
114.61

932.45
89.40

1067+50.00

923.19
131.30

923.19
121.30

932.26
89.55

1067+00.00

922.57
132.77

922.57
122.71

932.10
89.36

1066+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.3

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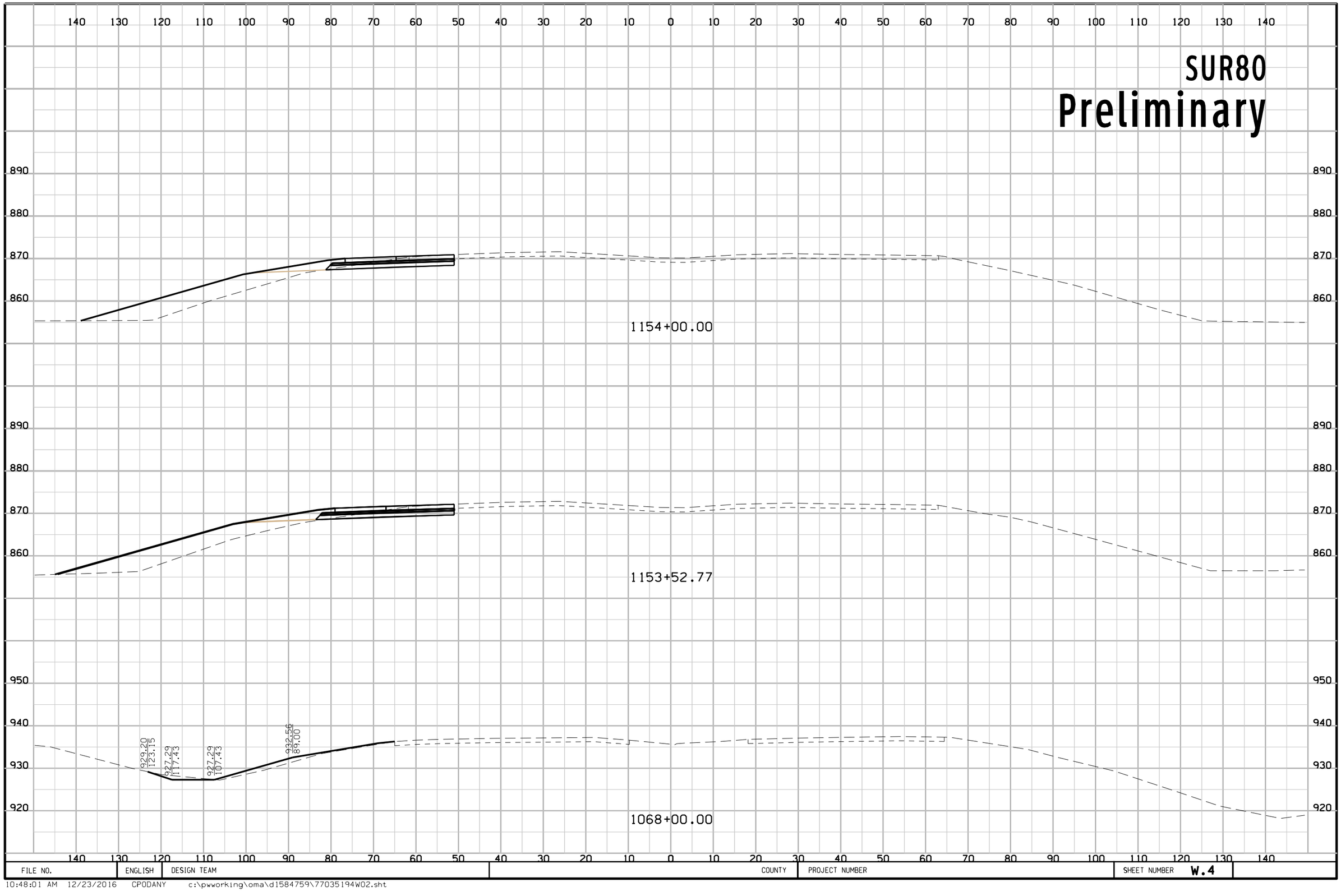
SUR80

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.4

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SUR80

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

890
880
870
860
850

1155+50.00

1155+00.00

1154+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.5

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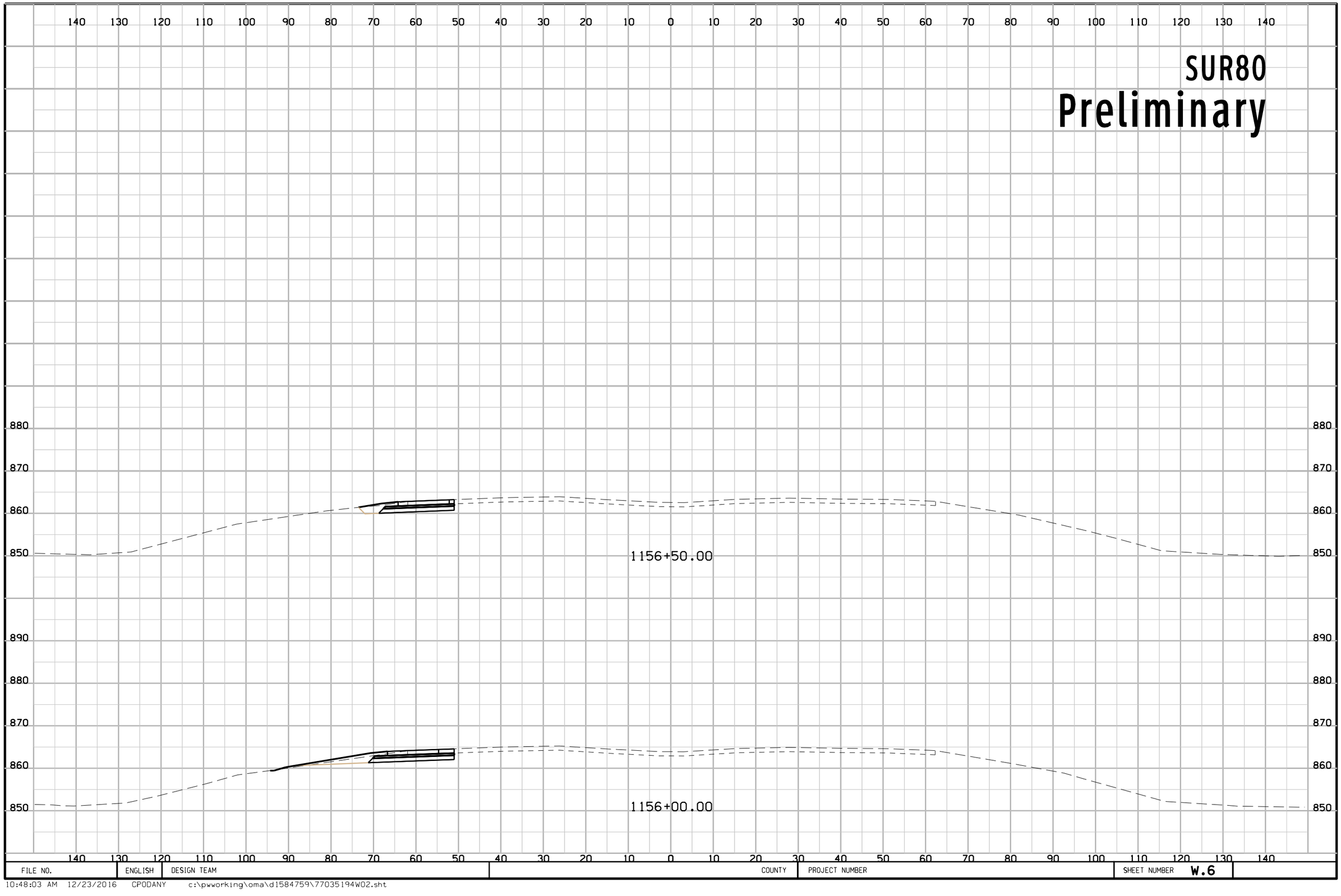
SUR80

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.6

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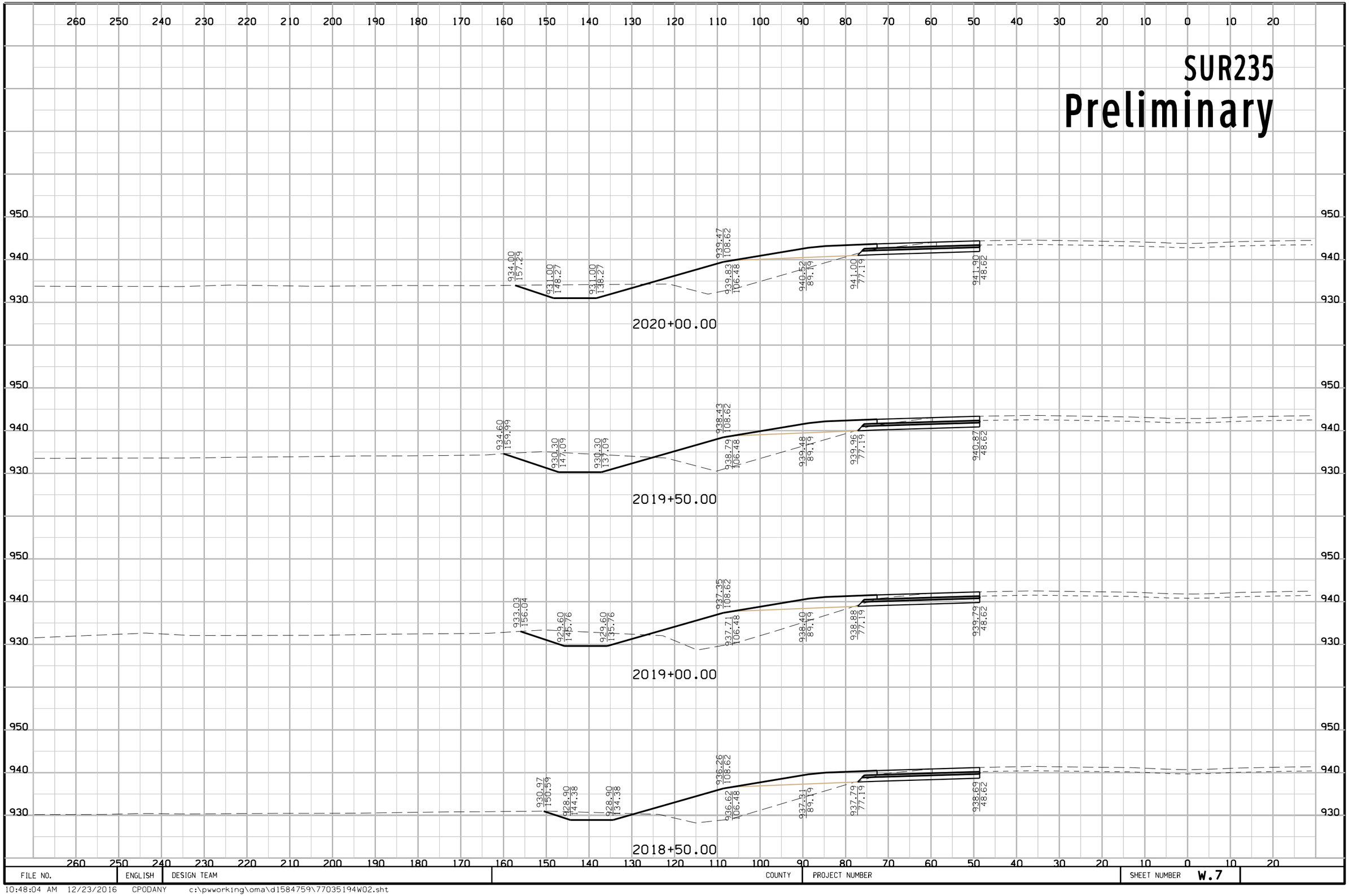
SUR235

Preliminary

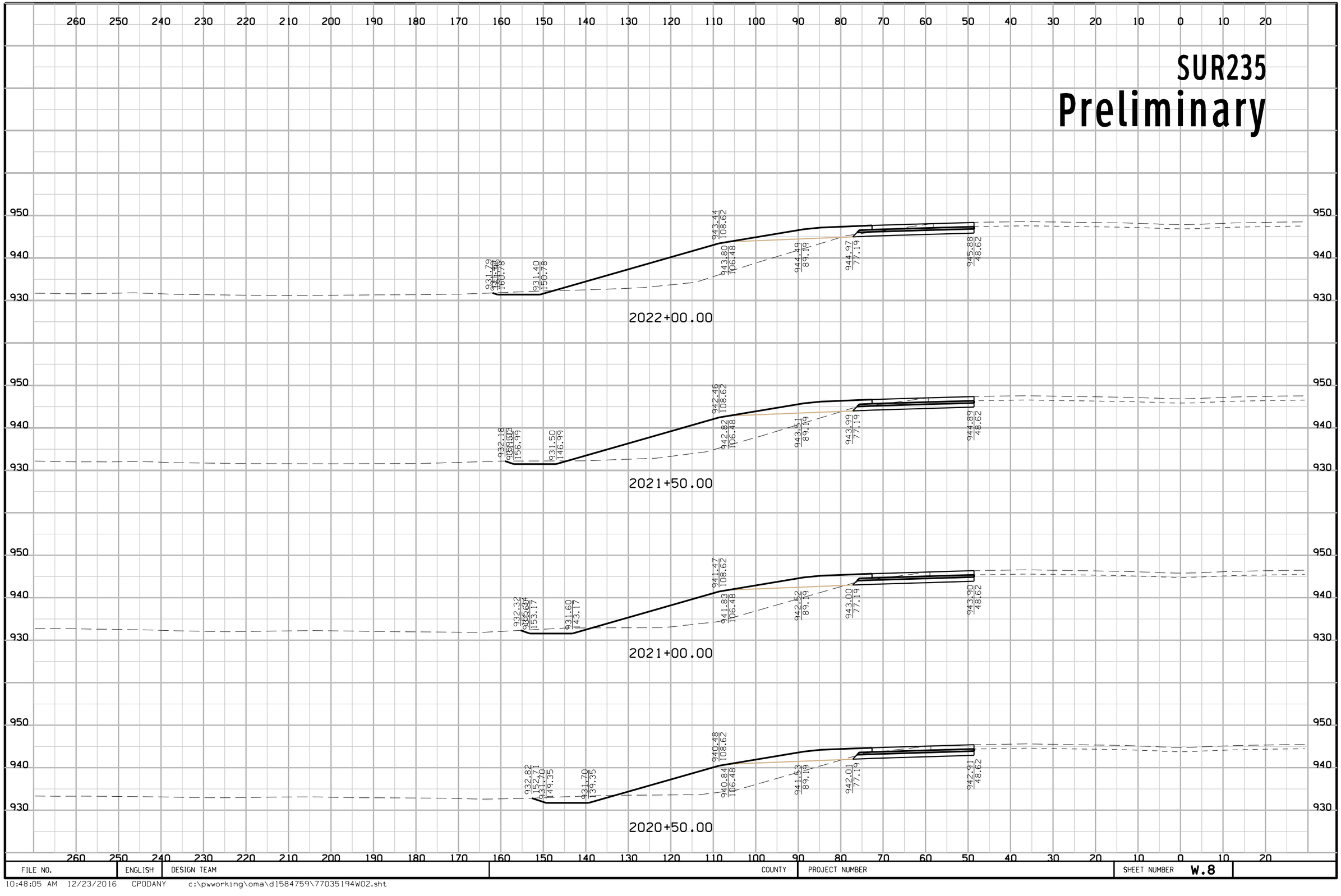


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.7

10:48:04 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

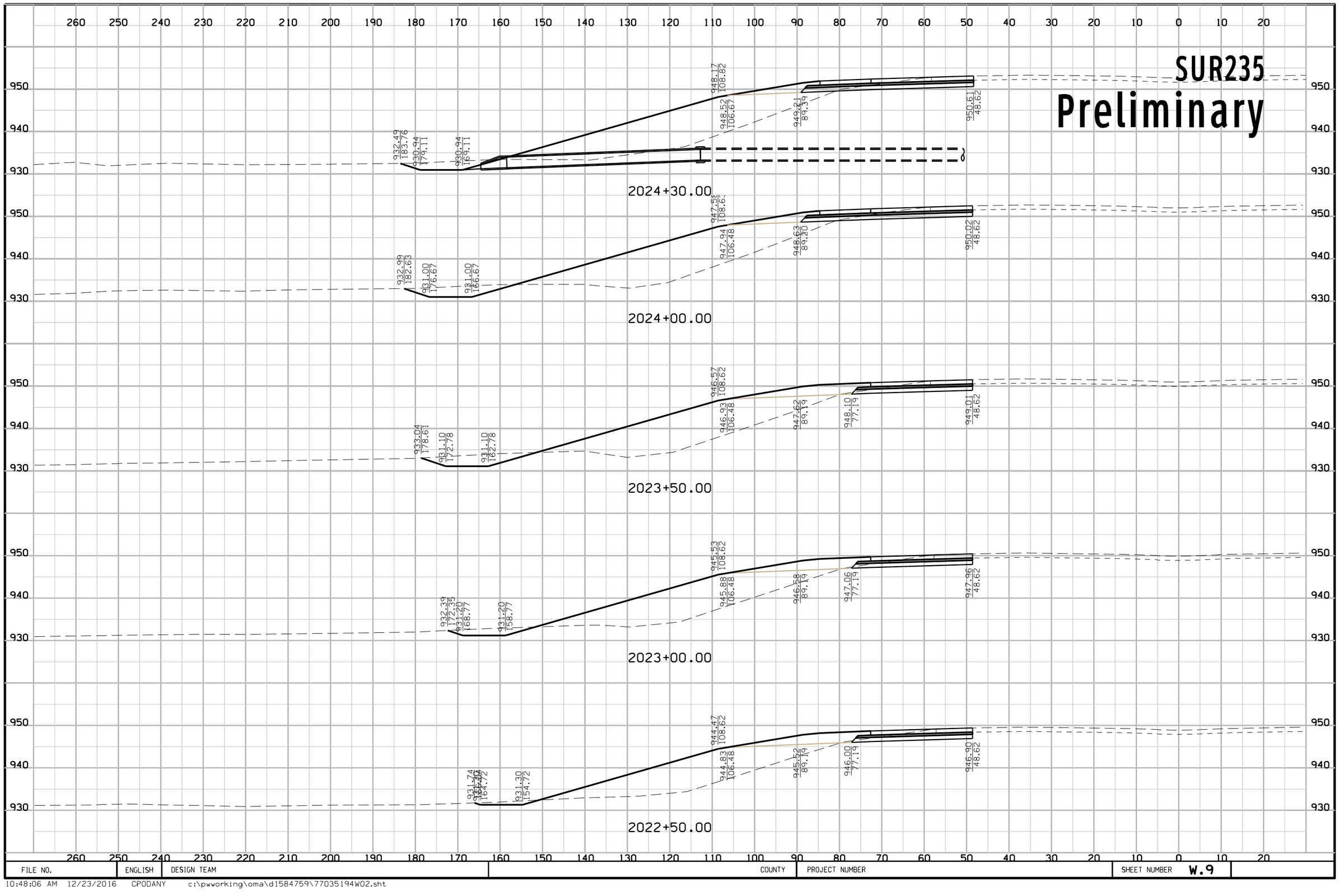


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.8

10:48:05 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

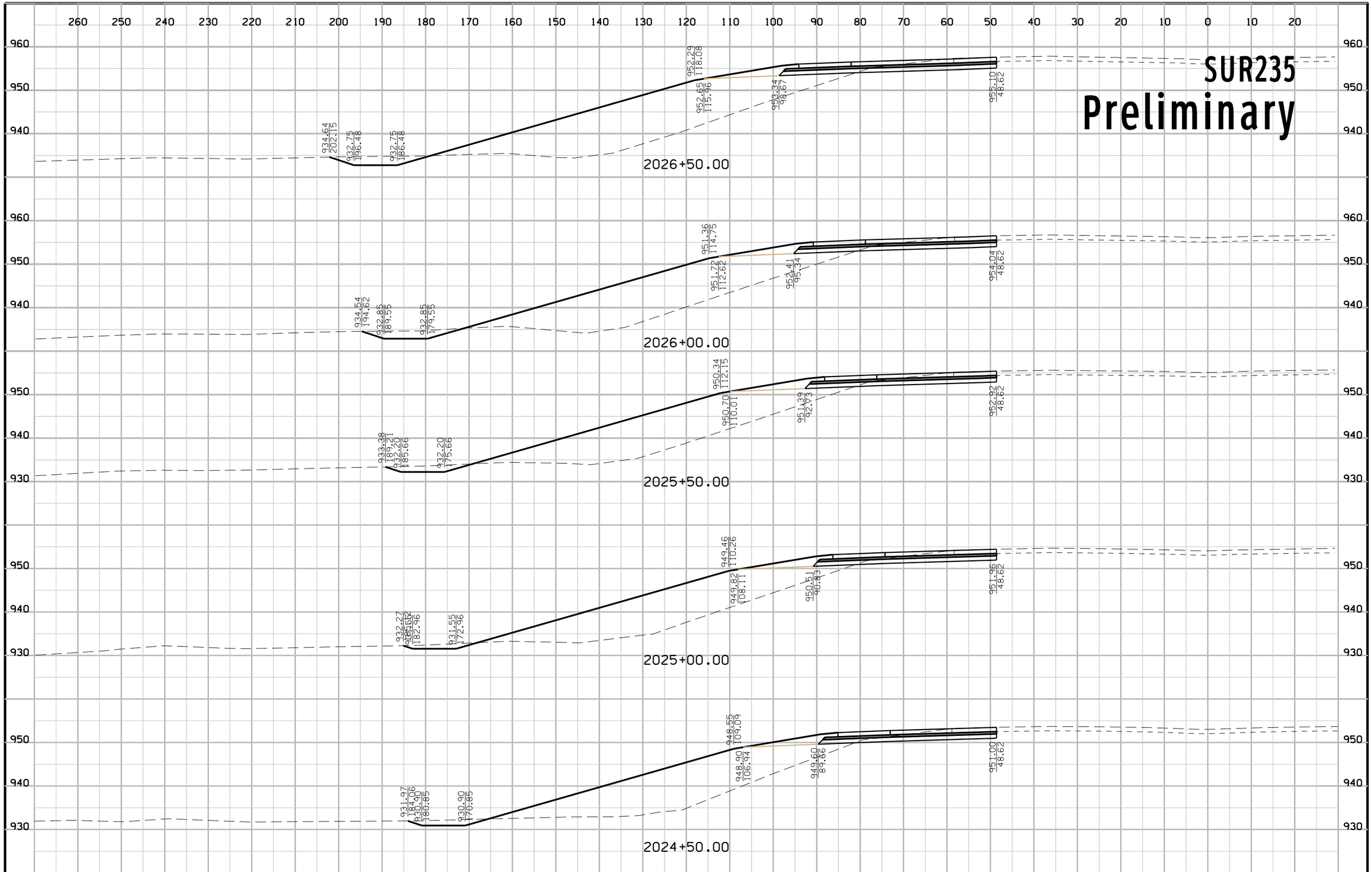
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.9

10:48:06 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235
Preliminary

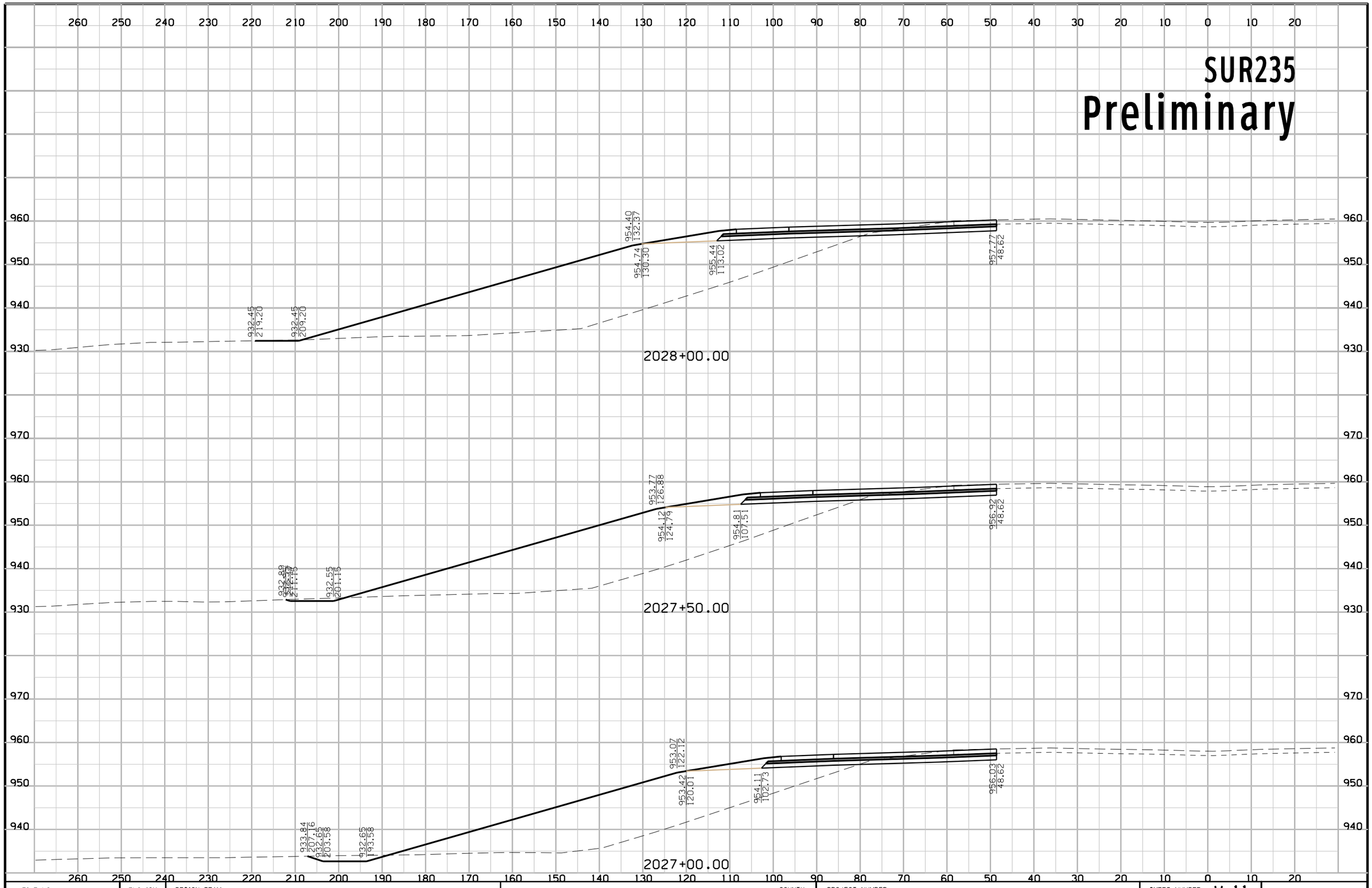


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.10

10:48:07 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

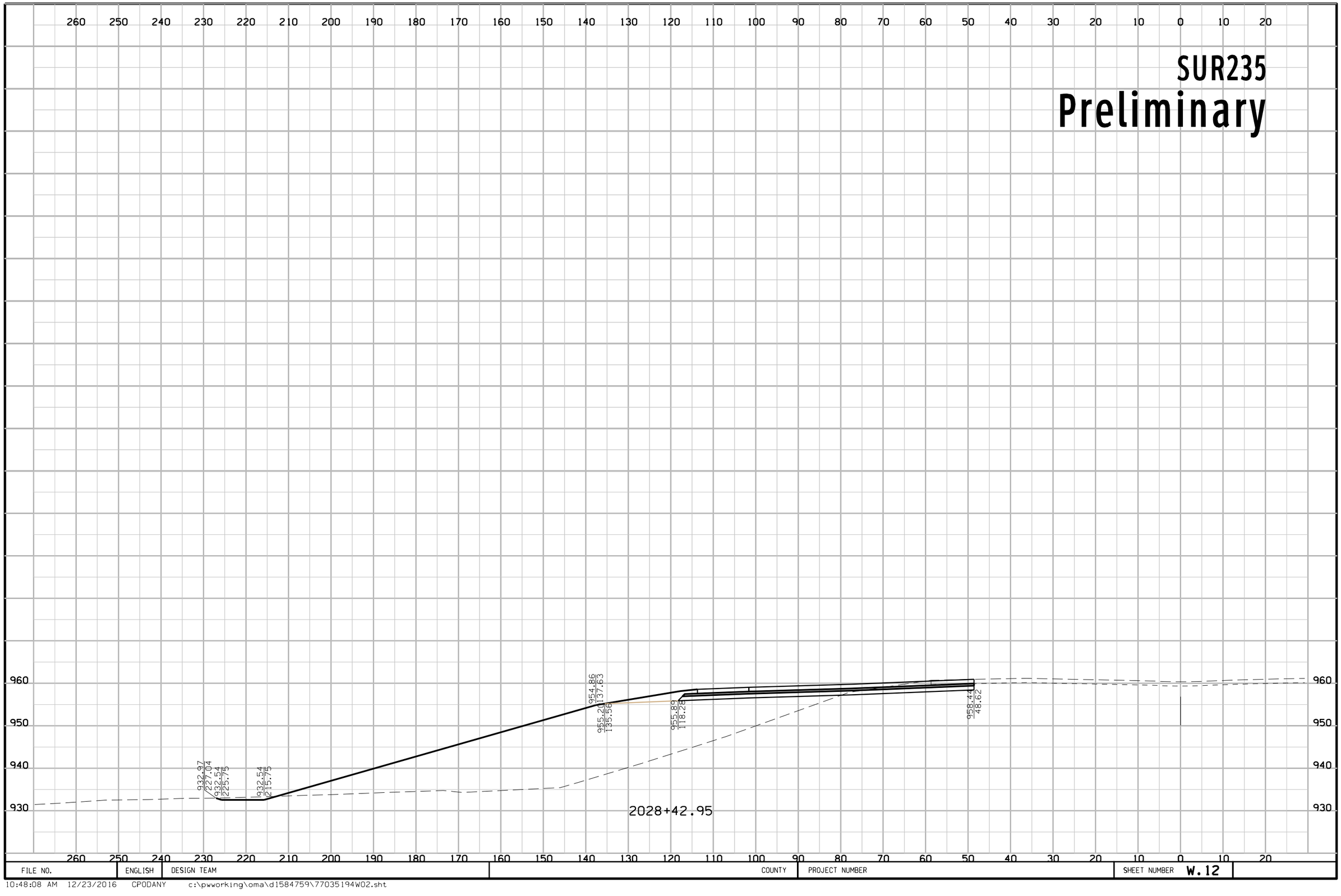


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.11

10:48:07 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

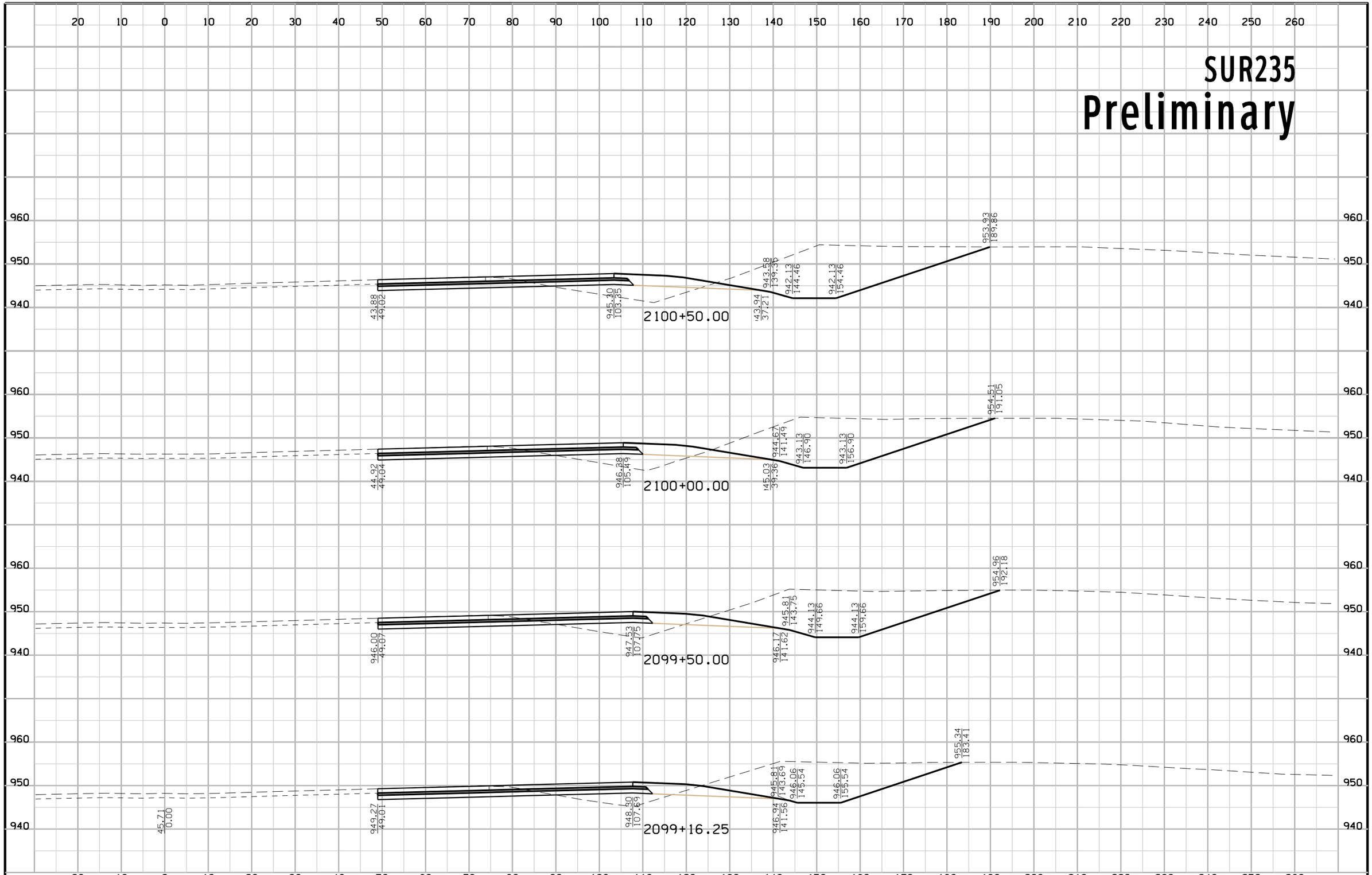


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.12

10:48:08 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

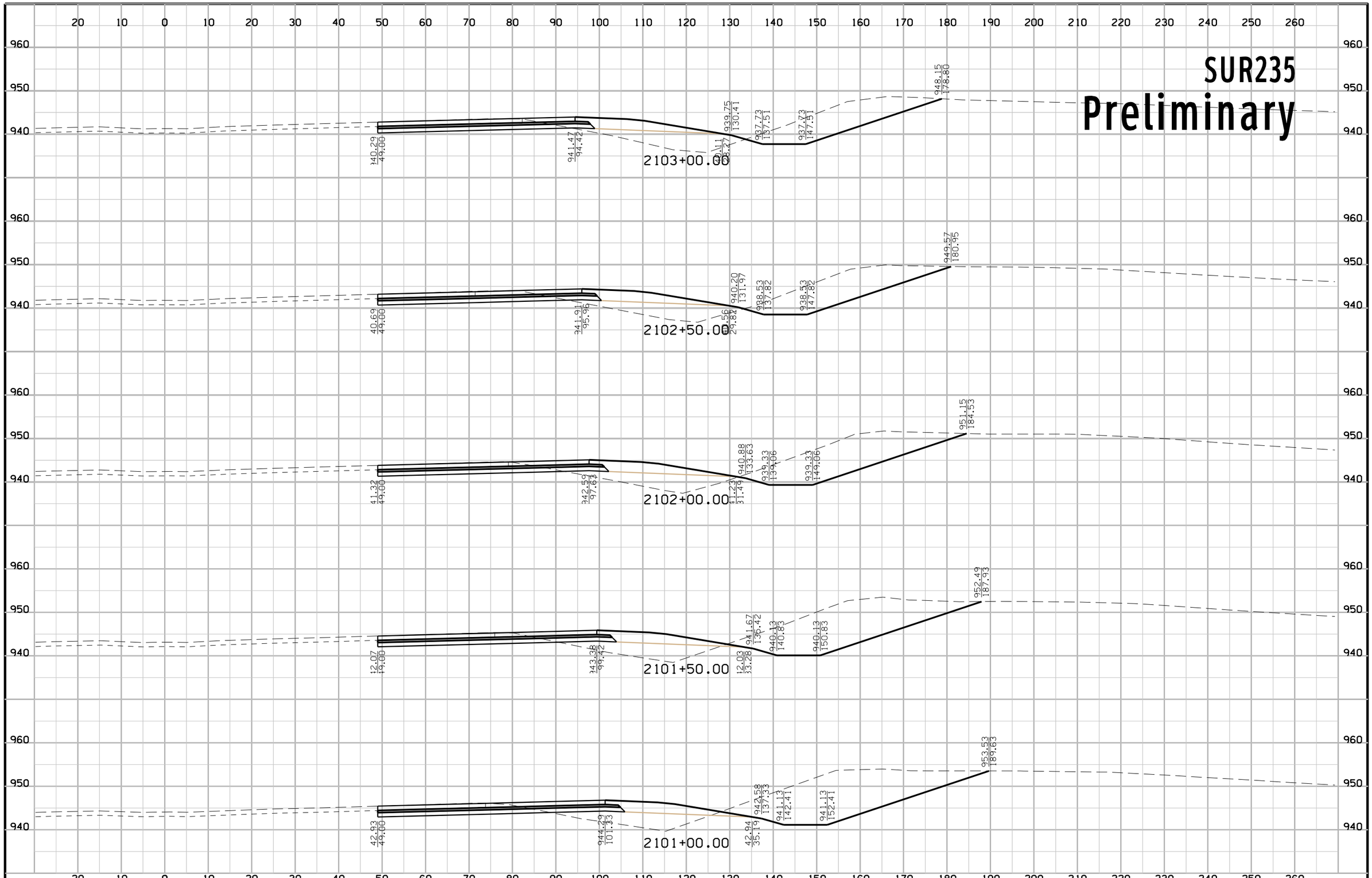


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.13

10:48:09 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

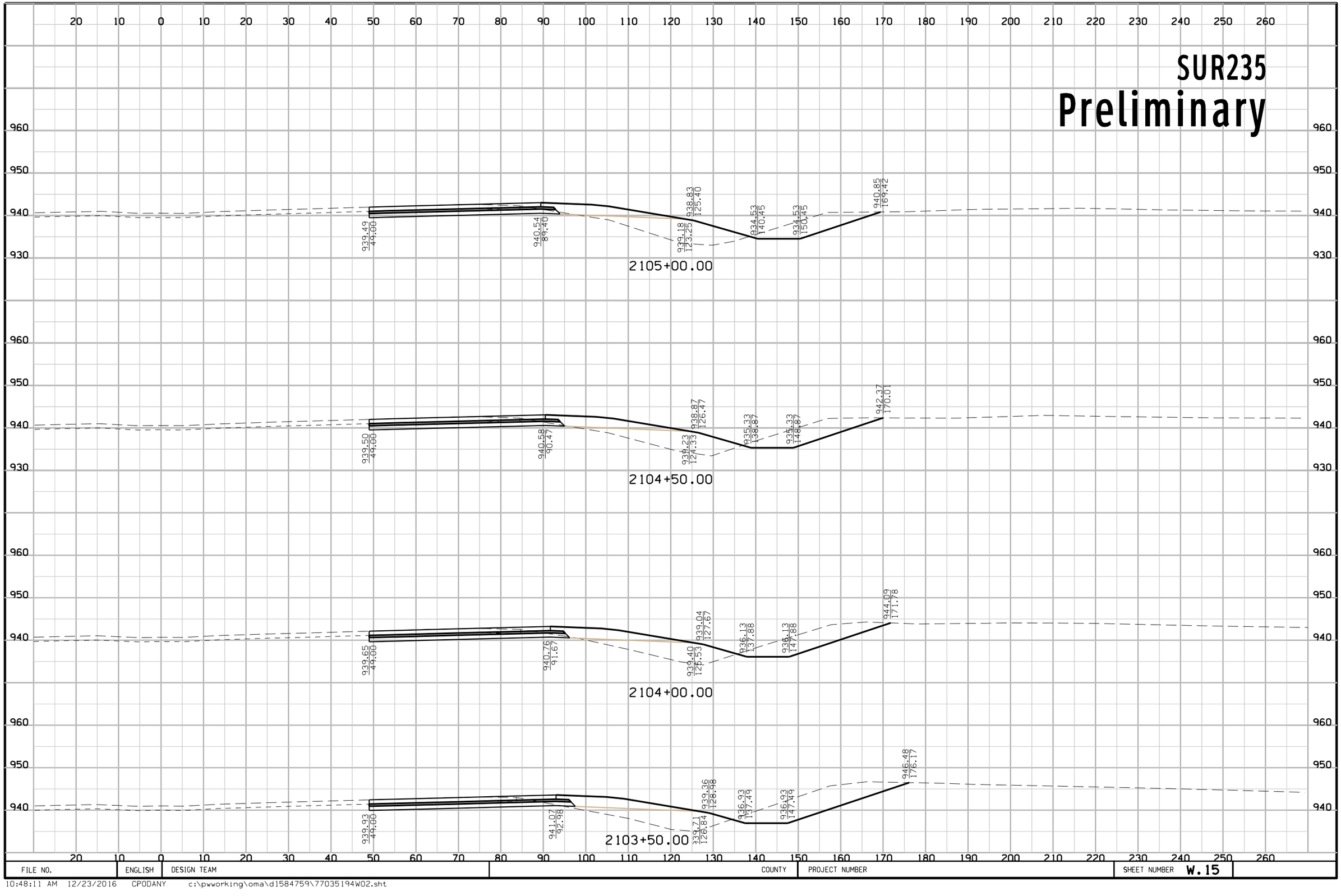


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.14

10:48:10 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

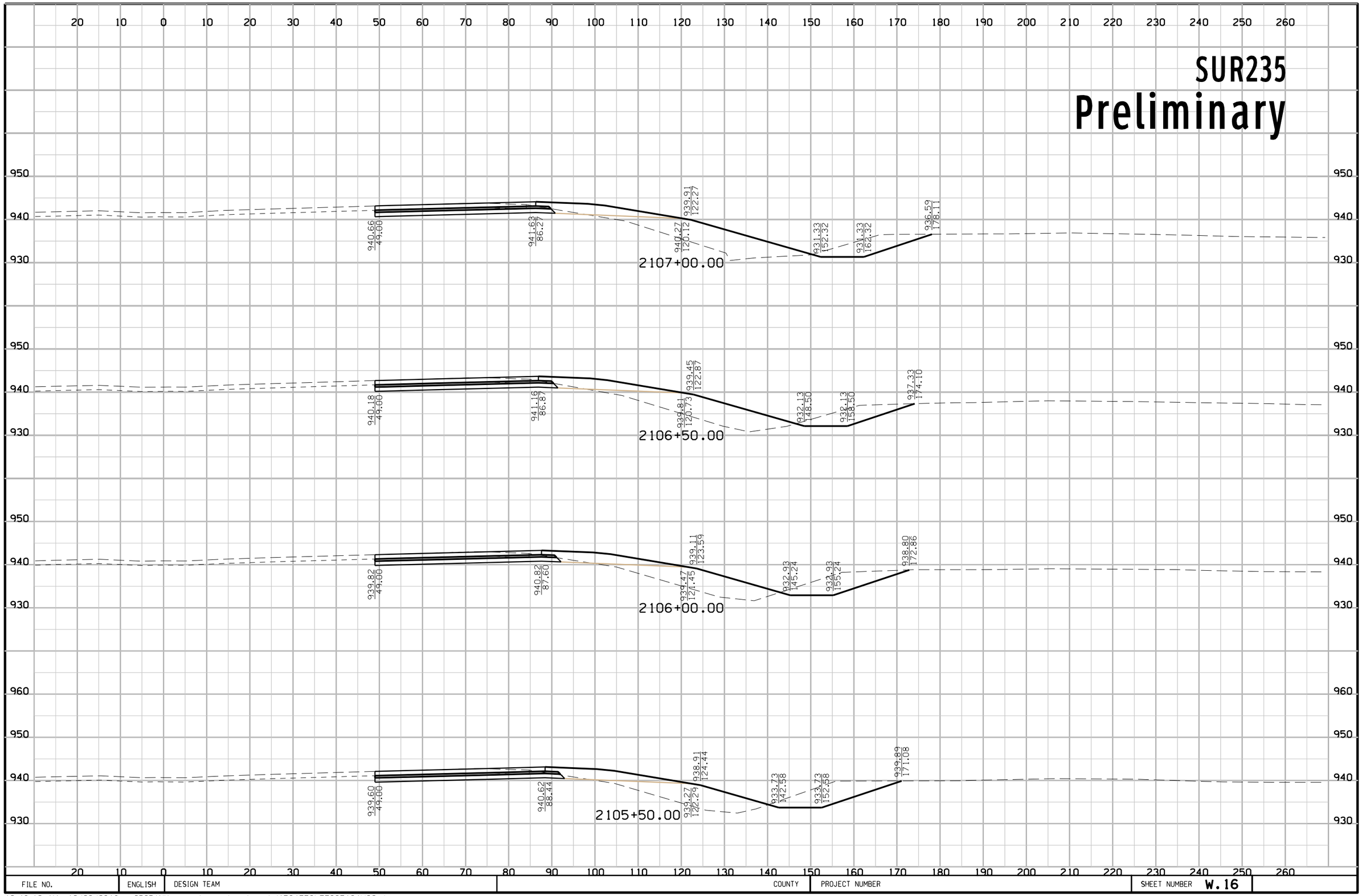
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.15

10:48:11 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235
Preliminary

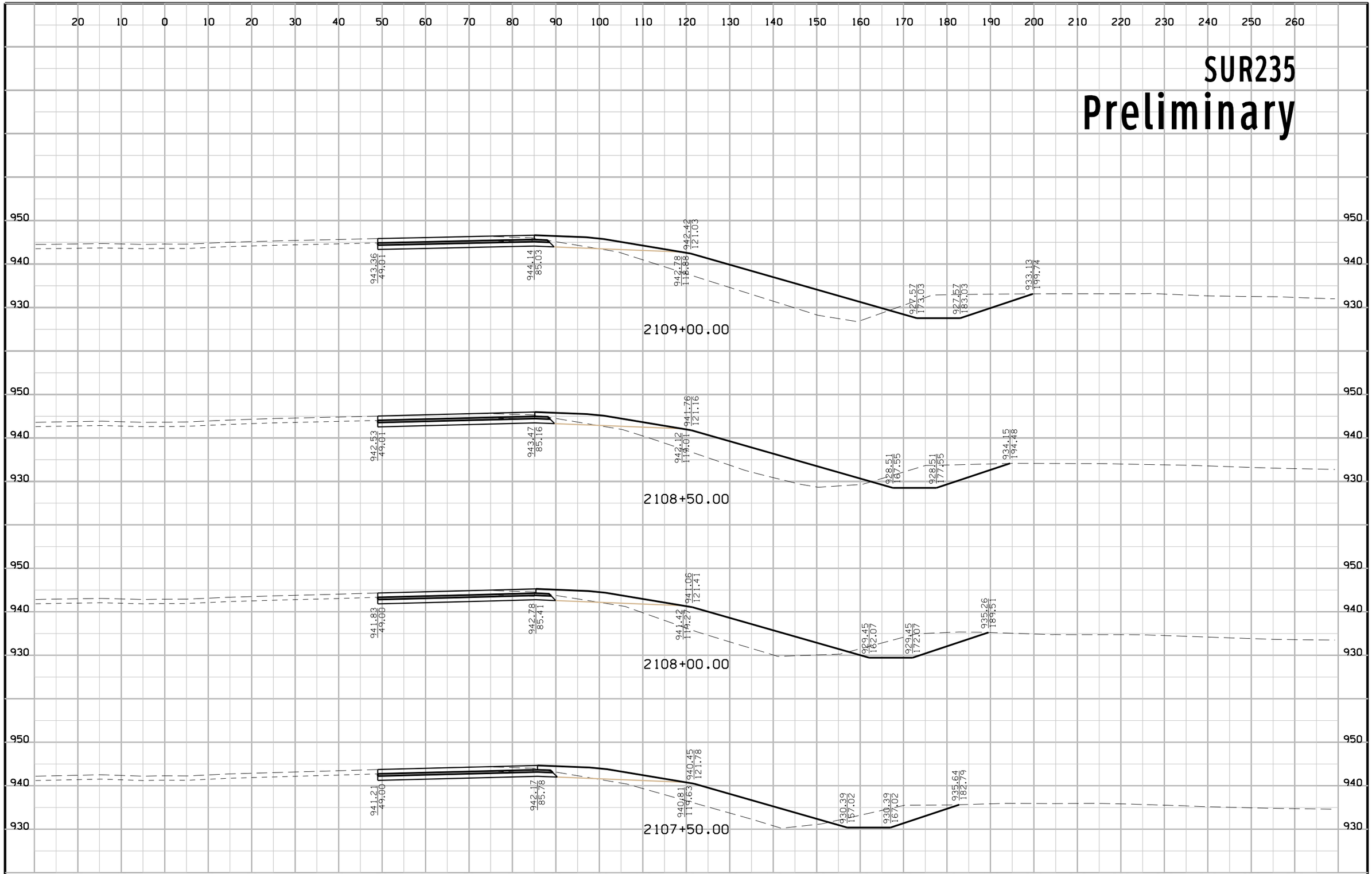


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.16

10:48:12 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

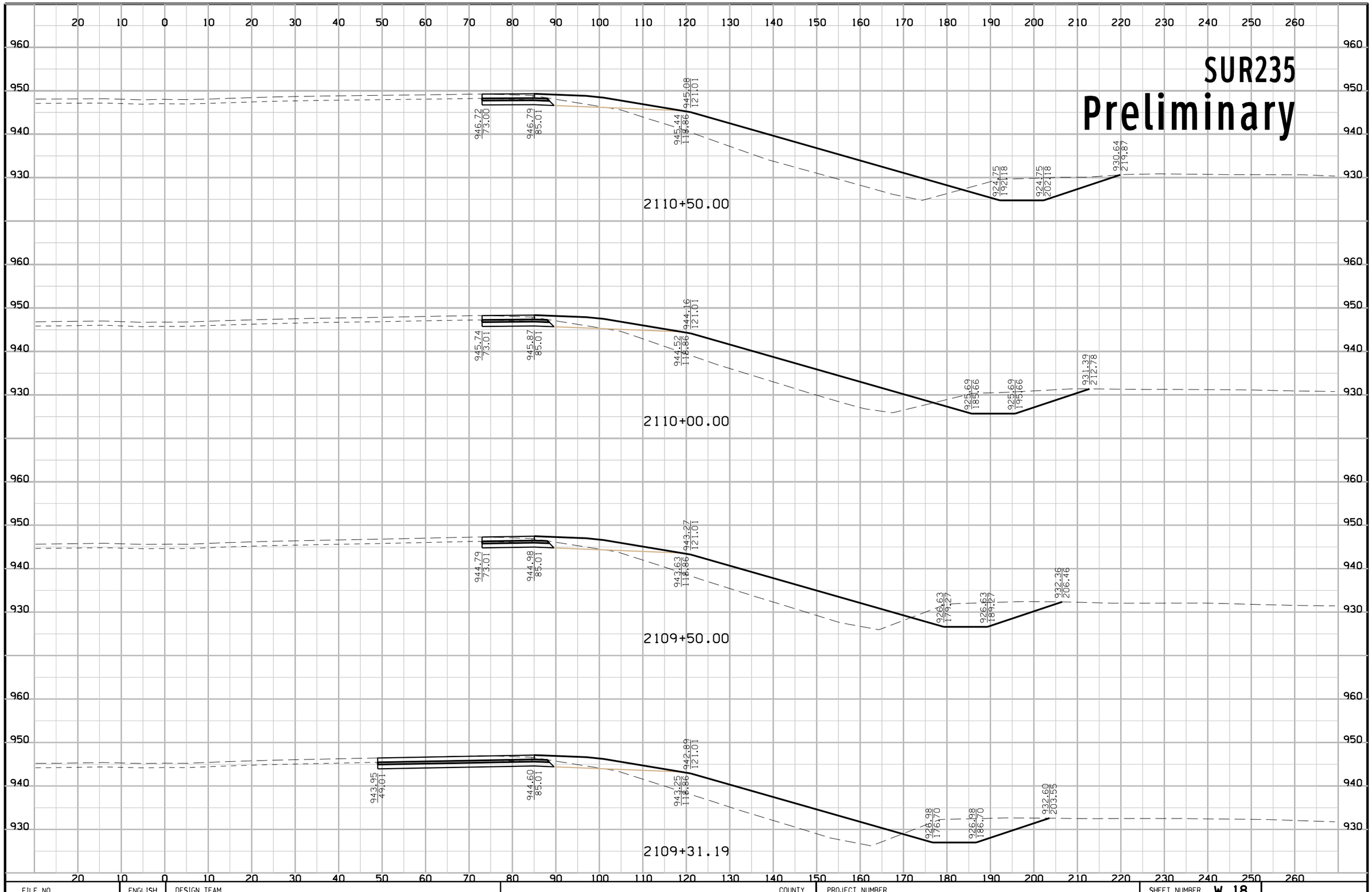


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.17

10:48:13 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

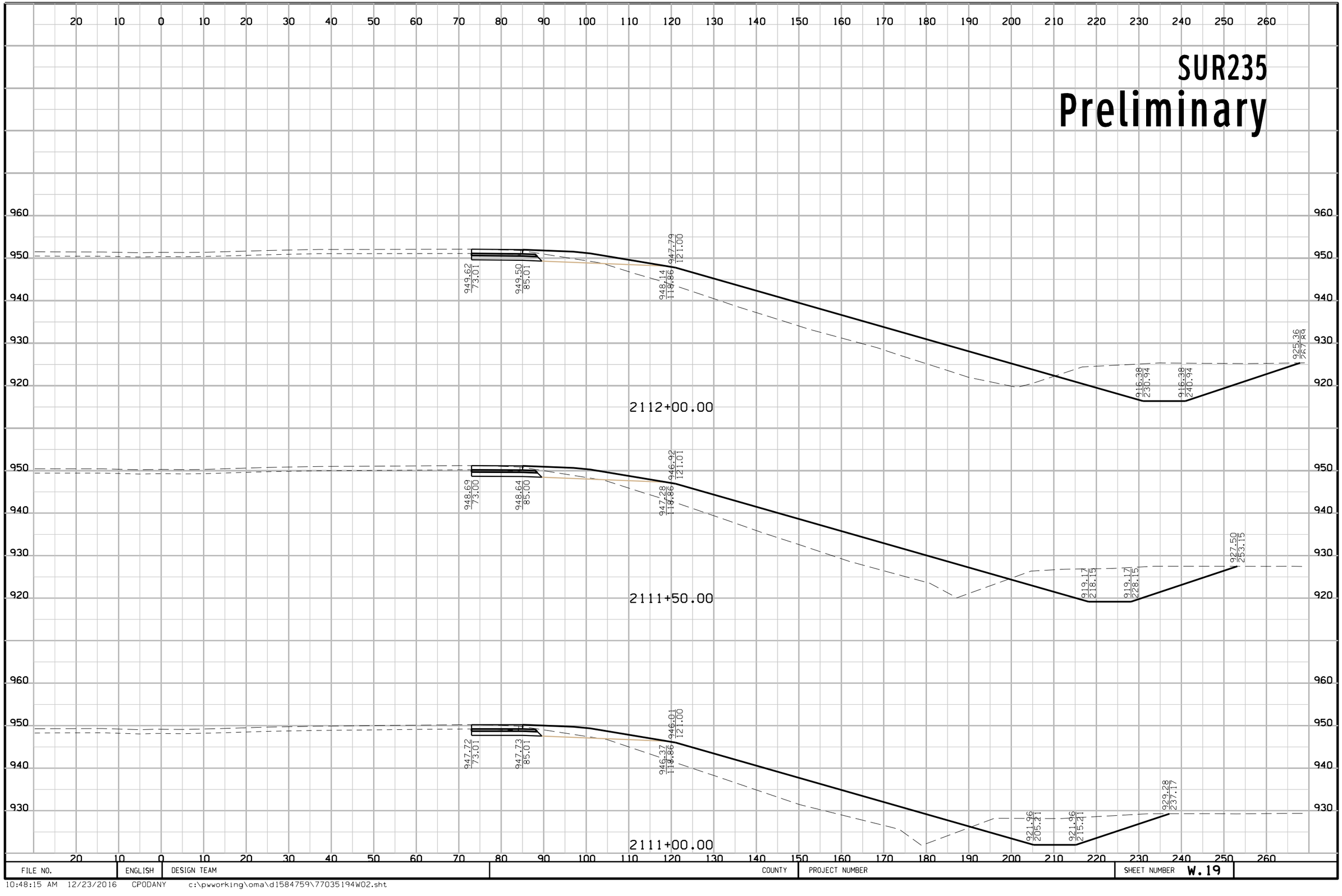


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.18

10:48:14 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

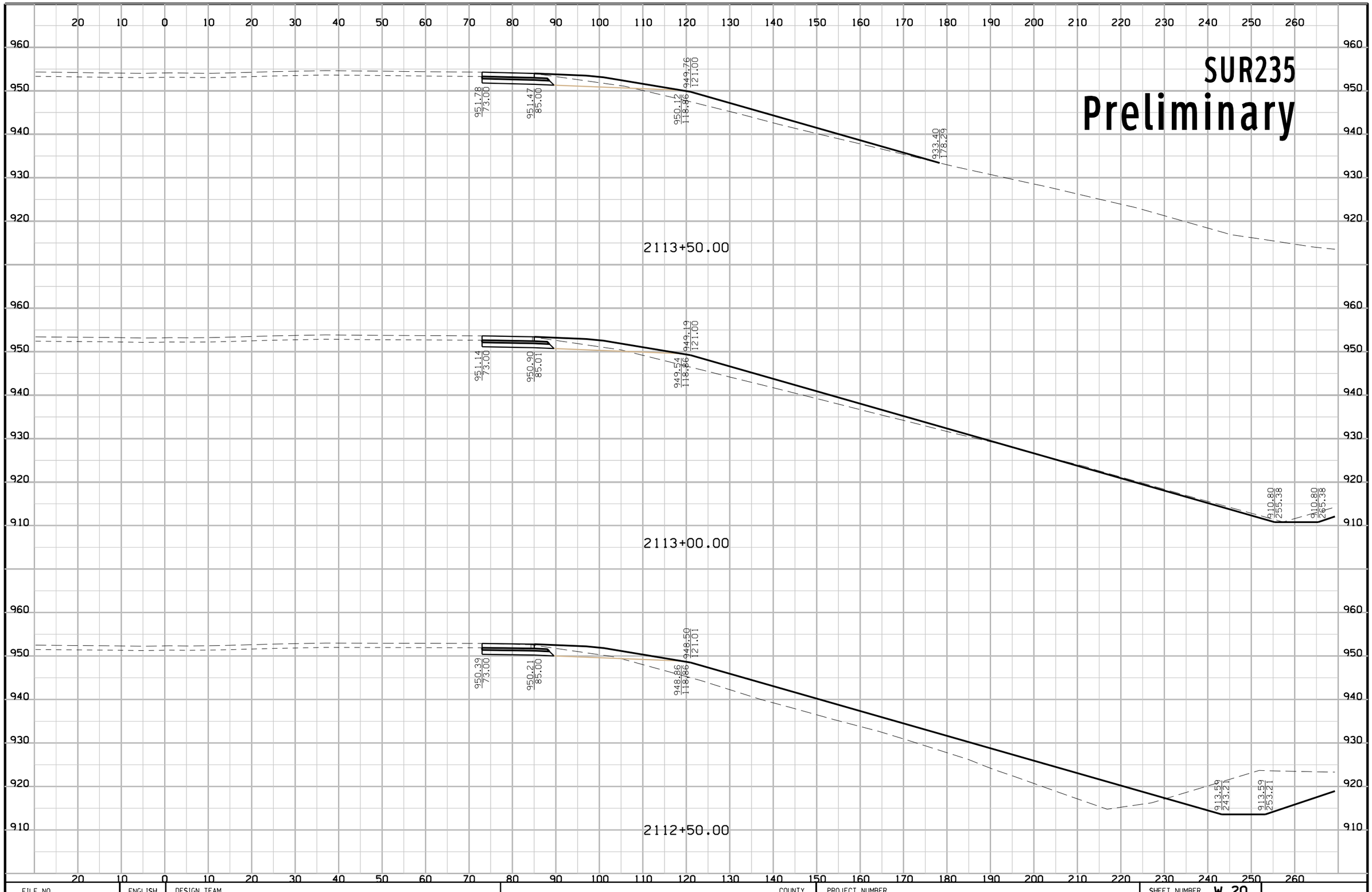


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.19

10:48:15 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

Preliminary

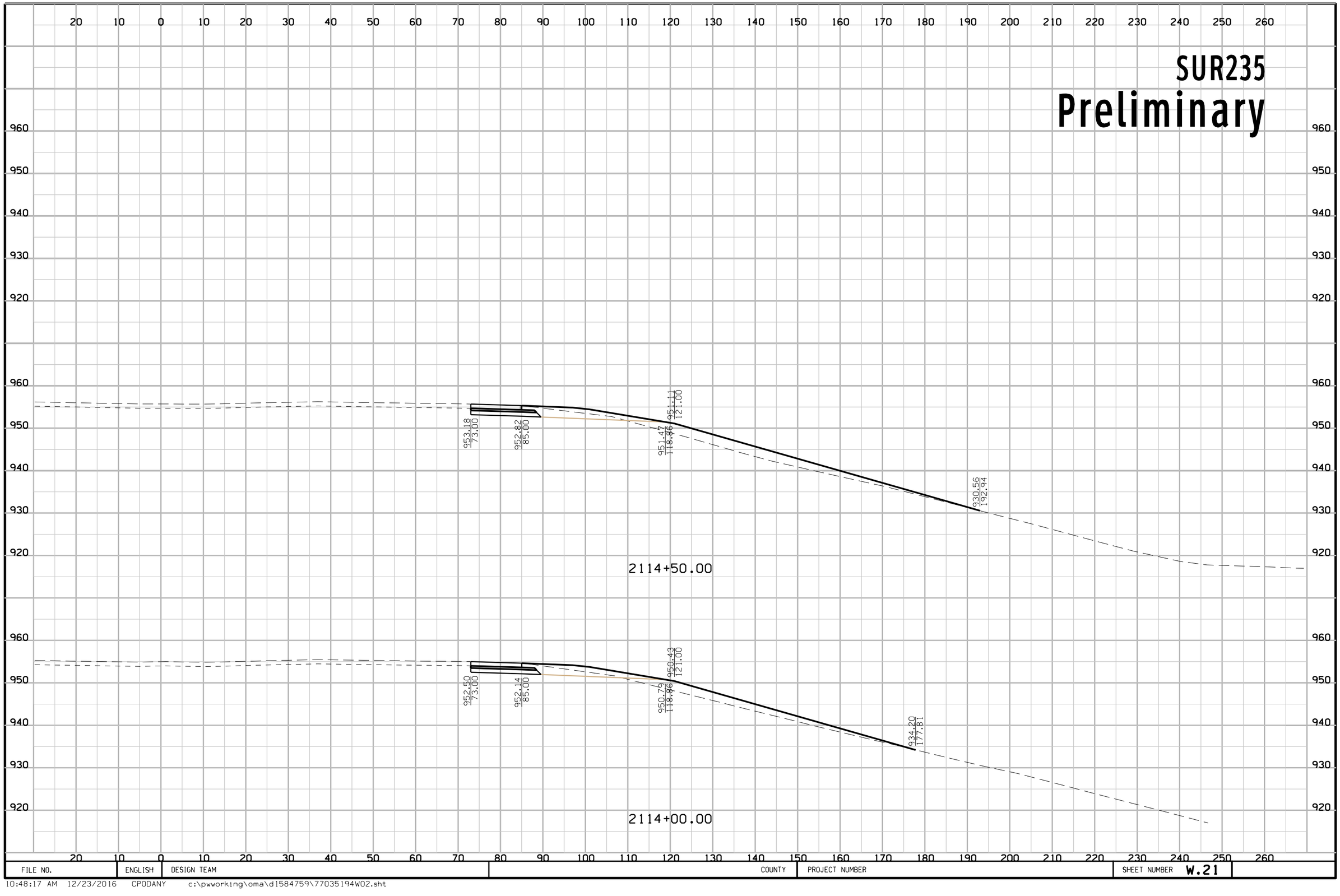


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.20

10:48:16 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

SUR235

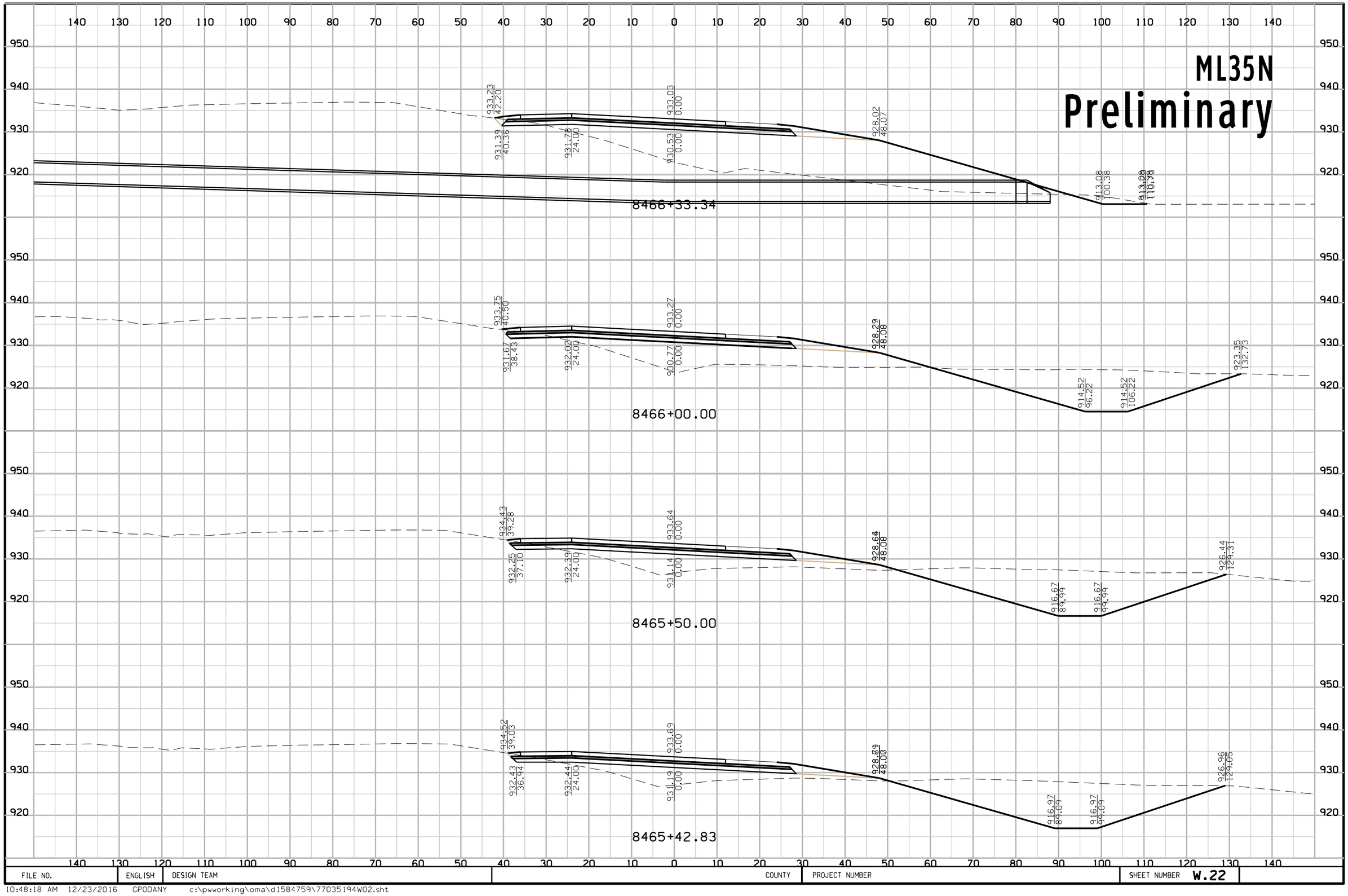
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.21

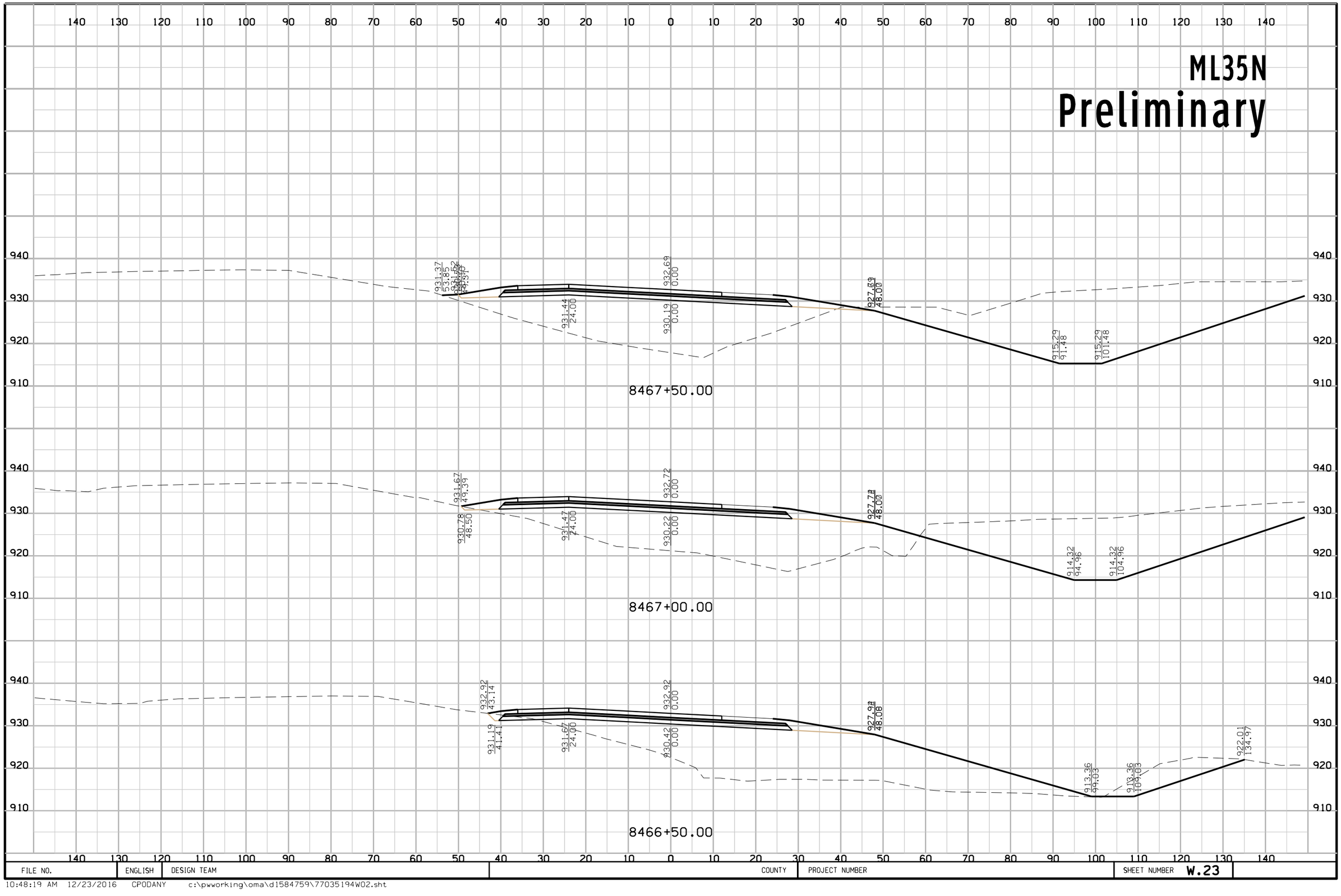
10:48:17 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.22

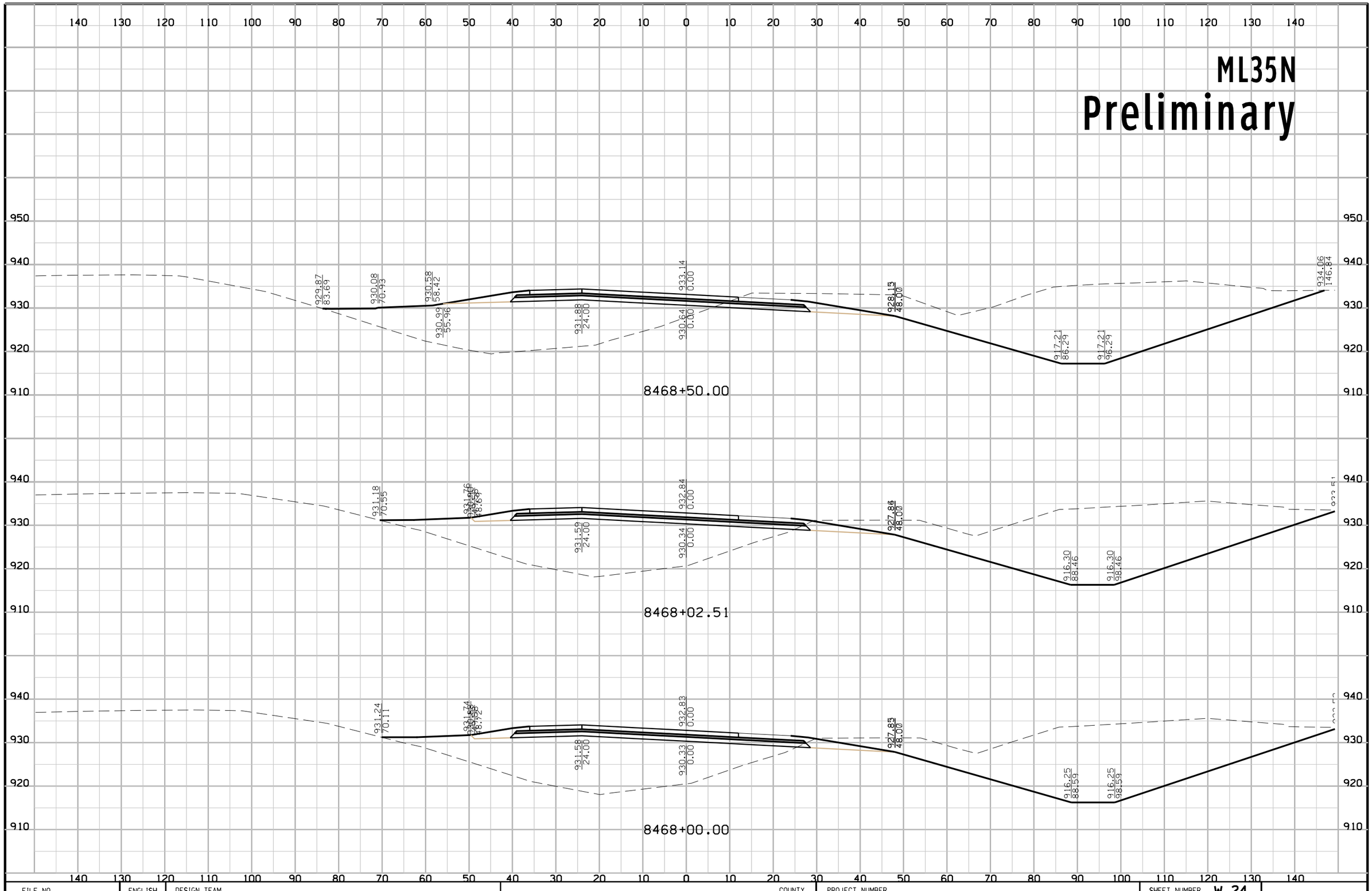
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.23

10:48:19 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

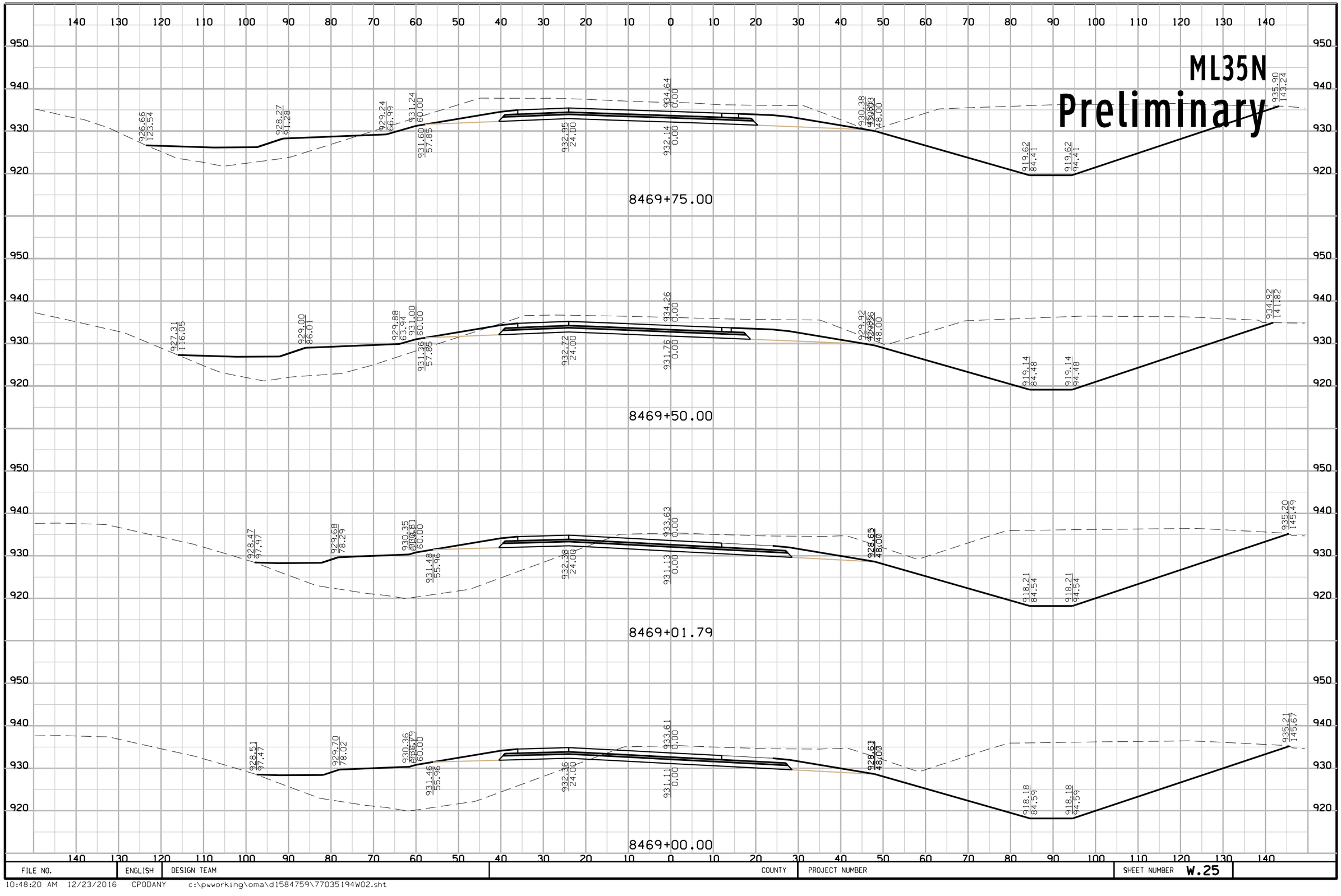


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.24

10:48:19 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

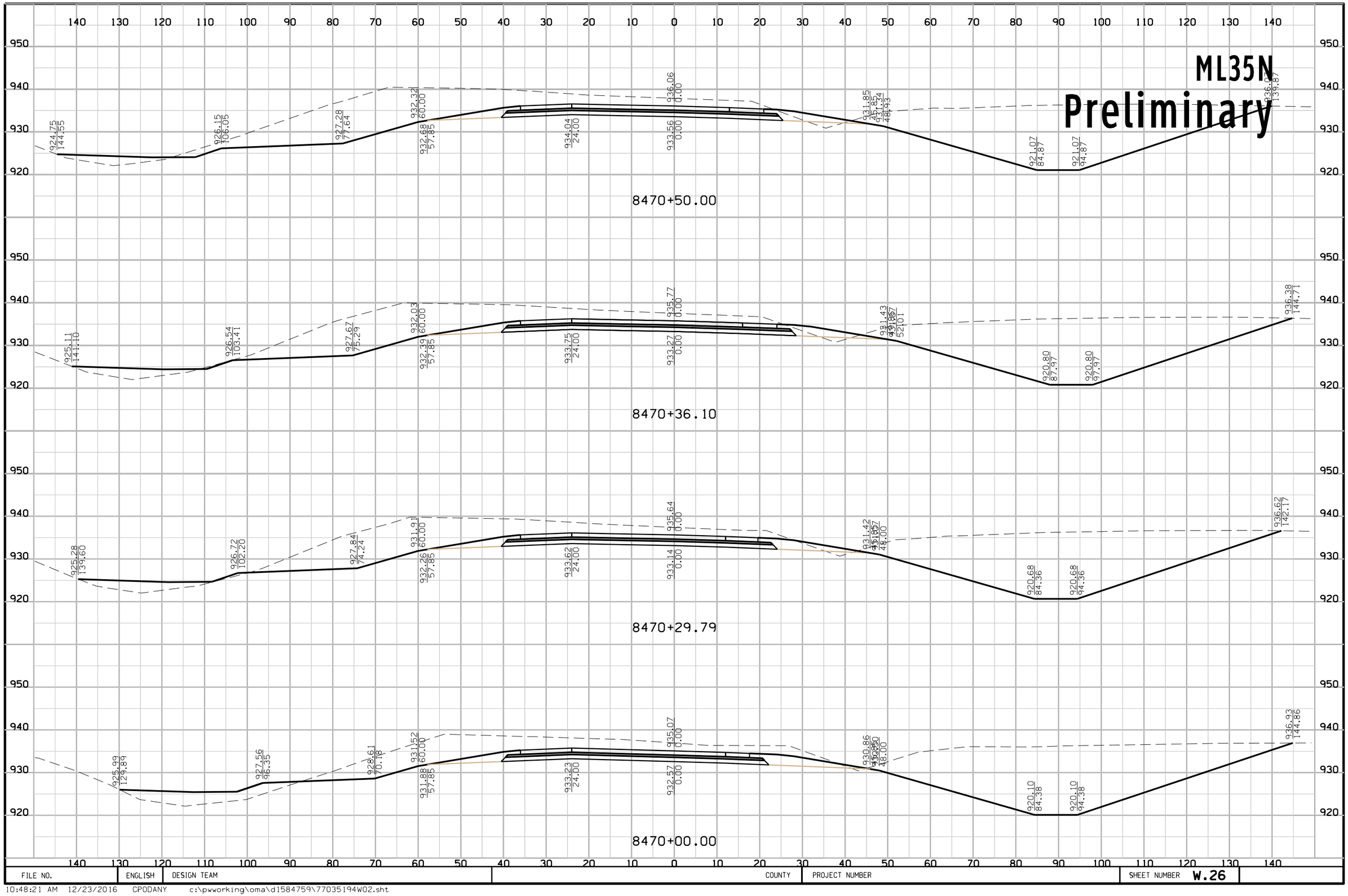


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.25

10:48:20 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

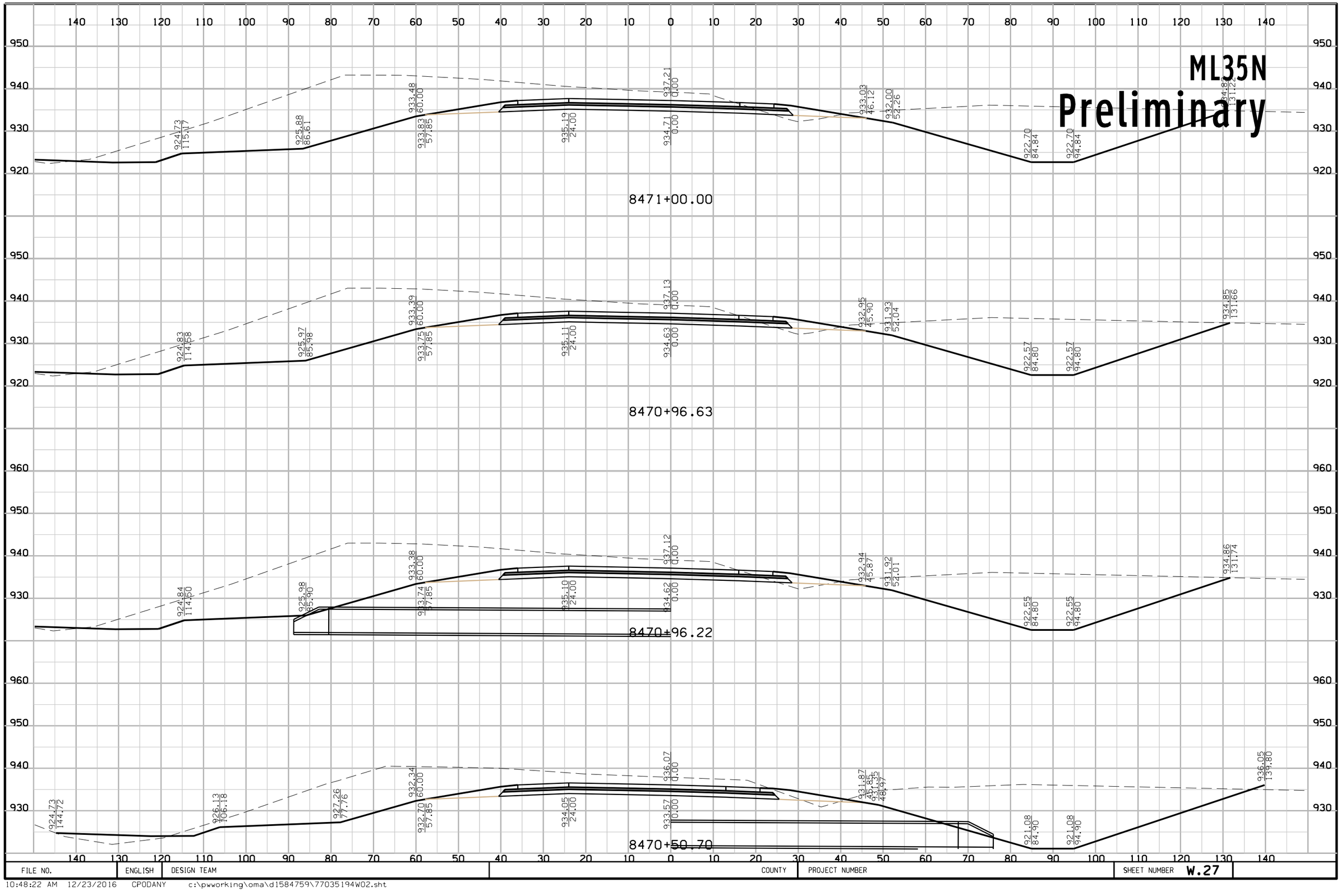


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.26

10:48:21 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

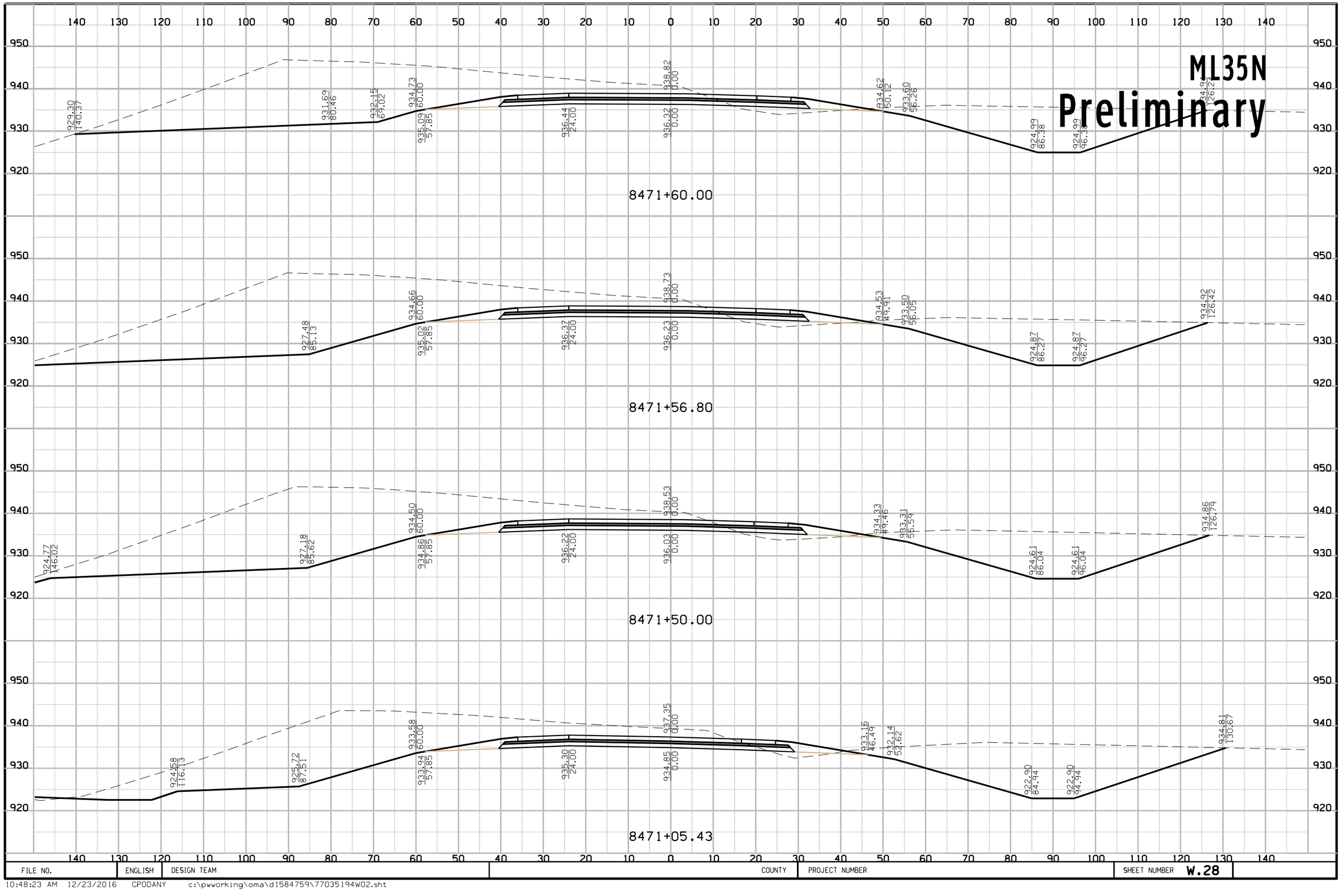


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.27

10:48:22 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

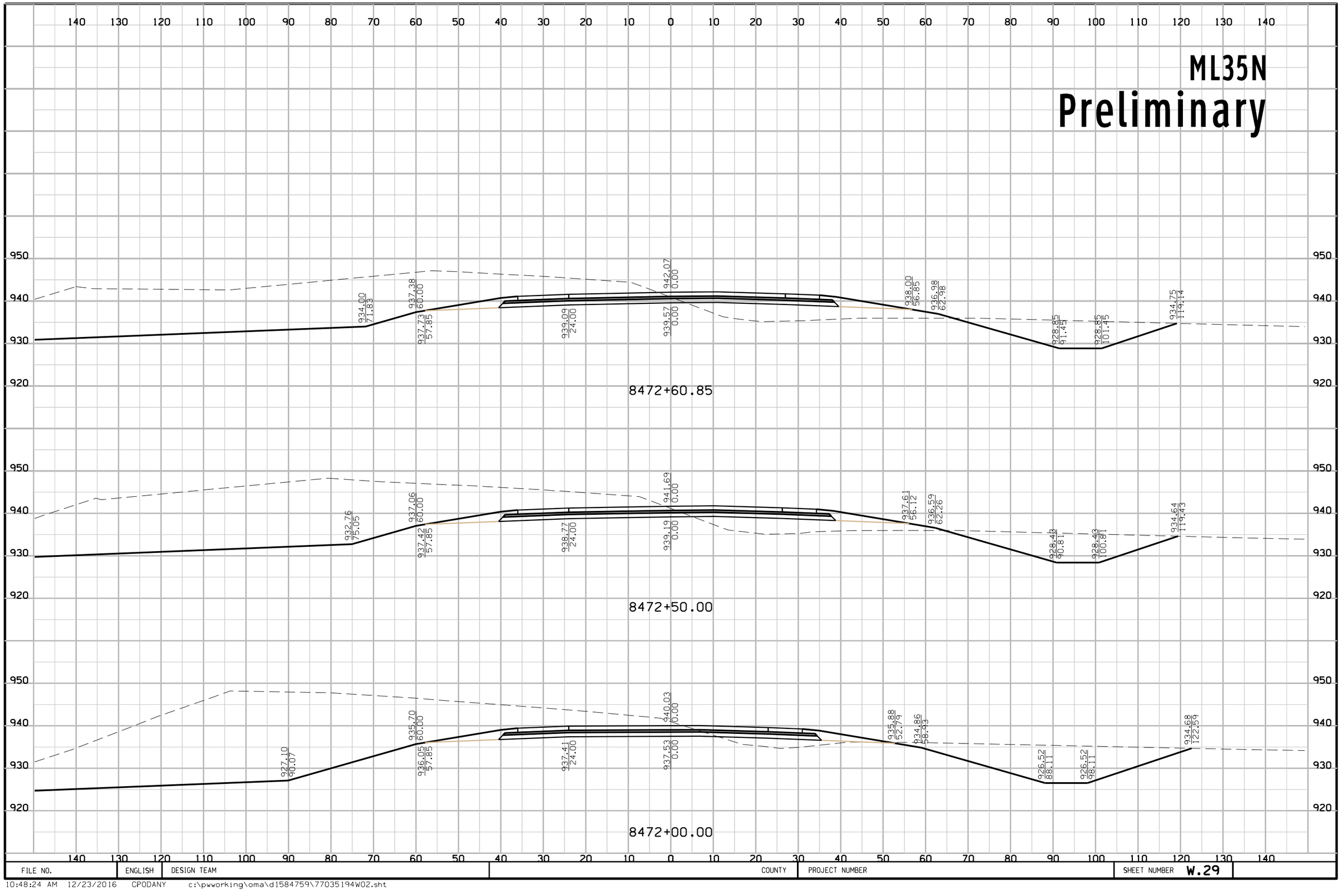
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.28

10:48:23 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

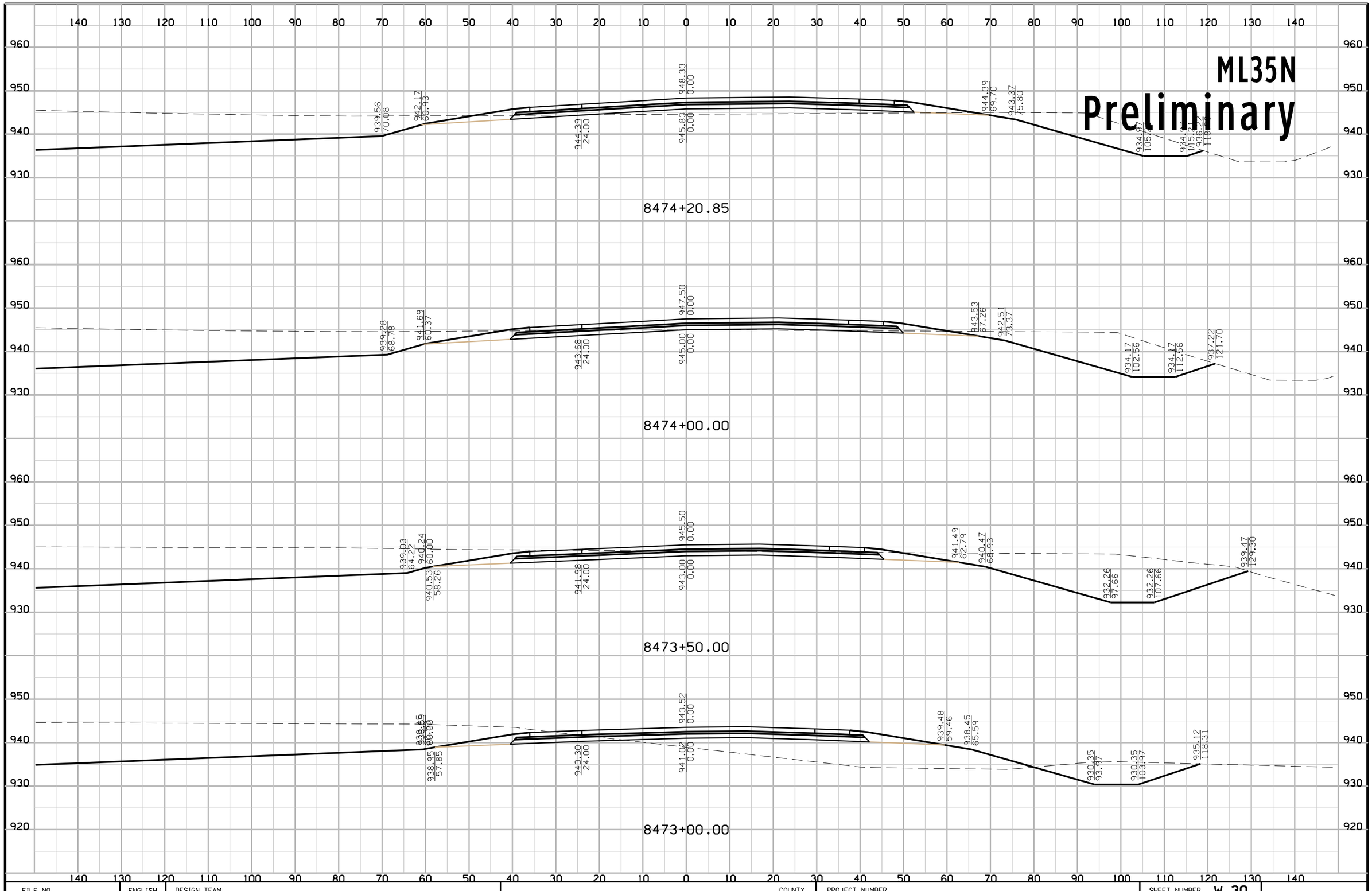


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.29

10:48:24 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

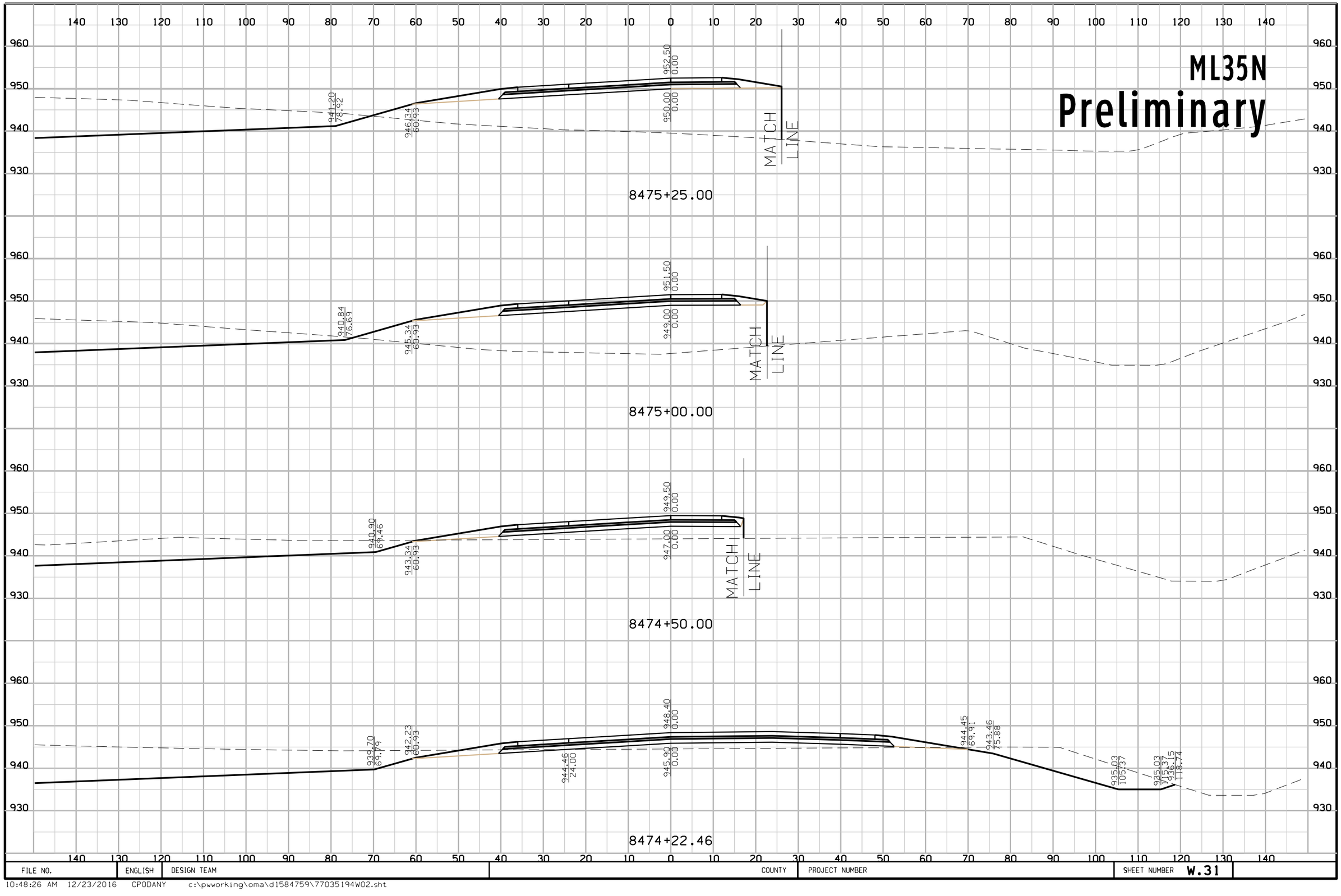
ML35N

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.30

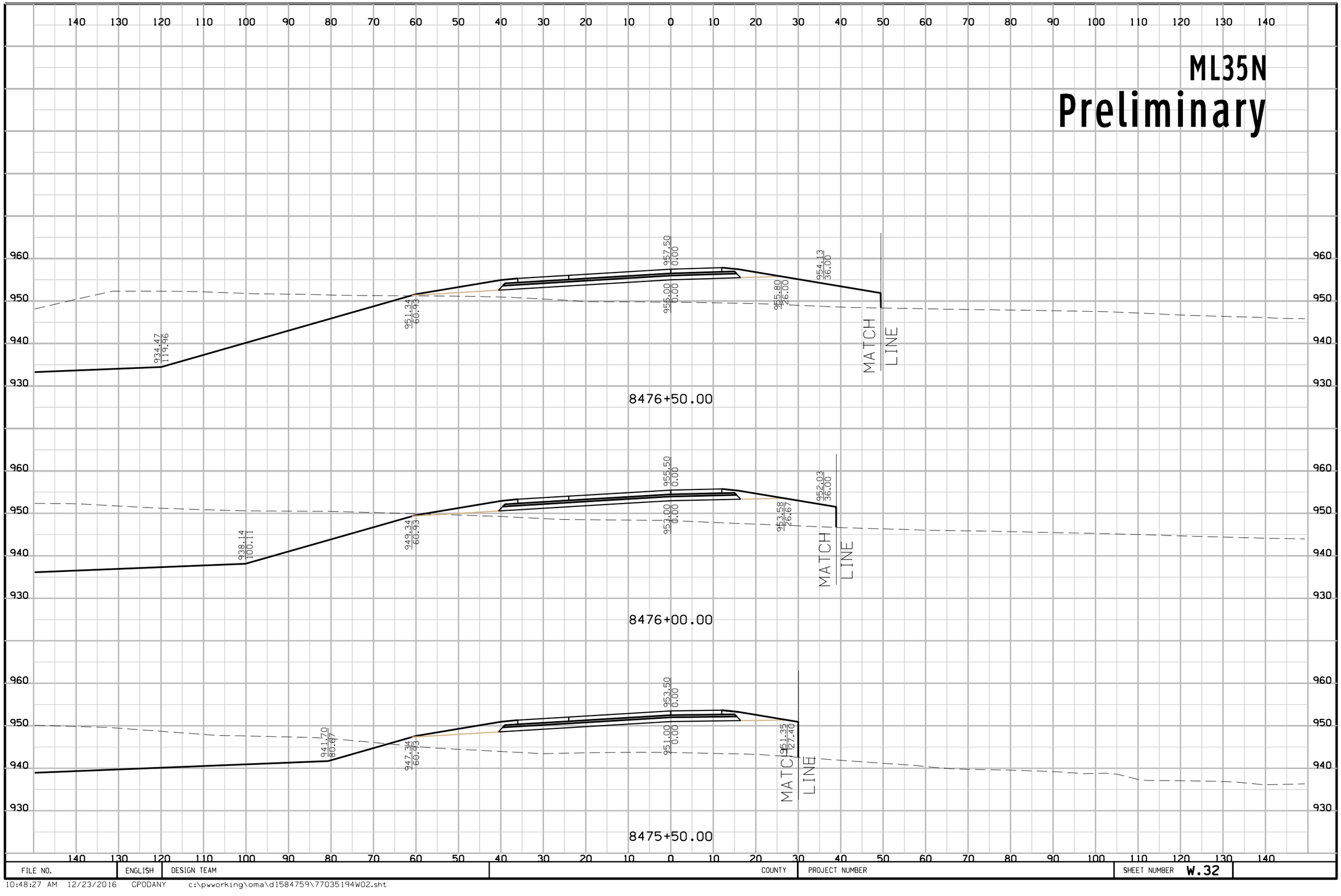
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.31

10:48:26 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

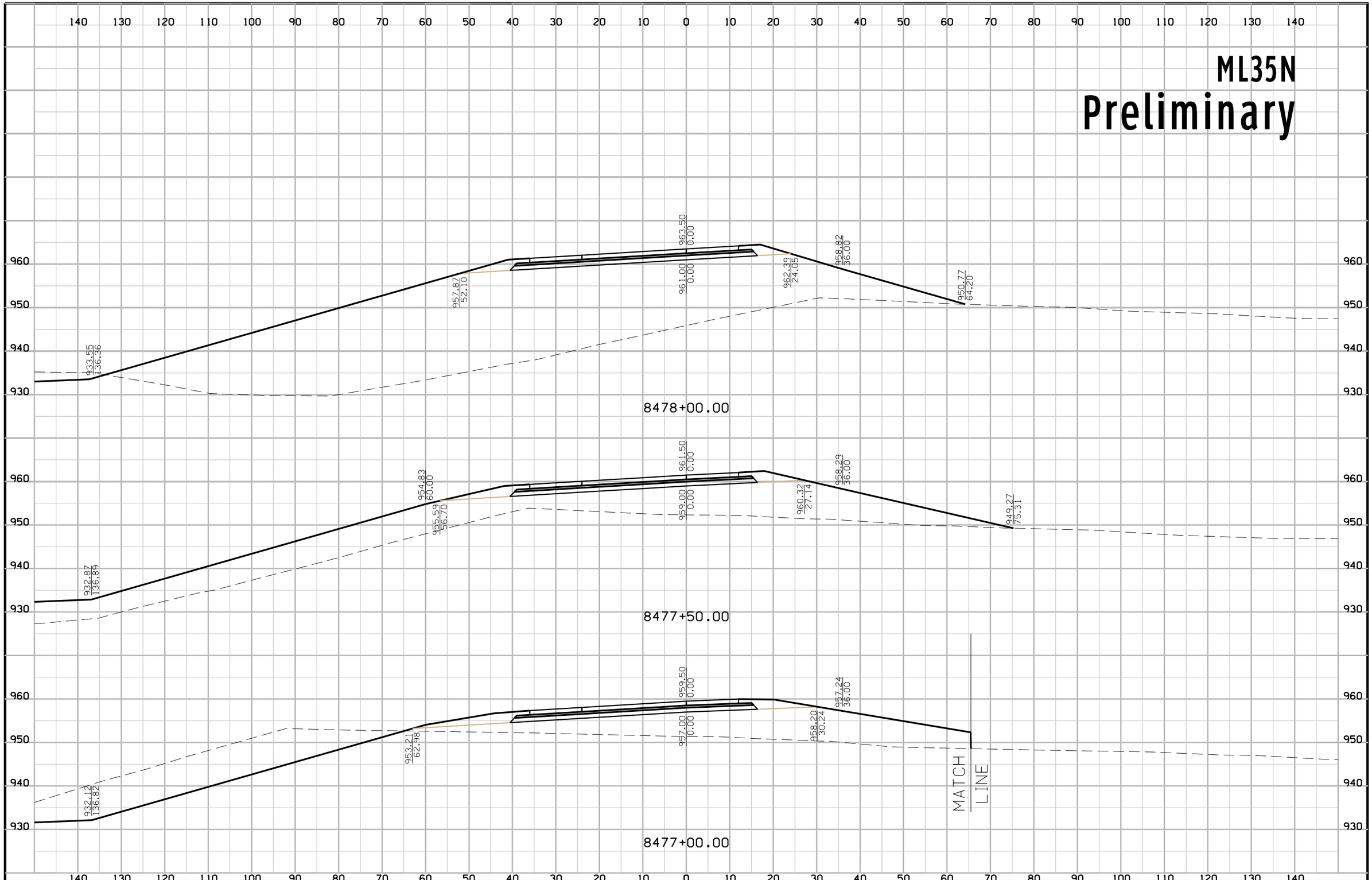
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.32

10:48:27 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

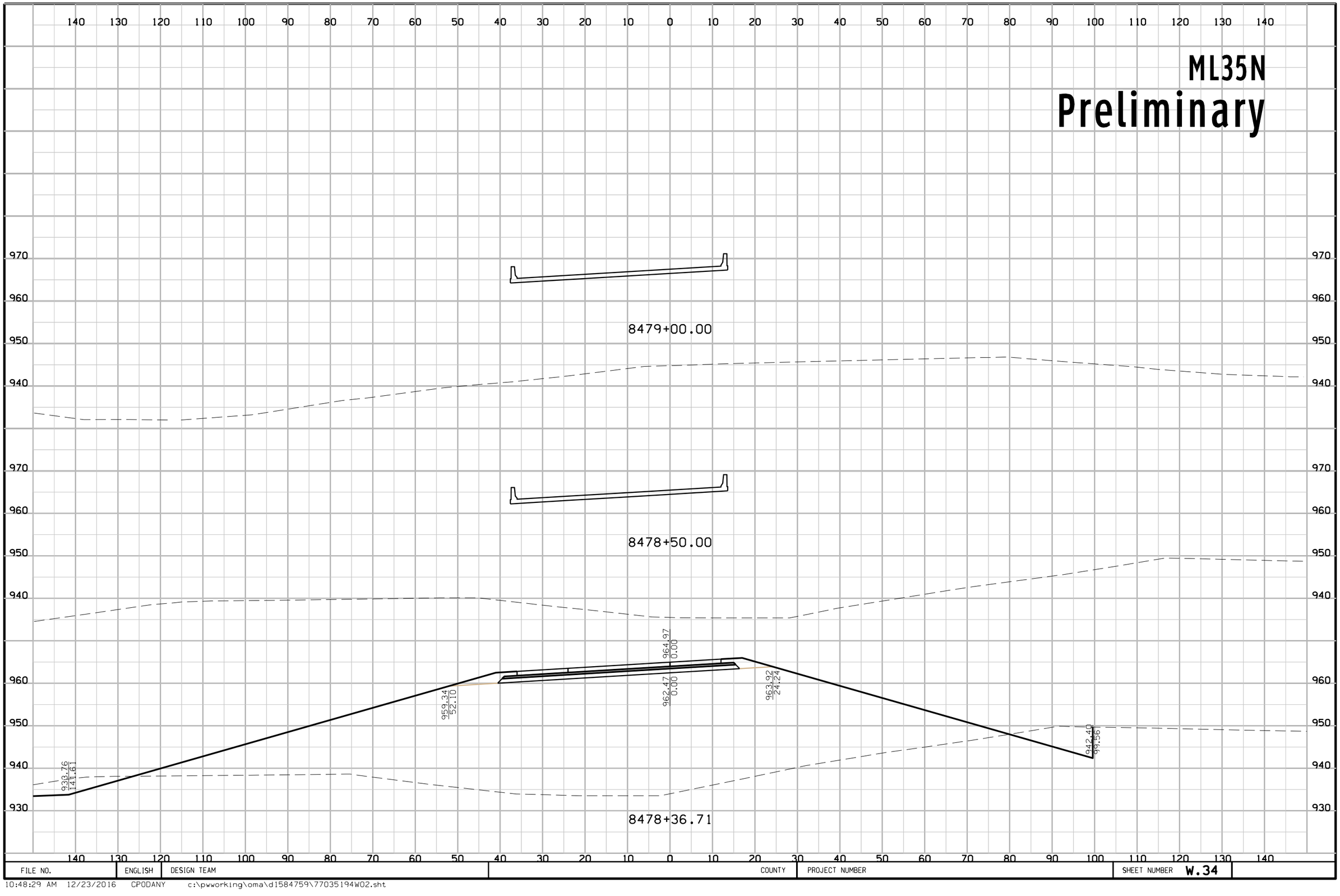


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.33

10:48:28 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.34

10:48:29 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

970
960
950
940

8480+00.00

8479+75.00

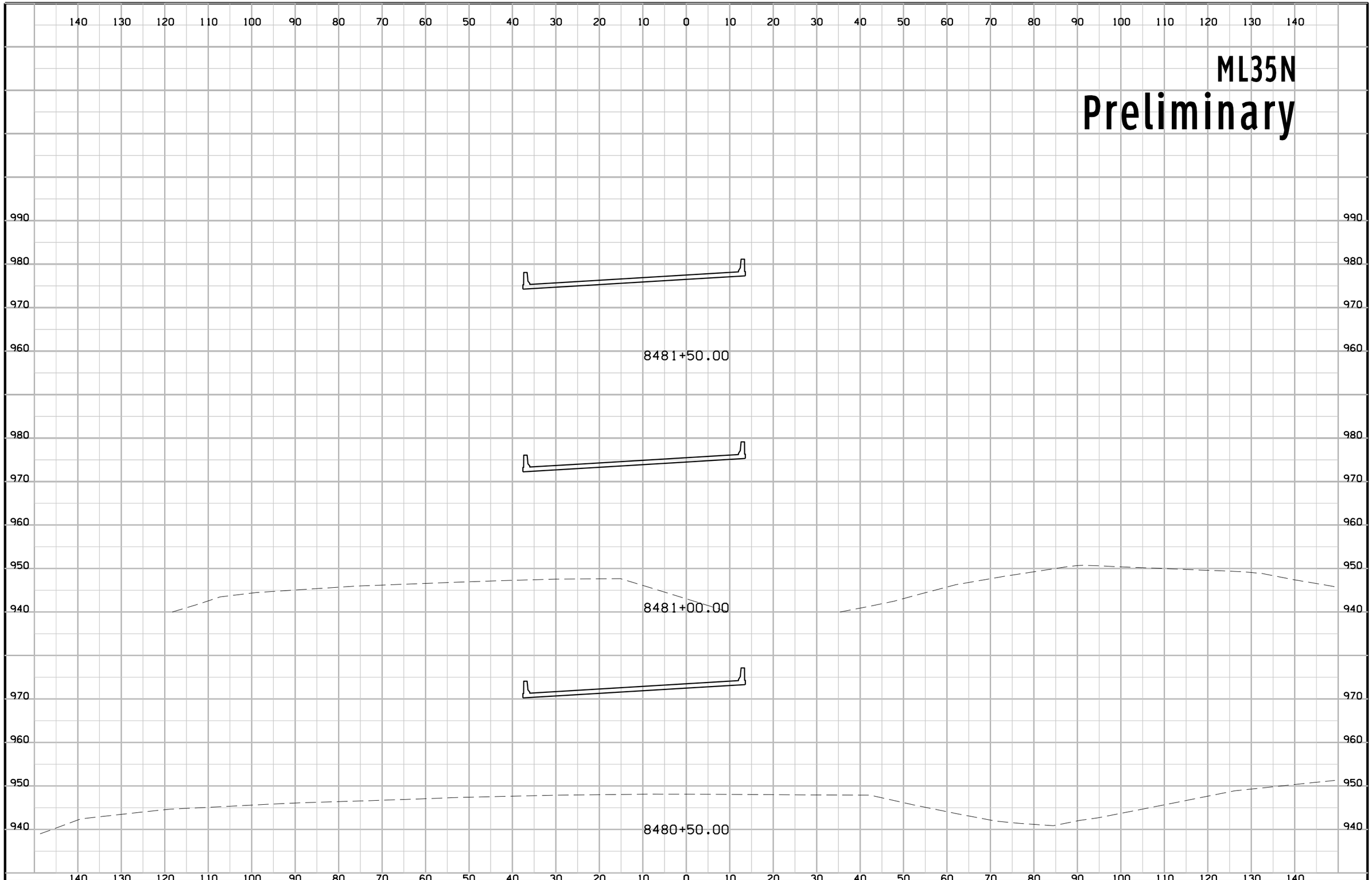
8479+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.35

10:48:29 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.36

10:48:30 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

990 980 970 960

8483+00.00

8482+50.00

8482+00.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.37

ML35N

Preliminary

8483+75.00

8483+65.74

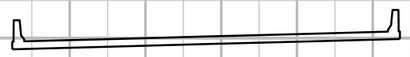
8483+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.38

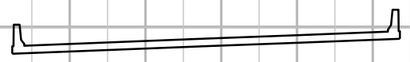
10:48:32 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary



8485+00.00



8484+50.00

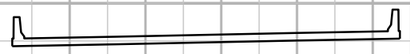
8484+00.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.39

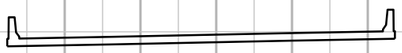
10:48:33 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

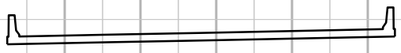
Preliminary



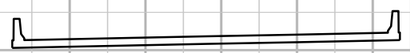
8487+00.00



8486+50.00



8486+00.00

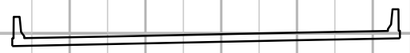


8485+50.00

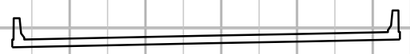
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.40

10:48:34 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

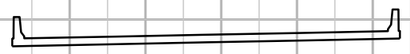
ML35N
Preliminary



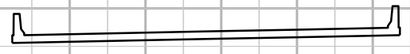
8489+00.00



8488+50.00



8488+00.00



8487+50.00

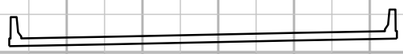
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.41

10:48:35 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

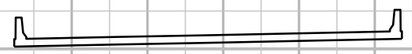
ML35N
Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

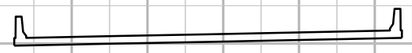
1010
1000
990
980



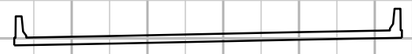
8491+00.00



8490+50.00



8490+00.00



8489+50.00

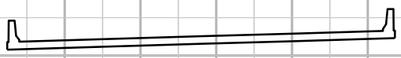
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.42

10:48:36 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

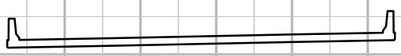
ML35N
Preliminary

8492+50.00

8492+00.00



8491+50.00



8491+11.33

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.43

10:48:36 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

8494+00.00

8493+50.00

8493+00.00

8492+71.33

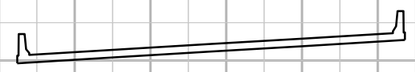
FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.44

10:48:37 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

8495+50.00



8495+00.00

8494+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.45

10:48:38 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

8497+00.00

8496+50.00

8496+00.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.46

10:48:39 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

8499+00.00

8498+50.00

8498+00.00

8497+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.47

10:48:40 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

990
980
970
960

8500+50.00

1000
990
980
970

8500+00.00

1000
990
980
970

8499+50.00

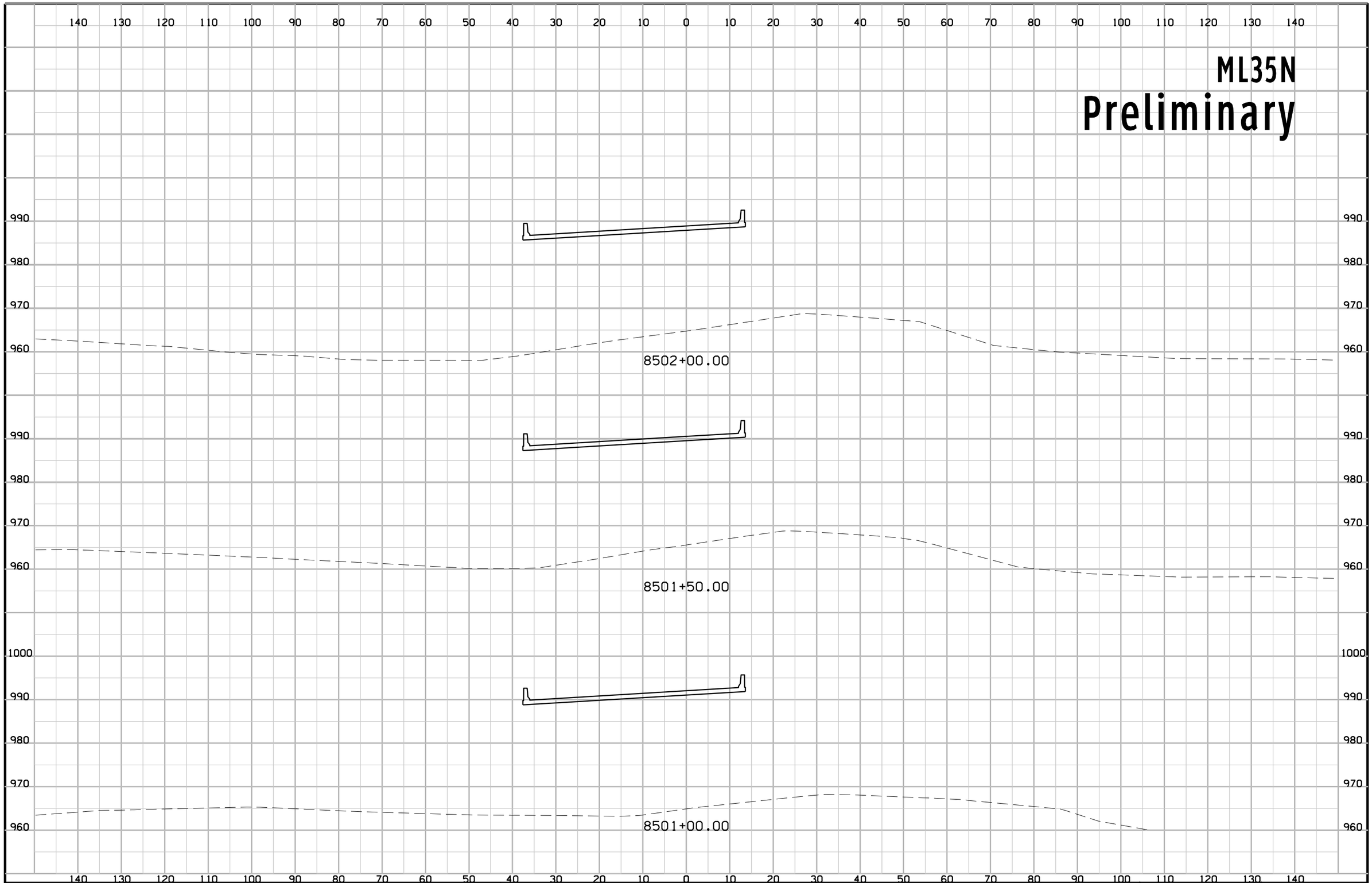
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.48

10:48:41 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.49

10:48:42 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

990
980
970
960
950

8503+50.00

8503+00.00

8502+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.50

10:48:59 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

980
970
960
950

8504+85.00

8504+50.00

8504+00.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.51

10:49:00 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

980 970 960 950

955.23 145.44 | 952.07 135.96 | 952.07 125.96 | 970.92 60.00 | 970.65 60.93 | 976.81 0.00 | 974.31 0.00 | 975.60 24.64 | 973.71 36.00 | 952.10 111.62 | 952.10 121.62

8505+17.13

955.45 147.94 | 952.16 138.05 | 952.16 128.05 | 971.60 60.00 | 971.34 60.93 | 977.50 0.00 | 975.00 0.00 | 976.38 24.40 | 974.44 36.00 | 952.34 113.38 | 952.84 123.38

8505+00.00

149.78 | 952.23 139.68 | 952.23 129.68 | 972.13 60.00 | 971.87 60.93 | 978.03 0.00 | 975.53 0.00 | 976.98 24.22 | 975.01 36.00 | 952.52 114.74 | 952.52 124.74 | 956.34 136.23

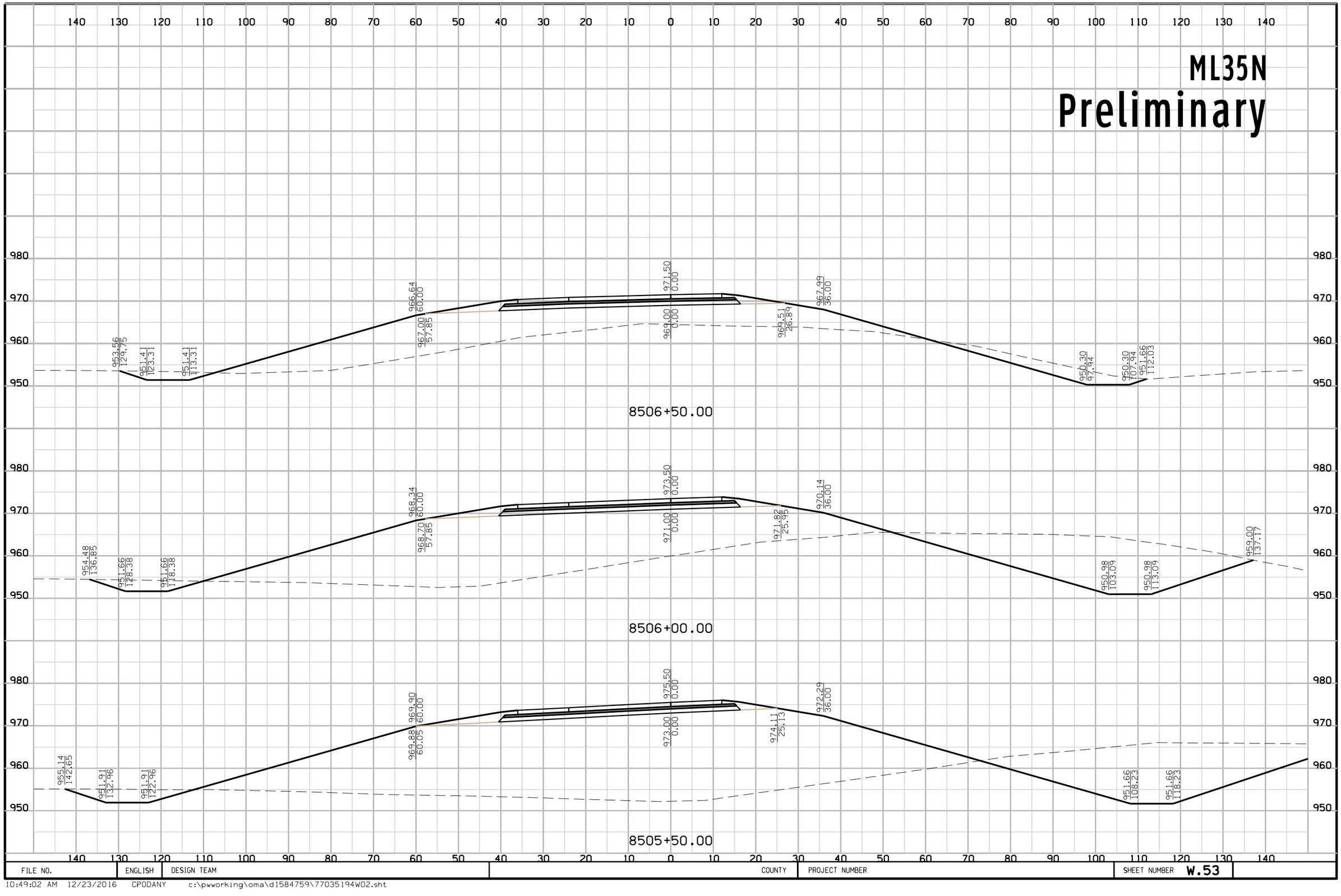
8504+86.73

8504+86.72

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.52

10:49:01 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

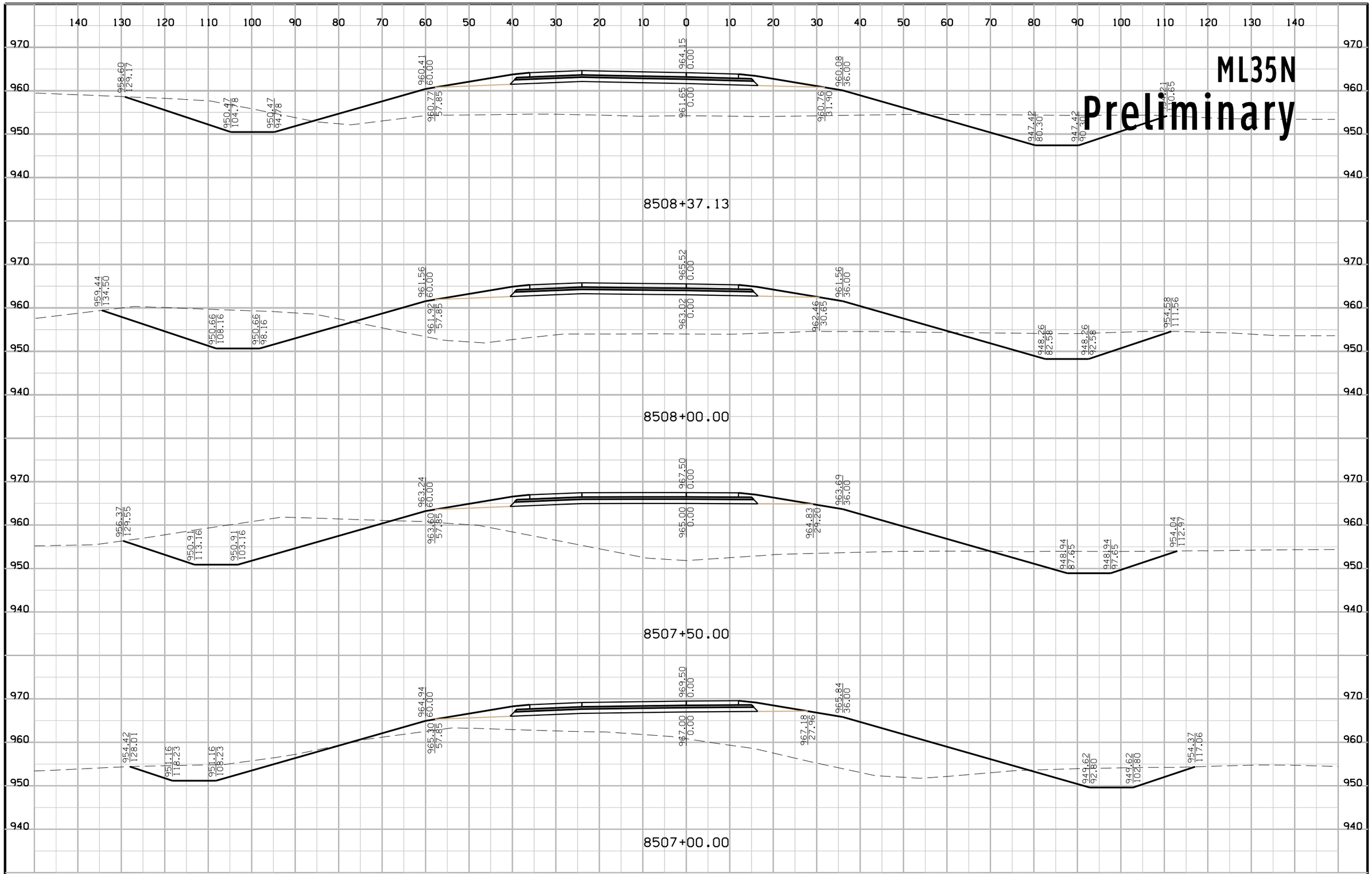
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.53

ML35N

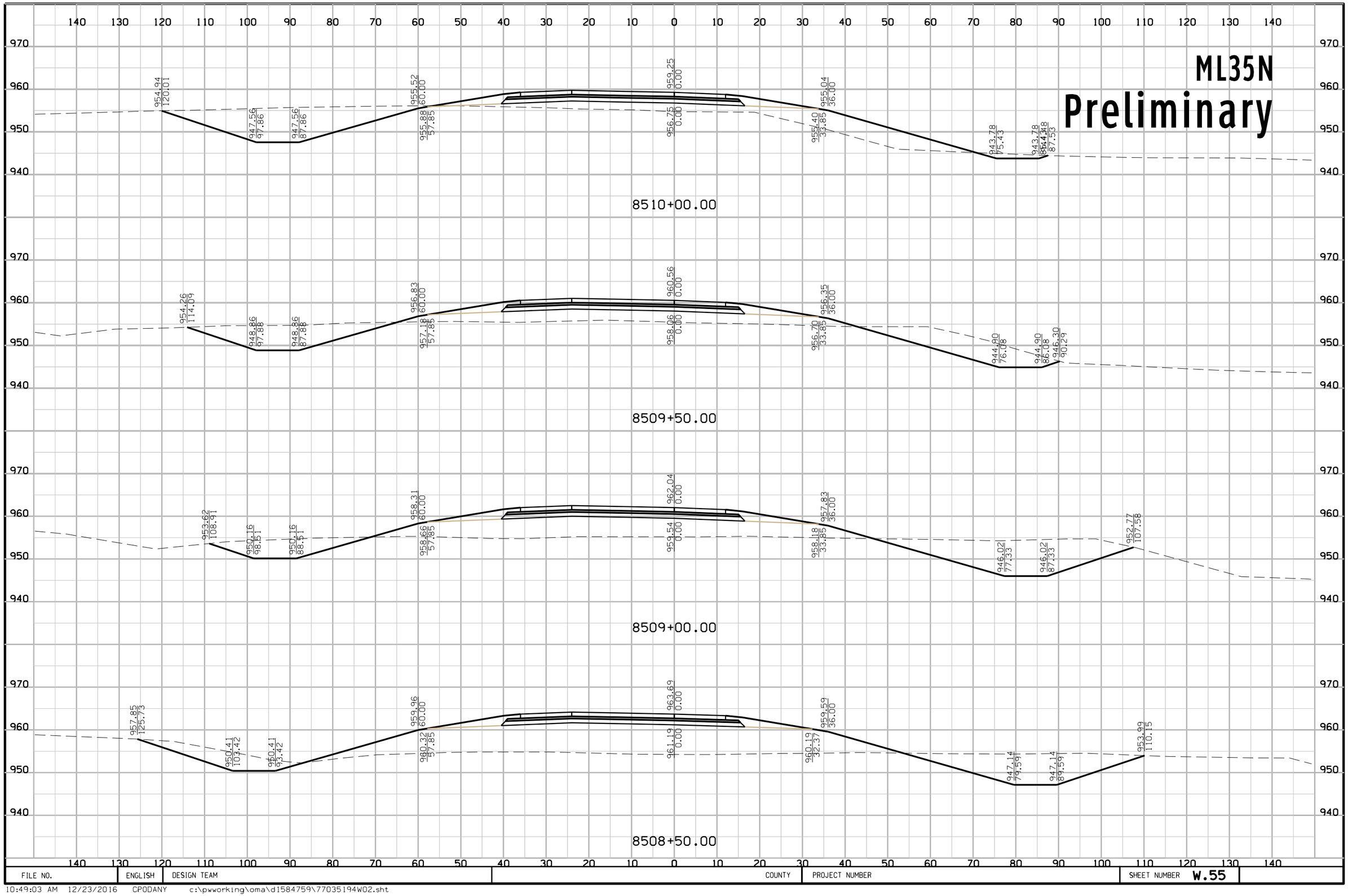
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.54

10:49:02 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

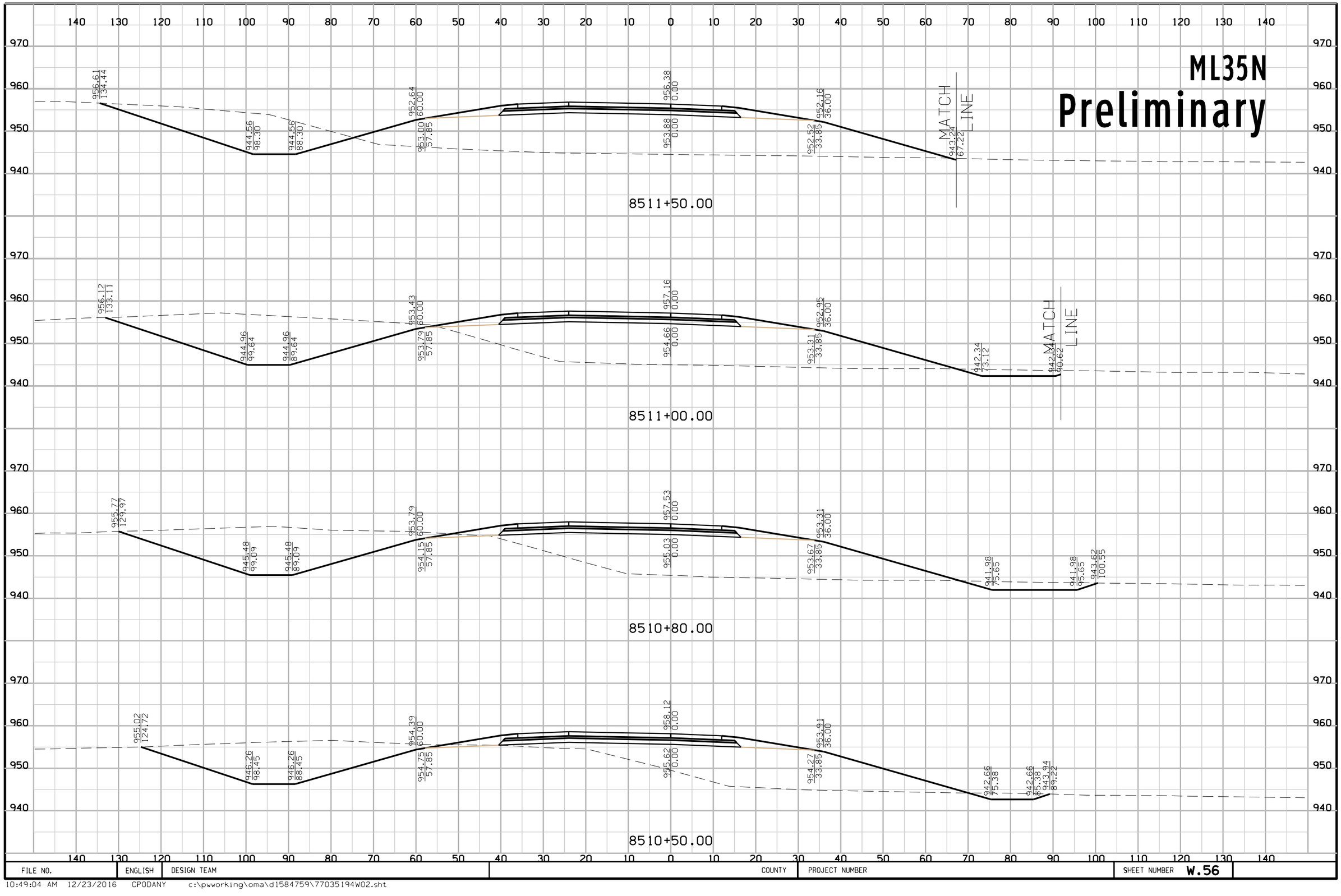
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.55

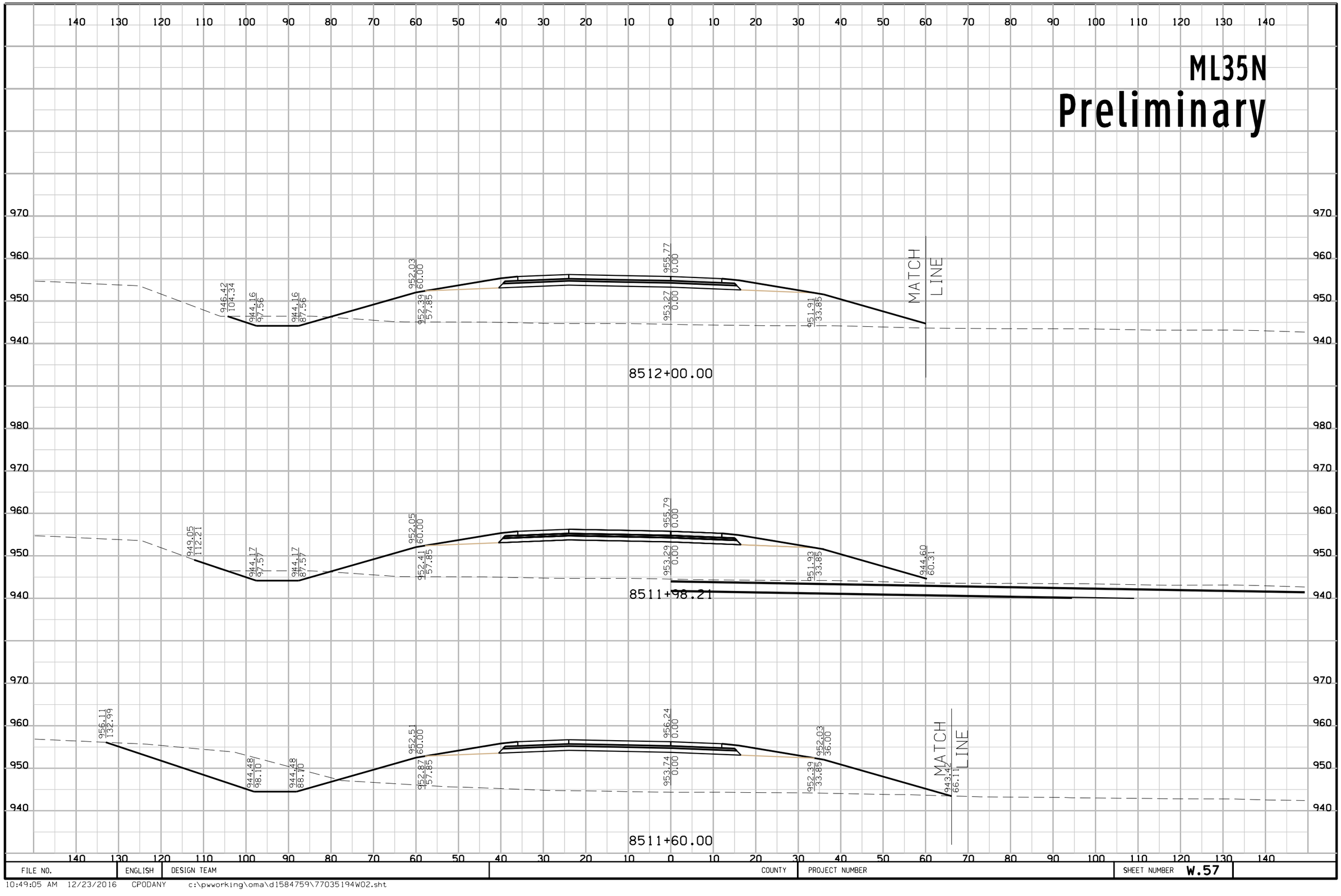
10:49:03 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.56

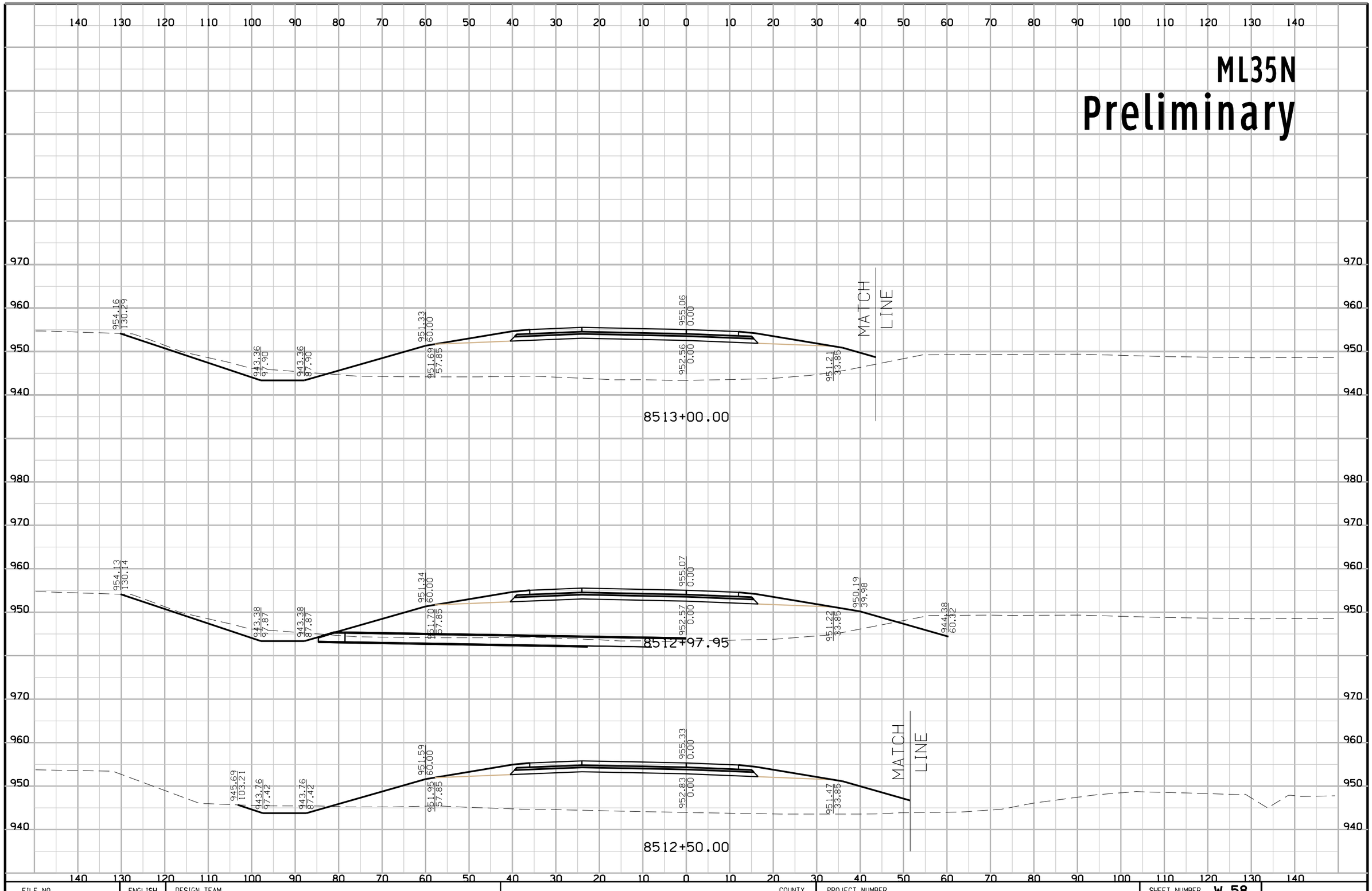
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.57

10:49:05 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

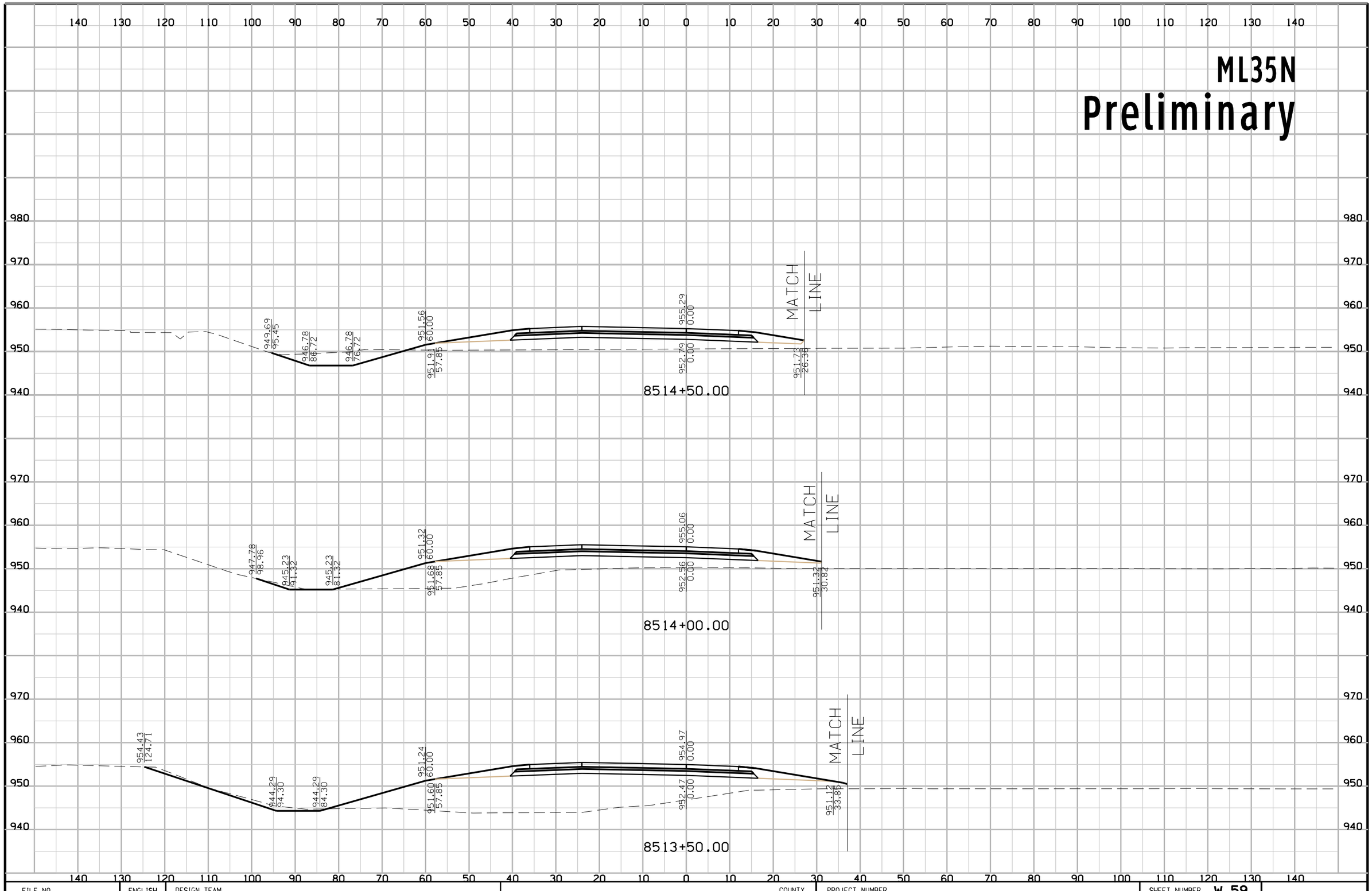
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.58

10:49:06 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

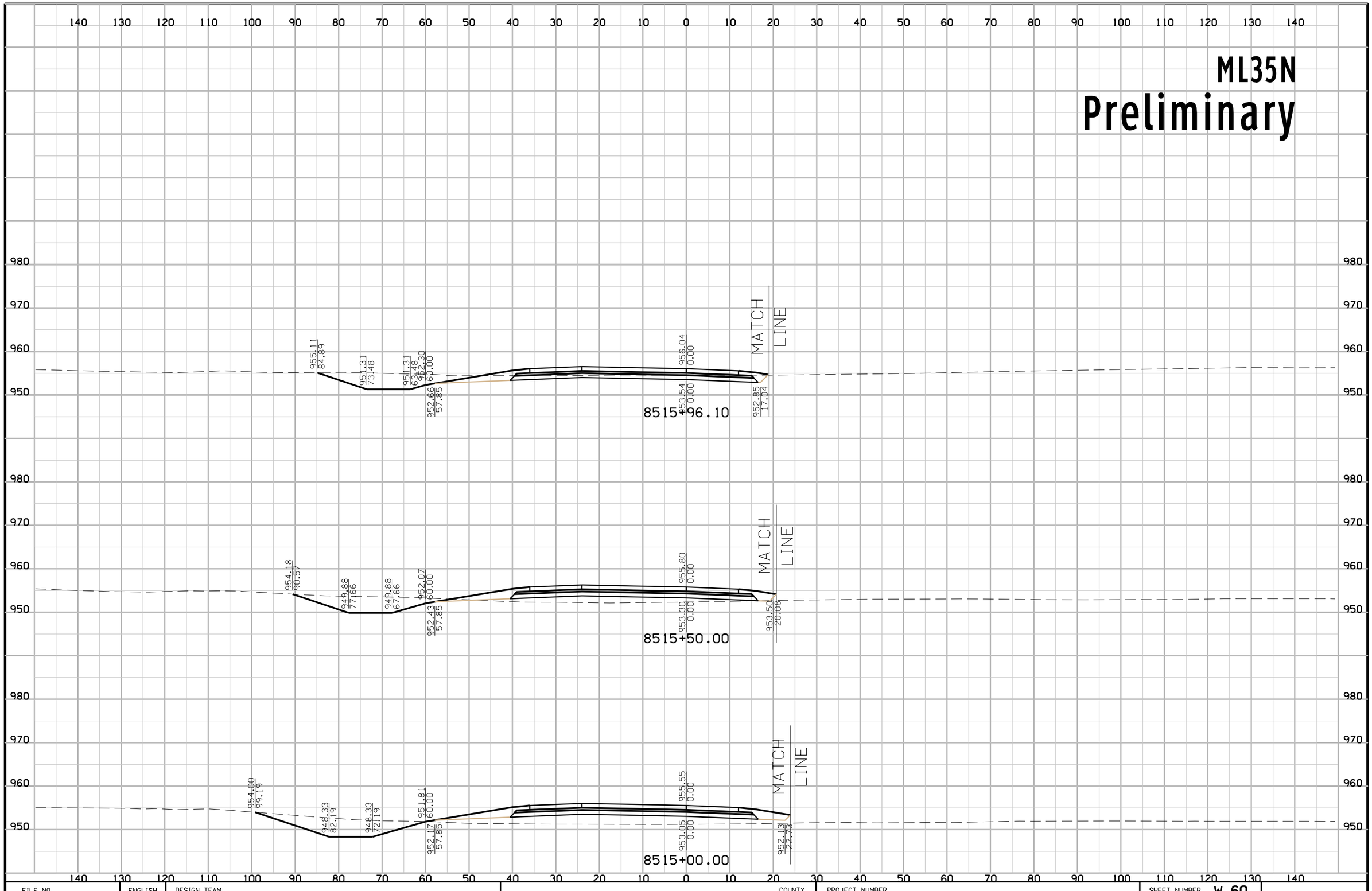
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.59

10:49:07 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

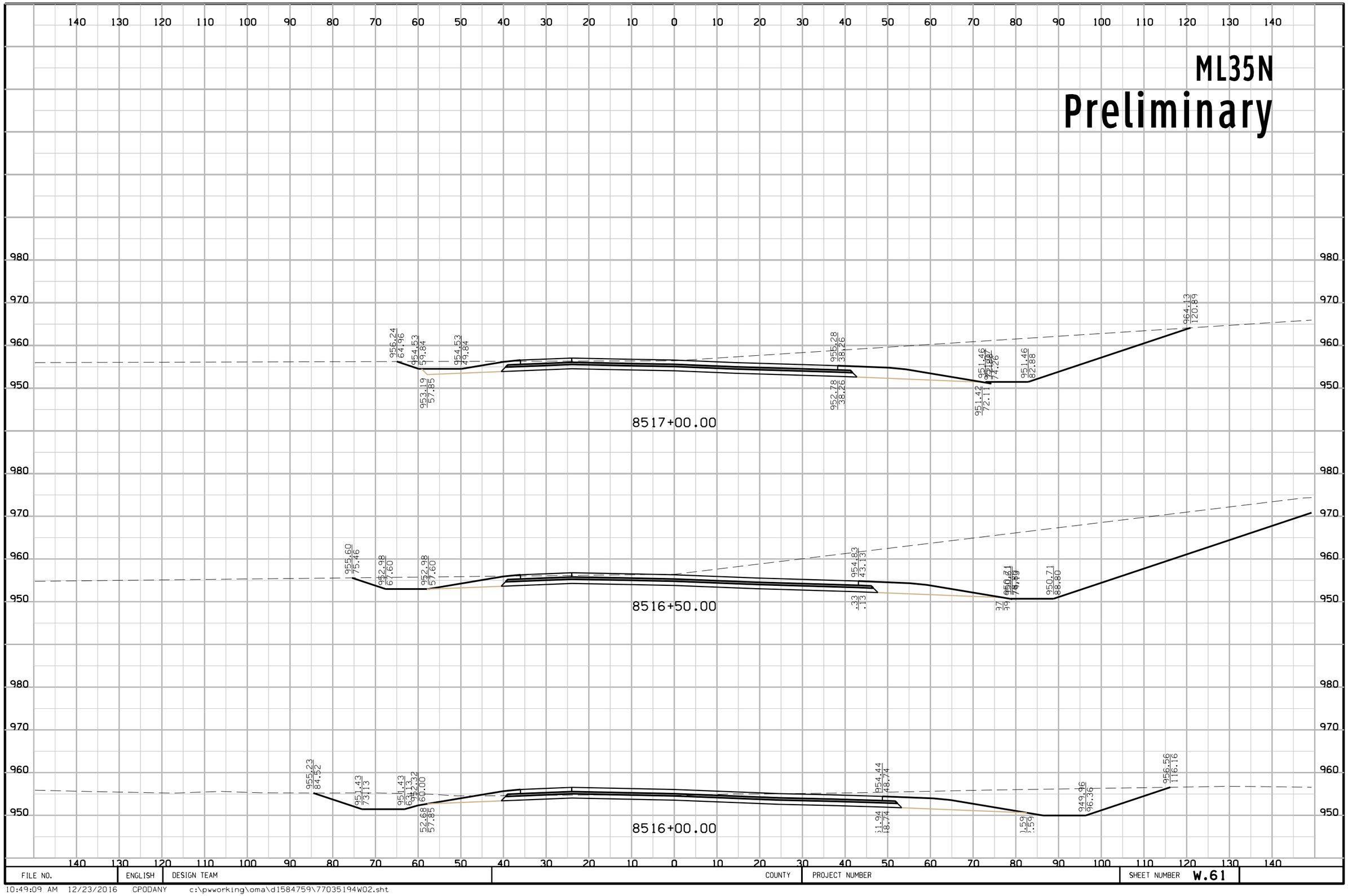
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.60

10:49:08 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

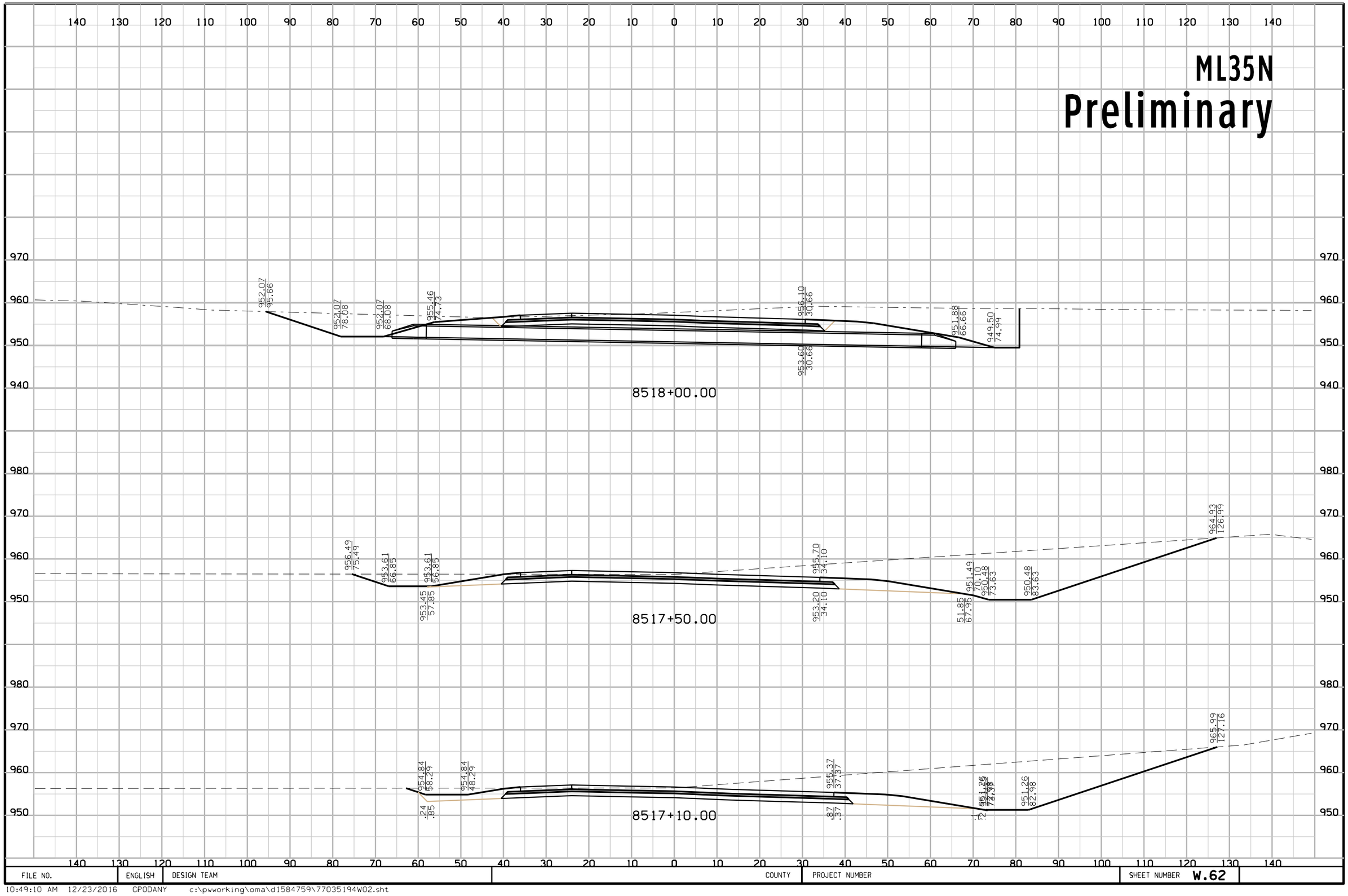
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.61

10:49:09 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.62

10:49:10 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

970
960
950
940

959.02
89.84
953.33
72.75
953.33
63.62
953.60
60.00
954.47
57.85
957.11
24.62
954.61
24.62
952.89
60.62
953.25
58.48
950.54
68.86
950.54
78.86
957.09
98.51

8519+50.00

959.55
92.19
953.07
72.77
953.07
63.62
953.86
60.00
954.22
57.85
956.80
25.92
954.30
25.92
952.58
61.92
952.94
59.77
950.19
70.29
950.19
80.29
957.21
101.34

8519+00.00

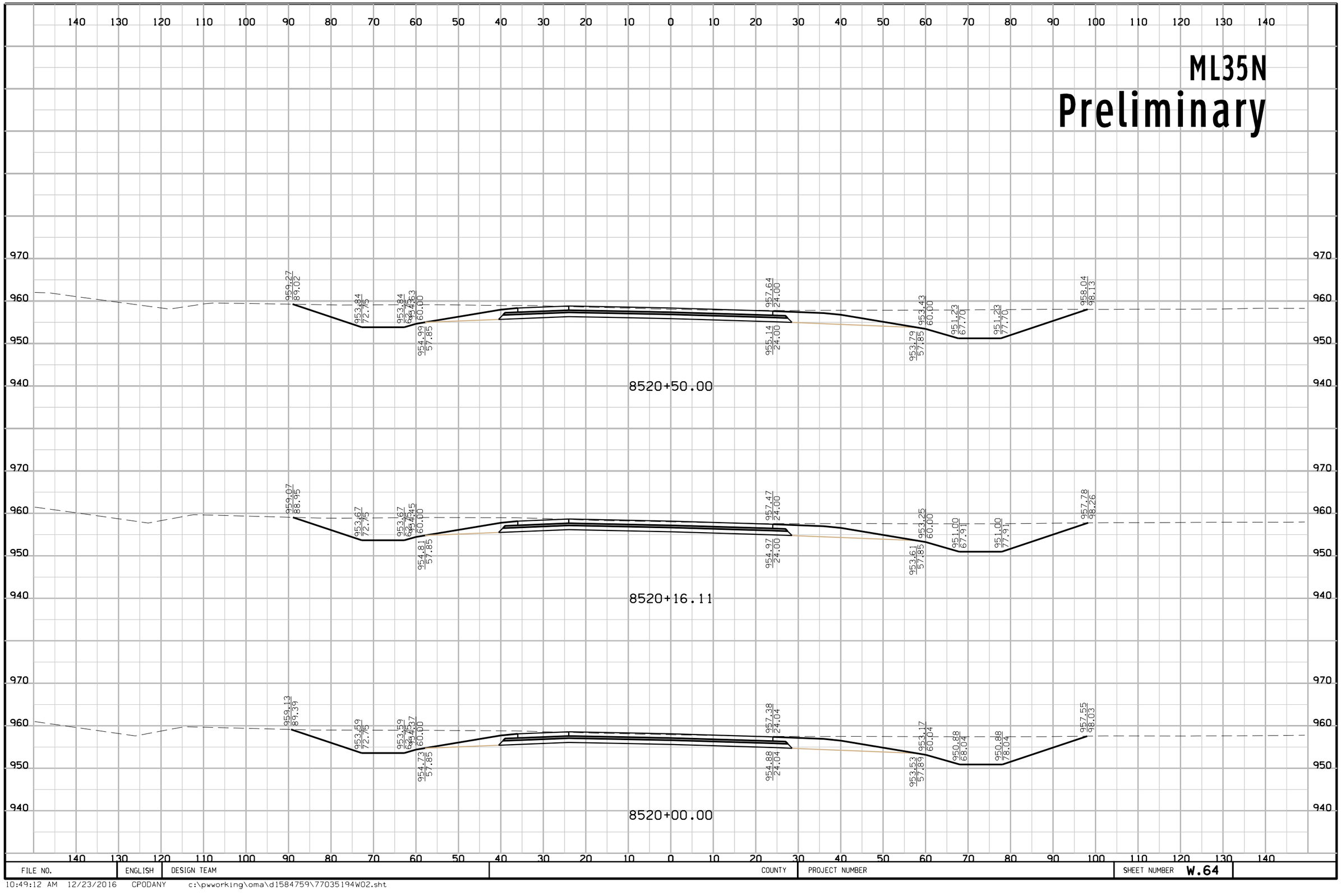
959.28
93.74
952.57
73.62
952.57
63.62
953.60
60.00
953.96
57.85
956.46
27.93
953.96
27.93
952.25
63.93
952.60
61.78
949.85
72.33
949.85
82.33
958.07
107.00

8518+50.00

FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.63

10:49:11 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

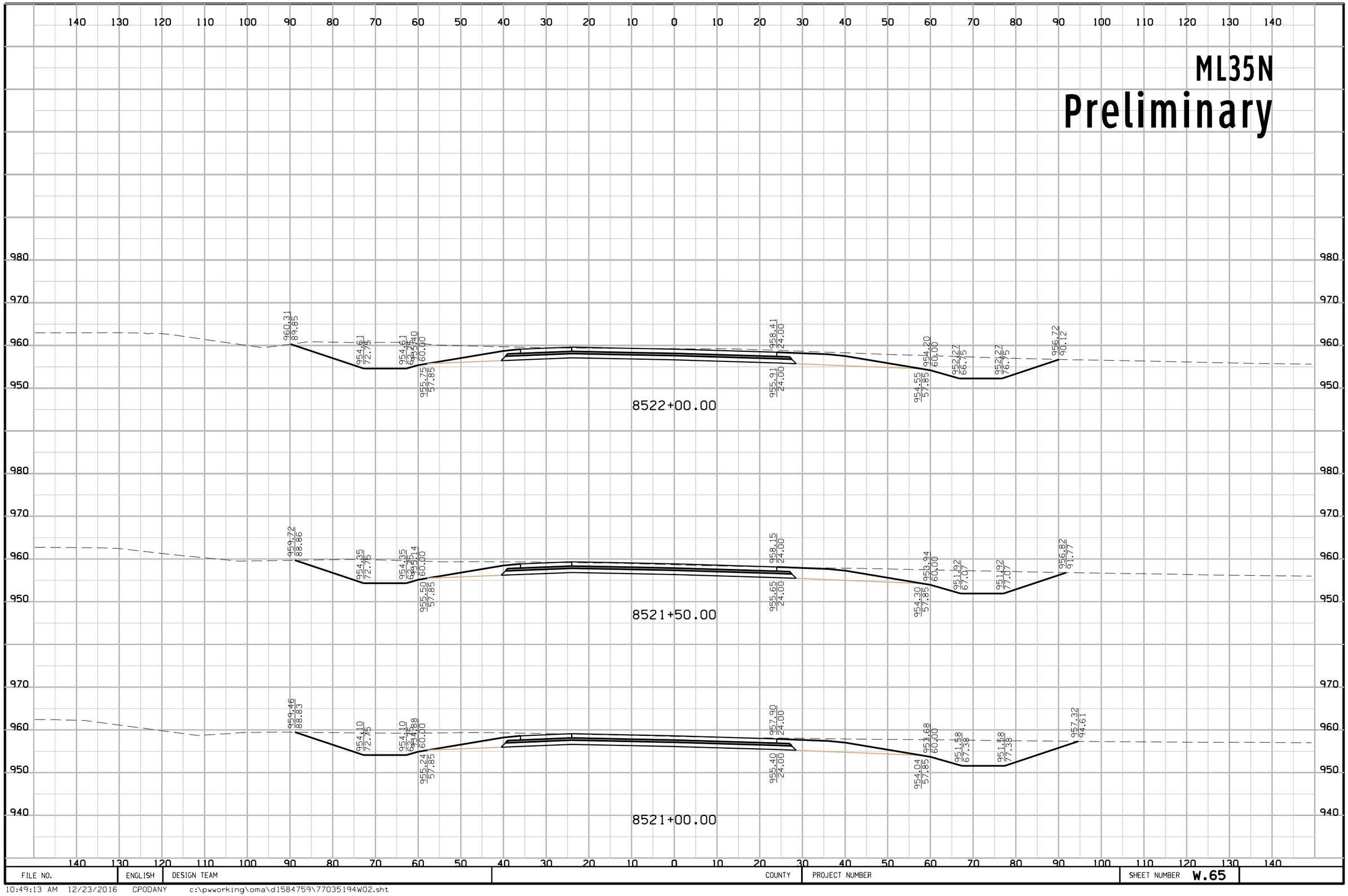
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.64

10:49:12 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

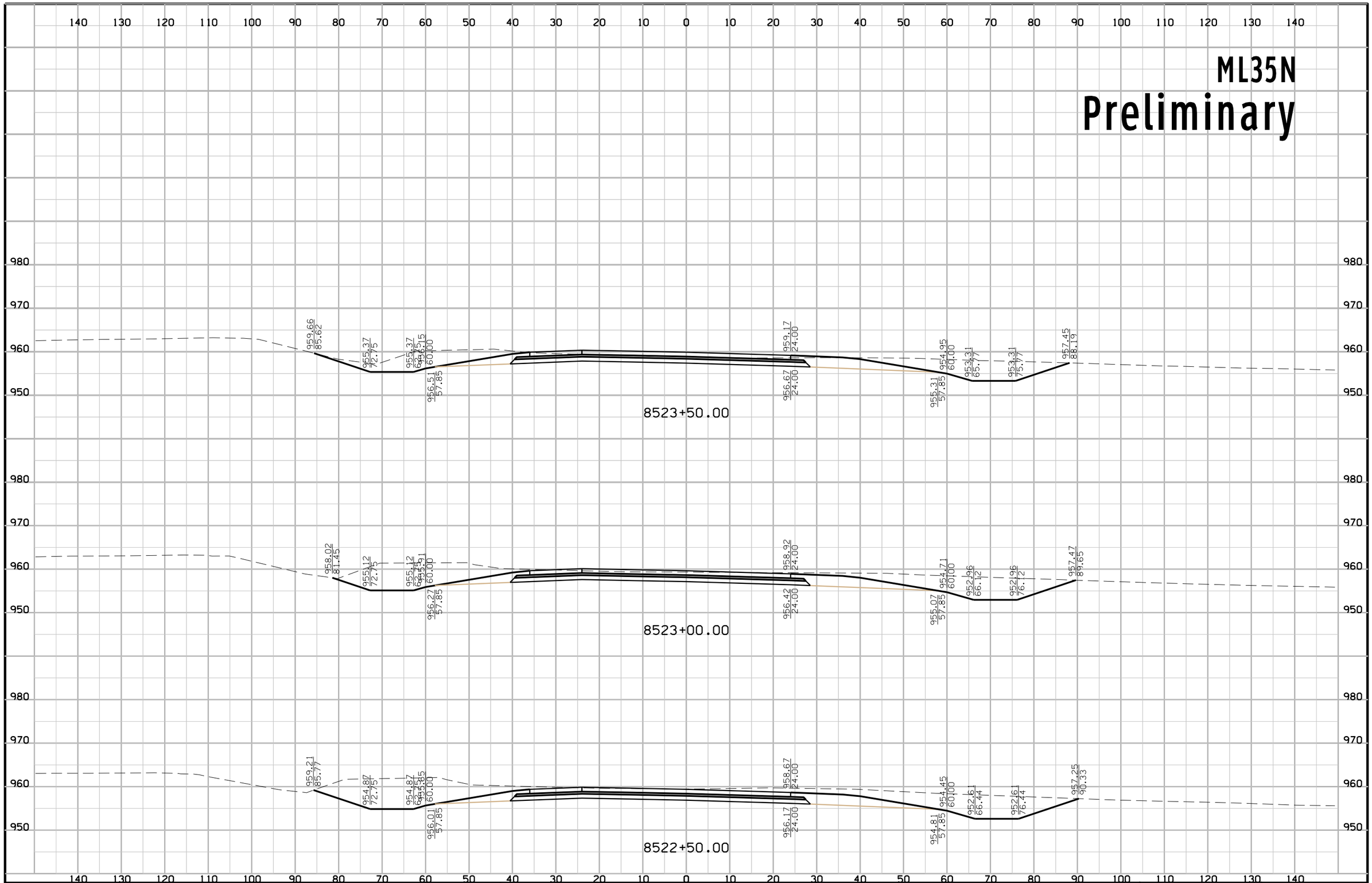
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.65

10:49:13 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

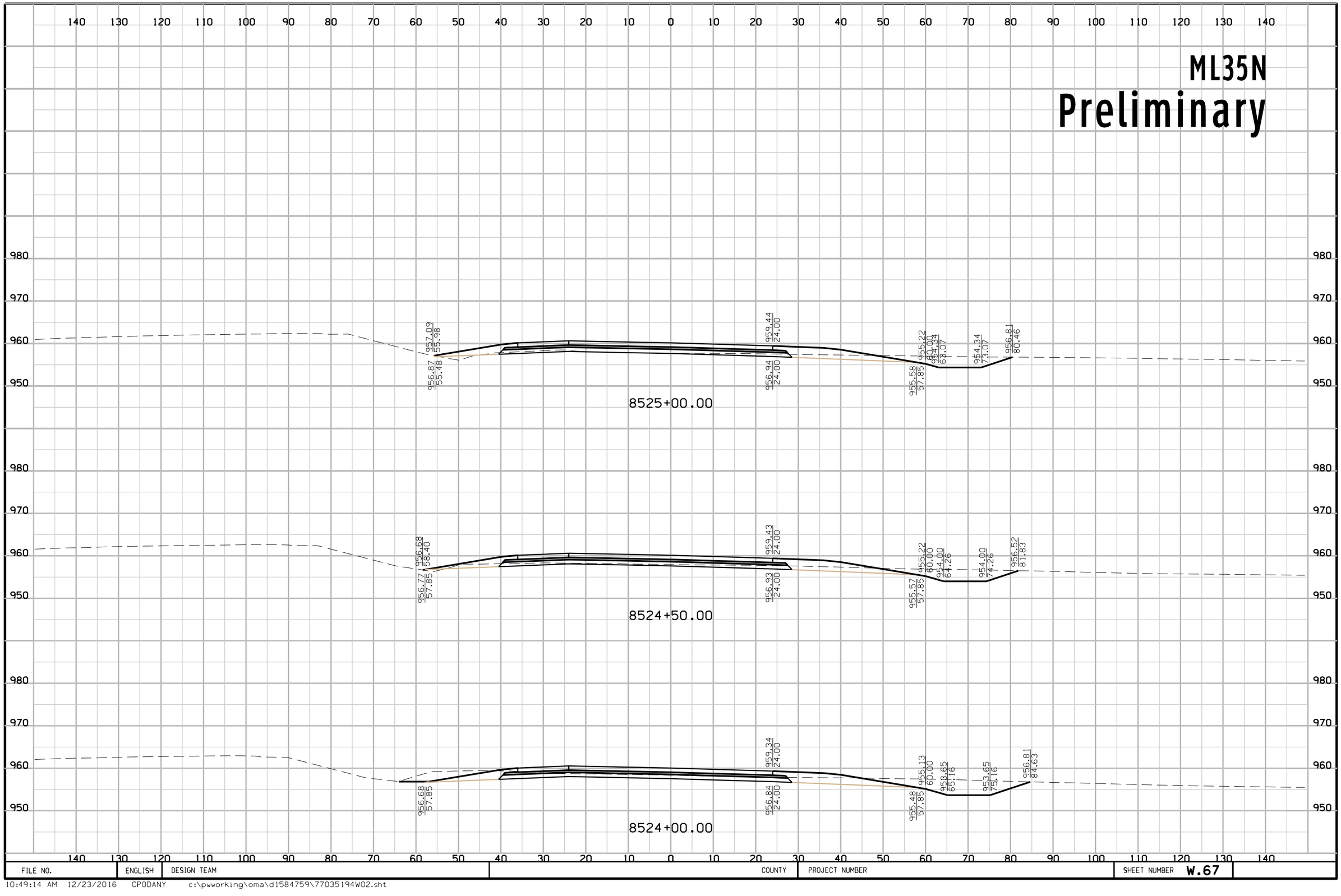
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.66

10:49:14 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

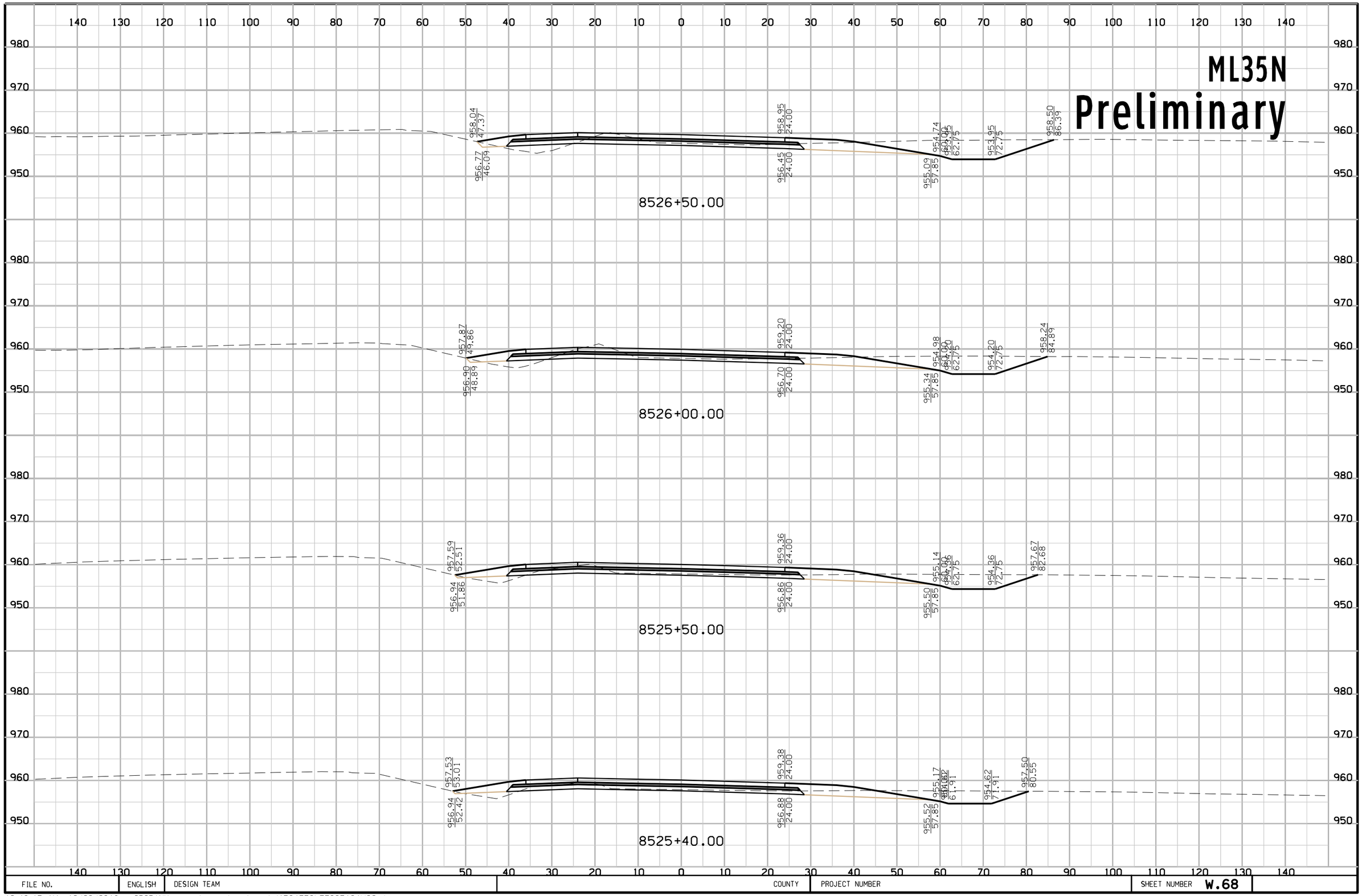


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.67

10:49:14 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

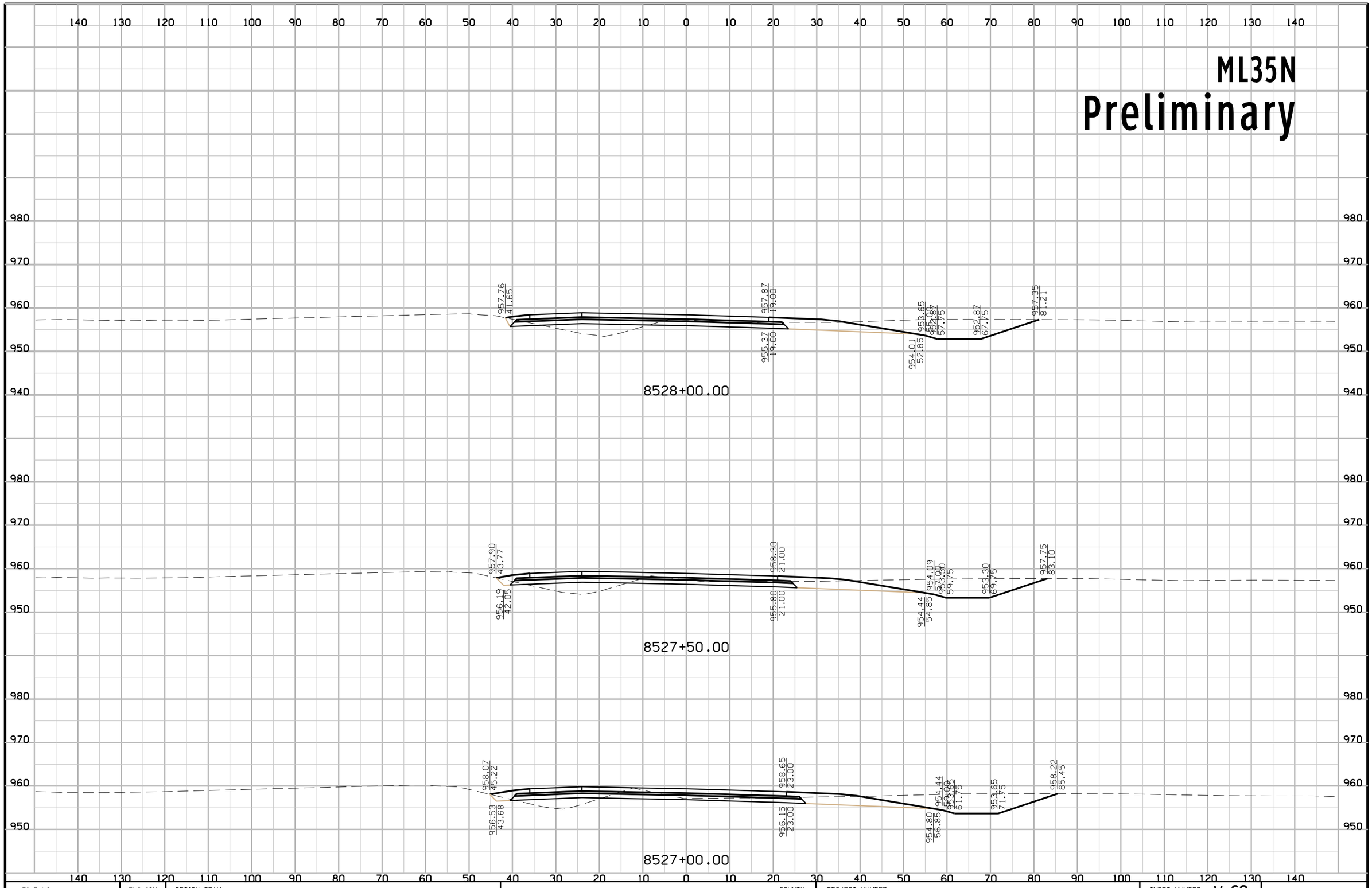
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.68

10:49:15 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

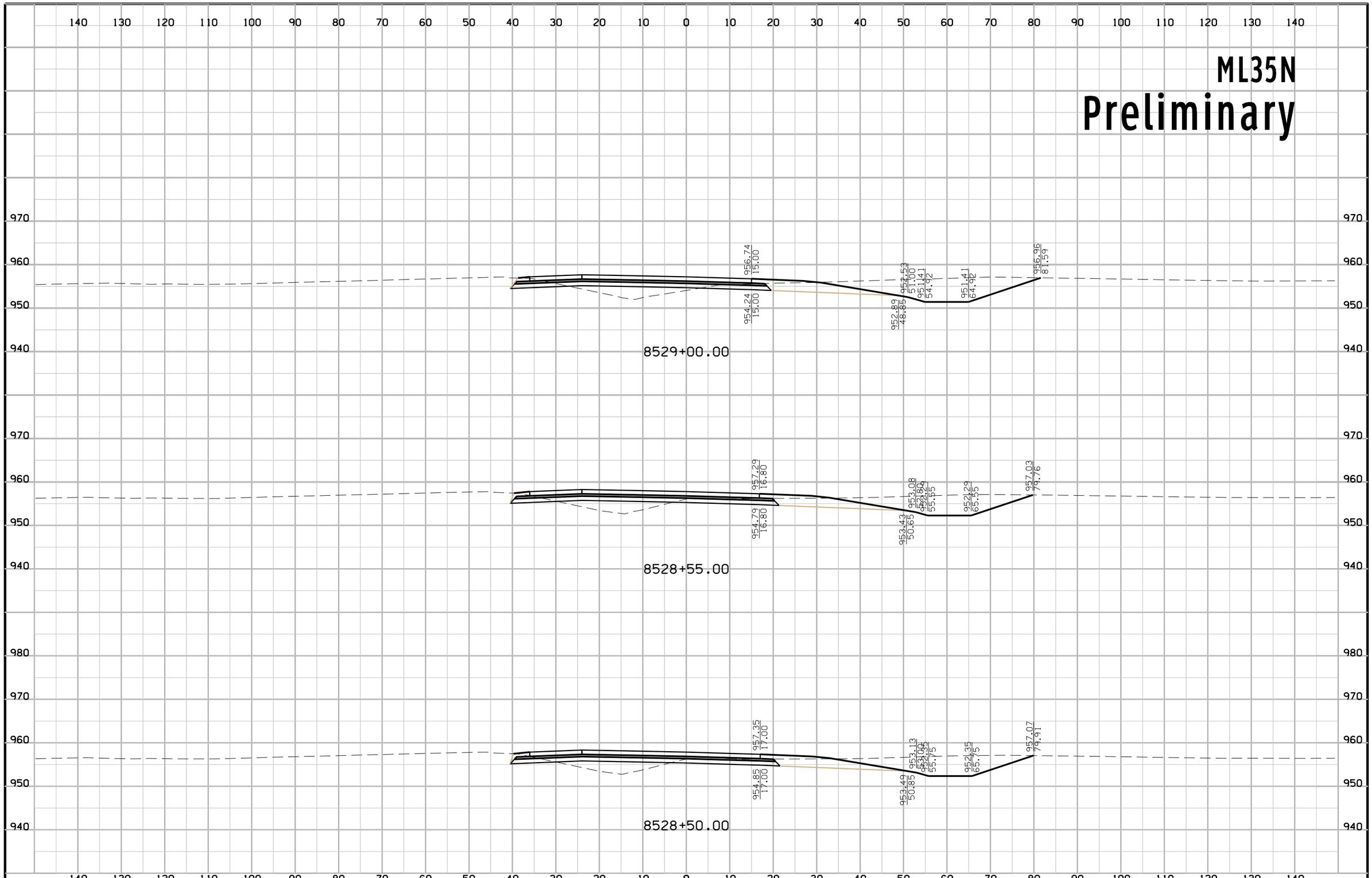
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.69

10:49:16 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

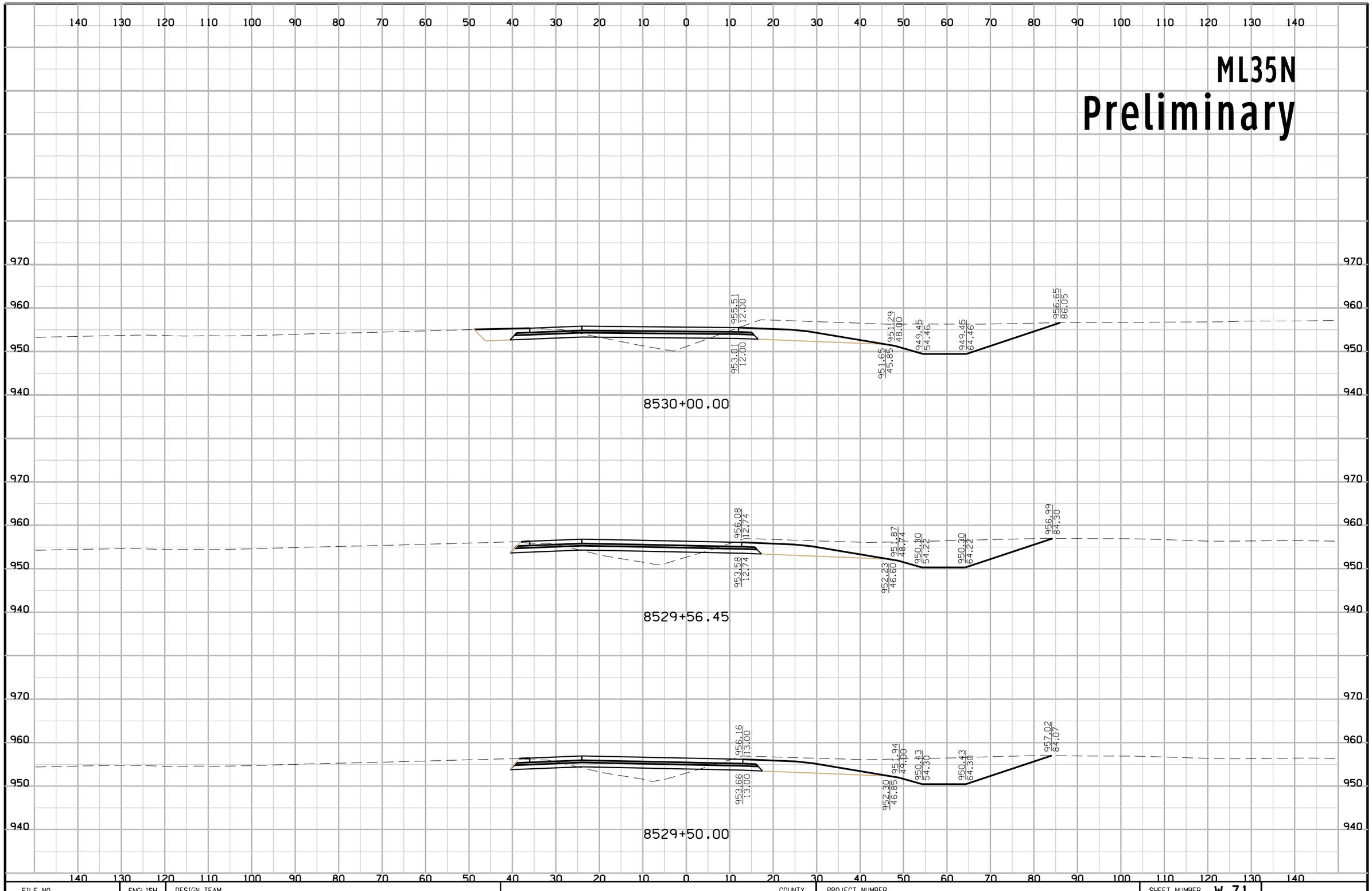
ML35N
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.70

10:49:17 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N
Preliminary

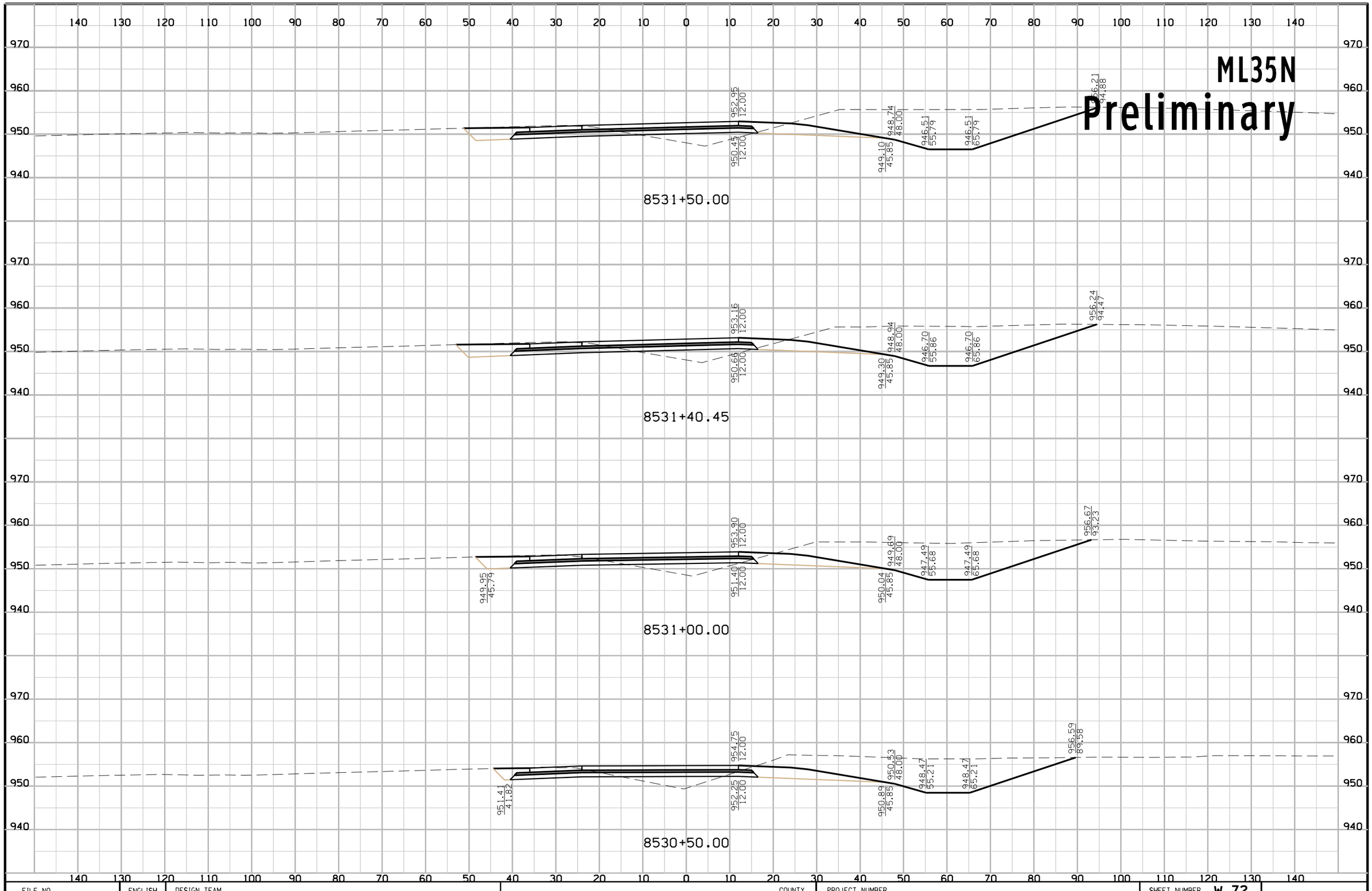


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.71

10:49:18 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML35N

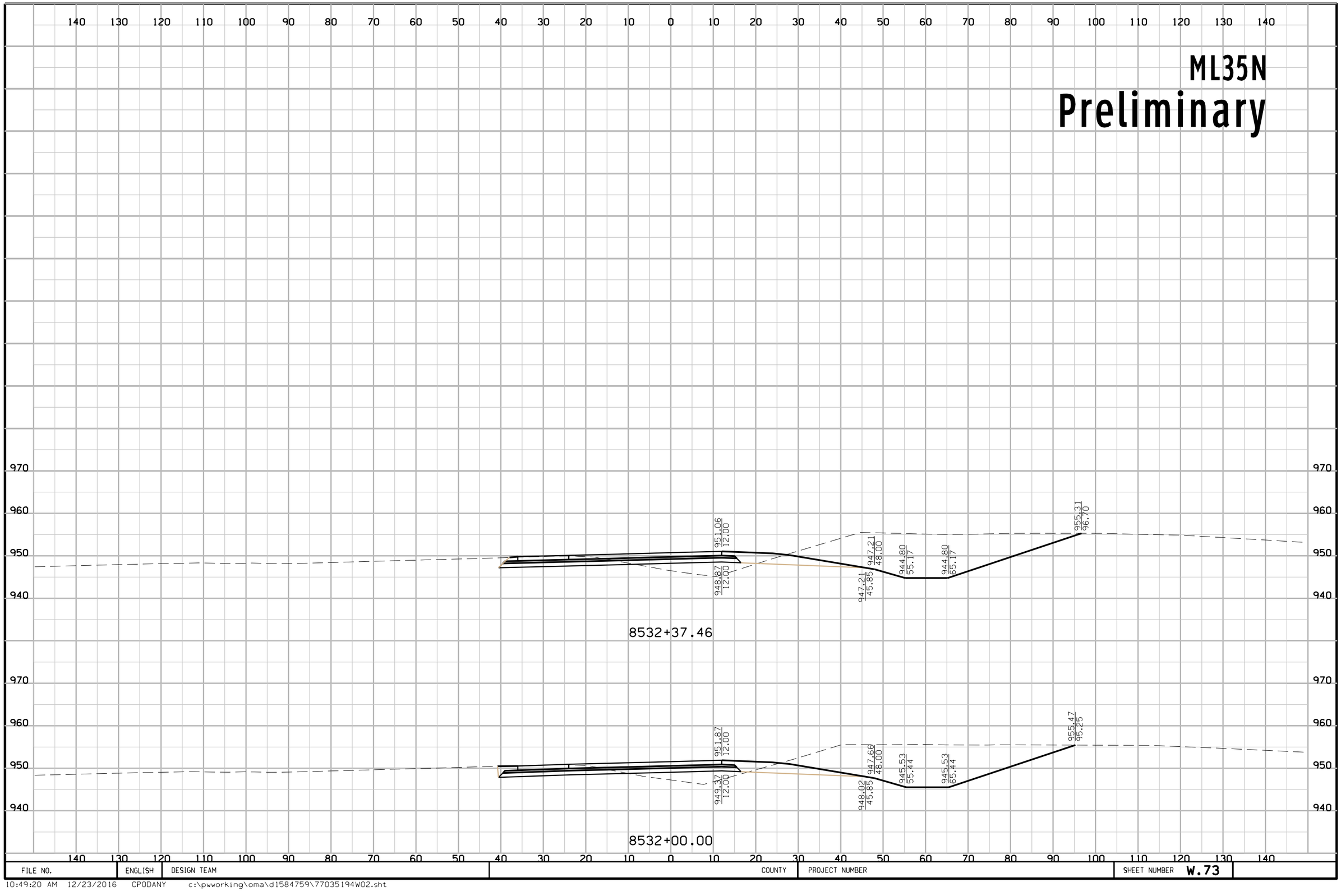
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.72

ML35N

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER W.73

ML80
Preliminary

5139+00.00

885.37 255.00 884.50 253.28

884.50 243.28

909.17 156.91

909.53 154.77

910.22 137.49

911.25 108.89

911.74 92.42

912.77 57.76

5138+50.00

887.01 258.57 886.00 255.52

886.00 245.52

910.60 159.41

910.95 157.27

911.65 139.99

912.67 111.39

913.16 94.62

914.09 63.75

5138+00.00

888.91 262.01 887.50 257.76

887.50 247.76

912.02 161.91

912.38 159.77

913.07 142.49

914.10 113.89

914.59 97.42

915.74 58.69

5137+77.87

889.58 263.00 888.16 258.75

888.19 248.63

912.65 163.02

913.01 160.88

913.70 143.59

914.73 115.00

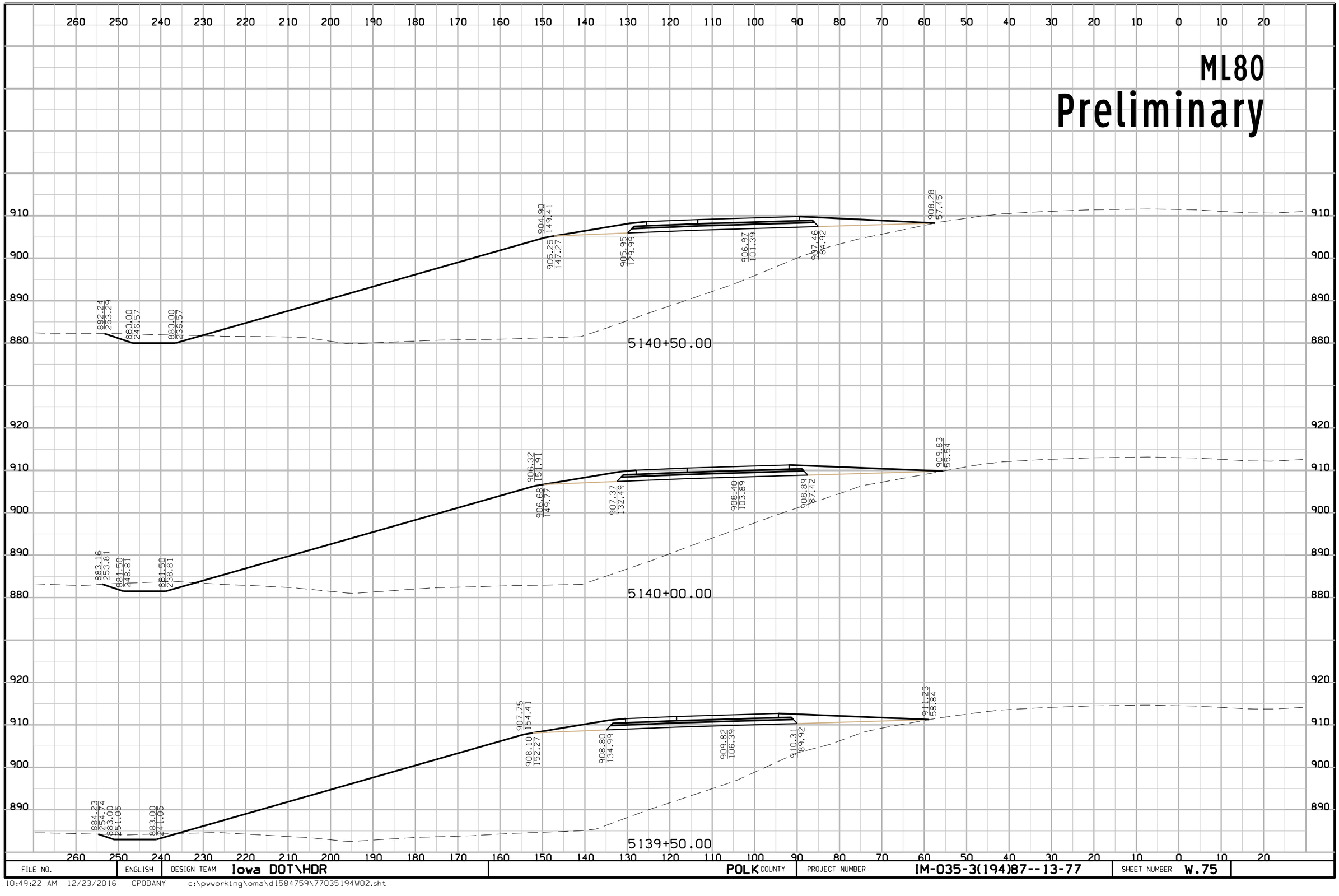
915.22 98.53

916.39 58.97

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.74

10:49:21 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

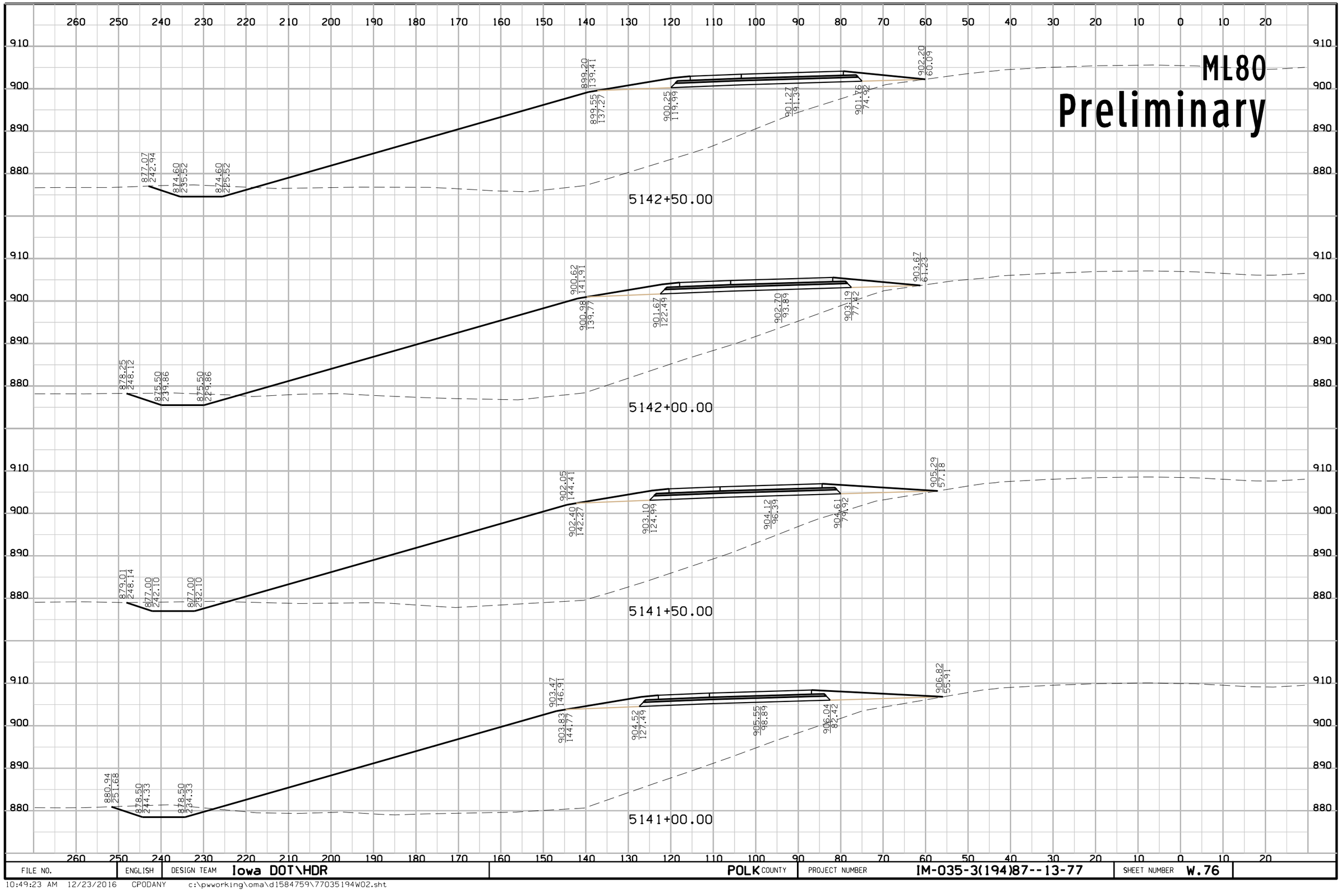
ML80
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.75

10:49:22 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML80
Preliminary

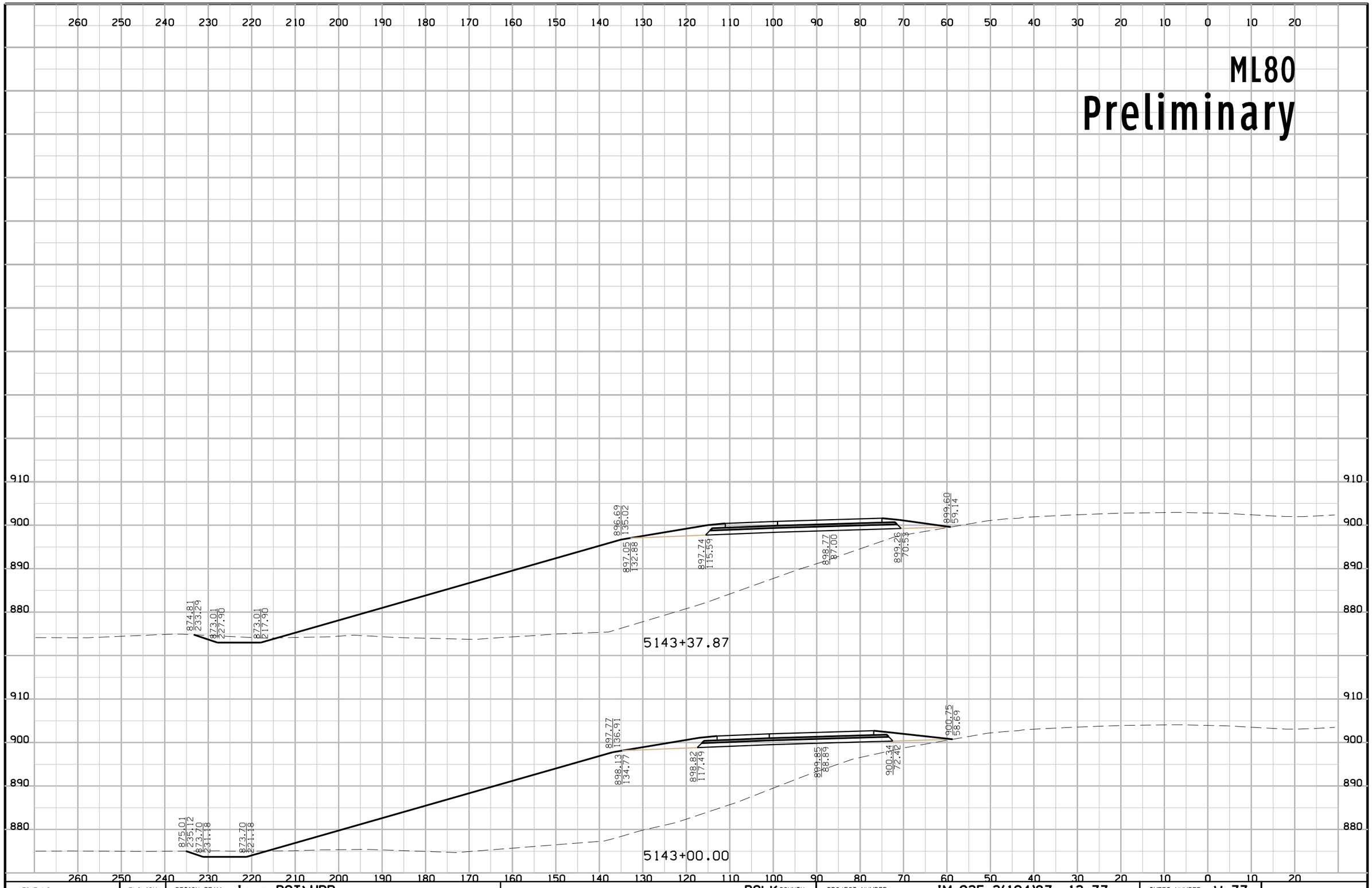


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.76

10:49:23 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

ML80

Preliminary

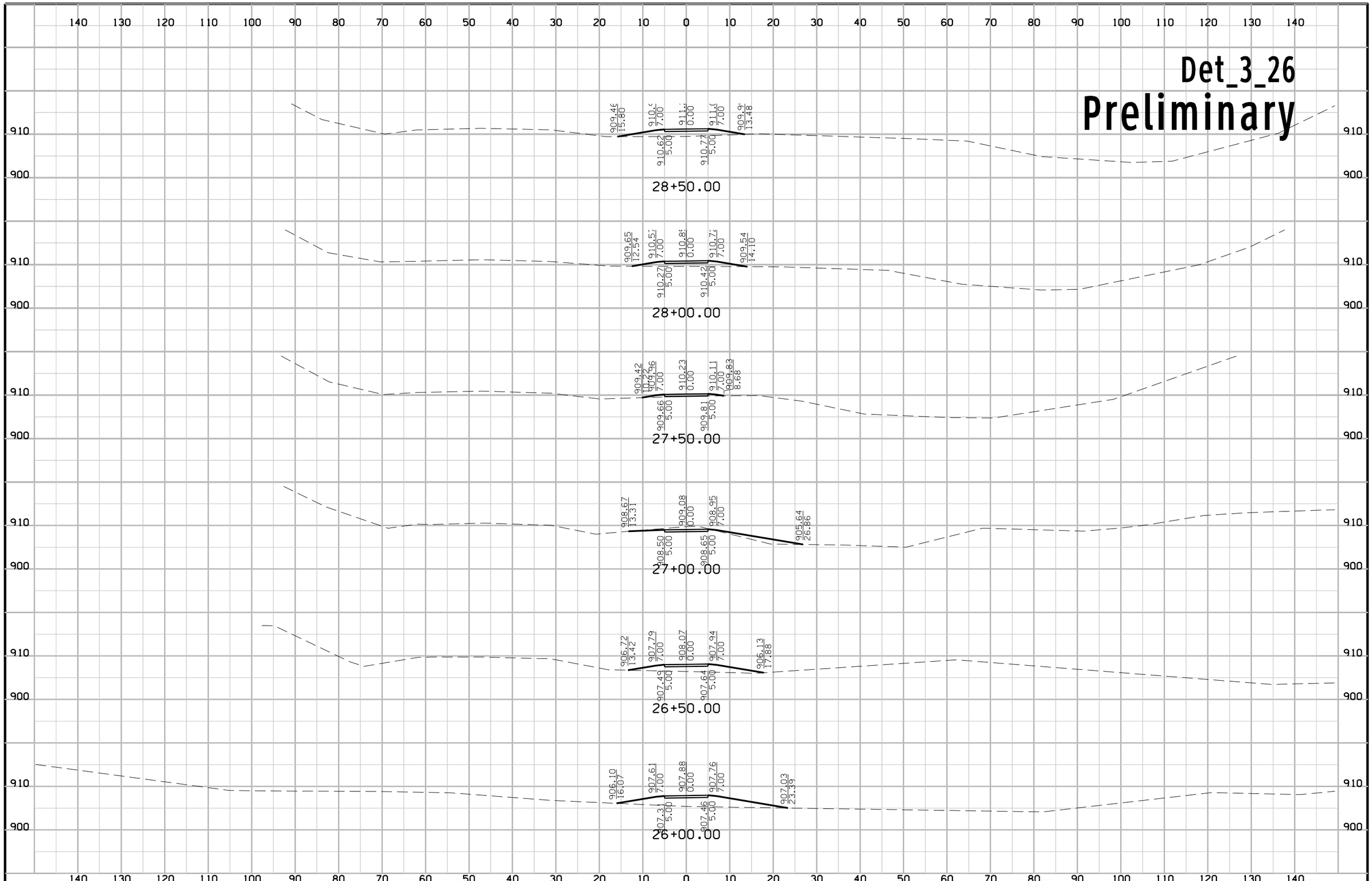


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.77

10:49:24 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194W02.sht

Det_3_26

Preliminary

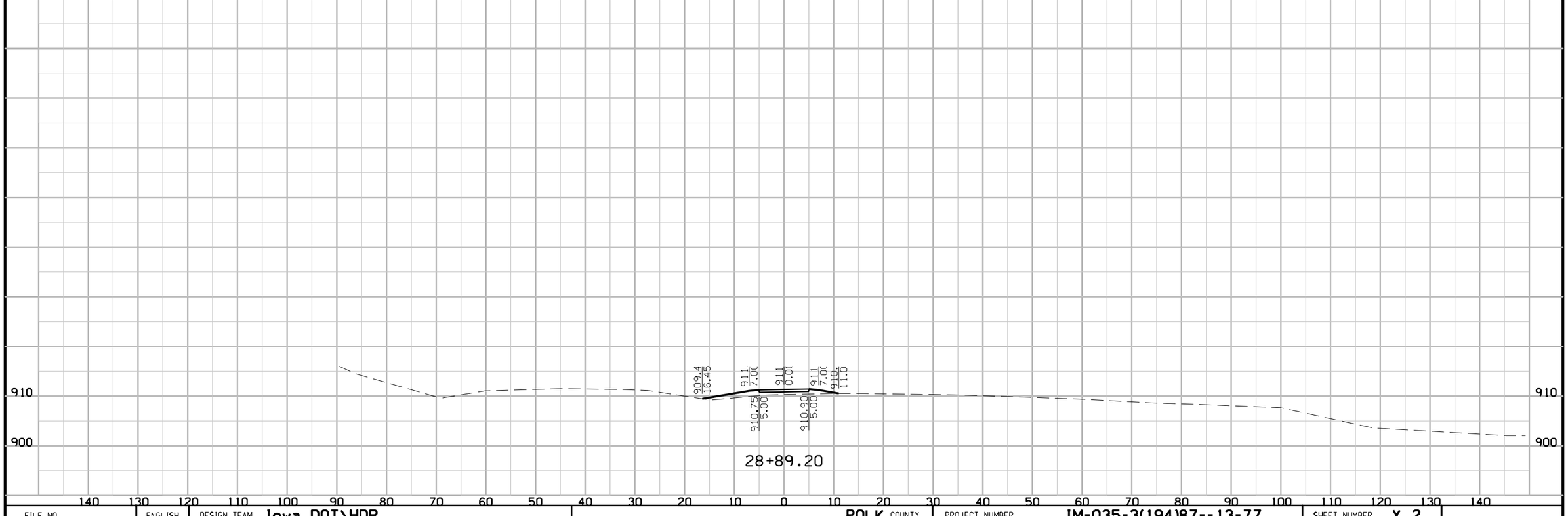


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	X.1

10:51:03 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

Det_3_26

Preliminary

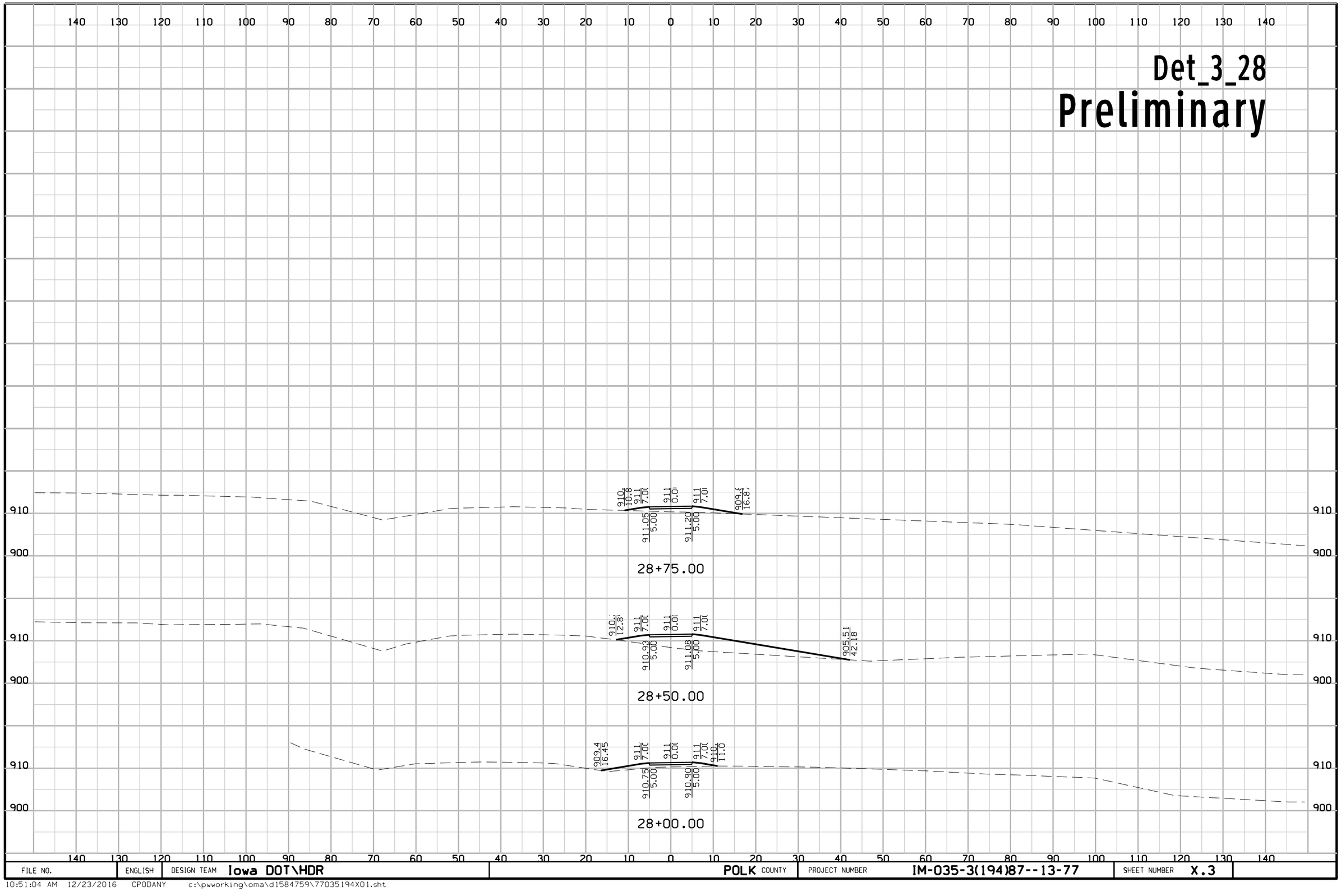


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.2

10:51:04 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

Det_3_28

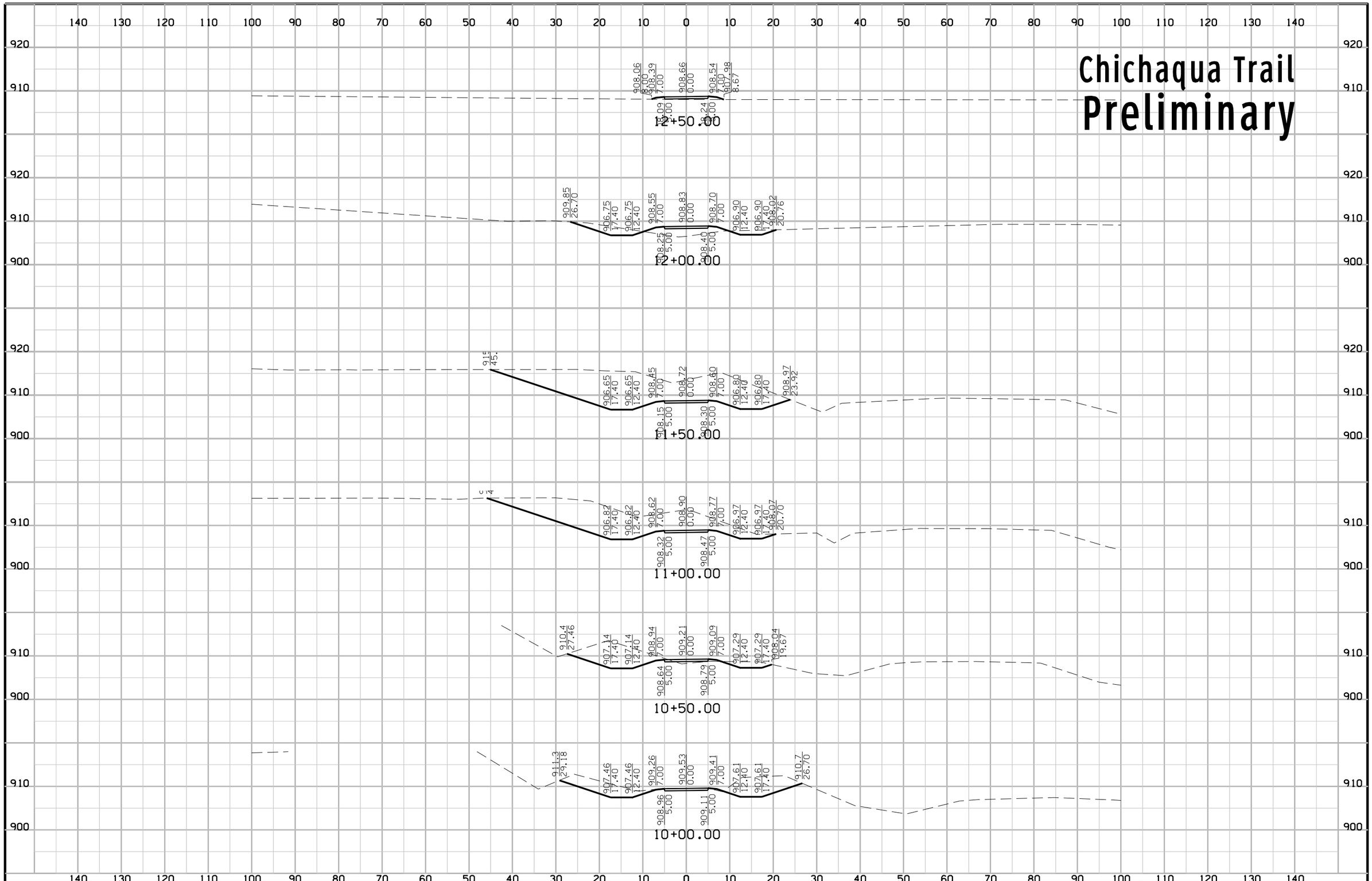
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	X.3

10:51:04 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

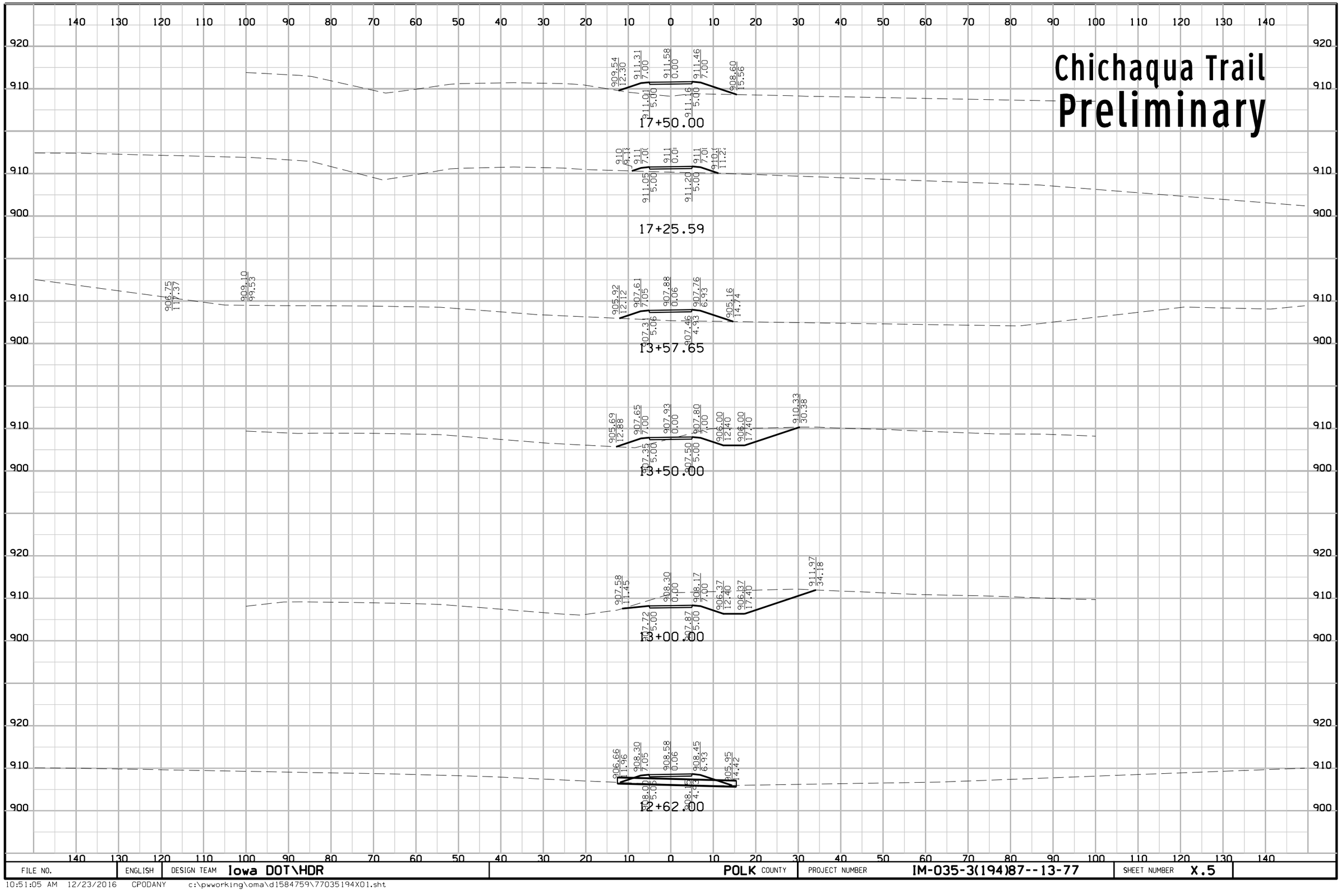
Chichaqua Trail
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.4

10:51:05 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

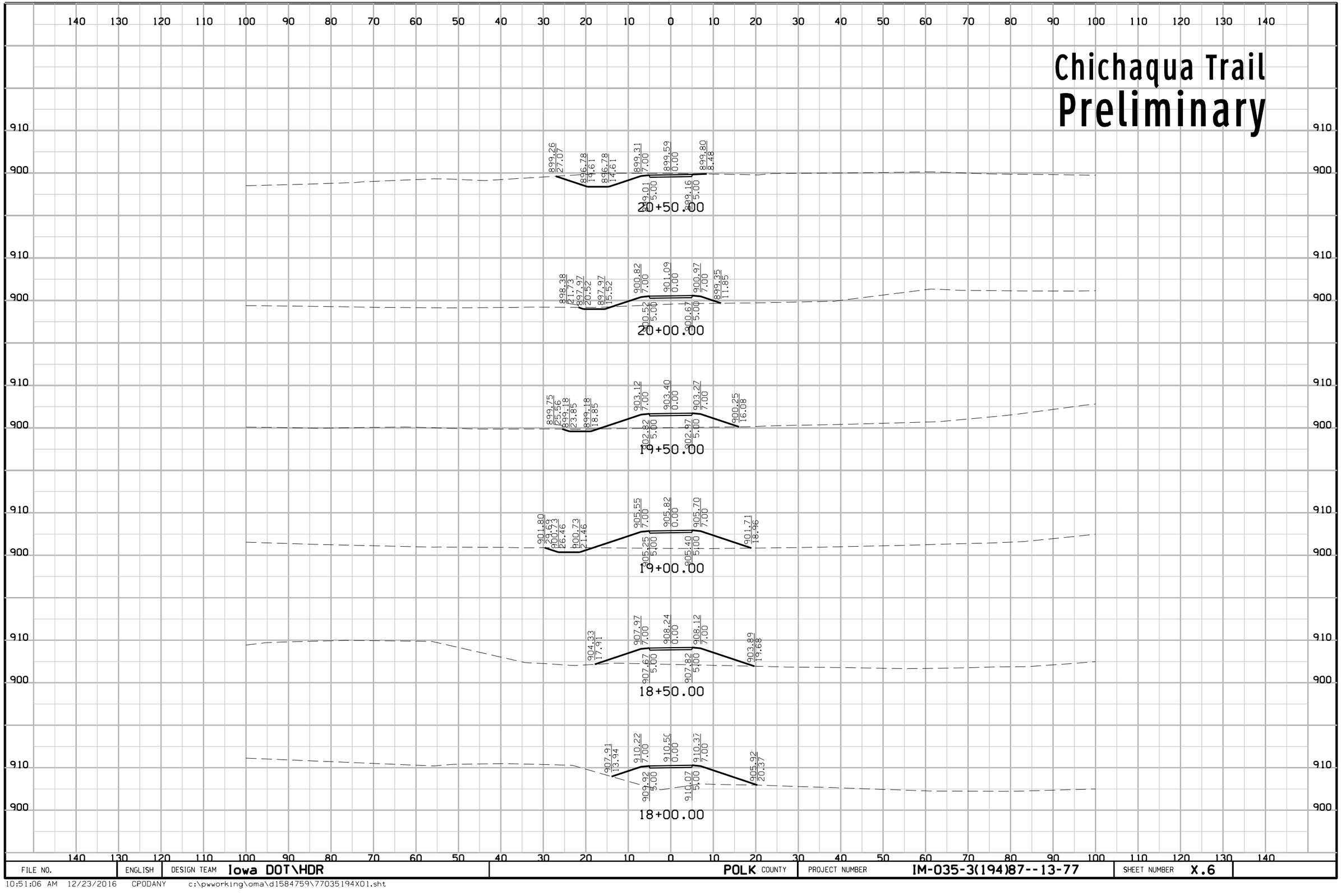
Chichaqua Trail
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	X.5

10:51:05 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

Chichaqua Trail
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	X.6

10:51:06 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

Chichaqua Trail
Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

900
890

898.77
6.02
898.31
5.00
898.89
0.00
898.46
5.00
898.76
7.00
898.55
7.65

21+00.00

900
890

898.58
8.11
898.39
5.05
898.97
0.05
896.54
4.94
898.79
6.75

20+93.47

910
900
890

899.02
41.19
894.96
29.00
894.96
19.01
898.95
7.05
898.66
5.00
899.22
0.06
898.80
4.94

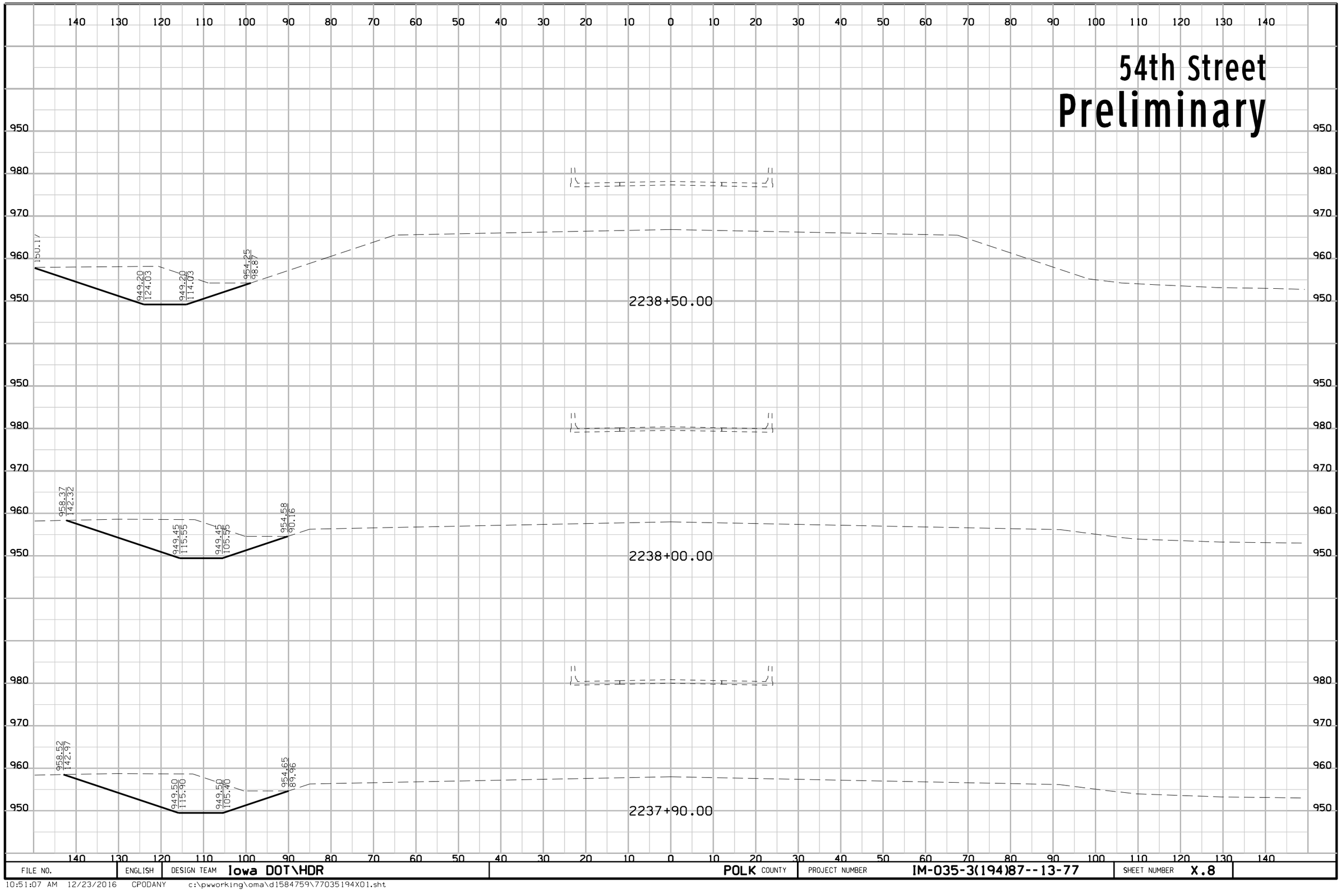
20+71.91

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.7

10:51:07 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

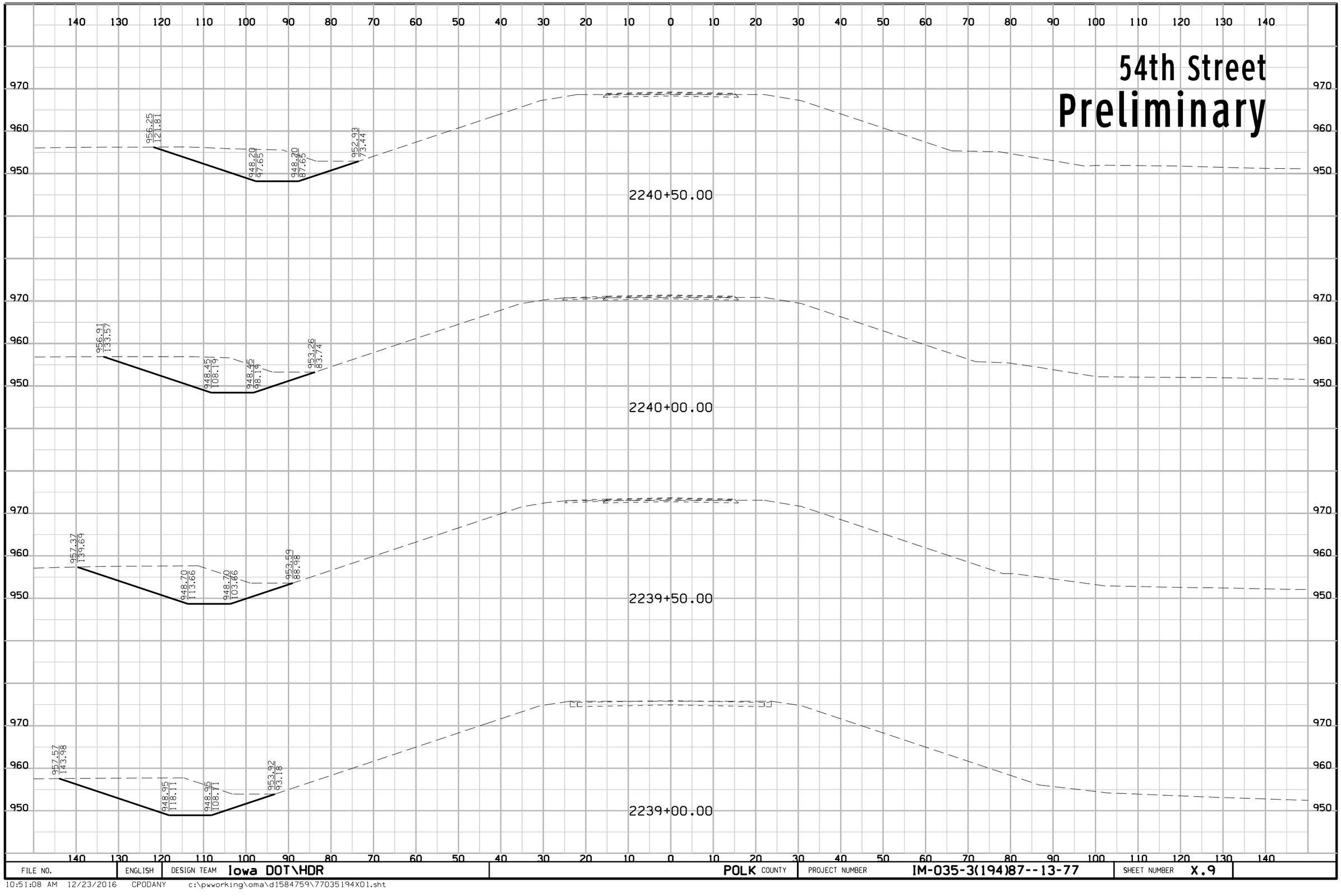
54th Street
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.8

10:51:07 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

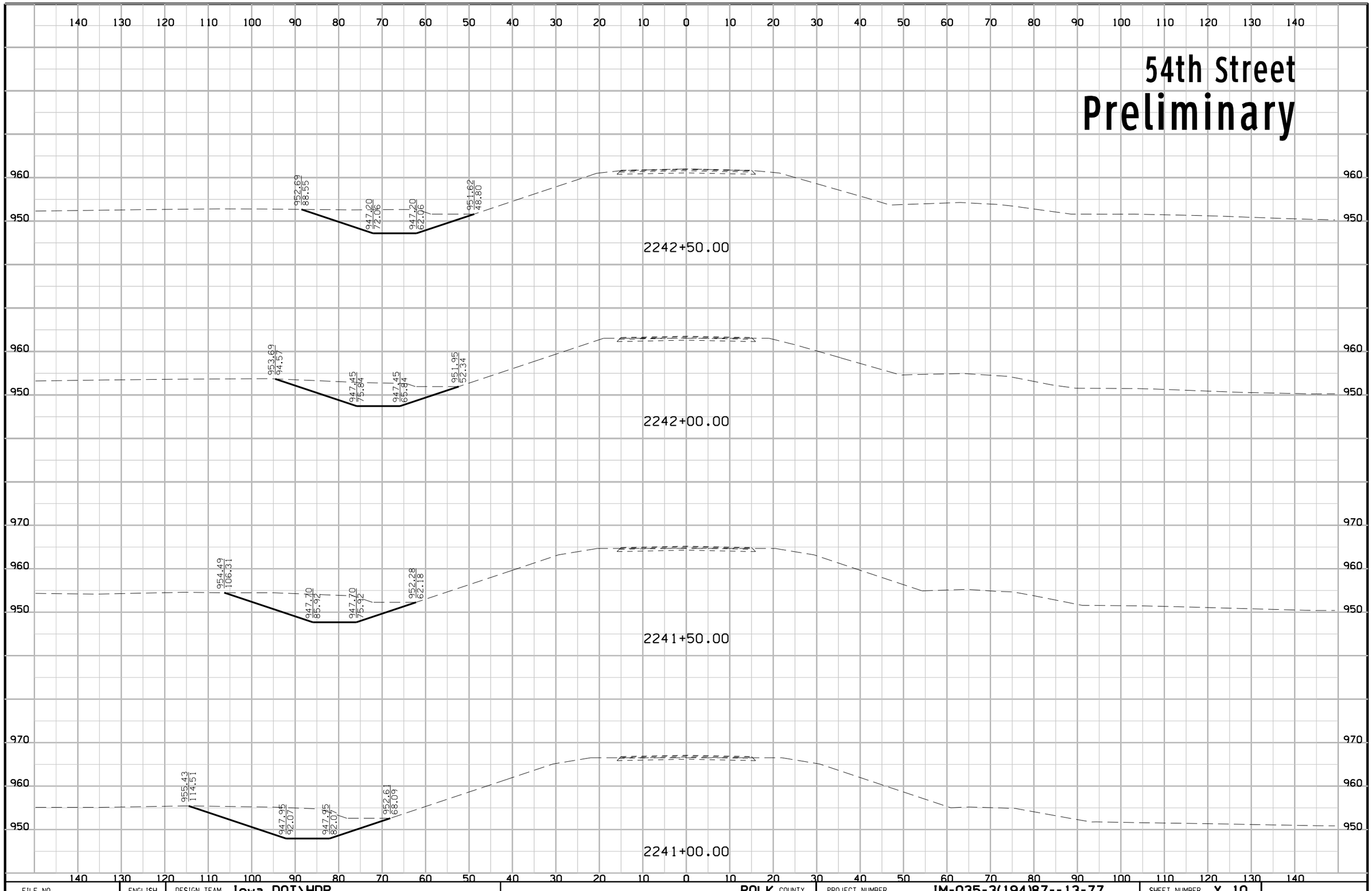
54th Street
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.9

10:51:08 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

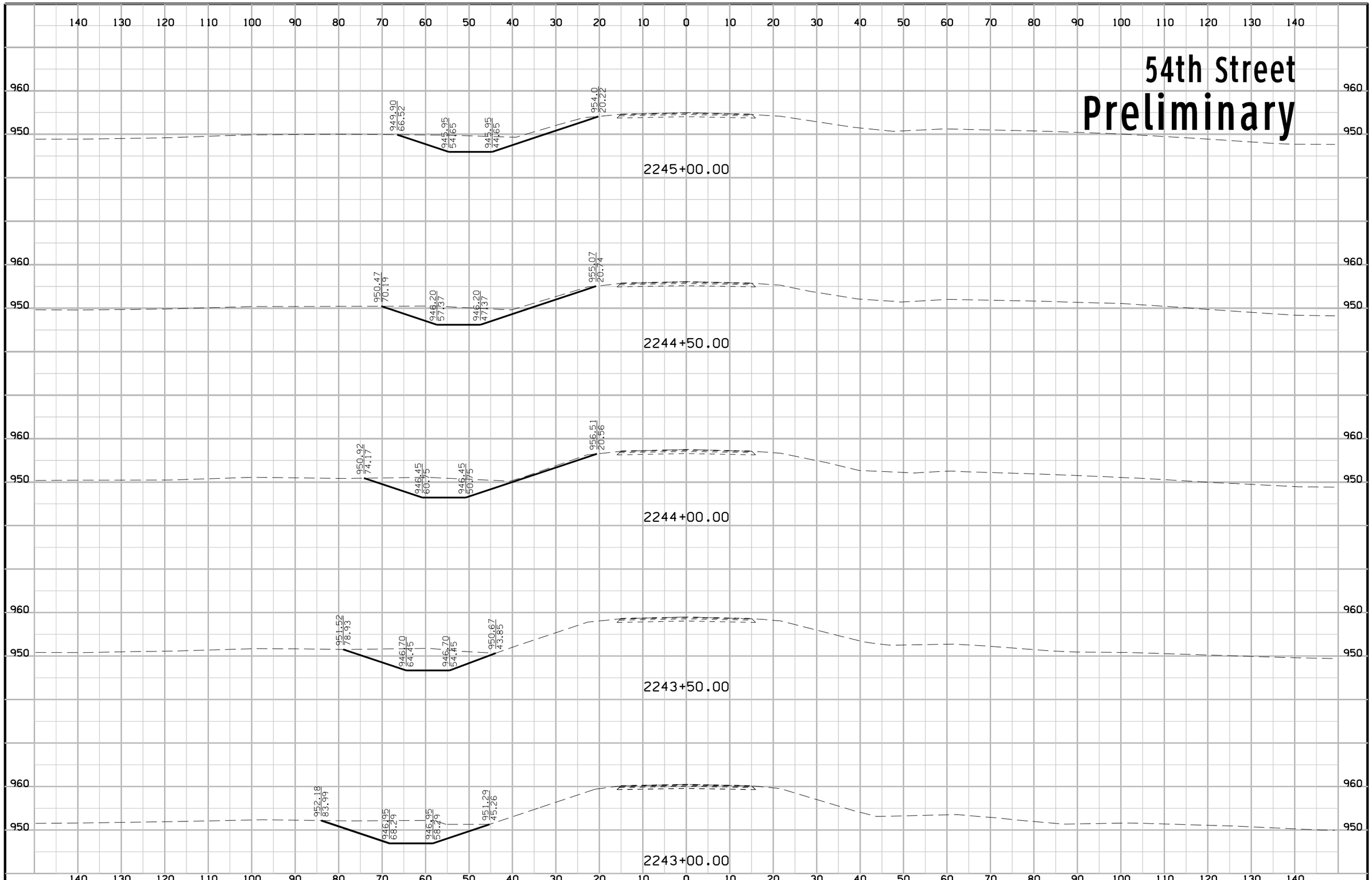
54th Street
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.10

10:51:09 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

54th Street
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	X.11

10:51:09 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

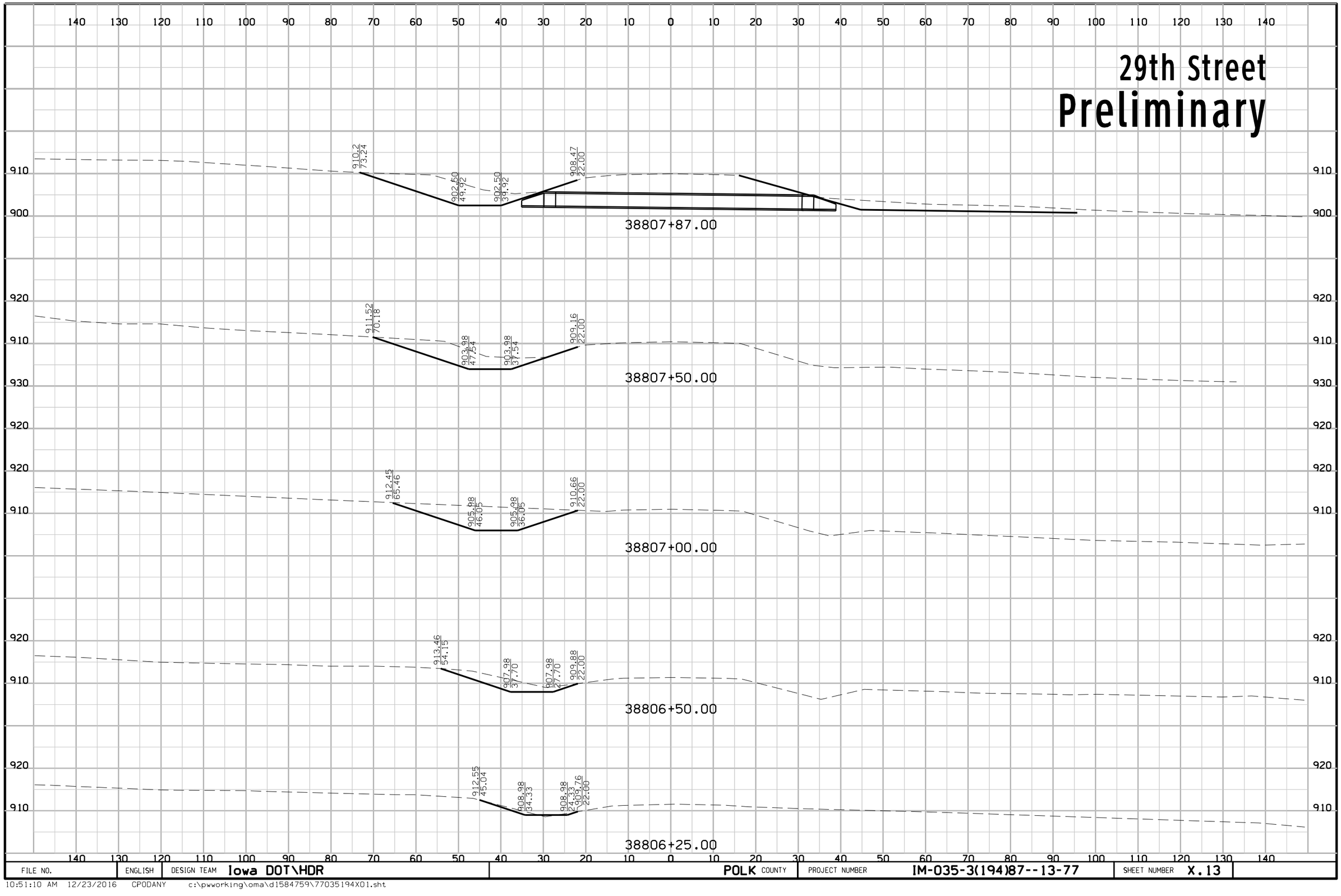
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

54th Street
Preliminary

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.12

10:51:10 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

29th Street
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	X.13

10:51:10 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

29th Street

Preliminary

905.72
44.71
904.61
41.38
904.61
31.38
907.74
22.00

38808+25.00

909.8.
66.80
908.22
46.95
903.22
36.95
908.20
22.00

910

900

38808+00.00

910

900

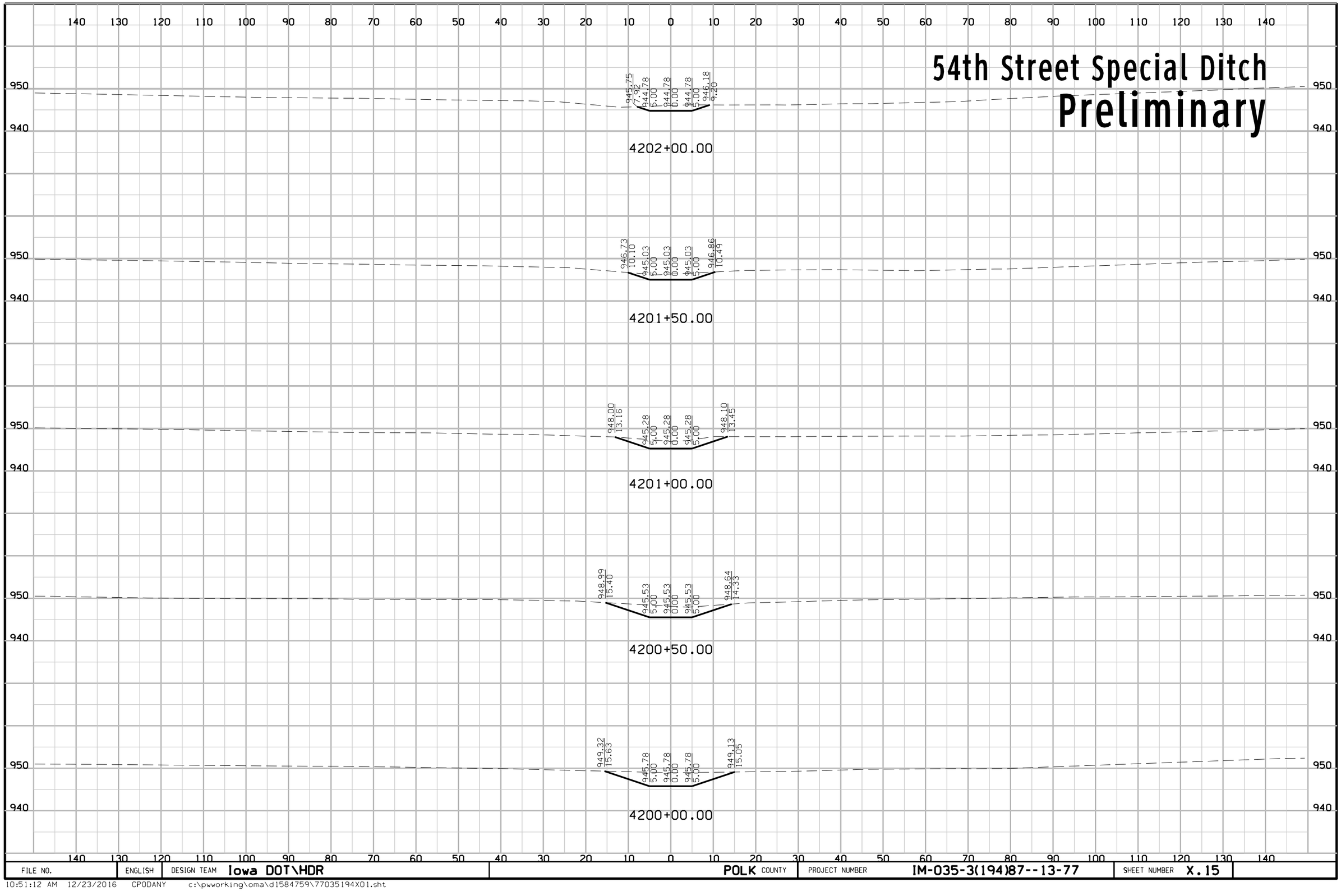
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.14

10:51:11 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

54th Street Special Ditch

Preliminary

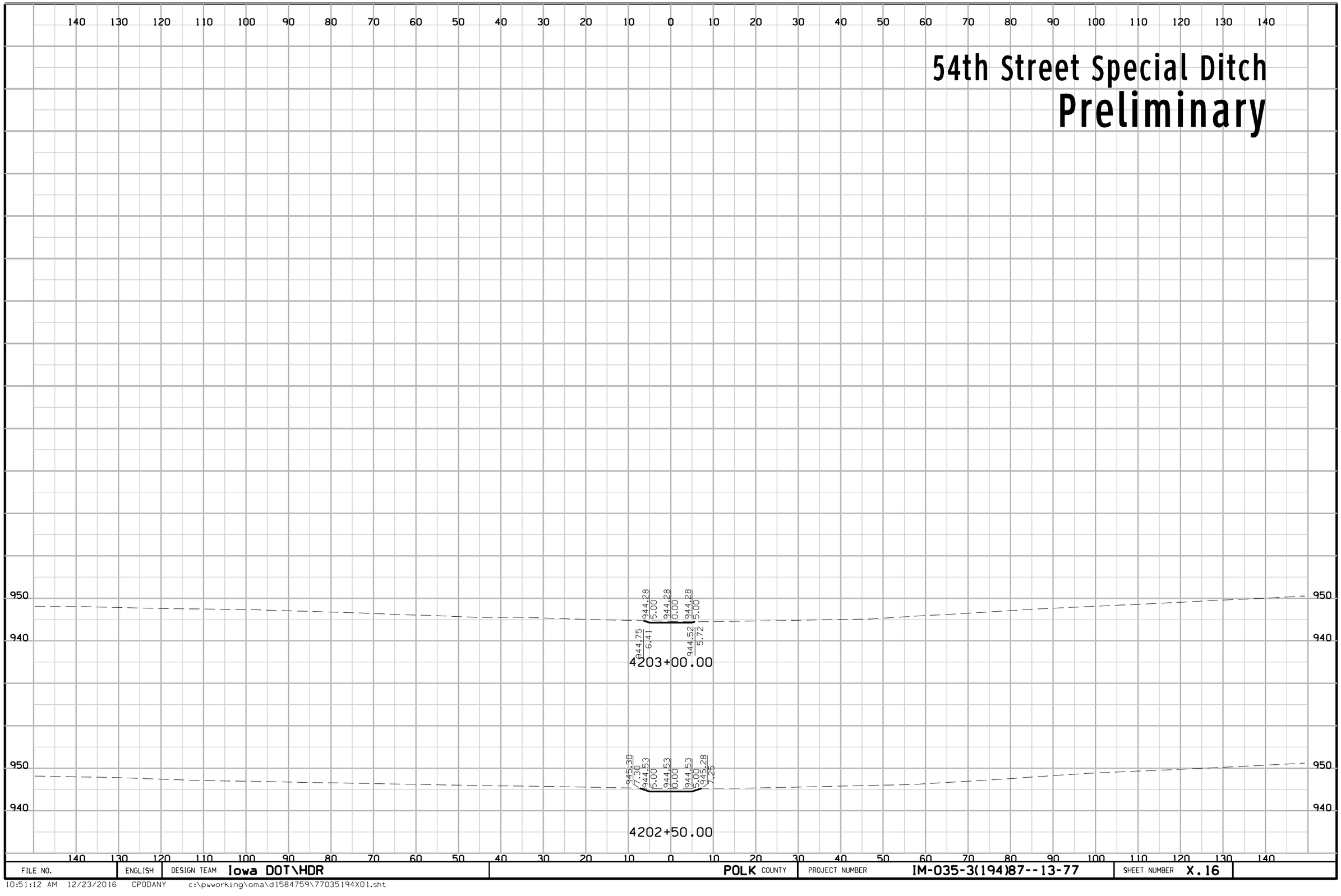


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	X.15

10:51:12 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

54th Street Special Ditch

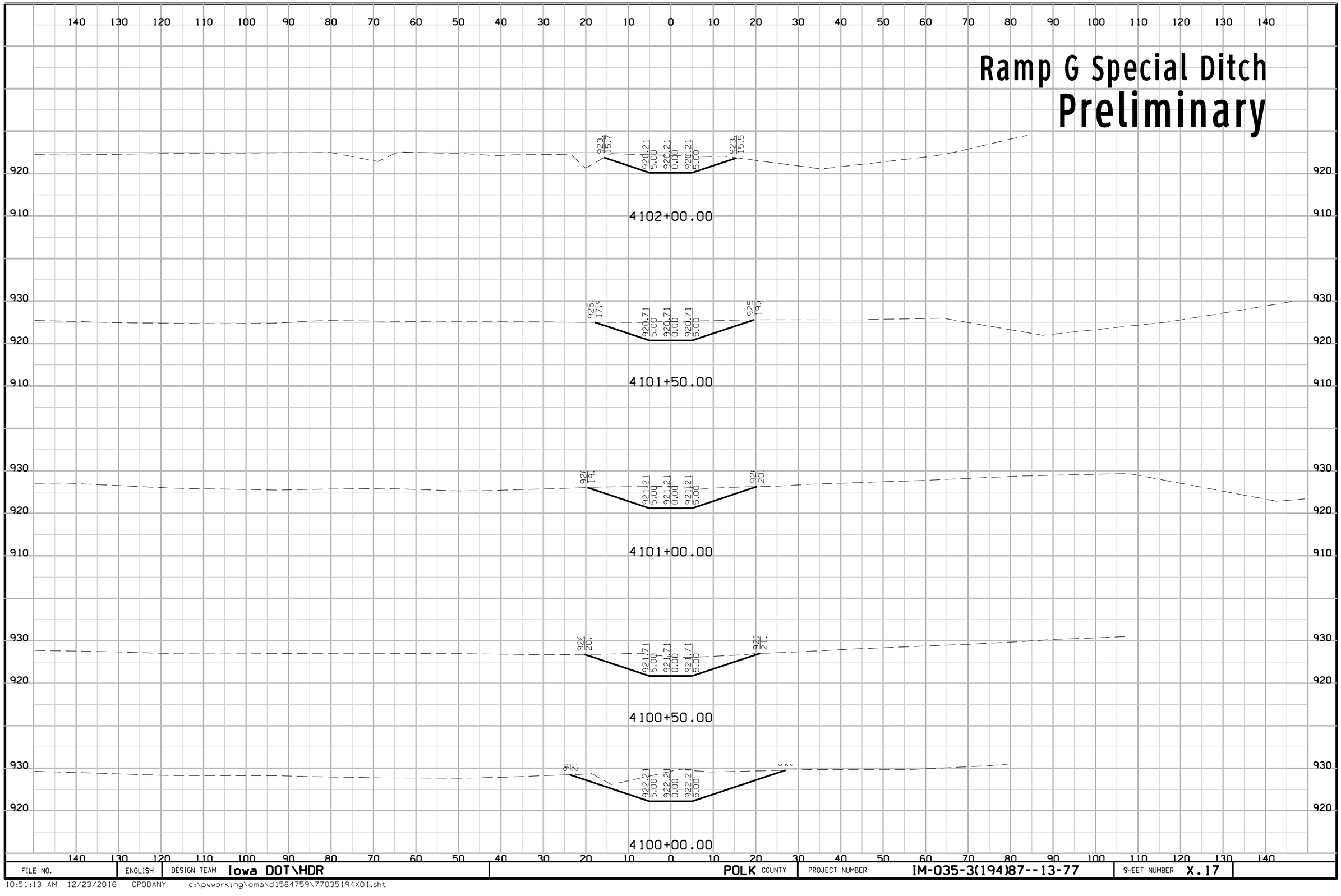
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.16

10:51:12 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

Ramp G Special Ditch
Preliminary

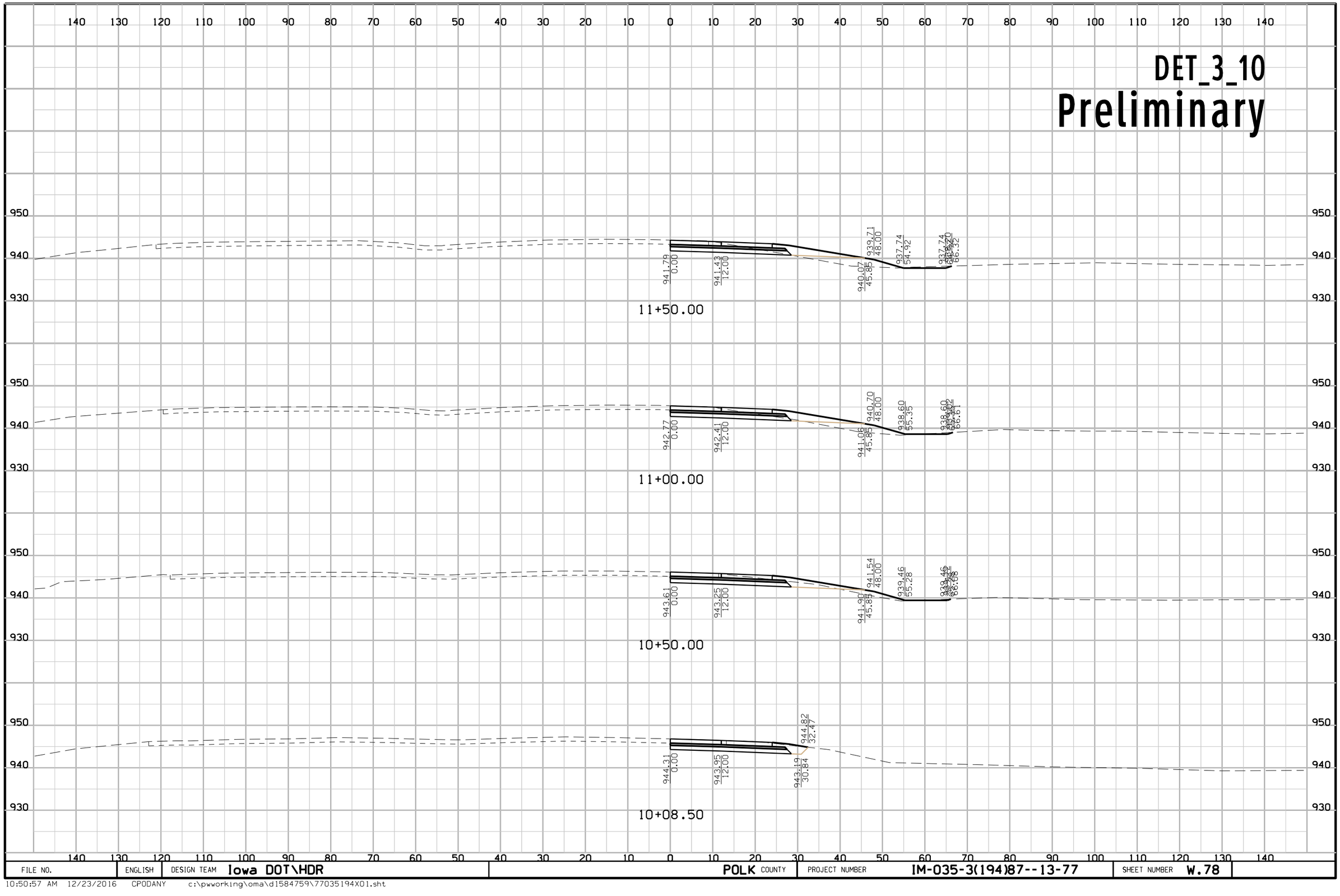


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER X.17

10:51:13 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_10

Preliminary

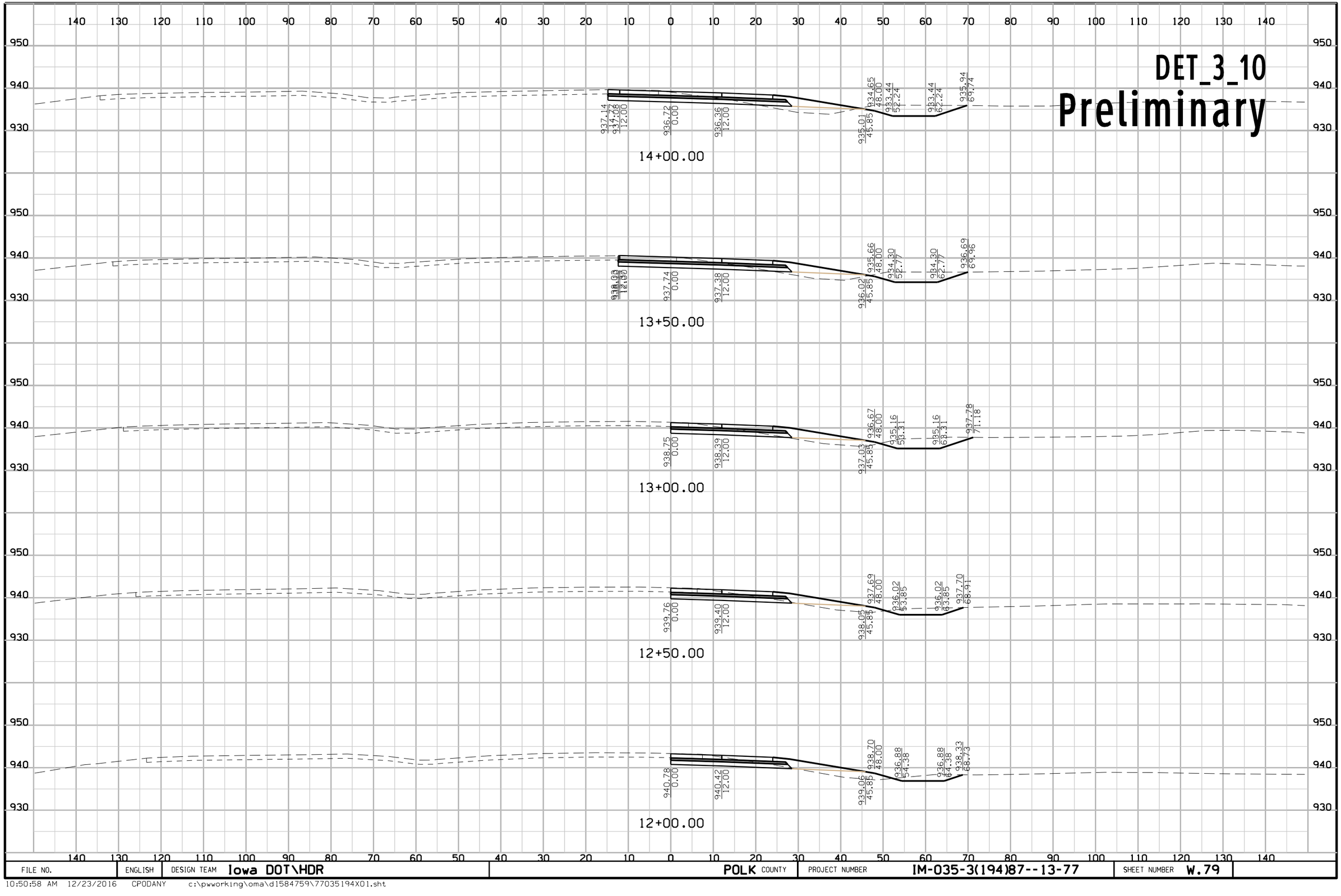


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.78

10:50:57 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_10

Preliminary

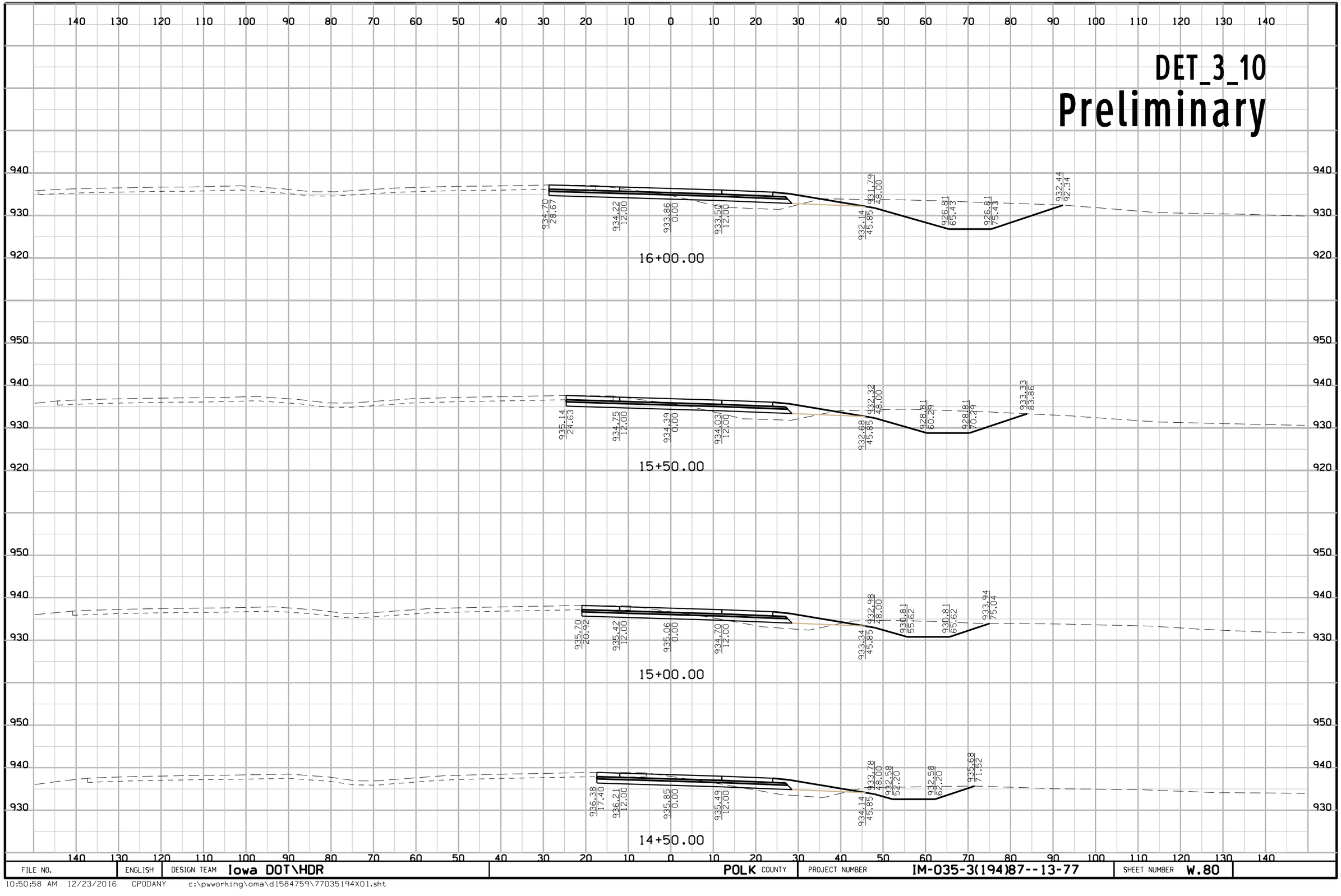


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.79

10:50:58 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_10

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER W.80

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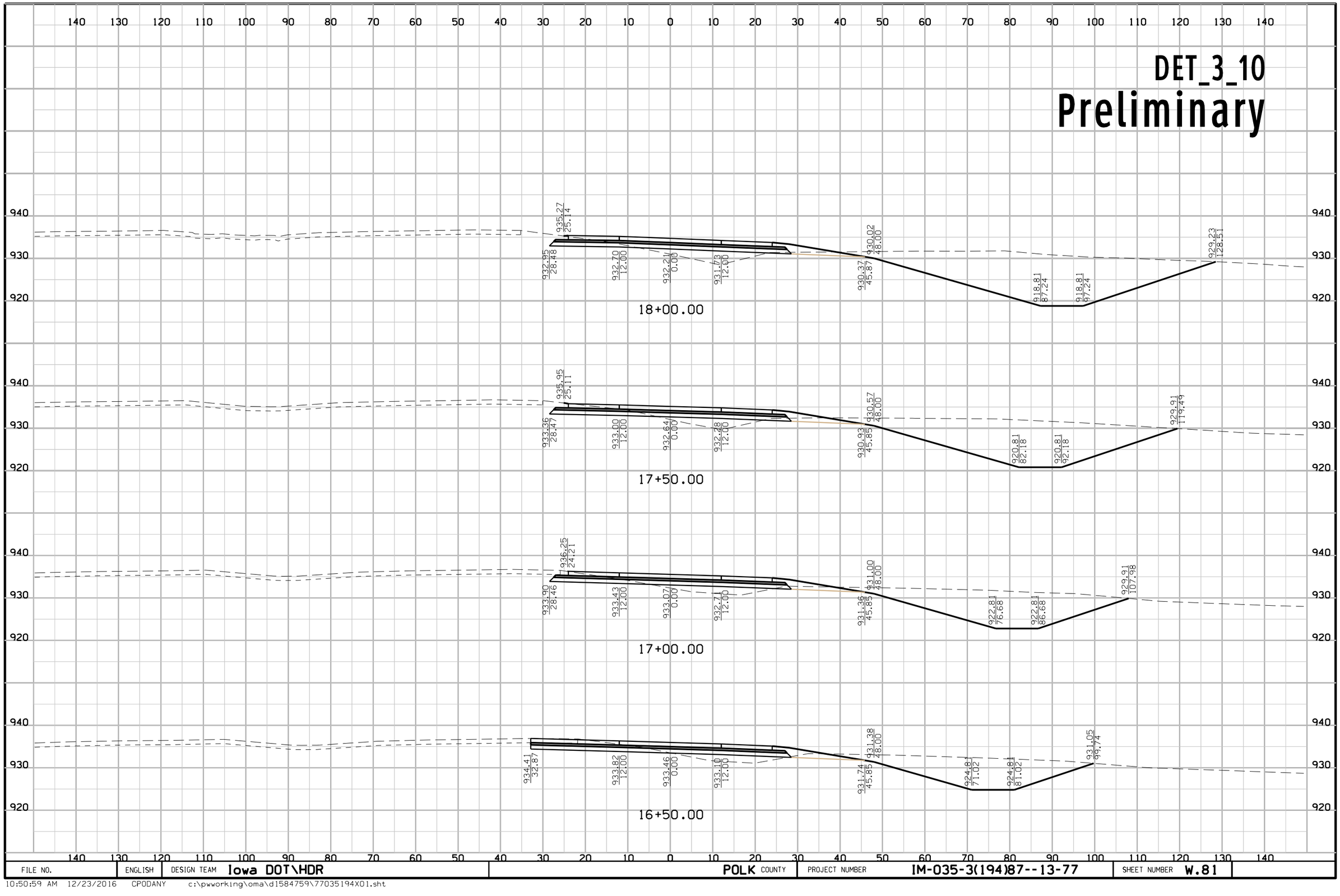
DET_3_10

Preliminary

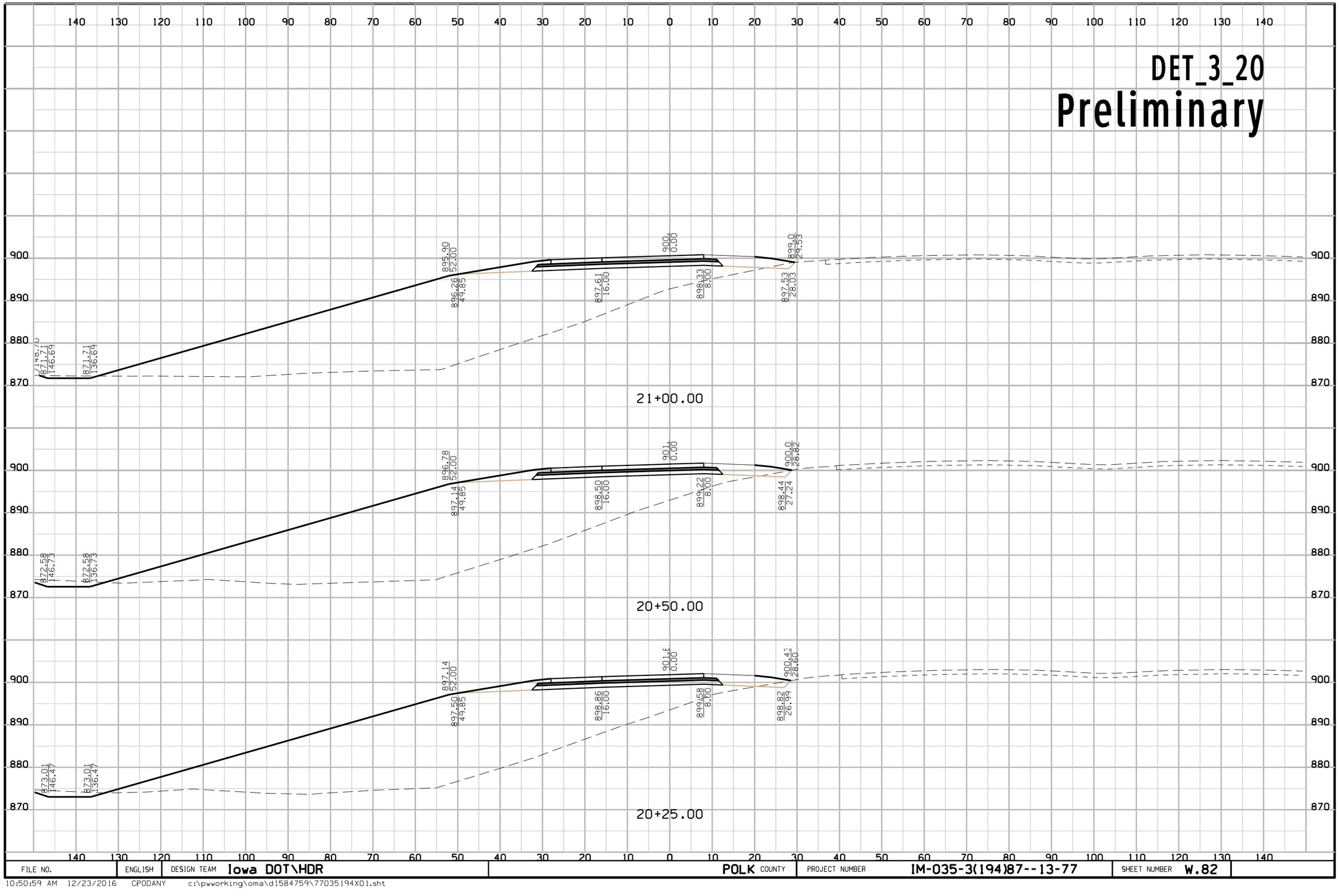


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.81

10:50:59 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_20

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.82

10:50:59 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_20

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

900 890 880 870

868.19 129.45 | 890.67 49.85 | 892.03 16.00 | 892.75 8.00 | 892.02 26.32 | 893.70 28.01 | 895.0 0.00

23+00.00

869.44 142.25 | 869.10 132.25 | 892.38 49.85 | 892.02 52.00 | 893.74 16.00 | 894.46 8.00 | 893.65 28.09 | 895.14 29.59 | 896.7 0.00

22+50.00

870.46 145.94 | 869.97 144.45 | 869.97 134.45 | 893.88 49.85 | 893.52 52.00 | 895.24 16.00 | 895.86 8.00 | 895.09 29.47 | 896.44 30.81 | 898.. 0.00

22+00.00

870.83 145.93 | 870.83 135.93 | 895.17 49.85 | 894.81 52.00 | 896.53 16.00 | 897.25 8.00 | 896.40 29.10 | 897.7 30.49 | 899. 0.00

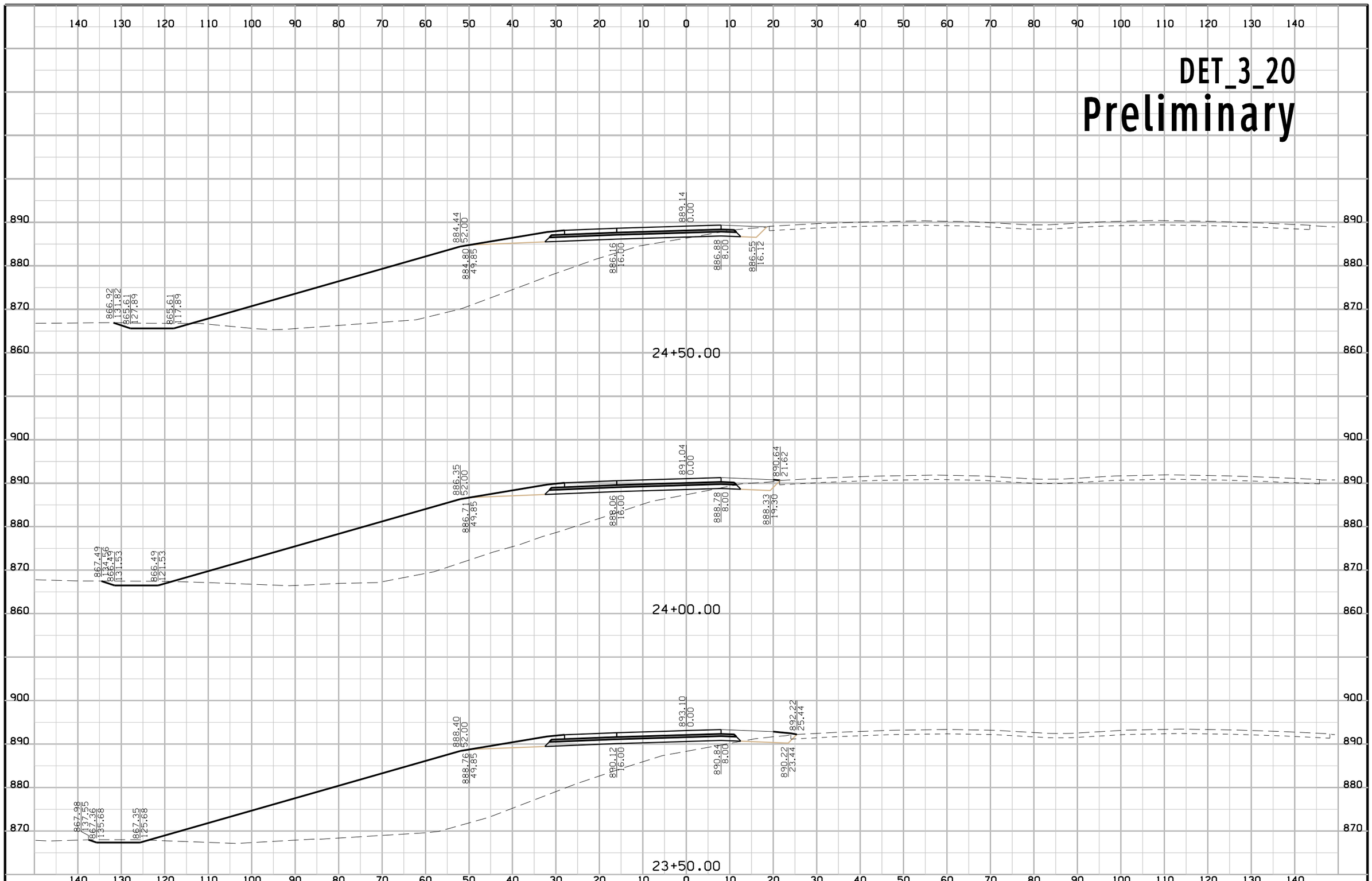
21+50.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER W.83

10:51:00 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_20

Preliminary

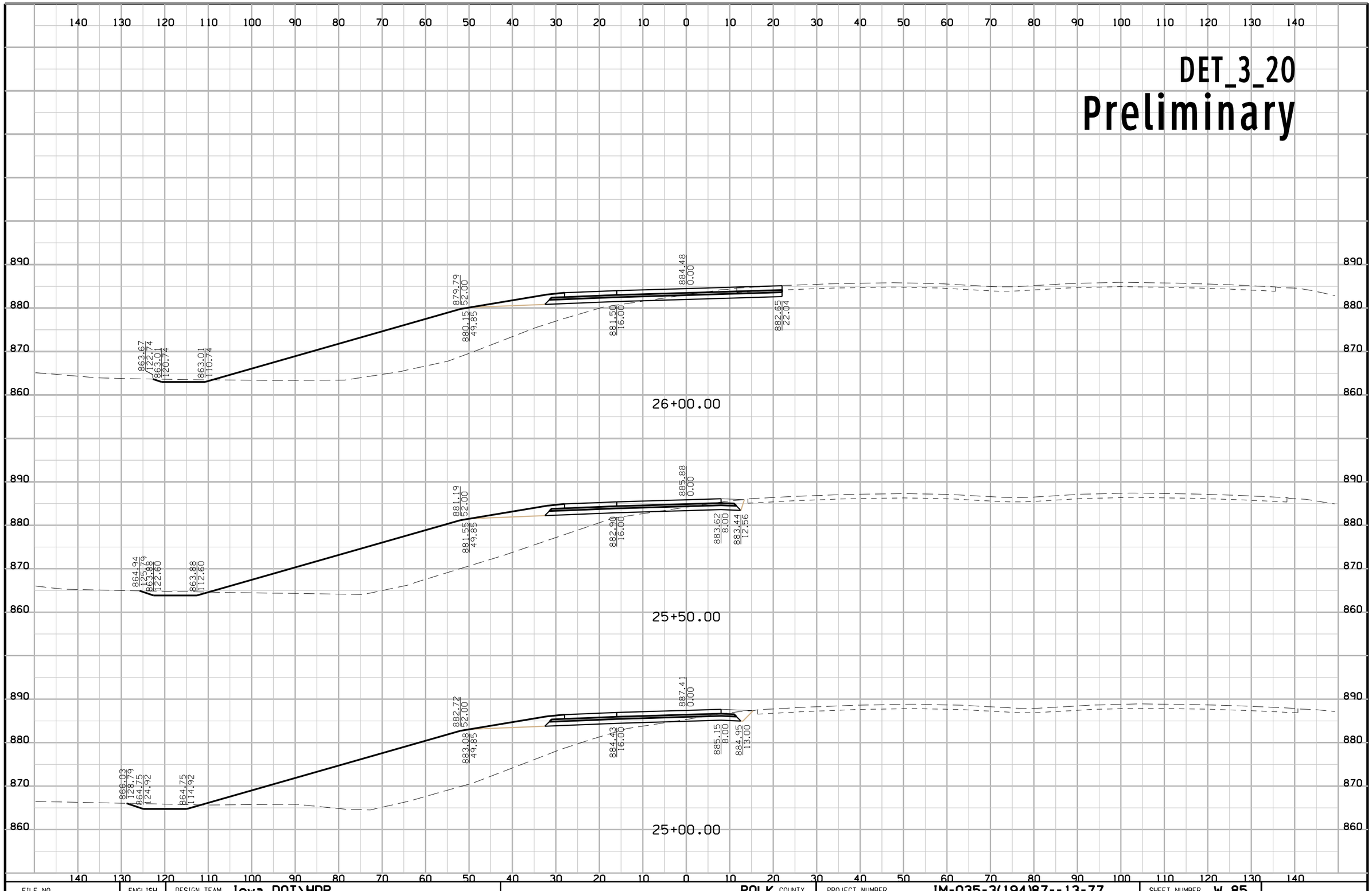


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.84

10:51:00 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_20

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.85

10:51:01 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_20

Preliminary

28+00.00

859.66 113.77
859.53 113.35
859.53 103.35
874.20 52.00
874.56 49.85
875.91 16.00
878.89 0.00
876.63 12.04

27+50.00

861.36 118.10
860.40 115.20
860.40 105.20
875.59 52.00
875.95 49.85
877.31 16.00
880.29 0.00
878.16 14.54

27+00.00

861.76 118.53
861.26 117.05
861.26 107.05
876.99 52.00
877.35 49.85
878.71 16.00
881.69 0.00
879.66 17.04

26+50.00

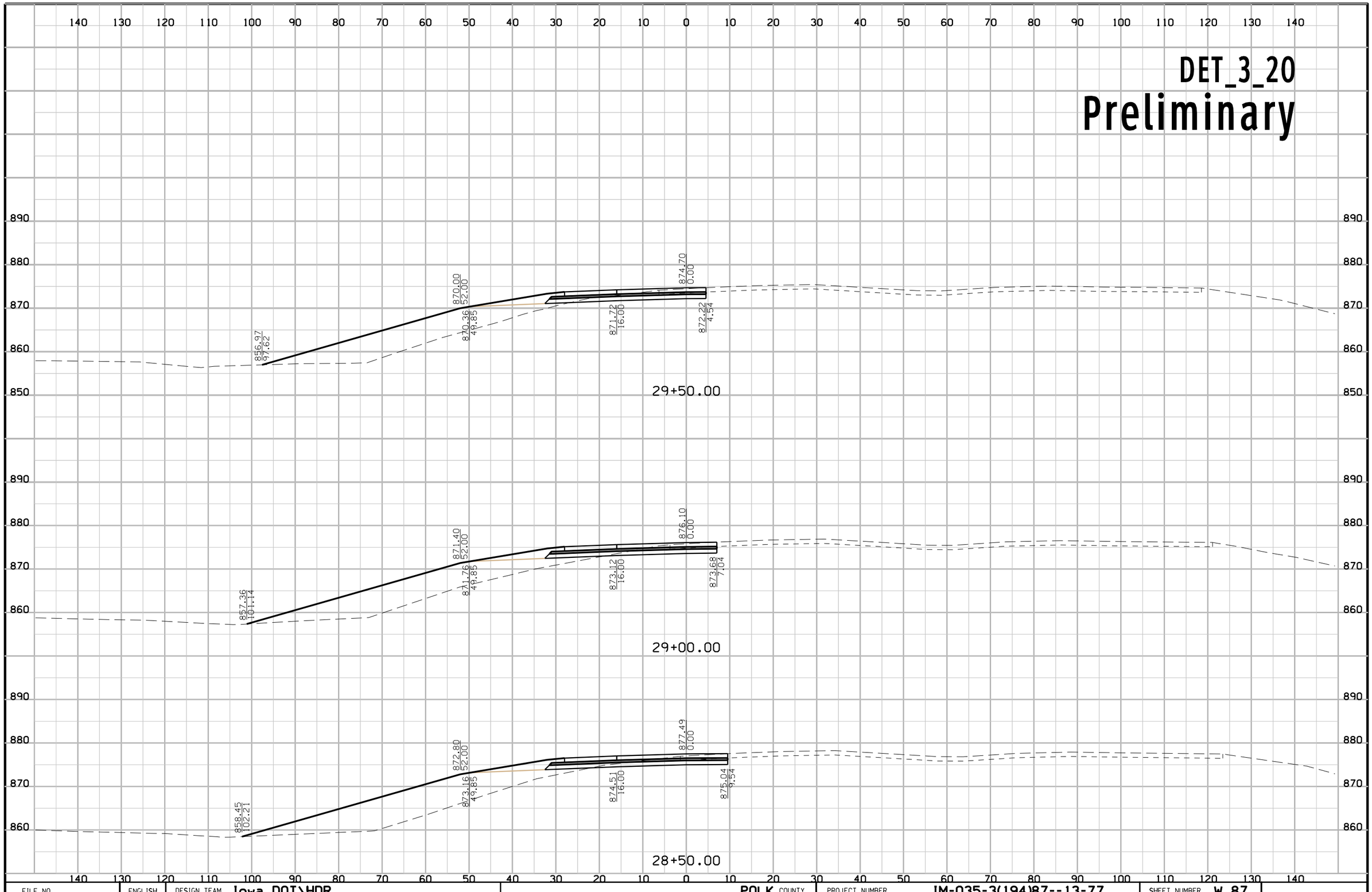
862.81 120.42
862.14 118.89
862.14 108.89
878.39 52.00
878.75 49.85
880.10 16.00
883.08 0.00
881.16 19.54

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.86

10:51:01 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_20

Preliminary

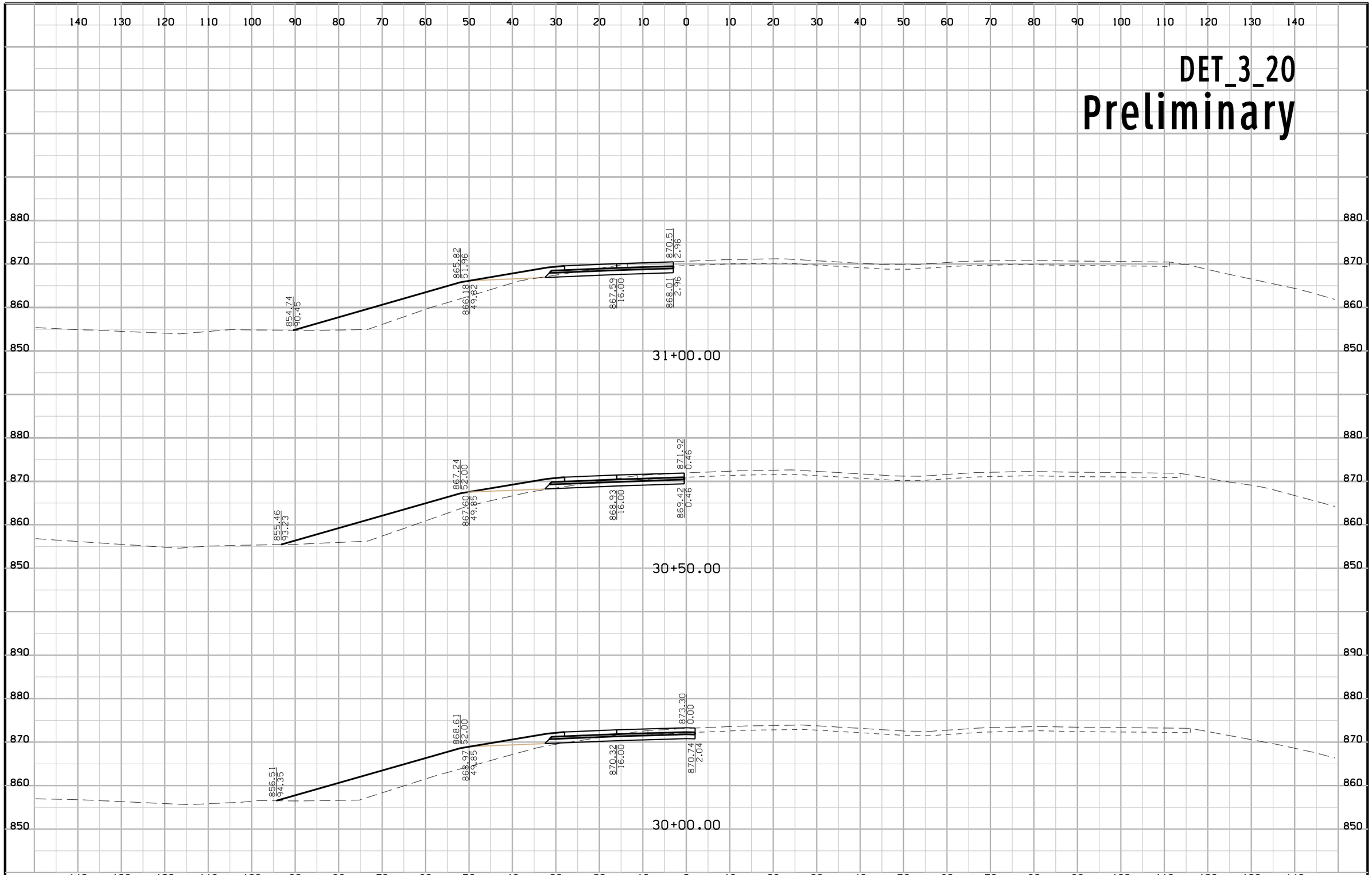


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER W.87

10:51:02 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

DET_3_20

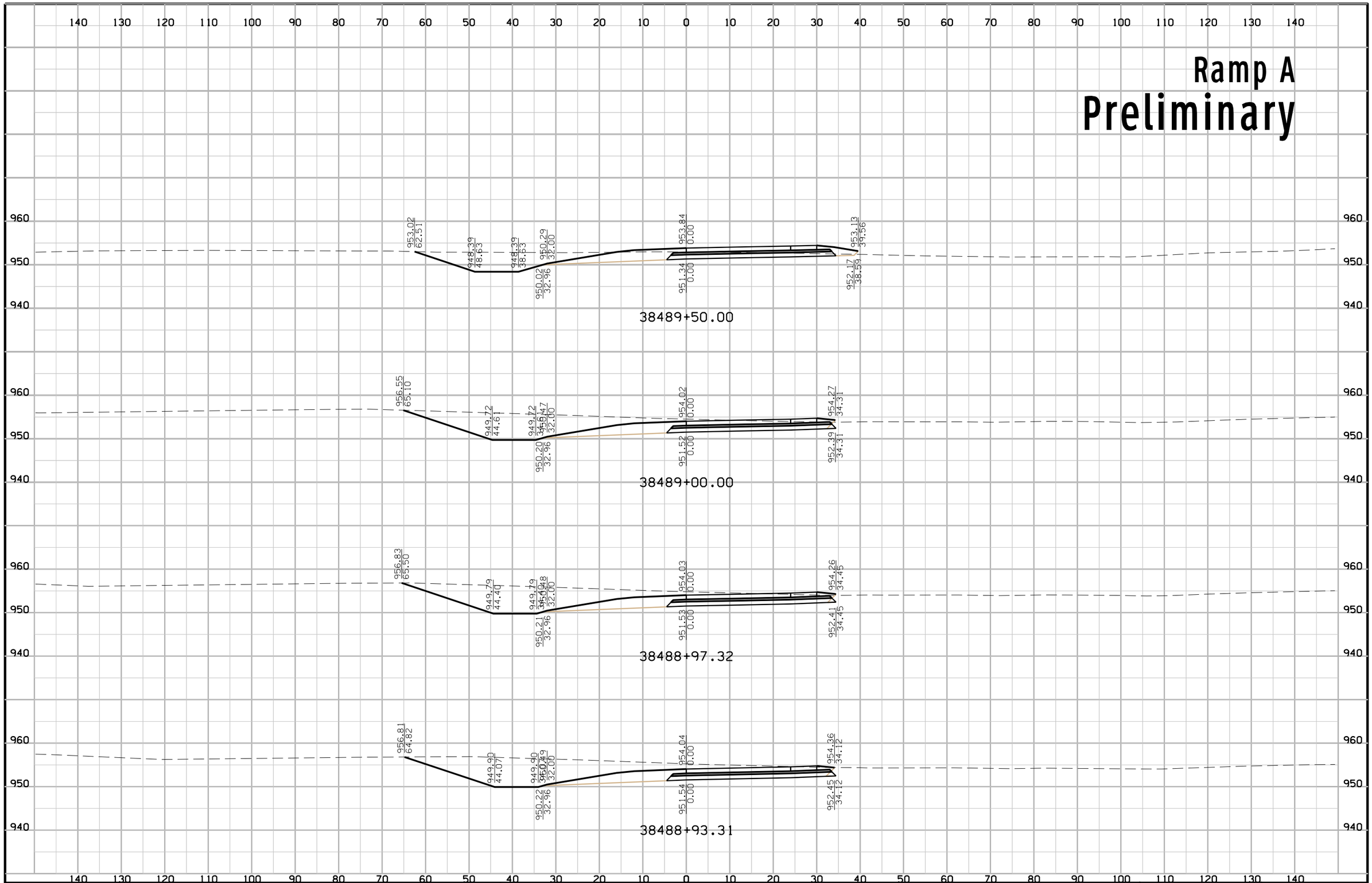
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	W.88

10:51:03 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194X01.sht

Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.1

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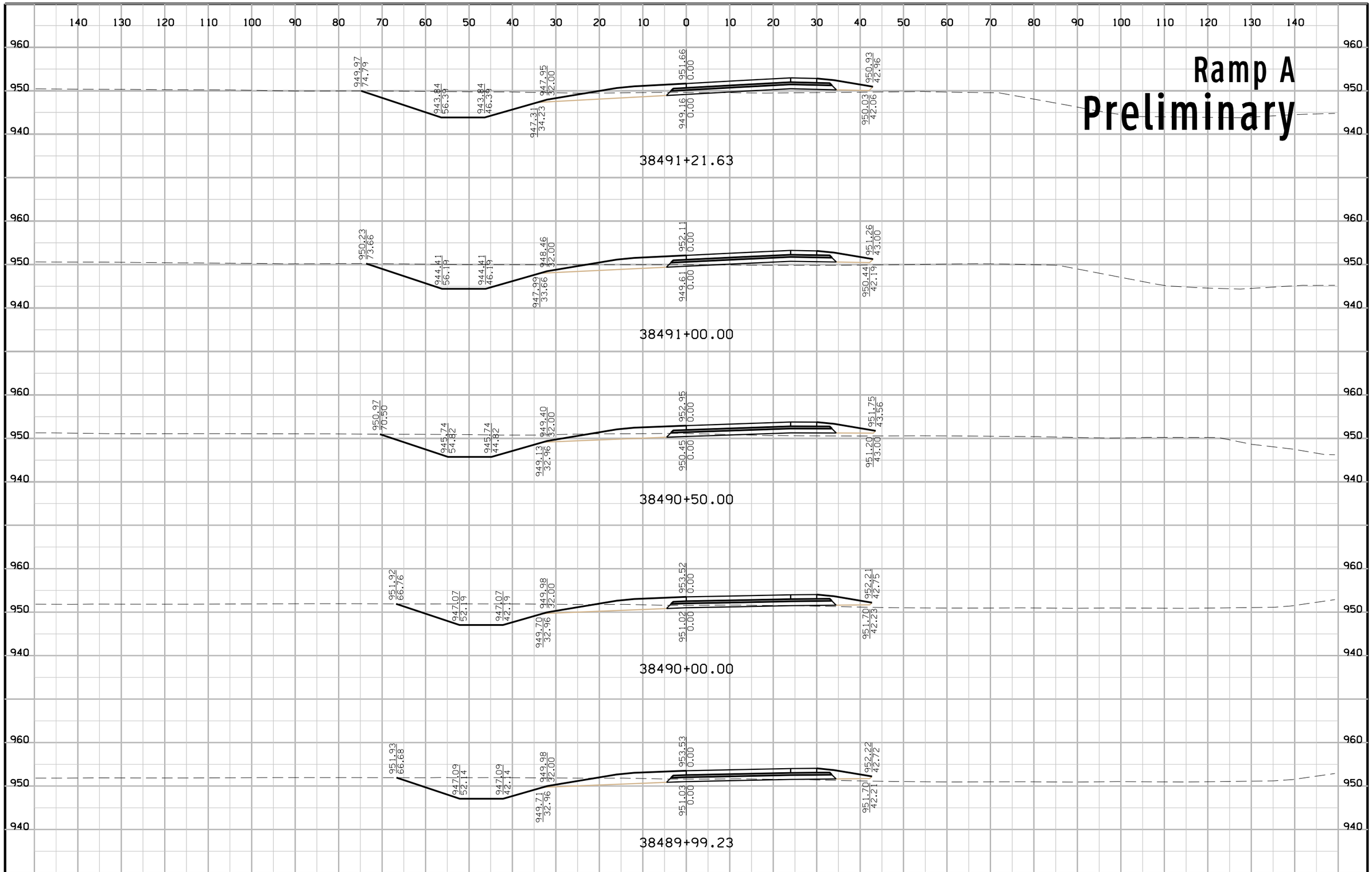
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.2

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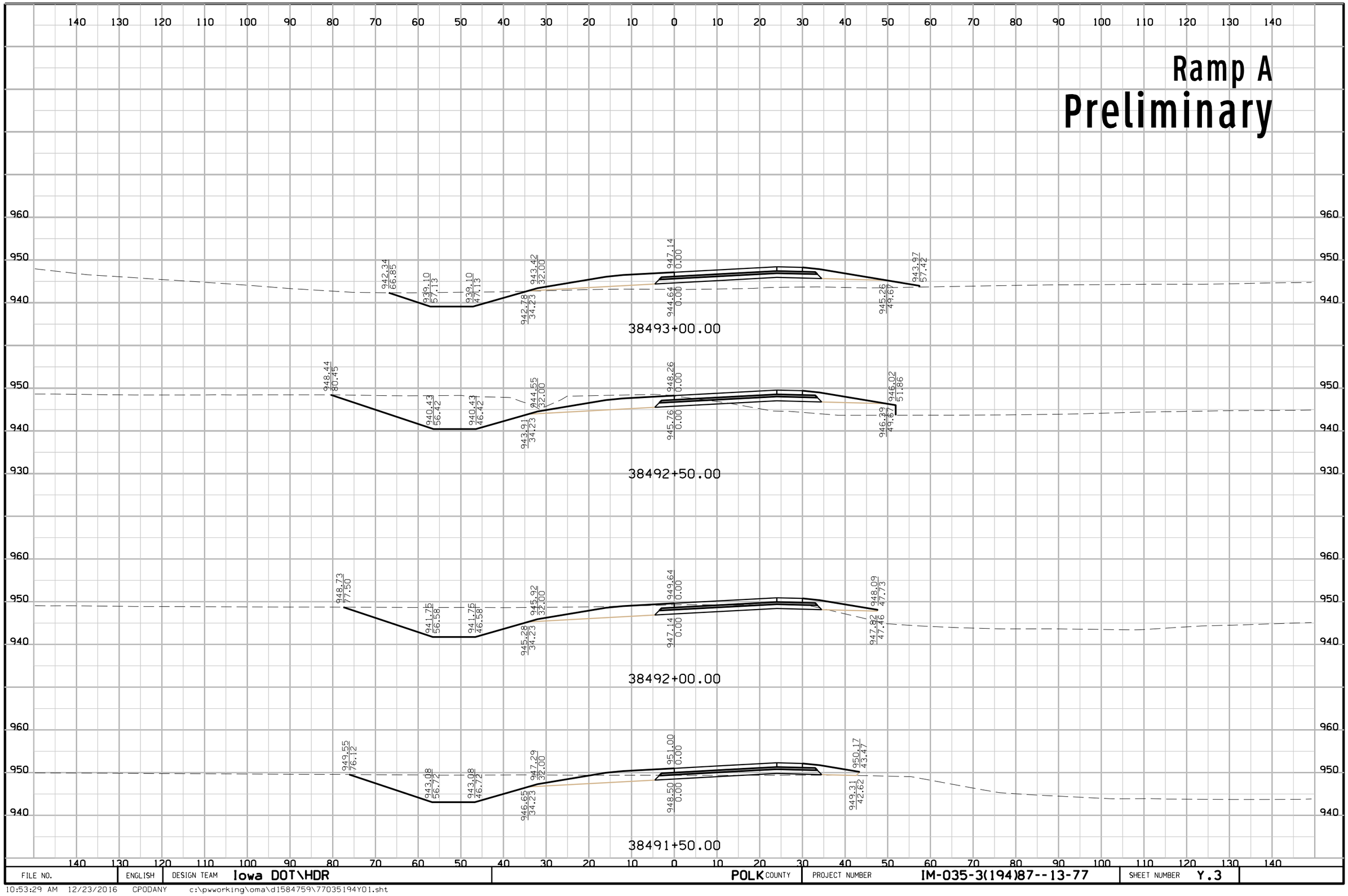
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.3

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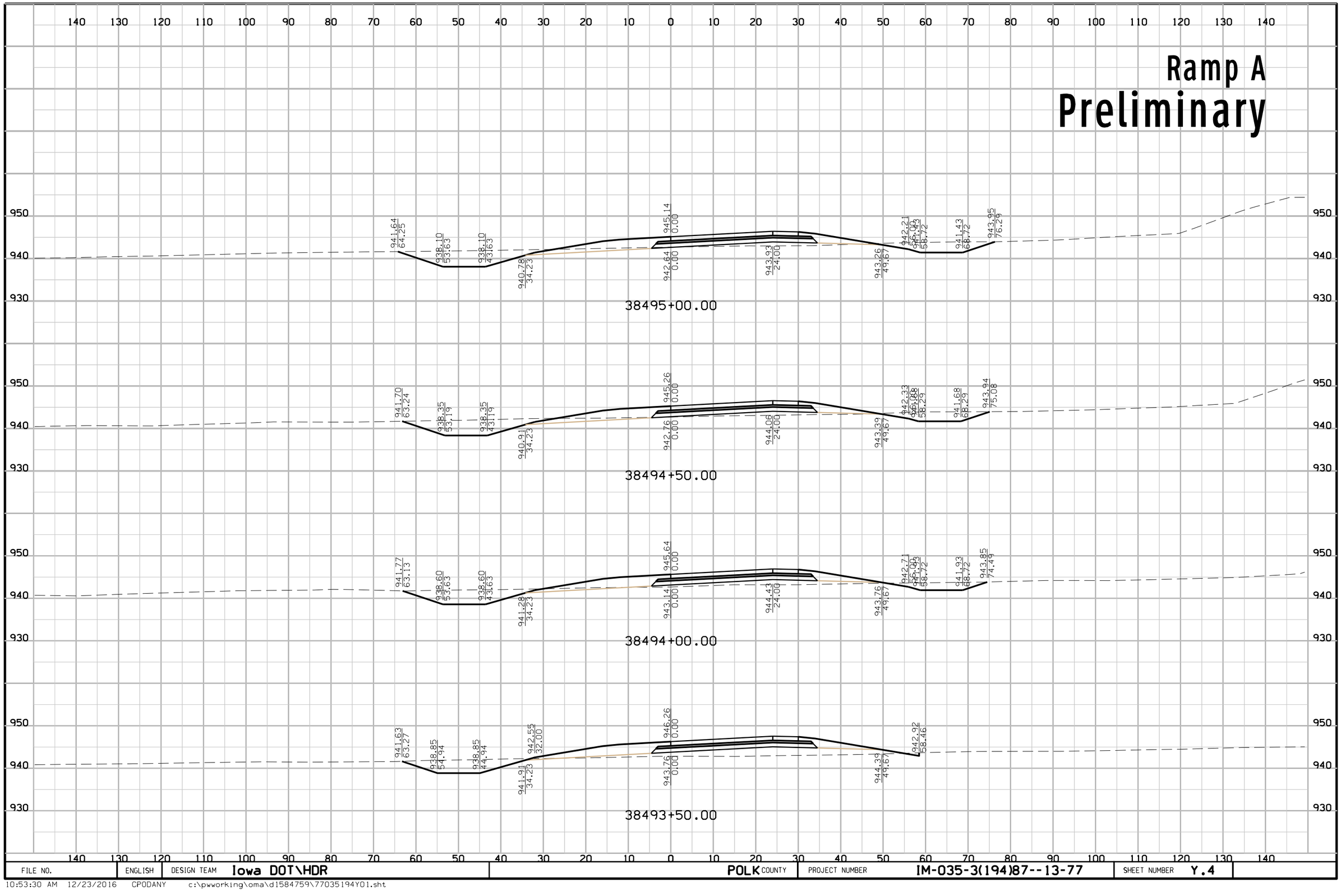
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.4

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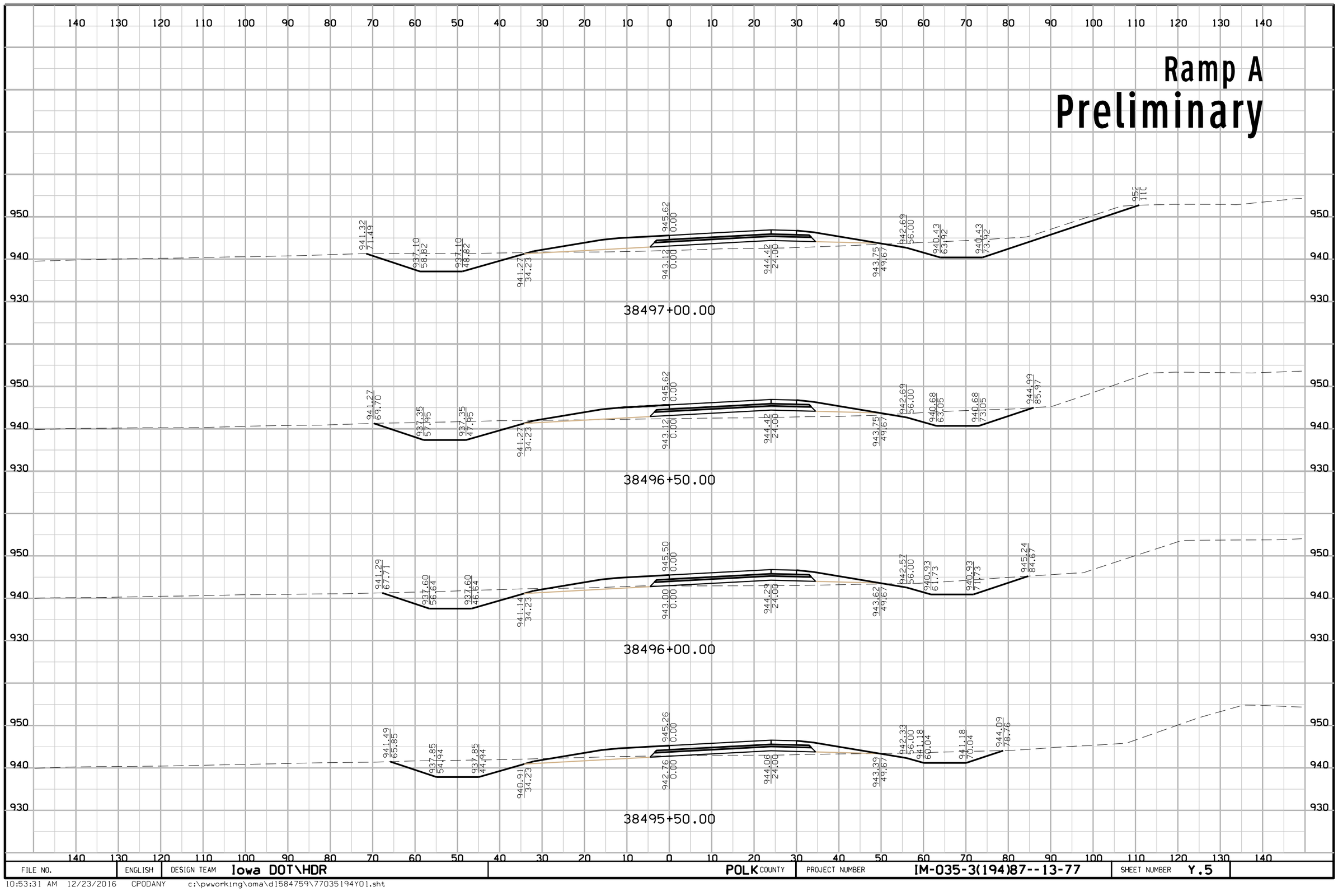
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.5

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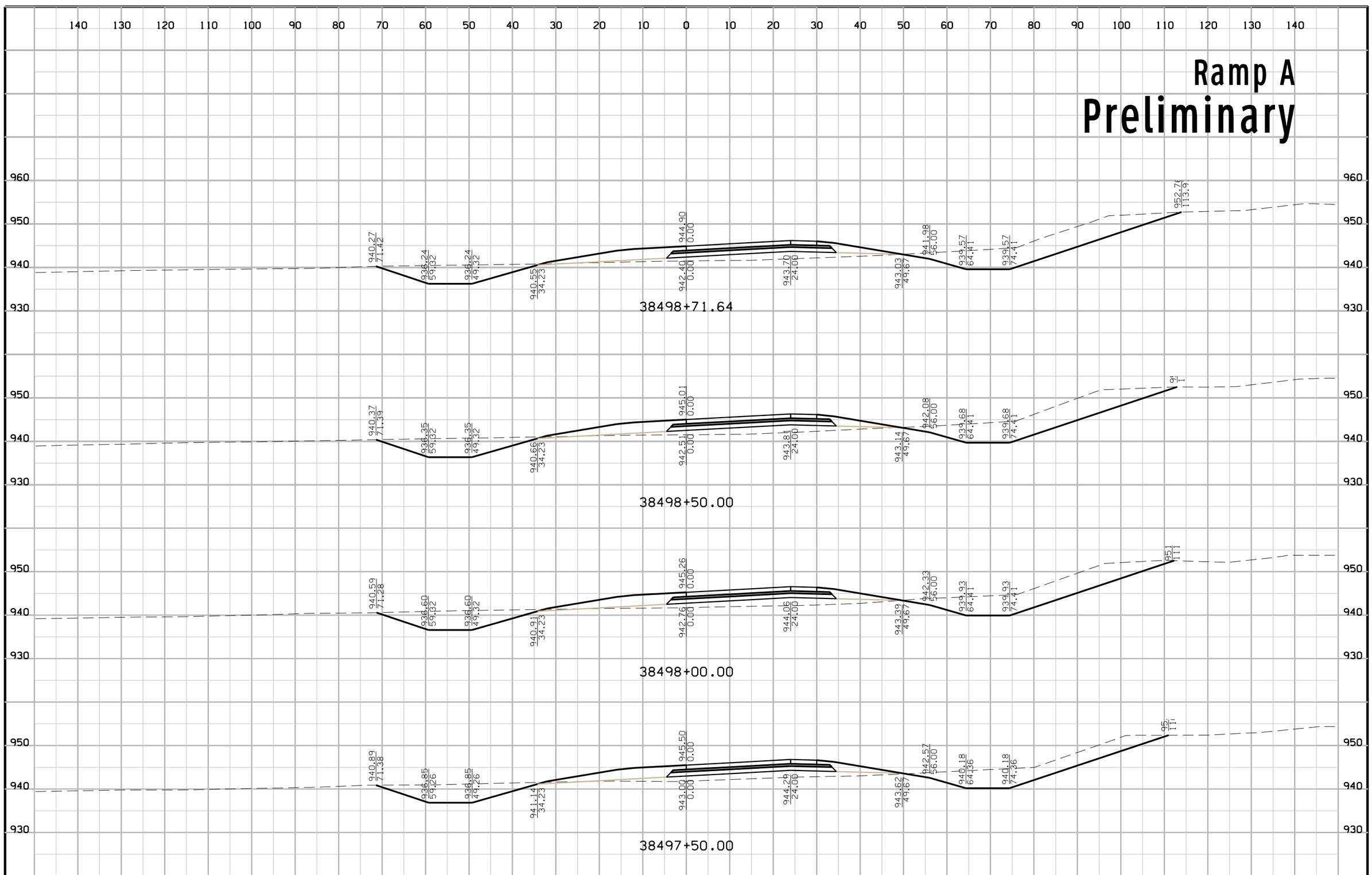
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.6

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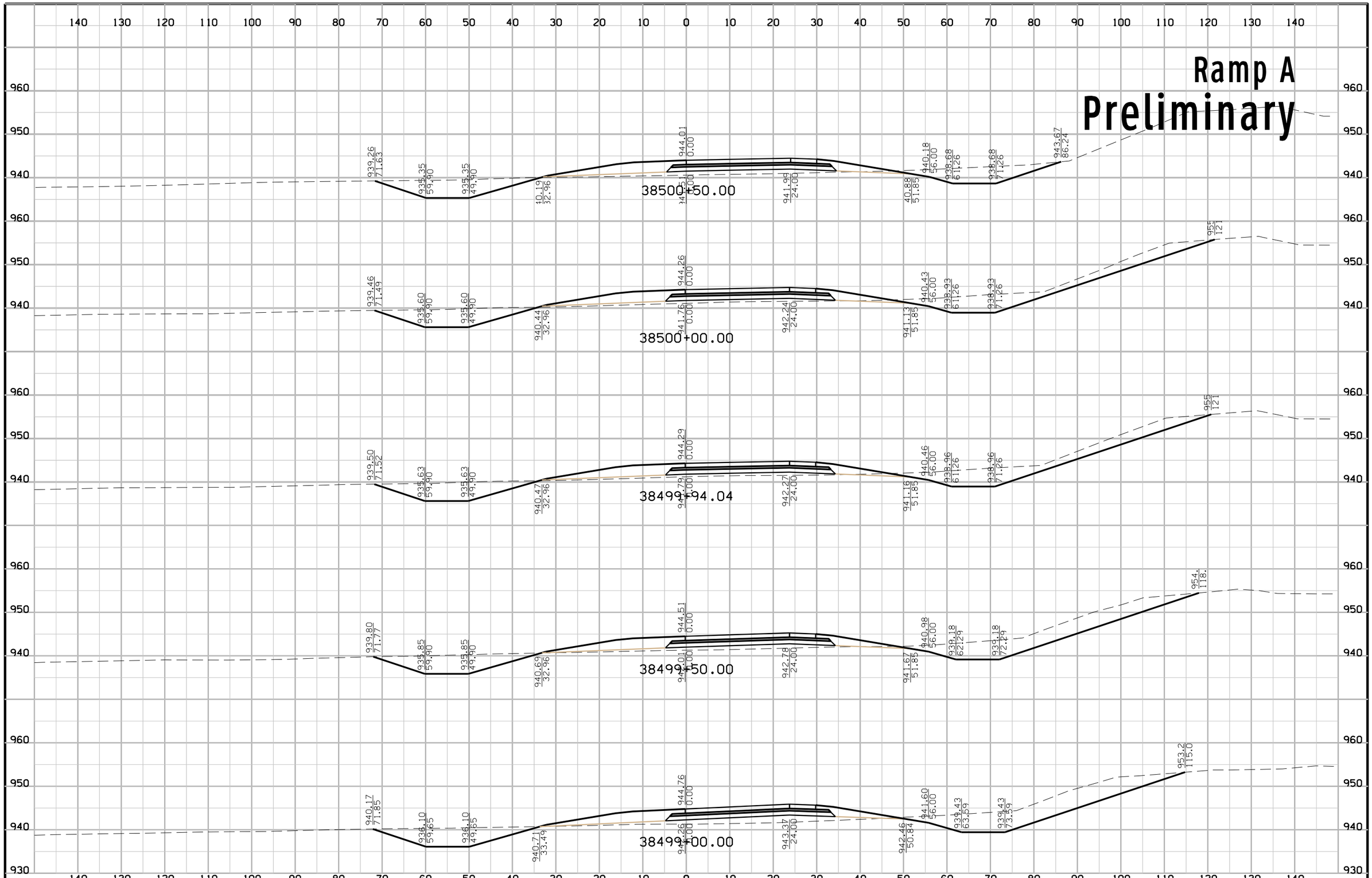
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.7

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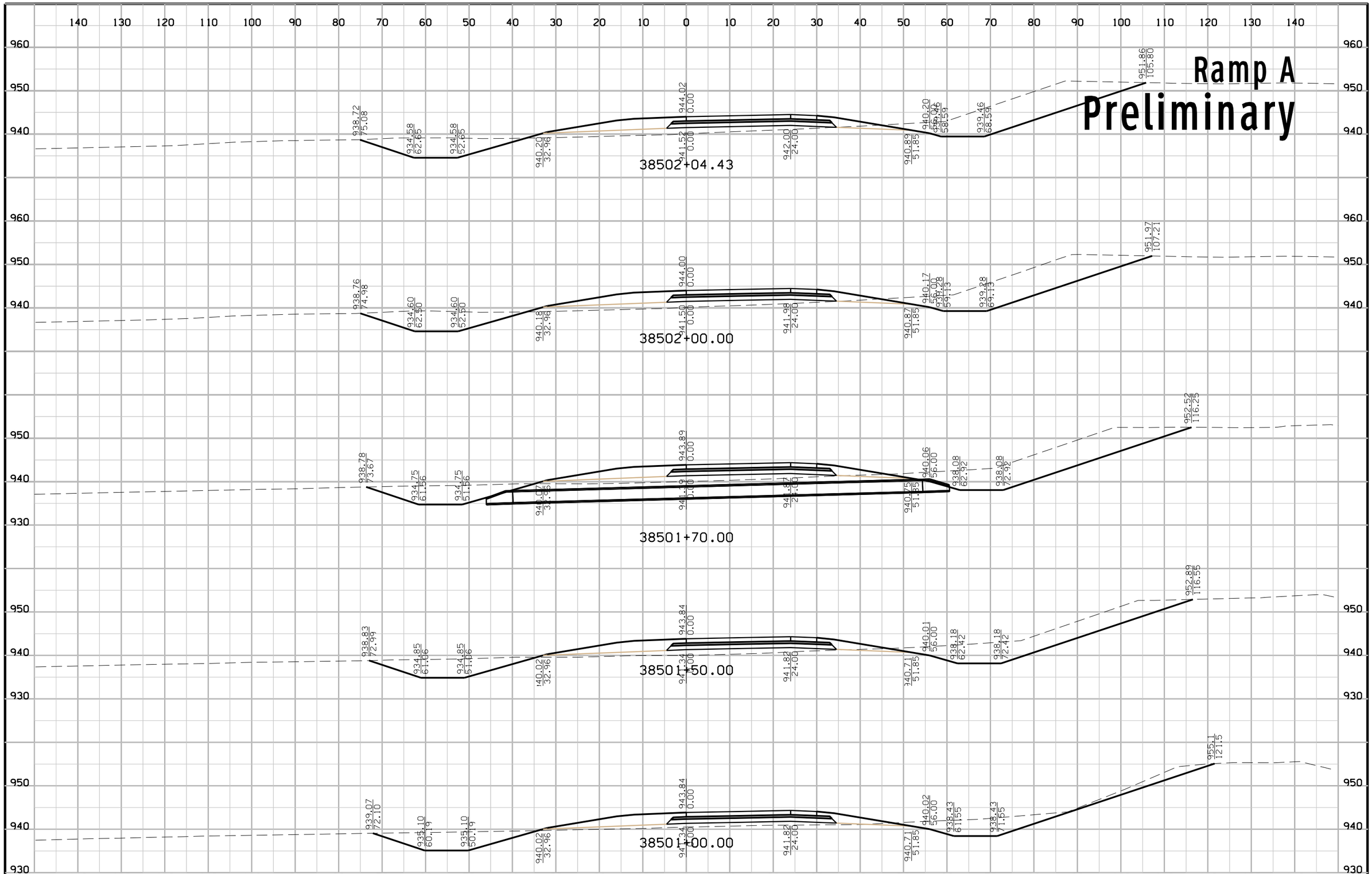
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.8

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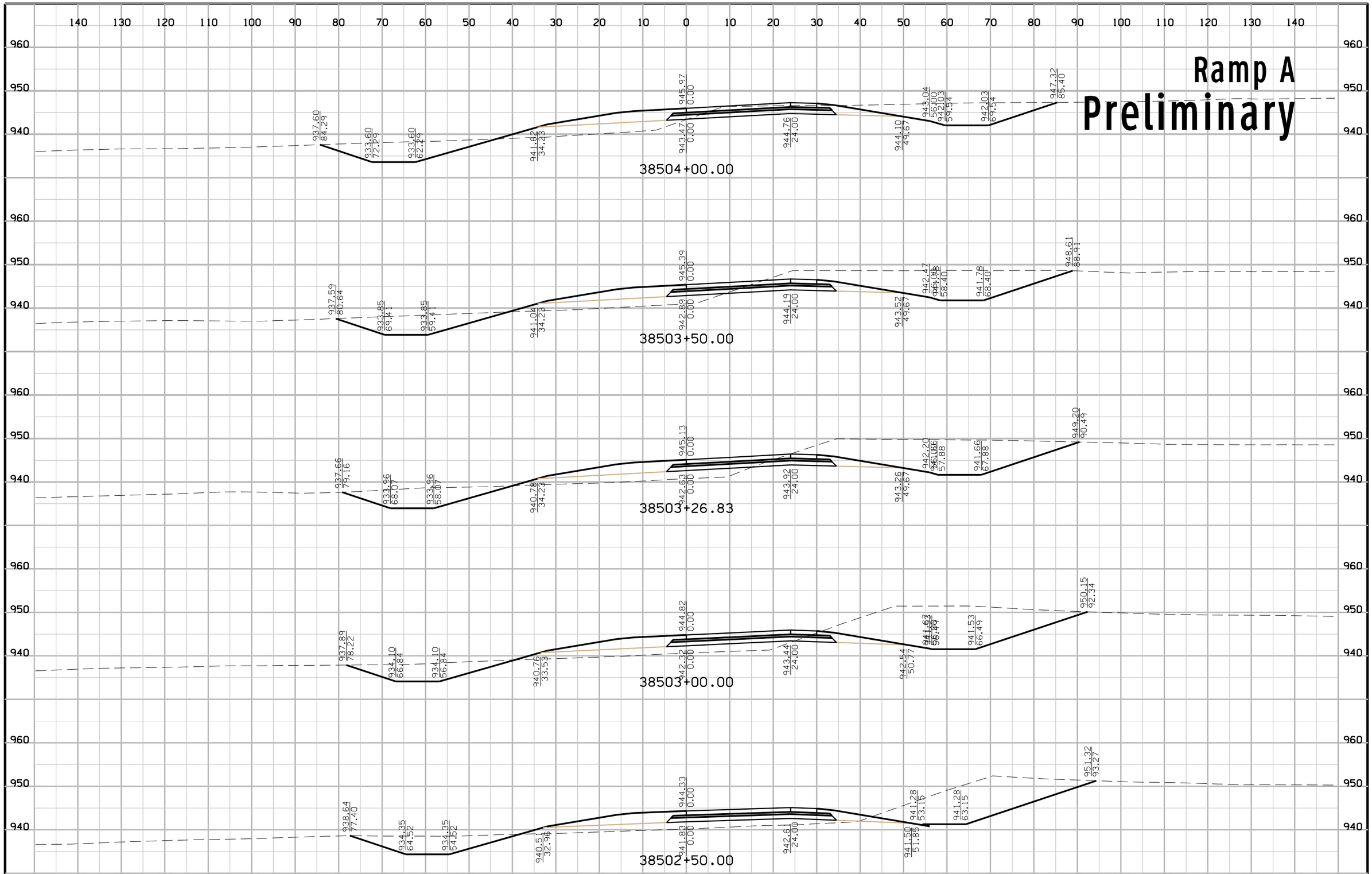
Ramp A

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.9

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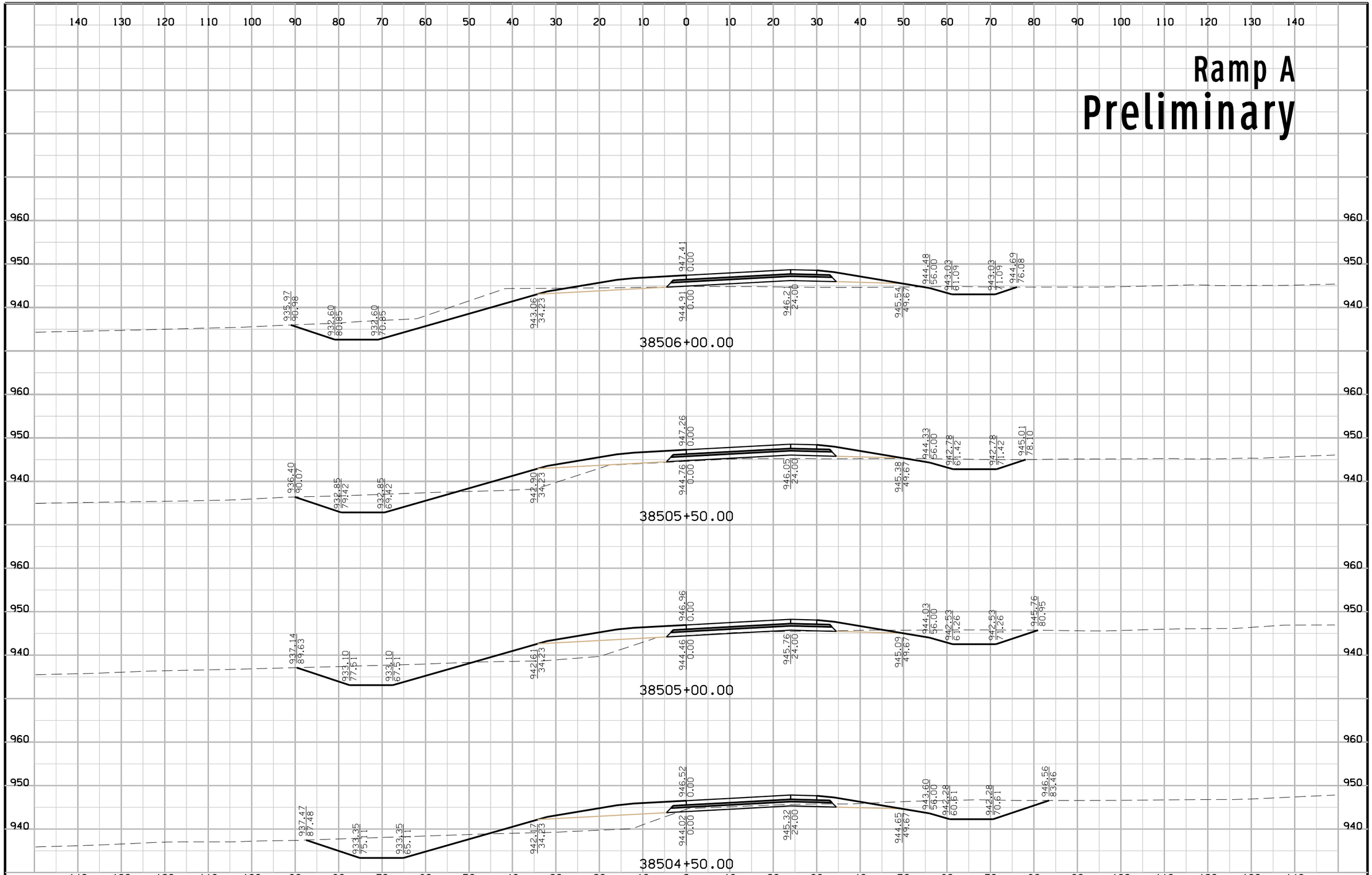
Ramp A
Preliminary



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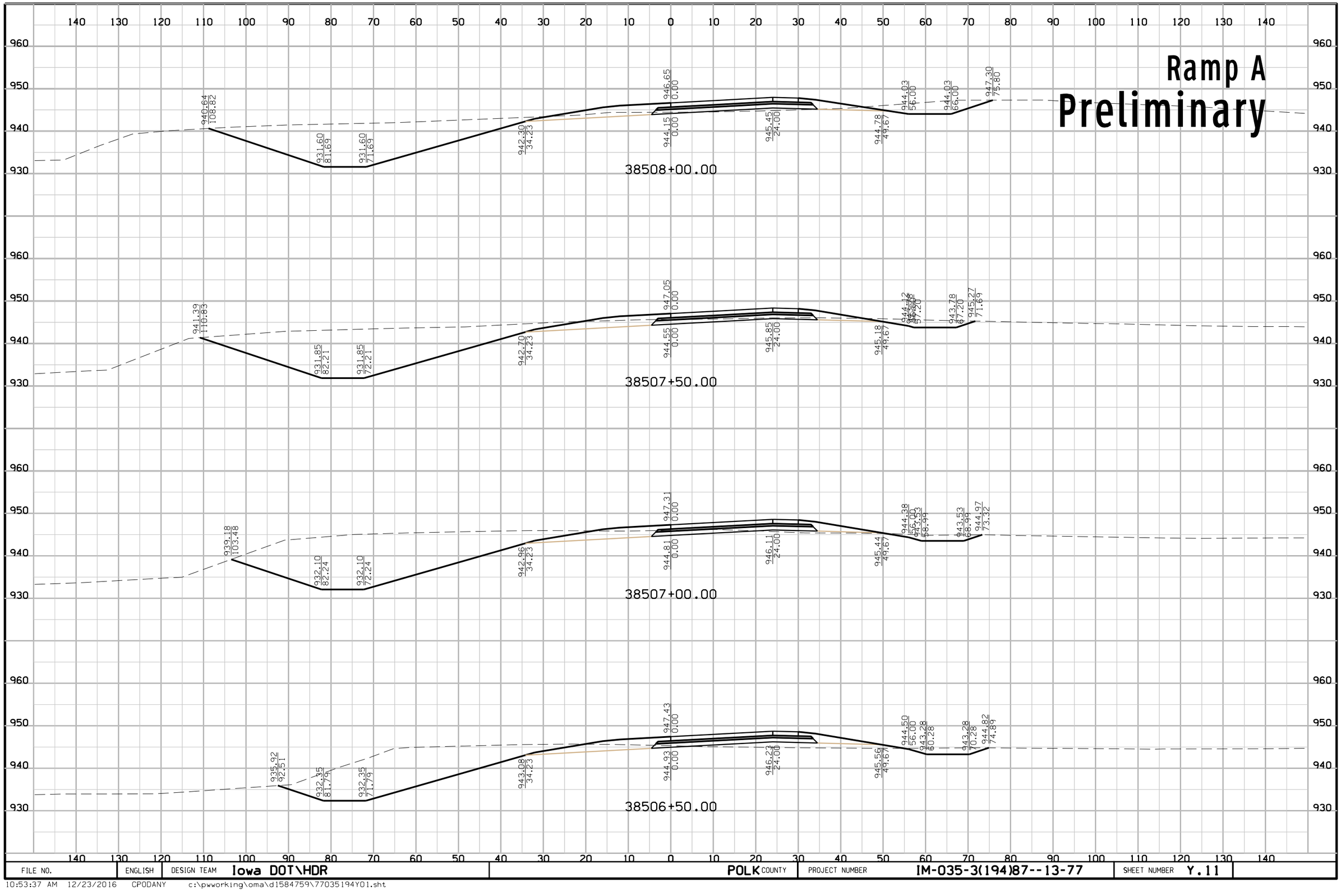
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.11

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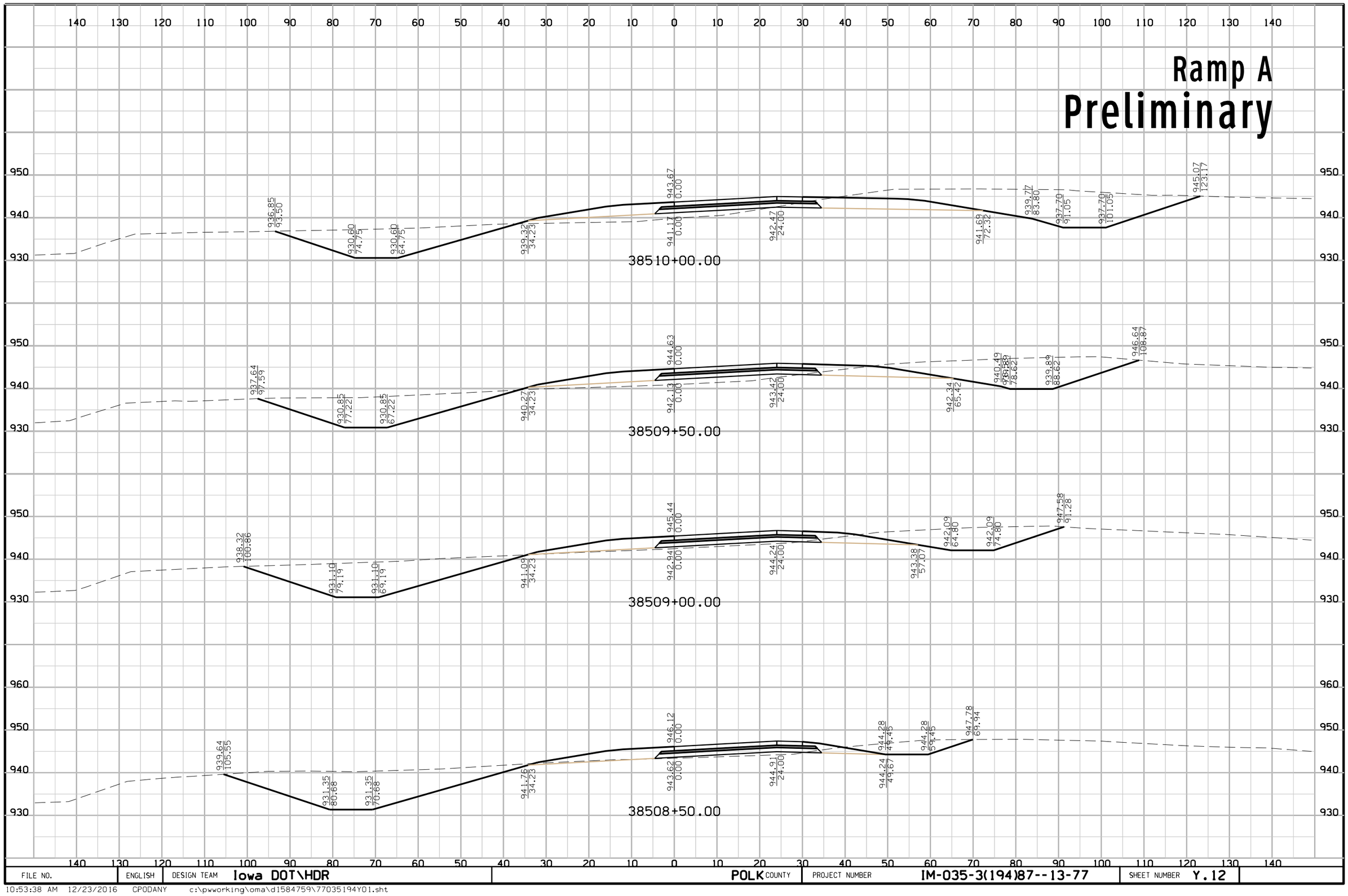
Ramp A
Preliminary



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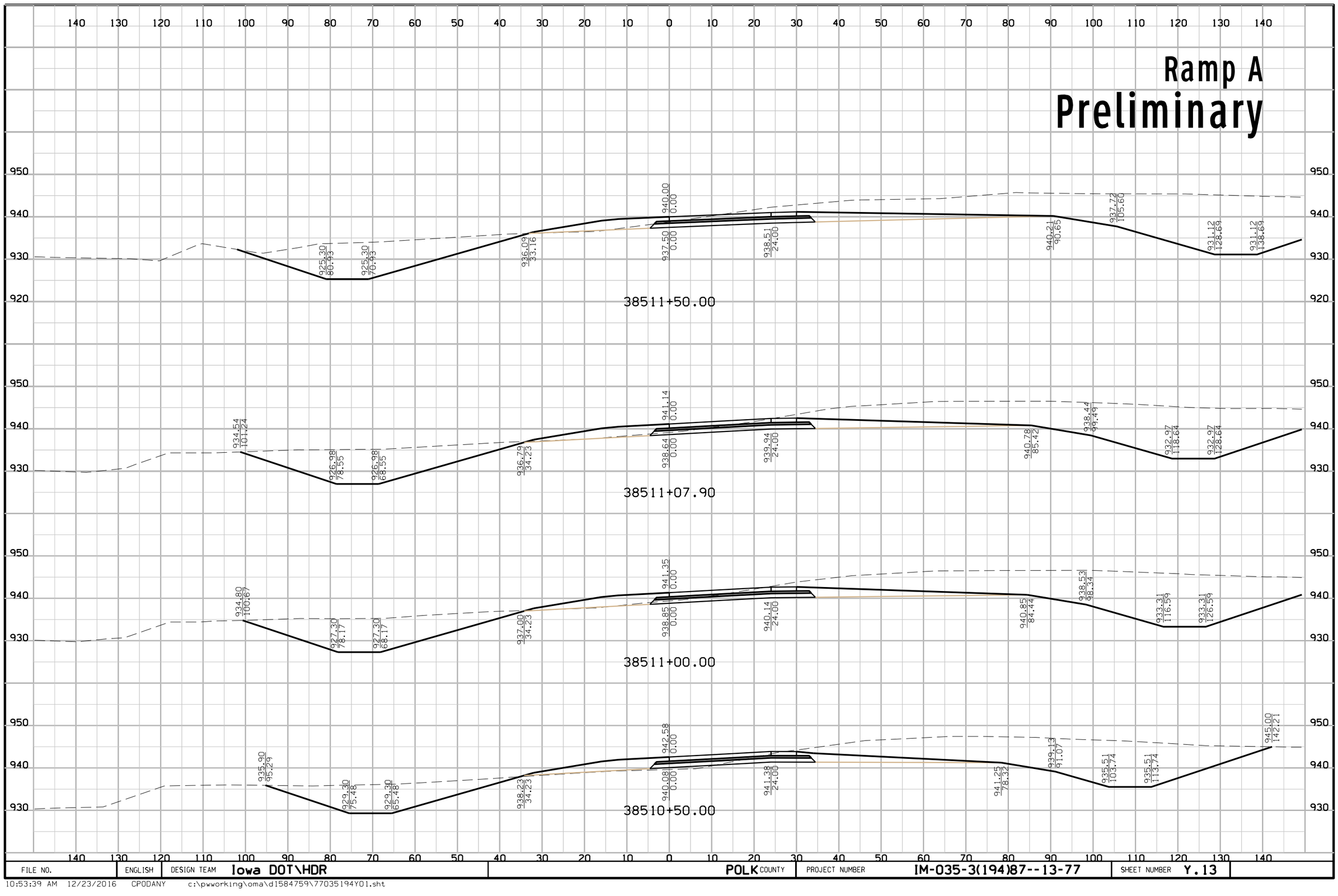
Ramp A
Preliminary



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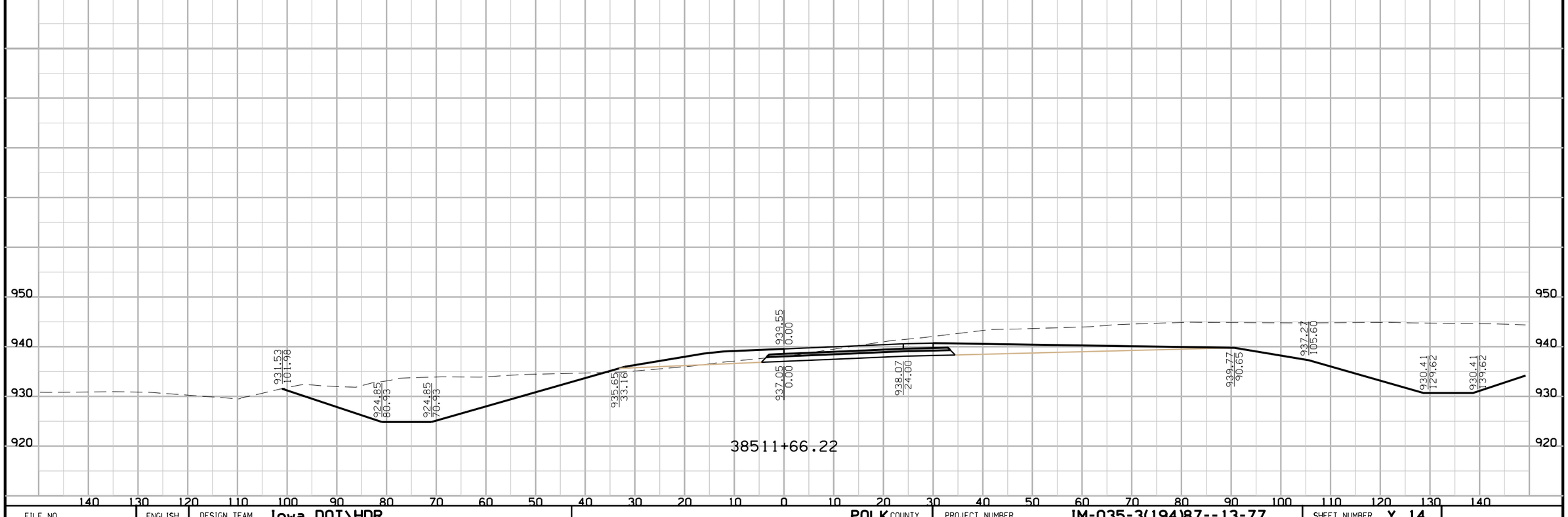
Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.14

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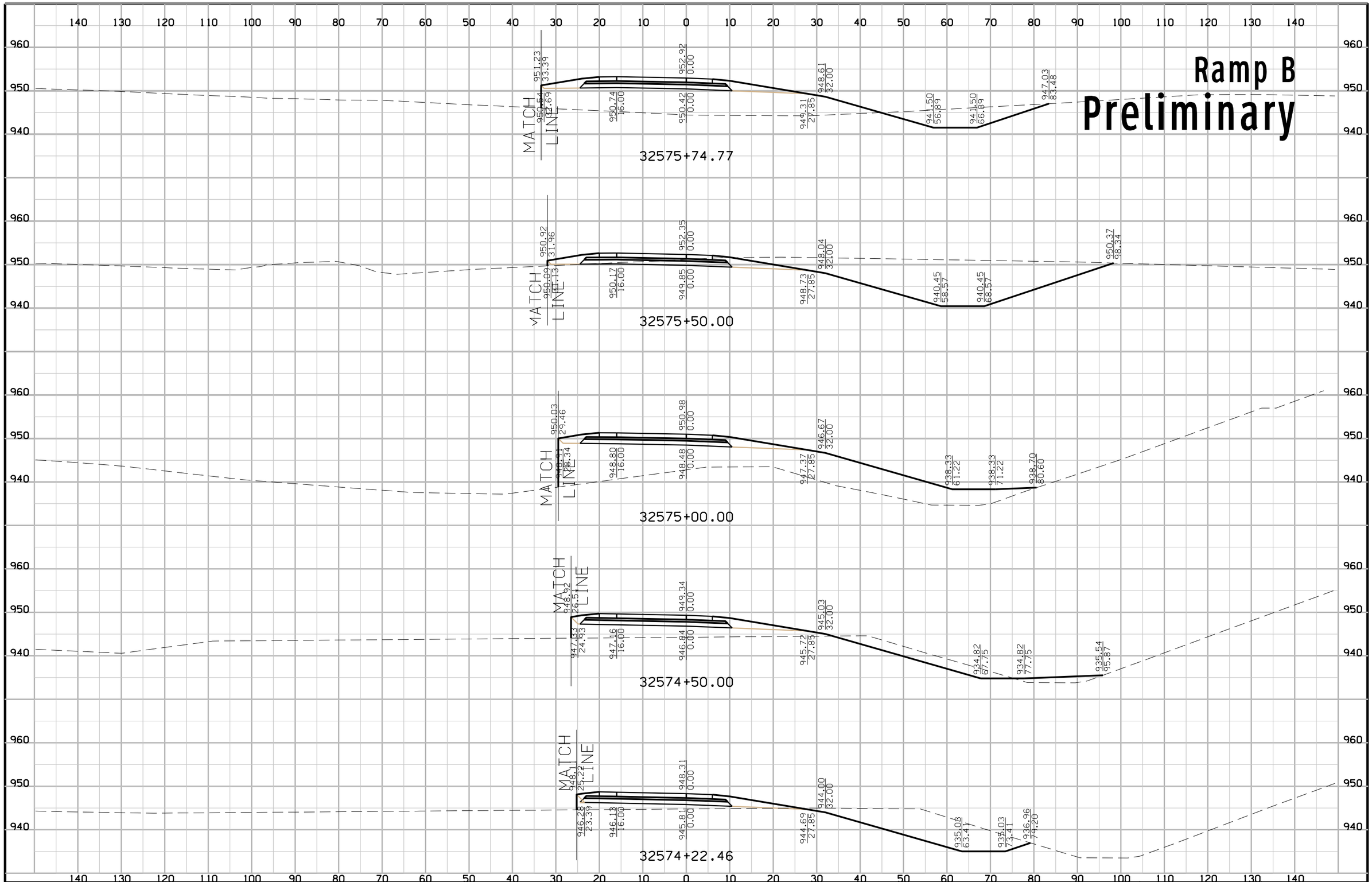
Ramp B

Preliminary



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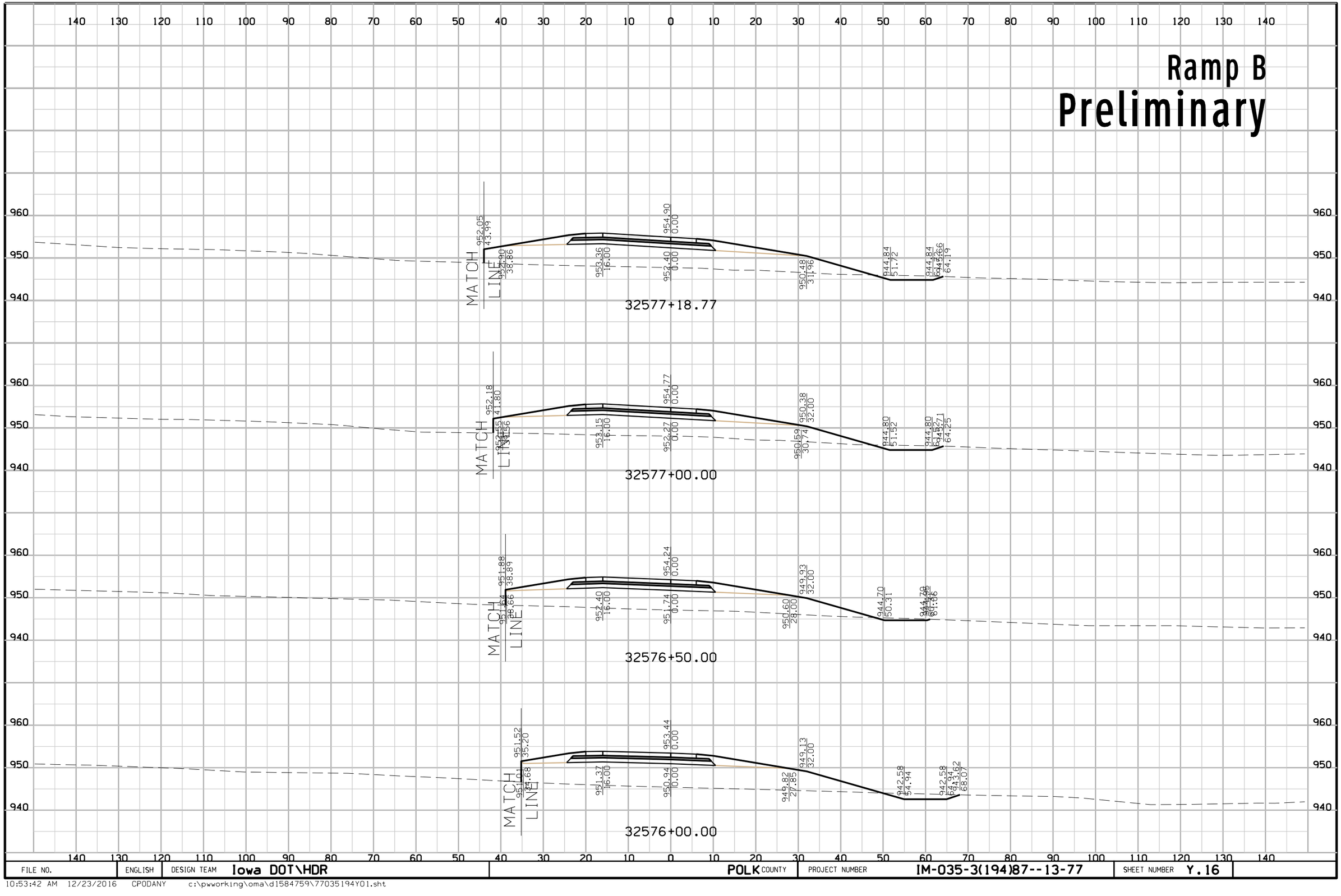
Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.16

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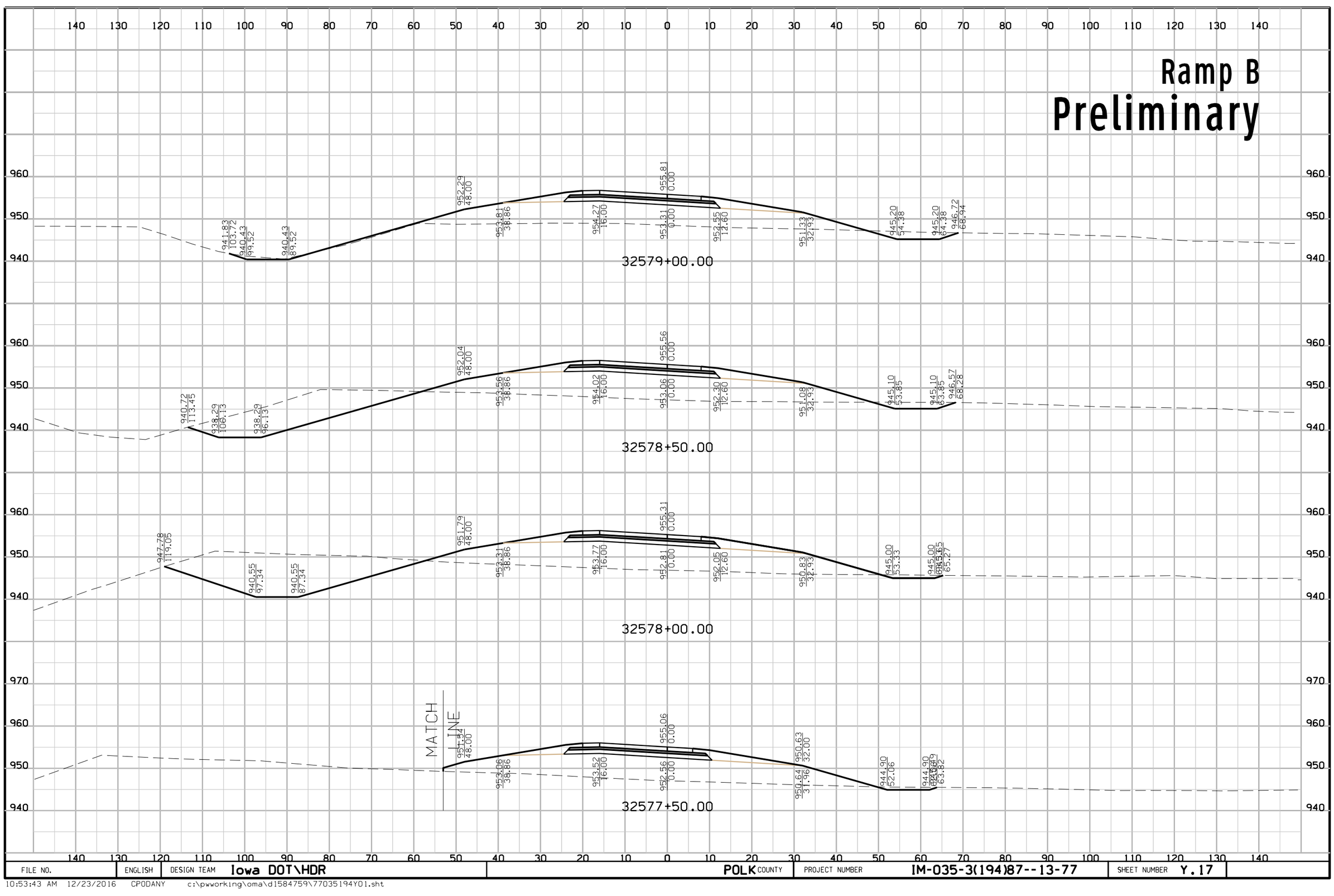
Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.17

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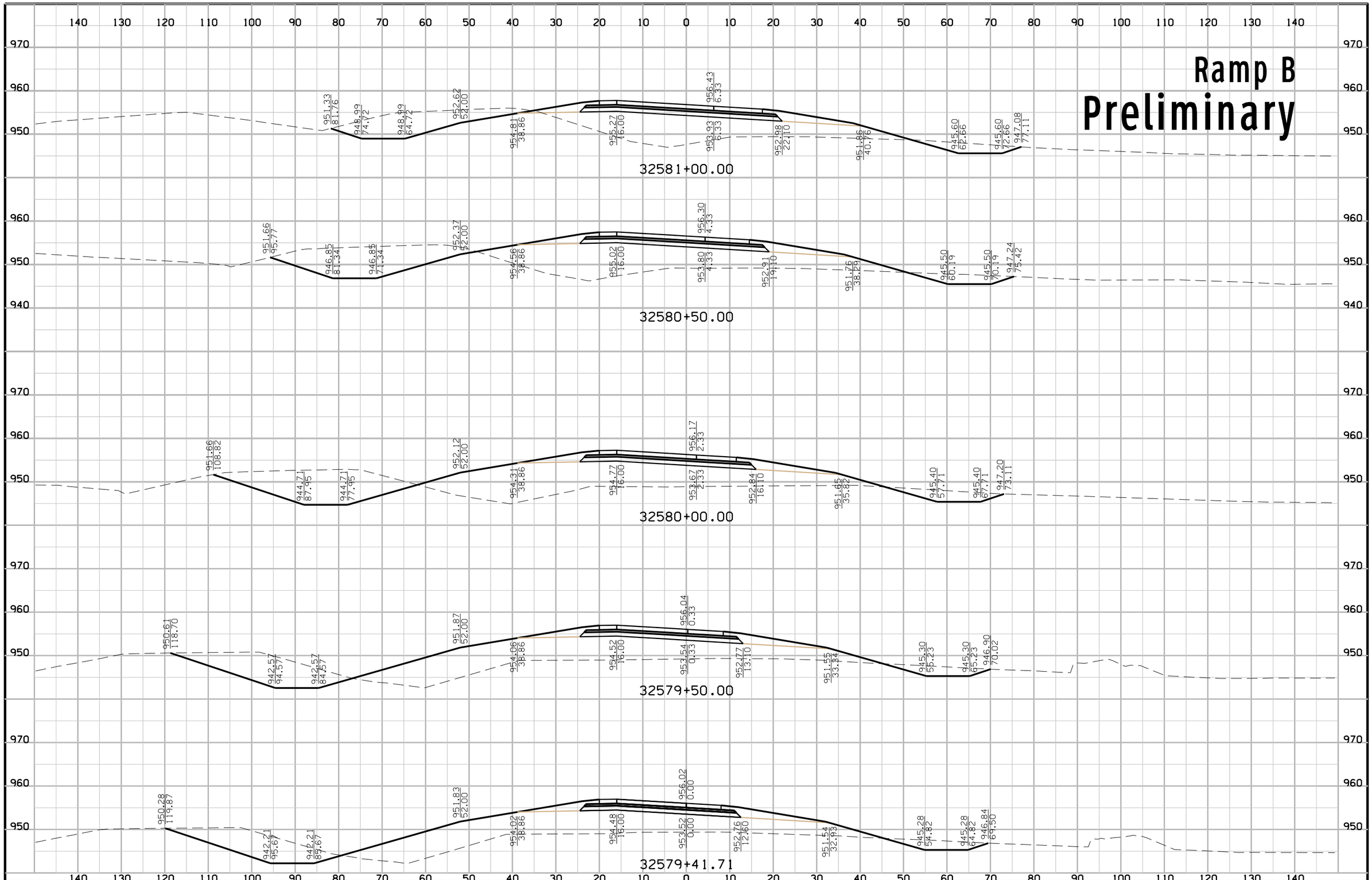
Ramp B
Preliminary



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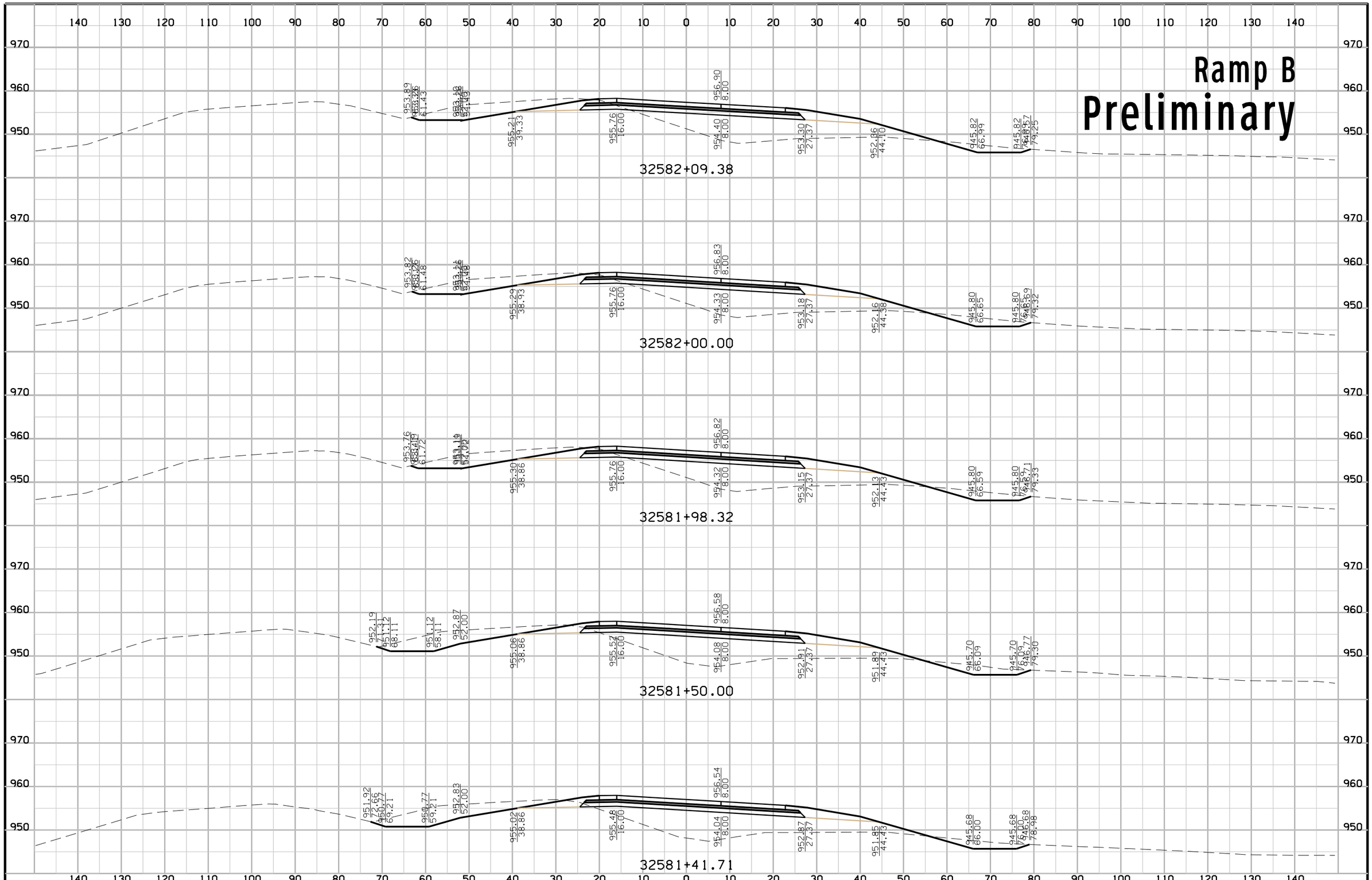
Ramp B
Preliminary



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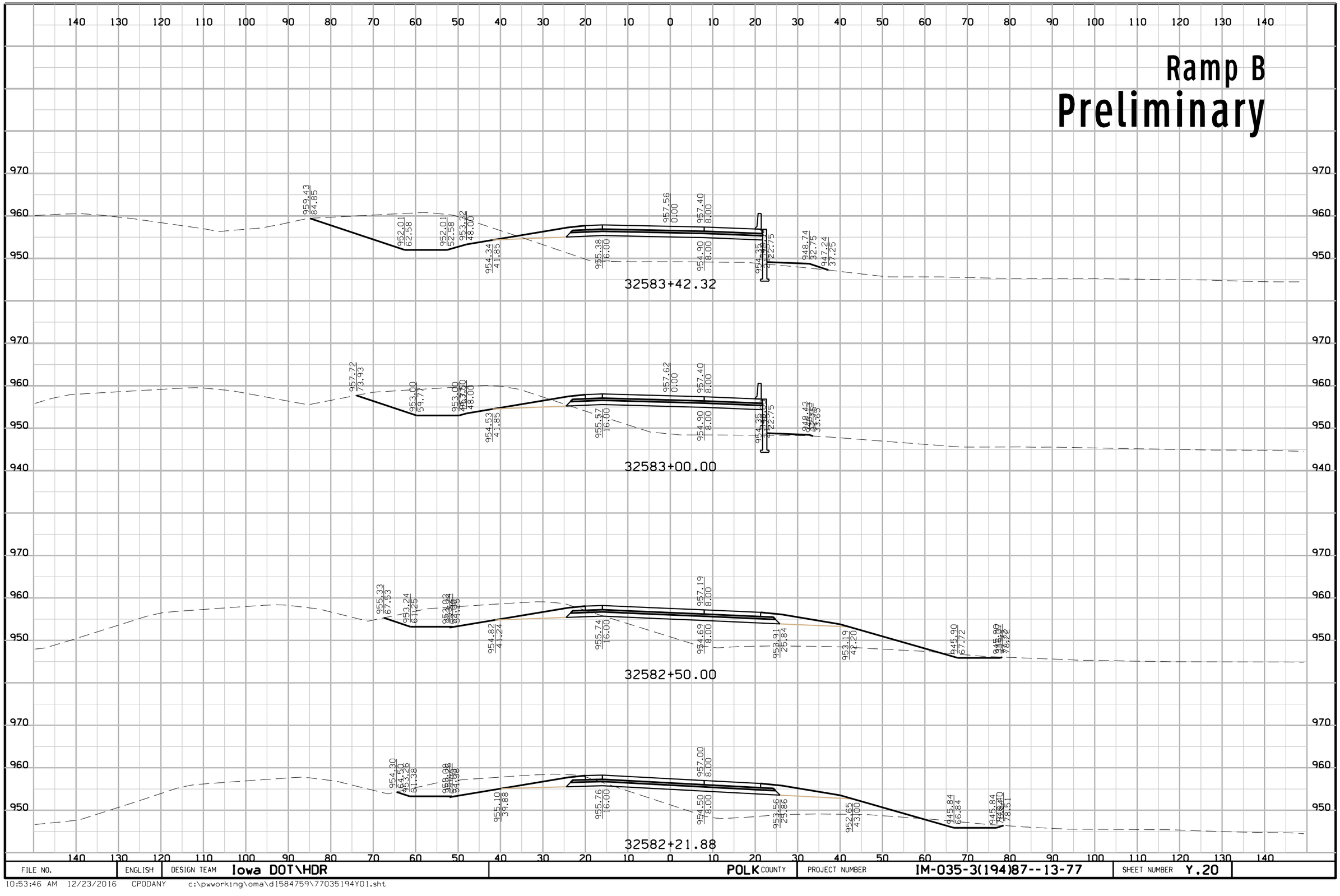
Ramp B
Preliminary



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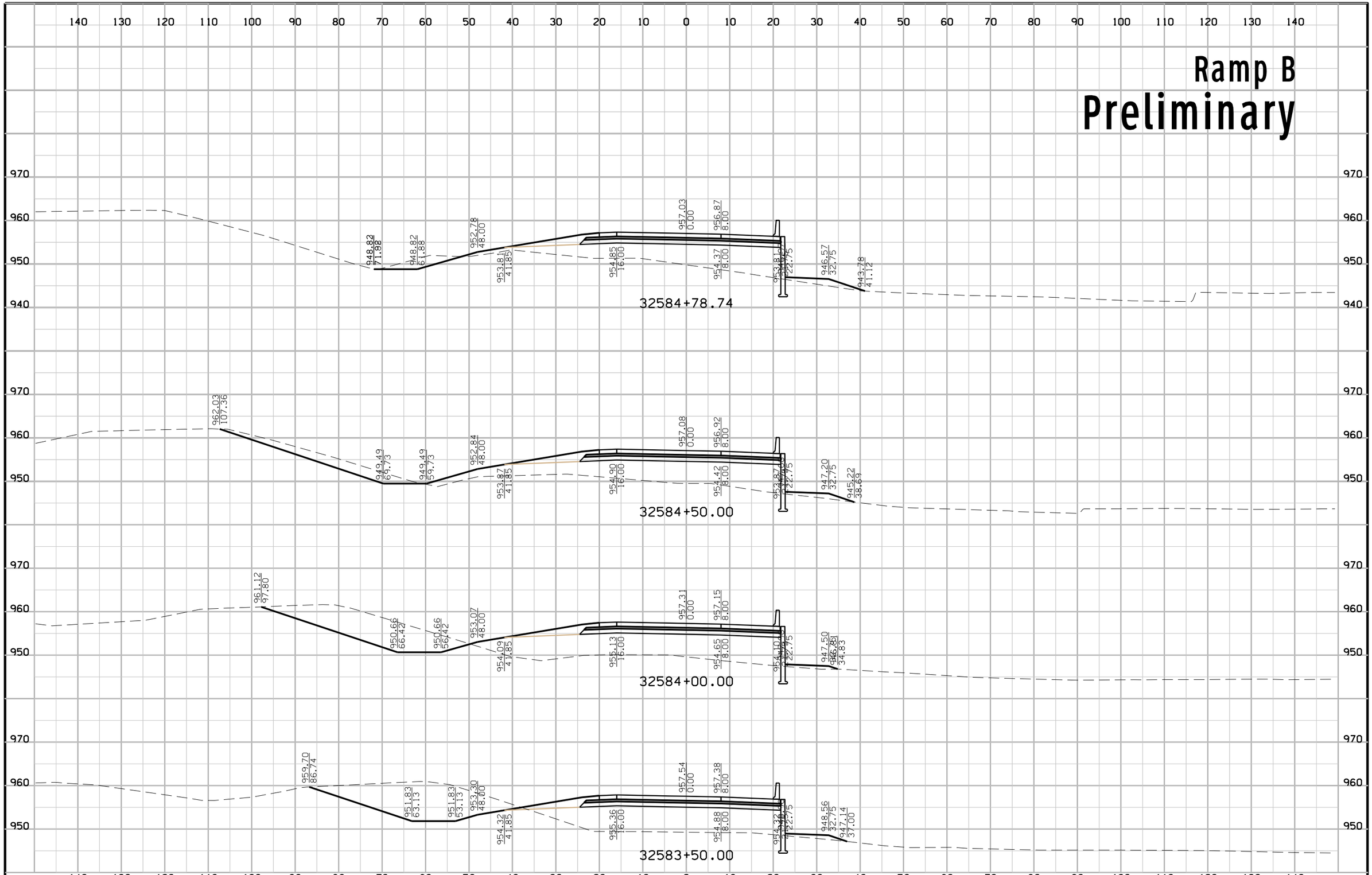
Ramp B
Preliminary



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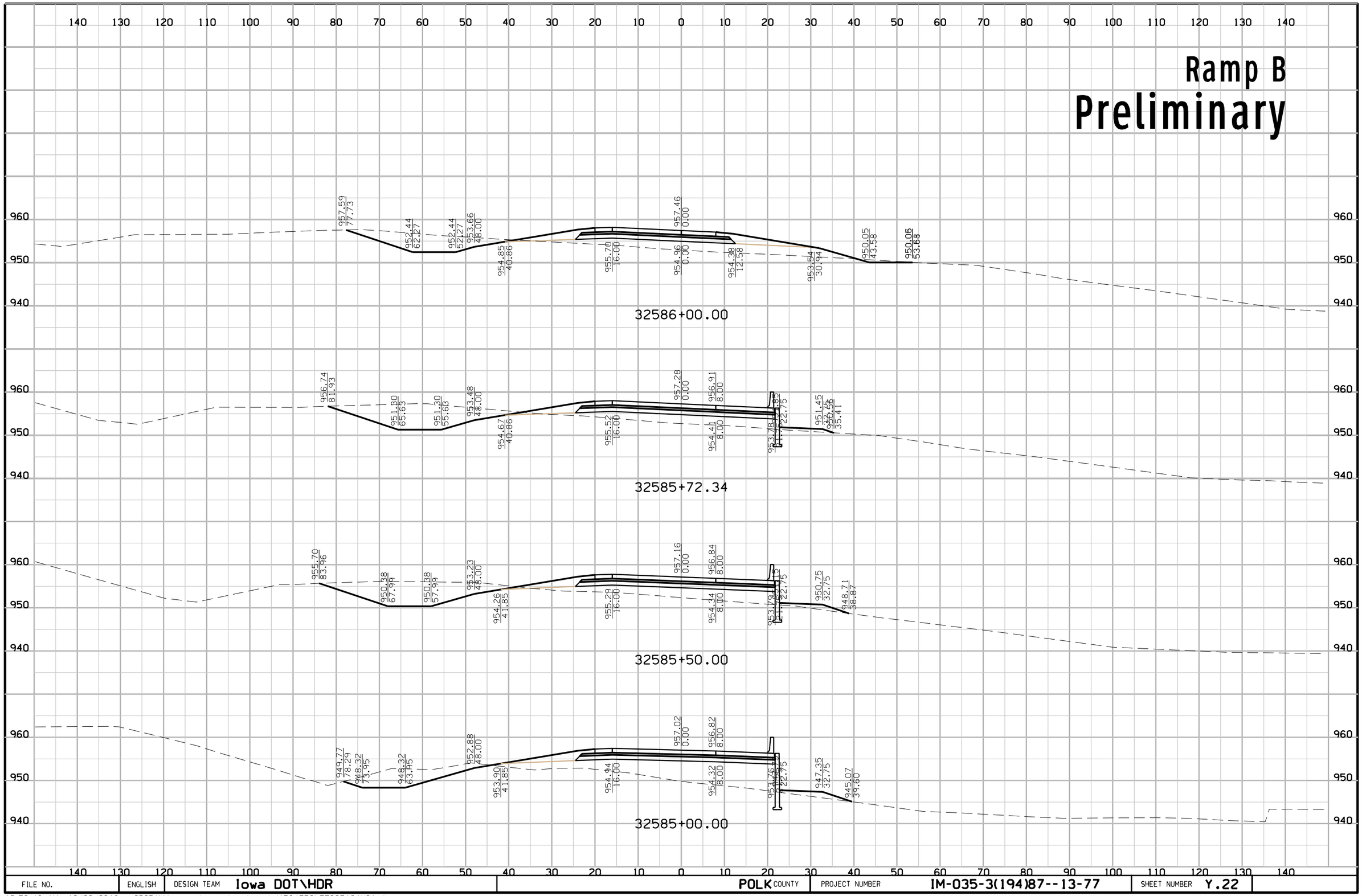
Ramp B
Preliminary



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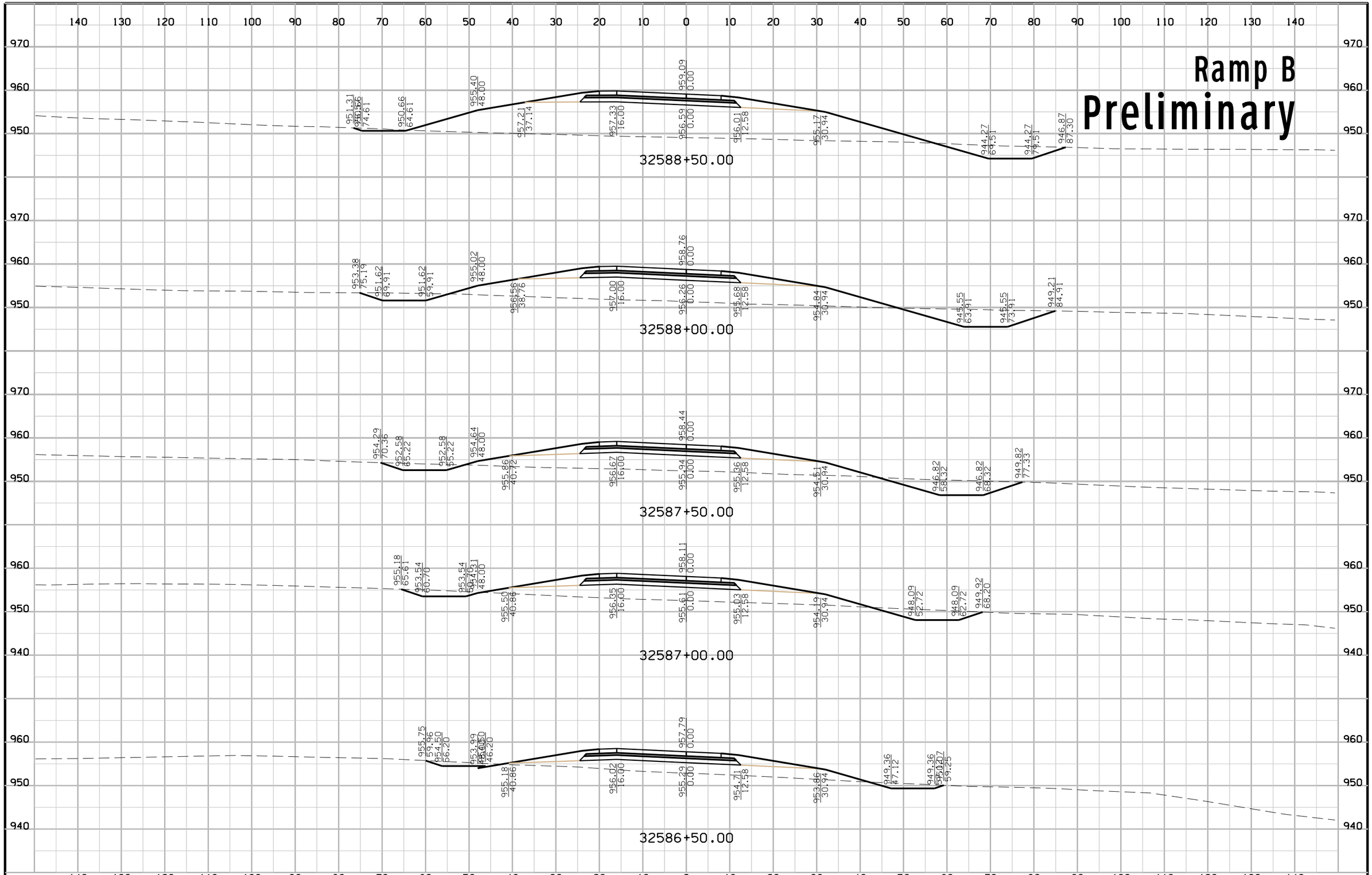
Ramp B

Preliminary



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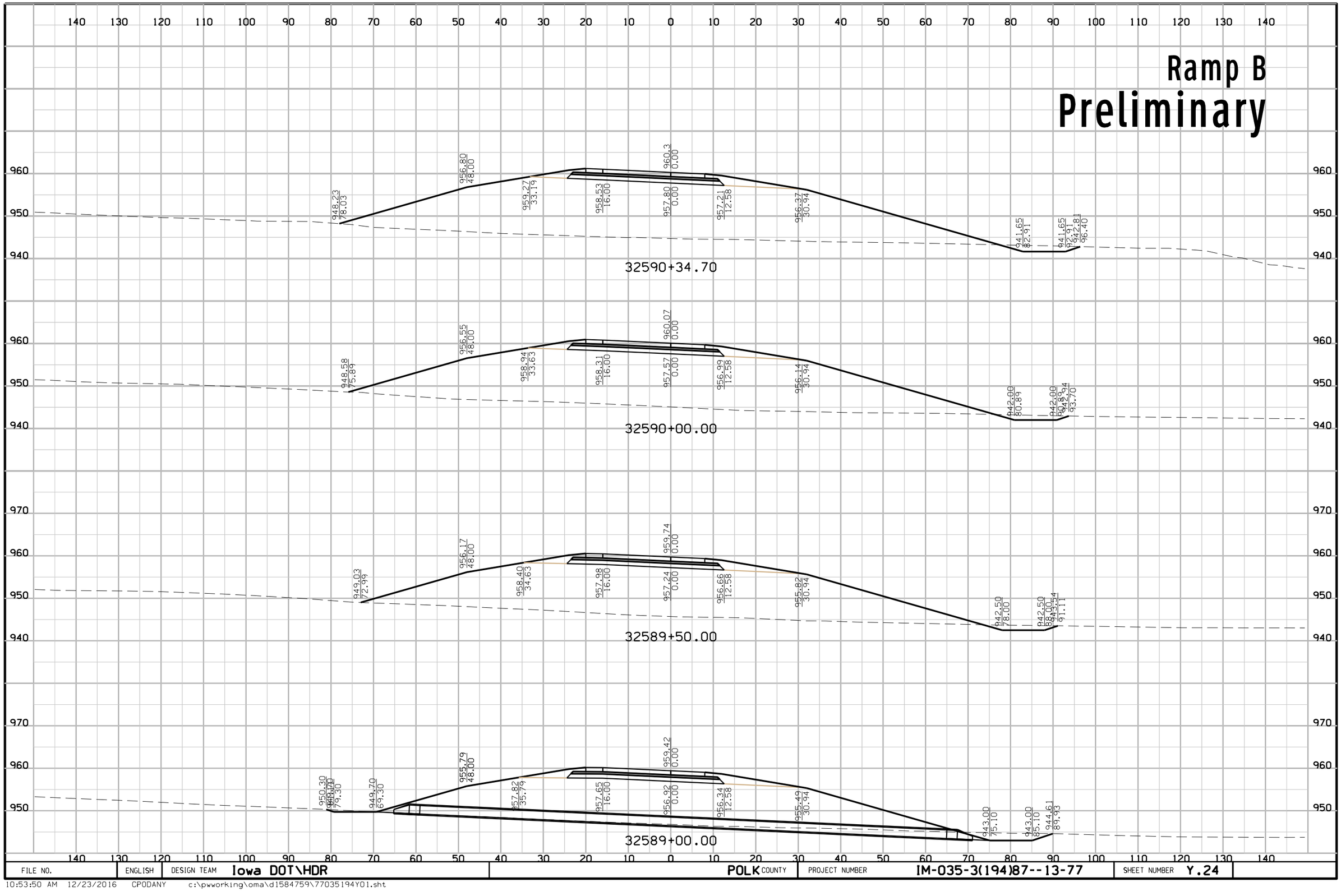
Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.24

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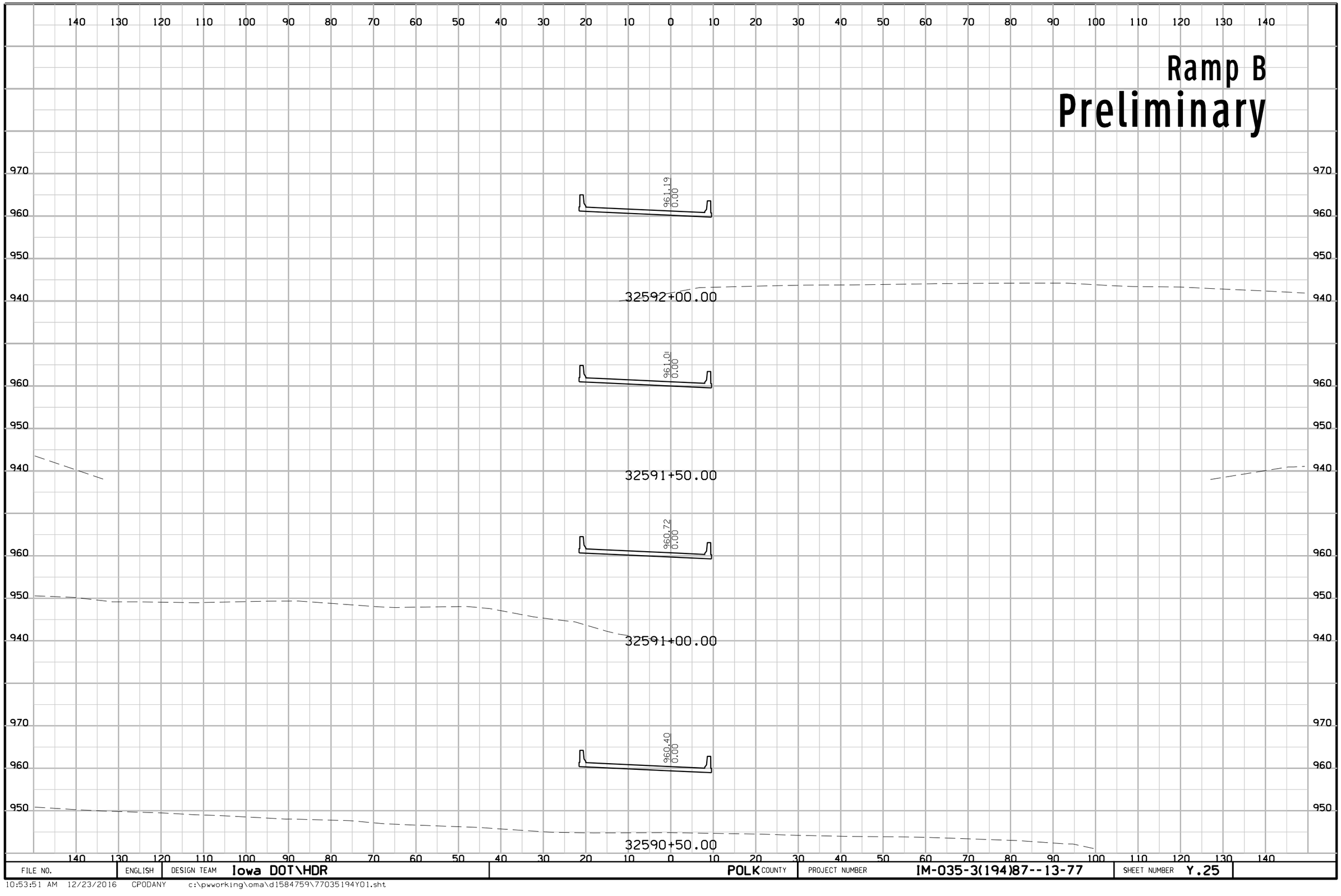
Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.25

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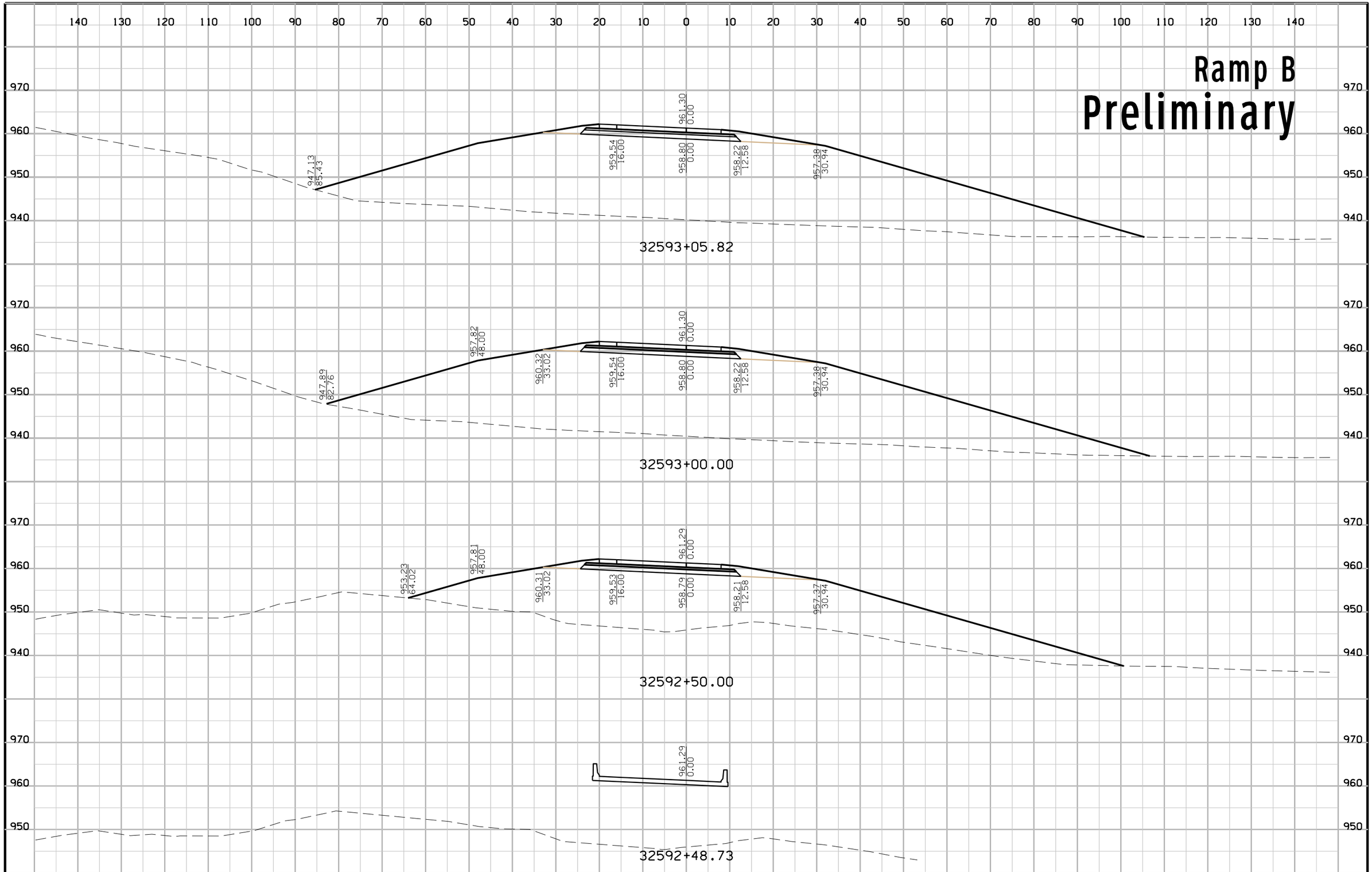
Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.26

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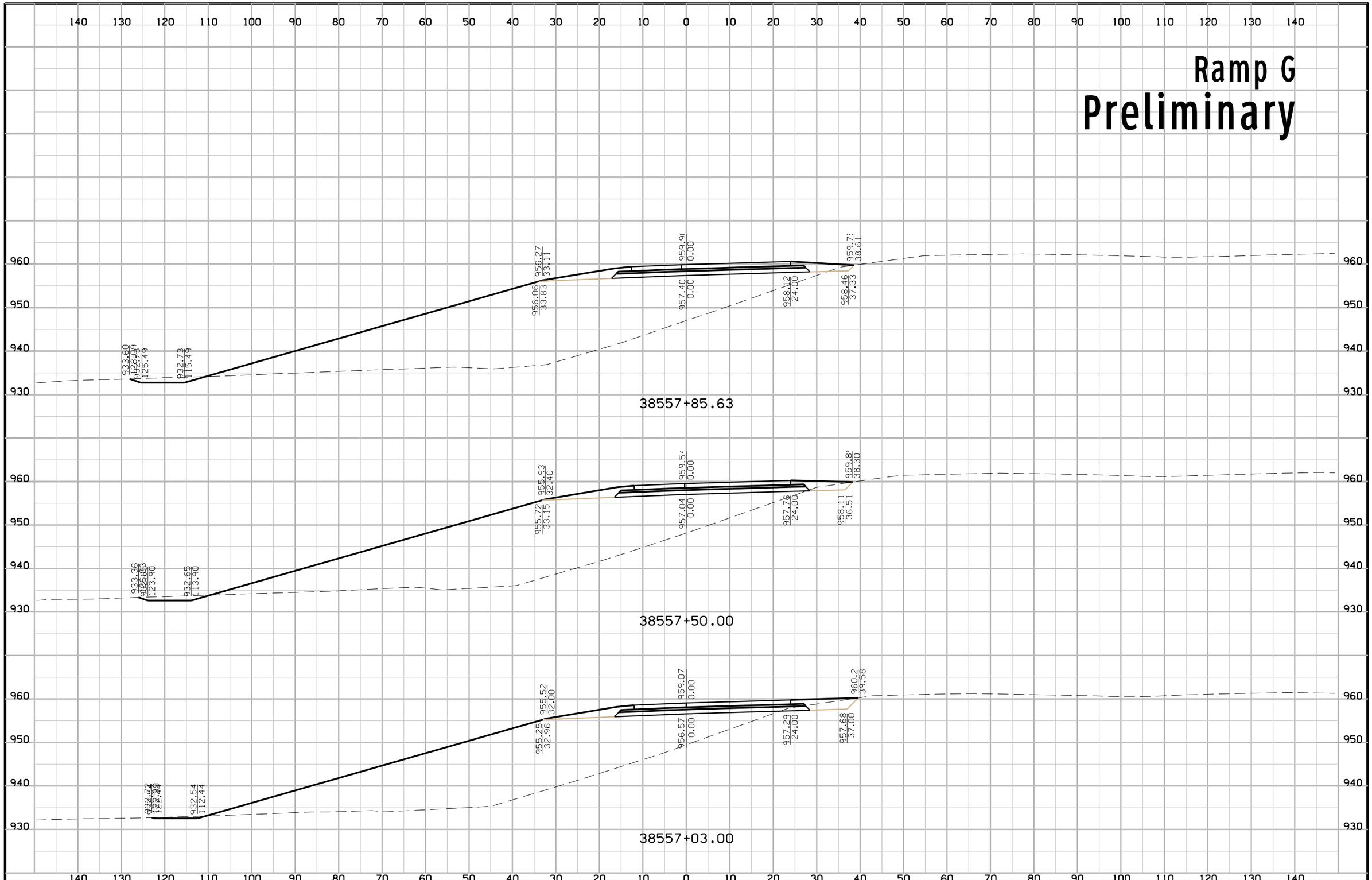
Ramp G

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.27

10:53:53 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

960 950 940 930

933.85 931.37 926.37 128.47 932.88 118.47 956.90 34.40 956.79 34.78 960. 0.00 958.02 0.00 958.50 24.00 959.2 42.86 958.87 42.48

38558+50.00

960 950 940 930

933.78 931.30 926.30 127.12 932.82 117.12 956.61 33.83 956.41 34.55 960. 0.00 957.76 0.00 958.24 24.00 959.4 40.33 958.54 39.48

38558+21.63

960 950 940 930

933.69 931.22 926.22 126.14 932.77 116.14 956.41 33.40 956.20 34.12 960.(0.00 957.54 0.00 958.16 24.00 959.5 39.0(958.52 37.96

38558+00.00

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.28

10:53:54 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

Preliminary

38559+50.00

38559+09.04

934.58
115.68

957.46
35.58

957.75
33.84

960
0.0

958.43
0.00

958.91
24.00

959.33
44.82

957.46
56.00

953.95
68.30

38559+09.03

933.63
130.77

933.00
120.77

957.39
35.40

957.62
34.00

960
0.0

958.38
0.00

958.86
24.00

959.27
44.82

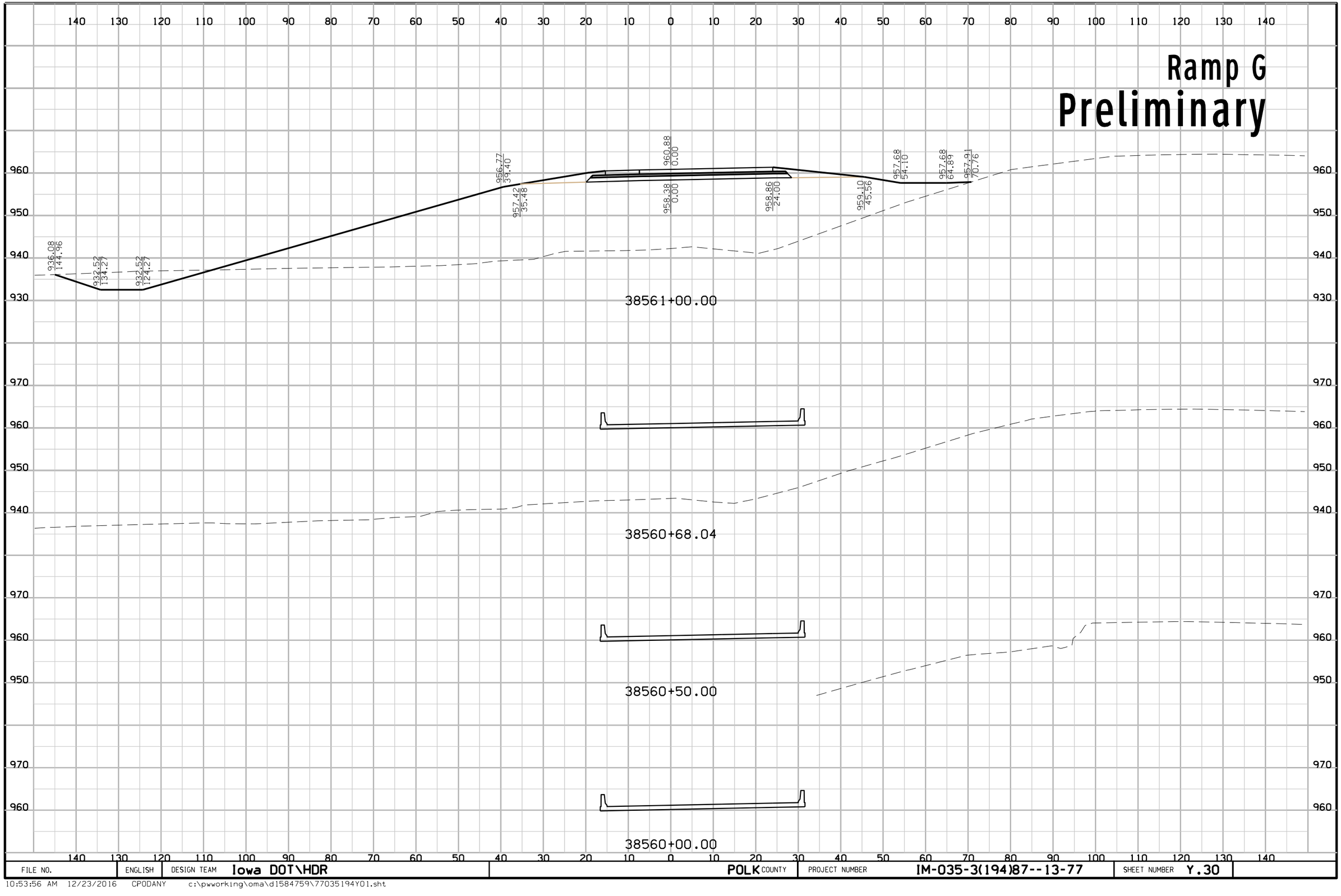
956.75
54.96

38559+00.00

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.29

10:53:55 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.30

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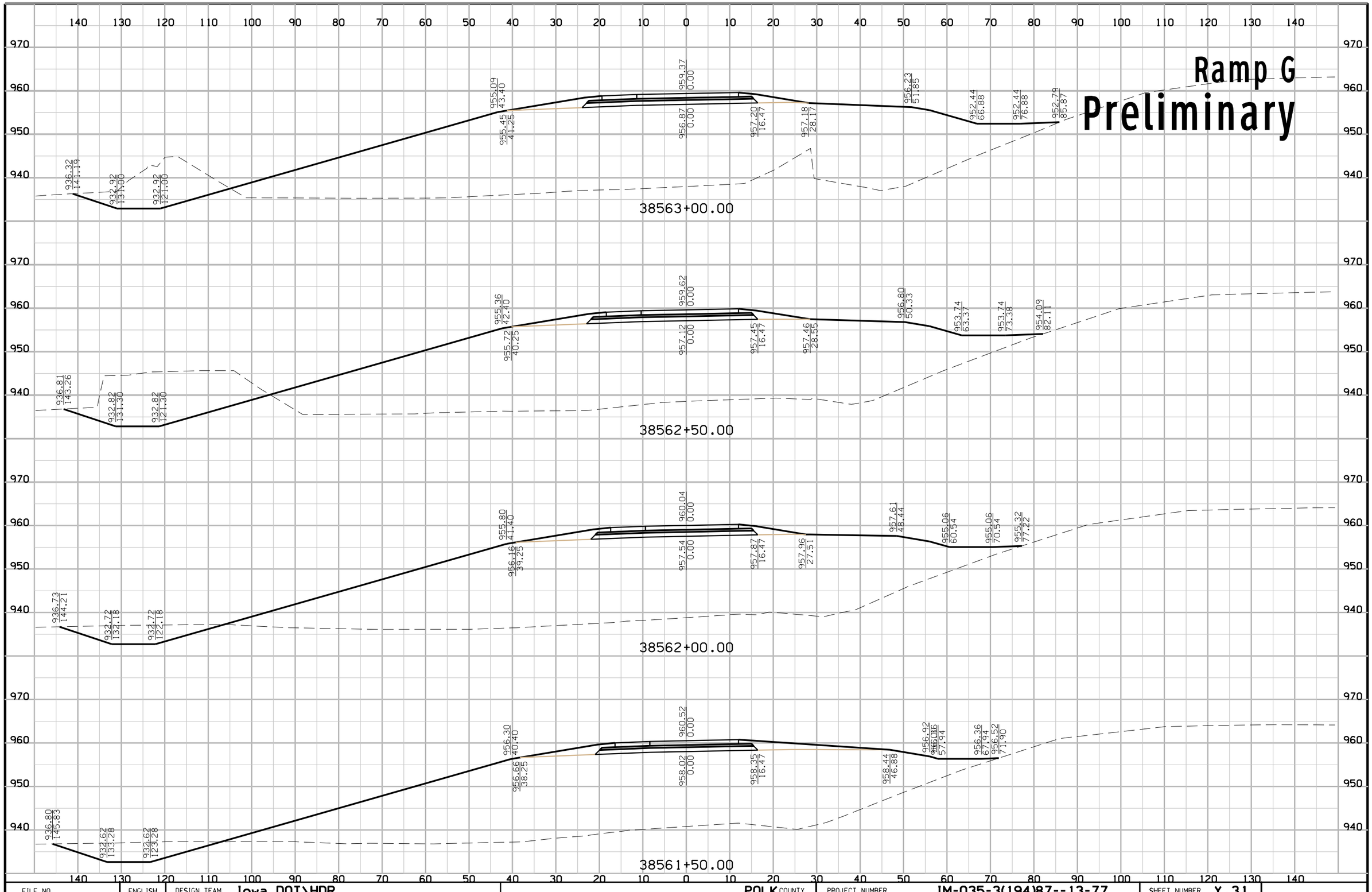
Ramp G

Preliminary

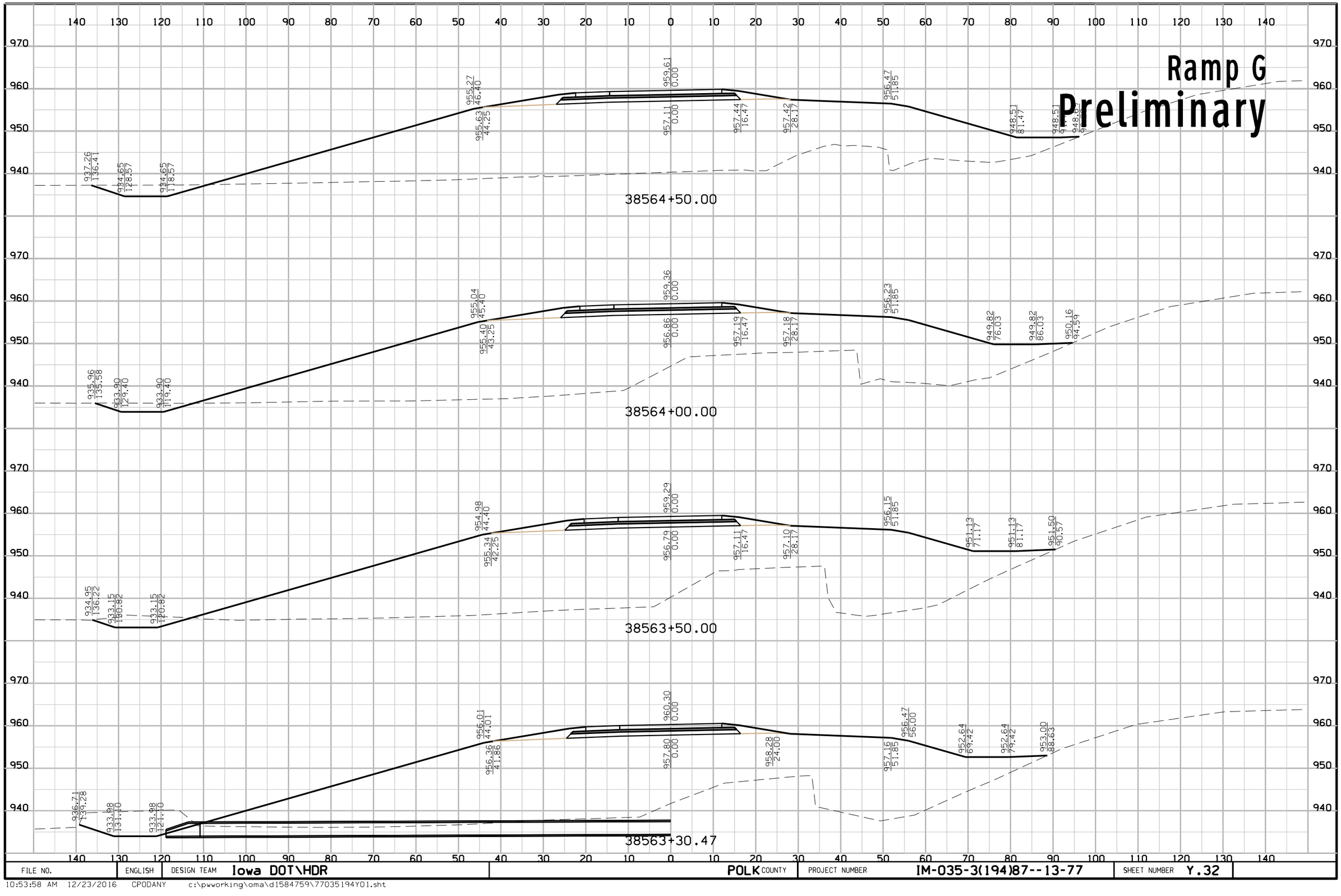


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.31

10:53:57 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

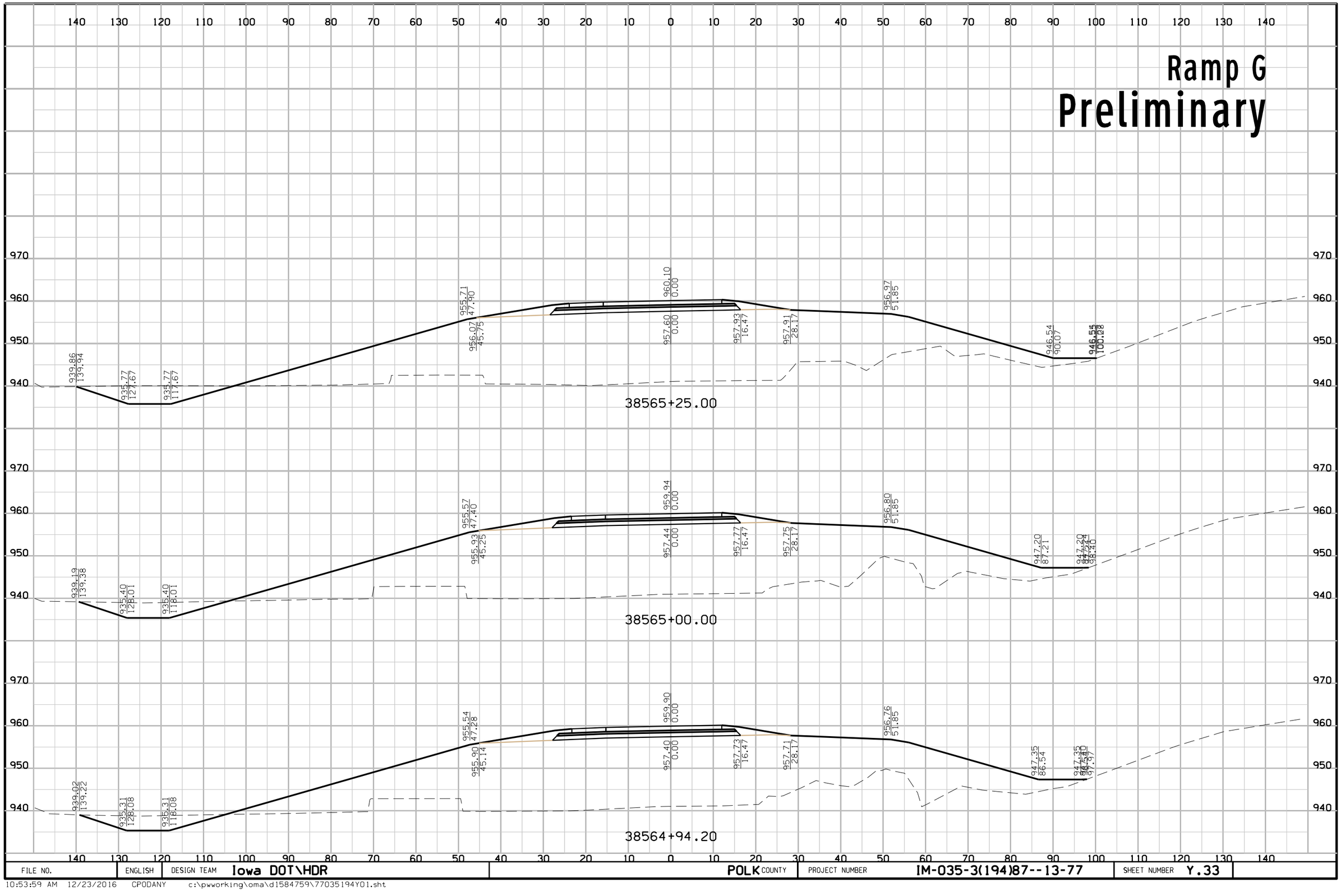
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.32

10:53:58 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

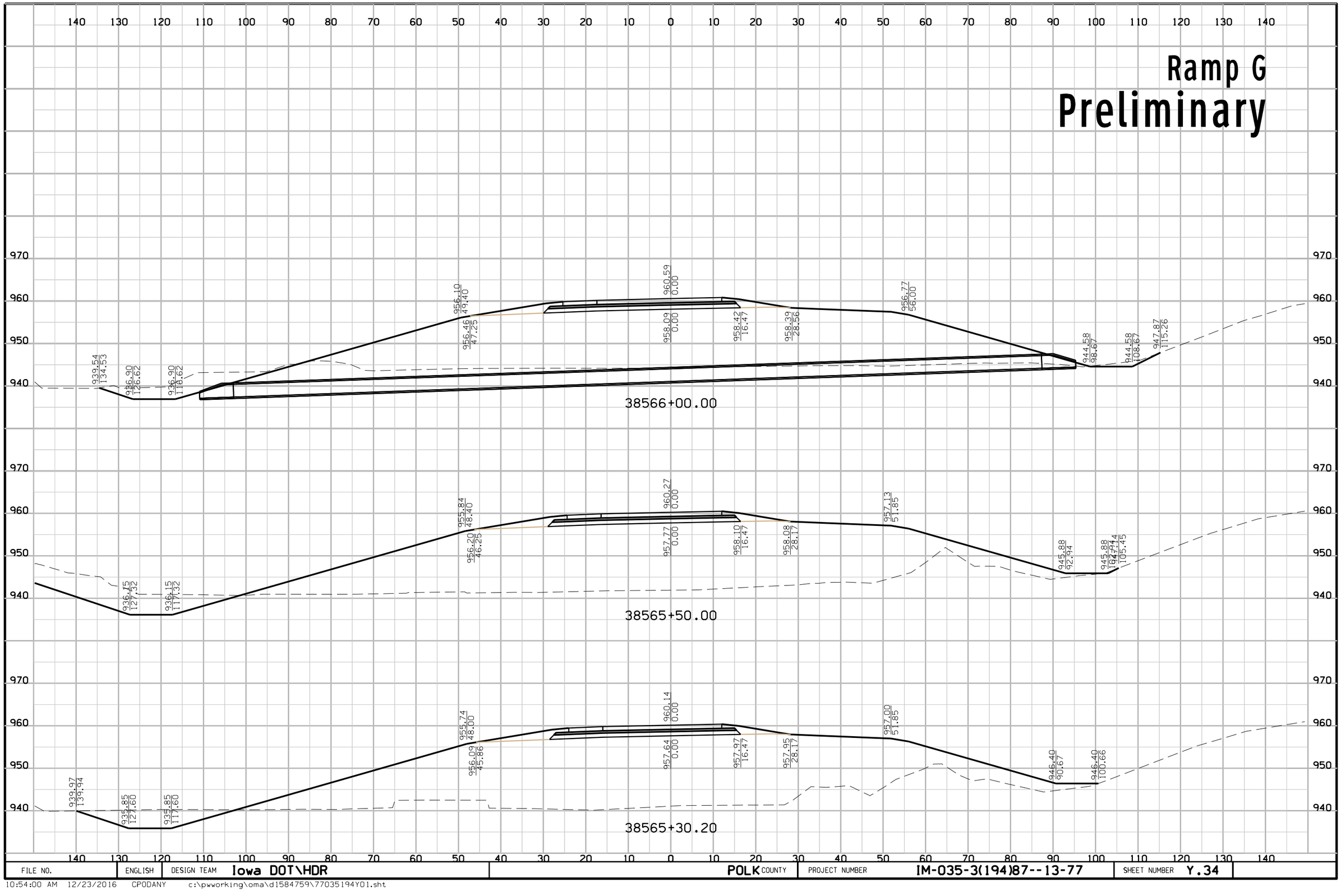
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.33

10:53:59 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

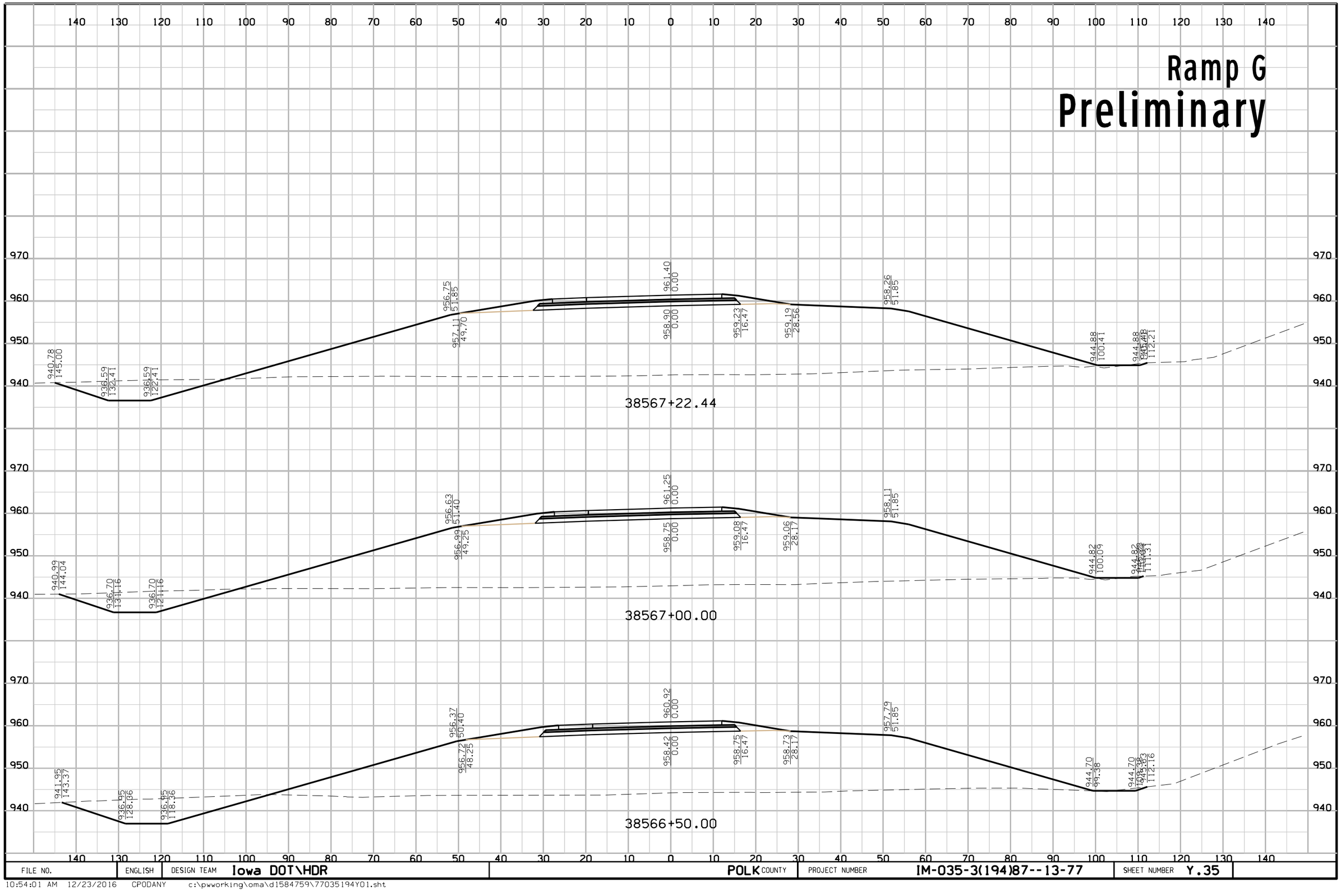
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.34

10:54:00 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G
Preliminary

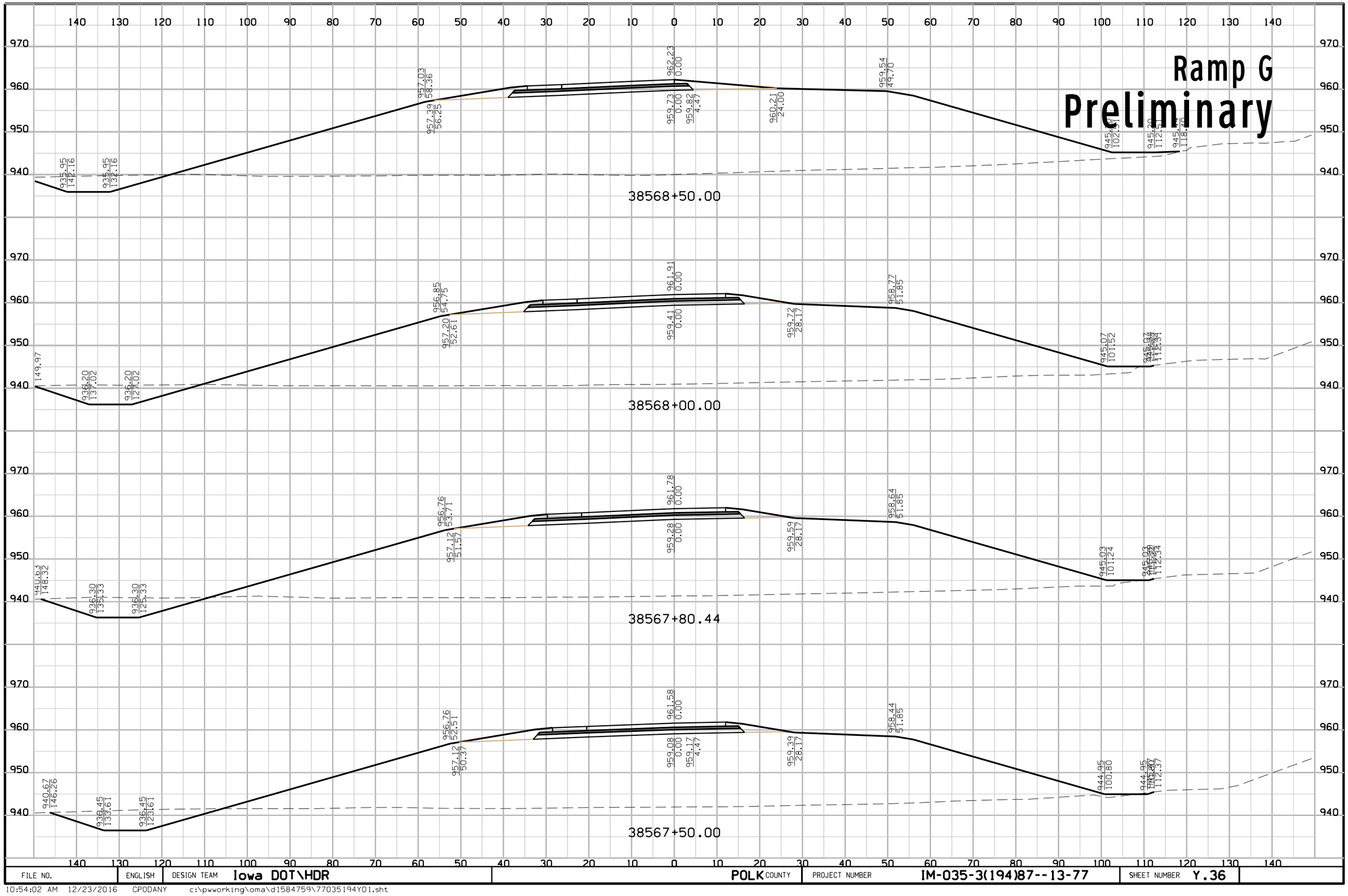


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.35

10:54:01 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

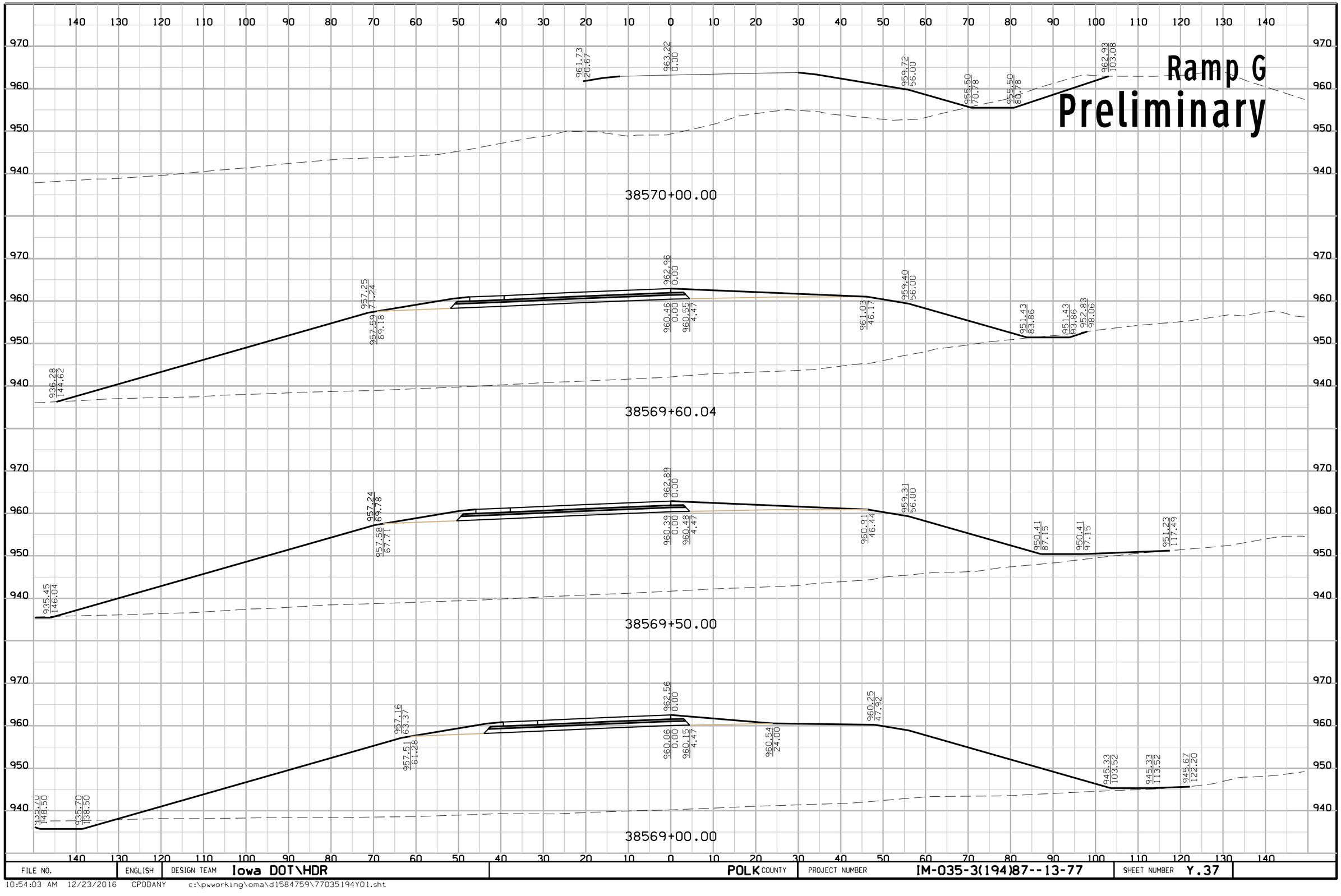
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.36

10:54:02 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

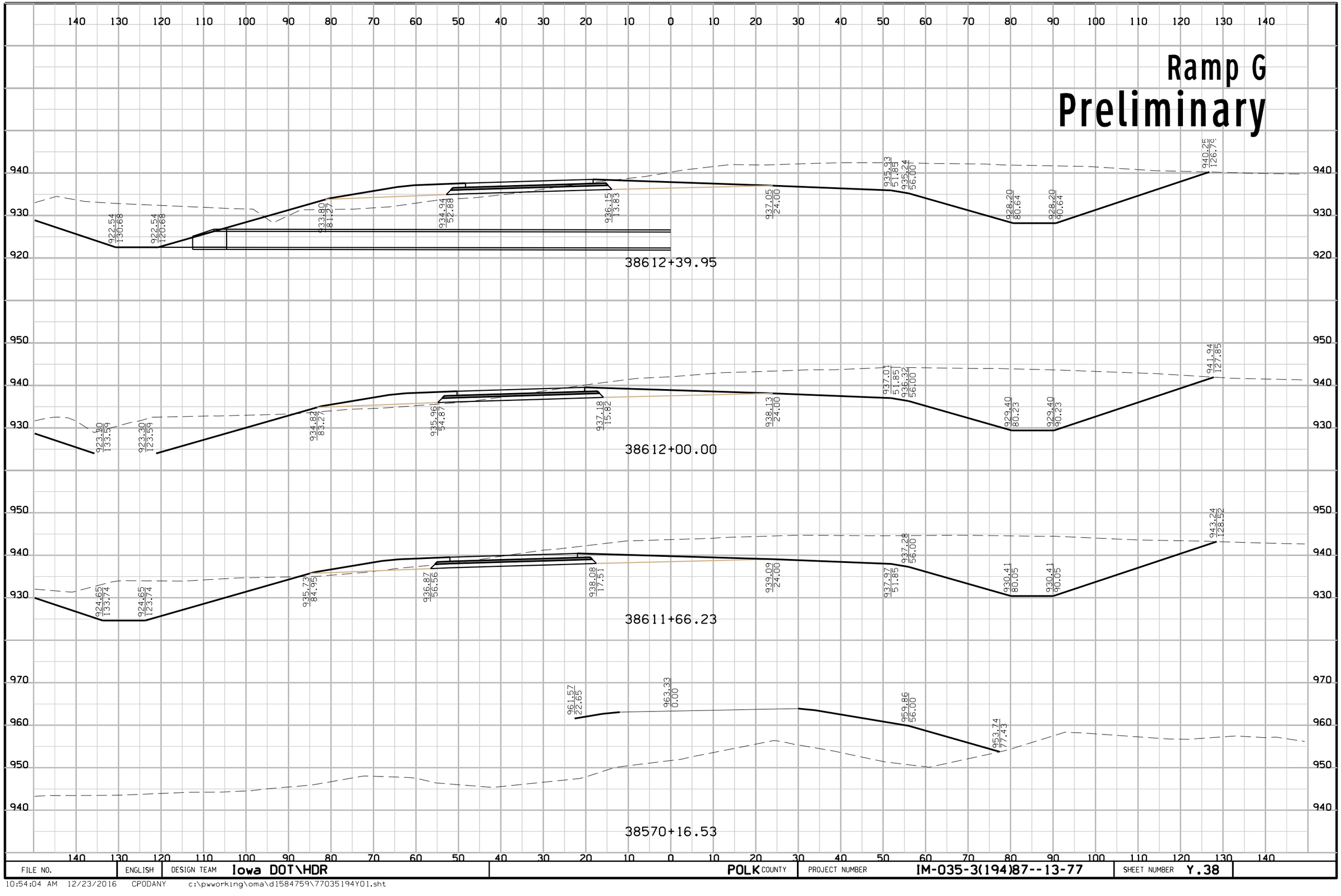
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.37

10:54:03 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

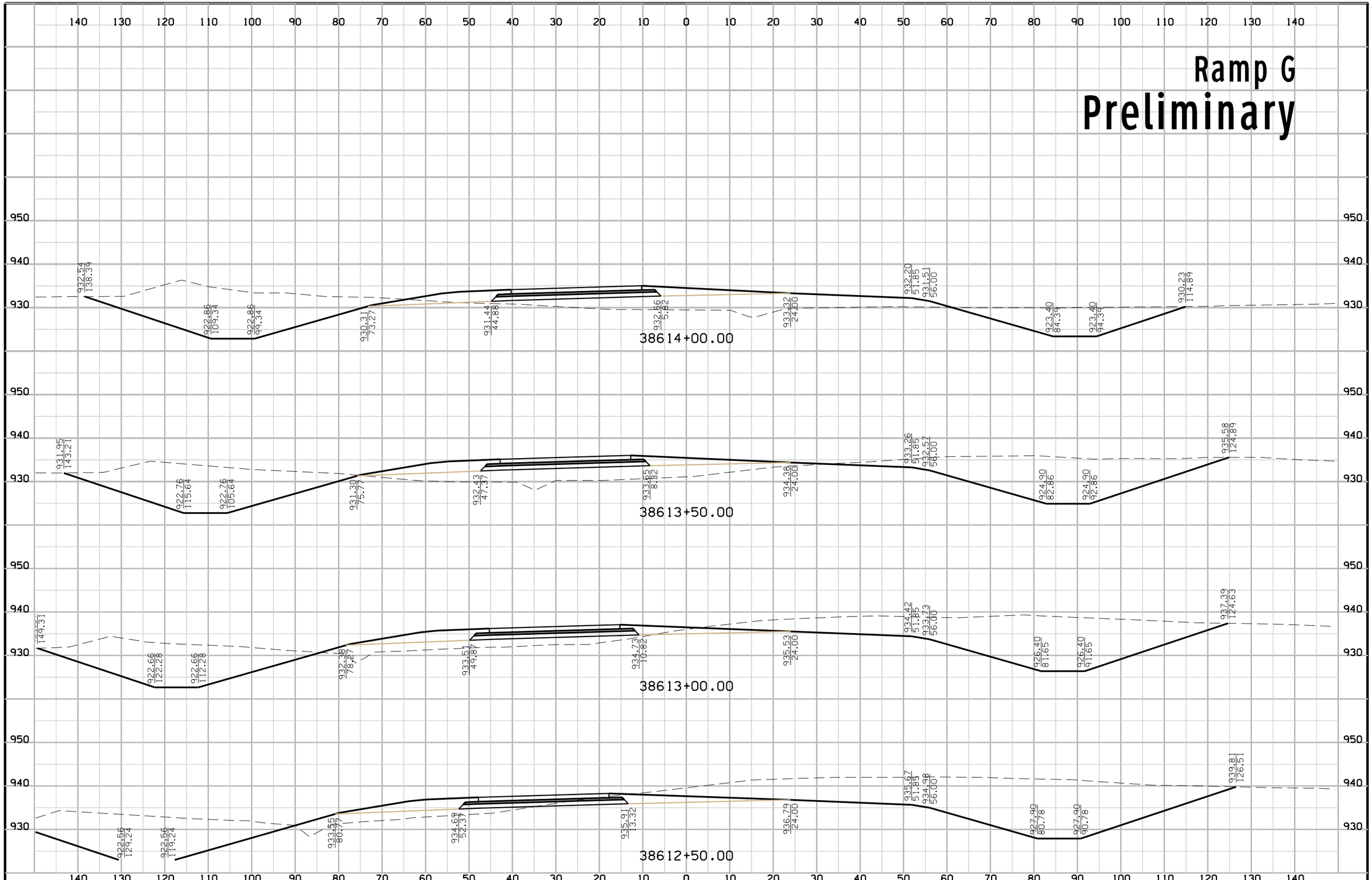
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.38

10:54:04 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

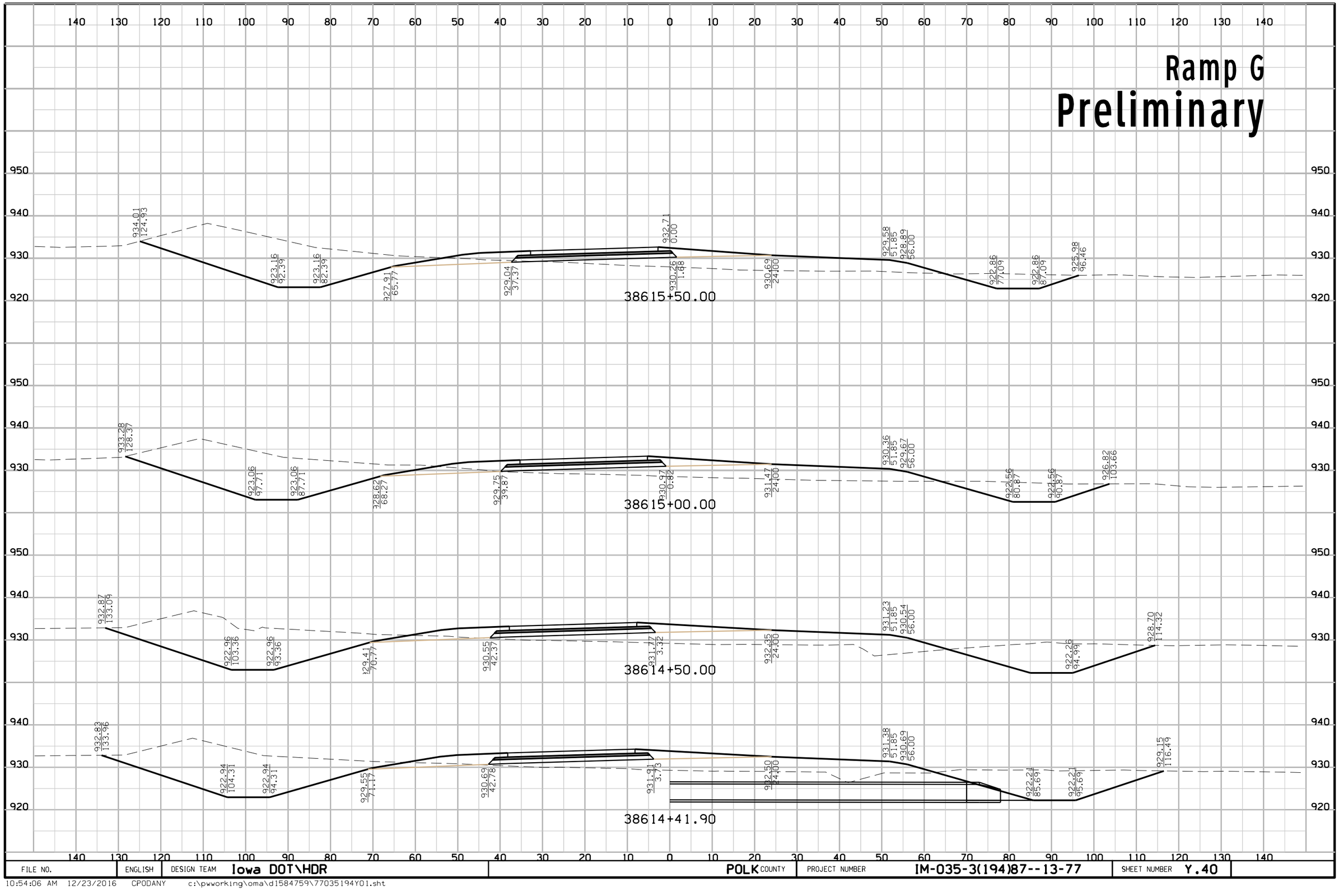
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.39

10:54:05 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

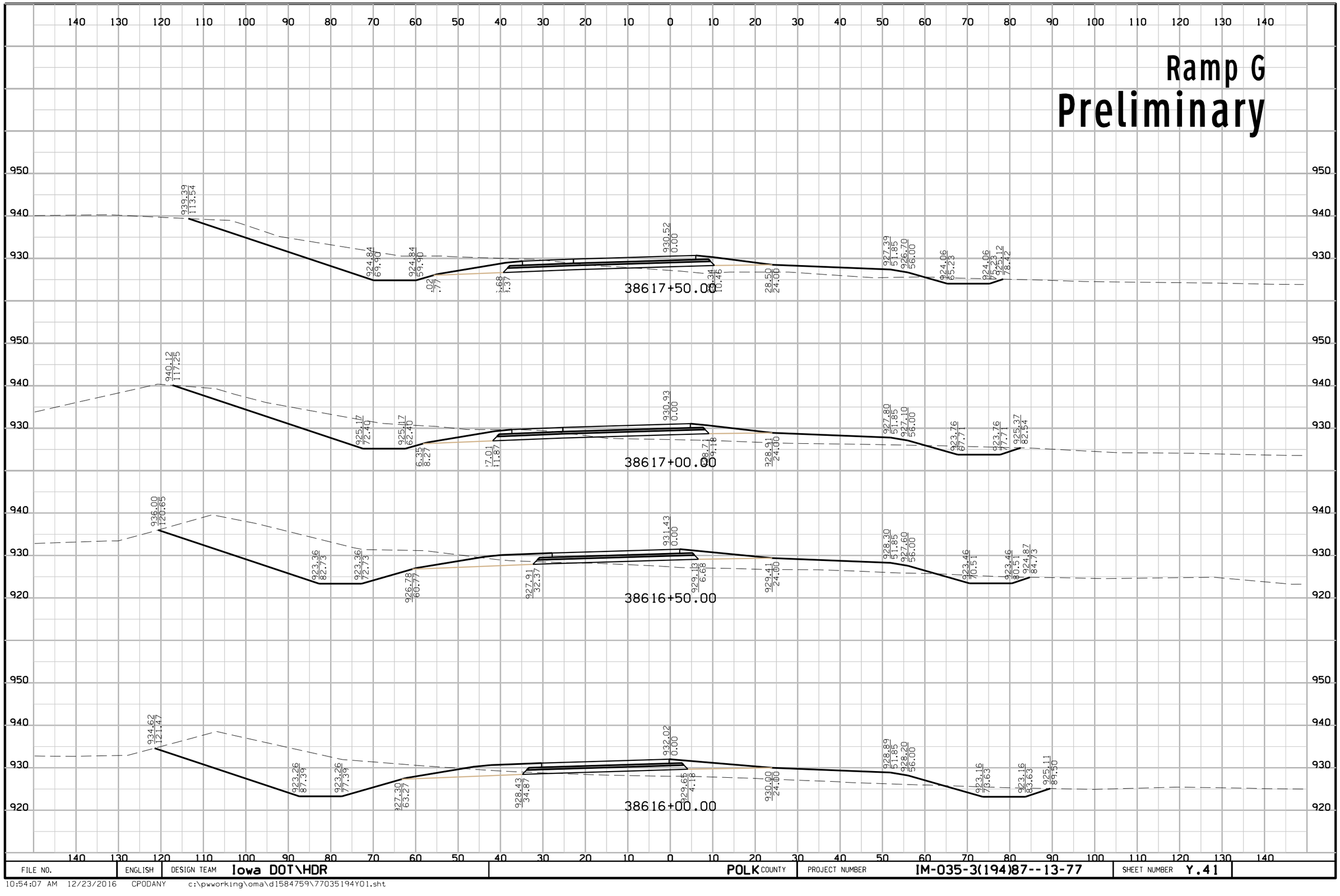
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.40

10:54:06 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

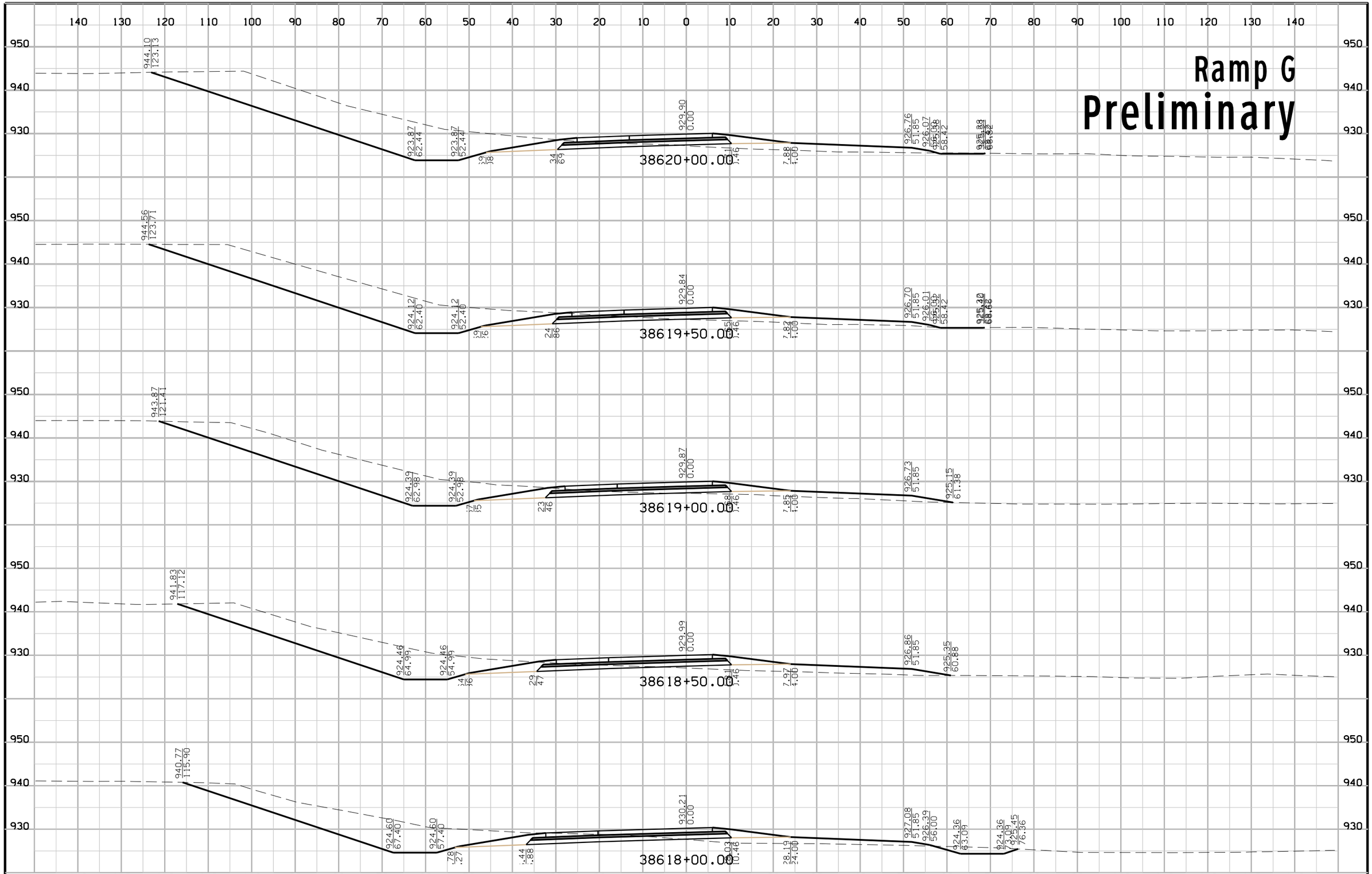
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.41

10:54:07 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

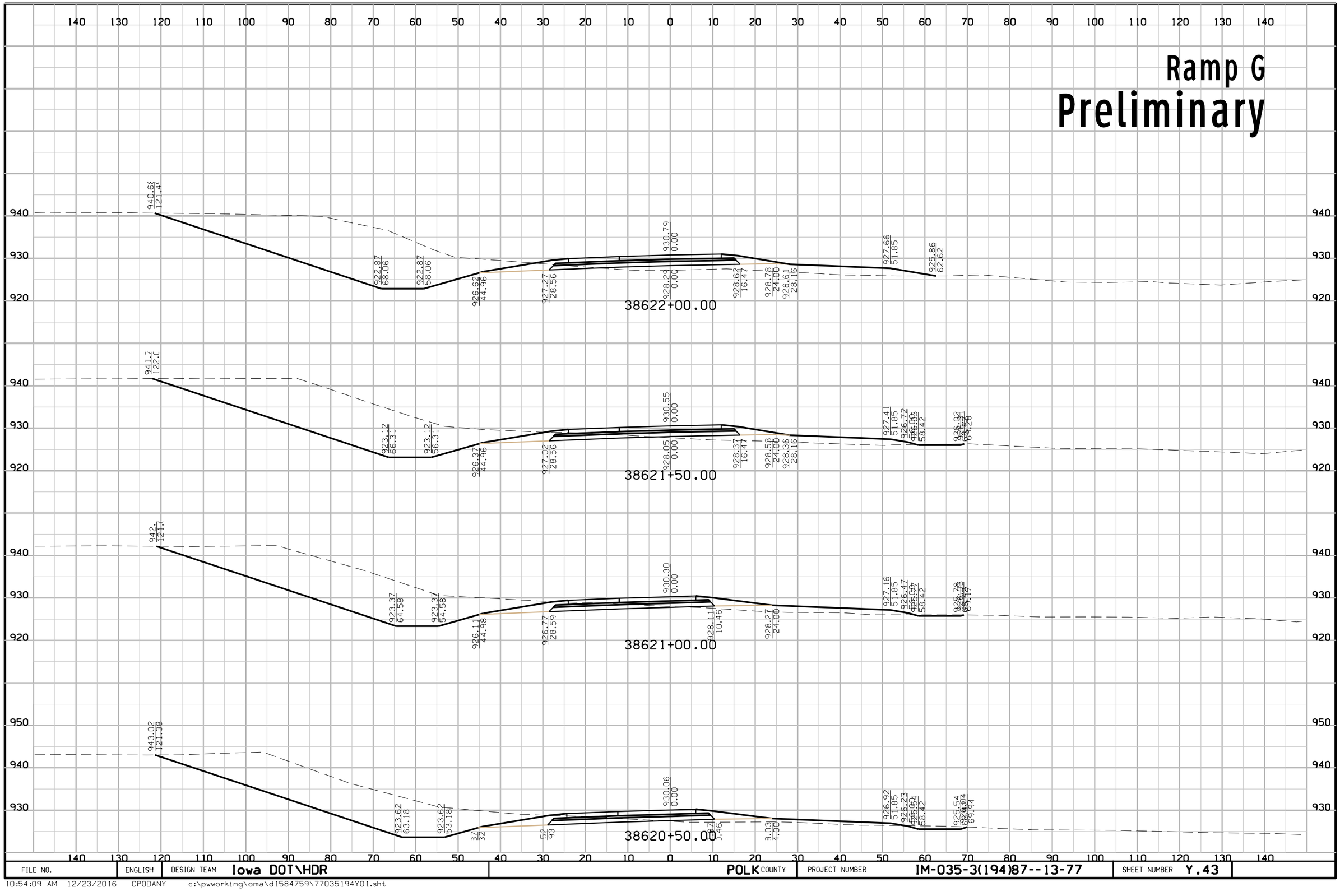
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.42

10:54:08 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

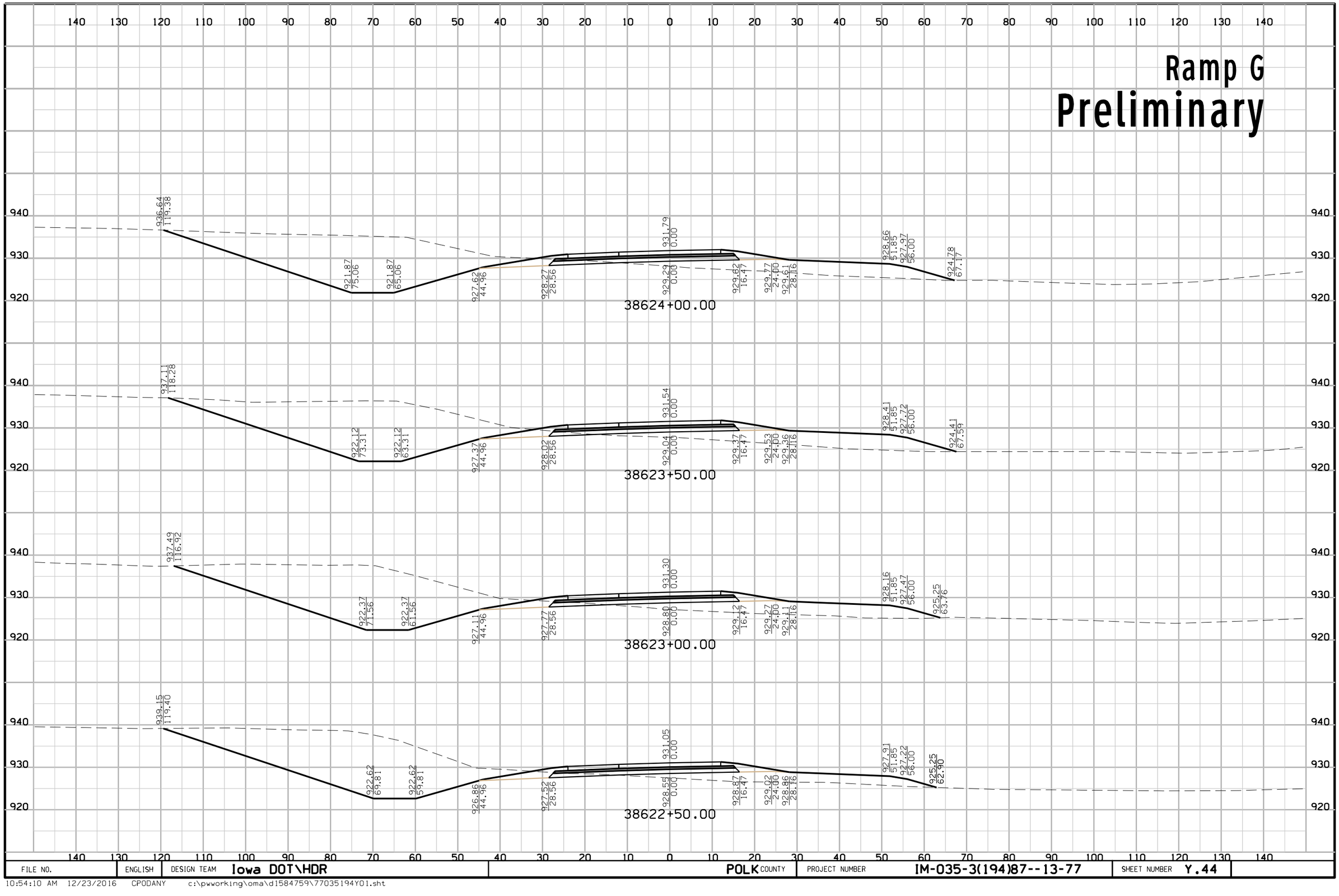
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.43

10:54:09 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

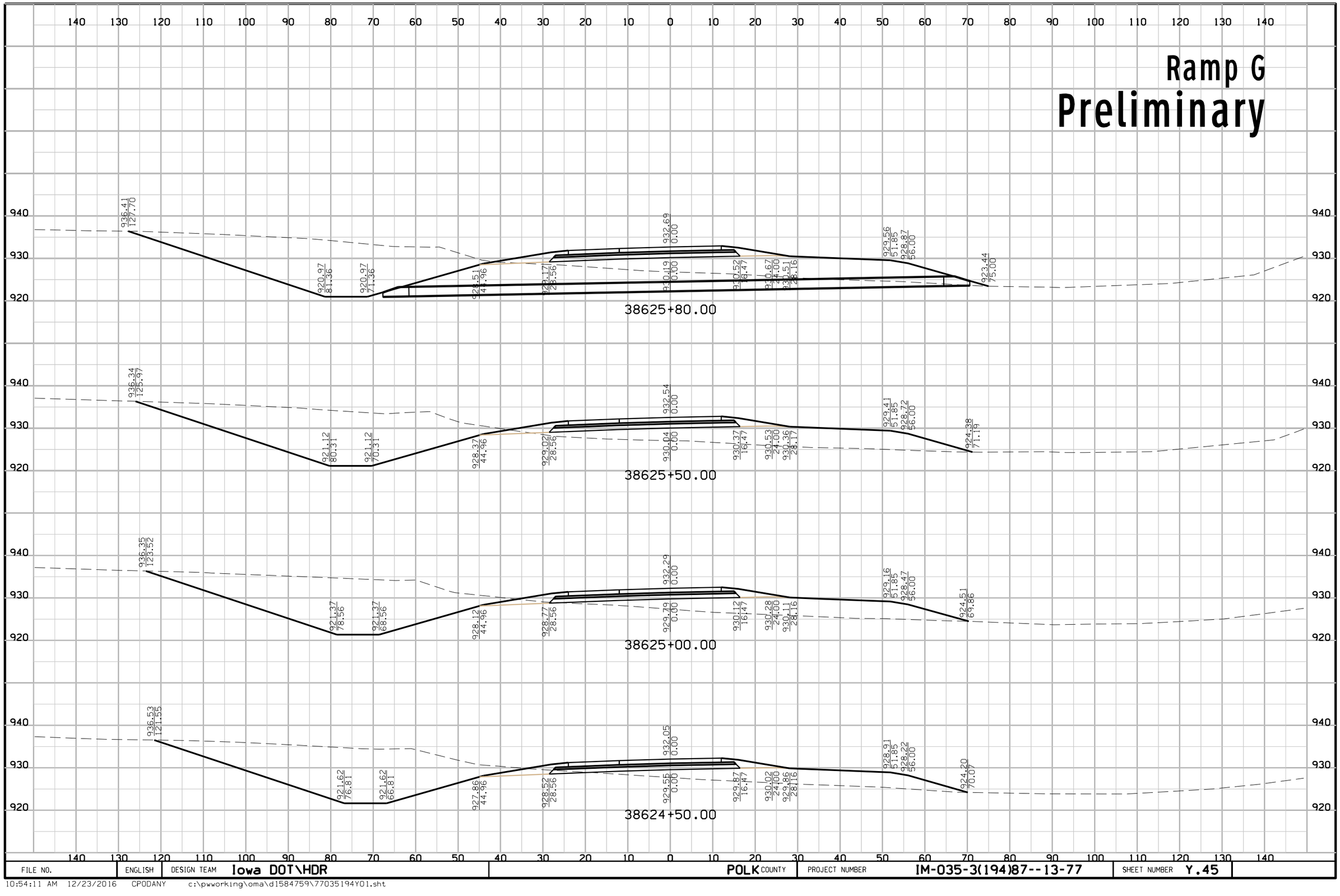
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.44

10:54:10 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G
Preliminary

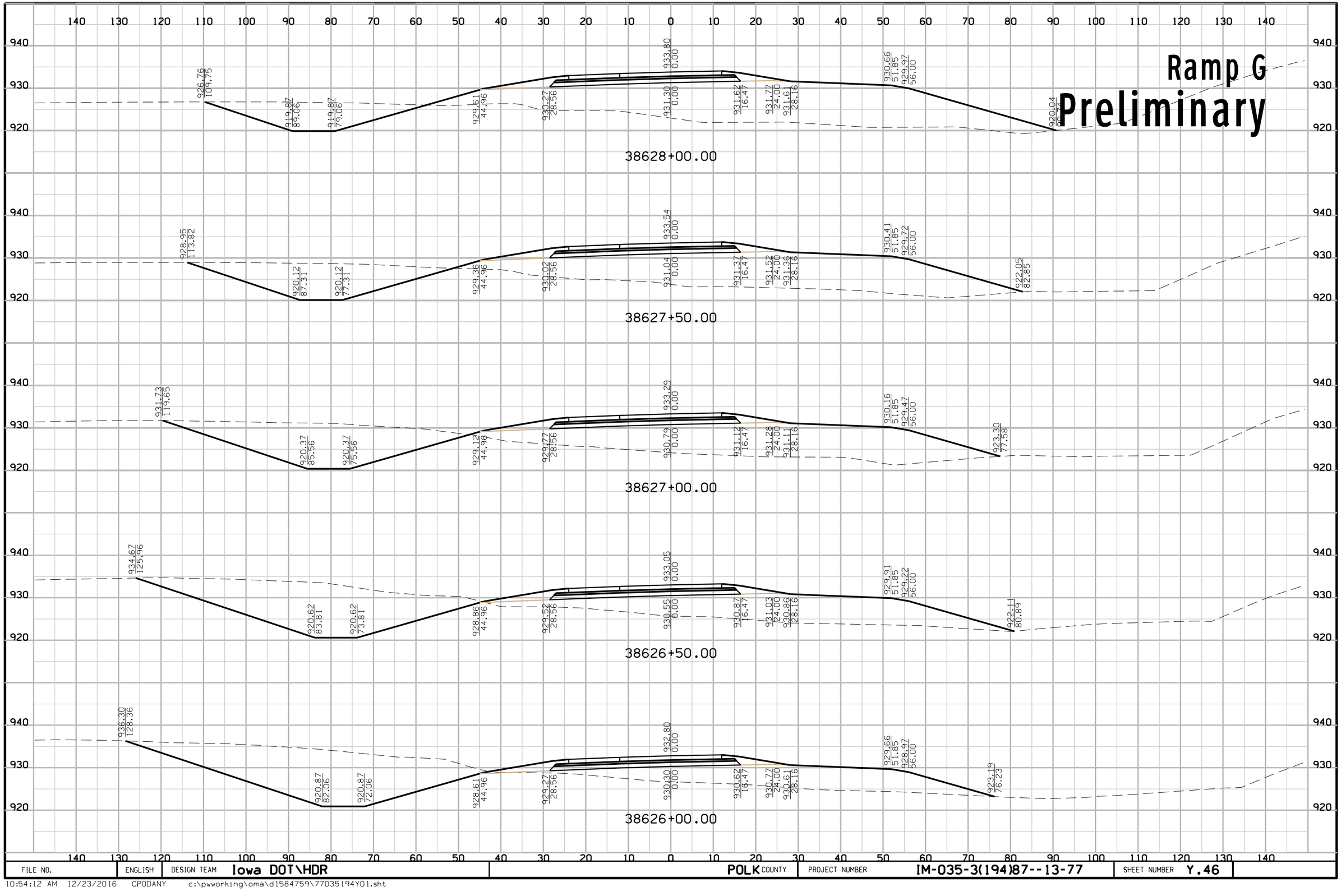


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.45

10:54:11 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

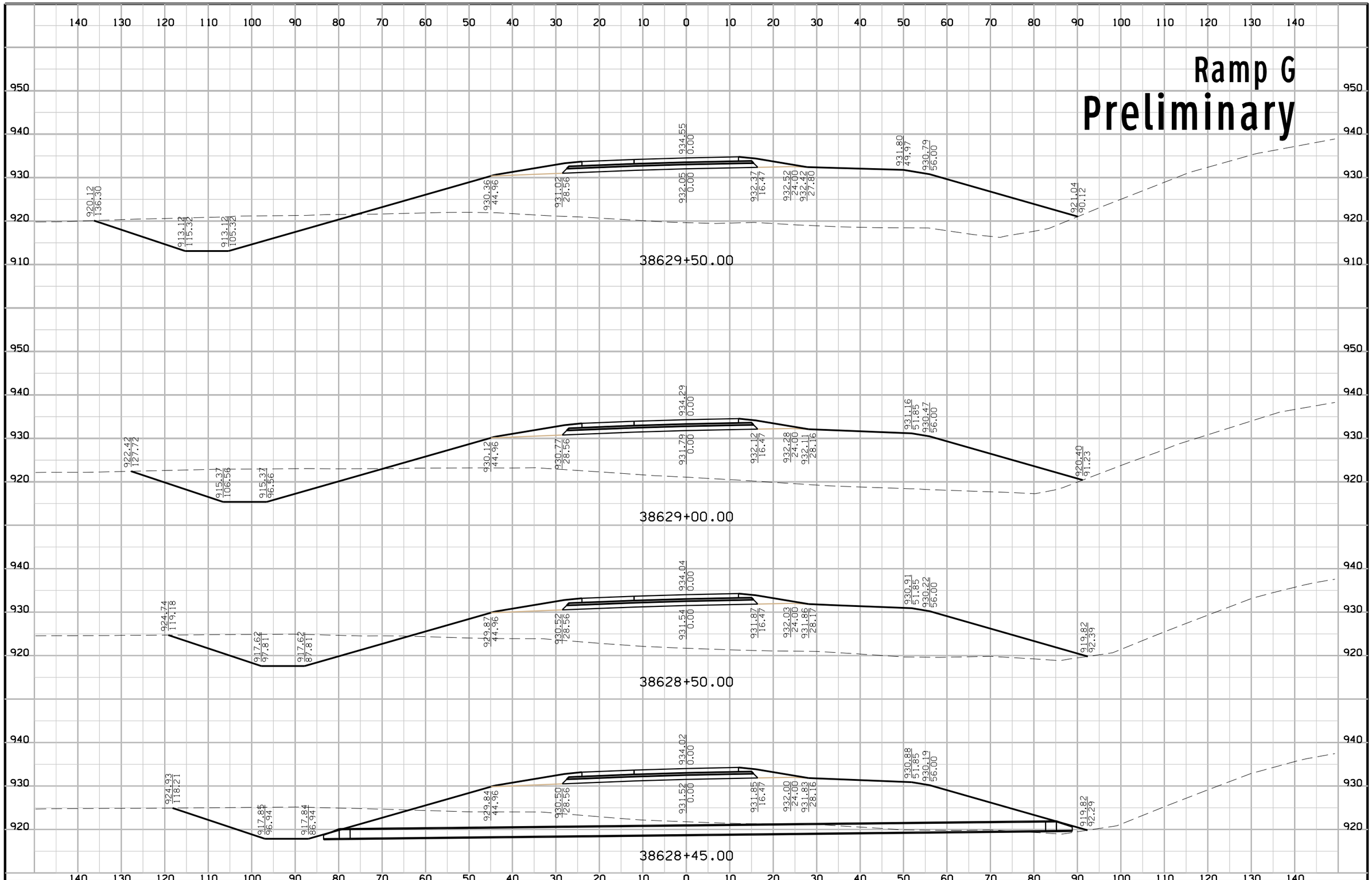
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.46

10:54:12 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G
Preliminary

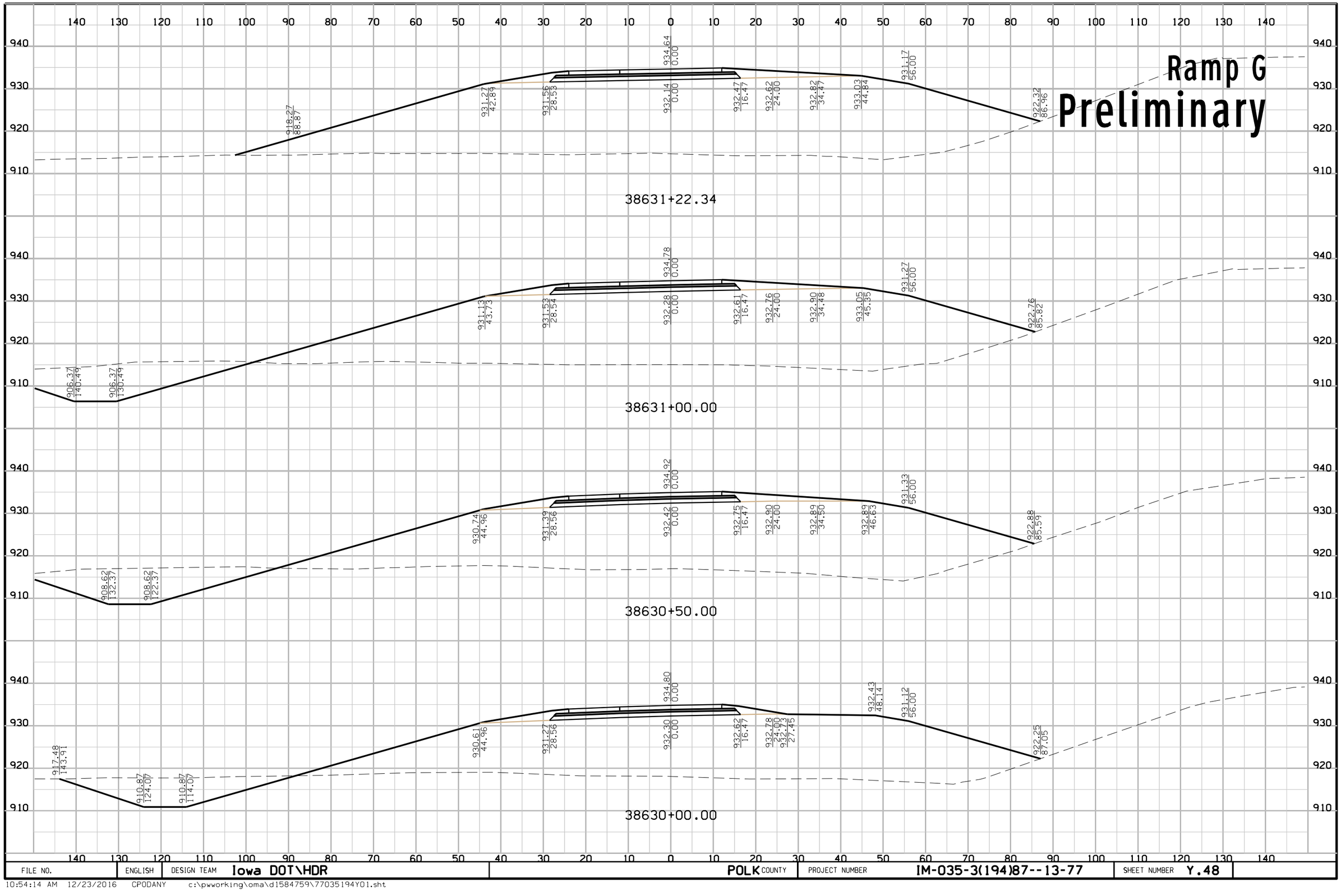


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.47

10:54:13 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.48

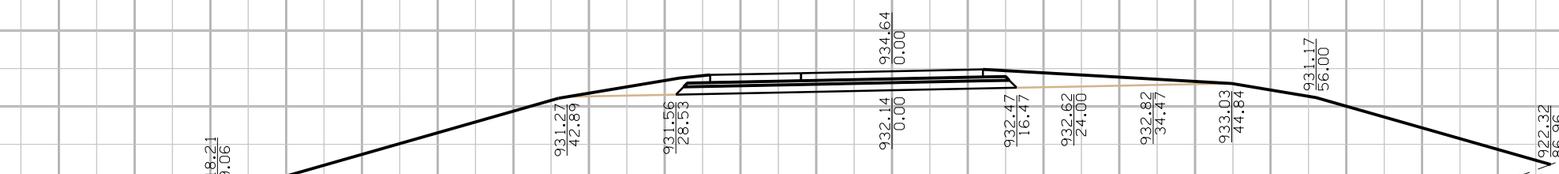
10:54:14 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G
Preliminary

38632+50.00

38632+00.00

38631+50.00



38631+22.35

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.49

10:54:15 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

Preliminary

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

930 920 910 900

MATCH LINE

924.53 44.96 | 925.18 28.57 | 926.21 0.00 | 926.54 16.47 | 926.69 24.00 | 926.66 34.50 | 926.62 46.91 | 925.10 56.00

38634+00.00

MATCH LINE

926.46 44.07 | 926.91 28.55 | 927.75 0.00 | 928.08 16.47 | 928.23 24.00 | 928.34 34.48 | 928.46 45.58 | 926.73 56.00 | 903.97 135.65

38633+50.00

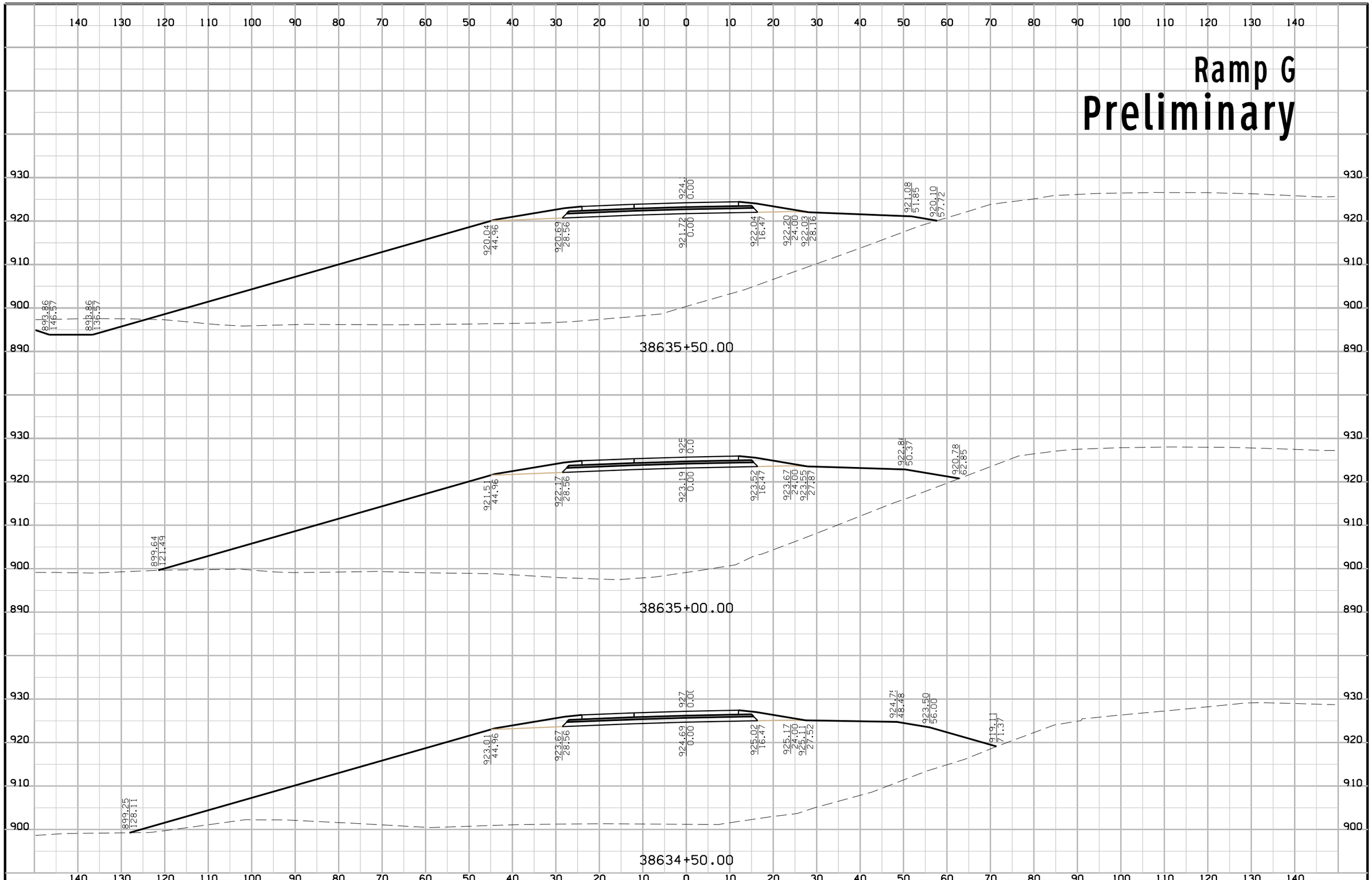
38633+16.35

38633+00.00

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.50

10:54:16 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

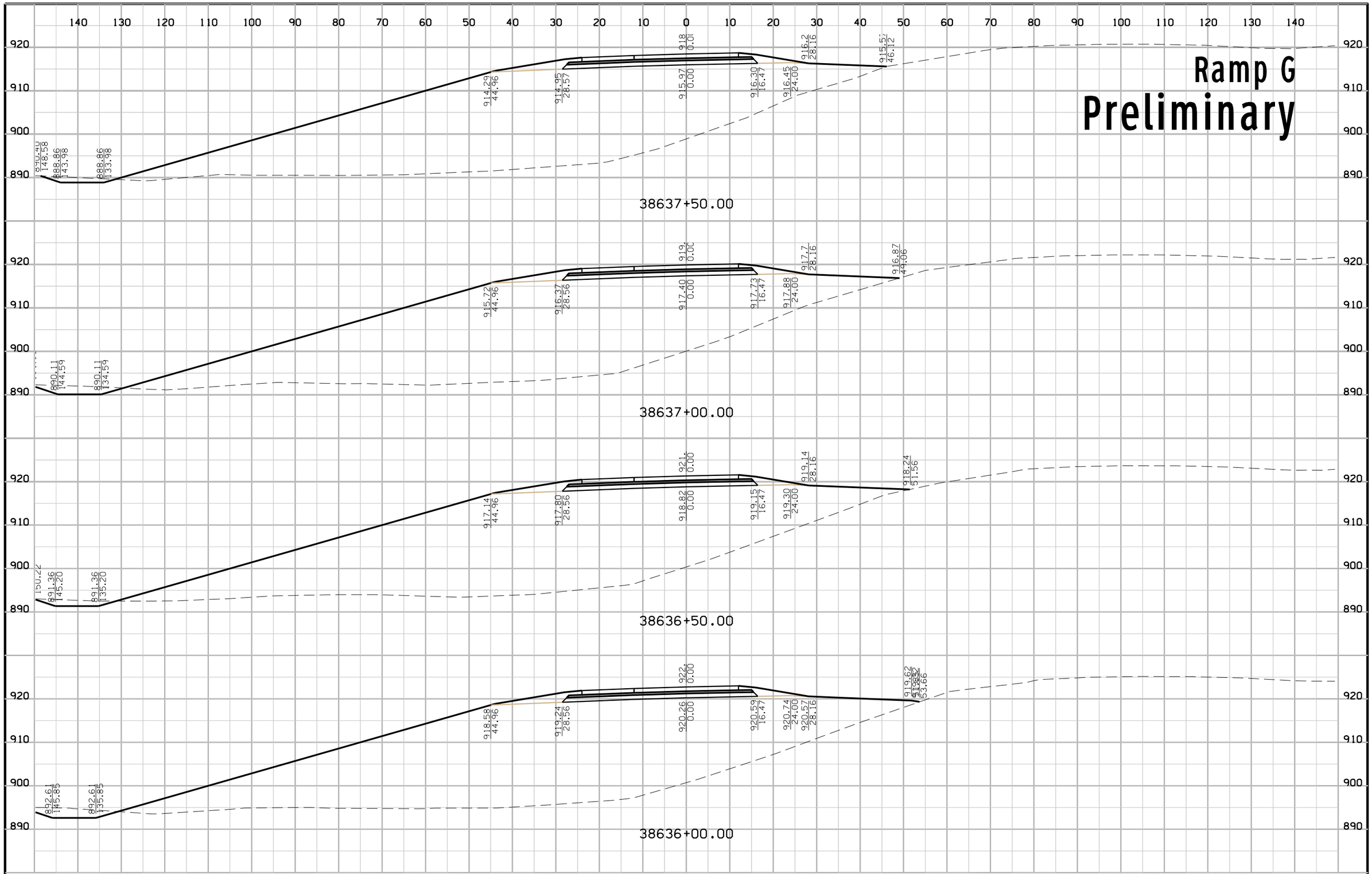
Ramp G
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER IM-035-3(194)87--13-77	SHEET NUMBER Y.51

10:54:17 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G
Preliminary

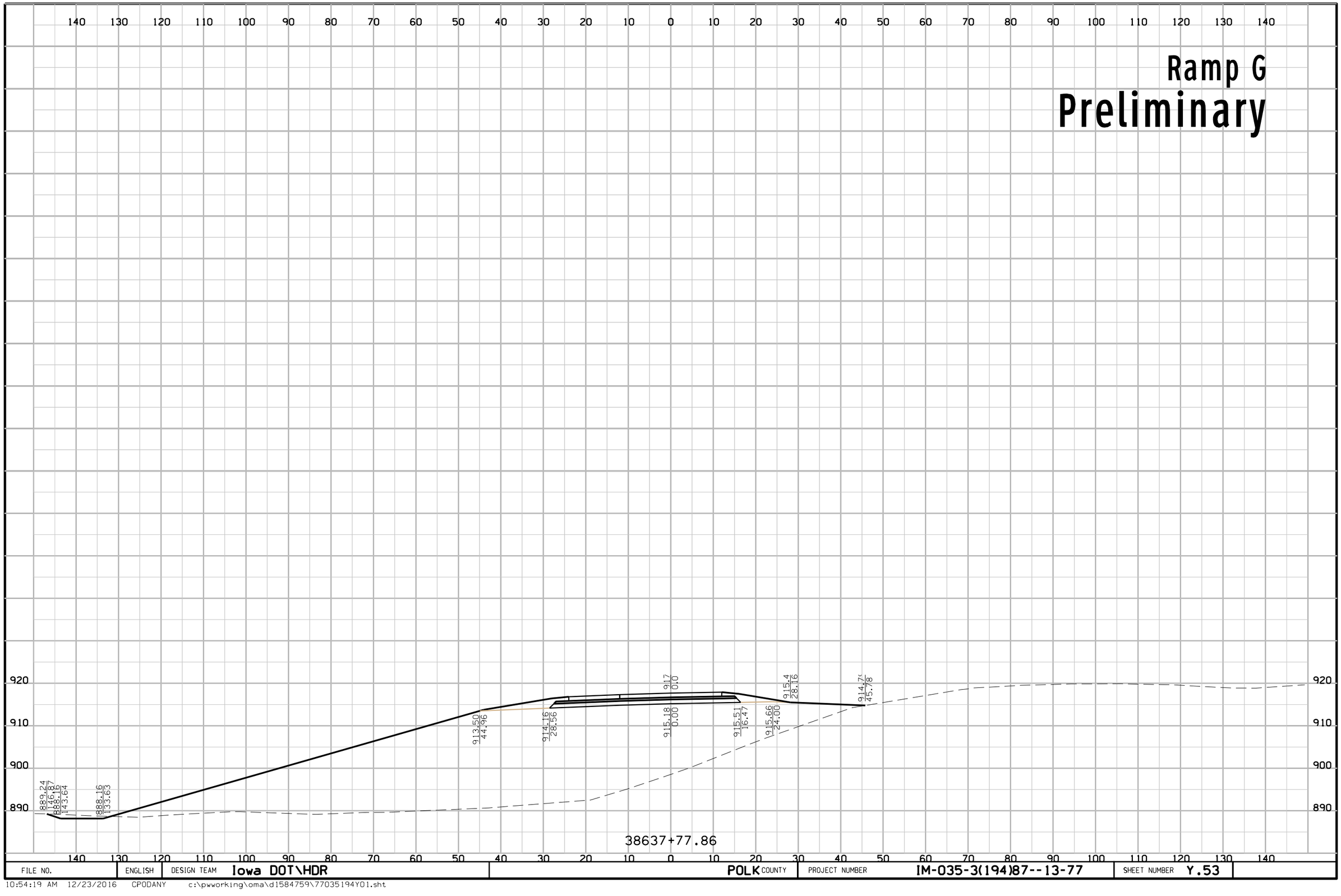


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER Y.52

10:54:18 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht

Ramp G

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\HDR	POLK COUNTY	PROJECT NUMBER	IM-035-3(194)87--13-77	SHEET NUMBER	Y.53

10:54:19 AM 12/23/2016 CPODANY c:\pwworking\oma\d1584759\77035194Y01.sht