BRIDGE REPLACEMENT
BRF-461-1(6)--38-82

LETTING DATE
12/18/2018

SCOTT COUNTY

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	**Typical Cross Sections and Details**
B.1 - 3	Typical Cross Sections and Details
D Sheets	**Mainline Plan and Profile Sheets**
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 3	IA 461 (Business 61)
E Sheets	**Side Road Plan and Profile Sheets**
* E.1	IA 22
G Sheets	**Survey Sheets**
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G.2	Survey Information and Vertical Control
G.3 - 4	Reference Ties and Bench Marks
G.5 - 8	Horizontal Control Tab. & Super for all Alignments
H Sheets	**Right-of-Way Sheets**
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K Sheets	**Interchange Sheets**
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L Sheets	**Geometric, Staking and Jointing Sheets**
L.1	Geometric & Staking IA 461
V Sheets	**Bridge Situation Plan**
V.1 - 3	IA 461 Bridge Situation Plan
W Sheets	**Mainline Cross Sections**
W.1 - 18	Mainline Cross Sections
X Sheets	**Side Road Cross Sections**
X.1 - 9	Side Road Cross Sections
Y Sheets	**Ramp Cross Sections**
Y.1 - 12	Ramp Cross Sections
	* Color Plan Sheets

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

SCOTT COUNTY

BRIDGE REPLACEMENT

IA 461 (Bus. 61) Over IA 22
in the City of Davenport

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

REVISIONS

TOTAL 70

PROJECT IDENTIFICATION NUMBER
14-82-461-030

PROJECT NUMBER
BRF-461-1(6)--38-82

R.O.W. PROJECT NUMBER

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

MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
1	IA Highway 461 (Business 61)		
	Sta. 43+20.39 to Sta. 63+51.04	2030.65	0.385
	Sub. Bridge Sta. 50+90.47 to Sta. 52+77.54	187.07	0.035
	IA Highway 22		
	Sta. 493+72.65 to Sta. 501+53.60	780.95	0.148
	IA Highway 22 RAMP A		
	Sta. 1003+36.90 to Sta. 1008+41.44	504.54	0.096
	IA Highway 22 RAMP B		
	Sta. 2004+80.26 to Sta. 2010+00.99	520.73	0.099
	Total Length	3649.80	0.693

Refer to Sheet A.2
For Project Location Map

IA 461 DESIGN DATA URBAN		
2010 AADT	9,800	V.P.D.
2030 AADT	12,000	V.P.D.
20-- DHV	--	V.P.H.
TRUCKS	11	%
Total 20 YR Design ESALs	3,900,000	

IA 22 DESIGN DATA URBAN		
2010 AADT	6,124	V.P.D.
2030 AADT	7,500	V.P.D.
20-- DHV	--	V.P.H.
TRUCKS	11	%
Total 20 YR Design ESALs	2,500,000	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	X	Primary Signature Block
V.1	X	Bridge Plans

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN – Date: Sept. 1, 2016

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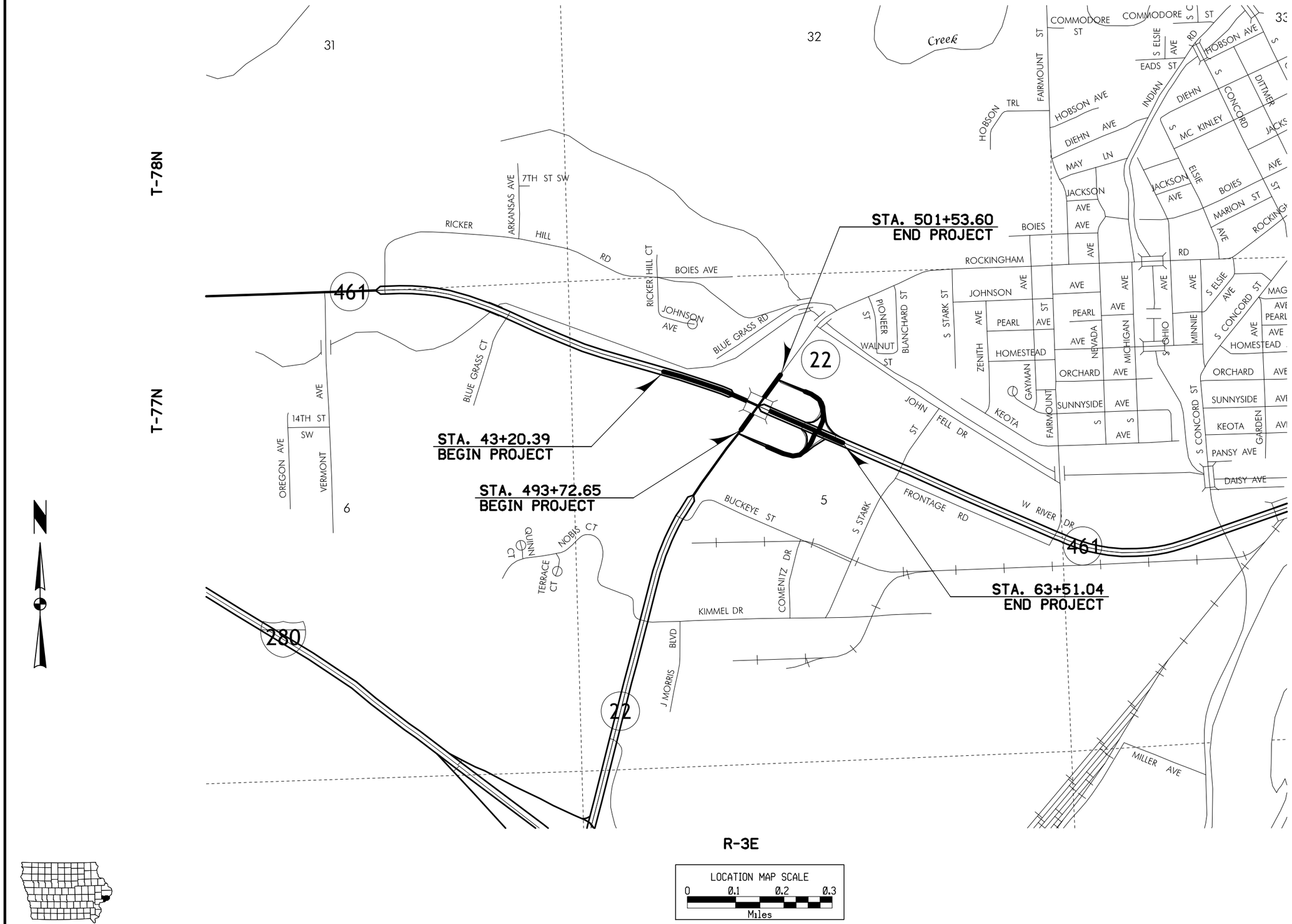

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER A.2

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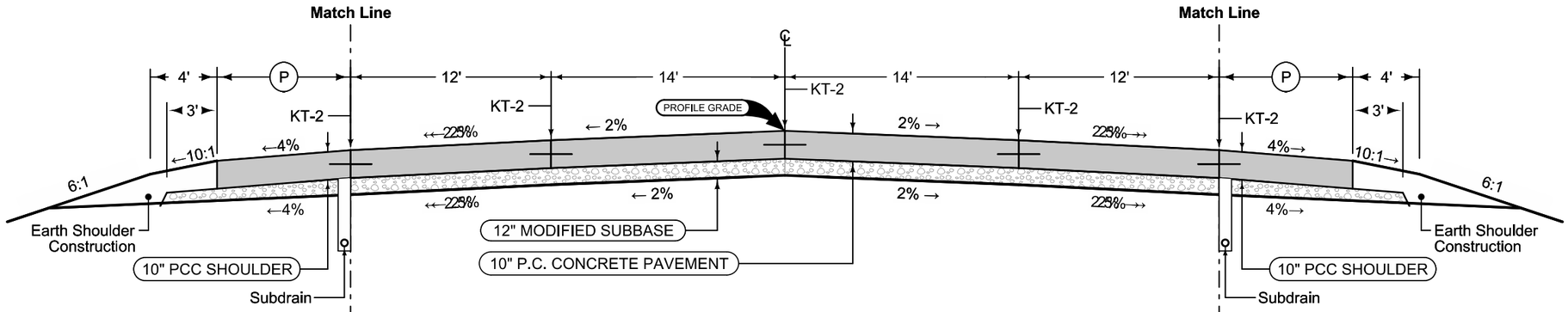


IA 461

Full Depth PCC Shoulder

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

4_P_FullPCC_ 10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	60+83.28	63+51.04	10

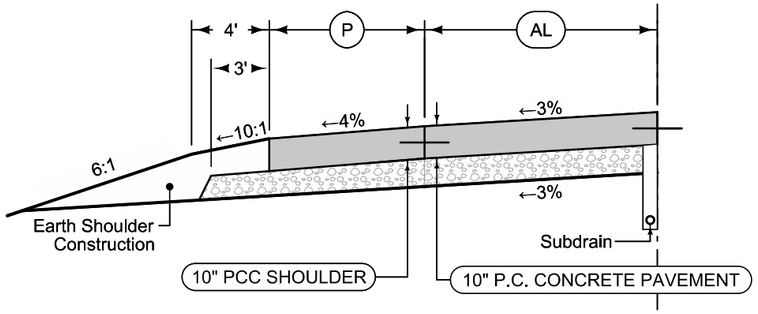
Mainline Jointing:
Transverse joints: CD at 20' spacing

4UP_ 10-16-12	
STATION TO STATION	
43+20.39	50+17.81
53+52.75	60+83.28

Full Depth PCC Shoulder

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

4_P_FullPCC_ 10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	43+20.39	50+67.81	10
EB	53+02.75	55+09.66	10
EB	60+67.59	60+83.28	10



Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_ 10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
WB	43+20.39	50+17.18	12
WB	53+52.75	58+16.34	12
WB	59+93.43	60+83.28	12

Auxiliary Lane
Full Depth Shoulder

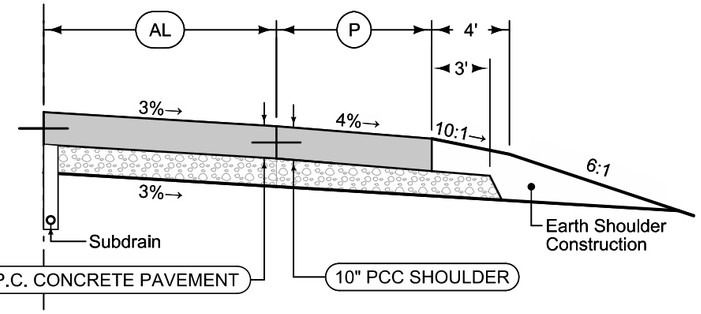
Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

4_AL_Shldr_FullPCC_ 10-19-10
(P) Feet
10

Auxiliary Lane
Full Depth Shoulder

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

4_AL_Shldr_FullPCC_ 10-19-10
(P) Feet
10



Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

4_AuxLane_PCC_ 10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet
EB	55+09.66	58+10.12	12

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER B.1

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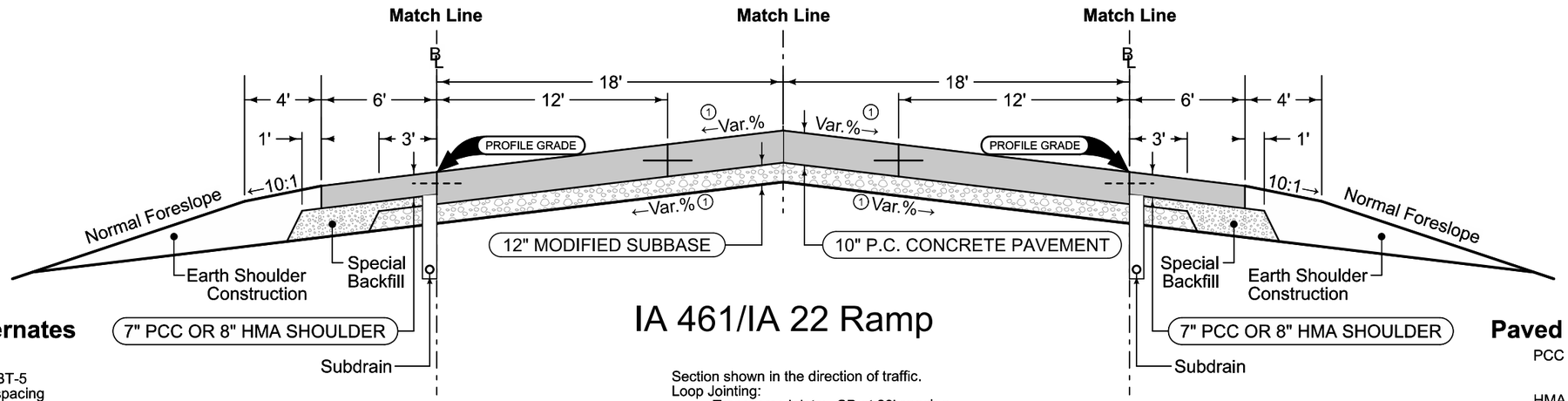


IA 461/IA 22 Ramp

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

1L_P_ALT_ 10-21-14	
BEGIN STATION	END STATION
1003+36.90	1008+54.44
2004+80.26	2010+13.99

Section shown in the direction of traffic.
Loop Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

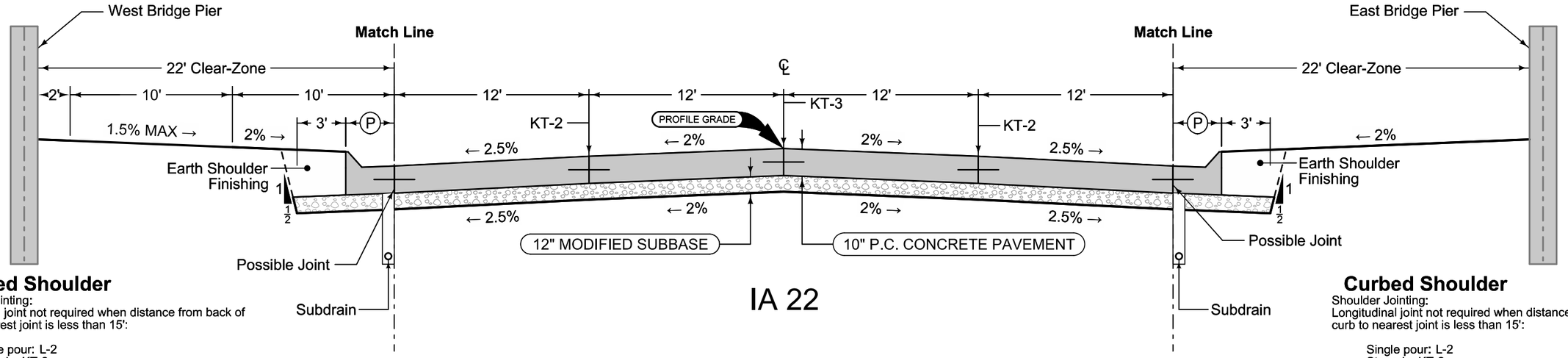
1LP_ 04-19-11	
BEGIN STATION	END STATION
1003+36.90	1008+41.44
2004+80.26	2010+00.99

① Cross Slopes vary through ramp returns and at tie in points. Refer to the Ramp Cross Sections for more details. Maximum Cross Slope breakover not to exceed 5%.

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

1L_P_ALT_ 10-21-14	
BEGIN STATION	END STATION
1003+36.90	1008+54.44
2004+80.26	2010+13.99



IA 22

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

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

2_Curb_ 04-19-11			
STATION TO STATION		(P) Feet	Curb Type See PV-102
494+12.16	495+14.28	2.5	6" Sloped
495+41.78	501+53.60	2.5	6" Sloped

Mainline Jointing:
Transverse joints: CD at 20' spacing

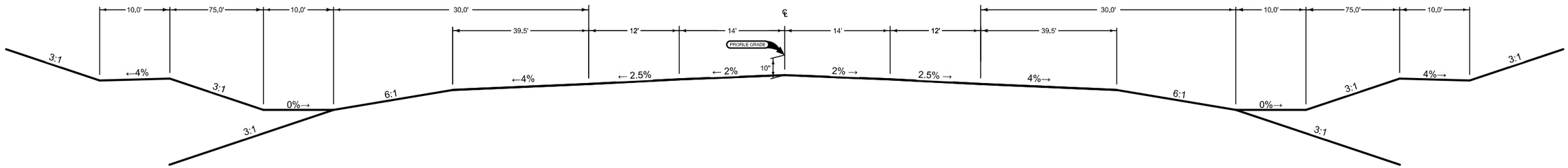
4UP_ 10-16-12	
STATION TO STATION	
493+72.65	501+53.60

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

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

2_Curb_ 04-19-11			
STATION TO STATION		(P) Feet	Curb Type See PV-102
493+72.65	499+23.51	2.5	6" Sloped



IA 461 Grading Typical

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER B.3

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SURVEY SYMBOLS

- PIP Pipe Culvert
- CUL Culvert
- GDL Guard Rail Steel
- LUM Luminaire
- TP TPD Telephone Pedestal
- PR Electic Riser Pole
- TA TA Tower Anchor
- FHD Fire Hydrants
- RET Retaining Walls
- GP GP Guard Post (Less Than 4 Posts)
- LIN Miscellaneous Line
- X LC Lot Corner
- PPA MidAmerican Energy
- MH Utility Access (Manhole)
- MIS Miscellaneous
- OUT Tile Outlet
- TVP TVP TV Pedestal
- UV Underground Utility Vault
- BRG Bridge
- Tile - TIL Tile Line
- GV GV Gas Valve
- WV WV Water Valve
- CU Back of Curb
- GU Gutter In Front of Curb
- CON Concrete or A/C Slab
- D Centerline Draw or Stream (Down)
- EP Edge of Paved Roads (ML or SR)
- SNP Unpaved Shoulder
- EG Edge of Gravel Road
- DU Centerline Draw or Stream (Up)
- ENU Edge Unpaved Entrance & Parking
- ENT Centerline BL of Entrance
- SH Paved Shoulder
- ENP Edge Paved Entrance & Park Lot
- SWK Sidewalk
- SH SNK Sink Hole
- St.S. - STA City of Davenport
- San. - SAA City of Davenport
- CP Control Point
- BM Bench Mark

UTILITY SYMBOLS

- TV - TVA Mediacom
- FO - FOA AT&T
- FO2 - FOB Century Link
- E1 - ELA MidAmerican Energy
- W - WLA Iowa American Water
- G - GLA MidAmerican Energy
- T2 - TLA Century Link

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

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

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER D.1

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CITY OF DAVENPORT
ROCKINGHAM TWP.
T-77N R-3E
Sec. 5

CHARLEY TROUP

TROUP, CHARLEY R JR
TROUP, JILL M

DIXON, JAMES
DIXON, ESTHER L

10' X 6' X 20.1' RCB
DA = 281 AC F TO VH

STA. 43+20.39
BEGIN PROJECT

PC Sta 42+84.70

Curve Data
Δ = 7° 24' 43.01" (RT)
T = 371.11
L = 741.19
R = 5,729.58
E = 12.01

ACCELERATION LANE

FI Sta 46+35.81

+67.25
149.36' Lt.

+93.66
77.74' Lt.

(REMOVE)
Sta. 497+60.20
30" X 84' RCP
DA = 7 AC VH

(REMOVE)
12' X 48' RCP

STA. 50+90.47
STOP PAVING

IA 461 (ML461)

FI Sta 50+25.89

LET DOWN STRUCTURE
TO DRAIN DITCH

+28
Res. Ent.

(REMOVE)
15" X 24' CMP

RPH PROPERTIES LC

IA 22 (GR022)

Point of Low
Vert. Clearance

STA. 52+77.54
RESUME PAVING

(REMOVE)
180' X 56' CONTINUOUS
I-BEAM BRIDGE
Sta 51+89.00
Build 184' x 84'
PPCB Bridge
(SPANS: 46'-102'-36')

(REMOVE)
Sta. 495+56.50
3' X 2' X 77.1' RCB
DA = 16 AC VH

0 50
FEET

Fill+30% = 8599 CY
Waste = 2054 CY
10653 CY

Cut = 10653 CY

Cut = 1562 CY
Need = 10566 CY
12128 CY

Fill+30% = 12128 CY

STA. 43+20.39
BEGIN PROJECT
635.30
+35
632.01
-2.19%
Ditch Grade
-2.342%
+80
627.35
-1.467%
VPI +00.00
Elv 628.75
K = 229
Len 200.00 ft
-2.77%
Ditch Grade
+50
620.83
+20
616.50
-3.79%
Ditch Grade
+90
613.84
-0.57%
Ditch Grade
+42
612.98

VPI +00.00
Elv 624.35
K = 318
Len 300.00 ft
SSD 854.24 ft

+50
620.86
+55
619.73
-5.22%
Ditch Grade
+20
611.11
Let Down Structure
-10.00%
+75
597.43
-7.90%
Ditch Grade
+90
605.51

STA. 50+90.47
STOP PAVING
-2.411%
STA. 52+77.54
RESUME PAVING
-3.530%
VPI +50.00
Elv 611.09
K = 313
Len 350.00 ft
SSD 768.79 ft
Exist. Profile
Grade at ℄
Verticle Clearence: 16.72'

640 630 620 610
620 610 600 590

Lt: Ditch Grade | Trans | Ditch Grade | Bridge | No Ditch
Rt: Ditch Grade | No Ditch | Bridge | No Ditch

634.84 634.37 633.90 633.44 632.97 632.50 632.03 631.56 631.09 630.63 630.19 629.77 629.36 628.97 628.60 628.24 627.91 627.59 627.28 626.99 626.70 626.40 626.10 625.78 625.45 625.10 624.75 624.38 624.00 623.60 623.20 622.78 622.34 621.90 621.44 620.97 620.49 620.01 619.53 619.05 618.56 618.08 617.60 617.12 616.64 616.15 615.67 615.19 614.70 614.19 613.67 613.14 612.60 612.05 611.48 610.90 610.30 609.69 609.08 608.44 607.80 607.14 606.47 605.79

41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER D.2

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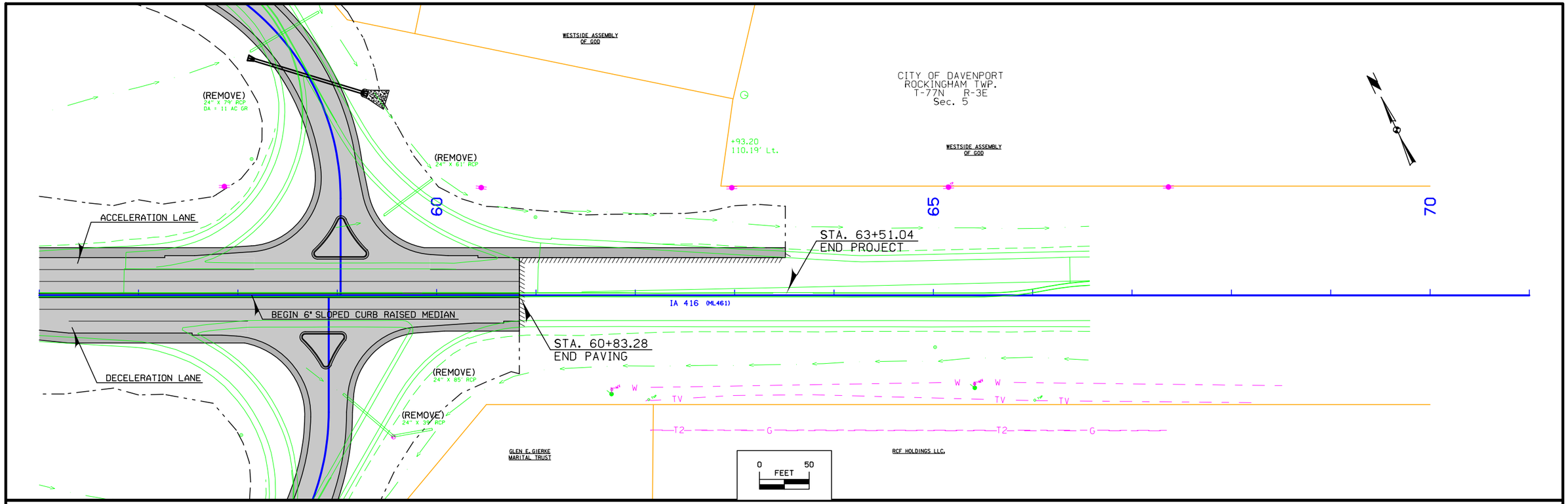
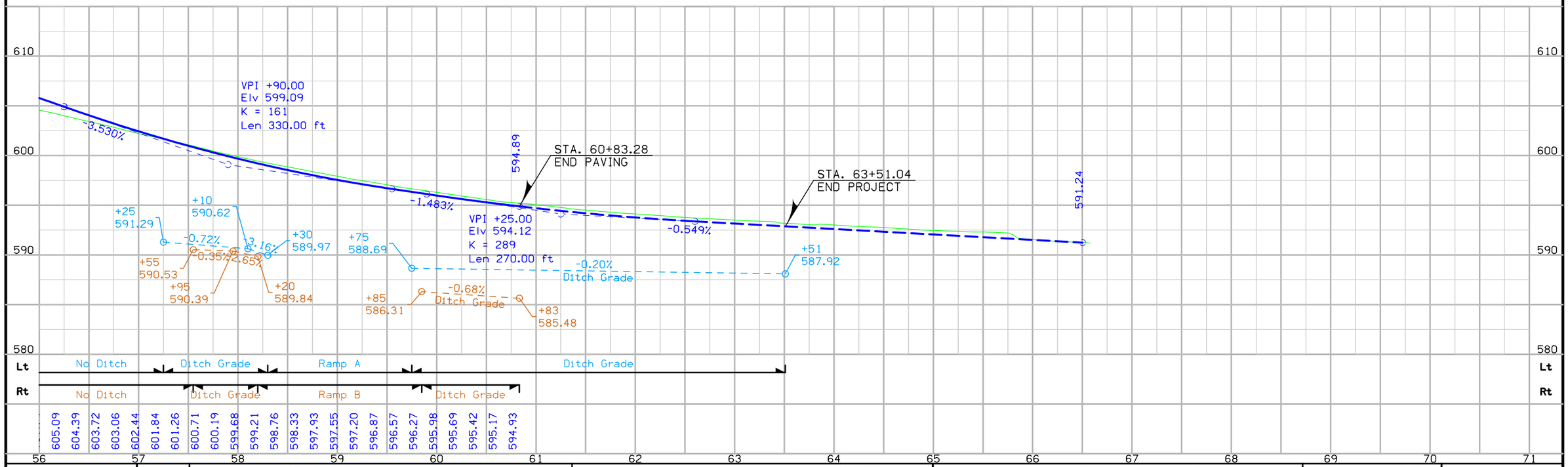


Cut = 1562 CY
Need = 10566 CY
12128 CY

Fill+30% = 12128 CY



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	D.3

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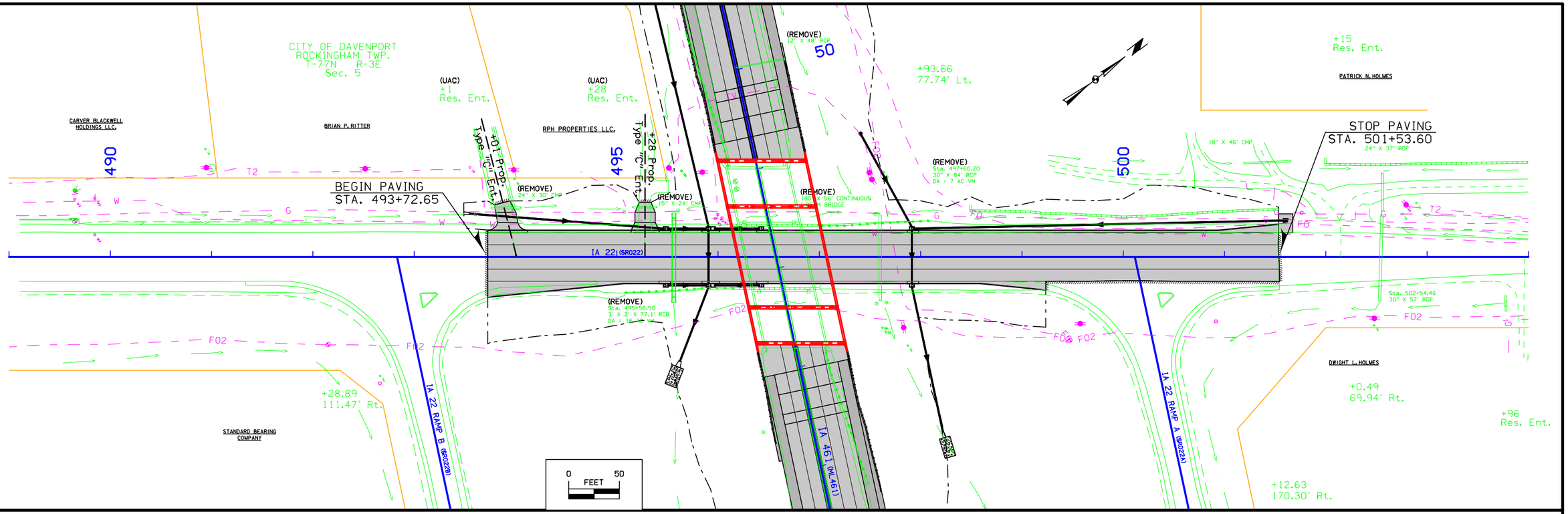
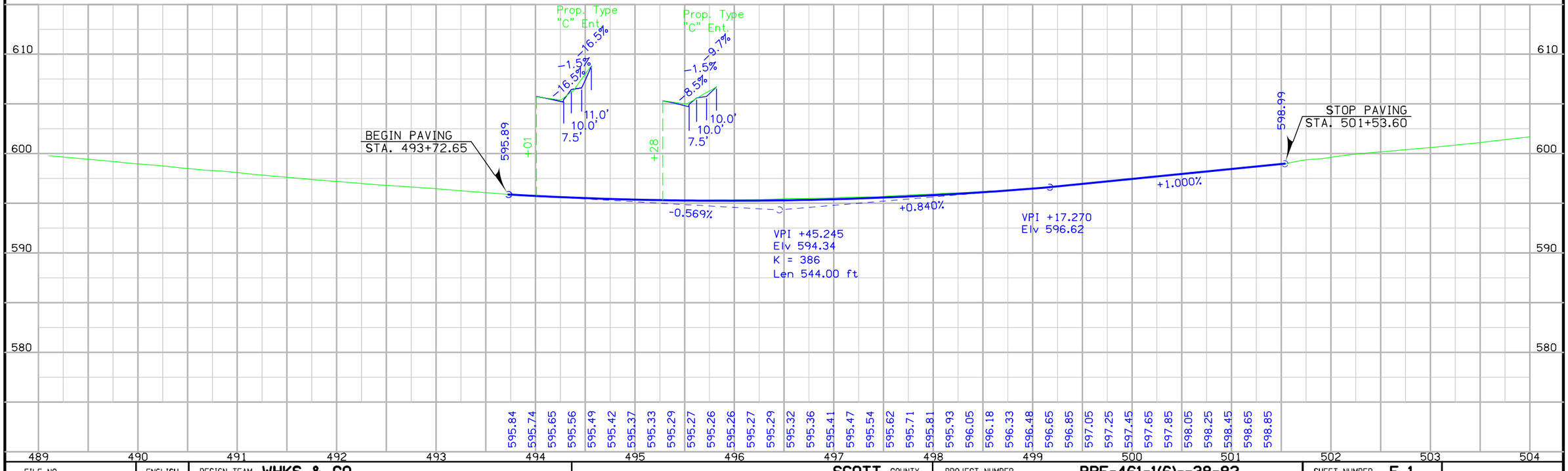


Cut = 2834 CY Fill+30% = 3906 CY
Need = 1072 CY
3906 CY



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER E.1

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SURVEY SYMBOLS

- PIP Pipe Culvert
- CUL Culvert
- GDL Guard Rail Steel
- LUM Luminaire
- TP TPD Telephone Pedestal
- PR Electic Riser Pole
- TA TA Tower Anchor
- FHD Fire Hydrants
- RET Retaining Walls
- GP GP Guard Post (Less Than 4 Posts)
- LIN Miscellaneous Line
- X LC Lot Corner
- PPA MidAmerican Energy
- MH Utility Access (Manhole)
- MIS Miscellaneous
- OUT Tile Outlet
- TVP TVP TV Pedestal
- UV Underground Utility Vault
- BRG Bridge
- Tile - TIL Tile Line
- GV Gas Valve
- WV WV Water Valve
- CU Back of Curb
- GU Gutter In Front of Curb
- CON Concrete or A/C Slab
- D Centerline Draw or Stream (Down)
- EP Edge of Paved Roads (ML or SR)
- SNP Unpaved Shoulder
- EG Edge of Gravel Road
- DU Centerline Draw or Stream (Up)
- ENU Edge Unpaved Entrance & Parking
- ENT Centerline BL of Entrance
- SH Paved Shoulder
- ENP Edge Paved Entrance & Park Lot
- SWK Sidewalk
- SH SNK Sink Hole
- St.S. - STA City of Davenport
- San. - SAA City of Davenport
- CP Control Point
- BM Bench Mark

UTILITY LEGEND

- TV - TVA Mediacom
- FO - FOA AT&T
- FO2 - FOB Century Link
- E1 - ELA MidAmerican Energy
- W - WLA Iowa American Water
- G - GLA MidAmerican Energy
- T2 - TLA Century Link

LEGEND AND SYMBOL INFORMATION SHEET

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER G.1

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Survey Information

Scott County
BRF-461-1(6)--38-62
PIN 14-82-461-030
IA 461 – Bridge replacement in Scott County over Ia 22 in Davenport Iowa
SAP 0863

General Information

Measurement units for this survey are US survey feet. This survey is for replacement of a structure.
This project is on Zone 11 IaRCS coordinates. This project has photo control.

Vertical Control

Vertical datum for this survey is relative to NAVD88 Opus Datum. Four-hour static sessions were observed on six control points along this project. The processed orthometric height was held fixed in a constrained vertical adjustment on CP103.

A level loop was run through all project control using the computed OPUS elevation on CP103 held fixed.

BM #500 EL= 592.989 this survey
BM #500 EL= 594.02 NHSN-61-5(130)--2r-82 Plan Sheet G01

BM #501 EL= 593.105 this survey
BM #501 EL= 594.14 NHSN-61-5(130)--2r-82 Plan Sheet G01

CP #103 EL= 579.053 this survey
CP #103 EL= 579.053 NAVD88 Opus

BM #507 EL= 636.871 this survey
BM #6a EL= 637.68 PCC Paving Plan 831(7)

BM #511 EL= 594.011 this survey
BM #10a EL= 594.25 PCC Paving Plan 831(7)

Horizontal Control

Four plus hours of Opus observations were used to verify the values of six points named CP101, CP102, CP103, CP104, CP105 and CP106. These Opus solutions were converted to Zone 11 IaRCS coordinates for the purpose of this survey. Additional control points were placed throughout the project using a Total Station.

Alignment Information

The Ia 461 horizontal alignment for this survey is a retrace of U-831(7) Paving Plan (Sheet 10). This tangent was intersected with the Ia 22 tangent under the bridge. Stationing was carried backward and forward through out the project.

The Ia 22 horizontal alignment for this survey is a retrace of U-831(7) Paving Plan Survey (Sheet 23). Stationing was equated to the Paving Plan at POT Sta 51+89.00. Stationing was carried backward and forward.

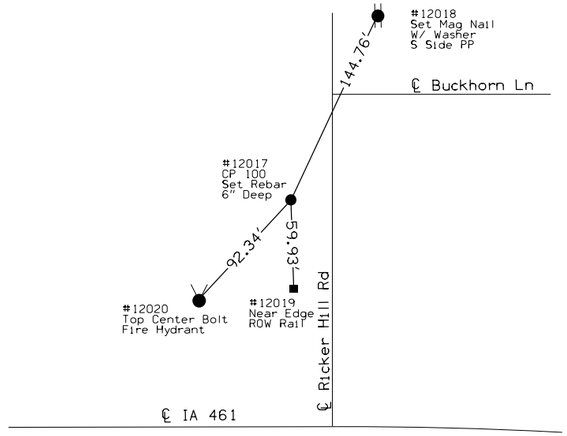
POT Sta 51+89.00 Ia 461 Survey
= POT Sta 496+57.40 Ia 22 Survey

VERTICAL CONTROL

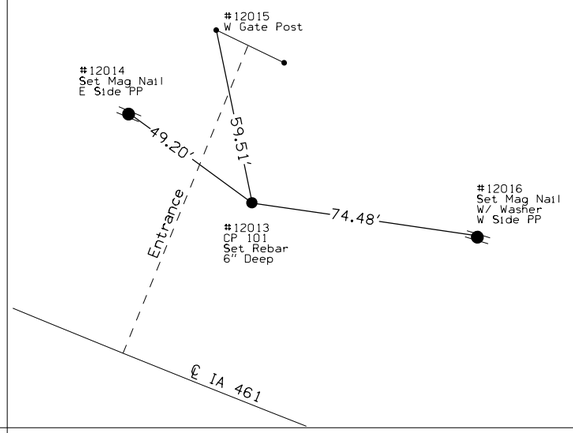
BENCHMARKS					ELEVATION
Ia 461 Stationing					
No. 500 **********		Y:8056223.533	X:21476253.334	Fd DOT Brass Button Top of Barrier Wall NE COR BRG EL=594.02 ----------	592.989
No. 501 **********		Y:8056018.637	X:21475820.552	Fd DOT Brass Button Top of Barrier Wall SW COR BRG EL=594.14 ----------	593.105
No. 502 Sta.	68+03.058	57.448 Lt.	Y:8056742.647	X:21471667.510 CUT X SW COR,Traffic Signal Base-------	589.736
No. 503 Sta.	61+76.510	99.865 Rt.	Y:8056872.390	X:21471034.678 Cut X on N Bolt F Hyd----------	591.014
No. 504 Sta.	52+76.805	28.61 Rt.	Y:8057326.497	X:21470254.720 Fd IHC SE Handrail of Bridge----------	614.291
No. 505 Sta.	51+02.180	29.219 Lt.	Y:8057454.288	X:21470122.405 Set MAG NAIL NW Handrail of Bridge-----	618.553
No. 506 Sta.	46+90.591	94.104 Lt.	Y:8057684.445	X:21469770.481 Set RR Spk S Side PP----------	629.189
No. 507 Sta.	41+89.143	120.015 Lt.	Y:8057882.093	X:21469301.006 Fd IHC BM on Inlet Hdwl 6 x 10 RCB=BM6a El=637.68 831(4),PCC Paving Plan--------	636.871
No. 508 Sta.	34+48.225	68.706 Rt.	Y:8057935.494	X:21468537.807 Set RR Spk E Side PP----------	653.750
Ia 22 Stationing					
No. 509 Sta.	504+16.894	62.762 Rt.	Y:8057952.987	X:21470701.977 Set RR Spk NW Side PP----------	600.553
No. 510 Sta.	499+57.801	65.837 Rt.	Y:8057587.802	X:21470423.740 Set RR Spk NW Side PP----------	593.841
No. 511 Sta.	495+56.494	37.922 Lt.	Y:8057333.660	X:21470096.288 Fd IHC BM on InHdwl 3 X 2 RCB----------	594.011
No. 512 Sta.	489+65.431	65.603 Lt.	Y:8056882.843	X:21469713.031 Cut x on E Bolt F Hyd----------	606.495

BENCHMARKS					ELEVATION
MISCELLANEOUS LOCATIONS					
No. 513 **********		Y:8043300.490	X:21477045.462	Fd 2nd order NGS Monu PID AH30684 NGS EL 562.994 Fd Rod 6" deep----------	562.994
No. 514 **********		Y:8046455.146	X:21479767.352	Fd 2nd order NGS Monu PID DP3502 NGS EL 569.937 Fd Rod 6" deep----------	569.937
No. 515 **********		Y:8048032.154	X:21480533.250	Fd 2nd order NGS Monu,PID DP3503 NGS EL 566.403,,Fd Rod 6" deep---------	566.403
No. 516 **********		Y:8052952.954	X:21483613.501	Fd 2nd order NGS Monu,PID DP3504 NGS EL 574.884 Fd Rod 6" deep----------	574.884
No. 517 **********		Y:8056168.841	X:21483752.307	Fd 2nd order NGS Monu,PID DP3505 NGS EL 570.261 Fd Rod 6" deep----------	570.261
No. 518 **********		Y:8059493.681	X:21487428.723	Fd 2nd order NGS Monu,PID DP3506 NGS EL 562.138 Fd Rod 6" deep----------	562.138

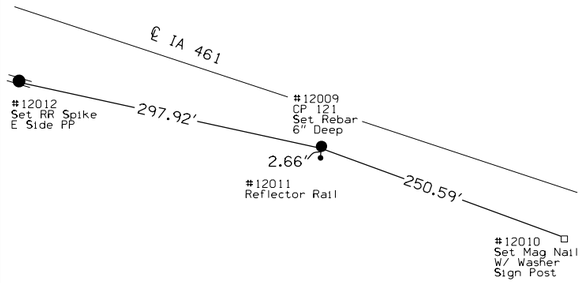
C.P. STA 8+56.49 LEFT 159.65
C.P. 100, Set Rebar 6" Deep
N=8058958.621 E=21466120.979



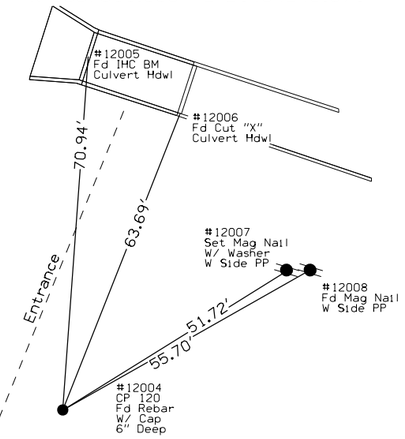
C.P. STA 31+35.41 LEFT 63.14
C.P. 101, Set Rebar 6" Deep
N=8058167.647 E=21468290.019



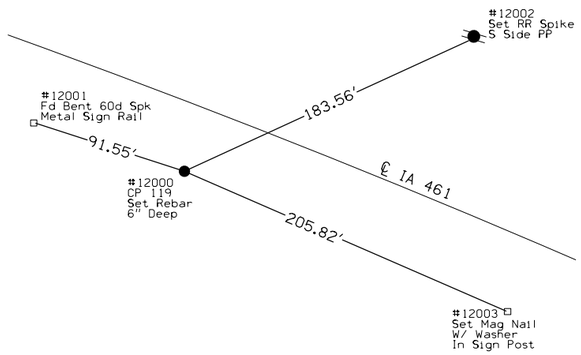
C.P. STA 37+43.99 RIGHT 37.64
C.P. 121, Set Rebar 6" Deep
N=8057871.925 E=21468828.868



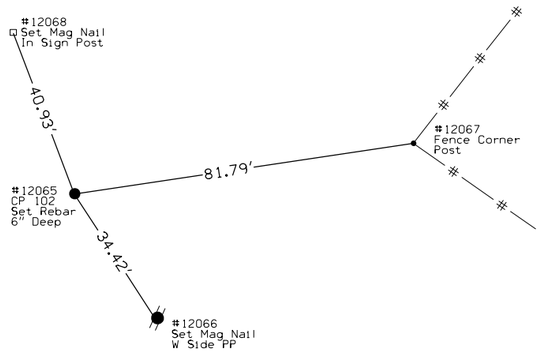
C.P. STA 42+06.45 LEFT 51.21
C.P. 120, Fd Rebar 6" Deep
N=8057811.336 E=21469295.871



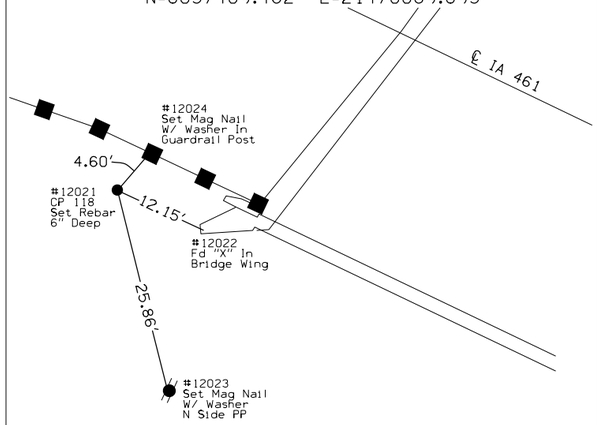
C.P. STA 45+64.54 RIGHT 38.76
C.P. 119, Set Rebar 6" Deep
N=8057607.831 E=21469603.676



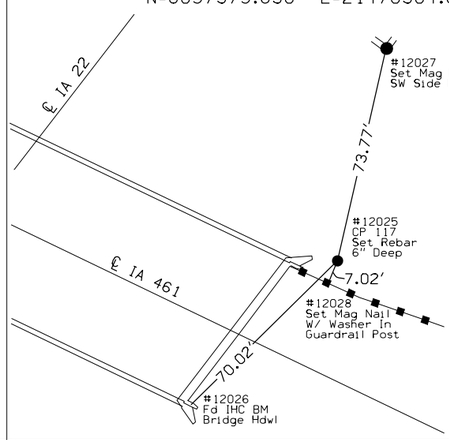
C.P. STA 50+40.67 RIGHT 1112.19
C.P. 102, Set Rebar 6" Deep
N=8056443.273 E=21469568.002



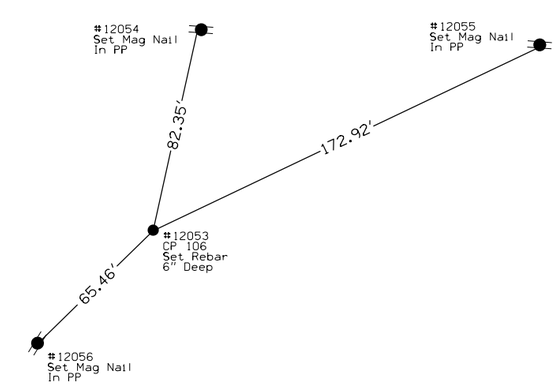
C.P. STA 50+74.28 RIGHT 33.94
C.P. 118, Set Rebar 6" Deep
N=8057409.462 E=21470069.895



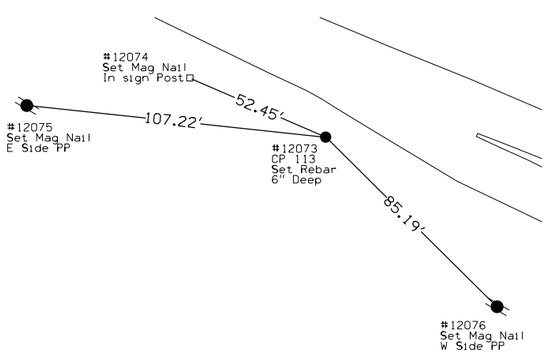
C.P. STA 53+00.47 LEFT 37.29
C.P. 117, Set Rebar 6" Deep
N=8057375.630 E=21470304.605



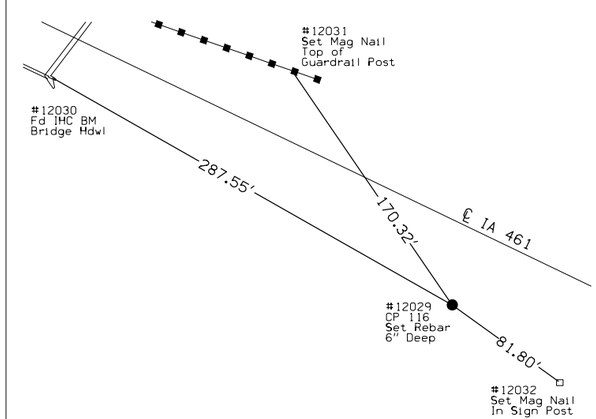
C.P. STA 54+78.01 LEFT 1276.82
C.P. 106, Set Rebar 6" Deep
N=8058415.793 E=21471001.764



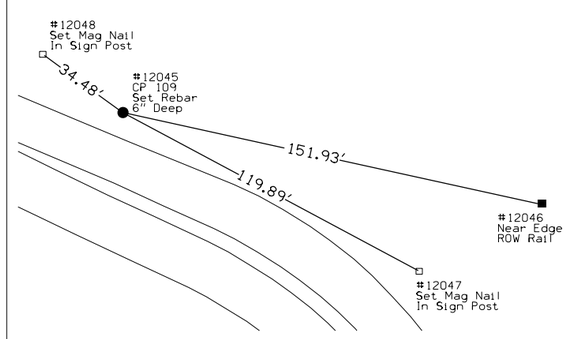
C.P. STA 55+42.13 RIGHT 390.55
C.P. 113, Set Rebar 6" Deep
N=8056885.326 E=21470336.987



C.P. STA 55+63.68 RIGHT 48.30
C.P. 116, Set Rebar 6" Deep
N=8057184.430 E=21470504.726



C.P. STA 56+53.17 LEFT 374.69
C.P. 109, Set Rebar 6" Deep
N=8057526.860 E=21470768.684



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER G.3

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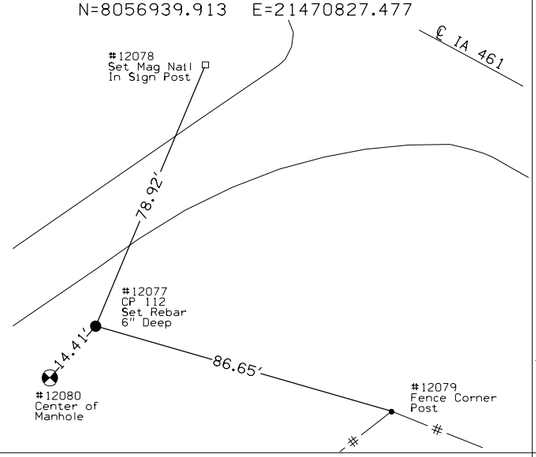
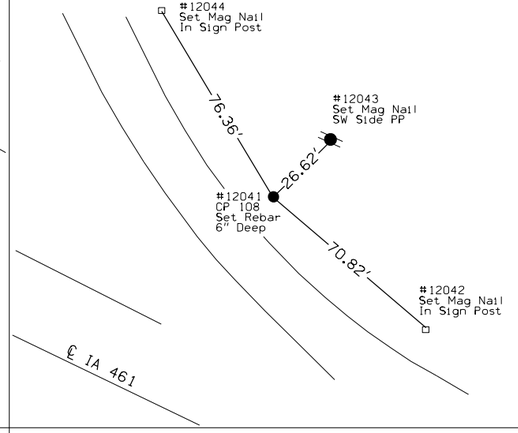
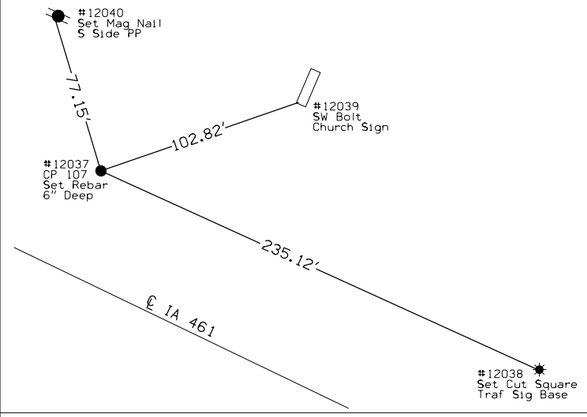
C.P. STA 59+60.52 RIGHT 128.80
C.P. 112, Set Rebar 6" Deep
N=8056939.913 E=21470827.477



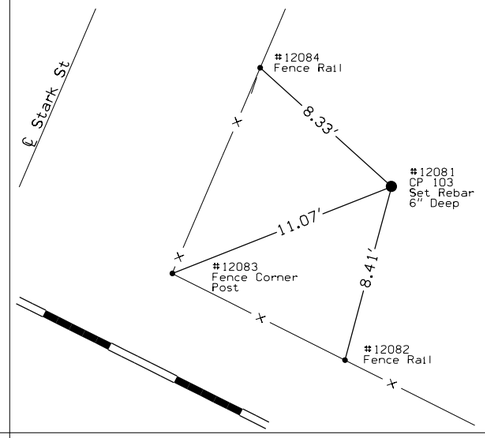
C.P. STA 60+35.81 LEFT 83.70
C.P. 108, Set Rebar 6" Deep
N=8057098.798 E=21470987.426



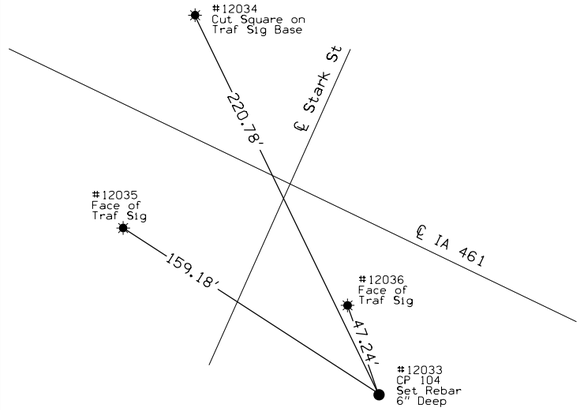
C.P. STA 65+68.00 LEFT 52.38
C.P. 107, Set Rebar 6" Deep
N=8056839.943 E=21471453.471



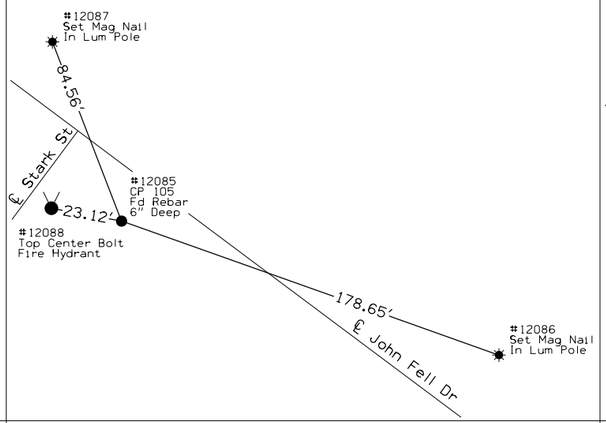
C.P. STA 68+32.82 RIGHT 1100.08
C.P. 103, Set Rebar 6" Deep
N=8055686.557 E=21471192.710



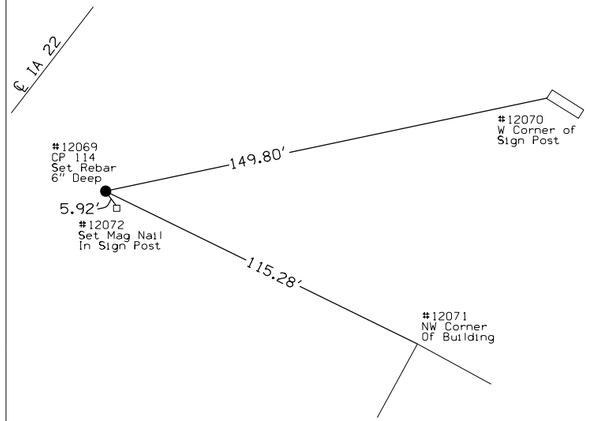
C.P. STA 69+76.00 RIGHT 79.79
C.P. 104, Set Rebar 6" Deep
N=8056544.023 E=21471763.896



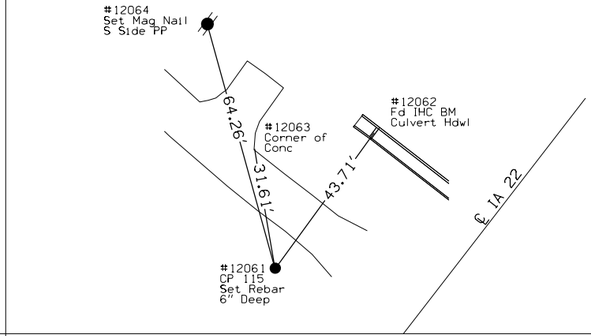
C.P. STA 70+51.93 LEFT 731.35
C.P. 105, Set Rebar 6" Deep
N=8057242.134 E=21472183.834



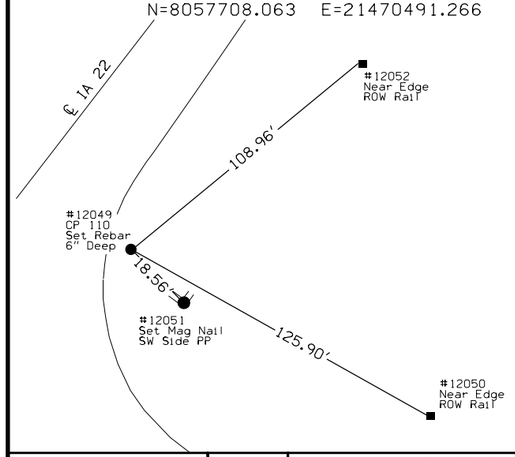
C.P. STA 490+67.15 RIGHT 40.56
C.P. 114, Set Rebar 6" Deep
N=8056898.435 E=21469859.226



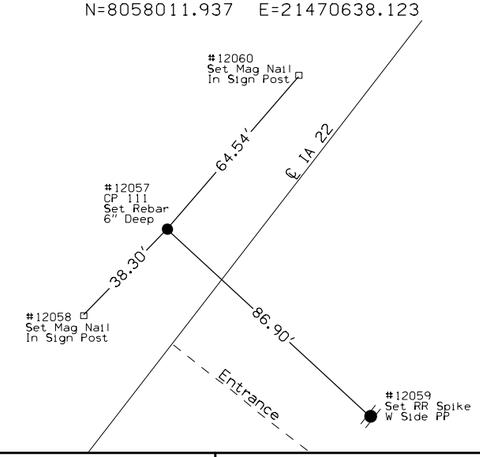
C.P. STA 495+12.76 LEFT 36.74
C.P. 115, Set Rebar 6" Deep
N=8057298.329 E=21470070.492



C.P. STA 500+94.25 RIGHT 45.75
C.P. 110, Set Rebar 6" Deep
N=8057708.063 E=21470491.266



C.P. STA 504+24.51 LEFT 23.81
C.P. 111, Set Rebar 6" Deep
N=8058011.937 E=21470638.123



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER G.4

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POT Sta 0+00.44

5

461

10

PC Sta 8+88.14

15

PI Sta 15+57.05

Curve Data
Δ = 26° 17′ 08.55″ (RT)
T = 668.92
L = 1,314.29
R = 2,864.79
E = 77.06

20

PI Sta 22+02.42

461

25

PC Sta 27+05.59

Curve Data
Δ = 7° 53′ 15.45″ (LT)
T = 395.01
L = 788.76
R = 5,729.58
E = 13.60

30

PI Sta 31+00.59

PT Sta 34+94.35

35

Matchline A-A

FEET
0 100

N

Curve Data
Δ = 7° 24′ 43.01″ (RT)
T = 371.11
L = 741.19
R = 5,729.58
E = 12.01

40

Matchline A-A

461

45

PI Sta 46+55.81

PC Sta 42+84.70

50

PT Sta 50+25.89

495

22

POT Sta 492+83.01
POT Sta 2000+00.00

Ramp B (SR022B)

2000

2005

PC Sta 2005+31.00

Curve Data
Δ = 90° 02′ 56.45″ (LT)
T = 249.21
L = 391.34
R = 249.00
E = 103.29

PI Sta 2007+80.21

55

POT Sta 58+91.42
POT Sta 2010+39.99

PT Sta 2009+22.34

2010

POT Sta 59+03.38
POT Sta 1008+80.44

PT Sta 1007+82.85

60

461

65

70

Matchline B-B

POT Sta 500+11.45
POT Sta 1000+00.00

500

1000

Ramp A (SR022A)

PC Sta 1003+91.54

1005

PI Sta 1006+40.72

Curve Data
Δ = 90° 02′ 32.47″ (RT)
T = 249.18
L = 391.31
R = 249.00
E = 103.27

FEET
0 100

N

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER G.5

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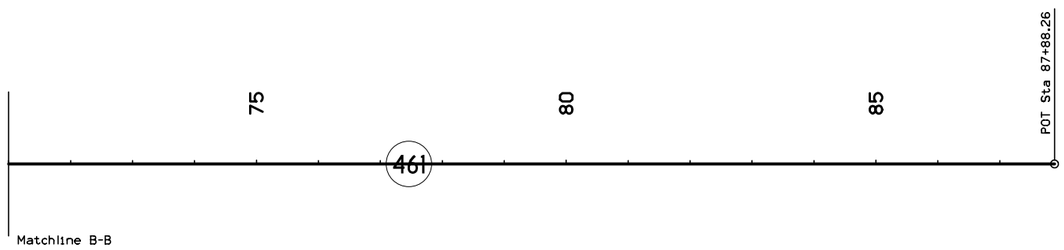
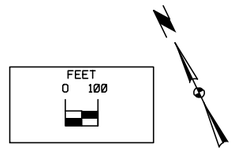
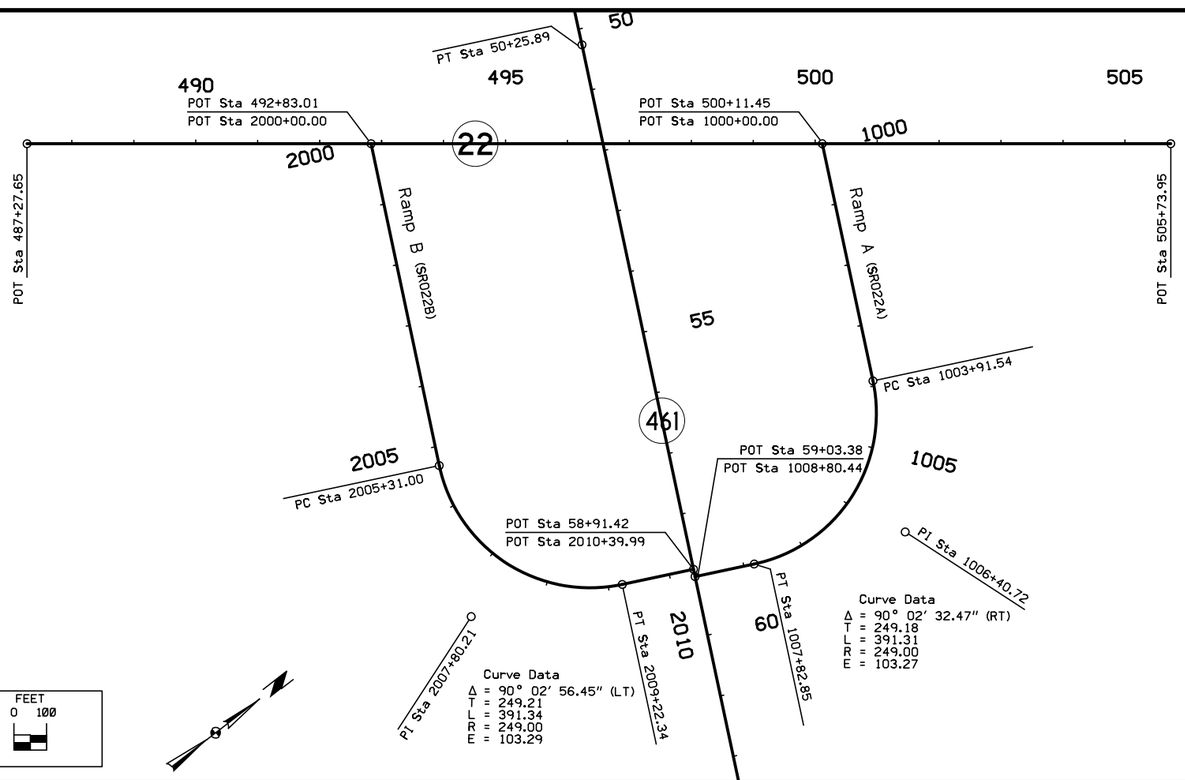






FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER G.6

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)
ML 461																			
ML461_AL7		00+00.44	8,058,797.037	21,465,265.297															
ML461_Curve1								08+88.14	8,058,799.043	21,466,152.989	15+57.05	8,058,800.544	21,466,821.903	22+02.42	8,058,505.682	21,467,422.320			
ML461_Curve2								27+05.59	8,058,283.876	21,467,873.960	31+00.59	8,058,109.749	21,468,228.515	34+94.35	8,057,985.926	21,468,603.611			
ML461_Curve3								42+84.70	8,057,738.174	21,469,354.120	46+55.81	8,057,621.840	21,469,706.530	50+25.89	8,057,461.016	21,470,040.988			
ML461_AL11		87+88.26	8,055,830.578	21,473,431.730															
SR022																			
SR022_AL3		487+27.65	8,056,654.571	21,469,619.580															
SR022_AL4		505+73.95	8,058,115.641	21,470,748.325															
SR022 A																			
SR022A_34000		1000+00.00	8,057,670.504	21,470,404.436															
SR022A_Curve1								1003+91.54	8,057,501.091	21,470,757.424	1006+40.72	8,057,393.272	21,470,982.074	1007+82.85	8,057,168.701	21,470,874.089			
SR022A_34003		1008+80.44	8,057,080.754	21,470,831.800															
SR022 B																			
SR022B_35000		2000+00.00	8,057,094.053	21,469,959.100															
SR022B_Curve1								2005+31.00	8,056,863.535	21,470,437.450	2007+80.21	8,056,755.345	21,470,661.954	2009+22.34	8,056,979.942	21,470,769.951			
SR022B_35003		2010+39.99	8,057,085.977	21,470,820.938															

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	
ML 461																
ML461_Curve1											26° 17′ 08.5″ (RT)	668.916	1,314.285	2,864.789	77.058	
ML461_Curve2											07° 53′ 15.4″ (LT)	395.005	788.762	5,729.578	13.600	
ML461_Curve3											07° 24′ 43.0″ (RT)	371.115	741.195	5,729.578	12.006	
SR022 A																
SR022A_Curve1											90° 02′ 32.5″ (RT)	249.184	391.312	249.000	103.269	
SR022 B																
SR022B_Curve1											90° 02′ 56.4″ (LT)	249.213	391.341	249.000	103.290	

SUPERELEVATION DATA

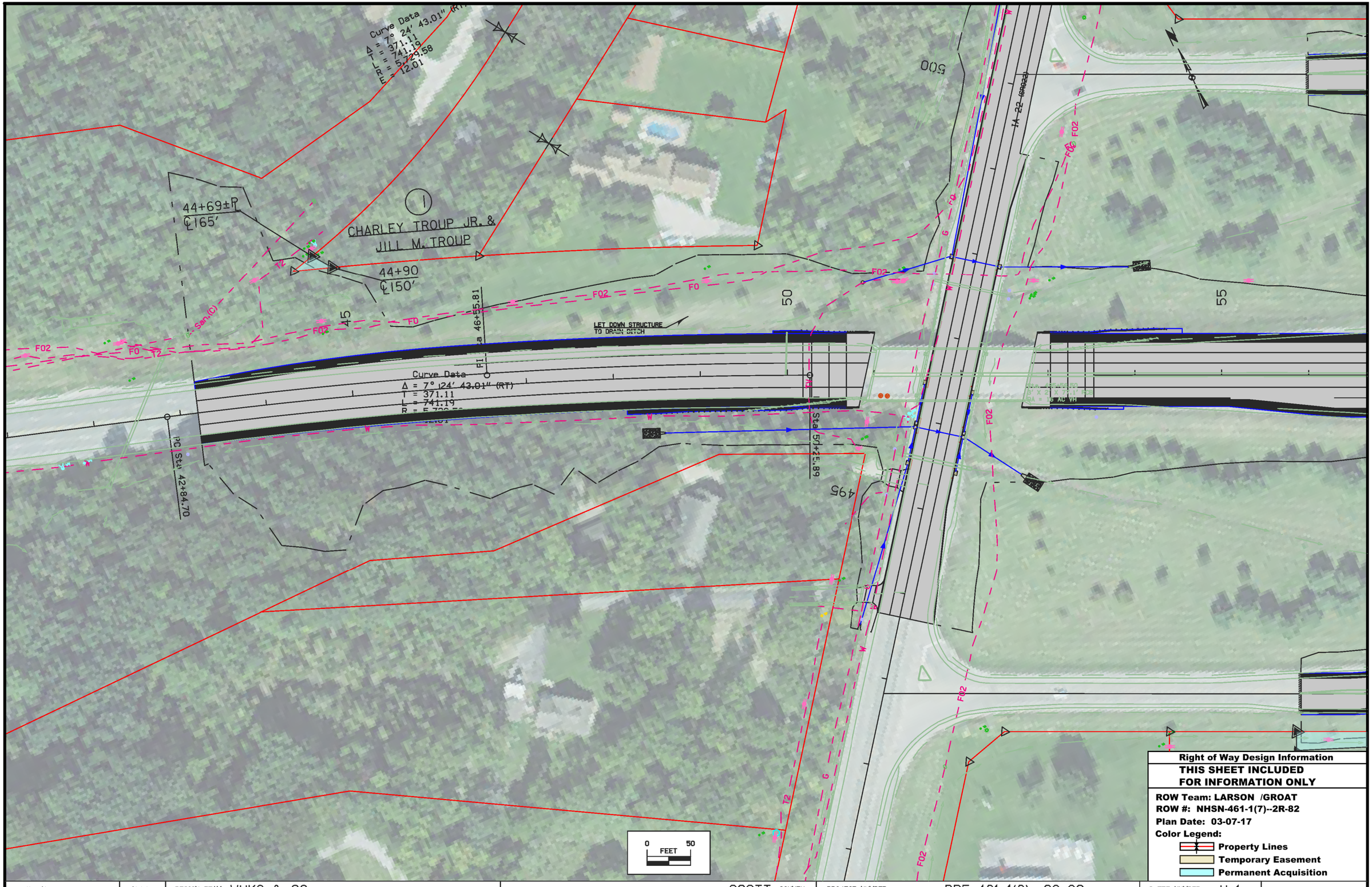
See PV-300 Series

Road Identification	Circular Curve or Spiral Curve Name	Radius	Superelevation Data			Standard Road Plan	Section A-A	Section B-B	Section C-C	Section D-D	Section E-E	Section F-F	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
			e	L	x														
		FT	%	FT	FT														
ML461	ML461_Curve3	5729.3	2.08	29.66	28.52	PV-301	42+35.42	42+63.94	42+92.46	42+93.60				42+84.70					
							50+75.17	50+46.65	50+18.13	50+16.99				50+25.89					
SR022A	SR022A_Curve1	249.0	6.00	127.00	43.00	PV-303	1003+45.64		1003+91.54	1004+29.64						1003+87.31	1003+87.31		
							1008+28.75		1007+82.85	1007+44.75						1007+87.08	1007+87.08		
SR022B	SR022B_Curve1	249.0	6.00	127.00	43.00	PV-303	2004+85.10		2005+31.00	2005+69.10						2005+26.77	2005+26.77		
							2009+68.24		2009+22.34	2008+84.24						2009+26.57	2009+26.57		

Scott ROW: NHSN-461-1(7)--2R-82 PIN 14-82-461-030

Business 61 in Davenport over IA 22

		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	Charley Troup Jr. - Fee	333 SF														
2	Albros Realty Company, Inc. - Fee	2900 SF														
3	Glen E. Gierke Marital Trust - Fee	1667 SF														
4	Dwight D. Holmes - Fee	864 SF														
4 Parcels	"TOTALS	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC					
		5764 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF								



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER H.1

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4

DWIGHT D. &
MICHELLE L. HOLMES

1005+80
℄65'±Ex.R/W

1006+00
℄75'

1006+25
℄80'

1006+43±Ex.R/W
℄80'

60

65

70

IA 461

W
TV
T2
G

2008+30
℄76'±Ex.R/W

2008+00
℄75'

3

GLEN E. GIERKE
MARITAL TRUST

2007+35
℄75'

2006+85
℄70'±Ex.R/W

2

2004+75
℄65'

2006+00
℄70'

ALBROS REALTY COMPANY, INC.

2006+35
℄71'±Ex.R/W

0 50
FEET

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: LARSON /GROAT
ROW #: NHSN-461-1(7)--2R-82
Plan Date: 03-07-17
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER H.2

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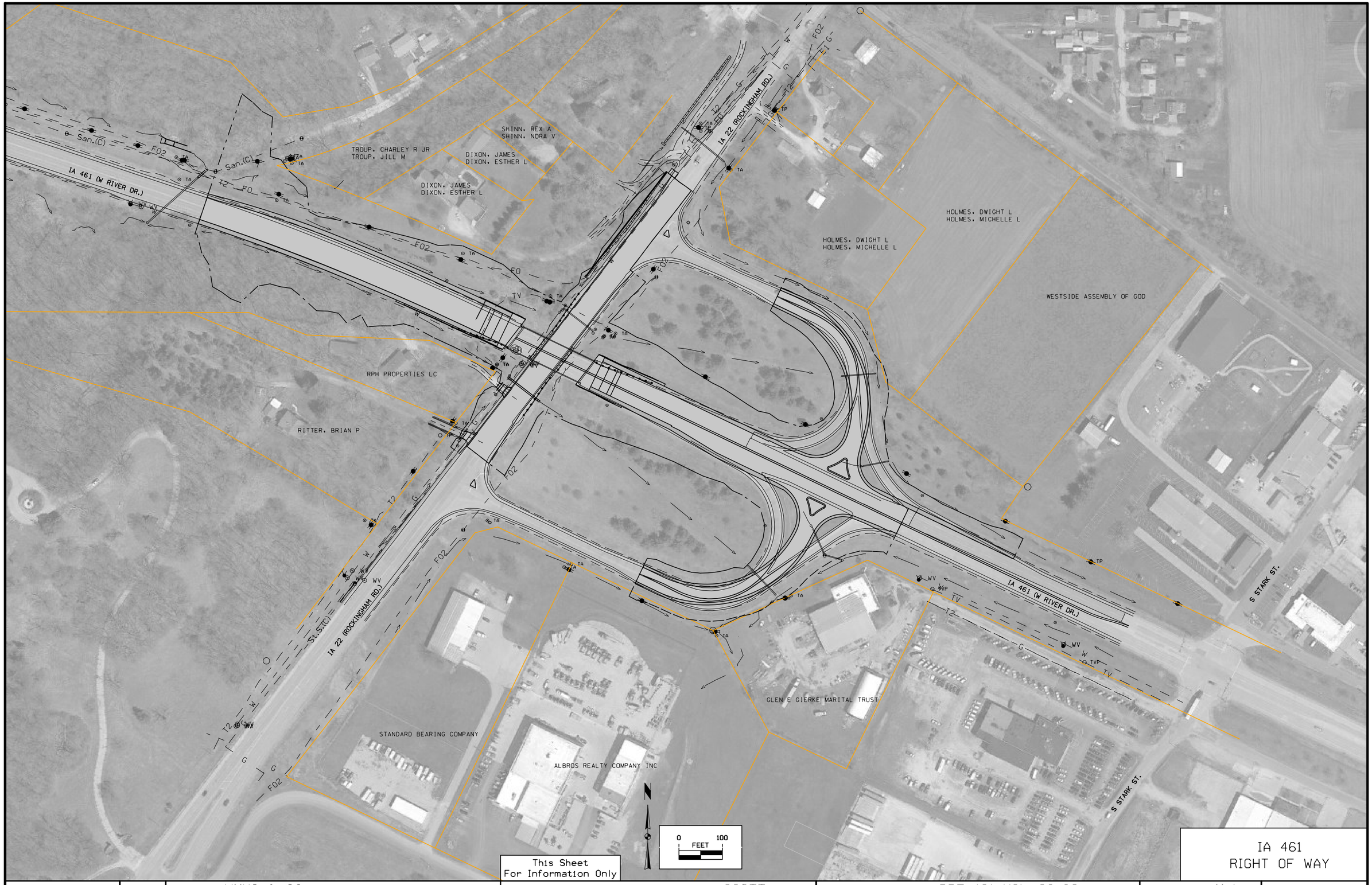

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108-26A
08-01-08

STAGING NOTES

Stage 1

Construction
  Remove Median and Patch Pavement from Sta. 60+67.59 to the Intersection of IA 461 and S. Stark St.
Traffic Control
  IA 461 - Direct traffic in both directions to outside lanes using Standard Road Plan TC-419

Stage 2A

Construction
  Construct Ramp A and Temporary Pavement for HMA Runout
Traffic Control
  IA 461 - Switch traffic to EB lanes using Standard Road Plan TC-423
  IA 22 - Use I-280 detour to access IA 461

Stage 2B

Construction
  Construct Ramp B
Traffic Control
  IA 461 - Switch traffic to WB lanes using Standard Road Plan TC-423
  IA 22 - Use I-280 detour to access IA 461

Stage 3

Construction
  IA 461, Bridge, and Retaining Wall
Traffic Control
  IA 461 - Close IA 461 and detour traffic onto I-280 and IA 22
  IA 22 - Alternating lane closures (TC-419) during Bridge Removal and Construction

Stage 4

Construction
  Construct SB IA 22
Traffic Control
  IA 22 - Switch traffic to NB lanes using Standard Road Plan TC-423

Stage 5

Construction
  Construct NB IA 22
Traffic Control
  IA 22 - Switch traffic to SB lanes using Standard Road Plan TC-423
  IA 461 - Use I-280 detour to access IA 22

108-23A
08-01-08

TRAFFIC CONTROL PLAN

Refer to Tab. 108-26A and Sheet Nos. J.3 to J.7 for traffic control details.

111-01
04-17-12

COORDINATED OPERATIONS

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

Project	Type of Work

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

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

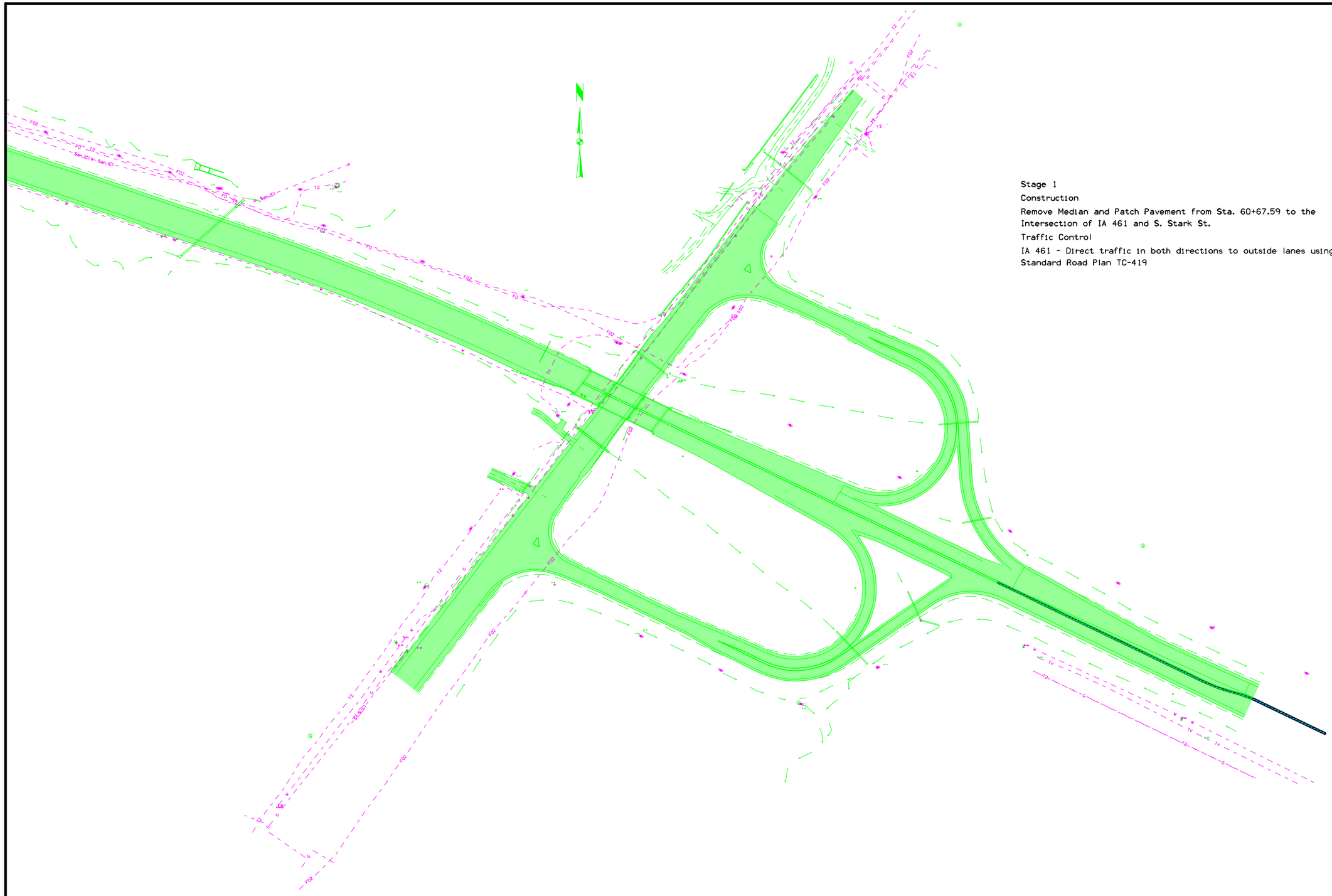
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

●	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
ς	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

(COVERS SHEET SERIES J)



Stage 1

Construction

Remove Median and Patch Pavement from Sta. 60+67.59 to the Intersection of IA 461 and S. Stark St.

Traffic Control

IA 461 - Direct traffic in both directions to outside lanes using Standard Road Plan TC-419

0 100 FEET

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER J.3

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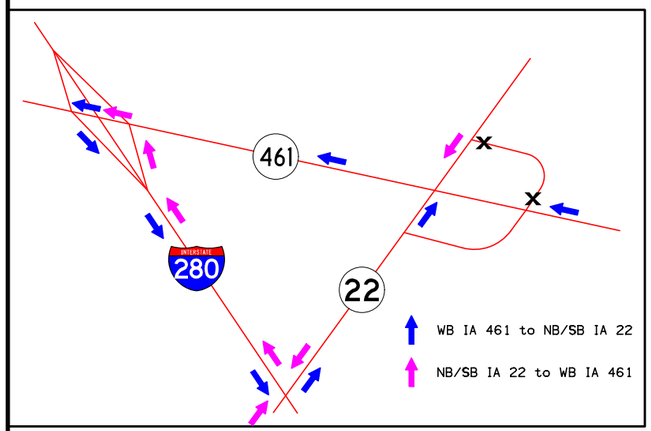

Stage 2A
Construction
Construct Ramp A and Temporary Pavement for HMA Runout
Traffic Control
IA 461 - Switch traffic to EB lanes using Standard Road Plan TC-423
IA 22 - Use I-280 detour to access IA 461

0 100
FEET

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER J.4

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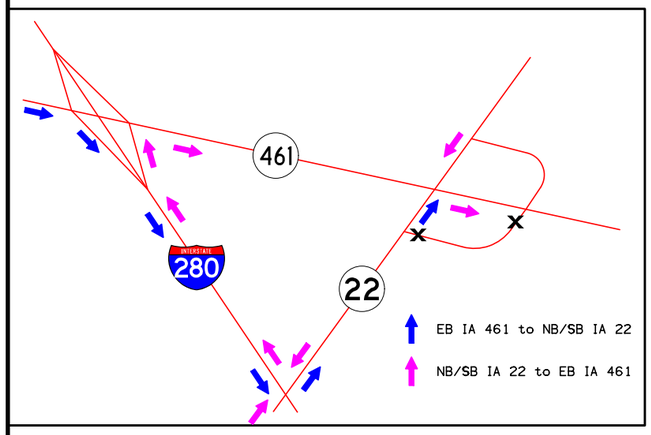

Stage 2B
Construction
Construct Ramp B
Traffic Control
IA 461 - Switch traffic to WB lanes using Standard Road Plan TC-423
IA 22 - Use I-280 detour to access IA 461

0 100
FEET

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER J.5

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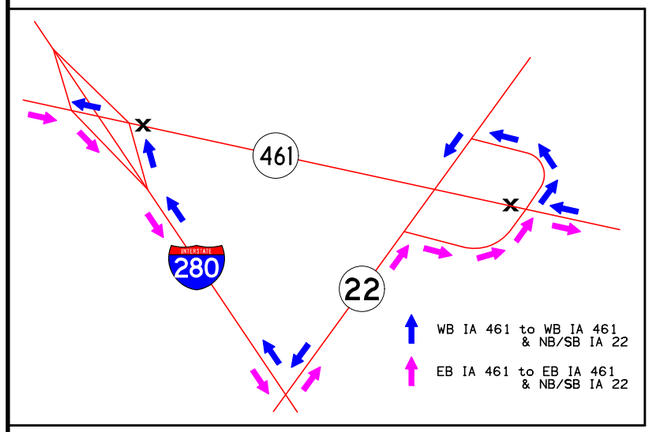
Stage 3
Construction
IA 461, Bridge, and Retaining Wall
Traffic Control
IA 461 - Close IA 461 and detour traffic onto I-280 and IA 22
IA 22 - Alternating lane closures (TC-419) during Bridge Removal and Constrcution



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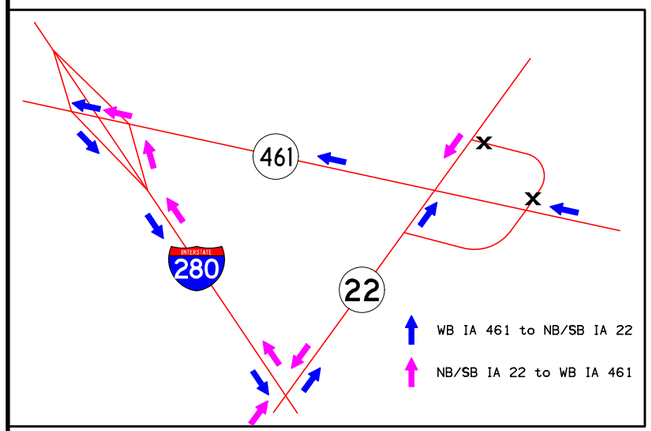

Stage 4
Construction
Construct SB IA 22
Traffic Control
IA 22 - Switch traffic to NB lanes using Standard Road Plan TC-423

Stage 5
Construction
Construct NB IA 22
Traffic Control
IA 22 - Switch traffic to SB lanes using Standard Road Plan TC-423
IA 461 - Use I-280 detour to access IA 22

0 100
FEET

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER J.7

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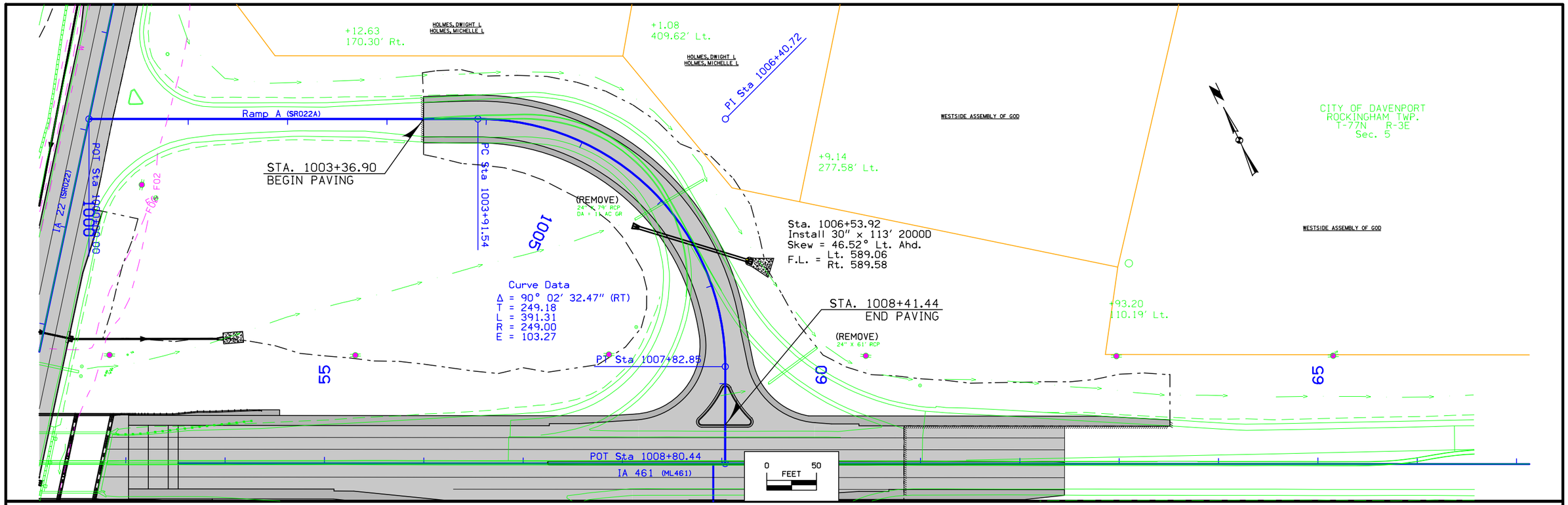

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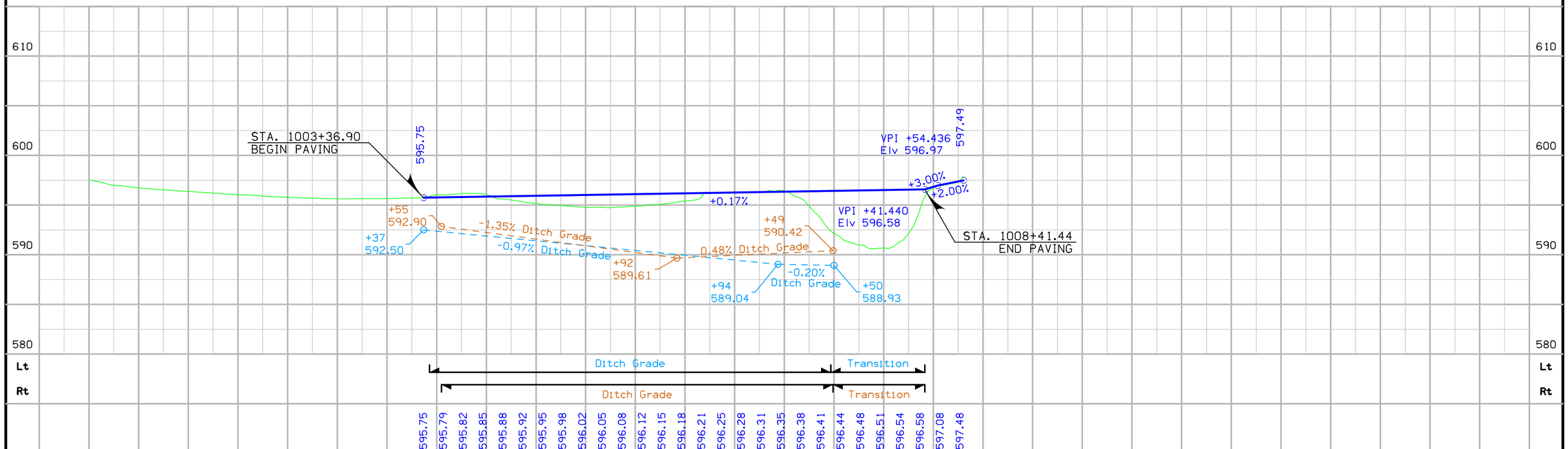
Waste = 1854 CY
3432 CY

Cut = 3432 CY



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER K.1

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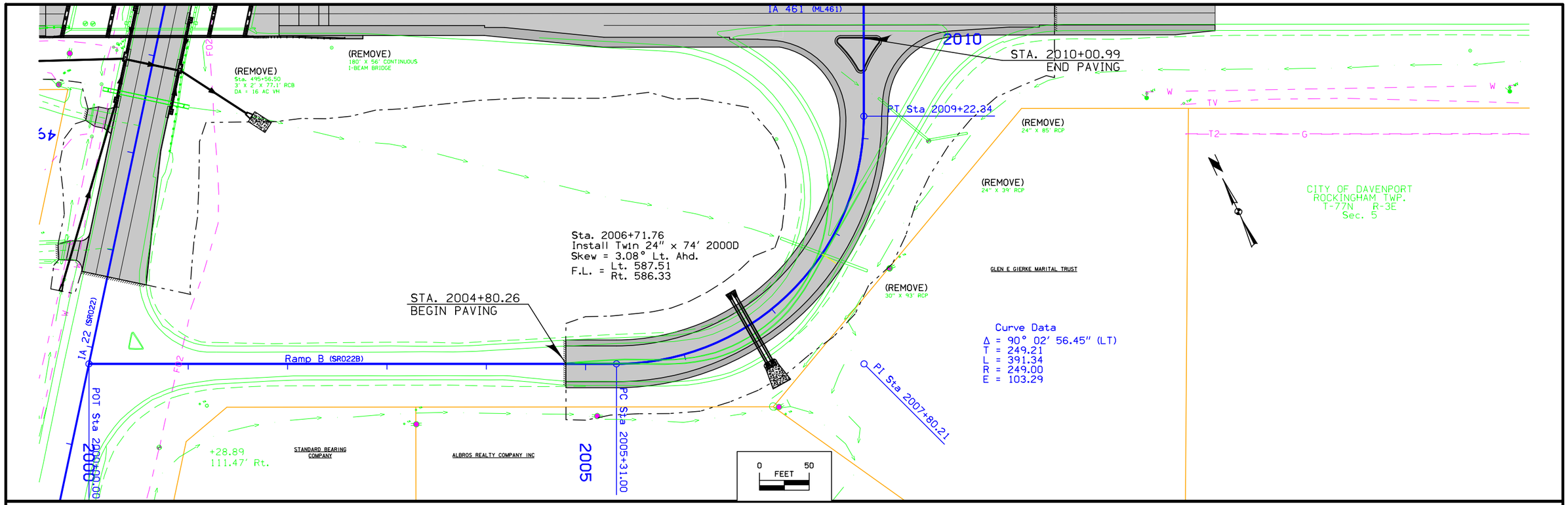

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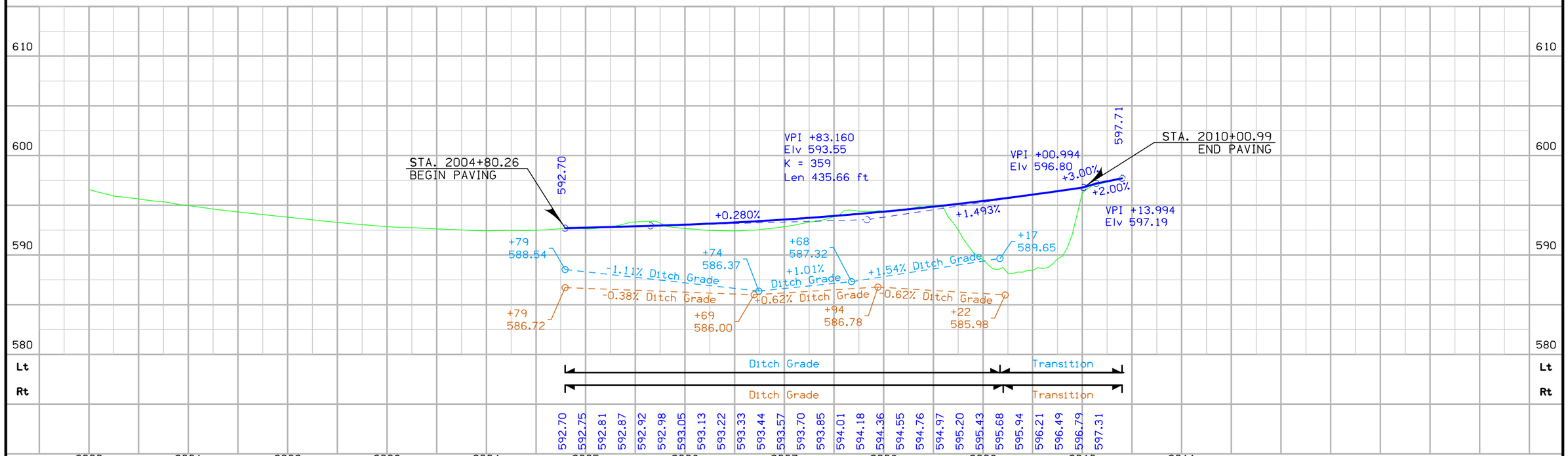
Waste = 2366 CY
4467 CY

Cut = 4467 CY



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CITY OF DAVENPORT
ROCKINGHAM TWP.
T-77N R-3E
SEC.5

Sta 1007+49.09 18.00' Rt SR022A
= Sta 10000+00.00 SR022A_RET_1
FG ELEV -

Radius Point
Sta 58+08.94 118.67' Lt ML461
= Sta 1007+49.09 93.00' Rt SR022A
FG ELEV -

Sta 58+13.53 43.84' Lt ML461
= Sta 10001+22.99 SR022A_RET_1
FG ELEV -

Sta 57+26.34 38.00' Lt ML461
= Sta 10002+10.78 SR022A_RET_1

R = 75'

SR022A_RET_1

87.79 ft 15:1 Taper

18.00'

18.00'

SR022A

Sta 1007+49.98 18.00' Lt SR022A
= Sta 40001+77.71 SR022A_RET_4

32.63 ft 15:1 Taper

Sta 1007+79.66 22.32' Lt SR022A
= Sta 40001+45.08 SR022A_RET_4
FG ELEV -

Radius Point
Sta 59+99.12 116.00' Lt ML461
= Sta 1007+69.56 96.23' Lt SR022A
FG ELEV -

R = 75'

SR022A_RET_4

Sta 59+94.13 41.17' Lt ML461
= Sta 40000+47.60 SR022A_RET_4
FG ELEV -

Sta 60+41.62 38.00' Lt ML461
= Sta 40000+00.00 SR022A_RET_4

47.60 ft 15:1 Taper

38.00'

38.00'

IA 461

IA 461

POT Sta 1008+80.44 SR022B
= POT Sta 58+91.32 ML461

90°00'00.00"

90°00'00.00"

90°00'00.00"

90°00'00.00"

POT Sta 2010+33.99 SR022A
= POT Sta 59+03.38 ML461

26.00'

38.00'

87.55 ft 15:1 Taper

44.89 ft 15:1 Taper

Sta 57+53.82 38.00' Rt ML461
= Sta 20000+00.00 SR022B_RET_2

Sta 60+67.59 26.00' Rt ML461

SR022B_RET_2

SR022B_RET_3

Sta 57+98.61 40.99' Rt ML461
= Sta 20000+44.89 SR022B_RET_2
FG ELEV -

R = 80'

SR022B

16.02 ft 15:1 Taper

R = 75'

Sta 59+80.24 31.82' Rt ML461
= Sta 30001+23.85 SR022B_RET_3
FG ELEV -

Radius Point
Sta 57+93.29 120.81' Rt ML461
= Sta 2009+17.14 98.00' Lt SR022B
FG ELEV -

Radius Point
Sta 59+85.22 106.66' Rt ML461
= Sta 2009+33.34 93.90' Rt SR022B
FG ELEV -

Sta 2009+38.33 19.07' Rt SRR022B
= Sta. 30000+16.02 SR022B_RET_3
FG ELEV -

Sta 2009+17.14 18.00' Lt SR022B
= Sta 20001+66.90 SR022B_RET_2
FG ELEV -

18.00'

18.00'

Sta 2009+22.34 18.00' Rt SR022B
= Sta 30000+00.00 SR022B_RET_3

Design Vehicle: WB-67D
Off-track Distance: 3 feet

0 15
FEET

NOTES:

Dimensions shown are to the back of curb.

Refer to Sheet D.3 for horizontal alignment information.

Refer to appropriate Standard Road Plans for additional information.

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER L.1

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NOTES:

TOP OF BRIDGE DECK CROWN 0.03' BELOW PROFILE GRADE.

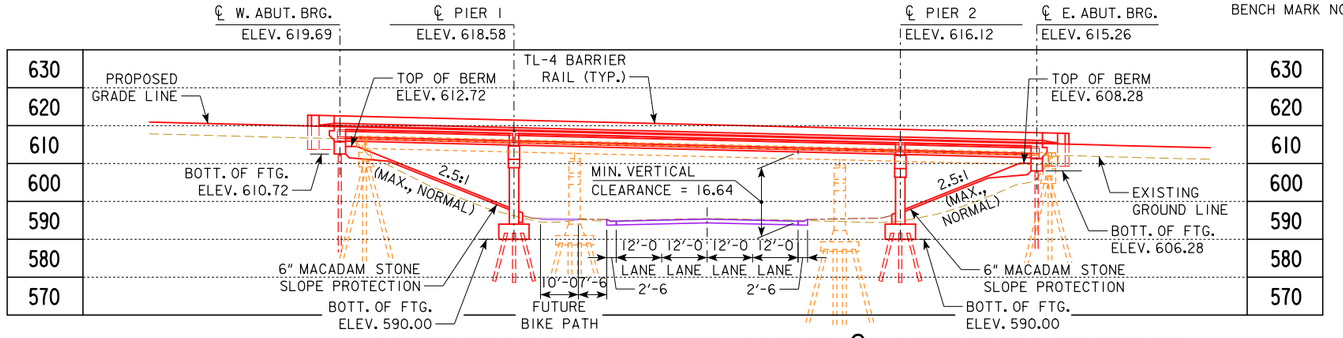
TL-4 BRIDGE RAILING PROPOSED.

BEAM TYPE - BTB

PIER TYPE - FRAME

PIERS TO BE DESIGNED FOR COLLISION AND INCORPORATE A CRASH STRUT.
PIER FIXITY T.B.D. DURING FINAL DESIGN.
PILE DOWNDRAG REQUIRED UNLESS WAIT TIMES AND SURCHARGES ARE SATISFIED.
BRIDGE AESTHETICS T.B.D. DURING FINAL DESIGN.

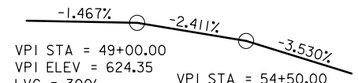
BENCH MARK NO. 511: STA. 495+56.494, 37.922 LT. - FD IHC BM ON IN HDWL 3 FT. X 2 FT. RCB - ELEV. 594.011



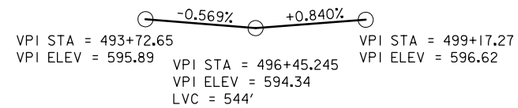
LONGITUDINAL SECTION ALONG ℄ APPROACH ROADWAY

CURVE DATA

Δ = 7°24'43.01" (RT)
T = 371.11
L = 741.19
E = 12.01
R = 5729.58
NOTE: TRANSITION RUN-OUT DOES NOT EXTEND ONTO BRIDGE.



PROPOSED PROFILE GRADE ON IA. 461



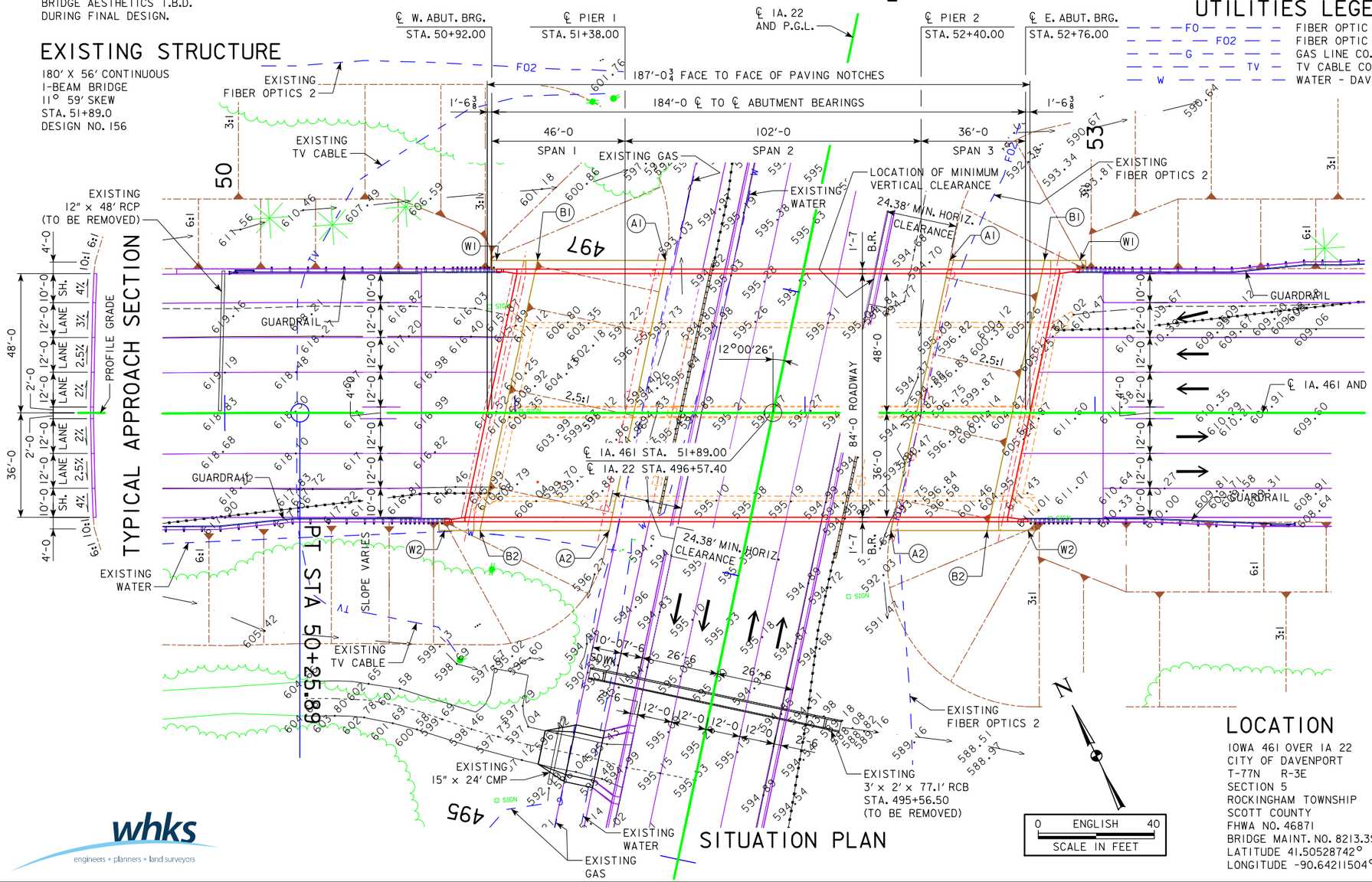
PROPOSED PROFILE GRADE ON IA. 22

EXISTING STRUCTURE

180' X 56' CONTINUOUS I-BEAM BRIDGE
11° 59' SKEW
STA. 51+89.0
DESIGN NO. 156

UTILITIES LEGEND:

FO — FIBER OPTIC CO. 1 - AT&T
FO2 — FIBER OPTIC CO. 2 - CENTURY LINK
G — GAS LINE CO. 1 - MIDAMERICAN ENERGY
TV — TV CABLE CO. 1 - MEDIACOM
W — WATER - DAVENPORT WATER DEPARTMENT



SITUATION PLAN

TYPICAL APPROACH SECTION

MINIMUM VERTICAL CLEARANCE

OVERHEAD STATION = 52+23.34, OFFSET 46.08
OVERHEAD ELEVATION = 615.37
DEPTH OF SUPERSTRUCTURE = 3.83
UNDERPASS STATION = 497+09.62, OFFSET 24.00
UNDERPASS ELEVATION = 594.90
MINIMUM VERTICAL CLEARANCE = 16.64

TRAFFIC ESTIMATE IA. 461

2010 AADT	9,800	V.P.D.
2030 AADT	12,000	V.P.D.
20__ DHV	-	V.P.H.
TRUCKS	11	%
TOTAL DESIGN ESALs	3,900,000	

TRAFFIC ESTIMATE IA. 22

2010 AADT	6,124	V.P.D.
2030 AADT	7,500	V.P.D.
20__ DHV	-	V.P.H.
TRUCKS	11	%
TOTAL DESIGN ESALs	2,400,000	

LOCATION

IOWA 461 OVER IA 22
CITY OF DAVENPORT
T-77N R-3E
SECTION 5
ROCKINGHAM TOWNSHIP
SCOTT COUNTY
FHWA NO. 46871
BRIDGE MAINT. NO. 8213.3S061
LATITUDE 41.50528742°
LONGITUDE -90.64211504°

PRELIMINARY

DESIGN FOR 12° SKEW (LA)

184'-0 X 84'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 & 36'-0 END SPANS (BTB BEAM TYPE) 102'-0 INTERIOR SPAN

SITUATION PLAN

STATION: 51+84.00 (IA. 461) SEPTEMBER 2016

SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 3 FILE NO. 31180 DESIGN NO. 318

whks engineers + planners + land surveyors

DESIGN TEAM JJP/LMG/JJS | SCOTT COUNTY | PROJECT NUMBER BRF-461-1(6)--38-82 | SHEET NUMBER

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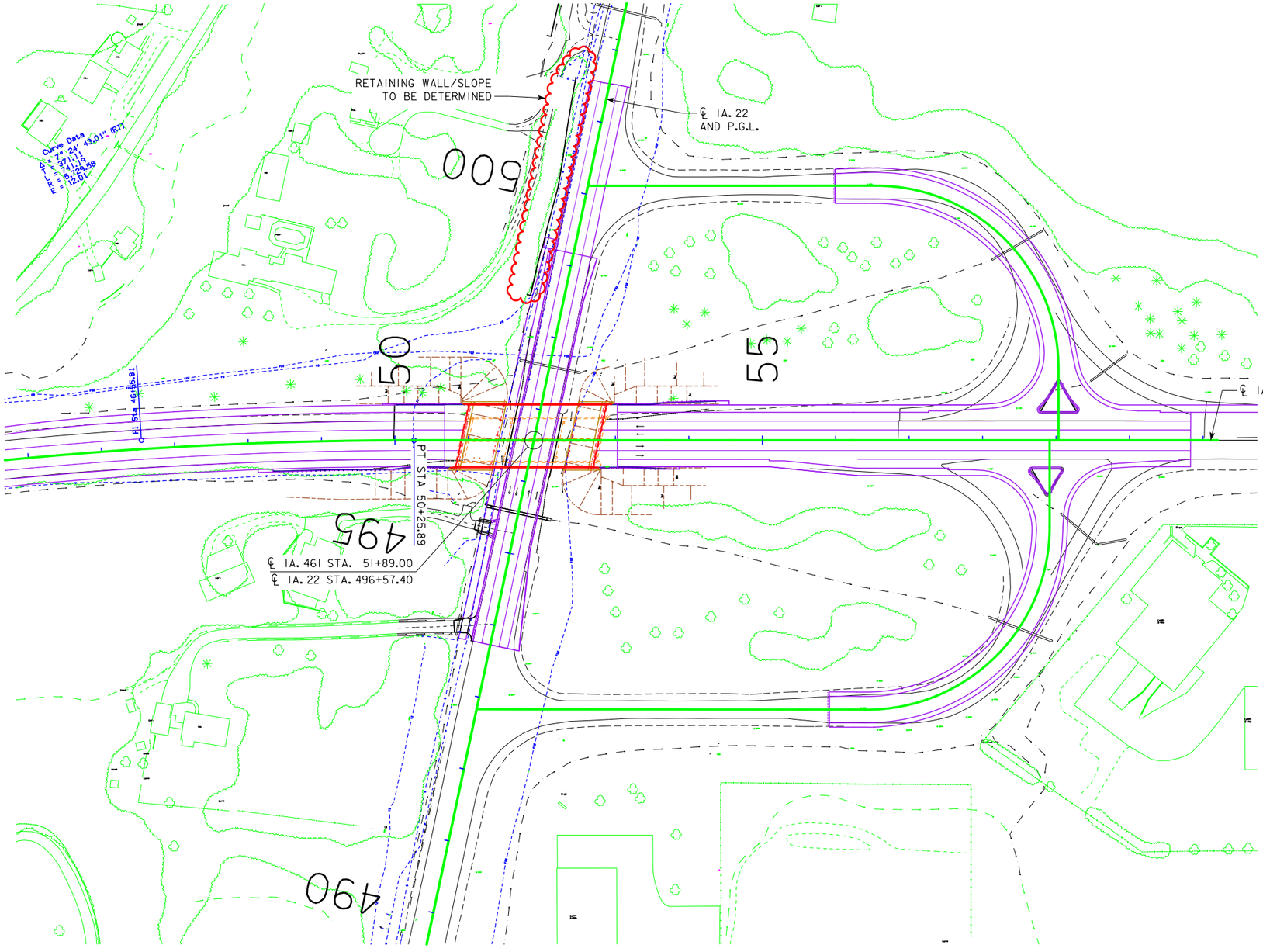
BENCH MARK NO. 511: STA. 495+56.494, 37.922 LT. - FD IHC BM ON IN HDWL 3 FT. X 2 FT. RCB - ELEV. 594.011



SITE PLAN

N

0 ENGLISH 160
SCALE IN FEET

PRELIMINARY

DESIGN FOR 12° SKEW (LA)

184'-0 X 84'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 & 36'-0 END SPANS (BTB BEAM TYPE) 102'-0 INTERIOR SPAN

SITE PLAN

STATION: 51+84.00 (IA. 461) SEPTEMBER 2016

SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 3 FILE NO. 31180 DESIGN NO. 318

whks
engineers + planners + land surveyors

DESIGN TEAM JJP/LMG/JJS	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER 2

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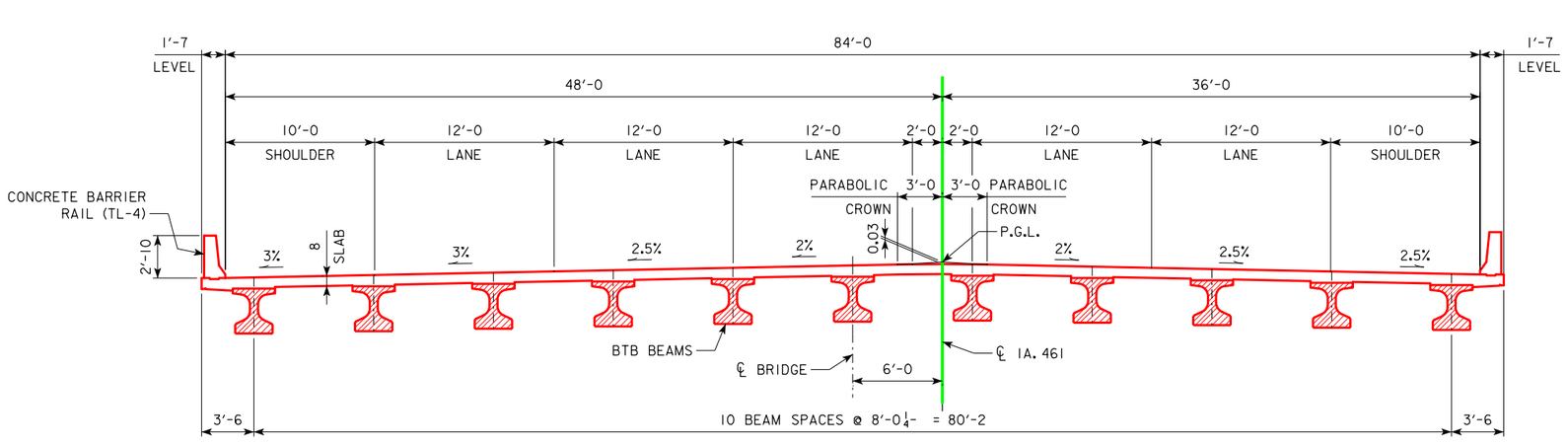
BENCH MARK NO. 511: STA. 495+56.494, 37.922 LT. - FD IHC BM ON IN HDWL 3 FT. X 2 FT. RCB - ELEV. 594.011

BERM SLOPE LOCATION TABLE

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	51+51.94	52.58' LT.	595.70	52+49.92	52.58' LT.	595.76
A2	51+32.51	40.58' RT.	595.55	52+29.60	40.58' RT.	595.56
B1	51+07.78	52.58' LT.	612.98	52+82.58	52.58' LT.	608.54
B2	50+87.97	40.58' RT.	612.98	52+62.77	40.58' RT.	608.54
W1	50+93.68	52.58' LT.	618.57	52.+94.74	52.58' LT.	613.72
W2	50+75.81	40.58' RT.	619.24	52+76.88	40.58' RT.	614.39



BRIDGE CROSS SECTION

(LOOKING EAST)

PRELIMINARY

DESIGN FOR 12° SKEW (LA)

184'-0 X 84'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

46'-0 & 36'-0 END SPANS (BTB BEAM TYPE) 102'-0 INTERIOR SPAN

SITUATION PLAN

STATION: 51+84.00 (IA. 461) SEPTEMBER 2016

SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

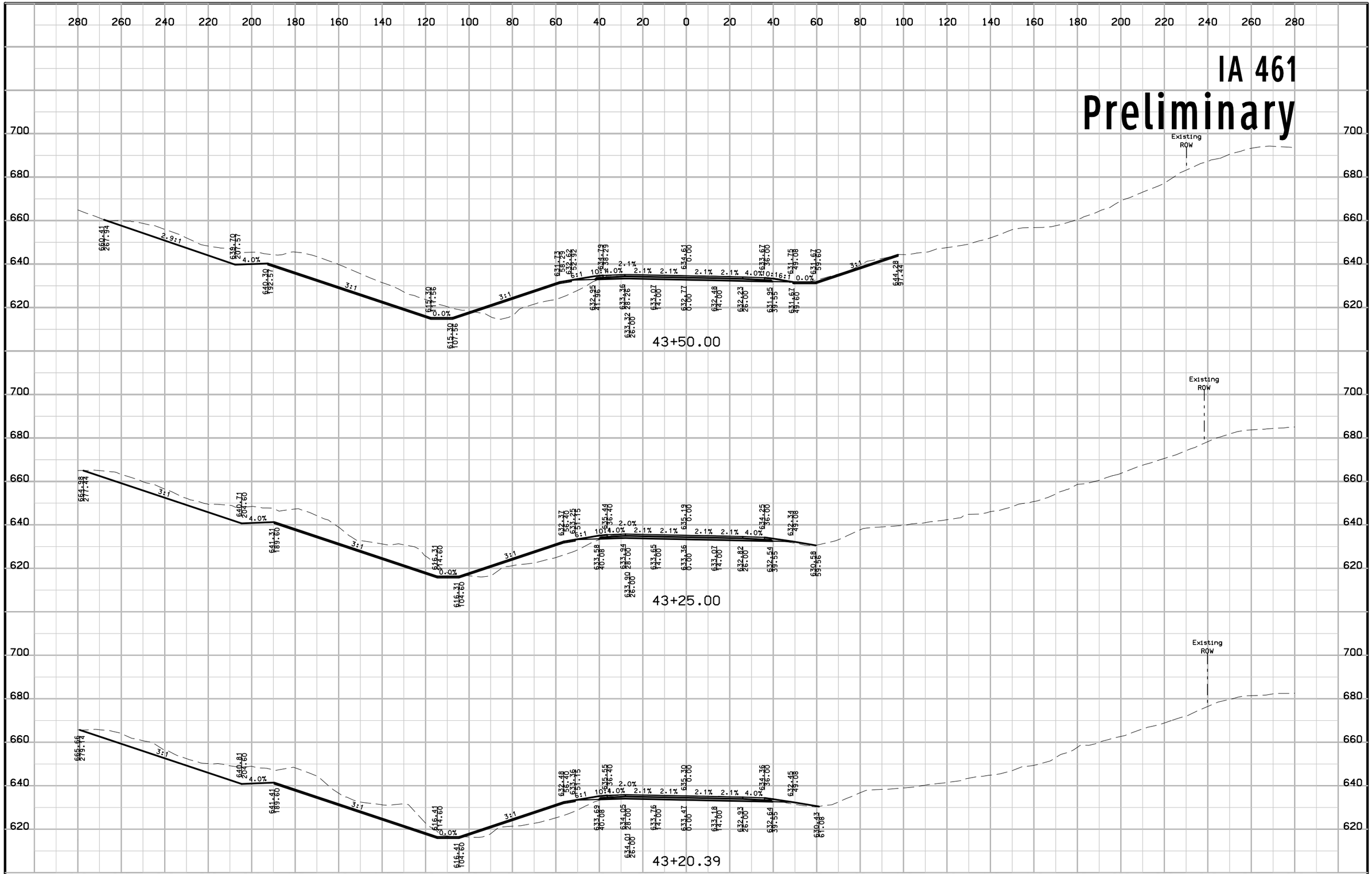
DESIGN SHEET NO. 3 OF 3 FILE NO. 31180 DESIGN NO. 318

whks
engineers + planners + land surveyors

DESIGN TEAM JJP/LMG/JJS | SCOTT COUNTY | PROJECT NUMBER BRF-461-1(6)--38-82 | SHEET NUMBER 3

8/31/2016 11:17:39 AM lu L:\Dept\6\8000.10\Bridge\DGN\82461006.str TSL_82_0318_03 11x17_pdf.pltcfg

IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.1

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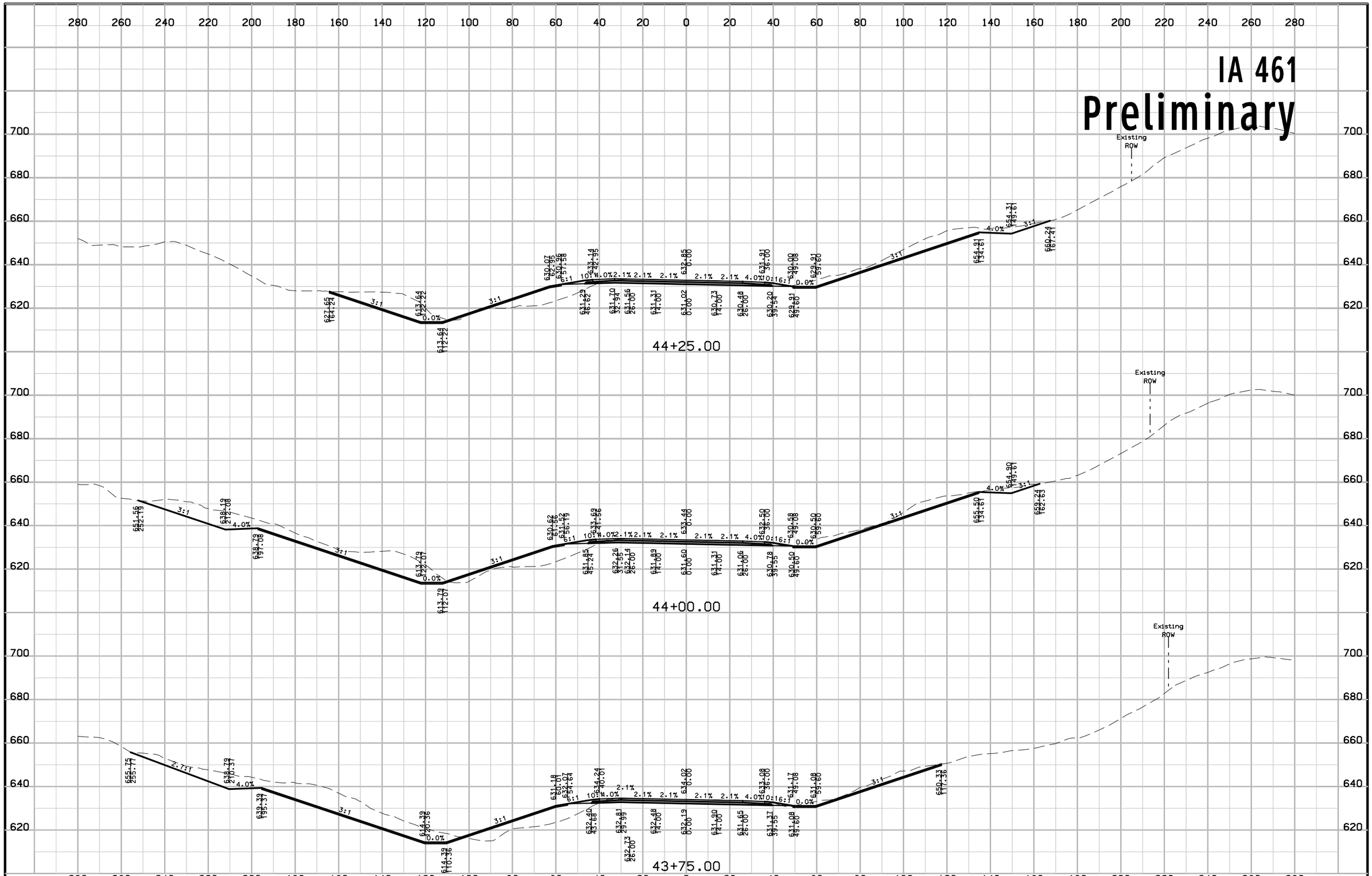
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.2

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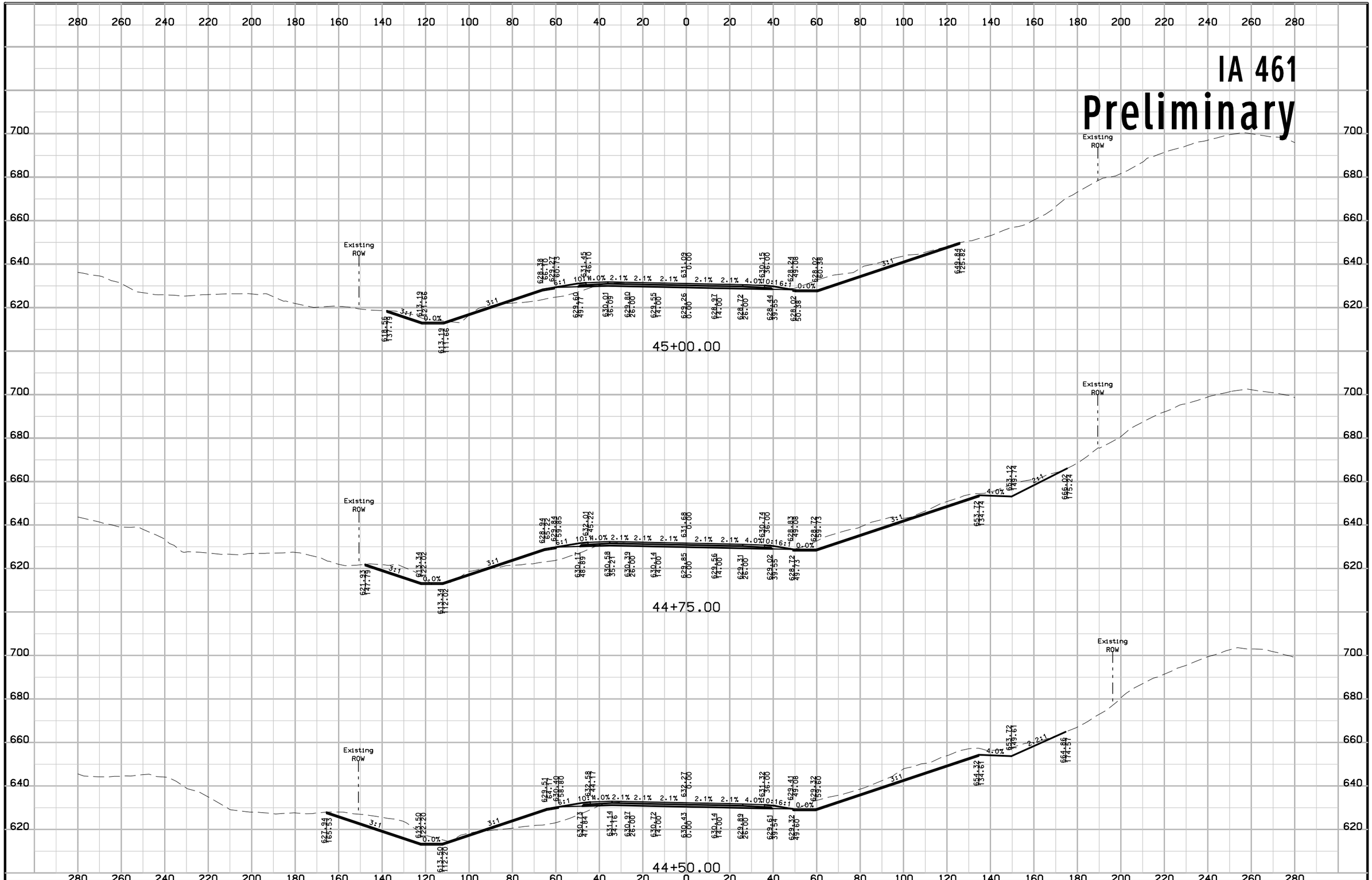
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.3

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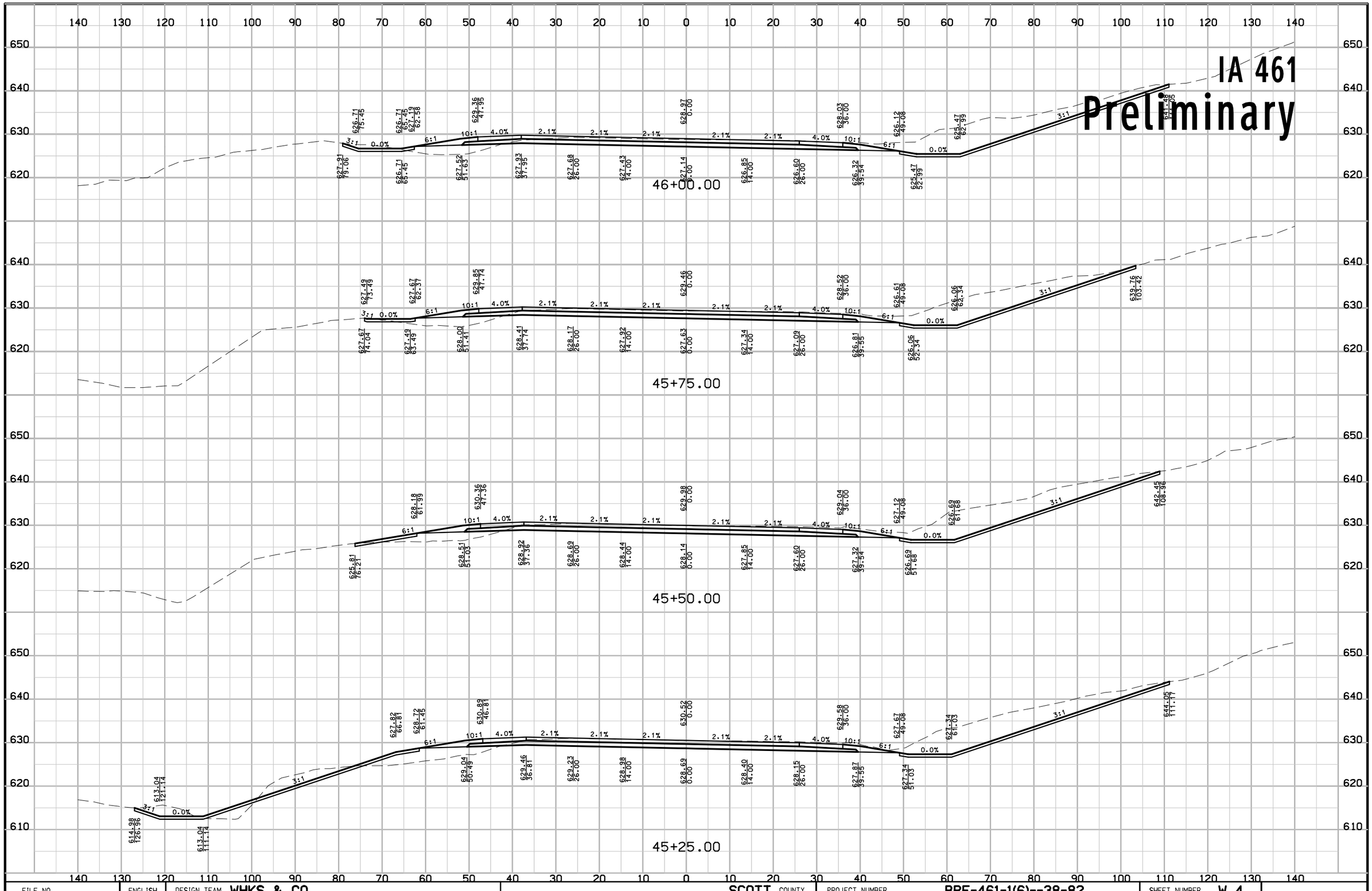
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.4

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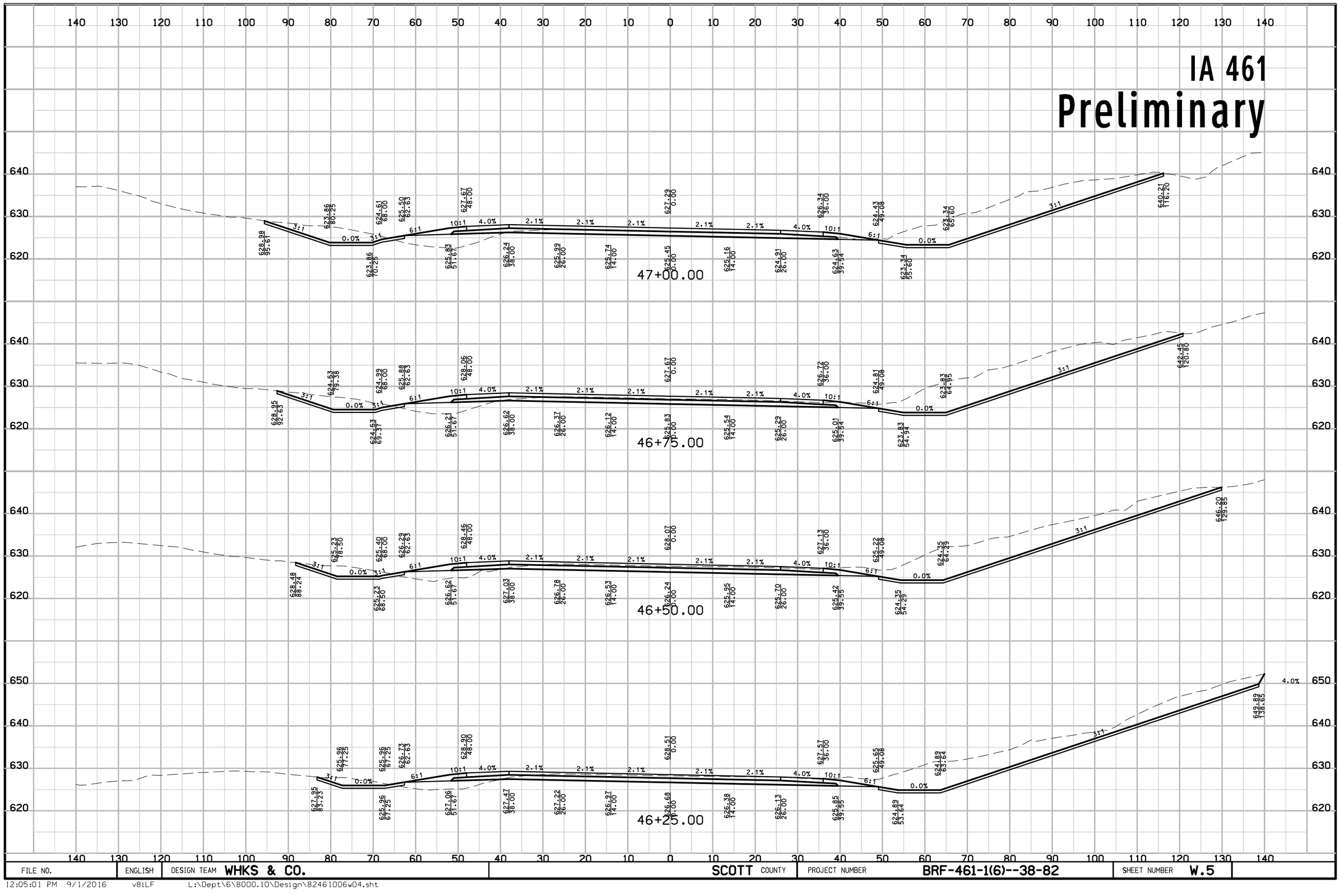
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.5

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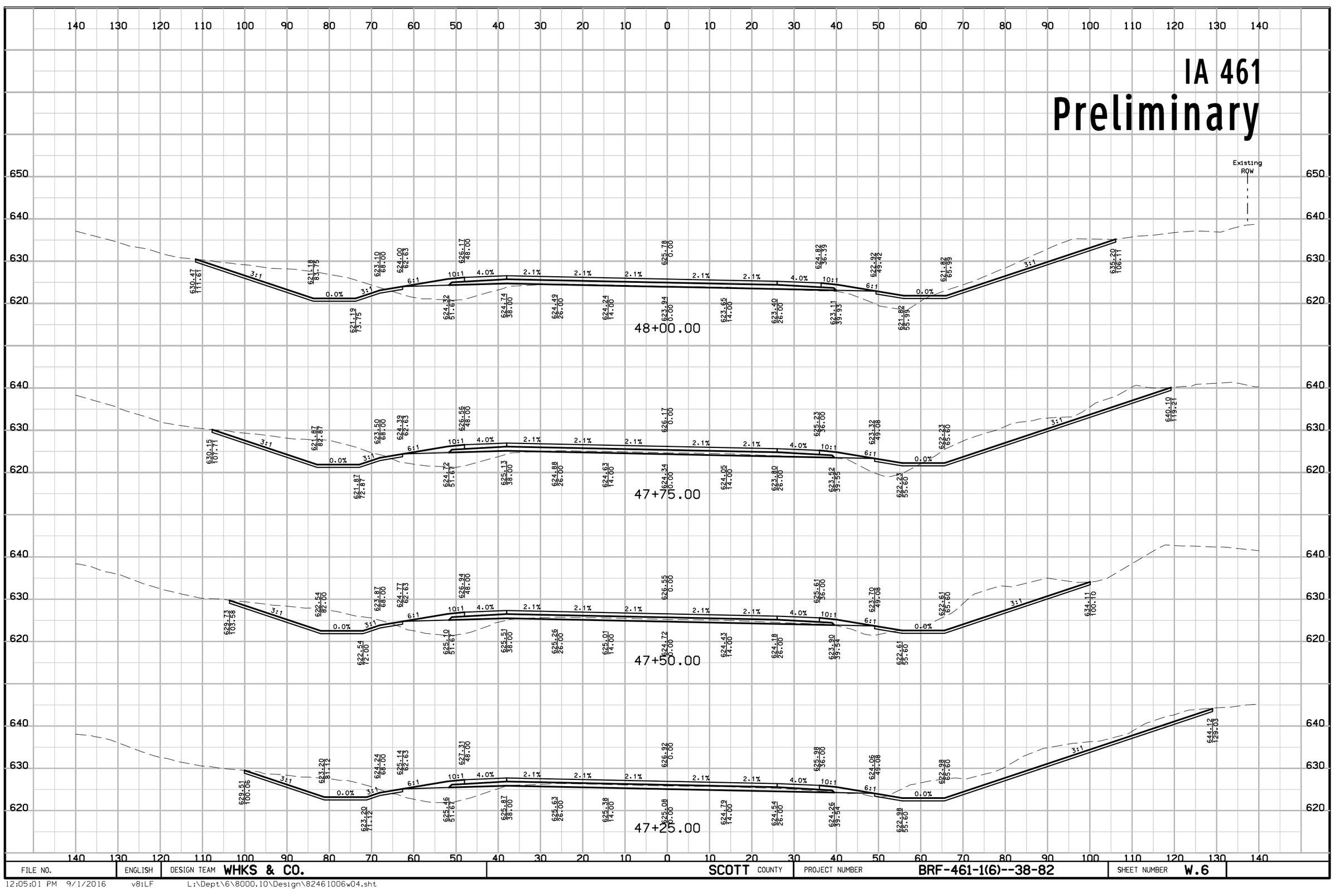
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.6

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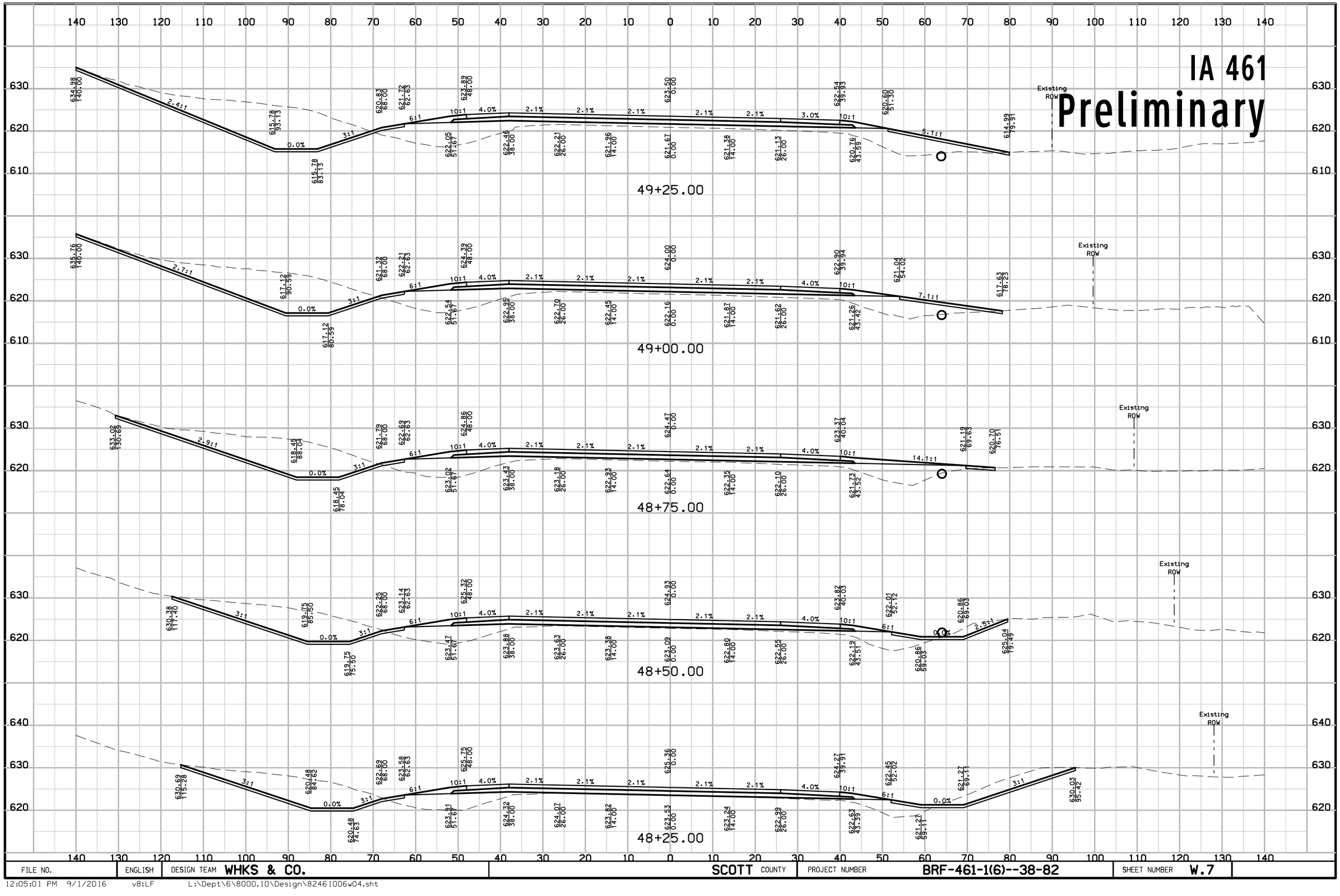
IA 461

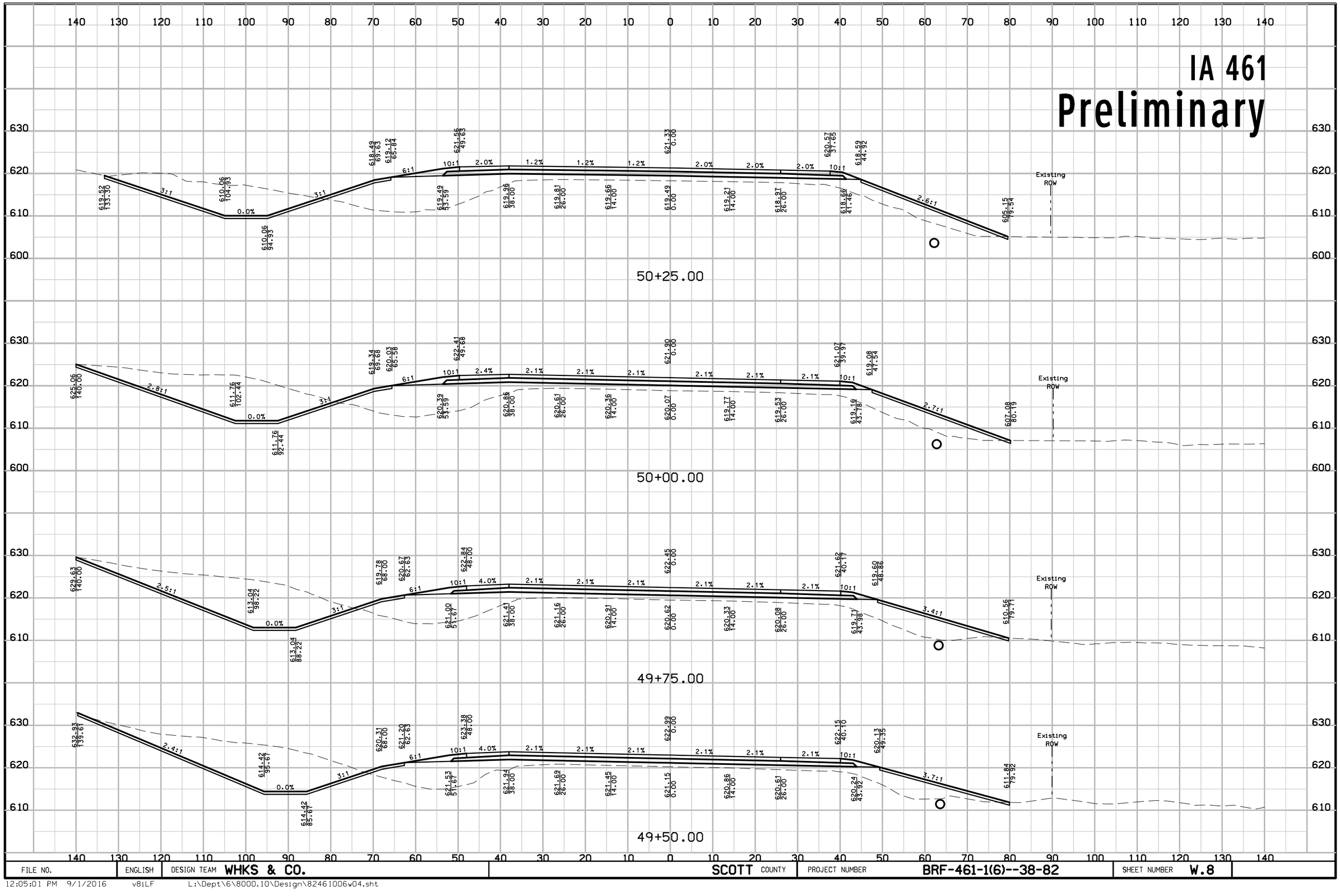
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.7

12:05:01 PM 9/1/2016 v8iLF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.8

12:05:01 PM 9/1/2016 v81LF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 461
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

620 610 600

618.93 0.00

2.0% 2.0%

51+25.00

619.53 0.00

2.0% 2.0%

51+00.00

620 610 600 590

620.13 0.00

619.14 49.63 616.07 69.63 616.70 65.84 619.38 37.63 617.42 44.10

10:1 6:1 3:1 3:1 2.1:1

2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0%

0.0%

608.36 111.26 605.94 110.01 605.94 100.01 617.07 53.59 617.54 38.00 617.78 26.00 618.02 14.00 618.30 0.00 618.02 14.00 617.78 26.00 617.47 41.43 600.56 79.80

Existing ROW

50+75.00

620.73 0.00

620.29 49.63 617.23 69.63 617.86 65.84 619.98 37.63 618.01 44.37

10:1 6:1 3:1 3:1 2.3:1

2.0% 0.5% 0.6% 0.5% 2.0% 2.0% 2.0%

0.0%

617.68 124.10 607.94 107.47 607.94 97.47 618.22 53.59 618.69 38.00 618.76 26.00 618.82 14.00 618.90 0.00 618.62 14.00 618.38 26.00 618.07 41.43 602.58 79.52

Existing ROW

50+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 WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.9

12:05:02 PM 9/1/2016 v8ILF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 461

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

620 610 600 590

616.51
0.00

2.0% 2.0%

52+25.00

617.12
0.00

2.0% 2.0%

52+00.00

617.72
0.00

2.0% 2.0%

51+75.00

618.32
0.00

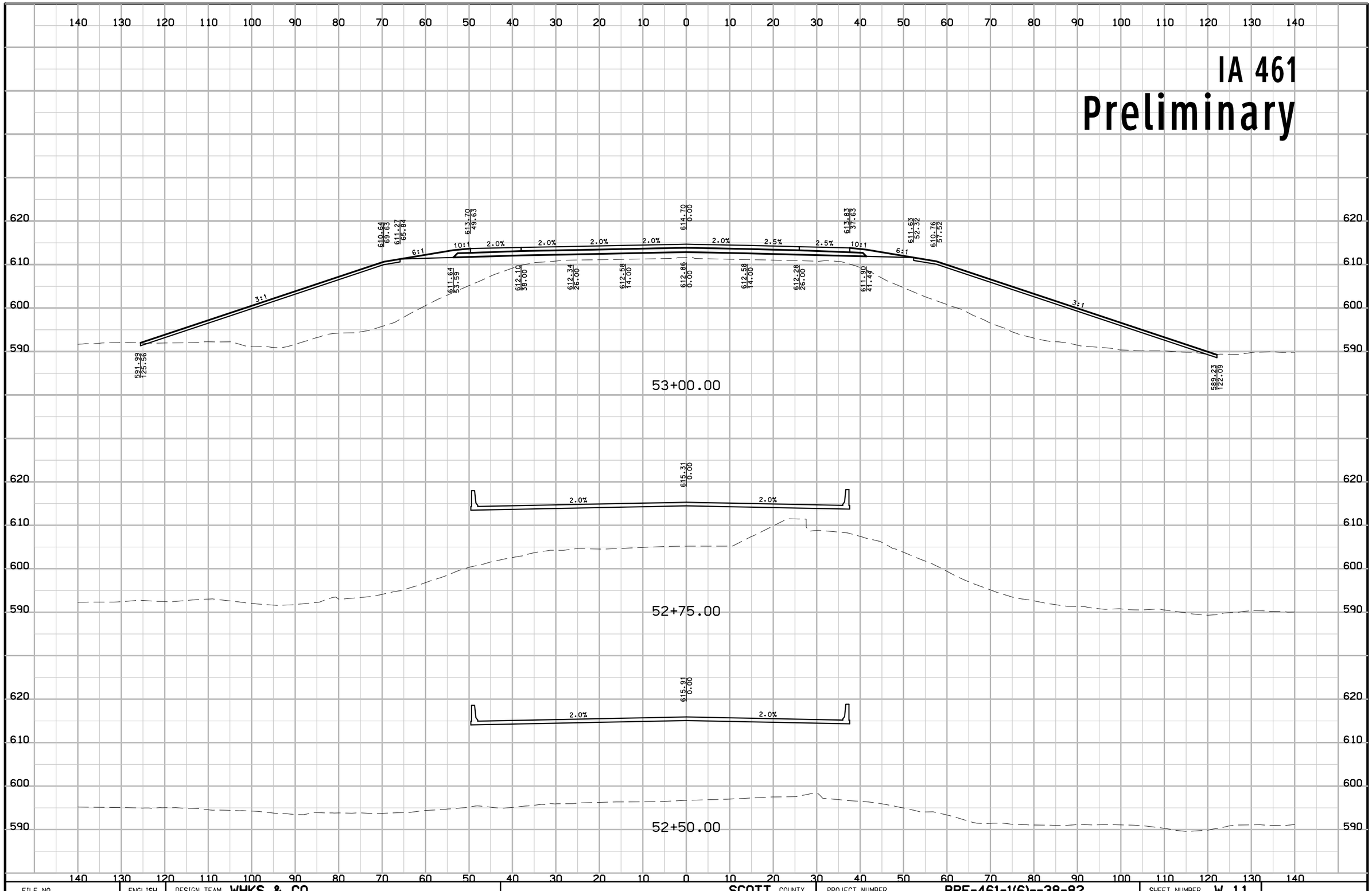
2.0% 2.0%

51+50.00

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.10

12:05:02 PM 9/1/2016 v8iLF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.11

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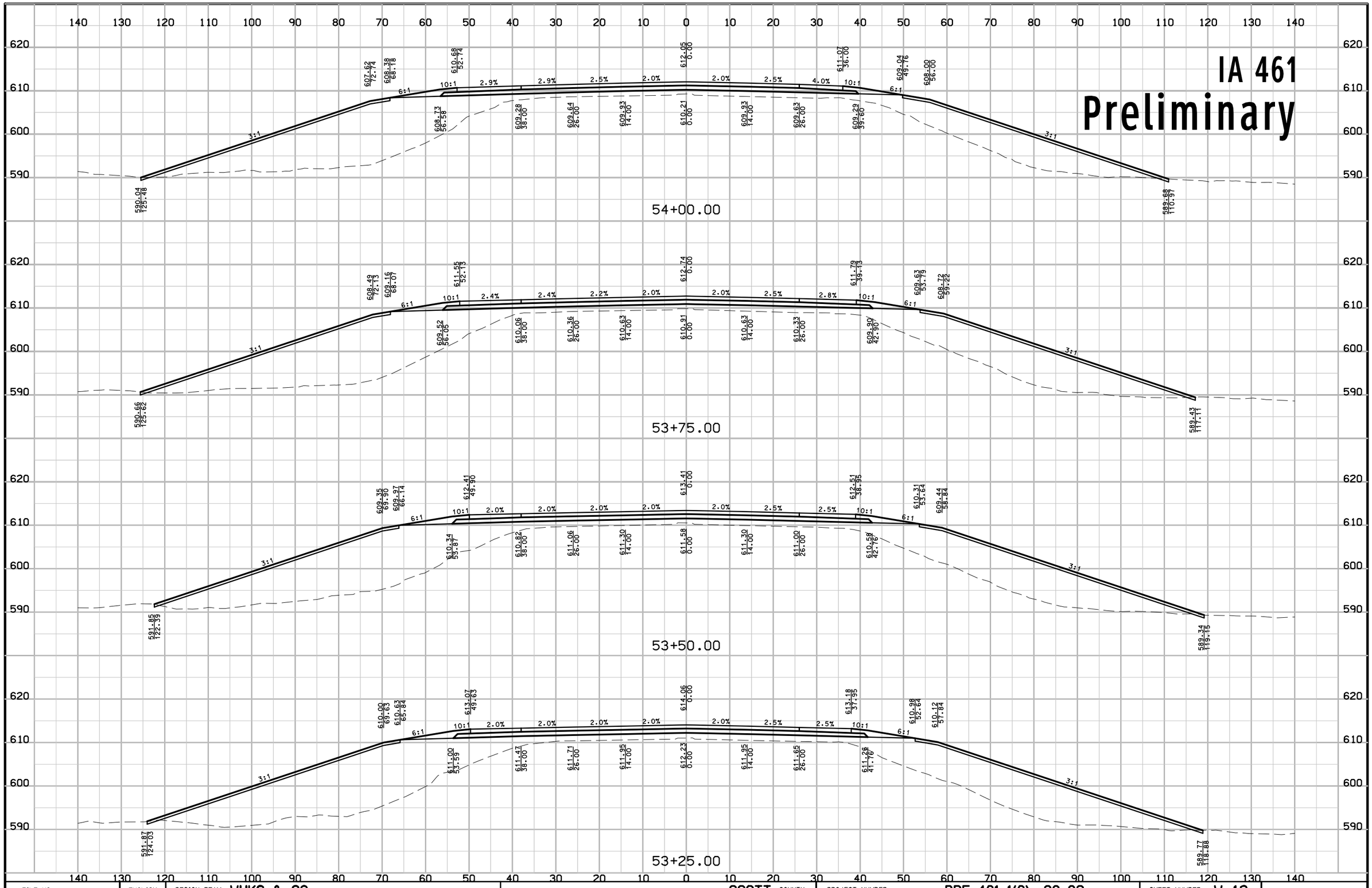
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.12

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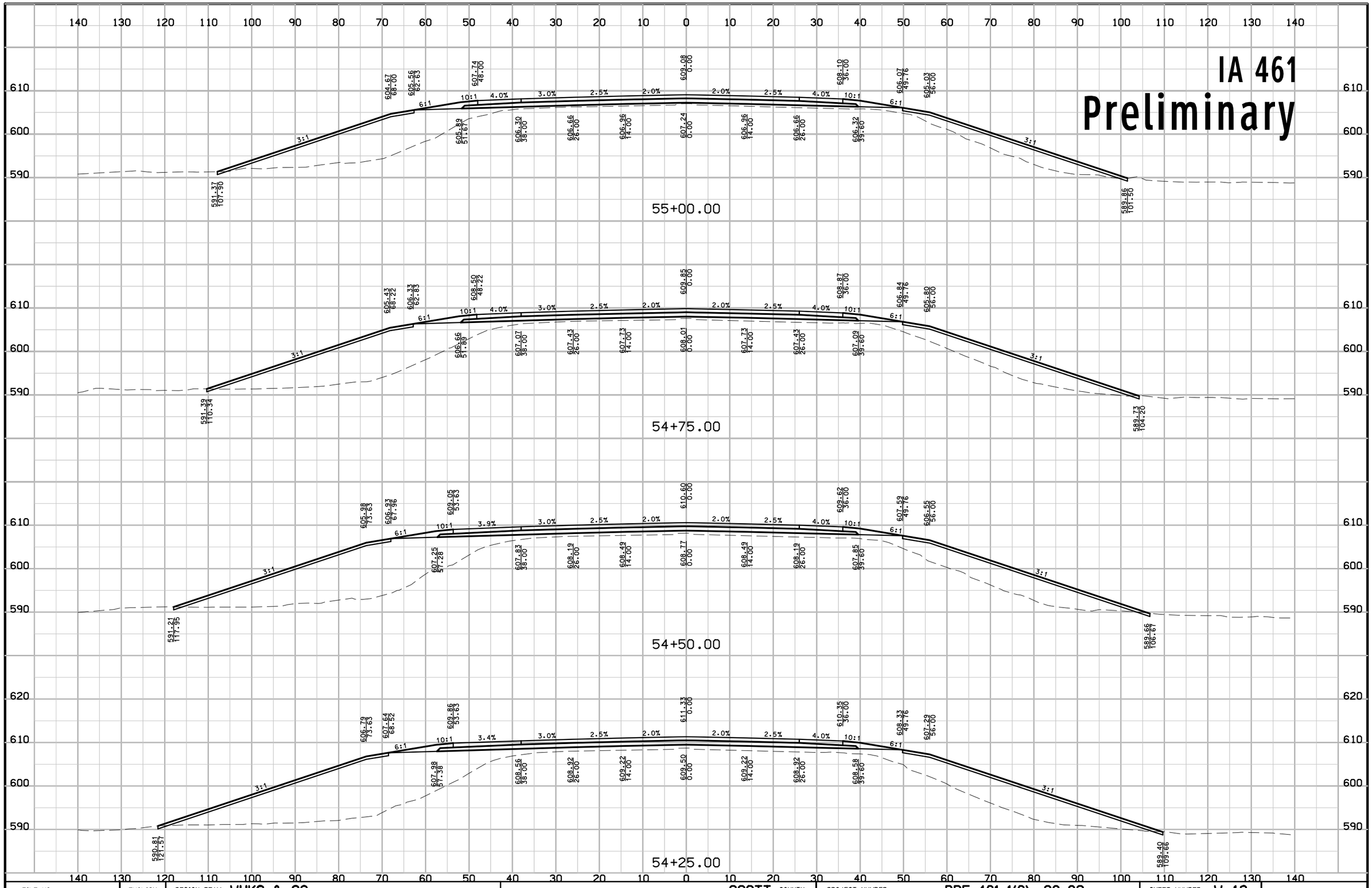
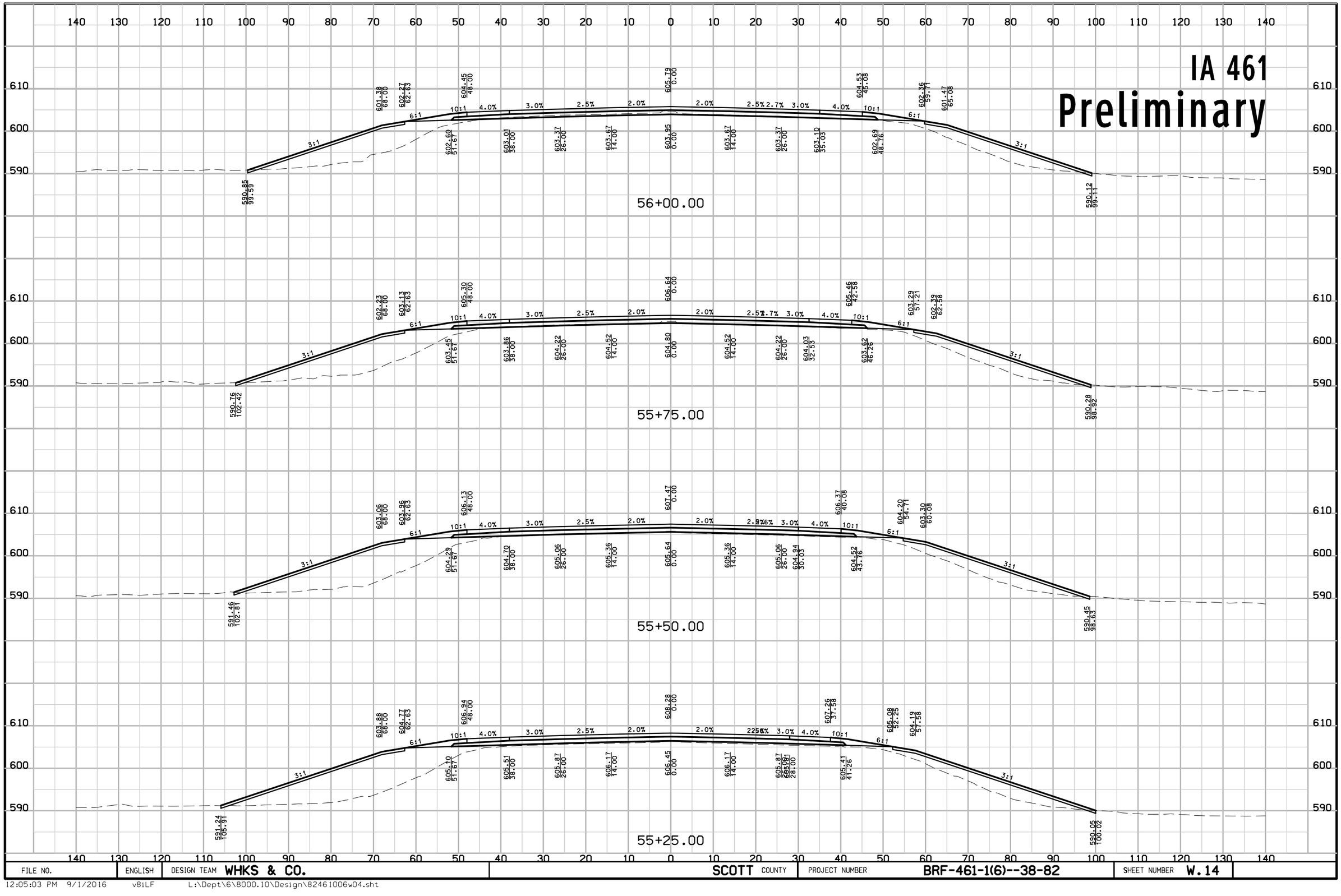
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.13

12:05:02 PM 9/1/2016 v8ILF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 461
Preliminary

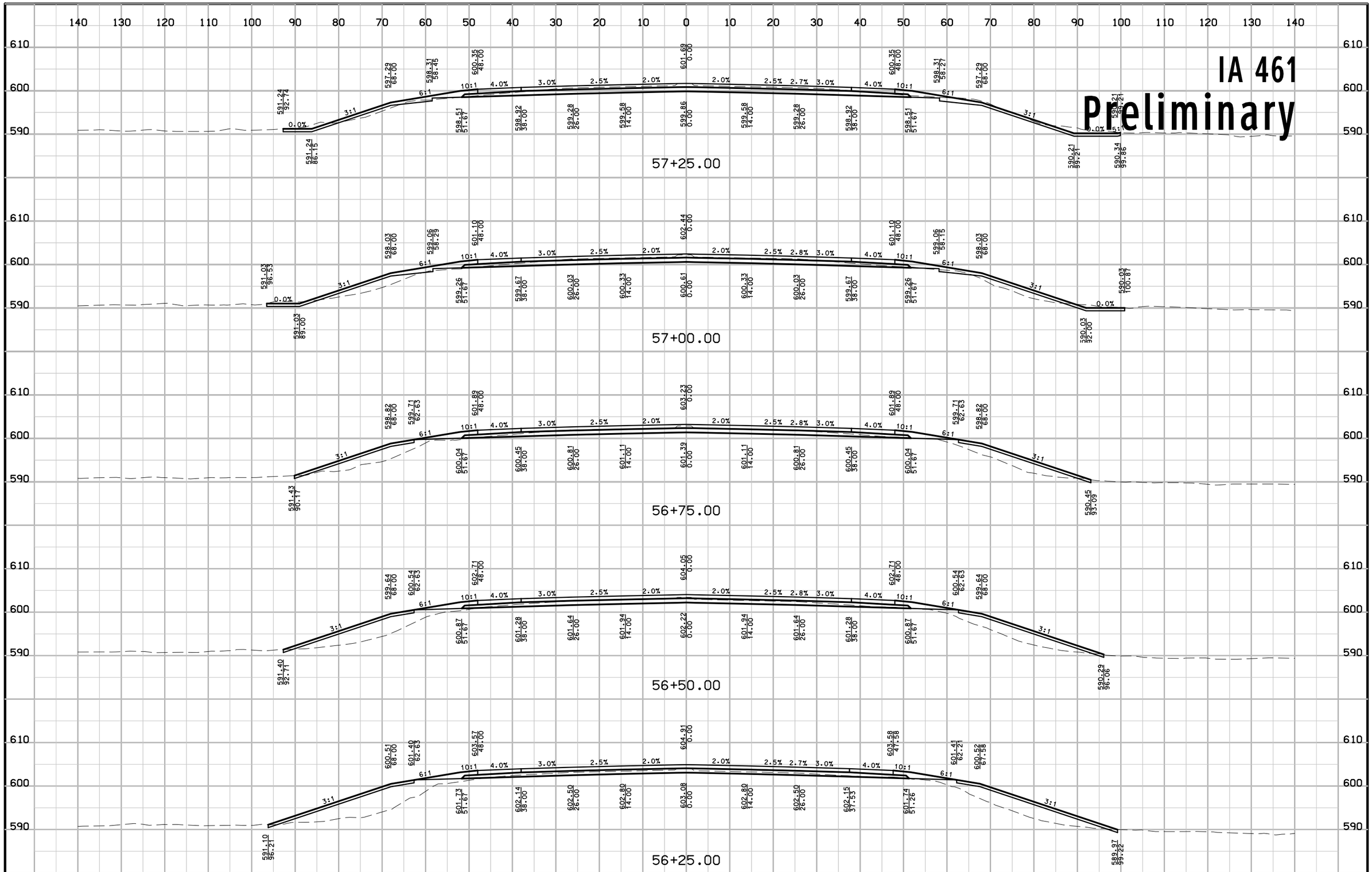


FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.14

12:05:03 PM 9/1/2016 v8ILF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 461

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.15

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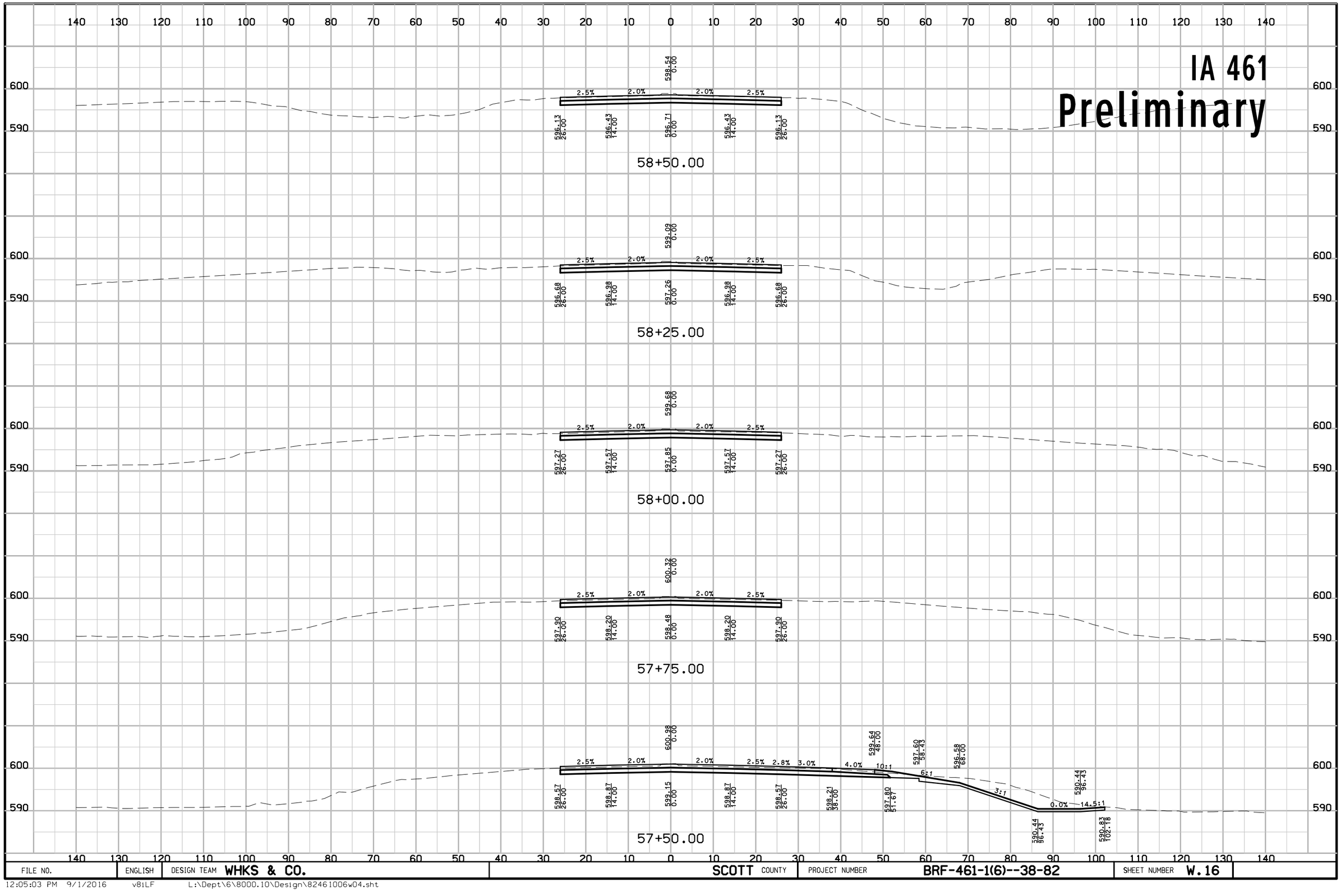
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.16

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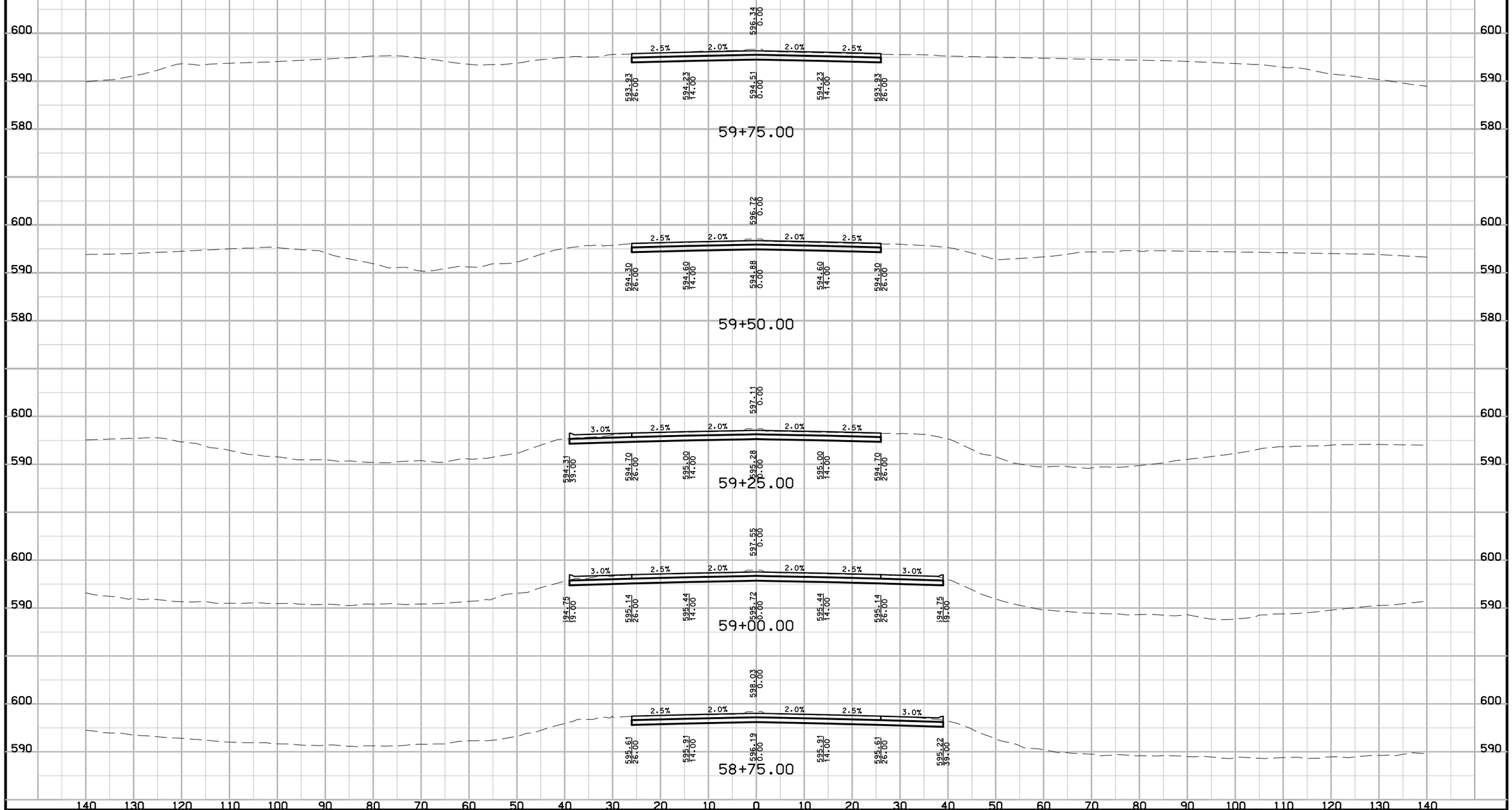
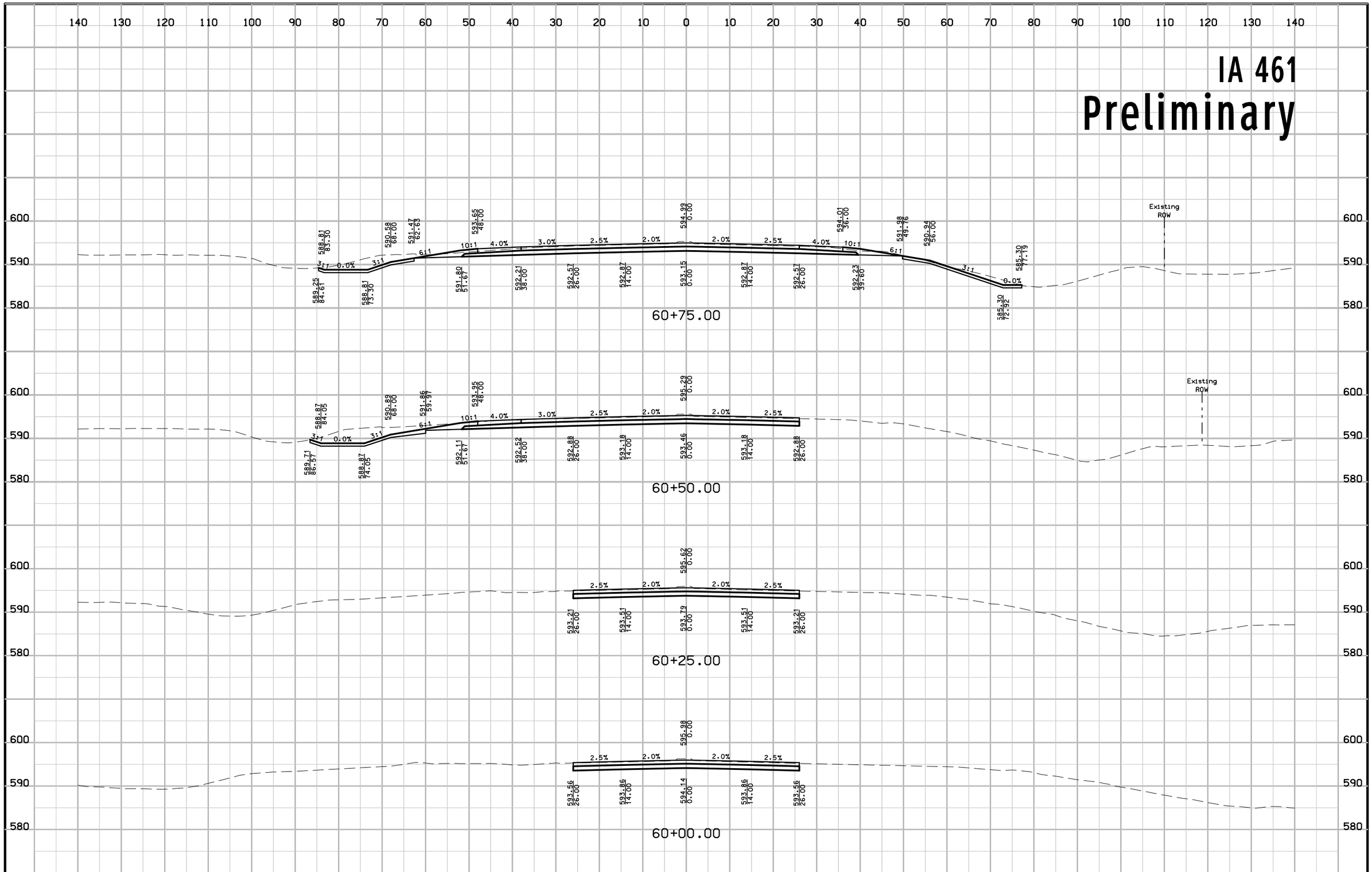
IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.17

12:05:03 PM 9/1/2016 v8ILF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 461
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER W.18

12:05:04 PM 9/1/2016 v81LF L:\Dept\6\8000.10\Design\82461006w04.sht

IA 22
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

600
590

596.72 61.81 | 595.78 47.00 | 595.57 34.00 | 594.92 26.50 | 595.52 0.00 | 594.78 32.24 | 595.67 51.74 | 589.51 76.39

15.8:1 2.0% 1.5% 2.0% 2.5% 2.0% 2.0% 2.5% 2.0% 4:1

596.72 44.00 | 593.91 29.50 | 593.45 12.00 | 593.69 0.00 | 593.45 12.00 | 592.87 35.24

494+50.00

596.54 55.30 | 595.88 47.00 | 595.67 34.00 | 595.02 26.50 | 595.62 0.00 | 594.81 34.74 | 595.70 54.24 | 589.79 77.90

12.6:1 2.0% 1.5% 2.0% 2.5% 2.0% 2.0% 2.5% 2.0% 4:1

595.82 44.00 | 593.11 29.50 | 593.55 12.00 | 593.79 0.00 | 593.55 12.00 | 592.91 37.74

494+25.00

596.62 44.92 | 596.62 34.00 | 595.14 26.50 | 595.74 0.00 | 594.87 37.24 | 595.76 56.74 | 589.71 80.93

1.5% 16.5% 2.5% 2.0% 2.0% 2.5% 2.0% 4:1

596.77 44.00 | 593.23 29.50 | 593.67 12.00 | 593.91 0.00 | 593.67 12.00 | 592.96 40.24

494+00.00

598.18 56.06 | 596.97 47.00 | 596.76 34.00 | 595.27 26.50 | 595.87 0.00 | 594.94 39.74 | 595.83 59.24 | 589.53 84.43

7.5:1 2.0% 1.5% 16.5% 2.5% 2.0% 2.0% 2.5% 2.0% 4:1

596.91 44.00 | 593.36 29.50 | 593.80 12.00 | 594.04 0.00 | 593.80 12.00 | 593.03 42.74

493+75.00

598.16 55.86 | 596.98 47.00 | 596.77 34.00 | 595.28 26.50 | 595.89 0.00 | 594.95 39.74 | 595.84 59.24 | 589.25 85.62

7.5:1 2.0% 1.5% 2.5% 2.0% 2.0% 2.5% 2.0% 4:1

596.92 44.00 | 593.37 29.50 | 593.81 12.00 | 594.05 0.00 | 593.81 12.00 | 593.04 42.74

493+72.65

FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.1

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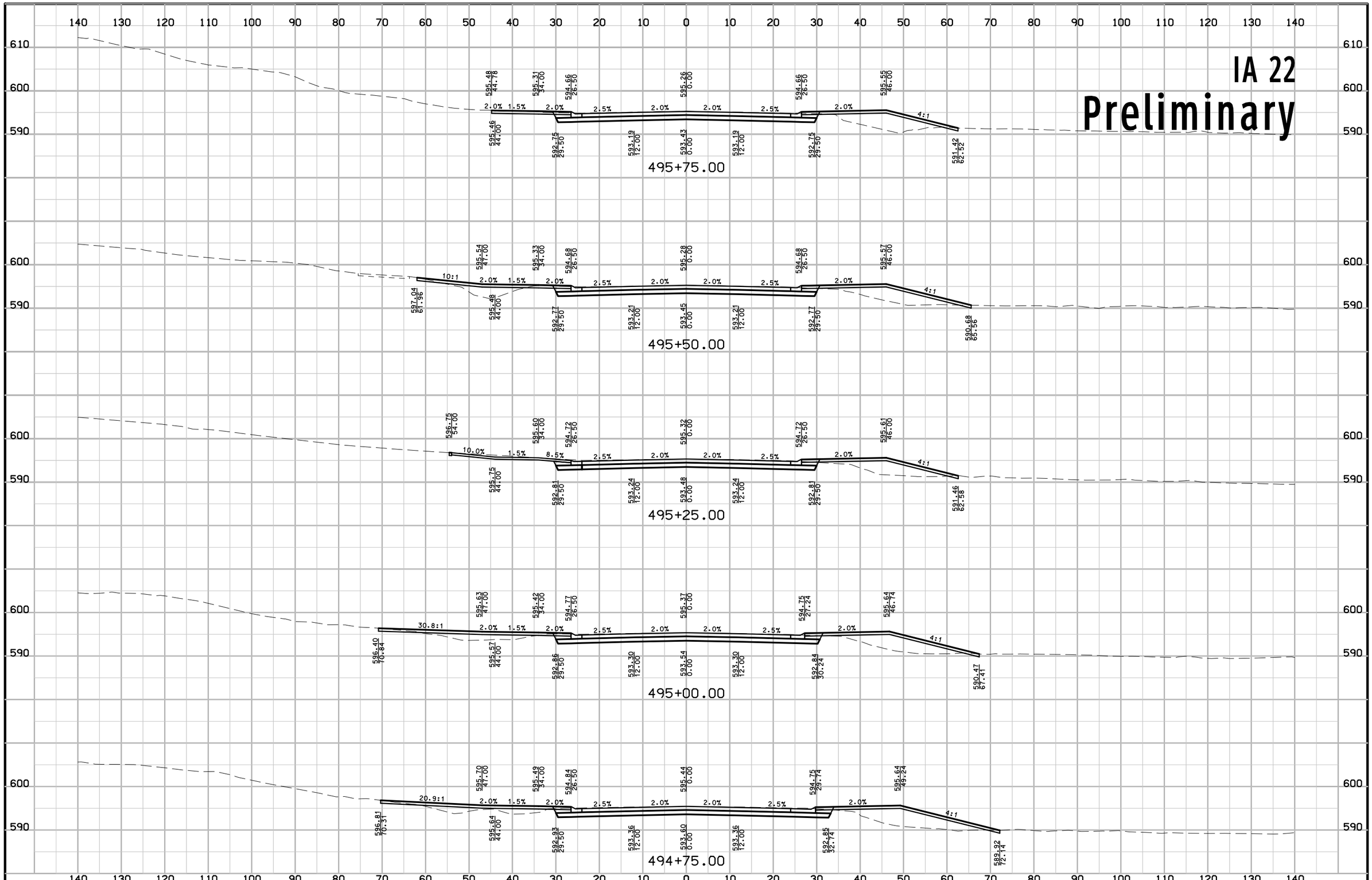
IA 22
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.2

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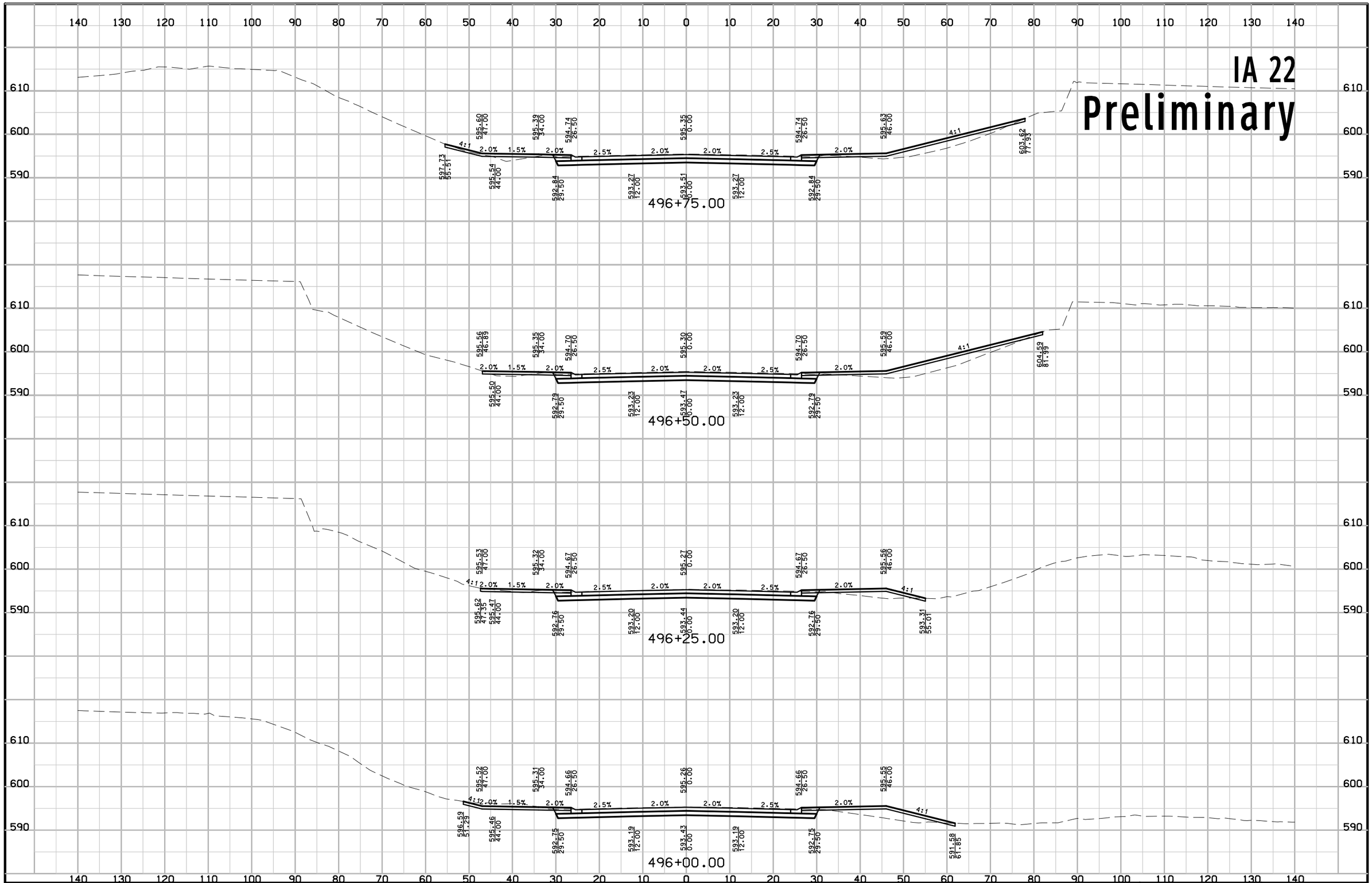
IA 22
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.3

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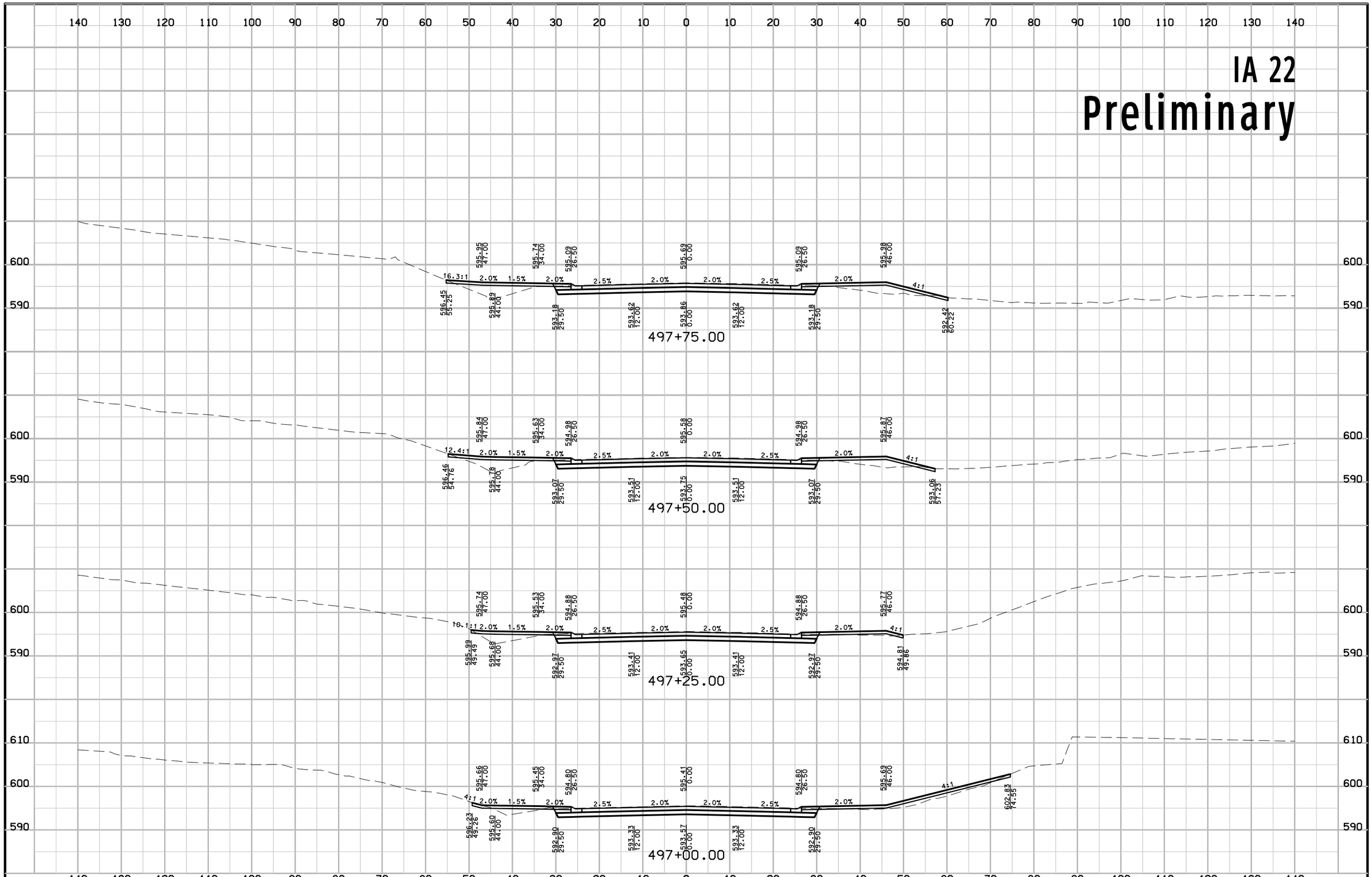
IA 22
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.4

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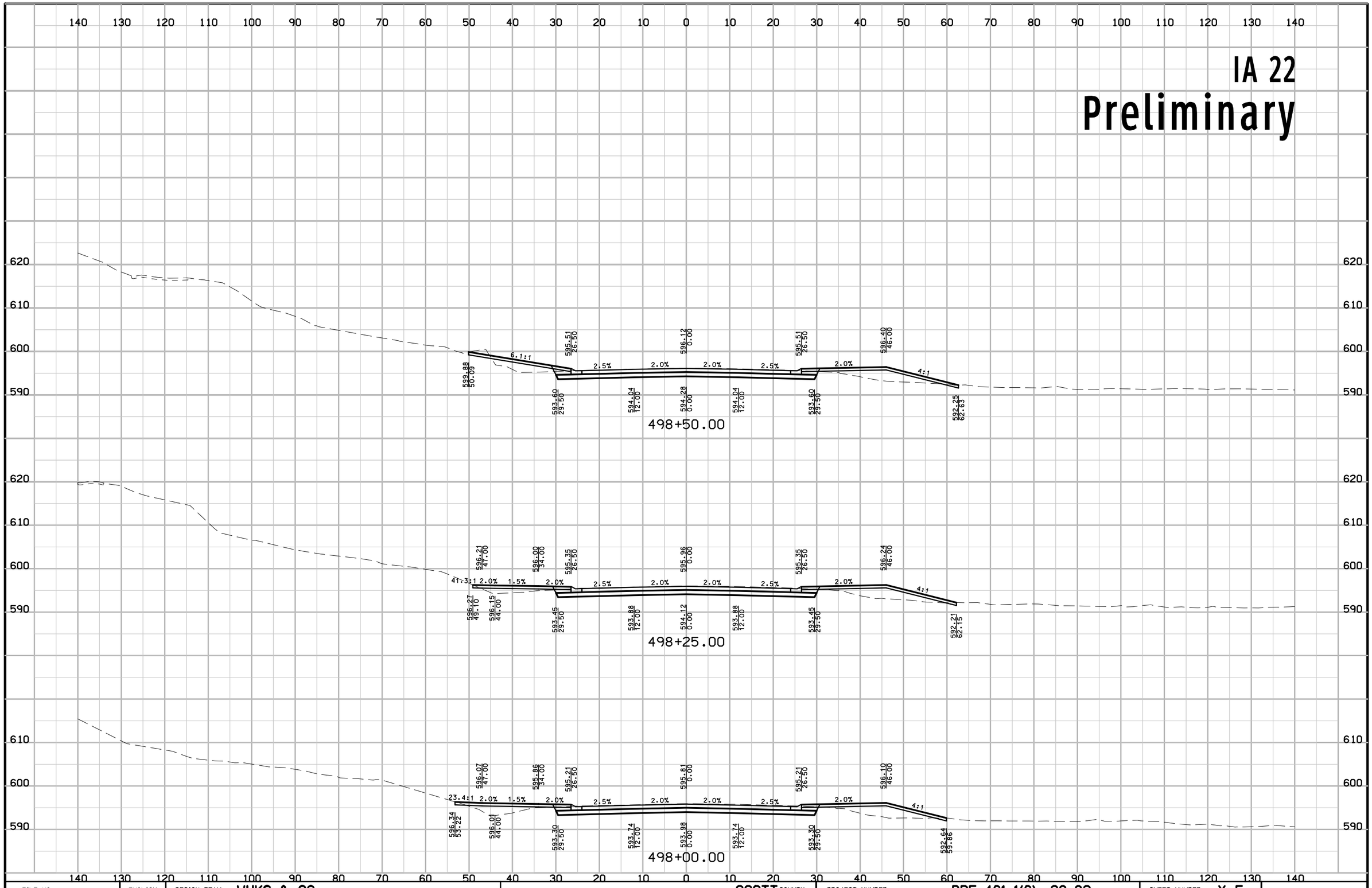
IA 22
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.5

12:05:07 PM 9/1/2016 v8iLF L:\Dept\6\8000.10\Design\82461006x01.sht

IA 22

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

620 610 600 590

604.23
56.98

4:1

596.08
26.50

596.68
0.00

2.5% 2.0% 2.0% 2.5%

594.17
29.50

594.61
12.00

594.85
0.00

594.61
12.00

594.31
24.00

499+23.51

602.71
51.83

4:1

595.88
26.50

596.48
0.00

595.78
30.61

596.67
50.11

4:1

2.5% 2.0% 2.0% 2.5% 2.0%

593.97
29.50

594.41
12.00

594.65
0.00

594.41
12.00

593.87
33.61

592.37
67.23

499+00.00

601.72
48.64

4:1

595.69
26.50

596.29
0.00

595.65
28.11

596.54
47.61

4:1

2.5% 2.0% 2.0% 2.5% 2.0%

593.78
29.50

594.22
12.00

594.46
0.00

594.22
12.00

593.74
31.11

592.58
63.44

498+75.00

FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.6

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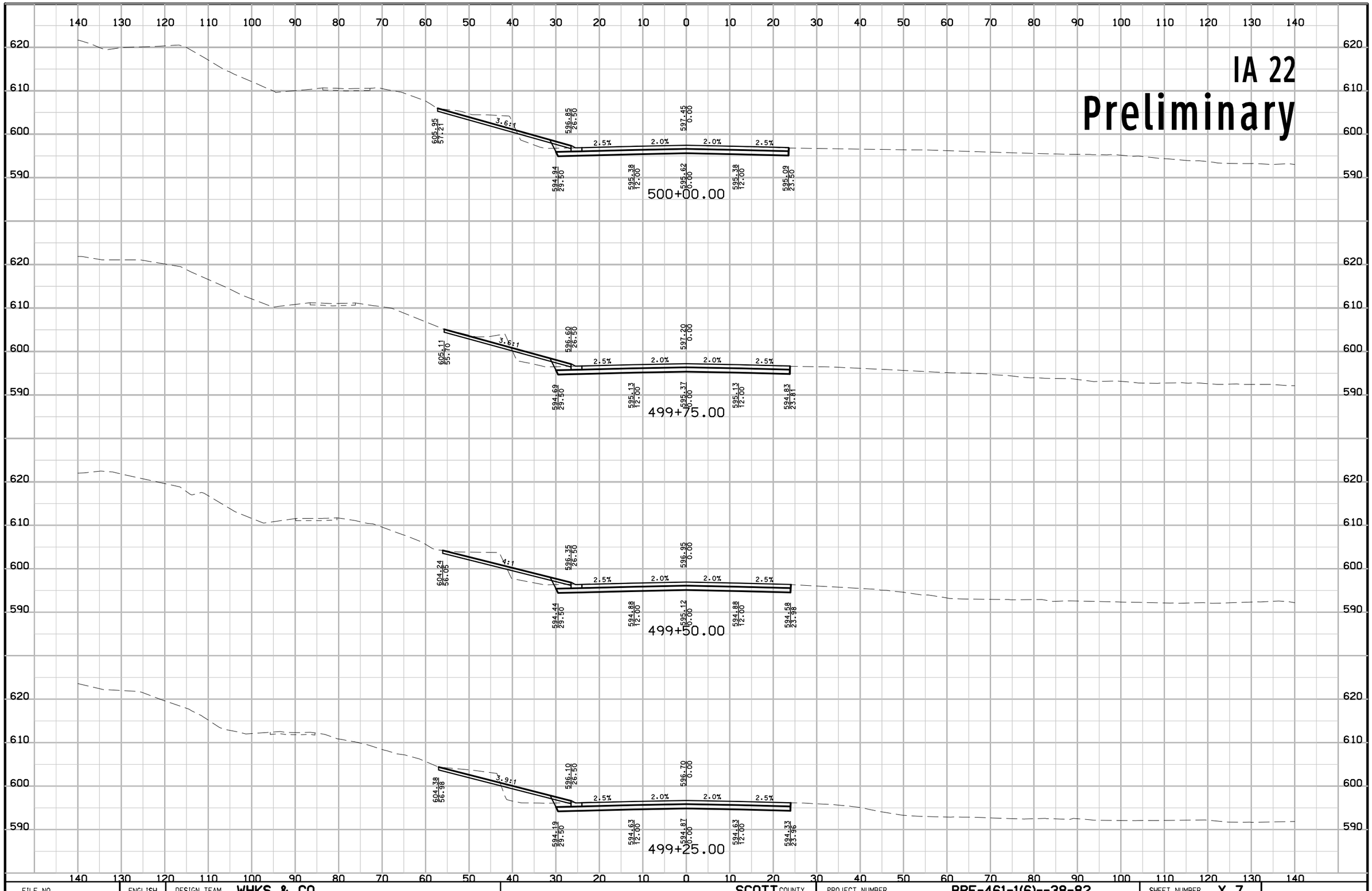
IA 22

Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.7

12:05:07 PM 9/1/2016 v8iLF L:\Dept\6\8000.10\Design\82461006x01.sht

IA 22

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

610 600 590

606.86 61.22 — 4:1 — 597.83 27.12 — 2.5% — 2.0% — 2.0% — 2.5% — 598.45 0.00

595.92 30.12 — 596.38 12.00 — 596.62 0.00 — 596.38 12.00 — 596.07 24.04

501+00.00

608.43 67.85 — 4:1 — 597.60 26.50 — 2.5% — 2.0% — 2.0% — 2.5% — 598.20 0.00

595.69 29.50 — 596.13 12.00 — 596.37 0.00 — 596.13 12.00 — 595.83 23.98

500+75.00

620 610 600 590

609.15 70.29 — 3.9:1 — 597.35 26.50 — 2.5% — 2.0% — 2.0% — 2.5% — 597.95 0.00

595.44 29.50 — 595.88 12.00 — 596.12 0.00 — 595.88 12.00 — 595.58 23.83

500+50.00

609.87 70.82 — 3.6:1 — 597.10 26.50 — 2.5% — 2.0% — 2.0% — 2.5% — 597.70 0.00

595.19 29.50 — 595.63 12.00 — 595.87 0.00 — 595.63 12.00 — 595.34 23.56

500+25.00

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER BRF-461-1(6)--38-82	SHEET NUMBER X.8

12:05:07 PM 9/1/2016 v8iLF L:\Dept\6\8000.10\Design\82461006x01.sht

IA 22

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

620
610
600
590

602.49
49.69

5.4:1

598.30
29.62

596.39
32.62

2.5%

2.0%

596.91
12.00

598.98
0.00

597.15
0.00

2.0%

596.91
12.00

2.5%

596.61
24.05

501+53.51

620
610
600
590

603.09
50.03

4.1:1

598.21
32.12

596.30
35.12

2.5%

2.0%

596.88
12.00

598.95
0.00

597.12
0.00

2.0%

596.88
12.00

2.5%

596.57
24.27

501+50.00

610
600
590

605.34
56.91

4:1

598.02
29.62

596.11
32.62

2.5%

2.0%

596.63
12.00

598.70
0.00

596.87
0.00

2.0%

596.63
12.00

2.5%

596.32
24.05

501+25.00

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	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	X.9

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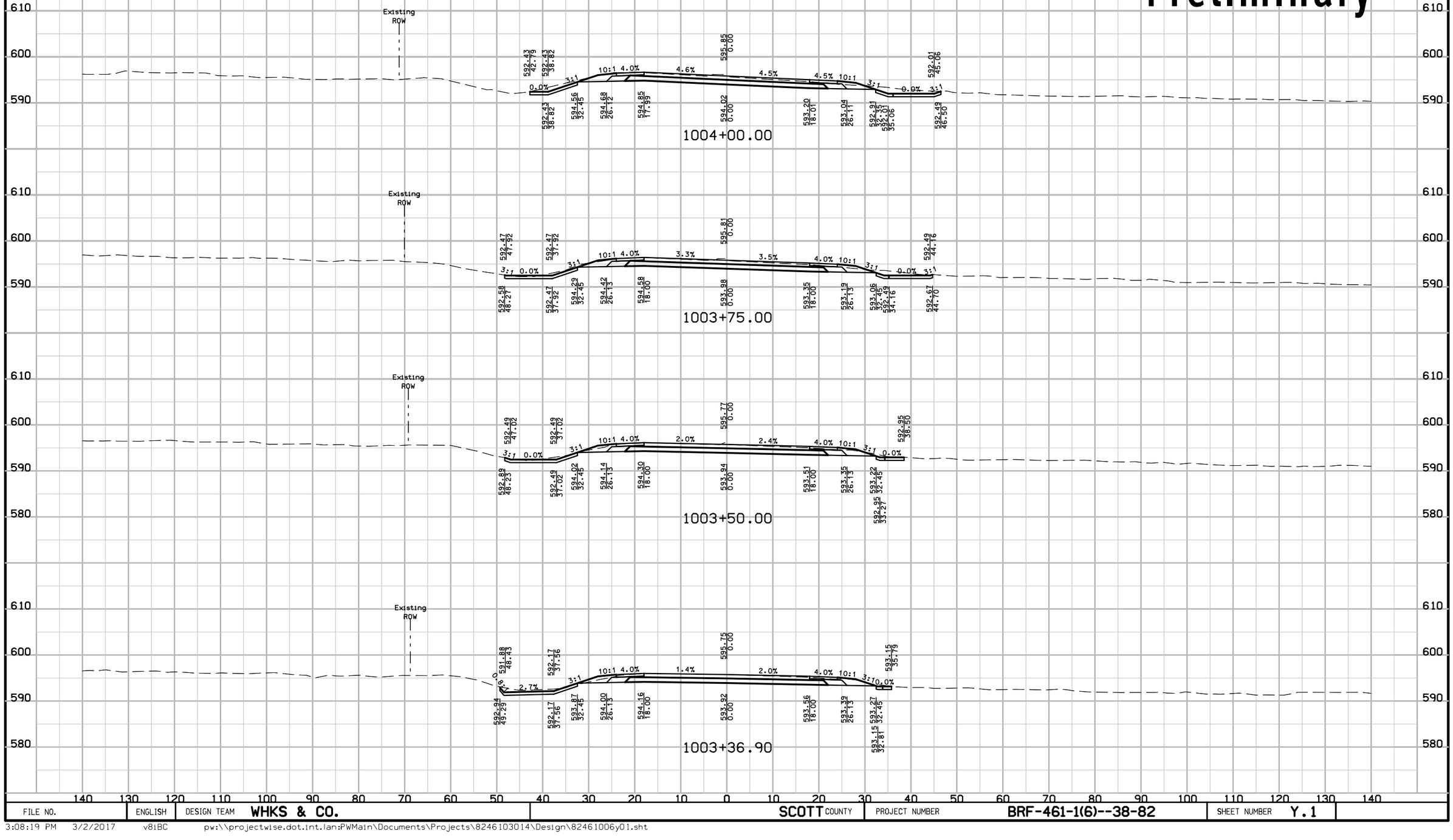
IA 22 Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.1

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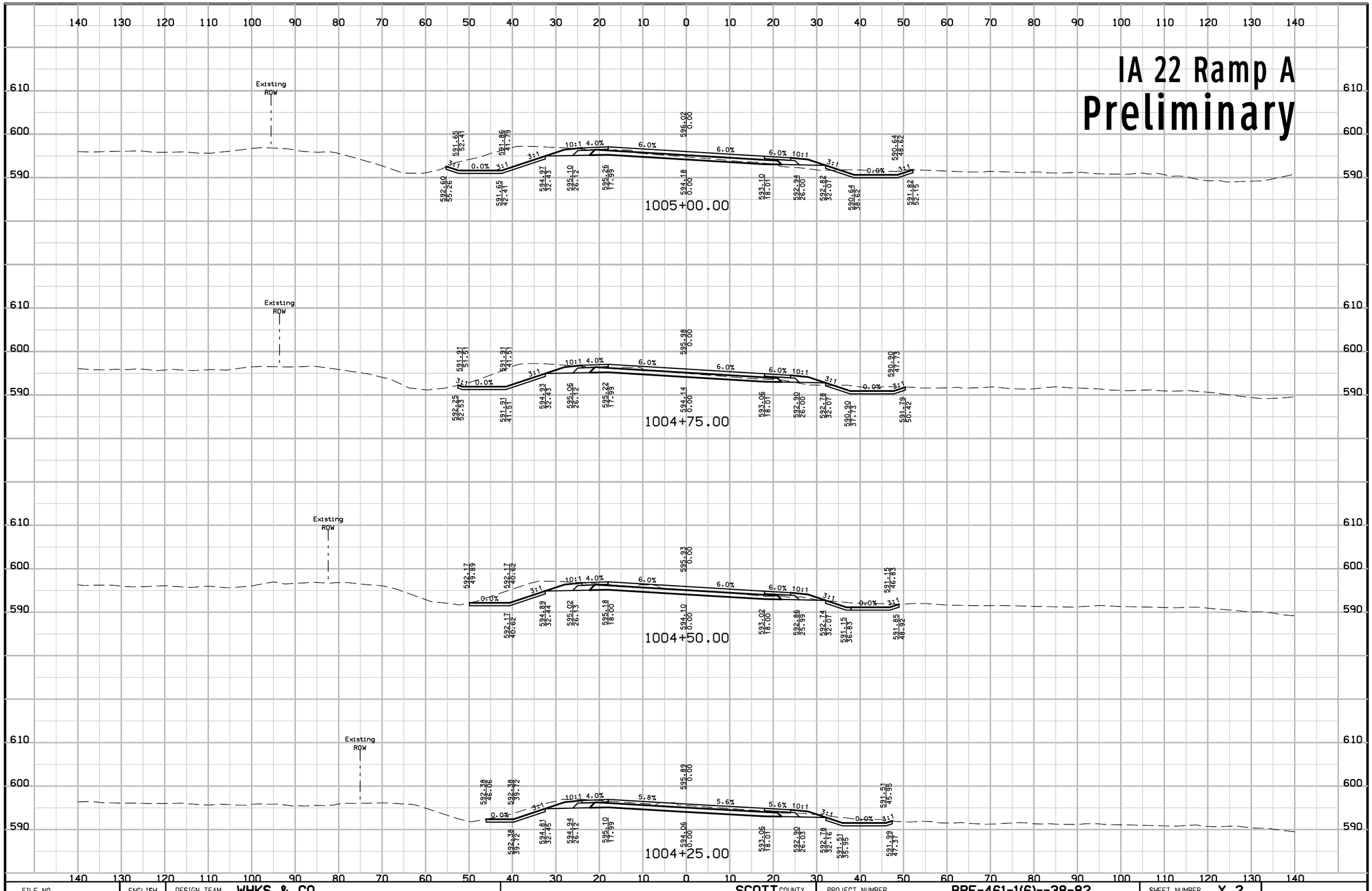
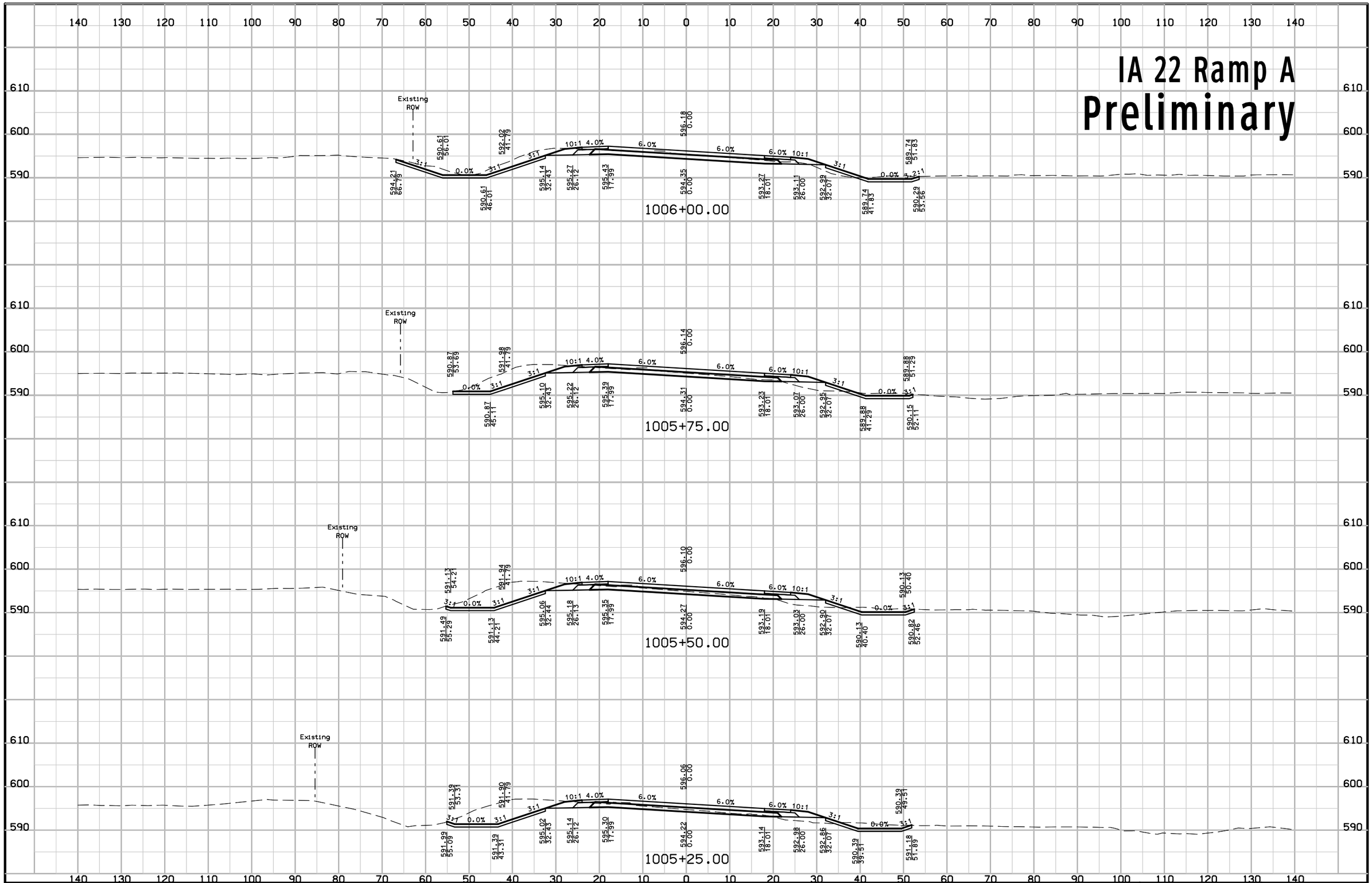
IA 22 Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.2

IA 22 Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.3

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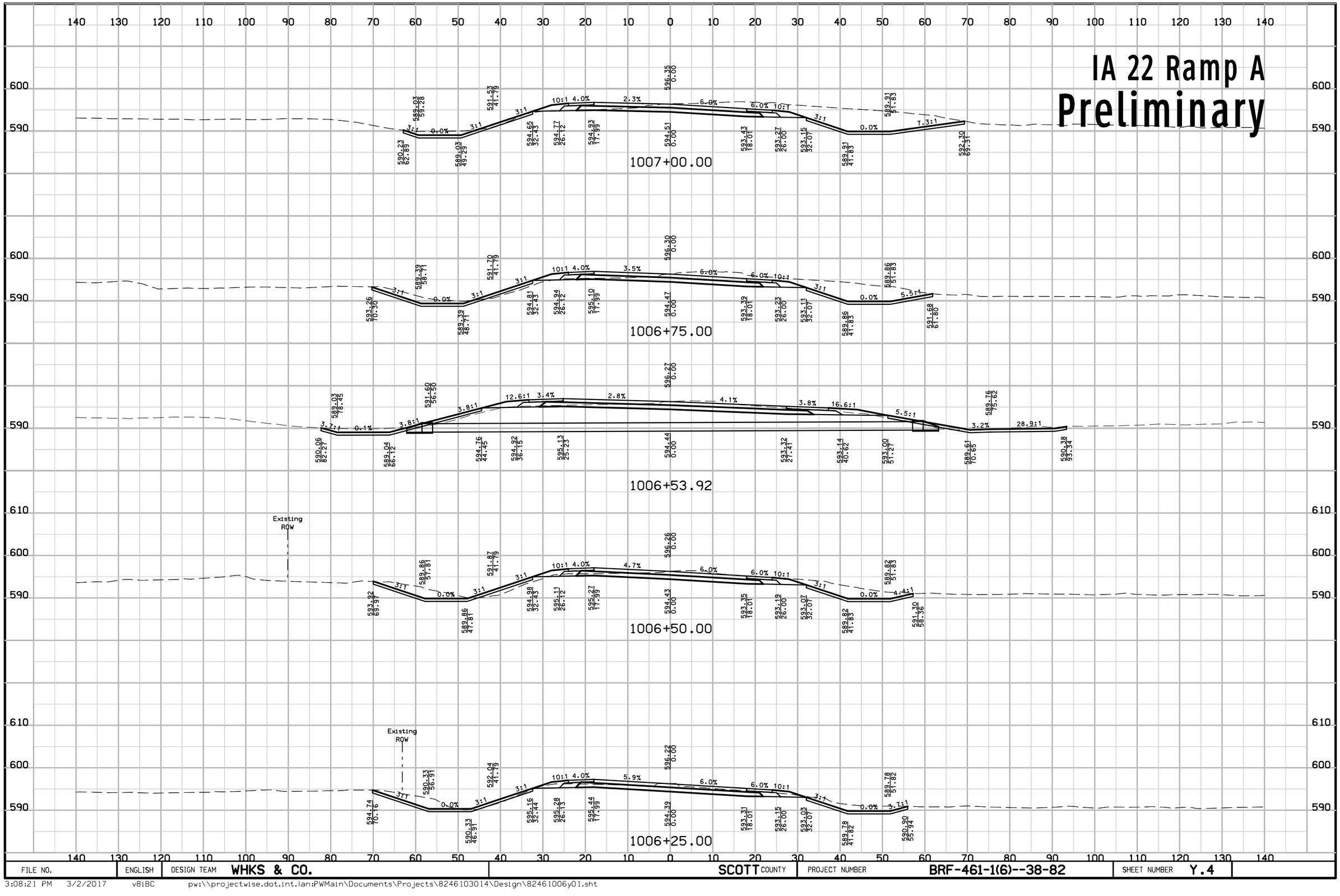
IA 22 Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.4

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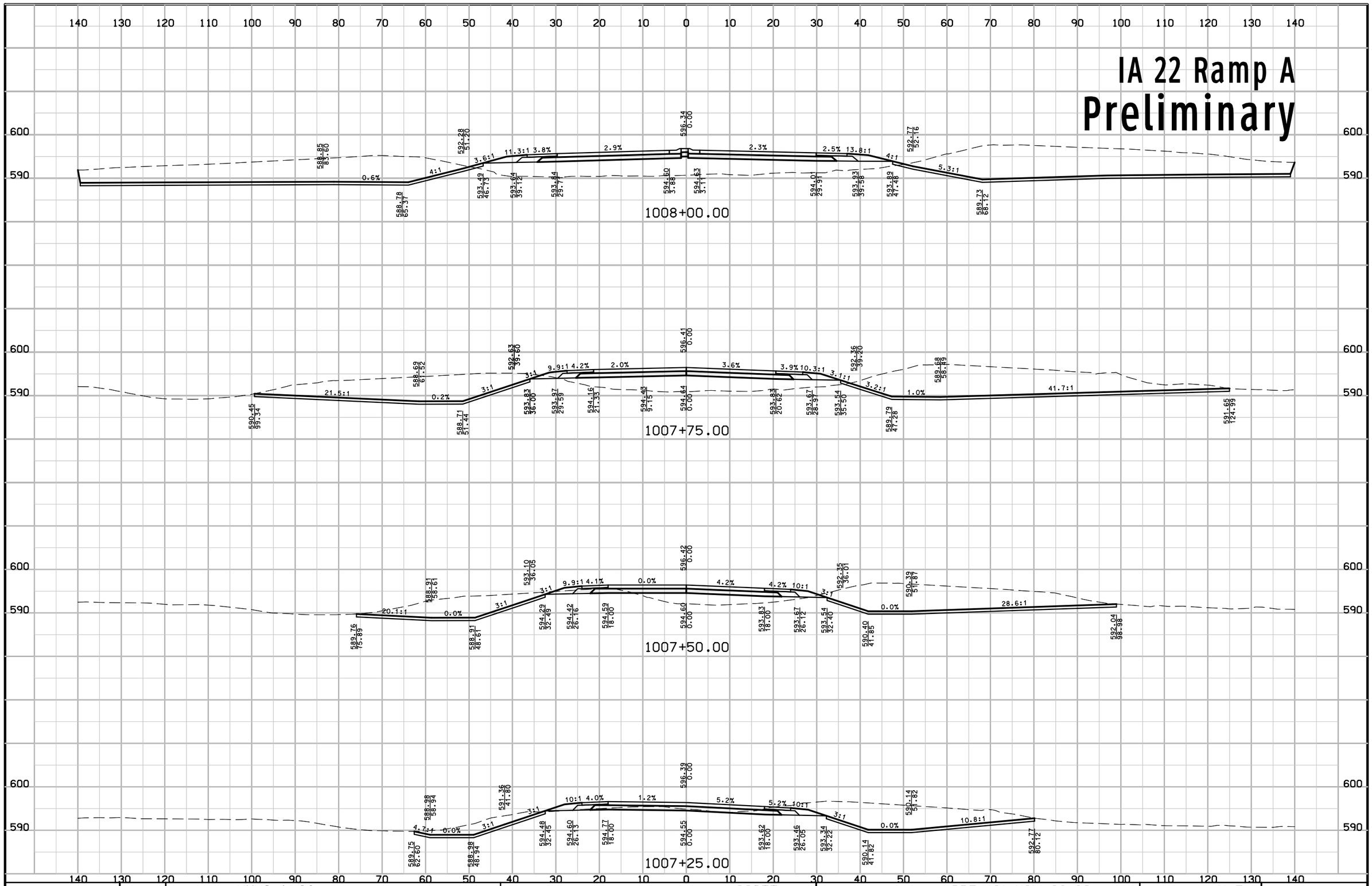
IA 22 Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.5

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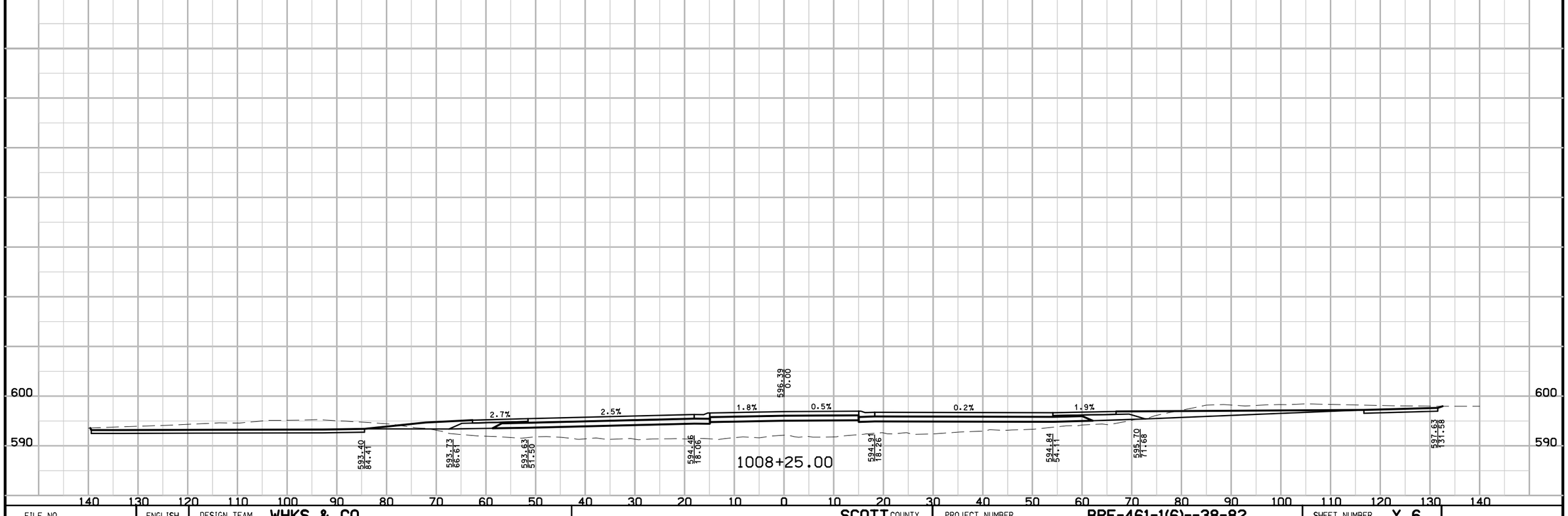
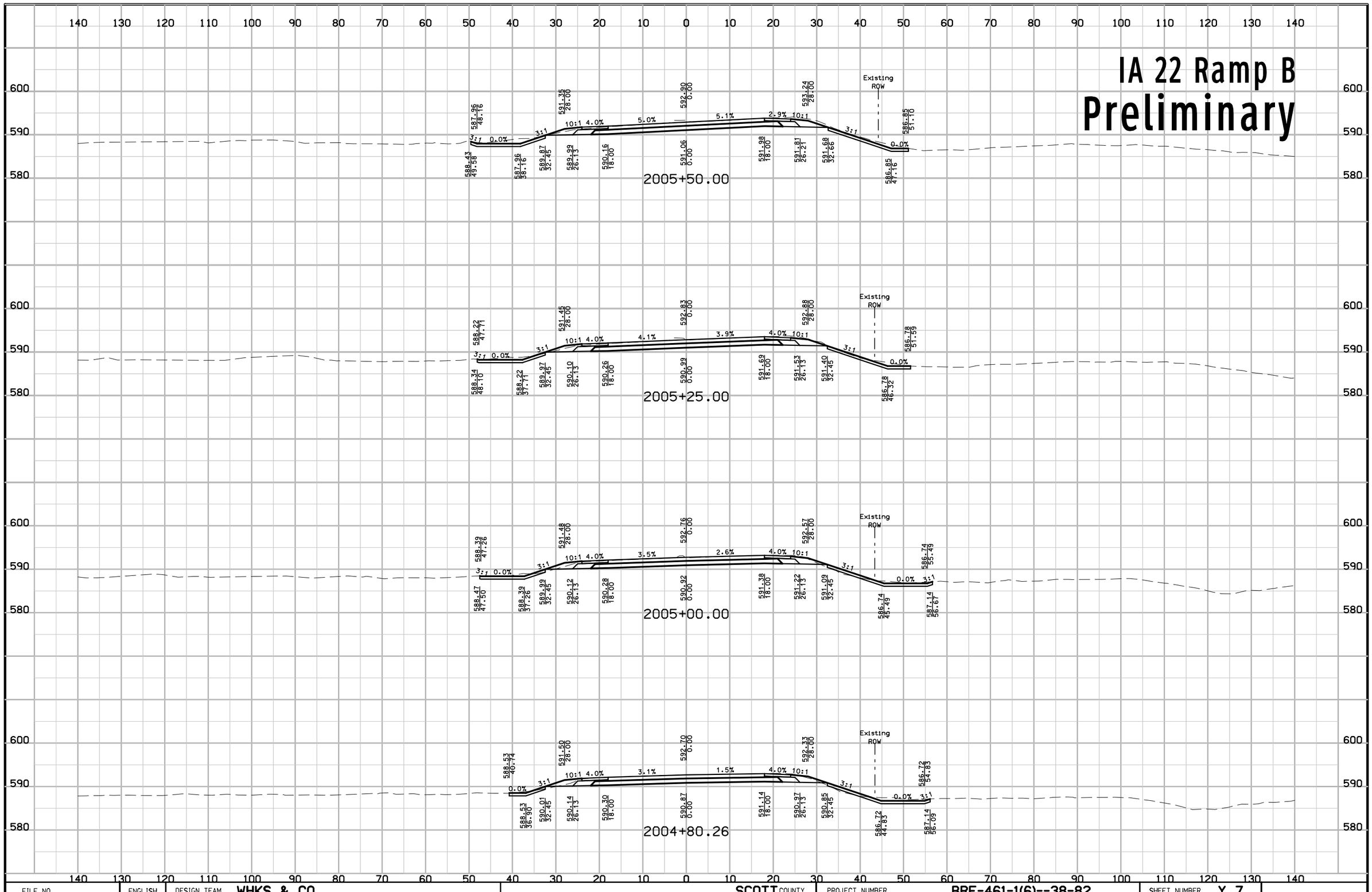
IA 22 Ramp A
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.6

IA 22 Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.7

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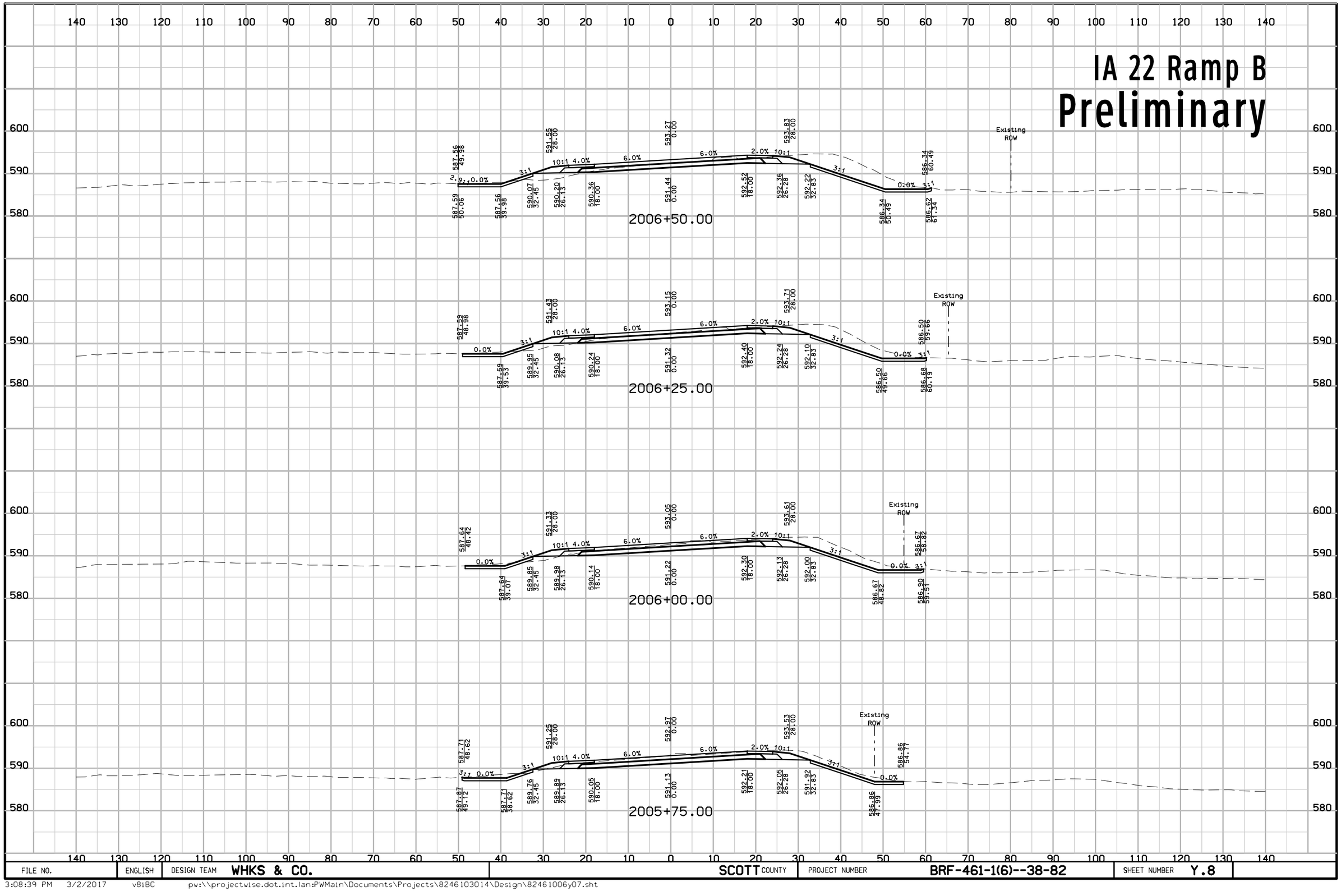
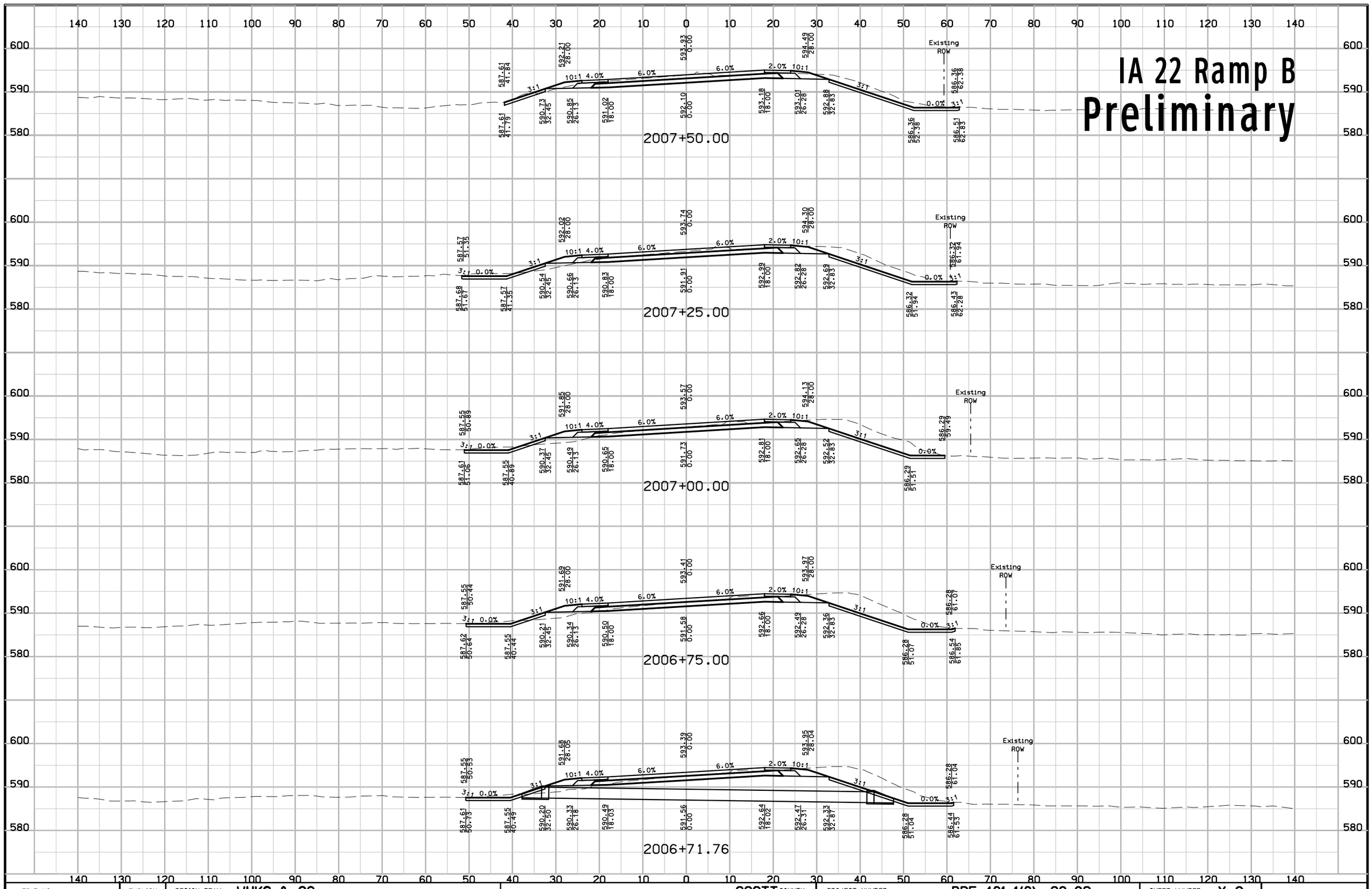
IA 22 Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.8

IA 22 Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.9

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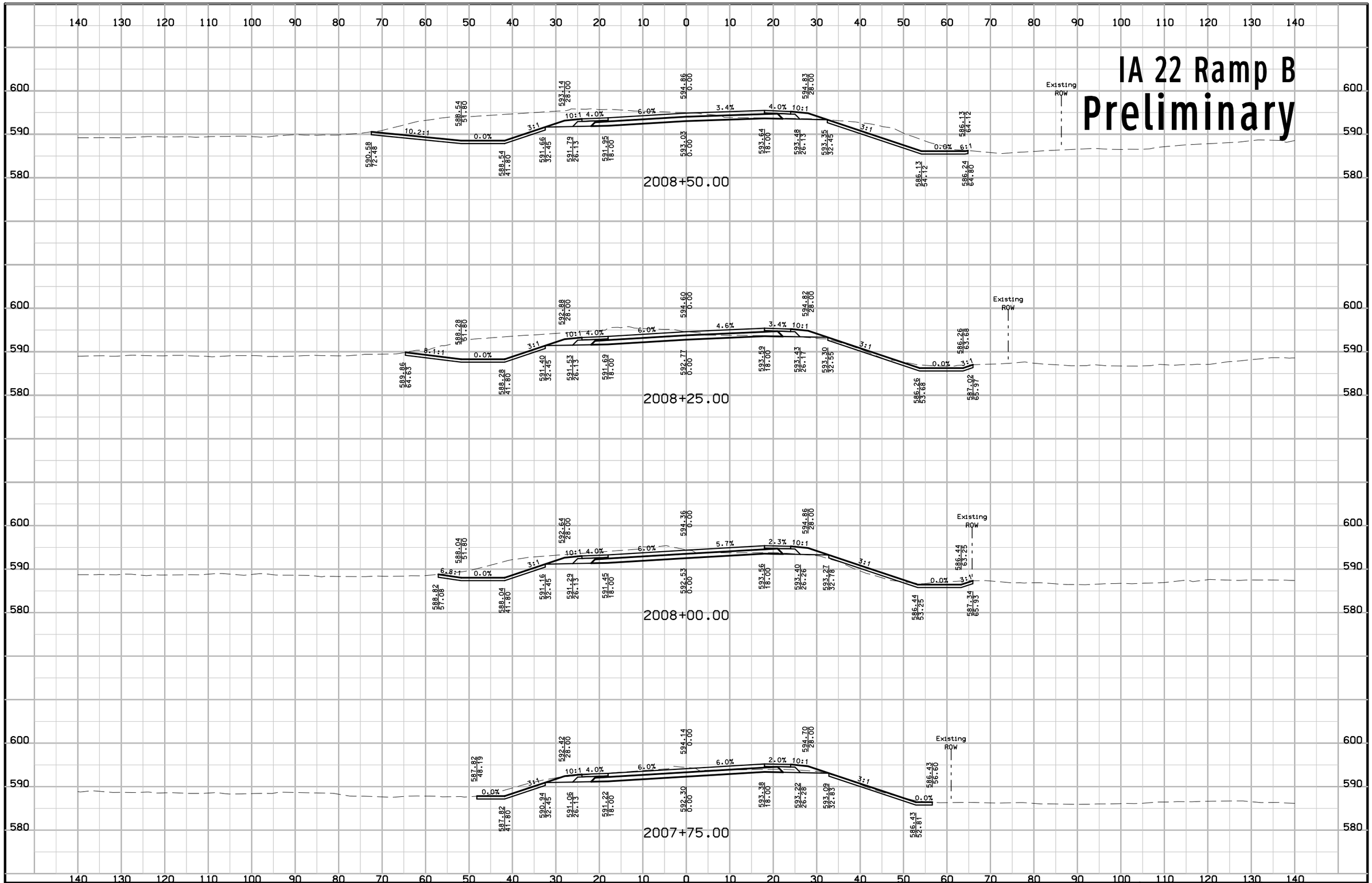
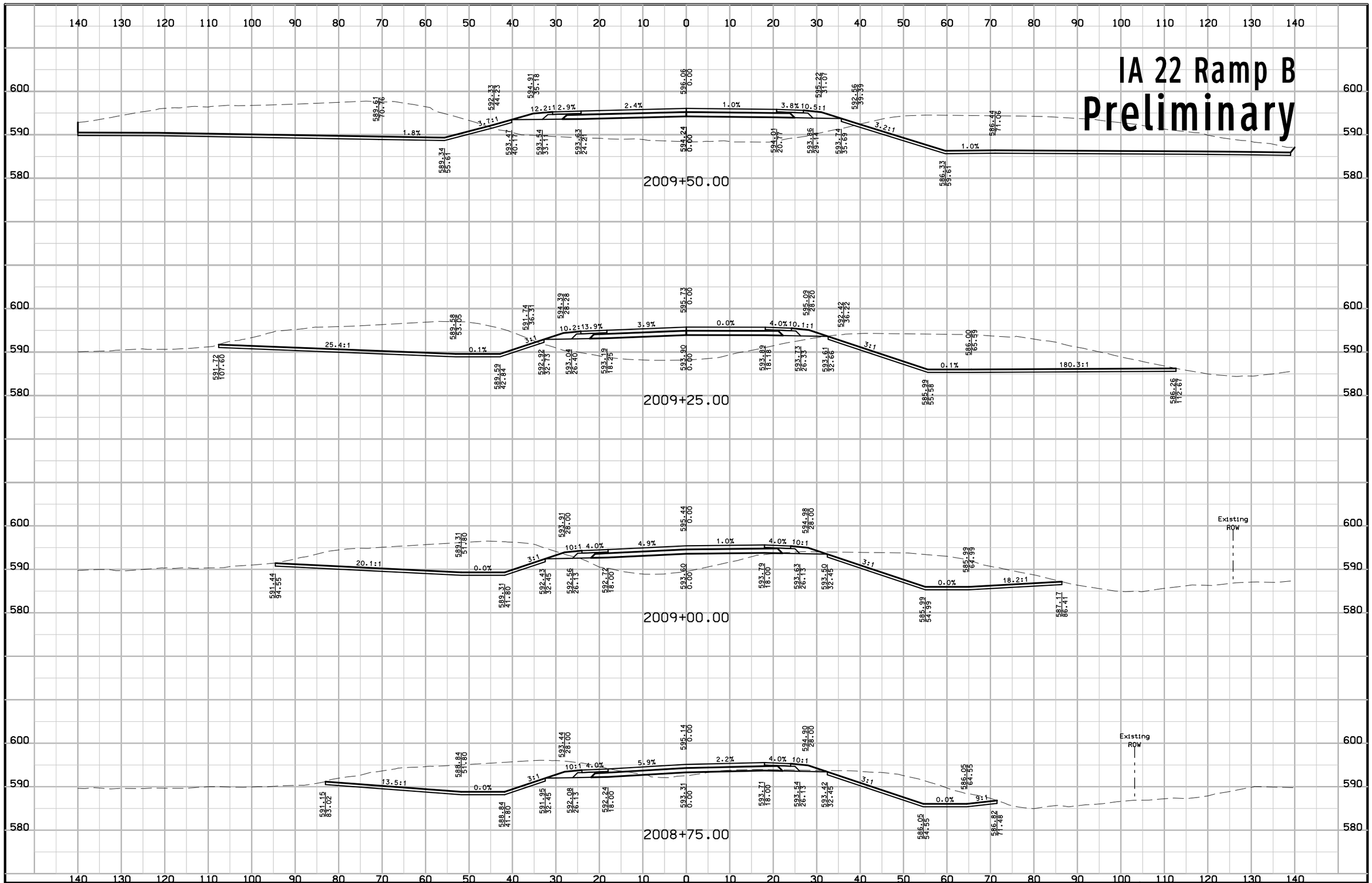
IA 22 Ramp B
Preliminary



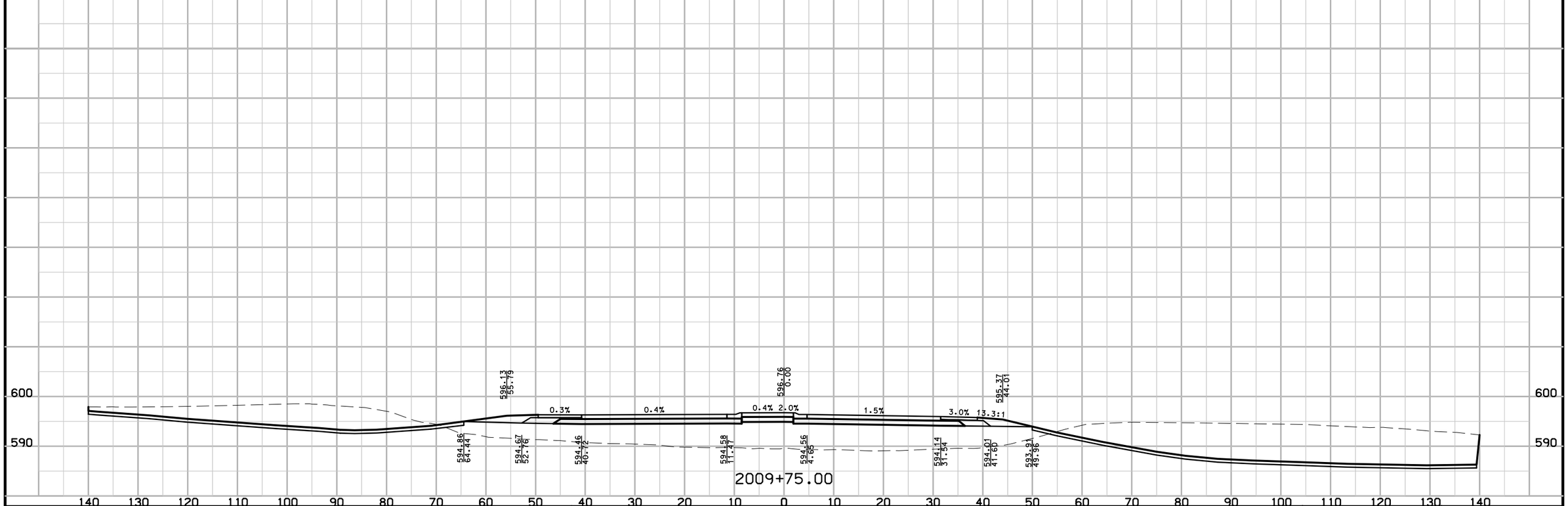
FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.10

IA 22 Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.11

IA 22 Ramp B
Preliminary



FILE NO.	ENGLISH	DESIGN TEAM	WHKS & CO.	SCOTT COUNTY	PROJECT NUMBER	BRF-461-1(6)--38-82	SHEET NUMBER	Y.12